

Appendix C

Revised City of Hamilton Green Building Standards Checklist

City of Hamilton Green Building Standards **CHECKLIST**



City of Hamilton Green Building Standards

 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 Energy Resilience	Light Pollution	Stormwater Management		Accessible Design
On-Site Renewables	Climate Positive Landscape 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				
Electric Bicycle Charging Infrastructure				

Instructions

The City of Hamilton’s Green Building Standards (GBS) applies to all Part 3 and Part 9 building types in the urban area subject to a Site Plan or Draft Plan of Subdivision application. **Refer to the GBS Guidebook for details.**

A completed copy of this GBS Checklist and any supporting documentation must be included as part of your complete development application. Tier 1 metrics are required by the City of Hamilton. Tier 2 metrics are optional but encouraged.

Applicant Information:

Applicant/Agent:	
Name (First, Last Name):	
Email:	

Project Information: Site Plan Draft Plan of Subdivision

Project Name:	
Address of Subject Land (Street Number and Name):	
Registered Owner (First, Last Name):	
Telephone Number:	
Date Checklist Completed (yyyy-mm-dd):	
Is this checklist revised from an earlier submission (Yes/No):	
Gross Floor Area (square metres):	
Number of Units:	
Number of Storeys:	
Non-Residential Gross Floor Area (square metres):	

Proposal Description (narrative of your project):



Glossary

- **Part 3 Buildings:** This refers to all mid to high-rise residential and all non-residential developments and refers to buildings that are subject to Part 3 of Division B of the Ontario Building Code, per Article 1.1.2 O.Reg. 332/12: Building Code. This includes buildings exceeding 600 m² in building area or exceeding three storeys in height.
- **Part 9 Buildings:** This refers to low-rise residential developments and refers to buildings that are subject to Part 9 of Division B of the Ontario Building Code, per Article 1.1.2 O.Reg. 332/12: Building Code. This includes buildings of three or fewer storeys in height or with a building area not exceeding 600 m².
- **Low-Density Residential Development:** Low-density residential uses generally include single-detached, semi-detached, duplex, triplex, fourplex, and street townhouse dwellings.
- **Medium and High-Density Residential Development:** High and medium-density residential uses are characterized in the Urban Hamilton Official Plan as multiple dwelling forms containing five or more dwelling units. Examples include block townhouse dwellings, stacked townhouse dwellings, street townhouse dwellings fronting onto a condominium road, and apartment dwellings.
- **Mixed-Use Development:** A development or area made up of mixed land uses either in the same building or in separate buildings. The mix of land uses may include commercial, industrial or institutional uses but must include residential units (*defined in the [UHOP](#)*).
- **Institutional Development:** A development or area comprised of public or non-public institutions in individual buildings or groups of buildings. The uses may include but are not limited to educational facilities, religious facilities, cultural facilities, health care facilities, or daycare facilities (*not defined in the [UHOP](#), but a land use designation with permitted uses, development policies, etc. in Section E.6.0*).
- **Industrial Development:** A development or area that permits for a range of employment activity, including offices, business parks, and industrial uses including but not limited to manufacturing and warehousing. (*Employment Areas are defined in the [UHOP](#), the description is also based on policies for the Employment Area – Industrial Land designation in Section E.5.0*).
- **Commercial Development:** A development or area that are primarily located in mixed-use areas and accommodates a range of uses, including but not limited to retail, restaurants, and other similar service commercial uses (*not defined in the [UHOP](#), but described based on policies for the Commercial and Mixed Use Designations in Section E.4.0*).



EC1 ENERGY PERFORMANCE

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
EC1.1a	Tier 1	Part 9 - Performance	Using whole-building energy modelling, demonstrate an annual Total Energy Use Intensity (TEUI), Thermal Energy Demand Intensity (TEDI), and GHG Emission Intensity (GHGI) that meets the Tier 1 performance limits.		Energy Model Report summarizing key modelling inputs, outputs, and assumptions, signed by a licensed professional (Energy Modeller), and demonstrating compliance with the applicable target.		
EC1.1b	Tier 1	Part 9 - Prescriptive	Provide a heat pump system to deliver 80% of facility peak heating load. Commission system to use heat pump as first stage of heating.		Confirmation of make and model of heat-pump to be installed as well as an outline of the commissioning process to be followed by the installer.	A Letter of Certification signed by an accredited professional (Architect, Electrical Engineer, or Mechanical Engineer) post-construction that a heat pump system has been installed and commissioned as required.	
EC1.2a	Tier 2	Part 9 - Performance	Using whole-building energy modelling, demonstrate an annual Total Energy Use Intensity (TEUI), Thermal Energy Demand Intensity (TEDI), and GHG Emission Intensity (GHGI) that meets the Tier 2 performance limits.		Energy Model Report summarizing key modelling inputs, outputs, and assumptions, signed by a licensed professional (Energy Modeller), and demonstrating compliance with the applicable target.		
EC1.2b	Tier 2	Part 9 - Prescriptive	Provide 100% of heating and 100% of domestic hot water using heat pump systems. Heat pumps may be sized for 80% of peak load.		Confirmation of make and model of heat-pumps to be installed, back-up heating type (if any) as well as an outline of the commissioning process to be followed by the installer.		
EC1.3a	Tier 1	Part 3 - Performance	Using whole-building energy modelling, demonstrate an annual Total Energy Use Intensity (TEUI), Thermal Energy Demand Intensity (TEDI), and GHG Emission Intensity (GHGI) that meets the applicable Tier 1 performance limits.		Energy Model Report summarizing key modelling inputs, outputs, and assumptions, signed by a licensed professional (Energy Modeller), and demonstrating		



Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
			For all other Part 3 buildings: develop a whole-building energy model, and design and construct the building to meet the National Energy Code of Canada for Buildings (NECB) 2020 ² Tier 2 + GHG Reduction of >80% vs. NECB reference case.		compliance with the applicable target.		
EC1.3b	Tier 1	Part 3 – Prescriptive – MURBs Only	Provide a heat pump system to deliver 80% of facility peak heating load. Commission system to use heat pump as first stage of heating.		Confirmation of equipment make and model of heat-pump system to be installed, a schematic design of the proposed system, as well as an outline of the commissioning process to be followed by the installer.	A Letter of Certification signed by an accredited professional (Architect, Electrical Engineer, or Mechanical Engineer) post-construction that a heat pump system has been installed and commissioned as required.	
EC1.3c	Tier 1	Part 3 – Trade-Off Path	If facility pursues Tier 2 target for GHGI, then relax TEDI and TEUI targets as follows: MURBs - TEDI relaxed to 35, TEUI relaxed to 125 Office & Retail - TEDI relaxed to 35, TEUI relaxed to 115.		Energy Model Report summarizing key modelling inputs, outputs, and assumptions, signed by a licensed professional (Energy Modeller), and demonstrating compliance with the applicable target.		
EC1.4a	Tier 2	Part 3 - Performance	Using whole-building energy modelling, demonstrate an annual Total Energy Use Intensity (TEUI), Thermal Energy Demand Intensity (TEDI), and GHG Emission Intensity (GHGI) that meets the Tier 2 performance limits. For all other Part 3 buildings: develop a whole-building energy model, and design and construct the building to meet the National Energy Code of Canada for Buildings (NECB) 2020 Tier 3 + zero (0) on-site fossil fuel emissions (i.e. Scope 2 emissions need not be zero).		Energy Model Report summarizing key modelling inputs, outputs, and assumptions, signed by a licensed professional (Energy Modeller), and demonstrating compliance with the applicable target.	Energy Modelling Report or other documentation demonstrating compliance with the targeted standard summarizing key modelling inputs, outputs, and assumptions, signed by a licensed professional. Updated Energy Model Report.	



Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
EC1.4b	Tier 2	Part 3 – Prescriptive – MURBs Only	Provide a fully electrified system for heating and domestic hot water using heat pumps as a first stage. Heat pumps must be sized for 80% of peak load.		Confirmation of equipment make and model of heat-pump system to be installed, a schematic design of the proposed system, as well as an outline of the commissioning process to be followed by the installer.	A Letter of Certification signed by an accredited professional (Architect, Electrical Engineer, or Mechanical Engineer) post-construction that a heat pump system has been installed and commissioned as required.	
EC1.5	Tier 3	All Buildings	Demonstrate on-site near-zero operations by complying with EC1.2a/b, EC1.4a/b/c OR Achievement of CaGBC Zero Carbon Building (ZCB) Design Standard Certification. Commit to five (5) years of CaGBC Zero Carbon Building (ZCB) Performance Standard Certification.		Follows expected pathway above For ZCB only: Confirmation of registration for ZCB-Design Standard certification.	Follows expected pathway above For ZCB only: CAGBC ZCB-Design Standard certification and complete workbook. ZCB Carbon Building-Performance. ZCB Carbon Building-Performance Certification for year 1 of operations and written letter from the building owner to continue the certification for an additional four (4) year period.	

EC2 EMBODIED CARBON

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application 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). 		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. 		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. 		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.		



EC3 REFRIGERANT LEAKAGE

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
EC3.1	Tier 1	Part 3.	<ul style="list-style-type: none"> Develop a Refrigerant Leakage Plan describing the ongoing refrigerant leakage tracking process and corrective action plan to address refrigerant leaks should they occur in any base building HVAC systems. The Plan should list the total quantity, type, and the Global Warming Potential (GWP) of each refrigerant contained in HVAC systems with a capacity greater than 19 kW (5.4 tons). 		Provide a Letter of Commitment signed by a qualified professional (Mechanical Engineer) and the owner/developer/builder that includes confirmation that the requirements of this metric will be met.	Refrigerant Leakage Plan	

EC4 BUILDING RESILIENCE

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
EC4.1	Tier 2	Part 3	<ul style="list-style-type: none"> Mid and High-Density Residential only: Provide a refuge area with heating, cooling, lighting, potable water. Provide back-up power to essential building systems for 72 hours. 			Drawings, plans, or other documentation demonstrating that the project incorporates resilient measures.	



EC5 ON-SITE RENEWABLES

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application / Plan of Subdivision Submission	Post Construction Submission	
EC5.1	Tier 1	Part 9	<ul style="list-style-type: none"> Plan of Subdivision only: Complete a Community Energy Plan demonstrating energy emissions and resiliency targets on a community scale. 		Plan of Subdivision only: Provide a Community Energy Plan.		
EC5.2	Tier 1	All	<ul style="list-style-type: none"> Design all new buildings for solar readiness. Where applicable, include an opt-in for new owners to install solar PV or thermal systems at the new owner's expense. 		Site Plan Application only: Drawings, plans, specifications, or other documentation demonstrating that is project is solar-ready.		
EC5.3	Tier 2	Part 9	<ul style="list-style-type: none"> Design and install on-site renewable energy systems to supply at least 10% of the building's total energy load from one or a combination of energy source(s). OR Design and install on-site renewable energy systems to supply at least 20% of the building's total energy load from geo-exchange (geothermal or ground source heat pumps). 		Site Plan Application only: Drawings, plans, specifications, or other documentation demonstrating the project's on-site renewable sources. Energy Modelling Report or other documentation demonstrating the percentage of the project's energy needs provided by on-site renewable sources.		
	Tier 2	Part 3	<ul style="list-style-type: none"> Design and install on-site renewable energy systems to supply at least 5% of the building's total energy load from one or a combination of energy source(s). OR Design and install on-site renewable energy systems to supply at least 20% of the building's total energy load from geo-exchange (geothermal or ground source heat pumps). 		Site Plan Application only: Drawings, plans, specifications, or other documentation demonstrating the project's on-site renewable sources. Energy Modelling Report or other documentation demonstrating the percentage of the project's energy needs provided by on-site renewable sources.		

EC6 DISTRICT ENERGY

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application / Plan of Subdivision Submission	Post Construction Submission	
EC6.1	Tier 1	All	<ul style="list-style-type: none"> Investigate the feasibility of shared energy solutions, such as the development of low carbon thermal energy networks or connection to planned or existing district energy systems and identify the required provisions to be district energy ready. 		Site Plan Application and Plan of Subdivision: Provide a Letter signed by a qualified professional (Mechanical Engineer) and the owner/developer/builder that describes how opportunities for district energy have been explored.		
EC6.2	Tier 2	All	<ul style="list-style-type: none"> Connect to a district energy system where one exists or design for future connection where a future district energy system is slated for development. 			Drawings, plans, or other documentation demonstrating connection, or design will accommodate future connections.	

EC7 BUILDING SYSTEMS COMMISSIONING

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
EC7.1	Tier 2	All	<ul style="list-style-type: none"> Conduct best practice commissioning, per the requirements referenced in LEED BD+C v4.1 Fundamental Commissioning and Verification pre-requisite. 		Provide a Letter of Commitment signed by the owner/developer/builder that best practice commissioning will be performed OR Proof a commissioning agent is retained.	Commissioning Plan & Report.	



EC8 AIR TIGHTNESS TESTING

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
EC8.1	Tier 1	All	<ul style="list-style-type: none"> Conduct best practice commissioning, per the requirements referenced in LEED BD+C v4.1 Fundamental Commissioning and Verification pre-requisite. 		Provide a letter signed by a qualified professional (Building Envelope Engineer or Building Science Engineer) and the owner/developer/builder that describes the project's approach to achieving air tightness, and the process for any planned testing.		
EC8.2	Tier 2	All	<ul style="list-style-type: none"> Conduct a whole-building air leakage test to improve the quality and airtightness of the building envelope and report the performance achieved. 			Air Leakage Testing Report.	

EC9 ENERGY METERING

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
EC9.1	Tier 1	All	<ul style="list-style-type: none"> Install electricity and/or thermal sub-meters for all energy end-uses that represent more than 10% of the building's total energy consumption. 		Provide a Letter of Commitment signed by a qualified professional (Electrical Engineer and Mechanical Engineer) and the owner/developer/builder that includes confirmation that the requirements of this metric will be met.	<p>Electrical and mechanical single-line diagrams that indicate the provision of electricity and thermal sub-meters.</p> <p>A metering plan listing all meters along with type, energy source metered, diagrams, and/or references to design documentation.</p>	



Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
EC4.2	Tier 2	All	<ul style="list-style-type: none"> For buildings with multiple tenants, provide energy submetering for each commercial/institutional tenant, or in each residential suite¹. 		Provide a Letter of Commitment signed by a qualified professional (Electrical Engineer and Mechanical Engineer) and the owner/developer/builder that includes confirmation that the requirements of this metric will be met.	<p>Electrical and mechanical single-line diagrams that indicate the provision of electricity and thermal sub-meters.</p> <p>A metering plan listing all meters along with type, energy source metered, diagrams, and/or references to design documentation.</p>	

EC10 BENCHMARKING & REPORTING

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
EC10.1	Tier 1	Part 3	<ul style="list-style-type: none"> Buildings 50,000 square feet ($\approx 4645 \text{ m}^2$), or larger: Enroll the project in ENERGYSTAR® Portfolio Manager to track energy and water consumption of the new development during operations in accordance with O. Reg. 506/18. 		Provide a Letter of Commitment signed by the owner/developer/builder that includes confirmation that the requirements of this metric will be met.	Confirmation of Registration.	
EC10.2	Tier 2	All	<ul style="list-style-type: none"> Enroll the project in ENERGYSTAR® Portfolio Manager¹ to track energy and water consumption of the new development during operations. 		Provide a Letter of Commitment signed by a qualified professional (Electrical Engineer or Mechanical Engineer) and the owner/developer/builder that includes confirmation	Confirmation of Registration.	

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
					that the requirements of this metric will be met.		

EC11 ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
EC11.1	Tier 1	Part 3 & Part 9 (Residential)	<ul style="list-style-type: none"> Ensure 100% of all parking spaces are EV-ready. 		On the Site Plan Drawing, Traffic Plan, or Parking Study.		
	Tier 1	Part 9 (Non-Residential)	<ul style="list-style-type: none"> Ensure at least 50% of all parking spaces are EV-ready. 		On the Site Plan Drawing, Traffic Plan, or Parking Study.		
EC11.2	Tier 2	Part 3 & Part 9 (Residential)	<ul style="list-style-type: none"> Provide at least 20% of all parking spaces with Electric Vehicle Supply Equipment (EVSE). 		Parking plan(s) indicating the location and number of EV chargers.		
	Tier 2	Part 9 (Non-Residential)	<ul style="list-style-type: none"> Provide at least 10% of all parking spaces with Electric Vehicle Supply Equipment (EVSE). 		Parking plan(s) indicating the location and number of EV chargers.		

EC12 ELECTRIC BICYCLE CHARGING INFRASTRUCTURE

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
EC12.1	Tier 1	Part 3 & Part 9 (Residential)	<ul style="list-style-type: none"> Provide Energized Outlets for 15% of the bicycle parking spaces for electric bicycle charging. 		Parking plan(s) indicating the location of electric bicycle charging.		



EB1 NATIVE SPECIES PLANTING

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application / Plan of Subdivision Submission	Post Construction Submission	
EB1.1	Tier 1	All	<ul style="list-style-type: none"> Use native or adapted species for 50% of the new landscaping planted areas (including grassed areas). Select drought-tolerant species from colder climate zones wherever possible. 		Landscape Plan with planting schedule demonstrating where species will be native or adapted.		
EB1.2	Tier 1	All	<ul style="list-style-type: none"> Per the Ontario Invasive Species Act, do not plant invasive species. 		Landscape Plan with planting schedule demonstrating that plant species do not include invasive species.		
EB1.3	Tier 1	All	<p>For sites adjacent to Agricultural lands, Natural Heritage features, Environmentally Significant Areas, and any other areas that are restricted from development:</p> <ul style="list-style-type: none"> Provide vegetated protection zones. Vegetated protective zones must include 100% native vegetation, with a preference for drought-tolerant species. 		Landscape Plan with planting schedule.		
EB1.4	Tier 2	All	<ul style="list-style-type: none"> Use native or adapted species for 75% of the new landscaping planted areas (including grassed areas), i.e. 75% of the total landscaped area should be covered by native or adapted plant species. Include permanent signage highlighting the native species planted on site. 		<p>Site Plan Application only: Landscape Plan with planting schedule demonstrating where species will be native or adapted.</p> <p>Drawings or plans with signage details highlighting species planted on site.</p>		



Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application / Plan of Subdivision Submission	Post Construction Submission	
EB1.5	Tier 2	All	<ul style="list-style-type: none"> Support the City's "Bee City" designation by restoring or protecting a minimum of 30% of the site with native vegetation that includes at least two native flowering species that bloom at different periods over the growing season. 		Site Plan Application only: Landscape Plan with planting schedule demonstrating where species will be native, and indicating at least two native flowering species that bloom at different periods over the growing season.		

EB2 TREE PLANTING

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application / Plan of Subdivision Submission	Post Construction Submission	
EB2.1	Tier 1	All	<ul style="list-style-type: none"> Protect healthy, mature trees that exist within the project boundary. Comply with the requirements of the City of Hamilton Tree Protection Guidelines. 		Site Plan Application and Plan of Subdivision: A Tree Inventory Report and Preservation Plan.		
EB2.2	Tier 1	All	<ul style="list-style-type: none"> Provide each tree planted with access to 21 m³ of soil per tree. Where trees share soil, such as in a continuous planting trench, a reduction to 16 m³ per tree may be permitted. 		Site Plan Application only: Plan(s) or drawings demonstrating the volume of soil provided for each tree.		
EB2.3	Tier 1	All	<ul style="list-style-type: none"> Where surface parking is provided, plant 1 shade tree for every 5 parking spaces. 		Site Plan Application only: Plan(s) or drawings indicating the locations of all trees and parking spaces within the surface parking area.		



Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application / Plan of Subdivision Submission	Post Construction Submission	
EB2.4	Tier 1	All	<ul style="list-style-type: none"> Plant trees to shade at least 50% of the bike paths and walkway/sidewalk lengths. 		Site Plan Application only: Canopy Cover Plan(s) or drawings demonstrating walkway/sidewalk area shaded within 10 years.		
EB2.5	Tier 1	All	<ul style="list-style-type: none"> Provide a watering and maintenance program for trees for at least the first 4 years after planting. The maintenance programs should include measures to reduce the impact of de-icing salt on vegetation. 		Site Plan Application only: A Letter of Commitment signed by an accredited professional (Landscape Architect, Architect, or Professional Engineer) and the owner/developer that describes the watering and maintenance program for trees.	Operating and Maintenance plan or other documentation detailing the maintenance program for trees.	
EB2.6	Tier 2	All	<ul style="list-style-type: none"> Plant trees to achieve a 40% tree canopy cover for the site, excluding the building footprint. 		Site Plan Application only: Landscape Plan(s) and supporting calculations demonstrating compliance. Canopy Cover Plan(s).		



EB3 BIRD FRIENDLY DESIGN

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
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 A460. 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. 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. 		<p>Elevation drawings demonstrating the location of bird-friendly strategies and calculations demonstrating metric requirements will be achieved.</p> <p>Details or specifications and drawings indicating treated area, type of treatment, density of visual markers, etc.</p>		
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). 		Site plan, or other documentation indicating the location and porosity of any ground-level ventilation grates.		



EB4 LIGHT POLLUTION

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
EB4.1	Tier 1	All	<ul style="list-style-type: none"> All exterior fixtures must be Dark Sky compliant. 		Site plan, or other documentation indicating lighting type, orientation, location, and controls.		
EB4.2	Tier 1	All	<ul style="list-style-type: none"> Rooftop and exterior facade architectural illumination must be directed downward and turned off between the hours of 10 p.m. and 6 a.m. 				
EB4.3	Tier 1	All	<ul style="list-style-type: none"> Implement lighting controls in non-residential spaces that reduce nighttime spillage of light by 50% from 11 p.m. to 5 a.m. 		A Letter of Commitment from a qualified professional (Architect or Electrical Engineer), and the owner/developer/builder describing how metric requirements will be met.		

EB5 CLIMATE POSITIVE LANDSCAPE DESIGN

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
EB5.1	Tier 2	All	<ul style="list-style-type: none"> Use the Climate Positive Design's Pathfinder: Landscape Carbon Calculator to calculate the embodied carbon and the carbon sequestration potential within landscape designs. 		<p>Climate Positive Design Scorecard reporting the Net Project Impact.</p> <p>Site plan and/or landscape plans aligning with the information input in the Landscape Carbon Calculator.</p>		



W1 REDUCED WATER USE

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
W1.1	Tier 1	All	<ul style="list-style-type: none"> Water-consuming fixtures do not exceed the following maximum flow requirements and are WaterSense® labeled: <ul style="list-style-type: none"> High-efficiency toilets: 4.0 L/flush OR 3 and 6 L/flush (dual flush toilets); and Low flow lavatory faucets: 5.7 L/min. 		A Letter of Commitment signed by a qualified professional (Mechanical Engineer) and the owner/developer that includes confirmation that requirements of this metric will be met.	Plumbing fixture specifications or other documentation demonstrating WaterSense® labelling and flush/flow rates.	
W1.2	Tier 2	All	<ul style="list-style-type: none"> Reduce indoor potable water consumption by 40% over the baseline fixture (per LEED BD+C v4 guidance). 		Credit calculations demonstrating compliance with the metric requirements.	Plumbing fixture specifications or other documentation demonstrating flush/flow rates, and updated credit calculations (if necessary).	
W1.3	Tier 2	All	<ul style="list-style-type: none"> Outdoor: Reduce potable water used for irrigation by 60% (per LEED BD+C v4 guidance). 		Credit calculations demonstrating compliance with the metric requirements.	Irrigation specifications or other documentation demonstrating irrigation system, and updated credit calculations (if necessary).	

W2 BENCHMARKING AND REPORTING

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
W2.1	Tier 1	Part 9	<ul style="list-style-type: none"> Buildings 50,000 square feet ($\approx 4645 \text{ m}^2$), or larger: Enroll the project in ENERGYSTAR® Portfolio Manager to track energy and water consumption of the new development during operations in accordance with O. Reg. 506/18. 		Provide a Letter of Commitment signed by the owner/developer/builder that includes confirmation that the requirements of this metric will be met.	Confirmation of Registration.	
W2.2	Tier 2	All	<ul style="list-style-type: none"> Enroll the project in ENERGYSTAR® Portfolio Manager to track energy and water consumption of the new development during operations. 			Confirmation of Registration.	

W3 WATER METERING

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
W3.1	Tier 2	All	<ul style="list-style-type: none"> For buildings with multiple tenants, provide water submetering for each commercial/institutional tenant and per residential suite. 		Plans, drawings, or other documentation indicating individual water meters in building.		

W4 STORMWATER MANAGEMENT

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
W4.1	Tier 1	All	<ul style="list-style-type: none"> Provide long-term controls for Erosion and Sediment Control (ESC) in conformance with the Erosion and Sediment Control Guide for Urban Construction (2019). Demonstrate compliance with the Green Standards and Guidelines for Low Impact Development. 		Stormwater Management Report, Plan(s), and drawing(s) to verify compliance.		
W4.2	Tier 2	All	<ul style="list-style-type: none"> Design for future rainfall data instead of historical rainfall data to account for future climate change. 		Stormwater Management Report, Plan(s), and drawing(s) to verify compliance.		



WM1 CONSTRUCTION WASTE REDUCTION AND MANAGEMENT

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
WM1.1	Tier 1	All	<ul style="list-style-type: none"> Manage construction and demolition waste in accordance with O. Reg. 103/94. 		Construction and Demolition Waste Management Plan.		
WM1.2	Tier 1	All	<ul style="list-style-type: none"> Develop and implement a Construction and Demolition Waste Management Plan and demonstrate a diversion rate of 50% or more from landfill. 		Construction and Demolition Waste Management Plan.		
WM1.3	Tier 2	All	<ul style="list-style-type: none"> Demonstrate a waste diversion rate of 75% or more from landfill. 			Waste Diversion Report indicating total Construction and Demolition Waste diversion rate of the project.	

WM2 OPERATIONAL WASTE REDUCTION AND MANAGEMENT

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
WM2.1	Tier 1	Part 9 (Residential)	<ul style="list-style-type: none"> Design and construct the building(s) to meet section 3.5 of the City of Hamilton's waste design requirements for new developments. 		Drawings or plans indicating the type, floor area and location of the waste storage and sorting system.		
WM2.2	Tier 1	Part 3 & Part 9 (Residential)	<ul style="list-style-type: none"> Design kitchen cabinets to accommodate space for the separate collection of recycling, organics, and garbage. 		A Letter of Commitment signed by a qualified professional (Architect) and the owner/developer/builder that includes confirmation that requirements of this metric will be met.	Drawings or plans indicating the designated space.	

WM3 MATERIAL REUSE

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
WM3.1	Tier 2	All	<ul style="list-style-type: none"> Maintain the existing building structure and envelope for 30% of the existing floor area OR use existing interior non-structural elements for at least 30% of the entire completed building, including additions. 		<p>A Letter of Commitment signed by a qualified professional (Architect, Structural Engineer) and the owner/developer/builder that includes confirmation that requirements of this metric will be met.</p> <p>Calculations completed by a qualified professional (Architect, Structural Engineer) demonstrating this metric can be met.</p>	<p>Report/ drawings/ plans demonstrating the preserved and new components of the building.</p> <p>Calculations completed by a qualified professional (Architect, Structural Engineer) demonstrating this metric has been met.</p>	



CD1 PROMOTION OF PUBLIC AND ACTIVE TRANSPORTATION

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application / Plan of Subdivision Submission	Post Construction Submission	
CD1.1	Tier 1	All	<ul style="list-style-type: none"> Develop a Transportation Demand Management (TDM) Plan and demonstrate a 25% reduction in single occupancy auto vehicle trips generated by the proposed development. 		Site Plan Application only: Transportation Demand Management Plan demonstrating a 25% reduction.		
CD1.2	Tier 1	All	<ul style="list-style-type: none"> Construct a network of suitable cycling facilities and multi-use paths within the development which also connects to the bicycle network and implement recommendations of the City's Transportation Master Plan and/or Cycling Master Plan (where applicable). 		Site Plan Application and Plan of Subdivision: Plan(s) indicating network of cycling facilities and multi-use paths.		
CD1.3	Tier	All	<ul style="list-style-type: none"> Provide safe and direct routes that encourage the use of active transportation modes and connect to transit, commercial areas, community facilities, and parks. 		Site Plan Application and Plan of Subdivision: Plan(s) indicating safe and direct active transportation routes.		
CD1.4	Tier 1	All	<ul style="list-style-type: none"> Locate transit stops in accessible and safe areas. 		Site Plan Application and Plan of Subdivision: Plan(s) indicating transit stops.		



CD2 SERVICES WITHIN WALKING DISTANCE

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
CD2.1	Tier 2	All	<ul style="list-style-type: none"> Locate the building(s) within 800m of at least one of the following: <ul style="list-style-type: none"> Transit station or stop; Three amenities or services; Public park or recreational trail. 		Site plan(s) highlighting walking distance to selection option.		

CD3 BICYCLE FACILITIES

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
CD3.1	Tier 1	All	<ul style="list-style-type: none"> Provide long-term and short-term bicycle parking spaces that meet or exceed the minimum rates. 		Plan(s) indicating location, number, and type of bicycle parking spaces.		
CD3.2	Tier 2	All	<ul style="list-style-type: none"> Provide an additional 20% long-term and short-term bicycle parking spaces, beyond the CD3.1 requirements. 		Plan(s) indicating location, number, and type of bicycle parking spaces.		
CD3.3	Tier 2	Part 9 (Residential)	<ul style="list-style-type: none"> Include dedicated bike share location onsite and engage in contract with Hamilton Bike Share program. Alternative Compliance Path: Provide at least 10 additional publicly accessible, short-term bicycle parking spaces, at-grade on the site or within the public boulevard. 		Site plan(s) highlighting the location of planned bike share location For ACP only: Site plan(s) highlighting the location of publicly accessible spaces.	Documentation demonstrating enrollment in Hamilton Bike Share Program.	

CD4 ACCESSIBLE DESIGN

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
CD4.1	Tier 1	All	<ul style="list-style-type: none"> Meet the Accessibility for Ontarians with Disabilities Act (AODA) Integrated Accessibility Standards, sections 80.16 to 80.31 inclusive, for pedestrian infrastructure. 		Plan(s), drawing(s), or other documentation demonstrating compliance.		

CD5 URBAN AGRICULTURE

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
CD5.1	Tier 1	All (Excluding Commercial and Industrial)	<ul style="list-style-type: none"> Residential buildings: Provide 0.5 sq.m. per dwelling unit of garden space. Institutional Buildings: Provide space for urban agriculture and/or community garden. 		Landscape Plans indicating dedicated garden area.		

CD6 HEAT ISLAND EFFECT

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
CD6.1	Tier 1	All	<ul style="list-style-type: none"> Use one or a combination of a green roof, cool roof and solar PV installed for at least 75% of available roof space. 		Roof plan(s) indicating the heat island reduction measures, including the SRI values(s) of roof materials (if applicable).		



Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
CD6.2	Tier 1	All	<ul style="list-style-type: none"> Use one or a combination of the heat island reduction strategies to treat at least 50% of the site's non-roof hardscape. 		Site plan or landscape plan indicating the non-roof heat island reduction measures.		
CD6.3	Tier 2	All	<ul style="list-style-type: none"> Use one or a combination of the heat island reduction strategies to treat at least 75% of the site's non-roof hardscape. 		Site plan or landscape plan indicating the non-roof heat island reduction measures.		

CD7 COMMUNITY SUSTAINABILITY OUTREACH

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
CD7.1	Tier 1	All (Excluding Institutional and Industrial)	<p>Distribute a building specific sustainability handout to all homeowners and tenants, outlining sustainability features.</p> <ul style="list-style-type: none"> Familiarize tenants and homeowners with the building's green building feature with an on-site review. 		A Letter of Commitment signed by a qualified professional and the developer that includes confirmation that the requirements of this metric will be met.	Educational package or other educational materials demonstrating compliance.	



CD8 CELEBRATION OF HERITAGE AND CULTURE

Item #	Tier	Applicability	Metrics	Met	Documentation		Comments (Description of Compliance)
					Site Plan Application Submission	Post Construction Submission	
CD8.1	Tier 1	All	<ul style="list-style-type: none"> Where new developments are located near natural heritage features, locate amenities and green spaces nearby to provide a buffer. Where trails occur or are planned, provide a connection to the broader community. 		Plan(s), drawing(s), or other documentation demonstrating targeted feature(s).		
CD8.2	Tier 1	All	<ul style="list-style-type: none"> Significant cultural heritage resources, including heritage buildings and structures, shall be conserved in accordance with provincial and municipal policies. These resources should be retained in situ and integrated into compatible and sympathetic new development. For development projects that may impact on-site or adjacent cultural heritage resources, a Cultural Heritage Impact Assessment may be required and would guide the strategy for conservation, ranging from adaptive reuse, relocation to documentation and salvage. 		Cultural Heritage Impact Assessment, including any subsequent plans or studies recommended in the assessment (Conservation Plan, Vibration Study, etc.).		
CD8.3	Tier 1	All	<ul style="list-style-type: none"> Incorporate public art into publicly accessible and visible spaces or into building designs as an architectural element, where feasible, which celebrates the culture or history of the area. 		Plan(s), drawing(s), or other documentation demonstrating targeted feature(s).		
CD8.4	Tier 2	All	<ul style="list-style-type: none"> Introduce beautification measures/amenities that beautify stormwater management features, such as ponds. 		Plan(s), drawing(s), or other documentation demonstrating targeted feature(s).		