



Agenda
Planning & Development Committee
The Corporation of the City of Brampton

Date: Monday, April 26, 2021
Time: 1:00 p.m.
Location: Council Chambers - 4th Floor, City Hall - Webex Electronic Meeting
Members: Regional Councillor M. Medeiros - Wards 3 and 4
Regional Councillor P. Fortini - Wards 7 and 8
Regional Councillor R. Santos - Wards 1 and 5
Regional Councillor P. Vicente - Wards 1 and 5
City Councillor D. Whillans - Wards 2 and 6
Regional Councillor M. Palleschi - Wards 2 and 6
City Councillor J. Bowman - Wards 3 and 4
City Councillor C. Williams - Wards 7 and 8
City Councillor H. Singh - Wards 9 and 10
Regional Councillor G. Dhillon - Wards 9 and 10
Mayor Patrick Brown (ex officio)

NOTICE: In consideration of the current COVID-19 public health orders prohibiting large public gatherings and requiring physical distancing, in-person attendance at Council and Committee meetings will be limited to Members of Council and essential City staff only. Public attendance at meetings is currently restricted. It is strongly recommended that all persons continue to observe meetings online or participate remotely.

For inquiries about this agenda, please contact: Shauna Danton, Legislative Coordinator, Telephone 905.874.2116, TTY 905.874.2130, or email cityclerksoffice@brampton.ca

1. Call to Order

2. Approval of Agenda

3. Declarations of Interest under the Municipal Conflict of Interest Act

4. Consent Motion

In keeping with Council Resolution C019-2021, agenda items will no longer be pre-marked for Consent Motion approval. The Meeting Chair will review the relevant agenda items during this section of the meeting to allow Members to identify agenda items for debate and consideration, with the balance to be approved as part of the Consent Motion given the items are generally deemed to be routine and non-controversial.

5. Statutory Public Meeting Reports

6. Public Delegations (5 minutes maximum)

7. Staff Presentations and Planning Reports

- 7.1. Staff report re: Application to Amend the Official Plan - TACC Holborn Corp. – Malone Given Parsons Ltd. - File C10E04.005

Location: 8863 The Gore Road - Ward 8

Recommendation

- 7.2. Staff report re: Sustainability Metrics Program Update - RM 43/2020

Recommendation

8. Committee Minutes

- 8.1. Minutes - Brampton Heritage Board - April 7, 2021

To be approved

9. Other Business/New Business

10. Referred/Deferred Matters

Note: In accordance with the Procedure By-law and Council Resolution, the Referred Matters List will be published quarterly on a meeting agenda for reference and consideration. A copy of the current Referred Matters List for Council and its committees, including original and updated reporting dates, is publicly available on the City's website.

11. Correspondence

12. Councillor Question Period

13. Public Question Period

15 Minute Limit (regarding any decision made at this meeting)

During the meeting, the public may submit questions regarding recommendations made at the meeting via email to the City Clerk at cityclerksoffice@brampton.ca, to be introduced during the Public Question Period section of the meeting.

14. Closed Session

15. Adjournment

Next Meeting: Monday, May 10, 2021, at 7:00 p.m.

Date: 2021-04-01

File: **C10E04.005**

Subject: **Supplementary Recommendation Report**
Application to Amend the Official Plan
(To align policies in the Official Plan the approved Ministerial Zoning Order (MZO) that has been approved to permit the development of the site with a residential subdivision consisting of single detached dwellings, townhouse blocks, a high density mixed-use block, an employment/office block, a park block, a stormwater management facility block, and natural heritage system)
TACC Holborn Corporation – Malone Given Parsons Ltd.
8863 The Gore Road
Ward: 8

Contact: Steve Ganesh, Manager, Development Services
Planning Building and Economic Development
905-874-2089, steve.ganesh@brampton.ca

Report Number: Planning, Building and Economic Development-2021-062

Recommendations:

1. **THAT** the report titled: **Supplementary Recommendation Report**, Application to Amend the Official Plan, **TACC Holborn Corporation – Malone Given Parsons Ltd.**, 8863 The Gore Road, Ward 8 (C10E04.005, Planning, Building and Economic Development-2021-062), dated April 1, 2021 to the Planning and Development Committee Meeting of April 26, 2021 be received;
2. **THAT** the Official Plan Amendment application submitted by Malone Given Parsons Ltd., 8863 The Gore Road, Ward 8, C10E04.005 be approved, on the basis that it represents good planning, including that it is consistent with the Provincial Policy Statement, conforms to the Growth Plan for the Greater Golden Horseshoe, the Region of Peel Official Plan, and the City's Official Plan, and for the reasons set out in this Recommendation Report; and
3. **THAT** the amendment to the Official Plan generally in accordance with the attached Appendix 11 to this report be adopted.

4. **THAT** it is determined that the extent of the changes does not require any further notice be given in respect of the proposal.

Overview:

- This report recommends the approval of an Official Plan amendment to align the policies of the Official Plan and Secondary Plan with the zoning permissions that were previously applied through a Ministerial Zoning Order (MZO) in association with the application. Although the MZO (Ontario Regulation 171/20) amended the zoning permissions on the site, it did not amend the policies of the Official Plan or Secondary Plan. The amendments proposed herein will result in those policy documents designating the subject property in a manner that is consistent with the uses that are permitted by the MZO, being residential, commercial, employment, and open space uses.
- City Council had previously approved “in principle” this development application on April 18, 2018.
- The subject property is currently designated “Neighbourhood Retail”, “Mixed Commercial/Industrial”, “Special Policy Area 8 (Office Node – Mixed Commercial/Industrial)”, and “Valleyland” on Schedule SP41(a) of the Bram East Secondary Plan. Amendments to the Secondary Plan are attached (Appendix 11) that will facilitate the proposed development.
- A further amendment to the Zoning By-law is also proposed through a separate application (File: OZS-2020-0032) for a portion of the subject lands to permit additional density in the “Residential High Density” zone. That matter will be dealt with separately.
- The proposed Official Plan Amendment represents good planning, is consistent with the Provincial Policy Statement and is in conformity with the Growth Plan for the Greater Golden Horseshoe, the Regional Official Plan, and the City of Brampton Official Plan.
- A statutory Public Meeting for this application was held on June 5, 2017. Five members of the public made presentations before the Planning and Development Committee. Details of the Public Meeting are included in Appendix 9 of this report.

- **The proposal is consistent with the “2018-2022 Term of Council Priorities” by supporting the “A City of Opportunities” theme. The proposal will add a new use (residential) to the area and support intensification and integration into the existing and potential future urban fabric.**

Background:

This application proposes to amend the Official Plan by amending the designations within the Bram East Secondary Plan to permit the development of a residential subdivision at 8863 The Gore Road.

The applicant originally submitted the application in April 2013 and the original submission included an Official Plan Amendment, Zoning By-law Amendment, and Draft Plan of Subdivision. The initial proposal was for a residential development containing 79 Single Detached Dwellings, 36 Semi Detached Dwellings (72 semi units), 27 blocks of Street Townhouse Dwellings (149 units), 4 blocks of live-work townhouses (28 units), and an apartment block containing two apartment buildings of 8 and 12 storey height (302 units).

The proposal involved the conversion of the entire property from an “Employment Lands” designation to a “Residential” designation to facilitate the proposed development. It was circulated to City departments and agencies, and an initial statutory public meeting was held on June 10, 2013.

The proposed conversion from the “Employment Lands” designation was approved by Council on May 30, 2016, and a related Official Plan amendment OP2006-130 was approved by Council on April 26, 2017. The Official Plan amendment for employment conversion was subsequently appealed to the LPAT.

The applicant completed revisions to the development proposal to include office uses along Queen Street East and The Gore Road at the southern end of the parcel, another public meeting was held on June 5, 2017.

Due to revisions to the proposed development to include office uses along Queen Street East and The Gore Road at the southern end of the parcel, another public meeting was held on June 5, 2017. The Official Plan Amendment, Zoning By-law Amendment, and Draft Plan of Subdivision were only approved in principle by Council on April 18, 2018 as it is necessary for the appeal of OP2006-130 to be resolved before enacting the OP and Zoning amendments.

Council adopted a motion on October 16, 2019 to request that the Province enact a Minister’s Zoning Order (MZO) for the site. A MZO (Ontario Regulation 171/20) was issued on April 24, 2020. The MZO provided Zoning permissions to allow the

development, but MZO's do not amend the City Official Plan policy. In this regard the Official Plan designations for the subject site do not conform to the as of right permissions that were created by the MZO.

The LPAT approved OP2006-130 permitting the employment conversion in July 2020. Now that the LPAT has rendered a decision on OP2006-130, the Official Plan Amendment can be brought forward for Council's consideration. The applicant subsequently entered into a Subdivision Agreement with the City in August 2020. The subdivision plan (43M-2092) was registered on November 5, 2020.

Current Situation:

Proposal (Refer to Appendix 7)

The applicant had submitted an application for an Official Plan Amendment to permit the development of the residential subdivision. The subdivision that has been approved, and zoned, will provide 113 single detached dwellings, 25 townhouse blocks (161 units), a high density mixed-use block (664 units), an employment/office block, a park block, a stormwater management facility block, buffer blocks, natural heritage system, walkways, reserve blocks, and public streets and lanes.

Application to Amend the Official Plan

The subject property is currently designated "Neighbourhood Retail", "Mixed Commercial/Industrial", "Special Policy Area 8 (Office Node – Mixed Commercial/Industrial)", and "Valleyland" on Schedule SP41(a) of the Bram East Secondary Plan.

The proposed amendment will revise the land use designations of the Secondary Plan to: "Medium Density", "Cluster/High Density", "Office Node", "Neighbourhood Park", "Storm Water Management Facility", "Valleyland", "Special Policy Area 18 (Mixed Use High Density)", and "Special Policy Area 19 (Office Node)". Revisions to the proposed amending documents have been made since the time of the two public meetings to accommodate the range of land uses proposed, and a wide range of potential urban building forms. The proposed changes are shown in Appendix 11.

In addition, the applicant is proposing to add the following sections to the Secondary Plan: "Special Policy Area 18 (Mixed Use High Density)" to allow high density development, and "Special Policy Area 19 (Office Node)" to permit development of higher density employment uses within the "Office Node" designation. The proposed text changes to the Secondary Plan are shown in Appendix 11.

Property Description and Surrounding Land Uses

The lands have the following characteristics:

- Located on the east side of The Gore Road, between Queen Street East and Fogal Road;
- Site Area of approximately 17.84 hectares (44.08 acres);
- Frontage of approximately 500 metres (1,640.42 feet) along The Gore Road and 160 metres (524.93 feet) along Queen Street East; and
- Currently vacant.

The surrounding land uses are described as follows:

North:	Beyond Fogal Road are industrial/commercial uses and vacant lands proposed to develop as townhouses.
South:	Beyond Queen Street East are vacant lands designated for employment uses.
East:	Valleyland and floodplain followed by vacant lands designated for employment uses.
West:	Beyond The Gore Road are commercial uses including a commercial plaza and convention centre.

Summary of Recommendations

This report recommends that Council approve the Official Plan Amendment to result in land use policies that are aligned with the approved MZO permissions for development of this site, including residential uses (low and high densities), an employment/office block, a park block, a stormwater management facility block. The Official Plan Amendment is attached to this report as Appendix 11.

Summary of Planning Analysis

The proposed Official Plan Amendment is consistent with the Provincial Policy Statement, and conform to the Growth Plan for the Greater Golden Horseshoe, the Region of Peel Official Plan, and the City's Official Plan.

The proposed development supports the creation of sustainable communities. The proposed application is introducing a mix of land uses including residential in various built forms and density, employment, and open space in an appropriate location. This development supports the creation of complete communities by providing a range of housing options adjacent to employment uses and existing and planned transit infrastructure.

A review of the various studies submitted in support of the application has demonstrated there are adequate services, parking and infrastructure to support the original submission included with the Official Plan Amendment, Zoning By-law Amendment, and Draft Plan of Subdivision. For more information with respect to the planning analysis for this proposal, please refer to Appendix 7 – Detailed Planning Analysis.

Matters of Provincial Interest

Planning Act

This development proposal has regard for the following matters of Provincial interest as set out in Section 2 of the Planning Act:

- Section 2(a) the protection of ecological systems, including natural areas, features and functions;
- Section 2(h) the orderly development of safe and healthy communities;
- Section 2(j) the adequate provision of a full range of housing, including affordable housing;
- Section 2(k) the adequate provision of employment opportunities;
- Section 2(p) the appropriate location of growth and development;
- Section 2(q) the promotion of development that is designed to be sustainable, to support public transit and to be oriented to pedestrians;
- Section 2(r) the promotion of built form that,
 - (i) is well-designed,
 - (ii) encourages a sense of place, and
 - (iii) provides for public spaces that are of high quality, safe, accessible, attractive and vibrant;

The proposal is consistent with the above noted matters as the development proposes to create a range of housing types and employment opportunities.

Provincial Policy Statement (PPS)

Section 3 of the Planning Act requires that decisions affecting planning matters “shall be consistent with” policy statements issued under the Act. The Provincial Policy Statement (PPS) provides direction on matters of provincial interest related to land use planning and development. The application are consistent with the PPS with respect to the land designations, the environment and housing opportunities. Generally staff are satisfied

that Sections of the PPS are applicable and the application is in conformity with these policies.

A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020)

The Growth Plan for the Greater Golden Horseshoe includes policy and direction intended to accommodate and forecast growth in complete communities. These are communities that are designed to meet people's needs for daily living throughout an entire lifetime by providing convenient access to an appropriate mix of jobs, local services, public service facilities, and a full range of housing to accommodate a range of incomes and household sizes.

Furthermore, the plan identifies major transit station areas on priority transit corridors that are to be planned and designed to be transit-supportive. These are communities that makes transit viable through compact and mixed-use development that has a high level of employment and residential densities.

The application conforms to the policies of the Growth Plan (2020) in terms of:

- Section 2.2.1.2 Directing growth to settlement areas.
- Section 2.2.1.4 Provision of a diverse range of housing options.
- Section 2.2.4.3 Residential and Office uses will contribute towards achieving the planned density for the major transit station area.
- Section 2.2.5.3 Offices uses will support active transportation and exiting or planned transit.
- Section 2.2.5.9 Conversion of lands within employment areas to non-employment uses is accomplished through a municipal comprehensive review.

The proposed development supports the achievement of complete communities by providing a range of housing types and employment opportunities which supports active transportation and existing and planned transit.

Region of Peel Official Plan

The Region of Peel's Official Plan provides a long term policy framework that is used to manage Peel's growth and development. The subject lands are located within the "Urban System" designation in the Region of Peel Official Plan. The proposed development supports the achievement of intensified and compact form of development that efficiently uses land, services and infrastructure. The application conforms to the policies of the Region of Peel Official Plan.

City of Brampton Official Plan and the Bram East Secondary Plan (Area 41)

The purpose of the City of Brampton Official Plan is to give clear direction as to how physical development and land use decisions should take place to meet the current and future needs of its residents. The subject lands are designated “Residential”, “Office”, “Open Space”, and “Special Land Use Policy Area 19” in the Brampton Official Plan. These designations permit a range of residential uses, offices uses and associated commercial uses, and recreational uses.

The proposal satisfies the general intent of the Official Plan relating to optimizing opportunities for residential and employment uses along intensification corridors and major transit station areas. Staff is satisfied that the proposal fulfills the objectives of the Official Plan. The proposed Secondary Plan amendment is consistent with the general intent of the Official Plan and Secondary Plan.

Community Engagement:

The application was circulated to City Departments, community agencies and property owners within 240 metres of the subject property, exceeding the Planning Act requirement of 120 metres for such applications. The correspondence received from commenting agencies are included as Appendix 10 – Results of Application Circulation. Notice signs were placed on the subject lands to advise members of the public that the application to amend the Official Plan was filed with the City.

Two statutory Public Meetings for this application were previously held. Five members of the public made presentations at the second public meeting on June 5, 2017. Two members of the public were in favour of the application. Three members of the public raised the following issues:

- Unsuitability of the proposed development for the area
- The need to include commercial developments in the application
- The need to include more residential developments in the area

A response to the residents’ comments and concerns is attached as Appendix 9 – Results of Public Meeting.

Corporate Implications:

Financial Implications:

There are no financial implications associated with this application. Revenue that is collected through the development application fees are accounted for in the approved operating budget.

Other Related Applications:

On November 19, 2020 the owner submitted an application to amend the Zoning By-law to permit the development of a 664 unit mixed-use high-density development. That application is being processed and reviewed under a separate file: OZS-2020-0032. The application has supporting studies (i.e. functional servicing review, traffic impact study) to support the increase in height and density from the original 10 storeys to two high-rise towers of 25 and 30 storeys with a connecting podium of 10 storeys.

Term of Council Priorities:

This application to amend the Official Plan and the Zoning By-law is consistent with the “A City of Opportunities” theme. It supports the building of complete communities to accommodate growth for people and jobs. The redevelopment of the lands makes efficient use of land and resources and takes advantage of existing infrastructure and will provide a transit supportive, pedestrian friendly development.

Living the Mosaic – 2040 Vision:

This report has been prepared in full consideration of the overall vision that the people of Brampton will ‘Live the Mosaic’. This report aligns with the vision that Brampton will be a mosaic of complete neighbourhoods and vibrant centres.

Conclusion:

The proposed development represents the efficient and orderly development of lands for residential, employment, and open space purposes. The proposed density is appropriate in supporting a complete community and supports City’s vision of directing intensification towards strategic growth areas such as intensification corridors and major transit station areas.

The proposed development is consistent with the Provincial Policy Statement (2020), and conforms to the Growth Plan for the Greater Golden Horseshoe (2020), Region of Peel Official Plan the City’s Official Plan. Staff is satisfied that the application represents good planning and recommend approval of the Official Plan Amendment.

Authored by:

Reviewed by:

Steve Ganesh, MCIP, RPP
Manager, Development Services
Planning Building & Economic
Development

Allan Parsons, MCIP, RPP
Director, Development Services
Planning, Building & Economic Development

Approved by:

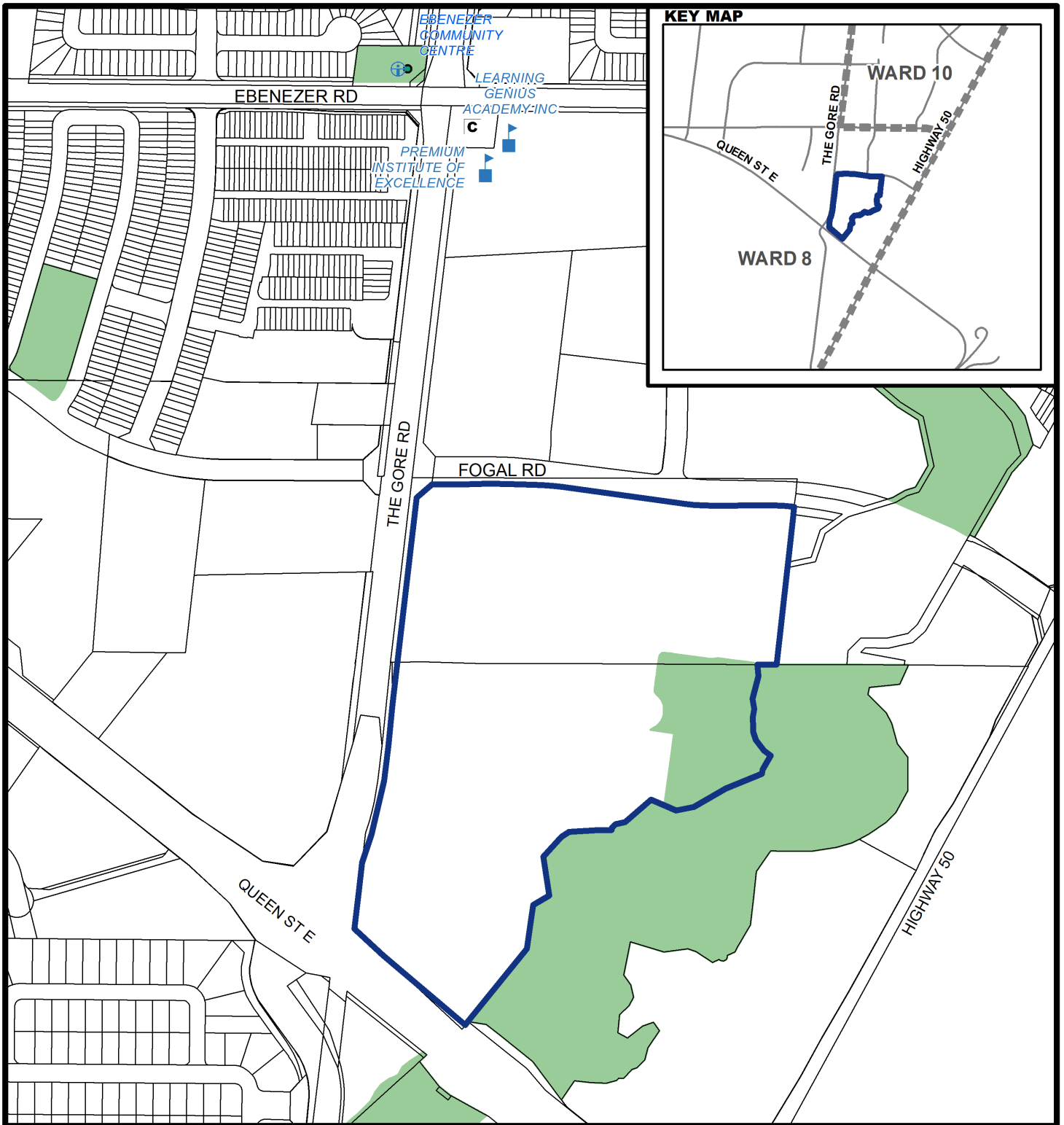
Submitted by:

Richard Forward, MBA, M.Sc., P.Eng.
Commissioner
Planning, Building & Economic
Development

David Barrick
Chief Administrative Officer

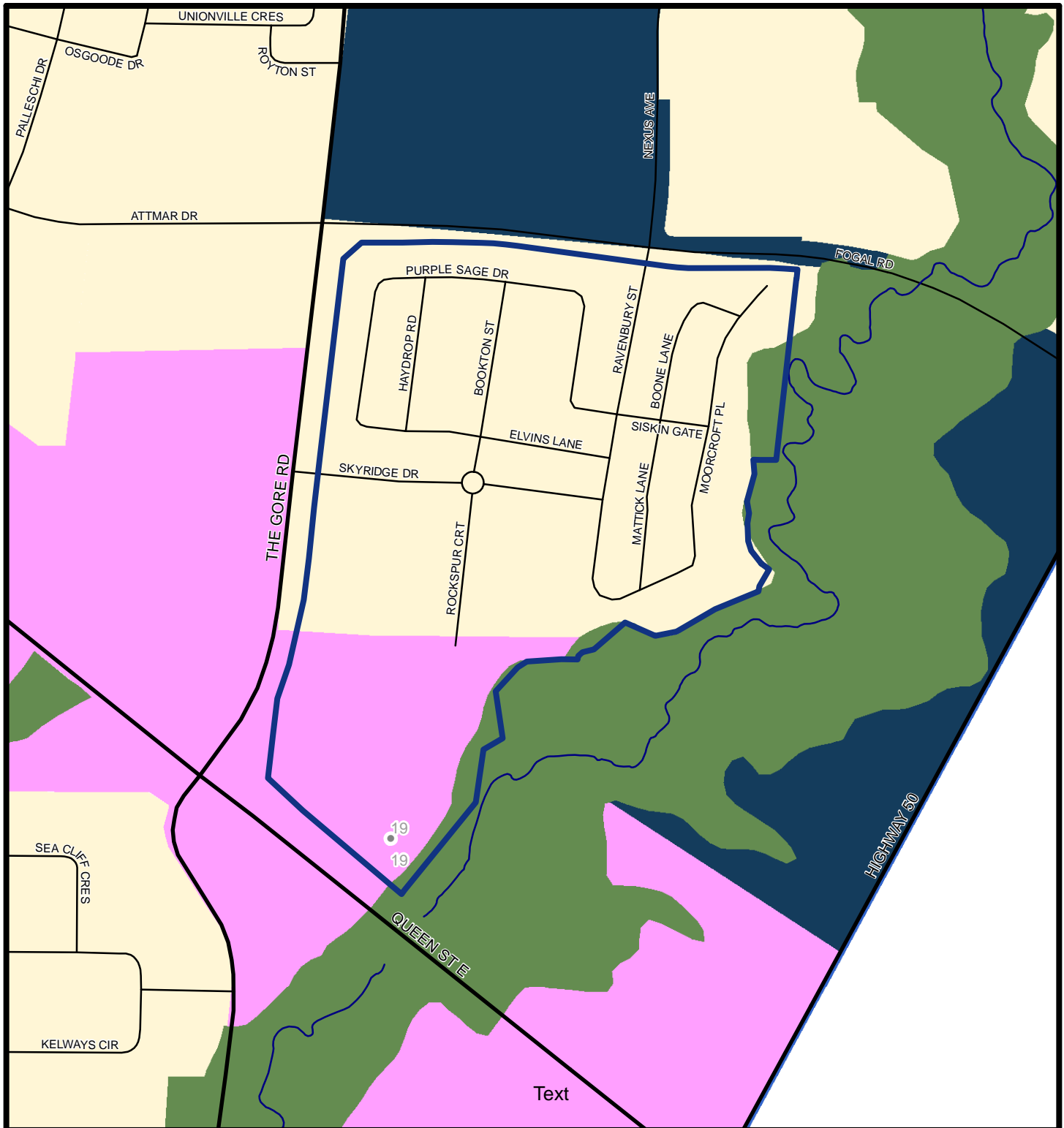
Attachments:

Appendix 1:	Location Map
Appendix 2:	Official Plan Designations
Appendix 3:	Secondary Plan Designations
Appendix 4:	Zoning Designations
Appendix 5:	Aerial & Existing Land Use
Appendix 6:	Heritage Resources
Appendix 7:	Registered Plan of Subdivision 43M-2092
Appendix 8:	Detailed Planning Analysis
Appendix 9:	Results of Public Meeting
Appendix 10:	Results of Application Circulation
Appendix 11:	Draft Official Plan Amendment



- SUBJECT LAND
- GREENSPACE
- SCHOOLS
- C CEMETERY
- RECREATIONAL FACILITY
- PROPERTY LINE



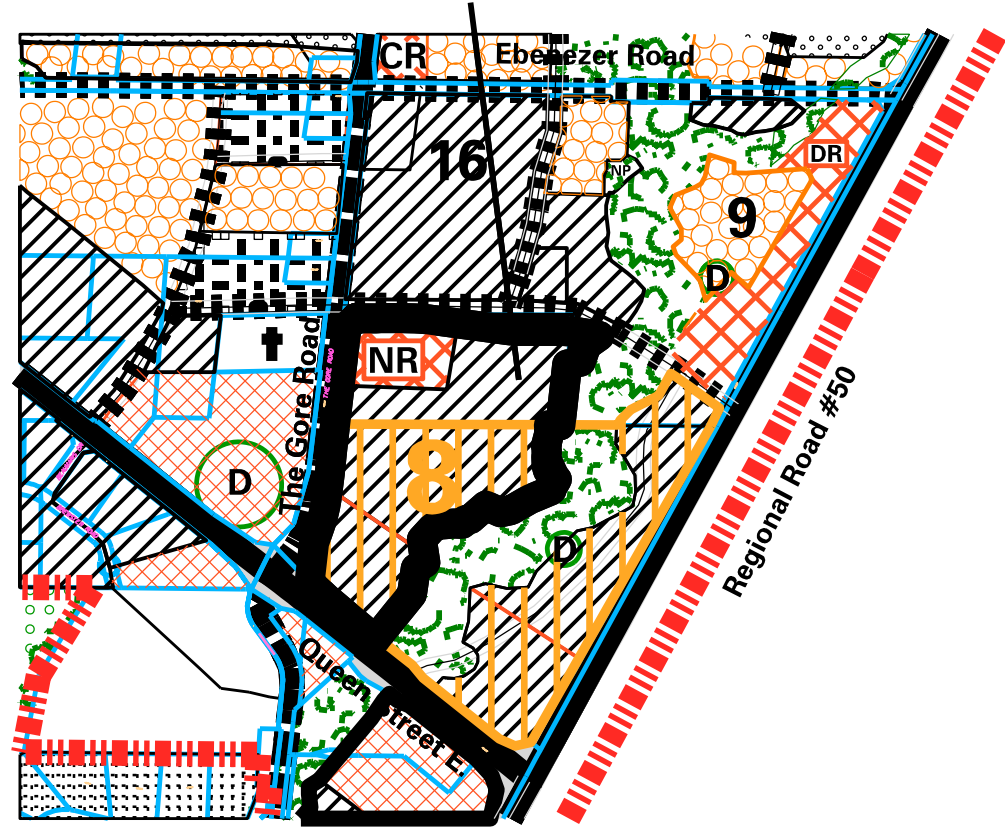


EXTRACT FROM SCHEDULE A (GENERAL LAND USE DESIGNATIONS) OF THE CITY OF BRAMPTON OFFICIAL PLAN

- | | | | |
|-------------------|--------------------|-------------|------------------------------|
| SUBJECT LAND | ESTATE RESIDENTIAL | OPENSAPCE | CITY LIMIT |
| BUSINESS CORRIDOR | OFFICE | RESIDENTIAL | SPECIAL LAND USE POLICY AREA |

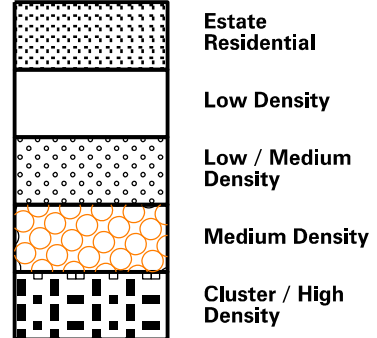


SUBJECT LANDS

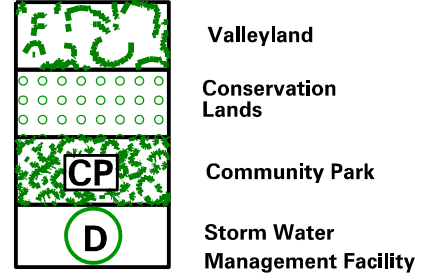


EXTRACT FROM SCHEDULE SP41(A) OF THE DOCUMENT KNOWN AS THE BRAM EAST SECONDARY PLAN

RESIDENTIAL LANDS:



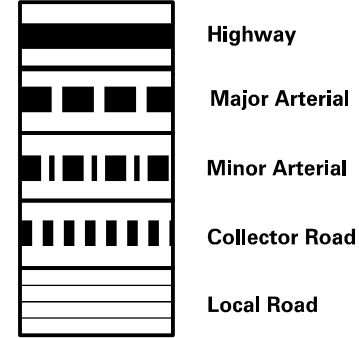
OPEN SPACE:



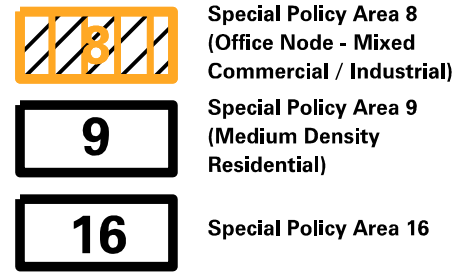
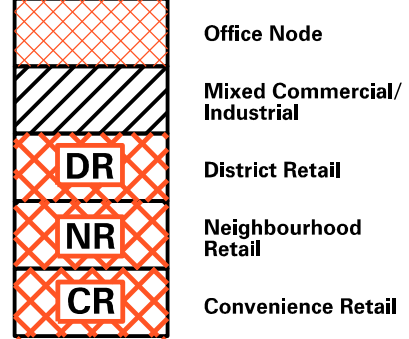
INSTITUTIONAL:











ROAD NETWORK :



EMPLOYMENT LANDS:



 SUBJECT LAND
  COMMERCIAL
  AGRICULTURAL
  FLOODPLAIN
 RESIDENTIAL
  INDUSTRIAL
  OPEN SPACE
  CITY LIMIT



A scale bar with markings at 0, 50, and 100. Below the bar is the word "Metres".

Author: ckovac
Date: 2020/12/02

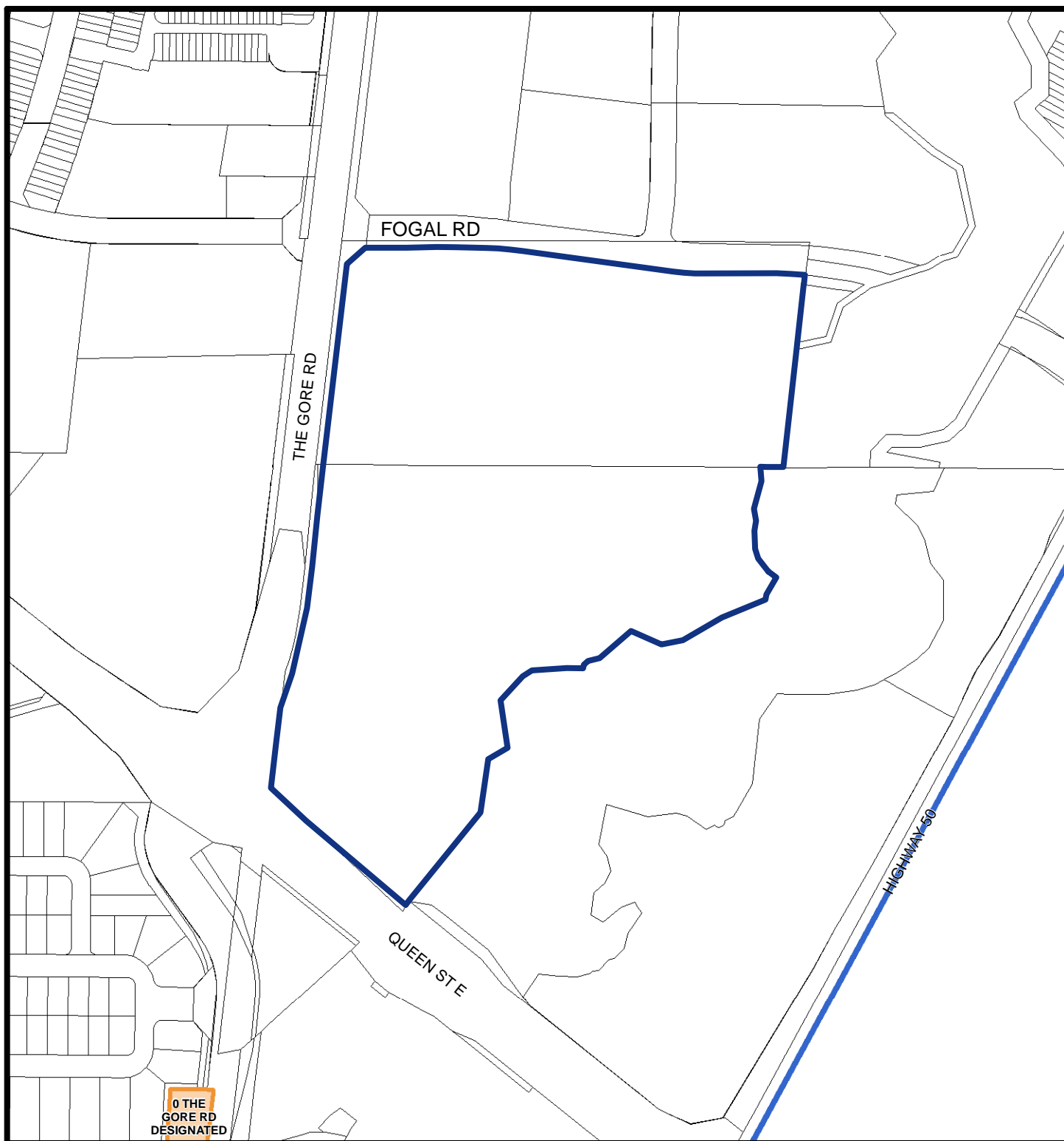






AERIAL PHOTO DATE: SPRING 2020

Legend

	SUBJECT LAND		AGRICULTURAL		INSTITUTIONAL		ROAD
	CITY LIMIT		COMMERCIAL		OPEN SPACE		UTILITY
			INDUSTRIAL		RESIDENTIAL		

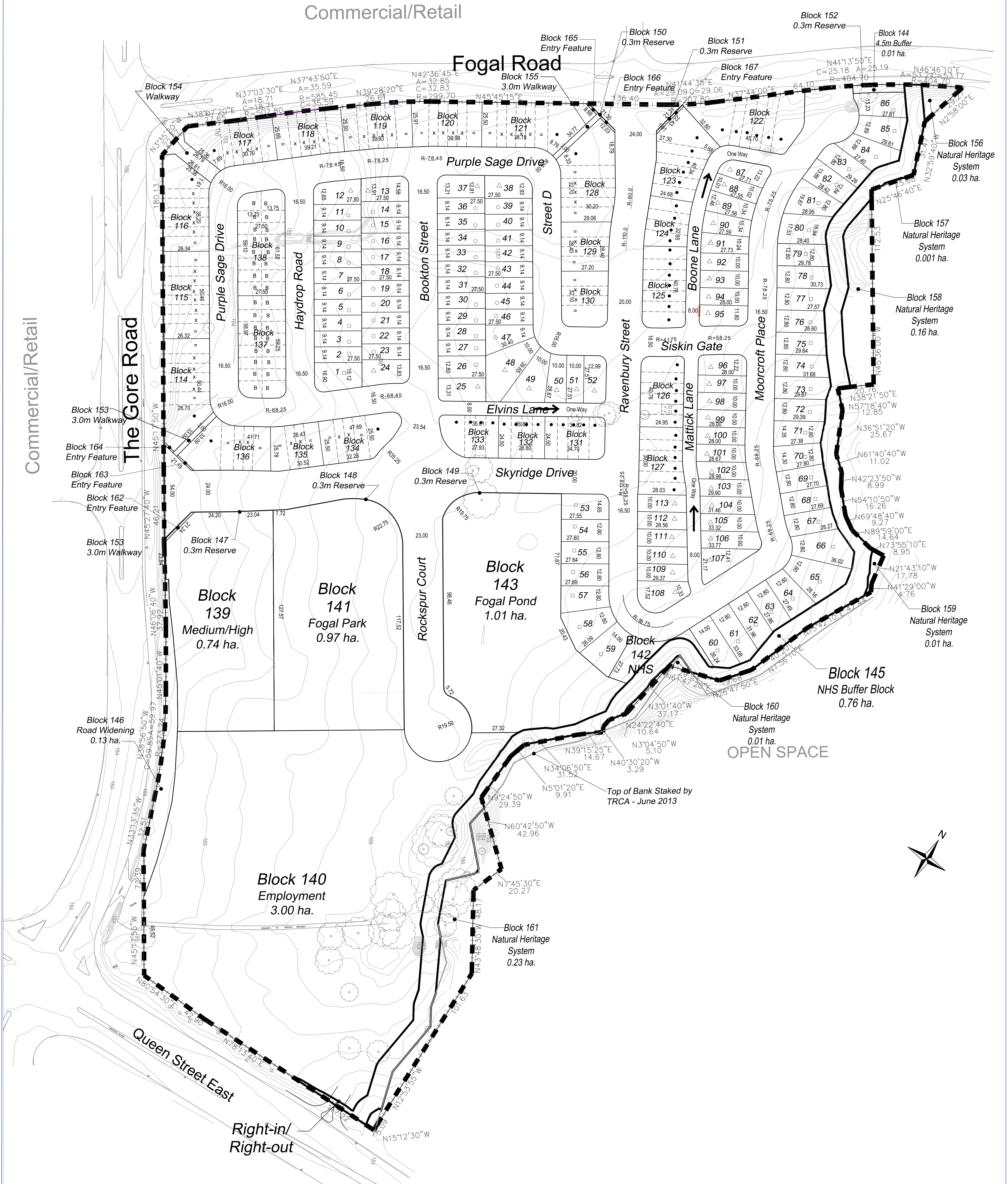




- | | | | |
|--|--------------|---|---------------------------------|
|  | SUBJECT LAND |  | HERITAGE PROPERTIES OUTSIDE 50M |
|  | CITY LIMIT |  | HERITAGE PROPERTIES WITHIN 50M |



Commercial/Retail



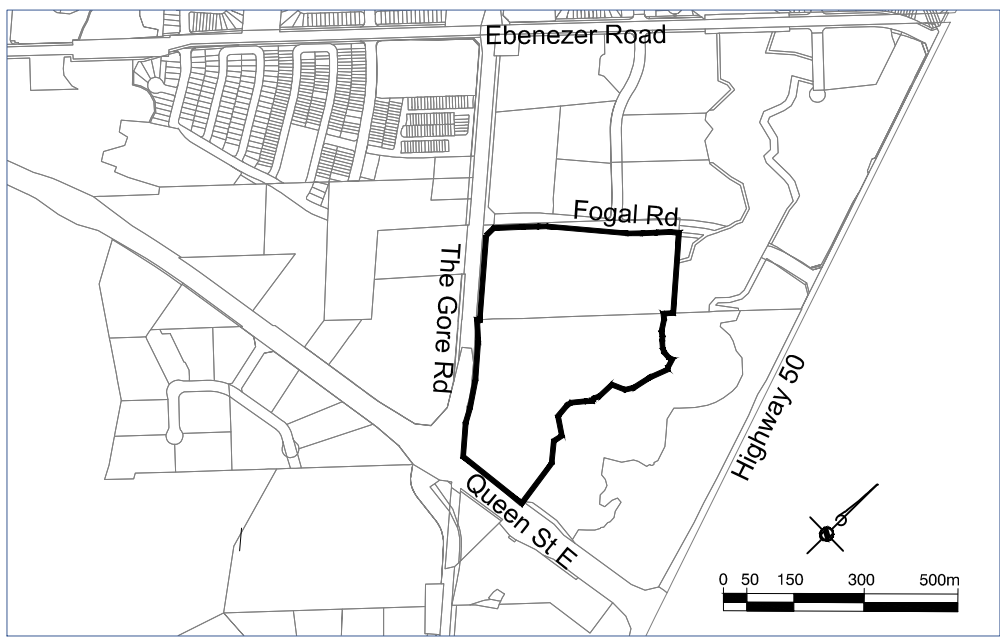
REVISED
DRAFT PLAN OF
SUBDIVISION

Part of Lots 4 & 5,
Concession 10
City of Brampton
Regional Municipality of Peel

Prepared for:
TACC Holborn Corporation
600 Applewood Crescent
Vaughan, Ontario, L4K 4B4



KEY PLAN



ADDITIONAL INFORMATION

AS REQUIRED UNDER SECTION 51(17) OF THE
PLANNING ACT, CHAPTER P.13(R.S.O. 1990).
(a),(e),(f),(g),(j),(l) - As shown of the Draft Plan.
(b),(c) - As shown on the Draft and Key Plan.
(d) - Land to be used in accordance with the Schedule of
Land Use.
(i) - Soil is Clay.
(h),(k) - Full municipal services to be provided.

SCHEDULE OF LAND USE

Lots/Blocks	Land Use		Density			Units		Area
			uph	ha	ac	ha	ac	
1-113	Detached Min. 12.8m (Front Loaded)	□		36	1.46	3.61		
	Detached Min. 10.0m (Lane Based)	△	30.3	38	1.26	3.11		
	Detached Min. 9.14m (Front Loaded)	○		39	0.99	2.45		
114-121, 128-130 & 134-136	Townhouses 5.5m (Dual Frontage)	x	69.6	48	0.68	1.68		
	(7.5m Dual Frontage)	•	42.6	26	0.61	1.51		
122-127, 131-133	Townhouses 6.1m (Lane Based)	●	44.7	55	1.23	3.04		
137-138	Back to Back Min. 6.85m	B	97.0	32	0.33	0.82		
139	Medium/High Density Block				0.74	1.83		
140	Employment			3.00	7.41			
141	Fogal Park			0.97	2.40			
142, 156-161	Natural Heritage System			0.48	1.19			
143	Fogal Pond			1.01	2.50			
144	4.5m Noise Buffer			0.01	0.02			
145	NHS Buffer Block			0.76	1.88			
146	Road Widening			0.13	0.32			
147-152	0.3m Reserves			0.02	0.05			
153-155	3.0m Walkways			0.05	0.12			
162-167	1.01m Entry Feature Blocks			0.01	0.02			
Street C	23m Road - 155m (574')			0.51	1.26			
Street A-B	20m Road - 480m(1,575')			1.06	2.62			
Streets D-H	16.5m Road - 1,325m(4,347')			2.24	5.54			
Lanes A-C	8.0m Lane - 363m(1,911')			0.29	0.72			
TOTAL				41.6	274	17.84	44.08	

OWNER'S AUTHORIZATION

I hereby authorize Malone Given Parsons Ltd. to prepare
and submit this Draft Plan of Subdivision to the City of
Brampton.
See Original
TACC Holborn Corporation
Date

SURVEYOR'S CERTIFICATE

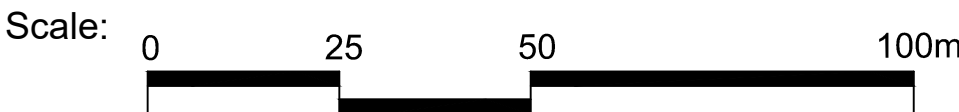
I hereby certify that the boundaries of the lands to be
subdivided as shown on this Plan and their relationship to
the adjacent lands are accurately and correctly shown.

See Original
DAVID B. SEARLES SURVEYING LTD.
Alister Sankey, O.L.S.,
905-273-6840

See Original
Date

Prepared by:

140 Renfrew Drive, Suite 201
Markham, Ontario, L3R 6B3
Tel: (905) 513-0170
www.mgp.ca



Date: December 18, 2015
Project No.: 15-2415

Date	Revision	By
May 17/18	Add Entry Feature Blocks	DR

**Detailed Planning Analysis
City File Number: C10E04.005**

Overview:

The proposal has been reviewed and evaluated against the Planning Act, Provincial Policy Statement, the Growth Plan for the Greater Golden Horseshoe, the Regional Official Plan, the City's Official Plan, the Bram East Secondary Plan and other applicable City of Brampton guidelines and priorities.

The Planning Act:

The Planning Act is the provincial legislation which sets the rules for land use planning in Ontario. Part 1, Section 2 of the Act includes matters of Provincial Interest, which the Council of a municipality must have regard to. This proposal has regard for the following specific matters of provincial interest:

Section 2(a) – the protection of ecological systems, including natural areas, features and functions;

Section 2(h) – the orderly development of safe and healthy communities;

Section 2(j) – the adequate provision of a full range of housing, including affordable housing;

Section 2(k) – the adequate provision of employment opportunities;

Section 2(p) – the appropriate location of growth and development;

Section 2(q) – the promotion of development that is designed to be sustainable, to support public transit and to be oriented to pedestrians;

Section 2(r) – the promotion of built form that,

(i) is well-designed,

(ii) encourages a sense of place, and

(iii) provides for public spaces that are of high quality, safe, accessible, attractive and vibrant;

The proposal represents orderly development which will add to the range of housing options and employment opportunities in Brampton through the creation of 906 dwelling units and employment/office blocks. The location of the proposed development is appropriate for growth and development. The proposed density and housing forms are appropriate for the surrounding built form, supporting public transit, and sustainable. The proposal includes measures to protect the adjacent lands that contain natural heritage features. Finally, the proposed built-form is well-designed and will help to encourage a sense of place.

Provincial Policy Statement:

The Provincial Policy statement sets out fundamental planning principles and provides policy direction on matters of provincial interest related to land use planning and development. This application is consistent with matters of Provincial interest as identified in the Provincial Policy Statement.

1.1.1 Healthy, liveable and safe communities are sustained by:

a) promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;

This proposal will promote efficient development and land use patterns by integrating a mix of land uses at appropriate densities including employment, residential, and open space which are supported by transit facilities.

b) accommodating an appropriate affordable and market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;

This proposal will accommodate a range and mix of housing types including single detached, townhouse, and apartment. In addition, the proposal includes employment uses, specifically office uses, open space, and natural heritage features. The combination of a range of housing types and mix of uses will meet long-term needs.

c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;

This proposal will avoid causing environmental health and safety concerns by designating natural heritage features and implementing appropriate buffer space.

d) avoiding development and land use patterns that would prevent the efficient expansion of settlement areas in those areas which are adjacent or close to settlement areas;

This proposal will not prevent the efficient expansion of settlement areas. The subject area is surrounded by adjacent development on both the east and north and respondents the logical continuation of development.

e) promoting the integration of land use planning, growth management, transit-supportive development, intensification and infrastructure planning to achieve cost-effective development patterns, optimization of transit investments, and standards to minimize land consumption and servicing costs;

This proposal promotes the integration of land use planning and transit-supportive development to achieve cost-effective development patterns by planning for a mix of land uses, including both residential and employment uses, adjacent to transit facilities.

1.1.3.1 Settlement areas shall be the focus of growth and development.

1.1.3.2 Land use patterns within settlement areas shall be based on densities and a mix of land uses which:

- a) efficiently use land and resources;*
- b) are appropriate for, and efficiently use, the infrastructure and public service facilities which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion;*
- c) minimize negative impacts to air quality and climate change, and promote energy efficiency;*
- d) prepare for the impacts of a changing climate;*
- e) support active transportation;*
- f) are transit-supportive, where transit is planned, exists or may be developed;*

Land use patterns within settlement areas shall also be based on a range of uses and opportunities for intensification and redevelopment in accordance with the criteria in policy 1.1.3.3, where this can be accommodated.

Sections 1.1.3.1 and 1.1.3.2 require that settlement areas shall be the focus of growth and development and their vitality and regeneration shall be promoted. The land use pattern within settlement areas shall be based on densities and a mix of land uses which efficiently use land and resources, are appropriate for, and efficiently use, the infrastructure and public service facilities which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion, minimize negative impacts to air quality and climate change, promote energy efficiency, support active transportation. The proposed development meets these requirements by proposing a mix of residential, commercial, institutional, employment and recreational uses and densities that make an efficient use of the land and infrastructure resources.

1.3.2.1 Planning authorities shall plan for, protect and preserve employment areas for current and future uses and ensure that the necessary infrastructure is provided to support current and projected needs.

1.3.2.2 At the time of the official plan review or update, planning authorities should assess employment areas identified in local official plans to ensure that this designation is appropriate to the planned function of the employment area.

Sections 1.3.2.1 and 1.3.2.2 require that the planning authorities shall plan for, protect and preserve employment areas for current and future uses and ensure that the necessary infrastructure is provided to support current and projected needs. Planning authorities may permit conversion of lands within employment areas to non-employment uses through a comprehensive review, only where it has been demonstrated that the

land is not required for employment purposes over the long term and that there is a need for the conversion. The proposed development meets this requirement as partial conversion of the subject lands from employment land to non-employment land has been approved by Council through the Municipal Comprehensive Review (MCR) process, and it has been ensured that the required number of jobs anticipated from the employment land are protected after partial conversion to non-employment land.

1.4.3 Planning authorities shall provide for an appropriate range and mix of housing options and densities to meet projected market-based and affordable housing needs of current and future residents of the regional market area by:

- a) establishing and implementing minimum targets for the provision of housing which is affordable to low and moderate income households and which aligns with applicable housing and homelessness plans. However, where planning is conducted by an upper-tier municipality, the upper-tier municipality in consultation with the lower-tier municipalities may identify a higher target(s) which shall represent the minimum target(s) for these lower-tier municipalities;*
- c) directing the development of new housing towards locations where appropriate levels of infrastructure and public service facilities are or will be available to support current and projected needs;*
- d) promoting densities for new housing which efficiently use land, resources, infrastructure and public service facilities, and support the use of active transportation and transit in areas where it exists or is to be developed;*
- e) requiring transit-supportive development and prioritizing intensification, including potential air rights development, in proximity to transit, including corridors and stations; and*
- f) establishing development standards for residential intensification, redevelopment and new residential development which minimize the cost of housing and facilitate compact form, while maintaining appropriate levels of public health and safety.*

Section 1.4.3 requires that planning authorities shall provide for an appropriate range and mix of housing types and densities to meet projected requirements of current and future residents of the regional market area by establishing and implementing minimum targets for the provision of housing which is affordable to low and moderate income households, and directing the development of new housing towards locations where appropriate levels of infrastructure and public service facilities are or will be available to support current and projected needs, promoting densities for new housing which efficiently use land, resources, infrastructure and public service facilities, and support the use of active transportation and transit in areas where it exists or is to be developed. The proposed development meets these requirements by including a mix of housing containing single detached dwellings, townhouses, and apartments which are located on a property which has access to existing infrastructure and public service facilities including public transit.

2020 Growth Plan for the Greater Golden Horseshoe:

The Growth Plan for the Greater Golden Horseshoe (Growth Plan) provides a framework for building stronger, more prosperous communities by managing growth over the long term. Guiding principles include supporting complete communities, providing a mix of housing types, and prioritizing intensification. The proposed development demonstrates conformity generally to this plan, including:

2.2.1.2 Forecasted growth to the horizon of this Plan will be allocated based on the following:

- a) the vast majority of growth will be directed to settlement areas that:
 - i. have a delineated built boundary;*
 - ii. have existing or planned municipal water and wastewater systems; and*
 - iii. can support the achievement of complete communities;**
- c) within settlement areas, growth will be focused in:
 - i. delineated built-up areas;*
 - ii. strategic growth areas;*
 - iii. locations with existing or planned transit, with a priority on higher order transit where it exists or is planned; and*
 - iv. areas with existing or planned public service facilities;**

Section 2.2.1.2. a) & c) requires that the vast majority of growth will be directed to settlement areas that have a delineated built boundary, have existing or planned municipal water and wastewater systems, and can support the achievement of complete communities. Within settlement areas, growth will be focused in delineated built-up areas, strategic growth areas, locations with existing or planned transit, with a priority on higher order transit where it exists or is planned, and areas with existing or planned public service facilities. The proposed development meets these criteria by being located within a designated greenfield area, situated along primary/secondary transit corridors, and served with existing public service facilities.

2.2.1.4 Applying the policies of this Plan will support the achievement of complete communities that:

- a) feature a diverse mix of land uses, including residential and employment uses, and convenient access to local stores, services, and public service facilities;*
- b) improve social equity and overall quality of life, including human health, for people of all ages, abilities, and incomes;*
- c) provide a diverse range and mix of housing options, including additional residential units and affordable housing, to accommodate people at all stages of life, and to accommodate the needs of all household sizes and incomes;*
- d) expand convenient access to:*

- i. a range of transportation options, including options for the safe, comfortable and convenient use of active transportation;*
- ii. public service facilities, co-located and integrated in community hubs;*
- iii. an appropriate supply of safe, publicly-accessible open spaces, parks, trails, and other recreational facilities; and*
- iv. healthy, local, and affordable food options, including through urban agriculture;*

Section 2.2.1.4 supports the achievement of complete communities that feature a diverse mix of land uses, including residential and employment uses, and convenient access to local stores, services, and public service facilities, improve social equity and overall quality of life, including human health, for people of all ages, abilities, and incomes, provide a diverse range and mix of housing options, including second units and affordable housing, to accommodate people at all stages of life, and to accommodate the needs of all household sizes and incomes; expand convenient access to a range of transportation options. The proposed development meets these requirements.

2.2.4.3 Major transit station areas on priority transit corridors or subway lines will be *planned for a minimum density target of:*

b) 160 residents and jobs combined per hectare for those that are served by light rail transit or bus rapid transit;

Section 2.2.4.3 requires a minimum of 160 residents and jobs combined at major transit station areas served by bus rapid transit. The proposed development will provide approximately 938 dwelling units and 860 jobs, which will contribute to achieving this target.

2.2.5.3 Retail and office uses will be directed to locations that support active transportation and have existing or planned transit.

Section 2.2.5.3 requires that office uses will be supported by active transportation and existing or planned transit. The proposed development meets these requirements as it is located along primary/secondary transit corridors, and served with existing public service facilities.

2.2.5.9 The conversion of lands within employment areas to non-employment uses may be permitted only through a municipal comprehensive review where it is demonstrated that:

a) there is a need for the conversion;

b) the lands are not required over the horizon of this Plan for the employment purposes for which they are designated;

c) the municipality will maintain sufficient employment lands to accommodate forecasted employment growth to the horizon of this Plan;

d) the proposed uses would not adversely affect the overall viability of the employment area or the achievement of the minimum intensification and density targets in this Plan, as well as the other policies of this Plan; and
e) there are existing or planned infrastructure and public service facilities to accommodate the proposed uses.

Section 2.2.5.9 requires that the conversion of lands within employment areas or prime employment areas to non-employment uses may be permitted only through a municipal comprehensive review where it is demonstrated that there is a need for the conversion. The proposed development which is based on conversion of employment land to non-employment land meets this requirement as the conversion was approved by Council as part of the MCR process.

Region of Peel Official Plan:

The Region of Peel Official Plan provides a policy framework to help manage Peel's growth and development over the long term. The subject property is located within the "Urban System" in Region of Peel's Official Plan. The proposed Zoning By-law Amendment conforms to several "Urban System" designation objectives, including:

2.2.1.2 To conserve, restore and enhance integrity of Peel's air, water and land resources.

Section 2.2.1.2 requires protection, preservation, and restoration of the natural heritage. The current proposal meets this requirement by delineating the Natural Heritage System and including appropriate buffers.

5.3.1.3 To establish healthy complete urban communities that contain living, working and recreational opportunities, which respect the natural environment, resources and the characteristics of existing communities.

The proposed development meets this objective as it contains a mix of residential and employment uses. Recreational opportunities are provided through the designation of open space as a neighbourhood park and the natural environment is protected by the designation of natural heritage features

5.3.2.2 Direct urban development and redevelopment to the Urban System within the 2031 Regional Urban Boundary, as shown on Schedule D, consistent with the policies in this Plan and the area municipal official plans.

The proposed development meets this policy as the subject is located within the Regional Urban Boundary.

5.5.1.1 To optimize the use of the existing land supply of the Region by directing a significant portion of growth to the built-up areas through intensification, particularly the urban growth centres, intensification corridors and major transit service areas.

Section 5.5.1.1 requires that growth will be focused within the designated urban systems. The proposed development meets this requirement by locating the development within a designated greenfield area.

5.6.2.8 Permit conversion of lands within employment areas, to nonemployment uses, only through a municipal comprehensive review that demonstrates:

- i. There is a need for the conversion;*
- ii. The Region and area municipality will continue to meet the employment forecasts of this Plan;*
- iii. The conversion does not affect the overall viability of the employment area and the achievement of intensification and density targets;*
- iv. There is existing or planned infrastructure to accommodate the proposed conversion;*
- v. The lands are not required over the long-term for employment purposes;*
- vi. The lands do not fulfill the criteria for provincially significant employment lands;*
- vii. The lands do not affect the operations or viability of existing or permitted employment uses on nearby lands; and*
- viii Cross-jurisdictional issues have been considered.*

For the purposes of this policy, major retail, residential and nonancillary uses are not considered employment uses unless already permitted by the designations identified in Section 5.6.2.6.

Employment land conversions may be defined in area municipal official plans.

Section 5.6.2.8 requires that the conversion of lands within employment areas to non-employment uses may be permitted only through a municipal comprehensive review where it is demonstrated that there is a need for the conversion. The proposed development which is based on conversion of employment land to non-employment land meets there requirement as the conversion was approved by Council as part of the MCR process.

5.8.1.1 To provide for an appropriate range and mix of housing types, densities, sizes and tenure to meet the projected requirements and housing needs of current and future residents of Peel.

Section 5.8.1.1 requires the regional municipalities to provide for a range and mix of housing types, densities, sizes, and tenures to meet the current and future needs of the residents of the Region of Peel. The current proposal meets this requirement by providing for a range of housing including single detached dwelling, townhouses and apartment dwellings.

City of Brampton Official Plan:

The City of Brampton's Official Plan provides comprehensive policies that facilitate land use decision making. The purpose of the plan is to guide development and infrastructure decisions and set the basis for addressing the challenges of growth in Brampton. The Plan incorporates upper level planning policies of the PPS, Growth Plan and Regional Official Plan.

The subject property is designated "Residential", "Office", "Open Space", and "Special Land Use Policy Area 19" in the Brampton Official Plan, and the proposed development generally conforms to the intent of this plan. This includes:

City Structure

3.2.1.1 Development of greatest mass and highest densities must be located within the Urban Growth Centre and Central Area, along intensification corridors and within Mobility Hubs and Major Transit Station Areas. These areas shall:

- (i) Accommodate a significant portion of population and employment growth;*
- (ii) Provide a diverse and compatible mix of land uses, including residential and employment uses;*
- (iii) Provide high quality public open spaces;*
- (iv) Support transit, walking and cycling for everyday activities;*
- (v) Develop in a compact form that will efficiently use land and resources,*
- (vi) Optimize the use of existing and new infrastructure and services;*
- (vii) Contribute to minimizing potential impacts on air quality and promoting energy efficiency; and,*
- (viii) Achieve an appropriate transition of built form to adjacent areas.*

The proposed development supports the creation of a sustainable urban structure. The proposal accommodates a significant portion of population and employment growth within a Major Transit Station Area. The development proposal includes a compatible mix of both residential and employment land uses that support transit, walking and cycling. Appropriate transitions to adjacent areas are provided.

3.2.2.2 Brampton's Designated Greenfield Area forms part of the Region of Peel's Designated Greenfield Area which is planned to achieve a density of 50 residents and jobs combined per hectare by 2031. Brampton shall contribute to this target by planning to achieve a density of 51 persons and jobs per hectare over its Designated Greenfield Area by 2031, in accordance with the Growth Plan policies for measuring density.

The proposed development is located within a Designated Greenfield Area and will contribute 938 dwelling units and 860 jobs towards the density targets.

3.2.4.1 Development within Major Transit Station Areas shall generally be designed to achieve a Floor Space Index (FSI) of 1.5 over the entire Major Transit Station Area within buildings 3 to 10 stories in height that result in a maximum density of approximately 100 units per net residential hectare.

3.2.6.2 Development within Primary Intensification Corridors shall generally be designed to achieve a floor space index of 1.5 over the entire Intensification Corridor, within buildings 2-10 storeys in height. More detailed massing and density guidelines will be established in the comprehensive master plan set out in Policy 3.2.6.6.

The proposed development is located within both a Major Transit Station Area and a Primary Intensification Corridor and will provide approximately 938 dwelling units and 860 jobs towards the density targets. Neither of these policies have been updated to reflect the current Growth Plan direction for development within Major Transit Station Areas.

Residential

4.2.1.1 The Residential designations shown on Schedule "A" permit predominantly residential land uses including a full range of dwelling types ranging from single detached houses to high-rise apartments.

A portion of the proposed development is located within the Residential designation. Within that portion the proposed land uses are a range of residential uses including single detached dwellings, townhouse dwellings, and high-rise apartments.

4.2.1.8 Residential development and the residential component of a mixed use building may exceed 200 units per net hectare within the Urban Growth Centre, Central Area, Mobility Hubs, and Intensification Corridors provided the City Structure objectives set out in Section 3.0 are met.

The proposed development includes a Cluster/High Density site that will exceed 200 units per net hectare. The proposal meets the City Structure objectives as detailed in the proceeding section.

Employment

4.4.3.1 The Office designations identified on Schedule "A" of this Plan are to be developed at densities and concentrations suited to the particular area as determined in the appropriate secondary plans. The permitted uses within the Office designations include: Major Office, business, professional or administrative offices, hotels, motels, convention centres, accessory and personal service retailing, food and beverage establishments, compatible recreation, public and institutional and convenience retail uses and business support activities. Limited multiple residential uses may be permitted subject to compatibility with adjacent land uses.

A portion of the proposed development is located within the Office designation. Within that portion the proposed land use is offices at an appropriate scale for the location with a limited amount of complementary commercial uses.

Natural Heritage System

4.6.6.10 The City shall seek opportunities, where feasible, through development or redevelopment, to buffer adjacent natural areas and identify opportunities to provide or enhance connections.

The proposed development identifies appropriate buffer areas for the adjacent natural heritage feature.

4.6.7.4 Through the development approval process, valleylands and watercourse corridors, including associated environmental hazards and defined conservation buffers will be gratuitously conveyed to the City of Brampton. Municipal conveyance of these corridors and buffers will not be considered as contributing towards the parkland dedication requirements under the Planning Act.

The proposed development identifies valleyland and buffer areas to be conveyed through the development process.

Open Space

4.7.1.15 Stormwater management facilities will be utilized for passive recreation opportunities, where appropriate.

The proposed development contains a Stormwater management facility located adjacent to a natural heritage feature, which could be utilized for passive recreation for the adjacent residential uses.

4.7.3.3.1 Neighbourhood Parks where feasible shall:

(i) Provide a range of opportunities and experiences for active and passive recreation which may include but is not limited to the following: a playground, shade structure, multi-purpose court, seating areas, walkways, lighting, open active area, landscaping, floral displays, and buffer areas.

(iv) Be planned and designed to be focal points for neighbourhoods generally with at least two street frontages, and have residential development fronting on to the Neighbourhood Park where practical to create visually attractive edges with no dwellings backing onto these facilities.

(v) Generally be in the range of 0.8 to 1.2 hectares (2 to 3 acres).

The proposed development contains a Neighbourhood Park with an area of 0.97 ha with frontages along two streets. The park is adjacent to the Cluster/High Density block which will allow for visually attractive edges.

Special Land Use Area 19

4.14.3.19 To ensure that employment targets are achieved for the subject lands, provisions will be included in the implementing Secondary Plan Amendment and Zoning By-law for Special Land Use Policy Area 19 to ensure that higher order, higher density employment uses will be located within the Office designation. The Office designation shall have a minimum area of three hectares (7.5 acres) and shall be developed to accommodate a minimum of 860 office jobs.

The proposed amendment to the Bram East Secondary Plan contains a “Special Policy Area 8 (Office Node – Mix Commercial/Industrial)” designation which implements these provisions to ensure that employment targets are achieved.

Bram East Secondary Plan (Area 41):

The site is designated “Neighbourhood Retail”, “Mixed Commercial/Industrial”, “Special Policy Area 8 (Office Node – Mixed Commercial/Industrial)”, and “Valleyland” in the Bram East Secondary Plan which does not permit the proposed residential use. The proposal requires a Secondary Plan amendment for appropriate residential, employment, floodplain and open space designations with permission for a Neighbourhood Park and Stormwater Management Facility to reflect the conversion approved by the Council.

A site-specific policy area is required to permit Medium Density Residential, High Density Mixed-use block, Office Node uses, and Valleyland with a Neighbourhood Park and Storm Water Management Facility.

The high density mixed-use block will permit a range of retail, commercial, business, professional and live/work units at grade and a range of housing types that fall within the high density mixed-use residential category of the Official Plan. It will be a high density mixed-use block that will be located fronting The Gore Road and north of the Office designation, to form a transition between the employment uses along Queen Street East, and residential uses to the north and east. The block will be developed as a high density mixed-use development that may include a full range of offices, retail and service activities, institutional uses at grade, and multiple residential uses with a maximum permitted density of 923 units per hectare and a maximum building height of 30 storeys.

The balance of the residential uses at the southeast quadrant of The Gore and Fogal Roads shall be developed with a range of housing types that fall within the medium density residential category of the Official Plan.

In order to ensure that employment targets are achieved in the lands to be designated

'Office Node', provisions will be included in the implementing Zoning Bylaw Amendment to ensure that higher order, higher density employment uses are located within this designation. This block will have a minimum area of 3 hectares (7.5 acres) and will be developed to accommodate a minimum of 860 office jobs. Complementary commercial and business support uses are also proposed to be permitted in the 'Office Node' area but are proposed to be restricted to a maximum of 15 percent of the floor space within the office buildings, and will not count towards the employment target of 860 jobs.

Buildings at the intersections fronting The Gore Road will provide a focus for intensification, and shall be sited and orientated to address the intersection and contribute to the establishment of a well-structured focal point. A superior form of architectural design and detail in addition to site design, landscaping and buffer treatment will be required to recognize, establish and reinforce their focal significance. Buildings fronting Queen Street East and The Gore Road are proposed to have a minimum height of 3 storeys, with a built form that is pedestrian friendly and easily accessible.

The density and housing mix being proposed are as follows:

- Employment Block: 0.75 Floor Space Index;
- Residential
 - Townhouses: 56.5 units per net hectare
 - Single Detached Dwellings: 30.5 units per net hectare
 - High Density mixed-use Block: maximum of 923 units per hectare

Overall, the combined density for the residential lands (excluding the high density mixed use block which will be detailed at the site plan application stage) is approximately 41.8 units per net hectare and is within the range envisioned by the Official Plan for medium density residential areas.

Zoning By-law:

The subject property is zoned "Commercial", "Open Space", "Residential", "Residential High Density", and "Environmental Protection" by Ontario Regulation 171/20 (MZO). An amendment to the Zoning By-law 270-2004 is required to permit the proposed height within the "Residential High Density" zone. The required zoning amendment is being considered under a separate application File: OZS-2020-0032.

Land Use:

The application to amend the Official Plan proposes a mixed-use development that adequately reflects the Council approved Official Plan. The northern portion of the property proposes a range of residential units, including 113 single detached dwellings of various lot widths, 129 townhouse units, and a high density mixed-use block. A neighbourhood park and a stormwater management facility are also proposed. To the

south, at the northeast corner of The Gore Road and Queen Street East, the proposal maintains an employment/office block of 3.00 hectares (7.41 acres) that will provide a minimum of 860 office jobs, providing minimum building height of 3 storeys for all buildings fronting Queen Street East and The Gore Road. The high density mixed-use block along The Gore Road, north of the Office block, will form a transition between the employment uses and residential uses.

An Environmental Impact Study was prepared which established the boundaries of the Natural Heritage System (NHS). The NHS and buffer blocks are consistent with the findings of this study. These NHS and buffer blocks will be protected and preserved through the conveyance of these blocks to the City.

The uses described above that are proposed on the property are acceptable from a land-use perspective.

Employment:

Staff have determined that if the property was developed in accordance with the current prescribed uses and scale, approximately 860 jobs could be achieved when the appropriate densities as recommended by Hemson Consulting are applied. The densities are based on the City's 2014 Development Charges Background Study, which proposes a rate of 27 m² of office space per employee. The floor space requirement results in a 3.0 ha (7.41 ac) block requirement to accommodate the 860 jobs. This is a minimum target that Council approved as part of OP2006-130.

Based on Cushman & Wakefield's Office Strategy completed for the City of Brampton in May 2016. Cushman & Wakefield noted a number of factors contributing towards higher office employment densities, including:

- More efficient office building design;
- Higher occupancy costs contributing to reduced space by firms;
- Greater use of technology reducing storage requirements; and,
- Increased telecommuting and desk sharing.

As a result, Cushman & Wakefield have assumed a benchmark of 1 job per 18.58 m² per office worker (1 job per 200 f² per office worker). Based on this benchmark, and estimation of approximately 23,200 m² of office floor space to be accommodated within the 3.0 ha employment block, it is estimated that 1,248 jobs can be accommodated within the same amount of floor space. Therefore, there is potential for the employment block to provide for an additional 388 office jobs, exceeding the minimum requirement of 860 jobs. The employment density for the overall property will be 49 jobs per hectare.

Urban Design:

The applicant submitted Community Design Guidelines which provide design principles and guidelines for how the property should develop, such as built form principles for the single detached units, townhouses, high density mixed-use development, and employment areas.

The single detached units will be conventional single detached homes and some rear lane single detached homes, located primarily on blocks backing onto the Natural Heritage System and Fogal Pond and within the central portion of the community. A variety of building forms, exterior materials, colours and architectural elements that are consistent with the architectural style will be incorporated into the building design.

The townhouse units will include townhouses with rear access or back to back units. The rear access will reduce the visual impact of the car and the garages on primary streetscapes. This housing typology effectively reinforces primary streets, by creating a continuous street wall while minimizing driveway interruptions. On streets with driveways, front and rear man doors on all townhouses activate the public realm.

A high density mixed-use apartment block is proposed along The Gore Road, north of the employment block. This block is located on the western edge of the proposed park. This block will be subject to an addendum to the Community Design Guidelines or a separate Urban Design Brief at the Site Plan Approval stage.

The southern portion of the proposed development, at the intersection of The Gore Road and Queen Street East, will be an employment block. The proposed employment area is located along a major arterial road to maximize exposure and accessibility. The employment block borders the high density mixed-use block, Fogal Park, Fogal Pond and the Natural Heritage System. The design of the employment block will adhere to the Commercial, Industrial, Employment, Institutional and Community Areas of the City of Brampton's Development Design Guidelines and the Transit Supportive Mid-Rise Development Guidelines. This block will be subject to an addendum to these Community Design Guidelines, or a separate Urban Design Brief at the time of Site Plan Approval.

Transportation/Traffic:

Poulos and Chung Limited prepared a Transportation Assessment to assess the impacts of the proposed development with access from The Gore Road and Fogal Road. The Transportation Assessment was updated in October 2017 to reflect the Draft Plan of Subdivision based on suggested changes from the Region and City. The study was based on 113 detached homes and 161 townhomes, and assumed 150 residential condominium dwelling units and 860 office employees. The Traffic Assessment concludes that the addition of the site traffic generated from the proposed uses does not cause a significant change in the performance of the area intersections and no additions or improvements are necessary to the arterial road intersections. The Traffic Assessment also recommends a signalized intersection where proposed Street 'B'

meets Fogal Road, and leaves it up to the City/Regional staff to decide if outbound movements at the intersection of Street 'A' and The Gore Road will be restricted to right-turns only.

Noise:

The applicant has submitted a Preliminary Environmental Noise Report prepared by Jade Acoustics dated June 26, 2016 which includes noise mitigation measures that are to be implemented as part of the development. These measures include:

- Inclusion of central air conditioning and a warning clause for lots adjacent to The Gore Road and Fogal Road; and,
- A 0.3m high berm and 2.2m high acoustic fence combination for Lots 86 and 85 along Fogal Road, which can be accommodated within the 4.5m wide buffer block between Lot 86 and Fogal Road.

The City staff have reviewed the Preliminary Environmental Noise Report and concluded that it satisfactorily addresses the potential noise related issues from the proposed development.

Once detailed information regarding the high density mixed-use block and the employment block becomes available at the site plan stage, a detailed noise analysis would need to be prepared.

Servicing:

Stormwater Management:

A 1.01 hectare (2.50 acre) Stormwater Management Pond (SWMP) (Block 143) is proposed that will provide drainage for the residential area and discharge into the Clarkway Tributary. The SWMP will provide quantity control and storage of post-development runoff to prescribed targets of the 2-year through 100 year storm events. A small portion of the site will drain towards The Gore Road and Fogal Road, which will not exceed existing conditions and ultimately drain towards the existing Clairemont SWMP for treatment. Drainage from the proposed employment block will be controlled via on-site measures and discharge into the Clarkway Tributary.

Sanitary Servicing:

The property is proposed to be serviced by an existing 250 mm sanitary sewer located north of Queen Street East as well as a second outlet located at Fogal Road and Nexus Avenue. A sanitary easement is required within the employment block.

Water Supply:

The subject property is located within the area to be serviced by the Region of Peel water distribution system - Pressure District 4, and will be serviced by the Airport Road pumping station and reservoir. The site is proposed to be serviced through a connection to the existing 300 mm diameter watermain along The Gore Road and another at Fogal Road. The two connections will provide redundancy, which will allow continuous water supply during maintenance periods. Along Streets 'A', 'B', 'D', and 'F', 300mm watermains are proposed, and watermain sizes for the remainder of the site will be determined during detailed design stage. Four lots fronting Fogal Road may require direct connection to the Fogal Road watermain.

Sustainability:

Sustainability score and summary documents are required to be submitted as part of an initiative to gauge how a development proposal satisfies the City's environmental sustainability requirements. In this respect, a development proposal is scored on a set of established criteria (i.e. walkability, low impact development engineering practices).

This application is exempt from the submission of the sustainability score and summary documents as it was submitted prior to the time when the City adopted the practice of requiring such information for development proposals. This, however, will be a requirement for the future site plan applications to be submitted.

Results of Public Meeting

City File Number: C10E04.005 & 21T-13004B

June 5, 2017

Members Present: Regional Councillor E. Moore – Wards 1 and 5 (**Chair**)
 Regional Councillor G. Gibson – Wards 1 and 5 (**Vice-Chair**)
 Regional Councillor M. Palleschi – Wards 2 and 6 (arrived at 7:03 p.m. – personal)
 Regional Councillor G. Miles – Wards 7 and 8
 Regional Councillor J. Sprovieri – Wards 9 and 10
 City Councillor D. Whillans – Wards 2 and 6
 City Councillor J. Bowman – Wards 3 and 4
 City Councillor P. Fortini – Wards 7 and 8
 City Councillor G. Dhillon – Wards 9 and 10

Members Absent: Regional Councillor M. Medeiros – Wards 3 and 4 (personal)

Staff Present: Harry Schlange, Chief Administrative Officer
Planning and Infrastructure Services Department:
 R. Elliott, Commissioner
 A. Parsons, Interim Director, Planning and Development
 D. Waters, Interim Director, Policy Planning
 A. Balram, Development Planner
 N. Mahmood, Development Planner
 M. Majeed, Policy Planner
Corporate Services Department:
 R. Zuech, Deputy City Solicitor
City Clerk's Office:
 P. Fay, City Clerk
 S. Danton, Legislative Coordinator

Results of the First Public Meeting:

A meeting of the Planning and Development Committee was held on June 5, 2017 in the Council Chambers, 4th Floor, 2 Wellington Street West, Brampton, Ontario. The meeting commenced at approximately 7:00 p.m. with respect to the subject application.

Notice of the Public Meeting held on June 5, 2017 was sent to property owners within 240 metres of the subject lands in accordance with the *Planning Act* and City Council procedures. Five (5) members of the public made representation before the Committee; two members of the public were in favour of the application.

The following issues were raised by three members of the public that addressed the Committee at the public meeting. Staff responses are provided for each of the issues.

Issue:

The proposed development is not a good fit for the area.

Response:

City staff have reviewed the proposed development which is consistent with the designations of Official Plan Amendment 130, as approved by Council on April 26, 2017. The proposed development is in accordance with the vision of the Official Plan which encourages higher order office and employment uses at the intersection of The Gore Road and Queen Street East. Further the approved residential use is adjacent to approved residential uses north of Fogal Road, and provides transition from townhouse residential units to medium/high density units adjacent to the proposed employment block. Single detached dwellings are concentrated in the interior of the site, towards natural heritage areas. This application conforms to the policies of the Official Plan and Secondary Plan and represents good planning, provided the recommendations of this report are adopted.

Issue:

Request for commercial developments to be included in the application.

Response:

Commercial uses will be incorporated at-grade within the medium/high density residential block which has frontage on The Gore Road and the proposed Street 'A'. Commercial uses are also permitted within the proposed employment block.

Issue:

Request for more residential developments in the subject area.

Response:

The plan of subdivision proposes approximately 274 residential units as well as a medium/high density residential block that will be detailed at the later design stage. Staff are unable to comment on future residential developments in the subject area at this time as owners of the land have the right to either maintain land in its current state, or seek approvals to permit development on the property.

Results of Circulation



Public Works & Engineering
 Environment & Development Engineering

COMMENTS & CONDITIONS MEMO

Date: January 17, 2018

File: C10E04.005 & 21T-13004B

To: N. Mahmood, Development Services Division

From: T. Kwast, Parks and Facility Planning

Subject: **REQUIREMENTS FOR RESIDENTIAL DEVELOPMENT**
Application to Amend the Official Plan and Zoning By-law
Amendment and Proposed Draft Plan of Subdivision
 (To permit Residential and Office uses)
 Updated Comments from Parks & Facility Planning and Open Space
 Development Sections

Consultant: **MALONE GIVEN PARSONS LTD.**

Applicant: **TACC HOLBORN CORPORATION**

Location: 8863 The Gore Road
 Part of Lot 4, Concession 10, Southern Division
 Circulation Date: September 11, 2017
 Ward: 8

In response to the 3rd circulation of the above noted Draft Plan of Subdivision dated January 17, 2017, the following represents a summation of comments updated comments from the **Parks & Facility Planning Section** and the **Open Space Development Section** in the Environment & Development Engineering Division – Public Works Department. These comments update the comments previously issued on October 17, 2017.

PRIOR TO DRAFT PLAN APPROVAL

The following should be addressed prior to the release of the application for draft plan approval.

Requested Adjustments to Plan:

1. Walkway blocks #156, and #157 are not required in our opinion. Connectivity between Street H and Fogal Road can be provided through a 'window road' opening where Street H abuts Fogal. Therefore, formal walkway blocks are not required and therefore both blocks can be deleted.

Identification of Lands to be Dedicated to the City for Parks, Open Space:

2. The limits of development adjacent to the adjacent Natural Heritage System Block (Fogal Valley) shall be finalized to the satisfaction of the City and the Toronto and Region Conservation Authority.
3. A minimum 10m buffer block shall be established to facilitate protection and preservation of the adjacent Natural Heritage System Block (the City-owned Fogal Valley). The width of the buffer shall be established by the Environmental Impact Report (EIR) associated with the block plan area or an application-specific environmental impact report.

Plan Requirements:

4. Please note that the Community Design Guideline submitted for this application should be denoted as an 'Urban Design Brief' (UDB). Prior to draft plan approval, the UDB shall be finalized and approved, in accordance with City standards, and shall include:
 - a) Concept plans/facility fit plans for all dedicated park and open space blocks, and,
 - b) A Linkage, Connections and Circulation Plan for all active transportation components proposed as part of the plan including: multi use trails in proposed park, open space and/or NHS blocks, multi-use paths and bike lanes and/or other AT infrastructure within proposed road ROW's, in accordance City standards.

Tableland Vegetation:

5. Prior to draft plan approval, the Applicant shall provide a Tree Evaluation Report that will identify trees to be preserved and the methodology proposed for their retention, including detailed information concerning, among other things, drainage, tree damage, tree protection and restoration to the satisfaction of the City.

This methodology shall include provision of individual tree preservation plans illustrating proposed building sites and working envelopes, existing and proposed grades and the trees to be protected or removed. It shall be supported by a hydrogeologist's report which recommends appropriate subdivision and grading techniques for the maintenance of existing surface runoff or ground water conditions necessary for the long term preservation of the trees identified for retention. All preservation and tree protection measures are to be installed, inspected and approved by the City, prior to pre-servicing of the subdivision.

A. DRAFT PLAN APPROVAL REQUIREMENTS / CONDITIONS

The following Conditions of Draft Plan Approval shall be addressed to the satisfaction of the Parks & Facility Planning Section Open Space Development Section and prior to the release of the plan for registration.

(Items are listed Alphabetically by Subject Matter)

Active Transportation:

6. The Applicant agrees to perform all studies and obtain all approvals required to construct a pedestrian pathway and bridge from NHS Block #142 across the City owned NHS/valley to the future Castlepoint Investments Inc. development (City File C10E04.04), to the satisfaction of the City. The pathway and bridge are proposed to be constructed by the City at some time in the future.

Community Information Maps:

7. Prior to registration of the plan, the Applicant shall prepare a detailed Community Information Map, based on the final M-plan and to the satisfaction of the City.

Engineering Walkways:

8. The Applicant shall agree to construct standard engineered walkways to facilitate pedestrian circulation between Street "D" and the intersection of The Gore Road (Walkway Block #154) and Street "A" (Walkway Block #153). The Applicant shall be required to convey the walkway blocks to the City at plan registration and develop them to City standards, at no cost to and to the satisfaction of the City. No credit for the blocks in question will be given against parkland dedication requirements associated with the subject plan.

Fencing:

9. The Applicant shall make satisfactory arrangements with the City to erect fencing at their expense, in accordance with the City Fencing Policy, the approved Community Design Guidelines (as applicable) for the area, and any other Conditions of Draft Approval for the development that apply to fencing.

Hazard Removal:

10. Prior to assumption, any material identified in the Tree Evaluation Report and Woodlot Management Plan as hazardous or identified for removal for accessibility or safety reasons, and any deleterious materials and debris not normally found in a natural area, whether in a woodlot block, valleyland / greenbelt block, vista block or other location as determined by the City, shall be removed at the Applicant's expense.

Hoarding of Natural Features:

11. The Applicant shall erect hoarding along the property boundary where the proposal abuts existing NHS lands (Fogal Valley), and/or along the drip line of any vegetation

identified for preservation in the approved Tree Evaluation Report), to the satisfaction of the Open Space Development Section, Public Works Department.

N.B. The hoarding is to be supplied, erected and maintained in good condition by the Applicant at their cost prior to the pre-servicing or any construction on the site and shall remain in place throughout all phases of the servicing and construction of the site.

Lands to be Dedicated Gratuitously to the City for Open Space Purposes:

12. All identified Natural Heritage System (NHS) lands within the subject application including all lands associated with the Fogal Valley, associated buffer(s), and all identified stormwater management blocks, shall be conveyed to the City gratuitously and in a condition satisfactory to the City. No parkland dedication credit will be provided for the blocks in question. The Applicant will landscape the subject blocks, in accordance with the approved plans and will be eligible for development charges credit against work performed, where applicable, and in accordance with City standards and the 2014 DC Background Study. Payments would be subject to funding for such works being allocated in the City's Capital Budget.

Maintenance Fees:

13. Prior to plan registration, the Applicant shall pay a maintenance fee for any landscape item deemed necessary by the Applicant, but which exceeds the City standard. This may include, but not be limited to special entry feature structures and centre medians, irrigation systems, acoustical walls and architectural landscape elements located on public property.
14. Prior to registration the Applicant shall make arrangements to pay a perpetual maintenance fee for natural features restoration. This payment shall be based on a rate of \$ 5,000.00 per hectare of gross natural feature land area.

Tableland Vegetation:

15. The Applicant shall submit a Vegetation Assessment, for review and approval, and subject to the satisfaction of the Commissioner, Planning and Development Services Department.

N.B. The Applicant shall ensure that no trees are removed or damaged prior to by-law approval or during any phase of the servicing and construction of the site, if applicable, without the prior approval of the Planning and Development Services and Public Works Departments.

Notification Signage:

16. In conjunction with the first engineering submission, the Applicant shall be required to install and maintain signage, indicating the future use of all identified park, open space

and storm water stormwater management blocks. The signs will be installed on the subject blocks, along all road frontages, and will state the name of the City of Brampton, provide a schematic of the facilities (if any) to be included on the subject block, the telephone number where additional information can be obtained and the date the sign is installed. Signage will be in accordance with the latest City of Brampton standards.

17. The Applicant will install and maintain at their expense, notification signage, to City standards, advising residents that "Purchasers are advised that this is the location of a pedestrian trail to be constructed in the future in the block behind this lot, and Purchasers may be disturbed by users and/or facilities in the subject block." The Applicant will install a sign at the rear of every third residential lot, located in the valley buffer just outside the residential lot, and the wording shall face the residential dwelling. For more information, please call the City of Brampton Public Works & Engineering Department at (905) 874-2050.

Parks and Open Space Naming:

18. The following names shall be incorporated in to the Recommendation Report for Council's approval and used for the respective parks and open space blocks contained within this plan:
 - a) Stormwater Management Pond Block #145: **"Fogal Pond"**;
 - b) NHS Blocks #142, #158 - 163 **"Fogal Valley"**;
 - c) Park Block #141: **"Fogal Park"**;

Parkland Dedication:

19. Parkland Dedication requirements for the plan shall be in accordance with the Planning Act R.S.O. 1990, c.P.13 as amended (the Planning Act) and the City's Parkland Dedication By-law, as amended. The current Plan yields a projected Parkland Dedication requirement of 1.586 ha (3.918 ac.), based on the Section 51.1 of the Planning Act. The Applicant shall convey Block #141 totaling 0.970 ha (2.422 ac.) to the City, as partial fulfillment of the Parkland Dedication requirements. This results in a projected Parkland under-dedication of 0.606 ha (1.496 ac.). Prior to registration, the Applicant shall be required to compensate the City in accordance with the Parkland Dedication By-law (as amended) and the City's current policies for the projected under-dedication balance, in the form of a Cash in Lieu of Parkland Payment. Final calculations will be undertaken as part of the Subdivision Agreement review process.

Plan Requirements for all Public Lands:

20. In conjunction with the first engineering submission, the Applicant shall provide detailed working drawings for all identified park blocks, stormwater management facilities, landscape buffer blocks, streetscape planting, walkways and fencing to the satisfaction of the applicable approving departments and in accordance with the latest City standards. Fencing shall be included along holdout properties where they abut the plan, subject to the approval of the existing property owners.

The Applicant shall comply with both the facility fit/concept plan approved prior to draft plan approval and/or the recommendations of the approved Community Design Guidelines (as applicable).

21. Prior to issuance of final acceptance of all landscape works, the Applicant shall provide as-built drawings in the form of digital files for all dedicated park, stormwater management, landscape buffer blocks, etc. The submission of these drawings will meet the latest digital standards as prescribed by the City of Brampton.

Park Development:

22. In conjunction with plan registration, the Applicant is responsible for the development of all dedicated parks and open space (e.g. Neighbourhood parklands, stormwater management, and landscape buffer blocks), in accordance with the approved plans.

N.B The Applicant shall be entitled to compensation for select works in accordance with the most recently approved Development Charge Background Study document. Where applicable, arrangements for development charge credits/compensation select works will be concluded upon in conjunction with the development of the block. The identified works shall be completed within twelve (12) months of the first building permit being issued for any lot or block in the plan of subdivision, unless an extension has been granted in writing by the City or unless a more rapid delivery of the park) block is required to service existing residents.

23. Following completion of park development works, the Applicant shall be requested to invoice the City for the cost of all works completed, at which time the City will inspect for completion, and issue payment in accordance with the approved cost estimates. Notwithstanding the date upon which works are completed, no payment shall be made to the Applicant as compensation payable for the design and construction of identified works until after completion and sign off by the City and approval of the funding for such works in the City's Capital Budget.

Streetscape:

24. The Applicant shall make satisfactory arrangements with the City to provide street trees along all internal streets within the subject plan and along immediately abutting streets including the implementation of boulevard and buffer planting, and entry features. The Applicant shall comply with the recommendations of the approved Community Design Guidelines (as applicable), to the satisfaction of the City.
25. Prior to registration the Applicant agrees to provide the City with the final landscape submission, a detailed summary of all areas of buffers including quantities or areas of boulevard and buffer sod, boulevard and buffer trees that will be installed by the Applicant in the subdivision agreement and will be owned by the City at assumption of the subdivision plan.
26. The Applicant shall implement, at their expense and to the satisfaction of the City, all works shown on the approved streetscape plans in accordance with the Subdivision Agreement and the approved Community Design Guidelines (where applicable) and

will include the implementation of boulevard and buffer planting, and entry features including all structures and planting.

Summary Requirements:

27. The Applicant agrees to provide the City, with the final landscape submission, a detailed summary of all areas of parkland, stormwater management ponds, natural heritage systems, woodlots, and buffers including quantities or areas of boulevard and buffer sod, boulevard and buffer trees that will be installed by the Applicant in the subdivision agreement and will be owned by the City at assumption of the subdivision plan.

Warning Clauses:

28. A warning clause shall be entered into all offers of Purchase and Sale, as well as into the Subdivision Agreement, for all Lots or Blocks advising potential purchasers that lands designated for parks, open space and stormwater management blocks may contain active recreational facilities. Purchasers are advised that residents close to these blocks may be disturbed by users and/or facilities within the subject blocks. For more information, please call the City of Brampton Open Space Development Section, at (905) 874-2050.
29. Prior to registration a warning clause shall be entered into the Subdivision Agreement and into all offers of Purchase and Sale, indicating that although the Applicant is required to provide trees at regular intervals on the public boulevards within this subdivision. Local site conditions may not allow for a tree to be planted in front of some homes. For more information, please call the City of Brampton Open Space Development Section at (905) 874-2050.

B. GENERAL COMMENTS

The following General Comments are provided to assist the Applicant shall be addressed prior to the release of the plan for registration. These comments shall be read in conjunction with the Draft Plan conditions (Section B).

30. NIL

If you have any questions or require further clarification with respect to the Parks & Facility Planning or Open Space Development comments, please contact the undersigned.

Tamara Kwast
Parks Planner, Parks & Facility Planning Section
Environment & Development Engineering Division
Public Works & Engineering Department
Tel: (905) 874-2338 Fax: (905) 874-3819
tamara.kwast@brampton.ca

cc. (via email only):

J. Spencer, W. Kuemmling, G. Serravite, N. Mahmood

(Note: A digital copy has also been uploaded to PlanTRAK.)



Planning and Development Services
Urban Design

Date: January 24, 2018
To: Nasir Mahmood
From: Nada Almasri
Subject: Application to Amend the Official Plan and Zoning By-Law, and
 Revised Draft Plan of Subdivision, 3rd Revision
GAGNON & LAW URBAN PLANNERS LIMITED –
TACC HOLBORN CORPORATION
 Part of Lot 4, Concession 10, Southern Division
8863 THE GORE ROAD
Ward: 8
File: C10E04.005 & 21T-13004B

Dear Nasir,

Urban Design Staff has reviewed the **Revised Draft Plan of Subdivision**, dated December 18, 2017 and related to the above referenced application and have no further urban design comments. However, please note that detailed comments will be provided on Block 139 (the medium/high density block) and Block 140 (the employment block) at the Site Plan Approval stage.

Also, an Addendum to the Community Design Guidelines (CDG) or separate Urban Design Briefs (UDB) that cover these two blocks will be required for review and approval to the satisfaction of the City.

Should you have any questions or require additional information, please let me know.

Many thanks,

Nada Almasri | B.Sc. Arch., M.Sc., LEED AP

Urban Designer | Urban Design Services
 Planning and Development Services
 City of Brampton | D: 905-874-2795 | F: 905-874-3819 |
nada.almasri@brampton.ca



Planning and Development Services
Urban Design

Date: February 2, 2018

File: C10E04.005 & 21T-13004B

To: Nasir Mahmood, Development Planner

From: Nada Almasri, Urban Designer

Subject: **COMMUNITY DESIGN GUIDELINES**
 2nd Submission
 Application to Amend the Official Plan and Zoning By-Law and Proposed
 Draft Plan of Subdivision
 (To permit *residential and office uses*)
 Updated Comments from Parks & Facility Planning and Open Space
 Development Sections

Consultant: **MALONE GIVEN PARSONS LTD.**

Applicant: **TACC HOLBORN CORPORATION**

Location: 8863 The Gore Road
 Part of Lot 4, Concession 10, Southern Division
 Circulation Date: September 11, 2017
 Ward: 8

In response to the circulation of the above noted Community Design Guidelines updated December 2017, the following represents a summation of comments from the **Urban Design** (Planning & Development Services Department), **Parks & Facility Planning and Open Space Section** (Engineering & Development Services Division – Public Works Department) with respect to urban design, parks planning and development matters.

A. Urban Design Comments:

Please refer to the **attached marked-up CDG** for Urban Design Comments.

B. Parks & Facility Planning & Open Space Comments:

1. Pp. 3 – Section 4 - Fig. 2
 - 1.1. Please label Hwy 50 in the aerial photo
 - 1.2. Revise the figure to have a variation in text sizes, similar to figure
-

2. Pp. 5 – Section 1.2.3 – Figure 4
 - 2.1. Please update this figure based on the latest Draft Plan comments.
3. Pp. 6 - Section 1.3.1
 - 3.1. The roundabout image depicted is not reflective of what would be typically accepted by Brampton. Please amend.
4. Pp. 9 – Section 2.0, - Figure 5
 - 4.1. Identify the corner of The Gore Road and Queen Street East with a coloured circle that matches *"the areas of site plan approval"*, similar to the Entry Feature Locations indicator circle, and add it to the Legend with this description *"Focal Point with Streetscape Enhancements"*.
5. Pp. 10 & 11 – Section 3.0, Figure 7
 - 5.1. Indicate the potential trail head location and alignment.
6. Pp. 16 – Section 3.0, Figure 10
 - 6.1. Revise the rendering to correctly illustrate the road fabric for Street 'D'.
7. Pp. 18 – Section 3.3
 - 7.1. Please add a figure, enlarged excerpt from the revised draft plan, for reference.
8. Pp. 19 – Section 4.0
 - 8.1. Add page number.
 - 8.2. Please add "Focal Point" and pages 27- 42 (4.1.2 - 4.1.8.7) to subsection list.
9. Pp. 20 & 21 - Section 4.0
 - 9.1. Provide photo examples of the streetscape within the special character areas, similar to the design vision and principles.
 - 9.2. Add *"Focal Point"* as per previous comments.
 - 9.3. Identify an enhanced streetscape edge with a graphic at the Medium / High Density Block and Employment Block, along The Gore Road and Queen Street East ROW.
 - 9.4. Indicate the potential trail head location at the NHS Block.
 - 9.5. Make reference to NHS Buffer in the Legend (i.e. ...System & Buffer)
 - 9.6. Extend the Community Edge (5) graphic east to meet the NHS buffer block.
 - 9.7. Change all reference noted as *"gateways"* to *"entry feature locations"* (i.e. pg. 21/B).
10. Pp. 22, Section 4.1.1.2 - Figure. 12
 - 10.1. Revise this section to ensure the 3m wide walkway blocks only have the proposed walkway and curbing on public land.
 - 10.2. The proposed planting along the 3m wide walkway blocks should be removed, with the exception of columnar trees on private property.
 - 10.3. Revise the chain Link Fence note to add *"on private property"*.
 - 10.4. Revise the Decorative Metal Fence with Masonry Columns note to add *"on private property"*.

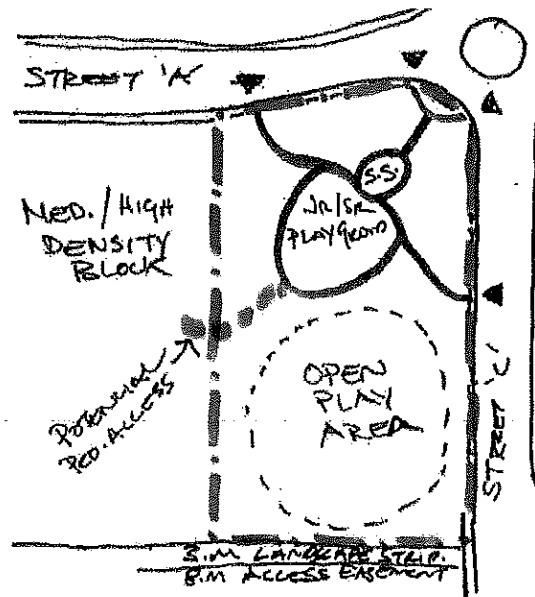
- 10.5. Remove the Accent Trees.
- 10.6. Remove the one tree within the Street 'D' boulevard directly in front of the walkway block to allow for maintenance access.
- 10.7. Revise the Subsection write-up as per comments.
- 10.8. Change all reference noted as "*gateway*" to "*entry feature locations*" (i.e. pg. 23/4.1.1.3).
- 11. Pp. 24, Section 4.1.4
 - 11.1. The first paragraph indicates that the NHS along the eastern edge of the development will offer passive recreation opportunities. Please provide further clarification on the passive recreation opportunities and indicate this on a 'Linkages, Connections and Circulation Plan'.
- 12. Pp. 24 – Section 4.1.1.4
 - 12.1. Add "...on *private* lots..." to the third bullet point
- 13. Pp. 26 – Figure 13

Please change the reference to 'Cycle Track'. What is depicted on this image is a multi-use boulevard path. The suitability of this proposed treatment needs to be confirmed with Traffic Operations and Transportation Planning, prior to draft plan approval.
- 14. Pp. 26, Section 4.1.1.5 - Figure 13
 - 14.1. Please clip the rendering boundary to only show the relationship to the intersection and transition into the corner of the employment block, adjacent to the sightline triangle.
 - 14.2. Revise the rendering to illustrate the design intent of the Focal Point with streetscape enhancements, such as, a centralized pedestrian connection with entry feature and tree planted berms within the ROW. This section should establish the guidelines for the future development of the Employment block.
 - 14.3. Please add a disclaimer "subject to site plan approval".
- 15. Pp. 27, Section 4.1.2
 - 15.1. Correct the last bullet to remove the duplication "*on all streets*" and separate "*laneways will not be planted.*" on an individual bullet.
- 16. Pp 30 – Figure 15

All street-related active transportation components depicted in the Active Transportation and Circulation scheme depicted in this figure needs to be reviewed and confirmed with Traffic Operations and Transportation Planning, prior to draft plan approval.
- 17. Pp. 30, Section 4.1.13 - Figure 15
 - 17.1. Please show the conceptual public-private connection point at the south west corner of the Employment block transition to the ROW.
 - 17.2. Correct the spelling of "connections".
 - 17.3. Remove the "*" from "*conceptual trail connection*".

18. Pp. 33, Section 4.1.5 - Figure 18

- 18.1. Show access easement and buffers along the north property limit of the employment block as per redlined comment on Fig. 19; the 3m landscape buffer strips and the 8m access easement shall be within the employment block.
- 18.2. Identify the corner entrance to the park block, at Street 'A' and Street 'C', as an enhanced streetscape treatment leading from the crosswalks / sidewalks into the park block; make reference to Figure 24, page 39.
- 18.3. Reduce the length of pathways, by anchoring the playground and paved area to the shade structure location at the north east corner of Street 'A' and Street 'C' (see redline below).



19. Pp. 34, Section 4.1.6 - Figure 19

- 19.1. Revise third bullet to "Amenities, such as an outlook at..."
- 19.2. Revise fourth bullet to replace "...roads and boulevard concrete sidewalk..." with "..., with gravel pathway,"
- 19.3. Change highlights from "Outlook / Seating area" to "Outlook trellis structure with seating area,"
- 19.4. Change highlights to "Allows for an anticipated access point to the potential future trail system, at the south east corner of the pond."
- 19.5. Shift the lookout area to align with the corner of Street 'A' and Street 'C'.
- 19.6. Identify the corner entrance to the pond block, at Street 'A' and Street 'C', as an enhanced streetscape treatment leading from the crosswalks / sidewalks into the pond block; make reference to Figure 24, page 39.

20. Pp. 35, Section 4.1.7

- 20.1. The title of this section may be expanded to include masonry columns and structures.

- 20.2. Please provide details and photos of all entry features and structures within this section.
21. Pp. 36, Section 4.1.7 - Figure 21
 - 21.1. Identify the corner of The Gore Road and Queen Street East with a coloured circle and indicate it as subject to site plan review and approval, similar to the Entry Feature Locations indicator circle, and add it to the focal point to the legend with description.
22. Pp. 38, Section 4.1.8.1 - Figure. 23
 - 22.1. Remove "*privacy hedges*" from the fourth bullet.
 - 22.2. Remove "...*accent trees and*" from the seventh bullet.
 - 22.3. Remove the privacy hedges, accent trees, and ornamental grasses / groundcovers from the rendering.
 - 22.4. The trees along the 3m wide walkway, the two planting beds at flared entrance, and the foundation planting along the building footprints may remain.
 - 22.5. Revise the chain Link Fence note to add "*on private property*".
 - 22.6. Replace "*Masonry Gateway Feature*" with "*Masonry Columns*".
 - 22.7. Add a significant trellis structure in the rendering to anchor the entry feature walkway location to the corner focal point.
23. Pp. 39, Section 4.1.8.2 - Fig. 24
 - 23.1. Please develop the rendering further to reflect the comments on the park and swmp blocks.
 - 23.2. Show masonry columns at the entry points of the park and swmp blocks.
 - 23.3. Revise the label of the pond entry to include "/ Outlook" and show the outlook structure in the rendering.
24. Pp. 42, Section 4.1.8.7
 - 24.1. The proposed lots backing on to the NHS will be visible from the Queen Street corridor to the south. Therefore, we request that within the 10m buffer block that more trees are planted to enhance privacy and visual esthetic.
25. Pp. 43 Section 5.2
 - 4.1 This section provides no detail on park accessibility except for where the proposed park and SWM ponds are located. On the Linkages, Connections and Circulation Plan indicate the conceptualized trail alignment within the NHS and the park accessibility areas.
26. Page 47, Section 6.3
 - 26.1. Add masonry columns and decorative paving to Developer Cost for the park block entry.
 - 26.2. Revise gravel pathway to a developer funded item.

If you have any questions or require further clarification with respect to Urban Design comments, please contact the undersigned. If you have any questions or require further clarification with respect to the Parks & Facility Planning comments, please contact Tamara Kwast (tamara.kwast@brampton.ca) or (905) 874-2343. Should you have any questions or require further clarification with respect to Open Space Development comments, please contact Giuseppe Serravite (giuseppe.serravite@brampton.ca) or (905) 874-2748.

Best Regards,

Nada Almasri | B.Sc. Arch., M.Sc., LEED AP
Urban Designer | Urban Design Services
Planning and Development Services
City of Brampton | D: 905-874-2795 | F: 905-874-3819 |
nada.almasri@brampton.ca

cc. (via email only):

J. Spencer, W. Kuemmling, M. Debnath, G. Serravite, T. Kwast, N. Cadete, D. Monaghan, M. Gervais

Appendix: Append any redlined revisions to draft plan

(Note: A digital copy has also been uploaded to PlanTRAK.)

Mahmood, Nasir

From: Serravite, Giuseppe
Sent: 2018/01/08 11:18 AM
To: jharnden@beaconenviro.com
Cc: Mahmood, Nasir
Subject: 213041-TACC Holborn Corp (C10E04.005) Tree Evaluation Report Update (Dec. 2017) - Comments

Categories: Red Category

Good morning Jesse,

I trust that this message finds you well. Please note that we have the following comments regarding the subject development application.

- Please show the limit of the NHS buffer in Figure 1 of the report.
- Investigate the opportunity to revise the proposed SWMP outfall location / layout in order to preserve tree ID 1109.
- Kind revise the report to allow the preservation of tree IDs 609, 610, and 612. These trees, in relation to the NHS buffer, will be reviewed in more detail at the Site Plan application stage.
- Submit an update PDF for review that addresses the above noted comments.

Please contact me if you have any questions or concerns.

Kind regards,

Giuseppe Serravite

Landscape Technologist | Public Works & Engineering

City of Brampton | 2 Wellington Street West | Brampton, ON L6Y 4R2

T: 905.874.2748 | TTY: 905.874.2130 | F: 905.874.3819 | E: Giuseppe.Serravite@brampton.ca



Mahmood, Nasir

From: McIntyre, Scott
Sent: 2017/11/29 11:02 AM
To: Mahmood, Nasir
Cc: Monaghan, David
Subject: TIS Review - C10E04.005 - TACC Holborn, 21T-13004B - 8863 The Gore Road

Categories: Orange Category

Nasir,

Comments pertaining to the Traffic Impact Study (TIS) submitted to support the above noted application are summarized herein.

1. The Traffic Study (TIS) is not yet approved at this time.
2. Page 5, Figure 02 – An addendum to the TIS is required to assess the proposed development on the west side of The Gore Road that will result in the extension of Attmar Drive to intersect with The Gore Road directly opposing the Fogal Road intersection. The new development is proposed to consist of 256 apartments, 19 freehold townhouses, 53 condo townhouses and 4 semi-detached dwellings.
3. Page 12, Figure 06 – Include the future lane configurations for the Attmar Drive/Fogal Road intersection with The Gore Road.
4. Page 26, Figure 16 & Sect. 5.2 (pg25), Trip Generation – The use of Land Use Code 710 (LUC710) is one of the lower trip generation land use code options available within the I.T.E. manual for this development. Our office requests that we see a worst case scenario and as such, would like to see what difference there will be using Land Use Code 714 (LUC714).
5. Page 26, Figure 16 – The report fails to justify its proposed 12% trip volumes reduction based on transit & walking rates. As a result, our office will accept a 6% reduction applied for transit & walking trips.
6. Page 41, Queue Analysis – Based of the predicted queuing back into the roundabout of Street 'A' from The Gore Road intersection, what mitigation measures, if any, are recommended?
7. Page 53 – Correct the horizon year (typing error).
8. Appendices – Traffic study terms-of-reference for applications of this size should be approved prior to the study commencement. As a result, the TIS appendices should include correspondence from the City and Region regarding the acceptance of the TIS terms-of-reference.

Responses to the above questions can be forwarded to my attention in pdf format.

Please share these comments with the traffic staff from the Region who are reviewing the TIS.

Regards,

Scott McIntyre

Transportation Planning Technologist | Engineering Division / Public Works & Engineering Department | City of Brampton

T: 905.874.2540 | F: 905-874-2599 | 1975 Williams Parkway | ON L6S 6E5



Public Works & Engineering
Development Engineering

COMMENTS AND CONDITIONS MEMO

Date: 12 March 2018
File: C10E04.005 & 21T-13004B
To: Nasir Mahmood
From: Scott McIntyre
Subject: Requirements for Plan of Subdivision 21T-13004B
Gagnon & Law Urban Planners Limited
TACC Holborn Corporation
 Location – 8863 The Gore Road @ Fogal Road

Circulation Date: Received September 01, 2017
Plan: Draft Plan of Subdivision
Plan Dated: August 25, 2017
Comment Revision #: 1st

In response to the circulation of the above noted application, the following represents a summation of comments and conditions from the Transportation Development Engineering section with respect to matters dealing with traffic engineering.

A. PRIOR TO DRAFT PLAN APPROVAL

1. The Developer shall submit a functional design drawing for the proposed roundabout, including the proposed locations for any driveways for lots abutting the roundabout. The roundabout shall conform to the City of Brampton roundabout design criteria which requires a minimum ICD of 40m. in addition all driveways for lots abutting the roundabout shall be free and clear of the splitter islands and shall not be located at the exit from the roundabout. In this regard some lots adjacent to the roundabout may need to be revised.
2. The following study(studies) shall obtain approval status:
 - a. Traffic Impact Study (TIS).
 - b. Parking Justification study if the plan does not supply parking as per City requirements.
3. The draft plan shall be revised to include the dimensions for all daylight rounding's and triangles (can be dimensioned on the drawing or intersections listed on a chart on the drawing).
4. The Owner shall confirm that all driveway locations for lots adjacent to intersections shall not encroach within the intersection daylight rounding/triangle. In this regard some lots may need to be revised.

B. DRAFT PLAN APPROVAL REQUIREMENTS/CONDITIONS

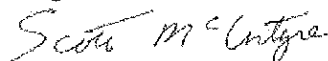
1. As a condition of Draft approval the Owner shall submit a drawing depicting sidewalks locations throughout the subdivision.
2. As a condition of Draft Approval the Owner will be required to signalize the signalization of the intersection of Ravenbury Street and Fogal Road. In this regard the Owner will be required to pay for the full cost of the signalization for this intersection.
3. If construction of the proposed subdivision is Phased the Owner may be required to provide temporary cul-de-sacs if deemed necessary by the City.

C. GENERAL COMMENTS

- 1) All roadways (horizontal and vertical alignments) shall be designed to meet current City of Brampton and TAC guidelines in this regard the owner shall ensure the following design criteria is adhered:
 - a) grade changes in excess of 2% must be designed by means of a vertical curve for the design speed specified and depicted on the first engineering drawings to the satisfaction of the commissioner of P&IS.
 - b) Cul-de-Sacs are to adhere to City standard drawing #214.
 - c) Road Elbows must adhere with City standard drawing #215.
 - d) Curb radii are to adhere to City standard drawing #245. This include laneways where the minimum allowable curb radius is 7.5 metres.
 - e) Laneways are to be 'straight-runs' as per City standard drawing #219. Curves may be accommodated, however, a 12.0m centreline elbow radius and clear sightlines must be provided.
- 2) The Developer shall include the following on the Community Information Map;
 - a) The direction of travel for all one-way laneways, with a note stating that parking is restricted on both sides.
 - b) The location of all parking restrictions if parking is to be restricted on one side of the local roadways.
 - c) Location of any on-street bike facilities.
- 3) The Owner will be required to ensure that a right-of-way (ROW) access easement is in place over proposed block 142 (employment block) in favour of block 141 (medium/high density residential) and block 143 (park).
- 4) The Owner may be required to provide road improvements on Fogal Road if required by the City. (Including, but not limited to, widening, turning lanes, pavement markings and signs.)
- 5) Identify the community mailbox location that will be affiliated with this proposed development.

If you have any questions or require further clarification with respect to the above comments, please contact the undersigned.

Regards,



Scott McIntyre

Transportation Engineering | Engineering Division | Public Works & Engineering Dept |
City of Brampton
T: 905.874.2540 | F: 905-874-3369 | 2 Wellington Street West | ON L6Y 4R2



Public Services
Brampton Transit

Date: November 09, 2016
File: 21T-13004B
To: Nasir Mahmood
Subject: Gagnon & Law Urban Planners Limited- TACC Holborn Corporation
Proposed Draft Plan of Subdivision
8863 The Gore Road
Transit Comments

Brampton Transit has reviewed the Draft Plan of Subdivision and Transportation Assessment. We note that Brampton Transit's existing bus stops on The Gore Road are depicted on the engineering drawings. Please ensure that the bus pads and amenities remain depicted on the drawings and are also depicted on the Homebuyer's Information Map.

Should you require further assistance in this matter, please contact the undersigned.

Sincerely,

Rebecca Thompson

Rebecca Thompson
Planning Co-Ordinator
Public Services - Brampton Transit
☎ phone: 905-874-2750 ext. 62397 ☎ fax: (905) 874-2799
💻 e-mail: rebecca.thompson@brampton.ca

Copy: Doug Rieger
David Stowe
Chris LaFleur



**Planning and
Infrastructure Services**
Planning and Building

To: Nasir Mahmood, Development Planner
From: Yuri Mantsvetov, Policy Planner
Date: August 29, 2016
Files: C10E04.005
Subject: Planning Policy and Growth Management Comments
MALONE GIVEN PARSONS LTD. – TACC Holborn Corporation
 Application to Amend the Official Plan and Zoning By-law, and Proposed Draft
 Plan of Subdivision

Address: 8863 The Gore Road

Below are comments from the Environmental Planning, Heritage, Growth Management and Land Use Policy sections of the Planning Policy and Growth Management Division on application that has been submitted at 8863 The Gore Road.

Environmental Planning (comments from Mike Hoy, Environmental Planner)

- The applicant shall make arrangements to pay a perpetual maintenance fee for natural features restoration. This payment shall be based on a rate of \$ 5,000.00 per hectare of gross natural feature land area.
- The applicant is required to submit a Sustainability Score and Summary and strive to achieve at minimum a bronze level of sustainability;
- Applicant is required to submit a EIR/FSR
- The applicant is required to provide a minimum environmental buffer of 10 metres on all natural heritage features.
- Valley and environmental buffers will be gratuitously conveyed to the City
- A Terms of Reference for a scoped EIR/FSR is required for City's and TRCA's review and approval.
- Site walk is required to establish limits of development.

Heritage (comments from Stavroula Kassaris, Heritage Co-ordinator)

- The subject lands exhibit high archaeological potential because they are within 300 meters of known archaeological sites, and within 300 meters of present/past water sources.
- The Owner must provide an Archaeological Assessment(s) for all lands within the subject application, and shall mitigate adverse impacts to any significant archaeological resources found, to the satisfaction of the City and the Ministry of Tourism, Culture and Sport (MTCS) prior to Draft Plan approval. No grading,



**Planning and
Infrastructure Services**
Planning and Building

filling, or any form of soil disturbances shall take place on the subject property prior to the acceptance of the Archaeological Assessment(s) by the City and the MTCS indicating that all archaeological resource concerns have met licensing and resource conservation requirements.

- Should a cemetery be discovered during any phase of the Archaeological Assessment(s), topsoil stripping, grading or construction, the Owner shall, at their expense, undertake mitigation measures to the satisfaction of applicable provincial agencies and the Chief Planning and Infrastructure Services Officer.
- If Archaeological due diligence was completed as part of the original 2013 application, the reports and letters of acceptance must be re-submitted as part of the current application.

Land Use Policy (comments from Yuri Mantsvetov, Policy Planner)

Official Plan

- The site is currently designated "Business Corridor" to the North and "Office" to the south, both of which are Employment Land Uses. The proposed plan, which involves an employment conversion, was approved by Council on May 30, 2016 through the Municipal Comprehensive Review process. A City-initiated Official Plan Amendment will be proceeding in September, 2016 to finalize the conversion.
- Queen Street East is a Primary Intensification Corridor. Any buildings along this road must be between 2 and 10 Storeys in height.
- The Southerly portion of the parcel falls within a Major Transit Station Area. This portion of the site needs to be designed in a pedestrian friendly manner, that is accessible by all modes of travel, and provides higher density to accommodate higher-order transit. Strong urban form and superior physical design are required.

Secondary Plan

- The site is designated "Neighbourhood Retail", "Mixed Commercial/Industrial" and "Special Policy Area 8 (Office Node – Mixed Commercial/Industrial)". A Secondary Plan Amendment is required to bring the site into conformity with the forthcoming Official Plan designation that converts the subject lands from Employment to Employment/Residential.

Growth Management (comments from Brian Lakeman, Growth Management Policy Planner)

- The applicant will need to request and be granted the required units of development allocation.



**Planning and
Infrastructure Services**
Planning and Building

- The applicant is required to become a signatory to the Brameast Phase 1, Brampton Cost Sharing Agreement.

Thank you.

A handwritten signature in black ink, appearing to read "Yuri Mantsvetov", written over a horizontal line.

Yuri Mantsvetov, MCIP, RPP
Policy Planner

**BRAMPTON**
Flower City**Public Works & Engineering**
Engineering

Date: September 15, 2017
To: Nasir Mahmood
File: C10E04.005 and 21T-13004B
Subject: 8863 The Gore Road

Submission:

- Phase 1 Environmental Site Assessment, 8715 and 8863 The Gore Road, prepared by Soil Engineers, dated November 29, 2011

Comments:

The submitted reports are over six years old, and are not acceptable for purposes of filing a Record of Site Condition without being brought up to date. As per Regulation 153/04, the report must be no older than 18 months prior to date of RSC submission. Notwithstanding that the report has been submitted for City review, the 18-month stale-date provision applies and staff request the report be brought up to date.

Michael Heralall, P.Eng.
Environmental Engineer
City of Brampton
Engineering Division / Public Works & Engineering Dept.
2 Wellington Street West
Brampton, ON, L6Y 4R2
Telephone: 905-874-3585
michael.heralall@brampton.ca



BRAMPTON
Flower City

Planning and Development Services
Building Division
8850 McLaughlin Road, Unit 1
Brampton, ON L6Y 5T1

Date: December 6, 2017
To: Anthony D. Magnone, Nasir Mahmood
From: Ross Campbell
RE: City File # C10E04.005 & 21T-13004B
Malone Given Parsons Ltd. - TACC HOLBORN CORPORATION
8863 THE GORE ROAD
Ward: 8

I have had the opportunity to review the following documentation submitted in support of the above noted application:

- Geotechnical Investigation report dated April, 2013 and prepared by Soil Engineers Ltd. for a proposed residential subdivision, 8715 and 8863 The Gore Road, City of Brampton. (Report No. 1302-S043)

The Phase One update contains 2 well decommissioning reports for wells on the subject site. However, one of the reports predates the original Phase One that indicated 2 wells on the lot. The UTM coordinates also do not match between the remaining report and those identified in the original Phase One report. Additionally, the original Phase One does not contain a map identifying the location of the wells identified at that time. As such the consultant will need to provide a well decommissioning report that clearly identifies the locations of the wells identified in the original Phase One and the decommissioned wells and address any other wells that remain.

The owner is required to provide a copy of the detailed report identifying existing water wells as well as confirmation of the decommissioning of the same, to the satisfaction of the Chief Building Official.

I hope that this information is adequate for your present needs. Should you have any questions, please do not hesitate to contact me at (905) 874-2442.

Regards,

RC
Ross Campbell
Permit Expediter
Building Division | City of Brampton



**Planning and
Infrastructure Services**

COMMENTS AND CONDITIONS MEMO

Date: August 10, 2016
 File: (C10E04.005 & 21T-13004B)
 To: Nasir Mahmood
 From: Olti Mertiri
 Subject: **Requirements for Plan of Subdivision 21T- 13004B**
 (Proposed Plan of Subdivision)
Malone Given Parsons Ltd.
Tacc Holborn Corporation
 8836 The Gore Road

Circulation Date: July 28, 2016
 Plan: Part of Lot 4&5 Concession 10
 Plan Dated: December 18, 2015 (Revised July 8,2016)

In response to the circulation of the above noted application, the following represents a summation of comments and conditions from the Engineering and Development Services/Development Approvals (Engineering & Environmental) with respect to matters dealing with development and environmental engineering.

A. PRIOR TO DRAFT PLAN APPROVAL

The following shall be addressed prior to the release of the application for draft plan approval.

- The following studies shall be approved in support of servicing for this development.
 1. **Functional Servicing Report (FSR)**
 2. **Feasibility Noise Report**
 3. **Phase 1 and Phase 2 Environmental Site Assessment (Phase 1 & 2 ESA)**
- Further conditions to those set out in Section B below may be provided as a result of the resolution of matters identified in this Section A of the memo

B. DRAFT PLAN APPROVAL REQUIREMENTS

The following comments / requirements are applicable as a condition of draft plan approval.

1. Environmental Engineering**1.1. Acoustic**

- 1.1.1. As part of the first engineering submission, the developer's consultant shall submit a detailed noise report prepared by a qualified acoustical consultant recommending noise control measures satisfactory to the Engineering and Development Services Division, in consultation with the Region of Peel as necessary. A copy of the report shall also be provided to the City's Chief Building Official.
- 1.1.2. The noise control measures and noise warnings recommended by the noise report shall be implemented to the satisfaction of the Engineering and Development Services Division.
- 1.1.3. As part of the first engineering submission, the developer shall prepare and submit a Noise Attenuation Statement. A copy of the final approved Noise Attenuation Statement shall also be provided to the City's Chief Building Official.
- 1.1.4. The developer will include the following clause in the Noise Schedule of the Subdivision Agreement: "Prior to the issuance of any Building Permits, the developer agrees to provide the City's Chief Building Official with a certificate certifying that the builder's plans for each dwelling unit to be constructed on the plan shows all of the noise attenuation works required by the approved noise report and the approved plans.

1.2. Environmental

- 1.2.1. Prior to the initiation of any grading or construction on the site the developer shall install adequate sediment and erosion control measures to the satisfaction of the City of Brampton and Toronto Regional Conservation Authority. These measures shall remain in place until all grading and construction on the site are completed.

1.3. Stormwater Management

- 1.3.1. Prior to the initiation of any site grading or servicing and as part of the first engineering submission, the developer shall provide a Stormwater Management Report which describes the existing and proposed stormwater drainage systems for the proposed development.

2. Road Reconstruction/Cash Contributions**2.1. N/A**

3. Financial Impact

- 3.1. Development charges will be made payable to the City in accordance with the Development Charges By-law in effect at the time of payment.
- 3.2. No credits are anticipated with respect to the Transportation Component of the City Per Unit Levy to be assessed to this development.

4. Sidewalks

- 4.1. Prior to the first engineering submission, the developer shall submit a sidewalk and parking plan.

5. Land Dedications and Easements

- 5.1. Sufficient right of way for all roads associated with the plan and all easements required for proper servicing of the plan shall be granted gratuitously to the appropriate authority. The precise limits of the required land dedications and easements are to be determined to the satisfaction of the City's Ontario Land Surveyor.

6. 0.3 Metre Reserves/Reserve Block(s)

- 6.1. As per Transportation Planning comments.

7. Warning Clauses

- 7.1. Warning clauses are to be included in the Agreements of Purchases and Sale and registered on the title of all affected lots and blocks noting:
 - 7.1.1. Any noise control features required to meet the noise level objectives of the City, to the satisfaction of the City, with respect to all noise sources,
 - 7.1.2. Any walkways that may evolve on the plan,
 - 7.1.3. The possibility of future transit routes within the internal collector/local road network to serve the residents of this community, including possible establishment of transit stops and platforms,

C. GENERAL COMMENTS

The following general comments are provided to assist the developer in the preparation of the related drawings, finalization of any required studies or resolution of any identified issues.

1. Subdivision Agreement

The developer will be required to enter into a Subdivision Agreement with the City for the construction of municipal services associated with these lands. The underground and aboveground municipal services are to be constructed in accordance with the latest O.P.S. and/or City standards and requirements, as applicable. Development of the lands shall be staged to the satisfaction of the City.

The developer will be required to provide the City with comprehensive insurance coverage, a financial guarantee for the installation of municipal works and maintain the municipal works in accordance with Clauses 27 Insurance, 24 Financial and 17 Maintenance Periods respectively, of the applicable standard Subdivision Agreement.

2. Site Grading/Erosion and Sediment Control By-law

The developer will be responsible for the proper drainage of all lands abutting the plan. An overall lot/block grading plan must be prepared by the developer's Engineering Consultant to form part of the Subdivision Agreement.

Draft Plans which are within 30 metres of the watercourse and/or which are comprised of an area in excess of 1 hectare shall be subject to the provisions of the Fill By-law No.143-95, as amended. The developer will be required to apply for and obtain a Fill Permit prior to undertaking any land stripping or regrading activities within these lands. An irrevocable letter of credit is required to cover 100% of the estimated cost of site control measures plus 10% allowance for contingencies, as per Schedule 'A' to the By-law.

3. Storm Drainage

Storm sewer works including connections to each lot and building block shall be designed in such a manner and be of adequate size and depth to provide for the drainage of the weeping tiles, for the development of all lands lying upstream within the watershed and/or provide for the drainage of such areas as may be designated by the Chief Planning & Infrastructure Services Officer.

As a part of detailed processing of servicing submissions, the developer's consultant will be required to include a drawing outlining the proposed overland flow route on these lands. The internal route is to coincide with roadways as much as possible. Should this route direct drainage along a lot's side lot line, the size of the concerned lot(s) is to be increased in width to account for this route in addition to the usual lot sizes. All overland flow routes to be located on private lands shall be covered by a municipal easement to the satisfaction of the City and the appropriate Conservation Authority.

All storm drainage shall be conducted to an outlet considered adequate in the opinion of the Chief Planning & Infrastructure Services Officer.

4. Sanitary and Water Service

Prior to servicing or registration of the plan, the Region of Peel is to confirm that all portions of this plan will be provided with adequate water and sanitary servicing.

5. Soil Conditions

The developer is required to retain a Geotechnical Consultant to prepare a detailed Soils Report. At first engineering submission, the Soils Report will be reviewed by the City and Ministry of Environment and Energy if necessary. Prior to the registration or servicing of this plan, the approved procedures are to be incorporated into the Subdivision Agreement.

6. Streetlighting

Streetlighting is to be provided by the developer in accordance with the City's latest standards and requirements. In addition to streetlighting within the plan, the facilities at the intersections of the proposed road(s) with the boundary roads are to be examined and if necessary, upgraded.

7. Signs

All street and traffic signs required for this plan are to be supplied, erected and maintained in accordance with the provisions of the Subdivision Agreement by and at the expense of the developer.

8. Utilities

Prior to preservicing and/or execution of the Subdivision Agreement, the developer shall name his/her telecommunication provider. In addition, as part of the first engineering submission, the City will also request telecommunications providers that have entered into a Letter of Understanding or a Municipal Access Agreement with the City whether they intend to install their plant within the streets of the proposed subdivision.

The developer covenants and agrees that it shall permit the telecommunication providers named by the City to locate their plants within the streets of the proposed development.

The developer, under separate arrangements or agreement with the various utility companies, is to determine the precise extent of their requirements.

Prior to execution of the Subdivision Agreement, the developer must submit in writing evidence to the Chief Planning & Infrastructure Services Officer that satisfactory arrangements have been made with the Telecommunications provider, Cable TV, Gas and Hydro for the installation of their plant in a common trench, within the prescribed location on the road allowance.

Any utility relocations necessary in support of the development of the Draft Plan of Subdivision shall be carried out by and at the expense of the developer.

9. Removal of Existing Buildings

The Security & Payment Statement of the Subdivision Agreement is to include sufficient securities to guarantee the removal of any existing buildings within the plan that will not conform to the requirements of the Zoning By-law after registration of the plan.

10. City Road Maintenance/Construction Access

The developer will be responsible for maintaining City Roadways within and in the vicinity of this development in a state satisfactory to the Chief Planning & Infrastructure Services Officer until all construction and building activity is complete. Securities shall be included in the Security & Payment Statement of the Subdivision Agreement.

A construction access and the route for same will be finalized during processing of detailed engineering submissions. The construction access shall remain open at the discretion of the Chief Planning & Infrastructure Services Officer.

11. Road Design

All internal roads shall be constructed by the developer and shall have asphalt pavement complete with concrete curbs and gutters designed and constructed in accordance with the latest O.P.S and /or City standards and requirements, as applicable.

The horizontal and vertical alignments of all roads, including their relative intersection geometrics, shall be designed to the latest City standards and requirements. In this regard, minor revisions to the road pattern may be required to accommodate intersection alignments and locations specified for bus bays and loading platforms.

All connecting roads shall be located such that they align precisely with their continuation beyond the limits of this Draft Plan.

12. Sodding of boulevards and private Lands/Maintenance of Undeveloped Lands

All portions of road allowance not covered by roads, sidewalks, splash pads, etc. shall be placed with 150 mm of topsoil and sodded with number 1 nursery sod.

The developer is to provide the City with securities to ensure that each of the lots will be sodded and topsoiled to City standards with driveways being provided. A security is to be established at time of detailed processing and is to be maintained with the City until substantial completion of the lots, and the securities reduced at the discretion of the Chief Planning & Infrastructure Services Officer.

Lots and blocks with which there are no immediate development proposals shall be graded, seeded and maintained to the satisfaction of the Chief Planning & Infrastructure Services Officer, and securities shall be included in the Security & Payment Statement of the Agreement to guarantee this.

13. Acoustical

At first engineering submission, the developer is to submit a Noise Report prepared by an Acoustical Consultant. The report is to address methods of dealing with acoustical aspects evolving from all the noise sources. The report should also detail the type of noise attenuation that will be implemented for all noise sources.

14. Community Postal Boxes

Community Postal Delivery Box locations are to be shown on the servicing drawings in locations approved by Canada Post and are to be installed to City & Canada Post requirements by the developer when required by Canada Post or when constructing aboveground works, whichever is appropriate.

15. Preservicing

Installation of the underground works prior to registration of the plan may be undertaken by the developer in accordance with the City's Preservicing policy. Preservicing will not be permitted until arrangements have been made to the satisfaction of the Chief Planning & Infrastructure Services Officer for the necessary outlets for the municipal services and adequate access roads to service the lands. In addition, preservicing will not be permitted until the zoning for the development of the lands is in effect or has been approved by the Ontario Municipal Boards.

Any external land dedications or easements required to service the property must be obtained by the developer and conveyed gratuitously to the City or the Region prior to the commencement of Preservicing of the lands.

Regards,



Olti Mertiri, P.Eng
Supervisor, Development Approvals
Engineering and Development Services
Planning and Infrastructure Services
Tel. (905) 874-5 273 Fax (905) 874-3369
olti.mertiri@brampton.ca

Cc: Plantrak



BRAMPTON
Flower City

Planning, Design and Development
Planning and Land Development Services

Date: November 18, 2016
To: Nasir Mahmood, Development Planner
From: Michael Hoy, Environmental Planner
File: C10E04.005
Subject: **TACC Holborn Corporation**
1st Submission: Scoped Environmental Impact Study
Dated August 2016

Environmental Planning have now reviewed the **Environmental Impact Study dated August 2016 including associated technical reports** and wish to provide the following comments. These comments are to be considered the City's first review, as comments were not provided on the original submission due to the pending changes to the design of the draft plan.

Please include a Response Document with the revised submission indicating how and where the City's comments have been addressed by the revised document.

General Comments

1. Please include Executive Summary at the front of the document that summarizes the main recommendations that are to be carried forward into detailed design. Include in the Executive Summary the proposal's sustainability score and what natural heritage metrics the plan is proposing to achieve.
2. Section 4.2.1 Headwater Drainage Feature – this section's recommendation needs to be reiterated in the Executive Summary.
3. Figure 4 – revise to include all constraint lines as depicted on Figure 3. As required by City policy, a 10 metre natural heritage buffer will be applied to the outer most constraint. No development or encroachment is allowed within this buffer. Revise page 15 to state that the "proposed limit will follow natural heritage, geotechnical and *buffer requirements...*"
4. Page 16 - As per City policy, stormwater blocks are to be planned and designed outside the limits of the natural heritage system. In addition, mitigation measures will be required for any stormwater management erosion and sediment control measures located within the valley corridor,

5. Page 16 – Mitigation:

- Environmental Planning does not consider planting within buffers as mitigation for impacts to the natural heritage system. Naturalized buffer plantings are required as a condition of City approval. Therefore, please propose alternate mitigation measures that achieve no net loss to the City's natural heritage system values and functions and where possible a net gain.
- Please include proposed mitigation measures for the removal of tableland vegetation within this section. The City requires a minimum replacement ratio of 3 trees for every healthy tree greater than 15 cm dbh proposed for removal. Proposed parkland, buffer and street tree planting required by City standards will not factor into this mitigation.
- Summarize how the water balances for the entire site and individual natural heritage features will be maintained post development.

6. Vegetation Assessment

- update the development proposed to confirm to most up to date development proposal as depicted on Figure 4 within the EIS;
- With the updated development proposal, the vegetation assessment will give further consideration for protecting trees 601 (willow), 602 (silver maple), 604 (apple), 606 (shagbark), 610 (silver maple), 611 (silver maple), 615 (willow);
- Provide a table that summarizes the number of trees that will be protected, number of trees to be removed and number of trees to be planted (3 to 1 replacement ratio).

7. Figure 3: City staff have not reviewed the Schaeffer & Associates April 2014 report so cannot confirm the Long Term Stable Slope. City staff will defer to TRCA staff for approval of this constraint line.

8. Section 7.2 Mitigation (page 23): This section should also be revised to discuss the net ecological gain to the City's natural heritage system and functions associated with the development plan

9. Monitoring – this EIS does not contain a section about pre construction, construction and post construction monitoring plan. Please refer to the City's EIR/EIS Terms of Reference for direction on completing this section.

Please contact me if you have any questions or concerns,



Michael Hoy, MCIP, RPP
Environmental Planner, Environment
Engineering Division
Public Works and Engineering Department
2 Wellington Street West
Brampton ON L6Y 4R2
Tel: (905) 874-2608
Email: michael.hoy@brampton.ca

c.c. Maggie Liu, Water Resources Engineer
A. Miller, TRCA



BRAMPTON
Flower City

**Planning and
Infrastructure Services**
Engineering and Development Services

Date: October 24, 2016

To: Nasir Mahmood

From: Maggie Liu

Subject: Application to Amend the Official Plan and Zoning By-Law, and Proposed Draft Plan of Subdivision for 8863 The Gore Road

Submission:

- Functional Servicing Report, Proposed TACC Holborn Development, 8715 & 8863 The Gore Road, circulated September 29, 2016, prepared by Schaeffers Consulting Engineers

Comments:

1. The proposed development is located adjacent to Clarkway Tributary. Drawing #SG-1 and SG-2 illustrate the development limit established by Beacon Environmental.
 - Engineering staff would defer to the City's Environmental Planning staff and TRCA for the approval of the development limit.
 - It appears that the south perimeter of the SWM pond is located beyond the development limit. Please revise the design so that the pond is located outside of the approved limit of development.
2. The XIMP value (35%) used in the VO2 model is significantly less than the TIMP (65%). Please clarify how this XIMP is determined.
3. Please show that positive drainage from the proposed SWM pond can be achieved for all of the storm events.
4. It is proposed to provide on-site control for the commercial development to detain post development flows to the 2 year pre development level.
 - Based on Figures 2-1 and 2-2, the controlled flows will be conveyed to an existing outlet that currently accommodates a drainage area of 1.97 ha from the subject site. Therefore, the target rate for the commercial development shall be calculated based on the existing area of 1.97 ha instead of 3.1 ha. Please revise the FSR.
 - At the detailed design stage, please provide digital copies of calculations for on-site quantity controls for the commercial development.

7.2-83

5. Jellyfish filter is proposed to provide water quality treatment for the commercial development. Please note that the City will not be responsible for the operation and maintenance of the water quality treatment unit.
6. Please provide sizing calculations for the outlet structures of the proposed SWM pond.
7. Drawing SG-1 shows that major overland flows from a portion of the site drain away from the site towards the intersection of Nexus Avenue and Fogal Road. Please revise the design so that major flows from this portion of the site are conveyed to the proposed SWM pond.

Maggie Liu, MASc., P. Eng
Water Resources Engineer
Tel: (905) 874-3809, Fax: (905) 874-3369

Mahmood, Nasir

From: Jasinski, Cassandra
Sent: 2017/06/20 9:46 AM
To: Mahmood, Nasir
Cc: David Stewart
Subject: C10E04.005 (N/E of Queen St. and The Gore Rd.)

Categories: Red Category

Good morning,

Heritage staff received the following archaeological assessment and the accompanying MTCS letter of acceptance into the Ontario Public Register of Archaeological Reports:

"Stage 1-2 Archaeological Assessment of TACC Holborn Property, Part of Lots 4 and 5, Concession 10 North Division (Geographic Township of Toronto Gore, County of Peel", Dated November 26, 2013, Filed with MTCS Toronto Office on November 29, 2013, MTCS Project Information Form Number P384-019-2013, MTCS File Number: 0000418.

Heritage staff confirms that the Archaeological Assessment requirement for the subject lands has been satisfied.

Note: Should previously undocumented archeological resources be discovered, they may be a new archeological site and therefore subject to Section 41 (1) of the Ontario Heritage Act. The proponent/person discovering the archaeological resources must immediately cease alteration of the site, engage a licensed consultant archaeologist to carry out the archaeological field work, in compliance with Section 48 (1) of the Ontario Heritage Act, and also contact City Heritage staff.

The Funeral, Burial and Cremation Services Act requires any persons discovering human remains to notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

In no way will the City of Brampton be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this clearance. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

Kind regards,

Cassandra Jasinski
 Heritage Planner
 Heritage, Planning & Development Services
 City of Brampton
 (905) 874-2618

Mahmood, Nasir

From: Tang, Daniel
Sent: 2016/11/22 4:25 PM
To: Mahmood, Nasir
Subject: 21T-13004B TACC Holborn Corp OPA & ZBL and Draft Plan of subdivision

Categories: Red Category

Hi Nasir,

Sorry about the late response; I have reviewed the Preliminary Environmental Noise Report dated Aug 9, 2016 prepared by Jade Accoustic for the above noted application, beside the employment Block 152, I find it capable of supporting Official Plan Amendment, Zoning By-Law Amendment as well as Draft Plan approval.

Once the exact land use is confirm for Block 152, the applicant must submit another noise report to support the land use.

Regards,

Daniel Tang
Environmental Technologist – Noise
City of Brampton
Engineering Division / Public Works & Engineering Department
T: 905-874-2472



March 5th 2018

Nasir Mahmood
Planning and Infrastructure Services Department
Planning and Building Division
City of Brampton
2 Wellington Street West
Brampton, ON L6Y 4R2

Public Works

10 Peel Centre Dr.
Suite B
Brampton, ON
L6T 4B9
tel: 905-791-7800
peelregion.ca

**RE: Proposed Draft Plan of Subdivision
Malone Given Parsons Ltd – Tacc Holborn Corporation
8863 The Gore Road
City of Brampton
City File: 21T-13004 & C10E04.005
Region File: 21T-13-004B & OZ-13-10E4.5B**

Dear Mr. Mahmood,

Further to the Regional comment letter dated February 20th 2018, the Region has reviewed the Draft Plan of Subdivision Plan for the above-noted applications and made some revisions to the comments and draft plan conditions. Please use this letter in place of the February 20th 2018 letter. Our comments and conditions are below.

REGION OF PEEL CONDITIONS OF DRAFT APPROVAL

As per the Conditions of Draft Approval for Draft Plan of Subdivision 21T-13-004B, the developer is required to fulfill the Conditions to the satisfaction of the Region. Release for Registration will not be provided by the Region until such time as all Regional requirements have been satisfactorily addressed.

GENERAL COMMENTS

The following general comments are provided to assist the developer in the preparation of the related drawings.

Please be advised that the Region of Peel's new Development Charges Collections By-law has come into effect as of February 1st, 2016. Development Charges (DCs) for all hard services will now be collected *prior* to the execution of the subdivision agreement.

Sanitary Sewer Facilities

- Municipal sanitary sewer facilities consist of a 250mm diameter sewer on Fogal Road and a 250 mm diameter sewer on The Gore Road, south of Queen Street.
- A Functional Servicing Report (FSR) showing the proposed sanitary sewer servicing plans for the development will be required for review and approval by the Region prior to the engineering submission.
- Internal easements and construction may be required.



Public Works

10 Peel Centre Dr.
Suite B
Brampton, ON
L6T 4B9
tel: 905-791-7800

peelregion.ca

Water Facilities

- The lands are located in Water Pressure Zone 4.
- Existing infrastructure consist of a 300mm diameter watermain located on Fogal Road and a 300 mm diameter watermain on The Gore Road.
- A Functional Servicing Report (FSR) showing the proposed sanitary sewer servicing plans for the development will be required for review and approval by the Region prior to the engineering submission.
- The water distribution system must be looped in order to provide system security. A 300mm watermain is required on Streets, A,B and C.
- External easements and construction may be required.

Regional Roads

- The proposed development abuts The Gore Road (Regional Road #8) and Queen Street East (Regional Road #107).
- Region will not permit any changes to grading within The Gore Road and Queen Street East ROW along the frontage of proposed development.
- Storm water flow shall be looked at in a holistic manner for all developments along Regional roadways. The relocation of storm systems across Regional roadways shall be done symmetrically, so that the distance between the inlet and outlet of the system onto the Regional roadway are the same or less as compared to the pre-development condition. Under no circumstance should the flow of storm water be diverted along the Regional right of way (by pipe or channel), in order to accomplish the relocation of a drainage feature with-in or adjacent to the Regional right of way, without the prior written consent of the Region.

Development Charges

- The Developer acknowledges that the lands are subject to the current Region's Development Charges By-law. The applicable development charges shall be paid in the manner and at the times provided by this By-law.

Capital Budget

- There is no negative impact upon the Regional Capital Budget as this development does not create a need for sanitary sewer, watermain, or road improvements in the Five Year Capital Budget and Forecast.

✓Functional Servicing Report

- The FSR was found to be satisfactory.

DRAFT PLAN APPROVAL REQUIREMENTS / CONDITIONS

The following requirements / conditions will be required to be satisfactorily addressed as they relate to the Region's Condition of Draft Plan Approval.

Draft Plan Approval Requirements/Conditions:

Development Charges

1. Prior to execution of the Subdivision Agreement by the Region, the Developer shall:



Public Works

10 Peel Centre Dr.
Suite B
Brampton, ON
L6T 4B9
tel: 905-791-7800

peelregion.ca

- a) obtain and submit to the Region a Residential Development Charges Payment Form completed to the best of the Developer's knowledge at the time of the submission and to the satisfaction of the Region in accordance with the engineering drawings and final draft M-plan; and
- b) pay to the Region the appropriate hard service residential development charges (water, wastewater and road service components), pursuant to the Region's Development Charges By-law, as amended from time to time, calculated based on the information provided in the Residential Development Charges Payment Form.

2. Provision shall be made in the Subdivision Agreement with respect to:

- a. payment to the Region of appropriate soft service development charges and any outstanding hard service development charges; and
- b. collection of development charges for future residential development blocks (non-freehold townhouses or apartment blocks); pursuant to the Region's Development Charges By-law, as amended from time to time.

Water Meter Fees

3. In respect of the water meter fees::

- a) Prior to registration of the plan of subdivision, the Developer shall pay to the Region the appropriate water meter fees, in accordance with the Region's Fees By-law, as amended from time to time for residential building lots (singles, semi-detached and freehold townhomes) to the satisfaction of the Region in accordance with the engineering drawings and final draft M-plan for the Lands;
- b) A clause shall be included in the Subdivision Agreement that water meter fees for future residential development (non-freehold townhouses or apartment blocks) and commercial blocks shall be payable to the Region prior to issuance of building permits, in accordance with the Region's Fees By-law, as amended from time to time; and
- c) A clause shall be included in the Subdivision Agreement that in the event of an underpayment of water meter fees, the Developer shall be responsible for payment thereof forthwith upon request.

Land Dedications

4. Prior to the registration of this Plan or any phase thereof, the Developer shall gratuitously dedicate, free and clear of all encumbrances and to the satisfaction of the Region:

- a. A road widening pursuant to the Region's Official Plan along The Gore Road (Regional Road #8) and Queen Street East (Regional Road #107). The Region's Official Plan road widening requirements for mid-block along The Gore Road and Queen Street East are 45 metres right-of-ways. Additional property will be required within 245 metres of intersections to protect for the provision of but not limited to; utilities, sidewalks, multiuse pathways and transit bay/shelters: 50.5 metres along The Gore Road and Queen Street East for a single left turn lane intersection configuration and 54.0 metres along The Gore Road and Queen Street East for a dual left turn lane intersection configuration;



Public Works

10 Peel Centre Dr.
Suite B
Brampton, ON
L6T 4B9
tel: 905-791-7800

peelregion.ca

- b. 15m x 15m daylight triangles at the intersections along Regional roads; and
- c. A 0.3 metre reserve along the frontage of The Gore Road and Queen Street East behind the property line and behind the daylight triangles;

5. Clauses shall be included in the Subdivision Agreement stating that:

- a. The Developer shall gratuitously transfer to the Region free and clear of all encumbrances and to the satisfaction of the Region:
 - i. All temporary and permanent easements required in support of The Gore Road Environmental Assessment (EA); and
 - ii. All necessary easements for proposed and existing Regional infrastructures as required by the Region to service the proposed plan and external lands; and
- b. All costs associated with land transfers and easements shall be 100% the responsibility of the Developer.

Access

6. Clauses shall be included in the Subdivision Agreement stating that:

- a. The Developer shall remove any existing driveway/accesses along the frontage of The Gore Road and Queen Street East that do not conform to the approved plans at its sole cost.
- b. No blocks shall have direct access to The Gore Road and Queen Street East.
- c. The Region will permit access to Block 140, at most, as a right-in access via Queen Street East only. Final review and approval of Block 140 access shall be completed at the Site Plan stage.

Traffic Engineering

7. Prior to the registration of this Plan, or any phase thereof:

- a. The Developer shall provide a detailed Traffic Impact Study (TIS), acceptable to the Region, detailing the impact of the development on the regional roads network, identifying any mitigation measures and providing access type, location and geometrics including turning lane requirements.
- b. The Developer shall be responsible for 100% of the cost of The Gore Road/Street A intersection improvement works and the geometrics shall be determined through the approved Traffic Impact Study

and a clause in respect of same shall be included in the subdivision agreement.

- c. The Developer shall provide to the Region's Public Works Department a Letter of Credit in the amount of \$10,000.00 for pavement markings on The Gore Road/Street A intersection. The Developer shall also be responsible for pavement markings maintenance. The Letter of Credit will be released once all



Public Works

10 Peel Centre Dr.
Suite B
Brampton, ON
L6T 4B9
tel: 905-791-7800

peelregion.ca

necessary pavement markings are completed and the intersection improvement works are assumed by the Region. Pavement markings along Regional roads shall be in accordance with the Region's specifications and standards, as amended from time to time. A clause shall be included in the Subdivision Agreement in respect of same.

8. Prior to any grading, servicing and construction, the Developer shall obtain from the Region's Public Works Department a road occupancy permit for all works within the Region's road right-of-way and obtain such permit at least 48 hours prior to the commencement of work. Additional documentation, fees and securities shall be required with respect to the works for which the permit was obtained. All costs associated with the road works within the Region's right-of-way shall be borne entirely by the Developer.
9. The location, design and implementation of the construction access must be acceptable to the Region. The Region will not permit construction access from either The Gore Road or Queen Street East and it shall be obtained from Fogal Road. A clause shall be included in the Subdivision Agreement in respect of same.
10. Clauses shall be included in the Subdivision Agreement stating that:
 - a. The Developer acknowledges and agrees that landscaping, signs, fences, gateway features, and any other encroachments shall not be permitted within the Region's easements and right-of-way.
 - b. The Region shall not permit any alteration to grading within The Gore Road and Queen Street East right-of-way along the frontage of the Lands.
11. A clause shall be included in the Subdivision Agreement that a restriction on transfer or charge for all lots and blocks within the plan of subdivision, save and except those to be conveyed to the City and the Region, shall be registered on title to said lots and blocks prohibiting any transfer or charge of said lots and blocks without the consent of the Region until all external sanitary sewers, watermains and The Gore Road/Street A intersection improvement works to service this plan have been completed to the Region's satisfaction. The Developer shall be responsible for all costs in respect of said restriction on title.

Drawings – Servicing and “As Constructed”

12. Prior to servicing, the Developer's engineer shall submit all engineering drawings in the digital format to the latest Region's Digital Format Guidelines.
13. A clause shall be included in the Subdivision Agreement that within (60) days of preliminary acceptance of the underground services, the Developer's engineer shall submit “As-Constructed” drawings in digital format, pursuant to the latest Region's Digital Format Guidelines. The Developer's engineer shall also provide ties to all main line valves, ties to individual water service boxes, linear ties to sanitary sewer services and GPS coordinates of all watermain and sanitary sewer appurtenances in accordance with the latest requirements of the Region “Development Procedure Manual”.



Public Works

10 Peel Centre Dr.
Suite B
Brampton, ON
L6T 4B9
tel: 905-791-7800

peelregion.ca

General Conditions

14. Prior to registration of the subdivision, the Developer shall execute a Subdivision Agreement with the local municipality and Region for the construction of municipal sanitary sewer, water, and regional roads associated with the lands. The Developer shall construct and design these services in accordance with the latest Region standards and requirements.
15. Prior to a satisfactory engineering submission, the Developer shall submit to the Region for review and approval:
 - a. A Functional Servicing Report showing the proposed sanitary sewer, storm sewer and water servicing plans for the development; and
 - b. Storm Drainage Study Report to determine the effect of the proposal on the existing structures and drainage along Regional Roads.
16. Prior to servicing, the Developer shall submit a satisfactory engineering submission to the Region to review and approval.
17. Prior to registration of the plan of subdivision, the Developer shall pay the Region's costs for updating its electronic "As Constructed" information for the infrastructure installed by the Developer. The cost shall be based on a "per kilometre" basis for combined watermains and sanitary sewers installed pursuant to the Region's latest User Fees By-law.
18. Prior to registration of the plan of subdivision, the Developer shall ensure that the proposed Lots or Blocks fronting Laneways within the plan can be serviced by municipal water and wastewater services and in accordance with Regional latest Standards and Specifications. Due to maintenance and operation issues/concerns in respect of laneways, servicing lots and blocks fronting Laneways shall be from the approved public R.O.W. in accordance with the municipality's standard drawings where Region's underground services are permitted. A clause shall be included in the Subdivision Agreement in respect of same..
19. Prior to servicing the Region may require the Developer to construct a sampling hydrant (at the Developers cost) within the proposed Plan. Location and the requirement for sampling hydrant will be determined at the engineering review stage.
20. Prior to registration of the plan of subdivision, the Developer shall ensure that all lots and blocks must be serviced via an internal road network or servicing easements. The Region will permit water and sanitary sewer connections for Block 122 on Lane B directly from Fogal Road. A clause shall be included in the Subdivision Agreement in respect of same.
21. A clause shall be included in the Subdivision Agreement that the Developer agrees that the Region shall hold back a portion of the Letter of Credit to cover the costs of services completed by the Region on a time and material basis pursuant to the current Region's User Fee by-Law.



Public Works

10 Peel Centre Dr.
Suite B
Brampton, ON
L6T 4B9
tel: 905-791-7800

peelregion.ca

22. A clause shall be included in the Subdivision Agreement that the Developer shall maintain adequate chlorine residuals in the watermains within the plan from the time the watermains are connected to the municipal system until such time as the Region issues Final Acceptance. To maintain adequate chlorine residuals, the Developer shall either install automatic flushing devices or retain Regional staff to carry out manual flushing. Regional staff shall conduct the monitoring and testing for chlorine residuals. All costs associated with the monitoring and flushing shall be the responsibility of the Developer pursuant to the current Region's User Fee by-Law.

23. A clause shall be included in the Subdivision Agreement as follows:

- c. In respect of servicing existing properties within the zone of influence in the event that existing private services (wells) deteriorate due to the servicing of the proposed plan of subdivision;
- d. Until the issuance of Final Acceptance a portion of the Letter of Credit shall be held back to serve as protection for the private wells in the zone of influence of the plan of subdivision. This amount shall be based on the anticipated cost of replacing water supplies within the zone of influence as shown in the schedules of the agreement. The minimum amount shall be \$20,000.00. If the private well systems in the zone of influence deteriorate due to the servicing of the plan of subdivision the Developer shall provide temporary water supply to the residents upon notice by the Region and the Developer shall continue supplying the water to the effected residents until the issue is resolved to the satisfaction of involved parties. If the quantity of water in the existing wells is not restored to its original condition within a month after first identification of the problem, the Developer shall engage the services of a recognized hydrogeologist to evaluate the wells and recommend solutions including deepening the wells or providing a permanent water service connection from the watermain to the dwelling unit.
- e. The Developer shall inspect, evaluate and monitor all wells within the zone of influence prior to, during and after the construction has been completed. Progress Reports should be submitted to the Region as follows:
 - i. Base line well condition and monitoring report shall be submitted to the Region prior to the pre-servicing or registration of the plan (whichever occurs first) and shall include as a minimum requirement the following tests:
 - a) Bacteriological Analysis - Total coliform and E-coli counts
 - b) Chemical Analysis - Nitrate Test
 - c) Water level measurement below existing grade
- f. In the event that the test results are not within the Ontario Drinking Water Standards, the Developer shall notify in writing the Homeowner, the Region of Peel's Health Department (Manager - Environmental Health) and Public Works Department (Development Supervisor) within 24 Hours of the test results.
- g. Well monitoring shall continue during construction and an interim report shall be submitted to the Region for records. Well monitoring shall continue for one year after the completion of construction and a summary report shall be submitted to the Region prior to Final Acceptance.



Public Works

10 Peel Centre Dr.
Suite B
Brampton, ON
L6T 4B9
tel: 905-791-7800
peelregion.ca

24. A clause shall be included in the Subdivision Agreement that the Developer agrees that neither the Developer nor any Builder shall apply for building permits for any lots or blocks within the plan of subdivision until the Region's Public Works Department has issued Preliminary Acceptance and provided notice to the local municipality stating that internal and external sanitary sewers and watermain, including fire protection, have been completed to the Region's satisfaction. The Developer's Consulting Engineer shall certify in writing that the internal and external sanitary sewers and watermain, including fire protection, have been constructed, inspected and shall function in accordance with the detailed design as approved by the Region.
25. A clause shall be included in the Subdivision Agreement that the Developer agrees that storm water flow shall be reviewed in a holistic manner for all developments along regional roadways. Under no circumstance shall the flow of storm water from the plan be diverted to or along The Gore Road's right of way (by pipe or channel). A clause shall be included in the Subdivision Agreement in respect of same.
26. Prior to registration of the plan of subdivision a noise abatement report is required for lots adjacent to Regional roads.
27. Prior to registration of the plan of subdivision, the Developer shall submit draft reference plan(s) for the Region's review and approval prior to such plans being deposited. All costs associated with preparation and depositing of the plans and transfer of lands shall be at the sole expense of the Developer.

If you have any questions or concerns, please contact the undersigned at your convenience at 905-791-7800 ext. 4307, or by email at: sarah.powell@peelregion.ca

Yours truly,

Sarah Powell
Planner (A), Development Services



January 25th 2018

Public Works

10 Peel Centre Dr.
Suite B
Brampton, ON
L6T 4B9
tel: 905-791-7800
peelregion.ca

Nasir Mahmood
Planning and Infrastructure Services Department
Planning and Building Division
City of Brampton
2 Wellington Street West
Brampton, ON L6Y 4R2

**RE: Proposed Draft Plan of Subdivision
Malone Given Parsons Ltd – Tacc Holborn Corporation
8863 The Gore Road
City of Brampton
City File: 21T-13004 & C10E04.005
Region File: 21T-13-004B & OZ-13-10E4.5B**

Dear Mr. Mahmood,

We have reviewed the revised Functional Servicing Report dated January 23rd 2018 and find the report to be satisfactory.

In addition, we note that a revised draft plan of subdivision submission was circulated for review prior to the new year. Our review is still underway and comments and conditions for these materials will be provided under a separate cover.

If you have any questions or concerns please contact me at your convenience at 905-791-7800 ext.4307 or by email at sarah.powell@peelregion.ca

Yours truly,

Sarah Powell
Planner (A)
Development Services, Public Works



Toronto and Region
Conservation
for The Living City

November 20, 2017

CFN 49317

BY EMAIL: nasir.mahmood@brampton.ca

Mr. Nasir Mahmood, Development Planner
City of Brampton
2 Wellington Street West
Brampton, ON
L6Y 4R2

Dear Mr. Mahmood:

**Re: Conditions of Draft Plan Approval - Draft Plan of Subdivision – 21T-13004B
Official Plan & Zoning By-law Amendment Application –C10E04.005
8863 The Gore Road
Northeast Corner of Queen Street & The Gore Road
Part Lot 4 & 5, Concession 10
City of Brampton
TACC Holborn Corporation (Agent: Malone Given Parsons)**

Further to our letter dated October 30, 2017, Toronto and Region Conservation Authority (TRCA) staff provides the following updated comments as part of TRCA's commenting role under the *Planning Act*, the Authority's delegated responsibility of representing the provincial interest on natural hazards encompassed by Section 3.1 of the Provincial Policy Statement (PPS, 2014); TRCA's Regulatory Authority under O. Reg. 166/06, *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses*; and our Memorandum of Understanding (MOU) with the Region of Peel, wherein we provide technical environmental advice.

Purpose of the Application

It is our understanding that the purpose of the above noted application is to permit 124 single detached dwellings of various lot widths, 26 townhouse blocks containing 152 townhouses, a medium/high density block, an employment/office block, a park block, a stormwater management facility block, noise buffer, natural heritage system (NHS) area, and the road network.

Recommendation

Given the supplementary updated plans, technical memos and constructive discussions to date, the key propriety issues that were identified in our letter dated May 5, 2017, and October 30, 2017, have in-principle been adequately address. As such, TRCA staff are in positon to provide Conditions of Draft Plan Approval that are attached as Appendix I.

Please note that when the proponent request clearance of our conditions, a copy of the most current Conditions of Draft Approval and draft plan of subdivision, the Executed Subdivision Agreement, the implementing Zoning By-law and supporting documentation must be provided to the TRCA with a cover letter that identifies how the conditions have been fulfilled.

Mr. Mahmood

- 2 -

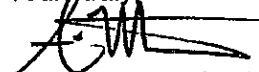
November 20, 2017

O. Reg. 166/06

As previously noted, the subject property contains a portion of the Clarkway Tributary, a tributary of the Humber River Watershed. As such, a significant portion of the subject lands are regulated by the TRCA under O. Reg. 166/06 and are subject to the policies of TRCA's LCP. Therefore, permits will be required from the TRCA for works within the regulated area, including earthworks, site grading, servicing, etc. TRCA staff will discuss permit fees and requirements with the proponent at such time that the review and approvals have advanced and TRCA permits are required to facilitate the development.

I trust these comments are of assistance. Should you have any further questions or comments, do not hesitate to contact the undersigned.

Yours truly,



Adam Miller, BES, MCIP, RPP
Senior Planner
Planning and Development
Extension 5244
/am

Encl: *APPENDIX I: TRCA Staff Conditions of Draft Plan Approval (City File #21T-13004B)*

cc: Allan Parson, City of Brampton: allan.parsons@brampton.ca
Michael Hoy, City of Brampton: michael.hoy@brampton.ca
Lauren Capilongo, Malone Given Parsons: lcapilongo@mgp.ca
David Stewart, TACC Developments: dstewart@tacc.com
Michael Paulo, Schaeffers Consulting Engineers: mpaulo@schaeffers.com
Rosalind Chaundy, Beacon Environmental: rchaundy@beaconenviro.com
Brennan Paul, TRCA
Dilnesaw Chekol, TRCA

APPENDIX I: TRCA Staff Conditions of Draft Plan Approval (City File #21T-13004B)**TRCA Conditions of Draft Plan Approval****Red-line Revisions**

1. The final Plan shall be in general conformity with the draft plan prepared by Malone Given Parsons Limited, dated December 18, 2015, last revised August 15, 2017, prior to a request for clearance for registration of any phase of this plan, to:
 - a) Include appropriate blocks that are to be conveyed to the City of Brampton as appropriate to the satisfaction of the City of Brampton and TRCA.
 - b) Meet the requirements of TRCA's conditions, including the adjustment of block lot lines to the satisfaction of the City of Brampton and TRCA as a result of the completion of the required studies.
 - c) Should the above not be adequately addressed in the Plan, red-line revisions will be required to the satisfaction of the TRCA, to address TRCA's requirements with respect to these conditions.
2. Prior to registration of the Plan of Subdivision, provide an M-Plan showing the adjusted lot/block lines, additional lots/blocks and any other required revisions to the satisfaction of the City of Brampton and the TRCA.

Prior to Works Commencing

3. That prior to any development, pre-servicing or site alteration, or registration of this plan or any phase thereof, the applicant shall submit and attain the approval of the TRCA for:
 - a) A detailed engineering report (i.e., Stormwater Management and Site-Level Water Balance) that describes in detail the applicable stormwater management criteria (i.e., quantity, quality, erosion control, and water balance), how the proposed storm drainage system will be designed to meet the stormwater management criteria, and how it will comply with all related master servicing plans (i.e., Functional Servicing Report) and TRCA requirements. This report shall include, but is not limited to:
 - i. Plans illustrating the existing drainage systems internal and external to the site, and how the proposed drainage plan will tie into surrounding drainage systems. Plans which demonstrate the proposed stormwater management techniques which are required to control minor or major flows. Confirmation must be provided with respect to how target flows as per the hydrologic studies will be achieved during and post-development.
 - ii. Provide provisions for appropriately sized Stormwater Management Practices (SWMPs) to be used to treat stormwater, to mitigate the impacts of development on the quality, quantity, and volume of ground and surface water resources, including how they relate to terrestrial and aquatic species and their habitat, in addition to natural features and systems, in accordance with TRCA's current Stormwater Management Guidelines. The existing drainage patterns should be maintained, to the greatest extent possible, and the existing ecological function of all features is to be maintained, consistent with TRCA's guidelines.
 - iii. Proposed methods for controlling or minimizing erosion and siltation on-site and/or in downstream areas during and after construction, in accordance with the

TRCA's Erosion and Sediment Control (ESC) guidelines (dated December 2006) utilized by the TRCA. Erosion and sediment control plans and a report addressing phasing and staging, consistent with TRCA's guidelines must be included.

- iv. Detailed plans indicating location, orientation, size and description of all stormwater management features, including outlet structures, all other proposed servicing facilities (i.e., lot level LIDs, pumping stations, access roads), grading, site alterations, development, infrastructure and watercourse alterations, which are required to service or facilitate the development of the subject lands, which may require a permit pursuant to Ontario Regulation 166/06, the Authority's Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation.
 - v. Mapping of proposed stormwater management measures, with consideration for existing vegetation to be disturbed, grade differentials and grading required.
 - vi. Measures for minimizing and mitigating erosion related impacts on downstream areas (during and post construction), which are to be integrated into the stormwater management plan to the satisfaction of the TRCA.
 - vii. The integration of Low Impact Development (LID) measures and the employment of source and conveyance controls to mimic, to the extent feasible, pre-development hydrology to the satisfaction of the TRCA.
 - viii. Design of flow dispersal measures associated with the stormwater management outlets to reduce potential erosion and maximize potential infiltration, and the integration of a naturalized outlet channel, where applicable, to the satisfaction of the TRCA.
 - ix. Stormwater Management facility and outlet design details. Design requirements shall conform to the requirements outlined in the Ministry of Environment (MOE) 2003 "Stormwater Management Planning and Design Manual", TRCA's 2012 "Stormwater Management Criteria Document", and TRCA's 2010 "Low Impact Development Stormwater Management Planning and Design Guide", and all applicable City of Brampton design standards.
- b) A development limit constraint map showing at minimum: natural heritage features, natural hazards and their buffers for the proposed draft plan of subdivision, to the satisfaction of the TRCA.
 - c) Grading plans for the subject lands. These plans must indicate how grade differentials will be accommodated without the use of retaining walls within or adjacent to natural feature blocks or associated buffers. All modifications to existing slopes must result in geotechnically-stable slopes to the satisfaction of the TRCA.
 - d) Plans illustrating that all works, including all grading, site alterations, or materials associated with these activities, will not encroach or be placed on lands outside of the development areas. These plans must also identify no grading works and fill placement within environmental buffer areas, or proposed environmental protection area lands, beyond those approved by the TRCA.

- e) A groundwater constraint assessment that will examine existing and proposed groundwater levels in relation to the proposed development, underground construction and servicing and stormwater management infrastructure. Interactions between untreated (or insufficiently treated) surface and groundwater, shallow ground water, and dewatering requirements should not be permitted. If identified, refinements and/or revisions to the stormwater management system will be required to mitigate against any potential impacts, to the satisfaction of the TRCA. No permanent dewatering of groundwater or interflow associated with any component of this development shall be permitted. All underground construction and infrastructure must be designed to not require permanent dewatering, and any potential impacts to the groundwater system that may result from the development must be assessed and mitigated.
- f) Information detailing all anticipated temporary dewatering that may be required during the construction phases, including anticipated volumes, duration, discharge locations, and filtration media – as required, to the satisfaction of the TRCA, for the purposes of determining whether a TRCA permit is required.
- g) Overall Site-Level Water Balance Report that will identify measures that will be implemented during pre and post development that:
 - i. Mimic the pre-development surface and groundwater water balance for the overall site to the greatest extent achievable;
 - ii. Demonstrate how post-development conditions will retain a minimum of the first 5mm of rainfall over the entire site to the satisfaction of the TRCA;
 - iii. Mitigate against any potential on-site or downstream erosion associated with the stormwater management system;
 - iv. Maintain baseflow contributions at pre-development levels, duration and frequency, in all areas of affected watercourses to the satisfaction of TRCA staff.
- h) An overall monitoring plan for the LIDs and adaptive stormwater management plan, to the satisfaction of the TRCA.
- i) That the applicant attain all Ontario Regulation 166/06 permits from the TRCA for all works proposed on the subject property for which permits would be required.
- j) That the size and location of all LID measures associated with this development be confirmed to the satisfaction of the TRCA. And, if required to meet TRCA requirements, red-line revisions be made to the plan to provide for necessary blocks within the Plan, or modify their size or configuration into surrounding lands within this subdivision which are currently proposed for development.
- k) That the size and location of Stormwater Management Block 145, including any outlets and outfalls into Block 147 and any stormwater management infrastructure utilized for quantity and quality control, be confirmed to the satisfaction of the TRCA. And, if required to meet TRCA requirements, red-line revisions be made to the plan to expand these blocks, or modify their size or configuration into surrounding lands within this subdivision which are currently proposed for development.
- l) That an Environmental Management and Reforestation Plan be provided to the satisfaction of the TRCA for Block 147.

Subdivision Agreement

4. That the owner agrees in the subdivision agreement, in wording acceptable to the TRCA:

- a) To carry out, or cause to be carried out, to the satisfaction of the TRCA, the recommendations of the technical reports and plans referenced in TRCA's conditions.
- b) To implement the requirements of the TRCA's conditions in wording acceptable to the TRCA.
- c) To design and implement on-site erosion and sediment control in accordance with current TRCA standards.
- d) To maintain all stormwater management and erosion and sedimentation control structures operating and in good repair during the construction period, in a manner satisfactory to the TRCA.
- e) To obtain all necessary permits pursuant to Ontario Regulation 166/06 from the TRCA.
- f) To erect a permanent fence to the satisfaction of the TRCA on all lots and blocks abutting natural areas and their buffers.
- g) To implement all water balance/infiltration measures identified in the water balance study that is to be completed for the subject property.
- h) Implement all adaptive management and mitigation measures identified in the Hydrogeology Report and Functional Servicing Report that is to be completed for the subject property.
- i) To design a monitoring protocol and provide the requisite funding, obtain approvals, monitor and maintain the site level water balance and features based water balance measures on this site (including LIDs) and to provide the requisite funding for the long-term monitoring of this system for a period as agreed to in the Functional Servicing Report (assumption) once the facilities are operational, to the satisfaction of the TRCA.
- j) To provide for planting, and enhancement of all natural heritage features and buffer areas in accordance with the drawings approved by the TRCA. And, that monitoring and replanting of these areas be completed for a minimum 3 year period, to the satisfaction of the TRCA, with sufficient funds being secured through a Letter of Credit in favour of the City of Brampton, or other appropriate measure.
- k) To provide for the warning clauses and information identified in TRCA's conditions.
- l) That, where required to satisfy TRCA's conditions, development shall be phased within this Plan.
- m) That prior to a request for renewal of Draft Approval of any phase of this subdivision, that the owner consult with the TRCA with respect to whether the technical studies submitted in support of this development remain to meet current day requirements, and that the owner update any studies and plans, as required, to reflect current day requirements.
- n) To carry out, or cause to be carried out the cleaning-out and maintenance of all stormwater management infrastructure (including best management practice measures) prior to assumption of the subdivision by the Town of Caledon. And, to include appropriate clauses in all agreements of purchase and sale agreements, for lots and blocks on which stormwater management measures are being constructed to identify the presence of such measures and to clearly identify the owners responsibilities for long-

term maintenance, and any restrictions to uses on any portion of their property that these may require.

- o) To gratuitously dedicate Block 147 to the City of Brampton, in a condition that is satisfactory to the City of Brampton and TRCA.
- p) That all community information maps and promotional sales materials for lots or blocks adjacent to Block 147 (i.e., environmental protection areas and their associated buffers, and on which existing vegetation or reforested lands will be present) clearly identify the presence of these features, identify limitations to permitted uses within these areas, and restrictions to access.

Purchase and Sale Agreements

- 5. That a warning clause be included in all agreements of purchase and sale, and information be provided on all community information maps and promotional sales materials for lots and blocks adjacent to Block 147 (environmental protection blocks and their associated buffers), which identifies the following:
 - a) That a natural environmental restoration block is being provided adjacent to the subject property. These blocks are considered to be part of the publically owned environmental protection area and will remain in a naturalized state. Private uses are not permitted on these lands. Uses such as private picnic; barbeque or garden areas; storage of materials and/or the dumping of refuse or ploughed snow are not permitted on these lands. In addition, access to the environmental protection lands such as private rear yard gates is prohibited.

Implementing Zoning By-law

- 6. That the implementing zoning by-law recognize all natural heritage features and environmental buffer blocks in suitable zoning category which has the effect of prohibiting development and structural encroachment, and ensuring the long-term preservation of the lands in perpetuity, to the satisfaction of the TRCA.



5650 Hurontario Street
Mississauga, ON, Canada L5R 1C6
t 905.890.1010 1.800.668.1148
f 905.890.6747
www.peelschools.org

August 11th, 2016

Mr. Nasir Mahmood
Development Planner
City of Brampton
2 Wellington Street West
Brampton, ON L6Y 4R2

Dear Mr. Mahmood:

RE: **Revised Application to Amend the Official Plan, Zoning By-law and Proposed Draft Plan of Subdivision – 21T-13004B / C10E04.005**
Malon Given Parsons Ltd. – Tacc Holborn
8863 The Gore Road
Northeast corner of The Gore Road and Queen Street East
City of Brampton (Ward 8)

The Peel District School Board has reviewed the above noted application (124 detached and 152 townhouse units) based on its School Accommodation Criteria and has the following comments:

The anticipated yield from this plan is as follows:

97	K-6
24	7-8
46	9-12

The students are presently within the following attendance areas:

	<u>Enrolment</u>	<u>Capacity</u>	<u># of Portables</u>
Thorndale P.S.	661	665	2
Beryl Ford P.S.	873	772	5
Castlebrooke S.S.	1,885	1,533	11

The Board requires the inclusion of the following conditions in the Development Agreement as well as the Engineering Agreement:

1. Prior to final approval, the City of Brampton shall be advised by the School Board(s) that satisfactory arrangements regarding the provision and distribution of educational facilities have been made between the developer/applicant and the School Board(s) for this plan.

Trustees
Janet McDougald, Chair
Suzanne Nurse, Vice-Chair
Carrie Andrews
Stan Cameron
Robert Crocker
Nokha Dakroub

David Green
Sue Lawton
Brad MacDonald
Kathy McDonald
Harkirat Singh
Rick Williams

Director of Education and Secretary
Tony Pontes

Associate Director,
Instructional Support Services
Scott Moreash

Associate Director,
Operational Support Services
Jaspal Gill



2. The developer shall agree to erect and maintain signs at the entrances to the subdivision which shall advise prospective purchases that due to present school facilities, some of the children from the subdivision may have to be accommodated in temporary facilities or bused to schools, according to the Board's Transportation Policy.
3. The Board requires that the following clause be placed in any agreement of purchase and sale entered into with respect to any lots on this plan, within a period of five years from the date of registration of the development agreement:

"Whereas, despite the efforts of the Peel District School Board, sufficient accommodation may not be available for all anticipated students in the neighbourhood schools, you are hereby notified that some students may be accommodated in temporary facilities or bused to schools outside of the area, according to the Board's Transportation Policy. You are advised to contact the School Accommodation department of the Peel District School Board to determine the exact schools."

4. The Board requires that the following clause be placed in any agreement of purchase and sale entered into with respect to any units in this plan, within a period of five years from the date of registration of the development agreement:


"The purchaser agrees that for the purposes of transportation to school the residents of the development shall agree that the children will meet the school bus on roads presently in existence or at another designated place convenient to the Board."

An addition, portables, boundary change and/or school re-organization may be required at the affected school(s) to accommodate the anticipated number of students from this development.

The Board wishes to be notified of the decision of Council with respect to this proposed application.

If you require any further information please contact me at 905-890-1010, ext. 2217.

Yours truly,



Amar Singh, BURPI

Planner

Planning and Accommodation Dept.

- c. B. Bielski, Peel District School Board
K. Koops, Dufferin-Peel Catholic District School Board (email only)



Dufferin-Peel Catholic District School Board
 40 Matheson Boulevard West, Mississauga, ON, L5R 1C5, Tel: (905) 890-1221

August 4, 2016

Nasir Mahmood
 Development Planner
 Planning, Design and Development
 City of Brampton
 2 Wellington Street West
 Brampton, ON L6Y 4R2

Dear Mr Mahmood:

Re: Revised Circulation
Application to Amend the Official Plan, Zoning By-Law and Proposed Draft Plan of Subdivision
Malone Given Parsons Limited – TACC Holborn Corporation
8863 The Gore Road
File: 21T-13004B (C10E04.005)
City of Brampton – Ward 10

The Dufferin-Peel Catholic District School Board has reviewed the above noted application based on its School Accommodation Criteria and provides the following comments:

The applicant proposes a development of 124 detached and 152 townhouse units which are anticipated to yield:

- 37 Junior Kindergarten to Grade 8 Students; and
- 22 Grade 9 to Grade 12 Students

The proposed development is located within the following school catchment areas which currently operate under the following student accommodation conditions:

Catchment Area	School	Enrolment	Capacity	# of Portables // Temporary Classrooms
Elementary School	St Andre Bessette	672	556	6
Secondary School	Cardinal Ambrozic	1332	1236	7

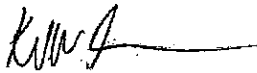
The Board requests that the following conditions be incorporated in the conditions of draft approval:

1. That the applicant shall agree in the Servicing and/or Subdivision Agreement to erect and maintain information signs at all major entrances to the proposed development advising the following: "Please be advised that students may be accommodated elsewhere on a temporary basis until suitable permanent pupil places, funded by the Government of Ontario, are available." These signs shall be to the Dufferin-Peel Catholic District School Board's specifications, at locations determined by the Board and erected prior to registration.

2. That the applicant shall agree in the Servicing and/or Subdivision Agreement to include the following warning clauses in all offers of purchase and sale of residential lots.
- (a) "Whereas, despite the best efforts of the Dufferin-Peel Catholic District School Board, sufficient accommodation may not be available for all anticipated students from the area, you are hereby notified that students may be accommodated in temporary facilities and/or bussed to a school outside of the neighbourhood, and further, that students may later be transferred to the neighbourhood school."
 - (b) "That the purchasers agree that for the purpose of transportation to school, the residents of the subdivision shall agree that children will meet the bus on roads presently in existence or at another place designated by the Board."

The Board will be reviewing the accommodation conditions in each Education Service Area on a regular basis and will provide updated comments if necessary.

Yours sincerely,



Keith Hamilton
Planner
Dufferin-Peel Catholic District School Board
(905) 890-0708, ext.24224
Keith.hamilton@dpcdsb.org

c: B. Vidovic, Peel District School Board (via email)



Enbridge Gas Distribution
500 Consumers Road
North York, Ontario M2J 1P8
Canada

August 25, 2016

Nasir Mahmood
Development Planner
Planning and Infrastructure Services
City of Brampton
2 Wellington St W
Brampton, ON L6Y 4R2

Dear Nasir Mahmood,

Re: Official Plan Amendment, Zoning By-Law Amendment & Zoning By-Law Amendment
Gagnon & Law Urban Planners Limited – Tacc Holborn Corporation
8863 The Gore Road
City of Brampton
File No.: C10E04.005 & 21T-13004B

Enbridge Gas Distribution does not object to the proposed application(s).

This response does not constitute a pipe locate or clearance for construction.

The applicant shall contact Enbridge Gas Distribution's Customer Connections department by emailing SalesArea20@enbridge.com for service and meter installation details and to ensure all gas piping is installed prior to the commencement of site landscaping (including, but not limited to: tree planting, Silva cells, and /or soil trenches) and/or asphalt paving.

If the gas main needs to be relocated as a result of changes in the alignment or grade of the future road allowances or for temporary gas pipe installations pertaining to phase construction, all costs are the responsibility of the applicant.

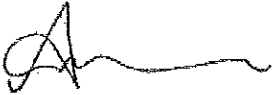
Easement(s) are required to service this development and any future adjacent developments. The applicant will provide all easement(s) to Enbridge Gas Distribution at no cost.

In the event a pressure reducing regulator station is required, the applicant is to provide a 3 metre by 3 metre exclusive use location that cannot project into the municipal road allowance. The final size and location of the regulator station will be confirmed by Enbridge Gas Distribution's Customer Connections department. For more details contact SalesArea20@enbridge.com.

The applicant will grade all road allowances to as final elevation as possible, provide necessary field survey information and all approved municipal road cross sections, identifying all utility locations prior to the installation of the gas piping.

Enbridge Gas Distribution reserves the right to amend or remove development conditions.

Sincerely,



Allison Sadler
Municipal Planning Advisor
Distribution Planning & Records

—
ENBRIDGE GAS DISTRIBUTION
TEL: 416-495-5763
500 Consumers Rd, North York, ON, M2J 1P8
enbridgegas.com
Integrity. Safety. Respect.

AS/jh

Mahmood, Nasir

From: Samuel.Ives@HydroOne.com
Sent: 2016/08/09 1:23 PM
To: Mahmood, Nasir
Subject: City of Brampton (8863 The Gore Road) File 21T-13004B

Categories: Red Category

Draft Plan of Subdivision No. 21T-13004B

We have reviewed the documents concerning the above noted Draft Plan of Subdivision Application and have no comments or concerns at this time.

Our preliminary review considers issues affecting Hydro One's 'High Voltage Facilities and Corridor Lands' only.

For proposals affecting 'Low Voltage Distribution Facilities' the Owner/Applicant should consult their local area Distribution Supplier.

Where Hydro One is the local supplier the Owner/Applicant must contact the Hydro subdivision group.

subdivision@Hydroone.com or call 1-866-272-3330.

If you have any questions please call me at the number below.

Thank you.

Dennis De Rango
Specialized Services Team Lead
905-946-6237

This email and any attached files are privileged and may contain confidential information intended only for the person or persons named above. Any other distribution, reproduction, copying, disclosure, or other dissemination is strictly prohibited. If you have received this email in error, please notify the sender immediately by reply email and delete the transmission received by you. This statement applies to the initial email as well as any and all copies (replies and/or forwards) of the initial email.



THE CORPORATION OF THE CITY OF BRAMPTON
BY-LAW

Number _____ **2021**

To Adopt Amendment Number
OP 2006- _____ to the Official
Plan of the City of Brampton
Planning Area

The Council of The Corporation of the City of Brampton, in accordance with the provisions of the *Planning Act*, R.S.O. 1990, c.P. 13, hereby ENACTS as follows:

1.0 Amendment Number OP 2006 – _____ to the Official Plan of the City of Brampton Planning Area is hereby adopted and made part of this by-law.

READ a FIRST, SECOND and THIRD TIME, and PASSED in OPEN COUNCIL, this
_____ day of _____, 2021.

Approved as to
form.

____/____/____

PATRICK BROWN – MAYOR

Approved as to
content.

____/____/____

PETER FAY – CLERK

AMENDMENT NUMBER OP
2006 – _____ to the Official
Plan of the City of Brampton
Planning Area

AMENDMENT NUMBER OP
2006 – _____ TO THE
OFFICIAL PLAN OF THE CITY
OF BRAMPTON PLANNING
AREA

1.0 Purpose:

The purpose of this amendment is to change the land use designations of the lands shown outlined on Schedule A to this amendment to permit a range of residential units and facilitate an office node on the lands.

2.0 Location:

The lands subject to this amendment are located on the northeast corner of The Gore Road and Queen Street East. The property has a frontage of approximately 500 metres (1640.42 feet) on The Gore Road and a frontage of approximately 160 metres (524.93 feet) on Queen Street East, and is legally described as Part of Lots 4 and 5, Concession 10, Northern Division, in the City of Brampton.

3.0 Amendments and Policies Relative Thereto:

- 3.1 The document known as the Official Plan of the City of Brampton Planning Area is hereby amended:
- (1) By adding to the list of amendments pertaining to Secondary Plan Area Number 41: Bram East as set out in Part II: Secondary Plans, Amendment Number OP 2006-_____;
- 3.2 The portions of the document known as the 1993 Official Plan of the City of Brampton Planning Area which remain in force, as they relate to the Bram East Secondary Plan (Part II Secondary Plan, as amended) are hereby further amended:
- (1) By changing on Schedule SP 41(A) of Chapter 41 of Part II: Secondary Plan, the land use designations shown on Schedule A to this amendment from “Employment Lands-Neighbourhood Retail” to “Residential Lands-Medium Density”, from “Employment Lands-Mixed Commercial/Industrial” to “Residential Lands-Medium Density”, from “Employment Lands-Mixed Commercial/Industrial” and “Special Policy Area 8 (Office Node-Mixed Commercial/Industrial)” to “Residential Lands-Medium Density”, from “Employment Lands-Mixed Commercial/Industrial” and “Special Policy Area 8 (Office Node-Mixed Commercial/Industrial)” to “Residential Lands-Cluster/High Density” and “Special Policy Area 18-Mixed Use High Density”,

“Employment Lands-Office Node” and “Special Policy Area 19 (Office)”, “Open Space-Valleyland”, “Open Space-Neighbourhood Park”, and “Open Space-Storm Water Management Facility”.

- (2) By adding Section 3.1.27 of Chapter 41 of Part II: Secondary Plan.

3.1.27 Special Policy Area 18 (Mixed use High Density)

- (a) A high-density mixed-use block shall be located fronting The Gore Road to form a transition between the employment uses along Queen Street East, and residential uses to the north and east. The block shall be developed as a mixed-use development that may include a full range of offices, retail and service activities, institutional uses, and multiple residential uses with a maximum permitted density of 1,000 units per hectare, a minimum building height of 3 storeys, and a maximum building height of 35 storeys.
- (3) By adding Section 3.2.39 of Chapter 41 of Part II: Secondary Plan.

3.2.39 Special Policy Area 19 (Office Node)

- (a) The Special Policy Area 19 (Office) designation shall have a minimum area of 3 hectares (7.5 acres) and shall be developed to accommodate a minimum of 860 office jobs.
- (b) Complementary commercial and business support uses are permitted but are restricted to a maximum percentage of floor space within the office buildings in accordance with the provisions of the implementing Zoning By-law, and shall not count towards the employment target of 860 jobs.
- (c) Buildings at the intersection of The Gore Road and Queen Street East shall provide a focus for intensification, and shall be sited and orientated to address the intersection and contribute to the establishment of a well-structured focal point. A superior form of architectural design and detail, in addition to site design, landscaping and buffer treatment shall be required to recognize, establish and reinforce their focal significance.

- (d) Buildings fronting Queen Street East and The Gore Road shall have a minimum height of 3 storeys, with a built form that is pedestrian friendly and easily accessible.

Approved as to Content:

Allan Parsons, MCIP, RPP
Director, Planning and Development Services

DRAFT

Date: 2020-01-29

Subject: **Sustainability Metric Program Update**

Contact: Stavroula Kassaris, Environmental Planner, Public Works and Engineering, stavroula.kassaris@brampton.ca, 905-874-2083

Report Number: Public Works & Engineering-2021-442

Recommendations:

1. That the report titled: **Sustainability Metrics Program Update** to the Planning and Development Committee meeting of April 26, 2021, be received;
2. That Council endorse the updated Sustainability Metrics in principle; and
3. That staff be directed to develop updated Sustainability Thresholds and report back to Planning and Development Committee with the final updated Sustainability Metrics and Sustainability Thresholds, as well as enhanced performance requirements for urban and town centres.

Overview:

- In 2015, the City of Brampton commenced the implementation of the **Sustainability Metrics and Sustainability Score Thresholds** to evaluate the sustainability performance of new development.
- The Sustainability Metrics were developed in partnership with the Cities of Richmond Hill and Vaughan, and are currently applied to Block Plan, Draft Plan of Subdivision, and Site Plan applications across all three municipalities.
- Sustainability, particularly as it relates to best practice regarding the design and construction of buildings and neighbourhoods, is an area of rapid change.
- In 2018, the Cities of Brampton, Vaughan, and Richmond Hill collaboratively embarked on an update to the Sustainability Metrics, and in 2019 the City of Markham also joined the partnership.

- **A revised suite of Sustainability Metrics have been drafted in consultation with internal staff and external stakeholders.**
- **The purpose of the report is to seek Council endorsement of the revised suite of Sustainability Metrics and direction to proceed with establishing updated Sustainability Score Thresholds and enhanced performance requirements for urban and town centres.**

Background:

Municipalities play a pivotal role in responsibly managing growth and facilitating the development of communities that are environmentally, socially, and economically sustainable. The planning, design, construction, and management of new development has a significant impact on matters ranging from public health, climate change, resource use, social equity, and local economic development.

Provincial legislation, plans, and policies encourage the establishment of sustainable, complete communities, including, but not limited to, the *Municipal Act*, *Planning Act*, Provincial Policy Statement, A Place to Grow: Growth Plan for the Greater Golden Horseshoe, and A Made-in-Ontario Environment Plan. This is further supported by regional and local plans, such as the Region of Peel's Official Plan and Healthy Development Framework, as well as the City of Brampton's Official Plan, Brampton 2040 Vision, Brampton Grow Green Environmental Master Plan, and Community Energy and Emissions Reduction Plan.

In response, between 2013 and 2015, the City of Brampton in partnership with the Cities of Richmond Hill and Vaughan developed Sustainability Metrics and Sustainability Score Thresholds to guide, measure, and evaluate the sustainability performance of new development. The Sustainability Metrics and associated tools outlined below were recognized by the Ontario Professional Planners Institute (OPPI) through its Research and New Direction: Excellence in Planning award, as well as the American Planning Association through its Award of Excellence in Sustainability:

- **Sustainable Community Development Guidelines (SCDGs):**
A chapter within the City's Development Design Guidelines, the SCDGs provide recommended design approaches for the built environment to establish more vibrant and environmentally sustainable new development.
- **Sustainability Metrics (Metrics):**

A set of indicators to evaluate the sustainability performance of new development, organized around the categories of Built Environment, Mobility, Natural Environment and Open Space, and Green Infrastructure and Building. Each of the approximately 50 Sustainability Metrics available are assigned a point value, and the combination of Metrics selected by the development proponent results in a final Sustainability Score. Development proponents are able to select any combination of Metrics to achieve the minimum required Score. This enables the proponent to choose Metrics that best suit their individual property, project, and level of sustainability aspiration.

- **Sustainability Assessment Tool (SAT):**
An online platform that development proponents use to calculate their Sustainability Score by answering a series of questions regarding the Metrics achieved through their development proposal. When a development proponent submits their planning application to the municipality, they must include the Sustainability Score/Summary produced by the SAT alongside other prescribed studies, drawings, and materials required for a complete application.
- **Sustainability Score Thresholds (Thresholds):**
Performance levels achieved by the Sustainability Score of a development proposal, and categorized as Bronze, Silver, or Gold. As of July 2018, the City of Brampton requires development proposals to achieve a minimum Bronze level Sustainability Score. In July 2020, the City's Planning and Development Committee requested that City staff report back on increasing the minimum Sustainability Score Threshold required for new development (Resolution PDC083-2020).

Sustainability, particularly as it relates to best practice regarding the design and construction of buildings and neighbourhoods, is an area of rapid change. As such, in 2018, the Cities of Brampton, Vaughan, and Richmond Hill collaboratively started a process to update the existing Sustainability Metrics, and in 2019 the City of Markham also joined the partnership. This comprehensive update to the Sustainability Metrics program was driven by (refer to Appendix 1 for more details):

- amendments to the *Planning Act*;
- other changes to Provincial legislation and plans;
- updates to the Ontario Building Code; and
- revisions to City plans, policies, and guidelines.

This Sustainability Metrics Update Project is comprised of the following phases:

Phase 1:	<ul style="list-style-type: none"> • Review and update the current Sustainability Metrics.
-----------------	---

(Q4 2018 - Q1 2021)	
Phase 2: (Q2 2021 - Q4 2021)	<ul style="list-style-type: none"> • Develop updated Sustainability Score Thresholds. • Explore enhanced performance requirements for urban and town centres. • Update the Sustainability Assessment Tool to reflect revised metrics and thresholds.
Phase 3: (Q4 2021 - Q1 2022)	<ul style="list-style-type: none"> • Refresh program outreach and education materials. • Develop new training videos to improve program knowledge and compliance.
Phase 4: (Q2 2022 - Q4 2022)	<ul style="list-style-type: none"> • Investigate potential incentives to increase uptake of specific metrics and encourage development proposals to exceed the minimum required sustainability score.

Phase 1: Comprehensive Update of Sustainability Metrics

The City of Richmond Hill retained consultant Morrison Hershfield to assist with the review and update of the Sustainability Metrics, guided by a Technical Advisory Team comprised of staff from all four partner municipalities.

The partners developed a robust engagement process with the Building Industry and Land Development Association (BILD) throughout 2020 and into 2021 and included the establishment of a working group between the partner municipalities and BILD that would regularly meet to discuss final refinements to the Metrics to ensure that they are clear, measurable, and implementable.

Based on the initial research and feedback received through the stakeholder consultation, a report was prepared by Morrison Hershfield outlining their recommended updates to the metrics for consideration by the partner municipalities (refer to Appendix 2).

Current Situation:

Proposed Updates to the Sustainability Metrics

Morrison Hershfield and the partner municipalities have completed the major revisions to the Metrics, achieving a key milestone in the collaborative Sustainability Metrics Update Project. The comprehensive updates, which are detailed in the Sustainability Metrics Update Report prepared by Morrison Hershfield (refer to Appendix 2), maintain a menu of over 50 metrics that the development industry can choose from. Provided below is a summary of the recommended updates.

Metrics Recommended for Removal

Several Metrics are recommended for removal due to a number of factors. In particular, many of these Metrics are redundant because their requirements are now covered by the City's Official Plan, Zoning By-law, and other municipal standards, and/or by the Ontario Building Code. In addition, some of the Metrics are no longer relevant due to shifts in industry practice. Some Metrics were either removed entirely or incorporated into new or revised Metrics, where appropriate.

Metrics Recommended to be Carried Forward with Changes

A majority of the existing Metrics were confirmed to still be relevant and contribute to the Metric variety and flexibility requested by the development industry since the launch of the Sustainability Metric Program. Changes to these Metrics range from minor to major, were informed by research and stakeholder feedback, and focus on:

- improving clarity;
- addressing new sustainability standards and best practices;
- adjusting point allocations; and/or
- advancing municipal sustainability priorities.

New Metrics Recommended

Through the update process, 14 new metrics are proposed to be added. They seek to add more variety to the suite of Metrics, and represent avenues of best practices in sustainability that have gained traction since the program was introduced. Several of the proposed new Metrics recommended focus on encouraging energy efficiency, GHG emission reduction, as well as climate change adaptation and resilience.

A new "Innovation" Metric provides additional flexibility and encourages creativity by allowing applicants to present new ideas beyond what is identified in the program that result in significant sustainability benefits.

Next Steps:

- City of Brampton staff will proceed with Phases 2 and 3 of the project, which includes developing updated Sustainability Score Thresholds, and exploring enhanced performance requirements for urban and town centres.
- City staff will report back to Planning and Development Committee with recommended updates to the Thresholds that reflect the revised suite of Sustainability Metrics, as

well as an approach for enhanced sustainability performance requirements for urban and town centres.

- The City of Richmond Hill also retained Morrison Hershfield to research potential incentives that could be provided to development proponents that would encourage achievement of higher Sustainability Score Thresholds. The resultant report will be used by City of Brampton staff as part of its exploration of potential incentives tailored to the context, needs, and goals of our city (Phase 4).

Corporate Implications:

Financial Implications:

There are no immediate direct financial implications resulting from the approval of the recommendations of this report.

Other Implications:

There are no other implications resulting from the approval of the recommendations of this report.

Term of Council Priorities:

The Sustainability Metric Update Project directly fulfills the “Brampton is a Green City” Term of Council Direction, in particular Council Priority “Sustainable Growth” that includes the Key Initiative to “continue the development and implementation of the Development Guidelines and the Sustainability Assessment Tool”.

The Sustainability Metric Update Project also contributes to the Term of Council priorities of “Brampton is Healthy and Safe City” and “Brampton is a Well Run City”.

Conclusion:

Green development standards, such as the Sustainability Metrics and associated Sustainability Score Thresholds, are a critical tool for municipalities to encourage and accelerate the delivery of complete communities that foster public health, protect nature, and bolster local economies, while also supporting municipal, provincial, and federal climate change goals. The Sustainability Metrics Update Project is a collaborative endeavour that will help elevate the sustainability performance of new development across four of the fastest growing municipalities of Greater Toronto Area. With a revised suite of Metrics, the City will undertake the next phase of modernizing the Sustainability

Metrics Program through an update of the Sustainability Thresholds and Sustainability Assessment Tool, and report back to Planning and Development Committee.

Authored by:

Reviewed by:

Stavroula Kassaris, Environmental
Planner

Michael Won, Director, Environment &
Development Engineering

Approved by:

Submitted by:

Jayne Holmes, Acting Commissioner,
Public Works & Engineering

David Barrick, Chief Administrative Officer

Attachments:

Appendix 1 – Summary of Key Legislation and Policy Changes Since the Development of the Original Sustainability Metrics

Appendix 2 – Sustainability Metrics Update report prepared by Morrison Hershfield

Summary of Key Legislation and Policy Changes Since the Development of the Original Sustainability Metrics

Revisions to the Planning Act:

Bill 73, Smart Growth for Our Communities Act, 2015 added provisions to Section 2 of the Planning Act that make “built form that is well designed, encourages a sense of place, provides for public places that are of high quality, safe, accessible, attractive and vibrant” as a matter of Provincial interest.

Changes to Provincial legislation and plans:

Bill 68, Modernizing Ontario's Municipal Legislation Act, 2017 expanded the general power of municipalities to regulate with respect to environment sustainability and climate change. Bill 139, Building Better Communities and Conserving Watersheds Act, 2017, introduced the requirement for municipal Official Plans to include policies that identify goals, objectives, and actions to mitigate greenhouse gas (GHG) emissions and adapt to climate change. Updates to the Growth Plan for the Greater Golden Horseshoe, Oak Ridges Moraine Conservation Plan, Greenbelt Plan, and Provincial Policy Statement have put sustainability and climate change at the forefront in landuse planning. In 2018, the Province released the Made-in-Ontario Environment Plan, which outlines Ontario's (GHG) emission reduction targets and actions for achieving them.

Updates to the Ontario Building Code:

Advancements in the Building Code have made some of the original metrics redundant, particularly in relation to energy and water use efficiency.

City plans, policies, and guidelines:

City of Brampton documents, such as the Term of Council Priorities, Brampton Grow Green Environmental Master Plan, Community Energy and Emissions Reduction Plan, and Landscape Development Guidelines have established new or enhanced targets and directives to facilitate environmental sustainability and climate change mitigation and adaptation.



Final Report

Sustainability Metrics Update

Presented to:

City of Richmond Hill

225 East Beaver Creek Road, Richmond Hill, Ontario,
Canada

Prepared by:

Mark Lucuik, P.Eng. LEED Fellow
Director of Sustainability, Morrison Hershfield

Patricia Escobar, P.Eng. LEED AP BD+C
Sustainability Consultant, Morrison Hershfield

Neel Bavishi, P.Eng., CEM
Building Energy Consultant, Morrison Hershfield

May 5, 2020

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	I
EXECUTIVE SUMMARY	II
1. INTRODUCTION	1
1.1 Background	1
1.2 Sustainability Defined	3
1.3 Process	5
2. UPDATES TO THE METRICS	9
2.1 Points Allocations and Threshold Scores	9
2.2 Review of Point Allocations	10
2.3 Metrics Carried Forward with Minor Changes Only	10
2.4 Removed Metrics	11
2.5 New Metrics	11
2.6 Metrics with Changes	15
2.7 Energy and GHG Reduction Metrics	22
3. CONCLUSION	24
3.1 Next Steps and Implementation	24
APPENDIX A: Sustainability Metrics Guidebook (current to December 2020)	
APPENDIX B: Metrics Re-Numbering	
APPENDIX C: Energy and GHG Analysis	

ACKNOWLEDGMENTS

The Sustainability Metrics Update and Incentives Project (Project) represents a unique collaboration between the City of Richmond Hill, City of Brampton, City of Vaughan and the City of Markham.

Morrison Hershfield (MH) was retained to complete the Project. The Project was undertaken in two parts, Part one is to update the inter-municipal Sustainability Metrics in response to changes in Provincial planning policy and legislation. This part was done in collaboration with the municipal partners and is summarized in this report. Part two which will be completed following the completion of Part one will investigate potential incentives to encourage developments to achieve their sustainability metrics goals, and to recommend the implementation of a Green Roof By-law for the City of Richmond Hill.

The success of this Project is attributed to the numerous agencies, stakeholders and professionals who shared their thoughts and insight during an extensive engagement process. The project team would also like to recognize the members of the Decision-Making Advisory Team and Technical Advisory Team who devoted their time to the completion of part one of this Project. They include the following:

Decision-Making Advisory Team (DMAT)

Sybelle Von Kursell, City of Richmond Hill
 Tony Iacobelli, City of Vaughan
 Michael Hoy, City of Brampton
 Parvathi Nampoothiri, City of Markham

Technical Advisory Team (TAT)

Brian DeFreitas, City of Richmond Hill
 Christine Lee, City of Richmond Hill
 Ruth Rendon, City of Vaughan
 Ash Faulkner, City of Vaughan
 Stav Kassaris, City of Brampton
 Audrey Farias, City of Markham
 Matt Meere, City of Markham
 Haley Patel, City of Markham

Special thanks to key municipal and consultant staff who contributed a wealth of knowledge and detailed comments to the update. The project team would like to acknowledge Clean Air Partnership, Peel and York Region BILD Chapters, York Region Public Health, Toronto and Region Conservation Authority, Credit Valley Conservation Authority, Canada Green Building Council, Atmospheric Fund, and the local development industry.

© 2020, the Corporation of the City of Richmond Hill. All Rights Reserved. The preparation of this study was carried out with assistance from the Government of Canada and the Federation of Canadian Municipalities. Notwithstanding this support, the views expressed are the personal views of the authors, and the Federation of Canadian Municipalities and the Government of Canada accept no responsibility for them.

Consulting Team, Morrison Hershfield

Mark Lucuik
 Patricia Escobar
 Neel Bavishi



EXECUTIVE SUMMARY

The Sustainability Metrics Update and Incentives Project (Project) is a collaboration between the cities of Richmond Hill, Brampton, Vaughan and Markham (the municipal partners). A memorandum of understanding was signed by the municipal partners which included a financial contribution. The Federation of Canadian Municipalities also provided a matching grant of \$50,000 from their Green Municipal Fund.

Morrison Hershfield was retained to complete the Project in two parts. Part one focuses on an update to the Sustainability Metrics indicators. The final deliverable is an update report reflecting an update to the current metrics or the creation of new metrics and targets. Following part one, each individual municipality will focus on project implementation, monitoring, and sharing between municipal partners. Part two is to identify and implement incentives and to recommend a Green Roof By-law for the City of Richmond Hill.

Each Sustainability Metric is an optional choice that will help developments achieve their sustainability goals. Through their proposed developments, applicants must accumulate points by committing to metrics resulting in a score that fall above the mandatory threshold scores endorsed by each respective local municipal Council.

The suite of metrics presented in this report reflect a comprehensive update to the Sustainability Metrics tool that was originally established in partnership by the partner municipalities in 2013. Among other matters, the metrics aim to quantify and rank the sustainability performance of proposed developments and facilitate best practices in sustainable development. Updates to the metrics are briefly summarized in the body of this report with detailed requirements for each metric provided in an appendix that identifies the metric intent, targets, point allocations, document compliance and references. These Sustainability Metrics can apply to a range of planning application types (e.g. block plans, draft plans of subdivision, and site plans) and are organized into four overarching themes, consisting of 43 indicators and 125 optional metrics (depending on plan type) that the development proponent can choose from.

Users should note that the Sustainability Metrics are structured in such a manner that allows an applicant to tailor the sustainability design feature to the site. The benefit to have the same metrics available across multiple municipalities is to help the development industry adhere to a consistent set of sustainable measures that will help provide direction, predictability and reliability. While the Sustainability Metrics are consistent across the partner municipalities, each municipality will elaborate how it intends to encourage the implementation of the tool as part of the planning application review process based on its unique context.

1. INTRODUCTION

1.1 Background

Morrison Hershfield Limited has been retained by the City of Richmond Hill to update the current Sustainability Metrics on behalf of the Sustainability Metrics program's municipal partnership (The Municipal Partners). The partnership was originally made up of the cities of Richmond Hill, Brampton, Vaughan, and now includes Markham.

The current Sustainability Metrics program was launched in 2014 as a tool to achieve healthy, complete, and sustainable communities. The metrics are green development standards that quantify and evaluate the sustainability performance of new development and encourage proponents of development to achieve sustainable design targets that go beyond provincial and municipal requirements. The metrics are adopted as development requirements imposed on the development industry, with typical applicants being developers and their consultant teams. Metrics are assigned a point allocation and applicants are free to choose which metrics they wish to apply to their proposed development site. The total points achieved are then calculated and result in a final sustainability score that is used to evaluate the proposed development. Final sustainability scores are then compared against established threshold scores, as determined by each partner municipality. Threshold scores enable the municipalities to ensure that development applications are achieving a certain level of sustainability performance. The degree and method of adoption is at the discretion of each municipality.

This report highlights an update to the Sustainability Metrics tool. The Sustainability Metrics Update project is intended to accomplish the following objectives:

1. Update the inter-municipal Sustainability Metrics in response to changes in legislation, Provincial Planning policy, and best practices in sustainability since the Sustainability Metrics were first developed;
2. Recommend new Sustainability Metrics that help reduce GHG emissions and aid in achieving the goal of becoming a more sustainable, energy efficient community over the long-term; and
3. Develop an appropriate performance indicator to monitor the success and implementation of the metrics.

Changes to municipal and provincial legislation, policies, and plans have necessitated a review of the Sustainability Metrics program. The previous Provincial government's Climate Change Mitigation and Low- carbon Economy Act, 2016 (repealed on November 14, 2018) and the Climate Change Action Plan establish Ontario's GHG reduction targets and set out actions designed to modify behaviour to achieve these targets. The energy efficiency updates to the Ontario Building Code (January, 2017) have now increased energy efficiency requirements for new buildings to a level beyond that in the existing Sustainability Metrics, meaning that the energy efficiency metrics utilized approved by the three partner municipalities in 2013 are redundant and are not advancing energy efficiency in new development beyond the requirements of the Building Code. Other key factors include the approval of the CTC Source Water Protection Plan (December, 2015), which requires low

impact development techniques, the updates to the Growth Plan for the Greater Golden Horseshoe (May 2019), Oak Ridges Moraine Conservation Plan (May 2017), and Greenbelt Plan (May, 2017), and green infrastructure incorporated into asset management regulation (O. Reg. 588/17). In addition, in March 2020, a draft of York Region's Climate Change Action Plan was released for review.

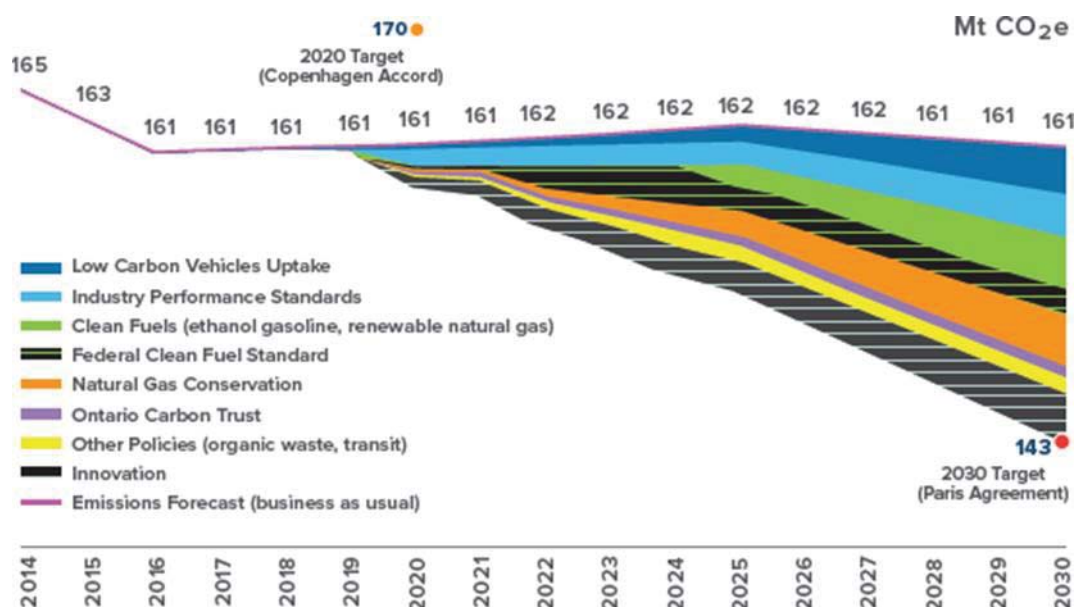


Figure 1: Path to Meeting Ontario's 2030 Emissions Reduction Target (Source: *Preserving and Protecting our Environment for Future Generations: A Made-in-Ontario Environment Plan*, 2018)

Since 2018 there have been a number of changes to Ontario's approach to greenhouse gas reductions, including the adoption of the *Preserving and Protecting our Environment for Future Generations: A "Made -in- Ontario Environment Plan"* (see Figures 1 and 2). This latest plan has major sections related to air and water protection, climate change, waste, and land conservation. Each of these sections is discussed briefly below:

- **Protecting our Air, Lakes and Rivers:** This brief, 7-page section includes some action items but most of these lack the specificity to be beneficial for this work.
- **Addressing Climate Change:** This 15-page segment states that Ontario will reduce its emissions by 30% below 2005 levels by 2030, aligning with Canada's 2030 target under the Paris Agreement. Action items in this section include some focus on resiliency and adaptation, including helpful guidance on how to prevent floods such as keeping your eavestroughs clean. It also includes language around reviewing policies and laws, including the building code, that may affect this project, but the level of detail is insufficient at this time. The plan does encourage innovation and energy conservation and includes a section on reducing transportation emissions by supporting public transportation.
- **Reducing Litter and Waste:** This section includes action items including a banning of food waste from landfill, expansion of green bin systems, guidance on reducing plastic waste, and making producers responsible for waste associated with packaging.

- **Land Conservation:** This section is generally vague in recommendations, but it does state that the Provincial government will work with leaders such as Ducks Unlimited Canada to preserve natural areas and will support the creation of new trails across the province.

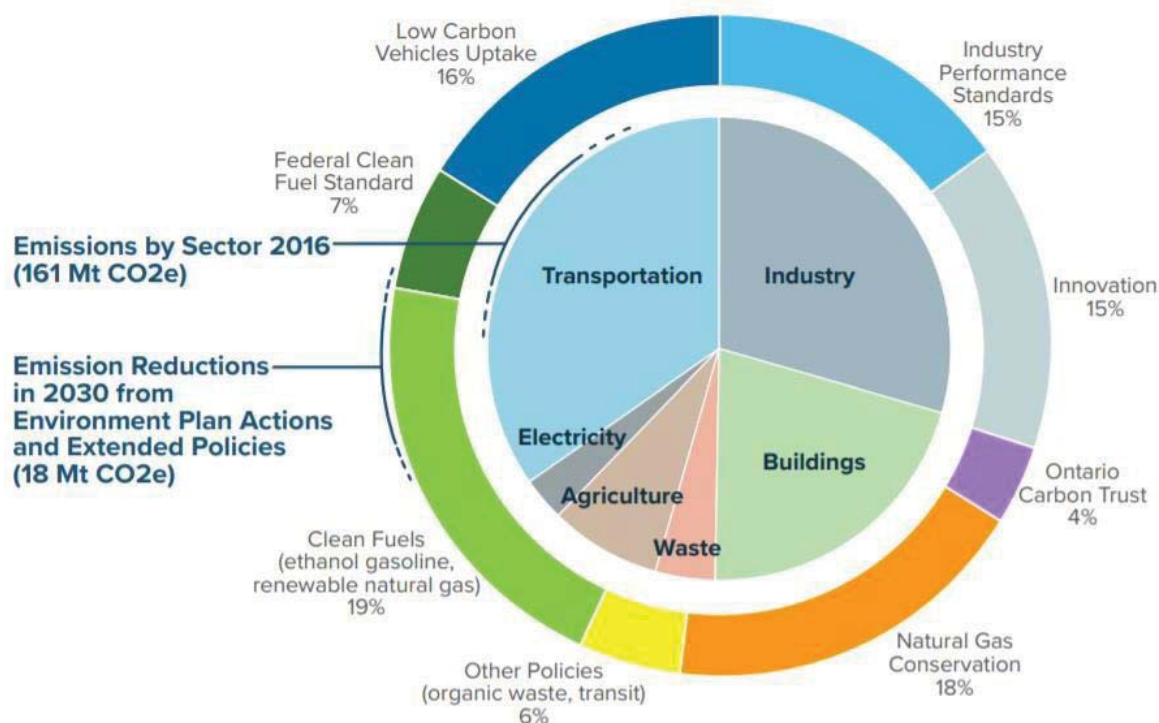


Figure 2: Planned Emission Reductions in 2030 by Sector (Source: *Preserving and Protecting our Environment for Future Generations: A Made-in-Ontario Environment*)

This project is intended to investigate and recommend methods to update and improve the use of the Sustainability Metrics program and in response to climate change concerns to compel the provision of a lower-carbon built form. By updating the existing Sustainability Metrics and providing additional new metrics and programs aimed at facilitating reducing GHG emission reductions in new built form, this project will also support economic development in emerging green building sectors.

1.2 Sustainability Defined

The term “Sustainability” can mean different things to different people. It ranges from energy efficiency to organics, transportation, and the reduction of homelessness. The term covers a very broad spectrum. Fundamentally, sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs. Our needs and future needs include natural, social and economic resources. These are the three pillars of sustainability, each of which must be considered to fully meet our current and future needs (refer to Figure 3).

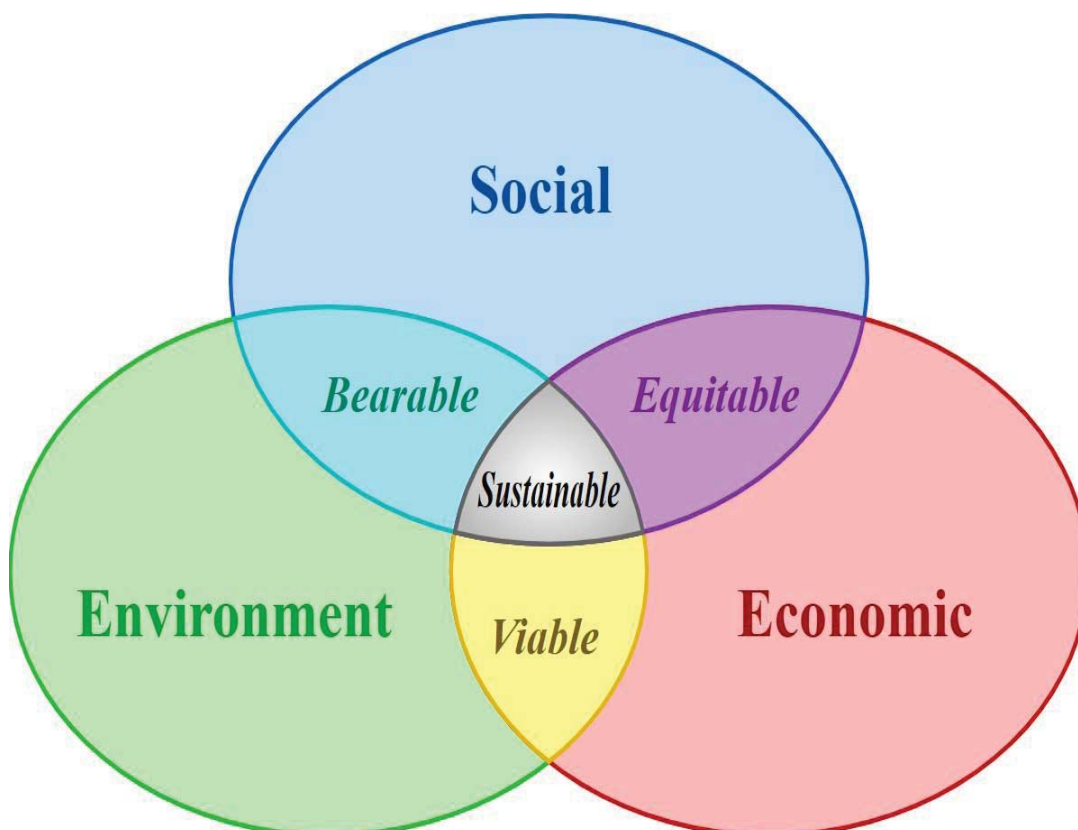


Figure 3: Three Pillars of Sustainability (source: Adam, W.M. IUCN, 2006 retrieved from <https://portals.iucn.org/library/sites/library/files/documents/Rep-2006-002.pdf>)

The following is a brief description of the three pillars of Sustainability:

- **Environmental Sustainability:** Ecological integrity is maintained and all of earth's environmental systems are kept in balance. Natural resources are consumed by humans at a rate where they are able to replenish themselves.
- **Economic Sustainability:** Communities have access to the resources that they require, financial and other, to meet their needs. Economic systems are intact and activities are available to everyone, such as secure sources of livelihood.
- **Social Sustainability:** Universal human rights and basic necessities are attainable by all people.

As indicated in Figure 3 above, the three pillars of sustainability are interrelated. Often specific measures adopted to improve sustainability will affect more than one pillar above. As an example, cycling facilities can lead to a more sustainable community environmentally (lower greenhouse gases), socially (exercise and friendship) and economically (enabling transportation for lower income people).

The metrics presented should be considered in relation to their impact in all three pillars of sustainability.

1.3 Process

This project is broken into four stages, each of which are described briefly below:

1.3.1 Stage 1: Background Analysis

This project began with background research and evaluation of the current Sustainability Metrics in effect in the City of Richmond Hill, City of Vaughan, and the City of Brampton. The goal of the background research was to identify metrics that require updating due to current or anticipated: industry practices, revised reference documents, direction of other jurisdictions. It included a review of over thirty different documents to provide guidance on the current state of the industry with respect to sustainability, including:

1. Ontario Building Code 2012, as amended
2. USGBC, LEED v4 for Neighborhood Developments, July 2018;
3. USGBC, LEED v4 for Building Design and Construction, 2013;
4. Town of East Gwillimbury, Thinking Green! Development Standards Program, February 2012;
5. The Regional Municipality of York's High Density Residential "Green Building" Incentive Program, November 2015;
6. City of Toronto, Toronto Green Standard Version 3, May 2018;
7. Ontario Climate Change Action Plan 2016, updated to Ontario's Made- in- Ontario Environment Plan, November, 2018;
8. City of Richmond Hill, 2018 Strategic Plan Annual Report, June 2018;
9. City of Richmond Hill, Official Plan, January 2018;
10. City of Richmond Hill, 2017 Energy Consumption and GHG Emissions Report;
11. City of Vaughan Suggested Updates to Sustainability Metrics;
12. City of Vaughan, City of Vaughan Official Plan, September 2010;
13. City of Vaughan, Vaughan Municipal Energy Plan: Plug into a Smart Energy Future, June 2016;
14. City of Vaughan, Urban Design Guidelines;
15. City of Vaughan, Green Directions Vaughan Draft 2019 Community Sustainability Plan, June 2019;

16. City of Brampton, Brampton 2040 Vision, May 2018;
17. City of Brampton, Brampton Grow Green Environmental Master Plan: Implementation Action Plan, May 2014;
18. City of Brampton, 2016-2018 Strategic Plan;
19. Brampton's Sustainable Community Development Guidelines, September 2013;
20. City of Toronto. Toronto Draft Pollinator Protection Strategy. July 2017;
21. Region of Peel, Health Background Study Development of a Health Background Study Framework, May 2011;
22. York Region, Sustainable Development through LEED: A High Density Residential "Green" Building Incentive Program, November 2010;
23. Multiple Toronto and Regional Conservation Authority Guidelines;
24. Aquafor Beach Ltd., Earthfx Inc., Runoff Control Volume Targets for Ontario, October 2016;
25. Federation of Canadian Municipalities (FCM), Sustainable Neighbourhood Development: Practical Solutions to Common Challenges, 2016;
26. World Green Building Council, World Green Building Trends 2018 smartMarket Report, 2018;
27. Canadian Alliance for Sustainable Health Care, Community Wellbeing: A Framework for the Design Professions, July 2018;
28. Intergovernmental Panel on Climate Change (IPCC), Global Warming of 1.5C, October 2018;
29. Energystar. Multifamily high-rise (New Construction Program). October 2019;
30. GBCI Canada, Yorkdale Shopping Centre Parkades, 2017;

The background research phase of the project ended with the development of a comprehensive memo summarizing the research and its impact on the existing sustainability metrics.

1.3.2 Stage 2: Draft Metrics Update

Stage 2 began with a full day workshop with staff from the various municipalities. The purpose of this workshop was to set priorities, identify gaps, anticipate future growth

(population, traffic, and resilience), and identify the stakeholders and organizations that should also be included in this process.

Once the needs and issues were identified by municipal staff and the Technical Advisory Team, they were translated into a draft report of suggested updates and revisions to the metrics. The draft report, similar to this final report, included a description of the process, a summary of the proposed changes to the metrics, including metrics that will be removed, changes to the guidebook and metric targets, metric re-categorization and new metrics that will be introduced.

1.3.3 Stage 3: External Stakeholder Consultation

The Stage 3 Consultation period was carefully planned and carried out by MH facilitating four stakeholder consultation workshops during the last week of January 2020. The TAT recommended the four groups for these separate workshops which were;

1. The local development industry (developers and consultants)
2. Building Industry and Land Development Association (BILD) Peel and York Region Chapters,
3. Members from the York Region, Peel Region, Credit Valley Conservation (CVC) and the Toronto and Region Conservation Authority (TRCA),
4. The Clean Air Partnership, The Atmospheric Fund and the Canadian Green Building Council.

Detailed materials were provided to all invitees in advance and comments were collected during or after the workshops. At least two weeks prior to each workshop, invitations were circulated to invitees. Included in each invite was an agenda, a cover letter to explain the update process of the Sustainability Metrics and an explanation of the purpose of each stakeholder feedback workshop and the full Sustainability Metrics Draft Report with the Appendix A (Sustainability Metrics Guidebook) and Appendix B attached for reference. Further, the cover letter explained that the workshop would discuss the proposed updated Sustainability Metrics with the precedent that attendees reviewed the material prior to the workshop and be prepared for feedback and further discussion.

Comments were collected from attendees at each workshop. Verbal feedback was recorded by the consulting team and TAT members, and written comments where provided were also collected at the end of each session. In addition, stakeholders were given the option to further review or circulate the material to a wider group of stakeholders and submit their written comments during a four week comment period between January 27, 2020 and February 21, 2020.

An additional meeting was scheduled mid-February with the Green Building Certification Inc. (GBCI) to collect further comments and feedback from another valuable stakeholder group. A comprehensive list of feedback and comments was provided by the GBCI after the meeting, during the comment period.

Nearly 25% of the comments received pertained to high level topics. The most notable high level topics included the applicability of points, incentives, point thresholds, the consideration of applications where many metrics are not-applicable and the application review process. All the comments were reviewed and noted, however only comments specific to the update of the metrics could be reflected in the updated Sustainability Metrics Guidebook.

In total, 467 comments were received from external stakeholders. All comments were compiled and reviewed for comments and recommendations by MH. The comments and corresponding recommendations from MH were reviewed by the TAT to finalize the updated Sustainability Metrics.

1.3.4 Stage 4: Final Updated Sustainability Metrics

Based on the research, workshop, and consultations performed, the draft has been updated and recommended updates to the Sustainability Metrics are included in this final report.

2. UPDATES TO THE METRICS

The purpose of this report section is to highlight the changes to the Sustainability Metrics. Updates to each metric were proposed by Morrison Hershfield and discussed with the Technical Advisory Team (TAT) or resulted from consensus of the TAT. This section contains a summary of the resulting changes broken into the following categories: metrics that have been carried forward with minimal change, metrics that have moved forward with major changes, metrics that have been removed, and new metrics. The rationale for each suggested change is also included. The updated Sustainability Metrics Guidebook in Appendix A provides additional detail on the metric intent, requirements for each metric, point allocation and documenting compliance.

2.1 Points Allocations and Threshold Scores

The first iteration of the metrics identified “mandatory”, “minimum” and “aspirational” targets with allocated point scores. Applicants accumulate points by proposing to provide any of the minimum or aspirational metrics as part of their Site Plan, Draft Plan or Block Plan application. Under the current tool, metrics identifying minimum targets are classified as “doing better than you have to” while aspirational targets are considered “best in class”. These targets have since been revised through this update to update the “minimum” and “aspirational” nomenclature so that it is more predictable, flexible and less prescriptive. Through this update, categories now reflect “Good”, “Great” and “Excellent” targets which denote progressively complex requirements that transcend the four main themes of the tool: Built Environment, Mobility, Natural Environment and Open Space, and Infrastructure and Buildings. In addition, a new theme entitled “Innovation” has been recommended to allow flexibility for users of the tool to propose innovative sustainability measures that are not specifically captured but which provide a measurable sustainability benefit. This flexibility is intended to allow users to think progressively and outside of the box when proposing sustainability measures on their development site.

Point scores for metrics are awarded when an applicant demonstrates that its proposed plan has satisfied all of the applicable Good, Great or Excellent targets and corresponding documenting compliance requirements. Users should note that not all metrics include all three of the aforementioned targets which are based on the type of requirements listed. Accordingly, the metrics are structured in a manner that allows an applicant to select the appropriate metric requirements to demonstrate whether a baseline, enhanced or best in class sustainability target is achieved. This principle has not changed since the first iteration of the tool, however as noted above, the following are new categories of targets that replace the former “minimum” and “aspirational” nomenclature used:

- Good (“baseline sustainability performance”),
- Great (“enhanced sustainability performance”),
- Excellent (“best in class sustainability performance”).

The revised categories aim to provide clarity and flexibility by allowing applicants to tailor the sustainable design features to the site. It is the intent that each municipality will update their threshold sustainability scores for incentives it wishes to offer applicants to encourage implementation of the metrics. While the Sustainability Metrics will be consistent across the partner municipalities, each municipality will elaborate how it intends to encourage the

implementation of the metrics as part of the planning application review process based on its own unique context. Point scores allow municipal staff to appreciate the overall sustainability performance of the proposed plan, while also identifying key opportunities to further improve the application's performance relative to municipal priorities based on the five categories of the tool.

2.2 Review of Point Allocations

In updating the Sustainability Metrics, point allocations were also reviewed by the project team to ensure clarity and equity among metric requirements and corresponding point allocations. It should be noted that not all metrics and targets carry the same point allocations. Metrics that support the municipalities' priorities, provide multiple sustainability benefits and which are complex and onerous to implement have been considered carefully and generally awarded a greater point allocation. Moreover, not all plan types will be able to score in every category. Depending on the metric and plan type, the respective points will either be excluded from the total, or the plan will not be awarded points. Accordingly, through this update the project team has considered the point allocations holistically which in some instances has resulted in slight adjustments to the point scores. As a result, points have either been increased to reflect complex requirements, decreased or left unchanged where it was determined that the current score represents an equitable point allocation commensurate with requirements.

2.3 Metrics Carried Forward with Minor Changes Only

The following metrics were identified by the TAT and MH as still relevant and only requiring minor changes.

- 1.H.2. Surface Parking Footprint (Renamed from “off-street parking”)
- Community and Neighbourhood Scale (City of Brampton only)
- 1. I.1. Traffic Calming
- 1. I.2. School Proximity to Transit Routes and Bikeways
- 2. B.2. Intersection Density
- 2. C.1. Distance to Public Transit
- 2. D.2. Implementing Trails and Bike Paths (Included Site Plan Applicability)
- 3. A.1. Access to Public Parks (Renamed from “Park accessibility” and Included municipality-specific targets)
- 3. B.2. Stormwater Quality
- 3. B.3. Greywater Reuse (for Interior Functions) (Renamed from “Rainwater Re-use”)
- 3. B.4. Multi-purpose Stormwater Management (Renamed from Stormwater Architecture/ Features)
- 4. A.1. Passive Solar Alignment

The TAT considered the option of combining some of the above metrics, but reached the consensus not to. Decidedly, each metric has a unique intent, and maintaining a ‘large menu’ of metric options is aligned with feedback consistently received by the development industry. Only minor changes have been made for these metrics. These typically included changes to the metric name to align more accurately with the metric intent, and/or slight adjustments to

the target point allocations. Changes to point allocations are based on discussions with the TAT, the uptake of the metrics to-date, and the desire to incentivize priority targets.

2.4 Removed Metrics

Existing metrics that have received minimal uptake to-date, are redundant, or are no longer relevant, have been removed. The table below provided a brief rationale for removing each metric.

1.A.1- Floor Area ratio/Floor Space index	Removed as this is covered by Official Plans and Zoning By-Laws for implementation.
1.A.2- Persons and Jobs per Hectare	Removed as this is covered by Official Plans and Zoning By-Laws for implementation.
1. C.1- Urban Tree Diversity	Removed as the intent of this metric is covered by municipal guidelines.
1.H.3- Surface parking	Removed as this is difficult to implement and enforce.
1.I.3- Proximity to School	Removed because school locations and school site requirements are generally dictated by school boards, with minimal influence from the developer
1. J.4. Tree Canopy Enhancements	Removed as a standalone metric to streamline metrics with similar intents. Targets from the metric have been revised and incorporated into other metrics.
4. B.2. Water Conserving Fixtures 4. C.1. Parking Garage Lighting 4. C.3. Energy Conserving Lighting	Removed from the metrics because they are redundant with the requirements of the Ontario Building Code (OBC) and therefore enforcement of any mandatory requirements will be covered by OBC.
4.E.2 Material Reuse and recycled content 4.E.3 Recycled/ Reclaimed Materials	The industry is moving away from recycled content as a measure of sustainable materials with the updates to the materials credits in LEEDv4 and TGS v3 as an example. New metrics have been included that concentrate on embodied carbon of materials instead, as described further in section 2.3.

2.5 New Metrics

During the iterative process of exploring updates to the metrics, several new metrics were identified as important to include. New metrics relating to cultural heritage enhancements, climate change adaptation, supporting pollinators and the embodied carbon footprint of materials, are discussed in the section below. These metrics have been finalized based on review and discussion with the MH and the TAT and based on feedback from external stakeholders.

Electric Vehicle (EV) Charging Stations	This metric is based on trends in provincial and municipal sustainability initiatives and consumer trends towards Electrical Vehicles. For example, the Toronto Green Standard v3 mandates all Mid to High Rise Buildings to provide Electric Vehicle Supply Equipment (EVSE) to 20% of parking spaces, with the remaining spaces to be designed to permit future EVSE
---	--

	<p>installation. EV parking spaces was formerly included in metric 1.H.4, but has been separated out to establish new targets that are better aligned with the Toronto Green Standard (TGS) v3.</p>
Embodied Carbon of Building Materials- General	<p>Three new metrics have been included to update the original two materials credits; 4.E.2 Material Reuse and recycled content and 4.E.3 Recycled/ Reclaimed Materials, which have been perceived as outdated relative to the most current version of green building assessment tools, such as LEED. There is a growing awareness of the importance of addressing the carbon associated with building materials (embodied carbon) rather than relying on indirect measures such as recycled content. According to the Athena Sustainable Materials Institute (September, 2019), embodied carbon can be defined as the lifetime greenhouse gas (GHG) emissions associated with material. It is life cycle thinking applied to a product, and includes GHG's associated with the manufacture, transportation and installation of a product, any GHG's related to product maintenance and renewal, and GHG's associated with the end of life of the product. This revised credit encourages an increase in supplementary cementing materials (SCMs) content for concrete, conducting a Life Cycle Assessment (LCA) for materials, and efficient use of wood in low rise housing</p>
Embodied Carbon of Building Materials: Supplementary Cementitious Materials (SCMs)	<p>The use of cement in concrete results in large contributions to GHG emissions. SCMs can be used to offset some cement used, resulting in significant GHG savings. Typically, concrete manufacturers will include around 10% SCMs, but increasing the percent of SCMs can be a simple and effective way to reduce the embodied carbon of concrete materials and in many cases, have no significant impacts to the material cost or project schedule. The good target calls for; including a minimum of 20% SCMs for all concrete on site, is a slight increase to the typical conditions. Note that high SCMs can increase the strength of concrete, alter the colour and increase the time required for curing. For the great target, the requirements are that at least 40% on the concrete on site has a minimum 40% SCM content. This is to recognize projects that have reduced their cement content in a major way while also being mindful that it is not realistic for 40% SCM content to be used on 100% of concrete on site. A strategy, for example, could be to use SCMs for the footings only. The intent of this target is to bring awareness to simple adjustments in best practices that would have a dramatic impact on the development's reduction in embodied carbon emissions.</p>
Embodied Carbon	<p>LCAs are used to quantify the embodied carbon of</p>

of Building Materials: Life Cycle Assessments (LCAs)	<p>building materials. Currently, it is not best practice to conduct LCAs and as a result, there is a knowledge gap between understanding the amount of carbon emissions (embodied carbon) that are required to be generated to manufacture certain building materials. The metric requires the applicant conduct an LCA and consider opportunities for reducing the embodied emissions. This knowledge will allow applicants a better understanding of the actual amount of embodied carbon for certain materials and on what scale it is possible to reduce embodied carbon with the consideration of different materials, building geometry and building design. To conduct LCAs, there are a number software applications available that are free to use and have online tutorials, for example the Athena Impact Estimator for Buildings LCA software: https://calculatelca.com/software/impact-estimator/download-impact-estimator/</p> <p>The intent is to encourage the building industry to increase capacity for conducting LCAs and to understand and reduce embodied carbon. This target aligns with the CaGBC's Zero Carbon Building Standard. The great target awards points for conducting an LCA and identifying carbon reduction strategies. The excellent target awards points for committing to at least one of the identified carbon reduction strategies.</p>
Embodied Carbon of Building Materials: Material Efficient Framing	<p>The other Embodied Carbon metrics are not applicable to low rise, wood framed buildings. A great target aligned with LEED for Homes has been included which prescribes building practices that would result in using less materials, resulting in lower embodied carbon.</p>
Supporting Pollinators	<p>A new metric has been added with the intent to prioritize the habitat and survival of pollinator populations, who play an important role in food production. Recent years have seen a sharp decline in pollinator populations due to climate change, habitat loss and pesticide overexposure. This is significant as a decline in pollinator populations could lead to a decline in plant species, impacting ecosystems and our food security. The targets are intended to maintain and increase the habitat of pollinators.</p> <p>The good and great targets have included requirements to select plant species that provide a habitat for pollinators (i.e., flowering grasses and shrubs) which increases their ability to forage, thrive and maintain their habitat.</p>
Salt Management	<p>A new metric has been added to promote salt reduction during winter maintenance activities. Salt management</p>

	<p>was identified as an important addition to the metrics. Reducing salt can extend pavement life, reduce the effects of salt corrosion on buildings, and minimized impacts on terrestrial and aquatic ecosystems. The salt reduction measures listed in the requirements include proper drainage to limit water ponding and freezing, planting salt tolerant landscaping vegetation, using trees as windbreaks around the site perimeter and installing heated or covered walkways.</p>
Sub Metering of Thermal Energy and Water	<p>This new metric has been added based on the discussion and feedback throughout the consultation process to add more metrics that focus on climate change adaptation, including energy and water metering. Sub-metering to track water and energy usage helps increase understanding of how occupant behaviour impacts their energy costs and can motivate building occupants to reduce their energy consumption. Targets have been added for including energy metering and water meters. These targets are in line with the Toronto Green Standard v3 credit GHG 4.4 Submetering.</p>
Back-up Power	<p>This new metric has been added based on the discussion and feedback throughout the consultation process to add more metrics that focus on climate change adaptation. As the frequency of extreme climate events increases, buildings are vulnerable to power outages. Buildings can become more resilient to power outages by incorporating design strategies that enable building owners/users to install and utilize power backup generators.. The metric requirements include providing rough-ins for an external generator or auxiliary power supply and for mid-rise to high rise buildings to provide a refuge area during power failures and/or providing 72 hours of back-up power to essential building systems. These targets are in line with the Building Resilience measures included in the Toronto Green Standard v3 GHG 5.2: Refuge Area and Back-up Power Generation.</p>
Extreme Wind Protection	<p>This new metric has been added based on the discussion and feedback throughout the consultation process to add more metrics that focus on climate change adaptation. The intent of this metric is to encourage more resilient construction to prepare for the increased extreme weather events, specifically for homes against the impact of high wind weather events. The good target requires that roof rafters, roof trusses and roof joists will be tied to loadbearing wall framing with engineered connectors.</p>
Controlling Solar Gain	<p>This metric builds on the intent of the existing Passive Solar Alignment metric to promote energy efficiency through passive solar design. Unwanted or uncontrolled</p>

	solar gain can contribute to unwanted heat gain and increased loads on air conditioning/ cooling systems which can increase energy consumption. A target has been added which requires providing exterior shading for east and west facing windows to control unwanted solar heat gain.
New Category and Metric: Innovation	<p>An innovation category has been added to the metrics, and is aligned with the LEED v4 innovation credit category and has similar requirements and documentation. Although the points will be TBD, the points for the entire category have been capped at a maximum of 10 points.</p> <p>The innovation metric is intended to encourage true innovation resulting in real sustainability benefit. It will include a number of pre-established requirements but should be open to new ideas presented by the applicant.</p>

2.6 Metrics with Changes

This section describes how the existing metrics to remain have been revised or updated. The table below also includes the rationale for changes. Generally, the rationale for most of the changes was to update the metrics to reflect the shifts in the building and development industry since the metrics were developed, and to adjust the targets of original metrics that had a high or low uptake. Where metrics demonstrated a high uptake, more challenging targets were included. Alternatively, changes have been included for metrics with low uptake to align more realistically with today's market with the goal of increasing uptake. Changes were also made to take advantage of demonstrating leadership in sustainability. All changes to the points allocated for metric targets were finalized based on the feedback from stakeholder and through a collaborative discussion that considered the innovation of the metric, potential difficulty, sustainability impact, and other considerations. The updates to the Energy Metrics were significant and have been described in detail in section 2.5 of this report.

General Changes	<p><u>Sustainability Metrics Guidebook Structure (Appendix A)</u></p> <p>The structure of the Sustainability Metrics Guidebook has been changed with the intent of streamlining the presentation and clarifying the points, requirements and documentation for each target. The proposed guidebook most closely resembles the Sustainability Metrics guidebook currently used by the City of Brampton and is in table format. The strategy for reorganizing the structure of the Guidebook included removing the glossary of terms from the proposed guide. We suggest that these resources be available separately for clarity or as a "hover-over" function for digital guides. Where for documentation purposes further descriptions were necessary, such as exclusions, notes have been added</p>
-----------------	---

	<p>under the documentation compliance instructions</p> <p>To streamline the compliance documentation required to confirm the achievement of each metric, the descriptions of “where to demonstrate compliance” and “how to demonstrate compliance” were combined, taking advantage of the many similarities among Block Plan, Draft Plan and Site Plan compliance submittals.</p> <p>Most notably, we have changed the format of the tables for each metric so that the information reads right to left rather than from top to bottom. The goal of this format is for the user of the guidebook to draw clear conclusions as to the points assigned to each metric target, the requirements to achieve these points and the documentation required to confirm compliance. An example of a metric structured in the updated format is demonstrated below in Figure 4.</p>
--	---

Metric:	M-8 Proximity to Active Transportation Network		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To promote active transportation through the provision of enhanced pedestrian walkways multi-purpose paths and bike trails and satisfy City's Official Plan targets. Cycling results in carbon savings and less air pollution. It also provides health benefits and more connectivity between occupants.		
	Points	Requirements	Documenting Compliance
Good Target:	2 points	100% of residents/jobs are within 400 m of existing or Council approved public path/network.	<p>Submit:</p> <p>In the Traffic Impact Study or Transportation Demand Management Plan or Transportation Study:</p> <ul style="list-style-type: none"> Provide a map showing the subject lands/area of development, a 400m buffer from the boundaries of the development as well as any existing or municipally approved cycling networks. <p>Notes:</p> <ul style="list-style-type: none"> These points are only awarded if a cycling network is included in the project boundary and the bike parking requirement is satisfied.
References:	City's Official Plan		

Figure 4: Metric Example from the Updated Sustainability Metrics Guidebook Structure

General Changes	<p><u>Numbering and Category Change for Some Metrics (Appendix B)</u></p> <p>We are proposing that the metrics be re-numbered so that they can be organized effectively for users. We have re-numbered the metrics so that they can be directly associated with one of each of the four categories; Built Environment, Mobility, Natural Environment and Open Space and Infrastructure and Buildings (e.g. BE-1, BE-2, M-1, M-2 etc.). Based on the experience of working with certain metrics, some metrics have been moved to different, more applicable categories.</p>
General Changes	<p><u>Re-naming of Metric Targets from Mandatory, Minimum and Aspirational</u></p> <p>Mandatory Targets have been removed as these are</p>

	<p>required by the Ontario Building Code, provincial and municipal requirements, and other standards. Note that where possible language related to mandatory requirements was incorporated into the metric 'intent'. The requirements and documentation for the remaining targets are located to the immediate right of the target description so that it is easier for applicants to relate the targets, requirements and documentation</p> <p>Many comments received from the external consultation process noted confusion regarding the naming of "minimum" and "aspirational" targets. As noted earlier, to provide clarity, minimum and aspirational targets have been re-named to "good", "great" and "excellent", in part to confirm that minimum targets are not another mandatory requirement and that all credits are optional.</p>
1.B.1 and 1.B.2- Proximity to Basic Amenities/ Lifestyle Amenities	These metrics have been merged for the purpose of simplifying. Additionally, synergies with the LEED ND v4 prerequisite have been included to align with this popular rating system and incorporate existing knowledge and language. Block plan applicability has been removed for this metric to be better aligned with the documentation available at this planning stage.
1.C.2- Preserve Existing Healthy Trees	The name of this metric has been changed from "Maintain Existing Healthy Trees" to "Preserve Existing Healthy Trees" to more accurately reflect the sustainability benefits. Preserving trees and tree canopies were consistently identified as a high priority for all partner municipalities. The targets have been simplified so that all the requirements are increments of the "percent of trees preserved".. The original aspirational target has increased, reflecting the positive shift in the industry regarding maintaining healthy trees in situ.
1.C.3- Soil Quantity and Quality for New Trees	The name has been changed from "Soil Quantity and Quality" to "Soil Quantity and Quality for New Trees" to more accurately reflect the intent of the metric. Originally, there was no minimum target and one aspirational target with many requirements. Parts were separated to a new good target to provide more options for applicants and encourage uptake of this metric. Using similar rationale, a great target was added that builds on existing mandatory municipal requirements.
1. C.4. Enhancing Urban Tree Canopy and Shaded Walkways and Sidewalks	To clarify the intent of this metric, it has been renamed from, "% tree canopy within proximity to building/ pedestrian infrastructure" to "Enhancing Urban Tree Canopy and Shaded Walkways and Sidewalks". An additional aspirational target has been added to include shading for parking areas in addition to sidewalks, as parking lots are another common hardscape with

	opportunities to provide shade to pedestrians.
1.D.1- Buildings Designed and/or Certified Under An Accredited 'Green' Rating System	The targets for this metric have been updated to reflect the growing uptake of building green rating systems. Similarly, language has been updated to include relevant green rating systems. An additional good target has been included to award points for green rating systems that are applicable on a neighborhood scale (LEED ND, One Planet Living).
1.E.1- Universal Design	To recognize concerns with the difficulty of reviewing this metric, additional documentation requirements have been added for applicants to provide more evidence of compliance. Further, the allocation of points for the good/ minimum target has increased.
1.E.2 Universally Accessible Points of Entry	To increase uptake for this metric, the good target has been revised to require a reduced percentage of emergency exits and additional points have been added to the great target.
1.F.1- Design for Life Cycle Housing	There was a discussion of removing this metric from Site Plan applicability because the documentation would likely already to be captured in the Block and Site Plan stages. Based on stakeholder feedback, the Site Plan applicability has been kept for this metric. The intent of this metric has been updated and the language of the target requirements and documentation has been streamlined.
1.H.1- Bicycle Parking	To simplify requirements, bicycle parking space requirements were changed to reference the municipal standards/ guidelines. Municipal bicycle parking standards represent the baseline and points are awarded where bicycle parking is provided at rates higher than what is required by the municipality. In addition, based on feedback from stakeholders and further alignment with the credit intent, requirements have been added for the proximity of bike parking to the building entrance and providing for weather protection.
1. H.4. Carpool Parking	Carpooling and efficient vehicle parking have been separated into separate metrics to clarify their different intents and benefits to sustainability. The carpooling requirements have remained the same and additional language has been included in the requirements to clarify how preferred parking is to be provided.
1.J.1 Connection to Natural Heritage	The good and great targets have been updated for clarity and definitions improved.
1.J.2.Cultural Heritage Conservation	The metric has been revised to reflect different degrees of cultural heritage conservation whereby conserving all cultural heritage attributes in situ has been added as a new 'great' target, and conservation in full conformity with the Standards and Guidelines for the Conservation of Historic Places in Canada is recognized as an 'excellent' target. Moreover, new targets have been established for

	conserving cultural heritage resources through relocation, salvage and reuse of materials.
1.J.3- Natural Heritage System Enhancements	<p>This metric has been revised to prioritize the habitat and survival of pollinator populations within natural heritage systems, and increase biodiversity.</p> <p>New targets have been added to include the preparation and implementation of a Woodland Species Management Plan and an Invasive Management Plan, where they are not already required by the municipality. Points will be earned for providing these management plans, providing habitat structures for Species at Risk, and establishing naturalized corridors connecting at least two natural heritage features.</p>
2.A.1 Pedestrian Amenities	The name has been changed from “Connectivity” to “Pedestrian Amenities” to more accurately reflect the intent and sustainability benefits. The original aspirational target has been kept and one new target has been added for an additional amenity.
2. B.1. Block Perimeter and Length	This metric has been carried forward and another more stringent great/aspirational target was added from the Region of Peel’s Healthy Background Study Framework, Core Element 4: Street Connectivity to provide a framework for applicants that are prioritizing smaller blocks and increased pedestrian walkability.
2. D.1. Proximity to Active Transportation Network	The name has been changed from “Proximity to Cycling Network” to “Proximity to Active Transportation Network” to be better aligned with the intent of promoting a connection to multipurpose paths, pedestrian walkways and bike trails. The original aspirational target has been re-named under a good target and the original minimum target has been removed. This streamlines the requirements of the metric while remaining true to the intent.
2. E.1. Promote Walkable Streets	The original aspirational target has been changed into a good target and the original minimum target has been removed. This streamlines the requirements of the metric while remaining true to the intent.
3.B.1 Stormwater Quantity	An additional excellent target has been added that aligns with Toronto Green Standard version 3, Tier 3. This provides a framework for applicants who want to exceed the existing targets and intend to incorporate innovative stormwater management techniques.
3. B.2. Stormwater Quality	The requirement for the great target has been increased, based on stakeholder feedback, to include at least two treatment strategies to meet the 91% Total Suspended Solids (TSS) removal target. Feedback from the stakeholders revealed that it is common for one

	treatment strategy to perform lower than the stated TSS removal percentage, and therefore including the requirement for at least two treatment strategies as a treatment train approach is an effective way to better align the metric requirements with the metric intent.
3.C.1 Dedicate Land for Private Fruit and Vegetable Garden Space	The name has been changed from “Dedicate Land for Food Production” to “Dedicate Land for Private Fruit and Vegetable Garden Space”. To simplify the requirements and increase uptake, the targets have been divided into providing a minimum garden space area for multi-unit residential developments and for ground-oriented residential developments. The metric has now allocated points for providing a garden space on percentage of the landscaped site area or roof.
3.D.1 Solar Readiness	This has been maintained as its own metric and the original targets have been kept. More guidance and clarity has been provided as to what is meant by “solar readiness”, including references to acceptable measures listed in the TGS v3 and a link to resources that provide a solar readiness checklist. In addition, a target has been added for draft plan applicability.
3. E.1. Healthy Soils	The name has been changed from “Restore and Enhance Soils” to “Healthy Soils” to more accurately reflect the intention of the metric. One of the original aspirational targets has been removed because it is related to soil permeability rather than the intention of the credit which is regarding healthy soil. The original minimum target regarding the undertaking of a topsoil fertility test has been removed given that standardized topsoil fertility testing protocols are not established. In addition, a target for increased minimum topsoil depth has been added.
4.A.2- Building Energy Efficiency and Emissions	The name has been changed for 4.A.2 from “Building Energy Efficiency” to “Building Energy Efficiency and Emissions” to more accurately capture the sustainability benefits. Background, information and rationale for this metric has been provided in its own section of this report, Section 2.5.
4.A.3 Energy Management	The name has been changed from “Energy Management” to “Energy Strategy” to more accurately reflect the intention of the metric. This metric has been changed so that the strategy report required is aligned with the targets in metric 4.A.2. Building Energy Efficiency and Emissions. Background, information and rationale for changes to building energy efficiency and emissions targets is described in Section 2.5 and Appendix C.
4.B.1- Reduce Potable Water Use	The name has been changed from “Reduce Potable Water Use for Irrigation” to “Reduce Potable Water Use”

	to more accurately reflect the intention of the metric. The original targets have been carried forward and more explanation has been included (with links to LEED documentation requirements, similar to TGS) to assist in documentation. There was discussion with the TAT to combine this metric with “rainwater harvesting” however it is our suggestion that these stay separate because rainwater harvesting is not always used as a strategy to reduce potable water for irrigation.
4. C.2. Reduce Light Pollution	The original targets have been removed for this metric and replaced with a new target, in line with Tier 1 of the TGS v3, credit EC 5.1; all exterior fixtures must be Dark Sky Compliant, taking advantage in the synergies between the credits in the TGS and metrics that have similar intents. More detailed guidance language, including links to references, aligned with the TGS credit have been incorporated to provide more direction to applicant and encourage the uptake and achievement of this metric.
4.D.1 Bird Friendly Design	This metric has been revised slightly to align with the City of Vaughan’s Urban Design Guidelines, as per consensus from the TAT and Draft Plan applicability has been removed because high-rise development is typically not subject to approval through a Draft Plan of Subdivision approval process.
4.E.1 Solid Waste	The good targets now reflect the TGS v3 credit SW 1.1, SW 1.2 and SW 1.3 Bulky Waste, taking advantage in the synergies between the credits in the TGS and metrics that have similar intents. The new great target aligns with TGS v3 and SW 1.6 Household Hazardous Waste as per consensus with TAT.
4.F.1- Reduce Heat Island– Non-Roof	For simplicity, the name has been changed from “Reduce Heat Island from Built Environment– Non-Roof” to “Reduce Heat Island– Non Roof”. The intent and targets have remained the same. However, language and strategies have been updated for clarity and to align more closely with the TGSv3 AQ 4.1 and AQ 4.3 requirements.
4. F.2. Reduce Heat Island– Roof	For simplicity, the name has been changed from “Reduce Heat Island from Built Environment–Roof” to “Reduce Heat Island– Roof”. This metric has been simplified to align with the TGS v3 AQ 4.2 requirements. Definitions from the TGS have also been included for clarity.

Please note that the Richmond Hill metrics were the starting point for review. It seems that there is some variability in the number of metrics across the municipalities (for example Brampton has the Community and Neighbourhood Scale metric that does not seem to appear, at least by the same name, in the Richmond Hill metrics).

The Draft Sustainability Metrics have been re-formatted into an updated final report, updated Sustainability Metrics Guidebook, which is attached in Appendix A, and updated metric numbering which is attached as Appendix B.

2.7 Energy and GHG Reduction Metrics

There have been significant changes to building energy performance and GHG emissions targets since the Sustainability Metrics were first initiated in 2014. These include the roll-out of provincial and municipal climate change action plans, including the development of the City of Toronto's municipal climate action plan (TransformTO), and subsequent implementation of the updated Toronto Green Standard Version 3.0. The energy efficiency requirements of the Ontario Building Code SB-10 and SB-12 have also been made more stringent, to the extent that they now exceed the recommended minimum level of performance in the current Sustainability Metrics. It is also understood that the partner municipalities have either developed, or are in the process of developing, their community energy and emissions plans, that will likely encourage a significant reduction in energy and GHG emissions associated with the buildings sector to meet their overall GHG emissions reduction targets.

Morrison Hershfield conducted an energy modelling study which reviewed different types of energy and GHG emission reduction targets for five different building archetypes in order to update the original minimum and aspirational targets and develop new performance targets. The report from this study is included in Appendix C. Based on the study results, the target requirements for the energy efficiency and GHG performance targets for this metric were grouped into three categories;

- Part 9 Residential Buildings (less than 3 storeys and less than 600 m² in gross floor area);
- Part 3 Buildings – Multi-Unit Residential, Office and Retail (more than 3 storeys or more than 600 m² in gross floor area);
- All Other Part 3 Buildings

For low-rise residential buildings such as single-family detached dwellings that fall under Part 9 of the Building Code, targets were updated to require certifying the building to achieve ENERGY STAR® for New Homes, R-2000® requirements or certifying the building to achieve CHBA Net Zero Homes program or Passive House requirements. Detailed energy modelling to understand energy or GHG savings would be a technically preferred approach to the prescriptive requirements above, but this type of modelling is not typically economically feasible for smaller building projects. Furthermore, the energy-focused certification programs mentioned for these targets would lead to high-performance building outcomes. These existing certification programs can be leveraged to set energy and GHG emissions performance requirements for this building type.

The Part 3 Buildings that were explored in the energy modelling analysis as building archetypes were multi-unit residential, office and retail buildings (more than 3 storeys or more than 600 m² in gross floor area). Based on the analysis, absolute performance targets have been included in the requirements for this building type. The modelling data revealed that incorporating performance targets for Total Energy Use Intensity (TEUI), Thermal Energy Demand Intensity (TEDI) and Greenhouse Gas Emissions Intensity (GHGI) would contribute

most to the intent of this metric, including contributing to a robust GHG emissions mitigation strategy in the buildings sector. The requirements of each target are aligned with the Toronto Green Standard v3. The great target is equivalent to the TEUI, TEDI and GHGI TGS v3 Tier 1 values and the excellent target is aligned with the Tier 4 values; the highest tier level. This would ultimately require commitment to specific building envelope performance requirements and energy modelling of each building to confirm the requirements are met.

Flexibility has been included for other Part 3 buildings as the studied results of the target-based approach may not be applicable to these building types. For these building types, the targets require a demonstration of proposed building that is a percentage better than Ontario Building Code (OBC) SB-10, Division 3 (2017) reference building; a well understood industry requirement. This would ultimately require energy modelling of each building to confirm the requirements are met.

Three additional targets have been included in this metric for building commissioning, submetering and air tightness testing. These targets have been included because meeting these requirements are effective ways to ensure that energy and emissions performance metrics will translate into real GHG emissions reduction and energy efficiency in the construction process.

3. CONCLUSION

Developing Policy and measuring progress towards sustainability has become increasingly important in managing growth and improving the health and well-being of urban environments. Concerns over public health, climate change, energy, and resource use have brought sustainability to the forefront of planning and decision-making as a means of achieving city building. Provincial legislation, plans and policies are also increasingly speaking to the importance of sustainability and managing resiliency and adaptation to climate change impacts.

This report identifies detailed performance targets that aim to improve the sustainability performance of development. Specific targets have been recommended for each sustainability metric identified based on best practices and stakeholder feedback.

As referenced in this report, background research and stakeholder consultation was carried out to help inform the development of the sustainability metrics. As illustrated in Appendix A, precedents are referenced for over 80% of the metrics, identifying a recognized standard, municipal policy or guideline or provincial policy that has helped inform the proposed requirements. Highlighting these precedents should continue to help improve the implementation of the metrics in both the private and public sectors, as they have largely been based on best practices that are already in practice or which are gaining acceptance in the development of other communities that are focused on becoming more sustainable.

The sustainability metrics and targets are expected to evolve and change over time as market acceptance and implementation of sustainability best practices improve. As new priorities are identified, the targets identified in this tool will need to be re-evaluated to ensure they are kept in pace with best practices in sustainability and the individual sustainability goals and objectives of the partner municipalities.

3.1 Next Steps and Implementation

Users of the Sustainability Metrics should note that the tool is consistent across the partner municipalities of the City of Richmond Hill, City of Brampton, City of Vaughan and City of Markham. This tool was developed in partnership, and the collaborative approach to its development aims to provide consistency in implementation of requirements across the municipalities. However it is noted that the final roll out and implementation of tool may vary slightly in each municipality. Collaboration amongst the partner municipalities is still expected during the next phase, with each municipality defining how it wishes to incentivize the sustainability metrics based on its unique governance structure and local context.

APPENDIX A: Sustainability Metrics Guidebook

In this Appendix, the updates to the Sustainability Metrics have been re-formatted and presented as an updated Sustainability Metrics Guidebook. This version is current to December 2020.

LEGEND

Metric Category:

Built Environment

Mobility

Natural Environment & Open Space

Infrastructure & Buildings

Innovation

Appendix B

Metric Categories

The Sustainability Metrics are organized into five main categories; Built Environment, Mobility, Natural Environment and Open Space, Infrastructure and Buildings, and Innovation. The identity of each category is described below.

Built Environment (BE)

The indicators for Built Environment speak to how we inform place and connections within the development. The intensity and diversity of land uses influences decisions on where we live, work, and how we move around the community. A mix of housing types and amenities, employment and live-work opportunities located within walking distance, provides the opportunity for residents to meet their day to day needs without reliance on the private automobile. Further provision for life-cycle housing and accessible buildings allows residents to establish and remain in their communities throughout the various periods of their lives.

Mobility (M)

The indicators of Mobility identify how a variety of transportation options must be available to residents to carry out their daily lives within and beyond the community. A sustainable community is one that encourages physical activity, facilitates active transportation, and supports public transit in place of automobile dependence. The most vulnerable population groups (children, elderly, disabled, and low income individuals) are the most affected by choices available to them for mobility and access to services and amenities. Designing a safe, convenient, and accessible environment for walking and cycling encourages these alternative modes of transportation. Emphasis on mobility and active transportation not only reduces energy use and GHG emissions, but contributes directly to improving public health and the quality of life of residents.

Natural Environment and Open Space (NE)

The natural environment, urban forest, and the open space system are essential components of a healthy, sustainable community. Firstly, the preservation and enhancement of the natural heritage system ensures the health of the environment and supports recreational and cultural opportunities in a community. Secondly, ensuring residents have convenient access to a connected and diverse range of open spaces, parks, and recreation facilities offers opportunities for improved public health and connections within the community.

Infrastructure and Buildings (IB)

The Infrastructure and Buildings indicators identify the means to maximize energy and water conservation and minimize the consumption of non-renewable resources. New buildings and communities should be designed with a focus on reducing water, waste, and energy use. Since human activity is the principal cause of elevated levels of greenhouse gases and demands on energy, water, and waste systems, the measures focus on means of reducing this impact on both the built and natural environments.

Innovation (I)

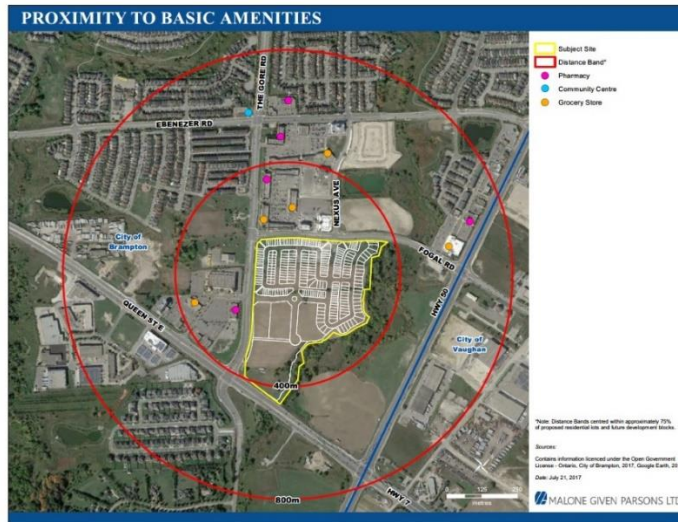
The innovation metric is intended to encourage true innovation resulting in real sustainability benefit. This new theme allows flexibility for users of the tool to propose innovative sustainability measures that are not specifically captured but which provide a measurable sustainability benefit. This flexibility is intended to allow users to think progressively and outside of the box when proposing sustainability measures on their development site.

Indicators

The following are the performance indicators organized by category. Each performance indicator has associated metrics that are allocated a point score. The metrics reflect characteristics of a sustainable community and are designed to outline the required measures or standards for each category to ensure that the overall objectives of the Sustainability Metrics are achieved.

Built Environment	Mobility	Natural Environment and Open Space	Infrastructure and Buildings	Innovation
<ul style="list-style-type: none"> Proximity to Amenities Providing Mixed-use Development Design for Life Cycle Housing Community and Neighborhood Scale Cultural Heritage Conservation Enhancing Urban Treet Canopy and Shaded Walkways and Sidewalks Salt Management Carshare & Carpool Parking Surface Parking Footprint Electric Vehicle Charging Stations 	<ul style="list-style-type: none"> Block Length School Proximity to Transit Routes, Cycling Networks, and Walkways Intersection Density Promote Walkable Streets Pedestrian Amenities Bicycle Parking Implementing Trails and Cycling Infrastructure Proximity to Active Transportation Network Distance to Public Transit Traffic Calming 	<ul style="list-style-type: none"> Preserve Existing Healthy Trees Soil Quantity and Quality for New Trees Healthy Soils Connection to Natural Heritage Natural Heritage System Enhancements Supporting Pollinators Dedicate Land for Private Fruit and Vegetable Garden Space Access to Public Parks Stormwater Quantity Stormwater Quality Rainwater and Greywater Use Multi-purpose Stormwater Management 	<ul style="list-style-type: none"> Buildings Designed and/or Certified under an Accredited "Green" Rating System Universal Design Building Accessibility Embodied Carbon of Building Materials: Supplementary Cementitious Materials Embodied Carbon of Building Materials: Life Cycle Assessment Embodied Carbon of Building Materials: Material Efficient Framing Reduce Heat Island: Non-Roof Reduce Heat Island: Roof Passive Solar Alignment Controlling Solar Gain Solar Readiness Energy Strategy Building Energy Efficiency and Emissions Reduce Potable Water Use Back-up Power Extreme Wind Protection Sub-Metering of Thermal Energy and Water Reduce Light Pollution Bird-friendly Design Solid Waste 	<ul style="list-style-type: none"> Innovation

Metric:	BE-1 Proximity to Amenities		
Applicable To:	<input type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To encourage development within and near existing amenities, limit the development footprint in the region and satisfy the City’s Official Plan requirements. Close proximity to amenities enables stronger and more desirable homes and workplaces and less vehicular travel. Locating housing, services, recreation, schools, shopping jobs, and other amenities in close proximity makes it easier for people to walk or cycle to these destinations, helping to build physical activity into our daily lives.		
	Points	Requirements	Documentation Compliance
Good Target:	1 point	1 point achieved for 3 or more amenities within 800m (equivalent to a 10 minute walk) of 75% of dwelling units.	Submit: In the Community Design Guidelines (Block Plan), Planning Justification Report (Draft Plan) or Site Plan Drawings/ Urban Design Brief (Site Plan): <ul style="list-style-type: none">A satellite map or map from the Planning Justification Report highlighting the development cluster that accounts for 75% of the Dwelling Units (DU) and noting the approximate geographic center.List the amenities within 800m and 400m walking distance from the project's geographic center. Amenities can be included towards this metric if they are existing or proposed provided that confirmation is documented confirming the proposed amenity will be available to the public at the time of project completion. Notes: <ul style="list-style-type: none">Amenities captured in the “Good Target” can be counted towards the “Great Target”.Amenities include library, public parks and outdoor recreational facilities, , public community or recreation centre, general retail, bank, place of worship, convenience store, , restaurant, food retail (grocery store, supermarket), licensed adult/ senior care and child care, theatre, beauty salon, hardware, laundry, medical or dental office, post office, pharmacy, school, fitness center and museum.Employment lands excluded.One building can be considered multiple amenities (e.g. pharmacy included in a grocery store.If the amenities are included in the proposed plan but have yet to be defined, use the best judgment (based on size, location and planning allocations) to assume the expected end-use of the planned amenity.
Great Target:	+2 additional points (total 3 points)	2 points achieved for 3 or more amenities within 400m (equivalent to a 5 minute walk) of 75% of dwelling units (in addition to the Good Target points).	
References:	City’s Official Plan Thinking Green Item 1,2,9 LEED NC SSc2 LEED NDPc3		



Source: Malone Given Parsons Ltd.

Metric:	BE-2 Providing Mixed-Use Development		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input type="checkbox"/> Site Plan		
Metric Intent:	Locating housing, services, recreation, schools, shopping jobs, and other amenities on the same site makes it easier for people to walk or cycle to these destinations. A complete community helps increase people's daily physical activities.		
	Points	Requirements	Documentation Compliance
Good Target:	1 point	Where it does not conflict with and is not already a municipal requirement set out in the local Official Plan, Regional Official Plan or Provincial Plan or policy, provide a mix of uses on the site.	Submit: On the Block Plan, Draft Plan, or Site Plan: <ul style="list-style-type: none"> • Indicate the mix of uses proposed within the application boundary. Notes: <ul style="list-style-type: none"> ○ Employment lands excluded.
References:	City's Official Plan Thinking Green Item 1,2,9 LEED NC SSc2 LEED NDPc3		

Metric:	BE-3 Design for Life Cycle Housing		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To encourage the planning and creation of mixed-use areas. Diverse and inclusive buildings and neighborhoods expand the number of potential users. They can also be more visually pleasing and encourage aging in place.		
	Points	Requirements	Documenting Compliance
Ownership	Good Target: 2 points	The proposed project includes at least 10% of affordable/low income or purpose-built rental housing.	For a Draft Plan and Site Plan Submission, Submit:
Housing Type	Good Target: 1 point	The proposed project includes 2 of the 4 housing typologies.	In the Planning Justification Report declare the following:
	Great Target: 1 additional point (total 2 points)	The proposed project includes 3 of the 4 housing typologies.	<ul style="list-style-type: none">The percent (%) of the housing, accommodation and ownership types included in the project. The total percent (%) by category (e.g. ownership, housing type, accommodation) should each add up to 100%. On the Block Plan, or Site Plan provide the following:
	Excellent Target: 1 additional point (total 3 points)	The proposed project includes 4 of the 4 housing typologies.	<ul style="list-style-type: none">Housing types within the project (single-detached, semi-detached townhomes/stacked and mid/hi-rise housing, secondary suites or additional residential unit).Ownership types within the project (market, rental and Secondary Suites/Additional residential units are permitted as of right through recent changes to the Planning Act R.S.O 1990, last amendment: 2019, c.15, Sched 31.Accommodation types within the project may include (live work, purpose built rentals, 1 bedroom/studio, larger than 2 bedrooms).
Accommodation	Good Target: 1 point	The proposed project includes 2 accommodation types.	Notes: <ul style="list-style-type: none">For the definition of affordable/ low-income housing, refer to the applicable Regional Official Plan, Municipal Official Plan or Provincial Policy. Where there is a conflict between Provincial Policy and a lower-tier Official Plan, Provincial policy shall take precedence.
	Great Target: 1 additional point (total 2 points)	The proposed project includes more than 2 accommodation types.	
References:	City’s Official Plan Thinking Green Item 3 LEED NDPc4 Planning Act. RSO 1990, c. 15, s31.		

Metric:	BE-4 Community and Neighbourhood Scale		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input type="checkbox"/> Site Plan		
Metric Intent:	To focus on retail, personal, human and community services within community core areas (neighbourhood centre and mixed-use node) so that people can meet their daily needs within their communities. Communities designed for a mix of land uses and at neighbourhood scale improve quality of life and make it easier for people of all ages and abilities to be physically active, helping improve their health.		
	Points	Requirements	Documenting Compliance
Excellent Target:	6 points	<p>Show that the community form is based on a hierarchy of the following:</p> <ul style="list-style-type: none"> ▪ Community: formed by a clustering of neighbourhoods, typically 6 to 9 (depending on topography and natural features), to sustain a viable mixed-use node and public transit. ▪ Neighbourhood: shape and size defined by 400 m (5 minute walk) from centre to perimeter with a distinct edge or boundary defined by other neighbourhoods or larger open spaces. ▪ Neighbourhood centre: acts as a distinct centre or focus with a compatible mix of uses that includes: a neighbourhood park; high or medium residential densities; and retail or community facilities (e.g. school, library). ▪ Mixed-use node: central to the cluster of neighbourhoods the node should include higher residential densities, retail, employment opportunities, be accessible, and served by public transit. 	<ul style="list-style-type: none"> • Highlight the community form (typically a cluster of neighbourhoods to sustain a viable mixed-use node and public transit). • Highlight the various neighbourhoods in the community and confirm that each neighbourhood is defined by a 400 m walk from centre to perimeter edge. • On a figure, illustrate the following: <ul style="list-style-type: none"> • Identify the neighbourhood centre and list the uses and amenities included in the centre (e.g. transit hub, parkette, village square, community facilities, amenities, etc.). • Identify the mixed-use node (could include higher residential densities, transit hub, retail, amenities, etc.).
References:	Region of Peel, Health Background Study Development of a Health Background Study Framework, May 2011		

Metric:	BE-5 Cultural Heritage Conservation		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To preserve and maintain cultural heritage resources. Cultural heritage resources include built heritage resources (listed or designated), cultural heritage landscapes (listed or designated), and archaeological resources. <u>Note:</u> This metric is only applicable to a site having existing cultural heritage resources.		
	Points	Requirements	Demonstrating Compliance
Great Target:	3 points	No portion of a cultural heritage resource that contributes to its cultural heritage value is to be demolished or removed or relocated (excluding temporary removal for restoration purposes).	Submit: In the Cultural Heritage Impact Assessment and/or Heritage Conservation Plan and/or other documents acceptable to the municipality prepared by an accredited professional (e.g Canadian Association of Heritage Professionals CAHP): <ul style="list-style-type: none">An outline of the cultural heritage attributes which contribute to the cultural heritage value and confirm that no portions of the resource that contribute to its cultural heritage value are to be removed.
Good Target:	2 points	If a cultural heritage resource will be relocated, it is moved to a visually prominent location nearby and maintains its original orientation.	Submit: In the Cultural Heritage Impact Assessment and/or Heritage Conservation Plan and/or other documents acceptable to the municipality prepared by an accredited professional (e.g Canadian Association of Heritage Professionals CAHP): <ul style="list-style-type: none">Identification of the proposed location of the cultural heritage attributes which contribute to the cultural heritage value and clearly demonstrate that it is visually prominent and maintains its original orientation.
Good Target:	1 point	Where reusable materials from a cultural heritage resource are being removed, a portion will be salvaged and reused on site.	Submit: In the Cultural Heritage Impact Assessment and/or Heritage Conservation Plan and/or other documents acceptable to the municipality prepared by an accredited professional (e.g Canadian Association of Heritage Professionals CAHP): <ul style="list-style-type: none">Identification of the cultural heritage materials which contribute to the cultural heritage value will be salvaged and explain how they will be reused on site. The reuse of the salvaged materials should be demonstrated in supporting documents (e.g. site plan drawings, landscape plans, interpretation plans).
Excellent Target:	3 points	Built cultural heritage resources are conserved in full conformity with the "Standards and Guidelines for the Conservation of Historic Places in Canada".	Submit: In the Cultural Heritage Impact Assessment and/or Heritage Conservation Plan and/or other documents acceptable to the municipality prepared by an accredited professional (e.g Canadian Association of Heritage Professionals CAHP):

			<ul style="list-style-type: none"> Demonstrate how the cultural heritage attributes which contribute to the cultural heritage value will be conserved in full conformity with the “Standards and Guidelines for the Conservation of Historic Places in Canada”.
--	--	--	--

Metric:	BE-6 Enhancing Urban Tree Canopy and Shaded Walkways and Sidewalks		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To provide street trees to promote a more pleasant walkable pedestrian environment, contributing to a healthy community. Targets are additional to the municipal planting requirements. Street trees provide ecosystem services and health benefits.		
	Points	Requirements	Documenting Compliance
Good Target:	2 points	Provide shade within 10 years for at least 50% of the walkways/sidewalk lengths All trees should be selected from the applicable municipal tree list.	Submit: On a Landscape Plan: <ul style="list-style-type: none"> Identify the total length of existing and or planned sidewalk in the proposed development, and the total length of existing and or planned sidewalk with trees abutting the sidewalk, measured as a percentage of sidewalk length.
Great Target:	+2 points (total 4 points)	Provide shade within 10 years for at least 75% of the walkways/sidewalk lengths. All trees should be selected from the applicable municipal tree list.	
Great Target:	2 points	Provide shading within 10 years for at least 50% of parking areas. All trees should be selected from the applicable municipal tree list.	Submit: On a Landscape Plan: <ul style="list-style-type: none"> Identify total parking area and the total parking area that is shaded by the tree canopy and quantify as a percentage.
Good Target:	2 points	Provide street trees on both sides of streets at distance intervals 6-8 metres or less.	Submit: On a Landscape Plan: <ul style="list-style-type: none"> Identify the distance intervals of street trees.
References:	City's Official Plan LEED ND NPDC14		

Metric	BE-7 Salt Management		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	Applying more salt than is necessary shortens pavement life and accelerates building and vehicle corrosion. Thoughtful parking lot design can reduce salt use by preventing snowmelt from refreezing and reducing snow deposition by wind. Reducing salt use also helps protect the natural environment from salt exposure.		
	Points	Requirements	Documenting Compliance
Good Target:	2 points	<p>Provide two of the following measures:</p> <ul style="list-style-type: none"> • 2-4% grade throughout all parking lots to ensure proper drainage and limit refreezing • Use of salt-tolerant species of vegetation in areas that will receive meltwater. • Use of trees as windbreaks around the site perimeter. • Heated or covered walkways near building entrances. • Providing well-planned, designated snow storage area(s) to ensure meltwater drains as intended in the site design. 	<p>Submit</p> <p>On a Landscape Plan:</p> <ul style="list-style-type: none"> • Document the measures being used to promote salt reduction.
References:	Parking Lot Design Guidelines to Promote Salt Reduction “ Lake Simcoe Region Conservation Authority, 2017		

Metric:	BE-8 Carshare & Carpool Parking		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To encourage carpooling and reducing dependence on single-occupant vehicles. Carpooling results in carbon savings, less air pollution, less congestion, and improved social connections.		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	Satisfy all municipal parking standards and dedicate 3% of parking spaces on-site to carpooling and/or carshare/zip car (does not apply to compact cars). Provide preferred parking for these vehicles by incorporating signage and/or pavement markings.	Submit: On the Site Plan drawing: <ul style="list-style-type: none">Quantify the total parking spaces included per building on the site.Quantify the total parking spaces that are dedicated to carshare/zip car or carpooling.Identify the dedicated parking spaces and highlight proximity/preferred location relative to building entry.
Great Target:	+1 additional point (total 2 points)	Satisfy all municipal parking standards and dedicate 5% of parking spaces on-site to carpooling and/or carshare/zip car (does not apply to compact cars). Provide preferred parking for these vehicles by incorporating signage and/or pavement markings.	
References:	TGS LEED 2009 NC SSc4.3		

Metric:	BE-9 Surface Parking Footprint		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	<p>To promote efficient use of developable land and to support on-street retail and pedestrian-oriented built environments by discouraging the location of parking in front of buildings and minimize the adverse environmental impacts of parking facilities.</p> <p>Surface parking can block access and visibility to homes and businesses. Minimizing or carefully locating surface parking can result in more pedestrian-friendly and valuable streetscapes.</p>		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	All surface parking on site is located at the side or rear of buildings.	<p>Submit:</p> <p>On the Site Plan Drawing:</p> <ul style="list-style-type: none"> Identify the building frontage and the surface parking location(s). <p>Note:</p> <ul style="list-style-type: none"> No more than 20% of the total development footprint area will be used for off-street surface parking facilities and no individual surface parking lot will be larger than 2 acres.
Great Target:	+1 additional point (total 2 points)	Less than 15% of the total developable area is provided to parking at grade and is located at the rear or side of buildings.	<ul style="list-style-type: none"> Calculate the total area dedicated to surface parking/parking facilities and the total project site area. Identify the percent (%) of site area allocated to surface/facility parking.
Excellent Target:	3 points	All new on-site parking is provided below grade or in structured parking, and no surface parking is provided.	<ul style="list-style-type: none"> In intensification areas, if the project includes a parking structure, quantify the total parking spaces within the structure and on the site. Calculate and declare the percent (%) of parking spaces that are provided within the parking structure. <p>Notes:</p> <ul style="list-style-type: none"> For this metric, surface parking facilities include ground-level garages unless they are under habitable building space. Underground or multi-story parking facilities within the habitable building space and on-street parking spaces are exempt from this limitation. Excluding spaces dedicated to short-term parking and pickup/drop-off.
References:	<p>LEED ND NDPc5</p> <p>City of Vaughan Urban Design Guidelines</p>		

Metric:	BE-10. Electric Vehicle Charging Stations		
Applicable To:	<input type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To encourage the use of electric vehicles. In Ontario, electric vehicle use can result in carbon savings and less air pollution.		
	Points	Requirements	Documenting Compliance
Good Target:	3 points	Provide electric vehicle supply equipment (EVSE) to serve 10% of the required parking spaces.	Submit: On the Site Plan and Landscape Plan: <ul style="list-style-type: none">Quantify the number of total parking spaces included per building on the site.Quantify the number of total parking spaces that will be provided with EVSE. For Site Plans and Draft Plan Applications: <ul style="list-style-type: none">A Letter of Commitment from a qualified professional (e.g. electrical engineer, landscape architect, architect) and the owner/developer/builder confirming the number of EV charging stations and the percent of parking spaces with EVSE. Notes: <ul style="list-style-type: none"><i>Electric vehicle supply equipment (EVSE)</i> is defined by the Ontario Electrical Safety Code as the complete assembly consisting of cables, connectors, devices, apparatus, and fittings, installed for power transfer and information exchange between the branch circuit and the electric vehicle. For the requirements of this metric, applicants are encouraged to consult with the local municipality to determine the appropriate level or equivalent for EVSE.<i>Rough-in provisions</i> are defined as empty raceways starting in a junction box in the electrical room and terminating in a junction box central to each parking floor. Raceways will be empty to accommodate future wiring.
Great Target:	+2 additional points (total 5 points)	Provide electric vehicle supply equipment (EVSE) to serve 20% of the required parking spaces.	
Great Target:	2 points	Design 50% or more of the required parking spaces to permit future EVSE installation (e.g. rough-in).	
References:	TGSv3 AQ1.3		

Metric:	M-1 Block Length		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input type="checkbox"/> Site Plan		
Metric Intent:	<p>To develop blocks of dwelling units with increased connectivity offering pedestrians multiple routes to reach their destination and to allow blocks with the flexibility to accommodate both residential and commercial lot sizes.</p> <p>Walkable blocks improve connectivity and reduce dependence on vehicles.</p>		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	75% of block lengths do not exceed 250 m.	<p>Submit:</p> <p>In the Urban Design Brief, or Draft Plan site statistics:</p> <ul style="list-style-type: none"> • Measurement of the block lengths for all blocks included in the plan. • Identify and confirm the percentage (%) of block lengths that are less than 250m • Blocks are determined by roads/streets, and not pathways or trails. <p>Block perimeters should generally not to exceed 550m</p> <ul style="list-style-type: none"> •
Great Target:	+1 additional point (total 2 points)	All block lengths do not exceed 250 m.	<ul style="list-style-type: none"> • Measurement of the block lengths and the block perimeter lengths for all blocks included in the plan. • Confirm that all block lengths are less than 250m. • Blocks are determined by roads/streets, and not pathways or trails. <p>Block perimeters should generally not to exceed 550m</p> <ul style="list-style-type: none"> •
Excellent Target:	+1 additional point (total 3 points)	All blocks do not exceed 80m x 150m in size.	<p>In the Urban Design Brief, Planning Justification Report or Draft Plan site statistics:</p> <ul style="list-style-type: none"> • Measure the block sizes and confirm there are no blocks greater than 80m x 150m. • Blocks are determined by roads/streets, and not pathways or trails.
References:	<p>Thinking Green Item 3</p> <p>LEED NPDp1</p> <p>HBS Core Element 4: Street Connectivity</p>		

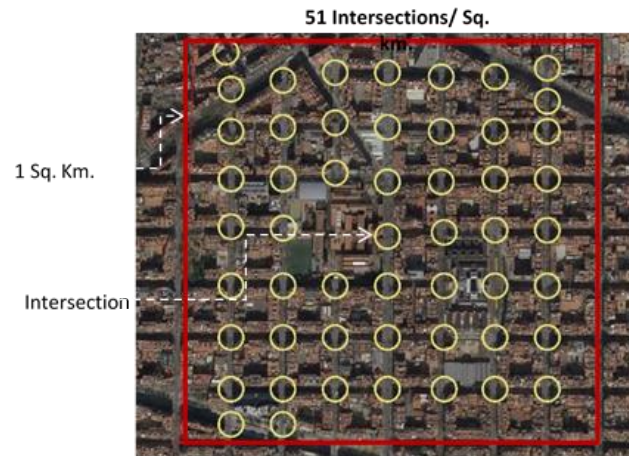
Metric:	M-2 School Proximity to Transit Routes, Cycling Network, and Walkways		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input type="checkbox"/> Site Plan		
Metric Intent:	To encourage children to walk and cycle to school to reduce traffic congestion at school sites and promote active transportation and improve air quality around schools and child care centres. Walking, bicycle or transit use results in carbon savings and less air pollution. They also provide health benefits and more connectivity between occupants.		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	All public schools are located within a 400 m walking distance to transit routes and/or dedicated cycle network.	Submit: On a Block Plan, Draft Plan, or Planning Justification Report, show the following by using radial circles to show the 400 m and 200 m from each school:
Great Target:	+1 additional point (total 2 points)	All public schools are located within a 200 m walking distance to transit routes and/or dedicated cycle network.	<ul style="list-style-type: none">• Location of the proposed development• Existing or planned public school(s)• Existing or planned transit stops• Existing or planned dedicated cycle network(s) Notes: <ul style="list-style-type: none">○ Amenities captured in the “Good Target” can be counted towards the “Great Target”.○ For all of the existing or planned schools, quantify the radial walking distance (in meters) to existing or planned transit stops and dedicated cycling networks.○ This metric is only applicable if the plan has schools located within the Block Plan or Draft Plan.
References:	Region of Peel, Healthy Background Study Framework (2011)		

Metric:	M-3 Intersection Density		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input type="checkbox"/> Site Plan		
Metric Intent:	To develop blocks of dwelling units with increased connectivity offering pedestrians multiple routes to reach their destination and to allow blocks with the flexibility to accommodate both residential and commercial lot sizes. Walkable blocks improve connectivity and reduce dependence on vehicles.		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	Provide for 40-50 streets intersections per square kilometre (sq.km).	Submit: In the Urban Design Brief, Planning Justification Report or Draft Plan site statistics: <ul style="list-style-type: none"> Determine the number of eligible intersections and divide by the net developable area as defined below for <i>"Square Kilometre"</i> Determine the number of eligible intersections included within the plan per sq.km. Notes: <ul style="list-style-type: none"> Eligible Intersections may include: Publicly accessible streets, the intersection of streets with dedicated alleys, laneways and transit right-of-ways Non-Eligible Intersections generally include intersections where you must enter and leave an area through the same intersection, for example, cul-de-sacs and gated street entrances <i>Square Kilometre</i> is defined as the total area of land available for development, similar to the net developable area, and its calculation excludes water bodies, parks larger than 0.2 hectares, natural heritage system lands, public facility campuses, airports, existing and proposed 400-series highways, and rail yards.
Great Target:	+1 additional point (total 2 points)	Provide for 51-60 street intersections per sq.km.	
Excellent Target:	+2 additional point (total 4 points)	Provide for more than 61 street intersections per sq.km.	

LEED NPDp3
Nets Foundation

The following diagram is an example for 51 intersections per sq.km.

References:



Metric:	M-4 Promote Walkable Streets		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To promote active transportation and encourage walking through the provision of safe and comfortable street environments. Walkable streets reduce the dependence on vehicles, improve connectivity and are an important component for healthy and complete communities.		
	Points	Requirements	Documenting Compliance
Good Target:	2 points	Where not a mandatory requirement, and where supported by the municipality, provide/ extend continuous sidewalks on both sides of public and/or private roads/streets.	Submit: In the Site Plan Drawings (Site Plan) or Transportation Study (Block/ Draft Plans): <ul style="list-style-type: none"> • Verify and document that the sidewalks comply with Municipal Standards and are at a minimum, 1.5 meter in width. • Determine the total length of streets included in the project boundary. • Determine the percentage (%) of street lengths where sidewalks are continuous and included on both sides of the street.
References:	LEED ND NPDc1		

Metric:	M-5 Pedestrian Amenities		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To encourage active transportation through walking and increased use of public transit and to increase daily destinations in our communities to be connected through convenient, safe and accessible pedestrian connections. Walkable connections improves the physical and mental wellbeing of residents of all ages and abilities and helps to reduce dependence on motor vehicle use, reduce air pollution and greenhouse gas emissions and help mitigate climate change.		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	Provide pedestrian connections between the site and adjacent destinations, and provide 1 type of pedestrian amenity consistently along on-site connections.	Submit: On the Site Plan or Landscape Plan: <ul style="list-style-type: none">Identify existing or proposed transit routes that are within walking distance to the building (e.g. 200 m). If applicable, highlight a linkage that connects a building entry to the transit stop.Identify the connections that link a building entry to adjacent destinations such as but not limited to, pedestrian paths, surface transit stops, parking areas (car and bicycle), schools, etc.Highlight the amenities and/or street furniture (benches, public art, landscaping, etc. that help connects the site to adjacent destinations. Notes: <ul style="list-style-type: none">List of amenities includes; benches, additional bicycling parking, public art, map stands, interpretive/commemorative signage,play equipment, and weather shelters.Destinations include: pedestrian paths, surface transit stops, parking areas (car and bicycle), existing trails or pathways, or schools.Pedestrian connections are only required to be built to the site boundary and not beyond.
Good Target:	1 point	Provide more than 1 type of amenity and/or street furniture consistently along on-site connections and between the site and adjacent destinations.	
References:	Toronto Green Standard Tier II City's Official Plan Toronto Green Standard v3 AQ3.3		

Metric:	M-6 Bicycle Parking		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To encourage active transportation through cycling as a transportation choice and reduce single-occupant vehicle use, and to incorporate active and sustainable travel modes by design and promote Transportation Demand Management initiatives to influence behavior.		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	Bicycle parking spaces are provided at a rate of 20% higher than municipal standards/guidelines. Bicycle parking shall be located in close proximity to building entrances. Short-term bicycle parking should be located within 25m of building entrance if outdoors. Long-term bicycle parking should be within 50m of an exit or entrance area.	Submit: On the Site Plan drawing: <ul style="list-style-type: none">Quantify the total number of bike parking spaces provided per building.Quantify the total unit count in each of the multi-family buildings.Identify the building types that are included in the project (e.g. mixed-use, multi-family, commercial, retail, institutional).Quantify the ratio of bike parking spaces per residential unit (for multi-family buildings).Label the distance to entrances or access from bicycle parking.
Great Target:	+1 additional point (total 2 points)	Bicycle parking spaces are provided at a rate 50% higher than municipal standards/guidelines.	
Excellent Target:	2 points	Bicycle parking shall be located in close proximity to building entrances. Short-term bicycle parking should be located within 25m of building entrance if outdoors. Long-term bicycle parking should be within 50m of an exit or entrance area. And All bicycle parking shall be weather protected.	
Excellent Target:	1 point	1 shower and change room are provided (for men and women) per 30 bicycle parking spaces associated with non-residential development.	
References:	Municipal Bicycle Parking Requirements City of Brampton By-Law 270-2004 as amended. City of Vaughan By-Law 1-88 City of Richmond Hill By-law 30-18		

Metric:	M-7 Implementing Trails and Cycling Infrastructure		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To implement pedestrian and cycling infrastructure to further promote active forms of transportation and comply with City's Transportation Master Plan and/or Pathways Master Plan. Cycling and walking results in carbon savings and less air pollution. It also provides health benefits and more connectivity between occupants		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	Advance the objectives of the applicable municipal Active Transportation Master Plan and/or Pathways Master Plan by implementing the objectives of the Plan.	<p>Submit:</p> <p>For Block Plans, Draft Plans and Site Plans in the Transportation Study.</p> <ul style="list-style-type: none"> • Identification of any existing or planned trails and cycling paths located in the plan. • If applicable, highlight the trails and cycling paths that comply with the Municipal Master Plan. <p>Additional documenting for Draft and Site Plans:</p> <ul style="list-style-type: none"> • If applicable, identify the additional features that advance the objectives of the applicable pedestrian and cycling master plan (e.g. Provide trailheads, trail signs, information signage, and/or seating areas).
References:	City's Transportation Master Plan Pathways Master Plan TRCA Trail Strategy TRCA Living City Policy		

Metric:	M-8 Proximity to Active Transportation Network		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To promote active transportation through the provision of public multi-purpose trails/paths and cycling infrastructure and satisfy City's Official Plan policies/targets. Cycling results in carbon savings and less air pollution. It also provides health benefits and more connectivity between occupants.		
	Points	Requirements	Documenting Compliance
Good Target:	2 points	100% of residents/jobs are within 400 m of existing or Council approved public multi-use trails and cycling infrastructure..	<p>Submit:</p> <p>In the Traffic Impact Study or Transportation Demand Management Plan or Transportation Study:</p> <ul style="list-style-type: none"> Provide a map showing the subject lands/area of development, a 400m buffer from the boundaries of the development as well as any existing or municipally approved cycling networks. <p>Notes:</p> <ul style="list-style-type: none"> These points are only awarded if a cycling network is included in the project boundary
References:	City's Official Plan City of Vaughan Pedestrian and Bicycle Master Plan 2019		

Metric	M-9 Distance to Public Transit		
Applicable To:	<input type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To promote and support alternative transportation modes to vehicle use and to satisfy City's Official Plan targets. Transit-oriented communities reduce vehicle-kilometres traveled and associated emissions, have reduced traffic casualty rates and support walking and cycling which improves community health.		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	The site is within 800 m walking distance to an existing or planned commuter rail, light rail, bus rapid transit or subway with stops, OR The site is within 400 m walking distance to 1 or more bus stops with frequent service.	Submit: In the Urban Design Brief and/or Transportation Study (Draft Plans) and Traffic Impact Study and/or Transportation Demand Management Plan (Site Plan): <ul style="list-style-type: none">• Include a map and/or figure which shows the 400m or 800m radii and the existing or planned commuter rail, subway, light rail, and bus stops with frequent service. Notes: <ul style="list-style-type: none">• <i>Frequent Service</i> is defined as transit with trips in intervals no greater than 30 minutes during peak times per line per direction and available during hours of typical building operation.
Great Target:	+1 additional point (total 2 points)	The site is within 400 m walking distance to an existing or planned commuter rail, light rail, bus rapid transit, or subway with frequent stops, OR The site is within 200 m walking distance to 1 or more bus stops with frequent service.	
References:	Region of Peel Official Plan City's Official Plan LEED NC 2009 SSc4.1 LEED ND SLLc3		



Source: Malone Given Parsons Ltd.

Metric:	M-10 Traffic Calming		
Applicable To:	<input type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To encourage active transportation through the provision of walkable streets by reducing operational speeds. Walkable streets and traffic calming measures can provide a safer and more comfortable streetscape to cyclists and pedestrians, and help to reduce traffic speeds, volumes, and related emissions.		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	75% of new local streets/roads are designed with traffic calming strategies.	Submit: In a Transportation Study or Traffic Calming Report: <ul style="list-style-type: none">• Highlight the new residential-only streets and new non-residential/mixed-use streets in the project, as applicable.• Identify the percent (%) of street length (broken out by residential only and non-residential) that includes street calming techniques developed in consultation with municipal transportation planning staff.• Provide a drawing identifying the traffic calming strategies that are included in the project.
Great Target:	+2 additional point (total 3 points)	100% of new local streets/roads are designed with traffic calming strategies.	
Good Target:	1 point	50% of new non-residential and/or mixed-use streets are designed with traffic calming strategies.	Notes: Traffic calming strategies include but are not limited to: <ul style="list-style-type: none">○ Neckdowns/centre island narrowing,○ Raised crosswalks,○ Traffic circles and roundabouts,○ Speed display boards/vehicle activated traffic calming signs (VATCS).
Great Target:	+2 additional points (total 3 points)	75% of new non-residential and/or mixed-use streets are designed with traffic calming strategies.	
References:	LEED ND NPDc1		

Metric:	NE-1. Preserve Existing Healthy Trees		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	Preservation of existing trees supports health and well-being. Preserving trees can increase property value while providing ecological and climate change benefits. Larger trees are often valued by occupants. Preserving trees can be a cost-effective method to improve the overall appearance of a community while providing ecological and climate change benefits.		
	Points	Requirements	Documenting Compliance
Good Target:	3 points	Preserve 25% of healthy mature trees in situ on site.	Submit: On an Arborist Report: <ul style="list-style-type: none">Identify all trees as per municipal standards, label all the healthy mature trees including hedgerows on the site, the trees that will be protected, moved or, removed as per municipal standards. Additionally, identify these trees on Landscaping Plan.Provide the percent (%) of healthy tableland trees that will be protected (in-situ) on-site on the Landscape Plan. Notes: <ul style="list-style-type: none">This metric (and associated points) are excluded if there are no healthy mature trees within the project boundary.This metric applies for healthy, mature trees on the developable portion of the site (e.g. not in the protected natural heritage system).Healthy mature trees include those evaluated as being fair or above by a qualified arborist and Xmm DBH as per municipal requirements. Note that the “X” refers to a measurement that will be specific to each municipality.
Great Target:	+2 additonal points (total 5 points)	Preserve 50% of healthy, mature trees in situ on site or preserve 100% of healthy hedgerows in situ on site.	
References:	Vaughan Tree Protection Protocol. Markham Trees for Tomorrow Manual.		

Metric:	NE-2. Soil Quantity and Quality for New Trees		
Applicable To:	<input type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To provide soil quantity and quality that enables new trees to thrive. Higher amounts of good quality soil help ensure thriving long-lived plant life.		
	Points	Requirements	Documenting Compliance
Good Target:	2 points	Provide a minimum of 30m³ of soil for each new tree and a minimum of 100 cm of uncompacted soil depth. Where there is a grouping of trees, provide a minimum of 20m³ of soil for each new tree, and a minimum of 100 cm of uncompacted soil depth, or equivalent municipal standard.	Submit: As part of Draft Plan of Subdivision submission, provide a Letter of Commitment from a qualified professional (landscape architect or architect) and the owner/ developer/ builder confirming that the metric requirement will be achieved and that details will be provided in the Landscape Plan during subsequent submission. Following Draft Plan approval and as part of the technical review/detailed design, on the Landscape Plan specify and identify the tree planting locations, soil quality and the soil volume provided per tree
Great Target:	+2 additional points (total 4 points)	Provide 25% more than the total soil volume required by municipal standards.	As part of a Site Plan submission, on a Landscape Plan and/ Drawings:
Excellent Target:	2 points	Provide uncompacted topsoil layer of tree pits, trenches, or planting beds with the following properties: <ul style="list-style-type: none">Organic matter content of 10 to 15% by dry weight and a PH of 6.0 to 8.0.A minimum depth of 100 cm, or in accordance with municipal standards, whichever is higher.Provide adequate drainage.	<ul style="list-style-type: none">Show the tree planting locations, soil quality and the soil volume provided per tree.
References:	Vaughan’s Tree Protection Protocol Toronto Green Standard v3 TRCA (2012) Preserving and Restoring Healthy Soils Best Practice Guide for Urban Construction Credit Valley Conservation (2017) Healthy Soils Guideline for the Natural Heritage System Vineland Research (2019) Ontario Landscape Tree Planting Guide Sustainable Technologies Evaluation Program (STEP) (2017) Compost Amended Planting Soil Specifications		

Metric	NE-3 Healthy Soils		
Applicable To:	<input type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To limit disturbance of healthy soil to: <ul style="list-style-type: none">○ Protect soil horizons and maintain soil structure.○ Support biological communities (above-ground and below-ground). Ensure that new development contains healthy soil quality and quantity to help restore the natural functions of soils and vegetation and to help ensure the soil is appropriate for the proposed plantings.		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	A minimum topsoil depth of 200 mm is provided across the entire site (excluding paved surfaces).	Submit: On a Landscape Plan: <ul style="list-style-type: none">• Identify the minimum topsoil depth that is provided across the entire site.
Great Target:	+1 additional point (total 2 points)	A minimum topsoil depth of 300 mm is provided across the entire site (excluding paved surfaces).	
References:	TRCA Preserving and Restoring Healthy Soils Best Practice Guide for Urban Construction CVC's Healthy Soil Guidelines for Natural Heritage System Sustainable Technologies Evaluation Program (STEP) (2017) Compost Amended Planting Soil Specifications		

Metric:	NE-4 Connection to Natural Heritage		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To provide connections to nature and green spaces to benefit human health through proximity or access, and to minimize the amount of the natural heritage that is backlogged by residential development. Natural spaces are sought after by occupants and can be perceived as a valuable amenity. They can be quiet natural spaces where occupants can connect with nature and exercise.		
	Points	Requirements	Documenting Compliance
Good Target:	2 points	Provide physical public connections (such as public access blocks, single loaded roads, parks, sidewalks, etc.) to 25% of the length of the natural heritage system that abuts the proposed development (interface between development and natural heritage systems).	Submit: On a Landscape Plan or Site Plan: <ul style="list-style-type: none">The location of a natural heritage system within the project boundary. Include any pathways within the natural heritage system) and highlight any associated parking for users of the natural heritage system.Determine the length of the border of the natural heritage system with potential access to the site.Highlight the proposed strategies to provide the physical public connection to the natural heritage system.Determine what percentage (%) of the natural heritage system with potential access to the site has been provided with physical public connections.
Great Target:	+2 additional points (total 4 points)	Provide physical public connections (such as public access blocks, single loaded roads, parks, sidewalks, etc.) to 50% or more of the length of the natural heritage system that abuts the proposed development (interface between development and natural heritage systems).	Notes: <ul style="list-style-type: none">Percentage (%) of the natural heritage system is determined by the length of the border.Backlotting shall not be accepted towards this calculation.Natural Heritage areas which abut parking lots are not counted as part of the physical public connection border. The intent of this metric is to promote accessible green space through low impact access. Development that is directly abutting the Natural Heritage System may adversely affect the natural environment.
References:	City of Vaughan’s City-wide Urban Design Guidelines Performance Standard No. 4.3.5		

Metric	NE-5 Natural Heritage System Enhancements		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To improve natural heritage system function with respect to wildlife habitat and/or ecological functions, Satisfy City's Official Plan requirements, and provide habitat for local biodiversity including native pollinator species.		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	Provide and implement Woodland Management Plan within and/or abutting the subject lands, where not already required by the municipality.	Provide a Woodland Management Plan in accordance with the municipal Terms of Reference.
Good Target:	1 point	Provide and implement an Invasive Species Management Plan for a natural heritage feature, where not already required by the municipality.	Provide an Invasive Species Management Plan in accordance with the municipal Terms of Reference.
Good Target:	1 point	Provide habitat structure(s) for species at risk, such as bird structures, butterfly boxes, and hibernaculum.	In the Environmental Impact Study: <ul style="list-style-type: none"> Outline the design and ecological function of the habitat structure(s). Provide a figure illustrating the proposed locations of the habitat structure(s). Provide a design specification of the habitat structure(s).
Great Target:	2 points	Provide a form of natural heritage restoration/enhancement that provides a net ecological gain, above municipal requirements.	In the Environmental Impact Study: <ul style="list-style-type: none"> Outline the natural heritage restoration/enhancement, its ecological function, and how it achieves a net ecological gain above municipal requirements. Provide a figure illustrating the proposed locations of the natural heritage restoration/enhancement. Provide a design specification for the natural heritage restoration/enhancement.
Excellent Target:	5 points	Design and deliver a linear continuous/uninterrupted naturalized corridor that creates a functional linkage between at least two natural heritage features.	In the Environmental Impact Study: <ul style="list-style-type: none"> Outline the design and ecological function (e.g. wildlife corridor, amphibian passage, meadow-way/grassland) of the linkage. Provide a plan/figure illustrating the proposed linkage including dimensions, landscape treatment, and the natural heritage features it will be connecting, which will be used to inform detailed design.
References:	TRCA, Invasive Plant List Credit Valley Conservation, Native Plants for Pollinators Toronto Pollinator Protection Strategy, City of Toronto City of Brampton Woodland Management Plan Guidelines		

Metric	NE-6 Supporting Pollinators		
Applicable To:	<input type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To provide habitat that supports pollinators. Without pollinators, much of the food we eat and the natural habitats we enjoy would not exist. Pollinators are under increasing stress due to habitat loss, invasive species, diseases, pesticides, and climate change.		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	Native plants that support pollinators make up 25% of total quantity of plants proposed on the landscape plan.	Pollinator plant species must be selected from the Credit Valley Conservation “Native Plants for Pollinators”, Toronto Region Conservation Authority “Maintaining Your Pollinator Habitat” or alternative list approved by the municipality.
Great Target:	+1 additional points (total 2 points)	Native plants that support pollinators make up 50% of the total quantity of plants proposed on the landscape plan.	On the Landscape Plan: <ul style="list-style-type: none">Identify the species and proposed quantities of native plants (trees, shrubs, perennials, etc.) that support pollinators on the plant list. Provide a calculation that illustrates the total percentage of native pollinator plants by dividing the number of native pollinator plants by the total quantity of all plants.
References:	Credit Valley Conservation, Native Plants for Pollinator Toronto Pollinator Protection Strategy, City of Toronto NRCAN, North American Trees and Shrubs that Provide Forage for Pollinators TRCA, Maintaining Your Pollinator Habitat, https://trca.ca/app/uploads/2016/04/PollinatorMaintenanceGuide_WEB.pdf TRCA, Creating Habitat, https://trca.ca/app/uploads/2016/04/2602-Stewardship_Habitat-SinglePg_PRESS.pdf		

Metric	NE-7 Dedicate Land for Private Fruit and Vegetable Garden Space		
Applicable To:	<input type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To promote community-based food production, promote self-reliance among users, improve physical and mental wellbeing, and encourage social interaction. Gardens help people of all ages and abilities be physically and mentally active, provide a connection to nature, a connection to our past, and a cost effective way to provide healthy food.		
	Points	Requirements	Documenting Compliance
Good Target:	2 points	<p>Provide garden space for food as follows:</p> <p>For multi-unit residential developments:</p> <ul style="list-style-type: none"> Provide garden space that is equal to 25 square metres (or 250 square feet) of the rooftop or total landscaped site area. <p>For ground-oriented residential developments:</p> <p>Provide garden space that is equal to 5% of the total project landscaped site area.</p>	<p>Submit:</p> <p>On the Landscape Plan or the Urban Design Submission:</p> <ul style="list-style-type: none"> Identify the total garden space area. Determine the total landscaped area of the project. Specify total area of garden space provided <p>Notes:</p> <ul style="list-style-type: none"> <i>Garden space</i> is defined as land and/or an alternative mechanism with a growing medium that will be used to cultivate plants for food. Achieving this metric for ICI can be considered for meeting the Innovation metric requirements.
References:	LCC 1.2, Place: Urban Agriculture LEED ND NPDc13		

Metric:	NE-8 Access to Public Parks		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To promote visual and physical access to public parks. Natural and community spaces are sought after by occupants and can be perceived as a valuable amenity. Providing access to public parks can make it easier for people of all ages and abilities to integrate physical activity as part of their daily activity, helps to increase energy levels, and can help decrease stress.		
	Points	Requirements	Documenting Compliance
Good Target:	3 points	For Brampton, Richmond Hill, and Markham: Provide 2 or more road frontages for each park (e.g. urban square, parkette, and neighborhood park) and For City of Vaughan Only: A minimum of 50% of a park has a public street frontage.	Submit: On the Site Plan (Site Plan), Urban Design Brief, Landscape Plan (Draft Plans), or Community Design Guidelines (Block Plan): <ul style="list-style-type: none">Highlight the urban squares, parkettes, neighborhood parks and community parks included within the application.Determine the number or linear metre of public road frontages for each park type.
Great Target:	+3 additional points (total 6 points)	For Brampton, Richmond Hill, and Markham: Provide 3 or more road frontages for all parks. For City of Vaughan Only: Approximately 50-70% of a park has a public street frontage.	
References:	LEED ND Cornell Community (Markham), Mount Pleasant Village (Brampton) City's Development Design Guidelines		

Metric:	NE-9 Stormwater Quantity		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To implement a treatment-train approach to stormwater management practices emphasizing on source and conveyance controls to promote infiltration, evaporation, and/or re-use of runoff and/or rainwater. This will help maintain stream flows and thermal regimes that aims at mimicking predevelopment conditions. Managing stormwater at the early stages of the treatment-train can provide more resilient communities and reduce risks of downstream flooding and erosion.		
	Points	Requirements	Documenting Compliance
Good Target:	2 points	Retain runoff volume from the 10 mm rainfall event on public and private sites.	Submit: In the Functional Servicing Report, Stormwater Management Plan (Block, Plan, Draft Plan and Site Plan), or Master Environmental Servicing Plan (Block, Plan, Draft Plans): <ul style="list-style-type: none">List and describe the design measures used to retain stormwater runoff on-site. Measures could include (but not limited to): Low impact development measures; Stormwater ponds.Highlight the location of design measures (if any) on the applicable plan.Confirm that the quantity and flood controls are in accordance with applicable Municipal and conservation authority requirements.Calculations and signoff by a qualified professional (e.g. engineer) quantifying the amount of runoff that will be retained on site.
Great Target:	+2 additional points (total 4 points)	Retain runoff volume from the 15 mm rainfall event on public and private site.	
Excellent Target:	+3 additional points (total 7 points)	Retain runoff volume from the 25 mm rainfall event on public and private sites.	
References:	Toronto Green Standard Tier II TRCA's Stormwater Management Criteria TRCA and CVC (2012) Low Impact Development Stormwater Management Planning and Design Guide Vaughan's Urban Design Guidelines		

Metric:	NE-10 Stormwater Quality		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To protect receiving water bodies from water quality degradation that may result from development and urbanization. Controlling the quality of stormwater can provide for improved quality of receiving water bodies, resulting in fewer algae blooms, longer swimming seasons, and a variety of other ecological benefits.		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	Remove over 80% of TSS from all runoff leaving the site during a 25 mm rainfall event (based on the post-development level of imperviousness).	Submit: In the Functional Servicing Report, Stormwater Management Plan (for Block Plan, Draft Plan or Site Plan), or Master Environmental Servicing Plan (for Block, Plan, or Draft Plans):
Great Target:	+4 additional points (total 5 points)	Remove over 90% of total suspended solids (TSS) from all runoff leaving the site during a 25mm rainfall event based on the post-development level of imperviousness and at a minimum, two LID strategies must be used to treat the stormwater on-site.	<ul style="list-style-type: none">A list and description of the filtration measures used to treat the stormwater runoff on-site. Strategies could include (but are not limited to):<ul style="list-style-type: none">Stormwater Ponds,Oil-grit separators (ETV certified),Filters,Bioswales.Highlight the design measures (if any) on a plan.Quantify the percent (%) of TSS removed from a 25 mm rainfall event.
References:	Toronto Green Standard Tier II TRCA's Stormwater Management Criteria Toronto and Region Conservation Authority(TRCA) and Credit Valley Conservation Authority (CVC) (2012) Low Impact Development Stormwater Management Planning Design		

Metric:	NE-11 Rainwater and Greywater Use		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To reduce potable water use for interior building functions.		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	Buildings designed for rainwater and greywater re-use readiness (e.g. plumbing infrastructure rough-ins or dedicated cistern space for indoor rainwater or greywater use or greywater irrigation that may be connected in the future are included in the building).	Submit: <ul style="list-style-type: none"> A Letter of Commitment signed by a qualified professional (e.g. architect, engineer) and the owner/developer/builder committing that the project will either be designed for rainwater use ready (e.g. plumbing infrastructure rough-in, dedicated location for cistern) or will re-use rainwater on-site (for toilet flushing, irrigation, and outdoor uses). On a Site Plan: <ul style="list-style-type: none"> Highlight the design measures (e.g. Onsite water recycling systems, rainbarrels, cistern location/size, site drainage).
Great Target:	+2 additional points (total 3 points)	Rainwater or greywater is captured on-site and used for low-grade functions (e.g. rainbarrels, onsite water recycling systems, plumbing infrastructure or a cistern are included in the building.).	

Metric:	NE-12 Multi-purpose Stormwater Management		
Applicable To:	<input type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To beautify naturalized stormwater management facilities, and, to enhance the public use value of these facilities as components of the municipal natural heritage open space system. Stormwater control can be perceived as an opportunity. Ponds can provide amenity space for occupants to enjoy or water can be viewed as an asset for use.		
	Points	Requirements	Documenting Compliance
Good Target:	2 points	Introduce beautification measures/amenities that beautify stormwater management ponds (e.g. public art, interpretive signage).	<p>Submit:</p> <p>In the Functional Servicing Report or Stormwater Management Plan):</p> <ul style="list-style-type: none"> Identify beautification measures (public art, interpretative signage, visually pleasing infrastructure, etc.) included within the project that is above and beyond City's landscape specifications and applicable standards. <p>Notes:</p> <ul style="list-style-type: none"> Single-lot residential developments are excluded. Any proposed beautification measure will not reduce the performance function of the stormwater pond. Fountains are not acceptable beautification measures.
References:	Appendix E - Stormwater Management Pond Design Guidance of TRCA SWM Criteria document (2012)		

Metric:	IB-1. Buildings Designed and/or Certified under an Accredited “Green” Rating System		
Applicable To:	<input type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To recognize appropriate independent third-party certification systems incorporated into the proposal. Sustainability certification systems, provide recognizable certifications demonstrating to the public that degrees of sustainability are being achieved. This can result in increased value for the buildings or neighborhoods.		
	Points	Requirements	Documenting Compliance
Good Target:	1 to 7 points (1 point per building, total 7 points available)	The project boundary includes 1 to 7 green buildings enrolled in one or more recognized third party standards.	Submit: <ul style="list-style-type: none">A Letter of Commitment signed by a qualified professional (architect, professional engineer, LEED professional) and the owner/developer/builder that includes confirmation that at least one building within the project is to be certified to a recognized third-party green rating system.Confirmation of registration for a third-party green rating system (e.g. a receipt of the registration fees).For EnergyStar Multifamily Only: Signed a Partnership Agreement with EnerQuality acknowledging their roles and responsibilities as a partner and documenting their commitment to meet the MFHR Program Requirements. https://www.energystar.gov/partner_resources/residential_new/program_reqs/mfhr/certification Notes: <ul style="list-style-type: none">The application includes one of the following Third-Party Accredited Green Rating Systems for purpose-built neighborhoods and communities:<ul style="list-style-type: none">LEEDv4 or LEEDv4.1 (not including LEED for Commercial Interiors)Passive HouseLiving Building ChallengeCaGBC Zero Carbon Building Design Standard Version 2 (March 2020)Energy Star Multifamily
Excellent Target:	1 additional point per building	If a building is registered for more than one green rating system certification.	
Good Target:	2 points	The application includes one of the following green neighbourhood rating systems: <ul style="list-style-type: none">LEED NDOne Planet Living	
References:	City’s Official Plan Sustainable Design and Construction Policy for Municipal Buildings CaGBC Zero Carbon Building Design Standard Version 2, March 2020 York Region Sustainable Development through LEED Incentive Program		

Metric:	IB-2 Universal Design		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To enable a wide spectrum of people to live within and access new buildings (regardless of age or ability). To provide accessibility to occupants beyond the Ontario Building Code (OBC) which mandates a barrier-free path of travel is included in 15% of Multi-Residential Units as per OBC. Inclusive buildings and neighborhoods expand the number of potential users, thereby increasing value. They also enable more diversity in age.		
	Points	Requirements	Documenting Compliance
Good Target:	2 points	Design a minimum of 20% of the Dwelling Units (DU) in accordance with ICC/ANSI A117.1 Universal Design Standards (or equivalent).	Submit: A Letter of Commitment signed by an accredited professional (e.g architect, engineer, accessibility consultant) which declares that the metric requirements have been achieved.
Great Target:	+1 additional points (total 3 points)	Design a minimum of 30% of the Dwelling Units (DU) in accordance with ICC/ANSI A117.1 Universal Design Standards (or equivalent).	On a Site Plan: <ul style="list-style-type: none">• Confirm that 20 or 30% of the units have been designed with a barrier-free path of travel• Quantify the total number of Multi-Residential Units (if applicable) and total dwelling units included within the proposed development• Quantify the number and percent (%) of dwelling units designed to ANSI 117.1 standards or equivalent.
References:	Accessibility Act City’s Municipal Accessibility Plan LEED ND NPDC11 Ontario Building Code (2019) requirements		

Metric:	IB-3 Building Accessibility		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To enable a wide spectrum of people to access new buildings, regardless of age or ability. Ontario Building Code (OBC) requires 100% of primary entrances for accessibility. Inclusive buildings and neighborhoods expand the number of potential users, thereby increasing value. They also enable more diversity in age.		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	50% of emergency exits above the OBC requirements are designed to universally accessible standards.	Submit: On a Site Plan drawing: <ul style="list-style-type: none">Identify all building entrancesIdentify all building entrances under the OBC that must be designed to accessibility standards and identify the universal accessible design standards that are being appliedQuantify the percent (%) of emergency, and remaining entries/exits that are designed to universally accessible standards. Notes: <ul style="list-style-type: none">Entrances include all access and entry points into a building.
Great Target:	+2 additional points (total 3 points)	100% of all entries and exits above the OBC requirements are designed to universally accessible standards.	
References:	Ontario Accessibility Act City's Municipal Accessibility Plan LEED ND NPDC11		

Metric:	IB-4 Embodied Carbon of Building Materials: Supplementary Cementitious Materials		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To increase the growing awareness of the importance of addressing the embodied carbon and other GHG emissions associated with building materials. Materials can account for significant impact from their production, and reductions are available through selection and design. Often, lower impact materials are also more cost-effective.		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	All concrete on site must have a minimum of 20% Supplementary Cementitious Materials (SCMs).	Submit: <ul style="list-style-type: none"> A Letter of Commitment from a qualified professional (professional engineer or architect) declaring that: Concrete will have an SCM content of 20% or more (Good)/ 40% or more (Great) Notes: Supplementary cementing materials (SCMs) contribute to the properties of hardened concrete through hydraulic or pozzolanic activity. Examples include fly ashes, slag cement (ground, granulated blast-furnace slag), and silica fume. They can be used individually with portland or blended cement or in different combinations. SCMs are often added to concrete to make concrete mixtures more economical, reduce permeability, increase strength, or influence other concrete properties.
Great Target:	+1 additional points (total 2 points)	40% of concrete on site must have a minimum of 40% Supplementary Cementitious Materials (SCMs).	

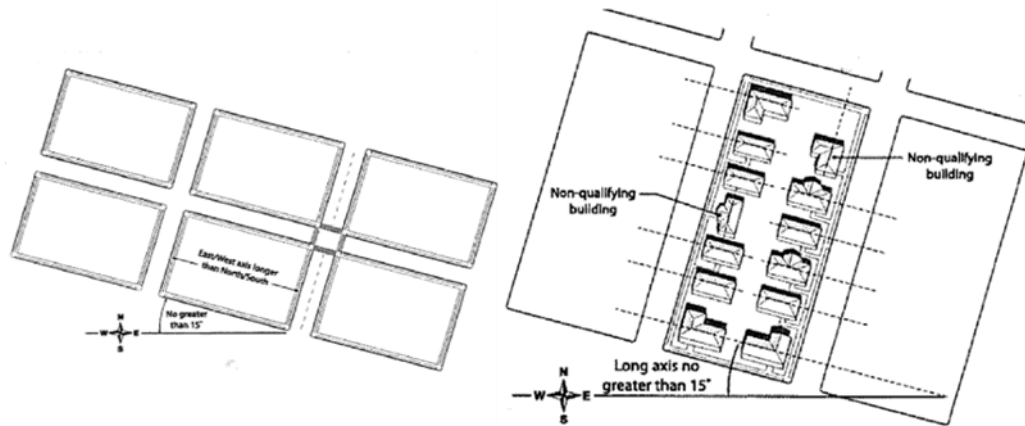
Metric:	IB-5 Embodied Carbon of Building Materials: Life Cycle Assessment		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To increase the growing awareness of the importance of addressing the embodied carbon and other GHG emissions associated with building materials. Materials can account for significant impact from their production, and reductions are available through selection and design. Often, lower impact materials are also more cost-effective.		
	Points	Requirements	Documenting Compliance
Great Target:	3 points	<p>Report embodied carbon emissions for the structural and envelope materials for 10% of Part 3 buildings on site (but at least 1 Part 3 building).</p> <p>To develop the report, use lifecycle assessment software such as Athena Impact Estimator for Buildings Life Cycle Assessment (LCA) software (or equivalent). Consider three methods to reduce the embodied carbon content of each building reviewed.</p> <p>Note Part 3 – Large and complex buildings, four storeys and taller and greater than 600 square metres in the building area.</p>	<p>Submit:</p> <p>On a Site Plan Drawing:</p> <ul style="list-style-type: none"> Identify the building(s) that is being assessed and describe if it is residential, commercial or institutional buildings, the estimated gross floor area, the number of storeys and the number of dwelling units (If residential). Confirm the number of Part 3 buildings on site and if 1 or 10% are being assessed (whichever is greater). Provide the LCA report declaring the materials that are anticipated to be used and the estimated total embodied carbon emissions of these materials used for the structure and envelope. <p>For all requirements that refer to LCA include: Please refer to the Zero Carbon Building Standard for further guidelines on LCA assessments. https://www.cagbc.org/cagbcdocs/zerocarbon/CaGBC_Zero_Carbon_Building_Standard_EN.pdf</p>
Excellent Target:	+2 additional point (total 5 points)	Commit to employing one or more carbon reduction strategies that would result in a 10% reduction in embodied carbon of the design.	<ul style="list-style-type: none"> In addition to the documentation requirements above, provide a Letter of Commitment from a qualified professional (professional engineer or architect) stating the intent to use one or more of low carbon design strategies to reduce the embodied carbon.
References:	CaGBC, Net Zero Carbon Building Standard. May, 2017 CaGBC, Net Zero Carbon Building Standard Version 2. March, 2020		

Metric:	IB-6 Embodied Carbon of Building Materials: Material Efficient Framing		
Applicable To:	<input type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To increase the growing awareness of the importance of addressing the embodied carbon and other GHG emissions associated with building materials. Materials can account for significant impact from their production, and reductions are available through selection and design. Often, lower impact materials are also more cost-effective.		
	Points	Requirements	Documenting Compliance
Great Targets:	3 points	<p>For all low rise wood-framed construction utilize at least 3 of the following measures:</p> <ul style="list-style-type: none"> • Pre-cut framing packages, • Open web floor trusses, • Stud spacing greater than 400 mm (16"), • Ceiling joist spacing greater than 400 mm (16"), • Floor joist spacing greater than 400 mm (16"), All corners have no more than 2 studs. 	<p>Provide a Letter of Commitment from the developer committing to practice material efficient framing and listing the measures that will be employed from the provided eligible measures.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Embodied carbon can be defined as the lifetime greenhouse gas (GHG) emissions associated with material. It is life cycle thinking applied to a product, and includes GHG's associated with the manufacture, transportation and installation of a product, any GHG's related to product maintenance and renewal, and GHG's associated with the end of life of the product. • Modular construction approach can assist in confirming these requirements.
References	<p>LEED For Homes</p> <p>Athena Sustainable Materials Institute (September 2019) http://www.athenasmi.org/wp-content/uploads/2019/09/About_WBLCA.pdf</p>		

Metric:	IB-7 Reduce Heat Island: Non-Roof		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To reduce ambient surface temperatures and provide shade for human health and comfort. Urban areas are typically much warmer than rural or forested areas due to the areas of exposed dark coloured roofing and roadways. Reducing heat gain can provide more comfortable spaces and some cooling savings.		
	Points	Requirements	Documenting Compliance
Good Target:	2 points	<p><u>For Residential and Non-Residential:</u></p> <p>Use one or more of the following strategies to treat 50% of the site's non-roof hardscaping:</p> <ul style="list-style-type: none"> • High albedo paving materials with an initial solar reflectance of at least 0.33 or SRI of 29. • Open grid paving with at least 50% perviousness • Shade from existing or new tree canopy within 10 years of landscape installation. • Shade from architectural structures that are vegetated or have an initial solar reflectance of at least 0.33 at installation or an SRI of 29. • Shade from structures with energy generation. <p>OR</p> <p><u>For Non-Residential:</u></p> <p>Place a minimum of 75% of the required parking spaces under a cover. Any roof used to shade, or cover parking must have a 3 year aged SRI of at least 29 or be a green roof, or be covered by energy generation systems.</p> <p>Note: Hardscaping includes driveways, walkways, courtyards, surface parking areas, artificial turf, and other on-site hard surfaces.</p>	<p>Submit:</p> <p>A Letter of Commitment from a qualified professional (professional engineer or architect) declaring the following:</p> <ul style="list-style-type: none"> • Area of the total hardscape on the site (excluding building footprint) • Highlight on a Site Plan drawing and declare the area for the strategies used to reduce heat island from the hardscape area (e.g. Underground/covered parking, hardscape shading, hardscape materials with an SRI greater than 29, and open grid pavers with pervious greater than 50%). The following products have an SRI greater than 29: <ul style="list-style-type: none"> • White-coated gravel on the built-up roof (SRI 79), • White coating on a metal roof (SRI 82), • White cement tile (SRI 90), • New gray concrete (SRI 35). • For unit pavers and open grid/ pervious paving, provide examples of the products that are intended for the design and provide manufacturer's documentation with the SRI or solar reflectance value to confirm. • Determine the percent (%) of the hardscape area that has employed heat island reduction strategies, relative to the total hardscape area. • Upon completion of construction, provide a Letter of Certification signed by an accredited professional that the metric requirements have been implemented and verified.
Great Target:	+1 additional point (total 3 points)	Use one or more of the strategies presented in the Minimum Target to treat 75% of the site's non-roof hardscaping.	
References	Toronto Green Standard v3 AQ4.1 Toronto Green Standard v3 AQ4.3 LEED NC SSC7.1/7.2		

Metric:	IB-8 Reduce Heat Island–Roof		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To reduce ambient surface temperatures. Urban areas are typically much warmer than rural or forested areas due to the areas of exposed dark coloured roofing and roadways. The impacts of climate change are expected to increase the projected number of heat and extreme heat warnings in the Region which will magnify the urban heat island effect in urban areas. Reducing heat gain can provide more conformable spaces and some cooling savings.		
	Points	Requirements	Documenting Compliance
Good Target:	2 points	Provide the following: <ul style="list-style-type: none">Cool roof installed for 100% of the available roof space; or	Submit: On a Landscape Plan, Elevation drawings, or Roof Plan demonstrate the following: <ul style="list-style-type: none">Determine the area of Available Roof Space.For Cool Roof products provide examples of the products that are intended for the design and provide manufacturer’s documentation with the SRI or solar reflectance value to confirm.Determine the percent (%) area of roofing surfaces treated with a cool roof, green roof and/or solar PV as a percent (%) of the total available roof space. Notes: <ul style="list-style-type: none">Available roof space for cool roof areas consists of the total roof area of the building or building addition excluding private terraces no greater in area than the floor of the abutting residential unit at the roof level.Available Roof Space is defined as the total roof area minus the areas designated for renewable energy, residential private terraces, residential outdoor amenity spaces (to a maximum of 2m2/unit, and a tower roof on a building with a floor plate less than 750m2. The definition is from the City of Toronto Green Roof Bylaw.Cool roofing materials have a minimum initial reflectance of 0.65 and minimum emittance of 0.90 or a three-year aged SRI value of 64 for a low-sloped roof and a three-year aged SRI of 15 for a steep-sloped roof. Low sloped roofs have a surface slope of less than 1:6 (9.5 degrees) and steeply sloped roofs have a surface slope greater than 1:6 (9.5 degrees).
Great Target:	4 points	Provide the following: <ul style="list-style-type: none">Green roof installed for 50% of the available roof space;	
Excellent Target:	+2 additional points (total 6 points)	Provide the following: <ul style="list-style-type: none">Green roof installed for 75% of the available roof space;	
References:	City’s Official Plan LEED NC SSC7.1/7.2 Toronto Green Standard v3, AQ4.2 City of Toronto Green Roof Bylaw		

Metric:	IB-9 Passive Solar Alignment		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input type="checkbox"/> Site Plan		
Metric Intent:	To promote energy efficiency by creating the conditions for the use of passive solar design as well as solar photovoltaic and/or solar thermal strategies. Solar energy can provide cost-effective methods to reduce energy use and will have strong climate change benefits.		
	Points	Requirements	Documenting Compliance
Good Target:	3 points	50% (or more) of the blocks have one axis within 15 degrees of East-West (E-W) plane. East-West (E-W) lengths of those blocks are at least as long as the North-South (N-S) lengths of blocks.	Submit: In the Urban Design Brief, or Draft Plan site statistics: <ul style="list-style-type: none">• Highlight the direction of True North.• Measure 15° from the East-West plain for all blocks and buildings (as shown in the figure below).• Highlight and determine the buildings/blocks that have one axis within 15° of East-West (E-W) plane.• Highlight and determine the buildings and blocks that have the East-West (E-W) lengths at least as long as the North-South (N-S) lengths.• Declare the percent (%) of buildings and blocks (relative to the total number of buildings and blocks) that have:<ul style="list-style-type: none">• One axis within the 15° of East-West (E-W) and,• East-west (E-W) lengths at least as long as the North-South (N-S) lengths.
Great Target:	+3 additional points (total 6 points)	75% (or more) of the blocks have one axis within 15 degrees of East-West (E-W) plane. East-West (E-W) lengths of those blocks are at least as long as the North-South (N-S) lengths of blocks.	
References:	LEED ND GIBc10 Diagram for Reference (Source: City of Brampton, https://www.brampton.ca/EN/Business/planning-development/Land-Development-Application/Pages/Help-Infrastructure.aspx) :		



Metric:	IB-10 Controlling Solar Gain		
Applicable To:	<input type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To control solar heat gains through east and west facing windows.		
	Points	Requirements	Documentation Compliance
Good Target:	2 points	Provide exterior shading for all east and west facing windows.	<p>On building elevations, identify the exterior shading method that will be used on all east and west facing windows.</p> <p>Notes:</p> <ul style="list-style-type: none"> ○ Acceptable exterior shading includes operable shutters, overhangs, brise soleil, awnings, solar blinds, screens, horizontal louvers and жалousies.
References:	Institute for Catastrophic Loss Reduction, and Durham Region. Durham Region Climate Resilience Standard for New Houses - Draft for Consultation (February 2018).		

Metric	IB-11 Solar Readiness		
Applicable To:	<input type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To reduce the negative impacts of fossil fuel-based energy and reduce dependence on the electricity grid. Solar energy can provide cost-effective methods to reduce energy use and will have strong climate change benefits.		
	Points	Requirements	Documenting Compliance
Good Target:	3 points	All buildings in the project are designed for solar readiness.	<p>Submit:</p> <p>A Letter of Commitment from a qualified professional (architect, energy, structural, electrical or mechanical engineer) and the owner/developer/builder to confirm the following:</p> <ul style="list-style-type: none"> All new buildings will be designed for solar readiness. <p>Notes:</p> <p>Designing for solar readiness may include:</p> <ul style="list-style-type: none"> Designate an area of the roof for future solar PV and/or solar thermal. Design and build an adequate structural capacity of the roof structure. Install one or two conduits from the roof to the main electrical or mechanical room (size of conduit to be determined based on maximum potential solar PV or solar thermal system size). Designate a 2m by 2m wall area in the electrical and mechanical rooms for future solar electrical/thermal equipment controls and connections (e.g. meters, monitors). Where possible place the HVAC or other rooftop equipment on the north side of the roof to prevent future shading. <p>For more guidance on solar readiness, or to access a Solar Readiness Checklist, consult NREL's Solar Ready Buildings Planning Guide. Applicants are also encouraged to consult the National Renewable Energy Laboratory's Solar Ready Buildings Planning Guide for additional considerations for PV-ready provisions.</p>
Great Target:	2 point	In the project, 1% of the total energy is generated on-site by renewable energy sources.	<ul style="list-style-type: none"> Provide a Letter of Commitment from a qualified professional (e.g. architect, electrical engineer, mechanical engineer, energy modeler) and the owner/developer/builder to confirm that the percent (%) of renewable energy will be included on-site. The percent (%) of renewable energy generated can be quantified by the following steps:
Excellent Target:	+1 additional point per percent (%) increase up to 5 points (total 7 points)	In the project, more than 1% of the total energy is generated on-site by renewable energy sources, up to 5%.	<ul style="list-style-type: none"> List the types of buildings (office, commercial, retail, multi-family and/or single-family). Determine the total GFA for each building type and list the expected/approximate energy use intensities (EUIs) for each building type. Determine the total building annual energy use for the site. List the renewable energy technologies being considered for the site.

			<ul style="list-style-type: none"> Determine the expected annual energy generated from renewable technologies and the percent (%) of annual energy generated on-site, relative to the total energy consumed. <p>Notes:</p> <p>Allowable forms of renewable energy systems include the following:</p> <ul style="list-style-type: none"> Solar photovoltaics (PV), Solar thermal, Biogas and biofuel, Wind-based systems. <p>For greater clarity, it should be noted that geo-exchange systems (e.g. ground-source heat pumps) are considered a building energy efficiency measure, as opposed to a form of renewable energy generation. As such, these systems cannot be used for the on-site renewable energy requirement, but can instead be utilized to meet the energy efficiency targets.</p> <p>The renewable energy calculations can be conducted either within the whole-building energy modelling software or through recognized third-party energy modelling tools such as RETScreen Expert or PVSyst.</p> <p>It should be noted that off-site solutions such as renewable energy certificates (RECs), carbon offsets, or power purchasing agreements (PPA) with renewable energy generators are not permitted to satisfy this measure unless otherwise approved by the City.</p>
Good Target (Draft Plan Only)	3 points	For greenfield sites that provide ground-oriented development, 100% of dwellings in the project are designed for solar readiness.	<p>Submit:</p> <p>A Letter of Commitment from a qualified professional (architect, energy, structural, electrical or mechanical engineer) and the owner/developer/builder to confirm the following:</p> <ul style="list-style-type: none"> All dwellings in the project will be designed for solar readiness
References:	NRCAN Solar Ready Guidelines Toronto Green Standard v3 GHG 2.1		

Metric:	IB-12 Energy Strategy		
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To encourage the early consideration and incorporation of sustainable design features in the planning process relating to improved building energy efficiency, carbon reduction, and resilience, as well as to take advantage of district-scale opportunities in the case of multi-building developments. Energy use is a major contributor to climate change. A good energy strategy can offer short paybacks and improved resiliency.		
	Points	Requirements	Documenting Compliance
	Block Plan / Plan of Subdivision		
Great Target:	2 points	<p>Develop an Energy Strategy for the proposed development which includes the following as applicable:</p> <ul style="list-style-type: none"> • High-level energy analysis using archetype modelling or benchmarking data to estimate the overall energy consumption and GHG emissions associated with the development. • Identify and evaluate opportunities to reduce EUI and GHG emissions intensities down to a net-zero ready level of performance (e.g. the Excellent Target) through various measures such as more efficient building form and massing, orientation, improved building envelope performance, highly efficient HVAC systems, heat recovery, and lighting solutions. • Analysis of low-carbon energy solutions and on-site renewable energy generation potential that can be incorporated into the development, including rooftop PV, geo-exchange systems, high-efficiency CHP, thermal energy stores, and sewer water heat recovery. • In the case of multi-building development proposals or in intensification areas identified by the municipality, investigate the feasibility of shared energy solutions such as the development of low-carbon thermal energy networks or connection to planned or existing district energy systems, and identify the required provisions to be district energy-ready. • Identify and evaluate opportunities for backup power systems and passive design features that will improve the resilience of buildings to area-wide power outages. 	<p>Submit:</p> <p>An Energy Strategy Report that meets the terms of reference provided by the City, and at a minimum should include the following information:</p> <ul style="list-style-type: none"> • Executive Summary, • Energy calculations, including data and assumptions, • Graphs of expected energy performance , • Conclusions / Recommendations, • Appendices: supporting documentation, references, etc. <p>For Excellent target, provide Letter of Commitment signed by the owners/developers/builders indicating commitment to meet a development-wide energy use intensity and greenhouse gas emissions intensity target, as well as a zero-carbon transition plan that lays out specific design measures that will be incorporated to facilitate achievement of carbon neutrality in the future (for example, providing electrical infrastructure provisions to allow for full building electrification).</p>
	+6 additional points	In addition to developing an Energy Strategy, commit to meeting an energy use intensity and greenhouse gas emissions	

Excellent Target:	(total 8 points)	<p>intensity target for the site that strives towards a near-net zero emissions level of performance as agreed upon with the City,</p> <p>Develop a zero-carbon transition plan that lays out the pathway towards achieving carbon neutrality in the future through a variety of design measures, such as providing the necessary infrastructure for full building electrification and avoidance of on-site combustion of fossil fuels.</p>	
References:	City of Toronto Energy Strategy Report – Terms of Reference		

Metric:	IB-13 Building Energy Efficiency and Emissions		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	<p>To promote buildings that are designed to be energy-efficient with reduced operating costs and greenhouse gas emissions associated with building operations, while improving the thermal comfort of occupants and enhancing building resilience.</p> <p>Well-designed buildings that are energy-efficient can improve indoor and outdoor air quality, and reduce greenhouse gas emissions.</p>		
	Points	Requirements	Documenting Compliance
Great Target:	5 points	<p><u>Part 9 Residential Buildings (less than 3 storeys and less than 600 m² in gross floor area).</u></p> <p>Design, construct and certify the building to achieve ENERGY STAR® for New Homes, or R-2000® requirements.</p> <p><u>Part 3 Buildings – Multi-Unit Residential, Office and Retail (more than 3 storeys or more than 600 m² in gross floor area).</u></p> <p>Develop a whole-building energy model, and design and construct the building to achieve the following whole-building performance metrics:</p> <ul style="list-style-type: none"> • Total Energy Use Intensity (TEUI): 170 kWh/m².yr. • Thermal Energy Demand Intensity (TEDI): 70 kWh/m².yr. • Greenhouse Gas Emissions Intensity (GHGI): 20 kgCO₂/m².yr. <p><u>All Other Part 3 Buildings</u></p> <p>Develop a whole-building energy model, and design and construct the building to achieve at least a 15% improvement in energy efficiency over the Ontario Building Code (OBC) SB-10, Division 3 (2017) reference building.</p>	<p>Submit:</p> <ul style="list-style-type: none"> • At the submission stage, a Letter of Commitment signed by an accredited professional and the owner/developer/builder that includes confirmation that requirements are met. • Upon completion of construction, provide a Letter of Certification signed by an accredited professional that the metric requirements have been implemented and verified. <p>Site Plan Approval (SPA) Energy Model Documentation Requirements:</p> <ul style="list-style-type: none"> • Energy Model Report summarizing key modelling inputs, outputs, and assumptions, signed by a licensed professional. • Working Energy Model Simulation Files. • Mechanical and Electrical Design Brief. • Related supporting drawings and calculations done externally from the energy modelling software (for example, thermal bridging calculations). <p>As-Built Energy Model Documentation Requirements:</p> <ul style="list-style-type: none"> • Updated Energy Model Report. • Working Energy Model Simulation Files. • Mechanical and Electrical Design Brief. • Modelling Notes: General, Building Level, Plant Level, System Level, Occupancy and Minimum Outdoor Air Rates, Warnings and Errors. • Take-off Calculations (Modeler's external calculations to support the model inputs). If applicable, the calculation for model workarounds, exceptions, process energy savings, renewable energy systems, district energy systems, or other required calculations. • Zoning Diagrams. • Outdoor Air Calculation Spreadsheets. • Architectural Drawings and Specifications (issued for construction/as-built). • Mechanical Drawings and Specifications (issued for construction/as-built). • Electrical Drawings and Specifications (issued for construction/as-built). <p>Notes:</p> <ul style="list-style-type: none"> ○ For TEUI and TEDI Energy Modelling Guidelines, please refer to the ZCB Energy Modelling Guidelines: https://www.cagbc.org/cagbcdocs/zerocarbon/CaGBC_EMG_for_ZCB_v01.pdf

			<ul style="list-style-type: none"> For rules on carbon accounting and calculating GHGI, please refer to the Zero Carbon Building Standard: https://www.cagbc.org/cagbcdocs/zerocarbon/CaGBC_Zero_Carbon_Building_Standard_EN.pdf
Great Target:	3 points	<p><u>Building Commissioning</u></p> <p>Building commissioning is a systematic process of verifying that the various building sub-systems such as building envelope, mechanical (HVAC), plumbing and lighting systems are constructed and operational per the project requirements and design intent.</p> <p>Conduct best practice commissioning, per the requirements referenced in LEED BD+C v4 Fundamental Commissioning and Verification pre-requisite.</p>	Letter of Commitment signed by the owner/developer/builder at SPA stage confirming that building commissioning will be carried out per the requirements of LEED v4 BD+C Fundamental Commissioning and Verification pre-requisite.
Excellent Target:	3 points	<p><u>Airtightness Testing</u></p> <p>Conduct a whole-building air leakage test to improve the quality and airtightness of the building envelope.</p>	<p>Applicant to provide Letter of Commitment signed by the owner/developer/builder at SPA stage to retain an airtightness testing provider to conduct a whole-building air leakage test.</p> <p>It is recommended that applicants follow ASTM WK35913 Standard Test Method for Determining the Air Leakage Rate of Large or Multi-zone Buildings or US Army Corps of Engineers (USACE) Air Leakage Test Protocol.</p> <p>Projects shall conduct an operational envelope airtightness test under negative pressure producing a multi-point regression. However, projects are permitted to pursue negative and positive pressure testing and produce a building envelope test where HVAC-related openings are excluded as in the Passive House standard.</p> <p>Projects shall target a test pressure of 75Pa. Projects unable to achieve 75Pa must follow either ASTM W35913 alternative test methods; Repeated Single-Point Test or a Repeated Two-Point test and demonstrate compliance using projected curves for airtightness at 75Pa.</p> <p>If the whole building cannot be tested as one zone, it is acceptable to test a zone that can be partitioned temporarily with adjacent zones "Guarded" as buffer zones using blower door equipment. Note that the air leakage rate should be normalized to the exterior surface area and not include the guarded surface areas.</p> <p>All materials, assemblies, and systems that form the continuous air barriers systems must be installed including any HVAC equipment, ducts, and fittings included in the test boundary.</p> <p>Upon completion, the applicant shall provide a completed airtightness testing report to City officials.</p>
Good Target:	3 points	<p><u>Metering</u></p> <p>Install electricity and/or thermal sub-meters for all energy end-uses that represent more than 10% of the building's total energy consumption, following</p>	<p>The provision of electricity and thermal sub-meters clearly indicated on electrical and mechanical single-line diagrams.</p> <p>A metering plan listing all meters along with type, energy source metered, diagrams, and/or references to design documentation.</p>

		<p>the requirements laid out in LEED v4 Reference Guide Advanced Energy Metering credit.</p> <p>For buildings with multiple tenants, provide energy sub-metering for each commercial/institutional tenant, and per residential suite.</p>	
Excellent Target:	+5 additional points (total 10 points)	<p><u>Part 9 Residential Buildings</u></p> <p>Design, construct and certify the building to achieve CHBA Net Zero Homes program or Passive House requirements.</p> <p><u>Part 3 Buildings – Multi-Unit Residential, Office and Retail</u></p> <p>Develop a whole-building energy model and design the building to achieve the following whole-building performance metrics associated with a near-net zero emissions level of performance:</p> <ul style="list-style-type: none"> • Total Energy Use Intensity (TEUI): 75 kWh/m².yr • Thermal Energy Demand Intensity (TEDI): 15 kWh/m².yr • Greenhouse Gas Emissions Intensity (GHGI): 5 kgCO₂/m².yr <p><u>All Other Part 3 Buildings</u></p> <p>Develop a whole-building energy model and design the building to achieve at least a 50% improvement in energy efficiency over the Ontario Building Code (OBC) SB-10, Division 3 (2017) reference building.</p> <p>For intermediate performance levels between the Recommended Great and Excellent targets, points will be awarded on a pro-rated basis (Up to 8 Points).</p>	<p>Site Plan Approval (SPA) Energy Model Documentation Requirements:</p> <ul style="list-style-type: none"> • Energy Model Report summarizing key modelling inputs, outputs and assumptions, signed by a licensed professional. • Working Energy Model Simulation Files. • Mechanical and Electrical Design Brief. • Related supporting drawings and calculations done externally from the energy modelling software (for example, thermal bridging calculations). <p>As-Built Energy Model Documentation Requirements:</p> <ul style="list-style-type: none"> • Updated Energy Model Report. • Working Energy Model Simulation Files. • Mechanical and Electrical Design Brief. • Modelling Notes: General, Building Level, Plant Level, System Level, Occupancy and Minimum Outdoor Air Rates, Warnings and Errors. • Take-off Calculations (Modeler's external calculations to support the model inputs). If applicable, the calculation for model workarounds, exceptions, process energy savings, renewable energy systems, district energy systems, or other required calculations. • Zoning Diagrams. • Outdoor Air Calculation Spreadsheets. • Architectural Drawings and Specifications (issued for construction/as-built). • Mechanical Drawings and Specifications (issued for construction/as-built). <p>Electrical Drawings and Specifications (issued for construction/as-built).</p> <p>Notes:</p> <ul style="list-style-type: none"> ○ For TEUI and TEDI Energy Modelling Guidelines, please refer to the ZCB Energy Modelling Guidelines: https://www.cagbc.org/cagbcdocs/zerocarbon/CaGBC_EMG_for_ZCB_v01.pdf ○ For rules on carbon accounting and calculating GHGI, please refer to the Zero Carbon Building Standard: https://www.cagbc.org/cagbcdocs/zerocarbon/CaGBC_Zero_Carbon_Building_Standard_EN.pdf
References:	<p>Toronto Green Standard Version 3.0</p> <p>ASTM WK35913 Standard Test Method for Determining the Air Leakage Rate of Large or Multi-zone Buildings or US Army Corps of Engineers (USACE) Air Leakage Test Protocol.</p> <p>CHBA Net Zero Homes program</p> <p>ENERGY STAR® for New Homes</p> <p>LEED v4 Reference Guide Advanced Energy Metering credit.</p> <p>LEED BD+C v4 Fundamental Commissioning and Verification pre-requisite.</p> <p>Ontario Building Code (OBC) SB-10, Division 3 (2017) reference building.</p> <p>R-2000®</p>		

Metric:	IB-14 Reduce Potable Water Use		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To promote efficient use of potable water. Promoting efficient use of potable water contributes to water conservation.		
	Points	Requirements	Documenting Compliance
Good Target:	2 points	For highrise multiunit or ICI development: Reduce potable water used for irrigation by 50%, compared to a mid-summer baseline case.	<p>Submit:</p> <p>A Letter of Commitment from a qualified professional (architect, mechanical engineer, landscape architect) and the owner/developer/builder to confirm:</p> <ul style="list-style-type: none"> The project will be designed to reduce potable water requirements for irrigation. List the plant species intended to be used and highlight which are native/ adaptive/ drought tolerant. Determine the percent (%) reduction in potable water used to irrigate, relative to a mid-summer baseline case. For information on how to achieve this credit refer to LEED v4 BD+C WE Credit: Outdoor Water Use Reduction Option 2 and use the calculation tool to demonstrate. Identify the strategies used to reduce potable water demands (e.g. drought-tolerant vegetation, controls, drip irrigation and/or rainwater harvesting/storage). Strategies include: <ul style="list-style-type: none"> Drought tolerant, native/ or adaptive vegetation that requires little to no water in the local climate, Using high-efficiency irrigation such as drip irrigation, Using captured rainwater for irrigation. If captured rainwater is used, provide a Letter from a Qualified professional (mechanical engineer) confirming the proposed cistern size and the calculations to demonstrate the volume of captured water expected.
Great Target:	+4 additional points (total 6 points)	No potable water is used for irrigation.	<p>For Excellent target, provide the documentation as requested for the minimum target unless the target is achieved by not installing any irrigation.</p> <p>In the case where no irrigation is installed, provide a Letter of Commitment from qualified professionals (property managers, building owners, site owners) confirming that no irrigation will be installed past the establishment period and that sod will be allowed to go dormant and brown in off-season months.</p>
References:	LEED NC WEc1 LEED NC BD+C WE Credit: Outdoor water use reduction Toronto Green Standard Tier I, WQ 4.3		

Metric:	IB-15 Back-Up Power		
Applicable To:	<input type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To encourage the provision of back-up power that enables the functioning of key utilities/building functions during power failures resulting from extreme weather events.		
	Points	Requirements	Documentation Compliance
Good Target:	1 point	Provide rough-ins to allow for the installation of external generators/auxiliary power supply at a later date.	<p>Provide a Letter of Commitment stating that all residential dwellings will be provided rough-ins to allow for the installation of external generators/auxiliary power supply at a later date.</p> <p>Notes:</p> <ul style="list-style-type: none"> ○ Applies to all residential building types
Good Target:	1 point	For mid-rise and high-rise buildings, provide a refuge area with heating, cooling, lighting, potable water, and power available for 72 hours.	<p>On the Floor Plans, identify the common refuge area.</p> <p>Provide a Letter of Commitment stating that the refuge area will be provided and supplied with heating, cooling, lighting, potable water, and power available for 72 hours.</p> <p>Notes:</p> <ul style="list-style-type: none"> ○ Applies to residential buildings that contain central amenity/lobby space. A refuge area should be a minimum size of 93m² (1000 square feet), and/or 0.5m²/occupant and may act as building amenity space during normal operations. ○ Common refuge areas are temporarily shared, lit spaces where vulnerable residents can gather to stay warm or cool, charge cell phones and access the internet, safely store medicine, refrigerate basic food necessities, access potable water and toilets and perhaps prepare food.
Great Target	3 points	Provide 72 hours of back-up power to essential building systems.	<p>Provide a Letter of Commitment stating that at least 72 hours of back-up power to essential building systems will be provided.</p> <p>Notes:</p> <ul style="list-style-type: none"> ○ Provide a 72 hour minimum back-up power system, preferably using a non-fossil fuel source, to ensure power is provided to the refuge area, building security systems, domestic water pumps, sump pumps, at least one elevator, boilers and hot water pumps to enable access and egress and essential building functions during a prolonged power outage. ○ Applies to multi-unit residential buildings only
References:	<p>Institute for Catastrophic Loss Reduction, and Durham Region. Durham Region Climate Resilience Standard for New Houses - Draft for Consultation. (February 2018)</p> <p>Toronto Green Standard v3</p> <p>City of Toronto. Minimum Backup Power Guidelines for MURBs, Voluntary Performance Standards for Existing and New Buildings (2016).</p> <p>City of Brampton. Emergency Preparedness Guide.</p>		

Metric:	IB-16 Extreme Wind Protection		
Applicable To:	<input type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To increase the resistance of homes to the impacts of high wind events.		
	Points	Requirements	Documentation Compliance
Good Target:	1 point	Tie roof rafters, roof trusses, or roof joist to loadbearing wall framing with engineered connectors (commonly referred to as "hurricane ties") that will resist factored uplift load of 3 kN.	<p>Provide a Letter of Commitment stating that roof rafters, roof trusses, or roof joist will be tied to loadbearing wall framing with engineered connectors (commonly referred to as "hurricane ties") that will resist factored uplift load of 3 kN.</p> <p>Notes:</p> <ul style="list-style-type: none"> ○ Builders should request that truss manufacturers supply appropriate roof-to-wall connectors along with trusses.
References:	Institute for Catastrophic Loss Reduction, and Durham Region. Durham Region Climate Resilience Standard for New Houses - Draft for Consultation. (February 2018) Sandink, D., et al. Increasing High Wind Safety for Canadian Homes: A Foundational Document for Low-Rise Residential and Small Buildings. (April 2019)		

Metric:	IB-17 Sub-Metering of Thermal Energy and Water		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	Sub-metering allows measurement of individual unit consumption, which helps residents understand how their behaviour drives energy costs, and motivates change in behaviour, often resulting in reductions in energy consumption.		
	Points	Requirements	Documentation Compliance
Good Target:	2 points	Design buildings to include thermal energy meters for each tenant in multi-tenant residential, commercial/retail buildings.	Submit: A Letter of Commitment signed by an accredited professional (e.g. architect, engineer) to confirm that all buildings will be designed and constructed to include thermal energy and/or water meters for each unit.
Good Target:	2 points	Design buildings to include water meters for each tenant in multi-tenant residential, commercial/retail buildings.	
References:	Toronto Green Standards Version 3.0		

Metric:	IB-18 Reduce Light Pollution		
Applicable To:	<input type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To reduce nighttime glare and light trespass from the building and the site. Light pollution can be perceived as an inefficient use of energy in addition to its negative impacts on neighbors and night time animals.		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	All exterior fixtures are Dark Sky Compliant	<p>Submit:</p> <p>A Letter of Commitment from a qualified professional (architect, energy, structural, electrical or mechanical engineer), and the owner/developer/builder confirming that:</p> <ul style="list-style-type: none"> The City's applicable standards have been satisfied. All fixtures intended for exterior lighting will be Dark Sky Compliant. <p>Notes:</p> <ul style="list-style-type: none"> The requirement of this metric meets minimum City and Regional standards for lighting. In alignment to the TGS v3 EC5.1 credit, the following guidance is provided for Dark Sky Compliant fixtures on the City's TGS website and can be used for this metric: Dark Sky Compliant fixture must have the Dark Sky Fixture Seal of Approval which provides objective, third-party certification for lighting that minimizes glare, reduces light trespass and doesn't pollute the night sky. If a Dark Sky Fixture Seal of Approval is not available fixtures must be full-cutoff and with a colour temperature rating of 3000K or less. All exterior light fixtures should be efficient while providing minimum illumination levels sufficient for personal safety and security. <i>Efficient exterior lighting</i> is defined as 60 Lumens/Watt minimum system efficiency. Safety and security lighting should minimize glare and/or light trespass. For more information see the Best Practices for Effective Lighting.
References:	LEED NC SSc8 Toronto Green Standard v3 EC5.1 City of Vaughan Urban Design Guidelines City of Markham Bird Friendly Guidelines International Dark-Sky Association		

Metric:	IB-19 Bird-Friendly Design		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	<p>To reduce the incidents of bird collisions and provide an urban environment where birds can thrive.</p> <p>The built environment can have strong negative impacts on birds. Design and system selection can result in fewer bird collisions and deaths.</p>		
	Points	Requirements	Documenting Compliance
Good Target	2 points	<p>Apply a combination of Bird-Friendly Design strategies on at least 85% of contiguous glass area greater than 2 m² within the first 16 m of the building above-grade (including interior courtyards) and above green roofs.</p> <p>The remaining 15% of glazed windows do not need to be treated unless the glazing is larger than 2m² or in close proximity to open spaces, a green roof or a natural heritage feature.</p> <p>Bird-Friendly Design Strategies may Include:</p> <ul style="list-style-type: none"> • Visual patterns on glass, • Window films, • Fenestration patterns, • Angled glass downwards, • Reducing night sky lighting. <p>Visual markers provided on the glass of proposed buildings with spacing no greater than 10 cm x 10 cm.</p>	<p>Submit:</p> <p>On an Elevation Plan:</p> <ul style="list-style-type: none"> • Highlight and declare the total area of contiguous glass, below 16m above grade that is greater than 2 m². • Indicate the areas treated bird friendly design strategy, noting which strategy has been used. • Quantify the total area of continuous glass that has been treated by bird-friendly design strategies and confirm that it is at least 85%. • Confirm that the visual markers on the glass have spacing no greater than 10cm x 10cm.
Good Target:	2 points	<p>Apply Bird-Friendly Design strategies for ground-oriented residential development that is adjacent to natural heritage systems and open spaces.</p>	<p>Submit:</p> <p>Letter of Commitment signed by an accredited professional (architect or professional engineer) that includes confirmation that Bird Friendly Design strategies are incorporated for developments adjacent to natural heritage systems and open spaces, listing which acceptable Bird Friendly Design strategies are to be included.</p>
References:	<p>City of Vaughan: Urban Design Guidelines.</p> <p>City of Markham Bird Friendly Guidelines</p>		

Metric:	IB-20 Solid Waste		
Applicable To:	<input type="checkbox"/> Block Plan <input type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan		
Metric Intent:	To promote waste reduction and diversion of materials from landfills. A reduction in waste can be a very cost-effective method for material savings and results in fewer contributions to landfills and lower carbon emissions due to savings in materials.		
	Points	Requirements	Documenting Compliance
Good Target:	1 point	Provide a waste system for garbage, recycling, and organics using one or more of the following options: <ul style="list-style-type: none"> three separate chutes for garbage, recycling, and organics collection on all floors. 	<p>Submit:</p> <p>On a Site Plan and/ or Floor Plans:</p> <ul style="list-style-type: none"> Confirm that City's applicable standards have been satisfied. Identify the waste systems for garbage, recycling, and organic waste. <p>Notes:</p> <ul style="list-style-type: none"> The requirements apply to residential developments with 31 units or more and building heights greater than 5 storeys.
Good Target:	1 point	<p><u>Residential:</u> Provide accessible waste storage room with minimum 25m² floor space for the first 50 units plus an additional 13m² for each additional 50 Units to accommodate containers and compactor units. (not applicable in Richmond Hill, a requirement already covered in Richmond Hill's waste development standard).</p> <p><u>Non-residential:</u> Provide a fully enclosed waste storage space to accommodate garbage and materials diversion of recycling and organics. (not applicable in Richmond Hill, a requirement already covered in Richmond Hill's waste development standard).</p>	<p>Submit:</p> <p>On a Site Plan and/ or Floor Plans:</p> <ul style="list-style-type: none"> Confirm that City's applicable standards have been satisfied. Identify waste storage areas. Determine the floor area provided for the waste storage space and identify the separate garbage storage, recycling storage, and organics storage, (Residential only): Determine the waste storage area required based on the number of dwelling units and declare on Floor Plans/ Site Plan drawing.
Good Target:	1 point	Provide a minimum of 10m ² for bulky items and items eligible for special collection services. (not applicable in Richmond Hill, a requirement already covered in Richmond Hill's waste development standard).	<p>Submit:</p> <p>On a Site Plan and/ or Floor Plans:</p> <ul style="list-style-type: none"> Identify the storage for bulky items and declare the area. The 10m² may not be shared with other purposes and be solely dedicated to bulky waste to meet this Excellent target, although it may be in the same room as other waste storage. <p>Notes:</p> <ul style="list-style-type: none"> Bulky items are household items greater than 1.2m in any one dimension or weigh more than 20 kg (including furniture).

Great Target:	1 point	<p><u>Residential only:</u> Provide a dedicated collection area or room for the collection of household hazardous waste and/or electronic waste. (not applicable in Richmond Hill, a requirement already covered in Richmond Hill's waste development standard).</p>	<p>Submit:</p> <p>On a Site Plan and/ or Floor Plans,</p> <ul style="list-style-type: none"> Identify the dedicated collection area or room for the collection of household hazardous waste and/or electronic waste. <p>Notes:</p> <ul style="list-style-type: none"> Household Hazardous Waste (HHW) includes car products, motor oil, windshield fluid; household cleaning products; paint, glue, primers, stains; pesticides and garden products; cooking oil; batteries; propane tanks; CFLs, syringes, medical sharps; medication; air fresheners, swimming pool chemicals.
References	<p>Toronto Green Standard v3 SW1.1, SW1.2, SW1.3, SW1.6 City of Richmond Hill By-law 18-19</p>		

Metric:	I-1 Innovation	
Applicable To:	<input checked="" type="checkbox"/> Block Plan <input checked="" type="checkbox"/> Draft Plan <input checked="" type="checkbox"/> Site Plan	
Metric Intent:	To encourage applicants to achieve innovative performance. Innovation strategies must demonstrate a comprehensive approach, have significant, measurable environmental Benefits, and be better than standard practice.	
	Points	Requirements & Documenting Compliance
Exceptional Target:	Up to a total of 10 points (maximum) based on the measurable sustainability benefit provided	<p>The proposed innovation metric must demonstrate a quantitative improvement in sustainable performance by identifying or establishing a baseline of standard performance and comparing that benchmark with the final design performance. Should this Innovation Metric be pursued by an applicant, as part of first submission, the applicant must provide a high-level concept of the proposed Innovation metric for review by the municipality. This concept should include a description of the sustainability benefit being pursued and the proposed point allocation. Applicant's may choose to explore innovative measures listed in the Innovation Library as detailed below and must indicate this as part of their submission. As part of the application review process of the first submission, the municipality will then provide a response as to whether the applicant's proposal will be considered further.</p> <p>Should the applicant's proposal be considered acceptable by the municipality to pursue further, applicants shall be required to demonstrate the following to the satisfaction of the municipality as part of the second submission:</p> <p>The applicant must explain in detail the benefit of the proposed innovation metric and submit:</p> <ul style="list-style-type: none"> • The intent of the proposed innovation metric, • The proposed requirements for compliance, • The proposed submittals to demonstrate compliance, • The design approach to strategies used to meet the requirements. <p>Innovation points will only be considered for strategies not already identified in the menu of metric options. Innovation points are not awarded for the use of a particular product or design strategy if the technology aids in the achievement of an existing metric, even if the project is not attempting to earn that metric. Corporate strategies are not considered innovative.</p> <p>The Innovation Library</p> <p>Idea #1 - Include on the site, a Tall Wood Building, an exemplary performance of in the intent behind Embodied Carbon metric and a demonstration of leadership in tall wood construction. A tall wood building is defined as a building over 6 storeys that uses wood for its structural system and is built using mass timber construction. Tall wood building projects with mass timber requires Alternative Solutions for approval under OBC. Ontario's Tall Wood Building Reference (2017) is a technical resource to help applicants with how tall wood buildings can be designed as alternative solutions in a way that achieves the level of performance required by the Ontario Building Code.</p>
References:	LEEDv4 Innovation Credit	

APPENDIX B: Metrics Re-Numbering

The renumbering of the metrics is presented in Appendix B. The metrics are renumbered to be more reflective of the categories; Built Environment, Mobility, Natural Environment and Open Space Infrastructure and Buildings, and Innovation. This Appendix also shows which metrics have been moved to other categories that better represent the metrics' intent.

	Original Number	Metric Name	New Metric Number
Built Environment	1.B.1/ 1.B.2	Proximity to Amenities	BE-1
	New	Providing Mixed-Use Development	BE-2
	1.F.1	Design for Life Cycle Housing	BE-3
	N/A	Community Neighbourhood Scale	BE-4
	1.J.2	Cultural Heritage Conservation	BE-5
	1.C.4	Enhancing Urban Tree Canopy and Shaded Walkways and Sidewalks	BE-6
	New	Salt Management	BE-7
	1.H.4	Carshare & Carpooling Parking	BE-8
	1.H.2	Surface Parking Footprint	BE-9
	New	Electric Vehicle Charging Stations	BE-10
Mobility	2.B.1	Block Perimeter /Length	M-1
	1.I.2	School Proximity to transit routes, cycling networks and bikewayswalkways	M-2
	2.B.2	Intersection Density	M-3
	2.E.1	Promote walkable streets	M-4
	2.A.1	Pedestrian Amenities	M-5
	1.H.1	Bicycle Parking	M-6
	2.D.2	Implementing Trail and Bike Paths Cycling Infrastructure	M-7
	2.D.1	Proximity to Active Transportation Network	M-8
	2.C.1	Distance to Public Transit	M-9
	1.I.1	Traffic Calming	M-10

Natural Environment & Open Space	1.C.2	Preserve Existing Healthy Trees	NE-1
	1.C.3	Soil Quantity and Quality for New Trees	NE -2
	3.E.1	Healthy Soils	NE-3
	1.J.1	Connection to Natural Heritage	NE-4
	1.J.3	Natural Heritage System Enhancements	NE-5
	New	Supporting Pollinators	NE-6
	3.C.1	Dedicate Land for Private Fruit and Vegetable Garden Space	NE-7
	3.A.1	Access to Public Parks	NE-8
	3.B.1	Storm water quantity	NE-9
	3.B.2	Storm water quality	NE-10
	3.B.3	Rainwater and Greywater Use re-use (for interior building functions)	NE-11
	3.B.4	Multi-purpose Stormwater Management	NE-12
Infrastructure and Buildings	1.D.1	Buildings Designed and/or Certified under an Accredited “Green” Rating System	IB-1
	1.E.1	Universal Design	IB-2
	1.E.2	Universally Accessible Entry to Buildings and Sites <u>Building Accessibility</u>	IB-3
	New	Embodied Carbon of Materials: SCMs	IB-4
	New	Embodied Carbon of Materials: LCAs	IB-5
	New	Embodied Carbon of Materials: Material Efficient Framing	IB-6
	4.F.1	Reduce Heat Island–Non Roof	IB-7
	4.F.2	Reduce Heat Island–Roof	IB-8
	4.A.1	Passive Solar Alignment	IB-9
	New	Controlling Solar Gain	IB-10
	3.D.1	Solar Readiness	IB-11
	4.A.3	Energy Strategy	IB-12

LEGEND
Metric Category:

Built Environment

Mobility

Natural Environment & Open Space

Infrastructure & Buildings

Innovation

Appendix B

	4.A.2	Building Energy Efficiency and Emissions	IB-13
	4.B.1	Reduce potable water use	IB-14
	New	Back up Power	IB-15
	New	Extreme Wind Protection	IB-16
	New	Sub-Metering of Thermal Energy and Water	IB-17
	4.C.2	Reduce light pollution	IB-18
	4.D.1	Bird friendly design	IB-19
	4.E.1	Solid waste	IB-20
Innovation	New	Innovation	I-1

APPENDIX C: Energy and GHG Analysis

ENERGY AND GHG REDUCTION METRICS

There have been significant changes to building energy performance and GHG emissions targets since the Sustainability Metrics were first initiated in 2014. These include the roll-out of provincial and municipal climate change action plans, including the development of the City of Toronto's municipal climate action plan (TransformTO), and subsequent implementation of the updated Toronto Green Standard Version 3.0. The energy efficiency requirements of the Ontario Building Code SB-10 and SB-12 have also been made more stringent, to the extent that they now exceed the recommended minimum level of performance in the current Sustainability Metrics. It is also understood that the partner municipalities have either developed, or are in the process of developing, their community energy and emissions plans, that will likely encourage a significant reduction in energy and GHG emissions associated with the buildings sector to meet their overall GHG emissions reduction targets.

In order to assist with the decision-making process to incorporate more stringent and/or alternative performance metrics associated with energy and GHG reduction, a cost-benefit analysis has been completed for five common building archetypes in order to make recommendations on the most suitable performance targets, based on energy and emissions savings, as well as technical and economic viability. The five archetype buildings that have been analyzed include a medium-sized single family dwelling, a low-rise multi-unit residential building (MURB), a mid to high-rise MURB, office, and retail.

The building energy analysis was completed using EnergyPlus modelling software, costing information based on Morrison Hershfield's internal costing database and previous energy policy projects. The impact of a variety of parameters including envelope performance, Heating, Ventilation and Air Conditioning (HVAC) system performance, building window-to-wall ratio, and lighting was assessed.

The range of conditions analyzed generated a large data set, which was then analyzed using Morrison Hershfield's Interactive Building Energy Performance Map to determine trends in the data and derive conclusions in terms of target recommendations.

1.1 Scope of Analysis

The objective of the energy modelling study was to better understand the impact of key design parameters on energy and emissions performance of the identified building archetypes, and to develop performance requirements for identified archetype facilities across three distinct levels that form the structure of the Sustainability Metrics: Mandatory, Minimum and Aspirational. A parametric modelling study was completed for five of the most common city building types: medium-sized single family dwelling, low-rise MURB, mid-to-high rise MURB, office and retail.

The three levels of targets are established to generally correspond to the following performance levels:

- Level 1: "Mandatory" – Required for all new buildings and facilities as a mandatory minimum level of performance, and is equivalent to that required by the 2012 Ontario Building Code.

- Level 2: “Recommended Minimum/Great” – Performance targets that represent a more ambitious level of performance overall, and serve as the recommended base performance level for sustainable development in the community.
- Level 3: “Aspirational/Excellent” – Performance targets that are considered best in class and should be pursued when project constraints allow. The targets are generally with net zero emissions-ready and net zero energy outcomes, as well as performance levels typically aimed towards Passive House or the Living Building Challenge.

For the purpose of this report study, the targets will be referred to as “Minimum” and “Aspirational” as they were in the original Sustainability Metrics. Re-naming into their respective “Good”, “Great” and “Excellent” targets has occurred after the conclusion of the energy modelling study.

1.2 Energy Performance Approaches and Metrics

1.2.1 Reference Building Approach

Targeting a performance level relative to an energy code, such as the National Energy Code of Canada for Buildings (NECB), is known as a reference building approach. The key features of a reference building approach are:

- The “reference building” is a fictitious building that the design is compared to for assessing performance.
- The reference building predominantly has the same physical characteristics as the proposed design, such as program type, geometry, and orientation.
- The reference building approach normalizes certain assumptions about the building, thereby eliminating any performance biases related to building characteristics that are not typically under the control of the design team. This typically includes characteristics such as occupancy, hours of operation, receptacle and process loads, among others.
- The reference building approach typically uses a strict ruleset that dictates how performance is to be assessed using energy modeling, and how credit is rewarded for energy efficiency measures. The implications of these modelling rules are further examined in Section 2.5.4 of the report.
- The reference building approach typically results in a moving target, in that the performance of the reference building changes based on certain characteristics of the design (see below for examples in the NECB). This can sometimes result in situations where better relative performance does not equal better absolute performance.
- The reference building approach does not typically reward innovative strategies that minimize absolute energy use, such as night setback of temperature set-points reductions in receptacle and process loads, and other types of measures that would be considered standardized assumptions.
- The reference building approach does not always lead towards absolute

reductions in energy and GHG emissions that strive towards net-zero emissions ready scenarios.

The reference building approach is common throughout North America, with most states in the US, British Columbia, and Ontario referencing some version of ASHRAE

90.1 – Energy Standard for Buildings except Low-Rise Residential Buildings. The NECB is currently referenced in British Columbia, Alberta, Manitoba, Ontario and Nova Scotia, the Model National Energy Code for Buildings (MNECB) 1997 is currently referenced in the Sustainability Metrics, and the City of Markham references ASHRAE

90.1 for building retrofits. However, the reference building approach is less common in other parts of the world, such as Europe, where a target based approach is used.

Potential reference building based metrics that could be included in the updated Sustainability Metrics are listed below:

1.2.2 Energy Savings over Ontario SB-10 (2012 Ontario Building Code)

This metric looks at the relative energy consumption savings of a particular design over an NECB/NBC 2015 reference building (as modified by SB-10) that is minimally compliant with the energy efficiency requirements of Ontario SB-10, and as such provides a baseline that corresponds to the minimum energy performance required for new construction projects in the province. This metric does not rely on utility cost rates or GHG factors to weigh different fuel types and focuses strictly on percentage energy savings.

This metric has the same opportunities and challenges as discussed above for a reference building approach.

1.2.3 Number of LEEDv4 Energy Points

This metric is based on the relative energy cost savings of a particular design over an NECB 2011 reference building. This metric relates to the current policy which references LEED (LEED energy points is calculated based on energy cost savings over a baseline).

The current Green Buildings metric requires that municipal buildings greater than 500 m² be designed to LEED Silver or an alternative equivalent as a mandatory requirement, and additional points are available for development plans that include multiple buildings, based on the number of buildings that pursue third-party green building certification.

Given that the metric is based on energy costs, it provides an inherent incentive for prioritizing electricity load reductions over reductions in natural gas use due to the higher utility rates for electricity, and will not be aligned with a low GHG emissions outcome due to the clean nature of Ontario's electricity grid.

This metric also has the same opportunities and challenges as discussed above for a reference building approach. In addition, this metric depends on the cost rates of

different fuel type and may need to be updated periodically to account for fuel cost changes.

1.2.4 Target-Based Approach

A target-based approach sets absolute targets for energy efficiency. A range of metrics have been used in this approach, such as Energy Use Intensity, Heating Demand Intensity, and Greenhouse Gas Emissions Intensity. These are defined in more detail below. The key features of a target-based approach are:

- It focuses on absolute values, rather than a comparative value. This tends to lead to more appropriate design solutions for reducing energy and/or carbon rather than solutions selected for the purpose of outperforming a fictitious reference building.
- A target-based approach has been used successfully in high performance standards, such as Passive House, and has shown success in reducing actual energy use of operating buildings.
- Targets and metrics can be chosen to achieve the specific outcomes desired by a particular policy (e.g. energy, carbon, etc.)
- Targets often have to be set for different building types that inherently have different energy use characteristics; this can make it challenging to implement in a policy intended to capture all buildings.

Recently, some North American jurisdictions have moved from a reference building approach to a target based approach. One example is the City of Vancouver, where City Council recently adopted a “Zero Emissions Building Plan” that set absolute targets for buildings city-wide. Another example, as noted by the C40 Cities Climate Leadership Group, is Washington D.C.’s voluntary Appendix Z to their building code which species a net zero energy compliance path, including identifying specific targets for annual heating demand and annual cooling demand (https://www.c40knowledgehub.org/s/article/How-to-set-energy-efficiency-standards-for-new-buildings?language=en_US). The advantage of such a policy is that it identifies a long-term goal, which in the City of Vancouver’s case is carbon neutral new buildings by 2025, and then sets incremental improvements towards that goal that are transparent and can be planned for by the industry.

Given the shift towards a target-based approach in some of the more progressive energy policies across Canada, it is recommended to develop a set of absolute performance-based targets for key metrics that help drive towards low energy and carbon outcomes. The following target based metrics may be considered for the redeveloped Sustainability Metrics:

1.2.5 Energy Use Intensity (EUI)

This metric target looks at the absolute energy use of the building, and is typically varied depending on building type or climate. The Energy Use Intensity (EUI) focuses

on lowering overall energy use without consideration of fuel source to improve building energy efficiency, reduce energy costs and stresses on the electrical grid.

Absolute EUI targets have been incorporated into several energy policies across Canada, such as the B.C. Energy Step Code, City of Vancouver's Zero Emissions Building Plan, and the Toronto Green Standard v3.

1.2.6 GHG Emissions Intensity (GHGI)

This metric target is similar to EUI, but instead of focusing on absolute energy use, it focuses on absolute GHG emissions, with the intent of minimizing GHG emissions by prioritizing savings for high GHG fuels, encouraging low carbon fuel choices, and reducing building emissions.

The incorporation of the GHGI target into the Municipal Green Building Standard will help for better alignment with city-wide environmental policies outlined in the municipal Environmental Master Plans for Richmond Hill, Markham, Brampton, and Vaughan, as well as alignment with the provincial climate change mitigation mandate outlined in the 2018 'Made in Ontario' Environmental Plan.

1.2.7 Thermal Energy Demand Intensity (TEDI)

Thermal Energy Demand Intensity represents the amount of heating a building needs to offset building envelope losses and temper ventilation air, prior to any mechanical interventions (with the exception of ventilation heat recovery equipment). The intent of this measure is to maximize passive or near passive systems before looking at heating delivery methods and technology. This measure has been made popular by Passive House, an international high performance building standard, which promotes highly insulated buildings with exceptional ventilation heat recovery and otherwise simple mechanical systems.

This measure is agnostic to fuel source, with the primary intention of imposing efficient building envelope solutions. According to the Pembina Institute's 2016 report on "Accelerating Market Transformation for High-Performance Building Enclosures", in addition to providing energy savings, prioritizing building envelope solutions are also important for the following reasons:

- Building envelope solutions "are long lasting and costly to refurbish, unlike other energy affecting systems that can be more easily replaced as better technologies become available"
- Building envelope solutions are simpler, "their performance does not depend on complex energy management systems and they are more tolerant to delayed maintenance"
- Reducing heating and cooling demand early in the design process allows for reduction of the size of space conditioning systems, reducing construction cost and ongoing energy demand.

- Better building envelopes “also offer significant non-energy benefits, such as thermal comfort, acoustic isolation, durability, and increased resiliency to power outages and extreme temperature events.”

TEDI has attracted interest from policy makers in an effort to promote better building envelopes without being overly prescriptive on requirements. Under current energy codes like ASHRAE 90.1 and the NECB, there is substantial room to trade off mechanical and electrical efficiencies with lower performing envelopes. A metric like TEDI elevates the importance of the building envelope, which is viewed as one of the more robust energy saving measures in a building. Unlike mechanical and electrical systems, the building envelope is typically not prone to user or operator error, thereby more likely to realize its projected energy savings.

Finally, efficient building envelopes can provide additional benefits to energy and greenhouse gas emissions reductions, as shown in the “Zero Emissions Building Framework” (City of Toronto, 2017). The analysis done to support this policy showed how improved building envelopes can perform substantially better in power outages and maintain livable space temperatures, even under extended cold periods.

In view of the benefits outlined above, as well as the potential for improvements in energy efficiency of the building envelope relative to current typical practice in the municipal building stock, it is recommended that the TEDI be adopted as a target in the redeveloped Sustainability Metrics.

1.3 Archetype Building Descriptions

Morrison Hershfield (MH) modelled the archetype buildings from MH’s internal database based on real building floor plans from buildings that best reflected the five building types that were to be analyzed. The Part 9 single family dwelling archetype -detached dwelling archetype was based on the energy modelling data set generated by MH’s Pathfinder tool.

1.3.1 Single Family Dwelling (Part 9)

The Part 9 low-rise residential archetype is represented by a medium-size single family dwelling (SFD) with a total gross floor area of 237 m², consisting of 2 storeys and a basement. The building would fall under the scope of Part 9 of Division B of the 2012 Ontario Building Code, and would be subject to the energy efficiency requirements of OBC SB-12 at a minimum.

The following variations in building design parameters and energy conservation measures (ECMs) are considered to determine the impact on higher levels of energy efficiency on the identified key whole-building performance measures.

- Airtightness ACH: 3.5 ACH, 2.5 ACH, 1.5 ACH, 0.6 ACH
- Wall Effective R-Value: R-16, R-18, R-22, R-30, R-40
- Underslab R-Value: R-0 (uninsulated), R-11.1, R-20
- Roof R-Value: R-40, R-50
- Window U-Value: Double-Glazed (U-0.32), Triple-Glazed (U-0.21), High-Performance Triple-Glazed (U-0.14)

- Domestic Hot Water: Electric tank, Gas-fired instantaneous water heater, heat pump water heater
- Drainwater Heat Recovery: None, 42% effective drainwater heat recovery
- Space Heating: Electric baseboards, forced-air gas-fired heating furnace, cold climate air-source heat pump
- Ventilation Air heat Recovery: None, 62% effective energy recovery ventilator (ERV), 72% effective ERV, 84% effective ERV

1.3.2 Low and Mid/High-Rise Multi-Unit Residential (Part 3)

The low-rise residential archetype is represented by a four-storey multi-unit residential building (MURB) with a total gross floor area of 5,290 m², whereas the mid/high-rise is represented by a 30-storey MURB with a total gross floor area of 22,660 m². The buildings would fall under the scope of Part 3 of Division B of the 2012 Ontario Building Code, and would be subject to the energy efficiency requirements of OBC SB-10 at a minimum.

The energy and emissions performance outcomes of the two archetypes are generally expected to be quite similar, with the primary difference being in costing outcomes due to differing envelope construction (i.e. combustible vs. non-combustible construction).

The following variations in building design parameters and energy conservation measures are considered to determine the impact on higher levels of energy efficiency on the identified key whole-building performance metrics.

- Airtightness: Up to 75% reduction from code (NECB) baseline value
- Wall Effective R-Value: Options between R-10 and R-30
- Roof R-Value: Options between R-20 and R-40
- Window-to-Wall Ratio: Options between 30% and 80%
- Window Performance: Options ranging between U-0.4 (double-glazed) and U-0.14 (high-performance triple glazed)
- Lighting Power Density: Up to 50% reduction in common area lighting from code values through usage of high efficiency LED lighting
- Plug Loads: Option for 20% load reduction from ENERGY STAR rated appliances
- Corridor Ventilation: Options for corridor pressurization between 30 cfm/suite and ASHRAE 62.1-2010 minimum requirements.
- Ventilation Air Heat Recovery: Options – None to 85% suite ERV efficiency
- HVAC System: Option of conventional fan coil units served by condensing boiler/water-cooled chiller, or air/ground source heat pumps
- Domestic Hot Water: Option for up to 50% load savings from low-flow fixtures.

1.3.3 Commercial Office (10 Storey Office Building)

The commercial office archetype will be represented by a ten-storey office building with a total gross floor area of 18,200 m². The building would fall under the scope of Part 3 of Division B of the 2012 Ontario Building Code, and would be subject to the energy efficiency requirements of OBC SB-10 at a minimum.

The following variations in building design parameters and energy conservation measures (ECMs) are considered to determine the impact on higher levels of energy efficiency on the identified key whole-building performance metrics.

- Wall Effective R-Value: Options between R-5 and R-30
- Roof R-Value: Options between R-20 and R-40
- Window-to-Wall Ratio: Options between 40% and 80%
- Window Performance: Options ranging between U-0.4 (double-glazed) and U-0.2 (high-performance triple glazed)
- Lighting Power Density: Up to 50% reduction in common area lighting from code values through usage of high efficiency LED lighting
- Plug Loads: Option for 25% load reduction through energy-efficient plug loads
- Ventilation Air Heat Recovery: Options – None to 90% energy recovery effectiveness
- HVAC System: Option of conventional variable air volume (VAV) or fan coil units with dedicated outdoor air system (DOAS)
- Central Plant: Option of conventional high efficiency plant (i.e. condensing boiler and magnetic bearing chillers), air-source heat pump with back-up boiler, or ground-source variable refrigerant flow (VRF) systems.

1.3.4 Retail (Single-storey Building)

The retail archetype is represented by a single-storey Big Box store configuration with a total gross floor area of 4,500 m² and height of 6.1 m. The building would fall under the scope of Part 3 of Division B of the 2012 Ontario Building Code, and would be subject to the energy efficiency requirements of OBC SB-10 at a minimum. The following variations in building design parameters and energy conservation measures (ECMs) are considered to determine the impact on higher levels of energy efficiency on the identified key whole-building performance metrics.

- Wall Effective R-Value: Options between R-5 and R-30
- Roof R-Value: Options between R-20 and R-40
- Window-to-Wall Ratio: Options between 5% and 40%
- Window Performance: Options ranging between U-0.4 (double-glazed) and U-0.2 (high-performance triple glazed)
- Lighting Power Density: Up to 50% reduction in common area lighting from code values through usage of high efficiency LED lighting
- Ventilation Air Heat Recovery: Options – None to 90% energy recovery effectiveness
- HVAC System: Option of conventional gas-fired unitary rooftop units, unitary air-source heat pumps, or fan coil units with a dedicated outdoor air system (DOAS).
- Central Plant: Option of standard efficiency boiler/chiller plant, high-efficiency plant (i.e. condensing boiler and magnetic bearing chillers), or ground-source variable refrigerant flow (VRF) systems.

1.4 Parametric Analysis of Energy, Cost and Carbon Outcomes

The archetype energy models described above were run through an optimization process to identify the intersections of critical metrics so that a robust energy performance policy could be developed. The optimization process involves running a large-scale parametric analysis of each archetype, where various combinations of energy efficiency measures are run, with the number of options in the thousands or tens of thousands per building. For each option, energy, carbon and financial metrics are extracted. The variations in inputs vary by building, but typically involve the following:

The metrics that were extracted for each run included:

- Electricity and Gas Use of building (per m² of floor area)
- Total energy use, GHG emissions and thermal energy demand intensities (EUI, GHGI and TEDI) (per m² of floor area)
- Energy and GHG savings over Building Code
- Incremental Capital Cost, expressed as a percentage of total construction cost
- Annual Utilities cost of building (per m² of floor area)
- NPV Savings over typical design – this is the present value of the financial benefit over the 20 year study period
- Breakdown of energy consumption by end-use and fuel type

The resulting data set was then dynamically visualized using MH's Building Pathfinder tool to better understand the interrelationships between the different metrics, as well to determine which metric would best lead to the intended outcome of GHG emissions reduction.

1.4.1 Option 1—Prescriptive Approach

One option would be to simply adopt prescriptive requirements for the elements of building design that have a significant impact on energy and GHG emissions.

The Figure below illustrates the outcomes for such an approach for a mid-rise Part 3 MURB, where prescriptive requirements have been applied on the window-to-wall ratio (maximum 40%), Wall R-value (minimum effective R-20), and 70% effective heat recovery ventilators for dwelling units.

While imposing these requirements would result in at least 20% energy consumption and cost savings, as well as 10% GHG savings relative to the current OBC SB-10, there is still a wide range of outcomes for energy use intensity (could range between 60 and 180 kWh/m².yr) as well as absolute GHG intensities ranging from 2.5 to 27 kgCO_{2,e}/m².yr.

In order to obtain greater certainty on absolute energy and GHG performance outcomes, a greater number and/or more stringent prescriptive requirements could be imposed, however this is generally not preferred as a policy approach due to the greater degree of complexity, restrictiveness in terms of design options, and may not necessarily always result in cost-optimal approaches in achieving the intended reductions.

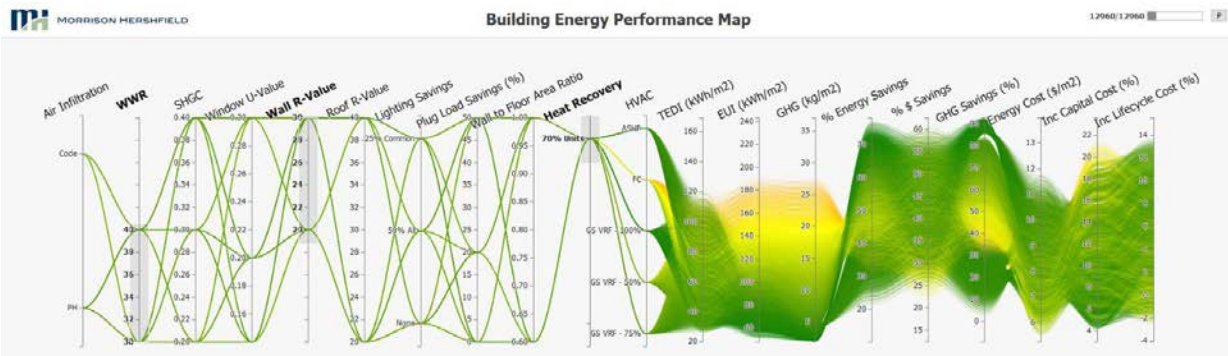


Figure 5: Option 1 - Prescriptive Approach

1.4.2 Option 2 –“Percent-Better-Than” Building Code

Option 2 is similar to the current approach adopted by the Sustainability Metrics, in that it involves setting an energy savings target relative to the Building Code minimum. Compliance would be demonstrated by comparing the modelled performance of the proposed building with the modelled performance of the code-minimum reference building.

This approach is illustrated in the Figure below for a Part 3 mid-rise MURB, where a target of 35% improvement in energy efficiency over the OBC SB-10 is applied. In terms of GHG reduction, it can be seen that this would result in at least a 15% reduction GHG emissions relative to the OBC baseline model, depending on the measures that are adopted in the design.

However, in terms of absolute GHG emissions, there is still a significant range in expected performance; this is a virtue of the limitations associated with the reference-building based approach, wherein elements of the reference building model mirror those of the proposed model per the modelling requirements in the underlying energy codes. For example, if the proposed building is served by a gas-fired heating system, a gas-fired heating system would also be modelled in the reference building, which would inherently have higher GHG emissions due to the carbon-intensive nature of the fuel source. As such, an improvement in relative performance may not necessarily correlate to an improvement in absolute performance, as is evident in the modelling data.

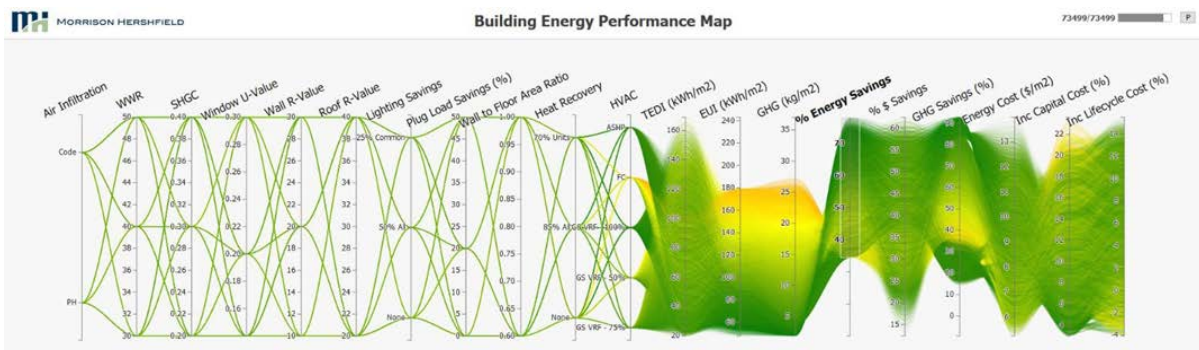


Figure 6: Option 2 – “Percent-Better-Than” Building Code

1.4.3 Option 3 –Minimum LEED Energy Points (% Cost Savings)

Option 3 would involve tying energy performance requirements with that of a green building certification program such as LEED. In the case of LEED, points for energy performance are awarded on the basis of percentage improvement in energy costs relative to an energy standard such as ASHRAE 90.1-2010 or NECB 2011.

This approach is illustrated in the Figure below, wherein a minimum % cost reduction target of 20% relative to the energy code is applied, as an example. It can be seen that imposing this target may not necessarily lead to reductions in absolute GHG emissions intensity; this is partially due to the difference in utility cost rates between electricity and natural gas currently in the province, with the latter typically being about five to six times less expensive than electricity. However, in terms of GHG emissions, electricity is about four times cleaner than natural gas in terms of equivalent carbon emissions per unit of energy. The result is that while electrical load reductions typically tend have a more significant impact on operating costs, the impact on GHG emissions is relatively small compared to natural gas savings. As such, a metric that prioritizes energy cost reductions may not necessarily result in equivalent GHG emissions reductions.

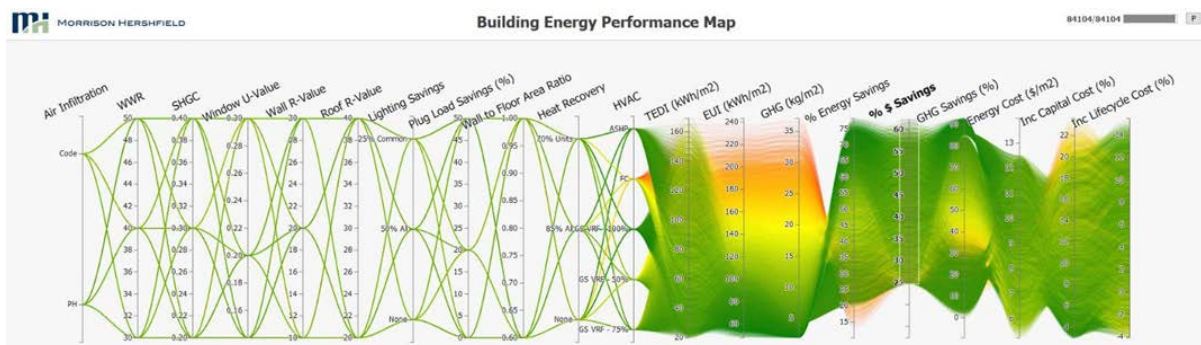


Figure 7: Option 3 - Minimum LEED Energy Points (% Cost Savings)

1.4.4 Option 4 –GHGI Target Only

Figure 8 below indicates the outcomes associated with imposing a GHGI target of 20 kg/m2.yr, which corresponds to the TGS Tier 1 target for a Part 3 MURB as an illustrative example.

While this metric is beneficial in itself for GHG reductions due to its very nature, there are several shortfalls with this approach of solely imposing a GHG reduction target that are evident in the modelling data:

1. It may not necessarily lead to outcomes that are energy-efficient in nature; for example, the TEDI measure, which is primarily measure of the efficiency of the building envelope, could be as high as 160 kWh/m2.yr (compared to the TGS Tier 1 target of 70 kWh/m2.yr), while still meeting the GHG target. This is primarily associated with pathways that rely on fuel switching from gas to electricity, while doing little to improve building energy efficiency.

- As a result of fuel switching without improvements in energy efficiency, there could be the potential for significant increases in utility operating costs due to the higher cost of electricity; as indicated in the Figure below, the annual energy cost could exceed \$13/m² in some cases.

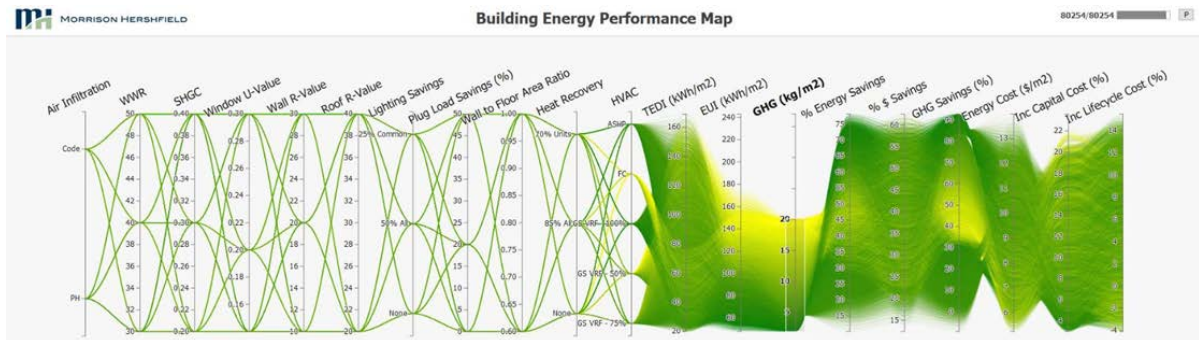


Figure 8: Option 4 – GHGI Target Only

1.4.5 Option 5 –EUI, Target and GHGI Targets

This option involves setting absolute targets for energy use intensity (EUI), thermal energy demand intensity (TEDI) and greenhouse gas emissions intensity (GHGI), each of which is intended to address a specific policy outcome:

- EUI – Promotes improvements in building energy efficiency across all building energy end-uses (space heating, cooling, lighting, etc.), while also reducing peak demand and stresses on the local grid.
- TEDI – Specifically targets improvements in building envelope performance, given the co-benefits associated with durability and thermal resiliency, in addition to energy and GHG emissions reduction.
- GHGI – Encourages the use of alternative low-carbon fuels and sources of energy to minimize the carbon footprint of the development.

Figure 9 below shows the scenario where the TGS Tier 1 targets for EUI, TEDI and GHGI to the high-rise MURB archetype. The associated outcomes are that the design would achieve at least a 10% improvement over the OBC SB-10 baseline, as well as providing for greater certainty in terms of GHG emissions (i.e. no more than 20 kgCO₂e/m².yr). Due to the incorporation of EUI and TEDI targets, the energy operating costs are also lower (i.e. more than \$9.5/m².yr) compared to Option 4 above with just a GHGI target. Furthermore, there are a variety of design solutions.

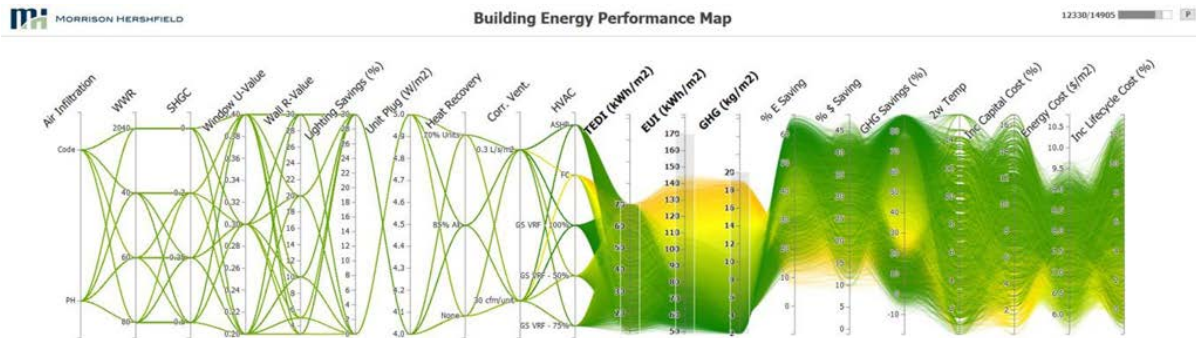


Figure 9: Option 5 - Recommended Minimum Scenario

Figure 10 shows the application of the TGS Tier 4 to the same archetype model, and is generally considered to be equivalent to near-net zero (net-zero ready) level of performance in terms of GHG emissions. To achieve this level, certain design constraints are evident such as usage of high-performance triple glazing (maximum U-0.30), at least an R-10 effective opaque wall assembly, highly effective heat recovery (over 70% effectiveness), and fuel switching from gas-fired boilers to either air-source or ground-source electrically-driven heat pumps. The incremental capital costs could range between 6% and 15% depending on the chosen measures, however the incremental lifecycle costs (i.e. including the benefits of energy savings over a 20-year period) could be as little as 2%.

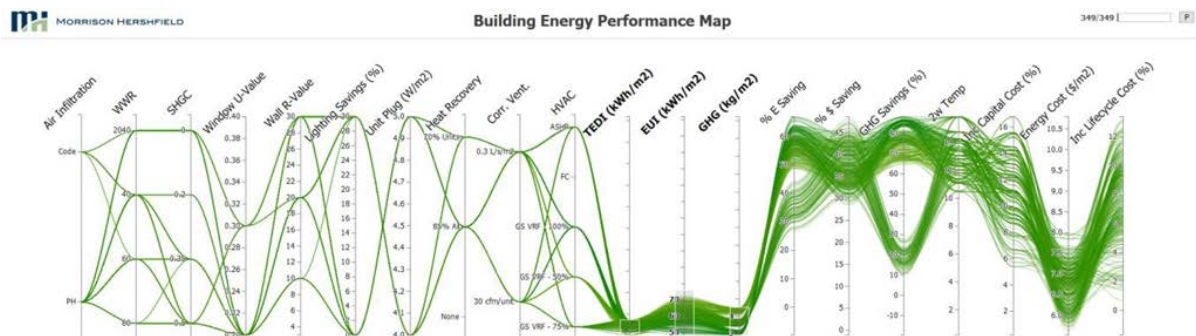


Figure 10: Option 5 - Aspirational Scenario

1.5 Proposed Metric Changes

Based on the results of the energy modelling analysis and discussion above, Morrison Hershfield recommends the following for the update of metrics associated with the energy and GHG emissions performance of buildings:

1. Adopt absolute performance-based targets for EUI, TEDI and GHGI for the Part 3 building archetypes explored in the energy modelling analysis, i.e., multi-unit residential, office and retail. As evident in the modelling data, incorporating performance targets for all three metrics would result in specific policy outcomes that would contribute to a robust GHG emissions mitigation strategy in the buildings sector.

A target for EUI would promote improvements in building energy efficiency across all building energy end-uses (space heating, cooling, lighting, etc.), a TEDI target would specifically target improvements in building envelope performance, given

the co- benefits associated with durability and thermal resiliency, in addition to energy and GHG emissions reduction, and a GHGI metric would encourage the use of alternative low-carbon fuels and sources of energy to minimize the carbon footprint of the development. In addition, improvements in all three metrics would result in lower utility operating cost for the building owner and/or tenant, thereby resulting in lower lifecycle costs (ex. total cost of ownership), and contributing positively in terms of affordability.

Targets that are aligned with TGS Tier 1 are suggested for the “Minimum”, and those aligned with Tier 4 are suggested for the “Aspirational” performance scenario. A pro- rated points-based system can be implemented to reward intermediate performance between these two levels.

2. For low-rise residential buildings such as single-family detached dwellings that fall under Part 9 of the Building Code, it is generally atypical to perform detailed hourly energy modelling, given the associated costs relative to the overall construction value of the building. Furthermore, there are several energy-focused certification programs available on the market such as Energy STAR for New Homes, R-2000, the CHBA Net Zero Home Labelling Program and Passive House, all of which would lead to high- performance building outcomes. As such, these existing certification programs can be leveraged to set energy and GHG emissions performance requirements for this building typology.
3. For metric 4.A.3. Energy Management, we recommend developing specific terms of reference that outlines the minimum requirements and expectations for the Energy Strategy report that are aligned with the community energy and emissions plans as well as overall municipal objectives, to assist applicants with pursuing this metric. Requirements may include:
 - High-level energy analysis using archetype modelling or benchmarking data to estimate the overall energy consumption and GHG emissions associated with the development.
 - Identify and evaluate opportunities to reduce EUI and GHG emissions intensities down to a net-zero emissions ready level of performance (i.e. the Aspirational building efficiency target) through various measures such as more efficient building form and massing, orientation, improved building envelope performance, highly efficient HVAC systems, heat recovery and lighting solutions.
 - Analysis of low-carbon energy solutions and on-site renewable energy generation potential that can be incorporated to the development, including rooftop PV, geo-exchange systems, high efficiency CHP, thermal energy stores, and sewer water heat recovery.
 - In the case of multi-building development proposals or for sites in intensification areas identified by the municipality, investigate the feasibility of shared energy solutions such as development of low-carbon thermal energy networks or connection to planned or existing district energy systems, and identify the required provisions to be district energy-ready.

- Identify and evaluate opportunities for backup power systems and passive design features that will improve the resilience of buildings to area-wide power outages.

Out of the three points available for this metric, we suggest that one point be awarded for the completion of an Energy Strategy report, and an additional two points be awarded for committing to meet an energy use intensity (kWh/m².yr) and GHG emissions intensity target (kgCO₂,eq/m².yr) for the entire development.

4. Consideration might be given for the development of an online parametric analysis tool similar to that developed for this project. The availability of this tool to applicants might better enable them to make informed decisions on building parameters. It would also demonstrate leadership by the municipality. Note a version of the tool is now online for B.C. buildings at <http://www.buildingpathfinder.com>

1.6 Implementation Considerations

In order to ensure that the proposed performance metrics translate to real GHG emissions reductions and energy efficiency and energy cost savings, consideration should be given to implementation strategies and tools to support the policy. Some items of implementation to consider when rolling out the revised policy include:

- **Commissioning:** Building commissioning is a systematic process of verifying that the various building sub-systems such as building envelope, mechanical (HVAC), plumbing and lighting systems are constructed and operational per the project requirements and design intent. The practice of commissioning has become relatively standard and common for most large new construction Part 3 building projects. In order to reduce the performance gap between modelled performance based on design intent and actual performance during operations, it is essential that requirements for best practices in building commissioning are integrated into the Standard.
- **Sub-metering:** In order to facilitate ongoing energy management, as well as to support post-occupancy calibration of the energy model in cases of significant discrepancy, it is suggested that electricity and/or thermal sub-meters be required to be installed for all energy end-uses that represent more than 10% of the building's total energy consumption. In addition, all major process loads such as pools and ice rinks should be sub-metered separately.
- **Energy modeling guidelines** to clarify standard schedules, assumptions and methodologies around energy models so that projects are meeting the proposed performance criteria as intended.
- **Air tightness testing:** The results of the energy analysis have indicated that improved air tightness over “typical” values can have significant energy savings. This can only be verified using whole building air leakage testing. This is an added expense to a project if implemented, but would likely result in actual air leakage reductions and related energy savings. Airtightness testing is mandatory for projects targeting Tier 2 or higher under the TGS.



Minutes

Brampton Heritage Board

The Corporation of the City of Brampton

Wednesday, April 7, 2021

Members Present: Peter Dymond (Co-Chair)
Douglas McLeod (Co-Chair)
Stephen Collie
Kathryn Fowlston
Yugeshwar Singh Kaushal
Janet Millington
Vipul Shah
Basavaraj Toranagal
Paul Willoughby
Regional Councillor P. Vicente - Wards 1 and 5

Members Absent: Palvinder Gill
Peter Robertson
Ken Wilde

Staff Present: Bob Bjerke, Director, City Planning and Design
Jeffrey Humble, Manager, Land Use Policy
Andrew McNiell, Manager, Official Plan and Growth
Management
Pascal Doucet, Heritage Planner
Harsh Padhya, Assistant Heritage Planner
Merissa, Lompart, Assistant Heritage Planner
Tristan Costa, Planner
Peter Fay, City Clerk
Chandra Urquhart, Legislative Coordinator

1. Call to Order

The meeting was called to order at 7:09 p.m., recessed and moved into Closed Session at 8:22 p.m. Committee reconvened in Open Session at 8:57 p.m. and adjourned at 8:59 p.m.

2. Approval of Agenda

HB008-2021

That the Agenda for the Brampton Heritage Board Meeting of April 7, 2021 be approved as circulated and published.

Carried

3. Declarations of Interest under the Municipal Conflict of Interest Act

Nil

4. Previous Minutes

4.1 Minutes - Brampton Heritage Board Meeting - January 19, 2021

The minutes of the Brampton Heritage Board Meeting of January 19, 2021 were considered by Planning and Development Committee on February 1, 2021 and approved by Council on February 17, 2021. The minutes were provided for information.

4.2 Note to File - Brampton Heritage Board Meeting - March 23, 2021

Note to File was provided for information.

5. Consent

The following item listed with a caret (^) was considered to be routine and non-controversial by the Committee and was approved at this time.

(10.1)

6. **Presentations\Delegations**

6.1 Delegation from Sylvia Roberts, Brampton Resident, re: Bramalea Character Study

Sylvia Roberts, Brampton resident, provided a presentation on the character of Bramalea highlighting its unique character, diversified land uses and population. With anticipated changes to the All Day Two Way GO and Brampton Transit in the future, S. Roberts suggested that a character study be undertaken to ensure that future redevelopment of the area complements Bramalea's uniqueness.

Committee discussion on this matter included the following:

- Importance of preserving and recognizing the history of Brampton
- Availability of information with respect to buildings of heritage significance that were either listed or designated
- Indication that the review of the Heritage Conservation Master Plan process will include specific elements associated with the character of Bramalea

A motion was introduced requesting that material or / records regarding the historical information and planning of Bramalea be presented at a future meeting.

The following motion was considered:

HB009-2021

1. That the delegation from Sylvia Roberts, Brampton Resident, re: **Bramalea Character Study** to the Brampton Heritage Board Meeting of April 7, 2021, be received; and,
2. That Sylvia Roberts, Brampton resident, be invited to the Brampton Heritage Board Meeting of May 18, 2021, and staff report back with information resources available regarding the history and planning of Bramalea.

Carried

6.2 Presentation by Andrew McNeill, Manager, Official Plan and Growth Management, and Tristan Costa, Planner, re: The Brampton Plan – Official Plan Review

Andrew McNeill, Manager, Official Plan and Growth Management, and Tristan Costa, Planner, provided a presentation on the Brampton Plan – Official Plan (OP) Review. The following was highlighted:

- Overview of the Official Plan - why a new OP was necessary
- General work plan
- Project deliverables by phase
- Progress to date
- Brampton plan – structural elements
- Discussion papers purpose and intent – key dates
- Engagement program
- Next steps

Committee discussion and staff responses included the following:

- Status of the Riverwalk project
 - considered a vital initiative in the advancement of downtown development and staff can provide a presentation to Committee at a future date
- Indication that policies will be included in new OP
 - Credit Valley trail extension
 - Protection of Churchville Heritage Conservation District

Members were reminded of the Brampton Plan Engagement workshop on April 10, 2021 listed as item 13.1 on the agenda and were encouraged to participate.

The following motion was considered:

HB010-2021

That the presentation by Andrew McNeill, Manager, Official Plan and Growth Management, and Tristan Costa, Planner, to the Heritage Board meeting of March 23, 2021, re: **The Brampton Plan – Official Plan Review** be received.

Carried

7. Sub-Committees

Nil

8. Designation Program

Nil

9. Heritage Impact Assessment (HIA)

9.1 Report by Merissa Lompart, Assistant Heritage Planner, re: Heritage Impact Assessment - Victoria Park Arena, 20 Victoria Crescent

Merissa Lompart, Assistant Heritage Planner, Planning, Building and Economic Development, provided an overview of the subject report.

The following motion was considered:

HB011-2021

1. That the report from Merissa Lompart, Assistant Heritage Planner, Planning, Building and Economic Development, dated March 12, 2021, to the Brampton Heritage Board Meeting of April 7, 2021, re: **Heritage Impact Assessment for Victoria Park Arena, 20 Victoria Crescent** be received;

2. That prior to its demolition or removal, the Arena be fully documented through photographs and drawings, to the satisfaction of a City of Brampton Heritage Staff.

3. That the following recommendations as per the Heritage Impact Assessment by WSP dated February 24, 2021 be followed:

- a. That all reasonable effort be made to salvage unique and distinct architectural features including
 - i. The front section of glulam beams that do not have significant fire damage;
 - ii. The concrete pillars supporting these glulam beams; and
 - iii. The 1966 date plaque.
- b. That salvaged materials be thoughtfully and meaningfully incorporated into the new recreational facility.
- c. That an interpretive plaque or display be installed in the new recreational facility in a highly trafficked, publicly accessible space.
- 4. That the salvaged materials be retained by the Corporation for the future construction of the new recreational facility at 20 Victoria Crescent; and,
- 5. That a Notice of Intention to Demolish be provided to and approved by the Brampton Heritage Board before proceeding.

Carried

10. Correspondence

- 10.1 ^Correspondence from Janet Muise, and Janet Oakes, Director Curator, Co-operative Homebuilding, Grimsby, re: Wildfield Co-operative Homebuilders

HB012-2021

That the correspondence from Janet Muise, and Janet Oakes, Director Curator, Co-operative Homebuilding, Grimsby, to the Brampton Heritage Board meeting of April 7, 2021, re: **Wildfield Co-operative Homebuilders** be received.

Carried

10.2 Correspondence from Peter Robertson, Member, re: Resignation from the Brampton Heritage Board

Committee acknowledged the letter of resignation from Peter Robertson, Member.

The following motion was considered:

HB013-2021

1. That the correspondence from Peter Robertson, Member, to the Brampton Heritage Board meeting of April 7, 2021, re: **Resignation from the Brampton Heritage Board** be accepted; and,
2. That Mr. Robertson be thanked for his years of volunteering and contributions to the Committee.

Carried

11. Other/New Business

11.1 Report by Harsh Padhya, Heritage Planner, re: Heritage Permit Application and Designated Heritage Property Incentive Grant Application - 27 Church St. E. - Ward 1 (HE.x 27 Church St. E)

Harsh Padhya, Assistant Heritage Planner, Planning, Building and Economic Development, provided an overview of the subject report.

The following motion was considered:

HB014-2021

1. That the report from Harsh Padhya, Heritage Planner, Planning, Building and Economic Development, dated March 8, 2021 to the Brampton Heritage Board Meeting of April 7, 2021, re: **Heritage Permit Application and Designated Heritage Property Incentive Grant Application – 27 Church St. E. – Ward 1** (HE.x 27 Church St. E.), be received;

2. That the Heritage Permit application for 27 Church St. E. for the restoration and repair of Main and Rear Chimney be approved subject to the following condition:

- If any heritage attribute is damaged beyond repair they will be replaced in kind.

3. That the Designated Heritage Property Incentive Grant application for the restoration and repair of the Chimneys for 27 Church St. E. be approved, to a maximum of \$10,000.00; and,

4. That the owner shall enter into an agreement with the City as provided in appendix C of the report.

Carried

11.2 Report by Pascal Doucet, Heritage Planner, re: Designation By-law Amendment and Heritage Easement Agreement - 0 and 59 Tufton Crescent - Ward 6 (Breadner House) (File HE.x 59 Tufton Crescent)

Pascal Doucet, Heritage Planner, Planning, Building and Economic Development, provided an overview of the subject report. He advised that the property owner remains the same.

HB015-2021

1. That the report by Pascal Doucet, Heritage Planner, Planning, Building and Economic Development, dated March 17, 2021 to the Brampton Heritage Board meeting of April 7, 2021, re: **Amendment to By-law Designating 59 Tufton Crescent for its Cultural Heritage Value or Interest and Authority to Enter into a Heritage Easement Agreement – 0 and 59 Tufton Crescent (Breadner House) – Ward 6** (File HE.x 59 Tufton Crescent) be received;

2. That the amendment to By-law Number 34-2006, a by-law to designate the property at Lot 301, Tufton Crescent (“Breadner House”) as being of cultural heritage value or interest be approved in accordance with Appendices E and F to this Report;

3. That staff be authorized to give the owner of the designated property at 59 Tufton Crescent (PIN 142545693) and the property at 0 Tufton Crescent (PIN 142545818) ("Owner") written notice of the proposed amendment in accordance with the requirements of the *Ontario Heritage Act*;
4. That following the expiry of the 30-day period during which the owner may object to the proposed amendment, a by-law be passed to amend By-law Number 34-2006, in accordance with Appendices E and F to this Report;
5. That, in the event that the owner object to the proposed amendment, staff be directed to refer the proposed designation to the Ontario Conservation Review Board;
6. That the Commissioner of Planning, Building and Economic Development be authorized to enter into a Heritage Easement Agreement with the Owner for the property at 0 Tufton Crescent (PIN 142545818) to secure the relocation and reconstruction of the Breadner House that used to be located at 59 Tufton Crescent ("Heritage Easement Agreement"), with content satisfactory to the Director of City Planning & Design, and in a form approved by the City Solicitor or designate; and,
7. That the Commissioner of Planning, Building and Economic Development be authorized to enter into the Heritage Easement Agreement prior to entering into an agreement with the Owner for the future re-alignment of Tufton Crescent within a portion of the Creditview Road allowance.

Carried

12. Referred/Deferred Items

Nil

13. Information Items

**13.1 Memo from Planning, Building and Economic Development, re:
Brampton Engagement Plan**

Memo was provided for information.

14. Question Period

Nil

15. Public Question Period

Nil

16. Closed Session

The following was considered:

HB016-2021

That the Board proceed into Closed Session to address matters pertaining to:

16.1. Open Meeting exception under Section 239 (2) (e) and (f) of the Municipal Act, 2001:

Litigation or potential litigation, including matters before administrative tribunals, affecting the municipality or local board and advice that is subject to solicitor-client privilege, including communications necessary for that purpose

Carried

In Open Session, the Chair reported on the status of matters considered in Closed Session, as follows:

16.1 – This item was considered by the Board in Closed Session and no direction was given to staff.

17. Adjournment

The following motion was considered:

HB017-2021

That the Brampton Heritage Board do now adjourn to meet again on Tuesday, April 20, 2021 at 7:00 p.m. or at the call of the Chair.

Carried

Peter Dymond, Co-Chair

Douglas McLeod, Co-Chair