

Electronic Development Services Committee Meeting Agenda

Meeting No. 15 September 29, 2020, 9:30 AM Live streamed

Note: Members of Development Services Committee will be participating in the meeting remotely.

Due to COVID-19, our facilities are closed to the public. Access is not permitted to the Markham Civic Centre and Council Chamber.

Members of the public may submit written deputations by email to clerkspublic@markham.ca

Members of the public who wish to make virtual deputations must register by completing an online *Request to Speak Form or* e-mail <u>clerkspublic@markham.ca</u> providing full name, contact information and item they wish to speak to. Alternatively, you may connect via telephone by contacting the Clerk's office at 905-479-7760 on the day of the meeting.

Development Services Committee meetings are video and audio streamed on the City's website at:

https://pub-markham.escribemeetings.com/



Electronic Development Services Committee Meeting Agenda

Meeting Number 15 September 29, 2020, 9:30 AM - 1:00 PM Live streamed

Please bring this Development Services Committee agenda to the Council Meeting on October 14, 2020.

Pages

6

- 1. CALL TO ORDER
- 2. DISCLOSURE OF PECUNIARY INTEREST
- 3. APPROVAL OF PREVIOUS MINUTES
 - 3.1 DEVELOPMENT SERVICES COMMITTEE MINUTES SEPTEMBER 14, 2020 (10.0)
 - 1. That the minutes of the Development Services Committee meeting held September 14, 2020, be confirmed.
- 4. DEPUTATIONS
- 5. COMMUNICATIONS
- 6. PETITIONS
- 7. CONSENT REPORTS DEVELOPMENT AND POLICY ISSUES
 - 7.1 PRELIMINARY REPORT ENTERPRISE BOULEVARD INC.
 APPLICATIONS FOR OFFICIAL PLAN AMENDMENT AND ZONING BYLAW AMENDMENT TO PERMIT A HIGH DENSITY DEVELOPMENT

WITH A MAXIMUM 1,400 APARTMENT UNITS ON THE NORTH SIDE OF ENTERPRISE BOULEVARD, IMMEDIATELY EAST OF THE METROLINX-GO STOUFFVILLE RAIL CORRIDOR (WARD 3) FILE NO. PLAN 20 113948 (10.3, 10.5)

S. Bordone, ext. 8230

15

1. That the report titled "PRELIMINARY REPORT, Enterprise Boulevard Inc., Applications for Official Plan Amendment and Zoning By-law Amendment to permit a high density development with a maximum of 1,400 apartment units on the north side of Enterprise Boulevard, immediately east of the Metrolinx-GO Stouffville rail corridor (Ward 3), PLAN 20 113948", be received.

8. PRESENTATIONS - DEVELOPMENT AND POLICY ISSUES

8.1 BUTTONVILLE AIRPORT LANDS UPDATE (10.0)

Note: M. Wouters, Senior Manager, Policy & Research will be in attendance to provide a presentation on this matter.

1. That the presentation entitled "Buttonville Airport Lands Update" dated September 29, 2020" be received.

9. REGULAR REPORTS - DEVELOPMENT AND POLICY ISSUES

9.1 RECOMMENDATION REPORT EVANS PLANNING INC. PROPOSED ZONING BY-LAW AMENDMENT APPLICATION FOR TWO SEMI-DETACHED LOTS

AND ONE RESIDUAL LOT AT 12 AND 16 DEER PARK LANE (NORTH OF DEER PARK LANE, WEST OF ELIZABETH STREET). WARD 4 (10.5)

A. Malik, ext. 2230

M. Wouters, ext. 2909

- 1. That the report dated September 29, 2020 titled "RECOMMENDATION REPORT Evans Planning Inc. Proposed Zoning By-law Amendment application for two semi-detached lots and one residual lot at 12 and 16 Deer Park Lane (north of Deer Park Lane, west of Elizabeth Street). Ward 4", be received; and,
- 2. That the record of the Public Meeting held on November 19, 2019 regarding the Zoning By-Law Amendment application submitted by Gil & Marina Scholyar c/o Evans Planning be received; and,
- 3. That the Zoning By-law Amendment application submitted by Gil & Marina Scholyar c/o Evans Planning to amend By-law 1229, as amended, be approved, and that the Zoning By-law Amendment attached as Appendix 'A' be finalized and enacted without further notice; and,
- 4. That Council assign servicing allocation for up to 5 residential units for the proposed development; and further,

27

36

5. That staff be authorized and directed to do all things necessary to give effect to this resolution.

10. REGULAR REPORTS - TRANSPORTATION AND INFRASTRUCTURE ISSUES

10.1 ROAD SAFETY UPDATE -TRAFFIC SAFETY AUDIT RESULTS (CITY-WIDE) (5.10)

52

D. Porretta, ext. 2040 & J. Chin, ext. 4020

Note: Ali Hadayeghi of CIMA will be in attendance to provide a presentation on this matter.

- 1. That the report entitled "Road Safety Update Traffic Safety Audit Results (City-wide)" and presentation entitled "Traffic Safety Audit Results", be received; and
- 2. That staff be directed to explore new traffic calming measures to address vehicle speed and traffic infiltration on City streets, and to report back prior to conducting pilot projects; and
- 3. That the City Clerk send a copy of this report and Council resolution to York Region; and further
- 4. That staff be authorized and directed to do all things necessary to give effect to this resolution.

10.2 CYCLING AND PEDESTRIAN ADVISORY COMMITTEE (CPAC) MINUTES – FEBRUARY 20, 2020, JULY 16, 2020 AND AUGUST 6, 2020 (16.34)

107

Note: Committee has the option to endorse, amend, refer to staff or receive for information the following recommendation from the July 16, 2020 Cycling and Pedestrian Advisory Committee meeting:

"Therefore be it resolved that CPAC recommends to Council that staff be asked, within existing budgets, to expedite the study and implementation of low cost initiatives to improve vulnerable user road safety including potential actions such as speed limit reduction and other ideas and quick pilots as appended (see "Appendix A")."

1. That the minutes of the Cycling and Pedestrian Advisory Committee (CPAC) meetings held February 20, 2020, July 16, 2020 and August 6, 2020, be received for information purposes.

10.3 METROLINX TRANSIT PROJECT ASSESSMENT PROCESS FOR TRAIN STORAGE FACILITY IN MARKHAM CENTRE (WARD 3) (5.0)

B. Lee, ext. 7507 & B. Karumanchery, ext. 4713

1. That the staff memo entitled "Metrolinx Transit Project Assessment

121

- Process for Train Storage Facility in Markham Centre, Ward 3" be received; and
- 2. That Metrolinx and York Region be informed that Markham Council does not support a train storage facility in the proposed location; and further
- 3. That Staff be authorized and directed to do all things necessary to give effect to this resolution.
- 11. MOTIONS
- 12. NOTICES OF MOTION
- 13. NEW/OTHER BUSINESS

As per Section 2 of the Council Procedural By-Law, "New/Other Business would generally apply to an item that is to be added to the Agenda due to an urgent statutory time requirement, or an emergency, or time sensitivity".

- 14. ANNOUNCEMENTS
- 15. ADJOURNMENT

Information Page

Development Services Committee Members: All Members of Council

Development and Policy Issues

Chair: Regional Councillor Jim Jones

Vice-Chair: Councillor Keith Irish

Transportation and Infrastructure Issues

Chair: Deputy Mayor Don Hamilton Vice-Chair: Councillor Reid McAlpine

Culture and Economic Development Issues

Chair: Councillor Alan Ho
Vice-Chair: Councillor Khalid Usman

Development Services meetings are live video and audio streamed on the City's website.

Alternate formats for this document are available upon request.

Consent Items: All matters listed under the consent agenda are considered to be routine and are recommended for approval by the department. They may be enacted on one motion, or any item may be discussed if a member so requests.

Please Note: The times listed on this agenda are approximate and may vary; Council may, at its discretion, alter the order of the agenda items.

Note: As per the Council Procedural By-Law, Section 7.1 (h)
Development Services Committee will take a 10 minute recess after
two hours have passed since the last break.



Electronic Development Services Committee Meeting Minutes

Meeting Number 14 September 14, 2020, 9:30 AM - 1:00 PM Live streamed

Roll Call Mayor Frank Scarpitti Councillor Reid McAlpine

Deputy Mayor Don Hamilton Councillor Karen Rea
Regional Councillor Jack Heath Councillor Andrew Keyes
Regional Councillor Joe Li Councillor Amanda Collucci
Regional Councillor Jim Jones Councillor Khalid Usman

Councillor Keith Irish Councillor Isa Lee

Councillor Alan Ho

Staff Andy Taylor, Chief Administrative Francesco Santaguida, Assistant City

Officer Solicitor

Arvin Prasad, Commissioner, Marg Wouters, Senior Manager, Policy &

Development Services Research

Claudia Storto, City Solicitor and Scott Chapman, Election & Director of Human Resources Council/Committee Coordinator Biju Karumanchery, Director, Planning Hristina Giantsopoulos, Elections & Urban Design Council/Committee Coordinator

Brian Lee, Director, Engineering Laura Gold, Council/Committee

Ron Blake, Senior Development Coordinator

Manager, Planning & Urban Design Grace Lombardi, Election and Committee

Rick Cefaratti, Planner II Coordinator

Alternate formats for this document are available upon request

1. CALL TO ORDER

In consideration of the ongoing public health orders, this meeting was conducted electronically to maintain physical distancing of participants. With the recent passage of Bill 197 COVID-19 Economic Recovery Act, municipal Council Members are now permitted to meet remotely and count towards quorum.

The Development Services Committee meeting convened at the hour of 9:33 AM with Regional Councillor Jim Jones presiding as Chair.

2. DISCLOSURE OF PECUNIARY INTEREST

None disclosed.

3. APPROVAL OF PREVIOUS MINUTES

3.1 DEVELOPMENT SERVICES COMMITTEE MINUTES – JULY 13, 2020 (10.0)

Moved by Deputy Mayor Don Hamilton Seconded by Councillor Andrew Keyes

1. That the minutes of the Development Services Committee meeting held July 13, 2020, be confirmed.

Carried

4. **DEPUTATIONS**

Deputations were made for the following item:

8.2 – 9999 Markham Road, Hold (H) Provision, 2585231 Ontario Inc., ZA 18 180621 (10.5)

Refer to the individual item for the deputation details.

5. COMMUNICATIONS

There were no communications.

6. PETITIONS

There were no petitions.

7. CONSENT REPORTS - DEVELOPMENT AND POLICY ISSUES

7.1 HERITAGE MARKHAM COMMITTEE MINUTES – JULY 8, 2020 AND AUGUST 12, 2020 (16.11)

Moved by Regional Councillor Jack Heath Seconded by Deputy Mayor Don Hamilton

1. That the minutes of the Heritage Markham Committee meetings held July 8, 2020 and August 12, 2020, be received for information purposes.

Carried

7.2 DOORS OPEN ORGANIZING COMMITTEE MINUTES – JUNE 4, 2020 (16.11)

Moved by Regional Councillor Jack Heath Seconded by Deputy Mayor Don Hamilton

1. That the minutes of the Doors Open Organizing Committee meeting held June 4, 2020, be received for information purposes.

Carried

7.3 MARKHAM SUB-COMMITTEE MINUTES - (MARKHAM ROAD-MOUNT JOY SECONDARY PLAN VIRTUAL DESIGN CHARRETTE) – JULY 29, 2020, AUGUST 5, 2020 AND AUGUST 24, 2020 (10.0)

Moved by Regional Councillor Jack Heath Seconded by Deputy Mayor Don Hamilton

1. That the minutes of the Markham Sub-Committee - (Markham Road-Mount Joy Secondary Plan Virtual Design Charrette) meetings held July 29, 2020, August 5, 2020 and August 24, 2020, be received for information purposes.

Carried

7.4 PRELIMINARY REPORT APPLICATIONS FOR A DRAFT PLAN OF SUBDIVISION AND ZONING BY-LAW AMENDMENT BY 4551 ELGIN MILLS DEVELOPMENTS LTD., MAJOR KENNEDY DEVELOPMENTS LTD., AND MAJOR KENNEDY SOUTH DEVELOPMENTS LTD.

TO FACILITATE THE CREATION OF APPROXIMATELY 2,305
DWELLING UNITS (COMPRISED OF DETACHED AND
TOWNHOUSES), A COMMUNITY PARK, NEIGHBOURHOOD PARKS,
PARKETTES, SCHOOL BLOCKS, STORMWATER MANAGEMENT
FACILITIES, OPEN SPACE AND THE SUPPORTING ROAD NETWORK
ON THE SUBJECT LANDS KNOWN MUNICIPALLY AS 4551 ELGIN
MILLS ROAD EAST, 10225 – 10227 KENNEDY ROAD AND 4638 MAJOR
MACKENZIE DRIVE EAST (WARD 6) FILE NO. PLAN 20 113780 (10.7,
10.5)

The Committee suggested that staff consider providing photographs depicting what "Courtyard Townhouses" would look like at the Statutory Public Meeting, and that staff reconsider whether the proposed frontages of 3.85 metres for "Decked Townhouses" is appropriate.

Moved by Regional Councillor Jack Heath Seconded by Deputy Mayor Don Hamilton

1. THAT the report dated September 14, 2020 titled "PRELIMINARY REPORT, Applications by 4551 Elgin Mills Developments Ltd., Major Kennedy Developments Ltd., and Major Kennedy South Developments Ltd for a Draft Plan of Subdivision and Zoning By-law Amendment to facilitate the creation of approximately 2,305 ground oriented dwelling units and future mixed use and residential development blocks, at 4551 Elgin Mills Road East, 10225 – 10227 Kennedy Road and 4638 Major Mackenzie Drive East (Ward 6) File: PLAN 20 113780", be received.

Carried

8. REGULAR REPORTS - DEVELOPMENT AND POLICY ISSUES

8.1 RECOMMENDATION REPORT, ANGUS GLEN VILLAGE LTD., 4071, 4073 AND 4289 MAJOR MACKENZIE DRIVE EAST, SOUTH SIDE OF MAJOR MACKENZIE DRIVE,

WEST OF KENNEDY ROAD, ZONING BY-LAW AMENDMENT APPLICATION TO REVISE THE DEVELOPMENT STANDARDS FOR 173 TOWNHOUSES PROPOSED ON THE SUBJECT LANDS, FILE NO. ZA 18 154612 (WARD 6) (10.5)

Ron Blake, Senior Development Manager, introduced and provided members of Committee with an overview of the staff report.

Maria Gatzios, consultant for the applicant, addressed the Committee and provided members with additional background on the application. Ms Gatzios provided an overview of the site context of the Angus Glen subdivision phases and conceptual elevations for the proposal.

It was requested that staff conduct a comparison on the number of parkettes to be provided relative to similar existing developments within the City of Markham.

It was requested that staff and the applicant continue to discuss options for potential trail configurations prior to the application proceeding to Council.

The Committee discussed the following relative to the staff report:

- Maintenance responsibilities of the private storm water management pond and front lawn maintenance of the subject condo development along Major Mackenzie Drive;
- Locations, sizes, and potential uses of the park spaces proposed as part of the condominium complex and overall subdivision;
- Providing connections between phases and public access to green space; and
- Connecting existing and future trails within the subject area.
- Providing for visual relief between townhouse blocks through landscaping and other detailed design elements.

Moved by Councillor Amanda Collucci Seconded by Councillor Andrew Keyes

- 1. That the report dated September 14, 2020 entitled "RECOMMENDATION REPORT, Angus Glen Village Ltd., 4071, 4073 and 4289 Major Mackenzie Drive East, south side of Major Mackenzie Drive, west of Kennedy Road, Zoning By-law Amendment to revise the development standards for 173 townhouses proposed on the subject lands, File No. ZA 18 154612 (Ward 6)", be received; and,
- 2. That the amendment to By-law 177-96, as amended, be approved and the draft implementing Zoning By-law, attached as Appendix 'A', be finalized and enacted, without further notice, subject to the Toronto and Region Conservation Authority confirming that their technical requirements have been addressed; and,
- 3. That Markham Council requests York Region to approve the signalization of the centrally located intersection, that serves as the principal access to Major Mackenzie Drive East, at the Owner's expense; and,

- 4. That in accordance with the provisions of subsection 45(1.4) of the Planning Act, R.S.O. 1990, c.P.13, as amended, the owner shall, through this Resolution, be permitted to apply to the Committee of Adjustment for a variance from the provisions of the zoning by-law attached as Appendix 'A' to this report, before the second anniversary of the day on which the by-law was approved by Council; and further,
- 5. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

Carried

8.2 9999 MARKHAM ROAD, HOLD (H) PROVISION, 2585231 ONTARIO INC., ZA 18 180621 (10.5)

Ron Blake, Senior Development Manager, introduced and provided members of Committee with an overview of the staff report and the recommendations with respect to removing the hold provision.

Michael Walker, of OnePiece Developments, representative for the applicant, delivered a presentation on the revised phasing plan proposed by the applicant for mid-rise development within the lands designated as 1C of the application. Mr. Walker requested that the Committee support the removal of the hold provision for the Phase 1C lands in principle to allow the applicant to proceed with a corresponding zoning by-law amendment application.

Arvin Prasad, Commissioner, Development Services provided clarification on the process of removing the hold provision and on the expected timetable for the draft land use concept for the Markham Road-Mount Joy Secondary Plan area.

The Committee discussed the following relative to the staff report:

- Potential timing of a decision by Metrolinx on the potential future GO transit station at Major Mackenzie Drive; and,
- Consequences on the removal of the hold.

Moved by Councillor Andrew Keyes Seconded by Councillor Reid McAlpine

- 1. That the Hold (H) provision related to the GO Station feasibility study continue to apply to Phases 1B and 1C of the subject lands at 9999 Markham Road until the viability of a GO Station at Major Mackenzie Drive has been confirmed through further analysis in consultation with Metrolinx; and,
- 2. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

Lost

Moved by Mayor Frank Scarpitti Seconded by Councillor Khalid Usman

- 1. That the deputation by Michael Walker, OnePiece Developments, be received.
- 2. That Staff be directed to bring forward a by-law for Hold (H) removal from the Phase 1C lands after staff and the applicants have reviewed the development concepts for Phases 1B and 1C and have reached agreement on the appropriate land area requirements for each Phase and provided an appropriate zoning by-law amendment application for the Phase 1C lands has been reviewed and approved by Council; and,
- 3. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

Carried

8.3 PROVINCIAL APPROVAL OF AMENDMENT 1 TO A PLACE TO GROW: GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE AND LAND NEEDS ASSESSMENT METHODOLOGY, 2020 (10.0)

Marg Wouters, Senior Manager, Policy & Research delivered a presentation on the Provincial Approval of the Amendment 1 to the Growth Plan and Land Needs Assessment Methodology, 2020.

The Committee discussed the following relative to the staff report:

• Effects of the provincial policy changes on potential mixed use development within designated employment areas;

- Potential implications of the provincial policy changes on Markham's urban boundary; and,
- Opportunities for continued discussions with the Province and York Region.

Moved by Mayor Frank Scarpitti Seconded by Regional Councillor Joe Li

- 1. That the presentation titled "Provincial Approval of Amendment 1 to the Growth Plan and the Land Needs Assessment Methodology, 2020" dated September 14, 2020, be received; and,
- 2. That the report entitled "Provincial Approval of Amendment 1 to A Place to Grow: Growth Plan for the Greater Golden Horseshoe and Land Needs Assessment Methodology, 2020" dated September 14, 2020, be received.

Carried

9. MOTIONS

There were no motions.

10. NOTICES OF MOTION

There were no notices of motion.

11. NEW/OTHER BUSINESS

There was no new/other business.

12. ANNOUNCEMENTS

There were no announcements.

13. CONFIDENTIAL ITEMS

Moved by Councillor Alan Ho Seconded by Councillor Andrew Keyes

That, in accordance with Section 239 (2) of the *Municipal Act*, Development Services Committee resolve into a confidential session at 2:39 PM to discuss the following matters:

Carried

13.1 DEVELOPMENT AND POLICY ISSUES

13.1.1 LITIGATIONOR POTENTIAL LITIGATION, INCLUDING MATTERS BEFORE ADMINISTRATIVE TRIBUNALS, AFFECTING THE MUNICIPALITY OR LOCAL BOARD; [SECTION 239 (2) (e)] – LPAT APPEAL – 20 PERSONNA BOULEVARD (8.0)

Development Services Committee directed staff to place this item on the September 15, 2020 Council agenda for consideration.

13.1.2 LITIGATION OR POTENTIAL LITIGATION, INCLUDING MATTERS BEFORE ADMINISTRATIVE TRIBUNALS, AFFECTING THE MUNICIPALITY OR LOCAL BOARD; [SECTION 239 (2) (e)] – LPAT APPEAL – 105-107 MAIN STREET UNIONVILLE (8.0)

Development Services Committee directed staff to place this item on the September 15, 2020 Council agenda for consideration.

14. ADJOURNMENT

That the Development Services Committee meeting adjourn at 2:58 PM.

Moved by Councillor Reid McAlpine Seconded by Councillor Andrew Keyes

Carried



Report to: Development Services Committee Report Date: September 29, 2020

SUBJECT: PRELIMINARY REPORT

Enterprise Boulevard Inc.

Applications for Official Plan Amendment and Zoning Bylaw Amendment to permit a high density development with a

maximum 1,400 apartment units on the north side of

Enterprise Boulevard, immediately east of the Metrolinx-GO

Stouffville rail corridor (Ward 3)

File No. PLAN 20 113948

PREPARED BY: Sabrina Bordone, M.C.I.P., R.P.P., extension 8230

Senior Planner, Central District

REVIEWED BY: Stephen Lue, M.C.I.P., R.P.P., extension 2520

Manager, Central District

RECOMMENDATION:

That the report titled "PRELIMINARY REPORT, Enterprise Boulevard Inc., Applications for Official Plan Amendment and Zoning By-law Amendment to permit a high density development with a maximum of 1,400 apartment units on the north side of Enterprise Boulevard, immediately east of the Metrolinx-GO Stouffville rail corridor (Ward 3), PLAN 20 113948", be received.

EXECUTIVE SUMMARY:

Not applicable.

PURPOSE:

This report provides preliminary information on applications for Official Plan Amendment and Zoning By-law Amendment (the "Applications") submitted by Enterprise Boulevard Inc. (the "Owner"). This report contains general information on the applicable Official Plan policies and the identified issues and should not be taken as Staff's opinion or recommendation on the Applications.

Application deemed complete

Staff deemed the Applications complete on June 11, 2020.

The next steps in the Planning process include:

- Holding the statutory Public Meeting at a future date to be determined following the presentation of the Development Options for the Markham Centre Secondary Plan Update to the Development Services Committee ("DSC");
- Consideration of a Recommendation Report by the DSC; and,

• If the current applications are approved then a site plan application will be required to review matters such as site layout, design excellence and architectural treatment, relationship to the public realm, landscape treatment, sustainability measures, etc. (it should be noted that the conceptual site plan submitted in support of the current applications is intended only to support the proposed height, massing and residential density program and to provide the basis for the preparation of a zoning by-law amendment).

BACKGROUND:

Subject Lands and Area Context

The 2.07 ha (5.12 ac) subject lands are located on the north side of Enterprise Boulevard, immediately east of the Metrolinx-GO Stouffville rail corridor, as shown on Figure 1 (the "Subject Lands").

The Subject Lands have approximately 250 m (820 ft.) of frontage along Enterprise Boulevard, immediately opposite the northern terminus of University Boulevard, and are currently vacant with the exception of a wooded area adjacent to the rail corridor and a woodland area along the northern portion of the Subject Lands, which extends onto the adjacent properties to the north. The Enterprise Boulevard right-of-way is graded to travel under the existing rail corridor. As a result Enterprise Boulevard is significantly lower than the elevation of the subject property and half its frontage along Enterprise Boulevard is encumbered with a retaining wall. A 0.35 ha (0.86 ac) future public park is proposed northeast of the Subject Lands. Figure 3 shows the surrounding land uses.

History - Previous Approval

In 2012, Markham Council approved site-specific Official Plan Amendment No. 202 ("OPA 202") and site-specific Zoning By-law Amendment 2012-152 ("By-law 2012-152"), under a previous landowner (Markham Centre Development Corporation), who did not proceed with their development. Enterprise Boulevard Inc. has recently acquired the Subject Lands.

OPA 202 and By-law 2012-152 permits a high density residential development on the majority of the Subject Lands (the "2012 Approved Development Concept"), as shown in Figure 4.

Proposed Development

The Owner proposes to revise the 2012 Approved Development Concept as shown conceptually in Figure 5 (the "Proposed Development").

Table 1 summarizes the changes from the 2012 Approved Development Concept to the Proposed Development, as shown Figures 4 and 5. In both the 2012 Approved Development Concept and the Proposed Development, the northern woodland is proposed to be preserved and conveyed into public ownership.

Page 3

TABLE 1 2012 Approved Development Concept and the Proposed Development Comparison		
Land Use	2012 Approved Development Concept	Proposed Development
Number of Apartment Dwelling Units	981	A maximum of 1,400
Number of Buildings	 Four residential buildings: Building A (29-storeys) and Building B (28-storeys) along the rail corridor with a shared, three levels of above grade parking structure Building C (10-storeys) along Enterprise Boulevard Building D (29-storey) at the northwest corner of Enterprise Boulevard and University Avenue (formerly Rivis Road) 	 Three residential buildings: Building A1 (33-storeys) and Building A2 (34-storeys) along the rail corridor with a shared, five levels of above grade parking structure Building B1 (12-storeys) along Enterprise Boulevard Building B2 (33-storeys) at the northwest corner of Enterprise Boulevard and University Avenue
Total Gross Floor Area ("GFA")	82,276 m ² (885,612 ft ²)	102,000 m ² (1,097,955 ft ²)
Parking	Provided within two below grade and three above grade levels contained in the shared podium between Buildings A and B	Provided within a one level underground parking garage which spans the entire developable portion of the Subject Lands and in a five level above grade parking structure in the shared podium of Buildings A1 and A2
Vehicular Access	Access driveway aligned to University Avenue (formerly Rivis Road)	Access via a private access at the intersection of Enterprise Boulevard and the northerly terminus of University Boulevard

Provincial and Regional Policy Conformity

In considering the Applications, Staff will assess consistency with the 2020 Provincial Policy Statement (the "PPS"), conformity with the 2019 Growth Plan for the Greater

Page 4

Golden Horseshoe (the "Growth Plan"), and conformity with the York Region 2010 Official Plan (the "Regional OP").

2014 Markham Official Plan (the "2014 Official Plan")

The Subject Lands are designated "Mixed Use High Rise" and "Greenway" in the 2014 Official Plan (as partially approved on November 24, 2017, and further updated on April 9, 2018). Lands designated "Mixed Use High Rise" are priority locations with the greatest level of development intensification. Unless specified in a secondary plan or site-specific policy, the "Mixed Use High Rise" designation permits a maximum building height of 15-storeys and maximum density of 3 times the area of the Subject Lands (Floor Space Index – "FSI"). The "Greenway" designation applies to the woodland portion of the Subject Lands, which protects and enhances natural heritage features.

The policies of the 2014 Official Plan indicate that until an updated secondary plan is approved for the Regional Centre-Markham Centre lands, the provisions of the 1987 Town of Markham Official Plan (the "1987 Official Plan"), as amended, and the 1997 Markham Centre Secondary Plan ("OPA 21"), as amended, shall apply to the Subject Lands.

The 1987 Official Plan

The Subject Lands are designated "Commercial – Community Amenity Area" and "Environmental Protection Area". The planned function of the "Community Amenity Area" designation is to provide for a multi-use, multi-purpose centre with a diverse range of retail, services, community, institutional and recreational uses. Office development and medium and high-density housing are provided at appropriate locations. The "Environmental Protection Area" designation applies to lands containing natural features, such as woodlots and Significant Vegetation Communities.

OPA 21

The Subject Lands are partially designated "Open Space" and "Open Space – Environmentally Significant" by OPA 21. In 2012, the developable portion of the Subject Lands was redesignated to "Community Amenity Area - Major Urban Place" by OPA 202, which amends OPA 21, and includes site-specific permissions for the Subject Lands based on the 2012 Approved Development Concept. It also indicates that a Precinct Plan is not required.

Through the submitted Official Plan Amendment application, the Owner proposes the following:

- i) to increase the maximum number of residential units from 981 to 1,400 units
- ii) to increase the maximum height of the buildings from 29-storeys to 34-storeys

In October 2019, the City initiated an update to the Markham Centre Secondary Plan ("MCSP") Update. A series of visioning workshops took place over July to September of this year to help inform the Development Options, which are anticipated to be presented

Page 5

to DSC in December 2020, and that would culminate in a Recommended Development Concept in Q2-2021.

Zoning

The Subject Lands are zoned "Markham Centre Downtown Two *19 (Hold)" [MC-D2*19(H)] and "Markham Centre Public Space Two" (MC-PS2) by Zoning By-law 2012-152, which amends By-law 2004-196 (see Figure 2).

Through the submitted Zoning By-law Amendment application, the Owner proposes to amend By-law 2012-152 as follows:

- i) Increase the maximum number of residential units from 981 to 1,400
- ii) Increase the maximum building height from 29-storeys to 34 storeys (increase from a maximum height of 100 m to 116 m)
- iii) Increase the maximum site Net Floor Area, as defined in the Markham Centre Zoning By-law, from 84,000 m² to 93,600 m²
- iv) Reduce the parking space requirements from a range of 1 to 1.2 spaces per unit to a range of 0.65 to 1.15 spaces per unit total for both residents and visitors
- v) Modify several other development standards as they relate to building design.

OPTIONS/ DISCUSSION:

The following summarizes the issues raised to date. These matters, among others identified through the circulation and detailed review of the Proposed Development, will be addressed, in a final recommendation report to DSC:

- 1) Review of the submitted Planning Justification Report, draft Official Plan Amendment, and draft Zoning By-law Amendment, prepared by Gatzios Planning + Development Consultants Inc.
- 2) Review of the Proposed Development in the context of the existing policy framework, as well as the MSCP Update process.
- 3) Review of the appropriateness of the Proposed Development having regard to the following:
 - a) compatibility with the existing and planned surrounding lands uses
 - b) the appropriateness of the proposed density and building heights
 - c) affordable housing, purpose-built rental, senior-focused housing, and family friendly units
 - d) the provision of community facilities (e.g. day care)
 - e) built form and massing, building location/orientation, and transitions
 - f) setbacks, and buffers from the rail corridor
 - g) preliminary sun and shadow and wind analysis
 - h) traffic impacts, driveway access, parking, and transportation demand management

- i) pedestrian connections, linkages to woodland, and private and shared amenity areas
- j) municipal servicing
- k) proposed off-road multi-use trail adjacent to the rail corridor as shown in the City's draft Active Transportation Master Plan trail plans
- 4) The appropriateness of the Owner's submitted Transportation Study, which is currently under review by the City's Transportation Planning Staff, and the proposed reduced parking standard.
- 5) The Proposed Development includes the removal of the smaller western wooded area and a small portion of the northern woodland, in order to accommodate the private access driveway. The Owner submitted an Environmental Impact Study that is currently under review by the City's Natural Heritage Planning Staff.
- Review of all technical studies submitted in support of the Proposed Development including, but not limited to, the following:
 - a) Transportation Study
 - b) Functional Servicing and Stormwater Management Report
 - c) Environmental Impact Study
 - d) Environmental Noise and Vibration Assessment
 - e) Urban Design Plan
 - f) Preliminary Pedestrian Wind Assessment
 - g) Preliminary Shadow Study
 - h) Tree Inventory
- 7) The Proposed Development will have to have regard for any requirements of external agencies including, but not limited to, Ministry of Transportation Ontario ("MTO"), Metrolinx, the Toronto and Region Conservation Authority ("TRCA"), and York Region.
- 8) Review of financial obligations including, but not limited to, cash-in-lieu of parkland, woodland compensation and Section 37 contributions.

FINANCIAL CONSIDERATIONS AND TEMPLATE:

Not applicable.

HUMAN RESOURCES CONSIDERATIONS

Not applicable

ALIGNMENT WITH STRATEGIC PRIORITIES:

The Proposed Development is to be evaluated in the context of growth management, environmental and strategic priorities of Council.

Report to: Development Services Committee Report Date: September 29, 2020

Page 7

BUSINESS UNITS CONSULTED AND AFFECTED:

The Applications have been circulated to various departments and external agencies and their requirements will be addressed as part of a future staff recommendation report.

RECOMMENDED BY:

Biju Karumanchery, M.C.I.P., R.P.P.

Arvin Prasad, M.C.I.P., R.P.P.

Biju Karumanchery, M.C.I.P., R.P.P. Arvin Director of Planning & Urban Design Comm

Commissioner of Development Services

ATTACHMENTS:

Figure 1: Location Map

Figure 2: Area Context/Zoning

Figure 3: Air Photo

Figure 4: 2012 Approved Development Concept

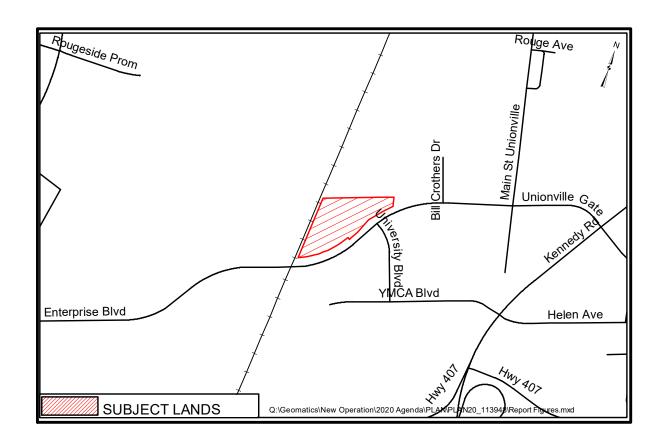
Figure 5: Proposed Development

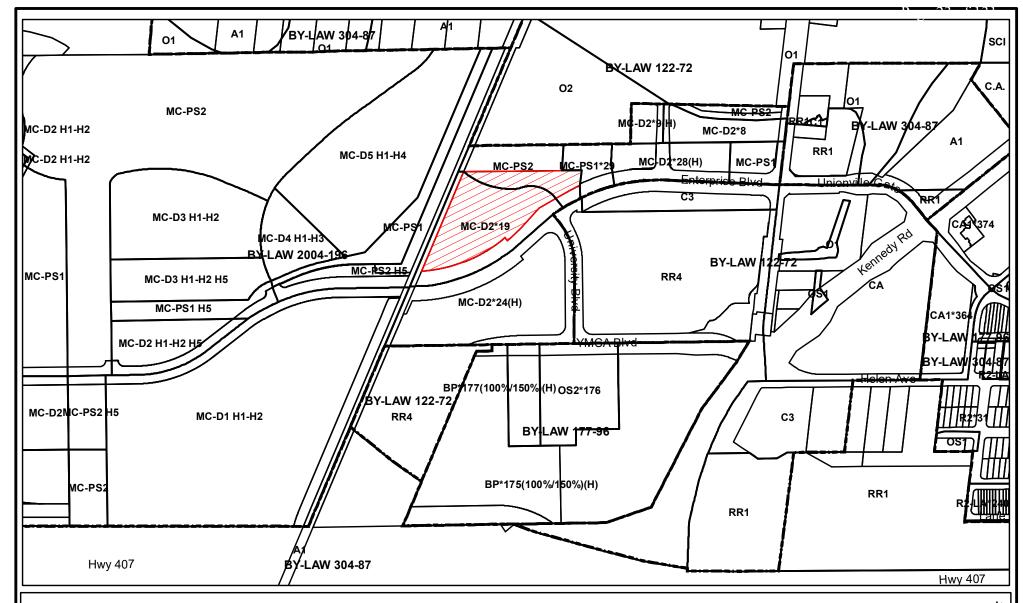
AGENT:

Maria Gatzios Gatzios Planning + Development Consultants Inc. 701 Mount Pleasant Road, 3rd Floor Toronto, ON M4S 2N4

Tel: (647) 748-9466

Email: maria@gatziosplanning.com





AREA CONTEXT/ZONING

APPLICANT: Enterprise Boulevard Inc.

FILE No. PLAN 20 113948

Q:\Geomatics\New Operation\2020 Agenda\PLAN\PLAN20 113948\Report Figures.mxd

MARKHAM DEVELOPMENT SERVICES COMMISSION

Subject Lands

DATE: 27/08/2020



AERIAL PHOTO (2019)

APPLICANT: Enterprise Boulevard Inc.

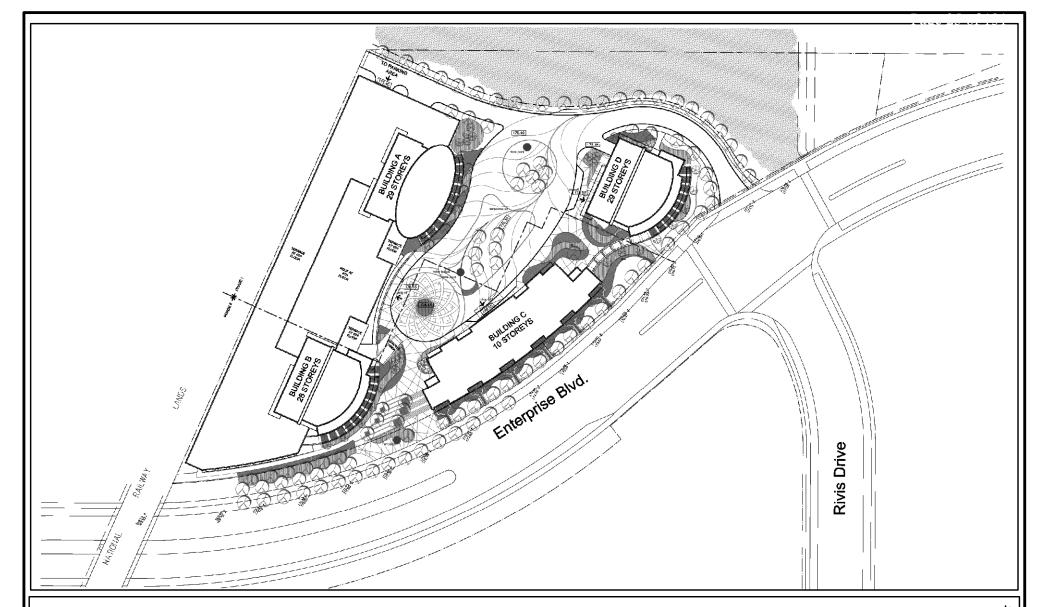
FILE No. PLAN 20 113948

Q:\Geomatics\New Operation\2020 Agenda\PLAN\PLAN20_113948\Report Figures.mxd

MARKHAM DEVELOPMENT SERVICES COMMISSION

Subject Lands

DATE: 27/08/2020



2012 APPROVED DEVELOPMENT CONCEPT

APPLICANT: Enterprise Boulevard Inc.

FILE No. PLAN 20 113948

Q:\Geomatics\New Operation\2020 Agenda\PLAN\PLAN20_113948\Report Figures.mxd

MARKHAM DEVELOPMENT SERVICES COMMISSION

DATE: 27/08/2020



PROPOSED DEVELOPMENT

APPLICANT: Enterprise Boulevard Inc.

FILE No. PLAN 20 113948

Q:\Geomatics\New Operation\2020 Agenda\PLAN\PLAN20_113948\Report Figures.mxd



MARKHAM DEVELOPMENT SERVICES COMMISSION

DATE: 27/08/2020



Buttonville Airport Lands Update

Development Services Committee September 29, 2020

BUILDING MARKHAM'S FUTURE TOGETHER 2020 – 2023 Strategic Plan



Background

September 15, 2020 Council Meeting:

- A motion was adopted seeking Council support for maintaining the intent of the current site specific policy in the Regional Official Plan (ROP) for the Buttonville Airport lands, which allows for a limited mix of urban uses on the employment lands.
- The motion arose from release of draft Regional Official Plan mapping which showed the Buttonville Airport lands designated as protected employment area under the Growth Plan.
- Council directed staff to report back to September 29, 2020 Development Services Committee meeting with an update on the Buttonville Airport designation issue.

BUILDING MARKHAM'S FUTURE TOGETHER 2020 – 2023 Strategic Plan



Regional Official Plan 2010 (in effect)

REGIONAL STRUCTURE



Buttonville Airport Lands



Designation: Urban Area **Site Specific Policy 7.2.92**

"That the Toronto Buttonville Municipal Airport Lands are designated for business park use, in the City of Markham Official Plan, including permission to operate an airport.

When airport operations at the Buttonville Airport cease, the significant majority of the subject lands shall be retained for business park use, and the balance for a mix of urban uses.

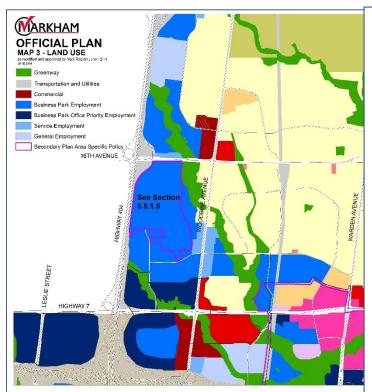
The City of Markham, in consultation with the Region, will determine the details of the future use of these lands through an implementing secondary plan process."



BUILDING MARKHAM'S FUTURE TOGETHER 2020 – 2023 Strategic Plan



Markham Official Plan 2014



7.1.8 Airports

7.1.8.2 To provide for the continued operation of the Toronto Buttonville Municipal Airport and to work with the Region and the landowners to determine the details of the future, long-term use of these lands through an implementing secondary plan process in accordance with Section 8.5.1.5.

Land Use Designation: Business Park Employment

8.5.1 Employment Lands - General Policies

8.5.1.5 That Markham will prepare a new secondary plan for the Buttonville West lands in the vicinity of the Toronto Buttonville Municipal Airport as shown on Appendix F - Secondary Plan Areas, and shown in outline with an asterisk on Map 3- Land Use, that will incorporate policies for future land use in accordance with Section 7.2.92 of the Regional Official Plan.

Area and Site Specific Policies

9.4.5 Buttonville West Secondary Plan

A new secondary plan shall be approved for the 'Business Park Employment' lands in the vicinity of the Toronto Buttonville Municipal Airport or the Buttonville West area as shown on Appendix F – Secondary Plan Areas and in Figure 9.4.5, including lands within the Buttonville Airport Redevelopment Area (shown in outline with an asterisk on Map 3 – Land Use), that will incorporate policies for future land use in accordance with Section 7.2.92 of the Regional Official Plan.

BUILDING MARKHAM'S FUTURE TOGETHER 2020 – 2023 Strategic Plan



Growth Plan 2019 Policy Change

New Employment Policy 2.2.5.6

Upper- and single-tier municipalities, in consultation with lower-tier municipalities, will designate all *employment areas* in official plans and protect them for appropriate employment uses over the long-term.

For greater certainty, *employment area* designations may be incorporated into upperand single-tier official plans by amendment at any time in advance of the municipal comprehensive review.

Definitions

Employment Area – Areas designated in an official plan for clusters of business and economic activities, including, but not limited to, manufacturing, warehousing, offices, and associated retail and ancillary facilities. (PPS, 2020)

BUILDING MARKHAM'S FUTURE TOGETHER 2020 – 2023 Strategic Plan

Implication of Growth Plan 2019 Policy 2.2.5.6

- The Growth Plan 2006 in effect at the time of approval of the ROP 2010 and the Markham OP 2014, did not require *employment areas* to be mapped. Although the Region was the approval authority for conversions, municipalities had discretion in how to protect *employment areas* in their official plans.
- The Growth Plan 2019 is more specific in that it now requires upper-tier municipalities to designate *employment areas* in their official plans.
- Applying both a specific *employment area* designation and a site specific policy that allows for non-employment area uses in the Regional Official Plan can be interpreted as not conforming with the Growth Plan 2019.

BUILDING MARKHAM'S FUTURE TOGETHER 2020 – 2023 Strategic Plan

Status of Draft Secondary Plan

- An official plan amendment (secondary plan) application for the Buttonville Municipal Airport lands was submitted by the landowners in 2011 to identify specific land use designations for the lands. The application was subsequently appealed to the Ontario Municipal Board (OMB).
- A settlement was reached between York Region, the City of Markham and the landowners resulting in a draft secondary plan being presented to the OMB for approval. The OMB approved the secondary plan subject to conditions in 2017, but the appeal was withdrawn by the landowners in 2020 prior to the conditions being satisfied and a final decision being issued. As a result, the secondary plan did not come into force.
- To date, no new development plans for the Buttonville Airport lands have been submitted.

BUILDING MARKHAM'S FUTURE TOGETHER 2020 – 2023 Strategic Plan



Solutions Under Consideration

- Markham and Regional staff have been working with Provincial staff and the landowner to maintain the policy intent of ROP policy 7.2.92, while ensuring conformity with the Growth Plan 2019.
- The landowners' proposal to exclude the Buttonville Airport lands from employment area mapping while maintaining the site specific policy in the ROP may not be sufficient to ensure that the balance between employment and non-employment uses that was achieved through the secondary plan process is reflected in a future secondary plan. Markham staff are working with the Region to address this issue while ensuring appropriate policy protection in the Regional Official Plan.
- Until Markham Council takes a position on a new development concept or secondary plan for the Airport lands, staff consider it prudent to maintain appropriate Growth Plan conversion protection through the ROP mapping. Further discussions with the Province are required to arrive at a mutually acceptable policy solution.

BUILDING MARKHAM'S FUTURE TOGETHER 2020 – 2023 Strategic Plan



Next Steps

- Markham staff will continue to work with Regional and Provincial staff and the landowner to arrive at a solution that maintains the intent of ROP 7.2.92 while conforming with the Growth Plan 2019.
- A Regional staff report seeking endorsement of employment area mapping and employment conversion recommendations is expected to be brought to Regional Committee of the Whole in early October.



Report to: Development Services Committee Meeting Date: September 29, 2020

SUBJECT: RECOMMENDATION REPORT

Evans Planning Inc.

Proposed Zoning By-law Amendment application for two semidetached lots and one residual lot at 12 and 16 Deer Park Lane (north

of Deer Park Lane, west of Elizabeth Street). Ward 4

PREPARED BY: Agsa Malik, Planner I, East District Ext. 2230

REVIEWED BY: Stacia Muradali, R.P.P., Acting Manager, East District, ext. 2008

RECOMMENDATION:

1. That the report dated September 29, 2020 titled "RECOMMENDATION REPORT Evans Planning Inc. Proposed Zoning By-law Amendment application for two semi-detached lots and one residual lot at 12 and 16 Deer Park Lane (north of Deer Park Lane, west of Elizabeth Street). Ward 4", be received;

- 2. That the record of the Public Meeting held on November 19, 2019 regarding the Zoning By-Law Amendment application submitted by Gil & Marina Scholyar c/o Evans Planning be received;
- 3. That the Zoning By-law Amendment application submitted by Gil & Marina Scholyar c/o Evans Planning to amend By-law 1229, as amended, be approved, and that the Zoning By-law Amendment attached as Appendix 'A' be finalized and enacted without further notice;
- 4. That Council assign servicing allocation for up to 5 residential units for the proposed development; and
- 5. That staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

This report recommends approval of the Zoning By-law Amendment application submitted by Evans Planning Inc. to permit two semi-detached lots (four dwellings) fronting Deer Park Lane and one single detached dwelling fronting Elizabeth Street at 12 and 16 Deer Park Lane.

Application Next Steps

- Enactment of the Zoning By-law Amendment by Council; and
- Severance application to create the proposed lots.

BACKGROUND:

The 0.17 ha (0.43 ac) subject lands, municipally known as 12 and 16 Deer Park Lane are located at the northwest corner of Deer Park Lane and Elizabeth Street, adjacent to (but outside of) the Heritage District (Figure 1). The subject lands each contain an existing one-storey detached

dwelling. The balance of the subject lands (12 Deer Park Lane) includes a wooden shed. The area is characterized by a diverse lot fabric and built form, including Deer Park Lane, which is a relatively short street that terminates in a dead end.

Deer Park Lane has experienced redevelopment in the form of detached and two-storey semi-detached dwellings (Figure 2 & Figure 3). The north side of Deer Park Lane (extending between Main Street Markham and ending at Elizabeth Street) consists of two single detached dwellings and a semi-detached dwelling which were approved for rezoning in 2004 (ZA 04 010190). On the south side of this portion of Deer Park Lane land uses consist of a used car dealership and four semi-detached dwellings. The semi-detached dwellings were a part of a zoning by-law amendment application approved in 2007 (ZA 07 110580). Land uses East of Elizabeth Street on Deer Park Lane consist of semi-detached dwellings.

Surrounding land uses are predominantly residential, comprised of detached residential dwellings (north), townhouse and semi-detached residential dwellings (south and east) and a mix of retail/service commercial and single detached residential dwellings (west) (Figure 3). Uses on Elizabeth Street (north of Deer Park Lane) consists of detached dwellings (west side) and a mix of single and semi-detached dwellings (east side). Uses on Wales Avenue, which is immediately south of Deer Park Lane, consists of a mix of single detached dwellings, semi-detached dwellings and townhouse blocks.

PROPOSAL:

The applicant proposes to amend Zoning By-law 1229, as amended to permit four semi-detached dwellings and one single-detached dwelling on the subject lands with site-specific development standards. The amendments include reductions in the minimum lot area and minimum lot frontage and increases to the maximum building depth and maximum building height as shown in detail in Appendix B.

The semi-detached dwellings will be developed with gross floor areas ranging from 257 m² (2,766.32 ft²) to 306.4 m² (3,298.06 ft²) and heights (mid-point) ranging from 8.65 m (28.38 ft) to 8.76 m (28.74 ft) (Figure 5). The dwelling units will be three storeys with the master bedroom in a third storey loft, and will have one parking space on the driveway and one in the garage. The detached dwelling will have a gross floor area of 270.06 m² (2,907 ft²), lot coverage of 27%, a frontage of 13.5 m (44.29 ft) and rear yard setback of 18.43 m (60.47 ft). The proposed detached dwelling will have a two-car garage and will accommodate two parking spaces on the driveway. The proposal contemplates the removal of existing mature trees on the property and will require compensation, which, will be reviewed through the consent application.

OFFICIAL PLAN AND ZONING Official Plan

The subject lands are designated 'Residential Low Rise' in the City of Markham Official Plan 2014 (partially approved on November 24, 2017 and further updated on April 9, 2018) (the "City's 2014 Official Plan") which provides for low rise housing forms, including detached dwellings and semi-detached dwellings. Development within this designation shall respect and reflect the existing pattern and character of adjacent development. The proposed zoning by-law amendment

conforms to the City's 2014 Official Plan and the Infill Development criteria and this is demonstrated in more detail later in this repor.

Zoning

The subject lands are zoned "One-Family Detached Dwellings (R1)" in By-law 1229, as amended, which permits detached dwellings. Dwellings within the R1 zone are subject to Residential In-fill By-law 99-90, which provides additional development standards related to maximum building height, building depth, net floor area ratio and garage projection as mechanisms to help control the size of new development in established neighbourhoods. A zoning by-law amendment is required to rezone a portion of the lands from "One-Family Detached Dwellings (R1)" to "One-Family Semi-detached dwellings (R2)" to allow for the semi-detached dwellings and to implement site-specific developments standards for the proposed semi-detached and single-detached dwellings. The single detached dwelling will remain zoned "One-Family Detached Dwellings (R1)" however site-specific development standards including minimum lot area and lot frontage and maximum building depth and height will be implemented.

PUBLIC CONSULTATION AND HERITAGE MARKHAM COMMENTS: Community Information and Statutory Public Meeting

A Community Information Meeting, arranged through the local Ward Councillor's office, was held on October 1, 2019 at the Markham Village Community Centre. The statutory Public Meeting was held on November 19, 2019. Approximately five residents from the neighbourhood attended the Community Information Meeting. Comments made by residents at both meetings are summarized below. The Options/Discussion subsection of this report addresses how these comments have been addressed or considered.

Community Information and Statutory Public Meeting Comments

- Concerns with the massing and compatibility of the proposed detached dwelling fronting Elizabeth Street:
- Concerns with the grade of the proposed development and impacts to sanitary and other services;
- Traffic flow related concerns including signalizing the Elizabeth Street/Deer Park Lane intersection and the availability of on-street parking
- Concerns with pedestrian safety and sidewalks on Deer Park Lane; and
- Tree preservation and loss of green space.

Comments and concerns expressed at the Statutory Public Meeting have been addressed in the following way. While there were concerns about traffic and general safety related to sidewalks and on-street parking, these concerns have been reviewed by the City's Transportation staff and they have no concerns with the proposal. Regarding the Elizabeth Street/Deer Park Lane intersection and concerns with safety, Operations staff will explore painting stop bars along the existing stop signs. Concerns were expressed respecting the massing of the proposed single detached dwelling, and as a result the applicant lowered the proposed building height from 10.49 m (34.42 ft) to 10.2 m (33.46 ft) and reduced the proposed net floor area ratio and setbacks so that they now comply with the By-law. The Engineering Department has not identified any concerns with respect to servicing of the proposed development.

OPTIONS/DISCUSSION:

Resubmissions following Public Consultation

Proposed detached dwelling

The proposed reduction in lot frontage of 13.5 m (44.3 ft) is compatible with the diverse range of lot frontages on the street, which range between 12.8 m (42 ft) and 19 m (64 ft) and therefore will not impact the streetscape (Figure 2). The proposed lot area of 600 m² (6,458.35 ft²) is a minor reduction and also generally compatible with the lot areas on the street. In the opinion of staff the requested reductions will not adversely impact the lot fabric of the street.

The proposed increase in building depth to 17.9 m (58.73 ft) is to accommodate a proposed porch at the front. The main building has a building depth of 16.29 m (53.44 ft) and complies with the existing zoning by-law which allows a maximum building depth of 16.8 m (55.12 ft) (Figure 4). The proposed porch, which extends the building depth beyond the permitted 16.8 m (55.12 ft), will not impact the neighbouring properties and will add a desirable architectural and functional detail which enhances the streetscape. The requested building depth and height is unlikely to result in a negative impact on the existing homes along Elizabeth Street, is similar to what has been previously approved, and currently exists on Deer Park Lane.

Proposed semi-detached dwellings

The rezoning of the subject lands from "One-Family Detached Dwellings (R1)" to "One-Family Semi-detached dwellings (R2)" is appropriate. The semi-detached dwellings are provided for under the "Residential Low Rise" designation in the 2014 Official Plan and, the proposed built form allowed by the new zoning standards is similar to the existing pattern of development.

The applicant has requested a reduction in minimum lot area to 550 m² (5,920.15 ft²) and a reduction in minimum lot frontage to 20.0 m (65.62 ft). This is twice as large of a lot frontage and lot area as the development immediately south of the subject lands (13-19 Deer Park Lane) and is in line with the property to its west (6 and 8 Deer Park Lane). The proposed lot coverage of 45% is also generally in line with developments approved for lot coverages of 44% (13-19 Deer Park Lane) and 40% (6 and 8 Deer Park Lane). Staff are of the opinion that these proposed development standards are appropriate.

The proposed semi-detached dwellings will provide front yard setbacks between 5.41 m (17.75 ft) – 6.87 m (22.54 ft), more than the requested front yard setback of 5.0 m (16.40 ft). The variation in the front yard setbacks is due to the semi-detached dwellings being sited along Deer Park Lane at an angle and not parallel to the street (Figure 4). The reduction in the front yard setback will allow the established building line to the west of the subject lands to continue along the proposed lots, which is appropriate. The proposed rear yard setback of 6.0 m (19.7 ft) will provide sufficient amenity space for the future residents. It is the opinion of staff that the requested rear yard setback will not negatively impact the area as there is no consistent rear yard setback pattern along this portion of Deer Park Lane.

The requested reduction in side yard setback from 1.8 m (6 ft) to 1.2 m (4 ft) is comparable to recent redevelopments on this portion of Deer Park Lane which, range between 1.2 m (4 ft) and 1.5 m (5 ft). Two of the requested provisions apply mainly to lot four: a side yard abutting a street

to be 3.0 m (9.8 ft) and an increase of an unenclosed porch encroachment into any required yard to be 1.3 m (4.27 ft) into the minimum required front yard or side yard abutting a street. The requested side yard provision is to ensure an adequately sized side yard for the corner lot and the encroachment provision is to allow the porch where it is currently shown on the plans. Staff have no concerns with the proposed encroachment or setbacks as the requested setbacks provide adequate spacing between the proposed dwellings, do not negatively impact the streetscape and are compatible with what already exists on the street

Illegal Removal of Trees

Staff note that a by-law order was issued on July 3, 2018 for the illegal removal of trees on the subject lands. On March 4, 2019 the applicant agreed to sign an undertaking which requires the replanting of thirty-seven (37) new trees. The applicant agreed that the cash-in-lieu value of thirty-seven (37) new trees would be kept as a letter of credit by the City and only released if the conditions of the by-law order were met. Staff will work with the applicant and require additional tree planting and landscaping on site as conditions of the future consent application, as conditions cannot be applied to zoning. The applicant will be required to apply for a tree permit prior to the removal of any trees on site. No other issues have been raised to date.

CONCLUSION:

Based on the discussion above, Planning staff recommend approval of the Zoning By-law amendment attached as Appendix 'A' to permit two semi-detached lots (four semi-detached dwellings) and one single detached dwelling on the subject lands as it represents good planning and is compatible with the surrounding area

FINANCIAL CONSIDERATIONS

Not applicable.

HUMAN RESOURCES CONSIDERATIONS

Not applicable.

ALIGNMENT WITH STRATEGIC PRIORITIES:

The proposal has been reviewed in the context of the City's strategic priorities of Growth Management and Municipal Services.

BUSINESS UNITS CONSULTED AND AFFECTED:

This application was circulated to various departments within the City and applicable agencies and their comments have been taken into consideration in this report.

RECOMMENDED BY:

Biju Karumanchery, M.C.I.P., R.P.P Director, Planning and Urban Design

Arvin Prasad, M.C.I.P., R.P.P Commissioner of Development Plann

ATTACHMENTS:

Figure 1 – Location Map

Figure 2 – Area Context/Zoning

Figure 3 – Aerial Photo

Figure 4 – Proposed Conceptual Site Plan

Figure 5 – Conceptual Elevations

Schedule "A" To By-Law 1229

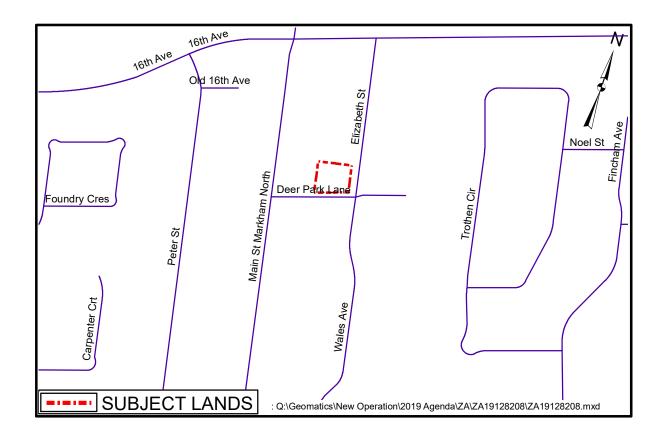
Appendix A –Zoning By-law Amendment

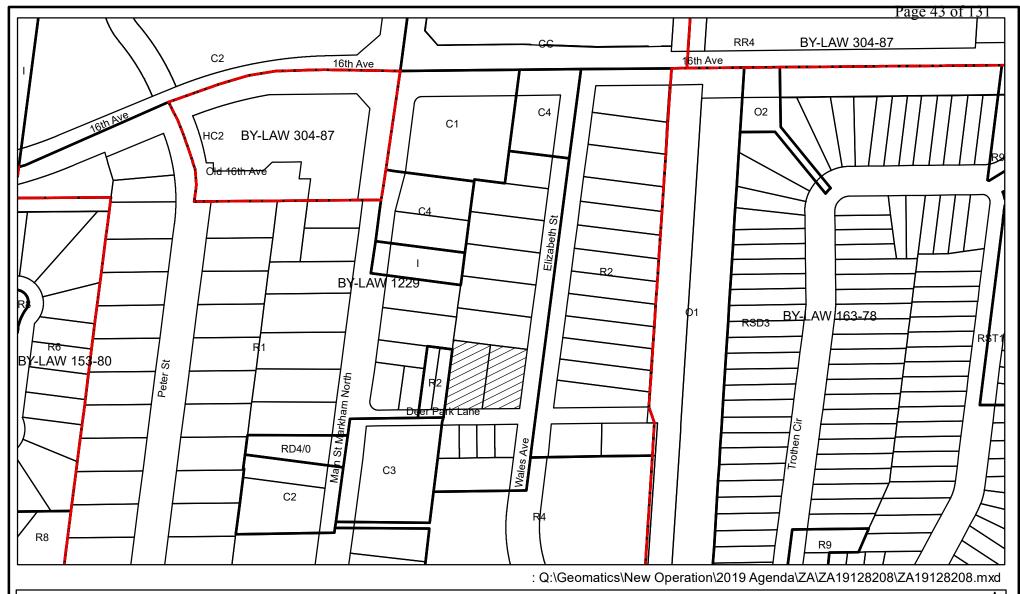
Appendix B – Requested Zoning Provisions

AGENT CONTACT INFORMATION:

Murray Evans Evans Planning Inc. 8481 Keele Street, Unit 12 Vaughan, Ontario L4K 1Z7 Tel: (905) 558-6992 ext. 106

Email: evansplanning@sympatico.ca





AREA CONTEXT/ZONING

APPLICANT: EVANS PLANNING INC. (ADAM SANTOS)
12 & 16 DEER PARK LANE

FILE No: ZA198208(AM)

SUBJECT LANDS

DATE:08/13/19

FIGURE No. 2



: Q:\Geomatics\New Operation\2019 Agenda\ZA\ZA19128208\ZA19128208.mxd

AERIAL PHOTO 2018

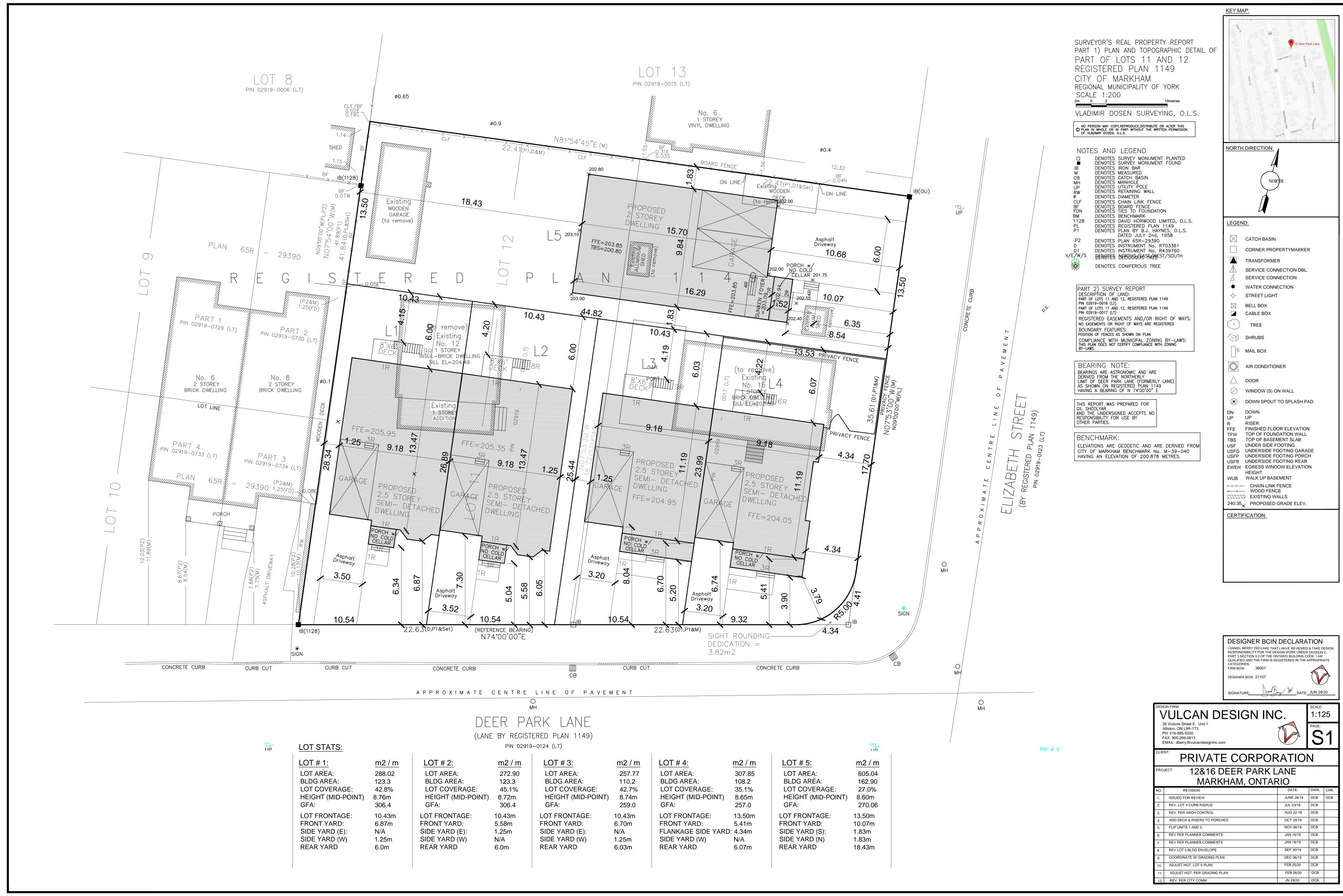
APPLICANT: EVANS PLANNING INC. (ADAM SANTOS)
12 & 16 DEER PARK LANE

FILE No: ZA198208(AM)

SUBJECT LANDS

DATE:08/13/19

FIGURE No. 3



39 VICTORIA STREET E. UNIT #1 ALLISTON, ON L9R-113 PH: 416-885-5200 FAX: 905-266-0613 EMAIL: dberry@vulcandesigninc.com CONTACT PERSON: DANIEL BERRY



BCIN DECLARATION

PART 3 SECTION 3.2 OF THE ONTARIO BUILDING CODE. I AM QUALIFIED AND THE FIRM IS REGISTERED IN THE APPROPRIATE CATEGORIES.

FIRM BCIN: 36501 DESIGNER BCIN: 21107

ENGINEER CERTIFICATION:

LEGEND / LINTELS:

LINTELS:		ABBRE	VIATION5:
<u>WOOD</u>			
WI 2/2'	1X811	DJ	DOUBLE JOIST
W2 2/21		1J	TRIPLE JOIST
W3 2/2' W4 3/2'		GT	GIRDER 1RUSS
W5 3/2'	,	'00'	DO OVER
W6 3/2'	'XI2''	RJ	ROOF JOISTS
LVL (2,0E)		S1L.	STEEL
	3/4" X 7-1/4" 3/4" X 7-1/4"		SOLID BEARING FRAMING REQ.'S')
LVL 3 2-13	3/4" X 9-1/2"	PL.	POINTLOAD
	3/4" X 9-1/2" 3/4" X 11-7/8"	FL.	FLUSH
LVL 7 2-1:	3/4" X II-7/8" 3/4" X I4" 3/4" X I4"	DR.	DROPPED

U.N.O. FASTEN MULTIPLE PLYLVL'S (2) ROWS @ FG. FIXED GLASS 12'' O.C. 3 ½'' (16d) NAILS OR SDW SCREWS FD1N. FOUNDATION BG. BLACK GLASS SI <4'-0" L3-1/2" X3-1/2" -1/4" 52 < 6'-0" L4" X 3-1/2" X 1/4" 53 < 8'-0" L5" X 3-1/2" X 5/16"

-ORIENT ANALES LONG LEG VERT. -MAX. I" BRICK CLG. CEILING -WEEP HOLES @ 56" O.C. MAX BBFM BEAM BY FLOOR SOLID BEARING

(SAME WIDTH AS SUPPORTED MEMBER) O CABLE LINE X CONCENTRATED PHONE JACK POINT LOAD CEILING EXHAUST FAN

-LINTELS SHALL BE PRIMED TO "CISC/CPMA 2-3" FG. FIXED GLASS

MANUFACTURE

- PULL CHAIN CLG. LIGHT

3 WAY SWITCH

FIRE PLACE VENT

-BEAR LINTELS MIN. 6" EACH END

CELLAR VENT SMOKE ALARM

DETECTOR HOSE BIB 120 VOLT RECEPTACLE

WATERPROOF
ELECTRICAL OUTLET ELECTRIC RECEPTACLE (42" OFF FINISH FLOOR) HOOD/CELLAR VENT O_SFLOOR DRAIN DRYER VENT

Issued for review Issued for review Issued for review NOVO6/18 dcb | REV SINGLE ELEV. Issued for review

MARKHAM, ON

PROPOSED FRONT ELEVATION LOT 2



10P OF BSMT. SLAB

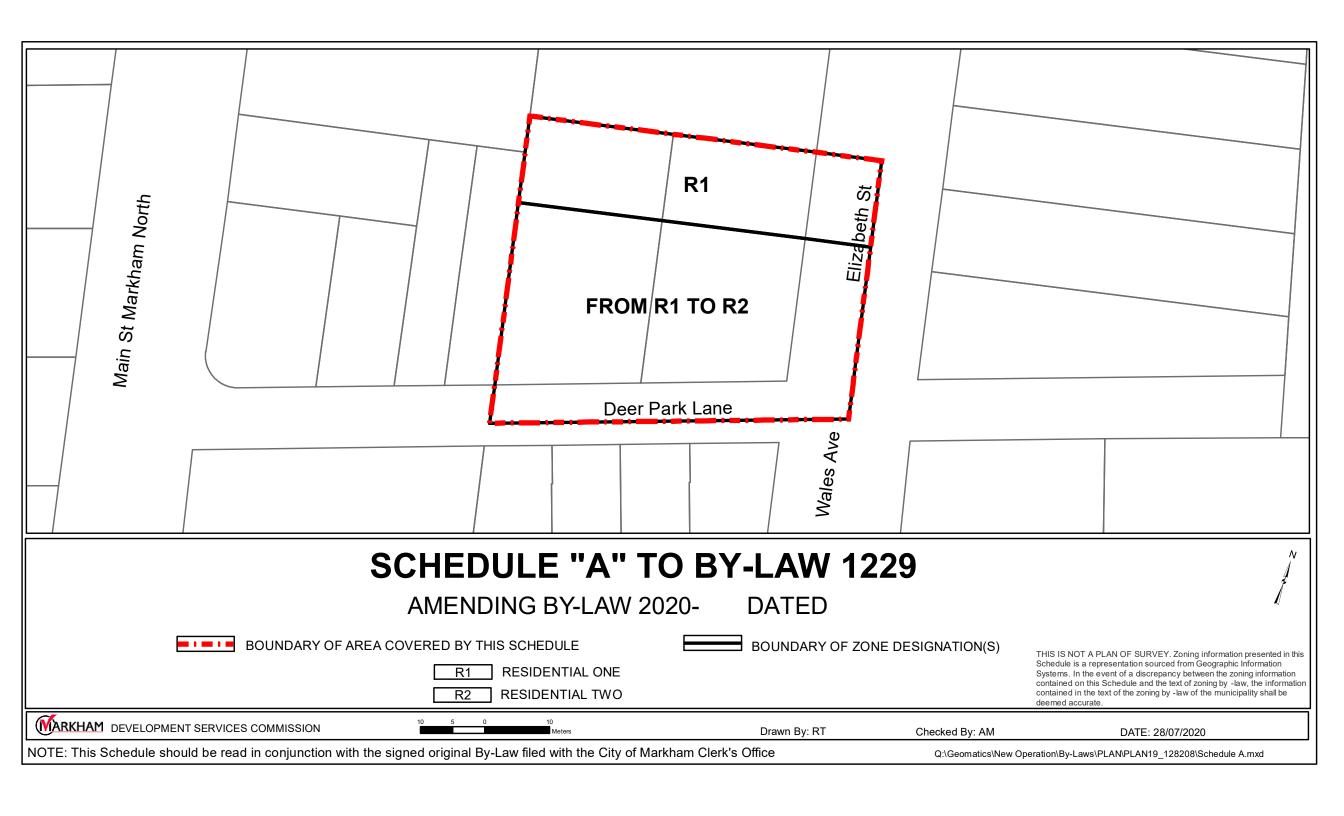
PROPOSED FRONT ELEVATION LOT I

ROOF MID-POINT

PROPOSED FRONT ELEVATION LOT 5

10P OF BSMT. SLAB

PROPOSED FRONT ELEVATION LOT 4 (CORNER UPGRADE)





THE COUNCIL OF THE CORPORATION OF THE CITY OF MARKHAM HEREBY ENACTS AS FOLLOWS:

- 1. That By-law 1229, as amended, is hereby further amended as it applies to the lands shown on Schedule 'A' attached hereto as follows:
- 2. By-law 1229, as amended, is hereby further amended as follows:
 - 2.1 By changing the zone classification of the lands outlined on Schedule 'A' attached hereto from:

One – Family Detached Dwellings Zone (R1)
To:

One - Family Semi - Detached Dwellings Zone (R2)

2.2 By adding the following subsections to Section 12 – EXCEPTIONS:

Exception 12.43 File ZA 19 128208		Northwest corner of Deer Park Lane and Elizabeth Street	Parent Zone R1 Amending By-law 0000-000	
		(LOT 5) Part of Lots 11 and 12, Registered Plan 1149		
apply unles section	Notwithstanding any other provisions of By-law 1229, as amended, the following provisions shall apply to the land shown on Schedule "A" attached to this By-law All other provisions, unless specifically modified/amended by this section, continue to apply to the lands subject to this section. 12.43.1 Special Zone Standards			
a)				
b)				
c)	Maximum Building <i>Depth</i> 17.9 m			
d)	Maximum Height: 10.2 metres			

Exc	eption 12.44	Northwest corner of Deer Park Lane and Elizabeth Street	Parent Zone R2	
File	ZA 19 128208	(LOT 5) Part of Lots 11 and 12, Registered Plan 1149	Amending By-law 0000-000	
appl unle secti	y to the land shown o ss specifically modifici ion.	r provisions of By-law 1229, as amended, the f n Schedule "A" attached to this By-lawed/amended by this section, continue to apply t	All other provisions,	
a)	•	one Standards s of this by-law, the <i>front lot line</i> shall be	e the <i>lot line</i> abutting	
b)		tage for a pair of semi-detached dwelli	ngs: 20.0 metres	
c)	Minimum lot area	a of a pair of semi-detached dwellings:	550 square metres	
d)	Minimum required yards: i) Front Yard – 5.0 metres ii) Rear Yard – 6.0 metres iii) Interior Side Yard – 1.2 metres and 0.0 metres iv) Side yard abutting a street – 3.0 metres			
e)	Maximum <i>lot coverage</i> : 45%			
f)	Notwithstanding the provisions of Section 11.2 (c) (i), unenclosed porches and stairs may encroach 1.3 metres into a minimum required <i>front yard</i> or <i>side yard</i> abutting a <i>street</i>			
for	•	s of By-law 1229, as amended, not tinue to apply to the lands shown on		
ead a fi	rst, second and th	ird time and passed this	2020.	
imberle	y Kitteringham	Frank Scarpitti Mayor		



EXPLANATORY NOTE

BY-LAW 2020 - ____ A By-law to amend By-law 1229, as amended.

North side of Deer Park Lane, west of Elizabeth Street Part of Lots 11 and 12, Registered Plan 1149

> (Proposed Infill Redevelopment) File No. ZA 19 128208

Lands Affected

This by-law amendment applies to 0.173 hectares. (0.43 acres) of land located at the northwest corner of Deer Park Lane and Elizabeth Street, in the City of Markham.

Existing Zoning

The lands are presently zoned One- Family Detached Dwelling (R1) within By-law 1229, as amended.

Purpose and Effect

The purpose of this by-law amendment is to amend, and incorporate the lands into on appropriate residential, zone category within By-law 1229, as amended, as follows:

One – Family Detached Dwellings Zone (R1)
To:
One – Family Semi – Detached Dwellings Zone (R2)

The effect of this by-law amendment is to permit a residential re-development of the above aforementioned land with two semi-detached dwellings and one single detached family dwelling. The proposed dwelling units are to have direct frontage and access to the municipal roads of Deer Park Lane and Elizabeth Street.

Site specific design standards are contained within By-law 2020 - ____ to facilitate the construction of the dwelling units as proposed.

APPENDIX B: REQUESTED ZONING PROVISIONS

Zone Standards for Semi- Detached Dwellings	Existing R2 Zone Standards	Proposed R2 Zone Standards
Min. Lot Area	762 m ² (8,202.1 ft ²)	550 m ⁻² (5,920.15 ft ²)
Min. Lot Frontage	22.86 m (75 ft)	20.0 m (65.62 ft)
Min. Front Yard Setback	7.62 m (25 ft)	5.0 m (16.40 ft)
Min. Rear Yard Setback	7.62 m (25 ft)	6.0 m (19.7 ft)
Minimum Interior Side Yard Setback	1.2 m (4 ft) (one storey) 1.8 m (6 t)	1.2 m (4 ft), 0 m
Side Yard Abutting a Street	-	3.0 m (9.84 ft)
Max. Lot Coverage	40%	45%
Unenclosed porches	18" (1.5 ft) into any required yard	1.3 m (4.27 ft) into minimum required front yard or side yard abutting a street

Zone Standards for	Existing R1 Zone Standards	Proposed R1 Zone Standards
Single Detached		
Dwelling		
Min. Lot Area	613 m ² (6,600 ft ²)	600 m ² (6,458.35 ft ²)
Min. Lot Frontage	18.28 m (60 ft)	13.5 m (44.3 ft)
Max. Building Depth	16.8 m (55.12 ft)	17.9 m (58.73 ft)
Max. Building Height	9.8 m (32.15 ft)	10.2 m (33.46 ft)



City-Wide Traffic Safety Audit (Results)

September 29, 2020

Development Services Committee

Presentation Summary

Markham Traffic Safety Audit

Existing Traffic Safety Programs

Review of Collision Data

Network Screening

Systemic Safety Review

Review



Excellence in engineering

Existing Traffic Safety Programs

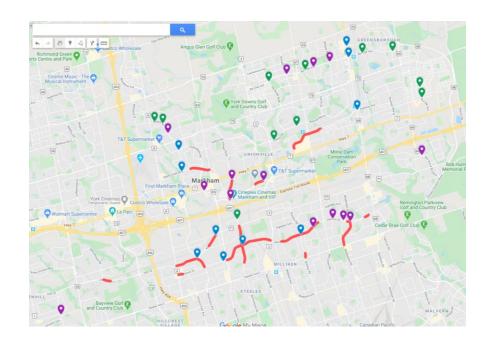
- Existing safety initiatives in Markham are mostly independent from each other and are facilitated wholly by the City or in collaboration with York Region:
 - Speed Management Program
 (speed display boards, Road Watch)
 - School Zone Centreline Sign Program
 - Pedestrian Accessibility Improvements
 - Sidewalk Network Completion Program
 - School Crossing Guard Program
 - Safe Routes to School Program



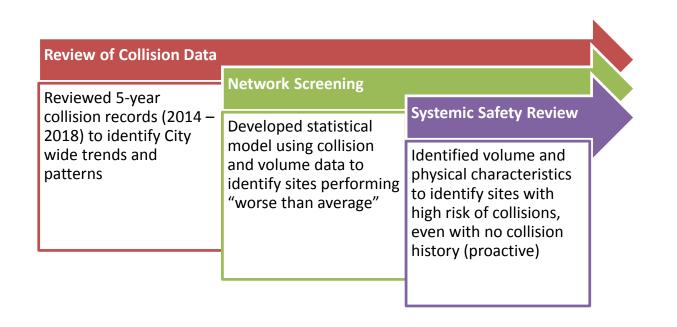


Markham Traffic Safety Audit

- Objectives:
 - Assess collision trends on City streets and intersections
 - Identify and prioritize locations based on severity and risk to road users
 - Identify a short list of traffic safety measures for high-risk collision prone locations
 - Develop terms of reference for development of comprehensive road safety plan



Markham Traffic Safety Audit



- PriorityLocations
- Potential
 Safety
 Measures

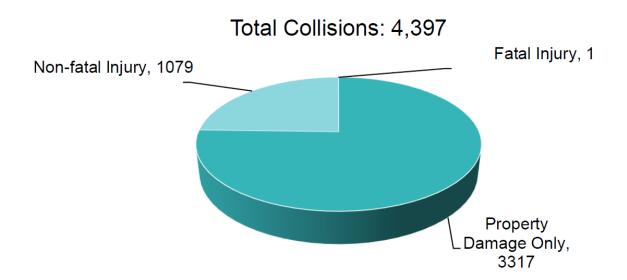
Review of Collision Data

Review of Collision Data

- Goal: Identify collision patterns, including:
 - Severity distribution (e.g., fatal and injury vs. PDO)
 - Road user trends (e.g. pedestrians and cyclists)
 - Environmental factors (e.g. road surface conditions)
 - Spatial correlations (e.g. school zones)

 Process: Assessment of most recent 5-year collision history at City's intersections and road segments

Review of Collision Data (2014 - 2018)



Review of Collision Data (2014 - 2018)

Metric ¹	Markham	York Region ²	Municipalities with Lower Population ³	Municipalities with Higher Population ⁴
% Injury Collisions	24.6%	26.4%	11.5% – 13.8%	14.1% - 21.0%
Total Collision Rate	267	717	608 – 717	659 – 2,033
Injury Collision Rate	66	190	70 – 99	97 – 325
Pedestrian Collision Rate	11.7	9.2	11.4 – 12.9	22.9 – 47.8
Cyclist Collision Rate	6.7	14.7	13.9 – 14.4	10.6 – 33.0

Notes:

¹ Collision rates = collisions per year per 100,000 population

² Includes Region-wide collisions on Regional Roads only

³ Burlington and Oakville

⁴ London, Hamilton, Brampton and Ottawa

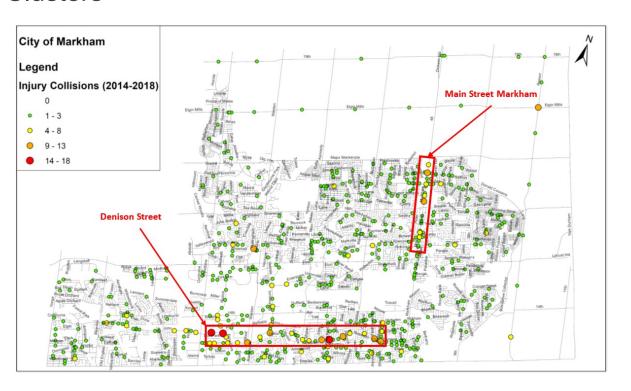
City-wide Review of Collisions (2014 - 2018)

• 3% of intersections (4-leg signalized) experience 42% of intersection injury collisions

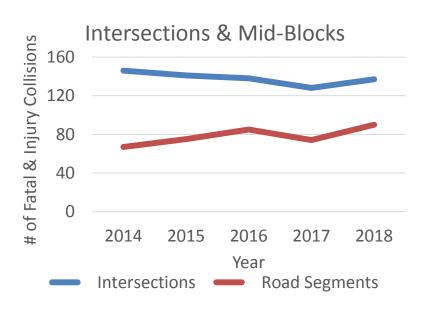
 3% of road segments (urban 4-lane with 50 km/h speed limit) experience 32% of road segment injury collisions

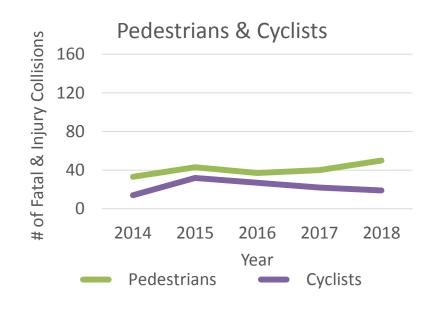
Review of Collision Data

Collision Clusters



Review of Collision Data (2014 - 2018)





Annual Injury Collision Trends

Network Screening

Network Screening

- · Goals:
 - Identify intersections and road segments with 'worse than average' safety performance, by taking traffic volumes into consideration
 - e.g. 10 collisions on 20,000 car road is safer than 10 collisions on 10,000 car road
 - Identify statistically over-represented collision impact types and/or environmental factors on an individual site basis

 Process: Statistical model as a function of collision history, traffic volumes and physical characteristics

Network Screening

 29 intersections and 8 road segments identified as high priority sites for safety improvements

Top 10 intersections are 4-Leg signalized

9 out of 10 top mid-blocks are Urban 4-Lane, 7 of which with 50 km/h posted speed

Systemic Safety review

Systemic Safety Review

- Goals:
 - Identify intersections and road segments with higher risk of collisions even before they occur (proactive)
 - Identify potential safety measures for individual intersections and road segments to reduce risk of collision
- Process: Identification of risk factors
 - High daily traffic volumes
 - Transit stops
 - Number of intersection legs
 - Number of lanes
 - Nearby intersections
 - Presence of medians

- No right-turn lane
- Horizontal curve
- No sidewalk
- Intersection Skew
- Railway crossing

Systemic Safety Review

• Example: Alden Rd & 14th Ave / Hood Rd



Systemic Safety Review

• Examples: Alden Rd & 14th Ave / Hood Rd

Risk Factors	Potential Countermeasure(s)	
High volumes	Fully protected left-turn phase, right-turn on red prohibition	
Presence of Bus Stops	Leading Pedestrian Interval, Longer Pedestrian Phase	
Cross Intersection	Ciencel visibility incomes onto	
Horizontal Curve	Signal visibility improvements	
4+ Lanes on Major Road	Advance Street Name signs	
Absence of Median	Medians	
Absence of Right Turn Lane	Dedicated right-turn lanes	

Road Safety Strategic Plan

Safe Systems Approach

 Looks at the road as a holistic unit and as a system (the system imposes demands on users and vice-versa)

 Accepts the fact that road users are human and make mistakes or wrong decisions (especially as system demands increase)

 Road safety experts should then develop ways of reducing the risk of the traffic system in a way that accounts for these mistakes

Elements of a Road Safety Strategic Plan

- Mission and Vision statements
- SMART goals
- Collaborative, multi-disciplinary effort
- Drives culture change
- Targets emphasis areas:
 - Intersections
 - Pedestrians
 - Cyclists
 - aggressive & distracted driving
 - Senior citizens
 - School children, etc.







Elements of a Road Safety Strategic Plan

- Establishes a Task Force
- Develops Data-driven Safety Initiatives + Action & Monitoring Plan:



Scope of Road Safety Plan Development

- Main components
 - Coalition Building Plan
 - Data Collection and Analysis (update)
 - Environmental Scan
 - Needs assessment
 - Develop goal and vision/mission statements
 - Identification of Emphasis Areas
 - Public Engagement
 - Develop Road Safety Action, Evaluation and Monitoring Plans
 - Develop specific traffic operations policies & procedures
 - Identify City resource requirements to facilitate and sustain Plan

Thank You



CIMA Canada Inc. Soroush Salek, Ph.D., P.Eng. soroush.salek@cima.ca



Report to: Development Services Committee Meeting Date: September 29, 2020

SUBJECT: Road Safety Update - Traffic Safety Audit Results (City-

wide)

PREPARED BY: David Porretta, Manager, Traffic Engineering, Ext. 2040

Justin Chin, Traffic Engineer, Traffic Engineering, Ext. 4020

REVIEWED BY: Loy Cheah, Senior Manager, Transportation, Ext. 4838

RECOMMENDATION:

1. That the report entitled "Road Safety Update - Traffic Safety Audit Results (Citywide)" and presentation entitled "Traffic Safety Audit Results", be received; and

- 2. That staff be directed to explore new traffic calming measures to address vehicle speed and traffic infiltration on City streets, and to report back prior to conducting pilot projects; and
- 3. That the City Clerk send a copy of this report and Council resolution to York Region; and further
- 4. That staff be authorized and directed to do all things necessary to give effect to this resolution.

EXECUTIVE SUMMARY:

As the City continues to grow and modes of transportation become more diverse, there is a need for a different approach to how Markham addresses road safety. A "Safe Systems" strategy will plan for the implementation of safety measures that are data-driven in order to increase road safety for all road users, most notably cyclists and pedestrians as they are most vulnerable to serious injury and death when involved in a motor vehicle collision.

The process to achieve this objective begins with a city-wide traffic safety audit in order to identify the existing areas of concern as well as locations that have a high risk of collisions. The audit analyzed collision data over a five-year period (2014-2018).

The audit confirmed that a high percentage of collisions on City streets occur at signalized intersections, 4-lane roads and on streets with a posted speed limit of 50 km/h. There is an upward trend in the frequency of pedestrian collisions, and close to half of all pedestrian and cyclist collisions occurred at signalized intersections.

The Denison Street and Main Street Markham corridors were identified as areas of concern with Denison Street having a high number of collision risk factors. Risk factors

include high traffic volumes, road cross-section and geometric elements, presence of transit stops, and being four-lane major collector roads.

When comparing the safety performance of Markham with select Ontario municipalities, Markham saw the lowest number of overall injury collisions, however, there is a higher probability of being injured in the event of a collision.

The traffic safety audit results highlight the need for a "Safe Systems" road safety plan specific to the needs of the City of Markham.

As the use of active transportation increases across the City, staff continue to collaborate with the Cycling and Pedestrian Advisory Committee (CPAC) on potential initiatives to improve safety and raise awareness related to active transportation. Corporate Communications & Community Engagement is also a key partner on a campaign aimed at educating the public on road and school zone safety and promoting existing traffic safety programs such as "Road Watch" and speed display board deployments. These ongoing efforts, in parallel with the development of a road safety plan, will enhance existing traffic safety programs and improve the overall safety of Markham's transportation network.

PURPOSE:

This report provides the results of the City-wide traffic safety audit and next steps to develop a road safety plan for Markham.

BACKGROUND:

A fundamental shift in attitude toward road safety and mobility is required

At the March 18, 2019 Development Services Committee meeting, City staff brought forward an information memorandum, entitled "Road Safety in Markham (City-wide)". That memorandum provided an overview of the existing traffic safety strategies, and emphasized the need for a fundamental shift in attitude toward road safety. The City's goal of reducing the severity of collisions for all road users, including pedestrians and cyclists will be achieved through the following:

- Planning for the transition from a primarily car-dependent community to one
 where transit and active transportation are becoming increasingly viable and
 attractive alternate modes of travel;
- The need to prioritize the safety of all road users, particularly pedestrians and cyclists, over the expeditious movement of motorized vehicles;
- The development of an enhanced road safety plan to identify and treat areas with high rates of collisions as well as those with high risk of collisions by determining appropriate measures to address them; and

• The continuation of a partnership with York Region to ensure a common approach and consensus on priorities, roles, responsibilities, and implementation of associated road safety projects, programs and initiatives.

A "Safe Systems" approach to road safety is needed

Most road authorities and public agencies, including Markham, manage the safety performance of the road system through five pillars: Education, Encouragement, Enforcement, Evaluation and Engineering. Markham safety initiatives are based on a combination of these five pillars. Although these initiatives have been successful on many levels, many jurisdictions are now shifting their approach towards a "safe systems" approach to road safety, which includes the "Vision Zero" approach.

A "Safe Systems" approach to road safety is based on the principle that no serious injuries or deaths should be acceptable. Data-driven and evidence-based measures are used to reduce the number of collisions. Conducting a City-wide traffic safety audit is the first step in developing a comprehensive, data-driven road safety strategy.

A City-wide Traffic Safety Audit was initiated in September 2019 and is now completed

In September 2019, City staff retained CIMA+ (the Consultant) to conduct a City-wide traffic safety audit. The primary tasks of this audit included:

- Collection and review of all City road infrastructure, traffic data and collision data (2014 2018);
- Collision network screening and safety risk analysis;
- Review of collision prone locations;
- Evaluating and comparing the City's overall safety performance;
- Identify a series of counter-measures to mitigate specific road safety issues;
- Develop the Terms of Reference for a Road Safety Plan;

The traffic safety audit is now completed and the results are presented in this report.

OPTIONS/ DISCUSSION:

The City of Markham has a substantial traffic data and collision database for the transportation network under its jurisdiction. The City's traffic data and York Regional Police collision reports over a 5-year period (January 2014 to December 2018) were compiled, reviewed for data quality, and processed. About 2,000 individual road segments and 1,000 intersections were included in the scope of the audit.

Traffic Safety Audit Key Findings

In the 5-year analysis period (2014 - 2018), approximately 4,400 collisions occurred on the City's road network. The following are highlights of the findings.

• Collision Severity

- o 25% of all collisions resulted in injury;
- o 37 collisions (3.4%) resulted in major injury (i.e. requiring hospital admission);
- o One fatality (pedestrian) occurred during the period;
- Majority of injury collisions occurred during daylight hours under good road/weather conditions.

• Intersection Collisions

- There is a slight decreasing trend in the number of injury collisions at intersections. The average number of intersection collisions is 138 per year;
- 50% of all intersection collisions occur at signalized intersections; the City has approximately 101 signalized intersections which makes up 5% of the analyzed intersections;
- Angle collisions are the most frequent collision type. Angle collisions are defined as 90 degree vehicular impacts and are frequently associated with injuries;
- Highest concentration of intersection collisions occur on the Denison Street and Main Street Markham corridors.

Mid-block (Road Segment) Collisions

- There is an increasing trend in the number of injury collisions at mid-block locations. The average number of mid-block collisions is 78 per year;
- o 23% of collisions occur on 4-lane, 50 km/h posted roads, yet 4-lane roads with 50 km/h speed limits comprise only 3% of the City's road network;
- 12% of collisions occur on 2-lane, 50 km/h posted roads, yet these road segments comprise only 3% of the City's road network;
- Most injuries are from single motor vehicle (SMV) collisions; and most vehicle-pedestrian collisions are typically reported as single motor vehicle collisions.

• Pedestrian Collisions

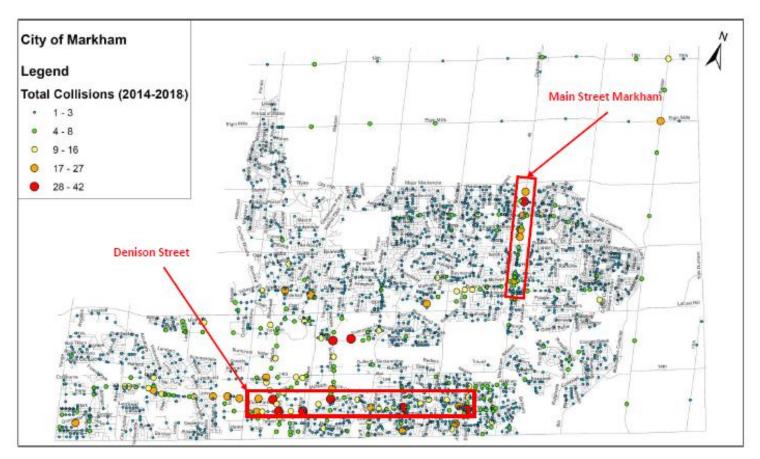
- There is a modest increasing trend in the number of pedestrian collisions. The average number of pedestrian injury collisions is 41 per year;
- Highest concentration of pedestrian collisions occurs in the Milliken area, particularly on the Denison Street corridor;
- o 44% of pedestrian collisions occur at signalized intersections;
- 22% of all pedestrian collisions occur on roads with 4+ lanes, yet 4-lane roads comprise only 4% of the City's road network;
- o Most pedestrian injury collisions occur during non-daylight conditions.

• Cyclist Collisions

- Since 2015, there is a decreasing trend in the number of cyclist collisions.
 The average number of cyclist injury collisions is 23 per year;
- Highest concentration of cyclist collisions occurs in the Milliken area, particularly on the Denison Street corridor;
- o 45% of cyclist collisions occur at signalized intersections;
- o 37% of all cyclist collisions occur on roads with 4+ lanes, yet 4-lane roads comprise only 4% of the City's road network;
- Most cyclist injury collisions occur in the summer-fall months during the AM peak period.

The geographical distribution of collisions was also analyzed to determine areas that contained the highest concentrations of collisions. These collision clusters are presented in **Figure 1**.

Figure 1: Geographic Distribution of Total Collisions in Markham (2014-2018)



Areas of highest concentration of collisions are the Denison Street corridor between Woodbine Avenue and Markham Road and the Main Street Markham corridor between Highway 7 and Major Mackenzie Drive. A significant number of collisions occurs at either

signalized intersections or on road segments with a posted speed limit of 50 km/h, despite making up only 5% and 6% of City facilities, respectively.

Denison Street is ranked as having high risk factors for all road users. These risk factors include high traffic volumes, road cross-section and geometric elements, presence of transit stops, and being four-lane major collector roads. Cyclists also experienced more collisions on Denison Street, which may be associated with the lack of dedicated cycling infrastructure along the corridor, and a higher number of cyclists.

Markham compares well with peer municipalities on road safety but more needs to be done to reduce the risk of injuries

The following compares the road safety performance of Markham with select municipalities in Ontario. A summary of total collisions is shown in **Figure 2** below.

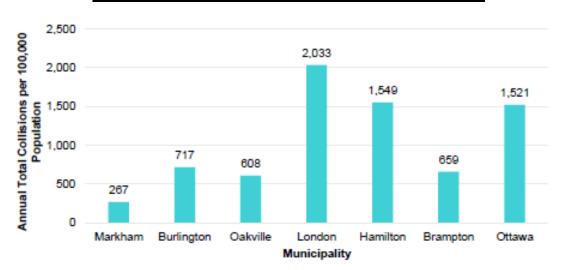


Figure 2: Annual Total Collisions (per 100,000 population)

Markham compares well, however it should be noted that the Cities of London, Hamilton and Ottawa are single-tier municipalities that are responsible for all arterial roads and some expressways and also have a more developed transportation system of roads, transit and cycling facilities and services.

The proportion of injury collisions to total collisions was also calculated. Between the years 2014 and 2018, 24.6% of all collisions in Markham resulted in injuries. This percentage is similar to the Regional percentage of 26.5%, but it is higher than the other municipalities selected as shown in **Figure 3** below.

Figure 3: Proportion of Injury Collisions to Total Collisions (2014-2018)

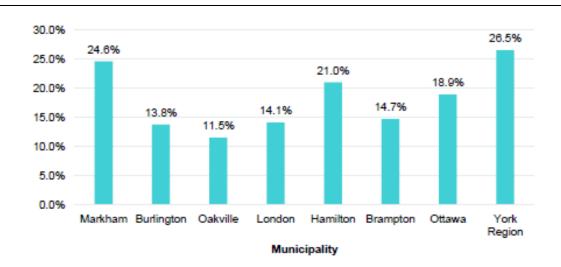


Figure 3 shows that collisions are more likely to result in injury in comparison to the other municipalities. However, given the lower number of collisions in Markham, the number of annual injury collisions in Markham is still the lowest in comparison.

It should be noted that other lower tier municipalities within York Region have not adopted formal road safety plans and do not have published road safety statistics. The City of Markham is in a position to become a leader for objectively addressing areas of existing concern and proactively addressing high-risk collision areas with the ultimate goal of creating a safe transportation network for all road users across the City.

The City is working with the Cycling & Pedestrian Advisory Committee (CPAC) on active transportation safety strategies

A CPAC meeting was held on July 16, 2020, to discuss the issue of vulnerable road user (pedestrian and cyclist) safety across the City. Recognizing that active transportation is increasing in Markham, a motion was passed to recommend to Development Services Committee to direct staff to expedite the study and potential implementation of low cost safety measures, within existing budgets.

A subsequent meeting was held on August 6, 2020 to refine and prioritize the initial long list of safety measures. At that meeting, CPAC recommended that staff further study the feasibility of implementing the following three priority measures:

- 1. Speed limit reductions to 30 km/h on key local roads or neighbourhoods;
- 2. Install flexible bollards on roadways with white edge-line pavement markings at strategic locations (e.g. near intersections); and
- 3. Modify traffic signal operations at high pedestrian/cyclist locations to accommodate leading pedestrian intervals and implement no right turns on red.

Staff continue to collaborate with CPAC on these and other initiatives aimed at increasing vulnerable road user safety across the City. This ongoing effort in addition to

the development of a City-wide road safety plan will enhance and prioritize existing road safety programs and pilot new and innovative measures.

A communications campaign to supplement current road safety strategies is underway

The City's current traffic safety programs of Speed Display Boards, Road Watch and School Zone Safety play an important role in raising road safety awareness and changing road users' behaviour. To complement these initiatives, Engineering staff have engaged the Corporate Communications & Community Engagement team to develop an educational campaign to explain safety rules of the road and promote safe pathways and trails usage.

Staff will be working in collaboration with York Region and York Regional Police to ensure that the public education campaign and its key messages are consistent and complementary across all organizations.

The traffic safety audit highlights the need for a "Safe Systems" road safety plan specific to the needs of the City of Markham

The traffic safety audit has revealed the safety issues for vulnerable road users in Markham. Through the development of a road safety plan customized to meet the specific safety requirements of Markham, the City will be able to prioritize site-specific safety measures through the "Safe Systems" approach.

The main outcome of the road safety plan will be an implementation plan of City-wide safety measures defined by a set of specific and measureable goals such as annual safety targets.

To ensure broad support for the road safety plan, it will need to improve safety to all aspects of Markham's transportation network. Therefore, its development will involve key stakeholders (such as York Regional Police, York Region Transportation, Public Health, school boards) who will provide technical input within their respective areas of expertise. A detailed communications and public engagement plan will also be necessary to obtain input from the larger Markham community.

FINANCIAL CONSIDERATIONS

Staff has submitted a 2021 capital budget request for the development of the road safety plan. The development of the Plan will take approximately 18 months to complete. Completion of the road safety plan will inform the programming of future capital project budgets on road safety.

HUMAN RESOURCES CONSIDERATIONS

Development of the road safety plan will not require additional staffing requirements.

Commissioner, Development Services

Page 9

Additional staffing requirements to facilitate implementation and on-going management

of the road safety plan will be considered over the course of its development while assessing existing staff resources and prioritization of other work.

ALIGNMENT WITH STRATEGIC PRIORITIES:

DISCINESS LINETS CONSTITUTED AND AFFECTED.

The recommendations identified are intended to improve road safety for all road users, particularly pedestrians and cyclists, using a data-driven approach, and that recognizes serious injuries or deaths on the municipal road network is not acceptable. Therefore, the recommendations align with the City's Strategic Plan goal of a "Safe & Sustainable Community".

Not applicable.	D'AFFECTED.
RECOMMENDED BY:	
Brian Lee, P.Eng.	Arvin Prasad, MPA, RPP, MCIP

ATTACHMENTS:

Director, Engineering

Attachment "A" – Traffic Safety Audit Report - Executive Summary Attachment "B" – Traffic Safety Audit Results (Presentation)



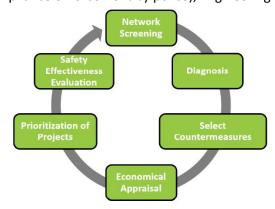
Executive Summary

Introduction

The road safety management process has the objectives of increasing the level of safety on municipal roads and reducing the cost of the road authority's liability. The City of Markham currently has a road safety strategy that is based upon the 5 pillars of Education (e.g., implementation of speed feedback advisory signs), Enforcement (e.g., speeding and stop compliance enforcement by police), Engineering

(e.g., traffic calming and sidewalk network completion), Encouragement (e.g., supervised school crossing), and Evaluation (e.g., city-wide annual traffic data collection program). This strategy has been successful on many levels, allowing Markham to develop programs and policies to support road safety, and the continual reduction of collisions on City roads.

In recent years, other jurisdictions have been adopting Vision Zero and Safe Systems approaches to road safety, including the Region of York. This coupled with an overall transportation culture change, shifting to promoting and supporting active modes and transit over motor vehicle travel, has motivated the City to undertake a traffic safety audit to refresh their road



The Road Safety Management Process

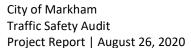
safety strategy. The objectives of this traffic safety audit included:

- Review collision data to assess municipal corridors and intersections;
- Prioritize locations based on severity and risk to road users;
- Identify potential traffic safety corrective measures; and
- Develop terms of reference for the future development of a comprehensive road safety strategies.

The review of collision data focuses on the assessment of the most recent five-year collision history of all intersections and road segments across the City to identify the underlying collision patterns (e.g., severity distribution), road user trends (e.g., involvement of vulnerable road users), environmental factors (e.g., road conditions), and spatial correlation (e.g., proximity to schools).

The prioritization of locations, also known as network screening, is an essential component of any effective safety management program and serves as a valuable tool in identifying and prioritizing collision "hot spots" across the City's network. The network screening process is conducted because diagnosing safety problems of the entire network on a site-by-site basis is cost prohibitive. Network screening provides a means through which resources are efficiently allocated to those sites which perform relatively poorly in terms of high collision history. To ensure that resources are spent on the sites with the highest potential for safety improvement, it is vital that a sound procedure be in place to screen the road network including intersections and road sections. In this project, the network screening was conducted to identify and prioritise locations with higher than expected prior collision history.

However, the network screening process is reactive in nature, as it relies on the occurrence of collisions to identify sites requiring safety intervention. While this approach is valuable to identify high-priority sites, it could ignore or downplay the importance of sites that experience a lower collision frequency,





but present risk factors that increase the potential for collisions. To address this limitation of the network screening process, a complementary systemic review of the City's road network was also conducted. This review entails the prioritization of City's facilities (i.e., intersections and road segments) based on environmental collision risk factors (roadway features having strong correlation with specific collision types). This approach supplements traditional site analysis and helps agencies broaden their traffic safety efforts by considering collision risk factors along with collision history when identifying where to make low-cost safety improvements.

The selection of countermeasures to address systemic risks is done through literature review to identify treatments that can eliminate or mitigate specific risk factors identified, followed by a screening for their effectiveness, applicability and feasibility in the City's context. Finally, a desktop review of the top ranked sites is conducted to identify which countermeasures may already be present, which ones may still be reasonably implemented, and which ones cannot be considered due to site limitations, generating a list of preliminary countermeasures, for each of the top ranked locations, for further evaluation prior to their implementation.

Considering the results of the above traffic safety assessments, Terms of Reference to develop a multiyear road safety implementation strategy / action plan were prepared to help the City of Markham engage a firm to complete the strategy.

The following sections describe the process and results associated with each of these study components.

Data Acquisition and Preparation

The data used in the traffic safety audit included collision records on City of Markham roads between January 2014 and December 2018, traffic volume data for the same period, and infrastructure data, including road segments and intersections and their physical (e.g. number of lanes, number of legs, etc.) and operational (e.g. speed limit, intersection control type, etc.) characteristics.

The data was reviewed for completeness and cleaned-up / supplemented as necessary. In particular, the systemic safety risk assessment requires detailed infrastructure data that is not typically available in a jurisdiction's traffic or infrastructure databases (for example, the presence of horizontal curves within a certain distance of an intersection or the presence of a median on a road segment). In these cases, the data was manually supplemented with the use of aerial imagery and/or Google Street View resources.

Traffic volume data was also reviewed for excessive growth between consecutive years. Sites showing changes in Annual Average Daily Traffic (AADT) greater than 15% from one year to the next were assessed whether there could be a reasonable justification for the large growth rate (for example, a new subdivision or new road section that could change traffic patterns). Sites for which a reasonable explanation for the large growth could not be identified had their AADTs adjusted to a more reasonable level by, for example, identifying unusually high or low counts that may have distorted the original growth rate and recalculating the growth rate based on more typical counts available.

Finally, a volume supplementation process was undertaken using an automated algorithm (followed by manual quality checks) to assign volumes to intersections and road segments for which no counts had been collected in the past. This process, in part, involved estimating volumes in some residential streets with simple surrounding road network (e.g. subdivisions) using trip generation rates from the Institute of Transportation Engineers.



Traffic Safety Audit Project Report | August 26, 2020

At the end of the data processing, a total of 1,030 intersections and 2,035 road segments were defined to be within the scope of the network screening and systemic safety risk assessment, as summarized in the following table.

Number of Facilities Subject to Network Screening and Systemic Safety Review

		Number		
Facility	Туре	Network Screening	Systemic Safety Review	
	Signalized 4-leg Intersections	53	56	
ions	Signalized 3-leg Intersections	27	30	
Intersections	Unsignalized 4-leg Intersections	233	179	
Inter	Unsignalized 3-leg Intersections	717	476	
	Total	1,030	741	
	Urban 2-lane Road Segments	1687	784	
ents	Urban Multi-lane Road Segments	317	300	
Segments	Rural Road Segments	31	25	
3 ,	Total	2,035	1,109	

Review of Collision Data

Overall Collision Trends

A total of 4,397 collisions were reported on Markham roads between the years 2014 and 2018. 1,080 (24.5%) resulted in injuries, while 3,317 (75.5%) resulted in property damage only (PDO). Although the proportion of injury collisions is higher than the Provincial Average of 20.5%, it is slightly lower than the Regional average of 26.5%. Out of the 1,080 injury collisions, 37 (3.4%) resulted in major injuries, one of which was a fatal pedestrian collision that occurred in 2015 at the intersection of Fieldside Street & Riverwalk Drive.

Total Collisions: 4,397 Fatal Injury, 1 Non-fatal Injury, 1079. **Property Damage** Only, 3317

Collision Severity (2018 - 2018)

Intersection collisions correspond to 47% of total collisions and 63% of injury collisions. When broken down by number of legs and control type, 4-leg signalized intersections stand out, since they make up only 3% of all intersections in Markham but experience 37% of total collisions and 42% of injury

¹ Major injury is defined by hospital admission, including admission for observation. However, it excludes emergency room treatment with out hospital admission.



collisions. To a lesser extent, 3-leg signalized intersection also stand out, being 2% of all intersections and experiencing 13% of collisions, as summarized in the following table.

Intersection injury collisions present an average decreasing rate of 2.2% per year.

Proportion of Intersections vs. Proportion of Collisions

Intersection Type	Facilities	Total Collisions	Injury Collisions
3-leg Two-way Stop	61%	22%	17%
4-leg Two-way Stop	16%	10%	10%
4-leg All-way Stop	8%	11%	11%
3-leg All-way Stop	7%	6%	5%
4-leg Signal	3%	37%	42%
3-leg Signal	2%	13%	13%
Others *	3%	1%	2%

^{*} Roundabout, no control, 5-leg, etc.

Road segment collisions correspond to 53% of total collisions and 37% of injury collisions. When broken down by area type, number of legs and speed limit, urban 4-lane road segments with 50 km/h speed limit stand out, since they make up only 3% of all road segments in Markham but experience 23% of total collisions and 32% of injury collisions. To a lesser extent, urban 2-lane road segments with 50 km/h speed limit also stand out, being 3% of all road segmetns and experiencing 12% of total collisions and 14% of injury collisions.

Road segment injury collisions present an average growth rate of 5.9% per year.

Proportion of Road Segments vs. Proportion of Collisions

Road Segment Type	Facilities	Total Collisions	Injury Collisions
Urban 2-lane 40 km/h	91%	56%	37%
Urban 2-lane 50 km/h	3%	12%	14%
Urban 4-lane 50 km/h	3%	23%	32%
Urban 4-lane 40 km/h	1%	3%	6%
Rural 2-lane 60 km/h	< 1%	4%	6%
Urban 4-lane 60 km/h	< 1%	2%	3%
Others	2%	< 1%	2%

Compared to other municipalities in Ontario, Markham presents the lowest annual rates of collisions per 100,000 population. While Markham presents 267 total collisions/year/100,000 people and 66 injury collisions/year/100,000 people, other municipalities reviewed (Burlington, Oakville, London, Hamilton, Brampton and Ottawa) range between 608 and 2,033 total collisions/year/100,000 people, and between 70 and 325 injury collisions/year/100,000 people. However, although Markham presents a proportion of injury collisions over total collisions (24.6%) slightly lower than York Region (24.6%), it has the highest proportion of injury collisions compared to other lower- or single-tier municipalities (11.5% to 21.0%).



Markham's pedestrian collision rate (11.7 pedestrian collisions/year/100,000 people) is relatively similar to those of Burlington and Oakville, which have populations lower than Markham's, and considerably lower than London, Hamilton, Brampton and Ottawa, which have populations higher than Markham's. For cyclist collisions, Markham's rate (6.7 cyclist collisions/year/100,000 people) is considerably lower than all other municipalities compared (which range between 10.6 and 33.0 cyclist collisions/year/100,000 people).

All compared municipalities have approximately half of total collisions occurring at intersections. For injury collisions, the proportion of collisions occurring at intersection increases by approximately 10 to 15 percent points for most compared municipalities. The proportion of collisions occurring at York Region intersections is considerably higher than Markham and all other compared municipalities, as 3 out of 4 both total and injury collisions at York Region occur at intersections. This is likely due to the higher volumes – and, consequently, higher potential for conflicts – at Regional intersections.

Road User Trends

There were 7,470 motor vehicle drivers involved in collisions in Markham between 2014 and 2018, 1,828 of which were involved in injury collisions. There were 208 pedestrians and 115 cyclists involved in collisions, most of which (199 and 100, respectively) were involved in injury collisions. Additionally, 39 motorcyclists and 170 truck drivers were involved in collisions (26 and 29 of which, respectively, were involved in injury collisions). There were also 567 users that were identified as "others", or that were not identified. However, only 10 of these users were involved in injury collisions.

The main findings from the collision history review relating to road user trends were the following:

- Injury collisions involving aggressive driving show a slight reduction trend between 2014 and 2017, with a spike in 2018;
- Injury collisions involving distracted or impaired driving show no clear trend in Markham;
- Pedestrian injury collisions present an increasing trend between 2014 and 2018 (although 2018 could be a spike not representative of a long-term trend);
- Pedestrian injury collisions present higher frequencies during winter months. Further analysis, involving the cross referencing of month and time of day, suggests higher frequencies of pedestrian collisions during periods of lower natural light;
- In the majority of pedestrian collisions, the pedestrian was reported to be crossing with the right-ofway, while the driver failed to yield the right-of-way to the pedestrian;
- Cyclist injury collisions present a decreasing trend between 2015 and 2018; and
- A consistent increasing trend in cyclist injury collisions is observed between the months of April and October, with a sudden reduction through the Winter months. This is expected due to the reduced use of bicycles during Winter.

Environmental Trends

The main findings from the collision history review relating to environmental trends were the following:

- 30% of all collisions in Markham occurred during non-daylight periods (i.e. dark, dusk and dawn combined), which is slightly higher than the Provincial average of up to 28%;
- Wet surface collisions in Markham (16%) are within the Provincial range of 14% to 16%, and lower than the Regional range of 18% to 20%;
- Winter surface collisions in Markham (11%) are lower than the Provincial average range of 12% to 18%, but higher than the Regional average of 8%;

City of Markham Traffic Safety Audit Project Report | August 26, 2020



- 41% of pedestrian collisions occurred during non-daylight periods;
- 39% of wet surface collisions occurred during non-daylight periods; and
- 45% of winter surface collisions occurred during non-daylight periods.

Spatial Trends

The main findings from the collision history review relating to spatial trends were the following:

- The Top 3 intersection with the highest collision frequencies are:
 - Esna Park Drive @ Rodick Road/Alden Road (42 total and 17 injury collisions);
 - Denison Street @ Brimley Road (39 total and 18 injury collisions); and
 - Enterprise Boulevard @ Birchmount Road (35 total and 7 injury collisions);
- The Top 3 road segments with the highest collision frequencies are:
 - Enterprise Boulevard between Birchmount Road and Rivis Road (31 total and 4 injury collisions);
 - Markham Road between Edward Jeffreys Avenue & Main Street Markham (27 total and 12 injury collisions); and
 - Esna Park Drive between Woodbine Avenue & Alden Road (24 total and 15 injury collisions);
- The main collision clusters identified in Markham are:
 - o Denison Street between Woodbine Avenue and Markham Road; and
 - Main Street Markham between Highway 7 and Major Mackenzie Drive;
- Collision clusters were also identified near the following points of interest:
 - Franklin Street Public School;
 - Middlefield Collegiate Institute;
 - Pierre Elliott Trudeau High School;
 - Unionville High School;
 - Markville Secondary School;
 - School Zone at John Street between John Stocks Way and Woodbine Avenue;
 - School Zone at Esna Park Drive between Woodbine Avenue and Rodick Road;
 - Mount Joy Community Centre;
 - Senior facilities in the area near the intersection of Markham Road & Bullock Drive/Parkway
 Avenue;
 - Places of worship in the area near the intersection of Markham Road & Bullock Drive/Parkway Avenue:
 - Places of worship in the area near the intersection of McCowan Road & Denison Street (pedestrian collisions);
 - Markham GO and Mount Joy GO Stations; and
 - YRT Routes along John Street, Denison Street and Markham Road.

Network Screening

Purpose

Identifying sites that require investigation for safety treatments is the first step taken by a transportation agency as an essential part of its road safety strategy. In the absence of any objective



approach, identifying road sites with the greatest potential for safety improvements at the network level is often impossible. This is mainly because results of safety improvements in one road group (road segments or intersections with similar physical and traffic characteristics) are not directly comparable to the others. Hence, there is a need to establish a quantitative traffic safety approach in order to identify problematic sites and rank the candidate projects.

To ensure that resources are primarily spent on the sites with the highest potential for safety improvements, it is vital that a sound procedure be in place to screen the road network. This procedure will properly identify and rank black spots for diagnosis and treatment purposes. A black spot or a site with high potential for safety improvements exhibits an expected collision frequency that is significantly higher than typical potential values for a group of similar sites.

Safety Performance Functions

The expected collision frequency is estimated with the use of Safety Performance Functions (SPFs), which are mathematical equations which relate the number and type of collisions at a site to traffic volume and road characteristics. They are developed for each facility type and different collision types, based on local historical collision data. For City of Markham, SPFs were developed for each facility type and collision severity type, including fatal and injury collisions as well as property damage only (PDO) collisions, using traffic volume and collision data between the years 2014 and 2018. SPFs were developed for the following facility types:

Intersections:

- Signalized 4-leg intersections;
- Signalized 3-leg intersections;
- Unsignalized 4-leg intersections; and
- Unsignalized 4-leg intersections.

Road Segments:

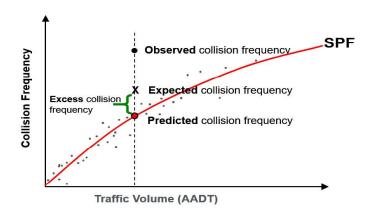
- Urban 2-lane road segments;
- Urban multi-lane road segments; and
- Rural road segments.

Potential for Safety Improvement

The network screening process establishes a priority system to rank the road segments and intersections based on their Potential for Safety Improvement (PSI). In other words, this system ranks different sites according to where the safety of road users could potentially see the greatest increase. The Empirical Bayes (EB) method is used to estimate the long-term safety performance of each site. The long-term safety performance of each site is compared with its peers (i.e. other sites with similar geometric, traffic, and environment characteristics). If the safety performance of the subject site is worse than the average safety of its peers (i.e. average predicted number of collisions obtained from SPFs) then the subject site has a potential for safety improvement. This is illustrated in the figure below, where the predicted collision frequency is the average collision frequency for certain site characteristics and the expected collision frequency is the expected long-term safety performance of a specific site, calculated based on weight factors for the observed and predicted collision frequencies. The PSI is the excess collision frequency, or the difference between expected and predicted collisions.



Safety Performance Function and Potential for Safety Improvement



Site Rankings

Using the Empirical Bayes methodology, different facilities were ranked and prioritised based on their Potential for Safety Improvement (PSI). The following tables summarize the Top 10 intersections and road segments, ranked based on their The PSI value. In these tables, the PSI Value is expressed in Equivalent Property Damage Only (EPDO) collisions, which applies higher weights to injury collisions based on their societal costs.

Network Screening Top 10 Intersections

Rank	Intersection	PSI Value
1	Brimley Rd @ Denison St	34.68
2	Alden Rd / Esna Park Dr @ Rodick Rd / Esna Park Dr	23.58
3	Denison St @ Featherstone Ave	19.80
4	Denison St @ Middlefield Rd	19.26
5	Castlemore Ave @ Hwy 48	18.97
6	Denison St @ Hood Rd	18.43
7	Denison St @ Hillcroft Dr	14.58
8	Birchmount Rd @ Enterprise Blvd	11.98
9	Brimley Rd @ Wilclay Ave/Winston Rd	10.52
10	Apple Creek Blvd/Town Centre Blvd @ Hollingham Rd	10.33



Network Screening Top 10 Road Segments

Rank	Road Segment	PSI Value
1	Markham Rd btwn Main St Markham North & Edward Jeffreys Ave	23.33
2	Esna Park Dr btwn John St & Alden Rd	21.19
3	Enterprise Blvd btwn Birchmount Rd & Rivis Rd	13.29
4	Doncaster Ave btwn Meadowview Ave & Henderson Ave	10.99
5	John St btwn Nolan Crt & Woodbine Ave	9.94
6	Bullock Dr btwn Laidlaw Blvd & McCowan Rd	8.43
7	Rodick Rd btwn Riviera Dr & Esna Park Dr	6.16
8	Markham Rd btwn Castlemore Ave & Major Mackenzie Dr E	5.99
9	Bullock Dr btwn Jug Lane & Laidlaw Blvd	4.62
10	Denison St btwn Victoria Park Ave & Don Park Rd	4.24

Systemic Safety Review

Purpose

To address the limitation of the network screening process, which relies on the occurrence of collisions to identify sites requiring safety intervention, a complementary systemic review of the City's road network was also conducted. This review entails the prioritization of City's facilities (i.e., intersections and road segments) based on environmental collision risk factors (roadway features having strong correlation with specific collision types). This approach is proactive in nature, as it identifies sites with higher risk of collisions even before they occur. It supplements traditional site analysis and helps agencies broaden their traffic safety efforts by considering collision risk factors along with collision history when identifying where to make low-cost safety improvements for City-wide implementation.

Identification and Evaluation of Risk Factors

Identifying risk factors requires detailed information from infrastructure datasets. Determining Initial characteristics that should be considered for the analysis depends on several factors including their potential contribution to focus collision types as well the ability to quickly gather them for all study facilities. AASHTO Highway Safety Manual (HSM) and the FHWA Collision Modification Factor (CMF) Clearinghouse are two reliable sources for information on the relationship between risk factors and collision types. The potential risk factors listed in the table below were determined and further gathered after reviewing these two references.

Potential Risk Factors for Intersections	Potential Risk Factors for Road Segments
 Intersection Type (i.e. Cross vs. T) Traffic Control (i.e., Traffic Signal vs. Stop Sign) Area Type (Urban or Rural) All-way vs. Two-way Stop Control # of driveways within 50 m of the intersection 	 Geo ID (A unique road segment ID in TES) Description of the road segment (i.e., street name) Owner Number of Lanes Length of Segment

0

AADT-Min<7,500 &

AADT-Maj<15,000



Potential Risk Factors for Intersections	Potential Risk Factors for Road Segments
 Potential Risk Factors for Intersections Presence of sidewalks on one or two of the intersecting roadways # of bus stops within 50 m of the intersection Presence of horizontal curves within 200 m of the intersection Presence of vertical curves within 200 metres of the intersection Presence of at-grade railway crossings within 200 m of the intersection Distance to other intersections within 200 m Presence of commercial land use Intersection skew Divided road on one or two of the roadways Presence of left-turn and/or right-turn lanes on one or two of the intersecting roadways Presence of street lighting 	 Potential Risk Factors for Road Segments Area Type Speed Limit Presence of sidewalks on one or both sides of the roadway Presence of bus stops Presence of two-way left-turn lane Presence of horizontal curve Presence of vertical curve Presence of at-grade railway crossing Presence of shoulder on one or both sides of the roadway Presence of median Presence of bicycle lanes Presence of street lighting
Number of lanes on the major road	

After potential risk factors were identified, they were assessed to determine if the characteristics exhibit a relationship to future collision potential. Only those that positively demonstrate a relationship were selected as risk factors. The following figure exemplifies the evaluation of traffic volumes (AADT) at signalized intersections.

Example of Risk Factor Evaluation – AADT

The figure shows that intersections with minor road AADT of 7,500 vehicles or more and major road AADT of less then 15,000 vehicles present 4 percent points more collisions than intersections with these volume levels. This difference is of 15 percent points at intersections with minor road AADT of 7,500 vehicles and major road AADT of 15,000 vehicles or more. This allows assigning magnitudes to different risk factors, including different levels of a specific risk factor. The following graphs show the selected risk

Intersection AADT

AADT-Min<7,500 &

AADT-Maj>=15,000

AADT-Min>=7,500 &

AADT-Maj>=15,000

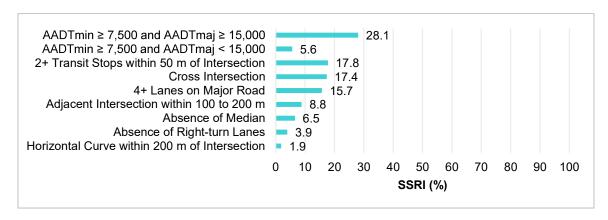
AADT-Min>=7,500 &

AADT-Maj<15,000

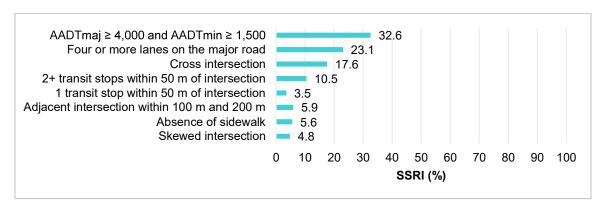


factors and their magnitudes, normalized so that a site presenting all risk factors at their highest level would have a total Systemic Safety Risk Index (SSRI) of 100.

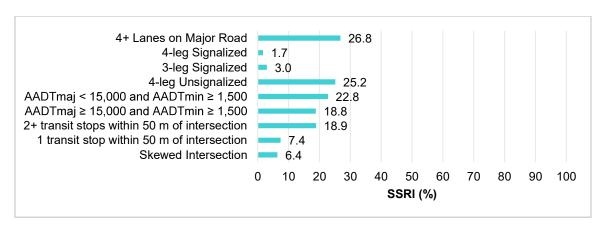
Selected Risk Factors for Signalized Intersections – All Road Users



Selected Risk Factors for Unsignalized Intersections – All Road Users

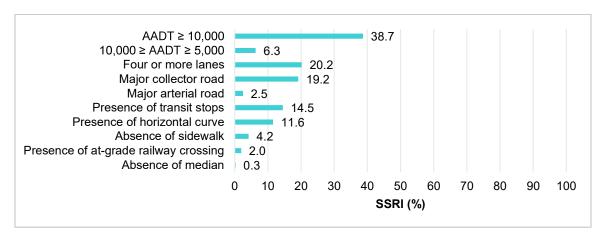


Selected Risk Factors for All Intersections – Pedestrians and Cyclists





Selected Risk Factors for Road Segments – All Road Users



Systemic Safety Screening

The systemic safety risk assessment consists of adding up the scores of all risk factors present at each intersection under review and comparing the scores of all intersections so they can be ranked from highest to lowest risk. As an example, the signalized intersection of Alden Road & 14th Avenue / Hood Road presents the following characteristics and risk factor scores:

- Major road AADT of 21,700 vehicles and minor road AADT of 8,429 vehicles (Score: 28.1);
- 2 transit stops within 50 metres (Score: 17.8);
- Cross intersection (Score: 17.4);
- 4 lanes on the major road (Score: 15.7);
- No adjacent intersections within 100 to 200 metres (Score: 0.0);
- No medians (Score: 6.5);
- No dedicated right-turn lane (Score: 3.9); and
- Horizontal curve present within 200 metres (Score: 1.9).

By adding up all risk factor scores, the total Systemic Safety Risk Index of this intersection is 91.2, which is the 8th highest score among signalized intersections.

The following tables summarize the top ranked sites from the Systemic Safety Review. The tables include the ranking obtained by each site in the network screening, which shows that many sites that rank high for the presence of risk factors ranked very low in the network screening. This highlights the complementary nature of the two methodologies.

Top Ranked Sites – Systemic Safety Review of Signalized Intersections (All Road Users)

Rank	Intersection	SSRI	Network Screening Rank
1	Hollingham Rd/John Button Blvd @ Rodick Rd	100	340
1	Apple Creek Blvd @ Rodick Rd	100	61
1	Castlemore Ave @ Hwy 48	100	6



Rank	Intersection	SSRI	Network Screening Rank
4	Denison St @ Hood Rd	98.1	7
4	Brimley Rd @ Denison St	98.1	1
6	Bullock Dr/Parkway Ave @ Main St Markham North	94.2	19
7	Bur Oak Ave @ Hwy 48	91.6	30
8	14th Ave/Hood Rd @ Alden Rd	91.2	340
8	Birchmount Rd @ Denison St	91.2	13
10	Alden Rd / Esna Park Dr @ Rodick Rd / Esna Park Dr	80.7	2

Top Ranked Sites – Systemic Safety Review of Unsignalized Intersections (All Road Users)

Rank	Intersection	SSRI	Network Screening Rank
1	Macrill Rd/Rachel Cres @ Rodick Rd	83.7	340
1	Birchmount Rd @ Citizen Crt/Royal Crest Crt	83.7	70
1	Bur Oak Ave @ The Bridle Walk	83.7	64
1	Carlton Rd @ Central Park Dr/Halterwood Cir	83.7	43
1	Bur Oak Ave @ Country Ridge Rd/Fred McLaren Blvd	83.7	340
1	Bur Oak Ave @ Williamson Rd	83.7	40
1	Bur Oak Ave @ Cornell Park Ave	83.7	73
8	Bur Oak Ave @ Church St	82.7	145
9	Carlton Rd @ Loring Cres/Waterbridge Lane	79.2	189
10	Forester Cres/Rachel Cres @ Rodick Rd	76.8	340
10	Alfred Paterson Dr @ Bur Oak Ave	76.8	53

Top Ranked Sites – Systemic Safety Review of All Intersections (Pedestrians and Cyclists)

Rank	Intersection	SSRI	Network Screening Rank
1	Glen Cameron Rd/Proctor Ave @ Henderson Ave	100	340
1	Calvert Rd @ Rodick Rd	100	340
3	Clegg Rd @ South Town Centre Blvd	93.6	58



Rank	Intersection	SSRI	Network Screening Rank
3	Birchmount Rd @ Enterprise Blvd	93.6	9
3	Main St Unionville @ Unionville Gate	93.6	83
3	Bur Oak Ave @ Stonebridge Dr	93.6	126
3	Bur Oak Ave @ Roy Rainey Ave	93.6	47
3	Denison St @ Hillcroft Dr	93.6	8
3	Bur Oak Ave @ Mingay Ave	93.6	79
3	Coppard Ave @ Denison St	93.6	26
3	Denison St @ Featherstone Ave	93.6	4
3	Denison St @ Middlefield Rd	93.6	5
3	9th Line @ Rouge Bank Dr	93.6	340
3	Birchmount Rd @ Rougeside Prom	93.6	340

Top Ranked Sites – Systemic Safety Review of Road Segments (All Road Users)

Rank	Road Segment	SSRI	Network Screening Rank
1	Alden Rd btwn McPherson St & 14th Ave	93.9	525
1	Apple Creek Blvd btwn Corby Rd & Glencove Dr	93.9	94
1	Birchmount Rd btwn Risebrough Circt & 14th Ave	93.9	47
1	Birchmount Rd btwn Enterprise Blvd & Rougeside Prom	93.9	525
1	Brimley Rd btwn Steeles Ave E & Winston Rd	93.9	45
1	Bullock Dr btwn Austin Dr & McCowan Rd	93.9	525
1	Bullock Dr btwn Laidlaw Blvd & McCowan Rd	93.9	6
1	Denison St btwn Warden Ave & Kennedy Rd	93.9	160
1	Denison St btwn Mallory Ave & Townley Ave	93.9	525
1	Denison St btwn Woodbine Ave & Don Park Rd	93.9	69
1	Denison St btwn Red Sea Way & Middlefield Rd	93.9	188
1	Denison St btwn Fonda Rd & Coleluke Lane	93.9	525
1	Esna Park Dr btwn John St & Denison St	93.9	2
1	John St btwn Bayview Fairways Dr & John Stocks Way	93.9	15
1	Middlefield Rd btwn Steeles Ave E & Denison St	93.9	17



Rank Road Segment SSRI Screening Rank

1 Enterprise Blvd btwn Rivis Rd & Main St Unionville 93.9 167

Selection of Countermeasures

A literature review was conducted to determine potential countermeasures which are applicable to the top-priority sites from the systemic safety review. The main sources of countermeasures reviewed include:

- NCHRP Report 500 Volume 4: A Guide for Addressing Head-on Collisions (2003);
- NCHRP Report 500 Volume 6: A Guide for Addressing Run-off-road Collisions (2003);
- NCHRP Report 500 Volume 5: A Guide for Addressing Unsignalized Intersection Collisions (2003);
- NCHRP Report 500 Volume 12: A Guide for Addressing Signalized Intersection Collisions (2004);
- NCHRP Report 500 Volume 18: A Guide for Addressing Collisions Involving Bicycles (2008);
- NCHRP Research Report 893 Systemic Pedestrian Safety Analysis (2018);
- FHWA Safety Evaluation of Advance Street Name Signs (2009);
- FHWA Safety Evaluation of Flashing Beacons at Stop-Controlled Intersections (2008); and
- FHWA CMF Clearinghouse.

The selection of countermeasures typically focuses on low-cost, highly effective treatments to be considered for implementation at candidate sites. The first step in this process was to assemble a comprehensive list of countermeasures associated with the selected collision and facility types. The countermeasures were then screened for their effectiveness (for example, by reviewing collision modification factors, when available), applicability (for example, consistency with the jurisdiction's policies and practices) and feasibility (for example, realigning an approach to an intersection due to a horizontal curve and limited sight distance to the intersecting road is very costly and is only practical under very specific circumstances). It was also important to ensure that the selected countermeasures were appropriate to eliminate or mitigate the systemic risk factors to ensure consistency throughout the systemic process.

After the countermeasures were screened and a short list was defined, a desktop review of the top ranked sites was conducted to identify which countermeasures may already be present, which ones may still be reasonably implemented, and which ones cannot be considered due to site limitations. For example, additional lanes or medians were not included as a potential countermeasure at intersections with limited right-of-way. It is important to note that these countermeasures are still preliminary, and their adequacy and applicability should be further evaluated (e.g. operational analysis of fully protected left-turn phase should be conducted to ensure it does not create unreasonable adverse operational effects; available right-of-way for installing medians and/or right-turn lanes should be assessed in more detail; etc.). Furthermore, closer investigation may result in the identification of additional countermeasures. The following tables identify potential systemic countermeasures that can be considered for each of the top ranked sites.

City of Markham Traffic Safety Audit Project Report | August 26, 2020

Potential Systemic Countermeasures – Signalized Intersections (All Road Users)

Bicycle Signal / Leading Bicycle Interval (LBI)			×							×
Bike Box	×	×	×	×	×	×	×	×	×	×
Coloured Pavement at Conflict Areas										×
Longer Pedestrian Phase	×	×	×	×	×	×	×	×		×
^s (IPJ) levrestrian Interval (LPI)	×		×	×	×	×		×		
High Visibility Crosswalk						×				
sngiS əmsN 19911S əsnsvbA bəsnshn3										
Advance Street Name Signs	×	×	×	×		×	×	×	×	×
SelgneirT JdgiC seelD		×		×						
(With PXO)										×
Signal Visibility Improvements	×	×	×	×	×	×	×	×	×	
Intersection Approach Median	×	×		×				×	×	
Dedicated Right-turn Lanes on Major Road	×	×	×	×				×	×	
noitididon Red Prohibition	×	×	×	×	×	×	×	×	×	×
Fully Protected Left-turn Phase	×	×	×	×	×	×	×	×	×	×
Systemic Countermeasures for All Road Users at Signalized Intersections	Hollingham Rd/John Button Blvd @ Rodick Rd	Apple Creek Blvd @ Rodick Rd	Castlemore Ave @ Hwy 48	Denison St @ Hood Rd	Brimley Rd @ Denison St	Bullock Dr/Parkway Ave @ Main St Markham N	Bur Oak Ave @ Hwy 48	14 th Ave/Hood Rd @ Alden Rd	Birchmount Rd @ Denison St	Alden Rd @ Rodick Rd / Esna Park Dr

² If fully protected left-turn phase is not implemented.

Potential Systemic Countermeasures – Unsignalized Intersections (All Road Users)

Crosswalk One Minor ApproachES									×	×
High Visibility Crosswalk			×		×			×		
Flashing beacons on Stop sign or overhead										
slengis tnəsejbe gnizu eqeg əteərD		×								×
Restrict Parking on Intersection Approaches										
Provide Intersection Illumination					×					
salgnei triangles										
znoitzirzen nruT										
Left-turn lane on major road										
Single-lane Roundabout										
qot2 ysw-llA										
Enhance approach signage/markings		×								×
Systemic Signing and Marking Improvements	×		×	×	×	×		×	×	×
Systemic Countermeasures for All Road Users at Unsignalized Intersections	Macrill Rd/Rachel Cres @ Rodick Rd	Birchmount Rd @ Citizen Crt/Royal Crest Crt	Bur Oak Ave @ The Bridle Walk	Carlton Rd @ Central Park Dr/Halterwood Cir	Bur Oak Ave @ Country Ridge Rd/Fred McLaren Blvd	Bur Oak Ave @ Williamson Rd	Bur Oak Ave @ Cornell Park Ave	Bur Oak Ave @ Church St	Carlton Rd @ Loring Cres/Waterbridge Lane	Forester Cres/Rachel Cres @ Rodick Rd

City of Markham Traffic Safety Audit Project Report | August 26, 2020

Potential Systemic Countermeasures – All Intersections (Pedestrians and Cyclists)

Intersection Illumination													
got2 ysw-llA													
Fully Protected Left-turn Phase				×	×								×
Signal Visibility Improvements	×	×		×	×	×	×	×	×	×	×	×	
noitididor9 beЯ nO ทามt-tปลู่เЯ	×	×	×	×	×	×	×	×	×	×	×	×	×
systemic Signing/Marking Improvements													
Bicycle Signal / Leading Bicycle Interval			×	×	×								×
Віке Вох		×		×	×	×	×	×	×	×	×	×	×
Coloured Pavement at Conflict Areas			×	×									×
Crossride													
Longer Pedestrian Phase	×	×	×	×	×	×	×	×	×	×	×	×	×
Leading Pedestrian Interval	×	×	×		×	×	×	×	×	×	×	×	
Crosswalk on One Minor Approach													
High Visibility Crosswalk													
Systemic Countermeasures for Pedestrians and Cyclists at All Intersections	Glen Cameron Rd/Proctor Ave @ Henderson Ave	Calvert Rd @ Rodick Rd	Clegg Rd @ South Town Centre Blvd	Birchmount Rd @ Enterprise Blvd	Main St Unionville @ Unionville Gate	Bur Oak Ave @ Stonebridge Dr	Bur Oak Ave @ Roy Rainey Ave	Denison St @ Hillcroft Dr	Bur Oak Ave @ Mingay Ave	Coppard Ave @ Denison St	Denison St @ Featherstone Ave	Denison St @ Middlefield Rd	9 th Line @ Rouge Bank Dr

Traffic Safety Audit Project Report | August 26, 2020 City of Markham

Interse	noitenimulli noi:
rew-IIA	doj
Fully Pr	tected Left-turn Phase
/ Isngi2 ×	sibility Improvements
ıt-trigiя ×	n On Red Prohibition
System	stnemevorqml gnikrovements
× Bicycle	ignal / Leading Bicycle Interval
Bike Bo	
Coloure	Pavement at Conflict Areas
Crossri	ŧ
× Longer	əsadq nairtsəbə
gnibeal ×	Pedestrian Interval
Crossw	k on One Minor Approach
iV d8iH	bility Crosswalk
Birchmount Rd @ Rougeside Prom	Systemic Countermeasures for Pedestrians and Cyclists at All Intersections

Potential Systemic Countermeasures - Road Segments (All Road Users)

Centre Line Rumble Strips		
Shoulder Rumble Strips		
⁴ OX9 or PXO	×	×
noitenimulll		
Sidewalks		
Speed Feedback Signs	×	×
Peripheral Transverse Bars		
[€] gnimle⊃ sifferT	×	×
Buffer Median		×
Systemic Countermeasures for All Road Users at Road Segments	Alden Rd btwn McPherson St & 14th Ave	Apple Creek Blvd btwn Corby Rd & Glencove Dr

³ Vertical Centre Line Treatment.
⁴ At locations with pedestrian desire lines.

City of Markham
Traffic Safety Audit
Project Report August 26, 2020

Systemic Countermeasures for All Road Users at Road Segments	Buffer Median	[€] gnimle⊃ oifferT	Peripheral Transverse Bars	Speed Feedback Signs	Sidewalks	noitenimulli	⁴ OXq 10 SqM	Shoulder Rumble Strips	Centre Line Rumble Strips
Birchmount Rd btwn Risebrough Circt & 14th Ave	×	×		×			×		
Birchmount Rd btwn Enterprise Blvd & Rougeside Prom	×	×		×	×				
Brimley Rd btwn Steeles Ave E & Winston Rd	No co syste	No corrective measure from the list of potential systemic countermeasures is identified.	ve me	asure	from t ires is	he list identi	t of po ified.	tenti	-
Bullock Dr btwn Austin Dr & McCowan Rd	×	×		×					
Bullock Dr btwn Laidlaw Blvd & McCowan Rd	×	×		×					
Denison St btwn Warden Ave & Kennedy Rd		×		×			×		
Denison St btwn Mallory Ave & Townley Ave		×		×			×		
Denison St btwn Woodbine Ave & Don Park Rd	×	×							
Denison St btwn Red Sea Way & Middlefield Rd	No co syste	No corrective measure from the list of potential systemic countermeasures is identified.	ve me	asure	from t ires is	he list identi	t of po ified.	tenti	-
Denison St btwn Fonda Rd & Coleluke Lane		×		×			×		
Esna Park Dr btwn John St & Denison St		×		×			×		
John St btwn Bayview Fairways Dr & John Stocks Way	×	×		×					
Middlefield Rd btwn Steeles Ave E & Denison St		×		×			×		
Enterprise Blvd btwn Rivis Rd & Main St Unionville		×		×			×		



Terms of Reference for Development of Action Plan

Following the completion of the Traffic Safety Audit, the next step to refresh Markham's road safety strategy is to develop an action plan. The retention of a qualified consultant through a Request for Proposals (RFP) process is recommended to help the City in the development of this action plan. To this effect, Terms of Reference were established outlining the requirements of the action plan, including the following main components:

- Coalition Building Plan, including developing a list of stakeholders and a communications and public engagement plan;
- **Data Collection and Update of Collision Analysis**, based on most recent 5-year collision data for the purpose of assessing collision patterns, trends, and over-represented collision types;
- **Environmental Scan**, including a needs assessment based on the current state of relevant road safety initiatives, strategies, and legislation at the federal, provincial, and/or municipal levels, and on information obtained from the coalition building plan;
- **Development of measurable goal and vision/mission statements,** aligned with any relevant City/Regional policies, programs and/or capital/operational/official plans;
- **Identification of Emphasis Areas**, using the results of the road safety data review and public consultation sessions. Examples of emphasis areas include pedestrians, cyclists, seniors, school zones, vulnerable users, speeding, aggressive driving, distracted driving, intersections, etc.;
- **Public Engagement,** to obtain public opinion about the perception of safety in the City, the areas requiring improvement, and their knowledge of the rules of the road and dangerous behaviours;
- Development of Road Safety Action, Evaluation and Monitoring Plans, aiming to improve overall
 traffic safety and to support the goal and vision adopted for the City's roads. The Plan will include
 annual safety targets toward the goal and will identify a series of countermeasures for each selected
 emphasis area; and
- **Development of Policy Papers** including standardized procedures and guidance relating to the following operational and safety programs:
 - Safety Management Program;
 - o Road Safety Audits (RSA) and In-service Road Safety Reviews (ISRSR);
 - Safety Performance Measures;
 - Speed Management and Physical Traffic Calming;
 - Speed Limit Methodology;
 - Traffic Signal Warrant Analysis;
 - All-way Stop Warrant Analysis;
 - PXO Warrant Analysis;
 - Sight Distance;
 - Protected and Protected/Permissive Left-Turn Phasing;
 - Signal Phasing for Dual Left-Turn Phases;
 - Signal Timing;
 - Corridor Optimization Reviews; and
 - Fatal Collision Investigations.

The estimated cost to develop the City's traffic safety action plan is approximately \$250,000, of which includes approximately \$80,000 reserved for the development of the 14 policy papers.



CYCLING AND PEDESTRIAN ADVISORY COMMITTEE

THURSDAY, FEBRUARY 20, 2020 CIVIC CENTRE – CANADA ROOM

MINUTES

Attendance

Committee:

David Rawcliffe, Chair Peter Miasek, Vice Chair

Colin Cassar

Amit Arora

Jozsef Zerczi

Paul Salvo

Gordon Lawson

Gerry Shaw

Deputy Mayor, Don Hamilton

Councillor Ward 3, Reid McAlpine

Councillor Ward 8, Isa Lee

Regrets:

Steve Glassman

Anthony Ko

Elisabeth Tan

Daniel Yeung

Doug Wolfe

Zain Khan

Staff:

Fion Ho, TDM Coordinator, Transportation Loy Cheah, Senior Manager, Transportation

Karen Ho Tom, Committee Clerk

Agencies:

Reena Mistry, YRDSB and YRCDSB

Regrets:

Diana Kakamousias, York Region Barry Martin, Accessibility Advisory Committee

The Cycling and Pedestrian Advisory Committee convened at 7:05 p.m. with David Rawcliffe, presiding as Chair.

1. **DISCLOSURE OF INTEREST**

None disclosed. The Chair declared a reminder that disclosures have to be in writing and submitted before the meetings.

2. APPROVAL/MODIFICATIONS OF AGENDA

Cycling & Pedestrian Advisory Committee February 20, 2020

Agenda be accepted as presented.

3. **MINUTES** OF THE MARKHAM CYCLING & PEDESTRIAN ADVISORY COMMITTEE MEETING HELD ON **January 16, 2020**

There was one correction of the Minutes at item 7.1 – Paul's name corrected to read "Salvo".

Moved by Peter Miasek Seconded by Don Hamilton

After the above correction of Paul's name, that the minutes of January 16, 2020 Cycling & Pedestrian Advisory Committee meeting be approved.

Carried

4. PERTINENT INFORMATION FROM GUEST SPEAKERS

4.1 Committee Rules and Procedure

Laura Gold from Clerk's Department presented the "Markham Board & Committee Orientation" and gave an update to the rules and regulations related to Markham Committee. This included discussion on governance, roles and expectations, privacy and confidentiality considerations, procedures and meeting management and etc.

It is confirmed that quorum of CPAC is set at 7.

5. BUSINESS ARISING FROM LAST MEETING

None

6. STANDING ITEMS & ONGOING PRJECTS

6.6 Markham Cycling Day

Staff announced that Markham Cycling Day will take place on September 13 this year and planning is underway. If any member is interested to participate, please contact Staff.

6.9 <u>Pedestrian & Cycling Safety Measures</u>

Peter Miasek reviewed a list of on-going initiatives related to road safety on local roads (Markham) and regional roads (York Regional). Staff announced that there will be a report at the February 24th DSC meeting on automated speed enforcement. It was suggested that the proposed

signalized intersections be reviewed at next month's meeting.

7. INFO ITEM/NEW BUSINESS/ANNOUNCEMENTS

7.1 CPAC Annual Business Plan Review (Draft)

Peter Miasek presented the draft CPAC 2019 Achievements & 2020 Business Plan which is scheduled for April 20th DSC meeting.

The Committee provided the following feedback:

- Reduce and simplify information on the slides. The additional information could be attached as Appendices.
- More focus on achievements in active transportation (i.e. Markham Centre Trail) and CPAC's role and involvement.
- Opportunities for motion and/or Council direction.
- Include AODA perspective and obtain input from Barry.
- Update CPAC budget allocation table.

Peter thanked the Committee for the reviews. He will work with David, Steve and City Staff to revise the draft Business Plan accordingly.

7.2 <u>Markham Cycles Funding Update + 2020 Budget</u>

Staff reported that, at the December 2019 meeting, the Mayor approved Markham Cycles funding request of \$30,000 from City of Markham and tasked staff to find the funds in the current budget. Staff explained the challenges they face as the budgets for 2020 have been allocated. CPAC was requested to consider allocating some of the 2020 CPAC budget to support Markham Cycles.

Staff also announced that a webinar will take place on March 4th to discuss Markham's experience in establishing a community bike hub. Members are invited to join.

Moved by Peter Miasek Seconded by Reid McAlpine

That the Cycling & Pedestrian Advisory Committee will provide \$7,000 from its 2020 Budget to support and sustain the Markham Cycles program.

Carried

7.3 CPAC Subcommittees

Staff presented the list of the current Subcommittees of CPAC including Markham

Cycling & Pedestrian Advisory Committee February 20, 2020

Cycling Day, Active Travel to School, Gaps, Jane's Walk, Vulnerable User Road Safety and Markham Cycles. Members are invited to join any of the Subcommittees by contacting Staff or Subcommittee Chair.

There was a question on whether a Subcommittee be formed to prioritize the many interests that the Committee has. This will be added to the Agenda of the next meeting.

7.4 Jane's Walk

Paul Salvo announced that there will be four (4) Jane's Walk tours for this year. They are scheduled on May 1st (6:30pm), May 2nd (10am), May 3rd (2pm), and May 10th (2:30pm). Event details can be found on www.facebook.com/janeswalkmarkham. He will continue to work with Staff to promote the event.

8. **AGENDA ITEMS FOR THE NEXT MEETING**

- Review the list of 13 intersections warranted for signalization
- Subcommittee to prioritize CPAC interests
- Update on York Region's Bike Share Report

ADJOURNMENT

The Cycling and Pedestrian Advisory Committee adjourned at 8:58 P.M.



CYCLING AND PEDESTRIAN ADVISORY COMMITTEE

THURSDAY, JULY 16, 2020 ZOOM MEETING

MINUTES

Attendance

Committee:

David Rawcliffe, Chair Peter Miasek, Vice Chair

Amit Arora Jozsef Zerczi

Paul Salvo

Gordon Lawson

Steve Glassman

Anthony Ko Elisabeth Tan

Doug Wolfe

Deputy Mayor, Don Hamilton Councillor Ward 3, Reid McAlpine

Councillor Ward 8, Isa Lee

Agencies:

Reena Mistry, YRDSB and YRCDSB Diana Kakamousias, York Region

Staff:

Fion Ho, TDM Coordinator, Transportation Loy Cheah, Senior Manager, Transportation David Porretta, Manager of Traffic Engineering Laura Gold, Committee Clerk

Regrets:

Barry Martin, Accessibility Advisory Committee Daniel Yeung Zain Khan Gerry Shaw Colin Cassar

The Cycling & Pedestrian Committee convened at 7:03 PM with David Rawcliffe in the Chair.

1. DISCLOSURE OF CONFLICTS OF INTEREST

There were no disclosures of conflict of interests.

2. APPROVAL/MODIFICATION OF THE AGENDA

The agenda was modified to add a moment of silence for pedestrians or cyclists that have been injured or killed in a traffic related collision.

The Committee *took* a moment of silence to remember the pedestrians and cyclists that have been injured or killed in a traffic related incident. In the 2015 -2017 period (last three year period with collision statistics available to CPAC), there was an average of 150 such incidents per year on local and regional roads, for an average of roughly one every second day.

It was noted that the Committee's goal is to encourage and make cycling and pedestrian movements safer in Markham.

3. REVIEW OF MINUTES FROM PREVIOUS MEETING

3.1 Minutes from February 20, 2020

Committee reviewed the February 20, 2020, Cycling & Pedestrian Committee Minutes.

Moved by Peter Miasek Seconded by Councillor Don Hamilton

That the minutes of February 20, 2020 Cycling & Pedestrian Advisory Committee be approved as presented.

Carried

3.2 <u>Project Summary Table from June 18, 2020</u>

Committee reviewed the Project Summary Table date June 18, 2020. There was no discussion.

4. ACTIVE TRANSPORTATION SAFETY

4.1 <u>Update on City-Wide Road Safety Planning</u>

City staff provided an overview and update on the City-Wide Road Safety Planning. Staff are currently completing the Traffic Safety Analysis of the Network Safety Audit. The audit results are scheduled to be presented to the Development Services Committee in the fall. A 2021 capital budget request has been submitted for the Road Safety Plan. Staff shared an outline of the Road Safety Plan Terms of Reference with the Committee.

There was a question on whether the audit would include a comparison of traffic safety data with peer municipalities. City staff advised that they are comparing traffic safety data with other municipalities, and will confirm if policies will also be reviewed.

4.2 Status of Safety & Education Awareness Campaign

Staff advised that the City's Corporate Communications Department is in the process of creating a Safety & Education Awareness Campaign. The campaign will be implemented in collaboration with York Region and York Region Police in order to ensure consistent messaging. The key messages of the campaign will highlight:

- Bicycles having proper safety equipment and cyclist knowing how to use them;
- Cyclist and pedestrians sharing the City's multi-use pathways;
- Cyclist following the "rules of the road'.

The campaign is aimed to launch in late August or September 2020. Social media, and site specific mobile signs will be the main tools to be used. Information on the City's website regarding cycling and pedestrian safety will also be updated accordingly.

There was a suggestion that the campaign material should be multilingual, and have targeted messaging for different age groups. The campaign should include some printed material for residents that may not be tech savvy.

4.3 Potential Pilots & Quick Actions

Peter Miasek presented a list of 22 potential pilot projects that could be undertaken to improve road safety for vulnerable road users in Markham. Due to time limit, the Committee only discussed the first 9 items, including traffic display signs, unwarranted stop signs, double edge lines, rumble strips, roundabouts, and public education signs.

A small subcommittee will be formed to help staff review the reminder of the pilot projects, and will report back once the review is completed.

4.5 <u>Notice of Suggested Motion</u>

The Committee revised the draft motion, and will include the list of potential pilot project (as discussed in 4.3) as an appendix to the motion.

Moved by Peter Miasek Seconded by Steven Glassman

Whereas cycling and walking has greatly increased in Markham, due to the COVID-19 pandemic and reduction in transit services.

Whereas City of Markham has implemented several new programs and pilots to encourage cycling and walking and to support local businesses (i.e. temporary road closures on Unionville Main Street and Enterprise Blvd., Markham Cycles More campaign with TCAT).

Whereas automobile speeding has increased with the reduction in vehicular traffic.

Whereas there has been a spate of highly publicized collisions involving cyclists.

Whereas a road safety audit is expected in Fall 2020 and testing of early actions will be beneficial.

Whereas vulnerable user road safety is closely related to traffic calming, which is a persistent issue in Markham (e.g. discussion at DSC Feb 24, 2020).

Cycling & Pedestrian Advisory Committee July 16, 2020

Whereas discussion at DSC June 22, 2020 included inquiries as to potential opportunities to expedite public safety.

Therefore be it resolved that CPAC recommends to Council that staff be asked, within existing budgets, to expedite the study and implementation of low cost initiatives to improve vulnerable user road safety including potential actions such as speed limit reduction and other ideas and quick pilots as appended (see "Appendix A").

Carried

There was discussion after the motion regarding shortening the list of pilot projects. Deputy Mayor Hamilton suggested that a short list of 2 to 3 projects be prioritized to improve the likelihood that they will be implemented within available budgets.

5. ANY OTHER BUSINESS

5.1 <u>ATMP Workshop</u>

City staff reminded the Committee that a virtual CPAC workshop for the Active Transportation Master Plan is scheduled on Tuesday July 21 at 1:30pm. Meeting agenda and material will be circulated prior to the workshop.

5.2 Next Meeting Date

Committee agreed to schedule a formal meeting on August 6, 2020 at 7:00 PM. The primary purpose is to approve the minutes from this meeting so that the motion passed can be brought forward to the Development Services Committee for its consideration.

ADJOURMENT

The Cycling & Pedestrian Advisory Committee adjourned at 9:18 PM.

Appendix A

List of Potential Pilots and Quick Actions to Improve Active Transportation Safety in Markham

- 1. Reduce speed limit to 30 km per hour on key local roads or neighbourhoods
- 2. Deploy more speed displays
- 3. Deploy more unwarranted stop signs
- 4. Install buffered edge lines or bike lanes (as per Village Parkway)
- 5. Install candlestick bollards in strategic locations where parking is not present
- 6. Deploy median speed limit sign across City as in school zones today
- 7. Install longitudinal rumble strip on edge lines or bike lane lines
- 8. Install mini Traffic Circle as per Pittsburgh
- 9. Add more bike routes (green signs)
- 10. Road Diet (4 lanes to 3+2 buffered bike lanes)
- 11. Add more warning signage
- 12. Paint bolder crosswalks (Zebra)
- 13. Pedestrian cross-overs (PXO) various types
- 14. Install Automated Speed Enforcement (Photo Radar) in Community Safety Zones on Regional Roads
- 15. Install red light cameras on non-regional road intersections
- 16. Remove remaining traffic calming blisters and wavy edge lines (Royal Orchard?)
- 17. Rubber speed bumps/speed cushions pilot (seasonal)
- 18. Install raised intersections or speed bumps
- 19. Install raised centre medians (brick)?
- 20. Install curb extensions at corners
- 21. Expand sidewalk completion program
- 22. Convert road surface to bumpy brick
- 23. Signal light changes, eg pedestrian head start, no right turn on a red
- 24. Install transverse vehicle deflectors (diagonal barriers)

Note: At the August 6, 2020 Cycling & Pedestrian Advisory Committee meeting the Committee recommended that Staff prioritize the further study of Nos. 1, 5, and 23 listed above.



CYCLING AND PEDESTRIAN ADVISORY COMMITTEE THURSDAY, AUGUST 6, 2020 ZOOM MEETING MINUTES

Attendance

Committee:

David Rawcliffe, Chair Peter Miasek, Vice Chair Steve Glassman, Vice Chair

Amit Arora
Jozsef Zerczi
Gordon Lawson
Anthony Ko
Elisabeth Tan
Doug Wolfe
Daniel Yeung
Colin Cassar

Deputy Mayor, Don Hamilton

Staff:

Fion Ho, TDM Coordinator, Transportation Loy Cheah, Senior Manager, Transportation Laura Gold, Committee Clerk

Regrets:

Barry Martin, Accessibility Advisory

Committee Paul Salvo

Councillor Ward 3, Reid McAlpine

Councillor Ward 8, Isa Lee

Reena Mistry, YRDSB and YRCDSB Diana Kakamousias, York Region

The Cycling & Pedestrian Committee convened at 7:06 PM with David Rawcliffe in the Chair.

1. Disclosure of Conflict of Interest

There was no disclosure of conflict of interest.

2. Approval/Modification of the Agenda

There were no changes or modifications to the agenda.

3. Review of Minutes from the July 16, 2020 Meeting

Moved by Peter Miasek Seconded by Steve Glassman

That the Minutes from the July 16, 2020 Cycling & Pedestrian Advisory Committee be received as presented.

Carried

Cycling & Pedestrian Advisory Committee August 6, 2020 **2** | P a g e

4. Active Transportation Safety

4.1 and 4.2 Potential Pilots & Quick Action Table – Staff Assessment and Open Discussion on the Quick Action Table

Staff provided an overview of the Potential Pilots & Quick Action Table. Members of the Committee provided the following feedback:

Reducing Speed Limits on Key Local Roads or Neighbourhoods (No. 1 on the List)

- The majority of Members supported the proposal for reducing speed limits on key local roads or neighbourhoods, but some felt residents would not comply with lower speed limits;
- Suggested any speed reduction on local roads should be considered citywide;
- Suggested reducing the speed limit on key local roads as a pilot project.

<u>Installing Candlestick Bollards on Edge Lines in Strategic Locations (No. 5 on the List)</u>

- The majority of Members supported installing candlestick bollards on edge lines in strategic locations;
- Suggested putting planters or candlesticks in school zones;
- Suggested putting planters or candlesticks in strategic locations (not continuous) on Carlton Road.

Install Raised Intersections or Speed Bumps (No. 18 on the list)

• Some of the Members supported installing raised intersection speed bumps.

Signal Light Changes (No. 23 on the List)

- The majority of Members supported signal light changes, for example pedestrian head starts, and no right on a red light;
- Recommended that there should be no right turns on a red traffic signal in targeted intersections in Markham;
- Supported piloting the pedestrian head start in Markham;
- Suggested having traffic signals for cyclists.

Other

- Recommended focusing on education to calm traffic and make the roads safer for vulnerable users;
- Suggested that the Vision Zero Plan needs to be further studied;
- Suggested installing mirrors at intersections with blinds spots;
- Concerned with the amount of time it takes to study each idea.

After reviewing Staff's assessment of the Potential Pilots & Quick Action Table, Committee agreed that staff should further study the following safety measures:

Cycling & Pedestrian Advisory Committee August 6, 2020 **3** | P a g e

- 1. Reduce speed limit to 30 kph on key local roads or neighbourhoods (No. 1 on list);
- 2. Install candlestick bollards on edge lines in strategic locations where parking is not present (No. 5 on list);
- 3. Signal light changes, for example pedestrian head start, and no right turn on a red (No. 23 on list).

The Committee agreed that a Working Group should be formed to help staff study the three prioritized safety measures.

Staff understood the Committee's frustration in regards to the amount of time it takes to study each safety measure, but noted it was important to conduct the study to manage the City's risk.

Moved by Peter Miasek Seconded by Elizabeth Tan

Whereas the Cycling & Pedestrian Advisory Committee studied the list vetted by staff on ideas to improve active transportation safety in Markham; and,

That Cycling & Pedestrian Advisory Committee recommends that staff further study the following ideas:

- 1. Reduce speed limit to 30 kph on key local roads or neighbourhoods (No. 1 on list); and,
- 2. Install candlestick bollards on edge lines in strategic locations where parking is not present (No. 5 on list); and,
- 3. Signal light changes, for example pedestrian head start, and no right turn on a red (No. 23 on list).

Carried

Moved by Peter Miasek Seconded by Jozsef Zerczi

Whereas the Cycling & Pedestrian Committee recommend that staff further study the three priority safety measures listed above to improve active transportation safety; and,

That a Working Group be set-up to study the three recommendations.

Carried

4.3 Open Street Event

Loy Cheah, Senior Manager, Transportation reported that staff will be bringing forward a report to Council in the fall in regards to the turnout and lessons learned from the 2020 Open Street Event.

Committee requested that the event be extended until October, but moved to a City park so that Enterprise Blvd is not required to be closed. Staff advised that this would need to be collaborated

Cycling & Pedestrian Advisory Committee August 6, 2020 4 | P a g e

with staff, including the City's Corporate Communication Department to ensure the extension of the event and the new location can be communicated to the public.

It was noted that the items used at the bike repair booth should be saved for next year.

4.4 Update on Safety Education & Awareness Campaign

The Committee requested a copy of the list of communication messages being used in the Safety Education & Awareness Campaign, and noted that the campaign should target both cyclist and drivers.

Loy Cheah advised that City is focusing on messaging that complements the York Regional Police, and York Region Transportation Services safety awareness educational campaigns rather than duplicating their campaigns.

Staff advised that the City is experiencing an issue with cyclist speeds going down the hill too quickly on a portion of the Lake to Lake Trail south of John Street. Many measures have been taken to try and reduce the speed of the cyclist.

4.5 Status of Urban Loops

Loy Cheah presented an update on the status of the urban loops.

Signage

There is a cost to installing way finding signage in key locations along the urban loops, typically at \$150 per sign and there are many signs to erect. For example, 74 wayfinding signs is needed in a preliminary design for the Villages to Valley loop.

The cost could be reduced by installing the signs on existing posts. To assist with this task, Committee was asked if it could check for existing posts that could be used to post the wayfinding signs in the Rouge Valley Trail part of the Villages to Valley loop. Staff would check the remainder of the street locations where the signs are to be erected.

Peter Miasek and David Rawcliffe agreed to assist with this task.

Budget

There is not enough funds in the budget to post the wayfinding signs along all the loops. Given the budget constraints, Committee suggested posting the maps of the urban loops on Active Markham, as a way of educating the public about the loops if there is not enough funds to erect all the signs.

Re-Alignment of the Loops

The Committee did not object to the re-alignment of the Thornhill and Milliken urban loops.

Cycling & Pedestrian Advisory Committee August 6, 2020 **5** | P a g e

5. Any Other Business

5.1 Upcoming CPAC Meetings

The Clerk advised that the Council Procedural By-Law was updated at the August 5, 2020 Council meeting to permit for Council, Standing Committees, and Committees of Council, including Advisory Boards and Committees (ABCs) to meet electronically in non emergency situation at the City Clerk's discretion.

The Committee Clerk was asked to inquire if the Committee could meet in September.

5. Adjournment

The Committee adjourned at 9:10 PM.



MEMO to Development Services Committee

To: Mayor and Members of Council

C: Andy Taylor, CAO

Arvin Prasad, Commissioner, Development Services

From: Brian Lee, Director, Engineering, x7507

Biju Karumanchery, Director, Planning & Urban Design x4713

Prepared by: Stephen Lue, Development Manager, Central District, x2520

Date: September 29, 2020

Re: Metrolinx Transit Project Assessment Process for Train Storage Facility in

Markham Centre (Ward 3)-

RECOMMENDATION:

- 1. That the staff memo entitled "Metrolinx Transit Project Assessment Process for Train Storage Facility in Markham Centre, Ward 3" be received; and
- 2. That Metrolinx and York Region be informed that Markham Council does not support a train storage facility in the proposed location; and further
- 3. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

BACKGROUND

Metrolinx has been studying the expansion of its rail network for the last few years and has held various round one public consultation events related to different elements of its expansion project. Projects of interest in Markham include a proposed layover/storage facility in Markham Centre, and two road-rail grade separations on Kennedy Road (north of Steeles Avenue East) and Denison Street. Currently, there are three concurrent Transit Project Assessment Processes ("TPAPs") and two TPAP addendums being undertaken as shown below. This round of the public consultation is a combined virtual open house for all TPAPs and Addendums, and was held between August 18 and September 1, 2020.

- 1) New Track and Facilities TPAP
- 2) Scarborough Junction Grade Separation TPAP (not in Markham)
- 3) Stouffville Rail Corridor Grade Separation TPAP

4) Addendums:

- a) Network-Wide Structure Project (Addendum to the Barrie Rail Corridor Expansion TPAP 2017) (not in Markham)
- b) Addendum to the GO Rail Network Electrification TPAP 2017

Staff generally supports the Stouffville Rail Corridor Grade Separation TPAP. With both projects, Metrolinx proposes that the roads pass under the rail corridor. Staff is working with Metrolinx on the Denison Street Grade Separation with special attention to a potential GO Station at Denison Street, which Council endorsed in April 2016, followed by a request to Metrolinx to incorporate the requested station. A combined Notice of Commencement (for all the TPAPs and Addendums) was issued on September 8, 2020 and there is a 120 day comment period, see Attachment B.

PURPOSE

The purpose of this report is to present to Committee Staff's objection to Metrolinx's New Track and Facilities TPAP as it pertains to the new train storage facility in Markham Centre, the City's emerging downtown.

DISCUSSION

Metrolinx Proposes a Train Storage Facility in Markham Centre

Metrolinx proposes a layover/storage facility ("train storage facility") in the New Track and Facilities TPAP in the location west of the existing rail line, between Enterprise Boulevard and the Rouge River. This storage facility would provide train storage during off-peak periods, cleaning, servicing, waste management, crew services, and track, switches and utilities maintenance. Its location close to its "revenue" trips would mitigate any economic impact of travelling long distances without passengers ("non-revenue" trips). Metrolinx selected this location based on the operational needs to maximize service efficiently.

The proposed train storage facility in Markham Centre is a new single-track facility of approximately 600 metres in length, which would accommodate the storage of two 12-car trains. There will also be an access road with Metrolinx staff parking and electrification infrastructure located off Enterprise Boulevard. The train storage facility would be within the existing rail corridor and additional property would be required for the access road and electrification infrastructure. More information is available from the Metrolinx Unionville Storage Yard Facility webpage – also see Attachment A.

A Train Storage Facility in this Location is Not Compatible with Provincial and Municipal Planning Vision/Policies

During the pre-TPAP consultation, Metrolinx conducted numerous meetings with City staff regrading the location of the train storage facility. City staff has expressed that the location of the facility is not compatible with the City's vision of an emerging downtown. In particular, the following planning documents/principles does not support such a facility.

The Provincial Policy Statement 2020 ("PPS")

The vision of the PPS supports efficient use of land, resources and infrastructure. Specifically, it states, "efficient development patterns optimize the use of land, resources and public investments in infrastructure and public service facilities. These land use patterns promote a mix of housing, including affordable housing, employment, recreation, parks and open spaces, and transportation choices that increase the use of active transportation and transit before other modes of travel." The PPS encourages development patterns that support strong, livable and healthy communities by endorsing intensification as a means to accommodate growth and increase urban vitality.

Policy 1.2.6.1, respecting land use compatibility states, "major facilities and sensitive land uses shall be planned and developed to avoid, or if avoidance is not possible, minimize and mitigate any potential adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term operational and economic viability of major facilities in accordance with provincial guidelines, standards and procedures."

The PPS defines *major facilities* as, "facilities which may require separation from sensitive land uses, including but not limited to airports, manufacturing uses, transportation infrastructure and corridors, rail facilities, marine facilities, sewage treatment facilities, waste management systems, oil and gas pipelines, industries, energy generation facilities and transmission systems, and resource extraction activities." Furthermore, *sensitive land uses* is defined as, "buildings, amenity areas, or outdoor spaces where routine or normal activities occurring at reasonably expected times would experience one or more adverse effects from contaminant discharges generated by a nearby major facility. Sensitive land uses may be a part of the natural or built environment. Examples may include, but are not limited to: residences, day care centres, and educational and health facilities." The location of proposed train storage facility is adjacent to an existing high school, senior residences, and approved high-density residential developments.

The City acknowledges the requirement of the Metrolinx train storage facility to support this GO line. However, the proposed storage use in a location within the heart of Markham's downtown, where the highest concentration of development to support the transit network is expected, cannot be evaluated with the PPS in absence of further design details on the neighbouring impacts to the existing and planned surrounding sensitive land uses.

A Place to Grow: Growth Plan for the Greater Golden Horseshoe 2019 (the "Growth Plan")

The Growth Plan implements the Province's vision of stronger and prosperous communities. The vision and guiding principles indicate the overall intent to minimize sprawl by directing growth to existing built-up areas, limit settlement area expansions, create compact and complete communities, and optimize the use of existing infrastructure and transit services. The lands near frequent transit should be planned to be supportive of transit and active transportation and provide a range and mix of uses and activities. The Growth Plan defines transit-supportive as compact, mixed-use development that has a high level of employment and residential densities.

The Growth Plan further states that the minimum 40% intensification set by York Region within the Built-Up Area continues to be applied. This intensification target may increase to a minimum 50% upon the approval of the next municipal comprehensive review. Markham Centre, as a defined Urban Growth Centre ("UGC") in the Growth Plan, is expected to accommodate a significant amount of population and

employment growth as stated in Policy 2.2.3.2b, where the planned minimum density of 200 residents and jobs per hectare will be achieved by 2031. Its vision includes these urban centres "be vibrant and characterized by more compact development patterns that support climate change mitigation and adaptation, and provide a diversity of opportunities for living, working, and enjoying culture."

The use of lands for the Metrolinx train storage facility within the core of Markham Centre, a designated UGC, would not contribute to the successful implementation of the Growth Plan vision for a vibrant urban centre.

York Regional Official Plan 2010 (YROP)

The YROP identifies Markham Centre within the Urban Area and as one of four Regional Centres, which are intended to "contain a wide range of uses and activities, and be the primary focal points for intensive development that concentrates residential, employment, live/work, mobility, investment, and cultural and government functions." Policy 5.4.23 states that these areas shall contain the highest development densities and greatest mix of uses in the Region.

The YROP identifies a hierarchy for accommodating intensification within the Urban Area. The highest concentrations of intensification are to be located in Regional Centres and along Regional Corridors, subsequently followed by GO Transit stations, bus terminals and subway stations. The lands for the Metrolinx train storage facility are located both in a Regional Centre and near the Unionville GO Transit Station, which represent an area where intensification should be focused. The policies continue to promote a more compact, mixed-use urban form to support a higher level of transit service.

It is Staff's opinion that the use of the lands for the Metrolinx train storage facility does not support the vision and polices of the YROP which calls for the highest development densities and greatest mix of uses in this Regional Centre.

The 1987 Markham Official Plan ("1987 OP"), as Amended by the 1997 Markham Centre Secondary Plan ("OPA 21")

The policies of the 1987 OP remains in effect, as amended by OPA 21, which site-specifically permits high-density and mixed-use developments in this area. OPA 21 establishes the framework for the creation of an urban, high density, mixed use community. Markham Centre is envisioned to contain the greatest mix of uses and highest densities with a currently projection of approximately 41,000 population and 39,000 jobs. OPA 21 is currently under review by the City and will update the current projections and existing policies to be consistent with the PPS and conform to the Growth Plan.

The proposed location of the train storage facility adjacent to planned high-density community west of the rail line may impose unexpected and additional requirements on future developments for noise, light, and safety mitigation works. Furthermore, the proposed location is located within the heart of the Markham Centre Secondary Plan Area. It is adjacent to existing and approved major residential and mixed-use developments and sensitive land uses, including valley lands, seniors' residences, and the Bill Crothers Secondary School, and could pose potential health impacts to the existing and future residents and users within the downtown.

The use of the lands for the Metrolinx train storage facility does not conform to OPA 21 as the facility location contradicts the Secondary Plan vision and policies, would impede this area's emergence as a successful downtown, and is incompatible with the existing and planned surrounding land uses.

The Markham Centre Vision

A key strength of Markham Centre, an Anchor Hub and Urban Growth Centre designated by the Province in the 2008 Big Move and the Growth Plan, is the existing and planned high quality rapid transit network coupled with significant development potential. The area around the Unionville GO Station will continue to grow as a major transit hub for GO Train, GO Bus, VIVA Bus Rapid Transit, York Region Transit, and will eventually become a Mobility Hub, which not only provides a transit interface, but a major origin and destination. In the longer-term future, the 407 Transitway will integrate with this major hub and provide seamless rapid east-west cross town transit movement to connect the various radial rail corridors. The Mobility Hub area is identified for high density and high quality development as planned through the current Markham Centre Secondary Plan Study Update. To include a train storage facility in an area envisioned as a vibrant core of the City's emerging downtown would represent a lost opportunity to maximize its potential as a successful urban centre.

CONCLUSION

Based on the incompatible land use of the train storage facility within Markham Centre, Staff recommends Council advise Metrolinx that it does not support the proposed train storage facility. It is also recommended that this memo be forwarded to Metrolinx and York Region for their information.

ATTACHMENTS

Attachment A – Proposed Unionville Storage Yard Facility – City of Markham (Metrolinx Webpage) Attachment B – Notice of Commencement Issued on September 8, 2020

Attachment A Proposed Unionville Storage Yard Facility - City of Markham

To meet increasing service levels, the Proposed Unionville Storage Yard Facility - City of Markham

GO Expansion - New Track & Facilities TPAP

Unionville Storage Yard Facility is required

- Storing trains during the day and night.
 Reducing rail congestion on the Stouffville Corridor.
 - Serving as the terminus of the electrified segment of the Stouffville corridor.

Design Elements:

- Storage for 2 GO Trains (single track) Electrification infrastructure
 - Includes staff parking
- Connection to mainline track
- Staff entrance from Enterprise Boulevard

Surrounding Characteristics:

new access road connecting to Enterprise Additional property will be needed for a Storage tracks will be located within Metrolinx rail right of way

Boulevard, as well as for electrification



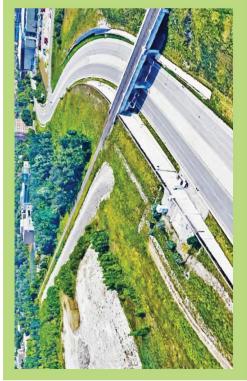
METROLINX

Proposed Site Plan

infrastructure for:

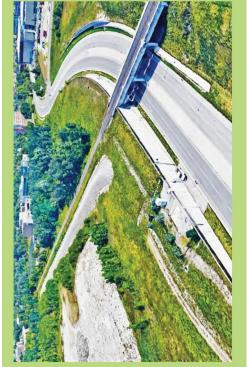
GO Expansion - New Track & Facilities TPAP

Proposed Unionville Storage Yard Facility - City of Markham



Proposed Site Note: conceptual design subject to further study

Existing Site



SCHOOLINX



Proposed Unionville Storage Yard Facility - City of Markham **Effects and Proposed Mitigation Measures**

Type of Effect	Description of Potenial Effects	Proposed Mitigation Measure
Natural Environment	 Electrification clearance zones will entail vegetation removals/ clearing mainly within the existing Metrolinx owned rail corridor. The lands identified for property acquisition and construction are comprised of vegetation dominated by non-native grasses and common urban tolerant herbaceous plants. While vegetation communities provide foraging and nesting/ shelter habitat for resident and migratory birds and common urban mammals, the proposed minor encroachments are considered to be of low impact from an ecological perspective given the position of these communities along the exiting rail corridor and the availability of similar and higher quality habitat nearby. As no bridge modifications are included in the proposed works, no direct or long-term impacts are anticipated to the Rouge River aquatic environment. 	Tree/vegetation removals, and any associated permitting or compensation, will proceed in accordance with Metrolinx's Vegetation Management Guidelines and Tree Removal Strategy. Measures will be implemented to avoid destruction, injury or interference with wildlife. On-site personnel will be provided with information (e.g. fact sheets) that address the existence of potential SAR on site, the identification of the SAR and the procedure(s) to follow if a protected species is encountered or injured. Construction Monitoring Plan will be developed with site- specific mitigation measures and regularly monitored for.





Proposed Unionville Storage Yard Facility - City of Markham **Effects and Proposed Mitigation Measures Continued**

Type of Effect	Description of Potenial Effects	Proposed Mitigation Measure
Stormwater Management	 Increases to impervious areas, with potential effects to water quantity and quality. Potential for alterations to the local drainage system, both overland and storm sewers. Proposed construction activities pose a potential impact due to sediment transport into adjacent natural areas including watercourses, wetlands and municipal drainage infrastructure. 	A Drainage and Stormwater Report, an Erosion and Sediment Control Plan and detailed drainage design and erosion and sediment control drawings will be prepared prior to construction. Requirements for stormwater quantity and quality controls will be carefully reviewed and implemented as required. A hydraulic assessment will be completed for the adjacent tributary of the Rouge River prior to construction to determine potential flooding effects and further mitigation measures.
Visual	 Visual impacts affecting existing view sheds from Bill Crothers Secondary School and recreational areas nearby 	As part of detailed design, efforts will be made to minimize visual impacts as much as possible. A Design Excellence process will be followed to integrate the new infrastructure design into the existing environment to reduce the extent of visual impacts.





Attachment B

Notice of Commencement Issued on September 8, 2020

△ METROLINX

Notice of Commencement

GO Expansion Program - Transit Project Assessment Process

The population of the Greater Golden Horseshoe is increasing, and with it, traffic and transit congestion. Metrolinx is committed to improving the GO Rail Network to bring 15-minute, two-way electrified service to core parts of the rail network through the GO Expansion Program. There are a number of Metrolinx projects currently underway or planned along several GO rail corridors that are associated with the GO Expansion Program and support Metrolinx's goal of transforming the GO Rail Network into a comprehensive regional rapid transit network. The GO Expansion Program is intended to support the planning, design and construction of new infrastructure within existing GO rail corridors and includes consideration of the need for new structures or facilities (such as grade separations and layover sites), track work and electrification systems. To this end, Metrolinx is proposing new infrastructure that involves carrying out three (3) Transit Project Assessment Processes (TPAPs) as prescribed in Ontario Regulation 231/08, Transit Projects and Metrolinx Undertakings (Transit Projects Regulation).

Metrolinx has identified various infrastructure requirements to achieve GO Expansion service level targets across the GO Rail Network. Proposed infrastructure includes new/upgraded tracks, new layover and storage facilities, grade separations, pedestrian crossings, and new switches. The infrastructure requirements are being planned as three separate transit TPAPs and are described below:

New Track & Facilities TPAP:

To support GO Expansion and increased service along the Lakeshore West, Kitchener, Barrie, Stouffville, Lakeshore East, and Richmond Hill corridors, the following rail infrastructure is proposed (see Figure 1):

- Four (4) new rail layover/storage facilities needed to facilitate train storage and maintenance:
 - Don Valley Layover Facility, in the City of Toronto:
 - Unionville Storage Yard, in the City of Markham;
 - Walkers Line Layover Facility, in the City of Burlington; and
 - Beach Layover Facility, in the City of Burlington.
- Three (3) new GO Station platforms at:
 - Oshawa GO Station:
 - Mount Joy GO Station; and Unionville GO Station.
- Thickson Road bridge expansion, in the Town of
- Electrification of a portion of the Richmond Hill
- rail corridor (along Bala Subdivision, north to Pottery Road), in the City of Toronto; New or upgraded tracks; and
- New switches along six (6) rail corridors (not shown on key map): 60 proposed switches Lakeshore West
 - Corridor
 - 21 proposed switches Kitchener Corridor
 - 32 proposed switches Barrie Corridor 3 proposed switches Richmond Hill
 - Corridor 10 proposed switches Stouffville Corridor
 - 23 proposed switches Lakeshore East
 - Corridor
 - Detailed mapping of proposed switch locations is available on the website.

For additional information on New Track and Facilities,

Metrolinxengage.com/goexpansion/NewTracks&Facilities

Stouffville Rail Corridor Grade Separations TPAP:

To support GO Expansion and increased service along the Stouffville Corridor, the following modifications are proposed (see Figure 2):

Road-rail grade separations at Denison Street and Kennedy Road in the City of Markham;

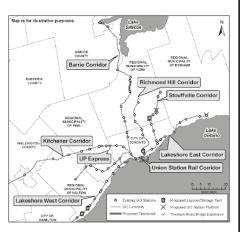


FIGURE 1 NEW TRACK & FACILITIES TPAP KEY MAP

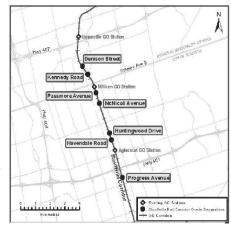


FIGURE 2 STOUFFVILLE RAIL CORRIDOR GRADE SEPARATIONS TPAP KEY MAP

- Road-rail grade separations at Passmore Avenue, McNicoll Avenue, Huntingwood Drive and Progress Avenue
 in the City of Toronto; and
- Road closure with a grade-separated multi-use crossing at Havendale Road in the City of Toronto.

For additional information on Stouffville Rail Corridor Grade Separations, please visit: Metrolinxengage.com/goexpansion/StouffvilleRailCorridor

Scarborough Junction Grade Separation TPAP:

To support GO Expansion and increased service along the Stoutfiville and Lakeshore East Corridors, a new rail-rail grade separation is proposed at Scarborough Junction in the City of Toronto. Supporting modifications include (see Figure 3):

- New rail-rail separation through a tunnel traveling under the Lakeshore East (LSE) Rail Corridor to accommodate the new second track on the Stouffville Rail Corridor;
- Modification or relocation of the Scarborough GO Station building;
- Expanded rail bridge at St. Clair Avenue East;
- Layover area for train storage (Midland Layover);
- Depressed rail under road grade separation at Danforth Road:
- Depressed rail corridor from St. Clair Avenue East Bridge to Corvette Park; and
- Multi-use crossing to replace the existing at-grade crossing at Corvette Park.

For additional information on Scarborough Junction Grade Separation, please visit:

Metrolinxengage.com/goexpansion/ScarboroughJunction



FIGURE 3 SCARBOROUGH JUNCTION GRADE SEPARATION TPAP KEY MAP

The Present

A Transit Project Assessment Process (TPAP) is a focused impact assessment created specifically for transit projects. The process involves a pre-planning/consultation phase followed by a regulated up to 120-day phase that starts with the Notice of Commencement and ends with the Notice of Completion. The process includes consultation, an assessment of positive and negative impacts, an assessment of measures to mitigate negative impacts and documentation in an Environmental Project Report (EPR). The EPR is made available for a 30 day public and agency review at the Notice of Completion and is followed by a 35-day Ministry of Environment, Conservation and Parks

Consultation

We thank everyone for their feedback to date. Two public open houses have already been held during the preplanning phase of these TPAPs, including public meetings in February 2020 and a virtual open house in August 2020. As Metrolinx formally commences the three (3) TPAPS, we will continue to get your feedback through a third public virtual open house to be held in the Fall of 2020, To stay informed please visit:

Metrolinxengage.com/goexpansion/oncorridor

We encourage the public, government agencies, Indigenous communities and other interested parties to actively participate in the TPAPs by visiting the TPAP websites outlined above or contact Metrolinx directly with comments or questions (as outlined below).

Provide Feedback

Comments and information regarding this project are being collected to assist in meeting the requirements of the Environmental Assessment Act. All personal information included in a submission - such as name, address, telephone number and property location - is collected, maintained and disclosed by the Ministry of the Environment, Conservation and Parks for the purpose of transparency and consultation. The information is collected under the authority of the Environmental Assessment Act or is collected and maintained for the purpose of creating a record that is available to the general public as described in s. 37 of the Freedom of Information and Protection of Privacy Act. Personal information you submit will become part of a public record that is available to the general public unless you request that your personal information remain confidential. For more information, please contact the Senior Privacy Officer for Metrolinx at 416-202-5941 or the Ministry of the Environment, Conservation and Parks, Freedom of Information and Privacy Coordinator at 416-314-4075.

Metrolinx is working to provide residents and businesses in the Greater Golden Horseshoe with a transportation system that is modern, efficient and integrated. Find out more about Metrolinx's Regional Transportation Plan at www.metrolinx.com.

Pour plus de renseignements, veuillez composer le 416 874-5900 ou le 1 888 GET-ON-GO (438-6646).

This Notice was first issued on September 8, 2020.