SPACE REQUIREMENTS IN THE UNIVERSITY LIBRARY:

A BLUEPRINT FOR THE NEXT DECADE

May 2005

“First we design our buildings, then our buildings design us.” (Winston Churchill)

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University Libraries Committee, May 20, 2005
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INTRODUCTION

‘Well-planned space enables the library to fulfil its mission and pervades all other services.’ ¹

The University Library Mission:

We develop, preserve and provide access to a broad spectrum of information resources to contribute to the teaching, learning and research activities of the University. Our collections and services reflect our commitment to creativity, innovation and excellence and to the centrality of the student in a research intensive university. We are open to change, and actively respond to the needs of our user constituencies. We recognize and value the contributions of each staff member in achieving the Library’s mission.


The Report

The following report presents the findings of a comprehensive review of public space in Mills, Innis and Thode Libraries. The review was conducted over an eight-month period by a small group of library staff drawn from the three libraries. This final version, originally tabled in October 2004, has been revised to reflect the results of a broad campus consultation conducted in the Spring of 2005.

Mandate

The group was asked to review and make strategic recommendations to the University Librarian regarding the use of public space to:

• meet the current and anticipated needs of all user groups (undergraduates and graduates, faculty, staff and outside researchers)
• accommodate significant increases in the number of students using the Library
• establish a reasonable balance between collection, study, technology and service space
• meet users’ changing information needs and learning styles
• identify workable adjacencies (e.g. group noisy activities in one area)
• recommend new shelving arrangements and strategies to make more effective use of collection space over the decade

• recommend a workable mix of study space (group, individual)
• review the location, size and configuration of service points
• discuss staff areas insofar as they relate to public areas
• include specific recommendations for 2005-2006

Assumptions

The group was asked to use the following assumptions to guide their deliberations:
• that the libraries will remain at their current size and footprint
• that minor renovations ($100 K) could be accommodated over the period
• that recommendations may alter the current balance among study seats (carrels, computer work stations, group, etc.)
• that cooperative (provincial) solutions to library space needs may not come quickly enough to resolve our local space issues

The Environment

The conflicting demands for space in the University Library are intensifying. The rich print collections are rapidly outgrowing current shelving capacity. The increasing availability of electronic journals is dramatically reducing the number of print journal volumes that must be maintained by the Library, but the much larger book collections continue to grow. Relatively few books are currently available in electronic form, and users show only moderate enthusiasm for using the new format. As a research library, weeding of the print collections is done only selectively. To date, consortial acquisitions and retention initiatives for print materials have made little progress.

At the same time, the vision of the “deserted library” has failed to materialize. Despite the increasing availability of virtual collections and services, physical entrance counts are much higher than they were five years ago. During busy times of day, students scour the buildings searching for an empty seat. Learning is becoming an increasingly collaborative and social process: students prefer to study in public places rather than in their homes or dormitories. Given the University’s current enrolment projections, the number of students using the Library is expected to increase.

At the same time, although most university students now own a computer, the demand for hard wired stations in the Library has continued to increase. Even students owning laptops find carrying them an inconvenience and often prefer to use wired stations in the Library. The future of tablet technology is unclear. For many students, collaborative work space in the Library is preferred over campus computer labs because of the variety of seating available, and the easy access to print resources and reference assistance.
PART ONE: SUMMARY COMMENTS AND RECOMMENDATIONS

Mills, Innis and Thode Libraries all meet or exceed recognized standards of building “efficiency”. The proportion of public space devoted to specific functions varies considerably, with Mills and Thode comprised primarily of collection space, but Innis comprised primarily of study space.

Given the rapid growth of our physical collections, coupled with significant increases in student enrolment, the University Library must make compromises in many key areas to strike a reasonable balance between people and collections.

The Library is already spending an increasing proportion of its acquisition budget on electronic content. This strategy should be encouraged, not only as a means of facilitating access, but also as a means of reducing the strain on our physical facilities.

SUMMARY OF KEY RECOMMENDATIONS

Collections:
• Increase the density of our collections through greater use of compact shelving in all weight-bearing areas.
• Free up a minimum of 10,600 square feet of collection space to make room for study space.
• Dismantle the two existing storage facilities (Thode Lower Level and Burke Science Building (BSB)). Create one centralized high-density shelving facility to house low-use material from all libraries.
• Move towards the concept of “steady state” collections whereby the volume of incoming material must be matched with an equal amount of withdrawals and/or relocations to high-density shelving.

Study Space:
• Add at least 600 seats throughout the three libraries over the course of the next decade to maintain a minimum of one seat for 14% of all non-Health Sciences Full Time Equivalent (FTE) students.
• Continue to provide a mix of study furnishings (carrels, tables, soft seating, etc.) and study environments (silent, group, etc.) to satisfy the diverse preferences of our users.

Computer Space:
• Increase the amount of space devoted to public computers from 3.1% to 6.8% of total public assignable space.

• Increase the number of wired public computers from 161 to 368, primarily through the establishment of Commons facilities in both Mills and Thode.

• Expand wireless connectivity to all public areas in all three libraries.

Public Equipment Space:
• Reduce the amount of microform equipment in our buildings - but increase the quality and centralize the devices in fewer areas on the floors.

• Model a gradual reduction in the space devoted to photocopiers - with some increase in the number of printers.

• Reduce the amount of music listening equipment, but house the devices on appropriate audio-visual carrels. Use compact shelving to create a separate, more quiet environment for music listening.

Service Space:
• Make small changes to our service desks to better facilitate the interaction of people with collections and technology.

Refurbishing Existing Spaces:
• Improve lighting in study areas. Pay special attention to our large study rooms.

• Provide electrical outlets in all large pockets of public seating to facilitate laptop use.

• Proceed with plans to systematically review all public furniture across the University Library. Pay special attention to the chairs in Innis and Thode.

• As areas are repurposed, review and update carpet, paint, etc. Pay special attention to prominent public areas.

Review:
• Review all recommendations and update projections every five years.
PART TWO: CURRENT SPACE UTILIZATION

“Good planning and design require bringing both traditional collections and functions into harmony with new technology and new services.” ²

Building Efficiency

All three libraries are “efficient”. The amount of “assignable” space, i.e. square feet available for library programs - exclusive of utility shafts, stairwells, corridors, washrooms and other structural requirements - meets or exceeds the accepted range of 65 - 75% of total building space. ³ (For details, see Appendix #2, “Assignable and Non-Assignable Space in the University Library”, page 66.)

Figure 1: Assignable and Non-Assignable Building Space, University Library, 2004

Current Space Utilization by Category

Across the system, 66.9% of all space is allocated to collections, 26.5% to seating space, 3.1% to computer space, 1.3% to service space and 2.3% to public equipment space.

²Thomas, 2000, p. 408.

The proportion of assignable public space allocated to specific purposes varies considerably from library to library. Mills and Thode are predominantly comprised of collections, with 68.5% and 70.0% respectively, of their public space devoted to bookstacks, periodicals and other physical material. Innis, on the other hand, is primarily study space, with 62.7% of all area devoted to study carrels and tables - but only 21.5% assigned to collections. (For details, see Appendix #3, “Current Space Utilization in the University Library”, page 67.)

Figure 2: Current Space Utilization, by Library, 2004
PART THREE: COLLECTION SPACE

“As libraries provide access to collections in multiple formats, the balancing of user, technology, collection and staff needs has become more complicated. Libraries need to include accurate projections of future collection growth patterns in facility plans despite long-term uncertainties about collection evolution.”

“...though it may shock students to learn this, the fact is that most real information of an academic, scholarly nature is available only in printed or tangible form, and this will continue to be the case for the foreseeable future.”

During the next decade, the demand for collection space will increase dramatically. Based on current projections, the University Library will add over 300,000 additional items (books, serials, government publications, technical reports, scores, etc.) This influx of new material will exceed the capacity of the three libraries using traditional shelving strategies in current collection areas.

Figure 3: Our Growing Collections

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4Shill and Tonner, 2003, p. 453.


6This figure excludes microforms, archives and cartographic materials.
The Library is already spending an increasing proportion of its acquisitions budget on electronic content. The purchase of electronic serials has been especially well-received by users. This strategy should be encouraged, not only as a means of facilitating access, but also as a means of reducing the strain on our physical facilities.

**GENERAL RECOMMENDATIONS**

| Recommendation #1: Increase the density of our collections through greater use of compact shelving in all weight-bearing areas |

Compact or “mobile” shelving reduces the need for access aisles and hence increases shelving capacity by 50% or more. The shelves are set on movable tracks, with only one aisle open at a given time.

Electronic compact shelving units are currently in use in public areas only in Mills. (Manual units are also used in the staff areas of Research Collections and in the two storage facilities - Thode Lower Level and BSB.)

Historically, some users have expressed frustration with compact shelving, noting the inconvenience associated with waiting for other users to finish in one aisle before another aisle can be accessed. That being said, many of our student users appear relatively accepting of the increased use of compact shelving. One respondent in the survey conducted by the Thode Engineering Society noted that “compact shelving is the best idea. Should be used more often to conserve space in all libraries and to add more space for study carrels/group study rooms.” 7 One participant at the Innis student focus group session noted that compact shelving is “a bit inconvenient but makes sense.” 8

Only certain areas in the three libraries are designed to bear the weight of even regular shelving. In Mills, only the basement and certain areas of the 1994 extension can support compact shelving. 9 In Thode, only the Lower Level is compact weight-bearing. In Innis, shelving in the

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8 Innis Library, *Notes from Student Focus Group Session*, conducted March 24, 2004 by Ines Perkovic.

9 The 1994 Mills building project added an “L” shaped addition to the library. The East portion of the “L” will hold compact shelving, but the North section (with the exception of the 3rd floor) will not. The Lower Level will also bear compact since it’s at ground level.
front room must be spread several feet apart to support even regular shelving and no area in the library can support compact.

Installing compact shelving in existing library spaces is a costly and complex process. Based on quotes received in 2002, the 557 Double Faced Sections (DFS) of compact shelving being proposed just for Mills could cost upwards of $750,000-$800,000. In addition, the process of dismantling regular shelving, installing new rails, uprights and shelves, and then shifting the collections onto the new units is extremely labour intensive.

**Recommendation #2: Free up a minimum of 10,600 square feet of collection space to make room for study space.**

In Mills especially, the need to fully compact all weight-bearing areas in the building comes at the expense of much-needed study space. (For example, 89 carrels in the North East corners of the 3rd, 4th and 5th floors must be eliminated to make way for space-efficient compact shelving.)

In addition, again particularly in Mills, premium study space along windows is being used for collections. The need for natural light was a frequent comment in survey responses and focus group sessions.

To counteract these two problems, the Public Space Utilization Group recommends freeing up small pockets of collection space (in regular shelving areas) for study seats. For example, in Mills 2 DFS of shelving should be removed along the North walls of floors 3, 4 and 5 to compensate for seats lost in the corners.

**Recommendation #3: Dismantle the two existing storage facilities (Thode Lower Level and BSB). Create one centralized high-density shelving facility to house low-use material from all libraries.**

**Current Storage Facilities**

The University Library currently supports two large storage areas, a 5,332 square foot facility in the lower level of Thode and a 2,155 square foot facility in Burke Science Building. The Thode facility, which primarily holds material from Mills and Innis, is almost full. The facility is located in space that, with some renovations, could be better used for publicly-accessible fully-compacted current collections. The Burke Science Building, which houses low-use material from Research Collections, is also close to full now. The general conditions in this facility are poor, with the collections at some risk of flood damage from the labs located directly above.
The Demand for High-Density Shelving

As is illustrated throughout this report, the University Library requires approximately 45,000 linear feet of high-density shelving to house its collections to the year 2015. (The Health Sciences Library, although not part of the formal space study, may also have need for high density shelving.) The need for such a facility is not consistent across the University Library. Thode has sufficient room to accommodate most of its collections to the year 2015 without recourse to high-density shelving or loss to study space - as long as compact shelving is added to the Lower Level. Mills, on the other hand, is unable to accommodate future growth without moving large quantities of lesser-used materials to high-density: even if all weight-bearing floors are fully compacted, books would be on the floor in some sections of the stacks within the decade. Innis also requires high-density shelving to house its collections, although the number of sections is extremely small by comparison.

For a tentative list of material to be relocated to high-density shelving, see Appendix #4, page 68.

What Kind of High-Density Shelving Facility?

The Group recommends that the Library consider building some form of “high-density” shelving facility. The model, originally pioneered by Harvard and adopted by many public and academic libraries across North America (including, most recently the University of Western Ontario) is premised on warehouse stacks (often 30 feet high) serviced by “order picker” industrial trucks. The material is sorted and binned by size rather than call number, thus eliminating the need for shifting. In the University of Western Ontario model, books and whole journal volumes are retrieved and delivered to the requesting library within 24 hours, and articles are scanned and delivered to the desktop to anyone with a valid university e-mail account. The TUG ANNEX, which supports the high-density shelving needs of Waterloo, Laurier and Guelph, uses a lower-tech variation of the model. In this facility, material is stored on 12-foot high stacking units. Material is filed in transfer date order directly on the shelves. Requests are printed out each morning by ANNEX staff. Books usually arrive within 24 hours. Articles are photocopied and shipped in 2-3 days.

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10Lane, 2001, p. 74.
Preliminary Costing

Given the extremely high density of the shelving and the lack of public amenities (carpeting, seating, etc.), the cost of building a warehouse-type shelving facility is considerably cheaper than adding an extension. The literature suggests that, “regardless of specific square foot costs in a particular area, however, or of particular shelving contract prices, or of relative labor costs, building a HDBSS will provide an overall cost advantage of three to six times over expanding the library.” ¹¹ In a 2004 report prepared for the Council on Library and Information Resources, Schonfeld suggests an average one-time cost of $2.50 U.S. /volume for high-density shelving. ¹² Based on this model, the cost of building a small facility capable of holding 400,000 items (roughly what the University Library would need to the year 2015) would be approximately $1.4 Million (CDN). For purposes of comparison, the University of Western Ontario recently built a state-of-the-art high-density facility with a capacity of 84,600 linear feet of shelving in its warehouse and an additional 3,860 linear feet in its compact shelving facility for just under $4 Million.

The Group recognizes that all proposals to relocate materials involve significant staff costs associated with identifying materials and changing catalogue records.

Recommendation #4: Move towards the concept of “steady state” collections whereby the volume of incoming material must be matched with an equal amount of withdrawals and/or relocations to high-density shelving.

¹¹Lane, 2001, p. 77.

The Public Space Utilization Group has carefully projected and planned for collection areas to the year 2015. If all projections are on target, the recommended measures will accommodate growth to that point, but no further. In many collection areas, future growth, beyond 2015, will need to be matched by an equal number of withdrawals or relocations to high-density shelving.

**SPECIFIC RECOMMENDATIONS BY COLLECTION TYPE**

**BOOK STACKS**

**Current Requirements:**

Book stacks in all three libraries are well beyond capacity. In many areas, particularly in Mills and Innis, less than one or two inches is available at the end of each shelf. This crowded condition makes shelving very labour-intensive: large shifts are required to accommodate even a few new books in a given subject area. The tight quarters and frequent shifts damage the books and make finding individual items on the shelf more difficult.

Determining the magnitude of the current shelving shortfall is challenging. The Council of Ontario Universities recommends a standard of 18 items per shelf.  

13 Keyes Metcalf, the recognized expert in planning for academic libraries, recommends a more liberal standard based on subject matter, with general literature collections at 21 items per shelf, technical and scientific collections housed at 18 items per shelf, economics collections at 24 items per shelf, etc.)  

14 Given the current size of the three libraries and the heavy demand for increased study and computer space, the libraries are unable to meet even the most liberal interpretation of these standards. The Public Space Utilization Group recommends a compromise, with Mills and Thode accepting a capacity of 23 items per shelf and Innis accepting a slightly higher definition of 25 items per shelf.

**Mills**

Even using this lenient standard, Mills requires 3,724 shelves (266 DFS) to house its book collections right now. Based on current projections, an additional 7,924 shelves (566 DFS) will be needed to house incoming books. Another 1,008 shelves (72 DFS) are required to free up space for 60 carrels along the windows on the 4th and 5th floors. Another 504 shelves (36 DFS)

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are required to create room for 30 carrels in a new “Silent Zone” on the 6th floor. All told, 940 DFS are needed to satisfy all demands to the year 2015. (For details, see Background Reports, "Book Stack Projections for Mills Library, 2005-2015").

<table>
<thead>
<tr>
<th>Recommendations to meet 904 DFS shortfall:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Erect additional compact shelving in Music Listening Area</td>
</tr>
<tr>
<td>2. Erect additional compact on 3rd floor (North East)</td>
</tr>
<tr>
<td>3. Convert existing compact on 3rd floor (pre-1966 serials) to books</td>
</tr>
<tr>
<td>4. Erect additional compact on 4th floor (North East)</td>
</tr>
<tr>
<td>5. Erect additional compact on 5th floor (North East)</td>
</tr>
<tr>
<td>6. Relocate 119 DFS (38,318 items or 3,832 items/year) to proposed High-density shelving facility</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
</tr>
</tbody>
</table>

**Innis**

Using an accepted capacity of 25 items per shelf (1 item over Metcalf’s recommendation for economics collections), Innis needs an additional 84 shelves (6 DFS) to house its current collections and another 434 shelves (31 DFS) to house incoming material to 2015 - for a total of 518 shelves (37 DFS) over the period. (For details, see Background Reports, "Book Stack Projections for Innis Library, 2005-2015").
### Recommendations to make up 37 DFS shortfall:

1. Erect additional DFS in back room *(05/06 initiative)* 6 DFS

2. Relocate reduced periodicals collection to west wall outside of Photocopier Room. Reassign 17.5 DFS to book stacks 17.5 DFS

3. Relocate 4,000 items (13.5 DFS) to proposed high-density shelving facility 13.5 DFS

**TOTAL:** 37 DFS

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### Recommendations to make up 216 DFS shortfall:

1. Erect 16 DFS summer 2004 to alleviate immediate shelving crunch 16 DFS

2. Erect new compact shelving units on the Lower Level (currently B116 and B117). Relocate the entire periodicals collection to the new compact units.

3. Distribute the book collections throughout the 1st and 2nd floors - interspersed with new and existing study space. Include an additional 200 DFS above current numbers. 200 DFS

**TOTAL:** 216 DFS

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**Thode**

Using a relaxed standard of 23 items per shelf, Thode needs an additional 1,008 shelves (72 DFS) to house its current collections and an additional 2,016 shelves (144 DFS) to house incoming materials - for a total of 3,024 shelves (216 DFS) over the period. (For details, see *Background Reports, "Book Stack Projections for Thode Library, 2005-2015"")

Given the intense demand for study space and the rapid migration of periodicals to electronic formats, the Group recommends a dramatic change in the location of both the book and journal collections.
PERIODICALS

The number of print subscriptions maintained by the University Library dropped significantly over the last five years as an increasing number of publishers made their titles available in electronic form. Collections staff forecast that this trend will continue - but anticipate that the three libraries will continue to hold core collections of hard-copy journals for the foreseeable future. 15

In the absence of a definitive formula, the Public Space Utilization Group has opted for a fairly conservative model, with the number of subscriptions dropping by 33% at Mills and 50% at Thode over the ten-year period. (The rate of cancellations is expected to be slower in the humanities and social sciences given the higher proportion of small press titles.)

Even with this dramatic reduction in the number of print subscriptions, the University Library can expect to receive over 46,000 additional pieces during the coming ten years. If the projections are accurate, 3,096 shelves will be needed to hold the new material: 2,520 in Mills and 576 in Thode. 16

15 Many industry analysts predict that the print journal will continue for at least 50 years since publishers still retain a significant proportion of their revenue from print subscriptions and since archival issues have not been resolved. See Jaeger, 2003, p. 30.

16 Separate calculations are not required for Innis which maintains a rolling five-year collection of journal titles - with all material eventually being transferred to Mills.

Given the dramatic difference in the size of the three periodical collections, as well as the amount of available space in the libraries, solutions for dealing with the shelving shortfall vary considerably.

Thode Periodicals (March 2004)

Mills

In Mills, the volume of new material continues to be large, but the amount of new space for collections is almost non-existent. 216 DFS are required to accommodate future growth (with a small allowance for study seating along the windows). (For more details, see Background

**********
Recommendations to make up 216 DFS shortfall:

1. Relocate the pre-1966 serials to the proposed new high-density shelving facility to free up compact for book stacks

2. Relocate the 1966-1988 periodical collection to proposed high-density shelving facility. Purchase retrospective electronic indexes when possible. 199.5 DFS

3. Relocate all JSTOR titles to high-density facility 10 DFS

4. Relocate periodical indexes duplicated in electronic form to proposed high-density shelving facility 6.5 DFS

TOTAL: 216 DFS

Reports, "Periodical Projections for Mills Library, 2005-2015". To meet this end, the entire pre-1988 journal collection, the full run of all 278 JSTOR titles and all periodical indexes duplicated in electronic form must be relocated to high-density shelving.

The concept of moving periodicals (as opposed to books) to high-density makes sense from many angles. First, an increasing number of serials are becoming available in electronic form, thus dramatically reducing the use of print collections. As well, the labour cost involved in transferring serial titles is considerably less than monographs. Individual volumes do not have to be hand selected for relocation. A single record can be changed in the library catalogue to account for several shelves of material. Finally, the concept of a set cut-off date for all journals in the building is easy for users and staff to understand.

Innis

The Innis periodical collection is currently housed in the front room on regular shelving, spaced 5-6 feet apart (due to limited weight-bearing capacity of the flooring).

Given the rapid pace of cancellations of print journals, large numbers of titles have been moved to Mills in recent years. This trend is expected to continue, leaving all but approximately 75 core business titles available in print at Innis by the end of the period.

As the collection diminishes, sections will be removed at the end of each range to free up space for seating. The entire collection will eventually be relocated to the wall outside the photocopier room to free up much needed space for the book collection.
**Recommendation:**

Relocate reduced periodicals collection to wall outside of Photocopier Room (to make room for book stacks and group study rooms).

**Thode**

In Thode, the number of print subscriptions is expected to drop by 50% over the period. Using this model, 576 shelves (41 DFS) are required to house incoming material to the year 2015. (For details, see *Background Reports, "Periodical Projections for Thode Library, 2005-2015".*)

As noted earlier, the Group recommends a significant change in the location of the book and journal collections.

**Recommendations to make up 41 DFS shortfall:**

1. Erect 16 new DFS Summer 2004 to resolve immediate space crunch  
   16 DFS

2. Relocate entire periodical collection to new compact shelving units on the Lower Level (currently B116 and B117). Include an additional 29 DFS to make up shortfall.  
   29 DFS

**TOTAL:** 45 DFS

**REFERENCE**

Reference collections in all three libraries tend to be fairly static in size. No new additional shelving is required to meet future needs to the year 2015.

**Mills**

That being said, 96 shelves (8 DFS) must be removed from Mills Reference to make room for microfiche cabinets in the back area. In addition, up to 18 shelves of periodical indexes need to be relocated from the index tables to make room for the *Knowledge Commons.*
**Recommendations:**

1. Relocate approximately 2,700 books to proposed high-density shelving facility. (Some material may be disposed of or relocated to Mills book stacks, Mills periodicals, etc.)

2. Purchase electronic periodical indexes when possible.

3. Begin process of eliminating print periodical indexes when held in electronic form. (Has the potential of freeing up to 56 shelves - 11 shelves on index tables and 45 shelves in book stacks.)

4. Eliminate centre aisle to make room for 25 carrels along windows

5. Add small consultation tables or shelves on south end of Reference shelves

6. Eliminate index tables to make room for the *Knowledge Commons (05/06 initiative)*

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**Innis and Thode**

No changes required.

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**RESEARCH COLLECTIONS**

Space in Research Collections is used very efficiently, with large proportions of material already sitting on compact shelving.

Given the unexpected nature of some acquisitions, where large and important collections suddenly become available for purchase or by donation, projecting future trends is more challenging than in other areas of the Library. Important collections can’t be turned down because the Library has hit its quota of shelving for the year.

The Group investigated many options for expanding the collections onsite, including the possibilities of moving Preservation (LB 113 - 1,227 square feet) or the Information Technology Tech Shop (LB 106 - 1,200 square feet) to other areas. In both cases, acceptable alternative space could not be identified for these areas.

Research Collections currently has 44 empty DFS available for print volumes (books, journals, government publications, etc.) Given past trends, 61 DFS are needed for future growth to the
year 2015 - leaving a shortfall of 17 DFS. (For details, see Background Reports, "Research Collections: Projections for Print Volumes, 2005-2015").

**Recommendation to make up 17 DFS shortfall:**

Relocate 17 DFS of low-use material to proposed high-density shelving facility.

**Archives**

777 linear feet are currently available for new archives. Based on past trends, 1,775.4 linear feet will be required to house future collections to the year 2015 - leaving a shortfall of 998.4 linear feet (roughly 33 DFS of special archival shelving). (For details, see Background Reports, "Research Collections: Projections for Archives, 2005-2015").

**Recommendation to make up the 33 DFS shortfall:**

Relocate 33 DFS of low-use archives to proposed high-density shelving facility. Estimated at approximately 700 square feet of floor space (due to extra large width of units).

**GOVERNMENT PUBLICATIONS**

The volume of new government publications coming into Mills and Thode has dropped dramatically in recent years as an increasing number of titles are being issued in electronic format. This decline is expected to continue at a steady rate over the period, eventually reaching a plateau in both libraries. Given the extremely small size of many government documents, projections are based on the COU standard of 650 documents per Single-Faced Section - or 93 pieces per shelf.

**Mills**

Mills Government Publications stacks are extremely crowded right now: in many areas of the stacks, absolutely no space is available at the end of each shelf and whole sections must be

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17 Innis Library no longer holds a separate government publications collection.

18 COU, Appendix A, p. 107.
shifted to accommodate new material. Based on COU standards, 536 shelves (38 DFS) are needed right now to achieve a reasonable working capacity on the shelves.

In consultation with the Collections Division, the Public Space Group has projected very limited growth for Mills Government Publications over the next ten years. Total new items, estimated at 1,200/year currently, is expected to drop to 800/year by 2015. Given this low growth pattern, only 114 additional shelves (8 DFS) are required to accommodate future growth, for a total of 650 shelves (46 DFS) over the period. (For details, see Background Reports, "Mills Government Publications: Projections for 2005-2015").

Several options are available for improving shelf efficiency in Mills Government Publications. The Group recommends a mixed strategy including transfer of microforms to more space-efficient cabinets, the withdrawal of print sets which are duplicated in microform, and the relocation of key serial titles to Periodicals. The remaining shortfall can be made up through transfers to the high-density shelving facility.

### Recommendations to make up 46 DFS shortfall:

1. Relocate Government Publications microfiche from stacks to centralized microform area (in cabinets)  
   *(05/06 initiative)*  
   \[23 \text{ DFS}\]

2. Withdraw at least 2 DFS of print sets duplicated in microfiche (e.g., U.S. Manufacturing Statistics)  
   \[2 \text{ DFS}\]

3. Relocate current government publications serials (identified by Mills Reference staff) to Mills Periodicals  
   \[2 \text{ DFS}\]

4. Relocate pre-1988 government publications serials (identified by Mills Reference staff) to proposed high-density shelving facility  
   \[4 \text{ DFS}\]

5. Relocate 15 DFS to proposed high-density shelving facility (or disposal). (Example: Rand publications)  
   \[15 \text{ DFS}\]

**TOTAL:**  
\[46 \text{ DFS}\]
Thode

Thode Government Publications are amply housed on regular shelving in the Lower Level (B117). Many of the shelves are only partially full.

Given the relatively small size of the Thode Government Publications collection, very limited growth of approximately 300 pieces/year is expected throughout the period. Based on this projection, only 35.5 shelves (2.5 DFS) are required. (For details, see Background Reports, "Thode Government Publications: Projections for 2005-2015").

Recommendation:

Install new publicly-accessible compact shelving in the Lower Level of Thode (B116 and B117). Allocate 845.5 shelves (60.4 DFS) to Thode Government Publications.

MAPS

Very little actual floor space is available in the Mills Map Collection. This high density is not considered a problem given that collections grow vertically in cabinets. The map cabinets do double duty as consultation areas.

The Map Collection receives approximately 1,000 new maps and 500 aerial photographs each year. A recent gift of additional map cabinets from the School of Geography and Geology will accommodate future growth to 2015.

Recommendation:

Relocate small numbers of books and atlases to Mills book stacks or proposed high-density shelving facility. (Facility should include some areas with extra wide shelving to accommodate oversize atlases and other book material.)
MICROFORMS

All three libraries hold microform collections. Most collections are sitting in cabinets or carousels. In Mills, some microforms are sitting in boxes on regular book shelves. Proper microform cabinets are expensive to purchase, but are considerably more space-efficient and easier to maintain than having materials sitting in loose boxes on the shelf.

Mills - Research Collections

The collection grows very slowly with only two to three reels added each year.

Recommendation:

Transfer microfilm from book stacks to carousels.

(Completed summer 2004. Freed up 3 DFS of archival space in Mills and 27 book shelves in BSB storage facility.)

Mills - Map Collection

Approximately 75 new reels of film are acquired every 10 years. One new cabinet received earlier in 2004 will accommodate all future growth to 2015.

Mills Government Publications and Reference

Collections are currently scattered across several areas on the floor, making location a problem for users. The area around the Atrium and the middle of Reference must be freed up for the Knowledge Commons.

Based on past trends, 3.5 cabinets will be needed for future growth over the period.
Recommendations:

1. Consolidate all Reference and Government Publications microform collections in the North East corner of floor to free up space for the Knowledge Commons and to improve access for users
   • microfilm in open area by windows
   • microcards on last row of government publications shelving
   • microfiche to area across from last row of Reference stacks

   COST: $21,920  
   Purchase up to 8 new fiche cabinets at $2,740 each. 4 cabinets for existing collection plus 3.5 for future growth. Number may be reduced if cabinets are freed up by recommendation #2.

   STAFF COST: Bibliographic Services time changing locations in MORRIS records

2. Weed titles in Mills Reference. Relocate some titles from Mills Reference microform to Mills Book Stacks

   STAFF COST: Bibliographic Services time withdrawing and/or changing locations; Reference staff time: decisions; Stacks Control staff time: shifting.

(Both could be 05/06 initiatives if Knowledge Commons proceeds on track)

Mills Periodicals (3rd Floor)

Based on past trends, the area will require 1 additional fiche cabinet and 10 film cabinets by 2015.

The microform cabinets currently sitting on the Mezzanine must be moved to make room for the Knowledge Commons.
**Recommendations:**

1. Move existing microform cabinets from Mezzanine to wall across from compact shelving (may be some overrun). Investigate overhead lighting if required. *(Summer 05 if Knowledge Commons proceeds on track)*

2. Accommodate additional microform acquired to 2015 in cabinets along the outer east wall of the Microform Equipment Room or in boxes in the microform section of the compact shelving area.

**Innis and Thode**

No changes are required for Innis.

The microform collections in Thode may be shifted to another area of the floor as part of the renovation of the Lower Level.

**MUSIC (COLLECTIONS)**

The Library’s Music collections (books, periodicals, reference materials, scores and sound recordings) are all amply shelved on the 1st floor of Mills. Much of the collections sits on compact shelving. Based on current projections, current shelving is more than adequate to accommodate the collections to 2015. (For details, see Background Reports, ”Mills Music Collections: Projections for 2005-2015”.)

The Music Reference collection and the LPs now on regular shelving must be moved into the compact shelving units to make room for an additional block of compact shelving (for general Mills Book Stacks) south of the existing units. The LPs currently shelved on compact are not being supported adequately and some damage is occurring to them. The CDs must be moved to free up space for music listening carrels along the wall. (See the Critical Area Overview of the Music Area, page 51 for more details.)
Recommendations: *(all 05/06 initiatives)*

1. Consolidate Books, Periodicals and Scores onto fewer shelves within the existing compact shelving units (to accommodate additional LPs from the wooden shelves)

2. Weed Reference by one third (summer 2005). Relocate the reduced collection to the front section of the existing compact or the front of the first section of new compact

3. Relocate the CDs to the wall currently holding the LPs

4. Relocate LPs currently held in wooden shelves to compact shelving

5. Install appropriate slotted shelving in the front ranges of the existing compact shelving units to prevent the LPs from slipping sideways. (Cost: approximately $7,700)
PART FOUR: PUBLIC SEATING

“People do not use space as it is mathematically allotted.” 19

“It has long been recognized that many students, including ones who may make little use of the research materials in a library, nevertheless prefer to study in libraries over any other place on campus. This study function, which is in part a social phenomenon and in part a recognition of the library’s tacit status as a quasi-religious center of intellectual life, should not be neglected.” 20

GENERAL RECOMMENDATIONS

Recommendation #1: Add at least 600 seats throughout the three libraries over the course of the next decade to maintain a minimum of one seat for 14% of all non-Health Sciences FTE students.

Standards for Numbers of Seats

Standards vary as to what proportion of the student body should be able to find a seat in the library at a given time. COU standards are premised on enough carrels to accommodate 25% of the undergraduate population and 40% of the graduate population.21 Keyes Metcalf and others are less stringent - recommending that libraries provide study seats for somewhere between 20 and 25% of FTE enrolment where less than 50% of students live on campus.22

Discussions with the broader library community suggest that very few academic libraries are able to meet the stringent COU standard. The University of Toronto Mississauga acknowledges that its new library will only meet 60% of COU standard on opening day.23

Even if the standards are reasonable, they are certainly not attainable within the current footprint of our three libraries. Using even the most relaxed standard of 20% of total FTE suggests a 1,536

19Williams, 1996, p. 72.


21COU, Appendix A, p. 108.

22Williams, 1996, p. 68.

deficiency in our current seating numbers.

Survey responses and anecdotal evidence from our own staff indicate that there is a critical shortage of public seating in all libraries. Respondents describe having to scour the buildings looking for an empty seat - especially in Mills. The situation has become particularly severe in the last four years. Staff comments suggest that seating levels were more acceptable a decade ago (when the libraries were able to provide a spot for 13.3% of all FTE), but have certainly become a problem in the last few years when our seating levels have dropped as low as 11.4% of FTE.

**Current Seating Requirements**

Given this understanding, and given the equally significant demand for collection space, the Group recommends that the University Library aim for 14% of FTE enrolment (excluding Health Sciences students). Based on this more relaxed standard, the University Library is 429 seats short right now. (For details, see Appendix #5: "Enrolment Versus Seating," page 70.)

Mills Library: Students using floor space by windows for studying. (March 2004)

**Seating to the Year 2015**

In consultation with the University’s Enrolment and Information Analyst, the Group has adopted a very conservative model showing some growth in enrolment in 2004/5 (Undergraduates increase by 5%, Graduates increase by 1.6%), followed by flat line increments of .25% growth in years 2005/6 to 2014/15.

Using this enrolment model, in conjunction with a relaxed 14% seating standard, suggests that the University Library should aim to provide a total of 2,521 seats by the year 2015. This figure represents an increase of 601 seats over 2004. (For details, see Appendix #6, "Recommended Number of Public Seats in the University Library to the Year 2015", page 71 and Appendix #8, “University Library: Summary of Proposed Seating Changes to 2015", page 73.)
Furnishings

The University Library offers a mix of seating options with the exact proportions varying considerably from library to library. Mills and Innis offer significantly higher proportions of seats at carrels, while Thode offers considerably more seats at tables. (NOTE: Many of the tables at Thode are designed for two-people but, in reality, are often used by a single individual.)

Results from the public space survey illustrate the importance of maintaining a good mixture of seating options to satisfy our users’ widely varying preferences. Although each library is different, some general trends are clear:

**Carrels:** Carrels are an essential component in the mix, with 34.8% of respondents across the 3 libraries expressing preference for them. The proportions vary considerably, however, from a low of 24% at Thode to a high of 40.6% at Mills.

**Tables:** Across the system, 18.9% of our respondents said they prefer to work at a table with their friends. A far greater number, 29.9%, said that they wanted to work at a table -

Recommendation #2: Continue to provide a mix of study furnishings (carrels, tables, soft seating, etc.) and study environments (silent, group, etc.) to satisfy the diverse preferences of our users.
but on their own. The strong interest in tables appears to be indicative of both collaborative study practices and sheer preference for a large, flat work surface.

**Soft seating:** Users at all three libraries expressed a strong desire for more soft seating in their written comments. One Mills survey respondent said “It's difficult to relax and be comfortable studying in metal/old wooden chairs. This deters me from being in the library.” 24 Another respondent noted that “libraries can be made more inviting/cozy with strategic placement of nice single chair/couches. They provide areas where people can just sit with a book, instead of needing to be in front of a study desk/sit on the ground.” 25

### Study Environments

The University Library currently provides a mix of study environments, with 42% of all seats in designated quiet areas, 10% in silent areas, 26% in group areas, and the remaining 23% in open environments. Broadly grouped, half of our seating space is quiet or silent and the other half is open and often noisy. (For details, see Appendix #7, "Public Seating by Furnishings and Environment, University Library, 2004", page 72.)

![Figure 5: Study Environments in the University Library, 2004](image)

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25 Ibid.
Survey results suggest that the University Library should attempt to increase the amount of designated quiet/silent seating. Across the system, 50.1% of respondents indicated a preference for a “reasonably quiet” environment, 37.7% favoured a silent environment and the remaining 11.5% reported that “noise does not bother them”. (For details, see Background Report “Results from the Public Space User Survey, March 2004”.)

Students attending the Mills student focus group session noted their frustration with our large study halls. Rooms like 411 were considered impersonal, noisy and distracting. They would prefer, instead, to sit in small “clusters” of seats, preferably with access to windows.

**Conflict Between Furnishing and Study Environment Preferences**

Survey responses show some inherent conflict, however, between the kind of furnishings our users like to study at and the noise level they are willing to tolerate: a large proportion of our users like to sit at tables rather than carrels, but still prefer a quiet or silent environment. (Even 9.4% of those preferring to work at a table with their friends want a silent environment, with another 64.3% preferring reasonable quiet.) Experience indicates that tables foster noise - especially when grouped together in large study halls.

**SPECIFIC RECOMMENDATIONS**

**Mills**

Given the intense demand for collection space in an already densely-packed building, even keeping the seats we have at Mills is a challenging task. Seats in prime areas (the North East corners) must be removed to put up compact shelving. The options for adding seating space are limited - and all require a significant amount of effort to achieve (e.g., require dismantling and shifting small pockets of collection space). With the exception of the Knowledge Commons, most of the additional seats are scattered in small numbers throughout the building.

Survey results suggest that the current mix of furnishing options works fairly well, but users would like to see an increase in the number of seats designated as “silent”. 39.9% of respondents said that they prefer a “Silent” environment while only 5.4% of our seating is currently designated in this fashion.

The need for additional seats at computers at Mills was very clear. When asked what single change the Library could make to improve the physical facilities, the number one response was “more computers”.


**Recommendations:**

1. Establish a *Knowledge Commons* on the 2nd and 3rd floors of Mills Library for a net gain of 96 seats. (For details, see Critical Area Overview, page 53.)

2. Make additional changes (including new pockets of seating near the windows on 3rd, 4th and 5th floors and a new “Silent Zone” on 6th) for a total net gain of 275 seats. (For details, see Background Report, “Mills Library: Proposed Changes to Public Seating by Area”.)

**Innis**

Given the small size of the library and the already dense use of public space, Innis has limited options for increasing seating capacity. The library currently allocates 5,127 square feet to public seating - or roughly 24 square feet per seat (slightly below the minimum standard of 25 square feet). As of 2004, 61.5% of its seats are at carrels, 21.6% at tables, 13.6% at computers, 2.3% at index tables and public equipment and only .9% at soft chairs.

Survey results suggest that more tables and group study rooms are needed at Innis to satisfy user needs. 45.2% of all respondents expressed a preference for studying at a table, but the vast majority of seats (61.5%) are actually at carrels - with only 21.5% at tables. This preference reflects the learning environment in Business where most assignments are done in groups.

Numerous respondents noted that Innis is simply too small: Although beyond the mandate of this study, the Group endorses any opportunity to expand overall floor space at Innis as part of any future re-allocations in Kenneth Taylor Hall or MGD (for example, by taking over space currently occupied by Celebration Hall).

**Thode**

Thode currently provides 36% of its seats at carrels, 49.1% at tables, 6.3% at computers, 1.4% at index tables and public equipment, and 7.2% of its seats on soft furnishings.

The survey suggests that the current balance of carrels to tables is somewhat off, with only 24% of respondents actually preferring carrels and 63% preferring tables. When asked what single thing we could do to improve the physical facilities at Thode, the number one answer was more tables.

As noted earlier, the Public Space Utilization Group recommends a dramatic alteration in the location and configuration of public seating and collections in Thode Library to make more efficient use of available space. These changes will support a significant increase in the number
Recommendations:

1. Implement a Knowledge Commons on the Lower Level (B101) and first floor of Thode Library. Proposal will result in slight loss of 26 seats in B101.

2. Reclaim space from Learning Technologies Resource Centre (Total gain 76 seats - including 36 at group tables)

3. Relocate the contents of Thode Storage to proposed new high-density shelving facility. Re-purpose B116 and B117 for current collections and study space. 100 seats currently in B117 dispersed throughout new space.

4. Relocate periodicals from 2nd floor to Lower Level. Redistribute entire book collection throughout the 1st and 2nd floors, interspersed with large clusters of new and existing seating. Estimate 233 seats on 2nd floor and 333 seats on the 2nd floor (based on comfortable 30 square feet per seat).

    **TOTAL seat gain: 352 seats**

(For details, see Background Report, “Thode Library: Proposed Changes to Public Seating by Area”.)
PART FIVE: COMPUTER SPACE

“Even on fully networked campuses with a ‘port for every pillow’, students prefer to study among other students in the relative peace of the library... The development of computer rooms elsewhere on campus lessens some demand on the library, but if a person’s research requires simultaneous use of an electronic format and printed matter that need is only met in the library.” 26

“Technology is increasing the requirements for study space in academic libraries... more space per student is required to accommodate the use of technology... In general, use of new technologies is not relieving the need for more space in libraries. While there is some potential for capping or slowing the growth for additional physical space for some library functions, existing formulas often don’t provide adequate space for the new technologies themselves.” 27

GENERAL RECOMMENDATIONS

Recommendation #1: Increase the amount of space devoted to wired public computers from 3.1% to 6.8%.

Current Space Allocated to Public Computers

As of July 2004, 5,362 square feet of space are allocated to public computers across the University Library. This figure represents 3.1% of total public assignable space.

Although definitive standards are not available, the literature suggests 30-40 square feet be allocated for each station. The actual amount of space per station across the University Library varies considerably but with the average comfortably around 33 square feet. (Innis falls way below standard at 19 square feet per station. Mills meets the minimum standard at 33.3 square feet. Thode stations are amply served at 42.9 square feet.) Based on this information, neither Mills or Innis can add additional computer in existing areas. (If possible, Innis should increase the amount of space per station.) Thode could increase the density of its computer stations in existing areas - but only slightly. Generally speaking, adding more computers will require re-allocating space currently being used for other purposes.

26Thomas, November 2000, p. 413.

Recommendation #2: Increase the number of wired public computers from 161 to 368, primarily through the establishment of Commons facilities in both Mills and Thode.

Number of Stations

The University Library currently supports 161 public stations, 102 at Mills, 24 at Innis and 35 at Thode. (For details, see Appendix #10, "Public Computers by Category and Library, 2004", page 75.)

Survey responses and anecdotal evidence from public service staff indicate a severe shortage in the number of public computers in Mills and Thode. The demand is particularly strong at Mills. When asked “if the Library could do one thing, what should it be?”, the number one response was “more computers”. One Mills respondent said “Apart from a place to do quiet reading, I also like to do research on the computers because the nearest computer lab in BSB is often reserved for tutorials.”

The Group endorses the Knowledge Commons concept as the primary focus of growth in the number of wired stations. For details, see the Critical Area Overviews, page 53 and following.

What Kind of Station?

Although not admittedly a “space” issue, the topic of what “kind” of station came up frequently in focus groups and discussions. Student participants in our focus groups frequently expressed frustration with the low-grade e-mail stations - especially on the 1st floor of Mills. As well, many respondents reported an interest in having productivity software (Word, PowerPoint, Excel, etc.) available on public stations to allow them to transform information from library e-resources into a finished essay, presentation or spreadsheet. The demand was especially strong at Mills and Thode - less so at Innis where students have ready access to the AIC computer lab down the hall. Focus group discussion suggests that adding productivity software is only viable once a larger critical mass of public stations is available.

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Laptops and Wireless

34.2% of all survey respondents report owning a laptop, with ownership levels moderately higher at Innis and Thode. This figure is expected to increase, as the price of portable devices continues to decline and as wireless access becomes more readily available across campus.

That being said, given the increasing proportion of library resources and services being served up electronically and the inconvenience and security issues associated with transporting a laptop around the library, the demand for wired stations will remain high - at least for the next 5-10 years. Laptops will relieve, but not eliminate, the pressure on wired stations.

SPECIFIC RECOMMENDATIONS

Mills

Mills currently supports 102 wired public computers (including 9 low-grade machines designated as e-mail stations). Wireless access was introduced in major public areas in September 2004.

Survey respondents were extremely concerned about the lack of wired computer stations in Mills. One student noted “there should be computers on every floor (perhaps 2 or three, not just one computer.)” 28 Many people expressed frustration with the e-mail stations on the first floor - in

terms of calibre of station and furnishings [currently sitting on carrels]. The Gateway Room was considered under-utilized with only 5 public computers and one printer in a 952 square foot room.

Recommendations:

1. Implement a fully-funded *Commons*, resulting in a gain of 133 hard-wired stations.

2. Add 2 express stations on floors 3 and 4. *(05/06 initiative)*

3. Add 1 express stations on the 5th floor - beside the existing station. *(05/06 initiative)*

4. Add 4 stations to the Wong E-Classroom.

5. Consider grouping computer stations in the Undergraduate Reading Room together into pods, and placing them on proper computer tables.

6. Expand wireless to all public areas including major corridors, the lobby and regular stack areas.

7. Add 4 stations to the Gateway Room (including 3 from the Library Data Service). *(05/06 initiative)*

FINAL IMPACT: Increase the number of public computers to 245 by 2015.

**Innis**

Innis currently supports 24 wired public computer stations. Wireless access is available throughout the library - although use is discouraged in Silent Study.

Given the limited floor space in the library and the close proximity of the DeGroote labs, no additional computers are recommended at Innis. Existing stations should be spread out as far as space allows - to facilitate group work and create a generally more comfortable environment for computer users.
**Recommendation:**

Expand the space allocated to each computer station (especially in the front room).

**Thode**

Thode currently supports 35 wired public computers, including 8 low-grade machines designated as e-mail stations. Wireless access is available in study areas on the Lower Level, the east side of the 2nd floor and both sides of the 3rd floor.

**Recommendations:**

1. Implement a *Knowledge Commons* on the Lower Level and first floor of Thode Library. Would result in a net gain of 42 computers.

2. Add 20 instruction stations when the LTRC vacates the Lower Level

3. Add two full research stations on the 2nd floor (*05/06 initiative*)

4. Extend wireless to:
   - 1st floor of Thode (*05/06 initiative*)
   - 2nd floor (west side) (*05/06 initiative*)
   - B116 once it is cleared and renovated for public space
PART SIX: PUBLIC EQUIPMENT SPACE

Public equipment currently comprises 2.3% of total public assignable space in the University Library. Three broad categories of equipment are included in this category: microform readers and reader/printers, photocopiers and printers, and music listening equipment.

The amount of space required for many of these activities has been reduced in recent years - largely as a result of new technologies.

MICROFORM READERS AND READER/PRINTERS

General Recommendation: Reduce the amount of microform equipment in our buildings - but increase the quality and centralize the devices in fewer areas on the floors.

Mills - 2nd Floor

The eight microform readers on the 2nd floor are a frequent source of frustration for patrons and staff. The machines are scattered across several areas of the floor, making location a challenge. Readers in the Atrium and central area of Reference must be relocated to make room for the Knowledge Commons. All are older model machines, so malfunctions are frequent.

Specific Recommendations:

1. Replace 8 old microfilm readers with 4 newer models.
2. Place on new tables, no more than 30 inches deep.
**Mills - 3rd Floor**

The 3rd floor currently houses 16 microform readers (on the Mezzanine) and 4 reader/printers (in the central corridor).

As with those on the 2nd floor, the machinery causes many problems for users and staff. Most of the machines are very old, so requests for staff assistance are frequent. The readers are currently sitting on 4-foot deep study tables - so are taking up more floor space than is required. The chairs at the stations are too low for the tables. Fully-adjustable chairs are required to allow users of various heights to use the machinery comfortably.

The microform readers must be moved to make room for the *Knowledge Commons*.

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**Specific Recommendations (05/06 initiatives):**

1. Remove wall between Photocopy Room and Reference Meeting Room to create a new 26’ x 24’ space. Install treatment (e.g. blinds) on window and door between staff work room and new public space.

2. Disperse reduced number of photocopiers to central locations on the floor. (Possibly 2 in the corner area between the elevator and office door and one along the wall near the microform reader/printers.)

3. Create upgraded Microform Equipment Room in newly created space. Room will house 11 newer model microform readers.

4. Leave microform reader/printers in their current location.

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**PHOTOCOPIERS AND PRINTERS**

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**General Recommendation:** Model a gradual reduction in the space devoted to photocopiers - with some increase in the number of printers.

**Number of Machines**

The University Library currently supports 19 photocopiers and 6 printers:

Photocopiers: Mills (15); Innis (4); Thode (10)
Specific Recommendations:

1. Eliminate one copier in the 1st floor Photocopier Room (05/06 initiative)

2. Move the black and white printer from the Gateway Room to the Photocopier Room on the 1st floor. (Leave the colour printer in the Gateway Room.) (05/06 initiative)

3. Keep 2 copiers on the 2nd floor in McLay.

4. Add 2 printers to McLay as part of the Commons project. Keep one printer in the Reference Area.

5. Reduce the number of copiers on the 3rd floor from 5 to 3, eventually to 2.
**Specific Recommendations:**

1. Remove 1 copier in Summer 05. If volume of copying continues to decline significantly (to the point that two copiers would be sufficient), reduce the number of copiers to two and relocate them to an open area - possibly the small area behind the Photocopier Room.

2. Convert the existing Photocopier Room to a multipurpose group study/consultation/instruction space.

**Specific Recommendations:**

1. Remove one copier (in the booth) on the 2nd floor.

2. Move four of the copiers down from the 2nd floor to the Lower Level as part of the Knowledge Commons printer/copier hub.

**MUSIC LISTENING EQUIPMENT**

**General Recommendation:** Reduce the amount of music listening equipment, but house the devices on appropriate audio-visual carrels. Use compact shelving to create a separate, more quiet environment for music listening.

The Music Area currently holds 47 pieces of listening equipment (12 CD players, 8 turntables, 24 cassette players, 1 VCR, 1 DVD/VCR and 1 laserdisc player). The equipment is housed on open tables in an area adjacent to the Undergraduate Reading Room. The area is compact weight-bearing and, hence, could be put to more efficient use for collections.

Survey responses suggest intense dissatisfaction with the current arrangements for music listening. One student noted “a lot of the equipment is damaged due to mistreatment of people who don’t use it for listening but as a stand for books, laptops, lunches, etc. Many of the CDs are scratched from misuse and it is often hard to find a place to do any real listening as people often...
just take up the space.” 30 Discussions with faculty emphasize the importance of keeping the listening devices in close proximity to the music collections (books, periodicals, reference materials, scores and sound recordings).

### Specific Recommendations (all potential 05/06 initiatives):

1. Reduce the number of listening devices from 44 to 26.
2. Place the devices on retrofitted music listening carrels.
3. Locate the carrels along the East and South walls. If additional space is required for the carrels, consider locating near the photocopier paper storage cabinet.
4. Donate the laser disk player to the Lyons Media Centre.

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PART SEVEN: SERVICE SPACE

General Recommendation: Make small changes to our service areas to facilitate the interaction of people with collections and technology.

Service spaces currently comprise just over 1% of total public assignable space in the University Libraries. Although small in relative terms, these areas are focal points for interaction between our users, our resources and our staff.

Major service points in Innis and Thode have recently undergone significant renovations. Some service areas in Mills, however, require alterations.

Mills Reference

Staff report significant concern with the lack of consultation space to work with users. An increasing proportion of the questions answered at the desk are complex, and staff have nowhere to meet with users privately away from high traffic areas. In the absence of private offices for reference librarians, some kind of general consultation space is required.

Changes will be required to the Reference Desk itself to support the Knowledge Commons. (A Student Technical Assistant station may be added to the far end (closest to the office door). Other changes may be required once the Commons is up-and-running.)

Recent ergonomic assessments suggest that an additional station should be added to the low portion (closest to the elevator) to provide a more comfortable working height for staff.

Specific Recommendations (all potential 05/06 initiatives):

1. Create 3 multi-functional consultation spaces in the Commons. Rooms could be bookable by Reference staff, Writing Clinic, students with disabilities, etc.

2. Review the position and configuration of the Reference Desk once the Knowledge Commons is fully operational.

3. Add 2 computer stations to the Desk - one at the North end for the Student Technical Assistant and the second at the South end for Reference staff. Add consultation seats in front of the new reference station.
**Mills Circulation**

Lines at the Circulation Desk can become extremely long during the busy times in term. Users often become frustrated when they have to line up to ask a simple question. The queues sometimes block traffic entering the Undergraduate Reading Room.

<table>
<thead>
<tr>
<th>Specific Recommendations (all potential 05/06 initiatives):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Add an extra service point during busy periods of term at the far end of the Desk near the turnstiles. The person at this station would be charged with answering general directional queries, resolving debit card and photocopier problems, etc. Create new signage for the bulkhead above the desk.</td>
</tr>
</tbody>
</table>

**Library Data Service**

The Library Data Service (previously known as Data/Text) is located off the main corridor on the 2nd floor of Mills. The unit is hidden away behind a solid (somewhat “uninviting”) door.

Users are often forced to travel between the Library Data Service on the 2nd floor and the Map Collection on the 1st floor to complete their assignments.

<table>
<thead>
<tr>
<th>Specific Recommendations (all potential 05/06 initiatives):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Relocate the Library Data Service to a newly-created office within the existing Gateway Room (L111).</td>
</tr>
<tr>
<td>2. Add 4 additional stations to the Gateway Room (including 3 from the Library Data Service). Load map and data software onto all stations (in addition to regular software programs). Create an online booking system for the machines.</td>
</tr>
</tbody>
</table>
CSD Support Services Office

The Centre for Student Development (CSD) Support Services Office is currently housed in a very small (168 square foot) space on the 1st floor across from the ILDS Department. The Special Needs Assistant, who oversees the office, maintains a desk in ILDS, but has limited involvement with ILDS functions. Given that almost all material is now purchased rather than borrowed for clients, the Assistant no longer needs to be physically located within the ILDS office. ILDS is fairly crowded: freeing up space within the office would be beneficial.

Specific Recommendations (both potential 05/06 initiatives):

1. Relocate the Special Needs Assistant to a new space in the Commons.

2. Create 3 multi-functional consultation spaces in the Commons. Rooms would be bookable by Reference staff, Writing Clinic, students with disabilities, etc. Ensure that rooms are large enough to accommodate four people, be wheelchair accessible, contain a worktable and chairs, contain 1 station with specialized adaptive software, be soundproofed.
PART EIGHT: REFURBISHING EXISTING SPACES

**General Recommendation:** Improve lighting in study areas. Pay special attention to our large study halls.

The University has recently undergone a major campus-wide lighting upgrade. The project significantly improved lighting in many public areas of the libraries, but problems remain in our larger study halls in Mills and Thode, particularly in the evening.

**Mills**
- The Knowledge Commons proposal will alleviate concerns in McLay by changing the fixtures and dropping them several feet lower. Similar solutions are required in Room 411.

**Thode**
- In Thode, problems remain around the Atrium area on the 1\textsuperscript{st} and 2\textsuperscript{nd} floors. In this case, adding lights to individual carrels appears to be the best alternative. *(05/06 initiative)*

**General Recommendation:** Provide electrical outlets in all large pockets of public seating to facilitate laptop use.

Our Libraries currently fail to provide sufficient electrical outlets to support laptop use in wireless areas. In some cases, electrical outlets are available, but furnishings are not configured in such a way as to accommodate their use. Given the sheer magnitude of the undertaking, the Library should focus on large pockets of study space.

**Mills**
- Add electrical outlets as part of the Knowledge Commons project. *(05/06 initiative)*
- Room L302: Rearrange carrels to make better use of outlets along East wall. *(05/06 initiative)*
- 3rd, 4th and 5th floors: Add outlets to pillars along windows on North side.
- 4th floor: Add to South wall of PS area.
- Room 411: Outlets currently available on 7 of the 12 pillars and on the North wall. Add electrical outlets to remaining 5 pillars. Reconfigure furniture to make better use of outlets.
Innis
• No additional outlets required.

Thode
• Add electrical outlets to the carrels on the East side of the 2nd floor and to both sides of the 3rd floor (05/06 initiative)
• Add outlets in new seating areas created on the 1st and 2nd floors.

General Recommendation: Proceed with plans to systematically review all public furniture across the University Library. Pay special attention to the chairs at Innis and Thode.

Comfortable, ergonomically-designed furnishings are essential components of the Library’s overall study environment. A poorly-sized table or unstable chair can annoy a user and reduce the time they spend in the Library.

Most tables and carrels in the Library’s inventory are in good condition, but some of the chairs, especially at Innis and Thode, are not. One Thode respondent noted that “many of the chairs at carrels at Thode seem worn out... The seat is often bent or sags significantly so that the wooden frame is higher than the cushion itself. The frame then digs into the back of my legs when sitting.”

The Library has recently embarked on a review of public furnishings in the hope of establishing a workable long-term strategy for repair/replacement.

Mills
• New tables and chairs required in 4th floor study rooms - 403, 404 and 405. (Library Development is working with a potential donor for this area).

Innis
• New tables needed in the four group study rooms.
• Replace small number of old carrels in back room with more stable models.
• Replace blue plastic study chairs (on multi-year replacement plan).

Thode
• Recover or replace old wooden chairs (on multi-year replacement plan).

Painting and carpeting in existing library spaces is a complex task given the weight of our collections and the need to provide uninterrupted access to public areas.

Given these limitations, the Library should take the opportunity to review the paint and carpeting in all areas being re-purposed as part of this review. The following areas are considered to be of most concern:

**Mills**
- Mills Lobby (see Critical Area Overview, page 49)
- Study Rooms L403, L404 and L405

**Innis**
- Acquire hanging signage for collection and service areas

**Thode**
- Foyer (replace carpet, recover seating in lounge area)
- Lower Level (recarpeting, painting)
PART NINE: CRITICAL AREA OVERVIEWS

MILLS LOBBY

The lobby of Mills Library is currently under-utilized. Large open areas could easily accommodate increased seating without interfering with traffic patterns in and out of the building. More display space is needed to showcase library collections, services and initiatives. Staff members expressed a strong interest in making the lobby more inviting and welcoming. They noted that the carpeting is tired and the paint colour (especially on the columns) is too dark.

Recommendations:

1. Replace the carpet in the foyer and just beyond the turnstiles with a new non-slip weather-resistant flooring
2. Increase the amount of public seating from 15 to 36. (Preliminary plan includes 6 fixed benches, 3 couches and 6 chairs)
3. Replace the current lighted floor plan with a library directory (giving locations / room numbers for key offices and areas)
4. Create a large display space around the directory
5. Move the New Book shelf to the wall currently holding the Suggestion Box
6. Add greenery in the seating areas
7. Consider brightening up the paint, possibly on the columns
8. Hang banners from the ceiling in the foyer (to promote library initiatives and to create visual interest)
Figure 6: Critical Area Overview: Mills Lobby
MILLS MUSIC AREA

**Recommendations:**

1. Consolidate the books, periodicals and scores onto fewer shelves within the existing compact shelving units. *(05/06 initiative)*

2. Relocate the CDs to the wall currently holding the LPs. Additional shelving can wrap around the wall. *(05/06 initiative)*

3. Relocate the LPs currently on wooden shelving units to the existing compact shelving unit. *(05/06 initiative)*

4. Purchase appropriate slotted shelving for the LP collection (to reduce damage). *(05/06 initiative)*

5. Remove the index table. Materials will either be withdrawn or moved to Music Reference.

6. Remove the remnants of the old service desk and the piano. *(05/06 initiative)*

7. Move the VCRs to the area originally intended for the music reshelving area. Move the video collection near the equipment. *(05/06 initiative)*

8. Erect a new bank of compact shelving in the area currently being used for Music Listening Equipment. Use the new compact shelving units for general Mills Book Stacks. Erect the new compact units parallel (but slightly forward) of the existing units (to create seating space by windows).

9. Reduce the number of listening devices from 44 to 26. *(05/06 initiative)*

10. Retrofit 26 existing carrels into special music listening carrels. *(05/06 initiative)*

11. Locate the carrels along the East and South walls. If additional space is required for the carrels, consider locating near the photocopier paper supply cabinet. *(05/06 initiative)*

12. Donate the 16 laser disks and the laser disk player to the Lyons Media Centre. *(05/06 initiative)*
Figure 7: Critical Area Overview: Mills Music Area
MILLS KNOWLEDGE COMMONS (2nd and 3rd floors)

In March 2004, the University Library submitted a proposal for the creation of an integrated learning facility (working title: Knowledge Commons) on the 2nd and 3rd floors of Mills Library. The proposed facility would span the McLay Reading Room, the open areas surrounding the Reference Desk and the entire Mezzanine area on the 3rd floor. As originally conceptualized, the Commons would support 200 wired stations and 120 wireless access connections, six group study rooms, a technical assistance desk, a printer hub and large areas of soft seating.

The Knowledge Commons proposal will dramatically improve the use of public space in Mills by:

- increasing the number of public seats on the 2nd and 3rd floors (from 342 to 438)
- increasing the number of public wired stations in Mills by 133 (from 102 to 235)
- enhancing collaborative study opportunities through innovative furniture design and configuration, and through the addition of six group study rooms
- improving the lighting in McLay (a frequent complaint in the user survey)
- improving the furnishings (computer tables with proper wire management, powered group tables in McLay, high-quality, adjustable chairs, etc.)

The following changes or enhancements are recommended as part of the implementation process:

<table>
<thead>
<tr>
<th>Recommendations for McLay:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Relocate the Library Data Service to a newly created office in the south portion of the existing Gateway Room.</td>
</tr>
<tr>
<td>2. Relocate the Special Needs Assistant to a new space within the Commons.</td>
</tr>
<tr>
<td>3. Create 3 multi-functional consultation spaces in the Commons. Rooms would be bookable by Reference staff, Writing Clinic, students with disabilities, etc. Ensure that rooms are large enough to accommodate four people, be wheelchair accessible, contain a worktable and chairs, contain one station with specialized adaptive software, be soundproofed.</td>
</tr>
</tbody>
</table>

---

Recommendations for Reference / Government Publications Area:

1. Put single seats around the Atrium in the Reference Area rather than triples to establish this as an area for quiet reflection

2. Centralize all Government Publications and Reference microforms in a central area near the North East corner of the floor

3. Reduce the number of microform readers on the 2nd floor from 8 to 4. Relocate all equipment to a central location near the new microform collection area

4. Remove the central aisle between the two rows of Reference Stacks to create room for 30 carrels along the North windows

5. Add small consultation shelves at the ends of ranges in Reference Stacks

6. Revisit the location and configuration of the Reference Desk after traffic flow has been determined

Recommendations for the Mezzanine Area:

1. Relocate the fiche cabinets currently in the Mezzanine to the wall across from the compact shelving units

2. Reduce the number of microform readers from 19 to 11. Relocate them to a newly designed space (currently the Photocopier Room and the Reference Meeting Room)

3. Consider opening up the entrance to the newspaper reading area (by removing the small section of wall).

4. Recommend that the Knowledge Commons Project Review Committee consider a recent proposal to eliminate two group study rooms from the floor plan and replace with open tables for newspaper reading. (Has not been figured into seating calculations.)
Add carrels by windows

Centralized microform collections

Create space for Special Needs Assistant’s office and 3 bookable Consultation Rooms

Single soft seats around Atrium

Microform Equipment

Newspaper Reading Area

Microform Reading Room

Group Study Rooms

New compact shelving

Figure 8: Critical Area Overview: Mills Knowledge Commons (2nd Floor)

Figure 9: Critical Area Overview: Mills Knowledge Commons (3rd Floor)
INNIS LIBRARY, FRONT ROOM (PERIODICALS AREA)

Recommendations:

1. Remove 2 DFS from the South end of each range in the Periodicals Stacks
2. Add one additional range of 5 DFS to the West of the existing ranges
3. Reassign the shelving to Book Stacks
4. Relocate reduced periodical collection to the wall outside of Photocopier Room
5. Build 3 group study rooms in the front room (along the South wall). Feasibility and costing to be done during 05/06. Determine time line based on results.
6. If photocopying volume continues to decline, reduce the number of photocopiers.

Figure 10: Innis Library, Front Room (Periodicals Area)
Lower Level

The Public Space Group endorses the concept of creating a second *Knowledge Commons* in Thode Library. The Group recommends that the facility be split between B101 on the Lower Level (and surrounding small rooms) and the existing computer and reference area on the 1st Floor. The Lower Level could become the "collaborative" work space with wired stations, powered tables for wireless access, a printer/copier hub, technical assistance desk, electronic classroom, group study and tutor rooms. (The electronic classroom and some of the new group study space are currently being occupied by the Learning Technologies Resource Centre, but will eventually revert back to the Library.) The 1st Floor could then be designated for individual workspace with a combination of express stations and full research stations (with full productivity software) - all within close proximity to the Reference Desk.

The Group recommends that the entire contents of the storage area (B116) be relocated to high-density shelving and that the area comprising B116 and B117 be reassigned to publically-accessible collections (periodicals, government publications, technical reports and microforms) and public seating. To maximize capacity, collections should be housed on new electronic compact shelving units. The entire periodical collection, currently on the 2nd floor, should be relocated to the new area.

**Figure 11: Thode Library, Lower Level**
1st and 2nd Floors

Once periodicals are moved to the Lower Level, the Group recommends distributing the entire book collection throughout the 1st and 2nd floor - interspersed with new and existing study space. The 3rd floor would remain unchanged.

Figure 12: Thode Library, 1st Floor

Figure 13: Thode Library, 2nd Floor
PART TEN: PROPOSED SPACE UTILIZATION BY CATEGORY

The recommendations outlined in this report would alter the proportions of assignable public space being used for various activities. Across the system, collection space would be reduced from 67% to 60%: the size of the collections would grow but, given the increased use of compact shelving and the transfer of some lower-use material to a high-density facility, the actual amount of floor space in our public areas devoted to this purpose would decrease. Study space, on the other hand, would increase, from 27% to 31% of total public assignable space. Computer space would more than double, from 3% to 7%. Service space would remain virtually unchanged. Public equipment space would drop from 2% to 0.6%.

Figure 14: Proposed Space Utilization by Category, University Library
PART ELEVEN: REVIEW

Recommendation: Review all recommendations and update projections every five years.

Given the rapid pace of technological change, the uncertain nature of the print collections and enrolment-related projections, the Group recommends that space utilization be reviewed every five years. Based on this time line, the next major review should take place in 2009 and cover the period 2010 to 2020.
## PART TWELVE: PROPOSED 2005/06 INITIATIVES

### Mills Library

<table>
<thead>
<tr>
<th>FLOOR</th>
<th>AREA</th>
<th>2005/06 INITIATIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1ST FLOOR</td>
<td>Music Area</td>
<td>Purchase slotted shelving for LP collection. Consolidate all collections on compact shelving units to make room for LPs currently located on wooden shelving.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shift CD collection to wall alongside Music Reference.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Weed titles in Music Reference.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Retrofit 26 existing carrels for music listening. Locate to East and South walls.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Donate the 16 laser disks and one player to the Lyons Media Centre.</td>
</tr>
<tr>
<td>Circulation Desk</td>
<td></td>
<td>Create a “T” shaped queue line in front of the Circulation Desk by purchasing appropriate stanchions and ropes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Add an additional service point at the west end of the desk near the turnstiles to answer directional queries, resolve debit card problems, etc.</td>
</tr>
<tr>
<td>Library Data Service</td>
<td></td>
<td>Relocate the Library Data Service (formerly Data/Text) to the 1st floor, to the south section of the existing Gateway Room. Relocate the 3 public stations to the Gateway Room.</td>
</tr>
<tr>
<td>Photocopier Room</td>
<td></td>
<td>Eliminate one photocopier. Relocate the black and white printer from the Gateway Room to the Photocopier Room.</td>
</tr>
<tr>
<td>2ND FLOOR</td>
<td>Reference</td>
<td>Eliminate index tables to make room for Knowledge Commons. If print periodical titles are cancelled, relocate print runs to Periodicals (3rd floor). If not, transfer to Reference Stacks. Relocate Quick Reference collection beside Reference Desk.</td>
</tr>
<tr>
<td>Location</td>
<td>Action</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Reference / Government Publications</td>
<td>Add two stations to the Reference Desk, one for the Student Technical Assistant and one for Reference Staff (for ergonomic reasons).</td>
<td></td>
</tr>
<tr>
<td>McLay</td>
<td>Reduce number of microform readers from 8 to 4. Relocate close to North East corner (near centralized collection area).</td>
<td></td>
</tr>
<tr>
<td>McLay</td>
<td>Locate two printers and two copiers in McLay as part of the Knowledge Commons project. Keep one printer in Reference Area.</td>
<td></td>
</tr>
<tr>
<td>Relocate the Special Needs Assistant’s office to the Commons.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3RD FLOOR Periodicals</td>
<td>Move microfilm cabinets from Mezzanine to wall across from existing compact shelving to make room for the Knowledge Commons.</td>
<td></td>
</tr>
<tr>
<td>Photocopier Room</td>
<td>Reduce number of copiers from 5 to 3 (eventually down to 3). Relocate elsewhere on floor (possibly two in corner by office door and one along south wall).</td>
<td></td>
</tr>
<tr>
<td>Microform Reading Room</td>
<td>Create a new Microform Reading Room out of space previously used for the Photocopier Room and the Reference Meeting Room.</td>
<td></td>
</tr>
<tr>
<td>Open Area</td>
<td>Add two express (MORRIS) computer stations.</td>
<td></td>
</tr>
<tr>
<td>Room L302</td>
<td>Rearrange furniture to make better use of electrical outlets.</td>
<td></td>
</tr>
<tr>
<td>4TH FLOOR Open Area</td>
<td>Add two express (MORRIS) computer stations.</td>
<td></td>
</tr>
<tr>
<td>5TH FLOOR Computer Area</td>
<td>Add 1 express (MORRIS) computer stations (beside existing one).</td>
<td></td>
</tr>
</tbody>
</table>
### Innis Library

<table>
<thead>
<tr>
<th>FLOOR</th>
<th>AREA</th>
<th>2005/06 INITIATIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innis</td>
<td></td>
<td>Acquire signs for collection and service desks</td>
</tr>
<tr>
<td></td>
<td>Back Room</td>
<td>Add 6 DFS to Book Stacks</td>
</tr>
<tr>
<td></td>
<td>Group Study Rooms</td>
<td>Replace tables (4)</td>
</tr>
<tr>
<td></td>
<td>Front Room</td>
<td>Remove 6 DFS from Periodicals Stacks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Relocate 12 carrels from back room to front room</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Do feasibility and costing for three group study rooms in the front room. Determine time line based on results of study.</td>
</tr>
</tbody>
</table>

### Thode Library

<table>
<thead>
<tr>
<th>FLOOR</th>
<th>AREA</th>
<th>2005/06 INITIATIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1ST Floor</td>
<td>Study Areas</td>
<td>Add wireless to open areas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Install lights in all carrels in Atrium</td>
</tr>
<tr>
<td>2ND Floor</td>
<td>Study Areas</td>
<td>Add wireless to west side of floor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Install lights in all carrels in Atrium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Add electrical outlets along both sides of the floor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Add 2 research stations</td>
</tr>
<tr>
<td>3RD Floor</td>
<td>Study Areas</td>
<td>Add electrical outlets along both sides of the floor</td>
</tr>
</tbody>
</table>
APPENDICES

APPENDIX #1: Review Process and Methodology

Given the absence of any definitive process for conducting space studies in academic libraries, the group developed its own workable plan for arriving at its ultimate conclusions:

Meetings

During the course of the eight months, the group met twenty-five times and visited all public areas described in the report. Minutes were posted to the staff web site.

Literature Review

Krista Godfrey and Ines Perkovic reviewed recent literature to determine current and best practices regarding space planning, periodicals projections and high-density shelving trends. The general space planning literature review was posted to the staff web site with live links to subscribed resources.

Public Input

The group actively sought input from all constituent groups.

A user survey was conducted in March and April, 2004. Close to 1,000 users responded to the survey, either in person or via the web-based form. Ann Johnston entered all of the survey data and Vivek Jadon conducted the statistical analysis.

52 staff attended one of two staff forums held in late April and early May.

Three student focus groups were conducted in late March - with delegates invited from the MSU, MAPS, GSA, SLAC, and various academic associations or societies on campus.

General Strategy

The Group reviewed current floor plans to determine the proportion of public assignable space allocated to various functions. Made extensive use of the Physical Data File provided by the University Planning Department (which identified the square footage of each identifiable area in the three facilities).
The Group gathered and considered recognized standards for total public assignable space, shelving capacity, study seats per FTE, etc.

A photo gallery was created as a “visual notebook” of our deliberations. The gallery includes images of public spaces during busy times of term.

The Group reviewed annual statistics for all collections. Generated projections based on the last ten years of data. Created a standardized table for illustrating the number of additional DFS’s required to house each collection to the year 2015.

The Group engaged the assistance of many staff across the three libraries to do several manual counts of specific collections and areas.

At the same time, the Group began analysing enrolment data in an attempt to determine a reasonable number of study seats for the University Library to support to the year 2015. Staff in the Office of Analysis and Budgeting, especially Nancy Weller and Wilf Ward, provided data and advice.

The Group reviewed the Knowledge Commons proposal to determine the overall impact the plan would have on seating. Created supplementary recommendations for facilitating the necessary shifts of collections, equipment and people.

Gord Beck generated professional and detailed floor plans of critical areas using SmartDraw. Other floor plans were created by the Committee using Paintbrush.

The Group held a contest “lobbying for suggestions” to get ideas for revitalizing the Mills lobby.

Sessions were held with staff in September to present and discuss the preliminary recommendations.

Report

The Report was presented and discussed at the Library’s Arts Library User Committee (October 21, 2004), Science & Engineering Users Committee (October 27, 2004), and Student Library Advisory Committee (November 10, 2004). Revisions were made as a result of these discussions. The report was finalized in May 2005, following broad consultation with the campus community.
## APPENDIX #2: Assignable and Non-Assignable Space in the University Library

### Area in Square Feet and Percentage of Building Totals

<table>
<thead>
<tr>
<th></th>
<th>Mills</th>
<th>Innis</th>
<th>Thode</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Space</strong></td>
<td>113950</td>
<td>7438</td>
<td>52168</td>
<td>173556</td>
</tr>
<tr>
<td></td>
<td>59.5%</td>
<td>77.8%</td>
<td>70.8%</td>
<td>63.1%</td>
</tr>
<tr>
<td><strong>Office / Staff Space</strong></td>
<td>25000</td>
<td>359</td>
<td>2550</td>
<td>27909</td>
</tr>
<tr>
<td></td>
<td>13.1%</td>
<td>3.8%</td>
<td>3.5%</td>
<td>10.2%</td>
</tr>
<tr>
<td><strong>Total Assignable Space</strong></td>
<td>138950</td>
<td>7797</td>
<td>54718</td>
<td>201465</td>
</tr>
<tr>
<td></td>
<td>72.5%</td>
<td>81.6%</td>
<td>74.2%</td>
<td>73.3%</td>
</tr>
<tr>
<td><strong>Non Assignable Space</strong></td>
<td>52605</td>
<td>1760</td>
<td>19008</td>
<td>73373</td>
</tr>
<tr>
<td></td>
<td>27.5%</td>
<td>18.4%</td>
<td>25.8%</td>
<td>26.7%</td>
</tr>
<tr>
<td><strong>TOTAL BUILDING SPACE</strong></td>
<td>191555</td>
<td>9557</td>
<td>73726</td>
<td>274838</td>
</tr>
</tbody>
</table>

**Note:**

- LTRC included in non-assignable space for Thode. Will eventually revert to Library space. 1,232 square feet.
## APPENDIX #3: Current Space Utilization in the University Library

Area in Square Feet and Percentage of Total Public Assignable Space

<table>
<thead>
<tr>
<th></th>
<th>MILLS</th>
<th>INNIS</th>
<th>THODE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Collection Space</strong></td>
<td>78000.0</td>
<td>1597.0</td>
<td>36500.0</td>
<td>116097.0</td>
</tr>
<tr>
<td></td>
<td>68.5%</td>
<td>21.5%</td>
<td>70.0%</td>
<td>66.9%</td>
</tr>
<tr>
<td><strong>Study Space</strong>*</td>
<td>27950.0</td>
<td>4665.0</td>
<td>13389.0</td>
<td>46004.0</td>
</tr>
<tr>
<td></td>
<td>24.5%</td>
<td>62.7%</td>
<td>25.7%</td>
<td>26.5%</td>
</tr>
<tr>
<td><strong>Computer Space</strong></td>
<td>3400.0</td>
<td>462.0</td>
<td>1500.0</td>
<td>5362.0</td>
</tr>
<tr>
<td></td>
<td>3.0%</td>
<td>6.2%</td>
<td>2.9%</td>
<td>3.1%</td>
</tr>
<tr>
<td><strong>Service Space</strong></td>
<td>1200.0</td>
<td>476.0</td>
<td>500.0</td>
<td>2176.0</td>
</tr>
<tr>
<td></td>
<td>1.1%</td>
<td>6.4%</td>
<td>1.0%</td>
<td>1.3%</td>
</tr>
<tr>
<td><strong>Public Equipment</strong></td>
<td>3400.0</td>
<td>238.0</td>
<td>279.0</td>
<td>3917.0</td>
</tr>
<tr>
<td></td>
<td>3.0%</td>
<td>3.2%</td>
<td>0.5%</td>
<td>2.3%</td>
</tr>
<tr>
<td><strong>Total Public Assignable Space</strong></td>
<td><strong>113950.0</strong></td>
<td><strong>7438.0</strong></td>
<td><strong>52168.0</strong></td>
<td><strong>173556.0</strong></td>
</tr>
</tbody>
</table>

*NOTE: Seating space excludes computer space for purposes of this table.*
## APPENDIX #4: Proposed University Library Contents in High-Density Shelving Facility

<table>
<thead>
<tr>
<th>CONTENT: BOOKS</th>
<th>Linear feet</th>
<th>Notes</th>
</tr>
</thead>
</table>
| MILLS Book Stacks (individually selected) | 4,258 | 38,318 volumes to be transferred to high-density shelving by 2015 due to a shortfall of 119 DFS.  
*Note: used 23 vols/shelf to calculate volumes to be transferred and 9 vols/foot for the linear feet.* |
| MILLS Periodicals (all pre-1988 holdings) | 14,417 | measured |
| MILLS Periodicals (JSTOR titles, 1986 - 1999) | 456 | measured |
| MILLS Periodicals (periodical indexes and abstracts duplicated in electronic form) | 272 | measured |
| MILLS Government Publications - stacks | 630 | for shortfall of 15 DFS |
| MILLS Government Publications - pre-1989 periodicals | 168 | measured |
| MILLS Reference - stacks | 342 | 114 shelves of reference books to be relocated |
| MILLS Theses (brief-catalogued pre-1983 theses) | 216 | measured as 6 DFS (using 12 shelves per DFS) |
| MILLS Research Collections - low-use print volumes | 608 | For 5474 vols due to shortfall of 17 DFS.  
*Note: used 23 vols/shelf to calculate volumes to be transferred and 9 vols/foot for the linear feet.* |
<p>| MILLS Research Collections - BSB Storage- 1,944 linear feet of print volumes | 1,944 | Measured |</p>
<table>
<thead>
<tr>
<th>Location</th>
<th>Volume</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MILLS Storage (Thode Lower Level)</td>
<td>17,838</td>
<td>160,544 vols @ 9/linear foot</td>
</tr>
</tbody>
</table>
| INNIS Book Stacks (individually selected) | 544    | 4900 items due to shortfall of 14 DFS  
  Note: used 25 vols/shelf to calculate volumes to be transferred and 9 vols/foot for the linear feet. |
| INNIS Storage (Thode Lower Level)| 483    | 4345 vols @ 9/linear foot                                             |
| THODE Periodicals (full run of all JSTOR titles) | 621    | Measured                                                              |
| THODE Periodicals (periodical indexes and abstracts duplicated in electronic form) | 876    | Measured                                                              |
| THODE Theses (brief catalogued, pre 1983 theses) | 420    | 140 shelves                                                           |
| THODE Storage                    | 1,368  | Measured                                                              |
| TOTAL                            | 45461  |                                                                      |

### B. CONTENT: ARCHIVES

<table>
<thead>
<tr>
<th>Location</th>
<th>Linear feet</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Note: archives require extra deep shelves</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MILLS Research Collections - BSB Storage - 3,198 linear feet of archives (Extra deep shelves)</td>
<td>3198</td>
<td>Measured</td>
</tr>
<tr>
<td>MILLS Research Collections - low-use archives</td>
<td>998</td>
<td>Projected requirements</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4196</td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX #5: Enrolment Versus Seating

<table>
<thead>
<tr>
<th>Year</th>
<th>Total FTE excluding Health Sciences</th>
<th>Recognized Standard (20% of non-HS FTE)</th>
<th>Actual # of Public Seats</th>
<th>Actual % of FTE</th>
<th>Proposed Standard 14% of non-HS FTE</th>
<th>Gap Between Proposed Standard and Actual # of Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994/5</td>
<td>13478.7</td>
<td>2696</td>
<td>1799</td>
<td>13.3%</td>
<td>1887</td>
<td>88</td>
</tr>
<tr>
<td>1995/6</td>
<td>13575.4</td>
<td>2715</td>
<td>1806</td>
<td>13.3%</td>
<td>1901</td>
<td>95</td>
</tr>
<tr>
<td>1996/7</td>
<td>13623.7</td>
<td>2725</td>
<td>1730</td>
<td>12.7%</td>
<td>1907</td>
<td>177</td>
</tr>
<tr>
<td>1997/8</td>
<td>13442.4</td>
<td>2688</td>
<td>1742</td>
<td>13.0%</td>
<td>1882</td>
<td>140</td>
</tr>
<tr>
<td>1998/9</td>
<td>13408.5</td>
<td>2682</td>
<td>1757</td>
<td>13.1%</td>
<td>1877</td>
<td>120</td>
</tr>
<tr>
<td>1999/0</td>
<td>13469</td>
<td>2694</td>
<td>1747</td>
<td>13.0%</td>
<td>1886</td>
<td>139</td>
</tr>
<tr>
<td>2000/1</td>
<td>13676</td>
<td>2735</td>
<td>1737</td>
<td>12.7%</td>
<td>1915</td>
<td>178</td>
</tr>
<tr>
<td>2001/2</td>
<td>14473.5</td>
<td>2895</td>
<td>1711</td>
<td>11.8%</td>
<td>2026</td>
<td>315</td>
</tr>
<tr>
<td>2002/3</td>
<td>15877.4</td>
<td>3175</td>
<td>1927</td>
<td>12.1%</td>
<td>2223</td>
<td>296</td>
</tr>
<tr>
<td>2003/4</td>
<td>16777</td>
<td>3355</td>
<td>1920</td>
<td>11.4%</td>
<td>2349</td>
<td>429</td>
</tr>
</tbody>
</table>

APPENDIX #6: Recommended # of Public Seats in the University Library to the Year 2015

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2004/05</td>
<td>17564</td>
<td>17608</td>
<td>17651.9</td>
<td>17696</td>
<td>17740</td>
<td>17785</td>
<td>17829</td>
<td>17874</td>
<td>17918</td>
<td>17963</td>
<td>18008</td>
</tr>
<tr>
<td>Recommended # of Library Seats (at 14% of non-HS FTE)</td>
<td>2459</td>
<td>2465</td>
<td>2471</td>
<td>2477</td>
<td>2484</td>
<td>2490</td>
<td>2496</td>
<td>2502</td>
<td>2509</td>
<td>2515</td>
<td>2521</td>
</tr>
<tr>
<td>Number of additional seats over 2004 base of 1,920</td>
<td>539</td>
<td>545</td>
<td>551</td>
<td>557</td>
<td>564</td>
<td>570</td>
<td>576</td>
<td>582</td>
<td>589</td>
<td>595</td>
<td>601</td>
</tr>
</tbody>
</table>

Sources: Telephone interview with Nancy Weller, Enrolment and Information Analyst, Office of Statistics and Budgeting, McMaster University, September 10, 2004. Ms. Weller indicated that, in the absence of any major campus enrolment decision, the Office of Statistics and Budgeting is projecting a 5% increase in Undergraduates and a 1.6% increase in Graduates during the 2005/6 year. Total enrolment is expected to flatten in subsequent years.
## APPENDIX #7: Public Seating by Furnishings and Environment, University Library, 2004

<table>
<thead>
<tr>
<th></th>
<th>Seats at Carrels</th>
<th>Seats at Tables</th>
<th>Seats at Computers</th>
<th>Seats at Index Tables &amp; Public Equipment</th>
<th>Soft Seats</th>
<th>TOTAL SEATING</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silent</td>
<td>177</td>
<td></td>
<td></td>
<td></td>
<td>6</td>
<td>183</td>
<td>9.6%</td>
</tr>
<tr>
<td>Quiet</td>
<td>557</td>
<td>139</td>
<td>41</td>
<td>24</td>
<td>35</td>
<td>796</td>
<td>41.8%</td>
</tr>
<tr>
<td>Group</td>
<td>12</td>
<td>462</td>
<td>9</td>
<td>4</td>
<td>3</td>
<td>490</td>
<td>25.7%</td>
</tr>
<tr>
<td>Other</td>
<td>134</td>
<td>69</td>
<td>131</td>
<td>81</td>
<td>37</td>
<td>452</td>
<td>22.8%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>880</td>
<td>670</td>
<td>181</td>
<td>109</td>
<td>81</td>
<td>1921</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(46.2%)</td>
<td>(35.2%)</td>
<td>(8.5%)</td>
<td>(5.7%)</td>
<td>(4.3%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix #8: University Library: Summary of Proposed Seating Changes to 2015

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>Proposed 2015</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Seats at Carrels</td>
<td>880</td>
<td>45.8%</td>
<td>1070</td>
</tr>
<tr>
<td>Seats at Tables</td>
<td>670</td>
<td>34.9%</td>
<td>748</td>
</tr>
<tr>
<td>Seats at Computers (includes stand-up)</td>
<td>181</td>
<td>9.4%</td>
<td>436</td>
</tr>
<tr>
<td>Seats at Index Tables and Public Equipment</td>
<td>109</td>
<td>5.7%</td>
<td>68</td>
</tr>
<tr>
<td>Soft Seats</td>
<td>81</td>
<td>4.2%</td>
<td>248</td>
</tr>
<tr>
<td>TOTAL Seats</td>
<td>1921</td>
<td></td>
<td>2570</td>
</tr>
</tbody>
</table>

### Mills Library: Summary of Proposed Seating Changes to 2015

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>Proposed 2015</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Seats at Carrels</td>
<td>544</td>
<td>47.6%</td>
<td>669</td>
</tr>
<tr>
<td>Seats at Tables</td>
<td>344</td>
<td>30.1%</td>
<td>206</td>
</tr>
<tr>
<td>Seats at Computers (includes stand-up)</td>
<td>121</td>
<td>10.6%</td>
<td>326</td>
</tr>
<tr>
<td>Seats at Index Tables and Public Equipment</td>
<td>96</td>
<td>8.4%</td>
<td>55</td>
</tr>
<tr>
<td>Soft Seats</td>
<td>38</td>
<td>3.3%</td>
<td>162</td>
</tr>
<tr>
<td>TOTAL Seats</td>
<td>1143</td>
<td></td>
<td>1418</td>
</tr>
</tbody>
</table>
### Innis Library: Summary of Proposed Seating Changes to 2015

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>Proposed 2015</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Seats at Carrels</td>
<td>131</td>
<td>63.0%</td>
<td>133</td>
</tr>
<tr>
<td>Seats at Tables</td>
<td>46</td>
<td>22.1%</td>
<td>62</td>
</tr>
<tr>
<td>Seats at Computers (includes stand-up)</td>
<td>24</td>
<td>11.5%</td>
<td>24</td>
</tr>
<tr>
<td>Seats at Index Tables and Public Equipment</td>
<td>5</td>
<td>2.4%</td>
<td>5</td>
</tr>
<tr>
<td>Soft Seats</td>
<td>2</td>
<td>1.0%</td>
<td>6</td>
</tr>
<tr>
<td><strong>TOTAL Seats</strong></td>
<td>208</td>
<td></td>
<td>230</td>
</tr>
</tbody>
</table>

### Thode Library: Summary of Proposed Seating Changes to 2015

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>Proposed 2015</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Seats at Carrels</td>
<td>205</td>
<td>36.0%</td>
<td>268</td>
</tr>
<tr>
<td>Seats at Tables</td>
<td>280</td>
<td>49.1%</td>
<td>480</td>
</tr>
<tr>
<td>Seats at Computers (includes stand-up)</td>
<td>36</td>
<td>6.3%</td>
<td>86</td>
</tr>
<tr>
<td>Seats at Index Tables and Public Equipment</td>
<td>8</td>
<td>1.4%</td>
<td>8</td>
</tr>
<tr>
<td>Soft Seats</td>
<td>41</td>
<td>7.2%</td>
<td>80</td>
</tr>
<tr>
<td><strong>TOTAL Seats</strong></td>
<td>570</td>
<td></td>
<td>922</td>
</tr>
</tbody>
</table>
### APPENDIX #9: Public Computers by Category and Library, 2004

<table>
<thead>
<tr>
<th>Category</th>
<th>Mills</th>
<th>Innis</th>
<th>Thode</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research stations (no productivity software)</td>
<td>57</td>
<td>23</td>
<td>24</td>
<td>104</td>
</tr>
<tr>
<td>Research stations (with productivity software)</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MORRIS-only stations</td>
<td>10</td>
<td>0</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>MORRIS - course reserve stations</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>E-mail stations</td>
<td>9</td>
<td>0</td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td>Instruction stations</td>
<td>20</td>
<td>0</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>102</td>
<td>24</td>
<td>35</td>
<td>161</td>
</tr>
</tbody>
</table>

### APPENDIX #10: Public Computers in the University Library: Overall Impact of Proposed Changes

<table>
<thead>
<tr>
<th>Category</th>
<th>2004</th>
<th>2015</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Research Stations (no productivity software)</td>
<td>104</td>
<td>65%</td>
<td>79</td>
</tr>
<tr>
<td>Research Stations with productivity software</td>
<td>3</td>
<td>2%</td>
<td>223</td>
</tr>
<tr>
<td>MORRIS-only</td>
<td>11</td>
<td>7%</td>
<td>16</td>
</tr>
<tr>
<td>MORRIS-course reserve</td>
<td>6</td>
<td>4%</td>
<td>6</td>
</tr>
<tr>
<td>E-mail</td>
<td>17</td>
<td>11%</td>
<td>0</td>
</tr>
<tr>
<td>Instruction</td>
<td>20</td>
<td>12%</td>
<td>44</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>161</td>
<td></td>
<td>368</td>
</tr>
</tbody>
</table>
# Appendix #11: University Library: Current Versus Proposed Public Space Utilization

<table>
<thead>
<tr>
<th></th>
<th>CURRENT</th>
<th></th>
<th>PROPOSED</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># of Square Feet</td>
<td>% of Total Public Assignable Space</td>
<td># of Square Feet</td>
<td>% of Total Public Assignable Space</td>
</tr>
<tr>
<td>Collection Space</td>
<td>116097.0</td>
<td>66.9%</td>
<td>105531</td>
<td>60.0%</td>
</tr>
<tr>
<td>Study Space</td>
<td>46004.0</td>
<td>26.5%</td>
<td>54893</td>
<td>31.2%</td>
</tr>
<tr>
<td>Computer Space</td>
<td>5362.0</td>
<td>3.1%</td>
<td>12142</td>
<td>6.9%</td>
</tr>
<tr>
<td>Service Space</td>
<td>2176.0</td>
<td>1.3%</td>
<td>2176</td>
<td>1.2%</td>
</tr>
<tr>
<td>Equipment Space</td>
<td>3917.0</td>
<td>2.3%</td>
<td>1165</td>
<td>0.6%</td>
</tr>
<tr>
<td>TotalAssignablePublicSpace</td>
<td>173556.0</td>
<td></td>
<td></td>
<td>175907</td>
</tr>
</tbody>
</table>
### Mills Library - Current versus Proposed Public Space Utilization

<table>
<thead>
<tr>
<th></th>
<th>CURRENT</th>
<th>PROPOSED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># of Square Feet</td>
<td>% of Total Public Assignable Space</td>
</tr>
<tr>
<td>Collection Space</td>
<td>78000</td>
<td>68.5%</td>
</tr>
<tr>
<td>Study Space</td>
<td>27950</td>
<td>24.5%</td>
</tr>
<tr>
<td>Computer Space</td>
<td>3400</td>
<td>3.0%</td>
</tr>
<tr>
<td>Service Space</td>
<td>1200</td>
<td>1.1%</td>
</tr>
<tr>
<td>Equipment Space</td>
<td>3400</td>
<td>3.0%</td>
</tr>
<tr>
<td>Total Assignable</td>
<td>113950</td>
<td></td>
</tr>
<tr>
<td>Public Space</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Innis Library - Current Versus Proposed Public Space Utilization

<table>
<thead>
<tr>
<th></th>
<th>CURRENT</th>
<th>PROPOSED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># of Square Feet</td>
<td>% of Total Public Assignable Space</td>
</tr>
<tr>
<td>Collection Space</td>
<td>1597</td>
<td>21.5%</td>
</tr>
<tr>
<td>Study Space</td>
<td>4665</td>
<td>62.7%</td>
</tr>
<tr>
<td>Computer Space</td>
<td>462</td>
<td>6.2%</td>
</tr>
<tr>
<td>Service Space</td>
<td>476</td>
<td>6.4%</td>
</tr>
<tr>
<td>Equipment Space</td>
<td>238</td>
<td>3.2%</td>
</tr>
<tr>
<td>Total Assignable</td>
<td>7438</td>
<td></td>
</tr>
<tr>
<td>Public Space</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Thode Library - Current versus Proposed Space Utilization

<table>
<thead>
<tr>
<th></th>
<th>CURRENT</th>
<th></th>
<th>PROPOSED</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># of Square Feet</td>
<td>% of Total Public Assignable Space</td>
<td># of Square Feet</td>
<td>% of Total Public Assignable Space</td>
</tr>
<tr>
<td>Collection Space</td>
<td>36500</td>
<td>70.0%</td>
<td>27440</td>
<td>51.2%</td>
</tr>
<tr>
<td>Study Space</td>
<td>13389</td>
<td>25.7%</td>
<td>21994</td>
<td>41.0%</td>
</tr>
<tr>
<td>Computer Space</td>
<td>1500</td>
<td>2.9%</td>
<td>3392</td>
<td>6.3%</td>
</tr>
<tr>
<td>Service Space</td>
<td>500</td>
<td>1.0%</td>
<td>500</td>
<td>0.9%</td>
</tr>
<tr>
<td>Equipment Space</td>
<td>279</td>
<td>0.5%</td>
<td>279</td>
<td>0.5%</td>
</tr>
<tr>
<td><strong>Total Assignable Public Space</strong></td>
<td><strong>52168</strong></td>
<td></td>
<td><strong>53605</strong></td>
<td></td>
</tr>
</tbody>
</table>
LIST OF BACKGROUND REPORTS*

General
• Minutes of the Public Space Utilization Review Group, February - September 2004
• Reports from the Mills, Innis and Thode Student Focus Group Sessions, March 2004
• Results from the Public Space User Survey, March 2004
• Public Space Utilization in the University Libraries: Questions and Answers from the Staff Sessions, September 10 and 11, 2004

Current Space Utilization
• People Versus Collections: # of Square Feet and % of Total Public Assignable Space Devoted to People and Collection Spaces, 2004

Collections
• Book Stack Projections for Mills Library, 2005-2015
• Book Stack Projections for Innis Library, 2005-2015
• Book Stack Projections for Thode Library, 2005-2015
• Periodical Projections for Mills Library, 2005-2015
• Periodical Projections for Thode Library, 2005-2015
• Research Collections: Projections for Print Volumes, 2005-2015
• Research Collections: Projections for Archives, 2005-2015
• Microforms: Information for the Consideration of the Space Planning Committee
• Mills Music Collections: Projections for 2005-2015

Public Seating
• Mills Library: Proposed Changes to Public Seating
• Innis Library: Proposed Changes to Public Seating
• Thode Library: Proposed Changes to Public Seating
• Square Footage of Space Per Seat, by Library, 2004

Computer Space
• Square Footage of Space Per Computer Station, by Library, 2004
• Mills Library: Proposed Changes in the # of Public Computer Stations, 2004-2015
• Innis Library: Proposed Changes in the # of Public Computer Stations, 2004-2015
• Thode Library: Proposed Changes in the # of Public Computer Stations, 2004-2015

Public Equipment Space
• Proposed Floor Plan for the Mills 3rd Floor Microform Reading Room
• Volume of Photocopying in the University Library, 2000-2004
• Volume of Printing in the University Library, 2000-2004

*For copies, contact the AUL (Services) at lewisvm@mcmaster.ca. Tel: (905) 525-9140, ext. 2388
SOURCES

Primary

Innis Library. *Notes from Focus Group Session*. Conducted March 24, 2004 by Ines Perkovic.


McMaster University, Physical Plant. *Building Report*. [data file provided by Peter Augustyn].


Mills Library. *Notes from Student Focus Group Session*. Conducted March 24, 2004 by Elise Hayton and Vivian Lewis.


Thode Library. *Notes from Student Focus Group*. Conducted March 25, 2004 by Kathy Ball.

Secondary


