FOR APPROVAL **OPEN SESSION**

TO:	Governing Council
SPONSOR: **CONTACT INFO:**	Professor Scott Mabury, Vice-President, Operations and Real Estate Partnerships 416-978-2031, scott.mabury@utoronto.ca
PRESENTER: **CONTACT INFO:**	See above.
DATE:	March 19, 2026, for March 26, 2026
AGENDA ITEM:	4

ITEM IDENTIFICATION:

Capital Project (Level 3): Report of the Project Planning Committee for the Temerty Building (MSB West Wing Redevelopment) – Interim Project Scope and Sources of Funding

JURISDICTIONAL INFORMATION:

The “Policy on Capital Planning and Capital Projects” provides that capital projects with costs in excess of $50 million (Approval Level 3) on the St. George campus, will first be considered by the Planning & Budget Committee, which shall recommend approval to Academic Board.

Following consideration and by the Academic Board and approval for execution by the Business Board, such proposals are then brought forward to the Executive Committee for endorsement, and then forwarded to the Governing Council for approval [Section 3(b)(ii)(1)(b) and (d)].

In addition, Project Approvals in Section 2.c of the Policy includes, “Notwithstanding the foregoing, costs may be incurred by the Administration prior to seeking Capital Project approval for the purposes of preliminary schematic and/or design development, preparation of tender materials, or in preparatory work to prepare a governance package. Pre-approval costs are typically within 5-10% of the anticipated Total Project Costs.”

GOVERNANCE PATH:

A. Project Planning Report

1. Planning & Budget [For recommendation] (February 11, 2026)
2. Academic Board [For recommendation] (February 26, 2026)
3. Executive Committee [for endorsement and forwarding] (March 12, 2026)
4. **Governing Council [For Approval] (March 26, 2026)**

B. Execution of the Project:

1. Business Board [For approval] (March 4, 2026)

PREVIOUS ACTION TAKEN:

Temerty Faculty of Medicine off-campus lease space conversion

March 17, 2021, the Temerty Faculty of Medicine off-campus lease conversion was approved by Business Board.

August 30, 2022, Temerty Faculty of Medicine off-campus lease conversion increase was approved by Ad Hoc Committee.

Temerty Building
Capital Project and Space Allocation (CaPS) Executive Committee approvals:

November 24, 2020 approved the Terms of Reference, to formally strike the Project Planning Committee (PPC)

October 1, 2021, for Integrated Project Delivery Integrated Project Development (IPD) Coach Consultant Fees

January 16, 2023 - April 3rd, 2025: Eight (8) interim approvals of fees for IPD consultant onboarding and Validation reporting phases

HIGHLIGHTS:

The Temerty Building is one of the University of Toronto's most significant academic infrastructure projects, representing a once-in-a-generation reinvestment in the heart of the St. George Campus. Enabled by a transformational gift from the Temerty Foundation and driven by the need to replace aging, inflexible laboratory space, the project addresses critical academic, research, and institutional priorities at a campus-wide scale. Temerty Building will be a new state-of-the-art facility for education and research that will help strengthen interdisciplinary collaboration with Arts & Science (A&S) and Temerty Medicine to deliver a highly visible, future-ready facility that supports research excellence, teaching innovation, student experience, and major institutional events for decades to come.

The Medical Sciences Building is located within the heart of the St. George Campus at the southeast corner of King's College Circle and King's College Road. The Temerty Building proposes to redevelop the Medical Science Building's (MSB) West Wing, which will be demolished. Temerty Building will connect to the remaining MSB, doubling the area of the West Wing and providing much needed cutting-edge wet lab space. The Temerty Building refers to the redevelopment of MBS's West Wing only. The rest of MSB east of Temerty Building remains as-is.

MSB is one of the largest buildings on the University of Toronto's St. George campus and is strategically located near other Temerty Medicine occupied buildings on- and off-campus. This building was purpose-built in 1969 to house the Temerty Faculty of Medicine (Temerty Medicine or TFoM). Today, MSB accommodates approximately 50% of the faculty's total space on- campus, primarily academic and research functions. While Blocks C, D and E of the building are seven levels, the West Wing (Block B) is only four levels and makes up approximately 14% of Temerty Medicine's total space.

Two-thirds of the research space is original to the building and shows significant and increasing deterioration, limiting flexibility for research needs. Previous feasibility studies concluded that efforts to renew MSB's existing biomedical laboratory spaces would be time-consuming and cost prohibitive. The research space in MSB is constrained by aging infrastructure. While laboratories are upgraded on an ongoing basis to maintain licensure, safety, and compliance, the underlying systems and spatial configuration remain fundamentally outdated. The original 1969 layout persists and does not support contemporary research models. The building's legacy infrastructure—HVAC capacity, ventilation, electrical distribution, and plumbing—has reached a critical state, with many systems beyond their serviceable life. Compounding this, the building was designed for siloed, compartmentalized laboratories rather than open-concept environments that enable efficient space utilization, collaboration, and interdisciplinary discovery. This outdated configuration creates inefficiencies and limits the flexibility required for modern research.

In the absence of any viable staging space to decant researchers during construction, attempted renewal would be acutely disruptive and deleterious to the research enterprise. To safeguard continuity, Temerty Medicine secured and converted office space at 777 Bay to research laboratories specifically to vacate and redevelop the West Wing; The off-campus lease conversion was governance-approved (March 2021); third-party, purpose-built research space for lease is effectively unavailable in Toronto, making this intervention essential. Development of the new Temerty Building will, in turn, create vacancy within MSB to enable phased revitalization of remaining areas and potentially reduce leased space off-campus. It is important to note that approximately 20% of MSB's laboratories underwent full gut renovation in 2018, and most labs are maintained to current standards; the core problem is the aging infrastructure supporting these labs—which continues to deteriorate and cannot meet the performance, safety, and flexibility imperatives of modern research.

The proposed development will remove the existing West Wing (approximately 16,648 gsm, 8,806 NASM) and replace it with a large addition to the Medical Sciences Building. The redeveloped Temerty Building is anticipated to be approximately 17,099 nasms, within a gross area of 33,817 gsm including two levels below grade (2,983 gsm allocated

to the Temerty Building mechanical/electrical and a nodal utility plant), nine levels above grade (30,833 gsm) with a one-and-a -half level mechanical penthouse (3,164 gsm).

The project will provide modern, flexible, wet and dry research laboratories to support the academic missions of the Temerty Faculty of Medicine (TFoM) and the Faculty of Arts & Science's (A&S) Department of Cell & Systems Biology (CSB). The building will also provide much-needed active learning spaces and student study areas, as well as event spaces to support major institutional events such as Convocation and Alumni Reunion.

The Temerty Building will create a recognizable and welcoming entrance for U of T's medical science community, with a development that creates a sensitive dialog with the Central Campus Character Area landmark buildings, such as Convocation Hall and the Medical Sciences Building (MSB).

Integrated Project Delivery (IPD)

The University has selected Integrated Project Delivery (IPD) as the delivery model for the Temerty Building redevelopment to support early collaboration, cost transparency, and disciplined decision-making on a complex, mixed-use research facility. The IPD approach is governed through a multi-party agreement that aligns the owner, designers, constructor, and key trades through shared risk and reward, open-book cost-plus accounting, and collective accountability for project outcomes. Through IPD, the project team applies Lean principles and Target Value Design (TVD) to ensure that design development remains focused on the University's established values, scope, and performance objectives, while balancing technical complexity, constructability, and cost. This delivery model enables early involvement of key trades, transparent cost management, and iterative testing of design solutions to mitigate risk and reduce late-stage changes.

The Validation Phase, which commenced in October 2023, confirmed the space program, design approach, and key performance objectives and establishes a validated target cost to support decision for this cycle 3 2025-2026 full governance approval, ahead of full governance approval in cycle 2 2026-2027. Other rationale for Temerty Building's early works to proceed are to progress the project schedule, as well as progress the separate secondary projects (see "Enabling Projects" and "Schedule" sections) to enable the Temerty Building, whose schedule is dependent on the completion of these enabling projects. In addition, progressing the Temerty Building early works helps to meet the Temerty Building Donor Agreement which stipulates Construction to start by December 2025.

The project has completed the Validation Report and is currently progressing the design through Target Value Design (TVD) phase, corresponding to approximately 10% Design Development, to maintain the project schedule. All major trades are fully onboarded to the project. Through TVD, the broader IPD team collaboratively reviews and refines the design, construction approach, and sequencing to ensure alignment with project goals, budget, and schedule, while proactively identifying and resolving technical, constructability, and coordination risks before advancing into detailed design, procurement, and construction. This approach minimizes late- stage changes and reduces the likelihood of cost or schedule impacts.

Temerty Building Early Works

A final proposal for redevelopment of the site will come forward for governance approval in cycle 2 of the 2026-27 year once the TVD phase is complete. This interim request for IPD team costs and early works scope will support continued progress of the Temerty Building project through the TVD phase by advancing early enabling activities to reduce risk, support coordination, and position the project to transition efficiently into Working Drawings and subsequent construction phases. Implementing these activities will help maintain the overall project schedule.

The scope of this phase of work includes the following:

- IPD team design fees and disbursements, including Big Room Rent/Operations;
- Preliminary site mobilization activities, including hoarding and construction trailers;
- Utility and water main relocations required to support the redevelopment;
- Primary electrical duct bank installation from College Street to the building site, along King's College Road, facilitating the high-voltage Toronto Hydro feed to Node 5 and building when needed;
- Interior abatement and interior demolition (non-structural) of existing Medical Sciences
- Building's (MSB) West Wing or Block B;
- Installation of rated demising walls along the cut line between MSB's Block B and Block C (refer to PPR, Image 1 on page 2) and associated decoupling of services to allow continued operations in the rest of MSB;
- Provision of temporary electrical service (long lead time) to support ongoing operations;
- Localized shoring at the first basement level; and
- Design-assist engagement for the building envelope.

Interior abatement and interior demolition of MSB's West Wing will start unencumbering the building and site by mitigating the overall risk profile of the building project, in turn creating both an advantageous condition for future site development and project financial benefit. All removal, handling, and disposal of designated substances is performed in accordance with O. Reg. 490/09 and the University's Asbestos Management Program. The abatement contractor is experienced in designated substance abatement, employing workers who have been specifically trained to perform abatement work and the abatement work is supervised full-time by a qualified consultant on the University's behalf. In addition, a portion of the early works scope will create a below grade trench to bring in future high-voltage electrical feed to service surrounding buildings, helping to support U of T's Climate Positive goals.

Early Works and construction activities will result in temporary secondary effects, including construction-related noise, vibration, and localized impacts to pedestrian and service routes. These effects will be managed through the project's Construction Noise and Vibration Report, phased sequencing, monitoring, and coordination with Facilities & Services and adjacent building occupants to minimize disruption to ongoing academic, research, and campus operations.

Consultation with the U of T groups in the area, e.g Temerty Medicine and Learning Space Management and Faculty of Engineering, etc, on the Construction Logistics Plan in

Validation Phase. While there will be short term impacts in terms of noise and construction traffic, the long- term benefits are new infrastructure and new a research and teaching facility. A communication plan is in progress to provide look ahead on the construction activities with the U of T community and review mitigation measures where feasible will be explored in Target Value Design.

Schedule

The proposed schedule for the project is as follows:

Validation Phase (to Draft Validation Report Submission)	Oct-23'-Sep-25'
Design Review Committee (DRC) 1-4	Feb-Nov-25'
Target Value Design Phase (TVD)	Oct-25–Apr 27'
Municipal Approvals up to Statement of Approval[1]	Apr-25–Jun 26
Anticipated DTL facility Phase 2 in Ramsay Wright occupancy[2]	Jun-26
Governance Approval (Cycle 3)–Interim Project Cost & Sources of Funding	Jan–Mar-26
Validation Report Acceptance	Jan–Mar-26
Tender Package 1a – Ready to tender (Early Civil and Site works)	Jan-26
Pre-Application Consultation (PAC) meeting with the City	Jan-26
Site mobilization + Early Works (Electrical Duct Banks)	Jun-26
Early Works (MSB's West Wing interior abatement/demolition)	Aug-26
Governance Approval (Cycle 2)–Full Project Cost & Sources of Funding	Sep-Dec-26
Anticipated THCF facility occupancy[2,3]	Feb-27
New Construction Begins	Nov-27
Occupancy	Jul-31

Several enabling projects are proceeding in parallel to support the Temerty Building redevelopment. These projects are separate from the Temerty Building Capital Project and have independent governance approvals and schedules. Key milestones for the Temerty Building are dependent on the completion of these enabling projects.

Notes:

[1] Confirmation of Municipal Approval requirements are on-going. This schedule assumes all municipal approvals may be achieved within the timelines.

[3] An escalation contingency has been added to THCF project to mitigate schedule impact to Temerty Building.

[4] Confirmation of construction milestones are in progress.

[5] Though the Donor Agreement stipulates Construction to start by December 2025 there are clauses in the agreement that recognize delay impacts by the Covid pandemic which are beyond the control of the University.

<u>The Temerty Building</u>

The following paragraphs provide additional context for the Temerty Building capital project that will come forward for approval in Cycle 2 of 2026-2027.

The West Wing or Block B (refer to PPR Image 1, page 2) has been the subject of internal and external studies to evaluate the development potential of the site. In 2020, a consultant team led by Perkins Eastman Architects was engaged by the university to complete a MSB Master Program and a Feasibility Study for the West Wing site to develop a general space program and outline the engineering scope of work. In addition to

completing a Building Condition Assessment on the existing systems, structure, and decoupling considerations of West Wing from MSB, the Perkins Eastman Feasibility Study also provided recommendations on more generic building planning, such as generic wet lab modules to increase flexibility.

Local architects Diamond Schmitt Architects Inc (DSAI), in collaboration with MVRDV, a global architecture firm, began the Integrated Project Delivery (IPD) pre-Validation process in June 2023 with the IPD Contractor onboarding in October 2023. In keeping with U of T's long- standing commitment to excellence in architecture, the building is designed to enrich the campus and the student learning experience. During Validation Phase, the project did four Design Review Committee (DRC) reviews in 2025, receiving strong support as the team progressively refined the massing, façade expression, Indigenous integration, and landscape design to ensure a thoughtful and contextually responsive presence on King's College Circle while ensuring alignment with the project's design principles, program and overall vision. The DRC review process has demonstrated fidelity with the DRC Terms of Reference which states, "*New buildings should incorporate design excellence and materials that systematically serve to strengthen the campus experience. Delivering design excellence from concept through execution is a requirement of all projects."* The project is anticipated to return to the DRC in spring 2026 for a review of the proposed landscape design and integration, the building's podium base detailing as well as interior material studies of the North and West Hall prior to advancing into detailed design and construction. The project will be presented to the Community Liaison Committee (CLC) in February 2026, including the local Ward Councilor.

Components of the Temerty Building are described below in the following sections, followed by sections on Consultation, Space Program, Master Plan, Secondary Plan and Heritage, Municipal Approvals, and Enabling Projects.

Research and innovation

The Temerty Building is fundamentally a research-driven facility, with approximately 57% of the total space program dedicated to wet laboratory research, designed to support the academic and research priorities of both the Temerty Faculty of Medicine and the Faculty of Arts & Science. The laboratory floors respond directly to the need for modern, flexible research environments that can accommodate evolving life sciences methodologies while supporting the long-term academic plans of both divisions. Rather than prescribing specific research themes or equipment, the building is organized around adaptable, open-plan wet laboratory environments with shared infrastructure, enabling research programs to evolve over time without requiring repeated or costly renovation.

For the Temerty Faculty of Medicine, the laboratory floors provide renewed biomedical research infrastructure that addresses long-standing limitations within the existing Medical Sciences Building, supporting translational and clinically informed research and strengthening the faculty's ability to attract and retain research talent. Temerty Building will provide open flexible wet labs and lab support spaces, and classrooms that support the Medical Doctorate (MD) Program case-based learning, the Office of Inclusion and Diversity (OID) and the Office of Indigenous Health (OIH), and by meeting the U of T Tri-Campus Energy Modelling & Utility Performance Standard, the Temerty Building will support 'actions in five areas' identified in the 2018-2023 Academic Strategic Plan. For the Faculty of Arts & Science, the inclusion of the Department of Cell & Systems Biology

reflects a deliberate strategy to co-locate complementary basic science research with biomedical research programs, reinforcing interdisciplinary collaboration and shared use of high-performance laboratory space and core facilities. The Department of Cell & Systems Biology is currently distributed across multiple facilities on campus, primarily within Ramsay Wright Laboratories and the Earth Sciences Centre.
Consolidation within the Temerty Building will allow Arts & Science to vacate and subsequently re-purpose space within these facilities for other Arts & Science academic and research units who are currently experiencing space constraints. Planning is currently underway. Additionally, it was anticipated that the new department structure would enhance inter-faculty initiatives as the organization would align with that of the Faculty of Medicine, the Centre for Environment, and the Centre for Global Change Science. This integrated approach supports cross-faculty research synergies, efficient use of specialized infrastructure, and alignment with institutional priorities for interdisciplinary scholarship, while ensuring the research environment remains resilient and adaptable to future academic needs.

Climate positive goals

In 2019, the university engaged an external consultant to make recommendations for: a renewal strategy to support future performance of the campus's utility assets, utility growth needs relative to the University's master plan and secondary plan, a plan that aligns with the university's commitment to reduce greenhouse gas emissions (37% below emissions in the1990s by 2030) and to achieving climate-positive performance by 2050. The "Site Utility Master Plan" recommends a hybrid energy system that combines new dispersed nodal plant locally supporting buildings within an area, along with existing central plant to help reduce distribution infrastructure while maintain a flexible path to integrate future low-carbon generation technology. The campus's first nodal plant, Node 5, will be housed within the Temerty Building. Node 5 will provide heating and cooling and power to Temerty Building, MSB, as well as surrounding buildings in that area. The power component is called the Central Electrical Distribution (CED).

Note that the Temerty Building project scope only includes limited Nodal Plant costs in the Temerty Building project budget, such as: the trenching along King's College Road (part of Cycle 3 request) and core and shell space for Node 5 provided within the Temerty Building's Basement, Level 1 and Mechanical Penthouse. Beyond providing this core and shell space in the Temerty Building's footprint, the remaining Node 5 scope, e.g equipment, connection, etc, is a separate project budget that will be developed and delivered within the Temerty Building's IPD delivery contract, similar to other project precedents: Landmark, Robert Street Field, and Bloor- Devonshire Utilities. Node 5 is anticipated to go through full governance in Cycle 2, 2026-2027.

The goal to achieve campus carbon neutrality is also helped by the university's, "Tri-Campus Energy Modelling & Utility Performance Standard", which promotes innovative design based on absolute energy and GHG targets for the year the building is scheduled to be occupied along with the archetypical program use. Through the Validation Phase, the Temerty Building design has demonstrated strong performance against the University's Project Charter targets, exceeding benchmarks for total energy use intensity, greenhouse gas intensity, heating demand, water use reduction, and on-site renewable energy generation; however, the validated cooling thermal energy demand does not currently meet the Project Charter target due to the intensity and resiliency requirements

of the laboratory program and the Project Charter cooling target will be adjusted accordingly and continue to be addressed and optimized in the TVD phase.

Convocation and Alumni Reunion

Convocation is the largest, most significant, and inclusive celebratory event held at U of T. In 2018 the university assembled the Convocation Advisory Review Committee to undertake a review of convocation at U of T with a focus on venue and ceremony. Through the extensive consulting process, the intimate Convocation Hall was preferred as the main venue where graduands receive their degree.

While Convocation Hall will continue to be the location for ceremonies, due to the Landmark Project it is no longer possible to locate the Convocation Plaza (the large marquee that was a major venue for Convocation providing services to graduates and their guests during this event) on the Front Campus lawn. The Temerty Building provides an alternative venue to deliver these services in addition to eliminating complications related to weather. The President's Office, the Office of Convocation, and the Division of University Advancement provided recommendations and requirements for the ground floor of Temerty Building to be the future supporting venue for these activities.

Culture and Indigenous Initiative

U of T published The Final Report of the Steering Committee for the University of Toronto Response to the Truth and Reconciliation Commission of Canada: Answering the Call Wecheehetowin. It specifies Calls to Action for the University. Of the six themes identified, the first is the creation of Indigenous space on Campus. The report identified several short-term calls to action that can be immediately explored and implemented, including outdoor space appropriate for Indigenous spiritual needs, e.g. an Indigenous Medicinal Garden. Indigenous engagement for the project has included an Indigenous Talking Circle led by Two Row Architect, an Indigenous architecture firm, which informed the design approach, spatial relationships, and cultural expression within the building and surrounding landscape.

Indigenous values and perspectives have been meaningfully incorporated into the design through dedicated spaces and landscape features, including the Indigenous Medicinal Garden, which supports cultural practices and learning, and the North Atrium, which has been designed as a modern interpretation of a longhouse welcoming inclusive gathering and reinforcing connection to place, ceremony, and community. Indigenous engagement culminated in a Smudging Ceremony held on October 14, 2025, marking an important milestone in acknowledging Indigenous presence and values within the project.

Consultation

Throughout the project planning and validation phase of the Temerty Building, extensive consultation has been undertaken beyond the Project Planning Committee, led jointly by Temerty Faculty of Medicine Facilities Management and University Planning. Early consultation included representation from students in the Temerty Faculty of Medicine's undergraduate and graduate programs, as well as key academic and institutional stakeholders, including the Office of Inclusion and Diversity, the Office of Indigenous Health, Accessibility for Ontarians with Disabilities Act (AODA) Office, Sexual & Gender Diversity Office (SGDO), Education and Co- Curricular Programs, Multi-Faith Centre, Learning and Diversity Outreach, Public Health and Preventive Medicine, Postgraduate

Medical Education, Graduate Professional Development, internal research groups, education user groups (MD Program and Graduate Teaching), the Building Servicing Group, and the Anti-Racism and Cultural Diversity Office (ARCDO). In Planning Phase, a total of six Project Planning Committee (PPC) meetings were held between January 2021 and October 2021, providing a structured forum to establish programmatic requirements, academic priorities, and institutional objectives that informed the Feasibility Study and subsequent phases of work. As the project transitioned into Validation Phase and delivery under an Integrated Project Delivery (IPD) model, consultation was expanded and embedded within the design process through Project Implementation Teams and targeted working groups with Temerty Medicine, A&S and central including: AODA Office, Facilities & Services (Accessibility, Sustainability Office, and Grounds), the University Registrar's Office (URO), Learning Space Management (LSM), the Office of Convocation, Campus Events, and other operational stakeholders.

Space Program

The Temerty Building space program represents the outcome of an iterative and collaborative planning process undertaken through the Integrated Project Delivery (IPD) model, supported by robust consultation (noted in the preceding paragraph). The program has been developed to balance the academic and research needs of the Temerty Faculty of Medicine and the Faculty of Arts & Science with institutional requirements for teaching, student experience, and major ceremonial functions, while responding to site constraints, technical complexity, and long-term operational considerations. The Validation Phase confirmed that the proposed space program could be achieved within the established project parameters and provides an appropriate foundation for advancing the project into Target Value Design:

- 3 labs floors of research wet lab for Temerty Faculty of Medicine, including open office and shared collaboration space;
- 3 labs floors of research wet lab for Faculty of A&S's Cell & Systems Biology, including open office and shared collaboration space;
- 1 core facility floor for Faculty of A&S, that houses an Aquatics and Growth Chamber Facility;
- Active Learning Studio classrooms and small group learning classrooms;
- Lobby & Ground Floor Assembly for Convocation and Alumni Reunion and Events;
- Smudging spaces and Indigenous Garden;
- Informal and formal student study space;
- Reflection and Multipurpose Space;
- Student Societies;
- Administrative offices for: Office for Inclusion and Diversity (OID), Office of Indigenous; Health (OIH) and other administrative space; and
- Core and shell space only for the Node 5 (thermal and electrical node).

Note: The Nodal Plant is non-assignable space and therefore not included in the detailed Validation Space Program. Currently, Node 5 is distributed on the Basement, Level 1 and portions of the Mechanical Penthouse.

Master Plan, Secondary Plan and Heritage

Although the U of T 2011 Master Plan did not contemplate new development at the MSB, the proposed Temerty Building does not hinder or impact any potential development for Site 17, 5 King's College Road which includes the Mechanical Engineering Building. U of T applied to amend the Official Plan for a new Secondary Plan in 2016 with a re-submission in 2018. The Official Plan Amendment 582 was adopted by City Council in July 2022. The Draft block-specific Urban Design Guidelines (2018) provide guidance on Vision, Public Realm Strategy and Built Form Strategy to guide the evolution of future development on university-owned lands. The U of T St George Campus Secondary Plan Application and Draft Urban Design Guidelines (UDG) identify the West Wing location appropriate for additional mid-scale height at Block C, location where Temerty Building is proposed. The proposed massing in the Secondary Plan and UDG Block C guidelines illustrate a conceptual 48 meter (m) tall building, excluding mechanical penthouse, that has a lower 20 m street wall towards Front Campus, with step back and additional storeys rising to 38 m with further step back. The Temerty Building's sculpted massing generally aligns with intent of the St. George Campus Secondary Plan policies and Urban Design Guidelines, directing height away from Front Campus.

The Secondary Plan Application also included the U of T Cultural Heritage Assessment (CHRA), prepared by ERA Architects in February 2018. The CHRA identified MSB as a Character-defining resource and the analysis found MSB to meet the Ontario Regulation 9/06 criteria for cultural heritage value based on design, historical, and contextual value. On November 12, 2025, the Medical Sciences Building was designated on the City of Toronto's (City) Heritage Register. The proposed design has considered the characteristics and prominence of MSB including its sculptural façade and aggregated massing by transitioning Temerty Building's massing and articulation between low-rise Front Campus to mid-scale, which helps to create a sensitive contextual dialog between MSB and the larger context of the Front Campus including Convocation Hall.

Municipal Approvals

The team has had proactive meetings with City staff (Community Planning, Urban Design and Heritage Planning) to build a comprehensive understanding of the proposed project and work collectively on a scoped municipal approvals process due to *Bill 185: Cutting Red Tape to Build More Homes Act, 2024* ("Bill 185"), which exempts all undertakings of the University for the objects of the University from all provisions of the Planning Act and planning related provisions of the *City of Toronto Act, 2006*. The team has a Pre-Application Consultation (PAC) meeting with the City on January 29, 2026. The PAC meeting benefits the approvals process through providing opportunities to collaborate further on the application with the various City Departments, improving the application's quality and streamline review time. Additionally, the PAC will confirm the voluntary Site Plan Control (SPA) requirements with the SPA Checklist.

Voluntary SPA is anticipated to be submitted late February 2026. The Temerty Building's main building permit is anticipated for submission late August 2026.

Enabling Projects

To prepare the development, enabling projects are currently complete or in implementation phase to relocate occupant groups and decant the West Wing allowing for abatement and demolition. These separate enabling projects include:

- Toronto High Containment Facility (THCF);
  - Once the THCF project is complete (anticipated occupancy, late Fall 2026), decanting of the existing CL2+ and CL3 units into the new THCF facility within MSB can be initiated.
  - Anticipated occupancy February 2027
- 777 Bay administrative and laboratory fit out; and
  - Occupancy December 2023
- Division of Teaching Labs (DTL) at Ramsay Wright.
  - Anticipated occupancy June 2026

FINANCIAL IMPLICATIONS:

Discussion of overall costs and sources of funds can be found in the “In Camera” document for this project.

RECOMMENDATION:

Be It Resolved,

THAT the Report of the Project Planning Committee for the University of Toronto Temerty Building (MSB West Wing Redevelopment) dated January 21, 2026, be approved in principle; and,

THAT the Interim Project Scope as outlined in the Report of the Project Planning Committee for the University of Toronto Temerty Building (MSB West Wing Redevelopment), be approved in principle; to be funded by the Temerty Faculty of Medicine “Temerty MSB Redevelopment Fund”, the Faculty of Arts & Science “Faculty Major Capital Projects Reserve Fund”, Institutional and Facilities & Services Interim funding.

DOCUMENTATION PROVIDED:

- Report of the Project Planning Committee for Temerty Building (MSB West Wing Redevelopment), Issued for Validation Report January 21, 2026.

Report of the Project Planning Committee for
University of Toronto
Temerty Building
(MSB West Wing Redevelopment)

Issued for Validation Report January 21, 2026

University Planning - University Planning, Design and Construction

I. Executive Summary

The Temerty Building, at 1 King's College Circle, offers a unique opportunity to redevelop the Medical Sciences Building's (MSB) "West Wing" within the heart of the St George Campus, known as the "Front Campus". The Temerty Building creates a recognizable and welcoming entrance for the University of Toronto's (U of T) medical and life science community with the Temerty Faculty of Medicine (TFoM) and the Faculty of Arts & Science (A&S), supporting a sensitive dialog with the Central Campus Character Area landmark buildings, such as Convocation Hall and University College, the new Landmark landscape, and the City beyond. This redevelopment is possible through the transformational gift from the Temerty Foundation, providing TFoM with the opportunity to modernize their research facilities and infrastructure while partnering with A&S to create a new hub for learning, research, and student and administrative activity.

The redevelopment plan started in 2020 with Perkins Eastman Architects, who were retained by the University to prepare a MSB Master Program and a Temerty Building Feasibility Study related to the academic redevelopment of the MSB's West Wing (Block B, see Image 1) and incorporation of a campus nodal plant. The consultants developed a general space program, engineering reports, a building condition assessment, and considerations for decoupling West Wing from MSB to maximize the site's capacity by adding a proposed eleven (11) levels, including two (2) mechanical levels, above grade, thereby demolishing MSB's West Wing and conserving the remainder of MSB.

The University selected the Integrated Project Delivery (IPD) method to design and construct the Temerty Building. —This is a collaborative construction methodology that brings together all major stakeholders, including the owner, architects, engineers, contractors, and trades, as one unified team from the outset of the project. Diamond Schmitt Architects Incorporated (DSAI), serving as the local architectural partner, along with MVRDV, from the Netherlands and Graham Construction & Engineering with Ball Construction (Graham/Ball), were onboarded to the project team at the end of 2022. At the beginning of 2023, the majority of trades were onboarded through the Integrated Project Delivery (IPD) model. IPD emphasizes early involvement, open communication, and collective decision-making to promote transparency, innovation, and efficiency throughout the project lifecycle. Through a shared contract structure, participants commit to aligned project goals and share both risks and rewards, supported by shared financial incentives and leveraging technologies such as Building Information Modeling (BIM). This integrated approach fosters a culture of trust, accountability, and mutual success, ultimately resulting in reduced costs, improved quality, and accelerated project schedules.

The proposed design by the IPD team builds on the initial feasibility study's vision and space program. The Temerty Building is primarily a research building, dedicating approximately 59% of the total footprint to research space. This adaptable plan creates robust research wet lab facilities, that allows for future flexibility to accommodate different research teams across TFoM and A&S. The Temerty Building brings together principal investigators (PI), researchers, staff, and students across TFoM and A&S communities under a new roof.

The Temerty Faculty of Medicine will anchor its research and educational mission in the new Temerty Building, housing a dynamic mix of wet and dry labs, collaborative research environments, and shared academic spaces. For TFOM this space will support, 11 wet and dry lab modules per floor for a total of 33 PIs, enabling cutting-edge discovery in fundamental and translational biomedical sciences. By

consolidating key research clusters and enhancing proximity to clinical partners and interdisciplinary collaborators, the building advances the Faculty's strategic priorities in precision medicine, data science, and health innovation. Temerty Medicine has a large biomedical research community. The research ecosystem includes interdisciplinary research units that bring research talent across Faculties and disciplines to address specific challenges and identify solutions. Some of these interdisciplinary units could be from the Institutional Strategic Initiatives (ISI) portfolio, which advances U of T's capacity to conduct high-impact interdisciplinary research that transforms lives. Existing examples of current cross-divisional research include Medicine by Design, PRiME, Emerging and Pandemic Infections Consortium (EPIC), the Acceleration Consortium, and the Institute for Pandemics.

The Faculty of Arts & Science is Canada's largest and most research-intensive undergraduate and graduate enterprise, a vibrant intellectual community of students and scholars deeply committed to excellence, discovery and diversity. The Faculty comprises 29 departments, seven colleges and 49 interdisciplinary centres, schools, and institutes, providing both academic offerings, but also a thriving community outside the classroom. This scope allows the development of new synergies, to address novel research opportunities and student interest in areas that cut across the sectors. As part of this vision, the A&S Department of Cell & Systems Biology (CSB) will relocate the majority of its research components to the Temerty Building, recognizing its strong synergy with the Temerty Faculty of Medicine. This new purpose-built research facility will support 31 CSB Principal Investigators, including the CAGEF Centre for the Analysis of Genome Evolution, the CSB imaging facility, and organismal growth facilities for plant and fish biology, and 9 to 11 wet and dry lab modules per research floor. A limited amount of dry lab space will also be provided on Level 10, the core facilities floor. CSB's teaching and administrative activities will remain at the Ramsay Wright Building and Earth Sciences Centre.

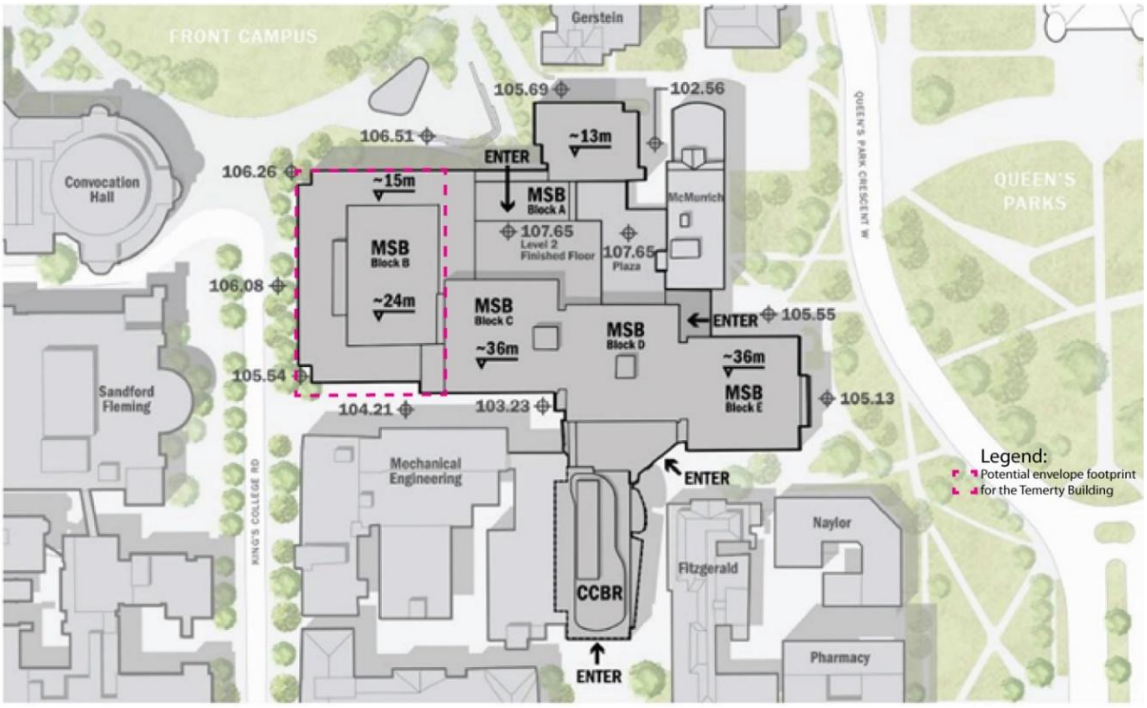

Image 1: Existing MSB Blocks Diagram from the Feasibility Study. The Donnelly Centre for Cellular & Biomolecular Research (DCCBR) in connected to MSB on Level 2 and Level 6.

The site is situated across from Convocation Hall and Front Campus, supporting institutional activities. A key event is Convocation for U of T graduates which can be supported on the ground level of the Temerty Building and surrounding landscape. Each spring, Convocation takes place over three weeks and another week in the Fall. There are other university events such as Alumni Reunion that take place over a weekend in the Spring to host these activities, the ground level of the Temerty Building includes a large prominent Lobby, flexible classrooms and enough crush space around the classrooms to support the flow of people throughout the ground level. The flexible classrooms consist of two Large Active Studio classrooms and two Medium Active Studios that have divisible walls to support not only institutional instructional needs as institutional space managed by the University Registrar's Office (URO), but also the Doctor of Medicine (MD) Program classes for over 200 people in open and flexible spaces that will have a balance between acoustics and security needs since floors above will be dedicated to focused research, and administrative work. On a day-to-day basis, the ground level will primarily serve the institutional instructional needs and to all users of the building including those connecting to MSB or DCCBR.

Site development includes a nodal plant (Node 5) and Central Electrical Distribution (CED 5) as part of the Temerty Building, aligned with the Facilities & Services' (F&S) Site Utilities Master Plan. Node 5 and CED 5 will provide heating, cooling, and power to the Temerty Building, MSB, and surrounding buildings, supporting U of T's goal of campus carbon neutrality by 2050.

Although the 2011 Master Plan did not contemplate new development at the MSB, the Secondary Plan Application and Draft Urban Design Guidelines (UDG) identify the West Wing location appropriate for additional mid-scale height. The Secondary Plan Application also included the University of Toronto Cultural Heritage Resource Assessment (CHRA), prepared by ERA Architects in February 2018. The CHRA identifies MSB as a character-defining resource. Based on the research and analysis outlined in the CHRA report, MSB was found to meet the Ontario Regulation 9/06 criteria for cultural heritage value based on design, historical, and contextual value. The proposed Temerty Building will consider the characteristics and prominence of MSB including the sculptural façade elements, the aggregated massing, and MSB's mitigation between the Central Campus Character Area and the College Street Character Area on campus. The Consultants will work collaboratively to consider Temerty Building's sensitive integration with MSB, and the building's relationship with the larger context of the Front Campus buildings, including but not limited to Convocation Hall. Heritage deliverables will include a Cultural Heritage Evaluation (CHER) Report and a Heritage Impact Assessment (HIA) Report. The project anticipates sharing the design with the City of Toronto (City) in September 2025 through Zoning Applicable Law Certificate (ZAP), and a voluntary Preliminary Application Consultation (PAC) applications. Temerty Building anticipates submitting a voluntary scoped Site Plan Control application (SPA) with the City of Toronto (City) February 2026 and Building Permit (BP) submission August 2026. The City adopted the U of T St. George Campus Secondary Plan area wide guidelines on June 29, 2022, with amendments. The accompanying block-specific Urban Design Guidelines will continue to inform the evaluation of current and future development applications.

To ready the development, enabling projects are currently in implementation phase to relocate occupant groups and decant the West Wing. These enabling projects include: the Toronto High Containment Facility (THCF), 777 Bay administrative and laboratory fit out, and The Temerty Faculty of Medicine (TFoM) Division of Teaching Laboratories (DTL) Ramsay Wright (RW) Staging Project at Ramsay Wright. Once the THCF project is completed, decanting of the existing CL2 and CL3+ units into the new THCF facility can be initiated.

Throughout the project planning of the Temerty Building, there has been extensive consultation beyond the Project Planning Committee led by TFoM Facilities Management & Space Planning, The Faculty of Arts & Science Infrastructure Planning, and University Planning. Consultation is ongoing, and to date has included many students from the Temerty Faculty of Medicine's undergraduate and graduate programs, TFoM's Office of Inclusion and Diversity, TFoM's Office of Indigenous Health, Central University's Accessibility for Ontarians with Disabilities Act (AODA) Office, Sexual Gender and Diversity Office (SGDO), Education and Co-Curricular Programs, Multi Faith Centre, Learning and Diversity Outreach, Public Health and Prevention Medicine Program, Post Graduate Medical Education, Graduate Professional Development, Core Research Groups, Internal Research Groups, Education User Groups (MD Program, Graduate Teaching, Building Servicing Group, and the Anti-Racism and Cultural Diversity Office (ARCDO). As the project moves into the next Target Value Design (TVD) phase, consultation will continue with occupant groups, The Temerty Faculty of Medicine, the University Registrar's Office, the Faculty of Arts & Science Department of Cell & Systems Biology graduate students and undergraduate researchers. The Temerty Building space program proposes 6 % of the overall footprint to be student space. This is made up of a Reflection and Multi-Purpose Space, informal and formal student Study Space, and student society space including an EDI Lounge which will help to enrich the student learning and campus experience and support student well-being.

The Temerty Building integrates Indigenous spaces and cultural elements, including an Indigenous Medicinal Garden and indoor smudging spaces, responding directly to recommendations from the University of Toronto's Answering the Call Wecheehetowin report. The Office of Indigenous Health (OIH) and the Office of Inclusion and Diversity (OID) have prominent and accessible locations on the ground level, emphasizing the University's commitment to Indigenous representation and support. Indigenous stakeholders and community members participated actively through extensive Indigenous consultation, including the use of an Indigenous Talking Circle methodology, to inform planning and design decisions. These consultations and engagements are captured, ensuring that Indigenous perspectives meaningfully shape the design and operation of the Temerty Building.

The Temerty Building's area is anticipated to total approximately 17,794 net assignable square meters (NASM), and 36,978 gross square metres (gsm), including two (2) levels below grade, and eleven (11) levels, including three (2) mechanical levels, above grade. The proposed development assumes full demolition of the existing West Wing (approximately 16,648 gsm, 8,807 NASM). The Temerty Building will accommodate the following:

- 6 Research Floors (3 floors for TFoM and 3 floors for A&S), including open wet lab, specialised procedure spaces, research lab support, and open office and shared collaboration space;
- 1 Core Facility Research Floor on Level 10 for A&S that will primarily house the BioScience Support Facility CSB Research Program and Growth Facilities;
- 1 floor for TFoM that will include a dry computational lab, 3 Medium Active Studios, MD Study rooms, informal study spaces, Reflection and Multipurpose space, family feeding room, and Medical Society admin. This floor also includes 3 seminar rooms that will be managed by the University Registrar's Office
- An institutional floor to host Convocation and Alumni Reunion that will include the following day-to-day programs:
    - North Lobby (The Great Hall) and South Lobby
    - 2 Large Active Studios, 2 Medium Active Studios, 1 Seminar Room and associated support spaces that will be managed by the University Registrar's Office
    - Office for Inclusion and Diversity (OID)
    - Office of Indigenous Health (OIH)

- Indigenous Garden
- Informal study spaces
- Loading dock and back-of-house service spaces

- Basement and Sub-Basement levels for Nodal Plant (Node 5 and CED 5) and building related mechanical and electrical spaces;
  - Includes storage rooms for the University Registrar's Office (URO) and TFoM

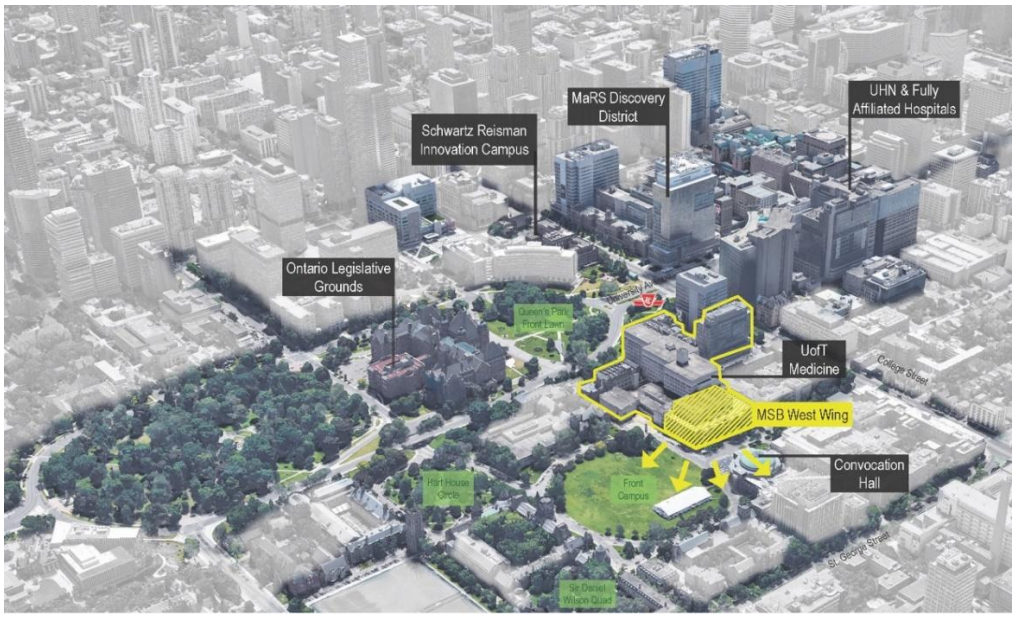

Image 2: Context Site Plan

Image 3: DRC#3 Render view south from University College Library.

Image 3: DRC#3 Render from Convocation Hall

Image 4: DRC#3 Render view from Gerstein Science Information Centre

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II. Project Background

a) Membership

*Lisa Robinson, Dean, Temerty Faculty of Medicine, TFoM
*Stephen Wright, Acting & Interim Dean, Faculty of Arts & Science, A&S.
*Justin Nodwell, Vice Dean, Research and Graduate Education, TFoM (PPC Chair)
*Jay Pratt, Acting Vice Dean, Research & Infrastructure, Faculty of Arts & Science, A&S.
*Nicholas Provart, Chair, Department of Cell & Systems Biology, Faculty of Arts & Science
*Denis Bourguignon, Chief Administrative Officer, TFoM
*Mary Lyne, Chief Administrative Officer, Faculty of Arts & Science A&S
*Carmen Sebert, Senior Project Manager, Strategic Initiatives, Temerty Faculty of Medicine, TFoM
*Lisa Richardson, Associate Dean, Inclusion and Diversity, TFoM
Scott Gray-Owen, Professor, Department of Molecular Genetics and Director, Combined Containment Level 3 Unit, TFoM
*Kerri Nielsen, Director, Division of Comparative Medicine, TFoM
Frank Giuliano, Manager, Division of Comparative Medicine, TFoM
Ahlia Khan-Trottier, Associate Dean, Undergraduate Education, TFoM
Scott Heximer, Chair, Department of Physiology, TFoM
Sara Sharifpoor, Director, Office of Research and Health Science Education, TFoM
Carrie Pajotte, Associate Director, Technical Operations & Infrastructure, MedIT, TFoM
Jacqueline Watt, graduate student, Department of Molecular Genetics, TFoM
Elissa Currie, graduate student, Department of Molecular Genetics, TFoM
Jennifer Kao, undergraduate student – MD Program, TFoM
Kenneth Williams, undergraduate student – MD Program, TFoM
Heather Taylor, Executive Director, Major Projects, and Facilities Management, TFoM
*Paul Martin, Director, Facilities Management & Space Planning
*Nadja Baljozovic, Senior Facilities Planner Facilities Management & Space Planning, TFoM
*Matthew Seegmiller, Senior Facilities Planner Facilities Management & Space Planning, TFoM
*Lucy Chung, Director, Office of Infrastructure Planning, Faculty of Arts & Science A&S
*Kate Slotek, Senior Space Planner, Office of Infrastructure Planning, Faculty of Arts & Science A&S
*Ash Barrey, Facilities Designer, Office of Infrastructure Planning, Faculty of Arts & Science A&S
*Priya Murugaiah, Senior Manager - Client Services Information & Instructional Technology (IIT), A&S

* Ryan MacDonald, IT Coordinator BIOTA, A&S
Ayoob Ghalami, Senior Biosafety Officer, Environmental Health and Safety
Steve Bailey, Director, Learning Space Management, Division of the Vice-President & Provost
*Samantha Marsh Smith, Director, Office of Convocation
Sarah Reid, Associate Director, Campus Events, Ancillary Services
Anne Macdonald, Assistant Vice-President, Ancillary Services
Christina da Rocha-Feeley, Director of Operations, Office of the Governing Council
*Emily Pimblett, Director, Advancement Events, Division of University Advancement
Ron Saporta, Chief Operations Officer, Facilities and Services (F&S)
Angelique Saweczko, University Registrar, Division of the Vice-President & Provost
*Flavio Bertolo, Senior Manager – Infrastructure, F&S
Christine Burke, Assistant Vice-President, University Planning, UPDC
Costas Catsaros, Director, Project Development, UPDC
*Bill Katsiroumpas, Senior Manager, Project Management, UPDC
*Andrew Wisniowski, Senior Manager, Project Management, UPDC
Laragh Halldorson, Senior Manager, Project Development, UPDC
*Evelyn Casquenette, Associate Director, University Planning, UPDC
*Ivan Munoz, Planner, University Planning, UPDC
*Linda Liu, Senior Planning Associate, University Planning, UPDC

* New membership following Project Planning Committee approval

b) Terms of Reference

The Project Planning Committee will:

1. Make recommendations for a detailed space program and functional layout for a new state-of-the-art Education and Research Building for the Temerty Faculty of Medicine (TFoM) on the corner of King's College Road and King's College Circle.
2. Identify the space program as it is related to the existing and approved academic plan of TFoM, taking into account the impact of approved and proposed pedagogical changes to programs, increasing faculty, student and staff complement, planning underway for locating or relocating academic, research, and administrative functions within MSB and other TFoM sites, and recognizing Equity, Diversity and Inclusion as a key strategic mandate of the Faculty. Plan to realize maximum flexibility of space to permit future allocation, as program needs evolve over time.
3. The Medical Sciences Building is one of the major hubs of classroom activity on the St. George Campus. In collaboration with Learning Space Management recommend the number, capacity and style of classrooms required at the West Wing redevelopment site to ensure that the appropriate array of facilities is provided to meet the needs of 21st century learners.
4. Demonstrate that the proposed space program will be consistent with the Council of Ontario Universities'(COU) and the University of Toronto's own space standards.
5. Make recommendations that meet the needs of the Faculty for a strong physical identity, sense of community and connections, and serve as a focal point of contact with the University Community and the public at large.
6. Identify the space program for the Convocation support activities in collaboration with Office of Convocation and Campus Events to replace the need to erect a tent on the Front Campus.
7. The West Wing redevelopment site has been identified as the location of a thermal nodal plant serving Node 5 and the location of a central electrical distribution station. In collaboration with Facilities & Services, make recommendations for the provision of space to accommodate the Nodal Plant and CED within the proposed development. Provisions to include vibration and noise control in order for adjacent program activities beside or above the utilities plant areas are not disturbed.
8. Make recommendations consistent with the proposed University of Toronto St. George Campus Secondary Plan and companion urban design guidelines both campus-wide and as they relate specifically to the MSB West Wing site.
9. Identify all secondary effects, including space reallocations, vacated space, impact on the delivery of academic programs during construction, and all required relocations to implement the plan, including cost and schedule.
10. Identify specific sustainability goals, including energy efficiency goals for this project aligned with UofT standards. Recommendations for goals should also be cost effective and incorporate proven best practices.
11. Identify equipment and movable furnishings necessary to the project and their estimated cost.
12. Identify all data, networking and communication requirements and their related costs.
13. Identify all security, occupational health and safety and accessibility requirements and their related costs
14. Identify a signage strategy for the new building.
15. Identify with University of Toronto Communications and Temerty Faculty of Medicine Office of Communications a strategy to communicate the project to the broader community.
16. Identify all costs associated with transition during construction and secondary effects resulting from the realization of this project.

17. Determine a total project cost estimate [TPC] for the capital project, including costs of implementation in phases if required, and also identifying all resource costs, including a projected increase to the annual operating cost.
18. Identify all sources of funding for the capital project in consultation with the Planning and Budget Office and any increased operating costs once the project is complete.
19. Identify project milestone schedule.
20. Interim Project Planning Report by Cycle 4 2021-22.

c) Background Information

The Medical Sciences Building (MSB) at 1 King's College Circle, is one of the largest buildings on the University of Toronto's St. George campus, and it is strategically located near other buildings on and off campus where TFoM occupies space. This building was purpose-built in late 1969 to house the Faculty of Medicine. Today, MSB accommodates approximately 50% of the Faculty's total space on-campus, primarily housing academic and research functions. The building is showing significant and increasing deterioration with about two-thirds of the research space being original to the building, limiting flexibility for research needs. Arguably, continued efforts to renew MSB's existing medical laboratory spaces are time consuming and cost prohibitive as per the 2020 Building Conditions Assessment report, part of the Feasibility Study, which outlines areas of deficiency.

MSB's West Wing has been the subject of internal and external studies to evaluate the development potential of the site. In 2020, a consultant team led by Perkins Eastman Architects, was engaged by the University to complete a MSB Master Program and a Feasibility Study for the West Wing site, to develop a general space program, and outline the engineering scope of work. In addition to completing a Building Condition Assessment on the existing systems, structure, decoupling considerations of West Wing from MSB, the Feasibility Study also provided recommendations on more generic building planning, such as generic wet lab modules to increase flexibility.

Announced in 2020, the transformational gift from the Temerty Foundation will help create a state-of-the-art building for education and research which will serve as an important centrepiece – a place where faculty, researchers, partners, and students will gather to share ideas and consider answers to scientific, health and clinical questions. In addition to the academic and research goals, the following additional goals are:

Climate positive goals

In 2019, the University engaged an external consultant to make recommendations for a renewal strategy to support future performance of the campus's utility assets, utility growth needs relative to the University's master plan and secondary plan, a plan that aligns with the University's commitment to reduce greenhouse gas emissions (37% below emissions in the 1990s by 2030) and, campus carbon positivity before 2050. The "Site Utility Master Plan" reports recommendations to have a hybrid system between a new dispersed nodal plant locally supporting buildings within an area, along with an existing central plant to help reduce distribution infrastructure, while maintaining a flexible path to integrate future low-carbon generation technology. Part of the development and renewal schedule included a nodal plant (Node 5) as part of the West Wing Redevelopment. Node 5 will provide heating, cooling, and power to Temerty Building, MSB, as well as surrounding buildings in the area. The goal to achieve campus carbon neutrality before 2050, aligns with the Government of Canada's commitment to net-zero emissions. At the municipal level, the City of Toronto has adopted an ambitious strategy to reduce community-wide greenhouse gas (GHG) emissions to net zero by 2040. U of T's objective to tip the scales beyond carbon neutrality before 2050, involves multi-pronged sustainability strategies already in place on campus. One robust tool that affects capital projects is U of T's, "Tri-Campus Energy Modelling & Utility Performance Standard", which promotes innovative design based on absolute energy and GHG targets (set by program use) for the year the building is scheduled to be occupied. Temerty Building's Project Charter is a project requirement, and the target process will promote resiliency and sustainability from planning, design, construction to occupancy and operations.

Convocation and Alumni Reunion

Convocation is the largest, significant, and inclusive celebratory event held at U of T, involving all academic divisions across all three campuses. It is an important part of the student experience at the University, representing the culmination of their educational achievements. Considering the impact of the growth in the size of graduating classes and the limited capacity of Convocation Hall, the President, and the Chair of the Governing Council, commissioned a review of Convocation in 2018. Following a comprehensive consultation process, the Convocation Advisory Review Committee recommended that Convocation Hall continue to be the venue for all University convocations, notwithstanding its limitations. The findings of the review were clear that there was a strong sense of pride in the tradition of convocation at U of T, and a firm attachment to the traditional venue of Convocation Hall. Within Convocation Plaza, a space of celebration for graduates and their guests, an outdoor temporary tent on Front Campus within steps of Convocation Hall was traditionally erected. The tent offered a fully accessible seating area for guests to view the live-streamed ceremony, have refreshments, and offer a flexible space for young families, the elderly, and children in strollers. For graduating students, the space offered regalia services, an opportunity to connect with Alumni Relations for future interactions, diploma framing, and areas for unique photo opportunities. Overall, the Front Campus provided a unique and exceptional convocation experience within the historic background of the Front Campus. However, the temporary outdoor tents had limitations, which presented an opportunity to look at other possible on-campus venues near Convocation Hall to eliminate complications related to weather. As MSB's West Wing is directly across from Convocation Hall, consultations with the Office of Convocation, Office of Governing Council, Campus Events, and Division of University Advancement have provided recommendations and requirements for the ground level of Temerty Building to be the future supporting venue for Convocation and Alumni Reunion, effectively housing the activities formerly hosted in the tent(s). Alumni Reunion is a multi-day event for U of T alumni and their families, which includes an Annual General Meeting (AGM) in Convocation Hall, and Alumni Fest formerly known as the BBQ is the flagship event as part of U of T's annual Alumni Reunion — a large-scale, in-person gathering designed to welcome thousands of alumni and their families back to campus. The event features food, entertainment, family programming, and opportunities to reconnect with the University which takes place inside tents on Front Campus. Alumni Reunion leverages space and resources through collaborative scheduling with Convocation and is also a tri-campus event.

Culture and accessibility

U of T's *Final Report of the Steering Committee for the University of Toronto Response to the Truth and Reconciliation Commission of Canada in 2017: Answering the Call Whecheetowin* specifies Calls to Action for the University. Of the six themes identified, the first is the creation of Indigenous space on Campus. The report identifies several short-term Calls to Action that can be immediately explored and implemented.

The Temerty Building actively incorporates Indigenous perspectives through a comprehensive Indigenous consultation process. This process includes the use of an Indigenous Talking Circle methodology, facilitating respectful, inclusive dialogues and meaningful knowledge exchange with Indigenous community members, Elders, and stakeholders. Insights from these consultations are documented comprehensively in an Indigenous Consultation Findings Document, which guides planning, design decisions, and future programming within the Temerty Building. The creation of physical spaces informed by these consultations includes dedicated indoor smudging capable spaces to appropriately support Indigenous cultural practices. The building also prominently features suites for the Office of

Indigenous Health (OIH) and the Office of Inclusion and Diversity (OID). Although OIH and OID are co-located, administratively structured similarly, and share similar values, the OID suite is not exclusively Indigenous-focused; it encompasses a broader range of equity, diversity, and inclusion (EDI) initiatives, human rights, LGBTQ+ communities, learners facing systemic barriers, as well as Indigenous inclusion. Immediately outside the OID and OIH suites on the ground level, an Indigenous Medicinal Garden will provide dedicated outdoor space appropriate for Indigenous spiritual and cultural needs, further enhancing visibility and promoting meaningful connections with Indigenous communities.

Accessibility and universal design principles are prioritized throughout the building. Spaces are designed to be inclusive, barrier-free, and welcoming to all students, staff, faculty, and visitors. Universal accessibility features include clearly defined accessible routes, flexible and adaptable furniture arrangements, and comprehensive adherence to the Accessibility for Ontarians with Disabilities Act (AODA). Consultations included engagement with The Accessibility for Ontarians with Disabilities Act (AODA) office and Central University's Accessibility Office to ensure the facility meets UofT Accessibility standards.

d) Existing Space

The main occupant groups that will be housed within Temerty Building and whose existing space is to be described in more detail are:

- Temerty Faculty of Medicine (TFoM)
    - TFoM Research Space;
    - TFoM Academic Departments;
    - TFoM Administrative Departments;
    - TFoM and Student Space;
    - TFoM Classrooms

- Institutional
    - University Registrar's Office (URO)

- Faculty of Arts & Science (A&S)
    - A&S Academic Department: Department of Cell & Systems Biology (CSB)
        - CSB Research Space
            - Imaging Facility
            - Growth Facility
            - BioScience Support Facility (BSF)
            - Centre for the Analysis of Genome Evolution and Function (CAGEF)
        - CSB Academic Departmental Space
        - CSB Student Space
        - A&S Specialized Core Facility

Temerty Faculty of Medicine (TFoM)

Existing TFoM space within MSB is identified below. Note: West Wing/Block B is proposed to be demolished.

Table 2.0 – Existing MSB by Department

Department Name	Block A NASM	Block B NASM	Block C NASM	Block D NASM	Block E NASM	Total NASM
3D			290.64			290.64
Anatomy, Division of (Surgery)	1748.54	1045.49	122.99			2917.02
Ancillary Services	39.93			397.29	390.53	827.75
Biochemistry, Dept of			20.07	150.9	969.64	1140.61
Building Services, Grounds & Trades	18.96			78.54		97.5
Cellular & Biomolecular Res, Ctr		620.46				620.46
CFI Flow Lab				73.08		73.08
Comparative Medicine, Division of		1046.69	903.46	341.97		2292.12

Department Name	Block A NASM	Block B NASM	Block C NASM	Block D NASM	Block E NASM	Total NASM
Dean's Office						
Medicine	70.97	12.6	546.04	683.77	926.53	2239.91
Discovery Commons		842.06				842.06
Environmental Protection Services		9.17		37.76		46.93
Immunology, Dept of			2.57	486.7	1011.38	1500.65
Laboratory Medicine & Pathobiology			41.49	707.88	1002.26	1751.63
Medical Science, Institute of			165.32			165.32
Medical Society	138.36		78.98			217.34
Medicine, Dept of			1182.64	300.76		1483.4
Medstore			57.55	357.9	43.91	459.36
Microscopy Imaging Lab (Med)	252.01					252.01
Molecular Genetics, Dept of	29.74	1305.85	605.08	32.49	20.93	1994.09
Non-Institutional Space		8.53				8.53
Nutritional Sciences, Dept of			875.36	605.12	18.4	1498.88
Pharmacology and Toxicology, Dept of		85.89	375.12	772.11	995.86	2228.98
Physiology, Dept of	52.13		282.81	809.87	1558.87	2703.68
Provost					34.3	34.3
Teaching Laboratories, Div. of (Med)		3423.07	34.56	10.79	9.36	3477.78
Undergraduate Medical Education	351.02		134.95	356.24	17.12	859.33
URO Classroom Inventory	2383.48	162.04				2545.52
Utilities & Building Operations					135.67	135.67
Vice-Dean Research (Medicine)	611.75	244.76	104.64	126.02	11.92	1099.09
Total Existing	**5,969.89**	**8,806.61**	**5,824.27**	**6,329.19**	**7,146.68**	**33,803.64**
Total NASM to be Demolished						**8,806.61**
Total Existing NASM to Remain						**24,997.03**

Table 2.1 – Existing MSB by COU Category

COU	Category Description	Block A NASM	Block B NASM	Block C NASM	Block D NASM	Block E NASM	Total NASM	%
1.0	Classroom Facilities	2335.77	410.52		80.06		2826.35	8%
2.0	Laboratory - Undergraduate	1391.86	3665.72	49.01			5106.59	15%
3.0	Research Laboratory Space	947.08	2672.44	3188.22	3677.92	4158.05	14643.71	43%
4.0	Academic Dept Offices and Related Space	591.03	1353.04	1624.12	1541.84	2418.66	7528.69	22%
7.0	Food Service	39.93			397.29	390.53	827.75	2%
9.0	Plant Maintenance	18.96	9.17		90.2	125.94	244.27	1%
10.0	Administrative Office and Related Space	13.23				44.03	57.26	0%
11.0	Non-Library Study Space	138.36	77.93				216.29	1%
12.0	Central Services		33.01	89.77	334.84		457.62	1%
13.0	Health Service Facilities					9.47	9.47	0%
14.0	Common Use and Student Activity	10.37	24.75	78.98			114.1	0%
15.0	Assembly And Exhibition Facilities	210.3					210.3	1%
18.0	Core Research		551.5	794.17	196.9		1542.57	5%
19.0	Other University Facilities		8.53		10.14		18.67	0%
Total Existing		**5,696.89**	**8,806.61**	**5,824.27**	**6,329.68**	**7,146.68**	**33,803.64**	
Total to be Demolished							**8,806.61**	
Total Existing to Remain							**24,997.03**	

The remaining MSB gross area and NASM are as follows:

Table 2.2 – Existing to Remain MSB area, GSM (Gross Square Meters) and NASM (Net Assignable Square Meters), in Block B and A, C, D, and E

	To be Demolished		Existing to Remain	
	MSB Block B GSM	**MSB Block B NASM**	**MSB Block A, C, D and E GSM**	**MSB Block A, C, D and E NASM**
Level 10			29	
Level 9			4876	26
Level 8			4,899	
Level 7			4,964	2,916
Level 6	1,655		4,831	2,888
Level 5	1,629	59	5,032	2,905
Level 4	3,336	2,207	5,557	3,225
Level 3	3,348	2,301	7,895	4,395
Level 2	3,366	2,315	7,542	4,003
Level 1	3,314	1,925	8,918	4,641
Total	**16,648 gsm***	**8,807 NASM**	**54,543 gsm**	**24,999 NASM**

*The area of Block C's stair 2 is not included in the Block B demolition gsm above – approximate area from Level 1 to Level 5 is 185 gsm, not including Level 6 and Level 7. MSB's stair 2 is proposed to be demolished – refer to 'Secondary Effects' section.

Temerty Faculty of Medicine (TFOM)

TFoM Research Space

Research space predominantly falls within the following COU Categories noted below in Table 2.3 (summarized from Table 2.1). About 19% of existing research space will be removed from the total MSB research inventory to allow for the Temerty Building redevelopment. As indicated in the Master Program report, section "MSB Renewal Needs", lab space in Block B is original to the 1969 building.

Table 2.3 – Existing Research Space by COU Category

COU	**Category Description**	**MSB Block B NASM**	**% Demolished**	**MSB Block A, C, D NASM**	**% Existing to Remain**
3.0	Research Laboratory Space	2,672.44	18%	11,971.27	82%
4.0	Academic Dept Offices and Related Space	1,353.04	18%	6,175.65	82%
18.0	Core Research	5,51.50	36%	991.07	64%
Total		**4,576.98**	**19%**	**19,137.99**	**81%**

TFoM Academic Departments

Undergraduate Medical Education Program (UME) or Doctor of Medicine Program (MD)

Undergraduate Medical Education and Doctor of Medicine program space is predominantly located in MSB Blocks, A, C, D, and E. The spaces located in 263 McCaul is dedicated MD student study space, which will be relocated to the Temerty Building. Upon completion of the Temerty Building, the existing study space will be reassigned within TFoM. See "TFoM and Student Space" and Table 2.9 for more detail.

Table 2.4 – Existing UME/MD Program Space on St. George Campus

COU	Category Description	MSB Block B NASM	MSB Block A, C, D, E NASM	263 McCaul NASM	Naylor NASM	St. George Total NASM
2.0	Laboratory - Undergrad			79.04		
4.0	Academic Dept Offices and Related Space		848.96	23.73	156.45	
11.0	Non-Library Study Space			201.28		
14.0	Common Use and Student Activity		10.37			
Total NASM			**859.33**	**304.05**	**156.45**	**1,319.83**
%			65%	23%	12%	

The Office of the Vice Dean, Research and Health Science Education (OVDRHSE)

It is not yet known which research themes will be housed in the Temerty Building and is therefore not possible to identify which OVDRHSE Graduate Education Departments will be affected until closer to Temerty Building occupancy. The table below shows possible cohorts that could be served by Temerty Building (referenced from Table 2.0).

Table 2.5 – Existing OVDRHSE Graduate Education Department Space

COU Cat	OVDRHSE Graduate Education Department	MSB Block B NASM	MSB Block A, C, D, E NASM	263 McCaul NASM	Naylor NASM	MaRS NASM	Lassonde Mining NASM	Roseb-rugh NASM
3.0, 4.0, 11.0	Biochemistry		1140.61			1974.95		
2.0, 3.0,	Institute of Biomedical					(1278.76)	(1362.16)	(958.60)

COU Cat	OVDRHSE Graduate Education Department	MSB Block B NASM	MSB Block A, C, D, E NASM	263 McCaul NASM	Naylor NASM	MaRS NASM	Lassonde Mining NASM	Roseb-rugh NASM
4.0, 11.0	Engineering (BME)*							
3.0, 4.0	Immunology		1500.65					
3.0, 4.0, 11.0	Laboratory Medicine and Pathobiology		1751.63			623.93		
	Medical Biophysics**							
4.0	Institute of Medical Science		165.32					
3.0, 4.0, 11.0, 12.0	Molecular Genetics	1,305.85	688.24	14.95		2140.15		
3.0, 4.0, 19.0	Nutritional Sciences		1498.88		216.37			
1.0, 3.0, 4.0	Pharmacology and Toxicology	85.89	2143.09					
1.0, 3.0, 4.0, 11.0	Physiology		2703.68			612.08		
Total		**1,391.74**	**11,592.10**	**14.95**	**216.37**	**5,351.00**	**1,362.16**	**958.60**
Total Existing NASM at St. George campus								**18,566.27**
%		7%	62%	0.1%	1%	29%		

Due to Temerty Building/West Wing redevelopment, approximately 7% of the space housing the noted OVDRHSE functions will be demolished.

Note

* BME space is assigned under the Faculty of Applied Science and Engineering in the DCCBR building. However, some TFoM PIs and graduates have cross appointments with BME. For clarity, BME space is excluded from the TFoM St. George campus total.

** The Department of Medical Biophysics is situated within various research institutes off-campus; thus, their space is not included in the above table.

TFoM Administrative Departments

Office of Inclusion and Diversity (OID)

Currently, the OID operates in MSB Blocks D and E on Level 2, the Naylor Building, and remotely. Presently, the OID offices and collaborators are not co-located.

Table 2.7 Existing Office of Inclusion and Diversity (OID) Space

COU Cat	Category Description	MSB Block B NASM	MSB Block A,C,D,E NASM	Naylor NASM
4.0	Academic Departmental Office and Related Space		24.18	39.22
Total		**0**	**24.18**	**39.22**
Total Existing NASM				**63.40**

Office of Indigenous Health (OIH)

Currently the OIH operates in MSB Block C and D Level 2, the Centre for Wise Practices (CWP) in Indigenous Health at Women's College Hospital (WCH), and remotely. Rm 2354 C in Block C will be reassigned.

Table 2.8 – Existing Office of Indigenous Health (OIH) Space

COU Cat	Category Description	MSB Block B NASM	MSB Block A,C,D,E NASM	Women's College Hospital NASM
4.0	Academic Departmental Office and Related Space		37.99	TBD*
Total		**0**	**37.99**	**TBD***

*The Women's College Hospital and U of T currently have a Memorandum of Understanding which licenses the space occupied by the Centre for Wise Practices to the Temerty Faculty of Medicine's Office of Indigenous Health as an in-kind contribution until September 2026. It is expected that the OIH will retain some presence at CWP/WCH even following the Temerty Building construction with the details of the agreement to be reviewed closer to the end of the above-mentioned term.

TFoM and Student Space.

Table 2.9 - Existing TFoM and Student Space

Currently, there is student space throughout the Temerty Medicine occupied buildings on St. George campus – see following table.

COU Cat	Category Description	MSB Block B NASM	MSB Block A,C,D,E NASM	MARS NASM	263 McCaul NASM	Rehab Sciences Building NASM	DCCBR NASM	Total NASM
11.0	Non-Library Study Space	77.93	138.36	63.79	214.22	256.30	209.54	**960.14**
14.0	Common Use and Student Activity Space	24.75	89.35			58.08		**172.18**
Total		**102.68**	**227.71**	**63.79**	**214.22**	**314.38**	**209.54**	**1,182.32**
%		9%	19%	5%	18%	27%	18%	

The existing COU categories 11.0 and 14.0 space in MSB Block B will be replaced and enhanced in Temerty Building.

The student society MedSoc currently operates out of the MSB Block C on Level 2 where they have access to offices, lounge, study and storage spaces. Their existing space will be reassigned to other TFoM uses in MSB.

There are existing Undergraduate Life Science Student Support spaces located in the West Wing (Block B) of MSB. The current space is physically within the Division of Teaching Laboratories (DTL) footprint and is comprised of a student lounge, meeting room, and office space. These spaces are not going to be included in the Temerty Building.

TFoM Classrooms

There are classrooms/seminar rooms managed by TFoM within MSB – refer to tables

Table 2.10.1 – MSB existing (TFOM) classrooms in Block B to be demolished

COU No.	Space Type	Seat/ Person Count	Space Factor	Unit NASM	Unit Count	Total NASM
1.0	**Classrooms - TFoM**					
1.3	Active Learning Classroom – Teaching Laboratories (Rm 2278)**	50	1.8	88.13	1	88.13
1.3	Active Learning Classroom – Teaching Laboratories (Rm 2377)***	50	1.8	88.50	1	88.50
1.2	Classroom/Meeting/Workshop (Rm 3173)****	12	1.68	20.20	1	20.20

COU No.	Space Type	Seat/ Person Count	Space Factor	Unit NASM	Unit Count	Total NASM
1.2	Classroom/Meeting/Workshop (Rm 3287)****	24	2.1	51.65	1	51.65
1.2	Seminar Anatomy (Rm 1134)*****	30	1.6	46.92	1	46.92
	Classrooms - TFoM					**295.40**

Secondary Effect Notes:
** DTL lab renovation relocating to Ramsay Wright. Classroom is not active learning.
***To be removed from the inventory.
****Classrooms 3173 and 3287 to be merged into one 85 NASM classroom at 777 Bay's Staging Space.
***** To be replaced as a 24-seat Anatomy classroom in the Temerty Building.

Table 2.10.2 - MSB existing (TFOM) classrooms in Block A and D to remain

COU No.	**Space Type**	**Seat/ Person Count**	**Space Factor**	**Unit NASM**	**Unit Count**	**Total NASM**
1.0	**Classrooms - TFoM**					
1.2	Seminar Room - Pharmacology & Toxicology, Dept (Rm 4229)	40	1.3	52.02	1	52.02
1.2	Seminar Room - Physiology, Dept of (Rm 3227)	16	0.9	14.89	1	14.89
1.2	Seminar Room - Physiology, Dept of (Rm 3231)	8	1.6	13.15	1	13.15
	Classrooms - TFoM					**80.06**

*Anatomy classrooms 1106, 1136, 1144, 1146 were demolished as part of Early Works and hence deleted from Anatomy space inventory here. 1134 was relocated to a new location in MSB.

The MSB assigned seminar rooms are scattered between Blocks A and D. The TFoM Seminar Rooms above are typically used to conduct lab meetings/seminars.

Institutional

University Registrar's Office (URO) Classrooms

There are Institutional classrooms, managed by the University Registrar's Office (URO) within MSB – refer to tables below.

Table 2.11 – MSB existing (URO) classrooms in Block B to be demolished

COU No.	Space Type	Seat/ Person Count	Space Factor	Unit NASM	Unit Count	Total NASM
1.0	**Classrooms – Institutional (URO)**					
1.2	Seminar Room (Rm 2290), flat floor*	18	1.3	22.77	1	22.77
1.2	Seminar Room (Rm 2394), flat floor*	18	1.4	25.30	1	25.30
1.2	Seminar Room (Rm 3290), flat floor*	22	1.2	27.25	1	27.25
	Classrooms – Institutional (URO) Total					**75.32**

Secondary Effect Notes:
* Classrooms to be replaced by new seminar rooms in Temerty Building.

Table 2.11.1 - MSB existing (URO) classrooms in Block A and D to remain

COU No.	**Space Type**	**Seat/ Person Count**	**Space Factor**	**Unit NASM**	**Unit Count**	**Total NASM**
1.0	**Classrooms – Institutional (URO)**					
1.1	JJR Macleod Auditorium (Rm 2158, 3101), tiered	500	0.9	455	1	455.16
1.1	Lecture Theatre/Auditorium (Rm 3153), tiered	274	1.6	426	1	425.52
1.1	Lecture Theatre/Auditorium (Rm 3154), tiered	250	1.3	324	1	324.13
1.1	Classroom (Rm 2172), tiered	142	2.0	278	1	278.49
1.1	Classroom (Rm 2170), tiered	140	1.1	161	1	160.51
1.1	Classroom (Rm 4171), tiered	87	1.1	95	1	94.97
1.1	Classroom (Rm 4279), tiered	87	1.1	98	1	98.41
1.2	Classroom (Rm 2173), flat floor	80	1.3	104	1	104.42
1.4	Storage and Projection and Audio Rooms			218		218.34
	Classrooms – Institutional (URO) Total					**2,159.95**

*Refer to “Secondary Effects” section for Noise Assessment Study.
All the LSM assigned classrooms are in Block A on MSB Levels 2-4, adjacent to proposed Temerty Building. All URO classrooms remaining are tiered, except one classroom which is flat floor.

Faculty of Arts & Science (A&S)

A&S Department of Cell & Systems Biology (CSB)

Presently, the Department is housed within two buildings on the downtown St George Campus, the Earth Sciences Centre (ESC) and Ramsay Wright Laboratories Building (RW). Both buildings support academic teaching and research activities, with teaching labs, individual research labs, specialised procedure rooms, and core research support facilities located in both RW and ESC.

The following tables summarise the CSB Space Inventory, on Campus and as it relates to project specific scope:

Table 2.12 - CSB existing Research Laboratory space -Graduate & Faculty Space Inventory Summary. (COU Cat. 3.0 - 3.2) *

COU Category	Subcategory	Subcategory Description	Building Name	Total
3.0	**3.1**	Research Lab Space	Earth Sciences Centre	1,164.24
			Ramsay Wright Laboratories	2,622.28
	3.2	Research Lab Support Space	Earth Sciences Centre	825.43
			Ramsay Wright Laboratories	1,228.46
3.0 Total				**5,840.41**

Table 2.13 - CSB existing Academic Departmental Offices & Related Space Inventory Summary. (COU Cat. 4.0 - 4.5) *

COU Category	Subcategory	Subcategory Description	Building Name	Total
4.0	**4.1**	Academic Offices	Earth Sciences Centre	143.99
			Ramsay Wright Laboratories	408.35
	4.2	Research Office/Project Space	Ramsay Wright Laboratories	25.89
	4.3	Graduate Student Office	Earth Sciences Centre	288.64
			Ramsay Wright Laboratories	285.48
	4.4	Departmental Support Staff Office	Earth Sciences Centre	25.62
			Ramsay Wright Laboratories	226.76
	4.5	Office Support Space	Earth Sciences Centre	33.07
			Ramsay Wright Laboratories	445.87
4.0 Total				**1,883.67**

Table 2.14 - CSB existing Non—Library Study & Collab Space Inventory Summary. (COU Cat. 11.0) *

COU Category	Subcategory	Subcategory Description	Building Name	Total
11.0	**11.2**	Informal Study Space	Earth Sciences Centre	25.25
			Ramsay Wright Laboratories	160.06
11.0 Total				**185.31**

*Tables shown for A&S, reflect categories 3, 4 and 11 from Archibus and will be updated for Full Governance approval, to reflect which spaces are being relocated to Temerty Building.

e) Occupant profile

The Temerty Building will bring together principal investigators (PI), researchers, staff, and students across the TFoM community and the Faculty of Arts & Science under a new roof.

The main groups that will be housed within Temerty Building are:

Temerty Faculty of Medicine (TFoM)

TFoM Research Space

The Temerty Faculty of Medicine is known for developing graduates who lead in their fields, attracting powerhouse scientists, fostering interdisciplinary research and learning, having an unprecedented network of integrated academic and clinical sites and access to one of the most diverse populations in the world. The breadth and depth of the TFoM's activities are represented in its varying academic departments and collaborations with other Faculty inter-disciplinary research, and with Toronto Academic Health Science Network (TAHSN) and other organizations. TFoM has interdisciplinary research units that bring researchers together to address specific challenges and identify solutions. For example, the Ted Rogers Centre for Heart Research includes U of T's Translational Biology and Engineering Program (TBEP), a partnership between multiple U of T Faculties: Temerty Faculty of Medicine, Faculty of Applied Science and Engineering, Faculty of Dentistry, and the Institute of Biomedical Engineering (BME). Internally, Temerty Medicine includes 32 departments that foster discovery, provide training, and strive to deliver answers to pressing questions in medical research and care. Externally, TFoM combined with nine affiliated hospitals is one of the largest communities of health researchers in the world with more than 1,600 PIs (consisting of faculty, clinical faculty, and external collaborators hospital cross-appointees) across 32 academic departments conducting research.

The research platform at TFoM is robust and growing. Presently, the life science community consists of approximately 200 TFoM PIs, cross appointed PIs from other Faculty, 4,563 research trainees (fellows and graduate students), and 180 research staff. In 2020-2021, the work of this life science community (as well as undergraduates) translated into $134.5 million on-campus research funding, (roughly $900M across the TAHSN network), and generated 12,525 publications.

Temerty Medicine has a large biomedical research community. The research ecosystem includes interdisciplinary research units that brings research talent across Faculties and disciplines to address specific challenges and identify solutions. For example, some interdisciplinary units could be from the Institutional Strategic Initiatives (ISI) portfolio, which advances U of T's capacity to conduct high-impact interdisciplinary research that transforms lives.

With approximately 200 TFoM PIs in total[1], about 150 PIs work predominantly across three main research locations:

- ± 86 PIs are located at MSB, including 4 who also operate in the Naylor building;
- 30 PIs are located at DCCBR; and
- 40 PIs are located at MaRS, including 10 of these are within the TBEP group.

The majority of the research teams noted above, perform wet lab work, with 11 PIs currently focusing on dry/computational research (8 in MSB and 3 in DCCBR).

Specific TFoM researchers, other faculty researchers, and research teams have not been identified for the Temerty Building, since research needs could change down the road. Research teams are anticipated to be co-located by theme closer to the Temerty Building completion—the wet lab planning in the PPR is intentionally generic and flexible, similar to the MaRS West Tower 2015 wet lab fit-out, in order to allow future flexibility, and cater to a wide array of potential wet lab occupants.

TFoM Academic Departments:

Distilling from the larger Medicine community above, the Temerty Faculty of Medicine departments and cohorts to be served by Temerty Building generally include MSB "on campus" cohorts except for the MD Program students who travel from campus to the academies. Below are general summaries of the following programs:

- Doctor of Medicine Program (MD); and
- The Office of the Vice Dean, Research and Health Science Education (OVDRHSE)

<u>Undergraduate Medical Education Program or Doctor of Medicine Program (MD)</u>
The U of T MD Program is a four-year program. There are up to 209 students in each MD cohort at St George Campus. The first two years of the program, called "Foundations", take place in laboratory, classroom, clinical, and community settings and are designed to prepare students for the workplace learning that occurs in the year 3 and 4, called 'Clerkship". Year 1 and 2 Foundations spans 72 weeks long in total. An important feature of the Foundations curriculum is that each week has the equivalent of a full day that is unscheduled, and available for self-study, and special activities such as clinical skill development form part of the overall learning experience.

Clerkship involves learning while working with physicians and other health care team members in hospital and clinic settings. Clerkship is 75 weeks long in total—Third year is 50 weeks long, for students to participate in a rotation-based clerkship and fourth year is 25 weeks long, for students to participate in 'campus weeks', which are independent and classroom-based learning activities, clinical placements, and a fusion period where students review learned clinical material. Year 3 and 4 students learning takes place both off-campus and on-campus.

Off-Campus Learning; The Academies and Hospitals/Institutes:

Off-campus learning takes place at both academies and academic health science centers. Academies are clusters of various University affiliated hospitals and health care sites. At the academies students learn

[1] Approximately 200 faculty FTE includes both tenure and non-tenure.

clinical skills, participate in problem-based learning, interprofessional education and conduct research with community-based partner agencies. In addition to academies, clinical teaching is provided in the nine affiliated academic health science centers (teaching hospitals) and institutes, such as the Hospital for Sick Children, University Health Network (Toronto General and Western hospitals), Mt Sinai Health System, and others.

On-Campus Learning:

A significant amount of in-class teaching in the program's Foundations curriculum conducted on Campus, where lectures and many seminars take place in the MSB. In the program's Clerkship curriculum, students come together for on-campus teaching at the start of year 3 (Transition to Clerkship), at the end of year 4 (Transition to Residency), and again for both large and small group teaching. Due to the demanding MD schedule for students, it is desired to reduce travel time between on-campus and off-campus learning and consolidate relevant learning and study for the MD Program students at the Temerty Building.

Table 2.12 – Doctor of Medicine Program (MD) FTE*

COU Cat		Existing FTE 2019-2020	Projected FTE 2027-2028	Growth %
1.0, 11.0, 14.0	Year 1 Students	209	209	
	Year 2 Students	209	209	
	Year 3 Students	209	209	
	Year 4 Students	209	209	
	Total MD Student FTE	**836**	**836**	**0%**

*Note: FTE is defined as Full-Time Equivalent.

No growth is anticipated for the MD Program as there is a provincial cap on enrollment. Note: the total MD student FTE above, excludes MD student cohort at the Mississauga Medical Academy of Medicine, University of Toronto Mississauga Campus, and future MD student cohort at The Myron and Berna Garron Health Sciences Complex (previously called Scarborough Academic of Medicine and Integrated Health (SAMIH)), University of Toronto Scarborough Campus.

<u>The Office of the Vice Dean, Research and Health Science Education (OVDRHSE)</u>

OVDRHSE encompasses two major education activities in the Temerty Faculty of Medicine – Graduate Education and Undergraduate Education in the Life Sciences including Arts and Science and other interdivisional teaching. OVDRHSE advocates for graduate and undergraduate students and promotes innovative education in the heart of Canada's largest health care research hub. The MSc and PhD programs and Professional Master's programs provide innovative research and educational opportunities that aim to solve the most important questions in biomedical and health-care research. Beyond research, graduate students organize many different social and academic activities within their departments.

TFoM has over 2,900 students enrolled in fourteen (14) OVDRHSE graduate units. Of the fourteen (14)* units, ten (10)* Graduate Education Departments that may be served by Temerty Building are:

Table 2.13 – OVDRHSE Graduate Student Education Department FTE

COU Cat		Existing FTE 2019-2020	Projected FTE 2027-2028	Growth %
1.0, 3.0, 4.3, 11.0, 14.0	Biochemistry	154.0	172.48	
	Institute of Biomedical Engineering (BME)*			
	Immunology	114.0	127.68	
	Laboratory Medicine and Pathobiology (LMP)	240.0	268.8	
	Medical Biophysics	236.0	264.3	
	Institute of Medical Science (IMS)	459.4	514.5	
	Molecular & Medical Genetics	371.0	415.52	
	Nutritional Sciences	68.0	76.16	
	Pharmacology and Toxicology	158.0	176.96	
	Physiology	160.0	179.2	
	Total OVDRHSE Graduate Education Department FTE	**1959.4**	**2194.5**	**112%**

*Count above includes BME. Note that BME is an interdisciplinary organization that stretches over multiple Faculties (Faculty of Medicine, Faculty of Applied Science and Engineering, and Faculty of Arts & Science). BME's FTE is excluded from the analysis.

While the occupant groups for research floors have not yet been determined, some of the graduate students above may work on the Temerty Building research floors.

The remaining four (4) OVDRHSE departments located at the 500 University Avenue building are: Occupational Sciences and Occupational Therapy, Physical Therapy, Speech-Language Pathology, and Rehabilitation Sciences Institute.

TFoM offers free-standing, joint, and/or collaborative programs to Life Science students. There are eight (8) undergraduate units which offer world-class education and research programs of study in a wide range of research areas indicated below:

- Biochemistry
- Immunology
- Laboratory Medicine and Pathobiology
- Molecular Genetics
- Nutritional Sciences
- Pharmacology and Toxicology
- Physiology

Life Science students have access to courses taught by TFoM, and research opportunities with TFoM faculty.

All OVDRHSE groups, graduate and undergraduate, are likely to be served by the classrooms. **TFoM Administrative Departments**

The Temerty Building will provide space for administrative clusters. Currently these groups are located in MSB, Naylor, and at Women's College Hospital. The Temerty Building will be an opportunity for these groups to have a new central campus location. The identified administrative clusters are as follows:

- Office of Inclusion and Diversity (OID)
- Office of Indigenous Health (OIH)

Office of Inclusion and Diversity (OID)

The Office of Inclusion and Diversity (OID) is an administrative office that supports TFoM's commitment to 'Excellence through Equity', one of the three strategic domains of focus named in the 2018-2023 Academic Strategic Plan. The design of the OID suite should reflect the group's needs to accommodate the following key activities:

- Design programs, policies, and events that promote an equitable, inclusive, and diverse environment
- Provide Faculty-wide guidance, support, consultation, and advisory role on Equity, Diversity, and Inclusion (EDI) and human rights issues, including departments/units and student groups
- Advise and collaborate on implementing EDI priorities and program development
- Prepare workshops/training (e.g. EDI training for staff)
- Diversity outreach and programming for prospective learners
- Mentorship programs for current learners
- Conduct surveys (e.g. design, data collection, analysis, advisory role for Voice of research)
- Provide confidential guidance to individuals on sensitive issues related to EDI (e.g. learner seeking help for discrimination/harassment)

The proposed Temerty Building provides an opportunity for the space required for OID to be centrally located for ease of collaboration, and ease of access for TFoM students, staff, faculty, and visitors.

Table 2.16 Office of Inclusion & Diversity FTE

COU Cat		FTE (2021-2022)	Projected FTE (2027-2028)	Growth %
4.1	**Faculty**	**0.8**	**0.8**	
	Vice Dean, Strategy & Operations	0.8	0.8	
4.4	**Admin and Support Staff**	**5**	**7.3**	
	Director, EDI	1	1	
	Sr. Officer, SLDO	1	1	
	Outreach Coordinator	1	1	
	EDI Coordinator	1	1	
	Communications Officer	1	1	
	Admin Assistant		1	
	Program Developer		1	
	Sr. Advisor on Islamophobia & Antisemitism		0.3	

	Future growth to be determined		0.5	
	Total Staff FTE	**5.8**	**8.6**	**148%**

Office of Indigenous Health (OIH)

The Office of Indigenous Health (OIH) is an administrative unit that supports TFoM's Indigenous students and develops Indigenous programing across the medical and health professions education continuum for learners seeking knowledge about Indigenous concepts of community, health, and healing.

OIH works closely with the Chief Diversity officer and the Office of Inclusion and Diversity advocating to address interpersonal and systematic racism. The Observation Room work to further Indigenous Health Education by:

- Responding to questions regarding the Indigenous Student Application Program (ISAP);
- Developing and supporting Indigenous programming across the medical and health professions education continuum for learners seeking knowledge about Indigenous concepts of community, health, and healing;
- Supporting Temerty Faculty of Medicine Indigenous students through scholarships and bursaries;
- Developing curriculum around Indigenous concepts of health and healing;
- Creating a culturally safe learning environment for all learners;
- Mentoring learners to help them succeed along their chosen path in medicine;
- Advocating to address interpersonal and systemic racism in collaboration with the Chief Diversity Officer and Temerty Office of Inclusion and Diversity; and
- Undertaking Indigenous community outreach.

Table 2.17 Office of Indigenous Health FTE

COU Cat		FTE 2021-2022	Projected FTE 2027-2028	Growth %
4.1	**Faculty**	**0.4**	**0.4**	
	Associate Dean, I & D	0.4	0.4	
4.4	**Admin and Support Staff**	**4.5**	**5.1**	
	Manager/Director	1	1	
	Office Coordinator/Admin Assistant	1	1	
	Indigenous Health Lead in PME	0.2	0.2	
	MD Theme Lead	0.4	0.4	
	Indigenous Educator	0.5	0.5	
	Clinical MD Adjunct	0.2	0.2	
	Learner Support	0.6	0.6	
	Research/Coordinator	0.6	0.6	
	Knowledge Keeper	0	0.6	
	Future growth to be determined		0.2	
	Total Staff FTE	**4.9**	**5.7**	**116%**

TFoM and Other Faculty Student Space

The Temerty Building will provide a new home for the Medical Society, "MedSoc".

MedSoc is a student society run by and representing over 1,000 MD Program Undergraduate and Graduate students in both the academic and non-academic aspects of student life.

Institutional

The University Registrar's Office (URO), which includes Learning Space Management (LSM), and Office of Convocation is part of the Vice-Provost, Strategic Enrolment Management (VPSEM) within the Vice-President and Provost (VP&P).

The University Registrar's Office

The University Registrar's Office is the central university office focused on streamlining and enhancing services, processes and policies for academic and registration functions that create a seamless experience for students, staff, and faculty. This includes the management of all institutional allocated learning spaces through the Learning Space Management team and convocation logistics through the Office of Convocation.

Learning Space Management focuses on learning space excellence with the mandate of stewardship of over 400 University's classrooms and testing space on the St George campus. This supports the delivery of academic activities through academic scheduling, classroom design, classroom technology, and accommodated testing services.

The Office of Convocation is responsible for the logistical details of student and guest related elements of the convocation ceremonies at the University of Toronto. This includes over 40 annual ceremonies, 22,000 graduating students and more than 40,000 guests annually. The Office supports convocation ceremonies that respect long-standing traditions and protocols of the University while introducing innovations to enhance the graduating student's convocation experience.

Faculty of Arts & Science (A&S)

A&S Department of Cell & Systems Biology (CSB)

The Department of Cell & Systems Biology (CSB) is a research-intensive unit within the Faculty of Arts & Science. The department is focused on exploring the molecular, cellular, and systems-level mechanisms underlying biological processes in plants, animals, and microbes. Faculty members interdisciplinary research programs, collaborating closely with other departments and research institutes both within and outside of U of T to promote cross-disciplinary initiatives and innovation in areas such as developmental biology, neurobiology, genomics, and plant biology.

The department's faculty members are internationally recognized researchers who collaborate extensively with other U of T units and affiliated research institutes including the Temerty Faculty of Medicine, Donnelly Centre for Cellular and Biomolecular Research (DCCBR), the Centre for the Analysis of

Genome Evolution and Function (CAGEF), and the Fields Institute. These collaborations support large-scale grants, research clusters, and interdisciplinary training environments.

Academic Programs & Research

The Department of Cell & Systems Biology (CSB) is a key life sciences department that additionally supports a large student cohort through undergraduate and graduate programming, including master's and PhD level studies. Students are provided with multiple ways to learn about and participate in departmental research activities throughout their education from foundational to specialised learning.

Undergraduate curriculum includes lecture-based instruction, interactive laboratory courses, and optional co-op placements, with increasing opportunities for independent research in second, third, and fourth year. Key programs include Research Opportunities Program (ROP299, ROP399), Independent Research in Cell and Systems Biology (CSB 497, CSB498, and CSB499), and Special Project in Bioinformatics and Computational Biology (BCB330, BCB430). In particular, the CSB498Y1 Independent Research course allows students to conduct supervised research in faculty labs, preparing them for future graduate study or careers in scientific fields.

CSB is home to a vibrant graduate student cohort enrolled in Cell & Systems Biology programs, as well as in Graduate Collaborative Specialization programs in Genome Biology and Bioinformatics, Developmental Biology, and Neuroscience. Graduate education is highly research-focused, emphasizing advanced training in both experimental and computational methods.

Graduate Program in Cell & Systems Biology

The CSB graduate program offers MSc (16–24 months) and PhD (4–6 years) degrees. Students enter the program from a variety of undergraduate backgrounds and conduct original, thesis-based research under the supervision of CSB faculty.

There are approximately 100–150 graduate students enrolled across both degree levels. The program emphasizes interdisciplinary training, with research fields spanning:

- Cell and developmental biology
- Plant biology and biotechnology
- Neurobiology
- Molecular genetics
- Genomics and computational biology
- Environmental and systems-level biology

Graduate students benefit from access to advanced core facilities and collaborate extensively with other departments and affiliated research institutes such as the TFoM, the DCCBR, CAGEF, and Fields Institute. Training includes formal coursework, journal clubs, symposia, and teaching assistantships.

*CSB – FTE Table *(to be provided at a later date)*

*CSB – Campus Wide occupant information *(to be updated for Full governance approval)*

CSB Research Space

The Department of Cell & Systems Biology (CSB) supports a diverse and interdisciplinary research portfolio, with faculty conducting investigations across multiple biological systems and scales—from molecular and cellular processes to organismal development and environmental interactions. Research is a critical component of CSB's academic mission, enabling the department to maintain its standing as a globally recognized leader in the life sciences.

CSB research activities require flexible wet laboratory environments, which support both independent and collaborative projects. Experimentation relies on a variety of research environments, including typical wet lab, cell culture, advanced microscope imaging, computational labs, and plant growth and BSF research program facilities. Most faculty supervise multi-member research groups composed of undergraduate students, graduate students, postdoctoral fellows, and research technicians. Current research space is distributed across legacy infrastructure in the Ramsay Wright and the Earth Sciences Centre buildings, with significant variation in lab quality, functionality, and modernization. Many of these spaces have been adapted over time to support new methodologies but are increasingly limited in their capacity to meet the evolving needs of contemporary biological research.

With faculty dispersed between the two buildings, co-location has been an enduring goal for the department, and plan since its inception in 2006. With increased opportunities for collaboration, use of shared resources, and the further development of a strong community of practice, concentrating the CSB research activities within the Temerty Building is ideal.

The Temerty Building will provide a consolidated home for 31 CSB research groups, which includes:

- 30 individual Principal Investigators and their research teams
- 1 Principal Investigator – Director, CAGEF Centre for the Analysis of Genome Evolution.

Current CSB research themes include:

- Molecular Networks of the Cell
- Plant Signalling Networks & Cell Biology
- Stem Cells & Developmental Biology
- Neurophysiology & Behaviour
- Genomics & Computational Biology

Research Infrastructure and Facilities Planning

CSB research spans multiple biological models and methodological approaches, necessitating flexible lab infrastructure, and access to shared research equipment. The department's research is currently distributed across legacy wet labs with varying degrees of modernization. As part of ongoing facility planning, CSB is looking to the Temerty Building to accommodate modern, modular research labs, shared core facilities, and faculty office space that supports both collaborative and individual scholarship.

<u>CSB Imaging Facility</u>

The CSB Imaging Facility is a centralized, shared core facility that supports advanced microscopy and image analysis for the Department of Cell & Systems Biology and affiliated users. It plays a critical role in both faculty-led research and graduate training, and provides access to high-resolution, state-of-the-art imaging systems that enable the visualization of molecular distributions and biological processes at sub-

cellular, cellular, organ, and whole organism levels. The facility supports a wide range of applications, including:

- Confocal and widefield fluorescence microscopy of molecular distributions
- High speed live-cell imaging
- Deep tissue imaging by two-photon microscopy
- High resolution imaging by electron microscopy (including sample preparation equipment)
- Plant and animal tissue and microbial cell imaging
- Computer-based image reconstruction and quantitative analysis

Located in the Ramsay Wright and Earth Science Centre buildings, the Imaging Facility currently serves over 100 active users per year, including faculty members, graduate students, postdoctoral fellows, and undergraduate research students. It is supported by dedicated technical staff who provide training, maintenance, and ongoing user support. However, transfer of live samples from the Earth Sciences Centre to the Ramsay Wright building is a challenge, especially in the winter. Climate control reliability within the existing facility has also been a longstanding issue.

As part of future planning and research infrastructure renewal, the department anticipates incorporating the Imaging Facility into the Temerty Building would allow the facility to remain physically integrated with research wet labs and student spaces, supporting the department's mission to train students in modern biological research techniques and sustain a collaborative, multi-user research environment.

CSB Growth Facility

The CSB Growth Facility is a vital research infrastructure supporting the department's internationally recognized work in plant biology, developmental biology, and environmental systems. The facility includes a combination of controlled environment chambers, greenhouses, and growth rooms, which enable year-round cultivation of a wide range of plant species under precisely managed light, temperature, humidity, and photoperiod conditions. The Growth Facility is essential to the research programs of multiple CSB faculty members and supports:

- Studies in plant development, genetics, and cell biology
- Investigations of plant-environment interactions
- Research on climate change and sustainability
- Experiments involving transgenic and model plant species

The facility serves both undergraduate and graduate students, as well as research technicians and postdoctoral fellows, enabling hands-on training and experimentation central to the department's research-intensive teaching mission.

Currently located across aging infrastructure in Earth Sciences Centre and adjacent buildings, the Growth Facility faces challenges related to limited space, climate control reliability, and biosecurity separation between experimental populations. As CSB continues to expand its research in climate-resilient agriculture, synthetic biology, and plant cell and molecular biology, modernized and scalable growth facilities are needed to meet evolving experimental demands.

BioScience Support Facility (BSF), CSB Research Program

The BioScience Support Facility provides essential centralised infrastructure to enable safe, efficient, and compliant research operations within the Faculty of Arts & Science. Researchers from multiple A&S departments, including CSB utilise and benefit from the services offered through this core facility. This facility supports a wide range of laboratory functions and shared departmental needs, serving as a backbone for both independent and collaborative research activities. Key components of the BioScience Support Facility include:

- Dedicated and shared research and procedure spaces
- Shared sterilization services
- Biohazard waste holding and removal support

The facility is currently distributed across multiple buildings, including Ramsay Wright, and operates through a mix of dedicated and shared-use spaces. The BSF facility within the Temerty Building will support a component of the existing Cell & Systems Biology BSF research cohort.

Centre for the Analysis of Genome Evolution and Function (CAGEF)

The Centre for the Analysis of Genome Evolution and Function (CAGEF) is a research centre affiliated with the Faculty of Arts & Science. CAGEF supports interdisciplinary research at the interface of evolutionary biology, functional genomics, molecular biology, and bioinformatics, with a focus on how genomes evolve and how genetic variation translates into phenotypic traits.

The Centre includes affiliated faculty from CSB as well as researchers from departments such as Ecology & Evolutionary Biology, Computer Science, and Molecular Genetics, forming a dynamic network of collaborations across the University of Toronto. CAGEF supports major initiatives in:

- Comparative genomics and transcriptomics
- Gene expression regulation and epigenetics
- Plant and animal genome evolution
- Development of computational tools and pipelines for genome analysis

CAGEF also plays a key role in graduate student training, providing mentorship, shared computational and lab facilities, and support for large-scale data-driven projects. The Centre hosts seminar series, collaborative research meetings, and bioinformatics workshops to foster knowledge exchange and technical capacity building.

While currently based in the Earth Sciences Centre, the Centre's growing computational and wet-lab research needs require access to high-density data processing environments, and collaborative research space integrated with wet-lab and analytical workstations.

III. Project Description

f) Vision Statement

Temerty Building represents a once-in-a-generation opportunity for the University to modernize lab facilities and infrastructure required to support the Temerty Faculty of Medicine's (TFoM) and the Faculty of Arts and Science's (A&S) Department of Cell & Systems Biology (CSB). Temerty Building will support TFoM's research and education missions, providing relief for the increasing space needs for TFoM. Additionally, Temerty Building will embed the A&S Department of Cell & Systems Biology (CSB), creating new synergistic possibilities for inter-faculty partnership for life science research to emerge. A potential example of interdisciplinary academic collaboration may enable world class research excellence to address new challenges. Temerty Building's lab research floors could create strategic research opportunities through U of T's Institutional Strategic Initiatives (ISI), helping to build partnerships, attract external partners, support faculty and student research and create training opportunities. Existing examples of current cross-divisional research include Medicine by Design, PRiME, Emerging and Pandemic Infections Consortium (EPIC), the Acceleration Consortium, and the Institute for Pandemics. Temerty Building will create a more recognizable, and welcoming front-door that fosters a sense of place, community, and engagement at the heart of the St. George Campus. It will bring together researchers and students across campus, including collaborators from both faculties, and the vast network located in the nearby Discovery District and the TFoM-affiliated Toronto Academic Health Science Network (TAHSN).

Temerty Building will combine cutting-edge facilities to support ground-breaking life science research and innovations, and a community that supports and promotes the development of future academic health leaders. The Temerty Building should reflect the status of U of T's Temerty Faculty of Medicine, ranked number 1 in Canada and among the Top 5 clinical/health science faculties globally. The Faculty of Arts & Science comprises some of the world's leading scholars and scientists, and the faculty's academic units are routinely ranked top in Canada and are among the most highly ranked worldwide. This includes the Department of Cell & Systems Biology, consistently highlighted amongst the top units for life science and natural science research and studies. This education and research facility will include flexible wet laboratories equipped to house the latest equipment for biomedical research, active learning instructional spaces, and a mix of student and study space to spark collaboration and dialogue between students and researchers. Additional core facilities, including the Growth Facility, BSF – CSB Research, Imaging Facility, and CAGEF, will provide research support to A&S Principal Investigators, their teams, and collaborators. The new Temerty Building will help draw top talent, support basic science discovery and innovation, and will become a vibrant learning and research hub for the next generation of doctors, researchers, and health-care practitioners.

In addition to critical research, creation and co-location of active learning spaces are needed pedagogically to support the MD Program's case-based learning. Another TFoM cohort in need of a new learning spaces are graduate and undergraduate Life Sciences Education students under the leadership of the Office of the Vice Dean, Research & Health Science Education (OVDRHSE). The design of the learning spaces will support and promote the development of future academic health leaders who will contribute to our communities to improve the health of individuals and populations through the discovery, application, and communication of knowledge.

The University seeks to make visible and thoughtful progress in their response to the Truth and Reconciliation Commission of Canada and, specifically, to the Calls to Action. Creating Indigenous

spaces on campus is the first of the six themes advanced in the U of T response. The creation of Indigenous space is a critical component that underpins the University's ability to advance the other themes within the Calls to Actions including developing relationships with external Indigenous communities, working towards the Indigenization of curriculum while advancing Indigenous scholarship and research, and increasing diversity and community on campus through improved recruitment of Indigenous students, staff, and faculty. The Temerty Building also includes an Indigenous Medicinal Garden as a dedicated outdoor space, highlighting traditional Indigenous plants and knowledge, supporting cultural programming, and strengthening connections with Indigenous communities.

The building is well situated, directly across from Convocation Hall and Front Campus, to support Convocation and Alumni Reunion activities. The ground level is envisioned as a flexible space to allow for the flow of guests through the space but also balance acoustics and security since the space will also be used for instruction and above the ground level will be dedicated to focused research as well as administrative work and student study. Currently Convocation occurs one week in the fall and three weeks in spring while Alumni Reunion occurs from Wednesday to Sunday at the end of May. The flexible classrooms include two Large Active Studio classrooms and two Medium Active Studios, all equipped with divisible walls to create adaptable space for hosting Convocation and Alumni Reunion activities. When not in use for these events, the ground level will mainly support instructional activity, featuring flexible layouts, controlled acoustics, and appropriate security measures, as the upper floors are dedicated to focused research, administrative functions, and student study. On a day-to-day basis, the ground level will primarily serve institutional instructional needs, other the users of the building or those connecting to MSB or DCCBR.

The Temerty Building will create a home for the Doctor of Medicine (MD) and life sciences students in addition to biomedical research space to support priority areas of growth for the Temerty Faculty of Medicine research platform as well as the Faculty of Arts & Science over the coming decades to recruit and retain world-class scientists, researchers, and students. The Temerty Building facilities will help drive large scale, high impact, cross-collaboration of Institutional research initiatives across the Temerty Faculty of Medicine and the Faculty of Arts & Science's Department of Cell and Systems Biology. Temerty Building will support the following key objectives:

1. Creating a renewed research platform to recruit and retain world-class scientists, researchers, and students over the coming decades, with open and modular wet research laboratories, with centralized laboratory support spaces to allow for spatial efficiencies and enable flexible research arrangements;
2. Enhancing the student and instructor learning experience by providing classrooms spaces and infrastructure to support in-person, active, synchronous, and asynchronous learning;
3. Embedding space and infrastructure required for the ground level of Temerty Building to host Convocation and Alumni Reunion ancillary events and support the commencement experience of U of T students and guests;
4. Helping the St George Campus goal to become climate positive by 2050 through 10% local renewable energy generation and feasibility of a net zero carbon pathway; and
5. Meeting the Calls to Action for U of T in creating Indigenous spaces and the inclusion of space equipped for smudging.

g) Statement of Academic Plan

Temerty Faculty of Medicine

The Temerty Faculty of Medicine's Academic Strategic Plan (2018–2023) lays out a bold vision focused on leadership in new knowledge, better health, and equity. Built through deep engagement with over 400 stakeholders—including faculty, learners, staff, partners, and patients—the plan outlines a mission to amplify TFoM's already strong foundation in research, teaching, and clinical partnerships. Central to this strategy is the idea of leveraging the "Toronto Advantage"—TFoM's diverse population, interdisciplinary ecosystem, and global reputation—to create greater real-world impact. The plan is anchored on three strategic domains: fostering an Ecosystem of Collaboration to connect across disciplines and institutions; driving Groundbreaking Imagination by amplifying research and innovation and translating it into practice; and advancing Excellence through Equity to make diversity and inclusion fundamental to excellence. These domains are supported by two enablers: prioritizing health and wellbeing across the academic environment, and establishing the infrastructure, policies, and technology needed to facilitate seamless collaboration and sustainable growth. Collectively, the strategy positions TFoM to lead globally in health education, research, and equity-driven impact.

Our learners, graduates, faculty, staff and partners will be an unparalleled force for new knowledge, better health and equity. We will cultivate and bring to life ideas that impact scholarship and society through unprecedented collaboration drawing in the diverse voices of our research, learning and clinical network.

> –The Temerty Faculty of Medicine's Guiding Vision, from the *2018-2023 Academic Strategic Plan*

By providing open flexible wet labs and lab support spaces, and classrooms that support MD Program case based learning, the Office of Inclusion and Diversity (OID) and the Office of Indigenous Health (OIH), and by meeting the U of T Tri-Campus Energy Modelling & Utility Performance Standard, the Temerty Building will support the following 'actions in five areas' identified in the 2018-2023 Academic Strategic Plan below.

3 Strategic Domains of Focus

- *Ecosystem of Collaboration: Promote, incentivize, and support a new level of collaboration among our faculty, staff, learners, academic health science partners and our community that fuses the diverse strengths of our network and creates new possibilities for research, education, and solutions for better health in our communities. Everything we do will set us up for exponential impact that draws on the diverse voices in our unparalleled research, learning and clinical network.*
- *Ground-breaking Imagination: Amplify our discoveries and academic excellence, escalate the real-world impact of our research and teaching and make space for novel collaborations that produce the extraordinary. We will cultivate and bring to life ideas that impact scholarship and society.*
- *Excellence through Equity: Make inclusion and equity essential components of how we define and foster excellence in scholarship, practice and health outcomes. Individuals across the Faculty of Medicine, regardless of how they identify, will be invited to have a voice and be empowered to effect change. Our environment will draw in and draw on our global outlook through diverse perspectives from a range of disciplines. Our graduates will be internationally recognized as a change force for equity.*

2 Enablers to support these Domains

- *Support Health and Wellbeing in Everything We do: Foster a culture where health, wellbeing and resiliency are considered and integrated in all elements of our enterprise from the places we work, learn and conduct research to the opportunities people have to express their diverse needs.*
- *Infrastructure, Policies and Technology that Compel Collaboration and Support Sustainability Create seamless flow of ideas and effective stewardship of resources within the Faculty of Medicine, across the University, across the TAHSN network and with other local, national and international partners to enhance our ability to collaborate and have collective sustainable impact.*

The full Temerty Faculty of Medicine *2018-2023 Academic Strategic Plan* can be found at https://temertymedicine.utoronto.ca/asp

The Department of Cell & Systems Biology (CSB), Faculty of Arts & Science

The Department of Cell and Systems Biology was established in 2006, which resulted from the University's Stepping UP planning process. Stepping UP outlined the University's vision to be a leader in the discovery, preservation, and sharing of knowledge through its teaching and research activities, as well as its commitment to excellence and equity. In support of this vision, and after the completion of external reviews and extensive internal consultation, A&S reorganised the departments of Botany and Zoology into the Department of Cell & Systems Biology and the Department of Ecology and Evolutionary Biology. While at the time it was found that the existing departments were individually very strong, it was recommended that academic reorganisation would provide opportunities to strengthen core biological science teaching and research. Given the similar priorities in ecology, evolution, cell biology, genomics, and physiology between the two units, this reorganisation helped to focus internal and external resources in the highest-priority research areas. Additionally, it was anticipated that the new department structure would enhance inter-faculty initiatives as the organisation would align with that of the Faculty of Medicine, the Centre for Environment, and the Centre for Global Change Science.

This bold new initiative facilitated the pursuit of cutting-edge research in the molecular life sciences and systems biology and prompted the development of ambitious new academic programs. CSB researchers investigate the behaviour of cells – the fundamental units of life – in terms of molecular processes within and between cells. Both hypothesis-driven and discovery-based strategies are integrated to gain a mechanistic understanding of complex and highly dynamic cellular systems and how they govern the development, physiology, interaction, and evolution of organisms.

CSB researchers embrace new methodologies and state-of-the art technologies, employing a wide range of innovative tools to study the fundamental biological mechanisms that govern interactions at all levels of complexity, ranging from molecules to communities. The department has expertise in high-throughput genomics, chemical biology, advanced microscopy imaging, computational, and physiological approaches.

h) Space Requirements, Program and Functional Plan

Space Requirements

The space need for the Temerty Faculty of Medicine was generated using the most recently published Council of Ontario Universities (COU) Building Blocks space formula, 2019-2020. The COU space formulas are used to generate benchmark requirement for facilities, using the occupant profile (based on FTE), input measures (space factors defined for each space type), and as modified by typical allocation by the University. Input measures defined by COU are used by all Ontario postsecondary institutions for this purpose. Net Assignable Square Meters (NASM) is defined as the total floor area in square meters that can be assigned to, or available for assignment to, an occupant, including every type of space functionally usable by an occupant (Custodial, Circulation and Mechanical net areas are non-assignable).

Update: A COU analysis (Table 3.0) for TFoM and A&S groups at Temerty Building will be undertaken for Full Governance approval and is not included in this report.

Analysis based on Temerty Building occupant groups

COU analysis, planning lab module or supply/demand analysis has been performed for the following Temerty Building occupant groups:

- TFoM Research Space/ A&S Cell & System's Biology (CSB);
- TFoM Academic Departments;
- TFoM Administrative Departments;
- TFoM Student Space; and
- Institutional and TFoM Classrooms

TFoM Research Space / A&S Cell & System Biology Research Space

For the Temerty Faculty of Medicine specific research themes, teams, and equipment have not been identified at this time since the medical research sector priorities inherently change. To be nimble, thematic research will be evaluated closer to the building's anticipated occupancy. To be adaptable, the strategy for the generic research floors is rooted in flexible open plan wet labs and shared infrastructure, similar to MaRS West Tower. This flexible, generic, open wet lab plan will help facilitate robust research that allows for future flexibility to accommodate different research teams across Medicine and the Faculty of Arts & Science.

A&S research floors are being developed for known research themes, teams, and equipment. While the Faculty of Arts & Science's Department of Cell & Systems Biology similarly engages in a range of diverse research streams, the department will be organised in a way that optimizes collaboration through co-location of alike researchers on each floor. Activities will be concentrated along the following themes: Plant Research Floor, Genomics & CAGEF, Cell Biology / Morphogenesis / Neuro Research, and Core Research Facilities. The planning module, including open wet lab, common research support, and distinct specialised procedure rooms, will allow each floor to be programmed in a way that supports both the general needs of the research cluster and the specific needs of individual Principal Investigators.

Lab Efficiency

The Temerty Building Feasibility Study provided recommendations for a generic planning lab module "module" (see Table 3.1 below). The module generates the organizational grid for the research floors. The module is the basis of the research floors' layout for both Faculties providing a highly flexible open wet lab configuration. There must be opportunities for co-location of lab support spaces, research team offices (open office with workstations for 'write-up' space), and collaborative spaces to support each laboratory module. The TFoM and A&S modules are planned to accommodate on average a 9-person research team made up of one PI and 8 team members.

Table 3.1 – Planning Lab Module

Lab Module	Allot Per Research Team	Per Research Team NASM
PI (Faculty/Academic) Offices	~1 PI Office	±10
Bookable Office/Team Room	There are 2 Bookable Offices anticipated per research floor level 4 to level 6, level 8 to level 9. Bookable Offices are to be shared by research teams.	±10
Research Team Open Office	***8 open workstations	
Collaboration Space	Includes Open Kitchenette, Conference Room, and Social Space per lab floor except for Level 7	
Open Wet Lab	1 open wet lab module includes the number of benches per level:	
Level 4** TFOM	11 modules, 12-14 benches per module	
Level 5** TFOM	11 modules, 12-14 benches per module	
Level 6** TFOM	11 modules, 12-14 benches per module	
Level 7** A&S	11 modules, 13-15 benches per module	
Level 8** A&S	11 modules, 12-13 benches per module	
Level 9** A&S	9 modules, 13-15 benches per module	
Open Wet Lab Safety Area*	To be approved by EHS.	

*Included within Open Wet Lab

** Lab Support – Each floor for each Faculty has own unique lab support spaces (e.g. Procedures Rooms, etc) centred around the floor plate core, close to building infrastructure (shafts, Electrical Rooms, etc) so to be as efficient as possible.

***There is 1 x 3.2 NASM open workstation planned per research team member. As per COU Cat 4.3 each graduate student generates 3.0 NASM. The NASM for the Research Team Open Office does not include circulation space within the suite, only the footprint associated with open workstation and access area.

The open wet lab NASM includes two fume hood alcoves per lab floor, flammables/chemical storage space, open wet lab safety area, lab coat storage, and assignable lab corridors. Though based on same planning lab module, the proposed lab floorplans for TFoM and A&S are slightly unique to meet the needs of their research requirements.

TFoM is currently occupying two whole floors at MaRS along with a shared floor with other Faculties. Due to the flexibility of the MaRS fit-out floors and ability to house multiple research teams, the research floors are utilizing the same space planning approach. To gauge spatial efficiencies related to research team sizes and respective locations, see Table 3.2.

Table 3.2 – Anticipated PI Team's Research Footprint (TFoM and A&S) Comparison

	MSB Existing *	DCCBR Existing	MaRS Tower 2 Existing Fl 14, 15 & 16	Proposed Temerty Building
Research Laboratory NASM	11,971	7,071	4,923	10,583
Principal Investigator (PI) count	82	30	39	64
Researcher (PI, PDF, PhD, Graduate) count	548	470	330	576
Average Team Size (including the PI)	7	16	8	9
Average space per Research Team NASM	146	236	126	135
Average space per Researcher NASM	22	15	15	15
Divisions/Departments include:		TFoM, FASE	TFoM: Biochemistry, LMP, MoGen, TBEP	TFoM and A&S

*Note: MSB Existing excludes West Wing/Block B or 2,672 NASM of Cat 3 Research Laboratories and 3 PIs from total MSB count

TFoM Academic Departments

Undergraduate Medical Education Program or Doctor of Medicine Program (MD)

This cohort contributes to the generation of classroom and student study space noted further along in this section.

The Office of the Vice Dean, Research and Health Science Education (OVDRHSE)

This cohort contributes to the generation of classroom, and student study space noted further along in this section. Graduate students also generate research space – Refer to Table 3.0 under COU Category 3.0.

TFoM Administrative Departments

TFoM administrative space falls under COU Space Category 4: Academic Departmental Offices and Related Space.

While the COU guideline is 12 NASM for categories 4.1, 4.2, and 4.4 spaces, 9-11 NASM is accepted as the U of T Institutional planning standard for a typical single office. The proposed space for Category 4.4 in this project has open office space. The Project Planning Committee stakeholders workshopped a 5.5 NASM/workstation that aligns with the Future of Post-Pandemic 'Workspace' Planning guidelines. 5 NASM is based on a 3.39 NASM workstation (6x6') + 25% allowance for ancillary functions presumed within the open office environment.

The University of Toronto's Future of Post-pandemic 'Workspace' Planning was issued November 2022. The Working Group has developed guidelines and best practices that help direct the University in decision-making on the type of space(s) to build, renovate and rehabilitate that will be most beneficial to the broader institution. The initial implementation of projects following these guidelines will focus on central and academic administrative offices. The guidelines have been followed for the following proposed space programs below for academic administrative offices, allowing for the flexibility of growth in a hybrid or alternative work arrangement.
https://vporep.utoronto.ca/wp-content/uploads/2023/09/20230929-FoS-Guidelines-Update.pdf

Office of Inclusion and Diversity (OID) and Office of Indigenous Health (OIH)

Table 3.4 – Office of Inclusion and Diversity and Office of Indigenous Health COU Analysis

		Existing 2021-2022						Proposed 2027-2028				
COU Cat	COU Space Type	Input Measure FTE	COU Space Factor	Generated Space "G" NASM	Existing Inventory "I" NASM	% I/G	Average NASM per FTE	Input Measure FTE	Generated Space "G" NASM	Proposed Space "P"	% P/G	Average NASM per FTE
4	**Academic Departmental Office and Related Space**											
4.1	Academic Offices	1.2	11.00	13.20	12.75			1.2	13.20			
4.4	Departmental administrative and support staff offices	8.5	11.00	93.50	80.11	86%	7.28	12.4	136.40	87.00	64%	7.02
	Future Growth		11.00					0.7	7.70		0%	
	Total Staff FTE	**9.7**	**11.00**	**106.70**	**92.86**	**87%**	**8.44**	**14.3**	**157.30**	**87.00**	**55%**	**6.08**
4.5	Office support space		0.25	26.68	9.07	34%		0.25	39.33	34.00	86%	
4	**Total Academic Departmental Office and Related Space**			**133.38**	**101.93**	**76%**			**196.63**	**121.00**	**62%**	

**Update: COU analysis will be updated post-Validation Phase for Full Governance approval.*

The proposed Temerty Building will provide an opportunity for the OIH to be centrally located on U of T Campus for ease of collaboration with OID, and access for students, staff, and visitors.

The analysis above compares the 2021-2022 OIH and OID space to the proposed. These groups are separate adjacent administrative suites that are anticipated to share key support spaces. Due to the sharing of support spaces these groups have been shown together for the purposes of COU analysis. Currently, the OIH operate in a hybrid staff arrangement, whereas the OID typically work on campus full-time.

The EDI Lounge is COU Category 11 Non-Library Study Space and is captured in the analysis of Existing and Proposed Non-Library Study Space and Student Office and Recreational Space. The OIH suite is proposed to have a dedicated room to host an Elder, it is COU Category 12 space and is also not captured in the analysis above.

TFoM Student Space

Table 3.5 – Non-Library Study Space/Lounge and Student Office and Recreational Space COU Analysis

The analysis below compares existing and proposed Non-Library Study Space and Student Office and Recreational Space assigned to TFoM across St. George campus. This shows an overall addition of study space. The category 11.0 space provided is 87% of COU generated using COU input measures, and over all categories 14.0 and 11.0 combined generate 49% of COU generated space. Note that the proposed Non-Library Study Space/Lounge does not include the Lobby area, as this area is anticipated to be used for informal student-study when not utilized for events. The Temerty Building Feasibility Study suggested a seat count of approximately 275 total for the building to provide a robust range of study spaces, ranging from "cave to café type", distributed throughout the building for general student use.

		Existing 2021-2022					**Proposed 2027-2028**			
COU Cat	Existing Student Space	FTE	COU Space Factor	Generated Space "G" NASM	Existing Inventory "I" NASM	I/G	FTE	Generated Space "G" NASM	Proposed Inventory "I" NASM	I/G
11.0	**Non-Library Study Space/Lounge**									
11.1	Formal study space				480.66				615.24	
11.2	Informal study space				479.48				1048.52	
Total		**3407.5**	**0.4**	**1363.00**	**960.14**	**70%**	**4778.7**	**1911.47**	**1663.76**	**87%**
14.0	**Student Office and Rec Space**									
14.1	Student sffices and support spaces				145.24				248.49	
14.2	Rec facilities and services				26.94				208.14	
Total		**3407.5**	**0.5**	**1703.75**	**172.18**	**10%**	**4778.7**	**2389.34**	**456.63**	**19%**
Total Student Space				**3066.75**	**1132.32**	**37%**		**4300.81**	**2120.39**	**49%**

**COU analysis will be updated post-Validation Phase for Full Governance approval.*

Institutional Classrooms managed by the URO

New classrooms at Temerty Building are to support courses delivered by the MD program, OVDRHSE programs (basic science research), and interdivisional teaching across campus. More information about the various pedagogical needs that inform instructional requirements are described in the following paragraphs.

Undergraduate Medical Education Program or Doctor of Medicine Program (MD):

In 2016, the MD Program introduced the Foundations curriculum for students in year 1 and year 2. This significantly updated how the MD Program delivers medical education, with increased online learning, clinical skills sessions and a focus on active learning, particularly case-based learning (CBL). A limited

amount of didactic learning is delivered. Within case-based learning, students work through a patient case in small groups of 8-10 students in two sessions per week. CBL requires students to collaborate in an active learning environment, something that cannot be achieved in the traditional lecture halls of MSB. Currently, case-based learning occurs at the following locations:

- Academies: The majority of CBL happens in the Academies (clinical locations) that are off campus. This results in additional travel time for MD students who have full schedules. During the Fall term, Year 1 typically has an average of 15 hours of class time per week, Year 2 typically has an average of 13 hours of class time per week, Year 3 typically has an average of 5 hrs of class time per week, and Year 4 typically has an average of 1 hr of class time per week.
- MSB: Some CBL teaching occurs in the Division of Teaching Laboratories (DTL) classrooms, Rm 2278 and 2377, as well as another twenty (20) DTL teaching labs since the MD cohorts need to be seated simultaneously. The MD Program is currently using DTL's teaching labs for seminars due to a lack of suitable rooms at MSB. As the West Wing is being demolished, a selection of these classrooms and labs are relocating to Ramsay Wright Building.

In order to, "cultivate a student-centred environment to ensure patient-centred physicians", MD students are to be situated in the Temerty Building.

- Temerty Building will predominantly serve Year 1 and Year 2 Foundations cohorts.
- Year 3 and year 4 Clerkship cohorts would generally remain in Academies with potential for select activities to be brought back to the St. George campus
- Each cohort above is 209 students per year

Due to a teaching shift whereby the MD program increasingly delivers their curriculum in an active learning format, flat floored, active learning classrooms with flexible, mobile furnishings are desired. Other instructional requirements are noted below:

- Student-led case-based learning (CBL) is going to be delivered virtually.
- The proposed classroom capacity and number of classrooms need to factor in each MD Year 1 and Year 2 to sit simultaneously each cohort in both the Large Active Studios and Medium Active Studios. Note: Year 1 and Year 2 courses requiring the Large Active Studio should not overlap in the calendar. In rare cases when they do, usage of MSB larger classrooms 3153 and 3154 will be leveraged.
- MSB 3153 and 3154 will be utilized by MD Program when the entire Year 1 and Year 2 cohort need to be seated simultaneously, or during assessments when two large classrooms are required for spacing out the students.

<u>The Office of the Vice Dean, Research and Health Science Education (OVDRHSE):</u>

The objective is to deliver as many of the OVDRHSE courses for undergraduate and graduate students in basic sciences as possible within Temerty Building for the reasons outlined below:

- There are approximately 96 on-campus OVDRHSE graduate courses with standard lecture/seminar format being factored into the classroom analysis to inform the proposed capacity and number of classrooms.
- Some of the previously offered Master of Science (MSc) and Post-Doctoral (PhD) courses, which are part of the LMP, Molecular Genetics, Biochemistry, IMS and Medical Biophysics departments are being restructured into more numerous, smaller cohort classes.

Aside from the administrative benefits related to tracking and grade submissions, these changes will ultimately allow the faculty to provide courses with more focused learning objectives and allow said courses to be offered across different departments. As a result of this recent change, the TFoM offered a total of 588 courses during the 2021-2022 academic year.

- As of 2021-2022, there are 175 undergraduate courses taught by TFoM Faculty, with a total enrolment of approximately 14,000 undergraduate students from other Faculties (Faculty of Arts and Science, Faculty of Applied Science and Engineering, etc.).

Classrooms Analysis:

This section summarizes two types of analysis: utilization analysis and scheduling to justify the proposed classroom space program will meet the demand in the sector in concert with the existing classrooms in MSB.
The table below looks at existing LSM classrooms in Block A and Block B to understand comprehensively how well existing classrooms are utilized demand via bookings to justify the proposed seminar rooms size and count (Table 3.6 and Table 3.7). 2019-2020 enrollment and classroom scheduling data were used in the utilization analysis as they represent a typical academic year prior to the pandemic. TFoM Classroom bookings/utilization are not available.

Table 3.6- Existing Institutional (URO) Classroom Utilization Analysis of TFoM booked hours during week of November 11, 2019

Location	Existing	Capacity	Classroom type	Hours 9am-6pm	Utilization 45 Hours %	
Block A	MS2172	142	Tiered Classroom	40.0	89%	
Block A	MS2170	140	Tiered Classroom	42.0	93%	
Block A	MS4171	87	Tiered Classroom	39.5	88%	To remain
Block A	MS4279	87	Tiered Classroom	19.0	42%	
Block A	MS2173	80	Non-Tiered Classroom	20.5	46%	
Block A	MS3153	274	Tiered Classroom	45.0	100%	
Block A	MS3154	250	Tiered Classroom	39.0	87%	
Block B	MS3278	59	Non-Tiered Classroom	39.5	88%	
Block B	MS3290	22	Non-Tiered Classroom	28.5	63%	To be demolished
Block B	MS2290	18	Non-Tiered Classroom	33.0	73%	
Block B	MS2394	18	Non-Tiered Classroom	41.5	92%	
Average Utilization				**35.2**	**78%**	

Generally, both the URO classrooms in Block A (to remain) and Block B (to be demolished) have high utilization.

To validate the proposed classroom space program, a classroom analysis was performed by Learning Space Management (LSM), supported by extensive consultation with TFoM Facilities Management & Space Planning, MD Program and OVDRHSE stakeholders and University Planning. The overall

framework included surveying the TFoM instructor and student needs and reviewing a complex scheduling analysis that aggregated classroom demand (hours) comprehensively across the existing MSB classrooms and proposed Temerty Building classroom supply (space) to confirm high utilization (see Table 3.7 showing where 0=efficient).

The following schedule analysis includes the following cohorts:

- TFoM Undergraduate Programs
    - UME or MD Program: Year 1, Year 2, Year 3, Year 4; and
        - Excludes in-person MAM MD students registered at UTM campus, but includes courses that broadcast to MAM from Temerty Building for synchronous or asynchronous learning
    - OVDRHSE Undergraduate: Faculty of Arts & Science Students taught by TFoM Faculty or, “Interdivisional Teaching”
- TFoM Graduate Programs:
    - Office of the Vice Dean, Research and Health Science Education (OVDRHSE) programs: Biochemistry, Institute of Biomedical Engineering BME (Associated Graduate Department), Immunology, Laboratory Medicine and Pathobiology, Institute of Medical Science, Molecular Genetics, Nutritional Sciences, Pharmacology and Toxicology, and Physiology
        - Excludes the following OVDRHSE programs based at 500 University Avenue (Rehabilitation Sciences Building): Rehabilitation Science, Occupational Therapy, Physical Therapy, Speech Language Pathology, Radiation Sciences, Physician Assistant, and Residents and Fellows.
- Southeast Sector: Other faculty courses of the Leslie Dan Faculty of Pharmacy, Lawrence S. Bloomberg Faculty of Nursing, Faculty of Applied Science and Engineering, Dalla Lana School of Public Health, Faculty of Arts & Science Statistical Science Graduate, and Faculty of Dentistry
    - These other Faculty courses are either currently at MSB, or are in the southeast sector, helping to generate demand
- The cohorts included above are generally consistent in the MSB Master Program and Feasibility Study, except for exclusion of MD year 3 and year 4 cohort and the Southeast Sector groups.
- The cohorts above are similar to the 2019-2020 bookings Table 3.7 below, except for the MD Program who were mainly utilizing the Academies and DTL classrooms and labs.

To test for efficient capacity and count of classrooms comprehensively across Temerty Building and MSB classrooms, the analysis of booking demand was performed, including scheduled courses from the following programs noted in the table below. The analysis did not include the existing JJR Macleod Auditorium, due to its large 500-seat capacity.

Table 3.7 - Scheduling Analysis (45-hour week)

Requested Capacity Range	**1-16**	**17-24**	**25-48**	**49-96**	**97-120**	**121-142**	**143-240**	**241+**
MD Program			90		62			
OVDRHSE UG		9	53	35	10	4	9	18
MRS*				6	8			51

OVDRHSE GRAD	11	19	11.5	34	6	5	5	2
Southeast Sector	19	64	31	22	3		0	0
Total Demand Hours	**30**	**92**	**185.5**	**97**	**89**	**9**	**14**	**71**
Temerty Building								
Room Count	**1**	**3**	**5**	**-**	**2**	**-**	**-**	-
Room Hours	29.25	87.75	146.25	0	58.5	0	0	0
MSB Room Count	**-**	**-**	**-**	**3**	**-**	**2**	**-**	**2**
Room Hours	0	0	0	87.75	0	58.5	0	58.5
Total Demand Hours	**29.25**	**87.75**	**146.25**	**87.75**	**58.5**	**58.5**	**0**	**58.5**
Net Rooms (Sector)	**0.0**	**0.0**	**-1.0**	**0.0**	**0.0**	**1.0**	**0.0**	**0.0**

Note*: the above analysis includes ad hoc (one-time only) bookings from Medical Radiation Sciences (MRS), whose cohorts do not need to relocate to Temerty Building. These ad hoc bookings can be replaced by other bookings closer to when Temerty Building opens to make these the MSB existing classrooms efficient.

The scheduling analysis demonstrates that the proposed space program is efficient as sufficient course demand between the various programs included in the analysis and the sizes and counts proposed to match the demand. Due to high demand of courses in TFoM and the sector, the 1-16 and 17-24 capacities indicated that four (4) smaller classrooms are needed to replace the loss of the four (4) existing University classrooms due to the West Wing demolition.

Table 3.8 - Classroom Space Program

Division	Level	Space Type	Quantity	NASM
Institutional	**L2**	Large Active Studio 120 seat (pair combines)	2	720
		Medium Active Studio 48 Seat (pair combines)	2	260
	L3	Seminar 16 Seat	1	42
		Seminar 24 Seat	3	195
Institutional Total			**8**	**1217**
TFoM	**Basement**	Classroom Storage	2	121
	L3	A/V Control Room	1	22
		Medium Active Studio 48 Seat (pair combines)	3	390
TFoM Total			**7**	**533**
Grand Total			**15**	**1750**

Faculty of Arts & Science (A&S) Cell & Systems Biology (CSB)

The proposed 110 NASMS Seminar Room for the Temerty Building will be used for Faculty Meetings Research Seminars, Events and occasional Instructional use.

Space Program

The space program below represents a culmination of planning and robust stakeholder consultation process through Validation Phase to best identify spaces and their requirements for the Temerty Faculty of Medicine, Arts & Science, Facilities & Services, LSM, Convocation and Alumni Reunion. Through the course of Validation, minor iterations developed the floor plans captured in the Validation Report. There is a minor variation of 96 nasm between the space program and the March 21, 2025, floor plans. (Refer to Validation Report Drawing set)

An additional appendix titled "20250820 Space Reconciliation Exercise" has been included to reflect the Pink Plus area reduction costing exercise and its alignment with the approved March 2025 space program.

Table 3.9 –Space Program Summary by COU Category (based on Table 3.9a and 3.10)

Program	Area (NASM)	Percentage
1.0 Classrooms	1,750	10%
3.0 Research Labs	10,582.60	59%
4.0 Academic Offices and Related	3,550.60	20%
11.0 Non-Library Study	1,131.00	6%
14.0 Common Use and Student Activity	250.00	1%
15.0 Assembly	530.00	3%
Total NASM	**17,794.20**	**100%**

Table 3.9a - Space Program Summary by Division Category

Division	Level	Total NASM	%
A&S	L7	2163	
	L8	2052	
	L9	1958	
	L10	2018	
A&S Total		**8192**	**46%**
Institutional	Basement	80	
	L2	1692	
	L3	237	
Institutional Total		**2009**	**11%**
TFoM	Basement	146	
	L2	214	
	L3	1427	
	L4	1917	
	L5	1996	
	L6	1893	
TFoM Total		**7594**	**43%**
Grand Total		**17794**	**100%**

Table 3.10 – Detailed Space Program

LEVEL	COU	COU-Sub Cat	Room Name	Room Count	Room NASM	Total NASMS
Basement	**1**	**1.4**	**Classroom Storage**	2	61	121
	14	14.1	MD Society Office Storage	1	25	25
	15	15.1	Event Storage	1	80	80
Basement Total				**4**		**226**
L2	**1**	1.3	Large Active Studio 120 seat (pair combines)	2	360	720
			Medium Active Studio 48 Seat (pair combines)	2	130	260
		1.2	Seminar 24 Seat	1	0	0
	3	3.2	Blow-Out Room	1	9	9
	4	4.1	Dock Management Office	1	16	16
			Admin Office, Single(OID)	2	10	20
			Admin Office, Single(OIH)	2	10	20
			Elder in Residence Shared (OIH)	1	12	12
			Executive Office, Single(OID)	1	12	12
			Office Storage Shared (OIH&OID)	1	6	6
			Open Office Shared(OIH&OID)	1	40	40
		4.5	Shared Office Storage	2	6	12
			Kitchenette Shared(OIH&OID)	1	5	5
			Meeting Room Shared(OIH&OID)	1	20	20
	11	11.1	EDI Lounge (OIH&OID)	1	39	39
			Waiting Area(OIH)	1	3	3
		11.2	Informal Study Space	2	131	262
	15	15.1	Catering Kitchen	1	50	50
			North Lobby	1	400	400
L2 Total				**35**		**1906**
L3	**1**	1.3	Medium Active Studio 48 Seat (pair combines)	3	130	390
		1.2	Seminar 16 Seat	1	42	42
			Seminar 24 Seat	3	65	195
		1.4	A/V Control Room	1	22	22
	4	4.1	PI_Faculty/Academic Office - Single (Computation Lab)	7	10	70
		4.3	Research Team Open Office (Computation Lab)	1	164	164
		4.5	Kitchenette (Computation Lab)	1	10	10
			Conference Room (Medium) (Computation Lab)	1	34	34
	11	11.1	MD Open Study	1	164	164
			MD Study Room (w Examination Table)	1	12	12
			MD Study Rooms	14	12	168
		11.2	Informal Study Space	7	24	168
	14	14.1	Lounge/ Kitchenette	1	91	91

LEVEL	COU	COU-Sub Cat	Room Name	Room Count	Room NASM	Total NASMS
			MD Kitchenette (MedSoc Admin)	1	5	5
			Society Office (MedSoc Admin)	2	10	20
			Society Workroom (MedSoc Admin)	1	45	45
		14.2	Ablution Room	2	4	8
			Family Feeding Room	1	9	9
			Reflection & Multipurpose Room	1	47	47
L3 Total				**50**		**1664**
L4	**3**	3.1	Open Wet Lab, Large	1	682	682
		3.2	Controlled Temp Room (Large Cold Room)	2	16	32
			Controlled Temp Room (Small Cold Room)	1	9	9
			CSS Stock Room	1	15	15
			Cylinder Storage Room Medium	1	20	20
			Freezer Farm	1	168	168
			Hazardous Substance Disposal Storage	1	7	7
			Procedure Room	7	17	119
			Procedure Room	6	17	100
			Lab Circulation**	3	84	253
	4	4.1	PI_Faculty/Academic Office - Single	10	10	100
			PI_Faculty/Academic Office - Single (computational lab)	1	10	10
		4.2	Bookable Office/Team Room	2	10	20
		4.3	Research Team Open Office	2	141	281
		4.5	Conference Room (Medium)	1	34	34
			Kitchenette	1	15	15
			Lockers	1	7	7
	11	11.2	Informal Study Space	1	45	45
L4 Total				**45**		**1917**
L5	**3**	3.1	Wet Lab Module	1	682	682
		3.2	Controlled Temp Room Large Cold Room	2	16	32
			Controlled Temp Room Small Cold Room	1	9	9
			CSS Stock Room	1	15	15
			Cylinder Storage Room Medium	1	20	20
			Freezer Farm Large	1	146	146
			Hazardous Substance Disposal Storage	1	7	7
			Procedure Room	12	23	279
			Sterilizer Alcove	1	15	15
			Lab Circulation**	3	84	253
	4	4.1	PI_Faculty/Academic Office - Single	11	10	110
		4.2	Bookable Office/Team Room	2	10	20
		4.3	Research Team Open Office	2	154	307
		4.5	Conference Room	1	34	34

LEVEL	COU	COU-Sub Cat	Room Name	Room Count	Room NASM	Total NASMS
			Kitchenette	1	15	15
			Lockers	1	7	7
	11	11.2	Social Space	1	45	45
L5 Total				**44**		**1996**
L6	**3**	3.1	Wet Lab Module	1	682	682
		3.2	Controlled Temp Room Large Cold Room	2	16	32
			Controlled Temp Room Small Cold Room	1	9	9
			CSS Stock Room	1	15	15
			Cylinder Storage Room Medium	1	20	20
			Freezer Farm Large	1	146	146
			Hazardous Substance Disposal Storage	1	7	7
			Procedure Room	13	15	191
			Lab Circulation**	3	84	253
	4	4.1	PI_Faculty/Academic Office - Single	11	10	110
		4.2	Bookable Office/Team Room	2	10	20
		4.3	Research Team Open Office	2	154	307
		4.5	Conference Room	1	34	34
			Kitchenette	1	15	15
			Lockers	1	7	7
	11	11.2	Social Space	1	45	45
L6 Total				**44**		**1893**
L7	**3**	3.1	Wet Lab Module	1	825	825
		3.2	Ante Room - Imaging Facility	1	20	20
			Controlled Temp Room Small Cold Room	2	10	20
			CSS Stock Room	1	15	15
			Cylinder Storage Room Medium	1	15	15
			Freezer Farm Large	1	120	120
			Hazardous Substance Disposal Storage	1	10	10
			Sterilization Autoclave Room	1	10	10
			Procedure Room Small - CL2 Cell Culture Small (PI-SL)	1	16	16
			LEICA SP8 Microscope - Imaging Facility	1	12	12
			Nikon SDC - Imaging Facility	1	12	12
			Procedure Room Large - Mass Spectrometer/ Liquid Chromatography (PI-EN)	1	25	25
			Procedure Room Large - Robotics (PI-SL)	1	25	25
			Procedure Room Small - PI Procedure Microscope (PI-KY)	1	15	15
			Procedure Room Small - PI Procedure Microscope (PI-SL)	1	15	15
			Procedure Room Small - PI Procedure Microscope (TBC)	3	15	45
			Procedure Room Small - Radio Isotope Room (PI-KY)	1	15	15
			Procedure Room Small - Shared Laminar Flow Hood Room (PI-NP/PM)	1	15	15

LEVEL	COU	COU-Sub Cat	Room Name	Room Count	Room NASM	Total NASMS
			Procedure Room Small- Computational Dark Room (PI-DC)	1	15	15
			Procedure Room Medium - HPLC/Spectrophotometer/ Liquid Chromatography/ (PI-DC)	1	20	20
			Procedure Room Small- Dedicated Laminar Flow Hood Room (PI-KY)	1	15	15
			Procedure Room Small- Dedicated Laminar Flow Hood Room with fumehood (PI-HM)	1	15	15
			Procedure Room Large - Shared Equipment Room	1	36	36
			Stereofluorescence/ SP5 - Imaging Facility	1	12	12
			Lab Circulation**	3	84	253
	4	4.1	PI_Faculty/Academic Office - Single	10	10	100
		4.3	Research Team Open Office	2	128	256
		4.5	Conference Room	1	110	110
			Kitchenette	1	15	15
			Lockers	1	7	7
			Meeting Room	1	34	34
	11	11.2	Non-Library Study	1	45	45
L7 Total				**50**		**2163**
L8	**3**	3.1	Wet Labs	1	725	725
			Wet Labs CAGEF	1	100	100
		3.2	Controlled Temp Room Small Cold Room	1	10	10
			CSS Stock Room	1	15	15
			Cylinder Storage Room Medium	1	15	15
			Freezer Farm Large	1	120	120
			Hazardous Substance Disposal Storage	1	10	10
			Procedure Room Large- CAGEF Equipment Room	1	55	55
			Procedure Room Large- CAGEF Mass Spectrometer	1	30	30
			Procedure Room Large- CAGEF Shared Equipment	1	20	20
			Procedure Room Large- Shared Equipment Room	1	36	36
			Sterilization Autoclave Room	1	10	10
			Procedure Room Small - Ante Room & Prep Gel Imaging & Spectrophotometry (PI-BC)	1	10	10
			Procedure Room Medium- PI - Procedure Worm Microinjection (PI-JC/AS)	1	24	24
			Procedure Room Medum- Computational Work Room (PI-AM)	1	20	20
			Procedure Room Medum- Cell Culture Prep Room (PI-BC/JM)	1	20	20
			Procedure Room Small- Cell Culture (PI-BC)	2	10	20
			Procedure Room Small- Cell Culture/Dark Room (PI-BC)	2	10	20
			Procedure Room Small- PI Procedure Microscopes (PI-JM)	1	12	12
			Procedure Room Small- PI Procedure Microscopes (PI-JC/AS)	1	12	12
			Procedure Room Small- PI Procedure Microscope (TBC)	3	10	30

LEVEL	COU	COU-Sub Cat	Room Name	Room Count	Room NASM	Total NASMS
			Procedure Room Small- Incubator Room (PI-JC/AS)	1	10	10
			Shared Spectrophotometry - Dark Room (PI-BC)	2	5	10
			Procedure Room Medium- Cell Culture Room (PI-JM)	1	24	24
			Lab Circulation**	4	63	253
	4	4.1	PI_Faculty/Academic Office - Single	9	10	90
		4.2	Bookable Office/Team Room	2	10	20
		4.3	Research Team Open Office	2	115	230
		4.5	Conference Room	1	34	34
			Kitchenette	1	15	15
			Lockers	1	7	7
	11	11.2	Social Space	1	45	45
L8 Total				**54**		**2052**
L9	**3**	3.1	Wet Lab Module	1	675	675
		3.2	Ante Room - Imaging Facility	1	20	20
			Controlled Temp Room Small Cold Room	1	10	10
			CSS Stock Room	1	15	15
			Cylinder Storage Room Medium	1	15	15
			Freezer Farm Large	1	120	120
			Hazardous Substance Disposal Storage	1	10	10
			Sterilizer Alcove	1	10	10
			Storage	1	10	10
			LEICA SP8 Microscope - Imaging Facility	1	12	12
			Procedure Room Large - Shared Equipment Room	1	36	36
			LEICA SP8 Microscope - Imaging Facility	1	12	12
			Nikon Crest - Imaging Facility	1	14	14
			Nikon Spinning Disk - Imaging Facility	1	12	12
			Procedure Room Large- Incubator Room (PI-UT/TH)	1	36	36
			Procedure Room Large- Shared Fly Room (PI-UT/TH)	1	36	36
			Procedure Room Medium- PI - Procedure Microscopes (PI-VT/AB)	1	15	15
			Procedure Room Small - PI - Procedure Microscopes, Mesoscope (PI-QL)	1	24	24
			Procedure Room Small- Cell Culture (PI-SP)	2	12	24
			Procedure Room Small- Cell Culture (PI-LB)	1	12	12
			Procedure Room Small- Cell Culture Prep (PI-SP/LB)	1	18	18
			Procedure Room Small- Dark Room / Computation Imaging (PI-TH)	1	10	10
			Procedure Room Small- PI Observation Rig Room (PI-LB)	1	18	18
			Procedure Room Small- PI Procedure Microscopes (PI-QL)	1	10	10
			Procedure Room Small- PI Procedure Microscopes (PI-SP)	2	10	20
			Procedure Room Small- PI Procedure Microscopes (PI-UT)	1	10	10

LEVEL	COU	COU-Sub Cat	Room Name	Room Count	Room NASM	Total NASMS
			Procedure Room Small-Zebra fish micro-injection (PI-VT/AB)	1	20	20
			Procedure Room Small- PI Observation Rigs (PI-LB)	1	10	10
			Procedure Room Small- PI Procedure Microscopes (PI-FG)	1	10	10
			Procedure Room Small- PCR Procedure Room (PI-VT)	1	10	10
			Procedure Room Small- PI Procedure Microscopes (PI-TH)	1	10	10
			Lab Circulation**	4	63	253
	4	4.1	PI_Faculty/Academic Office - Single	9	10	90
		4.2	Bookable Office/Team Room	2	10	20
		4.3	Research Team Open Office	2	115	230
		4.5	Conference Room	1	34	34
			Kitchenette	1	15	15
			Lockers	1	7	7
	11	11.2	Social Space	1	45	45
L9 Total				**57**		**1958**
L10	**3**	3.1	Lab Circulation**	4	63	253
		3.2	Ante Room/ Gowning - Aquatics Facility	5	15	75
			Ante Room/ Gowning - Aquatics Facility	1	15	15
			Aquatics Equipment	2	20	40
			Aquatics Hazardous Disposal Storage	1	10	10
			Aquatics PPE/ Gowning	1	5	5
			Aquatics Sterilization Room	1	18	18
			Aquatics Storage	2	25	50
			Chemicals/Pesticide Prep Room - Growth Facility	1	10	10
			Cleaning Room - Growth Facility	1	30	30
			Growth Room, Reach-in Chambers - Growth Facility	1	240	240
			Growth Room, Walk-in Rooms - Growth Facility	1	210	210
			Housing - Large - Aquatics Facility	1	50	50
			Housing - Medium - Aquatics Facility	1	35	35
			Housing - Medium - Aquatics Facility	3	35	105
			Housing -Ghekos & Small Fish - Aquatics Facility	1	20	20
			Imaging Room - HOLD	1	15	15
			Observation Room - Aquatics Facility	4	23	90
			Pesticide Application Room - Growth Facility	1	12	12
			Potting Room - Growth Facility	1	50	50
			Prep/ Live Food Culture - Aquatic Facility	1	15	15
			Quarantine Room - Aquatic Facility	1	30	30
			Storage & Workroom - Growth Facility	1	35	35
			LEICA SP8 Microscope - Imaging Facility	1	15	15
			Shared Imaris Computer Room - Imaging Facility	1	10	10
			Nikon Multiphoton - Imaging Facility	1	20	20

LEVEL	COU	COU-Sub Cat	Room Name	Room Count	Room NASM	Total NASMS
			Anteroom - Imaging Facility	1	20	20
			Imaging Facility Equipment Room	1	10	10
			Sterilization Room - Growth Facility	1	14	14
			SEM Microscope - Imaging Facility	1	20	20
			Senescence Room - Growth Facility	1	40	40
		4.3	Research Team Open Office	1	77	77
		3.2	Technician/Prep Room - Imaging Facility	1	35	35
			Waste Disposal - Growth Facility	1	14	14
			TEM Microscope - Imaging Facility	1	20	20
	4	4.1	Admin & Technician Open Office	1	40	40
			PI_Faculty/Academic Office - Bookable Team Office	1	10	10
			PI_Faculty/Academic Office - Single	3	10	30
		4.3	Bioinformatics*	1	140	140
		4.5	Kitchenette	1	15	15
			SHOWER/WC & Lockers - Aquatics Facility	1	30	30
	11	11.2	Social Space	1	45	45
L10 Total				**60**		**2018**
Grand Total				**443**		**17794**

**A&S program removed to accommodate other A&S program.*
***Lab Circulation nasm required for space program / COU designation under review.*

Smudging

Smudging is the ceremony of purifying a room with the smoke of sacred herbs. The University of Toronto respects and supports Aboriginal cultural and spiritual practices on Campus. U of T recognizes that smudging, the use of tobacco and other Sacred Medicines are a part of the First Nation, Métis and Inuit traditional way of life and are, therefore, permitted on campus as per the University's Smudging and Fire Safety Guidelines.

The following spaces are to be reviewed for feasibility in the design phase for inclusion of smudging:

- Spaces for Unplanned smudging ceremonies:
    - EDI Lounge (part of OID Suite);
    - Shared Meeting Room in OID/OIH Suite;
    - Reflection and Multi-Purpose Room;
    - One informal study space will be a designated smudging space on one of the research floors; and
    - Elder Office
- Spaces for Planned ceremonies:
    - All classrooms. It is a priority to be able to use at least 1-2 classrooms on the ground level, close to the Lobby;
    - 1 Shared Bookable Office in OIH and OID Suite; and
    - Individual and Multi-Person Offices in OIH Administrative Suite.

Of the spaces listed above, there should be consideration into selecting spaces that are suitable and equipped to host unscheduled smudging ceremonies, while others may be more suited to scheduled smudging ceremonies. Unscheduled smudging ceremonies are ceremonies that could be held on demand in an equipped space with a set of protocols and equipment that allows a person to smudge without notifying property managers and U of T Fire Prevention. Scheduled smudging ceremonies are ceremonies that could be held with additional provisions in place, such as notifying property managers, U of T Fire Prevention, and potentially air handling equipment adjustments. Protocols for scheduled versus unscheduled smudging should be reviewed with U of T Fire Prevention.

Note: Review fire safety requirements and considerations with Authorities Having Jurisdiction. From a fire safety and ventilation standpoint within the Temerty Building, smoke represents a challenge, essentially requiring that designated spaces with smudging be isolated from the remainder of the building. A ventilation system that ensures the smoke is adequately exhausted to the exterior and minimizes the risk of smoke traveling to other parts of the building via the current mechanical systems is required. Refer to smudging guidelines https://www.fs.utoronto.ca/services/fire-prevention/smudging/ and Appendix for U of T Fire Safety Guidelines for Smudging. Review and consider any fire safety technologies like heat sensitive fire protection systems.

Classroom Space

The construction of the Temerty Building provides an opportunity to create a 'Learning Centre' that facilitates innovative teaching for institutional instructional needs, the MD program, OVDRHSE program cohorts and other cohorts. New classrooms are key resource tools for the University and must be planned thoughtfully and strategically, ensuring they meet both current and future campus demand and pedagogical needs. The new classrooms should be designed to achieve the following goals:

- Support Active Learning: Classrooms must be flat floored and flexible for active participation of all students during classes; this includes students interacting with each other during discussions and group projects. Interpersonal communication is a key requirement for the future of in-person education. The large active and medium active studios combine pairs into larger classrooms, requiring an acoustic folding retractable walls system.
- Meet MD curriculum needs: The whole MD annual cohort at the St George Campus (209 student cohort per undergraduate year) must be accommodated simultaneously for classes. This includes within Large Active Classrooms as well as Medium Active Studios.
- Provide a "Home" for students: The new Temerty Building will act as an inviting hub for medical students to meet and share ideas. The range of study spaces will provide a home base for students to both collaborate with others and focus on individual studies. It will be a social home for medical science students and included space for student societies and informal lounges. Classrooms will be made available for informal study for students when not being used for scheduled courses.
- Square proportion (1:1 ratio) and column free classrooms are preferred to promote optimal sight lines
- Host events: There should be two Large Active Studios and two Medium Active Studio on Ground Level. In addition to the uses noted above and in the RDS, these classrooms must also be designed to host Convocation and Alumni Reunion activities.

- To support Convocation and Alumni Reunion activities, these classroom spaces are to work in conjunction with the Lobby and crush space to support these institutional events.
- The Large Active Studio and Medium Active Studio Classrooms on Ground Level will need acoustic folding retractable walls to allow these spaces to expand spatially and visually to support large events like Convocation and Alumni Reunion activities. For more information Convocation and Alumni Reunion activities refer to in "Assembly/Exhibition" section.

It is preferred for the majority of classrooms to be co-located primarily on Ground Level/Level 2 and Level 3 for easy access to students, proximate to crush space, and student study spaces. These levels are also proximate to URO managed classrooms on MSB Level 2-4.

There are three types of classroom spaces: large active studio, medium active studio, and seminar classrooms. The large and medium active studios will be designed to prioritize active learning pedagogy. The seminar classrooms are preferred to be clustered together on Level 3, close to the remaining Medium Active Studios and adjacent URO managed classrooms in MSB.

Classroom space in the Detailed Space Program also includes Classroom Storage for tables and chairs, and an A/V Control Room. All classroom support spaces are anticipated to be in the basement pending design.

The general guideline for classroom crush space to equal approximately 50% of the total classroom space on any floor to be provided outside the classrooms to:

- Allow for effective circulation in and out of classrooms at changeover times, where spaces outside classrooms may be double loaded with students exiting and waiting for entry. This also helps with smooth programming of instructional spaces so courses can start on time, typically 10min after the hour of scheduled start.
- Support learning support spaces adjacent to classrooms. Co-locating informal study space and formal MD study space near classrooms facilitates for student break-out sessions, collaboration, joint discussions, and study after or before class.
- Crush Space (non-assignable) can overlap with non-assignable corridor space and assignable Informal Library Study space.

Research Floors

Temerty Building laboratory design must meet standards and regulations, including but not limited to: U of T Environmental Health and Safety (EHS), Canadian Biosafety Standard (CBS), Public Health Agency of Canada (PHAC), Ontario Building Code (OBC), and others, as applicable. For A&S, the design of the BioScience Support Facility CSB Research Program Facility must comply with additional standards and regulations beyond those already noted. These include, but are not limited to, requirements set by the Canadian Council on Animal Care (CCAC), Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), and the Canadian Food Inspection Agency (CFIA), as applicable. A key project requirement is to facilitate OMAFRA design reviews and inspections, and to obtain formal facility approval.

More than half of Temerty Building will be dedicated to wet research laboratories, and it is anticipated the research floors will be above the levels dedicated to teaching and administration. There are 7 research

floors planned: three TFoM research floors, Levels 4-6 and four A&S research floors, Levels 7-10. The TFoM research floors each have 2-3 fume hoods per floor. A&S research floors Levels 7-9 have 6-8 fume hoods per floor, while Level 10, the Core Facility floor, has 2. Fume hoods can be located in dedicated alcoves for shared access in the open wet lab areas, however fume hoods can also be located in select dedicated procedure rooms. The research floors typically include open wet labs, associated shared lab support spaces (procedure rooms), dry labs and shared support collaboration spaces. As part of ongoing facility planning, CSB is looking to the Temerty Building to accommodate modern, modular research labs, shared core facilities, and faculty office space that supports both collaborative and individual scholarship

The research floors are anticipated to host approximately 64 laboratory modules in total. 33 PIs are anticipated for TFoM research floors. 31 lab modules are anticipated for the A&S research floors, to support 30 PI teams and the Centre for the Analysis of Genome Evolution & Function (CAGEF). Each laboratory module is built around the need to support a Principal Investigator (PI) plus an average of eight team members. TFoM research floors will be designed around one open wet laboratory space, maximizing flexibility to and from lab support spaces and dry computational spaces. The A&S open wet laboratory space may be sub-divided into 3 zones to provide additional acoustic privacy and separation. In some cases, the A&S wet lab module provides on average a slightly larger area and increased quantity of benches per PI team than the TFoM lab module.

Open Wet Lab Bay:

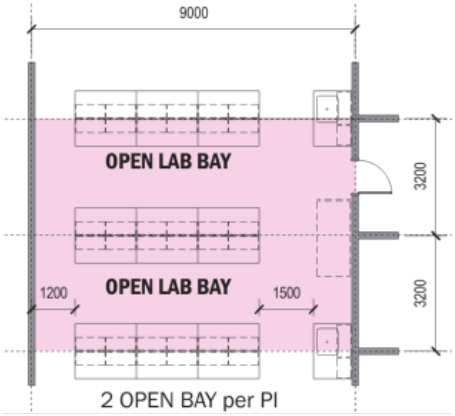


Image 1 – Typical Open Wet Lab Bay Module (from Temerty Building Feasibility Study)

Image 2 – Typical Open Wet Lab Bay Module TFOM (approximately two open lab bays, as per red outline)

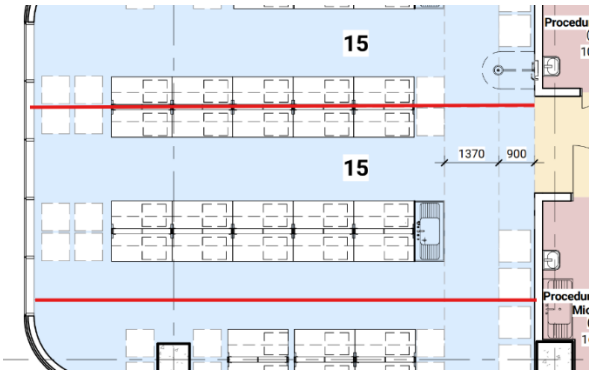


Image 3 – Typical Open Wet Lab Bay Module A&S (approximately two open lab bays, as per red outline)

- The generic open wet lab module has open lab bays with lab benching for team members and circulation space between the bays allowing access to the rest of the open lab.
  The open wet lab module also includes the following areas: equipment floor space, sink(s), and storage.
- Lab entrance area contains lab coat alcove and safety (PPE) area
- Fume hoods are either located in alcoves or equally distributed between lab modules with dedicated flammable/corrosive/chemical storages
- Locations of handwash sinks, eye washes, and emergency safety showers are to be approved by EHS. It is recommended, but not required, for safety showers to be located outside of rooms with a containment level and have accompanying drains. The drains to have means of controlling runoff (via covers or holding/neutralizing tanks) as may be used to attend to emergencies from in a CL2 space. All safety showers to be accessible and include shower curtains.
  - Depending where on floor plan it's located, containment may not be required for corridor space connecting the lab support spaces to the open wet lab spaces. These areas must be adequately separated and sealed to minimize the possible spread of contaminants.
  - All TFoM labs are to be planned as CL2 Chem 2, defined in the EHS lab standards and guidelines.
  - A&S lab and procedure rooms will be designed in compliance with EHS lab standards and guidelines. Hazard assessment is ongoing to determine the exact requirements based on the intended proposed research activities.

For A&S the one known exception to the open wet lab module is the Centre for the Analysis of Genome Evolution & Function (CAGEF). Located on Level 8, CAGEF is an extra-departmental unit that supports interdisciplinary research and training through access to highly specialized equipment, facilities, and chemical genomic libraries. Due to its unique functions and CL2 containment requirements, the CAGEF wet lab must be distinctly separated from typical PI open wet labs. Ideally, it should be located adjacent to the research team open office to support bioinformatics clusters, as well as facility technicians and operators.

Shared Research Lab Support Space:

- In general, research lab support spaces are to be close to the building core and centralized in the floorplate for easy access from different areas within the open wet lab, ease of controlling

the room environment (lighting conditions, temperature, humidity) and enable daylight penetration into the open wet lab area.

- Procedure Rooms: For TFoM planning purposes there are small, medium and large procedure rooms. Procedure rooms will be assigned depending on occupant research types. For A&S, procedure rooms vary in size from small to large, with configurations tailored to the specific research needs of each PI team. Some rooms will be shared, while others will be individually assigned for dedicated use. The total amount of procedure rooms per level is noted in the Detailed Space Program.
- Controlled Temperature Rooms / Environmental Rooms: On each research level the controlled temperature room(s) are to be distributed close to the open wet lab for ease of access for all research teams.
- Freezer Farms: Each research floor is to have one (1) central freezer farm sized to accommodate two (2) ultra-low temperature freezers (ULT) per lab module and capacity for two (2) shared emergency ULTs. Additionally, A&S plans to house a small number of air-cooled growth chambers within the freezer farm.
- Hazardous Substance Disposal Room: This room is for day-to-day disposal serving the open wet lab area. Each research floor is to have one (1) centrally located hazardous substance disposal, this is typically close to an exit and freight elevator corridor. This has been reviewed with both EHS and EPS, and is currently under review for consolidation into (1) central location (Blow Out Room, see below) rather than being distributed on each floor.
- Blow Out Room: There is one (1) chemical blow out room for storage of chemicals pending disposal. This space is shared between all research floors, MSB and DCCBR and should be located near the freight elevator. The Hazardous Substance Disposal Room and Blow Out Room may be consolidated into a central facility, post-Validation (size TBD).
- Sterilizer Alcove: For TFoM there is one (1) sterilizer alcove planned. This space is shared between all TFoM research groups and should be located for ease of access of all building occupants, and not within a containment area. For A&S research levels 7 to 9, one sterilizer alcove is planned per floor. On level 10, which houses the core facilities, there will be one sterilization room dedicated to the growth facility and another dedicated to the BSF facility.
- Central Sterilization Services (CSS) Stock Room: Each research floor is to have one (1) centrally located CSS stock room. The CSS stock room will hold clean glassware, shared water filtration equipment and ice machines, and have a designated nitrogen dispensing area. The CSS core facility, located on Level 4 of MSB, provides MSB and MaRS with glass-washing, laundry, and sterilization services for research labs, as well as additional ice machines and water filtration. This facility is expected to support the research laboratories in the Temerty Building as well.
- Some procedure rooms requiring CL2+ containment is anticipated for the Temerty Building. These areas are not suitable for an open laboratory environment, require controlled access and a physical separation from other areas. The identification of specific procedure rooms requiring CL2+ containment is anticipated as part of Day 2 (post-occupancy) construction work, once occupant groups have been identified.
- A&S BioScience Support Facility, CSB Research Program: Located on the core facilities floor (Level 10), this facility provides centralized research and support space for CSB. It should include (6) research rooms, each with its own anteroom; (4) observation rooms; (1) quarantine room; (1) food prep room; (1) sterilization room; (1) hazardous waste & disposal room; (2) storage rooms; PPE gowning space; mechanical equipment and UPS rooms; and a combined shower, change room, and washroom facility.

- A&S CSB Growth facility: Located on the core facilities floor (Level 10), this facility supports CSB researchers with plant growth space and associated support activities. It should include plant growth rooms designed to accommodate (40) reach-in growth chambers and (12) walk-in growth chambers; (1) cleaning room; (1) potting room; (1) senescence room; (1) sterilization room; (1) combined storage & technician workroom; (1) waste disposal room; and a chemical/pesticide preparation room equipped with fume hood and pesticide application space.
- A&S CSB Imaging facility: Located on Levels 7, 9, and 10, this service laboratory supports CSB researchers using specialized advanced microscopy techniques. Each level will house (3) to (4) dedicated microscope rooms, each with an adjacent anteroom for preparation. Additionally, the Level 10 facility will feature (1) technician prep room for specimen and solution preparation, along with (1) dedicated computer workstation room for image processing and analysis. In addition to the Imaging Facility microscopy rooms, individual PI microscope rooms are present on all A&S research floors. These procedure rooms have between one – two microscopes, and are dedicated to a Principal Investigator and their team.
- Centre for the Analysis of Genome Evolution & Function (CAGEF): Located on Level 8, CAGEF will require several procedure rooms, including: (1) a large mass spectrometer room with a fume hood, (1) large restricted-access equipment room, and (1) shared equipment room with equipment available for use by other CSB PI teams.

Research Open Office (Dry Lab):

This space is for research group team members to write-up lab related research and conduct computational experiments within an open workstations area as well any computational work. The Research Open Office will be located outside of the wet lab containment areas and located near the PI (Faculty/Academic) Offices, Bookable Offices/Team Rooms and Conference Room(s). It should be in proximity to other shared collaborative spaces such as the kitchenette and lounges. These work areas are best located with window exposure along the building periphery, allowing them to benefit from natural light with interior glazing into the corridors and beyond. The spatial and design quality of the Research Open Office should be similar to MaRS Level 15 and 16 to allow for a sufficient spacing between desks to allow for uninterrupted passage within the aisles and include acoustic finishes. The layout of desks should maximize efficiency. For A&S, the research open office should be subdivided into three partitioned zones to enhance acoustic privacy for dry lab work. Workstations should be configured to maximize space efficiency while ensuring adequate separation for confidential, focused tasks and conversations. Individual Faculty Office locations to be considered for ease of access by externals or students not part of research teams but supported by an individual PI.

For A&S, Level 10 should additionally include an open office dedicated to core facility technical staff and administrators. This space should be located near the CSB Imaging, Growth, and BSF facilities and offer hoteling workstations for individual work. The layout should be configured to maximize separation, supporting confidential, focused tasks and conversations.

Shared Collaboration:

Each research floor houses the following shared collaborative spaces:

- Bookable Office/Team Room: There are (2) two bookable offices/team rooms per floor available to be shared between all research teams. For Arts & Science, the number of bookable team rooms

varies by floor, with one to two rooms provided per level—except on Level 7, where space is allocated for a large 80-person seminar room. Level 10 should have (1) bookable office dedicated to core facility technicians and administrators.

- Kitchenette: The kitchenettes can be two (2) smaller kitchenettes or one (1) central kitchen for easy access for research teams. These spaces should be co-located with open seating/collaboration.
- Conference Room: one (1) bookable conference room per floor to be centrally located by building occupants. Booking preference for researchers located in the building for lab meetings to be managed by the Faculty. There will be no conference room on the A&S level 10 core facility floor.
- Open Seating/Collaboration ("Social Space"): These spaces can be accessed from a public corridor but available for researchers on the floor. They should provide space for casual collaboration and individual study and be co-located with kitchenettes.
- Informal Study ("Social Space"): These spaces provide an area for casual collaboration and individual studies. These spaces can be designed open to the circulation space or enclosed. One of these spaces to be centrally located and designed to be enclosed and equipped for unscheduled smudging ceremonies, refer to "Smudging" section for more details.
- Lockers: Lockers can line publicly accessed corridors for efficient use of space. There should be one (1) locker per lab team member, plus 10% extra (468 total researchers * 10% = 515 lockers), if possible. Lockers are to be non-combustible if located in corridor.

These shared collaborative spaces should be located outside the wet lab containment space, adjacent to the research team open office spaces for increased collaboration. Researchers can enter these spaces with food, drinks, and general office supplies. These spaces are to be located with ease of access to the building's circulation, both vertical and to existing MSB levels and can act as a transition zone between the new Temerty Building and existing MSB.

Student Space

Temerty Building will provide a new home for Medical Society "MedSoc". The MedSoc Society lounge/kitchenette should be designed with comfortable lounge seating for relaxing and chairs and tables suitable for active conversation. Workroom is mainly used for organization and as storage space for the MedSoc. Their offices can be accessed directly from the Workroom or within the suite.

The Office of Inclusion and Diversity (OID) administrative suite includes an EDI (Equity Diversity and Inclusion) Lounge as part of its space program. It functions as a lounge space serving students and staff shared by OIH and OID.

Study Space


Image 4: Case Western Samsung Pavilion


Image 5: Rutgers University-Camden


Image 6: Rutgers University-Camden

Study space will be an important feature of the space program for the new Temerty Building to function as a welcoming home for medical students. Study space will be comprised of both informal and formal study space. Level 2 (Ground Level) Informal study space includes general student lounge areas that are open to all students on campus, including those from the Faculty of Arts & Science (A&S). The student spaces, located on Level 3, are designed to foster interdisciplinary interaction and community within the Medicine community. For example, formal study spaces are enclosed, dedicated areas reserved for MD students only, providing quieter environments for focused academic work.

The formal MD study spaces in the Temerty Building will replace the study spaces currently located at 263 McCaul Street Level 5. The Temerty Building provides an opportunity for dedicated study space for MD students to be consolidated and centrally located on campus near relevant classrooms where the MD Program curriculum will be taught. The MD study spaces are to have enclosed focused study areas connected to an open study area for MD students. MD students have one (1) day for self-learning (Wednesdays in Year 1, Tuesdays in Year 2, one (1) day off per rotation in Year 3). These spaces will be always open to MD students. Year 4 MD students are mainly in clinical settings and manage their self-learning between electives.

MD study space includes:

- MD Study rooms are to be designed to accommodate individual and small group collaboration. One of these rooms should be sized to accommodate an examination bed in addition to the meeting table and chairs provided. These rooms are to be bookable by MD students.
- MD Open Study Spaces are to be larger open spaces dedicated to quiet study. They should allow for students to study and collaborate with other students.
- The MD Kitchenette and MD Lounge spaces are support spaces for the MD students. These spaces are to be co-located with open study tables.
- MD Student Lockers should be arranged in 2 -tiers providing lockers for 418 students. All lockers to be located on one level near classrooms and MD Study Space. Lockers can be located in corridors, but corridors must be wide enough to accommodate both circulation and locker access. Lockers are to be non-combustible.

Currently MSB has an extremely limited amount of informal study space. It is anticipated that most of informal study spaces for general study use will be located on the Ground Level. The spaces will generally support busier, or open “café” style seating study space.

The following are recommendations for study spaces:

- Level 2 (Ground Level) will have a higher concentration of more social study spaces. Study spaces on these levels can be café style open study spaces located in busier areas and near classrooms as crush space.
- Co-locate open informal study spaces with the Lobby and Large Active Classrooms to allow flexible use of these areas; when not in use for scheduled classes, the Large Active Classrooms can be leveraged as additional study space or to support Lobby functions as needed day-to-day.
- Level 3 should offer quieter study space. Quiet study spaces should be designed to enable students to be free of distraction. On research levels, these spaces are referred to as “Social Space” in the Validation Report floor plans.
- Natural light should be able to reach the spaces.
- For security reasons, it is recommended to have study spaces close to main circulation routes.

- Special attention to the location of study space and attention to acoustic design/treatment should be paid to all study spaces.
- Create community and connections through enhancement of student study space.
- Ensure space is available at a wide variety of configurations, suitable for individuals, small groups, and larger group.
- Locating student study space in interstitial zones between the Temerty Building and existing MSB can encourage socializing across Faculties and Departments.
- Apply a coherent palette of materials to these spaces, while allowing for variation to respond to individual building environments.
- All study spaces should have Wi-Fi connectivity, and ease of access to power outlets.

Reflection and Multi-purpose Space

Image 7: Multi-Faith Space, Multi-Faith Centre, U of T

Image 8: The Sacred Space, Northeastern University

The Reflection and Multi-purpose Room is a separate realm where students, staff, and faculty can practice their religion, philosophy, meditate, etc. The room can also accommodate mission-driven events and workshops. It should be located close to student activities and be located to a public corridor. There are to be two (2) adjoining ablution rooms to this space. The multi-purpose space should be designed to facilitate smudging ceremonies. The design of this space should take into consideration the use of neutral but premium materials, varied lighting configurations, acoustic treatment, and an eastern orientation if possible.

Administrative Space

The Temerty Building will include administrative spaces for the Office of Inclusion and Diversity (OID), the Office of Indigenous Health (OIH). The co-location of these spaces will result in more efficient floor plans and increased collaboration between the associated users. The OID and OIH suite is to be located on Ground Level close to the Indigenous Garden and public corridors.

Image 9: Perkins + Will, Toronto Office

Image 10: L.R. Wilson Hall, McMaster University

The Office of Inclusion and Diversity (OID)and the Office of Indigenous Health (OIH) Administrative Suite:

The OID and OIH is a suite that allows each group to have a separate identity, while also sharing some key support spaces. The design of the suite may allow separate entrances to each group's administrative office cluster. The spaces to be shared, as noted in the detailed space program, includes a Shared Kitchenette, Shared Meeting Room, Shared Open Office, Administrative offices, Shared Storage, and the EDI Lounge. The EDI Lounge space, Shared Meeting Room, and Shared Bookable Office should be fully enclosed and facilitate smudging ceremonies. The suite should be clearly visible and easily accessed from student spaces.

A feature of the OID and OIH suite should be a visible outward facing EDI Lounge near the entry, accessible to staff and students. The EDI Lounge with a kitchenette will be available to be shared by for their visitors and staff. The design will prioritize creating a culturally safe environment for all staff, students, and visitors, and may highlight Indigenous concepts of health and healing.

The OID part of the suite will be designed to emphasize dialogue, formal and informal story telling, and the active display of ideas. The offices in this suite are for staff, with an area where sessional and work study employees can collaborate. The private offices provided are in recognition of the need for confidential conversations and they should be designed with access from a more private area of the suite to also allow for student-staff meetings away from the student activity hub associated with the lounges.

The design of OIH part of the suite may allow the office to have its own physical environment, distinct from the OID spaces. The offices will be fully enclosed and be equipped to facilitate scheduled smudging ceremonies. The Elder in Residence Shared Room is a dedicated space for an Elder; this space is a private office which will accommodate smudging ceremonies and meetings. The OIH spaces will be designed by Indigenous designers in consultation with Indigenous stakeholders/Rights Holders and the U of T Indigenous community.

Assembly

The ground level of Temerty Building is anticipated to host select TFoM events, and tri-campus Convocation and Alumni Reunion activities. To help support these large events, it is anticipated that the ground level is to meet the full 50% crush space relative to the classroom NASM. Altogether, the classroom crush space, combined with the Lobby, student study, and classrooms will help maximize the footprint needed to support these events.

Lobby

The Lobby will be a signature institutional space in a prominent location within Temerty Building. The design of the Lobby is to be in accordance with values of Equity, Diversity, and Inclusion to welcome to students, staff, and visitors. Visual connection and clear wayfinding up to Level 3 to classrooms, OID and OIH offices, and study space to be considered.

The Lobby is to be planned and designed to be flexible so that the space can act as a home for the TFoM and other University students for day-to-day use, student study, collaboration, as well as host Convocation, Alumni Reunion and TFoM events. When events are not booked, the Lobby and surrounding areas are to accommodate student study and collaboration. Activities in the Lobby will be managed and booked through the URO (LSM) and coordinated with Office of Convocation, similar to MSB's C. David Naylor Student Commons (Rm 2171). It is anticipated that TFoM will have priority booking of Ground Level space outside of the Convocation and Alumni Reunion events.

Architectural strategies such as the use of daylight, views out to campus, and materiality or colour to be integrated with intuitive wayfinding for main pathways, public spaces, and vertical circulation. The Lobby, as well as the majority of the Ground Level floor plate is to be flat floored as much as possible to facilitate accessibility and flexibility of space.

Convocation

Convocation remains one of the largest, most important, and inclusive celebratory events held at U of T, involving all academic divisions and several administrative offices. The reach of this event extends beyond the physical campus with the live worldwide webcast capturing a global audience.

Convocation ceremonies at U of T are organized by Faculty/School and degree. One of the distinguishing features of Convocation at U of T is that graduates come forward on stage to be recognized individually. Each graduate is greeted by the Chancellor and the President.

As the capacity of Convocation Hall is approximately 1,700 people, attendance is capped at 1,700. Currently, each graduand receives two guest tickets.

Prior to the Landmark project, the Convocation Plaza (marquee) was set up each year on the Front Campus lawn in May and November. In assessing possible alternative venues to Convocation Plaza, the ground level of the Temerty Building will become a dedicated supporting venue for both Convocation activities, as it is directly across from Convocation Hall. Convocation Plaza is jointly organized by Office of the President and the University Registrar's Office (Office of Convocation).

Alumni Reunion

Alumni Reunion is a separate event that brings U of T alumni together after the annual Alumni Ceremony to partake in Alumni Fest is the flagship event as part of U of T's annual Alumni Reunion — a large-scale, in-person gathering designed to welcome thousands of alumni and their families back to campus. The event features food, entertainment, family programming, and opportunities to reconnect with the University. Alumni Reunion is run by Division of University Advancement, Alumni Relations team. Since the construction of Landmark to this time, Alumni Reunion has grown to over 3,000 registrants.

The Ground Floor of the Temerty Building is envisioned as open and flexible allowing for fluid and efficient flow of guests. The ground level is anticipated to have a large prominent Lobby along with two Large Active Studio classrooms to be used for Convocation program needs. Consultants are to provide a new Convocation ancillary set-up as well as a new Alumni activities set-up on the ground level and surrounding landscape to meet the space program requirements. Some infrastructure in the existing Marquee plan (see Appendix) may no longer be applicable. The ground level of the Temerty Building will support academic programming for students, with the exception of the period allocated for Convocation and Alumni Reunion, which will occur sequentially, with Reunion taking place a few days prior to Convocation to avoid any scheduling impacts to classes.

Design of the Ground Floor to mitigate noise migration to levels above, below, or through to MSB to minimize impact to Temerty Building occupants on other levels. In addition, security and access to research floors needs careful consideration as research activities occur year-round.

Drawings are required to demonstrate Level 2 (Ground Floor) can support Convocation and Alumni Reunion activities inclusive of furniture, equipment, and infrastructure for both inside and outside the building. Consultants to review and test out proposals with U of T stakeholders to help ensure the proposed design offers a smooth, safe, and enjoyable experience for graduates and their guests. Coordination and consultation are with the Office of the President, the University Registrar's Office (includes the Office for Convocation) the Division of University Advancement and University Planning.

Refer to other sections of the report, such as Lobby and Classroom Space, for more Convocation and Alumni Reunion activities.

Convocation Space Program Requirements:

Convocation requires multiple large, spaces inside Temerty Building Ground level to house ancillary offerings during Spring and Fall Convocation.

Pre-Convocation flow in Temerty Building:

1. Gowning Area, pick up gown and hood. (Graduates start arriving 1.5 hours prior to Convocation):
2. Move to Marshalling Area for lineup and instructions for the day.
3. 30 minutes prior to the start of ceremony, graduates are led to the Convocation Hall and seated.
4. Following the ceremony, Graduates and guests would return to Temerity building for post ceremony celebrations.

Activity/Set-up Flow:

1. Main Entrance: with guest information area
2. Food and beverage station & Class banner display area
3. Photo Booth and Flower Stand
4. Retail Area: U of T Bookstore & Framing Area
5. Alumni Relations

Table: Convocation Furniture set-up

Ambassador's Table	1x 96" by 30" Table 2x Chairs	
Events Assigned Tables	1x 96" by 30" Table 2x Chairs	
Class Banners / Stand-up Area	3x Class Banners 3x Cruiser Tables 24" x 24"	Standing area
Alumni Relations	2x 96" by 30" Table 2x Chairs	
Presentation	3x 80" Monitors 4x Banners 96x Chairs 16 x 6 with aisle 6x Cruiser Tables 30" Diam	96 people
Table Seating	6x Tables 72" diam. 8x Chairs per Table	48 people
Photo Booth	1x 96" by 30" Table 1x Backdrop	
Flowers	4x 72" by 30" Tables	
UofT Bookstore	11x 96" by 30" Tables for Merchandise Display 3x 96" by 30" Tables for Cashiers	
Framing Area	14x 96" by 30" Tables for Frame Display	
Food and Beverage	3x 96" by 30" Tables 1x Refrigerated Food Display Back of House area	
Storage	Secure Space (Tent size 37sm)	Temporary storage can be within Classroom space on Ground Level.
Crush Space	Sufficient crush space is to be provided. Refer to PPR for more context.	
Exits/Entrances	Sufficient exits/entrances to be provided. Refer to PPR for more context.	
Gowning Area (Myhal lobby 105&125- 156 NASM)	Racks space for gowns for at least one week's worth of ceremony. (10-12 ceremonies per week, approx. 500 students per ceremony) Up to 130-156 racks needed. (13 racks per ceremony) approx. 6' long by 2' wide each	Needs to be fully accessible. Can be more in the back/south part of the floor plate with Marshalling. Both Gowning and Marshalling are part of the Pre-Convocation flow in Temerty Building prior to Convocation (see Pre-Convocation flow above).

Marshalling Area (Myhal Auditorium-632 NASM)	Need to accommodate up to 500-520 graduates in lineup with instructions.	Located next to Gowning area, ideally separate area from Gowning.

**Refer to space program for Event Storage and Catering Kitchen.*

Alumni Reunion Space Program Requirements:

Alumni Reunion activities require large, clear spaces inside Temerty Building on the ground level to house: Registration, Kids Passport area and other activities. Food Tents and additional seating to be outdoor. Kids Passport Area:

Offering family programming such as face paintings and crafts, located inside Temerty building

Registration:

For inclement weather a registration area will be located inside the Temerty Building with sign up desks. Past event also has had a coffee food stall within.

Registration	10'x8' tables	100 capacity (approx.)
Kids Passport Area		36 sqm

TFoM Events

The TFoM community facilitates some fifteen (15) established events throughout the year, some of which occur in multiple sessions. Aside from these events TFoM hosts between sixteen (16) hours (winter peak activity) and thirty-one (31) hours (fall peak activity) of one-time only events per week (these range from bake sales to retirement gatherings). Most of the recurring events are supported by the TFoM Office of Advancement and range in size from 20-400 attendees. The bulk of events happen on Campus, with five events happening within MSB (mostly in Naylor Commons) and one event often taking place at DCCBR. The Carlu and Li Ka Shing Knowledge Hospital were cited as off-campus locations for 2-3 of the re-occurring events. It is anticipated that some of these events could migrate to the Temerty Building, although purpose-built TFoM event space is not envisioned for the building and infrastructure to specifically support these events has not been included.

Functional Plan

Refer to "Building Characteristics and Massing" and "Space Program" for most of the vertical and horizontal organization and relationships.

i) Building Considerations & Sustainability

Refer to Validation Report for proposed building consideration scope in the consultant "Design briefs" (Mech/Electrical/Civil/AV, etc.) for the proposed Temerty Building.

Standards of construction

Level of Exterior Finish:

The proposed state-of-the-art Temerty Building is in the heart of Front Campus and the quality of the design should match the importance of the site and context. Massing, articulation, and materiality should take into consideration Temerty Building's relationship with prominent buildings such as Convocation Hall to the west, University College to the north and the adjacent Medical Sciences Building. The new design should respond in a contemporary and sensitive way to the existing context. The existing MSB, completed in 1969, is recognized for its uniquely articulated precast concrete exterior cladding designed by multidisciplinary artist Robert Downing and Ted Bieler.

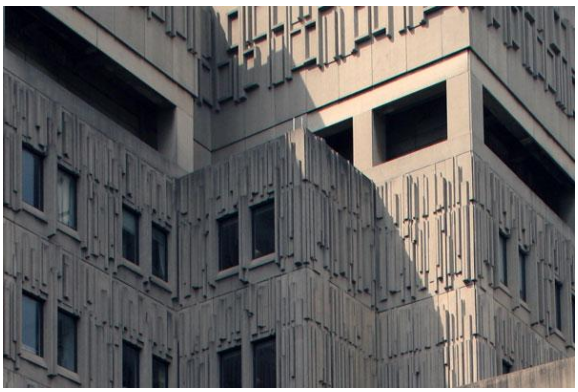


Image 11: Detail of MSB exterior cladding

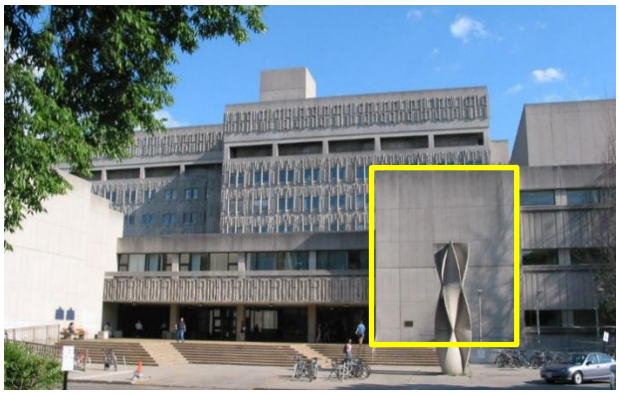


Image 12: Partial North Elevation of MSB (Stair 9 highlighted in yellow outline above)

The building design will meet progressive sustainability and accessibility standards and be integrated with a new landscaped area on the west lawn and the existing Landmark landscape.

In addition to new Temerty Building, the team has been examining the opportunity to re-clad and open up the existing lower 3-storey volume highlighted in yellow above which is the exterior of a circulation stair. This study will continue in TVD phase. This elevation is just east of the decoupling line of the proposed Temerty Building design. The north elevation is the principal face of MSB that faces King's College Circle and could help soften the transition between the new build and existing MSB. Behind this partial façade is a north south corridor that connects to Stair 9 within Block A.

It is expected that a range of materials and finishes, in terms of both type and cost, will be reviewed on the interior and exterior of the building for both aesthetic, functional and sustainability considerations. While higher-end finishes are typically used in areas of greater public access or of higher profile, decision on where these types of finishes are proposed by the Consultants must be strategic and based on consensus among the Temerty Building Senior Management Team (SMT), UPDC, and the Design Review Committee (DRC) during Validation, and as budget allows.


Images 13 + 14: Biomedicum Laboratory Building, C.F. Moller Architects, Sweden


Images 15 +16: Laboratory and Logistics Building, Mikkelsen Architects, Copenhagen, Denmark

Level of Interior Finish:

- High Quality/Showcase: majority of Ground Level except for back-of-house/support areas. Portions of Level 3 where interface with Ground Level is anticipated, Reflection and Multipurpose Room, EDI Lounge, and OID/OIH's Meeting Room.
- Standard/Mid-Range: Classrooms, Student Study, Student Society, Administration and Office/Open office spaces, and collaboration areas, as well as conference rooms on research floors.
- Durable/Non-porous: All Research Floor spaces to have materials and finishes that are durable, impervious, and resistant to water and chemicals used in their sanitation.
- Green/Sustainable: to be considered where applicable.
- Economical/Functional: Back-of-house, storage and building support areas

All materials and finishes are as per the budget allowance. Refer to F&S Standards for finish guidelines that take into consideration high traffic usage. Details, materials, and finishes are to be robust, durable, and easy to maintain. Also refer to RDS for room requirements and considerations.

Building Characteristics and Massing

The proposed massing discount from Urban Design Guideline's Block D is preferred to be within 17-20% to respond appropriately to the sensitive surroundings, site context and constraints. The envelope discount is a percentage of reduction from the massing envelope (maximum gross area) to account for building articulation and design. The greater the discount, the more space for architectural expression and building articulation. The discount excludes mechanical areas that are open-to-air. The 2011 U of T Master Plan used a 15% Building Envelope discount.

Consultants can review the opportunity for some building massing to shift outside the UDG envelope (east or south) to be a potential release valve to help balance the proposed massing with MSB and adjacent existing context, and site constraints—i.e. modest cantilevering. Any shifting of program outside the UDG site does not permit a space program increase within the envelope. Floorplates that expand beyond the Urban Design Guidelines Block C to the north and west would impact shadow on Front Campus and is not recommended. An interior discount is not required. Any interior discount added to the design would come out of the gross area.

Table 3.12 – GSM, NASM, and renovated NASM by floor (based on March 21, 2025, floorplans)

Proposed Temerty Building Level	Temerty Building NASM[2]	Temerty Building GSM[2]	MSB New GSM	MSB Renovation NASM	MSB Level
L12 Electrical	0.00	1,056	0	0	-
L11 Mechanical	0.00	2,309	0	0	-
L10 A&S Core Floor	1,847	2,710	100	0	Roof/Mechanical L10
L9 A&S Research	1,974	2,828	100	0	Mechanical L9
L8 A&S Research	1,980	2,865	48	52	Mechanical L8
L7 A&S Research	2,080	2,980	48	52	L7
L6 TFOM Research	2,101	3,016	48	52	L6 (DCCBR bridge)
L5 TFOM Research	1,980	2,973	7	91	L5
L4 TFOM Research	1,940	2,948	0	209	L4
L3 Classroom/Student/Administration	1,569	3,119	0	209	L3
L2 Classroom/ Event/Loading	1,994	3,973	0	209	L2
L1 Storage/M&E/Nodal	232[1]	2,793[1]	0	198	MSB/DCCBR Loading L1
B M&E/Nodal	0	3,408	0	0	-
Total	**17,697**	**36, 978**	**303**	**1,020**	
Above Grade gsm		33,570			
Below Grade gsm		3,408			
Space Factor		2.1			

[1] The Temerty Building gross area includes Nodal Plant. The NASM excludes Nodal Plant which have been factored into the gross area, however, is non-assignable space.
[2] NASM & GSM are based on March 21, 2025, drawing set. For the Space Program refer Table 3.10.

Floor-to-Floor Heights

The design of the new Temerty Building will need to respond to the site conditions, St George Secondary Plan and Area Wide Guidelines, Urban Design Guideline's Block C, PPR considerations/requirements, accessibility, and existing MBS floor elevations.

Temerty Building is designed to prioritize a horizontal relationship between new Temerty Building levels and existing MSB levels to facilitate collaboration across the Temerty Building, MSB and DCCBR buildings. Temerty Building floor elevations prioritize having horizontal connections to MSB levels 2-6. Providing level servicing access to the THCF Mechanical Penthouse is also a requirement.

Basement level and Level 1 considerations:

- Basement floor houses a small amount of publicly accessible space program such as storage space.
- Exterior access via stairs from grade down to Basement is anticipated to provide Toronto Hydro with access to the Electrical Room.

Level 2 (Ground Floor) includes:

- Open and transparent, allowing for intuitive wayfinding upon entry.
- two primary entrances along King's College Road: one directly across from Convocation Hall/ (west) and one at the southwest corner as pedestrian traffic is expected along these routes.
- Views to the Landmark landscape as well as from Convocation Hall.
- Primary entrances/door systems, location, size, and count are required to prevent bottleneck and allow for ease of traffic flow for large campus events (Convocation and Alumni Reunion activities), particularly during inclement weather.
- Interior corridors align with existing MSB corridors, where feasible, to facilitate intuitive wayfinding between the two buildings. Currently, MSB corridors from Block C towards Block B look like dead ends.
- A continuous flat floor is maximized to improve accessibility and flexibility.
- Transition from Temerty Building Ground Level to MSB Level 2 to have at least one accessible ramp inside the building.
- Due to the desire for Ground Level to feel open, inclusive, when appropriate for large events, the structural grid on the ground level has been strategized and coordinated to maximize sight lines and flow for general wayfinding, but also fitting the required furniture set-up for Alumni Reunion activities and Convocation as well as day-to-day functions.
- Daylight: The proposed design will enhance public spaces, study spaces, and improve intuitive wayfinding through use of daylight.
- Students/staff have access to long-term bicycle parking

Upper-level considerations:

- Green Roofs or terraces are not anticipated to be accessible, other than for maintenance reasons.
- Balance daylighting, to allow for views, but also minimize glare or heat gain to all the open wet lab spaces and open dry lab workstations. Daylight harvesting to be reviewed and maximized, where feasible.
- All offices to be designed to be equitable and to benefit from borrowed light and/or views where possible if located inboard.
- laboratory support spaces which require stringent environmental controls (humidity/temperature/light) have been pulled away from building perimeter to minimize operation costs associated with heating/cooling/ventilation.
- Floor-to-floor heights have been optimized as needed for space requirements and infrastructure, but also calibrated with overall height of the building and context.

Mechanical Penthouse considerations:

- Temerty Building's mechanical penthouse has been pushed southwards, away from Front Campus. Strategies to reduce height and bulk to be considered and tested, including maximizing mechanical equipment below grade, where feasible. For consideration, opportunities for Temerty Building mechanical penthouse space and/or equipment to be located on MSB's roof could be reviewed.

- The sensitive panorama view from Front Campus and shadows are to be considered in the design of the building massing, including the Mechanical Penthouse. Refer to Appendix – U of T St George Secondary Plan "Front Campus Panorama", policies 4.38 and 4.39".
- Generally, the building design should minimize horizontal ledges and other external surfaces or attachments that encourage perching, nesting, etc. by pigeons and other pest animals.

Ontario Building Code

- The new building will not be classified as a High Building per the Ontario Building Code (OBC) by virtue of the highest occupied floor slab being less than 36m above grade and the exit stairs being 2100mm wide.
- The new Temerty Building is defined as an addition to the existing building, separated by a two-hour fire separation Structurally, the new wing will be independent from the 1960's steel frame with a continuous north south expansion joint.
- Consultants to include Convocation and Alumni Reunion activities in the code analysis for compliance, if required.
- Consultants to include Temerty Building secondary effect/impacts with MSB to achieve compliance with applicable codes.

Elevators and Lifts

To increase the overall accessibility and functionality of the building, passenger elevators will be incorporated into the design, in compliance with all applicable codes and regulations. The number of elevators to be provided will depend on the layout of the building and the arrangement of the spaces within as well as speed and capacity of the proposed elevators based on industry best practice. Early elevator count and types were based on the Feasibility Study and a subsequent separate high level traffic analysis which generated the below assumptions.

A comprehensive traffic analysis was conducted during validation. The traffic analysis set early assumptions for four (4) passenger elevators with a capacity of 4000 lbs., a speed of 500 fpm, and a 4'0" wide centre opening doors:

- 4 passenger elevators - dedicated for regular building occupants and visitors.
    - passenger control systems to be included (remote monitoring to adjust to traffic flow, ability to restrict/dedicate elevators as needed for efficiency)
    - 2 passenger elevators to access from Ground Level to Level 10
    - 1 Passenger elevators to access Basement to level 10
    - 1 Passenger Elevator to access Basement to Mechanical Penthouse Level 11
- 1 Service elevator (The elevator should have a capacity of 5000 lbs, a speed of 500 fpm, and 4'6" wide side opening doors.)
    - Service elevator needs to access all floors including the Electrical Penthouse Level 12.
    - Required to be a robust elevator that can easily be cleaned/sterilized for core research purposes.
    - Infection control features to be included (touchless options, caretaking spec, industrial grade stainless steel, vandal resistant buttons, etc.)

- C3 loading for additional capacity
- Elevator to follow all appliable regulations and guidelines.
- Final door arrangement to be dictated by core research floor design.
- Horizontal opening power doors preferred
- The service elevator to also be a back-up elevator for core research that can easily be cleaned/sterilized
- Infection control features to be included (touchless options, caretaking spec, industrial grade stainless steel, vandal resistant buttons, etc.)

Up to two (2) elevators to have a call system that are compatible to work with autonomous cleaner/scrubbers.

Elevator technology that adds value to the operation and efficiency of the elevators to be discussed in Validation. Accommodation for future technology (digital screens, card readers, security, cameras, etc.) to be reviewed. All sustainable features should be reviewed for inclusion (regenerative drives, LED lights, power saving options, etc.).

Sustainability design and energy conservation

Addressing the importance of the environment and U of T's commitment to sustainability, the Temerty Building, as per its Project Charter, will generate 10% of its own renewable energy locally with the intent of maximizing the amount of renewable energy that can be included in the design with a positive net present value over a 20-year life cycle analysis. In validation, include various sustainability options including a local geo-exchange field under the building and solar photovoltaic (PV) to achieve the 10% project requirement—Refer to Energy section for more information.

The University of Toronto is committed to reducing its scope 1 and 2 greenhouse gas (GHG) emissions by at least 37% below its 1990 level of 116,959 tonnes eCO_2 by 2030, targeting a net-zero GHG institution by 2050. To accomplish this, the University has retired the previous Energy Performance and Modelling Standard (April 1, 2019) and introduced this now-governing Tri-Campus Energy Modelling & Utility Performances Standard. This new standard provides project-specific energy and water efficiency targets, used to calculate energy and GHG project budgets, and necessary to achieve the 2030 goal, while also introducing a streamlined modelling and documentation submission approach.

This standard is meant to inspire innovative designs based on absolute energy and GHG targets that are used to calculate energy and GHG performance budgets according to when the building is going to be constructed and the program use. The targets become more stringent over time as cost-effective technologies and delivery methods improve in conjunction with compliance paths with authority approvals. The tool used to define the targets and budgets is called the "Charter" and completed by U of T staff before the call for design tenders is issued (Refer to Appendix for Project Charter). The energy and GHG performance targets for new construction are defined for the year that occupancy is scheduled in the project planning reports. The approved energy modelling procedures will be used to calculate the energy and GHG performance for the designs and compared to the Charter targets throughout the design stages and included as part of the base project cost.

These Standards and resulting models are not post-occupancy energy or GHG predictions – they are to be used as a comparative tool for building baseline and performance evaluation. Post-occupancy evaluation

will be completed (12 – 14 months post-occupancy) by the U of T facilities staff and compared to the final performance model results.

All applicable Codes, Guidelines or Standards referenced in the standard are to be applicable to the current regulations within the project timeframe defined in the Charter. Estimates of the impact of any foreseeable future standards, codes and guidelines may be required and shall be presented to the U of T Implementation Team for consideration. In all cases, higher performance targets shall be the preferred targets.

As the space program in the PPR was updated post-Feasibility Study, refer to the Draft Project Charter in PPR Appendix. However, for background context around sustainable feasibility assumptions, see Feasibility Study Report and Appendix.

Energy

New construction projects must meet the project-specific energy performance targets established in the Project Charter. The requirements will be calculated using the Charter's archetype targets and project information, including planned building space use, year of occupancy, presence of a connection to the U of T district steam or low temperature heating, and district chilled water energy systems. For buildings with mixed uses, the targets are area-weighted using the Project Charter to determine a set of performance targets that are representative of the building programming.

The renovation of existing buildings plays a critical part in U of T's plan to achieve the established 2030 GHG emission reduction target. U of T's Standard also identifies utility performance requirements and targets for renovation projects of varying scopes and complexities through a prescriptive pathway for minor renovations and performance pathway for major renovation projects.

The Project Consultant Team must complete and submit to U of T an energy simulation, key performance indicators (TEUI, TEDI, GHGI) with associated documentation at each stage of the design process to demonstrate ongoing compliance with these performance targets as per the Project Charter. At the completion of the commissioning, the energy model simulation must be updated to reflect the as-constructed building characteristics. This will form the basis of the project's baseline performance.

The targets will be reviewed regularly by the Sustainability Office to ensure U of T remains in a leadership position. The progression of targets depends on numerous factors, many of which are outside U of T's direct control (e.g., the rate at which new technologies come to market). However, projects should anticipate the adjustments to the targets for 2022-2026 and 2026-2030 for all the key performance indicators included in the standard to account for increased capabilities of designers, technologies, and the industry practices to meet net zero targets by 2030 in many jurisdictions, including the City of Toronto.

Beyond energy, additional performance levels include:

- 50% reduction in indoor water use over the LEED™ version 4 baseline;
- 60% reduction in outdoor water use over the LEED™ version 4 baseline; and
- Complete whole-building air tightness testing following the U of T Utilities & Building Operations Commissioning Process for Overall Building Commissioning (refer to links listed at the end of this section), and the US Army Corps of Engineers Air Leakage Test Protocol for Building Envelopes and submit air leakage testing report.

The above targets are combined with project-specific information to establish unique energy and water efficiency targets for every building based on floor area and different space use types. The project specific goals are established as part of the Project Planning Report (PPR) using the Project Charter. The Project Charter outlines key project information, performance targets, and serves as a reference point throughout the project to ensure the performance goals are clearly understood by all involved parties and ultimately achieved.

To further ensure projects are developing in accordance with these performance requirements, documentation must be completed by the Project Consultant Team with UPDC at each project stage. For each documentation item, the expectations and responsible parties are outlined in the Standard. In addition to the energy performance, utilities performance and water efficiency targets mandated by the University through this standard other regulatory authorities and certification process will be included within the planning, design, and implementation of all projects. The intent of these additional regulatory processes is to ensure that the high-performance building required by the energy and water performance targets of this standard is part of a holistic approach to sustainable building practice. The following Certifications and regulations will be mandatory for all New Construction and Renovation projects: LEED™ Silver minimum (non-certified); and minimum required Toronto Green Standard Tier 1. The minimum requirements for these certifications and regulations are not to supersede the energy, utilities, and water efficiency performance targets of this standard. The decision to pursue full certification or a higher level of LEED™ and/or TGS will be at the discretion of the Project Planning Committee in consultation with University of Toronto Facilities and Services.

Project Planning, Implementation and Consultant teams are to address the embodied energy, embodied carbon and other GHG emissions associated with building materials. Building and Renovation projects will be required to report the embodied emissions of the building's structural and envelope materials using life-cycle assessment (LCA) software in compliance with the Canadian Green Building Council's recommended methodology. (CAGBC Zero Carbon Building Standard, May 2017: Pg. 7) The University of Toronto Facilities and Services will provide utility costs to the consultant team for the purposes of life cycle costing.

New construction will increasingly include multiple uses and occupancies resulting in "mixed use buildings". As indicated, the energy performance targets and resulting budgets will be based on the area weighted aggregate as calculated by the Charter. Care is required when assigning the use areas when completing the Charter.

District Energy includes energy supplied from a central steam or other gas fired network. For networks supplied from low temperature heating sources (heat pumps, heat reclaim energy) the non-district system targets and factors will be used.

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

Sustainable strategies to be reviewed during validation to include, but not be limited to the following:

- Optimize building energy efficiency for reduced operational cost and carbon emissions:
    - Meet the Project Charter's 10% on-site local renewable energy sources, through the following options:
        - Geo-exchange field energy sourcing (with boilers and cooling tower for redundancy)

    - Full energy audit, inclusive of equipment, at early stage of design to confirm and validate the proposed energy usage and capacity so to optimize energy reduction while balancing research needs for Day 1 (occupancy baseline) and Day 2 (post-occupancy growth). Audit to also include associated operating costs.
    - Energy efficient lighting and controls, coordinated with natural light where appropriate.
    - Energy efficient equipment and fixtures
    - Flexible building automation systems (with occupancy/occupant load sensors to moderate HVAC and lighting levels)
    - Zoned HVAC control wherever beneficial and desirable
    - Ultra-low flow, energy efficient fume cabinets in laboratories (with variable volume air flow and automated sashes)
- Green roofs (to improve rainwater absorption, mitigate local heat island effect, decrease the building's solar heat gain, and to increase the available habitat and help offset the impact of habitat loss associated with the new building). Irrigation system to be provided for green roofs, with rainwater harvesting, if feasible.
- Roof areas suited to the incorporation of solar thermal water collectors and photovoltaic collectors if opportunities for such installations become available.
- Low maintenance, native plantings
- Review rainwater harvesting systems for flushing toilets and urinals, and for landscape watering systems.
- Water-efficient fixtures: one (1) combined water fountains/bottle-filling stations located per level with Classrooms, and one (1) combined water fountains/bottle-filling stations located per Research Floor (total of 8).
    - To be at the correct height for drinking or bottle filling stations, with a non-tempered water supply.
- Durable, local materials with renewable and/or recycled content, as budget allows.
- Provision of recycling depots for source-separation of waste throughout the building to meet the needs of the University's recycling and waste reduction programs and vehicular access to these sites
- Efficient and effective exterior lighting that does not create unnecessary light pollution. For more reference information refer to https://www.toronto.ca/wp-content/uploads/2018/03/8ff6-city-planning-bird-effective-lighting.pdf
- Other sustainable technologies and sustainability best practices

UofT Tri-Campus Energy Modelling & Utility Performance Standard:
https://www.fs.utoronto.ca/wp-content/uploads/2021/05/DesignStandards_Part2_May3_2021.pdf
UofT Overall Building Commissioning Standard:
https://www.fs.utoronto.ca/wp-content/uploads/2021/06/BuildingCommissioningProcess_2021.pdf

Accessibility

In addition, to the ground level being transparent and porous, the building is to be designed to provide equitable experiences to all users, be highly accessible, and demonstrate that the spaces inside and outside embody principles of equity, diversity, and inclusion.

The University is committed to equitable access to all the building's facilities by the whole campus community. An Accessibility Consultant will be part of the IPD Team and consultation and coordination early in the validation process to help integrate Accessibility standards and recommendations into the built project.

To address the broad diversity of people who will use the facilities, the signage system will be designed to assist individuals with disabilities in identifying spaces (e.g., Braille, high contrast) and wayfinding. Attention will be given to the layout of the space and the materials used and the Manager of the AccessAbility Resource Centre will be consulted throughout the design process.

An amendment to the Ontario Building Code (2012) related to Accessibility was filed on December 27, 2013 (Ontario Regulation 368/13). Effective for applications submitted after January 1, 2015, the requirements are more stringent and impact the following areas relevant to this project: barrier-free path of travel, visual fire safety devices, washrooms, and seating in assembly spaces.

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

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

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

Refer to the rest of the PPR and Room Data Sheets (RDS) for other accessibility requirements. Highlights include:

- Classrooms – furniture and teaching aids to allow for accessibility.
- Research Floors - Open Wet Lab per floor to have 1 Barrier Free fume hood. All Open Wet Lab work benches are adjustable. All handwash sinks in safety areas to be Barrier Free. All emergency shower facilities to be fully accessible.
    - For laboratory guidelines refer to: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.accessiblecampus.ca/wp-content/uploads/2017/01/Creating-an-Accessible-Science-Laboratory-Environment.pdf
- Kitchenettes: All kitchenettes to include Barrier Free counter for use and access to microwave.
- Furniture selection, by in-house U of T Interior designers, to allow for accessibility.
- Vestibule entrances to be generous to allow for universal design and consider sliding doors.
- Ramping that is universal (one route for all) and generous is recommended.
- Corridors that house lockers to be more generous.
- Access into and within Administration/Office space to consider accessibility/universal design and consider sliding doors.
- All pathways from King's College Circle and King's College Road sidewalk to Temerty Building entrances are to be connected by ramping no steeper then 1:20, if possible. Finish floor of Temerty Building to be as close to adjacent average grade feasible to make the building as

accessible as possible. Curb cuts on King's College Road and King's College Circle may be required for universal access across circulation routes.
- Service dogs are permitted. Accommodation of service animals would be addressed on a case-by-case basis. It is anticipated that service animals are to stay with their owners for as long as possible, and that on occasion, when the animals are not permitted to accompany their owner to a specific, restricted location, they would be temporarily accommodated in an appropriate location nearby to the owner (i.e. bookable office on the same floor).

Design to follow all required acts and codes, including AODA and U of T's Facility Accessibility Design Standards, due early 2023.

Accessibility Advisory Committee consultation required in Implementation with AODA Office, and F&S's Senior Project Manager of Accessibility.

Personal safety and security

The building design must allow its students, faculty, staff, and visitors to access the premises as required and as permitted, safely and easily. At the same time, the design must be sensitive to the needs of those whose activities require security after hours. Due to research, limited areas will be operational seven (7) days a week for twenty-four (24) hours a day, similar to MSB.

A security plan is in place for each room, zone, or floor and is being integrated into the current building design to ensure accessibility, security, and functional objectives are met concurrently during the TVD phase. Proposed security system to be compatible with the MSB's system, which is a single stage fire alarm system. Fob readers are typically installed inside the elevator cab to secure access to designated floors. BAS system is typically independent of the security system. However approved providers are Siemens, Johnson Controls and Honeywell.

The direct exterior access from grade to the basement needs to be well secured and well lit.

Exterior downlighting to ensure safety and security around the building and provide for ease of movement around the exterior of the building at all times of the day.

Signage, donor recognition

The Environmental Design consultant for the Temerty Building project will need to design, along with the Prime Consultant, all interior and exterior signage, wayfinding, and donor recognition program associated with the building to be consistent with the "The Temerty Medicine Brand and Signage Guidelines" (Refer to Appendix), so the environmental design is seamless across MSB and the Temerty Building. The Donor Recognition Program (DRP) and Signage package to include the proposed:

- Floor plans of the building with room names and their associated areas to be considered for donor recognition opportunities;
- Elevations of all the interior and exterior signage, including proposed font, size, and any pictograms;

    - Interior signage includes not only those signs mandated by the Ontario Building Code but also departmental identifications, room names and numbers (including spaces identified for donor recognition), room schedules (as required) and interior wayfinding.
    - Other exterior site-specific signage: e.g. U of T Building ID sign, bicycle storage, loading dock, and any other required signage.
- Interior signage and exterior signage are anticipated to be static throughout the building;
- Donor Deliverables as per the Temerty Donor Gift Agreement and Proposal;
    - One to two (1-2) exterior building identification signage (wall or overhanging signage). The design, size, and location are to be determined during validation.
    - One (1) exterior unique ground sign installation in a prominent place in the landscape, potentially the northern forecourt. The design, size, and location are to be determined during validation.
    - One (1) interior custom installation to recognize the Temerty Foundation's gift. The Temerty Foundation installation design could be portrait, plaque, or storytelling feature. The size and location of the installation can be determined later in validation. The location should be on the ground level in a prominent and visible location and does not need to be next to or near the TFoM donor wall. Consultants to hold a placeholder location during design and identify an approximate area.
- Renderings to illustrate the proposed signage design within the context of the proposed building and context, as required; and
- Material options for all of the above.

Anticipated timing of the DRP package for U of T review occurs once floor plans are stable, which is typically at 100% Design Drawing stage and after the exterior signage package has been reviewed by the DRC.

Note: Exterior signage is to be included in the voluntary Site Plan application with the City, as much as possible, to avoid separate sign permit process and ensure compliance with City requirements and the previous Landmark Site Plan Agreement.

Landscape Co-ordination: Consultants to coordinate the landscape design, as required with Parks Canada and Ontario Heritage Trust, as well as U of T groups, to determine the future location of various plaques to be integrated within the Temerty Building site. Refer to "Temerty Medicine Brand and Signage Guidelines – Preliminary, August 2022 and the "Elements in the Landscape - Commemorative Plaques Inventory" documents in the Appendix. There are two existing Donor ground signs that are part of the Landmark project in front of Temerty Plaza. Construction hoarding is to be erected to protect these signs during construction of the Temerty Building. One or more of these signs from Landmark may need to be included in the submission to the City, depending on the subject site boundary area.

Digital signage:

- There is a desire to display digital information on two large-sized monitors located strategically in the Lobby or close to the entrance to communicate TFoM news and Campus Events in the building to inform and orient visitors.
- TFOM Donor Wall - Advancement requires a customized physical and digital donor wall (not in contract with the Temerty Building) in a highly visible location within the new Temerty Building. The TFoM donor wall would recognize the Temerty Foundation and multiple donors at different levels. Advancement would like there to be a digital element to the installation so the Donor Wall can be updated. The exact location, size, and parameters are to be determined during validation.

What is required to be delivered as part of the base building is a prominent location on the ground level, support, and sufficient power and AV infrastructure. Consultants to hold a placeholder location during design and identify an approximate area. TFOM Advancement will work with a separate external consultant to develop the requirements for the TFOM donor wall.

Temporary Signage - Hoarding: During construction, the building name is to be featured on the hoarding. Hoarding would follow the ground-breaking event TBD.

DRC Review:

- Exterior signage, either building signage or landscape/ground signage will require review by the Design Review Committee (DRC).
- The DRC approval process is lead by the Division of University Advancement; however, other stakeholders include the Temerty Faculty of Medicine Advancement and UPDC.
- The building schedule to include milestones deliverables for Donor signage review to keep exterior signage implementation on track with the delivery of the building.

The subject site falls under the City of Toronto's By-Law 196-2010 Signs, General - Institutional District.

Non-assignable space

Non-assignable spaces include, but are not limited to the following:

- Public elevator lobby
- Corridors
- Back-of-house elevator lobby to service research levels, basement, and mechanical penthouse.
- Equipment staging area located in the basement for the research levels.
- Janitorial closets are located on each floor level, stacked above each other, close to elevator core and washrooms. Refer to F&S Caretaking Design Standards. Typical janitorial closets are approximately 5-6 sm.
- A Janitor Storage room to accommodate larger cleaning equipment and supplies (storage of bulk items; such as, toilet paper, cleaning supplies). Approximately 11 sm, with eighteen inch (18") deep adjustable wire shelving up to six feet (6') high. Sink required if no janitor closet located on the same floor.
- An indoor bicycle storage room for long-term bicycle parking for both staff and students located near an entrance in the basement. Bicycle Storage Room to have secure access.
- Information Technology (IT) – Refer to "Data" section.
- Server room, approximately 35 sm, to be confirmed in validation.
- Mechanical and electrical rooms, including interstitial floor/Level 6. Refer to "Mechanical/Electrical and Data" and "Nodal Plant" section for more information.
- Neutralizing Tank for waste treatment may be needed depending on drainage strategy
- Water Filtration Room to house filtration equipment, assumed 138 sm (similar to Landmark).
- Recycling depots are planned on each floor, where blue totes can be accessed and stored by custodial staff; totes will be taken down to the delivery area by staff on a regular pick-up schedule by recycling vehicle. These depots are located near the custodial closets. These are separate from lab recycling depots and hazardous waste storage pending pickup.
- Washrooms on every floor to be single stall and gender neutral. Universal washrooms as per OBC-review opportunity to have one (1) Universal washroom per floor. Preferably lower levels

to have multi-stall all gender washrooms. All gender washrooms and signage to be reviewed by U of T's Sexual Gender and Diversity Office. The aforementioned does not apply to the Core Research Floor which has its own requirements.

- Waste and recycling will be carted to the McMurrich Depot
- For Loading areas refer to "Site Servicing" section
- CACF
- Lockers in corridors for MD.
- Stairs:
    - Convenience stairs from Ground Level to Level 3 are envisioned to provide extra vertical connectivity to the Classrooms and Study Spaces.
    - Locations of vertical circulation to be "intuitive" while also helping users orient themselves within the building
- Exit stairs

Refer to Facilities and Services Standards for more information on guidelines and requirements.

Mechanical/ Electrical and Data

All new systems implemented in the new Temerty Building including commissioning must follow the University's Design standards, all of which can be found at http://www.fs.utoronto.ca/DesignStandards/PartTwo

To find out more about MSB existing conditions, and West Wing Redevelopment implications and decoupling - Refer to the Feasibility Study, Feasibility Study Appendix and the Master Program and Master Program Appendix. High level considerations have been indicated in the following sections. Note: IPD Team are to confirm/verify existing conditions required as part of the project.

Mechanical

Existing Ventilation:

There is one (1) make-up air unit with 100% fresh air and four air handling units with recirculation air on level 6/West Wing's Mechanical Room. A small portion of Level 1 including rooms 1175, 1175 and 1176 within Block B are supplied by air handling unit AHU-11 located on Level 9 of Block C.

Existing Chilled Water:

An existing central chiller plant is in the basement of MSB Block E. The chilled water plant supplies chilled water to the MSB and adjacent buildings. Chilled water from this central plant supplies the cooling coils in the make-up air units (MAU) and air handling unit (AHU) located on the 6th and 9th floor mechanical rooms. The chiller plant consists of six (6) electric centrifugal chillers and one (1) steam turbine driven chiller.

Existing Heating:

Based on the Feasibility Study, the building's primary heating system is served from the existing district high pressure steam line from the Central Steam Plant (CSP). The steam pressure is reduced and

converted to a hydronic heating system that supplies 82°C (180°F) to MAU and AHU coils, reheat coils, and the perimeter heating system.

Existing Steam:

Based on the Feasibility Study, high pressure steam from the CSP is reduced to supply humidifiers located in the AHUs and MAUs.

Existing Domestic Hot Water:

Based on the Feasibility Study, the domestic hot water for West Wing is served by central heat recovery loop and heat exchangers from MSB 9th floor mechanical room to provide domestic hot water at 170F to be able to flush legionella and will be delivered at tap at 120F. The existing system is supplied by the central steam plant. Domestic hot water is distributed to the building from three (3) hot water storage tanks from MSB 9th floor mechanical room. Refer to "West Pit" section under "Secondary Effects" for more information on utilities in the West Pit.

Existing Domestic Cold Water:

Based on the Feasibility Study the domestic cold-water line from the west service pit is boosted and distributed throughout the building.

Existing Storm and Sanitary:
Refer to "Sewer and storm water management" section under "Campus Infrastructure Considerations"

Existing Compressed Air:
There is an existing compressed air loop in MSB and the West Wing that feeds the Central Sterilization Service Facility. This must be considered during demolition of the West Wing.

Existing Gas Line
There is an abandoned gas line behind Block B being reviewed by Enbridge. A new gas line will be installed as part of the THCF project.

Building Mechanical Systems

The mechanical systems will be designed to reduce the use of energy, creation of greenhouse gases, and recover as much heat as possible to meet or exceed requirements stated in the University of Toronto Tri-Campus Energy Modelling & Utility Performance Standard. The project must follow all applicable codes and standards including the University's Design standards.

Fire Protection:

The West Wing expansion building shall have a fire protection system in accordance with local codes.

General Electrical Panel Requirements (Refer to U of T F&S Standards)

For Building and Campus Electrical Systems refer to "Electrical" section under "Campus Infrastructure Considerations."

Data

IT design and specifications to follow the U of T Communications Infrastructure Specifications, Standards and Practices.

Existing
MSB main IT room is on Level 9, the mechanical room 9326 has a feed to DCCBR. Implementation Consultants to confirm if there are two independent feeds from Central IT and the location of the fibre entrance. The existing feeds are to remain to ensure continuity of operation within MSB. Investigation of the feed will need to be confirmed in Implementation due to separation of Block A and Block C from Block B. Temerty Building scope will include reinstating the fibre in MSB, so operations continue without disruption. The building has several sub networks throughout and those would be maintained as currently constituted in consultation with TFoM. Refer to Appendix for the IT distribution map.

A/V

All departmentally assigned meeting rooms, conference rooms, team rooms, bookable offices, and MD study rooms are to be designed to follow the U of T A/V Guidelines for Meeting Rooms and equipped with room booking system infrastructure. Refer to https://easi.its.utoronto.ca/shared-services/managed-desktop/approved-av-guidelines-for-meeting-room-design/

A Server Room for data and A/V shall also be provided near the incoming service. This room is to hold data racks for servers and video recorders, and fibre optic cable connectivity to all Classroom AV closets, all rooms requiring electronic room booking system like Classrooms, Conference Rooms, and Flex Offices.

All classrooms will require A/V and booking system infrastructure. Classroom booking system to be determined in Implementation Large Active Studio and Medium Active Studio will have A/V equipment and systems to support active in-person learning, asynchronous learning, simultaneous broadcast to U of T Mississauga Academy of Medicine (MAM). The Large Active Studios require simultaneous broadcast from Convocation Hall.

Project audiovisual requirements are as per "TFoM Audiovisual Design Brief "by Smith and Andersen.

Environmental Health and Safety

The University's Environmental Health and Safety (EHS) website outlines policies and procedures to maintain a safe and healthy laboratory environment. EHS does commissioning for Public Health Agency of Canada (PHAC) licensing in environments up to CL2 (this includes CL2+). Refer to U of T EHS Laboratory Design Standards and Guidelines for further guidance. https://ehs.utoronto.ca/wp-content/uploads/2018/12/Lab-Safety-Design-Standard-December_2018.pdf….:

- Lighting
- Safety (supply ventilation, chemical hazard quantity, specialized equipment, and venting requirements)
- Special safety hazards (biological, radiological, highly toxic chemicals)
- Special considerations for venting or sewage traps for hazardous chemicals
- Safety design for receiving areas and loading docks

- Ergonomic design of mechanical rooms

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

- Facility condition assessment (Refer to MSB Master Program's Building Condition Assessment)
- Deferred maintenance issues (see above)
- Building systems improvement requirements (see above)
- Code and environmental requirements (Refer to MSB Master Program and Feasibility Study)
- Hazardous materials disposal
- Decommissioning of laboratories
- Environmental health and safety
- Supply ventilation controls
- Use incompatibility
- Pre-approval from Canadian Nuclear Safety Commission (CNSC) for radioisotope work (Day 2)
- Preapproval from Public Health Agency of Canada for biological work
- Identification of areas of demolition
- Project boundaries
- Phasing plans
- Impact on existing occupants

The open wet labs and some of the support spaces will be Containment Level 2 (CL2) Chem 2 for TFoM. A small number of procedure rooms are to be CL2+ ready for Day 2. While CL2+ is not a defined term in the Canadian Biosafety Standard, it refers to a lab designed to the CL2 standard of the Canadian Biosafety Standard in compliance with ASHRAE 62.1, 2010, Ventilation for Acceptable Indoor Quality, and operationally managed as a CL3 lab.

While radiation work may be required for PI-specific research once the building is occupied, required retrofits to support radiation on Day 2 are not included in the project scope.

Emergency shower locations and counts of showers to be determined in Validation (similar to numbers and locations of lab sinks and hand wash sinks). Showers to be accessible and with a curtain. Note: Shower locations are preferred to be in shared corridors than inside enclosed rooms, pending EHS review. Handwash sinks must be in each room with a containment level and at all lab entries. Final location to be reviewed & approved by EHS.

j) Site Considerations

Refer to Validation Report for proposed site consideration scope in the consultant "Design briefs" for the proposed Temerty Building.

<u>Site context</u>

The subject site, the West Wing, is located at the prominent south-east corner of King's College Road and King's College Circle opposite of Convocation Hall and University College. This location is well suited and strategic for an innovative and collaborative research facility. At a broader city scale, MSB and the

new Temerty Building are located near Toronto's Discovery District. Temerty Medicine is embedded within medical research and education within the city. Several of TFoM's affiliated hospitals within Toronto Academic Health Science Network (TAHSN) are within walking distance of the new Temerty Building.

The Medical Sciences Building (MSB) is one of the largest buildings on the University of Toronto's St. George Campus, is a structure laid out in plan by block in a sprawling composition that creates internalized passageways. The West Wing is the westernmost of five interlocking blocks A, B (West Wing), C, D, and E. The building's north façade faces King's College Circle and will have a sloped ramp to King's College Circle that frames "Temerty Plaza", a gathering space with an elevator building courtesy of the Landmark project. To the northeast, a midblock connection opens between a small courtyard between McMurrich Building and MSB before it heads east towards Queen's Park Crescent West. To the south, MSB is connected to the Terrence Donnelly DCCBR at levels 1, 2, and 6. The two buildings share an entrance to loading bays at the lowest level and the connection on Level 6 is via a bridge. The site is boarded by Discovery Lane to the south which is both an existing lay-by for servicing and loading as well as another mid-block connection.

The subject site slopes down approximately from the north sloping downwards to the south side by Discovery Lane. Discovery Lane also slopes down from west to east. The main entrance of MSB on King's College Circle is elevated higher than the existing grade at the northwest corner of the new Temerty Building site.

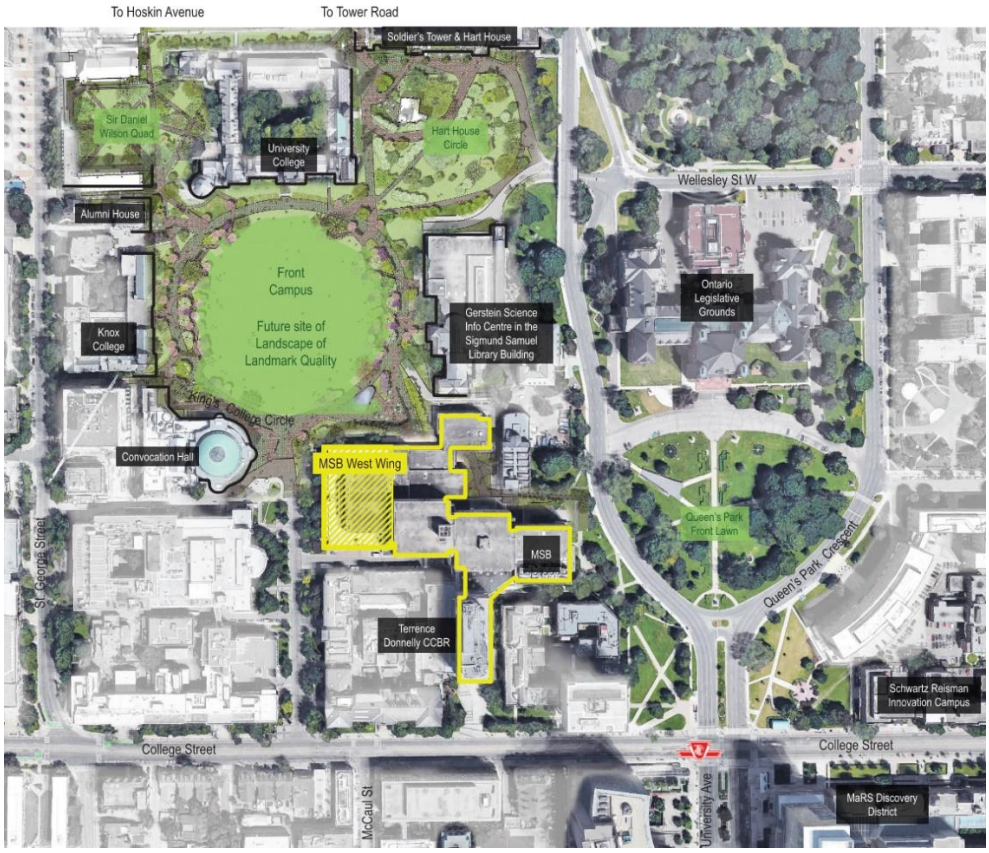


Image 18: Context Site Plan University of Toronto, St. George campus, MSB West Wing

Master Plan

The 2011 U of T Master Plan for St George Campus did not contemplate new development at the Medical Sciences Building. The proposed Temerty Building development does not hinder or impact any potential development for Site 17, 5 King's College Road (The Mechanical Engineering Building).

Zoning and Secondary Plan

Zoning

Pursuant to *Bill 185: Cutting Red Tape to Build More Homes Act, 2024* ("Bill 185"), section 62.02 of the *Planning Act* exempts all undertakings of the University for the objects of the University from all provisions of the *Planning Act* and planning related provisions of the *City of Toronto Act, 2006*. Despite exceptions from the Planning Act and sections 113 and 114 of the City of Toronto Act, it is appropriate to continue to evaluate current and future development against the Secondary Plan and draft UDG, which serve as the University's collective vision of the surrounding context, high quality-built form, and public realm strategy within the St. George Campus Secondary Plan Area.

Municipal applications prior to Building Permit will include: Zoning Applicable Law Certificate (ZAP), voluntary Preliminary Application Consultation (PAC) and voluntary Site Plan Control (SPA). The ZAP submission will flag any application law requirements, e.g. Heritage. The ZAP and PAC submissions are anticipated for September 2025. The benefit of the PAC submission is that will provide the opportunity to collaborate on the application with the various City Departments, improving the application's quality and streamline review time. Additionally, the PAC will confirm the voluntary SPA requirements with the SPA Checklist. Voluntary Site Plan Application is anticipated to be submitted early in 2026.

The subject site has three (3) vehicular parking behind MSB's Block B which will be removed from the Campus Parking count. There is no requirement to add any new parking. The adjacent Landmark project includes a total of 269 vehicular parking spots, 236 spots in the new below grade parking garage, including seven (7) accessible parking spaces accessible. The Transportation Impact Study to include opinion on the campus parking as part of the report (Refer to "Site Servicing" section).

U of T Secondary Plan Application

In September 2016, the University submitted an application to the City of Toronto to amend the Official Plan, to adopt a new Secondary Plan for the St. George Campus Area. The Secondary Plan application was resubmitted in February 2018 in response to City feedback. In July 2022, City Council adopted the Official Plan Amendment, University of Toronto St. George Campus Secondary Plan, included as Attachment 7 to the report (June 13, 2022) from the Director, Community Planning, Toronto and East York District, with Attachment 7 with amendments and Attachment 8. The City adopted the Secondary Plan and Area-wide urban design guidelines as recommended by City staff. The St. George Secondary Plan application includes draft Urban Design Guidelines (UDG), a Heritage Memo, Cultural Heritage Resource Assessment (CHRA), Sun Shadow Study, Transportation Report, and other documentation. The Secondary Plan application, including the Urban Design Guidelines, reflect the objectives and vision of the 2011 Master Plan. The Secondary Plan application documents relevant to Temerty Building have been reviewed by the Consultants and taken into consideration for the design of the new Temerty Building.

The U of T Secondary Plan application and Draft UDG identify the West Wing location appropriate for additional mid-scale height. The UDG heights step down northward to transition sensitively to Front Campus as well as help reinforce the existing frontage along King's College Road, an important ceremonial gateway to University College. The new massing and articulation should compliment the scale, and context of adjacent heritage buildings sensitively through deployment of high quality and complementary materials.

The UDG include the following strategies for building form and public realm considerations regarding the Medical Sciences Building. The new design should strive for a maximum height of 48 metres to maintain typical mid-scale building components and minimize new shadow impacts onto Front Campus. It should maintain interior and exterior pedestrian connections across the site when possible. The UDG in the St George Secondary Plan identifies key views and view termini. The Temerty Building site is located along the view corridor from College Street West looking north to University College, and at the east terminus of the view corridor looking east from St. George Street through Galbraith Road to the future Temerty Building west facade. The proposed design is to maintain the existing deep front setbacks on King's College Road and consider the gateway experience along King's College Road and its view from College Street. The site is located adjacent to Front Campus which is an open space surrounded by low-scale heritage buildings and has a sense of an expansive panorama sky view. The Secondary Plan UDG identify this area as the 'Panorama Midground'. The new design should reinforce and enhance this view termini and panorama experience though engaging and transparent building facades, building entrances and architectural expression.

The Secondary Plan delineates character areas that are generally defined by their shared history, architectural features, development patterns that differentiate it from other areas within the Campus. The Temerty Building falls within the Central Campus Character Area, the heart of the U of T St. George Campus and contains a large concentration of the Area's cultural heritage resources and is also defined by the collection of significant low to mid-scale buildings organized around an expansive landscape. The Temerty Building site sits at the junction between the Central Campus Character Area and the contemporary research buildings and University Health Networked partnered hospitals south of College Street.

For more detailed information on the draft UDG's Block C, refer to the Appendix.

Heritage status

Currently, the Medical Sciences Building (MSB) is not Listed or Designated on the City of Toronto Heritage Register. As part of the Secondary Plan application, a Cultural Heritage Resource Assessment (CHRA) was prepared by ERA Architects in February 2018. The CHRA identifies the Medical Sciences Building as a Character-defining resource within the South Campus Character Area. In addition, based on the research and analysis outlined in the CHRA report, MSB at 1 King's College Circle was found to meet the Ontario Regulation 9/06 criteria for cultural heritage value based on the design, historical, and contextual values. The CHER was submitted to the City June 2025 and MSB will be designated during Fall 2025.

The IPD Team for Temerty Building are to consider the characteristics and prominence of MSB including the sculptural façade elements, the aggregated massing, and MSB's mitigation between Central Campus Character Area and College Street Character Area on campus in the new design. The Consultants are to work collaboratively to consider Temerty Building's sensitive integration with MSB, and the building's

relationship with the larger context of the campus buildings, including but not limited to Convocation Hall, and Mechanical Engineering Building.

Anticipated Heritage approvals include a Heritage Impact Assessment (HIA) Report and a Cultural Heritage Evaluation (CHER) Report.

Note: The UDG built form considerations include new development at MSB will direct development to the western frontage of the building and maintain interior and/or exterior east-west and north-south pedestrian connections. As per the CHRA evaluated by ERA in the Secondary Plan application, the West Wing's exterior cladding are, "…more utilitarian concrete panels…", distinct from the notable articulated sculptural cladding on the building's eastern portions (Appendix 13B).

Archaeological Potential

An Archaeological Stage 1 Report was submitted as part of the first 2016 the Secondary Plan Application. The 2014 Archaeological Stage 1 Report plotted the approximate location of the Toronto Magnetical and Meteorological Observatory site based on an old map indicating archeological potential. However, further analysis was done by the Archaeological Consultant in 2018 which showed clearly MSB excavation removed all original soils, eliminating possibility of any archeology remains surviving the development. Based on the analysis, the City's Management Plan mapping will remove archaeology potential, the eastern portion of the Observatory site, east of King's College Road. City's Heritage Planning has confirmed that an archaeological assessment is not required for work east of the King's College Road's east curb. Any scope of work venturing west of that line would require an Archaeological Assessment Stage 2 report.

Bicycle parking

For the new Temerty Building, no new short-term exterior bike rings will be added in the project. The existing 22 exterior bike rings, including Landmark project, will remain around West Wing. Any further exterior bike rings impacted by the Temerty Building project are to be replaced and relocated as part of the Temerty Building project. The Landmark landscape project is also providing 125 bicycle spaces below grade.

A Bike Room is currently included in the Temerty Building Level 2 (Ground Floor). The number of spaces available for long term bike storage to be determined in Validation. The number of spaces available for long term bike storage to be determined in Validation.

Landscape and open space requirements

The new Temerty Building landscape will interface with the prominence of King's College Road and King's College Circle and be an extension of the new Landmark landscape. The Landmark landscape was completed Fall 2023. Landmark scope around West Wing included basic planting, sod and hardscape around the existing north and northwest lawn areas. The new Temerty Building landscape is to revitalize this corner on King's College Circle to serve as a focal point of contact with the University community,

and the public at large with proposed landscaping to support Convocation, Alumni Reunion activities, and a dedicated Indigenous medicinal garden.

Landscape Secondary Effects: Due to demolition of West Wing and the subsequent new construction, it is anticipated that some materials from the Landmark landscape will need to be removed, relocated, stored, and/or be integrated or replaced by any new landscape proposed—It is anticipated that the new Temerty Building construction footprint will require space to accommodate excavation, staging, hoarding and the storage of equipment and materials. Review and study are required to understand the number of existing trees, Landmark plants and elements that can be retained, relocated and/or removed based on proposed design and associated construction impacts.

The south end of the west lawn facing King's College Road will be dedicated to an Indigenous medicinal garden. The Indigenous medicinal garden will be a space for U of T's and TFoM's Indigenous community. The intention of the garden is for it to be a place for Indigenous plant and healing medicine. The Indigenous Garden will be an opportunity for the TFoM Indigenous and non-Indigenous community to learn traditional plant medicine and connect with the community. The design will include a seated space for learning, a sweat lodge, and a fire pit to host ceremonies. Logistics to be reviewed with Fire Prevention. Open Air Burning permits and/or Cultural Fire authorization are available from the City. The garden surrounding these two areas will include a combination of hardscape and softscape with native plantings. Opportunities for the garden to engage public knowledge and experience of native medicinal plantings are encouraged from both King's College Road and viewed from inside the Temerty Building. The garden should have a balance of both visibility and privacy achieved through design elements such as planting and screening. The garden will be designed by Indigenous designers in consultation with Indigenous stakeholders/Rights Holders and the U of T Indigenous community during validation. The Associate Dean, Inclusion and Diversity will head Indigenous leadership and oversight, including approvals for significant decisions. The location of the garden is to consider potential Convocation/Alumni Reunion activities and tents at the northwest corner, the location of a Temerty Building west entrance across from Convocation Hall and landscape screening (trees, shrubs, and garden wall) to screen the site servicing access to the south. Refer to Appendix for Indigenous Medicinal Garden Precedents.

Convocation and Alumni Reunion activities are planned to be hosted on the ground level of the new Temerty Building and are expected to leverage the new landscape surrounding the north and west sides of the subject site. The landscape should act as an extension of the interior space, allowing for crush space for event visitors, hosting tables and smaller temporary canopies to support the events as required. The landscape surrounding the site should consider and accommodate pedestrian traffic/access from King's College Circle, Convocation Hall, and King's College Road. Refer to Appendix for Convocation requirements for ancillary canopies, power, outdoor lighting, etc.

At the south end, north of the entrance to Discovery Lane, the landscape is to provide a visual buffer to screen the back-of-house area from King's College Road including loading, Node 5 hatch, and fill tank via plantings or partial height garden wall/screen.

Accessibility/safety - Pathways to access the building's pedestrian entrances are to include heat melt/tracing.

Plaques and commemorative inscriptions – refer to "Signage, Donor recognition" section.

Environmental Issues, Regional Conservation, Ministry of Environment, Conservation and Parks (MECP)

Environmental emissions (MECP submission requirements)

Consultant to perform associated ASHRAE modelling (air) related to the project for compliance against MECP published Air Contaminant Benchmarks (ACB) list. Consultant is also to perform acoustic assessment related to the project, built upon existing acoustic models used in the current Acoustic Assessment Report (AAR) that supports U of T's current Environmental Activity and Sector Registration (EASR) for the site. All noise emitting sources to comply with acoustic emission regulations and standards. All significant air emission sources to comply with air emission regulations and standards. If the design indicates any non-compliance for air and/or noise emissions, then the consultant shall provide mitigation measures which will achieve compliant outcomes. The consultants will coordinate noise, air and emission modelling information with the U of T Office of Environmental Health and Safety (EHS) and will provide EHS with both Acoustic and ASHRAE modeling information to be reviewed. The final deliverables to those regulatory requirements include updated model outcomes and, acoustic and emission summary tables that are signed and stamped by a third-party Licensed Engineering Practitioner (LEP). EHS will update the Emission Summary and Dispersion Modeling (ESDM) report, AAR and EASR via the final deliverables, as required by MECP.

The IPD team should assume that a high level of noise abatement will be required for any equipment on the roof or mechanical penthouse. The IPD team have reviewed in validation, a design strategy that considers best practices and technologies to have the least impact acoustically to the sector and have coordinated the noise mitigation design to meet the EASR requirements to date. However, further review and refined recommendations are anticipated as the design progresses. Successful monitoring and verification of the design intent will be required by the LEP.

For construction site dewatering – applies to the EASR if the site water exceeds the limit as posted by the MECP. Refer to the City of Toronto's Municipal Code Chapter 681, Sewers for private water discharge for more information on City's water and sewer related permits and bylaws.

Site access

Pedestrian access to Temerty Building will be both from King's College Road, King's College Circle and through the interior of MSB from either DCCBR or College and Queen's Park. Exterior access is primarily from King's College Road and King's College Circle. There should be pedestrian entrances from both locations allowing direct entrance to Level 1 of Temerty Building and to the basement for students and staff arriving from public transit from both College Street and Queens Park Crescent.

For vehicular site access, there is no parking or drop off pick up area planned for Temerty Building. The new Landmark landscape design of Front Campus will prioritize pedestrians and cyclists, there will be no parking provided along King's College Circle, which is a shared street. Students or staff driving to the site via vehicle can be dropped off on King's College Road but will not have vehicle access to King's College Circle. There will be new underground parking provided as part of the new Landmark Landscape project whose parking entrance is accessed from Wellesley Street. The new Landmark underground parking structure with vehicular and bicycle parking spaces are accessible via elevator located north of the new Temerty Building, adjacent to the Temerty Plaza.

Site servicing; existing and proposed

Service access to Temerty Building is from King's College Road into Discovery Lane. Discovery Lane serves the following buildings: MSB, DCCBR, Roseburg Building and the Mechanical Engineering Building. There is an existing mid-block connection on the south side of Discovery Lane connecting King's College Road.

The Temerty Building loading area will include the following:

- Interior:
    - Loading Dock Managers Office - Locate adjacent to loading/staging and exterior layby.
    - Loading/Staging – Space for staging of equipment. Approximately 60 sm. Located adjacent to exterior layby.
    - Cylinder Storage – Space for staging of cylinders for research floors. Approximately 14 sm. Located adjacent to loading/staging and exterior layby.
- Exterior
    - Layby/loading – Area for Temerty Building research, courier, and furniture deliveries. Review best options for safely off-loading deliveries
    - Nodal Plant Fill tank

A Transportation Impact Study is required in Validation/TVD phase to review improving flow in and out of Discovery Lane to account for expanded loading/servicing for Temerty Building, taking into account the existing MSB/DCCBR loading area. A new loading area will replace the existing layby and house the Nodal Plant fill tank. The proposed loading design narrows Discovery Lane behind Temerty Building and there is further work in TVD phase needed to review safety of pedestrians moving through this area with the vehicular traffic anticipated. The Temerty Building loading area will be dedicated to support Temerty Building: research deliveries, building dedicated furniture/equipment and courier deliveries. All other loading/servicing will be directed to MSB/DCCBR's loading area.

Transportation and site analysis to also review what Temerty Building impacts to Discovery Lane can highlight opportunities for the lane to be more pedestrian friendly, since it is an existing mid-block connection shared between multiple buildings. Review and implement any ways to improve pedestrian access, circulation, and safety: mirrors, painting, safety bollards, lighting, etc., as it is an existing mid-block connection. Proposed changes to Discovery Lane should lay out pros and cons and include consideration of the potential future development to the south. It is also desired to balance considerations to make the back-of-house areas more discreet through the landscape and site work from King's College Road.

Consultants to confirm what type of loading the existing layby is needed to round of the servicing needs for these buildings. Other lay-by information and considerations:

- Garbage trucks do not park in the laneway or layby
- Due to limitations of MSB's existing loading dock which cannot handle trucks taller than 12'6" and 25' in length, larger trucks unload in the layby
    - typical: 5 tonnes, 12-13' high x 35' long
    - atypical: 50-53' long
- MSB/DCCBR Loading Dock has 2 or 3 Type C loading bays due to the height restriction of 3.8m (12' 15")

- Garbage and compacter at MSB Loading
- Bin 2 and Bin 3
- Flammable storage

Soil conditions

A full Geotechnical Report and Hydrogeological Report will be required as part of the application. Limited existing site conditions from Landmark project, showed a high-water table and manganese was found in the groundwater.

Water quality and quantity for either storm versus sanitary system discharge to be verified in Validation. For Landmark, the sanitary system was at capacity. Water quality including any treatment for either storm or sanitary needs approval by City of Toronto. City will also confirm which lines have capacity.

In the event that the sanitary system is at capacity, or the City of Toronto does not approve the discharge, the alternative would be to install an on-site treatment system to ensure the water quality meets the requirements to be discharged to the storm system. Discharging to the storm system and any charges to be reviewed. However, the treatment facility would need to be maintained and require testing. Toronto Water would require testing for a 6–9-month period prior to granting occupancy demonstrating the system is working properly. An Environmental Compliance Approval (ECA) application for the treatment plant through the Province is anticipated.

It is anticipated that permanent dewatering is required. Consultants to confirm if both levels require dewatering, and to explore options for dewatering, including but not limited to an ILO tanking system (bathtub waterproofing), in order to determine the optimal long-term solution for the project. If permanent dewatering and/or any treatments are required, then Consultants to confirm if an efficient, effective long-term filtration system and storage will need to be added.

Sewer and storm water management

A full Stormwater Management Report will be required as part of the application. To include fulsome review of the existing storm and sanitary system and capacity. Refer to Soil conditions above for further information.

The existing central sanitary stacks discharge to the buried sanitary services line on the south side of West Wing. The existing storm drainage system controls rainwater runoff for the site. Storm water leaders and stacks discharge directly to the below-grade storm drainage system. There are sump pumps for the sump pits in the relocated west pit.

A new sanitary and storm system, associated piping to be developed and coordinated with U of T and City standards and applicable code and guidelines. The systems shall be gravity based and connected to the associated municipal connection. If sump pumps are required, then Consultants to provide solution(s) to allow for maintenance. Sump pumps shall be located in a room with sufficient space for accessibility and pump removal. The sump pumps shall be supplied by emergency power to prevent any flooding.

Existing storm water system around MSB to reviewed in conjunction with the proposed to understand best options for a comprehensive storm water system.

Designated Substances

The University of Toronto will investigate and identify designated substances, and other site-specific hazardous materials present within the project area as per appropriate regulations and the Ontario Occupational Health and Safety Act.

k) Campus Infrastructure Considerations

Refer to the "Energy Nodal Plant Distribution, Early Concept – Basis of Design" report in the Appendix for further information on Nodal Plant. Update: Node 5 design assumptions have been slightly changed from the "Basis of Design" report. Currently, the Nodal Plant concept design is undergoing optimization to make the Nodal Plant more efficient and influence the size and scope of what is noted in the *Energy Nodal Plant Distribution, Early Concept – Basis of Design* report and this PPR. As part of that update, Cooling Towers are no longer required and overall, an optimization of approximately 37% space reductions has been identified. In the interim, the scope prior to the optimizations is below and can be further outlined in validation along with space optimizations.

To find out more about existing campus infrastructure, existing MSB, and West Wing Redevelopment implications and decoupling - Refer to the Feasibility Study, Feasibility Study Appendix and the Master Program and Master Program Appendix. IPD Consultants are to confirm/verify existing conditions required as part of the project.

Nodal Plant

Refer to the Validation Report which outlines the space and Day 1 equipment requirements for the Nodal Plant. Note that the Temerty Building project scope and budget only includes the trenching along King's College Road (part of Cycle 3 request) and the core and shell space provided within the Temerty Building's Basement, Level 1 and Mechanical Penthouse. Beyond providing core and shell space, the remaining Node 5 scope, e.g equipment, connection, etc, is a separate project that will be developed and delivered within the Temerty Building's IPD delivery contract, similar to other project precedents: Landmark, Robert Street Field, and Bloor-Devonshire Utilities.

General

Node 5 is one of the St George Campus utility concept nodes included in the UofT Utilities Master Plan (UMP). The plant will provide a source of district heating and cooling energy and serve as a Central Electrical Distribution point for a new incoming Hydro service from Toronto Hydro.

The end state Node 5 and CED will be generally developed in two phases as follows:

> **Phase 1 (Day 1)** – the plant will be equipped with the mechanical heating and cooling equipment to serve the new Temerty building, and will include a new electric boiler, Geosource heat pump (refer to Geoexchange Energy), and a steam to hot water heat exchanger that will support Temerty's heating loads, provide resiliency, and alignment with the university's Climate Positive Campus goals by transitioning from fossil fuel energy sources. The geosource heat pump shall primarily provide the most efficient baseline heating cooling loads for the Temerty building. The electric boiler shall be utilized to top up the remainder of the Temerty load and to provide the necessary heating capacity

if the Geosource heat pump were inactive. Lastly, steam from the existing Central Steam Plant shall be provided to the Temerty facility to improve resilience during a major power outage. Steam shall be converted to low temperature water within the nodal plant to ensure full heating capacity during peak conditions. The plant will incorporate HVAC equipment to support the necessary OBC ventilation requirements for plant operating conditions and to support equipment cooling located in the CED.

The integrated CED will house electrical switching equipment capable of receiving and distributing up to 30 MW of power from Toronto Hydro. It will accommodate existing MSB and Landmark loads, the new Temerty Building loads, any residual loads connected to the current MSB loop, and the electrical demands of the Nodal plant equipment. In addition, it will reserve capacity to utilize any remaining balance of the initial 30 MW supply in the future. The installation will include provisions for connectivity to a second, future 30 MW switchgear, in compliance with Toronto Hydro's requirements and control protocols. The plant's electrical design will incorporate a detailed load study, documenting the values of each load case.

Dedicated plant space will also be developed to support control systems, IT infrastructure, and energy storage as required. As mentioned previously, the plant will integrate the Temerty Building's geo-exchange system that includes the bore field below the footprint of the building (see *Geothermal Energy*).

The initial scope will also include civil works to establish connections with Toronto Hydro and the existing district heating network. Civil and site works associated with Node 5 will ensure delivery of power and related energy services to its boundary. In addition, site works shall enable the connection and distribution of the university's existing district services such as steam and chilled water in order to provide heating and cooling to the Temerty building and to allow for the continuation of these services to supply the remainder of the campus. Lastly, the low temperature heating and chilled water piping shall be integrated into the nodal plant and Temerty building to allow for the continuity of these services to support the university's LEAP project.

Phase 2 (Day 2)

The plant will be constructed as a shelled space, designed to allow for expansion of its thermal and electrical energy capacity aligned with the university's expansion goals and the estimated 2050 site utility plan. The required space will be determined by the Nodal system engineering team in collaboration with the Temerty Building team, taking into account the limitations of the building footprint and long-term capacity planning.

Similarly, the CED area will include provisions for installing a second set of switching equipment to support an additional 30 MW load. Where feasible and foreseeable, civil works will also be undertaken to establish outgoing service routes, enabling future district connectivity.

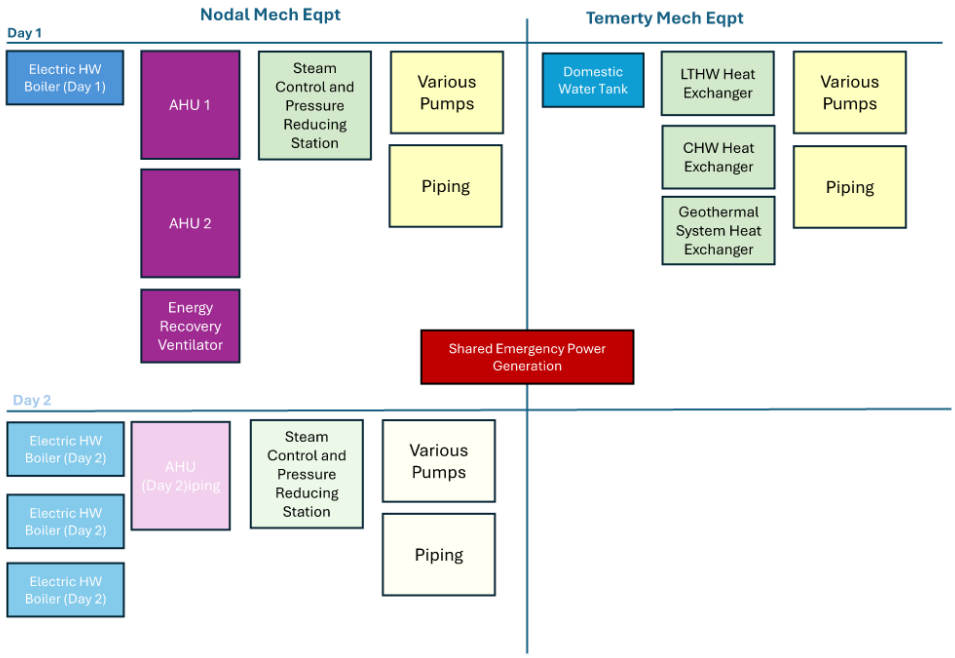
Mechanical Requirements

Node 5 will supply low-temperature hot water (LTHW) for heating to all buildings connected to the Node inclusive of Temerty. The heat will be generated primarily through the geosource heat pump system, supplemented by electric boilers located within the Nodal plant.

On Day 1, the LTHW system will be sized to serve only the Temerty Building. In Day 2, the system will be expanded to increase plant capacity and extend heating and cooling services to additional surrounding buildings.

The following schematic represents a conceptual understanding of the equipment requirements that are imagined for Node 5. The Temerty Building Project Validation Report will outline the space and Day 1 equipment requirements for the Nodal Plant in more detail. The Day 1 Validation Design will be coordinated between the Project and Facilities and Services to ensure it represents that best possible design to meet the needs of both the project and the long-term Nodal Plant operations.

Figure 1 – Schematic of Mechanical Requirements



Electrical coordination with Toronto Hydro

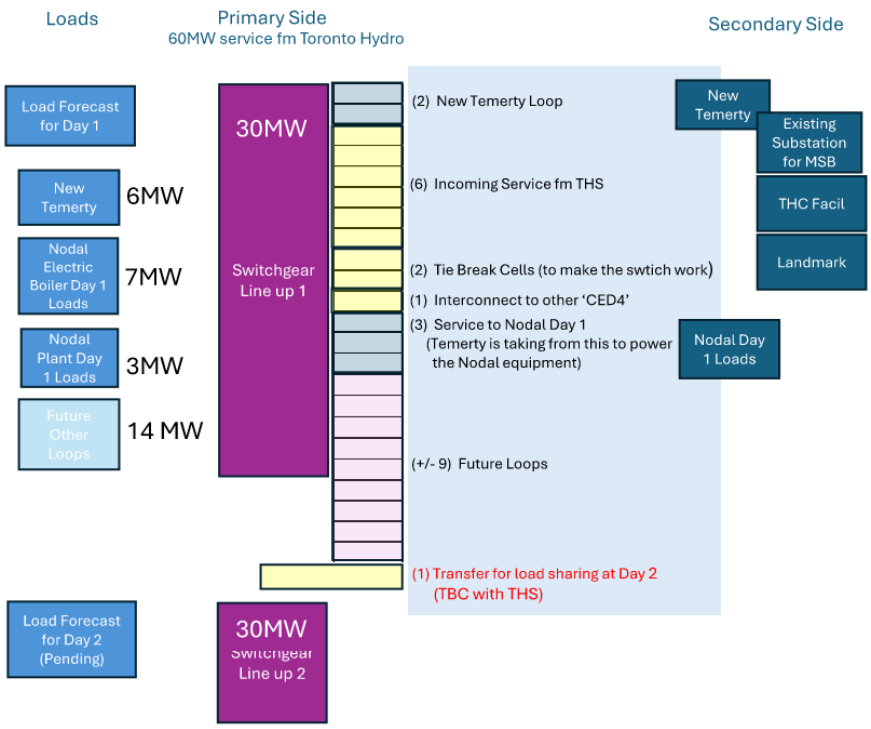
The CED, co-located with Node 5, will be designed to accommodate an ultimate service capacity of 60 MW from Toronto Hydro. A detailed negotiation and service agreement will be established with Toronto Hydro to define the source and delivery points for this capacity, ensuring compliance with the university's load redundancy requirements. Given the scale of the service, these agreements will also address control and load management provisions acceptable to Toronto Hydro. Coordination of these high-level agreements will be led by UofT Facilities and Services in collaboration with the concept plan engineers.

Pending the terms of the final agreement, it is anticipated that service delivery will connect to the UofT property near the north curbline at the intersection of College Street and King's College Road.

The accompanying schematic illustrates the conceptual loads, primary service, and secondary distribution envisioned for the new CED. The Temerty Building Project Validation Report will define the space

allocation and Day 1 equipment requirements for the CED. The Day 1 Validation Design will be jointly developed by the Project team and Facilities and Services to ensure it achieves both the immediate project needs and the long-term operational requirements of the Nodal Plant.

Figure 2 – Schematic of Electrical Requirements



Emergency Electrical Power Generation

The Nodal plant and CED will share emergency power based on an optimized load study of the emergency generating capacity required by both the Nodal Plant/CED and the new Temerty Building. It expected that the emergency power generating capacity will be located in the penthouse of the new Temerty Building.

Geoexchange Energy

All projects, including the Temerty Building, are mandated to align with the university's Sustainable Energy targets. To support this, a geoexchange field will be developed below the footprint of the building.

Accordingly, the Nodal Plant Day 1 space will incorporate dedicated areas for the geosource heat pumps pump and associated equipment. This configuration will enable integration with the broader district energy sharing system.

The geothermal field will be optimized to support the baseline heating and cooling loads for the Temerty Building. Where additional cooling is required, the building will be supported by chilled water supplied by the existing MSB plant as part of the overall nodal strategy and district cooling system. Similarly, supplemental heating shall be provided by the electrical boiler located inside the Nodal plant.

Since the borefield is sized to support the Temerty building only, there remains an opportunity to maximize the borefield to include for surplus thermal energy to support to the wider district energy network.

Nodal Plant and Building Automation

The Nodal Plant and building shall have two independent controls systems. The Nodal Plant system shall be able to control equipment within the nodal plant while having the capability to communicate to the existing Central Steam Plant, the MSB chiller plant, and future nodal plants to allow for the overall management of the district systems. The Temerty facility shall have its own building automation system (BAS) that controls all of the elements related to the building. Temerty's BAS shall connect to the university's Energy Management and Reporting System (EMRS). The BAS system shall allow for overall monitoring and control from a remote location.

Metering

Energy management is an important function in establishing nodal plant control, building control, and monitoring sustainable energy consumption. Meters will be required to ensure there is accurate measurement of thermal energy transfers between the district and building systems, electrical and water consumption. The metering plan will also need to incorporate the capability of measuring process and building loads independently.

Design Development

Design of the Node 5 plant and CED will occur concurrently with the new Temerty Building design. The two-phase approach will allow the mechanical and electrical capacities of the Node 5 and CED to be right sized to first serve the new Temerty Building with the consideration of meeting the university's Climate Positive Campus initiative. Close coordination between the Nodal Plant engineers and the building design team is currently happening and will intensify as the project goes deeper into detailed design

Cost Apportionments

As the design of the building and district needs unfold, a cost apportionment exercise will be completed to ensure a fair distribution of the costs borne by the Temerty Building Project and the Nodal/CED development. The apportionment exercise will consult the existing Facilities & Services (F&S): Climate Positive Plug-In Supplement (CPPS) Guideline *(Ron and Costas should agree to a number every January for the subsequent year)* and the Principles of Cost Allocation – Construction and Operations of the Nodal Plant/CED and the Base Building_2024-02-16 between the Temerty Faculty of Medicine and Facilities and Services.

Nodal Plant Space Program

The space program and area summary for the Nodal Plant are not included in this Project Planning Report. For the most up-to-date scope, including gross and assignable area breakdowns, please refer to the March 21, 2025, drawing set.

Equipment Removal Requirements:

The general space requirements for mechanical and equipment shall require horizontal and vertical access to accommodate equipment replacement.

Table 3.9 – Equipment Removal Requirements

ITEM	LOCATION	METHODOLOGY	NOTES
Largest equipment component	Above and below grade	Service Elevator	
Full equipment replacement (4m W x 3.5m H x 6 m L)	Below grade	Service shaft up to grade.	If dimensions and weight capacity of service elevator are exceeded.
Full equipment replacement	Above grade	Knock-out panel on the exterior of building.	Location of knock-out panel shall be in optimal location for a crane lift.

The frequency of equipment or major part replacement on any of these individual pieces is infrequent. Building access for this type of equipment is preferred to be directly into the nodal plant, routes through the building cannot be considered. A rigging areaway/hatch to be accommodated at grade to allow for future servicing of equipment. Size to accommodate replacement/installation of the largest piece of equipment (Electrical centrifugal chiller: 6000mm L x 40000mm W x 3500mm H, size TBD in validation) with sufficient clearance around largest piece of equipment for rigging operations and rigging equipment. Location of the hatch is preferred on the west side of the building near Discovery Lane. The hatch grate/door to be secured. To accommodate equipment replacement/installation, large doors for equipment access to be provided within the Nodal Plant within the servicing pathway from the hatch. Refer to "Landscape and open space requirements" section for scope pertaining to screening the hatch and fill tank.

The node mechanical and electrical areas will require a minimum of 6m headroom clearance due to the equipment dimensions. Additionally, these spaces should allow for robust vibration reduction elements such as housekeeping pads and isolators.

A vertical utility riser shaft will be required connecting the Nodal program to the Mech Penthouse. The dimensions will be determined during design through coordination between the PC and NC.

HVAC requirements will be determined during design, specifically equipment ventilation due to heat generation during operation and occupancy ventilation. It is anticipated that intake and exhaust zones will need to be distinct and generally at opposite ends of Nodal space. This will require coordination between the PC and NC.

l) Secondary Effects

Affected TFoM Occupants Secondary Effects

The West Wing of MSB is currently fully occupied by research labs, teaching labs, and education spaces. Constructing Temerty Building at this site requires that all occupants be decanted to other locations prior to and during the redevelopment. Currently, several Temerty Building Secondary Effect projects are in various stages of planning, design, or construction to allow for the relocation of West Wing departments to decant the West Wing. A critical requirement during the decant is that the new Toronto High Containment Facility (THCF) be constructed and operational before the West Wing can be demolished. Collectively, the redevelopment of the West Wing and construction of Temerty Building leads to multiple space moves and related capital projects.

The key component projects and their anticipated completion time are highlighted in Table 4.0 below. Note: Classrooms secondary effects are included in "Existing Space" and "Space Requirements" sections and have been excluded from the table below.

Table 4.0 - Affected Temerty Building TFoM Occupants Secondary Effects Schedule

Project Name	Completion Timeline
New Toronto High Containment Facility (THCF)	See Schedule section
Division of Teaching Labs Relocation and Renovation at Ramsay Wright Phase 2	See Schedule section
777 Bay Street Staging Space (Multiple Departments), 3 floor fit-out	Complete
DCM Decant to multiple locations:	
• CAMH Ursula Franklin	Complete
• Hospital partner facilities	Complete
• DCCBR upgrades	Complete
• Office relocation to MSB 2	Complete
Facilities Management and Space Planning relocation to Naylor	Complete
Agur PI Lab (Anatomy Lab)	Complete
Anatomy Museum/Teaching Labs relocations (Planning ongoing)	Spring 2026
Graduate and Life Sciences Education (GLSE) and Institute of Medical Science (IMS) relocation (Planning ongoing)	End of 2025

Construction Impact

Anticipated Secondary Effects include decoupling and construction related impacts to occupants and operations in MSB. Excluding West Wing (Block B), MSB will be an occupied building during Temerty Building construction. It is anticipated that MSB areas adjacent to Temerty Building site will be affected. Extent of impact to be reviewed in Validation. Impacts on research and teaching, including deliveries, are to be mitigated as much as possible. A mitigation plan by the Consultants and General Contractor (GC) is to be provided to U of T in Validation, to allow for ample time for any disruption or limited shut down.

- Noise and Vibration
    - The north south corridors on every level separating MSB and Temerty Building are to allow for circulation between research areas throughout construction—These ccorridors are: 1145K, 1378K, 2375K, 3374K, 4374K, 5272K, 5376K, 6374K, 7374K, and are required to remain open/operational throughout construction.
    - Consultants to review with GC, hoarding that best mitigates dust as well as noise and vibration that could impact research.
    - A Noise and Vibration Impact Assessment is in-progress
- Servicing

        - Discovery Lane will be in operation during Temerty Building construction as servicing is needed for MSB and DCCBR research, teaching and operations.
            - For example, if the current central storage room for hazardous waste servicing MSB and DCCBR may be affected, then a mitigation plan with alternative arrangements is to be developed with the relevant stakeholders.
        - Intermittent shutdowns to be limited as much as possible due to the criticality of the ongoing research, and mitigation plans to be coordinated with Temerty Medicine and UPDC. Note: Loading areas between McMurrich and JJR Macleod Auditorium cannot be considered as viable interim servicing location. IPD team to review mitigation measures to keep operations going, with minimal disruption, in MSB via Discovery Lane.
- Survey and Monitoring: Prior to construction, a pre-construction survey of MSB may be required within the zone of influence to the planned Temerty Building development. The report to include photographic and documentary evidence of the building's existing cosmetic, structure, and infrastructure conditions on the interior and exterior. Throughout construction, MSB is to be monitored.

Decoupling

Refer to the Feasibility Study, Feasibility Study Appendix and the Master Program and Master Program Appendix, including the Building Conditions Assessment, for background information on existing campus infrastructure, existing MSB, and West Wing Redevelopment implications and decoupling. IPD Team to confirm/verify existing conditions required as part of the project.

Existing conditions and secondary effects that will be affected by decoupling West Wing from the rest of MSB are to be fully verified on-site by the IPD Team and reviewed with U of T. The Implementation Consultant is to coordinate and confirm that MSB building will be a fully functional, independent building prior to the demolition of the West Wing. Any risks to be recorded and managed in a risk register.

West Pit

Relocating west pit was an enabling project for Temerty Building completed as part of the THCF project. The existing west pit and services feeding MSB were below MSB Block B. The west pit was relocated below Discovery Lane south of Block C to allow the West Wing Redevelopment.

From the relocated west pit, the service piping goes up the new internal shaft within Block C to the mechanical penthouse on Level 9 where new connections were made to existing distribution piping. As part of Temerty Building, any existing distribution piping services within MSB B serving Block A, C, D and/or E) will need to be re-routed as required.

MSB Structure

Confirmation of existing structural system and relation between Block B and the rest of MSB to be confirmed by IPD Team. The Feasibility Study and Master Program includes information that gridline 7B is the location of expansion joint. It is anticipated that columns along gridline 7B will need to be maintained and the pendulum connection to be modified – to be verified in early in validation. The location of grid 7B is on the west side of the north south corridor between Block B and Block A and Block C. Implementation Consultants to confirm early in design that that due to decoupling and Temerty Building development, MSB will or will not need to be structurally upgraded to meet the current OBC. It

is anticipated that due to increased snow loading, some structural upgrades to MSB Block A and C's roof are required.

MSB Ontario Building Code (OBC) Report/Memo

MSB Code Review: As part of decoupling scope, an OBC review of MSB is required, to ensure compliance as a separate building from Temerty Building, including but not limited to exiting, fire and life safety, washrooms/fixtures, and elevator/vertical transportation traffic.

MSB stair 2 is structurally part of Block C and on the west side of the anticipated decoupling line, just south of Block B. If Stair 2 is removed as part of the West Wing redevelopment, then MSB exiting is to be included in Temerty Building's code analysis and design.

MSB Vertical Transportation Report

A Vertical Transportation study for MSB is required to ensure that there is enough capacity at Temerty Building so to not create additional overflow/pressure into the limited, existing MSB elevators. The main report is to include a MSB vertical traffic study so that a comprehensive understanding of the supply and demand is understood comprehensively across both buildings and transfer floors are identified. Since both buildings will house occupants that utilize both buildings, the proposed Temerty Building elevators count as per the final vertical transportation analysis cannot be reduced without U of T approval since adding elevators in MSB would be challenged.

MSB Renovation and Demolition

It is anticipated that demolition and renovation within MSB will be required to decouple MSB from Temerty Building, make good areas at the MSB and Temerty Building interface, and allow for full connection between the two buildings as indicated in the PPR, including the West Wing's shaft and stairwell along the decoupling line. Due to interface between Block B and Block C, potentially new infill floor areas between the two buildings are potentially new MSB area, since MSB's Block C floorplate steps back eastward and it is anticipated that Block B's plenum within Block C will be removed. The extent of renovation and demolition has been developed in validation will depend on the proposed design and the interface between the two buildings.

MSB Security

Co-ordination between new Temerty Building and existing adjacent MSB areas for access and security is required where new work is proposed or impacted.

m) Schedule

The draft project milestones for the project are as follows:

Validation Phase (to Draft Validation Report Submission)	Oct 2023 -Sep 2025
Design Review Committee (DRC) #1-#4	Feb 13- Nov 24, 2025

Target Value Design Phase (TVD)	Oct 2025 – Apr 2027
Municipal Approvals up to Statement of Approval*	Apr 2025 –Jun 2026
Anticipated DTL facility Phase 2 in Ramsay Wright occupancy **	Jun 2026
Governance Approval (Cycle 3)–Interim Project Cost & Sources of Funding	Jan 19–Mar 26, 2026
Validation Report Acceptance	Jan 19–Mar 26, 2026
Tender Package 1a – Ready to tender (Early Civil and Site works)	Jan 2026
Pre-Application Consultation (PAC) meeting with the City	Jan 29, 2026
Site mobilization + Early Works (Electrical Duct Banks)	Jun 2026
Early Works (MSB's West Wing interior abatement/demolition)	Aug 2026
Governance Approval (Cycle 2)–Full Project Cost & Sources of Funding	Sep - Dec 2026
New Construction Begins	Nov 2027
Anticipated THCF facility occupancy (**), (***)	Feb 2027
Occupancy	July 2031

Notes:
* Confirmation of Municipal Approval requirements are on-going. This schedule assumes all municipal approvals may be achieved within the timelines.
** Enabling Projects. These are separate projects from Temerty Building Project, whose schedule is dependent on the completion of these enabling projects.
*** An escalation contingency has been added to THCF project to mitigate schedule impact to Temerty Building.
**** Confirmation of construction milestones are in progress.
***** Though the Donor Agreement stipulates Construction to start by December 2025 there are clauses in the agreement that recognize delay impacts by the Covid pandemic which are beyond the control of the University.
Resource Implications

a) Total Project Cost Estimate

The scope of this phase of work includes the following:

- IPD team design fees and disbursements, including Big Room Rent/Operations;
- Preliminary site mobilization activities, including hoarding and construction trailers;
- Utility and water main relocations required to support the redevelopment;

- Primary electrical duct bank installation from College Street to the building site, along King's College Road, facilitating the high-voltage Toronto Hydro feed to Node 5 and building when needed;
- Interior abatement and interior demolition (non-structural) of existing Medical Sciences Building's (MSB) West Wing or Block B;
- Installation of rated demising walls along the cut line between MSB's Block B and Block C (refer to PPR, Image 1 on page 2) and associated decoupling of services to allow continued operations in the rest of MSB;
- Provision of temporary electrical service (long lead time) to support ongoing operations;
- Localized shoring at the first basement level; and
- Design-assist engagement for the building envelope.

b) Operating Costs

Operating costs for the Temerty Building are estimated on a per-GSM basis. Based on a Facilities & Services unit rate of $260 per GSM. Final operating costs will be confirmed closer to occupancy currently projected for 2031 and allocated by division based on space assignment.

IV. APPENDIX:

1. COU Analysis (In progress. To be made available for Full Governance PPR)
2. Validation Report, May 23, 2025 (Available upon Request)
3. Indigenous Space
    a. Indigenous Medicinal Garden Precedents
    b. Indigenous Space Precedents
    c. U of T Fire Safety Guidelines for Smudging
    d. Smudging Rooms – Air Handling Design Considerations
4. Draft Project Charter*(Available upon request)
5. Core Research Requirements (Available upon request)
6. Elements in the Landscape - Commemorative Plaques Inventory (on request to lim. distribution)
7. Extracts from the Draft St. George Secondary Plan application (February 2018)
    a. Draft Urban Design Guidelines Block A and C
    b. Cultural Heritage Resource Assessment for the Medical Sciences Building
    c. University of Toronto St George Campus Secondary Plan, Front Campus Panorama
8. Temerty Medicine Brand and Signage Guidelines – Preliminary, August 30, 2022,
9. Temerty Building Preliminary AV equipment (on request to limited distribution) *
10. 20250820 Space Reconciliation