



**BROCK ROAD DUFFINS FOREST INC.**

# **Sustainability Report for 2055 Brock Road, Pickering, Ontario**

**City of Pickering Sustainable Development Guidelines**

# Table of Contents

---

## Executive Summary

---

<b>1.0</b>	<b>Sustainable Development Guidelines #2 – Assessment of 2055 Brock Road Development</b>	<b>3</b>
------------	--	----------

---

## References

---

# Executive Summary

---

This report provides the completed Sustainable Development Report for the proposed development at 2055 Brock Road in Pickering, Ontario.

The Brock Road Duffins Forest Inc. (the 'Applicant') is seeking approvals to redevelop the property located on the east side of Brock Road, north of Finch Avenue, and municipally addressed as 2055 Brock Road, in the City of Pickering. The redevelopment is proposed on underutilized lands, and will facilitate a development that integrates into the surrounding neighbourhood and respects the natural environment. The proposed development offers a variety of housing types, contributing to the intent of the Duffins Precinct Development Guidelines. The proposal includes 380 residential units on the 1.31 hectare site, split among four Blocks (A, B, C and D). Block A will consist of a 20-storey residential building with a 4-storey podium, and 6-storey midrise. Blocks B, C and D will consist of street and stacked townhouses. Additionally, the Development Footprint will include 1,152 square metres of outdoor amenity space. Buffer lands associated with West Duffins Creek will be conveyed to the Toronto and Region Conservation Authority.

The Sustainable Development Report has been prepared on behalf of the Applicant to comply with the City of Pickering requirements for plans of subdivision, site plans, rezoning and building permits (undertaken by developers/land owners/builders). The City's Sustainable Development Guidelines #2 document was followed to complete the Assessment, as summarized in **Table 1**. Based on the preliminary assessment of Optional points identified as Targeted in the **Table 1**, it is anticipated that the proposed development can achieve a Level 2, contingent on confirmation from the City that all targeted points can be awarded.

## Sustainable Development Guidelines #2 – Assessment of 2055 Brock Road Development

**Table 1: Sustainable Development Guideline #2 – Completed Table for 2055 Brock Road, Pickering, Ontario.**

Guideline	Points Targeted	Required/ Optional	Required Guideline Status
<b>1.0 Pre-Consultation And On-Going Consultation</b>			
1.1 Completion of Extensive Pre-Consultation on Sustainability Elements	3	Optional (3 Points)	Based on the Planning Justification Report (PJR), a formal pre-consultation meeting with the City of Pickering was held on April 15, 2019, to identify and confirm required submission materials. A <i>Sustainable Development Report</i> was identified as being required, among other submission materials. The pre-consultation meeting was attended by City of Pickering (the City) and Toronto and Region Conservation Authority staff (TRCA). A pre-consultation meeting summary was subsequently compiled, identifying submission requirements for a complete application.
<b>2.0 Environmental Protection</b>			
2.1 Watershed And Sub-Watershed Planning	✓	Required	A Functional Servicing and Stormwater Management Report (FSSR) completed for the Project indicates the approach to managing stormwater and drainage is in line with the Region of Durham design guidelines; utilizing Low Impact Development and an existing pond downstream of the Development Site.
2.2 Master Environmental Servicing Plan (MESP)	N/A	Required	N/A – The proposed development does not fall within an existing MESP Study Area.
2.3 Conservation Authority Regulations	✓	Required	The stormwater management criteria for the Subject Lands was established by the previous FSSR and SWM Brief for the Kindwin Lands. The criteria outlined in these reports was in keeping with the City and the TRCA criteria at the time of their approval.
2.4 Oak Ridges Moraine Plan	N/A	Required	N/A – The proposed development does not fall within the Oak Ridges Moraine Plan Area
2.5 Greenbelt Plan	N/A	Required	N/A – The proposed development does not fall within the Greenbelt Area
2.6 Conformance to Provincial Policy Statement (PPS) for Building Strong Communities	✓	Required	The PJR provides an analysis of the provincial policies contained in the PPS and how the proposed Official Plan Amendment, Zoning By-law Amendment, Draft Plan of Subdivision and Draft Plan of Condominium are consistent with these policies. Within Section 1.0 Building Strong Healthy Communities, Policy 1.1, Subsection 1.1.1, describes how healthy, liveable and safe communities are sustained. The PJR provides an overview of the relevant policies and how the proposed amendments address them. For example, the proposed development will efficiently use land that is currently underutilized on the Subject Lands and will further contribute to the range of housing stock in this area of the City of Pickering.
2.7 Conformance to PPS for Wise Use and Management of Resources	✓	Required	Policy 1.6.3 of the PPS (Infrastructure and Public Service Facilities) states that the use of existing infrastructure and public service facilities should be optimized, wherever feasible before consideration is given to developing new infrastructure and public service facilities. Based on the evaluation as stated in the PJR, the proposed development will take full advantage of the existing public service facilities as well as support the use and optimization of existing infrastructure. The FSSR prepared by Schaeffers Consulting Engineers Inc. has identified that the existing infrastructure is suitable to support the proposed development of the site.
2.8 Conformance to PPS for Protecting Public Health and Safety	✓	Required	Based on the evaluation as stated in the PJR, the Subject Lands are located in an area designated for growth and development and not located in an area subject to environmental, public health or safety concerns, as defined within the Environmental Impact Study (EIS) prepared by Dillon Consulting in March 2020 in support of the proposed development. Public health and safety are not anticipated to be impacted by the proposed development.
2.9 Storm-water Quality	✓	Required	As indicated in the FSSR, the existing Kindwin stormwater management pond has been designed to provide sufficient permanent pool and extended detention volumes to meet the quality and erosion control requirements for the tributary drainage area, which is inclusive of the Development Footprint. Since the West Duffins Creek has no quantity control requirements, all flows above the erosion flow will be discharged directly from the Development Footprint to the creek.
2.10 Maintain or Reduce Storm-water Runoff Rates	✓	Required	As indicated in the FSSR, the Development Site can be serviced using existing storm and sanitary sewers. The domestic and fire water supply services can be provided by the existing watermains along Brock Road and Usman Road. Site drainage can be contained with limited encroachment to the south property and will not exceed permissible grades. Stormwater management will be provided by an existing pond located downstream of the Development Site, and the water balance and infiltration will be completed using Low Impact Development measures to match pre-development conditions.
2.11 Water Balance and Source Water Protection	✓	Required	A water balance assessment (pre- and post-development) was conducted by Soil Engineers Ltd. and the findings of the assessment, as stated in the water balance report (draft version dated December 2019 and final version dated March 2020) include: <ul style="list-style-type: none"> <li>• Summary of water balance components (i.e. precipitation, evapotranspiration, infiltration, runoff) <ul style="list-style-type: none"> <li>- a comparison of pre- and post-development water balance components and explanation of anticipated differences</li> </ul> </li> <li>• Confirmation that the infiltration target for the Study Area established in the Stormwater Management Report by GHD for Kindwin Lands (dated February 2015) is sufficient to meet the infiltration requirements for the developed site</li> <li>• Confirmation that no further infiltration measures are required for the Development Footprint</li> <li>• The post-development water balance with a mitigation plan being in place</li> </ul>
2.12 Ground Water Protection Plan	✓	Required	A Hydrogeological Assessment was prepared by Soil Engineers Ltd. in March 2020 in support of the proposed development. This Assessment notes that the zone of influence for construction dewatering could reach a maximum of 11.4 meters (m) away from the conceptual dewatering arrays considered for construction of the proposed underground structure. No water supply wells, bodies of water, watercourses, wetlands or any natural features are present within the Development Footprint for the constructed dewatering arrays. Given that the southern and eastern portions of the site are heavily forested with no development anticipated within these portions of the site, it is feasible that West Duffins Creek and its associated natural features will be located outside the conceptual zone of influence for temporary construction dewatering.

2.13 Integrated Environmental Systems Protection <ul style="list-style-type: none"> <li>The plan contains innovative elements that integrate various environmental objectives. Achievement will be evaluated by the City in consultation with TRCA.</li> </ul>	3	Optional (3 Points)	Heritage Conservation Compliance Statement or Natural Heritage Evaluation is required for the Zoning By-law Amendment (ZBLA) application The accompanying EIS demonstrates that the proposed buffers, within the lands to be conveyed to the TRCA, are sufficient to support the proposed development. The Development will not negatively impact the diversity and connectivity of the features or the long-term ecological function and biodiversity of the features if mitigation recommendations are implemented. The proposed development supports environmental systems protection as approximately 3.74 hectares (ha) of the Subject Lands will be maintained as Major Open Space Areas to promote the preservation and conservation of these ecological areas and functions.  The EIS identifies the location and nature of the development, as well as existing environmental locations. Appropriate measures to protect and/or mitigate negative impacts to key natural heritage and hydrologic features are recommended, including an ongoing monitoring plan to ensure no negative impacts occur during construction of the proposed development. The EIS has been prepared in accordance with all applicable City, Region, and Conservation Authority guidelines and requirements.
2.15 Biodiversity Protection and Enhancement	3	Optional (3 Points)	The accompanying EIS demonstrates that the proposed buffers, within the lands to be conveyed to the TRCA, are sufficient to support the proposed development. The Development will not negatively impact the diversity and connectivity of the features or the long-term ecological function and biodiversity of the features if mitigation recommendations are implemented.
2.16 Natural Heritage Protection	3	Optional (3 Points)	The Applicant has successfully mitigated impacts to natural heritage features within the Site, and transferred natural heritage lands to the TRCA.
2.17 Required Residential Site Design to Maximize Permeability	✓	Required	The proposed development will strive to achieve these targets, and detailed design will be provided at the Site Plan Approval stage.
2.18 Optional Residential Site Design to Maximize Permeability <ul style="list-style-type: none"> <li>25% increase in permeability relative to conventional methods</li> <li>50% increase in permeability relative to conventional methods</li> </ul>	2	Optional (2 Points)  (3 Points)	This will be addressed at the Site Plan Approval stage; a 25% increase in permeability will be considered.
2.19 Required Commercial/ Employment/ Institutional Site Design to Maximize Permeability	✓	Required	N/A – The proposed development does not include a commercial/employment/institutional use
2.20 Required Commercial/ Employment/Institutional Site Design to Maximize Permeability	✓	Required	N/A – The proposed development does not include a commercial/employment/institutional use
2.21 Native Species & Planting <ul style="list-style-type: none"> <li>The project uses native species for 50% of the landscaped area.</li> <li>The project uses native species for 75% of the landscaped area</li> <li>The project uses native species for 100% of the landscaped area</li> <li>The project incorporates a site design for native species documented in a landscape Master Plan</li> </ul>	2	Optional (2 Points) (3 Points)  (4 Points) (2 Points)	As stated in the PJR, the (EIS) prepared in support of the proposed development identifies significant woodlands within the Study Area associated with the riparian cover of the West Duffins Creek. The EIS further identifies that significant woodlands will be retained and protected within the staked limits of Major Spink Environmentally Significant Area and not impacted by the proposed development within the Development Footprint. Additionally, this proposed development will strive to achieve a minimum of 50% native species in landscaped areas. Landscape Plans attached.
2.22 Landform Conservation	✓	Required	For the proposed development, 3.3 ha consist of buffer and valley lands adjacent to West Duffins Creek, which are intended to be conveyed to the TRCA to ensure their long term protection. The proposal within the Development Footprint, as demonstrated in the EIS impacts will be avoided or minimized by implementing the mitigation, restoration and management measures described in the report on adjacent natural features.  As confirmed in Phase I and II Environmental Site Assessments, no development or site alteration is proposed that intersects with key natural heritage or hydrologic features.
2.24 Pesticide and Fertilizer Use	2	Optional (2 Points)	This information is generally included in a landowner education on pesticide and fertilizer use. It is anticipated that this information will be included in more detailed planning stages of the proposed development.
2.25 Minimize Construction Related Environmental Impacts	✓	Required	An Environmental Noise Assessment (Noise Study) was prepared by YCA Engineering in February 2020 in support of the proposed development. The Noise Study recommends mandatory air conditioning for the proposed apartment units and the provision of air conditioning for the proposed townhouse blocks. Within the proposed apartment building, the exterior wall and window construction is to be upgraded to ensure acoustically acceptable construction. The Noise Study concludes that sound levels acceptable to the Ministry of Environment, Conservation and Parks (MECP), the City, and the Region are expected to be achieved using the abatement measures outlined in the Noise Study.

2.27 Erosion and Sedimentation Control	✓	Required	As stated in the PJR, the proposed development will require the removal of ground vegetation and select trees within the Subject Lands, with potential impacts including disturbance to candidate significant wildlife habitat, erosion and sedimentation, and diversion of surface water flows. A number of mitigation, restoration, and management measures are recommended within the EIS to avoid and minimize these potential impacts.
<b>3.0 Location of Development / Selection of Lands</b>			
3.1 Site Typology The plan pertains to lands that are: <ul style="list-style-type: none"> <li>On previously developed lands at higher density;</li> <li>On a greenfield site adjacent to existing development;</li> <li>On a vacant infill site; or</li> <li>On a brownfield site that was either undeveloped or previously developed and may be contaminated.</li> </ul>	5	Optional  (3 Points)  (5 Points) (3 Points) (3 Points)	The development lands are located on a greenfield site adjacent to existing development, including a large residential subdivision consisting of detached dwellings. A variety of amenities can be found adjacent to these lands, including a religious institution a childcare centre, and multiple outdoor public spaces and parks.
<b>4.0 Design Development – Land Use and Distribution</b>			
4.1 Diversity of Uses	✓	Required	The Places to Grow Plan (Policy 2.2.1.4) requires the proposal to support the achievement of complete communities. Based on the evaluation stated in the PJR, examples of how the proposed development would meet this achievement include: <ul style="list-style-type: none"> <li>Promoting a high quality of life for all future residents</li> <li>Being located within walking distance to existing public transit routes along Brock Road, as well as within proximity to local services to provide for day-to-day needs.</li> <li>Providing for a range of residential housing options, including 50% of units consisting of 2-bedrooms or more to accommodate people of all stages of life within an existing neighbourhood inclusive of community amenities and services</li> </ul>
4.2 Construction Phasing	✓	Required	The proposal represents densification of an existing underutilized property within an Intensification Area. The proposal is compatible with the planned and proposed redevelopment of the area within the surrounding Urban Residential Area.
4.4 Proximity to Schools	✓	Required	The proposed development is 53 m away from Brock Elementary School (1 minute walk), and 2.80 km to Pine Ridge Secondary School (34 minute walk/5 minute car ride)
4.5 Provision of Mixed Uses and Commercial Streetscape Environments	✓	Required	The proposed development offers the opportunity for existing and new residents to live within the urban area of the City of Pickering in more compact urban form of housing. The proposal further seeks to locate the apartment building in proximity to existing public transit routes that offer connections to existing local amenities and facilities to service the daily needs of future residents, thereby encouraging alternative modes of travel. The orientation of the buildings within the Subject Lands will further improve the existing streetscape by locating the 20-storey building closer to Brock Road, with a pedestrian-scaled six-storey podium to ensure a comfortable and attractive public realm is achieved.
4.6 Enhanced Access to Amenities	5	Optional (3 Points) (5 Points)	The proposed development is located within walking distance from a variety of amenities. Within 400m (or average walking time of 5 minutes), community members can access two parks (Brock Ridge Community and Usman Parks), and two religious facilities (Pickering Islamic Centre Masjid Usman and Pickering Baptist Church). Within 500m, is the Durham Regional Police station and a post office (civic). A short distance further (700m and 8-9 walking minutes), pedestrians can access a variety of retail shops (including groceries and home hardware), entertainment facilities (including restaurants and toy stores), and a pharmacy (medical).
4.7 Enhanced Housing Diversity	✓	Required	The proposed development will contain a diversity of residential dwelling (townhouses and apartments) unit sizes and configurations, with varying levels of affordability, in order to provide increased housing choices for current and future residents.
4.9 Retail Parcel Sizes	N/A	Required	N/A - the proposed development does not include commercial uses.
4.10 Commercial Concentration	N/A	Required	N/A - the proposed development does not include commercial uses.
4.12 Proximity to Public Spaces	✓	Required	The site design provides for 1,152 square meters of outdoor amenity and gathering space (538 square meters more than required for a development of this size). Additionally, proximities to parks and plazas are indicated below. <ul style="list-style-type: none"> <li>Park: Brock Ridge Community Park (300m)</li> <li>Plaza: Shops at Pickering Ridge (3.5 km)</li> </ul>
<b>5.0 Design of Development – Density and Compact Built Form</b>			
5.1 Residential Density	✓	Required	The proposed development provides for 380 residential dwelling units at a density of 289.74 units per ha (uph); and provides for an internal pedestrian network connected to existing municipal sidewalks to ensure appropriate pedestrian circulation.

5.2 Increased Residential Density	6	Optional (6 Points)	The proposed development includes 380 residential units spread across 4 buildings (a tower and stacked townhouses). The site is 1.31 ha in size. Therefore, the density of the site is proposed to be approximately 289.74 uph, and exceeds the high-density target of over 120uph.
5.3 Commercial Density	N/A	Required	N/A - The proposed development does not include any commercial uses
5.5 Future Intensification	N/A	Required	N/A - The proposed development will result in intensification through the redevelopment of an underutilized land parcel.
<b>6.0 Design of Development – Connections</b>			
6.1 Open and Connected Communities	✓	Required	The design of the proposed development focuses on improving the pedestrian environment along Brock Road and ensuring safe connections between the proposed development and the municipal sidewalk. A pedestrian-friendly atmosphere at grade will be created through the relationship between the building podium and the street, including proposed landscaping elements.
6.2 Protect Linked Open Space System	✓	Required	The proposed development includes design considerations related to the relationship between the proposed development and the adjacent natural features, including massing and placement of buildings, and placement of outdoor amenity space.
6.3 Provision of Interconnected Transportation Network	✓	Required	The proposed development is located along a regional corridor and transit spine, the proposed density of development is transit-supportive with appropriate massing, and will encourage the use of active transportation through pedestrian connections with the surrounding municipal sidewalk.
6.4 Support for Alternative Transportation	5	Optional (5 Points)	The proposed development provides for 218 bicycle storage/parking spaces within the underground parkade, encouraging owners and tenants to cycle. There will also be considerations made to provide electric vehicle charging stations in the visitor lot. Opportunities will be explored and decisions will be made during the detailed design stage.
6.5 Street Network	✓	Required	The proposed development is located along a Regional Corridor and Transit Spine, the proposed density of development is transit-supportive with appropriate massing, and will encourage the use of active transportation through pedestrian connections with the surrounding municipal sidewalk. The design of the Development Footprint focuses on improving the pedestrian environment along Brock Road, ensuring safe connection from the proposed development and the municipal sidewalk. A pedestrian-friendly atmosphere at grade will be created through the relationship between the building podium and the street, including proposed landscaping elements.
6.6 Block Perimeter	✓	Required	The proposed development is on a single site and has been designed into four development blocks with interior sidewalks. None of the block perimeters exceeds 550 m.
6.7 Lanes	3	Optional (3 Points)	The proposed development includes street townhouses that will utilize a rear-lane townhouse design, with vehicular access to and from the proposed private road accessed via Usman Road. Internal sidewalks provide connectivity through the Development Footprint and connect to outdoor amenity space.  Additionally, the northern, six-storey portion of Block A will also front onto Usman Road, supporting a pedestrian-oriented design. This has been facilitated in order to animate Usman Road. Blocks C and D consist of stacked townhouses which will have their front yards and driveways facing onto the proposed private road.
6.8 Cycling Network	✓	Required	The proposed development supports active transportation initiatives and transit use in the area by providing long term and short term bicycle parking and is located adjacent to several bus stops along Brock Road with connections to Pickering Parkway Terminal and the Pickering GO Station. There is an existing off-road bikeway along Brock Road (Brockridge Park to Third Concession Road) within 1.9 km.
6.9 Transit Amenities	3	Optional (3 Points)	The proposed development supports active transportation initiatives and transit use in the area by providing long term and short term bicycle parking and is located adjacent to several bus stops along Brock Road with connections to Pickering Parkway Terminal and the Pickering GO Station. There are also bus routes already established along Brock Road (Routes 112, 603, 916).
6.10 Transit Oriented Compactness The design of the plan locates two-thirds of the proposed intensity (residential density and non-residential density) within 250 metres walking distance of a transit stop/planned transit stop.  • The design of the street pattern and walkway connections enables 90% of proposed residents, jobs and service uses within:	4	Optional  (2 Points)  (1 Point)  (2 Points)  (3 Points) (3 Points)	The furthest north-east point of the proposed development is within 400m (350m) of existing transit stops located along Brock Road which provides connectivity to other Regional modes of transit (i.e. GO Transit), and intends to take full advantage of these existing services in order to reduce vehicular trips and support current and future transit infrastructure. Additionally, blocks are oriented along transit route streets where possible.

<ul style="list-style-type: none"> <li>○ 400 metres walking distance of an existing transit stop;</li> <li>○ 50% within 250 metres of transit stop;</li> <li>○ 66% within 250 metres;</li> <li>• The project is designed such that short sides of blocks are oriented along transit route streets wherever possible.</li> </ul>			
6.12 Parking Location	✓	Required	The proposed development provides limited surface parking, with the majority of parking provided within two underground parking levels. Visitor parking is provided in the interior of the development.
6.13 Corridor Frontage	✓	Required	In order to enhance the Brock Road frontage, Block B will front onto Brock Road. The proposed street townhouses will utilize a rear-lane townhouse design with vehicular access to and from the proposed private road accessed via Usman Road. Additionally, the northern six-storey portion of Block A will also front onto Usman Road.
<b>7.0 Design of Development – Pedestrian Oriented Community</b>			
7.1 Amenities in Proximity	✓	Required	The proposed development is located within walking distance from a variety of amenities. Within 400m (or average walking time of 5 minutes), community members can access two parks (Brock Ridge Community and Usman Parks), and two religious facilities (Pickering Islamic Centre Masjid Usman and Pickering Baptist Church). Within 500m, is the Durham Regional Police station and a post office (civic). A short distance further (700m and 8-9 walking minutes), pedestrians can access a variety of retail shops (including groceries and home hardware), entertainment facilities (including restaurants and toy stores), and a pharmacy (medical/retail).
7.2 Pedestrian Network	✓	Required	The proposed development includes an internal pedestrian network to allow for internal circulation that is connected to the municipal sidewalk along both Usman Road and Brock Road.
7.3 Pedestrian Safety and Comfort	✓	Required	The proposed development will incorporate architectural and landscape treatments to establish a human-scaled form of development with appropriate visual and physical references for pedestrians. The development will accommodate persons with disabilities by ensuring all access points and circulation routes throughout the Development Footprint, including roadways and sidewalks, are barrier-free and compliant with Building Code and AODA requirements. Further details regarding architectural and landscape treatments will be determined at the Site Plan Approval stage.
7.4 Pedestrian Oriented Streetscapes	✓	Required	The orientation of the buildings within the Development Footprint will further improve the existing streetscape by locating the 20-storey building closer to Brock Road, with a pedestrian-scaled six-storey podium to ensure a comfortable and attractive public realm is achieved. Future streetscape design details such as plantings and street furniture design will be addressed at the Site Plan Approval stage of the development.
<b>8.0 Resource Efficiency</b>			
8.1 Energy Performance for Residential Buildings	N/A	Optional	The feasibility of achieving an Energuide rating will be assessed in the future.
<ul style="list-style-type: none"> <li>• At the time of submission of building permit applications and subsequent issuance of building permits the dwellings meet Energy Star for New Homes. Points will be awarded for the following Energuide ratings: <ul style="list-style-type: none"> <li>○ Energuide 80;</li> <li>○ Energuide 82;</li> <li>○ Energuide 84;</li> <li>○ Energuide 86</li> </ul> </li> </ul>		(2 Points) (4 Points) (6 Points) (8 Points)	
8.3 Energy Efficient Appliances	<b>3</b>	Optional (3 Points)	The developer will strive to ensure that all appliances will be EnergyStar rated. This will be addressed through the future Site Plan Approval Application.



8.4 Passive Solar Gain The plan will includes a report describing how passive solar gain has been accommodated in the plan/design considering street/lot orientation, fenestration on units and building height/separation distance.	✓	Required	Within the proposed development, the Block B Townhouses, and Block D Stacked Townhouses are oriented on the east-west axis, maximizing their solar gain potential. The prime consideration for Block A was to locate the tower as far south as possible to avoid overshadowing the mosque to the north.
8.5 Private Outdoor Lighting	✓	Required	The proposed development will be well lit through street lighting and pedestrian-scaled lighting features to ensure personal safety. The detailed design of the site will be further determined at the Site Plan Approval stage of the development.
8.6 Required Water Efficiency in Buildings	✓	Required	The proposed development will implement the required water efficiency measures for multi-unit residential buildings. These details will be addressed at Site Plan Approval stage.
8.7 Optional Water Efficiency in Buildings	4	Optional (4 Points)	The proposed development will target higher water efficiency for multi-unit residential buildings. These details will be addressed at Site Plan Approval stage.
8.8 Waste Management - Operations	✓	Required	The proposed development will be subject to the waste management requirements of the City of Pickering.
8.9 Waste Reduction – Construction	✓	Required	Best practices for waste reduction will be employed, including the development of a waste audit and waste reduction plan, as well as a goal to divert 50% of all eligible construction waste from the landfill.
8.10 Required Material Selection	✓	Required	The materials selection checklist will be used in detailed design stage, and the proposal will strive to achieve all requirements where feasible.
8.11 Optional Material Selection	N/A	Optional (3 Points)	
8.12 Green Upgrades Available to Home Buyers <ul style="list-style-type: none"> <li>• At the time of submission of the plan the developer/builder includes one or more of the following green upgrade options: <ul style="list-style-type: none"> <li>○ Offer xerophytic landscape package;</li> <li>○ Offer rain barrels with overflow to storm sewer (sizes to vary with lot size);</li> <li>○ Offer native plant species;</li> <li>○ Offer upgrade for net metering;</li> <li>○ Offer upgrade for smart metering;</li> <li>○ Offer upgrade to LED lighting for 20% of all fixtures;</li> <li>○ Offer upgrade to occupancy sensors;</li> <li>○ Offer upgrade to active solar hot water and space heating;</li> <li>○ Offer other energy saving methods related to heating and cooling such as</li> </ul> </li> </ul>	3	Optional (1 Point – for 1) (3 Points – for 3) (5 Points – for 3+)	This will be addressed at Site Plan Approval stage. The proposal will consider targeting a minimum of three green upgrades for home buyers.

external awning over larger windows, shade landscapes packages approved by the City Provision of a Homeowners' Guide with information on the variety of green upgrades			
8.18 Heat Island Reduction	3	Optional (3 Points)	The proposal will strive to reduce the heat island effect by providing a combination of shade (within 5 years) as well as using light-coloured materials for the non-roof impervious surfaces. These efforts will be further identified in the detailed design stage.
<b>9.0 Monitoring and Process to Address Exceptions</b>			
9.1 Monitoring Plan	3	Optional (3 Points)	An Environmental Monitoring Plan will be implemented during pre-, during and post-construction to monitor impacts on the natural environment and ensure mitigation measures are implemented.
<b>Total Points Targeted</b>			
Total points targeted	65		Level 2

## References

---

Dillon Consulting Limited [Dillon]. March, 2020. Environmental Impact Study. 2055 Brock Road, Pickering, Ontario.

GHD Inc. February 2015. Stormwater Management Report. Kindwin Development Inc. Kindwin Lands, City of Pickering

MacNaughton Hermsen Britton Clarkson Planning Limited (MHBC). April, 2020. Planning Justification Report. 2055 Brock Road, Pickering, Ontario.

Kohn Partnership Architects Inc. [Kohn Architects]. 21 February 2020. Draft Architectural Drawings. 2055 Brock Road, Pickering, Ontario

Kohn Partnership Architects Inc. [Kohn Architects]. 21 February 2020. Sun/Shadow Study Report. 2055 Brock Road, Pickering, Ontario

Sabourin Kimble & Associates Ltd. March, 2020. Functional Servicing Report. 2055 Brock Road, Pickering, Ontario

Sernas Associates. 30 November, 2012. Environmental Servicing Plan Update. Duffins Prescient Southern Land, City of Pickering

Soil Engineering Limited. 14 May 2018. Phase 1 Environmental Site Assessment Update. 2055 Brock Road, Pickering, Ontario

Soil Engineering Limited. 17 May 2018. Phase 2 Environmental Site Assessment Update. 2055 Brock Road, Pickering, Ontario

Soil Engineering Limited. 31 December 2019. Pre- and Post-Development Water Balance Assessment. 2055 Brock Road, Pickering, Ontario

Soil Engineering Limited. 17 May 2018. Phase 2 Environmental Site Assessment Update. 2055 Brock Road, Pickering, Ontario

YCA Engineering Limited. Revised September 2019. Environmental Noise Assessment. 2055 Brock Road, Pickering, Ontario