



FOR RECOMMENDATION

CONFIDENTIAL

***IN CAMERA* SESSION**

TO: UTSC Campus Council

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PRESENTER: See Sponsor.

CONTACT INFO:

DATE: September 18, 2019 for September 25, 2019

AGENDA ITEM: 12

ITEM IDENTIFICATION:

Capital Project: Report of the Project Planning Committee for a New Student Residence at the University of Toronto Scarborough - Further Revised Total Project Funding and Sources of Funding

JURISDICTIONAL INFORMATION:

Section 5.6.2 of the Campus Affairs Committee Terms of Reference states that the Committee “considers reports of project planning committees and recommends to the UTSC Campus Council approval in principle of projects (i.e. site, space plan, overall cost and sources of funds) with a capital cost as specified in the *Policy on Capital Planning and Capital Projects*.”

The *Policy on Capital Planning and Capital Projects* provides that capital projects with a project budget over \$20 million (Approval Level 3), at UTSC will be considered by the UTSC Campus Affairs Committee and the UTSC Campus Council, before being recommended to the Academic Board for consideration. Such proposals must be considered by the appropriate Boards and Committees of Governing Council on the joint recommendation of the Vice President and Provost and the Vice President, University Operations. Normally they will require approval of Governing Council.

The Business Board is responsible for approving the establishment of appropriations for individual projects and authorizing their execution within the approved costs. If a project will require financing as part of the funding, the project proposal must be considered by Business Board.

For project budget increases, the *Policy on Capital Planning and Capital Projects* states that “...should the cumulative budget increases total \$5M or more, the project will require a revised level 3 project approval.

Separate from the approval of the Project Planning Report, the *Policy* also requires that “Execution of such projects is approved by the Business Board.”

GOVERNANCE PATH:

A. Further Revised Total Project Cost, and Sources of Funding

1. UTSC Campus Affairs Committee [for recommendation] (September 11, 2019)
2. **UTSC Campus Council [for recommendation] (September 25, 2019)**
3. Academic Board [for recommendation] (October 3 2019)
4. Business Board [for approval for financing] (October 7, 2019)
5. Executive Committee [for endorsement and forwarding] (October 15, 2019)
6. Governing Council [for approval] (October 24, 2019)

B. Execution of the Project:

1. Business Board [for approval] (October 7, 2019)

PREVIOUS ACTION TAKEN:

At the May 25, 2015 Capital Project and Space Allocation Committee (CaPS) Executive Committee, the request to proceed with a Request for Expression of Interest (RFEI) to select a development partner and for the expenditure of funds to engage consultants to a maximum of \$2 million to proceed with design of the new student residence were approved.

A presentation was given to the Campus Affairs Committee on the Student residence model on March 23, 2016. At the Campus Council meeting on April 19, 2016, the Chair of the Campus Council reported to the members that she would work with the Chair of Business Board to conduct ongoing consultation with Business Board members to provide input on the proposed model leading up to the Business Board approval meeting for November 17, 2016. These consultation meetings occurred on June 7, 2016 and October 27, 2016.

At the November 17, 2016 Business Board meeting, Professor Scott Mabury, Vice-President, University Operations was given authority to execute the *Letter of Intent (LOI) – UTSC Residence (Capital Project)* (and accompanying Schedules) and move to the development of definitive agreements between the University of Toronto and the preferred development partner. The *LOI* was executed on November 30, 2016. The *LOI* outlined the principal terms and conditions relating to the development and construction of a 750 bed residence for first year students on the University's Scarborough campus at a total estimated cost of approximately \$92.6 million with an addition of \$5 million by the investor as a buffer, outlays in excess of approximately \$97.6 million would be the sole responsibility of the University.

On March 7, 2017 the *Report of the Project Planning Committee for New Student Residence, University of Toronto Scarborough*, dated February 21, 2017, and the Total Project Cost Estimate of \$92.6 million were presented to the UTSC Campus Affairs Committee to begin its path through the governance cycle. The Project Planning Report advised that the residence building was estimated at 25,061 gross square meters with net assignable square metres estimated at 14,321 nasm (using a gross-to-nasm ratio of 1.75), and was to provide approximately 750 residence beds, a dining hall, amenity space, and retail space.

On May 18, 2017 Governing Council approved the Total Project Cost estimate for the New Student Residence at the University of Toronto Scarborough of \$92.6 million with a buffer of \$5 million totalling \$97.6 million.

On June 15, 2017 Business Board gave authority to the Vice-President, University Operations to execute the Definitive Agreements between the Governing Council of the University of Toronto and the Investment Partner Fengate Capital Management Ltd. “Fengate” for the New Student Residence.

On December 20, 2016 a Request for Proposal (RFP) was issued for the *Development of Performance Output Specifications and Architectural Compliance Services* for the student residence project. The selected consultant team developed the project requirements and created the Project Specific Output Specifications (PSOS). The PSOS was utilized in a Request for Supplier Qualifications (RFSQ), dated June 21, 2017, for a Design-Build contracting team and was meant to form the basis of the contract with the successful Design-Build contractor. Three Design-Build proponent teams were shortlisted and invited to respond to the Design-Build RFP issued September 8, 2017. Submissions were received December 19, 2017 but all three proponents were over budget. On June 20, 2018 Business Board gave approval for a revised Total Project Cost of up to \$108.6 million to enter into negotiations with the lowest bidding proponent. The funding for the additional costs was to be provided from UTSC operational funds. Unfortunately, the negotiations were not successful as the project still could not be achieved for the approved project budget.

The search for a consultant / building team restarted in 2018. Rather than procure a Design-Build contracting team as before, it was decided to split the procurement into a two step process following the project delivery method known as the “Bridging Method”. The first step is the procurement of the Owner’s Design Consultant (an architect team to produce the Bridging Contract Documents), and the second, the procurement of the Design-Build contractor who will produce the Contract Documents for the project with their own architect as subconsultant. The Owner’s Design Consultant is responsible for checking the contractors Contract Documents to ensure the design intent is maintained.

The first step, an RFSQ for *Professional Services for a New Student Residence at University of Toronto Scarborough*, was issued November 20, 2018. Proponents were shortlisted based on the results of the RFSQ, and an RFP for the Bridging Design-Build Architect consultant team was issued February 11, 2019. The successful proponent was the Handel / CORE consultant team who have developed the current design for the student residence, and will act as the Owner’s Design Consultant under the Bridging Methodology.

The second step, an RFSQ for *Design-Build Services for a New Student Residence at UTSC* was issued August 15, 2019 (closing September 13, 2019) to begin the process of selecting a Design-Build contractor.

At its meeting on September 11, 2019, the UTSC Campus Affairs Committee considered and recommended the proposal to the UTSC Campus Council for consideration.

HIGHLIGHTS:

The increased Total Project Cost and Funding Sources are the only elements of the project that require approval. The increase in Total Project Costs requires an increase in Funding Sources provided by both the University and Fengate, including a new source of funding provided by UTSC in the form of mezzanine construction financing.

Certain transaction costs, such as financing costs, parking replacement costs, and land transfer taxes, are now included in the project description to be completely transparent of the total costs required in addition to the hard and soft costs that typically make up the Total Project Costs during construction. These transaction costs are not new. The University and Fengate were always expecting to incur these costs.

The only meaningful increase in transaction costs between now and the first set of governance approvals is associated with the construction financing interest, which has increased as a result of the increase in senior construction financing required to cover the increase in Total Project Costs. Given that the University is providing the senior construction financing, all interest will be paid to the University so this should be seen as a positive addition.

Although Fengate and the University are contributing additional funding sources to cover the increase in Total Project Costs, the fundamental business deal between the two parties has not changed. The University is contributing construction financing at market interest rates and will eventually participate in the future cash flow. Fengate will still receive their capital back plus their preferred return of 8%, however as a result of the changes they anticipate it will take longer to receive their equity and preferred return in full.

Discussion of project highlights can be found in the *open session* document for this project *Capital Project: New Student Residence at the University of Toronto Scarborough – Further revised Total Project Cost and Sources of Funding*, item 10 for this meeting.

FINANCIAL AND PLANNING IMPLICATIONS:

a) Total Project Cost

The estimated Total Project Cost (TPC) for the UTSC Student Residence is \$126,185,151. The TPC is based on the following assumptions:

- The project is being designed to the Passive House standard; and,
- All financing costs (including construction financing interest, commitment fees, and legal fees) of approximately \$7.7 million, UTSC parking displacement costs of approximately \$2 million, and land transfer tax of approximately \$2 million are excluded from the TPC but still require funding sources during construction as transaction costs.

Total Project Costs (TPC)	\$126.2 million
Transaction Costs	
Financing Costs	\$7.7 million

UTSC Parking Displacement Costs	\$2 million
Land Transfer Tax	\$2 million
TOTAL incl. Transaction Costs	\$137.9 million

At the May 25, 2015 CaPS Executive meeting, the expenditure of up to \$2 million in consulting fees, included in the TPC, was approved.

b) Funding Sources

The funding sources for the New Student Residence at the University of Toronto Scarborough of \$137.9 million (including both TPC and transaction costs) includes \$42.1 million of equity provided by Fengate, approximately \$9.8 million mezzanine construction financing provided by UTSC, and approximately \$86 million senior construction financing provided by the University. During construction, the land and building being constructed are owned by the University. After construction and upon stabilization, the University will still own the land but will lease such land to an investor partnership whereby Fengate is a limited partner and University is the general partner. Upon completion of construction and operation of the project, it is anticipated that a long-term source of funding will be provided to the project through the investor partnership that would reimburse the University and UTSC for all construction financing provided to the project, including both principal and interest. The size of the long-term funding is to be determined and subject to change based on market conditions. In summary:

Construction Sources of Funding	
Equity (Fengate)	\$42.1 million
Mezzanine Construction Financing (UTSC)*	\$9.8 million
Senior Construction Financing (UofT)*	\$86.0 million
TOTAL	\$137.9 million

* The ratio of senior construction financing to mezzanine construction financing may vary based on negotiations with Fengate but the University and UTSC will be responsible for some combination of short-term construction financing of up to \$95.8 million.

c) Operating Costs

Operating expenses of approximately \$128 per square metre (or \$11.90 per square foot) (approximately \$3.0 million in year 1) are in line with the average operating costs of existing student residences at UTSC. The University will charge annual ground rent (\$0.4 million in year 1) to the partnership for use of the project lands. The University will also charge an annual student life fee to the project (\$0.6 million in year 1) to recover the cost of providing student life programming services. The operating budget will also include an annual reserve for major maintenance and lifecycle costs calculated at 4% of total annual revenues.

Operating Expenses (Year 1)	(\$ m)
Operating Expenses ^{1,2}	\$3.0
Annual Lifecycle Maintenance Reserve ³	\$0.4
Residence Life Costs ⁴	\$0.6
Total Operating Expenses	\$4.0
Annual Growth Rate for Operating Expenses	CPI%

RECOMMENDATIONS:

Be It Recommended:

1. THAT the revised total project funding of up to \$137.9 million for the project, of which \$126.2 million represents the revised total project cost and up to \$11.7 million of financing and other transactional costs, for the project that is identified in the *Report of the Project Planning Committee for a New Student Residence at the University of Toronto Scarborough*, dated February 21, 2017 (approved by the Governing Council on May 18, 2017), be approved in principle; and,
2. THAT the project scope of 14,974 net assignable square metres (nasm) (25,726 gross square metres (gsm)), consisting of 746 residence beds, a dining hall, and amenity space be approved in principle, to be funded as follows:

Equity (Fengate)	\$ 42.1 million
Mezzanine Construction Financing (UTSC)	\$ 9.8 million
Senior Construction Financing (UofT)	<u>\$ 86.0 million</u>
Total Project Funding Cost	\$137.9 million

DOCUMENTATION PROVIDED:

- *Report of the Project Planning Committee for a New Student Residence at the University of Toronto Scarborough*, dated February 21, 2017.

¹ Operating Expenses are calculated at \$128/sm and include Property Management Fees, Insurance, Utilities, Salaries & Benefits, General & Administrative, Repairs & Maintenance, and Contract Services costs

² Ground rent is not included in the Operating Expenses figures presented above

³ Annual Maintenance Reserve is calculated as 4% of Total Revenue

⁴ Costs incurred by the University to deliver Residence Life Program will be reimbursed by the Limited Partnership



**Report of the Project Planning Committee for a
New Student Residence
University of Toronto Scarborough**

February 21, 2017

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I. Executive Summary

While the University of Toronto Scarborough has benefited from strong enrolment growth, it has exhausted its physical capacity to satisfy residence demand based on existing facilities. Student Housing and Residence Life currently has an inventory of 765 beds and new beds have not been added since Joan Foley Hall opened in 2003 although undergraduate enrolment has grown by 58%. The Department operates year round, housing primarily first year as well as upper year undergraduate students and a small number of graduate students. Currently, 6% of all students (765) live in Residence at the University of Toronto Scarborough compared to 11% at the University of Toronto Mississauga and 11% at the University of Toronto St. George (Residences and Enrollment, fall 2015-2016 statistics). Additional undergraduate enrolment growth of 11% over 2015-16 is projected by 2020-21. Further complicating the residence challenge at UTSC is our tremendous success in international student recruitment, where close to 25% of undergraduate new intake is currently international and residence demand for this group is much higher than demand from new Ontario students.

A new residence for the campus is necessary to expand and diversify our housing inventory to meet current demand from undergraduate students as well as increased need arising from projected growth in both domestic and international enrolment to 2020-21 as well as our longer term enrolment goals to 2034-35. The development of a new residence will replace some of the aging housing stock, introduce standard features of student housing facilities on campus, create innovative living-learning opportunities, attract students, increase the profile of UTSC, and enhance the campus experience.

The new 750 bed modern dormitory style residence features single and double occupancy bedrooms with semi-private washrooms, a campus dining hall, mixed use space for workshop style learning to house academic, student support and conference activities delivered by various campus partners, retail space, a new home for Student Housing & Residence Life offices, hoteling offices for campus partners, and two Visiting Scholars suites for rental.

The proposed site is north of Ellesmere Road, east of the planned re-routed Military Trail. The proposed project substantial completion date is March 2020.

II. Project Background

a) Membership

Andrew Arifuzzaman, Chief Administrative Officer, UTSC (Co-Chair)
Desmond Pouyat, Dean of Student Affairs, UTSC (Co-Chair)
Curtis Cole, Registrar & Assistant Dean (Enrolment Management), Academic Representative, UTSC
Michelle Verbrugghe, Director, Student Housing & Residence Life (SHRL), UTSC
Kumara Wickramarachchi, Manager, Finance & Initiatives, SHRL, UTSC
Tina Doyle, Director, AccessAbility Services, UTSC
Helen Morissette, Director, Financial Services
Joyce Hahn, Assistant Director, Capital & Business Operations, UTSC
Fran Wdowczyk, Director, Business Development, UTSC
Brent Duguid, Director of Partnerships and Legal Counsel, UTSC
Jim Derenzis, Director, Facilities Management, UTSC
Glenda Orila, Student Representative, UTSC

Jeevan Kempson, Assistant Chief Administrative Officer, UTSC
Therese Ludlow, Director of Operations, UTSC
Jeff Miller, Manager Engineering Design, Facilities Management, UTSC
Jennifer Adams Peffer, Director Architecture, Planning and Project Development, UTSC
George Phelps, Director, Project Development
Christine Burke, Director, Campus & Facilities Planning
David Sasaki, Planner, Campus & Facilities Planning

b) Terms of Reference

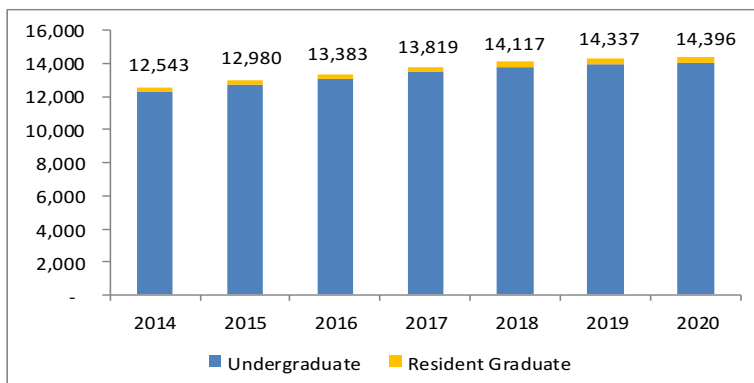
1. Review demand for residence spaces, with reference to enrolment targets and enrolment growth at University of Toronto Scarborough and recommend the number of spaces to be planned for the new residence.
2. Identify the preferred type of accommodation and form of the residence, including provisions for particular user groups.
3. Identify the space program as it is related to the existing and approved strategic plan, academic plan, service and Administrative plans at UTSC, taking into account the impact of approved and proposed program that are reflected in increasing faculty, student and staff complement. Space program to realize maximum flexibility in use of space to support future changes and development to plans.
4. Make recommendations for a detailed space program and functional layout for the New Student Residence Building, including food services/dining hall and other mixed-use spaces at the University of Toronto Scarborough.
5. Demonstrate that the proposed space program will be consistent with the Council of Ontario Universities' and the University's own space standards.
6. Identify all deferred maintenance and items of infrastructure renewal for the buildings that are to be renovated.
7. Identify all co-effects, including space reallocations from the existing site, impact on the delivery of academic programs during construction and the possible required relocation as required to implement the plan of existing units, disruption of parking, pedestrian movement and other developments
8. Recommend a preferred site for the new residence and identify site plan implications, including parking, safety, accessibility and design guidelines.
9. Address campus-wide planning directives as set out in the campus master plan, open space plan, urban design criteria, and site conditions that respond to the broader University community.
10. Identify equipment and moveable furnishings necessary to the project and their estimated cost.
11. Identify all data, networking and communication requirements and their related costs.
12. Identify all security, occupational health and safety and accessibility requirements and their related costs.
13. Identify all costs associated with transition during construction and secondary effects resulting from the realization of this project.
14. Determine a total project cost estimate (TPC) for the capital project including costs of implementation in phases if required, and also identify all resource costs to the University.
15. Identify all sources of funding for capital and operating costs.
16. Complete report by February 2017.

c) Background Information

In September 2003 Joan Foley Hall opened. It was a 230 bed suite style residence built to accommodate student enrolment growth and to satisfy the university’s commitment to house all eligible first entry students requesting accommodation, while still maintaining capacity to accommodate returning upper year students. It was the first building completed as part of a 2001 UTSC Master Plan developed to guide the capital expansion required to meet the needs of a projected 50% growth in student population at the time. Since then, several academic and support buildings including the Academic Resource Centre (2003), Student Centre (2004), Management / Social Sciences Building (2004), Arts and Administration Building (2005), Science Research Building (2008), the Instructional Centre (2011), the Toronto Pan American Sports Centre (2014), and the Environmental Science & Chemistry Building (2015) have opened and Highland Hall is under construction. As well, in the planning phase, is a new parking structure, a second Instructional Centre (IC-2), and a bridge linking the north and south campus. However, on-campus housing has not increased although undergraduate enrolment has gone up by 45% between 2004 and 2015 (12,693 headcount over 8,761 headcount). A further 1,363 headcount increase over 2015 is projected by 2020, bringing the total projected increase, 2020 over 2004 to 60%. The table below shows both undergraduate and graduate enrolment to 2020 as well as UTSC’s longer term planned target to 2034.

Table 1.1: UTSC Fall Headcount Enrolment

		Undergraduate	Resident Graduate	Total FT + PT Headcount
2014	Actual	12,262	281	12,543
2015	Actual	12,693	287	12,980
2016	Planned	13,091	292	13,383
2017	Planned	13,498	321	13,819
2018	Planned	13,786	331	14,117
2019	Planned	13,999	338	14,337
2020	Planned	14,056	340	14,396
2034	Planned	17,232	759	17,991



In 1999-2000 approximately 10% of UTSC's students were accommodated in residence. Although the Joan Foley residence added 230 beds to the residence inventory, the demand from sustained enrolment growth has resulted in an overall decrease in the percentage of students who can be accommodated in residence to 6%. UTSC is proposing to construct a Phase 5 residence that will increase the total number of residence beds from 765 to 1,261 and increase the percentage of students accommodated in residence to 9% by 2019-20. This is shown in the table below:

Table 1.2: Ratios of Students In Residence

Year	Total Fall FT + PT UG Headcount	# of Student Residence Beds	% of Student Population Housed
2004	8,761	765	9%
2005	9,547	765	8%
2006	10,041	765	8%
2007	10,211	765	7%
2008	10,273	765	7%
2009	10,440	765	7%
2010	10,426	765	7%
2011	10,545	765	7%
2012	11,107	765	7%
2013	11,701	765	7%
2014	12,262	765	6%
2015	12,693	765	6%
Without Phase V			
2016	13,091	765	6%
2017	13,498	765	6%
2018	13,786	765	6%
2019	13,999	765	5%
2020	14,056	765	5%
2034	17,232	765	4%
With Phase V (250 beds removed + 746 new beds)			
2019	13,999	1,261	9%
2020	14,056	1,261	9%
2034	17,232	1,261	7%

d) Demand for UTSC Residence & Phase V Capacity Requirements

The current plan is for residences at UTSC to continue to predominately accommodate undergraduate students. On-going demand assessment and planning in the department must include consideration of the following: opportunity for upper year undergraduates to return to residence, redevelopment, renovation and destruction of existing townhouses, expanding housing for graduate students in the case of significant growth in graduate programs on campus, creating housing for visiting faculty.

The need to increase the ratio of students housed in residence to at least 10% is supported by an analysis of demand that has factored in the current residence demand, the impact of substantial growth in undergraduate and international student enrolment, and the optimal mix of first year and upper year students. 2015-16 enrolment data show UTSC's student population at 12,693 undergraduate and 287 resident graduate students. As a comparison, UTM with a comparable sized student body (13,693 undergraduates, 602 graduate students), has 1,544 beds, providing housing capacity for 11% of its full and part-time headcount.

Student residences at UTSC have been filling to capacity, with an average waitlist of 145 over the last three years. While some students on the waitlist are admitted to Residence as cancellations occur during the year, the vast majority find off-campus accommodation. In addition, the proportion of new international students at UTSC in the fall semester has increased by 275% from 2004 to 2015, growing from 178 to 667. Since the take-up rate for residence from these students is higher than domestic students (an average of 40% of first year international students apply for residence, versus only 15% of domestic students), this has also contributed to demand. Between 2015 and 2020, UTSC does not plan to increase its overall new intake target or its proportion of international vs. domestic new intake. However, by 2034-35, when total undergraduate enrolment is planned to grow by almost 5,000 students over 2015, the overall number of international new intake will have grown by almost 15%. The detailed enrolment plan by domestic/international student status is shown below.

Table 1.3: Detailed Undergraduate Enrolment Plan

	Actual Fall 2014	Actual Fall 2015	Enrolment Plan to 2020-21					Target Fall 2034	
			Target Fall 2016	Target Fall 2017	Target Fall 2018	Target Fall 2019	Target Fall 2020		
NEW INTAKE									
Domestic	2,587	2,698	2,850	2,850	2,850	2,850	2,867	3,557	
International	643	667	614	614	614	614	617	765	
Total	3,230	3,365	3,464	3,464	3,464	3,464	3,484	4,322	
CONTINUING STUDENTS									
Domestic	7,787	7,947	8,132	8,470	8,738	8,953	8,990	10,918	
International	1,245	1,381	1,495	1,564	1,584	1,582	1,582	1,992	
Total	9,032	9,328	9,627	10,034	10,322	10,535	10,572	12,910	
TOTAL UNDERGRADUATE									
Domestic	10,374	10,645	10,982	11,320	11,588	11,803	11,857	14,475	
International	1,888	2,048	2,109	2,178	2,198	2,196	2,199	2,757	
Total	12,262	12,693	13,091	13,498	13,786	13,999	14,056	17,232	
							Headcount growth over 2015:	1,363	4,539
Total 3-Term FTEs	11,442.9	11,841.8	12,430.2	12,850.2	13,159.8	13,390.2	13,474.2	16,518.7	

Political & Community Pressures

The need and demand to house students in residence is also having a direct impact on the local community with the influx of off-campus accommodation. Political and community pressures require an immediate response to provide sufficient on campus accommodation for current and future significant undergraduate and international student enrolment.

As the City of Toronto continues to grapple with the rooming house issue, there are a number of safety concerns for students with such unregulated accommodations. Many in the community view the proliferation of rooming houses as a symptom of lack of student housing. By creating more on-campus accommodations, the University will also be proactively addressing this concern.

Student Housing Demand Analysis Conducted by SCION

A housing demand study was prepared for UTSC by SCION in August 2016. The study examined current demand for residence spaces from full-time first-year and upper -year undergraduate students. The methodology examined the current pattern of occupancy as well as unaccommodated demand. These findings were applied to projected increases in undergraduate full-time enrolment. This simple demand analysis revealed there is significant demand to fill spaces in a new, 750 bed residence.

The table below shows current and projected full-time first-year and upper-year undergraduate enrolment (excluding CTEP and Special Students) and the 2015-16 take-up rate for residence:

	UG Enrolment Plan			Students in Residence				
	1st yr	Upper yr	Tot UG	1st yr	Upper yr	Tot in Res	1st yr %	Upper yr %
2015-16	3,726	7,686	11,412	565	197	762	15%	3%
2016-17	3,993	7,907	11,900					
2017-18	4,040	8,268	12,308					
2018-19	4,048	8,553	12,601					
2019-20	4,049	8,765	12,814					
2020-21	4,070	8,801	12,871					
2021-22	4,101	8,827	12,928					

2015-16 data show the total take-up rate for residence is 7% (762/11,412). However, since applications for residence exceed the number of spaces, the “real” demand rate exceeds the take-up rate, as shown in the table below:

2015-16 Data	UG FT Enrolment	Total Applications	Actual Demand
First year	3,726	1,119	30%
Upper year	7,686	335	4%
Total	11,412	1,454	13%

Applying the actual demand rates to projected full-time undergraduate student enrolment reveals the number of students likely to request residence spaces. Two demand scenarios were prepared: Scenario 1 where the first year demand rate is projected at the 2015-16 actual but upper year demand rate is projected at 3% and a more closely aligned Scenario 2 where demand rates are shown at 2015-16 levels. These demand Scenarios are shown in the table below:

	Projected Total Demand - Scenario 1						Projected Total Demand - Scenario 2					
	1st yr	Upper yr	Total	Over Cap	1st yr %	Upper yr %	1st yr	Upper yr	Total	Over Cap	1st yr %	Upper yr %
2015-16												
2016-17	1,199	203	1,402	640	30%	3%	1,199	345	1,544	782	30%	4%
2017-18	1,213	212	1,425	663	30%	3%	1,213	360	1,574	812	30%	4%
2018-19	1,216	219	1,435	673	30%	3%	1,216	373	1,588	826	30%	4%
2019-20	1,216	225	1,441	679	30%	3%	1,216	382	1,598	836	30%	4%
2020-21	1,222	226	1,448	686	30%	3%	1,222	384	1,606	844	30%	4%
2021-22	1,232	226	1,458	946	30%	3%	1,232	385	1,616	1,104	30%	4%

Notes:

1. Over capacity is calculated as total demand less 762.
2. Over capacity includes 250 decommissioned residence spaces in 2021-22

The overcapacity columns in the table above show excess demand that will be accommodated by a new residence building.

SCION’s demand analysis did not account for the domestic/international mix of students. Residence demand from international students is known to be higher than domestic students, and the proportion of first year international students has grown and is continuing to grow. Consequently, SCION’s analysis can be viewed as conservative, as expected demand will likely be higher than predicted in the table above (See Appendix for SCION Student Housing Market and Demand Analysis Report).

Mixed Use Program

Demand for Food Services

One of the features of the first year experience in the modern dormitory style residence will be a mandatory meal plan requiring a dining hall in the residence. The construction of the Environmental

Science and Chemistry building and contemplated growth in the Master Plan also drives the need for additional food service facilities on the north campus. The dining hall will complement food offerings that are mostly concentrated on the south campus, improving selection for students as well as faculty and staff and can serve increased activity expected on weekends from events. A new Dining Hall will provide much needed capacity to accommodate the conference clientele as well.

Demand for Retail Space

The campus is in need of commercial retail space which can provide a pharmacy/convenience items and grocery products. Campus wide surveys indicate a strong desire for a pharmacy/convenience space. More retail space on campus that is easily accessible to the UTSC and local neighborhood community will give this area of campus more life and activity. The space will be revenue generating and assist in offsetting operation costs of the residence.

Demand for Multi-Purpose Activity & Advising Space

The residence life experience at UTSC is delivered by an integrated team of peer educators, administrative staff from student services, the Centre for Teaching & Learning, and faculty. The current array and volume of residence activities is under-served by the space in residence and therefore requires more and purposefully designed space to support the quantity, variety and quality of activities within the program. Current activities are hosted primarily in the common area of the Residence Centre. This space is 179 NASM in the current inventory and serves the following functions: event space, community lounge space for 514 residents in townhouses, study space, music practice, programming centre for peer educators, hoteling office space for a team of advisors from various student services, games room, home of the Scarborough Campus Residence Council, a point of service for Retail & Conference Services May to August, kitchenette and storage room to support programming, bulletin boards for centralized communications and public washrooms. The common area is woefully inadequate to accommodate this array of activities and its lack of purposeful design results in a disruptive environment for participants as well as residents and administrative staff of the adjacent spaces.

Academic and student housing leaders work together to enhance academic initiatives in residence. The team delivers curricular, co-curricular and extra-curricular activities in residence. The space for Learning & Events will enhance the learning experience in residence and will be used by multiple-users including faculty, staff from learning and student services, advisors embedded in residence, and conference guests. Activities supported by the space include individual and group advising sessions, group meetings, workshops, training sessions and presentations, small interest-based classes and tutorials.

Rationale for Residence Life Administration Offices

Student housing services at UTSC is a comprehensive and integrated service delivery model. This is best supported by having student housing staff and campus partners located in administrative offices in the new residence and in the existing Residence Centre. With the construction of this residence and the decommissioning of Phase 1 Townhouses, the majority of on-campus housing will shift from South to North campus. Furthermore, the proposed site is within the area designated in the approved master plan as a new residential zone for UTSC, justifying the move of Student Housing & Residence Life's administration from their current location to the future residential core on the North Campus. The existing Residence Centre will continue to serve as a point of service and a community centre for the 514 residents who will live in residence on the south part of the campus (following the decommissioning of 250 beds in the Phase I townhouses). Five administrative staff will continue to

work in the Residence Centre and a service desk will operate to serve the 514 residents in the townhouses and Joan Foley Hall.

e) Space Requirements & Occupant Profile

The current UTSC residence inventory includes 536 town house beds (468 single and 68 shared rooms) and 231 beds in apartment style accommodations, for a total 767 beds, 765 of which are for student rental. Joan Foley Hall was originally built to serve as a building for first year students (see Phase IV report). Since its opening the building has been home to upper year students. This change in strategy was to ensure that UTSC maintained its high demand for upper year residence beds. The strategy is a success and Joan Foley Hall continues to be in high demand among upper year students. The majority of first year students look forward to the opportunity of being placed in this suite style residence due to the style and newer infrastructure.

Table 2.2: Current Residence Inventory

	<u>Building</u>	<u>Style</u>	<u>Single Beds</u>	<u>Shared Beds</u>	<u>Total Beds</u>
Phase 1					
	Aspen Hall	Townhouse	34	28	62
	Birch Hall	Townhouse	28	8	36
	Cedar Hall	Townhouse	32	16	48
	Dogwood Hall	Townhouse	38	16	54
	Elm Hall	Townhouse	50	0	50
Phase 2					
	Fir Hall	Townhouse	44	0	44
	Grey Pine Hall	Townhouse	36	0	36
	Hickory Hall	Townhouse	40	0	40
	Ironwood Hall	Townhouse	24	0	24
Phase 3					
	Juniper Hall	Townhouse	36	0	36
	Koa Hall	Townhouse	40	0	40
	Larch Hall	Townhouse	30	0	30
	Maple Hall	Townhouse	36	0	36
Phase 4					
	Joan Foley Hall	Apartment	231	0	231
TOTAL			699	68	767

* Phase 1 1974, Phase 2 1984, Phase 3 1989 and Phase 4 2003

** Out of the 767 beds in Phases 1 – 4, 1 bed is reserved for a Residence Life Co-ordinator apartment and 1 bed is used in the interim room, leaving 765 beds available for student rental.

*** Phase 1 to be demolished after Phase 5 completion

The proposed Phase V residence building is to be a mix of single and double occupancy bedrooms in a modern dormitory style residence for first entry students. It will not only increase the bed inventory but, as a departure from the current townhouse and four-bedroom suite style residence, will further diversify the stock. The typical configuration will be single or double occupancy bedrooms adjoined by a semi-private three-piece washroom. This building will be dedicated to first year students and the design will promote interaction, a critical element to the development of the community in residence.

Students will have their privacy for sleep and study and the interaction within the community to drive engagement and to foster a strong sense of belonging to the institution. These design features will contribute significantly to student success. The residence should house up to 750 people, including first entry students, upper year peer educators including residence advisors, academic programmers and promoters, as well as live-in residence life coordinators. Rental accommodations will also be available to faculty and visiting scholars. The current service delivery model for student housing services at UTSC includes a complement of 13 FTE staff, up to 21 Peer educators, and space for other campus partners that participate in embedded advising, service agreements, student activities, support services, and other integrated planning processes.

III. Project Description

a) Vision Statement

For the first time at UTSC, a new residence will realize the values and standard features that have existed in North American residences for decades. The first year residential learning experience currently at UTSC will be markedly enhanced by: the first dormitory style residence on campus, a critical mass of student residents in one location, a campus dining hall, the provision of high levels of support and services from a 24 hour reception desk, modern & purpose-designed activity spaces that support learning, personal well-being and community development, hoteling office space for faculty and staff to actively advise and support residents through an expanded academic and student service partnership, integrated programming and global reach through technology and the facilitation of learning communities in the residence. These features will deliver a truly unique and powerful residence experience.

The vision for this residence has been developed over time and was confirmed by a facilitated visioning exercise in March 2012 and market research prepared by consultants, Scion, in 2016. In 2012, campus stakeholders envisioned that a new residence must meet the daily and developmental needs of first year undergraduate students. True to the visioning exercise, the new Phase V residence will be designed to provide a unique student housing option to UTSC students through the quality of the facilities, the variety of amenities and the learning experiences available to residents. (Refer to Appendix 2: Residence Visioning Exercise Summary, 2012.)

The supports, services and activities, known as the Residence Life Program at UTSC, is noted to be of quality despite the limitations placed on service delivery and community development by the current housing inventory. Faculty, peer educators and staff from learning and student services currently contribute to activities in residence, but the lack of appropriate space in the current inventory has hampered the programming. Phase V will realize more academic initiatives in the residence experience resulting in a first year residential learning experience that will include a mix of curricular, co-curricular and extra-curricular academic and learning activities. The various common spaces, service delivery points and activity spaces in the plan for Phase V will provide opportunities for the personal interactions that drive community development and support and learning for individual residents. Activities in the residence are vital to fostering a sense of belonging at UTSC along with sparking interest in the variety of learning experiences available in residence and on campus.

Hoteling office spaces will provide space for student services, learning services, teaching assistants and faculty to meet with residents. An office will also be dedicated to a full-time personal counselor. The space program also provides space for peer education and student leaders in residence, whose contributions are vital to the health of the residence. The Programming Resource Centre will support

the more than 50 peer educators that will serve students across all residences at UTSC. This space will feature various types of work stations to allow student leaders to facilitate events, experiences and on call responses to incidents after hours. A full-time staff member's office will be co-located with the space to oversee the use of the area and to directly support the peer educators. The Scarborough Campus Residence Council will have a Residence Council Office. All student leaders in residence can promote activities to students in the Student Leaders Promotions Kiosk. The primary users will be the Residence Life Team, the Res Group and the Scarborough Campus Residence Council. When available, the space will be bookable by other student associations such as the Scarborough Campus Athletics Association. A Campus Safety Office will also be located within the public space of the residence and will offer a range of information and services to students.

The space and amenities in the residence are designed to support residents in their daily needs, interests and in their academic and personal development. The modern dormitory set up of predominately (60%) single bedrooms with semi-private washrooms offers students privacy where they value and expect it. Thirty-five percent of the bedrooms in the building will be double occupancy rooms, and the final five percent will be private bedrooms. In the current inventory of housing on campus 13% of first year students indicate a preference for double occupancy rooms. With the amenities and experience available in the new residence demand for double occupancy rooms will increase because students will want the experience of living in the building but at a cost that is lower than a single room.

Double sized mattresses are a standard that has emerged within recently redeveloped or constructed residence projects in North America and are an attractive amenity to students, conference and summer hotel guests in the summer semester. The lobby, community lounges, event space, and dining hall are to be designed to create opportunities for interactions between residents, residence administrative staff, visiting faculty and residence staff.

UTSC's very first residence-based dining hall is included in this project. The provision of food service in residence is an important part of supporting the transition of students to University life and to independent living. Residents in the building will be required to purchase a meal plan and will be well served by fresh quality food, late night food service hours, and opportunities to learn about nutrition. Also a campus dining hall and residents will benefit from interaction with faculty, staff and students who dine in the residence. In partnership with Food Services, Student Housing & Residence Life has driven the creation of a critical path to successfully move to a required meal plan in a residence-based dining hall.

Residents will be able to gain access to the Community Kitchen through the reception desk. The kitchen will host student led community gatherings that involve food preparation, individual students exploring cooking or preparing comfort food and cooking workshops, and will support community development and individual well-being.

Consultations with various stakeholders continue to express the importance of supporting student interests and student well-being in the new residence. In line with these expressed needs, the Phase V residence will include a wellness studio, music practice rooms and student storage space. The wellness studio will host activities such as yoga, stretching, meditation, prayer, reflection and group therapy or discussions. Partners in Athletics and Recreation and the Health & Wellness Centre will play a key role in the services and experiences offered through the wellness studio. Two individual music practice rooms and one group practice room are included in the space program for formal and informal practice. Students with interests that require equipment that may be too large to store in bedrooms will be able to rent storage space within the building.

Increasing the inventory of beds on campus provides an important opportunity to welcome upper year residents back to campus. The role that upper year undergraduate students living in residence play in supporting first year students in their transition to higher education and to independent living is a highly held value at the University of Toronto. Senior students contribute in positive ways to first year residents through formal roles and informal interactions. In 2004, 65% of the residence beds at UTSC were filled by upper year undergraduate students. With demand from first year students increasing each year it became understood among returning students that after first year it was necessary to seek housing off campus. Gradually applications from upper year residents declined and in 2014 only 25% of on campus housing beds were occupied by upper year residents. An Occupancy Management Planning Group develops and implements the critical path required to ensure high occupancy levels when the inventory of beds on campus increases with the opening of the new residence in 2019. This group is comprised of the Director, Student Housing & Residence Life (SHRL), Student Housing Coordinator (SHRL), Communications Coordinator (SHRL), Director, Recruitment & Admissions and the Admissions Manager. More upper year students will be able to live on campus once again and recruitment efforts and targets will be supported because more housing guarantees for multiple years to international and upper year students can be made.

Academic Programming

Members of the Dean & Vice-Principal Academic's team advise and support the development of the new residence. The Associate Dean, Teaching & Learning, the Registrar & Assistant Dean Enrolment Management and an Academic Initiatives Working Group comprised of faculty advised the project. The Residence Faculty Advisor and the Peer Facilitator Strategist works closely with the Learning Experiences Coordinator and the Director in Student Housing & Residence Life to advance the ongoing development of curricular, co-curricular and extra-curricular learning experiences within the learning communities in residence at UTSC. Together this team works with faculty, the Centre for Teaching & Learning, Academic Advising & Career Centre, visiting scholars, authors and peer educators to continue to develop and offer various learning experiences in residence. The academic events and supports in this residence experience will be very attractive to international and domestic students and their parents and supporters. The Space for Learning & Events (Academics & Conference) in the new residence will ensure that learning communities in residence thrive.

The team is responsible for curricular-based activities such as small interest-based courses for credit taught in the residence (priority registration to first year students in residence) and course tutorials for residents. Interest-based and interdisciplinary learning communities will be driven by faculty and administratively supported by the Learning Experiences Coordinator and the various services and administrative staff in Student Housing & Residence Life. Learning Communities such as Green College, Global Interests and the various academic disciplines at UTSC will feature a combination of curricular, co-curricular and/or extra-curricular components that will be a hallmark of this new residence experience.

The new residence will also serve as the new home base of the UTSC's Scholars Honour Society. Members of the society will enjoy access to community space and residents will benefit from their presence in residence and formal contributions of facilitated scholarly discussions.

The one large and two medium rooms for teaching and learning will be flexible, well-equipped spaces to accommodate a variety of users, including residents, faculty, staff, and conference guests, in the delivery of small classes, tutorials, workshops, presentations, training sessions and group meetings. Opportunities to participate in the various academic programming and learning menus of this vibrant community of learners will also be available to non-resident UTSC students in limited numbers, as priority will of course be accorded to students living in the residence. Users of this space will also

benefit from the proximity of the dining hall and from being serviced by a 24-hour reception desk, thereby extending hours of use.

The residence will offer short-term rental accommodations to visiting faculty, scholars, administrators and authors. Two Visiting Scholars Suites featuring a bedroom, kitchenette and a small living room will benefit from the dining hall and services from the 24-hour reception desk. Students living in the residence will benefit from the presence of faculty and visiting scholars through informal and formal contributions to the residence learning experience. Faculty, the Learning Experiences Coordinator and Student Housing Coordinator (Residence Admissions) will work closely with the Vice-Dean Graduate and the Graduate Administrator to support faculty who are hosting Visiting Scholars. Writers in Residence, visiting authors, faculty conducting program reviews, visiting graduate and post-doctoral students from around the world will benefit from have a convenient and attractive accommodation available on campus. With the lack of nearby hotels and quick transit options to the campus, Student Housing & Residence Life regularly receives requests from faculty and visiting scholars for on-campus accommodations. Students will also benefit because an element of the Visiting Scholars Program is the opportunity for visiting scholars to contribute to the learning environment in the residence to residents through the workshops, lectures, small group discussions that will also become part of the academic and learning calendar as these scholars and academics visit our campus.

b) Space Program and Functional Plan

The committee envisions a six component functional relationship in the configuration of the new residence and its spaces. The components include:

- 1) Residence complex – the proposed site for Phase V is east of the proposed re-aligned Military Trail, north of Ellesmere Road. It is to be an anchor for a new residential zone on the north campus, east of Military Trail, and meant to introduce a constant student presence to North Campus. The complex will be a mixed use building with living, dining, academic, commercial retail, and public space all housed within.
- 2) Student living & community space – The 750 bed residence is to be a dormitory style with two single or two double bedrooms adjoined by a semi private, three piece bathroom. A small portion of the rooms will be single bedroom with a private bathroom. Community space such as common lounges, group study rooms, a community kitchen, and event space will be designed to promote interaction and community development.
- 3) Service delivery space - All residents at UTSC will have access from the main entrance of the new building, to a 24-hour reception & services desk, administrative offices, wellness studio, mailroom, music rooms, and multi-purpose space for events and learning experiences. Two live-in Residence Life Coordinators will be available on site to enhance the residence experience. It is proposed in the program that a number of the administrative staff from Student Housing & Residence Life move to this location to provide a centralized delivery of services as the majority of on-campus housing will be developed on the North campus in a new residential zone as proposed by the master plan.
- 4) Conference Service Use – Conference Services will have access to available inventory of beds in Phase V in the summer. The residence program includes several spaces for teaching and events that can be used by conference services. The building will also feature a new 250-seat Dining Hall and a large events rooms with a raised stage, seating for 225 people for

dinner, storage closet for tables and chairs and a kitchen to support catering. The master plan for conference services also envisions facilities to accommodate larger conferences and academic events. The large events room will be used by SHRL in the fall and winter and will share the room with Conference Services in the summer. The Dining Hall can also host conference services and will allow the flexibility to host large and smaller groups.

- 5) Dining Hall - the Dining Hall will have flexible seating options, with group tables, individual seating, bar/booth seating and casual lounge areas for students. There will be an abundance of natural lighting and the option of exterior seating would be a desired feature for students and groups. Food preparation in most areas would be cooked in view of the customer with fresh ingredients and variety provided through featured items. Sections can be reserved for residents on a monthly basis to enjoy dinner with their floor mates and RA's. A late night café option will also be available to students, open until midnight.

- 6) Commercial Retail - retail options on the ground level are contemplated to service the residence students and local activity and provide rental income to the building. The campus requires a unit which can provide a pharmacy/convenience items and grocery products.

**Table 3.1 DETAILED SPACE PROGRAM,
UTSC Residence, Phase 5
(Revised November 8, 2016)**

	# Rms	NASM per	Total NASM	Bed Count	Notes	
Dormitory Style						
Single Bedroom, double mattress, semi-private bathrm	397	11	4,367.0	60%	397	One micro fridge per mattress; increased fom 395 beds to 397
Semi-private bathroom for 2	182	5	910.0			Increased from 181 to 182
Double Bedroom, double mattress, semi-private bathrm	116	19	2,204.0	35%	232	One micro fridge per mattress; room size increased from 18N to 19N
Semi-private bathroom for 4	53	5	265.0			
Single Bedroom, double mattress with private bathrm	31	11	341.0	5%	31	One micro fridge per mattress
Private bathroom	31	5	155.0			
Single Accessible bedroom with semi-private bathrm	33	14	462.0		33	Allows for attendant care; revenue-generating bed
Semi-private accessible bathroom	33	8.6	283.8			
Single Accessible bedroom with private bathrm	6	14	84.0		6	One micro fridge per mattress
Private accessible bathroom	6	8.6	51.6			
Double Accessible bedroom with semi-private bathrm	10	24	240.0		20	One micro fridge per mattress
Semi-private accessible bathrooms	10	8.6	86.0			

	593	9,449.4		
Note: all semi-private accessible bathrms are paired with standard bathrms.			719	Total revenue-generating student beds
			315	Total bathrooms
Other Residence Facilities				
Community common lounge with kitchenette (sink & microwave)	8	60	480.0	Based on 3 communities of approx. 30 students per community; no fridges since already in bedrooms; reduced from 14 rooms at 38N each to 8 rooms at 60N each
Community kitchen	1	40	40.0	
Laundry room	1	50	50.0	Reduced from 2 rooms to 1 room, no NASM change; assume 16 washer/dryer sets; include space for lounge & adjacency to casual seating and public amenities
Music room	2	12	24.0	Needs acoustic care in design; use student storage rm for equip
Group music room	1	24	24.0	Needs acoustic care in design; use student storage rm for equip
Wellness Studio (meditation, stretching, stress reduction, etc)	1	35	35.0	Needs storage solution within room
Interim room plus private bathroom	2	16	32.0	2 Emergency housing, safe space; included in bed count
Interim room plus private bathroom - accessible	1	22.6	22.6	1 Emergency housing, safe space; included in bed count
Front reception desk/late night service desk, 3 stns	1	40	40.0	24hr desk with integrated services & supplies/equip storage
Supplies/storage/copy room (& sorting station)	1	30	30.0	Could have 90 - 100 packages per day during peak periods; located at back of reception area; also support space for reception staff
Parcel boxes	1	15	15.0	To store resident parcels/packages; increased to 15N from 10N

Lounge/Lobby including computer kiosks (incl. vending nooks to be located outside Dining Hall)	1	50	50.0		Remainder of Lobby space to come from of non-assignables; reduced from 2 rooms to 1; vending s/b 24hrs.
Maintenance staff lounge/locker/change room - dedicated	1	26	26.0		6 nasms set aside for change room
Residence facilities workshop	1	70	70.0		
Student Storage	1	70	70.0		Located below grade; consider charging for space rental
Furniture storage room	1	95	95.0		Located below grade; reduced from 100N to 95N
Inventory storage room	1	100	100.0		Located below grade
			1,203.6		
Residence Advisors Bedrooms/Bathrooms					
Single Bedroom, double mattress, private bathroom	19	11	209.0	19	Internal cost - remuneration for student staff; reduced to 19 rooms
Private bathroom	19	5	95.0		from 20 rooms
Sitting area/bachelor style	19	6	114.0		
Single Bedroom, accessible, private bathroom	3	14	42.0	3	Internal cost - remuneration for student staff; reduced to 3 rooms
Private accessible bathroom	3	8.6	25.8		from 4 rooms
Sitting Area/bachelor style	3	10	30.0		
			515.8		
Residence Life Co-ordinator Apartments (2 Apts)					
1 master bedroom, accessible, queen mattress	2	14	28.0	2	Internal cost - remuneration for student staff
2nd bedroom, queen mattress	2	10	20.0	2	Internal cost - remuneration for student staff
Bathroom accessible shower	2	10	20.0		
Living Room /Kitchen /Dining Area	2	40	80.0		Apts should be comfortable living spaces
Storage closet	2	3	6.0		

In-suite laundry, not stacked	2	5	10.0		Not stacked to accommodate accessible needs
			164.0		
Visiting Scholars Apartments					
Visiting Scholars suite (double queen mattress, bathroom, living rm & kitchenette)	1	30	30.0	1	Revenue generating bed; second bed shown separately below as accessible and larger
Visiting Scholars suite, accessible	1	40	40.0	1	Accommodate accessible needs (bedrm @ 14; living/kitchen/dining @18; bathrm @7); revenue generating bed
			70.0		
Space for Learning & Events (Academics & Conference)					
1 Large room - flexible, for teaching and events (50 stations)	1	115	115.0		For teaching, events, & workshops (incl Stu Affrs programming)
2 Medium rooms	2	60	120.0		For teaching, events, & workshops (incl Stu Affrs programming)
1 Group study room for 12	1	30	30.0		
1 Room for individual quiet study for 15 (carrels)	1	30	30.0		
1 Hoteling bookable workspace for advising	1	12	12.0		Can also function as a Business Centre during conference season
			307.0		
Offices for Residence Admin & Student Services					
1 Director office, private	1	16	16.0		Also spaces for campus partners
1 Manager, Residence Life	1	12	12.0		Room should provide space for 2 - 3 visitors; reduced from 14N to 12N
2 Residence Life Coordinators (need private ofcs)	2	12	24.0		Private ofc needed for nature of advising appts; one stays in RLC
1 Reception & Administrative Assistant Office	1	8	8.0		Open concept
1 Conference Coordinator (RCS)	1	8	8.0		Shared open concept space
1 Residence Programs Coordinator	1	8	8.0		Shared open concept space

1 Student Housing Coordinator	1	8	8.0	Shared open concept space
1 Learning Experience Co-ordinator	1	8	8.0	Shared open concept space
1 Workstation for contract staff	1	8	8.0	Shared open concept space
1 small bookable hoteling workspace	1	12	12.0	4 people; for staff, faculty, visiting advisors
1 medium bookable hoteling workspaces	1	15	15.0	6 people; staff, faculty, visiting advisors
1 Counselling Office	1	12	12.0	
1 Meeting room for 20	1	40	40.0	
1 Supplies room/photocopier/kitchenette	1	20	20.0	
			199.0	
Campus Safety Office				
1 office	1	12	12.0	
Reception area	1	30	30.0	
Meeting room	1	16	16.0	4 - 6 people
Open office space	4	8	32.0	
Photocopier, kitchenette, supplies	1	10	10.0	
			100.0	
Residence Life Resource Centre				
Student Leader kiosk	1	10	10.0	Promotions for student led activities
Res Life Assistant office	1	12	12.0	
Residence Council office	1	12	12.0	
Resource Room for Peer Educators - dedicated space	1	50	50.0	
			84.0	
Social Event Space for Residence (Dedicated)				
Large events room	1	220	220.0	Space for Residence Life activities; co-located with dining hall
Storage space, equipment & chairs	1	30	30.0	
			250.0	

Dining hall seating	1	400	400.0	Main hall to seat 250; 100 overflow seats in adjoining events rm
			978.0	
			Gross to Net 1.75	
			Total GSM 1,711.5	
Retail / Storefront Space, Shelled	1	1,000	1,000.0	Should be on ground floor, may flow into second floor; increased from 200N
			Gross to Net 1.75	
			Total GSM 1,750.0	
Total NASM including Dining Hall & Storefront			14,321	
Total GSM including Dining Hall & Storefront			25,061	
Total GSF including Dining Hall & Storefront			269,758	

Based on this assignable area of 14,321 nasm, and with knowledge and experience as to what has been achieved at peer projects, where the gross up factor is an average of 1.75, the building gross area is budgeted to be 25,061 square meters. Further study and exploration should take place during the design stages to improve overall efficiency to the greatest degree possible.

Non-assignable Space

Included in the building project are non-assignable elements that will be part of the architect's responsibility for design. Standards are briefly outlined in the Room Specification Sheets and will be developed in the bid documents. Non-assignable spaces include: corridors, stairs, public washrooms, janitors closets, elevators, equipment rooms, mechanical stacks and so on. They are to be accommodated within the gross area of the building stated above. *Specific requirements include:*

- Data & communication closets: one on every other floor, can combine with electrical closets
- Mechanical rooms/penthouse. Substantial space may be allowed for an equipment room in the basement –and this should be utilized with only the minimum of equipment in a penthouse.
- Security closet: one on a middle floor, stacked with data closets to use opening in floor plate. If possible, combine with data closet.

- Janitor's closets: one per floor. The closet on the ground floor or at basement level must be about 2.5 meters wide by 6 meters long, to allow for storage of custodial carts and equipment, and include a slop sink, a dedicated outlet for recharging equipment, and storage shelves. The smaller closets should include a small slop sink and storage.
- Washrooms: The provision of public washrooms should exceed minimum code requirements on the ground floor and second floor public spaces and should include gender neutral options and accessible stalls, sinks, mirrors, and other furnishings including automatic door openers. The provision of public washrooms for the dining hall should also exceed minimum code requirements.
- Elevators: four elevators are proposed. Elevator access will be required on all levels and elevators must be large enough to accommodate wheelchairs and/or scooters. A freight elevator for the Dining Hall should also be considered if elevator connection is necessary between the loading dock, kitchen, storage, recycling and other supporting spaces.
- Service area and garbage room
- Garbage/recycling rooms on each floor with garbage and recycling chutes
- Loading dock for building sized appropriately to manage food service deliveries (typically by tractor trailer)
- Back of house control will be required to manage loading dock use for pharmacy, dining and residence requirements (i.e. 'narcotics' vault would be necessary if pharmacy to carry drugs)

Functional Plan

Several factors begin to shape the building's layout and massing including the following:

- efficiency of stacking and massing
- critical adjacencies to, and separation from, other program areas
- desire for natural light
- appropriately scaled ceiling heights and volumes
- direct access to outside
- clustering of space according to hours of operation and desire to create social hub
- need for security

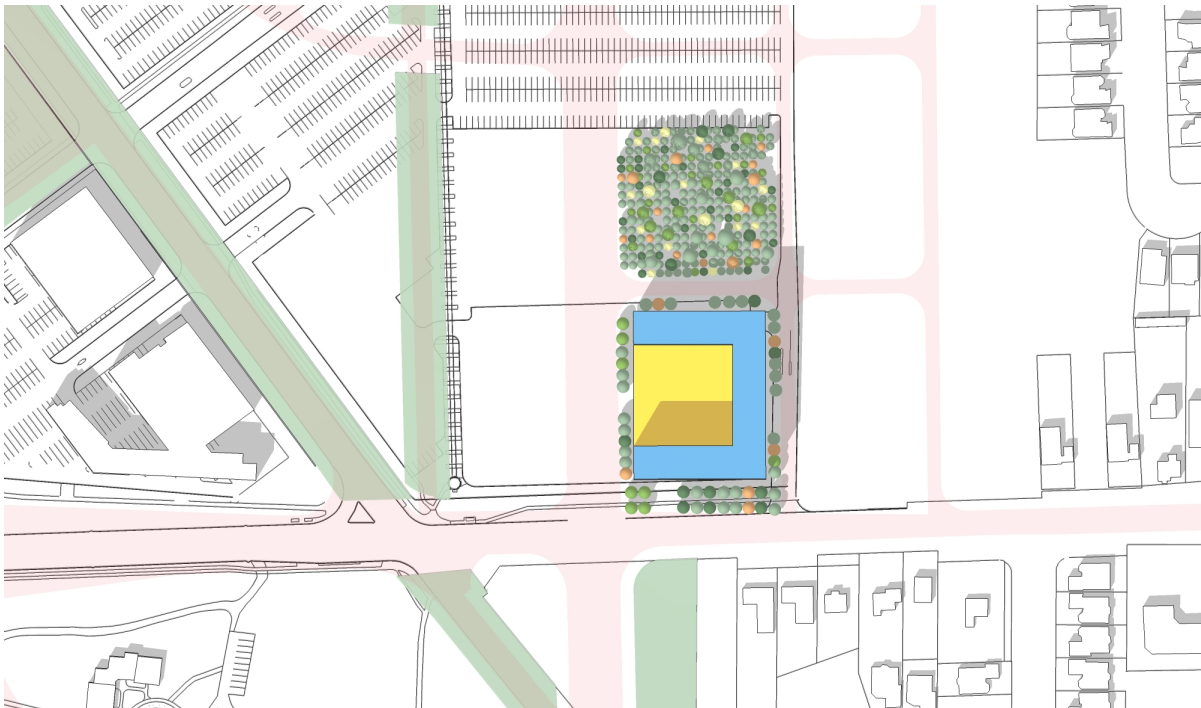


Figure 1.1 UTSC Residence Massing; Site Plan



Figure 1.2 UTSC Residence Massing; Aerial View from Northeast

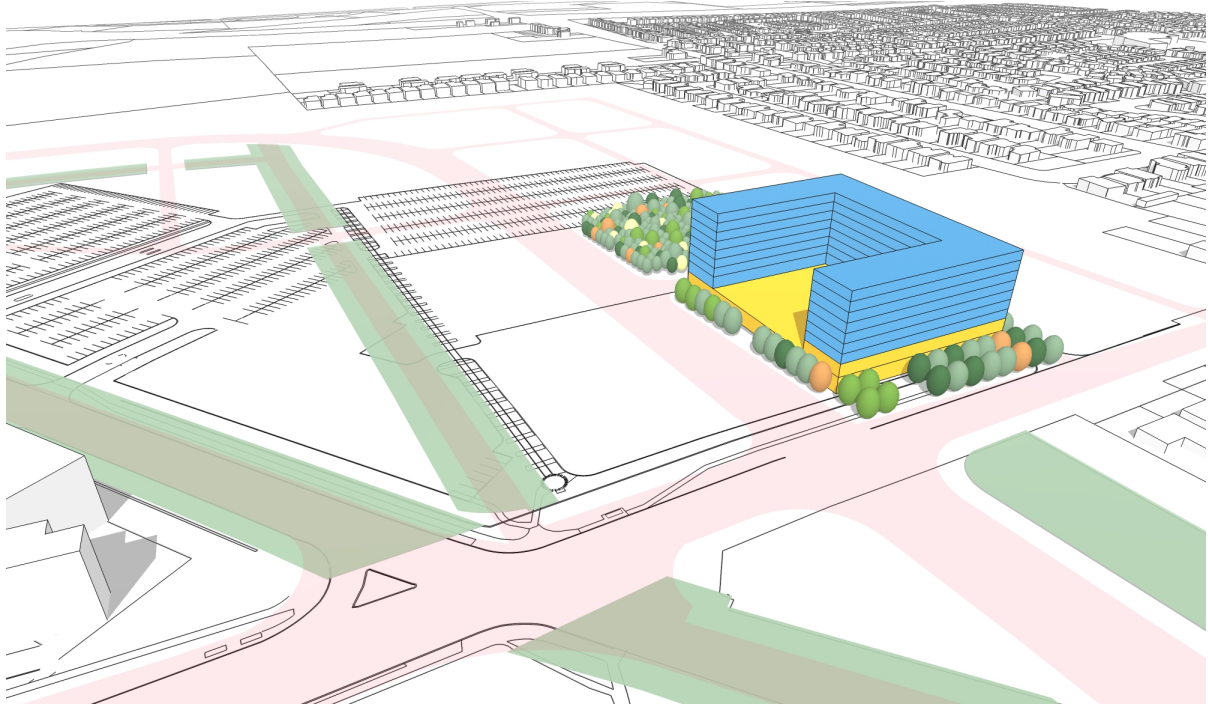


Figure 1.3 UTSC Residence Massing; Aerial View from Southwest

The residence complex is currently envisioned as a single 9-10 storey building located at a key juncture in the campus master plan and secondary plan identified as appropriate for anchor buildings. The building has been planned to house most of the program's public program on floors 1 and 2 including the dining hall, event & learning spaces, reception and residence life services, campus safety office and administration offices. The loading and receiving dock is to be accessed off of a secondary campus road (east or north of the site) and will be used primarily to service the Dining Hall and the commercial/retail tenant. A campus retail outlet will be located on the ground floor, and may be in stacked 2-storey space facing onto New Military Trail and/or Ellesmere Road. Academic initiative space, study space, and faculty and scholar housing will be located in semi-private space on the 2nd or upper floors. The building may step down toward the east to keep it in scale with the low-rise stacked town house and single family residential zone anticipated to the east of the site.

An efficient repetitive floor plate is required on the residential floors, given the nature of the program elements and budget constraints. On the residential floors, dormitory rooms will wrap the perimeter of the building envelop, likely taking a C or O-shaped form, creating a large open courtyard in the middle either at grade or above level 2 in occupied roof terrace space. Residence Advisor suites should be distributed throughout the floor so that each Advisor has a community of roughly 30-40 students to lead. Accessible dorm rooms should also be distributed throughout the floor to promote integration. Common lounges should also be distributed throughout (one per residential floor), and accommodate one full community of students (30-40 people) for meetings if required.

Refer to the Appendix for Test Fits for possible functional adjacencies and space planning. Full detail of the component spaces is included in Appendix: Room Specification Sheets.

Dormitory Rooms

The 750 beds in the student residence will include 430 single bedrooms with shared semi-private washrooms, and 126 shared double bedrooms (252 beds) that share a semi-private washroom between them. There are 37 private bedrooms with private washrooms.

From this count, barrier-free rooms include 33 single bedrooms with shared semi-private accessible washroom, 10 shared double bedrooms (20 beds, 10 of them accessible beds) that share an accessible semi-private washroom with a standard room, as well as 6 private accessible bedrooms with a private accessible washroom.

The remainder of the 31 beds accommodate three private Interim Rooms (one accessible), 22 Residence Advisors (three accessible), two two-bedroom Residence Co-Life Coordinators suites (with accessible bedroom), and two Visiting Scholar suites (one accessible).

Placement of Peer Educators

Residence Advisors should be distributed at approximately one RA for 30-40 students (approx. three per floor). Residence Advisor suites should have a private bedroom, ensuite washroom and meeting / living space near the entrance onto the main corridor. Academic Programmers & Promoters, Residence Programmers and Residence Engagement Coordinators will be placed in standard single bedrooms with semi-private washrooms because the nature of these peer educator role differs from that of a Residence Advisor and these peer educators can meet with students in common spaces and hoteling advising offices.

Common Facilities – Residential Floors

Each floor will have large common lounges, which should be ideally be located adjacent to the elevators for ease of access. Common lounges will have a small kitchenette with a microwave, sink, and counter space. Natural light is desired in the lounges and effective use of windows at the ends of corridors and along common passageways should be emphasized to allow for as much natural light as possible to flow into the entire residence space and allow for light borrowing (corridors, lounges, rooms, etc.).

Given the number of students living on each floor, significant consideration should be given to sound separation and location of circulation corridors. Careful attention must be paid to corridor detailing and use of lighting and colour to diminish the ‘institutional’ feeling of such a large building, while also providing for a logical layout and room configuration that is conducive to way-finding and casual meeting with fellow students on the same floor. Long, dead-end corridors should be avoided.

Faculty, Scholar, RLC, Emergency Interim housing

Apartments for live-in Residence Life Coordinators and 2 Visiting Scholar suites are to be provided. These apartments would ideally be above the ground floor, however they may be located on the ground floor if necessary. If they are on the ground floor, careful consideration of privacy and security is required; landscaping around the private zones of the ground floor and possible direct exterior entrances to the apartments may be considered. Emergency interim housing should be located beside the RLC apartments to allow for informal monitoring; interim housing should be designed with extra security and safety in mind.

Common Residence Facilities – Ground Floor, Public access

- Lobbies & Reception
- Parcel boxes in Corridor located near Reception & Services Desk
- Campus Safety Office (ground floor)
- Residence Life Resource Centre
- Wellness Studio (may be below or above grade)
- Music Rooms (may be below or above grade)
- Community Kitchen
- Event space & Event storage (co-located w Dining Hall)
- Laundry Room (may be below grade)
- Student Storage rooms (may be below grade)

The building should have a generous public lobby with vending machines, ATM, lounge seating and a spot for a reception & services desk with security features. The lobby should be off the main public entrance, either along Ellesmere Road or off of New Military Trail. The residence parcel boxes should be close to both the reception and have storage and reception support space close to it. Reception should be positioned so that it can control access to other spaces, such as the event space, academic initiatives rooms or the music rooms that would require booking. Residence Life Resource Centre rooms would ideally be grouped together, with at least the promotions Kiosk, residence council, and residence life assistants in the more public area. The Event Space should be co-located with the Dining Hall and the Community Kitchen would ideally be co-located with the Event Space. Public washrooms must be located close to the Dining Hall and Event Space. Storage rooms can be in the basement if required. Storage rooms and the laundry room should be in close proximity to the elevators. The laundry room would ideally be one centralized room, with integrated lounge and study

space, however decentralized laundry distributed near common lounges on residential floors can also be considered.

Space for Learning & Events (Academics & Conference)

- Large & Medium workshop rooms
- Group study room
- Individual study room
- Hoteling bookable workspace for advising (dedicated to faculty & Centre for Teaching & Learning)

The Learning rooms can be distributed on public floors, however, the larger events room / classroom should be in the more public space. The interior of the study rooms and classrooms should be visible from public corridors and be designed to provide acoustical privacy. A bookable academic advisor office should be co-located with other administration or Residence Life resource staff and be in close proximity to the study rooms or space for learning & events.

Residence Administration and Student Services

The majority of the residence life administration staff will be re-located to this complex. Their proposed program includes a suite of private offices for RLC, managers and the Director, shared workspace for admin staff, bookable offices and meeting spaces, and support rooms. These offices can be located on the ground floor if possible or above ground floor if required, however, the area should be easily visible and accessible by residents to foster interaction between students and staff. Refer to Appendix for Administrative Office Space Requirements.

Dining Hall – Ground Floor, Public access

- Food Market & Servery
- Seating
- Back Kitchen
- Loading & Receiving

The food concept proposed for this residence will be unique to campus and should have direct access from the outside without having to pass through other spaces of the residence. Adjacency to event space allows for additional seating capacity. However, unlike the model of a standard cafeteria, the declining balance meal plan allows students to come and go, resulting in the need for less seating. Options for cordoning off partial areas for operations in the evenings or during exam time should be considered in the design of the space.

The servery should be located adjacent to the back kitchen and the back kitchen should have direct access to the receiving area. If portions of the back kitchen and support spaces are below grade, a freight elevator should be provided to allow for easy access.

Retail space – Ground Floor, Public Access

The retail space should be accessible directly from the exterior without having to pass through other spaces in the residence. The retail outlet should have high visibility along Ellesmere to draw foot traffic. Parking and loading access will need to be provided for the retail space.

Nominal Space Allocation

Residence space is typically not covered by COU space standards, however certain types of spaces in the proposed residence fall under COU categories, including the Dining Hall, administration offices, study spaces, and common use rooms. These categories of spaces have been analyzed in relation to facilities available campus wide; for instance, the Dining Hall is compared in relation to the total amount of Food Services space at UTSC. Refer to Appendix: COU Space Allocation 2014/15 for reference. Things to note include:

- The current amount of Food Services space available on campus is far below standard and the inclusion of a Dining Hall in the program will help ameliorate this.
- The current amount of Classroom space available on campus is far below standard and the inclusion of spaces for Learning and Events in the program will help ameliorate this.
- The 400nasm Dining Hall seating space is proposed to be multi-purpose and used for study when not in use as the Dining Hall. As the seating area will be pro-rated, this makes the proposed NASM count for the Dining Hall smaller than what is listed in the space program.

TABLE 4.1 Campus-wide COU Space Allocation

Space Category	2015 Current FTE	2020 Planned FTE	COU standard NASM	Existing Campus NASM	Residence Proposed NASM	Notes
7.0 Food Services (Dining Hall) ¹ Campus wide food services, 0.5 to 0.7 nasm per FTE student	10,765.6	12,018.9	5177.9 to 7249.0*	2980.0	955.0	855.0 nasm added to campus inventory
1.0 Classroom Facilities ² Classrooms available for campus use, 1.23 nasm per FTE student	10,765.6	12,018.9	12737.5	6665.8	235.0	47.0 nasm available for campus use
14.0 Common Use & Student Activity Space ³ Campus wide common space, 0.5 to 0.7 nasm per FTE student	10,765.6	12,018.9	5177.9 to 7249.0*	2542.8	220.0	55.0 nasm available for campus use

* COU standard calculated using 2014 FTE enrolment.

1 Dining Hall is open to entire campus and will be included in the campus Food Services Inventory. The 400nasm seating area has been pro-rated by time (**75% dining use, 25% study use**) to reflect that it will be used for dining between 8am-8pm and study between 8pm-12am every day.

2 Residents of the complex will have priority access to the Learning & Events space (1 large and 2 medium rooms), however, at times student groups and activities that have campus reach will be hosted here. The spaces availability has been pro-rated by time (**80% residence priority, 20% campus use**) to indicate this shared usage.

3 Common Use & Student Activity Space includes student offices & support space, recreational facilities such as TV & games rooms, and lounge space that are available for campus-wide use. The spaces availability has been pro-rated by time (**75% residence priority, 25% campus use**) to indicate this shared usage.

The amount of administration space provided for the Residence Life Staff was analyzed according to COU standards. Things to note are:

- The current amount of space Residence Administration staff use for office & work space is below standard.
- The amount of space Residence Administration has requested in the new building is in line with COU standards, however it is distributed to provide more support space and less space for shared work stations and offices.

TABLE 4.2 Residence Specific Space Allocation Standard

Space Category	2014 Current FTE	2019 Planned FTE	COU standard NASM*	Existing Campus NASM	Residence Proposed NASM*
Residence Life Administration					
Full-time RL staff w Private Offices	4.0	6.0	72.0	64.5	72.0
Full-time RL staff w Shared workspace	6.0	6.0	60.0		48.0
Embedded advisors w Private Offices	1.8*	1.8*	21.6		12.0
Peer Educators w bookable offices	0.7**	0.7**	8.4		0.0
Part-time/contract staff w Shared workspace	1.0	1.0	10.0		8.0
Sub-total Office NASM			172.0		140.0
Office Support Space, 25% of sub-total			43.0	38.8	75.0
Total Allocated RL Admin Space			215.0	103.3	215.0

* There are 9 planned embedded advisors from different departments that would be using the bookable offices for a few hours each week.

** There will be 5 peer educators that require private meeting space with students for approximately 5 hours per week each.

TABLE 4.3 Residence Room Size comparisons

Room Type	Residence Proposed NASM	Spadina Sussex** NASM	Oscar Peterson NASM	New College III NASM	Morrison Hall NASM
Single Bedroom, Double Mattress	11.0	12.1**	10.8*	12.2*	12.1*
Double Bedroom, 2 Double Mattresses	19.0	-	-	24.1	-
Accessible Single Bedroom, Double Matt	14.0	14.0**	15.4*	13.2	13.4
Accessible Double Bedroom	24.0	-	-	24.4	-
Standard washroom	5.0	6.1**	5.6	-	-
Accessible washroom	8.6	7.0**	8.5	-	-
Common Floor Lounges total	532.0 total	559.0 total	172.5 total	211.2 total	200.2 total
Common Floor Lounge per resident	0.74	1.12	0.41	0.76	0.74

* Oscar Peterson Hall (UTM), New College III (St. George) and Morrison Hall (St. George) have dorm rooms with single beds.

** Spadina Sussex (St. George) is in planning stages. It is planned to have double mattresses, private toilet rooms (1 per bedroom), and semi-private shower room shared between 2 bedrooms.

When determining the appropriate sizes for the dorm rooms, a comparison of existing residences was conducted. Comparable residences included Oscar Peterson Hall (423 beds) at UTM and New College III (277 beds) and Morrison Hall (270 beds) on the St. George Campus. Spadina-Sussex, a new 500 bed residence for St. George, currently in planning stages, was also included in the

comparison. Bedroom sizes for the proposed UTSC residence are in line or smaller than what is currently built or proposed on the downtown campus. It is also noted that the proposed bedrooms are to house double mattresses in the same amount of space that is used in existing residences for twin-sized mattresses. The benefit of double mattresses, becoming more common within the University residence typology, has been carefully considered and thought to be important despite the impact to room within the bedroom. The proposed washroom sizes are also slightly smaller than what exists at Oscar Peterson and what is planned for Spadina-Sussex. (New College III and Morrison Hall have communal washrooms and were excluded from this comparison). Common lounge space per student is in line with the amount that is provided for students at New College III and Morrison Hall and less than the amount that is planned for students at the new Spadina-Sussex. However, if public amenities provided within the building including the dining hall, study spaces and other student accessible amenities are included, this percentage per student resident increases significantly.

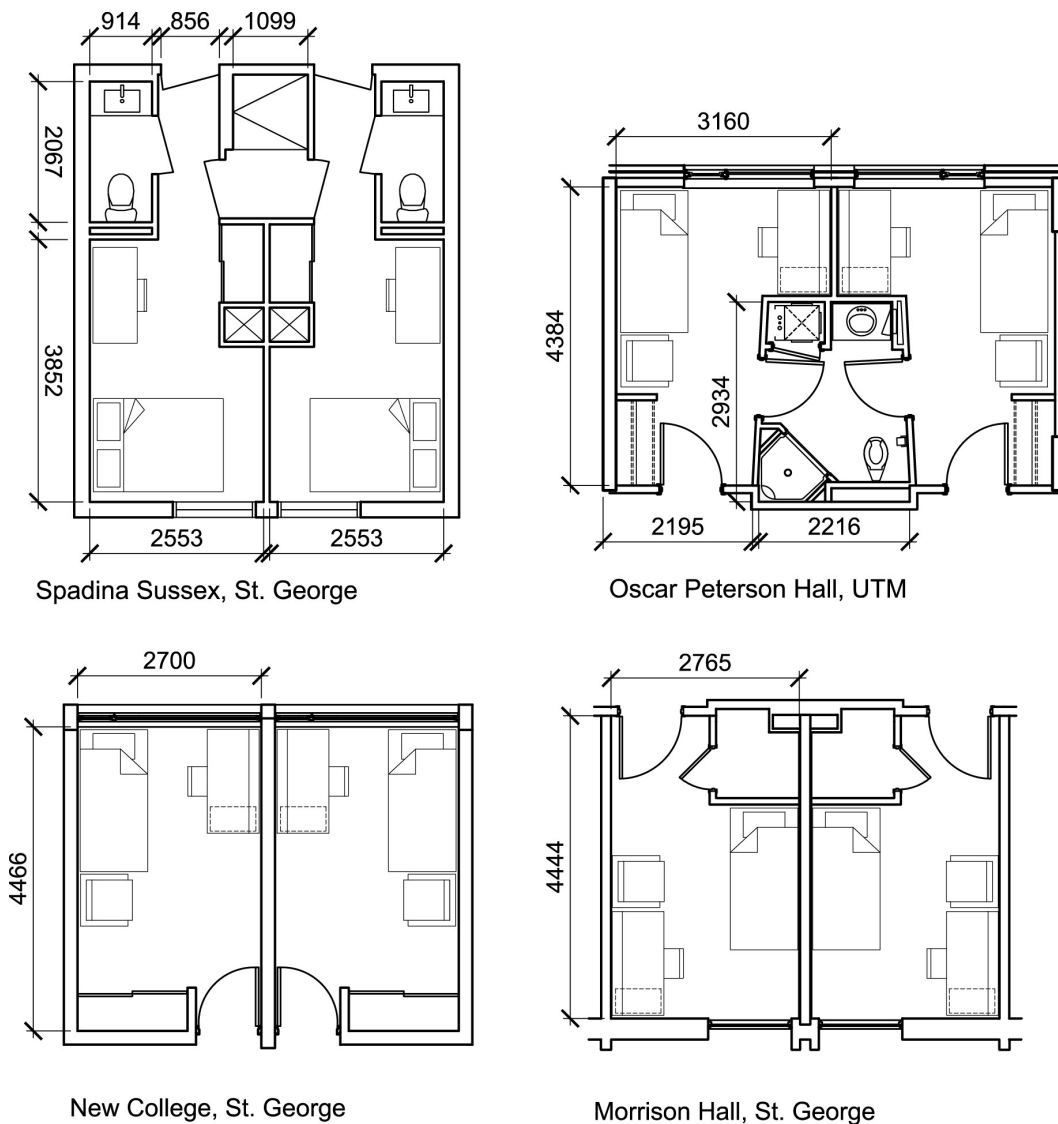


Figure 3.1 UTSC Residence Dorm Room Comparisons

c) **Building Considerations**

Building characteristics and massing

Refer to Figures 1.1 – 1.3, and the Appendix for Massing Diagrams and Test Fits. The residence complex has been planned as a single 9-10 storey building to be located on the east side of the proposed re-aligned Military Trail on a parcel set out in UTSC's approved master plan. Originally planned as two buildings in order to keep the scale of the residence in scale with other campus buildings, the building is now proposed as one mid-rise building to provide a significant anchor building in keeping with the submitted Secondary Plan for the UTSC campus and the most recent draft of the urban design guidelines. A 9-10-storey building will sit on the site, conceived as a two-storey podium building with a C or O-shaped residential block above. The podium is planned to contain most of the public spaces of the complex, including the dining hall, learning & event space, academic initiative space and Residence Life support spaces on the ground and possibly 2nd floor. The retail tenant will also be located with access at grade, in what may be a two-storey retail space. Private dorm rooms and lounge spaces are found from floors 3 to 9 or 10. Faculty, visiting scholar, and live-in Residence Life Coordinator, and interim housing will also be in this building, likely on the 2nd floor or above. The building will have a full basement and mechanical penthouse. The building should be massed to allow for good sun exposure to the maximum number of units and ample outdoor public space.

Building characteristics and massing

- Between 2-10 levels above grade
- 1 below grade level
- Floor to floor height of the public ground floors should be minimum 4.5m, and of the residential floors should be minimum 3.0m; to be discussed in detail during development.
- Main mechanical room and the building heating and cooling plant to be located appropriately to suit building's sustainable initiatives, structural complexity, function, and built form.

Standards of Construction and Quality

As the anchor of the new academic, commercial and residential zone of the UTSC campus, the new residence should be designed as a high quality, attractive, durable, and sustainable building. Also, as the project will be developed with a private partner, standards of construction will be required to establish a baseline level of quality that the private partner must meet in order to complete the project. Building standards for finishes, hardware, mechanical, electrical systems and other specialty systems will be based on the University of Toronto Standards as a starting point and modified to meet the UTSC campus requirements, operational considerations and preferred vendors.

Local materials should be used where possible, for both interior and exterior components and spaces. High quality, durable finishes are required to match surrounding landscape and buildings. As such, exterior finishes may contain a combination of glazing/curtain wall, brick and concrete, but may consider other building materials as suitable to meet environmental goals. All finishes selected must be highly durable and low maintenance.

Landscape Requirements

The landscape around the building will be simple, easy to maintain, and in keeping with the existing surroundings. As the residence will be located on a site that is previously not built upon or around,

the landscaping treatment of the site perimeter will be important in creating a suitable campus context for the building. Landscaping facing New Military Trail will include consistent street trees and boulevard type planting. North and or East of the building a semi-private landscaped courtyard or side yard is to provide outdoor amenity for residents including seating and planting options. The courtyard or side yard should include lockable fencing to provide a secure space in evening hours. Options for dining hall seating to spill into this space is desirable where adjacency can be achieved.

If any residential units, such as the scholar suites or residence life coordinator apartments, are located on the ground floor, landscaping should be used to create privacy and security for these units, as well as the possibility of direct private access to the units.

The cluster of trees immediately north of the proposed building site is a natural heritage designation site that is to be preserved unless special permission is obtained to remove the trees. The initial site massing shows this area as a small densely treed parkette north of the residence.

Personal Safety & Security

Safety must be incorporated into the design of the building and therefore requires consultation with UTSC Police Services and the Community Safety Office. The location of a Campus Safety Office within the public space of the building will provide information and services to complement the safety of student residents. Common rooms, study rooms, offices and public areas are specified to use as much glass as possible to allow for visual access to all areas. Exterior lighting should be ample for ease of movement around the building complex. The rear of the residence is in close proximity to a naturalized landscape and requires substantial exterior lighting. Incorporation of Crime Prevention Through Environmental Design (CEPTED) is required to safely manage outdoor areas, including the connection of the building to parking and adjacent uses.

The building will have a 24-hour porter desk and secured access from the ground floor. The design should allow for maximum flow throughout the component once a student has gained access into the building through the computerized card-entry system, while still making significant considerations for personal safety and security at every opportunity.

Three interim rooms will serve students who need private accommodation for their own safety and well-being on a short term basis. These rooms will be part of the University's on-campus interim room/emergency housing program (tri-campus). Interim rooms are single bedrooms with a private washroom. These rooms should be located in an area of the building that allows for privacy and should be in close proximity to the Residence Life Coordinator apartments.

Public areas of the building will offer services to be accessed by all students in residence, as well as the larger campus community. Private areas of the building will be accessed by residents living on a particular floor of the building only. A key card access system will be used in the building. The Persona Card system is the current key card access system for Student Housing & Residence Life at UTSC, however the majority of the campus uses Honeywell's Fault Tolerant Ethernet system that is centrally monitored by Campus Police. It is proposed that the new residence move to the Honeywell system in order to integrate the building with the rest of the campus's security system and take advantage of the built-in monitoring by Campus Police.

The first floor and potentially some of the second floor of the building(s) will have programmed public space with amenities to be used by all students in residence and potentially the campus at large. The second floor may also have the private residence rooms in an area that only the students or visiting scholars who live on that floor can access with a key card. It is planned that all areas with

residential private space and student lounge spaces be restricted by doors to the floor that are locked 24 hours a day with only the residents of the floor having access key cards to the floor. An elevator card will be used to take residents up to the floor that they live on. Doors to individual bedrooms should be individually keyed, as should storage areas, and common & study lounges.

There will be cameras in all public areas of the building, where students would not have an expectation of privacy. The cameras would be tied to the campus security system and monitored by Campus Police.

Telecommunications

Each bedroom will have wireless internet connectivity. Currently, very few students on campus require landlines or hardwiring for internet services and it is not anticipated to be standard in the dorm rooms. All emergency, distress, and elevator phones in the building will require copper landline service. Wireless internet coverage is to be provided throughout the entire building.

Accessibility

The University's Student Housing Policy, 2006 identifies a commitment to accessibility

'Student housing at the University shall be administered in a manner that is conscious of the varied needs of our highly diverse student population...The University of Toronto, together with the Federated Universities and other housing partners, are committed to offering housing for all students with disabilities who desire on-campus accommodation and who have registered with the Accessibility Service on their campus, where it is appropriate and reasonable to do so.'

The facility must be accessible and inclusive by operating in a way that maintains the status and respect of any person using it. The committee is committed to ensuring that all students and other users have equitable access to all of the building's facilities, programs and services. Universal design principles are vital to enhancing accessibility and inclusion. An example of a critical element is to have one main entrance to the front lobby that is accessible instead of having a main entrance and a separate wheelchair accessible entrance. Another example is to have all service points at the services and reception desk accessible, and not only one service point. At least two elevators are required to ensure availability of an elevator, and elevators must be large enough to accommodate wheelchairs and scooters. Common spaces will have access to an accessible washroom and gender neutral washroom option.

The project must anticipate more stringent legislation under the revised Building Code (2012), with an amendment related to Accessibility filed on December 27, 2013 (Ontario Regulation 368/13). This revision to the OBC is effective for applications submitted after January 1, 2015. Enhanced criteria include: equipment such as visual alarms and power door operators; and clearance for mobility devices resulting in wider door widths, turning radius, and path of travel.

According to the new legislation, 15% of all the new suites would be required to be barrier-free. This is far greater than the percentage currently provided for on campus. This project will add 53 accessible student rooms, including 4 residence advisor rooms. The 39 accessible bedrooms and accessible semi-private bathrooms, will be shared with a standard room, as well as 14 accessible bedrooms (including RA suites) with private bathrooms. Visual fire alarms and emergency buttons will be required in the accessibility suites and in individual student accessible bedrooms. One of the two Residence Life Coordinator apartments and one of the Visiting Scholar Suites will also be

accessible featuring a barrier-free bedroom and bathroom each. The public space will also include accessible features such as automatic door openers, an accessible service desk, etc.

Refer to Appendix: Accessibility Design Standards.

Servicing (including garbage, recycling, and deliveries)

With the current building site at Ellesmere Road and east of the re-routed Military Trail, it is expected that power, gas, water, sanitary, and storm lines all be fed off of Ellesmere Road. Stormwater will be managed by UTSC and provisions for a runoff system that allows water to infiltrate the subsurface, similar to a StormTech systems, will be required.

Servicing is required for deliveries to the Retail and Dining Hall components and garbage / recycling / compost pick up from both buildings. A loading dock should also be provided for the Dining Hall. It is planned that servicing for deliveries and garbage be provided at the north or east side of the building, off one of new side roads that are to be built with the project, refer to the Appendix for proposed site plan.

Elevators

Approximately four elevators are proposed with a minimum of two being sized large enough to accommodate a wheelchair and/or scooter as required for accessibility. The exact number to be determined by the selected consultant in compliance with OBC guidelines. Given the massing and proposed height of the building, a traction elevator is being contemplated. A freight elevator may also be required for the building to service the Dining Hall, and allow for vertical movement between the loading dock and food preparation spaces.

Acoustics

Sound insulation is important in between study & meeting rooms and corridors; the same is true for Residence Life offices. Sound attenuation between the multi-purpose event space / study space / dining areas is also important and will have to be a consideration when detailing flexible partitions, if they are used. Common rooms and lounges should also be acoustically insulated and dorm rooms should provide quiet private space for study and rest.

Environmental Impact and Sustainability Design

The building is to optimize the use of high energy efficiency products and environmentally friendly materials and systems and standards.

UTSC is interested in incorporating proven, innovative building standards and practices that mediate environmental impact and ensure long term sustainability. One such standard that is being considered, common in Europe and growing across the world, is that of Passive House. This standard employs a substantially energy efficient envelope (better insulation performance, no thermal barriers, triple glazed windows) and gathers and holds heat from passive sources, including solar to minimize the need for building systems. The building shape and its orientation, therefore, are elements of design that must be contemplated at the outset. Building massing and orientation opportunities include:

- Roofs can be angled for optimal solar heating

- Reveals and overhangs can shade parts of a building with other parts of the same building
- Aerodynamic curves can reduce heat loss from infiltration
- Interior buffer zones can be placed in a buildings west side to protect living and working areas from hot afternoon sun

Passive house design provides significant energy savings, reduction in Co2 emissions and benefits occupants through consistent, comfortable air quality and temperature control. A reduction in building systems (number and capacity) may be realized offsetting material and envelope premium costs. Operationally, the passive house design methodology has the potential to achieve an energy consumption 30 kWh/m² per year for heating (15kWh/m²) and cooling (15kWh/m²) (Approximately 15% of the energy consumed by more standard intuitional/mixed use residential construction at approximately 200kWh/m² per year (175 kWh/m² per year for heating – 25 kWh/m² per year for cooling). This is standard is even more attractive in a residence setting where occupant density is controlled. An example of a similar residential Passive House project is the Salus Clementine affordable housing apartment building in Ottawa – the first Passive House Certified building in Canada completed in 2016. The 42 unit four-storey apartment building uses 14kWh/m². At a total of 2,486m² it costs \$1,458 to heat per year (gross) or \$29 per apartment (net). Annual cooling costs are \$255/year and windows are Triple 2x low-e glazing and uPVC frames. The airtight building supplies continuous ventilation using a central basement ERV unit and geothermal fluid loop around the foundation to maintain interior air quality.

Similarly, other products and technologies that are well proven to work effectively in residences or apartment buildings are of interest. Technologies like LED lighting, effective control of operable windows, daylighting and lighting occupancy control, CO2 Sensors or people counting automation controls for the ventilation of public gathering spaces, and efficient management of the large ventilation requirements in the kitchen and cafeteria areas are among some of the industry tested technologies which should be effectively implemented.

New products and technologies unproven and/or without a strong history of being effective are of no interest. However, alternative sources for energy such as solar power, a possible development of a co-generation plant serving the north campus, and/or geothermal energy should be considered as all of these energy solutions have become common practice in residential, residence, and condominium buildings. The provision of these alternative energy sources is dependent of the building budget and procurement model.

Energy and water use will be governed by the terms of the University of Toronto Environmental Protection Policy. Every effort will be made in the implementation phase to achieve efficiencies in utilities use and design, in order to reduce operating costs and reduce GHGs. High flush toilets and low flow shower heads are desired in this building.

Student Housing & Residence Life is committed to creating awareness around conservation and waste diversion among residents. Garbage and recycling rooms will be needed on each for with separate chutes for garbage and recycling.

A sustainable roof should be considered to reduce heat island effects but green roof strategies should be minimized or replaced with other sustainable technologies due to maintenance issues.

Environmental Health and Safety

Emergency lighting will be required both in the building to allow safe egress from the building and for safety of residents in the courtyard and public gathering areas heavily populated by the community at night. Camera monitoring of these areas outside the building is also required.

Environmental emissions will primarily be from the kitchen/servery and from the standby generator. The MOE submission will be part of the construction process managed by an engineering consultant or the contractor and will be part of the project budget.

The Dining Hall Kitchen and food preparation areas present a few safety concerns: gas and range cooking processes will need to be managed safely for fire risk and staff occupant health and safety with necessary eye wash, fire hose standpipe, chemical extinguisher and specialty fire suppression systems to serve the processes required. The grease from Kitchen functions will need to be managed with appropriate traps and containment.

Mechanical, caretaking, electrical rooms and other pertinent rooms will need to be provided with eyewash, emergency shower and the safety provisions as required by both University and Authorities having jurisdiction standards.

Safety design requirements for receiving areas and loading docks will include engineering controls such as vehicle restraints, dock plates dock barriers and bumpers and dock doors and seals, CO monitors and all other safety features required.

Ergonomic design of mechanical rooms will be paramount to allow ongoing operation of the facility and protection of maintenance staff performing both routine and specialized maintenance.

Standby power to allow egress and keep occupants safe and warm during a prolonged power failure will be required.

Note that the various University safety standards can be found at <http://www.ehs.utoronto.ca/resources/manindex.htm>

d) Site Considerations

Zoning Regulations

The UTSC campus is currently part of the *Highland Creek Community Secondary Plan*. The University has submitted a new Secondary Plan for the campus which will include new zoning by-law regulations. However, due to timing issues, the development application for the new student residence will fall under the current planning instruments (Highland Creek Secondary Plan and existing zoning). The proposed site for the new residence is on lands designated *Institutional*. However, should the site expand to include an increased building envelope, accompanying driveways or other access points the site may potentially fall within two zoning designations since the *Single Family Residential* zone is located directly to the east of the site.

In any event, a zoning by-law amendment will be required to address at a minimum height and density of the proposed residence in either zoning category. *Institutional*, for example, has a permitted building height of five stories and *Single Family Residential* has a permitted building height of 10 m or two stories. An “H”, or holding, zone designation has been applied to the site (*Institutional*). This designation was put in place to address environmental concerns due to its

proximity to a closed City of Toronto municipal waste site which has recently been remediated, as well as typical planning issues such as traffic studies and servicing reports. During the planning process for two recent academic buildings on Military Trail, this designation was successfully lifted. Based on historical monitoring and data, no significant environmental or contamination issues are anticipated.

The City's review municipal process for a rezoning typically takes between 6 to 12 months.

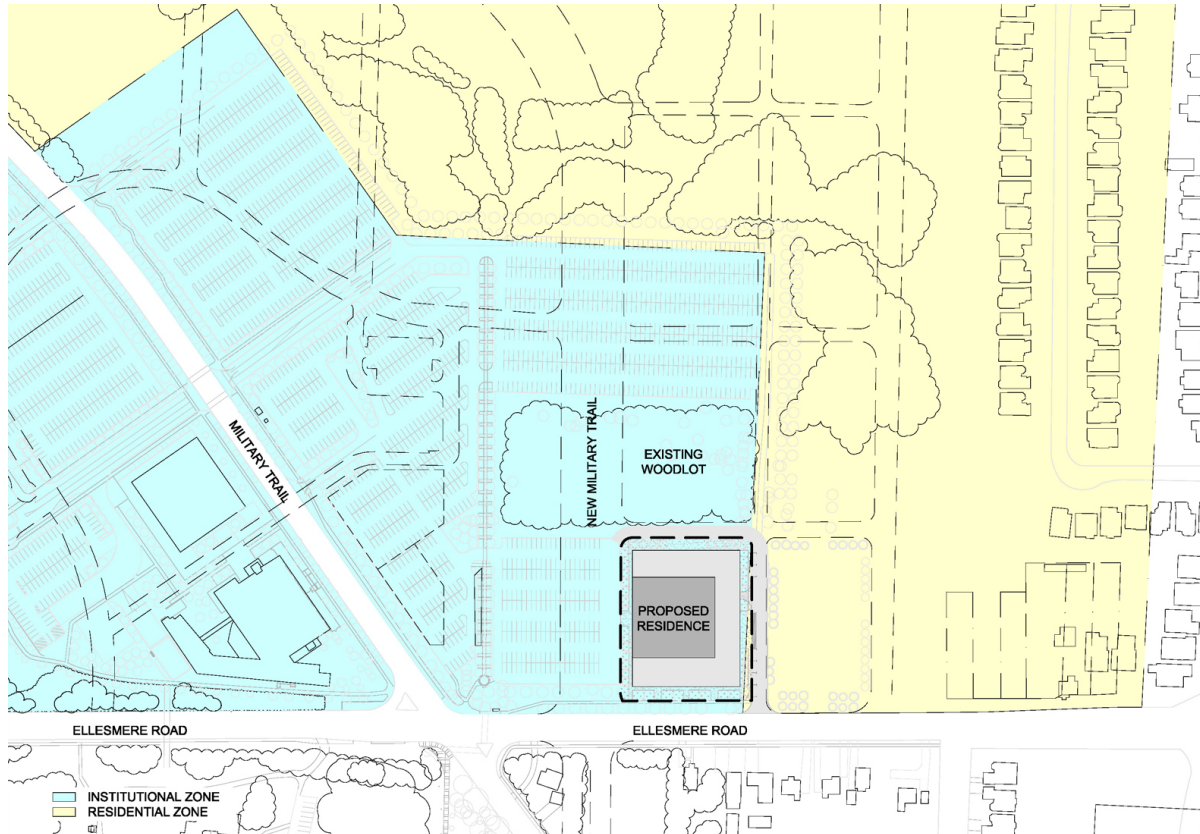


Figure 4.1 UTSC North Campus Zoning Diagram

Site Boundaries, conditions and constraints

The proposed site is located in what is currently the east portion of Parking Lot F, as well as lands east of the parking lot, northeast of the existing Ellesmere and Military Trail intersection (refer to Appendix for site plan). It is bound by Ellesmere Road to the south, residential lands to the east, a grove of trees designated as a natural heritage zone to the north, and the west portion of Parking Lot F to the west. An existing small service road into parking lot F delineates the possible eastern boundary of the proposed site, and the proposed site plan incorporates this service road as a landscaped laneway (with clearance for service vehicles) to encourage safe and frequent passage toward the north campus. As the north campus builds out, this laneway is proposed to grow to accommodate campus circulation. Military Trail will be re-routed to form the western edge of the proposed site and the existing Military trail will become a pedestrian only route. A large academic and student services building, IC-2 is planned for the site west of the New Military Trail re-alignment.

The residence complex will anchor the new institutional, commercial and residential zone outlined in the campus's master plan and secondary plan, which aims to create a diverse mix of housing options, with mid and high rise development close to the campus core on the North Campus for undergraduate housing and low rise housing for graduate families, staff, and faculty at the campus periphery as well as mixed-use and institutional uses lining the new Military Trail. It is the intention that this housing mix will strengthen the campus environment and support activity in the campus core beyond typical class hours. The building's design should support this goal, and be open, light and inviting. The building should be set back to provide a generous pedestrian environment or plaza along Ellesmere Road. Grade level design features around the new Military Trail and Ellesmere intersection will be crucial in developing the public realm. The principal entrances and an urban façade are imagined to be along Ellesmere Road and New Military Trail, with secondary entrances along the landscaped laneway, as well as the new service roads around the building.

The University and the City of Toronto are also about to begin discussions on implementing aspects of the new secondary plan, including the re-routing of Military Trail which will affect the site boundaries.

Relationship of new construction to adjacent buildings, structures, open spaces

The massing of the new or proposed building is illustrated in Figures 1.1 – 1.3. The west portion of Parking Lot G is the future site of IC-2, which is currently envisioned as a large five to seven-storey academic and student services building and the massing of the residence complex should allow for the development of this neighboring site. East of the residential complex is planned to be future low-rise residential development, terracing down to be similar in scale to the residential neighborhood east of UTSC. The massing of the residence complex should take this into account and gradually step down towards the east to transition to the smaller scale. The cluster of trees to the north will remain a natural feature of the campus. The west portion of Parking Lot F and north portion of Parking Lot G will remain in use after the residence is built and access to these lots must be maintained.

Landscape and open space requirements

The buildings should be set back from Ellesmere Road to accommodate a small public plaza at the corner of Ellesmere and the future Military Trail. Landscape must be designed along the perimeter of the site to improve the campus context and to provide privacy and safety where required. The natural heritage site to the north should remain intact, and permission will be required to remove the trees necessary to re-route Military Trail. A private or semi-private courtyard should be landscaped and/or hardscaped for residents use, and may allow for spill-out seating from the dining hall in good weather.

Site access

The site will be north of Ellesmere Road, east of the new Military Trail which will redirect traffic into the North Campus. It is anticipated that this intersection will be very busy, with university generated pedestrian and vehicular traffic along Military Trail and city traffic along Ellesmere. Vehicular access to the residence, including drop-off and pick-up points, deliveries and garbage pick-up, as well as access to a number of the North Campus parking lots would be best served off of a proposed new service road that runs north-south from Ellesmere east of the residence building. Depending on whether new Military Trail is constructed in phases tied to capital projects and its timing, the southern portion of the new road could be constructed with the Residence with a temporary east-west connection to the existing Tams Road (refer to Appendix: UTSC Capital Project Workshop Proposed Projects (Urban Strategies) 2014, for proposed roads.)

Pedestrian traffic is expected to cross the new Military Trail at multiple points, and as the residential zone to the east is developed, jay-walking across new Military Trail is expected to become an issue. There will also be increased pedestrian traffic across Ellesmere between the North and South campuses as the residential zone is developed. Multiple pedestrian crossings along this intersection will be required and the physical quality of these crossings should be reviewed and designed or redesigned to provide maximum pedestrian comfort, safety and clarity.

Parking for the retail component will also need to be considered for this project.

Way-finding

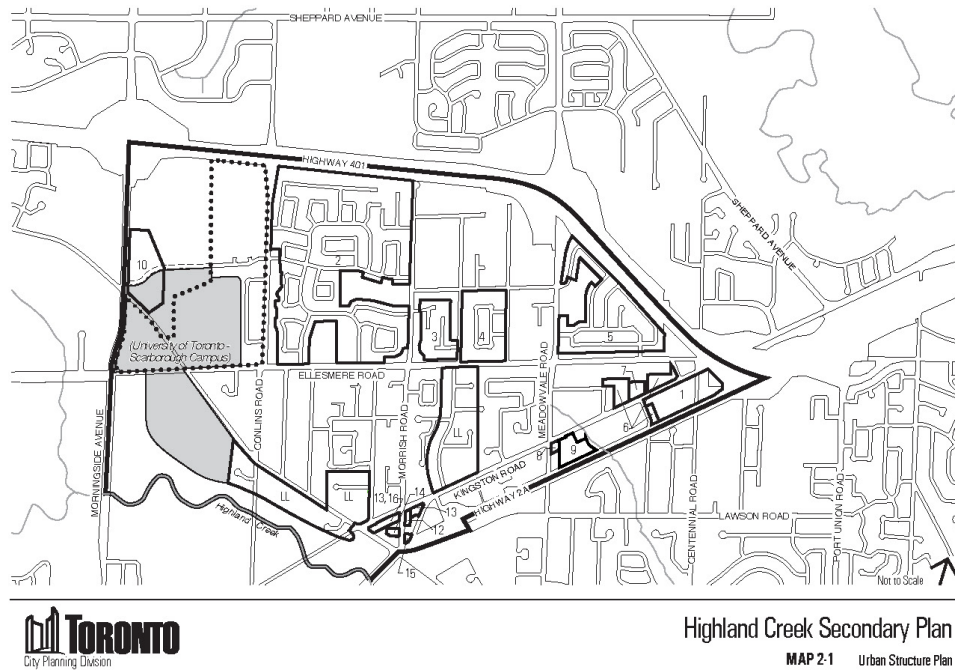
Interior signage and way-finding strategies are to abide by the University of Toronto Scarborough Signage Standards. Exterior way-finding should match what exists on the South Campus. The public plaza is a possible spot for public art that can supplement the way-finding strategies of the campus.

Soil conditions

According to a 2003 Subsurface Environmental Investigation, the soil is mostly sand fill and gravel.

The following general policy applies from the *Highland Creek Community Secondary Plan*:

- 1.5 Lands east of Morningside Avenue, north of Ellesmere Road and west of Conlins Road, shown as Area A on Map 2-1, are within the area of potential influence of the landfill site. As such, the construction of any buildings, structures, services and hard surface paving will only be permitted subject to the following policies and in accordance with the underlying land use designation:
 - (a) engineering studies have been carried out, and such studies will indicate that development can safely take place;
 - (b) construction and phasing of any residential development will coincide with the control of any problems identified by engineering studies; and
 - (c) studies of gas, leachate and hydrogeology will be carried out by a qualified engineer.



Demolition of existing structures

No existing structures exist on the site. It is undisturbed, for the most part, although there may be the remains of one or two foundations/basement walls from old residences that used to be on the site. Drawings and specifications for this project will include for their removal if encountered.

Site servicing: existing

Existing site servicing currently only consists of storm water piping + electrical services for lighting.

Environmental issues, regional conservation, Ministry of the Environment

In order to clear the site of the “H” (Holding) designation and make it available for development, paragraph 29.5 of the Highland Creek By-law (10827, see appendix) details several requirements that must be satisfied, including several consulting reports (site servicing, transportation, environmental, storm water management, etc.), before permission to build will be granted.

The site does not have any “top of bank” issues with the TRCA and is well beyond the boundaries of the TRCA designated Environmentally Significant Area. Storm water management and runoff will be reviewed as part of the Site Plan Application.

Hazardous waste disposal

Studies have indicated that no hazardous waste exists on this site, nor is there evidence of methane migration. A 2003 investigation indicated small amounts of methane detected east of the site.

e) Campus Infrastructure Considerations

- Mechanical and Electrical Building Services and Utilities: The main electrical, water, and natural gas, will come from Ellesmere Road as described previously.
- As a basis, Central Heating and Cooling will be provided from inside the building, most likely using chilled and heating water systems. This would be done via conventional but high efficiency magnetic bearing chillers and condensing boilers or other means, such as with a geothermal field and heat pump system or, possibly integrated into a north campus central utilities plant. The possibility of integrating into a future central utilities plant either during the construction process or at a future date is desirable, however, will be dependent on project budget, other campus development initiatives on the north campus that could be synergized with the central plant and the project schedule.
- Tenant heating, cooling and ventilation will likely be done via a fan coil unit in every room with ventilation air moved via a makeup air unit directed towards the corridor and a toilet exhaust for the washrooms; alternative means should be explored during the design process to avoid requiring room access for maintenance and reduce the risk of flooding without means of detection and to allow for energy savings.
- Alternatively, Tenant heating and cooling in a passive house would be done via energy recovery ventilators and contribute to reduced maintenance and a reduction in mechanical services to each tenant space and minimize central services transmitted through shaft spaces in the building.
- HVAC for other areas will be addressed to meet the areas' specific needs with emphasis on the Kitchen/Cafeteria areas which will have heightened requirements. CO2 or people counting should be employed to conserve energy.
- Standby Power will be required to keep the tenant areas safe and warm, emergency lighting, fire service, elevators and life safety, central food storage and tenant food storage, emergency lighting for egress. Areas such as the cafeteria and large gathering areas may be considered areas of refuge during a sustained outage or emergency and should be considered for standby power as well.
- Bicycle parking is to be provided per the current City by-law. Covered bike storage will be provided outside of the building.
- Servicing and fire access will be off of the Ellesmere Road and the new secondary roads.

f) Secondary Effects (Co-effects)

The primary secondary effect of the new residence in the proposed site is the loss of parking space in parking lot F. It currently contains 358 parking spaces. Based on the current massing model it is expected that the total will be reduced to 198 spaces. As identified in *Schedule "E" Key Financial Assumptions* of the LOI, a financial contribution to UTSC Ancillary Services will be made to compensate for "Parking Displacement" by this project, and is intended to support a future initiative to replace this parking. This loss of parking may be offset for example by the new parking structure

currently in planning stages, which will provide a proposed 500 new spots in accordance with the campus increase required by city by-law.

Changes to existing traffic patterns are not expected as the existing entrance and driveway to parking lot F is located adjacent to the proposed location. Given the proximity to the intersection, the addition of a 750 bed residence and the traffic expected from visitors from campus to the residence each day, pedestrian safety will need to be addressed. Construction staging can be provided in the remaining portion of parking lot F or to the East on undeveloped land if required.

Other effects include:

- Impact on other University units such as the Residence Administration staff moving costs.

g) Schedule

The residence is slated for completion in the 2019-20 school year.

Key project milestones include:

Final Selection of Consultant Team to Develop Performance Output Specifications and Architectural Compliance Services	February 2017
UTSC Campus Affairs	March 22, 2017
UTSC Campus Council	April 18, 2017
Delivery of Final Performance Specifications and Budget by Consultant Team	May 2017
Academic Board	April 20, 2017
Business Board	April 6, 2017
Executive Committee	May 4, 2017
Governing Council	May 18, 2017
Issuance of Design-Build RFP	June, 2017
Award of Design-Build Contract	August, 2017
Sunstantial Completion	March, 2020

IV. Resource Implications

a) Total Project Cost Estimate

The Total Project Cost Estimate includes estimates or allowances for:

- construction costs
- contingencies
- taxes
- site service preparation
- infrastructure upgrades in the sector including new roads
- demolition
- landscaping
- permits and insurance

- professional fees, including architect, engineer, geo-tech, and fees for Site Plan Approval, re-zoning, and other approvals.
- computer and telephone terminations
- moving and staging
- furniture and equipment
- miscellaneous costs such as signage and security.
- commissioning, testing and inspection fees.
- escalation costs for 2 years
- secondary effects

b) Operating Costs

Operating Expenses (Year 1)	(\$ m)
Operating Expenses ^{1,2}	\$3.0
Annual Lifecycle Maintenance Reserve ³	0.4
Residence Life Costs ⁴	0.6
Total Operating Expenses	\$4.0
Annual Growth Rate for Operating Expenses	1.5 %*

*Note: Operating expenses are assumed to grow at CPI, which is estimated to be 1.5% annually.

c) Funding Sources and Cash Flow Analysis

The project will be funded through a capital investment through an investor partnership that would reimburse the University for all construction costs and associated fees.

d) Ancillary Projects and Joint Venture Partnerships require Business Plans and Operating Agreements

The detailed business plans and operating agreements are currently under negotiation.

¹ Operating Expenses are calculated at \$126.48 / gsm and include Property Management Fees, Insurance, Utilities, Salaries & Benefits, General & Administrative, Repairs & Maintenance, and Contract Services costs

² Ground rent is not included in the Operating Expenses figures presented above

³ Annual Maintenance Reserve is calculated as 4% of Total Revenue

⁴ Costs incurred by the University to deliver Residence Life Program which will be reimbursed by the Limited Partnership

V. Appendices

1. Room Specification Sheets
2. Residence Visioning Exercise Summary, 2012
3. Residence Administration Staff Roles
4. Space Utilization and Requirement / COU Analysis
5. Accessibility Design Standards
6. UTSC Capital Project Workshop North Campus Site Plan (Urban Strategies), 2014
7. Total Project Cost Estimate (on request to limited distribution)
8. Detailed Space Program
9. SCION Student Housing Market and Demand Analysis
10. Test Fit: Site Plan
11. Test Fit
12. Test Fit: Two-Storey Retail Option