



# WESTERN LIBRARIES SPACE MASTER PLAN

5 SEPTEMBER 2017



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SPACE MASTER PLAN

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# INTRODUCTION



# EXECUTIVE SUMMARY

The Western Libraries Space Master Plan (WLSMP) represents an exciting next step in the realization of the future libraries at Western University. Building on the 2015 *Western Libraries Strategic Plan*, the Space Master Plan was undertaken over the course of the 2016-2017 academic year. Together, the Strategic Plan and the Space Master Plan lay out a comprehensive vision and strategy for the future of Western Libraries.

## BACKGROUND

The libraries at Western are among the most significant places on campus, and home to a series of unique and remarkable collections. Library facilities include:

- the D.B. Weldon Library (Weldon), located at the heart of campus, housing the Archives and Research Collections Centre (ARCC) and the Map and Data Centre (MDC);
- the Allyn & Betty Taylor Library (Taylor), located within the Natural Sciences Centre;
- the C.B. 'Bud' Johnston Library in the Ivey Business School;
- the John & Dotsa Bitove Family Law Library in the Law Building;

- the Faculty of Education Library in the John G. Althouse College Building;
- the Music Library in Talbot College;
- the Research Depository Library in the Dentistry Building, a non-occupied, staff-only storage location; and
- Library staff space within Elborn College.

The Master Plan includes an analysis of each of these facilities while focusing on Weldon and Taylor, the two largest and most heavily-used libraries on campus. With almost 2.1M combined visitors each year, and more than 9,800 daily visitors during busy periods, these facilities are a critical resource for Western's students, researchers, and faculty. Despite their importance, however, both face significant challenges:

- Learning spaces do not support the range of activities required by current pedagogy and contemporary scholarship;
- Navigation and wayfinding are compromised, limiting engagement with collections and services;
- Building infrastructure is outdated, compromising performance, energy efficiency,

- and occupant comfort while falling short of current code requirements;
- The experiential quality of the libraries as places does not reflect Western's commitment to excellence, and fails to inspire the sense of innovation, excitement, and discovery that characterizes a world-class academic institution.

The Master Plan addresses these challenges through development of a new program for each library, proposed plans for each library, and an infrastructure and phasing strategy that describes how these proposals could be undertaken as a series of discrete, phased projects.



## PROCESS

The Master Plan draws on a wealth of input and insight that was gathered through three

mechanisms: the background data collected during the development of the Western Libraries Strategic Plan, the data collected as part of the 2016 LibQual Survey, and specific engagement sessions convened over the course of Master Plan development that focused on more detailed issues of programming and planning. All told, the Master Plan combines the input of more than 4,600 students and more than 300 faculty, staff, and campus partners.

## VISION

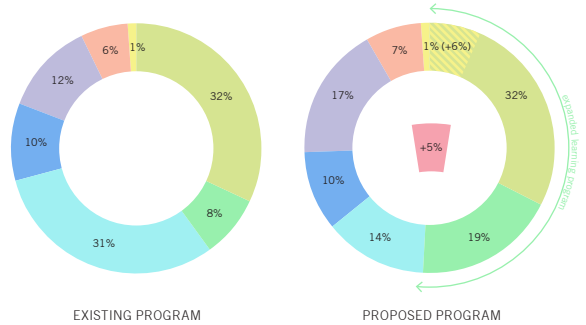
The engagement process culminated in the development of a Space Vision for the project:

*"Western Libraries provides learning and research environments that inspire and engage Western's learners, teachers and researchers. Western Libraries' spaces are a dynamic, intellectual and cultural hub for campus. Our libraries, in form and function, are a platform for learning, discovery, research, and community engagement"*

Onto this vision, the project team layered ten 'future trajectories' that reflect both the specific aspirations of Western Libraries and the broader changes shaping contemporary academic

institutions. Together, the Vision and Trajectories were distilled into five program goals for Western Libraries:

- to increase and improve learning and research space, enabling new modes of scholarship and collaboration;
- to decrease collections footprints, in order to accommodate new space for learning and discovery within the libraries;
- to provide community space that builds the library's role as the heart of campus;
- to provide staff space that functions well and improves collaboration; and
- to enable partnerships that enhance Western Libraries and are aligned with their strategic vision.



MASTER PROGRAM

From these goals, the project team developed a Master Program describing the programs, functions, and adjacencies required to fulfill the Vision, while acknowledging the opportunities and constraints that exist within the Library's existing spatial framework. Program and plans were developed in an iterative process in order to ensure alignment between Vision, Program, and Plans. Key elements include:

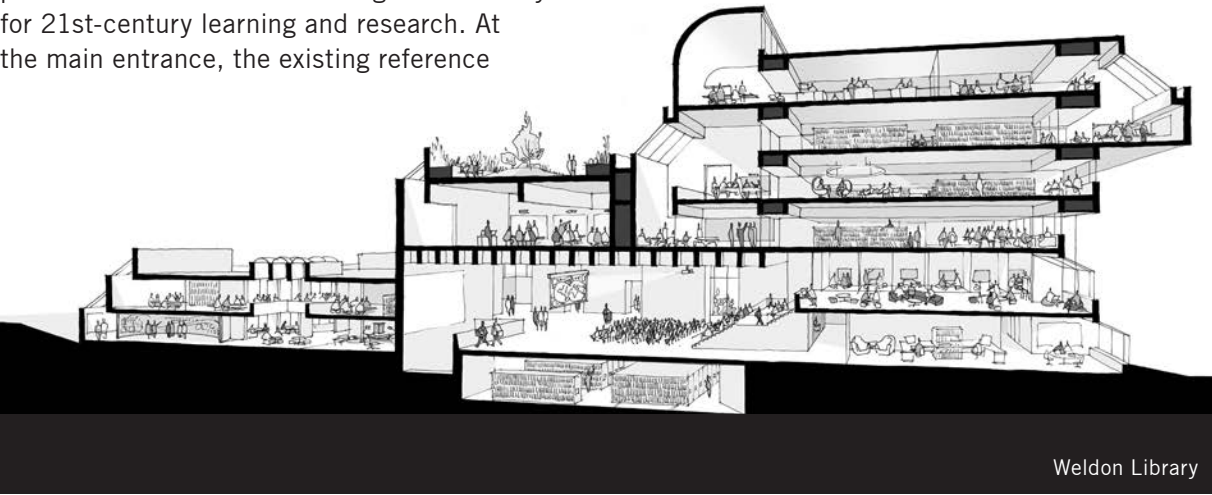
- A 23% increase in overall learning space, with an emphasis on collaborative, social, and technology-enabled programs;
- A 34% reduction in the Western campus' overall study space shortfall relative to Council of Ontario Universities standards;
- New showcase program components:  
Weldon: a two-storey Learning Commons; a Graduate Student Commons; a Digital Scholarship Centre; and enhanced space for community outreach and engagement  
Taylor: an expanded Learning Commons with associated Research Commons; new student support facilities; and an expanded program for specialised learning functions, including a technology sandbox and makerspace.

- Collocation of staff currently distributed across library facilities, in order to facilitate new models of work, improve collaboration and enhance service for students and researchers.

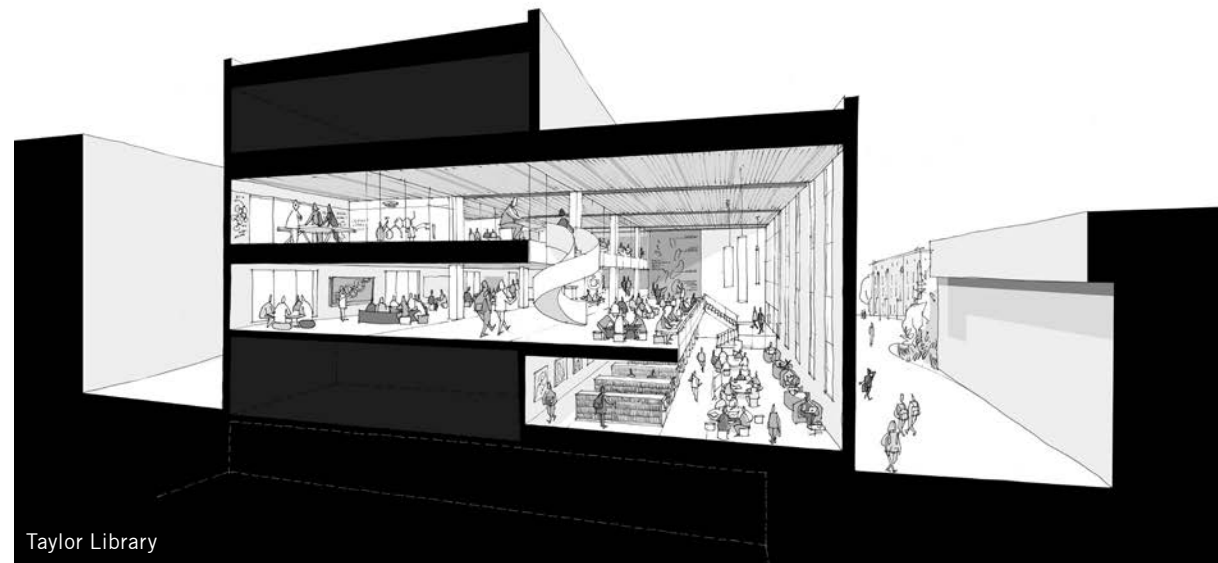
MASTER PLAN

Planning in Weldon is structured around a journey of discovery: strategic interventions open up new, more intuitive routes through the building, putting the environments, services, and resources of the library on display. At ground level, a new Digital Scholarship Centre provides the tools and technologies necessary for 21st-century learning and research. At the main entrance, the existing reference

hall is transformed into a vibrant two-storey Learning Commons that will support learning, collaboration and outreach in the heart of the library. Throughout the building, collections, learning spaces, and specialist programs are intermingled, creating a rich variety of learning environments and putting the spaces and resources of the library on display. An expanded circulation core, in keeping with the building's original design, will enhance circulation and access while giving Weldon a new and inviting aspect towards Western Road.







At Taylor, the existing stack tower is reconceived as a three-storey atrium space, creating an expanded, multi-level Learning and Research Commons that will enhance the library's entry sequence and presence on campus. As at Weldon, new student services and specialised learning spaces are organized to put these programs on display. The intermingling of resources and learning spaces creates a range of different environments while maximizing moments of discovery.

Planning strategies for both buildings are grounded in fundamental principles of good spatial organization and design, with an emphasis on clear and intuitive navigation, spatial interest, variety, and quality, and thoughtful use of existing windows and other architectural elements in order to maximize daylight and views within the buildings. Building

the plans from these clear, consistent, and fundamental principles ensures that, while they describe transformative library environments, they also retain sufficient flexibility to adapt to unforeseen needs and technologies while accommodating a phased execution.

#### EXECUTION STRATEGY

Finally, the Master Plan identifies a potential phasing approach for the libraries, identifying necessary 'enabling works' required to undertake future projects; key 'quick win' projects that could be undertaken in the near term; and a longer-term project delineation and sequencing in order to enable the full transformation of the libraries. Engineering requirements are identified for both Weldon and Taylor, and preliminary cost estimates for each of the phased projects are provided.

#### CONCLUSION

The Western Libraries Space Master Plan provides a comprehensive road map for Western Libraries' transformation into a 21st century academic and research library system—one that reflects the needs of today's students while offering the flexibility and resources to accommodate the needs of tomorrow's students as well. Drawing on a comprehensive analysis of existing conditions and stakeholder engagement, the plan combines the broad vision of the University's Strategic Plan, the Western Libraries Strategic Plan, and the specific aspirations of thousands of students, researchers, faculty, and staff. It synthesizes these aspirations into a project vision, program, and plans that will enable transformative and much-needed change while remaining responsive to future needs, programs and technologies.

The result is an act of growth and stewardship for Western Libraries: a transformation that will provide a new diversity of supportive learning environments for students and researchers, encourage collaboration across fields and disciplines, and embody the aspirations of the University as a whole.

#### WHAT IS A MASTER PLAN?

A Master Plan serves several purposes:

1. It provides design team(s), users and administration with an integrated document summarizing high level requirements for future projects;
2. It acts as a reference manual with which to monitor and manage future development, ensuring that individual design solutions are oriented towards a larger vision;
3. It describes a programmatic vision that can be used to develop administrative and organizational policies, procedures, and services for the Library;
4. It provides a comprehensive project overview from which a funding strategy and philanthropic campaign can be developed;
5. It includes project information organized in such a way as to clarify opportunities for optimal building functioning for intended use and users; and
6. It provides administration with a reference manual in order to plan for the phasing of individual projects and the ongoing operation of the buildings.



## WESTERN LIBRARIES STRATEGIC PLAN

The Western Libraries Strategic Plan 2015-2020, entitled *Engage. Empower. Excel*, describes a bold and exciting vision for the Western library system. The Plan identifies the libraries' core strengths as they exist today, and describes a series of strategic influences that will shape the libraries' development over the coming years. In response, the Plan identifies a mission, a vision, and values for Western Libraries and defines and describes strategies of excellence to achieve the vision. The Plan's Strategy Map brings all these elements together, charting a path that begins with the library's guiding values and arrives at its enduring impact on student success, educational excellence, and recognized research.

The Strategic Plan has served as the foundation for the thinking behind the Space Master Plan, providing a strategic foundation and a visionary direction for the Master Plan engagement process and for the development of the final program and plans.

Key concepts from the plan are excerpted at right. The full Strategic Plan is available here: <https://www.lib.uwo.ca/aboutwl/strategicplan/initiative.html>

### MISSION

As the academic commons of Western University, Western Libraries provides the library and archival expertise and infrastructure—information resources, technology, people, and spaces—required to cultivate and mobilize knowledge and accelerate excellence in teaching, research, and scholarship.

### VISION

We engage, inspire, and empower students, scholars, and researchers to achieve their full potential as global citizens and leaders.

### VALUES

Teamwork, Respect, Accountability, Communication, Creativity, Service, Collaboration, and Innovation

### STRATEGIES OF EXCELLENCE

- We advance 21st century literacies development for students, scholars and researchers.
- We manage and provide access to world-class print and digital collections and resources.
- We cultivate purposeful partnerships on campus and beyond.
- We provide user-centred spaces and technologies.
- We actively engage with our campus communities.
- We deliver service excellence to library users and the University
- We champion open access and the transformation of scholarly communication
- We partner to develop extraordinary researchers and scholars and to expand research excellence

# PROJECT BACKGROUND

The Western Libraries Space Master Plan began with an RFP process initiated in March 2016. Perkins+Will were awarded the work in May 2016, and the Project Team commenced work in June 2016.

The RFP document defined the project scope for Western Libraries as follows:

- 1. Conduct a comprehensive space audit and analysis of all Western Libraries facilities
- 2. Conduct / collaborate on broad stakeholder consultation with the user community to determine their library space needs, with a perspective that is future-oriented and learner, teacher and researcher-centred
- 3. Create a Space Master Plan Report that includes:
  - i. Recommendations based on review of all existing facilities and University stakeholders’ needs, and provide a scalable

- foundation for a relevant and sustainable academic library system for the next 25 years. The recommendations must be tied to Western Libraries’ user-focused core functions and core foundational functions;
- ii. A programmatic breakdown of space for The D.B. Weldon Library (Weldon Library) and the Allyn and Betty Taylor Library (Taylor Library), that includes current and future priorities;
- iii. Identification of programmatic relationships and location / collocation implications;
- iii. Assessment of community and library needs; and
- iv. Proposed design / renovation strategies and Order of Magnitude cost estimates for near, mid and long term priorities <sup>[2]</sup>

This report meets the objectives outlined above.

# PROJECT TEAM

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<sup>2</sup> RFP Project No. 9C6424 Western Libraries Space Master Plan, issued March 22, 2016.



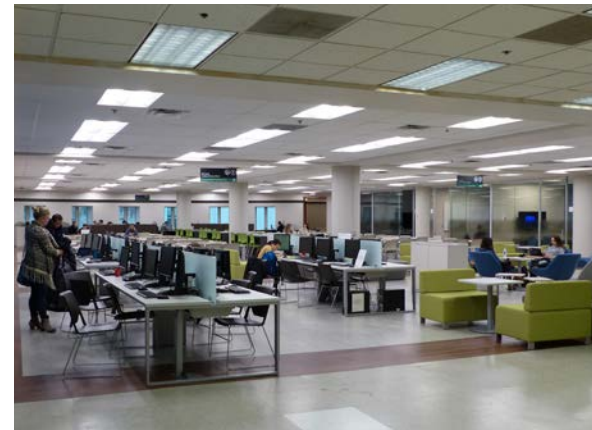


# EXISTING CONDITIONS





D.B. WELDON LIBRARY



ALLYN AND BETTY TAYLOR LIBRARY



C.B. BUD JOHNSTON LIBRARY



JOHN & DOTSA BITOVE FAMILY LAW LIBRARY



EDUCATION LIBRARY



MUSIC LIBRARY



RESEARCH DEPOSITORY LIBRARY



ELBORN COLLEGE

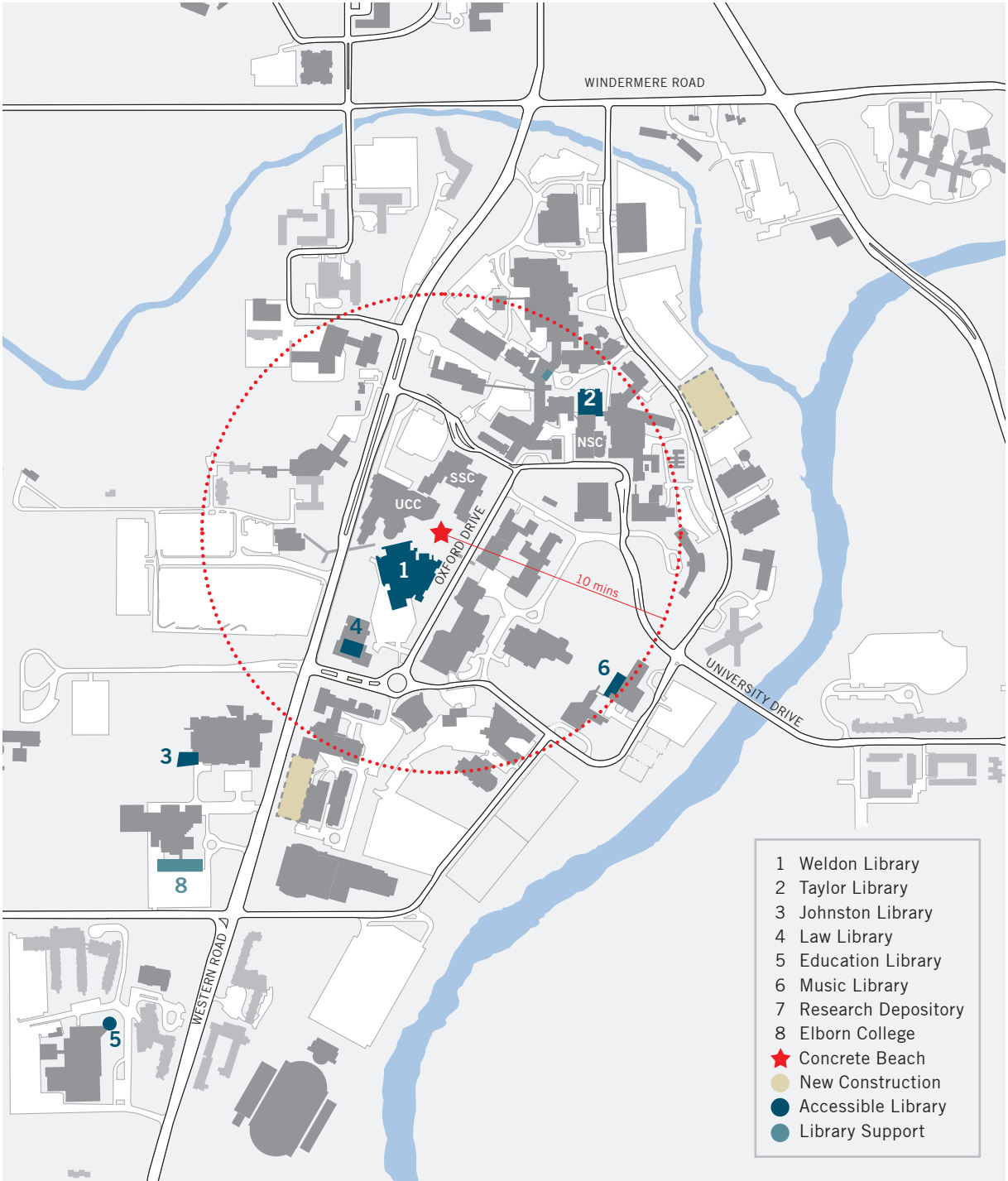
# CAMPUS CONTEXT

The Western University campus is defined by the axial relationship between University Drive—the historic entrance to the University, offering a picturesque view of University College and the campus green—and Oxford Drive, the campus’ central boulevard which connects Alumni Hall to the Natural Sciences Centre (NSC). Development is concentrated along the north-south axis between Philip Aziz Avenue and Windermere Road, with the heart of campus located at the Concrete Beach—a hardscaped, multi-level courtyard that connects to Weldon Library, the University Community Centre (UCC), and the Social Science Centre (SSC).

The Library system is distributed across the campus. The system is comprised of six publicly-accessible branches and two staff-only locations, most of which are within a five-to-ten-minute walk of the concrete beach and the UCC:

- The D.B. Weldon Library (Weldon) is the largest academic library on the campus. Collections in Weldon serve the faculties of Arts and Humanities, Information and Media Studies, and Social Science. The library also houses the ARCC and the MDC.

- The Allyn & Betty Taylor Library (Taylor), located within the Natural Sciences Centre (NSC), is the second largest library on campus. The library serves the faculties of Engineering, Science, Health Sciences and the Schulich School of Medicine and Dentistry;
- The C.B. ‘Bud’ Johnston Library, located in the Ivey Business School, houses business collections;
- The John & Dotsa Bitove Family Law Library, located in the Law Building, houses legal collections;
- The Education Library, located in the John G. Althouse College Building, houses education collections;
- The Music Library, located in Talbot College, houses music collections;
- The Research Depository, located in the Dental Sciences Building, is a general purpose storage facility not open to the public and without any on-site staff presence; and
- Elborn College houses the Library’s Information Technology Services (LITS) and Information Resource Management (LIRM) departments.





Of these, Weldon is the library system's largest building and its only independent structure. Together with the UCC and the SSC, Weldon defines the Concrete Beach and the heart of campus while also enjoying a substantial frontage onto Oxford Drive.

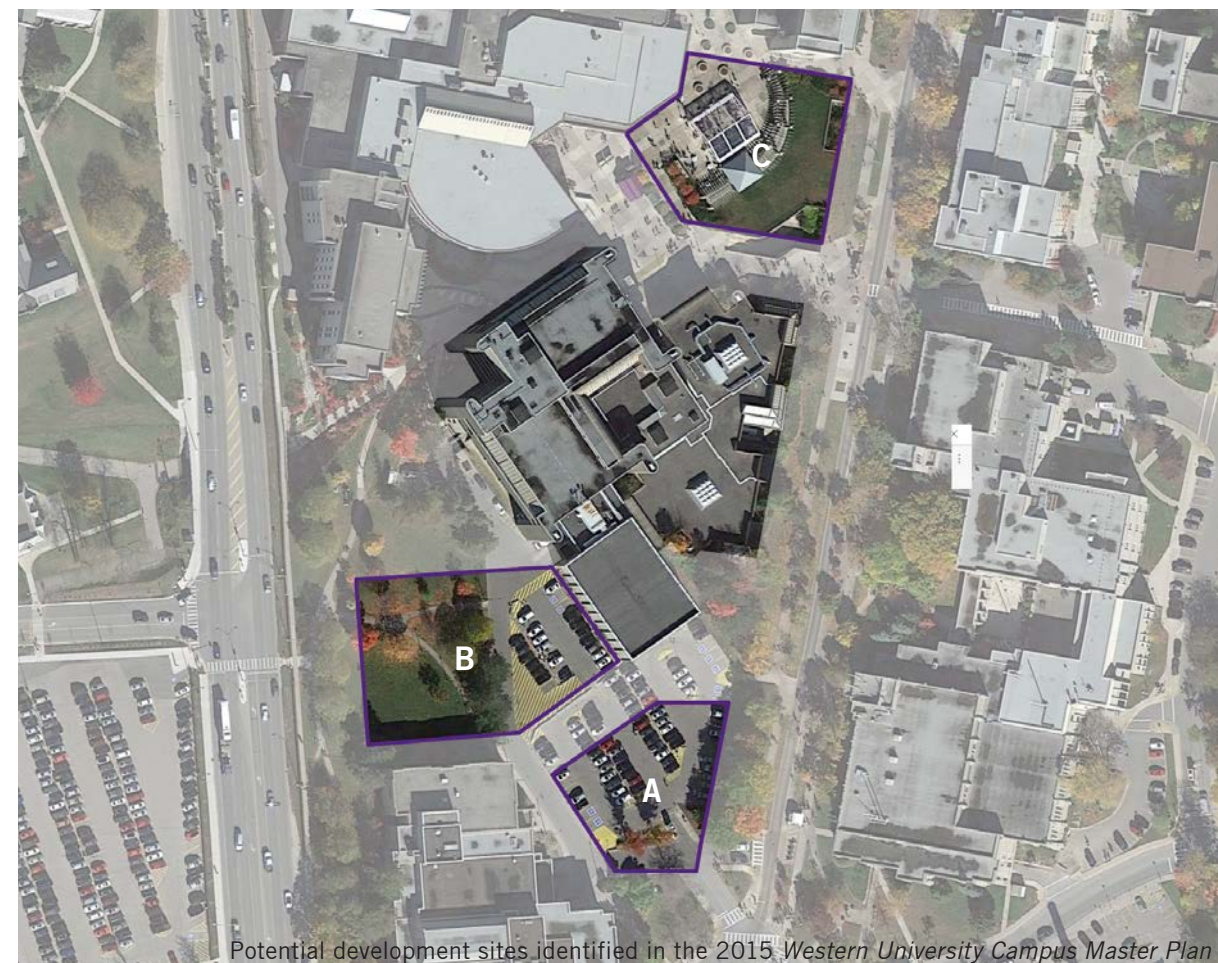
The Western campus is currently undergoing a period of rapid growth, with a number of projects on the boards or under construction. A new Interdisciplinary Research Building is under construction at the north-east corner of campus, adjacent to the Chemistry Building and Material Sciences Addition, and a new Engineering Building is under construction at the south-west corner of the engineering precinct along Western Road. These buildings will strengthen the campus' dominant axis while creating new destinations and offering new routes through the heart of the university.

Western has also recently undertaken a variety of larger analyses. The 2015 *Western University Campus Master Plan* focuses on building, development, and intensification. It identifies a variety of potential future development sites, including several adjacent to or adjoining Weldon Library. These sites, shown at right, include a signature building along Oxford Drive

(A), a building along Western Road (B), and development of the concrete beach (C).

The University has also recently undertaken an Open Space and Landscape Plan, also by Perkins+Will. This will act as a complement to Campus Master Plan, focusing on open space, urban design, and transportation at the campus and civic level. This plan aims to establish a new and enriched relationship between campus and landscape, leverage existing plans for new transit links to campus, and transform Western into a pedestrian-priority environment.

Finally, the University has recently undertaken a preliminary analysis of the concrete beach site as the location for a new Integrated Learning and Innovation Centre (ILIC), building on the Master Plan analysis. The project is still in its exploratory stages and a detailed program has not yet been developed. However, the Centre is currently envisioned as containing a variety of student-centered spaces, including smart classrooms, student collaborative and study spaces, and student service operations. Given its potential proximity to the Weldon Library, the ILIC may offer exciting possibilities for programmatic overlap and strategic partnerships with Western Libraries.





## WELDON LIBRARY

Designed by John Andrews Architects in 1967, Weldon Library opened in 1972. A five-storey, 220,000-square-foot structure, the building is representative of the brutalist style of the period, with a robust cast-in-place concrete structure, an emphasis on simple geometric forms, and a strong interior orientation. A series of small interventions between 1997 and 2011 have reshaped aspects of the building but have not fundamentally altered its underlying character.

The library reflects the planning orthodoxy of its day: undergraduate students were to be accommodated on the basement, ground floor, and mezzanine levels, with access to general collections, while senior researchers and library staff would be accommodated on levels two through five, along with more specialist materials. As a result, the library's lower levels have very large floorplates oriented around the double-height entrance hall, while the floors above the mezzanine step back into an L-shaped configuration. Today, the building operates as a single unit, but its circulation system still reflects this originally-planned bifurcation: vertical access beyond the mezzanine occurs via elevators located in the corner of the building or

via the fire stairs, congesting the elevator lobby and confusing wayfinding. While the building enjoys many moments of sectional variation, with daylit interconnections throughout the plans, these moments exist independent of the circulation system. This creates a sometimes-frustrating disconnect between visual and physical access, compromising intuitive wayfinding through the library.

### SERVICE AND PROGRAM

Located centrally on campus and adjacent to the University Community Centre and Student Services Building, Weldon plays a vital role as both a scholarly resource and a community hub. Weldon's 1.4-million-volume collection\* is focused on the faculties of Arts and Humanities, Information and Media Studies, and Social Sciences. Approximately one third of the building's floorplate is currently devoted to collections, most of which are stored in open shelving distributed over the third to fifth floors.

With its size and central location, the library is well-used by the university as a whole; with approximately 1.2M visits each year, Weldon accounts for approximately 60% of total library

\*includes Pride Library and Map and Data Centre; excludes ARCC



visits on campus. The building currently offers 2,400 study seats, which are frequently at capacity, particularly from mid- to end of term; daily gate counts between 7,000 and 10,000 are typical during exam periods. The majority of these study seats are provided in one of two formats: individual study carrels, or open seating at loose tables. Indeed, while study space occupies more than 40% of the library, only 7% is devoted to specialized learning, mostly in the form of bookable study rooms for graduate students.

Weldon also currently houses a variety of programs, partners, and collections, including:

- The Map and Data Centre (MDC)
- The Archives and Research Collections Centre (ARCC)
- Facilities for Services for Students with Disabilities (SSD, part of the Student Development Centre)
- School for Advanced Studies in the Arts and Humanities (SASAH)
- Teaching Support Centre (TSC)
- The Pride Library

In addition to supporting ongoing scholarly activity, the building hosts a wide range of meetings, events, and symposia each year,

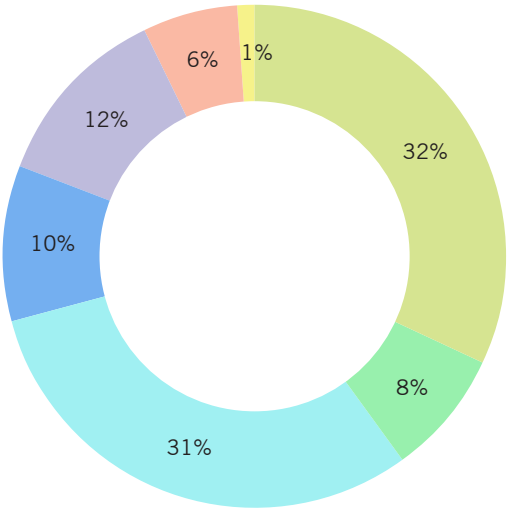
most of which take place in the central atrium adjacent to the main entrance.

Though well-used, Weldon faces substantial challenges—a function both of its age and of the changes in pedagogy, technology, and construction standards that have taken place over the intervening 45 years. In particular:

- A high proportion of space is devoted to general collections storage, with study space in comparatively short supply
- Study spaces lack variety, with the majority of seats located at carrels or at open tables, precluding many types of learning activity
- Existing infrastructure is insufficient. Access to power and data are in short supply, temperature control is variable, and the building does not meet current standards for sprinklers or building code.
- Staff space is distributed across multiple areas and levels, impeding effectiveness and compromising overall space planning
- An aging building designed primarily for the storage of print materials, Weldon lacks the high-quality, inspirational, and multi-functional learning space appropriate to a 21st-century library and institution.

WELDON LIBRARY: CURRENT PROGRAM

NET USABLE PROGRAM	AREA (NSF)
LEARNING - GENERAL	50,903
MDC	1,385
Other	49,518
LEARNING - SPECIALIZED	11,804
ARCC	1,346
MDC	2,831
Other	7,627
COLLECTIONS - GENERAL	48,524
COLLECTIONS - SPECIALIZED	16,739
ARCC	11,920
MDC	3,662
Pride Library	1,157
STAFF	20,758
ARCC	1,808
MDC	1,829
Other	17,121
PARTNERS	10,587
SASAH	1,126
SSD	1,178
TSC	4,214
Classrooms	2,666
Other	1,403
COMMUNITY	1,930
TOTAL ASSIGNABLE AREA	161,245

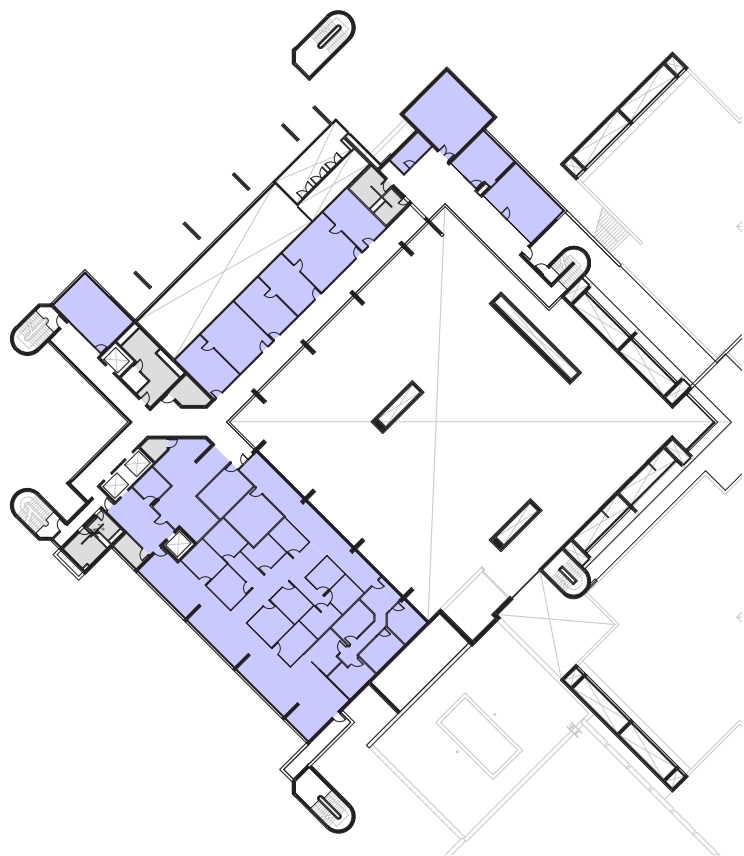




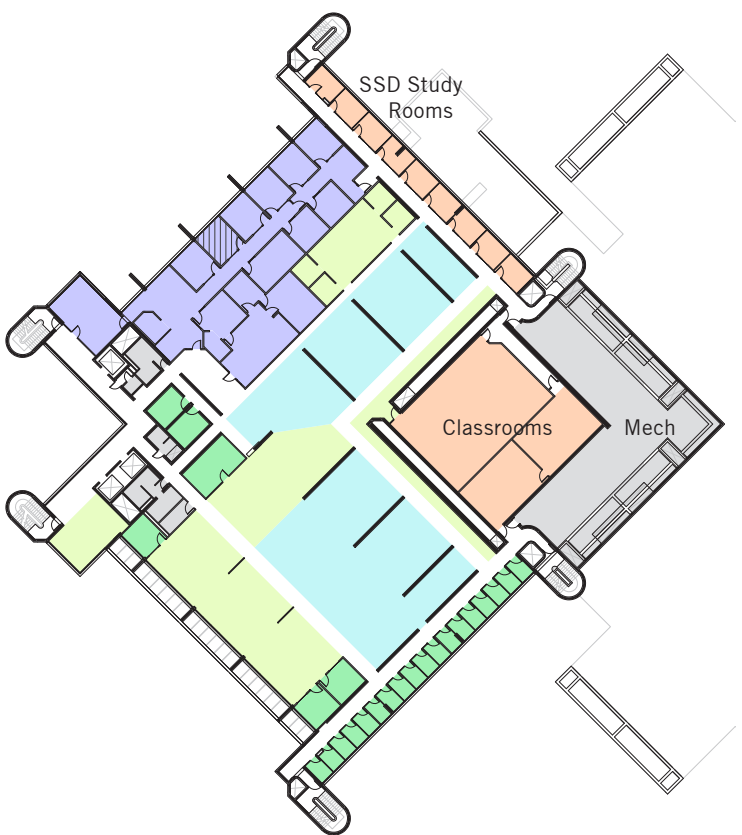
WELDON LIBRARY: EXISTING PLANS



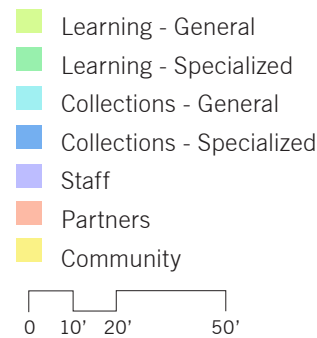
WELDON LIBRARY: EXISTING PLANS



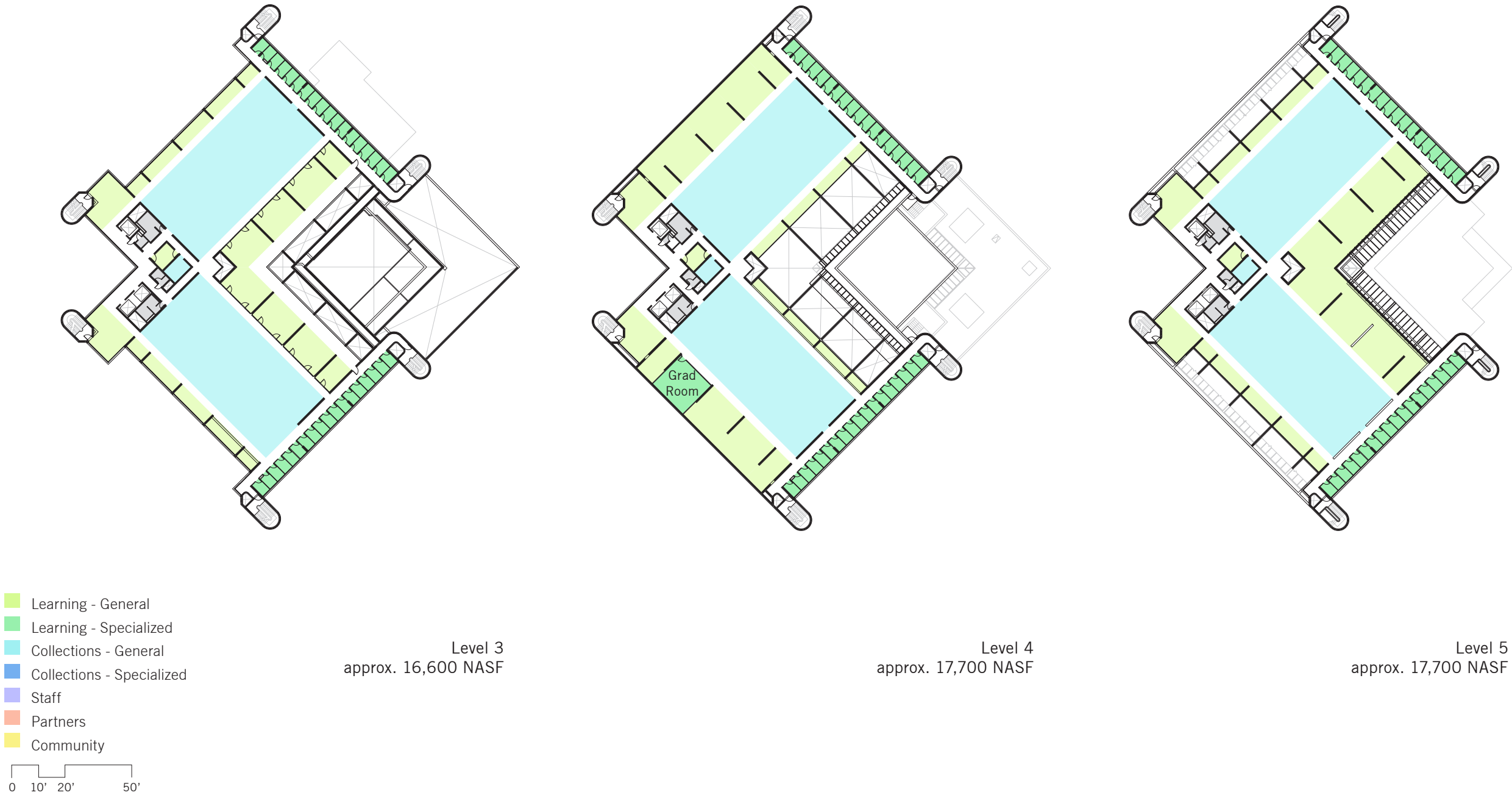
Mezzanine  
approx. 9,000 NASF



Level 2  
approx. 19,800 NASF

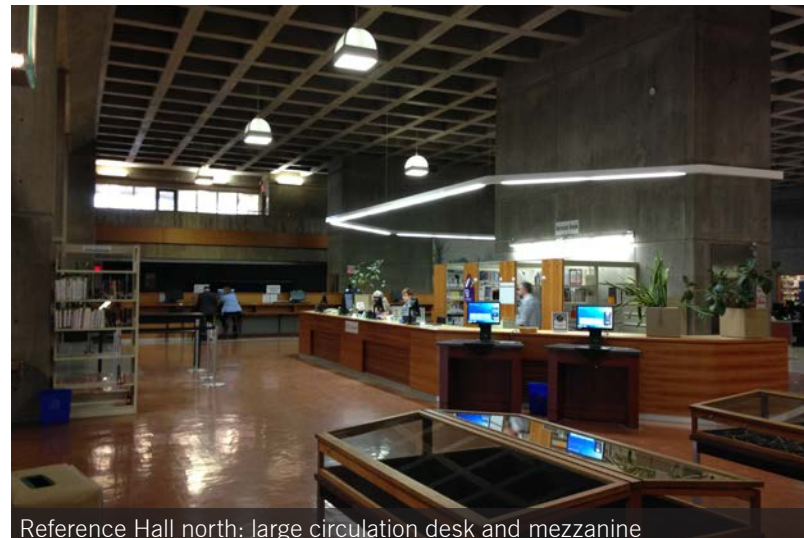


WELDON LIBRARY: EXISTING PLANS

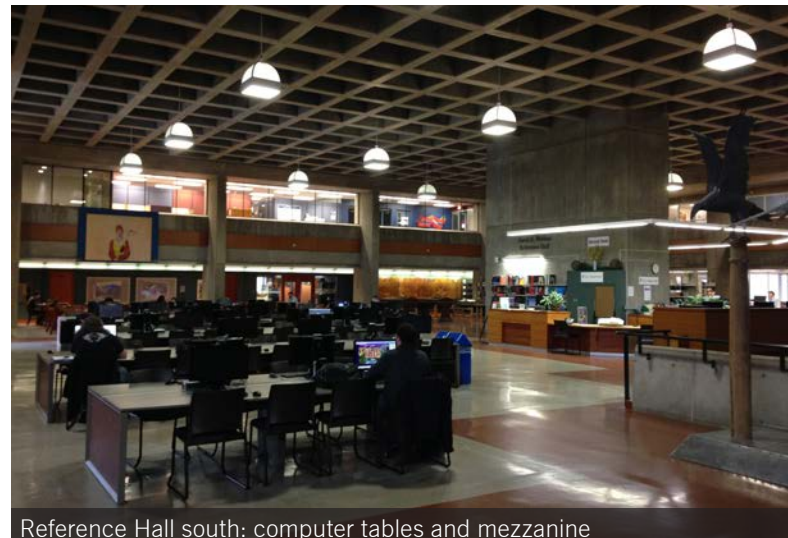




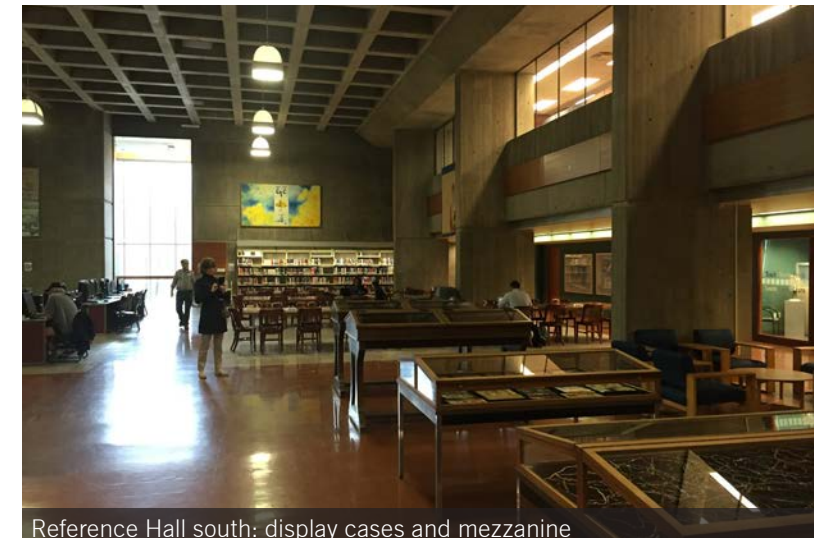
## WELDON LIBRARY: PHOTO SURVEY



Reference Hall north: large circulation desk and mezzanine



Reference Hall south: computer tables and mezzanine



Reference Hall south: display cases and mezzanine



Weldon Reference Hall: view from north mezzanine. Though the hall is generously scaled, insufficient lighting, heavy furniture, and privatization of mezzanine windows make the space feel dark and enclosed



WELDON LIBRARY: PHOTO SURVEY



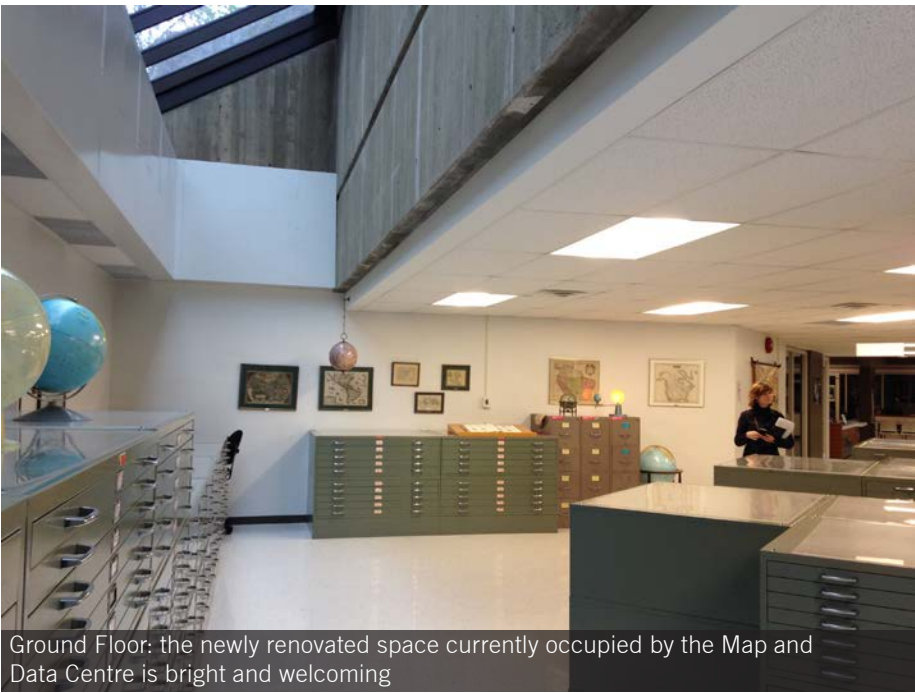
Mezzanine: currently used staff offices and informal storage



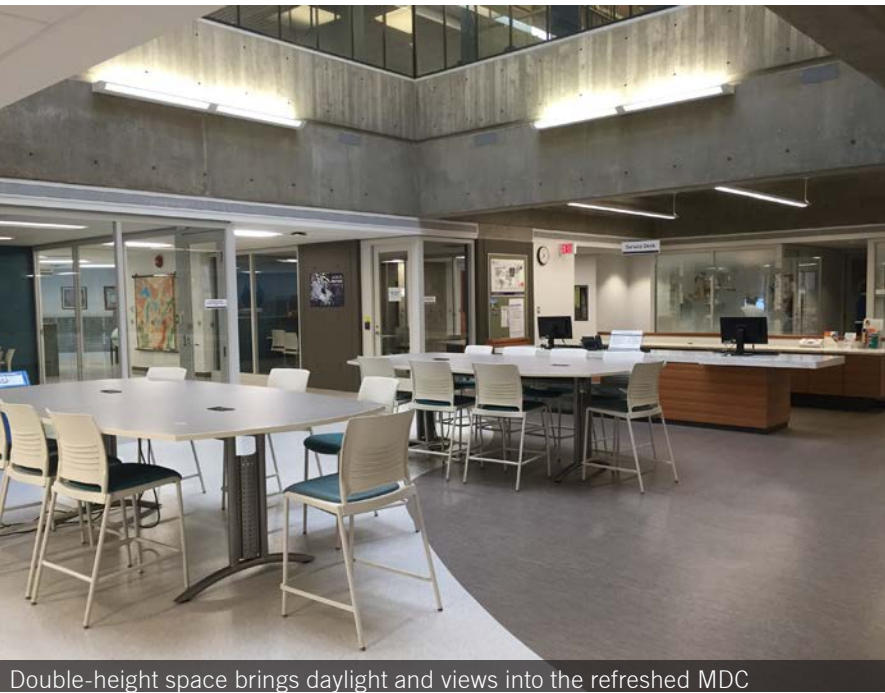
Level 01 study seats. Interconnected floor space and skylights provide a welcome focal point



Ground Floor: microforms and microfiche collections



Ground Floor: the newly renovated space currently occupied by the Map and Data Centre is bright and welcoming



Double-height space brings daylight and views into the refreshed MDC





Level 2: open seating typically takes the form of carrels or tables and chairs



Level 02: sections of banquette seating are popular for group work



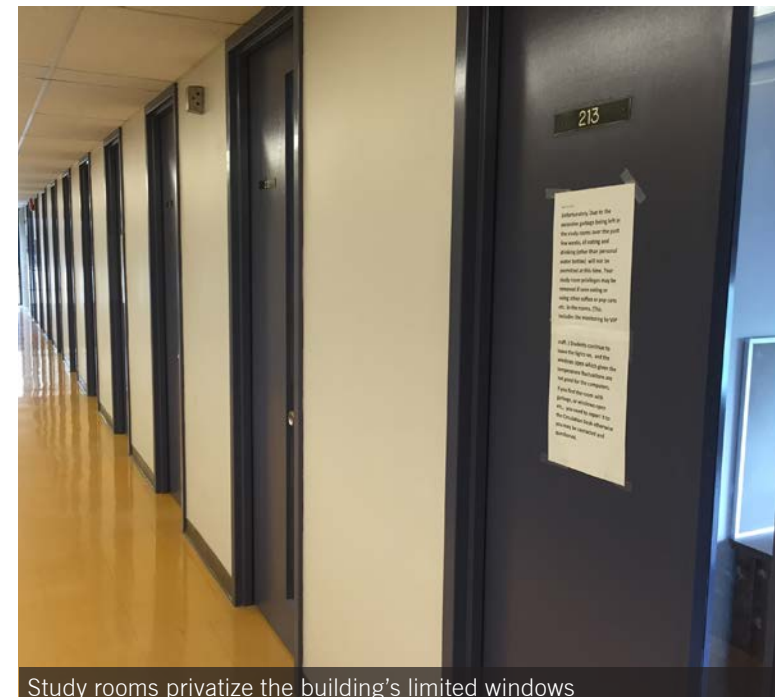
Level 2 classroom



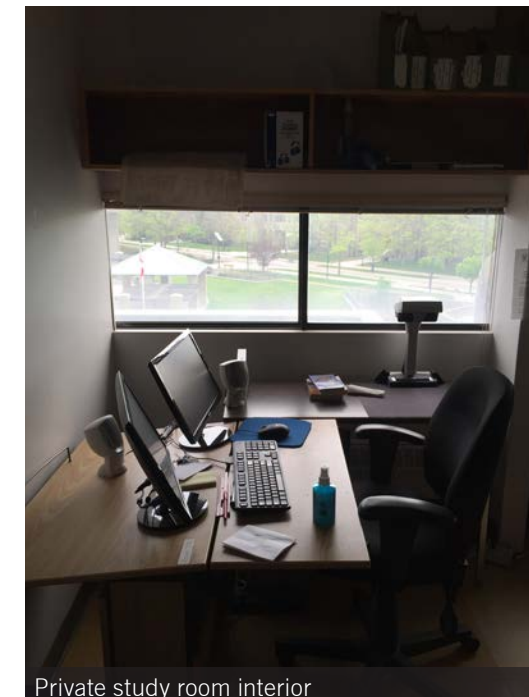
Stacks areas are densely packed and badly lit...



...discouraging browsing and exploration

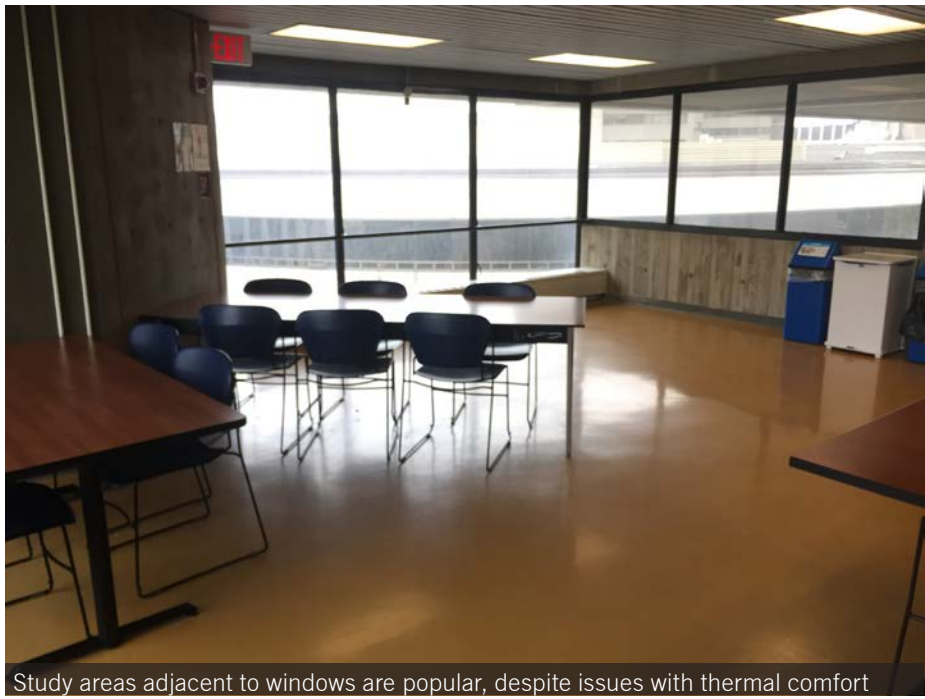


Study rooms privatize the building's limited windows



Private study room interior

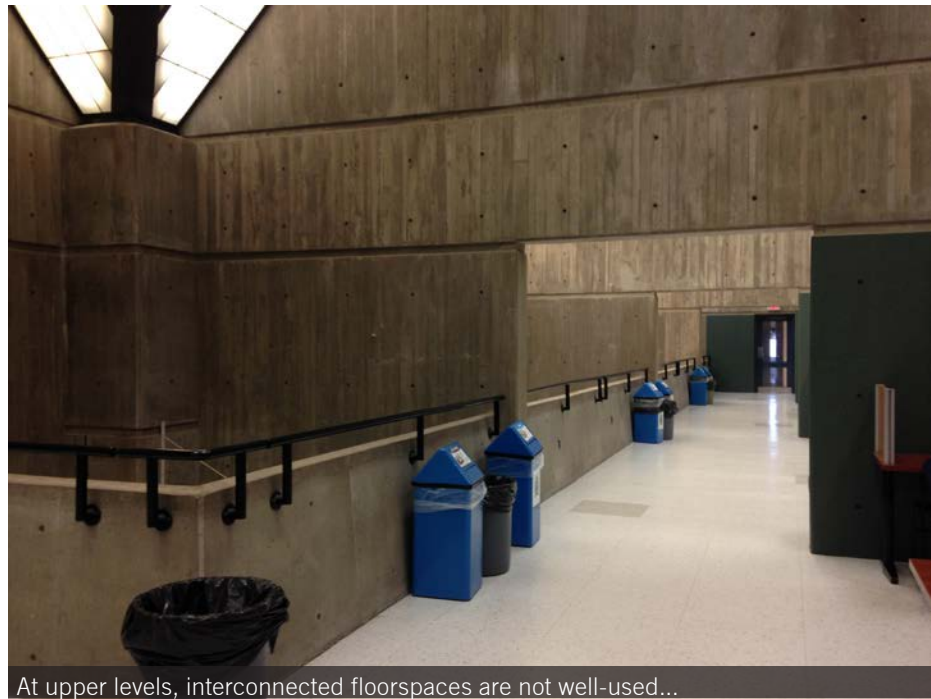




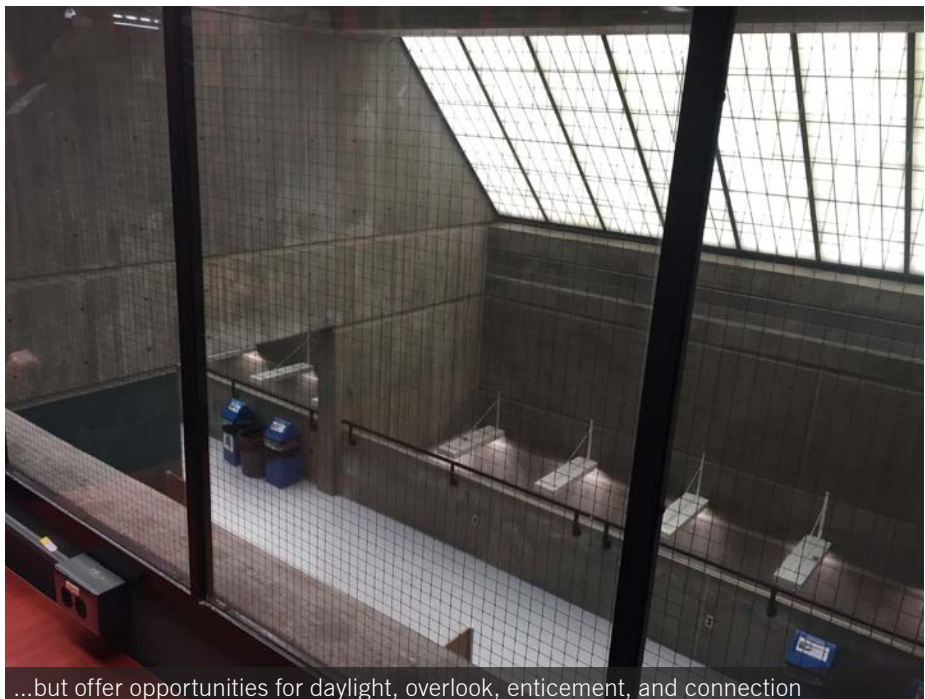
Study areas adjacent to windows are popular, despite issues with thermal comfort



Typical group study room



At upper levels, interconnected floorspaces are not well-used...



...but offer opportunities for daylight, overlook, enticement, and connection



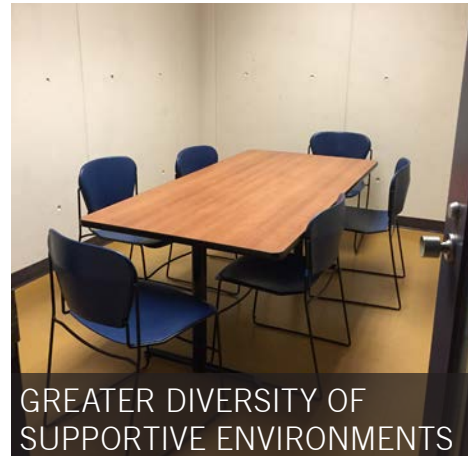
Skylights are semi-opaque, limiting views and necessitating artificial lighting below



Level 6: sky-lit study area. Note typically high-quality workmanship of concrete.



## WELDON LIBRARY: KEY CONSIDERATIONS



GREATER DIVERSITY OF SUPPORTIVE ENVIRONMENTS

While Weldon provides a substantial number of study seats, capacity does not meet user needs during busy periods of the academic year. Limited hours, particularly during high-focus periods, are a common concern.

The majority of seats in Weldon are in one of two formats—either loose tables and chairs or individual study carrels, typically in large ranges. A select few group study rooms are provided on upper levels, though these lack appropriate technological support. Most spaces are single-use, with limited capacity to adapt over the course of the day, week, or semester.

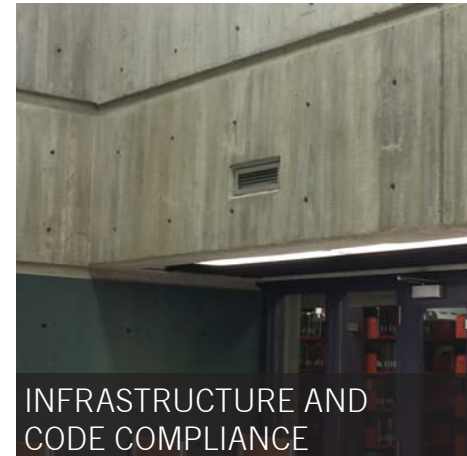
In general, the study spaces within the library do not support the breadth of learning and research activities required of contemporary students and researchers, and do not promote the kinds of cross-disciplinary collaboration that define 21st-century scholarship.



ACCESS TO LIGHT, VIEWS AND SPATIAL RELIEF

Weldon's idiosyncratic architecture poses a variety of challenges to both current occupation and future revitalization. Limited glazing and translucent skylights means many areas in the building lack access to daylight and views. An accretion of cellular space at the building's perimeter has exacerbated this issue: private offices and study rooms cut off much of the daylight that could be available, despite these spaces' sometimes limited use. At a larger scale, the building's exposed concrete structure—one of the predominant interior materials—poses challenges in terms of service delivery and the re-partitioning of space.

In conjunction with these issues, inadequate lighting, tired furniture, and a lack of environmental comfort can create an oppressive atmosphere. The 'bones' of the building, however, offer many potentially inspiring spaces, and recent renovations demonstrate the potential of modest interventions to fundamentally transform the interior experience.

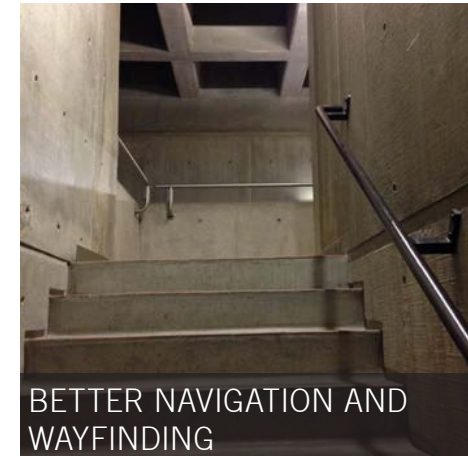


INFRASTRUCTURE AND CODE COMPLIANCE

The majority of the engineering systems within the building are original, sized for a building that accommodated more books than people. While these systems are generally in good condition, they do not have the capacity to serve the building's increased occupant load. Washrooms are similarly under-sized for current occupancy levels, and washroom dimensions and layouts do not reflect current accessibility standards. The majority of occupied spaces within the building are not currently sprinklered.

Electrical and IT service face similar challenges. While overall capacity within the building is good, distribution across floorplates is insufficient. Most occupied spaces are under served in terms of power and data, limiting the work that students and researchers can do. Artificial lights throughout the building are substandard and do not provide adequate levels of illumination.

Refer to Engineering Report (Appendix C) for a more detailed analysis of building services and infrastructure.

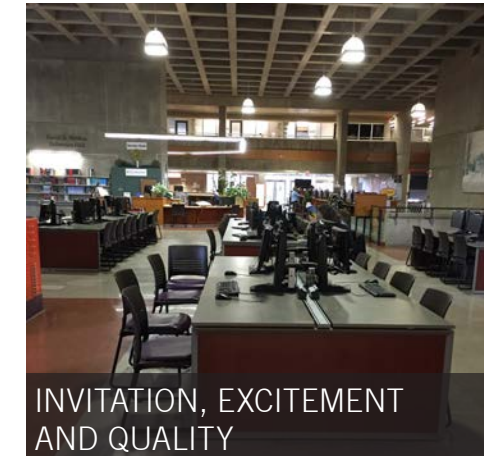


BETTER NAVIGATION AND WAYFINDING

While visual connections between floors are relatively frequent, physical connections are limited. Access to level two and above can only occur via elevators or fire stairs, leading to congestion at the elevator lobby and slow service vertically. During consultations, many students reported never having ventured beyond the ground floor as a result of the building's compromised wayfinding and uninviting circulation.

At lower levels, the building's sprawling footprint and idiosyncratic geometries can create moments of confusion. On the floors above, the building's mirrored plan, limited access to views, and repetitive furniture and finishing can be homogenizing and disorienting.

In general, this lack of intuitive wayfinding discourages exploration and limits serendipitous encounters with collections, activities, or peers.



INVITATION, EXCITEMENT AND QUALITY

Now forty-five years old, much of the space in Weldon feels tired. This is a combination of many factors—inadequate lighting, including limited access to daylight; aging furniture and finishes; insufficient learning spaces; and the gradual accumulation of many generations' interventions, to name a few—but the combined impact is one of outdated and uninspiring space, ill-suited to an institution of Western's calibre.

The library is a critical resource for all of Western's many scholars, with a mandate to enable and inspire excellence. At a campus level, the library plays a critical role in exemplifying the University's aspiration to "achiev[e] excellence on the world stage" and become the "destination of choice for the world's brightest minds". This requires not only the right resources, but also the right space—the space of innovation, excitement, and discovery.



## TAYLOR LIBRARY

The Taylor Library is located at the north end of the Natural Sciences building. The current library, designed in 1990 by Moffat Kinoshita Architects, replaces an earlier structure built as part of the Natural Sciences Centre, and incorporates the stack tower from the original construction.

The main volume of the library, housing student space, staff space, and limited collections, is distributed over three floors. The stack tower, located to the southwest of this volume, uses a structural stack system of half-height levels to create two floors of stacks for each floor of library, and accommodates the majority of the library's collection. The library is accessed through the Natural Sciences Centre and beyond a cafe and study area. Because the complex occupies a sloping site, the library is entered at the top, at the same level as the Natural Science Centre's ground floor and Middlesex Drive to the south.

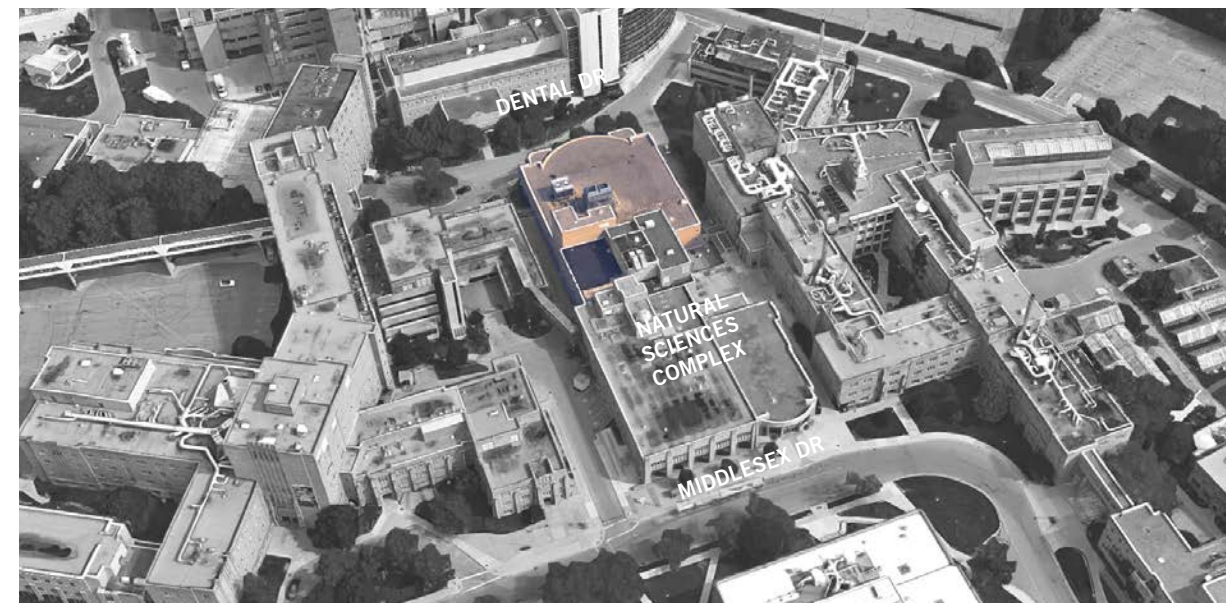
The main floors of Taylor are oriented axially between the entry at the south and the building's curved facade to the North, overlooking Dental

Drive. Cellular programs are oriented along the east and west sides of the floorplan, making the north face the only wall with significant quantities of natural light. Open seating occupies the centre of the floorplate. On the lower two floors, as in Weldon, this seating is provided in the form of tables and chairs or study carrels. A recent renovation to the upper floor has introduced a variety of new furnishings that accommodate a much greater range of activities than previously. This renovation has proven extremely popular.

The stack tower provides a very limited quantity of seating, and is used primarily for collections storage.

### SERVICE AND PROGRAM

Just under half of Taylor's total floor area is devoted to print collections, the majority of which are stored in the half-height floors of the stack tower. General learning and study space makes up one third of the assignable area, and the library has a small proportion of specialized learning spaces, including a handful of group study rooms and some larger, multi-purpose



instruction and study rooms. In total, the library offers approximately 1,300 study seats, not including approximately 130 seats in the cafe area. Staff occupy approximately one sixth of the total floor area.

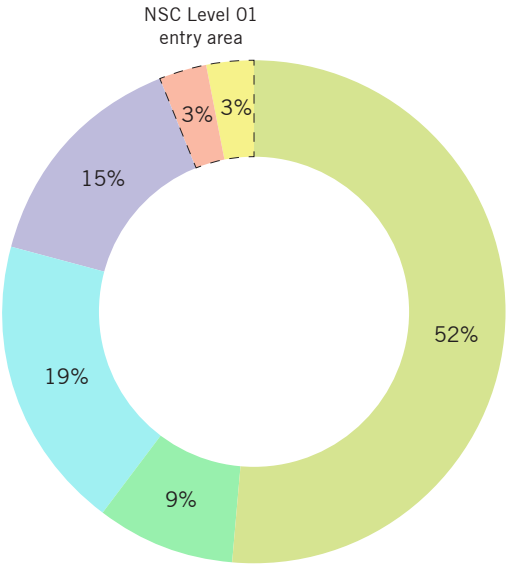
Because of its location on campus, Taylor primarily serves students in the sciences. The library receives approximately 660,000 visitors each year, and between 4,000 and 4,500 daily visitors during exam periods. Though it is the University’s second largest library, with a substantial quantity of study seating, the attenuated entry sequence and lack of a legible front door limit the library’s presence on campus. The library structure has street frontage onto Dental Drive, but there is no way to enter the building from the north side.

Like Weldon, Taylor also faces a number of key challenges:

- A high proportion of space is devoted to general collections storage, while study space is at a premium on campus
- Study spaces lack variety, with the majority of seats located at carrels or at open tables, precluding many types of learning activity
- Large, undifferentiated floorplates with limited access to daylight can feel relentless
- The existing stack tower does not meet current building code in terms of fire separation between floors.
- The existing entry sequence for the library is unintuitive and convoluted, compromising the library’s presence on campus

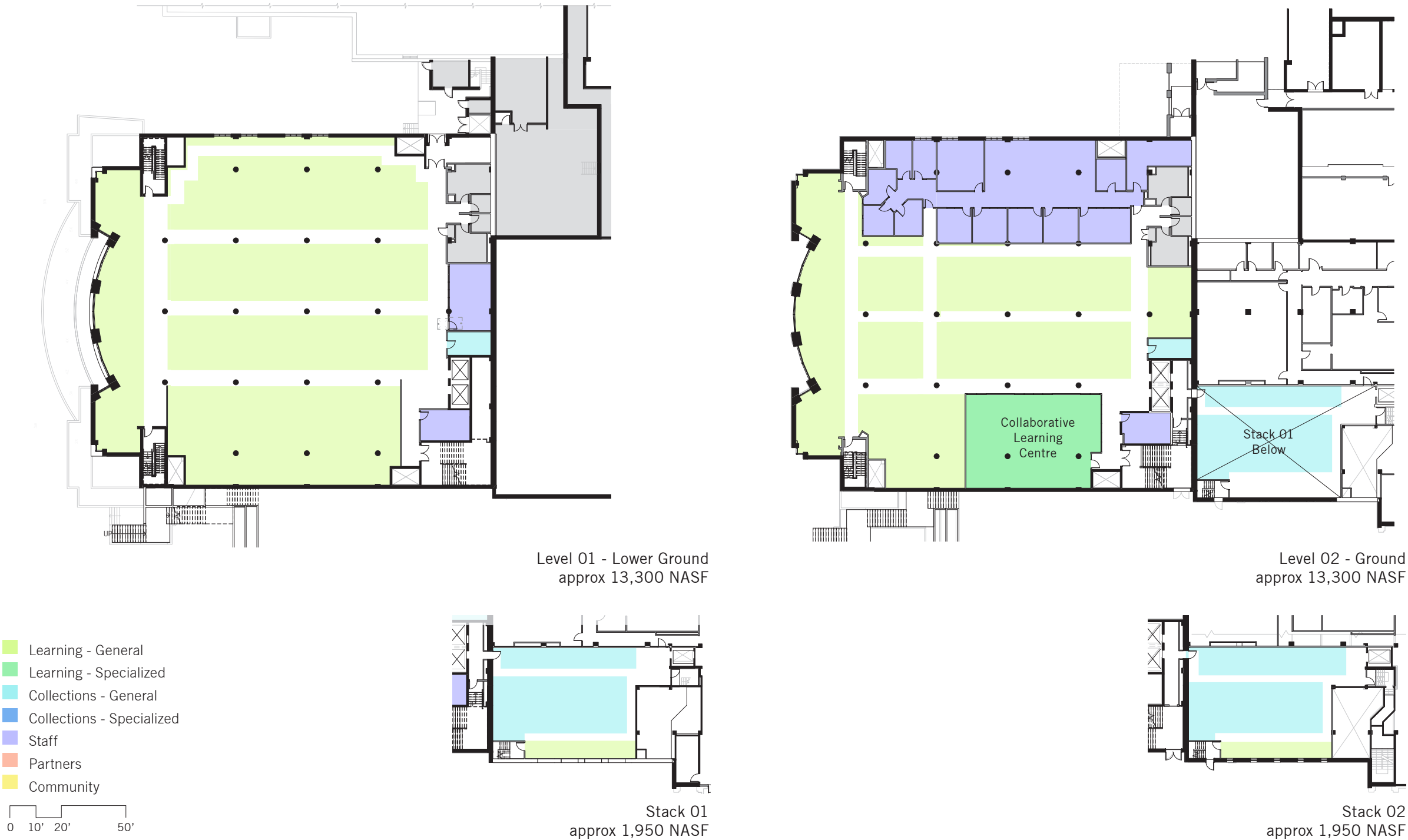
TAYLOR LIBRARY: CURRENT PROGRAM

PROGRAM	AREA (SF)
LEARNING - GENERAL	27,968
LEARNING - SPECIALIZED	4,892
COLLECTIONS - GENERAL	10,136
STAFF	8,093
PARTNERS	1,350
COMMUNITY	1,863
TOTAL ASSIGNABLE AREA	54,302





TAYLOR LIBRARY: EXISTING PLANS

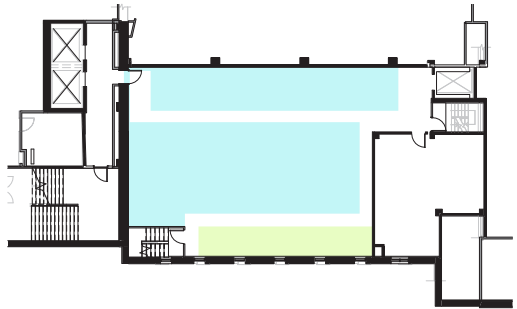
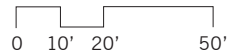


# TAYLOR LIBRARY: EXISTING PLANS

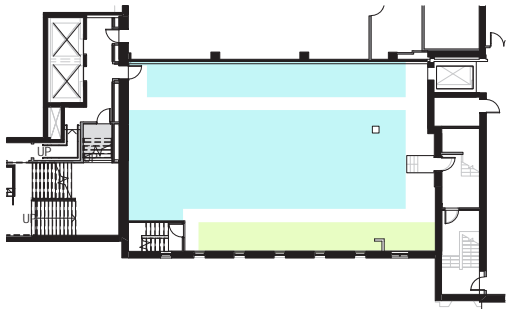


Level 03 - NSC 01 + Stack 03  
approx 17,500 NASF (incl. 3,200 NASF cafe and public)

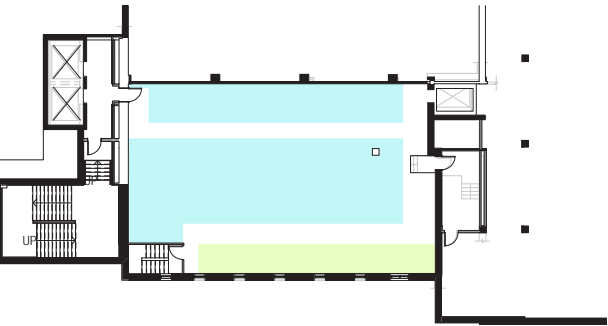
- Learning - General
- Learning - Specialized
- Collections - General
- Collections - Specialized
- Staff
- Partners
- Community



Stack 04  
approx 1,950 NASF



Stack 05  
approx 1,950 NASF



Stack 06  
approx 1,950 NASF



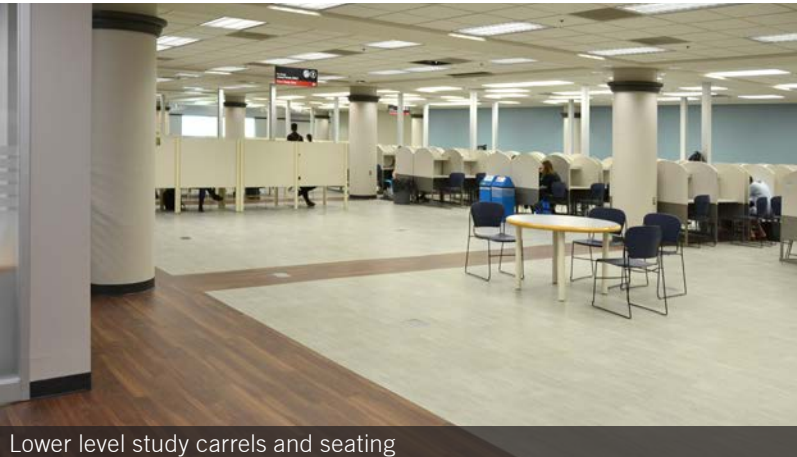
TAYLOR LIBRARY: PHOTO SURVEY



The newly-renovated Taylor Learning Commons



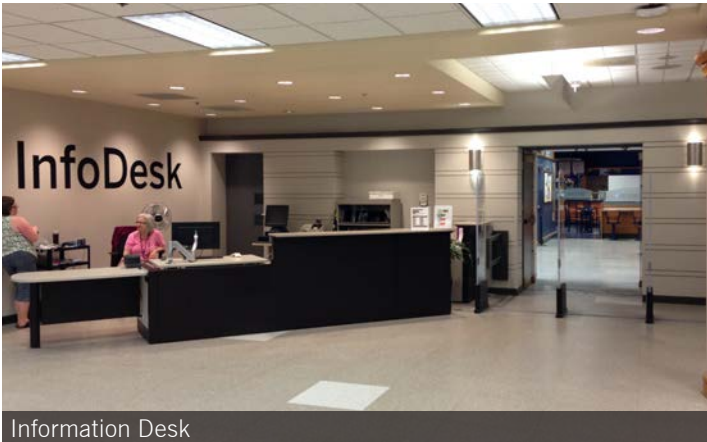
Entrance to Taylor Library from Einstein's Cafe



Lower level study carrels and seating



Structural stack system



Information Desk



Group study / meeting room



New group study room



Stack area study seats



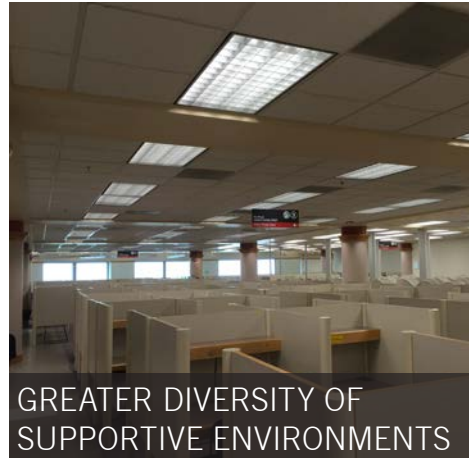
## TAYLOR LIBRARY: KEY CONSIDERATIONS



INFRASTRUCTURE AND  
CODE COMPLIANCE

The existing Taylor stack tower employs a Snead-type structural stack system with a floor-to-floor height of approximately 7'6". The verticals for the shelves are continuous, with metal infill panels forming the intermediate floors.

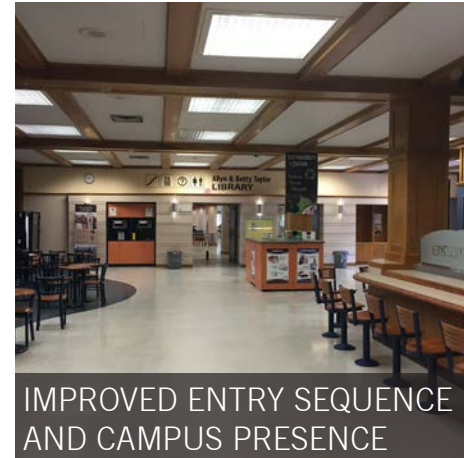
The dimensions of the system do not meet current standards for accessibility, and the plan layout creates dead ends and areas of limited visibility. The continuous verticals and unsealed floors do not meet current building code requirements for fire and smoke separations between floors. As such, this area represents a potential liability for the library system and the University.



GREATER DIVERSITY OF  
SUPPORTIVE ENVIRONMENTS

Taylor's large, open floorplates are primarily furnished with a combination of open table seating and private carrel seating. These limited options only accommodate a minority of study styles, and do not enable the broad range of learning behaviours required of today's students and researchers. At Taylor, the homogeneity of study space also creates a somewhat relentless interior experience on the lower floors.

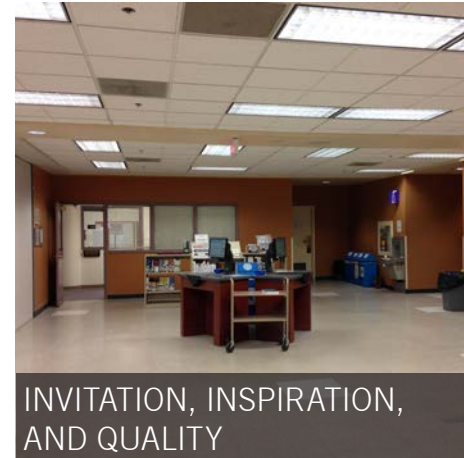
The library has recently refreshed the open seating area of the upper floor, introducing new and more varied furnishings. This renovation has transformed the space and proven very popular with students, making it a useful model for future work.



IMPROVED ENTRY SEQUENCE  
AND CAMPUS PRESENCE

Taylor's position within the larger Natural Sciences Centre (NSC) compromises its relationship to the rest of the Western campus. The library has no dedicated front door; its main entry is more than 200 feet from the NSC's Middlesex Drive entrance, down a long and circuitous corridor and through a cafe that gives little indication of the library beyond. While the building enjoys street frontage to the north along Dental Drive, this facade has no entrance.

This attenuated entry sequence and lack of permeability diminish Taylor's presence on campus, compromising wayfinding, limiting accessibility, and precluding opportunities to enhance outreach and engagement.



INVITATION, INSPIRATION,  
AND QUALITY

Though Taylor occupies a less idiosyncratic structure, it suffers from some of the same issues as Weldon: limited access to daylight; substandard artificial lighting; aging furniture and finishes and insufficient learning spaces. The impact of these challenges is also similar—space that can feel tired and uninspiring, ill-suited to an institution of Western's calibre.

Western's libraries should embody the University's core values and aspirations, both by providing the necessary resources and by providing spaces that promote inspiration and enable innovation.



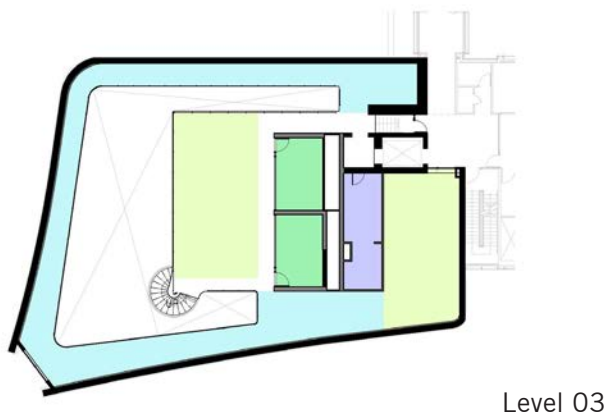
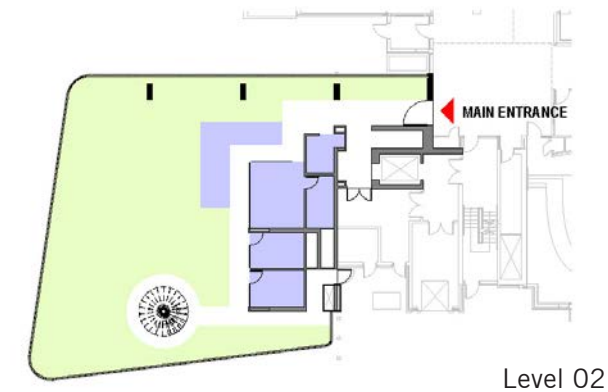
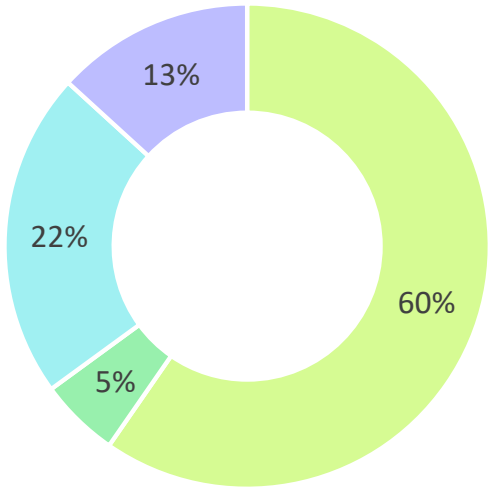
# C.B. 'BUD' JOHNSTON LIBRARY

The Johnston Library is located in the new Richard Ivey Building at the Ivey Business School, built in 2013. The library supports the Ivey Business School and occupies two floors. The main floor houses the circulation desk, staff space, and the majority of student study space, with books, print materials, and some additional study space housed on the mezzanine.

With its interconnected floorspaces and predominance of hard, sound-reflecting surfaces, the library has a reverberant sound profile, and its acoustic performance has been a concern for some users. In July 2015, HGC Engineering undertook an acoustic analysis of the library, and identified several strategies for improvement of the library's acoustic performance. These should be undertaken as practical and desirable.

Beyond these measures, however, as a newly-completed library within an award-winning new building, the Johnston Library is not in need of renovation at this time.

PROGRAM	AREA (SF)
LEARNING - GENERAL	4,944
LEARNING - SPECIALIZED	442
COLLECTIONS - GENERAL	1,808
STAFF	1,114
TOTAL ASSIGNABLE AREA	8,308



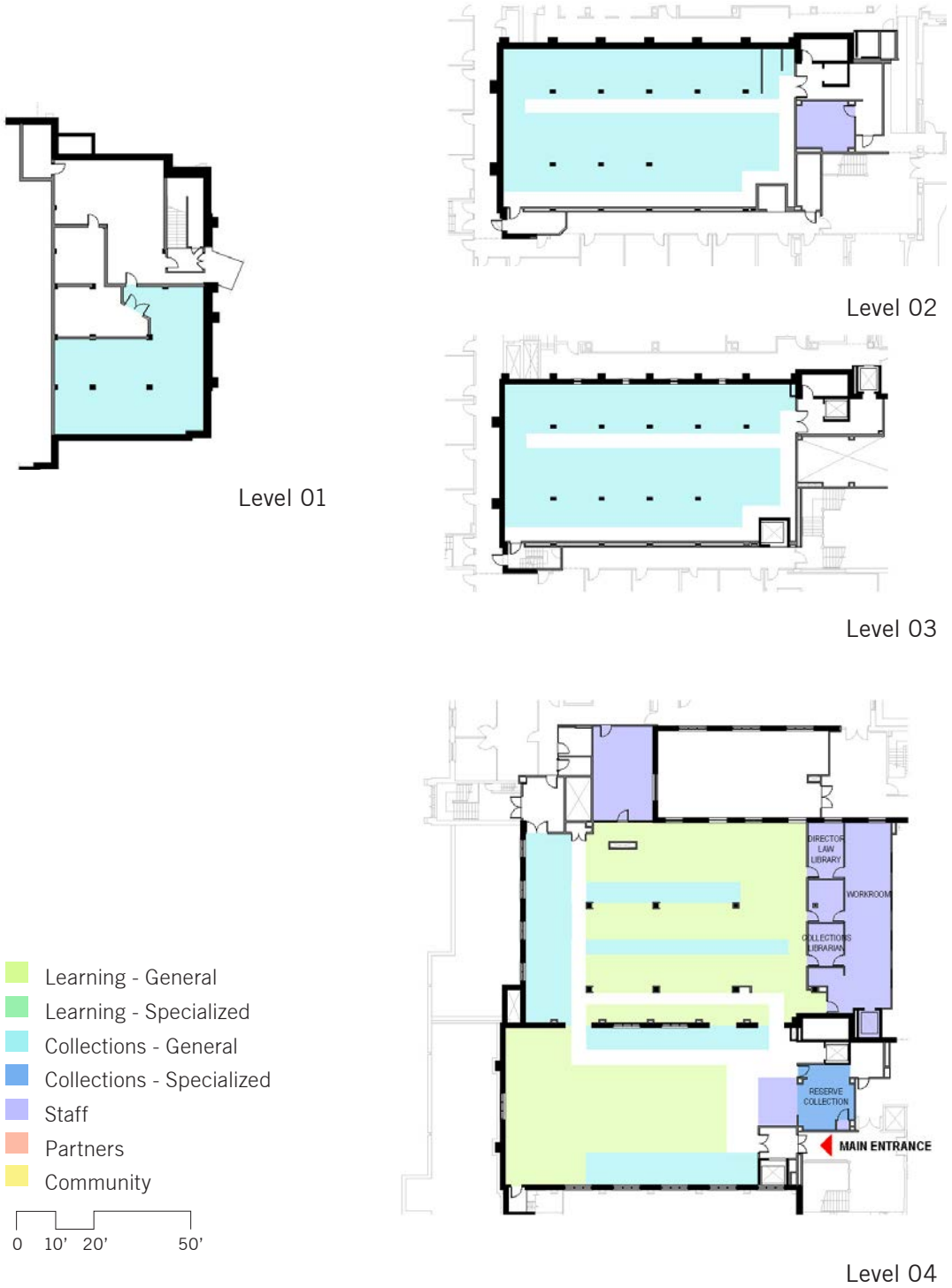
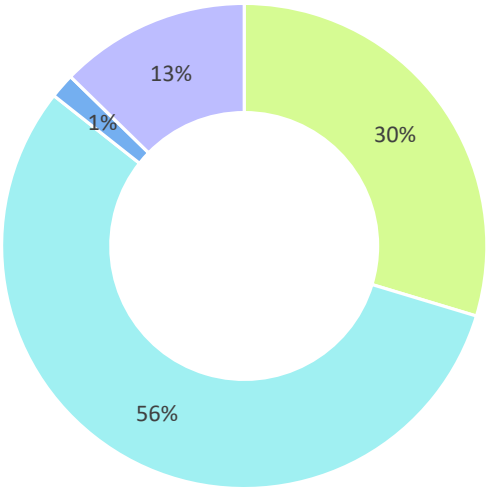
# JOHN & DOTSA BITOVE FAMILY LAW LIBRARY

Located within the Josephine Spencer Niblett Faculty of Law Building, the Law Library is distributed over four levels. Like Taylor library, access occurs at the top floor, which accommodates the majority of the library's learning and staff space. The lower three levels house collections in a structural stack system very similar to that used at Taylor.

The main reading room is a vaulted, double height volume lined with bookshelves—an airy and inspiring space that is well-suited to the collections it houses. The remainder of the Level 4 floor, which was renovated in 2013 as part of larger works within the building, provides a range of study spaces intermingled with collections and supported by staff space. The library and faculty share a dual-access meeting room on the west side of the building.

In general, given the specialized nature of its collections and the faculty that it serves, the Law Library is not in need of substantial alterations. As at Taylor, the structural stacks do not reflect current building code requirements, though the scale of installation in this case is reduced. Over time, the library should ensure that the study space provided continues to be well suited to the activities of Western's Law students.

PROGRAM	AREA (SF)
LEARNING - GENERAL	4,712
COLLECTIONS - GENERAL	8,892
COLLECTIONS - SPECIALIZED	263
STAFF	2,018
<b>TOTAL ASSIGNABLE AREA</b>	<b>15,885</b>





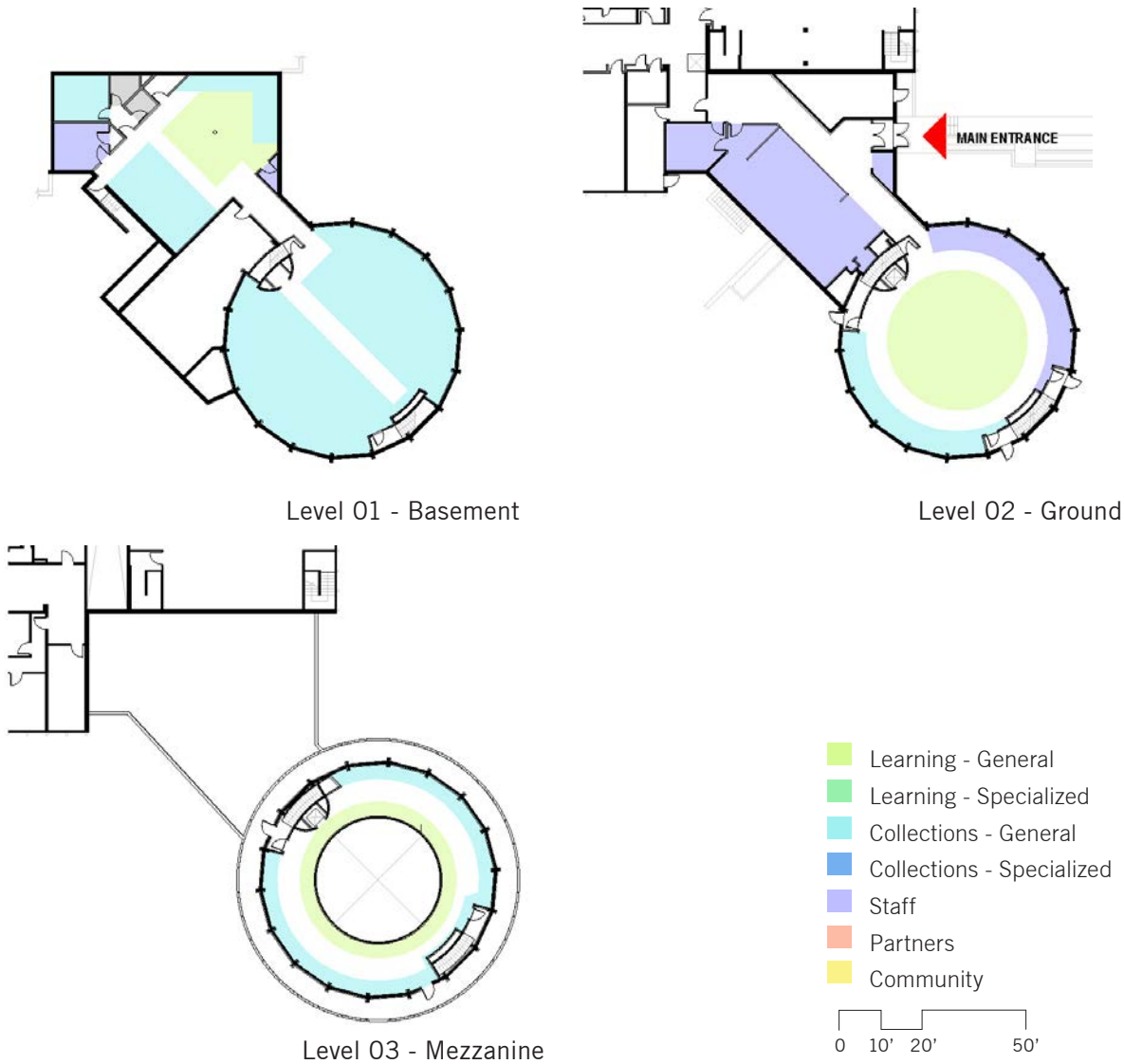
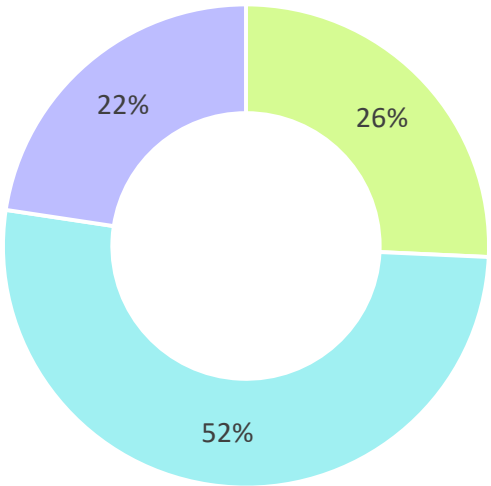
# EDUCATION LIBRARY

The Education Library is located at the northeast corner of the John G. Althouse Faculty of Education Building, a 1960s structure that was originally built to replace the London Normal School. The library itself occupies a distinctive circular structure with a ground floor reading area, a second level mezzanine, and basement stacks.

The library’s current program is somewhat driven by its idiosyncratic architecture. The ground floor and mezzanine house open learning space with limited collections; staff space, which occupies a very large proportion of total program area, is located adjacent to the main entrance; and the bulk of collections materials are located in the basement. As in other libraries, the majority of study space takes the form of tables and chairs or carrels. Group work tends to occur in the open, creating acoustic challenges, and opportunities for technology-enriched learning or study are limited.

The Education Library has been the subject of other studies and is beyond the scope of this Master Plan.

PROGRAM	AREA (SF)
LEARNING - GENERAL	1,874
COLLECTIONS - GENERAL	3,763
STAFF	1,647
TOTAL ASSIGNABLE AREA	7,284

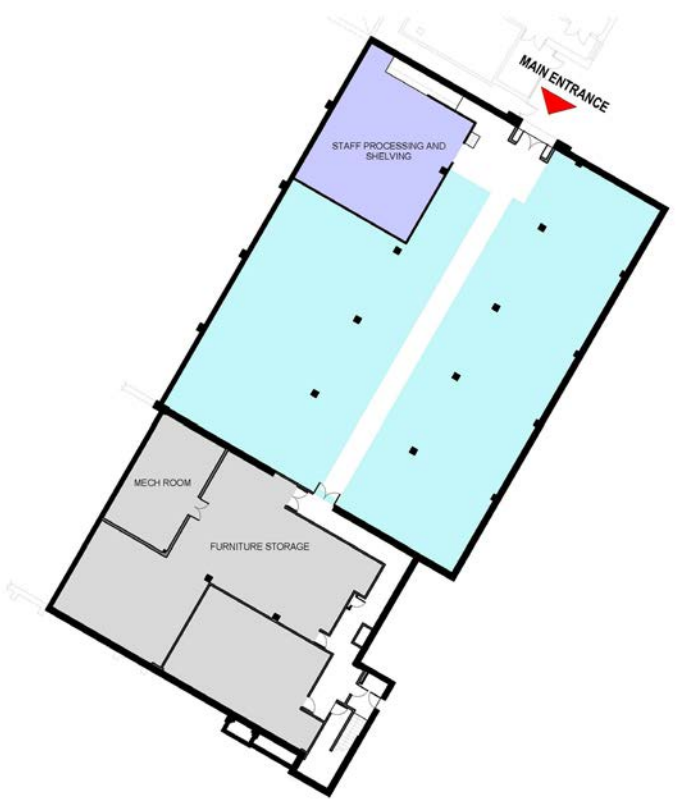
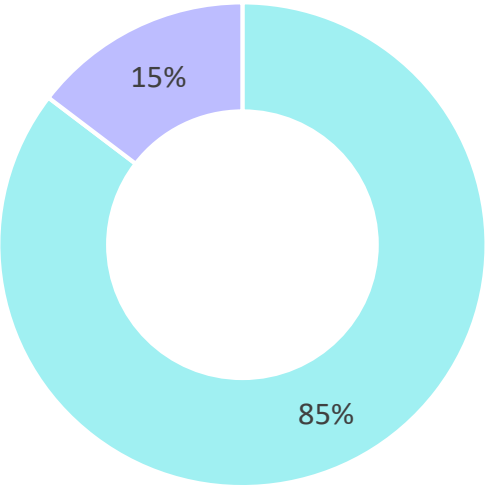


# RESEARCH DEPOSITORY

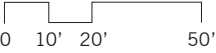
The research depository occupies a portion of the basement level of the Dental Sciences Building. One of two staff-only library locations, the depository houses provides storage space for low-use collections and furnishings, with a small allocation for staff space used for sorting and administration of collections storage functions. This space is not regularly occupied.

No changes are proposed for the depository. Over time, the facility is planned to be decommissioned, with collections moved to other storage facilities.

PROGRAM	AREA (SF)
COLLECTIONS - GENERAL	6,651
STAFF	1,139
<b>TOTAL ASSIGNABLE AREA</b>	<b>8,308</b>



- Learning - General
- Learning - Specialized
- Collections - General
- Collections - Specialized
- Staff
- Partners
- Community



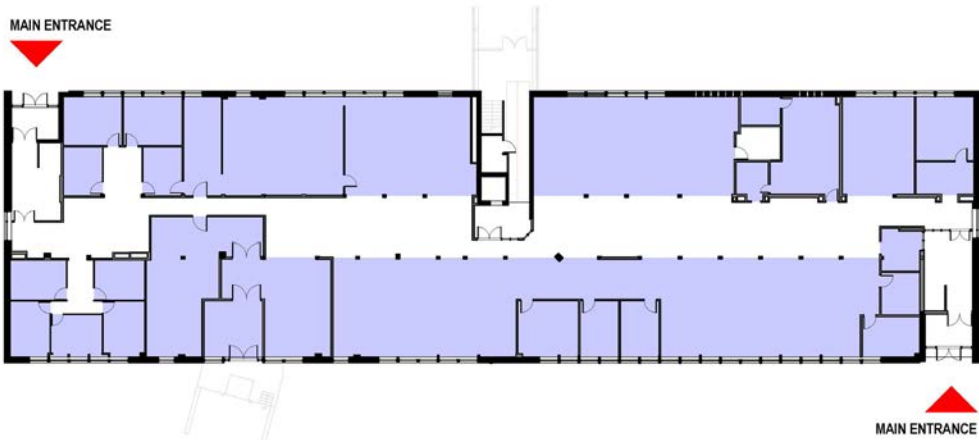


# ELBORN COLLEGE

The offices of Libraries Information Resource Management (LIRM) and Library Information Technology Services (LITS) are housed in Elborn College.

The building, constructed in the 1960s, is in need of maintenance, and is identified as a Secondary Development Site within the 2015 Campus Master Plan. As such, the building does not represent a suitable long-term location for library staff or services.

PROGRAM	AREA (SF)
STAFF	10,562
TOTAL ASSIGNABLE AREA	10,562



Level 01



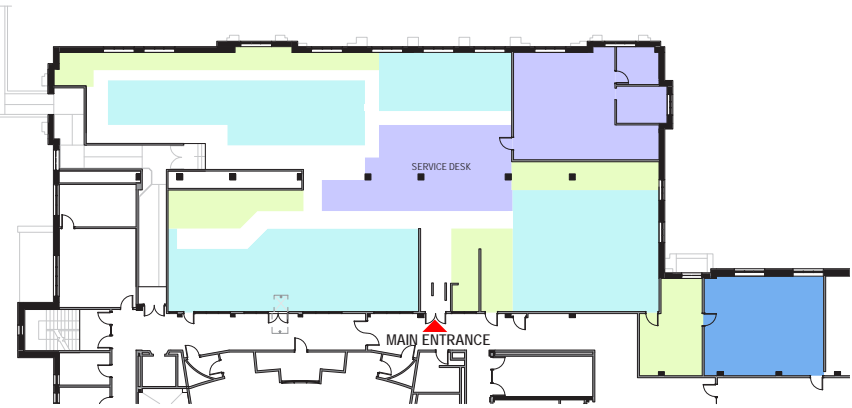
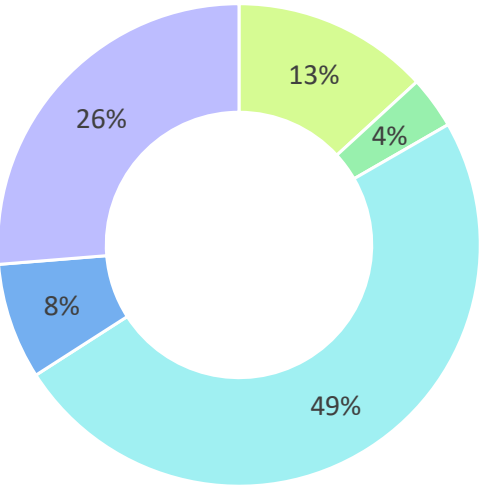
# MUSIC LIBRARY

The Music Library currently occupies two floors of Talbot College, southwest of the University Drive entry to the campus. The public space of the library is located on Level 03 and entered through Talbot College; Level 02 accommodates additional staff and collections storage space, including some high-density shelving.

Today, half of the library’s footprint is devoted to collections, which include monographs, scores, and audio/video materials. This material forms an integral part of the curriculum within the Faculty of Music. Areas for general and specialized learning are limited, and distributed peripherally relative to the collections areas, primarily in the form of open tables and chairs. In general, while the library enjoys a unique program and mandate, the physical environment does not reflect this specialized character.

In 2012, the University and the Faculty of Music undertook an analysis of a potential renovation and addition to Talbot College, which included a substantially renovated and expanded library. The plans proposed locating the library over three floors of Talbot College, expanding the library’s footprint on Level 2 and repurposing space on Level 4. The plans called for a substantial expansion of general and specialized

PROGRAM	AREA (SF)
LEARNING - GENERAL	1,219
LEARNING - SPECIALIZED	324
COLLECTIONS - GENERAL	4,552
COLLECTIONS - SPECIALIZED	720
STAFF	2,430
TOTAL ASSIGNABLE AREA	9,245



Talbot College Level 03



Talbot College Level 02













# PLANNING PROCESS





# MASTER PLAN PROCESS

The Master Planning process began in June 2016 with a kick-off meeting of the consultant team and Master Space Plan Steering Committee. This meeting focused on establishing parameters, setting goals, confirming assumptions, and exploring a vision for the library.

Throughout the project, the Steering Committee and the Western Libraries Advisory Group guided the development of the plan, providing the design team with direction, feedback, and additional information as required. The primary contacts throughout the process were Melinda Rigole from Facilities Management and Catherine Wilkins from Western Libraries, who together acted as liaison's between the design team, the Library, the Facilities Management group, and University administration.

The planning process began in the summer with a detailed analysis of existing conditions. This began with a review of relevant background material: the *Western University Strategic Plan: Achieving Excellence on the World Stage* (2014), the *Western University Campus Master Plan*

(2015), and the *Western Libraries Strategic Plan* (2015). These documents provided the basis for subsequent analysis and thinking, with the *Western Libraries Strategic Plan* in particular defining a clear and compelling vision for the library system as a whole. Concurrently the consultant team toured each of the library spaces. These tours formed the basis for the documentation of existing conditions. A detailed observational study, undertaken over two days in October, focused on programming, occupation, and usage within Weldon and Taylor. That report is provided in Appendix A.

Engagement activities began in late August as the campus prepared for the 2016-17 academic year. Workshops and presentations continued through February as the design developed, ensuring regular feedback from stakeholders at all levels. These sessions are described in detail on page 36.

Work began with the development of a master program, which provides the basis for the master plan and proposes:

- the addition of spaces that are not in existence but have institutional and student/ staff/faculty support;
- increases to spaces where current or future demand outweighs current supply
- reduction of space for areas that are anticipated to require less space in the future;
- deletion of spaces that are seen as unnecessary in the future.

Once a draft program had been approved by the Steering Committee, the consultant team developed a series of planning and stacking options, focusing on Weldon and Taylor libraries. The planning process took an iterative approach, with the team presenting planning options to the Steering Committee and Advisory Group at each monthly meeting. Options were revised, synthesized, and combined based on feedback from these groups and other stakeholders. This report documents the preferred plan developed as the outcome of this iterative process. The phasing strategy for the project developed in a similar fashion.

Hanscomb Limited provided costing services for the master plan preferred option. Their report forms part of this document as Appendix D.

The final plan reflects a broadly consultative process and represents a compelling shared vision for the future of Western Libraries.

# ENGAGEMENT

A series of surveys, workshops and presentations on-site formed the basis for the development of the final Master Plan. These covered four areas of investigation: an overall assessment of Library facilities and services; the development of a vision for the master plan as a whole; the development of a revised program for the Library; and the creation of the floor plans and phasing approach that appear in this report.

## STRATEGIC PLAN AND LIBQUAL SURVEYS

A wealth of data collected during the development of the Western Libraries Strategic Plan and as part of the Libraries’ 2016 LibQual assessment provided the foundation for the development of the Master Plan.

Both drew on the input of staff, faculty, undergraduate and graduate students, and other campus and community partners. More than 3100 students and 175 campus partners provided input for the Strategic Plan, and almost 1700 additional participants (including more than 1450 students and more than 200 faculty and staff members) participated in the LibQual Survey. The data from these documents provided a comprehensive overview of users’ perspectives

on the Libraries’ services, resources, facilities, and experiential qualities, and in the case of the Strategic Plan, defined a clear space vision for the development of the Master Plan.

## STAFF WORKSHOPS September 1, 2016

Two 1.5 hour sessions involving 65 members of library staff from diverse locations and departments, with members of the Steering Committee and Advisory Group attending. Participants were divided into table groups and provided with recording materials (poster sized paper / markers / sticky note pads).

The team gave an overview of the master planning process, a review of current thinking on library planning and design, and a summary of their analysis to date.

## GROUP EXERCISES

*Exercise 1: Gap Analysis.* Each table was assigned one of the eight Strategies of Excellence from the *Western Libraries Strategic Plan*, and discussed the ways in which current library spaces supported or limited that strategy.

*Exercise 2: Personae.* Each table was given a card with a persona to develop a ‘day in the life’

story for two library-use scenarios for the years 2020 and 2040.

*Exercise 3: Programs and Partners.* Each table created an adjacency diagram for the library, adding new programs, partners, and connections as required.

The results of this workshop were summarized synthesized, shaping the development of the plan’s guiding principles. These were reported to the Steering Committee and Advisory Committee and were incorporated into the introduction portion of following workshops.

## FACULTY WORKSHOP October 3, 2016

A 90-minute roundtable session involving faculty members. The project team presented their synthesis of the material developed at the Staff Workshop, and participants discussed their thoughts on the library of the future, the vision for Western Libraries, and the needs and potential of library facilities today.

## STUDENT WORKSHOP

October 3, 2016

A 90-minute roundtable session with undergraduate and graduate students. The

project team led a discussion around the participants’ library usage, their thoughts on current library facilities, and their understanding of the library of the future.

After the roundtable, students were asked to identify the types of spaces they felt were required at Western Libraries. They were given a number of spaces to select from and were able to add more space types as desired. Students used coloured dots to indicate their preference for a particular space type. Learning and Community-oriented spaces were seen as most important, with strong support for the addition of presentation practice rooms, group study rooms, and an improved event and gathering space at Weldon.

## PROVOST TOUR AND PRESENTATION

January 24, 2017

Following development of an agreed-upon planning direction, the project team and Steering Committee presented the in-progress master plan to University administration, including Janice Deakin, Provost and Vice President (Academic); John Doerksen, Vice-Provost (Academic Programs); Jana Luker, Associate



Vice-President (Student Experience); Linda Miller, Vice-Provost (Graduate & Postdoctoral Studies); Karen Campbell, Vice-Provost (Academic Planning, Policy & Faculty); Julie McMullin, Vice-Provost & Associate Vice-President (International); Ruban Chelladurai, Associate Vice-President (Institutional Planning & Budgeting & IT). The presentation included a tour of the Weldon facilities and an update on the planning progress to date.

UCC POSTER SESSION AND STAFF UPDATE PRESENTATIONS February 28, 2017

The project team and Advisory Group hosted an all-day poster session in the UCC commons area, discussing the approach to the Master Plan and progress to date, answering questions about specific aspects of the Plan, and collecting feedback on proposed programming and planning details. The session was well-attended by students, staff, and faculty, with a steady stream of visitors over the 7-hour session.

Over the course of the day, the project team also hosted two update presentations for staff who had participated in the original staff workshops.



**ANNA**  
Graduate Student (full time)

Hi, I'm Anna. I'm a full-time Graduate Student. I have come to the library because **I am preparing a lecture.**



**JAMES**  
Post-Doctoral Fellow

Hi, I'm James. I'm a Post-Doctoral Fellow. I have come to the library because **I am curating an exhibit.**



**MATT**  
2nd yr Undergrad Student with a disability

Hi, I'm Matt. I'm in second year. I have come to the library because **I am working on a group presentation.**

Sample personae sheets for engagement exercises









# MASTER PLAN VISION AND PROGRAM





# MASTER PLAN VISION AND DEVELOPMENT

The vision and direction for the Western Libraries Space Master Plan synthesizes ideas and aspirations from four sources:

- the *Western University Strategic Plan: Achieving Excellence on the World Stage* (2014);
- the *Western University Campus Master Plan* (2015);
- the *Western Libraries Strategic Plan* (2015); and
- ideas, aspirations, and requirements developed over the course of the engagement and planning process.

The Mission and Vision statements that Western Libraries defined as part of its strategic planning process set the direction for the program and subsequent plans, serving as a Vision for the Space Master Plan as well. A Space Master Plan Vision was also created at the onset of this process. Onto this, the team overlaid ten trajectories in academic library development—more detailed concepts that incorporate both Western’s specific aspirations for the future, as described in the University’s Strategic Plan, and

the larger social, technological, and pedagogical trends that are transforming libraries and universities around the world.

The team distilled the Space Vision and Trajectories into five specific Program Goals for Western Libraries, which provided a framework for the development and analysis of the Master Space Program. This program was tested against the real-world constraints of the existing Weldon and Taylor library buildings in an iterative process. Test-fits within the existing floor plans helped the team identify limitations and opportunities presented by the existing architecture, with the program refined accordingly; the refined program was then re-tested within the architectural context. Throughout this process, the clearly-defined Vision, Trajectories and Goals ensured a consistency of direction.

The Master Program and Master Plan described in this report represent the final iteration of this process. They encompass collections, programming, user experience, and spatial sequence and character—a holistic approach that supports the Library’s mission to cultivate and mobilize knowledge and accelerate excellence in teaching, research, and scholarship.



## **WESTERN LIBRARIES MISSION**

As the academic commons of the University, Western Libraries provides the library and archival expertise and infrastructure—information resources, technology, people, and spaces—required to cultivate and mobilize knowledge, and accelerate excellence in teaching, research, and scholarship.

## **WESTERN LIBRARIES VISION**

We engage, inspire and empower students, scholars and researchers to achieve their full potential as global citizens and leaders.

## SPACE MASTER PLAN VISION

Western Libraries provides learning and research environments that inspire and engage Western's learners, teachers and researchers. Western Libraries' spaces are a dynamic, intellectual and cultural hub for campus. Our libraries, in form and function, are a platform for learning, discovery, research, and community engagement



# FUTURE TRAJECTORIES

Ten key concepts underpin the development of the Master Plan program. These combine the specific aspirations of Western Libraries and Western University with a more general analysis of the changes shaping institutions in the 21st century—changes that are social, pedagogical, technological, administrative, and operational.



## THE LIBRARY AS THE HEART OF CAMPUS / THE COMMONS AS THE HEART OF THE LIBRARY

The library is a truly whole-campus resource—open to students, faculty, and researchers from any department or institution, and capable of accommodating the full range of learning activities that happen outside the classroom. And the Learning Commons, which combines physical, technological, and staff resources within a flexible spatial framework, represents an effective way of encouraging new forms of learning, inquiry, and scholarship.

At the same time, with students staying on campus longer, particularly during the mid- to end of terms, the library also plays an important role as a long-stay destination. Students require environments that foster extended attention through comfort, variety, and amenity—and do so in a way that allow many types of simultaneous occupation.



## MOBILE POPULATIONS

Students are more physically and technologically mobile than ever before. However, as new technologies disaggregate our modes of information access, the convergence of people and material resources becomes ever more important. The library offers this convergence like no other place on campus.

Students and researchers come to the library for the resources, services and experiences that the digital realm cannot fully replicate—access to physical artifacts, face-to-face expertise, the space to focus or to collaborate, and the experience of learning and working as part of a larger community—while expecting full digital integration, including specialist technologies, in their use of facilities and resources.



## FOCUS ON KNOWLEDGE CREATION

As pedagogical models transform, so must the space of the institution. Today's leading teachers are focused on moving from 'teaching' to 'learning', using collaborative classrooms, problem-based curricula, and a focus on knowledge creation. And in the age of ubiquitous information, the skills required of students and researchers are expanding—accessing, navigating, filtering, and making use of vast swathes of data have become critical literacies.

As a key venue for learning outside the classroom, the library must enable new forms of scholarship and encourage the development of new scholarly skills, providing space for social, active, multi-disciplinary, and cross-platform learning and research in all its many forms.



## PURPOSEFUL PARTNERSHIPS

University libraries are increasingly looking outwards, seeking interdepartmental partnerships in order to increase access to resources, programs, and services and to connect with broader communities.

Providing space for the ‘Purposeful Partnerships’ identified in the Western Libraries Strategic Plan will include both dedicated spaces for key partner and collaborative programs, and flexible spaces capable of accommodating new opportunities and relationships as they arise.



## INTERDISCIPLINARY INQUIRY + CROSS-DISCIPLINARY COLLABORATION

Today, we see knowledge increasingly emerging from the cross-fertilization of academic disciplines. Traditional forms of institutional organization, with faculties, departments, and increasing specialization, can reinforce traditional silos of knowledge, exploration, and recognition.

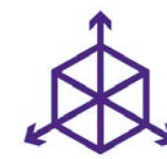
The library, however, represents a rare form of ‘neutral ground’ on campus, making it the ideal place to share and celebrate knowledge, support the cross-fertilization of ideas, and enable experimental, interdisciplinary inquiry. As a whole-campus resource, the library is also uniquely placed to house tools and technologies that might otherwise be ‘privatized’ within the University.



## THE IMPORTANCE OF ‘SPECIAL’

With widespread access to information, the unique physical collections specific to the institution become more and more important—both in expressing the unique character of Western, and also in providing unique, hands-on learning opportunities for students and researchers. Western enjoys a tremendous collection of special and archival material and needs better spaces both to celebrate these collections and to allow access to them.

At the same time, as pedagogical models and information literacies transform, users require spaces and technologies that can support these new modes of learning and research. Libraries must augment their traditional, table-and-chair learning spaces with more specialist facilities in order to enable today’s collaborative, cross-disciplinary, and technology-enabled scholarship.



## NEW TYPES AND GRADIENTS OF SPACE

Flexibility in library space is nothing new, but its importance is rising: radical changes in information technology have had a profound impact on libraries as institutions dedicated to the creation of knowledge and collecting, preserving, and sharing information. As libraries accommodate new resources, new technologies, new learning styles, new partnerships, and new patterns of occupation, new types and gradients of space become increasingly important.

It is useful to think of any type of space within the library along many axes: from formal to informal; from the purpose-built to the flexible; and from individual to small group to collective.



## CHANGING SERVICE MODELS

Within the library's organizational structure, the traditional silos of Information, Circulation, Reference, Technical Support are giving way to blended services that better integrate resources, expertise, and services, and ease navigation for library users.

In person, librarians are moving out from behind their desks and taking on new roles—more mobile, more accessible, and more specialized when it comes to contemporary issues in information literacy, scholarly communication, and digital research. Librarians are also interacting with users in new ways, including enhanced digital access and increased teaching and research consultations, and spearheading new approaches to provide access to world-class collections.

To support these changes, staff need space to congregate, collaborate, and work across disciplines, in order to provide excellent, use-centered services while continuing to evolve the methods for providing access to research collections.



## PRINT COLLECTIONS AND STORAGE

The digital revolution has had a huge impact on library collections, but reports of the 'death of print' are greatly exaggerated. While the program of the academic library is expanding, the print collection remains one of the library's vital resources, and perhaps the defining element in the library's character—as users from undergraduates to senior researchers agree. At the same time, infrequently-used resources occupy substantial volumes of space, and limit libraries' capacity to implement critical new types program and service.

The challenge for the contemporary library is twofold: to recognise the value of retaining print material on campus that is key to academic programs, research agendas, and rare and special collections and archives, while at the same time participating in shared storage and preservation strategies for low-use materials in order to enable new modes of learning and research.



## TECHNOLOGY

Underlying many of these future trajectories is the continued impact of technology—unpredictable, fast-moving, and transformative. New technologies offer profound new opportunities, enabling new modes of engagement and scholarship that will transform the way we think and learn. As a campus-wide resource, the library can be at the forefront of making these technologies available to the University community.

New technologies also offer a profound challenge, however, changing faster than we can predict and far faster than our organizational structures or our built environment can adapt. When it comes to technology, then, a resilient plan operates with the knowledge of its own limitations—building on enduring principles that have defined human organization and occupation for millennia, and introducing flexible technological infrastructure that can support changing technological requirements. In this way, the plan makes room for unanticipated and transformative technological developments.



KEY PROGRAM GOALS

Based on the Strategic Plan, Space Vision, and Future Trajectories, the project team identified five Program Goals that stand out as functional priorities over the library’s next two decades. These goals are both aspirational and essential: while they reflect an optimism about what the library can become over the course of the revitalization process, fulfilling them is also imperative to ensuring that the library continues to fulfill its larger role.

Together, the big ideas and program goals form the basis for the Master Space Program described overleaf.

- **Decrease Collections Footprint**  
accommodating new spaces for learning and discovery within the libraries
- + **Increase and Improve Learning and Research Space**  
enabling new learning styles, new modes of scholarship, and cross-disciplinary collaboration
- + **Provide community space that builds the library’s role as the heart of campus**  
allowing new programming and foster new connections, on campus and beyond
- + **Provide staff space that functions well and supports collaboration**  
empowering library staff throughout the library system
- + **Enable partnerships that enhance Western Libraries and are aligned with strategic vision**  
providing new services and opportunities to students, faculty, and researchers

# MASTER PROGRAM

The Master Program describes the programs, functions, and adjacencies required to fulfill the master plan vision, while acknowledging the opportunities and constraints that exist within the Library’s existing spatial framework. The program summaries reproduced opposite outline these areas at a component level for Weldon and Taylor libraries. Further detail is provided in Volume II of this report.

The Master Program is organized into components—cohesive groupings of activities or spaces related by service, function, or physical arrangement. (A component may or may not be a department, as “department” refers to an administrative organization rather than a functional organization of space and activities.)

Components defined for the project are detailed in this section of the document and are as follows: Learning Space (General and Specialized); Collections (General and Specialized); Staff Space; Partner Space; and Community Space.

In general, building on the program goals, the Master Program:

- Decreases the area devoted to general collections, through a combination of high-density shelving, off-site storage, and selective decommissioning, in order to increase the

- learning and engagement spaces necessary for a contemporary academic research library;
- Increase the area devoted to specialized learning and to supporting a wider variety of learning and research modes, by decreasing the area devoted to general learning space;
- Consolidates staff from various locations on campus into more efficient, effective, and enjoyable work areas (with staff from Elborn College repatriated to Weldon and Taylor); and
- Increases partner space in order to maximise accessibility, provide a broader range of library services, and align with partners that support the library’s future vision.

The program calls for the enhancement of this space to permit a greater range of potential activities without increasing the allocation of community space within the libraries.

In total, the plan will create a 28% increase in total study space, and will allow for a transformation of the character of these seats and study areas—increasing the proportion of collaborative, social, and high-tech study spaces and resources relative to those dedicated to traditional solitary study.

This transformation responds directly to the needs identified by students and Library staff throughout

the engagement process. However, it is also reflective of emerging trends in academic and research library programming around the world.

It is important to note that the Master Plan Program represents a framework, demonstrating how the Library can best use a limited volume of space to fulfill known and reasonably-anticipated needs. The specific functions described on the following pages represent current aspirations. These can be expected to evolve over the Master Plan’s twenty-year timeframe, and as such, the plan has been designed with programmatic flexibility in mind. Similarly, specific area allocations represent planning benchmarks, with precise space allocations for individual subcomponents likely to change over time as use patterns and space standards evolve.

Less likely to change, however, are the proportional relationships between different program types, which are defining characteristics of the Master Plan. For example, while the nature of the library’s specialized learning spaces may change, the need for spaces of this type and in this quantity will remain. Achieving the proposed mix and hierarchy of functions within the program will be critical to achieving a larger transformation.

## STUDY SPACE AT WESTERN

Today, the Western University campus has a shortfall of approximately 100,000sf of study space when compared to Council of Ontario Universities (COU) standards. While peer institutions within the province also suffer from study space shortfalls, Western’s shortfall is greater than average.

The Master Program for the Libraries proposes an overall 28% increase to study space within Weldon and Taylor. This will reduce the campus-wide shortfall by approximately 35,000sf, or 34%, putting Western above average in study space provision relative to peer institutions.

CURRENT <i>(COU Standards for 2013-14 academic year)</i>		PROPOSED* <i>(incl. WLSMP)</i>	
COU baseline	223,122 sf	COU baseline	223,122 sf
UWO inventory	120,340 sf	UWO inventory	154,301 sf
TOTAL	54.0%	TOTAL	69.2%
Shortfall	-102,782 sf	Shortfall	-66,820 sf

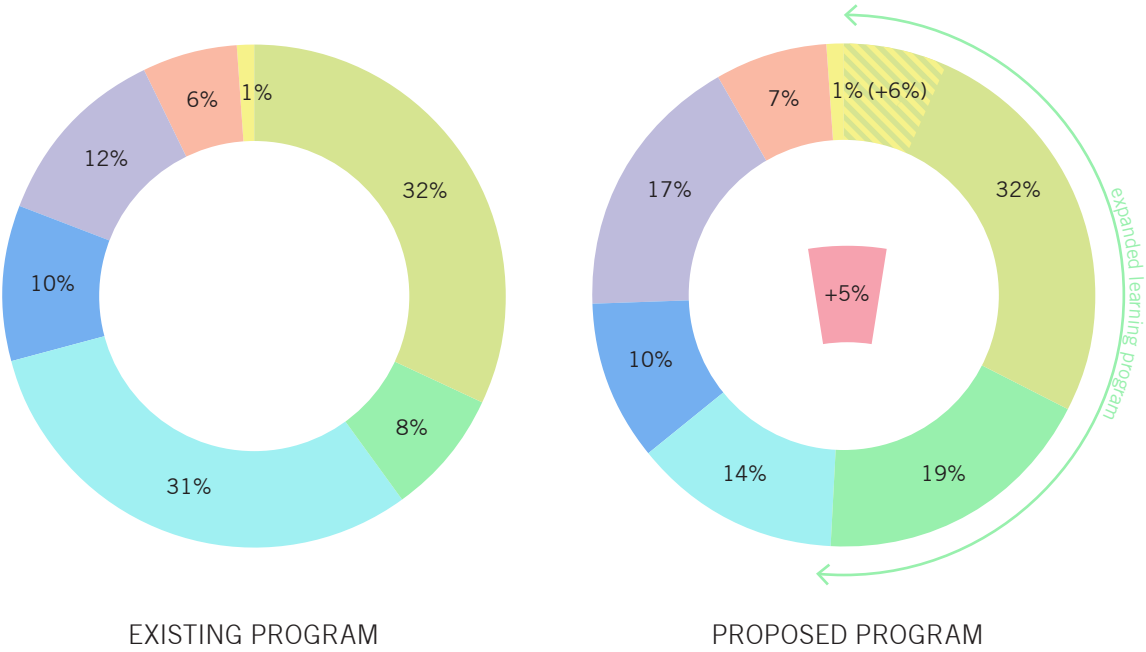
*\* includes all study space at Western up to December 2016 and space proposed in Library Master Plan*

WELDON LIBRARY: PROGRAM

NET USABLE PROGRAM	AREA (NSF)
LEARNING - GENERAL	51,638
MDC	1,385
Digital Scholarship Centre (DSC)	3,332
Learning Commons - Mezzanine	4,764
Learning Commons - Ground Floor	10,507
Other	31,650
LEARNING - SPECIALIZED	30,534
ARCC	1,346
MDC	2,831
DSC: Unassigned	1,882
DSC: Visualization Lab	1,829
DSC: Digitization Suite	1,456
DSC: Breakout space	1,390
Learning Commons - Mezzanine	2,123
Grad Commons	5,454
Other	12,223
COLLECTIONS - GENERAL	22,242
COLLECTIONS - SPECIALIZED	16,739
ARCC	11,920
MDC	3,662
Pride Library	1,157

1. Represents Commons functioning in Event Mode. Area typically assigned to General Learning

NET USABLE PROGRAM	AREA (NSF)
STAFF	27,327
ARCC	1,806
MDC	1,829
DSC: Support	2,019
Learning Commons - Mezzanine	486
Information Desk	206
Touchdown Desks	142
Consolidated Staff Area	20,839
PARTNERS	11,312
SASAH	1,126
Cafe	2,091
Services for Students with Disabilities	2,233
Teaching & Support Centre	4,214
Classroom	1,648
COMMUNITY	571
Exhibition Facilities	571
(Learning Commons - Event Mode <sup>1</sup>	10,507)
SERVICE EXPANSION	882
TOTAL EXISTING ASSIGNABLE AREA	161,245
NEW	8,034
Reading Garden	826
Future Expansion	4,743
Roof Terrace	2,465
TOTAL EXPANDED ASSIGNABLE AREA	169,310

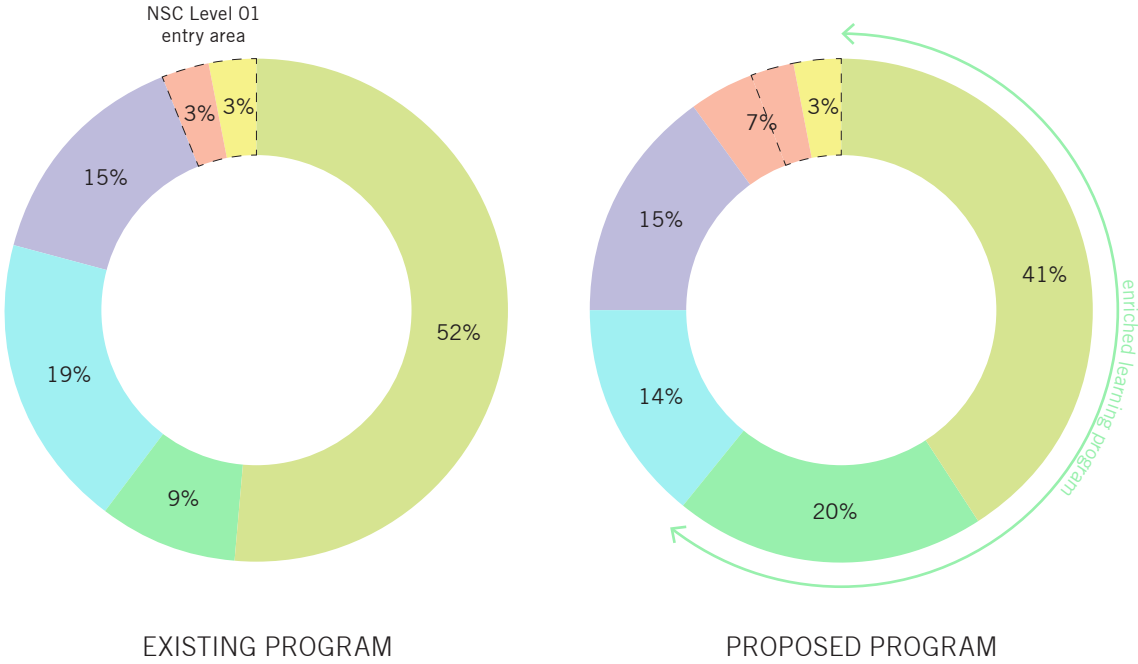


Other than modest expansion of washroom capacity on Levels 1 and 2, the Master Plan assumes that Building Service and Circulation areas are fixed. As such, these elements are not included above. A detailed building program is provided in Appendix B of this report.



TAYLOR LIBRARY: PROGRAM

NET USABLE PROGRAM	AREA (NSF)
LEARNING - GENERAL	21,214
Atrium - Research Commons	2,407
Atrium - Other	3,344
Other	15,463
LEARNING - SPECIALIZED	10,310
Atrium - Research Commons	1,835
Other	8,475
COLLECTIONS - GENERAL	7,478
Atrium - Research Commons	982
Other	6,496
STAFF	7,753
Support Services	116
PARTNERS	3,628
COMMUNITY	1,685
TOTAL ASSIGNABLE AREA	52,068



As the Master Plan assumes that Building Service and Circulation areas are fixed, these elements are not included above. A detailed building program is provided in Appendix B of this report.

Area in NSC Level 01 entry area (cafe and community space, shared with NSC) is included above.

# PROGRAM COMPONENTS

## LEARNING SPACE

Learning spaces in the libraries are subdivided into *general* and *specialized* categories.

General learning space includes a variety of layouts for individual study, including tables and chairs, carrels, computer stations, and identified quiet or silent study areas; the majority of the learning space currently provided in the libraries would fall under this category.

Specialized learning includes any space tailored to more specific learning modes, with an emphasis on group study and other collaborative modes, technology-rich investigation, and dedicated specialist facilities.

**WELDON LIBRARY**

At Weldon, the master program proposes an approximately 20,000 sf increase in overall learning space, which includes a small reduction in general learning space and a substantial increase in specialized learning space.

General learning spaces are distributed across all levels between Ground Level and Level 4. This is both to ensure that users have convenient access to learning seats wherever they may be in the building, and to enable a wider variety of spatial characters and ambiances to suit different learning styles.

A new Learning Commons includes a large general learning component, supported by specialized learning primarily in the form of technology-enable group study rooms. The Learning Commons should be located and designed to function as a potential 24-hour zone for the library—conveniently located close to a main entrance, and capable of operating distinct from the rest of the building.

New specialized learning spaces, described below, include a Digital Scholarship Centre, a Graduate Student Commons, a substantial increase to the number of group study and presentation practice, and collaborative study rooms, and additional allocation to accommodate key learning programs as needs arise.

**TAYLOR LIBRARY**

At Taylor, the program proposes an approximately 6,000 sf increase in overall learning space. Again, this includes a very minor reduction in general learning space, and a large increase in specialized learning space, a space type not previously available in Taylor. The learning space program includes an expansion of the new Taylor Learning Commons along with an associated Research Commons, a Technology Sandbox, and additional flexible allocation.

## LEARNING COMMONS (WELDON, TAYLOR)



A Learning Commons is a large, multi-use hub designed to encourage collaboration, foster new modes of scholarship, and provide a ‘one stop shop’ for library resources and services. The commons provides a variety of flexible spaces and furnishings suitable for a range of study styles and group sizes, supporting both individual and collaborative study modes on a variety of platforms. A commons should include a sufficient range of technologies to accommodate the full range of activities anticipated, and space for staff and student support functions embedded within it.

As a high-intensity, showcase space, a learning commons is best located close to a building



entrance. As a flexible, modular space, a commons can double as a space for events or other public functions. Extended hours are recommended. Key elements include:

- Comfortable, flexible furniture for both individual and group study
- Modular furnishings and writing surfaces that allow students to customize space as required
- Collaborative computing stations
- Open work areas
- Support staff and space providing technical and academic help
- Access to printers
- Ready access to food and drink

GROUP STUDY  
(WELDON, TAYLOR)



Group study rooms should allow for traditional and tech-based collaboration by groups of 2-4 or 6-8. The rooms should provide a robust set of technologies to augment personal devices used in a group context, which may include:

- flat panel displays with wireless display for laptops and mobile devices
- tables with connections for laptop, power
- auxiliary connections
- other specific services, such as web-based video conferencing, as required

PRESENTATION PRACTICE  
(WELDON, TAYLOR)



Presentation practice rooms are similar to group study rooms, but must also include the capacity for presenters to record and re-play presentations. Visual access into and out of the rooms should be controllable, to afford a higher degree of privacy as necessary. Group study and presentation practice rooms can double as informal consultation, meeting, or tutoring rooms as necessary.

DIGITAL SCHOLARSHIP CENTRE  
(WELDON)



The Digital Scholarship Centre will provide the spaces and technological capacity required to support cutting-edge research and teaching at Western. Key components may include:

- a Visualization Lab, with large-scale projection and audio capabilities
- a Digitization Suite, combining publicly-accessible digitisation equipment and a staff-supported digitisation lab. The lab will be the primary digitisation resource for Western Libraries.
- a specialized learning space for instruction, discovery or collaboration such as a primary



source classroom, digital media lab or makerspace

- breakout, consultation, and staff space
- general learning and research space supporting these specialized functions

The Centre will be a hub for faculty, students and researchers to engage with peers from across the University, and will support users and staff in developing new modes of scholarly communication and inquiry. It should be located close to the existing ARCC and map collections in order to provide the space and infrastructure for enhanced engagement with and long-term digitisation of archival materials.



GRADUATE STUDENT / RESEARCH  
COMMONS (WELDON, TAYLOR)



A Graduate or Research Commons provides a variety of spaces for consultation, individual work, and small-group collaboration, and should be able to accommodate small events aimed at sustaining a community of researchers at Western. Access control is important to ensure that the commons remains a suitable resource for focused research. The commons should include:

- Flexible furniture
- Tech-enabled group study rooms
- Ad-hoc training and seminar nooks
- Collaborative open brainstorming areas
- Mobile white boards and privacy screens
- Quiet study and group collaboration zones

TECH SANDBOX / GALLERY  
(TAYLOR)



A technology sandbox operates as a high-technology complement to a general learning commons. It is a showcase space offering students exposure to emerging technologies and demonstrating cutting-edge approaches to technological integration into learning and research activities.

A tech sandbox or maker space may include a device lending component, and can be enriched through strategic partnerships—both with suppliers or manufacturers, to ensure that the contents of the sandbox remain current, and with researchers interested in putting emerging technologies to use.

OTHER POTENTIAL  
SPECIALIZED LEARNING SPACES

The Master Plan for each library identifies specific locations for the preceding learning spaces, typically because of location or adjacency requirements that are anticipated to persist—a learning commons, for instance, will function as a high-intensity destination for many students, and is therefore best located close to a library’s entrance, collocated with community space and food and beverage access.

However, the plans also locate additional specialized learning space within the building plans without identifying their specific function. This is to maintain some long-term flexibility within the plans, allowing the library to adapt as technologies, programs, and literacies change over time. Potential programs for these spaces include:

- Access to specialized tools or resources
- Digital media production studios for graphics, music, or video production
- Project rooms that can be booked by groups engaged in longer-term research (per-month, semester, or year)
- Gaming studios

- Screening or viewing rooms
- Active learning classrooms
- Innovation or entrepreneurship incubation: An incubator typically includes space for collaborative and focused work; assignable office or project space; and space for private meetings or presentations. Partnerships with the local business or startup community are a common aspect of incubator spaces, in which case a location adjacent to a building entrance may be useful.
- Maker or workshop spaces: A makerspace allows design, creation, and assembly of physical prototypes. It should include digital fabrication equipment (3D printers, CNC machines); breakout space for meetings or informal presentations; and facilities and scheduling for technician support. Traditional workshop facilities (woodshop, metal shop) can be a useful complement to a makerspace, although adding these functions can increase engineering and service requirements substantially.

COLLECTIONS

The Master Space Program identifies two types of collections program: general and special collections. The footprint for general collections is anticipated to be reduced over time, while the footprint for special collections, which includes both the material currently stored in the ARCC and subject-specific libraries like the Pride library, is maintained.

The program allocation for general collections is based on a 20-year collections forecast which aggregates reductions achieved through consolidation, relocation, and decommissioning with increases resulting from ongoing acquisitions. Overall, once the full Master Plan has been realized, the forecast predicts that onsite collections will occupy approximately 60% of the space they do today.

- Collections reductions will occur through a combination of three strategies:
- increased storage density through the introduction of high-density shelving where appropriate;
  - enhanced use of digital and off-site storage, including Western's partnership in the Keep@Downsview program;
  - selective decommissioning of hard copy

materials, in conjunction with prior digitisation as appropriate.

At Weldon, reductions have been calculated as a factor applied to existing collection counts. The relative application of each of the three reduction strategies described above will be determined by the library.

At Taylor, the program anticipates the replacement of the existing structural stack system with new floors aligned with the existing library levels. As the structural stacks currently create half-height floors, this will result in a net removal of floors and thus an overall reduction in general collections floor area. Reductions have been calculated on the basis of the storage capacity of the space that remains, and show that a 35% reduction can be accommodated within the reduced floor area.

In both Weldon and Taylor, collections areas are colocated with general learning spaces, structuring and subdividing learning zones. This is intended not only to allow a range of spatial characters within learning zones, but to encourage informal engagement with the collection, building browsing and discovery into users' journey through the libraries.

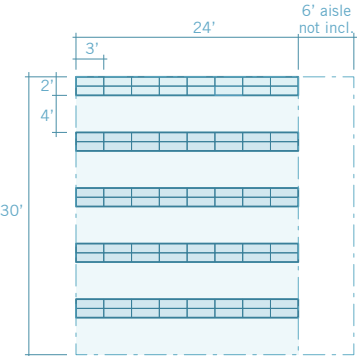
WELDON COLLECTIONS	CURRENT (VOLS)	REDUCTION FACTOR	PROJECTED (VOLS)
Government Publications			
Monographs	34,290	35%	22,289
Serials	27,762	35%	18,045
Open Stacks Monographs	672,072	35%	436,847
Total:	734,124	35%	477,181
Microform / Microfilm	391,788	100%	0

No reductions anticipated: Map & Data Centre, Pride Library, Archives and Research Collections

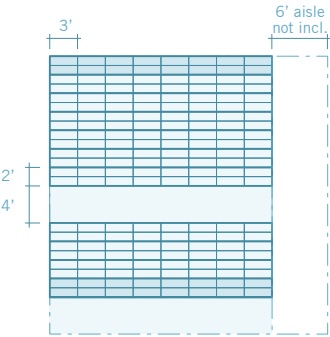
**Projected collection:** 477,181 volumes  
**Projected footprint:** 477,181 volumes @ 16 volumes/sf = 30,000sf

TAYLOR STACK AREA	EXISTING (SF)	REVISED (SF)	REDUCTION FACTOR
Structural Stack Area	10,000	5,000	
Lower Ground Stacks	4,700	4,700	
Total	14,700	9,700	= 35%
TAYLOR COLLECTIONS	CURRENT VOLS	REDUCTION FACTOR	PROJECTED VOLS
Total	190,000	35%	123,500

**Projected collection:** 123,500 volumes  
**Projected footprint:** 9,700sf



**typical open shelving**  
8 x 10 bays x 6 high = 480 shelves  
x 3' per shelf x 8 vols per foot = 11,500 vols  
/ 720sf = **16 vols / sf typ**



**typical compact shelving**  
8 x 22 bays x 6 high = 1056 shelves  
x 3' per shelf x 8 vols per foot = 25,344 vols  
/ 900sf = **28 vols / sf typ**

STAFF SPACE

The master program for staff areas assumes that, other adjacency requirements notwithstanding, collocation for most staff is highly desirable. Collocation will help promote collaboration within and between teams and create spatial efficiencies that allow the library to increase the range and quality of spaces provided for staff. It will also enable repatriation of Library Information Resources Management (LIRM) and Library Information Technology Services (LITS) staff currently located in suboptimal facilities within Elborn College. The program calls for the LIRM team (32 seats) to be repatriated to Weldon, and the LITS team (7 seats) to be repatriated to Taylor. Program areas for collocated staff space are based upon the projected staffing seats required for each department or team.

Some staff workspaces are embedded within other program areas—for example, the existing Map and Data Centre or the new Digital Scholarship Centre—though these are accounted for within the overall staff program. The staff program also introduces two types of touchdown space. The first of these are workspaces within the main staff area that will accommodate staff from other branches, encouraging intermingling

and improving the efficiency of non-resident staff working between locations. The latter are a series of informal service points distributed among learning and collections areas, allowing for a flexible staff presence throughout Weldon in particular.

Overall, because of the repatriation of staff from other locations, the area allocated to staff space has not decreased in either Weldon or Taylor. However, the area allocated per seat has been reduced, from a current 270 sf/seat to a 175 sf/seat. This revised allocation, which assumes a mix of open workstations, private offices, and bookable rooms for meetings and conversations, reflects a more efficient approach to planning staff workspaces. However, the per-person allocation still exceeds the University standard of 125sf/seat, reflecting the physical necessities of material processing in the library context. The precise proportions of open workspaces, enclosed offices, and supporting spaces will be determined during detailed design and planning of the staff spaces

LIBRARY / DEPT	CURRENT FTE*	SEATS*
WELDON LIBRARY	55.8	74
Administrative Services	6	6
Office of the VP and Chief Librarian	15.2	17
Research & Instructional Services	14	14
Research Support Services	14.8	15
Other	5.8	22
TAYLOR LIBRARY	27	33
Research & Instructional Services	12	12
Research Support Services	10.8	11
Other	4.2	10
BUSINESS LIBRARY	5.8	9
LAW LIBRARY	6.6	10
EDUCATION LIBRARY	6.4	9
ARCHIVES & RESEARCH COLLECTIONS CENTRE	18.4	22
ELBORN COLLEGE	37.4	39
Library Information Resources Management	30.4	32
Library Information Technology Services	7	7
MUSIC LIBRARY	8	13
GRAND TOTAL	165.4	209

\*Note: *Full Time Equivalent* (FTE) converts all staff, whether full-time, part-time, or casual/contract to an equivalent number of full-time staff. *Seats* represents the number of staff members who fulfill these roles.



## PARTNERS

The libraries currently accommodate a variety of partner programs, including programs operated by Services for Students with Disabilities (SSD) through the Student Development Centre (SDC), the School for Advanced Studies in the Arts and Humanities (SASAH), the Teaching Support Centre (TSC), and three IPB-controlled general use classrooms. In general, the program allocation for these elements is maintained, though the Master Program proposes a variety of modifications based on detailed feedback and current functional requirements.

### WELDON

In Weldon, the program calls for collocation of the Student Development Centre and Services for Students with Disabilities programs, and an increase in overall space to accommodate one additional staff seat serving these functions. It also calls for these programs to be relocated upstairs to the Learning Commons mezzanine level—maintaining visibility and access, but buffering these functions from the noise and activity of the cafe adjacent to their current location.

Two 30-seat classrooms, both currently under-utilised, are repatriated to the library and re-programmed as specialized learning spaces. The existing 90-seat classroom remains.

The space allocation for SASAH remains as is. As noted during the engagement process, however, improvements to the General Learning and Community program components associated with the Learning Commons project will offer SASAH an expanded platform for engagement with the library and the broader community.

Finally, the Teaching Support Centre remains in its current location. Through consultation directly with the TSC, the team determined that the space allocation for the TSC program is sufficient to meet current and future needs, and the location is appropriate given the services and programs that the TSC offers. In order to improve work and program delivery, and to accommodate one additional staff workspace, minor reorganization is suggested. This additional workspace is noted within the program. Further consultation should be undertaken as detailed projects develop.

## COMMUNITY AND COMMUNITY ENGAGEMENT

In Weldon, the Atrium currently hosts a variety of community programs, including concerts, lectures, and symposia. There is no event space in Taylor.

In general, the criteria for a well-functioning community and engagement space are more prescriptive than for other spaces within the library. Effective spaces must offer the size and scale to accommodate a range of events; must be appropriately located, both to ensure ease of access and to avoid disrupting other programs when an event is in progress; and must be supported by spaces for staging, service, and storage in order to enable the greatest flexibility in programming.

As such, the Master Program envisions the Reference Hall and Atrium in Weldon remaining the library's primary event spaces, collocated with the new Learning Commons. An expanded support suite, located adjacent to the existing cafe, will accommodate storage, staging, and service, while an enhanced technology program, including projection, additional AV/IT capabilities, and improved lighting controls, will permit a greater range of events and audience sizes. These spaces would form part of the Learning Commons when not hosting an event.





**MASTER PLAN**



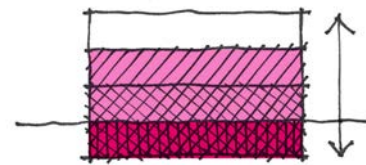
## TWO LIBRARIES, ONE SET OF PRINCIPLES

The Master Plan locates the Master Space Program within the physical spaces of the library buildings, addressing the programmatic recommendations developed over the course of the workshops within a framework of planning principles and strategies.

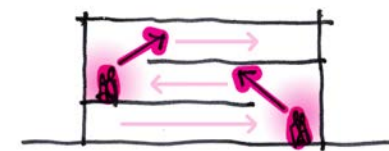
The principles represent a baseline of good practice in space-planning, programming, and architectural intervention. They are not specific to any building or condition—indeed, they describe strategies that are found in successful buildings of many different sizes, functions, and styles. Sectional principles describe vertical organization within the buildings and the approach to organization over multiple floors. Planning principles describe horizontal organization within a floor.

Together, these principles provide the plans with a foundation of clarity, legibility, and spatial quality. Their consistent application will maximize the quality of each library as currently envisioned, and contribute to each plan's flexibility and resilience over the long term: while individual program elements may vary, the clarity of the big moves and core concepts will persist.

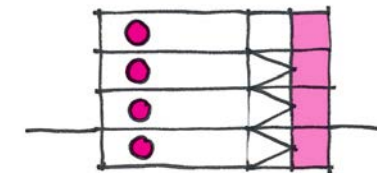
### SECTIONAL PRINCIPLES



Use transitions in section to transition in character: high-intensity spaces near the entrance, high-focus spaces further removed.

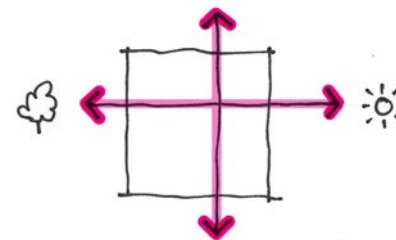


Use interconnected space to allow and entice movement, encouraging exploration and discovery.

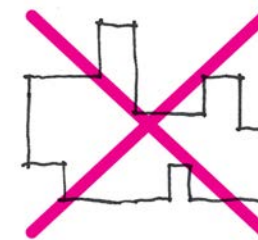


Where possible, locate consistent elements consistently between floors to aid intuitive wayfinding.

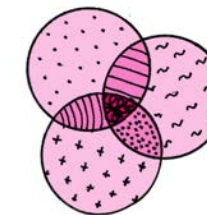
### PLANNING PRINCIPLES



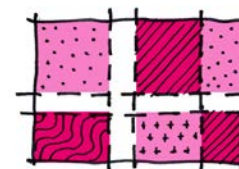
Provide clear, axial circulation routes, using natural light and views for wayfinding and delight.



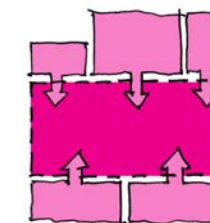
Create clearly defined spaces



Cluster related or supporting programs



Use programmatic variation to provide scale and definition with large floorplates.  
Use collections to structure seating areas in order to encourage exploration and discovery



Use small, cellular spaces to define larger rooms, putting resources and services on display



## D.B. WELDON LIBRARY

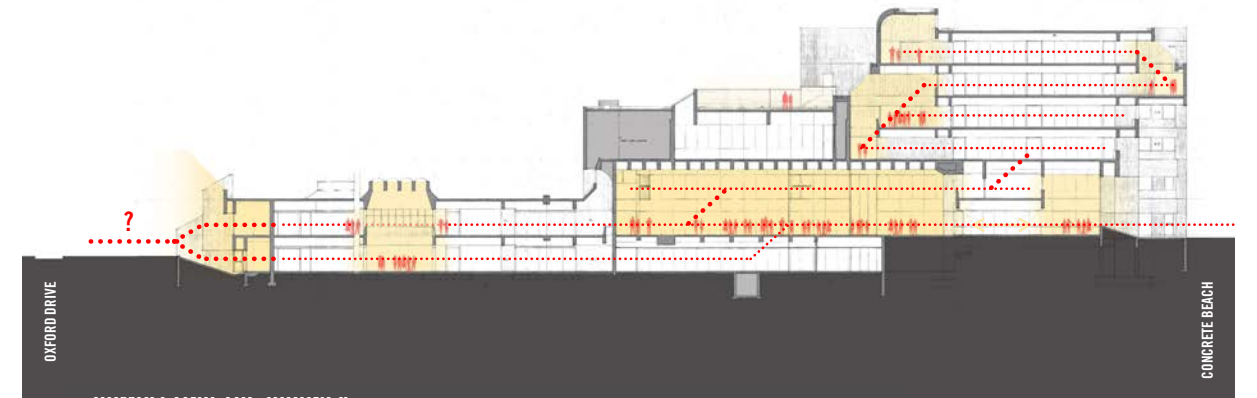
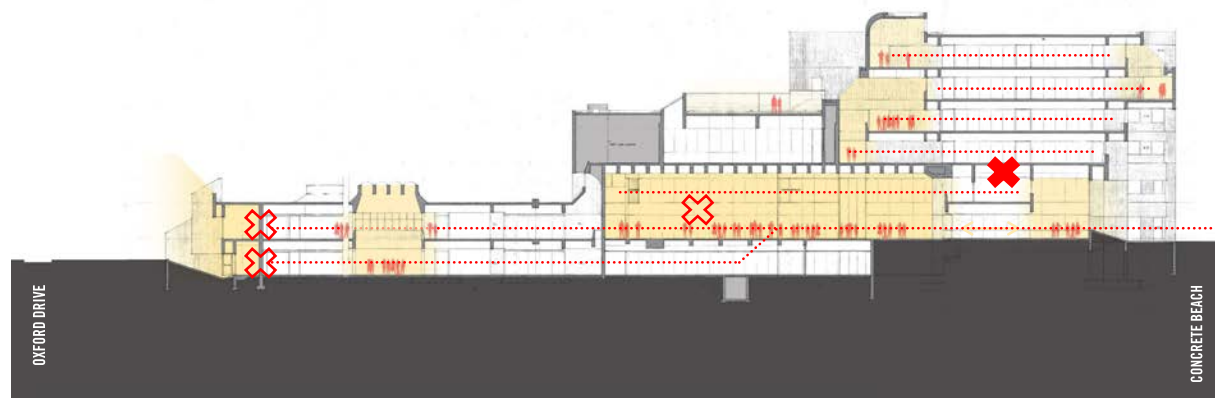
The Master Plan for Weldon addresses the library's Key Considerations (p20) by structuring the revised program around an improved and intuitive circulation system. A series of strategic interventions connect previously disconnected spaces, opening up intuitive routes through the building. These new connections create a route of discovery through the library, putting the environments, services, technologies, and resources that users require for their journey of learning and research on display.

At the heart of the building, the Reference Hall is transformed into a two-level Learning Commons, a flexible and multi-purpose learning space that supports study, collaboration, and outreach in the heart of the library. The Commons combines general and specialized learning functions, library services, partner space, and exhibition areas within a varied and vibrant multi-level room. A new bleacher stair creates a seamless connection between entry level and mezzanine, and doubles as seating for an enhanced program of engagement and events.

In the rest of the building, stacks and learning spaces are intermingled, encouraging informal browsing and discovery while creating study spaces of many different characters, concentrated around areas of natural light. Destination programs, including specialized learning functions, partners, and special collections are located in the rooms and alcoves adjacent to interconnected floorspaces—making good use of these somewhat idiosyncratic spaces, putting innovative activity on display, and acting as destinations in order to entice users upward on a journey of exploration and discovery. Staff spaces are consolidated on the top levels of the library, with touchdown locations provided throughout the library space to maximize flexibility in staff's engagement with library users. Throughout the plans, cellular spaces are opened up to bring light and views deep into the building.

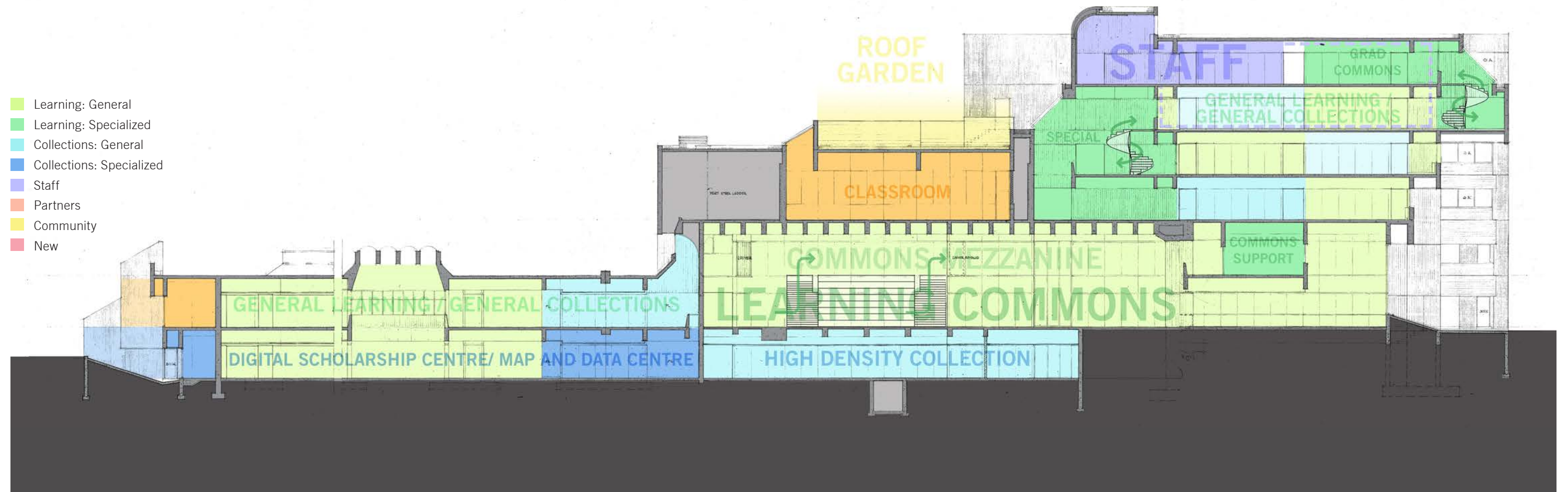
Finally, the plan proposes that the existing circulation core is improved through a multi-storey addition, in keeping with the original plans for the library. This addition is envisioned as a transparent glazed column fitted snugly between the existing concrete stair cores. The addition would offer a new and inviting face towards Western road, putting activity within the library on display, acting as a lantern at night, and offering panoramic views from within. Inside, it would provide additional learning space at each floor, improve vertical wayfinding and circulation, and ease congestion at the elevator core.

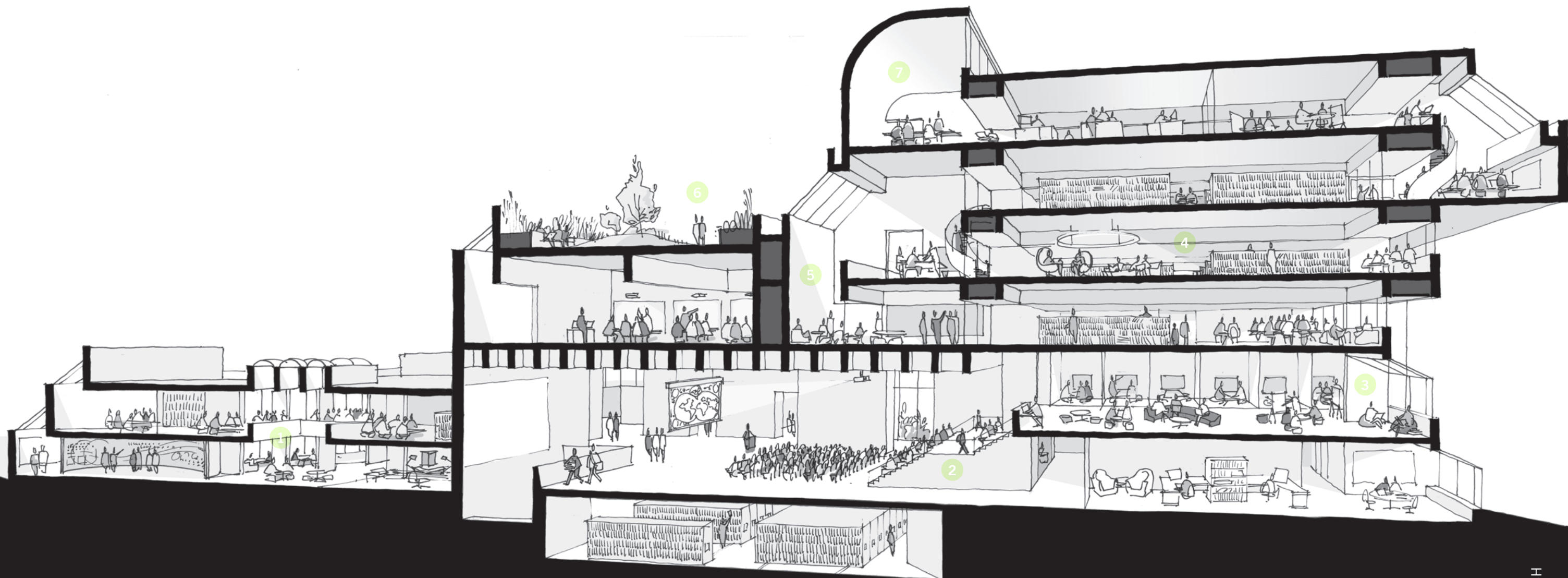
The end result is a transformed Weldon Library that can enable and celebrate 21st century scholarship—providing a new diversity of supportive learning environments for students and researchers, encouraging collaboration across fields and disciplines, and embodying the aspirations of the University as a whole.



Weldon suffers from sectional disconnection—vertical circulation is limited and unintuitive.

The Master Plan re-connects these spaces, offering users a continuous journey through the library and its collections





### Section facing south

1. General learning space overlooks the new Digital Scholarship Centre
2. The Learning Commons bleacher stair connects ground and mezzanine, while doubling as seating for events

3. The mezzanine level is reconfigured as an extension of the ground floor Learning Commons, accommodating both open and enclosed study areas overlooking the hall
4. Study seats and collections are interspersed, creating 'study zones' and encouraging interaction with the collections

5. Interconnected floorspaces accommodate specialized learning functions—destinations and enticements that draw users upwards
6. A reading and teaching garden provides a connection to nature and creates a focal point when viewed from inside the library

7. A consolidated staff space enhances communication and collaboration within an inspiring work environment





Ground Level | approx. 38,000 NASF

On the Ground Level, a new Digital Scholarship Centre supports new modes of scholarship at Western. The centre will combine elements such as a Visualization Lab, a Digitization Suite and specialized learning and collaboration spaces to support digital scholarship. Breakout space and general learning functions are located to take advantage of existing windows—a strategy used throughout the building. The DSC will benefit from strategic adjacencies to the other programs on this level, providing the space

and infrastructure for enhanced engagement with archival materials and digitisation of key resources from the ARCC as well as those housed within the Map and Data Centre.

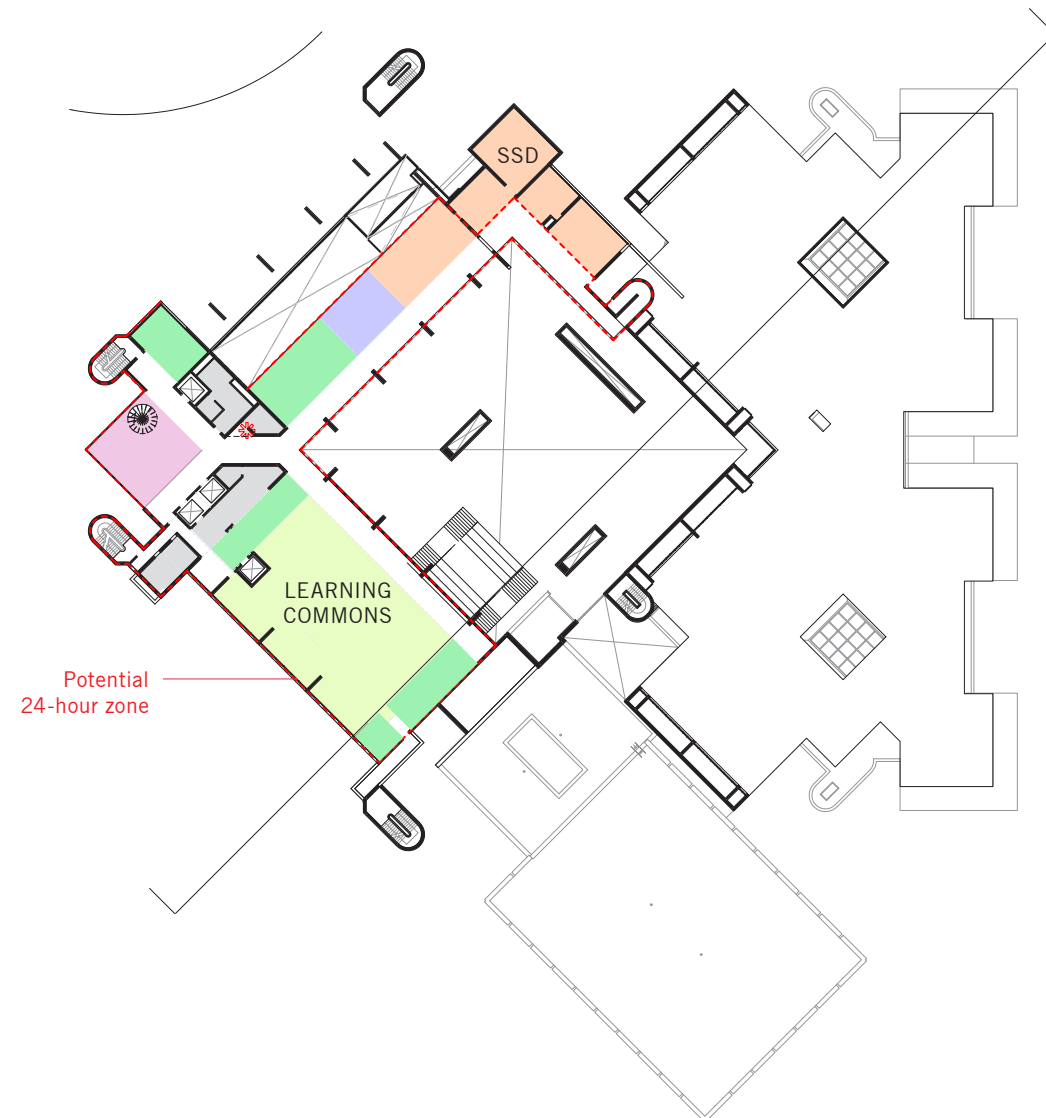
High-density storage for general collections is introduced in the centre of the plan, and the existing but unused courtyard is revitalized and made public. The bright and newly-renovated space currently housing the Map and Data Centre remains as is.



Level 01 | approx. 38,000 NASF

On Level 1, the existing Reference Hall is transformed into a Learning Commons, a vibrant and multi-functional space accommodating both day-to-day study activities and a wide variety of library, university, and community events. The Learning Commons extends up to the Mezzanine level, and is connected to it by a new bleacher stair that will double as seating for presentations and performances. A new, more flexible information point is located adjacent to the main entry, maximizing flexible space within the hall.

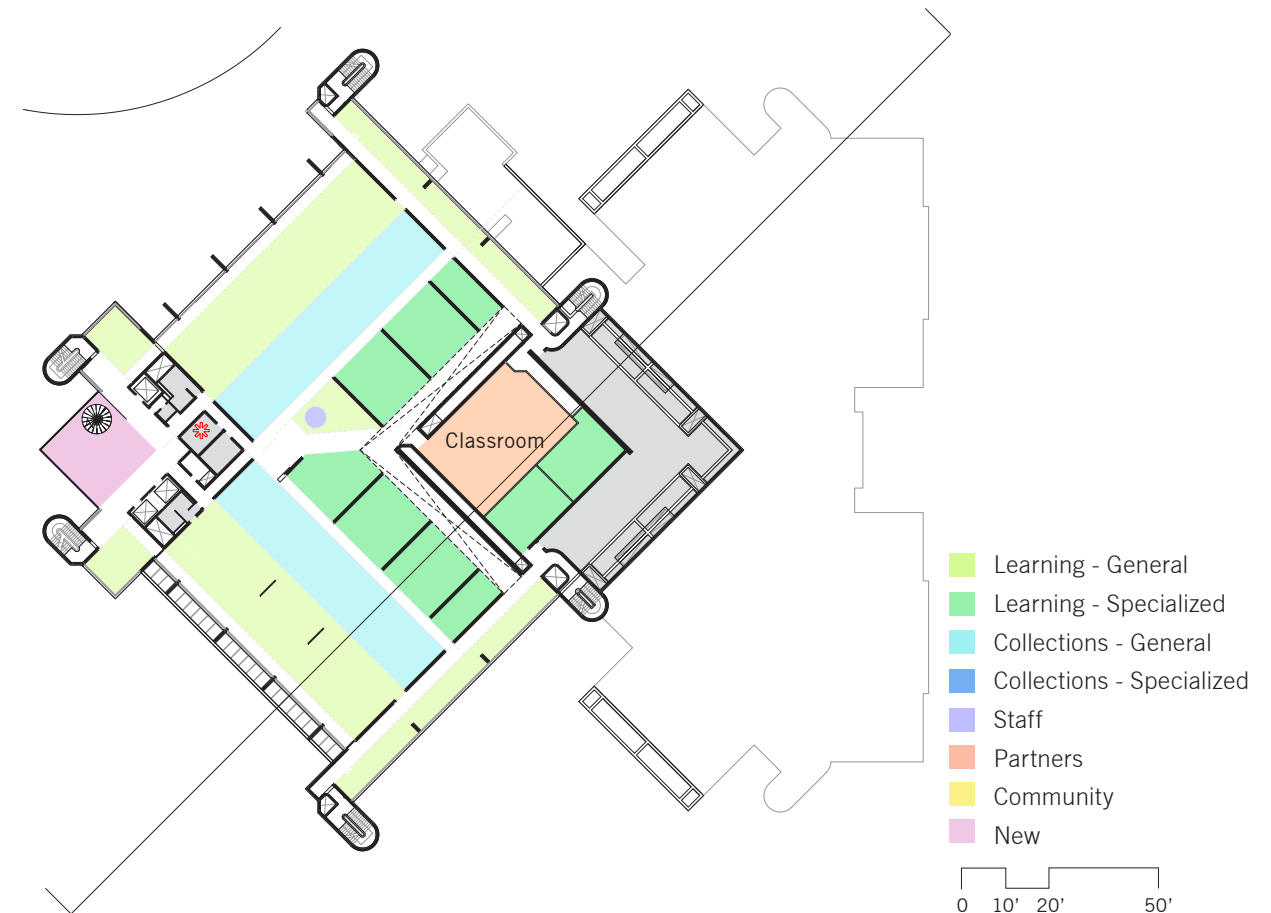
Further into the plan, collections areas buffer general learning spaces from the intensity of the Learning Commons, encouraging browsing and exploration while reducing noise transfer. Partners, special collections, and specialized learning programs create destinations at the east edge of the library, and in future could be opened up to increase the building's presence and porosity along Oxford Drive.



Mezzanine I | approx. 9,000 NASF

The Mezzanine Level is reconfigured as a continuation of the Learning Commons below, taking advantage of the existing sectional relationship to capture moments of interconnection and overlook. The larger half of the mezzanine accommodates general and specialized learning spaces, while the smaller half functions as a flexible and modular ‘high

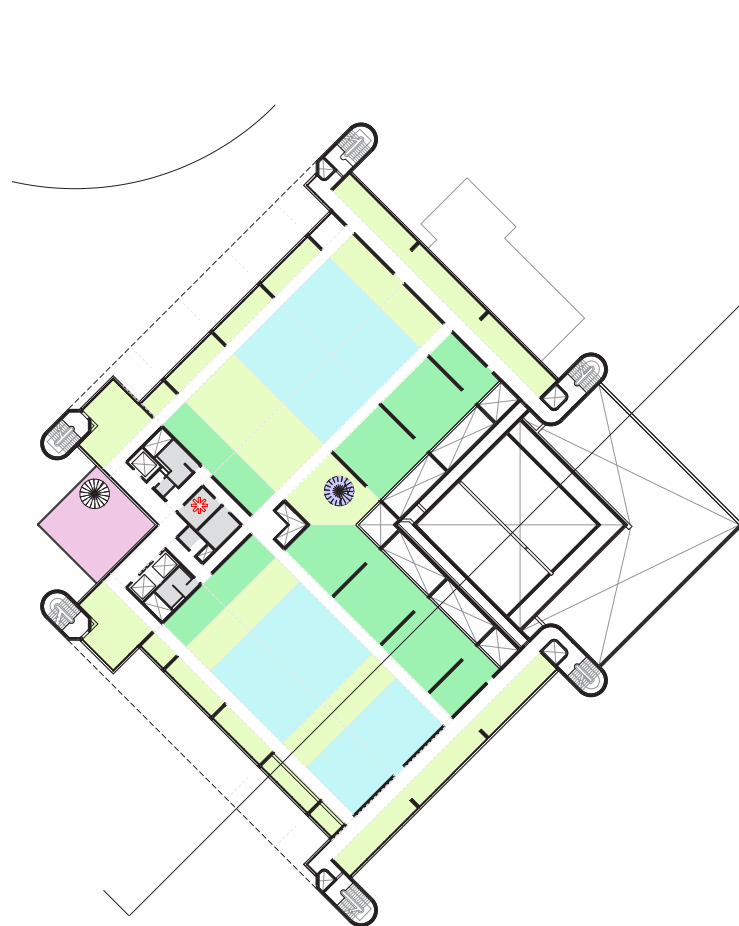
street’ of student support, locating learning and support partners (including Services for Students with Disabilities), staff, and other specialist functions to maximize visibility and accessibility. Existing service and washroom spaces are expanded to reflect the enhanced occupancy on this level.



Level 2 | approx. 19,800 NASF

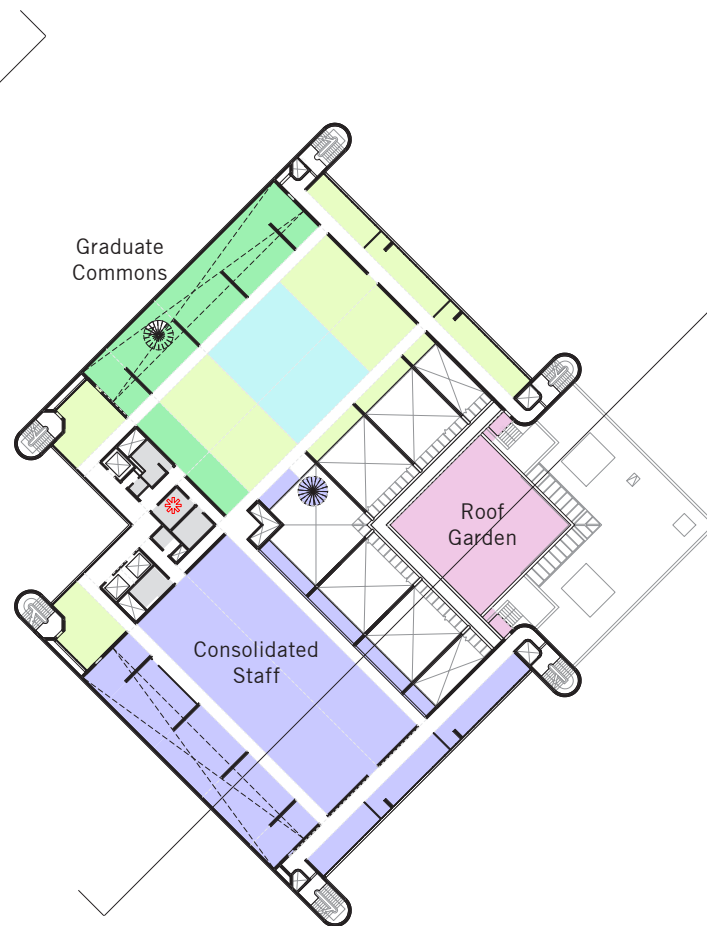
Level 2 establishes a planning logic for the remaining floors of the library. As below, general learning spaces are organized to take maximum advantage of existing windows and natural light. The cellular spaces of the existing graduate study rooms are removed, enhancing access to light and views throughout the floor. The existing 90-seat classroom is maintained; given its location,

this room is an ideal candidate for conversion to an Active Learning format. The classroom is supported by a variety of specialized learning spaces that occupy fixed structural bays—these could house tech-enabled breakout and seminar rooms or other specialist functions as required. General collections shelving creates a porous threshold between learning spaces.



Level 03 | approx. 16,600 NASF

Level 3 follows a similar planning logic to Level 2. Learning space is oriented towards windows and views, and organized into more intimately-scaled zones by clusters of general collections. Areas overlooking the interconnected floorspace, enclosed on two sides by large structural walls, function as destinations accommodating specialized learning functions. A new spiral stair, located in an existing double-height space, offers a convenient and highly visible connection to the floor above.



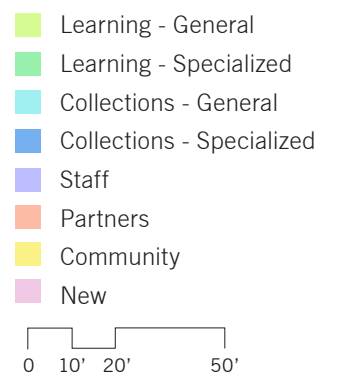
Level 04 | approx. 17,700 NASF

Near the top of the library, general learning and collections functions share space with a new Graduate Commons and a new Staff area, both of which are split over the top two levels of the library. The staff space accommodates all staff currently located in Weldon, as well as the LIRM staff repatriated from Elborn. The existing but unused roof terrace becomes an upper-level reading garden for students, researchers, and staff.

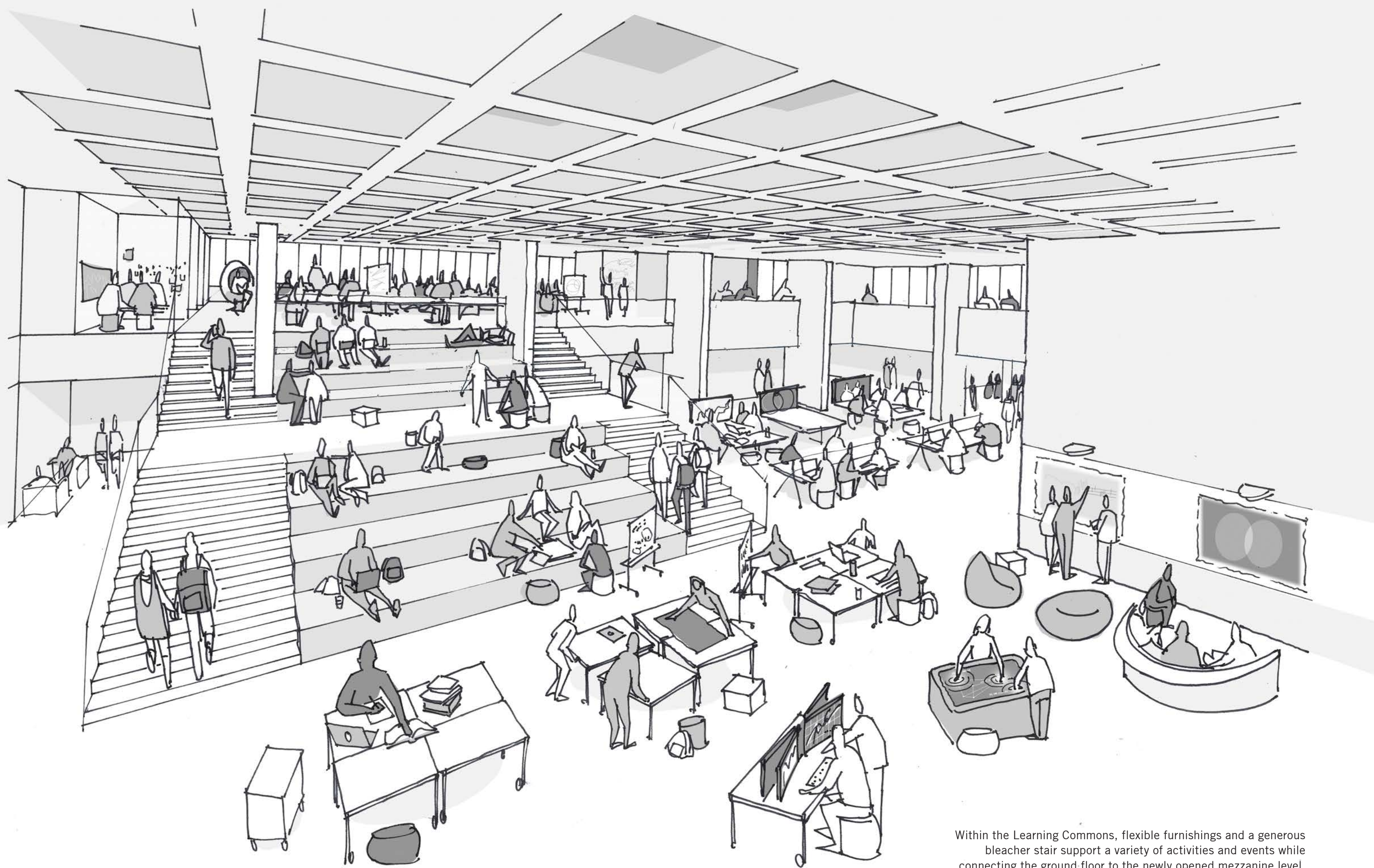


Level 05 | approx. 17,700 NASF

On Level 5, the majority of the floorplate is taken up by the upper levels of the Staff area and the Graduate Commons. Pockets of general learning space provide quiet and secluded areas for silent study.







Within the Learning Commons, flexible furnishings and a generous bleacher stair support a variety of activities and events while connecting the ground floor to the newly opened mezzanine level.

## TAYLOR LIBRARY

The Master Plan for Taylor structures the revised program within a flexible framework of space that will provide clarity, variety, and presence to the library. As at Weldon, the environments, services, technologies, and resources that users require are put on display.

The planning for Taylor follows the library's fundamentally linear organization. Stacks and learning spaces are intermingled within the centre of the plan, encouraging informal engagement with the collections and orienting circulation towards the largest areas of glazing. Partner spaces, specialized learning functions, and staff space occupy the sides of the plan, creating a 'high street' of services and resources that flank the general learning program.

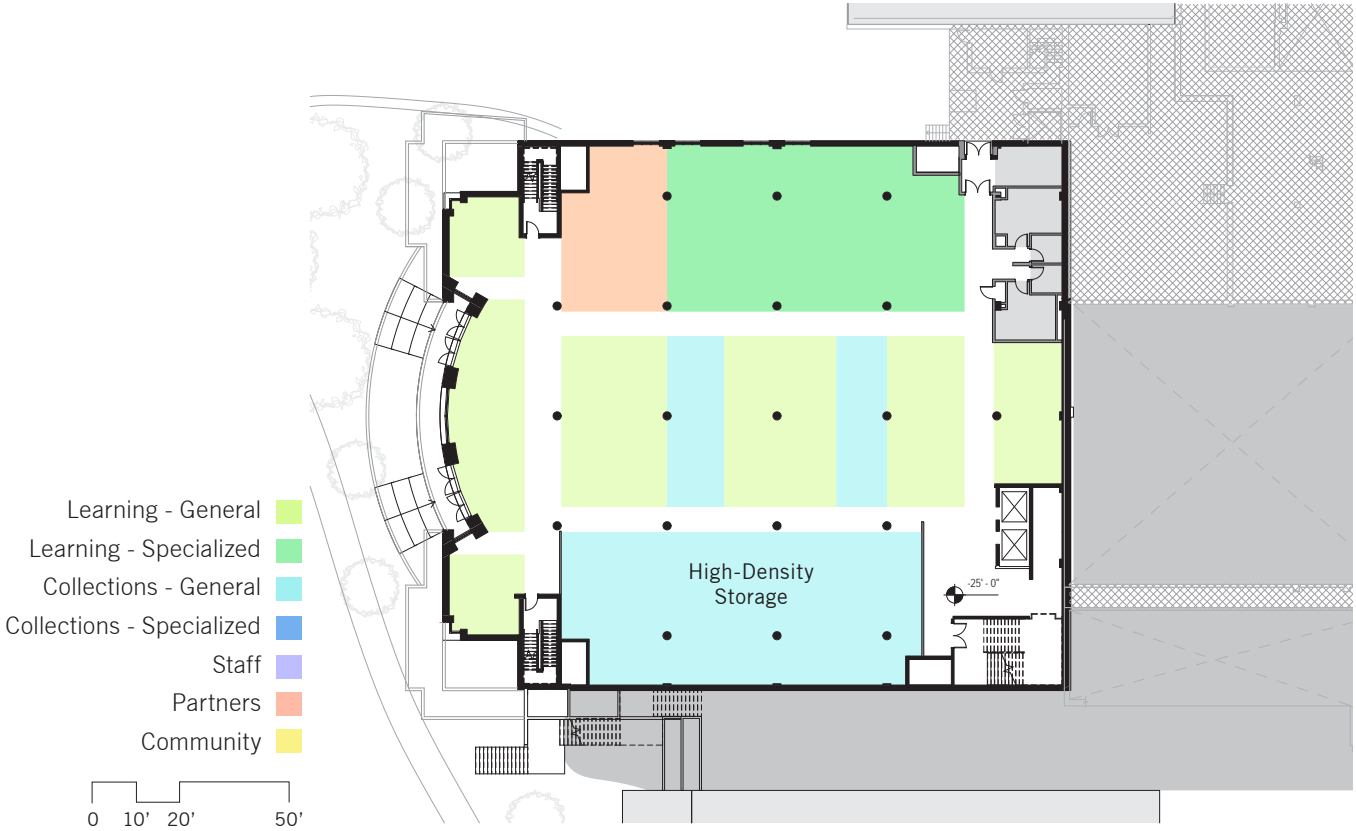
The stack tower is re-envisioned as a multi-storey atrium housing a learning and research commons and a refreshed Einstein's Cafe. This atrium could also accommodate a new entrance facing the Kresge Building. The plan also shows

a modest expansion ( $\pm 4200$  net square feet) of the library into the second floor of the Natural Sciences Centre. This space, overlooking the atrium and Learning Commons expansion, would accommodate a more focused research commons serving graduate students and researchers in this quadrant of the campus.

Finally, new doors onto Dental Drive enhance the library's visibility and accessibility from the north side of campus, towards the Robarts Research Institute and future development sites along Perth Drive. This new entrance is an enhancement both for the library and the campus as a whole, improving the library's presence while also enlivening the Dental Drive cul-de-sac—an important consideration for passive safety and Crime Prevention Through Environmental Design (CPTED), as identified in the Open Space and Landscape Plan.



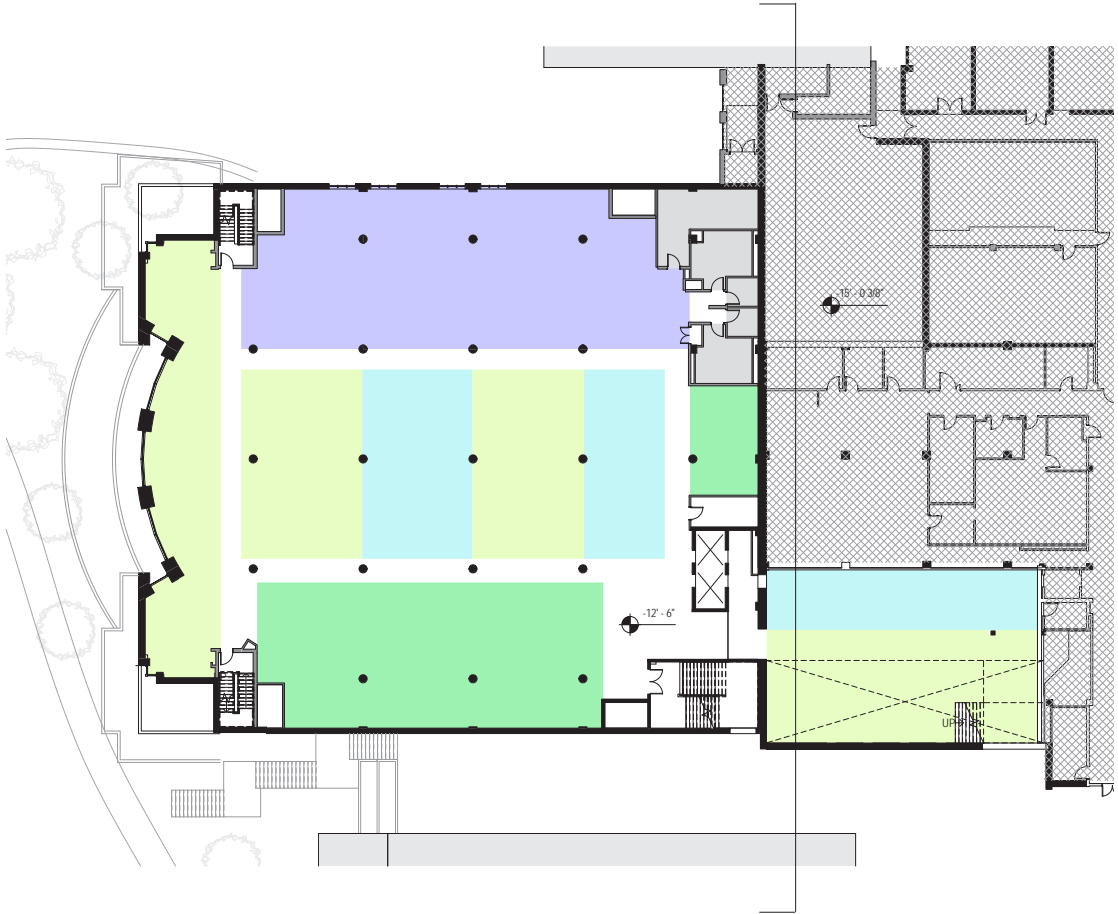
# TAYLOR LIBRARY: BLOCK PLANS



Level 01 - Lower Ground | approx. 13,400 NASF

On the lower ground, high-density shelving and specialized learning programs organise the plan axially towards the bay window at the north end of the plan. High-density shelving and potentially-enclosed specialised learning programs are held to the sides of the plan in order to bring daylight further into the building.

A new entrance enhances the library’s presence on Dental Drive while improving porosity and legibility of this quadrant of the campus. As in Weldon, shelving for general collections is used to structure and scale the building’s large floorplate, creating a series of study zones that can vary in furnishing and character.

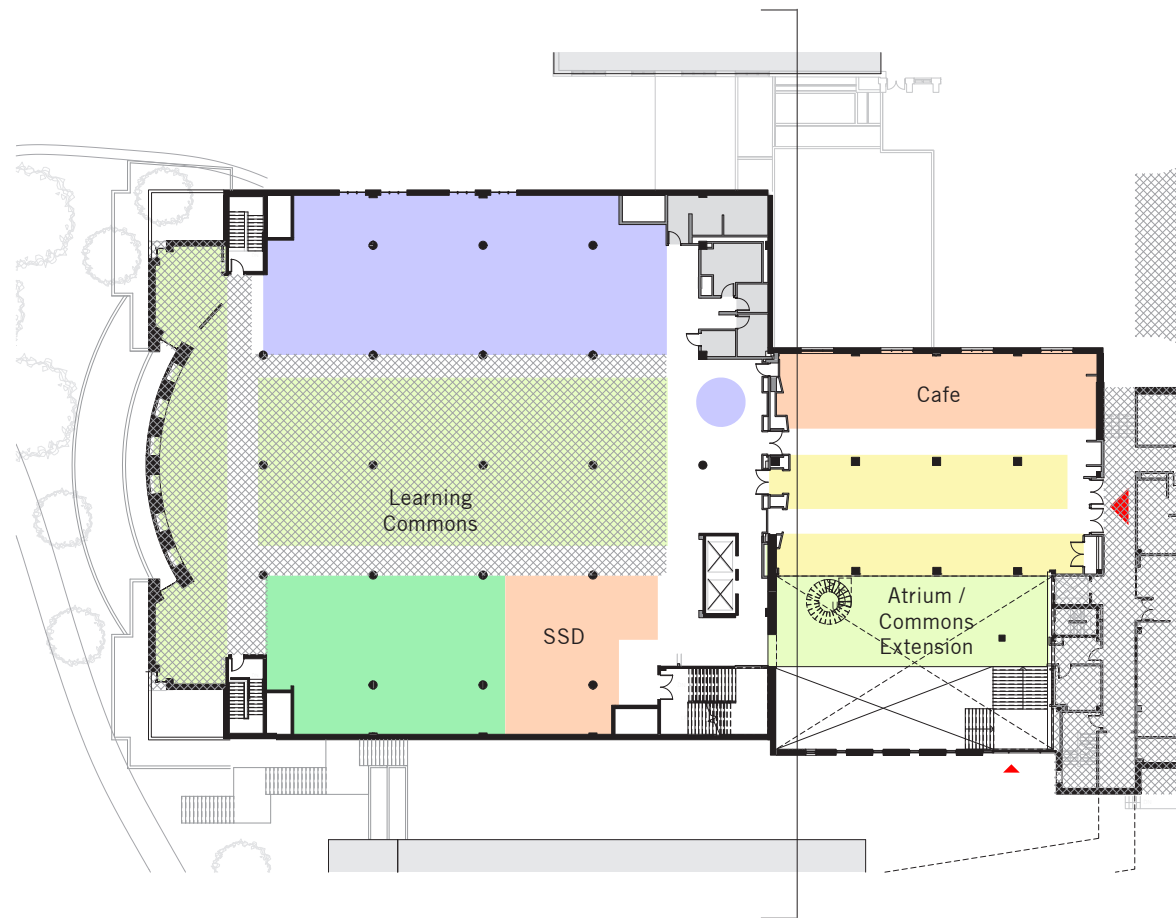


Level 02 - Ground | approx. 16,700 NASF

On Level 2, the same planning logic applies. In this case, staff space and specialized learning space occupy the sides of the plan, presenting long facades that can serve as storefronts to the central learning spaces, enhancing transparency and allowing for flexible planning of these parcels over time.

The lowest level of the Taylor Atrium, occupying the former stack tower, combines general learning and general collections space, with the potential for access to the Health Sciences and Kresge courtyard a half-storey above.

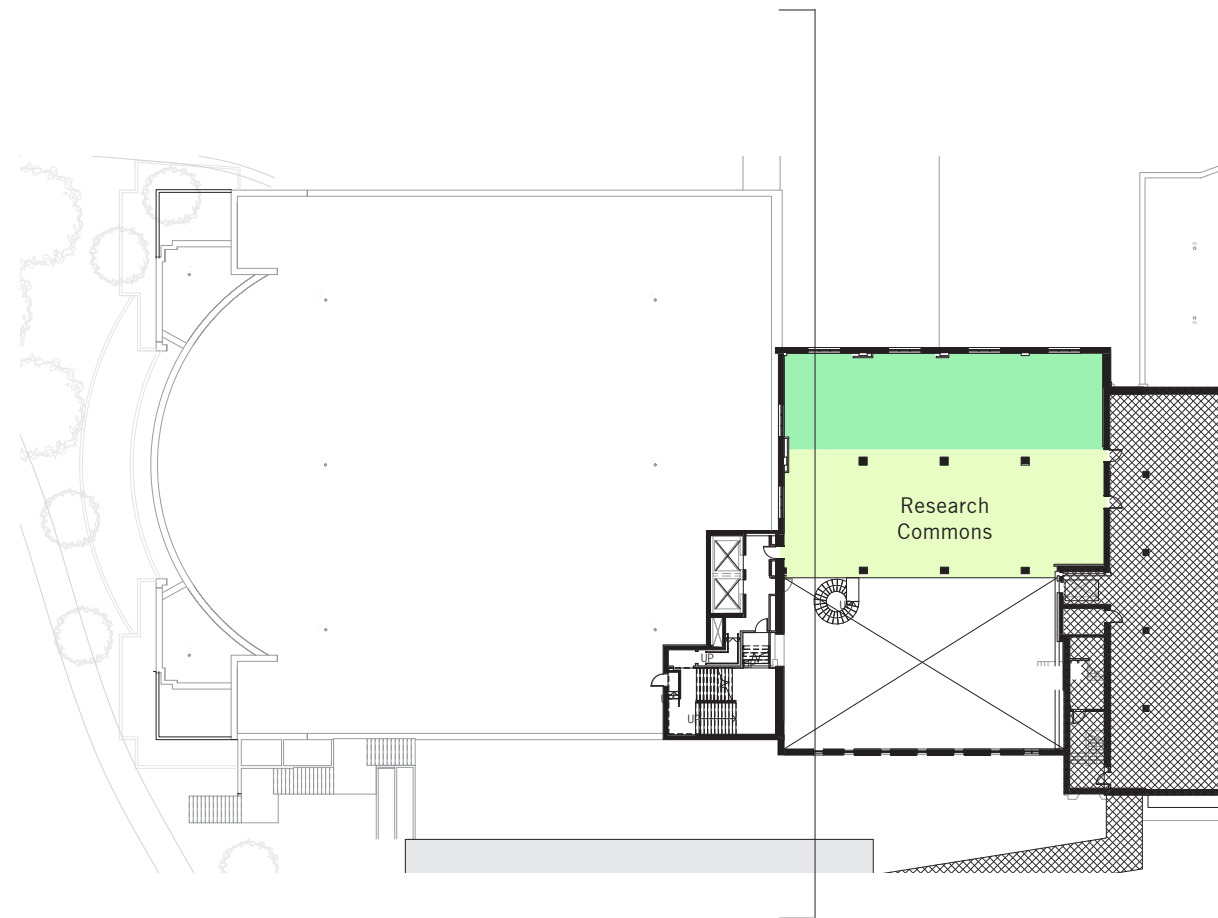




Level 03 / NSC Level 1 | approx. 17,600 NASF (incl. 3,200 cafe and public)

On Level 3, staff space occupies the east side of the plan, while a combination of specialized learning and partner space occupies the west, including new space for Services for Students with Disabilities, conveniently located adjacent to the entrance and elevators. The recently-renovated Taylor Learning Commons occupies the centre of the plan, again allowing daylight deep into the building.

The existing cafe is reconfigured as part of the Atrium revitalization and Learning Commons expansion, serving a flexible, triple-height community and learning space that could connect to the Kresge and Health Sciences courtyard.

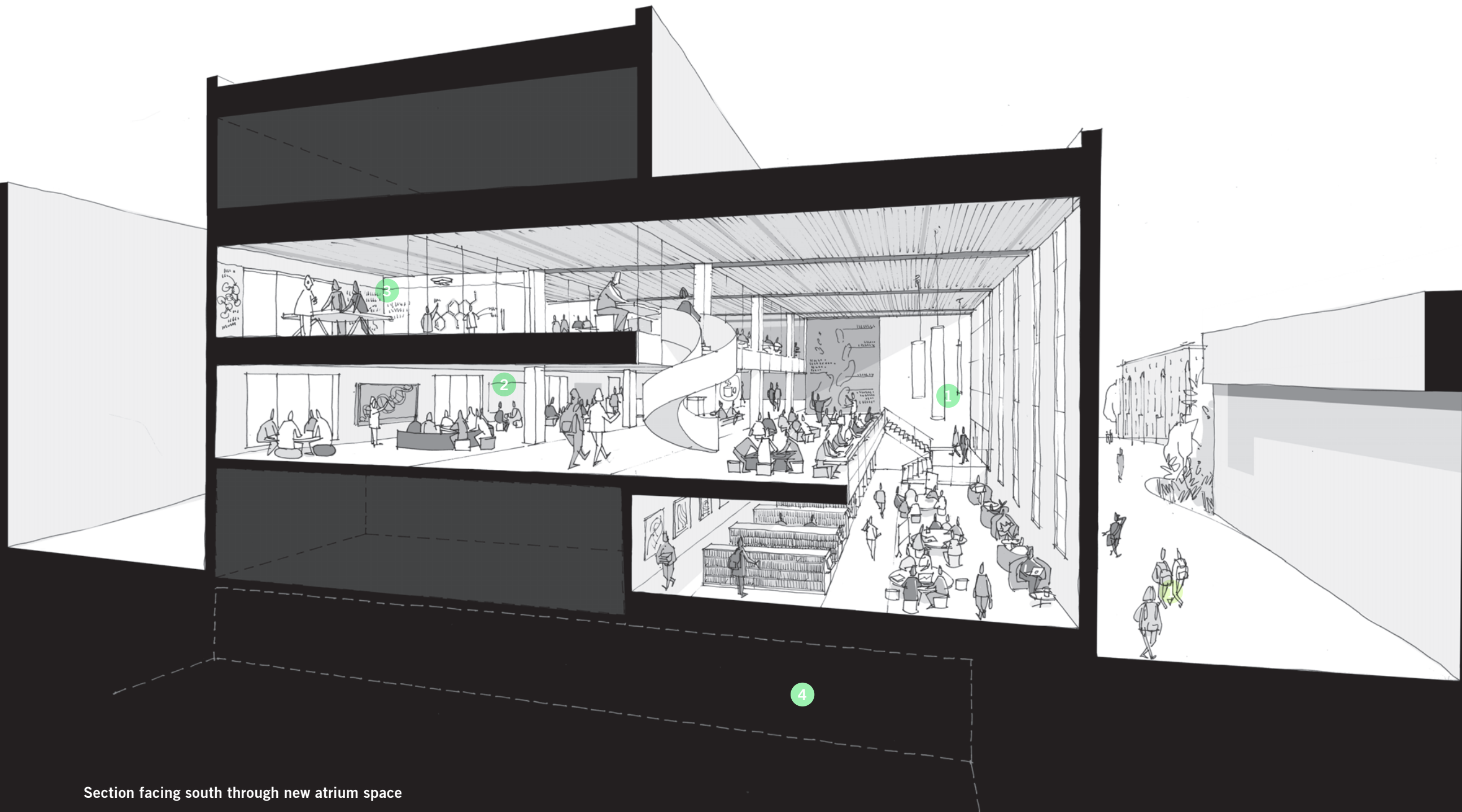


Level 04 / NSC Level 2 | approx. 4,200 NASF

On Level 4 (NSC Level 2), a new Research Commons connects to and overlooks the atrium, with a feature stair providing vertical access. This Commons occupies space reclaimed from the Natural Sciences Centre ( $\pm 4200$  net square feet), and thus presents an opportunity for the library the enhance connectivity with the adjoining building.

- Learning - General
- Learning - Specialized
- Collections - General
- Collections - Specialized
- Staff
- Partners
- Community

0 10' 20' 50'



**Section facing south through new atrium space**

1. The stack tower becomes a triple-height atrium, housing a light-filled extension of the Taylor Learning Commons and offering an entrance directly off of the Kresge courtyard. A mix of open and enclosed learning spaces, collections, and food service makes this a vibrant and inspiring space, and a fitting entry to the Taylor Library.
2. The cafe is refreshed and shifted to the east side of the plan, with its seats and banquettes acting as an extension of the learning spaces of the Atrium and Commons. The connection to the NSC ground floor is maintained.
3. The mezzanine level, connected to Level 2 of NSC, is reconfigured as a Research Commons
4. The atrium creates a connection to the lower Levels of Taylor behind.

# ENGINEERING SYSTEMS SUMMARY

Many of the engineering systems in Weldon and Taylor are original and, at 45 years old, at or near the end of their expected lives. Changes in building occupancy have increased the loads on these systems, and changes in building codes mean additional service is required in some locations.

In general, the engineering strategy for each library is to introduce the full service capacity and full vertical distribution required for full Master Plan build-out as an ‘enabling work’ prior to undertaking other renovations. Horizontal distribution would then be undertaken phase by phase as individual projects are completed, maximizing flexibility in phasing and minimizing redundant efforts.

Much of the engineering work required should be considered deferred maintenance—a result of the age and occupancy of the buildings, rather than specific alterations proposed in the Master Plan.

## WELDON ENGINEERING

The existing Heating, Ventilation, and Air Conditioning (HVAC) system in Weldon was sized for a building that primarily housed books. With an increase in occupied space and a decrease in collections storage, the system no longer delivers an adequate supply of fresh air and cannot provide sufficient heating or

cooling. Air Handling Units (AHUs) are at the end of their expected lifespan, though rigorous maintenance has rendered them fit for service for the foreseeable future. Existing electrical and IT risers are at capacity, and IT closets are extremely constrained. Lighting is insufficient. Existing washroom capacity is insufficient for increased occupant loads, and the majority of the building is not sprinklered. The existing concrete structure creates substantial constraints for the distribution of any new services.

### HVAC

Ducting for the HVAC system is cast into the existing concrete structure. While a typical renovation might call for the installation of new AHUs and ducts, in Weldon this would be costly, unsightly, and could compromise headroom under deep sections of structure. The engineering strategy for the building therefore proposes to address HVAC requirements using two distinct approaches.

Existing AHUs will be rebalanced to provide an increased volume of fresh air through existing ductwork; new CO<sub>2</sub> monitors and occupancy sensors will be added to maximize energy efficiency, offsetting the energy losses from additional air changes. New hydronic fan coil units will be introduced for local heating and cooling of occupied

spaces. These will be connected to a new, high-efficiency chiller installed on Weldon’s roof as part of vertical service upgrades.

### SPRINKLERS

The library would ideally be sprinklered as soon as possible to meet current code requirements. However, structural constraints will make sprinkler installation complex and costly, and sprinklering areas that are yet to be renovated may create redundant effort. The Master Plan therefore proposes a phased approach to sprinklering, consistent with prior renovations to the building. The main sprinkler riser, sized for the entire library, should be installed as part of the enabling works, with horizontal tie-ins completed on a per-project basis. This approach should be confirmed with the Authorities Having Jurisdiction prior to detailed planning or design.

### ELECTRICAL AND IT

An indicative location for additional IT and Electrical rooms and risers is noted on the plans. As with the sprinklers and hydronics, vertical distribution and additional rooms would be completed as an enabling work, with horizontal tie-in on a per-project basis. Horizontal distribution could occur through a combination of low-profile raised floors, raceways,

and selective coring through existing structure, as required by detailed design. Careful attention should be paid to ensure that additional distribution is focused on high-density areas for maximum impact. New lighting should be provided throughout.

### PLUMBING

Washroom expansions are identified on the plans for Level 1 and the Mezzanine, located to tie-in to existing plumbing runs and serve the areas with the greatest increases in population.

## TAYLOR ENGINEERING

Taylor poses a much simpler challenge. The existing electrical distribution board is original to the building, so new or replacement breakers are no longer available; this board requires replacement. Similarly, new electrical panels will be required for areas where occupant loads are set to increase.

Otherwise, existing mechanical, IT, and plumbing services are generally sufficient, and will require only local modification to accommodate detailed planning revisions.

A detailed engineering report, describing existing systems and future strategies, is provided in Appendix C.





# ADAPTING THE MODERNIST LEGACY



## ADAPTING THE MODERNIST LEGACY

### BRUTALISM ON THE CANADIAN CAMPUS

The 1960s were years of great institutional investment in Canada and the United States, as universities prepared for the baby boom and the Canadian government financed a variety of projects to commemorate Canada's centennial. The result is a substantial legacy of Modernist and Brutalist campus buildings, now nearing their fiftieth year in service and offering a variety of challenges to their current occupants.

Originally named for Le Corbusier's *beton brut* ('raw concrete'), the Brutalist style was adopted by progressive European architects in the 1950s and popularized by critic Reyner Banham in his 1966 book *The New Brutalism: Ethic or Aesthetic?*

The style is characterized by the use of raw concrete, an emphasis on sculptural form-making, and the sculptural celebration of a building's interior function through its exterior expression. Brutalist buildings often maintain a strong interior focus, with large, multi-levelled interior spaces, dramatic spatial and proportional contrasts, and limited exterior glazing. The style was frequently associated with socially progressive and even utopian politics, often seen as a materially honest and uncompromising riposte to bourgeois tastes.

The style became popular on North American campuses for a variety of reasons: construction was relatively simple and low-cost, given the limited material palette and lack of finishes; the focus on interior space offered a cost-effective way to enclose large volumes of space; concrete construction was robust enough to withstand the high levels of traffic in campus buildings; and the socially-progressive associations of the style likely resonated on campuses of the era.

Fifty years later, many of Canada's brutalist structures—Weldon Library among them—are in need of upkeep and investment. Standards for envelope performance, mechanical systems, and life-safety systems have all changed substantially over the intervening years, and occupants' expectations have changed with them. Many of these buildings' engineering systems, specifically HVAC and lighting, are at the end of their life, which can exacerbate comfort issues; other systems, notably IT and electrical wiring, are insufficient for current modes of occupation. Developments in construction technology have, by contrast, highlighted certain aspects of brutalist architecture—like the frequent paucity of exterior glazing. And perhaps most importantly, many of these buildings were designed to accommodate

the programs and uses of a previous era, and do not reflect current academic requirements.

Nonetheless, these structures are often incredibly robust, representing huge quantities of embodied energy, often at prime locations on campus. And while the particular programmatic spaces may not reflect current academic requirements, in their approach to public space these buildings often embody an approach that speaks to still-relevant values of publicity, community, and collegiality. The key, then, is to find strategies for adapting these buildings in a way that resolves their shortcomings, enhances their best features, and does so in a way that is sympathetic to their underlying architectural ideas.

### ADAPTING THE MODERNIST LEGACY

The following pages showcase some exemplary renovations and useful strategies, highlighting several important concepts for the successful adaptation of a brutalist structure. Key principles include:

#### 1. Work with what exists

Brutalist buildings are characterized by their robust structures, strongly-defined plans, and rich interiority. With these elements

rendered in cast-in-place concrete, fighting the underlying logic of the building can be invasive and expensive. Better to focus on celebrating and enhancing the building's best qualities—than fighting to impose an entirely separate logic.

#### 2. Make best use of existing windows.

Renovations to the building envelope can be complex and costly. Where re-cladding is not an option, maximize the impact of existing windows by:

- Removing cellular spaces that 'privatize' exterior windows;
- Using glazed interior partitions wherever possible; and
- Organizing circulation and occupation around existing windows to maximize long views. Locate cellular or non-occupied space where windows aren't.

#### 3. Improve artificial lighting

Often designed for lower levels of occupancy, older buildings often suffer from old and inadequate lighting. Low floor-to-floor heights, deep overhangs, and a lack of natural light exacerbate this issue. In addition to

maximizing daylight access, better artificial lighting can have a transformative impact—not only improving illumination, but enhancing the building’s sense of scale and enlivening existing material qualities.

#### 4. Err on the light side

Dark tones on finishes and furnishings make rooms feel smaller and ceilings feel lower. When introducing new elements, aim for bright tones that will reflect and redistribute light.

#### 5. Introduce natural materials

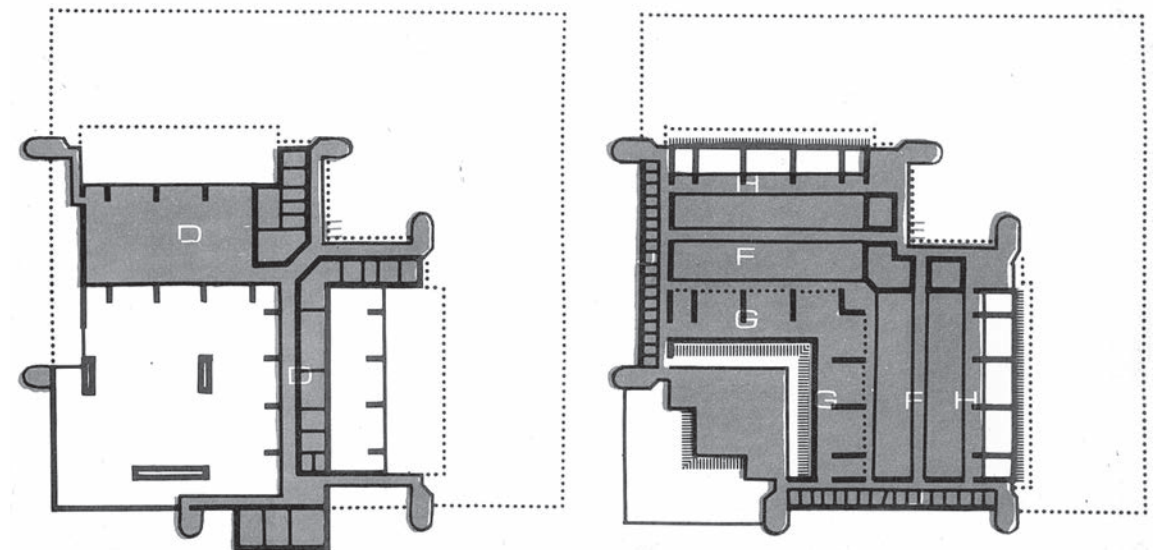
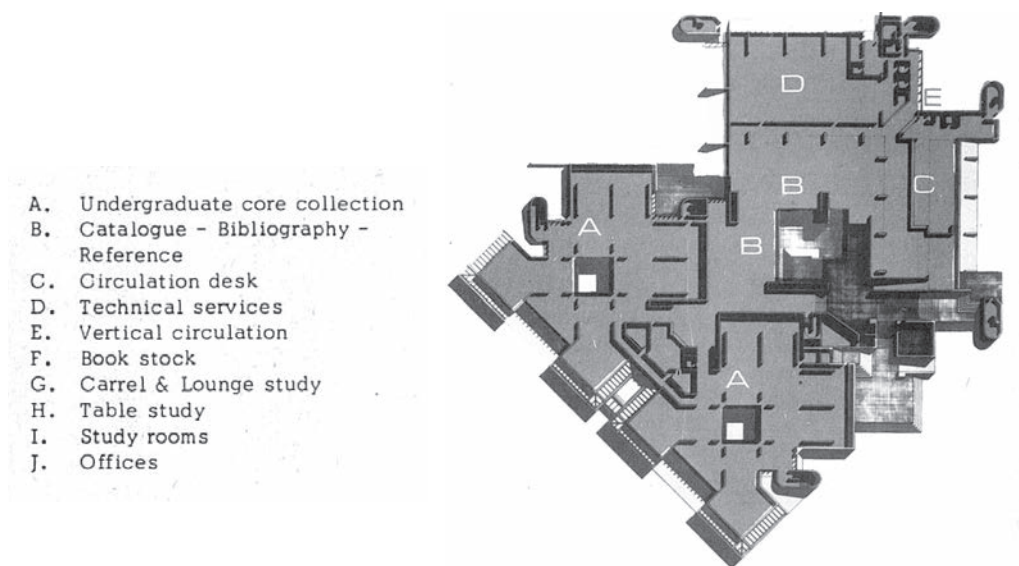
Many brutalist buildings have very fine workmanship, but too much of anything can be relentless. Strategically introducing some wood, whether as an architectural material or through new furnishings, can add warmth and colour to a space while complementing the concrete that remains exposed. These surfaces can also provide enhanced acoustic performance.

#### 6. Use colour for wayfinding and organization

Adding a shot of colour can dramatically enliven a space. Concentrating colour in one particular zone is particularly effective—adding structure to a large space and creating a focal point, while informally reinforcing axial routes or views.

#### 7. Use distributed systems to concentrate service where needed

Bringing additional services through an existing building can be complex and costly. Taking a localized approach to concentrate services where they are required—using decentralized heating and cooling to enhance thermal comfort, for instance, or low-profile raised floors to distribute additional power and data cabling—can be more cost effective than re-servicing an entire building.



Original planning diagrams for Weldon, John Andrews Architects, ca. 1972



BEFORE AND AFTER



Schumann Learning Commons and Library, Wentworth Institute of Technology  
Perkins+Will

BEFORE: dark tones, heavy furnishings, no access to daylight, and insufficient lighting create a closed and confined space.



AFTER: removing cellular spaces at the perimeter brings daylight and views into the heart of the building, while new lighting further brightens the space. Selective introduction of new materials and colours enlivens and unifies the room. A range of furniture types enables a variety of study styles. Collections serve to cluster and zone neighbourhoods within the larger floorplate.





At upper levels, a fresh, light material palette brightens spaces with low ceilings. Additional mechanical and electrical services are integrated within shelving at window level

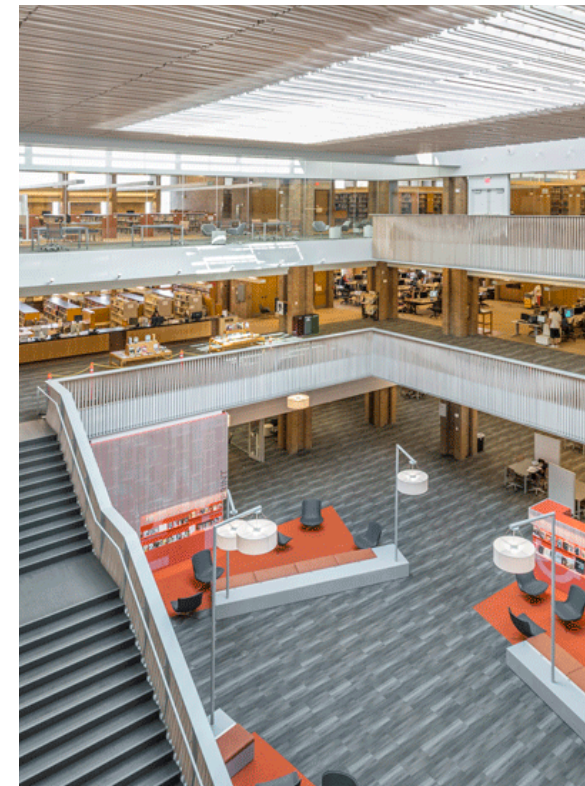


Glass partitions allow cellular rooms to share daylight and views, and put innovative activities on display



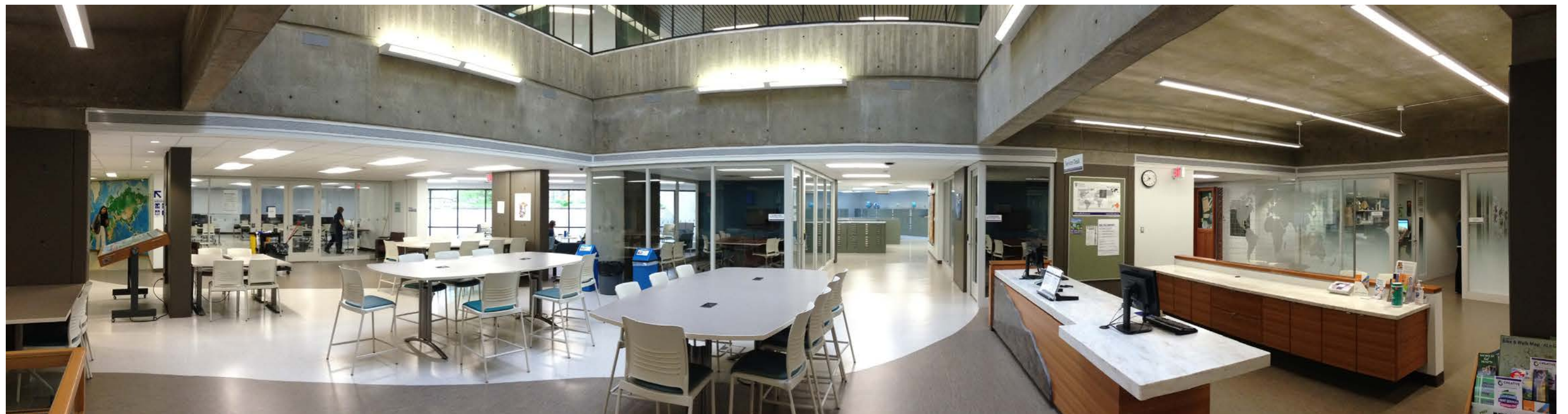


McHenry Library, University of California Santa Cruz | Boora Architects  
Corridors and study spaces take advantage of the building's limited windows, bringing daylight deep into the plan and ensuring 'people' spaces enjoy a connection to the outdoors



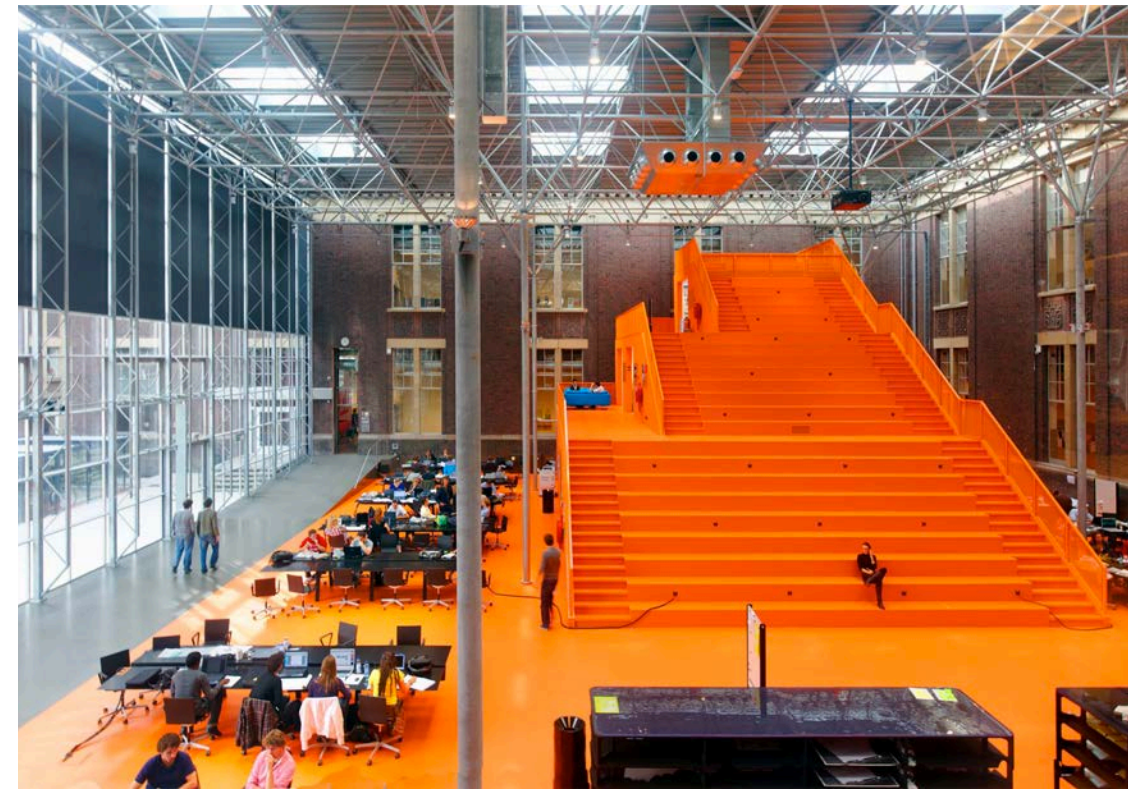
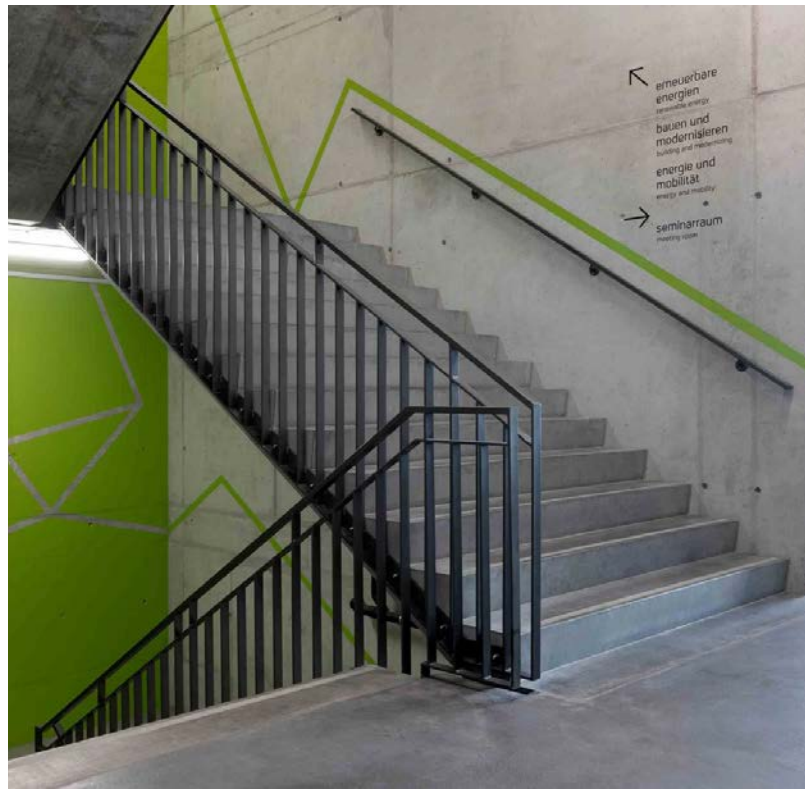
Odegaard Library, University of Washington | Miller/Hull Partnership:  
Distinctive colour, furniture, and lighting creates clusters and neighbourhoods within a larger space





Existing Map and Data Centre, Weldon Library, University of Western Ontario | Western University Facilities Management (Facilities Development & Engineering)  
A bright material palette, glazed partitions, upgraded lighting, and clustering of learning spaces around windows and daylight has transformed this part of Weldon





Strategic colour can also enliven service spaces like exit stairs, aiding in wayfinding and encouraging regular use

When working within a strong formal framework, designing interventions as 'objects of curiosity', with a distinct palette and presence can help them stand out. Bold colours and simple forms draw attention to new elements and programs.



# Method: Patient Trial

\*n=8 (more to come)



# PHASING



# PHASING STRATEGY

The library revitalization project was initially conceived with a twenty year horizon in mind, and the preceding plans show the libraries at the end of this period, once all revitalization efforts are complete. Structuring the Master Plan in this way ensures that the sum of the library's efforts over time are directed to a clear and well-defined end goal. Nonetheless, in reality, these efforts will be undertaken in separate stages, as time, funding, and operations allow.

The diagrams that follow describe one potential approach to planning and phasing individual projects—a way to get from A to Z. Given the complexities of the buildings in question, the variability of potential funding streams, and the likelihood of new programs and initiatives arising over time, the optimal order of projects may very well change. The intent of the phasing diagrams is not to describe the only way to achieve the full master plan, but rather to describe one possible way to get from start to finish. In doing so, they highlight some of the considerations and contingencies that will attend project planning over the coming years.

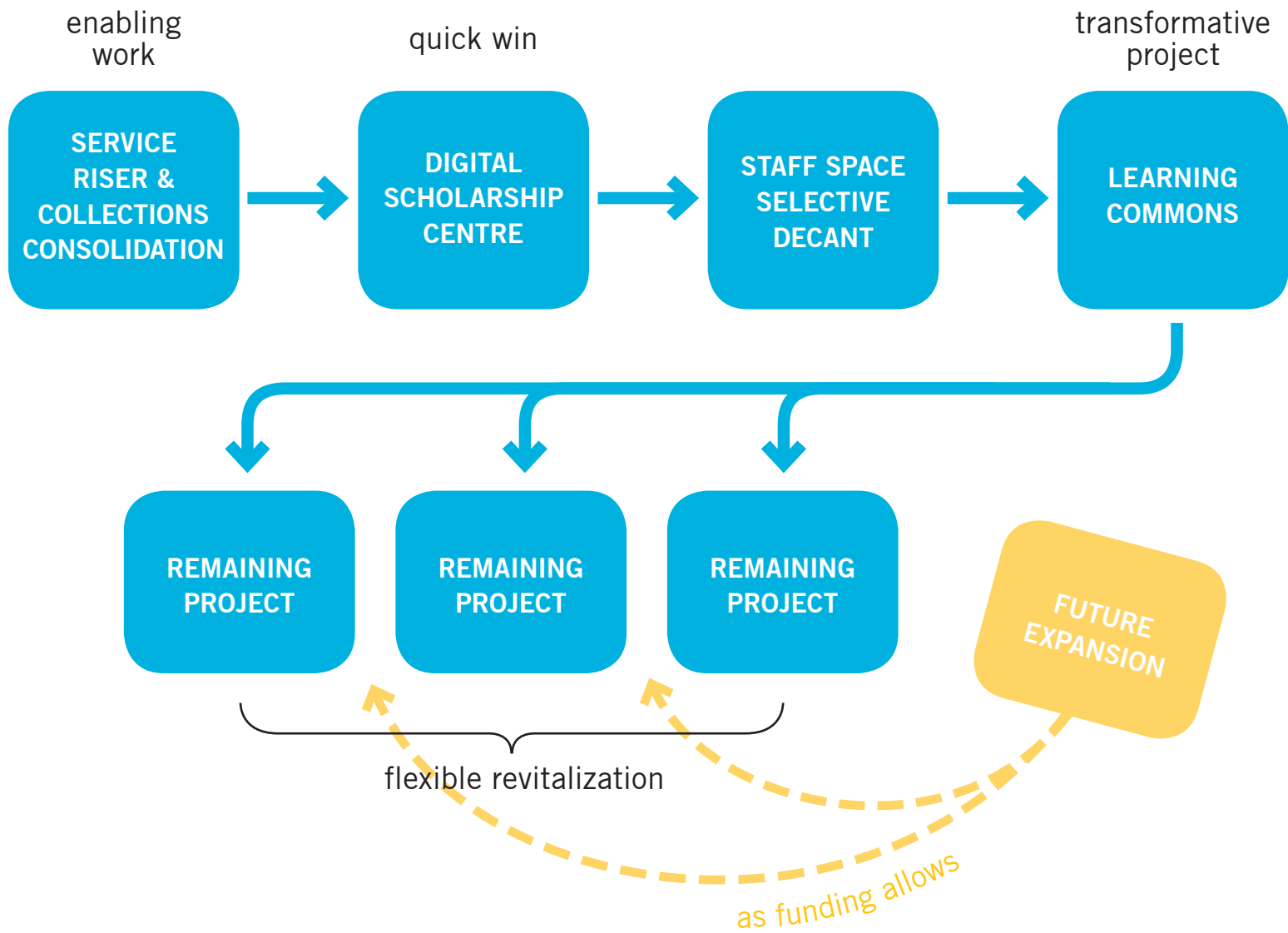
## WELDON

Sequencing for Weldon focuses on the Digital Scholarship Centre (DSC) and the Learning

Commons as immediate priorities. These projects will have a transformative impact on the library, effectively demonstrating its potential as a 21st-century learning and research environment.

Sequencing for these priority projects is driven by the need for key enabling works and selective reorganization of existing programs. Once the DSC and Commons are complete, the remaining projects can be undertaken in a flexible order. The Future Expansion project, a relatively stand-alone undertaking in terms of construction, can be introduced into the revitalization sequence as funding allows.

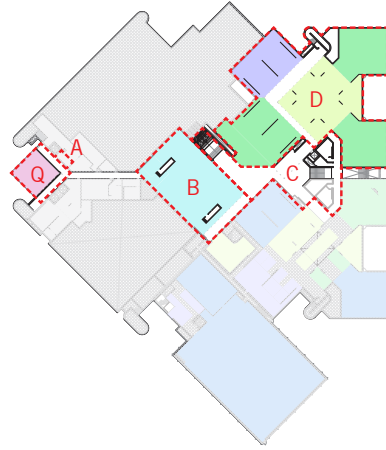
The servicing strategy proposes that engineering upgrades be undertaken in two parts: vertical distribution for required services (sprinklers, hydronics, electrical, IT) would be provided as an 'enabling work', with capacity sufficient to serve the entire building introduced at the outset. Horizontal distribution would be incorporated into individual projects. A phased approach to sprinklering is consistent with earlier interventions within the building, but should be confirmed with the relevant Authorities Having Jurisdiction prior to construction.



LEGEND

- Project Boundary
- Learning - General
- Learning - Specialized
- Collections - General
- Collections - Specialized
- Staff
- Partners
- Community
- New

WELDON PROJECT LIST



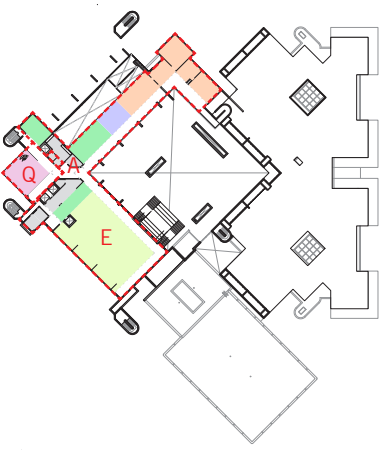
GROUND

- A. AHU upgrades / service riser
- B. high density shelving
- C. services/circulation upgrade
- D. digital scholarship centre
- (Q. future expansion)

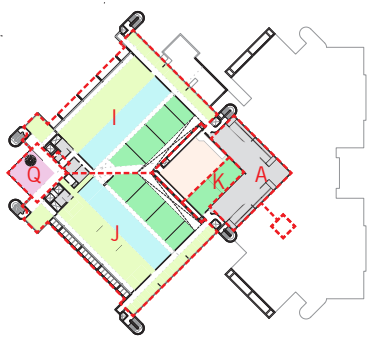


LEVEL 01

- E. learning commons
- F. L01 north
- G. L01 south
- H. services/circulation upgrade

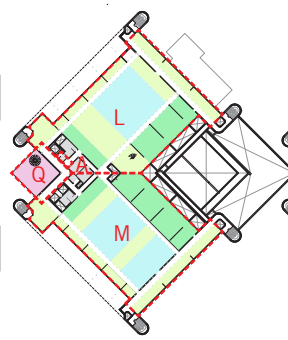


MEZZANINE



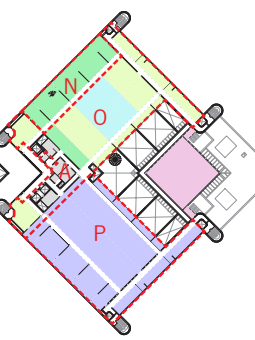
LEVEL 02

- I. L02 north
- J. L02 south
- K. specialized learning



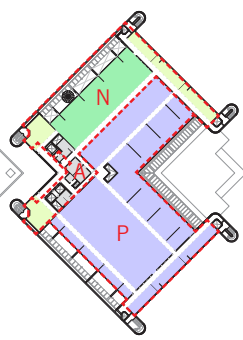
LEVEL 03

- L. L03 north
- M. L03 south



LEVEL 04

- N. grad commons and L05 learning
- O. L04 north
- P. staff L04 & L05



LEVEL 05



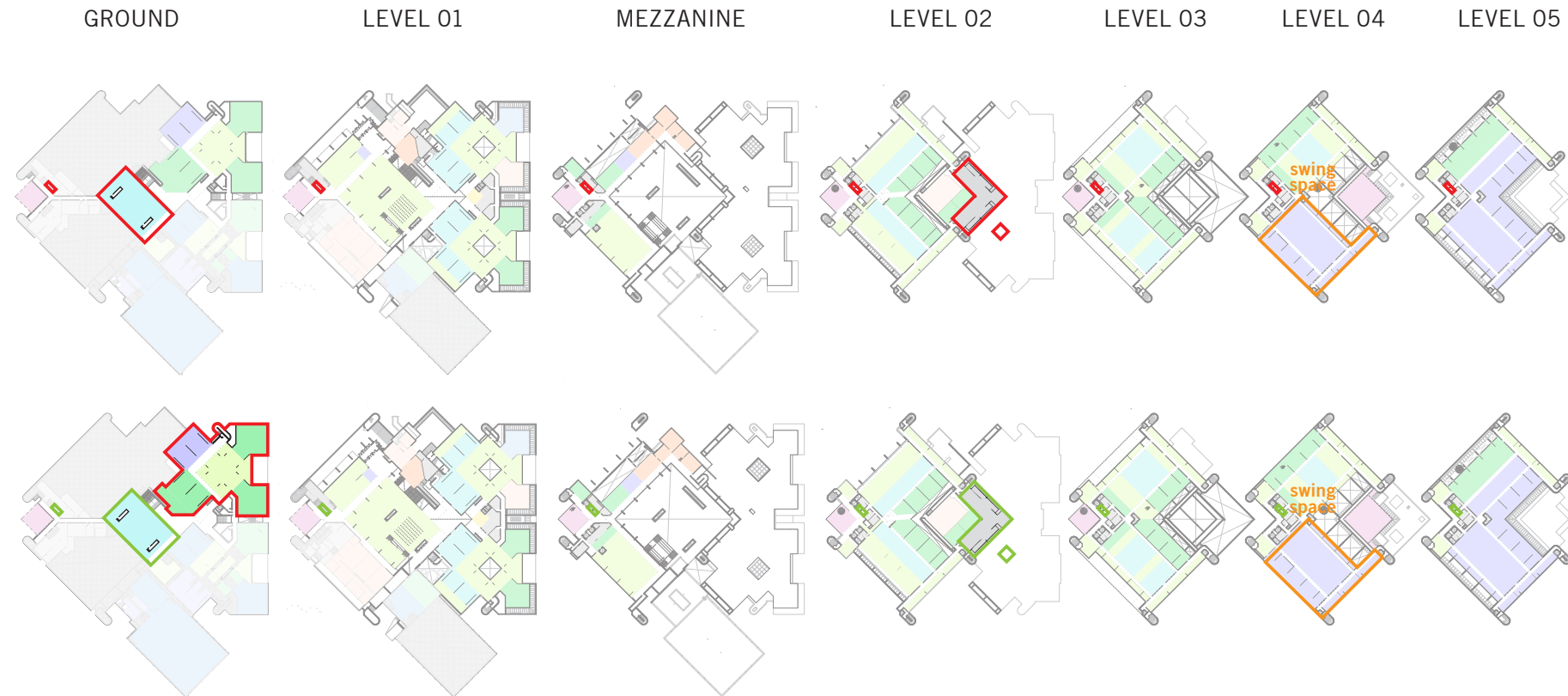
## PRIORITY PROJECT PHASING

## PHASE 1: ENABLING WORKS

The first phase of work includes provision of the vertical service core with new sprinkler riser, new hot and cold water piping, and new electrical and IT rooms. Concurrent with this work, consolidation of the collection and installation of high-density shelving will open up swing space on Level 4.

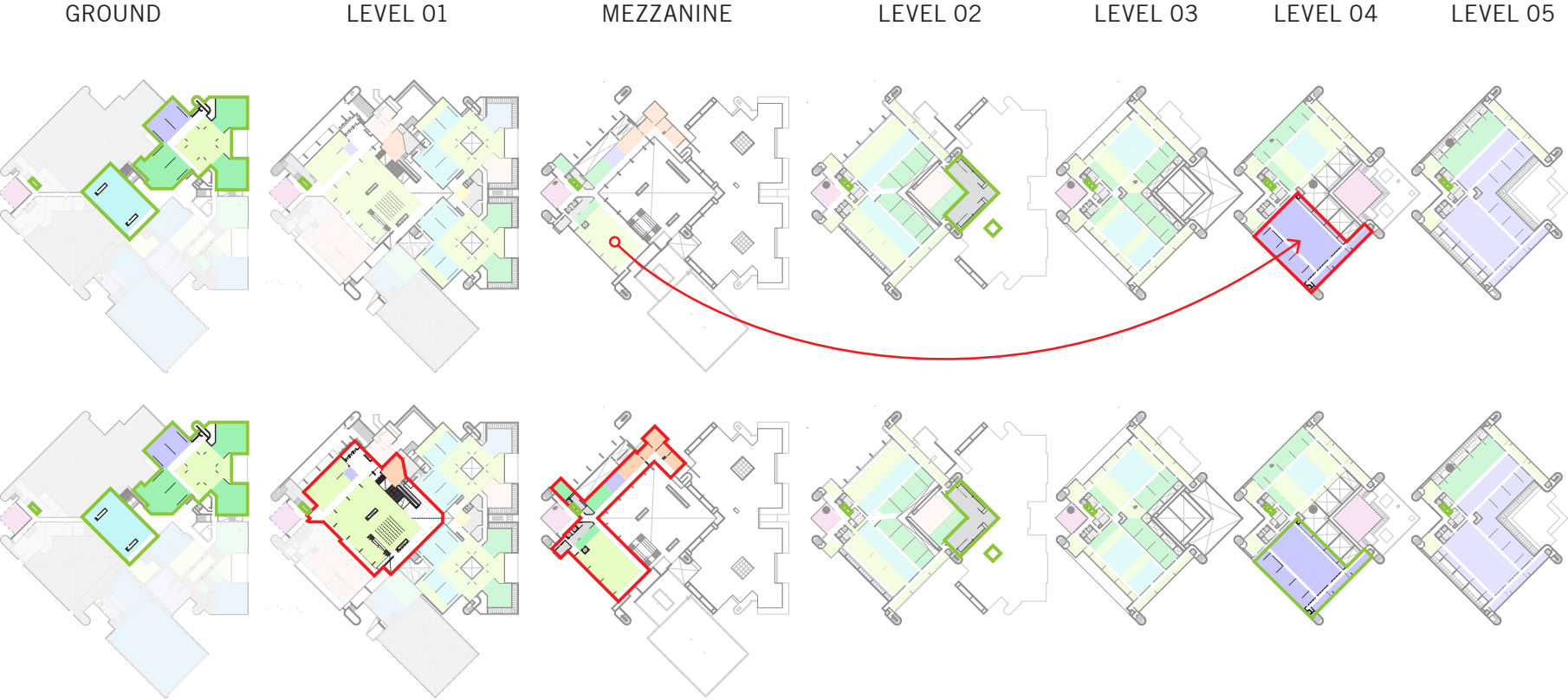
## PHASE 2: DIGITAL SCHOLARSHIP CENTRE

The Digital Scholarship Centre, built in the area currently occupied by periodicals, is the second phase of work. This will be a ‘quick win’ for the library—demonstrating new cross-disciplinary programming and introducing innovative new resources into the library.



**PHASE 3: STAFF DECANT**  
 The swing space created on Level 4 is refurbished as the first area of the revitalized staff space, opening space on the Mezzanine for completion of Weldon Commons.

**PHASE 4: WELDON LEARNING COMMONS**  
 With staff relocated off of the Mezzanine, completion of the two-level Learning Commons can occur.



TAYLOR SEQUENCING

The architecture and engineering at Taylor make sequencing options much more flexible than at Weldon. As demonstrated by the recent renovation of the main floor general learning areas, much of the library can remain fully operational while selected areas are revitalized. As such, a proposed sequence is not provided, though several items are noted for consideration:

1. The only project with major sequencing or logistics constraints is the construction of the Taylor Atrium. This cannot be undertaken until the collections housed in this area have been relocated, and should be undertaken as a single, multi-storey project given the interconnected floor spaces the project includes. Unless the new entry off of Dental Drive is complete by the time the Atrium project is initiated, construction may limit access to the library.
2. The staff space, which is split over two floors, may also benefit from being undertaken as a single project. This will ensure consistency in the design and construction of the staff areas; allow the

areas to be planned holistically; and require a single relocation of all staff rather than multiple partial relocations.

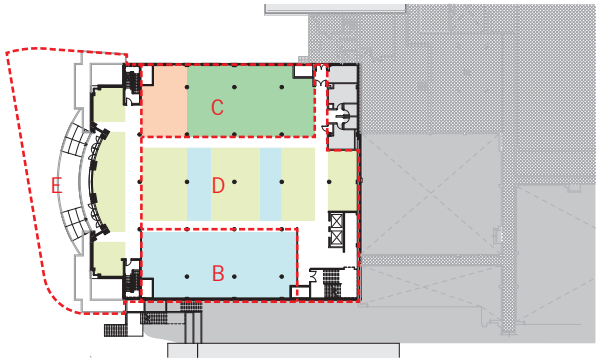
3. In general, as at Weldon, it is recommended that engineering upgrades and the installation of high-density shelving are undertaken as early as is feasible during the revitalization process, in order to improve building service and maximize flexibility for subsequent phases.
4. As part of the Atrium project, the plan includes expansion of the library into space currently on Level 2 of the Natural Sciences Centre (see pages 68-71). The details of this expansion will be a matter for discussion between Western Libraries and University Administration. However, if possible, expanding into this space prior to initiation of the Atrium project would give the library additional flexibility, as this area could be used as swing space during other projects.



LEGEND

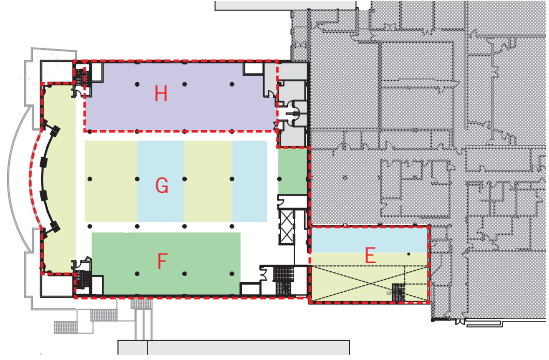
- Project Boundary
- Learning - General
- Learning - Specialized
- Collections - General
- Collections - Specialized
- Staff
- Partners
- Community
- New

TAYLOR PROJECT LIST



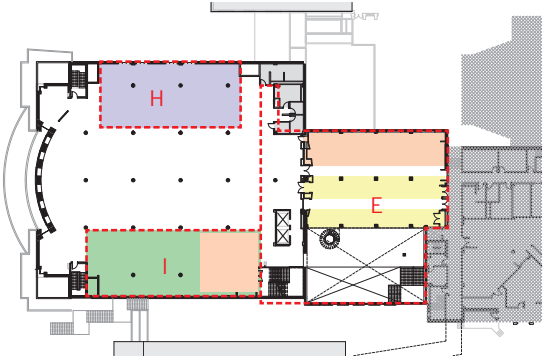
LOWER GROUND

- A. service upgrades (sub-basement, not shown)
- B. high density shelving
- C. specialized learning and partners
- D. lower ground open area
- (J. new entry)



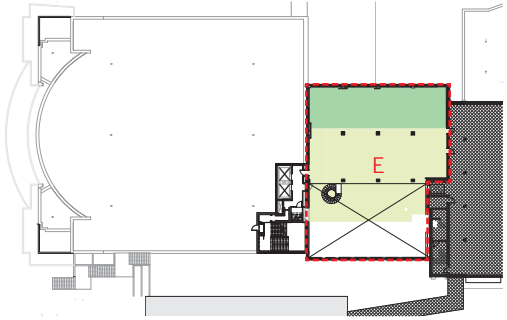
GROUND

- E. new atrium
- F. specialized learning
- G. ground floor student space
- H. Staff



MAIN / NSC LEVEL 1

- I. main floor specialized learning



NSC LEVEL 2

## COSTING SUMMARY

Hanscomb Limited have prepared a preliminary cost estimate based on the plans, phasing, and engineering strategies developed within the master plan. This estimate, included as Appendix D, gives indicative, order of magnitude construction costs for each of the projects described above, based on the limited level of detail included within a Master Plan. All costs are in 2017 dollars, based on a parametric pricing model that is tailored to the project's scope, nature, and location. Contingencies, soft costs, and other ancillaries are estimated as a percentage of construction costs.

At Weldon, project construction cost estimates range between \$500,000 and \$3,000,000 for most projects, depending on the size, scope, and level of service required. Total costs are approximately \$33M in 2017 funds. Project costs for Taylor are typically estimated between \$500,000 and \$1,000,000, given the reduced complexity of work within the building, though the Atrium project is estimated as a more substantial \$4,200,000 project. Total costs are approximately \$12M. In general, estimated per-area costs range from \$90 and \$160 per square foot, not including soft costs and contingencies.

Engineering services account for a high proportion of these estimated costs. This is partly due to costs not incurred—the buildings' structure and envelope, for example, already exist. However, as already noted, much of this work could be considered deferred maintenance due to the age of the buildings and engineering systems, and will be addressed as these facilities are renovated. The high proportional costs reflect the complexity of the work that will be required, particularly in Weldon, but also reflect the high-level nature of the planning work undertaken to date. Detailed estimates should be undertaken in conjunction with detailed design efforts, which will provide greater certainty on engineering requirements and approaches.

The estimate assumes a phased approach for each library. This reflects the desire to maintain operations over the course of the transformation, but phasing will increase overall costs relative to undertaking a renovation as a single project: phasing creates complexities and redundancies that would not exist in a single large project. Mobilisation costs, consulting costs, and project fees will be higher under a phased approach, and contractors' costs will rise in response to the complexities of working within an occupied

building. Based on discussion with Western, it might be possible to achieve a 5-10% overall savings if renovations were not phased.

It is important to note that, given Western's place within the London construction market and the Facilities group's project management experience, the University is often able to achieve construction and project costs that are appreciably lower than at peer institutions. Similar projects have recently been completed on campus at rates that tend towards the low end of the current estimate, as a result of efficiencies captured through the design and execution process.

Taken as a whole, the renovations described represent a significant expenditure. These costs, however, must be examined in the context of the existing investment that the library facilities represent. Today, the cost of new-build academic space starts at \$300/sf in Ontario; costs exceeding \$400/sf are not uncommon. Weldon and Taylor together represent more than 320,000sf of gross building area. The cost to construct these buildings anew would be at least \$100M today, and could conceivably be much higher. In this context, a renovation represents a tremendous value: a transformative impact for a comparatively modest cost.

With the Library's ability to support today's scholars becoming steadily more constrained, there is a pressing need to ensure that one of the University's most significant resources maintains its relevance and achieves its maximum impact. Weldon and Taylor Libraries have enabled 50 years of academic inquiry and excellence at Western, playing a critical role in supporting the endeavors and successes of the University's more than 300,000 alumni. The proposed renovations represent the next step in these facilities' evolution: building on an existing investment to steward the libraries into their next half-century of service, inspiring and engaging future generations of students and faculty at Western.

	GFA		\$/SF	Construction	Construction Contingency	Total Construction Cost (Excl. Ancillaries and FF&E)
<b>WELDON LIBRARY</b>						
PROJECT A - Infrastructure Upgrades/Service Riser	189,266	SF	11.82	\$2,237,000	\$157,000	\$2,394,000
PROJECT B - High Density Shelving	5,061	SF	248.17	\$1,256,000	\$88,000	\$1,344,000
PROJECT C - Building Service	3,400	SF	109.71	\$373,000	\$26,000	\$399,000
PROJECT D - Digital Scholarship Lab	14,050	SF	150.60	\$2,116,000	\$148,000	\$2,264,000
PROJECT E - Learning Commons	36,697	SF	130.09	\$4,774,000	\$335,000	\$5,109,000
PROJECT F - L01 North	8,785	SF	161.07	\$1,415,000	\$99,000	\$1,514,000
PROJECT G - L01 South	11,364	SF	159.01	\$1,807,000	\$126,000	\$1,933,000
PROJECT H - L01 Service	3,075	SF	110.24	\$339,000	\$24,000	\$363,000
PROJECT I - L02 North	12,588	SF	143.15	\$1,802,000	\$127,000	\$1,929,000
PROJECT J - L02 South	12,588	SF	144.58	\$1,820,000	\$127,000	\$1,947,000
PROJECT K - Specialised Learning	1,296	SF	164.35	\$213,000	\$15,000	\$228,000
PROJECT L - L03 North	12,492	SF	161.62	\$2,019,000	\$142,000	\$2,161,000
PROJECT M - L03 South	12,492	SF	149.38	\$1,866,000	\$130,000	\$1,996,000
PROJECT N - Graduate Commons & Associated Level 5 Space	9,758	SF	158.54	\$1,547,000	\$108,000	\$1,655,000
PROJECT O - L04 North	10,193	SF	142.45	\$1,452,000	\$102,000	\$1,554,000
PROJECT P - Staff Space	30,222	SF	130.27	\$3,937,000	\$275,000	\$4,212,000
PROJECT Q - Expansion	5,205	SF	416.14	\$2,166,000	\$152,000	\$2,318,000
Site Development	1	Sum		\$121,000	\$9,000	\$130,000
<b>TOTAL CONSTRUCTION COST</b>					<b>\$2,190,000</b>	<b>\$33,450,000</b>

<b>TAYLOR LIBRARY</b>						
PROJECT A - Service Upgrades	1	Sum		\$800,000	\$56,000	\$856,000
PROJECT B - Lower Ground High Density Shelving	3,243	SF	248.23	\$805,000	\$56,000	\$861,000
PROJECT C - Lower Ground Specialised	3,826	SF	154.47	\$591,000	\$41,000	\$632,000
PROJECT D - Lower Ground General	8,899	SF	134.17	\$1,194,000	\$83,000	\$1,277,000
PROJECT E - Atrium and Learning Commons	17,345	SF	223.23	\$3,872,000	\$271,000	\$4,143,000
PROJECT F - South Special Learning	3,251	SF	165.18	\$537,000	\$38,000	\$575,000
PROJECT G - General Learning	10,918	SF	151.95	\$1,659,000	\$116,000	\$1,775,000
PROJECT H - Staff	7,472	SF	139.72	\$1,044,000	\$73,000	\$1,117,000
PROJECT I - South Special Learning	3,654	SF	165.30	\$604,000	\$42,000	\$646,000
PROJECT J - New Entry	7,364	SF	81.34	\$599,000	\$42,000	\$641,000
<b>TOTAL CONSTRUCTION COST</b>					<b>\$818,000</b>	<b>\$12,523,000</b>

Estimated project costs. Refer to cost estimate report for detailed description of inclusions, exclusions, and methodology.



