SUSTAINABLE BUILDING & DEVELOPMENT GUIDELINES MATRIX

NO.	REQUIRED / VOLUNTARY	GUIDELINE	RESPONSE
Section 1: Site Design			
1.1	Required	***Augment Topsoil***. Maintain a minimum 15 cm/6" quality topsoil	Not Applicable, given this guideline does not apply until the time of a Site Plan Approval (SPA) application. During the future detailed design stage, this guideline will be further reviewed. No further action is required for the Zoning By-law Amendment stage
1.2	Required	***Snow Management***: For sites with surface parking, identify a designated snow storage area in an area that will reduce salt and contaminant impacts to vegetation, groundwater and surface water. Appropriate on-site snow storage is preferable to off-site snow removal	Not Applicable. This guideline, which is only applicable to SPA applications, will be further reviewed during the future detailed design and SPA stage. No further action is required for the Zoning By-law Amendment stage
1.3	Voluntary	***Augment Topsoil, Enhanced:*** Maintain a minimum 30 cm/12" quality topsoil, protect areas from disturbance and/or decompact subsoil in landscaped areas/non landscape areas	Not Applicable. This guideline, which is only applicable to SPA applications, and related to ensuring sufficient topsoil is provided will be reviewed during the future detailed design stage. No further action is required for the Zoning By-law Amendment stage
1.4	Voluntary	***Snow Management, Enhanced:*** Achieve the Smart About Salt Site Certification	Not Applicable. This guideline, which is only applicable to SPA applications, and is related to ensuring appropriate snow management is achieved will be reviewed during the future detailed design stage. No further action is required for the Zoning By-law Amendment stage
1.5	Voluntary	***Reuse Topsoil:*** Retain and reuse uncontaminated on-site topsoil in areas not covered by the building and parking/hard surface areas. Proper storage of topsoil to retain soil health and quality	Not Applicable. This guideline, which is only applicable to SPA applications, and related to ensuring appropriate management and reuse of topsoil is provided will be reviewed during the future detailed design stage. No further action is required for the Zoning By-law Amendment stage
1.6	Voluntary	***Site Disturbance:*** On greenfield sites, limit site disturbance including earthwork and clearing of vegetation to 12 metres beyond the building perimeter, 1.5 m beyond primary roadway curbs, walkways, and main utility branch trenches, and 7.5 m beyond constructed areas with	The Site is located within a previously developed area. As further demonstrated on the accompanying Conceptual Landscape Plan, a series of landscaped areas are to be provided. Further detail on the plant specie

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		permeable surfaces (such as pervious paving areas) that require additional staging areas in order to limit compaction in the constructed area. Or on previously developed areas, restore a minimum of 50% of the site area (excluding the building footprint) by replacing impervious surfaces with native or adapted vegetation	to be implemented will be provided during the future detailed design stage. Furthermore, the proposal has been planned and designed to minimize site disturbance.
1.7	Voluntary	***Adaptive Reuse:*** Development includes adaptive reuse or rehabilitation of any non-designated heritage buildings with cultural heritage value or potential	Not Applicable. The Site is currently vacant and does no contain a listed or designated heritage resource. Adaptive re-use is not required
1.8	Voluntary	***Accessible Units:*** In ground oriented residential developments such as townhomes, 15% of units are constructed as visitable housing. Features include one zero-step entrance, wider doorways and clear passage on the main floor, a main floor bathroom or powder room. NOTE: Currently required for multi-unit apartment and condo buildings under the Ontario Building Code	An accessibility upgrade package may be available as an upgrade package at the appropriate time in the future, subject to purchaser preferences. Given this criterion is not applicable until permitting, opportunities to further consider accessible purchase packages will be undertaken in the future
Section 2: Transportation			
2.1	Required	***Site Connections:*** Provide pedestrian and cycling connections from on-site buildings to off-site public sidewalks, pedestrian paths, trails, open space, active transportation pathways, transit stops and adjacent buildings and sites in accordance with Official Plan policies	As demonstrated on the accompanying Conceptual Site Plan, pedestrian connections are to be provided to the off-site public sidewalk and active transportation network along the private road. Furthermore, in support of Official Plan policies, the proposal is pedestrian-oriented and built forms face the street
2.2	Required	***Accessibility:*** Design on-site sidewalks, crosswalks and walkways to be continuous, universally accessible, barrier-free and clearly delineated in accordance with Official Plan Policies, Accessibility for Ontarians with Disabilities Act & City of Burlington Accessibility Design Standards	Not Applicable. This guideline, which is only applicable to SPA applications, and related to ensuring appropriate accessible sidewalks, pathways and crosswalks are provided, will be further evaluated during the future detailed design stage. No further action is required for the Zoning By-law Amendment stage
2.3	Required	***Bicycle Storage:*** Provide bicycle parking spaces in accordance with Zoning By-law and Official Plan policies	In accordance with Section 2.26.10 of the City's Zoning By-law, bicycle parking spaces are not required for the residential use contemplated. Therefore, no bicycle parking

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			spaces are required, nor are bicycle parking spaces provided
2.4	Voluntary	***Transportation Demand Management:*** Provision and implementation of a Transportation Demand Management Plan. Required for parking reductions and required in Primary, Secondary and Employment Growth areas as per Official Plan policy	As further described in the accompanying Planning Justification Report and the Transportation Brief, a parking reduction is not requested in this instance. Furthermore, given the scale of development proposed, a transportation demand management strategy is not warranted. The ways in which the proposed site design and parking standard accommodate anticipated user demands is fully described in the accompanying Transportation Brief
2.5	Voluntary	***Bicycle Storage (Occupants):*** Locate occupant/employee bicycle parking near the main entrance or easy to identify area, in a weather protected area with controlled access or secure enclosures, at no extra charge to the occupant/employee	Not Applicable. As stated above, bicycle parking requirements are not triggered by the type and scale of development. No further action is required
2.6	Voluntary	***Bicycle Storage (Visitor):*** Provision of bicycle parking spaces in a weather protected area at grade near the main entrance or easy to identify area	Not Applicable. As stated above, bicycle parking requirements are not triggered by the type and scale of development. No further action is required
2.7	Voluntary	***End of Trip Facilities:*** In workplaces provide a minimum of 1 shower and change facility with lockers. Provide an additional shower and change facility for every 30 bicycle parking spaces	Not Applicable. Given bicycle parking requirements are not triggered by the type and scale of development, neither are end of trip facilities. No further action is required
2.8	Voluntary	***Electric Vehicles:*** A minimum of 3% of parking spaces provide charging stations to accommodate electric vehicles and design additional areas to be EV conversion ready. NOTE: Effective January 2019, the Building Code requires EV charging in 20 percent of parking spaces and "rough-ins" in the remaining spaces in new multi-unit residential buildings where parking is provided within the building	In accordance with the in-effect Zoning By-law, there is no requirement for EV spaces or EV-ready spaces. Subject to purchaser preferences, a rough-in for EVs can be provided within the private garages of each townhouse
2.9	Voluntary	***Transit Pass:*** For residential developments, each unit receives a one-year Burlington Transit pass at no cost to resident	Given the type and scale of development, this guideline is unnecessary. The provision of a one-year paid transit pass is more applicable to multi-unit apartment

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			developments, rather than ground-oriented townhouse developments. A pre-paid transit pass is not contemplated
2.10	Voluntary	***Bike Share:*** Provision of an on-site bike share available for owners/tenants to use	Not Applicable. Given bicycle parking requirements are not triggered by the type and scale of development, neither is a bike share program. No further action is required
2.11	Voluntary	***Car Share:*** Provision of an on-site car share service available to owners/tenants and the public	Given the type and scale of development, this guideline is unnecessary and would add additional cost to the end user. The provision of an on-site car share service is more applicable to multi-unit apartment developments, rather than ground-oriented townhouse developments. Given this, an on-site car share service is not feasible nor contemplated
Section 3: Natural Environment			
3.1	Required	***Light Pollution:*** Minimization of light pollution in accordance with the City's Guidelines for Outdoor Lighting and Official Plan policies	Not Applicable. This guideline, which is only applicable to SPA applications, and related to ensuring appropriate outdoor lighting is provided, will be further evaluated during the future detailed design stage. No further action is required for the Zoning By-law Amendment stage
3.2	Required	***Native Species (NHS):*** As per Official Plan policy, use native, non-invasive species within the Natural Heritage System and related buffers, and use non-invasive species in all other areas	Not Applicable. This guideline, which is only applicable to SPA applications, and related to ensuring appropriate native, non-invasive species are utilized in landscaped areas will be further evaluated during the future detailed design stage. We also highlight that the Subject Lands are not located within or near the NHS and buffer areas. No further action is required for the Zoning By-law Amendment stage
3.3	Voluntary	***Native Species (Enhanced, outside NHS and buffers):*** Use native, non-invasive species that are suitable to site conditions for a minimum of 75% of all landscaped areas	Not Applicable. The provision of appropriately situated native, non-invasive species in landscaped areas across the Site will be further evaluated at the appropriate time in the future, during the detailed design

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			stage. No further action is required for the Zoning By-law Amendment stage
3.4	Voluntary	***Bird Friendly Design:*** Incorporate bird friendly design measures. Required for glass buildings and buildings adjacent to the Natural Heritage System and the Lake Ontario shoreline, as per Official Plan Policy	Not Applicable. The provision of bird friendly design strategies will be further evaluated at the appropriate time in the future, during the detailed design stage. We highlight that given the built form and built form features contemplated, the proposal cannot be described as being comprised of glass structures, structures adjacent to the NHS system nor along the Lake Ontario shoreline. No further action is required for the Zoning By-law Amendment stage
3.5	Voluntary	***Low Maintenance Landscaping:*** All landscaping is low maintenance and drought resistant (i.e., self-sustaining vegetation) that does not require a permanent potable water-based irrigation system (except for initial watering to establish plants)	Not Applicable. The provision of low maintenance landscaping will be further evaluated at the appropriate time in the future, during the detailed design stage. No further action is required for the Zoning By-law Amendment stage
3.6	Voluntary	***Tree Planting (quantity):*** Submit a Canopy Cover Plan that demonstrates 20% canopy cover of non-building hard surfaces at two thirds mature size	Not Applicable. A Canopy Cover Plan will be prepared and provided at the appropriate time in the future, in support of the detailed design stage. No further action is required for the Zoning By-law Amendment stage
3.7	Voluntary	***Tree Planting (soil):*** Provide a soil volume of 30 m3 per tree and a minimum depth of 1 metre of high quality soil OR in hard surface situations install a soil cell product with high quality soil and provide the required soil volume	Not Applicable. The provision of sufficient soil volume will be further evaluated at the appropriate time in the future, during the detailed design stage. No further action is required for the Zoning By-law Amendment stage
3.8	Voluntary	***Enhanced Tree Preservation:*** Maintain existing on-site trees that are 30 cm or more DBH (diameter at breast height) OR Maintain 75% of healthy mature trees greater than 20 cm DBH. NOTE: Tree preservation requirements ill be determined by Official Plan urban forestry policies	As further described in the accompanying Arborist Report, all healthy on-site trees are to be preserved. Appropriate tree preservation strategies will be further reviewed at the appropriate time in the future, as a component of the detailed design stage
3.9	Voluntary	***Restoration and Enhancement:*** Complete and implement a restoration and/or enhancement plan that demonstrates	Not Applicable. As stated above, the Subject Lands are not located within or near a

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		net gain for Natural Heritage System areas, including a management and monitoring plan. May be required as a result of Environmental Impact Assessment recommendations	Natural Heritage System (NHS) component. Therefore, a restoration plan is not warranted nor provided
3.10	Voluntary	***Community Gardens:*** For development containing residential units, provide community garden plots for residents in a common amenity area	Given the scale of development, implementation of a community garden is not feasible nor desirable. The provision of a community garden within a common amenity area is more suitable for higher density, multi-unit apartment developments. In our opinion, no further action is required
3.11	Voluntary	***Green Roofs:*** For residential and mixed use developments, install green roods, consisting of a layer of growing medium soil with vegetation material on top of a conventional flat or sloped roof. Definition as set out in the Municipal Act, 2001 Section 97.1(4): "green roof" means a roof surface that supports the growth of vegetation over a substantial portion of its area for the purpose of water conservation or energy conservation	Not Applicable. The provision of green roof treatments in the development, given the scale and massing of the development, is not feasible nor desirable. The implementation of green roof treatments is more appropriately suited to larger-scale developments
Section 4: Water Conservation and Quality			
4.1	Required	***Stormwater Quality:*** Achievement of a level one/enhanced stormwater treatment for all stormwater runoff	The provision of a satisfactory stormwater treatment strategy is described in the accompanying Functional Servicing and Stormwater Management ('FS – SWM') Report
4.2	Voluntary	***Water Conservation Systems:*** Implementation of systems to retain and reuse water, such as gray water recycling, rainwater harvesting systems, cisterns and rain barrels	Opportunities to implement contextually appropriate water conservation systems will be further explored at the appropriate time in the future, in support of the detailed design stage. No further action is required for the Zoning By-law Amendment stage
4.3	Voluntary	***Pervious Surfaces:*** Minimization of impervious surfaces and stormwater runoff through the use of Low Impact Development (LID) measures, such as: • Permeable pavements; • Bioswales; • Infiltration trenches / bioretention areas;	Contextually appropriate Low Impact Development measures are to be provided. Further detail on the site-specific LID measures to be implemented is provided in Table 4, presented in the accompanying Stormwater Management Report

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		• Rain gardens; • Draining roofs to pervious areas; and • Other innovative stormwater management strategies	
4.4	Voluntary	***Efficient Fixtures:*** All newly installed toilets, urinals, private lavatory faucets, and showerheads that are eligible for labelling must be WaterSense labelled	Not Applicable. The provision of efficient fixtures will be reviewed at the appropriate time in the future, in support of the permitting process. No further action is required for the Zoning By-law Amendment stage
Section 5: Energy and Emissions			
5.1	Required	***Urban Heat Island:*** Provide vegetated landscape areas in hard surface areas as per the Zoning By-law	As further demonstrated on the accompanying Site Plan and Landscape Plan, a series of landscaped areas are to be provided across the Site. These areas serve to minimize the urban heat island impacts and also support the provision of sufficient landscaped areas and landscape buffer widths, in accordance with Zoning By-law requirements
5.2	Voluntary	***Urban Heat Island (non-roof):*** Efforts to reduce urban heat island effect using light coloured materials/white paving and/or enhanced landscaped parking for at least 50% of non-roof hardscape	Not Applicable. Opportunities to further review and evaluate the provision of light coloured hardscape materials and surface treatments will be undertaken at the appropriate time in the future, in support of the detailed design stage. We highlight that the provision of light coloured hardscape materials will be limited by adherence to the City of Burlington Standards for private roads. No further action is required at this Zoning By-law Amendment stage
5.3	Voluntary	***Urban Heat Island (roof):*** Use cool roofing materials for 75% of the roof area OR install a green roof with 50% minimum coverage OR use a combination of green roof and cool roof materials for a minimum of 75% of the roof	Not Applicable. A detailed review of the proposed roof treatments will be undertaken in the future, during the detailed design stage. No further action is required at this Zoning By-law Amendment stage
5.4	Voluntary	***Energy Efficiency:*** Achieve 10% or better energy efficiency improvements over ASHRAE 90-1-2010 as demonstrated by third party certification/energy modelling.	Not Applicable. A review of the proposed development's energy efficiency will be undertaken in the future, during the

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			permitting stage. No further action is required during this Zoning By-law Amendment stage
5.5	Voluntary	***On-Site Renewable Energy:*** Generate a portion building energy needs using an on-site renewable energy supply (e.g., solar, wind, geothermal)	Not Applicable. The provision of an on-site renewable energy source to accommodate on-site energy needs is not feasible nor viable given the scale of development proposed. The provision of on-site renewable energy sources is more applicable to higher density developments and apartment built forms. In our opinion, this criterion is not applicable and no further action will be taken
5.6	Voluntary	***Net-Zero:*** Demonstration via energy modelling of net-zero energy footprint	Not Applicable. The provision of energy modelling efforts will be provided at the appropriate time in the future, in support of the permitting stage. No further action is required at this time
5.7	Voluntary	***District Energy:*** Incorporate a district heating and/or colling system, or ensure the building is retrofit ready for a future DE connection	Not Applicable. Given the scale and form of development contemplated, the provision of a district energy system is not feasible nor viable. No further action is required
5.8	Voluntary	***Continuous Metering:*** Provision of continuous metering or energy usage for each unit	Each dwelling unit will be independently metered. Further detail on the placement and design of the metering system will be provided during the future detailed design stage and during the permitting stage
5.9	Voluntary	***Commissioning:*** Third-party commissioning of building systems to ensure they function properly. Commissioning team should be part of an integrated design and construction team at project start	A detailed review of building systems will be completed at the appropriate time in the future, in support of the permitting stage. No further action is required
Section 6: Waste and Building Materials			
6.1	Required	***Waste Management:*** Provide and implement a waste management plan in accordance with Regional requirements	Municipal waste collection is to be provided. As such and in accordance with Regional requirements, waste will be collected at the end of each dwelling unit's driveway. The waste collection point is demonstrated on the accompanying Waste Management Plan. Further detail regarding the waste

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			management and collection strategy is also provided in the accompanying Waste Management Plan. Should further detail be necessary, this detail will be provided during the future detailed design stage
6.2	Voluntary	***Waste Management Facilities:*** Provision of recycling, garbage and composting facilities (beyond those required by Halton Region) which are easily accessible for all occupants (in an attached building)	As stated above, municipal waste collection, including waste, recycling and compost, will be provided. As such, the provision of waste, recycling and compost will occur on each lot. No further action is required
6.3	Voluntary	***Recycled Materials:*** Ensure that at least 15% of a project's construction materials (based on value) are comprised of refurbished/reused or recycled content	Not Applicable. The amount of recycled materials, if any, will be further reviewed during the future permitting stage. No further action is required
6.4	Voluntary	***Locally Manufactured:*** Ensure that at least 15% of a project's construction materials (based on value) are comprised of materials with locally manufactured content	Not Applicable. The amount of locally manufactured materials, if any, will be further reviewed during the future permitting stage. No further action is required
6.5	Voluntary	***Sustainable Wood:*** Where wood based materials are used, utilize a minimum of 25% that are certified in accordance with the Forest Stewardship Council's principles and criteria for wood building components	Not Applicable. A further review of wood based materials, if any are to be utilized, will be undertaken during the future permitting stage. No further action is required
6.6	Voluntary	***Air Pollutants in Materials:*** Minimization of air pollutants in interior materials by using low or no VOC paints, carpets, adhesives and other finishes	Not Applicable. A further review of interior materials will be undertaken during the future permitting stage. No further action is required
6.7	Voluntary	***Construction Waste Management:*** Develop and implement a waste management plan to recycle and/or salvage construction, demolition and land clearing waste	A Waste Management Plan will be prepared and provided in support of the future permitting process. No further action is required during this Zoning By-law Amendment stage
Section 7: Maintenance, Monitoring and Communication			
7.1	Voluntary	***Maintenance Plan:*** Provision of a building maintenance plan that provides instructions, training requirements and schedules for maintaining sustainability features of the site/building/landscaping. Includes requirements for recommissioning plan	Not Applicable. Should a building maintenance plan be deemed necessary based on the built form proposed, such a plan and accompanying instructions can be prepared and provided at the appropriate time in the future, in support of the

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			permitting stage. No further action is required
7.2	Voluntary	*Education:* Provision of instructions for homewowners and occupants that explain the intent, benefits, use and maintenance of green building features as part of the lease/sale agreement or condo declaration. Signage and other education materials are posted to educate building visitors of sustainability features	A homeowners information package will be prepared and provided at the appropriate time in the future. Should signage be required to identify site-specific green building aspects, this signage will be reviewed with City Staff during the future permitting stage. No further action is required
7.3	Voluntary	*Monitoring:* Collection and monitoring of project performance data on energy, water and healthy living environments. Note: Ontario's Energy and Water Reporting and Benchmarking (EWRB) program has reporting requirements for commercial, multi unit residential and some industrial buildings over 50,000 square feet	Not Applicable. The collection and monitoring of performance data will be further discussed and reviewed during the future permitting stage. No further action is required at this Zoning By-law Amendment stage
Section 8: Innovation			
8.1	Voluntary	Innovative design or performance features not listed that receive approval from the City	Noted. The provision of agreed upon innovative design features will be implemented