Rotman School of Management
Project Committee Report (Part I)
for the
Addition of Office Space on the 4th and 5th Floors

February 24, 2003

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I. MEMBERSHIP

Peter Pauly, Rotman School of Management [Co-Chair]
Brian Silverman, Rotman School of Management
Mary-Ellen Yeomans, Rotman School of Management [Co-Chair]
Charlotte Warren MBA student, Rotman School of Management
Neil Fassina, Ph.D. student, Rotman School of Management
Michael Hartman, Managing Director, Executive Education
Wendy Rotenberg, Director, Commerce Programs
Gary Lindblad, Director, MBA Program
Julian Binks, Capital Projects
Jennifer Adams, Campus & Facilities Planning

II. TERMS OF REFERENCE

The Project Committee must address the following terms:

1. Identify the demand for additional space necessitated by enrolment growth within the Rotman School of Management. This will require a detailed assessment of all elements of Rotman School of Management space program.
2. Demonstrate that the proposed space program, essentially all accommodation, will be consistent with the Council of Ontario University's space standards.
3. Identify all secondary effects, including the space reallocations, temporary effects of construction, and impact on the delivery of academic programs during construction.
4. Consult with the Food Services Ancillary should any change in food services be anticipated.
5. Identify equipment and movable furnishings necessary to the project and their estimated cost.
6. Identify all resource implications, including a preliminary estimate of capital costs, and projected increases to the annual operating costs for the Rotman School of Management as a result of this project.
7. Identify a funding plan for capital and operating costs.
8. Report by November 30, 2002 or as soon as possible thereafter.

III. BACKGROUND INFORMATION

This Project Committee was established in order to address the comprehensive space requirements of the Rotman School of Management consistent with approved academic plans and the future objectives of the School. Specifically there is an immediate need to address office accommodation for faculty members and instructors related to the expanded activities of the Full and Part-time MBA, Ph.D., Commerce and EMBA programs within the School. It is expected that the office accommodation will be located above the third floor adding two floors to the south wing of the existing building. In the longer term, it is anticipated, from preliminary data analysis, that the Rotman School will

require space in excess of that available within the 4th and 5th floor addition to accommodate all programmatic elements. As such, a more comprehensive report that addresses all expansion needs for the Rotman School will follow in the coming months. The School puts forward this project report before the completion of a full space audit because of the immediate pressing need for space to accommodate new hires within the School.

The School has already explored the feasibility of this expansion with the original architects of the Rotman building, Zeidler Roberts Partnership Architects (now Zeidler Grinnell Partnership Architects). It is anticipated that, to expedite the project most quickly, the Zeidler Grinnell Partnership will be named the architect for the project once approved.

IV. STATEMENT OF ACADEMIC PLAN

The Rotman School of Management offers several degree programs, including the prestigious Rotman Full-Time MBA and Part-Time MBA Programs, the One-Year MBA for Executives, a first-rate doctoral program, the undergraduate Commerce Program in partnership with the Faculty of Arts and Sciences, combined MBA Programs with the Faculties of Law, Engineering, Nursing and the Department of Economics, and an innovative series of Executive Programs tailored to the current needs of businesses and individual managers.

The Rotman School is actively pursuing its goal to be recognized as a leading centre of business research and academic and professional teaching, and as such to rank with the best business schools worldwide. In October 1999, the School put forward an ambitious five year strategic plan outlining a competitive strategy for advancing faculty research and program development and delivery to a position of international distinction. The goal as stated is "to place among the top 20 business schools worldwide by the 2004, and to be among the top 10 within seven to ten years." Since 1999, the School has been steadily implementing its plan, and its success can be measured through its rapid ascent in business school rankings. With the release of the January 2003 Financial Times ranking of Top 100 Business Schools in the world today, Rotman is now ranked 21st globally, up an impressive 25 spots since 2001. This improvement is the greatest ranking increase of any business school in the top 50 over the same period of time.

The international market for business education is enormously fragmented, with global competitiveness dependent on the creation of unique programs and research identities with a distinctive system of activities. The Rotman School's strategy for success in this market is dependent on branding (choice and uniqueness) achieved through programmatic innovation, efficient delivery of academically challenging and professionally relevant material, and novel and widely recognized research. The 5-Year Plan focuses on the choices necessary for the Rotman School to provide leading-edge business education content; to create a fertile ground for the development of great minds; and to enhance the experience of students, faculty and staff in all programs.

The key elements of the Rotman School strategy are:

- Developing the world's first integrated business school curriculum
- Enhancing our research and content creation activities across all portfolios
- Establishing distinctiveness by becoming a unique and innovative learning community where the focus will be on creating an experiential, "hands on" learning experience
- Embedding the School's programs in an overarching design aimed at life-long learning
- Developing human capital that best meets the demands of the business and academic community, by producing graduates, teachers and researchers who are highly agile thinkers and who can combine strong functional expertise with superb interpersonal and team skills
- Maintaining an international focus in all of our research and teaching to achieve genuine international competitiveness

In pursuit of a vision guided by the themes of integration, global competitiveness and the value of one, the Rotman School is transforming itself along a number of key dimensions that will reinforce its competitive advantage in the market and make it difficult for competitors to replicate its distinctiveness:

- Program Structure and Size
- Organizational Efficiency
- Curriculum Redesign
- Research Focus
- Faculty Complement
- Faculty Compensation and Research Support
- Student Experience
- Outreach to the Business Community
- Development
- Infrastructure

More specifically, the Rotman School's initiatives are focused on the following:

- Adjust program structure to achieve three objectives:
    - Critical mass: increase the size of our programs at the undergraduate and graduate levels to achieve minimum efficient scale in our operations;
    - Reduced scope: focus on reducing the range of educational platforms offered by the School, not necessarily on differences in delivery mechanisms;
    - Distinctiveness and International Competitiveness: re-design our programs to achieve distinctive branding and gain international visibility in all of our activities.

- Improve organizational efficiency of non-academic services and academic administration
- Redesign curriculum in all programs and migration to more modular approach to program delivery
- Compete with top 10 content providers through leading edge research and knowledge creation, by pushing our research excellence beyond traditional strength and focus to achieve international distinction and visibility, by adding new centers of excellence in emerging areas of growth in the 'new economy', and by embracing novel research initiatives that support such areas as integrative thinking and competitive advantage
- Grow faculty complement by approximately 65% relative to 1998/99 levels, and modify its composition in response to changes in the School's research focus and program structures and sizes, and to development of an integrative approach to teaching and research
- Provide more competitive teaching and research environment through increased faculty compensation and research support, and reduced teaching loads
- Improve all programs' student services, from pre-entry through post-exit (Marketing, Recruiting, Admissions, Program Services, Career Development, Alumni Relations) to top-10 quality, but with a goal of achieving cross-programmatic efficiencies to serve increased student numbers with constrained resources
- Enhance the international dimensions of teaching and research programs
- Expand outreach to the business community and the public in general through programs and events that increase awareness of the school's activities and help to brand it
- Expand development activities to achieve $100 million endowment goal
- Expand the physical facility through every possible means to accommodate growth in enrolment and complement associated with increased scope and scale of programs and activities: renovations to the existing building to achieve maximum efficient utilization of space, holding Executive Programs at off site locations where appropriate, finding additional space for the Commerce Program within the vicinity of the Rotman School etc.

Specific program initiatives identified in Plan 2004 include the following:

- Doubling the size of the Full-time MBA Program, in tandem with major curriculum redesign
- Redesign and re-launch of the Part-Time MBA Program, building in the best curriculum design and delivery attributes of the Full-time MBA and EMBA programs
- Increase the size of the Ph.D. Program, adding two new streams
- Establish a new BASc/MBA Program (with Engineering)
- Establish a Masters in Financial Economic Program (joint with the Dept of Economics)

- Expand and improve the Commerce Program (with Arts & Science)
- Increase the scale and scope of our Executive Education activities through new and expanded customized Executive Development non-degree programs

In 1995, the Rotman School moved into a new building, improving significantly the School's teaching and research facilities which previously had been housed in five separate locations, including leased space on Bloor Street. The significance of the new facility to the quality of the academic experience for students and faculty, and to the building of a Rotman community that extends beyond the university into the business community, has been great. By any measure of success, the facility has been a key component of satisfaction for those working in or intersecting with the Rotman community. The building has become an important nexus for a range of activities that tie together our academic programs and the business community. Despite the success of the building however, the space has become seriously limited in meeting the School's needs as it continues to grow in scale and complexity. Planning in the late 80's/early 90's that led to the construction of this facility did not take into account the dramatic change in the competitive environment of business school education. As business schools around the world intensify their efforts in a period of unprecedented competition in the global business education marketplace, the Rotman School's strategic growth requires more space to accommodate it.

V. SPACE PROGRAM

In 1986, when the Rotman School of Management building was planned in its current location at 105 St. George Street, the faculty complement was 52.63FTE. Faculty growth at that time was forecast at 13FTE. Since that time, the population served by the School, and hence the faculty and staff associated with the School, has increased beyond all initial plans. In order to accommodate this growth, overcrowding of faculty and administrative staff areas and reallocation of library space, meeting rooms, storage and graduate student space to other program requirements has been necessary. A forthcoming report will address the larger set of space needs for the Rotman School.

The School's approved Academic Plan (*Raising Our Sights: A Five-Year Plan for the Joseph L. Rotman School of Management 1999-2004*) identifies significant faculty growth that almost doubles in size the complement that existed in 1986 when the original building was planned: 98.47FTE vs. 52.63FTE. Several new faculty are scheduled to arrive for the 2003/04 school year and although the School has been very creative in the ways space is utilized as growth occurs, no further capacity can be found to accommodate the immediate needs of the incoming complement of scholars. As such, it is suggested that additional faculty office space, meeting and research support space be created in a new south wing of the existing building on the 4th and 5th floors.

Preliminary structural and architectural studies have been undertaken to determine the viability of this option. Cost estimates have been prepared using this preliminary material.

a) Existing Space Program

The existing Rotman School Space Inventory includes 8806gsm of space (5344nasm Rotman controlled; 89.5nasm OSM controlled). Spaces are outlined as follows:

Existing Space Inventory

Category	nasm
Ancillary Services	7.43
Building & Grounds	8.33
Commerce Program	117.7
Executive Development	359.46
Executive MBA	339.62
Management	4511.61
OSM Classroom*	89.49
TOTAL	**5433 nasm**

* Note: RT133 transferred from OSM to Rotman on 1st of Sept. 2002. The remaining OSM classroom (RT127) is listed above.

Space allocated to full-time Faculty and other Academic Appointments is described below:

Faculty Office Space Inventory

Category	nasm
Faculty Offices	1063.45
Other Academic Offices	112.12
TOTAL	**1175.57**

At an average of 13nasm per office, the above area actually accommodates 87 faculty offices. The current Faculty complement of 81.61FTE generates 1220nasm of space (the equivalent of 94 x 13nasm offices) assuming the COU allocation of 15% is applied to provide space to accommodate emeritus professors, visitors, larger offices for Chairs and Department heads and others not captured in the FTE complement. As the existing area available for faculty offices (1175nasm) is already less than that suggested necessary by the COU (1220nasm), it is clear that additional space will be required in order to accommodate the additional faculty currently being (or to be) recruited.

b) New Space Program

The approved planning document, *Raising Our Sights: A Five-Year Plan for the Joseph L. Rotman School of Management 1999-2004*, identified a significant number of faculty positions to be added to the School's full time complement over the period of the plan: an addition of 39.04 FTE over the 59.43 existing complement in 1998/99.

Plan 2004 Faculty FTE/space needs

	FTE	nasm
1998/99 FTE	59.43	
Plan 2004 approved additional FTE	39.04	
TOTAL approved FTE	98.47	
Total nasm allocated		1472*

* 98.47FTE x 1.15 x 13nasm) = the equivalent of 113 x 13nasm offices – less if space is used to create some larger offices.

1175nasm currently accommodates 87 faculty offices in the Rotman School, and 1472nasm is recommended by the COU to accommodate the growing complement. The addition of slightly greater than 300nasm (1472 - 1175) to the School's inventory will, therefore, be necessary to accommodate additional faculty offices. 24 net new offices will be constructed as part of this project, of which 6 offices will be larger (at 18nasm) than the standard 13nasm office in order to accommodate Chairs and/or Directors.

39 nasm is generated for research office space by the growing complement. Based on the amount of space available on the 4th and 5th floors, 17 nasm per floor is allocated for research offices. In addition, two administrative positions will be located in the new wing - one for each of the Centres - and will require open offices of 13 nasm each.

Based on the area available on the 4th and 5th floors, a net of 24 additional faculty offices, plus administrative and research offices and meeting space can be provided as follows:

Space Program for the 4th & 5th Floor Addition

# spaces	Program element	NASM Per	total NASM
20*	Faculty Offices	13	260
6 *	Faculty Offices for Chairs/Directors	18	108
2	Meeting/Multipurpose Rooms	30	60
2	Admin Workstations	13	26
2	Research Offices	17	34
	TOTAL		**488 NASM**
	Assume ~1.8 net to gross		**880 GSM**

* note: 26 Faculty offices will be built in the new space and two offices in existing space will be taken out of service resulting in a net of 24 new Faculty offices.

Current and planned FTE for full time tenure/tenure stream faculty, lecturers, and other FTE-generating academic staff are outlined in a spreadsheet included as Appendix A.

VI. FUNCTIONAL PLAN

Based on preliminary architectural drawings prepared by Zeidler Grinnell Architects, each of the 4th and 5th floors can accommodate 13 offices, 1 meeting room and approximately 30nasm of open office space. In order to provide an entrance from the

existing corridor to these floors, one existing office on each level will be removed. As a result, a net of 24 new faculty offices are added, through this plan, to the Rotman School space program.

Faculty offices of 12-13nasm (and 18nasm for Chairs/Directors of Research Centre) will be located around the periphery of the new wing, allowing each office direct access to natural light and ventilation. Each office will be furnished and equipped in a similar fashion to existing offices in an effort to maintain continuity across the building. Chair/Director offices will include additional space for meetings of groups up to 4 persons. It is recommended that all faculty offices be fitted with transom windows along the corridor in order to bring natural light into the center of the wing. Full height Side vision panels at doorways are also recommended as a safety feature.

Meeting rooms, one on each floor, will be located in the center of the space and will be furnished and equipped in a similar fashion to existing rooms with flexible table configurations and comfortable arm chairs. The rooms will have data and telephone connections and will be fully equipped for presentations with a retractable projection screen, dimmable lights and electronic white boards. The meeting rooms will be glazed on all sides and equipped with blinds for privacy or light-blockage on an as needed basis.

The open office area is also planned at the center of the space receiving ambient natural light from transom windows located in all peripheral faculty offices. The open office area should accommodate 1 administrative office (13 nasm) on each level and 1 research office (17 nasm) on each level. The administrative office space should be located as close as is feasible to the entrance in order to provide an administrative presence at the entrance to each area.

Because the roof of the existing 3rd floor south wing is elevated approximately 2 feet from the corridor level on the 4th floor, a ramp and stair will be required to access the new wing. Preliminary drawings show this ramp and stair divided into two separate entries. However, in order to create a visible, distinct presence to this wing, a single, central entrance incorporating both stair and ramp is recommended. Depending on the floor to floor height achieved on the 4th floor addition, a similar stair and ramp may or may not be necessary on the 5th level.

As the School plans to group faculty members in these areas whose research will align with two research Centres currently being established (The Centre for Integrative Thinking and the Centre for Entrepreneurship and Creativity), a central entrance to each wing will be of particular value from a branding, wayfinding and donor recognition perspective.

Existing exit stairs at both east and west ends of the new wing will be extended to reach the 4th and 5th floors in order to comply with fire-code exiting requirements. Additionally, these stairs will provide ease of access between the two stacked spaces.

Room Data Sheets found in Appendix C describe, for each type of space, all required adjacencies, as well as all furnishings, equipment, data and telephone requirements.

VII. ENVIRONMENTAL PROTECTION

The committee supports adherence to both the letter and the intent of the University's Environmental Protection Policy and its Environmental Checklist. These have important implications for University construction in terms of design, materials selection and disposal of materials.

The committee recommends that design choices (e.g. use of natural light), process options (e.g. indoor air handling, water use) and product choices (e.g. flooring, furnishings) with implications for resource use consider all proven alternatives with preferences given to choices which minimize life-cycle costs. Choices offering greater environmental benefits than simply lowest life-cycle costs are to be presented for consideration. The building envelope should maximize the use of natural energy for lighting and perhaps heating, to provide air movement in excess of minimum standards for air exchange and to recapture heat before air is exhausted to the outside.

Using the Environmental Checklist as a guide, the Committee gives the following specific recommendations to realize energy savings, to reduce impact on the environment and to stimulate environmental awareness:

- allow for use of task lighting in offices (i.e.: electrical outlets in appropriate places for functionality).
- building materials, fixtures and furnishings should minimize environmental impacts in their production use and eventual disposal (e.g. do not use exotic woods; avoid materials that give off-gases; use materials that have recycled content)
- convenient spaces for recycling bins must be provided.

It is assumed that Facilities and Services will ensure that every opportunity for energy conservation measures in lighting, HVAC, etc. will be pursued and all proven designs evaluated before decisions with resource implications are made.

The University's Environmental Checklist and Environmental Protection Policy are included in Appendix B.

VIII. SPECIAL CONSIDERATIONS

a) Standards of Construction

Standards in construction, materials selection, quality of finish and furnishings were set to a high standard during the construction of the existing building. These should be maintained throughout the 4th and 5th floor addition.

b) Accessibility and Personal Safety

The committee endorses progressive, barrier-free accessibility for all, including access to handicapped parking, ramps and walkways to be integrated into the overall design. Both the fourth and fifth floors are accessible by elevator from all levels. A ramp will be necessary to link the existing Rotman structure to the new wings on one or both floors.

c) Campus Planning

The Rotman School of Management is located on the east side of St. George Street directly south of the Innis College Residence and north of the Department of Classics. The existing structure was completed in 1995 by Zeidler Roberts Architects with the intention of terracing height from 3 levels (in parts) at St. George Street up to 5 levels to the east and north. This was done in order to minimize the impact of height along this corridor. In the intervening years, the University has built on all but a few of its remaining building parcels. Particularly with the University faced with accommodating a steadily increasing cohort of students, it is now thought prudent to maximize building capacity on all sites. As such, the extension of the south wing of the Rotman School property to a full 5 floors adds needed space for the School while maximizing the building potential on the site.

Under current zoning, no additional building capacity is available on this site as of right. However, because the existing building rises at its north and east sides to a 5th floor, it is assumed that only minor approvals will be required to allow matching projections to a 5th floor at the south end of the building. The proposed addition is expected to require approvals to exceed the existing zoning with respect to both height and additional density. The schedule and budget included in this report anticipate Committee of Adjustment approval is sought and gained without delay.

d) Secondary Effects

During construction, staging space is anticipated to be located along the driving lane running along the south face of the building. As parking can also be accessed by a lane further south, this lane closure is not anticipated to be disruptive. Staging space is also expected to be located in the parking spaces east of the Classics building. As such, lost revenues from the existing 12 parking spaces (approx. $12,000) have been included in the project budget as an expense.

e) Moving and Staging

During construction some disruption will be felt by the School. In particular, 2 faculty offices will be demolished in order to create an entry on each level to the new wing. In addition, faculty offices directly adjacent to the construction will be impacted during noisy construction times. It is estimated that 2 faculty members will require permanent relocation and approximately 4 faculty members will require temporary relocation during times of noisy construction. The cost of relocation is included in the Project Cost Estimate and assumes relocation without any additional space rental costs.

In order to minimize the disruption to the School's programs, construction will be planned around the teaching schedule. Scheduling of noisy construction times can be achieved at an additional cost which has been factored into the Project Cost Estimate.

Careful assessment of all offered programs will be required in order to accommodate all programs within the Rotman School during the construction period and in order to identify available times for construction to occur as follows:

- Approximately one week (40 hours) of work will be noisy during the preparation of the roof deck. These hours can be scheduled from September to November.
- During steel erection a second 40 hours of work will be scheduled around classes being held in the areas immediately below. This activity is currently scheduled to occur during January/February.
- A final 40 hours of noisy work will occur during the erection of interior partitions in March/April which again will be scheduled around class times in the rooms below.

f) Signage and Donor Recognition

Funding is tied to the two Centres that will be located in each of the floors. As such, appropriate donor signage will be necessary at the entrance to each space. The cost for signage is included in the TPC.

g) Computing and Technology

Existing technology infrastructure will require updating and extension as follows:

- Expand wireless network on each floor to cover new space (plus wiring and wired network infrastructure to support the additional wireless connectivity, i.e. connection to the 4th floor telecommunications closet)
- All wired networking should be able to support IP, VoIP (voice over IP) and video distribution
- High speed Network (Ethernet) switches to support wired data connections
- High speed communication links to meeting areas
- Upgrade inter-floor network connectivity (i.e. fiber optic cabling between communication closets on the 4th and 2nd floors)
- Upgrade campus backbone connection (running from basement to 2nd floor)

IX. RESOURCE IMPLICATIONS

An order of magnitude cost estimate has been prepared by A.W. Hooker Associates Ltd. Quantity Surveyors based on preliminary design drawings prepared by Zeidler Grinnell Architects and preliminary structural advice received from the Yolles Partnership. The estimate reflects construction costs obtainable in the downtown area of Toronto during the 4th quarter of 2002. Capital Projects Planning has added all other anticipated costs associated with the project, including an allowance for construction cost escalation likely to occur between the estimate date (November 2002) and the anticipated bid date for the project. The Total Project Cost Estimate, therefore, for the construction of a new 4th and 5th floor along the south wing of the Rotman School of Management is estimated at $3,999,000.

A breakdown of costs is included in the Total Project Cost Estimate found in Appendix A.

X. OPERATING COSTS

Operating costs for the Rotman School of Management are currently calculated at $174.24 per net assignable square meter (nasm). With the addition of 488nasm of space for this project, operating costs to the building are estimated to increase by approximately $85,000 per year.

XI. FUNDING SOURCES AND CASH FLOW ANALYSIS

The project will be fully funded by the Rotman School of Management. Funding has been donated in the following allocations:

- $3 Million from the New Building allocation already donated, funds available.
- $1 Million from ORDCF (application to be submitted to create the Centre for Entrepreneurship and Creativity)

OR if the $1 Million from ORDCF does not materialize, then

- $341,000 surplus funding from the Rotman Building Construction Project
- $658,000 from donors

XII. SCHEDULE

In order to have this project open for the beginning of the School year – September 2004 - the following schedule must be followed:

- Planning and Budget Approval - March 18, 2003
- Business Board Approval - April 07, 2003
- Design Development – 4 weeks
- Working drawings – 12 weeks
  - City Plan review – 4 weeks: May to early June
  - Committee of Adjustment approvals – 10 weeks: early June to mid August
  - Permit Application – 4 weeks: late July to late August
- Tender Project – July, 2003
- Award Project – August, 2003
- Construction – 44 weeks including:
- Move in – mid July

XIII. RECOMMENDATIONS

The committee recommends:

? That the Project Planning Report for the Addition of a 4th and 5th Floor on the South wing of the Rotman School of Management be approved.

? That the project scope as described in the Project Planning Report be approved at an estimated cost of **$3,999,000.**

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Total Project Cost Estimate

Construction Cost	$2,640,000
Escalation	$ 102,800
Construction contingency	$ 160,400
Applicable GST	$ 66,000
Total Construction Costs, incl. taxes	**$2,970,200**
Site services, new	$ 0
Infrastructure Upgrades	na
Secondary Effects	$ 12,000
Demolition	inc
Landscaping	$ 0
Permits & Insurance	$ 29,500
Professional Fees	$ 442,000
Computer Wiring & Telephone Term.	$ 36,800
Moving & Staging	$ 10,000
Furnishings & Equipment	$ 342,000
Misc. Costs	$ 30,000
Donor Recognition	$ 10,000
Project Contingency	$ 116,500
Finance Costs	$ 0
Total Project Cost Estimate, incl. GST	**$3,999,000**

Prepared 05 February, 2003 jcb

Space Analysis

Faculty Plan 2004-2008
ROTMAN SCHOOL OF MANAGEMENT
PLAN 2004 / PLAN 2008
DATA FOR SPACE ANALYSIS
SPACE REQUIREMENTS FOR FTE-GENERATING FACULTY/ CURRENT AND TBA

					<----------Head Count---------->					< ----------FTE---------- >					Recon	Current Situation /Feb 2003		
Current Room Assign	Area / Program Cluster	Status	Pos No.	Incumbent	Position Head Count 1986	Current head count 2002	+ TBA head count Pln '04	+ TBA head count Pln '08	Total head count 2008	Position FTE RSM 1986	Current FTE RSM 2002	+ TBA FTE RSM Pln '04	+ TBA FTE RSM Pln '08	Total FTE RSM 2008	Apprvd Plan 2004 Tables	Current Office?	Current assigned space (sq.m.)	Current Shared Space
RSM ACADEMIC COMPLEMENT - FACULTY FTEs (TTS and Lecturers)																		
Faculty appointment types: FT faculty (TTS and Lecturers) , Cross (i.e. > 50%), Homebase (i.e. < 50%), adjunct professors filling complement positions in short term																		
438	Acctg	Full	1	AMERNIC	1	1			1	1.00	1.00			1.00	1.00	1.00	13.73	
423C	Acctg	Full	17	CALLEN		1			1		1.00			1.00	1.00	1.00	19.06	
435	Acctg	Full	14	RICHARDSON	1	1			1	1.00	1.00			1.00	1.00	1.00	12.44	
463	Acctg	Full	12	SMIELIAUSKAS	1	1			1	1.00	1.00			1.00	1.00	1.00	12.13	
423B	Acctg	Assoc	4	ELITZUR	1	1			1	1.00	1.00			1.00	1.00	1.00	17.57	
450	Acctg	Assoc	5	FERTUCK	1	1			1	1.00	1.00			1.00	1.00	1.00	14.39	
446	Acctg	Assoc	10	ROTENBERG	1	1			1	1.00	1.00			1.00	1.00	1.00	13.42	
432	Acctg	Assoc	11	ZHANG	1	1			1	1.00	1.00			1.00	1.00	1.00	12.31	
430	Acctg	Assist	100	HOPE		1			1		1.00			1.00	1.00	1.00	14.52	
436	Acctg	Assist	101	KARAOGLU		1			1		1.00			1.00	1.00	1.00	11.91	
448	Acctg	Assist	3	MCCRACKEN	1	1			1	1.00	1.00			1.00	1.00	1.00	12.78	
434	Acctg	Assist	15	ROBB	1	1			1	0.33	1.00			1.00	1.00	1.00	11.94	
433	Acctg	Assist	19	SEGAL		1			1		1.00			1.00	1.00	1.00	12.13	
unassgn	Acctg	Assist	102	TBA [Plan 2004]		0	1		1		0.00	1.00		1.00	1.00	unassgn	0	
444 repl	Acctg	Assist	104	TBA/ MALLOUK retirement replace		0	1		1		0.00	1.00		1.00	1.00	0.00	0	
unassign	Acctg	Assist	105	TBA/ REED retirement replace		0	1		1		0.00	1.00		1.00	1.00	unassgn	0	
444	Acctg	Lect/SL	8	MALLOUK	1	1	-1		0	1.00	1.00	-1.00		0.00	0.00	1.00	12.40	
415	Acctg	Lect/SL	6	KITUNEN	1	1			1	0.50	0.50			0.50	0.50	0.50	7.82	shared/2
415	Acctg	Lect/SL	9	REED	1	1	-1		0	0.50	0.50	-0.50		0.00	0.00	0.50	7.82	shared/2
452	Acctg	Lect/SL	7	LOSELL	1	1			1	1.00	1.00			1.00	1.00	1.00	11.71	
	ACCTG				**13**	**17**	**1**	**0**	**18**	**11.33**	**16.00**	**1.5**	**0.00**	**17.50**	**17.50**	**16.00**	**218.08**	
nonRSM	Finance	Full	20	BERKOWITZ	1	1			1	0.33	0.33			0.33	0.33	nonRSM	0	

449	Finance	Full	21	BOOTH	1	1			1	1.00	1.00			1.00	1.00	1.00	14.48
423D	Finance	Full	39	DUAN		1			1		1.00			1.00	1.00	1.00	16.34
437	Finance	Full	23	HALPERN	1	1			1	0.80	1.00			1.00	1.00	1.00	13.78
453	Finance	Full	24	HULL	1	1			1	1.00	1.00			1.00	1.00	1.00	18.01
417	Finance	Full	37	KIRZNER	1	1			1	0.40	0.60			0.60	0.60	1.00	13.15
457	Finance	Full	32	McCURDY	1	1			1	1.00	1.00			1.00	1.00	1.00	13.10
447	Finance	Full	30	WHITE, A	1	1			1	1.00	1.00			1.00	1.00	1.00	12.80
unassgn	Finance	Full	25	TBA [ex-Kalymon]	1		1		1	1.00		1.00		1.00	1.00	unassgn	0
461	Finance	Full	35	TBA ex-Turnbull [shrt trm D. BROWN]		1			1		1.00			1.00	1.00	1.00	12.83
unassgn	Finance	Full	34	TBA [ex-Potvin]	1		1		1	1.00		1.00		1.00	1.00	unassgn	0
unassgn	Finance	Full	130	TBA [Plan 2004]			1		1			1.00		1.00	1.00	unassgn	0
519	Finance	Full	131	TBA Plan 2004 [shrt trm MOKKELBOST]		1			1		1.00			1.00	1.00	1.00	12.61
443	Finance	Assoc	22	BREAN	1	1			1	0.60	0.60			0.60	0.60	1.00	12.32
441	Finance	Assoc	26	KAN	1	1			1	1.00	1.00			1.00	1.00	1.00	12.44
unassgn	Finance	Assoc	133	TBA [Plan 2004]			1		1			1.00		1.00	1.00	unassgn	0
440	Finance	Assist	132	DERRIEN		1			1		1.00			1.00	1.00	1.00	11.92
442	Finance	Assist	135	DOIDGE		1			1		1.00			1.00	1.00	1.00	11.92
455	Finance	Assist	36	MACKAY		1			1		1.00			1.00	1.00	1.00	12.62
439	Finance	Assist	136	MAHRT-SMITH		1			1		1.00			1.00	1.00	1.00	12.10
445	Finance	Assist	38	NORLI		1			1		1.00			1.00	1.00	1.00	12.17
429	Finance	Assist	27	RINDISBACHER		1			1		1.00			1.00	1.00	1.00	13.23
431	Finance	Assist	33	WANG	1	1			1	1.00	1.00			1.00	1.00	1.00	12.70
unassgn	Finance	Assist	137	TBA [Plan 2004]			1		1			1.00		1.00	1.00	unassgn	0
	FINANCE				**12**	**19**	**5**	**0**	**24**	**10.13**	**17.53**	**5.00**	**0.00**	**22.53**	**22.53**	**18.00**	**238.52**
501	Marketing	Full	52	MITCHELL	1	1			1	1.00	1.00			1.00	1.00	1.00	20.94
502	Marketing	Full	59	MOORTHY		1			1		1.00			1.00	1.00	1.00	15.3
unassgn	Marketing	Full	53	TBA [ex-Rao]	1		1		1	1.00		1.00		1.00	1.00	unassign	0
503	Marketing	Assoc	50	GREENO	1	1			1	1.00	1.00			1.00	1.00	1.00	12.98
504	Marketing	Assoc	51	HAWKINS	1	1			1	1.00	1.00			1.00	1.00	1.00	13.86
510	Marketing	Assoc	57	TBA Plan 2004 [shrt trm DUNNE]		1			1		1.00			1.00	1.00	1.00	12.24
508	Marketing	Assist	54	DEWAN	1	1			1	1.00	1.00			1.00	1.00	1.00	12.22
513	Marketing	Assist	152	GOLDFARB		1			1		1.00			1.00	1.00	1.00	12.01
506	Marketing	Assist	55	MEHTA		1			1		1.00			1.00	1.00	1.00	12.27
511	Marketing	Assist	151	SHI		1			1		1.00			1.00	1.00	1.00	11.83
509	Marketing	Assist	56	SKURNIK	1	1			1	1.00	1.00			1.00	1.00	1.00	14.01

unassign	Marketing	Assist	153	TBA [Plan 2004]			1		1			1.00		1.00	1.00	unassign	0.00	
	MKTG				**6**	**10**	**2**	**0**	**12**	**6.00**	**10.00**	**2.00**	**0.00**	**12.00**	**12.00**	**10.00**	**137.66**	
546	Business Economics	Full	46	HORSTMANN		1			1		1.00			1.00	1.00	1.00	13.72	
537	Business Economics	Full	40	MINTZ	1	1			1	0.80	0.80	0.20		1.00	1.00	0.50	7.09	shared/2
311	Business Economics	Full	41	PAULY	1	1			1	0.80	0.80	0.20		1.00	1.00	1.00	20.38	
532	Business Economics	Full	45	STRANGE		1			1		1.00			1.00	1.00	1.00	12.50	
402	Business Economics	Full	43	TREFLER		1			1		0.40	0.20		0.60	0.60	1.00	16.43	
529	Business Economics	Full	48	FELDMAN		1			1		1.00			1.00	1.00	1.00	13.06	
unassign	Business Economics	Full	31	HYATT			1		1			0.60		0.60	0.60	unassgn	0	
	Business Economics	Assoc	22	BREAN	0	0		0	0	0.40	0.40		0.00	0.40	0.40	counted above	counted above	
517	Business Economics	Assoc	42/91	DUNGAN	1	1			1	0.17	0.50			0.50	0.50	0.33	4.35	shared/3
unassgn	Business Economics	Assoc	44	TBA [Plan 2004]			1		1			1.00		1.00	1.00	unassgn	0	
539	Business Economics	Assist	47	BLUM		1			1		1.00			1.00	1.00	1.00	11.99	
	BUSECO				**3**	**8**	**2**	**0**	**10**	**2.17**	**6.90**	**2.20**	**0.00**	**9.10**	**9.10**	**6.83**	**99.52**	
404	Operations Management	Full	72	BERMAN	1	1			1	1.00	1.00			1.00	1.00	1.00	13.81	
401	Operations Management	Full	71	MENZEFRICKE	1	1			1	1.00	1.00			1.00	1.00	1.00	21.01	
406	Operations Management	Assoc	70	KRASS	1	1			1	1.00	1.00			1.00	1.00	1.00	12.24	
unassig	Operations Management	Assoc	74	TBA [ex-Dooley]	1		1		1	1.00		1.00		1.00	1.00	unassig	0	
408	Operations Management	Assist	73	CHAN	1	1			1	1.00	1.00			1.00	1.00	1.00	12.16	
403	Operations Management	Assist	75	MILNER		1			1		1.00			1.00	1.00	1.00	12.93	
	OM				**5**	**5**	**1**	**0**	**6**	**5.00**	**5.00**	**1.00**	**0.00**	**6.00**	**6.00**	**5.00**	**72.15**	
538	Organizational Behavior	Full	62	LATHAM	1	1			1	1.00	1.00			1.00	1.00	1.00	13.55	
357	Organizational Behavior	Full	63	ONDRACK	1	1			1	0.83	0.83	0.17		1.00	1.00	1.00	13.87	

542	Organizational Behavior	Full	65	VERMA	1	1			1	0.60	0.60			0.60	0.60	1.00	11.98	
313	Organizational Behavior	Full	66	WHYTE	1	1			1	1.00	1.00			1.00	1.00	1.00	16.27	
unassign	Organizational Behavior	Full	68	TBA [Plan 2004]			1		1			1.00		1.00	1.00	unassign	0	
544	Organizational Behavior	Assoc	69	XIE		1			1		1.00			1.00	1.00	1.00	12.41	
unassign	Organizational Behavior	Assoc	161	TBA [Plan 2004]			1		1			1.00		1.00	1.00	unassign	0	
541	Organizational Behavior	Assoc	84	TBA/ ex -Leonidas [shrt trm Lecturer appt /ARMSTRONG]	1	1			1	1.00	1.00			1.00	1.00	1.00	12.02	
535	Organizational Behavior	Assist	164	BERDAHL		1			1		1.00			1.00	1.00	1.00	11.99	
533	Organizational Behavior	Assist	163	COTE		1			1		1.00			1.00	1.00	1.00	12.02	
536	Organizational Behavior	Assist	64	OESCH	1	1			1	1.00	1.00			1.00	1.00	1.00	11.98	
543	Organizational Behavior	Assist	162	ROTUNDO		1			1		1.00			1.00	1.00	1.00	13.21	
unassign	Organizational Behavior	Assist	165	TBA [Plan 2004]			1		1			1.00		1.00	1.00	unassign	0	
unassign	Organizational Behavior	Assist	166	TBA [Plan 2004]			1		1			1.00		1.00	1.00	unassign	0	
	OB				**6**	**10**	**4**	**0**	**14**	**5.43**	**9.43**	**4.17**	**0.00**	**13.60**	**13.60**	**10.00**	**129.30**	
549	Strategy	Full	82	AMBURGEY	1	1			1	1.00	1.00			1.00	1.00	1.00	13.56	
nonRSM	Strategy	Full	80	BAECKER	1	1	-1		0	0.25	0.25	-0.25		0.00	0.00	nonRSM	0	
553	Strategy	Full	67	BAUM	1	1			1	1.00	1.00			1.00	1.00	1.00	17.58	
550	Strategy	Full	81	D'CRUZ	1	1			1	1.00	1.00			1.00	1.00	1.00	14.23	
548	Strategy	Full	90	GOLDEN		1			1		1.00			1.00	1.00	1.00	12.85	
305	Strategy	Full	83	MARTIN		1			1		1.00			1.00	1.00	1.00	31.86	
385	Strategy	Full	94	TBA Plan 2004 [shrt trm FISHER]		1			1		1.00			1.00	1.00	1.00	24.80	
unassign	Strategy	Full	97	Ingram [Plan 2004]			1		1		0.00	1.00		1.00	1.00	unassign	0	
552	Strategy	Assoc	13	REUBER	1	1			1	1.00	1.00			1.00	1.00	1.00	12.39	
545	Strategy	Assoc	85	SILVERMAN		1			1		1.00			1.00	1.00	1.00	13.28	
unassign	Strategy	Assoc	95	TBA [Plan 2004]			1		1			1.00		1.00	1.00	unassign	0	
534	Strategy	Assoc	93	TBA Plan 2004 [shrt trm JALLAND]		1			1		0.25	0.50	0.25	1.00	0.75	0.50	5.99	shared/2
547	Strategy	Assist	87	BATES		1			1		1.00			1.00	1.00	1.00	13.24	
561	Strategy	Assist	89	DAHLIN		1			1		1.00			1.00	1.00	1.00	12.85	

555	Strategy	Assist	92	MOLDOVEANU		1			1		1.00			1.00	1.00	1.00	12.10
563	Strategy	Assist	88	ROWLEY		1			1		1.00			1.00	1.00	1.00	12.90
unassign	Strategy	Assist	86	TBA [Plan 2004]			1		1			1.00		1.00	1.00	unassign	0
unassign	Strategy	Assist	96	TBA [Plan 2004]			1		1			1.00		1.00	1.00	unassign	0
unassign	Strategy	Assist	96	TBA [Plan 2004]			1		1			1.00		1.00	1.00	unassign	0
	Strategy				**5**	**14**	**4**	**0**	**18**	**4.25**	**12.50**	**5.25**	**0.25**	**18.00**	**17.75**	**12.5**	**197.63**
Reconciliation line to 1986 count which included other FTE generating appts not included above					**9**					**8.32**							
Growth: Plan 2008 anticipated TTS faculty complement growth to take into account: a) new structure of 1st year MBA ; b) 2nd section of the PT MBA; c) 2nd section of EMBA; d) reducing base teaching load; e) additional shift from lecturers to TTS								**24**	**24**				**23.30**	**23.30**			
Subtotal					**59**	**83**	**19**	**24**	**126**	**52.63**	**77.36**	**21.12**	**23.55**	**122.03**	**98.48**	**78.33**	**1092.86**
2004 Totals							**102**					**98.48**					
Plan 2004 /Final Submission Approved by Governing Council												**98.47**		-0.01	variance		
RSM ACADEMIC COMPLEMENT -OTHER FACULTY FTEs (non-TTS or Lecturers)																	
Note: these academic appointments are not replacements for FT TTS faculty positions above and have an FTE attached to them																	
540	Strategy	Teaching /Research		BEATTY	0	1			1	0.00	1.00			1.00		1.00	11.98
unassig	Strategy	Teaching		CALDER	0	1			1	0.00	0.25			0.25		0.00	unassig
379	Strategy	Teaching /Admin		DART	0	1			1	0.00	1.00			1.00		1.00	11.94
410	Strategy	Teaching /Admin		HONICKMAN	0	1			1	0.00	1.00			1.00		1.00	12.20
419	Acctg	Teaching		ZULIANI	0	1			1	0.00	1.00			1.00		1.00	12.65
Growth	TBD	Teaching /Admin		TBD	0			1	1	0.00			1.00	1.00		0.00	0
Total					**0**	**5**		**1**	**6**	**0.00**	**4.25**		**1**	**5.25**		**4.00**	**48.77**
TOTAL FTE-Generating Faculty					**59**	**88**	**19**	**25**	**132**	**52.63**	**81.61**	**21.12**	**24.55**	**127.28**		**82.33**	**1141.63**

Environmental Impact

University of Toronto Environmental Protection Policy

PREAMBLE

The University of Toronto is committed to being a positive and creative force in the protection and enhancement of the local and global environment, through its teaching, research and administrative operations. Recognising that some of its activities, because of their scale and scope, have significant effects on the environment, the University as an institution, and all members of the university community, have the responsibility to society to act in ways consistent with the following principles and objectives:

FUNDAMENTAL PRINCIPLES

- Minimisation of negative impacts on the environment
- Conservation and wise use of natural resources
- Respect for biodiversity

SPECIFIC OBJECTIVES

In adopting these fundamental principles, the University will be guided by ethical attitudes towards natural spaces, and will take all reasonable steps to meet the following objectives:

- Minimise energy use, through efficient management and practice
- Minimise water use, through efficient management and practice
- Minimise waste generation through reduction, reuse and recycling
- Minimise polluting effluent and emissions into air, land and water
- Minimise noise and odour pollution
- Minimise and where possible eliminate use of chemicals, including outdoor salt, pesticides herbicides and cleaning agents
- Include biodiversity and environmental concerns in planning and landscape decisions
- Meet and where possible exceed environmental standards, regulations and guidelines

IMPLEMENTATION

To implement this Environmental Protection Policy:

- An Environmental Protection Advisory Committee (EPAC) will be established consisting of administrative staff, academic staff and student groups, to be chaired by a member of the University's academic staff. The Committee will provide advice to the Assistant Vice-President, Operations and Services, on programs to meet the environmental protection objectives. Membership of the committee will be made known to the community to ensure that new and existing initiatives are brought forward for consideration. The meetings of EPAC will be open.
- Facilities and Services, through the Waste Management Department will facilitate the development, implementation and evaluation of environmental protection programs, and will liaise with the EPAC and all three campuses on the programs.
- In this role Facilities and Services will:
  - Regularly review university policies to ensure consistency with this policy;
  - Carry out appropriate environmental audits and pilot projects;
  - Undertake education and training programs to inform the University Community about this and how its members, both personally and collectively, can best meet the objectives set forth in it;
  - Inform all contractors, service operations and users of University facilities that they must comply with the requirements of the policy;
  - Annually issue a report concerning the University's impact on the environment, summarising initiatives undertaken and identifying matters which require particular attention.

Approved by Business Board of the Governing Council on March 7, 1994.

Environmental Checklist for Users Committees (5/99)

1. General planning principles: Consideration of alternatives, Life cycle approach

2. Minimize Energy Use
   a) Thermal Energy: Heating, Cooling
   b) Lighting/Use of Natural Light
   c) Ventilation/Windows
   d) Machinery/Equipment
   e) Orientation of Building - effect on building energy needs
   f) Roof Design

3. Minimize Water Use (Maximize Reuse)
   a) Flushing b) Washing - hands and body
   c) Building Cleaning d) Drinking
   e) Experimental/Labs f) Equipment Cooling
   g) Outdoor Vegetation - choice and watering (see #4)

4. Utilization and Diversion of Rainwater
   a) Use of Roof Water b) Porous Pavements

5. Waste Management (offices, classrooms, food outlets, outdoors, construction/demolition)
   a) Reduction b) Reuse
   c) Recycling d) Treatment and Disposal - possible on campus

6. Effluent and Emissions (reduce, reuse, recycle, dispose)
   a) Indoor (Air Toxins, Noise, Odours, Ventilation)
   b) Outdoor Air - laboratory emissions
   c) Water - Hazardous Wastes
   d) Land

7. Reduce Harmful Chemicals
   a) Outdoor Salts b) Pesticides/Herbicides
   c) Cleaning Agents

8. Outdoor Environment
   a) Encourage Biodiversity (encourage and protection of species)
   b) Landscaping/Shading - effect on building energy needs in summer and winter
   c) Use of outdoor space (e.g. rest areas, roof gardens)

9. Monitoring and Metering of Use of Resources and Wastes
   a) Water b) Electricity
   c) Heat d) Wastes

10. Visibility of Environmental Concerns
   a) Pilot Projects b) Posters/Displays

11. Material Choice (Use of endangered/exotic materials, off-gassing)
   a) Building Fabric
   b) Fixtures and Furnishings

Room Data Sheets

Private Faculty Office

Rooms Required: 26
NASM Required: 20 @ 13 nasm each; 6 @ 18 nasm each

A. Space purpose and type of activity:
- private professorial offices for preparation of class material, student counseling and research

B. Number of occupants, resident: 1

C. Number of occupants, transient: 2-3

D. Space relationship, proximity to other rooms/facilities: contiguous with other academic spaces

E. Visual relationship, proximity to other rooms/facilities: visibility through side vision panels

F. Furniture and equipment, fixed: (for each office)
- 1 bulletin board or white board (approximately 2' x 3')
- flush mounted pilasters (shelf standard) with shelves provided for the full wall length on both sides, 7ft. high
- heavy duty coat hook on back of door

G. Furniture and equipment, moveable: (for each office)
- 1 L shaped desk (flexible design) with computer station (minimum 6'x 6'), ergonomic keyboard tray and lockable drawer
- 1 lateral filing cabinet with lock (3ft., 5 drawer)
- 1 ergonomic desk chair (castered arm chair)
- 2 side visitors chairs with arms
- 1 small meeting table (for larger offices)
- garbage and recycling bins
- task lighting

H. Lighting
- natural light is essential (operable window preferred, with meco type blind)
- overhead fluorescents
- Manual light switches

I. Power/TeleCommunications/Audio-Visual requirements: (for each office)
- 1 telephone jack and line
- 1 data outlet (wired) per standard size office with 4 port managed switched network jacks to accommodate range of network ready devices (Note: 3 data outlets for larger offices for flexibility in furniture layout)
- 1 duplex receptacle in each wall (2 per office) (every 2 offices share 1 circuit)
- wireless capability (see general infrastructure requirements to this area)

J. Special systems:
- access control card entry locking system

K. HVAC: individual room control of heating and ventilation ; control to match existing conditions

L. Plumbing:

M. Special finishes:
- 2ft. glazed transom panel (to allow maximum amount of natural light into both corridor and offices)
- translucent side lights at doorways (as in existing building)
- signage including name plate, room # and bulletin board affixed to outer side of door
- use of warm materials desired including wood where possible to match existing finishes

N. Special Needs:

- acoustic isolation from all adjacent rooms
- door set back to allow maximum bookcase space
- placement of all fixtures, switches, receptacles (light, duplex etc) should be considered in conjunction with maximum flexibility for furniture layout

Meeting Room

Rooms Required: 2 (one on each floor)

NASM Required: 30 nasm

SECTION B:

A. Space purpose and type of activity: faculty and research meetings, group discussions, videoconferencing

B. Number of occupants, resident: 0

C. Number of occupants, transient: 12+

D. Space relationship, proximity to other rooms/facilities: at centre of each floor

E. Visual relationship, proximity to other rooms/facilities: All walls to be at least partially glazed for maximum visibility to other areas of wing with blinds on all sides for privacy/light blockage on as needed basis

F. Furniture and equipment, fixed:

- Coat hooks adjacent to entry
- Electronically operated screen (see below)
- White Board/Chalk board

G. Furniture and equipment, moveable:

- Board Room table (oval) to seat 12+
- 12+ ergonomic chairs (castered arm chairs) suitable to fit around table
- credenza for meeting materials, food service, equipment
- garbage/recycling bins

SECTION C:

H. Lighting:

- natural light is desireable and may be achieved through the use of transom windows in faculty offices
- overhead fluorescents
- appropriate # of dimmable pot lights on separate manual switches for sections of room (to facilitate A/V equipment usage)

I. Power/Telecommunications/Audio-Visual requirements:

- 4 data outlets (wired), with one surface mounted on oval table
- 1 phone jack and line
- A/V controller jack
- Wireless capability (see general infrastructure requirements for this area)
- 4 duplex outlets (one on each wall)
- videoconferencing capability system tied into individual offices, including digital cameras and appropriate display screens (requires network connection; incorporate equipment into A/V rack)
- wiring for cable TV access with possible distribution to all faculty offices (requires dedicated outlet, wiring from each office to a hub in ceiling connected to 4th floor telecommunications closet; wiring connectivity between 4th and 2nd floors; video capture boards installed in all computers)
- Video projector (ceiling mounted) , sound, recording equipment and movable projection screens

- Wireless A/V equipment control unit (i.e. Creston panels) and inputs for different equipment (i.e. laptops, visual presenters)
- A/V rack (secure and fixed if possible)
- Electronic whiteboard capability (connectivity to computers and video projector)

J. Special systems:

- access control card entry locking system

K. HVAC: individual room control of heating and ventilation

L. Plumbing:

M. Special finishes:

- glazed walls
- signage including room #

N. Special Needs:

- acoustic isolation from all adjacent rooms
- positioning of entrance door and placement of all fixtures, switches, receptacles (light, power) should be given appropriate consideration in conjunction with furniture layout and a/v usage in the room

Research Office Space

Rooms Required: 2 (one on each floor)

NASM Required: 17 nasm each

SECTION B:

A. Space purpose and type of activity: Open offices for funded research work

B. Number of occupants, resident: 4 in each open office

C. Number of occupants, transient: 0

D. Space relationship, proximity to other rooms/facilities: at centre of each floor

E. Visual relationship, proximity to other rooms/facilities: open area, so highly visible to rest of area

F. Furniture and equipment, fixed: (for each office)

- coat hook attachable to carrel
- 4 Ph.D. student sized carrels (to match existing) with computer arm and keyboard tray, built in lockable storage and bookshelves, positioned to give maximum privacy but comfortable access

G. Furniture and equipment, moveable: (for each carrel)

- 1 ergonomic armchair on castors

SECTION C:

H. Lighting: (for each carrel)

- natural light is desirable and may be achieved through use of transom windows in faculty offices
- task lighting built into the carrel
- over head fluorescent

I. Power/Telecommunications requirements : (for each carrel)

- 1 data outlet (wired) per carrel with 4 port managed switched network jacks
- 1 duplex receptacle
- 1 telephone jack

J. Special systems:

- Special attention should be paid to acoustics so to diminish ambient noise due to shared office space. Absorptive materials on carrels are preferred to baffle sound

K. HVAC: Adequate zone control necessary

L. Plumbing:

M. Special finishes:

N. Special Needs:

- Acoustic isolation from all adjacent rooms

Administrative Workstation Space

Rooms Required: 2
NASM Required: 13 nasm each

SECTION B:

A. Space purpose and type of activity:
- Workstation for administrative work

B. Number of occupants, resident: 1

C. Number of occupants, transient:

D. Space relationship, proximity to other rooms/facilities: location should be as close as is feasible to the entrance to the area in order to provide a welcoming administrative presence

E. Visual relationship, proximity to other rooms/facilities: open workstation to provide maximum visibility

F. Furniture and equipment, fixed: (for each workstation)
- heavy duty coat hooks (2) in vicinity of entrance

G. Furniture and equipment, moveable: (for each workstation)
- 1 reception style desk unit with computer work station, lockable drawers/storage space, built in shelving, ergonomic keyboard tray , built in task lighting and built in tack board
- 1 filing cabinet with lock
- 1 ergonomic desk chair (castered arm chair)
- garbage and recycling bins

SECTION C:

H. Lighting
- natural light is desirable and may be achieved through use of transom windows in faculty offices
- overhead fluorescents
- task lighting built into workstation

I. Power/Telecommunications/Audio-Visual Requirements: (for each workstation)
- 1 telephone jack and line
- 3 data outlets (wired) with 4 port managed switched network jacks to accommodate range of network ready devices (computer, printers, fax, scanner)
- 3 duplex receptacles to accommodate wide range of equipment, including a photocopier/fax
- wireless capability (see general infrastructure requirements to this area)

J. Special Systems:
- Special attention should be paid to acoustics so to diminish ambient noise due to shared office space.

K. HVAC: Adequate zone control necessary

L. Plumbing:

M. Special finishes:
- signage including name plate, room #
- signage to identify the area
- use of warm materials desired including wood where possible to match existing finishes

N. Special Needs:
- placement of all fixtures, switches, receptacles (light, duplex etc) should be considered in conjunction with maximum flexibility for furniture and equipment layout
- capacity to lock drawers/storage given open area