DURHAM COLLEGE AND UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY

CAMPUS MASTER PLAN

MMM GROUP

In association with

GREENBERG CONSULTANTS INC.
June 2015

All of us at Durham College and the University of Ontario Institute of Technology (UOIT) are aware of and celebrate the many benefits our partnership brings to our students, employees and the communities that we serve. From the sharing of people, resources, buildings and academic pathways, we are intrinsically linked and all the better for it.

That’s why we are so pleased with the work, input and consideration that has resulted in our joint Campus Master Plan. This document is incredibly important for both UOIT and DC as it sets out a broad vision for where we will grow our physical presence in the many years ahead, yet it also has the specific detail and focus that will ensure we remain true to a series of core principles and priorities that are fundamental to our institutions.

As you read through this document, you will learn more about where we have planned for new buildings, how we will use existing space and facilities, our commitment to being pedestrian and transit friendly, and other details about how we will travel from today to large and thriving institutions in 2030 and beyond.

We are grateful for the professionalism of the MMM Group along with the campus team that led this process. We also thank our respective Boards of Governors for their support and endorsement of the plan. Finally, we remain particularly appreciative of all the partners who helped us ensure the plan works not only for us, but for our communities as well. We look forward to implementing the vision.

Sincerely,

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This Standard Limitations statement is considered part of this report.
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INTRODUCTION
The Campus Master Plan (CMP) for Durham College (DC, the college) and the University of Ontario Institute of Technology (UOIT, the university) is a visionary, forward thinking document that provides the framework, strategy and collection of tools needed to guide campus development in keeping with space requirements. More specifically, the CMP is a coordinated development solution that will guide the character, scale, facilities and layout of the shared Oshawa campus and will address future academic, research, student life, athletic and community partnership needs. Most importantly, the CMP is realistic and implementation focused. It describes the steps that need to be undertaken to translate the joint vision into a vibrant institutional precinct that is appropriately integrated within the Region of Durham and the City of Oshawa.

The CMP development process involved two phases:

- **Phase 1:** The Vision and Directions Report is a summary of contextual analysis, site observations, focused consultation and a creative preliminary campus design process. This report describes a framework, through a series of master plan principles, recommendations and graphic depiction of a layout for the shared Oshawa campus. Phase 1 was initiated in August 2013 and was completed in late June 2014.

- **Phase 2:** The Campus Master Plan includes a detailed concept plan, as well as a phasing and implementation strategy. Phase 2 commenced in July 2014 and will conclude in September 2015.

**WHAT IS A MASTER PLAN?**

A master plan is a guiding document that provides an illustration and associated objectives and guidelines to direct how future growth will occur within a specific area. A master plan is a visionary document that provides the framework to direct future decision-making with respect to built form, open space, and infrastructure of all kinds. A master plan must be detailed enough to ensure that the plan’s vision and objectives can be achieved over time; while also allowing for flexibility and adaptability as circumstances, technologies, and demands change and evolve.
1.1 Campus Master Plan Scope and Format

UOIT and DC have campuses and locations in other parts of Durham Region, including the DC Whitby campus and the UOIT downtown Oshawa location. The focus of this CMP is the shared Oshawa campus, and associated Windfields Farm lands north of Conlin Road.

The CMP will guide the future land use and infrastructure development for the shared Oshawa campus, with particular focus on enrolment growth and associated space needs to 2030. The shared Oshawa campus includes the existing campus, south of Conlin Road, the institutional lands north of Conlin Road, and west of Simcoe Street North. For the purposes of this report, the undeveloped lands north of Conlin Road are referred to as the “Windfields Farm lands north of Conlin Road.”

The CMP vision, principles and guidelines have been established and confirmed in consultation with DC and UOIT. As such, any future development and expansion at campuses or other locations should reference the relevant guidelines. Physical and visual connections to the university’s downtown location, and DC’s other campuses will be addressed through the guidelines on wayfinding and signage that are outlined in Section 5.6.

The geographical scope of the CMP is illustrated in Figure 1.1.

FIGURE 1.1 – Shared Oshawa Campus and Scope of the CMP
The vision and associated principles for the CMP were established in the Vision and Directions Report and provide the framework and key directions for the future campus. The CMP details the policies and guidelines that implement the vision, support the principles, and will result in holistic placemaking at the shared Oshawa campus. Most important, the CMP provides DC and UOIT with the tools, processes, and guidelines to direct campus development to 2030. The guidelines are based on the detailed background review undertaken during the Vision and Directions Report process.

The following sub-sections address the CMP’s principles, including:

- **Section 2:** Vision, Principles and Context
- **Section 3:** Sustainability and Universal Accessibility
- **Section 4:** Campus Character
- **Section 5:** Movement and Circulation
- **Section 6:** Public Realm and Open Space
- **Section 7:** Infrastructure and Utilities; and
- **Section 8:** Implementation

The CMP takes a holistic approach to placemaking by providing design guidelines for Built Form and Character, Movement and Circulation and Public Realm and Open Space (Figure 1.2).
VISION, PRINCIPLES AND CONTEXT
2.0 VISION, PRINCIPLES and CONTEXT

2.1 Vision and Principles
The CMP Vision was established during Phase 1 and outlines the future aspirations for the campus:

CMP Vision
The joint CMP for Durham College and the University of Ontario Institute of Technology addresses land use and infrastructure development with a realistic, solutions-oriented implementation plan. The CMP acknowledges space needs across all institutional categories and the desire for a vibrant, integrated and sustainable campus community. The CMP concept promotes a compact, walkable, mixed-use and green campus that offers opportunities for appropriate collaboration with the community, business partners, and all levels of government.

The CMP includes guidelines and recommendations that align with and will implement the vision and ensure that the campus is a vibrant space for faculty, students and the community, into the future. The vision is further supported by 17 Master Plan principles. The principles were established in consultation with the CMP core team, senior management team, Board of Governors, students, faculty, staff, the community and external agencies and partners.

The CMP Principles

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<td>Student-focused Institutions</td>
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<td>Identity</td>
<td>The CMP strengthens the physical relationship between DC and UOIT while providing a means for both institutions to reinforce their own identities. The shared Oshawa campus is defined as a place that is unique and distinguishable from the surrounding areas, but that is integrated with and inviting to the broader community.</td>
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<td>Use Land Efficiently</td>
<td>The CMP development concept is structured to meet the future academic, faculty, athletic and student space needs of the institutions while providing the tools and framework to be adaptable to leverage funding opportunities as well as development opportunities with the private sector.</td>
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<td>Partnerships</td>
<td>The CMP provides guidance to the institutions on how they should position themselves, in terms of organization and design, to take advantage of partnership opportunities (government and non-government).</td>
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<td>Enrolment Growth and Diverse Student Needs</td>
<td>The CMP accommodates the future academic space needs for both the University of Ontario Institute of Technology and Durham College. The CMP acknowledges the demographic profile and needs of the student population as being unique from other colleges and universities and will address residence, housing, activity, social and cultural needs.</td>
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<td>Sustainability</td>
<td>The CMP incorporates sustainability principles that are measurable, holistic and applicable at different scales (building to neighbourhood). Where possible, sustainability features form key areas of interest within the campus, such as the existing stormwater ponds and green roofs.</td>
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<td>Innovation and Technology</td>
<td>The CMP accommodates spaces for innovative start-ups, technology and manufacturing. The innovation and technology park space provides spaces that can be used by both institutions and that can be integrated with academic spaces.</td>
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<td>Decision Making Processes</td>
<td>The CMP articulates and directly informs a decision-making process with respect to physical form, space utilization and partnership with moving forward for both institutions, ensuring the continued success and growth of both.</td>
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<td>Cultural Heritage and Diversity</td>
<td>The campus has a rich history and a bright future as well as a diverse student population that is reflected in the CMP. The legacy of E.P. Taylor, Windfields Farm and the horse racing history associated with the lands north of Conlin Road, as well as the Aboriginal heritage is expressed in the CMP in an innovative and relevant way.</td>
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<td>A Plan that Works for the Short, Medium and Long-term</td>
<td>The CMP is adaptable over the short, medium and long-term, as opportunities arise.</td>
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The Master Plan principles were used to frame the key directions outlined in the Vision and Directions Report, including the development of a Campus Framework Plan and recommendations. The Framework Plan conceptually illustrates the key principles and ideas that have been carried over into the Concept Plan (see Figure 2.1). The recommendations contained within the Vision and Directions Report are addressed in the CMP as elements of the Concept Plan, guidelines for how the campus should develop in the future, and/or key actions in the implementation section.

In October 2014, a public open house and workshop was held where the following principles were identified as priorities for the CMP: student-focused institutions, plan that works for the short, medium and long-terms, enhanced walkability, encourage enhanced transportation and transit access. These principles have been incorporated into the CMP guidelines.
Figure 2.1 - Campus Framework Plan (Phase 1)

As modified March 2015

Existing Campus Buildings
Proposed 4 storey development block
Proposed 3 storey development block
Mixed-use (1st Flr Commercial/Community Use) (up to 4 storeys)
Student Residences (including parking)
Innovation Park development blocks (integrated with institutional uses)
Stormwater pond (current and proposed)
Signalized Intersection (current)
Non-Signalized Intersection (current)
Proposed Signalized Intersection (current non-signalized)
Collaborative Spaces (DC/UOIT)
UOIT Landmark building location
Durham College Landmark building location
Pedestrian linkages
Proposed trail linkages (on DC-UOIT Lands)
Proposed trail linkages (subject to land ownership)
Focal Point
Parking location
Windfields Adaptive Reuse Opportunity
The Framework Plan (Figure 2.1) illustrates the following key design concepts:

- A pedestrian-focused diagonal link will be from Simcoe Street North and Conlin Road towards the existing campus, south of Conlin Road and to the new campus expansion area, north of Conlin Road. This creates a strong visual and physical connection to Windfields Farm lands north of Conlin Road and to Polonsky Commons and the existing campus buildings south of Conlin.
- Simcoe Street North and Conlin Road intersection should be the shared focal point and gateway to the shared Oshawa campus.
- Additional academic, residence and student service spaces should be provided along the Simcoe Street North frontage, as well as within a new campus focal point on the Windfields Farm lands.
- Introduction of new roads should provide access to the central portion of the Windfields Farm lands north of Conlin Road.
- Additional commercial uses should be integrated throughout the existing campus.
- The Windfields Farm lands north of Conlin Road will have a quad that focuses around a central open space. Uses in this area should primarily be institutional, however graduate and undergraduate student residences and commercial uses should be provided at key locations.
- Innovation space to complement and link with the innovation park may also be located in this central area.
- Shared institutional and commercial uses should serve the institutions and broader community. These should be located on the north and south sides of Conlin Road at Simcoe Street North and within the campus expansion area north of Conlin Road.
- Views and pedestrian connections should be maintained into Windfields Farm lands north and to Polonsky Commons south of Conlin Road.
- Open space should accommodate city park land as well as active recreation space.
- Student residences should face onto the open space and natural environment.
- Parking areas should be provided for new buildings.
- Bus stops should be located along Simcoe Street North for the proposed Bus Rapid Transit (BRT) and other public transit improvements. The stops should be located in close proximity to campus buildings. A second transit hub should be determined in the CMP.

- Additional athletic facilities (e.g., athletic fields and field house) should be provided within the Windfields Farm lands north of Conlin Road. As the campus develops, the soccer field currently located at the north-west corner of Simcoe Street and Conlin Road should be relocated.

The key features of the Framework Plan directly relate to the Master Plan principles, and have been carried forward in the creation of a Master Plan Concept for the DC and UOIT shared Oshawa campus.
2.2 Enrolment and Space Projections

Over the next 15 - 20 years, student enrolment at all DC and UOIT campuses is expected to grow by over 16,700 full-time equivalent (FTE) students, of which approximately 12,500 additional FTE students will be accommodated at the shared Oshawa campus. As such, it is expected that the majority of the growth will occur on the shared Oshawa campus. Figure 2.2 illustrates the projected enrolment growth at the shared Oshawa campus over the next 15 - 20 years.

One of the key objectives of the CMP is to determine where and how to accommodate the expected growth. As part of the first phase of the CMP project, high-level space projections were undertaken by Educational Consulting Services (ECS). The full report is included as an Appendix to the Visions and Directions Report. The analysis identified an existing space shortfall at the shared Oshawa campus of over 36,000 gross square metres (GSM) in 2013.

Over the next 15 - 20 years, an additional estimated 140,000 GSM will be required to meet projected enrolment. The total required space on the shared Oshawa campus by 2030 is estimated to be over 290,000 GSM. Academic space projections include the future needs in terms of classrooms, lecture halls, laboratories, learner support, academic operations, administration, and campus services.

Note: Enrolment projections were based on population projections and funding assumptions.
transformed to residential communities and agricultural land and open space is now being currently taking place on the lands surrounding the shared Oshawa campus. What was once agricultural land and open space is now being transformed to residential communities and commercial amenities. Further, the Province of Ontario’s Big Move Plan (2008) identifies the Simcoe Street North corridor as a location for future rapid transit which would change the character and transportation movement along Simcoe Street and would provide additional access for the shared Oshawa campus. The Highway 407 eastern extension will include a full interchange at Simcoe Street, approximately 2.5 km north of the campus and is anticipated to be completed in late 2015. This significant infrastructure investment will also have implications on the campus and the future character along Simcoe Street. It is important that through this Campus Master Plan process, the shared Oshawa campus be well positioned to take advantage of the transition and leverage the infrastructure investments associated with it.

The World In Motion illustration (Figure 2.4) depicts and re-emphasizes the importance of this campus within the broader context of the land use and infrastructure changes in Oshawa. Given the projected student enrolment at the shared Oshawa campus, there is a significant opportunity to establish a Campus Precinct as defined through this CMP.

2.3 World In Motion

During Phase 1, the planning team undertook an analysis of the planning and development context surrounding the shared Oshawa campus. This analysis reviewed existing and new policies as well as on-going development applications to illustrate the transition that is currently taking place on the lands surrounding the shared Oshawa campus. What was once agricultural land and open space is now being transformed to residential communities and commercial amenities.
2.4 Concept Plan

Through discussions with the core team, the Board of Governors, Presidents, senior management teams, key stakeholders, the city, the region, students, faculty and staff, the Framework Plan was further refined to establish the Concept Plan for the CMP. The Concept Plan illustrates the key features from the Framework Plan while also providing additional detail.

The Concept Plan for the shared Oshawa campus illustrates a complete campus community beyond 2030. The Concept Plan introduces new academic spaces and increases opportunity for the development of community, service and retail spaces that will serve both the campus population, as well as the surrounding neighbourhood. The Concept Plan identifies and characterizes the new campus road network that connects the new development areas with the existing campus, and with the residential development occurring north of Britannia Avenue West. The Concept Plan sets the framework for a compact and walkable campus that will accommodate future growth and expansion and provide opportunities for greater integration with the surrounding community, local industries and strategic partners.
Figure 2.5 - Campus Master Plan Concept (as approved November 18, 2014)
SUSTAINABILITY AND UNIVERSAL ACCESSIBILITY
3.1 Sustainability and Campus Planning

DC and UOIT have made commitments to sustainability by promoting and implementing practices and approaches to development that are environmentally, socially and economically sustainable.

In July 2014, DC created a Conservation and Demand Management Plan that is intended to build upon DC's sustainability platform by detailing the current energy performance and greenhouse gas (GHG) impact of DC, while also setting goals to improve site energy efficiency and reduce GHG emissions over the next five years (to 2019). DC has already made significant progress in reducing energy consumption. As well, the Conservation and Management Plan identifies additional tools and programs aimed to further reduce the college’s ecological footprint.

Durham College’s recent sustainability achievements include:

- Durham College received a Bronze rating for its sustainability initiatives with the Sustainability Tracking Assessment and Rating System (STARS).
- STARS is a comprehensive tool that allows for meaningful comparisons of participating colleges and universities regarding their sustainability initiatives and focuses on several key areas of sustainability within an educational facility.
- Durham College's Centre for Food (CFF), including Bistro '67, the college’s full-service, teaching and learning restaurant, is certified as a 2 Star Certified Green Restaurant® by the Green Restaurant Association (GRA).
- The CFF’s green accomplishments include its dedication to reducing its environmental footprint by recycling; using a fully automated building controls management system and occupancy sensors in a variety of areas; offering touchless sensor faucets; recycling and composting kitchen waste; and using safer hand soaps among others. In addition careful attention is paid to the inputs and outputs of the facility and the restaurant in an effort to be good stewards of our environment.

UOIT has made a commitment to “demonstrate stewardship of the natural and built environment in a manner that is socially, environmentally and economically responsible while strengthening sustainability practices on campus and in the community through active student and staff participation.” In October 2014, the UOIT Board of Governors approved a Sustainability Policy for the university. UOIT will:

- Foster a culture of sustainability throughout our campus and broader community by playing a positive and proactive role in sustainability leadership; and
- Ensure that our commitment to sustainability is reflected in our organizational behaviours and policies through the application of effective, long-lasting solutions which integrate the ecological, social and economic facets of sustainability.

Both UOIT and DC have included in their respective sustainability commitments that they will continue to leverage and support the unique partnership and synergies associated with the broad-reaching and successful sustainability initiatives undertaken by each institution. The CMP supports the sustainability commitments made by each institution and provides additional guidance focused around campus and building expansion and leveraging green spaces and environment.

The Vision and Directions Report included six recommendations relating to sustainability, as well as key considerations for the CMP. These have been incorporated in the guidelines below. In addition, sustainable campus planning and guidance is integrated into many of the campus planning guidelines in the related CMP sections. The following sustainability guidelines must be considered:

3.1.1 Continue to leverage the natural synergies that are created through the shared campus, including the use of shared resources, such as parking, food services, learning spaces, and the implementation of sustainability policies and commitments as approved by both institutions.

3.1.2 Establish a shared commitment that all new buildings will be developed in an ecologically, economically, and socially sustainable manner. Establish a shared and consistent set of green building criteria that will be used by both institutions to determine the
appropriate sustainable technologies and practices for each new building. The green building criteria may be developed based on the evaluation criteria found in Leadership in Energy and Environmental Design (LEED®) or BREEAM, for example.

3.1.3 Commit to creating sustainable landscapes on campus through sustainable land development and management practices. Foster resiliency in the campus landscape by encouraging thoughtful planning and design that informs long-term monitoring and adaptive management of the landscape. Establish a shared and consistent set of low-impact development (LID) criteria that will be implemented by both institutions to determine appropriate approaches for each new landscape. The “Sustainable Sites Initiative™” may serve as the basis for establishing this criteria. LID approaches were incorporated into the Master Environmental Servicing Plan for the Windfields Planning Area and are also relevant to this site, including:

- Grade the areas adjacent to natural features to direct runoff toward these features. This could include incorporating shallow infiltration swales (with clear stone) along the edges of the natural areas.
- Construction of the creek crossings should be scheduled if possible during late summer to take advantage of the typically lower groundwater elevations.
  - Place additional topsoil across development lands to provide for water storage, including in boulevards. Potentially deeper topsoil could be placed within open space areas and playing fields. The upper portions of underlying soil should be tilled or scarified prior to placing the topsoil.
  - Grade as much of the stormwater management ponds as possible directly to the creeks rather than back to the pond.

3.1.4 Stormwater management on site should first consider low-impact development alternatives such as soakaways, trenches and chambers, bioretention, vegetated filter strips, permeable pavements, enhanced grass swales and perforated pipe systems to encourage infiltration or storage and reuse of rainwater wherever possible. In addition, the following should be studied:

  - In individual building design, stormwater may be captured in a cistern and reused for building sanitary conveyance and/or landscape irrigation.
  - Reduce the amount of impervious surfaces by using alternative paving materials such as open pavers and open rubber mats.
  - Where impervious or hardscape areas are implemented, such as parking lots, integrate bioswales and vegetation throughout and border the area with soft/permeable surfaces to allow stormwater to be slowed and infiltrated.
  - Green roofing systems may be implemented to reduce the amount of roof runoff during a storm by absorbing the rainwater, and reducing both the rate and quantity of its discharge.
  - Stormwater management ponds, where needed, should be designed as open space features, and integrated with the surrounding green spaces.

3.1.5 When designing open spaces, passive recreation and outdoor pedestrian connections, provide a mix of both soft and hard landscaped materials. Soft landscaping should comprise drought-tolerant plants that are either native and/or adaptive to promote biodiversity. Where hardscaping is required, minimize the potential heat island effect either by using materials that reflect the sun’s heat or through shading. Consider incorporating the following:

  - Vegetation that promotes the regional identity of the landscape of the campus and enhances a sense of place. Native and appropriate non-native plants adapted to site conditions, local climate, and the design intent of supporting biodiversity, and
improving opportunities for the successful establishment of plant communities. Use only non-invasive plants that are nursery grown, locally and legally harvested, or salvaged for reuse on campus.

- Siting vegetation or vegetated structures in strategic locations around buildings will reduce energy consumption and associated costs. The urban heat island effect may be reduced by planting trees, installing green roofs, or vegetated structures such as pergolas or trellises to shade hardscape areas such as patios, walkways, rooftops, or parking lots.

3.1.6 Continue to promote and encourage the use of alternative modes of transportation to the personal vehicle through transit pass programs, provision of covered and adequate bicycle parking, and discussions with Durham Region Transit and GO Transit on the increased provision of transit service along key routes.

3.1.7 Consider the design and construction of new buildings to ensure they can be adapted to changing learning formats and styles over time. Further, buildings
for non-academic uses, particularly on the ground floors should be designed to be adaptable to changing uses or needs as the campus grows.

3.1.8 Materials used in the construction of new buildings on campus can have significant impact on the environment, resulting from the initial natural resource depletion and the ecological impacts of their eventual disposal. The source and lifespan of building materials should be considered at the outset of the new building design process to ensure that they have minimal environmental effects and are long lasting. This will result in an overall reduction in the demand for raw materials over time and the amount of waste generated when compared with buildings /materials that have a shorter life-span.

3.2 Universal Accessibility

UOIT and DC are committed to ensuring access for students, staff and faculty with disabilities. The Accessibility for Ontarians with Disabilities Act (AODA) was enacted in 2005 and contains specific standards in five categories. Accessibility standards relating to the built environment focus on removing barriers to buildings and to the public realm. On December 27, 2013, Ontario Regulation 368/13 was filed to amend the new 2012 Building Code, O. Reg. 332/12 effective January 1, 2015. Accessibility Standards for the Design of Public Spaces only apply to new construction and major changes to existing features. As such, the following guidelines apply:

3.2.1 New buildings will be required to achieve the standards set out in the *Ontario Building Code* as they relate to the AODA requirements.

3.2.2 New campus open spaces, trails and pedestrian connections should be designed to be consistent with the Policy Guidelines for the Design of Public Spaces, April 2014.
CAMPUS
CHARACTER
The CMP sets the framework for the transition towards a compact, well-connected and walkable campus that has a cohesive appearance and approach to built form and the treatment of the public realm. This will be achieved through the shift over time from an auto-oriented built form, to one that is oriented towards transit, active transportation, pedestrian connectivity and walkability.

The CMP sets the overall vision and associated guidelines for the future campus, and provides more detailed, area-specific guidelines associated with seven Campus Character Areas (refer to Figure 4.5):

1. Durham
2. Campus Corners
3. Gateway
4. Quad
5. Innovation
6. Windfields
7. Thornton

The Campus Character Areas are visually and physically connected to one another, while also having distinct features and characteristics. This will ensure legibility within and between the spaces.

Each Character Area is well connected to neighbouring Character Areas and the broader campus through a series of pedestrian and vehicular connections, as well as through a consistent approach to streetscape and wayfinding.

The CMP illustrates a multi-modal, pedestrian-oriented, and integrated urban focal point at the Simcoe Street North and Conlin Road intersection. Both the Concept Plan and supporting guidelines emphasize the importance of this intersection as a gateway to the campus and to the City of Oshawa. The Concept Plan illustrates buildings that front both Simcoe Street North and Conlin Road and that frame the intersection. Identified as the Campus Corners Character Area, this area will promote a mix of uses at grade and increased interaction between the institutions and the broader community. Strong pedestrian transects radiate from the Simcoe Street and Conlin Road intersections into the shared Oshawa campus, north and south of Conlin Road.

The shared character for the entire Oshawa campus is outlined in the next section, followed by more specific built form guidelines that relate to each of the seven Campus Character Areas.

### 4.1 Campus Character

Campus character is established through a combination of built form, architecture, land uses, landscaping, open spaces, pedestrian connections, and movement patterns. New development on the shared Oshawa campus presents an opportunity to reinforce and enhance the campus character, in terms of the interior spaces that it will create, its relationship to existing buildings and the interaction with the surrounding outdoor spaces.

The continuity and pedestrian movement between buildings and spaces on campus and a consistent approach to the manner in which buildings address streets and open spaces will ensure that the campus is a recognizable place that differs from the surrounding communities and is identifiable as a Character Area. Buildings play an important role in the creation of walkable streets by providing a street edge that reinforces and supports pedestrian circulation and frames the public realm.

The interaction of a building’s indoor spaces and the surrounding public outdoor spaces, through pedestrian entrances, transparent at-grade glazing, active ground-floor uses and minimal blank wall façades, will help to establish a more interactive and inviting atmosphere for pedestrians. The guidelines associated with campus character are designed to be read in conjunction with the Public Realm and Open Space guidelines to ensure that the objectives of both are balanced and implemented.

The following guidelines apply to new development:

#### Land Use and Building Siting:

**4.1.1 Buildings** should provide academic, student services, administrative, innovation and campus service spaces to meet future student and programmatic requirements. Buildings should also provide spaces for student and campus life facilities, including retail stores, personal services and eating
establishments. Figure 4.1 illustrates recommended locations for mixed-use buildings.

4.1.2 Buildings should incorporate active ground-floor uses that engage with the outside through either a retail space and/or transparent at-grade glazing. In a mixed-use building, active ground-floor uses may include: student services, campus life facilities, retail, personal services, and/or eating establishments with individual entrances to the street and could serve both the university and college population, as well as the broader community. Active ground-floor uses may also comprise indoor spaces that visually engage with the outdoors through highly transparent windows and glazing. Where possible active ground-floor uses that function throughout the entire day should be encouraged, particularly at key gateways, such as Campus Corners. Figure 4.2 identifies the locations where active ground-floor uses are encouraged.

4.1.3 Buildings should be oriented to address the adjacent street frontages and provide main building entrances that front onto these streets, such as Conlin Road, Simcoe Street North, Founders Drive and primary and local campus streets. Building orientation will be further addressed in the street hierarchy in Section 5.0.

Figure 4.1 - Ground-floor Activation and Mixed-use
4.1.7 Buildings should not turn their backs on the open spaces and natural features on the shared Oshawa campus. Building designs should integrate with the landscape and natural setting through the placement of windows, doorways, and passive outdoor amenity spaces. Further, architectural detailing should be introduced to minimize the presence and dominance of blank wall faces.

4.1.8 Student accommodation will be essential to establish a vibrant campus community and to support the mix of uses proposed at key locations on campus. Student accommodation should be provided on the shared Oshawa campus and be placed within close walking distance to academic buildings and student service and social spaces. Student accommodation should include a mix of both traditional dormitory residences, as well as apartment-style residences that could accommodate mature students, visiting faculty or staff and international students. Student accommodation and living spaces may be integrated within some of the academic buildings, if deemed appropriate.

4.1.9 Athletic and recreation facilities should be provided on the shared Oshawa campus and incorporate requirements for built form, noted above.

4.1.10 Infill or adaptive reuse should establish a consistent street wall and seek to create enclosure along the streetscape.
Building Height and Massing:

4.1.11 A range of building heights should be provided throughout the campus. Generally building heights should not exceed four storeys, or approximately 16.0m, excluding rooftop mechanical rooms. Taller buildings should be located at Primary or Secondary Gateways and/or landmark locations as shown on Figure 4.3.

4.1.12 At primary or secondary gateways and/or landmark locations on campus, building heights in excess of four storeys (16.0m) should be explored, as identified in Figure 4.3. Discussions with the Oshawa Municipal Airport will need to occur to determine whether additional heights are feasible.

4.1.13 Primary and secondary gateways and landmarks are identified on Figure 4.3. These mark the main entry points to the campus from the surrounding community. Buildings at primary and secondary gateways should incorporate enhanced architectural features or building articulation to mark the gateway. Landmarks and view termini are located throughout the campus and should also be marked by buildings with distinguishable architectural features and articulation to frame or terminate a view and enhance campus legibility. Public art and/or landscape features may also be appropriate at primary and secondary gateway locations.
4.1.14 Buildings over three storeys, or approximately 12.0m in height, should include a step-back at the third storey. This will ensure that the pedestrian scale is maintained throughout campus and that adequate sunlight can penetrate the public realm. The minimum step-back should be between 3.0m and 5.0m.

4.1.15 Avoid buildings that are greater than 60.0m in length without a significant vertical break, including a change in building material, wall plane, pedestrian connection/pathway or other significant architectural feature.

4.1.16 Avoid significant stretches of blank wall façade on a building. Use entrances, windows, architectural detailing and articulation to break up blank wall façades.

**High Quality and Pedestrian-oriented Design:**

4.1.17 Enhanced architectural design should be incorporated in new buildings, particularly those located at primary and secondary gateways and/or landmarks. Encourage variation in architectural styles, materials, colours, and articulation to create distinguishable and identifiable buildings and spaces.

4.1.18 Design sites to promote and facilitate human activity and social interaction. Encourage courtyards, forecourts, plazas, patios and other amenity spaces to enliven the public or semi-public realm and to allow convenient access between public and private spaces.

4.1.19 Promote walkability through a compact development form (Figure 4.4) with interconnected pedestrian routes, and through the creation of active, pedestrian-oriented, safe and attractive street frontages.

4.1.20 Buildings located along active pedestrian or transit streets within the campus should provide weather protection through architectural features or design (continuous canopy, collonades, etc.) wherever possible.

4.1.21 Ensure resiliency and adaptability in architectural design through the creation of adaptive spaces that can evolve and change over time as teaching methods and needs evolve.

4.1.22 Development should respect traditional Aboriginal lands, and areas used for ceremonial purposes.

4.1.23 All rooftop mechanical units and penthouses should be screened from view by being integrated into building design and/or enclosed with materials consistent or complementary to building cladding and cladding colours.

4.1.24 Building loading, servicing elements and utilities should be incorporated into the design of the building to mitigate visual and physical impact on the streetscape. Where not possible, they should be screened through landscaping (soft and/or hard).
Figure 4.4 - Compact Development - 400m Increments (5 minute walk)
4.2 Campus Character Areas

The shared Oshawa campus will comprise seven Campus Character Areas. Campus planning and future expansion should occur in a holistic manner, instead of on a site-by-site basis. Although each area will have a distinct character, the built form, public realm and open space guidelines and the movement framework will visually, physically and functionally knit the Campus Character Areas together.

The seven Campus Character Areas as illustrated in Figure 4.5 are:

1. Durham
2. Campus Corners
3. Gateway
4. Quad
5. Innovation
6. Windfields
7. Thornton

Figure 4.5 - Concept Plan with Campus Character Areas
In addition to the Campus Character guidelines outlined in section 4.1, the following guidelines apply to each Character Area.

4.2.1 Durham Character Area

The existing shared Oshawa campus is identified for the purposes of the CMP as the Durham Character Area. It encompasses the area where many of the existing shared Oshawa campus buildings are located, as well as student residences, the Commencement lot and the transit hub at Commencement Drive. Commencement lot provides a significant number of parking spaces for the existing campus. The following guidelines apply to the Durham Character Area:

4.2.1.1 New development opportunities may arise within Durham, as buildings age and require replacement or reconstruction. In the event that new buildings are constructed, guidelines relating to the overall campus should be applied to ensure that a consistent approach is taken to future built form and how it addresses the public realm.

4.2.1.2 Polonsky Commons is an important central open space feature of Durham, as well as of the broader shared Oshawa campus. The built form relationship and connections to Polonsky Commons should be maintained.

4.2.1.3 Opportunities for improved streetscaping, active transportation and transit service should be explored, as outlined in Sections 5 and 6 of this plan.
4.2.2 Campus Corners Character Area

The Campus Corners Character Area is envisioned to be the main focal point for the shared Oshawa campus and will extend north from the existing shared buildings south of Conlin Road (Figure 4.7).

Campus Corners will be a destination, not only for members of the academic community, but also for the broader community. Campus Corners will be the connection between the lands south of Conlin Road and the future development areas north of Conlin Road. The Conlin Road corridor between Simcoe Street North and Founders Drive will be a connecting seam with a strong focus on the intersection of Simcoe Street and Conlin Road. The surrounding buildings will frame the street edges, reinforcing this area as a primary gateway through architectural features and details and provide pedestrian friendly ground-level active frontages. Ground-floor uses will have a stronger focus on retail, restaurant and service uses that can provide retail opportunities for the academic community, as well as residents living within close walking distance. Ground-floor uses will also provide innovation spaces allowing students and/or faculty to collaborate and partner with local and regional businesses. The public realm will be pedestrian-oriented and provide safe north-south access across Conlin Road, and east-west access across Simcoe Street.

4.2.2.1 The focus in Campus Corners will be the Simcoe Street North and Conlin Road intersection. Buildings should be designed to architecturally address both the Simcoe Street and Conlin Road frontages and to animate the street. Buildings should be designed to accommodate strong physical pedestrian and visual connections from the intersection to the institutional lands north and south of Conlin Road.

4.2.2.2 Campus Corners should be developed to include a mix of uses that provide academic uses, as well as retail and service uses for both the academic and broader community. Ground-floor uses should activate the street frontage and create interest along the street edge. Wider boulevards should be provided to allow for patios and/or upgraded streetscaping.

4.2.2.3 Buildings should be designed and oriented to support pedestrian connections to existing and future campus buildings/facilities and reinforce views to other Character Areas within the campus (e.g., northwest view to natural heritage and future Quad Character Area).

4.2.2.4 Built form and land uses in Campus Corners should support its importance as a significant public transit node and access point to the campus.
4.2.2.5 Increased building height at the intersection of Simcoe Street and Conlin Road should be considered to act as both a landmark and the primary gateway to the campus.

4.2.2.6 Wherever possible building design should create quadrangles that are connected with other quadrangles within the campus and to public realm streets to create additional pedestrian connectivity in the campus.

4.2.2.7 Parking areas should not be permitted between buildings at the Conlin Road and Simcoe Street intersection.

4.2.2.8 A significant amount of the existing parking is provided within Campus Corners Character Area, including Founders lots 2, 3, 6 and 7. As Campus Corners is developed, additional parking will need to be provided at other locations on campus, as well as being integrated into the future building design. Additional guidance on the approach to future parking provision and phasing is provided in Sections 5 and 8.

4.2.2.9 A hydro corridor currently traverses Campus Corners east-west across the lands directly south of Conlin Road. When the lands on the south side of Conlin Road are redeveloped from surface parking lots, UOIT and DC should, through consultation with the hydro provider, seek to have the hydro corridor buried in this section, to minimize the visual impacts of the corridor, and allow development to occur in that area.

4.2.3 Gateway Character Area

The Gateway Character Area will be the northern arrival and entry to the campus, as well as to the City of Oshawa (Figure 4.8). The built form in this Character Area will define the western edge of Simcoe Street North. This edge will also need to relate to the residential uses to the east and north. The Gateway will comprise mainly institutional, academic office, research and parking facilities. It will provide a secondary gateway to the campus from both Simcoe Street and Britannia Avenue West. The following guidelines apply to Gateway:

4.2.3.1 Buildings fronting onto Simcoe Street North should provide active façades through the provision of clear glazing and building functions that address views from Simcoe Street.

4.2.3.2 Buildings should frame green public spaces and quadrangles along the internal campus street network and provide a buffer from the Simcoe Street edge.
4.2.3.3 Other than street entries into the campus, buildings along Simcoe Street should provide additional pedestrian access points or throughways. This will increase permeability along the street edge while providing additional pedestrian entry and exit from the campus and views into the campus from Simcoe Street.

4.2.3.4 Green spaces and quadrangles should be interconnected both within the Character Area and adjacent Character Areas as well to any potential adjacent open space trail system.

4.2.3.5 Buildings located at the intersection of Britannia Avenue West and Simcoe Street North should address the corner through added wall articulation or architectural features.

4.2.3.6 Additional building height, where possible, should be considered for the secondary gateway, at the corner of Simcoe Street and Britannia Avenue West.

4.2.3.7 Surface parking may be provided on the south end of the Gateway Character Area, on the north side of Northern Dancer Drive, if determined necessary.

4.2.4 Quad Character Area

The Quad Character Area presents a unique development opportunity for the university and college (Figure 4.9). The Quad Character Area concept illustrates a strong diagonal pedestrian boulevard that will transect the lands and create strong linkages to the future City of Oshawa community park, and to the Windfields Character Area. The diagonal pedestrian boulevard will be lined on either side with academic and mixed-use buildings. The Quad will be demarcated by a significant central public open space that will reflect a character similar to that of Polonsky Commons in the Durham Character Area. East-west and north-south campus streets will bisect the large block and connect to the Northern Dancer Drive western expansion, and the proposed circular primary campus street. The following guidelines apply to development within the Quad Character Area:

4.2.4.1 Buildings should address the diagonal pedestrian boulevard and central open space, and animate those edges through the provision of active ground-floor uses, visually permeable glazing, pedestrian weather protection (canopies) and efforts to minimize shading of the public realm.
4.2.4.2 A mix of uses should be provided on the ground floors of buildings that surround the open space. Uses should include retail, general and student-specific services, and restaurants/cafés. Innovation spaces should also be provided that will encourage and foster partnerships between the institutions and growing businesses. Uses on upper floors should be academic focused.

4.2.4.3 Student accommodation that integrates with the academic and mixed-uses and that help to create activity on campus outside of regular school hours should be provided. Student and faculty accommodation may also be integrated into the upper floors of the mixed-use buildings, should these spaces not be needed for academic uses.

4.2.4.4 Parking should be provided at the rear of buildings or edges of property, away from the central green space. Structured parking may be required to meet future parking demands. If necessary, structured parking should be provided in the south-west portion of the Quad Character Area. The structured parking lot should be designed to integrate with the surrounding built form and where possible, incorporate active ground-floor uses (e.g., small scale retail uses) fronting campus streets. On-street parking may be provided along the north-south and east-west campus streets.

4.2.4.5 Links should be provided to and integrated with the City of Oshawa’s community park to the north.

4.2.4.6 The diagonal pedestrian boulevard should be reinforced through repetition of special hard landscaping or decorative paving materials used in other parts of the shared Oshawa campus. Further design guidelines for the pedestrian boulevard are provided in Section 6.1.

4.2.4.7 Built forms that address view termination should be introduced, as identified on Figure 4.3, through a combination of increased building heights and/or architectural features.

4.2.4.8 Building orientation and placement should enhance pedestrian permeability and direct pedestrian circulation/activity towards the mixed-use core. This will support its commercial and retail activities while connecting to amenities and services at Character Areas edges.

4.2.4.9 Athletic spaces should be provided within close walking distance (approximately 200 metres or 3 minutes) of the mixed-use core, diagonal pedestrian boulevard, central open space and student accommodation.
4.2.4.10 Community garden space should be provided within close proximity to student residences.

4.2.4.11 DC and UOIT should seek to leverage development opportunities and partnerships that are complementary to the academic uses and that meet the overall campus planning objectives for surplus academic space.

4.2.4.12 As these lands may not be required for campus development in the next 15 years, UOIT and DC may seek to use a portion of the lands for an interim use, such as surface parking lots. If an interim use is proposed, the road structure as identified in the Concept Plan should be established in the first stages of development. This will ensure that once the lands transition from surface parking lots to new buildings, the general road structure is already in place. Surface parking lots should be designed in a manner that is consistent with the sustainability objectives of this plan, and of the city.

4.2.5 Innovation Character Area

UOIT and DC are committed to the fostering of innovative and entrepreneurial industries through the provision of space specifically for this purpose on the shared Oshawa campus. The strategic plans for both UOIT and DC contain statements relating to the fostering of innovation and entrepreneurship. The Innovation Character Area provides space that will be used to foster collaboration among private sector, government, university researchers and educators. It will be a hub of activity with a focus on advanced manufacturing, agriculture, energy and creative infrastructure for smart communities (Figure 4.10). The Innovation Character Area will integrate with the Windfields Character Area and will enhance the opportunity for collaboration between the academic facilities provided.

4.2.5.1 It is estimated that approximately 32,200m² of space will be required at full build out of the Innovation Area. Development should be phased over time to address both advancement of private partnerships as well as growth and development of the campus.

4.2.5.2 Over time, business ventures that are borne out of the Innovation Character Area may require additional space or dedicated manufacturing space. The lands east of Thornton Road, west of Oshawa Creek and north of Conlin Road should be used in the future to accommodate the ventures that may have outgrown the campus setting.
4.2.5.3 The specific building orientation and layout within the Innovation Character Area has been designed to allow for flexibility in future development. The building placement and footprints should be refined once the specific internal use is determined. Generally, the following guidelines should apply:

- Buildings should be designed to address the adjacent main street to minimize walking distance from the surrounding streets.
- Front entrances to buildings should be oriented to the main street of either Northern Dancer, or the new north-south street. Ground-floor uses should animate the street, and blank walls should be minimized.
- Open spaces should be provided in proximity to the buildings, and should integrate with the tributary lands located to the east.
- Building loading and servicing areas should be located away from the main pedestrian entrance and screened from public view through building design or landscaping.
- Parking should be provided at the rear or side of the building, away from the main street frontage, and where feasible, should be structured.

4.2.6 Windfields Character Area

The Windfields Character Area includes many of the original Windfields buildings, as well as the culturally significant gravesite of Northern Dancer (Figure 4.11). A unique approach to the future development of this area is required due to its cultural significance. This land was farmed in the 19th century, though the land use changed in the 20th century. Landscape elements such as parts of an orchard, several drives and buildings are still extant on the property, tangible evidence of the settlement activities undertaken by farming families present during the 19th century. The property’s gridlines of fences, trees and hedgerows established in the mid-20th century have changed little over time. The significance of the site as a cultural heritage landscape stems from its association with several well-known landowners who played an influential role in shaping both the community of Oshawa and the equestrian industry in Canada, the race horse cemetery, and the designed landscape elements associated with several houses on the site. The significance of the Windfields Farm in terms of cultural heritage value has been established.

Buildings that still exist as part of this Character Area include (Figure 4.12):

- A-1: Barn No.2
- A-3: Barn No.6, Foaling Barn
- A-4: Barn No.5 and A-12: Silo
- A-7: House 22/23
- A-19: Arena and Barn No.1
- Stallion Barn
UOIT is obliged to maintain the Northern Dancer gravesite. The maintenance and management of Windfields represents a significant investment, and as such, a clear path forward is needed to ensure the resource is managed both physically and fiscally. Heritage buildings that remain unoccupied for long periods of time are at risk of general deterioration as well as threats of vandalism and arson.

The adaptive reuse of built form in Windfields represents a unique opportunity. Often adaptive reuse of a building is a viable alternative to demolition and replacement as it requires less energy, results in fewer waste products generated, and can offer social benefits by revitalizing familiar landmarks. At the time of publication of this CMP, the City of Oshawa and UOIT were embarking on a heritage study to consider feasible adaptive reuse of the buildings within this Character Area.

The following guidelines apply to Windfields:

4.2.6.1 An Options Assessment should be undertaken to consider and identify feasible options for adaptive reuse of the historic properties.

4.2.6.2 Reoccupation of some of the buildings on the farm should be considered. It may help to stabilize the site, avoid possible vandalism and further deterioration, and address shortages in space that both institutions face. Other programming elements, such as agricultural education could be planned for this part of the expanded shared Oshawa campus.

4.2.6.3 Efforts to conserve the cultural heritage landscape value and to continue to express the legacy of E.P. Taylor and Windfields Farm should be considered. Preserving the evidence of past agricultural land use can be accomplished through the incorporation of tree lines and hedgerows into future access roads and walkways, as well as the stone entry features. One of these walkways could enhance the connection to the existing horse cemetery and woodlot burial ground north of Britannia Avenue. These green linkages would create a strong visible identity for the campus while increasing walkability throughout campus and beyond to the community.

4.2.6.4 The Parks Canada’s Standards and Guidelines for the Conservation of Historic Places in Canada should be reviewed to determine best practices in the protection and conservation of heritage elements within the campus.
4.2.6.5 Aboriginal heritage should be incorporated into the fabric of the campus, as should traditional Aboriginal ways of viewing and interpreting the world. The Aboriginal sites on campus should be incorporated into the academic curriculum where appropriate.

4.2.6.6 Opportunities should be sought to create walking tours of the campus that highlight the built and cultural heritage of the area, potentially established through customized applications for smart phones.

4.2.6.7 Interpretive features should be explored at Windfields Farm to serve as a meeting place for walking tours, as well as a source of information for self-guided tours.

4.2.6.8 Opportunities should be explored to engage campus visitors through signage that includes quick response codes with links to websites containing further information about the history of the buildings and landscapes on campus.

4.2.6.9 The history of Windfields should be integrated into the landscape features, plant typologies, and signage in other Campus Character Areas.

4.2.7 Thornton Character Area

The Thornton Character Area is located between Thornton Road and the Oshawa Creek (Figure 4.13). The Britannia Avenue West extension will traverse this Character Area. No area-specific guidelines have been developed for this Character Area.
MOVEMENT AND CIRCULATION
5.1 Street Network

The CMP introduces a new street network and additional signals at key existing intersections, as illustrated in Figure 5.1. A street hierarchy has been introduced for new and existing campus streets. The purpose of the street hierarchy is to ensure that the transportation and movement needs of the campus can be met; while also ensuring that the spaces are interconnected by a series of pedestrian-oriented linkages. The street hierarchy also establishes a consistent approach to streetscaping and roadway design. The following three street types have been identified in the Concept Plan (Figure 5.2):

- **Regional/City Street:** Operated by the City of Oshawa or the Region of Durham, these streets include: Conlin Road, Simcoe Street North, and Britannia Avenue West. Although UOIT and DC do not control the treatment of the public right-of-way, there is opportunity to work together with the region and city to implement unique signage, street furniture, lighting or boulevard treatments along these streets to truly define this area.

- **Primary Campus Street:** Operated by DC and UOIT, the primary function of these streets is to allow movement through the campus, for transit, personal, service and delivery vehicles, cyclists and pedestrians. The right-of-way cross section illustrates the provision of one lane in each direction, turning lanes at intersections, on-street parking, bicycling lanes, sidewalks and street-trees. The road right-of-way will be 23.0m, which is narrower than the Regional and City streets; however wider than the local campus streets. Primary campus streets include Founders Drive, Northern Dancer Boulevard extension, the new ring-road in the Quad Character Area, and the extension of Founders Drive on the east and west sides of the tributary.

- **Local Campus Street:** Operated by UOIT and DC, their primary function is to provide pedestrian connections and vehicular access only to the nearby buildings. The road right-of-way will be 16.0m. Local campus streets, such as Founders Gate and Avenue of Champions permit one lane of traffic in each direction and wide pedestrian sidewalks. Street trees should be incorporated into these right-of-ways when the buildings directly adjacent are constructed. New local campus streets within the Quad Character Area should be designed as shared streets.

The following guidelines should be applied to the local street network:

5.1.1 New campus streets should be provided as the campus expands north (Figure 5.1). Streets will follow a hierarchy of Regional/City street, primary campus street and local campus street. Each street type should have a unique cross section that will define the streetscape and paved surface.

5.1.2 The intersection of Simcoe Street North and Conlin Road is a primary gateway and should be designed in a manner that balances the priorities of pedestrians and vehicles, ensuring that:

- Special paving for pedestrian crosswalks should be provided at this intersection to delineate the space from other intersections along Simcoe Street North.
• Signal timing should be sequenced to provide pedestrians with adequate time to cross safely.
• Right-turning vehicles should yield to pedestrians, not vice-versa.
• “Pork-chop” islands and wide right turn lanes should be minimized.
• Transit stops and future BRT stations should be accommodated.

5.1.3 DC and UOIT should work together with the Region of Durham to provide new signalized intersections at Simcoe Street North and Northern Dancer Drive.

5.1.4 The street network should be designed to improve connectivity while also ensuring that pedestrians are prioritized through the provision of wider pedestrian sidewalks and, where applicable, boulevards.

5.1.5 The proposed street network should align with existing and new local streets, including Northern Dancer Drive, and Britannia Avenue West, as well as the new local roads north of Britannia Avenue West.

5.1.6 Pedestrian-oriented local campus streets, such as the east-west, and north-south shared streets in the Quad Character Area, should have a distinct paving to distinguish them from other local campus streets.

5.1.7 Predominantly pedestrian streets within the Quad Character Area should include features such as removable bollards or other motor vehicle control features to allow for the creation of ‘pedestrian-only’ streets during special events.
5.2 Pedestrian Network

Pedestrian movement to and from campus, as well as throughout campus will be of utmost importance. Pedestrians create the vibrancy and activity that defines college and university campuses and make them safe spaces where people want to spend time.

Once on campus, students, faculty and staff should be able to easily and safely move between buildings and across campus. The principle of “walkability” was identified, through community consultation, as a priority for the CMP. As a result, the CMP Concept Plan establishes the foundation for a strong pedestrian network. The following guidelines relate to the pedestrian network:

5.2.1 Safe and well-connected pedestrian routes should continue to be provided throughout the campus, as illustrated on Figure 5.2. New buildings should be designed to link to the broader pedestrian network, and where logical, provide internal pedestrian connections to neighbouring buildings.

5.2.2 The future building placement, orientation, and entrances as well as the interaction with the surrounding street network and open spaces should consider pedestrian movement as a priority.

5.2.3 Compact development that is interconnected with pedestrian pathways encourages walkability. New development should promote walkability on campus.
5.2.4 Diagonal transects provided from the Simcoe Street North and Conlin Road intersection that lead into the campus, should provide direct pedestrian connections to key academic and open spaces. These transects will ensure that a visual connection is maintained from this key intersection into the campus.

5.2.5 The Oshawa Creek and its tributaries present an opportunity to establish a trail system throughout the shared Oshawa campus, north and south of Conlin Road, with connections further south to the existing trail system.

5.2.6 Crime Prevention Through Environmental Design (CPTED) principles should be applied on campus to ensure a safe and comfortable pedestrian environment, including the provision of adequate lighting along pedestrian routes, sight lines into and out of pedestrian spaces, and landscape design that allows for visibility.

5.3 Parking

The current campus provides 3,248 parking spaces that are located in surface parking lots south and north of Conlin Road. Based on the 2013 enrolment, the campus provides 0.21 parking spaces per student.

The Vision and Directions Report analyzed two scenarios for future campus parking requirements, that included:

- Scenario 1: maintaining the existing parking supply in the order of 3,248 spaces.
- Scenario 2: maintaining the existing parking supply ratio of 0.21 space/FTE students.

It is acknowledged that parking will continue to be needed on the shared Oshawa campus; however, as student enrolment, faculty and staff increase over time, UOIT and DC should monitor parking demand, and respond to future parking needs in a sustainable manner which takes into consideration the provision of future transit, active transportation options, and transportation demand management (TDM) strategies.

As the CMP is realized, existing parking lots should be relocated, converted to structured lots, or removed to accommodate new academic spaces. An approach to the provision of parking on campus is outlined in Section 8: Implementation, as it relates to proposed phasing.

The following guidelines relate to parking:

5.3.1 Parking should continue to be provided on campus; however it should not occupy prime development sites or be located in key viewsheds. UOIT and DC should seek to maintain or moderately increase the total parking supply from what is currently provided (3,248 spaces).

5.3.2 Parking demand at all campus parking lots should be monitored to enable a timely response to future parking needs as enrolment grows and new buildings are constructed.

5.3.3 As Campus Corners develops, replacement parking should be provided, as required based on the parking demands at the time of building construction.

5.3.4 Surface parking lots should be located on future development sites with the understanding that these will eventually be redeveloped for other uses. Surface parking lots should be designed to integrate sustainable design features and, where applicable, vegetation to minimize the visual impact.

5.3.5 Structured parking lots should be encouraged. They should be strategically located on campus and designed to minimize the visual impact of the structure. Parking structures that
front Regional/City streets or the local campus streets in the Quad should be designed to incorporate active street frontages (retail, service, etc.). If feasible, underground parking should be incorporated into the design of new buildings.

5.3.6 Additional parking should be available through the provision of on-street parking spaces as illustrated on the conceptual local and primary campus street cross sections.

5.3.7 TDM programs should be established to minimize the reliance of students, faculty and staff on the private automobile, including:

- Establish a car-pooling program, working together with Smart Commute Durham, and identify priority carpool parking spaces.
- Continue to coordinate and discuss with Durham Transit the provision of new transit routes to and from campus.
- Gradually increase the price of parking to encourage other modes of transportation.
- Promote the development of a compact and walkable campus, so that if students need to drive they can park for the day and walk between classes and campus activities.

5.3.8 A transition of parking from surface to structured parking lots should be encouraged. This will minimize the total land area used for parking and free it up for other uses.
Figure 5.3 - Existing Parking Lots

Figure 5.4 - Existing and Proposed Parking
5.4 Public Transit

The DC and UOIT CMP establishes a built form, movement and open space framework that supports the increased provision of transit services over time. Public transit is a key consideration for UOIT and DC since experience to date is that most students commute from within Durham Region and, in the case of UOIT, from across the GTA.

Simcoe Street is identified as a future rapid transit corridor in the Metrolinx Big Move Plan and the Durham Region Transit long-term plan. With the future enrolment growth projected at DC and UOIT, combined with the new residential development north of the shared Oshawa campus, it is expected that the demand for transit will increase over time.

Future rapid transit along Simcoe Street presents a unique opportunity to establish a node at the intersection of Simcoe Street North and Conlin Road with future rapid transit stations, the shared Oshawa campus, and a mix of academic, retail, service, restaurant and office spaces within close walking distance. One central focal point for the CMP Concept Plan is the Simcoe Street and Conlin Road intersection. Emphasis should be placed on future development that is oriented towards the future transit facilities along Simcoe Street North.

The approach to building orientation, placement and phasing in the CMP will ensure that future development is consistent with and supportive of rapid transit service along Simcoe Street. This will ensure that campus staff and the student population directly benefit from the planned rapid transit investments within the city, region and province.

A reliable and comprehensive transit service will also increase connectivity between the shared Oshawa campus, the UOIT downtown location and the DC Whitby campus. The following guidelines outline the CMP’s public transit strategy:

5.4.1 Durham Region Transit and GO Transit ridership volumes should be monitored on a yearly basis along the routes serving the campus. This data will allow transit service to be more responsive to the varying needs of the campus population.

5.4.2 The existing transit hub on Commencement Drive and the provision of direct transit routes to the shared Oshawa campus should be maintained.

5.4.3 A second transit hub should be established in the Quad Character Area, as illustrated in the Concept Plan. The second transit hub is centrally located and should have access onto Northern Dancer Drive.

5.4.4 The Simcoe Street North corridor is identified as a future Rapid Transit corridor in Metrolinx Big Move plan and Durham Region Transit’s long-term transit strategy. With the projected increase in enrolment, DC and UOIT should continue to have discussions with representatives from Metrolinx and Durham Region Transit with regards to the future rapid transit corridor.

5.4.5 The Simcoe Street North and Conlin Road intersection is encouraged in the CMP to be a future transit node. Understanding that direct transit service to the shared Oshawa campus will continue to be required, transit service along Simcoe Street North (rapid transit or otherwise) should be encouraged.
5.5 **Active Transportation**

Encouraging active transportation through bicycling and walking contributes significantly to reducing automobile dependence. Figure 5.2 illustrates the proposed on-street cycling route through the campus, and new trails. The following strategies relate to active transportation:

5.5.1 **Cycling lanes** should be integrated along key internal campus streets that connect with the broader regional and city trail network and on-road cycling infrastructure. The primary cycle route is illustrated on Figure 5.2 and has been incorporated into the conceptual cross section for the primary campus street.

5.5.2 **Bicycle racks and lockers** should be situated close to buildings to afford users the opportunity to ride to and from their intended destinations.

5.5.3 **Where feasible, bicycle parking** should be incorporated into the design of new buildings or be weather protected.

5.5.4 **DC and UOIT** should develop strategies to promote active transportation, as well as carpooling, transit and other transportation demand management options.

5.5.5 **On-site active transportation routes** should be connected with city-led initiatives / multi-use trails.

5.5.6 **Trail connections** should be provided along the tributaries of the Oshawa Creek to connect the campus south towards Lake Ontario.

5.6 **Wayfinding and Signage**

Wayfinding and signage should be oriented towards pedestrians to ensure that the campus is legible and can be easily navigated. This principle of signage design can also be carried to other campuses and locations to promote the identity of UOIT and DC. The following guidelines relate to wayfinding and signage on the campus:

5.6.1 **A consistent approach** to signage for each institution should be developed that will help to distinguish between UOIT, DC and shared academic buildings. This consistent building and entry signage should also be implemented at UOIT’s downtown location and DC’s Whitby campus to visually tie the campuses together.

5.6.2 **Outdoor lighting** can extend access and use of many areas into the night and allow for a more active and safe campus. Thoughtful design should address site illumination requirements while minimizing potential effects of the lighting on the surrounding buildings or uses.
PUBLIC REALM AND OPEN SPACE
6.1 **Open Space**

Open space in the form of plazas, squares and outdoor amenity areas have long served as collective gathering spaces and campus activators. Historically the public square has often been at the heart of a city, town or village, just as Polonsky Commons has become the heart of the current campus. It is the image of these common areas and plazas that are often imprinted on students, staff and campus visitors, and as such, these important public spaces serve as touchstones in terms of the identity of the institutions. Perhaps most vital to the success of a plaza is in its programming. Plazas can provide gathering and congregating spaces that enhance campus life. Ensuring that outdoor design elements accommodate and encourage programmable event spaces is important.

The following guidelines relate to campus open spaces:

6.1.1 A series of open and student gathering spaces should be established throughout all Campus Character Areas that are linked by strong pedestrian connections via the campus road network, through campus buildings as well as on pedestrian-only pathways and sidewalks. Figure 6.1 illustrates the campus open spaces.

6.1.2 A green pedestrian boulevard should be established that radiates north-west from the Simcoe Street North and Conlin Road intersection, crosses the tributary, and extends across the Quad. This will be the main pedestrian and open space

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**LEGEND**
- **CAMPUSS GREEN SPINE**
- **TRAILS (UOIT/Durham College Lands)**
- **TRAILS (Subject to Land Ownership)**
- **CITY PARK**
- **GREEN SPACES**
- **ATHLETIC FIELDS**
- **COMMUNITY FARM**

*Figure 6.1 - Open Space Plan*
A large open space should be established at the centre of the Quad. This space should reflect the existing Polonsky Commons and serve as a central gathering and event space. Specifically, this open space should:

- Provide a focal point in the Quad and serve as a destination for the pedestrian connection that is framed by built form and vegetation, and apply CPTED principles to create a safe and accessible link to the heart of the Quad.
- Establish consistent design elements unifying the different Character Areas through the use of an alley along the length of the walk as well as consistent paving to provide legibility.
- Consider human comfort through the consideration of microclimate, and all season use of the space.
- Be both visually and physically connected to the natural heritage system through trail linkages and landscape design that draws together the designed and the natural spaces.
- Consider the interface with the squares that intercept the pedestrian connection, which should offer a place of refuge without disrupting the continuity of the diagonal main spine.

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- Be both visually and physically connected to the natural heritage system through trail linkages and landscape design that draws together the designed and the natural spaces.
- Consider the interface with the squares that intercept the pedestrian connection, which should offer a place of refuge without disrupting the continuity of the diagonal main spine.

6.1.4 Innovative interpretive elements should be incorporated into plazas, open spaces and outdoor amenity areas. These should reflect the history of the campus as well as nearby built or cultural heritage landscape elements such as the historic Windfields Farm.

6.1.5 Animated destination points should be established within the open spaces and public realm elements. These destination points should be varied in their design and provide a sequence of experiences and serve as visual markers and cues for users.

6.1.6 All four seasons should be considered in the design to maximize usability and their design and provide a sequence of experiences and serve as visual markers and cues for users. The open spaces should be created that evoke a feeling of enclosure and safety with protection from the elements as well as open spaces that are more readily programmable.
Circulation within the space should be both efficient and interesting; incorporate elements into the design that will draw users into the space while allowing for others to simply pass through the space.

Adequate visibility should be maintained throughout the open spaces and public realm features through the careful consideration of sight lines and adequate lighting levels, in accordance with CPTED principles.

Amenities should be provided at key meeting and congregating points, such as moveable street furniture to encourage social interaction, as well as adequate trash receptacles, recycling facilities and lighting, trees or shade structures to ensure that the space is comfortable and safe.

Public art or design elements that relate to, or reinforce, a defined theme within the surrounding area should be encouraged with emphasis on the site history, cultural landscape or distinctive theme. Investigate opportunities to link public art with coordinated design elements.

Community Gardens should be incorporated into the Quad Character Area. These will support the production of local food and objectives of the DC Centre for Food. The Concept Plan locates the gardens adjacent to the future residence uses.

Often a defining characteristic on a campus, plant massing and mature vegetation can distinguish a place from surrounding areas. Mature street trees form a large portion of the urban landscape fabric, one of the most important elements in providing unity and defining a campus. Much of the mature vegetation that provides aesthetic, social and environmental benefit to the campus is associated with the natural heritage corridors. In an effort to retain and protect mature vegetation within the campus, it is recommended that:

Built form footprints should consider the mature vegetation on site early in the design process, and seek out all reasonable site solutions for retention and incorporation into the proposed site plan.

During the planning process, suitable high quality trees and vegetation blocks should be identified and the feasibility of retention determined. Mature vegetation is to be retained and protected in accordance with the City of Oshawa’s Site Alteration By-law.

Public art or design elements that relate to, or reinforce, a defined theme within the surrounding area should be encouraged with emphasis on the site history, cultural landscape or distinctive theme. Investigate opportunities to link public art with coordinated design elements.

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During the planning process, suitable high quality trees and vegetation blocks should be identified and the feasibility of retention determined. Mature vegetation is to be retained and protected in accordance with the City of Oshawa’s Site Alteration By-law.

The streets should be viewed as place not space, and spatial consideration given to multiple modes of transit, an adequate pedestrian boulevard, and street trees. Conceptual streetscape designs for each street typology identified in Section 5.0 are provided in Section 6.3.

Activities bordering the space play an important role in defining the character and life of a street. Urban design and programming consideration should be given to adjacent spaces so that the street itself is enlivened.

Programming consideration should be given to activities within the street right-of-way, in an effort to animate the space throughout all four seasons, and throughout both the day and night.

The microclimate created by adjacent built form and landscape elements, as well as those within the right-of-way should be considered in an effort to create a comfortable microclimate within the street. Design elements that shelter pedestrians from wind, rain, and sun should be encouraged.

The scale and proportion of elements both within and adjacent to the right-of-way should be considered in an effort to create human-scale public open space within the streetscape.
6.2.6 The maintenance and operational requirements of design elements should be considered early in the design process, and allowance for proper maintenance included in budgets.

6.2.7 Mixed-use areas on campus, such as within the Quad, should be defined by consistent building street edges and allow for flexible on-street parking. Consideration should be given to flexible parking that incorporates a moveable bollard system, and parking stalls delineated with paving materials of a pedestrian character.

6.2.8 Student residences should have consistent setbacks to allow for privacy and semi-private areas at grade, such as front porches, balconies, steps and verandas that are part of the streetscape.

6.2.9 The use of pedestrian scale lighting in addition to roadway lighting should be encouraged to foster a sense of human scale within the streetscape.

6.2.10 Driveway entrances to buildings, loading areas, and parking facilities should be coordinated to minimize the crossing of sidewalks for vehicular access.

6.3 **Street Hierarchy**

Section 5.1 introduces a street network and hierarchy for the campus from a transportation and functional perspective. The following guidelines relate to the character and streetscape associated with the three street typologies:

**Regional/City Street:** Figure 6.2 conceptually illustrates a cross section that incorporates street trees, a multi-use trail, dedicated by-lanes and stations integrated into the centre medians and two travel lanes in each direction. The cross section may be modified to relate to specific road rights-of-way widths and/or design requirements; however, the general character of the streetscape, as described below, should remain. The following guidelines describe the

Regional/City Street character and streetscape:

6.3.1 The incorporation of dedicated or shared lanes for alternative modes of transportation such as buses and bicycles should be considered in accordance with the City of Oshawa Integrated Transportation Master Plan (TMP).

6.3.2 Opportunities should be explored to link the streetscape along surrounding Regional/City streets with the campus urban fabric through the interconnection of adjacent campus corridors, connections, landscape and built form.

![Figure 6.2 - Regional/City Street Conceptual Streetscape](image-url)
6.3.3 Buildings adjacent to Regional/City streets should be designed with a higher architectural quality to accentuate corners and entries into the campus and act as landmarks and visual termini for views (as identified on Figure 4.3).

6.3.4 Pedestrian crosswalks should be emphasized, particularly on Simcoe Street and Conlin Road, through the use of distinctive paving materials such as unit pavers or thermoplastic imprinting, providing visual cues to motorists regarding the pedestrian scale within the public realm.

6.3.5 A consistent palette of streetscape materials should be used.

6.3.6 The pedestrian realm within the right-of-way should be clearly identified through the use of differentiating materials and the establishment of planted buffers. Ribbon sidewalks should be established that are generous in width.

6.3.7 In collaboration with the City of Oshawa and the Region of Durham, gateways to the campus along Simcoe Street North and Conlin Road should be reinforced through the use of distinctive and high quality materials and the incorporation of public art.

6.3.8 Future development should promote boulevard tree planting and coordinated services so as to avoid hydro transformers in the boulevard where feasible.

6.3.9 Along wider rights-of-way, pedestrian refuge islands should be established that are integrated into centre median planting features where feasible to enhance safety for pedestrians and establish consistency along the streetscape.

Primary Campus Street: Two conceptual cross sections have been developed that illustrate the provision of one lane in each direction, turning lanes at intersections, on-street parking or bicycling lanes, sidewalks and street trees (Figure 6.3).

The road right-of-way should be up to 23.0m on primary campus streets and are identified in Figure 5.2.

6.3.10 Opportunities for special paving, landscaping, seating and pedestrian-scale lighting to create pedestrian interest along the street and to promote human-scale dimensions should be encouraged.

6.3.11 Buildings should be located and designed to establish a well-proportioned and comfortable street enclosure (building height-to-street width ratio). This should be achieved through smaller building setbacks and appropriate building heights that do not overpower the street or pedestrian realm.

6.3.12 Focal points and destinations should be created along the length of the streetscape where pedestrians are encouraged to linger rather than pass through.

6.3.13 Where on-street parking is proposed, landscaped curb bulbs for buffers should be encouraged. Parking stall designs should be explored that allow for conversion to usable public space when needed.

6.3.14 A consistent visual character should be established along the length of primary campus street corridors, drawing from a palette of streetscape materials that is consistent and visually strong. The palette of streetscape materials for the primary campus street should be complementary to the local campus street materials.

6.3.15 Awnings and building overhangs to shelter pedestrians from inclement weather and enhance the experiential quality of the streetscape should be encouraged.

6.3.16 The aesthetic of primary campus streets should be enhanced through the incorporation of consistent street tree planting along the length of corridors within wide boulevards and centre medians. Allées should be used to define the pedestrian realm and buffer from the vehicular zone. Visual clutter should be reduced or mitigated where possible by eliminating unnecessary signage, co-ordinating street furnishings.
Local Campus Street: Local campus streets, particularly the new east-west and north-south streets within the Quad Character Area, should be designed as shared streets. Figure 6.4 illustrates conceptual cross sections for the local campus street.

These streets integrate uses within the right-of-way, removing the boundaries established in more traditional geometry between vehicles, cyclists, and pedestrians. Shared streets are intended to serve those uses located along its length, not to function as through streets.

A guiding design principle is the equal distribution of space between uses. The design intention is to integrate uses, and thereby increase safety. While the notion of shared space within North American streetscapes is a relatively new one, it offers potential in terms of activating public space within the streetscape, particularly within the campus context. Existing local streets may be upgraded to a shared street if or when the roadway requires significant reconstruction.

Implementation of local campus streets should consider the following:

6.3.17 Surface treatments should include varied materials to provide visual and tactile cues to users across the width of the right-of-way. Grade-separated sidewalks should be eliminated and focus will be placed on differentiated material use.
6.3.18 Gateway or entry points should be well defined to indicate a change in road behaviour to users.

6.3.19 Where on-street parking is proposed, bollards or other property demarcation elements should be incorporated to define private space.

6.3.20 Consistent and visually strong streetscape materials should be used to establish a consistent visual character along the length of the street, through consistent street furniture and street tree plantings.

6.3.21 Street furniture should be integrated in such a way as to encourage community engagement within the streetscape, and promote driver engagement.

6.3.22 Where appropriate, traffic calming measures should be introduced, such as raised speed reducers and increased side friction.

6.3.23 The use of pedestrian or low-level lighting should only be considered where design parameters permit it to encourage pedestrian character. The use of metal halide or LED lighting should be encouraged to provide clean white light with true colour rendering that delineates paving features.

Figure 6.4 - Local Campus Street Conceptual Streetscape - Option A and B (16.0m ROW)
6.3.24 The aesthetic of local campus streets should be encouraged through consistent street tree planting along the length of corridors. Planting design details should be employed, such as continuous street tree trenches and structural soils to improve the long-term prospects for successful street tree planting within hardscape.

6.4 Public Art

The shared Oshawa campus currently contains quite a few public art installations. As such, the following guidelines should be considered in the placement of new public art.

6.4.1 Public art should be in locations or amenity spaces visible to the public or intended users. Consider locating public art at locations within the public realm that can be used as visual markers or cues for pedestrians. For sensitive features, consider internal locations in public view, such as foyers or display areas.
7.1 Stormwater Management

In the management of stormwater on the site, DC and UOIT should, wherever possible apply low-impact development (LID) principles. This will help to mitigate reductions to groundwater recharge due to the increase in imperviousness caused by the proposed development. Additional guidelines relating to LID principles and criteria are identified in Section 3.1.

North of Conlin Road

At full build-out, new stormwater management (SWM) treatment facilities will be needed to accommodate development north of Conlin Road. The location of ponds were identified in the previously approved Master Environmental Servicing Plan (MESP) for the Windfields Planning Area West (February 2012) at the south limit of the development lands adjacent to the three creeks (Oshawa Creek, Tributary W1 and Tributary W2) (Figure 7.1). Alternatively an appropriate approach to SWM should be reviewed prior to development to assess the SWM needs at that time.

7.1.1 Future SWM facility design should be considered an opportunity to create an aesthetically appealing landscape feature that integrates well into the surrounding environment and can be used as a showcase for innovative approaches to SWM, as was demonstrated in the SWM pond adjacent to Polonsky Commons, south of Conlin Road.

7.1.2 The size of future SWM ponds should be minimized by considering LID alternatives, as noted in Section 2.1.

7.1.3 New SWM facilities should be designed as amenity spaces for the campus and should be naturalized with plantings.

7.1.4 Where feasible, SWM facilities should be integrated into the campus walkway network.

South of Conlin Road

South of Conlin Road it is expected that new storm sewers will only be required to connect to any new structures being proposed. Since the campus lands south of Conlin Road are essentially fully developed with hard surfaces (i.e., buildings and parking lots) it is expected that the existing ponds can accommodate any redevelopment proposals on these lands without the need for significant upgrades or new ponds. If the imperviousness level of the site changes it is expected that the upgrades would be modest and could be accommodated by making minor adjustments to the existing ponds such as revisions to outlet pipes or structures and possible excavation to achieve additional storage.

7.2 Sanitary Sewer

North of Conlin Road

An existing 525mm sewer on Founders Drive, north of Conlin Road has been extended north to Britannia Avenue West (Figure 7.1). The sewer is constructed along the western edge of the campus development block (east edge of tributary W1) and is designed at sufficient depth to accommodate future development within the UOIT and DC lands north of the arena, and west of Simcoe Street North.

To service the UOIT and DC lands within the Quad, located between Tributary W1 and the West Oshawa Creek, it will be necessary to construct a trunk sewer across Tributary W1 north of the Conlin Road Pumping Station. There is an existing 1350mm diameter sewer entering the north side of the pumping station. This sewer was constructed with an allowance for the future construction of a 1200mm diameter sewer across Tributary W1. The sewer connections will be at a sufficient depth to drain by gravity beneath the creek. The sewers within the Quad will drain by gravity along future internal roads on either side of Tributary W2 following the slope of the land. The sewer located in Innovation, on the west side of Tributary W2 will cross Tributary W2 and combine with the flows within the Quad on the east side of Tributary W2. This trunk sewer is expected to be oversized to accommodate future flows from the Windfields Part II Plan as well as flows from Columbus, other industrial lands and flows that are potentially to be diverted from Brooklin. The Region of Durham
will be responsible for oversizing costs beyond the minimum size required by UOIT and DC.

The Thornton Character Area, on the west side of West Oshawa Creek between the Oshawa Creek and Thornton Road will also flow to the Conlin Road Pumping Station. Servicing these lands will require an inverted sewer syphon to be constructed beneath West Oshawa Creek. The syphon will be constructed within UOIT and DC lands north of Conlin Road. This sewer will also be a trunk sewer as it will accommodate flows from the industrial lands west of Thornton Road and depending on its location may receive the diverted flows from Brooklin. All of the regionally-owned works will be subject to a Class Environmental Assessment to determine the final servicing approach. All regional-owned works will be located in either a municipal right-of-way or an easement in keeping with regional standards.

**South of Conlin Road**

The campus south of Conlin Road drains to the Simcoe Street North Pumping Station located on Simcoe Street North just north of east Oshawa Creek. The Region of Durham has advised that this pumping station has experienced capacity issues over the last few years. Upgrades to the pumping station are currently being undertaken by the region to provide additional capacity.

This work includes a further upgrade to this system by increasing the size of a portion of the existing forcemain in 2015. With that upgrade in place, the Simcoe Street North Pumping Station capacity will increase from 140 l/s to 170 l/s.

The region confirmed in a meeting in November 2013 that the recent and proposed upgrades to the Simcoe Street North Pumping Station and forcemain are being completed to allow for expected intensification along Simcoe Street and will not provide any additional capacity for UOIT and DC. As noted in the Vision and Directions Report, UOIT and DC was previously provided an allowance of 40 l/s for the lands south of Conlin Road. This allowance is not expected to increase. As a result, UOIT and DC have initiated sanitary flow monitoring for the lands south of Conlin Road. This monitoring is anticipated to be completed in March 2015, and a report will be submitted to the region at that time.

Depending on the outcome of the sanitary flow monitoring, alternative approaches for addressing future sanitary sewer needs on the lands south of Conlin Road may need to be reviewed. The region has indicated that it is supportive of redirecting a portion of the sanitary flows from the lands south of Conlin Road to the north to outlet at the Conlin Road Pumping Station. This would require installing a mid-block privately-owned pumping station to divert flows from the new development directly south of Conlin Road, where parking lots currently exist, to the Conlin Road Pumping Station north of Conlin Road. The Conlin Road Pumping Station has sufficient capacity to accommodate these additional flows, as well as anticipated future flows from development to the north subject to potential station and forcemain upgrades to be confirmed at the time such development proceeds. Further, the Region of Durham’s Development Charge Background Study (March 2013) indicated that the Conlin Road Pumping Station will be improved to further increase capacity. These improvements are to start in 2016, with anticipated completion by 2022. All timelines in the DC study are preliminary and are subject to budget approvals by council on an annual basis. The construction of these items will be based on the pace of development across the region. Redirecting flows from a portion of the new development on the lands south of Conlin Road to the Conlin Road Pumping Station will also reduce the current flows for the lands south of Conlin Road, and potentially allow for additional growth or new buildings within the Durham Character Area, if desired in the future.
7.3 Water System

As noted in the Vision and Directions Report, water supply for the UOIT and DC lands originates at the Oshawa Water Supply Plant located on Ritson Road South at Lake Ontario. A series of trunk watermains constructed north along the city’s major roads and some easements delivers water to the campus. Any new watermains required for future campus development can simply connect to the existing adjacent watermains without the need for any pressure reducing valves or booster pumping stations subject to the final grading design and height of buildings constructed. The Vision and Directions Report details the existing water system for the lands north and south of Conlin Road.

In summary, watermains will be constructed on all of the major roads surrounding this site (Figure 7.2). The UOIT and DC lands will require private connections as these lands are privately owned. Due to the large size of this property it is expected that the land will be developed through multiple blocks or parcels of land and be phased over many years. Servicing these parcels will be in keeping with the region’s water supply by-law.

Hydrant and valve locations will be confirmed at the detailed design stage to the satisfaction of the Region of Durham and the City of Oshawa Building Department. Final watermain sizes for the site will be confirmed through discussion with Region of Durham staff. The water system will be designed in accordance with Region of Durham criteria.

Figure 7.1 - Existing and Potential Sanitary Servicing
Figure 7.2 - Existing and Potential Water Servicing and Stormwater Management
IMPLEMENTATION
The CMP identifies a set of objectives, a vision, and guidelines that have been endorsed and approved by the senior administration, Presidents and Boards of Governors of both UOIT and DC. Although it is understood that the CMP needs to be dynamic and adaptable to respond to the needs of both institutions, a consistent approach must be taken to CMP implementation, future development proposals and amendments or revisions to the CMP, as necessary. The horizon year for the CMP is 2030; however, regular review of the CMP objectives, guidelines and assumptions should occur to ensure that they remain consistent with those of both institutions. A clear process to monitor CMP implementation is required to ensure that the agreed vision and principles are realized, and, if necessary, adapted over time to respond to changing conditions and contexts.

It should be noted that the CMP identifies spatial relationships between future buildings and open spaces and a framework for the future street and pedestrian network. However, specific building and landscape programs, dimensions, and scale and detailed infrastructure have been intentionally not included to allow for flexibility and future design processes.

The CMP for DC and UOIT will be implemented as follows:

i. Effective project review and approval processes for all development projects should be initiated by UOIT, DC, or third party leaseholders (such as residence operators). In all cases, project proposals should to be assessed against the CMP objectives and guidelines and discussed with relevant stakeholders.

ii. The principles and guidelines in the CMP apply to: all academic projects; ancillary unit projects, including student housing; commercial or retail partners; and/or third party institutional projects.

iii. DC and UOIT should seek partnerships with third party developers to leverage existing land assets and realize the CMP development objectives that fall outside of the university and college’s typical operating mandate. These partnerships will increase the opportunity for supportive institutional, innovation and community development both within Campus Corners and Quad areas.

iv. A Joint Design Advisory Panel should be established comprising members from UOIT and DC and an independently retained registered professional planner (land use). A registered landscape architect, urban designer, civil engineer and transportation engineer should also be retained on an as needed basis to provide technical expertise during the design review process.

v. A Joint Campus Planner should provide technical support throughout CMP implementation and work together with UOIT and DC, and the Joint Design Advisory Panel to provide ongoing technical expertise throughout Master Plan implementation, particularly in the first three to five years following approval.

vi. A phasing plan has been developed as part of the CMP based on current priorities and assumptions. As new developments and/or opportunities arise, phasing should be adjusted, in accordance with the CMP principles and guidelines.

vii. The Concept Plan and 3D model illustrating the vision for the CMP should be maintained and updated during implementation. This should be used as a tool to:
   - Identify development opportunities and articulate site-specific guidelines and relationships.
   - Allow future design consultants to insert their proposals for testing and evaluation. Finished designs should be added to the model.
   - Allow the Joint Design Advisory Panel to conduct its review and evaluation against the criteria in the CMP and Design Guidelines (general and site specific).
8.1 Campus Master Plan Phasing

A logical approach to phasing will be critical to the success of the CMP and will ensure that infrastructure requirements, costs and parking requirements are anticipated and future buildings are located on development-ready sites. The phasing plan has been integrated with the order of magnitude cost estimate.

The Concept Plan shown throughout the CMP illustrates an ultimate build-out scenario for the future campus. This ultimate build-out is expected to occur beyond 2030.

The Vision and Directions Report included a high-level analysis of the future space requirements for UOIT and DC. These space requirements were based on the projected enrolment at each institution over the next 15 - 20 years. Almost 140,000 GSM of additional space will be required to meet projected enrolment.

To address the projected space shortfall, new program spaces will need to be incrementally added. Phasing for the purposes of the CMP has been undertaken based on the projected future space requirements and priority buildings, as identified by UOIT and DC. Phasing was not determined based on incremental timeframes as new building construction is dependent on many factors including funding, partnerships and realized enrolment.

Based on the future space requirements and the Concept Plan, the space required to fulfil the projected need during the timeframe of this CMP can be provided using only a portion of the total UOIT and DC lands, as will be illustrated in the Phasing Plan (Figures 8.2 through 8.5).

In addition to the future space requirements for DC and UOIT, the phasing plans identify where both temporary and permanent parking lots will be located. As noted in Section 5.3, parking requirements are expected to increase as the student enrolment and academic space needs increase. The current ratio of 0.21 parking spaces per FTE has been maintained for Phases 1, 2 and 3, demonstrating a more significant increase in parking spaces provided in the initial phases of development. The CMP recommends, in Section 5.3, that the total number of parking spaces remain the same as currently provided or are only moderately increased from current. Further, the CMP recommends that parking demand should be monitored to limit oversupply.

The approximate number of parking spaces to be provided within each phase is summarized in Table 8.1.
Phase 1: UOIT and DC Priority Buildings

Phase 1 incorporates the development of priority buildings as identified by UOIT and DC. These are identified in Figure 8.1 and include the:

- Student Innovation Learning Centre (SILC) Building (UOIT).
- Simcoe Building Replacement (DC).
- Joint Health Sciences Building (DC, UOIT and Trent).
- Centre for Advanced Research Innovation and Entrepreneurship (CARIE) (UOIT).

Phase 1 includes development north of Conlin Road, on the north-west corner of Simcoe Street and Conlin Road, where the current soccer field and tennis centre are located (Figure 8.2). As a result, Phase 1 also includes the relocation of the athletic field and associated facilities to the south end of the Quad Character Area. Infrastructure will be developed to support relocation of these athletic facilities, including a new vehicular connection and culvert crossing the tributary, a diagonal pedestrian connection, temporary roadways, and temporary parking lots.

The Windfields Character Area is included in Phase 1 as the CMP recommends that an Options Assessment be undertaken for the remaining buildings to identify feasible options for adaptive reuse.

A more significant number of new parking spaces are provided in Phase 1 to account for the permanent loss of parking spaces as a result of new buildings, as well as the anticipated temporary loss of parking spaces in Founders lots 2 and 3 during construction of the new Simcoe and SILC buildings south of Conlin Road.

New parking lots should be constructed in three locations north of Conlin Road, as illustrated on the Phase 1 plan. These will accommodate the loss of 475 parking spaces associated with the removal of Founders 6 and 1 lots. Surface parking lots will be converted to either structured parking lots or replaced with buildings, as the campus develops.

In Phase 1, Founders 7 lot remains as is and continues to provide 241 parking spaces. In addition to the temporary surface parking lots provided within the Quad, a temporary surface parking lot will be provided directly north of Northern Dancer Drive. This parking lot will be replaced with a future building, as illustrated in the Concept Plan. Section 5.3 identifies design guidelines associated with surface parking lots to ensure that they are designed to minimize visual impacts and provide vegetation.

Due to its large size and location, structured parking may be most logically located at Commencement lot at the south end of the campus; however, the transportation and transit analysis undertaken as part of this CMP demonstrated that the intersection of Simcoe Street and Commencement Drive currently operates at or near capacity during peak periods. Additional parking spaces at Commencement lot will increase the number of vehicles using that intersection and result in further congestion. Thus structured parking has not been recommended at Commencement lot, at this time; however it may be provided in the future if access for both private vehicles and transit is improved.
FIGURE 8.1 - Priority Building Locations
Phase 2 and 3: Gateway and Campus Corners

Phase 2 will consist of development north of Northern Dancer Drive and south of Britannia Avenue West (Figure 8.3). A new roadway will be constructed which will connect Founders Drive between Northern Dancer Drive and Britannia Avenue. No parking spaces are lost as a result of Phase 2 construction. Should parking demand demonstrate that additional parking spaces are needed during Phase 2, a temporary surface parking lot may be constructed on the eastern side of the Quad Character Area, as illustrated in Figure 8.3. This temporary parking lot will be designed to be easily converted to the future green boulevard space.

Phase 3 will consist of the buildings located south of Conlin Road, and east of Simcoe Street (Figure 8.4). Phase 3 is a critical component of campus development, and as such, has been grouped together with Phase 2 to allow for development to proceed either concurrently or before Phase 2, if the opportunity to do so arises (for example, through partnership or funding opportunities). Phase 3 will be the final development phase at Campus Corners and will frame the Simcoe Street and Conlin Road intersection. Phase 3 will also include the redevelopment of the surface lot north of Northern Dancer Drive, and south of the Campus Ice Centre.

Development on the south-west corner of Simcoe Street and Conlin Road will reinforce and further enhance walkability, and pedestrian-oriented design through the implementation of the diagonal transect connecting the intersection with the campus, north and south of Conlin Road. No new roads are required to implement Phase 3; however, it presents an opportunity to upgrade streetscapes along Founders Drive, Simcoe Street North and Conlin Road. Phase 3 development will result in the loss of a significant amount of surface parking (Founders Lots 2, 3 and 7). Should parking demand demonstrate that additional parking spaces are needed in Phase 3, the surface lot located north of the new athletic facilities in the Quad may be converted to a structured parking lot. Section 5.3 identifies specific design guidelines associated with structured parking lots to ensure that these fit in with the character of the campus.

By this point in the campus development, it is expected that additional transit will have been provided along Simcoe Street, including potential bus rapid transit, as envisioned and emphasized in the CMP.
**Phase 4: Quad**

Phase 4 will consist of development within the Quad Character Area (Figure 8.5). This phase requires a significant investment in infrastructure, including the construction of new streets, a culvert crossing, and civil and stormwater servicing. Phase 4 also includes significant investment in open space and landscaping with the creation of the green boulevard and the new central greenspace.

The Quad presents a significant opportunity for DC and UOIT to seek development partnerships and establish a walkable and integrated institutional, residential and mixed-use community that provides academic spaces in conjunction with retail, restaurant and services uses, student and/or faculty residences, innovation and office spaces and open space.

The Quad will be well connected to the other Character Areas on campus, as well as to the city park and the community to the north. A second transit hub will be provided in this phase of development.

Additional parking will be provided on-street and integrated into new building sites. Parking lots are located at the rear of new buildings, away from the central green boulevard and open space. It was assumed that the anticipated future parking for Phase 4 would be the same as in Phase 3 as a result of additional transit service associated with the transit hub. Construction of the pedestrian boulevard will require removal of the temporary parking lot.

**Beyond Phase 4: Innovation and Ultimate Build Out**

The Innovation Character Area is identified as a future phase, beyond Phase 4; however, development in this area may occur sooner if opportunities for partnerships arise (Figure 8.6). Development requires the construction of new roads, a culvert crossing, and servicing. Parking needs in this area have not been analyzed because the scale and format of development is not known at this time.

The ultimate build out of the campus Concept Plan would result in the removal of the structured parking lot in the Quad Character Area, as illustrated throughout the CMP.

---

**Table 8.1 - Parking Phasing Plan**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Projected Estimated Number of Future Parking Spaces Needed (2)</th>
<th>Estimated Number of Parking Spaces Lost to New Development</th>
<th>Estimated New Parking Spaces Provided by Phase</th>
<th>Estimated Total Number of Parking Spaces to be Provided by Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>3,600</td>
<td>475</td>
<td>1,350</td>
<td>4,123</td>
</tr>
<tr>
<td>Phase 2</td>
<td>4,400</td>
<td>-</td>
<td>725</td>
<td>4,848</td>
</tr>
<tr>
<td>Phase 3</td>
<td>5,150</td>
<td>1,900</td>
<td>1,775</td>
<td>4,723</td>
</tr>
<tr>
<td>Phase 4</td>
<td>5,150</td>
<td>650</td>
<td>650</td>
<td>4,723</td>
</tr>
</tbody>
</table>

**Notes:**
1. New parking does not account for the additional spaces to be provided through implementation of on-street parking on new streets.
2. Projections are based on the assumption of 0.21 spaces/FTE until Phase 3.
3. Parking projections are based on FTE enrolment projections as of 2013 and are subject to change.
Figure 8.2 Through 8.6 - Phasing Plans

Figure 8.2 - Phase 1
Note for all phases: The Innovation Character Area may develop during any phase, should the opportunity arise.

Figure 8.3 - Phase 2

Figure 8.4 - Phase 3
8.2 Roles, Project Review and Municipal Approvals

8.2.1 Roles and Responsibilities

DC and UOIT have a shared responsibility to uphold the vision, principles and guidelines contained within the CMP. To assist in CMP implementation, the following roles and responsibilities are recommended:

- **The Institutions:** DC and UOIT should play the most significant role in the implementation of the CMP. The CMP is a joint document that illustrates the shared vision for the future of the campus. To uphold the CMP commitments, UOIT and DC must coordinate their capital investment and future building plans.

- **Joint Design Advisory Panel:** The Joint Design Advisory Panel should be responsible for reviewing all new design proposals on the shared Oshawa campus to ensure consistency with the CMP objectives and guidelines and provide consistent oversight and technical input to future development projects. The Joint Design Advisory Panel should include members from both institutions, as well as an individually retained registered professional land use planner. An urban designer, civil engineer and transportation engineer should be retained to provide technical input to the design review, as needed. The Joint Design Advisory Panel should ensure that the CMP Concept Plan and 3D computer model is maintained as new development and infrastructure is constructed allowing DC and UOIT to continually monitor and assess the implications and opportunities associated with each new building.

- **Strategic Partners:** Large-scale infrastructure projects are rarely implemented completely through funds from the institutions themselves. Many require investment from strategic partners in the public and/or private sectors in order to achieve mutually beneficial growth. DC and UOIT should seek potential partners. These could include: provincial or federal agencies, Lakeridge Health, local private developers, complementary universities or colleges (e.g., Trent University).

- **Joint Campus Planner:** The Joint Campus Planner should provide technical support and strategic advice during CMP implementation, working closely with DC and UOIT. The planner should assist DC and UOIT with developing requests for proposals, obtaining municipal planning approvals, retaining design consultants and assisting with implementation of key infrastructure and building investments.

- **Region of Durham and City of Oshawa:** DC and UOIT should continue to work collaboratively with the Region of Durham, and the City of Oshawa throughout the implementation of the CMP. More specifically, UOIT and DC should continue to monitor and discuss the following matters:
  - Design and construction of Simcoe Street North improvements (streetscaping, branding, pedestrian amenities).
  - Enhancements to pedestrian connections across Simcoe Street North and Conlin Road.
  - Future road and streetscape improvements along Conlin Road.
  - Transit provision (as discussed below).
  - Municipal servicing.

- **Durham Region Transit and Metrolinx:** Increased transit access and connectivity to the shared Oshawa campus will be critically important as the campus expands. UOIT and DC should work collaboratively with Durham Region Transit to ensure that transit service continues to grow and meet the needs of students and faculty. Bus rapid transit along Simcoe Street North is identified in the Metrolinx Big Move Plan. As enrolment
increases at the shared Oshawa campus and residential development continues north of Britannia Avenue, demand for higher order transit along Simcoe Street is expected to increase. The CMP envisions Simcoe Street as a higher order transit route, as identified in the Big Move Plan. As such, DC and UOIT should continue to work with Metrolinx, the city and region to ensure that this priority transit route moves to implementation.

**Other Agencies:** Agencies such as Central Lake Ontario Conservation Authority (CLOCA), Oshawa Power and Utilities Corporation (OPUC), and/or the Oshawa Municipal Airport, may need to be involved at key points during CMP implementation. UOIT and DC should work together with these agencies, when needed, during CMP implementation.

The following illustrates the overall framework for future development review and approval:

| 1 | Capital project identified. Project overview and justification provided, including program space to be provided, building scale and options for building location. |
| 2 | Preliminary Concept Plans developed, including order of magnitude cost.  
   - May include Concept Plans in multiple locations.  
   - Capital investment arranged and approved including identification of partnerships and funding approval. |
| 3 | Preliminary Concept Plans provided to Joint Design Advisory Panel for initial review and input.  
   - Implications on CMP and required infrastructure determined; planning approvals identified.  
   - Summary of design review provided by the Joint Design Advisory Panel to the proponent institution. |
| 4 | Preliminary architectural design developed and reviewed by the proponent institution and reviewed by the Joint Design Advisory Panel to ensure consistency with the objectives and guidelines of the CMP.  
   - Design revisions made as needed.  
   - Final input on building design provided by the Joint Design Advisory Panel prior to proceeding with municipal planning approvals, and detailed design. |
| 5 | City and regional development approvals identified and obtained, as required.  
   - Detailed design completed.  
   - Construction underway. |
8.2.2 Design and Development Review

As the CMP is realized, new development opportunities will arise that will implement the Campus Character and Public Realm and Open Space Guidelines contained in this document. It is recommended that:

8.2.2.1 Prior to the start of any new project, a set of development and design criteria should be established. The development and design criteria should reference relevant guidelines from the CMP and should also be used to determine the appropriate site for the development opportunity.

8.2.2.2 The Joint Design Advisory Panel should review all new design proposals to ensure consistency with the CMP objectives and guidelines and provide technical feedback on the approach to urban design, transportation, landscape architecture, and servicing.

8.2.2.3 Design proposals for new buildings on campus should be reviewed in the context of the CMP guidelines and the relationship to the surrounding open spaces and pedestrian connections.

8.2.2.4 New infrastructure projects, including new roadways to be constructed should be reviewed in the context of the CMP guidelines relating to Movement and Circulation, Open Space and Public Realm.

8.2.3 Regulatory Approvals

The following outlines the regulatory approvals that would need to be undertaken in order to proceed with campus development. As agencies of the Province of Ontario, UOIT and DC are not required to obtain planning approvals from Durham Region and the City of Oshawa; however, these processes are often followed in order to ensure that the region and city staff are supportive of the development, and to provide an opportunity for municipal staff to comment and give input concerning the development. It should be noted that there are application fees associated with amendments to the Region of Durham Official Plan, City of Oshawa Official Plan, and City of Oshawa Zoning By-law, and for Site Plan Applications. Application fees are subject to change and as such, have not been included in this section.

Durham Regional Official Plan (January 2013, Office Consolidation)

The Durham Regional Official Plan (ROP) is a long-range policy document that provides regional council with a policy framework for decision making. The ROP provides policies that guide the use of land and the provision of transportation services across the region in an effective and efficient manner. The ROP designates the entire shared Oshawa campus as Living Area. The uses associated with this designation are predominantly residential; however, certain public, recreational and employment uses that are compatible with the surrounding uses are permitted. The proposed future uses are consistent with the policies outlined in the ROP; therefore, no amendments would be required to proceed with future development.

City of Oshawa Official Plan (2013, Office Consolidation)

The City of Oshawa Official Plan (OP) provides a comprehensive framework for the development and redevelopment of lands within its municipal boundaries. The OP serves to guide the city’s growth and development in an orderly and efficient manner. The OP designates the majority of the lands north of Conlin Road as Institutional, with the exception of the lands located in the Thornton area, which are designated Industrial. The lands north of Conlin Road, and east of the Oshawa Creek, are also within the Windfields Planning Area Part II Plan (Official Plan Amendment 89) and are subject to additional land use policies.

The official plan’s Institutional designation permits colleges, hospitals, large religious institutions and accessory uses. The uses proposed in the CMP are generally consistent with the land use permissions outlined in the official plan; therefore, an official plan amendment is not required.

The lands north of Conlin Road are within the Windfields Planning Area Part II Plan. The Windfields Planning Area is to be developed as a mixed-use community that integrates major residential, commercial and institutional components as well as the necessary community support facilities such as schools, parks, open space and other commercial and
community facilities. The Campus Corners, north of Conlin Road, the Gateway and the Quad are designated Institutional in the Part II Plan. These lands are to be used for campus uses and related activities, including city and university recreational facilities and commercial uses that serve students. Additional policies are provided within the Part II Plan which further direct the provision of open space, community parkland, mixed-use development and recreational space on these lands. The uses proposed within the CMP are generally consistent with the land uses envisaged in the Institutional land use designation. Should additional non-institutional residential, commercial and/or retail development be proposed, an amendment to the Part II Plan may be required.

**City of Oshawa Zoning By-law No. 60-94**

The City of Oshawa zoning by-law provides detailed regulations that implement the objectives and policies of the official plan. The zoning by-law serves as a land use implementation tool to guide the city’s growth and development in an orderly and efficient manner.

All of the UOIT and DC lands north of Conlin Road and east of the Oshawa Creek are Major Institutional Zone. This zone permits the following uses: art gallery, home for the aged, hospital, museum, nursing home, parking garage or parking lot, post-secondary school and supervised student residence. The zone does not permit retail or commercial uses. The maximum height permitted is 40 metres, however, due to the site’s proximity to the Oshawa Airport, the height is further restricted to a maximum of four storeys. Therefore, to permit retail and/or commercial uses at grade, a zoning by-law amendment would be required. The lands west of Oshawa Creek are Urban Reserve. Uses permitted in this zone are limited to agricultural.

A zoning by-law amendment application involves a high level of consultation with the city, various public departments and the local community. The rezoning process includes: a pre-consultation meeting; rezoning application submission; review by city staff and other agencies; a public meeting; and a council decision. This process can take up to nine months or more for council to approve, depending on the complexity and public opinion. Furthermore, both the applicant and members of the public also have a right of appeal to the Ontario Municipal Board concerning the rezoning application.

**Site Plan Approval**

A site plan application will also be required to implement future development. Site plan approval is a technical approval that is issued by city staff. There is no requirement for public notification or input and unlike a rezoning application, there is no opportunity for appeal by the general public to the Ontario Municipal Board. A reasonable timeframe to achieve site plan approval would be six months, in the absence of any unforeseen complications. The city can process the rezoning application concurrently with the site plan application in order to maximize efficiency and timing.

**Restrictive Covenant**

A restrictive covenant exists on the institutional lands north of Conlin Road and therefore future development proposals in that area must consider the conditions outlined in the covenant (dated September 4, 2003). This restrictive covenant limits the permitted uses on the lands north of Conlin Road to include: accessory educational uses; retail uses (not exceeding 20,000ft² or 1,858.06m²); research uses; and recreational and open space uses.

The restrictive covenant also prohibits industrial and commercial uses, and office buildings in which more than 25% of the net rentable area of all office uses is used for non-educational uses. As such, the restrictive covenant limits the extent of non-institutional development on the lands north of Conlin Road.
8.3 Master Plan Monitoring and Amendments

The CMP provides a framework and guidelines for future campus development detailing the projected academic, administrative and ancillary space needs to meet anticipated student enrolment growth. Every future eventuality cannot be anticipated thus the CMP will need to be monitored and updated as new buildings, open space and infrastructure projects are brought forward.

The following actions should be undertaken to monitor the progress and status of the plan implementation:

- All new projects should be reviewed and assessed against the vision, objectives and guidelines in the CMP. As projects are realized, the CMP Concept Plan should be updated to illustrate the new campus and associated infrastructure.
- Semi-annual reports should be provided to the DC and UOIT Presidents to document the status of existing and future projects, infrastructure requirements and application of the guidelines contained in the CMP.
- Reports to the UOIT and DC Board of Governors at pre-determined intervals, should document the on-going projects and proposals as they relate to or have implications for the CMP amendments and/or minor additions.
- The report should document the proposed amendment, rationale for the amendment and potential impacts on the CMP’s principles, guidelines or Concept Plan.

All amendments should be reviewed by the Joint Design Advisory Panel. Prior to recommendation, the amendment should be reviewed and approved by the DC and UOIT senior management teams. It is at the discretion of the senior management teams to determine whether approval from either institution’s President or Board of Governors is required.

- Both DC and UOIT’s strategic plans extend to 2016. The CMP should be reviewed in the context of new strategic objectives or goals established following review of the current strategic plans.
- A comprehensive CMP review should occur every 10 years to ensure that the principles and guidelines remain relevant and consistent with the individual and shared interests of DC and UOIT. Minor CMP reviews may be required after five years, depending on the scale of growth that has occurred on campus.

8.4 Order of Magnitude Cost

Table 8.2 sets out an order of magnitude cost estimate for future infrastructure. The calculation is based on the CMP Concept Plan. The cost estimate takes into account the following:

- Earthworks
- Services (water, sanitary) within the right-of-way
- Services (storm / FDC) within the right-of-way
- Roadworks
- Services (water, sanitary) within area
- Services (storm / FDC) within area
- Street trees
- Enhanced streetscaping
- Hydro
- SWM Pond
- Culvert
- Pedestrian bridge
- Parking (surface)

The order of magnitude costs in Table 8.2 do not include enhanced landscaping, boulevard treatments (widened or enhanced paving), open spaces, and pedestrian connections not associated with walkways or enhanced lighting. Costs for enhanced features have been identified separately.

It should also be noted that the Windfields and Thornton areas were excluded from the cost estimate at this time. The future use and layout of those areas has not yet been established. Further, costs associated with the development of the bridge across Oshawa Creek between the
Innovation and the Thornton areas have not been included. The need for this crossing will be determined once the Britannia Avenue West alignment to Thornton Road is confirmed and the north-south roadways within the Innovation and Windfields areas have been finalized.

Table 8.3 provides cost estimates for landscaping associated with the noted open spaces.

Costs associated with new building construction, structured parking lots, reconstruction of athletic fields, adaptive reuse of heritage structures, trails system within the valley and further studies or approvals, are excluded.

### Table 8.2 - Infrastructure Cost Summary

<table>
<thead>
<tr>
<th>Phase</th>
<th>Cost Estimate ($000`s) Rounded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>8,089</td>
</tr>
<tr>
<td>Phase 2</td>
<td>2,394</td>
</tr>
<tr>
<td>Phase 3</td>
<td>1,226</td>
</tr>
<tr>
<td>Phase 4</td>
<td>9,418</td>
</tr>
<tr>
<td>Ultimate Build-out</td>
<td>5,865</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>26,992</strong></td>
</tr>
</tbody>
</table>

### Table 8.3 - Landscape Costs for Urban Square / Plaza / Open Spaces

<table>
<thead>
<tr>
<th>Character Area</th>
<th>Location</th>
<th>Phase</th>
<th>Approximate Open Space Area (sq.m)</th>
<th>Estimated Costs</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Campus Corners</td>
<td>Simcoe Building Commons</td>
<td>Phase 1</td>
<td>8,900</td>
<td>$1,950,000</td>
<td>$2,225,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Health Sciences</td>
<td>Phase 2</td>
<td>10,650</td>
<td>$2,350,000</td>
<td>$2,675,000</td>
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</tr>
<tr>
<td></td>
<td>North of Founders Gate</td>
<td>Phase 3</td>
<td>4,630</td>
<td>$1,025,000</td>
<td>$1,150,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Simcoe/Conlin Transect (south)</td>
<td>Phase 3</td>
<td>1,600</td>
<td>$350,000</td>
<td>$400,000</td>
<td></td>
</tr>
<tr>
<td>Quad</td>
<td>Boulevard and Central Open Space</td>
<td>Phase 4</td>
<td>9,800</td>
<td>$2,150,000</td>
<td>$2,450,000</td>
<td></td>
</tr>
</tbody>
</table>
Campus development will occur over the course of many years. Technical studies, plans and monitoring will be needed to support and further refine the recommendations in the CMP.

The following future studies and plans are recommended in the short term (0 to 2 years):

- **Parking Usage Study:** A parking usage study should be undertaken to assess the current parking supply and demand, and to provide recommendations on the future parking requirements as enrolment grows. This study should include a monitoring process to ensure there is accurate and up-to-date information on parking usage.

- **Travel and Transit Demand Monitoring:** A survey should be undertaken at regular intervals to monitor and document the current travel and transit demand on campus. This survey should be undertaken on an annual basis to ensure consistency in the information and data obtained. This information will support discussions with Metrolinx and Durham Region Transit concerning increased transit investment and service provision to the shared Oshawa campus. It will also assist in identifying trends in student travel patterns.

- **Future Infrastructure Design:** Detailed road and bridge design should be undertaken to implement the CMP. Specifically, when new campus buildings are constructed on the north side of Conlin Road, the athletic fields will need to be relocated. New infrastructure will be required to access the future athletic spaces.

- **Options Assessment for Windfields Heritage Buildings:** An Options Assessment should be undertaken to consider and identify feasible options for adaptive reuse of the remaining Windfields Farm buildings. This study should be undertaken in coordination with the City of Oshawa.

- **Wayfinding and Signage Plan:** A consistent approach to building, entry, street and wayfinding signage should be taken, including the locations for gateway signage. Wayfinding and signage should be used as a tool to visually integrate the shared Oshawa campus with the other DC and UOIT campuses/locations. The wayfinding and signage plan should design and detail the specific signs.

The following future studies and plans are recommended in the medium term (2 years and beyond):

- **Detailed Landscape and Open Space Plan:** The public realm and open space concept and guidelines contained within the CMP provide a framework for these campus features. The landscape and open space plan should further refine the framework and provide additional detail with respect to the design and programming of open spaces, landscape and streetscape treatments, including street furniture.

- **Building Height Strategy:** The CMP promotes compact development with a focus on the Simcoe Street North and Conlin Road intersection. UOIT and DC should work together with the Oshawa Airport Authority to determine the maximum permitted building and structure height. DC and UOIT should seek permission for additional height at key gateway locations, such as at the Simcoe Street North and Conlin Road location. Technical analysis will be required to determine whether additional height may be accommodated at this location.
REFERENCES:

Durham College, Sustainability  

Metrolinx, 2008. The Big Move  

Ministry of Economic Development, Employment and Infrastructure, “Accessibility Standards for the Built Environment”  

Ministry of Municipal Affairs and Housing (MMAH) “New Accessibility Amendments to Ontario’s Building Code”  

UOIT Sustainability  
As introduced in the Vision and Directions Report, consultation is an integral part of the CMP process. The consultant project team has worked collaboratively with a project team made up of representatives from Durham College and the University of Ontario Institute of Technology over the course of the study. The project team has also worked with DC and UOIT’s senior administrators and the Boards of Governors, the City of Oshawa, Region of Durham, Durham Region Transit, students, faculty, staff and the surrounding community throughout the study process. More specifically, the consultant team has worked together with:

- **DC and UOIT core team:** A focused group of senior representatives from DC and UOIT who are responsible for providing ongoing input to the CMP process. The consultant team has worked closely with this team to confirm assumptions, address key issues, obtain strategic direction, and ensure that deadlines are achieved.
- **Senior administrators:** The senior leadership teams from both DC and UOIT have provided strategic input into the process.
- **Board of Governors:** Durham College and the University of Ontario Institute of Technology each have a Board of Governors whose role is to govern the affairs of the institutions. Although each institution has an independent Board of Governors, two individuals are cross-appointed to sit on both Boards. The project team has presented to the Boards of Governors throughout the study process.
- **Public Open House and Website:** One open house was held during Phase 1. Two workshops and one open house will be held in Phase 2. The first workshop was held in October 2014 and the second was held in March 2015. The final open house will be held in September 2015. A project website was established at the outset of the project. Project updates have been added to the website throughout the study.

### Phase 2: Workshop #1

In October 2014, the project team held a workshop to obtain input from students, faculty, staff, and interested members of the community on the three key themes of the CMP, and the draft final Concept Plan. Attendees were provided with a questionnaire that focused on the three themes of: Built Form and Character, Transportation and Movement and Public Realm and Open Space. Display boards were set up that provided general information on the CMP process, as well as interactive boards that sought input from attendees relating to the three key themes, the CMP Principles and the Concept Plan. More specifically, the CMP Principles were illustrated on two display boards and, using coloured and numbered dots, participants were asked to identify which principles were considered to be most important to them. Approximately 65 people signed in at the workshop and 27 workbooks were submitted. The questionnaire was also uploaded digitally to the project website. This allowed those who were unable to attend the workshop to provide interactive input through the project website. An interactive Concept Plan was also uploaded to the project website allowing users to drop digital notes relating to specific areas of the Concept Plan.

The following summarizes the comments provided on the Concept Plan, both during the workshop, and through the online map:

- Improve pedestrian connections across Conlin Road and Simcoe Street North (e.g., tunnel, bridge or crossing).
- Additional study / passive spaces (indoors).
- Greenspace / passive outdoor space.
- Lack of parking – more parking is needed, particularly if existing lots are being removed.
- Student-focused services on campus (restaurants / cafés / groceries).
- High quality architecture.
- Additional athletic space.
- Request for prayer space.

These comments are addressed in the CMP guidelines, as well as through revisions to the Concept Plan.

Participants also provided input on the CMP principles by ranking the principles that they felt were most important. The following four Principles were identified as the priorities first by the core team, and then further ranked by participants at the public open house and through questionnaires on the website:

- Student-focused Institutions.
- Plan that works for the Short, Medium and
Long-term.
• Transportation and Transit.
• Walkability.

Open House participants were also requested to identify up to two additional principles, from the full list of seventeen principles, as priorities. The following additional principles were identified as being important to those who participated:

• Research, Experiential Learning and Scholarships.
• Sustainability.

Input obtained during and after this workshop has been considered and incorporated into the CMP document.

**Phase 2: Workshop #2**

On March 9, 2015, DC and UOIT hosted a series of Public Open House events at the shared Oshawa campus. The purpose of the events were to provide an update on the status of the CMP and obtain input on the three key CMP themes: Campus Built Form and Character, Transportation and Movement, and Public Realm and Open Space. In order to reach a broader audience, the Open House included three separate events. Two, thirty-minute ‘pop-up’ sessions were held, followed by one structured Open House event. The first ‘pop-up’ session was held in the Gordon Willey building at the DC Pit, and the second was held in the UA Science building West Atrium. At each ‘pop-up’ session, a selection of display boards were set-up, as well as the 3D model video. Many students, faculty and staff stopped by during these sessions to learn more about the CMP and ask questions about the future campus plans. Because of the informal nature of the two ‘pop-up’ sessions, no sign-in sheets were used. The Open House component was held in the afternoon in the Dining Room of the Gordon Willey building. Additional display boards were set up and the 3D model video was put on display. CMP project team members and core team members were available to discuss the CMP with attendees. Approximately 20 people signed in at the Open House and one written comment was received. During both the ‘pop-up’ sessions and Open House, attendees were asked to put comments, via sticky note on the CMP Concept Plan. Comments received related to the provision of additional parking, protection of the heritage assets of Windfields Farms and enhanced pedestrian connectivity.

**Phase 2: Public Open House**

On September 22, 2015, DC and UOIT hosted the final CMP Public Open House and pop-up sessions at the shared Oshawa campus. Similar to the March 2015 workshop, two, thirty-minute ‘pop-up’ sessions were held, followed by one structured Open House event. The first ‘pop-up’ session was held in the Gordon Willey building at the DC Pit, and the second was held in the UA Science building West Atrium. The purpose these events was to present the final CMP and allow students, faculty and staff to review the final CMP document. The 3D model video as well as illustrative boards summarizing the key CMP themes were on display.