

Whitby Green Standard Reference Guide



Prepared By:





For More Information:

Visit: www.whitby.ca/en/townhall/sustainability.asp

Email: info@whitby.ca Call: 905-668-5803

TABLE OF CONTENTS

Section 1: Vision and Principles	1
1.1 Vision for a Sustainable Whitby	2
1.2 Town of Whitby Official Plan Direc	tion 2
1.3 Acting on Our Commitment	3
1.4 Overview of the Whitby Green Sta	ndard 4
1.5 Whitby Green Standard Principles	5
Section 2: Using the Whitby Green Star	ndard 7
2.1 Anatomy of the Checklists	8
2.2 Performance Tiers	9
2.3 Completing the Checklist	10
2.4 Sustainability Report	10
2.5 Development Review Process	11
Appendix A. Glossary and Resources	13



SECTION 1.

VISION AND PRINCIPLES

A growing number of Canadian municipalities have declared climate change an emergency. In June 2019, Whitby joined a roster of municipalities committed to addressing climate change on the frontlines, including Ottawa, Vancouver, Montreal, Halifax, Hamilton, and Kingston. This municipality-led movement signals an increasing sense of urgency to reorganize our cities to mitigate against the impacts of climate change. Like these municipalities, Whitby is repositioning itself as a leader in climate change adaptation and resiliency. The Whitby Green Standard represents the Town's commitment to reaching this end.

1.1 Vision for a Sustainable Whitby

The Whitby Green Standard (WGS) is based on the Town's vision for a healthy, sustainable and complete community as advanced in the Whitby Official Plan. The WGS supports a vision for a future Whitby that provides balanced residential and employment growth, high quality of life, and enhanced cultural and natural heritage features.

Sustainable initiatives, in all their forms, are one of the most significant influences on the way we design and build our environments. The Town recognizes that sustainability is influenced by, and connected to, a number of competing factors and emerging issues. Issues such as energy and water use, public health, aging society, and climate change require solutions related to land use, transportation, infrastructure, economics, urban design, education, and emerging green technologies.

This document will assist land owners and developers understand and implement the WGS when preparing Draft Plan of Subdivision and Site Plan applications. It is a supplemental document to the WGS Checklists and should be referred to when contemplating which performance tier to pursue and filling out the respective tier's Checklist.

1.2 Town of Whitby Official Plan Direction

The WGS supports a number of Town and Durham Community strategic documents including the Whitby Official Plan and Corporate Sustainability Plan, the Durham Community Energy Plan, and the Durham Community Climate Adaptation Plan. The Whitby Official Plan outlines the following considerations related to sustainability and resilience:

- To manage growth in a balanced way to sustain and positively impact the health of the community and the quality of life, while recognizing the Municipality's unique character, civic identity and natural and cultural heritage assets:
- To encourage an orderly and compact, mixeduse pattern of urban growth and provide opportunities for community renewal, along with supporting infrastructure and community facilities;
- To establish and maintain linked and integrated transportation systems that safely and efficiently accommodate various modes of transportation; and.
- 4. To maintain a diverse and interconnected system of public spaces that:
 - Feature convenient and comfortable access;
 - Support safe and healthy environments;
 - · Minimize hazards; and
 - Attract and appropriately serve all components of the population.

1.3 Acting on Our Commitment

The Town of Whitby is committed to complete, healthy, and sustainable community development. The Whitby Official Plan (the 'OP') sets forth policies to manage growth in a balanced way to sustain and positively support optimal quality of life, health, safety, convenience, and welfare for the present and future residents of the Town. This intent is reinforced under Policy 3.2.1 through Whitby's commitment to the planning and design of development that embraces the principles of sustainability and sustainable community planning.

The Town's commitment to sustainable development extends to the preparation of sustainable development standards and sustainability performance Checklists. OP Policy 3.2.4.6 states that the Checklists will be used "in the development review process to assess the level at which new development and redevelopment achieve the sustainable development standards and other sustainability objectives."

The WGS is a tool to assist the Town in implementing and achieving the vision for a sustainable community through the development planning process. The WGS implements the policies of the Town of Whitby Official Plan and the requirements of multiple Town departments through the community planning and development approvals process administered by the Town Planning and Development Department.

The WGS will contribute to:

- A more resilient building stock
- Adapting to climate change
- Improving energy efficiencies
- · Efficient infrastructure use
- Reducing automobile dependence
- Encouraging physical activity
- Reducing potable water usage
- · Lower greenhouse gas emissions
- Recognizing the positive impact of greenspace and vegetation

1.4 Overview of the Whitby Green Standard

The goal of the WGS is to improve the environmental performance of new development within the Town of Whitby.

The WGS defines sustainability expectations for all new development in Whitby, including Checklists for new development and re-development.

The WGS is divided into two Development Review Checklists: Draft Plan of Subdivision and Site Plan applications. The Checklists are organized under ten sustainable principles with corresponding performance measures that promote sustainable site and building design. Each Checklist includes four tiers. Tier 1 is mandatory and required through the planning approval process. Tiers 2 to 4 are higher level voluntary standards that could eventually be tied to financial and non-financial incentives.

The Checklists will be used as a component of the development review process to assess the sustainability of new development. The WGS applies to new applications submitted after September 2020 for Draft Plans of Subdivision and Site Plans.

By the Numbers

The WGS is a tiered program designed to tackle upfront emissions caused by construction as well as operating emissions.

21%

21% of global emissions are caused by **constructing** new buildings.



28%

28% of global emissions are caused by **operating** buildings.



13.5

Reducing emissions of one house is equivalent to taking up to 13.5 cars off the road each year.



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1.5 Whitby Green Standard Principles

The WGS sustainable development principles incorporate and expand on the intent of the Whitby Official Plan. The ten (10) sustainable development principles have been used to organize the performance measures in the Draft Plan of Subdivision and Site Plan Checklists. The Principles reflect the three pillars of sustainability: social health, environmental health, and economic health.





Health and Happiness

Encouraging active, sociable, meaningful lives to promote good health and wellbeing.





Equity and Local Economy

Creating safe, equitable places to live and work which support local prosperity and international fair trade.





Culture and Community

Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living.





Land Use and Nature

Protecting and restoring land for the benefit of people and wildlife.





Sustainable Water

Using water efficiently, protecting local water sources and reducing flooding and drought.





Local and Sustainable Food

Promoting sustainable humane farming and healthy diets in local, seasonal organic food and vegetable protein.





Travel and Transport

Reducing the need to travel and encouraging walking, cycling, and low carbon transport.





Materials and Products

Using materials from sustainable sources and promoting products which help people reduce consumption.





Zero Waste

Reducing consumption, reusing, and recycling to achieve zero waste and zero pollution.





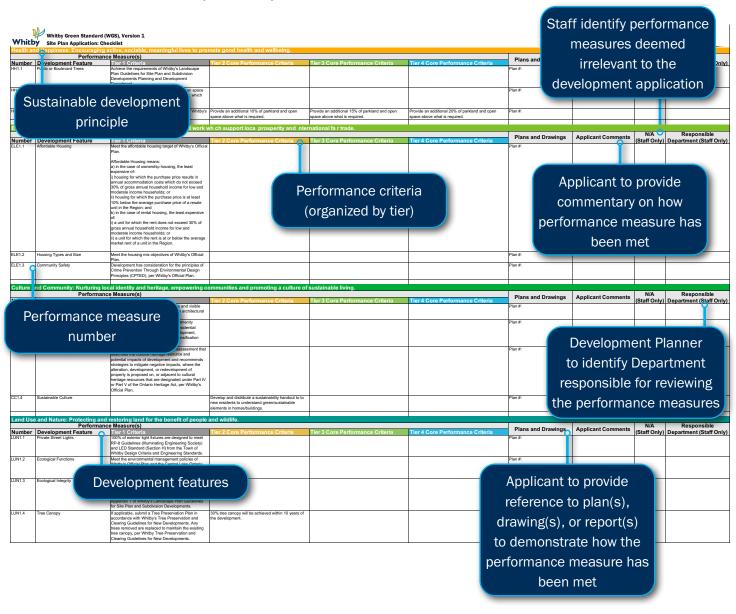
Energy and Climate Change

Making buildings and manufacturing energy efficient and supplying energy with renewables.



2.1 Anatomy of the Checklists

The following diagram illustrates the various components of the Checklists. Note that certain columns are to be filled out by Staff only.



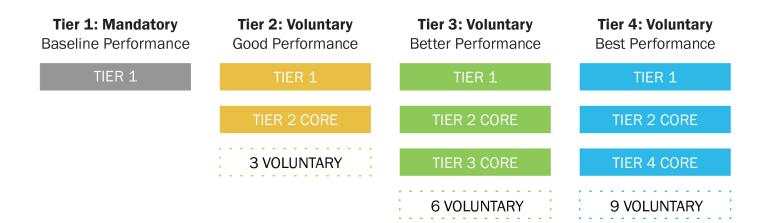
2.2 Performance Tiers

At a minimum, all new Draft Plan of Subdivision and Site Plan applications submitted to Whitby under the Planning Act must demonstrate compliance with Tier 1.

Note that for some performance measures, there is a stepped increase in performance between Tiers. For these performance measures, the applicant must only demonstrate compliance with the Tier being pursued. For example, the Irrigation for Lots/ Units performance measure for Draft Plans of Subdivision (number SW1.4) steps from 60% (Tier

2) to 80% (Tier 3) to 100% (Tier 4). If the applicant is pursuing Tier 4, there is no need to demonstrate achieving the Tier 2 target, given that it is implicitly achieved through compliance with the higher Tier.

Each Tier beyond Tier 1 also requires the achievement of voluntary performance criteria (as outlined in the diagram below). Importantly, up to two (2) innovation performance measures may be used in lieu of two (2) voluntary measures. The voluntary performance measures are found at the bottom of the Tier 2, 3, and 4 checklists.



2.3 Completing the Checklist

1. Select the Relevant Checklist

Download the appropriate Checklist (i.e. Draft Plan of Subdivision of Site Plan) from the Town's website.

2. Plans and Drawings

Indicate the specific plan or drawing number that demonstrates achievement of the performance measure. In the case that the performance measure is demonstrated within a report, provide the specific page number(s).

3. Applicant Comments

Provide commentary on how the performance measure has been achieved. Where staff have agreed that the performance measure is not applicable, leave blank.

4. N/A (Staff Only)

This column will be filled out by staff during the pre-consultation meeting. The Applicant is not responsible for completing this column.

5. Responsible Department (Staff Only)

This column will be completed by the Development Planner in order to identify the Department responsible for reviewing the performance measures. The Applicant is not responsible for completing this column.

2.4 Sustainability Report

As part of the development application submission, the Applicant is expected to submit the WGS Checklist and a Sustainability Report. The intent of the Sustainability Report is to provide an overview of the Applicant's sustainability commitment and how that commitment has been achieved. The following components should be included in the Sustainability Report:

- 1. **Executive Summary**: Overview of the project and declaration of performance tier commitment.
- Purpose of the Application: Detailed description of the project.
- 3. **Sustainability Overview:** Summary of project's sustainability vision and objectives.
- 4. **Innovation:** If applicable, provide an overview of any innovation performance measures being pursued by the project.
- Sustainability Declaration: Provide the performance tier that will be achieved by the project.
- Mandatory Performance Measures: List all mandatory performance measures and their related reference document(s) in a tabular format.
- 7. **Voluntary Performance Measures:** Where a higher performance tier is being pursued, list all core and voluntary performance measures and their related reference document(s) in a tabular format.

2.5 Development Review Process

Step 1. Pre-Consultation



The Applicant will fill out and submit the Mandatory Pre-Consultation Request Form, as well as the conceptual planning fee. The applicant's team will come prepared with a completed Pre-Consultation WGS Checklist and a conceptual plan (as per the Town's Pre-Consultation Request Form).



Following the Pre-Consultation Meeting, the Applicant will revise the proposal or reports based on staff feedback and direction and prepare the Sustainability Report.



Applicants will revise and complete the relevant WGS Checklist and identify which Performance Measures the application will achieve and how the criteria will be met. The Applicant must also indicate the drawings, plans, or reports that demonstrate criteria compliance.





The Applicant must submit the final version of the applicable WGS Checklist and a Sustainability Report as part of the Application Submission package to the Town. The Development Planner must ensure that the complete WGS Checklist is submitted at the initial application submission before it is processed.

Step 4. Technical Review



Staff (Development Planner) will circulate the WGS Checklist and Sustainability Report to the applicable Town departments and main point of contact within each department as part of the development review process. Comments on the application and the WGS Checklist will be provided to the Development Planner.

Step 5. Application Revisions and Resubmission



The Applicant will revise and resubmit plans, reports, and other materials based on comments through the overall evaluation of the development application. If any revisions are proposed to the development plan, the revised WGS Checklist and Sustainability Report must be included in the resubmission. To ease the review process, Applicants should indicate how the revised Checklist responds to the feedback in the "Applicant Comments" column.



Step 6. Report to Council



Where required, Planning staff reports will address the WGS performance measures that an applicant has committed to in their development application. Where there is not a report sent to Council, staff will provide condition of approval.



Step 7.Draft Plan of Subdivision or Site Plan Agreements

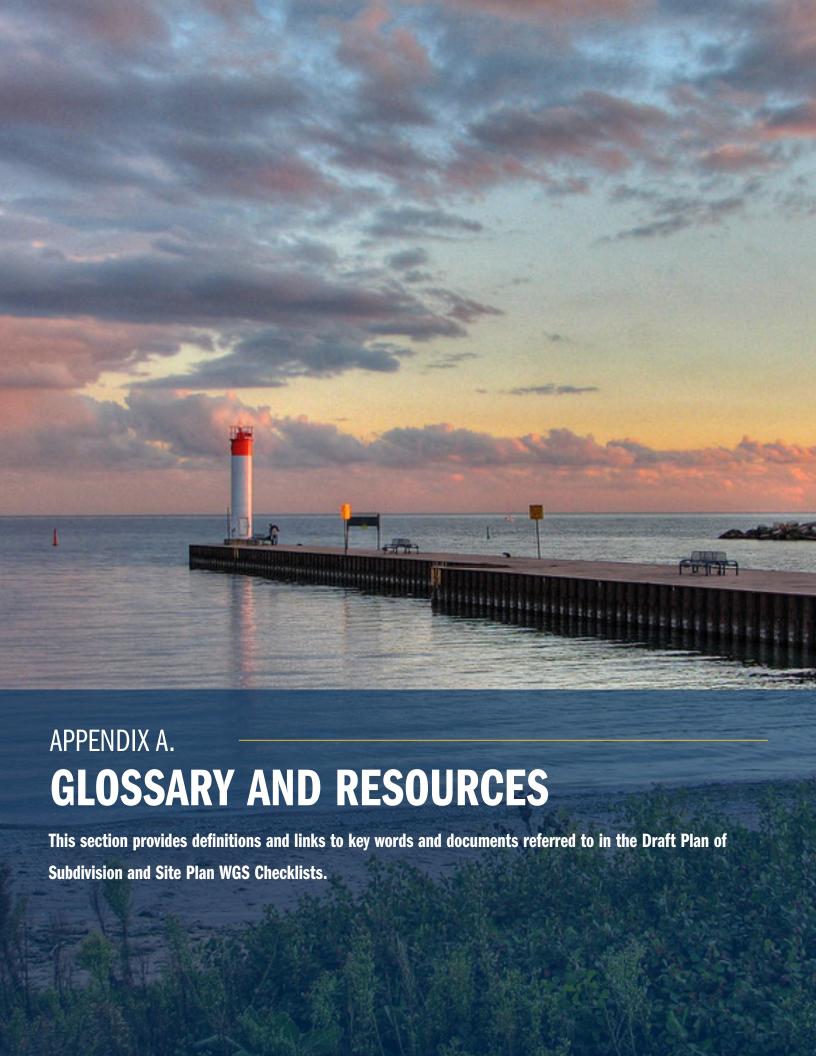


Pending approval of the development application, development agreements or final plans will contain specific conditions for meeting the WGS measures that an Applicant has committed to undertake in their approved WGS Checklist.



Step 8. Implementation and Maintenance

As development proceeds, the applicant will implement the approved WGS commitments. Letters of Credit will be required as a mechanism to hold Applicants accountable. Once assumption of services has occurred, no more action is required on the part of the applicant.



Accessibility for Ontarians with Disabilities Act (AODA)

Recognizing the history of discrimination against persons with disabilities in Ontario, the purpose of this Act is to benefit all Ontarians by:

- a. Developing, implementing and enforcing accessibility standards in order to achieve accessibility for Ontarians with disabilities with respect to goods, services, facilities, accommodation, employment, buildings, structures and premises on or before January 1, 2025; and
- b. Providing for the involvement of persons with disabilities, of the Government of Ontario and of representatives of industries and of various sectors of the economy in the development of the accessibility standards.

For more information, click here.

Active Transportation Plan

Active transportation is using your own power to get from one place to another. This includes walking, biking, skateboarding, in-line skating/rollerblading, jogging and running, non-motorized wheel chairing. The purpose of the Active Transportation Plan is to develop a comprehensive forward-looking plan that contributes to increased transportation options and outlines the Town's short, medium and long term Active Transportation strategy for walking, cycling, and other forms of active transportation.

For more information, click here.

Affordable Housing (per the Region of Durham Official Plan)

- a) in the case of ownership housing, the least expensive of:
 - i. Housing for which the purchase price results in annual accommodation costs which do not exceed 30% of gross annual household income for low and moderate income households; or
 - ii. Housing for which the purchase price is at least 10% below the average purchase price of a resale unit in the Region; and
- b) in the case of rental housing, the least expensive of:
 - i. A unit for which the rent does not exceed 30% of gross annual household income for low and moderate income households; or
 - ii. A unit for which the rent is at or below the average market rent of a unit in the Region.

A Place to Grow: Growth Plan for the Greater Golden Horseshoe

A Place to Grow Plan builds on the Provincial Policy Statement (PPS) to establish a unique land use planning framework for the Greater Golden Horseshoe that supports the achievement of complete communities, a thriving economy, a clean and healthy environment, and social equity.

For more information, click <u>here</u>.

Best Management Practices (BMPs) for Water Conservation

A practical, affordable approach to conserving water resources without sacrificing productivity.

Bird Friendly Design Guidelines

FLAP Canada has released guidelines to reduce bird-building collisions. To access the guidelines, click here.

Brooklin Urban Design and Sustainable Development Guidelines

The Brooklin Urban Design and Sustainable Development Guidelines provide a framework to guide the preparation of creative, context-driven, high quality design solutions for new and infill development within the Brooklin Community Secondary Plan area. Notably, it provides guidelines for a range of sustainability matters such as energy efficiency, material choice and waste diversion, bird friendly design, green roofs, water efficiency and stormwater management; as well as guidelines for community safety and accessibility.

For more information, click here.

Central Lake Ontario Conservation (CLOCA): Technical Guidelines for Stormwater Management Submissions

The Technical Guidelines for Stormwater Management Submissions outlines CLOCA's expectations for all stormwater management submissions. CLOCA encourages innovative green technologies in stormwater management and is willing to work with proponents wishing to explore green options.

For more information, click <u>here</u>.

City of Toronto, Toronto Green Standard

The Toronto Green Standard is Toronto's sustainable design requirements for new private and city-owned developments. The Standard consists of tiers (Tiers 1 to 4) of performance measures with supporting guidelines that promote sustainable site and building design. Tier 1 of the Toronto Green Standard is a mandatory requirement of the planning approval process.

For more information, click here.

Complete Streets Design Approach

Complete Streets are streets that are designed to be safe for everyone: people who walk, bicycle, take transit, or drive, and people of all ages and abilities.

For more information on the approach, including design guidelines, click here.

Construction Plans

Without a proper construction plan in place, development can generate pollution due to soil erosion, waterway sedimentation, and airborne dust. To reduce construction related pollution, a construction plan should be developed and implemented.

For more information about the requirements for a construction plan, click here.

Crime Prevention Through Environmental Design (CPTED)

CPTED is a proactive design philosophy built around a core set of principles that is based on the belief that the proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime as well as an improvement in the quality of life.

For more information, click here.

District Energy System

District energy systems allow the community to provide local generation and demand response, improving resilience and creating more opportunities for integration of renewable and low carbon strategies. High and low temperature district thermal options, as well as micro-grid electricity storage and delivery, are explored. District energy systems identified open up possibilities related to fuel flexibility, future-proofing energy supply options and allowing for adaptability over time.

Durham Community Energy Plan

The Durham Community Energy Plan (DCEP) was developed to accelerate the transition to a clean energy economy in Durham while simultaneously achieving multiple economic, environmental and social benefits.

For more information, click here.

Durham Region Official Plan

The Durham Region Official Plan contains policies and maps, which guide the type and location of land uses in the Region to 2031. Land use categories are displayed on the maps, while the policies describe the Region's goals for these categories, and the type of information the Region requires to evaluate land uses changes.

For more information, click here.

Habitat Conservation Plan

Habitat conservation plans are developed and implemented to conserve imperiled species and ecological communities. They should consider invasive species, restoration, and wildlife corridors and habitat connectivity.

For more information about these considerations, click here.

Keeping Our Cool: Managing Urban Heat Islands in Durham Region

This report examines urban heat islands in the context of risks and concerns for Durham Region. The first half of the report provides an overview including definitions, causes, impacts, and measures that can lessen urban heat island effects. The second half of the report contains a set of surface temperature maps for each of the eight local area municipalities in Durham Region. The maps show areas with high surface temperatures – locations most at risk to the impacts of urban heat islands.

For more information, click here.

Landscape Plan Guidelines for Site Plan and Subdivision Developments

The Landscape Plan Guidelines provide a Checklist of typical information required to be included on a landscape plan, as well as design criteria and standards for proposed landscape works within new and existing developments.

For more information, click here.

Living Community Challenge

The Living Community Challenge is a framework and tool to create a symbiotic relationship between people and all aspects of the built environment.

For more information, click here.

Low Impact Development Stormwater Management Planning and Design Guide

Low Impact Development (LID) deals with stormwater by mimicking natural water cycles. It increases the infiltration of stormwater into the soil, where it can be filtered and/or absorbed by plants. LID is a lower-cost alternative to conventional grey infrastructure and provides a number of ecological, economic and social benefits. The Low Impact Development (LID) Stormwater Management Guide is a joint initiative of the Toronto and Region and Credit Valley Conservation Authorities that has been developed in consultation with representatives from the Ministry of the Environment, Fisheries and Oceans Canada, GTA municipalities and the development industry.

For more information, click here.

Native Plant Species

A plant that originated and is indigenous to a specific region.

For more information on trees and shrubs native to Ontario, click here.

Neighbourhood Uses

Complete neighbourhoods are sometimes referred to as "15-minute communities." These communities are defined by their varied uses within walking distance of residential units. LEED version 4 has identified a number of uses related to five categories: food retail, community-serving retail, services, civic and community facilities, and community anchor uses.

For a full list of uses, click here.

Ontario Building Code (OBC)

A regulation under the Building Code Act that establishes detailed technical and administrative requirements as well as minimum standards for building construction.

For more information, click here.

The Planning Act (Ontario)

The Planning Act is provincial legislation that sets out the ground rules for land use planning in Ontario. It describes how land uses may be controlled, and who may control them.

For more information, click here.

Port Whitby Sustainable Community Plan

The Port Whitby Sustainable Community Plan is the articulation of a vision for a sustainable neighbourhood on the shores of Lake Ontario. It takes into account land use planning and urban design in the context of Port Whitby, the desire to incorporate elements of complete and healthy community principles, and the desire to provide infrastructure in a manner that is sustainable and suitable to the area.

For more information, click here.

Provincial Policy Statement

Renewable energy is derived from natural processes that are replenished at a rate that is equal or The Provincial Policy Statement is a consolidated statement of the government's policies on land use planning and is issued under section 3 of the Planning Act. It applies province-wide and sets out the provincial policy direction for:

- The efficient use and management of land and infrastructure
- Ensuring the provision of sufficient housing to meet changing needs, including affordable housing
- Protecting the environment and resources including farmland, natural resources (e.g., wetlands and woodlands)
 and water
- Ensuring opportunities for economic development and job creation
- Ensuring the appropriate transportation, water, sewer and other infrastructure is available to accommodate current and future needs
- Protecting people, property and community resources by directing development away from natural or humanmade hazards – such as flood prone areas

For more information, click <u>here</u>.

Renewable Energy

Renewable energy is derived from natural processes that are replenished at a rate that is equal or faster than the rate at which they are consumed.

There are various forms of renewable energy, deriving directly or indirectly from the sun, or from heat generated deep within the earth. They include energy generated from solar, wind, biomass, geothermal, hydro power and ocean resources, solid biomass, biogas and liquid biofuels.

For more information, click here.

Secondary Plans

A plan for a specific geographic area containing specific policies to guide future development and redevelopment which is adopted by Council as an amendment to this Official Plan.

Simpson Diversity Index

The Simpson Diversity Index calculates the probability that any two randomly selected dwelling units in a project will be of a different type.

For more information, review Option 1 Diversity of housing types using this link.

Solar Ready

Solar ready refers to the design and installation of elements in preparation for the installation of a future solar system. Design considerations and modifications include the following elements: roof space, solar domestic hot water systems and solar PV conduits, plumbing connections to an existing hot water heater, an electrical outlet, mechanical room floor space and mechanical / electrical room wall space.

For more information, click here.

Town of Whitby Design Criteria and Engineering Standards

The Town of Whitby's Engineering Design Criteria and Engineering Standards provide guidance for consulting engineers on design issues under the jurisdiction of the Public Works Department. This includes storm drainage, Town of Whitby roads, lot grading, fencing, and street lighting, among others.

For more information, click here.

Town of Whitby Lighting Guidelines

The purpose of these Guidelines is to regulate outdoor/external lighting, and specifically mitigate the detrimental impacts of inappropriate or improperly installed lighting fixtures as part of new development. Proponents intending to install new lighting systems or retrofitting existing systems as part of the site plan application process should refer to these Guidelines and ensure they are in compliance with all requirements therein.

For more information, click here.

Town of Whitby Official Plan

An Official Plan is a statutory document that sets out policy directions for land use planning matters regarding long-term growth and development in a municipality.

For more information on Whitby's Official Plan, click here.

Town of Whitby Shadow Study Guidelines

The Town of Whitby requires a shadow study to be completed for any development containing a building with a height, in part or entirely, greater than 6 storeys OR 18 metres. The Shadow Study Guidelines provide information direction for the required contents of the shadow study.

For more information on Whitby's Official Plan, click here.

Town of Whitby Tree Protection Requirements for New Development

General guidelines for the preservation and avoidance of injuries to trees within construction projects.

For more information, click here.

USGBC, LEED for Neighbourhood Development

LEED for Neighborhood Development, where "LEED" stands for Leadership in Energy and Environmental Design, is a United States-based rating system that integrates the principles of smart growth, urbanism and green building into a national system for neighborhood design.

For more information, click <u>here</u>. To reference Canadian Alternative Compliance Paths, click <u>here</u> (note that alternative paths are related to LEED ND 2009 - some credits may no longer apply to LEED ND v4).

Visitable Units

Visitability is the design approach for new housing such that anyone who uses a wheelchair or other mobility device should be able to visit. A social visit requires the ability to get into the house, to pass through interior doorways, and enter a bathroom to use the toilet.

For more information on the requirements for the voluntary performance criteria related to visitability, click here.

WELL Community Standard

The WELL Community Standard aims to impact individuals throughout the public spaces where they spend their days. The vision for a WELL community is inclusive, integrated, and resilient, fostering high levels of social engagement.

For more information, click here.

Zoning By-laws

An official plan sets out a municipality's general policies for future land use. Zoning bylaws put the plan into effect and provide for its day-to-day administration. They contain specific requirements that are legally enforceable. Construction or new development that doesn't comply with a zoning bylaw is not allowed, and the municipality will refuse to issue a building permit.

For more information about the Town of Whitby's zoning bylaws, click <u>here</u> for Zoning By-law 2585, <u>here</u> for Zoning By-law 1784, or <u>here</u> for Zoning By-law 5581-05.

