

# 7.0

## University Districts

The University Districts are where the campus and community meet, and where learning and discovery are an integral part of all that takes place. These Districts include academic, residential, recreational and gathering spaces essential to the University, designed to offer experiential learning and research collaborations, and provide a reliable income stream to reinvest in achieving Trent’s mission. They will be designed to enhance Trent’s reputation, build a thriving and complete community to serve the campus, and increase the University’s contributions to the region.

The University Districts are characterized by areas of the Symons Campus that are in different stages of their evolution, all sharing the same goals of advancing learning and discovery; building environmental, social and economic resilience; and meeting vital campus and community needs.

**The Campus Core:** Champlain College, Lady Eaton College, the Bata Library, and the Faryon bridge are some of the original structures to locate on the Symons Campus in 1967. These buildings anchored what the Plan refers to as the Campus Core – the University’s primary location for academic buildings, student housing and services, and administrative functions. This is the most established part of the Symons Campus.

**Planned University Initiatives:** In more recent years, and arising from previous plans, the University embarked on two planned initiatives: the Cleantech Commons and the Seniors Village, both providing spaces that integrate “town and gown”, and contribute to the University’s research and experiential learning opportunities.

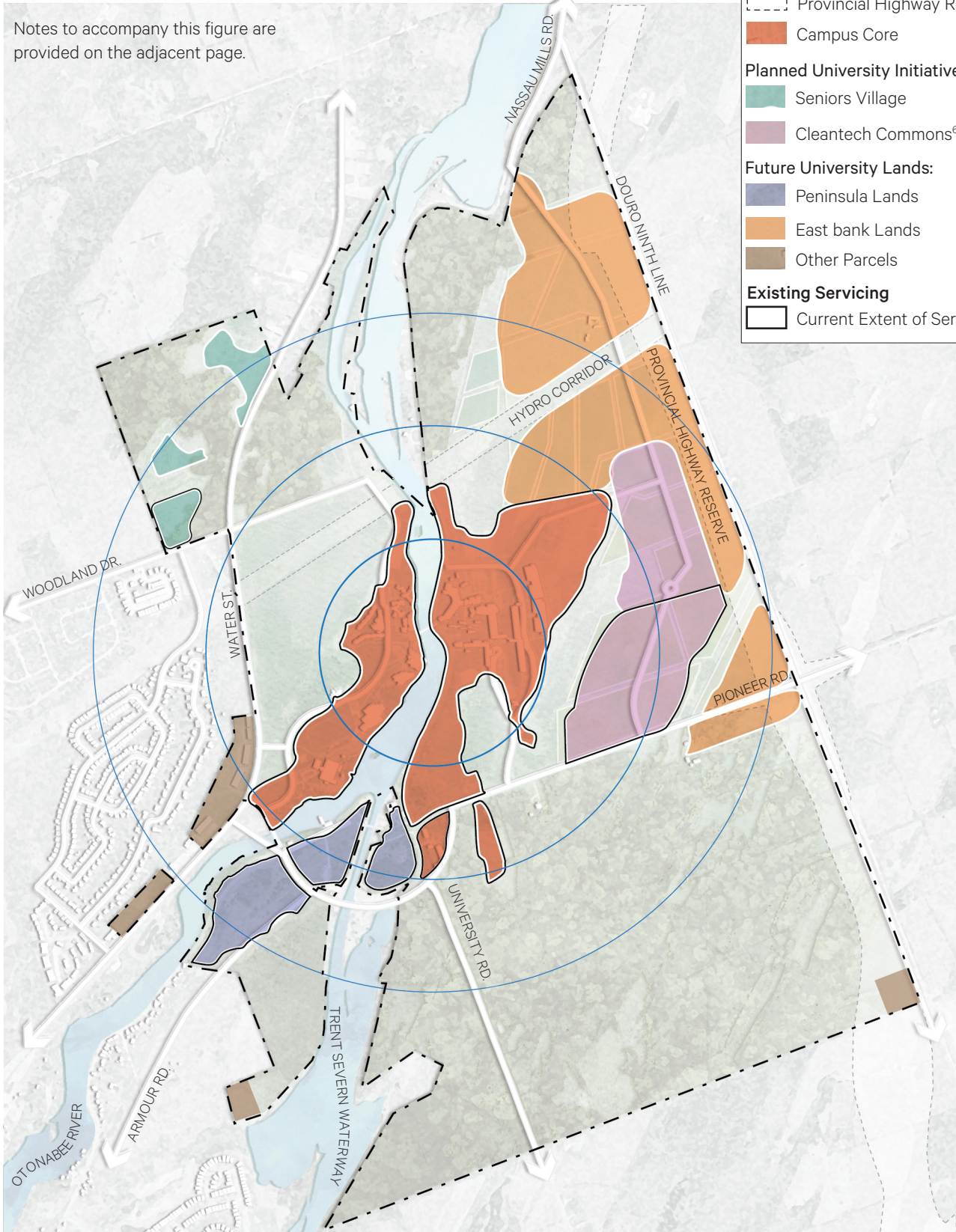
**Future University Lands:** Trent University has identified future lands that are reserved for similar uses that further the University’s academic mission and address campus and community needs, long into the future. These include two districts and other stand-alone parcels of land at the periphery of the University property.

### Notes to accompany Figure 17:

1. The Framework Plan utilizes high level inputs. Areas are approximate and are subject to more detailed study and refinement.
2. An Environmental Impact Study and site-specific study are required for future development to determine: natural heritage feature limits, the significance and/or sensitivity of natural heritage features, setbacks and buffers from natural heritage features, and locations of roads and/or pedestrian crossings.
3. A Campus Master Archaeological Study was undertaken with the participation of Michi Saagiig First Nations monitors. The final report must be consulted for any future developments.
4. The Provincial Highway Reserve comprises land reserved by the Ministry of Transportation Ontario for the potential future extension of Hwy 115 along the 9th Line. A review of the Framework Plan will be required in the event that the corridor is released back to the University.
5. New roads and circulation routes are conceptual and require further detailed study. Future design related to public streets and infrastructure will be subject to approval by the City, and Site Plan Approval will be required for future private infrastructure, as applicable.
6. Cleantech Commons remains an 85 acre (35 hectare) site, the footprint has been revised to reflect buffers from the provincially significant wetlands and the provincial highway reserve. Typical City planning approvals will be required to confirm this boundary.

**Figure 17: The University Districts**

Notes to accompany this figure are provided on the adjacent page.



**LEGEND:**

- Trent University Boundary
- Provincial Highway Reserve<sup>4</sup>
- Campus Core

**Planned University Initiatives:**

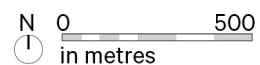
- Seniors Village
- Cleantech Commons<sup>6</sup>

**Future University Lands:**

- Peninsula Lands
- East bank Lands
- Other Parcels

**Existing Servicing**

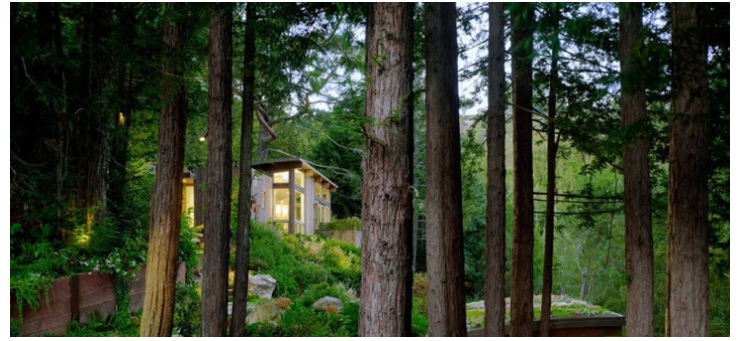
- Current Extent of Servicing



# INSPIRATION

## THE UNIVERSITY DISTRICTS

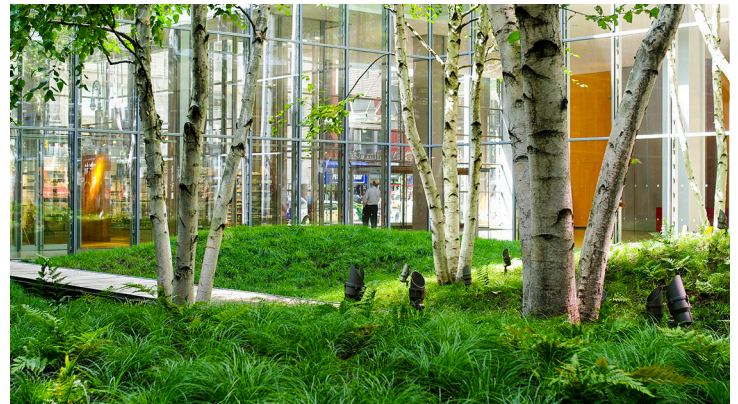
Future initiatives taking place on University lands are envisioned to be green – sensitively integrating into an existing context, creating spaces where nature and people can thrive, and incorporating innovative approaches to development that provide a learning and research opportunity for the campus.



Building nestled into existing forest and topography. Mill Valley Cabins, Feldman Architecture. Source: ArchDaily



Bioswale along streetscape. Source: National Association of City Transportation Officials



Elevated courtyard space with passive program. New York Times Building. Source: The Cultural Landscape Foundation



Open concept building with minimal disturbance to topography. Juvet Landscape Hotel. Source: ArchDaily

## GOALS FOR THE UNIVERSITY DISTRICTS



## LEARNING AND DISCOVERY

- Enable faculty, staff, and students to increase their contributions to local communities, Canada, and the world by ensuring all aspects of the creation, implementation, and ongoing operation of the University Districts engages faculty and students in research and learning.
- Make each District a living learning laboratory by seeking long-term partnerships to test and apply new approaches to community building and low impact development approaches.
- ⊗ Ensure each District includes features and spaces where Indigenous Traditional Knowledge is shared and practiced.



## ENVIRONMENTAL RESILIENCE AND INTEGRITY

- Demonstrate leading edge nature-inclusive design, regenerative building technologies and passive building strategies that minimize, and where possible avoid environmental impact.
- Improve resiliency for future generations by implementing the UN Sustainable Development Goals, and to inform strategies for regenerative design.
- Achieve carbon neutrality and adapt the Campus to withstand and emerge stronger from the impacts of climate change.
- ⊗ Combine Indigenous Traditional Knowledge with western environmental science as a means of enhancing environmental resilience and integrity.
- Attract partners and tenants that are innovating to improve the environment.



## ECONOMIC RESILIENCE, LEADERSHIP, AND INNOVATION

- Strengthen Trent's reputation as a leading environmental University through all aspects of site design, environmental integration, and building approaches.
- Work with municipal partners to implement leading edge and novel alternative infrastructure and servicing approaches as demonstration projects.
- ⊗ In the spirit of reconciliation, forge partnerships with Michi Saagiig First Nations and Indigenous peoples in the creation and operation of the Districts, to advance mutual goals and demonstrate new ways of working together.
- Maintain ownership of the land, and utilize long term lease arrangements to generate a reliable income stream to reinvest in the University's mission.



## SOCIAL RESILIENCE, COMMUNITY, AND INCLUSIVITY

- Foster communities that provide accommodations for all ages, including safe and affordable housing, and integrate amenities that cater to daily needs. Communities should be well-served by green spaces, cultural resources, and shared spaces.
- Promote a culture, and create spaces, where the campus and community can gather, collaborate, and engage in meaningful ways.
- ⊗ Support the practice of Indigenous cultural tradition and ceremonies, and engage others to learn through participation.
- ⊗ Incorporate elements of placemaking (including Indigenous placemaking) in building and landscape design, establishing commemorative landmarks, and amplifying the University's identity.

# Campus Core

The Campus Core encompasses the area associated with the primary functions of Trent University, including academic, administrative, research, student residences, and recreation. The area is clearly defined within the river valley, surrounded by distinct drumlin landforms. It is characterized as a compact area of distinct contemporary architecture with a variety of both interior and exterior common spaces oriented along the Otonabee River.

The Campus Core is the physical representation of the University's ingenuity and leadership in teaching and learning. It is anchored by the University's culturally valued buildings, landscapes, and Indigenous spaces. Remaining true to the original Ron Thom Vision, the campus should be designed to encourage the mixing together of different kinds of scholars, avoiding to the degree possible the stratification of disciplines. Its planning should continue to benefit from hindsight and lessons learned combined with foresight, responsiveness, adaptability, and integrating critical thinking for long-term planning.

All buildings and spaces in the Campus Core possess the inherent potential to creatively inform students, faculty, staff, and visitors of the academic pursuits within. The composition of buildings and green spaces should contribute to an inclusive and memorable campus experience.



View of the distinctive Otonabee River, Faryon Bridge, and Bata Library at Trent University's Campus Core



The Student Centre and Drumlins, Trent University



Exterior Common Space, Peter Gzowski College, Trent University



Sports Complex, Trent Excalibur Arch, Trent University

### Campus Core Guidelines

- Encourage multi-tenant spaces. A tenant mix encourages activity during both the daytime and evening, year-round. Compatible tenants include cafés with outdoor patios, academic related retail such as bookstores, a vegetable garden, a green grocers and farmers market, a traditional teaching lodge, etc.
- Promote tenancy to locally-based businesses and industries. Maximize opportunities to create a vibrant, social, cross-disciplinary, and intellectual environment to support teaching, learning, and research.
- Encourage density, partnerships, investment, and innovative uses that bring community to the campus.
- Provide a diversity of inclusive and universally accessible indoor and outdoor spaces and promote the intermingling of town and gown.
- Maintain and enhance significant heritage buildings and landscapes.
- Recognize the location of the Symons Campus on Treaty lands and incorporate elements of Indigenous placemaking and interpretive signage.
- Early design explorations for future developments should consider distinctive opportunities to identify strategies for site location, views, orientation, prominence of certain features, and placemaking. Thoughtful lighting strategies, entry signage, and public art will introduce a ceremonial expression and enhance arrival.

# DEMONSTRATION

## INDIGENOUS SPACES

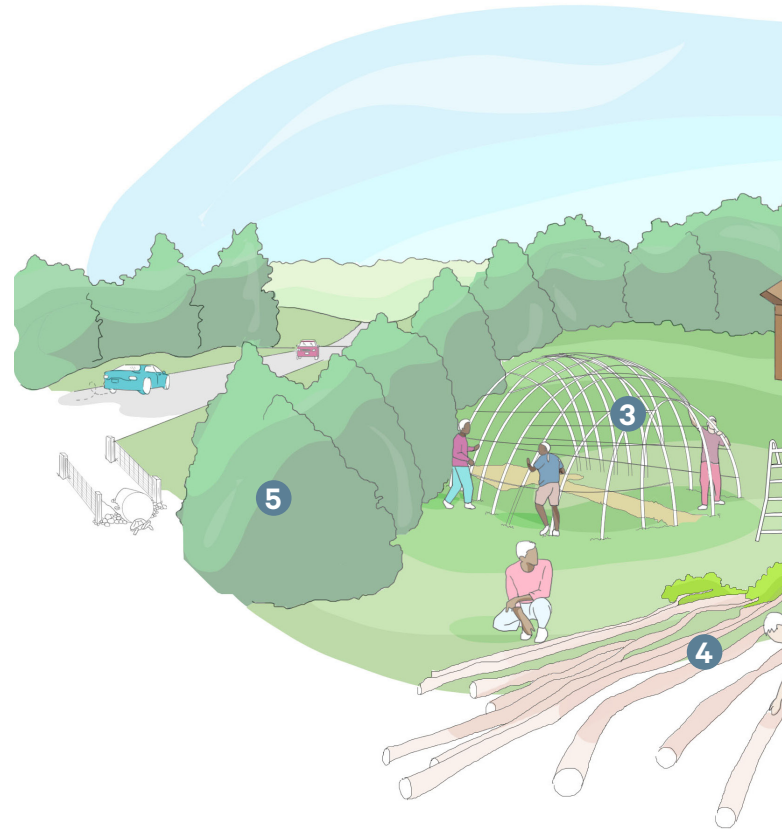
A number of opportunities that foster Indigenous placemaking have emerged through collaborative sessions with the Michi Saagiig Consultation Liaisons, the Elders and Traditional Knowledge Keepers Council, students, faculty, and the local Indigenous community in the development process of the Trent Lands and Nature Areas Plan. These include possibilities to connect Indigenous students with the Michi Saagiig community, involving students in hands-on learning by building a traditional teaching lodge, or tending to a medicine garden, for example. They also include sacred spaces of healing, ceremony, celebration, and peace, as well as access to the Otonabee River and Trent Nature Areas.

Trent University is committed to working with the Michi Saagiig; Trent Indigenous students, faculty, and staff; and willing Indigenous partners to explore locations and funding opportunities for Indigenous spaces on the Symons Campus. An opportunity to build a more contemporary roundhouse, or Indigenous house provides a permanent, year-round location that honours the Michi Saagiig in the territory, with a preference for such a space being located near the water. The roundhouse may be used by Elders gathering, with a First Nations, Métis and Inuit focus that is inviting for various activities (e.g. spaces for medicines to be grown and places for Elders to share teachings).

### An Indigenous Space on Campus

- 1 Roundhouse
- 2 Contemporary Indigenous house
- 3 Traditional teaching lodge
- 4 Traditional medicine and food gardens
- 5 Cedar screening and access to nature
- 6 Places of ceremony and gathering

**Further consultation will be required to determine the ultimate location, style, and detailed design elements of the roundhouse / Indigenous house and medicine garden.**

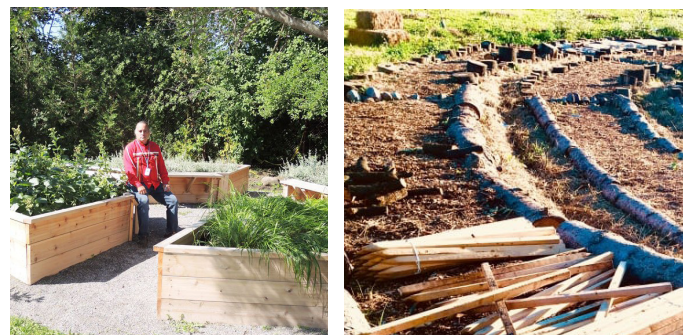


### 1 Roundhouse



Source: Lac Des Mille Lac First Nation

### 4 Indigenous medicine and food gardens



Source: Courtney Bachar

Source: Andrew Judge, CBC



**Figure 18:** Opportunities for Indigenous Placemaking on Campus

**2** Contemporary Indigenous house



Source: Formline Architecture

**3** Traditional teaching lodge



Source: Nimkee NupiGawagan Healing Centre

**5** Cedar screening and access to nature



Source: Nurserymen

**6** Places of ceremony and gathering





## Planned University Initiatives

## Seniors Village

An university-integrated seniors community anchored by a long-term care home, retirement homes, and potential student housing will build Trent's global reputation as an age-friendly university and as an academic leader in interdisciplinary aging studies. It will interest students in geriatric care, offer a proving ground for innovations in seniors living, and will meet the growing need for aged care in Peterborough, the third oldest community in Canada. Integrated, community-based senior living will provide an opportunity for innovative research, education, student placements, and community engagement.

Diverse needs of a young-old population will require diverse design solutions and the coexistence of senior living and higher education will benefit from a community built not only through physical buildings, but also through investment in infrastructure, amenities, and meaningful opportunities for connections.

A university-affiliated retirement community should help the older population retain autonomy and health, and age safely in a suitable and inclusive environment while allowing opportunities to contribute to the community. An age-friendly community defined by the World Health Organization includes:

- Outdoor spaces and buildings;
- Transportation and physical linkages;
- Diverse housing types;
- Community support;
- Health services;
- Social participation and inclusion; and
- Civic participation and employment.

The engagement of senior citizens will enrich the lives of students, alumni, retirees, and the larger community through areas of collaboration such as, hands-on learning and applied research programs, or guest lecturers. The Seniors Village should address the diverse spectrum of goals of academia as well as support the aging population.



Trent Centre for Aging and Society, Trent University



University of Waterloo Long-Term Care Facility with Indoor "Main Street", University of Waterloo. Source: University Affairs




Retirement Housing Courtyard at Lasell Village for Lasell College. Source: Lasell Village



Valley View Senior Housing, American Canyon, California. Source: CoHousing Company

## Seniors Village Guidelines

- Facilitate collaboration between professionals, researchers, educators, students, and residents through a well-designed triangulation of programs such as: gardens and greenhouse for food production, labs with classroom spaces, residences and community spaces, medical clinics, and other suitable uses.
- Invite use and enjoyment of the landscape, including trail connections to the Total Loss Farm Nature Area, pollinator gardens to engage residents and support biodiversity, and pavilion buildings that are well integrated into the landscape.
- Consider a farm-to-senior initiative, pocket forests, and small-scale agriculture to engage seniors in farming as a way to stay physically active and remain mentally stimulated through enjoyable work in a supportive community.
- Encourage creative use of outdoor space that respects and recognizes the value of the landscape and adjacent Nature Areas, where appropriate.
- Integrate passive heating and cooling systems, and novel building technologies that are energy efficient.
- Plant native and drought-tolerant species throughout the site, ensuring that watering requirements are as low as possible. Permeable surfaces will also help replenish groundwater and aid in erosion and pollution control by allowing runoff to enter the underlying soil.
- Explore greywater irrigation systems that take wastewater from on-site uses (e.g., washing machines) and repurpose it for irrigation use.
- Future-proof by providing adaptable residential units that can accommodate a person with varying levels of mobility to build economic resilience.
- Implement an “aging at home” philosophy by including a broad range of diverse housing options and alternatives to support varied socio-economic and health care service needs.
-  Provide spaces to allow for ceremony and cultural purposes and provide support for the aging Indigenous community.
- Group seniors housing with compatible uses, including local retail, pharmacy, cafés, etc.

# DEMONSTRATION

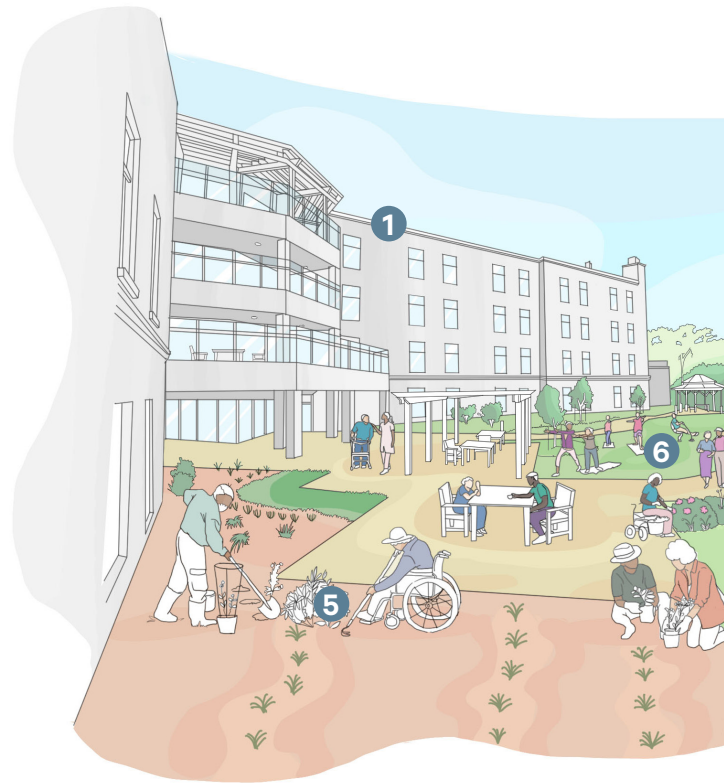
## SENIORS VILLAGE

The ageing of the Canadian population will be one of the defining megatrends of this century. For the first time in history, there are now more people aged over 65 than there are children under the age of five. It is up to us to ensure that we can all age well and enjoy the services that a place might offer for people of all ages, young and old. Informed by the UN SDG framework, Trent University's approach focuses on the goal of creating age-friendly places, in particular Goal 11 'Sustainable cities and communities'.

The Seniors Village will build Trent's reputation as an age-friendly University and an academic leader in aging studies. It will meet the growing need for aged care in Peterborough, the third oldest community in Canada, interest students in geriatric care, and be a proving ground for innovations in seniors living. Walkable communities, a robust healthcare system, access to food gardens and the natural environment are all assets of this ageing community. A purpose built co-housing environment allows members to participate in governance, volunteer work, and community living. Committed to neighbourly mutual support, the residents may share common garden tools, bikes, books, and other resources. Features such as 'buddy benches' encourage socializing, whilst the buildings' abundance of green space address the wellbeing of both the residents and the members of the public able to access it.

### A University-integrated Seniors Village

- 1 Learning and interaction with students
- 2 Accessibility and walkable environments
- 3 Exercise and recreation
- 4 Connections to nature
- 5 Food and sensory gardens
- 6 Inclusion and civic participation



### 1 Learning and interaction with students



### 4 Connections to nature



Source: Pxfuel



**Figure 19:** An Integrated Seniors Village with access to Rich Natural Assets

**2** | Accessibility and walkable environments



Source: Marion Brenner



Source: Ashford Ring Road Project

**3** | Exercise and recreation



Source: Shutterstock



Source: Lappset

**5** | Food and sensory gardens



Source: Alexander Rath, Shutterstock

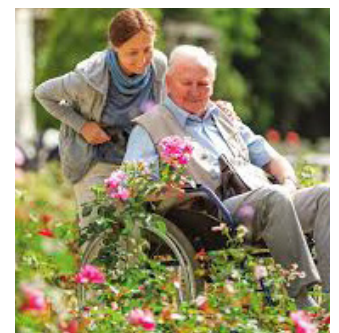


Source: Houzz

**6** | Inclusion and civic participation



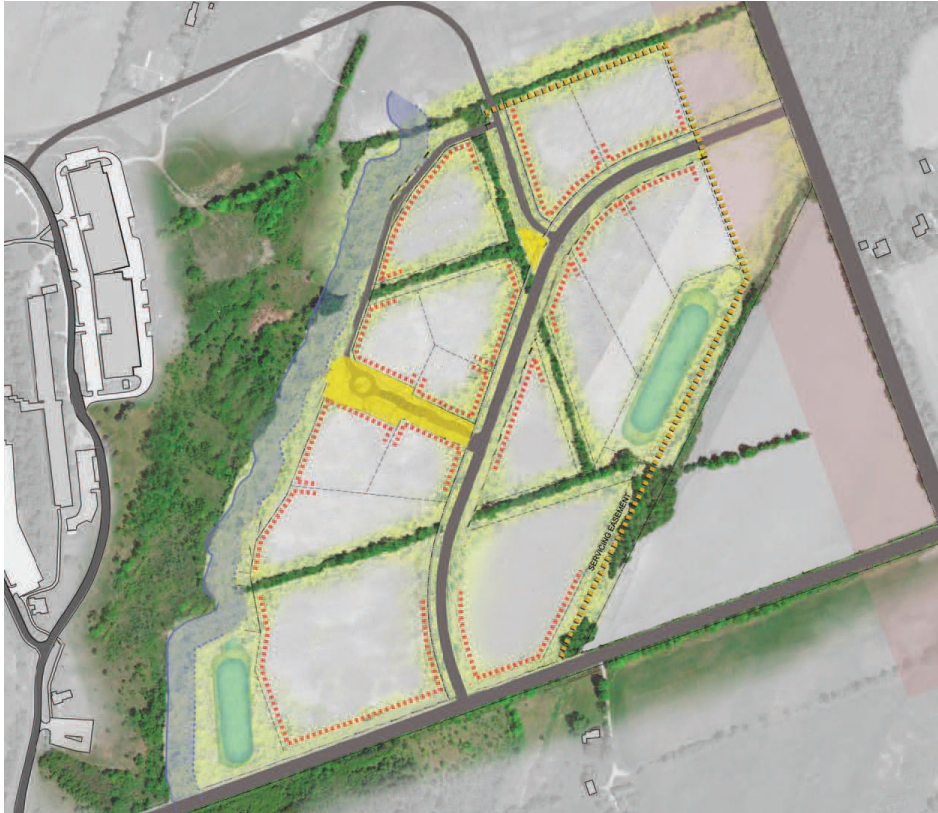
Source: Era Living



Source: High Gate Senior Living

## Planned University Initiatives

# Cleantech Commons



**Figure 20:** Cleantech Commons Master Plan

The vision for Cleantech Commons at Trent University is to become Canada's premier green technology research and innovation site, hosting a cluster of companies and start-up enterprises in environmentally-focused fields including clean technology, environmental services, advanced material sciences, biotechnology, agri-food, and agri-business, to name a few. Water is a primary focus for the park, leveraging Trent's research expertise and assets, and the cluster of expertise and companies within the region.

Trent University has set aside 85 acres (34 hectares) of land for Cleantech Commons, to enable sufficient potential for this long term vision. The impact of the Provincial Highway Reserve has necessitated the reconfiguration of this area in order to maintain the 85 acre (34 hectare) parcel size. Cleantech Commons is a partnership between Trent University and the City of Peterborough. The City has a master head lease for the park, and led the creation of the park's Master Plan.



Cleantech Commons Master Plan  
[cleantechcommons.ca/wp-content/uploads/2020/04/2017-12-05-Clean-Tech-Commons-Master-Plan-Report-compressed.pdf](https://cleantechcommons.ca/wp-content/uploads/2020/04/2017-12-05-Clean-Tech-Commons-Master-Plan-Report-compressed.pdf)



A wetland monitoring project is being undertaken to ensure the health of the wetland and the effectiveness of the buffer. This project aims to protect the function of the natural heritage feature, through various techniques.

While the City leads the infrastructure and servicing portions of the park, Trent and the City collaborate on the strategic vision, tenant attraction, and promotion of the park.

## Dialogue with First Nations Moving Forward

As Cleantech Commons evolves, Trent University is committed to ongoing dialogue with the Michi Saagiig Consultation Liaisons, First Nations leadership, and the Trent Elders and Traditional Knowledge Keepers Council. Trent University will maintain Cleantech Commons as an active part of their ongoing agenda with First Nations into the foreseeable future. Future dialogue will include further design, commemoration, and education opportunities, progress on addressing First Nations ecological priorities, and partnership opportunities to realize Indigenous inclusion into the vision of Cleantech Commons.

## A Hub for Sustainable Research and Innovation

A landscape-led, environmentally friendly, walkable urban design, integrated with the Campus physically, visually and socially, will foster an innovation community culture at Cleantech Commons that encourages social interaction and collaboration across all seasons. As a hub for the clean technology industry to connect with students, faculty, researchers, and entrepreneurial start-ups, Cleantech Commons will support new collaborative research, experiential learning for students, and employment for graduates.

### Cleantech Commons Guidelines

The Cleantech Commons Master Plan, through its design principles, expresses the intent to:

1. Integrate with Trent's main campus physically, visually, and socially;
2. Foster an innovation community culture encouraging social interaction and collaboration in all seasons;
3. Be a leader in sustainable design;
4. Base its design strategy on a landscape-led approach to maintain natural features and existing topography;
5. Be flexible to accommodate a range of enterprises and uses in a unique setting; and
6. Be well-connected to the City, County, and Region.

Cleantech Commons will be Canada's 27th research park. North America has close to 200 research parks. Collectively, the existing Canadian research parks account for more than 65,000 jobs and contribute \$4.3 billion to the national knowledge economy. 33 per cent of employees at Canadian research parks have masters or Ph.D. degrees; 49 per cent of companies located at research parks are exporting; and 45 per cent are in growth phase.

Research Parks form a significant part of Canada's research and innovation infrastructure. They play an important role in facilitating linkages across the innovation ecosystem by bridging the gap between incubation and commercialization. As such, they are key economic drivers, generating measurable economic development, and attracting highly skilled, science-based professionals.

By bringing together these various elements, Cleantech Commons provides the university community and our region with the opportunity to take advantage of opportunities in an emerging sector that is projected to be worth as much as \$26 trillion by 2030 – while helping us all live more sustainably.



Discovery Park, UBC  
Source: Discovery Parks Trust

## Future University Lands

## The Peninsula and East Bank Lands

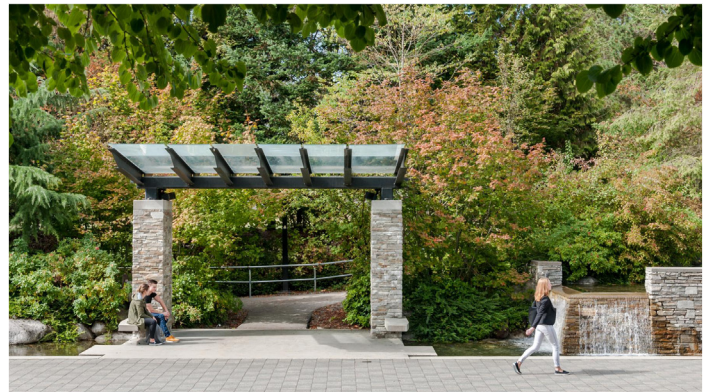
The Future University Lands are located in areas that interface between the campus and the surrounding community. The areas inclusive of the Peninsula and East Bank Lands are primarily reserved to maintain opportunities for the future generations of Trent scholars and community members, and to allocate sites for projects that achieve the aspirations of this Plan. The University recognizes that urban sprawl is not a sustainable form of development. Accordingly, reserving and managing these lands for future land use allows the University to be responsive to changing and unanticipated needs without encroaching onto or comprising the integrity of natural areas and features.

New initiatives proposed in the Peninsula and East Bank Lands must be assessed through a review of the TLNAP, ensuring that future initiatives and program needs are consistent with the guiding principles:

- 
**Learning and Discovery**  
*Does the project enhance teaching, learning, and research opportunities at Trent University?*
- 
**Environmental Resilience and Integrity**  
*Does it promote environmental resilience and enhance biodiversity, applying regenerative design principles, and imparting a net positive benefit?*
- 
**Economic Resilience, Leadership, and Innovation**  
*How will the Plan advance Trent's academic mission? Is there potential to attract new partners, take innovative approaches, and generate a reliable income stream?*
- 
**Social Resilience, Community, and Inclusivity**  
*Does the project reflect principles of social inclusion and equity, through both its design process (including engagement and consultation activities) and its implementation (is it accessible, equitable, and does it accommodate the needs of a diverse population)?*



UniverCity Residential Main Gateway, Simon Fraser University, Burnaby. Source: PWL Partnership



UniverCity Residential Community Gateway, Simon Fraser University. Source: PWL Partnership



UniverCity 'Veritas' Energy Efficient Construction, Simon Fraser University. Source: Porte



UniverCity Residential Community, Simon Fraser University, Burnaby. Source: PWL Partnership

Additional direction in the TLNAP is provided through guidelines that exceed regulatory requirements to ensure that new University-led projects embed regenerative design concepts across the full spectrum of project stages. Part III - Section 7.0, The University Districts, contains a series of Universal Guidelines; and Section 7.3, Nature-Inclusive Design, introduces a step-by-step guide to achieving a nature-inclusive development. Part IV - Towards Implementation provides additional recommendations to guide future engagement activities, site and program selection, and construction and monitoring practices.

The Future University Lands present an opportunity for long-term revenue generation for the University. Servicing and access limitations will need to be resolved in order to unlock these lands for development opportunities in the long term. There is an active need to manage these lands so they remain suitable for landscape-led development, prioritizing net benefit and habitat creation for the species present in the abutting Nature Areas.

The location of the Future University Lands near Cleantech Commons will benefit from proximity to future employment opportunities. These lands have the potential to create innovative academic, residential, and community interfaces with the Campus Core and Cleantech Commons.

Over time, and through the application of this Plan, it is envisioned that there will be a reduced need to travel off-campus by providing a broad range of services and facilities to meet academic demands, housing needs, daily conveniences of a diverse population, and social and recreational needs – establishing walkable, complete communities, all while creating new learning and research opportunities, protecting the environment, and creating jobs.

**SUSTAINABLE DEVELOPMENT GOALS (SDGs)**

The SDGs are the global blueprint to achieve a sustainable future for all, encompassing strategies to improve health and education, reduce inequity, and tackle climate change. By demonstrating how future projects align with and advance the SDGs, we strengthen our resolve to achieve sustainable campus communities. Some of the relevant goals are outlined at right.



Learn more about the SDGs online at: [sustainabledevelopment.un.org/sdgs](https://sustainabledevelopment.un.org/sdgs)



# DEMONSTRATION

## PLAYSCAPES

Public and semi-public spaces make great canvasses for play. It is in the lawns, courtyards, riverfronts, and streets that people of all ages meet, play, create relationships, and build memories with each other. The energy generated from these planned and spontaneous social interactions attracts people to live in, or visit their favourite destinations. Emerging from the strong desire for human-scaled, user-focused design solutions, Trent University strives to integrate play environments that encourage recreation and wellness through daily living. Importantly, playscapes should thrive on being inclusive multi-generational, multi-player, and multi-functional places.

Table tennis, disc golf, hill-side slides, seating, and dog-run areas invite play, while integrated circuits provide running and cycling tracks that weave through active and exciting spaces, and offer an engaging experience. Athletic functions such as larger sport equipment or paved courts may be integrated and coordinated for scheduled activities (i.e. multi-use fields, tennis courts, basketball courts). Transforming public spaces into outdoor gyms presents an opportunity to boost fitness in the community while interacting with nature and others on campus. Nearby bike facilities, cafés, restaurants, and support services encourage users to visit playscapes as key destinations in the region.

### An integrated playground

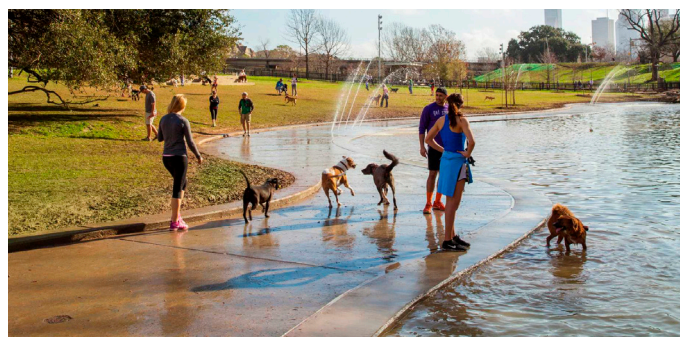
- 1 A range of physical activity
- 2 Intergenerational activity
- 3 Connections to nature
- 4 Dedicated dog runs
- 5 Inclusion of family-friendly amenity
- 6 Engaging cycling and running circuits



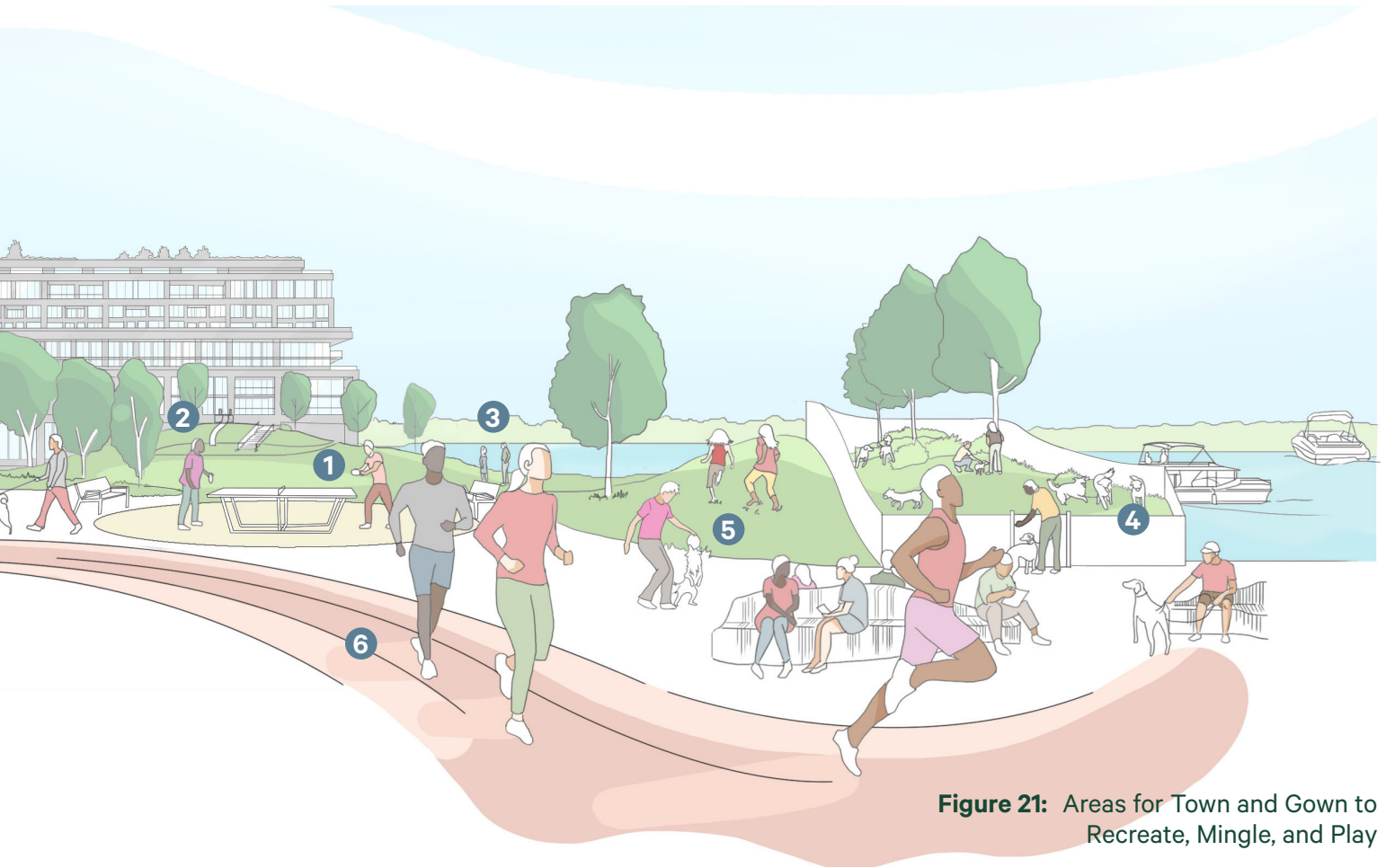
### 1 A range of physical activity



### 4 Dedicated dog runs



Source: Julie Soefer, Visit Houston



**Figure 21:** Areas for Town and Gown to Recreate, Mingle, and Play

**2** | Intergenerational activity



Source: Play and Park Structures

**3** | Connections to nature

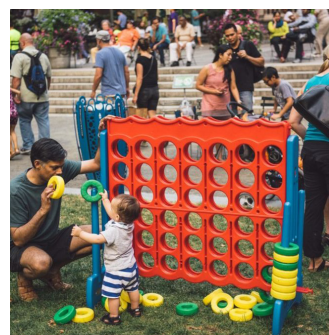


Source: Kasper Dudzik, ArchDaily

**5** | Inclusion of family-friendly amenity

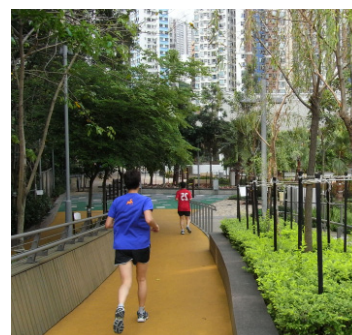


Source: SilverKris



Source: Ryan Muir Photography

**6** | Engaging cycling and running circuits



Source: AllEars.net

# University Districts - Universal Guidelines

The following guidelines are intended to inform the design of development across all of the University Districts.





## 7.1 Towards a Regenerative Future

Trent is a place where students, the community, and diverse ecosystems can thrive. We recognize that sustaining the current status quo is not enough. The goal for the Symons Campus is to have as many positive impacts as possible.

The concept of **regenerative design** goes beyond minimizing impact and maintaining current conditions to applying principles of enriching, enhancing, and restoring our environment. This concept directly contributes to the guiding principles of this Plan:



### Learning and Discovery

An opportunity to lead in research and practice, setting a global example by integrating places and buildings that are designed to reverse their impact and have a net-positive benefit. These indoor and outdoor places can be used to demonstrate and test regenerative systems and concepts.



### Environmental Resilience and Integrity

A two pronged approach that seeks to preserve, avoid, and/or mitigate impact on existing natural features, as well as restore and enhance biodiversity across the Campus by restoring existing features and infusing nature within the built environment.



### Economic Resilience, Leadership, and Innovation

An opportunity for Trent and its business community to reimagine the regenerative use of our resources. Using circular business models and clean technologies, Trent can employ fewer resources and extend the life of products and services through re-use and adaptation.



### Social Resilience, Community, and Inclusivity

An opportunity to connect and amplify initiatives that address social needs in a systemic and holistic way, under a community-led vision.

## Life in the Circle

The circular system can be represented as a doughnut. The inside of the doughnut represents the lower limit of prosperity needed by Trent for a socially resilient and inclusive existence. This involves good health, social networks, and participation. This is the social foundation needed for a thriving society: a foundation which can be reinforced, both on-campus and locally.

The outside of the doughnut represents the ecological limits of the planet, which must be respected. Examples are climate change and a decline in biodiversity. This is the ecological ceiling, which must be considered in order to achieve the same broad prosperity.

Between these two sets of boundaries lies a doughnut shaped space that is both ecologically safe and socially just: a space in which everyone can thrive.

The doughnut model was developed by Kate Raworth, a British economist working for the University of Oxford and the University of Cambridge. At the request of the City of Amsterdam, she wrote a framework which offers universal principles and a roadmap. These ensure the integrity of the ideas as they are put into practice. Some of the principles by which any initiative that seeks to practice ideas of circularity include:

- **Seeing the big picture.** Recognize the potential roles of different participants and their synergies.
- **Thinking in systems.** Be alert to triggers, feedback loops, and tipping points.
- **Being regenerative.** Aim to work with and within the cycles of the living world. Share, repair, regenerate, steward.
- **Aiming to thrive rather than to grow.** Ensure that growth serves the work rather than drives it.



Learn more about the doughnut online at: [doughnuteconomics.org/](https://doughnuteconomics.org/)

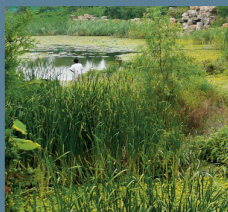
**Figure 22:** The Campus Doughnut



**Case studies in regenerative design:**



Absorb carbon through reclaiming biomaterials; Forensics Building at Trent University



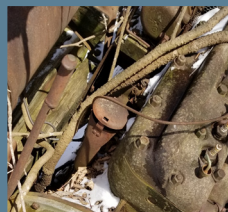
Collect and process rainwater through utilizing vertical helophyte filters Source: Blumberg Engineers



Recover food and human waste to create fertilizer for food production Source: True Leaf Market



Recycle nutrients from a closed-loop aquaponics system for food production Source: Bio Aqua Farm



Restore materials from old industrial metals to wooden panes and glass



Generate a local smart grid for the efficient usage of solar energy Source: Deceuvell

## Regenerative Design

The University Districts will be designed to respond to anticipated changes in climate and to minimize, and where possible avoid, the environmental impact of new development. They will be designed with the foresight to ensure adaptability of a thriving campus for current and future generations, integrating the following system elements of water, ecology, carbon, energy, place, health, materials, and waste.

### General Guidelines

#### WATER

- Incorporate natural water flows to work in harmony with the site and its surroundings.
- Meet water needs through captured precipitation or other natural closed-loop water systems, and/or by recycling used project water.
- Utilize purifying systems without the need for chemicals.
- Where possible, treat stormwater and water discharge (including grey and black water) through reuse, a closed-loop system, or infiltration.
- Utilize best practices for controlling runoff from construction sites, collecting sediment, and monitoring construction. These measures should be developed in consultation with the Michi Saagiig Consultation Liaisons and in coordination with Otonabee Conservation and the City.
- Incorporate Low Impact Development Standards which promote biodiversity gains. Stormwater management design considerations that provide gains to wildlife habitat include vegetated swales, rain gardens, bioswales, natural landscaping, sediment control devices, permeable pavement / surfaces, and detention areas.
- Prioritize preserving and enhancing natural features through design. Mitigate, replicate, or compensate for features or functions where impacts cannot reasonably be avoided. Strive for net benefit for the system through actions taken.
- Consider and plan for land permeability, tree canopy, habitat resilience, and diversity.
- Assess environmentally sensitive features including riparian areas (e.g., wetlands, streams, or ponds), and provide operational / management strategies.

#### ECOLOGY

- Prioritize retention of existing features, landscapes, functions, and ecosystem services across the landscape, wherever possible.
- Integrate connections, corridors, and buffers to create microclimates and sheltered areas for animal, plant, and human life to move seamlessly through the University Districts.
- Infuse naturalized landscapes and ecologically supportive features and areas into new and existing developments across the Symons Campus.

- Utilize best practices for avoiding or minimizing disturbance to surrounding areas during construction. These measures should be developed in consultation with the Michi Saagiig Consultation Liaisons and in coordination with Otonabee Conservation and the City.

#### CARBON

- Encourage private vehicle use and emission reduction measures through shared parking, parking allocation/size, electric vehicle charging stations, and visible/secure all-weather bicycle parking.

## ENERGY

- Ensure energy needs rely on a supply of clean, renewable energy without the use of combustion, where possible. Maximize passive heating and cooling strategies through optimizing orientation and site layout, natural daylight, natural ventilation, and thermal mass.
- Incorporate low energy concepts through ventilation and heating, waste water recovery systems, low energy lighting, energy efficient appliances, and smart controls and metering.
- Seek green building certifications including LEED, The WELL Building Standard, The Living Building Challenge, or other new or custom programs.

## PLACE

- Provide historical, cultural, Indigenous Traditional Knowledge, ecological, and climatic studies that thoroughly examine the site and context.
- Involve residents, First Nations, Indigenous peoples, community stakeholders, and end-user groups in the process.
- Integrate residential and employment spaces with collective cultural, recreational, and productive facilities to achieve a synergetic balance.
- Provide co-located spaces and/or access to spaces for different age groups and/or life stages (e.g., childcare and daycare spaces, playgrounds and recreational spaces, home-based business opportunities, adult care or assisted living space, outdoor gathering space, indoor community amenity space, and independent senior living space).
- Integrate or connect to an existing or planned amenity (e.g., bicycle facilities, micro mobility designated parking areas, transit route / stop, grocery store, shopping/retail, park, trail entrance, etc.).
- Mark heritage designation or protection on- and off-site, and/or encourage the adaptive reuse of heritage features.
- Design for the adaptability of built space, and consider how they may host new uses and activities as campus and community needs evolve over time.

## HEALTH

- Deliver thoughtful and intentional buildings and spaces that foster health and wellbeing.
- Uniquely connect to the place, climate, and culture through place-based relationships.
- Encourage active mobility by providing attractive intermodal options for travel, with supportive facilities.
- Provide sufficient and frequent human-nature interactions to connect people with nature directly, integrating environmental features, light and space, and natural shapes and forms. Projects may contain methods for tracking biophilia at each design phase.
- Provide an environment where the healthiest and most nutritious choice is the easiest choice.

## MATERIALS

- Opt for materials that are low in embodied carbon, recycled, and bio-based.
- Where possible, use locally sourced materials.
- Consider the full life-cycle: During design, consider appropriate durability in product specification. During construction, include product optimization and collection of wasted materials. At end-of-life, include a plan for adaptable reuse and deconstruction.

## WASTE

- Integrate provisions for recycling and organic waste facilities or programs (e.g., options for reuse, recycling, and composting).



New Forensics Crime Scene Facility at Trent University, Canada's first zero-carbon building certified by the International Living Future Institute



## 7.2 Interface with Natural Areas and Features

The Symons Campus boasts a diverse environment and values ecosystem health and biodiversity in its planning approach. Sensitive transitions will be integrated into development sites to ensure the preservation or enhancement of adjacent features (as determined through future Environmental Impact Study).

### General Guidelines

- Showcase the University's natural setting in a wide valley along the banks of the Otonabee River, with unique landforms (i.e. drumlins) that are indicative of geological processes dating back some 12,000 years.
- Site-specific studies (e.g., Environmental Impact Study, Nature Area Management Plan) will be used to confirm or refine feature boundaries, identify constraints and opportunities, and collect information on features and functions present to inform the protection, management, and/or design.
- Provide appropriate buffers between built and significant naturalized elements of the campus to protect biodiversity, habitat, and Species at Risk, as determined through an Environmental Impact Assessment.
- Seek opportunities to study, restore, and enhance the rich landscape and its ecology through future development opportunities.
- Provide opportunities for proximity and interaction with the environment, where appropriate, to foster an appreciation for the landscape.
- Design built elements to respond to adjacent natural conditions, i.e. architectural form and siting to avoid where possible, and minimize impact on the existing natural context, while maximizing views to natural features, where feasible.
- Establish views, and sensitive physical connections to the Otonabee River and drumlins, i.e. through built form siting and orientation; physical access for swimming, hiking, and observation; and connections across the river.
- Encourage creative designs that incorporate an interplay of nature within built form elements, showcasing the beauty of natural features on the lands, and pulling natural elements into the design of the proposed built form. Designs are encouraged to consider how buildings and urbanized spaces grow out of the landscape, a continued approach from the original Ron Thom vision. Designs may incorporate an educational element that furthers our understanding and appreciation of the function and beauty of the physical environment.



Residence Integrated with Ravine, Iowa. Source: BNIM

- Natural Feature
- Ecological Buffer
- Development Area

The following are two sample cross sections that illustrate potential interface combinations between natural features and development areas. The ultimate ecological buffer configurations will be determined through Site-specific studies (e.g., Environmental Impact Study, Nature Area Management Plan) at the site planning stage.

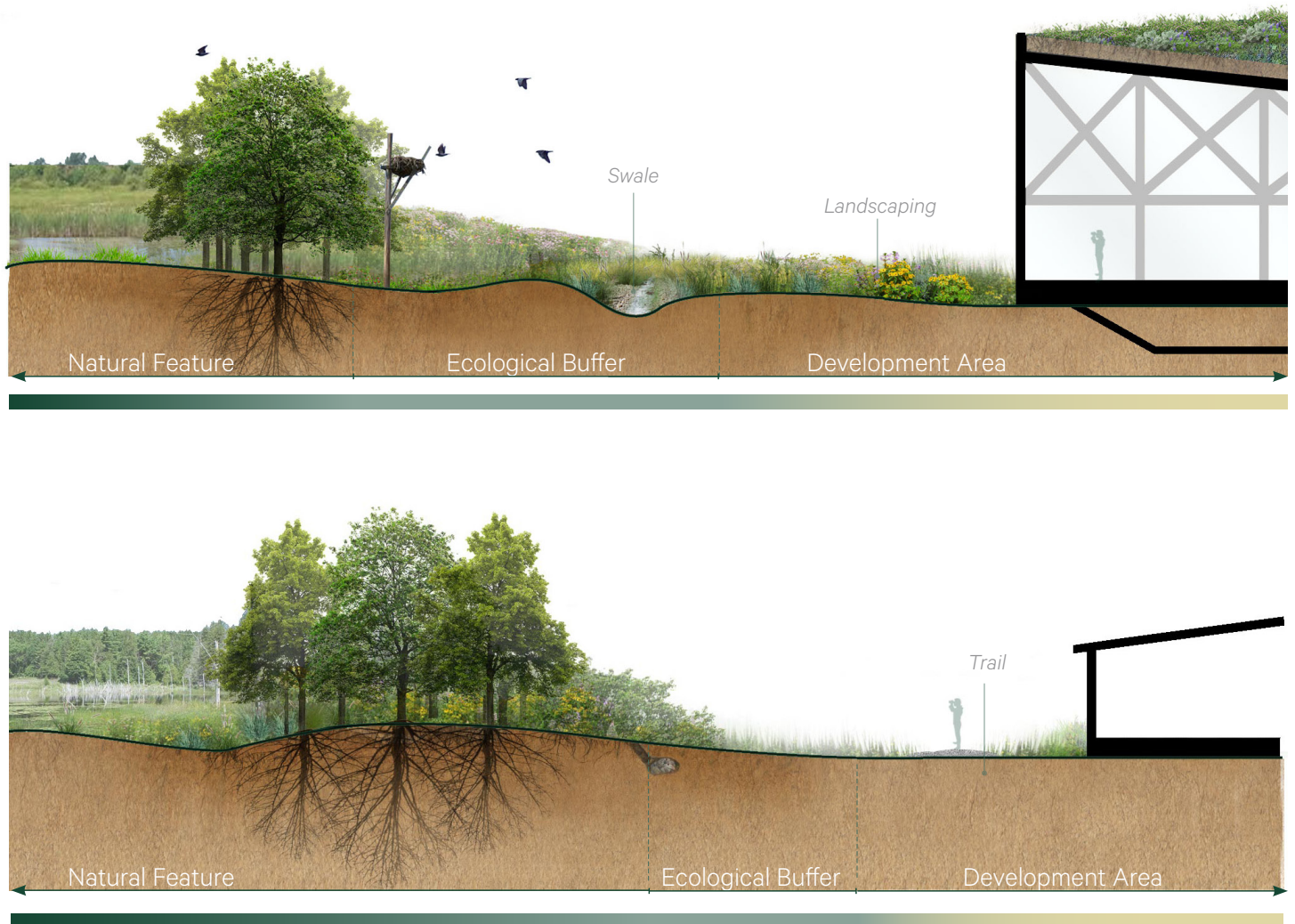


Figure 23: Examples of the Built-Natural Interface

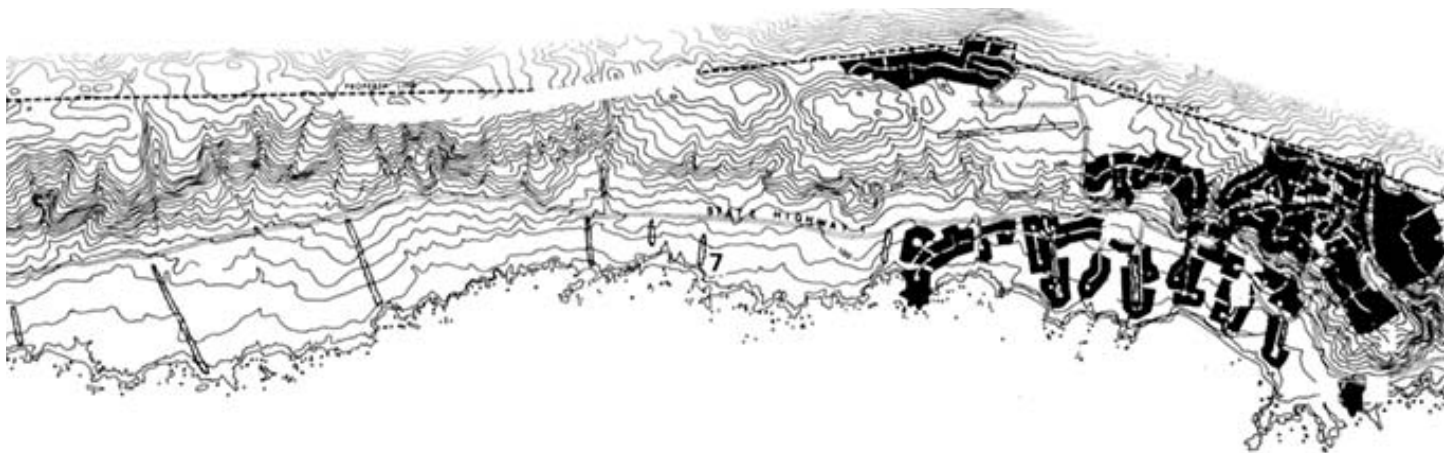
## 7.3 Nature-inclusive Design

### A. UNDERSTAND THE SYSTEM

Prior to initiating the site design process, Trent University is committed to developing an early, detailed understanding, and thoughtful systems-based analysis of the natural context. Site-specific decisions related to the proposed siting, function, land use, and program should be based on this initial analysis.

#### General Guidelines

- Undertake a contextual area-wide survey to understand system connectivity patterns and feature-specific sensitivities (refer to the Phase 1 Natural Heritage Report, and Sections 5.0, Otonabee River and 6.0, University Green Network).
- Engage in a collaborative process that includes an ecologist, First Nations, the development partner, and the University.
- Align future proposals with the overall goals and objectives of current watershed planning efforts from the City and Otonabee Conservation.
- Where possible, design proposed functions, land uses, and programs to integrate with existing flora and fauna identified on site.
- Prioritize avoidance of significant features, functions, and ecosystem services across the landscape. If avoidance is not possible, mitigate impacts throughout all phases, including design concept, detailed site plan, and the built project.
- Where avoidance cannot be reasonably achieved and minimizing has been explored, consideration is given to mitigation to address impacts (that are not direct removal of feature areas). If the feature will be directly impacted (wholly or partially) consideration is then given to replication or compensation.
- Refer to Part IV - Towards Implementation for measures to prioritize the protection of the natural system and guide land use planning with consideration for the presence and function of natural heritage features within the Symons Campus.



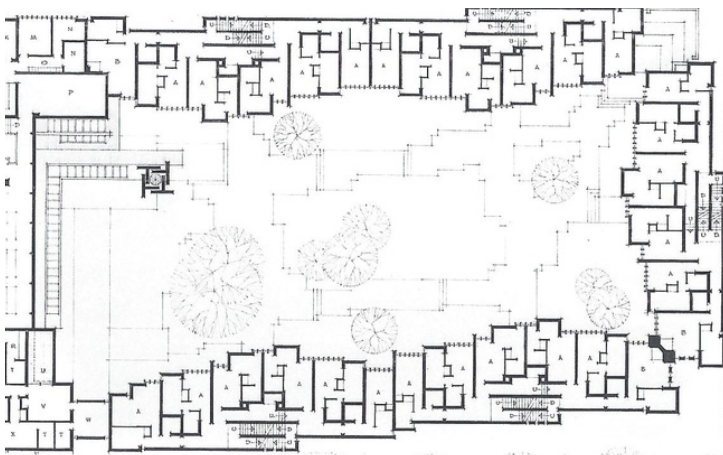
Survey by Lawrence Halprin used to understand the site's landforms and natural systems and to inform later design stages, Sea Ranch, California. Source: Lawrence Halprin

## B. DRIVE NATURE-INCLUSIVE SITING AND ORIENTATION

After developing a comprehensive understanding of the system and its needs, orient planned development components to reflect site conditions, natural areas and features, and the ecological context, and prioritize the protection and inclusion of natural elements that will contribute to achieving net benefit.

### General Guidelines

- Leverage and respect existing topography and natural heritage features, to the extent possible.
- Locate green infrastructure features and passive recreational spaces adjacent to buffers from natural heritage features in order to reinforce buffers.
- Orient and locate built form to minimize alterations to the solar conditions of existing natural features, and maximize the sunlight available to all surfaces of the built form.
- Consider the tradeoffs between height and lot coverage in regard to their respective impact on the adjacent natural features and contributions to climate change.
- For sites located adjacent to natural features and areas, minimize vehicular access to the extent possible, including parking and loading requirements, and locate them on the opposite side of the building to any significant natural features, where feasible.



Massey College demonstrates mitigation and nature-inclusion through Site Plan, University of Toronto. Source: Ron Thom. 1963



Built Massey College, University of Toronto. Source: Charles Birnbaum, The Cultural Landscape Foundation

## C. AVOID OR REDUCE DISTURBANCES

The construction of new projects and subsequent occupation of the site should aim to avoid or minimize disturbances to the ecological and hydrological context, especially when adjacent to natural features and areas. A proactive and collaborative approach that engages the City of Peterborough, Otonabee Conservation, and the local First Nations, should be used to design and monitor effectiveness of environmental controls.

### General Guidelines

#### Site Design

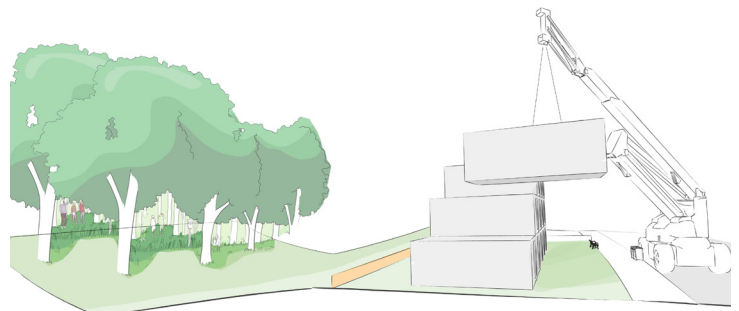
- Orient active outdoor amenity spaces that include communal gathering areas towards the street, while passive amenities should be oriented to the natural features.
- Provide accessible landscaped areas with naturalized plantings that have minimal maintenance requirements.
- Reduce noise pollution through the application of vegetated berms and dense landscaping.
- Orient lighting, including outdoor lighting, away from natural areas and inwards towards paths and built areas. Utilize strategies for lower mast lighting, downward directional, etc.
- Buildings, particularly those adjacent to natural features, attract birds and hence must avoid or reduce treatments that pose a collision risk. Effective deterrents include low reflectance, opaque materials, bird-friendly glazing, awnings and overhangs, and exterior screens and shutters.
- Ensure areas and building faces adjacent to natural features adjacent are not used as ‘back of house’ spaces (i.e. for waste collection and loading), where feasible, while minimizing visual impact and conflict with pedestrians and cyclists.
- Integrate wildlife-road mitigation areas (refer to Section 8.2).

#### Construction

- Utilize best practices for controlling runoff, collecting sediment, and monitoring construction.
- Ensure durable, timeless materials are used.
- Utilize modular prefabricated construction to reduce the impact of the construction on-site, where possible.
- Rely on foundation systems that avoid blasting and minimize impact on existing tree roots.

#### Occupation

- Establish a monitoring and research program to understand actual impacts on-site and provide recommendations for adaptations.
- Where landscaping maintenance is necessary, quiet electrical or manual devices should be used in lieu of gas powered ones.
- Avoid use of excess salt on roads and sidewalk in the winter. Ensure that stockpiled snow is managed for quality and quantity during melt-off.



Demonstration of less invasive modular construction approaches



GROUP AFFECTED



DISTURBANCE	amphibians	birds	fish	insects	small mammals	medium mammals	large mammals	reptiles	vegetation
Habitat loss	X	X	X	X	X	X	X	X	X
Habitat fragmentation / connectivity	X	X			X	X	X	X	X
Invasive species	X	X	X	X	X	X		X	X
Light	X	X		X					
Window strikes		X							
Noise	X	X			<i>bats</i>				
Garbage and dumping	X				X	X		X	X
Subsidized predators	X	X			X			X	
Domestic pets	X				X	X			
Roads (wildlife collisions, mortality)	X	X			X	X	X	X	
Erosion / sedimentation	X		X					X	X
Pollution (e.g., road salt)	X		X						X
Water quantity	X		X					X	X
Water quality	X		X					X	X

**Table 2:** Impacts of Potential Site Disturbances on Flora and Fauna

## D. INFUSE NATURE

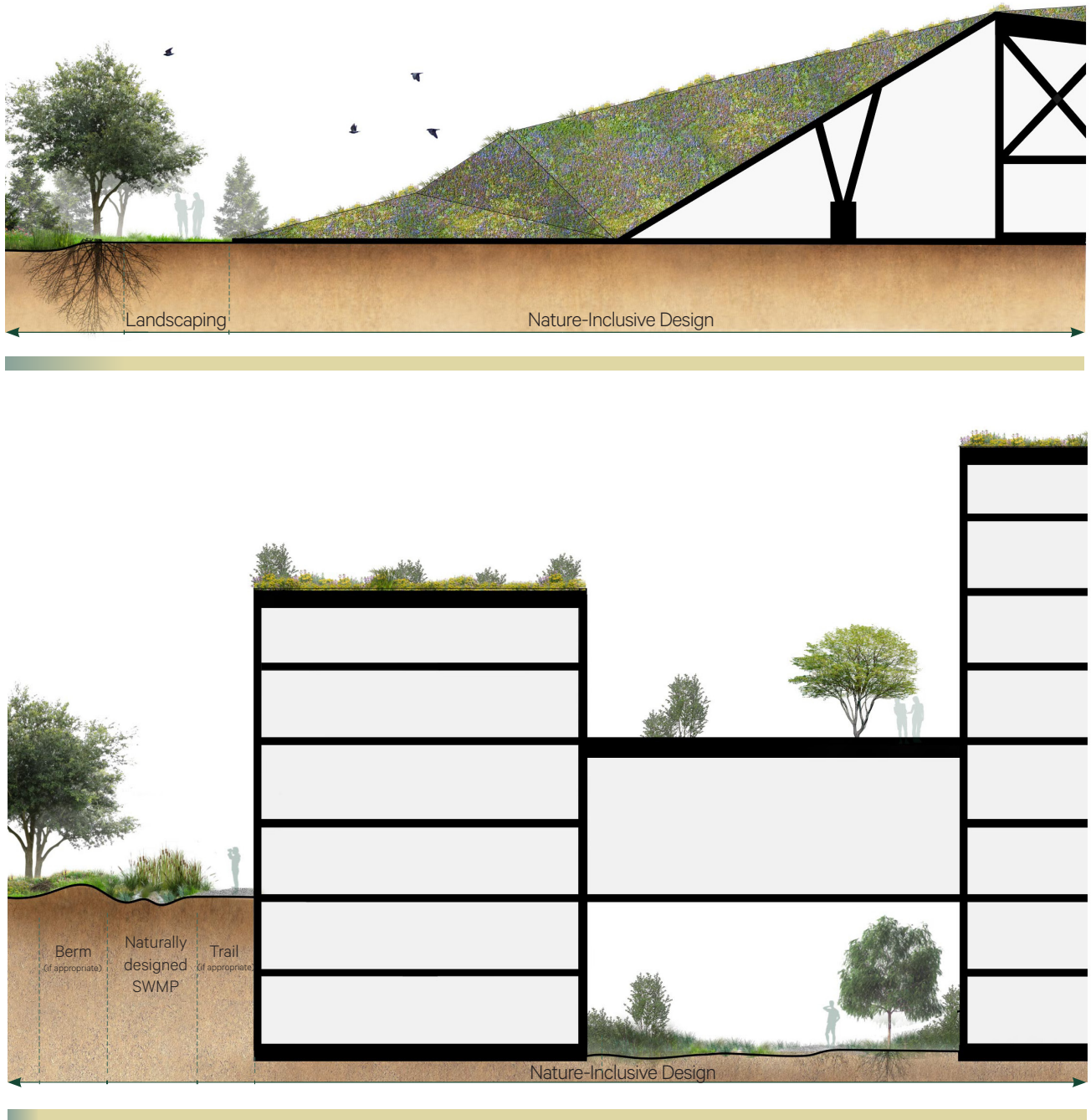
Use nature-inclusive design strategies to knit the development into its natural and ecological context. Careful consideration of the elements and positive contributions by design will create the conditions for net positive benefits.

### General Guidelines

- Introduce natural features including learning gardens, arboretums, outdoor classrooms, perm-culture gardens, natural corridors, reflective spaces, bird and butterfly friendly spaces, and living walls. Ensure they are appropriate to the species associated with the site and are properly oriented to the species' requirements.
- Establish a mix of habitats and communities that reflect the diverse array of structures that occur in nature to complement, support, or diversify adjacent features and areas. This may include nest boxes, mast-producing species (i.e. wildlife food sources), natural cover, etc.
- Construct, restore, and enhance wetlands, especially on sites where streams or wetlands existed historically and water collects naturally.
- Ensure material considerations provide porosity at a variety of scales.
- Require a diversity of maintenance levels to meet the ongoing needs of the site (e.g., irrigation).
- Retrofit existing buildings and areas, where feasible, introducing mitigation and enhancement measures such as shoreline rehabilitation efforts, bird friendly applications, and/or naturalized landscapes.
- Select species based on expected growing conditions (exposure, moisture). Consider the purpose of the area being planted (aesthetic, buffer, etc.). Have one or more objectives in mind, such as:
  - Ecological – buffering function (thicker, dense base), under wildlife habitat (e.g., pollinators, food sources, cover).
  - Aesthetic – consider flowering times and overall colour and form of the species.
  - Maintenance – consider planting location, how it grows, and what maintenance might be required.
- Refer to Section 6.2 Composition of the UGN for a description of Naturalized Green Spaces.



This City of Mississauga pollinator garden is part of the Bee Cities initiative.  
Source: Bee City Canada



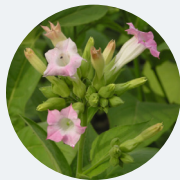
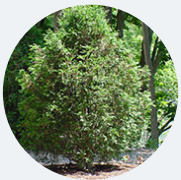


**Figure 24:** Examples of nature-inclusive design within Development Areas



**Figure 25: Landscape Palette**


The following is a list of native species that have been identified through the various consultation events as positively contributing to the ecology of the Symons Campus lands. This list is not exhaustive, and may be used as a general guide to inform planting in existing and new green spaces on Campus.







⊗ *Four Sacred Medicines*

			
<b>Tobacco</b> <i>asaamaa</i>	<b>White Cedar</b> <i>giizhikaandag</i>	<b>White Sagebrush</b> <i>mashkodejiibik</i>	<b>Sweet Grass</b> <i>wiingushk</i>




VALUES: ● Medicine ● Foods

**Trees**

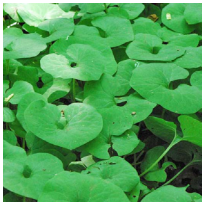


					
<b>Basswood</b> <i>Tilia americana</i>	<span style="color: red;">●</span> <b>Eastern Red Cedar</b> <i>Juniperus virginiana</i> <i>L. var. virginiana</i>	<span style="color: orange;">●</span> <b>Black Cherry</b> <i>Prunus serotina</i>	<span style="color: red;">●</span> <span style="color: orange;">●</span> <b>Sugar Maple</b> <i>Acer saccharum</i>	<span style="color: red;">●</span> <b>Silver Maple</b> <i>Acer saccharinum</i>	<span style="color: red;">●</span> <b>White Elm</b> <i>Ulmus americana L.</i>

					
<span style="color: orange;">●</span> <b>Bur Oak</b> <i>Quercus macrocarpa Michx.</i>	<span style="color: orange;">●</span> <b>Northern Red Oak</b> <i>Quercus rubra L.</i>	<span style="color: orange;">●</span> <b>White Oak</b> <i>Quercus alba L.</i>	<span style="color: red;">●</span> <span style="color: orange;">●</span> <b>Tamarack</b> <i>Larix laricina</i>	<span style="color: red;">●</span> <b>Eastern White Pine</b> <i>Pinus strobus L.</i>	<span style="color: red;">●</span> <b>White Spruce</b> <i>Picea glauca</i>

**Shrubs**

		
<span style="color: red;">●</span> <span style="color: orange;">●</span> <b>Common Witchhazel</b> <i>Hamamelis virginiana</i>	<span style="color: red;">●</span> <b>Striped Maple</b> <i>Acer pensylvanicum</i>	<span style="color: red;">●</span> <span style="color: orange;">●</span> <b>Staghorn Sumac</b> <i>Rhus typhina L.</i>

**Herbs & Perennials**

		
<span style="color: red;">●</span> <span style="color: orange;">●</span> <b>Canada Wild Ginger</b> <i>Asarum canadense L.</i>	<span style="color: orange;">●</span> <b>Wild Strawberry</b> <i>Fragaria virginiana</i> <i>Mill.</i>	<span style="color: orange;">●</span> <b>Woodland Strawberry</b> <i>Fragaria vesca L.</i>

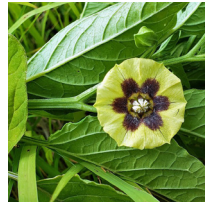
Herbs & Perennials



●  
**Aster**  
*Symphyotrichum*  
*spp.*



●  
**Clammy Ground-cherry**  
*Physalis heterophylla* Nees



● ●  
**Long-leaved Ground-cherry**  
*Physalis longifolia*



●  
**Woodland Sunflower**  
*Helianthus divaricatus*



● ●  
**Black-Eyed Susan**  
*Rudbeckia hirta*



●  
**Early Goldenrod**  
*Solidago juncea*



●  
**Zigzag Goldenrod**  
*Solidago caesia*



●  
**Bloodroot**  
*Sanguinaria canadensis*



●  
**Mayapple**  
*Podophyllum peltatum*



●  
**Blue Vervian**  
*Verbena hastata*



●  
**Northern Blueflag**  
*Iris versicolor*



●  
**Rugel's Plantain**  
*Plantago rugelii* Decne.

Vines



●  
**Foam Flower**  
*Tiarella cordifolia*



●  
**Common Milkweed**  
*Asclepias syriaca*



●  
**Riverbank Grape**  
*Vitis riparia* Michx.



●  
**Climbing Bittersweet**  
*Celastrus scandens* L.



●  
**Canada Bluejoint**  
*Calamagrostis canadensis*



●  
**Mountain Ricegrass**  
*Oryzopsis asperifolia*

Grasses & Sedges



●  
**Wild Rice**  
*Zizania palustris*



●  
**Sweet Flag**  
*Acorus americanus*



●  
**Northern Shorthusk**  
*Brachyelytrum aristosum*



● ●  
**Broad-leaved Cattail**  
*Typha latifolia* L.



●  
**Lake Sedge**  
*Carex lacustris*



●  
**Fox Sedge**  
*Carex vulpinoidea*

## 7.4 Low Impact Development Strategies

Use low impact development strategies to integrate stormwater management through absorbent landscapes, detention areas, infiltration swales, pervious paving, rain gardens, rainwater harvesting, and tree pits and trenches.

### General Guidelines

- Incorporate natural water flows to work in harmony with the site and its surrounding areas.
- Meet water needs through captured precipitation or other natural closed-loop water systems, and/or by recycling grey and black water.
- Utilize natural purifying systems (e.g., helophyte filters or phytoremediation) without the need for synthetic solutions or chemicals.
- Treat stormwater and water discharge (including grey and black water) through reuse, a closed-loop system, or infiltration.
- Integrate porous surfaces that recharge groundwater where subsurface conditions permit.
- Utilize porous surface treatments for vehicles.
- Conserve existing site permeability.
- Decentralize stormwater controls.
- Develop a maintenance plan.
- Maintain the existing hydrological functions on the site.



Pond system at the Centre for Sustainable Landscapes replicates the natural water treatment process in wetlands, Pittsburgh. Source: Phipps Conservatory



Rain garden stormwater management at Bridgestone Americas, Akron, Ohio. Source: Federation of Canadian Municipalities



Rain garden stormwater management at Bridgestone Americas, Akron, Ohio. Source: Environmental Design Group

## 7.5 Gathering and Recreational Spaces

Open spaces on Campus will be designed as part of a larger whole, providing diverse social and recreational offerings that address the various needs of the environment, campus, and community.

### General Guidelines

- Accommodate a broad range of programs and uses, gathering and seating areas. Build in adaptability to allow for changing uses.
- Provide spaces for celebration, expression and flexible programming.
- Integrate open spaces with adjacent built form uses and coordinate in materiality and design to form a cohesive indoor and outdoor experience.
- Establish direct visual links between open spaces and other key landmarks and natural assets of the campus.
- Enhance pedestrian comfort by increasing the canopy cover to reduce urban heat island effect and reduce the impact of paved surfaces on microclimactic conditions. Provide coniferous plantings in areas prone to strong winter winds.
- Manage invasive species and maintain campus green spaces, providing access to varying microclimactic conditions.
- Naturalize portions of green spaces, where possible, to contribute to the goal of enriching biodiversity on campus.
- Increase the amount of permeable spaces, where appropriate, to enhance water infiltration and reduce the quantity and velocity of stormwater runoff.
- Provide strategic connections to the campus and regional trail networks, where possible.



Students gathering by the Tipi near Gzowski College, Trent University



Students gathering at Otonabee College, Trent University



Winter activities at Champlain College, Trent University

## 7.6 Building Siting, Massing, and Orientation

The University Districts will reflect a high standard of design excellence and incorporate buildings that activate the public realm, framing and defining green spaces and streets, and contributing to the character and identity of the campus.

### General Guidelines

- Consider thoughtful building design and architectural treatment that is responsive to its surrounding context and reflective of its proposed use. Provide schematic unity or contrast between buildings and adjacent natural features and green spaces.
- Orient buildings towards streets and green spaces, with prominent and easily distinguishable entrances.
- Provide clear and barrier free pedestrian movement around and to building entrances, with weather protection at entrances and along building edges, where applicable.
- Break up long building edges through architectural treatments such as changes in material and plane.
- Incorporate building setbacks and step backs to maintain a pedestrian scale along the public realm.
- Locate vehicular access, pick-up and drop-off areas, and parking in areas that minimize visual impact and conflict with pedestrians and cyclists. Where the alternative is an interface with natural features, seek creative solutions to architecturally integrate parking and servicing, or provide effective natural screening to keep noise and other disturbances away from sensitive areas, as appropriate.
- Consolidate vehicle access points to minimize the number of breaks in the streetwall in order to maintain a sense of enclosure.



Chemical Sciences Building, Trent University. Source: Teeple Architects

## 7.7 Universal Accessibility

The University Districts serve a diverse community and will be designed to have equal participation by people of all ages and abilities. The framework encourages the application of universal design principles across campus to the degree possible.

### General Guidelines

- Establish clear, intuitive connections between key spaces on campus, enhanced by wayfinding signage and lighting to increase ease of use.
- Design open spaces to be navigable, multi-sensory, and sensitive to the needs of all age groups and abilities.
- Increase safety and thermal comfort for pedestrians in the winter months, through heating technologies or weather protection, where feasible.
- Establish a well connected and legible network of pathways, supported with a wayfinding system, exterior lighting, and pathway design consistent with standards in the *Accessibility for Ontarians with Disabilities Act (AODA)*.
- Utilize tactile elements and contrasting colours and materials for those with visual impairment to identify changes in function that can be detected with visual aids (i.e. tactile buffer strips at crossings, braille incorporated in wayfinding elements).
- Consolidate vehicle access points to minimize the number of breaks along pedestrian and bicycle routes.
- Design new facilities with main entrances that are clearly visible, well lit, and at grade to avoid the need for ramps. Also ensure new facilities have legible and welcoming through-routes accompanied with elevators for sites with large grade changes.
- Integrate new buildings into existing topography to moderate the elevation change, instead of “benching” the site.
- Where changes in grade cannot be avoided, accommodate those with mobility needs by providing ramps and switchbacks (as alternatives to stairs), gradual slopes, smooth paving surfaces, among others.
- Provide parking spaces for people with disabilities, within close proximity to the facility, and with drop-off areas close to and (where possible) visible from entrances.



Durham Residence and Academic Building, Trent University



Tactile Paving Used to Guide the Visually Impaired.  
Source: Streets of Louga

## 7.8 Placemaking and Storytelling

Placemaking and recognition in the Districts will foster a spirit of the land and campus – expressing the unique identity of Trent’s campus and community. The Symons Campus presents an opportunity for spontaneous teaching and learning. Interpretive and education signage may be integrated in various settings to tell the story of the land.

### General Guidelines

- Locate public art features in areas that are highly visible, particularly in proximity to entrances and trails.
- Incorporate storytelling elements to highlight the rich heritage of the Symons Campus, including recognition of the University, Michi Saagiig, and settler and farming heritage.
- Provide opportunities to involve Trent’s and Peterborough’s artistic communities in the design of public art installations.
- Consult the **Trent University Art Collection Policy**:



[trentu.ca/governance/sites/trentu.ca.governance/files/documents/Trent%20Art%20CollectionPolicy.pdf](https://trentu.ca/governance/sites/trentu.ca.governance/files/documents/Trent%20Art%20CollectionPolicy.pdf)

The Presidential Advisory Committee leads the Public Sculpture Initiative. The initiative helps identify Canadian artists to attract donations of works and produce artistic concepts for new site-specific work serving as a flagship celebration of Trent University's commitment to the national arts community.



Incorporate educational signage in natural areas to describe the significance and sensitivity of the area, species that inhabit the zone, wildlife habitat, Indigenous names and uses, etc.

- In designing the public realm, incorporate custom design elements such as special surface treatments, moveable planters, accent lighting, iconic furnishing palette, and/or art installations between buildings or near University entrances.
- Provide interactive elements across the campus to encourage student and visitor participation, engagement, and community building (i.e. mural walls, community gardens, interactive public art).
- Provide clear directions for special permitted or prohibited uses of green spaces on Campus. Where specific uses are prohibited, direct users to the appropriate location where such uses are permitted.
- Locate communication and other servicing infrastructure away from entrances to enhance the quality of and activate the building interface.



Sculpture 'This Column Ends' outside of Blackburn Hall, Trent University, Peterborough



Integrated public art at Ethennonhawahstihnen Park, Toronto  
Source: Jason Thorne, Twitter



## Indigenous Placemaking

The Trent lands are located on the traditional territory of the Michi Saagiig and the treaty lands of the Rice Lake Treaty No. 20 (1818) and the Williams Treaty (1923). The University Districts provide opportunities to create, support, and sustain a respectful and representational environment for the local Michi Saagiig First Nations and Indigenous students.

### General Guidelines

- Acknowledge the campus lands as traditional territory through place names, public art, and placemaking elements featured in a number of visible locations to make Indigenous culture a key part of campus life.
- On-campus naming opportunities should consider the opportunity to commemorate local First Nations, Michi Saagiig leaders, clans, and history, utilizing Michi Saagiig Anishinaabemowin (Mississauga dialect of the Anishinaabe language).
- Utilize Indigenous concepts of welcoming and gathering within campus spaces to create additional community-oriented spaces for a variety of programming including Indigenous ceremonies of welcoming and cultural purposes.
- In accordance with local tradition, landscapes should feature an educational component where possible, including interpretation of Indigenous and ethnobotanical plants and biodiversity.
- Foster the creation of areas where traditional medicines and traditional teachings can flourish and shape new understanding for Indigenous Traditional Knowledge and beliefs.
- The Mnidoowag A'Kiing Traditional Area continues to be an important and accessible place for ceremonies, spiritual respite and for the sacred fire. This area will continue to be used for these purposes.
- Commemoration should not only be focused on the past, but on the contemporary presence of Michi Saagiig, Anishinaabeg, and Indigenous cultures.
- Trent lands and Nature Areas commemoration should focus on learning opportunities for the Williams Treaty and Rice Lake Treaty No. 20.
- Cultural heritage interpretation on the campus will include Michi Saagiig culture, history, and storytelling that highlights the worldview of Michi Saagiig people and their connections to the land and water.



Indigenous Cultural Markers at Humber College, Toronto  
Source: Canadian Architect



Gathering Circle at the Spirit Garden, Prince Arthur's Landing,  
Thunder Bay. Source: Tom Arban, Canadian Architect



### Interface with Cultural Heritage Assets

The Symons Campus is rich in cultural heritage features, which form unique opportunities for sensitive interaction in a manner that showcases, preserves, and enhances the integrity of these assets.

#### General Guidelines

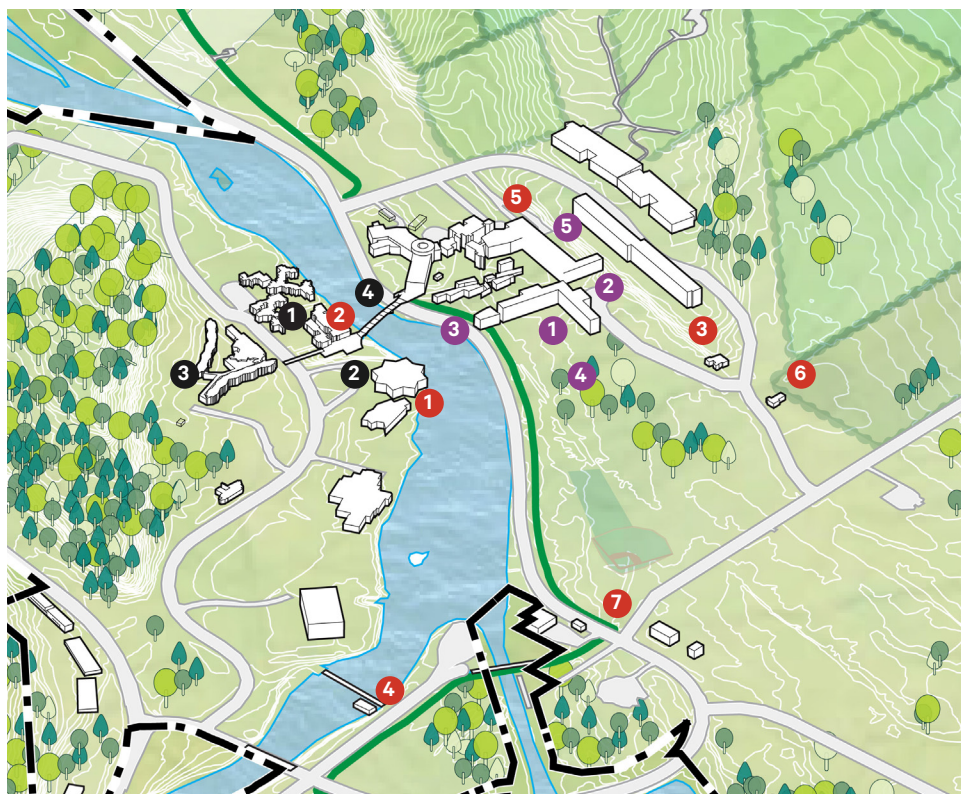
- Consult the Trent University Heritage Stewardship Policy:
  - Showcase the University's architectural heritage and vision by maintaining views to iconic buildings within the Campus Core.
- Consult the Campus Master Archaeological Study, which was undertaken with the participation of Michi Saagiig First Nations monitors.
- Locate heritage buildings and spaces on campus identified in the University's Heritage Stewardship Policy as anchors that define and enhance the identity and culture of the Symons Campus.



[trentu.ca/governance/sites/trentu.ca.governance/files/documents/Heritage%20Stewardship%20Policy%20FINAL.pdf](https://trentu.ca/governance/sites/trentu.ca.governance/files/documents/Heritage%20Stewardship%20Policy%20FINAL.pdf)



Consult the Campus Master Archaeological Study, which was undertaken with the participation of Michi Saagiig First Nations monitors.



#### Trent University Stewardship Policy

##### Culturally Valued Buildings (Level 1)

- 1 Bata Library
- 2 Faryon Bridge
- 3 Archaeology Centre
- 4 Stan Adamson Power House
- 5 Science Complex
- 6 Mackenzie House
- 7 Orange Lodge

##### Culturally Valued Landscapes (Level 1)

- 1 Champlain College with Alumni House and Memorial Tree Area
- 2 University Court / Bata Podium
- 3 Lady Eaton College with Drumlin
- 4 Otonabee River

##### Indigenous Spaces

- 1 Ska'nitón:ra, Benedict Gathering Space
- 2 Ernest & Florence Benedict Gathering Space
- 3 Nozhem: First Peoples Performance Space
- 4 Mnidoowag A'Kiing
- 5 Tipi - School of Education

Figure 26: Existing Cultural Assets on the Symons Campus

## Views and Sightlines

The University Districts benefit from breathtaking views of the land and will maintain and enhance view corridors across the campus, particularly to important features such as the Otonabee River, the drumlins, landmark buildings, and key green spaces.

### General Guidelines

- Maximize views and sightlines, especially to the Otonabee River and the drumlins, from many places on campus in order to provide a strong sense of place within the landscape.
- Preserve major view corridors and manage them over time to maintain views from elements that block or degrade their intrinsic attractiveness.
- Contribute to an interesting skyline and ensure buildings are sufficiently spaced apart to minimize the loss of view corridors towards the river and other natural features.



View Corridors and Pathways Leading to Building Entrances at Champlain College, Trent University