

# mcgill university physical master plan



## PLANNING AND DESIGN PRINCIPLES

*Approved by the Board of Governors of McGill University on April 7, 2008*



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## Introduction

McGill University operates in an environment that is increasingly international and competitive for the best people, the best ideas and adequate funding. To continue to excel and compete on the world stage, the University must marshal its resources to ensure that future development is sustainable, enhances its ability to serve society and allows it to fulfill its teaching and research mission. The University must plan for its future. Therefore, through the course of 2005 and early 2006, McGill University undertook an extensive review of its current facilities, space needs and projections for growth and change on its campuses, with the intent to create a new Master Plan for the University. This physical Master Plan is part of a comprehensive planning process that will build on McGill's academic and research strengths, and which has involved all the primary elements of the University, including academic, research, fiscal, service, and philanthropic operations. The results of these reviews are intended to inform and guide discussions relating to the University's physical development to 2010 and beyond.

## Context for Growth and Change

Founded in 1821, McGill University has developed along the southern flank of Mount Royal Park, Montreal's most prominent landmark, and has played a prominent role in the City's development. McGill has grown along with Montreal and now occupies an 80 acre downtown campus with an enrollment of over 32,000 students in a metropolis of nearly 2 million habitants. McGill is fortunate to be located in a City with four universities, three professional schools and several colleges. Montreal is a vibrant, multilingual and cosmopolitan metropolis, home to one of the highest student populations per capita of all North American major cities. Cities that build on their creative potential are the most successful in attracting talent and resources and Montreal's rich cultural environment is a great magnet for attracting students from all over the world. McGill is determined to play a key role in the fulfillment of the City's ambitious goal of making of Montreal one of the most prosperous knowledge cities in the world.

Mount Royal is Montreal's most distinctive and cherished feature and McGill's emblematic and perennial signature. McGill's downtown campus lies almost entirely within the Historic and Natural District of Mount Royal, a heritage zone created by the Government of Quebec in 2005 to recognize the importance of this prominent Montreal landmark and its prestigious religious, educational and hospital institutions, as well as its rich social history. McGill's relationship with Mount-Royal, its home for nearly 200 years, is a long and treasured one.

McGill supports the preservation and enhancement of Mount Royal as a major feature of the City and understands its significant responsibility of balancing its needs as a living institution with the mountain's sensitive natural environment. McGill's downtown campus has also a rich archeological past where traces of First Nations Peoples' prehistoric and historic period can be found. The preservation of this uniquely rich, archeological, natural and built environment, adjacent to the bustling city core is a major focus of the "Planning and Design Principles" of the University's master plan.

While Montreal's oldest university is renowned as one of the world's best research institutions, it is also known for the magnificence of its downtown campus. McGill today has more than 100 buildings on its downtown campus, most constructed in the late nineteenth and early twentieth century. The historic buildings, lawns, gardens and majestic trees combine to make it the most significant and beautiful green space in Montreal's downtown core. Furthermore, the Macdonald campus located at the western tip of the Island of Montreal in Sainte Anne-de-Bellevue is the largest green space on the Island, consisting of over 1,600 acres of prime land, comprising agricultural land, almost two kilometers of undeveloped lakeshore, wetlands, majestic forests and habitat for wildlife and plant species. A leader in environmental issues, the campus includes the Morgan Arboretum, the St. Lawrence Valley Ecomuseum, field research facilities, a working farm and greenhouses. Established in 1906, the Macdonald Campus is home to the Faculty of Agricultural and Environmental Sciences, a world-class teaching and research facility. The Sainte Anne-de-Bellevue campus-- which McGill shares with John Abbott CEGEP-- is a bustling environment with over 9,000 students and staff.

## Over-Arching Principles

It is fundamental that the physical development of McGill's campuses be consistent with and responsive to the academic requirements of the University community. In order to continue to meet its academic mission, to respond to new areas of academic and societal priority, and to enhance McGill's position among the best publicly-funded universities in the world, the University must continue to grow.

However, the growth in enrollment and adaptation and expansion of our facilities must be done with caution and care. Montreal, with its multicultural and multi-university milieu, provides McGill students with extensive opportunities for academic, cultural, and social growth. McGill, along with the city's other universities, is a major contributor to the economy, vibrancy and vitality of Montreal, rivaling the largest industrial, financial and commercial enterprises

in its economic multiplier effect. McGill wishes to work in collaboration with the cities of Montreal and Sainte-Anne-de-Bellevue and other partners in the community to maintain an appropriate balance between its mission as a research-intensive university and its commitment to the preservation and enhancement of its natural and built environment.

McGill University strives to be an environmentally safe and responsible learning institution, which can stand as a model for environmentally responsible living. To this end, the University has committed itself to the principles of sustainable building practices for the design and development of new building and landscape projects, for the redevelopment of existing facilities and for the operation of all of its facilities. McGill's commitment to the sustainable development of its campuses underlies all Planning and Design Principles, guiding long-term development and operational plans for the University as well as more immediate strategies for planning, design, construction and care of McGill's campuses.

## Planning and Design Principles

Through the initial framework established by the Master Plan Task Force, the early phases of the Master Plan process and planning work by McGill, a series of principles have emerged around which the master plan will be centered. These Planning and Design Principles will support the University's mission, guide its growth, and ensure that individual projects develop as part of a cohesive whole. The Planning and Design Principles summarized within this document describe the underlying ideas and policies which will guide campus development. Most principles will apply to both campuses, but others reflect the specific needs and character of each site and its users. As principles, they are not intended to set performance standards and be prescriptive in terms of final built form, but rather they are intended to address strategies and organizational patterns.

These Planning and Design Principles address the following topics as they contribute to the public realm of the University: the development and use of a campus structure and the organization of landscape and built form; ways in which individual projects can contribute to the University's overall goals; the siting of buildings; the best use of existing space; infrastructure needs; circulation routes; and other considerations such as lighting, safety and environmental concerns. The Planning and Design Principles are organized into sections addressing issues of: 1.0 Dynamic Intellectual Community; 2.0 Strategic Growth; 3.0 Campus Identities; 4.0 Research, Teaching and Learning; 5.0 Non-Faculty Space Priorities; 6.0 Historic Buildings and Landscapes;

7.0 Facilities and Infrastructure; 8.0 Campus Accessibility, and 9.0 Landscape Design. These Principles are supplemented by 90 Planning Objectives that were developed to further clarify the intent of the Principles, and to identify specific design criteria through which the Planning and Design Principles could be implemented.

## Master Planning Process

The University buildings and landscapes have developed over time through a range of broad plans and incremental additions. During the past 30 years, campus development has taken place under limited development plan updates and within terms outlined in a *'Programme de Developpement'* set out in 1995 by the City of Montreal. In light of McGill's continuing review of its academic priorities, and in order to best serve evolving academic needs, the University has recognized its need for a new Master Plan. This Master Plan document provides a framework for discussions with the University community regarding its development, and will direct overall campus growth and change for an extended period.

The Master Plan scope has evolved in stages. The initial phase of work was carried out by the University's Planning and Institutional Analysis staff and by external consultants, and included the preparation of space audits, preliminary site analyses, and growth models. This work, done in preparation for the development of an overall campus Master Plan, presented a broad picture of current facility use at McGill.

In the Spring of 2005, McGill University, through its Master Plan Task Force, commissioned the firms of Diamond and Schmitt Architects and du Toit Allsopp Hillier to prepare a campus Master Plan for the McGill campuses, based on the needs and objectives of the University.

In full appreciation of the high value of its campuses, their unique relationships with their surroundings, and the University's academic mission, the terms of reference set out by the Master Plan Task Force established a basic framework within which the Physical Master Plan would be undertaken. Key aspects of this framework include the following goals and assumptions:

- i. The Master Plan will provide a comprehensive vision for the development of the McGill campuses, including the grounds, facilities, transit, accessibility and infrastructure, and as such will provide a plan for directing planning and construction projects.
- ii. The physical development of the University will be based on the academic requirements of the University community. In the short term, the Master Plan will be developed in close coordination with the academic objectives identified through the 2005-2010 Academic Planning process.
- iii. Future development will be guided by the principles of sustainability, with a view toward the long term needs of the Institution. The Master Plan will be therefore sufficiently broad and flexible in its outlook to accommodate changing needs, opportunities, and priorities over an

extended period - potentially 20 years at a minimum.

- iv. Multiple campuses will be maintained, with the downtown site supporting the majority of academic programs. The Macdonald Campus and off-campus sites such as the teaching hospitals and the Gault Nature reserve will serve selected location-specific academic interests. Taking into consideration new realities of conducting collaborative research, additional sites will continue to be considered for development, including the MUHC Glen Campus.
- v. Each campus will be developed in a manner that recognizes and builds upon its own unique character and context. This context includes the natural environment as well as urban and built form.
- vi. The Master Plan will safeguard unique ecological conditions, preserve the natural environment, and expand green space or its access where feasible.
- vii. The Master Plan will identify processes and opportunities for making best use of existing buildings and infrastructure within the University's mandate, recognizing McGill's responsibility to preserve and maintain its historic buildings as well as the appropriate use of these facilities.
- viii. Planning for each campus will encompass traditional formal academic facilities as well as a range of informal and non-academic services and resources, with the goal of providing the highest quality university experience.
- ix. Future developments will be directed in such a manner that every project contributes to the quality and coherence of the University as a whole, while taking into account relevant concerns and characteristics of its many users.
- x. The Master Plan will be developed in constructive consultation with its constituents and neighbours, including the McGill community, neighbouring communities, interest groups, and government bodies.

Given this framework, the Physical Master Plan has proceeded through an initial Planning Base phase, which involved the detailed review of existing campuses and extensive consultation with University stakeholders to identify the current conditions of the campuses, their potential for change, and the aspirations of constituent groups. In the subsequent Explorations phase, initial planning and design principles were drafted for consideration and debate, and through public workshops, internal discussions and on-line publication, options were explored to test these concepts. At each stage the initial planning framework has been considered, elaborated upon and further defined.

Throughout this period, McGill Planning and Institutional Analysis has continued to work with the University Administration to define the extent of growth resulting from academic planning, and to define the physical growth and change needed to support academic priorities. This work has informed both the

Planning and Design Principles and the Demonstration Plan - two documents that combined make up the Physical Master Plan:

- o The "Planning and Design Principles" report enunciates the principles, and the accompanying planning objectives which should guide the physical development of the McGill campuses for the foreseeable future. During the spring and fall of 2007, the Principles were presented to the university community, and comments were solicited and compiled. The revised document will then be submitted for approval to the Board of Governors (end of 2007). Once approved, the document will be published, circulated, and made available on-line.

- o The "Demonstration Plan", consisting of two reports (one for each campus) will present a vision for possible future developments of the campuses, based on the application of the Planning and Design Principles, and the evolution of the academic needs. This document will remain an internal working document.

Responsibility for the Physical Master Plan will reside under the Vice-Principal (Administration and Finance). The lead on this will be taken by the Associate Vice-Principal (University Services), acting in his roles on the Senate Committee on Physical Development, the Building and Properties Committee, and in his capacity as Senior Steward to the Board of Governors. The Associate Vice-Principal will work in conjunction with the Principal and the Provost to ensure that the Physical Master Plan is consistent with, and evolves in parallel with the strategic academic plans of the university.

## Academic Mission and Campus Growth

As stated in the initial Master Plan framework, it is fundamental that the physical development of McGill's campuses be based on the academic requirements of the University community. In order to continue to meet its academic mission, to respond to new areas of academic and societal priority, and to enhance McGill's position among the best public universities in the world, the University will accommodate a carefully directed growth in enrollment, with a similarly focused adaptation and expansion of its facilities.

McGill currently has an enrollment of over 32,000 students, including full-time and part-time undergraduate and graduate students, residents and fellows. Of this total, the greater number pursues studies at the downtown campus, while approximately 1,200 are enrolled at the Macdonald Campus.

It is estimated that within the framework set by the Academic Master Plan, the University's undergraduate enrollment will increase at a modest rate of 0.5% annually, over the next 15-20 years. Within the graduate sector, the university is projecting an increase of 25% in the next five years, which will bring overall graduate student numbers in line with the student/faculty ratios of peer institutions. This increase is expected to be followed by a further increase of 25%, thereby significantly increasing the university's total graduate student population.

New growth will be distributed across 10 of the 12 faculties and will require new academic space as well as a range of student service and support spaces. This growth will be spread between the downtown and Macdonald campuses, with the greater growth anticipated to take place at the downtown campus.

While selective development of additional facilities and programmes is anticipated at the Macdonald campus and other locations, the downtown campus will remain the locus of most academic programs. McGill's downtown campus and its immediate context offer space for growth, and the richest academic experiences will result from a further strengthening of this campus. Further development of this site will reinforce the conditions for increasing interdisciplinary scholarship and research by concentrating resources, fostering close interaction between members of the university community, and allowing McGill to maintain a substantial amount of infrastructure at a single location accessible to all students, faculty and staff.

The downtown campus, in the long term, will require renewal and growth. Similarly, the Macdonald campus will continue to grow and will require change, though at a more modest rate. Given the significant locations of the University within the City of Montreal - in particular, the importance of the downtown campus within the Mount Royal Natural and Heritage District, and the importance of the Macdonald campus within the bioregion - all development including the replacement of facilities will be subject to close internal review as well as consultation with jurisdictional authorities to ensure that the unique characters of the campus settings are not compromised, but enhanced by new works.

## Sustainable Campus Development

McGill's commitment to sustainable campus development underlies all Planning and Design Principles, guiding long-term development and operational plans for the University as well as more immediate strategies for planning, design,

construction and care of McGill's campuses. Because the strategies for promoting sustainable development are so closely linked with all aspects of the Physical Master Plan, they have been incorporated with the relevant sections of this document. These strategies appear as Planning Objectives, helping to shape the campuses, improve the way they relate to their surroundings and simultaneously reduce the ecological footprint of the University through their built environment and infrastructure.

While the framework for physical development at McGill is based primarily on the University's academic requirements, many of the aspects of the Academic Plan are closely aligned with McGill's objectives for achieving sustainable campus development, creating opportunities for the University to develop socially, ecologically and academically rich spaces for students, faculty and staff, promoting academic excellence and sustainability together.

While there are a number of sustainable practices that are appropriate for both campuses, the different urban and rural conditions of McGill's campuses present distinctive opportunities for sustainable campus development.

### ***Downtown***

The downtown campus (see Appendix on page 71 for plan) is comprised of extensive facilities and land holdings which represent a rich heritage, a substantial investment, and which serve a highly active range of academic and non-academic uses. While instituting changes to this campus may be a complex undertaking, strategic interventions can have a significant impact on the University's ecological footprint.

Given the number of development sites projected for the downtown campus in the near future, its relatively compact campus and the available range of municipal service and transport infrastructure, McGill has a real opportunity to transform its facilities, practices and systems to reflect the University's aspirations for sustainable campus development within a healthy urban context.

By incorporating strategies which achieve appropriate density, increased green space, reduced resource consumption, integrated transit planning, the adoption of alternate landscape practices and other sustainable building practices for all new buildings, significant improvements to the sustainability of the downtown campus can be achieved. Similarly, the gradual retrofitting of existing buildings can achieve these goals, while balancing best practices for the conservation of heritage resources.

### *Macdonald*

The Macdonald campus (see Appendix on pages 73 and 75 for plans) is recognized as an ideal location for the implementation of a range of sustainable practices, establishing the campus as a showcase for green development and a hub for sustainable research innovation. With its rural setting, ample land, and considerable self-sufficiency, Macdonald campus offers tremendous opportunities to introduce ecologically sound practices for land care, storm water management, energy production, waste management techniques and an increase in wildlife habitat.

In demonstrating its support for sustainable development practice, McGill University has either adopted or is considering a series of recommendations prepared by its Green Building Task Force for the Senate Committee on Physical Development's Sub-Committee on the Environment. These recommendations demonstrate the university's commitment to a high level of energy and water efficiency, the conservation of natural resources, a reduction in the production of waste and the release of substances harmful to the biosphere, and the creation of healthy environments.

McGill has committed to a comprehensive review of funding, construction, operations, and use of its facilities and infrastructure to reconcile the University's mission with commitment to sustainable building practices and its environmental policy.

Methods for achieving sustainable development include the following:

- Revise the criteria used to select consultants to include green development experience as a criterion.
- Stress the importance of green development practices in documentation given to consultants
- Use the integrated design process model to include all stakeholders in the process from the start
- Use green building maintenance practices to reduce operating costs and train maintenance and operations personnel on green building practices and the operation of specific green buildings systems involved
- Adopt a standard for sustainable design and development practice, such as LEED (Leadership in Energy and Environmental Design) to serve as a guideline and benchmark for the construction of new projects and the renovation of existing buildings.
- Create an Environmental Centre charged with raising sustainability awareness among all staff, faculty, and students, and demonstrating McGill's commitment to campus sustainability.

## Planning and Design Principles

Through the initial framework established by the Master Plan Task Force, the early phases of the Physical Master Plan process and planning work by McGill, a series of principles have emerged around which the master plan is centred. These Planning and Design Principles support the University's mission, and will guide its growth, and ensure that individual projects develop as part of a cohesive whole.



# planning and design principles



## PLANNING AND DESIGN PRINCIPLES

The Planning and Design Principles contained within this document describe the underlying ideas which will guide campus development. Most principles apply to both campuses, but others reflect the specific needs and character of each site and its users. As principles, they are not intended to set performance standards and be prescriptive in terms of final built form, but rather they are intended to address strategies and organizational patterns. These Planning and Design Principles address the following topics as they contribute to the public realm of the University: the development and use of a campus structure and the organization of landscape and built form; ways in which individual projects can contribute to the University's overall goals; the siting of buildings; the best use of existing space; infrastructure needs; circulation routes; and other considerations such as lighting, safety and environmental concerns.

In many instances the Planning and Design Principles are supplemented with Planning Objectives. These Objectives have been included to further clarify the intent of the Principles, and to identify specific design criteria through which the Planning and Design Principles may be implemented.

## Over-Arching Principles

It is fundamental that the physical development of McGill's campuses be consistent with and responsive to the academic requirements of the University community. In order to continue to meet its academic mission, to respond to new areas of academic and societal priority, and to enhance McGill's position among the best publicly-funded universities in the world, the University must continue to grow.

However, the growth in enrollment and adaptation and expansion of our facilities must be done with caution and care. Montreal, with its multicultural and multi-university milieu, provides McGill students with extensive opportunities for academic, cultural, and social growth. McGill, along with the city's other universities, is a major contributor to the economy, vibrancy and vitality of Montreal, rivaling the largest industrial, financial and commercial enterprises in its economic multiplier effect. McGill wishes to work in collaboration with the cities of Montreal and Sainte-Anne-de-Bellevue and other partners in the community to maintain an appropriate balance between its mission as a research-intensive university and its commitment to the preservation and enhancement of its natural and built environment.

McGill University strives to be an environmentally safe and responsible learning institution, which can stand as a model for environmentally responsible living. To this end, the University has committed itself to the principles of

sustainable building practices for the design and development of new building and landscape projects, for the redevelopment of existing facilities and for the operation of all of its facilities. McGill's commitment to the sustainable development of its campuses underlies all Planning and Design Principles, guiding long-term development and operational plans for the University as well as more immediate strategies for planning, design, construction and care of McGill's campuses.

## 1.0 Dynamic Intellectual Community

Facilitate a dynamic intellectual community through interdisciplinary collaboration across all fields of study and research.

Across all academic and research programmes there is a broad shift from discipline-focused inquiry to interdisciplinary and cross-disciplinary study. While the University will continue to support the individual strengths of its faculties, the development of campus buildings, landscape and infrastructure will be further directed to foster and enhance a vibrant interdisciplinary community. This principle affects University planning at all scales and levels and is supported not only through the placement and nature of academic and research facilities, but also through the provision of an array of communal and non-academic functions, such as social spaces, food services and housing. Success is dependant upon the interaction of all members of the McGill community - undergraduate, graduate, and post-graduate students as well as faculty, staff, and administration.

### 1.1 Constituent and Communal Needs

Design all projects to contribute to the needs of the campus as a whole, in addition to meeting the needs of a particular user group.

Campus development projects meet two kinds of University needs: the communal and the constituent. While it is important for the programme and design of new projects to meet the needs of a particular user group, it is to a large extent in the communal parts of the campus that informal contact between disciplines will flourish. Anticipating the shift to interdisciplinary study in the planning and design of new projects will enable the development of campus infrastructure that meets the needs of the constituent while contributing to the larger campus environment and serving the University community as a whole.

The balance between constituent needs and those of the university community requires considerate planning and design to strengthen relationships between faculties, facilities and the basic infrastructure of the university campus.

## 1.2 Contiguity of Academic Programmes.

Where possible, maintain and reinforce the continuity of academic programme space by locating teaching and research facilities in physically linked or proximate facilities.

The ease with which collaborative work is carried out, and the extent of meaningful overlap between students, researchers, and faculty, is enhanced by the relative proximity of academic facilities. Simple connections between departments, faculties, and shared teaching and research space make possible day-to-day contact.

### ***Planning Objective 1.2.1***

*As teaching, research and office facilities are planned or redeveloped, the location of such facilities will be selected based on the potential for useful overlap and collaboration with adjacent academic programmes. The sharing of programme space by adjacent users will be considered, encouraged and where possible, related disciplines will be located in combined or adjacent facilities.*

## 1.3 Grouping Related Activity and Intensity

To further support a vibrant interconnected university community, locate academic and non-academic programmes in areas of related activity and intensity.

While the campuses are to a certain extent grouped around faculty commonalities or shared interests in research and equipment needs, additional consideration will be given to linking areas of related activity such as student-focused services, cross-campus faculty interests, and lab areas occupied by graduate students and researchers over 24-hour periods.

As the locations of campus functions are reviewed and existing facilities redeveloped or new facilities constructed, the following objectives will be considered:

***Planning Objective 1.3.1***

*Facilities, such as libraries, food services, and study/lounge spaces which are shared by students and faculty from a range of disciplines, will be located together at the core of the campus where they are easily reached by all users.*

***Planning Objective 1.3.2***

*Facilities which are used over extended hours, such as common computer labs, library collections, and study areas, will be clustered in central areas which offer convenient and safe access at night.*

***Planning Objective 1.3.3***

*Administrative and non-academic support services which do not require extensive access from the broader university community, or are open for limited working hours, will be relocated at the perimeter of the campus. Such relocations will allow for improved positioning of more communal, active programme space at the core of each campus.*

***Planning Objective 1.3.4***

*Programmes and services currently located on the downtown campus, which require greater site resources and limited public access, will be considered for relocation to an off-campus location, including the Macdonald campus.*

## **1.4 Shared Amenities**

Provide new or improved common amenities at key nodes of interaction to facilitate informal contact on campus.

It is increasingly recognized that a lively intellectual community is well supported not only by the formal academic and research programmes, but through complementary informal interaction between its members. The creation of amenity spaces and additional areas for informal meeting, conversation or study will benefit undergraduate and graduate students and faculty, offering individuals increased opportunity to meet with peers and colleagues from related and diverse fields.

In the case of the Macdonald campus, where research institutes, field stations and facilities are highly dispersed, it is particularly important that amenities and services be provided in a central location which can be shared by students, faculty and researchers.

***Planning Objective 1.4.1***

*As existing facilities are redeveloped or new buildings are constructed, in addition to dedicated academic, research, administrative or other constituent functions, building programmes will typically include such common amenities as informal lounge, meeting, and study space, as well as food services.*

***Planning Objective 1.4.2***

*Common amenities will be located at strategic points to provide continuity of public traffic routes, make best use of opportunities for overlap between diverse groups and, when strategically combined with other inter-related academic or support functions such as libraries or information commons, encourage maximum use by all members of the University community.*

***Planning Objective 1.4.3***

*Common amenity space will provide good access to natural light and views, and where possible, provide adjacent exterior common space. Amenity space will be furnished and equipped to support easy and comfortable access by a range of users, including the disabled. Wired and wireless network access will be provided to further support connectivity and collaboration.*

For further elaboration of this principle with regard to student space, libraries, food services and social space, refer to Sections 4.0 Research, Teaching, and Learning and 5.0 Service Areas Priorities.

## 1.5 Interdisciplinary Scholarship and Research

Create appropriate dedicated facilities to support interdisciplinary scholarship and research.

In addition to numerous cross-appointments and collaborative academic and research programmes, the formal vehicles for interdisciplinary work are research centres and institutes. Appropriate, dedicated facilities will be provided to support this work. This initiative is discussed further in section 4.0 Research, Teaching and Learning.

## 2.0 Strategic Growth

In concert with the Academic Plan, growth will be accommodated in strategic areas.

The dynamic intellectual community that makes up the University is enhanced by growth and change. In response to evolving needs, opportunities and priorities, the University will accept enrollment increases and consequent physical growth as directed by its Academic Plan. Within the time frame outlined by this Plan, the primary increase in enrollment and programmes is anticipated to occur within graduate research degree programmes, with modest growth also anticipated in undergraduate student enrollment.

The consequent increase in space requirements and the changes in types of facilities required will affect all McGill campuses. The shifting ratio toward graduate studies and research will require an increased floor area to reflect the higher space requirements for graduate programmes. Additional non-academic space will also be required to support the broader needs of a changing University community. While the extent and nature of these changes will be developed over time, and parallel to evolving academic initiatives, the growth which results from these changes will be directed by the following principles:

### 2.1 Compact Campus: Growth Capacity and Growth Projections

In order to maintain and intensify the rich academic experience provided by its current campuses, increased space needs will be met primarily through infill and redevelopment, reinforcing the existing campus precincts.

The unique locations of the current campuses offer extensive opportunities for rich academic, cultural and social interaction. Reinforcement and intensification of these existing facilities ensures that land is used more effectively, while simultaneously enhancing the campus experience for all students, faculty and staff. Increased density limits travel time between class locations, allowing students to choose between a wide variety of disciplines and to change classes in a ten minute break period. Proximity and clustering of research programmes enhances both social and interdisciplinary interaction. Furthermore, substantial amounts of infrastructure, including libraries, athletics, student services, information technology etcetera, can be provided at central

locations conveniently accessible to all students, minimizing the duplication of services and promoting sustainable campus development.

### ***Downtown***

McGill is currently one of the lowest density private property holders located within the core of a major city. It has acquired and maintained more historic buildings than any other institution in Montreal, and has done so while providing the largest private green space in the downtown, a space used by students, staff, visitors and the general public. This has been achieved through development plans that have consistently expanded the University's floor space through infill projects and by the integration of existing buildings and modern extensions, increasing the value and usefulness of these culturally and architecturally significant structures and maintaining green space. As demonstrated through the development of the downtown campus, intensification of land use and the extension of green space are both compatible and achievable.

Continuing the University's practice of redeveloping paved or residual areas between existing buildings and creating infill developments from existing facilities, allows the University to grow without compromising green spaces or requiring excessive development densities. This approach is consistent with development densities and green space objectives of the City and the '*Arrondissement historique et naturel de Montreal*', and matches the City's objectives for institutional consolidation and expansion in the city centre, while maintaining and enhancing the natural, built and landscape heritage of the city.

### ***Macdonald***

The extensive land resources of the Macdonald campus provide important opportunities and resources for academic and research programmes, as well as other programmes related to conservation, education and recreation. In contrast to the downtown campus, which maintains a dense urban form, current development on the Macdonald campus is characterized by dispersed facilities loosely linked across a wide variety of landscapes.

A key issue in the development and maintenance of a strong academic community at the Macdonald campus is the presence of sufficient population to justify and sustain appropriate facilities. It is anticipated that in the timeframe outlined by the Academic Plan, the existing programmes will be expanded. In the long term, the campus will continue to grow, with more dramatic growth occurring in areas of bio-sciences and the environment (including joint industrial initiatives) and potential relocation of functions from the downtown campus. Development will be centred around outstanding programmes unique to the

Macdonald campus. This long-term growth is discussed further in section 2.3 Alliances.

At each stage in its growth, new built form will be planned in such a manner that existing campus resources are enhanced and the built form contributes to a cohesive series of academic, research and non-academic facilities, located in compact site-specific developments.

#### ***Planning Objective 2.1.1***

*Future developments proposed for the Macdonald campus will benefit from concentrating new built form into more compact arrangements, centred on the current academic buildings immediately north of the lakeshore, and clustering additional site-specific nodes of development around the existing field station facilities of the farm, plant science and the Morgan Arboretum. Such a compact building development will conserve the farm, Arboretum and recreational open space. It will also make pedestrian movement between buildings less time consuming and more comfortable, as well as providing the opportunity to shape outdoor space.*

## **2.2 Strategic Property Acquisition**

While existing campus precincts will be maintained and reinforced, the University may further strengthen its campus structure through judicious acquisition of additional properties outside the current precincts.

While building intensification on campus is preferable, over the course of time, and in support of its mission, the University may acquire additional property beyond its current holdings. In such cases, the use and location of additional property will be consistent with the aims of the Master Plan and incorporated within the campus Master Plan.

In the case of the downtown campus in particular, a large number of institutional, private and residential properties have been and will likely continue to become available to the University. The University will consider acquiring these properties where they will help to consolidate and support research and teaching activities.

### ***Planning Objective 2.2.1***

*New properties that are adjacent to the campus (less than a 5-minute walk) could be directly integrated into the main undergraduate and graduate teaching and research mission of the University, whereas nearby properties (5-10 minutes away) would provide suitable space for research centres, administrative offices and residences, as compatible with neighbourhood environments. Under normal circumstances, properties that are more than a 10 minute walk away would not be of priority interest to the University.*

## **2.3 Alliances**

Support additional opportunities for the growth and enhancement of academic pursuits through links with outside agencies, including peer organizations, allied industry and government, whose interests are aligned with the academic priorities of McGill.

The University has a wide range of associations with outside agencies and networks, and participates in or initiates academic debate and research at a national and international level. Alliances established with outside agencies, whether through various levels of government, other institutions, or allied industry, allow McGill to extend and enrich its programmes as well as those of its allies.

### ***Planning Objective 2.3.1***

*Relationships with outside Agencies will be consolidated or coordinated through a single sector within the University as a method for ensuring that these alliances are supported in coordination with the Physical Master Plan.*

### ***Macdonald***

A key aspect of the proposed development of the Macdonald campus is the integration of allied industry and government within the academic and research programmes of McGill, and the construction of facilities for these outside groups on the Macdonald campus, in an effort to develop the West Island as a hub for innovation. It is anticipated that the primary areas of study at this campus will be focused around applied biosciences and environmental sciences. Allied industry or government programmes anticipated to locate within the Macdonald campus could take many forms, and the location of these programmes will likely vary depending on the focus of research or academic programme links.

## 3.0 Campus Identities

Reinforce the special and identifying qualities of each campus

Each campus possesses a distinct identity, reflecting its setting, its history, its built and natural environment and its academic purpose. The overarching planning and design principle is to enhance the special qualities of each campus – to draw-out its distinctive sense of place – employing the strategic growth initiatives of the University’s Academic Mission.

The design strategies for enhancing and reshaping the two campuses are similar, although the circumstances and the applications are different. They are:

- To strengthen the symbolic, focal, identifying spaces of each campus; combining the buildings and landscape elements to shape and form the spatial edges; and locating the most prominent and public buildings to address the focal space.
- To extend and enhance the streets, pathways and outdoor spaces; to establish a clear and comprehensive network of public spaces and circulation that binds the parts of each campus together; and to initiate a tree-planting program that supports and signifies this network.
- To design and integrate new and renovated buildings in such a way as to give order and form to the outdoor spaces; and to create and extend a network of indoor circulation and common spaces which is inter-connected with the outdoor network.

### 3.1 Spirit of the Place and Campus Setting

Design new projects to reinforce the fundamental character-defining qualities of the campuses, respecting and celebrating their settings.

#### ***Downtown***

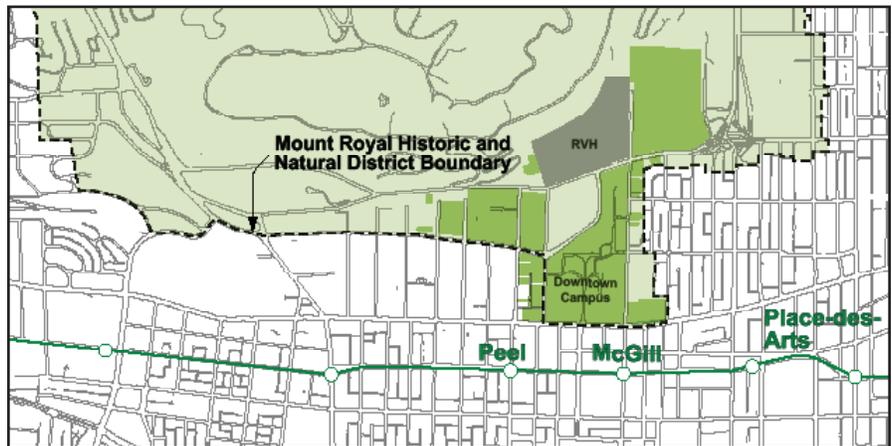
For over 180 years the University has developed as an integral component of the City of Montreal. The University’s buildings provide some of the most prominent landmarks and institutions within the City and provide a record of Montreal’s history and development. Positioned on approximately 80 acres on the slopes of Mount Royal and at the edge of the central business district, the character of the downtown campus is fundamentally distinguished by its unique natural and urban settings, and by a series of character-defining elements that have been built up over time. The contours of the Mountain direct the orientation and location of the University’s buildings and paths, while the street pattern of the City overlays and further orders the campus. The University's

lower campus green is one of the most important publicly accessible and much loved open spaces within the downtown core, mediating between the intensively developed central business district and Mount Royal Park. Where the central green and Roddick Gate front Sherbrooke Street, there is a clear demarcation between city and University. Elsewhere, the greater part of the campus forms a continuous extension of the urban fabric.



*The lower campus green framed by buildings from different periods*

McGill has long been aware of the special nature of its campuses, and of the responsibilities this entails. The downtown campus is designated part of the special protection zone “*le site du patrimoine*” governed by the City of Montreal, and as such, the *Commission des biens culturels* has since 1987, been required to review, and where appropriate, approve the exterior finishes and integration plans of new McGill buildings. McGill worked in close



*Mount Royal Historic and Natural District Boundary and McGill downtown campus*

collaboration with the City in developing the original *Plan de mise en valeur du Mont Royal*, adopted in 1992, and the University currently participates actively in the *Table de concertation du Mont-Royal*, the team charged by the Provincial Ministry of Culture to update the plan for the conservation and enhancement of Mount Royal.

The downtown campus lies almost entirely within the newly designated (2005) *Arrondissement historique et naturel du Mont-Royal*, a heritage zone created by the Government of Quebec to recognize the importance of this prominent Montreal landmark; its prestigious religious, educational, and hospital institutions, as well as its rich social history. The University is committed to collaborate in the updating of a comprehensive and sustainable plan for this zone. Mount Royal is for McGill, as for all Montrealers, a distinctive and cherished feature of the City, and the University supports the preservation and enhancement of Mount Royal as a public green space and major feature of the City. The designation '*arrondissement historique et naturel*' has no precedent, and McGill as a living institution within the context of a sensitive natural environment, must co-exist with the Mountain. Keenly aware of the need to maintain a balance between its need to grow and the enhancement of the Mountain, McGill's stewardship of its built and natural heritage and the ongoing development of the downtown campus within this context, will further inform the Master Plan.

***Planning Objective 3.1.1***

*The key character-defining elements of each campus will be reinforced by preserving, adapting, and integrating valued places and character-defining elements, by protecting and improving the campus landscape, and by reinforcing the landscape structure.*

***Planning Objective 3.1.2***

*Development on the downtown campus will be configured where possible, to protect views to and from Mount Royal; these views will be further enhanced through the strategic placement of buildings and vegetation.*

***Planning Objective 3.1.3***

*New buildings will be located to emphasize the existing spatial structure. Their development will incorporate design that is both progressive and inspired by the existing campus architecture.*

***Planning Objective 3.1.4***

*On campus edges that abut existing neighbourhoods, the building massing,*

*materials, and details will complement the character of adjacent buildings and landscapes.*

### ***Planning Objective 3.1.5***

*Buildings on City streets will have gracious entrances that address the street. Glazing will typically be provided at street level to help to further address and animate the street.*

### ***Macdonald***

The Macdonald campus forms the largest green space on the island of Montreal and is comprised of over 1,600 acres of agricultural land, forest, natural habitat and wetlands, including approximately two kilometers of Lac St. Louis shoreline.

The original Macdonald College buildings (now mostly John Abbott College), grouped around the Oval and facing Lac St. Louis, comprise the heart of the Macdonald campus. These buildings adjoin on one side the village of Ste. Anne de Bellevue, and to the north and northeast are surrounded by extensive agricultural holdings. The property has been further extended through the creation of the Morgan Arboretum at its northern boundary, and the construction of specific-use facilities located across the campus, including the Marshall Radar Weather Observatory, the St. Lawrence Valley Ecomuseum, and the PATLQ Dairy Herd Analysis facility, which have reinforced an emphasis on agricultural, biosciences and environmental interests.

The site contains a diverse and unique range of resources, and a variety of landscape types including shoreline, picturesque, agricultural and woodland. Based on the 1966 and 1977 campus plans, the University has realigned sections of the rectilinear campus roads northeast of the more formal Oval to form a large green space bordered by a curvilinear drive. Development around this green space has produced a variety of competing geometries from buildings, walks and driveways. Incorporating a clear spatial structure or landscape framework will help to resolve some of these competing geometries and reinforce the campus identity as a whole.

A lack of cohesion is experienced on the extensive campus properties north of Highway 20. Within this territory which is comprised of a variety of landscape types, McGill's presence is identified where specific facilities have been located, but the area is not otherwise identifiable as a singular McGill campus. Significant opportunities exist to further develop and enhance each of these areas, to link them by overlaying a pedestrian and vehicular framework, further

defined by trees and buildings, and to provide an effective address to the McGill portion of the campus.

McGill wishes to continue to work with Ste.-Anne-de-Bellevue and other partners in the community to maintain an appropriate balance between its mission as a research-intensive university and its commitment to the preservation and enhancement of its natural and built environment. It will maintain a constructive dialogue with its external communities with respect to future campus developments.

***Planning Objective 3.1.6***

*Development on the Macdonald campus will be located and configured to protect the ecological and environmental characteristics of the various campus sectors. Proposed development use and access will avoid compromising the agricultural and environmental aspects of the site.*

***Planning Objective 3.1.7***

*View corridors will be maintained from the Macdonald campus to the lakefront by limiting development south of Lakeshore Road.*

***Planning Objective 3.1.8***

*While the symbolic face of the campus is toward the lake, the Macdonald campus is often approached and perceived (or not) from Highways 20 and 40. The massing and silhouette of buildings and landscape elements will be designed in recognition of the 100km/hr views from the highways, the need to signify and reveal the University from a distance, and to reinforce the sense of entry to the campus from the north.*

***Planning Objective 3.1.9***

*To fit the character of the area and surrounding residential neighbourhoods, building heights at the Macdonald campus will generally be not much greater than the mature tree line (approximately four to six storeys).*

## 3.2 The Symbolic Focal Spaces: Lower Campus Green and McEwen/Watson Fields

Maintain and enhance the Lower Campus Green and McEwen/Watson Fields as the primary outdoor focal spaces of the downtown campus and Macdonald campus.

### ***Downtown: Lower Campus Green***

The Lower Campus Green, framed by many of the University's earliest buildings, is the heart of the downtown campus and the principal symbol of McGill. It is also one of the most important and memorable green spaces in the City's downtown core.

Currently, it is heavily used for vehicular movement and parking, and has accumulated a patchwork of small landscape interventions and additions. These detract from the quality and elegance of the place and undermine its value as a commodious pedestrian precinct abutting, yet slightly removed from the busy downtown streets.

### ***Planning Objective 3.2.1***

*The approach to reviving the magnificence of the Lower Campus Green will include: phasing out parking and vehicular circulation except for the essential and emergency vehicles, minimizing the areas of impervious asphalt paving, rationalizing the pedestrian pathways, selective tree replanting and an overall upgrading of materials and finishes.*

### ***Macdonald: McEwen/Watson Fields***

Set within a larger open landscape, McEwen and Watson Fields are the main social and recreational green spaces of the Macdonald campus. In order to improve their use and give a greater sense of spatial enclosure to this key area, future building and landscape projects will be considered which further frame fields, provide a sheltered perimeter and introduce connecting routes between and beyond the Fields.

### ***Planning Objective 3.2.2***

*As new buildings are constructed or existing buildings redeveloped at the edges of the McEwen/ Watson Fields, the massing and configuration will help to strengthen the spatial definition of this green. The arrangement of the building entrances, windows, and interior uses will reflect the primacy of the Fields.*

### 3.3 Integrated Exterior Network

Develop an armature of green open spaces and pathways which connects the focal space with the other parts of each campus.

#### *Downtown*

There are a number of existing green spaces on the downtown campus that should be enhanced, linked by pedestrian paths, and connected to the adjacent McTavish Reservoir and Mount Royal Park. Of particular significance is the lower campus green, which, as the main open space and symbolic heart of the campus, is the focus of the network of pedestrian paths provided throughout the campus.

The principal pedestrian paths are located on city streets that run through the campus, such as Dr. Penfield Avenue, Pine, Peel, McTavish and University Streets. These can be made greener and more pedestrian-friendly through proposed alterations such as the following:

- The narrowing of vehicular pavements and the widening of sidewalks;
- The addition of street trees and low plantings where appropriate;
- The development of an east-west green pedestrian route between the upper campus, the Reservoir and University Street.

#### *Macdonald*

The relationship of buildings and landscape at the Macdonald campus differs considerably from the downtown campus. Whereas the downtown green spaces are contained by surrounding buildings, the Macdonald buildings are clustered within a broad open landscape. At the Macdonald campus, the improvement of green spaces and pathways is more reliant on planting and built landscape elements to give shape and order to the primary armature of the green network. New projects will be directed towards enhancing green spaces and providing additional connecting paths, as well as calming traffic and limiting parking.

### 3.4 Intensification of Buildings and Interior Circulation

Through infill development, building additions and connecting structures, develop contiguous groupings of buildings which frame and support the streets, pathways and open spaces; and which also provide a network of interior circulation that complements the outdoor routes.

Intensification and infill building on both campuses presents the opportunity to give greater emphasis to reinforcing and reshaping the outdoor campus spaces

and bringing higher levels of amenity and animation to their public realms. This applies particularly to the central spaces and streets where a greater concentration of the communal services and facilities will help to sustain a more intense and sociable outdoor public life.

This in turn will help to broaden the collegial experience and to provide more commodious, more convenient and safer public places for people with irregular schedules and long work hours. Further, a more highly concentrated grouping of facilities and services will be inherently more efficient to operate than a dispersed pattern.

Intensification and the development of contiguous groups of buildings also offers the opportunity to integrate the interior circulation of buildings to evolve an interior 'street' system with many of the characteristics of outdoor streets. Careful coordination of the intersections of the interior and outdoor paths with the siting of communal services and facilities at the more centrally accessible locations will increase the viability for all season use.

## 4.0 Research, Teaching and Learning

Invest in facilities which support excellence in research, teaching and learning, and which foster the close relationship between these activities.

Underlying all academic work is the need for research and teaching infrastructure that is consistent with the high capabilities and standards of McGill. The pace of advanced research is often rapid and highly competitive, requiring advanced supporting facilities and current infrastructure. Similarly, teaching subjects and methods have evolved considerably since the initial construction of the University's academic facilities and many existing facilities do not support the extensive changes that have occurred in teaching approaches, classroom sizes or equipment.

It is critical that the University invest in new and up-graded research facilities and supporting infrastructure, and as noted in the Strategic Research Plan, equipping faculty members with the best available tools for advanced research constitutes a primary concern. A parallel investment will be made in teaching facilities and equipment. Where possible, the activities of research and teaching will be combined.

This initiative will have broad consequences across the campuses as facilities are up-graded or new space constructed, and specific consequences in terms of the way in which these facilities are designed and outfitted to support advanced technology and learning methods.

### 4.1 Academic Research Space: Research and Laboratory Facilities

Support research and learning through the improvement of interdisciplinary research and laboratory facilities.

#### *State-of-the-Art Fully Serviced Research Laboratory Space*

It is increasingly clear that the sophistication of medical/ science/ engineering research for the future cannot be accommodated in present day university laboratory facilities, many of which were constructed some 40+ years ago and are now at or past the end of their useful life cycle. New facilities are required. These new facilities will be constructed in locations which complement current programs. While most of these programs are located on the downtown campus, new research lab and animal facilities will also be provided at the Macdonald campus.

### *Interdisciplinary Research Space*

Whereas research has traditionally been carried out within the boundaries of the individual departmental laboratory, all indications are that interdisciplinary research will dominate the next decades. This is in part due to the complexity of the research being carried out, as well as by the fact that expertise from multiple disciplines is required in emerging areas of research. Biomedical Engineering, for example, requires the collaboration of researchers and graduate students from Medicine, Science and Engineering. None of the current facilities of the three faculties is able to adequately accommodate this kind of activity - new facilities are required to support this work.

Locations of these facilities will be carefully considered. Current centres and institutes for the most part, are grouped in loosely arranged clusters on the downtown campus, and at varying intervals across the Macdonald campus. Positions will be carefully reviewed to make best use of the available conditions, adjacent programmes and shared use of both existing and new facilities and equipment. It is understood that new interdisciplinary research space may result in some duplication of facilities which are found in each home department but the objective will be to keep duplication to a minimum.

#### ***Planning Objective 4.1.1***

*In the redevelopment of existing facilities and the programming and design of new buildings, considered effort will be made to integrate research and teaching pursuits by bringing research into the classroom, and by bringing undergraduate students to research.*

#### ***Planning Objective 4.1.2***

*Although research and teaching needs are often programme specific, it is vitally important that facilities are designed in such a manner to make change simple and cost effective, given the current pace of change in research and teaching. The reconfiguration of space or the replacement of equipment will be supported by structures, and mechanical, electrical, and other infrastructure systems that are designed as adaptable platforms to meet changing needs.*

#### ***Planning Objective 4.1.3***

*Wherever possible, teaching and research infrastructure platforms and facilities will be configured and coordinated to permit their shared use.*

## 4.2 Academic Teaching Space: Classrooms, Teaching Labs and Study Areas

Support teaching and learning through the improvement of classroom, teaching labs and study facilities.

In response to an increasingly diverse range of teaching and learning methods, subject matter and communication technology, classrooms and study areas will be renovated and new facilities constructed. These will be configured with inherent flexibility in order to support current needs while remaining adaptable to evolving teaching and learning modes.

The establishment of a central registry for classroom space will not only allow for improved efficiency in scheduling and classroom use, but will allow the University to evaluate overall classroom needs and establish the appropriate number, distribution and ratio of different categories of classroom sizes, as well as an appropriate standard and allocation of teaching support equipment and infrastructure.

### ***Planning Objective 4.2.1***

*Facilities will typically be developed in accordance with McGill University Classroom Design Guidelines, which consider location, capacity, teaching support infrastructure, configuration, seating, accessibility, and other environmental factors such as appropriate ventilation and natural light. New facilities will be planned in a manner that supports the close interrelationship between teaching and research, as well as the many ways in which learning takes place. The investigation of new types and configurations of learning spaces will be encouraged.*

### ***Planning Objective 4.2.2***

*As large teaching spaces are developed, they will be constructed and equipped to facilitate easy movement of faculty and interaction among students and faculty, and will be supported with additional breakout rooms for small group activities. Additionally, large classrooms will be appropriately configured for use in the administering of exams.*

### ***Planning Objective 4.2.3***

*Laboratory and research space also functions as teaching space, and will be configured and equipped to support this role.*

### 4.3 Informal Learning: Student Space

Support learning through the construction of spaces that support informal learning for a diverse student body, as well as formal academic facilities.

It is well recognized that time spent on campus by students in informal study, research, and related academic pursuits far exceeds the hours spent in class. In addition to the formal academic space offered by the classroom, complementary facilities are required to support equally important informal learning and study outside of the classroom.

#### *Undergraduate Work and Informal Learning Space*

McGill has been fortunate in the past in that students themselves have contributed to the funding of facilities for undergraduate student space and support functions including social space. Despite these contributions however, recent space audits and student consultations have concluded that there is a serious inadequacy of space available for undergraduate students. There is an immediate need for space to accommodate group study, computer rooms, reading rooms, as well as informal social spaces to facilitate interdisciplinary interaction.

#### *Graduate Student Work Space*

The space provided for graduate student offices fulfils an important role within the range of study and workspace made available on campus. Recent space audits and student consultations have concluded that the existing space conditions for graduate student work are inadequate in qualitative as well as quantitative terms. Well located and properly equipped office space will improve the quality of the academic experience and provide the appropriate space for graduate students to complete their studies.

#### ***Planning Objective 4.3.1***

*While these needs vary between programmes, and between undergraduate and graduate student levels, a useful range of adjunct informal space will typically be provided in new and redeveloped academic buildings. These will include workspaces for both quiet individual and lively group collaboration over extended hours and access to resources such as network systems, library collections and food services.*

### ***Planning Objective 4.3.2***

*Space made available for graduate student offices will have natural light, appropriate ventilation, heating and cooling, as well as easy access, in order to ensure that the space is well-used. Where appropriate, alternate models for graduate office space use, such as shared offices or a hotelling system, may be considered as more effective than the assignment of individual dedicated office spaces.*

## **4.4 Libraries**

Enhance the existing libraries and support the diverse traditional and emerging functions served by these facilities.

Library resources, services, and study space provide key elements in support of a dynamic intellectual community. The accessibility of collections, their placement on campus and the range of learning support services provided by the libraries contribute significantly to opportunities for scholarship, learning and interdisciplinary collaboration across the University. These opportunities have evolved considerably with advances in digital electronic technology which have fundamentally changed, and continue to change, the ways in which libraries are used.

McGill's library collections comprise one of the largest and oldest in Canada. The collections include unique material in many areas of scholarship and continue to grow through acquisitions and donations of private collections. Extensive print materials and other holdings are supplemented by access to electronic journals, newspapers, databases and other digital content, amounting to a significant and valuable collection. These diverse resources are a tremendous asset for the University and for the community, and require appropriate facilities and infrastructure to ensure the continued care of collections and to render sources accessible to users.

Through their own holdings and extensive electronic database, McGill's libraries provide access to data, information resources and teaching materials held at the University and around the world. This has required the provision of extensive wired or wireless infrastructure, which continues to affect changes within the physical space of the libraries. More significant changes, however, are required to meet the increasing demand for space within the Libraries to accommodate collaborative work, group study, quiet individual work, as well as consultation and instruction. There is a need for new space, and new kinds of space, to accommodate these needs.

Recognizing that the various libraries contain highly specialized collections and offer specialized services linked to disciplinary interests, multiple library locations will be maintained. However, consolidation of library service points, collections management practices, and in some instances, collection materials, will also be considered in order to improve library service and access. Through consolidation, efforts will be made to allocate appropriate collections space, improve access to electronic resources, and in particular, provide improved and varied space within the libraries to best support research and learning.

#### ***Planning Objectives 4.4.1***

*The following spaces and services will be provided in campus libraries to support their use as learning, research and social spaces:*

- a range of seating, including formal carrels; comfortable, casual, movable seating; and group and individual study arrangements
- segregated quiet and noisy spaces
- appropriate lighting, including task lighting
- appropriate ventilation and climate control, including specialized facilities for archival non-standard format material
- computers for individual and group use, as well as wired and wireless network access and power connections
- access to related support equipment such as printers, copiers and scanners as well as other equipment necessitated by specialized collections
- appropriate signage and wayfinding
- access to food and drink
- security for users, staff, and library materials over extended hours of operation
- display and exhibition areas

#### ***Planning Objectives 4.4.2***

*Additional site-specific changes will be considered at various library locations to improve their access, the quality of their environments and the potential for beneficial integration with other campus services.*

## 5.0 Service Areas Priorities

Support a rich academic experience through investment in student, administrative and support services.

The University's commitment to support excellence in teaching, research and learning will be complemented through the provision of appropriate spaces for common student, administrative and support services.

### 5.1 Student Services and Activities

Provide adequate spaces for student services and student activities at convenient, central locations.

While departments and faculties provide the focus of student activity on campus, there is a wide range of common student services that support each student's university experience. These include administrative functions provided by the University, such as registration and financial assistance, IT services, as well as related support dealing with such concerns as health, housing, and tutorial services. A further range of activities is afforded through student-run activities such as student government, newspapers, clubs, sporting and social groups.

#### ***Downtown***

The University's current inventory of spaces for student services was built during the 1960's, at a time when McGill's student population numbered eight thousand students. With a current student population of more than four times that for which the facilities were designed, the existing facilities are inadequate in both qualitative and quantitative terms. Student services are provided in a number of locations across the campus, including the James Administration Building, the Annex, the Brown Building and Burnside Hall. Students are frequently required to travel between different offices to complete a simple task. The locations of these services will be reviewed, and where appropriate, combined into shared locations or a single facility in order to simplify student access, to improve the delivery of information and to allow for the shared staffing of various positions. New facilities will provide space for recruiting, central admissions, accounting and financial services etc. for students.

Student activities are currently concentrated in the University Centre, a building originally designed for a student population of 7,000. In order to meet the significant shortfalls of student-operated space for clubs, meetings, social activities, etcetera, and to consolidate student-run services into a more

convenient location, the administration will work with student organizations to develop additional space close to the University Centre and the Brown Student Services Building, based on student funding.

### ***Macdonald***

On the Macdonald campus student activities and services are conveniently focused in the Centennial Centre. The University will work with students to develop additional club space and meeting rooms as required, based on student funding.

### ***Planning Objective 5.1.1***

*Student services and the McGill Welcome Centre will be located in a facility (or facilities) that is easily and centrally accessed, clearly organized, and of a welcoming character that indicates the University's commitment to its students. The facility will be sized to accommodate student traffic at peak periods, and be flexible in layout to allow for changes in organization and offerings. Consideration will be given to the provision of common amenities such as food services, photocopiers and computer workstations, in addition to assigned staff and student programme space.*

## **5.2 Administrative Units**

Administrative units will be positioned on or off campus in response to the needs of each unit and the constituents they serve. Administrative units that do not require contact with students may be relocated to the periphery of the downtown campus or other off-campus locations, and those units which provide common high-use services will be located for convenient access.

While there is no anticipated growth in the overall space needs for administration, the locations and space allocations for the University's administrative units will be assessed to ensure that the assigned space allows administrative units to function most effectively. A consistent standard for administrative space is needed across the University. Such guidelines, once established, will be made available to all administrative units, identifying appropriate space allocations for administrative staff.

It is recognized that Principles which support collaboration and informal contact also benefit administrative staff. These Principles will apply to the placement, redevelopment or construction of administrative space, just as they are applied to academic, research and learning activities.

### ***Planning Objective 5.2.1***

*The creation of administrative office space will be constructed with an awareness of the need for senior administrative offices to have contiguity with one another, and the need for contiguity of related administrative units which serve similar users, encouraging and facilitating collaborative work, improving access and enhancing the coordination of services.*

## **5.3 Assembly and Governance**

Encourage the creation of meeting spaces that support the University's collegial and collaborative decision-making processes.

The University takes pride in its collegial and collaborative decision-making processes. McGill's governance structures provide for the participation of varied campus constituencies, contributing to the functions of administration and governance at all levels. These opportunities for exchange between students, faculty, non-academic administrators, and members of the community are key to sustaining McGill University's identity and character.

As new and redeveloped facilities are planned, the creation of meeting spaces suited to accommodate the needs and requirements of varied University assembly will be a priority.

## **5.4 Food Services and Social Spaces**

Provide new and improved food services and social spaces.

The informal aspects of academic life at McGill contribute significantly to the formal academic mission of the University. To support informal contact and to help facilitate a strong community across disciplines, more and higher quality informal lounge spaces and food services will be provided.

### ***Planning Objective 5.4.1***

*Lounge and social space will be included in the space programme of new building projects and a minimum space standard established for lounge space.*

### ***Planning Objective 5.4.2***

*To ensure that the campuses are well-served with food facilities, food service planning will be coordinated with larger campus development projects. A greater range of food services will be provided, offering a variety of healthy, affordable menu options. Food service areas will be comfortably and appropriately furnished.*

### ***Planning Objective 5.4.3***

*Food services and social spaces will be located at key nodes of interaction, adjacent to main circulation spaces and preferably on the ground floor with access to natural light and adjacent outdoor landscaped areas.*

## **5.5 Athletic and Recreational Facilities**

Provide improved and expanded athletic and recreational facilities and playing fields that are easily accessible from the core of the campus.

Athletics and recreation are essential adjuncts to the more formal activities that occur on campus. McGill's Athletics and Recreation unit operates a broad spectrum of varsity-level, intramural and recreational programs that share dedicated as well as informal facilities on both the downtown and Macdonald campuses. Facilities managed by Athletics and Recreation also accommodate a number of teaching and research programs.

Examples of dedicated facilities include the Percival Molson Stadium, the McConnell Winter Arena, and the Athletics Complex on the downtown campus, and the Glenfinnan Arena on the Macdonald campus; informal facilities include the playing field in the southwest quadrant of the lower downtown campus and the Watson and McEwan playing fields at Macdonald. Both campuses require additional facilities and fields to meet the growing demand for athletic and recreational programs.

### ***Planning Objective 5.5.1***

*The University will plan for the improvement of its own facilities, and where opportunities exist for enhanced recreational spaces adjacent to its campuses, the University will work with municipal authorities to improve their use.*

## **5.6 Residential Availability**

Provide a greater variety of housing types to accommodate needs of a wider spectrum of students, including senior undergraduates, graduates, and international students, as well as visiting faculty and families.

### ***Downtown***

Under normal circumstances, the University will not use the campus areas for the development of new residences. Rather, residences will be developed using existing buildings adjacent to the campus, on available land nearby, or in

other locations conducive to student life and compatible with the surrounding neighbourhood.

The University's existing row houses provide an exception; the University will plan for the long term conversion of at least half of these buildings back to their original residential purpose.

***Planning Objective 5.6.1***

*Housing, where provided off-campus, will be located within a ten-minute walk of the downtown campus; near the Lionel-Groulx Metro Station, where Solin Hall is located; and near the Vendome Metro at the MUHC Glen campus.*

***Macdonald***

Additional residential developments are not anticipated at the Macdonald campus, given University growth plans and the availability of housing in proximity to the campus.

## 5.7 Communal Support Services

Mitigate the potential negative visual impact of service areas and move communal support services to less prominent locations.

On both campuses, facilities management offices, workshops and equipment storage are located in places that detract from the image and function of the campuses and indeed from the operating effectiveness of the service facilities.

***Planning Objective 5.7.1***

*Service facilities will be re-located to sites that allow easy access to the campus areas they serve, without prominent building sites. The configuration and materials of these facilities will mitigate the potential negative visual impact of service yards and related access and utilities.*

## 6.0 Historic Buildings and Landscapes

Conserve and build upon the strengths of the University's existing built heritage

McGill's buildings and landscapes represent an exceptional heritage, and as custodian of this heritage, the University seeks to use and maintain these facilities in an appropriate manner. Continued use and care of these significant buildings and landscapes are addressed through the following principles:

### 6.1 Preservation Designations

Develop a comprehensive assessment of and database for the University's holdings.

Initial preservation designations set in 1976 and 1977 by McGill University for its Downtown and Macdonald campuses were based on a systematic review of facilities and the available archival documentation. At that time, however, a significant portion of the University's building stock was less than 40 years old and was not within the scope of the review. Consequently, the University's modernist buildings were not evaluated, though they are part of what is now considered an identifiable architectural period. Furthermore, the recognition of what constituted historic value in 1976 was less comprehensive than would now be the case. For example, the high preservation priority assigned in 1977 to a mansion might not have been extended to its adjunct coach house, whereas the two parts might now be considered an integrated grouping.

#### ***Planning Objective 6.1.1***

*The University will therefore prepare an up-dated and comprehensive review of its buildings, based on current standards for the recognition and conservation of historic places. This review will include the assessment and documentation of landscape features such as plantings, fences and site furnishings, as well as buildings, and priorities will be assigned for their preservation and rehabilitation.*

#### ***Archaeological Significance***

As Sir William Dawson discovered in 1860, McGill's downtown campus has a rich archeological past where traces of First Nations Peoples' prehistoric and historic period can be found. This rich archeological, natural and built environment will be recognized and documented where circumstances allow.

## 6.2 Rehabilitation, Adaptation and Replacement

Identify and maintain the best of the University's historic features, and repair or remove those features of lesser historic significance. Assign appropriate uses to historic buildings in order to ensure their heritage values are conserved.

*Standards and Guidelines for the Conservation and Preservation of Historic Places in Canada*, issued by Parks Canada, and other similar standards, make distinctions between three basic approaches to historic structures: restoration, rehabilitation and preservation. While *restoration* seeks to represent the state of a historic place at a particular period in its history, *rehabilitation* is defined as the sensitive adaptation of a historic place for continuing or compatible use. *Preservation*, the protection or maintenance of the form, material and integrity of a historic place, underlies both restoration and rehabilitation.

Given the University's dynamic and progressive use of its facilities, *rehabilitation* represents the most appropriate and flexible approach for the adaptation and renewal of its facilities, without sacrificing exemplary standards of preservation of its historic values.

### ***Planning Objective 6.2.1***

*Where renewal and reuse of buildings occur, recognized standards and guidelines for the rehabilitation of existing facilities will be applied.*

While the recognition of heritage value and priorities is important, equal consideration must be given to the practical assignment of uses to buildings in order to ensure their continued care.

McGill will seek, through its plans for growth and expansion, to address the issue of best use assignment for its architecturally and historically significant structures. As noted above, there are many instances of inappropriate high-intensity or inefficient space use, due to the uses assigned to buildings for which they are not currently suited.

### ***Historic Housing Stock***

The 19th and early 20th century row houses and mansions currently accommodate a range of academic and administrative functions. There are certain inefficiencies inherent in the use of housing stock for academic purposes, due to their configuration, servicing and size. In some cases, the type of uses they accommodate require environmental controls and infrastructure, and may generate high traffic levels inconsistent with the materials and finishes of these buildings.

In certain instances, this housing stock can provide reasonable accommodation for current programmes, assuming that the programmes do not require a high level of service infrastructure. They can function well with links to adjacent facilities, where their use generates a relatively low level of traffic, and where the inhabitants treat their surroundings with care.

The University will make plans to systematically reduce the intensity of use of the historic mansions. At least 50% of the row houses will be converted back to residential use, and where appropriate, the remaining row houses will be integrated into major new buildings, as in the case of the Brown Building and 3509/3511 Peel.

Where residential properties continue to be used for non-residential purposes, appropriate uses will include administrative offices, dry research institutes and support services which generate low levels of traffic.

### ***Institutional-Scale Buildings***

In the case of larger scale buildings, particularly those which house service-intensive functions, such as wet labs or engineering labs, there is clearly an inappropriate match between building configurations, mechanical and electrical service infrastructure, and assigned uses. In many instances the functions for which they were originally designed, have changed so considerably that there is no longer an appropriate match of use and space.

The Strathcona Anatomy and Dentistry Building is such an example; though originally constructed to house these same departments, the needs of its users have changed. Renovations have, in many instances, significantly diminished the architectural integrity of the buildings' interior spaces and finishes.

The University will in future work to reduce the intensity of use of these buildings, and to transfer inefficiently or inappropriately housed functions from heritage buildings to new facilities. Corresponding plans will be developed to locate alternative functions into vacated and rehabilitated heritage space – alternate functions which do not require inappropriate infrastructure and which can take advantage of the original building's character and configuration.

### ***Post 1950 Construction***

An analysis of 1976/77 McGill preservation priority values versus current facility renewal and replacement priorities, shows little correlation between the two categories. The majority of research buildings were constructed in the 1950s and 1960s, and as mentioned above, were not included in the 1970s preservation priority review. Facilities such as the Engineering block were,

for the most part, constructed in this post-war period and are now in need of significant renewal or replacement. The manner in which these buildings are treated will consider their heritage value.

As the University systematically reduces the intensity of uses for many of these historic buildings to similar levels for which they were originally designed, the decanting of functions from these buildings will require the provision of equivalent replacement space elsewhere.

***Planning Objective 6.2.2***

*Those uses which might diminish the heritage or aesthetic value of significant buildings, or that have an intensity of use that would lead to the deterioration of the building fabric, will be avoided.*

***Planning Objective 6.2.3***

*The creative re-use of existing facilities will be encouraged where such re-use allows for the preservation of heritage value. Furthermore, the alteration of structures may be seen as an opportunity to improve these facilities and to ensure their continued use.*

***Planning Objective 6.2.4***

*Where appropriate, the demolition of existing facilities or portions of these buildings will be undertaken as a method for improving the University's building stock, increasing land utilization and enhancing landscapes and buildings.*

***Maintenance***

Maintenance of heritage buildings and landscapes will be carried out in a manner appropriate to their original intent in order to ensure that their value is preserved.

## 6.3 Funding

Actively work to increase funding from a range of sources for historic buildings and landscapes.

The configuration, scale, infrastructure and finishes of historic buildings do not typically lend themselves to space utilization standards of current space entitlement formulae. Similarly, the allocation of capital funding for building adaptation and rehabilitation does not fully account for the special circumstances and inherent maintenance costs of historic buildings.

In addition to pressing its case for the need to modify the basis of space entitlement related to older buildings, the University will include the special funding required for the rehabilitation of significant historic buildings and landscape features in its capital campaign.

## 7.0 Facilities and Infrastructure

Support the achievement of excellence through the provision of facilities and infrastructure.

The University's commitment to provide facilities of an appropriately high standard will be demonstrated implicitly in the manner through which it plans, constructs, maintains and occupies its buildings. In meeting this commitment, the University will support current and future needs while conserving and building upon the strengths of the University's existing built heritage.

The responsibility the University bears in relation to its existing buildings must, however, be balanced with its Academic Mission. In those instances where the University's facilities, landscapes and infrastructure do not meet the needs of the University's Academic mission, change will occur through careful consideration and due regard for this patrimony. Furthermore, redevelopment projects and new facilities constructed by the University will be planned, designed and constructed at a consistently high standard, in expectation that they will become part of this patrimony.

The provision of appropriate facilities are addressed through the following principles:

### 7.1 Renewal of Existing Facilities

Renew or replace out-dated existing buildings and infrastructure.

McGill University maintains a large stock of facilities, of which over two thirds were constructed prior to 1965. Given the University's limited growth projection and the lack of funds available for new construction, it is clear that a significant share of McGill's capital will be devoted to the continuing use of existing facilities.

As discussed in the Principles regarding heritage buildings, there is a high value placed on much of the existing building stock and many reasons identified for the good care and continued use of these buildings. However, as demonstrated through the Space Audits and other Planning Base documents, there are many instances in which existing facilities and infrastructure do not meet current or anticipated needs, and alternative locations within the campus building stock cannot be found to accommodate necessary programmes. In many instances, although funding formulae indicate acceptable available space, such assessments do not necessarily evaluate the quality or the configuration of the space as appropriate to function. Thus there are instances where the quantity of

space established by entitlement formulae is an inadequate means of evaluating the effectiveness of the allocated space. Renewed or replacement facilities are required.

The University will plan for the renewal of existing facilities and the construction of replacement facilities where current facilities and infrastructure are not suited to the demands of current use.

#### ***Planning Objective 7.1.1***

*In those instances where current accommodations do not satisfy space and infrastructure requirements, feasibility studies will be undertaken to identify appropriate best-use scenarios for the up-grading, redevelopment or replacement of existing facilities and infrastructure. Preference will be given, wherever feasible and economical, for the reuse or redevelopment of existing facilities as opposed to their replacement.*

## **7.2 Reallocation of Space**

In conjunction with the renewal or replacement of existing facilities, give consideration to the reallocation of space in order to make best use of University facilities and infrastructure.

Throughout the course of the Physical Master Planning process, there has been much discussion of the reallocation of space in order to find the best programme fit for existing facilities. This fit can be measured in many ways. While the most straightforward assessment of occupant needs for available space is through the review of space quantity (actual space vs. entitled space under current funding formulas), as was the primary measure of the Space Audit process, there are additional qualitative factors which have considerable impact on the appropriate fit of occupant needs with available space. These qualitative aspects include the configuration of space (as set by floor plate dimensions, interior partitioning or clear floor-to-ceiling heights, etc.), the provision of adequate mechanical and electrical infrastructure, access, adjacencies and potential for future expansion or change. While the quantitative assessment may be adequate for some University programmes, the space may, in many instances, be rendered entirely inappropriate when configurations, infrastructure and location factors are given equal weight in assessing the appropriateness of space provisions.

Through the assessment of ongoing space requirements and the planning for renewed or replacement facilities, the University will consider the concurrent opportunities to be gained by the reallocation of existing space from one function, faculty or unit to another. Recommendations will be made regarding

the long-term highest and best use of principal McGill buildings.

### 7.3 Construction of New Facilities

When it has been determined that existing facilities cannot meet the standards and capacity required of current or anticipated programmes, construct new facilities.

As has been made clear through the Academic Strategic Plan and the Space Audits, additional built area will be required to address both the current space shortfalls, and to accommodate the future growth anticipated by the University Administration and Faculties. The first stage in establishing the need for new facilities should be a feasibility study of reuse or alteration of existing facilities. Once it is established that additional facilities are required, their development should follow the approach outlined in the Master Plan.

The construction of temporary facilities is discouraged, as short-term arrangements can often become permanent and typically provide inadequate long-term accommodation.

### 7.4 Space Utilization

Improve space utilization at all campus locations.

In an effort to make best use of resources across the University's campuses, the University will consider new strategies to make best use of existing space.

These include the following approaches:

- Establish of university-wide, rather than faculty or departmental space management, to ensure coordinated and efficient use of available space and facilities and to avoid unnecessary duplication. An example of this is the University's current work to develop a central registry for classroom space.
- Reorganize and refurbish existing facilities to optimize their use.
- Consider potential shared developments between departments or faculties.
- Relocate programmes, as described elsewhere in the Planning and Design Principles.
- Improve the symbiosis between research and teaching, thereby combining or sharing facilities wherever possible.
- Review the provisions for research centres, institutes and joint programmes to ascertain that facilities are not unnecessarily duplicated within the home facilities of various partners.

- Consider demolition and replacement of existing facilities to achieve more intensive land use.

It is assumed that changes to existing spaces, whether through renovation or reallocation, will require the provision of temporary accommodation. Given that teaching and research programmes cannot be shut down for any significant period of time, redevelopment or construction proposals will include the identification or the provision of temporary on or off site swing space, staged construction of new or renovated facilities on site, or the relocation of programmes from the downtown campus to the Macdonald or MUHC Glen campus sites.

A notable instance in which space utilization can be improved occurs on the Macdonald campus. Through longterm growth, an appropriate balance will be achieved between the size of the student population at this campus and provision of the necessary complement of shared student services and amenities.

## 7.5 Building Standards: Quality, Permanence, and Economy

Commit to high quality, permanence and life-cycle economy in building and site development design, construction, maintenance and renewal.

The University will adopt sustainable building principles and environmental practices to ensure a high standard and extended lifespan for all capital projects, and plan for appropriate funding to achieve these goals. The University will consistently support a high quality of buildings and infrastructure, and will lobby funding agencies to adopt the philosophy that cost factors will be measured against the full life-cycle costs of a building or landscape, as well as the initial construction expenditures. This implies a three-part commitment: first to high quality design, construction, and maintenance; second to the eventual replacement of temporary facilities; and third to the planned renewal of ageing and inadequate facilities.

Appropriate benchmarks for new construction will be identified as well as guidelines for the appropriate care and use of existing structures. In addition to the principles of the Master Plan, the University will adopt a standard such as the LEED programme in order to establish a consistent measure for the design, construction and performance of its facilities. Standards for the continued operation and maintenance of facilities will also be developed.

These expectations will be matched with appropriate funding in order to ensure that a high standard of construction can be achieved and facilities are

appropriately maintained. The University will initiate a comprehensive review of funding as it relates to the construction, operation and use of its facilities and infrastructure to reconcile the University's mission with these commitments. The University will actively encourage the government to adjust funding formulas to encourage rather than discourage life cycle costing, and to include operational commitments with capital grants.

***Planning Objective 7.5.1***

*Capital project design decisions will be based on life cycle as well as initial capital costs.*

***Planning Objective 7.5.2***

*New buildings will be designed for a minimum anticipated lifespan of 50 years. An extended lifespan in excess of 50 years is recommended for building envelope components.*

***Planning Objective 7.5.3***

*New buildings will be designed to meet the benchmarks for sustainable construction and occupancy performance identified by the University as its standard.*

## 7.6 Energy Conservation and Waste Efficiency

Implement environmentally responsible practices and build and renew buildings, infrastructure and landscape in a manner that is land, energy, resource and waste efficient.

Although many of the principles previously stated deal with aspects of sustainability, the following specifically address environmentally sensitive physical development and opportunities for McGill campuses to promote energy conservation and efficient waste management.

***Planning Objective 7.6.1***

*The design and development of new building and landscape projects, redevelopment of existing facilities, and maintenance and operation of these facilities will be based on the following principles of sustainable building and environmental practices: high energy and water efficiency, the conservation of natural resources, a reduction in the production of waste and the release of substances harmful to the biosphere, and the creation of healthy environments.*

***Planning Objective 7.6.2***

*The service systems and maintenance requirements of new buildings will*

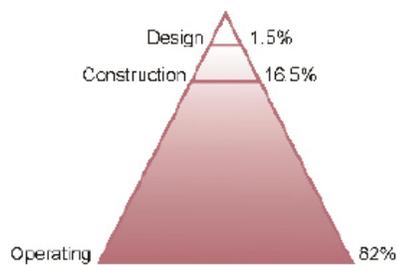
*be designed to fit within a rationalized system of campus building and site service infrastructure. This objective will not preclude the consideration and application of new and alternative service technologies.*

***Planning Objective 7.6.3***

*When upgrading and replacing the central plant or planning services for new facilities which are remote from the central plant, alternative systems such as biomass and geothermal energy sources will be actively explored.*

***Planning Objectives 7.6.4***

*For new development, the University will consider alternative methods for wastewater treatment, such as solar aquatic ecosystems that can ecologically treat waste water in an attractive greenhouse environment.*



*Typical Building Costs over a 35 year life cycle: The smaller earlier costs greatly influence larger, later costs.  
Source: Consulting Engineers of British Columbia*

## 8.0 Campus Accessibility

Improve the access both to and within the campuses.

Balancing the needs of commuters - students, faculty, staff and visitors, together with servicing a campus and ensuring safe and convenient access for pedestrians on campus, is a significant challenge for the University. With constant population fluctuations and peak demand periods for movement of pedestrians, bicycles and vehicles to and from, as well as throughout its campuses, the University must meet the demands for accessibility in a manner that also reinforces the distinct form and identity of each campus.

### 8.1 Transportation Emphasis

Use transportation demand management strategies to reduce demand for parking and the need for single occupancy vehicles by promoting a range of viable commuting alternatives, including public transit, bicycling, walking, and carpooling.

Transportation Demand Management (TDM) is a general term for strategies that result in more efficient use of transportation resources. Responding to conditions specific to each campus, TDM will improve access to a range of viable alternative modes of transportation for commuting to and from the University campuses. Some of the strategies used to promote alternatives include:

- Working with authorities to improve transit links to both the Downtown and Macdonald campus - connecting the Downtown campus to the metro via underground links and improving transit service to Macdonald campus in general;
- Working with authorities to improve safety and comfort of transit waiting areas;
- Planning Macdonald campus development to incorporate future light rail transit stop;
- Negotiating with transit authorities to encourage affordable transit passes for students, faculty and staff;
- Providing an adequate amount of secure bicycle storage on campus and other facilities to encourage cycling;
- Providing a safe, integrated and well-maintained pedestrian environment on campus;
- Providing limited parking on campus, available at market rates;

- Establishing a car-pooling program with parking at reduced rates for users.

## 8.2 Pedestrian Network

Give priority to pedestrians by improving and expanding pedestrian networks and limiting vehicular access to the campuses.

The pedestrian realm will be enhanced through the implementation of projects that expand the network of pedestrian paths, indoor and out, particularly along level east-west contours, restricting vehicular traffic on routes that primarily serve pedestrians, and providing more convenient and safe pedestrian access between campus sectors, through buildings and at street crossings. Pedestrian routes will be easily used throughout the year and be designed to promote social interaction.

### *Downtown*

Projects will be undertaken across the downtown campus to provide additional pedestrian paths, calm or limit traffic and improve existing pedestrian walks. Through collaboration with municipal authorities, similar improvements may be achieved on urban streets.

The creation of improved pedestrian routes within the McGill campus will also help to improve public access from the campus and the downtown core to Mount Royal.

### *Macdonald*

A distinctive armature of pedestrian routes will be developed that is adaptable to incremental growth while having a sense of completion at each stage, addresses the need to separate pedestrian and vehicular traffic, links campus buildings and outdoor landscape spaces (particularly along the lakefront), and provides better continuity in pedestrian routes.

#### *Planning Objective 8.2.1*

*Pedestrian and vehicular routes will be separated where possible, with predominant emphasis placed on convenient routing of pedestrian paths. Pedestrian and vehicular routes will be separated by the use of landscape strips between the roads and walks or the use of low bollards and unit pavers on the walkway. Where pedestrian paths and roads intersect, raised crosswalks and textured paving will be incorporated to improve the safety of pedestrians.*

#### *Planning Objective 8.2.2*

*To maintain the rural character of the Macdonald campus, the use of curbs*

and sidewalks as a means of separating pedestrian and vehicle traffic will be avoided.

### **Interior Circulation**

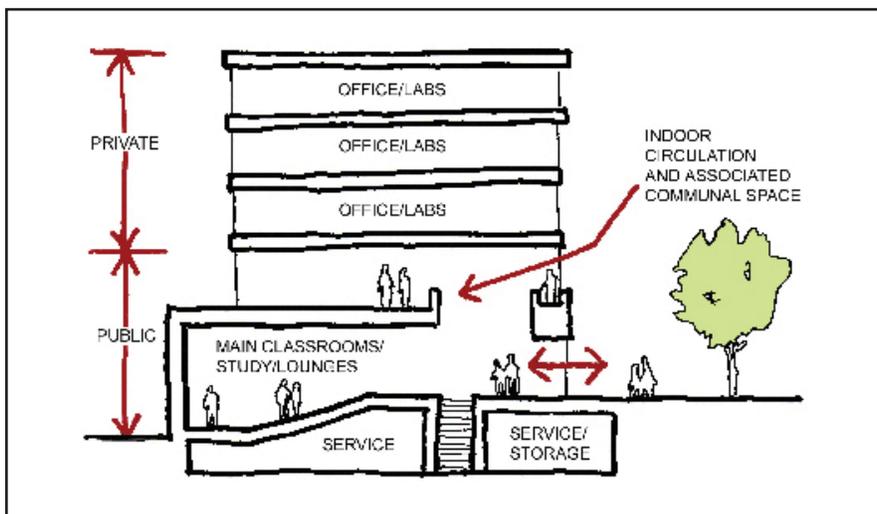
The outdoor network of pedestrian paths will be integrated with a system of indoor paths linking major buildings and reinforcing the overall pedestrian network on campus. Indoor connections will also be used to address significant grade changes in order to facilitate barrier-free access for students, faculty, staff and visitors throughout the campus. The following objectives are proposed as means of strengthening the network of indoor pedestrian routes:

#### **Planning Objective 8.2.3**

*Buildings will be designed with spacious indoor routes that are integrated with and complement the outdoor pedestrian network. Communal spaces such as lounges, meeting rooms, classroom vestibules, and meeting places will be incorporated within the network. Corridors will be broad enough to sufficiently accommodate pedestrian traffic and will have widened “nodes” where corridors intersect or jog, to create places for informal meeting.*

#### **Planning Objective 8.2.4**

*To maximize and consolidate the heavily used communal functions, new academic buildings will be organized with study spaces and classrooms, informal meeting and social spaces, food services, etcetera located on the floors linked by a primary indoor pedestrian circulation network at ground level or immediately above. More private, less intensively used departmental*



*Ideal campus building organization of "private" constituent space and "public" communal space*

*spaces, office and labs will be generally located at upper levels.*

***Planning Objective 8.2.5***

*The main circulation and related communal facilities in each building will be linked with those of other buildings by accessible physical links (either covered or enclosed). Such links will be configured as clear extensions of the common circulation routes within adjacent facilities to engender greater social contact and to establish a continuity of indoor as well as outdoor pedestrian movement throughout the campus.*

***Planning Objective 8.2.6***

*Major building entries will be located along primary and secondary exterior walkways. Where buildings are located adjacent to public streets and sidewalks, principle entrances will provide direct access to these routes.*

### 8.3 Vehicular Circulation

Reconfigure campus vehicular circulation systems to give priority to pedestrians and reduce pedestrian/vehicular conflicts.

***Downtown***

Vehicular traffic on the lower campus will be limited to service, emergency, and vehicles providing transportation for disabled persons; existing roads will be optimized for pedestrian use. Limiting vehicle access will allow the campus to develop a more cohesive and better articulated network of pedestrian links within the campus, reinforcing the University's campus identity within the city's urban core. This has already been effectively implemented with the development of Tomlinson Square.

***Macdonald***

In order to discourage public through-campus traffic, road configurations at the Macdonald campus will be modified to give priority to pedestrians on campus, thereby reducing conflicts between pedestrians and vehicles.

### 8.4 Service and Emergency Vehicles

Service and emergency vehicles should use streets and drives where possible. Develop shared pedestrian/service routes where street access is unavailable and mitigate the negative visual impact of service areas.

#### ***Planning Objective 8.4.1***

*Where service or emergency access occurs in a heavily travelled pedestrian area, the pedestrian will be given priority by converting the route into a shared pedestrian/service route. Shared routes will be designed with minimum widths necessary for vehicles, but paved in materials appropriate for pedestrian traffic.*

#### ***Planning Objective 8.4.2***

*Campus buildings with street frontage will be serviced from the street or by means of short driveways, in a manner that gives priority to pedestrian movement along sidewalks.*

### **8.5 Cycling**

Encourage commuting to the campuses by bicycle without compromising pedestrian safety.

#### ***Downtown***

While there is strong support for promoting bicycle commuting as a healthy and environmentally sustainable method of transportation, there are concerns regarding pedestrian safety in relation to cyclists on the lower campus. In order to encourage a pedestrian-oriented lower campus, alternative recommended cycle routes and bicycle traffic-calming measures will be considered, in collaboration with City authorities.

#### ***Macdonald***

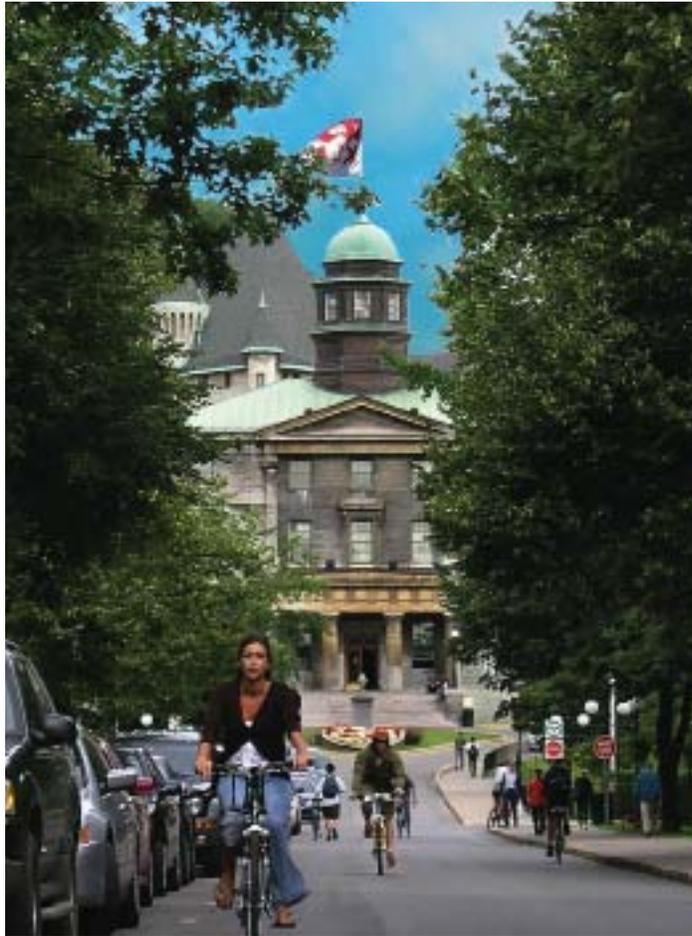
The Macdonald campus is of a scale that commuting to and across the campus by bicycle should be encouraged.

#### ***Planning Objective 8.5.1***

*In order to encourage bicycle commuting, the University will provide ample, safe, sheltered, and well-lit bicycle parking adjacent to all campus facilities, ideally located within 15m of main building entrances. Primary bicycle parking areas will also be provided adjacent to main entrances to the interior circulation network.*

#### ***Planning Objective 8.5.2***

*Provision of shower and locker rooms that are central, accessible, and convenient to cyclists, will make commuting to campus by bicycle a more viable alternative.*



*Shared pedestrian, bicycle and cars traffic on the Downtown Campus*

## 8.6 Transit

Encourage commuting to the campus by public transit.

The University will work in collaboration with Municipal and other jurisdictional authorities to consider projects that improve campus access to public transit and enhance its use.

Improving access to public transit on campus will make it a viable alternative to the use of private vehicles, reducing automobile dependency and congestion while contributing to a more healthy environment for all. Improved public transit will also be of great benefit in the long term, creating opportunities for establishing or expanding programmes at the MUHC Glen or Macdonald sites.

## 8.7 Parking

Provide the minimum amount of parking required and reduce the visual and the negative environmental impact of parking areas.

As part of the University's TDM strategy to reduce parking demand, market rates will be charged for parking on campus. The University will also work to improve and support alternative forms of transportation including car-pooling. A ride-matching program will be established and reduced rates and priority spaces will be provided for users. Additionally, considerations will be given to allocating parking passes based on need, particularly for the disabled.

The University will also consider proposals to reduce the extent of parking available on campus, or alternatively work with Municipal authorities to reduce minimum parking requirements for sites which are well-served by public transit.

### ***Macdonald***

Due to the location of the Macdonald campus and its limited public transit service, car-pooling is likely to be the most successful method of reducing single-occupant vehicles on campus in the short term. As the campus develops, the supply of parking per person may be reduced based on the assumption that, in the long term there will be improved public transit and reduced dependency on the private automobile. Measures will be encouraged whereby parking spaces are efficiently used, and the negative visual and ecological impact of parking is reduced.

### ***Planning Objective 8.7.1***

*For improved storm water management in parking areas, bioswales and/or pervious parking surfaces will be used as an alternative to asphalt.*

### ***Planning Objective 8.7.2***

*Barrier free parking will be provided close to accessible building entrances, with vehicle access integrated with the pedestrian system in the central campus areas.*

## 8.8 Orientation and Wayfinding

Enhance orientation and wayfinding and provide a clear destination for visitors.

The orientation of drivers and pedestrians on campus can be greatly improved by simplifying the road network and clearly defining the pedestrian areas using coordinated paving materials and orienting buildings toward streets, drives and primary walks. The most basic element, however, that ties together a campus consisting of buildings of various architectural styles and periods, and of disparate landscapes, is consistent signage. The downtown campus is approached primarily on foot, whereas the Macdonald campus is approached typically by vehicle. The orientation and wayfinding system will support multiple means of approach, including public transit, bicycle, private vehicles and service or emergency transport.

Consistent signage and wayfinding will conform to a University-wide policy that respects and preserves the campus' visual identity. Where signs are provided, the following guidelines will be adhered to:

***Planning Objective 8.8.1***

*The names of buildings will be clearly presented and associated with building approaches, entrances and lobbies. Interior directories will be provided at these areas.*

***Planning Objective 8.8.2***

*Signage and lighting systems will be coordinated to ensure adequate orientation after dark.*

## **8.9 Barrier-Free Campuses**

Give high priority to developing barrier-free access to all parts of the University. Provide special services to people with disabilities in locations where universal access has not yet been achieved.

There is a strong correlation between the achievement of a barrier free environment and meeting other planning and design objectives. For instance, a physically compact campus that fosters collegial contacts and interactions will also compress distances between facilities – distances that might otherwise be magnified for people with disabilities. Similarly, a clearly organized spatial structure with commodious outdoor and interior pedestrian routes will facilitate circulation and orientation for all members of the University.

***Downtown***

The dramatic topography of the downtown campus presents significant challenges for achieving universal accessibility. Many of the north-south city streets, for instance, have slopes that far exceed accepted wheelchair accessibility standards.

***Planning Objective 8.9.1***

*Emphasis will be placed on the development and improvement of east-west outdoor pathways, which generally follow the contours of the site.*

***Planning Objective 8.9.2***

*A fully accessible network can only be achieved through the careful integration of accessible outdoor routes with the accessible interior circulation of connected buildings. Significant vertical changes will be accommodated by linking outdoor routes with interior building elevators and/ or escalators.*

***Planning Objective 8.9.3***

*Accessible outdoor routes will be integrated with indoor below-grade or above-grade connections to be developed, in the long-term, across the main city streets – Sherbrooke, Doctor Penfield and Pine – to connect the three sectors of the campus and the Metro stations.*

***Planning Objective 8.9.4***

*Assessments will be undertaken of each historic building to establish an appropriate balance between potential building use, feasibility of adaptation for barrier-free access, and architectural and heritage integrity.*

***Planning Objective 8.9.5***

*To aid mobility under icy conditions, handrails will be provided on steep sidewalks.*

***Planning Objective 8.9.6***

*Exterior lighting, signage, and walkway surfaces will be designed to incorporate the needs of the visually impaired.*

***Planning Objective 8.9.7***

*Building and landscape entrances will be clearly visible, and set at floor levels which avoid the need for ramps at building entrances and drop-off areas will be visible from entrances and located at close proximity to building entrances.*

***Planning Objective 8.9.8***

*To further assist way finding, interior and exterior barrier free routes will be identified.*

## **8.10 Campus Safety**

Design and manage buildings, landscapes, and lighting to promote personal safety.

Personal safety should be considered at the planning and design stages of all new development. The development of a campus that is both safe and perceived to be safe for all users, and especially for women, must be given a high priority for all projects on campus. A safe campus will be used by more people and over longer periods of time, enhancing the vitality of the University and extending the effective utilization of facilities. Improvements to the public realm will encourage people to use it, creating a more animated and safe campus, particularly at night.

A well-defined spatial structure with a legible hierarchy of clearly identified routes and spaces provides users with the orientation necessary to move through the campus with greater comfort, day or night.

***Planning Objective 8.10.1***

*Building design will promote “eyes on the street” – i.e. natural surveillance of outdoor spaces, particularly pedestrian paths. As new buildings are constructed or existing facilities redeveloped, a high degree of perimeter transparency will be provided, particularly at grade level, in order to improve visibility of adjacent pedestrian paths and common areas.*

***Planning Objective 8.10.2***

*Lighting and planting will promote visibility and clear sight lines, both day and night. High, dense plantings should be set back from buildings, walkways, and parking lots.*

***Planning Objective 8.10.3***

*Visible emergency telephones and other means of alert will continue to be distributed throughout the campus.*

## 9.0 Landscape Design

Develop and maintain the landscape open spaces of the campus: to reveal and strengthen the special and identifying qualities of the University's places; to tie together the various parts of the campus, both physically and thematically; to provide safer, more useable and more beautiful campus spaces; and to follow exemplary standards of environmental sustainability at the stage of implementation and in the continued operations and management.

The development and care of the unique landscapes of the McGill campuses offer exceptional opportunities to support and promote the University's role and public identity within the city, to enhance the use of its campuses, and to provide cohesion to the diverse areas and functions of each campus.

The role of the designed landscape in giving shape, order and connectivity to the outdoor spaces in conjunction with the buildings, is referred to in section 3.0 The principles and strategies, below, deal with other dimensions of the design and stewardship of the “hard” and “soft” landscape spaces of both campuses, within the broad framework of the principle above:

### 9.1 Planting

Major planting will be deployed to reinforce a legible spatial structure of the campuses, to moderate the micro-climate, to increase the bio-mass, and to support other environmental objectives.

#### ***Downtown***

The downtown campus has several types of open spaces: There is the open parkland of the lower campus; the fields of the City's McTavish Reservoir; the urban streets and walkways together with small plaza and forecourt spaces; gardens associated with buildings; and the naturalized wooded areas on the steeper slopes, adjacent to Mount Royal. Each type of open space will be more clearly articulated spatially, and connected to the others, through the introduction and replacement of major tree plantings.

#### ***Planning Objective 9.1.1***

*Native, deciduous, canopy trees will be the principal planted means of shaping and framing the campus spaces and circulation routes. Mixed, naturalized plantings will be encouraged on the more steeply sloped and shaded sites*

*adjoining the mountain. Higher maintenance, decorative and seasonal plantings will be limited to special places and the smaller, more intimate garden areas directly associated with buildings.*

### ***Macdonald***

Macdonald campus, with its academic and research focus on agricultural and environmental sciences, and its rural, lakeside setting, will set an example of environmentally responsible landscape design and management practices.

In the central, built-up core of the campus, a planting design approach similar to that of the urban downtown campus will apply to Macdonald.

### ***Planning Objective 9.1.2***

*On the waterfront and in the peripheral areas, outside the sports fields and the cultivated research plots, emphasis will be placed on re-naturalizing the site. This will include a phased reduction in the area of high-maintenance turf grasses and replacement with native grasses and associated grassland species; reforestation with native trees and shrubs and the encouragement of natural succession in selected areas, including areas of the lakefront. Large areas of surface parking will be subdivided by planted areas that double as storm water retention and filtration drainage ways.*

## **9.2 A Landscape Design Palette**

Design and select a palette of high quality, landscape construction materials, design details and furnishings for both campuses that references the local traditions and settings of each campus and has a common association with McGill University.

### ***Downtown***

Much of the open space of the downtown campus is a part of, or interconnected with the City's public realm, and McGill's landscape design palette must necessarily be compatible with city standards. In addition there are many remaining elements of the earlier, mostly residential landscapes, which establish a strong basis for modern interpretation. Most notable, are the dressed stone walls, the cast and wrought-iron railings and gates, lighting standards and other remnants associated with the mansions and the city boundaries of the lower campus.

The tradition of building to last with strong, highly durable, and well-crafted materials characterizes the early buildings and landscape constructions of McGill's downtown campus, Mount Royal, and the neighbouring areas. This

tradition will provide the basis for the present day landscape improvements of the downtown campus.

### ***Macdonald***

The Macdonald campus has its own legacies and local models, stemming from the rural vernacular and, most notably, from the architectural consistencies of the original College complex. A harmonized system of McGill outdoor furniture, fittings and landscape materials applied across the McGill campus will necessarily reflect these design influences while helping to establish a stronger independent identity.

A similar approach and material palette to the downtown campus will apply to the core of the Macdonald campus, modified where appropriate, to reference the rural construction traditions of the area. Outside the built-up area of the campus; roads, driveways and paths will be integrated with the rural and agricultural or re-naturalized settings.

### ***Paving Materials and Surfaces***

Carefully integrated with the landscape, elements of the design palette develop visual and physical connections between spaces, punctuate entrances and create opportunities for animating the public realm. Surfaces and paving materials become tools for developing a language for orientation and wayfinding, distinguishing pedestrian zones from vehicular zones and communicating hierarchies where these zones intersect.

#### ***Planning Objective 9.2.1***

*A consistent and limited range of construction materials and details will be selected and developed for the paving, retaining walls, curbs, stairs, ramps and other elements of the “floorscape” of both campuses. The emphasis will be on long-life, natural materials that age graciously without high levels of maintenance.*

#### ***Planning Objective 9.2.2***

*All pedestrian areas will be designed and constructed to accommodate vehicles and to facilitate maintenance access and snow clearing. Designated pedestrian areas and walkways will be designed to accommodate occasional use by heavy emergency vehicles and equipment.*

#### ***Planning Objective 9.2.3***

*Where barrier free parking and access are located on pedestrian routes, they will be treated as part of the pedestrian surfaces.*

### ***Outdoor Furniture and Fittings***

There are practical needs for an array of site furnishings and fittings – such elements as shelters, bicycle racks, seating, information kiosks, newspaper boxes, waste receptacles, bollards, fencing, and poles or standards for signs and lighting. Too often, in urban and institutional settings, there is little or no design or siting coordination of these elements; they tend to accumulate incrementally, each may be installed in response to a specific or independent need or problem, and the result is visual clutter and confusion.

#### ***Planning Objective 9.2.4***

*McGill will adopt a coordinated approach to the design of a harmonized and robust “family” of site furniture and fittings as a means of improving the commodity of its outdoor spaces and further reinforcing a sense of commonality and cohesion between one part of the University and another.*

#### ***Planning Objective 9.2.5***

*The same family of furniture, fittings and textures, with some local variations, will be installed on the Downtown and Macdonald campuses as well as other University sites.*

## **9.3 Outdoor Lighting**

Design exterior lighting to promote night-time safety and comfort; to demarcate principal pathway routes; and to subtly illuminate spaces of social or architectural significance.

Much like the paving materials and campus furnishings described as the landscape design palette, lighting is a tool for unifying the campus; distinguishing one area from another; setting the tone; and particularly at night, orchestrating a sophisticated system for safe pedestrian and vehicular movement throughout the campus. The following objectives outline more specifically the ways in which outdoor lighting may address issues of safety and comfort in ways that also reinforce the campus identities.

#### ***Planning Objective 9.3.1***

*Evenly distributed, relatively low-intensity lighting will be provided in areas of the campuses that are occupied or traversed at night, with graduated transitions in lighting levels between buildings, roads, walkways and open spaces. All building entrances, alcoves or “dark corners” will be softly but clearly lit. High-illumination sources, widely spaced apart, which create lighting “hot-spots” and contrasting deep shadows, will be avoided.*

### ***Planning Objective 9.3.2***

*In order to minimize light pollution, lighting fixtures will be designed to direct the light only to where it is required.*

### ***Planning Objective 9.3.3***

*In order to reinforce the sense of connectedness between different parts of the campus, the lighting colour and intensity will be coordinated throughout the campuses. Downtown, the campus lighting will be designed in collaboration with the City, to ensure a consistent approach to the lighting of public streets and the University's driveways and pathways.*

## **9.4 Storm Water Management**

Design in-ground and rooftop landscapes to optimize the management of storm water.

Considerable environmental benefit may be derived through both the reduction of storm water leaving the campuses and the improvement of storm water quality.

### ***Planning Objective 9.4.1***

*The following methods of moderating run-off rates and maintaining high qualitative standards of the water discharged into the municipal storm sewer system or Lac Saint Louis, will be explored and incorporated wherever appropriate, in all building, infrastructure and landscape development and rehabilitation projects:*

- At-source storm water management and rainwater recycling measures in all new major building developments.
- On-site filtering and bio-treatment of storm water through bio-swales, infiltration ponds or sub-surface storage and other means.
- Green-roofs and/ or rooftop rainwater storage systems.
- Replacement of impervious paving materials and use of pervious unit-pavers or porous homogeneous paving on surface parking lots, service yards and pedestrian areas.
- Replacement of surface parking lots with below-grade parking under buildings or under landscaped open spaces, particularly on the downtown campus.
- On-site storage of rainwater for use in landscape irrigation.
- Review of winter maintenance programmes to minimize use of sand and de-icing chemicals

## 9.5 Commemoration and Public Art

Reveal the activities, values and history of McGill through the naming of places and artifacts, and through commemorations and works of art that are integrated with their associated settings.

Cultural artifacts, displays, and public art acquire energy and relevance when they are associated with important public places. In return, they reinforce the identity and meaning of those places.

### ***Planning Objective 9.5.1***

*The cultural life, valued people and the history of the University will be celebrated through the dedication of artifacts, architectural features, public art works and other commemorative means. To be most effective, both as a meaningful commemoration and as a contributor to the greater quality and cohesiveness of the campus, a commemorative artifact should be integral with and mutually supportive of its setting and context.*

### ***Planning Objective 9.5.2***

*Primary walkways, primary and secondary streets, and landscaped spaces with fronting buildings will be identified with names that are tied to the University's heritage, culture and setting. By identifying named places with signs, the spaces become more recognizable and wayfinding may be improved.*



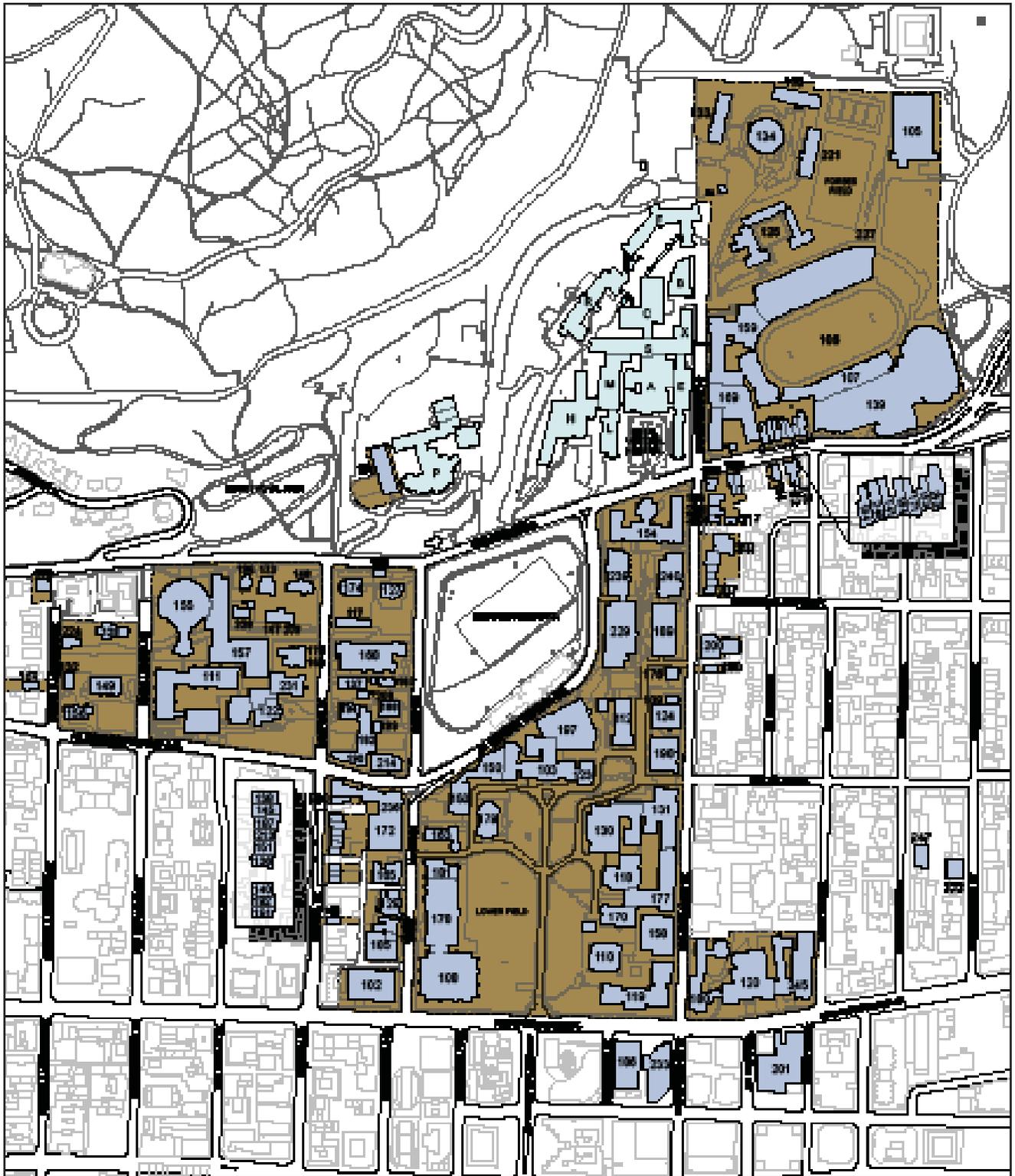
*Memorial sculpture at Hosmer House, Downtown Campus*



## PLANNING AND DESIGN PRINCIPLES

## Downtown Campus

101	PINS, 1033	170	MACDONALD STEWART LIBRARY BUILDING
102	BRONFMAN BUILDING	171	PINS, 509
103	ARTS BUILDING	172	UNIVERSITY CENTER
103	MOYSE HALL	173	CHARLES MEREDITH HOUSE
104	MCTAVISH, 3438	174	PURVIS HALL
105	MCCONNELL WINTER STADIUM	175	PEEL, 3690
107	FIELDHOUSE	176	UNIVERSITY, 3550
106	MOLSON STADIUM	177	ADAMS BUILDING
108	MCLENNAN LIBRARY BUILDING	178	REDPATH LIBRARY BUILDING
109	UNIVERSITY, 3534	179	REDPATH MUSEUM
110	BURNSIDE HALL	180	ROYAL VICTORIA COLLEGE
111	STEWART BIOLOGY BUILDING	181	REDPATH HALL
112	JAMES ADMINISTRATION BUILDING	182	POWELL STUDENT SERVICES BUILDING
112	JAMES ANNEX	183	SAINT-URBAIN, 3626
113	BEATTY HALL	184	PINS, 515
114	MCTAVISH, 3434	185	BOOKSTORE
116	MOLSON HALL	186	MCCORD MUSEUM
117	PEEL, 3715	187	PEEL, 3487
118	MACDONALD-HARRINGTON BUILDING	188	THOMSON HOUSE
119	MAASS CHEMISTRY BUILDING	189	RUTHERFORD PHYSICS BUILDING
120	STRATHCONA MUSIC BUILDING	190	PENFIELD, 1085
120	POLLOCK HALL	191	PEEL, 3459
122	CHANCELLOR DAY HALL	192	PEEL, 3463
123	DAWSON HALL	193	UNIVERSITY, 3653 (INVEST.)
124	BIRKS HALL	194	PEEL, 3647
125	DOUGLAS HALL	197	FERRIER BUILDING
127	DUGGAN HOUSE	196	PINS, 1140
128	DAVIS HOUSE	198	WILSON HALL
129	FACULTY CLUB	199	THOMSON HOUSE ANNEX (INVEST.)
130	MACDONALD ENGINEERING BUILDING	200	UNIVERSITY, 3575 (INVEST.)
131	MCCONNELL ENGINEERING BUILDING	201	SHERBROOKE, 550 (RENTED)
132	HOSMER HOUSE ANNEX	202	UNIVERSITY, 3605,09,15,19&21 (INVEST.)
133	GARDNER HALL	203	MONTREAL GENERAL HOSPITAL (CEDAR AVENUE)
134	BISHOP MOUNTAIN HALL	205	UNIVERSITY, 3559
135	MCTAVISH, 3430	208	PEEL, 3661A (INVEST.)
136	PEEL, 3475	209	PEEL, 3704 (INVEST.)
137	PEEL, 3661	210	UNIVERSITY, 2020
138	PEEL, 3495	211	PEEL, 3710 (INVEST.)
139	CURRIE GYMNASIUM	213	PEEL, 3483
140	PEEL, 3465	214	MCTAVISH, 3610 (INVEST.)
141	PINS, 517	216	UNIVERSITY, 3641
142	PINS, 510 (INVEST.)	217	UNIVERSITY, 3643 (INVEST.)
143	PEEL, 3437	218	UNIVERSITY, 3647
144	PINS, 522 (INVEST.)	219	PINS, 506 (INVEST.)
145	PEEL, 3491	220	REDPATH STREET PROPERTIES (INVEST.)
146	SOLIN HALL	221	MCCONNELL HALL
147	MEREDITH ANNEX	222	HUTCHISON, 3464 (INVEST.)
148	LADY MEREDITH HOUSE	223	DUGGAN HOUSE (ANNEX)
149	HOSMER HOUSE	224	DAVIS HOUSE ANNEX (INVEST.)
150	LEACOCK BUILDING	227	OBSERVATORY (INVEST.)
152	PEEL, 3511	228	PEEL, 3712/14 (INVEST.)
153	PINS, 505	229	WONG BUILDING
154	STRATHCONA ANATOMY AND DENTISTRY BUILDING	230	PEEL, 3505 (INVEST.)
155	MCINTYRE MEDICAL BUILDING	231	GELBER LAW LIBRARY
156	MOUNTAIN 3605	233	SHERBROOKE, 688
158	PULP & PAPER RESEARCH CENTER	236	BROWN STUNT SERVICES BUILDING
159	MONTREAL NEUROLOGICAL INSTITUTE & HOSPITAL	237	UNIVERSITY, 3601 (INVEST.)
160	UNIVERSITY, 3661 (INVEST.)	239	PENFIELD 740
161	RABINOVITCH HOUSE	240	TROTTIER BUILDING
162	PINS, 546	242	MARTLET HOUSE
163	MORRICE HALL	243	PINS, 501 (INVEST.)
164	PINS, 527	244	NEW RESIDENCE HALL
165	PETERSON HALL	245	NEW MUSIC BUILDING
166	PEEL, 3474	246	PINS, 234
167	HUGESSON HOUSE	247	DUROCHER, 3465
168	EDUCATION BUILDING		
169	DUFF MEDICAL BUILDING		



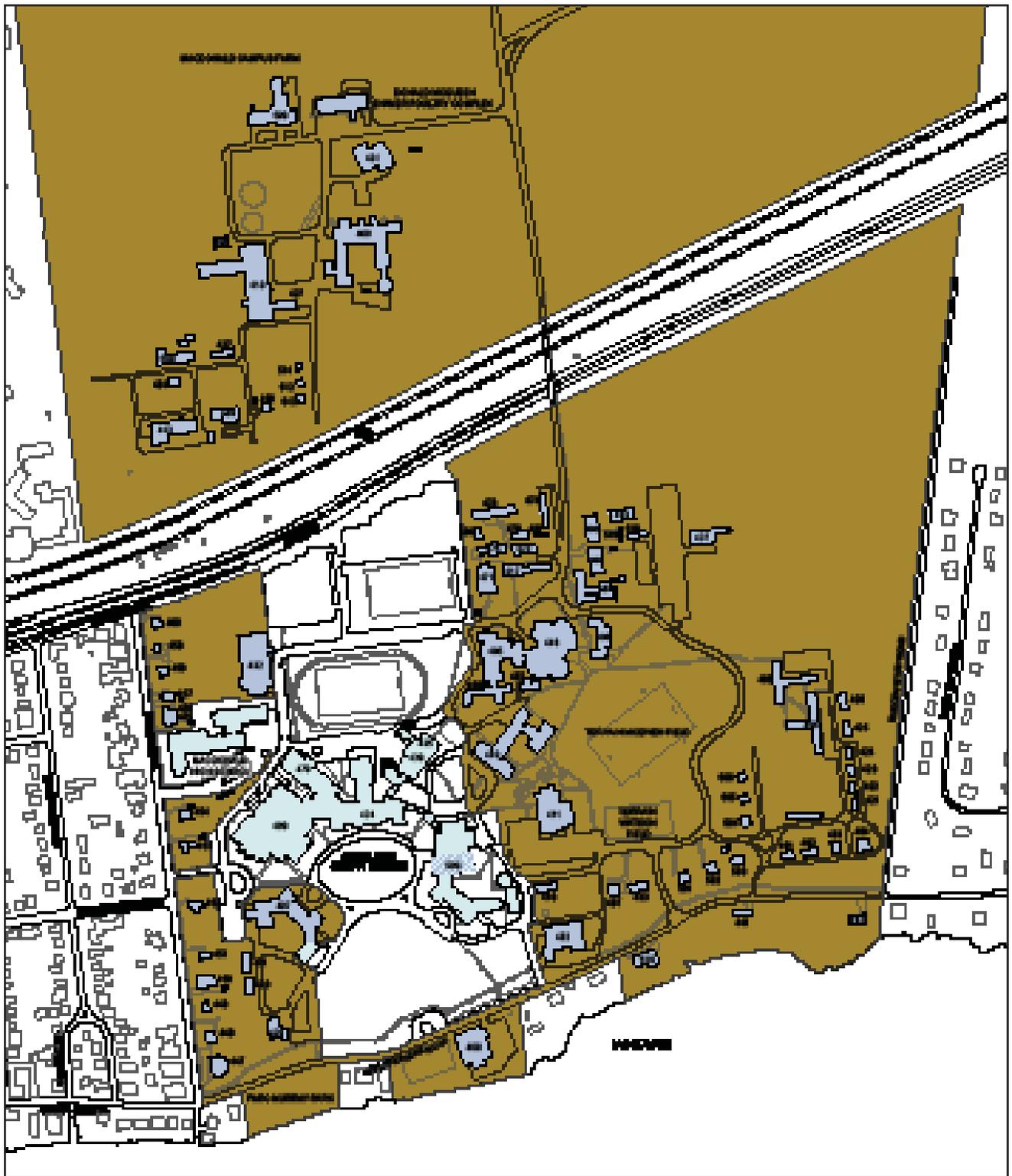
## Macdonald Campus South of Highway 40

400 ANIMAL SHELTER  
401 MACHINERY HALL  
405 BARTON BUILDING  
407 BRITTAI HALL  
408 FACILITIES MANAGEMENT  
409 CATTLE BARN (OLD)  
410 CATTLE COMPLEX  
411 CENTENNIAL CENTRE  
417 C.I.N.E. BUILDING  
418 CLUSTER COTTAGE  
421 EAST COTTAGE 1-2  
422 EAST COTTAGE 3-4  
423 EAST COTTAGE 5-6  
424 EAST COTTAGE 7-8  
425 EAST COTTAGE 9-10  
426 EAST COTTAGE 11-12  
427 FARM CENTRE  
429 GLENALADALE HOUSE  
430 GLENALADALE TERRACE 1-4  
431 GLENALADALE TERRACE 5-8  
432 GLENFINNAN RINK  
433 HARRISON HOUSE  
437 HORTICULTURE SERVICES BUILDING  
440 LAIRD HALL  
441 LAKESHORE 21048  
442 LAKESHORE 20846  
443 LARGE ANIMAL RESEARCH UNIT  
446 MACDONALD STEWART BUILDING  
447 MAPLE AVENUE 1  
448 MAPLE AVENUE 3  
449 MAPLE AVENUE 5  
450 MAPLE AVENUE 7  
451 MAPLE AVENUE 9  
452 MAPLE AVENUE 11  
453 MAPLE AVENUE 13  
454 MAPLE AVENUE 15  
455 MAPLE AVENUE 19  
456 MAPLE AVENUE 21  
457 MAPLE AVENUE 23  
458 MAPLE AVENUE 25  
459 MAPLE AVENUE 27  
460 MAPLE AVENUE 29  
462 FIELD STATION  
464 MUSEUM, FARM  
465 NUTRITION BARN  
466 OLD BARN  
467 PARASITOLOGY BUILDING  
471 PLANT RESEARCH FACILITY  
473 POULTRY BROODER HOUSE  
474 POULTRY COTTAGES

475 POULTRY FATTENING  
478 POULTRY LAYING HOUSE  
479 POULTRY NEW HOUSE  
480 POULTRY SHACK  
481 POULTRY TURKEY HOUSE  
482 POWER HOUSE  
483 AVIAN RESEARCH BARN 1 - WINTERING BARN  
484 AVIAN RESEARCH BARN 2 - MAIN BARN  
485 RAYMOND BUILDING  
486 RAYMOND GREENHOUSE 1  
487 SUMMERBY GREENHOUSE  
489 REFORD TERRACE 1-4  
490 REFORD TERRACE 5  
491 RIVERMEAD TERRACE 1-2  
492 RIVERMEAD TERRACE 3-4  
493 RIVERMEAD TERRACE 5-6  
494 RIVERMEAD TERRACE 7-8  
495 ROBERTSON ECO-RESIDENCE 1  
496 ROBERTSON ECO-RESIDENCE 2  
497 ROWLES HOUSE  
501 STEWART PARK 3  
502 STEWART PARK 4  
503 STEWART PARK 5, 6  
504 STEWART PARK 7  
505 STEWART PARK 8  
506 STEWART PARK 9  
508 SWINE CENTRE  
509 SWINE COMPLEX  
510 TADJA HALL  
512 WHITE COTTAGE 2  
513 WHITE COTTAGE 1  
514 WHITE COTTAGE 3  
517 BATEMAN BARN  
518 AVIAN RESEARCH BARN 3  
519 AVIAN RESEARCH TRAILER

### JOHN ABBOTT COLLEGE

419 HOCHELAGA ANNEX  
434 HERZBERG, GERALD, BUILDING  
435 HOCHELAGA BUILDING  
438 JAC STORAGE BUILDING  
439 JONES, F.P., BUILDING  
470 PENFIELD BUILDING  
472 POTTERY SHED  
499 JAC CASCGRAIN  
500 STEWART HALL



## Macdonald Campus North of Highway 40

404 ARCHEDOME  
412 CHALET PRUCHE  
413 CHEMIN STE-MARIE  
20,893 - 20,895  
414 CHEMIN STE-MARIE  
21,219 - 21,221  
415 CHEMIN STE-MARIE  
21,225  
416 CHEMIN STE-MARIE  
21,265  
420 CONSERVATION CENTRE  
428 TOOL SHED  
444 LODS RESEARCH CENTRE  
461 MARSHALL RADAR  
OBSERVATORY  
463 MOXLEY BUILDING  
498 PINES COTTAGE  
507 SUGAR HOUSE

