



Hamilton

WELCOME TO THE CITY OF HAMILTON

PLANNING COMMITTEE

October 1, 2024

PED24114 –

City of Hamilton Green Building Standards (Urban Areas - City Wide)

Presented by: Mallory Smith & WSP



Introductions

Mallory Smith

Planner I – Zoning By-law Reform

Jacqueline Da Rocha

Consultant Project Manager, WSP

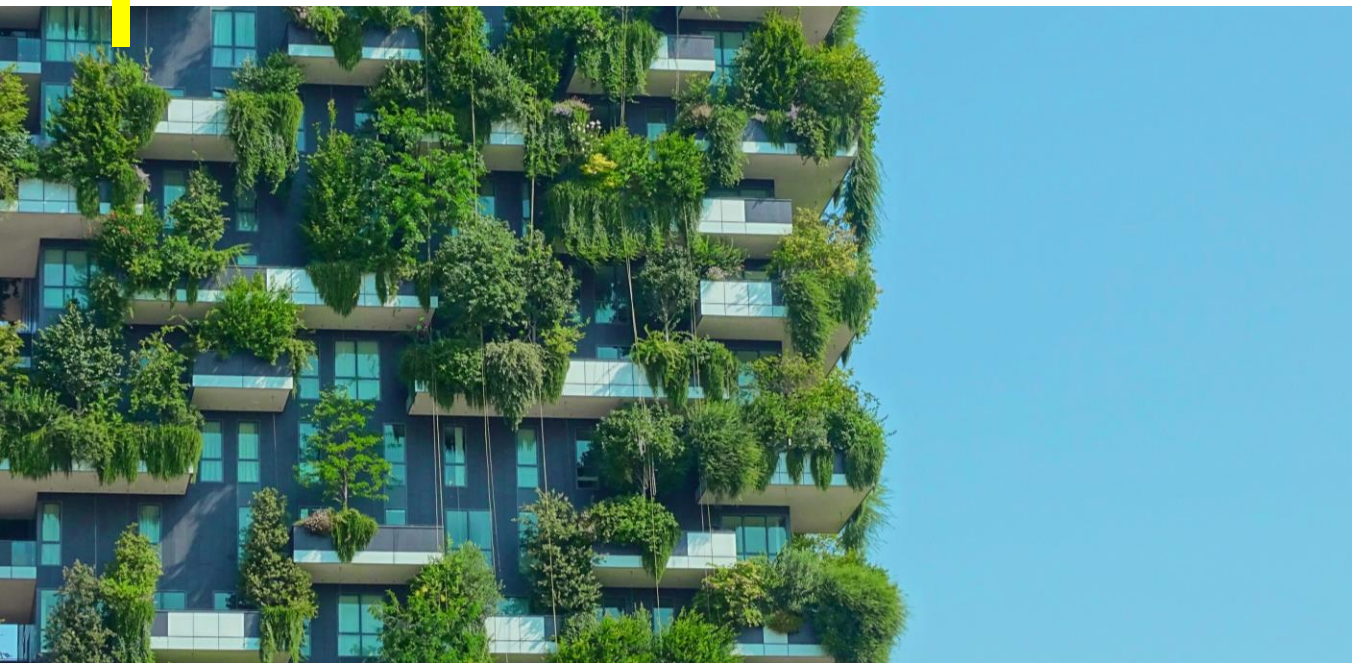
Robert Rappolt

Consultant Planning & Engagement, WSP



Agenda

- Project High-level Overview
- Engagement
- What We Heard
- Green Building Standards
- Next Steps: Implementation & Incentives





CORPORATE CLIMATE CHANGE TASK FORCE



Corporate Goals and Areas of Focus for Climate Change Mitigation and Adaptation

City of Hamilton
December 4, 2019

Goal 1: Buildings

To increase the number of new and existing high performance state-of-the-art buildings that improve energy efficiency and adapt to a changing climate.

Community

High Impact Actions	Areas of Focus for Further Work	Department Lead	Reporting Timeline
The City will work within its jurisdiction and authority to achieve a high level of environmental performance in future private sector construction.	Material reuse/recycling associated with demolitions.	Planning and Economic Development	Initiate: 2020 Report: Annually
	Information materials and best practice guidelines related to green building practices.	Planning and Economic Development	Initiate: 2020 Report: Annually
	Eligibility of climate change-related property improvements as part of existing financial incentive programs.	Planning and Economic Development	Initiate: 2020 Report: Annually
	Minimum environmental performance requirements for eligibility for existing financial incentive programs.	Planning and Economic Development	Initiate: 2020 Report: Annually
	Development fees and potential fee rebates for green development.	Planning and Economic Development	Initiate: 2020 Report: Annually
	Award/recognition programs for green development.	Planning and Economic Development	Initiate: 2020 Report: Annually

Hamilton's Climate Action Strategy



Hamilton's Climate Action Strategy is the City's next evolution in the response to the Climate Change Emergency Declaration. Approved in August 2022, there are several actions the City, and broader community, continue to undertake to accelerate Hamilton's transition to a prosperous, equitable, resilient post-carbon City.

Central to environmental sustainability and climate resiliency is changing how the City works and advancing municipal climate policy to make a positive difference on the organization and the community. Hamilton's Climate Action Strategy advances the City's response to the Climate Change Emergency Declaration and consists of two major streams:

Climate Mitigation: reduction of greenhouse gases

Climate Adaptation: decreasing impacts and preparing for unavoidable impacts of a changing climate



Community Energy & Emissions Plan

The Community Energy and Emissions Plan (CEEP) addresses climate mitigation, that is, the reduction of greenhouse gases.



Climate Change Impact Adaptation Plan

The Climate Change Impact Adaptation Plan (CCIAP) addresses climate adaptation, that is, decreasing impacts and preparing for unavoidable impacts of a changing climate.



Community Energy & Emissions Plan

The Community Energy and Emissions Plan is a long-term plan to meet Hamilton's future energy needs while improving energy efficiency, reducing greenhouse gas (GHG) emissions and fostering local sustainable and community-supported energy solutions. The plan includes every aspect of city-wide energy use and GHG emissions, from homes to transportation to industry to waste.

In 2019, Council declared a Climate Change Emergency and directed staff to identify and investigate actions to achieve net-zero carbon emissions by 2050. ReCharge Hamilton is a Community Energy and Emissions Plan (CEEP) that lays out a major component of the City's strategy for responding to the climate emergency.

TRANSFORMATION 2: Transforming Our Buildings



Background

Appendix "A" to Report PED22185
Page 1 of 17

CITY OF HAMILTON

**SUSTAINABLE BUILDING AND
DEVELOPMENT GUIDELINES
PHASE 1 - LOW DENSITY RESIDENTIAL USES
BACKGROUND RESEARCH REPORT**



wsp

Project Scope and Timeline

Q3 2023

Q3 – Q4 2023

Q4 2023 – Q2 2024

Q3 2024

Phase 1

Initial Planning

Phase 2

Baseline
Review and
Early
Engagement

Phase 3

Draft Green
Building
Standard and
Checklist Tool

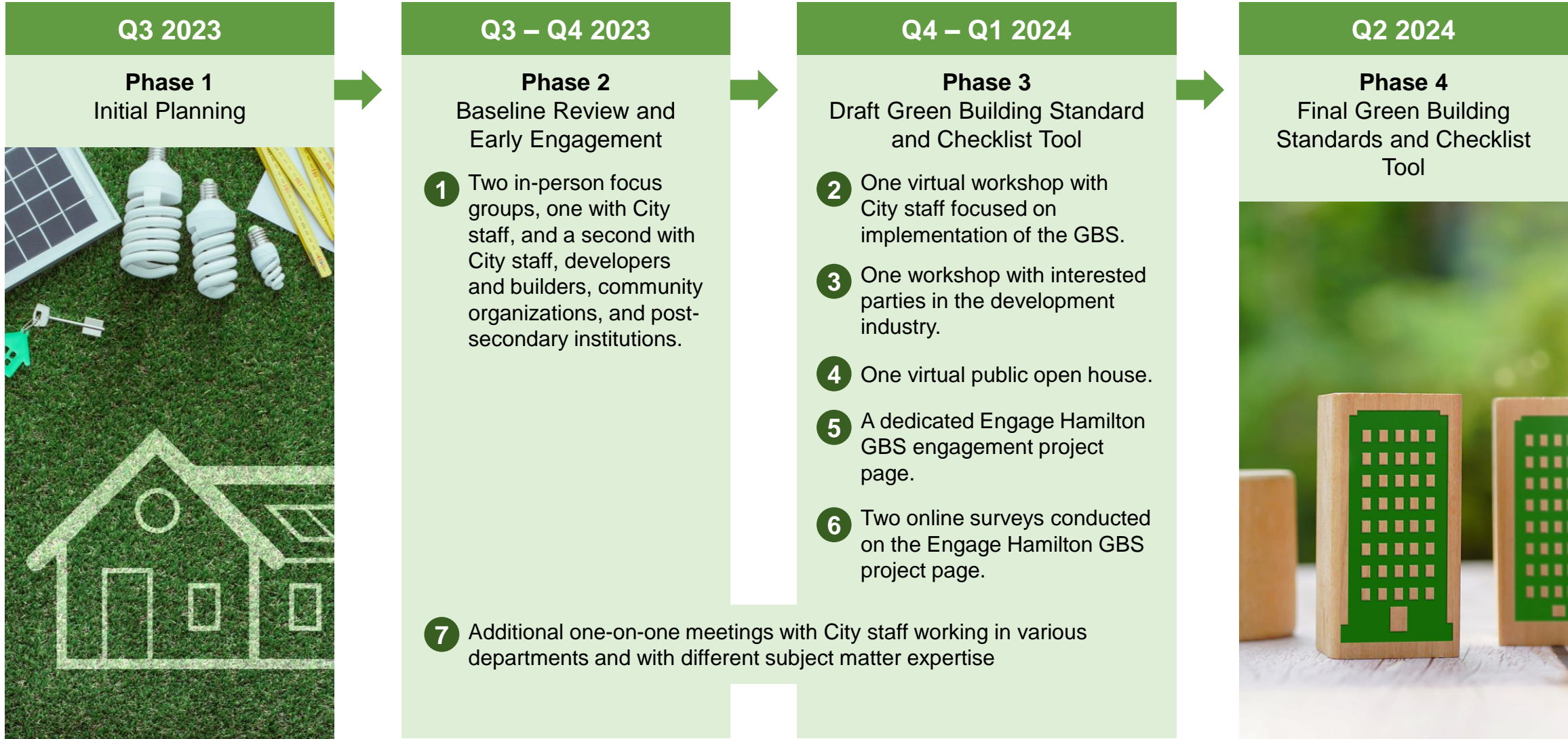
Phase 4

Final Green
Building
Standards and
Checklist Tool



Engagement Overview

Engagement Overview



Engagement Highlights

By the numbers



Dedicated project webpage on Engage Hamilton



Two in-person focus groups with City staff, developers, builders, community organizations and post-secondary institutions



One virtual workshop with City staff focused on implementation



One workshop with interested parties from the development and builder industry



Two online surveys conducted through the dedicated project webpage



Various meetings with City staff from various departments and disciplines



58 participants in the virtual public open house

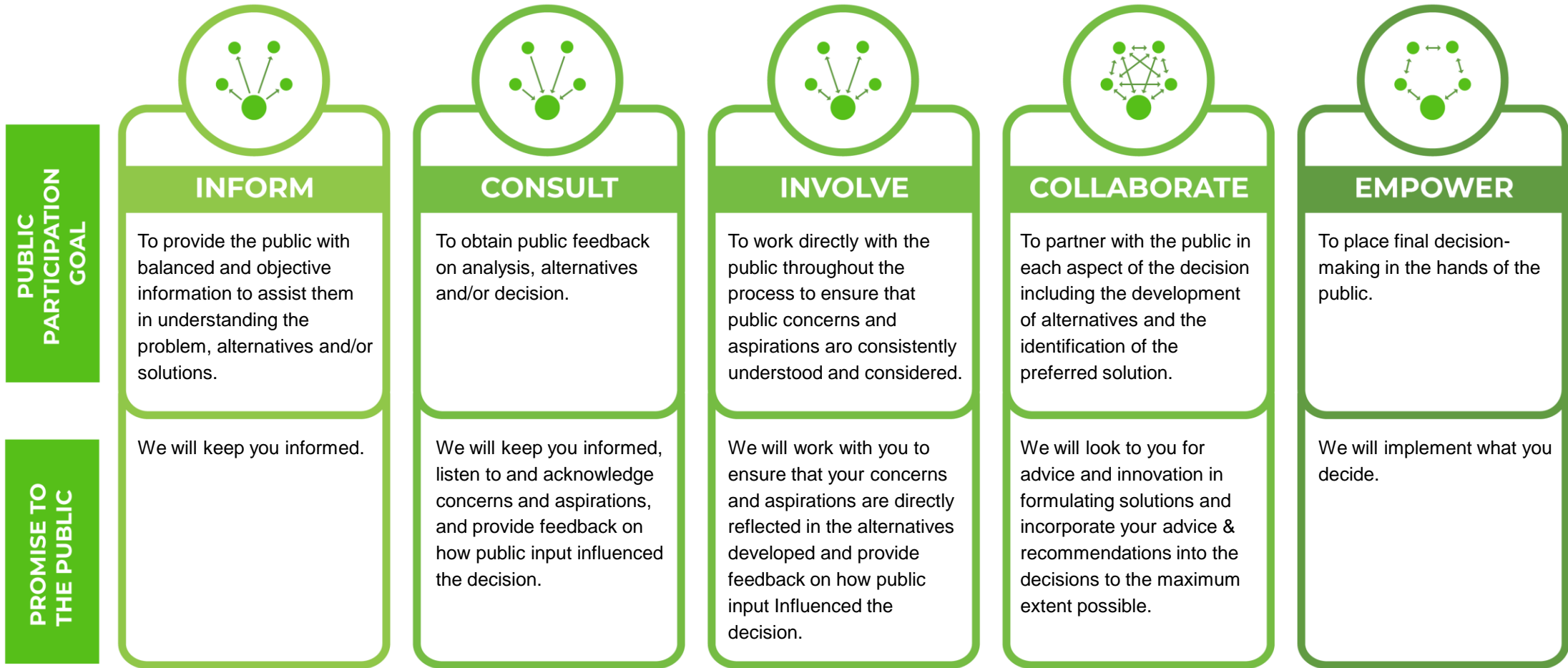


120+ participants in the public survey



1000+ webpage visits

WWH Informed the GBS



INCREASING IMPACT ON THE DECISION 

What We Heard

- 1** It is important that the GBS is aligned and coordinated with other City-led projects and initiatives to achieve and realize sustainability and climate objectives and targets.
- 2** The GBS should be inspired by standards for development in other municipalities and best practices for climate resilient and sustainable development, while uniquely tailored to the context in Hamilton.
- 3** The GBS must balance different priorities for various interested parties including the City, the development industry, community partners, and the public.
- 4** The metrics must be realistic and achievable to advance the City's sustainability priorities while balancing continued growth and development that contributes to new housing opportunities and employment.

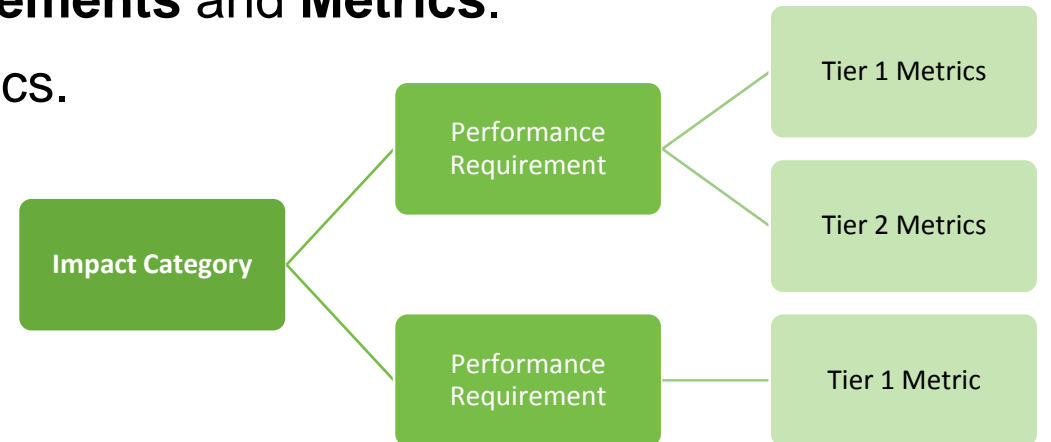


- 5** There are many different environmental related priorities that may be advanced through the GBS, including a focus on clean air and water, climate change adaptation, waste reduction, adaptive re-use, bird-friendly development, dark sky compliance, and drought tolerant and native plant species, among others.
- 6** Incentivising the GBS is an important consideration for implementation, in particular to achieve the Tier 2 Metrics, which are voluntary.
- 7** Clarity, simplicity, and flexibility of the GBS is important for effective interpretation, administration, and implementation for both the City and the development industry.
- 8** The GBS should be regularly reviewed and updated to ensure it remains relevant and responsive to Hamilton's sustainability priorities.



Green Building Standard

- The City-Wide GBS is intended to apply to all **site plan** and **plan of subdivisions** applications within the City of Hamilton urban area.
- Compliance with the GBS is expected for all new Part 3 and Part 9 building types, including:
 - Low-Density Residential;
 - Medium and High-Density Residential;
 - Mixed-Use;
 - Institutional;
 - Commercial; and
 - Industrial development.
- Consists of **Impact Categories**, **Performance Requirements** and **Metrics**.
- Includes **Tier 1** (mandatory) and **Tier 2** (optional) metrics.



GBS Impact Categories

 Energy and Carbon	 Ecology and Biodiversity	 Water	 Waste Management and Materials	 Community and Urban Design
Energy Performance	Native Species Planting	Reduced Water Use	Construction Waste Reduction and Management	Promotion of Public and Active Transportation
Embodied Carbon	Tree Planting	Benchmarking and Reporting	Operational Waste Reduction and Management	Services within Walking Distance
Refrigerant Leakage	Bird-Friendly Design	Water Metering	Material Reuse	Bicycle Facilities
Building Resilience	Light Pollution	Stormwater Management		Accessible Design
On-Site Renewables	Climate Positive Design			Urban Agriculture
District Energy				Heat Island Effect
Building Systems Commissioning				Community Sustainability Outreach
Air Tightness Testing				Celebration of Heritage and Culture
Energy Metering				
Benchmarking and Reporting				
Electric Vehicle Charging Infrastructure				
E-Bike Charging Infrastructure				

Green Building Standard Guidebook

City of Hamilton Green Building Standards **GUIDEBOOK**



Purpose

- Provides applicants with necessary information to comply with the GBS
- Informs the public on the specific requirements of the GBS
- Resource for City of Hamilton staff when reviewing GBS Applications

Example

EB3 BIRD-FRIENDLY DESIGN

Intent: To prevent fatal collisions of birds with buildings.

Item #	Tier	Applicability	Metrics	Documentation	Details
EB3.1	Tier 1	All	<ul style="list-style-type: none"> Design in accordance with the guidelines laid out in the Canadian Standards Association's (CSA) Bird-Friendly Building Design Standard A460¹. Use a combination of Bird-Friendly Design strategies to treat at least 90% of the exterior glazing including transparent railings and barriers) located within the first 16 metres of the building above grade or to the height of the mature tree canopy, whichever is greater. Visual markers on the glass must meet the CSA Bird-Friendly Building Design Standard A460 guidelines^{1,2}. Where there is glazing adjacent to green roofs and/or other rooftop vegetation, the bird collision mitigation strategy shall be applied to a height of 4 m from the surface of the green roof or the height of the adjacent mature vegetation, whichever is greater. Eliminate all fly-through effects (e.g., glass corners, parallel glass) and other traps from building design or use specified bird-safe glass or integrated protection measures. 	SPA Submission <ul style="list-style-type: none"> Elevation drawings demonstrating the location of bird-friendly strategies and calculations demonstrating metric requirements will be achieved. Details or specifications and drawings indicating treated area, type of treatment, density of visual markers, etc. 	<ol style="list-style-type: none"> Refer to the CSA Bird-Friendly Design Standard A460 for detailed requirements. Bird-Friendly Design Strategies may include: <ul style="list-style-type: none"> Visual patterns on glass Visual markers provided on the glass of proposed buildings with spacing no greater than 50 millimeters by 50 millimeters Window films Fenestration patterns In April 2022, the City of Hamilton became the 6th certified Bird Friendly City in Canada. As part of this commitment, the City has as taken steps to reduce threats to wild birds, conserve bird habitat, and educate the public about birds.
EB3.2	Tier 1	All	<ul style="list-style-type: none"> Ground-level ventilation grates have a porosity of less than 20 mm X 20 mm (or 10 mm X 40 mm). 	SPA Submission <ul style="list-style-type: none"> Site plan, or other documentation indicating the location and porosity of any ground-level ventilation grates. 	

Item #: For quick reference to specific requirement



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Tier: Tier 1 (Mandatory) or Tier 2 (Optional)



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Applicability: indicates development types required to meet specific metric (Part 3, Part 9, or All)



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Metrics: complete description of a compliance



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Documentation: submittal to be provided at Draft Plan of Subdivision, Site Plan or Post-Construction



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Details: guidance and links to external resources and related City of Hamilton references



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Green Building Standard Checklist

Example



Purpose

- Applicant to complete with information to demonstrate compliance with the GBS
- Support City of Hamilton staff when reviewing for compliance with GBS Applications

Green Building Standard Checklist

Met: applicant to indicate if they met the requirements (Y/N) or if it is not applicable (N/A)



Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					SPA Submission	Post Construction Submission	
EC2.1	Tier 1	Part 9	<ul style="list-style-type: none"> Conduct a Materials Emissions Assessment using BEAM (Building Emissions Accounting for Materials tool), or an equivalent tool, to measure A1-A3, stage emissions for all structural, enclosure, and major finishes (cladding, flooring, ceilings, interior wall sheathing). 	-	<input type="checkbox"/> An Embodied Carbon report declaring the materials that are anticipated to be used and the estimated total embodied carbon emissions of these materials.		
EC2.2	Tier 1	Part 3	<ul style="list-style-type: none"> Conduct a whole building life cycle assessment (LCA) of the building's structure and envelope in accordance with the CaGBC Zero Carbon Building Standard v3 methodology. Report embodied carbon for the following life cycle stages: A1-A5, B1-B5, and C1-C4. 	-	<input type="checkbox"/> An Embodied Carbon report declaring the materials that are anticipated to be used and the estimated total embodied carbon emissions of these materials.		
EC2.3	Tier 2	All	<ul style="list-style-type: none"> Demonstrate a minimum 5% reduction in embodied carbon compared to a baseline building. 	-	<input type="checkbox"/> An Embodied Carbon report declaring the materials that are anticipated to be used, the estimated total embodied carbon emissions of these materials, and the achieved embodied reduction compared to a baseline building.		

Green Building Standard Checklist

Documentation: check box for each required submittal to be provided at Draft Plan of Subdivision, Site Plan or Post-Construction



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EC2.3	Tier 2	All	<ul style="list-style-type: none"> Demonstrate a minimum 5% reduction in embodied carbon compared to a baseline building. 	-	<input type="checkbox"/> An Embodied Carbon report declaring the materials that are anticipated to be used, the estimated total embodied carbon emissions of these materials, and the achieved embodied reduction compared to a baseline building.		

Green Building Standard Checklist

Comments: open text space for applicant to provide a brief description of compliance



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EC2.3	Tier 2	All	<ul style="list-style-type: none"> Demonstrate a minimum 5% reduction in embodied carbon compared to a baseline building. 	-	<input type="checkbox"/> An Embodied Carbon report declaring the materials that are anticipated to be used, the estimated total embodied carbon emissions of these materials, and the achieved embodied reduction compared to a baseline building.		



Next Steps: Implementation & Incentives

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In 2025 staff will return to Planning Committee with a plan for implementation.



Conversations with interested parties and staff will continue to inform the implementation plan.



A 2 year 'pilot' period will act as a period of increased monitoring to inform updates to the implementation process and the Green Building Standards.



Incentives will be explored through the implementation plan process.



Hamilton

THANK YOU FOR ATTENDING

THE CITY OF HAMILTON PLANNING COMMITTEE