



Electronic Council Meeting

Revised Agenda

Meeting No. 17
October 14, 2020, 1:00 PM
Live streamed

Note: Members of Council 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 clerkspublic@markham.ca 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.

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Electronic Revised Council Meeting Agenda

Revised Items are Italicized.

Meeting No. 17
October 14, 2020, 1:00 PM
Live streamed

Alternate formats for this document are available upon request.
Council meetings are live video and audio streamed on the City's website.

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

Pages

1. CALL TO ORDER

INDIGENOUS LAND ACKNOWLEDGEMENT

We begin today by acknowledging that we walk upon the traditional territories of Indigenous Peoples and we recognize their history, spirituality, culture, and stewardship of the land. We are grateful to all Indigenous groups for their commitment to protect the land and its resources and we are committed to reconciliation, partnership and enhanced understanding.

2. DISCLOSURE OF PECUNIARY INTEREST

3. APPROVAL OF PREVIOUS MINUTES

3.1. COUNCIL MINUTES - SEPTEMBER 30, 2020

14

1. That the Minutes of the Council Meeting held on September 30, 2020, be adopted.

4. PRESENTATIONS

5. DEPUTATIONS

6. COMMUNICATIONS

7. PROCLAMATIONS

7.1. PROCLAMATIONS (3.4)

1. That the following proclamation, issued by the City Clerk in accordance with the City of Markham Proclamation Policy, be received for information purposes:
 - a. Waste Reduction Week - October 19-23, 2020

8. REPORT OF STANDING COMMITTEE

8.1. REPORT NO. 25 - DEVELOPMENT SERVICES COMMITTEE (SEPTEMBER 14, 2020)

Please refer to your September 14, 2020 Development Services Committee
Agenda for reports.

Mayor and Members of Council:

That the report of the Development Services Committee be received & adopted.
(1 Item):

8.1.1. 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)

26

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.

8.2. REPORT NO. 27 - DEVELOPMENT SERVICES COMMITTEE (SEPTEMBER 29, 2020)

Please refer to your September 29, 2020 Development Services Committee
Agenda for reports.

Mayor and Members of Council:

That the report of the Development Services Committee be received & adopted.
(2 Items):

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

50

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 the deputation of Peter Miasek on behalf of the Cycling and Pedestrian Advisory Committee (CPAC) be received; and,**
3. **That the deputation of Elisabeth Tan, resident, be received; and,**
4. **That the communications submitted by Cosimo Crupi on behalf of the Unionville Cycling Club be received; and,**
5. **That staff be directed to proceed with the development of a City-wide Road Safety Plan with priority initiatives to be directed towards the Denison Street and Main Street Markham corridors; and,**
6. 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
7. **That staff be directed to evaluate and, where feasible, incorporate the principles of Vision Zero into the Road Safety Plan; and,**
8. **That staff be directed to investigate and develop appropriate**

branding and communications for the Road Safety Plan; and,

9. **That staff be directed to develop a short-term and long-term comprehensive public education program that aligns with the principles of the Road Safety Plan; and,**
10. That the City Clerk send a copy of this report and Council resolution to York Region; and further
11. That staff be authorized and directed to do all things necessary to give effect to this resolution.

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

107

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

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

(By-law 2020-93)

8.3. REPORT NO. 28 - GENERAL COMMITTEE (OCTOBER 5, 2020)

Please refer to your October 5, 2020 General Committee Agenda for reports.

Mayor and Members of Council:

That the report of the General Committee be received & adopted. (Items 1 to 3):

8.3.1. 2021 CAPITAL BUDGET PRE-APPROVAL (REVISED) (7.5) 123

Note: At the October 5, 2020 General Committee meeting, the Committee referred the Library Collections budget pre-approval request to the Library Board. Attached is the revised report that excludes the Library Collections request and an update on the Asphalt Rehabilitation program.

1. That the report dated October 5, 2020 titled, “2021 Capital Budget Pre-Approval (Revised)” be received; and,
2. That Council approve the 2021 Capital Budget Pre-Approval, which totals \$8,694,600 as outlined in Appendices 1 and 2; and further,
3. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

8.3.2. CONTRACT EXTENSION FOR WIDE AREA NETWORK (WAN) CONNECTIVITY AND INTERNET SERVICES (7.13) 157

1. That the report entitled “Contract Extension for Wide Area Network (WAN) Connectivity and Internet Services” be received; and,
2. That the contract for WAN Services and Internet Services be extended for two (2) years (October 1, 2020 - September 30, 2022) to Rogers Communications at 11.6% discounted rate, in the amount of \$577,814.44, inclusive of HST, broken down as follows;
 - October 1, 2020 – December 31, 2020 \$ 72,226.81
 - January 1, 2021 – December 31, 2021 \$288,907.22
 - January 1, 2022 – September 30, 2022 \$216,680.41 Total (2 years) \$577,814.44; and,
3. That the contract for Internet Services with higher bandwidth (increasing from 500Mbps to 600Mbps) be extended for two years (October 1, 2020 - September 30, 2022) to Bell Canada at the existing 2019 rate, in the amount of \$79,006.46 inclusive of HST, broken down as follows;
 - October 1, 2020 – December 31, 2020 \$ 9,875.81
 - January 1, 2021 – December 31, 2021 \$ 39,503.23
 - January 1, 2022 – September 30, 2022 \$ 29,627.42 Total (2 years) \$ 79,006.46; and,
4. That the WAN Services from Rogers and the two Internet Services from Rogers and Bell to be funded from operating

budget account# 400-404-5108 in amount of \$656,820.90 (inclusive of HST) over a two (2) year period; and,

5. That the tendering process be waived in accordance with Purchasing Bylaw 2017-8, Part II, Section 7 (1) (c) which states “when the extension of an existing contract would prove more cost-effective or beneficial”; and further,
6. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

8.3.3. CONTRACT # 043-S-20 TO OPERATE AND MAINTAIN THE COMBINED HEAT AND POWER SYSTEM AT ANGUS GLEN COMMUNITY CENTRE (7.12)

161

1. That the report entitled “Contract # 043-S-20 To Operate and Maintain the Combined Heat and Power System at Angus Glen Community Centre” be received; and,
2. That the Operation and Maintenance of the Angus Glen Combined Heat and Power System be awarded to Markham District Energy Inc. (“MDE”) to an annual upset limit of \$167,904.00 inclusive of HST impact for a period of five (5) years (2020 – 2024), totaling \$839,520.00 inclusive of HST impact (excluding adjustment to CPI) over that five (5) year period; and,
3. That years 2 – 5 (2021-2024) be adjusted based on the Consumer Price Index (CPI) Ontario All-Items (January to January); and,
4. That the 2020 award be funded from operating budget account 504-921-5314 “Service Agreements Facility Maintenance”; and,
5. That the tendering process be waived in accordance with Purchasing By-Law 2017-8, Part II, Section 11.1 (h), which states “where it is in the best interests of the City to acquire non-standard items or Professional Services from a supplier who has a proven track record with the City in terms of pricing, quality and service;” and,
6. That the Mayor and Clerk be authorized to execute the agreement with Markham District Energy Inc, in a form approved by CAO and the City Solicitor; and,
7. That the CAO be authorized to extend the contract for an additional five (5) years (2025-2029) subject to Council’s approval of the annual operating budget; and further,
8. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

8.4. *REPORT NO. 29 - DEVELOPMENT SERVICES COMMITTEE (OCTOBER 13, 2020)*

That the report of the Development Services Committee be received & adopted.
(1 Item):

8.4.1. *EMPLOYMENT LAND CONVERSION REQUESTS: THE WEMAT GROUP (COMMERCE VALLEY); MARKHAM WOODMILLS DEVELOPMENTS INC. (SMARTCENTRES); 1628740 ONTARIO INC. AND 1628741 ONTARIO INC. (TUCCIARONE);*

AND CORNELL ROUGE DEVELOPMENT CORPORATION, VARLESE BROTHERS ET AL., AND NORFINCH CONSTRUCTION (CORNELL) (10.0)

M11 THE WEMAT GROUP

Whereas York Region is undertaking an Official Plan Review through a municipal comprehensive review (MCR) process for a 2051 planning horizon; and,

Whereas the Growth Plan for the Greater Golden Horseshoe, 2019, requires upper-tier municipalities, in consultation with lower-tier municipalities, to designate all employment areas in official plans and protect them for appropriate employment uses over the long term; and,

Whereas City of Markham Council passed a resolution on February 25, 2020 to postpone consideration of the employment conversion request by The Wemat Group (17.1 hectares) for lands located at the southwest corner of Highway 7 and Highway 404 to allow for the submission of an appropriate revised development concept plan prior to ultimate consideration of the conversion request by York Region Council; and,

Whereas City of Richmond Hill Council on February 26, 2020 passed a resolution indicating their interest in considering a municipally initiated conversion of employment lands within the south-eastern part of the Beaver Creek Business Park for mixed-use development and support for the conversion requests submitted by Parkway Hotels and Convention Centre Inc. and Crestpoint Real Estate Inc. in this area; and,

Whereas a Regional Committee of the Whole meeting is scheduled for October 15, 2020, to consider a Regional staff report seeking decisions on employment conversion requests and endorsement of employment area mapping to be included in the Regional Official Plan; and,

Whereas one of the recommendations in the October 15, 2020, Regional staff report ‘Proposed Employment Area Mapping and

Employment Conversions’, is for Regional Council to not approve the employment conversion request submitted by The Wemat Group, and to map the lands as an employment area in the Regional Official Plan;

Therefore now be it resolved:

1. That Regional Council be requested to defer consideration of the employment conversion request M11 The Wemat Group to allow the City of Markham to undertake a joint study with the City of Richmond Hill, in consultation with landowners and York Region, to confirm the appropriate mix of uses on the these and surrounding lands, taking into account the potential conversion of employment lands on the north side of Highway 7 in Richmond Hill; and,
2. That Regional Council be requested to initiate a municipal comprehensive review process within three years of adoption of a new Regional Official Plan in order to revisit the M11 The Wemat Group and related employment conversions in the area that are deferred as part of the current municipal comprehensive review process; and further,
3. That Markham staff be authorized and directed to do all things necessary to give effect to this resolution.

M8 MARKHAM WOODMILLS DEVELOPMENT INC.

Whereas York Region is undertaking an Official Plan Review through a municipal comprehensive review (MCR) process for a 2051 planning horizon; and,

Whereas the Growth Plan for the Greater Golden Horseshoe, 2019, requires upper-tier municipalities, in consultation with lower-tier municipalities, to designate all employment areas in official plans and protect them for appropriate employment uses over the long term; and,

Whereas City of Markham Council passed a resolution on February 25, 2020 to not support the employment land conversion request submitted by M8 Markham Woodmills Developments Inc. (1.9 hectares) located at the northeast corner of Highway 404 and Elgin Mills Road; and that staff be directed to work with the landowner to identify a broader range of potential non-residential uses for the subject lands; and,

Whereas City of Markham Council passed a resolution on February 25, 2020 to support the employment land conversion request

submitted by M3 1628740 Ontario Inc. and 1628741 Ontario Inc. (1.0 hectare) located at 2718 and 2730 Elgin Mills Road, subject to confirmation by York Region that no access to the employment lands along Highway 404 immediately to the west of the subject lands is possible from Elgin Mills Road through the subject lands; and that staff be directed to work with the landowner to identify a broader range of potential non-residential uses for the subject lands; and,

Whereas discussions are ongoing with respect to the broader range of potential non-residential uses for the subject lands and access issues; and,

Whereas a Regional Committee of the Whole meeting is scheduled for October 15, 2020, to consider a Regional staff report seeking decisions on employment conversion requests and endorsement of employment area mapping to be included in the Regional Official Plan; and,

Whereas the recommendations in the October 15, 2020 Regional staff report 'Proposed Employment Area Mapping and Employment Conversions', is for Regional Council to not approve the employment conversion requests submitted by Markham Woodmills Developments Inc (M8), and 1628740 Ontario Inc., 1628741 Ontario Inc. (M3);

Therefore now be it resolved:

1. That Regional Council be requested to defer consideration of the employment conversion request M8 Markham Woodmills Development Inc. until April 2021 to allow the City of Markham to continue to work with the landowner to identify a broader range of non-residential uses for the site and address access issues; and
2. That Regional Council be requested to defer consideration of the employment conversion request M3 1628740 Ontario Inc. and 1628741 Ontario Inc. until April 2021 to allow the City of Markham to continue to identify a broader range of non-residential uses and to address site access issues in coordination with the adjacent landowner identified in Clause 1 of this Resolution; and further,
3. That Markham staff be authorized and directed to do all things necessary to give effect to this resolution.

**M4 CORNELL ROUGE DEVELOPMENT CORPORATION,
VARLESE BROTHERS ET AL, AND M7 NORFINCH**

CONSTRUCTION LTD

Whereas York Region is undertaking an Official Plan Review through a municipal comprehensive review (MCR) process for a 2051 planning horizon; and,

Whereas the Growth Plan for the Greater Golden Horseshoe, 2019, requires upper-tier municipalities, in consultation with lower-tier municipalities, to designate all employment areas in official plans and protect them for appropriate employment uses over the long term; and,

Whereas City of Markham Council passed a resolution on February 11, 2020, to endorse the Cornell Rouge National Urban Park Gateway Study Final Report as a framework for the creation of a pedestrian-focused Gateway connecting Cornell Centre and the Rouge National Urban Park; and directed City staff to work with landowners and agencies in a block planning and land use exercise to determine the appropriate land uses, built form and streetscape design to achieve the Gateway vision; and,

Whereas the lands subject to the employment conversion requests by Cornell Rouge Development Corporation, Varlese Brothers et al (17.9 hectares), and Norfinch Construction (0.75 hectares) located north and south of Highway 7 within the Gateway study area, offer a unique opportunity for uses other than strictly employment uses that complement the Rouge National Urban Park and contribute to the development of the Gateway; and,

Whereas City of Markham Council passed a resolution on February 25, 2020 to postpone consideration of the Cornell Rouge Development Corporation, Varlese Brothers et al, and Norfinch Construction requests for conversion of employment lands to non-employment land uses to allow further evaluation through secondary plan [land use] studies; and,

Whereas a Regional Committee of the Whole meeting is scheduled for October 15, 2020, to consider a Regional staff report seeking decisions on employment conversion requests and endorsement of employment area mapping to be included in the Regional Official Plan; and,

Whereas two of the recommendations in the October 15, 2020 Regional staff report 'Proposed Employment Area Mapping and Employment Conversions', are for Regional Council to not approve the employment conversion requests submitted by Cornell Rouge Development Corporation, Varlese Brothers et al, and Norfinch Construction Ltd., and to map the lands as employment areas in the

Regional Official Plan;

Therefore now be it resolved:

1. That Regional Council be requested to defer consideration of the employment conversion requests M4 Cornell Rouge Development Corporation, Varlese Brothers et al, and M7 Norfinch Construction Ltd until April 2021 to allow the City of Markham to continue to work with the landowners to confirm appropriate uses for the lands through a land use/built form study for the Cornell Rouge National Urban Park Gateway; and,
2. That Markham staff be authorized and directed to do all things necessary to give effect to this resolution.

9. MOTIONS

10. NOTICE OF MOTION TO RECONSIDER

11. 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".*

12. ANNOUNCEMENTS

13. BY-LAWS - THREE READINGS

That By-laws 2020-91 to 2020-94 be given three readings and enacted.

Three Readings

- | | | |
|-------|---|-----|
| 13.1. | BY-LAW 2020-91 A BY-LAW TO ESTABLISH AND MAINTAIN A SYSTEM FOR THE COLLECTION AND DISPOSAL OF REFUSE IN THE CITY OF MARKHAM | 167 |
| 13.2. | BY-LAW 2020-92 2124123 ONTARIO LIMITED, PART LOT CONTROL EXEMPTION BY-LAW

A by-law to designate part of a certain plan of subdivision not subject to Part Lot Control, Block 1 (inclusive), Registered Plan 65M-4595, located 16-52 William Saville Street, 2-40 Teasel Way, and 3932-3940 Highway 7 East. | 168 |
| 13.3. | BY-LAW 2020-93 EVANS PLANNING INC., NORTHWEST CORNER OF | 170 |

DEER PARK LANE AND ELIZABETH STREET (LOT 5), ZONING BY-LAW AMENDMENT

A By-law to amend By-law 1229, as amended, to permit a residential re-development.

(Item 8.2.2, Report 27)

13.4. BY-LAW 2020-94 ROAD DEDICATION BY-LAW (ACTIVE ROAD)

174

A by-law to dedicate certain lands as part of the highways of the City of Markham, Part Block 45, Plan 65M-3226 designated as Part 7, Plan 65R-37288 and Part Block 45, Plan 65M-3226 designated as Part 2, Plan 65R-38835 - Active Road.

14. CONFIDENTIAL ITEMS

That, in accordance with Section 239 (2) of the *Municipal Act*, Council resolve into a private session to discuss the following confidential matters:

14.1. GENERAL COMMITTEE - OCTOBER 5, 2020

14.1.1. PERSONAL MATTERS ABOUT AN IDENTIFIABLE INDIVIDUAL, INCLUDING MUNICIPAL OR LOCAL BOARD EMPLOYEES – BOARD/COMMITTEE – APPOINTMENTS AND RESIGNATIONS (16.24) [Section 239 (2) (b)]

General Committee consented to place this matter on the October 14, 2020 confidential Council agenda for consideration.

14.1.2. THE SECURITY OF THE PROPERTY OF THE CITY OR LOCAL BOARD – LEASE ASSIGNMENT (8.2) [Section 239 (2) (a)]

General Committee consented to place this matter on the October 14, 2020 confidential Council agenda for consideration.

14.2. DEVELOPMENT SERVICES COMMITTEE - OCTOBER 13, 2020

14.2.1. LITIGATION OR POTENTIAL LITIGATION, INCLUDING MATTERS BEFORE ADMINISTRATIVE TRIBUNALS, AFFECTING THE MUNICIPALITY OR LOCAL BOARD; [SECTION 239 (2) (e)] – LPAT APPEAL – 4389 19th AVENUE (WARD 6) (8.0)

15. CONFIRMATORY BY-LAW - THREE READINGS

That By-law 2020-95 be given three readings and enacted.

Three Readings

BY-LAW 2020-95 A BY-LAW TO CONFIRM THE PROCEEDINGS OF THE
COUNCIL MEETING OF OCTOBER 14, 2020.

No attachment

16. ADJOURNMENT



Electronic Council Meeting Minutes

Meeting No. 16
September 30, 2020, 1:00 PM
Live streamed

Roll Call	<p>Mayor Frank Scarpitti Deputy Mayor Don Hamilton Regional Councillor Jack Heath Regional Councillor Joe Li Regional Councillor Jim Jones Councillor Keith Irish Councillor Alan Ho</p>	<p>Councillor Reid McAlpine Councillor Karen Rea Councillor Andrew Keyes Councillor Amanda Collucci Councillor Khalid Usman Councillor Isa Lee</p>
Staff	<p>Andy Taylor, Chief Administrative Officer Trinela Cane, Commissioner, Corporate Services Arvin Prasad, Commissioner, Development Services Claudia Storto, City Solicitor and Director of Human Resources Joel Lustig, Treasurer Bryan Frois, Chief of Staff Kimberley Kitteringham, City Clerk Martha Pettit, Deputy City Clerk</p>	<p>John Wong, Technology Support Specialist II Hristina Giantsopoulos, Elections & Council/Committee Coordinator Phoebe Fu, Director, Environmental Services Rob Grech, Manager, Stormwater, Environmental Services Ronald Blake, Senior Manager, Development, Planning & Urban Design Meg West, Manager of Business Planning and Projects Stacia Muradali, Senior Planner, Planning & Urban Design</p>

Alternate formats for this document are available upon request

1. CALL TO ORDER

The meeting of Council convened at 1:07 PM on September 30, 2020 in the Council Chamber. Mayor Frank Scarpitti presided.

INDIGENOUS LAND ACKNOWLEDGEMENT

We begin today by acknowledging that we walk upon the traditional territories of Indigenous Peoples and we recognize their history, spirituality, culture, and stewardship of the land. We are grateful to all Indigenous groups for their commitment to protect the land and its resources and we are committed to reconciliation, partnership and enhanced understanding.

On behalf of Council, Mayor Frank Scarpitti congratulated the Tampa Bay Lightning for winning the Stanley Cup and recognized Markham born, Captain Steven Stamkos of the Tampa Bay Lightning.

2. DISCLOSURE OF PECUNIARY INTEREST

None disclosed.

3. APPROVAL OF PREVIOUS MINUTES

3.1 COUNCIL MINUTES - SEPTEMBER 15, 2020

Moved by Councillor Reid McAlpine

Seconded by Councillor Alan Ho

1. That the Minutes of the Council Meeting held on September 15, 2020, be adopted.

Carried

4. PRESENTATIONS

There were no presentations.

5. DEPUTATIONS

5.1 DEPUTATIONS - GEESE MANAGEMENT AT SWAN LAKE – OVERVIEW OF OPTIONS AND PATH FORWARD (5.0)

The following addressed Council on this matter:

1. Madeleine Nevins
2. Rain Geiger
3. Darrell Heffernan

4. Fred Peters

(See Item 8.2.1, Report 26 for Council's decision on this matter.)

Moved by Deputy Mayor Don Hamilton

Seconded by Councillor Andrew Keyes

1. That the rules of procedure be waived in order to allow Mr. Fred Peters to address Council, as he previously addressed the General Committee on Geese Management at Swan Lake.

Carried by Two Thirds Vote

6. COMMUNICATIONS

6.1 29-2020 - LIQUOR LICENCE APPLICATION - UPPER UNIONVILLE GOLF CLUB (WARD 6) (3.21)

Moved by Councillor Reid McAlpine

Seconded by Councillor Amanda Collucci

1. That the request for the City of Markham to complete the Municipal Information Form be received for information and be processed accordingly.

Carried

6.2 30-2020 - LIQUOR LICENCE APPLICATION - CREATE WITH KIRSHY (WARD 1) (3.21)

Moved by Councillor Reid McAlpine

Seconded by Councillor Amanda Collucci

1. That the request for the City of Markham to complete the Municipal Information Form be received for information and be processed accordingly.

Carried

6.3 31-2020 - MEMORANDUM - GEMTERRA (WOODBINE) INC. 9064-9110 WOODBINE AVENUE, TECHNICAL AMENDMENT TO SCHEDULE 'A' OF BY-LAW 2019-82, FILE NO. ZA 17 153653 (WARD 2) (10.5)

Moved by Councillor Reid McAlpine

Seconded by Councillor Amanda Collucci

1. That the memorandum entitled “Gemterra (Woodbine) Inc., 9064 to 9110 Woodbine Avenue, Technical Amendment to Schedule ‘A’ of By-law 2019-82, File No. ZA 17 153653, dated September 30, 2020 be received; and,
2. That Schedule ‘A’ to By-law 2019-82, be repealed and replaced with a revised Schedule ‘A’ attached hereto; and further,
3. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

Carried

6.4 32-2020 - MEMORANDUM - SWAN LAKE GEESE MANAGEMENT PROGRAM – ADDITION OF STROBE LIGHTS (5.0)

1. That the memorandum dated September 29, 2020 from the Director, Environmental Services regarding "Swan Lake Geese Management Program – Addition of Strobe Lights)", be received.

Carried

(See Item 8.2.1, Report 26 for Council's decision on this matter.)

7. PROCLAMATIONS

7.1 PROCLAMATIONS (3.4)

Moved by Councillor Karen Rea

Seconded by Councillor Khalid Usman

1. That the following proclamations, issued by the City Clerk in accordance with the City of Markham Proclamation Policy, be received for information purposes:
 - a. Caribbean Heritage Month - October 2020
 - b. Wrongful Conviction Day - October 2, 2020
 - c. Child Care Worker and Early Childhood Educator Appreciation Day - October 22, 2020

2. That the following new request for proclamation, issued by the City Clerk in accordance with the City of Markham Proclamation Policy, be received and added to the Five-Year Proclamations List approved by Council:
 - a. Dyslexia Awareness Month - October 2020

Carried

8. REPORT OF STANDING COMMITTEE

8.1 REPORT NO. 25 - DEVELOPMENT SERVICES COMMITTEE (SEPTEMBER 14, 2020)

Moved by Regional Councillor Jim Jones

Seconded by Councillor Keith Irish

That the report of the Development Services Committee be received & adopted.
(1 Item):

Carried

8.1.1 9999 MARKHAM ROAD, HOLD (H) PROVISION, 2585231 ONTARIO INC., ZA 18 180621 (10.5)

Moved by Regional Councillor Jim Jones

Seconded by Councillor Keith Irish

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

8.2 REPORT NO. 26 - GENERAL COMMITTEE (SEPTEMBER 21, 2020)

Moved by Regional Councillor Jack Heath

Seconded by Councillor Andrew Keyes

That the report of the General Committee be received & adopted. (Items 1 to 3):

Carried

8.2.1 GEESE MANAGEMENT AT SWAN LAKE – OVERVIEW OF OPTIONS AND PATH FORWARD (5.0)

Moved by Councillor Andrew Keyes

Seconded by Regional Councillor Jack Heath

1. That the presentation entitled “Geese Management at Swan Lake – Overview of Options and Path Forward”, dated September 21, 2020, be received; and,
2. **That the memorandum dated September 29, 2020 from the Director, Environmental Services regarding "Swan Lake Geese Management Program – Addition of Strobe Lights)", be received; and,**
3. That Council approve the proposed changes outlined in the presentation to the existing Swan Lake Geese Control program; and,
4. That a review of options for modifying the habitat to deter geese from Swan Lake shall be considered through the Park Refresh Plan; and,
5. That the budget shortfall, in the amount of \$9,500, be funded from the Non-DC capital contingency for project 20250 Water Quality Improvements and Geese Control for the implementation of 2020 fall hazing and volunteer program; and,
6. That the 2021 Water Quality Improvements and Geese Control project request include \$10,000 for the TRCA managed geese relocation program; and,
7. **That Council approve an additional \$8,000, to be funded from the Non-DC Capital Contingency for project 20250 Water Quality Improvements and Geese Control, for a strobe light pilot for geese population management; and further,**

8. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

Carried as Amended

Council had the following original recommendation for consideration:

1. That the presentation entitled “Geese Management at Swan Lake – Overview of Options and Path Forward”, dated September 21, 2020, be received; and,
2. That Council approve the proposed changes outlined in the presentation to the existing Swan Lake Geese Control program; and,
3. That a review of options for modifying the habitat to deter geese from Swan Lake shall be considered through the Park Refresh Plan; and,
4. That the budget shortfall, in the amount of \$9,500, be funded from the Non-DC capital contingency for project 20250 Water Quality Improvements and Geese Control for the implementation of 2020 fall hazing and volunteer program; and,
5. That the 2021 Water Quality Improvements and Geese Control project request include \$10,000 for the TRCA managed geese relocation program; and,
6. **That Council approve an additional \$9,000.00 to include a strobe light pilot for geese population management; and,**
7. **That staff be directed to provide additional information on the impacts of a strobe light pilot program to foster geese population management for the Council Meeting on September 30, 2020, and further,**
8. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

Moved by Councillor Andrew Keyes

Seconded by Regional Councillor Joe Li

1. That Council consider the matter of "Geese Management at Swan Lake - Overview of Options and Path Forward" immediately following Deputations with respect thereto.

Carried

8.2.2 ASSUMPTION OF MCCOWAN ROAD WATERMAIN AND ASSOCIATED INFRASTRUCTURE CONSTRUCTED BY THE REGIONAL MUNICIPALITY OF YORK (5.0)

Moved by Regional Councillor Jack Heath

Seconded by Councillor Andrew Keyes

1. That the report entitled “Assumption of McCowan Road Watermain and associated infrastructure constructed by the Regional Municipality of York” be received; and,
2. That Staff be authorized to assume the ownership of the new McCowan Road 150mm diameter PVC watermain and associated infrastructure constructed by The Regional Municipality of York; and,
3. That the Director of Environmental Services be authorized to execute the Memorandum of Understanding between The Regional Municipality of York and the City of Markham related to the assumption of McCowan Road Watermain and associated infrastructure, to the satisfaction of the City Solicitor; and further,
4. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

Carried

8.2.3 EMERGENCY COVID-19 RELIEF FOR THE HOTEL ACCOMMODATION SECTOR (10.16)

Moved by Regional Councillor Jack Heath

Seconded by Councillor Andrew Keyes

Whereas the COVID-19 pandemic has brought unprecedented public health challenges to Canada which has resulted in a slowdown of the Canadian economy and has created significant financial pressures to most industry sectors; and,

Whereas this unprecedented environment of economic uncertainty has directly and immediately impacted the hospitality and tourism sectors, with hotels experiencing record low occupancy rates driven in

part by the closure of international borders, reduced business workshops and conferences combined with lower consumer travel confidence; and,

Whereas the uncertainty of recovery timing and the expectation that a full recovery may take several years, it is imperative that the provincial government provide immediate measures to protect and assist Ontario's Hotel Industry so they can remain resilient and viable during this uncertain time; and,

Whereas the COVID-19 pandemic had prompted the Province of Ontario to postpone the 2020 Assessment Update, and further directed that all Ontario property assessments to be levied upon for the 2021 tax year, continue to be based on the fully phased-in assessment amounts utilized for the 2020 tax year; and,

Whereas the current property assessment values of hotel properties do not represent the current negative financial impact of COVID-19 and the substantial decrease in revenue experienced by Hotels, which will result in inaccurate property assessments and significant property tax burdens moving forward into the 2021 taxation year and beyond; and,

Whereas Markham Council through the Destination Markham Corporation is in the midst of launching several programs and strategic initiatives to support the reopening and recovery of the tourism economy with the goal of increasing Hotel overnight stays,

Now therefore be it resolved:

1. That Markham Council requests the Province of Ontario work with local municipalities to develop immediate options which could assist the Hotel Industry with mitigating the significant financial impacts resulting from the COVID-19 pandemic; and,
2. That these options include but not be limited to the following:
 - a. Requesting the Municipal Property Assessment Corporation (MPAC) undertake a review and re-evaluation of all Hotel property assessments prior to the issuance of the 2021 final tax bill by Ontario municipalities; and,
 - b. Requesting the Minister of Finance consider removing the education portion of the property taxes for Hotel properties in Ontario for the 2021 taxation year, and,

- c. Requesting the Minister of Finance consider developing a tax relief program to assist Hotel properties with the record low occupancy rates and limited revenue potential during this unprecedented time; and,
- 3. Be it further resolved, that a copy of this resolution be sent to:
 - a. The Honourable Doug Ford, Premier of Ontario;
 - b. The Honourable Rod Phillips, Minister of Finance;
 - c. The Honourable Steve Clark, Minister of Municipal Affairs and Housing;
 - d. All Members of Provincial Parliament in the Regional Municipality of York;
 - e. All Council Members of the Regional Municipality of York;
 - f. All Municipal Property Assessment Corporation (MPAC) Board of Directors;
 - g. Nicole McNeill, President and Chief Administrative Officer, MPAC;
 - h. Carmelo Lipsi, Vice-President, Valuation and Customer Relations and Chief Operating Officer, MPAC; and,
 - i. Greg Martino, Vice-President, Valuation and Assessment Standards and Chief Valuation and Standards Officer, MPAC.

Carried

8.3 REPORT NO. 27 - DEVELOPMENT SERVICES COMMITTEE (SEPTEMBER 29, 2020)

Moved by Regional Councillor Jim Jones

Seconded by Councillor Reid McAlpine

That the report of the Development Services Committee be received & adopted.
(1 Item):

Carried

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

Moved by Regional Councillor Jim Jones

Seconded by Councillor Reid McAlpine

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,
3. That staff be directed to continue to work with Metrolinx to identify an alternate and more appropriate location for the train storage facility; and further,
4. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

Carried

9. MOTIONS

There were no motions.

10. NOTICE OF MOTION TO RECONSIDER

There were no notices of motions.

11. NEW/OTHER BUSINESS

There were no new/ other business.

12. ANNOUNCEMENTS

There were no announcements.

13. BY-LAWS - THREE READINGS

There were no By-laws.

14. CONFIDENTIAL ITEMS

There were no confidential items.

15. CONFIRMATORY BY-LAW - THREE READINGS

Moved by Councillor Keith Irish

Seconded by Councillor Isa Lee

That By-law 2020-90 be given three readings and enacted.

Three Readings

BY-LAW 2020-90 - A BY-LAW TO CONFIRM THE PROCEEDINGS OF THE
COUNCIL MEETING OF SEPTEMBER 30, 2020

Carried

16. ADJOURNMENT

Moved by Councillor Isa Lee

Seconded by Councillor Keith Irish

1. That the Council meeting be adjourned at 2:27 p.m.

Carried

Kimberley Kitteringham

City Clerk

Frank Scarpitti

Mayor



Report to: Development Services Committee

Meeting Date: September 14, 2020

SUBJECT: 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)

PREPARED BY: Rick Cefaratti, MCIP, RPP, Senior, West District, (ext. 3675)

REVIEWED BY: Ron Blake, MCIP, RPP, Senior Development Manager, (ext. 2600)

RECOMMENDATION:

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

EXECUTIVE SUMMARY:

The site municipally known as 4071, 4073 and 4289 Major Mackenzie Drive East has a total area of approximately 7.5 ha. (18.53 ac.). It is located on the south side of Major Mackenzie Drive East, between Prospector’s Drive and Angus Glen Boulevard (the “Subject Lands”). This report recommends the approval of an application for a Zoning By-law Amendment submitted by Angus Glen Village Ltd., to refine the development standards for a proposed 173 unit townhouse development on a 4.93 ha. (12.18 ac.)

portion of the “Subject Lands”. The remaining 2.57 ha. (6.35 ac.) portion of the “Subject Lands” includes an environmental buffer, valley lands and a woodlot. The “Subject Lands” are the final phase of the Angus Glen West Village subdivision. The environmental buffer, valley lands and woodlot portion will be conveyed to the City upon registration of this final phase of the Plan of Subdivision (see Figure 4 – Site Plan). Registration of the Plan of Subdivision is required prior to final Site Plan approval.

The “Subject Lands” are designated ‘Residential Mid-Rise’ and ‘Greenway’ in the 2014 Markham Official Plan (as partially approved on November 24, 2017 and updated on April 9, 2018). The Residential designation provides for the townhouse proposal. The Greenway designation provides for the environmental buffer, valley lands and woodlot.

The “Subject Lands” are zoned R4*387 – Residential Four*387 Zone and OS1 – Open Space One Zone by By-law 177-96, as amended. The R4*387 – Residential Four*387 Zone permits the townhouse proposal. The OS1 – Open Space One Zone permits environmental buffer, valley lands and woodlot. In order to implement the proposed townhouse development, the proponent has requested a number of site –specific amendments to the development standards to be included in the Zoning By-law. The proposed amendments are described in further detail later in this report.

The Toronto and Region Conservation Authority (TRCA) has not completed their technical review of the proposal yet. They are concerned that the Regional Floodline elevation has increased after the naturalization of the Stollery Pond Channel was completed. This could affect the minimum required building setbacks for the units adjacent to the Open Space areas. Consequently, this report recommends the Zoning By-law Amendment (Appendix ‘A’) only be finalized and enacted once the TRCA’s comments and building setbacks from the OS1 Zone have been addressed to their satisfaction.

The proponent has requested the installation of traffic signals at the centrally located full moves access driveway onto Major Mackenzie Drive East. Traffic signals at this location are not warranted. As a result, York Region requires a Markham Council resolution requesting Regional Council approval of traffic signals at this location. The proponent has agreed to pay for the intersection signalization and the costs will be secured through the site plan agreement process.

PURPOSE:

This report recommends approval of the Zoning By-law Amendment application (File No. ZA 18 154612). The By-law revises the development standards for a townhouse development, proposed on the approximately 4.93 ha. (12.18 ac.) table land portion of the 7.5 ha. (18.53 ac.) “Subject Lands”. The requested revisions to the development standards by the proponent include a reduction to the minimum width of a townhouse unit, an increase to the maximum permitted building height, a minimum rear yard setback to the OS1 – Open Space Zone of 1.2 m (3.9 ft.), and the residential block for the proposed townhouses will be deemed as one lot for zoning purposes when determining building setbacks to the front, side and rear lot lines. All internal building setbacks will be established through the site plan approval process.

PROCESS TO DATE AND NEXT STEPS

History of the application

These lands represent the final unregistered phase of Draft Plan of Subdivision 19TM-03004. Draft Plan approval for Phase 2 was issued by the City in December of 2009, to permit 166 townhouse units with larger lots. A revised draft plan was draft approved in October of 2011 to allow for smaller lots. However, the proposed refinements to the Open Space zone boundaries for the buffers, valley lands and woodlot will require revisions to the draft plan. The current request to amend the zoning by-law will facilitate the proposed 173 unit townhouse development with smaller lot sizes and permit an increased maximum building height. In addition, TRCA staff must confirm if the setback between the OS1 Zone and the rear yards of adjacent townhouses is acceptable.

The following milestones were completed, as part of the Zoning By-law and associated Site Plan application review process:

- The Zoning By-law Amendment application was deemed complete on January 7, 2019.
- The statutory Public Meeting was held on June 24, 2019;
- Following the Public Meeting, a motion was carried by Council at their meeting on June 25, 2019 to endorse the Site Plan application (File SPC 18 154612) in principle, and delegate Site Plan approval authority to staff;
- Staff endorsed the Site Plan application on April 16, 2020; and,
- Council passed a By-law to remove the H2 Holding provision from the current zoning and assign servicing allocation for one hundred and seventy three (173) dwelling units on April 28, 2020;

Next steps

- Enactment of the amending Zoning By-law following confirmation from TRCA comments have been addressed to their satisfaction;
- Redline revisions to the Draft Plan are required to reflect the proposed encroachments into the environmental buffers, valley lands and woodlot prior to Subdivision registration, and before these lands are conveyed to the City;
- Execution of a Subdivision Agreement for the Phase 2 lands prior to Subdivision registration;
- Registration of the final phase of the Draft Plan of Subdivision prior to the execution of the site plan agreement and site plan approval to create the residential block, valley lands and open space blocks;
- The proponent executes a site plan agreement;
- Final site plan approval is a staff delegation.
- An application for Draft Plan of Condominium will need to be approved to create the individual units and to establish ownership of the common elements, including

the amenity areas, internal road network, and visitor parking. This application has not been submitted yet.

BACKGROUND:

Property and Area Context

The 7.5 ha. (18.53 ac.) “Subject Lands” are located on the south side of Major Mackenzie Drive, between Prospector’s Drive and Angus Glen Boulevard, and within the Angus Glen West Village (see Figures 1, 2 and 3). Located to the north, across Major Mackenzie Drive, are golf course lands that form part of the Future Urban Area (FUA). To the south is the Angus Glen Golf Club and the York Downs Golf & Country Club. Plans to redevelop the York Downs Golf & Country Club for a new residential community were approved by the Local Planning Appeal Tribunal (LPAT) in 2019. To the east is a rural single detached dwelling with access from Major Mackenzie Drive East. Single detached dwellings are located west of the Bruce Creek Valley corridor lands.

PROPOSAL

The proposed 173 unit townhouse development, along with a private storm water pond to serve the development, will occupy the table land portion of the “Subject Lands”. The table land portion of the “Subject lands” is approximately 4.93 ha. (12.18 ac.) (See Figure 4). The remaining 2.57 ha. (6.35 ac.) includes an environmental buffer, valley lands, and a woodlot. The buffer, valley lands and woodlot will be conveyed to the City with the registration of this final phase of the Plan of Subdivision (see Blocks 3, 5 and 6 on Appendix ‘B’ – Draft M-Plan).

Vehicular access is proposed along two (2) private road connections from Major Mackenzie Drive East. The west entrance will be restricted to right-in/right out, and the main entrance, near the middle of the property, will be a full moves access. The proponent is requesting that this driveway be signalized, at their expense, as noted in Recommendation #3 above. The proponent is proposing signalization of the intersection to provide a direct and safe cycling and walking connection to the north side of the road (including any future transit stops along Major Mackenzie Drive). This main driveway will align with a future road that will begin on the north side of Major Mackenzie Drive East to serve the FUA. Access to the individual townhouse units will be from a network of private lanes.

The 173 townhouse proposal, as illustrated in Figures 4, 5, 6, 7, and 8 is comprised of:

- 43 units that are 4.7 m (15.4 ft.) wide,
- 57 units that are 5.8 m (19.0 ft.) wide, and
- 73 units that are 7.0 m (23.0 ft.) wide.

The proposal includes four (4) private outdoor amenity spaces, which range in size from approximately 103 m² (1108.68 ft²) to 475 m² (5,112.86 ft²). These shared spaces will ultimately be part of the condominium common elements. In addition, each back lotted townhouse unit will have exclusive use to a minimum amenity area of at least 25.0 m² (269.09 ft²). The amenity space for the proposed lane based townhouses, such as those

fronting onto Major Mackenzie Drive East, will be provided through the balconies above the garages.

There will be at least two (2) parking spaces (one on the driveway and one in the garage) for each unit, plus forty-four (44) parking spaces for visitors. (The visitor parking is being provided in accordance with the City's requirements of one (1) visitor space for ever four (4) townhouse units i.e. $173 / 4 = 43$). The proposed parking spaces will comply with the Parking Standards By-law with respect to the minimum size. The applicant has confirmed that the interior garage space of each townhouse unit has the required length to accommodate a car, garbage/recycling/green bins and a bicycle.

OFFICIAL PLAN

2014 Official Plan

The "Subject Lands" are designated 'Residential Mid-Rise' and 'Greenway' in the 2014 Markham Official Plan (as partially approved on November 24, 2017 and updated on April 9, 2018). The Residential designation provides for townhouses, including back to back townhouses, small multiplex buildings containing 3 to 6 units, stacked townhouses and mid-rise apartment buildings. The 'Greenway' designation allows environmental buffers, ecological restoration, woodlots and trails and watershed management uses. This townhouse proposal conforms to the 2014 Markham Official Plan.

ZONING

These lands are currently zoned R4*387 – Residential Four*387 Zone and OS1 – Open Space One Zone by By-law 177-96, as amended. The R4*387 – Residential Four*387 Zone permits residential development, including townhouses. The OS1 – Open Space One Zone permits facilities for flood control and erosion, walkways, bridges, cycling paths and related accessory buildings and structures.

The draft Zoning By-law amendment (Appendix 'A') will rezone the developable portion of the "Subject Lands" from R4*387 – Residential Four*387 Zone to R2*387 - Residential Two Zone, which permits townhouses. The draft by-law also includes a number of exceptions to the general provisions in the parent by-law.

These exceptions include:

- A minimum townhouse unit width of 4.5 m (14.76 ft.), whereas the minimum townhouse unit width is 5.5 m (18.04 ft.);
- A maximum number of 173 townhouse units;
- A maximum Building Height of 14.0 m (45.93 ft.), whereas the maximum Building Height is 12.0 m (39.37 ft.); and
- A maximum garage and driveway width of 6.0 m (19.68 ft.) for units with a double car garage, whereas the maximum garage and driveway width is 35 percent of the lot frontage;
- A minimum rear yard setback for lots abutting an Open Space One (OS1) Zone of 1.2 m (3.9 ft.) (note that this setback is still under review by the City, TRCA and the applicant); and

-
- To deem the 4.93 ha. (12.18 ac.) table land portion of the “Subject Lands” to be one lot for zoning purposes.

In addition, the proposed by-law includes refinements to the Open Space zone boundaries for the buffers, valley lands and woodlot. These refinements relate to the conveyance to the City of approximately 1.2 ha. (2.96 ac.) of tableland, along the western, southern and eastern boundaries of the site. The TRCA has requested this By-law amendment to not be finalized and enacted by Markham Council until matters related to these conveyances, as detailed later in the report, have been fully resolved between the TRCA, the City and the applicant.

OPTIONS/ DISCUSSION:

Issues identified in the Preliminary Report, at the Public Meeting

Preliminary Report

A number of issues were identified in the June 10, 2019 preliminary report to Development Services Committee (DSC). The issues identified included:

- Identification of suitable snow storage areas;
- Resolution of regional traffic and transportation requirements and their associated implications to the proposed development (e.g. road widening, vehicular access restrictions);
- Confirmation whether additional parkland and / or cash-in-lieu of parkland is required for the proposed development; and
- Elimination of back-lotting - so more units face the buffers, valley lands and woodlot.

Public Meeting

The Statutory Public Meeting was held on June 24, 2019. Comments made at the Public Meeting included:

- That a trail be provided, through the Angus Glen Golf Club lands, from York Downs to Major Mackenzie;
- Clarification on whether the adjacent woodlot would be included in the parkland dedication;
- Requested confirmation be provided from staff that the proposed emergency vehicle and waste management routes are acceptable;

These and other issues are addressed as follows:

Snow Storage Identified

Snow storage areas have been identified on the site plan. During periods of significant snowfall, snow will be trucked from the site at the expense of the future condominium corporation.

Regional Traffic and Transportation

York Region has confirmed a full moves centrally located main driveway and a right-in/right-out secondary driveway, at the west end of the site, both to provide access to

Major Mackenzie Drive East will be permitted, subject to the following conveyances being provided:

- a) A widening across the full frontage of the site to provide a minimum of 22.5 m (73.81 ft.) from the centreline of construction of Major Mackenzie Drive East;
- b) A 10.0 m (32.8 ft.) by 10.0 m (32.8 ft.) daylight triangle at the intersection of the proposed main driveway and Major Mackenzie Drive East; and,
- c) A 5.0 m (16.4 ft.) by 5.0 m (16.4 ft.) daylight triangle at the intersection of the proposed right-in/right-out secondary driveway and Major Mackenzie Drive East.

Regional Staff has confirmed that the above noted conveyances will be secured through the site plan agreement process.

Transportation Planning Staff Support Signalization of Principal Access to Major Mackenzie Drive East

The proponent's Transportation Impact Study (TIS) recommends the centrally located driveway to Major Mackenzie Drive East be signalized. The TIS anticipates that without traffic signals at this driveway, residents will experience delays merging onto Major Mackenzie Drive East. The signalization also provides a direct and safe cycling and walking connection to the north side of the road (including any future transit stops along Major Mackenzie Drive). This main driveway will align with a future road that will begin on the north side of Major Mackenzie Drive East to serve the FUA.

Vehicular access to Major Mackenzie Drive East falls under the jurisdiction of York Region. Therefore, signalization of the main driveway requires approval from York Region. Regional staff have indicated the intersection does not meet signal warrant thresholds, to justify a signal. Therefore, to install traffic signals in this location, the Region requires a Markham Council resolution requesting Regional approval of these signals at the owner's cost. The proponent is requesting the signalization of the intersection on the basis that it will connect to a future collector road with the purpose of servicing the Angus Glen Block in the FUA, which will be designed to align with the townhouse development proposal on the "Subject Lands".

The proponent has agreed to pay for the intersection signalization. The associated costs include the construction of eastbound and westbound turn lanes on Major Mackenzie Drive East and the installation of the signals. These costs will be secured through the site plan agreement process.

Parkland Dedication Requirements Achieved

Staff has confirmed that no additional parkland or cash-in-lieu is required for the proposed development through the re-zoning or the site plan applications. The parkland requirement for this development will be fulfilled when this phase of the Plan of Subdivision (19TM-03004) is registered. The Parks and Open Space conditions of draft Plan approval for this Plan of Subdivision include a requirement that the woodlot be conveyed to the City to meet parkland obligations. The acceptance of woodlands as

parkland is consistent with the strategy that was used to develop a comprehensive parks and open space system for the entire Angus Glen West Village area, as well as other lands included within the urban expansion area boundary under OPA No. 5 of the 1987 Official Plan. OPA No.5 amended the 1987 Official Plan to expand urban boundary area to include additional for future residential development north of 16th Avenue.

The woodlot will be conveyed to the City with the registration of the Draft Plan of Subdivision. This final phase of the Draft Plan of Subdivision must be registered prior to the execution of the site plan agreement.

Back-lotting onto buffers, valley lands and woodlot

The development has been designed with units back-lotting onto the abutting valley lands and woodlot. The valley lands south of the “Subject Lands” are privately owned and used as a golf course (The Angus Glen South Golf Course). The woodlot west of the townhouse lots will be conveyed to the City.

Staff originally commented that the townhouse units should be oriented to front onto the valley lands, parks and open space where possible. The proposed development includes sixty-one (61) back-lotted townhouse units, which represents approximately thirty-five 35%. However, the back-lotting for the proposed townhouse units adjacent to the Angus Glen Golf Course will allow grading in the rear yards for these lots and minimizes the need for retaining walls. Therefore, staff are willing to accept the back-lotting, in this particular instance.

Proposed Trail will connect to the City’s trail network

A proposed north-south public trail, located on the adjacent woodlot, will pass by the townhouse development and connect to an existing public trail network (see Figure 9 – Public Master Trail Layout).

The golf course owner (Angus Glen) recognizes the City’s desire to promote public trail network connectivity. However, the owner of the golf course will not allow public access due to concerns with liability. They would be open to providing public trail access through the valley lands, when the Angus Glen South Golf Course is further developed.

Fire Department and Waste Management

The Fire Department has no objections to the proposed development, subject to full automatic sprinkler systems being provided in the units on Blocks 17, 18, 26, 27 and 30 of the proposed townhouse development. This will be secured through the site plan agreement process.

Waste Management staff have confirmed their vehicles can service the development via the private lane network. The technical and financial requirements will be secured through the site plan agreement process.

Toronto and Region Conservation Authority Comments**Toronto and Region Conservation Authority (TRCA) Clearance required**

Based on a preliminary review by the TRCA of revised engineering plans submitted to them in June 2020, it appears that the Regional Floodline elevation has increased as a result of the Stollery Pond Channel naturalization works completed through the previous phase of the Draft Plan of Subdivision for Angus Glen West Village. This increase could affect the location and minimum required building setbacks for the units adjacent to the Open Space areas set out in the draft zoning by-law amendment (see Figure 4 – Site Plan). Staff note that the proponent is working with the TRCA to achieve a 1.2 m (3.9 ft.) rear yard setback to the OS1 Zone in order to implement the endorsed site plan. The proponent continues to work with TRCA to demonstrate that the proposed grading, within the environmental buffer between the valley lands and the adjacent townhouse lots, will not negatively impact the stability of the valley slope.

The applicant is proposing refinements to the OS1 Zone boundaries to allow the proposed townhouse development to encroach into the buffers, valley lands and woodlot. In order to compensate for these encroachments, Angus Glen is proposing to convey approximately 1.2 ha. (2.96 ac.) of tableland to the City, along the western, southern and eastern boundaries of the site (see Figure 4 – Site Plan, and Schedule ‘A’ to the draft Zoning By-law in Appendix ‘A’). However, the TRCA has commented that the proposed By-law amendment should not be finalized and enacted by Markham Council until the proponent demonstrates that the proposed townhouse development and proposed encroachments into current OS1 Zone boundaries are located entirely outside of the flood plain, and that the proposed minimum 1.2 m (3.9 ft.) rear yard setback is acceptable.

Consequently, staff recommends that, prior to the Zoning By-law being finalized and enacted, the TRCA should confirm that their outstanding technical comments have been resolved to their satisfaction, and that they can support the proposed reduced rear yard setback to the OS1 Zone noted above. Any relocation of the townhouse blocks required by TRCA will be reflected in the final approved site plan.

Committee of Adjustment

Due to the scale and complexity of the proposal, it is recommended that Council approve a resolution which would allow the applicant to apply to the Committee of Adjustment for minor variances from the provisions of the zoning by-law (see Appendix ‘A’) before the second anniversary of the day on which the proposed by-law is approved by Council.

CONCLUSION:

The proposed townhouse development is appropriate. The built form will not adversely impact the surrounding properties. This townhouse development will facilitate the conveyance to the City of an environmental buffer, valley lands and a woodlot, as well as a new north-south public trail, to connect to an existing public trail network. Consequently, Staff recommends that the draft Zoning By-law Amendment (Appendix ‘A’) be finalized and enacted after the TRCA has confirmed that their outstanding technical comments have been resolved to their satisfaction.

FINANCIAL CONSIDERATIONS

Not applicable.

HUMAN RESOURCES CONSIDERATIONS

Not applicable.

ALIGNMENT WITH STRATEGIC PRIORITIES:

The proposed development and associated changes to the development standards for townhouses on the subject lands are consistent with the City's strategic priorities of Growth Management and Municipal Services, as well as Environmental Protection. The implementation of the proposed townhouse development will be coordinated with available servicing infrastructure, and the natural heritage and buffer areas (valley lands and woodlot) will be conveyed into public ownership.

BUSINESS UNITS CONSULTED AND AFFECTED:

Not applicable.

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 Services

ATTACHMENTS:

Figure 1 – Location Map

Figure 2 – Area Context/Zoning

Figure 3 – Air Photo

Figure 4 – Site Plan

Figure 5 – Townhouse Elevation Perspective – Major Mackenzie Drive East

Figure 6 – Front Elevation Perspective – West Village Lane

Figure 7 – Front Elevation Perspective – Gardener's Lane

Figure 8 – Townhouse Elevations – Lots Backing onto the Woodlot and Valley Lands

Figure 9 – Public Master Trail Layout

APPENDICES:

Appendix 'A' – Draft Zoning By-law

Appendix 'B' – Draft M Plan

OWNER:

Angus Glen Village Ltd.

C/O Michael Montgomery Kylemore Communities

9980 Kennedy Rd.

Markham, ON

Phone: (905) 887- 5799, ext. 409

Fax: (905) 887-5197

Email: Michael@kylemorecommunities.com

APPLICANT/AGENT:

Gatzios Planning + Development Consultants Inc.

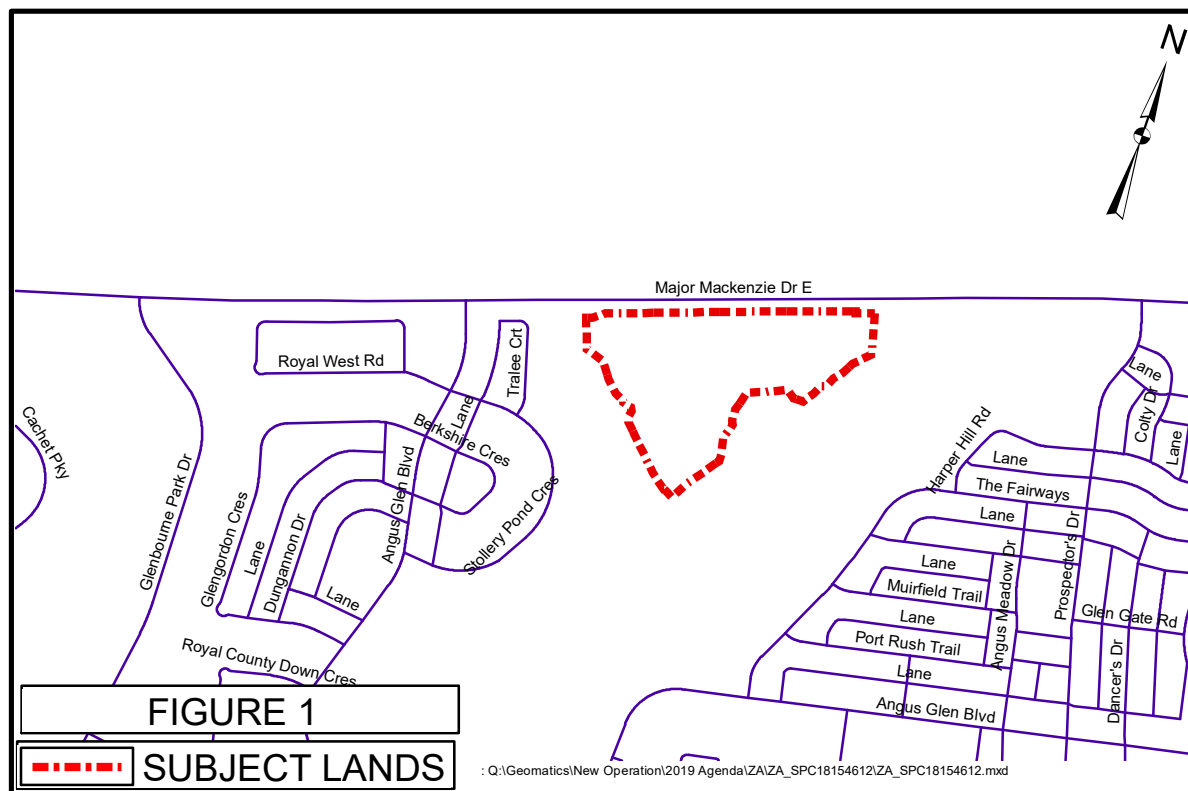
C/O James Koutsovitis

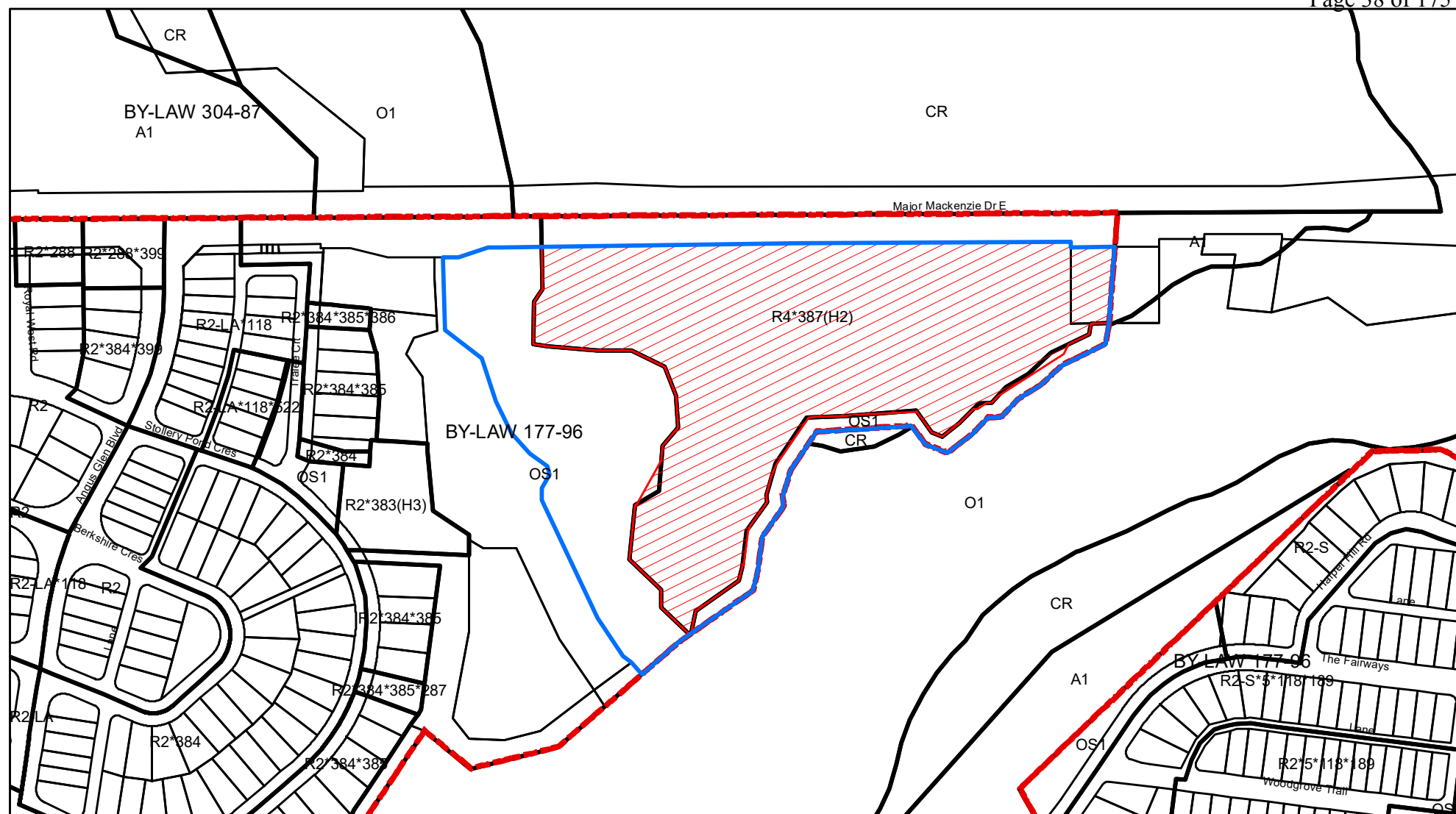
701 Mount Pleasant Road Unit 3

Toronto, Ontario M4S 2N4

Phone (647) 748-9466, ext. 5

Email: james@gatziosplanning.com





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AREA CONTEXT/ZONING

APPLICANT: ANGUS GLEN VILLAGE LTD.
4071 & 4289 MAJOR MacKENZIE DR. E.

FILE No: ZA18154612 (RC)

 SUBJECT LANDS
 LANDS SUBJECT TO ZONING AMENDMENT



DATE:05/14/19

FIGURE No. 2



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AERIAL PHOTO (2019)

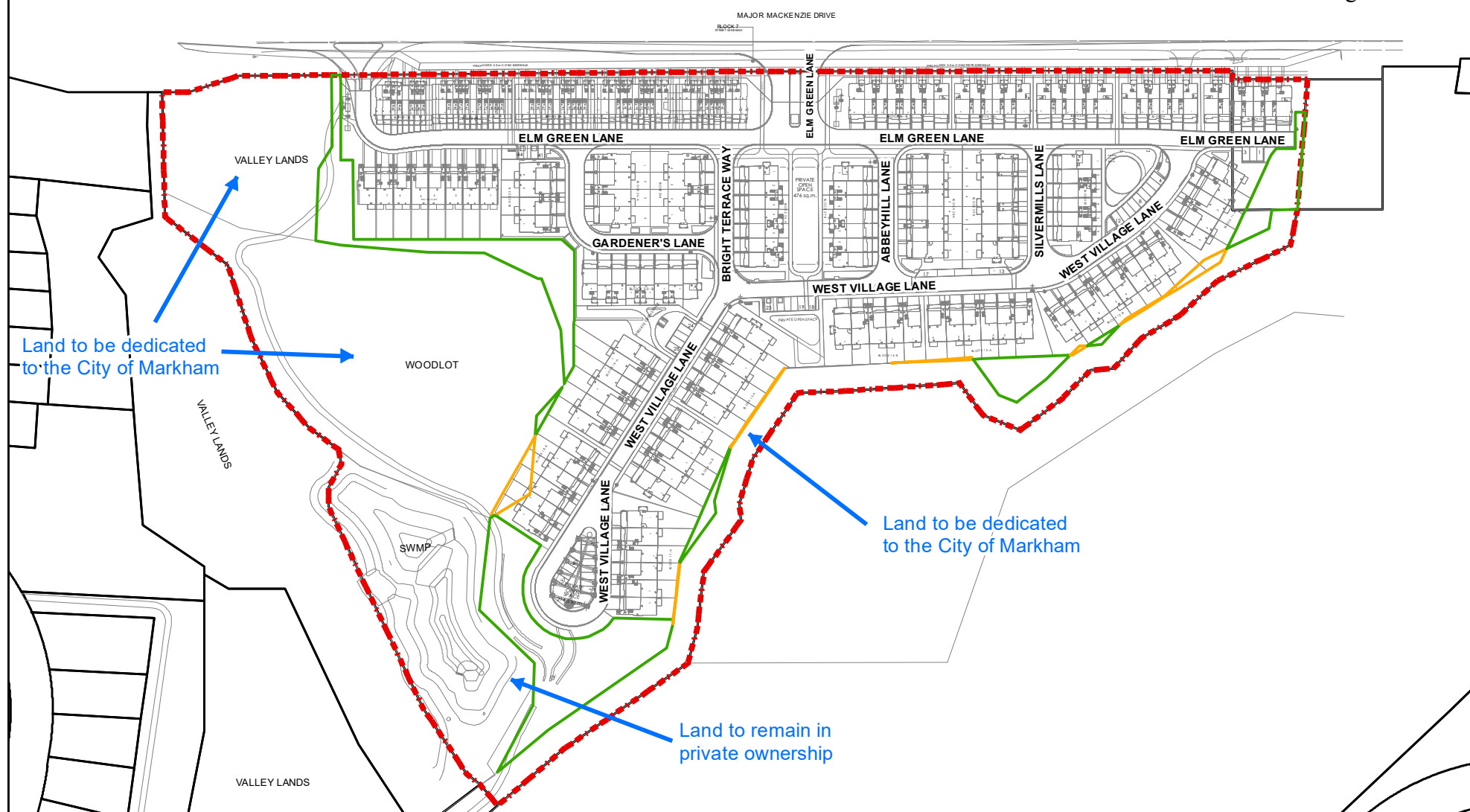
APPLICANT: ANGUS GLEN VILLAGE LTD.

4071 & 4289 MAJOR MacKENZIE DR. E.

 SUBJECT LANDS

FILE No: ZA18154612 (RC)





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SITE PLAN

APPLICANT: ANGUS GLEN VILLAGE LTD.
4071 & 4289 MAJOR MacKENZIE DR. E.

FILE No: ZA18154612 (RC)

- Proposed Additional Table Land to be Conveyed to City
- Proposed Encroachments to Open Space Zone

DATE:05/14/19

FIGURE No. 4



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Townhouse Elevation Perspective from Major Mackenzie Drive East

APPLICANT: ANGUS GLEN VILLAGE LTD.
4071 & 4289 MAJOR MacKENZIE DR. E.

FILE No: ZA18154612 (RC)



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Front Elevation Perspective from West Village Lane

APPLICANT: ANGUS GLEN VILLAGE LTD.
4071 & 4289 MAJOR MacKENZIE DR. E.

FILE No: ZA18154612 (RC)



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Front Elevation Perspective from Gardener's Lane

APPLICANT: ANGUS GLEN VILLAGE LTD.

4071 & 4289 MAJOR MacKENZIE DR. E.

FILE No: ZA18154612 (RC)

DATE:05/14/19



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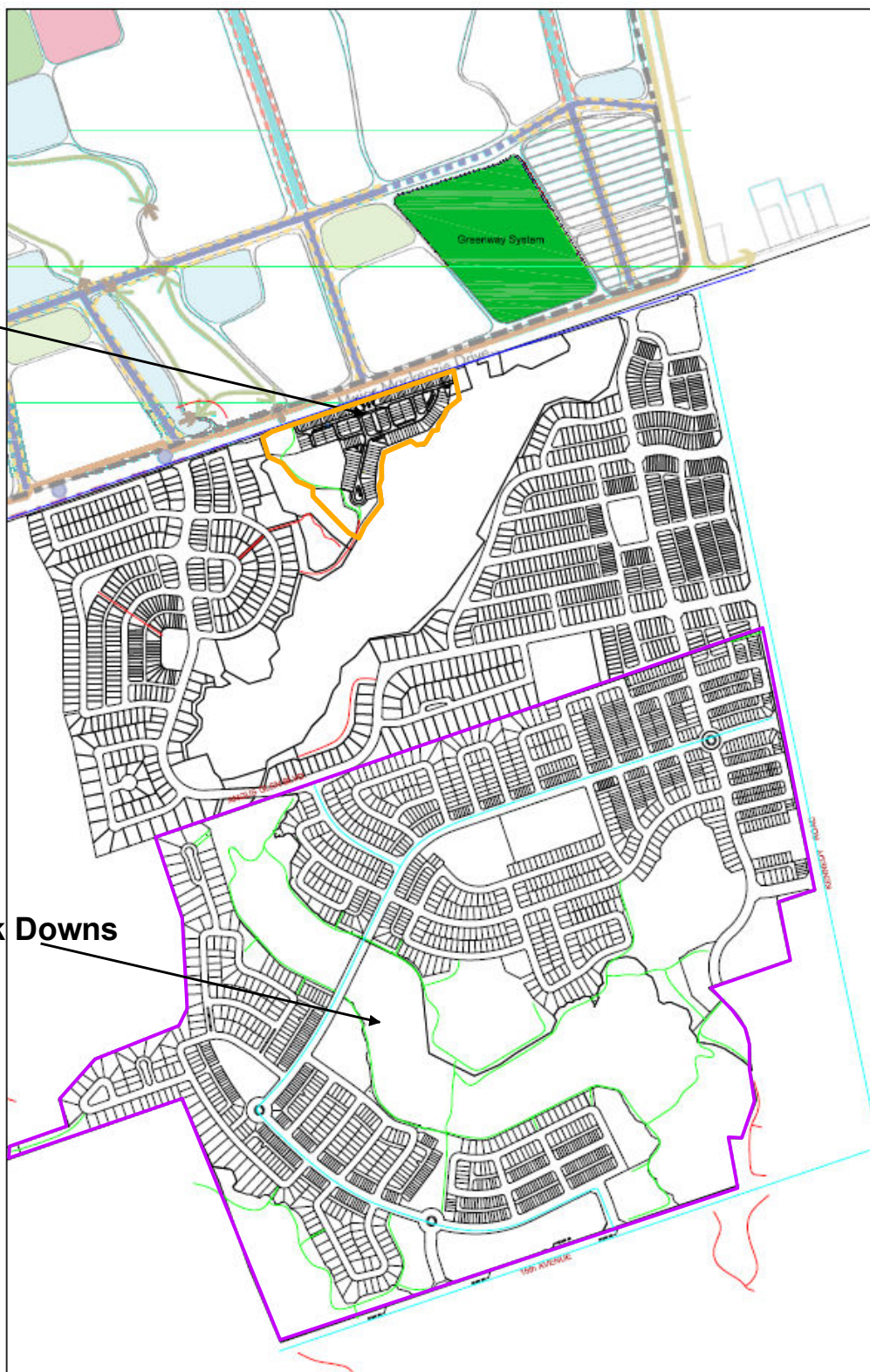
Typical Townhouse Elevations for lots backing onto the woodlot and valley lands

APPLICANT: ANGUS GLEN VILLAGE LTD.
4071 & 4289 MAJOR MacKENZIE DR. E.

FILE No: ZA18154612 (RC)

Subject Lands

York Downs



PUBLIC MASTER TRAIL LAYOUT

APPLICANT: ANGUS GLEN VILLAGE LTD.
4071 & 4289 MAJOR MACKENZIE DR. E.

FILE No: ZA18154612 (RC)

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DEVELOPMENT SERVICES COMMISSION

Drawn By: RT

Checked By: RC

- Existing Trail
- Proposed Trail
- Existing Multi-Use Path
- Proposed Multi-Use Path
- York Downs
- Subject Lands

DATE: 6/10/2020

FIGURE No. 9



Appendix A



Angus Glen Village Brownstones
Draft By_law.Appendix A.docx

A By-law to amend By-law 177-96, as amended

The Council of the Corporation of the City of Markham hereby enacts as follows:

1. By-law 177-96, as amended, is hereby further amended as follows:
- 1.1 By rezoning the lands outlined on Schedule ‘A’ attached hereto from:
- from:
Residential Four*387 – (R4) Zone
Open Space One (OS1) Zone
under By-law 177-96
to:
Residential Two*XXX – (R2) Zone under By-law 177-96
- 1.2 By adding the following subsection to Section 7 – EXCEPTIONS

Exception 7.XXX	Angus Glen Village Ltd. 4071 and 4289 Major Mackenzie Drive East	Parent Zone R2
File ZA 18 154612		Amending By-law 2020-XX
Notwithstanding any other provisions of By-law 177-96, the following provisions shall apply to the land shown on Schedule “A” attached to this By-law 2020-XX. All other provisions, unless specifically modified/amended by this section, continue to apply to the lands subject to this section.		
7.XXX.1 Special Zone Standards		
The following specific Zone Standards shall apply:		
a)	Notwithstanding any further division or partition of any lands subject to this Section, all lands zoned R2*XXX – Residential Two Zone shall be deemed to be one lot for the purposes of this By-law.	
b)	Minimum front yard setback – 2.0 metres	
c)	i) Minimum rear yard setback – 5.0 metres ii) Minimum rear yard setback for lots abutting an Open Space One (OS1) Zone – 1.2 metres	
d)	For the purposes of this By-law, the lot line abutting Major Mackenzie Drive East shall be deemed to be the front lot line.	
e)	Minimum side yard setback – 1.2 metres	
f)	Minimum outdoor amenity area per dwelling unit – 25 square metres	
g)	Maximum number of dwelling units – 173	
h)	Maximum garage width – 6.0 metres	
i)	Maximum building height – 14.0 metres	
j)	Notwithstanding Section 6.6.2 a), porches are permitted to encroach into the required front yard, provided no part of the porch is located closer than 0.8 metres from the front lot line.	

2. All other provisions of By-law 177-96, as amended, not consistent with the provisions of this by-law shall continue to apply.

Read a first, second and third time and passed on September XX, 2020.

City Clerk

Mayor



EXPLANATORY NOTE

BY-LAW 2020-_____

A By-law to amend By-law 177-96, as amended

**4071, 4289 Major Mackenzie Drive East
CON 5 PT LT 20 65R1229 PT 2 and
CON 5 PT LOT 20 RP 65R30308 PT PART 1
(Proposed Townhouse Development)**

Lands Affected

The proposed by-law amendment applies to 7.5 hectares (18.53 acres) of land located on the south side of Major Mackenzie Drive East, between Angus Glen Boulevard and Prospectors Drive, and municipally known as 4071 and 4289 Major Mackenzie Drive East.

Existing Zoning

By-law 177-96, as amended, currently zones the subject lands as Residential Four*387 – (R4) Zone and Open Space One – (OS1) under By-law Zone.

Purpose and Effect

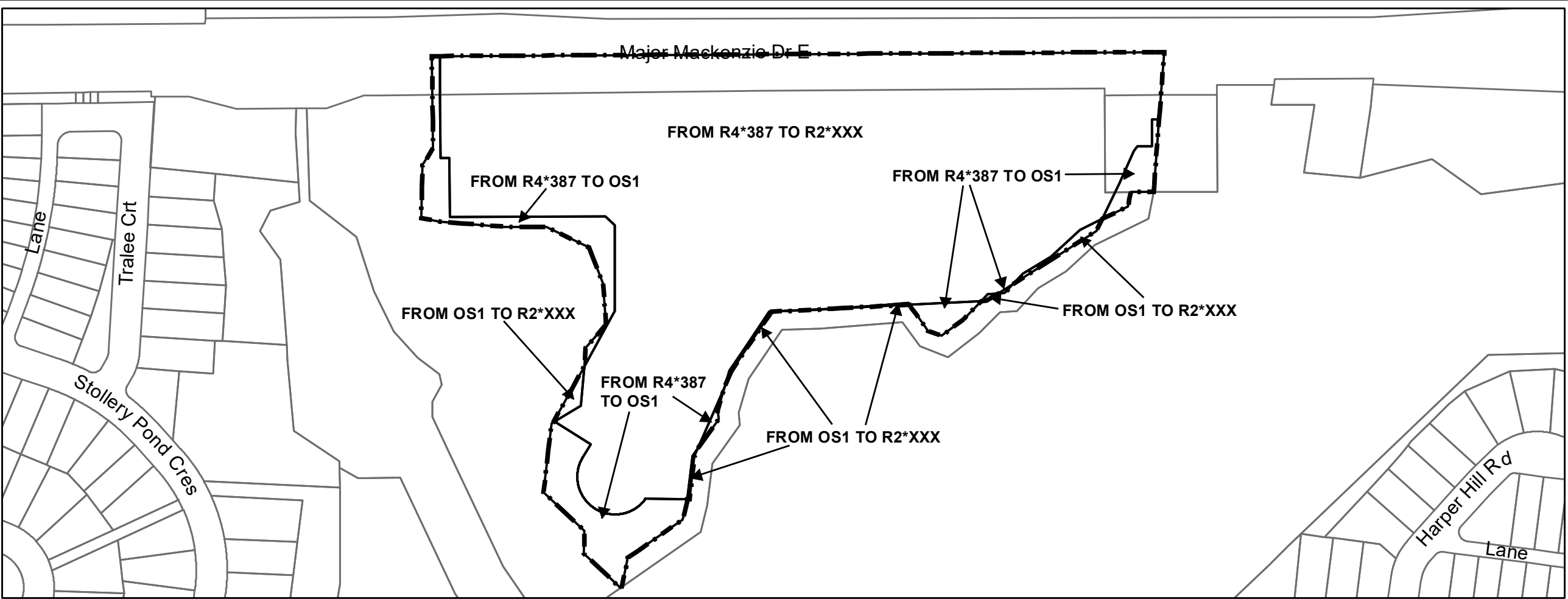
The purpose and effect of this By-law is to amend the current development standards under By-law 177-96, and rezone the subject property as follows:

from:
**Residential Four*387 – (R4) Zone
Open Space One – (OS1) Zone
under By-law 177-96**
to:
Residential Two*XXX – (R2) Zone under By-law 177-96

In order to permit the development of one hundred and seventy three (173) townhouses on the subject lands.

Note Regarding Further Planning Applications on this Property

The *Planning Act* provides that no person shall apply for a minor variance from the provisions of this by-law before the second anniversary of the day on which the by-law was amended, unless the Council has declared by resolution that such an application is permitted.

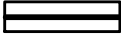


SCHEDULE "A" TO BY-LAW 2020-

AMENDING BY-LAW 177-96 DATED MAY , 2020



BOUNDARY OF AREA COVERED BY THIS SCHEDULE



BOUNDARY OF ZONE DESIGNATION(S)

R4

RESIDENTIAL FOUR

R2

RESIDENTIAL TWO

OS1

OPEN SPACE ONE

*(No)

EXCEPTION NUMBER

THIS IS NOT A PLAN OF SURVEY. Zoning information presented in this Schedule is a representation sourced from Geographic Information Systems. In the event of a discrepancy between the zoning information contained on this Schedule and the text of zoning by-law, the information contained in the text of the zoning by-law of the municipality shall be deemed accurate.



DEVELOPMENT SERVICES COMMISSION

40 20 0 40
Meters

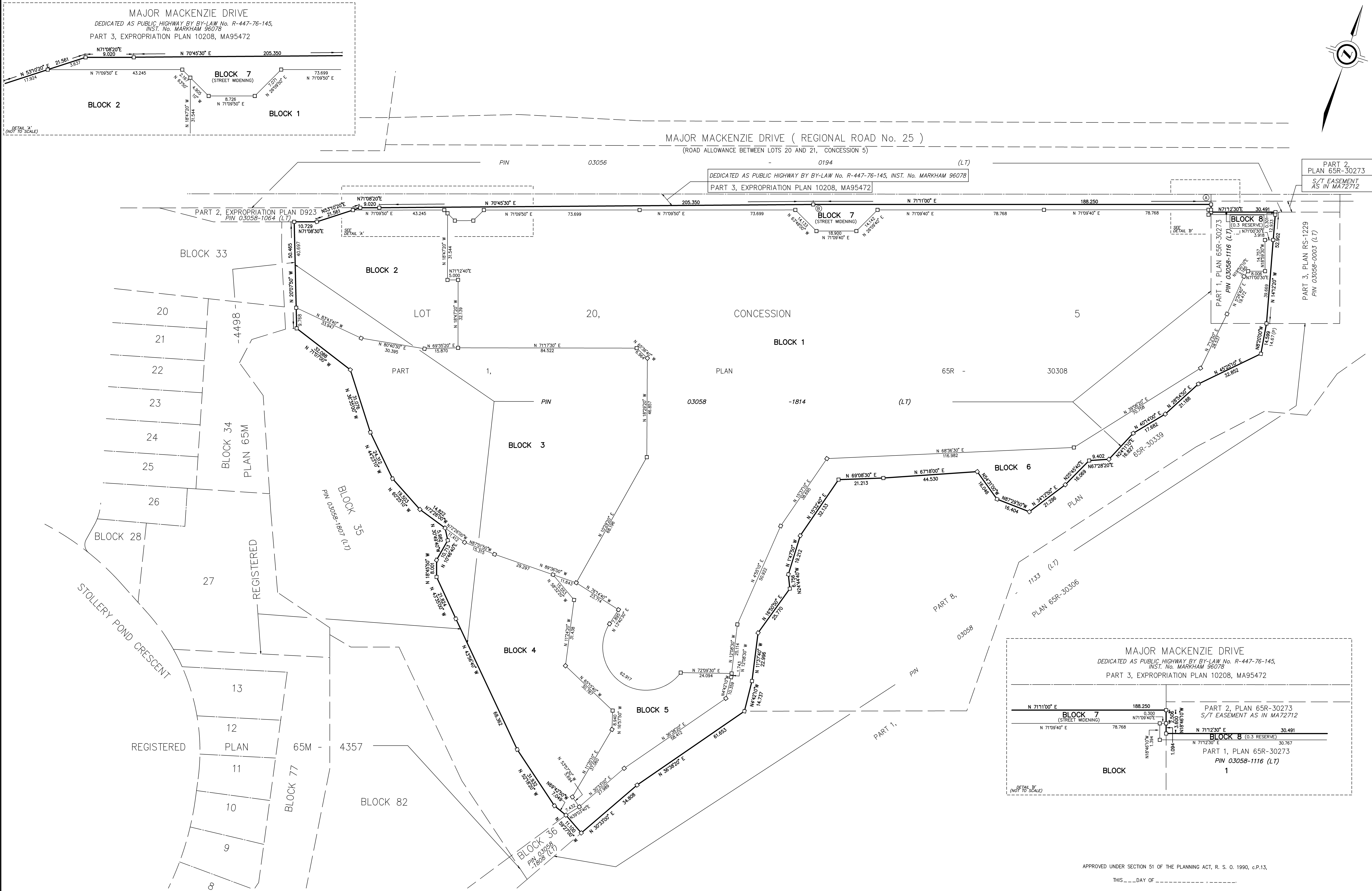
Drawn By: RT

Checked By: RC

DATE: 12/05/2020

NOTE: This Schedule should be read in conjunction with the signed original By-Law filed with the City of Markham Clerk's Office

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PLAN 65M-

I CERTIFY THAT THIS PLAN IS REGISTERED IN THE LAND REGISTRY OFFICE FOR THE LAND TITLES DIVISION OF YORK REGION (No. 65) AT _____ O'CLOCK ON THE _____ DAY OF _____ AND ENTERED IN THE PARCEL REGISTER FOR PROPERTY IDENTIFIER 03058-1814 (LT) 03058-1116 (LT) AND THE REQUIRED CONSENTS ARE REGISTERED AS PLAN DOCUMENT No. _____

REPRESENTATIVE FOR THE REGISTRAR OF THE LAND TITLES DIVISION OF YORK REGION (No 65)

THIS PLAN COMPRISES ALL OF PINS 03058-1814 (LT) AND 03058-1116 (LT)

PLAN OF SURVEY OF
**PART OF LOT 20
CONCESSION 5**
GEOGRAPHIC TOWNSHIP OF MARKHAM, COUNTY OF YORK
NOW IN THE
CITY OF MARKHAM
REGIONAL MUNICIPALITY OF YORK

SCALE 1 : 750
0 10 20 30 40 50 metres

J.D. BARNES LIMITED
METRIC DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

OWNER'S CERTIFICATE - PLAN OF SUBDIVISION
THIS IS TO CERTIFY THAT:
1. BLOCKS 1 TO 6, BOTH INCLUSIVE, THE STREET WIDENING, NAMELY BLOCK 7 AND THE 0.3 RESERVE, NAMELY BLOCK 8, HAVE BEEN LAID OUT IN ACCORDANCE WITH OUR INSTRUCTIONS.
2. THE STREET WIDENING IS HEREBY DEDICATED TO THE REGIONAL MUNICIPALITY OF YORK AS PUBLIC HIGHWAY.

DATED THIS _____ DAY OF _____ 2020

ANGUS GLEN VILLAGE LTD.

XXX
I HAVE THE AUTHORITY TO BIND THE CORPORATION"

NOTES
BEARINGS ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE POINTS A AND B, BY REAL TIME NETWORK (RTN) OBSERVATIONS, UTM ZONE 17, NAD83 (CSRS) (2010.0).
DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999870.

INTEGRATION DATA			
OBSERVED REFERENCE POINTS (ORPs): UTM ZONE 17, NAD83 (CSRS) (2010.0).			
COORDINATES TO URBAN ACCURACY PER SECTION 14 (2) OF O.REG 216/10.			
POINT ID	EASTING	NORTHING	
ORP (A)	634 416.61	4 861 659.10	
ORP (B)	634 238.44	4 861 598.39	

COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

- LEGEND**
- DENOTES SURVEY MONUMENT FOUND
 - DENOTES SURVEY MONUMENT SET
 - SIB DENOTES STANDARD IRON BAR
 - SSIB DENOTES SHORT STANDARD IRON BAR
 - IB DENOTES IRON BAR
 - PB DENOTES PLASTIC BAR
 - WT DENOTES WITNESS
 - M DENOTES MEASURED
 - S/T DENOTES SUBJECT TO
 - J.D. DENOTES J.D. BARNES LIMITED
 - P DENOTES PLAN 65R-30339

ALL SET SSIB AND PB MONUMENTS WERE USED DUE TO LACK OF OVERBURDEN AND/OR PROXIMITY OF UNDERGROUND UTILITIES IN ACCORDANCE WITH SECTION 11 (4) OF O.REG. 525/91.

SURVEYOR'S CERTIFICATE
I CERTIFY THAT:
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON _____ 2020.

DATE _____ GREG G. ROBINSON
ONTARIO LAND SURVEYOR

J.D. BARNES
LIMITED
LAND INFORMATION SPECIALISTS
140 RENFREW DRIVE, SUITE 100, MARKHAM, ON L3R 6B3
T: (905) 477-3600 F: (905) 477-3882 www.jdbarnes.com

DRAWN BY: YJ/SSM CHECKED BY: GCR
FILE: G:\98-21-079\00\108 Drawings\ym079ph3.dgn

REFERENCE NO.: 98-21-079-00 MP079-PH3
DATED: MARCH 2, 2020

APPROVED UNDER SECTION 51 OF THE PLANNING ACT, R. S. O. 1990, c.P.13,

THIS _____ DAY OF _____

XXX



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 (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.

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**

- 25% of all collisions resulted in injury;
- 37 collisions (3.4%) resulted in major injury (i.e. requiring hospital admission);
- 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;
- 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**

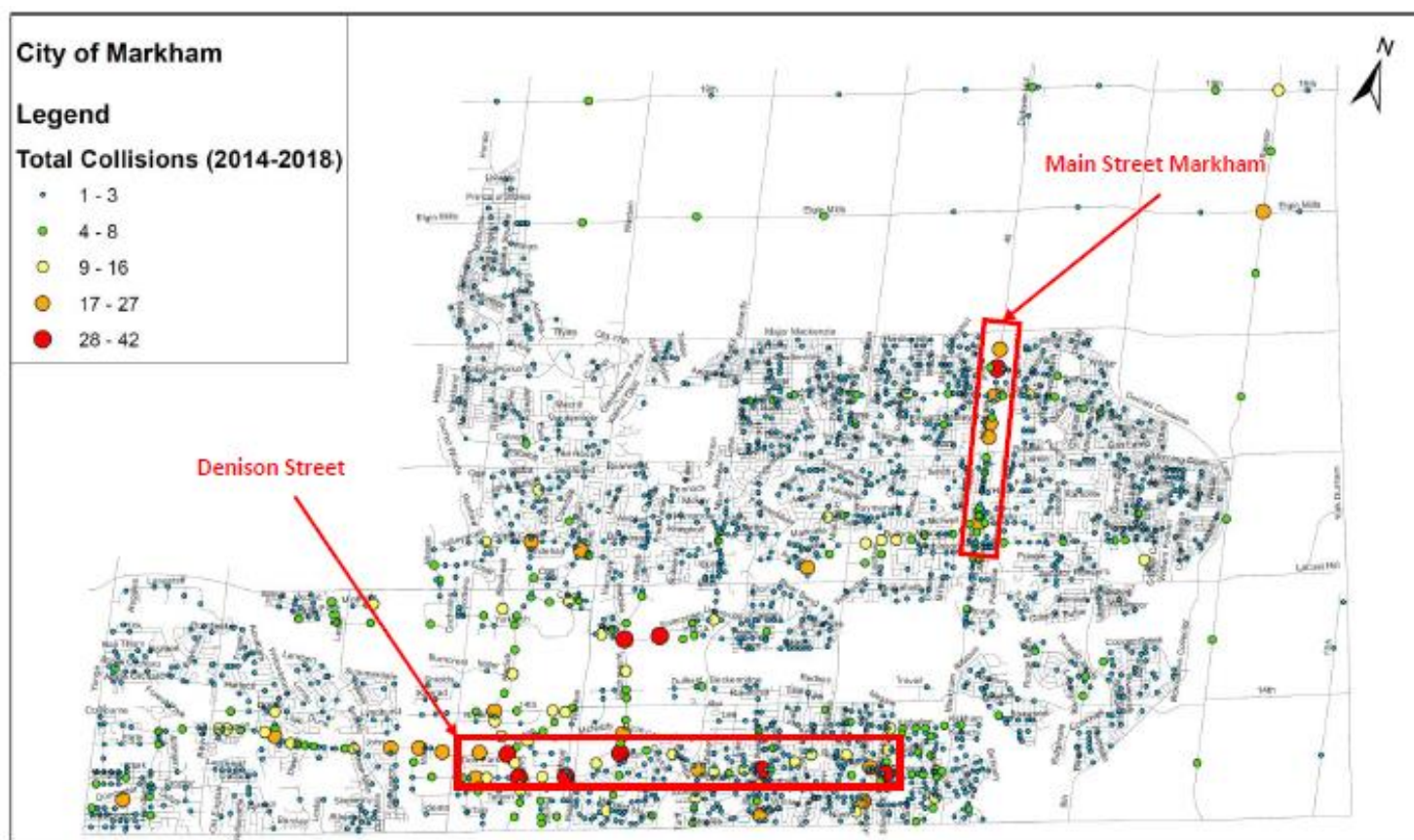
- There is a modest increasing trend in the number of pedestrian collisions. The average number of pedestrian injury collisions is 41 per year;
- Highest concentration of pedestrian collisions occurs in the Milliken area, particularly on the Denison Street corridor;
- 44% of pedestrian collisions occur 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;
- 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;
- 45% of cyclist collisions occur at signalized intersections;
- 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)

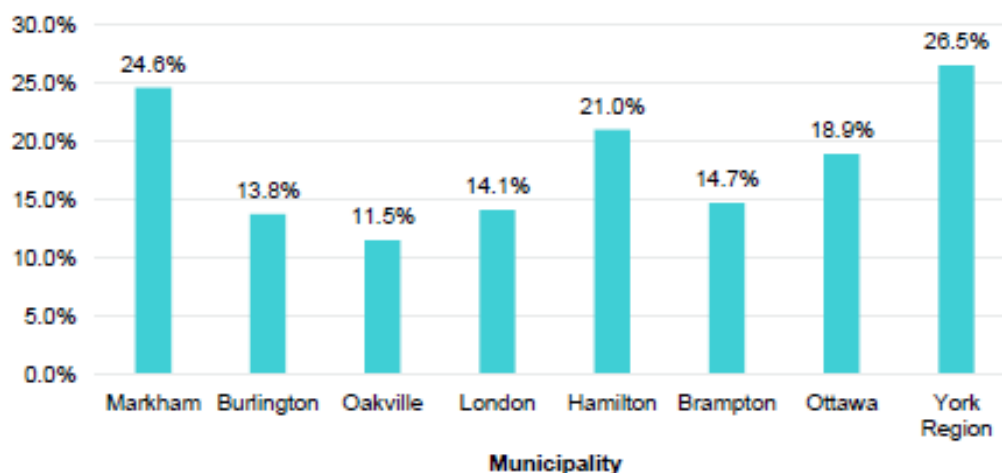


Figure 3 shows that collisions are more likely to result in injury in comparison to the other municipalities. However, given the lower number of collisions in Markham, the number of annual injury collisions in Markham is still the lowest in comparison.

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.

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:

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".

BUSINESS UNITS CONSULTED AND AFFECTED:

Not applicable.

RECOMMENDED BY:

Brian Lee, P.Eng.
Director, Engineering

Arvin Prasad, MPA, RPP, MCIP
Commissioner, Development Services

ATTACHMENTS:

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.

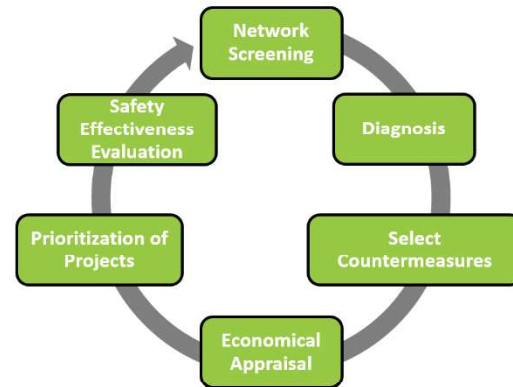
In recent years, other jurisdictions have been adopting Vision Zero and Safe Systems approaches to road safety, including the Region of York. This coupled with an overall transportation culture change, shifting to promoting and supporting active modes and transit over motor vehicle travel, has motivated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



The Road Safety Management Process

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 multi-year 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.

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.

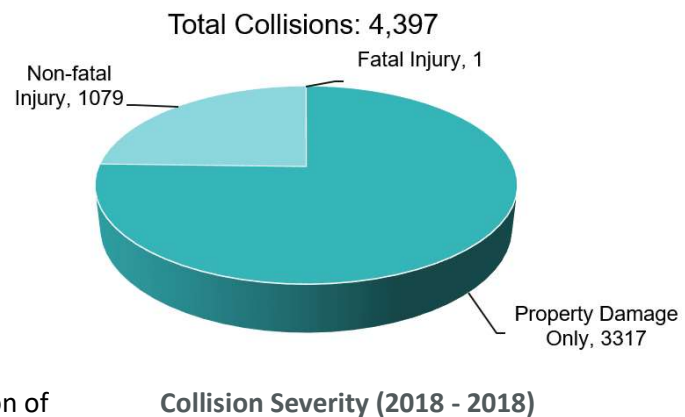
Number of Facilities Subject to Network Screening and Systemic Safety Review

Facility	Type	Number	
		Network Screening	Systemic Safety Review
Intersections	Signalized 4-leg Intersections	53	56
	Signalized 3-leg Intersections	27	30
	Unsignalized 4-leg Intersections	233	179
	Unsignalized 3-leg Intersections	717	476
	Total	1,030	741
Segments	Urban 2-lane Road Segments	1687	784
	Urban Multi-lane Road Segments	317	300
	Rural Road Segments	31	25
	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,¹ one of which was a fatal pedestrian collision that occurred in 2015 at the intersection of Fieldside Street & Riverwalk Drive.



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 segments 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-of-way, 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%;

- 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 Ravis 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:
 - 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.

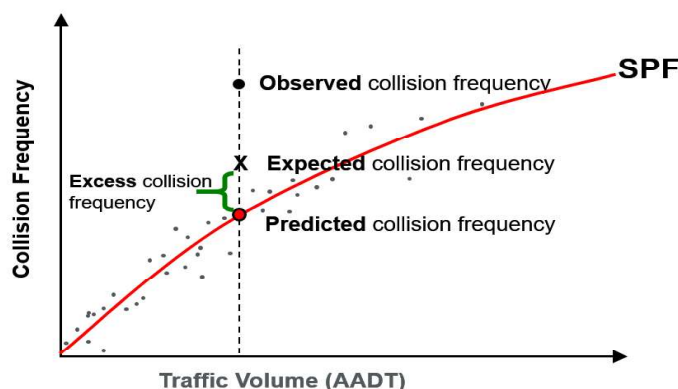
Road Segments:

- 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 & Ravis 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

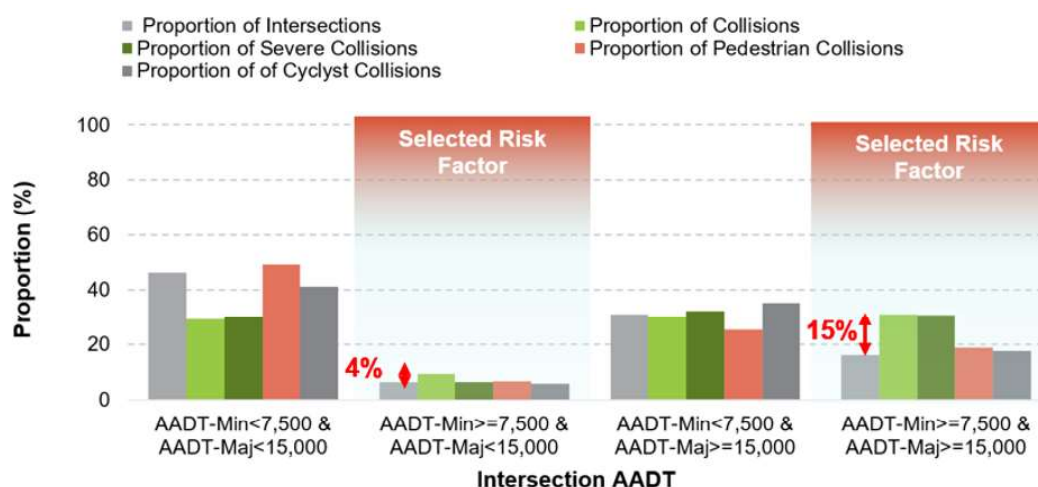
Identifying risk factors requires detailed information from infrastructure datasets. Determining Initial characteristics that should be considered for the analysis depends on several factors including their potential contribution to focus collision types as well the ability to quickly gather them for 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
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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

Potential Risk Factors for Intersections	Potential Risk Factors for Road Segments
<ul style="list-style-type: none"> ● 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 ● Number of lanes on the major road 	<ul style="list-style-type: none"> ● 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

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.

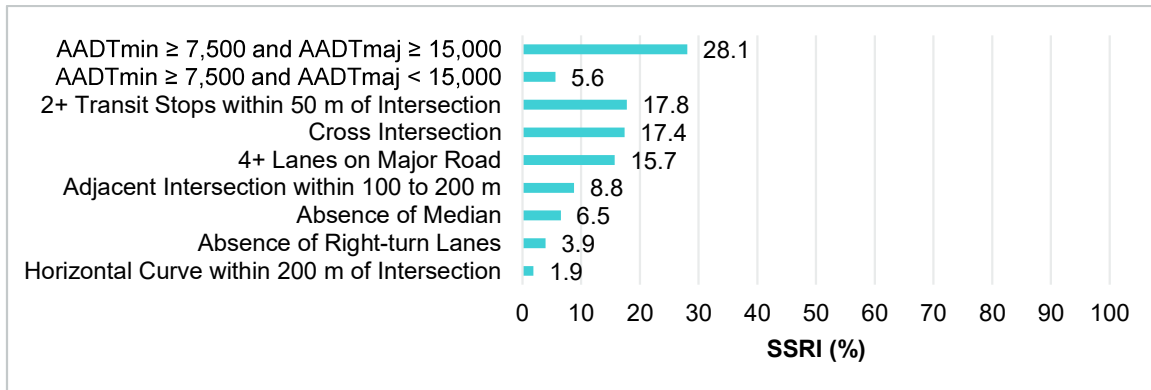
Example of Risk Factor Evaluation – AADT



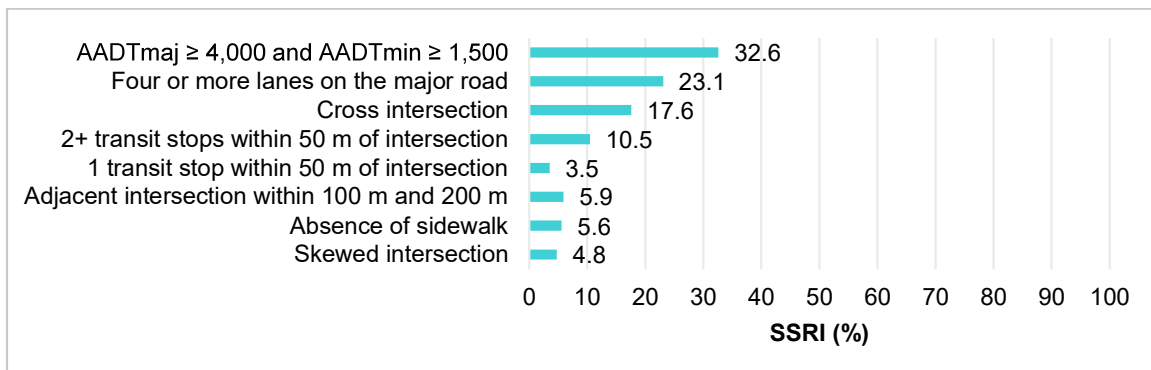
The figure shows that intersections with minor road AADT of 7,500 vehicles or more and major road AADT of less than 15,000 vehicles present 4 percent points more collisions than intersections with these volume levels. This difference is of 15 percent points at intersections with minor road AADT of 7,500 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

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.

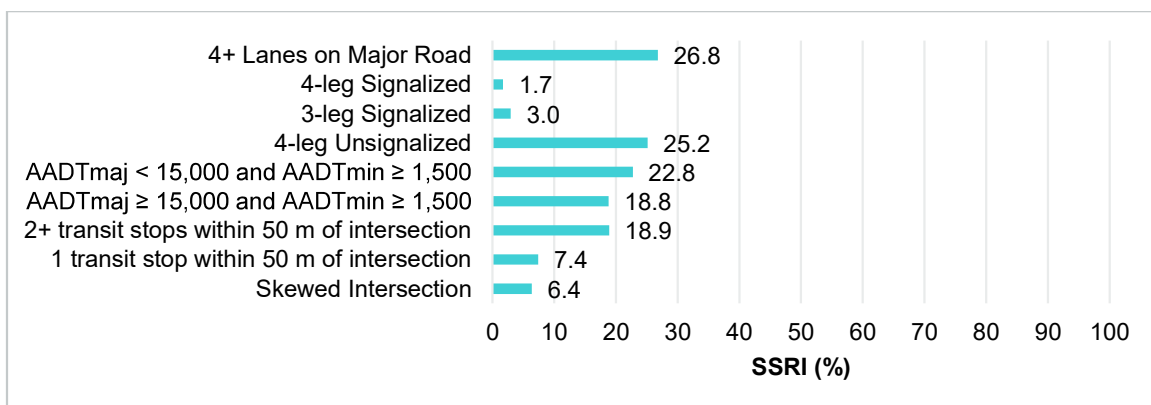
Selected Risk Factors for Signalized Intersections – All Road Users



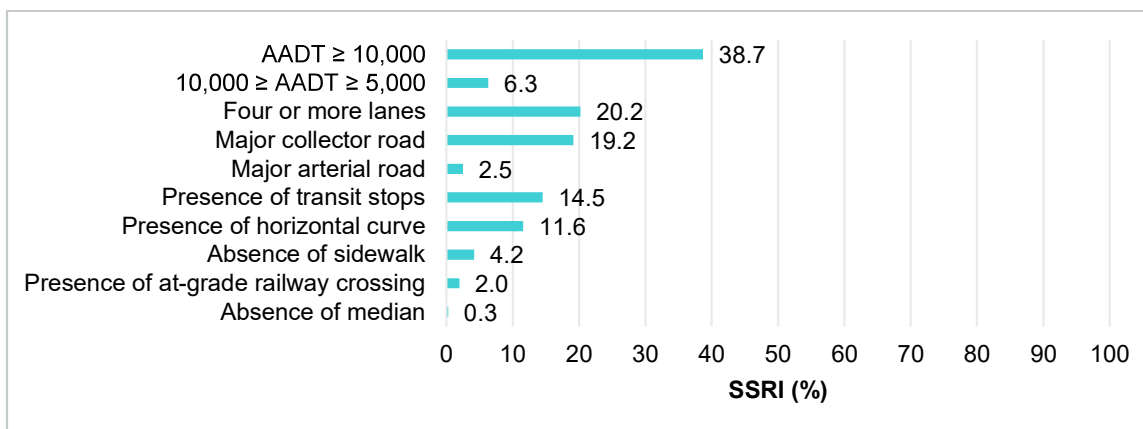
Selected Risk Factors for Unsignalized Intersections – All Road Users



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 Cirt & 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	Network 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.

Potential Systemic Countermeasures – Signalized Intersections (All Road Users)

Systemic Countermeasures for All Road Users at Signalized Intersections	Fully Protected Left-turn Phase	Right-turn On Red Prohibition	Dedicated Right-turn Lanes on Major Road	Intersection Approach Median	Signal Visibility Improvements	Smart Channel (with PXO)	Clear Sight Triangles	Advance Street Name Signs	Enhanced Advance Street Name Signs	High Visibility Crosswalk	Leading Pedestrian Interval (LPI) ²	Longer Pedestrian Phase	Coloured Pavement at Conflict Areas	Bike Box	Bicycle Signal / Leading Bicycle Interval (LBI)
	Hollingham Rd/John Button Blvd @ Rodick Rd	X	X	X	X	X		X	X		X	X		X	
	Apple Creek Blvd @ Rodick Rd	X	X	X	X	X	X	X				X		X	
	Castlemore Ave @ Hwy 48	X	X		X	X		X			X	X		X	X
	Denison St @ Hood Rd	X	X	X	X	X	X	X			X	X		X	
	Brimley Rd @ Denison St	X				X					X	X		X	
	Bullock Dr/Parkway Ave @ Main St Markham N	X			X			X		X	X	X		X	
	Bur Oak Ave @ Hwy 48	X			X			X				X		X	
	14 th Ave/Hood Rd @ Alden Rd	X	X	X	X			X			X	X		X	
	Birchmount Rd @ Denison St	X	X	X	X			X						X	
	Alden Rd @ Rodick Rd / Esna Park Dr	X				X		X				X	X	X	X

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

Potential Systemic Countermeasures – Unsignalized Intersections (All Road Users)

Systemic Countermeasures for All Road Users at Unsignalized Intersections	Systemic Signing and Marking Improvements	Enhance approach signage/markings	All-way Stop	Single-lane Roundabout	Left-turn lane on major road	Turn restrictions	Clear sight triangles	Provide Intersection Illumination	Restrict Parking on Intersection Approaches	Create gaps using adjacent signals	Flashing beacons on Stop sign or overhead	High Visibility Crosswalk	Crosswalk One Minor Approaches
	Macrill Rd/Rachel Cres @ Rodick Rd	X											
	Birchmount Rd @ Citizen Crt/Royal Crest Crt		X							X			
	Bur Oak Ave @ The Bridle Walk	X										X	
	Carlton Rd @ Central Park Dr/Halterwood Cir	X											
	Bur Oak Ave @ Country Ridge Rd/Fred McLaren Blvd	X						X				X	
	Bur Oak Ave @ Williamson Rd	X											
	Bur Oak Ave @ Cornell Park Ave												
	Bur Oak Ave @ Church St	X										X	
	Carlton Rd @ Loring Cres/Waterbridge Lane	X											X
	Forester Cres/Rachel Cres @ Rodick Rd	X	X							X			X

Potential Systemic Countermeasures – All Intersections (Pedestrians and Cyclists)

Systemic Countermeasures for Pedestrians and Cyclists at All Intersections	High Visibility Crosswalk	Crosswalk on One Minor Approach	Leading Pedestrian Interval	Longer Pedestrian Phase	Crosswalk	Coloured Pavement at Conflict Areas	Bike Box	Bicycle Signal / Leading Bicycle Interval	Systemic Signing/Marking Improvements	Right-turn On Red Prohibition	Signal Visibility Improvements	Fully Protected Left-turn Phase	All-way Stop	Intersection Illumination
Glen Cameron Rd/Proctor Ave @ Henderson Ave			X	X						X	X			
Calvert Rd @ Rodick Rd			X	X			X			X	X			
Clegg Rd @ South Town Centre Blvd			X	X		X		X		X				
Birchmount Rd @ Enterprise Blvd				X		X	X	X		X	X	X		
Main St Unionville @ Unionville Gate			X	X			X	X		X	X	X		
Bur Oak Ave @ Stonebridge Dr			X	X			X			X	X			
Bur Oak Ave @ Roy Rainey Ave			X	X			X			X	X			
Denison St @ Hillcroft Dr			X	X			X			X	X			
Bur Oak Ave @ Mingay Ave			X	X			X			X	X			
Coppard Ave @ Denison St			X	X			X			X	X			
Denison St @ Featherstone Ave			X	X			X			X	X			
Denison St @ Middlefield Rd			X	X			X			X	X			
9 th Line @ Rouge Bank Dr				X		X	X	X		X		X		

Systemic Countermeasures for Pedestrians and Cyclists at All Intersections	High Visibility Crosswalk	Crosswalk on One Minor Approach	Leading Pedestrian Interval	Longer Pedestrian Phase	Crossride	Coloured Pavement at Conflict Areas	Bike Box	Bicycle Signal / Leading Bicycle Interval	Systemic Signing/Marking Improvements	Right-turn On Red Prohibition	Signal Visibility Improvements	Fully Protected Left-turn Phase	All-way Stop	Intersection Illumination
			X	X				X		X	X			
Birchmount Rd @ Rouge Side Prom														

Potential Systemic Countermeasures – Road Segments (All Road Users)

Systemic Countermeasures for All Road Users at Road Segments	Buffer Median	Traffic Calming ³	Peripheral Transverse Bars	Speed Feedback Signs	Sidewalks	Illumination	MPS or PXO ⁴	Shoulder Rumble Strips	Centre Line Rumble Strips
		X		X			X		
Alden Rd btwn McPherson St & 14th Ave		X		X			X		
Apple Creek Blvd btwn Corby Rd & Glencove Dr	X	X		X			X		

³ Vertical Centre Line Treatment.

⁴ At locations with pedestrian desire lines.

Systemic Countermeasures for All Road Users at Road Segments									
	Buffer Median	Traffic Calming ³	Peripheral Transverse Bars	Speed Feedback Signs	Sidewalks	Illumination	MPS or PXO ⁴	Shoulder Rumble Strips	Centre Line Rumble Strips
Birchmount Rd btwn Risebrough Cirt & 14th Ave	X	X		X			X		
Birchmount Rd btwn Enterprise Blvd & Rouge Side Prom	X	X		X	X				
Brimley Rd btwn Steeles Ave E & Winston Rd	No corrective measure from the list of potential systemic countermeasures is identified.								
Bullock Dr btwn Austin Dr & McCowan Rd	X	X		X					
Bullock Dr btwn Laidlaw Blvd & McCowan Rd	X	X		X					
Denison St btwn Warden Ave & Kennedy Rd		X		X			X		
Denison St btwn Mallory Ave & Townley Ave		X		X			X		
Denison St btwn Woodbine Ave & Don Park Rd	X	X							
Denison St btwn Red Sea Way & Middlefield Rd	No corrective measure from the list of potential systemic countermeasures is identified.								
Denison St btwn Fonda Rd & Cole Luke Lane		X		X			X		
Esna Park Dr btwn John St & Denison St		X		X			X		
John St btwn Bayview Fairways Dr & John Stocks Way	X	X		X					
Middlefield Rd btwn Steeles Ave E & Denison St		X		X			X		
Enterprise Blvd btwn Rivis Rd & Main St Unionville		X		X			X		

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;
 - 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.



UNIONVILLE CYCLING CLUB

Markhamwoods Business Centre
Suite 302, 305 Renfrew Drive
Markham, Ontario
L3R 9S7

September 24, 2020

Via Email only to:

clerkspublic@markham.ca

Copy to:

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DEVELOPMENT SERVICES COMMITTEE,
CORPORATION OF THE CITY OF MARKHAM

Markham Civic Centre
101 Town Centre Boulevard,
Markham, Ontario
L3R 9W3

TO THE HONOURABLE MEMBERS OF THE DEVELOPMENT SERVICES COMMITTEE:

Re: Unionville Cycling Club Deputation;
Item 10.2 - Cycling and Pedestrian Advisory Committee (CPAC) Minutes – February 20, 2020,
July 16, 2020 and August 6, 2020 (16.34)

I am the President of the Unionville Cycling Club, a not-for profit corporation which has been in existence since March 31st, 2009 (the “UCC”). The purposes of the UCC, as codified in its constitution, include: (a) encouraging bicycling for health, recreation and transportation; (b) promoting bicycle safety; and (c) promoting equal road rights for cyclists.



UNIONVILLE CYCLING CLUB

Markhamwoods Business Centre
Suite 302, 305 Renfrew Drive
Markham, Ontario
L3R 9S7

The UCC has long maintained that the City **needs to do more** to create a safe cycling environment, not only for its own “cycling” residents, but also for cyclists who ride in, and/or pass through, Markham. For **these reasons, the UCC supports the recommendation from the July 16th, 2020 CPAC meeting, which has been presented to the Committee. As a long-time resident of Unionville (32 years) and an avid cyclist, I personally endorse the recommendation as well.**

More must also be done to create a safe cycling environment on all regional roads and the UCC calls upon the Mayor and City Council to collaborate with Regional Council to implement measures designed to make regional roads safer for cyclists. More bike lanes are needed not only on interior City roads and arteries, but also on regional roads. Thousands of cyclists regularly cycle north and south along Warden, Kennedy, McCowan and Markham (Hwy. 48) as well as east and west along Major Mackenzie, Elgin Mills and 19th Avenue. **Making these and other similar roads as safe as possible for cyclists has to be a priority for the City. Strategies and policies, such as “Vision Zero”, which have been adopted by other municipalities in Canada and other parts of the world in order to create a safer cycling environment, must be examined by the City and the Region, adapted as required and implemented.**

Finally, as one who has cycled over 48,000 kilometers in Canada, the U.S. and Europe, I can attest to the need for greater public education on cycling safety in Markham as well as the Region. **Educating the public on cycling safety is an effective way to reduce cycling accidents and fatalities.**

Cycling as a recreational sport is booming and will continue to grow. As Markham grows (and it is growing rapidly), so must Markham’s vision and planning for a safe cycling environment.

Respectfully yours,

UNIONVILLE CYCLING CLUB

Cosimo A. Crupi

Cosimo A. Crupi

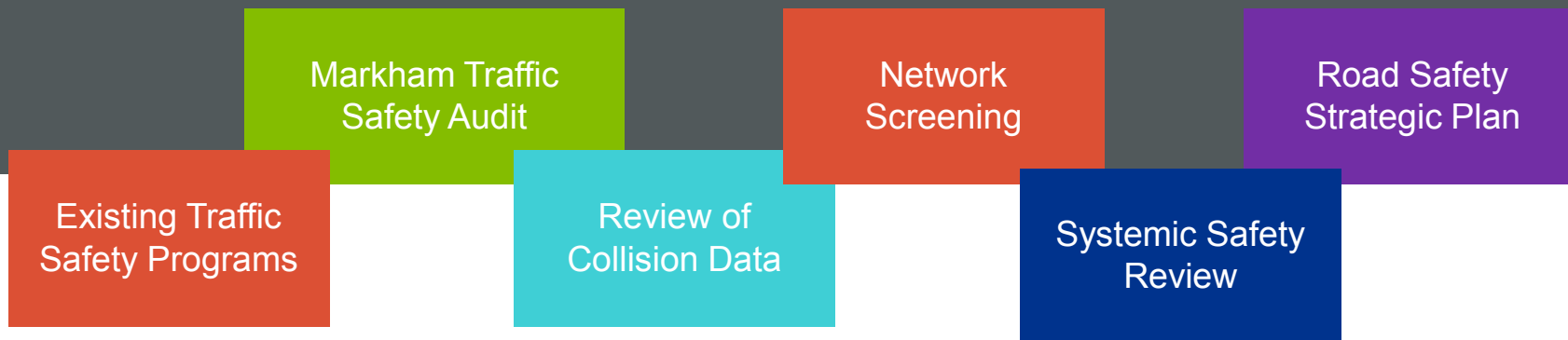


City-Wide Traffic Safety Audit (Results)

September 29, 2020

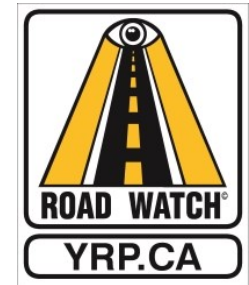
Development Services Committee

Presentation Summary



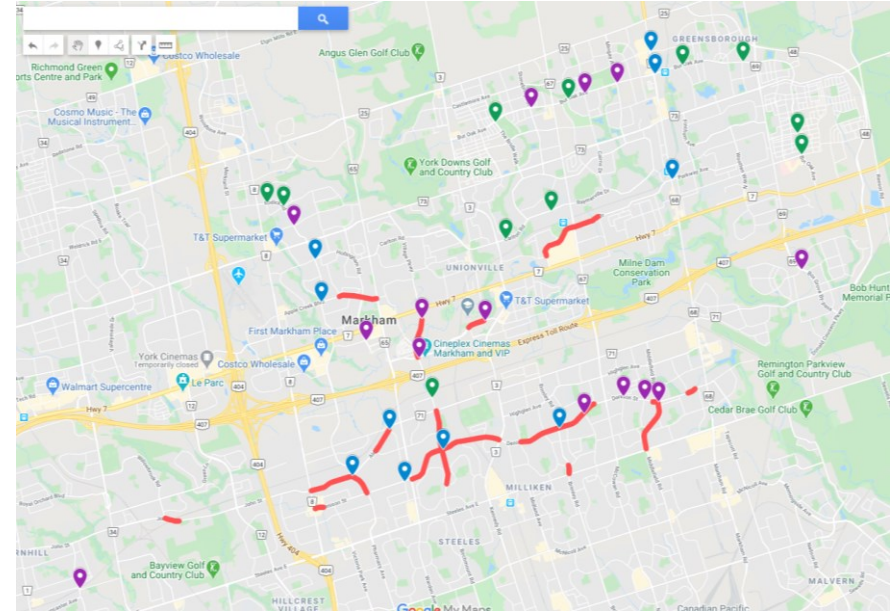
Existing Traffic Safety Programs

- 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

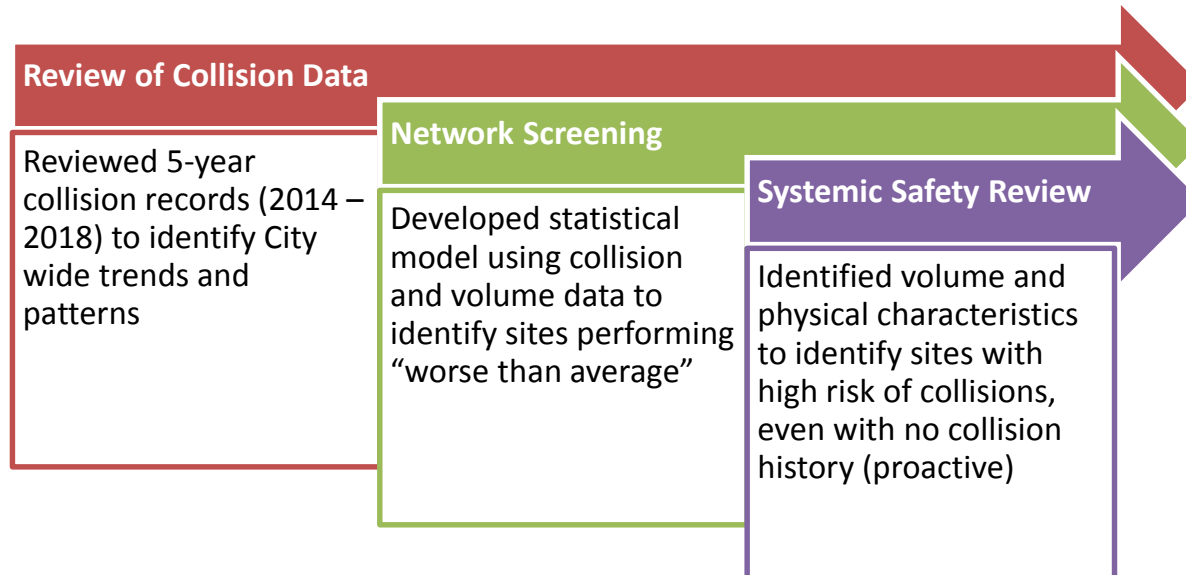


Markham Traffic Safety Audit

- 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



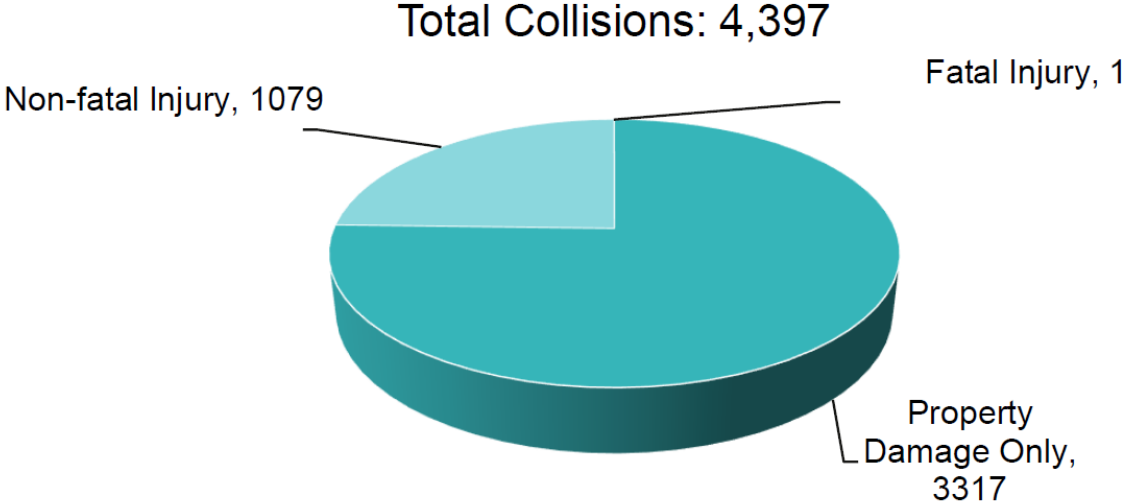
- Priority Locations
- Potential Safety Measures

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

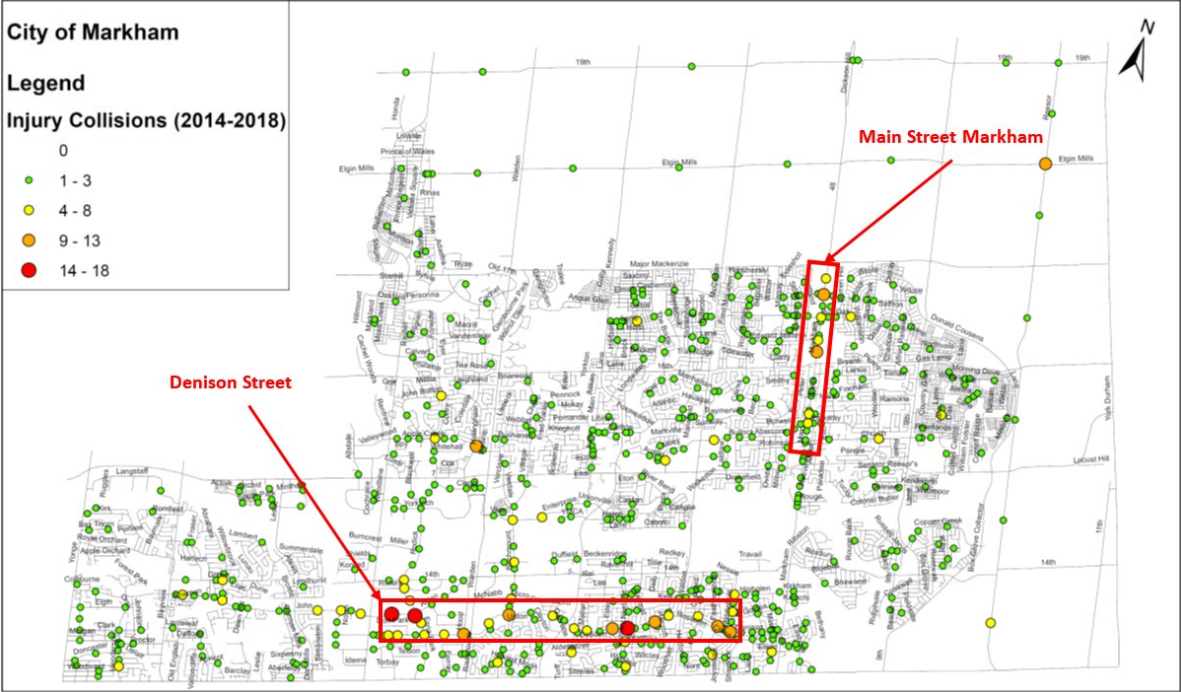
⁴ London, Hamilton, Brampton and Ottawa

City-wide Review of Collisions (2014 - 2018)

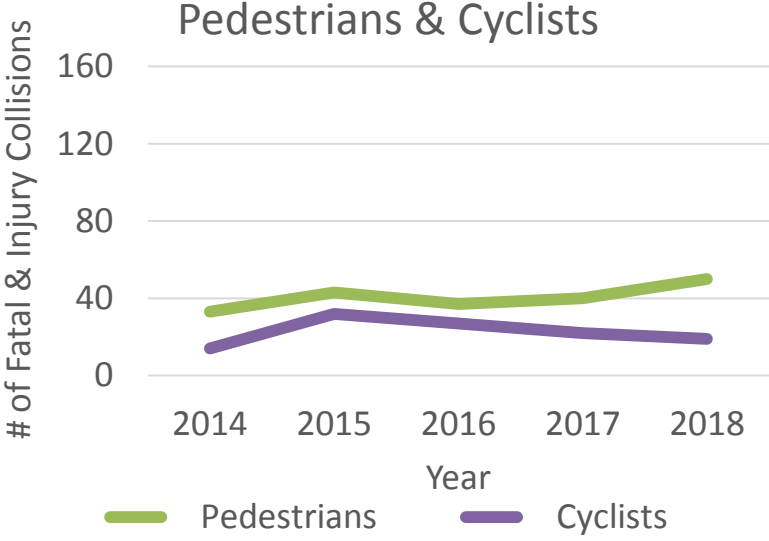
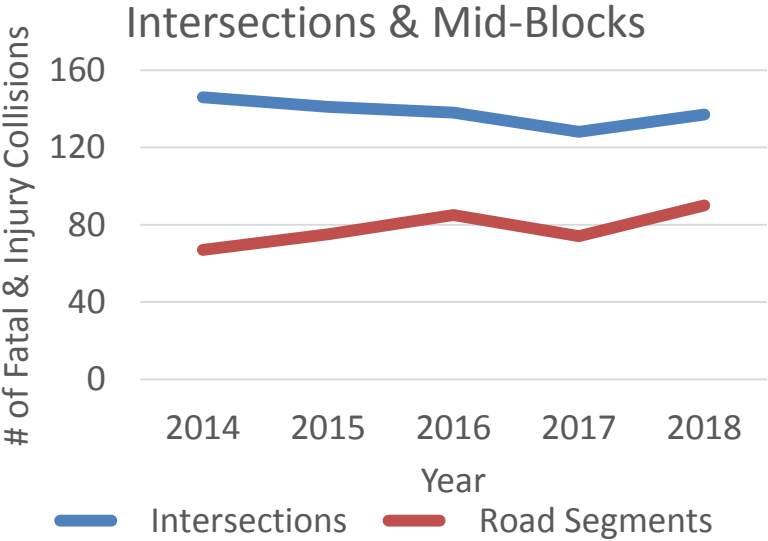
- 3% of intersections (4-leg signalized) experience 42% of intersection injury collisions
- 3% of road segments (urban 4-lane with 50 km/h speed limit) experience 32% of road segment injury collisions

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

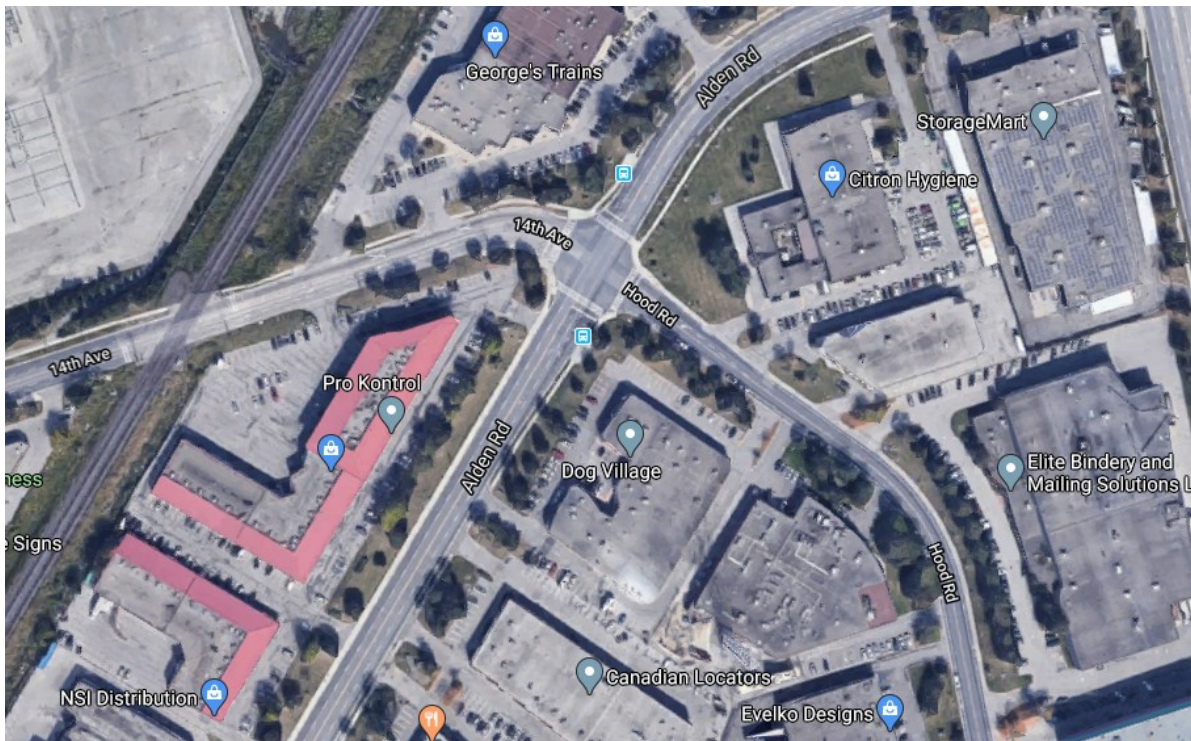
Systemic Safety review

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	Signal visibility improvements
Horizontal Curve	
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

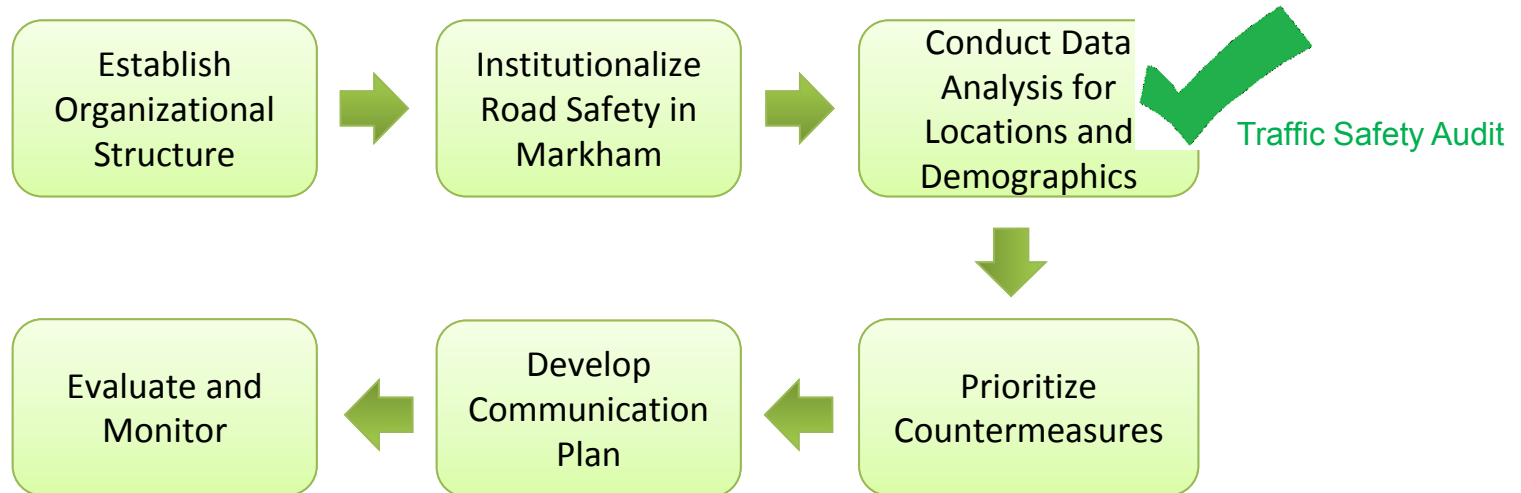
Elements of a Road Safety Strategic Plan

- 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: RECOMMENDATION REPORT
 Evans Planning Inc.
 Proposed Zoning By-l

PREPARED BY: Aqsa 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 report.

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

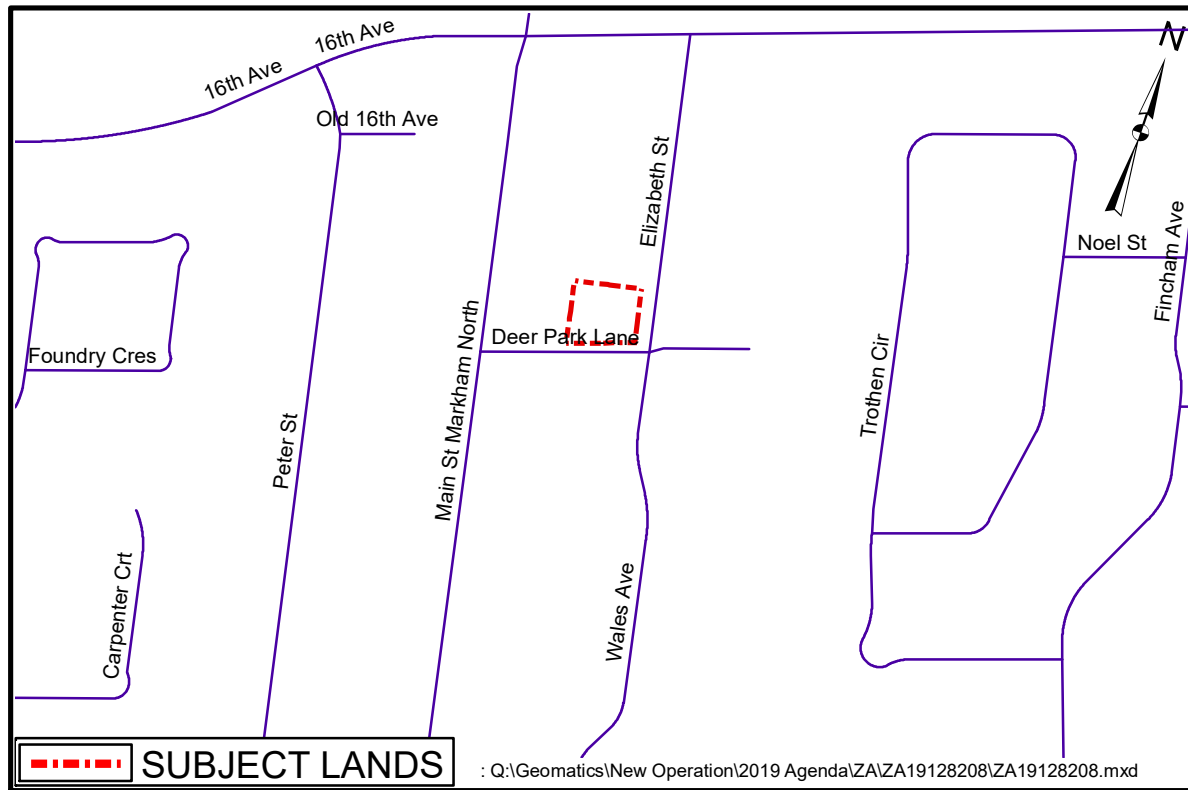
Evans Planning Inc.

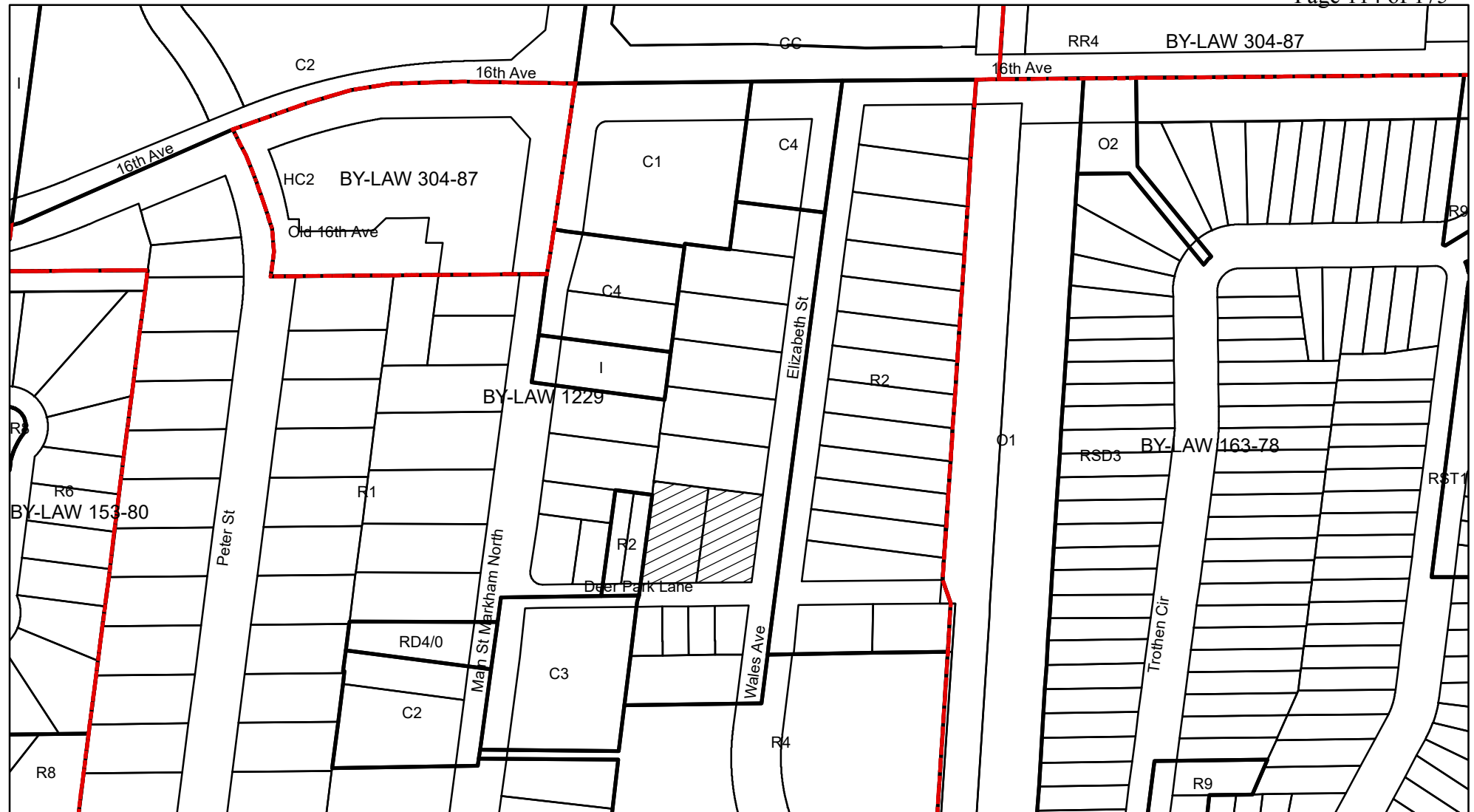
8481 Keele Street, Unit 12

Vaughan, Ontario L4K 1Z7

Tel: (905) 558-6992 ext. 106

Email: evansplanning@sympatico.ca





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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



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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



DEER PARK LANE

(LANE BY REGISTERED PLAN 1149)

PIN 02919-0124 (LT)

LOT STATS:

LOT # 1:	m2 / m
LOT AREA:	288.02
BLDG AREA:	123.3
LOT COVERAGE:	42.8%
HEIGHT (MID-POINT)	8.76m
GFA:	306.4
LOT FRONTAGE:	10.43m
FRONT YARD:	6.87m
SIDE YARD (E):	N/A
SIDE YARD (W)	1.25m
REAR YARD	6.0m

LOT # 2:	m2 / m
LOT AREA:	272.90
BLDG AREA:	123.3
LOT COVERAGE:	45.1%
HEIGHT (MID-POINT)	8.72m
GFA:	306.4
LOT FRONTAGE:	10.43m
FRONT YARD:	5.58m
SIDE YARD (E):	1.25m
SIDE YARD (W)	N/A
REAR YARD	6.0m

LOT # 3:	m2 / m
LOT AREA:	257.77
BLDG AREA:	110.2
LOT COVERAGE:	42.7%
HEIGHT (MID-POINT)	8.74m
GFA:	259.0
LOT FRONTAGE:	10.43m
FRONT YARD:	6.70m
SIDE YARD (E):	N/A
SIDE YARD (W)	1.25m
REAR YARD	6.03m

LOT # 4:	m2 / m
LOT AREA:	307.85
BLDG AREA:	108.2
LOT COVERAGE:	35.1%
HEIGHT (MID-POINT)	8.65m
GFA:	257.0
LOT FRONTAGE:	13.50m
FRONT YARD:	5.41m
FLANKAGE SIDE YARD:	4.34m
SIDE YARD (W)	N/A
REAR YARD	6.07m

LOT # 5:	m2 / m
LOT AREA:	605.04
BLDG AREA:	162.90
LOT COVERAGE:	27.0%
HEIGHT (MID-POINT)	8.60m
GFA:	270.06
LOT FRONTAGE:	13.50m
FRONT YARD:	10.07m
SIDE YARD (S):	1.83m
SIDE YARD (N)	1.83m
REAR YARD	18.43m

SURVEYOR'S REAL PROPERTY REPORT
PART 1) PLAN AND TOPOGRAPHIC DETAIL OF
PART OF LOTS 11 AND 12
REGISTERED PLAN 1149
CITY OF MARKHAM
REGIONAL MUNICIPALITY OF YORK
SCALE 1:200

VLADIMIR DOSEN SURVEYING, O.L.S.

NO PERSON MAY COPY, REPRODUCE, DISTRIBUTE OR ALTER THIS
PLAN IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION
OF VLADIMIR DOSEN, O.L.S.

NOTES AND LEGEND

- DENOTES SURVEY MONUMENT PLANTED
- IB DENOTES SURVEY MONUMENT FOUND
- IB DENOTES IRON BAR
- M DENOTES MEASURED
- CB DENOTES CATCH BASIN
- MH DENOTES MANHOLE
- UP DENOTES UTILITY POLE
- RW DENOTES RETAINING WALL
- Ø DENOTES DIAMETER
- CLF DENOTES CHAIN LINK FENCE
- BF DENOTES BOARD FENCE
- FDN DENOTES TIES TO FOUNDATION
- BM DENOTES BENCHMARK
- 112B DENOTES DAVID HORWOOD LIMITED, O.L.S.
- PLAN BY B.J. HAYNES, O.L.S.
- PL DENOTES REGISTERED PLAN 1149
- P2 DENOTES PLAN 65R-29390
- D DENOTES INSTRUMENT No. R703361
- D1 DENOTES INSTRUMENT No. R433760
- V/E/W/S DENOTES NORTH, EAST, WEST/SOUTH
- ☼ DENOTES CONIFEROUS TREE

PART 2) SURVEY REPORT

DESCRIPTION OF LAND:
PART OF LOTS 11 AND 12, REGISTERED PLAN 1149
PIN 02919-0016 (LT)
PART OF LOTS 11 AND 12, REGISTERED PLAN 1149
PIN 02919-0017 (LT)
REGISTERED EASEMENTS AND/OR RIGHT OF WAYS:
NO EASEMENTS OR RIGHT OF WAYS ARE REGISTERED
BOUNDARY FEATURES:
POSITION OF FENCES AS SHOWN ON PLAN
COMPLIANCE WITH MUNICIPAL ZONING BY-LAWS:
THIS PLAN DOES NOT CERTIFY COMPLIANCE WITH ZONING
BY-LAWS

BEARING NOTE:

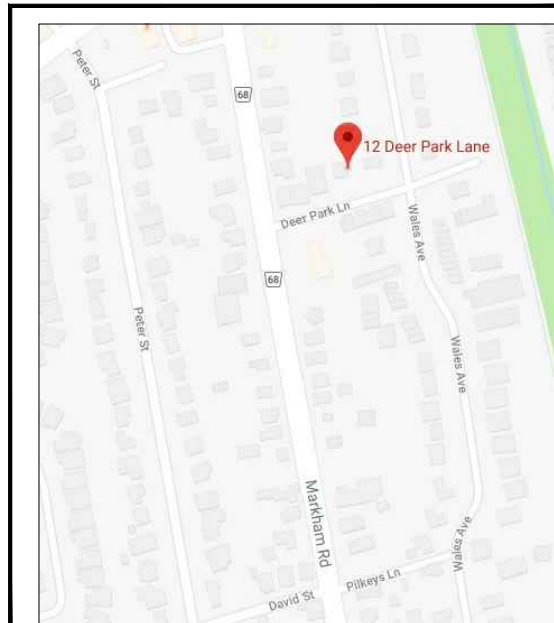
BEARINGS ARE ASTRONOMIC AND ARE
DERIVED FROM THE NORTHERLY
LIMIT OF DEER PARK LANE (FORMERLY LANE)
AS SHOWN ON REGISTERED PLAN 1149
HAVING A BEARING OF N 74°00'00" E

THIS REPORT WAS PREPARED FOR
GIL SHCOLYAR
AND THE UNDERSIGNED ACCEPTS NO
RESPONSIBILITY FOR USE BY
OTHER PARTIES.

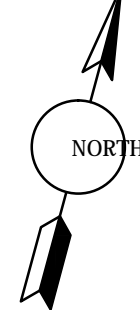
BENCHMARK:

ELEVATIONS ARE GEODETIC AND ARE DERIVED FROM
CITY OF MARKHAM BENCHMARK No. M-39-040
HAVING AN ELEVATION OF 200.878 METRES.

KEY MAP:



NORTH DIRECTION:



LEGEND:

- ☒ CATCH BASIN
- CORNER PROPERTY MARKER
- ▲ TRANSFORMER
- ▲ SERVICE CONNECTION DBL
- ▲ SERVICE CONNECTION
- WATER CONNECTION
- ◇ STREET LIGHT
- ☒ BELL BOX
- ☒ CABLE BOX
- TREE
- ☘ SHRUBS
- ☐ MAIL BOX
- ☐ AIR CONDITIONER
- △ DOOR
- WINDOW (S) ON WALL
- ☒ DOWN SPOUT TO SPLASH PAD
- DN DOWN
- UP UP
- R RISER
- FFE FINISHED FLOOR ELEVATION
- TFW TOP OF FOUNDATION WALL
- TBS TOP OF BASEMENT SLAB
- USF UNDER SIDE FOOTING
- USFG UNDER SIDE FOOTING GARAGE
- USFP UNDER SIDE FOOTING PORCH
- USFR UNDER SIDE FOOTING REAR
- EW EGRESS WINDOW ELEVATION
- HEIGHT HEIGHT
- WUB WALK UP BASEMENT
- WUB CHAIN LINK FENCE
- WUB WOOD FENCE
- EXISTING WALLS
- 240.35 PROPOSED GRADE ELEV.

CERTIFICATION:

DESIGNER BCIN DECLARATION

I, DANIEL BERRY, DECLARE THAT I HAVE REVIEWED & TAKE DESIGN
RESPONSIBILITY FOR THE DESIGN WORK UNDER DIVISION C,
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

SIGNATURE: *[Signature]* DATE: JUN 29/20

DESIGN FIRM:

VULCAN DESIGN INC.

39 Victoria Street E. Unit 1
Aldershot, ON L9B-1T3
Ph: 416-885-5200
Fax: 905-266-0613
EMAIL: dberry@vulcandesigninc.com

SCALE:

1:125

PAGE:

S1

CLIENT:

PRIVATE CORPORATION

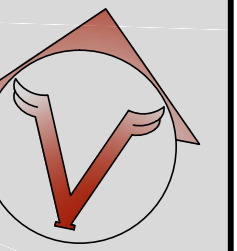
PROJECT:

12&16 DEER PARK LANE

MARKHAM, ONTARIO

NO.	REVISION:	DATE:	DWN:	CHK:
1.	ISSUED FOR REVIEW	JUNE 28/18	DCB	DCB
2.	REV. LOT 4 CURB RADIUS	JUL 23/18	DCB	
3.	REV. PER ARCH CONTROL	AUG 22-18	DCB	
4.	ADD DECK & RISERS TO PORCHES	OCT 29/18	DCB	
5.	FLIP UNITS 1 AND 3	NOV 06/18	DCB	
6.	REV PER PLANNER COMMENTS	JAN 15/19	DCB	
7.	REV PER PLANNER COMMENTS	JAN 18/19	DCB	
8.	REV LOT 5 BLDG ENVELOPE	SEP 30/19	DCB	
9.	COORDINATE W/ GRADING PLAN	DEC 06/19	DCB	
10.	ADJUST HGT. LOT 5 PLAN	FEB 25/20	DCB	
11.	ADJUST HGT. PER GRADING PLAN	FEB 26/20	DCB	
12.	REV. PER CITY COMM	JUN 29/20	DCB	

59 VICTORIA STREET E, UNIT #1
ALLISON, ON L9R 1T3
PH: 416-855-9200
FAX: 905-266-0615
EMAIL: dberry@vulcandesigninc.com
CONTACT PERSON: DANIEL PERRY



BCIN DECLARATION:

I, DANIEL PERRY, DECLARE THAT I HAVE REVIEWED & TAKE DESIGN RESPONSIBILITY FOR THE DESIGN WORK UNDER DIVISION C, PART 3, SECTION 3.2 OF THE ONTARIO BUILDING CODE. I AM QUALIFIED AND THE FIRM IS REGISTERED IN THE APPROPRIATE CATEGORIES.

FIRM BCIN: 369501

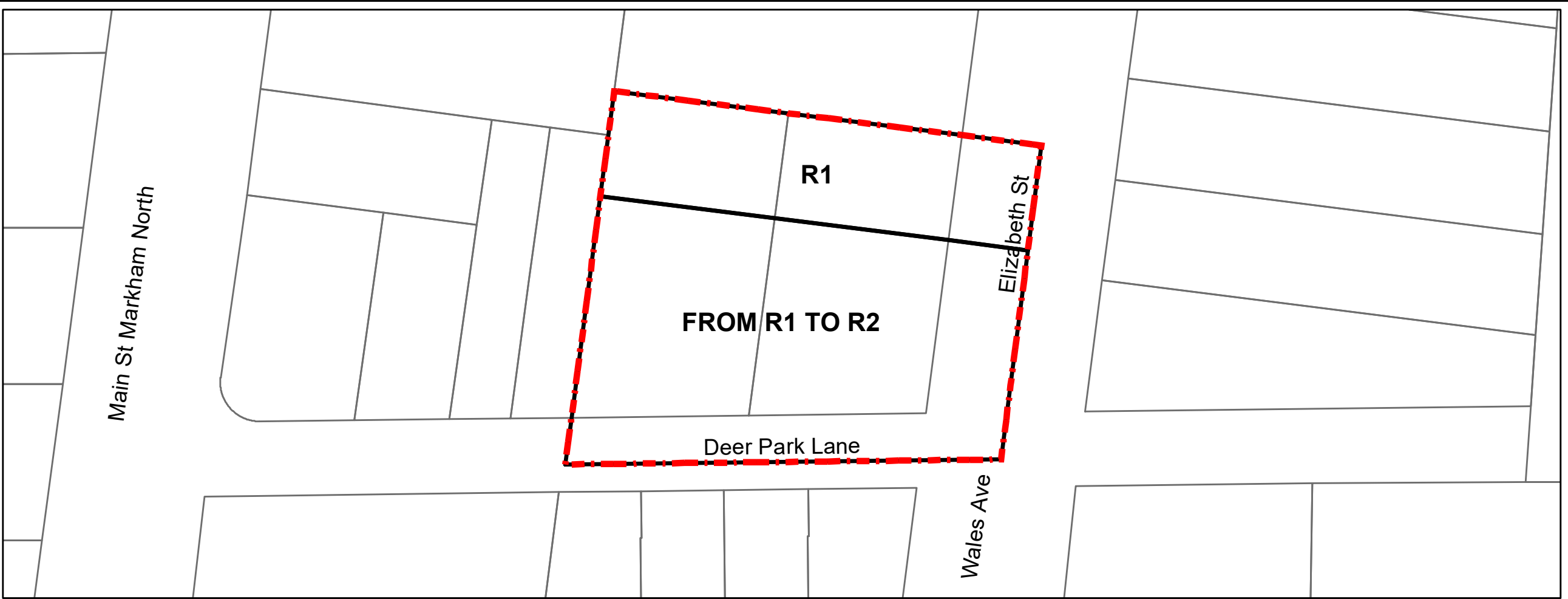
DESIGNER BCIN: 2107

SIGNATURE: *Daniel Perry* DATE: Jan 01/17

ENGINEER CERTIFICATION:

LEGEND / LINELS:

LINELIS:	ABBREVIATIONS:
WOOD	
W1 2/ 2"x8"	DJ DOUBLE JOIST
W2 2/ 2"x10"	TJ TRIPLE JOIST
W3 2/ 2"x12"	GT GUTTER TRUSS
W4 3/ 2"x8"	DO DO OVER
W5 3/ 2"x10"	RJ ROOF JOISTS
W6 3/ 2"x12"	
STEEL	
LVL (2 C/E)	SR STEEL
LVL 1 2-1/5" x 7-7/4"	SB SOLID BEARING (SEE FRAMING REQ. 5)
LVL 2 2-1/5" x 7-7/4"	PL POINT LOAD
LVL 3 2-1/5" x 9-1/2"	FL FLUSH
LVL 4 2-1/5" x 9-1/2"	DR DROPPED
LVL 5 2-1/5" x 13-7/8"	FG FIXED GLASS
LVL 6 2-1/5" x 14"	
LVL 8 2-1/5" x 14"	
UNDO FASTEN MATERIALS (LVL 5-2) ROWS @ 12" OC, 3/4" (LVL 6) NAIL OR SLOW SCREWS	
GLASS	
BG. BLACK GLASS	
JT JACK TRUSS	
U/S UNDERSIDE	
T/O TOP OF	
FG. FIXED GLASS	
CLG. CEILING	
BPMF BEAM BY FLOOR MANUFACTURE	
GL GAS LINE	
CL CABLE LINE	
PH PHONE JACK	
CEV CEILING EXHAUST FAN	
PULL CHAIN CLG. LIGHT	
CEILING LIGHT	
3 WAY SWITCH	
LIGHT SWITCH	
120 VOLT RECEPTACLE	
ELECTRIC RECEPTACLE (42" OFF FINISH FLOOR)	
FLOOR DRAIN	
WATERPROOF ELECTRICAL OUTLET	
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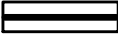


SCHEDULE "A" TO BY-LAW 1229

AMENDING BY-LAW 2020- DATED



BOUNDARY OF AREA COVERED BY THIS SCHEDULE



BOUNDARY OF ZONE DESIGNATION(S)

R1

RESIDENTIAL ONE

R2

RESIDENTIAL TWO

THIS IS NOT A PLAN OF SURVEY. Zoning information presented in this Schedule is a representation sourced from Geographic Information Systems. In the event of a discrepancy between the zoning information contained on this Schedule and the text of zoning by -law, the information contained in the text of the zoning by -law of the municipality shall be deemed accurate.



DEVELOPMENT SERVICES COMMISSION

10 5 0 10 Meters

Drawn By: RT

Checked By: AM

DATE: 28/07/2020

NOTE: This Schedule should be read in conjunction with the signed original By-Law filed with the City of Markham Clerk's Office

Q:\Geomatics\New Operation\By-Laws\PLAN\PLAN19_128208\Schedule A.mxd



BY-LAW 2020 - _____

A By-law to amend By-law 1229, as amended,

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	Northwest corner of Deer Park Lane and Elizabeth Street (LOT 5) Part of Lots 11 and 12, Registered Plan 1149	Parent Zone R1
File ZA 19 128208		Amending By-law 0000-000
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)	Minimum <i>lot frontage</i> : 13.5 metres	
b)	Minimum <i>lot area</i> of: 600 square metres	
c)	Maximum Building <i>Depth</i> 17.9 m	
d)	Maximum <i>Height</i> : 10.2 metres	

Exception 12.44	Northwest corner of Deer Park Lane and Elizabeth Street (LOT 5) Part of Lots 11 and 12, Registered Plan 1149	Parent Zone R2
File ZA 19 128208		Amending By-law 0000-000
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.		
12.44.1 Special Zone Standards		
a)	For the purposes of this by-law, the <i>front lot line</i> shall be the <i>lot line</i> abutting Deer Park Lane	
b)	Minimum <i>lot frontage</i> for a pair of <i>semi-detached dwellings</i> : 20.0 metres	
c)	Minimum <i>lot area</i> of a pair of <i>semi-detached dwellings</i> : 550 square metres	
d)	Minimum required yards: i) <i>Front Yard</i> – 5.0 metres ii) <i>Rear Yard</i> – 6.0 metres iii) <i>Interior Side Yard</i> – 1.2 metres and 0.0 metres iv) <i>Side yard</i> abutting a <i>street</i> – 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>	

3. All other provisions of By-law 1229, as amended, not inconsistent with the foregoing, shall continue to apply to the lands shown on Schedule "A" attached hereto.

Read a first, second and third time and passed this _____2020.

Kimberley Kitteringham
City Clerk

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 ft)	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 Single Detached Dwelling	Existing R1 Zone Standards	Proposed R1 Zone Standards
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)



Report to: General Committee

Meeting Date: October 5, 2020

SUBJECT: 2021 Capital Budget Pre-Approval (Revised)
PREPARED BY: Veronica Siu, Senior Financial Analyst, Financial Planning and Reporting

RECOMMENDATION:

1. That the report dated October 5, 2020 titled, “2021 Capital Budget Pre-Approval (Revised)” be received; and,
2. That Council approve the 2021 Capital Budget Pre-Approval, which totals \$8,694,600 as outlined in Appendices 1 and 2; and,
3. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

To obtain Council approval of the select 2021 capital projects included in this report.

BACKGROUND:

The 2021 Capital Budget is tentatively scheduled to be approved at the December 9, 2020 Council meeting. Prior to budget approval, some capital projects require earlier initiation to prevent delays in design or construction, meet operational/program requirements and allow timely commencement of the procurement process to potentially achieve competitive pricing. Pre-approval is being requested for the 2021 capital projects identified in this report to achieve those goals.

At the October 5th General Committee meeting, members of the committee referred the Library Collections budget pre-approval request for \$1,598,200 to the Library Board for additional considerations. As such, this report has been modified to exclude the Library Collections project from the budget pre-approval list. Pending the outcome, this item maybe brought back to Budget Committee.

The Asphalt Rehabilitation project back up (appendix 2 page 30) has also been updated to remove Denison Street and in its place, Senator Reesors Drive was added based on feedback provided at the October 5th General Committee meeting. Note that Havagal Crescent and Woodlawn Road were also removed from the list as these were accelerated into the 2020 Asphalt Rehabilitation and in its place, Harry Corsen Place, John Dexter Place and Berczy Gate were added. No changes were made to the budget amount.

OPTIONS/ DISCUSSION:

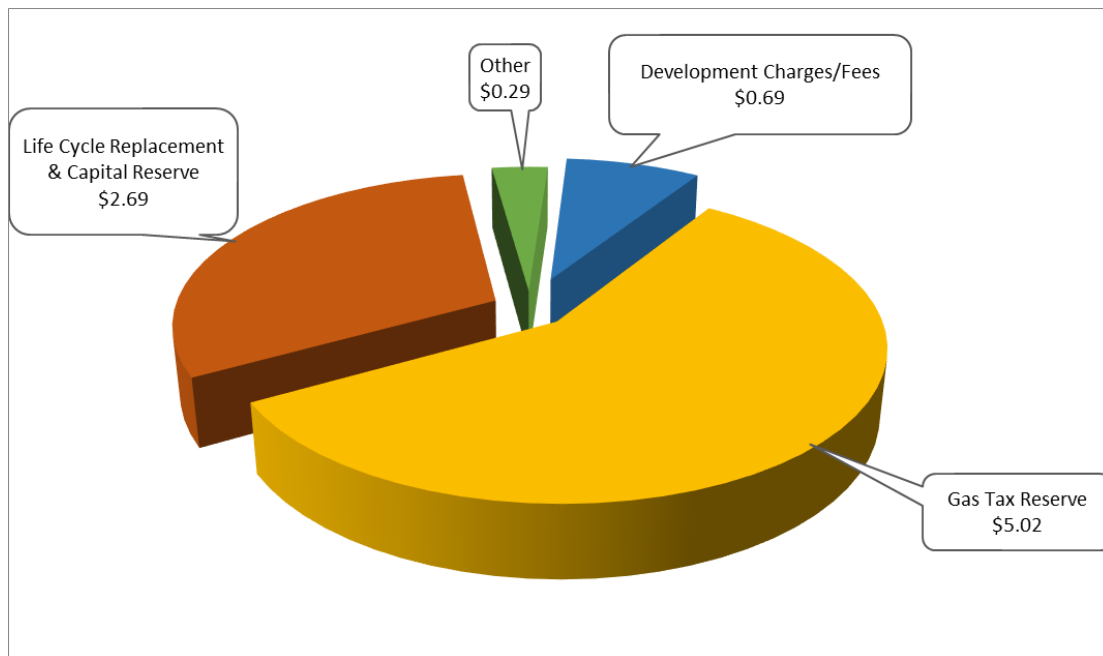
Staff are requesting that thirteen (13) projects, totalling \$8,694,600, be pre-approved in this report, as listed in Appendix 1. The corresponding request forms are attached for reference in Appendix 2. Projects being requested for pre-approval, grouped by category, are as follows:

- Existing Roads/Bridges Repairs (\$3.16M)
 - o Asphalt Resurfacing
- Facility Repairs/Maintenance (\$2.99M)
 - o Theatre HVAC Replacement
 - o Parking Lots - Rehabilitation
 - o Civic Centre Vestibule Repairs and/or Replacements
 - o Theatre Fire Alarm 2 Stage Conversion
- Parks Construction/Maintenance (\$2.00M)
 - o Block Pruning Initiative - Phase 2 of 3
 - o Markham Trail Phase 1B Construction
 - o Berczy Beckett Park (Cherna Ave)
 - o Green Lane Park
 - o Yonge and Grandview Park
- Vehicle Replacement (\$0.29M)
 - o Corporate Fleet Replacement – Non-Fire
- Other (\$0.26M)
 - o Corporate Capital Contingency
 - o SCBA Decontamination Machine

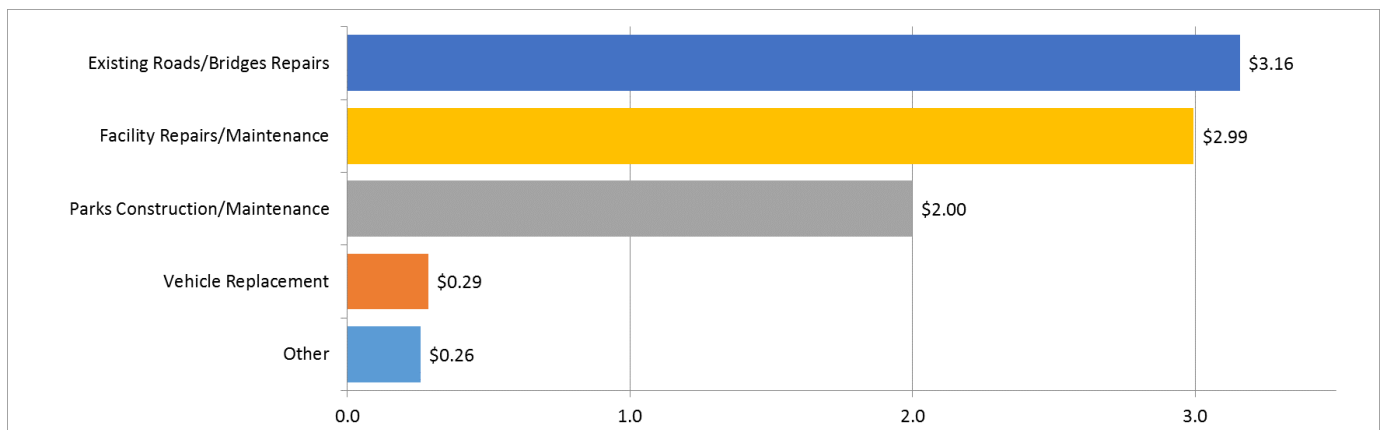
The major sources of funding for the 2021 Capital Budget pre-approval include:

- \$5.02M (57.8%) from Federal Gas Tax revenue;
- \$2.69M (30.9%) from Life Cycle Replacement and Capital Reserve Fund
- \$0.69M (8.0%) from Development Charges and Development Fees.
- \$0.29M (3.3%) from Other Funding Sources

A comparative illustration of sources of funding is illustrated in Chart 1.

Chart 1: 2021 Capital Budget pre-approval funding sources**Total \$8.69M**

The 2021 Capital Budget pre-approval expenditures, by category, are summarized in Chart 2.

Chart 2: 2021 Capital Budget pre-approval expenditures by category**Total \$8.69M**

FINANCIAL CONSIDERATIONS

The 2021 Capital Budget pre-approval includes \$8,694,600 of capital projects which are funded from multiple funding sources as outlined in Appendix 1.

HUMAN RESOURCES CONSIDERATIONS

Not applicable.

ALIGNMENT WITH STRATEGIC PRIORITIES:

The 2021 Capital Budget pre-approval includes capital projects that align with the City of Markham's strategic priorities developed by Council.

BUSINESS UNITS CONSULTED AND AFFECTED:

All business units have been consulted during the 2021 Capital Budget pre-approval submission and review process.

RECOMMENDED BY:

Joel Lustig
Treasurer

Trinela Cane
Commissioner, Corporate Services

ATTACHMENTS:

Appendix 1 – 2021 Capital and Other Programs Pre-Approval Budget

Appendix 2 – 2021 Capital and Other Programs Pre-Approval Budget Project Request
Forms

CITY OF MARKHAM
2021 CAPITAL and OTHER PROGRAMS PRE-APPROVAL BUDGET
by Department

#	Project Description	Total	Tax	Operating Life Cycle	DC - Reserve	Other	Description of Other Funding
<u>Development Services</u>							
<i>Theatre</i>							
21004	Theatre Fire Alarm 2 Stage Conversion	25,400		25,400			
	<u>TOTAL Theatre</u>	25,400		25,400	-	-	
<i>Design</i>							
21019	Berczy Beckett Park (Cherna Ave.) - Design & Construction	59,800			53,820	5,980	Parks Cash-in-Lieu; Note 1
21022	Green Lane Park - Design and Construction	48,000			43,200	4,800	Parks Cash-in-Lieu; Note 2
21023	Yonge and Grandview Park - Design and Construction	56,500			50,850	5,650	Parks Cash-in-Lieu; Note 3
	<u>TOTAL Design</u>	164,300		-	147,870	16,430	
<i>Engineering</i>							
21029	Markham Centre Trail Phase 1B Construction	816,000			530,400	285,600	Section 37
	<u>TOTAL Engineering</u>	816,000		-	530,400	285,600	
	<u>TOTAL Development Services</u>	1,005,700	-	25,400	678,270	302,030	
<u>Corporate Services</u>							
<i>Asset Management</i>							
21049	Civic Centre Vestibule Repairs and/or Replacements	290,700		290,700			
21063	Theatre-HVAC Replacement	2,000,000		91,200		1,908,800	Gas Tax
	<u>TOTAL Asset Management</u>	2,290,700		381,900	-	1,908,800	
	<u>TOTAL Corporate Services</u>	2,290,700		381,900	-	1,908,800	
<u>Community & Fire Services</u>							
<i>Fire & Emergency Services</i>							
21071	SCBA Decontamination Machine	63,300	63,300				
	<u>TOTAL Recreation Services</u>	63,300	63,300	-		-	

CITY OF MARKHAM
2021 CAPITAL and OTHER PROGRAMS PRE-APPROVAL BUDGET
by Department

#	Project Description	Total	Tax	Operating Life Cycle	DC - Reserve	Other	Description of Other Funding
Operations - Roads							
21101	Asphalt Resurfacing	3,157,900		224,340		2,933,560	Gas Tax; Note 4
21113	Parking Lots- Rehabilitation	678,900		678,900			
	<u>TOTAL Operations - Roads</u>	3,836,800	-	903,240	-	2,933,560	
Operations - Parks							
21119	Block Pruning Initiative - Year 2 of 3	1,017,600	1,017,600				
	<u>TOTAL Operations - Parks</u>	1,017,600	1,017,600	-			
Operations - Fleet							
21140	Corporate Fleet Replacement - Non-Fire	285,900		285,900			Note 5
	<u>TOTAL Operations - Fleet</u>	285,900		285,900			
	<u>TOTAL Community & Fire Services</u>	5,203,600	1,080,900	1,189,140	-	2,933,560	
Corporate Wide							
Corporate Wide							
21177	Corporate Capital Contingency	194,600		12,200		182,400	Gas Tax; Note 6
	<u>TOTAL Corporate Wide</u>	194,600	-	12,200	-	182,400	
	<u>TOTAL Corporate Wide</u>	194,600	-	12,200	-	182,400	
	<u>TOTAL PRE-APPROVAL REQUESTS</u>	8,694,600	1,080,900	1,608,640	678,270	5,326,790	

Notes:

- 1) The overall project budget is \$465,200. The pre-approval request of \$59,800 is for consulting work only.
- 2) The overall project budget is \$549,300. The pre-approval request of \$48,000 is for consulting work only.
- 3) The overall project budget is \$637,900. The pre-approval request of \$56,500 is for consulting work only.
- 4) The overall project budget is \$6,815,800. The pre-approval request of \$3,157,900 is to commence procurement of contracts earlier to potentially attain better pricing.
- 5) The overall project budget is \$1,620,700. The pre-approval request of \$285,900 is to commence procurement of articulating loader earlier to potentially attain better pricing.
- 6) The overall project budget is \$1,557,100. The pre-approval request of \$194,600 represents the contingency amounts required for all project pre-approval requests.



2021 PROJECT FUNDING REQUEST FORM

Appendix 2 Page 171

Number: 21004

Project Cost: \$25,400

Project Name: Theatre Fire Alarm 2 Stage Conversion

Commission: Development Services

Repair/Replace

Department: Theatre

Useful Life: 20 Pre Approval: ☐

Project Mgr: Andrew Rosenfarb

Category: Minor

Cost Validation: Third party estimate

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project aims to transition the theatre from a single stage fire alarm which forces immediate evacuations, regardless of severity, to a two stage alarm which allows for a short investigation by staff before triggering a full evacuation. This project will also address an update to the fire panel allowing each smoke/heat detector device and pull stations to be updated to an addressable device. This means that from the fire panel, staff can see exactly what device has caused an alarm for quicker investigation and response.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2021	Future Phases	NOTES
Cost/Quote:	25,000	0	Amount requested is consistent with life cycle. All theatres and attractions researched have 2 stage alarms to avoid unnecessary evacuations and is considered industry standard. Fire department has been consulted and they have no concerns as long as the Ontario Fire Code Regulations are met.
Internal Charges:	0	0	
External Consulting:	0	0	
Sub Total:	25,000	0	
HST Impact:	440	0	
Total Project Cost:	25,400	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	25,400	0	0	0	0	0	0
TOTAL FUNDING	25,400					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 2,739,100
				Amount Incl HST 25,400
				Year in the study 2021
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2021 PROJECT FUNDING REQUEST FORM

Number: **21019**

Project Cost: **\$465,200**

Project Name: **Berczy Beckett Park (Cherna Ave.) - Design & Construction**

Commission: Development Services

New Asset/Expansion

Department: Design

Useful Life: 25 Pre Approval: ☐

Project Mgr: Richard Fournier

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Recent awards

5 ☐ 6 ☒ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to design and construct the 0.44 acre (0.17 ha) park located at the west end of Cherna Ave. Includes tree protection measures for existing tree during construction. Program amenities include retaining wall, shade structure & associated landscape works. This will be the last park in the Berczy subdivision.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2021	Future Phases	NOTES
Cost/Quote:	370,000	0	Cost per ha is \$2,736,470 (\$465,200/0.17 ha) or \$1,057,273 per acre. Annualized operating cost is \$1,559 (0.17 ha x \$9170/ha) starting in 2022. Estimated in-service date: Q2 2022. Costs will be included in the Life Cycle Reserve Study at time of park assumption based on updated replacement cost for each amenity.
Internal Charges:	37,800	0	
External Consulting:	50,000	0	
Sub Total:	457,800	0	
HST Impact:	7,392	0	
Total Project Cost:	465,200	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
DCA	418,680	0	0	0	0	0	0
Parks Cash-in-Lieu	46,520	0	0	0	0	0	0
TOTAL FUNDING	465,200					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
Parks - Berczy Beckett Neighbourhood Park	2017	418,680	661,500	Amount in Study: <input type="text"/>
TOTAL FUNDING		418,680	661,500	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
The amenities are less than anticipated in DCBS.				



2021 PROJECT FUNDING REQUEST FORM

Number: **21022**

Project Cost: **\$549,300**

Project Name: **Green Lane Park - Design and Construction**

Commission: Development Services

New Asset/Expansion

Department: Design

Useful Life: 25 Pre Approval: ☐

Project Mgr: Richard Fournier

Category: Major

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to design and construct the 0.79ac (0.32ha) park at the south east corner of Green Lane and Harold Lawrie Lane. Anticipated amenities include Jr/Sr playground, half basketball, shade structure and associated landscape works.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

<u>PROJECT COSTS (\$)</u>	<u>2021</u>	<u>Future Phases</u>
Cost/Quote:	450,000	0
Internal Charges:	40,500	0
External Consulting:	50,000	0
Sub Total:	540,500	0
HST Impact:	8,800	0
Total Project Cost:	549,300	0

NOTES

Cost per ha is \$1,716,563 (\$549,300/0.32ha) or \$691,900 per acre. Annualized operating cost is \$2,934 (0.32ha X \$9,170). Estimated in service date: Q3 2022. Costs will be included in the Life Cycle Reserve Study at time of park assumption based on updated replacement cost for each amenity.

SOURCE(S) OF FUNDING (\$)

<u>Funding Type</u>	<u>Budget</u>	<u>Components</u>					<u>TOTAL</u>	<u>Future Phases</u>
DCA	494,370	0	0	0	0	0	0	0
Parks Cash-in-Lieu	54,930	0	0	0	0	0	0	0
TOTAL FUNDING	549,300						0	0

OPERATING BUDGET IMPACT

Personnel \$0 Non Personnel \$0 Revenues \$0 Expenditures/(Revenues) \$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

Amount in Study

Life Cycle

Parks - Yonge Canac Park

2021

494,370

696,807

Amount in Study:

TOTAL FUNDING

494,370

696,807

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2021 PROJECT FUNDING REQUEST FORM

Appendix 2 Page 173

Number: 21023

Project Cost: \$637,900

Project Name: Yonge and Grandview Park - Design and Construction

Commission: Development Services

New Asset/Expansion

Department: Design

Useful Life: 25 Pre Approval: ☐

Project Mgr: Richard Fournier

Category: Major

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to design and construct the 0.73ac (0.29 ha) park located at the South east corner of Yonge St. and Grandview Ave. Anticipated park amenities include Junior/ Senior playground, plaza area, shade structure, pathways and associated landscape works.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2021	Future Phases	NOTES
Cost/Quote:	530,000	0	Cost per ha is \$2,199,655 (\$637,900/0.29 ha) or \$873,836 per acre. Annualized operating cost is \$2,659 (0.29ha x \$9,170). Estimated in service date: Q3 2022. Costs will be included in the Life Cycle Reserve Study at time of park assumption based on updated replacement cost for each amenity.
Internal Charges:	47,700	0	
External Consulting:	50,000	0	
Sub Total:	627,700	0	
HST Impact:	10,208	0	
Total Project Cost:	637,900	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
DCA	574,110	0	0	0	0	0	0
Parks Cash-in-Lieu	63,790	0	0	0	0	0	0
TOTAL FUNDING	637,900					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
Parks - Yonge Devron Park	2020	574,110	613,974	Amount in Study: <input type="text"/>
TOTAL FUNDING		574,110	613,974	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2021 PROJECT FUNDING REQUEST FORM

Appendix 23 Page 179

Number: 21029

Project Cost: \$816,000

Project Name: Markham Centre Trail Phase 1B Construction

Commission: Development Services

New Asset/Expansion

Department: Engineering

Useful Life: 0 Pre Approval: ☒

Project Mgr: Alberto Lim

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This Budget Request is for the construction of the Phase 1B of the trails on Markham Centre. This location is on the north side of Rouge River from Verdale to Birchmount Road.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2021	Future Phases	NOTES
Cost/Quote:	723,270	0	The 2020 approved budget was not sufficient to fund the entire section of phase 1 due to new requirements (i.e. tree planting south of Rouge, permeable asphalt etc.) from Environmental agencies. Other internal is section 37 funding. Operating impacts will be determined at the time of construction award.
Internal Charges:	80,000	0	
External Consulting:	0	0	
Sub Total:	803,270	0	
HST Impact:	12,730	0	
Total Project Cost:	816,000	0	

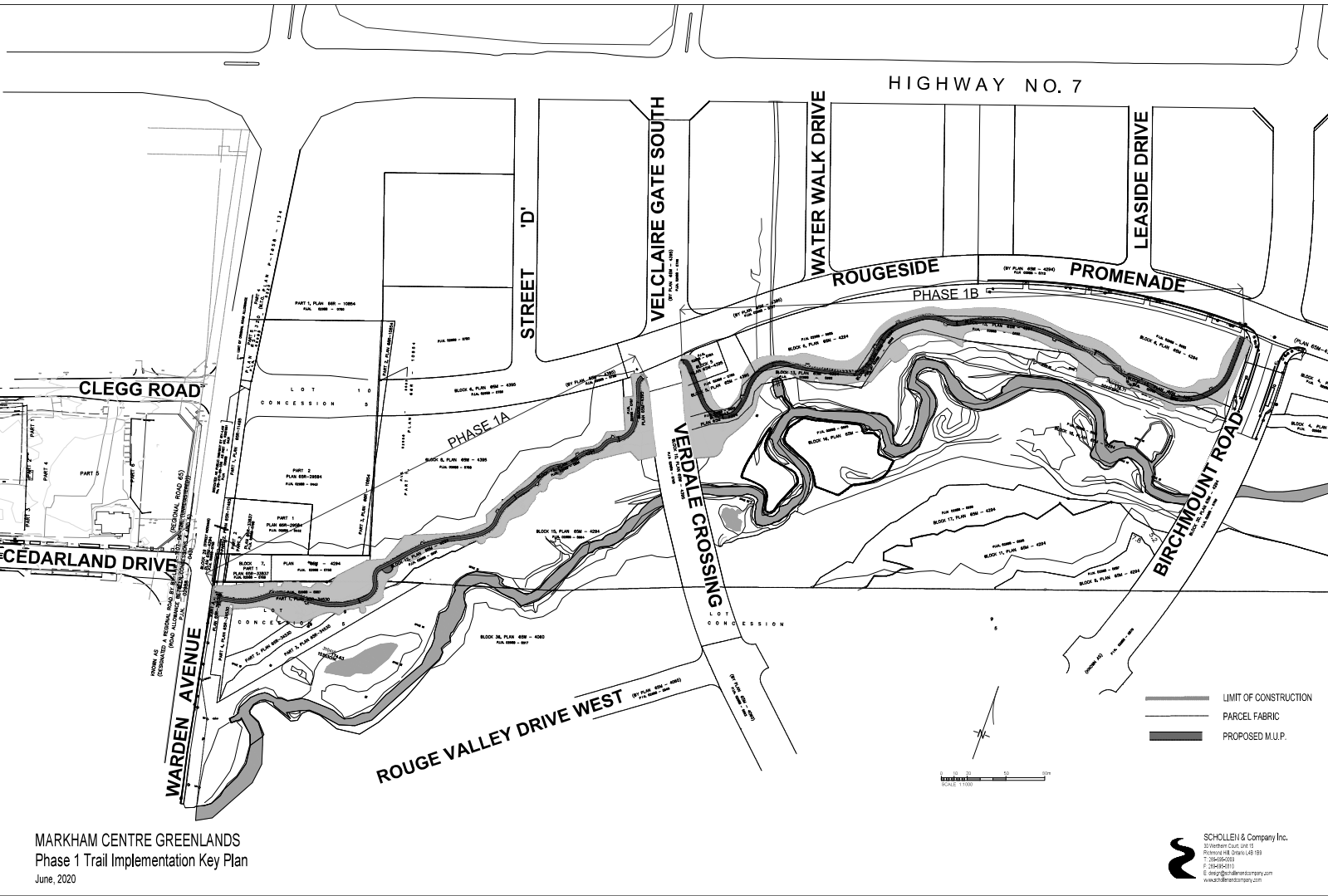
SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
DCA	530,400	0	0	0	0	0	0
Other Internal	285,600	0	0	0	0	0	0
TOTAL FUNDING	816,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
Hard - Special Projects - City Wide - Bike Lanes on City and Regional Land		530,400	11,325,356	Amount in Study: <input type="text"/>
TOTAL FUNDING		530,400	11,325,356	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				

Markham Centre Phase 1B Construction





2021 PROJECT FUNDING REQUEST FORM

Number: **21049**

Project Cost: **\$290,700**

Project Name: **Civic Centre Vestibule Repairs and/or Replacements**

Commission: Corporate Services

Repair/Replace

Department: Asset Management

Useful Life: 0 Pre Approval: ☒

Project Mgr: Sameem Shah

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☒ 3 ☐ 4 ☐

Cost Validation: Published guidelines

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Project includes repair/replacement of various components of the Milliken and Great Hall Entrance Vestibules of the Civic Centre to maintain the Civic Centre Facility in a state of good repair and in alignment to the Asset Management Plan/Policy. Funding request is based on actual cost of similar project and life cycle database.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			NOTES	
2021	Future Phases			
Cost/Quote:	285,672	0	\$290,700 - Great Hall Entrance and Milliken Entrance vestibule repair/replacement (1988) Amount is consistent with the 2020 Life Cycle Reserve Study update.	
Internal Charges:	0	0		
External Consulting:	0	0		
Sub Total:	285,672	0		
HST Impact:	5,028	0		
Total Project Cost:	290,700	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Great Hall and Milliken Vestibule				TOTAL	
Operating Funded Life Cycle	290,700	290,700	0	0	0	290,700	0
TOTAL FUNDING	290,700					290,700	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: <input type="text" value="868,800"/>
				Amount Incl HST <input type="text" value="290,700"/>
				Year in the study <input type="text" value="2021"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2021 PROJECT FUNDING REQUEST FORM

Appendix 23 Page 15

Number: **21063**

Project Cost: **\$2,000,000**

Project Name: **Theatre-HVAC Replacement**

Commission: Corporate Services

Repair/Replace

Department: Asset Management

Useful Life: 30 Pre Approval: ☒

Project Mgr: Jason Vasilaki

Category: Major

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The 3 year Theatre HVAC project began in 2019 with design & consultation and in 2020 with a class A cost estimate to allow an accurate capital budget request for 2021. The 37 year old HVAC system is original to the building and has been deemed at the end of its useful life. This project includes replacement of the venues major HVAC equipment including all air handlers and associated equipment (\$1,382,602) and the building automation system (\$424,198)

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

<u>PROJECT COSTS (\$)</u>	<u>2021</u>	<u>Future Phases</u>	<u>NOTES</u>
Cost/Quote:	1,806,800	0	Amount requested is consistent with life cycle. There is no expected incremental operating budget impact. This project requires a 10 week shut down for the venue between August 9-October 15, 2021. System will be connected to UHS/MDE to distribute the heating & cooling and fresh air into the Theatre. Energy savings estimated at \$24,400. Incentives estimated at \$13,000.
Internal Charges:	80,000	0	
External Consulting:	80,000	0	
Sub Total:	1,966,800	0	
HST Impact:	33,208	0	
Total Project Cost:	2,000,000	0	

<u>SOURCE(S) OF FUNDING (\$)</u>	<u>Components</u>						<u>Future Phases</u>
<u>Funding Type</u>	<u>Budget</u>				<u>TOTAL</u>		<u>Future Phases</u>
Gas Tax	1,908,800	0	0	0	0	0	0
Operating Funded Life Cycle	91,200	0	0	0	0	0	0
TOTAL FUNDING	2,000,000				0		0

<u>OPERATING BUDGET IMPACT</u>	<u>Personnel</u>	<u>Non Personnel</u>	<u>Revenues</u>	<u>Expenditures/(Revenues)</u>
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

<u>DCA</u>	<u>Year</u>	<u>Amount</u>	<u>Amount in Study</u>	<u>Life Cycle</u>
<u>Name</u>				Amount in Study: <input type="text" value="2,739,100"/>
				Amount Incl HST <input type="text" value="91,200"/>
				Year in the study <input type="text" value="2021"/>

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



BUILDING MARKHAM'S FUTURE TOGETHER
2020 – 2023 Strategic Plan





Summary

- In 2019, Sustainability & Asset Management conducted the design consultation phase to replace the HVAC systems and Building Automation System at Flato Markham Theatre.
- The HVAC equipment and BAS were original and initially installed in the 1980s. They are at the end of their service life.
- Heating and cooling supply to the existing and new HVAC systems will be by Markham District Energy via Unionville High School.
- Heating and cooling will soon be individually metered and billed for the building per agreement with School Board
- There is a need to improve energy efficiency for this facility and the newly designed systems will accomplish this requirement.



Project Details

- Five (5) large existing air handling units will be disassembled in-place and new units assembled within their respective mechanical rooms.
- Multiple crane lifts to remove and install the units through existing openings will be required.
- The amount of work is very substantial and it is anticipated to take approximately 10 weeks. This will require a complete shut down of the building.



Schedule

In consultation with Theater management and our consultant, the recommended schedule and impacts are as follows:

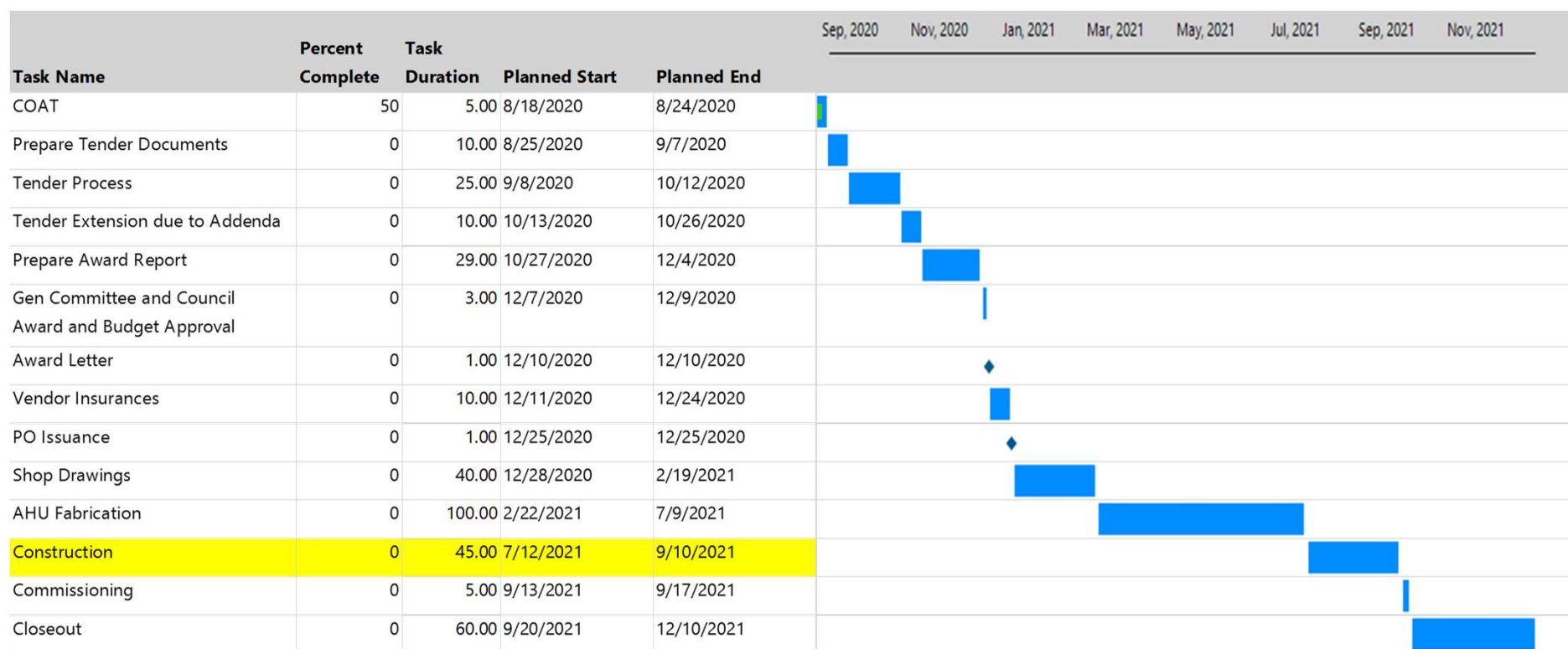
- Construction work is expected to take place beginning of July to mid-September of 2021.
- The time line above:
 - allows for sufficient factory fabrication time of the new units once procured (approximately 6 months lead time required)
 - is beneficial for moderating temperatures within the building during the HVAC shutdown (i.e. no very cold or very hot outdoor temperatures thereby saving the cost impact of temporary A/C or temporary heat)



BUILDING MARKHAM'S FUTURE TOGETHER 2020 – 2023 Strategic Plan



Potential Expedited Schedule





Theatre Closure Impacts

- The Theatre must be temporarily closed to rehearsals and performances during the work due to:
 - public safety
 - construction noise/disturbance
 - no capability to control temperature and humidity to the precise levels that performances require
- Typical season net revenue loss is anticipated to be \$120,000
- During the shutdown, Theatre staff will have to be relocated to work in a suitable location within the Civic Centre.
- The Box Office would remain open for sales but might be required to temporarily relocate also to within the Civic Centre.
- In the event the Theatre re-opens to the public before July 2021 for events that are already booked, construction will begin 1 month later, as a contingency plan.



Budget

- January 2020, a design (Class A) cost estimate was conducted based on complete drawings and specifications, which this budget request is based upon.
- Cost Estimate:

▪ Construction -	\$ 1,806,800
▪ Consulting -	\$ 80,000
▪ HST Impact (on above) -	\$ 33,200
▪ <u>Internal Charges -</u>	<u>\$ 80,000</u>
▪ Total Project Cost	\$ 2,000,000
- \$24,400 estimated annual energy efficiency savings (21% reduction)
- \$13,000 estimated one-time energy conservation incentives



2021 PROJECT FUNDING REQUEST FORM

Appendix 2 Page 25

Number: 21071

Project Cost: \$63,300

Project Name: SCBA Decontamination Machine

Commission: Community & Fire Services

New Asset/Expansion

Department: Fire & Emergency Services

Useful Life: 10 Pre Approval: ☐

Project Mgr: Adam Grant

Category: Minor

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Request for 2 machines to decontaminate self contained breathing apparatus (SCBA) after exposure to harmful toxins/chemicals. The self contained cleaning process removes residue from soot and other toxins absorbed by SCBA gear (harness, facepiece, and air cylinder) in as little as 5 minutes, and is effective on steel, composite, rubber and steel.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2021	Future Phases	NOTES
Cost/Quote:	62,246	0	After each firefighting operation, it is standard procedure for firefighters to launder their bunker gear (jacket, pants, boots) at one of two laundry stations. However, SCBA gear is currently not decontaminated after each operation. Markham Fire Services would like to include the decontamination of SCBA gear after each operation as part of standard procedure. The decontamination practice reduces the risk of developing job related cancers. Cost of each decontamination machine unit is \$31,650.
Internal Charges:	0	0	
External Consulting:	0	0	
Sub Total:	62,246	0	
HST Impact:	1,096	0	
Total Project Cost:	63,300	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Tax	63,300	0	0	0	0	0	0
TOTAL FUNDING	63,300					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2021 PROJECT FUNDING REQUEST FORM

Appendix 24 Page 27

Number: **21101**

Project Cost: **\$6,815,800**

Project Name: **Asphalt Resurfacing**

Commission: **Community & Fire Services**

Repair/Replace

Department: **Operations - Roads**

Useful Life: **20**

Pre Approval: ☒

Project Mgr: **Zoyeb Vahora**

Category: **Minor**

Cost Validation: **Recent awards**

Ward(s): **CW** ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: **Condition assessment**

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Asphalt resurfacing of roads throughout the City utilizing a pavement management program to select rehabilitation candidates. The overall goal is to maintain an acceptable pavement condition index and user satisfaction by implementing cost effective strategies designed to extend pavement life and reduce overall maintenance costs of the road network. Other work includes interlock, material testing, route and seal, steel, and AC index. Various strategies are utilized on a site specific basis to reach program goals.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

<u>PROJECT COSTS (\$)</u>	<u>2021</u>	<u>Future Phases</u>	<u>NOTES</u>
Cost/Quote:	6,610,428	0	Asphalt Resurfacing of approximately 17.5km of two lane and four lane roads. 6.8km of four lane roads of pavement preservation which is comparable to last year's program. There is no substantial backlog in this program. Laser condition survey conducted bi-annually indicates 2019 pavement condition result shows that 72.9% of the road network is deemed good or better (target = 80%). Amount requested is consistent with the 2020 Life Cycle Reserve Study update.
Internal Charges:	89,002	0	
External Consulting:	0	0	
Sub Total:	6,699,430	0	
HST Impact:	116,344	0	
Total Project Cost:	6,815,800	0	

<u>SOURCE(S) OF FUNDING (\$)</u>	<u>Components</u>						<u>Future Phases</u>
<u>Funding Type</u>	<u>Budget</u>				<u>TOTAL</u>		<u>Future Phases</u>
Gas Tax	6,331,600	0	0	0	0	0	0
Operating Funded Life Cycle	484,200	0	0	0	0	0	0
TOTAL FUNDING	6,815,800				0		0

<u>OPERATING BUDGET IMPACT</u>	<u>Personnel</u>	<u>Non Personnel</u>	<u>Revenues</u>	<u>Expenditures/(Revenues)</u>
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

<u>DCA</u>	<u>Year</u>	<u>Amount</u>	<u>Amount in Study</u>	<u>Life Cycle</u>
Name				
				Amount in Study: 6,815,800
				Amount Incl HST 6,815,800
				Year in the study 2021
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				

Project	Asphalt Resurfacing
2021 Capital Request	\$6,815,800
Funding Source	Life Cycle Reserve
Description of Program	Asphalt resurfacing of roads throughout the City utilizing a pavement management program to select rehabilitation candidates. The overall goal is to maintain an acceptable pavement condition index and user satisfaction by implementing cost effective strategies designed to extend pavement life and reduce overall maintenance and reconstruction costs of the road network.
Project Rationale	Condition assessment is conducted bi-annually to determine specific locations. This is followed by a detailed visual inspection by Operations staff which verifies the laser condition assessment. Identified in the Life Cycle Reserve Study.
Legislative Requirement	O. Reg. 239/02: Minimum Maintenance Standards for Municipal Highways outlines patrol and maintenance requirement related to roadway infrastructure inclusive of asphalt pavement and sidewalk.
History	n/a
Future Phases	This funding is requested each year.
Total Project Cost	n/a
Related Projects	Parking Lot Rehabilitation, Localized Repairs – Concrete/Asphalt
Related Maps	..\Roads\Back Up\Asphalt Rehab\2021 Pavement Rehabilitation Locations.pdf
Alignment to the Strategic Plan	Properly paved and well maintained roads help reduce accidents and promotes safe movement of traffic reducing traveling time. Contracts within this program call for reharvesting and recycling of construction materials. Strategies include warm mix designs which lowers emissions and utilizes recycled aggregate.

2021 Road Rehabilitation Program

Street Name	Road-Segment ID	From	To	Length	Width
Captain Francis Drive	01473 - 001,002,003	Entirety		872	8
Colonel Marr Road	02028 - 001,002	Entirety		388.85	8
Bliss Court	00949 - 001	Entirety		50	8.5
Forester Crescent	10693 - 001 to 007	Entirety		1145	8.5
Rachel Crescent	10685 - 001 to 005			594	10.5
Ritter Crescent	07811 - 001	Entirety		464	8
Delhi Crescent	02534 - 001, 002	Entirety		640	8
Caledonia Court	01376 - 001	Entirety		60	8.5
Leahill Drive	05541 - 001	Entirety		100	6
Deanbank Drive	02461 - 001	Entirety		177	3.5
Deanbank Drive	02461 - 002	Entirety		222	8
Simonstone Boulevard East	08468 - 014,016,026,001,004,012,019,024	Dersingham Crescent North	Don Mills	1054	10.5
Brewsland Crescent	01112 - 001	Entirety		329	8
Tamarack Drive	09172 - 001, 002	Entirety		839	8
Elgin Mills Road East	10545 - 013	Victoria Square Boulevard	Warden Avenue	2049	9
Reesor Road TBC	10634 - 004,008	16th	407 ETR	2900	9
Harvest Moon Drive	04268 - 001 to 009	Entirety		1276	9
Riseborough Circuit	07803 - 001 to 022	Entirety		2118	9
Senator Reesors Drive	08303 - 001,002,003,004,005,006,007	Entirety		1362	8
Harry Corsen Place	04421 - 001	Entirety		500	8
John Dexter Place	04987 - 001	Entirety		500	8
Berczy Gate	00825 - 001	Entirety		75	8.5
Kirkham	12009 - 001	Markham Road	New Delhi Drive	135	16

Total

17.84985
km



2021 PROJECT FUNDING REQUEST FORM

Appendix 24 Page 31

Number: 21113

Project Cost: \$678,900

Project Name: **Parking Lots- Rehabilitation**

Commission: Community & Fire Services

Repair/Replace

Department: Operations - Roads

Useful Life: 20 Pre Approval: ☐

Project Mgr: Zoyeb Vahora

Category: Minor

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Complete rehabilitation of selected municipal parking lots throughout the City. Includes removal and replacement of concrete, interlock and asphalt infrastructure, as well as maintenance holes and catch basin adjustments.

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<u>PROJECT COSTS (\$)</u>	<u>2021</u>	<u>Future Phases</u>	<u>NOTES</u>
Cost/Quote:	667,139	0	Rehabilitation of Miller yard inside gate (19,988sqm), and German Mills/Sabiston (1170sqm). There is no backlog in the program. The parking lots are in a state of good repair. Unit cost is consistent with recent award plus inflation. Amount requested is consistent with the 2020 Life Cycle Reserve Study update.
Internal Charges:	0	0	
External Consulting:	0	0	
Sub Total:	667,139	0	
HST Impact:	11,742	0	
Total Project Cost:	678,900	0	

<u>SOURCE(S) OF FUNDING (\$)</u>		<u>Components</u>				<u>Future Phases</u>	
<u>Funding Type</u>	<u>Budget</u>	<u>Miller Yard</u>	<u>Sabiston</u>			<u>TOTAL</u>	
Operating Funded Life Cycle	678,900	641,400	37,500	0	0	678,900	0
TOTAL FUNDING	<u>678,900</u>					<u>678,900</u>	<u>0</u>

<u>OPERATING BUDGET IMPACT</u>	<u>Personnel</u>	<u>Non Personnel</u>	<u>Revenues</u>	<u>Expenditures/(Revenues)</u>
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

<u>DCA</u>	<u>Year</u>	<u>Amount</u>	<u>Amount in Study</u>	<u>Life Cycle</u>
Name				
				Amount in Study: 1,475,600
				Amount Incl HST 678,900
				Year in the study 2021
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
75 Clegg deferred until direction from Legal is received. Milliken Mills CC deferred to 2022 due to potential community centre expansion.				

Project	Parking Lot Rehabilitation
2021 Capital Request	\$678,900
Funding Source	Life Cycle Reserve
Description of Program	Asphalt resurfacing of City owned parking lot throughout the City. The overall goal is to maintain an acceptable pavement condition and user satisfaction by implementing timely rehabilitation to extend pavement life and reduce overall maintenance and reconstruction costs of the City's assets.
Project Rationale	Condition assessment is conducted bi-annually to determine specific locations. This is followed by a detailed visual inspection by Operations staff which verifies the laser condition assessment. Identified in the Life Cycle Reserve Study.
Legislative Requirement	O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure outline asset management requirement related to Municipal infrastructure.
History	n/a
Future Phases	This funding is requested each year.
Total Project Cost	n/a
Related Projects	Localized Repairs - Parking Lots
Related Maps	n/a
Alignment to the Strategic Plan	Properly paved and well maintained parking lots help reduce accidents and promotes safe movement of traffic reducing within City owned facilities. Contracts within this program call for reharvesting and recycling of construction materials. Strategies include warm mix designs which lowers emissions and utilizes recycled aggregate.



2021 PROJECT FUNDING REQUEST FORM

Number: **21119**

Project Cost: **\$1,017,600**

Project Name: **Block Pruning Initiative - Year 2 of 3**

Commission: Community & Fire Services

Department: Operations - Parks

Project Mgr: Miles Peart

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 0 Pre Approval: ☒

Category: Major

Cost Validation: Third party estimate

Requirement Validation: Visual inspection

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The City owns approximately 100,000 street trees. This is a 3 year capital project to prune City trees proactively to improve storm damage resistance and reduce residents complaints which currently are over 2,700 per year. This program will address proactive street tree pruning of 23,333 trees per year through contracted services.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

<u>PROJECT COSTS (\$)</u>	<u>2021</u>	<u>Future Phases</u>	<u>NOTES</u>
Cost/Quote:	1,000,000	777,127	Phase 1 is 95% complete and has made a noticeable improvement in the neighborhoods which have been completed. Once the 70,000 trees have been pruned the remaining 30,000 trees will be addressed as part of the regular operating budget. The operating budget is being increased by \$50K each year from 2020 to 2022 to ensure a total of \$150K additional operating funding is available by 2023. Currently, the tree inventory is not in a state of good repair & backlog led to this proactive approach to updating the asset.
Internal Charges:	0	0	
External Consulting:	0	0	
Sub Total:	1,000,000	777,127	
HST Impact:	17,600	13,677	
Total Project Cost:	1,017,600	790,800	

<u>SOURCE(S) OF FUNDING (\$)</u>	<u>Components</u>						<u>Future Phases</u>
<u>Funding Type</u>	<u>Budget</u>					<u>TOTAL</u>	<u>Future Phases</u>
Tax	1,017,600	0	0	0	0	0	790,800
TOTAL FUNDING	1,017,600					0	790,800

<u>OPERATING BUDGET IMPACT</u>	<u>Personnel</u>	<u>Non Personnel</u>	<u>Revenues</u>	<u>Expenditures/(Revenues)</u>
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

<u>DCA</u>	<u>Year</u>	<u>Amount</u>	<u>Amount in Study</u>	<u>Life Cycle</u>
Name				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Project: Block Pruning 3 Year Project
Total Project Cost Table

	Project Number(s)	Past Projects (\$)	Current Project (\$)	Future Projects (\$)	Total (\$)
Project Component 1	20197		\$ 1,244,396		\$ 1,244,396
Project Component 2			\$ 1,017,600		\$ 1,017,600
Project Component 3			\$ 790,804		\$ 790,804
Total (\$)		\$ -	\$ 3,052,800	\$ -	\$ 3,052,800
Description of Project	3 year capital project to prune 70% of all City trees to improve storm damage resistance and reduce residents complaints which currently are over 2,000 ACRs per year.				
What was completed in the past? Include timeline of works done.	Year 1 program was 7 complete blocks which represented the highest risk trees. The year 1 program will be 100% complete by December 31, 2020.				
Current project objective	Year 2 of the program will be to complete 6 complete blocks which represent the next highest risk trees. The goal is to start in late fall and be complete by June 1, 2021.				
Description of future work required. Include estimated timing.	Complete block pruning of map grids E5,G4,G5,H6,J4,J5 by June 1, 2021				

Neighbourhood Tree Maintenance Project 2020, 2021 and 2022 Grids





2021 PROJECT FUNDING REQUEST FORM

Appendix 25 Page 39

Number: 21140

Project Cost: \$1,620,700

Project Name: Corporate Fleet Replacement - Non-Fire

Commission: Community & Fire Services

Repair/Replace

Department: Operations - Fleet

Useful Life: 5

Pre Approval: ☐

Project Mgr: Raymond Law/Peter Englezakos

Category: Major

Cost Validation: Other(specify in Notes)

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Multiple(specify)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

2021 Annual Fleet Replacement Program based on the Council adopted Corporate Fleet Policy Guidelines. Life cycle costing targets optimal replacement intervals (ORI) which identifies the most cost effective time period for replacement. All vehicles and equipment contained in this program have reached or surpassed the ORI. User Departments were consulted with respect to the units in this program. Total units - 31 units

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2021	Future Phases	NOTES
Cost/Quote:	1,592,680	0	Useful life varies - 4 to 12 years based on units types. Operations-Non Fleet (\$53k) includes cord trimmers, chainsaws, blowers, etc. Cost Validation- Most recent purchase of similar unit type; Requirement validation - Condition assessment, vehicle reliability & down time, & operating costs. Units specified in this program will be purchased with the most recent technology available at time of purchase providing maximized fuel economy with minimal emissions.
Internal Charges:	0	0	
External Consulting:	0	0	
Sub Total:	1,592,680	0	
HST Impact:	28,031	0	
Total Project Cost:	1,620,700	0	

SOURCE(S) OF FUNDING (\$)	Components					Future Phases
Funding Type	Budget	Licensed	Non Licensed	Non Fleet	TOTAL	Future Phases
Operating Funded Life Cycle	1,620,700	727,633	840,131	52,936	0 1,620,700	0
TOTAL FUNDING	1,620,700				1,620,700	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 2,440,500
				Amount Incl HST 2,416,900
				Year in the study 2021

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2021 Corporate Fleet Replacement - Non-Fire

Asset ID	Inventory Description	Model	Mileage (km)	Usage (hours)	Facility	Category	2021 Updated Cost	Project Notes
1232	ONE TON CREWCAB FLATBED DIESEL-C3500 SILV	2013	151,087		OPERATIONS-Licensed	Licensed	62,261	
1240	COMPACT SUV FWD-ESCAPE	2012	80,659		OPERATIONS-Licensed	Licensed	28,854	Deferred from 2020 to 2021
1243	SERVICE BODY SIGN TRUCK C/W POST PULLER-F 550	2013	121,123		OPERATIONS-Licensed	Licensed	90,048	
1421	3.5 YD ARTICULATING LOADER -721 D	2014		9,502	OPERATIONS-Non Licensed	Non Licensed	280,908	
1426	TRACTOR 4 WD WITH CAB-6320	2003		7,011	OPERATIONS-Non Licensed	Non Licensed	160,092	Project 18247 - life extended, deferred to 2021 to be re-submitted
1913	90' V BIN STOCKPILING CONVEYOR-	2010		4,370	OPERATIONS-Non Licensed	Non Licensed	90,145	Deferred from 2020 to 2021
1973	TRAILER-TRAILER	2009			OPERATIONS-Licensed	Licensed	7,632	Deferred from 2019 to 2021
1977	3 PT HITCH PTO DRIVEN SANDER-1140P	2009			SIDEWALK-Non Licensed	Non Licensed	4,897	
3321	3/4 TON 4X4 PICK UP C/W 8' SNOW PLOW	2011	121,960		OPERATIONS-Licensed	Licensed	51,378	Previously approved in 2019 (Project 19207) - to be resubmitted in 2021 due to budget shortfall; Updated price based on 090-T-20 - \$50,370 plus 2% inflation
3327	FULL SIZE PICKUP 4X4 WITH 8' ARCTIC PLOW-F250	2013	117,208		OPERATIONS / PARKS-Licensed	Licensed	42,838	
3328	FULL SIZE PICKUP 4X4 WITH 8' ARCTIC PLOW-F250	2013	112,992		OPERATIONS / PARKS-Licensed	Licensed	42,838	
3334	ONE TON CREW CAB FLATBED DIESEL-C3500 SILV	2013	81,822		OPERATIONS-Licensed	Licensed	62,242	
3344	CREW CAB DIESEL 9' DUMP	2010	68,384		OPERATIONS-Licensed	Licensed	41,377	Previously approved in 2019 (Project 19207) - to be resubmitted in 2021 due to budget shortfall; Updated price based on 090-T-20 - \$40,566, plus 2% inflation
3376	16' CUBE VAN	2008	93,309		OPERATIONS-Licensed	Licensed	51,328	Previously approved in 2019 (Project 19207) - to be resubmitted in 2021 due to budget shortfall; Updated price based on 090-T-20 - \$50,322 plus 2% inflation
3443	56 HP 2 WHEEL DRIVE TRACTOR C/W CAB-5225	2007		3,622	OPERATIONS-Non Licensed	Non Licensed	51,141	Deferred from 2019 to 2021
3458	4 X 4 TRACTOR LOADER	2007			OPERATIONS-Non Licensed	Non Licensed	127,500	Previously approved in 2019 (Project 19207 - \$85,200) - to be resubmitted in 2021 due to budget shortfall; Updated price based on 108-Q-20 - \$125k, plus 2% inflation
3471	ZERO TURN 60" DIESEL POWERED-ZD21F ZERO TURN	2012		1,532	OPERATIONS-Non Licensed	Non Licensed	15,814	Deferred from 2020 to 2021
3472	ZERO TURN 60" DIESEL POWERED-ZD21F ZERO TURN	2012		1,306	OPERATIONS-Non Licensed	Non Licensed	15,814	Deferred from 2020 to 2021
3493	ZERO TURN MOWER 60" DIESEL POWERED-ZD21F ZERO TURN	2012		1,676	OPERATIONS-Non Licensed	Non Licensed	15,814	Deferred from 2020 to 2021
3494	ZERO TURN MOWER 60" DIESEL POWERED-ZD21F ZERO TURN	2012		1,460	OPERATIONS-Non Licensed	Non Licensed	15,814	Deferred from 2020 to 2021
4036	ZERO TURN 60" REAR DISCHARGE DIESEL -TURN	2011		1,642	OPERATIONS-Non Licensed	Non Licensed	16,501	Deferred from 2019 to 2021
4141	ZERO TURN 60" DIESEL POWERED-ZD21F ZERO TURN	2012		1,682	OPERATIONS-Non Licensed	Non Licensed	15,814	Deferred from 2020 to 2021
4902	ELECTRIC POWERED UTILITY VEHICLE-CARRYALL 1	2011		944	OPERATIONS-Non Licensed	Non Licensed	15,347	
5350	FULL SIZE PICK UP-GMC SIERRA 1500	2008	15,451		MUSEM-1-Licensed	Licensed	31,485	Deferred from 2019 to 2021
6083	COMPACT VAN FWD-GRAND CARAVAN	2013	110,015		ENFOR LIC-Licensed	Licensed	25,284	
6084	COMPACT VAN FWD-GRAND CARAVAN	2013	96,027		ENFOR LIC-Licensed	Licensed	25,284	
6085	COMPACT VAN FWD-GRAND CARAVAN	2013	231,127		ENFOR LIC-Licensed	Licensed	25,712	
6093	COMPACT SUV FWD HYBRID-ESCAPE	2011	131,089		ENFOR LIC-Licensed	Licensed	45,365	Deferred from 2019 to 2021
6095	COMPACT VAN FWD-GRAND CARAVAN	2012	76,312		CLERK-1-Licensed	Licensed	26,994	Deferred from 2019 to 2021
6136	COMPACT CARGO VAN-GRAND CARAVAN	2013	193,246		ENFOR LIC-Licensed	Licensed	25,284	
6139	COMPACT SUV FWD -ESCAPE	2013	99,072		ENFOR LIC-Licensed	Licensed	28,854	
All	Operation Non Fleet < \$5,000 or Misc	2020			OPERATIONS- Operation Non Fleet < \$5,000 or Misc	Operation Non Fleet < \$5,000 or Misc	52,020	
						Total Pre-Tax	1,592,680	
						HST impact	28,031	
						Total Project Cost	1,620,712	
						Rounded Off - Project Cost	1,620,700	



2021 PROJECT FUNDING REQUEST FORM

Number: **21177**

Project Cost: **\$1,557,100**

Project Name: **Corporate Capital Contingency**

Commission: **Corporate Wide**

New Asset/Expansion

Department: **Corporate Wide**

Useful Life: **0**

Pre Approval: ☒

Project Mgr: _____

Category: **Major**

Cost Validation: **Other(specify in Notes)**

Ward(s): **CW** ☒ 1 ☐ 2 ☐ 3 ☐ 4

Requirement Validation: **Other(specify in Notes)**

5 ☐ 6 ☐ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Total amount of contingency for 2021 applicable capital projects.

BUILDING MARKHAM'S FUTURE TOGETHER:

PROJECT COSTS (\$)	2021	Future Phases	NOTES
Cost/Quote:	1,557,093	0	Other Internal funding breakdown: \$8,960 Non-DC Growth, \$3,800 Waterworks reserve, \$2,510 Development fee reserve
Internal Charges:	0	0	
External Consulting:	0	0	
Sub Total:	1,557,093	0	
HST Impact:	0	0	
Total Project Cost:	1,557,100	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget				TOTAL		Phases
DCA	1,206,461	0	0	0	0	0	0
Gas Tax	182,400	0	0	0	0	0	0
Operating Funded Life Cycle	77,600	0	0	0	0	0	0
Other Internal	15,270	0	0	0	0	0	0
Parks Cash-in-Lieu	70,169	0	0	0	0	0	0
Tax	5,200	0	0	0	0	0	0
TOTAL FUNDING	1,557,100				0		0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



Report to: General Committee

Meeting Date: Oct 5, 2020

SUBJECT: Contract Extension for Wide Area Network (WAN)
Connectivity and Internet Services

PREPARED BY:
Sugun Rao, Ext. 4868
Rosemarie Patano, Ext. 2990

RECOMMENDATION:

1. That the report entitled “Contract Extension for Wide Area Network (WAN) Connectivity and Internet Services” be received;
2. That the contract for WAN Services and Internet Services be extended for two (2) years (October 1, 2020 - September 30, 2022) to Rogers Communications at 11.6% discounted rate, in the amount of \$577,814.44, inclusive of HST, broken down as follows;

• October 1, 2020 – December 31, 2020	\$ 72,226.81
• January 1, 2021 – December 31, 2021	\$288,907.22
• January 1, 2022 – September 30, 2022	<u>\$216,680.41</u>
Total (2 years)	\$577,814.44
3. That the contract for Internet Services with higher bandwidth (increasing from 500Mbps to 600Mbps) be extended for two years (October 1, 2020 - September 30, 2022) to Bell Canada at the existing 2019 rate, in the amount of \$79,006.46 inclusive of HST, broken down as follows;

• October 1, 2020 – December 31, 2020	\$ 9,875.81
• January 1, 2021 – December 31, 2021	\$ 39,503.23
• January 1, 2022 – September 30, 2022	<u>\$ 29,627.42</u>
Total (2 years)	\$ 79,006.46
4. That the WAN Services from Rogers and the two Internet Services from Rogers and Bell to be funded from operating budget account# 400-404-5108 in amount of \$656,820.90 (inclusive of HST) over a two (2) year period;
5. That the tendering process be waived in accordance with Purchasing Bylaw 2017-8, Part II, Section 7 (1) (c) which states “when the extension of an existing contract would prove more cost-effective or beneficial”;
6. AND THAT Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

To exercise the option to extend contract 339-R-09 for Dual Redundant Internet Services and Wide Area Network (WAN) for an additional two (2) year term (October 01, 2020 to September 30, 2022) with Rogers Communications and Bell Canada.

BACKGROUND:

In 2009, the City of Markham awarded Internet Services and Wide Area Network (WAN) Connectivity via contract 339-R-09 to Rogers Communications and Bell Canada with Staff recommendations for 40 Mbps Internet Services (which was later upgraded to 200Mbps) and a managed 1 Gigabit Fibre connectivity solution to connect 34 City and Library sites, as well as a managed 10 Gigabit Fibre connectivity between the Civic Centre and 8100 Warden Avenue with Rogers Communications, and 500 Mbps Internet Services with Bell Canada. The fibre WAN connectivity provides the architectural and technical viability needed in order to meet the demands of delivering services for the City's residents from all City facilities. Accordingly, it has enabled the City to deploy key business applications across the network such as Voice over Internet Protocol (VoIP) for telecommunication, serving enterprise Geographic Information System applications over the internet, Closed Circuit Television (CCTV) and Supervisory Control and Data Acquisition (SCADA) capabilities for Waterworks, automated software deployment across the city, and for Automated Vehicle Location (AVL) for City fleet.

In addition, the City has been and will continue to provide enhanced self-service capability through the portal including recreation program registration, audio (and content) streaming of all Committee and Council meetings to the public, and free wireless public internet access in selected City facilities, among others. As City staff need to access higher bandwidth on a day-to-day basis to perform their duties (while on site or working from home) and the City continues to provide increased access to services through technology, the reliability and affordability of the technology infrastructure becomes increasingly important.

OPTIONS/ DISCUSSION:

The WAN is a vital component of the City's data network and access to fast and reliable internet connectivity continues to be a key priority to support virtual recreation programs and remote workers during the COVID pandemic. Staying with the current supplier would ensure the continued supply of a proven and reliable solution in this critical area and the avoidance of considerable disruption in the event of replacement.

In order to minimize the risk of internet outage from using a single provider, for redundancy and service provider diversity, the City also uses Bell Canada services as a second line of internet connection and staff recommend the contract with Bell Canada for these services to be renewed at the existing rate.

Staff concluded that it is in the best interest of the City to renew internet and WAN Services with Rogers Communications, and with both Rogers Communications and Bell Canada for internet services due to the following reasons:

1. Both Rogers Communications and Bell Canada are the only two vendors that provide the fibre connectivity in Markham. Both vendors continue to remain competitive with other service providers in the market;
2. The recommended contract extension pricing includes:
 - A negotiated 11.6% monthly rate reduction with Rogers Communications for the WAN connectivity and Internet services, for a net savings of \$38,090.40 per year;
 - A negotiated internet bandwidth increase from 500 Mbps to 600 Mbps for public wireless access at same rate.
3. Both Bell Canada and Rogers Communications have a proven track record with the City, and have provided satisfactory customer services during the current Term of 2010 – 2020.

It is recommended that the WAN and internet service contracts be extended for additional two (2) years with both Rogers and Bell. The cost for this service renewal is contained within the existing ITS operating budget.

FINANCIAL CONSIDERATIONS

The annual service fee for WAN and Internet Services will be paid from operating account 400-404-5108 as part of annual budget approved by Council.

	Total Cost of Award 2021 - 2022	Cost of Award by Year		
		Oct - Dec 2020	Jan to Dec 2021	Jan - Sep 2022
Rogers	\$ 577,815	\$ 72,227	\$ 288,908	\$ 216,680
Bell	<u>79,006</u>	<u>9,876</u>	<u>39,503</u>	<u>29,627</u>
Subtotal	656,821	82,103	328,411	246,307

	Total Cost of Award 2021 - 2022	Cost of Award by Year		
		Oct - Dec 2020	Jan to Dec 2021	Jan - Sep 2022
Rogers	\$ 577,815	\$ 72,227	\$ 288,908	\$ 216,680
Bell	<u>79,006</u>	<u>9,876</u>	<u>39,503</u>	<u>29,627</u>
Subtotal	656,821	82,103	328,411	246,307

2020 Budget Impact		
Budget for Oct to Dec 2020	\$ 91,626	(A)
Cost of Award	<u>82,103</u>	(B)
Savings for 2020	9,523	(C) = (A) - (B)

2021 Budget Impact		
Current Annual Budget	\$ 366,501	(D)
Cost of Award	<u>328,411</u>	(E)
Savings for 2021	38,090	(F) = (D) - (E)

Savings from October - December 2020 (C) in the amount of \$9,523 will be included in the 2020 year-end operating results of the City.

The 2021 operating budget will be reduced by \$38,090.

HUMAN RESOURCES CONSIDERATIONS

Not applicable

ALIGNMENT WITH STRATEGIC PRIORITIES:

Not applicable

BUSINESS UNITS CONSULTED AND AFFECTED:

Not applicable

RECOMMENDED BY:

Nasir Kenea
Chief Information Officer, ITS

Trinela Cane
Commissioner, Corporate Services



Report to: General Committee

Meeting Date: October 5, 2020

SUBJECT: Contract # 043-S-20 To Operate and Maintain the Combined Heat and Power System at Angus Glen Community Centre

PREPARED BY: Jason Vasilaki, Project Manager, Ext. 2845
Flora Chan, Senior Buyer, Ext. 3189

RECOMMENDATION:

1. THAT the report entitled “Contract # 043-S-20 To Operate and Maintain the Combined Heat and Power System at Angus Glen Community Centre” be received and,
2. THAT the Operation and Maintenance of the Angus Glen Combined Heat and Power System be awarded to Markham District Energy Inc. (“MDE”) to an annual upset limit of \$167,904.00 inclusive of HST impact for a period of five (5) years (2020 – 2024), totaling \$839,520.00 inclusive of HST impact (excluding adjustment to CPI) over that five (5) year period and,
3. THAT years 2 – 5 (2021-2024) be adjusted based on the Consumer Price Index (CPI) Ontario All-Items (January to January) and,
4. THAT the 2020 award be funded from operating budget account 504-921-5314 “Service Agreements Facility Maintenance” and,
5. THAT the tendering process be waived in accordance with Purchasing By-Law 2017-8, Part II, Section 11.1 (h), which states “where it is in the best interests of the City to acquire non-standard items or Professional Services from a supplier who has a proven track record with the City in terms of pricing, quality and service;” and,
6. THAT the Mayor and Clerk be authorized to execute the agreement with Markham District Energy Inc, in a form approved by CAO and the City Solicitor and,
7. THAT the CAO be authorized to extend the contract for an additional five (5) years (2025-2029) subject to Council’s approval of the annual operating budget
8. AND THAT Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

The purpose of this report is to seek Council’s authorization for a non-competitive award to Markham District Energy Inc. (“MDE”) to operate the Combined Heat and Power (CHP) system at Angus Glen Community Centre & Library and for associated maintenance advisory and maintenance co-ordination services on behalf of the City.

BACKGROUND:

The City recently installed a Combined Heat and Power (CHP) system at Angus Glen Community Centre & Library (AGCC&L). Commissioning is currently ongoing.

The CHP system utilizes a heat engine (a natural gas powered generator) to generate electricity. The facility uses this electricity in lieu of power from the electrical utility (grid), at a lower overall cost. A typical generator creates heat as a by-product, which is usually released to the environment as waste heat. The CHP process reclaims such waste heat and reuses it in the facility, thereby further creating even more savings in utility costs. At Angus Glen, this waste heat is used to supplementally heat the building's interior space, the domestic water and the water in the pools. As a result AGCC&L will see a reduction in overall operating costs as the utility savings are greater than the costs to operate the CHP (including this contract).

Markham District Energy Inc. (MDE) is an internationally recognized district energy company providing heating and cooling services to nearly 12 million square feet of private and public buildings in Markham with 15.5 MW (megawatts) of combined heat and power equipment in their system.

MDE is wholly owned by the City of Markham and provides heating and cooling services to City facilities including; Civic Centre, FLATO Markham Theatre, 8100 Warden, Pan Am Centre, Cornell CC&L and Fire Station 99.

OPTIONS/ DISCUSSION:

Retaining an experienced CHP operator would ensure maximum operational efficiency and energy savings are achieved. Staff recommends a non-competitive contract award to MDE based on following rationale:

Technical expertise

MDE has owned and operated CHP equipment since 2001. As part of the service agreement, MDE will provide the following services:

- CHP design and integration reviews
- Assisting with start-up and commissioning activities
- Establishing vendor maintenance contracts and reviews in conjunction with the City representative
- Managing warranty and vendor guarantees
- Management and ongoing review of CHP Vendor Service
- Management of any third-party service or repair firms
- Review and advise on natural gas contracts with Enbridge
- Updates to the City with respect to industry awareness, changing rules, regulation and advocacy
- Updates and assistance to the City with respect to Ontario Energy Board matters, LDC rules, electricity regulations specific to CHP
- Regular reporting to the City (daily, monthly and annual performance reports)

Efficiency and cost savings

This agreement is structured to ensure overall up-time (target of 8,400 hours per year) on the CHP equipment to ensure the City achieves the maximum annual utility cost savings from this capital investment.

In Staff's due diligence during business case development in 2018, we consulted with other municipalities that had already installed CHP units in recreation facilities and found that operational issues due to lack of expertise and availability of parts and service negatively impacted their ability to achieve base case targets or stretch targets. To maximize operational efficiencies, Staff sought out and have received advice and support from MDE during the scoping and construction of the CHP at AGCC&L. A performance based payment is recommended as part of the agreement, to act as an additional incentive for MDE to operate the CHP favourably and minimize downtime, thereby maximizing the energy savings to the City, as detailed in the Financial Considerations section. Such performance incentive payment clauses are common in the energy savings industry (e.g., building automation systems with a 50/50 split savings between the building owner and Energy Savings Company/provider), where revenue generated is highly impacted based on performance. Performance based contracting has been a successful model for procuring energy efficiency retrofits in the public sector for over twenty years.

MDE has experienced staff and resources and is located only 5.8 km from the CHP site to efficiently and effectively carry out operational services. As part of the service agreement, MDE's operating engineers will provide remote monitoring and control services 24 hours a day, 365 days a year. Alternative operators would take hours to respond to site issues and would be unavailable outside normal business hours.

MDE will be the first responder to site when abnormal or shut-down conditions occur for initial diagnosis and restart. MDE will then liaise with third-party technicians as required in order to minimize unnecessary dispatch services.

The overall intent is for MDE to be the one-stop shop, where MDE will take on full responsibility to operate and maintain the CHP system as if it was a MDE-owned asset.

The alternative would be for the City to hire another third party or its own technical expert to join our staff complement. By partnering with MDE the City is able to achieve enterprise synergies with a business we own, that is an expert CHP operator, and a company with which we have significant experience as a satisfied customer.

Staff Analysis

Staff tested the market and confirmed that pricing in the agreement is reasonable and competitive. The performance based incentive will serve to maximize operational efficiencies and savings to the City.

We believe this agreement provides the expected value to the City and staff will undertake a detailed review of performance results with MDE at the end of the second year of the contract.

Year one will be under warranty, therefore a second full year outside of warranty is necessary for a true measure of performance. The outcome of that review may result in continuation of the contract, cancellation or agreed to modifications.

FINANCIAL CONSIDERATIONS:

Award Breakdown

The total payment to MDE is comprised of 3 components: (1) an operating base fee, (2) a maintenance services fee and (3) a performance-based incentive; and will be paid from the reduction in the utility costs at AGCC&L.

Table 1: Award Breakdown:

All costs will be adjusted yearly based on Consumer Price Index (CPI) Ontario All-Items (January to January)

(1) Operating Base Fee

The annual base fee is \$45,792 inclusive of HST impact, and it includes the following:

- advisory and management services
- remote monitoring and operating services
- monthly (12) site visits and inspections per year by MDE's CHP Lead, and
- six (6) site visits per year by MDE's Operations staff for such things as manual re-starts or to enable the emergency power mode.

(2) Maintenance Services

MDE will invoice the City for costs from the CHP vendor with no markup on a transparent and open book basis. On-site operation and maintenance (O&M) services performed by MDE staff, as well as any required on-site attendance to supervise or assist the CHP vendor, will be billed on actual hours at \$71.40 per hour per person, and 1.5 times for after-hours work, plus HST impact. While the actual cost of maintenance services will fluctuate from year to year, and will be billed as incurred, MDE estimates that the average annual cost for the first 5 years of operation is expected to be approximately \$76,320, inclusive of HST impact.

(3) Performance Incentive

In the event MDE achieves utility savings on behalf of the City exceeding the base business case, such savings is shared 50/50 between the City and MDE, as a financial incentive for performance. The maximum incentive is capped at 100% of the base fee (\$45,792). On the other hand, a financial penalty is imposed in the event of negative performance below the base business case. The maximum financial penalty is a reduction of 50% in the operating fee (\$22,896). The penalty is limited because negative performance in utility savings may result from factors that are unrelated to MDE's performance (e.g. utility rate fluctuations, facility maintenance and/or deficiencies in the supply of the equipment by others) and MDE will have incurred sunk costs in fulfilling their contractual obligations.

The actual costs will be benchmarked against a Base Case financial scenario and both the positive and negative variance from the Base Case will be shared 50/50 with MDE.

Table 2: Incentive Illustration

	Base Case	Savings Above Base Case due to Low O&M Fees (Example 1)	Savings Below Base Case due to High O&M Fees (Example 2)	Savings Below Base Case due to Decrease in Hrs of Operation (Example 3)	Maximum MDE Incentive (Example 4)*
Hours of Operation	8,400	8,400	8,400	7,500	8,760
Electrical Utility Reduction	\$498,420	\$498,420	\$498,420	\$445,018	\$589,733
Natural Gas Utility Increases	(\$128,466)	(\$128,466)	(\$128,466)	(\$114,702)	(\$120,575)
Overall Utility Savings (A)	\$369,954	\$369,954	\$369,954	\$330,316	\$469,158
Maintenance Services	\$68,700	\$50,880	\$76,320	\$68,700	\$76,320
Base Fee	\$45,792	\$45,792	\$45,792	\$45,792	\$45,792
Total O&M Fees (B)	\$114,492	\$96,672	\$122,112	\$114,492	\$122,112
Net Savings (C = A - B)	\$255,462	\$273,282	\$247,842	\$215,824	\$347,046
Less: MDE Incentive (D)	\$0	\$8,910	(\$3,810)	(\$19,819)	\$45,792
Net Savings to City (E = C - D)	\$255,462	\$264,372	\$251,652	\$235,643	\$301,254
<u>Payment to MDE</u>					
Total O&M (B)	\$114,492	\$96,672	\$122,112	\$114,492	\$122,112
MDE incentive (D)	\$0	\$8,910	(\$3,810)	(\$19,819)	\$45,792
Total Payment to MDE	\$114,492	\$105,582	\$118,302	\$94,673	\$167,904

**Example 4 based on favourable fluctuations in utility rates.*

The Base Case scenario anticipates 8400 hours of operation per year at 95% availability at 2020 corporate electrical and natural gas utility budget rates. The Overall Utility Savings (A) is estimated based on utilities volume adjustment due to the CHP system. The Base Case estimates Net Savings (C) of \$255,462.

If MDE generates Net Savings (C) above or below the Base Case, the incentive will increase (Example 1) or decrease (Examples 2 and 3) the Total Payment to MDE will adjust accordingly.

In order to achieve maximum incentive, a minimum of \$347,046 in Net Savings (C) (or 35.9% above the Base Case) is required (Example 4), resulting in a net savings to the City of \$301,254.

Over the course of the first five (5) years (2020 – 2024), the award value is \$839,520.00 inclusive of HST impact (excluding adjustment to CPI) over that five (5) year period.

OPERATING BUDGET AND LIFE RESERVE IMPACT:

The capital investment, after the utilities incentive, is \$1,749,385 and is up-fronted by the Life Cycle Replacement and Capital Reserve through capital project #18083, Angus Glen Community Centre Combined Heat and Power (CHP) System. The estimated service life is 25 years and the estimated annual net cost savings according to base business case is \$255,462, upon start-up, subject to changes in actual usage, weather, facility operation, and utilities rates.

The payback period is approximately 6.8 years (\$1,749,385/\$255,462). Once the initial up-fronted costs have been fully paid back, the estimated net annual savings of \$255,462 will be split 50% (\$127,731) to the MECO account to fund other energy management initiatives and 50% (\$127,731) as a reduction to the Angus Glen Community Centre operating budget.

At the end of the 25 year life of the CHP, the project business case will be re-evaluated for re-investment based on the known benefits and costs at that time. It will not be entered into the City's Life Cycle Reserve.

LEGAL CONSIDERATIONS:

The City is subject to the following new trade agreements, which apply to public sector procurements above a certain dollar threshold: the Canada-European Union Comprehensive Economic and Trade Agreement (CETA), effective September 21, 2017; and the Canadian Free Trade Agreement (CFTA), effective July 1, 2017.

CETA and CFTA do not apply to this proposed procurement, as MDE and the City are affiliated entities.

ALIGNMENT WITH STRATEGIC PRIORITIES:

This project aligns with Building Markham's Future Together goals of:

1. Safe, Sustainable and Complete Community: The CHP unit is configured to provide back up power so Angus Glen CC&L can act as an emergency reception centre in the event of a prolonged power outage.
2. Stewardship of Money and Resources: The unit will provide substantial annual utility cost savings for one of our largest facilities for its service life of 25 years.

BUSINESS UNITS CONSULTED AND AFFECTED:

The Recreation, Legal, and Finance Departments have been consulted and their comments have been incorporated.

RECOMMENDED BY:

Graham Seaman, P. Eng, LEED AP, CEM
Director, Sustainability & Asset Management

Trinela Cane
Commissioner, Corporate Services



By-law 2020-xx

A BY-LAW TO ESTABLISH AND MAINTAIN A SYSTEM FOR THE COLLECTION AND DISPOSAL OF REFUSE IN THE CITY OF MARKHAM

BE IT ENACTED BY THE COUNCIL OF THE COPORATION OF THE CITY OF MARKHAM THAT the Refuse By-law 32-95 (a By-law to establish and maintain a system for the collection and disposal of refuse in the City of Markham) is hereby amended as follows:

- 1) That Schedule Section 15 (Non-collectible Refuse) be amended as follows:
 - a) By adding Clause “w” “Packaging Polystyrene (Styrofoam) excluding food grade polystyrene, packing peanuts, flexible packing sheets, foam wrap, craft/florist foam, pool noodles and rigid foam board (used for construction or hot tub covers)”
- 2) That Part I be amended to include Section 39 as follows:
 - a) By adding Definition “**Packaging Polystyrene (Styrofoam)** includes, but is not limited to, #6 plastic material used in the supply and delivery of furniture, appliances and other consumer items. Excluded from this designation is food grade polystyrene, packing peanuts, flexible packing sheets, foam wrap, craft/florist foam, pool noodles and rigid foam board (used for construction or hot tub covers)”

Read a first, second, and third time and passed on -----.

Kimberley Kitteringham
City Clerk

Frank Scarpitti
Mayor



By-law 2020-xx

A by-law to designate part of a certain
plan of subdivision not subject to Part Lot Control

The Council of The Corporation of the City of Markham hereby enacts as follows:

1. That Section 50(5) of the *Planning Act*, R.S.O. 1990, P.13 shall not apply to the lands within the part of a registered plan of subdivision designated as follows:

Block 1 (inclusive), Registered Plan 65M-4595;
City of Markham, Regional Municipality of York

2. This By-law shall expire two (2) years from the date of its passage by Council.

Read a first, second, and third time and passed on October 14, 2020.

Kimberley Kitteringham
City Clerk

Frank Scarpitti
Mayor



EXPLANATORY NOTE

BY-LAW NO: 2020-XXXX
Part Lot Control Exemption By-law

2124123 Ontario Limited
16-52 William Saville Street, 2-40 Teasel Way, and 3932-3940 Highway 7 East
Block 1 (inclusive), Registered Plan 65M-4595

The proposed By-law applies to Block 1 (inclusive), Registered Plan 65M-4595, municipally known as 16-52 William Saville Street, 2-40 Teasel Way, and 3932-3940 Highway 7 East. The subject blocks are developed with a total of 45 townhouse dwellings, located on the north side of Highway 7 East, on the west side of William Saville Street, east of Verclaire Gate, and south of Buchanan Drive in the Unionville Community.

The purpose of this By-law is to exempt the subject blocks from the Part Lot Control provisions of the *Planning Act*.

The effect of this By-law is to allow for the conveyance of 45 townhouse dwelling units.



BY-LAW 2020 -

A By-law to amend By-law 1229, as amended

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	Northwest corner of Deer Park Lane and Elizabeth Street (LOT 5)	Parent Zone R1
File ZA 19 128208	Part of Lots 11 and 12, Registered Plan 1149	Amending By-law 0000- 000
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)	Minimum <i>lot frontage</i> : 13.5 metres	
b)	Minimum <i>lot area</i> of: 600 square metres	
c)	Maximum Building <i>Depth</i> 17.9 m	
d)	Maximum <i>Height</i> : 10.2 metres	

Exception 12.44	Northwest corner of Deer Park Lane and Elizabeth Street (LOT 5) Part of Lots 11 and 12, Registered Plan 1149	Parent Zone R2
File ZA 19 128208		Amending By- law 0000- 000
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.		
12.44.1 Special Zone Standards		
a)	For the purposes of this by-law, the <i>front lot line</i> shall be the <i>lot line</i> abutting Deer Park Lane	
b)	Minimum <i>lot frontage</i> for a pair of <i>semi-detached dwellings</i> : 20.0 metres	
c)	Minimum <i>lot area</i> of a pair of <i>semi-detached dwellings</i> : 550 square metres	
d)	Minimum required yards: i) <i>Front Yard</i> – 5.0 metres ii) <i>Rear Yard</i> – 6.0 metres iii) <i>Interior Side Yard</i> – 1.2 metres and 0.0 metres iv) <i>Side yard</i> abutting a <i>street</i> – 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>	

3. All other provisions of By-law 1229, as amended, not inconsistent with the foregoing, shall continue to apply to the lands shown on Schedule “A” attached hereto.

Read a first, second and third time and passed this October 14, 2020.

Kimberley Kitteringham
City Clerk

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.

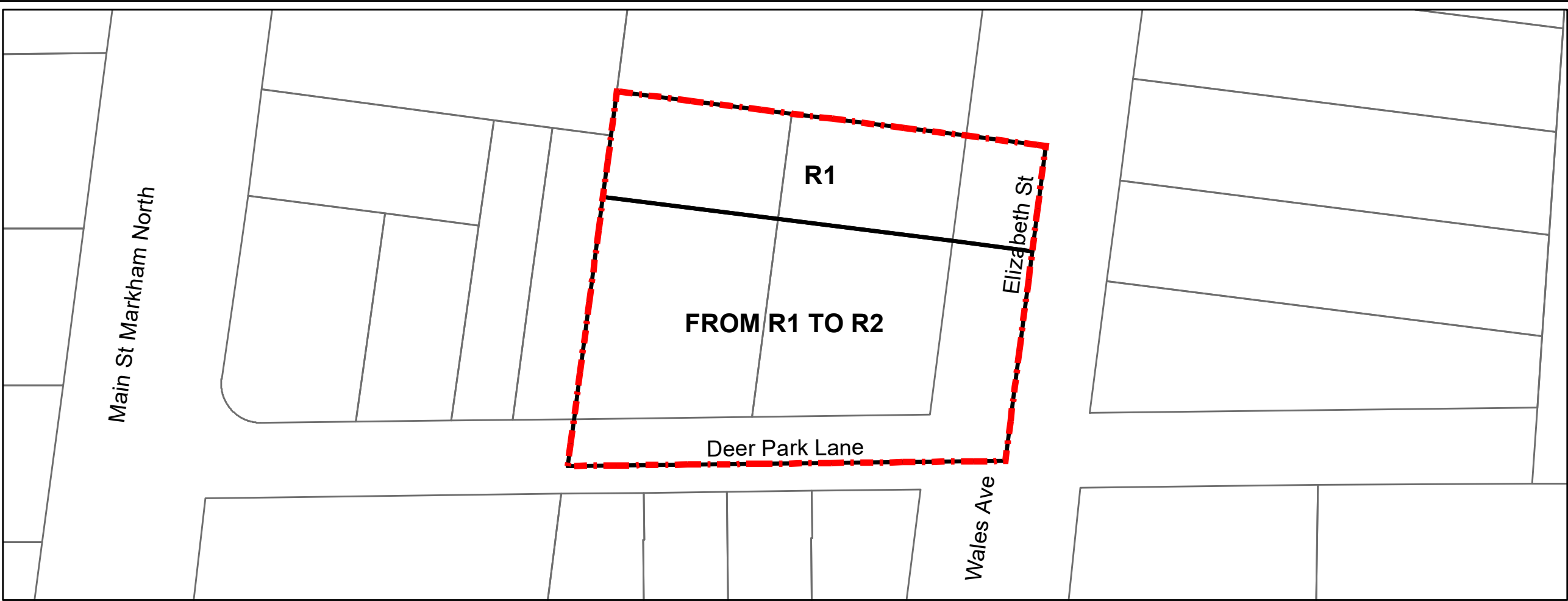
Purpose and Effect

The purpose of this by-law amendment is to amend, and incorporate the lands into an 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.

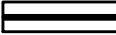


SCHEDULE "A" TO BY-LAW 1229

AMENDING BY-LAW 2020- DATED



BOUNDARY OF AREA COVERED BY THIS SCHEDULE



BOUNDARY OF ZONE DESIGNATION(S)

R1

ONE-FAMILY DETACHED DWELLINGS

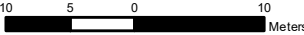
R2

ONE-FAMILY SEMI-DETACHED DWELLINGS

THIS IS NOT A PLAN OF SURVEY. Zoning information presented in this Schedule is a representation sourced from Geographic Information Systems. In the event of a discrepancy between the zoning information contained on this Schedule and the text of zoning by-law, the information contained in the text of the zoning by-law of the municipality shall be deemed accurate.



DEVELOPMENT SERVICES COMMISSION



Drawn By: RT

Checked By: AM

DATE: 28/07/2020

NOTE: This Schedule should be read in conjunction with the signed original By-Law filed with the City of Markham Clerk's Office

Q:\Geomatics\New Operation\By-Laws\PLAN\PLAN19_128208\Schedule A.mxd



By-law 2020-xx

A by-law to dedicate certain lands as
part of the highways of the City of Markham

WHEREAS Part Block 45, Plan 65M-3226 designated as Part 7, Plan 65R-37288 and Part Block 45, Plan 65M-3226 designated as Part 2, Plan 65R-38835, were conveyed to The City of Markham, Regional Municipality of York for public use.

NOW THEREFORE the Council of the Corporation of the City of Markham enacts as follows:

- 1. THAT Part Block 45, Plan 65M-3226 designated as Part 7, Plan 65R-37288 and Part Block 45, Plan 65M-3226 designated as Part 2, Plan 65R-38835 in the City of Markham, Regional Municipality of York are hereby established and laid out as part of the public highways of the City of Markham and named Active Road.

Read a first, second, and third time and passed on October 14, 2020.

Kimberley Kitteringham
City Clerk

Frank Scarpitti
Mayor

Highway 7

Gandhi Lane

Suncrest Boulevard

South Park Road

Lane

Saddlecreek Drive

Part 7 65R-37288

Active Road

Galleria Parkway

Part 2 on 65R-38835

Feeney Lane

South Park Road

