

1.1 Alternative Energy Systems

Intent of the Metric:	<i>To promote buildings that utilize alternative energy systems that reduce energy use and greenhouse gas emissions.</i>
Targets:	<p>Minimum Target: Development is designed to be solar ready and includes the following: roof location of suitable size, pitch and orientation; labeled conduits from mechanical room to roof; additional plumbing valves and fittings on hot water heater, outlet for planned solar take and wall space for controls; identified locations of future components on construction plans.</p> <p>Level 1: On-site installation for use of renewable or alternative energy systems such as: solar, wind, water, geothermal, etc. to produce a minimum of 30% of all energy consumption on site.</p> <p>Level 2: On-site installation for use of renewable or alternative energy systems such as: solar, wind, water, geothermal, etc. to produce a minimum of 50% of all energy consumption on site.</p>
Point Allocation:	A maximum of 7 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Authorization Letter/Energy Report signed by a <u>qualified individual</u>. • Elevation Plans & Floor Plans (<i>where applicable</i>) • Site Plan (<i>where applicable</i>) • Applicable Engineering Documents
How to Comply:	<ul style="list-style-type: none"> • The Authorization letter should quantify the percentage of energy consumption from alternative energy systems based on the modeled or estimated performance of the proposed development including all fixtures, appliances, ventilating and heating equipment. • Elevation Plans, Floor Plans and Site Plan should depict the modifications to enable the development to utilize alternative energy systems.
Resources:	<ul style="list-style-type: none"> • Natural Resources Canada, Renewable Energy • Ontario Energy Board • Passive House Standards
Department to Review:	Parks Recreation & Culture – Climate Change Coordinator Engineering & Public Works Department

1.2 Green Building Certification

Intent of the Metric:	<i>To recognize appropriate independent certification systems that have been incorporated into the development proposal.</i>
Targets:	<p>Minimum Target: The project is proposed to be built to achieve LEED® scoring of Silver OR enrolled in a recognized third party standard.</p> <p>Level 1: The project is proposed to be built to achieve LEED® scoring of Gold.</p> <p>Level 2: The project is proposed to be built to achieve LEED® scoring of Platinum.</p>
Point Allocation:	A maximum of 5 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> Letter of Intent signed by a <u>qualified individual</u>.
How to Comply:	<p>The Letter of Intent should confirm the following:</p> <ul style="list-style-type: none"> Registration with the Canadian Green Building Council (CaGBC). Confirm that the development is proposed to be built to achieve LEED® certification or is enrolled in a recognized third party standard. For sites with additional buildings, the number of buildings certified or enrolled in a recognized third party standard should be identified, as well as they certification/standard they have achieved. Should LEED be pursued, a draft LEED scorecard documenting targeted points should be provided A minimum of LEED Version 4 is utilized by the applicant.
Resources:	<ul style="list-style-type: none"> Canada Green Building Council Passive House Canada
Department to Review:	Building Division Planning Department

1.3 Alternative Roofing

Intent of the Metric:	<i>To reduce the Heat Island Effect from the Built Environment.</i>
Targets:	<p>Minimum Target: N/A</p> <p>Level 1:</p> <ul style="list-style-type: none"> 75% of the available roof area has a cool surface; OR 50% of the total available roof area is vegetated (green). <p>Level 2:</p> <ul style="list-style-type: none"> 90% of the available roof area has a cool surface; OR 75% of the available roof area is vegetated (green); OR 75% of the available roof area is vegetated (green) and the remaining 25% has a cool surface.
Point Allocation:	A maximum of 5 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> Landscape Plan AND/OR Roof Plan
How to Comply:	<p>Quantify the total available roof area (exclude mechanical equipment area).</p> <p>For cool surface roofs:</p> <ul style="list-style-type: none"> Identify the solar reflective index Provide the percent (%) of cool roof area in comparison to the total available roof area <p>For vegetated (green) roofs:</p> <ul style="list-style-type: none"> Provide the percent (%) of vegetated roof area in comparison to the total available roof area Provide a planting plan/landscape plan for the vegetated portion of the roof <p><i>*Low sloped roof should have a minimum SRI of 78 & high sloped roofs should have a minimum SRI of 29.</i></p>
Resources:	<ul style="list-style-type: none"> USGBC – Heat Island Effect (Roof) City of Toronto Green Roof By-law
Department to Review:	<p>Building Division</p> <p>Planning Department</p>

1.4 Alternative Surfaces

Intent of the Metric:	<i>To reduce the Heat Island Effect from the Built Environment and reduce ambient surface temperatures.</i>
Targets:	<p>Minimum Target: 25% of new hardscape (i.e. parking areas and walkways, not including buildings) are:</p> <ul style="list-style-type: none"> Constructed using <u>light coloured materials</u>; AND/OR Are shaded by trees/vegetation <p>Level 1:</p> <ul style="list-style-type: none"> 50% of new hardscape (i.e. parking areas and walkways, not including buildings) are constructed using light coloured materials. <p>Level 2:</p> <ul style="list-style-type: none"> 75% of new hardscape (i.e. parking areas and walkways, not including buildings) are constructed using light coloured materials.
Point Allocation:	A maximum of 3 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> Site Plan Letter of Intent signed by a <u>qualified individual</u>.
How to Comply:	<ul style="list-style-type: none"> Quantify total hardscape on site (excluding building footprints) Highlight the design elements that have been used in the hardscape area Quantify the percent (%) of hardscape that employs light coloured materials in comparison to the total hardscape
Resources:	<ul style="list-style-type: none"> USGBC – Heat Island Effect (Roof)
Department to Review:	Engineering & Public Works Department

1.5 Water Quantity

Intent of the Metric:	<i>Demonstrate that post-development flows are within natural ranges of variation and to emphasize source and conveyance controls that promote infiltration, evaporation and/or re-use of rainwater.</i>
Targets:	<p>Minimum Target:</p> <ul style="list-style-type: none"> • Demonstrate that post-development peak flow rates are equal to or do not exceed pre-development peak flow rates for the two (2) to one hundred (100) year storm events. • Retain runoff volume from the 5 mm rainfall event on site through the use of Low Impact Development features. <p>Level 1:</p> <ul style="list-style-type: none"> • Demonstrate that post-development peak flow rates are equal to or do not exceed pre-development peak flow rates for the two (2) to one hundred (100) year storm events. • Retain runoff volume from the 12.5 mm rainfall event on site through the use of Low Impact Development features. <p>Level 2:</p> <ul style="list-style-type: none"> • Demonstrate that post-development peak flow rates are equal to or do not exceed pre-development peak flow rates for the two (2) to one hundred (100) year storm events. • Retain runoff volume from the 25 mm rainfall event on site through the use of Low Impact Development features. <p><i>Proposed developments that meet the definition of “Major Development” as per the <u>LSPP</u> are required to meet the Level 2 Target”.</i></p>
Point Allocation:	A maximum of 4 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Site Plan • Stormwater Management Plan (<i>where applicable</i>) • Functional Servicing Report (<i>where applicable</i>)
How to Comply:	<ul style="list-style-type: none"> • List and describe design measures used to retain stormwater runoff on site. Measures can include, but are not limited to low impact development measures, bioswales, pervious pipe systems and rain gardens. • Highlight the location of design measures (if any) on the site plan • Obtain calculations and signoff by a professional quantifying the amount of runoff that will be retained on site
Resources:	<ul style="list-style-type: none"> • TRCA Stormwater Management Criteria • TRCA LID Planning and Design Guide • LSRCA Technical Guidelines for Stormwater Management Submissions • MOECP Stormwater Management Planning and Design Manual
Department to Review:	Engineering & Public Works Department Conservation Authority

1.6 Water Quality

Intent of the Metric:	<i>Demonstrate that receiving water bodies have been protected from water quality degradation that may result from the proposed development</i>
Targets:	<p>Minimum Target: 80% of <u>total suspended solids (TSS)</u> and phosphorus will be removed from all runoff leaving the site on an annual loading basis, as demonstrated by a <u>qualified professional</u> based on post-development level of imperviousness.</p> <p>Level 1: 81% to 90% of TSS and phosphorus will be removed from all runoff leaving the site during a 10 mm rainfall event as demonstrated by a <u>qualified professional</u> based on post-development level of imperviousness.</p> <p>Level 2: 91% to 100% of TSS and phosphorus will be removed from all runoff leaving the site during a 10 mm rainfall event as demonstrated by a <u>qualified professional</u> based on post-development level of imperviousness.</p> <p><i>Proposed developments that meet the definition of “Major Development” as per the <u>LSPP</u> are required to remove 100% of phosphorus.</i></p>
Point Allocation:	A maximum of 3 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Site Plan • Stormwater Management Plan (<i>where applicable</i>) • Functional Servicing Report (<i>where applicable</i>)
How to Comply:	<ul style="list-style-type: none"> • Quantify the percent (%) of TSS & phosphorus removed from a 10 mm rainfall event. • Signoff from a qualified individual quantifying the amount of TSS & phosphorus removed from the runoff leaving the site.
Resources:	<ul style="list-style-type: none"> • TRCA Stormwater Management Criteria • LSRCA Technical Guidelines for Stormwater Management Submissions • LSRCA Phosphorus Offsetting Policy
Department to Review:	Engineering & Public Works Department Conservation Authority

1.7 Road Salt Management

Intent of the Metric:	<i>To employ best management practices in design and operation of new development to minimize the potential release of sodium and chloride from road salt sources while maintaining safe conditions for pedestrians and vehicles.</i>
Targets:	<p>Minimum Target: N/A</p> <p>Level 1: Establish a salt management plan for the proposed development in accordance with the guidelines provided by Conservation Ontario to optimize the amount of road salt applied to the property.</p> <p>Level 2: Obtain Smart About Salt Council (SASC) Certification for the development site.</p>
Point Allocation:	A maximum of 3 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Salt Management Plan prepared and signed by a <u>qualified individual</u>. • Site Plan • Smart About Salt Intent to Certify Certificate
How to Comply:	<p>The Salt Management Plan will include the following:</p> <ul style="list-style-type: none"> • Types of de-icing materials • Application rates • Quantify the area of the property that de-icing materials will be applied • Identify snow storage location and methods of snow removal • Information relating to ground surface temperature and surface type • Time of day when de-icing materials are utilized • Site specific features including low and high traffic areas • Identify areas of the site that are privately maintained and Township maintained. <p>The Site Plan will include the following:</p> <ul style="list-style-type: none"> • Depict area where de-icing materials will be applied • Identify snow storage location • Identify type of ground surface and any site specific features including sidewalks, ramps, paved areas including parking and connecting roads, vegetation and grassed areas • Locations of buildings included entrances and the locations of all downspouts • Identify areas of the site that are privately maintained and Township maintained.
Resources:	<ul style="list-style-type: none"> • Conservation Ontario Good Practices for Winter Maintenance in Salt Vulnerable Areas • Smart About Salt Winter Management Program
Department to Review:	Engineering & Public Works Department Conservation Authority

2.1 Protection and Restoration of the Natural Heritage System

Intent of the Metric:	<i>Maintaining and enhancing the natural heritage system with respect to ecological functions and wildlife habitat.</i>
Targets:	<p>Minimum Target: Where a proposed development is within 120 metres of a <u>Key Natural Heritage Feature</u> (KNHF) or Environmental Protection Zone a <u>Natural Heritage Evaluation/Hydrologic Evaluation</u> is prepared and works are undertaken (if required) to ensure that the proposed development has no negative impacts to the KNHF.</p> <p>Level 1: A Compensation Planting Plan is provided that demonstrates an ecological gain beyond the Township's natural heritage requirements. The Compensation Plantings are comprised of natural, native and self-sustaining vegetation.</p> <p>Level 2: In addition to meeting the Level 1 target, the Compensation Planting Plan includes wildlife habitat creation and the establishment of wildlife corridors.</p>
Point Allocation:	A maximum of 6 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Natural Heritage Evaluation • Hydrologic Evaluation (<i>where applicable</i>) • Compensation Planting Plan
How to Comply:	<ul style="list-style-type: none"> • Identify and confirm protection of any environmental features, buffers, setbacks and vegetation protection zones • Identify and consider opportunities for environmental restoration or enhancement • Recommend implementation measures such as monitoring or management • Meet the requirements of Provincial Plans and Conservation Authority guidelines. • Restore degrading features and enhance the feature
Resources:	<ul style="list-style-type: none"> • Township Official Plan (<i>draft</i>) • TRCA Environmental Impact Statement Guidelines • TRCA Creating Habitat: A Guide for Community Groups
Department to Review:	<p>Planning Department Conservation Authority York Region</p>

2.2 Soil Quality & Quantity

Intent of the Metric:	<i>To limit the disturbance of healthy soil to protect soil horizons and maintain soil structure, minimize runoff and maximize water holding capacity, and maintain or enhance its ecological function.</i>
Targets:	<p>Minimum Target: Lots, including drainage ditches or swales are to be completely topsoiled and sodded on all soft-scape areas with 150 cm mm of non-compacted topsoil and No. 1 Nursery Sod. Boulevards and driveways will have a minimum topsoil depth of 200 cm. Side slopes and ditch bottoms on all rural roads will have a minimum topsoil depth of 150mm. No. 1 Nursery Sod is to be provided for all areas that are to be sodded. In natural areas the soil is stockpiled on site and is reused on site, outside of lands used for agricultural purposes.</p> <p>Level 1: Lots, including drainage ditches or swales are to be completely topsoiled and sodded on all soft-scape areas with 200 mm of non-compacted topsoil and No. 1 Nursery Sod. Boulevards will have a minimum topsoil depth of 200 mm. Side slopes and ditch bottoms on all rural roads will have a minimum topsoil depth of 150mm. No. 1 Nursery Sod is to be provided for all areas that are to be sodded. In natural areas the soil is stockpiled on site and is reused on site, outside of lands used for agricultural purposes.</p> <p>Level 2: N/A</p>
Point Allocation:	A maximum of 5 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Landscape Plan • Site Alteration and Fill Management Plan • Chemical Analysis of Soil Samples prepared by a <u>qualified individual</u>.
How to Comply:	<ul style="list-style-type: none"> • Show the location of pits, trenches, ditches, planting beds and tree plantings. For each location identify the following soil properties <ul style="list-style-type: none"> ○ Subsoil total uncompacted depth ○ Topsoil depth • Provide location and plan of management practices for stockpiled soil. • All fill brought onto site must be in accordance with By-law 97-84 or as amended and provide methodology indicating how fill quality will be evaluated to meet quality requirements. • Provide analysis from a Qualified Person confirming that any imported topsoil meets the criteria of Table 1: Full Depth Background Site Condition Standards for Agricultural or Other Property Use from the Soil, Groundwater and Sediment Standards for use Under Part XV.1 of the Environmental Protection Act. • Provide methodology indicating how any imported fill will be documented and managed from the source site to receiving site.
Resources:	<ul style="list-style-type: none"> • TRCA Stormwater Management Criteria • LSRCA Technical Guidelines for Stormwater Management Submissions • Township of King Design Criteria

Natural Heritage

Department to Review:	
	Planning Department Engineering & Public Works Department Conservation Authority

2.3 Maintaining Healthy Trees

Intent of the Metric:	<i>To protect mature trees that are located within the subject property.</i>
Targets:	<p>Minimum Target: Provide a Tree Evaluation report that identifies and evaluates where on-site healthy trees will be protected and removed. Tree replacement is completed in accordance with Township and/or Conservation Authority standards.</p> <p>Level 1: Provide a Tree Evaluation report that identifies and evaluates where on-site native and non-native trees will be protected and removed. Where trees are proposed for removal, enhanced compensation is provided at a 3:1 ratio to ensure ecological gain.</p> <p>Level 2: All healthy, mature trees are preserved on site and enhancement plantings are proposed. An analysis of on-site tree canopy is provided and trees are planted to increase the on-site tree canopy coverage by a minimum of 25%.</p>
Point Allocation:	A maximum of 5 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Landscape Plan • Arborist Report • Authorization letter from a <u>qualified individual</u>
How to Comply:	<ul style="list-style-type: none"> • Identify healthy, mature trees on-site. • Identify trees to be removed. • Identify compensation and/or enhancement plantings. • Quantify the number of new trees that will be provided to mitigate the removal of healthy trees. • Provide the compensation ratio used in determining compensation plantings. • Obtain calculations and authorization from a profession (i.e. Arborist, Landscape Architect) quantifying the total on-site canopy coverage after 10 years of growth. <p><i>*Note: This metric applies for healthy, mature trees on the developable portion of the site and not those that constitute a KNHF. Compensation and/or enhancement plantings may be used to enhance a KNHF in accordance with municipal policies.</i></p>
Resources:	<ul style="list-style-type: none"> • TRCA Native Tree & Shrub Monitoring • York Region Forest Conservation By-law • LSRCA Ecological Offsetting Policy
Department to Review:	<p>Planning Department Conservation Authority York Region</p>

2.4 Street Trees – *within the Villages*

Intent of the Metric:	<i>Offset development impacts and ensure street trees act as canopies and promote active transportation through shaded pedestrian sidewalks and bike lanes.</i>
Targets:	<p>Minimum Target: Street trees are provided along the street within the project area.</p> <p>Level 1: Street trees are provided along the street within the project area and within 10 years of planting, street trees are to provide shade to at least 50% of the sidewalk length.</p> <p>Level 2: Street trees are provided along the street within the project area and within 10 years of planting, street trees are to provide shade to at least 75% of the sidewalk length.</p>
Point Allocation:	A maximum of 5 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Landscape Plan • Arborist Report
How to Comply:	<p>The Landscape Plan should show the following:</p> <ul style="list-style-type: none"> • Identify trees along street. • Trees native to the Region should be planted. • Quantify the average interval spacing between trees for all street trees proposed. • Highlight the existing and proposed trees and note the expected tree canopy after ten years of growth. • Calculate the area of sidewalk that is shaded using the estimated crown diameter.
Resources:	N/A
Department to Review:	Planning Department Park, Recreation and Culture Department

2.5 Connections to Parkland – *within the Villages*

Intent of the Metric:	<i>To provide connections to nature and green spaces that promotes public access.</i>
Targets:	<p>Minimum Target: N/A</p> <p>Level 1: Visual and physical connections are provided to the Natural Heritage System.</p> <p>Level 2: Enhanced connections to the Natural Heritage System are provided to the satisfaction of the Township. Enhanced connections may include the following:</p> <ul style="list-style-type: none"> • Creation of wildlife movement/passageways • Pathways and trails through the subject property to existing park and trail network.
Point Allocation:	A maximum of 3 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Landscape Plan and/or Site Plan
How to Comply:	<ul style="list-style-type: none"> • Identify if a natural heritage system is included within the project boundary. If one or multiple systems are included, identify the natural heritage features on the Landscape and/or Site Plan • Highlight proposed strategies to enable a visual and/or physical connection to the natural heritage system.
Resources:	<ul style="list-style-type: none"> • Township of King Trails Master Plan
Department to Review:	<p>Planning Department</p> <p>Park, Recreation and Culture Department</p> <p>Conservation Authority</p>

2.6 Bird Friendly Design – *within the Villages*

Intent of the Metric:	<i>To reduce the impact of the build environment on wildlife.</i>
Targets:	<p>Minimum Target: N/A</p> <p>Level 1: Apply combination of Bird Friendly Design strategies on at least 85% of the exterior glazing located within the first 12 m of the building above-grade (including interior courtyards). Visual markers should be provided on the glass of the proposed building with spacing no greater than 10cm by 10cm.</p> <p>Level 2: Apply combination of Bird Friendly Design strategies on at least 85% of the exterior glazing located within the first 12 m of the building above-grade (including interior courtyards). Visual markers should be provided on the glass of the proposed building with spacing no greater than 10cm by 10cm. Where a green roof is constructed with adjacent glass surfaces, ensure the glass is treated 12m above green roof surface.</p>
Point Allocation:	A maximum of 3 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> Elevation Plans
How to Comply:	<p>The Elevation Plans should clearly highlight the bird friendly design features adopted on the first 12 m above grade. Bird friendly design features can include the following:</p> <ul style="list-style-type: none"> Sunshades Reduced night sky lighting Glass angled downward Window film Patterns on glass
Resources:	<ul style="list-style-type: none"> Bird-Friendly Best Practices, City of Toronto Bird-Friendly Development Guidelines, City of Toronto Bird Friendly Guidelines, City of Markham
Department to Review:	<p>Planning Department</p> <p>Park, Recreation and Culture Department</p>

2.7 Landform Conservation Areas – *Countryside within the Oak Ridges Moraine*

Intent of the Metric:	<i>That development or site alteration within a Landform Conservation Area (Category 1 and 2) will identify planning, design and construction practices that will keep disturbance to landform character to a minimum.</i>
Targets:	<p>Minimum Target: Significant landform features are maintained and the lot disturbance and impervious surface percentage comply with the provisions of the Township’s Official Plan and Provincial Plans.</p> <p>Level 1: A landform conservation plan is provided that includes a development strategy that minimizes disruption to landform character including the retention of significant landform features in an open, undisturbed form, road alignment and building placement to minimize grading, concentrate development on portions of the site that are not significant, use of selective grading techniques.</p> <p>Level 2: N/A</p> <p><i>*All developments that meet the definition of “Major Development” as per the Oak Ridges Moraine Conservation Plan are required to meet the Level 1 target”.</i></p>
Point Allocation:	A maximum of 3 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Site Plan • Landform Conservation Plan
How to Comply:	<p>The Site Plan will include the following:</p> <ul style="list-style-type: none"> • Identify areas within which all building, grading and construction will occur • Quantify the percent (%) of the lot disturbed • Quantify the percent (%) of impervious surfaces <p>The Landform Conservation Plan will include the following:</p> <ul style="list-style-type: none"> • Elevation contours that show basic topographic character of the site • Analysis of the site by slope type • Identification of significant landform features such as kames, kettles, ravines and ridges • All water bodies including intermittent streams and ponds. <p><i>*Note: This metric applies only to development within the Oak Ridges Moraine, outside of the Villages.</i></p>
Resources:	<ul style="list-style-type: none"> • Township of King Official Plan • Oak Ridges Moraine Conservation Plan
Department to Review:	Planning Department Conservation Authority

3.1 Building Water Efficiency

Intent of the Metric:	<i>Promote water efficiency and reduce potable water consumption.</i>
Targets:	<p>Minimum Target: All water consuming features listed below are high-efficiency WaterSense® labelled or meet the following flow requirements, whichever is more restrictive:</p> <ul style="list-style-type: none"> • High efficiency toilets (max. flow of 4.0L/flush OR 3/6 L/flush siphonic dual flush toilets) • Low flow lavatory faucets (max. flow of 5.7 L/min). <p>Level 1: Achieve 30% reduction in potable water consumption for each new building over baseline water fixtures on appliances (not including irrigation) as demonstrated by <u>a qualified individual</u>.</p> <p>Level 2: Achieve 40% reduction in potable water consumption for each new building over baseline water fixtures on appliances (not including irrigation) as demonstrated by <u>a qualified individual</u>. For medium density residential applications, individual water meters will be provided for each unit.</p>
Point Allocation:	A maximum of 4 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Building Details • Floor Plans • Purchase Orders
How to Comply:	<ul style="list-style-type: none"> • The Floor Plans and Building Details should identify that all applicable municipal standards have been satisfied. • Provide flow rates for all water consuming fixtures. The percent (%) reduction of potable water must be demonstrated by a qualified individual. • Builder to hire a third party to prepare a conformity report following the development. Township staff will review the peer reviewed conformity report.
Resources:	<ul style="list-style-type: none"> • EPA - WaterSense® • O. Reg. 509/18: Energy and Water Efficiency – Appliances and Products • Alliance for Water Efficiency – Ontario Policy Information
Department to Review:	Building Division

3.2 Exterior Lighting

Intent of the Metric:	<i>To promote reduced energy use for exterior lighting.</i>
Targets:	<p>Minimum Target: 100% of all exterior light fixtures are LED and Dark-Sky Compliant and are shielded or down-facing to reduce the amount of glare and light trespass experienced by neighbouring properties.</p> <p>Level 1: 100% of all exterior light fixtures are LED and are shielded or down-facing to reduce the amount of glare and light trespass experienced by neighbouring properties. Lighting controls have been implemented to reduce light spillage from buildings by 50% from 11pm – 5am.</p> <p>Level 2: 100% of all exterior light fixtures are LED and are shielded or down-facing to reduce the amount of glare and light trespass experienced by neighbouring properties. Solar sensors are utilized for increased efficiency.</p>
Point Allocation:	A maximum of 3 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Building Details • Floor Plans • Letter of Intent signed and prepared by a <u>qualified individual</u>.
How to Comply:	<ul style="list-style-type: none"> • The Floor Plans and Building Details should identify that all applicable municipal standards have been satisfied. • The Letter of Intent will confirm that the development will commit that LED will be used for all exterior, exposed light fixtures to reduce electricity demand, and rely on ambient daylight when available. • The amount of light used between 11pm and 5am will be quantified and a percent (%) provided.
Resources:	<ul style="list-style-type: none"> • The International Dark-Sky Association
Department to Review:	Building Division Engineering & Public Works Department

3.3 Energy Management Strategy

Intent of the Metric:	<i>To reduce greenhouse gas emissions while benefitting customers by reduced ongoing expenses associated with energy usage.</i>
Targets:	<p>Minimum Target: N/A</p> <p>Level 1: Develop an energy management strategy for the development and identify opportunities for conservation, energy sharing, alternative energy sources, etc.</p> <p>Level 2: Implement an energy management strategy and utilize opportunities for conservation, energy sharing, alternative energy sources, etc.</p>
Point Allocation:	A maximum of 5 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> Energy Report prepared and signed by a <u>qualified individual</u>.
How to Comply:	<p>Submission of an Energy Report that outlines the energy strategy for the development. The report should highlight the following:</p> <ul style="list-style-type: none"> Energy conservation measures that will be adopted and expected savings Opportunities for alternative energy sources and/or energy sharing between buildings Projected annual energy consumption for the site, separated into heating, cooling and electricity Electricity demand for the site Relative savings for each relevant technology type Appliances have Energy Star ratings.
Resources:	<ul style="list-style-type: none"> Township of King Energy Report Terms of Reference MOECP Community Emissions Reduction Planning: A Guide for Municipalities LSRCA Carbon Reduction Strategy
Department to Review:	Parks, Recreation & Culture Department

3.4 Recycled/Reclaimed Materials

Intent of the Metric:	<i>To reduce the adverse environmental effects of extracting and processing new materials.</i>
Targets:	<p>Minimum Target: N/A</p> <p>Level 1: Minimum of 25% of recycled/reclaimed materials should be used for new infrastructure, including parking lots, sidewalks, etc.</p> <p>Level 2: Minimum of 30% of recycled/reclaimed materials should be used for new infrastructure, including parking lots, sidewalks, etc.</p>
Point Allocation:	A maximum of 3 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> Letter of Intent signed and prepared by a <u>qualified individual</u>.
How to Comply:	<p>The Letter of Intent should include the following:</p> <ul style="list-style-type: none"> Confirm that the Township's applicable standards have been satisfied. Identify the percent (%) of reclaimed/recycled material that will be used for new infrastructure.
Resources:	<ul style="list-style-type: none"> LEED ND: Plan I v3 – LEED 2009 ISO/IEC 14021
Department to Review:	Engineering & Public Works Department

3.5 Material Re-Use

Intent of the Metric:	<i>To reduce the demand for new materials and promote diversion of materials from landfills.</i>
Targets:	<p>Minimum Target: N/A</p> <p>Level 1: A minimum of 5% reused content in building materials and/or landscaping materials (hardscaping) is provided.</p> <p>Level 2: A minimum of 10% reused content in building materials and/or landscaping materials (hardscaping) is provided.</p>
Point Allocation:	A maximum of 3 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> Letter of Intent signed and prepared by a <u>qualified individual</u>.
How to Comply:	<p>The Letter of Intent should include the following:</p> <ul style="list-style-type: none"> Confirm that the project will use recycled and re-used materials in the development. Identify the percent (%) of reused content in building materials and/or landscaping. Identify the percent (%) of recycled content in building materials and/or landscaping
Resources:	<ul style="list-style-type: none"> Toronto Green Standards Tier II
Department to Review:	Engineering & Public Works Department

3.6 Efficient Vehicles & Carpooling

Intent of the Metric:	<i>Provide incentives to encourage employees to carpool or drive fuel efficient cars.</i>
Targets:	<p>Minimum Target: If parking is provided on-site that a minimum of 2 spots, or 3% of site parking spots have the infrastructure for electric vehicle charging conduits.</p> <p>Level 1: That a minimum of 2 spots or 3% of site parking spots, whichever is greater, is dedicated to carpooling and/or electric/PHEV (Plug-in Hybrid Electric Vehicles) and have electric vehicle charging stations with a minimum 7kw charging ability (Level 2 Charging Station).</p> <p>Level 2: That a minimum of four spots or 5% of site parking spots, whichever is greater, is dedicated to carpooling and/or electric/(Plug-in Hybrid Electric Vehicles) and have electric vehicle charging stations with a minimum 7kw charging ability (Level 2 Charging Station).</p>
Point Allocation:	A maximum of 7 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Transportation Study or Traffic Impact Study • Site Plan Drawings/Statistics
How to Comply:	<p>The following information should be provided:</p> <ul style="list-style-type: none"> • Quantify the total parking spaces including per building on site • Quantify the total parking spaces that are dedicated to hybrid/electric vehicles and carpooling. • On the Site Plan, identify the dedicated parking spaces and highlight the proximity/preferred location in respect to the building entry.
Resources:	<ul style="list-style-type: none"> • MTO – 2.5.1 Parking Management Strategies • Natural Resources Canada Fuel Consumption Guideline
Department to Review:	<p>Planning Department Engineering & Public Works Department Parks, Recreation and Culture Department</p>

3.7 Rainwater Harvesting

Intent of the Metric:	<i>Reduce the use of potable water by utilizing rainwater harvested on-site.</i>
Targets:	<p>Minimum Target: N/A</p> <p>Level 1: Buildings are designed for rainwater re-use readiness (i.e. plumbing infrastructure included in the building).</p> <p>Level 2: Rainwater is captured on-site and used for low-grade functions (i.e. indoor re-use and/or irrigation) and/or a graywater system is implemented.</p>
Point Allocation:	A maximum of 5 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> Letter of Intent signed by a <u>qualified individual</u>. Site Plan/Grading Plan
How to Comply:	<p>The Letter of Intent will confirm the following:</p> <ul style="list-style-type: none"> That the project will either be designed for rainwater re-use readiness, or re-use rainwater on-site The design measures (i.e. cistern location, size, site drainage) on a site or grading plan. The type of development meets the mandatory requirements for a graywater system as per the Graywater Accessibility Chart.
Resources:	<ul style="list-style-type: none"> Ontario Guidelines for Residential Rainwater Harvesting Systems TRCA Stormwater Management Criteria TRCA LID Planning and Design Guide LSRCA Technical Guidelines for Stormwater Management Submissions Graywater Accessibility Chart
Department to Review:	Engineering & Public Works Department Conservation Authority

4.1 Bicycle Parking

Intent of the Metric:	<i>To encourage active transportation and support on-street retail and pedestrian-oriented built environments.</i>
Targets:	<p>Minimum Target: Provide bike parking as per the requirements of the applicable Zoning By-law.</p> <p>Level 1: 0.5 bike parking spaces/residential unit or 1.5 bike parking spaces per 100 sq.m. gross floor area (GFA) for commercial and institutional uses.</p> <p>Level 2: 0.8 bike parking spaces/residential unit or 2 bike parking spaces per 100 sq.m. gross floor area (GFA) for commercial and institutional uses. Bike parking is located in proximity to building entry.</p>
Point Allocation:	A maximum of 3 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Site Plan Drawings • Floor Plans
How to Comply:	<ul style="list-style-type: none"> • Identify the building types that are included in the project (commercial, mixed-use, residential, institutional). • Quantify the total unit count for residential proposals and total GFA for commercial, retail and institutional buildings. • Provide the total number of bike parking spaces and their location on the site. • Quantify the ratio of bike parking spaces per residential unit or per 100 sq.m. of GFA.
Resources:	<ul style="list-style-type: none"> • Township of King Zoning By-laws
Department to Review:	<p>Parks, Recreation and Culture Department</p> <p>Planning Department</p>

4.2 Universally Accessible

Intent of the Metric:	<i>To enable a wide spectrum of people to access goods and services within all buildings, structures and open spaces, regardless of age or ability.</i>
Targets:	<p>Minimum Target: All primary entries are designed to be universally accessible as per the Ontario Building Code to facilitate access to goods and services.</p> <p>Level 1: All entries and exits are designed to universally accessible standards.</p> <p>Level 2: The development partakes in the Township of King's Accessibility Friendly Awareness Program. All entries and exits are designed to universally accessible standards, the development contains an accessible washroom and all fixtures are accessible.</p>
Point Allocation:	A maximum of 5 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Site Plan Drawings; • Floor Plans; • Elevation Plans; • Electrical Site Plan; • Purchase Orders for accessible fixtures; • Accessibility Checklist;
How to Comply:	<p>The Site Plan Drawings should show the following:</p> <ul style="list-style-type: none"> • Clearly identify all primary entries, emergency exits and remaining building entries/exits • Identify the entries/exits that are designed to universally accessible standards • List universal accessible design standard referenced for the design • Quantify the percent (%) of primary, emergency and remaining entries/exits that are designed to universally accessible standards <p>The Floor Plan Drawings should show the following:</p> <ul style="list-style-type: none"> • Internal design and areas of the site that are accessible for all • Ramps, stairs, hall width, accessible bathrooms <p>The Elevation Plans should show the following:</p> <ul style="list-style-type: none"> • Identify all entrances and exits and provide dimensions • Provide locations of all stairs and ramps for access
Resources:	<ul style="list-style-type: none"> • Accessibility for Ontarians with Disabilities Act, 2005 • Accessibility Advisory Committee • Canada Green Building Council
Department to Review:	<p>Building Division</p> <p>Clerks Department – Accessibility Advisory Committee</p> <p>Parks, Recreation and Culture Department</p>

4.3 Off-Street Parking

Intent of the Metric:	<i>To support on-street retail and pedestrian-oriented built environments by discouraging the location of parking in front of buildings.</i>
Targets:	<p>Minimum Target: All new off-street parking is located at the side or rear of building.</p> <p>Level 1: Within Core Areas, less than 20% of the total development area is allocated to new, off-street surface parking facilities.</p> <p>Level 2: Outside of Core Areas, less than 20% of the total development area is allocated to new, off-street surface parking facilities.</p>
Point Allocation:	A maximum of 3 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Site Plan Drawings • Parking Plan (if applicable)
How to Comply:	<p>The Site Plan Drawings should show the following:</p> <ul style="list-style-type: none"> • Identify the building frontage and surface parking location(s). • Calculate the total site area and the total site area dedicated to surface parking/parking facilities. • Identify the percent (%) of site area allocated to surface/facility parking.
Resources:	<ul style="list-style-type: none"> • Canada Green Building Council
Department to Review:	<p>Planning Department</p> <p>Engineering & Public Works Department</p>

4.4 Heritage Preservation

Intent of the Metric:	<i>To preserve and maintain cultural heritage resources.</i>
Targets:	<p>Minimum Target: Comply with the cultural heritage policies under provincial legislation (e.g. Ontario Heritage Act, Planning Act, Provincial Policy Statement, Township Official Plans and Municipal Zoning By-law).</p> <p>Level 1: Where demolition of a Cultural Heritage Resource is to take place, a portion, or all, materials from the resource are salvaged and reused on or off site.</p> <p>Level 2:</p> <ul style="list-style-type: none"> (a) Cultural heritage resources identified on the Municipal Heritage Registers (Listed and Designated) in addition to their associated landscapes and ancillary structures are conserved in accordance with “The Standards and Guidelines for the Conservation of Historic Places in Canada”. (b) Cultural Heritage Resource identified on the Municipal Heritage Registers (Listed and Designated) is not demolished and retained, protected and maintained, but partially or fully integrated as part of redevelopment project through adaptive re-use. (c) The Cultural Heritage Resource(s) goes through with the process to Designate the property as per the <i>Ontario Heritage Act</i>.
Point Allocation:	A maximum of 7 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Site Plan Drawings • Heritage Impact Assessment (HIA) • Elevation and Floor Plans • Landscape Plans • Heritage Interpretation Plans • Architectural and Urban Design Guidelines
How to Comply:	<ul style="list-style-type: none"> • Identify and evaluate in the HIA if the cultural heritage resource(s) that are located on the property qualify for designation. The property is designated and added to the Heritage Register in accordance with the <i>Ontario Heritage Act</i> and the cultural heritage resources are protected. Verify and document that 100% of cultural heritage resources included in the Municipal Heritage Inventory have been evaluated. • Verify in the HIA and Conservation Plan how the Cultural Heritage Resources will be protected short and long term in accordance with “The Standards and Guidelines for the Conservation of Historic Places in Canada”. • Identify and demonstrate in the HIA, Conservation Plan and development plans how the Cultural Heritage Resource(s) that are located on the property will be partially or fully integrated in the redevelopment project through adaptive re-use. • Identify and demonstrate in the HIA, Conservation Plan and development plans the materials that will be salvaged and re-used on or off site from the Cultural Heritage Resource(s).
Resources:	<ul style="list-style-type: none"> • Township Official Plan • <i>Ontario Heritage Act</i>

	<ul style="list-style-type: none">• Heritage Impact Assessment Terms of Reference• The Standards and Guidelines for Conservation of Historic Places in Canada
Department to Review:	Planning Department – <i>Heritage Coordinator</i>

4.5 Garbage and Recycling

Intent of the Metric:	<i>To promote waste reduction and diversion of materials from landfills.</i>
Targets:	<p>Minimum Target: Comply with the Township and Region's standards for waste management.</p> <p>Level 1: Storage and collection areas for recycling and organic waste are provided within or attached to the building or deep collection recycling and organic waste storage facilities are provided.</p> <p>Level 2: Three-chute system is utilized.</p>
Point Allocation:	A maximum of 3 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Site Plan Drawings • Floor Plans
How to Comply:	<ul style="list-style-type: none"> • Confirm that applicable Township and Region standards have been satisfied. • Clearly identify storage and collection areas for recycling and organic waste. • Resident education plan is provided explaining the proposed garbage and recycling system.
Resources:	<ul style="list-style-type: none"> • Township & Regional Standards
Department to Review:	<p>Planning Department</p> <p>Engineering & Public Works Department</p>

4.6 Building Orientation

Intent of the Metric:	<i>To support on-street retail and pedestrian-oriented built environments orienting buildings to the street.</i>
Targets:	<p>Minimum Target: N/A</p> <p>Level 1: 100% of buildings that are located adjacent to the sidewalk will have their front façade adjacent to the sidewalk with at least one entrance that faces the sidewalk.</p> <p>Level 2: Along arterial and collector roads buildings shall front directly onto the street with pedestrian access provided to a front entrance.</p>
Point Allocation:	A maximum of 3 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Site Plan Drawings • Elevation Plans
How to Comply:	<ul style="list-style-type: none"> • Depict building location in respect to sidewalk on Site Plan. • Provide concept drawings or Elevation Plans that depict the relation of the front entrance to the street and sidewalk. • Provide details on Site Plan for the pedestrian access for buildings that front onto arterial or collector roads.
Resources:	<ul style="list-style-type: none"> • Township Urban Design Guidelines & Principles • Township Official Plan (draft)
Department to Review:	Planning Department

4.7 Fire Prevention

Intent of the Metric:	<i>To ensure the safety of residents, visitors, employers and employees and to establish an effective and efficient fire protection program.</i>
Targets:	<p>Minimum Target: All Ontario Fire Code standards for fire prevention are met.</p> <p>Level 1: Fire Escape Plans are developed that utilize early detection measures.</p> <p>Level 2: One of the following systems are implemented in the development:</p> <ul style="list-style-type: none"> • On-site water storage is provided for fire protection purposes; • Residential sprinkler systems; • Monitored alarm system;
Point Allocation:	A maximum of 3 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> • Site Plan Drawings • Fire Escape Plan • Building Details/Floor Plans
How to Comply:	<ul style="list-style-type: none"> • Provide details of the proposed fire escape plan (if applicable) • Show proposed fire route, emergency exits, etc. on floor plans and site plan. • Provide details of building materials and sprinkler system on building details.
Resources:	<ul style="list-style-type: none"> • UNEP Sustainability Metrics: <i>Translation and Impact on Property Investment and Management</i> • Ontario Fire Code
Department to Review:	Fire & Emergency Services Department

4.8 Shadow Impacts – *within the Villages*

Intent of the Metric:	<i>To preserve and protect shadow sensitive areas while promoting intensification and high density development.</i>
Targets:	<p>Minimum Target: Buildings with a proposed height of four (4) storeys or greater submit a shadow study that models the shadows for the proposed development.</p> <p>Level 1: Buildings with a proposed height of four (4) storeys or greater submit a shadow study demonstrating that shadows from the proposed development are not cast on more than 50% of neighbouring amenity areas and <u>shadow sensitive areas</u>.</p> <p>Level 2: Buildings with a proposed height of four (4) storeys or greater submit a shadow study demonstrating that shadows from the proposed development are not cast on more than 50% of neighbouring amenity areas and <u>shadow sensitive areas</u> and that five (5) consecutive hours of full sunlight is observed during all test dates.</p>
Point Allocation:	A maximum of 3 points .
Where to Demonstrate Compliance:	<ul style="list-style-type: none"> Shadow Study Assessment/Impact Statement Shadow Study Models
How to Comply:	<p>The Shadow Study Assessment/Impact Statement must be prepared by a <u>qualified individual</u>. It summarizes the findings from the digital model, provides renderings of the findings from the digital model and analyzes the shadow test results.</p> <p>The Shadow Study Model is a 3-D digital rendering that depicts the development site, adjacent site and surrounding model area. The model must show the full extent of the shadows on several model dates, as determined by the Township.</p>
Resources:	<ul style="list-style-type: none"> Richmond Hill – Sun and Shadow Study Terms of Reference City of Hamilton – Terms of Reference: Shadow Impact Study for Downtown Hamilton
Department to Review:	Planning Department