



### UNIVERSITY OF TORONTO

### Office of the Vice-Provost, Space & Facilities Planning

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December 19<sup>th</sup>, 2001.

#### **MEMORANDUM**

To:

Planning and Budget Committee

From:

Ron Venter, Vice-Provost, Space and Facilities Planning

Re:

Project Planning Report for the Expansion of the Kaneff Centre at the University

of Toronto at Mississauga.

#### **Item Identification**

Project Planning Report for the Expansion of the Kaneff Centre at the University of Toronto at Mississauga.

#### Sponsor

Ron Venter, Vice-Provost, Space and Facilities Planning

#### Jurisdictional Information

The Committee considers reports of the Project Committee and recommends to the Academic Board approval in principle of projects.

#### Highlights

The University of Toronto at Mississauga (UTM) will expand enrolment over 2000-01 levels by some 30 per cent [Phase I] to address the needs of the double cohort and to support growth in demand for University places in the GTA.

In June 2001, the Governing Council approved the Project Planning Report for the Communications, Culture and Information Technology Building (CCIT) at the UTM. The report recommended construction of a new building to provide nine new classrooms and lecture halls that will serve to provide an additional 860 classroom seats as well as other student facilities scheduled for completion in 2003. This additional capacity will allow UTM to meet the classroom requirements for enrolment expansion anticipated by CCIT programs as well as increases to other programs. Additional office accommodation will be provided within the Kaneff Building.

The Kaneff Building opened in 1992, conceived as a centre for Management and the Social Sciences. Today, the Management, Economics and Political Science Departments and the Professional Writing Program are located there. Considerable enrolment increases are planned for these programs. Additional faculty offices, space for graduate students and administrative staff and small seminar rooms will be built here. Expansion of the Kaneff will provide this new office space in a reasonable time frame to accommodate the increasing numbers of faculty required to meet increased teaching requirements.

The new addition, located on two floors, will comprise some 557 nasm [minimum] and will be designed within the 600 gsm per floor envelope. This will include an area approximately 40 nasm

[70 gsm] which must be renovated in the existing building to provide for a seamless transition to the new space.

Consistent with the Policy on Capital Planning and Capital Projects, the Project Committee will continue through the implementation phase. The Working Executive of the Project Committee will comprise the lead User, a Planner and Implementer all of whom have been intimately associated with the project definition since its inception; this membership is:

User: G. Crawford Planner: E. Sisam Implementer: J.Binks

This Working Executive will expand to include the Project Manager, once appointed, and would normally, given that the project is at UTM, also include the Chief Administrative Officer to directly link the project with the Operations and Services sector on the UTM campus.

The role of the Working Executive is to ensure the successful completion of the project and to ensure that the user needs and concepts introduced into the Project Planning Report are addressed throughout the process of consultant selection, design and implementation which are carried out under the direction of the Assistant Vice-President, Operations & Services.

#### **Resource Implications**

The total project cost is estimated to be \$3.584 million in 2002 dollars, point of tender being July, 2002. Included in this cost is \$50,000 required to make necessary remedial modifications to the landscaping at the Kaneff Building, post construction. The annual operating costs for the Kaneff Building are estimated to be \$278,300 when the building opens in 2003.

#### **Funding Sources**

The funding for the Kaneff Building expansion will be generated by future donations and or external contributions, and the shortfall financed from the Capital Renewal Fund with all debt service costs [capital and interest] being paid by UTM from their enrolment expansion.

The targeted completion of this addition is September 2003 to allow for immediate use in the 2003/2004 academic year. This compressed schedule will require efficient planning in order to advance the timing of the project. To accelerate this project, it is proposed that the same consultants be retained as initially planned the Kaneff Building. Accordingly, it is anticipated that the Kaneff Building expansion project will proceed through governance with minimal delay to allow for the anticipated completion of the project in time for the 2003/4 academic year.

#### Recommendations

That the Planning and Budget Committee recommend to the Academic Board:

- 1. THAT the Project Planning Report for the Expansion of the Kaneff Building be approved in principle;
- 2. THAT the project scope of up to 660 nasm, comprising a minimum of 557 nasm of new construction and 40 nasm of renovation to suitably link the expansion on a site extending north from the Kaneff be approved at an estimated cost of \$3.584 million. This cost includes the immediate campus improvements.
- 3. THAT the funding for the Expansion of the Kaneff Building in the amount of \$3.584 million be approved and funded from future donations and or external contributions, and any shortfall financed from the Capital Renewal Fund with all debt service costs [principal and interest] being paid by University of Toronto at Mississauga [UTM] from their enrolment expansion.

# EXPANSION AT THE UNIVERSITY OF TORONTO AT MISSISSAUGA [UTM] AND THE UNIVERSITY OF TORONTO AT SCARBOROUGH [UTSC]

The initial plans of the University of Toronto were to increase the undergraduate enrolments at both UTM and UTSC by 50% above the 1997/98 enrolments to establish the necessary critical mass of students and services that would grow and strengthen both the undergraduate and graduate research and teaching programs on both campuses. This expansion was predicated on two significant principles, namely:

- 1. Full average funding from the Ontario Government, and
- 2. Substantial contributions from the Ontario Government to the physical expansion of the facilities at both campuses.

While extensive planning has been undertaken to examine the required expanded facilities, the contribution necessary from government to trigger the expansion of the physical facilities has not been forthcoming. The proposed expansion for UTM, in addition to the new CCIT Building [Culture, Communication & Information Technology], was the planned construction of new Library facilities and a new Science Building. For UTSC, the equivalent plans were to complete the ARC Building [Academic Resource Centre] and to construct additional teaching facilities within a new Arts/Classroom Building, Management Building and Science Building.

The revised approach, necessitated by the lack of immediate financial support for infrastructure, is to proceed immediately with the expansion in two phases. Phase 1 will increase the enrolments by 2512 students, for a total 31.25% increase on both campuses. The original planned enrolment increase was for 4019 students and this will now be undertaken in two phases. On the UTM campus, enrolment will increase by 1466 students, which includes the 720 FTE students associated with the increased capacity provided through the CCIT. Similarly for UTSC, the enrolment will increase by 1046 students with 200 students being accounted within the ARC building envelop. Phase 1 enrolments will essentially be at steady state in 2003 at both UTM and UTSC campuses. Phase 2 would potentially start in 2003 with further enrolment increases to accommodate the full 50% enrolment expansion initially projected.

With regard to the physical infrastructure requirements, the new Library and Science Building at UTM as well as the Arts/Classroom and Science Buildings at UTSC will be delayed to Phase 2 and will depend on receiving a significant contribution from government. In advance of Phase 2, both UTM and UTSC will plan for a modest expansion of their physical facilities to accommodate for the increased Phase 1 enrolments. UTSC will be modifying the planned Management Building to expand the teaching facilities, plus other smaller projects will be undertaken to address the needs as necessary. For UTM the choices will be similar, but different since each campus has unique needs; UTM plans to add an additional floor to the Centre for Applied Bio-science and Biotechnology [CABB] to develop research laboratories for the sciences and to expand the Kaneff Building to accommodate new faculty offices and study spaces. The upgrade of the physical facilities to be undertaken in Phase 1 will be funded by operating funds and used to repay a loan over 25 years. The magnitude of the capital to be directed to the physical infrastructure is estimated at \$55.23million. \$20.67 million is required to address the partial cost of the ARC [\$10.61M] and the CCIT [\$10.06], leaving some \$16.2M and \$18.37M for the remaining elements of Phase 1 physical infrastructure needs at UTM and UTSC respectively.

# PROJECT COMMITTEE REPORT FOR THE EXPANSION OF THE KANEFF CENTRE

December 14, 2001

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#### I. COMMITTEE MEMBERSHIP

Professor G. Crawford, Associate Dean, Social Sciences, (Chair)

Professor V. Aivazian, Economics, UTM

Professor L. Brooks, Management, UTM

Professor H. Gunz, Management, UTM

Professor P. Silcox, Political Science, UTM

Mr. S. Kessler, Director, Facilities Services, UTM

Mr. P. Donoghue, Chief Administrative Officer, UTM

Mr. J. Binks, Facilities and Services

Ms. S. Murray, Administrative Assistant, Social Sciences, UTM

Graduate Student TBA, UTM

Mrs. Elizabeth Sisam, Director, Campus and Facilities Planning, (Secretary)

#### II. TERMS OF REFERENCE

- Identify a space program for new faculty offices and meeting rooms for an addition to the Kaneff Centre to accommodate changes in enrolment targets and academic complement plans associated with the University's plans for growth on the: Mississauga campus.
- 2. Demonstrate that the space program will take into account the Council of Ontario Universities Building Blocks Space Formula and the University of Toronto space standards.
- 3. Identify the equipment and moveable furnishings necessary for the building and its services.
- 4. Identify all requirements for all data and voice communications and their associated costs.
- 5. Identify all secondary effects and their associated costs, including existing space that will be released as a result of this project and any proposed modifications required for its reuse and requirements for staging of facilities during the course of construction.
- 6. Provide a total project cost estimate and projected increases to the annual operating cost of the University.
- 7. Identify funding sources for the project.
- 8. To report by October 16, 2001.

#### III. BACKGROUND

In June 2001, the Governing Council approved the project planning report for the Communications, Culture, and Information Technology Building (CCIT). The report recommended construction of a new building which would provide 9 new classrooms and lecture halls. A total of 860 additional instructional workstations is planned to be built by December 2003. This additional capacity will allow UTM to meet the classroom requirements for the enrolment expansion anticipated by CCIT programs as well as increases in programs in the campus.

In March 2001, the University of Toronto submitted a plan for enrolment growth to the Province. The Plan recommended significant enrolment growth at UTM and UTSC to meet the needs of the double cohort in 2003-04 and to support underlying growth in demand at universities in the GTA.

The Kaneff Centre opened in early 1992, and was originally conceived as a centre for Management and the Social Sciences. Today the Centre is the home of Management, the Economics and Political Science Departments and the Professional Writing and Communications group where considerable expansion is planned. Two professional programs, the Masters of Management and Professional Accounting (MMPA) and the new Forensic Accounting Programme, are also administered and taught in the building. Additional faculty offices, space for administrative staff, graduate students and teaching assistants will be required. Expansion of the Kaneff Centre will provide this new space quickly.

#### IV. LINK TO ACADEMIC PLANS

UTM will expand its enrolment 30% by 2006, with Social Sciences and Management being an important component of this growth.

Considerable expansion is planned in Economics, Management/Commerce, Political Science and Professional Writing and Communications, already high-demand programs. Innovations include involvement in CCIT, three new Economics Specialist Programs, growth of Commerce including new foci, and new programs in Political Science: Public Policy, Latin/South American Politics, as well as strengthening areas of Theory, Comparative Politics and International Relations. Professional writing will add to their offerings cross cultural communication, computer communication, media relations and organizational communication while continuing to emphasize expressive narrative.

A total of 26 additional faculty, including an endowed Chair in Technology Management is planned, including one position from the previous planning cycle not yet filled. The following table illustrates the anticipated schedule for that will require offices:

Year	FTE Faculty	FTE Non-Academic
2001-02:	3	)
2002-03:	11	)
2003-04:	10	) 4
2004-05:	2	)
Total:	26	)

#### V. SPACE PROGRAM

The Kaneff facility is a multi-use building combining teaching, research, and administrative space in 1,873 nasm. The Office of the Dean of Social Sciences is located on the ground floor with the administrative offices for the MMPA (Masters of Management and Professional Accounting) program. The ECO, POL, Professional Writing and Communication, Management/Rotman group administrative offices are on the second floor. An art gallery occupies space next to the Kaneff Auditorium which can accommodate 350 people. In addition, there are three "smart" classrooms. Student lounge and study space is also present as well as a variety of other facilities

A complete list of the existing inventory is included in Appendix A.

The architects that had initially prepared the plans for the Kaneff Centre were asked to look at the site and the building and give the Committee advice on the maximum amount of space and configuration of the floor plate that might be constructed for each level of the addition.

A concept plan that identifies the maximum extent of the construction envelope and maintains the integrity of the design and site plan was prepared and is attached in Appendix F. It illustrates that a maximum of 1,200 gsm can be appropriately added to the existing building.

#### **Proposed Space Program**

The space program proposed directly corresponds to the additional faculty and staff identified in the plan for enrolment expansion. Additional graduate student and teaching assistants work space are also included as well as three seminar rooms required for these programs. The total space program, 547 nasm, falls well within the capacity of the construction envelope as defined by the architects. Additional classrooms as identified should be included if the construction permits.

Space Category	nasm
Faculty offices, 26 @ 13 nasm	338
Graduate student/TA workstations, 12 @ 3.3 nasm	40
Seminar rooms (Capacity: 12-14), 3 @ 39 nasm	117
Administrative staff workstations, 4 @ 13 nasm	<u>52</u>
Subtotal new construction	547 nasm
Total gross floor area (x1.8 factor)	985 gsm
Renovation	40
Classrooms or case rooms (capacity: 6-8), 2 @ 13 nasm	26

Two additional classrooms each having a capacity of 6-8 people should be included if space is available within the total building envelope of 985 gsm. These are primarily for the MMPA program, but will be shared with other programs in the building. It is expected that approximately 40 nasm or 70 gsm will be renovated to accommodate the addition at the point of linkage.

The normal space allocations identified in the space program correspond to the Council of Ontario Universities (COU) space standards and internal University guidelines.

The COU space standard identifies a space factor of 13 nasm per FTE faculty.

The COU space standard for office type accommodation for graduate students is 4 nasm per FTE graduate student.

In practice, significantly less space has been allocated for this purpose. The University of Toronto provides approximately 1.9 nasm/FTE graduate student and the Ontario system averages 2.5 nasm/FTE graduate student. In most departments, space is allocated to graduate students who are also teaching assistants, research assistants or full-time resident graduate students engaged in thesis preparation. The project planning Committee recommends an allocation of 3.3 nasm per graduate student to accommodate a total of 12 FTE graduate students. It is anticipated that teaching assistants will identify "office hours" when they are available to meet with undergraduate students. Other time that is available will be identified for use by other graduate students in these shared workstations. Four workstations should be accommodated in each of the three rooms planned.

The new seminar rooms in the Kaneff Building addition will be controlled centrally and are considered general campus resources. The 1998/99 Physical Resources Submission to COU identified 4,964 nasm classroom space at UTM, equivalent to 90.5% generated by the COU space standards. With the additional classrooms being planned for the CCIT, and subsequent renovations to existing classrooms this deficit in class space will be eliminated.

#### VI. FUNCTIONAL PLAN

The addition will essentially provide office space for the academic programs located in the Kaneff Building.

Offices should be comfortable and quiet with natural light to enable faculty, staff and students to fulfil their academic responsibilities. The addition should be designed to allow for impromptu meetings to occur in corridor areas where they have areas of natural light. Such niches can provide additional space within non-assignable areas.

The main floor should have a consolidated administrative area that will serve all programs in the building.

The addition will require some existing adjacent space to be renovated possibly with exit stairs and internal corridors relocated to allow for the best design solution. It has been assumed that a total of 70 gsm will require renovation to permit a desirable and seamless transition to the new portion of the building.

#### VII. SPECIAL CONSIDERATIONS

#### **Accessibility and Personal Safety**

The proposed addition must be accessible and comply with the University's standards in this regard. Accessibility recommendations can be found in Appendix B. Design standards are also being developed by the University's Design & Engineering Dept. of Facilities and Services in consultation with the St. George Disability Office.

#### **Campus Planning Issues**

Expansion to the Kaneff Building was not identified in the UTM Master Plan 2000. However, a detailed review of the existing Kaneff Building site identified the possibility of a modest expansion. As stated earlier in the report, the size of the addition was proposed by the architect of the Kaneff Building to ascertain its suitability for the building and the site. Although no detailed design has been undertaken at this point, a concept plan suggested a two-storey addition, should not be larger than approximately 600 gsm per floor in order to maintain appropriate massing in this area. The proposed building to accommodate the space program is approximately 500 GSM per floor. The project Committee recommends that the architects who designed the Kaneff Building be retained for the addition.

The area of the open courtyard must be maintained as an attractive area to use and view. A hard surfaced path should be introduced to the west door of the South Building to allow for easy access to the Kaneff Building. Remedial landscaping will be required in this area once the path has been provided.

It is likely that the most used entrance to the building will be a new entrance at the north end of the addition because of its proximity to the classrooms and activities of the South Building. A secondary, convenience entrance should be located where the existing entrance is along the eastern portion of the building.

#### Connectivity

The addition must provide the same level of connectivity as the existing Kaneff building.

#### **Standards of Construction and Quality**

The standard of construction for the proposed addition assumes the same type of interior and exterior finishes as the existing Kaneff Building for a seamless addition.

#### **Environmental Issues**

No significant environmental impact is expected. The construction will be done in accordance with the University's environmental design standards.

#### **Secondary Effects**

There will be no significant secondary effects associated with this project. A student lounge, now located at the north of the Kaneff Building will be displaced.

#### VIII. RESOURCE IMPLICATIONS

#### **Capital Costs**

The costs of the proposed new construction, and renovations required to physically link the addition to the existing Kaneff Building, a total of 547 nasm, (985 gsm), together with professional fees, furnishings are expected to be a total of \$3.6 million if tendered in August, 2002. Remedial landscaping and improvements to the courtyard are budgeted to be \$50,000 and are included in the total project cost.

The construction costs assume that the project will be procured on a stipulated sum basis and that bids will be received from at least six competitive and pre-qualified general contractors. An escalation allowance has been included to account for increases in construction costs to August 2002. A 6% per annum escalation is assumed.

Further details regarding the capital cost estimate are shown in Table 1, Appendix C.

#### **Operating Costs**

The maintenance, operating and utilities cost of the new building is expected to be \$278,300 annually, or \$110 /nasm, an increase of approximately \$72,600 is based on current costs of the Kaneff Building.

#### **Secondary Effects**

Construction of the addition is likely to cause disruptions because of noise, dust and possible power interruptions to activities of other users in the and therefore should be scheduled to occur primarily over the summer months.

#### IX. FUNDING SOURCES

The source of funding will be income generated by enrolment expansion at the University.

#### X. SCHEDULE

There is urgency in proceeding as quickly as possible upon approval of this project to ensure that construction of the addition can be completed prior to the beginning of the academic year.

- approval January 2002
- appointment of architect January 2002
- completion of design July 2002
- tender closing and award August 2002
- construction period end July 2003
- occupancy September 2003

Any delay in required approvals is expected to have a corresponding impact on the occupancy date.

#### XI. RECOMMENDATIONS

The Project Committee recommends:

- 1. THAT the Project Planning Report for the expansion of the Kaneff Building be approved in principle, and
- 2. THAT the project scope as described in the Project Planning Report be approved at an estimated cost of \$3.584 million as the total project cost.
- 3. THAT an allocation of \$3.584 million from the University Investment Infrastructure Fund (UIIF) for the expansion of the Kaneff Building be approved

# APPENDIX A – SPACE INVENTORY

Building	Room Use Description	#	Nasm	Nominal (total)
		Rooms	рег гоош	Nasm
Classrooms				
Kaneff Centre	Classroom - Tiered Floor	2	36.15	72.30
Kaneff Centre	Classroom - Tiered Floor	2	46.01	92.02
Kaneff Centre	Lecture-Theatre/Auditorium-Tiered Floor	1	366.79	366.79
Kaneff Centre	Classroom - Flat Floor	1	40.69	40.69
Kaneff Centre	Computer Lab			124.39
Research Laboratory Space				
Kaneff Centre	Research Lab	1	32.24	32.24
Kaneff Centre	Darkroom	1	4.64	4.64
Kaneff Centre	Lab Office	1	13.15	13.15
Kaneff Centre	Samples Storage	1	10.90	10.90
Kaneff Centre	Soil Analysis	1	13.28	13.28
Academic Offices				
Kaneff Centre	Dean's Office	1	21.31	21.31
Kaneff Centre	Faculty Office Single	38	12.31	467.95
Kaneff Centre	Instructor's Office	1	12.37	12.37
Kaneff Centre	Instructor's Office Multi	1	11.93	11.93
Graduate Student Space				
Kaneff Centre	Teaching & Grad Asst Off Single	3	3.70	11.10
Kaneff Centre	Teaching Assistant Office Single	3	3.94	11.82
Non-Academic Offices				
Kaneff Centre	Administrative Staff Office	3	17.07	51.20
Kaneff Centre	Counselling Office	2	12.94	25.88
Kaneff Centre	Dean's Secretary	1	23.90	23.90
Kaneff Centre	Multimedia Development	1	13.10	13.10
Kaneff Centre	Program Office	3	12.80	38.40
Kaneff Centre	Supp Admin Office Single	2	11.10	22.20

Building	Room Use Description	#	Nasm	Nominal (total)
		Rooms	per room	Nasm
Office Support				
Space				
Kaneff Centre	A/V & Projection Room	1	21.37	21.37
Kaneff Centre	Audio-visual Equipment Storage	1	2.49	2.49
Kaneff Centre	Conference Room	1	13.82	13.82
Kaneff Centre	Faculty Computing Facilities	1	11.25	11.25
Kaneff Centre	Faculty/Staff Lounge	1	26.6	26.6
Kaneff Centre	Office Storage	1	1.43	1.43
Kaneff Centre	Student Waiting Room	1	26.48	26.48
Other Facilities				
Kaneff Centre	CASE Study Room	1	12	12
Kaneff Centre	CASE Study Room	1	15.94	15.94
Kaneff Centre	CASE Study Room	1	11.62	11.62
Kaneff Centre	Ppd Storage	1	15.51	15.51
Kaneff Centre	Audio-visual Equipment Storage	1	5.69	5.69
Kaneff Centre	Student Computer Lab	1	66.68	66.68
Kaneff Centre	Student Lounge	1	34.76	34.76
Kaneff Centre	Art Gallery	1	88.44	88.44
Kaneff Centre	Art Storage	1	18.41	18.41
Kaneff Centre	Art Storage	1	5.86	5.86
Kaneff Centre	Kitchenette	1	13.72	13.72
Total Nasm				1873.63

# APPENDIX B – PROJECT COST ESTIMATES AND CASH FLOW

Project Title: Kaneff Building expansion.

**TABLE 1: Total Project Cost Estimates** 

Column 1 will be completed with the Project Planning Report. Column 1-5 will be included in the Project Implementation Report.

	Project Planning	Concept	Design	Drawings		100%
Items	Report	Design	Devel't	@ 90%	Tender	Complete
				1		
Construction Cost Note A	2,431,063	0	0	0	0	0
Construction Contingency	241,106					
Applicable GST	61,727					
Total Construction Costs. plus taxes	\$2,733,896	\$0	\$0	\$0	\$0	\$0
Site Services, new	20,462					
Infrastructure Upgrades in Sector	na					
Secondary Effects	na					
Demolition	inc					
Landscaping	50,000					
Permits & Insurance	30,792					
Professional Fees	385,275					
Computer Wiring & Telephone Terminations	19,234					
Moving & Staging	5,116			<u> </u>		
Furnishings & Equipment	265,847					
Miscellaneous Costs [signage,security]	6,000					
Donor Recognition	0					
Finance Costs Note B	68,000					
Project Cost Escalation [to 08/02]	inc					
Total Project Cost Estimate GST included prepared 27 Nov 2001	\$3,584,622	\$0	\$0	\$0	\$0	\$0

A O Butter Carbon was

Notes:

985 GSM of new & 70 GSM of renovation. Inc demo & site prep.

B see cashflow

Kaneff, addition.

Approval in Jan 2002, tendered in Aug 2002.

Cash flow by quarter

Quarter	feb-apr 2002	may-jul 2002	aug-oct 2002	nov-jan 2002-3	feb-apr 2003	may-jul 2003	aug-oct 2003	nov-jan 2003-4	totals
Funding:	0	0	0	0	0 0	0	3585	0	3,585 0
Expenditure: proff fees & permits. construction furn,equip,landscape, misc. subtotal	441 0 0 441	175 0 175	200 200 220	20 638 0 658	20 638 0 658	20 638 173 831	18 640 173 831	0000	417 2,754 346 3,517
net cash flow	-144	-175	-220	-658	-658	-831	2,754	0	
open bal change int exp @ 4.0% close bal	0 -144 -1 -145	-145 -175 -2 -322	-322 -220 -4 -546	-546 -658 -9 -1,213	-1,213 -658 -15 -1,887	-1,887 -831 -23 -2,741	-2,741 2,754 -14 0	0000	(68) project interest expense
prepared	-	Nov 27 2001		jcp					

# APPENDIX C – EQUIPMENT/FURNISHINGS

### Kaneff extension

# Furniture & equipment schedule

faculty office
grad student rooms
seminar room
admin office
case room
total
taxes, PST GST

furnit	ure			equip	nent	
unit	allo	w	extn	unit	allow	extn
	6 3 3 4 2	4,000 6,000 6,000 4,000 2,500	104,000 18,000 18,000 16,000 5,000	26 4 2	2,500	0 0 10,000
			161,000 16,599			80,000 8,248
		•	177,599			88,248

prepared dec 18 2001

jcb

# APPENDIX D – ROOM SPECIFICATION SHEETS (AVAILABLE UPON REQUEST)

# APPENDIX E – ENVIRONMENTAL PROTECTION ADVISORY COMMITTEE REPORT

#### **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 administra-tive 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:

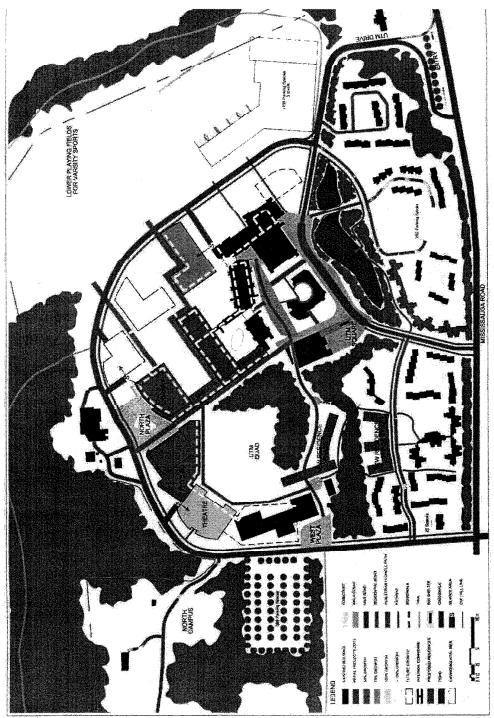
- An Environmental Protection Advisory Committee (EPAC) will be established consisting of administrative staff, academic staff and student groups, to be chaired by a member of the University's academic staff. The Committee will provide advice to the Assistant Vice-President, Operations and Services, 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 liase 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.	Gene	eral planning principles: Co	onsideratio	on of alternatives, Life cycle approach					
2.	Mini	Minimise Energy Use							
	a)	Thermal Energy: Heat	ing, Cooli	ing					
	b)	Lighting/Use of Natural Light							
	c)	Ventilation/Windows							
	ď)	Machinery/Equipment							
	e)	Orientation of Building - effect on building energy needs							
	f)	Roof Design	5 - 011001 (	on building energy needs					
3.	Mini	mise Water Use (Maximise	e Reuse)						
	a)	Flushing	b)	Washing - hands and body					
	c)	Building Cleaning	d)	Drinking					
	e)	Experimental/Labs	f)	Equipment Cooling					
		-	,						
	g)	Outdoor Vegetation - o	noice and	watering (see #4)					
4.		sation and Diversion of Ra							
	a)	Use of Roof Water	b)	Porous Pavements					
5.	Wast	e Management (offices, cla	issrooms,	food outlets, outdoors, construction/demolition)					
	a)	Reduction	b)	Reuse					
	c)	Recycling	d)	Treatment and Disposal - possible on campus					
6.	Efflu	Effluent and Emissions (reduce, reuse, recycle, dispose)							
	a)	Indoor (Air Toxins, No	oise, Odov	urs, Ventilation)					
	b)	Outdoor Air - laboratory emissions							
	c)	Water - Hazardous Wa	stes						
	d)	Land							
7.	Redu	ce Harmful Chemicals							
	a)	Outdoor Salts	b)	Pesticides/Herbicides					
	c)	Cleaning Agents	,						
8.	Outde	oor Environment							
	a)								
	b)	Landscaping/Shading - effect on building energy needs in summer and winter							
	c)	Use of outdoor space (	e.g. rest ar	reas, roof gardens)					
9.	Moni	toring and Metering of Use	of Decor	aroon and Waster					
	a)	Water							
		Heat	p)	Electricity					
	c)	rieai	d)	Wastes					
10.		ility of Environmental Con							
	a)	Pilot Projects	b)	Posters/Displays					
11.	Mate	rial Choice (Use of endang	ered/exoti	ic materials, off gassing)					
	a)	Building Fabric							
	b)	Fixtures and Furnishing	zs						

### APPENDIX F – MASTER PLAN DRAWINGS



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