FACULTY OF INFORMATION REVITALIZATION

MASTER PLAN
AUGUST 21, 2017
INTRODUCTION

The University of Toronto’s Faculty of Information is located in the Claude T. Bissell building at 140 St. George Street – which is a satellite building in the Robarts Library Complex which was built in 1971. The School of Information Sciences building was purpose built for the Faculty of Library Science, which is now known as, “The Faculty of Information” (FI). Since 1971, FI has been housed in the Bissell Building and is the prime occupant along with Academic & Campus Event (ACE) classrooms and Faculty of Arts & Science Research Computing Facility (CHASS). Currently, FI also occupies space at the McLuhan Coach House, 215 Huron Street and Robarts Library.

The Faculty of Information was the first library school in Ontario, established in 1928, and has since grown from 31 Graduate students to over 600 Graduate students in 2016-2017. Over the last academic year alone the Faculty’s enrollment grew by 125% to a total of 320 incoming Master’s students (273 Domestic and 42 International). The upward shift in enrollment is paralleling a shift in the areas of concentration, which are becoming more multi-disciplinary and multi-practice oriented—concentrating less on the social sciences and engaging more in engineering, technology, humanities and science concentrations. While all areas of programming concentrations are growing, there is marked growth in User Experience Design (UXD), Information Systems & Design (IS&D) and Knowledge Management and Information Management (KMIM). The Faculty’s interdisciplinary focus is well-aligned with the areas of concentration changes that intersect information, technology and people in society. For example, one of FI’s interdisciplinary labs is Semaphore, currently located on the 7th floor of Robarts Library, next door at 130 St George Street. Semaphore is a recognized leader in developing and using critical making, thinking and design as a method of pedagogy and research. The space is well-suited for research, collaboration, and maker space and more importantly allows for an evolving diversity of people to plug into the space: Faculty, PhD, Masters, Research Associates, and Research Fellows, essentially forming a research cluster. This Research Cluster model has been recognized by the Faculty as successful in bringing people and research together and is seen as a prototype to emulate moving forward.

The Faculty of Information is growing its program offerings. A new Bachelor in Information Studies (BI) planned to be launched in the Fall of 2019, will be a 2-year second entry undergraduate program. The BI will be the only undergraduate program in the study of Information in Canada. The uniqueness of UoT’s Faculty of Information BI program is that it integrates the humanities and social sciences along with the technological and systems-based approaches to Information—complementing the Masters Program of Study concentrations. The BI program will be structured around three modes of pedagogy: lecture based courses, studio based courses and practica. As the practicum model develops, it will not only strengthen the social ties between the University and regional employers, but also foster 'vertical' research communities within Bissell and beyond. It is anticipated that undergrads will work side-by-side with Masters students, PhD students, and Faculty
in this Research Cluster model. Enrollment for the initial cohort of the new Undergraduate Program is projected to be 25 students in the Fall of 2019. By 2023-2024 the program is expected to have approximately 200 students at a mature, steady state.

FI will need to create new teaching and support spaces for research and for the new Undergraduate Program. The existing space at Bissell is not well suited to support, foster and make visible FI program research ambitions as the building has had little renovation or refreshing.

**How to grow?**

For some time now existing facilities have been the weak link in supporting the diversity required to bring together this dynamic cohort of students and faculty. There is a growing gap between research ambitions and how space can be better utilized in order to create a community of research centred around flexible and purpose-built space (ie maker space). There is a definitive need for more collaborative space in Bissell to support growing and dynamic research activities between Masters students and Faculty. The Research Cluster model can bring together the co-mingling of Masters students, PhD students, future Undergraduate students and Faculty required to integrate, model and synthesize information. Accommodating the growth of these two cognate units (undergraduates and Masters) within the same facility in a new modern space will help foster the interactions of researchers, educators, and students, in order to capture more opportunities for collaborations, synergy, and intellectual exchange.

The Bissell building was originally planned to support the teaching of social sciences and it was built at a time when space for working was siloed. For example, the 6th floor is a dense labyrinth of private office space where people and work are not visible. Recognizing that information and work is changing, the Faculty undertook a project to redesign its former Library space. Last year, Bissell underwent an interior renovation on the 4th and 5th floors in order to modernize and preserve the high quality characteristics of the interconnected floor (mezzanine), access to large windows, and higher floor-to-floor ratio. The library space on the 4th and 5th floors, now known as the, “Inforum”, was reinvented into a 21st century digital learning commons. The project created two new digital labs, a digital seminar classroom and a refreshed gathering space for collaborative and individual work. There has been a huge uptake in the renovated space which is being used not only by internal FI users, but also other students and researchers on the St George campus. Indirectly, the recent renovation of the Inforum has highlighted the need for more revitalization of space to allow the Faculty of Information to continue to leverage its existing space as effectively as possible.

In the long term the Faculty needs to revitalize Bissell in order to provide learning spaces that will enable students to interact and collaborate in experiential, experimental and empirical ways which are currently only possible in limited ways.
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SECTION 1.0

MASTER PLAN
BACKGROUND
1.1 MEMBERSHIP

**Wendy Duff**, Dean, Faculty of Information (Chair)

**Glenn Cumming**, Chief Administrative Officer (CAO), Faculty of Information

**Brian Cantwell Smith**, Professor, Faculty of Information

**Matt Brower**, Assistant Professor and Director of Museum Studies, Faculty of Information

**Colin Furness**, Assistant Professor, Teaching Stream, Faculty of Information

**Matt Ratto**, Associate Professor, Faculty of Information

**Glen Menzies**, Facilities Coordinator, Faculty of Information

**Dawn Walker**, Graduate Student (PhD), Faculty of Information

**Tristan Smyth**, Graduate Student, Master of Information, rep MISC

**Sydney Rose**, Graduate Student, Master of Museum Studies, rep MUSSA

**Steve Bailey**, Director, Academic and Campus Events

**Andy Allen**, Manager, Academic and Campus Events

**Kate Slotek**, Classroom Planning and Standards Officer, Academic and Campus Events

**Alan Webb**, Planner, Campus & Facilities Planning

**Evelyn Casquenette**, Planner, Campus & Facilities Planning
1. Review current space needs of the Faculty as well as address approved and projected growth as described by the academic plan; taking into account the impact of approved and proposed program enhancements as reflected in the faculty, student and staff complement.

2. Make recommendations for a detailed space program indicating how space and facilities should be configured, revitalized and/or expanded to realize goals and aspirations of the Faculty. Space program must retain flexibility in use of space to support changing needs.

3. Demonstrate that the proposed space program is consistent with the Council of Ontario Universities’ (COU) space standards and those of the University of Toronto.

4. Plan to realize maximum flexibility of space to permit future allocation, as program needs change.

5. Align planning process with objectives and outcomes identified by the Faculty’s Brand Renewal Strategy.

6. Identify all secondary effects, including space reallocations within the existing building, impact on the delivery of services during construction and the possible required relocation as required to implement the plan of existing services.

1.3 EXISTING SPACE

REVIEW OF EXISTING FACILITIES

Existing Faculty of Information space across St George Campus is identified within the four buildings listed below.

TABLE 1.3.1 - Faculty of Information Existing Space by Building

<table>
<thead>
<tr>
<th>Faculty of Information by Building</th>
<th>Area Nasm</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>140 St George - Claude T Bissell Building</td>
<td>3,386.49</td>
<td>89%</td>
</tr>
<tr>
<td>130 St George - John P Robarts Building</td>
<td>307.10</td>
<td>8%</td>
</tr>
<tr>
<td>215 Huron Street</td>
<td>7.31</td>
<td>0%</td>
</tr>
<tr>
<td>39A Queen’s Park Crescent - Marshall McLuhan Coach House</td>
<td>108.83</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>3,809.73</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

- The Bissell building is considered to be “Home” for the Faculty of Information
- Semaphore Lab is a FI Research Cluster and represents the 307.10 nasm at Robarts Library
- PFHRO Office space is located at 215 Huron Street
- The Marshall McLuhan Centre for Culture & Technology is a gathering place for scholars from all disciplines to meet, share and develop interests in the impact of digital technologies on culture

As the Master Plan is focused on revitalizing FI space at the Bissell building, all the Divisions/Departments that occupy space at Bissell are listed below.

TABLE 1.3.2 - Existing Space at Bissell by Division

<table>
<thead>
<tr>
<th>Claude T Bissell Building by Division/Department</th>
<th>Area NASM</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information &amp; Instructional Tech, Arts &amp; Science Faculty of</td>
<td>93.92</td>
<td>2%</td>
</tr>
<tr>
<td>UPD&amp;C-ACE Classroom Inventory, VP University Operations</td>
<td>784.84</td>
<td>18%</td>
</tr>
<tr>
<td>Faculty of Information</td>
<td>3,386.49</td>
<td>79%</td>
</tr>
<tr>
<td><strong>Total NASMS</strong></td>
<td><strong>4,265.25</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>NASM:Gross Area Factor</td>
<td>2.21</td>
<td></td>
</tr>
<tr>
<td><strong>COU Gross Area</strong></td>
<td><strong>9,430.50</strong></td>
<td></td>
</tr>
</tbody>
</table>

Note:
1. Included in the Faculty of Information’s 3,386.49 nasm is 40.43 nasm of Non-Institutional space (lease space) to NIA Technologies.
2. Typically the standard net to gross factor is 2.0. Here at Bissell the net to gross is higher (2.21) due to the building’s signature polygonal shape which does not allow for efficient planning of space.
SPACE AUDIT

The majority of space at Bissell is being used efficiently. Areas which can be utilized better include:

Basement Level – Room B007 “Storage” is being used as library and research storage. Most of these Resources could be relocated off-campus to UTL Downsview and should be explored further.

1st Floor – Room 111 “Locker Room” - Due to access and lack of light, this area is underutilized. Some students like this location because it is quiet and is used as an informal study space.

4th Floor – Room 411 “Open Stack” – During consultation with Inforum staff, the question of whether these resources need to continue to be located in this area was discussed. It may be possible to relocate these resources to UTL Downsview and should be explored further.

The following areas at Bissell can be re-captured for FI utilization:

3rd Floor – Room 309, 309A “NIA Technologies”. This space is Category 19.0 space and is leased to a non-institutional entity which ends May 2018.
Existing Space and Facilities

Basement Storage Rooms, RM B07

Basement Corridor
1st Floor - Locker Room, Room 111

2nd Floor - Main Entrance

2nd Floor - Entrance Lobby
6th Floor - Faculty and Graduate Student Offices
BISSELL INSTRUCTIONAL SPACE

Faculty of Information Classroom Facilities

Bissell Building currently has 7 classrooms within the Faculty of Information’s inventory. All classrooms are non-tiered and range in size/type. Classroom space usage for FI program delivery indicates medium utilization based on 34 hr/wk COU Standard. Note utilization does not indicate all bookings, only related to BI program delivery and therefore need further clarification. The following FI classrooms are working well and are proposed to remain:

- Room 507 - Cat 1.2 Classroom/Conference
- Room 520 - Cat 1.2 Seminar/Conference/Study
- Room 538 - Cat 1.2 Classroom/Conference
- Room 728 - Cat 1.2 Classroom/Meeting Room

The remaining Computer Classrooms (Room 116, 224 and 225) will be examined during Feasibility Study.

ACE Classroom Facilities

Bissell Building currently has 10 classrooms within ACE’s shared classroom inventory. While there is a range of room types in this inventory, the majority of the ACE instructional spaces in Bissell are smaller rooms with a capacity of between 15-26 people. These smaller flat floored spaces, which include BL 113, 305, 306, 312, and 327, are configured with seminar style seating, and have typically accommodated tutorials and courses with smaller section sizes.

The remaining ACE classroom inventory in Bissell Building is comprised of four medium to large sized classrooms, and a medium sized lecture hall. BL 112 (40-person capacity) and BL 114 (44-person capacity), are both flat-floored rooms furnished with flexible, reconfigurable seating. This furniture allows for a traditional lecture style layout or collaborative group breakouts. BL 313 and 325 (70-person capacity each), both function as standard lecture style rooms, although with loose furnishings, BL 313 has the potential for flexibility. BL 205 (121-person capacity) is a tiered lecture hall with fixed furniture. Accessible entrances to the lecture hall are available from the rear only, and do not allow for access to the front of the room or teaching stage. In total the ACE classrooms in Bissell Building represent 436 seats, and 763 nasm.

These classrooms experience moderate utilization on average, however utilization rates vary by room capacity. The medium to large sized classrooms and lecture hall have good utilization rates, with an average use of 33 hours per week (Fall 2016). While utilization of the smaller seminar rooms varies, the average is 15 hours per week (Fall 2016). A closer review of the room utilization is required to identify the factors affecting this usage.

Similarly, a comprehensive analysis of the current and future proposed instructional needs of the Faculty is required, and will help to inform the Revitalization project. In this way, instructional spaces will be designed, sized, and located in the most effective way in order to support the needs of the Faculty and Sector at large.
## Existing Instructional Space

<table>
<thead>
<tr>
<th>Room #</th>
<th>Cat #</th>
<th>Existing FI Classrooms</th>
<th>Seats</th>
<th>Area</th>
<th>Count</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>116</td>
<td>1.2</td>
<td>Computer Classroom</td>
<td>23</td>
<td>98.60</td>
<td>1</td>
<td>98.60</td>
</tr>
<tr>
<td>224</td>
<td>1.2</td>
<td>Computer Classroom</td>
<td>31</td>
<td>66.17</td>
<td>1</td>
<td>66.17</td>
</tr>
<tr>
<td>225</td>
<td>1.2</td>
<td>Computer Classroom</td>
<td>31</td>
<td>66.32</td>
<td>1</td>
<td>66.32</td>
</tr>
<tr>
<td>507</td>
<td>1.2</td>
<td>Classroom/Conference Room</td>
<td>8</td>
<td>143.20</td>
<td>1</td>
<td>143.20</td>
</tr>
<tr>
<td>520</td>
<td>1.2</td>
<td>Seminar/Conference/Study</td>
<td>31</td>
<td>66.32</td>
<td>1</td>
<td>66.32</td>
</tr>
<tr>
<td>538</td>
<td>1.2</td>
<td>Classroom/Conference Room</td>
<td>24</td>
<td>86.98</td>
<td>1</td>
<td>86.98</td>
</tr>
<tr>
<td>728</td>
<td>1.2</td>
<td>Classroom/Meeting Room/Reception</td>
<td>24</td>
<td>86.98</td>
<td>1</td>
<td>86.98</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total 1.2 Space</strong></td>
<td></td>
<td>625.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>224D</td>
<td>1.4</td>
<td>AV Facilities</td>
<td>8.63</td>
<td>1</td>
<td>8.63</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total 1.4 Space</strong></td>
<td></td>
<td>8.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Grand Total</strong></td>
<td>117</td>
<td>625.41</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Room #</th>
<th>Cat #</th>
<th>Existing ACE Classrooms</th>
<th>Seats</th>
<th>Area</th>
<th>Count</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>205</td>
<td>1.1</td>
<td>ACE Classroom - tiered</td>
<td>121</td>
<td>145.13</td>
<td>1</td>
<td>145.13</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total 1.1 Space</strong></td>
<td></td>
<td>145.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>112</td>
<td>1.2</td>
<td>ACE Classroom</td>
<td>40</td>
<td>66.87</td>
<td>1</td>
<td>66.87</td>
</tr>
<tr>
<td>113</td>
<td>1.2</td>
<td>ACE Classroom</td>
<td>26</td>
<td>59.72</td>
<td>1</td>
<td>59.72</td>
</tr>
<tr>
<td>114</td>
<td>1.2</td>
<td>ACE Classroom</td>
<td>44</td>
<td>67.47</td>
<td>1</td>
<td>67.47</td>
</tr>
<tr>
<td>305</td>
<td>1.2</td>
<td>ACE Classroom</td>
<td>15</td>
<td>23.32</td>
<td>1</td>
<td>23.32</td>
</tr>
<tr>
<td>306</td>
<td>1.2</td>
<td>ACE Classroom</td>
<td>15</td>
<td>27.67</td>
<td>1</td>
<td>27.67</td>
</tr>
<tr>
<td>312</td>
<td>1.2</td>
<td>ACE Classroom</td>
<td>20</td>
<td>39.75</td>
<td>1</td>
<td>39.75</td>
</tr>
<tr>
<td>327</td>
<td>1.2</td>
<td>ACE Classroom</td>
<td>15</td>
<td>27.77</td>
<td>1</td>
<td>27.77</td>
</tr>
<tr>
<td>313</td>
<td>1.2</td>
<td>ACE Classroom</td>
<td>70</td>
<td>169.47</td>
<td>1</td>
<td>169.47</td>
</tr>
<tr>
<td>325</td>
<td>1.2</td>
<td>ACE Classroom</td>
<td>70</td>
<td>136.22</td>
<td>1</td>
<td>136.22</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total 1.2 Space</strong></td>
<td></td>
<td>618.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>206</td>
<td>1.4</td>
<td>Project Room</td>
<td>17</td>
<td>17.23</td>
<td>1</td>
<td>17.23</td>
</tr>
<tr>
<td>316</td>
<td>1.4</td>
<td>Classroom Storage</td>
<td>2.11</td>
<td>2.11</td>
<td>1</td>
<td>2.11</td>
</tr>
<tr>
<td>317</td>
<td>1.4</td>
<td>Classroom Storage</td>
<td>2.11</td>
<td>2.11</td>
<td>1</td>
<td>2.11</td>
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<tr>
<td></td>
<td></td>
<td><strong>Total 1.4 Space</strong></td>
<td></td>
<td>21.45</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td><strong>Grand Total</strong></td>
<td>436</td>
<td>784.84</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Grand Total 1.0 Space**: 1,410.25
The total number of FTE faculty, staff and students for 2016/17 and projected for 2023/24 were used as input measures in the Council of Ontario Universities space formula to generate a benchmark requirement for facilities as described in the next section, Space Analysis. COU input measures are used by all Ontario postsecondary institutions for this purpose.

**TABLE 1.4.1 - Faculty of Information Occupant Profile**

<table>
<thead>
<tr>
<th>COU Cat</th>
<th>FTE Category</th>
<th>Existing 2016-2017 FTE</th>
<th>Projected *2023-2024 FTE</th>
<th>Growth ∆ FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0, 2.0</td>
<td>Undergraduate Students (BI) FTE</td>
<td>0.00</td>
<td>200.00</td>
<td>200.00</td>
</tr>
<tr>
<td></td>
<td>FTE Faculty-Tenured Stream</td>
<td>25.08</td>
<td>27.08</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>FTE Faculty-Teaching Stream</td>
<td>2.20</td>
<td>2.20</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>FTE Faculty-Non-Tenured Stream</td>
<td>4.00</td>
<td>4.00</td>
<td>0.00</td>
</tr>
<tr>
<td>4.1</td>
<td>Subtotal Academic FTE</td>
<td>31.28</td>
<td>33.28</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>FTE PDF's</td>
<td>1.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>FTE Research Associates</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>FTE Non-academic staff (research)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>4.2</td>
<td>Subtotal Research FTE</td>
<td>1.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>FTE Grad - Masters (MI, MMSt)</td>
<td>567.00</td>
<td>656.00</td>
<td>40.00</td>
</tr>
<tr>
<td></td>
<td>FTE PhD</td>
<td>49.00</td>
<td>75.00</td>
<td>0</td>
</tr>
<tr>
<td>4.3</td>
<td>FTE Graduate Students</td>
<td>616.00</td>
<td>656.00</td>
<td>40.00</td>
</tr>
<tr>
<td>4.4</td>
<td>FTE Non-academic</td>
<td>23.00</td>
<td>26.00</td>
<td>3.00</td>
</tr>
<tr>
<td></td>
<td>Grand Total FTE</td>
<td>671.00</td>
<td>916.00</td>
<td>245.00</td>
</tr>
</tbody>
</table>

*FTE has been projected out to 2023 when the proposed BI Program is at steady state of 200 undergraduates. In order to accommodate the proposed BI cohort, the Faculty will require additional Faculty and Staff (as reflected in Table 1.4.1). No change is anticipated in Graduate Students other than growth in International Students.

Projections for the proposed BI undergraduates are listed below:

**TABLE 1.4.1 - Faculty of Information Undergraduate Enrollment Projections**

<table>
<thead>
<tr>
<th>Level of Study</th>
<th>Academic Year 2019-2020</th>
<th>Academic Year 2020-2021</th>
<th>Academic Year 2021-2022</th>
<th>Academic Year 2022-2023</th>
<th>Academic Year 2023-2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>2nd year</td>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
<tr>
<td>Total Enrolment</td>
<td>25</td>
<td>75</td>
<td>125</td>
<td>175</td>
<td>200</td>
</tr>
</tbody>
</table>
SECTION 2.0

MASTER PLAN
FRAMEWORK
2.1 VISION

In the long term the Faculty needs to revitalize Bissell in order to provide learning spaces that will enable students to interact and collaborate in experiential, experimental and empirical ways which are currently only possible in limited ways. As the quality of facilities and resources at Bissell are not currently aligned with the academic program, research and vision for the Faculty of Information, it is important for FI to create a long-term strategy (Master Plan). This Master Plan document is a planning framework to help guide space planning for the Faculty of Information to position itself strategically in the long-term in order to support and bolster high quality academic programming and research.

Re-imaging the space at Bissell begins with defining what is and what will be the Faculty of Information community. Understanding how best to utilize Bissell to meet the Faculty of Information’s needs and ambitions is paramount, but also understanding that Bissell is more than a “home” to FI, but also the Faculty of Information’s front door to the St George Campus and the world beyond. It is beneficial for both FI users to integrate beyond Bissell’s doors as well as for non-FI users to come into Bissell and see Faculty of Information research.

Building on the success of the recent Inform project, Revitalization is proposed on the remaining floors of Bissell (basement to third floor and 6th to 7th floor) as well as the existing envelope (to be reviewed by heritage, structural, building envelope and cost perspectives). The interventions range from: re-organizing floors to create better relations between people and how space functions, but also allowing for maximum flexibility and usability in the floor plates along with optimizing daylight.

What does it mean to reach for a yonder home?

The text/image is from the Faculty of Information’s Brand Renewal Strategy.
GUIDING PRINCIPLES

1. Allow more natural light into all floors of the building
2. Maximize dynamic configurability throughout
3. Collocate faculty members and doctoral students on same floor levels
4. Enhance under-utilized space, making it usable and vibrant
5. Support active forms of pedagogy and integration of research and teaching
6. Prioritize doing/making/exhibiting/performing/working spaces over traditional classrooms
7. Maximize formal and informal human interaction
8. Plan for 5 to 10 additional faculty members
9. Plan for 200 undergraduate students, current numbers of Master’s students, and 50% increase in doctoral students.
10. Imagine space for the future, not based on current habits (rethink entrances, usage patterns, people flows)

OBJECTIVES

1. Create a dynamic, flexible environment
2. Establish a distinct identity and home for the Faculty of Information
3. Transform the Bissell building into the hub of an expanded Faculty of Information
4. Create functional adjacencies to activate research (ie. PhD, MI, MMSt)
5. Encourage spaces that create community and help bring other communities inside Bissell.
6. Create lively, busy spaces to help establish sense of identity and enable possibilities for social and intellectual exchange
PLANNING CONCERNS

- Lack of natural light
- Better acoustic separation between rooms/spaces
- Operable windows, fresh air
- Opportunities for greenery
- Access to exterior space and balconies
- More electrical power outlets in public areas
- Better amenity space for eating, socializing
- Lockable individual storage
- Plan carefully for extended 24 hour access
- Need more washrooms
- Lack of front door and identity for FI
- Poor circulation and wayfinding as elevators are overloaded during class changeovers
- 6th floor interior spaces are exceptionally poor quality

- Space Opportunities:
  - Exhibition capacity/venue
  - Associated preparation, support and storage space
  - Collections/Archive with environmental controls, secure
- Public engagement/outreach is important for all areas of programming concentration
- Some classes currently delivered as Tutorials/Lectures could be Practical’s if proper space was available for use a Teaching Lab
- FI classrooms used for informal meeting study when not booked for classes, need for informal meeting and study.
- Later year doctoral students generally prefer more individual work environment

- Current MMSt lab on First Floor is too small, hinders functionality
- Seventh Floor kitchen too small for number of users
- PhD, MI, MMSt have traditionally been mostly separate, could benefit from more mixing
- Students very rarely need to access FI administration (twice per term)
- Poor circulation/wayfinding, elevators are overloaded during class changeovers
- Sixth floor interior spaces are of exceptionally poor quality
- MI students use the lockers on First Floor
- TAs need private space to meet with students
With growth of enrollment underway, the Faculty is bring proactive in the approach to positioning itself strategically in order to attract students and Faculty. A Brand Renewal Strategy has been undertaken in 2016-17 in order to advance, recruit and promote FI programs.

The Revitalization of Bissell will help to renew the building inside and out to better align with the FI research identity.

The images below are from the Faculty of Information’s Brand Renewal Strategy.
2.2 ACADEMIC PLAN

GRADUATE

Known as Canada’s Global Information School, the Faculty of Information (FI) is considered to be among the world’s leading information and knowledge management schools. FI is adept at educating both professional practitioners and researchers, offers exceptional programs year-round in various disciplines, plus a recently launched Co-op. The Faculty of Information is proud to have maintained the internationally-recognized American Library Association (ALA) accreditation since 1937, produced the first PhD program in Information Studies in Canada, and established the first iSchool in Canada and only English-language Master’s program in Museum Studies in Canada. UofT’s iSchool is part of the consortium of global information schools dedicated to leading and promoting the information field.

Faculty of Information goals are to:

1. Innovate - Lead in innovative scholarship to transform society and scholarship
2. Inspire - Enhance our international renown for life-long, enquiry-centred education.
3. Shape – Shape the social space of information and sustainable growth.
4. Lead - Nurture leaders who contribute to enabling society to realize the positive social benefits information makes possible.
5. Enrich - Enrich our environment and culture for study, research, and work.

The Faculty of Information offers two main Graduate Degrees: Master of Information MI and Master of Museum Studies MMSt. A combination degree is available as well as a PhD in Information Studies. In addition, the Faculty has a joint Masters’ program with the Faculty of Law as well as a diploma program.

Master of Information (MI):
Information is explored in all its breath, depth and richness in this innovative program. There is a choice for everyone among seven concentrations, a specialization, coursework-only, co-op, and thesis options. The Faculty of Information has established seven concentrations that highlight its core research strengths, and allow students to explore aspects of information within particular professions or research traditions. The concentrations are: Archives & Records Management, Critical Information Policy Studies, Culture & Technology, Information Systems & Design, Information Systems & Design, Knowledge Management & Information Management, Library & Information Science, and User Experience Design.

Master of Museum Studies (MMSt):
Museum professionals manage collections, create educational programs for the public, organize exhibitions, manage projects, run cultural institutions, and many other aspects of museum and heritage work. They uncover stories, bring them to life, and preserve for future generations. These museum professions are undergoing constant evolution driven by the changes of the modern digital information era.
Through the Program, students are to:
• Gain comprehensive knowledge of the functions of museums in their broader social and cultural contexts.
• Be forward-focused and understand where museums are headed in the future.
• Develop a strong theoretical background and professional understanding of museum origins, ideologies, changing philosophies and current practices.
• Learn methodologies for research
• Core courses examine museological scholarship and its practical application in different environments and facets, including:
• Develop practical skills and pursue special interests by participating in an internship or exhibition project

The highlights above have been taken from the “iSchool at University of Toronto Strategic Plan 2012-2017”, dated 2013.

UNDERGRADUATE

The proposed Bachelor of Information (BI) program is in the program approval stage and the program is scheduled to begin as of September 2019. The highlights below are drawn from the University of Toronto New Undergraduate Program Proposal, dated June 14, 2017.

“The BI will consider the interactions between social worlds and information technologies, providing students with the conceptual tools and practical techniques necessary to understand and effect change in a data-intensive society. An interdisciplinary approach will draw on social science, the humanities and computing science, encouraging creative and critical approaches to the complex problems and opportunities that face society. Students will study how data is generated, exchanged, transformed, deployed, and used, and the way that these processes mediate and are mediated by cultural, legal, economic, and technical structures and institutions.

The program integrates design thinking, critical scholarship, and experiential learning to provide students with the knowledge and skills necessary to design and critique complex technical, political, and cultural responses to new and enduring information practices. Three programmatic features make the program unique. The first is a required research, government, non-profit, or business practicum. The second is the integration of modes of learning through lecture based and studio based courses. Throughout the curriculum, studio based courses use hands on and experiential learning to engage and elaborate the intellectual content of the program’s lecture based courses, while providing students with familiarity and expertise in common types of software and hardware suites. This is a reflection of the third unique feature – an integration of technological and critical perspectives with an eye toward professional job skills.”
2.3 SPACE REQUIREMENTS

The need for renovation/alteration and potentially an addition is driven by two key factors:

1. New proposed BI Program - 200 undergraduates at steady state
2. Need for more Research/Maker Space

The Council of Ontario Universities (COU) space formula are used to generate a benchmark requirement for facilities, using the occupant profile above, and as modified by typical allocation by the University.

The COU conducts a survey of physical facilities of Ontario Universities once every three years using this classification scheme and space formulae. The first triennial survey was published in 1978 and one is currently being prepared for 2016/17. The office of Camus & Facilities Planning and a standing COU Committee continue to conduct detailed reviews of the building blocks space guidelines and input measures, revising them where appropriate to reflect current teaching and research conditions, generally on a three year cycle to match the triennial reporting structure. Revisions to the space formulae from the 2013/14 survey to the 2016/17 survey have been proposed, some of which have been accepted and others which are still under review have been indicated with an asterisk below:

- Category 1.0: Classroom Facilities
- *Category 2.0: Laboratory – Undergraduate
- *Category 3.0: Research Laboratory Space
- Category 4.0: Academic Departmental Offices & Related Space
- *Category 5.0: Library Facilities & Library Study Space
- *Category 11.0: Non-Library Space
- *Student and Central Services
  (incl. Cat. 7.0, 8.0, 12.0, 13.0, 14.0, 15.0)

*COU Categories are “DRAFT” only and are under review
PROPOSED BI PROGRAM

The proposed Bachelor of Information BI program was just submitted for application June 2017. As the curriculum map was just completed, there is more detailed information required in order to understand more comprehensively how to best plan for this proposed new cohort at Bissell. Some of the anticipated needs are:

1. Type(s) of Research space - ie vertical integration of undergraduates with Masters
2. Type(s) of Instructional space - ie Undergraduate Laboratory space vs generic Classrooms
3. Locker space
4. Student Activity space

In order to better understand the aforementioned above, more consultation is required during the Feasibility Study.

RESEARCH/MAKER SPACE

Through consultations (refer to Appendix for full listing), the following observations regarding research were noted:

• More bookable meeting and project spaces needed
• Research/Maker space to encourage collaboration and community
• Provide mix of large and small areas
• Infrastructure required:
  • Computers
  • Lockable space for bags and personal belongings
• More research clusters where Faculty and Graduate Students can work together on research with lab nearby

Significant consultations were had with the Faculty to understand the range of research present but also compare what those research/maker space activities generated through the Council of Ontario Universities COU standards for that discipline. It was determined that the COU Space Factor for Information Science fell between 1-5 nasms per Graduate Student and that there was not a one-size fits all given the diversity of research activities and needs.

Note: Refer to Faculty Specializations Chart (Appendix) for the range of research activities (2016-2017).
SPACE ANALYSIS

The space analysis following was generated based upon 2013-2014 COU Space Standards. Each space category is then discussed subsequently in detail within the following sections of the report, including an comparison to the DRAFT 2016/17 space factors and including an estimated projection for academic year 2023-2024 (based on 2013-2014 COU Space Factors).

TABLE 2.3.1 - Faculty of Information COU Space Analysis Summary

<table>
<thead>
<tr>
<th>Category of Space</th>
<th>Actual Inventory (I) NASM</th>
<th>COU 2013/2014 Generated (G) NASM</th>
<th>% I/G</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Classrooms</td>
<td>634.04</td>
<td>683.76</td>
<td>93%</td>
</tr>
<tr>
<td>2.0 Laboratory Undergraduate</td>
<td>0.00</td>
<td>0.00</td>
<td>0%</td>
</tr>
<tr>
<td>3.0 Research Laboratory Space</td>
<td>202.93</td>
<td>339.78</td>
<td>60%</td>
</tr>
<tr>
<td>4.0 Academic Departmental Offices &amp; Related Space</td>
<td>1,886.17</td>
<td>3,139.20</td>
<td>60%</td>
</tr>
<tr>
<td>5.0 Library Facilities &amp; Library Study Space</td>
<td>493.86</td>
<td>286.44</td>
<td>172%</td>
</tr>
<tr>
<td>11.0 Non-Library Study Space</td>
<td>255.77</td>
<td>153.46</td>
<td>167%</td>
</tr>
<tr>
<td>14.0 Common Use and Student Activity Space</td>
<td>180.39</td>
<td>308.00</td>
<td>59%</td>
</tr>
<tr>
<td>19.0 Other University Facilities</td>
<td>40.43</td>
<td>0.00</td>
<td>0%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>3,693.59</td>
<td>4,910.65</td>
<td>75%</td>
</tr>
</tbody>
</table>

The comparison between actual and COU generated suggests that overall the Faculty of Information is slightly under-accommodated at 75% COU.

Notes:
- Cat 1.0 - Includes FI Classroom space. No ACE Inventory included in COU Analysis.
- Cat 3.0 & 4.0 - Includes FI space at Robarts Library - Semaphore Lab (307.10 nasm)
- Cat 19.0 - This is leased space to NIA Technologies (40.43 nasm). NIA Technologies is a private company that works with the Semaphore Lab bringing 3D prosthetic printing to developing countries. Category 19.0 space does not generate space formulaically. Area is included but not analyzed.

Category 1.0 - Classroom Facilities (Table 2.3.2)
The Bissell building houses 7 non-tiered classrooms which serve primarily the Faculty of Information are also shared with the rest of St. George campus. Totaling 634.04 nasm, COU Analysis indicates classroom facilities are below COU at 84%. However, the 10 ACE classrooms at Bissell have not been included in the COU Analysis which are utilized by the Faculty of Information. More comprehensive analysis is required as noted in Section 1.3 Existing Space for existing Classroom Facilities in order to understand how much and what types of classroom facilities are needed to effectively serve the FI programs and the sector.
Projected COU analysis for academic year 2023-2024 suggests that with the introduction of 200 undergraduate FTEs (proposed BI Program) may put a strain on existing FI Classroom utilization at 67% COU. More details regarding BI program requirements need to be examined further and modeled during the Feasibility Study.

**TABLE 2.3.2 - Faculty of Information Cat 1.0 Classroom Facilities COU Analysis**

<table>
<thead>
<tr>
<th>Space Cat</th>
<th>Actual Inventory (I) NASM</th>
<th>Input Measure</th>
<th>Space Factor</th>
<th>COU 2013/2014 Generated (G) NASM</th>
<th>% I/G</th>
<th>DRAFT COU 2016/2017 Generated (G) NASM</th>
<th>% I/G</th>
<th>COU 2023/2024 Generated (G) NASM</th>
<th>% I/G</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>634.04</td>
<td>616.00</td>
<td>1.11</td>
<td>683.76</td>
<td>93%</td>
<td>683.76</td>
<td>93%</td>
<td>950.16</td>
<td>67%</td>
</tr>
</tbody>
</table>

**Category 2.0 - Laboratory Undergraduate (Table 2.3.3)**

FI currently does not have any Laboratory Undergraduate space as the proposed BI program is set to launch academic year 2019-2020. The proposed BI program suggests the need for studio/maker space - potentially 360 nasms. Note the type and area is only an estimation at this point in time. The following courses appear to describe the need for undergraduate lab/stdio space: INF 351 Information Design Studio I: How to Make a Computer, and Why; INF 352 Information Design Studio II: How to Design; INF 353 III: Designing Interactive Systems; and INF 451 Information Design Studio IV: Information Visualization. Calculation estimate is as follows:

Each course: 12 “P” hours per semester x 25 students = 300 contact hours (assume 1 hour of instruction/wk) 
If all four of these courses are offered at Fall session, this would calculate 1200 contact hours (4 x 300)

Faculties/Departments are required to determine Weekly Student Laboratory Contact Hours WSLabCH. Given the BI is proposed and new, these details for undergraduate needs have yet to be clarified and balanced with the needs of Category 3 and 4 space for Graduate Students.

**TABLE 2.3.3 - Faculty of Information Cat 2.0 Laboratory Undergraduate COU Analysis**

<table>
<thead>
<tr>
<th>Space Cat</th>
<th>Actual Inventory (I) NASM</th>
<th>Input Measure</th>
<th>Space Factor</th>
<th>COU 2013/2014 Generated (G) NASM</th>
<th>% I/G</th>
<th>DRAFT COU 2016/2017 Generated (G) NASM</th>
<th>% I/G</th>
<th>COU 2023/2024 Generated (G) NASM</th>
<th>% I/G</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0</td>
<td>0.00</td>
<td>0.00</td>
<td>0.30</td>
<td>0.00</td>
<td>0%</td>
<td>0.00</td>
<td>0%</td>
<td>360.00</td>
<td>0%</td>
</tr>
</tbody>
</table>
Category 3.0 - Research Laboratory Space (Table 2.3.4)

COU Analysis suggests Research Laboratory Space is under-accommodated at 60% COU with the 2013-2014 Space Factors. In comparison, 2016-2017 Space Factors results in the generation of approximately 1,359 more nasm, suggesting an under-accommodation of 12% COU - recall that Space Factors are under review for 2016-2017 COU Space Guidelines. Research Laboratory space is the only space category where there is a significant difference between 2013-2014 and 2016-2017 generated space - refer to Table 2.3. below.

### TABLE 2.3.4 - Faculty of Information Cat 3.0 Research Laboratory Space COU Analysis

<table>
<thead>
<tr>
<th>Space Cat</th>
<th>Actual Inventory (I) NASM</th>
<th>Input Measure</th>
<th>Space Factor</th>
<th>COU 2013/2014 Generated (G) NASM</th>
<th>% I/G</th>
<th>Input Measure</th>
<th>Space Factor</th>
<th>DRAFT COU 2016/2017 Generated (G) NASM</th>
<th>% I/G</th>
<th>Input Measure</th>
<th>Space Factor</th>
<th>COU 2023/2024 Generated (G) NASM</th>
<th>% I/G</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>202.93</td>
<td>339.78</td>
<td>1.00</td>
<td>339.78</td>
<td>60%</td>
<td>339.78</td>
<td>5</td>
<td>1,698.90</td>
<td>12%</td>
<td>361.78</td>
<td>5.00</td>
<td>361.78</td>
<td>56%</td>
</tr>
</tbody>
</table>

Throughout the Master Plan process, consultation with Faculty and Graduate Students regarding research activities and needs were discussed and examined. It is important to note that the FI program is diverse and not all research activities have the same needs and requirements. The FI program has three constituent cohorts with FTE noted for academic year 2016-2017 below:

1. Master of Information MI Graduate Students - 465 FTE (76% of total)
2. PhD in Information Studies - 49 FTE (8% of total)
3. Master of Museum Studies MMSt Graduate Students - 102 FTE (16% of total)

The needs for the following cohorts range in space and infrastructure requirements. Some MI Graduate research concentrations are more humanities/social science centred where research activities are reading and writing based, not requiring much space. In contrast, some Graduate program concentrations are more technological (science/engineering) and studio-based, requiring more maker space with equipment such as computers and 3D printers. Given the marked growth in interest in the following program concentrations for User Experience Design (UXD), Information Systems & Design (IS&D) and Knowledge Management and Information Management (KMIM) more Research/Maker space is required. MMSt Graduate Students have similar needs in that likely a Space Factor between 1-5 is warranted - to be examined further during Feasibility Study.

Projected COU for 2023-2024 assumes an uptake of approximately 40 International Students for the combined two Master Programs. The COU generated space suggests that if existing research space is not addressed,
the Faculty of Information could be significantly under-accommodated at only 56% COU. Existing FI Research Laboratory space consists of the following labs:

- Bissell - Room 328 - Digital Preservation Lab
- Bissell - Room 118 - Museum Studies Lab
- Bissell - Room 513 - Research Lab
- Bissell - Room 514 - Research Lab
- Robarts - Room 7020A - Semaphore Critical Making Lab

As previously mentioned, the Semaphore Lab Research Cluster is a prototype to be explored further in the Feasibility Study for Bissell Revitalization in order to accommodate collocation of the following people and research space types: Faculty Research Office, Graduate Research Space and Project space/Lab space for making and simulating.

**Category 4.0 - Academic Departmental Offices & Related Space (Table 2.3.5)**

Overall, COU Analysis suggests Academic Departmental Offices & Related Space is under-accommodated at 47% COU. However, looking at each space type individually provides more detail between actual and COU generated space:

- **Cat 4.1 - Academic Office Space** is over-accommodated at 121% COU
  - Average existing Private Office size is approximately 14.9 nasm. Original preconfigured space at Bissell is challenging to be efficient due to irregular shaped polygonal plan.
  - Included in the Inventory is a shared office for UTM/UTSC as well as shared office space for Sessionals. FI has approximately 40 Sessionals totaling 4 FTE
  - Refer to Graph 2.3.5, which shows proportion of private to shared seat ratio

- **Cat 4.2 - Research Office/Project Space** appears to be over-accommodated due to only 1 PdF FTE. However these spaces are used by Faculty and Graduate Students and are well-utilized.
  - Graph 2.3.5 information not available for this space category type

- **Cat 4.3 - Graduate Student Office Space** is under-accommodated at 15%
  - Refer to Graph 2.3.5, which shows all existing Graduate Student Office Space are enclosed shared work spaces
  - Not all PhD student’s have offices. Typically cubicles are assigned within Bissel or Robarts Library. Typically Upper level PhD students have desks in enclosed shared work spaces at Bissell.

- **Cat 4.4 - Non-Academic Staff Office Space** is at 101% COU
  - Refer to Graph 2.3.5, which shows existing Non-Academic Staff Office Space is a mix of enclosed private offices and open shared work spaces
TABLE 2.3.5 - Faculty of Information Cat 4.0 Departmental offices & Related Space COU Analysis

<table>
<thead>
<tr>
<th>Space Cat</th>
<th>Actual Inventory (I) NASM</th>
<th>Input Measure</th>
<th>Space Factor</th>
<th>COU 2013/2014 Generated (G) NASM</th>
<th>% I/G</th>
<th>Input Measure</th>
<th>Space Factor</th>
<th>DRAFT COU 2016/2017 Generated (G) NASM</th>
<th>% I/G</th>
<th>Input Measure</th>
<th>Space Factor</th>
<th>COU 2023/2024 Generated (G) NASM</th>
<th>% I/G</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>523.68</td>
<td>31.28</td>
<td>12.00</td>
<td>375.36</td>
<td>140%</td>
<td>31.28</td>
<td>12</td>
<td>375.36</td>
<td>140%</td>
<td>33.28</td>
<td>12</td>
<td>399.36</td>
<td>131%</td>
</tr>
<tr>
<td>4.2</td>
<td>214.68</td>
<td>1.00</td>
<td>12.00</td>
<td>12.00</td>
<td>1789%</td>
<td>1.00</td>
<td>12</td>
<td>12.00</td>
<td>1789%</td>
<td>1.00</td>
<td>12</td>
<td>12.00</td>
<td>1789%</td>
</tr>
<tr>
<td>4.3</td>
<td>361.12</td>
<td>616.00</td>
<td>3.00</td>
<td>1,848.00</td>
<td>20%</td>
<td>616.00</td>
<td>3</td>
<td>1,848.00</td>
<td>20%</td>
<td>656.00</td>
<td>3</td>
<td>1,968.00</td>
<td>18%</td>
</tr>
<tr>
<td>4.4</td>
<td>303.08</td>
<td>23.00</td>
<td>12.00</td>
<td>276.00</td>
<td>110%</td>
<td>23.00</td>
<td>12</td>
<td>276.00</td>
<td>110%</td>
<td>26.00</td>
<td>12</td>
<td>312.00</td>
<td>97%</td>
</tr>
<tr>
<td>4.5</td>
<td>483.61</td>
<td>0.25</td>
<td>627.64</td>
<td>77%</td>
<td>856.00</td>
<td>0.25</td>
<td>627.64</td>
<td>77%</td>
<td>856.00</td>
<td>0.25</td>
<td>672.84</td>
<td>72%</td>
<td>3,364.20</td>
</tr>
<tr>
<td>Total 4.0</td>
<td>1,886.17</td>
<td>3,139.20</td>
<td>60%</td>
<td>3,139.20</td>
<td>60%</td>
<td>3,139.20</td>
<td>60%</td>
<td>3,364.20</td>
<td>56%</td>
<td>3,364.20</td>
<td>56%</td>
<td>3,364.20</td>
<td>56%</td>
</tr>
</tbody>
</table>

Graph 2.3.5 - Faculty of Information Cat 4.0 Departmental offices & Related Space Private vs Shared

EXISTING

- ACADEMIC OFFICES
  - 47 SEATS
- RESEARCH OFFICE + PROJECT SPACE
  - Information not available
- GRADUATE STUDENT OFFICES
  - 78 SEATS
- DEPARTMENT SUPPORT STAFF
  - 27 SEATS

Category 5.0 & 11.0 - Library Study Space and Non-Library Study Space (Table 2.3.6)

Overall, COU Analysis suggests study space is over-accommodated at 167% COU. However, looking at the accommodation of the proposed 200 undergraduate students in 2023-2024 highlights the reverse, an under-accommodation at 54% COU. The renovation of recent Inforum has created well-utilized student study space that is used by both FI and non-FI students as well as students outside the university. With the proposed BI students, access to the Inforum needs to be reviewed so that needs are balanced. Student Study Space is generally accommodated campus-wide but should be revisited during the Feasibility Study.

TABLE 2.3.6 - Faculty of Information Cat 5.0 & 11.0 Library and Non-Library Study Space COU Analysis

<table>
<thead>
<tr>
<th>Space Cat</th>
<th>Actual Inventory (I) NASM</th>
<th>Input Measure</th>
<th>Space Factor</th>
<th>COU 2013/2014 Generated (G) NASM</th>
<th>% I/G</th>
<th>Input Measure</th>
<th>Space Factor</th>
<th>DRAFT COU 2016/2017 Generated (G) NASM</th>
<th>% I/G</th>
<th>Input Measure</th>
<th>Space Factor</th>
<th>COU 2023/2024 Generated (G) NASM</th>
<th>% I/G</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.4</td>
<td>300.49</td>
<td>616.00</td>
<td>0.60</td>
<td>180.29</td>
<td>172%</td>
<td>616.00</td>
<td>0.4</td>
<td>236.40</td>
<td>122%</td>
<td>856.00</td>
<td>0.60</td>
<td>153.20</td>
<td>97%</td>
</tr>
<tr>
<td>11.0</td>
<td>255.77</td>
<td>616.00</td>
<td>0.60</td>
<td>153.46</td>
<td>167%</td>
<td>616.00</td>
<td>0.2</td>
<td>123.20</td>
<td>200%</td>
<td>856.00</td>
<td>0.60</td>
<td>369.60</td>
<td>151%</td>
</tr>
<tr>
<td>Total 5.0</td>
<td>556.26</td>
<td>333.76</td>
<td>167%</td>
<td>369.60</td>
<td>151%</td>
<td>369.60</td>
<td>151%</td>
<td>1,027.20</td>
<td>54%</td>
<td>1,027.20</td>
<td>54%</td>
<td>1,027.20</td>
<td>54%</td>
</tr>
</tbody>
</table>
Looking more broadly at Shelving space (Cat 5.1) and Library Support (Cat 5.2/5.3), comparison with COU shows an over-accommodation at 120% and 430% - refer to Table 2.3.8. As stated in Space Audit section room 411 “Open Stack” and Basement B007 “Storage” was discussed to relocate the collection off-site to UTL Downsview which would significantly reduce space in this category and free up opportunity for reassignment. As for Library Office/Support space, more detail is required to understand why it is over-sized. It should also be noted that the Inform is open to the broader St George community and even users outside UofT use the space after hours. Space needs and access the Informum will require better further consultation during the Feasibility Stage.

**Category 14.0 - Student Activity Space (Table 2.3.7)**

COU Analysis suggests Student Activity Space is under-accommodated at 59% COU. COU suggested range for space factors is 0.5 to 0.7. The bottom of the range was used for analysis purposes as generally this space can be met campus-wide but nevertheless should be revisited during the Feasibility Study due to proposed BI program.

**TABLE 2.3.7 - Faculty of Information Cat 14.0 Student Activity Space COU Analysis**

<table>
<thead>
<tr>
<th>Space Cat</th>
<th>Actual Inventory (I) NASM</th>
<th>Input Measure</th>
<th>Space Factor</th>
<th>COU 2013/2014 Generated (G) NASM % I/G</th>
<th>Input Measure</th>
<th>Space Factor</th>
<th>DRAFT COU 2016/2017 Generated (G) NASM % I/G</th>
<th>Input Measure</th>
<th>Space Factor</th>
<th>COU 2023/2024 Generated (G) NASM % I/G</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.0</td>
<td>180.39</td>
<td>616.00</td>
<td>0.50</td>
<td>308.00 59%</td>
<td>616.00</td>
<td>0.50</td>
<td>308.00 59%</td>
<td>856.00</td>
<td>0.50</td>
<td>428.00 42%</td>
</tr>
</tbody>
</table>

A detailed listing of the COU Analysis is on Table 2.3.8. When projected to 2023-2024, the COU Analysis suggests that the Faculty of Information is under-accommodated at 56% COU, or potentially 2,903.9 nasms (6,597.49-3,693.59 nasms). The refinement of space type, area needs and requirements as set out in this Faculty of Information Revitalization Master Plan document will be further examined during the Feasibility Study.
TABLE 2.3.8 - COU Analysis 2013/14 vs 2016/17 COU Space Factors Detailed Summary

<table>
<thead>
<tr>
<th>COU Cat</th>
<th>Input Measure</th>
<th>Actual Inventory NASM</th>
<th>Generated Space Factor NASM</th>
<th>% I / G</th>
<th>Present (2016-2017)</th>
<th>Projected (2023-2024)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013/14 COU</td>
<td>DRAFT 2016/17 COU</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Present</td>
<td>Present</td>
<td>Projected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Space Factor NASM</td>
<td>% I / G</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TEACHING/RESEARCH/ACADEMIC SUPPORT

1.0 CLASSROOMS
- Total FTE Students
  - 2013/14: 616.00
  - 2016/17: 634.04
  - % Increase: 1.11%
- Total Classrooms
  - 2013/14: 634.04
  - 2016/17: 683.76
  - % Change: 93%

2.0 CLASS LABS
- Lab Contact Hours
  - 2016/17: 0.00
- Total Class Lab
  - 2013/14: 0.00
  - 2016/17: 1,200.00
  - % Change: 100%

3.0 RESEARCH LABS
- Research Disciplines E
  - 2016/17: 1.0
- Total Research
  - 2013/14: 202.93
  - 2016/17: 339.78
  - % Increase: 60%

4.0 OFFICE - ACADEMIC
- Total FTE Faculty
  - 2013/14: 31.28
  - 2016/17: 523.68
  - % Increase: 120%
- Research Appointments (PDF, RA)
  - 2013/14: 1.00
  - 2016/17: 214.68
  - % Increase: 120%
- Total FTE Grads (Masters & PhD)
  - 2013/14: 616.00
  - 2016/17: 1,848.00
  - % Increase: 200%
- Total FTE Non-Acad Staff
  - 2013/14: 23.00
  - 2016/17: 303.08
  - % Increase: 130%

4.5 Office Service
- 2013/14: 483.61
- 2016/17: 1,886.17
- % Increase: 140%

5.0 LIBRARY FACILITIES & CAMPUS STUDY SPACE
- Traditional Static Shelving Space
  - 2013/14: 16,984.0
  - 2016/17: 339.78
  - % Decrease: 80%

5.2/5.3 Library Support
- 2016/17: 0.25

5.4 Study (Total FTE Students)
- 2013/14: 300.49
- 2016/17: 627.84
- % Increase: 109%

5.5 Total Library Facilities & Campus Study Space
- 2013/14: 3,139.20
- 2016/17: 1,886.17
- % Decrease: 40%

### SUB-TOTAL: TEACHING/RESEARCH/ACAD SUPPORT
- 2013/14: 3,217.00
- 2016/17: 4,449.18
- % Increase: 72%

11.0 STUDENT AND CENTRAL SERVICES
- Formal & Informal Study Space
  - 2013/14: 255.77
  - 2016/17: 190.39
  - % Decrease: 27%

14.0 STUDENT ACTIVITY SPACE
- Student Activity Space
  - 2013/14: 255.77
  - 2016/17: 153.46
  - % Decrease: 40%

19.0 OTHER UNIVERSITY FACILITIES
- 2013/14: 40.43

### TOTAL AREAS NASM
- 2013/14: 3,693.59
- 2016/17: 4,910.65
- % Increase: 57%
2.4 FUNCTIONAL PLAN - REVITALIZATION

COMMUNITY REVITALIZATION

The Faculty of Information “Community” is made up of the following constituent parts:

1. Claude T. Bissell Building
2. Robarts Library and Thomas Fisher Rare Book Library
3. St George Campus
4. UTM and UTSC

The following pages identify some areas to consider in future planning for expanding as well as engaging with other communities on and off-campus.
INSTRUCTION RESOURCES

The undergraduate program (BI) has identified class section sizes (25, 50, 75 and 100) as part of its projected enrollment. Currently Bissell cannot support class sizes over 50.

Refer to the following three sector maps showing nearby instructional resources.

There is currently a variety of classroom types within ACE’s inventory in the Bissell Building Campus Sector. These shared resources are available to support current and proposed future instructional needs for program delivery throughout the Sector. A preliminary review of the proposed new Faculty of Information undergraduate program has identified class sizes that cannot currently be supported within the Bissell Building itself. There are however potential resources within the immediate sector that could support those needs. A comprehensive review of the proposed future growth is required to determine those needs and the potential impact on Sector resources.

CLASSROOMS 25 - 49 CAPACITY
**CONNECTION TO ROBARTS - 4TH FLOOR**

Connection at 4th floor to be explored in light of Robarts Common Project. New connection would allow access to student study space and Robarts Library amenities.
SPACE PROGRAM REVITALIZATION

- Enable New Research & Teaching Environments
- Create Research / Exhibition / Maker Spaces
- Engage the Public & University Campus
- Collaborative work spaces
- Access to Light, Views, Space, Community

The following floor plans are only “Test-Fit” plans and are intended to provide a framework for understanding how space can best support the vision as outlined in this Master Plan. As the floor plans are notional, assignment of space has not been finalized as it is recognized that the work in the Master Plan and upcoming Feasibility Study is an ongoing process of understanding space needs between the Faculty of Information and ACE Classroom Inventory. The partnership between FI and ACE is mutually dedicated to providing enhanced instructional space that can allow for a range of uses and section sizes to meet both the delivery of the FI academic program but also the university sector at large. Instructional space is envisioned to be distributed from the 1st floor up to the 5th floor. As the 1st floor is proposed to become the new entrance from St George Street, the spaces around the entrance should seek to both welcome and orient users to the building – for example a strong Student Services presence near the front door. In regards to specific Instructional space, FI and ACE will work together to understand how to best plan for future instructional needs knowing that any change in existing instructional space will not only to maintain capacity but also improve the quality of instructional spaces to provide classroom facilities that are well-utilized.
POTENTIAL "TEST FIT" BASEMENT FLOOR

BISSELL BUILDING, 140 ST. GEORGE STREET

FACULTY OF INFORMATION REVITALIZATION - MASTER PLAN

RESEARCH + STORAGE + SUPPORT

PROGRAM LEGEND
- CLASSROOM
- RESEARCH
- FACULTY OFFICE
- GRADUATE OFFICE
- LIBRARY
- COMMON USE / STUDENT SPACE
- NON-ASSIGNABLE
EXISTING 1ST FLOOR

BISSELL BUILDING, 140 ST. GEORGE STREET
FACULTY OF INFORMATION REVITALIZATION - MASTER PLAN

CONSTRANTS
• Lack of daylight
• No Connection to Grade / Sidewalk

OPPORTUNITIES
• Potential connection to grade and 2nd floor
Faculty of Information Comments:

- Development of the plans should create an inviting experience and reception area.
- Student Services department should also be located on this floor.
EXISTING 2ND FLOOR

BISSELL BUILDING, 140 ST. GEORGE STREET
FACULTY OF INFORMATION REVITALIZATION - MASTER PLAN

CONTRAINTS
• Lack of frontage / visible main entrance

OPPORTUNITIES
• Connection to 1st floor
POTENTIAL "TEST FIT" 2ND FLOOR
BISSELL BUILDING, 140 ST. GEORGE STREET
FACULTY OF INFORMATION REVITALIZATION - MASTER PLAN

INSTRUCTIONAL RESOURCES

PROGRAM LEGEND
- CLASSROOM
- RESEARCH
- FACULTY OFFICE
- GRADUATE OFFICE
- LIBRARY
- COMMON USE / STUDENT SPACE
- NON-ASSIGNABLE

ACTIVE LEARNING CLASSROOM
50-SEAT
RM 224/225
155 NASM
CAT #1.3

EX TIERED CLASSROOM
122-SEAT
RM 205
145 NASM
CAT #1.1

PROJECT RM
RM 208
17 NASM
CAT #1.4

CLASSROOM / STUDIO
25-SEAT
RM 212
60 NASM
CAT #1.2

CLASSROOM / STUDIO
25-SEAT
RM 219
60 NASM
CAT #1.2

USER INTERACTION LAB / STUDIO
50-SEAT
60 NASM
CAT #2.1/3.1

EX WC

TO ROBARTS

OPEN TO BELOW

Campus + Facilities Planning | University of Toronto
EXISTING 3RD FLOOR

BISSELL BUILDING, 140 ST. GEORGE STREET
FACULTY OF INFORMATION REVITALIZATION - MASTER PLAN

CONRAINTS
• Lack of daylight and wayfinding
Faculty of Information Comments:
- Amount and location of PhD and Masters student space requires further consultation
- Student space needs to be balanced between current Graduate students and future BI Undergraduate students
OPPORTUNITIES
• Connection to Robarts Library
EXISTING 5TH FLOOR

BISSELL BUILDING, 140 ST. GEORGE STREET
FACULTY OF INFORMATION REVITALIZATION - MASTER PLAN

48 Faculty of Information Revitalization Master Plan
CONTRaintS
• Inflexible plan
• No opportunities for collaboration
• No diversity
• Only perimeter offices have access to daylight
Faculty of Information Comments:

- Amount and location of PhD and Masters student space requires further consultation
- Student space needs to be balanced between current graduate students and future BI undergraduate students
EXISTING 7TH FLOOR

BISSELL BUILDING, 140 ST. GEORGE STREET
FACULTY OF INFORMATION REVITALIZATION - MASTER PLAN

CONSTRANTS
- Lack of daylight
- No Connection to Grade / Sidewalk

OPPORTUNITIES
- Better use of terraces and balconies
Faculty of Information Comments:

- Existing Graduate Student Office and Masters Lounge is enjoyed by FI students. Requires further consultation with Graduate Students.
EXISTING ROOF LEVEL

BISSELL BUILDING, 140 ST. GEORGE STREET
FACULTY OF INFORMATION REVITALIZATION - MASTER PLAN

OPPORTUNITIES
- Addition
- Access to light and views
- Research Cluster
BISSELL REVITALIZATION

PROPOSED REVITALIZATION IMPROVEMENTS

1. New Front Entrance

Bissell lacks an identifiable front door on the street. The main entrance is located on the 2nd floor podium reachable either by stairs, ramp or elevator from ground floor at Robarts Library. The addition of a new Front Entrance will help provide an identity for the Faculty, create a better sense of community, improve accessibility and make better use of 1st floor.

2. New 7th Floor North Balcony - Infill

The 7th floor North Balcony is not utilized. In the aim to reclaim more space, the balcony may be infilled which would allow an addition of approximately 162 nasm.

3. 7th Floor South Balcony - New Access

The 7th floor South Balcony is not utilized. Access to fresh air and outdoor space was raised through the consultation process.

4. New Connection to Robarts

Access to Robarts on the 4th floor is suggested in the historic drawings of the original building design. Creating a connection would allow students more access to the wealth of study space in Robarts.

5. New Opening and Glazing

More glazing was suggested in the early historic drawings of the original architects for the Robarts Complex. More access to daylight as well as fresh air will help to improve well-being, productivity as well as allow a more flexible, open interior plan.

6. New Rooftop Addition

The need for more space arises from planned growth: primarily undergraduate students (proposed BI program) and some Graduate Student (International Students). Creating the types of spatial relationships envisioned is paramount to align space function to support research collaboration and foster creation of a stronger FI Community. An addition on the existing 7th floor roof could yield approximately 472 NASMS.
PROPOSED REVITALIZATION IMPROVEMENTS
1. New Front Entrance
2. New 7th Floor North Balcony - Infill
3. 7th Floor South Balcony - New Access
4. New Connection to Robarts
5. New Opening and Glazing
6. New Rooftop Addition
NEW FRONT ENTRANCE - BEFORE
Creation of a front entrance at grade consisting of new ramping, stairs, and forecourt to improve visibility.
1 NEW FRONT ENTRANCE

The Bissell Building, designed by Mathers and Haldenby with Warner, Burns, Toan and Lunge had several design revisions before being constructed. The preliminary design proposed a sunken courtyard and lounge accessible from the ground floor on the north east corner of the building. The lounge was set back from the building’s perimeter to create a covered terrace, with the courtyard accessible from the west and east via a flight of stairs. This preliminary intent creates the basis to recreate the architect’s original design vision as a new front entrance and forecourt to the Faculty of Information.
NEW 7TH FLOOR NORTH BALCONY - INFILL

View looking north - 7th floor student space
A precedents for the balcony infill is the University of Toronto Scarborough Campus Balcony Enclosure Project (2009) by Baird Sampson Neuert Architects.

Other notable examples of infill at the St. George Campus are the Mining Attic and Wallberg Building Biozone additions.

Further structural review will be required to assess viability of the proposed balcony enclosure.
View looking south - 7th floor balcony
NEW CONNECTION TO ROBARTS

View looking north at potential Bissell 4th floor connection entrance location

Original Preliminary Section with connection to Robarts

View looking south at Robarts study space from Bissell 4th floor connection location
5 NEW OPENING AND GLAZING - DAYLIGHT ANALYSIS

While revised daylighting is optimal from a user perspective, the proposal for additional glazing will need to be further reviewed, specifically from heritage, structural, building envelope and cost perspectives.

Existing Daylight Condition
with Precast Concrete Panels

Potential Daylight Condition
with removed Precast Concrete Panels
and New Glazing Added
Typical Elevation
While the addition of a floor would be optimal from a user perspective to meet future space needs, the proposal will need to be further reviewed, specifically from heritage, structural, building envelope and cost perspectives.

Lassonde Mining Attic (2011), Mining Building
Baird Sampson Neuert Architects
NEW ROOFTOP ADDITION
BEFORE REVITALIZATION
AFTER REVITALIZATION
2.5 BUILDING CONSIDERATIONS

Accessibility

Planning principles related to Accessibility are identified in the 2011 St. George campus master plan:

“The University’s buildings, landscape and grounds must accommodate a diverse population in an open and inclusive campus. The campus environment should adhere to the principles of universal design with all new construction on campus.”

The University of Toronto is committed to ensure that its buildings and services are accessible to persons with disabilities. Compliance with the University’s Barrier Free Accessibility Design Standards is required for all new construction and renovation projects at the St. George campus. Design teams are required to submit the checklist to the University at 75% completion of the Design Development.

A Universal Design consultant is required for all Capital Projects on all three campuses. The outside consultant ensures that accessibility is incorporated from the outset of a project and that accessible, barrier-free expertise will inform decisions throughout the design process.

Personal Safety and Security

The building will conform to University of Toronto standards on building security. The Bissell building will be extensively used by student and other populations. Access needs to be coded so that student can enter at all times.

Security within particular zones is anticipated but can only be defined once the initial layout of activities have been undertaken. Exterior lighting should be abundant and provide for ease of movement around the exterior of the building at all times of the day.

Signage, Donor Recognition

Exterior and interior signage will be a required element of the detailed project design for building identification and wayfinding purposes. Specific fundraising strategies have not been established for this project. Should there be a requirement for donor recognition, its accommodation must be appropriately integrated within the building. The building design should consider the provision of opportunities for creative donor recognition of various types. These could include but are not limited to temporary banners, signage and/or public art/installations.
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, any new work at Bissell shall be designed to meet the Toronto Green Development Standard, Tier 1, but strive to meet Tier 2. The Tier 2 standard requires the building to achieve 35% better than Model National Energy Code (MNECB), 10% better than the current Ontario Building Code. Achieving this standard is recommended assuming it can be achieved within the budgetary constraints of the project. Achieving Tier 2, a voluntary standard that exceeds the required Tier 1 standard, would reduce life cycle operating costs as well as demonstrate leadership to U of T students, community and City.

Some of the sustainable strategies to be considered during the Feasibility Study include:

- Green or cool roof (note: City Bylaw not a requirement);
- Water-efficient fixtures and combined water fountains/bottle-filling stations;
- Durable, local materials with renewable and/or recycled content;
- Flexibility within rooms to accommodate a more than one function, where possible;
- Energy efficient equipment and fixtures;
- Energy efficient lighting and controls, coordinated with natural light where appropriate;
- Heat recovery from equipment;
- Equipment and systems must be put in place so that the long term energy and water efficiency can be monitored and verified to reduce both operating cost and emissions;
- Air and water free cooling;
- Outside air demand management strategies;
- Zoned HVAC control as appropriate;
- High performance building envelope;

Any new work will also need to comply with UofT Energy Modeling Standard. U of T proposes 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.
2.6 SITE & CAMPUS CONSIDERATIONS

The Bissell Building is located within the Robarts Library block bound by Sussex Avenue to the north, St. George Street to the east, Harbord Street to the south and Huron Street to the west. The Robarts Library block is located within the West Campus Character Area, resulting from successive periods of significant campus growth and capacity development, helping to redirect development pressure from the Historic Campus while allowing the university to expand and innovate.

Key attributes of the character area are:
- Development and use of the West Campus Character Area to accommodate successive waves of University growth and expansion (driven by the establishment and evolution of departments, professional schools, disciplines, and colleges, and increasing emphasis on graduate studies and research);
- Accommodation of growth through additions, infill, and fullscale redevelopment, resulting in a predominance of large footprint, block-scale complexes.

Site 4, as identified as a development site in the 1997 Secondary Plan, on the west edge of the Robarts Library block will see development of the new Robarts Common project, a major expansion of Robarts Library to complete the vision of restoring, revitalizing and expanding the library for student study space. The five-storey structure will add 1,200 new work and study spaces to Robarts Library. The new addition will be flooded with natural light, making the overall environment more inviting, accessible and productive for students. The revitalization was conceived to provide Robarts Library users with improved facilities which allow them to conduct rigorous research and excel in their studies.

In September 2016 the University submitted an application to the City to amend the Official Plan, to adopt a new Secondary Plan for the St George Campus Area. The plan will replace the existing 1997 University of Toronto Secondary Plan. The Secondary Plan and Urban Design Guidelines reflect the objectives and vision of the 2011 Master Plan.

Development of the Robarts Library block should improve on pedestrian circulation and linkages both inside and out. The Robarts Library site offers few pedestrian linkages, often met by stairs or second level entrances as is the case in both the Bissell and Rare Books Buildings. The Portico project improved the pedestrian linkages between the three buildings by providing a fully glazed second level link on the north and south terrace as well as an additional staircase on the west side of the south terrace to better connect to the south west corner of the block. Further opportunities should be explored to enhance the linkages through the site and better connect the interior and exterior.
Landscape and open space improvements should seek to improve the pedestrian realm and better promote pedestrian activity in the landscape. Lawns and frontages are a key feature of the landscape and creating new landscaped open spaces and amenities should be explored during the development of new projects.

Both the Claude T Bissell building and the Thomas Fisher Rare Book Library are part of the monumental Robarts Library complex that was completed in 1972 by architects Mathers and Haldenby. Robarts Library is heritage listed and serves as a landmark in the Western Expansion sub-area of the University of Toronto campus. Visible for its distinctive form, the architecture typifies late modern architecture with its Brutalist style light and dark concrete banding, “béton brut” walls, that accentuate the building’s sense of verticality and highlight the complex geometric urban form.

Currently there is an addition underway at Robarts, Robarts Commons. Once this project is complete the complex will likely become Heritage Designated. Robarts is Toronto’s most identifiable Brutalist style building, whose heavy articulated walls and structure were an opposing reaction to the light, glass curtain-wall construction of the International Style. Due to its significance, there could be potential challenges in the Revitalization proposal with modifying the façade, notably removal of the concrete panels for new glazing as well as rooftop addition. More detailed review by a heritage architect is required to assess the feasibility of the modifications proposed.
2.7 SECONDARY EFFECTS

The Secondary effects are to be explored in further detail through a Feasibility Study and will include:

- Phasing/Construction Sequencing
- Moving/Temporary Swing Space for Occupants and activities including instruction space.
- The scheduling impact of a temporary removal of the Bissell ACE instructional spaces from the shared pool of resources will have to be carefully considered
- Consideration must be made for other construction activities across Campus

2.8 SUMMARY OF OUTSTANDING INFORMATION

- More detailed Space Analysis to refine the following categories via consultation:
  - Instructional Space (Cat 1)
  - Laboratory Undergraduate (Cat 2)
  - Research/Maker Space (Cat 3 & 4)
  - Student Study Space (Cat 11)
  - Student Activity Space (Cat 14)

- Space Program to be refined through more analysis of the requirements ie BI Program and the existing areas of program concentrations

- Capacity and remaining life-span of existing building infrastructure

- Identify the equipment and movable furnishings necessary to the project.

- Identify requirements for networking and other electronic and data communications and their integration into the architecture of the building.

- Identify all security, occupational health and safety and accessibility requirements.

- Determine a total project cost estimate for the capital project including all aspects identified above and costs of implementation.

- Identify a funding plan, including external grants, for capital costs.
2.9 SCHEDULE

The proposed schedule is as follows:

**August 28, 2017:**
Approval by CaPS Executive for expenditure of consultant fees to engage in Feasibility Study

Architect-led Feasibility Study to include at minimum the following subconsultants:
- Structural
- Heritage
- Building Code Specialist
- MEP Engineering
- Building Envelope Specialist

**October 2017:**
Consultant selection

**February 2018:**
Final report issued

**March 2018:**
Fundraising
SECTION 3.0

APPENDIX

3.1 SUMMARY OF CONSULTATIONS
3.2 PRECEDENTS
3.3 ACE CLASSROOMS
3.4 FACULTY SPECIALIZATIONS CHART
3.5 MATHERS & HALDENBY PRELIMINARY
   CONCEPT DRAWINGS FOR THE BISSELL BUILDING
APPENDIX 3.1
SUMMARY OF CONSULTATIONS & ACTIVITIES

• Working Group Meeting #4 (May 4, 2017)
• Faculty research activity (April 28, 2017)
• Tour of Robarts CTSI (April 5, 2017)
• Tour of CCIDM/DGP (April 5 & 12, 2017)
• Consultation with PhD & MMSt (March 23, 2017)
• Consultation with MI students (March 21, 2017)
• Review with Administration (March 21, 2017)
• Faculty research, Museum Studies (March 9, 2017)
• Archival drawings review (March 1, 2017)
• Working Group Meeting #3 (February 28, 2017)
• Semaphore Lab Tour (February 15, 2017)
• Working Group Meeting #2 (January 10, 2017)
• Working Group Meeting #1 (November 21, 2016)
APPENDIX 3.2
PRECEDENTS

University of Toronto
• Inforum, Bissell Building
• Centre for Teaching Support and Innovation
  CTSI, Robarts Library
• The Centre for Collaborative Interactive Digital
  Media (CCIDM), Bahen Centre for Information
  Technology
• Robarts Commons Addition, Robarts Library
• Rotman School of Management Expansion
• Lassonde Mining Building

Canada
• Student Learning Centre SLC, Ryerson
  University
• National Arts Centre, Ottawa

Other
• Media Lab, MIT
• Met Breuer Museum
• James B Hunt Library, North Carolina State
  University
• Art + Architecture Building, Yale University
• University of Chicago
• Loughborough University
• Steelcase furniture
PRECEDENTS:
UNIVERSITY OF TORONTO
Inforum, Bissell Building

Inforum Student spaces: group study hubs

CTSI Offices
Centre for Teaching Support and Innovation (CTSI), Robarts Library

CTSI is a nucleus for academic support services and social learning that incorporates Library References Services around a set of shared amenities.

Facilities/Amenities:
- Electronic teaching labs
- Meeting and presentation rooms
- Central student study space
- A collaboratory - a common collaboration and breakout space

CTSI Classroom

CTSI Study and Work Spaces
CTSI Administrative Offices

CTSI Administrative Kitchen

Private Office
Centre for Teaching Support and Innovation (CTSI), Robarts Library (Cont.)

Shaded area indicates extent of existing suite (occupancy unchanged by interior alterations)

Existing rated partition to remain

CTSI Floor Plan, West
Computer Teaching Lab

Library open offices
The Centre for Collaborative Interactive Digital Media (CCIDM),
Bahen Centre for Information Technology

CCIDM is a digital collaborative space for research related to digital media (including the Dynamics Graphics Project DGP) for computer scientists, engineers, researchers and artists. Participation with Knowledge Media Design Institute KMDI.

Facilities/Amenities:
- Labs: 3D display research, image acquisition, media production, graduate and mobility labs
- A large active display room
- A common information hub

Collaborative workspace with Kitchenette
Laboratory for Wireless Information Technology

Student work space
The Centre for Collaborative Interactive Digital Media (CCIDM), Bahen Centre for Information Technology (Cont.)
The Centre for Collaborative Interactive Digital Media (CCIDM), Bahen Centre for Information Technology (Cont.)
Robarts Commons Addition, Robarts Library

Proposed Robarts Commons Addition rendering

Atrium, Ground Floor. Stairs with Roman seating

Atrium, Fifth Floor
Rotman School of Management Expansion

Entrance, Lobby and Feature Stair

Building Directory media screen

Integrated lockers
Lassonde Mining Building

Barrier Free Entrance and Signage
PRECEDENTS: CANADA
Student Learning Centre SLC, Ryerson University

The SLC offers a variety of creative and inspiring learning environments and spaces to study, collaborate and share ideas.

Facilities/Amenities:
• Amphitheatre / cafe / lounge
• 61 bookable spaces (collaborative or private work rooms)
• Digital Media Experience Lab DME
• Launch Zone - entrepreneurs
• Student services
• Offices
• Classrooms
• https://slc.blog.ryerson.ca/

Wayfinding as Lobby and Feature Stair

Digital Media Experience Lab
National Arts Centre, Ottawa

The Rejuvenation project was conceived by Diamond Schmitt Architects. From the Architect’s website:

*The National Arts Centre in Ottawa is a Canadian landmark, conceived in Canada’s Centennial year in 1967 as the premier showcase for the very best performing arts in the country. Situated in the heart of the nation’s capital on Confederation Square, the NAC displays a rigorous and robust geometric order in the Brutalist style that made it a fortress for the arts.*

*A marquee tower designed to extend the geometry of the original architecture into the 21st century marks a new entrance.*
PRECEDEeNTS:
INTERNATIONAL
Media Lab, MIT

The Media Lab focuses on the study, invention and creative use of digital technologies to enhance the ways that people think, express and communicate ideas, and explore new scientific frontiers. Devoted to projects at the convergence of technology, multimedia, sciences, art and design.

• Established in 1985
• A part of the School of Architecture and Planning
• The Media Lab conducts workshops around the world
• www.media.mit.edu
Art + Architecture Building, Met Breuer Museum

1966 - Brutalist building by Marcel Breuer
historical landmark

Existing building

Basement - New furniture and millwork

New lighting and handrails
James B Hunt Library, North Carolina State University

The Hunt Library’s vision is for students, faculty and partners to immerse themselves in interactive computing, multimedia creation, and large-scale visualization-tools that enable revolutionary ways to see and use information.

Facilities/Amenities:
• Collection
• Formal study spaces: Reading Rooms
• Informal study spaces: Rain Garden Reading Lounge
• Labs/Studio: Teaching and Visualization, Maker Space, Creativity Studio, and Media Production
• Music Room and Immersion Theatre
• Multipurpose Room
• www.lib.ncsu.edu/huntlibrary

Teaching and Visualization Lab

Rain Garden Reading Lounge
Creativity Studio

Collaboration spaces

Presentation
Art + Architecture Building, Yale University

1963 - Brutalist building by Paul Rudolph
Historically important - New Haven Preservation Trust

New Skylights

Existing | New
New drywall softens concrete

Transparency provides interior and exterior connection

New finishings/furniture/millwork. Note: no visual clutter
Additional Precedents

University of Chicago (left)
Yale School of Art & Architecture (top)
Loughborough University (bottom left)
Steelcase furniture (bottom right)
APPENDIX 3.3
ACE CLASSROOMS
ACE CLASSROOMS

BISSELL CLASSROOM 112

Capacity  40
Area      66.9 nasm
BISSELL CLASSROOM 113

Capacity  26
Area  59.7 nasm
Raised Floor
BISSELL CLASSROOM 114

Capacity  44
Area   67.5 nasm
BISSELL CLASSROOM 205

Capacity 121
Area 145.1 nasm
Tiered Floor
BISSELL CLASSROOM 305

Capacity 15
Area 23.3 nasm
BISSELL CLASSROOM 306

Capacity 15
Area 27.7 nasm
Raised Floor
BISSELL CLASSROOM 312

Capacity 20
Area 39.8 nasm
BISSELL CLASSROOM 313

Capacity  70
Area      169.5 nasm
BISSELL CLASSROOM 325

Capacity 70
Area 136.2 nasm
BISSELL CLASSROOM 327

Capacity 15
Area 27.8 nasm
APPENDIX 3.4
FACULTY SPECIALIZATIONS CHART
<table>
<thead>
<tr>
<th>Primary Program</th>
<th>Specializations</th>
<th>COU Cat. Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MI</td>
<td>Digital and data curation; digital archaeology; digital humanities; knowledge representation and reasoning; cultural heritage informatics</td>
<td>Communication &amp; Media Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Archives and records management</td>
<td>Library Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Archives and records management; archival arrangement, description and authenticity; histories and theories of archives; cross-disciplinary perspectives on record trustworthiness; representational practices in archives and museums</td>
<td>Library Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Health informatics</td>
<td>Information Science/Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Critical information policy studies; feminist media studies; youth and digital media; surveillance studies; media reform and media justice</td>
<td>Communication &amp; Media Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Children's digital media culture(s); play studies; critical theories of technology; digital games</td>
<td>Communication &amp; Media Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Critical information studies; surveillance and identification; social shaping of information and communication technologies</td>
<td>Communication &amp; Media Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Critical making; critical information studies; science and technology studies; culture and technology; design studies</td>
<td>Information Science/Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Philosophy of information and computing</td>
<td>Liberal Arts &amp; Humanities</td>
</tr>
<tr>
<td>MI</td>
<td>Management and engineering; service-oriented systems; information systems design; software requirements engineering; systems modeling</td>
<td>Information Science/Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Database systems; cluster analysis; big data; structure discovery</td>
<td>Information Science/Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Digital curation; digital preservation; software engineering requirements; digital libraries; decision support; sustainability</td>
<td>Communication &amp; Media Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Information systems; service science; knowledge mobilization; social media; collaborative work</td>
<td>Information Science/Studies</td>
</tr>
<tr>
<td>MI</td>
<td>History of the book; bibliography; textual studies; digital humanities; history of media and information technology; archives; digital curation</td>
<td>Information Science/Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Human-computer interaction; user experience design; human factors</td>
<td>Information Science/Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Human information behaviour; information and global migration; marginalized communities; information policy; information ethics</td>
<td>Information Science/Studies</td>
</tr>
<tr>
<td>MI</td>
<td>LIS; information activities of leisure practices</td>
<td>Library Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Library and information science; digital studies; technology studies; visual studies; critical theory; gender; sexuality; race; pornography</td>
<td>Library Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Information architecture; effective design of information systems to support collaborative knowledge work; quantitative methods in public health epidemiology</td>
<td>Information Science/Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Knowledge management and information management; information seeking and organizational learning</td>
<td>Information Science/Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Archives and social justice; archival access community archives</td>
<td>Library Studies</td>
</tr>
<tr>
<td>MI</td>
<td>LIS and knowledge management; information categorization strategies; knowledge organization; metadata schemas, standards, applications; objects, memory, and identity</td>
<td>Library Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Libraries</td>
<td>Library Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Critical information studies; library and information studies; political economy of information policy</td>
<td>Library Studies</td>
</tr>
<tr>
<td>MI</td>
<td>Human factors engineering; user interface design; applied cognition</td>
<td>Information Science/Studies</td>
</tr>
<tr>
<td>MMSt</td>
<td>Museum and indigenous relations; repatriation; collections management; memory; material culture; kinship</td>
<td>Fine arts &amp; art studies</td>
</tr>
<tr>
<td>MMSt</td>
<td>Digital heritage; digital curation; cultural and scholarly practices</td>
<td>Fine arts &amp; art studies</td>
</tr>
<tr>
<td>MMSt</td>
<td>Food studies; food and media; food and museums; museum communication; museum interpretation; global museums</td>
<td>Fine arts &amp; art studies</td>
</tr>
<tr>
<td>MMSt</td>
<td>Museum studies/cultural heritage</td>
<td>Fine arts &amp; art studies</td>
</tr>
</tbody>
</table>
APPENDIX 3.5
MATHERS AND HALDENBY
PRELIMINARY CONCEPT DRAWINGS
FOR THE BISSELL BUILDING