



**COMMUNITY OF STOUFFVILLE** **SUSTAINABLE DEVELOPMENT GUIDELINES**



*January 2012*

## **Community of Stouffville Sustainable Development Guidelines**

### **Introduction**

“Preserve and Enhance the Integrity of the Natural Environment” is a key Community Development Principle on which the Community of Stouffville Secondary Plan is based. Specifically, the Plan states that:

“Principle: Any change in the Community of Stouffville should be undertaken in a manner which is sustainable and which will preserve and enhance the integrity of the natural environment of the community.”

Section 12.5.6, Sustainable Development, of the Secondary Plan provides detailed direction to implement this Principle:

“In particular, the Town will encourage development designed to:

- i) create livable, healthy and efficient environments;
- ii) reduce the consumption of energy, land and other non-renewable resources including support for energy efficient building and opportunities for co-generation;
- iii) minimize the waste of materials, water and other limited resources; and,
- iv) employ ecological practices and consider the needs of future generations

To achieve this, the Town specifically will promote:

- i) a development pattern that encourages and supports transit usage
- ii) a development pattern that is adaptable over time for future generations and promotes redevelopment of land and repurposing of buildings;
- iii) a land use and development pattern which establishes good connectivity and mobility in the area for automobiles, cyclists and pedestrians;
- iv) development which enhances the health and vibrancy of the existing and future community through a mix of housing and other uses which contributes to the development of Stouffville as a complete community; and,
- v) development standards that promote energy efficiency, environmental quality and the efficient management of energy and waste in the community within over-all Town standards and objectives.”

More specifically, Section 12.5.6.2 requires that:

“To ensure that major, new development carried out in conformity with this Plan is as sustainable as feasible; such development shall be evaluated with respect to the Community of Stouffville Sustainable Development Guidelines. A Sustainability Report shall be submitted with development proposals to demonstrate how they are consistent with the Guidelines.

For the purposes of these Guidelines, major development is defined as development within a plan of subdivision. Outside a plan of subdivision Major Development is Commercial, Industrial or Institutional development with a Gross Floor Area in excess of 1,858 square metres (20,000 square feet) or residential development containing 24 or more dwellings units.

### **Purpose**

These Sustainable Development Guidelines will be used by the Town as a tool for assessing the sustainable features of development applications. The Guidelines have been prepared in the form of a checklist that itemizes the various types of project design features that will be considered in the evaluation process. These are organized under three basic categories:

- Community Design (efficient development and infrastructure design, healthy community design, employment generation/economic enhancement and open space enhancement);
- Buildings (enhanced design features, development standards); and
- Energy and Water (energy efficient design, water and waste water reduction)

Minimum standards must be achieved in order to receive servicing allocation, while the maximum sustainability standards are encouraged, and where proposed, will allow the development to be considered for height and density bonuses, or other considerations identified by the Town. The Town recognizes that the specific requirements may not be applicable to all applications. Therefore, the level of compliance will be based only on the percentage of applicable points achieved. In addition, some applicants may wish to phase the use of the checklist and the Town will work with an applicant to consider such an approach.

## **Development Application Process**

The Sustainable Development Guideline Checklist is to be completed prior to the Pre-Consultation meeting. Please contact the Town Department of Planning & Building Services, if you have any questions.

To complete:

- 1 Choose the appropriate checklist to complete:  
Checklist 1: For subdivision applications or  
Checklist 2: For site-specific applications including rezoning and site plan.
- 2 Submit the checklist prior to the Pre-Consultation meeting.
- 3 The checklist will be discussed at the Pre-Consultation Meeting and based on this review; the applicant will prepare a Sustainability Report addressing the matters identified by staff checking of the “Explanation Required” column on the checklist.
- 4 Resubmit the checklist together with the Sustainability Report as part of the complete planning application.

## **Calculating Checklist Points**

No points can be scored for building or site features that are otherwise required for compliance with the [Ontario] Building Code.

To assist in assessing the level of sustainability of an application, each item has been assigned a point value. The required number of points are set out in each checklist inclusive of the required distribution in each respective theme area.

The Bonus Potential Level indicates that the applicant has gone beyond the minimum requirement and may be considered for a bonus in height and density or other considerations identified by the Town.

If approved, the “Innovative Credit” item found at the end of each checklist is meant to reflect “bonus” points which can be included in the percentage of applicable points achieved.

## **Monitoring**

The provisions of the Sustainable Development Checklists, included for points will be incorporated as requirements, as applicable in the related subdivision or site plan agreement. Where points are scored for provisions included within buildings, the applicable agreement will require the submission of a professional compliance letter or report, prior to the building permit application stage, demonstrating how the provisions of the agreement are complied with.

## Subdivision Design Sustainable Development Checklist

Applicant \_\_\_\_\_

Date \_\_\_\_\_

Applicant Signature \_\_\_\_\_

Address of Property \_\_\_\_\_

Planning File No. \_\_\_\_\_

**Directions:** Check off the Sustainability features that are proposed for the development. Town staff will check off the Explanation Required column. Items are explained on attached pages.

Check	No.	Items	Explanation Required	No. of Points
A		Community Design (efficient development and infrastructure design, healthy community design, employment generation/economic enhancement and open space enhancement (104 points))		
<input type="checkbox"/>	1	Subdivision design reflects the Secondary Plan designations for the property (i.e. No Official Plan Amendment required)	<input type="checkbox"/>	1
<input type="checkbox"/>	2	Plan is designed to support transit use including development density adjacent to major roads, phasing plan shows roads and facilities required for Transit to be built first; and majority of residents will be located so that they have to walk no more than 500 metres to a future transit stop.	<input type="checkbox"/>	3
<input type="checkbox"/>	3	Subdivision design introduces a modified grid road system, with cul-de-sacs only where no other option is available, and limited crescent roads, and maximizes connectivity to adjacent areas including potential future development areas.	<input type="checkbox"/>	3
<input type="checkbox"/>	4	Subdivision design provides for a walkable community with well designed and safe pedestrian connections including traffic lights at the crossings of any major roads and:	<input type="checkbox"/>	3
<input type="checkbox"/>	a)	75% of proposed residential development is located within a safe 1 kilometre walk of an existing or proposed employment area which has, or is anticipated to have, a substantial number of jobs;	<input type="checkbox"/>	3
<input type="checkbox"/>	b)	75% of proposed residential development is located within 1 kilometre of an existing or planned school	<input type="checkbox"/>	3
<input type="checkbox"/>	5a)	Subdivision design identifies a bicycle system including off road trails, particularly in greenlands areas, and on-street bike paths on collector and arterial streets.	<input type="checkbox"/>	3
<input type="checkbox"/>	b)	Landowner agrees to undertake construction, or provides a financial contribution which will allow implementation, of the bicycle system.	<input type="checkbox"/>	up to 5
<input type="checkbox"/>	6	Development provides for areas/buildings designed to permit live-work uses in conformance with the Secondary Plan (minimum of 10 units)	<input type="checkbox"/>	3
<input type="checkbox"/>	7	Residential development contains a mix of medium and low density residential uses in conformity with the Secondary Plan	<input type="checkbox"/>	2
<input type="checkbox"/>	8	Both residential and non-residential components of plan are to be constructed at the same time.	<input type="checkbox"/>	3
<input type="checkbox"/>	9	Both low and medium density residential components of plan to be constructed at the same time. (medium density at 45 uph and greater)	<input type="checkbox"/>	2
<input type="checkbox"/>	10	Block length maximum: 250 metres	<input type="checkbox"/>	3
<input type="checkbox"/>	11	Development is, or can be demonstrated to be, certifiable by a recognized green community rating system	<input type="checkbox"/>	up to 8
<input type="checkbox"/>	12	Plan provides for the ultimate development of the project or includes a concept plan for future intensification and provides infrastructure for intensification and home occupations	<input type="checkbox"/>	up to 4

Check	No.	Items	Explanation Required	No. of Points
<input type="checkbox"/>	13	Plan improves public space by providing community spaces for uses such as plazas, public art, and/or creating connections to adjacent natural features and other developments	<input type="checkbox"/>	2
<input type="checkbox"/>	14	Greenlands System and floodplain are as identified in the Secondary Plan and staked by the Conservation Authority to be placed in public ownership	<input type="checkbox"/>	2
<input type="checkbox"/>	15	Public views and accessibility to the Greenlands System are maintained by:	<input type="checkbox"/>	4
<input type="checkbox"/>	a)	Maintaining 30% of the Greenlands System bounded by a combination of roads and open space and public facilities i.e. schools); or,	<input type="checkbox"/>	6
<input type="checkbox"/>	b)	Maintaining 50% of the Greenlands System bounded by a combination of roads, open space and public facilities i.e. schools. Note: maximum 6 points under Item 11	<input type="checkbox"/>	6
<input type="checkbox"/>	16	Plan provides for specific additional protection for Little Rouge, Reesor and Stouffville Creeks above that required by the Secondary Plan recognizing their status as coldwater streams. This may include additional buffer areas; vegetation restoration in the buffer areas; and storm water management features.	<input type="checkbox"/>	up to 6
<input type="checkbox"/>	17 a)	Management Plan to ensure sustainability of the Greenlands System over the long term, including terrestrial and aquatic resources.	<input type="checkbox"/>	2
<input type="checkbox"/>	b)	Landowner undertakes construction of enhancements to the System established in the Management Plan, or provides a financial contribution which will allow for measures to implement the Management Plan.	<input type="checkbox"/>	up to 6
<input type="checkbox"/>	18	Plan preserves specimen trees not otherwise designated as part of the Natural Heritage/Open Space system	<input type="checkbox"/>	up to 6
<input type="checkbox"/>	19	Design is demonstrated to significantly minimize the Town's operating costs (efficient street patterns, reduction in maintenance and improvements to typical lifecycle costing)	<input type="checkbox"/>	up to 6
<input type="checkbox"/>	20	Development includes adaptive reuse of heritage structures	<input type="checkbox"/>	5
<input type="checkbox"/>	21	For medium-density, mixed use or non-residential development, minimize surface parking by providing at least 30% of parking as on site structured, or underground parking and/or by developing with the Town off-site public parking accessible for use by residents.	<input type="checkbox"/>	6
<input type="checkbox"/>	22	Providing a plan that demonstrates that street design i.e. length of curb face) will allow for the provision of on-street parking to be used for visitor parking and parking for parks and other public facilities	<input type="checkbox"/>	2
<input type="checkbox"/>	23	25% of residential units meet the definition of affordable housing	<input type="checkbox"/>	3
<input type="checkbox"/>	24	Developers distribute Town approved sustainability handout to all new owners	<input type="checkbox"/>	2
<b>B</b>		<b>Energy, Water and Waste (62 points)</b>		
<input type="checkbox"/>	25	Development is supported by Green power which meets minimum 10% of energy needs for the Plan	<input type="checkbox"/>	4
<input type="checkbox"/>	26	The following Water Quality targets are achieved: a) at least 80% removal (Enhanced Treatment) of total suspended solids; and b) no increase in Total Phosphorus loading after development	<input type="checkbox"/>	3
<input type="checkbox"/>	27	Three or more of the following green upgrade options to be provided to a minimum of 50% of the lots/ home buyers:	<input type="checkbox"/>	2
<input type="checkbox"/>	a)	A xerophytic/native plant and/or rain garden landscape package	<input type="checkbox"/>	2
<input type="checkbox"/>	b)	Rain barrels; and/or	<input type="checkbox"/>	4
<input type="checkbox"/>	c)	Cisterns	<input type="checkbox"/>	4
<input type="checkbox"/>	d)	Solar hot water and space heating	<input type="checkbox"/>	4

Check	No.	Items	Explanation Required	No. of Points
<input type="checkbox"/>	e)	Energy saving package including, LED lighting for 20% of fixtures, occupancy sensors, external awnings.	<input type="checkbox"/>	2
<input type="checkbox"/>	f)	Heat Pump or other more energy efficient alternative in lieu of Traditional Air Conditioning Unit	<input type="checkbox"/>	2
<input type="checkbox"/>	g)	Geothermal ground source heating	<input type="checkbox"/>	4
<input type="checkbox"/>	h)	Dual flush toilets	<input type="checkbox"/>	2
<input type="checkbox"/>	i)	Low flow shower heads	<input type="checkbox"/>	1
<input type="checkbox"/>	j)	Spray foam insulation of exterior building envelope (including above ground walls, basement walls and attics using closed or open cell products)	<input type="checkbox"/>	2
<input type="checkbox"/>	k)	Other Building Features (such as triple glazing of all windows)	<input type="checkbox"/>	6
<input type="checkbox"/>	l)	Hot water pipe wrapping	<input type="checkbox"/>	1
<input type="checkbox"/>	m)	Installation of high efficiency tankless in-line water heater	<input type="checkbox"/>	1
<input type="checkbox"/>	28	Development is demonstrated to be designed to maximize passive solar energy gains through design, including the orientation and design of buildings and other landscape features.	<input type="checkbox"/>	3
<input type="checkbox"/>	29	Use permeable materials for paved areas that achieves:	<input type="checkbox"/>	2
<input type="checkbox"/>	a)	25% increase in permeability relative to conventional methods consistent with SWM design; or	<input type="checkbox"/>	4
<input type="checkbox"/>	b)	50% increase in permeability relative to conventional methods consistent with SWM design	<input type="checkbox"/>	4
<input type="checkbox"/>	30	Innovative Storm water Management Design plan used that demonstrates less reliance on end-of-pipe facilities and more on conveyance and at-source strategies. This may include:	<input type="checkbox"/>	up to
<input type="checkbox"/>	a)	a treatment train approach with a minimum of three treatment units; or,	<input type="checkbox"/>	5
<input type="checkbox"/>	b)	innovative pond design	<input type="checkbox"/>	5
<input type="checkbox"/>	31	Implement green infrastructure (i.e. bioswales) within some of the public right-of-ways subject to the Town approval	<input type="checkbox"/>	2
<input type="checkbox"/>	32	Submission of plan and implementation of same for on-site construction waste management and material/recycling/salvage with on-site separation including diverting from landfill 50% of all site generated waste.	<input type="checkbox"/>	1
<input type="checkbox"/>	33	Residential buildings achieve performance level that is equal to a rating of 83 or more when evaluated in accordance with Natural Resources Canada's EnerGuide for New Houses: Administrative and Technical Procedures	<input type="checkbox"/>	3
<input type="checkbox"/>	34	Significant recycled material to be used in road construction or other infrastructure subject to Town approval >35%	<input type="checkbox"/>	2
C		General		
<input type="checkbox"/>	35	Innovative subdivision or building design credit (Can be applied to required number of points in any theme area)	<input type="checkbox"/>	8

Total possible points: 174 Required points = 87. A minimum of 40 points are required from Section A and a minimum of 20 points are required from Section B. Bonus level – 130 points. Note: Items 16 and 17 may be determined to be non-applicable and if so can be deducted from the required points total (ie. 50% of applicable total points)

# Subdivision Design Sustainable Development Checklist

## Explanation of Items

### 1 Subdivision design reflects the Secondary Plan designations for the property

The Secondary Plan is designed with sustainable development as an underlying principle: it proposes mixed-use development to reduce the number of automobile trips; it contains a modified street grid road pattern that encourages more efficient provision of transit; and it contains a Greenlands System that protects and links natural features. Subdivision design should conform with the Secondary Plan. Conformance to the plan and how it is sustainable should be addressed in Sustainability Report.

### 2 Plan designed to support transit

The Sustainability Report will outline how the plan supports transit including the matters identified in the criteria (i.e. development density adjacent major roads). Design of the subdivision and its phasing shall proceed in a manner that will be supportive of the early provision of transit services and reflective of York Region Transit-Oriented Development Guidelines.

### 3 Subdivision design introduces a modified grid road system

A modified grid road system enhances the opportunities to provide transit and encourages active transportation. The grid also disperses and reduces the length of vehicular trips. Cul-de-sacs will generally be prohibited and permitted only when warranted by site conditions. The focus will be on connectivity, particularly to collector and arterial roads and crescent roads will be limited.

### 4 Subdivision design provides for walkable community

The development is designed to encourage use of active transportation modes by providing range of required uses within safe walking distance. The emphasis is on safety to ensure that sidewalks and traffic lights, as well as other similar approaches are provided. This measure is not just about distance, but is focused on the ability for the pedestrian to safely walk to the facility.

### 5 Subdivision design identifies bicycle system

Building cycling infrastructure will encourage more persons to use cycling as a transportation mode. A connected and cohesive cycling network is required. Road design, subdivision layout, and signage should reflect this plan. Implementation of the system is an additional criterion.

### 6 Development contains a mix of residential uses

The provision of a range of residential uses in conformity with the Secondary Plan will provide for a full range of demographic and income groups and assists in creating a more pedestrian-friendly environment.

### 7 Provision for Live-Work Uses

The ability to live and work in the community reduces commuting, improves the quality of life and contributes to the economy.

### 8 and 9 Residential and non-residential uses and low and medium density residential constructed at the same time

A key to "community building", completion of construction allows residents to build relationships and enjoy a healthy life style from the moment they move in.

### 10 Block length maximum 250 m



The length of street blocks contributes to the creation of a pedestrian-friendly environment. Blocks should be short and regular in length to make walking efficient and allow for variation in routes. Where it is impossible or undesirable to provide short blocks, wide public mid-block pathways could be provided as an alternative. In Employment areas, the Town recognizes that due to the land use, block lengths may be slightly larger (i.e., in the order of 300 m).

**11 Development to be certifiable by a green community rating system**

A green community rating system integrates the principles of smart growth, urbanism, and green building. Such a program provides independent, third-party verification that a development's location and design meet accepted high standards for environmentally responsible, sustainable development.

**12 Concept Plan for future intensification**

Development which achieves its ultimate density is encouraged. However, it is also recognized that development may intensify over time. Recognition of this ensures that there will be no impediments to future intensification.

**13 Improve public spaces**

The creation or addition of features to public spaces benefits the whole community.

**14 Greenlands System and floodplain to be placed in public ownership**

The general boundary of the Greenland System and floodplain is maintained and to be placed in public ownership. Minor modifications may be made in consultation with the Conservation Authority.

**15 Public views and accessibility to the Greenlands System is maintained**

Backing lots and buildings onto the Greenlands System (i.e., with the rear facing the System) is less desirable. This orientation typically results in more encroachments and disturbances. Alternatively, more of the Greenlands System surrounded by parks, schools, and roads contributes to greater public safety, public views and managed public accessibility. In general, the Town encourages the Greenlands System to be bounded by public property as much as possible.

**16 Plan provides for specific additional protection for coldwater creeks**

Coldwater creeks are particularly sensitive. Additional protection will aid in ensuring that they are enhanced and rejuvenated while being integrated into the Community. (Potentially non-applicable in certain situations)

**17 Management Plan to ensure sustainability of Greenlands System**

Specific action plan provides direction over and above physical measures such as linkages and buffers to ensure that System remains viable in an urban environment. Implementation of the system is an additional criterion. (Potentially non-applicable in certain situations)

**18 Additional trees not otherwise identified as part of the Natural Heritage/Open Space System enhance environmental quality of life**

**19 Design minimizes Town's operation costs**

Future operating costs are a major concern for the Town. Use of specific materials or designs which can be demonstrated to minimize such costs are a benefit. The Town will establish measures which they will consider with respect to this criterion.

**20 Development includes adaptive reuse of heritage structures**

Adaptive reuse refers to integrating cultural heritage resources or their key components into a new development.

21

For medium-density, mixed use or non-residential development, minimize surface parking by providing underground or structured parking. In comparison with at-grade or surface parking, the provision of parking underground or in a parking structure generally permits the creation of a more compact, pedestrian-friendly and transit-supportive urban form. In general, the Town will encourage underground and structured parking over surface parking. Use of public facilities to accommodate parking can reduce the area dedicated to surface parking and make more efficient use of land. The option of working with the Town to provide public parking facilities would also be considered by the Town.

22 On-Street Parking

On-street parking that is functional is a benefit for the Town and residents for visitor parking and parking for public facilities such as parks.

23 Affordable Housing

Affordable housing contributes to the creation of a community which serves all the residents of the Town. As defined by York Region Official Plan

24 Developers distribute sustainability handout to all new owners

The Sustainability Handout to be distributed to each resident. outlines important aspects of the Secondary Plan such as the Greenlands System and need for water conservation.

25 Development supports or is connected to a district energy project

District energy, also known as district heating and cooling, is the technology for providing heating (and possibly other forms of energy) from a central plant to multiple users. District energy can save money for users, conserve resources and reduce air emissions. Developers may also consider small-scale localized energy solutions, such as the installation of geothermal technology or solar panels. More information can be found at [www.cdea.ca](http://www.cdea.ca).

26 The following Water Quality targets are achieved:

- at least 80% removal (Enhanced Treatment) of Total Suspended Solids; and,
- no increase in Total Phosphorus loading after development. Total Suspended Solids are associated with many contaminants in urban runoff. Reducing the amount of total suspended solids ensures the protection of receiving watercourses. In addition, the limit on phosphorus protects our lakes and rivers. "Enhanced Treatment", "Total Suspended Solids" and "Total Phosphorus" are defined terms of the Ministry of Environment's Storm water Management Planning Design Manual (March 2003).

27 Three or more green upgrade options are provided

The proposed options address a range of water and energy conservation measures. In particular, the use of native and/or drought-resistant (i.e., xerophytic) planting reduces the amount of watering needed and helps fight the establishment of invasive plant species. In addition, rain barrels and cisterns assist in reducing storm water flow and allow rainwater harvesting (i.e. rainwater can be used to water plants).

28 Solar orientation

Solar orientation is an inexpensive way to provide energy savings, but must form part of the initial design of development.

29 Permeable materials

Use of permeable materials assists with storm water management.

30 a) Innovative Storm water Management Design plan that demonstrates less reliance on end-of-pipe facilities and more on conveyance and at-source strategies

30 b) Innovative pond design uses techniques such as multiple storage cells arranged in a series to improve water quality; treatment of local runoff using vegetative buffers; and enhanced vegetation within and around the pond. Innovative pond design techniques are to be to the satisfaction of the Town.

In general, the purpose of this credit is to encourage techniques that are able to demonstrate a reduction in sediment and phosphorus loading.

31 Implement green infrastructure (i.e. bioswales) within some of the public right-of-ways

In certain areas, there may be opportunities to create "Green Streets." These streets could contain bioswales which encourage more conveyance level storm water management, provide opportunities for more vegetation within the public right-of-way and may reduce the size of storm water management ponds. Use of these types of technologies will require the applicant to consult with the Town and, on Regional Roads, the Region.

32 Site Construction Waste Management

Encourages waste management from initiation of development and careful use of resources in development

33 Buildings achieve a rating greater than specified standards

As identified in Section 5.2 of the proposed new Regional Official Plan, these criteria require development to exceed national building standards with respect to energy efficiency.

34 Recycling materials encourages careful use of resources in development

35 Innovative subdivision or building design credit

The intent of this credit is to recognize additional or innovative performance in areas such as green building or subdivision design not specifically addressed by this checklist. These points are at the discretion of the Town. Applicants applying for these credits should include additional information as part of the Sustainability Report.

## Site Level Design Sustainable Development Checklist

Applicant \_\_\_\_\_  
 Date \_\_\_\_\_  
 Applicant Signature \_\_\_\_\_  
 Site Address \_\_\_\_\_  
 Planning File No. \_\_\_\_\_

**Directions:** Check off the Sustainability features that are proposed for the development. Town staff will check off the Explanation Required column. Items are explained on the attached pages.

Check	No.	Items	Explanation Required	No. of Points
A Site/Community Design (efficient development design, healthy community design, employment generation/economic enhancement and open space enhancement (59 points))				
<input type="checkbox"/>	1	If permitted by Zoning By-law, development contains a mix of uses.	<input type="checkbox"/>	2
<input type="checkbox"/>	2	If permitted by Zoning By-law, development live-work units (minimum 10).	<input type="checkbox"/>	2
<input type="checkbox"/>	3	a) Development is designed to support active transportation modes: direct accessibility to existing or potential transit stops which are located within no more than 500 metres and one year transit pass for each residential unit	<input type="checkbox"/>	2
<input type="checkbox"/>		b) direct accessibility to Town's trails system including construction of any required linkage to same	<input type="checkbox"/>	2
<input type="checkbox"/>		c) bicycle parking, locker, shower and change facilities provided or cash-in-lieu of such facilities for medium and high density residential and mixed use development as well as employment and institutional uses	<input type="checkbox"/>	2
<input type="checkbox"/>	4	Transportation Demand Management Plan to be submitted and implemented	<input type="checkbox"/>	3
<input type="checkbox"/>	5	Development is located within a safe 1 kilometre minute walk from an existing or proposed employment area which has, or is anticipated to have, a substantial number of jobs, or	<input type="checkbox"/>	3
<input type="checkbox"/>		b) an existing or planned school; and	<input type="checkbox"/>	3
<input type="checkbox"/>		c) existing or planned neighbourhood commercial facilities	<input type="checkbox"/>	1
<input type="checkbox"/>	6	Both residential and non-residential components of development are to be constructed at the same time.	<input type="checkbox"/>	3
<input type="checkbox"/>	7	Plan provides for the ultimate development of the project or includes a concept plan for future intensification and provides infrastructure for fully developed project	<input type="checkbox"/>	2
<input type="checkbox"/>	8	Improve public space by providing in the development community spaces for uses such as plazas, public art, seating and/or creating connections to adjacent natural features and other developments.	<input type="checkbox"/>	3
<input type="checkbox"/>	9	Wide mid-block pedestrian connections provided to any adjacent public feature(s) i.e. parks, schools, Greenlands System	<input type="checkbox"/>	1
<input type="checkbox"/>	10	Greenlands System and floodplain are as identified in the Secondary Plan and staked by the Conservation Authority to be placed in public ownership	<input type="checkbox"/>	2
<input type="checkbox"/>	11	Public views and accessibility to the Greenlands System are maintained by:		
<input type="checkbox"/>		a) maintaining 30% of the Greenlands System bounded by a combination of roads and open space and public facilities i.e. schools; or,	<input type="checkbox"/>	4
<input type="checkbox"/>	b) maintaining 50% of the Greenlands System bounded by a combination of roads, open space and public facilities i.e. schools.	<input type="checkbox"/>	6	
Note: maximum number of points in 11 = 6				

Check	No.	Items	Explanation Required	No. of Points
<input type="checkbox"/>	12	Plan provides for specific additional protection for Little Rouge, Reesor and Stouffville Creeks above that required by the Secondary Plan recognizing their status as coldwater streams. This may include additional buffer areas; vegetation restoration in the buffer areas; removal of on-line ponds and enhanced erosion control measures.	<input type="checkbox"/>	up to 6
<input type="checkbox"/>	13	Design which is demonstrated to significantly minimize the Town's operating costs.	<input type="checkbox"/>	up to 6
<input type="checkbox"/>	14	Design incorporates significant CPTED (crime prevention through environmental design) standards as outlined in a specific plan	<input type="checkbox"/>	4
<input type="checkbox"/>	15	Providing a plan that demonstrates that street design (i.e. length of curb face) will allow for the provision of on-street parking to be used for visitor parking and parking for parks and other public facilities	<input type="checkbox"/>	2
<b>B Buildings (enhanced design features, development standards) (48 points)</b>				
<input type="checkbox"/>	16	Development includes adaptive reuse of heritage structures	<input type="checkbox"/>	5
<input type="checkbox"/>	17	For medium-density, mixed use or non-residential development, minimize surface parking by providing at least 30% of parking as on site structured, or underground parking and/or by developing with the Town off-site public parking accessible for use by residents.	<input type="checkbox"/>	6
<input type="checkbox"/>	18	Building is or can be demonstrated to be certifiable by a recognized green building rating system	<input type="checkbox"/>	up to 8
<input type="checkbox"/>	19	Residential buildings achieve performance level that is equal to a rating of 83 or more when evaluated in accordance with Natural Resources Canada's EnerGuide for New Houses Administrative and Technical Procedures	<input type="checkbox"/>	4
<input type="checkbox"/>	20	Mid and high rise residential and non-residential buildings are designed to achieve 40% greater efficiency than the Model National Energy Code for Buildings	<input type="checkbox"/>	4
<input type="checkbox"/>	21	Industrial buildings are designed to achieve 25% greater energy efficiency than the Model National Energy Code for Buildings	<input type="checkbox"/>	3
<input type="checkbox"/>	22	Building(s) incorporate green or living roofs	<input type="checkbox"/>	6
<input type="checkbox"/>	23	Building(s) incorporate light coloured roofs	<input type="checkbox"/>	2
<input type="checkbox"/>	24	For medium density residential, mixed use or non-residential development recycling disposal area which is as convenient as garbage disposal both of which will be located in a fully enclosed building	<input type="checkbox"/>	2
<input type="checkbox"/>	25	Building(s) utilize a Rainwater/grey water recycling system	<input type="checkbox"/>	4
<input type="checkbox"/>	26	25% of residential units meet the definition of affordable housing	<input type="checkbox"/>	4
<b>C Energy and Water (energy efficient design, water and waste water reduction) (66 points)</b>				
<input type="checkbox"/>	27	Developers distribute a Town approved sustainability handout to all new owners	<input type="checkbox"/>	2
<input type="checkbox"/>	28	A minimum of 80% of the dwelling units contain Energy Star compliant appliances	<input type="checkbox"/>	2
<input type="checkbox"/>	29	Development supports or is connected to a district energy project, or on-site power generation which meets minimum 5% of energy needs	<input type="checkbox"/>	6
<input type="checkbox"/>	30	Development supports or is connected to a district energy project, or on-site power generation which meets minimum 5% of energy needs	<input type="checkbox"/>	3
	a)	at least 80% removal (Enhanced Treatment) of total suspended solids; and,		
	b)	no increase in Total Phosphorus loading after development		

Check	No.	Items	Explanation Required	No. of Points
<input type="checkbox"/>	31	Three or more of the following green upgrade options will be available for a minimum of 50% home buyers/land buyers:	<input type="checkbox"/>	3
<input type="checkbox"/>	a)	A xerophytic/native plant and/or rain garden landscape package;	<input type="checkbox"/>	2
<input type="checkbox"/>	b)	Rain barrels; and/or	<input type="checkbox"/>	3
<input type="checkbox"/>	c)	Cisterns	<input type="checkbox"/>	3
<input type="checkbox"/>	d)	Solar hot water and space heating	<input type="checkbox"/>	1
<input type="checkbox"/>	e)	Energy saving package including, LED lighting for 20% of fixtures, occupancy sensors, external awnings	<input type="checkbox"/>	2
<input type="checkbox"/>	f)	Heat Pump in Lieu of Traditional Air Conditioning Unit	<input type="checkbox"/>	4
<input type="checkbox"/>	g)	Geothermal ground source heating	<input type="checkbox"/>	2
<input type="checkbox"/>	h)	Dual flush toilets	<input type="checkbox"/>	1
<input type="checkbox"/>	i)	Low flush shower heads	<input type="checkbox"/>	2
<input type="checkbox"/>	j)	Spray foam insulation of exterior building envelope (including above ground walls, basement walls and attics using closed or open cell products)	<input type="checkbox"/>	1
<input type="checkbox"/>	k)	Other Building Features (such as triple glazing of all windows)	<input type="checkbox"/>	1
<input type="checkbox"/>	l)	Hot water pipe wrapping	<input type="checkbox"/>	1
<input type="checkbox"/>	m)	Installation of high efficiency tankless in-line water heater	<input type="checkbox"/>	1
<input type="checkbox"/>	32	Development is demonstrated to be designed to maximize passive solar energy through the orientation and design of buildings and other features including shading provided on east, west and south windows, awnings and deciduous trees in specific locations	<input type="checkbox"/>	3
<input type="checkbox"/>	33	Use permeable materials for paved areas that achieves:	<input type="checkbox"/>	2
<input type="checkbox"/>	a)	25% increase in permeability relative to conventional methods	<input type="checkbox"/>	3
<input type="checkbox"/>	b)	50% increase in permeability relative to conventional methods	<input type="checkbox"/>	2
<input type="checkbox"/>	34	Light coloured materials are used for at least 50% of all hardscape, including surface parking, walkways and other areas	<input type="checkbox"/>	6
<input type="checkbox"/>	35	Maintain existing on-site trees that are 30 metres or more DBH (diameter at breast height)	<input type="checkbox"/>	5
<input type="checkbox"/>	36	Innovative Stormwater Management Design plan used that demonstrates less reliance on end-of-pipe facilities and more on conveyance and at-source strategies. This may include:	<input type="checkbox"/>	3
<input type="checkbox"/>	a)	Employs a treatment train approach with a minimum of three treatment units; or,		
<input type="checkbox"/>	b)	Innovative pond design		
<input type="checkbox"/>	37	Implement green infrastructure (i.e. bioswales) within adjacent public right-of-ways subject to the Town approval and on property including in parking areas which will include clearly delineated pedestrian links, bioswales, landscaped islands that support vegetation and stormwater retention systems.	<input type="checkbox"/>	1
<input type="checkbox"/>	38	Significant Recycled material (minimum 35%) to be used in road/driveway construction or other infrastructure subject to Town approval	<input type="checkbox"/>	2
<input type="checkbox"/>	39	Submission of plan and implementation of same for on-site construction waste management and material/recycling/salvage with on-site separation including diverting from landfill 50% of all site generated waste	<input type="checkbox"/>	1

Check	No.	Items	Explanation Required	No. of Points
D		General		
<input type="checkbox"/>	40	Innovative building design or site plan layout credit (can be applied to points in any theme area).	<input type="checkbox"/>	up to 8
<p>Total possible points: 181 *Required points - 50% of possible points (rounded to 91 points) **Bonus - Greater than 75% of Applicable (138 points). A minimum of 20 points are required from each Sections A, B and C. Note: Items 12, 20 and 21 may be determined to be non-applicable and if so can be deducted from the required points total (i.e. 50% of total points).</p>				

# Site Design Sustainable Development Checklist

## Explanation of Items

### 1 Mix of uses

The provision of mixed-uses (e.g. residential units above commercial development, or a mix of uses on a site) in conformance with the approved zoning bylaw and Secondary Plan will encourage a more compact and pedestrian-friendly environment.

### 2 Live-work units

The ability to live and work in the community reduces commuting, improves the quality of life and contributes to the economy.

### 3 Development is designed to support active transportation modes. Active transportation modes are a key part of designing a healthy community and encourage transit use.

### 4 Transportation Demand Management Strategies to be submitted

TDMSs are plans that encourage more sustainable modes of transport and more efficient use of existing transportation facilities. Measures may include the bulk buying of transit passes, priority parking for autoshare programs, staggered work hours, priority parking for carpooling vehicles, etc. The Town especially encourages the creation of TDMSs for large employment and office building developments. More info can be found at [www.tc.gc.ca](http://www.tc.gc.ca).

### 5 Development contributes to walkable community

The development is designed to encourage use of active transportation modes by providing range of required uses within safe walking distance. The emphasis is on safety to ensure that sidewalks and traffic lights, as well as other similar approaches are provided. This measure is not just about distance, but is focused on the ability for the pedestrian to safely walk to the facility.

### 6 Residential and non-residential components constructed at the same time

A key to "community building", completion of construction allows residents to build relationships and enjoy a healthy life style from the moment they move in.

### 7 Concept Plan for future intensification

Development which achieves its ultimate density is encouraged. However, it is also recognized that development may intensify over time. Recognition of this ensures that there will be no impediments to future intensification.

### 8 Improve public space by providing community spaces such as plazas, public art, and/or creating connections to adjacent natural features

Pedestrian comfort is an important consideration in the design of projects. The creation of community spaces assists in providing a more pedestrian-friendly environment. The provision of pedestrian amenities would be based on the size of a project and its location.

### 9 Wide mid-block pedestrian connections provided to any adjacent public feature(s) (i.e., parks, schools, the Greenlands System)



Public views, accessibility, safety and connection to public features contribute to the creation of a pedestrian-friendly environment. All developments should create public connections between public features where appropriate.

10 Greenlands System and floodplain to be placed in public ownership

The general boundary of the Greenland System and floodplain is maintained and to be placed in public ownership. Minor modifications may be made in consultation with the Conservation Authority.

11 Public views and accessibility to the Greenlands System is maintained.

Backing lots and buildings onto the Greenlands System (i.e., with the rear facing the System) is less desirable. This orientation typically results in more encroachments and disturbances. Alternatively, more of the Greenlands System surrounded by parks, schools, and roads contributes to greater public safety, public views and managed public accessibility. In general, the Town encourages the Greenlands System to be bounded by public property as much as possible.

12 Plan provides for specific additional protection for coldwater creeks.

Coldwater creeks are particularly sensitive. Additional protection will aid in ensuring that they are enhanced and rejuvenated while being integrated into the Community. (Potentially non-applicable in certain situations)

13 Design minimizes Town's operation costs

Future operating costs are a major concern for the Town. Use of specific materials or designs which can be demonstrated to minimize such costs are a benefit. The Town will establish measures which they will consider with respect to this criterion.

14 CPTED Standards

Crime prevention is assisted by proper design. Specific standards have been established and would be incorporated in development in a comprehensive manner.

15 On-Street Parking

On-street parking that is functional is a benefit for the Town and residents for visitor parking and parking for public facilities such as parks.

16 Development includes adaptive reuse of any heritage structures

Adaptive reuse refers to integrating cultural heritage resources or their key components into a new development.

17 For medium-density, mixed use or non-residential development, minimize surface parking by providing underground or structured parking

In comparison with at-grade or surface parking, the provision of parking underground or in a parking structure generally permits the creation of a more compact, pedestrian-friendly and transit-supportive urban form. In general, the Town will encourage underground and structured parking over surface parking. Use of public facilities to accommodate parking can reduce the area dedicated to surface parking and make more efficient use of land. The option of working with the Town to provide public parking facilities would also be considered by the Town.

18 Certification under a recognized program such as LEEDS or Energy Star provides for a number of environmental and resource energy benefits.

19,20,21 Buildings achieve a rating greater than specified standards

As identified in Section 5.2 of the proposed new Regional Official Plan, these criteria require development to exceed national building standards with respect to energy efficiency

22 Building(s) to incorporate green or living roofs Green roofs can be used to manage stormwater, reduce the urban heat island effect (which refers to the tendency for urban areas to become warmer than surrounding rural areas) and improve local air quality. Where an intensive roof is developed, the area can also be used as an amenity area. Extensive green roofs, which are inaccessible, are also strongly encouraged especially for non-residential development. The Town encourages medium-density residential and office use buildings as well as large employment developments to incorporate green roofs.

More information can be found at [www.greenroofs.org](http://www.greenroofs.org)

23 Building(s) to include light coloured roofs also hardscape. Light coloured roofs and hardscape cut energy demand in the summer months by protecting the roof and ground from absorbing solar heat energy. To receive this credit, the roofing material must have a Solar Reflectance Index equal to or greater than 78 and emissivity greater than 0.9 according to ASTM Standard 408

24 For medium density residential and mixed use development, Site Plan shows recycling disposal that is as, or more, convenient than garbage disposal

The minimization of waste and the promotion of recycling is encouraged. The placement of these facilities should reflect this principle. For example, three-shoot waste disposal drops should be shown in residential apartment buildings

25 Rainwater/grey water recycling system

These systems assist with water conservation. Strategies such as rainwater harvesting systems and/or treated grey water systems (from laundry/bathing) can be used to provide water for flushing toilets and/or irrigation.

26 Affordable housing

Affordable housing contributes to the creation of a community which serves all the residents of the Town.

27 Developers distribute sustainability handout to all new owners

The Town will prepare a Sustainability Handout to be distributed to each resident. It outlines important aspects of the Secondary Plan such as the Greenlands System and need for water conservation.

28 Energy Star Compliant Appliances

Where the developer is supplying appliances, they are Energy Star compliant. Energy Star qualified appliances incorporate advanced technologies that use 10–50% less energy and water than standard models. Energy Star qualified appliances include, among others, clothes washers, dishwashers, refrigerators and freezers. Product listings are created for each type of appliance with detailed energy rating information. More information can be found at [www.energystar.gov](http://www.energystar.gov).

29 Development supports or is connected to a district energy project

District energy, also known as district heating and cooling, is the technology for providing heating (and possibly other forms of energy) from a central plant to multiple users. District energy can save money for users, conserve resources and reduce air emissions. Developers may also consider small-scale localized energy solutions, such as the installation of geothermal technology or solar panels.

More information can be found at [www.cdea.ca](http://www.cdea.ca).

30 The following Water Quality targets are achieved:

- at least 80% removal (Enhanced Treatment) of Total Suspended Solids; and,
- no increase in Total Phosphorus loading after development

Total Suspended Solids are associated with many contaminants in urban runoff. Reducing the amount of total suspended solids ensures the protection of receiving watercourses. In addition, the limit on phosphorus protects our lakes and rivers. "Enhanced Treatment", "Total Suspended Solids" and "Total Phosphorus" are defined terms of the Ministry of Environment's Stormwater Management Planning Design Manual (March 2003)

31 Three or more green upgrade options are provided

The proposed options address a range of water and energy conservation measures. In particular, the use of native and/or drought-resistant (i.e., xerophytic) planting reduces the amount of watering needed and helps fight the establishment of invasive plant species. In addition, rain barrels and cisterns assist in reducing stormwater flow and allow rainwater harvesting (i.e., rain water can be used to water plants).

32 Solar orientation

Solar orientation is an inexpensive way to provide energy savings, but must form part of the initial design of development.

33 Use of Permeable Materials assists in stormwater management

34 Light coloured materials for at least 50% of all hardscape, including surface parking walkways and others

Installing light coloured materials can reduce the urban heat island effect, which refers to the tendency for urban areas to become warmer than surrounding rural areas. For the purposes of this item, light coloured materials must have a reflectance of 0.3.

35 Maintain on-site trees

Preserving existing trees can contribute to reducing air pollution and promoting energy conservation.

36 Innovative pond design uses techniques such as: multiple storage cells arranged in a series to improve water quality; treatment of local runoff using vegetative buffers; and enhanced vegetation within and around the pond. Innovative pond design techniques are to be to the satisfaction of the Town.

In general, the purpose of this credit is to encourage techniques that are able to demonstrate a reduction in sediment and phosphorus loading.

37 Implement green infrastructure (i.e. bioswales) within some of the public right-of-ways and on site

In certain areas, there may be opportunities to create "Green Streets" or parking lots. These streets could contain bioswales which encourage more conveyance level stormwater management, provide opportunities for more vegetation within the public right-of-way and may reduce the size of stormwater management ponds. Use of these types of technologies will require the applicant to consult with the Town and, on Regional Roads, the Region. Similar techniques may also be used on site.

38 Use of recycled material in infrastructure

Encourages careful use of resources in development.

39 Site Construction Waste Management

Encourages waste management from initiation of development.

40 Innovative building design or site plan layout credit

The intent of this credit is to recognize additional or innovative performance in areas such as green building or site plan design not specifically addressed by this checklist. These points are at the discretion of the Town. Applicants applying for these credits should include additional information as part of the Sustainability Report.