

Appendix A: Courtice
Waterfront and Energy Park
Urban Design and
Sustainability Guidelines

Draft for Review

June 2022

Table of Contents

1. INTRODUCTION	4
1.1. OVERVIEW & PURPOSE	4
1.2. STRUCTURE OF THE GUIDELINES	5
1.3. INTERPRETATION AND IMPLEMENTATION OF THE GUIDELINES	5
2. COMMUNITY DESIGN VISION	6
2.1. COMMUNITY VISION	6
2.2. COMMUNITY CHARACTER STATEMENT	7
2.3. COMMUNITY STRUCTURE	8
3. PUBLIC REALM GUIDELINES	9
3.1. STREET NETWORK AND BLOCK PATTERN	9
3.2. STREETS	10
3.3. STREETSAPES	19
3.4. PARKS AND OPEN SPACE	20
3.5. ENVIRONMENTAL PROTECTION AREAS	21
3.6. STORMWATER MANAGEMENT FACILITIES	23
4. PRIVATE REALM GUIDELINES	24
4.1. LOW DENSITY RESIDENTIAL DEVELOPMENT GUIDELINES	24
4.2. MIXED USE BUILDINGS AND MEDIUM DENSITY RESIDENTIAL DEVELOPMENT GUIDELINES	28

4.3. COMMERCIAL BUILDING DEVELOPMENT GUIDELINES..... 30

4.4. ENERGY PARK DEVELOPMENT GUIDELINES 31

5. GREEN DESIGN GUIDELINES..... 35

5.1. ENERGY EFFICIENCY..... 35

5.2. WATER CONSERVATION AND LOW IMPACT DEVELOPMENT 35

1. Introduction

1.1. Overview & Purpose

The Courtice Waterfront and Energy Park Secondary Plan Area is generally bounded by Darlington Provincial Park to the west, Crago Road to the east, Darlington Park Road and Megawatt Drive to the north, and Lake Ontario to the south. The planned population for the Secondary Plan Area is approximately 2,400 residents and approximately 1,00 units of housing. The planned number of employees for the Secondary Plan Area is approximately 5,600 jobs.

The Secondary Plan Area is approximately 290 hectares in size, and is divided into the West Waterfront, East Waterfront, and Energy Park. The West Waterfront is bound by Darlington Provincial Park to the west, Darlington Park Road to the north, Courtice Shores Drive to the east, and Lake Ontario to the south. The East Waterfront is bound by Courtice Shores Drive to the west, Crago Road to the east, the CN rail corridor to the north, and Lake Ontario to the south. The Energy Park is bound by Megawatt Drive to the north, Crago Road to the east, Courtice Road to the west, and the CN rail corridor to the south. Although these three areas have distinct contexts and existing land uses, they have been planned comprehensively as one Secondary Plan Area.

The Courtice Waterfront and Energy Park are intended to evolve as multiple complementary places that provide employment, business, living and recreation opportunities for Clarington and Durham Region against the backdrops of Lake Ontario and Tooley Creek. The development of office, industrial and commercial uses, diverse forms of housing, public open spaces, and supportive infrastructure will extend the Courtice community to Lake Ontario.

The vision for the Clarington Energy Park intends to accommodate and support existing and planned energy-related office and industrial uses. The high visibility and access to Highway 401 will provide an opportunity for well-designed buildings and landscapes that demonstrate environmental sustainability, promoting the Energy Park as a unique place for investment and job growth.

The West Waterfront will feature a variety of low-rise and mid-rise housing, including a mix of uses and affordable housing, centred on a pedestrian-oriented main street. Restaurants, shops and destination commercial uses will draw visitors and Energy Park employees to the area.

A municipal-wide park is also envisioned for the southwest portion of the Courtice Waterfront. The Courtice Waterfront Park will contribute to a broader open space system, protect significant natural features, provide public access to and along Lake Ontario, and accommodate a range of recreation and cultural activities year-round. The park will be designed and programmed to serve all residents of Clarington.

These guidelines build on the Clarington Energy Park Streetscape and Sustainable Development Design Guidelines, released in 2011, which applied to the lands within the Energy Park. These guidelines also build on Priority Green Clarington, which promotes sustainable community design. There is broad recognition that sustainable communities can be created through a focus

on standards for the built environment, natural environments and open spaces, mobility, and infrastructure. One of the most impactful ways in which sustainable development can be realized is through the various aspects of community design, including: street networks and block patterns that promote safe and comfortable movement by walking and cycling; an interconnected system of parks and open spaces that are well integrated with natural features; and the design and layout of blocks, lots and buildings to promote the efficient use of land and infrastructure. The Courtice Waterfront and Energy Park Secondary Plan Area provides a policy framework for the development of the Courtice Waterfront and Energy Park in a manner that incorporates the highest quality of urban design and sustainability initiatives. The Guidelines provide further direction on how this is to be achieved.

1.2. Structure of the Guidelines

This document contains five main sections:

Section 1 summarize important background information and explains the purpose of the guidelines.

Section 2 describes the overall physical vision for the community and conceptually illustrates the vision with a Demonstration Plan. It also describes the community's structuring elements and explains how the guidelines will be implemented.

Section 3 contains the public realm guidelines, which will apply to the design of the street network, streetscapes, parks and other open spaces, and stormwater management facilities.

Section 4 contains guidelines applicable to the private realm. They include general guidelines about community design and more detailed guidelines for low and medium density residential development, mixed use development, commercial buildings, and employment buildings in the Energy Park.

Section 5 contains green design guidelines. They provide direction for sustainable community design including energy efficiency, water conservation and green roofs.

1.3. Interpretation and Implementation of the Guidelines

The Courtice Waterfront and Energy Park Urban Design and Sustainability Guidelines are intended to help implement the policies of the Official Plan and Courtice Waterfront and Energy Park Secondary Plan and provide greater clarity on policy intentions respecting overall urban design, streetscapes, built form and environmental sustainability. The Guidelines are to be read in conjunction with the policies of the Official Plan – in particular Chapter 5, Creating Vibrant and Sustainable Urban Places, and Chapter 9, Livable Neighbourhoods – and the policies of the Secondary Plan – in particular Section 3 Environment and Sustainability, Section 5 Streets and Mobility, Section 6 Land Use and Urban Design, and Section 7 Parks and Community Facilities.

The Guidelines also should be read in conjunction with the Clarington Zoning By-law as it applies to the Courtice Waterfront and Energy Park and the Clarington General Architectural Design Guidelines, Landscape Design Guidelines for Site Planning, Lighting Guidelines, and Amenity Guidelines for Medium and High Density Residences. The Guidelines build on zoning provisions with more detailed guidance respecting such matters as building setbacks and heights and they complement the design intent of the implementing Zoning By-law and provide design guidance specific to the Courtice Waterfront and Energy Park to supplement that provided by the General Architectural Design Guidelines. Where there is conflict between these guidelines and the General Architectural Design Guidelines, these guidelines shall prevail.

The Guidelines, in concert with Official Plan policies, Secondary Plan policies, the implementing Zoning By-law and the General Architectural Design Guidelines, will be used to evaluate draft plans of subdivision applications and site plan applications to ensure that a high level of urban design and sustainability is achieved.

2. Community Design Vision

2.1. Community Vision

The following components comprise the physical vision for the community, illustrated in the Demonstration Concept (see **Figure X [to be inserted following June 13 public meeting]**):

- **Highly visible, accessible and protected natural heritage features**
Development and infrastructure will respect and enhance existing natural heritage features and topography. Residents will enjoy parks and trail networks that provide increased access to natural heritage features while being environmentally sensitive.
- **Accessible public spaces and other amenities for people of all ages and abilities**
The open space network (see Figure 2.3 Open Space Network) will be comprised of public parks, environmental areas, stormwater management ponds, green spaces, and natural areas. The parkland strategy is built around the Tooley Creek valley and the existing topographic landscape in the Courtice Waterfront. The Courtice Waterfront Park and Waterfront Greenway will be integrated in accessible locations as amenities and to provide linkages to natural heritage features and other public open spaces. The Courtice Waterfront neighbourhood will be organized around the Courtice Waterfront Park, Darlington Provincial Park, and Environmental Protection Area which will have the potential to accommodate a range of low intensity programmed and spontaneous recreational activities.
- **An interconnected, pedestrian-oriented street network**
The grid-like network planned for the Courtice Waterfront and Energy Park will respond to the natural features and existing street network in the area (see Figure 2.2 Street Network). The network comprises a hierarchy of street classifications to respond to the planned land use and built form in the neighbourhood and the surrounding areas. The street network should frame blocks of regular shape and sized to flexibly accommodate a

range of housing types, taking into consideration lot sizing needs, while encouraging walking and cycling. Connectivity in the community will be supported by a network of dedicated cycling and pedestrian facilities, including: on-street cycling lanes, and off-street pedestrian connections, trails, and multi-use paths (see Figure 2.4 Key Pedestrian and Cycling Connections). They will also help connect residents to other community amenities within and outside of the Courtice Waterfront and Energy Park.

- **A diversity of housing forms and building typologies**
The Courtice Waterfront will continue to develop as a community with a diversity of housing choices, to accommodate residents of all ages from households of all sizes. Attention to good urban design will ensure the desired range of housing types are integrated seamlessly, resulting in a cohesive community with a distinct identity. The Courtice Waterfront will largely consist of low-rise building typologies such as detached, semi-detached and townhome housing forms. Mid-rise apartment buildings and mixed use development will be located along key arterials and at intersections. Development in the Courtice Waterfront will provide a variety of housing types, sizes, and architectural styles.
- **Streetscapes defined by street trees, private setbacks, and the facades of buildings**
Streetscapes in the Courtice Waterfront and Energy Park will be designed to a high standard, incorporating complete street principles to provide safe and comfortable space for pedestrians, cyclists, transit users, and drivers. The facades of buildings and private setbacks, not garages and driveways, will be dominant streetscape features in the Courtice Waterfront and in the Energy Park, where appropriate. The public realm network will also promote linkages and synergies among research and development facilities, institutional and corporate offices, and manufacturing plants in the Energy Park.
- **Stormwater management features integrated into the open space network**
The open space network will incorporate a naturalized stormwater management system by integrating a mix of low impact development features and ponds into areas within or directly adjacent to the natural area.

2.2. Community Character Statement

Community Character Statement: The Courtice Waterfront and Energy Park Secondary Plan envisions a diverse and inclusive community distinguished by low-rise and mid-rise residential housing, mixed use developments with active uses at street level, highly walkable streets, a range of housing types, a variety of employment opportunities, direct access to commercial and community amenities, accessible and versatile parkland, and enhanced and protected natural features.

2.3. Community Structure

The Courtice Waterfront and Energy Park Secondary Plan provides the framework for development of the Courtice Waterfront neighbourhood and Energy Park that is walkable, enjoyable and accessible. The community is organized around the following, high-level structural elements:

- Street Network and Streetscapes
- Parks, Open Spaces, and Natural Areas
- View Corridors
- Residential Uses
- Non-Residential Uses

Street Network and Streetscape: The Street Network and Streetscape include major and minor road connections within the Courtice Waterfront and Energy Park, as well as the visual elements of a street, such as the sidewalk, multi-use trails, street furniture and landscape elements. The street network will be designed under the principle of “complete streets” which will ensure that pedestrians, cyclists, public transportation, and vehicles are able to move easily through the Courtice Waterfront and Energy Park.

Parks and Open Space: Parks and open space includes the area’s natural heritage features, stormwater management facilities, Courtice Waterfront Park, and trees. The Secondary Plan Area is traversed by the Tooley Creek and its associated valley- and woodlands. It is the initial structuring element around which the Courtice Waterfront neighbourhood and Energy Park is structured and it will be protected, restored and enhanced in order to serve as the focal point of the community. The Courtice Waterfront Park proposed in the Courtice Waterfront will build off of the neighbourhood’s natural heritage. They will be programmed to provide amenity space for a wide variety of users of all ages.

Residential Uses: Areas designated for residential uses will be planned and designed as accessible, pedestrian-oriented areas that are distinct in character and connected with the broader context of the Courtice Waterfront. Residential areas will include a mixture and diversity of housing types to ensure variety and choice.

Non-Residential Uses: The Courtice Waterfront will feature small scale neighbourhood commercial uses which frame the main streetscape and local roads. Neighbourhood commercial uses will be located along major thoroughfares, making them easily accessible by users and agencies. The Energy Park will consist of employment uses with a focus on innovative energy and environmental businesses, permitting light industrial uses along with office and high-density employment uses, supported by ancillary commercial uses and amenities for employees.

Key View Corridors: Certain views within the Courtice Waterfront are vital to the area’s urban design and function. Significant views within the Courtice Waterfront will be focused toward the natural heritage features, Tooley Creek, and Lake Ontario Waterfront.

3. Public Realm Guidelines

The public realm is typically defined as including publicly owned places and spaces that belong to and are accessible by everyone. The public realm includes municipal streets, active transportation facilities, streetscape elements, parks and other open space, multi-use paths and trails, environmental protection areas and stormwater management facilities.

3.1. Street Network and Block Pattern

The layout of the street and block network provides the framework for development and circulation patterns, for all modes of travel. The following guidelines apply to the design and layout of all existing and planned streets within the Courtice Waterfront community.

Guidelines:

- a) Streets should be designed to reflect complete street design principles, balancing the needs of all users.
- b) The network of collector and local streets should form a grid-like pattern that facilitates direct routes while respecting existing natural features, topography and street networks. The Demonstration Plan in Appendix B conceptually illustrates one option for the local street network but is not intended to be prescriptive.
- c) Streets should be aligned to provide desirable view corridors and vistas to parks and natural features where possible. In particular, the two view corridors identified in Figure 1 Open Space Network, should align with public streets.
- d) Block lengths should be no more than 200 metres.
- e) Where block lengths exceed 250 metres, mid-block pedestrian connections should be provided.
- f) Variation in block sizes are encouraged where they facilitate the development of a mix of building typologies.
- g) Where window streets are unavoidable, reduced front yard setbacks and right-of-way widths are encouraged to reduce the cumulative separation distance between buildings across rights-of-way.
- h) Cul-de-Sacs are discouraged since they reduce connectivity, increase walking distances and typically result in streetscapes dominated by driveways and garages.
- i) Where cul-de-sacs are unavoidable, pedestrian connectivity should be preserved as well as sight-lines along the local street with views to the connecting streets and destinations beyond.
- j) Where the geometry of the arterial road or its future performance may be an issue, the future closure to vehicle traffic of local streets intersecting with the arterial may be considered, while preserving sightlines and pedestrian connections to the arterials.
- k) Rear Lanes are particularly encouraged where driveways are restricted but residential frontage is desired, notably behind properties fronting arterial roads.
- l) Rear Lanes are also encouraged through blocks where medium density forms of housing are dominant, to prevent front garages and driveways from limiting

landscaping in front yards and the street right-of-ways.

- m) Rear Lanes should be designed to consider visitor parking requirements (when private), adequate space for snow clearing and designated space for garbage and recycling bins.

3.2. Streets

Streets in Courtice Waterfront and Energy Park will be designed as complete streets that reflect the community character and facilitate the efficient movement of vehicles while also encouraging residents, workers, and visitors to walk and cycle.

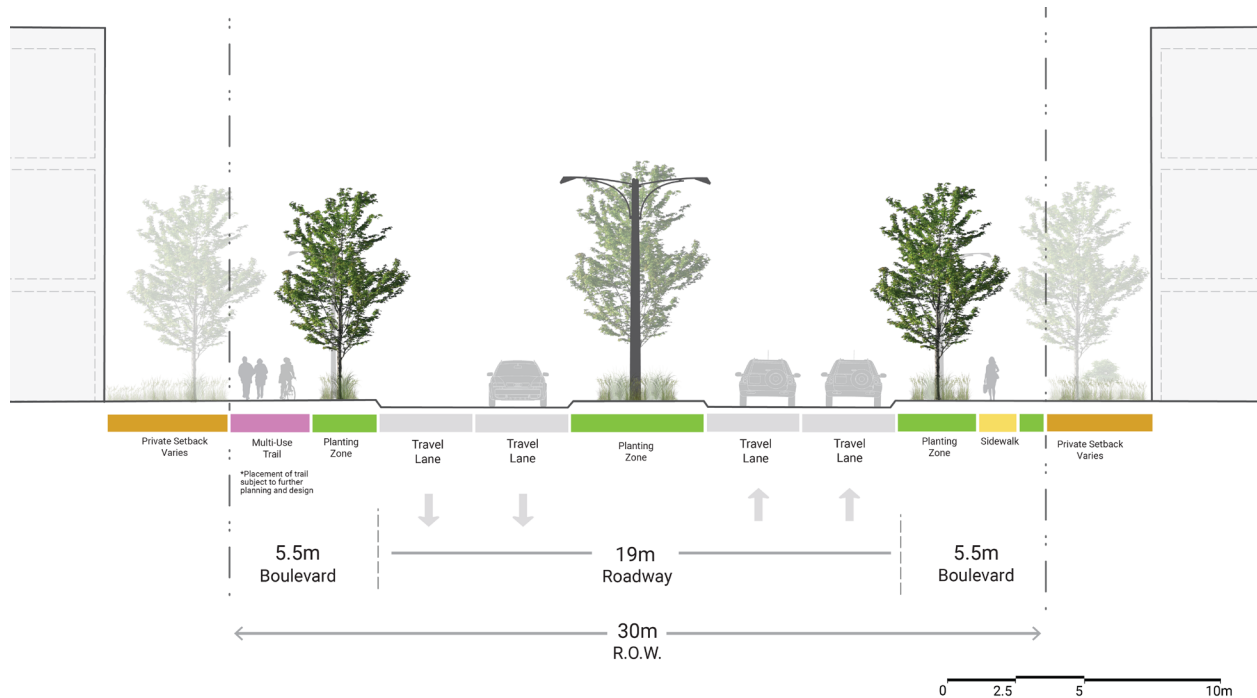
3.2.1. Class C Arterial Roads

Courtice Road is the primary entry road into the Courtice Waterfront and Energy Park Area. As Courtice Road enters the Secondary Plan Area, it becomes Energy Drive. Energy Drive is the only Arterial (Class C) road within the Secondary Plan Area. Collector Roads are multi-modal, featuring two travel lanes in each direction with street trees and space for active transportation.

Energy Drive

Energy Drive is the main structuring element of the Clarington Energy Park and the primary East-West axis connecting Courtice Road and the Highway 401 interchange to the service road on the northern edge of the park.

An in Boulevard multi-use path provides connections from Courtice Shores to the waterfront trail network near the Darlington Lower Hydro Fields. The alignment of the multi-use path along Energy Drive will need to be confirmed at a later stage. Two travel lanes in either direction are separated by a landscaped median and should offer street trees on either side of the right-of-way. The right-of way width of 30m should consist of the preferred elements and dimensions identified in the cross section:

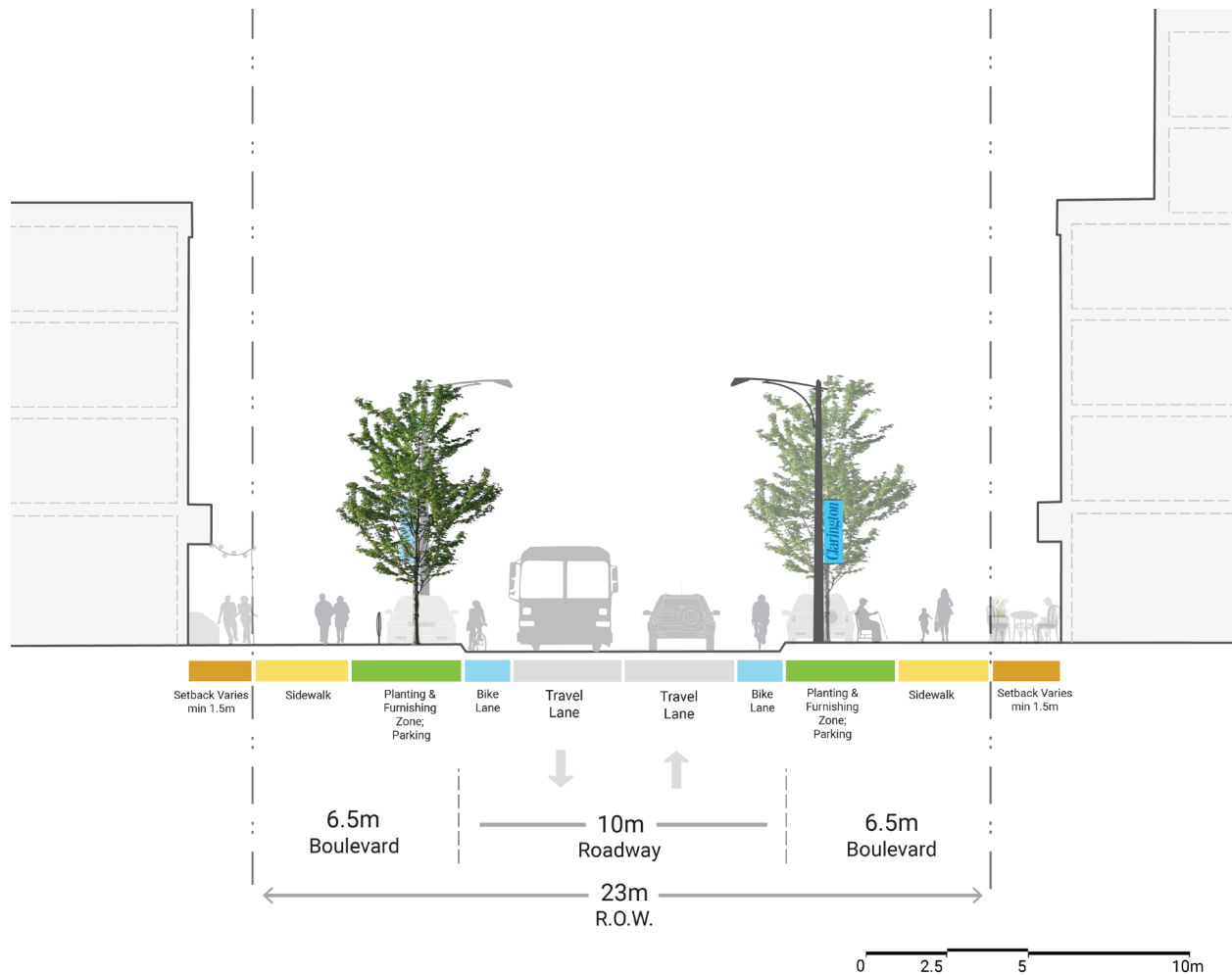


3.2.2. Collector Roads

The new Waterfront Main Street and Darlington Park Road will be Collector Roads, providing a key point of access from Courtice Road into the West Waterfront, the future Courtice Waterfront Park, and the existing Darlington Provincial Park. These collector roads will feature a 23 metre right of way.

Waterfront Main Street

The Secondary Plan proposes rerouting of Darlington Park Road, bending it south to providing a north-south spine through the heart of West Waterfront within the Mixed Use – Main Street land use designation. This street forms the de-facto main street of the Waterfront with generous, active sidewalks. Bicycle lanes are envisioned on-street adjacent to travel lanes, one in each direction. Within the boulevard of the street, a more urban condition is envisioned with a mix of street trees, furniture, bicycle parking, and vehicle parking. The right-of way width of 23m should consist of the preferred elements and dimensions identified in the cross section:



Darlington Park Road

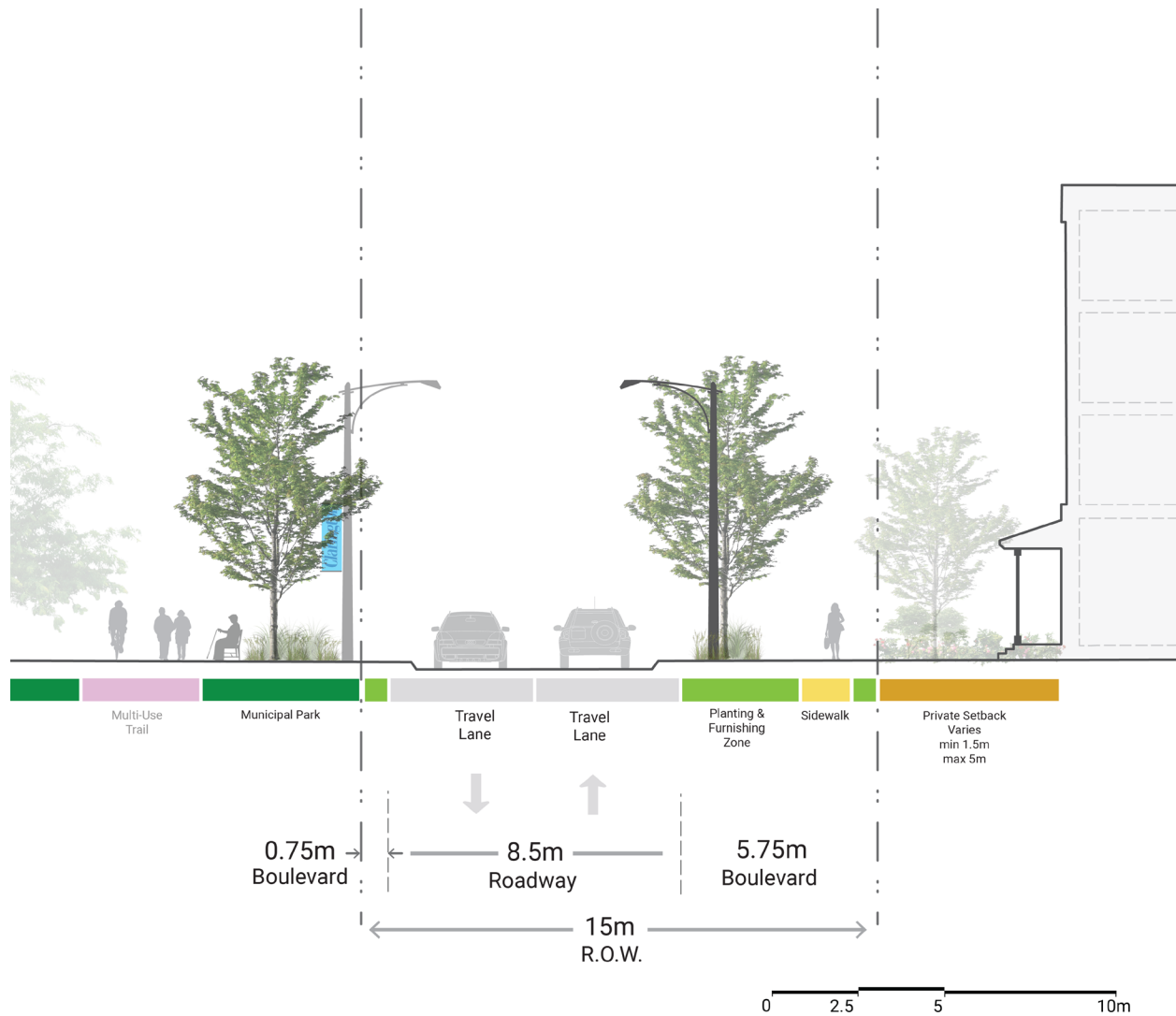
Darlington Park is one of the critical access points to the waterfront area with prominent natural heritage features and linking to the Waterfront Main Street. The 23m right-of-way features travel lanes in each direction with generous shoulders and space for natural features. A multi-use trail is envisioned to run parallel Darlington Park, with proximity to the street dictated by natural features. Darlington Park Road is currently constructed and features a rural collector road cross section that is intended to remain, supplemented by a future multi-use path generally located outside of the right of way and within Environmental Protection Areas adjacent to the road.

3.2.3. Key Local Roads

Four key local roads are identified within the Secondary Plan. These are local roads that have special character driven by their prominence, adjacent land uses and importance for circulation within the Secondary Plan area. Key Local Roads generally feature a 20 meter right of way. Key Local Roads will have sidewalks/multi-use paths and street trees on both sides to encourage pedestrian activity and contribute to a robust tree canopy and overall green character.

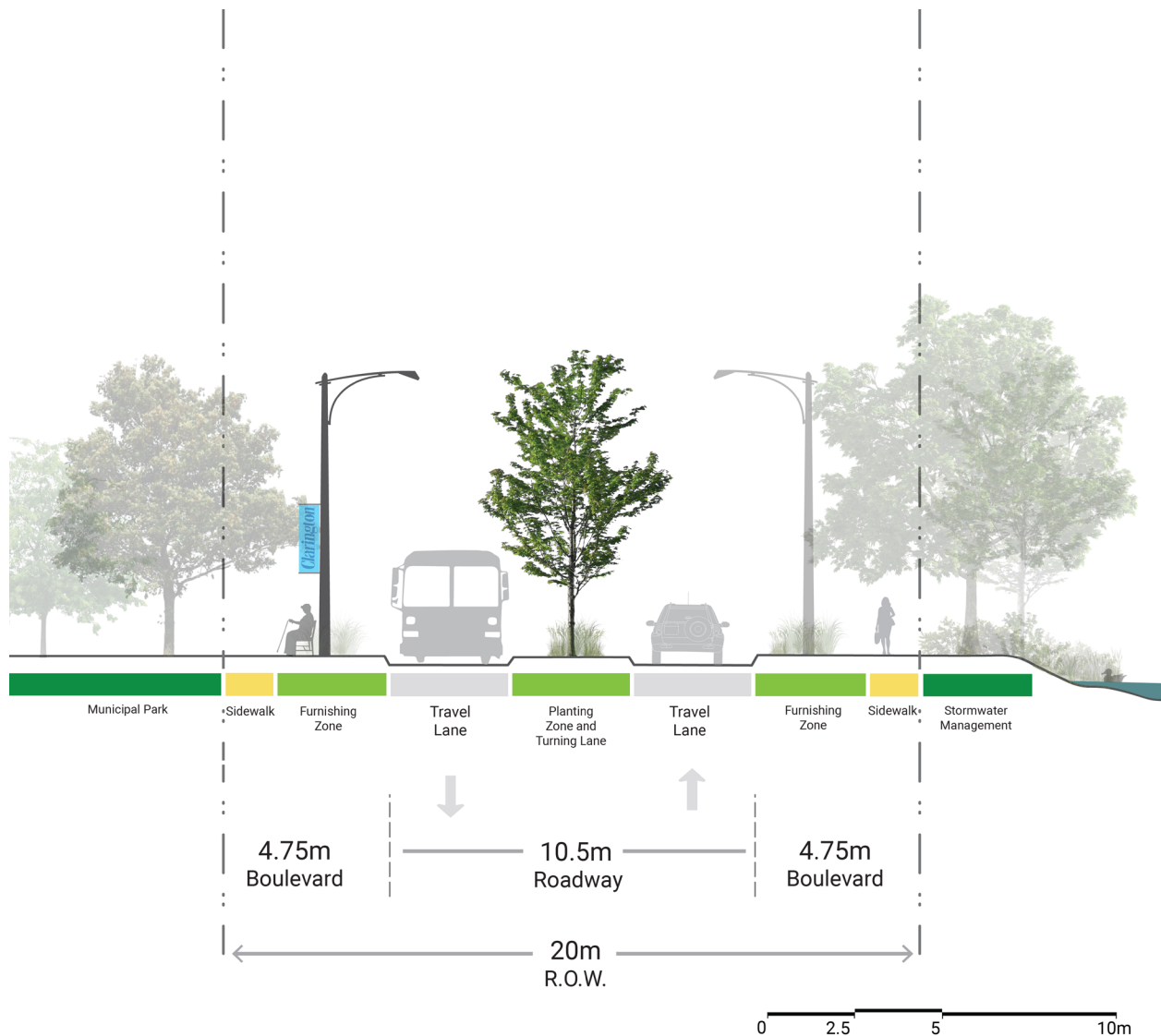
Parkside Road

A prominent feature of this road is its frontage along the Courtice Waterfront Park. The road, featuring a single travel lane in each direction is envisioned to have sidewalks on both sides of the roadway. On the north side of the road, a boulevard of street trees and parking creates a residential frontage for the neighborhood. The south side of the street offers generous planting zones to contribute to a green transition to the Courtice Waterfront Park. Angled parking on the south side of Parkside Road may potentially be considered through the Courtice Waterfront Park planning process. Opportunities for integrating traffic calming measures may be explored by proposing lane widths that are more narrow than standard requirements. The right-of way width of 15m should consist of the preferred elements and dimensions identified in the cross section:



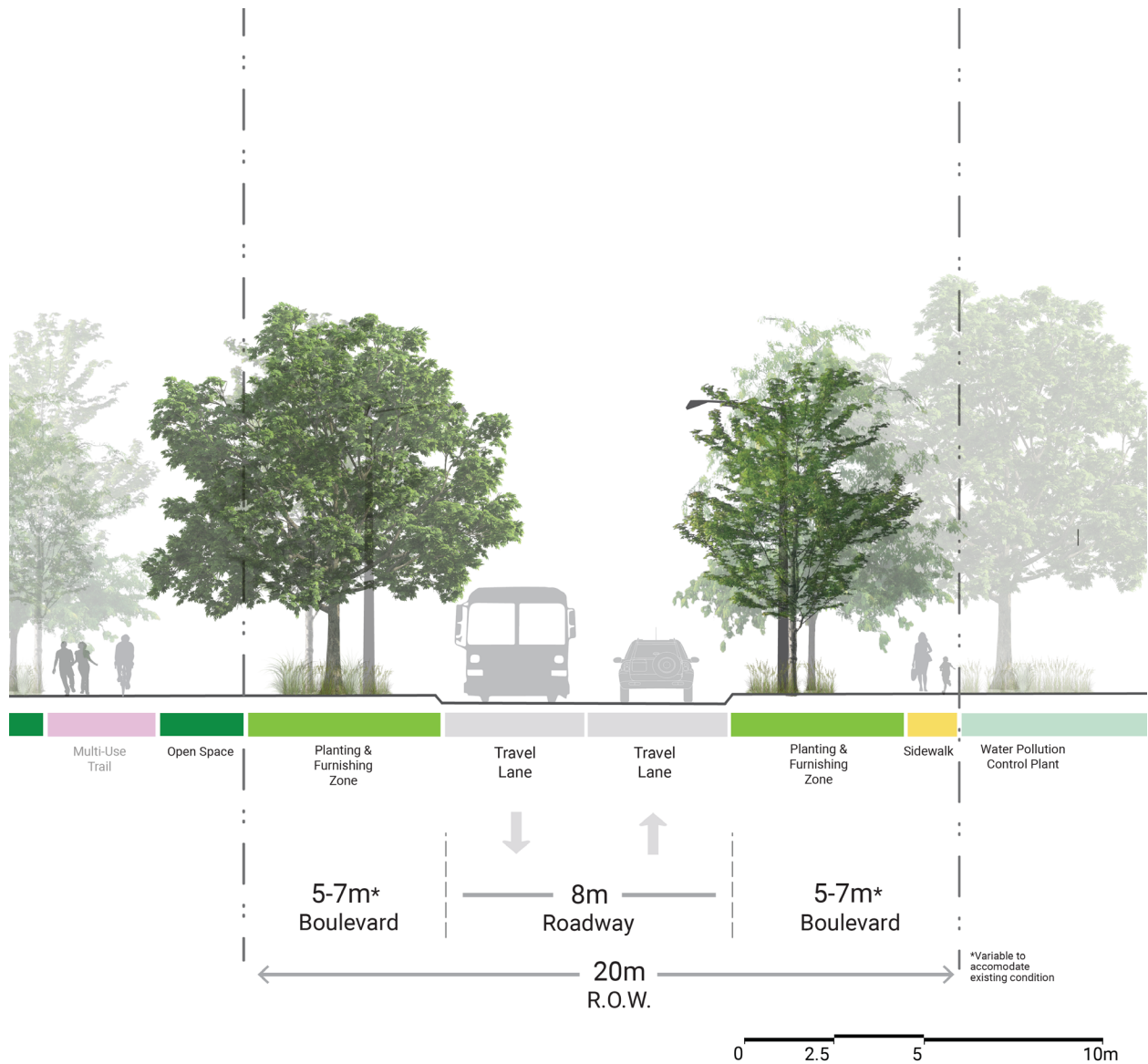
Waterfront Road

Waterfront Road connects the Mixed Use – Main Street area to Courtice Shores, running between the Courtice Waterfront Park, ravine, and stormwater management area to have a very green parkway-like character. A travel lane in each direction is divided by a landscaped median. Boulevards with street trees and sidewalk are encouraged on both sides of the road to promote pedestrian activity through the various environmental areas. Opportunities for integrating traffic calming measures may be explored by proposing lane widths that are more narrow than standard requirements. The right-of way width of 20m should consist of the preferred elements and dimensions identified in the cross section:



Courtice Shores Drive

The existing Courtice road, south of Energy Drive, is envisioned as a gateway street that will embrace the existing prominent landscape features that front the right-of-way. A multi-use trail is envisioned to run parallel to the right-of-way but not within it. The generous boulevards should be mindful to retain existing natural heritage elements when possible. The right-of way width of 20m should consist of the preferred elements and dimensions identified in the cross section:

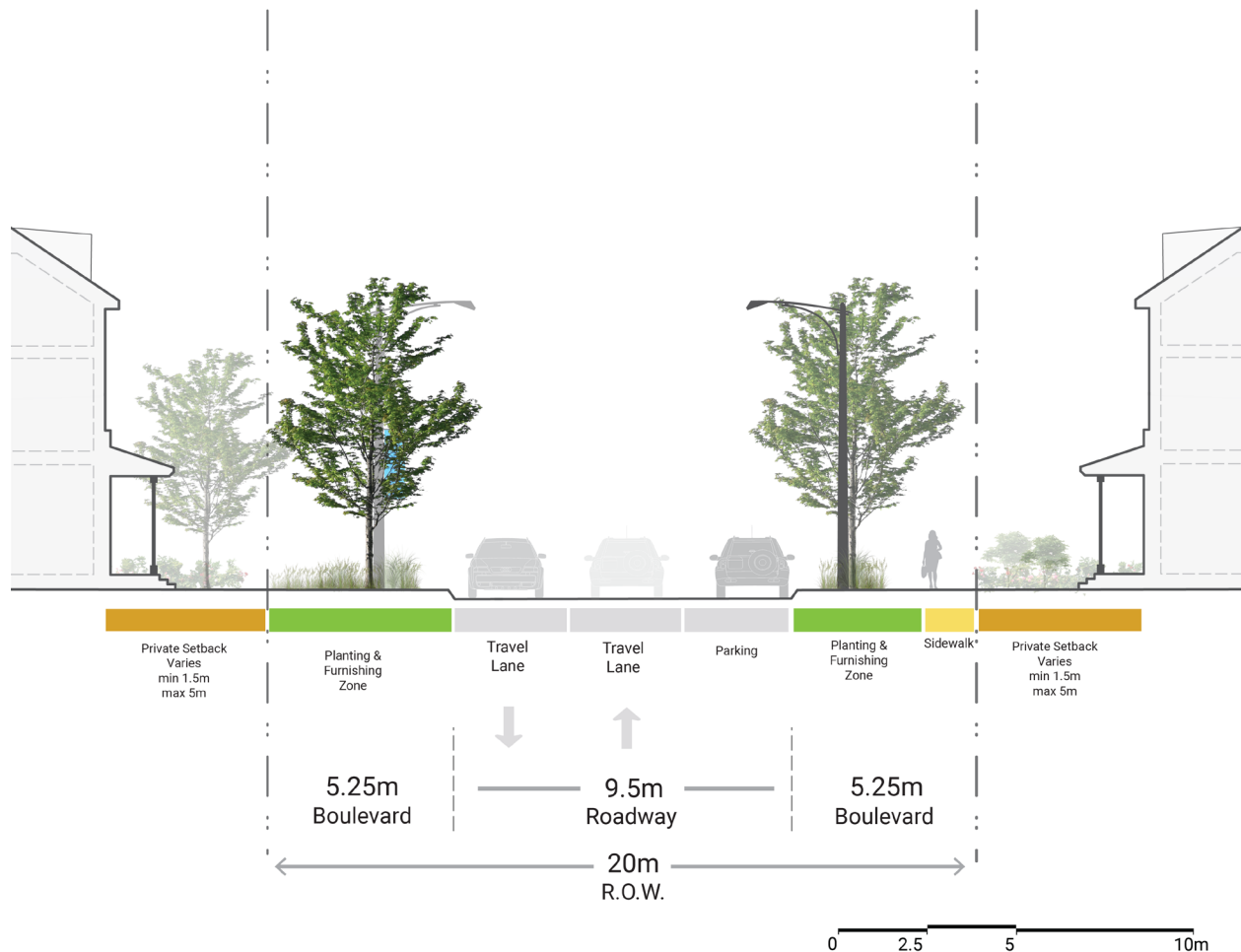


3.2.4. Typical Local Roads

An interconnected grid-like network of Typical Local Roads will be designed to stitch together the community with short walkable blocks, as part of a broader pattern with the Key Local Roads. Like Key Local Roads, this network will feature a 20m right of way to accommodate a travel lane in each direction. Street trees and sidewalks are strongly encouraged on both sides of the street.

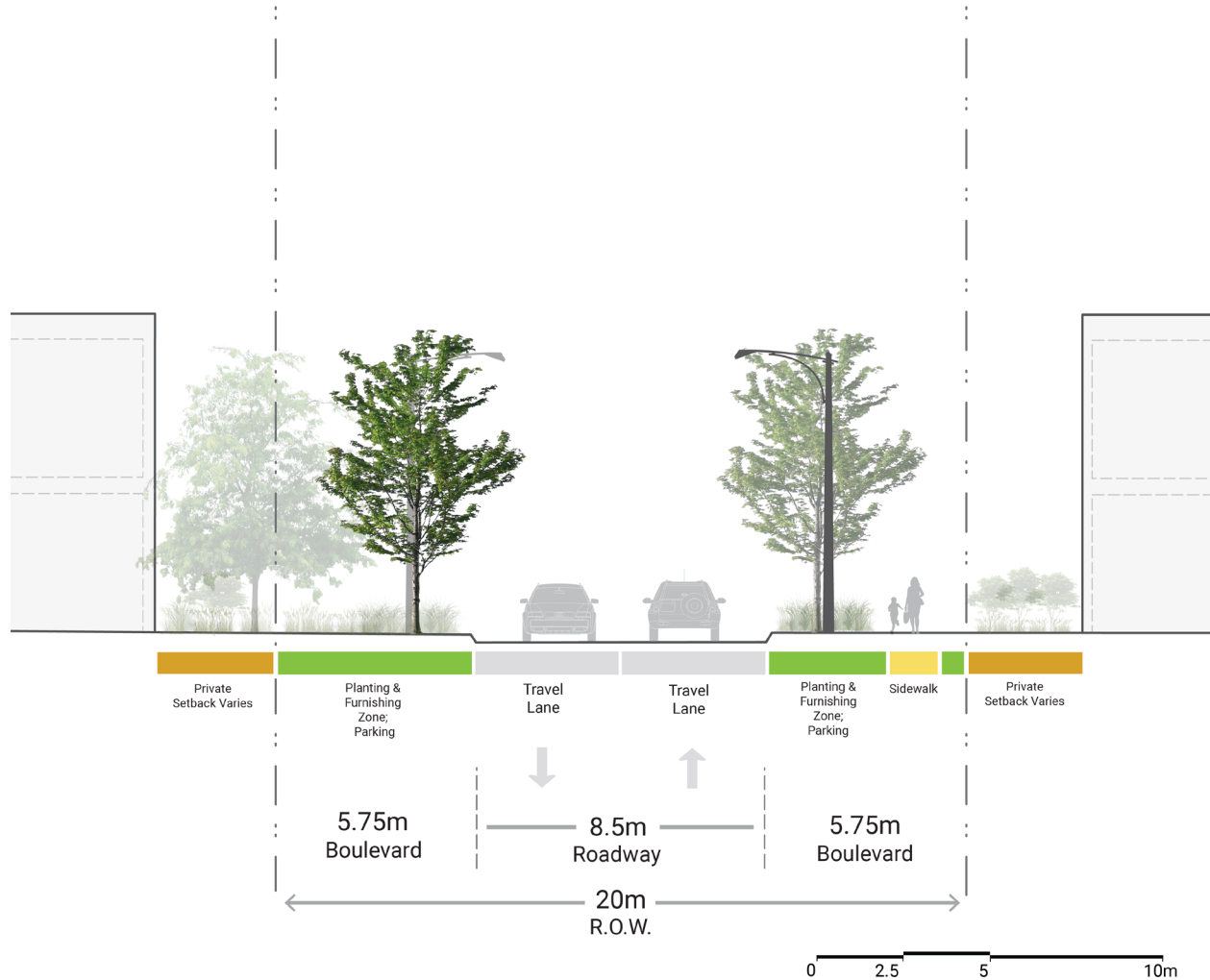
West Waterfront Typical Local Roads

Design for Typical Local Roads within the West Waterfront will create green residential character for both low and medium density development. These right-of-ways consist of two travel lane plus space for parking with the following preferred elements and dimensions identified in the cross-section below:



Energy Park Typical Local Roads

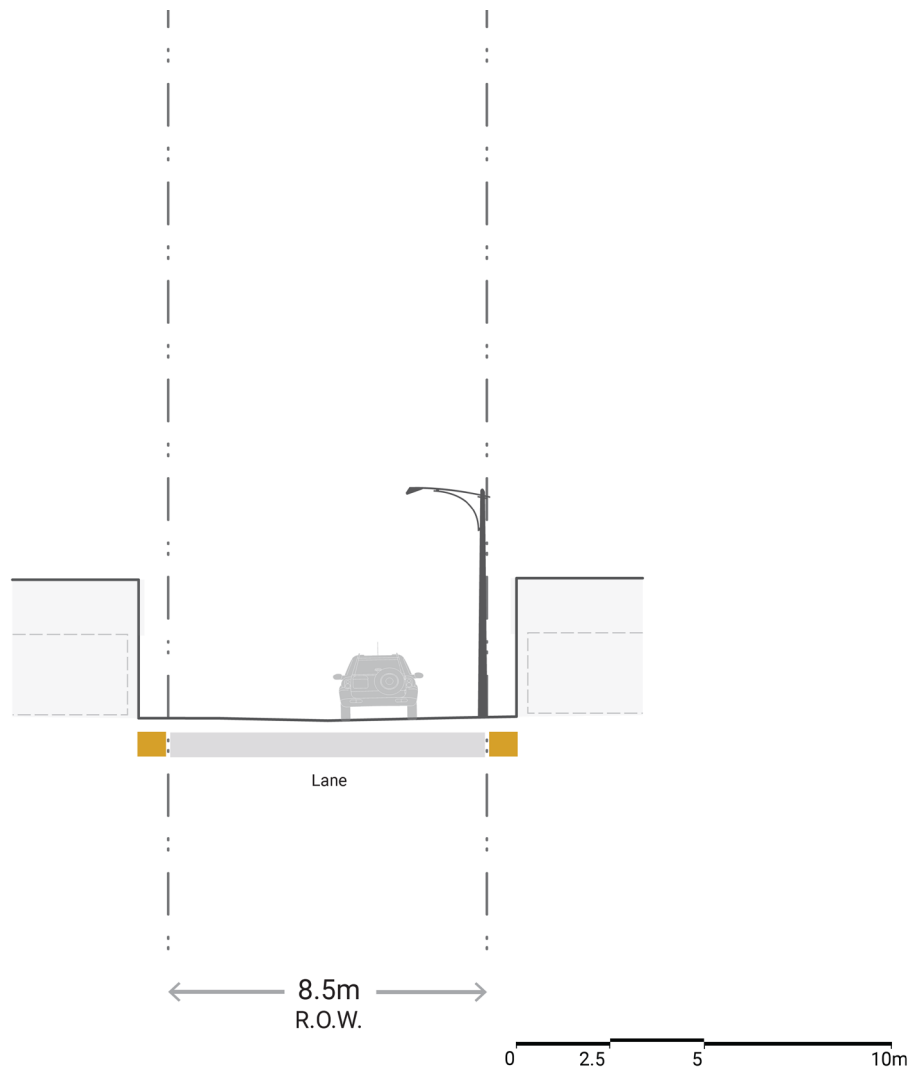
Within the Energy Park, the network of local roads feature wider travel lanes to accommodate large vehicles while also bringing landscaping and comfortable pedestrian access. The right-of way width of 20m should consist of the preferred elements and dimensions identified in the cross section:



3.2.5. Rear Lanes

Rear Lanes are encouraged throughout the community, since they result in more pedestrian-oriented streetscapes. Rear Lanes are particularly encouraged where driveways are restricted but residential frontage is desired, notably behind properties fronting Arterial Roads. Rear Lanes are also encouraged through blocks where medium density forms of housing are dominant, to prevent front garages from limiting landscaping in front yards and the street right-of-way.

The right-of-way width of 8.5 metres should consist of the following preferred elements in the cross-section below. A minimum pavement width of 6.5 metres is required to provide access for service and maintenance vehicles.



3.2.6. Roundabouts

Roundabouts may be used as an alternative to traditional intersections with stop signs or traffic signals. They can help to calm traffic while also marking gateways and contributing to community identity through landscaping.

Guidelines:

- a) A roundabout may be appropriate at the intersection of the Energy Drive and Courtice Road, subject to approval by the Region of Durham.
- b) The size and configuration of roundabouts shall meet Regional and Municipal standards.
- c) Landscape elements within roundabouts must not impede critical sightlines.
- d) Roundabouts should feature decorative paving and soft landscaping designed to a high standard and with durable, low-maintenance materials.
- e) The size of roundabouts should be minimized to avoid diverting and lengthening pedestrian routes through the intersection, and pedestrian crossings should be clearly marked.
- f) Public art should be considered in designing roundabouts.

3.3. Streetscapes

Streets are not just for moving people and goods but are also places for social interaction, and their design contributes fundamentally to the character of a community. The guidelines below apply primarily to the boulevards of streets to ensure all the roles and functions of the Courtice Waterfront and Energy Park streets are optimized.

Guidelines:

- a) Sidewalks should be designed to provide fully accessible, barrier-free connectivity throughout the community, as per Regional and Municipal standards.
- b) Sidewalks should have a width of 1.5 metres.
- c) The space between the sidewalk and the curb should be reserved for street trees, grass or other ground cover, street lighting and, where appropriate, transit shelters, seating and bicycle parking.
- d) Transit shelters and seating should be provided at all transit stops.
- e) Curb extensions (bump-outs) may be considered at intersections and mid-block locations to expand the pedestrian zone, accommodate transit shelters and seating, and shorten roadway crossings.
- f) Street trees should be large canopy species tolerant of droughts and salt, primarily native, non-invasive species that maximize biodiversity. Pollinator species are encouraged.
- g) Ornamental or flowering trees should be considered for key entry streets.

- h) Trees of the same species should be planted on both sides of the street, but tree monocultures are to be avoided.
- i) Adequate soil volumes, good soil structure, proper drainage and, where possible, irrigation should be provided to support the long-term health of street trees. The bridging of soil rooting areas below adjacent hard surfaces is encouraged.
- j) Street lighting will be guided by municipal standards and should focus illumination downward to minimize light pollution and support dark night skies.
- k) The integration of public art into streetscape elements, such as benches, transit shelters and paving, should be considered.
- l) Utilities such as gas, hydro, cable, and telecommunications should be located underground, where feasible.
- m) Above-ground utilities should be integrated into the streetscape and be located so as to minimize conflicts with street tree planting. Alternative methods of screening or integrating utility services may be considered, including covers, wraps or public art features, in compliance with utility authority requirements.

3.4. Parks and Open Space

The Courtice Waterfront community contains a variety of existing natural areas which function as open spaces and is located directly adjacent to Darlington Provincial Park. A portion of this space will serve as the location for the future Courtice Waterfront Park. The Courtice Waterfront Park will serve the active and passive recreational needs of the surrounding residents, and should be designed as the primary gathering space for residents and to enhance the community's identity and sense of place.

3.4.1. Courtice Waterfront Park Design Guidelines

- a) Formal entries to the Courtice Waterfront Park should be strategically located in order to ensure convenient access for both pedestrians and cyclists from public right-of-ways.
- b) Facilities in the park should complement those in other areas of the Courtice Waterfront.
- c) Programming in the Courtice Waterfront Park should incorporate a range of active and passive low intensity recreational uses. As per Clarington's Parks and Recreation Master Plan, features and amenities should consider seasonality, year-round use, and existing features and amenities in nearby parks and facilities.
- d) Pedestrian paths within the Courtice Waterfront Park should follow desire lines between intersections and destinations within and beyond the park, including trailheads within the Environmental Protection Areas.
- e) One or more potential future access points to Darlington Provincial Park should be maintained from the Courtice Waterfront Park.
- f) Secure bicycle parking should be provided in and around the Courtice Waterfront

Park.

- g) Plantings should generally consist of hardy, native species and provide a transition between park greenspace and natural areas.
- h) Landscaping and design of the Courtice Waterfront Park should incorporate low impact development features.
- i) The Courtice Waterfront Park should include furnishings such as benches, other seating and tables. These elements should be coordinated in their design and built of durable, low-maintenance materials.
- j) Public art should be integrated into the design of park facilities or landscape features. Public art that celebrates and/or interprets the area's history and geography is encouraged.
- k) Utility infrastructure such as gas, hydro, cable, and telecommunications should be located away from the Courtice Waterfront Park and open space frontages.
- l) Alternative methods of screening or integrating utility services may be considered, including covers, wraps or public art features, in compliance with utility authority requirements.

3.4.2. Guidelines for Mid-Block Pedestrian Connections, Multi-Use Paths and Trails

Mid-block pedestrian connections will be used to break up long blocks and shorten walking distances. An overall interconnected trail network is critical in supporting connectivity for the Courtice Waterfront and Energy Park. The trail network provides a secondary network of connections for pedestrians and cyclists and can be both a safe option for travelling to and from local destinations and for recreational activities.

- a) Mid-block pedestrian connections should have a minimum width of 6 metres to accommodate a 3-metre wide multi-use path and landscaping on both sides.
- b) The trail network should prioritize connecting key destinations in the community, and parks in particular.
- c) Boulevard multi-use Paths and off-road multi-use paths will generally be at least 3 metres wide.
- d) Trail connections located in community parks and which traverse environmental areas can be reduced to a width of 2.5 metres.
- e) The design of trails should be sensitive to nearby natural features.
- f) As an important part of the larger mobility network, access points to trail and paths should be integrated into parks and the public right-of-way.

3.5. Environmental Protection Areas

The Courtice Waterfront and Energy Park area contains an extensive natural heritage system, largely centered on the Tooley Creek and the related valley lands. The Environmental Protection Areas identified as Natural Areas on Figure 1: Open Space Network will prioritize preserving ecological diversity and promoting environmental sustainability and compatible recreational uses through integration of trails.

3.5.1. Environmental Protection Area Design Guidelines

- a) While connectivity with Environmental Protection Areas is encouraged, trails should be directed outside of natural areas where possible, or to the outer edge of buffer areas, and creek crossings should be minimized.
- b) A network of trails should be designed to minimize impact on Environmental Protection Areas. This can be done by locating trails near the Environmental Protection Area boundaries and other low or medium constraint areas.
- c) Residential development adjacent to Environmental Protection Areas should seek to optimize public exposure and access to the Environmental Protection Area. Limited backlotting is acceptable onto an Environmental Protection Area if it enables optimal street network and lotting patterns.
- d) The interface of the EPA with residential lots should consist of fencing that meets CLOCA standards. Gates to the adjacent Environmental Protection Area are not permitted.
- e) Trail and drainage infrastructure should incorporate the natural topography and drainage patterns.
- f) The integration of parks, trails and infrastructure adjacent to an Environmental Protection Area should enhance natural features and functions. Encroachments into the natural feature should be avoided. Where encroachments cannot be avoided, compensation may be required.

3.5.2. Lake Ontario Shoreline Design Guidelines:

- a) Where appropriate, opportunities for passive recreation along the Lake Ontario Shoreline should be provided, along with trail connections to the future Courtice Waterfront Park, Waterfront Greenway, Courtice Waterfront community, and arterial roads.
- b) The naturalization and restoration of the function of the Lake Ontario Shoreline should be pursued where possible.
- c) Access to the Lake Ontario Shoreline shall only be provided where it has been determined that there will be no long-term impact on the ecological function of these areas.

3.5.3. Darlington Provincial Park

- a) Residential development adjacent to Darlington Provincial Park should seek to carefully control public exposure, lighting, and access to the Provincial Park.
- b) The interface of Darlington Provincial Park with residential lots should consist of a buffer that meets CLOCA standards. Gates to the adjacent Provincial Park are not permitted.

- c) The integration of parks, trails and infrastructure adjacent to Darlington Provincial Park should enhance natural features and functions. Encroachments into the Provincial Park shall be avoided.

3.5.4. Woodlands and Valleylands

- a) Where appropriate, opportunities for passive recreation along the Tooley Creek Valleylands should be provided, along with trail connections to the future Courtice Waterfront Park and Waterfront Greenway, the Courtice Waterfront community, and the Waterfront Main Street.
- b) The naturalization, replanting and restoration of the function of woodlands and valleylands should be pursued where possible.
- c) Existing tree cover shall be preserved and expanded to connect and buffer protected woodlands and other natural areas and provide shade to the public realm.
- d) Direct access from private properties backing onto woodlands shall be discouraged.
- e) Access to woodlands and valleylands shall only be provided where it has been determined that there will be no long term impact on the ecological function of these areas.

3.6. Stormwater Management Facilities

Development in the Courtice Waterfront and Energy Park will be designed to manage stormwater through Low Impact Development techniques such as, but not limited to, bioswales, rainwater harvesting systems, infiltration trenches, the use of permeable surface materials, and naturalized stormwater management ponds. Detailed guidelines regarding low impact development can be found in Section 5.2.

Stormwater management facilities are an important part of the public infrastructure in the community, and will be located throughout the community, as identified in Figure 1 Open Space Network. The selected locations will take advantage of the natural drainage patterns and integration with the Environmental Protection Areas.

Guidelines:

- a) The precise location, size and number of stormwater management facilities will be determined through detailed study at the time of development applications.
- b) Stormwater management ponds should be developed as naturalized ponds, incorporating native planting, creating natural habitat for pollinator species, and enhancing biodiversity.
- c) Where residential development is adjacent to a stormwater management pond, backlotting is acceptable on up to 50% of the pond's edge, should it be necessary to facilitating an optimal street network. The design should seek to provide a maximum level of public exposure and access to stormwater management areas.
- d) Public frontage along the edge of the stormwater management ponds should be prioritized on Arterial Roads.

- e) Stormwater management ponds should integrate safe public access into their design through trails and seating. Fencing should be avoided and railings or densely planted areas should be used to discourage direct access.
- f) Stormwater management facilities should incorporate low impact development measures including but not limited to vegetated swales and planters, trees, shrubs and porous paving materials.
- g) Soil Amendments, Soakaway Pits, Infiltration Trenches and Chambers are encouraged on medium density, multi-family lots, with green roofs and rainwater harvesting as additional measures on mixed use blocks.

4. Private Realm Guidelines

While the public and private realms often overlap and intersect, the private realm typically includes places and spaces to which access is controlled and/or restricted and lands which are not owned by the Municipality or other public agency.

4.1. Low Density Residential Development Guidelines

Low Density residential buildings, namely single detached dwellings, semi-detached dwellings, and townhouses, are expected to form the majority of the housing in the Courtice Waterfront community. The guidelines below focus on massing and the relationship of low-density residential development to streets and open spaces, with the intention of ensuring development contributes to an attractive, comfortable and safe public realm.

4.1.1. General Site and Building Design Guidelines

The following guidelines should be applied in conjunction with the zoning provisions applicable to Low Density Residential areas and should not conflict with them.

- a) The height and massing should be consistent within a building type to create a unified character for the community.
- b) A variety of architectural expression among publicly exposed elevations is encouraged, including variation in roof lines, architectural styles, and material articulation.
- c) Back-lotting should not be permitted for residential uses along arterial roads. Residential development along an arterial should provide an appropriate frontage to provide an animated streetscape with eyes on the street.
- d) There should be a variety of lot widths and dwelling sizes on each block.
- e) Detached and semi-detached houses and townhouses generally should have a front setback of 4-5.5 metres to the front wall of the house. Front garages should have a minimum front setback of 6 metres. An exception to these guidelines can be made for a mixed-use building with a small-scale, neighbourhood-oriented commercial use on the ground floor, where permitted. Such buildings should have a front setback of 2-3 metres.
- f) Front yard setbacks along a street should be generally consistent.

- g) Building projections, such as covered porches, balconies and stairs are encouraged and may project into the front yard setback.
- h) The base of the porch and stair shall be enclosed with material that suitably complements the exterior cladding of the dwelling unit.
- i) The entrance to homes may be emphasized through stone porticos, two-storey porches and built-over porticos.
- j) Dwellings on a corner lot, including townhouses, should have side elevations that includes windows and details consistent with the front elevation. Front porches should wrap around the corner of the house.
- k) There should be no more than four attached townhouses in a row where the garages are at the front of the units and the lot(s) face a collector road or park
- l) There should be no more than six attached townhouses in a row where the garages are accessed from a Rear Lane or where front garages face a local street.
- m) The separation between rows of attached townhouses should be a minimum of 2.4 metres to allow for landscaping, fencing and outdoor storage screened from view. Where the separation between rows will also provide shared access and pedestrian circulation, the separation distance should be a minimum of 3 metres.
- n) Accessory apartments are permitted within single-detached dwellings, semi-detached dwellings and townhouses subject to the following:
 - i. They are located within the dwelling;
 - ii. The architectural design is consistent or complementary to the principal dwelling, including architectural treatment, materials and proportions of architectural details;
 - iii. There is only one door per façade facing the street; and
 - iv. They shall comply with the policies and standards of the Official Plan and Zoning By-law
- o) One additional accessory apartment may be permitted in a detached accessory building with access to a Rear Lane, subject to the following:
 - i. They are encouraged to be on the second storey of a detached garage;
 - ii. The architectural design is consistent or complementary to the principal dwelling, including architectural treatment, materials and proportions of architectural details; and,
 - iii. They shall comply with the policies and standards of the Official Plan and Zoning By-law.

4.1.2. Garage and Driveway Design Guidelines

- a) Attached front garages should not dominate the massing of the dwelling from the front.
- b) Garages generally should occupy a maximum of 50-60% of the lot frontage, depending on the width of the lot.
- c) Front garages are encouraged to be expressed as two-storey structures with usable space above to better integrate this structure into the overall design of the dwelling unit.
- d) Front garages should be recessed from the front wall of the house by a minimum of

0.5 metres where the lot frontage is greater than 7.5 metres.

- e) Attached front yard garages should have materials and design elements and colour consistent with the architecture of the primary dwelling unit.
- f) The width of a driveway generally should correspond with the width of the garage, although in the case of single garages, a wider driveway is allowed where it does not prevent a minimum of 30% of the front yard being used for the purpose of landscaped open space.
- g) Front double-car garages are encouraged to have two separate openings and two doors. Single doors for double car garages should be articulated vertically and horizontally to give the appearance of two doors. Windows are encouraged, to avoid a blank-wall effect.
- h) Driveways should be buffered from side property lines by a landscape strip.
- i) Lots serviced by a Rear Lane should locate garages or parking pads at the rear of the property.
- j) Garages fronting onto Rear Lanes should be carefully arranged in groupings to encourage an attractive visual environment by:
 - i. The architectural design, massing, detailing, materials, and colours of garages should complement and reflect the principal dwelling. A variety of garage heights and roof slopes are encouraged.
 - ii. Garages should be sited to allow for access and drainage from the rear yard of the unit to the Rear Lane plus opportunities for landscaping along Rear Lanes.
 - iii. Both parking pads and garages shall be set back from the lot line separating the rear yard from the Rear Lanes.
 - iv. Parking pads should be screened from the rear by a fence and/or landscaping.
 - v. Landscaping and fencing along or adjacent to the Rear Lanes should be coordinated and finished with materials, colours and vegetation compatible with the principal dwelling.

4.1.3. Landscaping, Garbage/Recycling and Utilities Guidelines

- a) On lots not serviced by a Rear Lane and with a lot frontage greater than 9 metres, a minimum of approximately half of the front yard should consist of soft landscaping including an attractive combination of foundation landscaping, trees, and deciduous and coniferous ornamental planting. Other than the permitted driveway, paving in the front yard generally should be limited to walkways.
- b) Rear yards on corner lots should be screened from public view from the flanking street with a minimum 1.5-metre high fence made of durable, attractive wood or a hedge. Builders shall be encouraged to provide such screening.
- c) For medium-density residential developments waste and recycling storage areas should generally be located in the rear or side yard and be screened from public view, for units with no garage and where parking pad is provided.
- d) Utility box locations should be planned to minimize their visual impact on the public realm.

4.1.4. Guidelines for Apartment Buildings and Stacked Townhouses

As per the Secondary Plan, apartment buildings up to six storeys and stacked townhouses are permitted on lots fronting an arterial road and the Courtice Waterfront Park. The following guidelines apply to such developments.

- a) Buildings should not exceed 20 metres in height.
- b) Front setbacks should be 4-6 metres.
- c) The external side setback should be 3-6 metres.
- d) Apartment buildings should be articulated with vertical recesses or other architectural elements to reduce their perceived mass and provide visual interest.
- e) Apartment building lobbies should occupy a prominent location along the street and should exhibit architectural elements such as porticos, canopies or other weather protection elements.
- f) Ground-floor units in apartment buildings are encouraged to have their entrances facing the street or a landscaped yard. Front patios for ground-floor units may encroach in the setback zone but not closer than 2 metres from the street. Front patios should be elevated 0.3 - 0.6 metres from the street and partially screened from public view with a low wall and coniferous landscaping, although some patios may be located at grade for accessibility.
- g) Balconies on apartment buildings should be integrated into the overall design of the building façade and wholly or partially recessed a minimum of 1.5 metres. They may project 1.5 metres into the building setback zone.
- h) The wrapping of balconies around the corners of an apartment building is encouraged.
- i) Mechanical and electrical equipment, satellite dishes, and communications apparatuses on the roof of an apartment building should be screened with durable materials integrated with the design of the building.
- j) All buildings on corner lots shall address both edges with articulated facades and windows. Blank walls visible from streets or public spaces are prohibited.
- k) Underground parking for apartment buildings is strongly encouraged. Parking may be located at the rear of buildings and is not permitted in the front or exterior side yard of buildings.
- l) Garbage and recycling storage for apartment buildings should be located within the structure. Garbage and recycling storage for stacked townhouses should be located in the shared Rear Lane, screened from public view, or in underground parking areas.
- m) New development will be compatible with adjacent and neighbouring development by ensuring that the siting and massing of new buildings does not result in undue adverse impacts on adjacent properties particularly in regard to adequate privacy conditions for residential buildings and their outdoor amenity areas.

- n) Compatibility will be maintained by ensuring new buildings appropriately transition towards adjacent and neighbouring development with appropriate building setbacks, set-backs, and angular planes. Appropriate transitions will be achieved through a separation distance equal to or greater than the height of the apartment building or stacked townhouse, or through the stepping down of the building height to no more than four storeys facing the property line adjacent to lands designated as Low Density Residential.

4.2. Mixed Use Buildings and Medium Density Residential Development Guidelines

Mixed Use buildings in the Courtice Waterfront are planned along the Waterfront Main Street corridor. Medium Density residential buildings are only planned along the Parkside Road adjacent to the Courtice Waterfront Park. The prominence of these buildings on a main street corridor will demand a high quality of architectural and landscape design. Medium Density residential building typologies, including townhouses and apartment buildings, however, will make up a significant proportion of all dwellings and are encouraged throughout the Courtice Waterfront community. Medium-density forms will be encouraged particularly on lots facing Arterial Roads, Collector Roads, and the Courtice Waterfront Park to form a strong built edge to the public realm and support the use of rear lanes.

4.2.1. General Site and Building Design Guidelines for Mixed Use Buildings

- a) Mixed Use buildings in the Courtice Waterfront will range from 2 storeys to 6 storeys in height.
- b) Medium Density residential buildings in the Courtice Waterfront will range from 3 storeys to 6 storeys in height.
- c) Mixed Use buildings should be oriented toward the Waterfront Main Street to establish a street wall that helps frame the street and enhance the pedestrian environment.
- d) Mixed-use buildings may include commercial and office uses at grade and multi-unit residential above or behind. Ground floors shall be designed to be appealing to pedestrians and include uses that are more active in terms of pedestrian traffic, such as commercial/retail, personal service, and restaurant type uses on the ground floor.
- e) Grade level retail frontages shall be broken down in scale to provide a finer grained frontage onto the Waterfront Main Street. Reflective mirror glass shall not be used for windows at grade.
- f) Retail and service commercial uses should be provided on the ground floors of buildings to bring animation to the street and encourage pedestrian activity. Such uses should have a minimum 4.5 metre floor-to-ceiling height.
- g) A minimum of 50% of the street façade for retail and commercial uses at grade will be designed with transparent glazing to encourage animation of the public realm.
- h) Bird friendly glazing will be used on all windows in every new building.
- i) Residential entrances shall be clearly distinguished from the commercial entrances through building design and can be located at the front or side of the building.
- j) Balconies on all storeys above grade are encouraged.

4.2.2. General Site and Building Design Guidelines for Medium Density Residential Buildings

- a) Medium Density Residential buildings in the Courtice Waterfront will range from 2 storeys to 4 storeys in height.
- b) The front setback should be between 4 to 5 metres where dwelling units are located on the ground floor, and 2 to 3 metres where non-residential uses are located on the ground floor.
- c) The external side setback should be 3-6 metres.
- d) Apartment buildings should be articulated with vertical recesses or other architectural elements to reduce their perceived mass and provide visual interest.
- e) Apartment building lobbies should occupy a prominent location along the street and should exhibit architectural elements such as porticos, canopies or other weather protection elements. Main entrances should face the street and be directly accessible from the sidewalk.
- f) Ground-floor units in apartment buildings are encouraged to have their entrances facing the street or a landscaped yard. Front patios for ground-floor units may encroach in the setback zone but not closer than 2 metres from the street. Front patios should be elevated 0.3 - 0.6 metres from the street and partially screened from public view with a low wall and coniferous landscaping.
- g) Balconies on apartment buildings should be integrated into the overall design of the building façade and wholly or partially recessed a minimum of 1.5 metres. They may project 1.5 metres into the building setback zone.
- h) The wrapping of balconies around the corners of an apartment building is encouraged.
- i) All buildings on corner lots shall address both edges with articulated facades and windows. Blank walls visible from streets or public spaces should be avoided.
- j) Compatibility will be maintained by ensuring new buildings appropriately transition towards adjacent and neighbouring development with appropriate building setbacks, setbacks, and angular planes. Appropriate transitions will be achieved through a separation distance equal to or greater than the height of the apartment building or stacked townhouse, or through the stepping down of the building height towards the property line adjacent to lands designated as Low Density Residential.

4.2.3. Access, Servicing and Storage for Mixed Use, Low and Medium Density Residential Buildings

- a) Parking entrances should be oriented to minimize visual impacts on adjacent properties.
- b) Garbage and recycling storage for apartment buildings should be located within the structure. Garbage and recycling storage for stacked townhouses should be located in the shared Rear Lane, screened from public view, or in underground parking areas.
- c) Loading and service areas should be integrated into the building design or placed away from street frontages and screened from view. Screening measures include landscaping and/or solid panel fencing. Loading and service areas should be buffered visually and as necessary for noise impacts, especially when located adjacent to Neighbourhoods.
- d) Underground parking for mixed use buildings and apartment buildings is strongly

- encouraged. Parking may be located at the rear of buildings and is not permitted in the front or side yard of buildings. Driveway entrances should be integrated within the building design, located away from building corners and with minimal interruption of walkways and sidewalks.
- e) Bicycle parking and storage should be provided for apartment buildings.
 - f) Driveway entrance locations should be coordinated and consolidated, where possible.
 - g) Mechanical and electrical equipment, satellite dishes, and communications apparatuses on the roof of an apartment building should be screened with durable materials integrated with the design of the building.
 - h) Curb cuts and driveways should be minimized in width, being no wider than that of adjacent parking garage entrances, and should be consolidated between adjacent properties where appropriate.
 - i) On corner lots, driveways should be accessed from the street of lesser prominence.
 - j) The use of permeable surface materials should be considered within driveways to minimize run-off.
 - k) Ground floor frontages may need to be set back adjacent to parking access sites to provide visibility at the exit.
 - l) Garbage storage rooms, in all cases, should be centralized indoors, and at the rear of the building.
 - m) Service and outside storage enclosures should be constructed of materials to match or complement the building material. Any form of chain link fencing should be avoided. Gates and / or access doors may be constructed of materials different from the actual enclosure material to facilitate operation; Outside storage areas should be fully screened by wall enclosures. Screen walls should have a minimum height equal to that of the item in which it is screening;
 - n) Outside storage should not be visible from any street;
 - o) Utility meters, transformers and HVAC equipment should be located in compliance with utility authority requirements and should be located away from public view and / or screened through landscaping initiatives to the extent feasible; and
 - p) Noise attenuation measures should be provided where service areas are in proximity to residential uses. These features should be complementary in material and design to surrounding buildings and structures, to reinforce the image of the community.

4.3. Commercial Building Development Guidelines

Commercial buildings in the Courtice Waterfront are planned along the realigned Darlington Park Road and the Waterfront Main Street. The predominant use of lands in the Commercial area shall be for commercial and retail uses serving the Energy Park and travelling public. The Commercial area will serve as the gateway into the Courtice Waterfront and will include uses such as retail and service commercial uses, including hotels, restaurants, business, professional, and medical offices, and financial institutions.

4.3.1. General Site and Building Design Guidelines for Commercial Buildings

- a) Commercial buildings in the Courtice Waterfront will range from 1 to 2 storeys in height.
- b) The siting and massing of buildings should provide a consistent relationship, continuity, and enclosure to adjacent public roads.
- c) Where located at a corner, buildings shall be designed to address both street frontages and be massed towards the corner location for visual interest and to anchor the building.
- d) Primary entrances to buildings should be clearly visible and located on a public road or onto public open spaces to support public transit and for reasons of public safety and convenience. Secondary doors, such as those that face the parking area, emergency exits, or service doors should be designed to blend in with the building façade.
- e) A minimum of 50% of the street façade for retail and commercial buildings will be designed with transparent glazing to encourage animation of the public realm.
- f) Bird friendly glazing will be used on all windows in every new building.
- g) Access from sidewalks and public open space areas to primary building entrances should be convenient and direct, with minimum changes in grade.
- h) Drive-through facilities may be permitted as an ancillary use to a commercial building and shall be designed with a maximum setback from the street frontage.
- i) Drive-through facilities, parking lots, and service stations will be prohibited between the street frontage and commercial building.

4.3.2. Access, Servicing, and Storage for Commercial Buildings

- a) Servicing and loading areas shall be discreetly located and be screened from public view through architectural design, low walls, and landscaping features.
- b) Waste facilities within an external structure shall be consistent in design, colour, and materials to that of the main dwelling and shall not be located in a prominent location.
- c) Design outdoor waste storage containers to be consistent with the architectural design of the building.

4.4. Energy Park Development Guidelines

The Energy Park is planned within the boundaries of Megawatt Drive to the north, the CN rail corridor to the south, Crago Road to the east, and Courtice Shores Drive to the west. Energy Drive will provide an east-west connection through the Energy Park, linking it with Courtice Road to the west and the lands east of Crago Road. The predominant use of lands in the Energy Park shall be for prestige and general employment uses, ranging from office buildings, research and development facilities, and light industrial uses. The Energy Park will serve as an employment hub which will generate a significant amount of job growth in Courtice.

4.4.1. General Site and Building Design Guidelines for the Energy Park

- a) Office and institutional buildings should be designed as special landmark buildings with high quality architectural design, materials, and finishes.
- b) The front door of all office buildings should be connected with a walkway to the

- sidewalk and should have direct access to transit stops.
- c) Main building entrances must address and be accessible from a primary or secondary road.
 - d) Vehicular parking should be located at the side and/or rear of buildings and should be screened from view from primary roads. A maximum of 10 visitor parking spaces may be located at the front of buildings. Swales, porous paving materials and other “green” techniques should be considered to minimize stormwater run-off.
 - e) Parking for cyclists should be located near building entrances and where visual surveillance can be maximized.
 - f) Drop-off areas should be provided for buses and cars in the public right-of-way where possible but were located on site they should be at the side of the building, and not in front of the building.
 - g) Areas between the building face and public-right-of-way should be a landscape composed of lawn, a mixture of mature coniferous and deciduous trees and gardens. Fences are prohibited within the area between the building and the street.
 - h) Best practices in “green” development should apply to all elements within the Energy Park, including buildings, landscaping, parking, servicing, and other infrastructure. LEED™ standards are encouraged.
 - i) Naturalized landscape areas for the benefit of wildlife habitat are encouraged, provided appropriate landscape management practices are followed.
 - j) Transit stops are encouraged to be integrated with gateway intersections in the Energy Park and should be designed with high quality amenities including, seating, lighting, shelters, waste and recycling receptacles, and wayfinding.
 - k) Employee amenity areas are encouraged and should be connected with sidewalks and pedestrian pathways connecting from the road network. Amenity areas will be furnished to support passive uses.
 - l) Public art should be integrated into building and/or site design where appropriate.
 - m) Stormwater management should be incorporated into the planning and design of open spaces, buildings and paved areas. Stormwater retention ponds and other elements should contribute to a park-like setting and establish connections to other open space amenities.
 - n) Building signage must be incorporated into and coordinated with the architecture of the building, and signs shall not dominate any one floor or the mechanical penthouse of a building. Stand-alone and directional signage shall be incorporated into the design of the landscape.
 - o) Rooftop mechanical equipment, satellite dishes, and communications apparatuses should be screened with materials that are complementary to the building or through parapet height where applicable.
 - p) Bird friendly glazing will be used on all windows in every new building.
 - q) Shared driveways are encouraged.
 - r) Hydro servicing shall be provided underground.

4.4.2. General Site and Building Design Guidelines for Prestige Employment Area Buildings

- a) The width of a building's façade fronting a public street shall be at least 50% of the lot width.
- b) To accommodate front yard landscaping and, where desired, visitor parking, buildings on Energy Drive should be set back 9 to 15 metres from the right-of-way. To establish a consistent streetscape edge along Park Drive, buildings should be built to a line parallel to and 6 metres from the front property line.
- c) High-quality exterior cladding materials, such as glass, steel, metal paneling and masonry, must be used on the façades of buildings fronting primary streets. Pre-cast paneling and exterior insulated finishing systems will not be permitted on façades facing primary streets. At least 50% of a façade's surface area must include transparent glazing.
- d) A minimum of 10% of the site area must be landscaped.
- e) Lot widths along Energy Drive and Park Drive should be a minimum of 100 metres.
- f) Mechanical penthouses, antennae, vents and chimneys will be screened from view or incorporated into the design of the roof.
- g) Buildings at the corner of two streets must address the corner with special architectural massing or detail. Landscaping should also reinforce this special corner condition.
- h) Developments that occupy sites at the intersections of Megawatt Drive and Energy Drive, Megawatt Drive and Courtice Road, and Energy Drive and Courtice Road should be planned and designed to mark the entrance to the Energy Park, establish gateways and create a strong sense of arrival. This should be achieved through the articulation of building mass and materials. Landscaping should also reinforce this special gateway condition.

4.4.3. Access, Servicing, and Storage for Buildings in the Prestige Employment Area

- a) Parking lots should be well landscaped and lit to provide safe, comfortable walking environments and minimize energy waste. Large parking lots should be divided by islands of trees and other landscaping features, with at least one tree for every ten spaces.
- b) Parking lots should be located behind buildings, screened from pedestrians, and promote buildings to front and engage with the streetscape.
- c) There should be no surface parking between buildings and Energy Drive.
- d) Surface parking lots should be designed to achieve an overall reduction in storm water runoff to predevelopment levels, through the use of vegetative bioswales along the edges of surface parking lots, shallow grassed lotside swales, and porous paving measures such as turf pavers or gravel.
- e) Ensure that 50% or more of all surface parking lots are shaded from sun at noon on a typical summer day, to reduce the urban heat island effect.

- f) Bicycle parking spaces should be included and sized to accommodate anticipated demand.
- g) Outside storage and fences are prohibited.
- h) Servicing, loading and garbage areas must be enclosed within the building. Loading and garbage service areas must be located at the rear of buildings and screened.

4.4.4. General Site and Building Design Guidelines for General Employment Area Buildings

- a) To establish a consistent streetscape edge, buildings should be built to a line parallel to and 6 metres from the front property line.
- b) Single-storey buildings are permitted, but multi-storey buildings are encouraged.
- c) High-quality exterior cladding materials such as glass, steel, metal paneling and masonry must be employed on buildings façades fronting Energy Drive. Pre-cast paneling and exterior insulated finishing systems will not be permitted on facades facing Energy Drive. A minimum of 50% of façade surface area facing primary streets must be glazed.
- d) A minimum of 10% of the site area must be landscaped.
- e) Lot widths along Energy Drive must be a minimum of 50 metres. Along secondary roads, lot widths must a minimum of 30 metres.
- a) Mechanical penthouses, antennae, vents and chimneys must be screened from view or incorporated into the design of the roof.

4.4.5. Access, Servicing, and Storage for Buildings in the General Employment Area

- a) Parking lots should be well landscaped and lit to provide safe, comfortable walking environments and minimize energy waste. Large parking lots should be divided by islands of trees and other landscaping features, with at least one tree for every ten spaces.
- b) Parking lots should be located behind buildings, screened from pedestrians, and promote buildings to front and engage with the streetscape.
- c) There should be no surface parking between buildings and Energy Drive.
- d) Surface parking lots should be designed to achieve an overall reduction in storm water runoff to predevelopment levels, through the use of vegetative bioswales along the edges of surface parking lots, shallow grassed lotside swales, and porous paving measures such as turf pavers or gravel.
- e) Ensure that 50% or more of all surface parking lots are shaded from sun at noon on a typical summer day, to reduce the urban heat island effect.
- f) Bicycle parking spaces should be included and sized to accommodate anticipated demand.
- g) Service, loading and garbage areas are to be located at the rear of buildings and shall be screened.
- h) Outdoor storage is permitted, provided it does not exceed 50% of the lot area. Storage must be at the rear of the site and screened from view from streets.

5. Green Design Guidelines

The overall design of Courtice Waterfront and Energy Park is intended to support environmental sustainability by protecting and enhancing natural features and including interconnected pedestrian and trail networks that encourage walking and cycling. Making progress toward the ultimate goal of a zero carbon community will also depend on a “green design” approach to infrastructure, buildings and landscapes that follows the guidelines in this section.

5.1. Energy Efficiency

- a) Buildings should incorporate energy saving measures such as window shading, daylight design, daylight sensors, heat recovery ventilation, high efficiency mechanical equipment, and energy efficient appliances and lighting.
- b) The use of renewable energy sources for all or some of a building’s energy, heat and cooling needs is encouraged. If not used, provisions for future installations should be considered.
- c) Renewable energy technologies should be integrated into the design of building façades and roofs as well as outdoor spaces.
- d) Where green roofs are not provided, reflective or light-coloured roofs should be incorporated for Mixed Use and Medium Residential buildings in order to reduce solar heat absorption and energy demand.

5.2. Water Conservation and Low Impact Development

- a) All buildings should be designed to use water efficiently through such measures as ultra-low flow fixtures, waterless urinals, dual flush toilets, and grey-water recycling.
- b) Buildings are encouraged to collect rainwater for re-use in the building and/or for irrigation.
- c) Landscaping should feature native and adaptive, non-invasive non-native species that are drought-tolerant and require little or no irrigation.
- d) The use of impermeable paving and other impervious surface materials for hard landscaping and on-site parking is encouraged to maximize water infiltration.
- e) Rainwater harvesting systems for collecting rainwater and storing it for later use are encouraged.
- f) Rain gardens are encouraged to detain, infiltrate and filter runoff discharge from roof leaders.
- g) Rain gardens should be designed to complement the landscape, on a base of granular material and with tolerant plant material. They should be installed in areas where soil permeability is high.
- h) Vegetated Filter Strips, which are gently sloping densely vegetated areas, and are designed to treat runoff as sheet flow from adjacent impervious surfaces by slowing runoff velocities and filtering out sediments and other pollutants, are encouraged where feasible. They are best suited to treating runoff from roads, roof downspouts and low traffic parking areas, and can be used for snow storage.

- i) Green roofs are encouraged throughout the Courtice Waterfront, particularly in Medium Density Residential and Mixed Use areas, to absorb rainwater and reduce stormwater runoff, provide additional insulation to the building envelope and create habitat for wildlife