



# BUILD FOR TOMORROW Sustainable Development Checklist UPDATE

19 MAY 2017









## BACKGROUND

- Design Implementation Guidelines 1998
- Based on progressive planning and urban design goals established at the time
- Guidance for compact low density neighborhoods



## DESIGN IMPLEMENTATION

#### GUIDELINES

The Corporation of the Town of Markham Development Services Commission

**Revised July 1998** 



e in a t



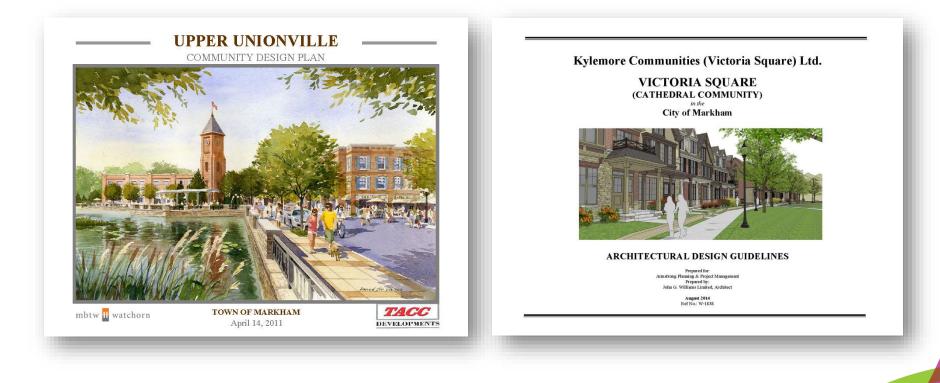








• Architectural control guidelines, zoning by-law and design review process













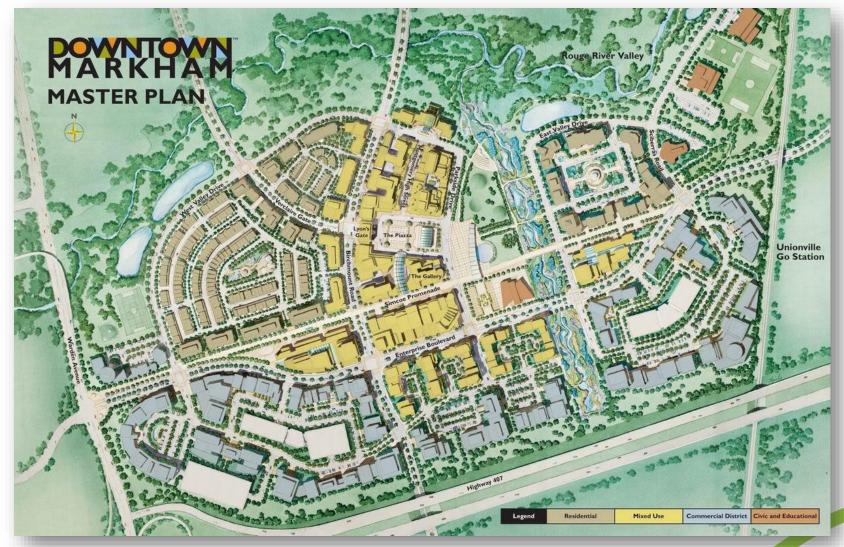




1867-2017











## BACKGROUND

- Performance Measures
   Document 2003-2009
- Based on Smart Growth and Sustainable Development Principles



## Performance Measures Document

The Markham Centre Vision for Sustainability and Smart Growth

www.markhamcentre.com



January 2009





#### Performance Measures will Guide Development Process

#### TURNING VISION INTO REALITY

"he build out of the downtown will take place over many years. Keeping development on track meeting the community's vision and expectations quires ongoing review and public input. part of establishing the Markham Centre history Group, the Town recognized that reformance Measures would be required to:

Translate community values into measurable

- Excilitate citizen participation-
- Pacinitie Context parts (prinor); Provide an open, accountable process; Monitor progress towards established principles; Enable the incorporation of new technologies and bear marchine:
- Challenge developers to provide new and better solutions; and
- Support communications with residents and key stakeholders.

#### From Guiding Principles to Practical Measures

e Markham Centre Advisory Group ho es of Public Workshops and a Confere

Greenlands, Transportation, Built Form, Green Infrastructure and Public Spaces, and to prioritize these objectives. 6. The Developer's revised applica again with the Advisory Group. again with the Advisory Group.
 A public meeting is held with public notice gives Additional community information meetings ma also be held.
 A staff report is brought forward to the Development Service Committee, and ultimate units' OUPECHTES. Performance measures were identified for each objective, and application checklins were prepared. Performance inductors were then established for each measure to exolute an easily understood "guide shere, bronzet "rating system to culture to low each development proposal meets or exceeds standards and expectations. Development Services Committee, a to Coancil, for approval. This report

Keeping the Vision on Track The Development Application Process 1. Staff use the Application Checklist to provide an initial assessment of each new development

nce targets

Once all questions in the Checklist have by addressed, staff evaluate the ambiention in

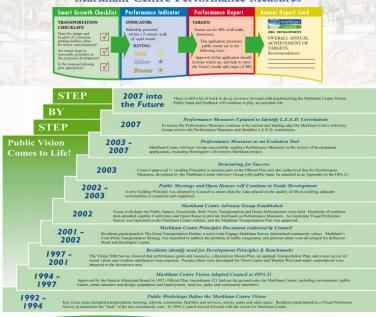
of the perfs 3. The Citizen Advisory Group reviews the

The Developer presents its plans to the Advisory

The Markhum Centre performan be used for many years to come, and form a "living document" that will be expanded and changed to reflect new technologies, practices 5. The Application is modified to incorporate the Advisory Ground

mual "Report Card" will be compiled to arise the actual results of the building pro-eport will identify any performance mean equire clarification or revision. It will be

#### Markham Centre Performance Measures



#### GREENLANDS

This key theme focuses on the protection and enhancement of the Rouge River valley lands and its tributaries as an environmental system while creating an integrated open space system. The protection of existing natural heritage features for future generations is the primary goal. A passive recreational trail network is proposed to recognize existing boundaries while affording recreational opportunities in a series of connected urban parks.

#### BUILT FORM

The Built Form theme focuses on the lots and block pattern, views and vistas, building placement and the promotion of pedestrian oriented streets. Highway 7 is to be transformed into an urban boulevard while keeping its role as an important component of the road and transit network. Additional lighting, sidewalks and trails, and high quality architectural standards will help to make the new downtown core a pedestrian-friendly environment. Built Form will support the urban core while concentrating on ecologically sustainable development.

#### **GREEN INFRASTRUCTURE**

To protect the environment of the valley lands, effective management of urban runoff and storm water is critically important. Green Infrastructure strategies will focus on initiatives that affect air quality, water conservation, waste reduction and efficient energy use

#### PUBLIC SPACE

In order to make Markham Centre a people place. considerable attention will be given to the design of public parks and facilities, streetscapes and major gathering spaces. Social and cultural considerations will be taken into account to ensure that Markham's new downtown is welcoming to all.

#### TRANSPORTATION

A focus on rapid transit and other non-automotive modes of travel will help to ensure that the pedestrian gains equality with the automobile in Markham Centre. The Town's Transportation Planning Study identifies road network improvements, rapid transit corridors, effective new policies and educational initiatives to relieve congestion.

Duilt Farme					Transaction					
Built Form					Transportation					
ltem #	Performance Measures	Correlation to LEED®	Yes No N/A	Item#	Performance Measures	Correlation to LEED®	Yes	No	N/A	
				Biking	- Precinct					
Street Form and Landscaping - Precinct					Are designated bike routes identified to connect with and	Anticipated relation to	1	1		
254				Т3	implement with Town-wide objectives?	future LEED® Canada				
BF1	Do the building locations define street corridors and open spaces?	No anticipated relation to future LEED® Canada NEIGHBOURHOOD 1.0			Performance Indicators: • Are bike routes or pathways integrated with the transit network and development sites?	NEIGHBOURHOOD 1.0				
	Performance Indicators: • Is there consistent building alignment along the edges of street corridors and open spaces including a pedestrian scale podium?				<ul> <li>Are bike routes or pathways consistent with the Town of Markham Bike and Pathways Master Plan?</li> <li>Is appropriate signage and illumination provided to define the bicycle pathways?</li> <li>Are the off-street bike pathways connected to development sites?</li> </ul>					
BF2	Is the building massing, character and design appropriate to the scale and Anticipated rela role of each street type? Anticipated relation of each street type?					1	1			
	Tote of each street type r	future LEED® Canada NEIGHBOURHOOD 1.0		Public	Transit - Precinct					
	Performance Indicators: • Does the building massing (location and prominence) adjacent to streets and open spaces support the role of each street type?			T4	Is there connectivity amongst local, regional and interregional transit systems?	Anticipated relation to future LEED® Canada NEIGHBOURHOOD 1.0				
	<ul> <li>Are building entrances concentrated along street frontages and glazed areas promote street activity?</li> <li>Is there sufficient glazing and are building entrances along the frontage of pedestrian oriented retail streets and adjacent to open spaces?</li> </ul>				Performance Indicators: • Does the transit system interface with each other at station stops? • Is there a maximum 5 minute walk to transit station/stop? • Is an appropriate Right-of-Way identified and protected to					
BF3	Do the street cross sections support maximizing pedestrian use and amenity, and minimizing pavement?	Anticipated relation to future LEED® Canada NEIGHBOURHOOD 1.0		-	Is the development planned in a transit oriented way?	Anticipated relation to				
	Performance Indicators:	NEIGHBOURHOOD 1.0		<u></u>	is the development planned in a transit oriented way?	future LEED® Canada NEIGHBOURHOOD 1.0				
	<ul> <li>Is there appropriate width and continuity of unimpeded pedestrian sidewalk surfaces to allow for easy pedestrian passage, for sidewalk retail displays and/or outdoor dining, for amenable street furniture and landscaping and to buffer ground floor residential?</li> <li>Are pedestrian sidewalk crossings for vehicle entrances to parking garages or service areas minimized along the street frontage?</li> </ul>				Performance Indicators: • Are transit stops in reasonable proximity to the proposed development? • Is a transit stop integrated into the development plan? • Are Transit stop/shelters designed appropriately and provided? • Is sufficient signage and illumination provided at transit stops and/or stations?					
BF4	Have buildings been designed to promote extended use adjacent to public streets and open spaces?	Anticipated relation to future LEED® Canada NEIGHBOURHOOD 1.0			<ul> <li>Have buildings been concentrated along the rapid transit stops?</li> <li>Are buildings adjacent to transit stops designed provide protection from the elements?</li> </ul>					
	<ul> <li>Does the building location and height at the street edge support the pedestrian character of the streets and open spaces?</li> <li>Will the residential, commercial and/or retail uses in the building contribute to and enhance activities in the street?</li> </ul>				Pattern - Precinct			 		
BF5	Does the urban streetscape treatment integrate with and enhance a high quality coherent image of Markham Centre?	Anticipated relation to future LEED® Canada NEIGHBOURHOOD 1.0		- T6	Does the road network reflect the grid network pattern and promote the urban character inherent to the vision for Markham Centre?	Anticipated relation to future LEED® Canada NEIGHBOURHOOD 1.0				
	<ul> <li>Does each urban street cross section have a high quality boulevard, median and sidewalk treatment?</li> <li>Does each urban street cross section have street and pedestrian lighting, furniture and landscaping?</li> </ul>				Performance Indicators: • Does the street system provide interconnection throughout Markham Centre? • Where required, are appropriate traffic-calming measures outlined? • Is on street parking accommodated on public streets? • Is there proper spacing for driveway access to individual land uses?					





• Main Streets and Mixed Use in Residential Neighborhoods

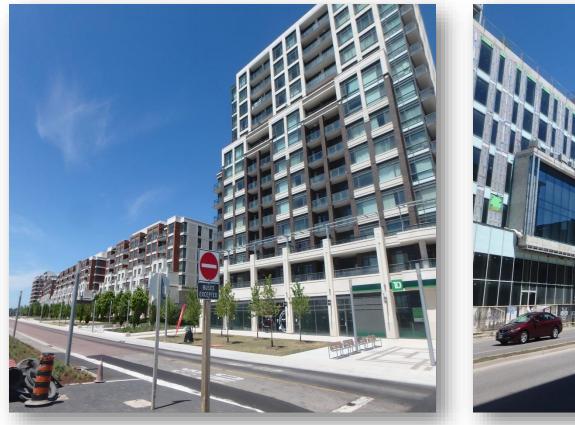








### • Transit and High Density Mixed Use











• Active Mobility







• Sustainable Public Spaces, Local Identity, Health and Wellbeing







13

#### • Green Infrastructure and use of Soil Cells







Solar and Energy Conservation











- Community Sustainability Plan 2011: Environmental Health, Social & Cultural Well-Being, Economic Vitality
- Net-zero energy, water, waste and emissions by 2050

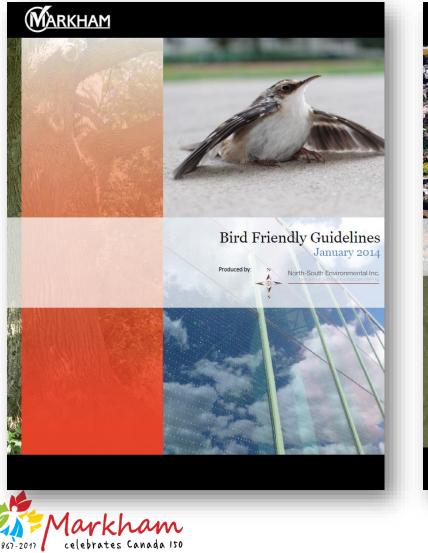


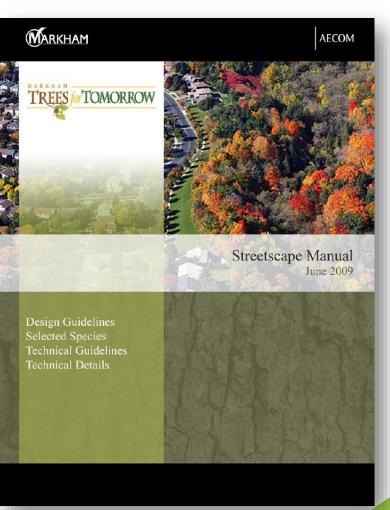






### New design guidance and standards

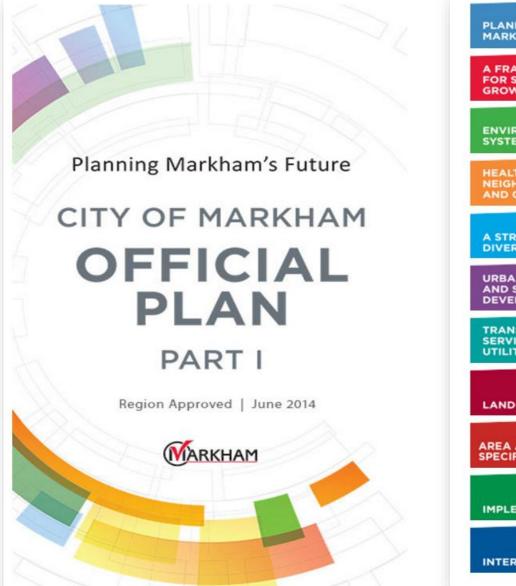




1867-2017











17

MARKHAM





• City of Markham Official Plan 2014

6.2.3 A sustainable development assessment checklist will ensure that as part of the development approval process, consideration is given to a full range of options to incorporate innovative sustainable approaches and technology.

6.2.3.3 To consider the sustainable design practices and technologies ... through the application of a sustainable development assessment checklist as part of the site plan application process.









## BACKGROUND

- Markham Centre Performance
   Measures 2003-2007 Checklist
- LEED and Beyond Study 2008
- Interim Sustainability Measures 2008
- Build for Tomorrow Checklist 2017 ?









### Markham's Sustainable Development Assessment Checklist Project:

- Task I: Establish a Policy-based Checklistfor Assessment of Development Applications
- Ensure alignment with MOP Policies, Standards, Guidelines and current regional practices
- Address recent regulatory changes and policy directions (OBC update, climate change mitigation and adaptation, community resiliency, public engagement, etc.)
- Ensure alignment with on-going initiatives and major projects across corporation
- Ensure alignment with the existing development review process
- Provide guidance at pre-application stage and facilitate IDP for applicants
- Make it easy for Applicants to demonstrate compliance
- Make it easy for Teams to review proposals using the Checklist
- Make it easy for public and decision makers to understand and assess non-mandatory sustainable practices and design features







- E-plan and new Application Submission Requirements
- Municipal Energy Plan and local CEPs
- Comprehensive Zoning By-law
- Markham's Low Impact Development Standards
- Integrated Planning for Future Urban Area
- Secondary Plans
- Compensation Protocol for natural features, Interface Guidelines
- Zero Waste







Principle	Maximum Available	Minimum Recommended	Target	Potential Target
Built Environment	32	22	12	7
Active Mobility and Sustainable	14	10	4	3
, Natural Environment and Open Space	29	20	15	10
Green Infrastructure and Green Buildings	70	49	36	23
Communications and Innovation	14	10	4	8
Totals Project Notes (from the Development Team)	159	111	71	51







# Thank you



