

CITY OF HAMILTON

PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT Planning Division

TO: Chair and Members Planning Committee	WARD(S) AFFECTED: WARD 15			
COMMITTEE DATE: November 20, 2012				
SUBJECT/REPORT NO: Revised Waterdown South Urban Design Guidelines (PED10171(a)) (Ward 15)				
SUBMITTED BY: Tim McCabe General Manager Planning and Economic Development Department	PREPARED BY: Anita Fabac (905) 546-2424 Ext. 1258			
SIGNATURE:				

RECOMMENDATION

That the Revised Waterdown South Secondary Plan Urban Design Guidelines, attached as Appendix "B" to Report PED10171(a), be approved and adopted.

EXECUTIVE SUMMARY

The Waterdown South Secondary Plan, adopted by City Council in September 2010, was supported by the Waterdown South Secondary Plan Urban Design Guidelines, developed to assist in creating a strong urban community for the Waterdown South area (see Appendix "A"). The objectives of the Urban Design Guidelines are to ensure the development of an attractive, compact, safe, and pedestrian-oriented urban environment for the Waterdown South community; including a high quality of design for public parks and open spaces, appropriate streetscape standards, the development of attractive buildings with appropriate relationships between buildings and streets, parks, and other public spaces. Of specific interest, is the incorporation of guidelines for Character Roads (Mountain Brow Road and Kerns Road), and demonstration plans for the pedestrian prominent/main street retail area, and neighbourhood nodes.

Vision: To be the best place in Canada to raise a child, promote innovation, engage citizens and provide diverse economic opportunities. Values: Honesty, Accountability, Innovation, Leadership, Respect, Excellence, Teamwork

SUBJECT: Revised Waterdown South Urban Design Guidelines (PED10171(a)) (Ward 15) - Page 2 of 6

The 2010 Urban Design Guidelines did not form a part of the Official Plan, but were adopted by Council to guide the urban form and design of development within the Secondary Plan Area. Development applications will be required to demonstrate how the proposed community design meets the intent of the Urban Design Guidelines as a condition of development approval.

The Waterdown South Secondary Plan was appealed, and a settlement was reached between the parties, which included modifications to the commercial designations in the Secondary Plan. A decision was issued by the Ontario Municipal Board (OMB) on the approved settlement on August 13, 2012.

Modifications to the Waterdown South Secondary Plan Urban Design Guidelines are required to reflect changes to the Waterdown South Secondary Plan as a result of the settlement. The scope of changes is limited, and relates primarily to the new District Commercial and Mixed-Use designated lands.

Alternatives for Consideration - Page 5.

FINANCIAL / STAFFING / LEGAL IMPLICATIONS (for Recommendation(s) only)

- **Financial:** There are no financial implications.
- **Staffing:** There are no staffing implications.
- Legal: Council adoption of the revised Waterdown South Secondary Plan Urban Design Guidelines, August 2012, assists in implementing the changes to the Waterdown South Secondary Plan negotiated OMB settlement. The Ontario Municipal Board Order approving the settlement was issued on August 13, 2012.

HISTORICAL BACKGROUND (Chronology of events)

On September 15, 2010, City Council adopted Official Plan Amendment No. 122 (OPA 122) and the Waterdown South Secondary Plan (PED10171) to the former Town of Flamborough Official Plan (in force). At the same time, Official Plan Amendment No. 5 (OPA 5) to the Urban Hamilton Official Plan (under appeal) was recommended for approval and adoption into the Urban Hamilton Official Plan pending Ministerial approval. The amendments established a comprehensive land use plan for approximately 180 hectares (445 acres) of land located at the south eastern boundary of Waterdown, recognizing a new urban growth area with a mix of residential, commercial, institutional, and open space designations (see Appendix "A"). To support the development of the new community, Urban Design Guidelines were produced and adopted by Council with OPA 122.

Vision: To be the best place in Canada to raise a child, promote innovation, engage citizens and provide diverse economic opportunities. Values: Honesty, Accountability, Innovation, Leadership, Respect, Excellence, Teamwork

SUBJECT: Revised Waterdown South Urban Design Guidelines (PED10171(a)) (Ward 15) - Page 3 of 6

OPA 122 was subsequently appealed in its entirety by two parties. One of the appeals was withdrawn. Staff received Council direction to proceed with a negotiated settlement in October, 2011. The negotiated settlement included amendments to the Council approved OPA 122, such as the type and distribution of commercial areas within the plan, policy modifications, and collector road configurations. Official Plan Amendments OPA 122 and OPA 5 were modified to reflect the negotiated settlement, and forwarded to the OMB at the end of June, 2012 for approval. A decision was issued by the OMB on the approved settlement on August 13, 2012.

As a part of the settlement discussions, the Council adopted Urban Design Guidelines were amended to reflect the changes to the land use plan and the policies. However, as the Urban Design Guidelines are Council adopted, they are not subject to OMB approval, and the revised Waterdown South Secondary Plan Urban Design Guidelines must be re-adopted by Council.

POLICY IMPLICATIONS

The Waterdown South Secondary Plan Urban Design Guidelines have been amended to be consistent with changes to OPA 122 and OPA 5 that occurred through the negotiated settlement, as per the OMB appeal.

RELEVANT CONSULTATION

As a part of the Waterdown South Secondary Plan OMB proceedings, consultation was scoped to include City staff, the consultants, and appellant. Comments from the appellant on the Urban Design Guidelines were received and some changes were made to reflect the approved settlement. The appellant did request changes that staff felt were not necessary as the Urban Design Guidelines provide high level direction, recommendations, general requirements and options for design and are not considered restrictions and are not interpreted as policy.

ANALYSIS / RATIONALE FOR RECOMMENDATION

(include Performance Measurement/Benchmarking Data, if applicable)

The Waterdown South Secondary Plan Urban Design Guidelines provide direction for both the public and private realms. The private realm is further subdivided into two groups: "Residential", and "Commercial and Institutional". The primary changes to the revised Urban Design Guidelines relate to private realm commercial developments.

The primary changes to the Urban Design Guidelines include the establishment of a new retail main street in the central area of the plan along Dundas Street/Collector Road A, and a new District Commercial area west of Evans Road (see Appendix "C" for

Vision: To be the best place in Canada to raise a child, promote innovation, engage citizens and provide diverse economic opportunities. Values: Honesty, Accountability, Innovation, Leadership, Respect, Excellence, Teamwork

SUBJECT: Revised Waterdown South Urban Design Guidelines (PED10171(a)) (Ward 15) - Page 4 of 6

the Waterdown South Secondary Plan Land Use Plan). The changes include guidance in the development of these areas, generally described below:

Mixed-Use Area Including the "Retail Main Street":

The revisions to the Urban Design Guidelines include changes to the principles and design directions that support the creation of a village scale pedestrian-oriented Retail Main Street within the "Mixed-Use" area along Collector Road A. In addition, design guidance is provided for the remainder of the lands within this designation that may be developed for residential or mixed-use buildings including:

- (a) Building height;
- (b) Building transitions;
- (c) Building setback;
- (d) Building massing;
- (e) Architectural design elements; and,
- (f) Addressing site design for areas that abut the Grindstone Creek natural areas.

In addition, new Figures were added to visually describe the commercial and mixed-use areas intended to front onto Collector Road A, creating the Retail Main Street.

District Commercial:

The "District Commercial" area, approximately 5.4 hectares (13.5 acres), was added through the settlement process. Revisions to the Urban Design Guidelines include a description of the large and small format commercial uses and built form design considerations including:

- (a) Building siting criteria (i.e. entrances, loading areas, site circulation);
- (b) Building design; and,
- (c) Streetscape.

As well, design guidance was added for residential developments adjacent to the Natural Heritage System relating to built form and optimization of views, and enhanced tree canopy along streets, parks, and open spaces adjacent to the System. In addition, minor housekeeping edits and conformity changes, such as including terminology to be consistent with the Secondary Plan (natural heritage system) and adding additional headings, were made to the Urban Design Guidelines.

ALTERNATIVES FOR CONSIDERATION

(include Financial, Staffing, Legal and Policy Implications and pros and cons for each alternative)

Council could opt to not adopt the Revised Waterdown South Secondary Plan Urban Design Guidelines; however, this decision would leave inaccurate guidelines in effect and result in no design direction for the modified commercial areas.

CORPORATE STRATEGIC PLAN (Linkage to Desired End Results)

Focus Areas: 1. Skilled, Innovative and Respectful Organization, 2. Financial Sustainability,
3. Intergovernmental Relationships, 4. Growing Our Economy, 5. Social Development,
6. Environmental Stewardship, 7. Healthy Community

Skilled, Innovative, and Respectful Organization

- Opportunity for employee input in management decision making.
- Community Planning and Design staff worked collaboratively with consultants and appellants to reach a negotiated settlement.

Financial Sustainability

- Effective and sustainable Growth Management.
- Delivery of municipal services and management capital assets/liabilities in a sustainable, innovative, and cost-effective manner.
- Generate assessment growth/non-tax revenues.
- The Urban Design Guidelines provide design guidance for future residential and commercial development within the Waterdown South Secondary Plan area.

Growing Our Economy

- Newly created or revitalized employment sites.
- Waterdown South will provide opportunities for commercial employment.

Social Development

- Everyone has a home they can afford that is well maintained and safe.
- Waterdown South offers a range of housing opportunities for which the Urban Design Guidelines will guide development.

Environmental Stewardship

- Natural resources are protected and enhanced.
- Waterdown South Urban Design Guidelines provide design direction related to Open Space.

Healthy Community

- Plan and manage the built environment.
- An engaged Citizenry.

APPENDICES / SCHEDULES

- Appendix "A": Location Map
- Appendix "B": Waterdown South Secondary Plan Urban Design Guidelines
 Amended October, 2012
- Appendix "C": Waterdown South Secondary Plan Land Use Plan

:AF Attachs. (3)

Appendix "A" to Report PED10171(a) (Page 1 of 1)



WATERDOWN SOUTH SECONDARY PLAN URBAN DESIGN GUIDELINES

FINAL – October 2012



Brook McIlroy Inc. Planning + Urban Design

in association with: Sorensen Gravely Lowes Planning Associates Inc.

TABLE OF CONTENTS

1.0	INTRODUCTION	1	
1.1 1.2	The Study Area of Waterdown South Waterdown South: The Urban Design Approach + Objectives	2 3	
1.3	Report Framework	5	
2.0	GUIDING URBAN DESIGN PRINCIPLES AND COMMUNIT		
	FRAMEWORK	6	
2.1 2.2	Guiding Urban Design Principles Land Use Plan	6 8	
3.0	PUBLIC REALM GUIDELINES	11	
3.1	Natural Heritage and Public Open Space Guidelines	11	
3.2	Public Parks	12	
3.2.1	Neighbourhood Parks Stormuster Management Bonds	13	
3.3 3.4	Stormwater Management Ponds Existing Bruce Trail and Proposed Trail Network	16 17	
3.5	Street Guidelines	19	
3.5.1	Dundas Street (45.72 metres)	19	
3.5.2	Burke Street (30-36 metres)	19	
3.5.3	Collector Roads (20-26 metres)	19	
3.5.4	Local Roads (18 metres)	20	
3.5.5 3.6	Character Roads Gateways	20 29	
3.7	Streetscape	31	
3.8	Sidewalks and Bicycle Paths	32	
3.9	Future Transit Shelter Location & Design	33	
3.10	Above Grade Utilities	34	
3.11	Parking	35	
	On-street Parking	35	
3.12	Sustainable Streets	36	
4.0	PRIVATE REALM GUIDELINES: RESIDENTIAL	38	
4.1	Residential Design Principles	38	
4.2	Low and Medium Density Residential Typologies	40	
4.2.1 4.2.2	General Residential Design Guidelines Flankage Lot Guidelines	41 46	
4.2.3	Residential Development Adjacent to the Natural Heritage System	40	
4.2.4	Driveways and Tandem Parking Guidelines	49	
4.2.5	Rear Laneways	50	
4.2.6	Garages Facing Rear Lanes	50	
4.3	Architectural Design	51	
4.3.1	General	51	
4.3.2 4.3.3	Walls Windows	51 52	
4.3.3	Porches and Building Projections	52	
4.3.5	Roofs	54	
4.3.6	Stand-Alone Garages and Coach Houses	55	

5.0	PRIVATE REALM GUIDELINES: COMMERCIAL & INSTITUTIONAL	56
5.1	Commercial and Institutional Design Principles	56
5.2	Mixed Use Medium Areas	57
5.2.1	Mixed Use Areas	58
5.2.2	Retail Main Street (Collector Road A)	63
5.3	District Commercial Areas	65
5.3.1	Large Format Retail (i.e. Grocery Store)	66
5.3.2	Smaller Commercial Retail Units (CRUs)	68
5.4	Neighbourhood Node	69
5.5	Schools, Places of Worship and Institutional Areas	71
5.5.1	Schools	72
5.5.2	Places of Worship	72
5.5.3	Community Centres	72
5.6	Building Orientation & Site Layout	73
5.6.1	Building Orientation	73
5.6.2	Site Layout	74
5.6.3	Mixed Use and Commercial Development Adjacent to the Natural Heritage System	75
5.6.4	Barrier-free Access	76
5.6.5	Public Safety	77
5.7	Architectural Design Elements	78
5.7.1	Walls	78
5.7.2	Fenestration	79
5.7.3	Pedestrian Entrances and Access	79
5.7.4	General Building Materials	80
5.7.5	Roofs, Cornices and Parapets	80
5.7.6	Signs	81
5.8	Parking	82
5.8.1	Surface Parking	82
5.8.2	Surface Parking – Edge Treatments	84
5.8.3	Parking Structures	85
5.9	Sustainable Design	86
5.9.1	Site	87
5.9.2	Buildings	89

APPENDIX

Please Note: This document contains images and sketches which are intended to indicate the vision of this plan and are for illustrative purposes only. They are not intended for construction and therefore may not reflect the final product constructed.

1.0 INTRODUCTION

The City of Hamilton has recognized an important need for a new form of community growth that balances the preservation of natural resources with new forms of land use emerging from more sustainable, community conscious development initiatives. The planning and urban design framework for Waterdown South is based on an integrated network of natural and neighbourhood places and a multi-use street system that supports future transit, walkable neighbourhoods and the creation of vital, well connected neighbourhoods. Waterdown South should be developed to support goals for mixed use development and intensification while reflecting the village character of historic Waterdown through the development of its neighbourhoods, parkland, and streetscape design.

The natural beauty of the Waterdown South lands, strategically located at the Grindstone Creek valleylands, the Niagara Escarpment and Bruce Trail, represents an opportunity for the City of Hamilton to create a new progressive community that is closely linked to its natural and cultural heritage.



Photo 1.1: An aerial photograph of the Study Area.

1.1 The Study Area of Waterdown South



Photo 1.2: Waterdown woods will be preserved as an important natural feature of the new community

Waterdown South is bounded by Dundas Street West to the north, Mountain Brow Road to the south, Kerns Road to the east and Flanders Drive / Rosecliffe Place to the west. The Study Area is approximately 180 hectares (445 acres) and is bisected northwest to southeast by a 30 metre wide hydro corridor. The existing community of Waterdown is located in the northern part of the City of Hamilton. Kerns Road, the study area's east boundary, is the municipal boundary between the Cities of Hamilton and Burlington.

Waterdown South is located next to existing and emerging 'urban' development to the north and west, and on its south and east by 'rural' and natural areas. The yet undeveloped Upcountry lands located on the north side of Dundas Street are currently designated for residential with a mixed use area designated along Dundas Street.

The character and fabric of Waterdown South is generally defined by the following elements:

- 1. Agricultural uses:
- 2. Natural Heritage System:
 - The study area encompasses the Falcon Creek Provincially Significant Wetland Complex and two ESA's: the Waterdown Woods ESA located in the southeast corner as it extends north and east from south of Mountain Brow Road; and the Grindstone Valley ESA in the northwest corner of the study area.
 - Grindstone Creek extends east-west through the northerly half of the study area.
 - Six portions of different watersheds are located within the study area. The Waterdown South Subwatershed Study will evaluate the effects of development on the subwatersheds.
- 3. Cultural Features:
 - A number of native archaeological sites have been identified by the Ministry of Culture, both of which are associated with Grindstone Creek.



Photos 1.3 & 1.4: Waterdown South is largely characterized by its natural beauty

1.2 Waterdown South: The Urban Design Approach + Objectives

The Urban Design approach includes the development of a community vision articulated by the land use plan of the Waterdown South Secondary Plan. The Urban Design Guidelines are intended to support this vision.

Urban Design Vision:

The combination of residential, mixed-use, commercial, retail main street, institutional, and open space uses will contribute to the area's evolution as a comprehensive developing urban area that is integrated with its surrounding natural context.

The natural environment should be the primary framework of the community, which links the proposed neighbourhoods with existing development, and provides places to recreate and interact. The open space network including, parks, trails (leading to the Bruce Trail) and roads will integrate the individual neighbourhoods and help to express the natural environment as the dominant community image.

The Urban Design Guidelines:

The objective of the following Urban Design Guidelines is to provide a common urban design direction for the City of Hamilton, public agencies, property owners, developers, consultants and utilities and others involved in the development of the Waterdown South Secondary Plan Area.

These Guidelines have been developed as the result of an extensive and thorough background research and a consultation process that has engaged many diverse community stakeholders. The Guidelines should assist those involved in property development at the beginning of the design process and should be used as an ongoing reference resource during the processes of municipal and agency review of applications.

Guiding Principles (Section 2.0) have been developed to encourage the vision of a high quality form of development. Proponents of development for Waterdown South should endeavour to achieve the standards set forth in this document, while recognizing that market and site conditions will require flexibility and judgment in the application of the Guidelines.

The Urban Design Guidelines are intended to:

- 1. Provide Waterdown South with design direction in the assessment of development applications during the draft plan of subdivision, rezoning and site plan approval process;
- 2. Provide design parameters for both the private and public sector in preparing development plans; and,
- 3. Provide design direction for community design and development, site planning and building projects.

The Urban Design Guidelines will serve as a basis from which to implement the Waterdown South Secondary Plan. The Secondary Plan illustrates the community framework including the hierarchy and distribution of road connections, land use, open space, trails and environmentally significant areas. The Urban Design Guidelines further describe how built form and open space should be treated within the public and the private realm.



Photo 1.5: Excellence in grade level building design will create vital links to outdoor public spaces.

1.3 Report Framework

The report is structured into the following sections:

Section 1: Introduction

Section 1 outlines the document structure, and the community vision and urban design approach for the preparation of the Urban Design Guidelines.

Section 2: Guiding Urban Design Principles and Preferred Option Plan

Section 2 outlines the Guiding Urban Design Principles and the Preferred Option Plan.

Section 3: Public Realm Guidelines

Section 3 outlines guidelines for the public realm, including:

- Community Structure: open spaces, parks, streets and blocks, gateways and relationships to land use.
- Streetscape Treatments: a hierarchy of roads including arterials, collectors (neighbourhood parkways and neighbourhood connectors) and local roads. Streetscape treatments include the design and placement of landscape elements, lighting, above grade utilities, etc.
- Parking: design and location of on and off-street parking areas, landscape treatments, pedestrian and vehicular access, lighting and safety.

Section 4: Private Realm Guidelines: Residential

Section 4 outlines the Residential Design Principles, general and specific guidelines and architectural controls.

Section 5: Private Realm Guidelines: Commercial and Institutional

Section 5 outlines the Commercial and Institutional Design Principles, general and specific guidelines and architectural controls.



Photo 1.6: High quality design and mixed-use development creates an active public realm with attractive streets, parks and civic open space.

2.0 GUIDING URBAN DESIGN PRINCIPLES AND COMMUNITY FRAMEWORK

2.1 Guiding Urban Design Principles

The following Urban Design Principles, taken from the Secondary Plan and consistent with the Urban Design Goals of the Urban Hamilton Official Plan, inform the Urban Design Guidelines.

- a) To provide *integrated community design* that coordinates land use, open space, the street network, and built form elements to achieve and reinforce a high quality, integrated community vision.
- b) To protect and incorporate elements of Waterdown South's *distinct natural and cultural heritage*, including special character roads, in the establishment of design characteristics that will promote and achieve unique community design.
- c) To establish *gateways at strategic locations* to function as entranceways to Waterdown, Hamilton, and the community of Waterdown South.



Photo 2.1: Waterdown South will coordinate land use, open space, the street network and built form element to achieve and reinforce a high quality, integrated community vision

- e) To create an urban fabric characterized by an *interconnected street network* that is responsive to existing Natural Heritage System, surrounding land uses and cultural heritage elements.
- e) To integrate *views of natural heritage features* within the community design.
- f) To promote compact, mixed use development at an appropriate scale which is *Transit Oriented* with high-quality walking environments and other active transportation options for area residents.
- g) To promote *active transportation*, including public transit, walking and cycling, and recreational connections through a well connected system of streets, walkways and trails.
- h) To design streets and buildings that promotes personal safety through natural surveillance opportunities.
- i) To promote *high quality buildings* that address the street and which locate and orientate on-site parking, garages and service/loading areas to minimize the impact to the streetscape.
- j) To create street and building design that promotes *pedestrian comfort and vitality* at the street level of buildings.
- k) To promote a *variety of housing* with diverse architecture for individuals and families of all ages.
- 1) To encourage *mixed use development* along strategic corridors and within walking distance of residential neighbourhoods.
- m) To *integrate community and institutional uses* at visible, highly accessible locations.



Figure 2.1 : Land Use Plan (Please refer to the Appendix for Map 4.3-1 to be added to the Urban Hamilton Official Plan).

2.2 Land Use Plan

The Land Use Plan, Figure 2.1, depicts the major community elements including, but not limited to:

Residential Areas:

Three proposed neighbourhoods will comprise the largest developable land area and shape the image of the new community. Each neighbourhood should be walkable within five minutes (400 metres) or less. The neighbourhoods will be inter-connected through an east-west major collector road (Skinner Road). New neighbourhoods should be in keeping with the nature of existing housing in the community of Waterdown, but also build on the potential to create more compact, well designed, energy efficient housing in the future.

To demonstrate a typical Low Density II area, **Figure 2.2** shows a view looking northeast along Skinner Road. Low Density II areas feature low-rise housing in a variety of forms (i.e. single and semi-detached, townhouses) in order to increase density and accommodate a diverse population. To maximize opportunities for attractive housing and to promote well landscaped front yards and street boulevards, vehicle access and garages are located off of a rear lane. A lane of on-street parking provides a buffer between vehicles and the sidewalk and helps to slow traffic by narrowing the perceived width of the street.



Figure 2.2: Low-Density Residential II, looking northeast along Skinner Road access to garages at the rear of dwellings will promote attractive housing, front yards and streets.

Mixed Use Areas:

An approximately 12 hectare area in South Waterdown is designated Mixed Use Medium. This area is bounded by Dundas Street to the north, a hydro corridor (and proposed stormwater management facility) to the west, and the Grindstone Creek Natural Area to the south and east. A Collector Road (Collector Road A) passes through the middle of the Mixed Use Medium Area, providing access to Dundas Street from south of the Grindstone Creek Natural Area.

On Collector Road A, a village scale (2 to 4-storeys), pedestrian oriented Retail Main Street will act as the 'face' of the South Waterdown community. The remainder of the Mixed Use Medium Area will generally contain higher density residential apartments, generally in the range of 8-storeys but up to 12-storeys may be permitted subject to a Visual Impact Assessment. This built form will generally transition to lower storey developments adjacent to the Grindstone Creek Natural Area. The apartment buildings should be designed to accommodate retail uses at grade wherever possible, particularly along Dundas Street. Those who live and work in the mixed-use buildings will be within a five minute (400 metre) walking distance of the Retail Main Street (Collector Road A), which will help to ensure the viability of the businesses.

Buildings should reflect an urban condition, with high quality frontages on Dundas Street and the Grindstone Creek Natural Area. A consistent, 2 to 3-storey building base is recommended on buildings throughout the Mixed Use Medium Area to reflect the village scale of the South Waterdown community.

Additional mixed use areas include smaller Neighbourhood Nodes along Skinner Road at Burke Street, Collector Road A, and Collector Road B. The Neighbourhood Nodes will be small scale pedestrianoriented areas at the heart of the neighbourhoods. They will generally accommodate medium density housing forms, focused at the intersections around retail and/or public uses at grade with residential above.

Commercial Areas:

The area in South Waterdown designated for commercial development includes a District Commercial area (approximately 5.5 hectares) at Skinner Road/Dundas Street. This area will accommodate more traditional large format commercial uses. The built form and site design in this area should provide an attractive and active frontage along Skinner Road, and ensure positive building design and appropriate buffer treatments with adjacent residential uses and the Grindstone Creek Natural Area.

Road Connections:

The existing and proposed road network should facilitate transportation and transit service requirements within an enriched public realm that maximizes connections within the Waterdown South Secondary Plan Area and to the adjacent community. New collector road connections to Dundas Street will extend from existing connecting roads north of Dundas Street. Collector and local streets should be based on a connected rectilinear grid pattern to promote active transportation (i.e. walking, cycling, transit), or a modified grid pattern in response to natural or open space conditions. Streets are also designed to define a series of neighbourhoods based on walking distances of approximately five minutes (400 metres) from neighbourhood edge to neighbourhood centre. Block lengths of less than 250 metres are recommended to maximize pedestrian and vehicular interconnections, and flexibility in lotting patterns.

Brook McIlroy • Sorensen Gravely Lowes Planning Associates Inc • iTrans Consulting Inc.

Public Open Space Network and Natural Elements:

Together, the Natural Heritage System and the Public Open Space Network form a major structure in the shaping of the new community. These elements should be preserved and integrated to the greatest extent possible into the new community as a means of maintaining a sense of connection with the original landscape.

The Natural Heritage System includes:

- The Grindstone Creek Natural Area
- The Escarpment Area

The Public Open Space Network consists of:

- Neighbourhood Parks
- Stormwater Management Facilities
- Public Streets
- Recreational Trails (i.e. Bruce Trail)

As well, effort should be made to integrate into the development, where practical and feasible, specimen trees.



Photo 2.2 & 2.3: Public parks and recreational trails are two components of the Public Open Space Network.

3.0 PUBLIC REALM GUIDELINES

3.1 Natural Heritage and Public Open Space Guidelines

The following Guidelines are intended to create a network of natural heritage features and public open spaces including: the Grindstone Creek Natural Area, the Escarpment Area, Neighbourhood Parks, stormwater management ponds, and public streets. These features will act as the predominant structure and amenity for the new community. The protection of natural features is a key Urban Design Goal in the Urban Hamilton Official Plan and provides the opportunity to redefine the importance of these natural areas as visible and accessible public amenities in the context of community growth.

A primary objective of these Guidelines is the creation of a linked network of open spaces and trails to provide safe recreational connections throughout the community. By building upon a linked open space network and by incorporating new Neighbourhood Parks with existing natural features for example, comprehensive connections between developing neighbourhoods and the community centre can be achieved. Streets are intended to have an enhanced landscape image with rows of street trees, sidewalks, and where appropriate (i.e. proposed major collector) landscaped central medians.



Figure 3.1: Single Loaded roads and crescent roads as illustrated above promote public access and visibility of nature and green space features.

Design Guidelines:

- a) Where possible, public open space (i.e. streets and paths) should encourage connections with the Natural Heritage System.
- b) Providing they do not displace or disturb natural habitats, a system of continuous recreational trails is encouraged throughout the Natural Heritage System to create links throughout the Waterdown South community. These trails should extend to existing trails in surrounding neighbourhoods.
- c) Open spaces should be framed or flanked by public roads or public parks wherever possible to improve access and views and enhance the presence and safety of these amenities in the identity of neighbourhoods (Figure 3.1).
- d) A combination of single loaded roads, gateways and parks are recommended to provide views of woodlots, stormwater management ponds and parks. Parks should have a minimum of 50% of the perimeter bound by single loaded roads or other public uses such as schools.

3.2 Public Parks

Public parks are intended to serve the diverse open space needs of the community. Neighbourhood Parks should be designed to support many community functions such as community wide events, local fairs and athletic fields for organized sports and recreation. Neighbourhood Parks should be located beside schools with access to recreational trails where connections from the wider area and adjacent residences are possible. The following Guidelines should be applied in the planning and design of parks.



Photo 3.1: Public parks should be within a five minute (400 metre) walk for most residents.



Photo 3.2: A network of recreational trails should connect significant parks and open spaces.

3.2.1 Neighbourhood Parks



Photo 3.3: Public parks should include, where appropriate, family winter recreation opportunities such as ice skating.



Photo 3.4: Neighbourhood parks that are open to the street increase their exposure and provide greater visibility and access from the surrounding neighbourhood.

Design Guidelines:

- a) Neighbourhood parks should have public exposure through streets or other public right-of-ways and lands to increase accessibility and natural surveillance opportunities (**Photo 3.4**).
- b) The parks should contribute to the structure and identity of the neighbourhood and be located in connection with schools or other community uses or with the Natural Heritage System wherever possible.
- c) Parks may, where their size permits, include a variety of minor outdoor playing fields, ice pads and children's play equipment.
- d) Where possible, playground surfaces and park equipment should consider the use of recycled materials.
- e) Parks should support the larger community identity and provide a variety of spaces for passive park use (i.e. community gardens), as well as include a variety of active/ recreational sports facilities (e.g. baseball diamonds, soccer pitches, swimming pools, etc).
- f) Parks adjacent to school sites should encourage mutual use of outdoor facilities.
- g) Park entrance design should provide amenities including visitor drop-off lay-by and signs to assist in orientation and use of park amenities.
- h) Parks may include passive park facilities including walkways, formal gardens, park pavilions and interpretive displays relating to local history or the natural context. Furnishing elements, including pedestrian scale lighting, seating areas, and waste receptacles should be provided where appropriate.
- i) Highly visible connections should link the major park amenities and facilities through walkways and bicycle paths. Where feasible, a separate pedestrian network should be distinguished between the recreational network used for biking and/or in-line skating.

- j) Vehicular connections through parkland should be limited to emergency vehicle routes and access to major park facilities (e.g. arenas, pools) and parking areas.
- k) Provisions to buffer residential areas from lighting, traffic and parking areas should be provided through landscaping and appropriate setback treatments.
- Neighbourhood Parks should be located along major neighbourhood roads such as Collector Roads and, where possible, at the terminus of streets and open crescents to reinforce a strong public profile (Photo 3.4).
- m) Parks should be designed with consideration for winter use and may include: a skating facility, a shelter for warming and landscape / plantings with winter interest and wind buffering (**Photo 3.3**).
- n) Parks and schools should be considered as a neighbourhood focus and designed to provide areas for community and civic events.
- o) Provide a wide range of park designs that allow a balance of active playing areas in larger parks with passive open space and unique children's play spaces.
- p) Playground facilities should be barrier-free and feature equipment that is designed using the principles of universal design.
- q) Where feasible, provide an enclosed off-leash area for dogs. Dog owners contribute to safety in parks during less active times of the day.



Photos 3.5 & 3.6: Public parks should include unique children's playground facilities and, where possible, should be designed using the principles of universal design.



Figure 3.2: A high proportion of streets and trails adjacent to the perimeter of community parks reinforces their accessibility, public profile and safety.

3.3 Stormwater Management Ponds

Six Stormwater Management Ponds have been identified for the Waterdown South Secondary Plan Area as shown on the Land Use Plan (**Figure 2.1**).

Stormwater management facilities should have public access and be integrated as positive and safe amenities within the community and Open Space System. The objective of creating a few well-designed community ponds will assist in greater concentration of use as well as provide a public focus and connections between surrounding communities. In addition to the guidelines below, please refer to the City of Hamilton Landscape Design Guidelines for SWM Facilities (May, 2009).



Photos 3.7 & 3.8: Stormwater management ponds should be accessible community features. Their active use will contribute to their safety.

The following general recommendations for stormwater management ponds should apply:

Design Guidelines:

- a) To reduce the overall size and number of stormwater management (SWM) ponds, additional measures (e.g. light impact infrastructure, rain gardens, bioswales, etc.) are encouraged as part of the overall stormwater management strategy.
- b) SWM ponds should have as much public exposure as possible from a public road right-of-way, public park or a combination of publicly owned and accessible lands (**Photos 3.7 & 3.8**). The exact proportion should be determined on a case-by-case basis.
- c) SWM ponds should be integrated as community amenities, with enhanced views and access, to optimize their use as a component of the publicly accessible Natural Heritage and Open Space Network.
- d) Along Mountain Brow Road, opportunities should be encouraged to use stormwater management ponds to provide landscaped gateways into the community.
- e) Pedestrian paths and trails should connect to the public sidewalk, where possible, to enhance access. The use of paved edges to create a positive community amenity must be designed to minimize any impacts on the Natural Heritage and Open Space Network or the pond's form and function.

Brook McIlroy • Sorensen Gravely Lowes Planning Associates Inc • iTrans Consulting Inc.

- f) To minimize disruptions to the form and function of the SWM pond, trails should accommodate multiple functions (i.e. pedestrian movement, maintenance, etc.).
- g) Site design of SWM facilities should promote naturalization, including a variety of native plant species.
- h) To encourage public safety through frequent use and surveillance, SWM facilities should incorporate an arrangement of formal planting, seating and paths that do not interfere with their function.
- i) The design of ponds should avoid fencing requirements to promote public access and surveillance opportunities.
- j) Public education displays could be used to increase public awareness and appreciation of the local environment.
- k) Safe access to the perimeter of ponds should be examined on a site-by-site basis through a combination of pond edge treatments. Shallow slopes should be considered for direct access areas, and overlooks with railings or densely planted areas should be applied, where appropriate, to discourage direct access.
- 1) The water level in stormwater management ponds is designed to fluctuate in response to storm events and therefore accessibility under these circumstances may need to be limited (i.e. through dense landscaping).
- m) Where SWM ponds abut the Natural Heritage System, their edges should remain naturalized.
- n) The urbanization of SWM ponds should be considered based on the context and abutting land uses, such as the District Commercial Area.

3.4 Existing Bruce Trail and Proposed Trail Network

The potential to link the primary open space features, including creek valleys, woodlots, hedgerows, specimen trees and the hydro corridor within the Waterdown South Secondary Plan Area encourages the development of a trail system to link the community together and to be an integral part of the Natural Heritage and Open Space Network (**Photos 3.9 & 3.10**). The Natural Heritage System and street network provide the primary linear framework for establishing connections between neighbourhoods, parks and schools. A new recreational trial network is proposed to provide pedestrians and cyclists (except on the Bruce Trail) with direct connections throughout the Waterdown South Secondary Plan Area. These are located along the Grindstone Creek valley, the hydro corridor, the proposed east-west collector road and the Neighbourhood Parks.

The provision of recreational trails creates an attractive and viable alternative to driving and thus may result in a significant decrease in short automobile trip. They also serve as a means of linking new residential areas without adding additional vehicular traffic to these sensitive areas.

Brook McIlroy • Sorensen Gravely Lowes Planning Associates Inc • iTrans Consulting Inc.

Waterdown South Secondary Plan Urban Design Guidelines





Photo 3.9: Linking the community together through a trail system will incorporate the existing natural features with new open spaces, parks and streets.

Photo 3.10: Residential presence on trails helps to maintain a safe environment and creates visual interest.

The following Guidelines should be considered in the planning and design of recreational trails:

Design Guidelines:

- a) Create links between primary natural heritage areas, open space destinations, neighbourhoods and employment areas by providing continuous recreational trail connections for walking and cycling, except on the Bruce Trail. (See **Figure 2.1** Land Use Plan).
- b) Recreational trails on streets and within parks and open spaces should connect to the existing Bruce Trail as well as to the existing trail network proposed in Waterdown and adjacent municipalities.
- c) The design of the recreational trails should be barrier-free and adhere to the City of Hamilton Parks and Open Space Standards.
- d) Trails should be accessible and visible from the public street or other public areas to enhance safety.
- e) Trails should reflect the function and nature of the type of open space it occupies. Multi-use trails should be a minimum of 4 metres wide to allow for two-way use.
- f) Connections should be provided as part of the street bicycle path/trail system across Arterial or Collector Roads at properly signed and/or signalized intersections.
- g) Signage and safety requirements set out in the City of Hamilton Engineering and Parks and Open Space Standards should be consulted where sidewalks and pedestrian trails cross roads.
- h) Trails that align the stream corridor, woodlands or environmentally sensitive areas should be located in buffer areas to the extent possible. Water course crossings should be avoided where possible.
- i) Lighting on trails should be individually determined, particularly where lighting may disturb natural habitats or have high maintenance costs.
- j) Benches and waste receptacles should be provided at regular and logical points along all trails.
- k) Bicycle paths along streets should provide direct connections to other trails within the Open Space System.

Brook McI Iroy • Sorensen Gravely Lowes Planning Associates Inc • iTrans Consulting Inc.

3.5 Street Guidelines

The Urban Hamilton Official Plan promotes active transportation and the creation of pedestrian oriented streets. The proposed street network for Waterdown South outlines a hierarchy of new streets that accommodate walking, cycling, transit and vehicles and will alleviate the pressure on existing streets as the population increases. Combined with high quality pedestrian amenities, streets will become public spaces while balancing the transportation requirements of the wider community and the neighbourhoods within it.

3.5.1 Dundas Street (45.72 metres)

Dundas Street will evolve as an urbanized street where people live, work and shop. It will carry high traffic volumes of longer-distance traffic within and through the Waterdown community. Limited access to development will necessitate reducing the number of driveways and, where residential is proposed, alternative access through rear lanes, local streets, service lanes or other measures should be examined. Opportunities for transit should be considered in the design and function of this street.

3.5.2 Burke Street (30-36 metres)

Burke Street will support high traffic volumes of longer-distance traffic within and through the Waterdown South community. Limited access to development will necessitate reducing the number of driveways and, where residential is proposed, alternative access through rear lanes or other measures to reduce driveways should be examined. Opportunities for transit should be considered in the design and function of this street.

3.5.3 Collector Roads (20-26 metres)

Collector Roads will support moderate traffic volumes. Direct, controlled access to adjacent properties will be provided. Collector Roads will be designed with a high degree of pedestrian amenity including sidewalks, lighting, seating, and street trees, and where feasible, on-street parking, a double row of street trees, and on-road cycling lanes. See **Figure 3.5**, **3.7–3.9**.



Photo 3.11: The road network in Waterdown South should balance the transportation requirements of the community with the creation of a comfortable pedestrian realm.

3.5.4 Local Roads (18 metres)

Local Roads will support low traffic volumes within neighbourhoods. A narrower 18.0 metre right-ofway is recommended to create a more intimate, pedestrian scaled neighbourhood setting. Local streets will be designed with a high degree of pedestrian amenity including sidewalks, lighting, street trees and on street parking that could alternate street side location. See **Figure 3.10**.

3.5.5 Character Roads

Character Roads, such as Kerns Road and Mountain Brow Road, are roads that provide a unique and attractive environment due their location adjacent to the Escarpment Area. To protect and enhance the unique views along these roads, the existing road cross section should be maintained where possible and development should be compatible and sympathetic to the area. See **Figures 3.3 and 3.4.** To achieve the Character Roads, unique design approaches, and a balance between design and engineering, may be required. For building and site design guidelines for developments adjacent to these natural heritage areas, please refer to **Section 4.2.3**.



Figure 3.3: Mountain Brow Road Option 1 - Curbed Road Section: shows a road cross-section that includes a buffered landscape treatment along the road and multi-use pedestrian trail. Landscaping along the environmentally sensitive area should be comprised of naturalized tree, shrub, and under storey planting (Credit: City of Hamilton).



Figure 3.4: Mountain Brow Road Option 2 – Gravel Shoulder: shows a road cross-section that includes buffered landscape treatment along the road and a multi-use pedestrian trail. A gravel shoulder is shown along the south edge. Landscaping along the environmentally sensitive area should be comprised of naturalized tree, shrub, and under storey planting (Credit: City of Hamilton).

The following Guidelines should be considered in the design of the Character Roads:

Design Guidelines – Architectural Design Elements:

- a) Provide a visual buffer or transition between the existing Niagara Escarpment Protection/ Natural Area and new development north of Mountain Brow Road.
- b) To provide areas along the road pavement for naturalized edge treatments that would comprise native species of trees, shrubs, and perennial plantings to characterize the road as naturalized edge.
- c) To accommodate functional design requirements related to above and below ground utilities.
- d) To incorporate light infrastructure development techniques, where possible, that emphasize good practices of sustainability and include treatments such as bio-swale and bio-retention facilities or other treatments such as low meandering planted berms, and thickets of trees.
- e) To reduce driveway interruptions of the naturalized edge, the use of paired or more driveway accesses to Mountain Brow Road should be required.



Photo 3.12: Above examples of planted swales.

Specific Design Guidelines for Mountain Brow Road:

- a) Dwellings should front onto Mountain Brow Road with a generous front yard (minimum 6m) setback to provide a larger front yard.
- b) Garages should be recessed or detached so that the front façade of the dwelling is the most prominent built form along the road.
- c) A multi-use recreational trail should be provided within the road right of way.
- d) The south side of Mountain Brow Road should be planted with native species and remain in a natural state.
- e) Where possible, architectural treatment, roof details and fenestration, glazing of buildings and lighting should be sympathetic to the visual integration of buildings into the landscape of the Niagara Escarpment.

Brook McIlroy • Sorensen Gravely Lowes Planning Associates Inc • iTrans Consulting Inc.

Specific Design Guidelines for Kerns Road:

- a) Buildings should have a generous setback along Kerns Road.
- b) Buildings greater than 4 storeys should be stepped back a minimum of 3 metres for each storey over 4 storeys.
- c) Buildings greater than 4 storeys should have a minimum setback of 20 metres between each building to provide for view corridors to the natural area.
- d) For buildings over 4 storeys the architectural treatment, roof details and fenestration, glazing of buildings and lighting should be sympathetic to the visual integration of buildings into the landscape of the Niagara Escarpment.
- e) Green roofs and other low impact development features should be encouraged.
- f) The lands within the utility corridor should be maintained in a natural state.



Photos 3.13 & 3.14: Along character Roads, terraced spaces can be transformed into lush green roofs.



Refer to the Streetscape Manual and General Engineering Standards

Figure 3.5: Retail and Mixed Uses intended to front onto Collector Road A will contribute to an active street (note: the above image is for demonstration purposes only. For detailed sections, please refer to **Figures 3.9a-3.9b**).



Figure 3.6: Retail and Mixed Uses intended to front onto Collector Road A should have a pedestrian scaled (2 to 4-storey) building base with large amounts of clear glazing, and opportunities to sit and socialize.



Refer to the Streetscape Manual and General Engineering Standards



Figure 3.7: Section through Collector Road where single detached residential buildings are located.



Refer to the Streetscape Manual and General Engineering Standards



Figure 3.8: Low-Density Residential II section showing optional bike lanes (refer to Figure 2.2 for a detailed streetscape view).



Refer to the Streetscape Manual and General Engineering Standards

Figure 3.9a: Retail Main Street (Collector Road A) section with furnishing located on the boulevard, or within the building setback (refer to **Figures 5.1 & 5.2** for a detailed streetscape view and plan).


Refer to the Streetscape Manual and General Engineering Standards

Figure 3.9b: Retail Main Street (Collector Road A) plan with furnishing located on the boulevard, or within the building setback (refer to Figures 54 & 5.5 for a detailed streetscape view and plan).



Refer to the Streetscape Manual and General Engineering Standards



Figure 3.10: Local Road section.

3.6 Gateways

Gateways are nodal locations within the Waterdown South community, coinciding with major intersections, which also function as entry points into the area. Generally, the gateway location should be reinforced by both the quality of built form and public open space design to express the importance or public role of the area. In some limited locations (i.e. Burke Street and Collector Road A), an actual gate or decorative wall may be an appropriate element to demarcate arrival to these areas.

The Secondary Plan identifies the following gateways:

- i. Dundas Street and Kerns Rd (City wide Photo 3.15: Gateways occur at key intersections and should Gateway).
- ii. Dundas Street and Collector Road A;
- iii. Dundas Street and Burke Street; and,
- iv. Burke Street and Collector Road C.



feature extensive landscaping and pedestrian amenities.



Photos 3.16 & 3.17: In limited locations (i.e. Burke Street and Collector Road A), an actual gate or decorative wall may be an appropriate element.

The Urban Hamilton Official Plan recognizes that land use and design at the above locations requires greater attention to ensure the development of landmark buildings and public open spaces. Gateways often act as landmarks and define entry into the community, district or neighbourhood, and the manner in which they are designed should reflect the desired image for the area. Incorporating an open space component into gateways can provide a relief to the continuous building wall of streetscapes and is an effective way to announce a sense of entry.

- a) The scale and treatment of gateways may vary depending on the availability of space.
- b) Gateways are landmarks and can take the form of uniquely designed buildings, urban squares or other forms of public space or landscaped spaces. Gateways can function as meeting and gathering spaces, and provide an important visual marker.
- c) Gateways to neighbourhoods or districts should, where possible, incorporate a high quality of soft landscaping, landscape features such as walls and columns, and a tree lined centre median in the road.
- d) Gateway spaces can be an extension of a functional activity that often occurs at an intersection and where people interact such as a bus stop or community mailbox. In such circumstances it is appropriate to provide an area with seating.
- e) The extensive landscaping at a gateway should consist of a variety of species and large canopy trees to enhance the pedestrian experience along the streetscape.
- f) Landscaping, public art and other built features are encouraged and should be designed to suit the site.
- g) Pedestrian scaled lighting should be provided to enhance pedestrian safety and usage.
- h) Pedestrian pathways should consist of special materials and/or colours to clearly demonstrate the pedestrian path. This is especially important where pedestrian paths cross public streets.
- i) Consideration for the design and appearance of the space in the rear of a gateway feature between the feature and the adjacent building or space should ensure that the back of the feature is of a design that is in keeping with the front.
- j) Gateways may be specially lit to draw and highlight their features at night.

3.7 Streetscape

Streetscape is a key element of a successful public realm. Roads are the principal interface between built form and the public realm and as such play a dominant role in determining the character of any given neighbourhood. The elements that shape the streetscape include adjacent architectural design, the relationship of buildings to the street, vards and boulevards, roads, sidewalks, lighting, planting of trees, fences and utilities. Streetscape policies are intended to guide the planning and design of public roadways including the spaces extending across the road.



Photo 3.18: Residential sidewalk locations and size will be determined by the Urban Design Report for the Public Realm.

If required, a comprehensive Urban Design Report for the Public Realm (UDR) will be prepared by the landowners, to the satisfaction of the City, for the overall Waterdown South Planning Area as a condition of draft plan approval. The UDR will reflect the streetscape principles and objectives in Section A.9.2.6 of the Secondary Plan and the urban design guidelines. The UDR will address the following:

- i. The function, design and treatment of road types (i.e. sidewalks and crosswalks, landscaping/boulevard plantings, intersection treatments, on-street parking, signage, street lighting and utility wires, etc.) with differing requirements for residential verses commercial and mixed use areas;
- ii. The design of intersections at Neighbourhood Nodes and the District Commercial/Retail Main Street;
- iii. A continuous bicycle trail system and appropriate means to accommodate the system on arterial and collector roads;
- iv. The location and design of a continuous pedestrian trail system, and public sidewalks and including matters of width, materials and lighting;
- v. Requirements for the mobility impaired, such as safety features, standards for the placement of street furniture, sidewalk maintenance and design, including curb cuts to provide a continuous barrier free path to transportation services;
- vi. Requirements for boulevard tree planting including spacing and canopy density with differing requirements for residential verses commercial and mixed use areas;
- vii. The design of special entry points or gateway features where Arterial and Collector Roads intersect with perimeter Arterial Roads; and

3.8 Sidewalks and Bicycle Paths

Sidewalks are places for pedestrian movement, children's play and neighbours' socializing. Sidewalks encourage walking as urban transportation, walking to public transit and walking for pleasure. Sidewalks improve the liveability of a community, enhance safety and are vital to seniors and the disabled.

Design Guidelines:

- a) The UDR, as required in Sections A.9.7.2.b and A.9.9.1.j of the Secondary Plan, will identify the location of sidewalks, their widths and design elements within the Waterdown South Secondary Plan Area.
- b) Generally speaking, streetscape elements such as benches, planters, waste receptacles, and newspaper boxes should be grouped together in nodal areas, and located in conjunction with street trees and lights where sidewalk widths permit.
- c) Sidewalks should be provided on both sides of Arterial and Collector Roads, and one side of Local Roads, or, as set out in a new City of Hamilton sidewalk policy.
- d) Sidewalks within neighbourhoods leading to schools should incorporate child friendly symbols or signifiers leading children to schools.
- e) The width of public sidewalks should be of sufficient width to accommodate utilities, provide adequate visibility from the street and promote public safety.
- f) A continuous bicycle trail system will be identified as part of the UDR in Section A.9.9.1. The bicycle trail system should include both on-street and off-street routes linking the parks and community facilities. Off-street routes will use public open space lands including Neighbourhood Parks, school sites, a potential route along the hydro corridor and a dedicated bike lane within Skinner Road.



Photo 3.19: Where appropriate, sidewalks should be wide enough to accommodate a variety of pedestrian amenities.



Photo 3.20: A network of on-street and off-street bicycle paths should connect significant parks, open spaces and community facilities.



3.9 Future Transit Shelter Location & Design

Photo 3.21: As demonstrated in the example above, transit shelters should be weather protected and should provide seating, trash receptacles and route information (Source: www.flickr.com, Spacing Magazine).

- a) Sidewalks should connect directly to bus stops to encourage active transit use and ensure safety and convenience.
- b) Bus stops should be located in close proximity to Mixed Use Areas, Neighbourhood Nodes, and the District Commercial Area and at primary street intersections throughout the Secondary Plan area. They should be barrier-free and located to enhance pedestrian circulation.
- c) Far-side stops (after an intersection) are encouraged for safety and efficiency by reducing the number of stops required before proceeding through an intersection.
- d) Bus stops should be located near building entrances.
- e) Bus stops should include shelters for weather protection, with sufficient shelter for 10 to 15 people.
- f) Bus shelters should include basic amenities, including seating, waste receptacles, lighting, and route information.
- g) Bus shelters should be located between 1 metre and 3 metres from the curb and transit vehicle entrances to promote sheltered access, particularly in inclement weather.

3.10 Above Grade Utilities

Above grade utilities on residential streets including hydro, telecommunications/communications infrastructure and cable boxes generally contribute to a negative image for the streetscape particularly when placed in highly visible areas of the public right-of-way. Streets that have smaller lots require a greater number of above grade utilities and the location of above grade services reduces opportunities to plant street trees.



Photos 3.22 & 3.23: Streetscapes where utilities are below grade, such as Alexandria, Virginia (Photo 3.17) and Oakville (Photo 3.18) have a higher visual quality.

- a) The general location of all utilities should be addressed at the Draft Plan of subdivision stage.
- b) Staff should examine the opportunity for grouping utilities in single locations above grade (e.g. the flankage yard of the public right-of-way) or underground, where feasible. Such locations should be guided by the location and primacy of streets, stormwater management facilities, parks and major Open Space Systems.
- c) Staff should continue to work with utility providers to examine ways to determine and improve the interface of the utilities within new communities.
- d) The placement of utilities underground should be considered as a longer term community investment.
- e) Utilities should be clustered or grouped where feasible to minimize visual impact. The City encourages utility providers to consider innovative methods of containing utility services on or within streetscape features such as gateways, lamp posts, transit shelters, etc., when determining appropriate locations for large utility equipment and utility cluster sites.

3.11 Parking

The Guidelines are intended to prevent parking from becoming a dominant physical element. The design of parking facilities should coordinate landscaping, lighting, walkways and structures to ensure a compatible interface with open space, buildings and streets. The total amount of parking should be minimized through shared parking between adjacent properties, particularly in the evenings, weekends and other off-peak periods.

3.11.1 On-street Parking

On-street parking should be permitted wherever possible, to animate the street, reduce vehicle speeds and serve as a protective buffer between pedestrians and moving vehicles. This is particularly important along the Retail Main Street (please refer to **Section 5.2.2**). To encourage the provision of such parking, appropriate engineering design standards for roadways, including bump-outs, may be developed.



Photos 3.24 & 3.25: On-street parking provides convenient access to commercial and residential areas.

Design Guidelines:

- a) On-street parking bays should be parallel to the curb, not perpendicular or angled, to minimize the overall width of the roadway and optimize sightlines.
- b) On-street parking may be situated within bump-outs, where appropriate.
- c) Bump-outs should be landscaped with street trees or low level ground cover and be designed to accommodate snow loading.
- d) Generally, on-street parking is recommended to assist in traffic calming.

3.12 Sustainable Streets



Photo 3.26: Street trees in residential areas provide shade on the sidewalk and high amenity value to the streetscape.



Photo 3.27: Bioswales and/or bio-retention areas can be used to maximize water infiltration and should be incorporated into the design of boulevards.

Sustainable Streetscape Design

- a) Street pavement widths (curb to curb) should be minimized to reduce impervious surfaces and stormwater run-off and to maximize boulevard areas (curb edge to building face) for future planting.
- b) Porous surfaces should be considered for sidewalks, especially when adjacent to parks and open spaces.
- c) Utilities should be located on one side of the road to help create more favourable growing conditions for trees.
- d) Street trees should be located within the boulevard. They should be located 1.0 metre from the back of the curb, and spaced consistently at 6.0 to 9.0 metre intervals (on centre). Streetscaping and landscaping should consist of locally adapted species.
- e) Existing street trees should be preserved wherever possible, as mature trees create a greater sense of enclosure along roads.
- f) Bioswales, permeable paving and/or bio-retention areas are a viable approach for maximizing water infiltration, cleansing run-off, and enhancing the street edge. They should be considered in the design of the boulevard, but are best suited on streets where curb cuts or driveway accesses are minimal.
- g) Solar power should be incorporated into the design of street lighting and transit facilities to supplement the power requirements of street furniture.
- h) Directional lighting is encouraged to reduce wasted energy. Sensors should also be used to help regulate brightness and when lights turn on and off.
- i) Building materials for urban infrastructure should be selected for their durability, and low environmental impact following a lifecycle assessment.

Brook McIlroy • Sorensen Gravely Lowes Planning Associates Inc • iTrans Consulting Inc.

- j) Materials used in streetscape design should be locally sourced as the use of local materials and products prevents the expenditure of fossil fuels used for freight transportation. Canadian products are also generally designed to withstand our climate.
- k) Recycled materials should be encouraged in urban infrastructure development and outdoor furniture to reduce the energy needed to extract and manufacture new materials. Examples include recycled asphalt for light-use surfacing, demolition materials as fill, bike racks made of recovered steel, benches made of recycled plastic bottles, playground surfacing made of recovered rubber, etc.

4.0 PRIVATE REALM GUIDELINES: RESIDENTIAL

Housing in Waterdown South should provide a full mix of low (2-3 storeys) to mid-rise types from singles, semi-detached, townhouses, low-rise apartments and adult lifestyle housing (4-8 storeys). In keeping with the Urban Hamilton Official Plan, the principles below encourage high quality communities that are unique, safe, and adaptable to future demographic changes. The guidelines that follow are intended to illustrate the general requirements for lot design and may not illustrate all anticipated housing types such as wide-shallow lots.



Photo 4.1: Housing should be designed to project a strong public face.



Photo 4.2: Windows and entrances for residential units should be oriented to public sidewalks and pedestrian connections to provide casual surveillance.

4.1 Residential Design Principles

- 1. Create a Strong Public Face: The houses that line the street substantially influence the image and pedestrian experience of the streetscape. House designs that accentuate actively used elements, including windows, front porches and steps combined with a variety of rooflines, contribute positively to the streetscape and aid in casual surveillance opportunities. Garages should not be the dominant feature of the house and should not preclude opportunities to have useable rooms that look out onto the street (Photo 4.1).
- 2. Automobile Storage should be Subordinate: In traditional neighbourhoods where the garage is not readily visible from the street, the house façade tends to have greater expression through opportunities to emphasize the front entrance, porch, bay windows, etc. This is in contrast to many newer subdivisions where the garage is placed forward of the front wall of the house and is often the widest element of the front façade.

- **3.** Create Dual Frontages on Corner Lots: Give positive expression to the two street frontages through the use of wrap around front porches, sunrooms, bay windows and side entrances. Privacy fencing should be limited to screening the back yard only (Photo 4.3).
- 4. Provide a Consistent High Quality Design Approach: The design of structures and houses, the selection of lighting standards and streetscape standards, signage, etc. will occur over many years and will involve the participation of many design professionals. The overall design approach of the community is intended to encourage creative interpretation within a solid design process. The design process will enable a variety of design projects and styles to lead to a cohesive, integrated and high quality community.
- 5. Activity and Safety: An animated residential streetscape is a key design consideration. Housing should incorporate designs with habitable, street-facing rooms (i.e. living, dining rooms and kitchens) to promote neighbourhood safety through "eyes on the street" (Photo 4.2).
- 6. Context Sensitive: The mass, scale and architectural elements of residential buildings should be sensitive to adjoining areas.
- 7. Housing Variety and Choice: A full range of housing types, from executive housing on large lots to mid-rise apartment buildings and retirement-style living, should be provided to accommodate a wide demographic (i.e. couples, families with children, seniors, etc.). A range of housing types will provide flexibility over time.



Photo 4.3: Both lot frontages on corner lots should have positive expression to the street through front porches and projecting bays, windows, etc.



Photo 4.4: Larger lot frontages in Waterdown South provide a context for a variety of high quality residential design options.

4.2 Low and Medium Density Residential Typologies

Single & Semi-Detached and Duplexes

Single detached, semi-detached and duplexes are permitted housing types within the Waterdown South area.

Townhouses, Low-rise Apartments and Adult Lifestyle Housing

Townhouses, low-rise apartments and adult lifestyle housing will provide more compact, higher-density housing choices than single or semi-detached dwellings and, in some instances, may share outdoor and amenity space.

Where townhousing is proposed, a mix of long and short townhouse blocks on public and private streets is encouraged to provide variety to the streetscape. The massing of long townhouse blocks should be broken up through spacing or façade changes so that a single monotonous elevation is not created.



Photos 4.5 & 4.6: Housing in Waterdown South should provide a full mix of low (2-3 storeys) to mid-rise types; from singles, semidetached, townhouses, low-rise apartments and adult lifestyle housing (6-8 storeys).

4.2.1 General Residential Design Guidelines



Photo 4.7: A range of housing types should be provided to accommodate a wide demographic and to create a diverse community.



Photo 4.8: Housing should incorporate designs with habitable, street facing rooms to promote neighbourhood safety through "eyes on the street."

- a) A range of housing types (i.e. detached, semi-detached, townhouse, apartments) within neighbourhoods is encouraged to promote variety and diversity and address changes in market conditions.
- b) Housing variety should be achieved on each street and block as a means of strengthening neighbourhood character and providing more choice. Repetition of design (i.e. style, elevation and materials) should be allowed where it is a characteristic of the building type.
- c) The main dwelling façade should be located parallel to the street and/or sidewalk, open space or park and in general, line up with adjacent buildings to frame the street. Reverse frontage lotting patterns are generally prohibited.
- d) Primary building entrances should clearly address the street with large entry awnings or other similar features, and in apartments provide visibility to interior lobbies to allow for safe and convenient arrival and departure from the building.
- e) Dwellings on corner and flank lots and at the terminus of streets should employ building elements and designs that emphasize their visibility and potential role as landmark or orienting structures within the community.
- f) Flanking lots on street corners or facing public open space should apply enhanced architectural considerations (i.e. windows, porches, high quality materials) to encourage positive treatment facing these public areas.

Brook McIlroy • Sorensen Gravely Lowes Planning Associates Inc • iTrans Consulting Inc.

- g) Housing located at a view terminus should promote visual interest through enhanced architectural detailing. To increase opportunities for landscaping, driveways should be located on the edge of the lot and a greater front yard setback is encouraged.
- h) The Secondary Plan directs higher density housing along Dundas Street and the Arterial and Collector Roads. At a micro scale, it should be massed at the end of blocks or at view terminus.
- i) Higher density housing should transition to lower density housing consistent with existing adjacent low-rise residential areas (i.e. Renwood Park Subdivision) through appropriate setbacks, lot widths and building form.
- j) Privacy fencing for dwellings on corner lots and flank lots should be encouraged to occupy no more than 50% of the length of the exterior side lot line.
- k) Decks should be used as outdoor amenity spaces, using trellises and canopies to provide privacy between dwellings and weather protection.
- 1) Rear yard parking (accessed either from a lane or front driveway) is encouraged to allow for greater flexibility in the design of the front façade and front yard.
- m) The top of the front porch should not be higher than 1/2 a storey above grade (with the exception of stacked townhouses).
- n) Both sides of a semi-detached dwelling should be compatible in architectural expression.
- o) End units in a townhouse, low-rise apartment or adult lifestyle housing should place windows and entrances facing the public street and along pedestrian walkways to encourage these areas to be visible, active and safe.
- p) The proportion of rooflines, wall planes and openings should be consistent with other buildings on the street.
- q) In apartments or other similar dwelling types, ground floor units should have individual at-grade access. Upper floor units should be emphasized through articulations of the exterior wall plane and roof, and the use of pronounced building elements including bay windows, balconies and dormers.
- r) In apartments or other similar dwelling types, pedestrian entrances to parking and service areas within the principal building should be combined with exposed communal areas such as exercise areas or meeting rooms to provide casual surveillance opportunities.
- s) A maximum of six townhouses constructed in a row will minimize excessive building blocks, allow townhouses to fit well within the 'villages' low-rise setting and assist in the required emergency access between buildings.

Waterdown South Secondary Plan Urban Design Guidelines



Figure 4.1: Single detached dwellings with attached and detached garages.

The following diagrams emphasize the importance of providing a variety of housing types and lot sizes within each block.



Figure 4.2: Single detached dwelling with attached front yard garage



Figure 4.3: Single detached dwelling with side yard detached garage.



Figure 4.4: Single detached dwelling with rear yard detached garage



Figure 4.5: Single detached dwelling with detached garage accessed via a rear lane



Figure 4.6: Semi-detached dwelling with attached front yard garage.



Figure 4.8: Townhouses with attached front yard garages.



Brook McIlroy • Sorensen Gravely Lowes Planning Associates Inc • iTrans Consulting Inc.

4.2.2 Flankage Lot Guidelines



Photo 4.9: Corner lots should provide positive expressions to both frontages



Photo 4.10: On corner lots, the main entrance should be located on the longer side of the dwelling.

- a) Dwellings on corner and flanking lots should be designed so that façades oriented towards the street include a high level of design consideration.
- b) Dwellings on corner and flank lots and at the terminus of streets should employ building elements and designs that emphasize their visibility within the neighbourhood and community. Elements include porches, complementary rhythms of upper and lower storey windows, enhanced façade detailing and integrated rooflines.
- c) Wraparound porches/verandas are encouraged on corner lot dwellings or other locations where the side yard of the dwelling is visible.
- d) Flanking façades should have a design standard equal to the front façade treatment. This should include careful consideration of massing, height, materials and details.
- e) On corner lots, the main building entrance should, where feasible, be located on the longer side of the dwelling.
- f) Front yard landscaping should be consistently co-ordinated between both yards.
- g) Corner lots located at key intersections should generally have driveway access from the minor roadway, with the exception of townhouse blocks, and back-to-back housing.
- h) Privacy fencing for dwellings on corner lots and flank lots should be encouraged to occupy no more than 50% of the length of the exterior side lot line.

4.2.3 Residential Development Adjacent to the Natural Heritage System

A significant component of the Waterdown South study area is comprised of a Natural Heritage System that includes the Grindstone Creek Natural Area and the Escarpment Area (please refer to the Land Use Plan - **Figure 2.1**). Where streets front onto these natural features, most notably on Mountain Brow Road and Kerns Road, residential building, site, and landscape design should emphasize the important role of the natural heritage feature within the South Waterdown community.



Photo 4.11 & 4.12: Sustainable site design practices, such as permeable paving (Photo 4.11) and swales (Photo 4.12) are encouraged in development adjacent to natural features.

Design Guidelines:

Built Form:

- a) Residential building design should optimize connections and views to the natural heritage feature through the use of terraces and balconies, generous glazing, and outdoor spaces (e.g. courtyards, gardens, etc.).
- b) Where medium density residential special policy areas abut Escarpment Natural or Protection Areas, it is recommended that naturalized landscape be used, including native tree species, no mow zones.
- c) The amount of non-permeable surfaces should be limited. Where they are required, permeable alternatives are encouraged.
- d) The application of "dark sky" conditions (through the use of appropriate fenestration and lighting) are encouraged where buildings or amenity areas face natural heritage areas.
- e) For the medium density residential special policy areas along Kerns Road, setbacks should be greater than the standard. A 10 metre setback to the above grade building face and a stepped building design to allow views from southbound Kerns Road to the Escarpment Protection Area lands and the wooded area (Escarpment Natural lands). We suggest that the first building step be no more than 3 storeys (subject to the visual impact assessment) and that the terrace be a minimum of 12 metres in depth.

Brook McIlroy • Sorensen Gravely Lowes Planning Associates Inc • iTrans Consulting Inc.

Site Design:

- a) Site design elements, including landscape, paved areas, structures and buildings should be designed with consideration of the Natural Heritage System.
- b) Walking and cycling trails are encouraged adjacent to natural heritage features to improve connections and circulation across the Waterdown South community.
- c) For additional guidelines, please refer to Section 3.3 Stormwater Management Ponds.

Streetscape:

- a) Streets adjacent to natural features should include enhanced landscape treatments, including rows of street trees, minimum 2 metres sidewalks, and facilities to support walking and cycling (i.e. sidewalks and dedicated bike paths) that integrate with the trail system in the NHS.
- b) An enhanced tree canopy should be established along streets, parks and open spaces adjacent to the NHS, wherever possible, to extend the existing tree canopy to help shade buildings, and improve stormwater treatment and air quality by naturally filtering out pollutants.



Photos 4.13 & 4.14: Streets adjacent to natural heritage features should include rows of street trees, wide sidewalks, and appropriate buffers.

4.2.4 Driveways and Tandem Parking Guidelines

- a) Driveways should be straight and not tapered or skewed, and be as wide as the outside dimensions of the garage.
- b) The draft plan of subdivisions must be reviewed and approved to ensure that lots have the appropriate curb frontages to accommodate straight and non-tapered driveways.
- c) Maintain driveway standards respecting the separation of abutting driveways and setbacks to street hardware including above grade utilities and light standards.
- d) Tandem parking (2 or more parking spaces) should be discouraged in the front yard. This will result in the reduction of excessive garage setbacks required for front yard tandem parking and will create a more desirable relationship of garage face to habitable dwelling face.
- e) Permeable surfaces for run-off are encouraged for driveway paving.
- f) Curb cuts should be spaced to preserve the maximum number of on-street parking spaces.
- g) Direct access to individual street townhouse units from collector roads should be discouraged through the use of shared or common access points and rear lane arrangements.



Photo 4.15: Driveways should be no wider than the garage opening and narrower where possible.

4.2.5 Rear Laneways

Design Guidelines:

- a) Private Lanes are encouraged where a higher density housing form fronts onto a Collector Road network, and should also be considered to provide access to parking on narrow lots.
- b) The primary façade of buildings where private lanes are required to provide access to residential parking facilities, should not face the laneway, nor should primary at-grade access be provided.
- c) The use of permeable materials is encouraged where sufficient drainage exists, as low traffic levels permit the use of less durable surfaces. In cases where block lengths are in excess of 250 metres, an additional access point should be provided for Private Lanes in a central location.
- d) Private Lanes should provide a minimum right-of-way width of 7.0 metres with a minimum 0.5 metre setback to the garage wall.
- e) To maintain adequate distance between the vehicular traffic on the lane and the rear of the garage, the minimum separation between the detached garage and the rear lane should be 0.5 metres.

4.2.6 Garages Facing Rear Lanes

Where appropriate, consideration should be given to the use of private rear lanes at the following locations:

- a) Along arterial and collector roads where excessive curb cuts to private driveways would impede the operational function of the roadway.
- b) At parks or open space (parks, woodlots, creek valleys) where lane based housing may benefit from having housing directly face these areas.
- c) Where smaller lot frontages or townhouse dwellings are being considered.

- a) Garages facing on to a lane, where the width of the lot permits, should provide access through a gate directly on to the lane.
- b) Rear lane single car garages are encouraged to attach as a pair to provide a consolidated appearance versus many small separate structures.

4.3 Architectural Design

The intent of the following guidelines is to achieve a visually rich residential building fabric that promotes a distinct neighbourhood image through the use of materials, building form and architectural styles.

4.3.1 General

Design Guidelines:

- a) Architecture expressed throughout residential buildings should be varied as well as relate contextually in form and scale. Despite the use of various architectural styles, quality should be consistent and building materials and finishes should be complementary.
- b) Consistent rhythms of similar (not identical) details and architectural elements should be used to reinforce the continuity of the street and assist in the creation of a strong neighbourhood image.

4.3.2 Walls









Brick

Man-made or natural stone

Prefinished Metal Panel

Wood

Design Guidelines:

Photos 4.16 to 4.19: Recommended building materials.

- a) The front façade of dwellings and garage treatments should maximize the presence of the habitable building façade. A high standard of design, detail and variety of materials should be combined to create front building façades with a distinct street presence.
- b) Flanking façades should have a design and materials standard equal to the front façade treatment.
- c) Facing materials including brick, stone, stucco and wood/metal siding are all acceptable. Lintels, cornices, quoins, dentils and other details are recommended to be appropriately incorporated within brick and stone walls to reduce the heavy effect of these materials.
- d) Changes in the use of wall facing materials should occur at wall setbacks or projections or to articulate the transition between the building base, middle and top.
- e) Wall materials should be selected based on energy and maintenance efficiency.

4.3.3 Windows

Design Guidelines:

- a) Buildings facing or flanking a street, lane or open space should provide a generous amount of window openings to encourage strong visual connections between the private dwelling and public realm.
- b) Bay windows are encouraged as they increase visibility from private dwellings to the public realm and add to the building character.
- c) Window design should be primarily an expression of the interior dwelling use. Creative arrangements of windows should have a functional role in providing natural ventilation and light, views and privacy to the individual and adjacent dwellings.
- d) Centre lines of similar windows should be aligned vertically and should be set within a sufficient area of wall to avoid an overcrowded composition of wall openings.
- e) Window mountings should be part of the window structure and not applied as a decorative element.
- f) Skylights and clerestory windows are encouraged. Skylights should be treated as distinct roof elements and be coordinated with other roof and building elements. Skylights are encouraged to be located behind the roof ridge away from the street view. Clerestory windows should be detailed to provide a structural and coordinated junction between the building wall and roof.

4.3.4 Porches and Building Projections



Photos 4.20 to 4.23: Porches are encouraged as transitional building elements to provide weather protection, dwelling access and active amenity spaces.

- a) Building projections including porches, decks, canopies and stairs are encouraged as transitional building elements that provide weather protection, dwelling access and active amenity spaces.
- b) The inclusion of front porches is highly recommended for low-rise development.
- c) Porch and deck dimensions are encouraged to be generous enough to also accommodate furnishings and ensure their active use.
- d) Steps to porches should have generous proportions and a gentle rise and run to encourage step sitting and the placement of flowerpots.
- e) The design of porch railings and columns should be integrated and use complementary materials.
- f) Finish materials should extend to all sides of the porch and stairs. The underside of the porch should not be exposed to the street.
- g) Duplex and multiplex dwellings are encouraged to provide porches and decks as outdoor amenity spaces for upper units.
- h) Continuity of front porch design is recommended between detached and semi-detached dwellings. Material and detail variations may occur between porches provided there is an accordance of scale and proportion. Townhouse and multiplex dwelling porches should be the same, or establish a clear rhythm of variation between every second or third unit.
- i) Balconies, terraces and porches should be designed as integral parts of residential building design, including appropriate size, complimentary materials and architectural details.
- j) Wraparound porches/verandas are encouraged on corner lot dwellings or other locations where the side yard of the dwelling is visible.
- k) For residential units on the ground floor with direct access from the street, privacy should be enhanced through the creation of a private and/or semi-private outdoor amenity space.

4.3.5 Roofs



Photo 4.24: Townhouses should express individuality of address through defined roof forms that express individual dwellings and contribute to a residential character for the overall development.

- a) A variety of roof shapes should occur in each residential block.
- b) Roof forms should apply a generally consistent roofline in mass and height to adjacent buildings.
- c) Roof materials/colours should complement the building materials and the proposed building design.
- d) A minimum 30-degree slope is recommended where sloped roofs are required.
- e) Townhouse and multiplex dwellings should express individuality of address through defined roof forms that express individual dwellings and contribute to a residential character for the overall development.
- f) Roof elements including chimneys, dormers, pitches, cupolas and vents should be incorporated as distinct elements providing the potential for additional variety in the image of one dwelling to the next.
- g) The use of dormers on sloped roofs is encouraged to ensure liveability of top storeys, or to allow future conversion of attic spaces. Dormer windows should be of the same type and proportion as those used for windows in the lower storeys.

4.3.6 Stand-Alone Garages and Coach Houses

Design Guidelines:

- a) Garages and coach houses should be complementary in character and quality of detail to the principle dwelling.
- b) Garages should be designed so that they are not the dominant feature in the streetscape. They should not project beyond the dwelling façade and door widths should be less than 50% of the house width. Where lot depths permit, tandem garages are encouraged to reduce frontage and curb cuts.
- c) Windows and doors should be provided on elevations facing the dwelling and the garden.
- d) Garages or coach houses backing on to a lane or accessory buildings backing on to a local hybrid street should, where the width of the lot permits, provide access through a gate directly on to the lane.
- e) The garden façade of garages and coach houses should be detailed to reflect the private and contained nature of the garden activities. A door to the garage or coach house should be located directly from the garden.
- f) Coach house windows should be positioned to maximize street or lane overview and to minimize overview of adjacent neighbouring properties.



Photo 4.25 & 4.26: Garages and coach houses should be complementary in character and quality of detail to the principal dwelling.

5.0 PRIVATE REALM GUIDELINES: COMMERCIAL & INSTITUTIONAL

Official The Urban Hamilton Plan encourages the creation of unique, high quality, pedestrian oriented spaces in all public and private development. In commercial buildings, a strong relationship with the street is facilitated through shallow setbacks, on-street parking and/or placing parking at the rear of the building. At-grade, commercial buildings should contain active office or commercial space. Office and residential uses on the second floor and above are encouraged. Only street level units should have separate entries, all other units should share a single main entrance and lobby. Providing additional secondary entrances to a development helps animate the street while the main entrance defines the symbolic entrance and civic address.



Photo 5.1: A strong relationship between the street and commercial buildings is facilitated through shallow setbacks, on-street parking and/or placing parking at the rear of the building.

5.1 Commercial and Institutional Design Principles

- 1. Strong Street Edge: All commercial retail development should provide continuous physical definition to streets and public spaces. Physical definition is achieved by locating buildings close to the street edge, with off-street parking located behind buildings or in parking decks and structures. Where parking structures abut streets they should be "lined" with active retail uses at-grade.
- 2. Distinct 'Sense of Place': Commercial and residential development should incorporate high quality architectural treatments, building materials, signage, and site planning that provides visual interest at the scale of the pedestrian. Developments should project a 'sense of place' by creating distinct architectural detail, creating areas and pockets such as seating areas, floral beds, courtyards, architectural focal points, and public art.
- **3.** A Mix of Uses and Sizes: Although one type of land use may dominate in a shopping district, a mix of land uses and unit sizes should be provided to the extent possible to increase diversity.
- **4. High Quality Public Amenities:** Development should provide high quality public amenities including urban squares, playgrounds, landmark features and public art installations that promote a positive site appearance and promote pedestrian activity and social interaction.
- 5. Dual Frontages & Multiple Entrances: Commercial retail development should consider multiple entries at multiple frontages to improve site design flexibility and options for building location.

5.2 Mixed Use Medium Areas

The Mixed Use Medium Area is intended to function as a higher density urban neighbourhood, accommodating a range of residential, commercial, institutional and service uses. Such areas may be developed primarily for residential use or primarily for commercial use in the initial stage, but over time these areas are intended to evolve into mixed use areas with residential and commercial uses. Different uses may be accommodated within the same building or within separate buildings on the same or abutting lots.



Photo 5.2: A range of residential, commercial and institutional uses should be accommodated in the Mixed Use Medium Area.

Buildings are recommended to have a strong public presence and should contribute to the creation of a pedestrian oriented streetscape appropriate for Waterdown South, particularly along Dundas Street. The retail on Dundas Street, and the development of Collector Road A as a Retail Main Street will be key in defining the character and 'face' of the Waterdown South community. The area is framed to the south by the Grindstone Creek Natural Area and bounded by a hydro corridor to the west. Proposed recreational trails through these areas will provide additional access to the Mixed Use Medium Area.

The following sections provide specific guidelines related to the Retail Main Street (Collector Road A), and the mixed use areas to the east and west of it.

5.2.1 Mixed Use Areas







Photo 5.4: Wide sidewalks accommodate the variety of landscape and street furnishings that collectively create a comfortable and attractive place for walking and socializing.

With the exception of the Retail Main Street development on Collector Road A, the Mixed Use Medium Area should evolve into a higher density mixed use area. This area should be characterized by taller, single or mixed use buildings (generally 8-storeys, but up to 12-storeys may be permitted subject to a Visual Impact Assessment) facing Dundas Street, with pedestrian-oriented streetscapes, and active at-grade uses. New development should provide positive building frontages on Dundas Street.

The tallest buildings will be located along Dundas Street, transitioning to lower, village-scale buildings (2 to 4-storeys) along the Retail Main Street, and adjacent to the Grindstone Creek Natural Area (3 to 6-storeys).

For general guidelines related to buildings within the Mixed Use Medium Areas, please refer to Section 5.6: Building Orientation and Site Layout and 5.7: Architectural Design Elements.

Design Guidelines – Building Height:

Minimum Building Height

a) With the exception of buildings fronting onto the Retail Main Street (Collector Road A), the minimum building height within the Mixed Use Medium Area for mixed use or residential, should be 10.5m (or 3-storeys), in order to make the most efficient use of existing infrastructure. Buildings fronting on to Collector Road A may range between 2 to 4-storeys to reflect a traditional Retail Main Street.

- b) This minimum building height should be reflected throughout the Mixed Use Medium Area through a minimum 2-storey streetwall height. This will help to provide an appropriate transition in height from the Retail Main Street on Collector Road A.
- c) The minimum floor-to-floor height of the ground floor should be 4.5 metres to accommodate retail uses at grade, and allow sufficient clearance for internal loading areas.

Maximum Building Height

- a) The maximum allowable height of buildings in the Mixed Use Medium Areas should be 8 storeys but may be permitted up to 12 storeys subject to a Visual Impact Assessment.
- b) The maximum building height can only be achieved if the building complies with all other guidelines outlined in this section (i.e. angular planes, stepbacks, etc.).
- c) Mechanical penthouses may exceed the maximum height limit by up to 5 metres, providing they do not penetrate the angular plane.

Building Transitions

- a) A 2 to 4-storey building base is recommended throughout the Mixed Use Medium Area to maintain a consistent scale at the streetscape as building height increases to the east and west.
- b) Transitions of building heights should be provided between the lower scale buildings along Collector Road A and the Grindstone Creek Natural Area, and the taller buildings proposed on Dundas Street.



Photo 5.5: Buildings within the Mixed Use Medium Area should be a minimum of 2-storeys.



Photo 5.6: Taller buildings (up to 12-storeys) are encouraged provided they are appropriately designed (e.g. stepbacks).

Design Guidelines – Building Setbacks:

- a) Buildings in the Mixed Use Medium Areas should have 75% of their frontage built to the front property line. The remaining 25% may setback an additional distance (up to a 5 metre maximum) to accommodate a deeper area for lobby entrances, bike parking, or outdoor marketing areas.
- b) Buildings in the Mixed Use Medium Areas should be built to the side property line to create a continuous façade and minimize blank side walls.

Please refer to Section 5.6 for additional guidelines related to building setbacks.

Design Guidelines – Building Massing:

Building Width

a) On Dundas Street, wider sites (i.e. greater than 60 metres) should include well articulated building façades or have multiple buildings where possible to minimize excessively long façades. Façades should generally be architecturally divided through vertical and horizontal expressions (i.e. piers, cornices) and stepbacks (see **Photo 5.7**).

Front-Yard Stepbacks

- a) On Dundas Street, in addition to the street wall step back (at 3-storeys), a "pedestrian perception" stepback is recommended between 6 and 8-storeys to mitigate the perception of height from the public realm.
- b) Front yard stepbacks should be a minimum of 1.5 metres. 3.0 metres is recommended to accommodate useable outdoor amenity areas (i.e. rooftop gardens).

Side-Yard Stepbacks

- a) On corner sites, the stepbacks that apply to the primary façade should be extended to the secondary street frontage.
- b) Side property stepbacks of 5.5 metres should be provided at a height equal to 80% of the right-of-way width, to increase sky views and sunlight access to the sidewalk.
- c) Side-yard stepbacks are recommended above the minimum building height (3-storeys), where appropriate, to create a more "porous" street wall.

Rear-Yard Stepbacks

- a) Where buildings in the Mixed Use Medium Area are adjacent to lower-density residential uses (i.e. townhouses), a 7.5 metre setback is recommended from the rear property line prior to applying angular plane provisions. Where a public laneway abuts a site, the laneway may be included within the setback.
- b) In addition to the abovementioned rear-yard setback, a 45-degree angular plane should be applied to provide an appropriate transition to adjacent uses. On deep sites, this angular plane should be applied from the rear property line. On shallow sites, this angular plane should be applied from a height of 10.5 metres above the rear setback line.
- c) Where the rear of the property is at a different grade than the frontage, the angular plane should be applied from lowest grade elevation (at the property line) of the adjacent property.



Figure 5.1: Angular planes and stepbacks are recommended to define a building envelop in the Mixed Use Medium Areas that creates a comfortable pedestrian realm, and ensures appropriate transitions to adjacent uses.



Figure 5.2: Side-yard stepbacks of 5.5 metres are recommended above the 80% right-of-way height.

Figure 5.3: For more "porous" buildings, side-yard stepbacks should be encouraged above the minimum streetwall height (3-storeys).

Waterdown South Secondary Plan Urban Design Guidelines



Photo 5.7: The photo above shows how wider sites (i.e. greater than 60 metres) can minimize excessively long façades through well articulated building frontages, or breaking the building into multiple buildings.

Design Guidelines – Architectural Design Elements:

- a) Where building stepbacks are appropriate, architectural design should provide a clear distinction between the building base, middle and top.
- b) Blank sidewalls should be designed as an architecturally finished surface, and large expanses of blank sidewalls should be avoided.
- c) To maximize privacy on adjacent properties, windows should not be located closer than 7.5 metres from the rear property line.

Balconies and Projections

- a) Balconies and other building projections on the front façade should not be located within the first 2storeys.
- b) On the rear façade, balconies should be set back a minimum of 7.5 metres from the rear property line to maximize privacy to adjacent properties. In addition, rear-yard balconies should not be below 10.5 metres from grade at the rear property line.
- c) Balconies and other building projections should be contained within all previously mentioned angular planes.

For additional guidelines, please refer to Section 5.6-5.9.
5.2.2 Retail Main Street (Collector Road A)

To demonstrate how the Retail Main Street along Collector Road A could develop, **Figure 5.4** shows a view, looking northwest along Collector Road A. The illustration shows a village scale, pedestrian oriented main street characterized by a 2 to 3-storey building fabric. Retail and mixed-use buildings with retail at-grade, encourage active uses and 'eyes on the street' to create a safe and comfortable pedestrian environment. The boulevard accommodates wide sidewalks, a marketing zone and a landscape zone which encourages opportunities for spill-out retail, street trees and seating without hindering pedestrian movement. A shared on-street parking/cycling lane provides parking to support the local retail and creates a buffer between vehicles and the pedestrian activity on the boulevard.

Taller (generally 8-storeys, but up to 12-storeys may be permitted subject to a Visual Impact Assessment) mixed-use buildings are encouraged facing Dundas Street, with pedestrian-oriented streetscapes, and active at-grade uses. Other box stores or office buildings will be located up to Dundas Street but not to the same density along the block facing Collector Road A.

- a) In the Retail Main Street along Collector Road A, the retail space and buildings should be oriented in a 'Retail Main Street' configuration with storefronts located close to the street and principal entrances facing the sidewalk to create a well-framed streetscape environment.
- b) On-site parking and loading areas are encouraged to locate to the rear of buildings to promote a consistent street edge and built-form environment.
- c) Parking lots abutting the street (but not in front of buildings), where required, should be screened with low walls, and landscape materials.
- d) Surface parking lots, driveways, lanes or aisles should not be permitted between buildings and the public sidewalk. Drive-thrus, car washes, service stations and gas bars should be prohibited in the Retail Main Street area.
- e) Principal public building entrances should provide direct access onto the public sidewalk. The windows and signage should also face the street.
- f) Sidewalks should be a minimum of 6.0 metres wide from curb edge to building face. Buildings should be set back, if required, behind the property line to achieve this width.



Figure 5.4: Retail Main Street, looking northwest along Collector A.

5.3 District Commercial Areas



Photos 5.9 & 5.10: District Commercial Areas are intended to function as neighbourhood commercial centres

The District Commercial Area is approximately 5.5 hectares in area. It will accommodate more traditional large-format commercial buildings and is intended to function as a neighbourhood commercial centre that meets the weekly and daily retail and service commercial needs of residents both north and south of Dundas Street.

The District Commercial area is located in the northeast of the community and is bounded by the Grindstone Creek Natural Area to the east, Dundas Street and the Grindstone Creek Natural Area to the north, Low Density Residential 2 uses to south, and proposed Medium Density Residential uses to the east.

The site will have access from Dundas Street on the north, Skinner Road to the east, as well as connections to the Low Density Residential 2 block to the south.

A large-format retail building (i.e. grocery store) along with other smaller-format commercial retail units (CRUs) and a gas bar are being considered, with good visibility from Dundas Street and the north-south section of Skinner Road.

This commercial development will incorporate high quality architectural treatments, building materials, signage, and site planning that promotes a well-defined street edge at the pedestrian scale. The development will reinforce a 'sense of place' by creating distinct architectural details throughout the site, promoting distinct locations, such as seating areas, floral beds, courtyards, and architectural focal points.

The orientation of the buildings will provide physical definition through siting of the buildings close to the street/block edges.

5.3.1 Large Format Retail (i.e. Grocery Store)

Large format stores should be designed to fit appropriately within the site, be compatible with adjacent residential uses, and promote a vibrant and attractive public realm.

Large format retail stores pose significant urban design challenges in terms of building scale, design and parking requirements. The following guidelines recognize that some large format retail will be interim or short term, while other opportunities will permit large retail developments to achieve a more long term urban form from the outset.



Photo 5.8: The above example shows a large-format retail building integrated into a village scale main street fabric.



Photo 5.11: The primary entrance design should incorporate high-quality architectural treatments such as clerestory windows and materials.



Photo 5.12: Excessively long façades should incorporate architectural detailing, entrance features, recesses and projections along the length of the façade.

Design Guidelines:

- a) All sides of a principal building that directly face an abutting public street should feature a customer entrance, and a high quality of design. This is particularly important for buildings that are directly adjacent to the Low Density Residential 2 and Medium Density Residential 2 Areas (please refer to Section 5.7 for additional guidelines related to architectural design elements).
- b) The principal building entrance should be highly visible with features such as canopies or porticos, arcades and landscaping.
- c) Servicing entrances or the loading areas will be provided at the rear of the building, and appropriately buffered from the adjacent Grindstone Creek Natural Area.
- d) False upper floors are not recommended. All floors visible from the street should be functional to promote natural surveillance opportunities.
- e) Circulation through the site should be safe and well designed, and should clearly distinguish between pedestrian and vehicle routes (please refer to **Section 5.6** for additional guidelines related to pedestrian circulation).

Please refer to Sections 5.6-5.9 for additional guidelines related to large format retail buildings.

5.3.2 Smaller Commercial Retail Units (CRUs)



Photo 5.13: Large expanses of glazing help to define the pedestrian Photo 5.14: CRU's should have continuous pedestrian realm surrounding the smaller format CRUs.



sidewalks on all publicly accessible sides of the building.

The arrangement of smaller commercial retail units (CRUs) that align walkable "public streets" with a consistent rhythm of entrances is strongly encouraged.

Design Guidelines:

- a) The location of smaller-format Commercial Retail Units (CRUs) should be used to define street edges.
- b) CRUs may be located and designed to create a pleasant and active streetscape along public streets through continuous alignment, closely located entrances, and where feasible, multi-storey façades.
- c) The co-location or close proximity of retail commercial units and the coordinated alignment of entrance doors is encouraged to facilitate sequential shopping.
- d) Building entrances should be located on the street side of the building, or at the corner, to encourage direct access from adjacent residential areas.
- e) Areas between buildings should be well landscaped and programmed (e.g. for outdoor seating areas).
- CRUs will have continuous pedestrian sidewalks on all publicly accessible sides of the building. f)
- Smaller retail stores that form part of the overall development should have clear-glazed display g) windows and incorporate architectural detailing.

Please refer to Section 5.6-5.9 for additional guidelines related to commercial retail units.

5.4 Neighbourhood Node

Neighbourhood Nodes should be designed as small scale pedestrian-oriented areas at the heart of the neighbourhoods. In addition to accommodating medium density housing forms, these node areas may be characterized by short, main street shopping areas that provide the opportunity for grade-related uses with the potential for office uses and residential uses at upper storeys.

Figures 5.5 & 5.6 demonstrate a typical Neighbourhood Node, showing a view looking northwest along Collector Road A. The illustration shows the Neighbourhood Node as the focal point within a neighbourhood including opportunities for local meeting places, convenience commercial shopping and a central Village Square. The scale and character of the Neighbourhood Node is defined by main streets with mostly higher-density, low-rise buildings (i.e. townhouses, walk-up apartments) addressing the streets. Similar to the Retail Main Street (**Figure 5.4**), the streets in Neighbourhood Nodes are pedestrian oriented with bicycle lanes, on-street parking and local amenities such as shops or services (i.e. daycare centre or a convenience store). As part of the interconnected transit system, the Neighbourhood Node is a logical and convenient location for a transit stop. Built form is recommended to promote flexibility between uses, particularly at-grade where retail and/or live-work uses may be desirable.



Figure 5.5: Neighbourhood Node, looking south along Collector Road A to Skinner Road. Flexible building forms allow for a mix of uses at the intersection.



Figure 5.6: Neighbourhood Node Plan (refer to Figure 3.6 for a detailed street section)

- a) Neighbourhood Nodes are generally located at the intersection of two collector roads and are spaced throughout the community to provide maximum accessibility to pedestrians.
- b) Neighbourhood Nodes are to function as neighbourhood focal points comprising higher density housing forms with uses that meet the convenience commercial needs of residents and are located within walking distance of patrons.
- c) Neighbourhood Nodes are points within the community where public transit is accessible and comprise built-forms that are transit oriented at a scale that is appropriate to that of the community.
- c) Live/work buildings should take the form of townhouses consisting of ground floor commercial or office uses with a residential unit above.
- d) Buildings should face the street with a minimal consistent setback and the principle public entrance should provide direct access onto the public sidewalk. The primary windows and signage should also face the street.
- e) On-street parking should be permitted on the adjacent collector roads. In most circumstances, it is the intent that all parking needs for commercial uses can be achieved through on-street parking.
- f) Where required, on-site parking and loading areas are encouraged to locate to the rear of buildings to achieve an attractive streetscape and a pedestrian-friendly built-form environment. Where unavoidable due to unique circumstances, parking lots abutting the street, but not in front of the buildings, should be screened with low walls, and landscape materials.



Photos 5.15 & 5.16: Neighbourhood Nodes should be designed as small-scale pedestrian-oriented areas.

5.5 Schools, Places of Worship and Institutional Areas

General Design Guidelines:

- a) Schools, Places of Worship and institutional areas should be easily accessible by pedestrians, cyclists and transit.
- b) Places of Worship and institutional areas are encouraged to be located at an intersection and should address both street frontages.
- c) When not sited at an intersection, Places of Worship and institutional areas should directly front on to an Arterial or Collector Road.
- d) Community Centres should be located to serve as focal points of the community where adjacent uses will be complementary to the Community Centre use.
- e) Community Centres should be located on major transit routes and easily accessible for pedestrians and cyclists and by transit.
- f) Where schools are in close proximity to existing or future open spaces, joint-use of facilities, including parking, is encouraged.
- g) Variations in setbacks may be considered for unique uses, such as post offices, places of worship, or other institutional buildings where a building forecourt or garden is desirable.
- h) Large parking areas should be located on the side of the building to maximize rear yard amenity space and minimize adverse effects on residential rear yards.
- i) Surface parking areas should include significant landscape treatments on their edges along major drive aisles.

5.5.1 Schools

Design Guidelines:

- a) School buildings should be designed to reflect their civic role through prominent, high quality architecture.
- b) Building design should promote safety and ease of access through well defined entrances and windows facing the public street and primary walkways.
- c) Multi-storey school buildings are strongly recommended to maximize the site and services as well as contribute to an urban street condition through building façade proportion that contributes to a sense of enclosure at the street.
- d) The main school entrance should be highly visible and distinguished through the building's architecture and detailing (i.e. door size, entry and windows). A recessed entry or projecting canopy can also provide weather protection and promote the prominence of the entry.
- e) School façades should maximize the use of operable windows to naturally illuminate and ventilate classrooms, offices, recreational and social spaces.
- f) Covered walkways or building edge colonnades are recommended for linking separate school buildings or provide weather protected building edges fronting school open spaces including forecourts, courtyards, gardens or playing fields.
- g) School buildings should examine the possibility for LEED Certification, promote green building technologies and sustainable site design/organisation (i.e. LEED Site Planning).
- h) School sites should incorporate bike racks in convenient locations to building entrances.

5.5.2 Places of Worship

Places of Worship may be developed as small-scale neighbourhood focal points or large-scale buildings with attendees who commute from beyond immediate neighbourhood boundaries. The following design guidelines apply to all forms of Places of Worship but in order to address the variety in scales, sizes and uses, specific applications will need to be reviewed on a site-by-site basis.

Design Guidelines:

a) Places of Worship should minimize floor area by creating multi-level buildings to accommodate accessory and, if applicable, complementary uses.

5.5.3 Community Centres

Community Centres will be provided throughout Waterdown South to support the recreational, cultural and educational needs of local residents and the broader community.

- a) Community Centres are encouraged to become demonstration projects for sustainable building design and should employ high standards of architectural design.
- b) Community Centres may be combined with other public building uses such as schools and/or libraries.

c) Building heights are encouraged to be multi-storey in order to minimize the need for large underutilized sites.

5.6 Building Orientation & Site Layout

5.6.1 Building Orientation



Photo 5.17: Building entrances should face the sidewalk and feature enhanced architectural detailing.



Photo 5.18: Corner buildings should address the corner conditions through appropriate building massing and architectural details.

- a) Major community use buildings such as schools, libraries and community centres should be designed as prominent focus buildings. Articulated building elements in the form of towers, bays or other details would emphasize the focal nature of these buildings.
- b) Building façades that are visible from the street should apply some amount of architectural expression beyond blank, single material walls. Treatments could include colour and material variations, windows and articulations in the wall plane.
- c) Building entrances should face the road and have well defined pedestrian access to the sidewalk.
- d) Loading and service areas should be located in the rear yard or side yard and be screened from the street through architectural screening, landscape buffering or a combination of such treatments.
- e) Buildings should be organized to define the public realm and frame abutting streets, internal drive aisles, sidewalks, parking areas and amenity spaces.
- f) On streets where mixed-use or retail uses are provided, building setbacks should generally be reduced to minimize distances between building entrances and abutting public street and sidewalks to create a semi-continuous streetwall while allowing for a degree of articulation and the creation of civic spaces at regular intervals. Setbacks should generally range between 0 3 metres to maintain a well-defined street frontage.

Brook McIlroy • Sorensen Gravely Lowes Planning Associates Inc • iTrans Consulting Inc.

- g) Where large format retail stores are located to the rear of the site with deep setbacks, these areas should be mitigated through well designed surface parking, open space and, where smaller single or multi-unit buildings located at the street.
- h) Corner buildings at key intersections and gateways should employ wall projections, recessions, materials and other details that will enhance the visibility of these locations.

5.6.2 Site Layout

Access into, and circulation within, individual properties should provide safe and well-defined routes for vehicles and pedestrians. The use of landscaping, paving materials, lighting, signs and other distinct treatments to define these areas will contribute to the overall safety, quality and sense of orientation within each site.



Photo 5.19: A network of pedestrian crossings should be incorporated on large commercial sites, including sidewalks located in the front of buildings.

- a) Where feasible, shared driveways between two properties should be provided to parking and service areas to minimize disruption of the public sidewalk and to facilitate vehicular access to public roadways.
- b) Where parking, loading and service requirements are substantial, a separate entrance driveway and service access driveway should be provided.
- c) A pedestrian walkway should be provided between the public sidewalk and main building entrance. Walkways should be a minimum width of 1.5 metres and 3.0 metres where trees or landscaping is provided.

- d) Walkways in front of principle building entrances should be a minimum of 3.0 metres and provide landscaping in the form of low planters or trees a minimum of 1.0 metre from the curb edge.
- e) Pedestrian walkway paving material should differ in material and appearance from vehicular routes. A variety of materials may be used, including patterned concrete, unit brick pavers, gravel and asphalt
- f) Pedestrian walkways should be lit with pedestrian scale lighting using freestanding fixtures, bollards, wall mounted or recessed mounted lights. Consistency in the selection and combination of light fixtures will contribute to a high quality image for the site.
- g) Landscaped traffic islands should be used to delineate and enhance main driveways, subdivide parking areas into smaller "courts," and improve edge conditions between the public road, buildings, open space areas and adjoining properties.
- h) On large commercial sites with multiple buildings, sidewalks should be located in front of each building and should establish a network of pedestrian crossings and sidewalks through the site to connect the buildings.

5.6.3 Mixed Use and Commercial Development Adjacent to the Natural Heritage System

A significant amount of the Mixed Use Medium Area and the District Commercial Area directly abuts the Grindstone Creek Natural Area. The interface between these land uses requires careful consideration to capitalize on this unique location while ensuring minimal impacts on the creek and its features.

Design Guidelines:

Site Design:

- a) To complement the Grindstone Creek Natural Area, development should preserve and integrate key natural features on-site wherever possible, including existing mature trees.
- b) Where possible, single-loaded roads are encouraged adjacent to the Grindstone Creek Natural Area in order to encourage a positive building frontage on the creek and associated features, however townhouses located west of Collector Road A are permitted to back onto the Grindstone Creek.
- c) Site design surrounding mixed use and commercial buildings should be naturalized with native tree species, no mow zones, limited hard surface areas, permeable hard surface areas where they are required and, where possible, the application of "dark sky" conditions (through the use of appropriate fenestration and lighting) where the building façade or amenity areas abut the Grindstone Creek Natural Area.
- d) Within this buffer area, multi-use trails, look-outs, signage, seating, etc. are encouraged to promote activity, and encourage a strong connection between the Grindstone Creek Natural Area and the remainder of the community.
- e) Site design should integrate elements that enhance natural heritage features, including open spaces, seating areas, public art, and enhanced landscaping.
- f) Linear, mid-block connections should be provided through large development sites to provide direct physical and visual access to the Grindstone Creek Natural Area.

Built Form:

- a) Buildings adjacent to the Grindstone Creek Natural Area should be designed to fit into their physical and Natural environment.
- b) All secondary façades that front onto the Grindstone Creek Natural Area should utilize building materials, and finishing details, that are equal to the primary façade.
- c) Building storage areas should be located internally, where possible, or on the side of buildings, away from the Grindstone Creek Natural Area.

Please refer to **Section 4.2.3** *for guidelines related to residential buildings adjacent to the Grindstone Creek Natural Area and the Escarpment Area.*

5.6.4 Barrier-free Access



Photo 5.20: Barrier-free accessibility should provide access to the ground level of all buildings.



Photo 5.21: Curb ramps should be provided at all intersections. Textured paving also assists those with visual impairments.

Design Guidelines:

- a) All services, facilities and pedestrian amenities should adhere to the City of Hamilton Barrier Free Design Guidelines and future recommendations of the Advisory Committee for Persons with Disabilities.
- b) At a minimum, circulation and building access for pedestrians and vehicles should conform to barrierfree access requirements as set out by the Ontario Building Code.
- c) Barrier-free accessibility should provide access to the ground level of all buildings.
- d) Curb ramps should provide barrier-free connections between the street, driveways and pedestrian walkways.

- e) All public sidewalks should be barrier free. Street trees and landscaping, seating, public art and signage should not be an obstacle to the barrier-free path of travel.
- f) Wherever possible, paving surfaces should contrast in colour and texture to define walkway edges, changes in direction, building entrances, road intersection and curb ramps.
- g) Access structures such as ramps should be designed to harmonize with buildings.

5.6.5 Public Safety

Site design should protect the safety of the residents as well as the general public who may be travelling through or visiting Waterdown South.

- a) Site design should encourage safe public use and natural surveillance opportunities, particularly after dark, and provide users with informed choices for alternative pedestrian routes.
- b) Site design should result in clear, unobstructed views of parking areas, parks, school grounds, public institutions and open spaces from adjacent public streets. Sight lines between buildings along designated pedestrian walkways should be unobstructed and well lit.
- c) Lighting of pedestrian walkways should occur only on main pedestrian routes and outdoor spaces to prevent a sense of false security in remote, less populated areas.
- d) The selection, siting and maintenance of landscape elements should consider views for safety and surveillance opportunities.
- e) Views between the interior of public buildings to exterior public spaces should be promoted through the design of windows and other building openings.
- f) The placement of active public institutions, such as schools and community centres, in proximity to public open spaces will promote their active use and surveillance opportunities.
- g) Promote orientation along public walkways and through public spaces through well signed/marked routes.
- h) Building and site design should adhere to CPTED (Crime Prevention Through Environmental Design) principles.

5.7 Architectural Design Elements

The following Guidelines address the elements of commercial, employment and public use building design.

5.7.1 Walls

- a) The base, middle and top of the building façade should be expressed through the use of materials and detail design.
- b) Blank or single material façades that extend the entire length of the building parallel to the public street should not be permitted.
- c) Blank walls in other locations, which are visible to the public, should incorporate additional architectural detailing and/or signs, murals, sculptural or graphic design.
- d) Façades of any significant size should be subdivided through a combination of windows and projections and recessions in the building wall to create a consistent rhythm across the façade and establish divisions that express a hierarchy of entrances and identify individual businesses, where applicable.
- e) Wherever possible, the character and scale of materials used in the building should be carried through in those chosen for pathways, courtyards and areas directly surrounding the building to contribute to a cohesive and integrated image of the development.



Photo 5.22: Extensive glazing used on the ground floor of his building creates a strong connection between the building lobby and the street.



Photo 5.23: Changes in cladding materials provide vertical and horizontal transition.

5.7.2 Fenestration

Design Guidelines:

- a) Display or office space windows facing the street frontage should endeavour to include a minimum of 30% of the street elevation between the ceiling and floor at grade.
- b) Clear glass is preferred for glazing but some tinting based on functional considerations, such as privacy or building orientation, is acceptable. Reflective or mirrored glass at grade or at upper level windows/curtain wall is not acceptable unless clearly demonstrated to be an essential component of the design.
- c) Window mountings should be part of the window structure and not applied as a decorative element.
- d) Windows should be thermally sealed and double-glazed.
- e) Ground level windows, particularly within schools and public use buildings facing public courtyards or open space, should consider sill heights and depths suitable for seating.
- f) Display windows on the ground floor of commercial buildings should be dominant over solid walls in areas visible to the public.
- g) Windows should be encouraged in any façade, which overlooks areas of public activity.

5.7.3 Pedestrian Entrances and Access





Photo 5.24: Main entrances to buildings should be emphasized through canopies, awnings or taller, non-habitable building structures.

Photo 5.25: Main building entrances should be expressed and detailed through a variety of elements including large entry awnings, canopies or double-height glazing.

Design Guidelines:

- a) Main entrances to buildings should be emphasized through canopies, awnings or taller, non-habitable building structures. The volume and height of such structures emphasize the prominence of entrances particularly at a corner location.
- b) Buildings should provide pedestrian access to building entrances from the street, especially at transit stop locations.
- c) Windows, and particularly retail display windows, should be coordinated with the location of pedestrian walkways to provide interest and improve security along these routes.
- d) Where possible, access to ground level stores should be barrier-free and avoid the use of steps or ramps.
- e) Where steps or ramps are required, they should be coordinated with the design of the building and should conform to barrier-free access requirements as set out by the Ontario Building Code.

5.7.4 General Building Materials

Design Guidelines:

- a) The most common building materials in Waterdown include brick, stone and wood frame and they are also recommended for new construction. Materials such as aluminium, steel and metal panels may be used provided they are used within an appropriate context. Stucco, concrete block or E.I.F.S. panels should not be used as the predominant exterior building materials. Too varied a range of building materials is discouraged in favour of achieving a unified building image.
- b) Building materials should be chosen for their functional and aesthetic quality. Exterior finishes should exhibit quality of workmanship, sustainability and ease of maintenance. If materials that require regular refinishing such as wood or stucco are used, maintenance programs should be provided.
- c) Materials used for the front façade should be carried around the building or at a minimum to the side building façades.
- d) Changes in the wall facing materials should occur at wall setbacks or projections or to articulate the transition between the building base, middle and top.
- e) Wall detailing should integrate functional building elements such as vents or rainwater leaders within the wall plane as visible and integrated elements.
- f) Exterior materials should be varied in colour and texture, where appropriate, to provide architectural interest.

5.7.5 Roofs, Cornices and Parapets

Design Guidelines:

a) Pitched or sloped roofs should be considered as alternatives to flat roofs for commercial development, provided that sloped roofs respect the context and rooflines of adjacent buildings. Where sloped roofs are required, a minimum 30-degree slope is recommended.

- b) Roof forms should apply a generally consistent roofline in mass and height to adjacent buildings.
- c) Roof materials/colours should complement the building materials. On sloped roofs a single roofing colour and material is recommended for visual continuity.
- d) Rooftop mechanical equipment should be integrated with the building design and rooftop units and vents should be screened using materials complementary to the building. Where appropriate, parapets should be used to screen rooftop mechanical units.
- e) The use of cornices should be used to articulate and define the building top. Cornices should be coordinated with those on adjacent buildings to establish visual continuity between buildings. On sloping sites, orderly stepping of the façade should occur in the detailing of the roof, cornice and parapet.
- f) Where possible, parapets should be used to provide building height continuity between adjacent buildings.
- g) Roof uses including roof patios, gardens and terraces are encouraged where appropriate.

5.7.6 Signs



Photos 5.26 & 5.27: Building identification signs should be incorporated prominently on the front façade or rooftop, and should be compatible with the building design in scale, material and colour.

Design Guidelines:

- a) Pylon signs for private development should be oriented to address the street frontage, street intersections and primary access driveways. Pylon signs should be compatible with the associated building design in scale, material and colour, and should be set within a landscaped setting.
- b) Building identification signs should be incorporated prominently on the front façade or rooftop, and should be compatible with the building design in scale, material and colour.
- c) Internally or externally lit signs are encouraged, particularly those that face the public street or parallel a pedestrian walkway.
- d) Building identification signs are encouraged where possible to be applied as large scale building elements including awnings, banners and rooftop signs to contribute to an artful, dynamic building presence that will be attractive and visible to passing pedestrians and motorists.

- e) A consistent design for building identification should be applied to the whole commercial development to establish a coordinated image and orientation to commercial areas.
- f) Directional signs should be provided for pedestrian walkways, parking and service areas. The graphic quality of directional signs should be clear and distinct and be coordinated with the image of the development.
- g) Portable signs should not be permitted.
- h) All signage within the District Commercial Area will conform to the City of Hamilton Sign By-law.

5.8 Parking

The Guidelines are intended to prevent parking from becoming a dominant physical element. The design of parking facilities should coordinate landscaping, lighting, walkways and structures to ensure a compatible interface with open space, buildings and streets. The total amount of parking should be minimized through shared parking between adjacent properties, particularly in the evenings, weekends and other off-peak periods.

5.8.1 Surface Parking

Surface parking lots are generally recommended for most parking requirements in Waterdown South. Some mixed use, commercial or employment uses, such as hotel or condominiums complexes, may require the use of a structured parking facility. Structured lots are required to have a high level of design which is consistent and complementary to the development and site as a whole.







Photo 5.29: Smaller "parking courts" should be created using raised and curbed traffic islands planted with trees and low level vegetation to maintain visibility.

- a) Surface parking areas should be located in the side or rear yard. They should not be located between the primary building facade and the street. In the District Commercial Area, where large format retail uses are located at the rear of a site, commercial retail units should be located at the street to screen the parking area, and create a positive frontage.
- b) The total amount of parking should be minimized through efficient means such as shared parking between adjacent properties, particularly during off-peak periods.
- c) Large areas of unbroken parking should be avoided. Landscaping should be used to define smaller areas, improve edge conditions and provide for pedestrian walkways through the parking lots. The amount of landscaping should be proportionate to the overall parking lot size.
- d) Parking lots should be subdivided using planting strips, planted traffic islands or sidewalks with a minimum width of 2.0 metres and a maximum width of 4.5 metres. At a minimum, traffic islands should accommodate 30 cubic metres of soil to ensure optimal growing conditions. High branching trees with tree grates and shrubbery on hard paving surfaces are recommended for ease of maintenance. Sod surface or shrubs are recommended as ground cover at the perimeter of lots.
- e) Major internal vehicular routes should be defined by raised and curbed traffic islands.
- f) Distinctive pavement and pavement markings should be used to indicate pedestrian crossings and create an interesting visual identity.
- g) Landscaped parking islands at the end of parking rows and pedestrian connections that contain shade trees are encouraged.
- h) Pedestrian scaled freestanding or building-mounted light standards should be provided along pathways and at a broad area level for general visibility and security.
- i) Preferential parking will be provided for barrier-free access requirements and for bicycles. Accordingly, barrier free parking stalls and on sidewalk bicycle racks will be provided at appropriate locations throughout the commercial development.
- j) Permeable paving, swales and other features to manage stormwater on-site should be considered, where appropriate.



Figure 5.7: Demonstration Plan illustrating many of the guidelines above.

5.8.2 Surface Parking – Edge Treatments

Surface parking areas that are adjacent to the public sidewalk should have a well-defined edge treatment through appropriate use of landscaping, fencing and other buffers or enclosures.

- a) Where parking areas are adjacent to a public sidewalk, adequate buffers, such as landscaping, fencing and/or bollards should be provided between parked vehicles and the sidewalk.
- b) Buffer elements or enclosures, including landscaping, fencing and/or bollards, should be located on private property to maintain the total sidewalk width.
- c) Alternatives should be considered for screening parking facilities, such as depressing lots from the street level or creating landscaped enclosures of low walls, hedges or berms.
- d) Buffer elements should be designed to facilitate clear sightlines between the street and parking area. A recommended maximum height of 1.2 metres should be applied to maintain sightlines from inside vehicles.
- e) Landscape or other parking area screening devices should not obstruct the primary building façade or total visibility of the parking area.



Photo 5.30: Adequate buffers should be provided between parking areas and public sidewalks.



Photo 5.31: Low, landscaped walls can be used to screen parking areas from public view.

5.8.3 Parking Structures

Parking structures are required to have a high level of design which is consistent and complementary to the development and site as a whole.

- a) Parking structures fronting on to public streets and public open space should be developed, as much as possible, with an active at-grade use to provide safety, animation and attractive building façades.
- b) Wherever possible, access to structured parking should be from secondary streets or the interior of blocks. Ramps at street corners or view termini should be avoided, where possible.
- c) Ramps to parking structures should be located away from public areas, where possible.
- d) Views of structured parking entrances should be designed and located to minimize their visibility.
- e) Parking within a structure should be screened from view at sidewalk level, and the street-level wall should be enhanced by architectural detailing, artwork, landscaping or similar treatment that will add visual interest.



Photo 5.32: Structured parking should be incorporated into the building design.



Photo 5.33: Parking within a structure should be screened from view at sidewalk level, and enhanced by architectural detailing, artwork, landscaping or similar treatment that will add visual interest.

5.9 Sustainable Design

The Urban Hamilton Official Plan encourages development that respects natural processes and features, contributes to environmental sustainability and is adaptable to future demographic and environmental changes. In order to achieve these objectives within the Waterdown South Secondary Plan Area, the following sustainable design guidelines should be achieved for all new development. Please also refer to **Section 3.12** for sustainable design guidelines for the public realm.



Photos 5.34 & 5.35: Bioswale filters rainwater, prevents run-off and ensures slow percolation into the ground.

5.9.1 Site



Photo 5.36: Sun shade louvers block the high summer sun but let light in during the winter months.



Photo 5.37: Louvers eliminate harsh direct sunlight while maximizing desirable indirect daylighting.

- a) Site plans should be maximized for microclimatic conditions: i.e. solar access, wind and snow effects, windbreaks and shade trees. For example, development should be oriented to take advantage of winter solar gain, and summer shading.
- b) The creation of heat islands should be avoided by using landscaping, light coloured paving and roofing materials, and green roofs.
- c) Existing significant trees, tree stands, and vegetation should be protected and incorporated into site design and landscaping.
- d) Landscaped areas should be maximized to increase the total amount of water run-off absorbed through infiltration. Where there is minimal available area, landscaped green roofs should be employed.
- e) Site design should incorporate strategies to minimize water consumption, e.g. native species, use of mulches and compost, alternatives to grass, rainwater collection systems.
- f) The site plan should encourage the connection of natural areas and open spaces. Native species should be planted in natural interface areas.
- g) Impervious surface areas directly connected to the storm drain system are the greatest contributor to storm water pollution. Breaks in such areas, by means of landscaping or permeable paving material should be provided to allow water absorption into the soil minimizing discharge into the storm drain system.
- h) The surface area of streets, driveways and parking areas should be as small as possible within allowable standards.

- i) Carpooling parking lots should be provided as part of large parking lots connected to transit routes with convenient waiting areas.
- j) Convenient, sheltered and secure bicycle parking should be provided as part of new retail development.
- k) Porous pavement materials are encouraged such as porous asphalt, porous pavers or grassed paving systems.
- 1) Renewable energy systems should be considered to power light standards and to supplement building power requirements.
- m) Bioswales should be considered next to walkways and surrounding parking lots to collect stormwater run-off in a way that replenishes groundwater and minimizes the dependency on stormwater sewers. Bioswales should be planted with salt-tolerant shrubs and grasses to filter water before it percolates into the ground. They should be graded to direct water away from paved areas.
- n) Drainage basins should be located throughout parking lots to collect stormwater. These basins should be planted with native plant materials that thrive in wet conditions.
- o) Landscape plans should use deciduous street trees and on-site trees where these trees will grow to shade windows of residential structures. Such trees provide shade and help reduce temperatures inside adjacent units during the warmer months and shed their leaves to allow sunlight and better heat penetration during cooler months. Evergreen trees should be included in landscape plans at locations where they will not have solar impacts on buildings.
- p) Well drained snow storage areas should be provided on each site in locations that enable melting snow to enter a filtration feature prior to being released into the storm water drainage system.



Photo 5.38: Rooftop gardens lower the local temperature, retain water and can provide amenity space.



Photo 5.39: A variety of 'green' parking lot design is possible through pavers, planted edges and trees.

5.9.2 Buildings

Design Guidelines:

- a) New buildings are encouraged to meet and preferably exceed environmental standards such as the Model National Energy Code of Canada for Buildings (MNECB), C-2000, ISO 14000, or ASHRAE/IESNA 90.1-1999.
- b) New development is encouraged to seek LEED Certification. LEED Certification distinguishes building projects that have demonstrated a commitment to sustainability by meeting higher performance standards in environmental responsibility and energy efficiency.
- c) New buildings and developments should provide flexibility in the building floor plate, building envelope and building façade design to accommodate a variety of uses over the lifespan of the building/structure.
- d) New development is encouraged to aim at reducing dependence on non-renewable resources by using appropriate recycled materials and by promoting adaptive reuse of existing structures.
- e) New development is encouraged to reduce marginal energy costs by promoting selection of locally manufactured or fabricated products and materials.
- f) Buildings are encouraged to be sited to maximize micro climate opportunities through orientation, shading and the effect on adjacent buildings and spaces.
- g) New development is encouraged to reduce energy consumption of building and site systems (HVAC, hot water, lighting) through the use of appropriate mechanical and construction technology (natural cooling, light recovery, passive solar design, etc.).

- h) Innovative wastewater treatment, water reduction and sustainable irrigation strategies are encouraged, including the use of water efficient plumbing fixtures.
- Roof drainage should flow, in part or fully, into landscaped areas on site where lot size and soil conditions are adequate to absorb such run-off. Several downspouts should be provided to better distribute storm water run-off into various areas of the adjacent landscape. Rain barrels or cisterns can be designed into new buildings to accommodate grey water irrigation.
- j) Natural ventilation systems should be considered as an alternative means to air conditioning through the promotion of passive convection cooling and ventilation. Passive systems can minimize or eliminate mechanical systems for heating, cooling and ventilating buildings.
- k) Efficient lighting equipment is encouraged to be used and unnecessary lighting of occupied space should be eliminated by using room and task light switches, occupancy sensors and photocells as energy efficient occupant controls.
- Green roofs are encouraged to be developed to minimise water run-off and improve building insulation. Roof design should also incorporate daylighting to reduce dependence on internal artificial lighting.
- m) Access to green and/or useable roof spaces should not be included in the overall building height.
- n) Solar oriented buildings are encouraged to be designed so that windows face south to maximize solar orientation.
- o) The long axis of a building (attached and 'detached residential) is encouraged to be oriented east-west so that the broad face of the building facade faces south, thus maximizing the incidence of south facing windows.
- p) Wide, south facing walls with windows should preferably abut front yards, rear yards or common open spaces, to facilitate solar access and to avoid solar obstruction from other, too close buildings.



Photo 5.40: New development is encouraged to seek LEED certification, such as the LEED Platinum certified building above.



Photo 5.41: Green roofs provide an enjoyable amenity space for building residents and also increase building insulation and minimize run-off.

