

IV. Campus Open Space



4.1 Open Space Framework

The rugged topography of the UNB Saint John campus offers spectacular views of the distant Bay of Fundy across miles of Acadian Forest. The campus site is predominantly about topography. The lush surrounding woodlands contrast against rough rock outcroppings that give the campus its distinctive look and character. Restoring and highlighting these attributes within the built campus is central to the open space plan.

The plan defines landscape to include all major elements of outdoor space: from formal quadrangles to informal woodlots and conservation areas, from parking lots to terraces and plazas, from roads to planted buffers.

Because the landscape is such a prominent and encompassing feature both in and around the Saint John campus, it has the ability to make a powerful lasting impression, and can be a focus of attracting and retaining students, faculty and staff. The landscape plan will show a commitment to create a collegial and attractive environment and acknowledges the importance of the landscape to give order and continuity to the campus.



4.2 Open Space Guidelines

1 Features of the indigenous natural environment should be preserved and ornamental species should be integrated.

The UNB Saint John campus sits atop an Acadian forest on a rocky plateau that overlooks the Bay of Fundy; these unique qualities should be enhanced by the design and care of the landscape. Black spruce, hemlock, white and yellow birch, basswood and alder provide the dominant landscape structure and should be used to give continuity to the campus and to connect it to its larger setting. Within this overriding structure, ornamental species should be planted prudently, and only where they have a specific design purpose: to mark crosswalks, at campus gateways, as a commemoration, or at the entrances of buildings.

2 The landscape should be organized in a way that conveys the natural and cultural history of the site and educational mission of the university.

The landscape is an extension of the educational environment, both as a place of informal exchange and vehicle for understanding the ecology, history and cultures of New Brunswick. The composition of landscape should frame significant views, shape gathering spaces, encourage interaction, and reveal the unique attributes of the region. The indigenous Acadian forest is in decline and many animal and plant species are endangered. As an educational instigation, the university's undeveloped forestlands could become an educational tool; through the careful selection and identification of native and re-introduced species in the built campus, the entire campus could become an arboretum.

3 The seasonal and temporal beauty of the New Brunswick environment should be optimized.

The distinct geography of the campus provides an opportunity and mandate to design for the extremes of seasonal change: from the depths of winter snow to the lush vegetation of late spring, to the profusion of wild meadow flowers in the summer, to the dramatic colours of fall. The campus should look and function at its best throughout the entire year, in every stage of growth.

4 Standards for New Brunswick's landscape should be set.

UNB Saint John has the ability to influence landscape design throughout the province: to showcase the beauty of the natural New Brunswick landscape by using elements of it to create a thoughtfully designed, and site specific campus. By using native plant material that is found in the surrounding Acadian forest, by using various local stones for building elements, pathways and site details, and by creating spaces that enhance and showcase views to the borrowed landscape beyond, UNB Saint John can be a leader in site design.

5 The safety and well-being of students, faculty, staff and visitors should be an underlying principle for all design on campus.

The design of the landscape should facilitate connections to buildings and at-grade uses, ensure ease of movement, clear visibility, imparting the sense of safety at all times, with particular response to winter conditions.





4.3 The Open Space Plan

The open space plan for UNB Saint John works with existing landscape spaces, topography, views, soils and architecture to build on the unique campus setting and to further refine its projected future development. The landscape plan organizes space so that orientation is clear, landmarks and views are highlighted and the rich, ruggedness of the site is countered with designed geometry created from the surrounding palette of plants and geology.



- | | |
|-----------------------------------|--|
| 1 New Residence | 7 Oland Hall |
| 2 Sir James Dunn Residence | 8 Ganong Hall/ Ganong Theatre |
| 3 Condon Student Centre | 9 Saint John College |
| 4 Elliot Athletics Centre | 10 Physical Plant |
| 5 Ward Chipman Library | 11 Saint John Regional Hospital |



Quads and Courtyards

A connected network of Quads and Courtyards forms the dominant structure of the new campus and dictates the placement of building additions and infill. Open spaces on the west side of campus are designed to frame views to the valley and river.



Quadrangles

The main formal courtyard is the visual and iconic core of the campus, the lawned space around which the university is traditionally organized. Its edges are defined by bordering buildings, pathways and perimeter tree planting.

Campus Quad

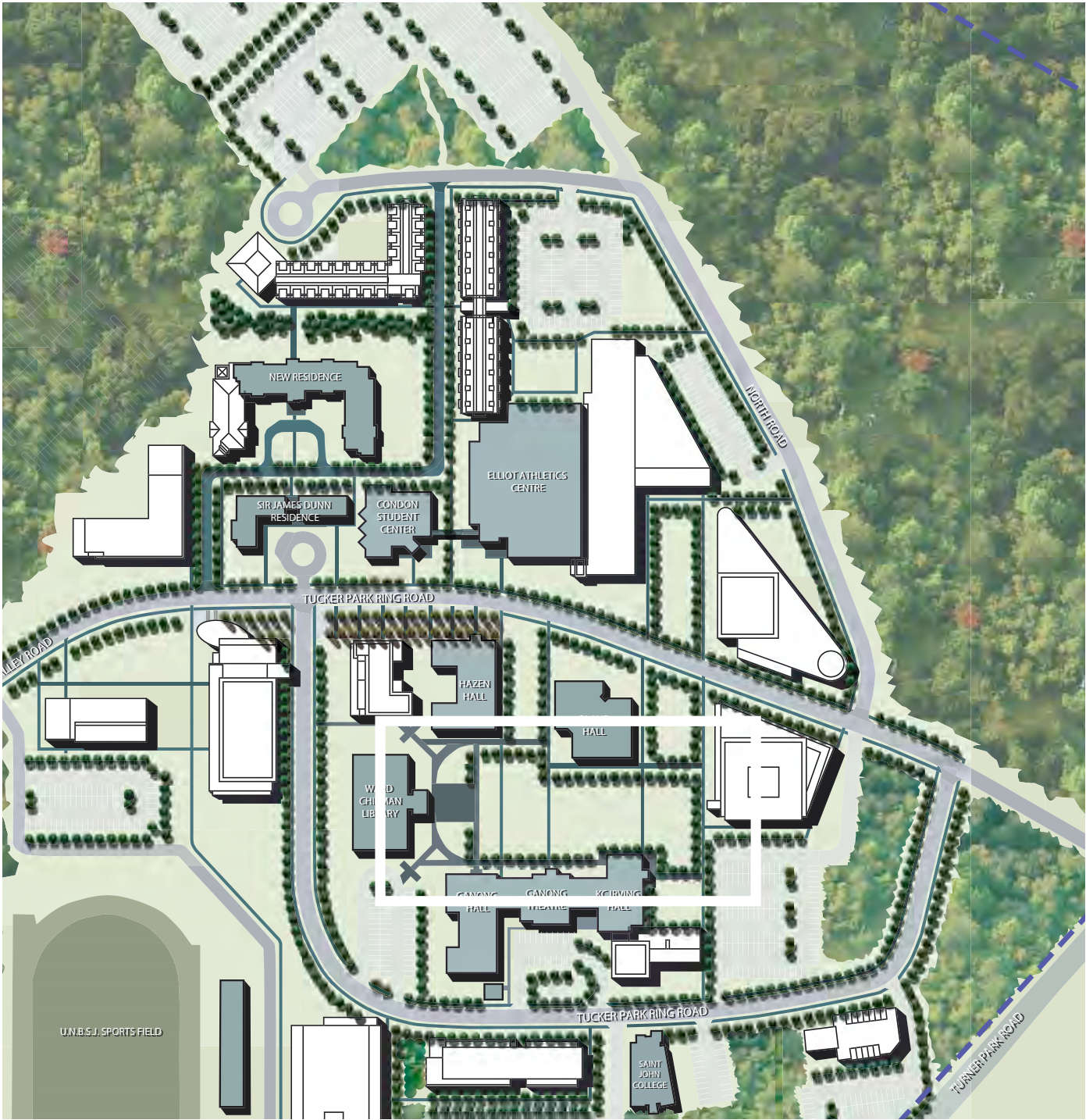
Located at the original site of the university, the Core Campus Quad remains an important place physically and iconically for the University. Framed by the original three campus buildings, Ward Chipman Library, Hazen Hall, and Ganong Hall and Theatre, the quad has been further defined by the additions of Oland Hall and K.C.Irving Hall. The Campus Plan identifies the one open end of the quad as a key building site to complete and define this important landscape space.

The existing planting in the quad is varied in the way it represents and signifies the heart of the campus. Although this space should be comfortable and inviting, it should also be recognized as the formal grounds of the University. The selection of tree, shrub, and groundcover species, and the way in which they are planted has the ability to convey a stately significance to correspond to the role of the space. The plant material should conform to a formal plan that accentuates and enhances pedestrian routes and seating areas, frames and marks building entrances, and emphasizes views through the quad and to campus areas and the landscape beyond.

Trees should be chosen for their form and colour through all seasons; traditionally, campus quads are planted with perimeter deciduous trees whose form, even in winter months, works to echo the closed geometry of the space. Campuses often choose trees that have a significance to the school, or that grow to have a significance to the school: University of Toronto plants English Oaks because it is the school tree and is featured on the university crest; the University of Washington in Washington, D.C. plants Black Cherry trees because of the significance of the cherry tree there. UNB Saint John is fortunate to be surrounded by forested hills, so while the trees in the quad should convey a stately elegance, they should also relate to their surroundings.

The native Basswood trees recently planted near the K.C.Irving Building have a natural and economic significance to the area, and have been proven to thrive on the campus quad. A hardwood, Basswood is prized for carpentry and as a landscape tree because of its form and strength.





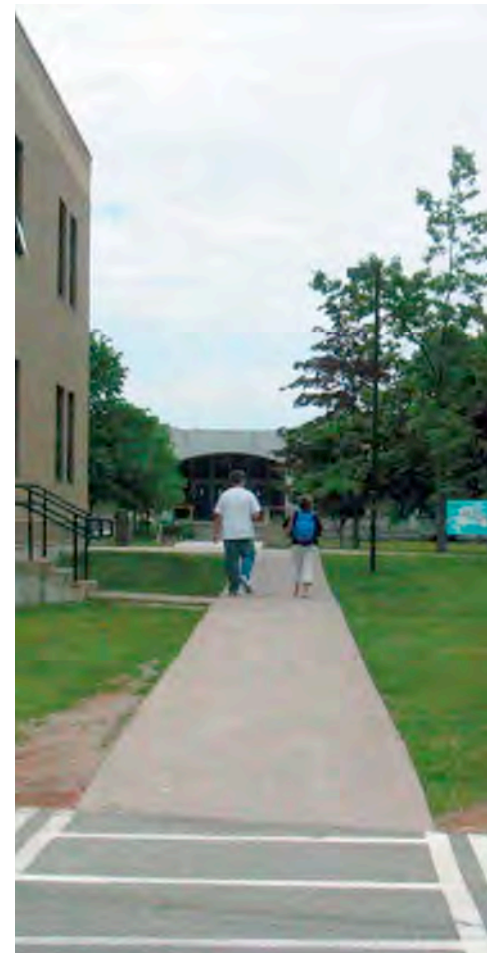
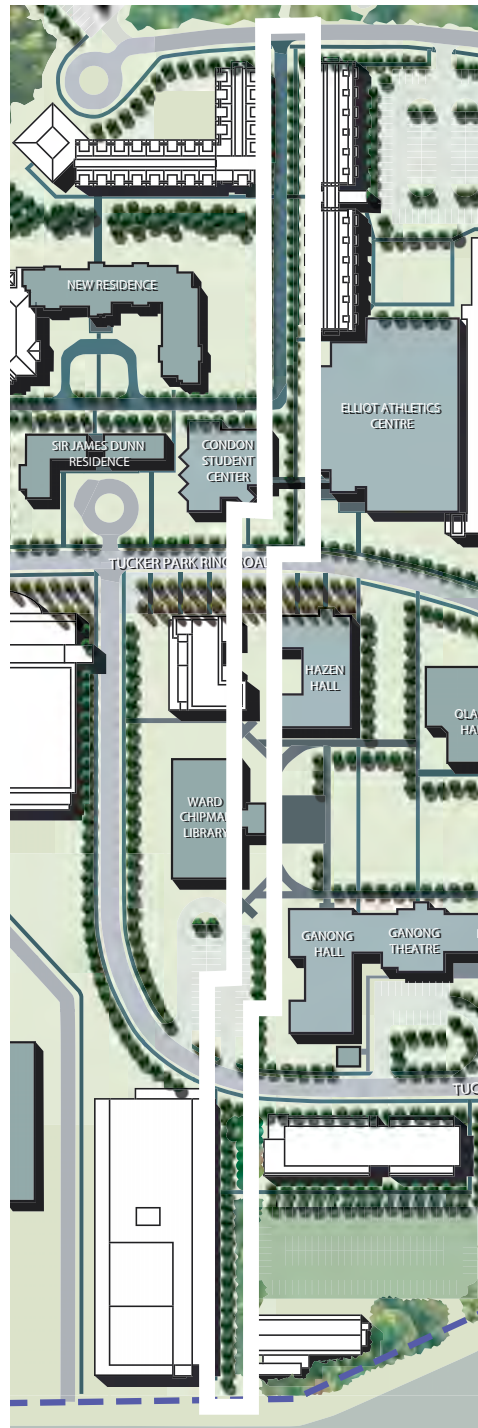
Promenades

Pedestrian paths through the campus should be defined by special paving materials such as brick or concrete unit pavers, lined with rows of trees so that instead of serving as just connectors, these arteries become welcoming spaces in their own right.

Campus Esplanade

Promenades through the UNB Saint John campus are thought of as straight lines that move through a series of irregular spaces formed by the topography, trees and groundcover, with views to surrounding buildings, gathering areas, and the distant Bay of Fundy, and marked by a rhythm of regular elements along their lengths.

The walkway designed to link the Campus Quad with the Residence Court to the north and the Hospital to the south, is a tree-lined artery outfitted with site amenities like benches, pedestrian-scaled lighting, understorey planting, and paving to enhance this pedestrian connection. With these site furnishings and planting, this strong corridor should promote casual socializing as a place for people watching.

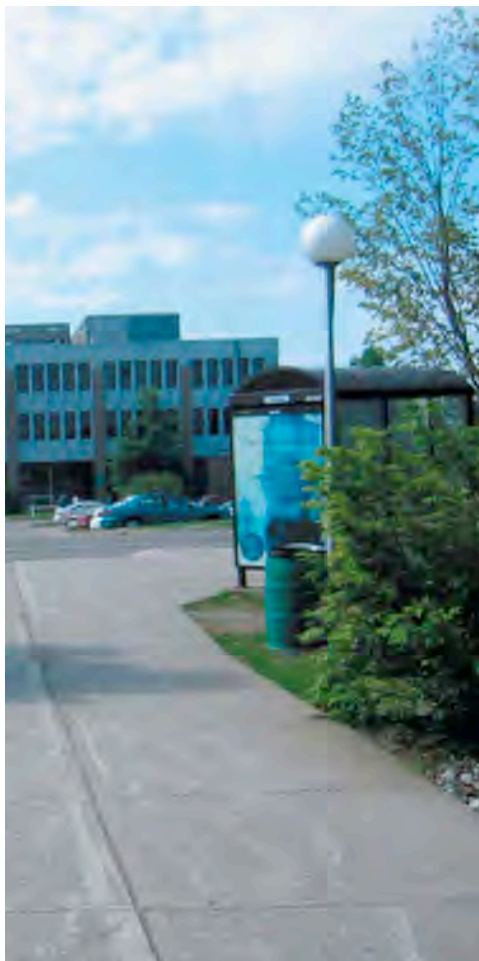


Terraces

Plazas and terraces should be created at entrances of buildings to serve as casual gathering places. They should be distinguished by paving materials, lighting, seating and be barrier-free.

Student Plaza

The open space in front of Condon Student Centre is a transit hub for both public buses and taxis, as well as a gathering space for students. The experience of waiting for transit should be enhanced to improve a significant portion of a transit users day, and to encourage more students, faculty and staff to use the bus service and remove pressure to increase surface parking.

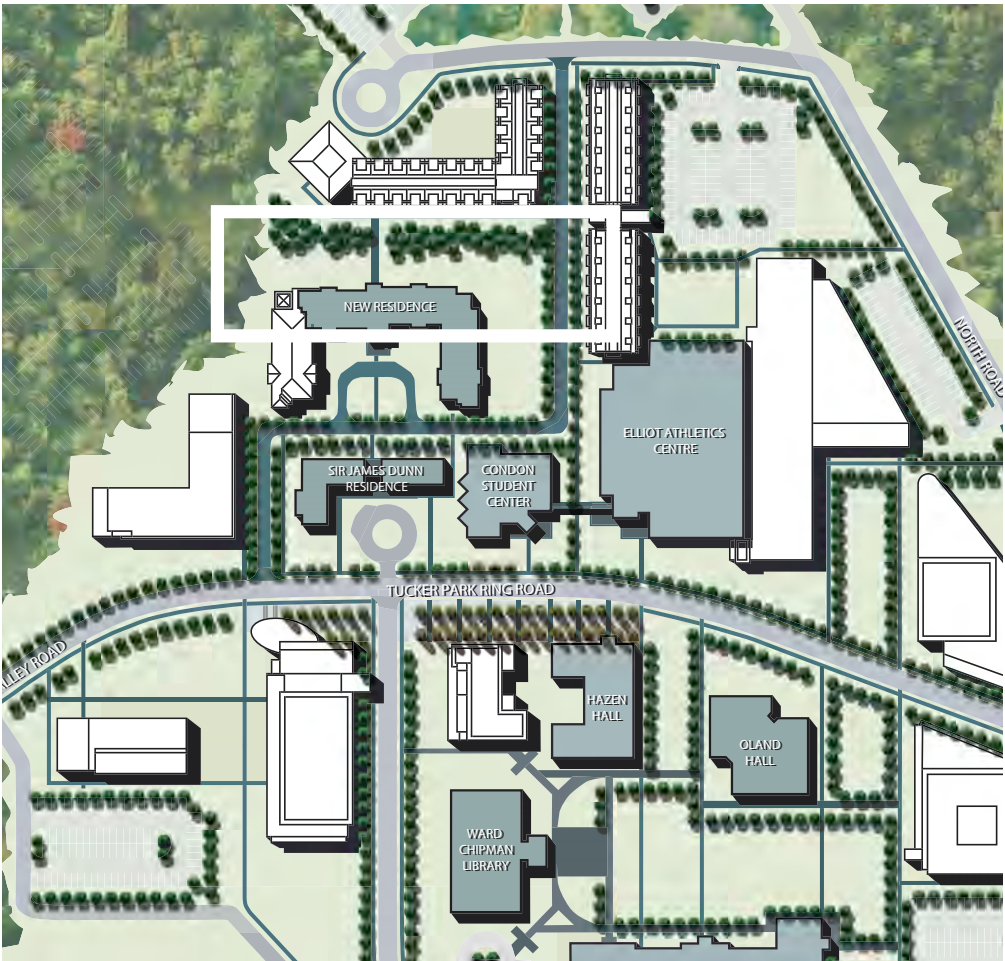


Courtyards

Smaller spaces throughout the campus should be designed as localized greenspaces that relate to and service their bordering buildings. Each courtyard should develop its own unique character that enlivens and informs surrounding building programs. The planting may be a formal row of perimeter trees, an informal, carefully-placed selection of smaller trees, or a naturalized forest replica, but all plant material should be selected to change through the season and change over time.

Residence Courtyard

Connected to the campus core by a tree-lined Esplanade, the Residence Courtyard is located north of Tucker Park Road and framed by the Athletic Centre, existing residence and proposed residences. Like the Core Campus Quad, it will serve as the symbolic focus for the future campus as well as an active outdoor space for informal socializing and more formal campus events i.e. convocation, recreation, displays. The space is characterized by stepped bedrock terrain. This natural terrain and where possible, existing trees, should be preserved within the courtyard area, echoing the courtyard's geometry and framing building entrances.

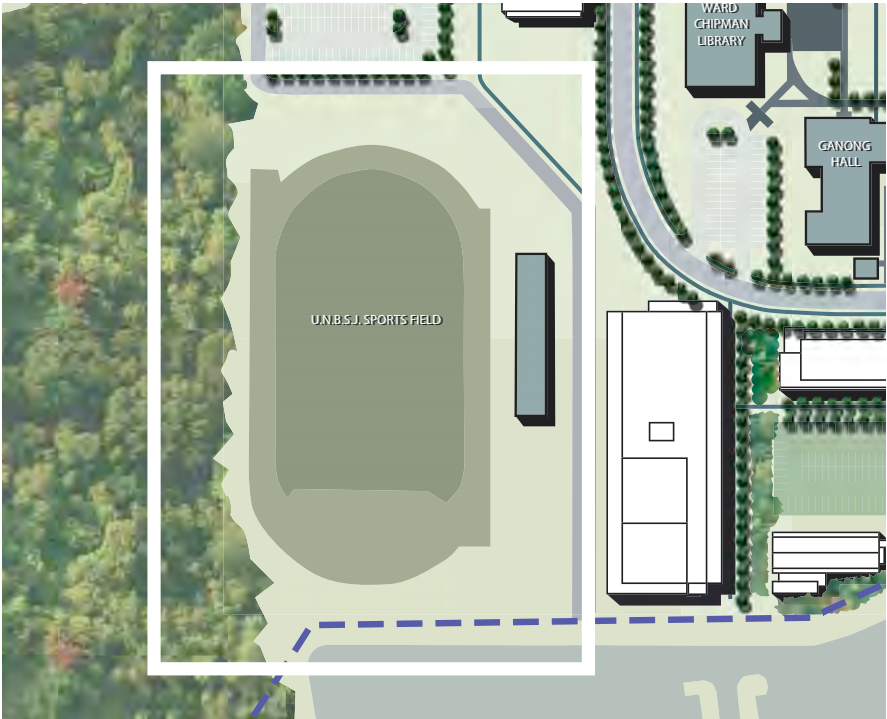


Playing Fields

Sports fields should be attractive open space elements for pedestrians who walk past them and for offices and residences that look onto them. They should be designed like major campus quads: lined with trees and seating and bordered by university buildings to invite informal games and socializing.

UNB Field

The chain link fencing that currently surrounds the playing field and a significant area of land around its perimeter serves to protect the playing surface for formal meets and games. With the university looking to expand with a University Commons building east of the playing field, there is an opportunity to re-fence this space to make the perimeter land accessible to the campus community. The area of the playing field itself can be fenced in a way that can be removed for athletic events while still serving to protect the turf. The perimeter space can be used to link the campus on this lower plateau by opening up an informal route along the field’s eastern edge, at the top of the dramatic valley ridge.





Woodlands and Valley Lands

As part of UNB Saint John's educational role, it has the potential to use naturalized University property as a learning and recreational space for students, faculty, staff and the larger community. Trails that are planned through these woodlands take advantage of views into a rich and diverse forest habitat. The University should manage these lands like conservation lands and should remove construction debris. Greater use of the woodlands and valley lands will naturally enhance surveillance and public safety of these areas.





Campus Open Space

Landscape Restoration

Landscape areas should be restored immediately after the land has been disturbed to minimize soil erosion and habitat degradation, and to enhance the campus.

Signs should be placed near pedestrian activity to raise awareness about the value of native habitat and the value of restoration.

Native species from the Campus Tree Planting Palette should be used to reforest all disturbed sites.



Campus Open Space

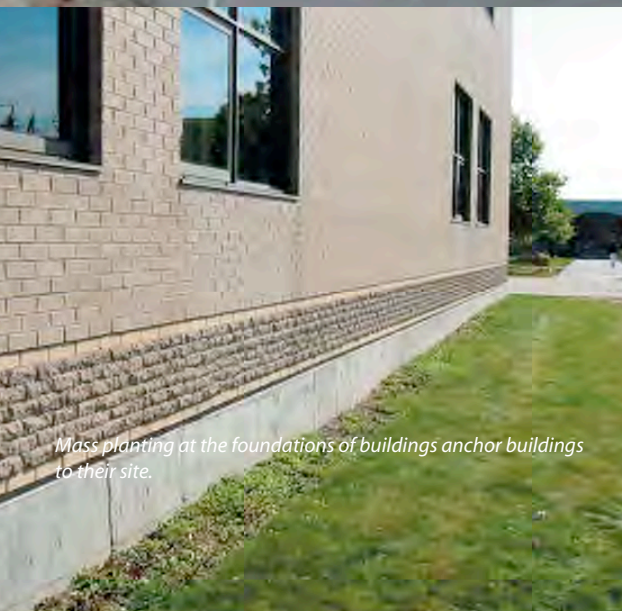


4.4 Landscape Guidelines

Buildings

Site improvements should be part of the planning and design of all new buildings or renovations to any existing building. Landscape design is an integral step in the creation of an engaging environment inside and outside, to connecting the campus to its larger setting, and to rationalize and clarify wayfinding.

- Site improvements should be required as part of the design and construction of all new buildings.
- Existing buildings should be enhanced with new planting from the Campus Tree Planting Palette to achieve a cohesiveness with the rest of the campus and the surrounding landscape.
- Main building entrances should be emphasized with mass planting.
- Trees should be planted at a required distance from buildings to ensure that they can grow to their full potential with a symmetrical form, and to ensure that they do not disturb building foundations and moisture barriers.
- Materials should be chosen that integrate or complement the building's architecture and that tie into the larger concept of the landscape plan.
- Service routes should be designed to provide emergency access, garbage and snow removal and storage while at the same time enhancing the pedestrian experience.
- Bicycle storage should be allocated in its own space near main entrances of all new buildings.
- Signs should be installed to make the campus quickly legible to new students and visitors.





CIRCULATION

By helping to define and differentiate circulation routes, the landscape can improve wayfinding and give identity and scale to campus.

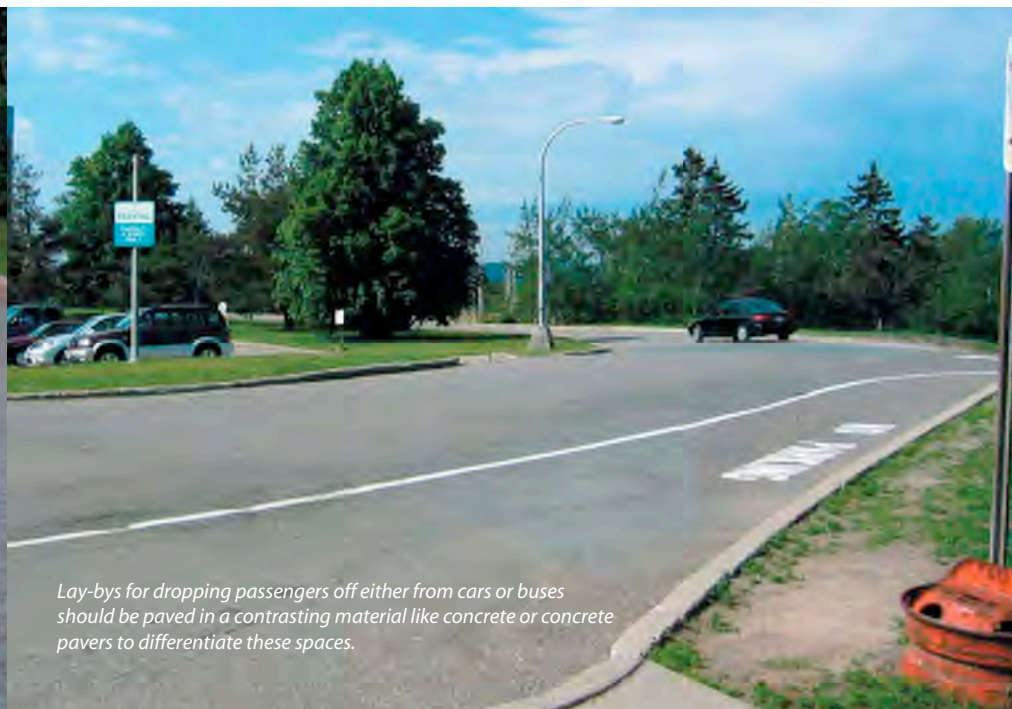
Roads

Site improvements, such as sidewalks, lighting, street trees, and signs, should be an integral part of all campus roadway projects; they should be required as part of the design and construction of all new roads.

- Sidewalks should line new roads, with a 4m planted buffer between the curb and the outside edge of the sidewalk.
- Feature paving, including brick and unit pavers should define pedestrian crosswalks and their priority across vehicular roadways.
- Light standards should be located outside of circulation and snow removal routes.
- Native plant species as identified in the Campus Tree Planting Palette should be used to reforest construction sites.
- Larger sidewalk areas should be designed at the intersection of streets, sidewalks and bus stops to assist access to the street. These nodes should be marked with special planting.



Tucker Park Road is currently a wide one-way road that should be lined with sidewalks and planting buffers on both sides.



Lay-bys for dropping passengers off either from cars or buses should be paved in a contrasting material like concrete or concrete pavers to differentiate these spaces.

Sidewalks And Pedestrian Paths

Sidewalks and pedestrian paths should be designed to encourage walking on campus: with minimal conflicts between pedestrians and cars, clear connections to the overall pathway and trail system, and seating and other pedestrian-scaled amenities.

- Pathways should be located to capture the site's extraordinary views. Paths should be designed to end at focal points of the campus or at outward views to the surrounding forestland or Bay.
- Straight paths should be installed where a direct connection is needed and where a relatively flat grade exists.
- Curved paths should be installed at steeper slopes to enrich the experience of moving through campus.
- Planted strips should be installed between all sidewalks and roadways with a minimum width of 3 metres; during winter months, these strips will serve as snow depositories.
- All sidewalks should be connected to the overall campus pedestrian network and should line both sides of campus roads.

Trails

A campus wide network of trails should be identified through university lands that are not environmentally sensitive.

The campus should be linked to the hospital lands by pedestrian-only trails.



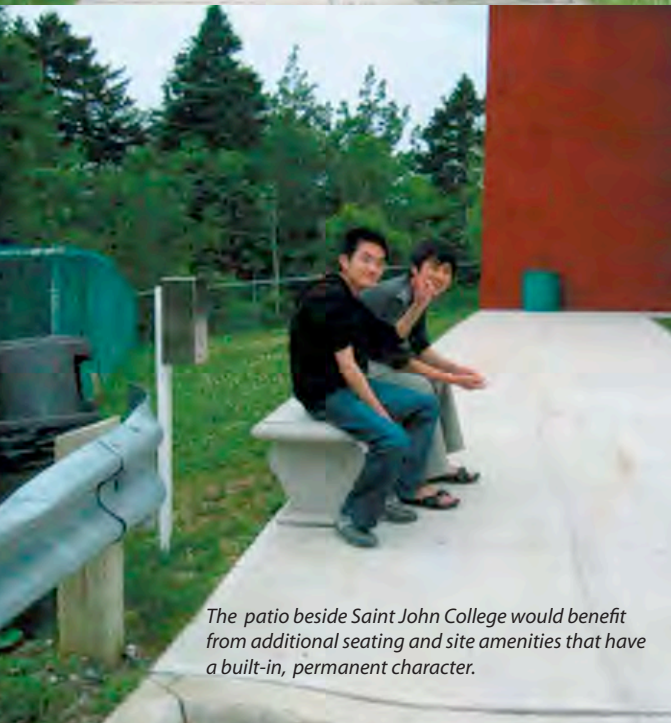
Informal, curving gravel pathways make the negotiation of slopes easier.



Gravel pathways around K.C.Irving Hall allow pedestrians to meander through the core campus all year long.



Seating should be placed out of the way of pedestrian pathways and building entrances.



The patio beside Saint John College would benefit from additional seating and site amenities that have a built-in, permanent character.



An entrance to Ward Chipman Library has distant views to the Bay; with screened servicing, it could become an informal place to meet and socialize.

Outdoor Gathering

Gathering places should be designed for all seasons. They should provide interest, encourage interaction, and facilitate movement between adjacent buildings. Quads, courtyards, and terraces, as well as bus stops and building entrances should use a distinct paving material to define them as pedestrian instead of vehicular areas.

- A variety of seating arrangements should be provided for conversation, people-watching, or quiet contemplation (refer to Site Furnishings Section).
- Seating should be oriented to take advantage of the sun at all times of year; deciduous trees should be planted around seating areas to provide shade in summer months and allow sun exposure in winter months.
- Adequate space should be provided for localized snow removal and storage.



At Oland Hall, a side door exit that captures the afternoon sun has the potential to become a popular gathering space.

Access And Gateways

Campus edges and entrances should create a positive first image of the campus itself and its relation to the city around it. Gateway markers should define the bounds of a campus at its main entrances.

The East Campus Entrance is the main entrance to the university. There is a potential to upgrade this entrance with new, distinctive signage that reflects the university's character. A smooth cut stone sign inlaid into the rough stone outcropping that naturally frames the entrance would create a symbolic relationship to the way the university has carved its campus out of the forest.

The West Campus Entrance is the secondary campus entrance from Kennbecasis Drive. The rural quality of this entrance should be maintained: without a curb and gutter. The entrance is significant in the way it can connect to trails through the university's forested property, trails for running, hiking and cross-country skiing. The design potential here could take the form of naturalized site treatments that are highlighted with special lighting.



The natural stone outcrop at the East Entrance to UNB Saint John offers an obvious plinth for a simple, cut stone sign.

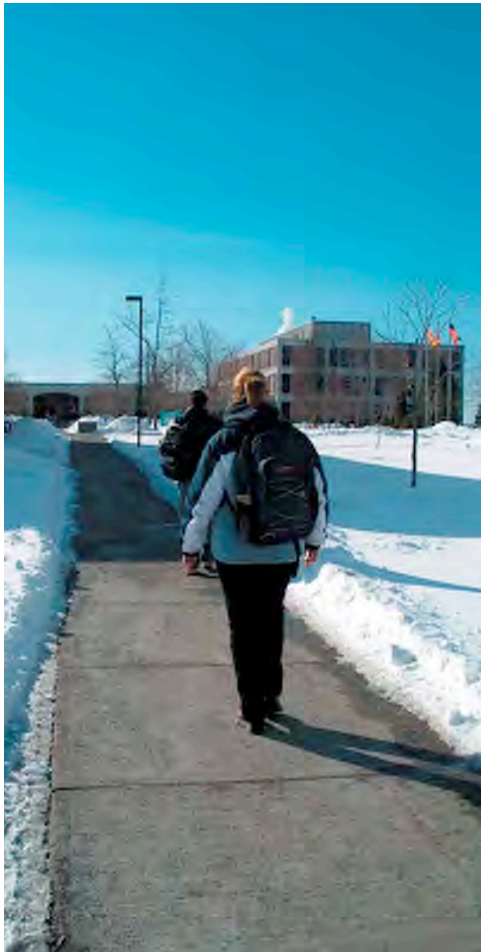
4.5 Landscape Components

Although construction specifications are needed for each project to address site-specific considerations and design goals, these are general guidelines for the construction of materials and techniques in landscape components.

Pedestrian Pavement

Pedestrian pavement is intended to be a background design element, allowing the surrounding activity to dominate. Patterns should be simple and respond to their location. Materials should always be used in their primary form and not as an imitation of other materials.

- Paving materials should be used in their elemental form: concrete (plain or with exposed aggregate), concrete pavers, local stone or brick.
- Pedestrian routes should be designed to comply with the New Brunswick building standards of slope, width and materials for people with disabilities including motor and visual disabilities.



Pedestrian paving must be installed with a minimum 300mm deep crushed granular base in order to withstand freeze and thaw conditions.



A stone terrace at the entrance to the K.C.Irving Building leads to an informal granular path through planted thicket.



Curbs made from local granite line the streets of downtown Saint John. Their clean lines and durability makes them appropriate for use on campus.



Limestone paving slabs were installed as part of a building renovation on the U.of T. campus.



Brick paving can accentuate seating areas and complement surrounding buildings.

Planting

Trees and other planting throughout the campus should be chosen for their form and texture, and their ability to thrive and be maintained in a manageable way.

- Trees, shrubs and groundcovers should be planted in masses within planting areas for the visual impact and to reduce maintenance with excessive weeding and trimming.
- Trees should be planted in a minimum area of 3m x 3m to ensure long-term growth.
- To ensure that trees do not suffer from soil compaction that restricts water and air around their roots, the bases of trees should be planted with groundcovers or shrubs and mulch, or metal tree grates for intensely used areas. Tree grates should be used in pedestrian pavement in quads, courtyards, terraces, and plazas.
- Adjustable tree grates that allow for the growth of the tree should be used. Gravel should be filled under the tree grate to prevent debris from accumulating between it and the finished planted grade.
- Lawns should be created in areas of active use, but should not be designed for areas where the slope is greater than 3:1.
- Areas where the slope is greater than 3:1 should be left to naturalize: the unbuilt wooded areas between the university and the hospital, and the wooded areas between the sports field and the rest of the campus.
- Non-native plants that are considered to be invasive should not be used anywhere on the campus: English Ivy, Japanese Knotweed.



A lawn provides a stage for informal socializing and is contrasted with the mass planting of pines.



Metal tree grates in downtown Saint John prevent soil compaction while allowing water to penetrate roots.



A thicket of sumac bordered by mown turf presents a manicured look without excessive hand trimming.



Planting in clusters and concentrated areas reduces trimming and weeding maintenance.



Planting should work with and highlight natural rock outcrops.



A thicket of multi-stemmed white birches create a significant impact and replicate their natural habitat.

Campus Tree Planting Palette



Pinus strobus White Pine



Abies balsamifera Balsam Fir



Picea mariana Black Spruce



Thuja occidentalis Cedar



Tsuga canadensis Hemlock



Picea rubens Red Spruce



Larix laricina Larch



Pinus resinosa Red Pine



Picea glauca White Spruce

By choosing native tree species to be planted as part of the built landscape, the campus will tie into the larger landscape that surrounds it. Not only have these tree species proven themselves to thrive in the Saint John climate, in the specific soil conditions of the university campus, but by echoing the forms and colours of the woodlands that frame the campus, they will root the campus in its specific place on earth.



Populus tremuloides Aspen



Tilia americana Basswood



Betula papyrifera White Birch



Ostrya virginiana Ironwood



Acer rubrum Red Maple



Populus deltoides Cottonwood



Acer saccharum Sugar Maple



Rhus typhina Staghorn Sumac

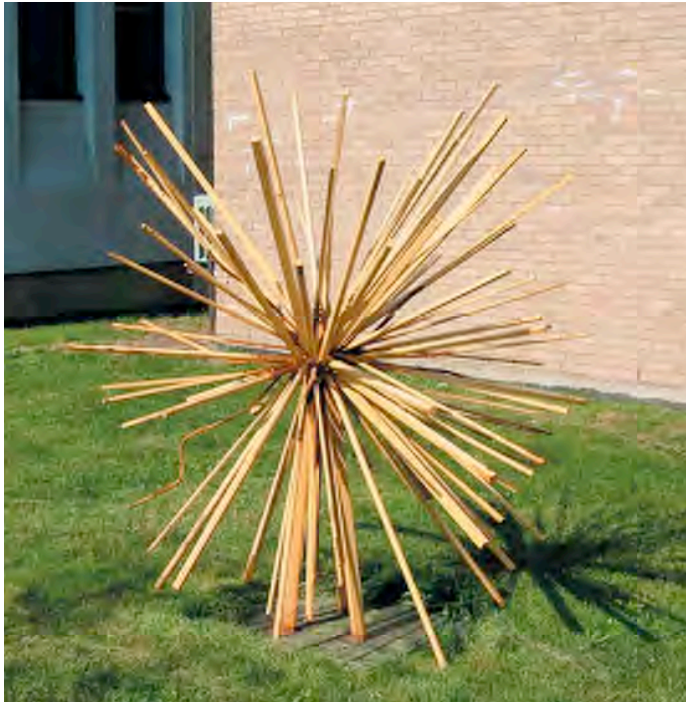


Betula lutea Yellow Birch

Outdoor Art

Outdoor art collections can animate open spaces all year. Siting of outdoor sculpture should be carefully considered to showcase the work to its best advantage; work should be placed against a backdrop of textured planting, at a view terminus, or atop a plateau.

- For new work, contracts with artists should specify maintenance and installation requirements of the work, whether the work is permanent or temporary.
- Outdoor lighting should appropriately illuminate work.
- Outdoor art should be incorporated into the campus plan so that it acts as signage and enhances the pedestrian experience.
- Optimal areas for outdoor art include the Core Campus Quad, the Residence Courtyard, Tucker Park Road, and pedestrian walkways between these areas.



Site Furniture

Site furniture should be located at main gathering places, but should also take advantage of microclimate conditions at the south sides of buildings to facilitate outdoor socializing in the shoulder seasons.

- Benches, bicycle racks, waste receptacles, bollards and parking barriers should have a standard form throughout the campus to unify the grounds visually, to reduce maintenance, and to simplify replacement.
- A collection of site furniture should be selected for its durability, its compatibility with the New Brunswick climate, and its availability for additional purchases in the future.
- Canadian made site furniture should be chosen for ease of distribution and to ensure that it will withstand Canadian winters.
- Seating should be made from materials that will withstand four season exposure.
- Colours and materials of site furniture should be coordinated as much as possible. Painted finishes should be avoided; the natural colours of materials will enhance UNB Saint John's natural setting and minimize long term maintenance.
- Large boulders that are currently stockpiled on-site should be utilized for site furniture as much as possible: parking bumpers that edge lots, bollards that direct vehicular traffic, and even informal seating around buildings.
- Site furniture should be placed out of the way of emergency and maintenance vehicles, especially snow removal vehicles.



Concrete slabs provide sculptural and durable seating that contrasts with the flowering fruit trees in a Yale courtyard.



The UNBSJ transit shelter should be upgraded and provide a sliding door and comfortable built-in seats for those who wait for transit all year around.



Unless seating is removed and stored during the winter, it should be sited and maintained to function all year around.



An outdoor patio at Hart House, U of T, is furnished with movable metal furniture that can be stacked and stored in the winter months.



A stone bench lines the exterior side of a breezeway at Woodsworth College.



Bike racks are given their own space near the entrance of a U of T building, but separated from the street by concrete blocks.



A utility hub at McGill has been painted green, fenced and planted with perimeter junipers to mitigate its visual impact.



Contemporary light standards at Ottawa's City Hall are designed to reflect light down on a pedestrian path.

Bicycle Racks

Bicycle racks should be placed close to all main entrances of buildings to promote non-motorized transportation. They should be placed in such a way that they do not interfere with pedestrian movement or snow removal, but should be within view of the main entrance to promote safety.

Trash Receptacles

Trash receptacles that have separate divisions for recyclable materials should be chosen for the campus.

Trash receptacles should be placed at strategic points throughout the campus: at entrances to buildings, transit stops, plazas and other gathering areas. They should neither be placed in a way that interferes with pedestrian movement nor in enclosed areas.

Dumpsters should be screened with planting to mitigate their visual and aural impact on surrounding classes and offices.

Utilities

Utilities will be required for all new or revitalized projects within the campus; they should be placed to meet operational and aesthetic criteria.

- The location and design of above-ground utilities, enclosures and service areas should be coordinated to aesthetically comply with the adjacent architectural massing and materials or screened with planting.
- Outdoor electrical outlets should be provided in places where special events take place: for seasonal lighting, outdoor concerts and university ceremonies.

Outdoor Lighting

Two types of outdoor light standards should be chosen for pedestrian and vehicular pathways and should be consistent throughout the campus to create a cohesive evening ambience, and to ensure pedestrian safety.

Along with the vehicular light standard that is illustrated at the left, a bollard type light should be chosen to illuminate pedestrian pathways.

4.6 Parking

4.6.1 Parking Strategy and Policy Recommendations

Parking has become a very important issue on campuses throughout North America, since in many towns and cities, residents have grown to feel that a parking space is an absolute necessity, including at universities. With abundant free parking, good roads and affordable vehicles, residents of cities have moved further and further from historic cores, increasing the reliance on the private automobile and making transit service inefficient. This is especially true in Saint John, where the challenging geography is combined with these trends to result in a particularly discontinuous urban structure and sense of separation from the campus.



Existing parking lots on the UNBSJ campus would benefit from tree planting to mitigate their visual impact.

The parking lot on the left shows tree planting in generous islands at ends of aisles. These islands help to store cleared snow in winter months.

If this trend is not reversed, the inelastic demand for parking will continue to exert pressures to increase parking supply with enrolment and staffing growth. New parking areas must be carved out of the forest, graded and paved, at a significant environmental and financial cost. Not only are trees removed, but more stormwater runoff is created. Further, this dependence on parking may lead to resistance to redevelopment in prime locations of the campus. An alternative is to build structured parking, but replacing all surface parking with structured parking would push the price of parking beyond the users' willingness and ability to pay.

Managing Parking Demand

Parking demand can be managed through the following strategies:

1. Encourage carpooling
Carpooling can be very effective at reducing parking demand, although it is important to recognize that the potential for take-up is relatively small. Carpooling can be encouraged by raising parking rates and reserving more desirable spaces for carpool vehicles (enforcement required). The University should contemplate encouraging carpooling through the use of the carpool.ca website which allows commuters to find a suitable carpool, or an equivalent service.
2. Encourage walking and cycling
Paths to the University are not pedestrian-friendly. If they were, one could assume that fewer people would feel compelled to drive to the campus. Amenities for cyclists should be provided (sheltered bicycle racks).
3. Encourage transit
When the quality of transit service rises, fewer users feel compelled to drive. Encouraging transit can also encourage residence dwellers from bringing a car on campus.
4. Restrict cars on campus
Rules can be adopted to prevent residence dwellers and nearby residents from bringing a car on campus, either through severe restrictions related to need (perhaps limited to first and second year students), or a graduated fee structure.

Determining the Optimal Price

During campus community consultation, the issue of parking rates and privileges was raised by a number of respondents. Specifically, the lack of sophistication of the rate structure was questioned, as was the lack of distinction between faculty, staff and student parking.

The idea of folding the price of parking passes in tuition or wages was expressed, but the effect is likely to be opposite to the University’s goals – demand would increase as no incentive would exist to carpool or use public transit. Instead, it is suggested that parking revenues and fines remain visible and be designed to completely cover the cost of construction, maintenance, lighting, snow removal, enforcement and security so that parking services can be financially self-sustaining, without any reliance on the University’s capital or operating budget. This would ensure that residence dwellers, carpoolers, walkers and transit users do not inadvertently subsidize drivers. The University should consider a subsidy for transit services using a portion of its parking revenues.

	Semester		8 months		Year	
	Staff	Students	Staff	Students	Staff	Students
AVERAGE	\$98.79	\$89.82	\$185.27	\$184.99	\$258.08	\$252.93
UNBSJ	\$40.00	\$40.00	\$60.00	\$60.00	\$95.00	\$95.00
UNBF	\$60.00	\$40.00	\$90.00	\$60.00	\$125.00	\$125.00
Brock Reserved	-	-	-	-	\$600.00	\$600.00
Brock Residence	-	-	-	\$400.00	-	-
Brock Zone 1	\$84.00	\$84.00	\$168.00	\$168.00	-	-
Brock Zone 2	\$126.00	\$126.00	\$252.00	\$252.00	\$336.00	\$336.00
Lakehead	\$46.00	\$46.00	\$92.00	\$92.00	\$138.00	\$138.00
Laurentian General	\$120.00	\$120.00	\$125.00	\$125.00	-	-
Laurentian Reserved	-	-	\$250.00	\$250.00	-	-
Laurentian Residence	-	-	\$250.00	\$250.00	-	-
Lethbridge 1	-	-	\$180.00	\$180.00	\$225.00	\$225.00
Lethbridge 2	-	-	\$168.00	\$168.00	\$210.00	\$210.00
Lethbridge 3	-	-	\$128.00	\$128.00	\$160.00	\$160.00
Lethbridge 4	-	-	\$240.00	\$240.00	\$300.00	\$300.00
Malaspina	\$45.00	\$22.50	\$75.00	\$37.50	\$99.00	\$49.50
Sherbrooke General	\$78.00	\$78.00	\$156.00	\$156.00	-	-
Sherbrooke Reserved	\$152.00	\$152.00	-	-	\$303.00	\$303.00
Sherbrooke Residences	\$59.00	\$59.00	-	-	-	-
Trent Green	-	-	-	\$38.00	\$76.00	-
Trent Red or Blue	\$148.00	-	-	\$180.00	\$383.00	\$270.00
U Moncton	\$60.00	\$35.00	-	-	\$120.00	\$60.00
U Regina lot	\$112.16	\$112.16	\$224.32	\$224.32	\$336.48	\$336.48
U Regina Parkade	\$252.96	\$252.96	\$505.92	\$505.92	\$758.88	\$758.88
UPEI	-	-	-	-	\$122.00	\$80.00

Table 3: Parking rates at UNBSJ are among the lowest campus parking rates in the country. The University should consider a parking rate increase to promote carpooling and transit use that would limit the need for surface parking on campus.



University Parking Fee Comparison per Car, 8 months

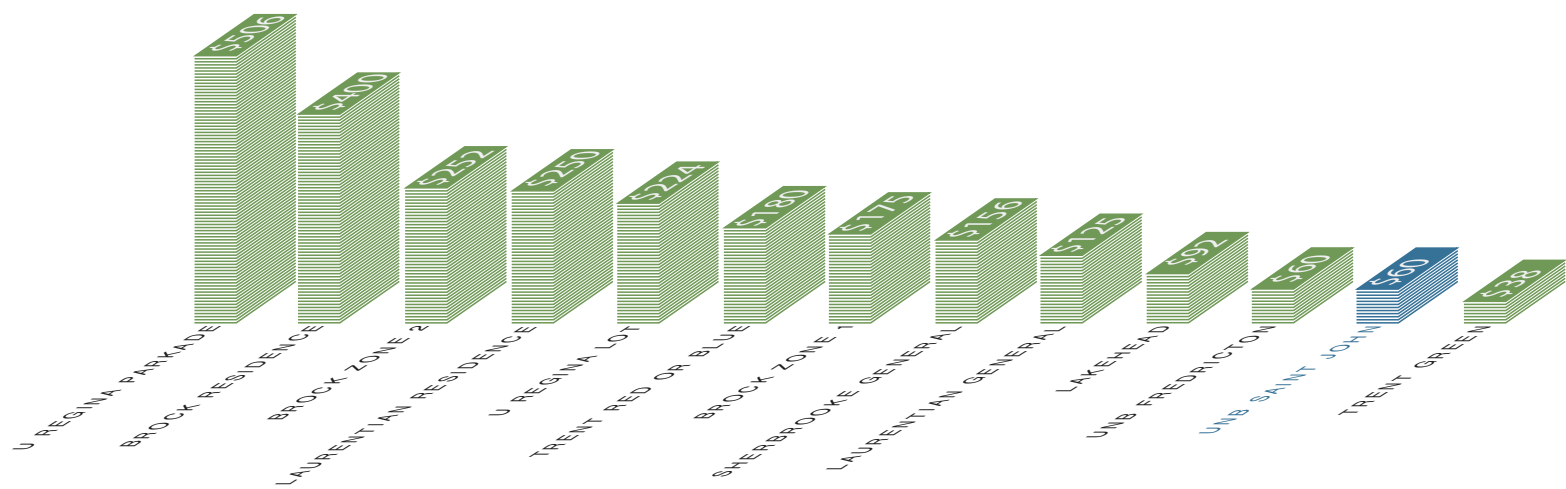


Figure 6: comparison of parking rates at different Canadian universities located in small and medium size towns and cities.

The University can use increased revenues from parking to improve the visual appearance of parking facilities, as well as their environmental impact, for example through the use of porous surfaces, oil-water separators and stormwater retention ponds. There is scope to raise parking rates at UNBSJ. In fact, parking rates at UNBSJ tend to be lower than in other institutions across the Atlantic Provinces, let alone the rest of the country, as shown in the above table.

A formal parking evaluation should be conducted before new parking lots are built to ensure that parking supply and demand evolves in concert with the Campus Plan. In the meantime, the following recommendations should be considered:

Preserve Access

Each building should have “pocket parking” spaces nearby for frequent users and disabled drivers. At least two spaces should be available in the vicinity of each building for drop-off of materials, equipment and samples. As some central parking spaces are redeveloped and thus become more scarce, they should be reserved in priority for those who need to leave the campus over the course of the day, senior staff and faculty, other staff and faculty, and finally students.

Provide On-street Parking

On street metered parking should be provided in a variety of key locations, including Tucker Park Road in the Core Campus in order to facilitate visitor, barrier-free and short-term parking. On-street parking should be designed as in-lays delineated with decorative paving. During the winter, on-street parking may be difficult as a result of snow storage.

Structured Parking

As illustrated in the Campus Plan Concept, the opportunity exists to incorporate structured parking in one or two levels below grade by exploiting the favourable slope conditions. Working with the grade, these structures will at times be tiered. Although structured parking is a more expensive option than surface parking, it represents a more efficient use of land, and allows for parking requirements to be incorporated into building design. An important objective is to provide safe parking structures that are visually pleasing, and that do not interrupt the campus landscape.

Off-Site Parking

UNBSJ, the Hospital and the City of Saint John should collaboratively identify underutilized parking lots in the City of Saint John and explore the feasibility of running a shuttle from these lots to the University and the Hospital. This would alleviate the need to find space for new parking facilities on campus or on hospital property.

If the selected lots are in the vicinity of residences, shuttle users can also walk directly from their home to the stop and use the shuttle to commute to the University or Hospital. In order to maintain the frequency of the service at an acceptable level and to minimize the disruption to users, off-site lots should be located within a 10 minute drive of the University and the Hospital.

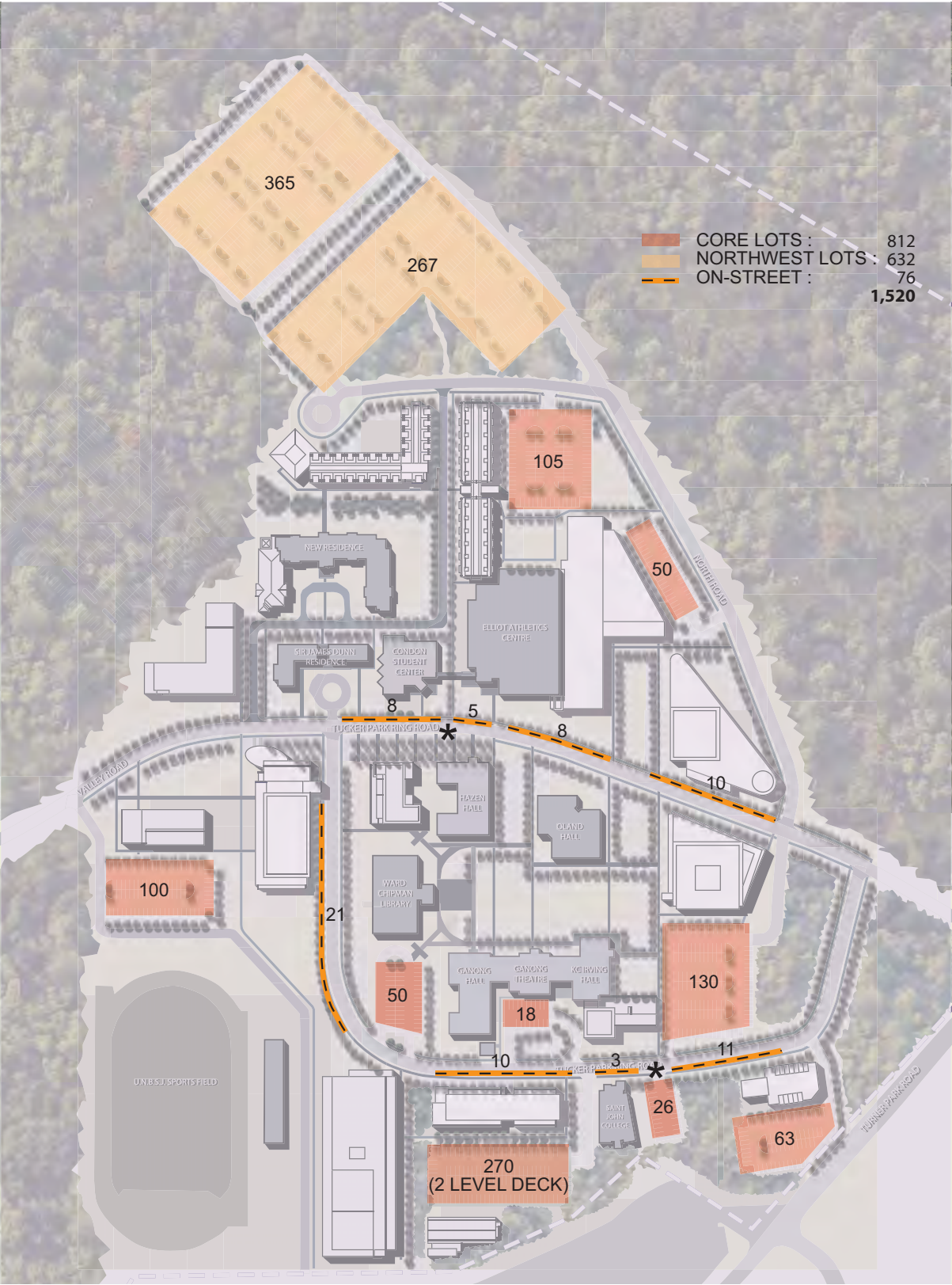
This system would greatly contribute to increasing the popularity of a potential UPASS system as described in the following section, since everyone would then be able to commute to the campus by bus regardless of where they live.

Providing New Parking Areas

As the University develops more buildings in the core area, sites presently occupied by parking will be displaced. The current (2004) parking supply of 1200 spaces represents approximately .37 spaces for every person on campus or 1 space per 2.7 people. This is a relatively high ratio when compared to other Canadian universities. The plan recommends that UNBSJ promote alternatives to private automobile use to the greatest extent possible with the intent of reducing the ratio of parking over the next 10 years by a minimum of .25 spaces per person or 1 space for every 4 people . Parallel initiatives to meet this target include increased transit ridership, car pooling, more residences within walking and cycling distance to campus and a progressive parking pricing policy.

The implications of maintaining the current parking ratio as the campus expands from its current student population of 2,900 to 5,000 is that an additional 870 spaces must be provided increasing the aggregate from 1200 spaces to 2100 spaces within a 10 to 15 year period. This will require that approximately 10 acres of forested land be converted to surface parking lots. While the incursion of development into forested areas will be a necessary result of growth, to as great an extent as possible this incursion should be minimized.

The reduction of the campus parking ratio to .25 spaces will require an additional 200 spaces, bringing the campus total from 1,200 spaces to 1,400 over the same duration (see plans on page 92).



New parking areas are recommended in the Northwest expansion lands.

- Parking area NW1 will be necessary in the near term to replace parking lost in the core campus area as a result of new buildings displacing existing lots.
- Parking area NW2 will be required at a size of 365 spaces if the .25 spaces per person ratio is attained.
- If the ratio remains static at .37 spaces per person, an additional parking lot labeled NW3 will have to be built providing another 670 spaces (see plans on following page)

As a means of rationalizing the siting of these lots parking should be built on lands that, in accordance with the Long-Term Expansion Plan (see section III), are designated either as parking areas or future building sites. This approach will ensure that the integrity of future green spaces and mature trees – intended to be maintained in the future growth of the campus, are not disturbed as both permanent parking and interim parking sites are developed. NW1 and NW2 are sites permanently designated for parking. NW3 represents future building sites. The rationale for selecting which sites to develop for parking first assumes those areas closest to campus are the most desirable.

The following guidelines should be followed for the development of new parking areas located in more remote locations so of the campus:

- All parking lots should integrate tree planting at the ends of aisles, and where possible selected groupings of existing trees should be preserved as a means of providing an improved visual appearance and micro-climate conditions in parking areas.
- Parking lots in remote areas should be serviced with an on-campus shuttle and/or a campus parking-escort service available after hours.
- Parking lots should be patrolled on an hourly basis by campus security vehicles.
- High levels of lighting to promote visibility and safety should be provided.
- Emergency call stations and surveillance cameras should be provided throughout parking areas.

Lot NW3



Lot NW2

Lot NW1

Lots NW1, NW2 and NW3



Transition: building sites are temporarily used as parking



Full Build-out: parking lots are built upon.

Stormwater Management in Parking Lots

- Bioswales should be created next to walkways and surrounding parking lots to collect stormwater runoff in a way that replenishes groundwater and minimizes the dependency on stormwater sewers. Bioswales should be planted with salt-tolerant shrubs and grasses to filter water before it percolates into the ground. They should be graded to direct water away from paved areas.
- Drainage basins should be located throughout parking lots to collect stormwater. These basins should be planted with native plant materials that thrive in wet conditions.
- The forms and materials for fencing and other parking barriers should complement surrounding architecture and site design. The use of chain link fencing should be avoided.



4.7 Public Transit

The quality and availability of transit services is a crucial issue for UNBSJ which should be addressed in the near term. The relatively low level of service was an often-repeated comment in questionnaires and one-on-one interviews.

Three broad constituencies exist for transit services at UNBSJ:

1. Locally-based commuter students, faculty and staff

As these people can live in very dispersed patterns anywhere in the region, they are the most difficult clientele to serve.

2. Out-of-town students who live off-campus

This group is less difficult to serve than the first group as it can be assumed that these individuals can select a location based on the availability of convenient transit service.

3. On-campus residents

This is the easiest group to serve, but also the most crucial, as they represent a growth area for UNBSJ. These students are interested in reaching retail establishments and the downtown area. Providing adequate transit service to these students can not only provide UNBSJ with a competitive advantage but can also relieve some pressure on parking facilities.

The quality of transit service should become a priority for the University. The institution should be involved in decision-making processes that affects transit service to the campus so that it can explore ways in which service can be improved.



A UPASS for UNBSJ

To increase transit use, UNBSJ and Saint John Transit should conduct a feasibility study of a universal bus pass for all students, and ultimately faculty and staff, that is paid for as a mandatory part of tuition (or offered to staff at the same price as parking). Based on recent Canadian experiences in Victoria, London, Hamilton and Guelph, a twenty-five percent to fifty percent increase in undergraduate ridership could be expected following the implementation of a UPASS system. In Canada, UPASS fees range per year from a low of \$37 for a Queen's University's pass to \$109 for Trent University's pass. Western's and Victoria's passes are currently priced at \$96 while Guelph and McMaster universal passes are priced at \$68 and \$58 respectively. UBC charges \$20 per month over eight months. At the University College of the Cariboo, the cost of the proposed UPASS would be \$10 per month or \$40 per semester. This compares advantageously to the \$59 currently charged by Saint John Transit for a monthly adult pass.

In most instances, the UPASS program is voted in by students through a referendum. In some cases, UPASS programs have been initiated by the municipality, such as the case in the City of Calgary, where one month after the introduction of the program, Calgary Transit found that overall transit usage to and from the University had increased by 38 percent over the previous year.

In order for UPASS to be accessible to everyone, UNBSJ, the Hospital and the City should collaborate on offering shuttle service from existing parking lots off-campus, as described in more detail in the previous section.

A feasibility study tailored to UNBSJ should analyze projected use and service level needs during peak periods, and provide recommendations for a funding structure. In parallel, UNBSJ should pursue a partnership agreement or strategy with the City, and should advocate a long-term public transportation plan for the region.



Bus Stop Locations

The current locations of bus stops by the Thomas J Condon Student Centre and Saint John College results in students having to cross Tucker Park Road to walk to academic buildings within the loop. In the absence of sidewalks and crosswalks, the potential for accidents is high.

Due to the one-way configuration of Tucker Park Road, any stop location on the road would require crossing to walk to the inside of the loop.

The Plan proposes improvements to Tucker Park Road that would help slow down traffic and create a more pedestrian-friendly environment with sidewalks and formalized crossings. In the meantime, it is proposed that a new bus stop location – and a new appropriately sized shelter – be investigated in the vicinity of the KC Irving Building. The bus would turn left into the parking lot in front of Oland Hall, stop in front of KC Irving Hall and exit the parking lot by turning left onto Tucker Park Road.

It is recommended that the existing stop by the Thomas J Condon be retained on evenings and week-ends in order to provide convenient services to campus residents.

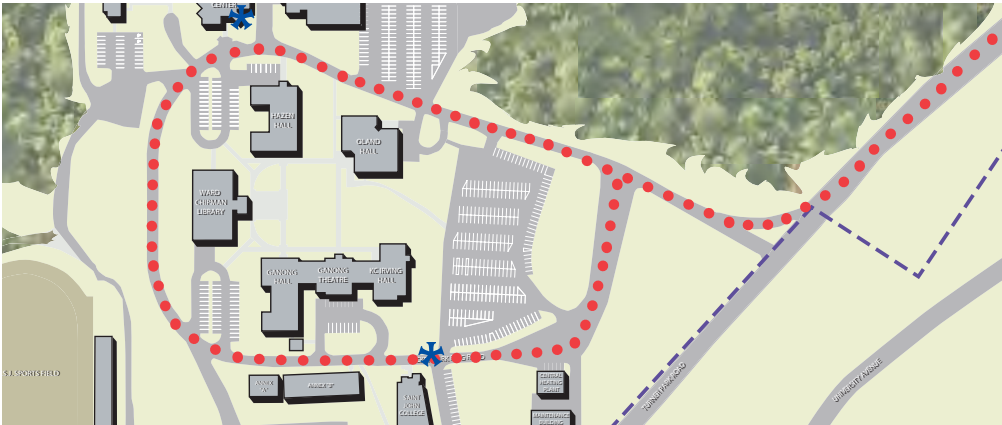
Upon the implementation of improvements to Tucker Park Road, the stop should be moved back permanently to serve the Student Centre, residences and University Commons.



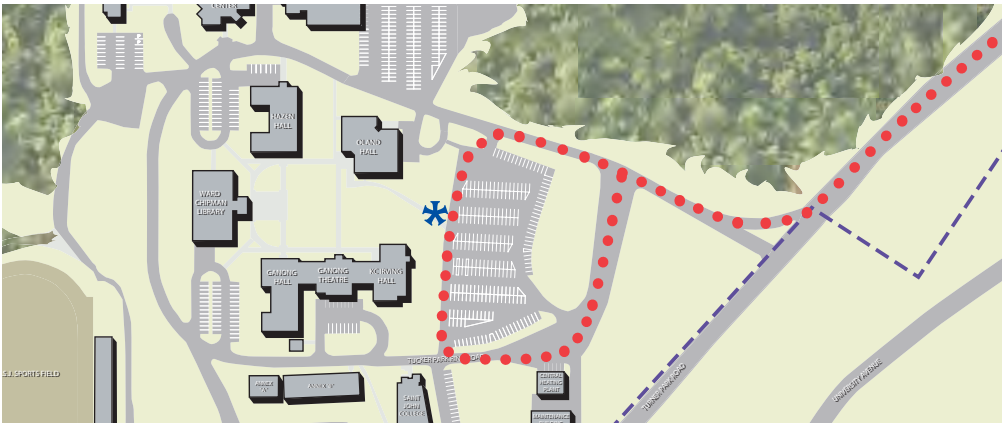
The existing bus stop location in front of Saint John College



The existing bus stop location in front of Condon Student Centre



The current bus route stops in front of the Condon Student Centre and Saint John College, forcing students to cross Tucker Park Ring Road to access the core campus.



A proposed interim route would drop students in front of the Main Quad.



The longer-term plan shows the bus stop in front of the new University Commons.

