APPENDIX A

Public Consultation Materials

APPENDIX AI

Consultation Plan & Public Notices

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September 30, 2021 Reference No.: 20009

TO: Paul Grove, Transportation Engineering Lead, City of Vaughan
Mustafa Ghassan, Delta Urban

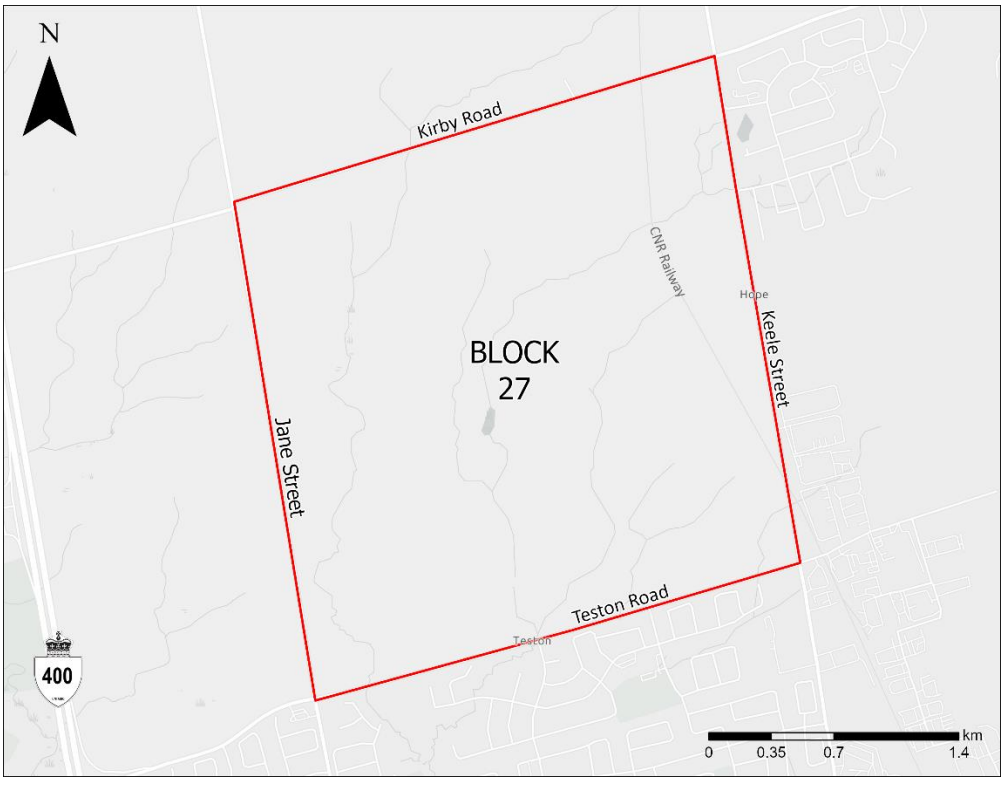
FROM: Chris Sidlar, Practice Area Lead, Transportation, LEA Group (LEA)
Irene Hauzar, Senior Project Manager, LEA
Katherine Kung, Senior Planner, LEA

RE: Block 27 Major Roads Municipal Class Environmental Assessment
Public Engagement and Consultation Plan

OVERVIEW

The Block 27 Landowners Group, in partnership with the City of Vaughan as a co-proponent, is undertaking a Schedule 'C' Municipal Class Environmental Assessment (MCEA) for the proposed collector roads and multi-modal transportation network within the Block 27 Secondary Plan Area which is located north of Teston Road (Regional Road 49), east of Jane Street (Regional Road 5), south of Kirby Road, and west of Keele Street (Regional Road 6) in the City of Vaughan, within the Regional Municipality of York. It is currently comprised of mainly agricultural lands, Greenbelt, and natural heritage systems (**Figure 1**).

Figure 1: Study Area



In accordance with the York Region Official Plan and the VOP, the City of Vaughan began the planning process for a new residential community, known as Block 27, in January 2015. The Block 27 Secondary Plan was adopted by Vaughan Council in September 2018 to guide future development in this area to the year 2031 and beyond. To ensure the viability and functionality of the transportation networks for Block 27, the Secondary Plan was developed in coordination with the North Vaughan and New Communities Transportation Master Plan (NVNCTMP). The transportation network will be designed to provide a multi-modal framework to support the long-term growth of the area and promote efficient movement of people and goods to areas within and to/from the Block 27 community.

The NVNCTMP completed Phases 1 and 2 of the MCEA process and identified the locations for the internal transportation network for the North Vaughan area, including the Block 27 Secondary Plan Area. This environmental assessment (EA) Study is completing Phases 3 and 4 of the MCEA for the proposed collector road and multi-modal transportation network within the Block 27 Secondary Plan Area, and will review the problems and/or opportunities statement developed and road alignments identified for the Block 27 Secondary Plan Area in the NVNCTMP, develop preliminary designs for the collector road alignments, multi-modal transportation network, crossings and structures, cross-sections, and identify a recommended plan.

The Public Engagement and Consultation Plan includes a wide range of online and print communication methods and opportunities for public involvement, including: a project website, social media, newspaper publications, Canada Post unaddressed (bulk) mail, and direct mail and email. One public information centre (PIC) is planned during the Study and is intended to be held virtually due to the on-going COVID-19 pandemic. While this plan outlines a comprehensive strategy for public engagement and consultation, it is expected to evolve over the course of the EA process responding to local needs, evolving public health guidance, and other challenges.

PROJECT STRUCTURE

Project Team

The public consultation process for this Study will be undertaken by LEA, in coordination with the City of Vaughan and the Block 27 Landowners Group.

Technical Advisory Committee

A Technical Advisory Committee (TAC) with staff from the City of Vaughan and external government agencies was formed during the Block 27 Secondary Plan and NVNCTMP process. A number of TAC meetings will be held for the Study and representation from the following agencies will be included on the Block 27 Major Roads EA TAC:

- City of Vaughan
  - Policy Planning and Special Programs (PPSP)

  - Infrastructure Planning and Corporate Asset Management
  - Emergency Planning
  - Parks Infrastructure Planning and Development
  - Parks, Forestry and Horticulture Operations
  - Cultural Heritage Division, Development Planning
  - Transportation and Fleet Management Services
  - Development Engineering
  - Development Planning
  - Environmental Services
  - Parks Development
- Ontario Ministry of Transportation
- Metrolinx
- York Region
  - Community Planning & Development Services
  - Planning & Economic Development, Corporate Services
  - Transportation Planning
  - Transportation PMO
  - Service Planning
  - York Region Transit
  - Capital Planning and Delivery Branch, Environmental Services
- Toronto and Region Conservation Authority
- Ministry of Natural Resources and Forestry – Aurora District
- Ministry of Environment, Conservation and Parks
- Ministry of Heritage, Sport, Tourism and Culture Industries
- Ministry of Indigenous Affairs
- King Township
- City of Richmond Hill
- Canadian National (CN) Railway
- TC Energy
- SmartCommute North Toronto-Vaughan
- King Township
- York Region District School Board

These agencies will be invited to form the TAC for the Block 27 Major Roads EA, provide advice and input at key stages in the planning and decision-making process.

There will also be individual meetings with the Departments, Divisions and Agencies as required.

Community Engagement

In addition to the agencies listed above, a preliminary jurisdictional and stakeholder scan identified the following community leaders, community groups, and businesses that will likely have an interest in the Block 27 EA:

- Local Councillor, Ward 1 (Maple/Kleinburg) - Councillor Marilyn Iafrate
- Local Councillor, Ward 3 (Woodbridge/Vellore) - Councillor Rosanna DeFrancesca
- Local Councillor, Ward 4 (Concord/Thornhill North) - Councillor Sandra Yeung Racco
- Regional Councillor - Councillor Mario Ferri
- Regional Councillor - Councillor Gino Rosati
- Regional Councillor - Councillor Linda Jackson
- Mackenzie Ridge Ratepayers Association
- Kleinburg and Area Ratepayers Association
- Millwood Woodend Ratepayers Association
- Vellore Woods Ratepayers Association
- Upper Thornhill & Area Community
- Block 27 Participating Landowners
- Rizmi Holdings / Milani Group
- Maplewood Ravines Community
- Cam Lo Vuong Buddhist Community Temple
- Vaughan BUG (Bicycle User Group)
- York Region District School Board
- York Catholic District School Board
- Conseil scolaire Viamonde
- MonAvenir conseil scolaire catholique
- Enbridge
- Alectra Utilities
- Rogers Communications
- Bell
- Canada Post

These individuals and groups will be contacted at the outset of the project to gauge their interest in participation and will be added to the stakeholder contact list and/or TAC as is appropriate.

Indigenous Community Engagement

LEA recognizes the duty to consult with Indigenous communities and organizations where decisions or actions may impact asserted or established Aboriginal or treaty rights. LEA is committed to meeting our duty to consult with Indigenous communities and organizations, and will work with the City of Vaughan, Block 27 Participating LOG, and Ministry of Indigenous Affairs to establish a meaningful dialogue and decision-making process with local Indigenous communities and organizations.

LEA will contact the Ministry of Environment, Conservation and Parks to confirm a list of relevant Indigenous communities and organizations, which will be engaged one-to-one to establish a process to:

- provide timely and accessible information to the Indigenous community on the proposed project;
- document any concerns raised by the Indigenous community; *and*
- determine how to address these concerns, including attempting to avoid, minimize and/or mitigate adverse impacts.

In recognition of their unique role in the engagement process, Indigenous communities and organizations will be engaged separately from the process outlined below. They will be invited to participate in Stakeholder Meetings and the Public Information Centre if interested but will be engaged one-to-one to ensure clear and timely communication.

The following Indigenous Communities were engaged as part of the NVNCTMP and will be engaged as part of the Block 27 EA, in addition to additional communities identified by MECP:

- Huron-Wendat First Nation
- Kawartha Nishnawbe First Nation
- Mississaugas of the New Credit First Nation
- Six Nations of the Grand River Territory
- Métis Nation of Ontario (MNO), Head Office
- MNO Toronto - York Region Métis Council
- Alderville First Nation
- Beausoleil First Nation
- Chippewas of Georgina Island First Nation
- Rama First Nation
- Curve Lake First Nation
- Hiawatha First Nation
- Mississaugas of Scugog Island First Nation
- Williams Treaties First Nations
- Chiefs of Ontario

Additional details on Indigenous community engagement that will be undertaken as part of this Study is summarized in the Indigenous Community Engagement Plan available under separate cover.

PUBLIC CONSULTATION PLAN

Stage 1 – Study Launch

Develop and confirm a key stakeholder list, inform key stakeholders and landowners of the Study commencement, increase public awareness of the EA purpose and process, and trigger involvement in subsequent phases.

- **June 28, 2021** – *Project Team Meeting #1: Study Kick-off*
- **September/October 2021** – Notice of Commencement (MECP & Indigenous Communities)
- **October/Early November 2021** – Notice of Commencement (External Agencies & Public)

Stage 2 – Confirmation of Phase 1 and 2

Involve the Technical Advisory Committee in confirming the conceptual collector road network and confirm needs moving into Phase 3 and Phase 4. Additionally, establish plans with the Landowners Group and obtain buy-in to commence the development of the alternative designs.

Stage 3 – Development of Alternatives and Alternative Design Concepts

Share information and seek input on the identification and evaluation of the new alternative road alignments, and alternative design concepts including the evaluation method, criteria, confirmation of recommended plan, and preliminary preferred designs. Key Stakeholders will be engaged.

- **October 14, 2021** – *Project Team Meeting #3: Summary of Phase 1 & 2 Review Results, Alternative Road Alignments, and Proposed Evaluation Criteria*
- **TBD**[1] – *TAC Meeting #1: Alternative Road Alignment Development and Proposed Evaluation Criteria*
- **TBD**[1] – *Stakeholder Meeting #1: Alternative Road Alignment Development and Proposed Evaluation Criteria*

Stage 4 – Evaluation of Alternative Designs for Collector Road

Based on the evaluation criteria confirmed by the TAC and Stakeholders, LEA will undertake a detailed review of each alternative design proposed. The evaluation will be documented for future public comment.

Stage 5 – Identification and Assessment of the Preferred Alternative Design

Work with the Project Team to review technical memos and identify necessary mitigation measures to execute the preferred alternative designs.

- **November 16, 2021** – *Project Team Meeting #4: Identification of the Preferred Alternative Design*
- **TBD**[1] – *TAC #2: Identification of the Preferred Alternative*

[1] Timing dependent on receiving list of Indigenous Communities from MECP and issuing Notice of Study Commencement (anticipated timing: Oct/Early Nov 2021). Project Team will schedule Stakeholder and TAC meetings following study commencement.

Stage 6 – Implementation and Construction Phasing Plan

Review the construction staging alternatives and estimated construction costs with the objective of selecting a preferred construction staging plan. Assess work to date and staging plan with the TAC and Stakeholders.

- **December 20, 2021** – *Project Team Meeting #5: Implementation & Construction Staging*
- **December 22, 2021** – *Stakeholder Meeting #2: Stakeholder Feedback, Draft Phasing and Construction Staging Plan*

Stage 7 – Public Information Centre (PIC)

Present the work to date for public feedback as per the statutory requirements of the MCEA process. Objectives include:

1. Fulfill requirements outlined in the MCEA planning process for Phases 3 and 4;
2. Encourage involvement of the wider community in a manner that enables meaningful input into the EA;
3. Build awareness of the opportunities for a multi-modal transportation network and public realm in Block 27 and the wider North Vaughan New Communities Study Area;
4. Engage a representative sample to inform planning and decision-making;
5. Ensure there are opportunities to voice concerns, questions and comments throughout the process;
6. Provide easy to understand information (visuals and maps) to receive public feedback; and
7. Document input and impact of the results provided towards building broad based support for the EA.

The PIC is intended to be a virtual public meeting with an introductory presentation, combined with web-accessed panels posted via the City's website. The content of the PIC display panels will include an explanation of the development of the alternative design concepts, the evaluation matrix, and the preliminary preferred design. Any potential impacts associated with each of the alternatives will be identified, along with the proposed mitigation measures. The virtual PIC panels will also present the initial construction phasing plan for the preliminary preferred design.

- **January 7, 2022** – *Project Team Meeting #6: Preparation, PIC #1*
- **January 13, 2022** - *TAC Meeting #3: PIC*
- **January 20, 2022** – *Hold PIC (Format TBD – Online / Virtual)*

Stage 8 – Functional Design Report

Summarize and address the feedback from PIC #1. Review all components of the project to date and provide an opportunity for the TAC, Stakeholders, and impacted Agencies to provide comments before the finalization of the Functional Design Report.

- **February 3, 2022** – *Project Team Meeting #7: Functional Design*
- **February 10, 2022** – *TAC Meeting #4: Summary of PIC #1 and Functional Design*
- **February 17, 2022** – *Stakeholder Meeting #3: Impacted Agencies*

Stage 9 – Environmental Study Report (ESR)

Summarize the EA undertaken, and file for a 30-day review period. Opportunities will be provided to the City, Block 27 Landowners Group, and external government agencies (if required) for review prior to the finalization and filing of the ESR.

- **February 28, 2022** – *Draft ESR, Circulate to City & Landowner Group and external agencies (as required) for review*
- **April 13, 2022** – *Finalize ESR and File ESR for 30-day review*

Meeting Count

- *Core Team: Bi-weekly Check-in Meetings* (36)
- *Project Team Meetings* (7)
- *Technical Advisory Committee Meetings* (4)
- *Stakeholder Meetings* (3)
- *Public Information Centre* (1)

RISK DOCUMENTATION AND RESPONSE

To recognize issues of interest to stakeholders, members of the Project Team will:

- Meet with key stakeholders and solicit their input
- Offer to meet with Indigenous Communities and solicit their input
- Record and analyze comments submitted by stakeholders and the public

Some possible issues to be addressed include:

- Coordination with concurrent studies (e.g. Transit Hub Special Study; Block 34, 35 and 41 Block Plan Applications; etc.)
- Consideration of environmental and habitat concerns
- Impact on utility and rail corridors, namely the TransCanada Pipeline and Barrie GO corridor

The Project Team will maintain a list of key issues and responses; further issues will be documented as the project progresses and stakeholders raise concerns.

KEY MESSAGES

Clear and consistent key messages will be used by the Project Team throughout the communication process to ensure public understanding, and to build a base of trust and support for the Study. Messages will be further refined and developed in coordination with the Project Team, TAC, Indigenous Communities, and Stakeholders.

Primary

- Support future growth and development through the establishment of a walkable street network and multi-modal transportation options that promote sustainable travel choices and reduce car dependency.
- Improve safety for pedestrians, cyclists, transit riders and drivers.
- Enhance connectivity to and from the Block 27 Community, including addressing impediments at rail and utility corridors.

Secondary

- Support activities related to the Block 27 Secondary Plan and NVNCTMP
- Support other network improvement initiatives in the area including the: Transit Hub Special Study; Kirby Road Widening EA; Block 27 Block Plan [Master Environmental and Servicing Plan (MESP)], and Block 34, 35 and 41 Studies.

RESPONSIBILITIES

The following delegation of responsibilities will be further refined at the project "kick-off meeting"

City of Vaughan

- Review and approve project documentation
- Manage the project website and all social media
- Review and approve agendas and materials for public consultation events
- Provide stakeholder contact lists from past studies (e.g., Block 27 Secondary Plan, NVNCTMP)
- Lead media contact
- Arrange newspaper publications
- Liaise with Councillors and City of Vaughan departments

Landowners Group (LOG)

- Review and approve project documentation
- Provide updates and any project reporting (e.g. environmental, engineering/technical, etc.) completed as part of the Block Plan and MESP

Consulting Team (LEA)

- Prepare agendas, sign in sheets, and participant tracking materials for the stakeholder meetings, TAC meetings, stakeholder meetings, and public consultation events (to be submitted to the City of Vaughan and LOG 10 business days in advance of an event)
- Prepare project material including drawings, display boards, presentations, and handouts
- Prepare newspaper notices, and notification letters
- Prepare meeting minutes/notes/summaries of stakeholder meetings and public consultation events

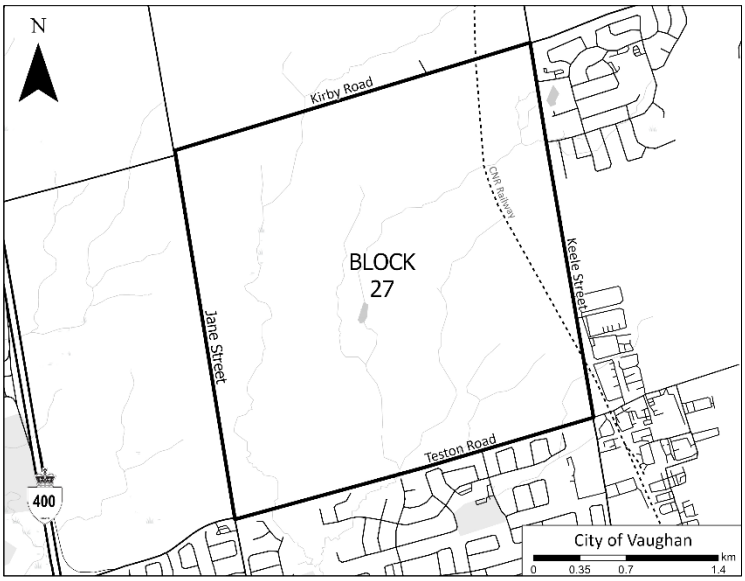
- Prepare summaries of public consultation events (date, location, number of participants, name/name of group represented, summary of feedback/common themes, media tracking and documentation of issues and discussions)
- Organize logistics related to PIC
- Lead and facilitate PIC, and Stakeholder and TAC meetings
- Provide project website design structure and content (public engagement material to be submitted 10 days prior to presentation to the public)
- Distribute invitations to consultation events to stakeholder list
- Provide content for letters to Indigenous communities and organizations (on City of Vaughan letterhead)

NOTICE OF STUDY COMMENCEMENT

BLOCK 27 MAJOR ROADS MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

THE STUDY

The **City of Vaughan**, as co-proponents with the **Block 27 Landowners Group Inc.**, has retained **LEA Consulting Ltd**. (LEA) to conduct a "Schedule C" Municipal Class Environmental Assessment (MCEA) for the development of the Block 27 Major Roads. Please refer to the map for the location of the Block 27 study area.



The overall goal of this Study is to:

- Present a series of preliminary designs for the road alignments and cross-sections; and
- Determine the preferred alternative for each road alignment (roadway segment).

BACKGROUND

In 2018, the City of Vaughan's *North Vaughan and New Communities Transportation Master Plan* (NVNCTMP) identified the transportation requirements for "new community" areas, including Block 27, to determine the transportation networks within these communities, and ensure they are integrated and connected externally to the broader North Vaughan area. The NVNCTMP completed Phases 1 and 2 of the MCEA process and identified the locations for the internal transportation network within the Block 27 Secondary Plan Area.

THE PROCESS

The Study is being carried out as a Schedule 'C' project in accordance with the *Municipal Class Environmental Assessment* (Municipal Engineers Association, October 2000, as amended in 2007, 2011 & 2015), and will complete Phase 3 and 4 of the process. The MCEA process includes public, stakeholder and agency consultation, an evaluation of alternatives, an assessment of potential environmental effects of the proposed improvements, and identification of reasonable measures to mitigate any potential adverse impacts. Indigenous Communities with an interest in the City of Vaughan will also be engaged.

CONSULTATION

The City of Vaughan values the voice of its citizens and is dedicated to having a dialogue with the community that is open, transparent, accessible, and inclusive. The Project Team will engage and collaborate with the public and stakeholders to learn, and discuss possible ways to design the future road network as complete streets to integrate more sustainable transportation choices (e.g. sidewalks, bike lanes) into the transportation network to support the development of a vibrant, and well connected community.

One Public Information Centre will be held later in the Study. Following the completion of the Study, an Environmental Study Report will be filed for a 30-day review period. Details on how to participate in these consultation events will be advertised and sent to contacts on the study mailing list later in the Study.

CONTACT US

For further information about this Study, including ongoing updates, please visit the study website (https://vaughan.ca/Block27EA). If you would like to be added to the study mailing list and be kept informed of future consultation events, or submit questions or comments at any time during the Study, please contact the City's Project Leads below:

Chris Sidlar, MCIP, RPP
Practice Area Lead, Transportation
LEA Consulting Ltd.
425 University Avenue, Suite 400
Toronto, ON M5G 1T6
Tel: 416-572-1791
Email: CSidlar@lea.ca

Paul Grove, MCIP, RPP
Transportation Engineering Lead
City of Vaughan
2141 Major Mackenzie Drive
Vaughan, ON L6A 1T1
Tel: 905-832-2281 (ext. 8857)
Email: paul.grove@vaughan.ca

Information is being collected under the Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

This Notice first issued December 16, 2021.

NOTICE

NOVEMBER 2022

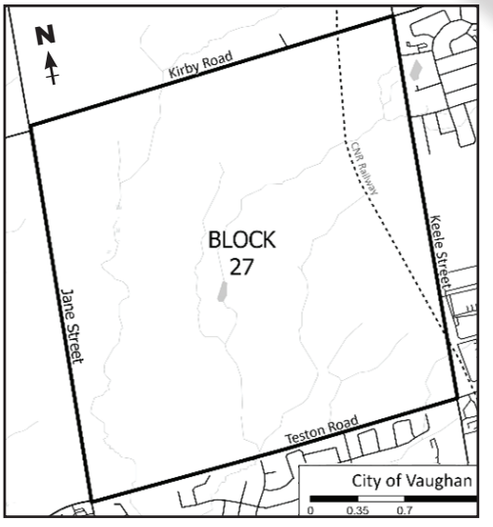
VAUGHAN

Block 27 Collector Roads Municipal Class Environmental Assessment

Online Public Information Centre

You are invited to attend an online Public Information Centre on **Wednesday, Nov. 16** from **6 p.m. until 7:30 p.m.** Those who attend will have the opportunity to:

- review the background of the study.
- learn about project updates and next steps.
- review and provide input on the existing conditions, updated recommended collector road network for Block 27 and the recommended designs for the collector roads.
- provide comments on the information shared and ask the project team questions.



Register to attend by scanning the QR code, visiting **vaughan.ca/Block27EA** or **www.surveymonkey.com/r/Block27MCEA**.

Following the online Public Information Centre, a recording of the session will be available at **vaughan.ca/Block27EA**. If you would like to formally submit questions or comments about the project, please email the project team at **Block27EA@vaughan.ca** by **Wednesday, Nov. 30**.

The Study

The City of Vaughan, as co-proponents with the Block 27 Landowners Group Inc., has retained LEA Consulting Ltd. (LEA) to conduct a Municipal Class Environmental Assessment (MCEA) study for the development of collector roads within the area bounded by Kirby Road to the north, Teston Road to the south, Keele Street to the east and Jane Street to the west (herein referred to as "Block 27"). Collector roads provide organization to the local street system within a residential area and provide connection points to larger arterial roads.

The Process

The study is being completed in accordance with the planning and design process for Schedule 'C' projects, as outlined in the Municipal Engineers Association MCEA guidelines (October 2000, as amended in 2007, 2011 and 2015).

This study is building upon the recommendations in the North Vaughan New Communities Transportation Master Plan and the Block 27 Secondary Plan work completed by the City in 2018 and 2019, which identified the preferred collector road network within Block 27.

This MCEA study has reviewed the Phase 1 and Phase 2 work completed in the City's North Vaughan New Communities Transportation Master Plan and is completing Phase 3 and Phase 4 of the MCEA process by developing and evaluating road design alternatives, assessing the potential environmental effects and identifying measures to mitigate any potential adverse impacts.

Contact Us

If you have any other questions, accessibility requirements, or you would like to join the study mailing list or share comments, please visit the study website at **vaughan.ca/Block27EA** or contact the project team:

Chris Sidlar, MCIP, RPP
Vice President, Transportation, LEA Consulting Ltd.
425 University Ave., Suite 400
Toronto, ON M5G 1T6

Tel: 416-572-1791
Email: Block27EA@vaughan.ca

Paul Grove, MCIP, RPP
Transportation Engineering Lead, City of Vaughan
2141 Major Mackenzie Dr.
Vaughan, ON L6A 1T1

Tel: 905-832-2281, ext. 8857
Email: Block27EA@vaughan.ca

Comments and information are being collected to assist the City of Vaughan and Block 27 Landowners Group Inc. in meeting the requirements of the Ontario Environmental Assessment Act. Information is being collected under the Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

This notice was first issued on Wednesday, Nov. 2, 2022.

APPENDIX AII

PIC Communication Materials

BLOCK 27 COLLECTOR ROADS

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

SCHEDULE ‘C’ - PHASES 3 & 4

PUBLIC INFORMATION CENTRE

NOVEMBER 16, 2022

VAUGHAN LEA

VAUGHAN

Land Acknowledgment

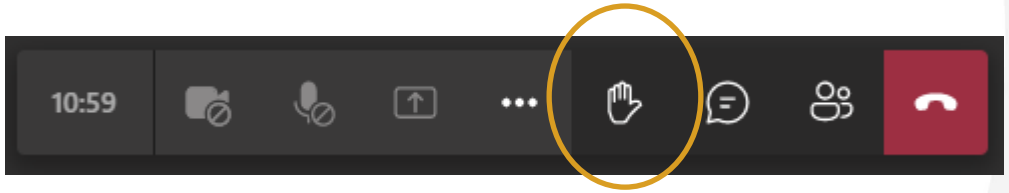
We respectfully acknowledge that the City of Vaughan is situated in the Territory and Treaty 13 lands of the Mississaugas of the Credit First Nation. We also recognize the traditional territory of the Huron-Wendat and the Haudenosaunee. The City of Vaughan is currently home to many First Nations, Métis and Inuit people today. As representatives of the people of the City of Vaughan, we are grateful to have the opportunity to work and live in this territory.

SAFETY MOMENT

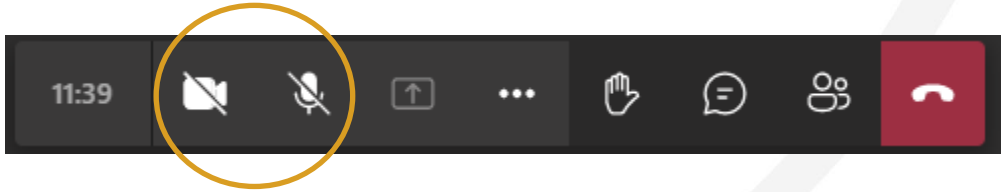
HOUSEKEEPING

During the presentation your microphone and camera will be disabled.

Should you wish to ask a question during the discussion periods, **please raise your hand** and when you are selected and it is your turn your microphone and camera will be enabled.

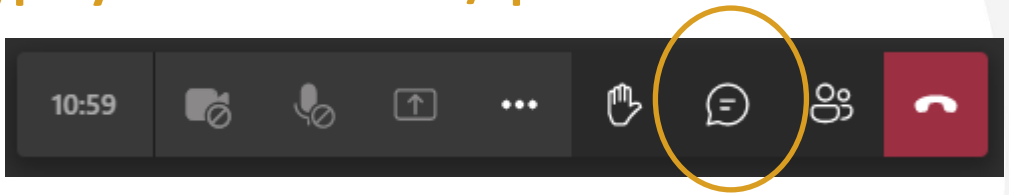


Once enabled you will need to **unmute yourself to speak**, please also feel free to turn your camera on while speaking.



HOUSEKEEPING

Should you not wish to speak, but you do have a question, **please feel free to type your comments/questions in the chat**.



Please ensure your volume is turned up. If you encountering issues with sound, please select the three dots and review your device settings, if you wish you may also turn on live captions.

Be respectful, no racist or other forms of discriminatory, prejudicial or hateful comments/questions will not be tolerated.

PROJECT TEAM INTRODUCTIONS

City of Vaughan

- Paul Grove, Transportation Engineering Lead
- Pirooz Davoodnia, Manager (A), Development Transportation Engineering
- Ruth Rendon, Senior Environmental Planner
- Cameron Balfour, Senior Planner, Policy Planning and Environmental Sustainability

Block 27 MCEA Consulting Team

- Chris Sidlar, Consultant Project Manager (LEA Consulting Ltd.)
- Mustafa Ghassan, Block 27 Development Coordinator (Delta Urban)

AGENDA

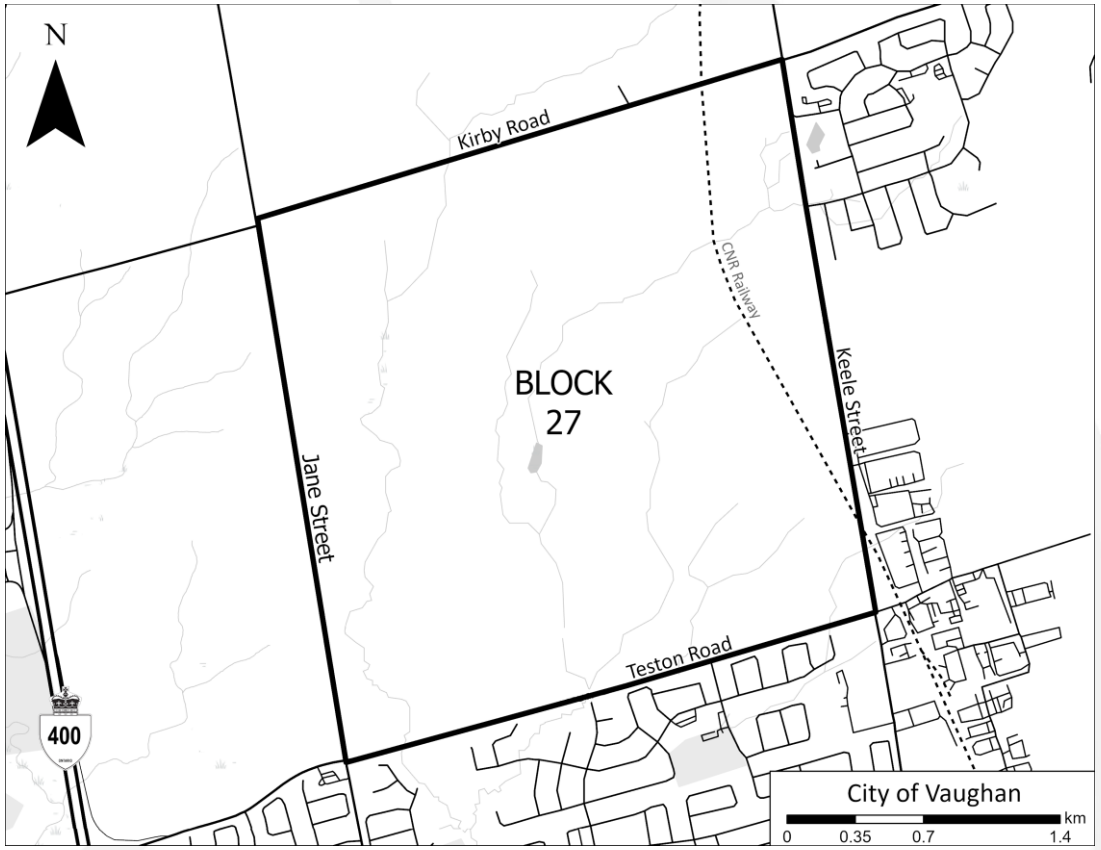
1. Project Background
2. Recap of the North Vaughan & New Communities Transportation Master Plan
3. Existing Conditions
4. Evaluation Criteria
5. Preferred Alternative Road Alignments
6. *Discussion #1*
7. Preferred Alternative Cross-Sections
8. Next Steps
9. Q & A Session

PROJECT BACKGROUND

PROJECT OVERVIEW

- Establish the collector roads in the Block 27 community area
- Following the Municipal Class Environmental Assessment process for a Schedule ‘C’ project
- Confirm the preferred road alignment for each collector road
- Develop and evaluate a set of preliminary designs for the collector roads

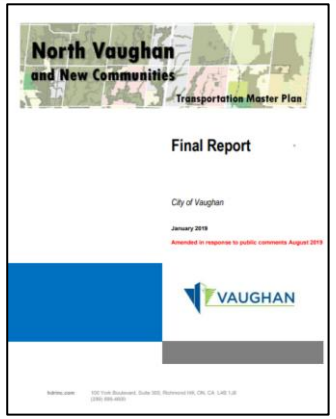
Block 27 Study Area



CLASS ENVIRONMENTAL ASSESSMENT PROCESS

Background

- The City completed the North Vaughan and New Communities Transportation Master Plan (NVNCTMP) in 2019 which satisfied Phases 1 & 2 of the MCEA
- The Block 27 Secondary Plan was approved in 2019 and establishes the collector road network
- In Dec. 2021, the City of Vaughan and Block 27 Landowners Group initiated Phases 3 & 4 of the MCEA



North Vaughan and New Communities Transportation Master Plan

PHASE 1
Identify Problem/Opportunity

PHASE 2
Identify Alternative Solutions

Evaluate Solutions
Identify Preliminary Preferred Solution

PHASE 3
Identify Alternative Designs

WE ARE HERE

Evaluate Alternative Designs
Identify Preferred Alternative Designs

Block 27 Collector Roads MCEA

PHASE 4
Document Findings in Environmental Study Report

30-day Review Period

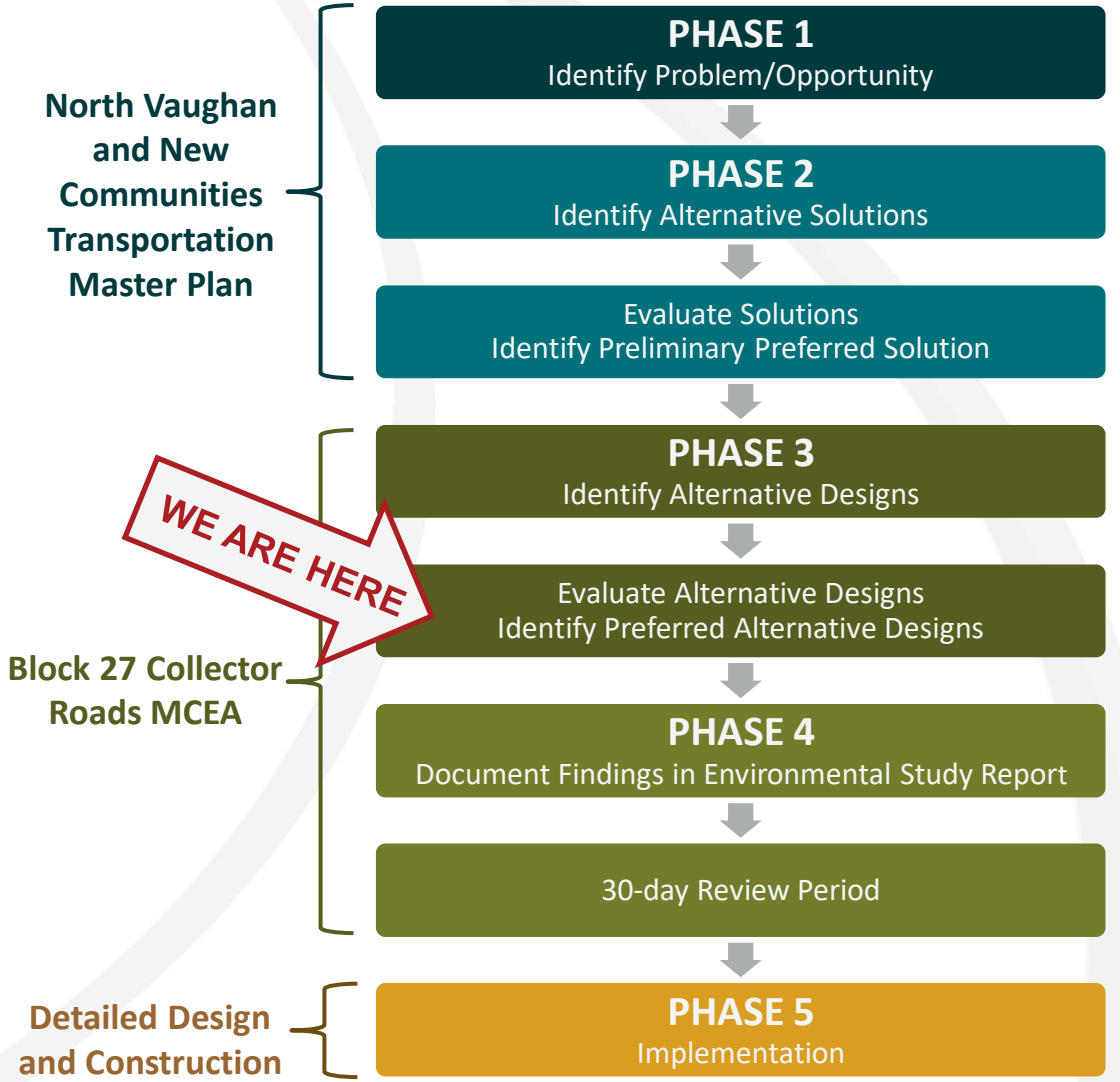
Detailed Design and Construction

PHASE 5
Implementation

CLASS ENVIRONMENTAL ASSESSMENT PROCESS

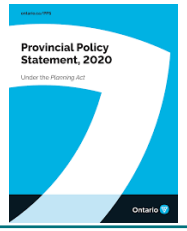
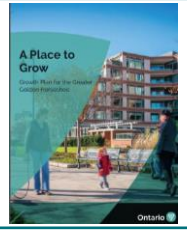
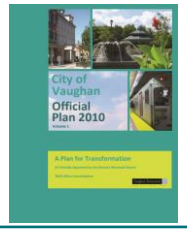
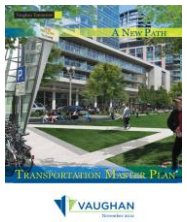
Collector Roads MCEA

- Builds on the work completed in the NVNCTMP
- Phases 3 & 4 of the MCEA
- Input is being sought from agencies, Indigenous Nations, and members of the public
- An Environmental Study Report will be prepared for a 30-day review period upon completion of the study
- Following the MCEA, the study will move into Detailed Design and construction



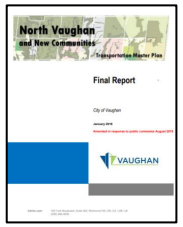
KEY POLICIES AND STUDIES

Existing policies/guidelines were reviewed to inform this this study. The Project Team considered the following key policies in the study, among others:

	**Provincial Policy Statement (2020)** The *Provincial Policy Statement* provides policy direction on matters of provincial interest related to land-use planning and development
	**A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020)** The *A Place to Grow Plan* establishes a long-term framework for where and how regions in Ontario will grow
	**City of Vaughan Official Plan (2010)** The *City of Vaughan Official Plan* establishes the land-use and planning policies to guide growth and development within the City
	**City of Vaughan Transportation Master Plan (TMP) (2012)** The City's TMP identifies key transportation issues and provides strategic direction on options to set the stage for development of a long-range transportation vision in the City of Vaughan

KEY POLICIES AND STUDIES

Existing policies/guidelines were reviewed to inform this this study. The Project Team considered the following key policies in the study, among others:

	**City of Vaughan Pedestrian and Bicycle Master Plan (2020)** The City's Pedestrian and Bicycle Master Plan establishes planning guidelines to design and plan for more walkable, bikeable, and connected communities
	**North Vaughan & New Communities TMP & Block 27 Secondary Plan (2019/2018)** The *NVNCTMP* & *Block 27 Secondary Plan* establishes the planning and land-use policies within Block 27, including the collector road network within the community area
	**Block 27 Master Environmental Servicing Plan (MESP) (underway/concurrent)** The Block 27 MESP is being prepared to support the Block 27 development and includes a detailed summary of the environmental features within the study area
	**City of Vaughan and York Region's Engineering Design Criteria and Standards Drawings** The City and Regional's Engineering Design Criteria and Standards provides

ADJACENT PROJECTS

The Project Team has been coordinating with the following adjacent projects / studies:

	**Teston Road Area Transportation Improvements Individual Environmental Assessment** • Aims to address transportation problems and opportunities in the Teston Road area • Recommends new four-lane Teston Road between Dufferin and Keele
	**Kirby Road Widening Environmental Assessment** • Widening of Kirby Road between Jane and Dufferin from two to four lanes • Completed in July 2022
	**Block 34 East Block Plan (Planning Phase)** • Developing a block plan designating land uses for Block 34 East • Application proposes to implement future development of an employment area
	**Kirby GO Station Transit Project Assessment Process (TPAP)** • Proposes a new GO station on Kirby Road along the Barrie Railway Corridor • Located in the north-east corner of Block 27
	**Highway 413 Individual Environmental Assessment** • Proposes a new 52 km highway between Hwy 400 and the Hwy 401/407 interchange in Mississauga • Preferred interchange locations identified, including a new interchange north of Hwy 400/Kirby

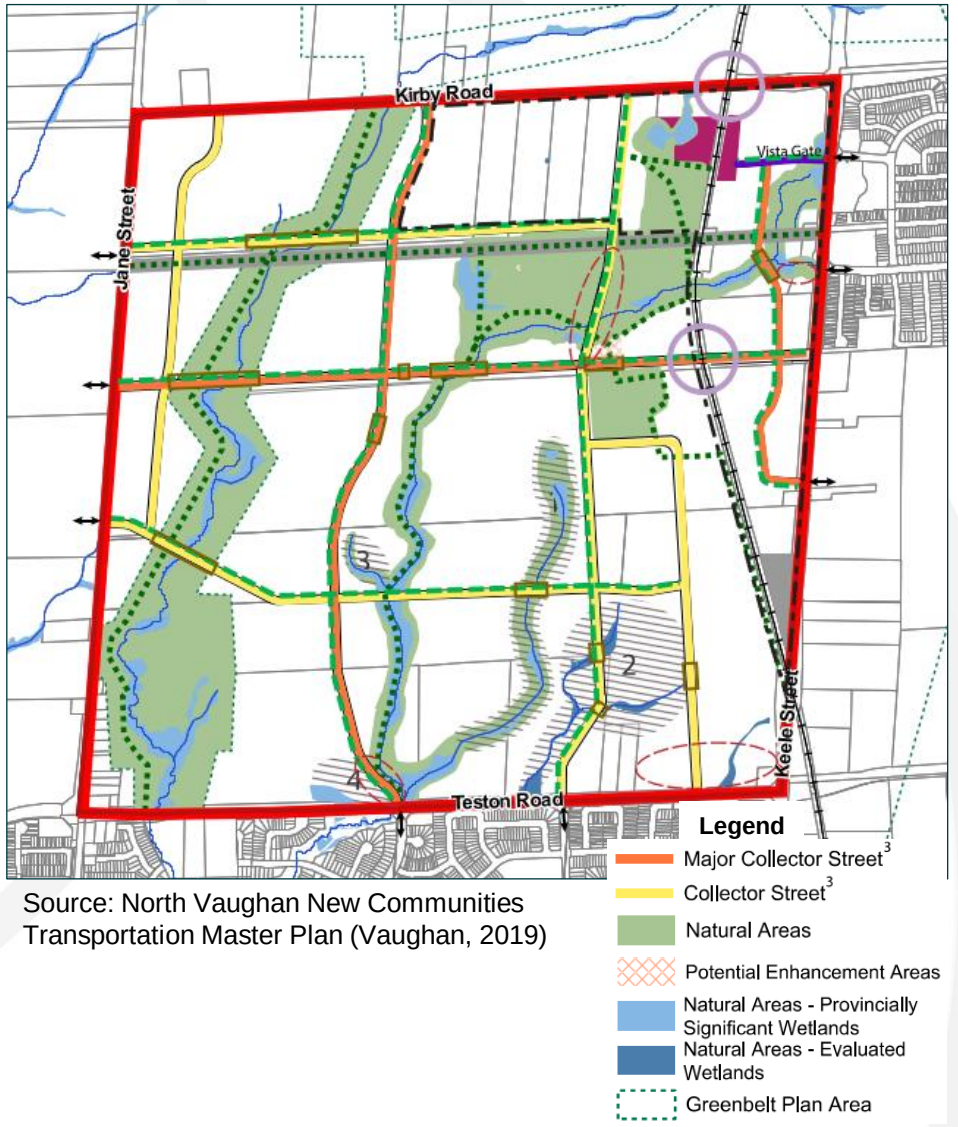
RECAP OF THE NVNCTMP

PLANNING & POLICY CONTEXT

North Vaughan & New Community Transportation Master Plan (NVNCTMP) & Block 27 Secondary Plan

- NVNCTMP determined the long-term transportation needs of Block 27:
  - Need and justification for the recommended collector street network (forms basis of study)
  - Documented existing conditions
  - Developed and evaluated 3 collector road networks
  - Identified 8 collector roads in Block 27 which forms the recommended road network
  - Incorporated in the Block 27 Secondary Plan (approved in 2019)

Block 27 Secondary Plan Preliminary Road Network



Source: North Vaughan New Communities Transportation Master Plan (Vaughan, 2019)

NVNCTMP
RECAP OF PREVIOUS FINDINGS: MCEA PHASE 1

The problems and opportunities identified in the NVNCTMP remains relevant for the Block 27 MCEA study.

Problems

- Capacity and Operational Constraints
- Network Gaps
- Limited Active Transportation Facilities
- Limited Transit Service
- Reduced Connectivity and Safety
- Sub-standard Road Cross-Sections
- Overburdened East-West and North-South Continuous Links

Opportunities

- Improve connectivity and continuity
- Bridging Gaps and Eliminating Jogs
- Provide Active Transportation Facilities
- Expand Transit Services
- Improve Cross-Sections and Slopes

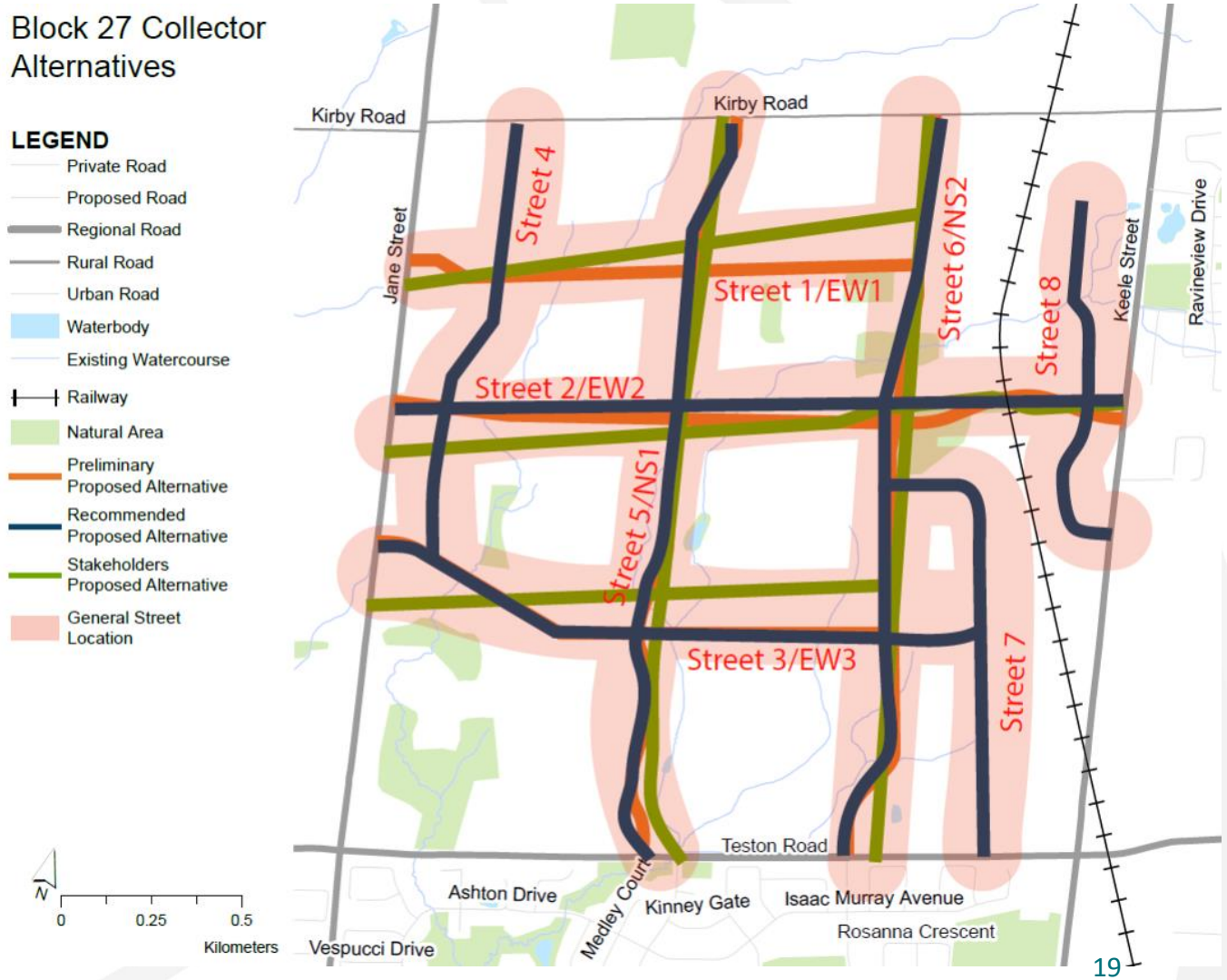
NVNCTMP
RECAP OF PREVIOUS FINDINGS: MCEA PHASE 2

Alternative Solutions

3 alternative road networks were developed and evaluated:

1. Alternative 1 (Orange): Preliminary Proposed Alternative
2. Alternative 2 (Green): Stakeholder Proposed Alternative
3. Alternative 3 (Blue): Recommended Proposed Alternative

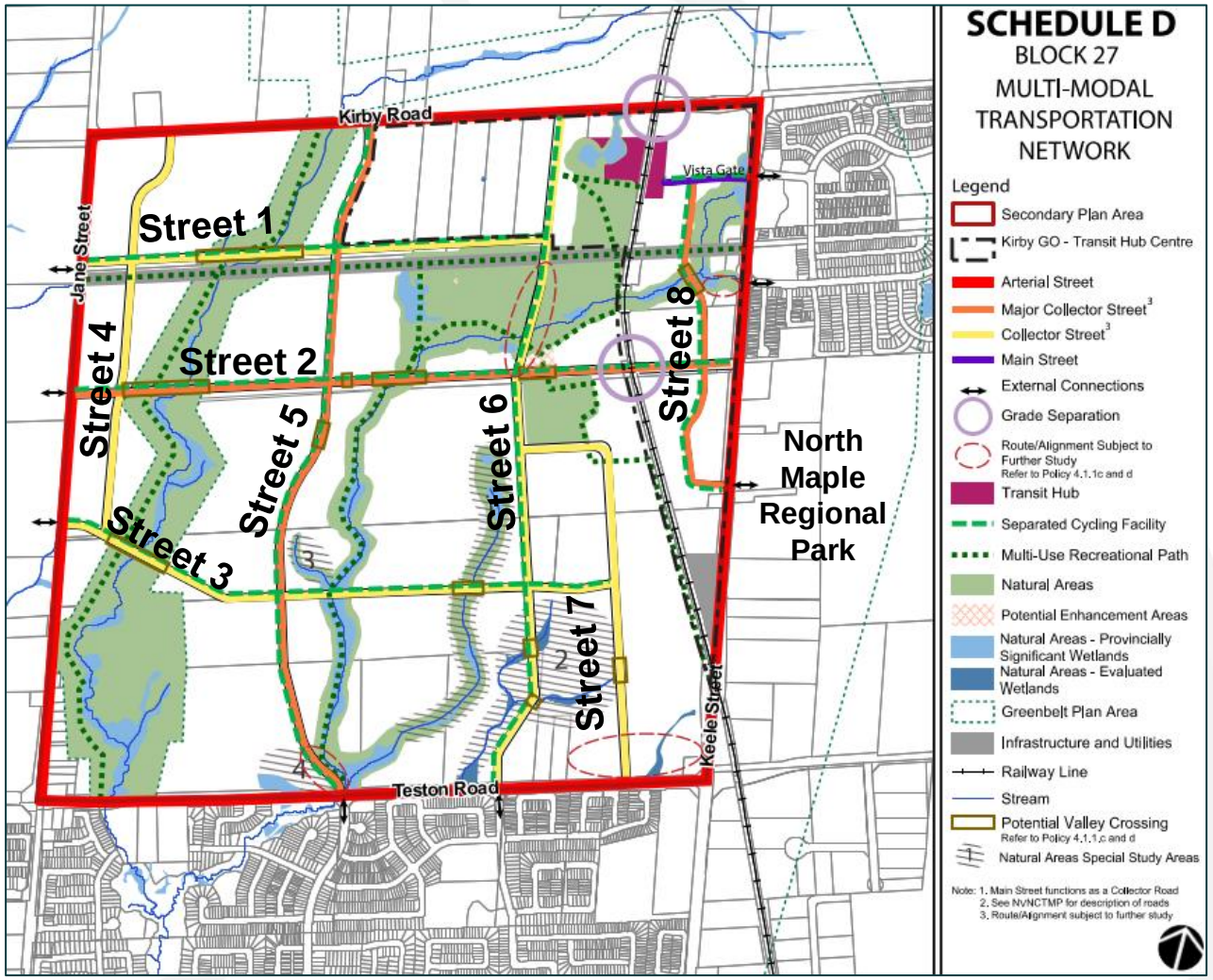
Based on the evaluation conducted, **Alternative 3 (blue)** was identified as the preferred collector road network



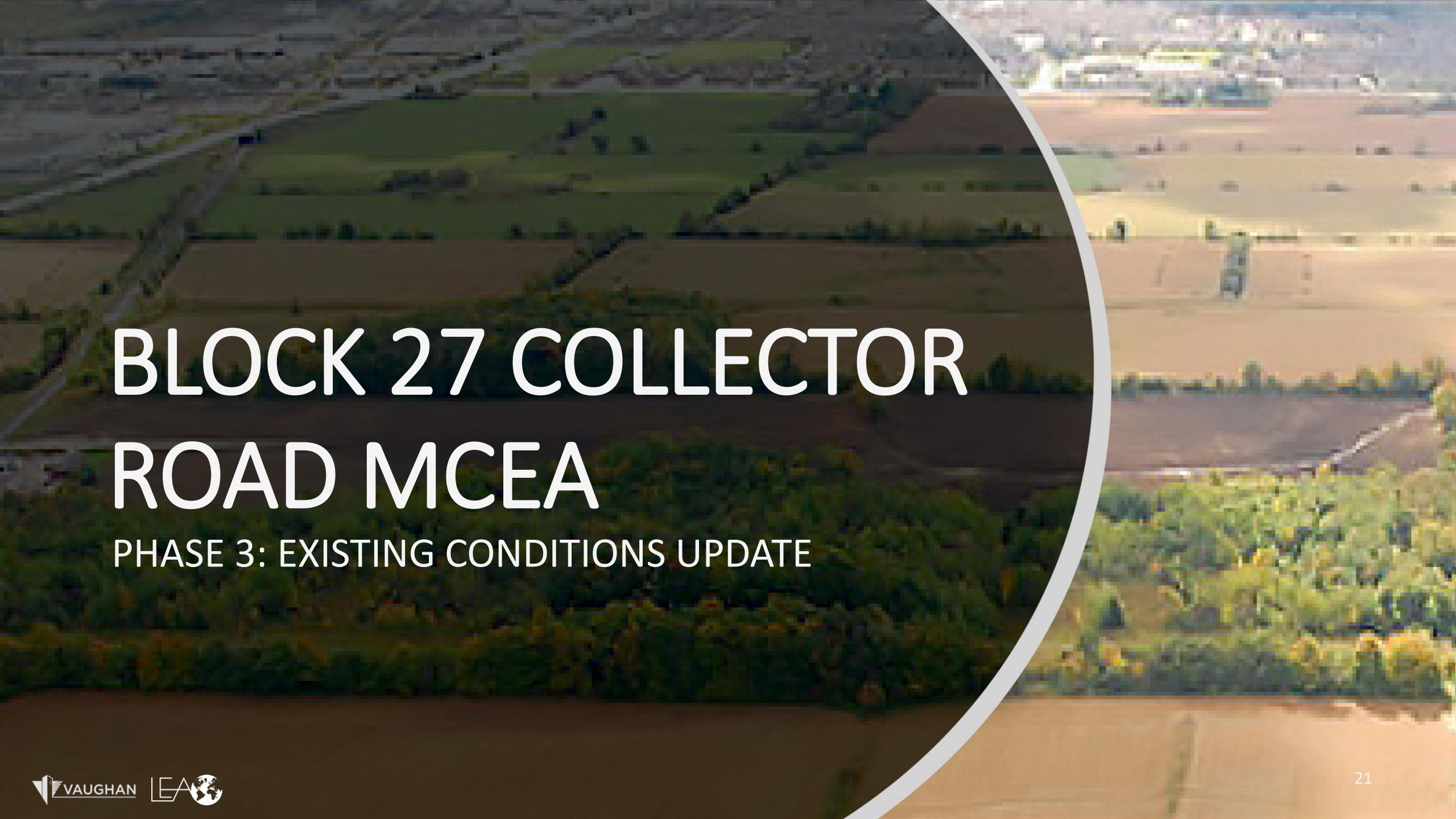
NVNTMP
RECAP OF PREVIOUS FINDINGS: PREFERRED TRANSPORTATION NETWORK

Preferred Transportation Network

- Access to Kirby Rd. at Kirby GO Station
- Grade separated railway crossing at Street 2
- Direct connections to adjacent Blocks
- Major collector roads (26m ROW): accommodates 2 travel lanes (each direction), active transportation facilities, potential on-street parking, landscaping, and other uses
- Minor collector roads (24m ROW): accommodates 1 travel lane (Each direction), active transportation facilities, potential on-street parking, landscaping, and other uses



Source: Block 27 Secondary Plan

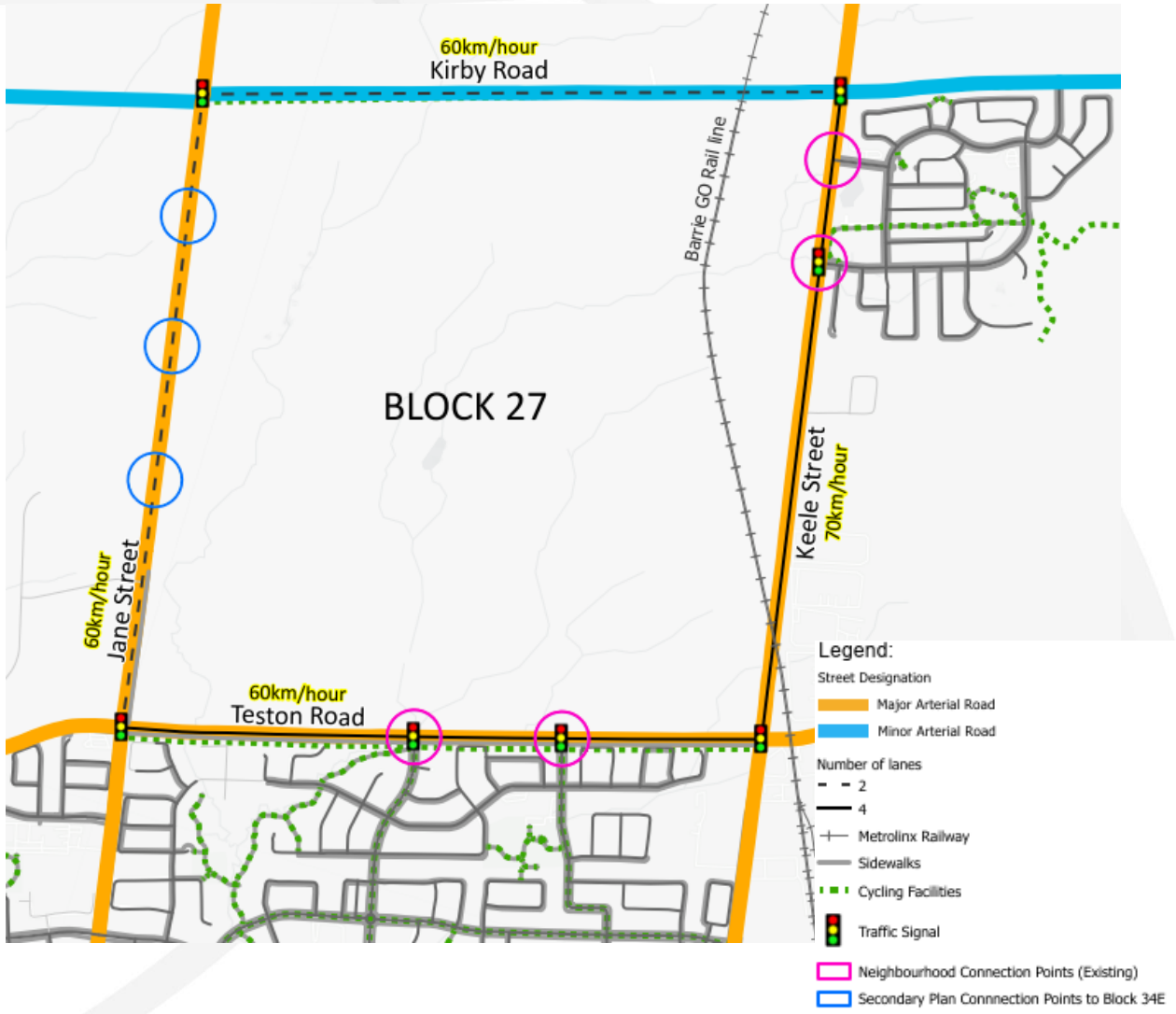


BLOCK 27 COLLECTOR ROAD MCEA

PHASE 3: EXISTING CONDITIONS UPDATE

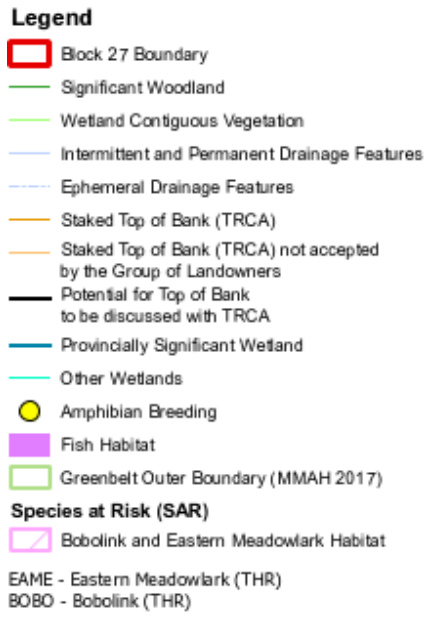
EXISTING TRANSPORTATION FEATURES

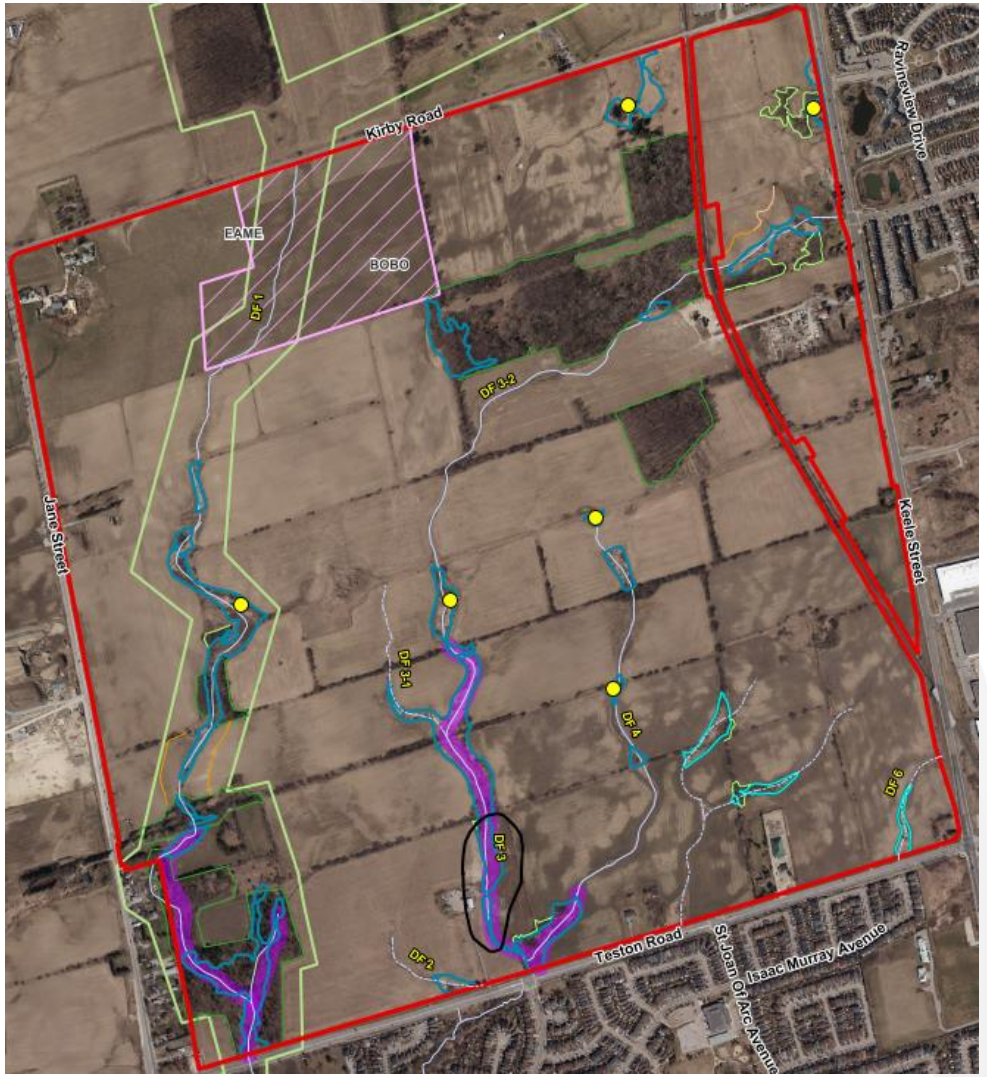
- Multi-use path on the south side of Teston Road
- York Region Transit (YRT) services existing residential neighbourhoods in the vicinity of Block 27
- Metrolinx railway (Barrie GO Rail Line)
- Planned future Kirby GO station (NE corner)



EXISTING NATURAL ENVIRONMENT

- Field work was completed 2010 - 2022
- Local landscape has been altered through past and present anthropogenic uses
- Adjacent urban land uses and major roads surrounding Block 27 present significant barriers to wildlife movement
- Local natural heritage system consists of 3 main watercourse corridors connecting woodlands, wetlands, and the Greenbelt Plan area in the block

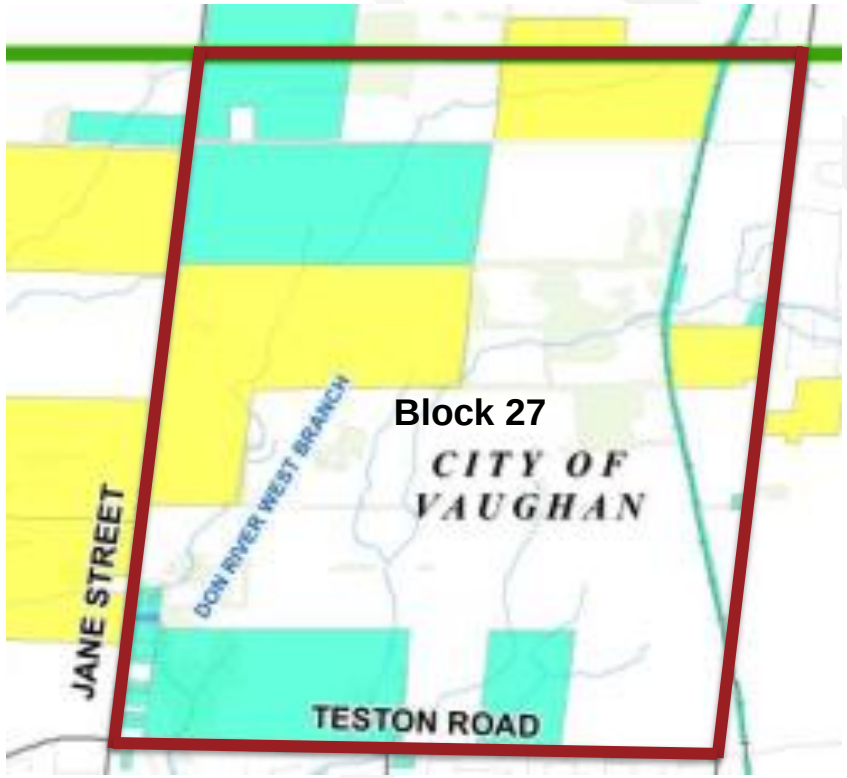




Source: Beacon Environmental (2022)

EXISTING CULTURAL HERITAGE

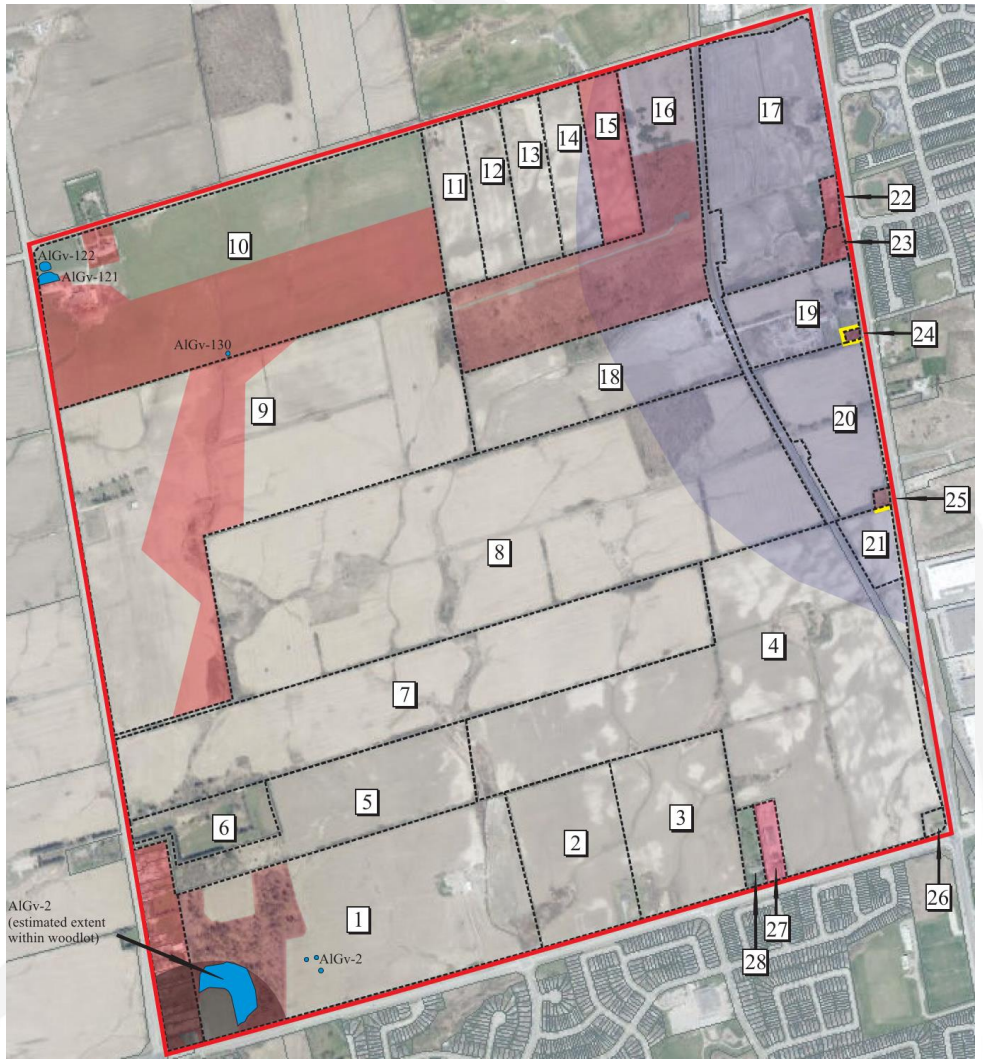
- 6 properties are listed in the Municipal Heritage Registrar
- 6 properties are identified as potential cultural resources (excluding non-participating properties located in the Hamlet of Teston - SW corner of Block 27)



Source: Teston Road Area Improvements IEA, Open House #1 (York Region, 2021)

EXISTING ARCHAEOLOGY

- Approximately 85% has been assessed since 2010
- Additional archaeological assessments are required, mainly on non-participating owner's lands
- Indigenous Nations will be contacted prior to initiating all remaining archaeological assessment work, as required
- Project Team is engaging with Curve Lake First Nation and the Mississaugas of the Credit First Nation



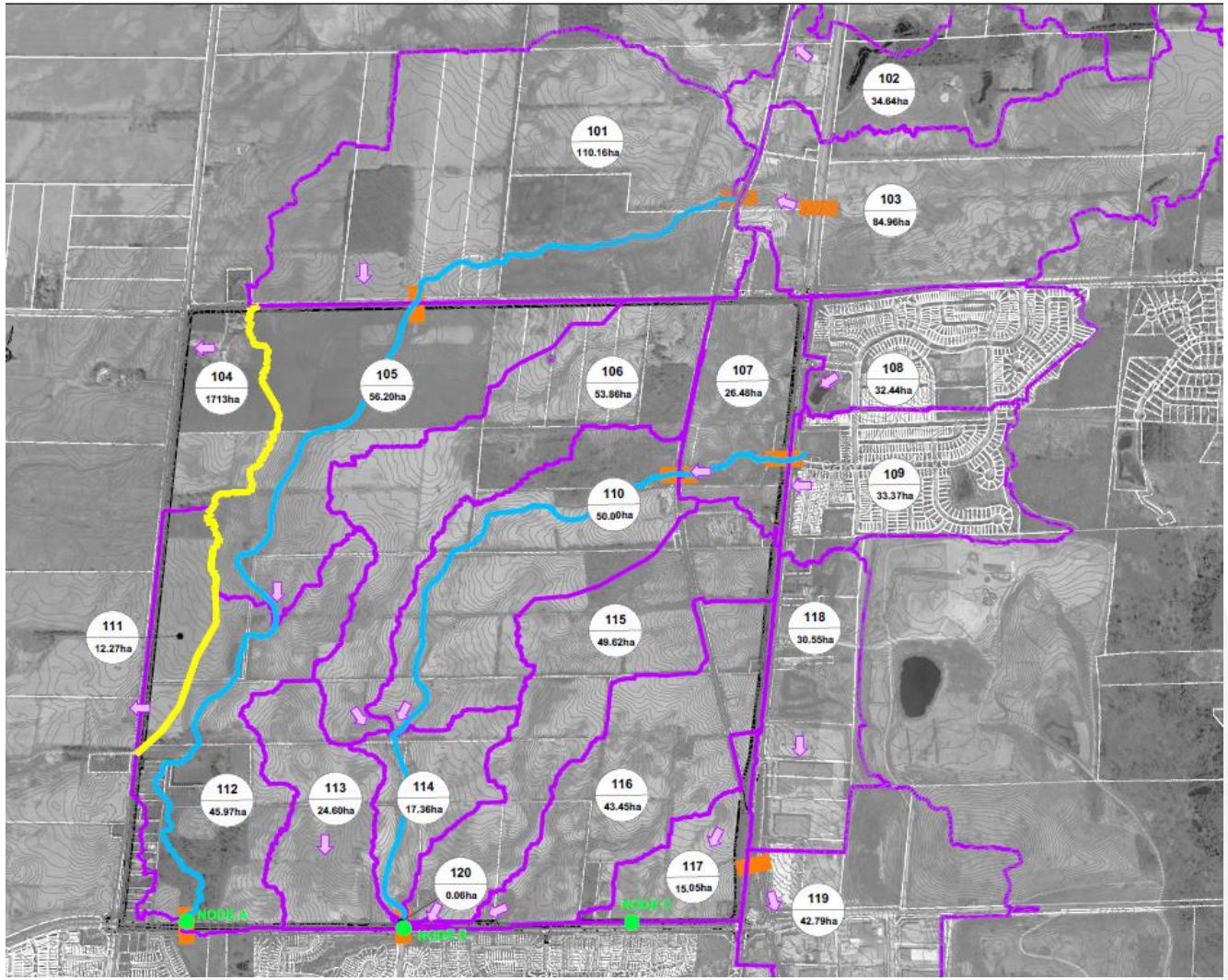
Legend:

- Block 27 property
- assessment parcel limits
- Stage 3 cemetery investigation required
- Ossuary potential archaeological monitoring required
- Teston ossuary archaeological monitoring required
- Stage 2 assessment required
- Stage 3 assessment required

Source: Archaeology Consultants of Canada (2021)

DRAINAGE / STORMWATER

- Site generally drains in southerly direction
- Located at the boundary of East Purpleville Creek Subwatershed and Don River watershed
- Majority of the Block 27 consists of Silty Clay soils



BLOCK 27 COLLECTOR ROAD MCEA

PHASE 3: COLLECTOR ROAD ALIGNMENTS & CROSS-SECTIONS

EVALUATION CRITERIA

EVALUATION CRITERIA

The alternative road alignments developed in Phase 3 were evaluated based on the following criteria:

Transportation

- Transit Serviceability
- Supports Active Transportation
- Road Capacity
- Design Standard Compliance
- Community Connectivity

Natural Environment

- Fish and Fish Habitat
- Vegetation, Wildlife, and Wildlife Habitat
- Designated Natural Heritage Features and Environmentally Sensitive Areas
- Rare Species, Species of Conservation Concern, and Species at Risk (SAR)

Hydrology/Drainage

- Hydrogeology / Ground Water
- Surface Water and Drainage
- Floodplain

Socio-Economic Environment

- Land-use Policy Compliance
- Future Land Uses
- Non-Participating Property Impacts
- Noise and Air Quality Impacts

Cultural Heritage Environment

- Built Cultural Resources and Cultural Heritage Landscapes
- Archaeological Resources
- Impacts to Indigenous and Treaty Rights

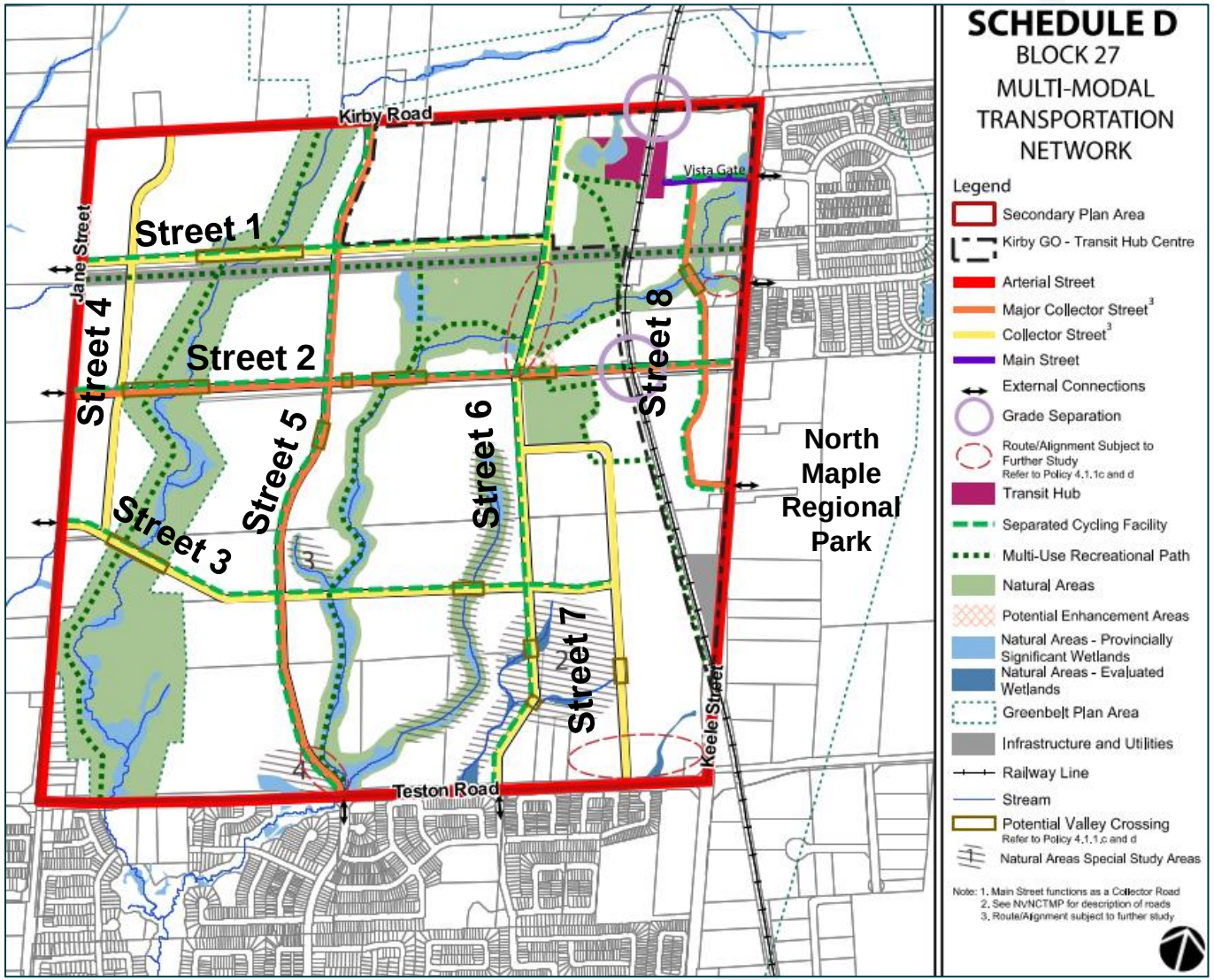
Cost and Constructability

- Engineering Feasibility and Construction Cost
- Existing Municipal Infrastructure and Utilities
- Capital Cost
- Property Costs
- Operating and Maintenance Costs

ROAD ALIGNMENT ALTERNATIVES & EVALUATION

BLOCK 27 SECONDARY PLAN

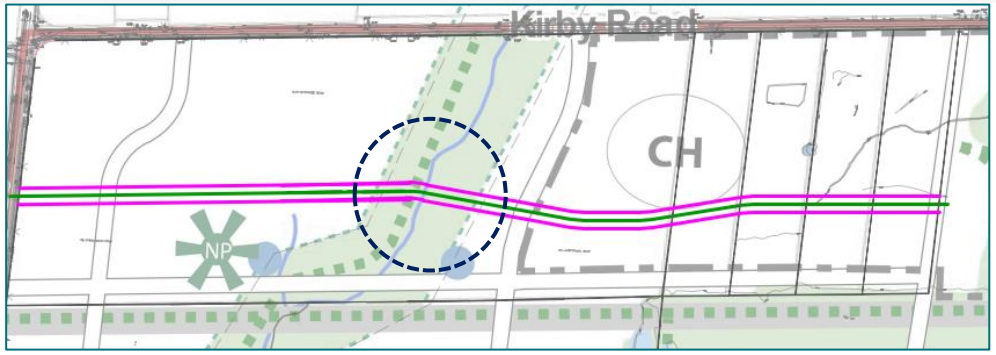
TRANSPORTATION NETWORK



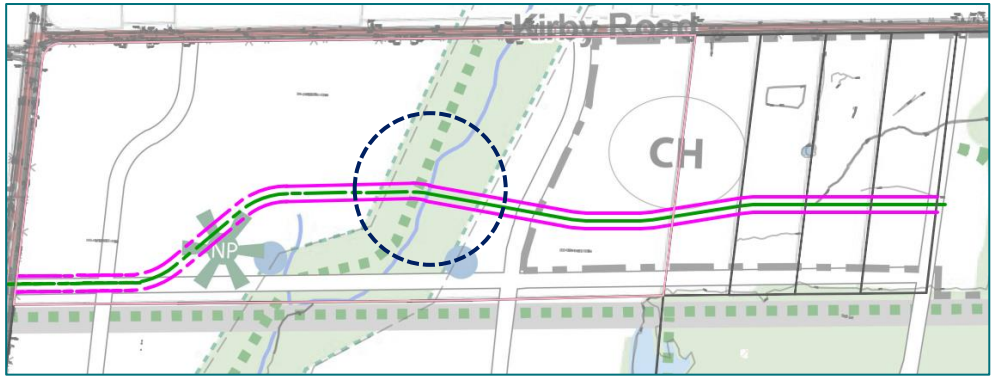
Source: Block 27 Secondary Plan (City of Vaughan)

ALTERNATIVE ROAD ALIGNMENTS STREET 1

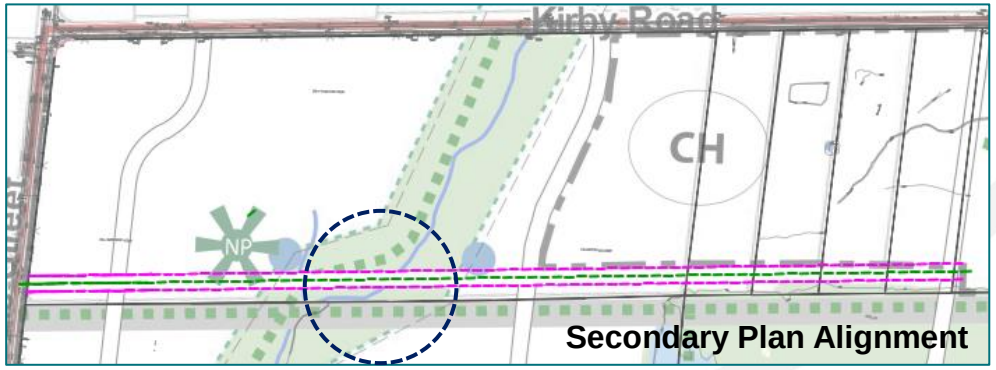
Alternative 1A



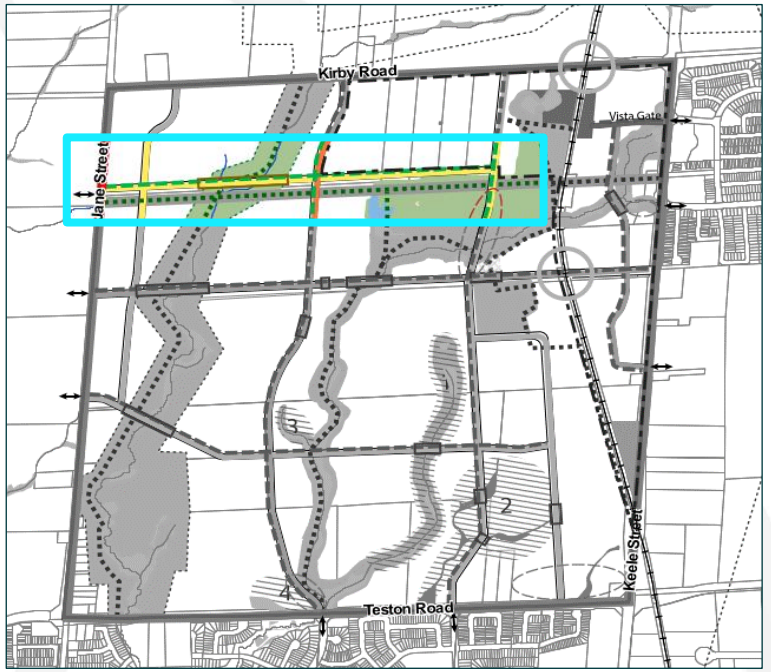
Alternative 1B



Alternative 1C



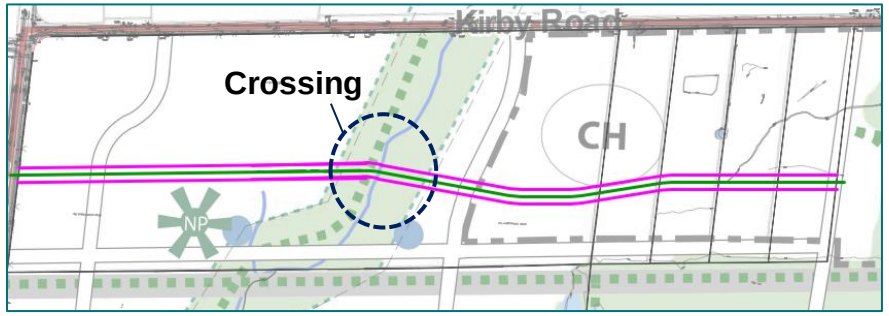
Key Map



Legend:

Crossing Required

PRELIMINARY PREFERRED ALIGNMENT
STREET 1: ALTERNATIVE 1A



Criteria	1A	1B	1C
Transportation			
Natural Environment			
Hydrogeology & Drainage			
Socio-Economic			
Cultural Heritage			
Cost & Constructability			
Overall Evaluation			

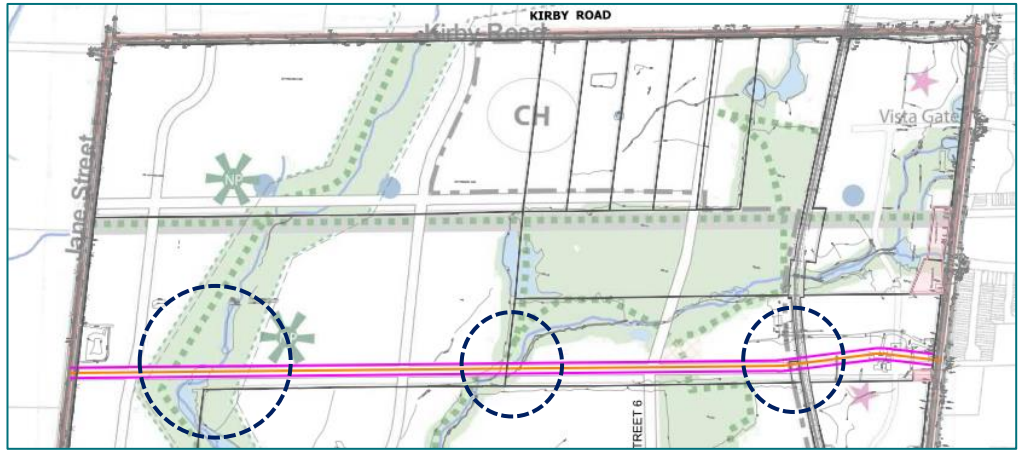
Alternative 1A is the preferred route for Street 1 for the following reasons:

- Supports better land-uses (i.e., avoids Trans Canada Pipeline, Greenbelt)
- Supports a fine-grained road network
- Least impact to the natural environment and Greenbelt
- Least impact on surface water quality / quantity
- Requires a shorter floodplain crossing
- Least property impacts to non-participating landowner
- Lowest construction, operation, and maintenance costs

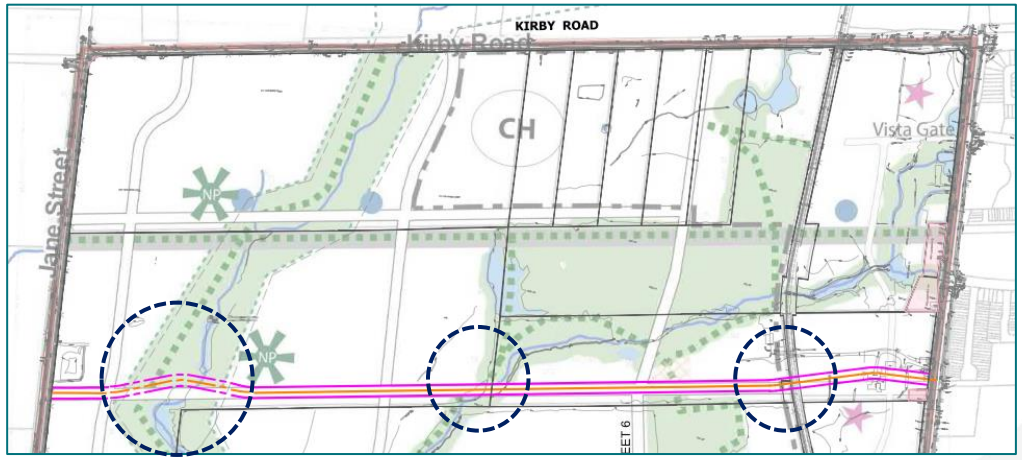
The Street 1 Greenbelt crossing may a bridge or culvert and will the requirements will be determined in correspondence with the Ministry of Natural Resources and Forestry and Toronto and Region Conservation Authority

ALTERNATIVE ROAD ALIGNMENTS STREET 2

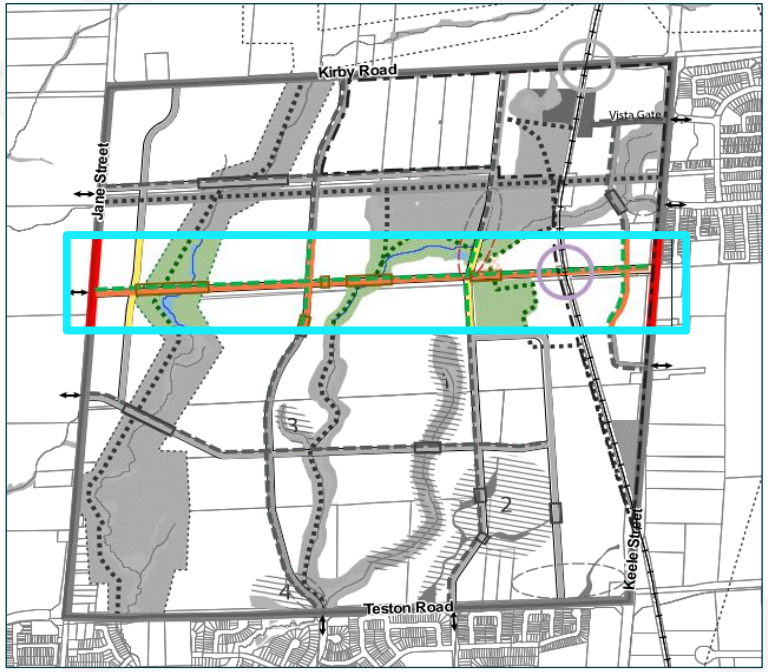
Alternative 2A



Alternative 2B



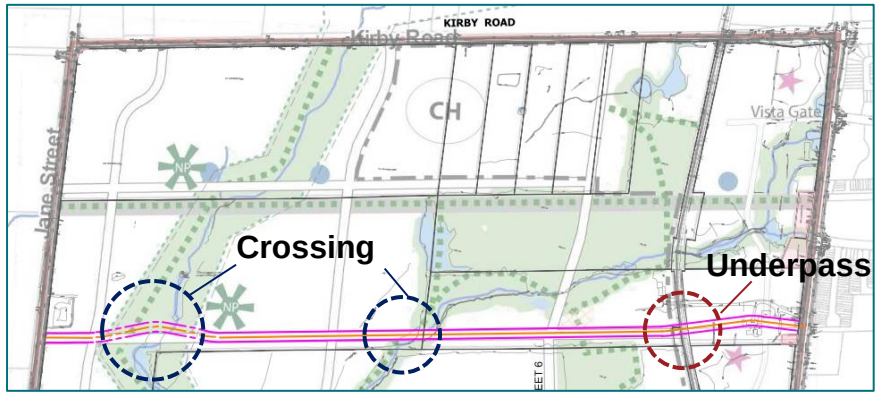
Key Map



Legend:

Crossing Required

PRELIMINARY PREFERRED ALIGNMENT
STREET 2: ALTERNATIVE 2B



Criteria	2A	2B
Transportation		
Natural Environment		
Hydrogeology & Drainage		
Socio-Economic		
Cultural Heritage		
Cost & Constructability		
Overall Evaluation		

Alternative 2B is the preferred route for Street 2 for the following reasons:

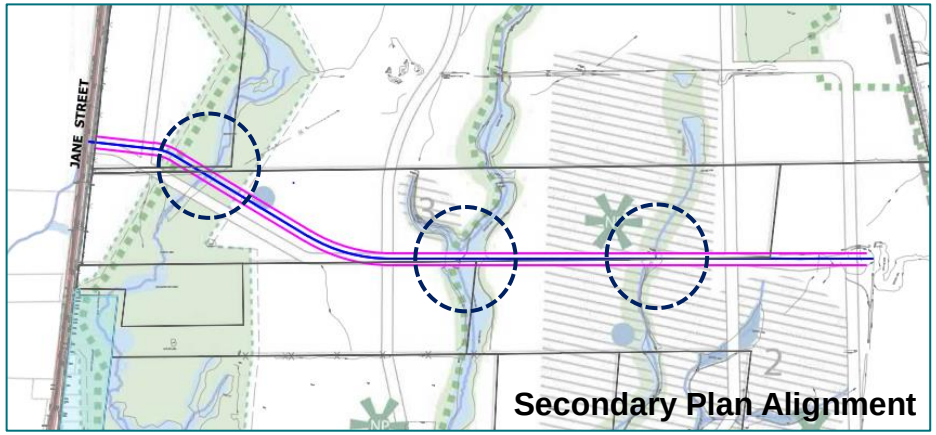
- Reduces impacts to the Greenbelt
- Minimizes impacts to the natural environment (e.g., Greenbelt)
- Requires a shorter watercourse crossing
- Better conformity to the applicable planning policy frameworks
- Lowest construction, operation, and maintenance costs

The Street 2 grade separated structure has been identified as an underpass. A steel plate girder bridge is proposed to accommodate staged construction to minimize disruptions during construction.

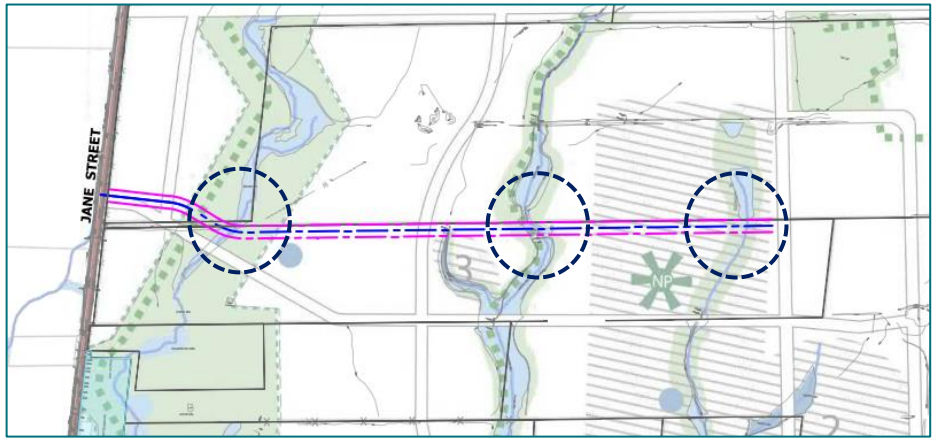
Correspondence with Metrolinx is underway and any necessary approvals/exemptions will be obtained prior to construction.

ALTERNATIVE ROAD ALIGNMENTS
STREET 3

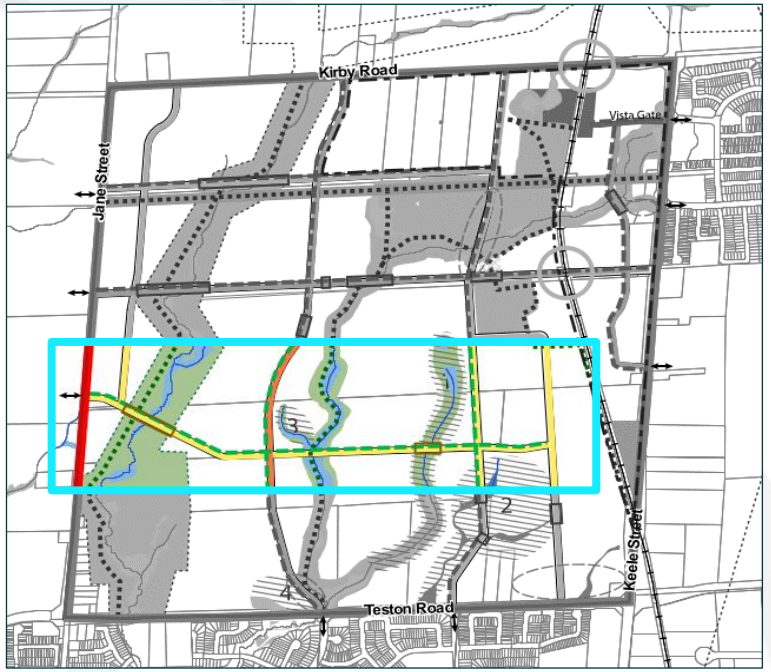
Alternative 3A



Alternative 3B



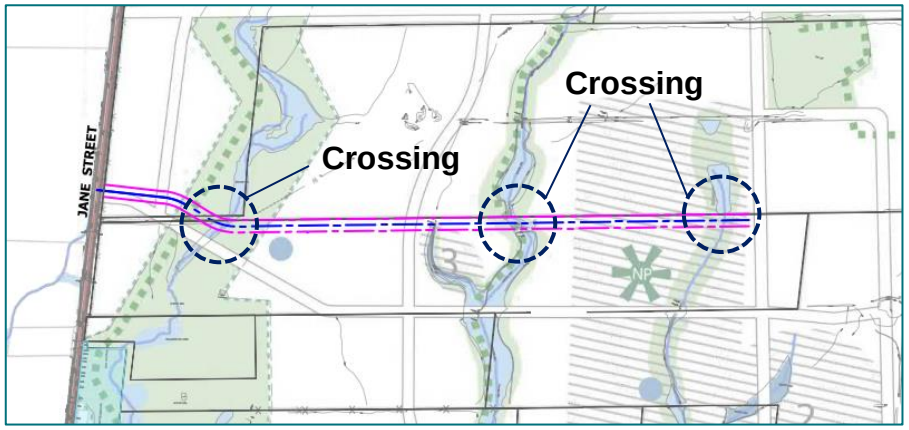
Key Map



Legend:

Crossing Required

PRELIMINARY PREFERRED ALIGNMENT
STREET 3: ALTERNATIVE 3B



Criteria	3A	3B
Transportation	◑	◕
Natural Environment	◑	◕
Hydrogeology & Drainage	◑	◑
Socio-Economic	◑	◕
Cultural Heritage	◑	◑
Cost & Constructability	◑	◕
Overall Evaluation	◑	◕

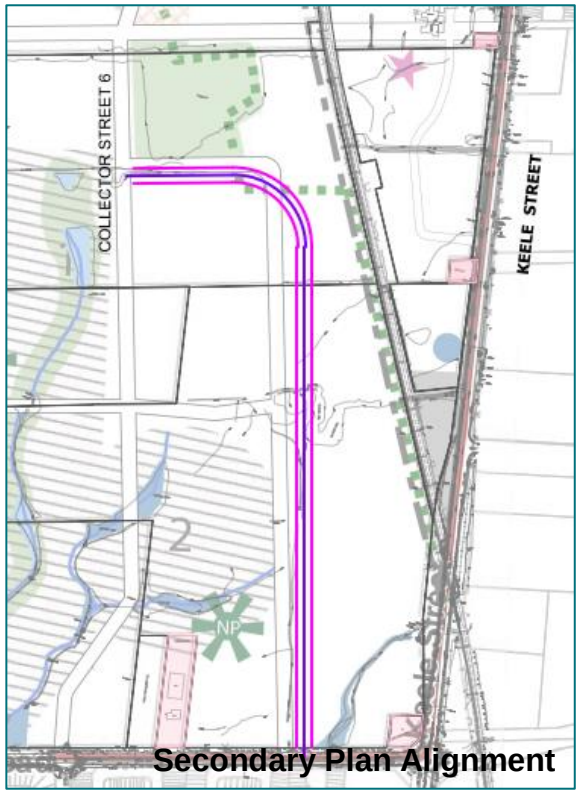
Alternative 3B is the preferred route for Street 3 for the following reasons:

- Improves land-use efficiency
- Minimizes natural environmental impacts
- Reduces impacts to water crossings
- Least impacts on surface water quality and quantity
- Better conformity to the applicable planning policy frameworks
- Lowest construction, operation, and maintenance costs

The Street 3 Greenbelt crossing may a bridge or culvert and will the requirements will be determined in correspondence with MNRF and TRCA

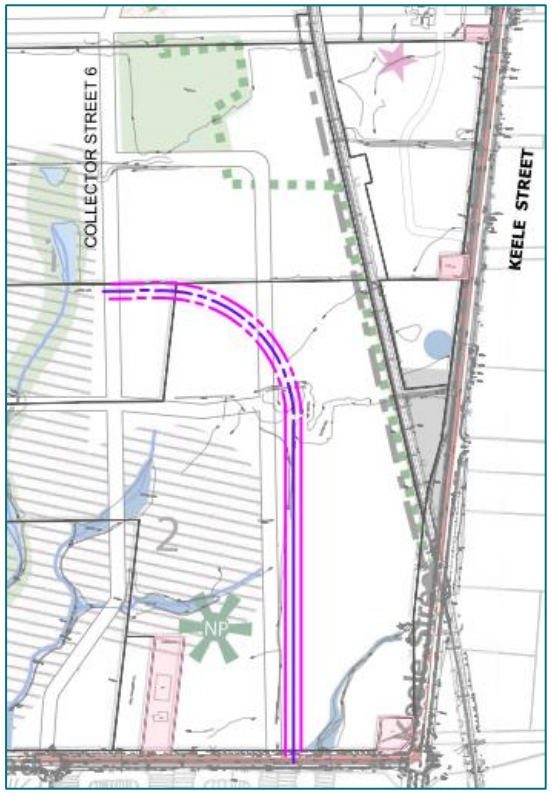
ALTERNATIVE ROAD ALIGNMENTS
STREET 7

Alternative 7A

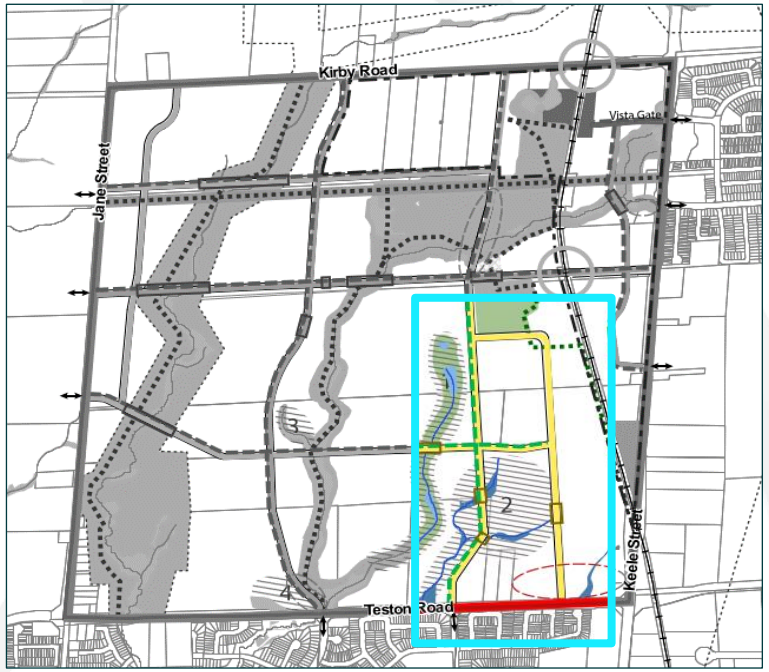


Secondary Plan Alignment

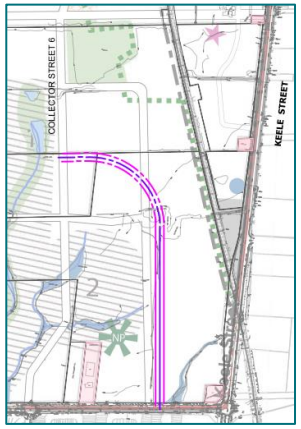
Alternative 7B



Key Map



PRELIMINARY PREFERRED ALIGNMENT
STREET 7: ALTERNATIVE 7B



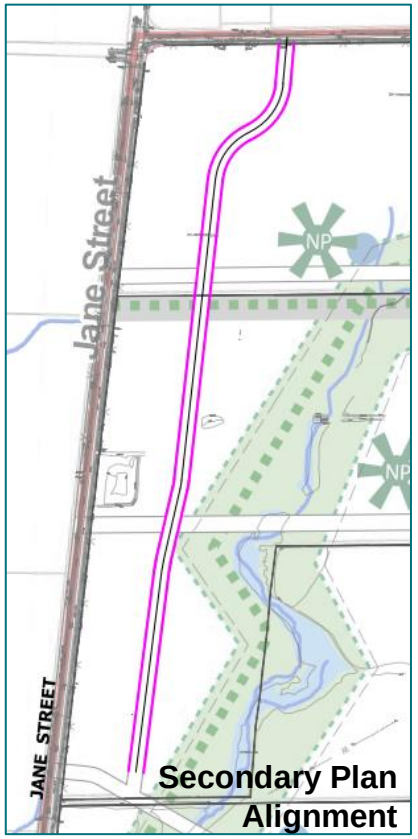
Criteria	7A	7B
Transportation		
Natural Environment		
Hydrogeology & Drainage		
Socio-Economic		
Cultural Heritage		
Cost & Constructability		
Overall Evaluation		

Alternative 7B is the preferred route for Street 7 for the following reasons:

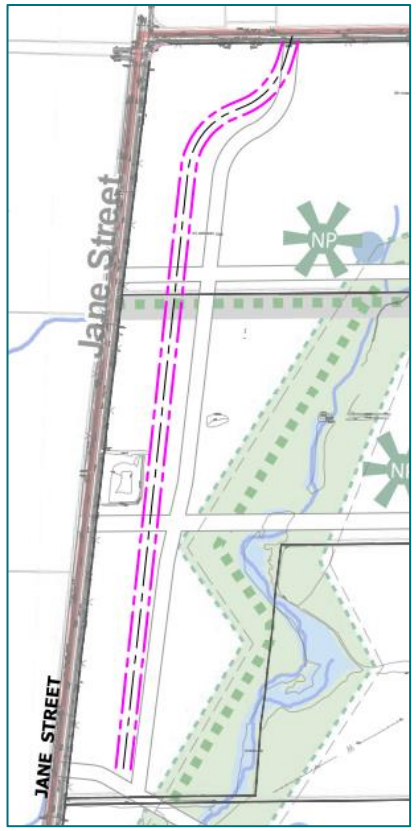
- Improves land-use efficiency
- Minimizes impacts to the natural environment
- Least impact on surface water quality and quantity
- Avoids impacts within an archaeologically sensitive area which would require monitoring during construction
- Lowest construction, operation, and maintenance costs

ALTERNATIVE ROAD ALIGNMENTS
STREET 4

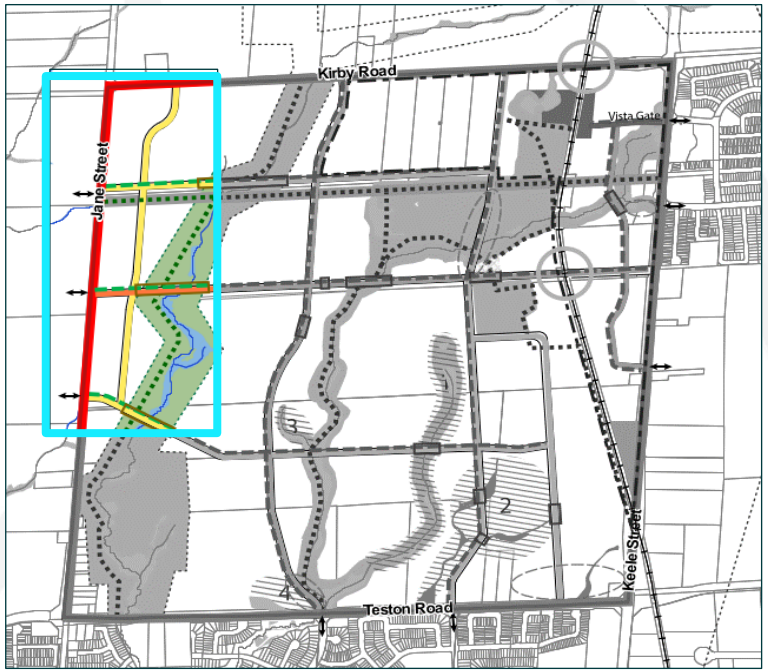
Alternative 4A



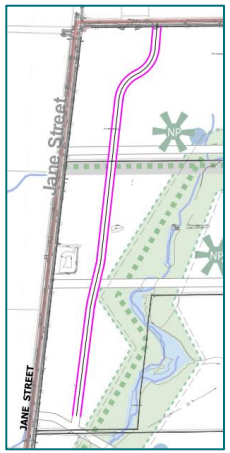
Alternative 4B



Key Map



PRELIMINARY PREFERRED ALIGNMENT
STREET 4: ALTERNATIVE 4A



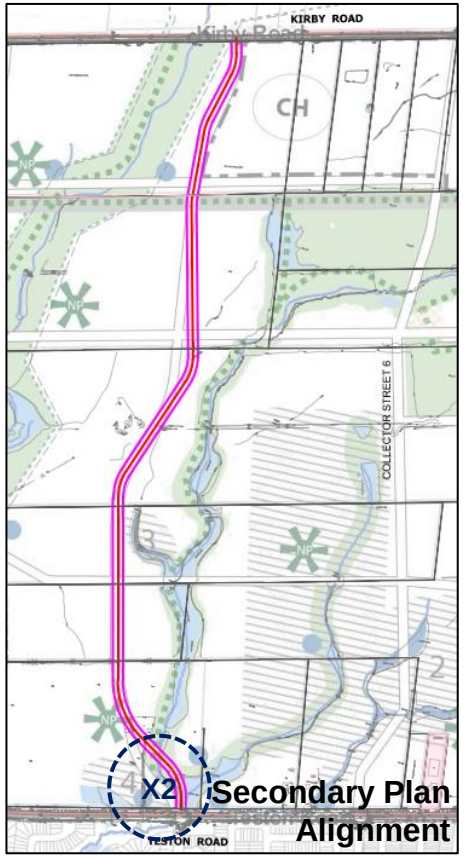
Criteria	4A	4B
Transportation		
Natural Environment		
Hydrogeology & Drainage		
Socio-Economic		
Cultural Heritage		
Cost & Constructability		
Overall Evaluation		

Alternative 4A is the preferred route for Street 4 for the following reasons:

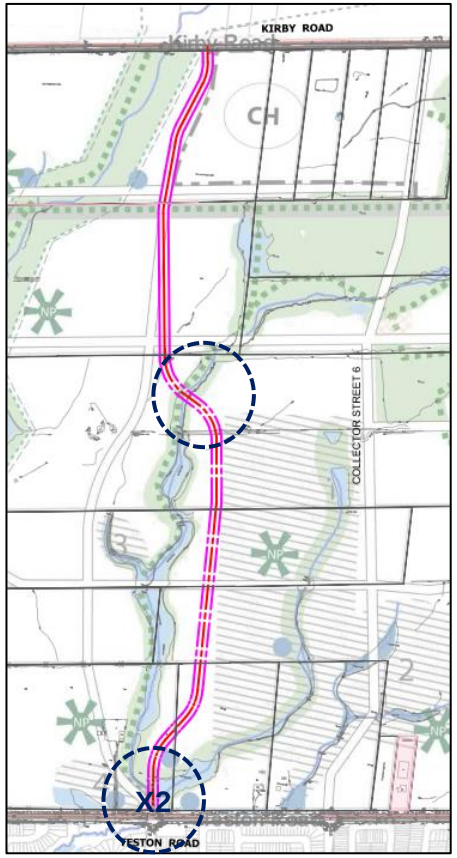
- Better traffic operations
- Avoid impacts to a build-heritage resource
- Lower costs since it potentially avoids direct impacts to the existing residential building / structures on the non-participating landowner property

ALTERNATIVE ROAD ALIGNMENTS STREET 5

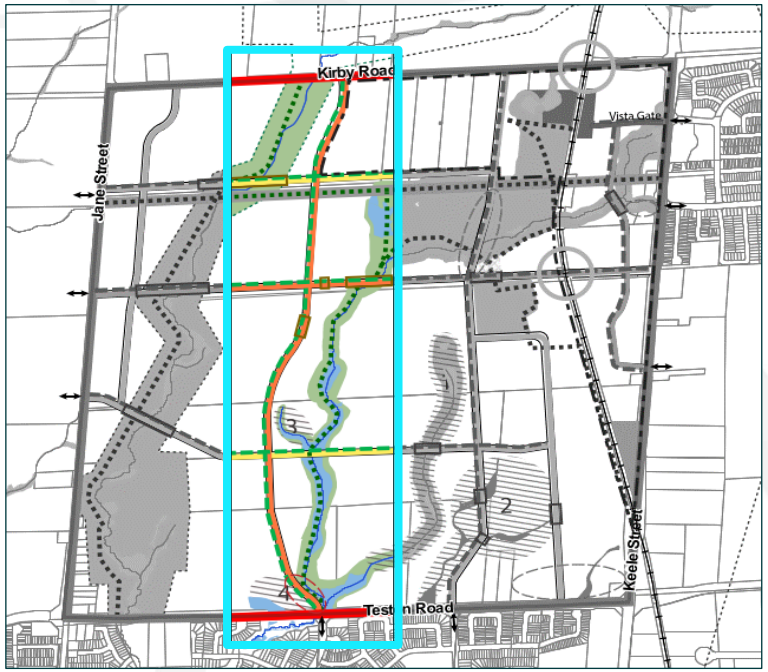
Alternative 5A



Alternative 5B



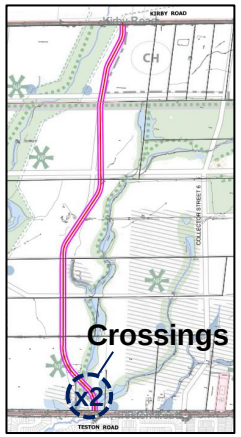
Key Map



Legend:

Crossing Required

PRELIMINARY PREFERRED ALIGNMENT
STREET 5: ALTERNATIVE 5A



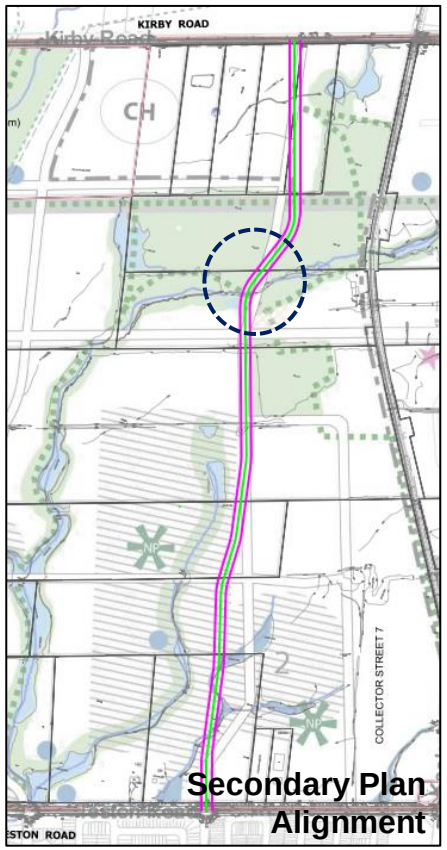
Criteria	5A	5B
Transportation	●	◕
Natural Environment	◑	◔
Hydrogeology & Drainage	◕	◑
Socio-Economic	◕	◑
Cultural Heritage	◑	◑
Cost & Constructability	◕	◑
Overall Evaluation	◕	◑

Alternative 5A is the preferred route for Street 5 for the following reasons:

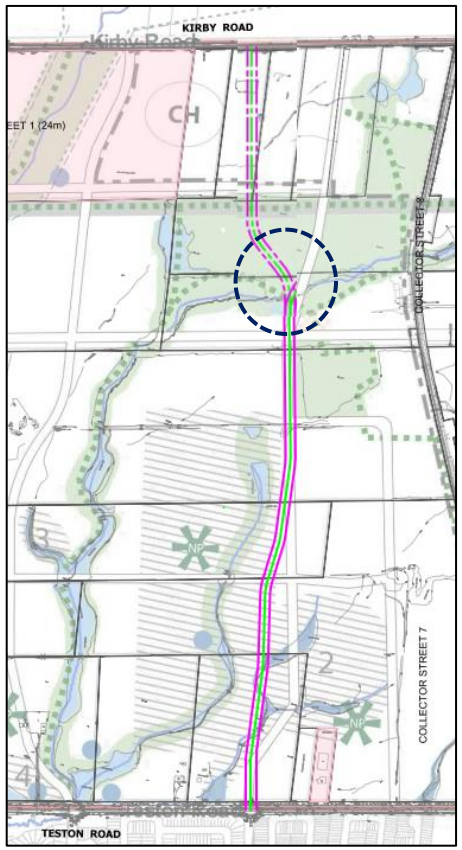
- Provides better road spacing and community connectivity
- Provides direct connections to 2 schools and a park
- Allows for an efficient and well-designed road pattern
- Avoids the requirement for an additional floodplain crossing
- Least impacts to the natural environment
- Lowest construction, operation, and maintenance costs

ALTERNATIVE ROAD ALIGNMENTS STREET 6

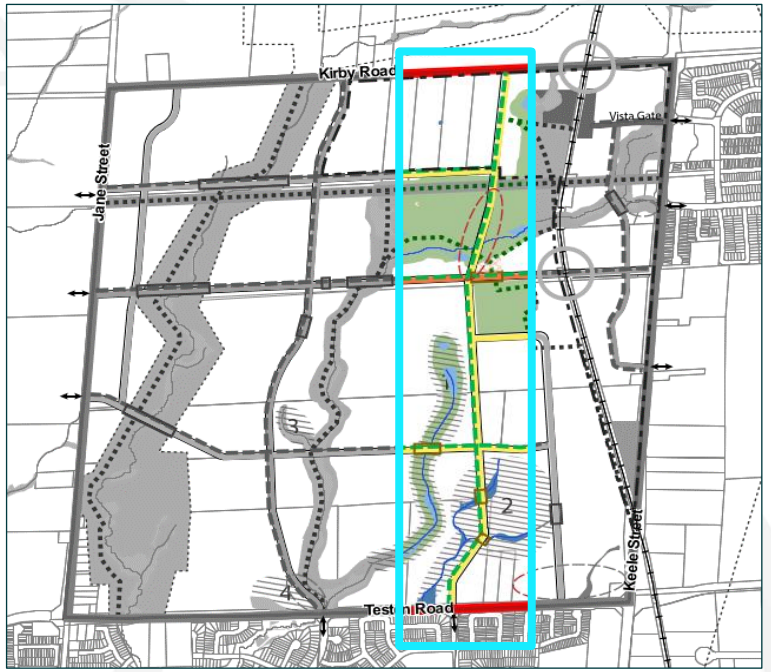
Alternative 6A



Alternative 6B



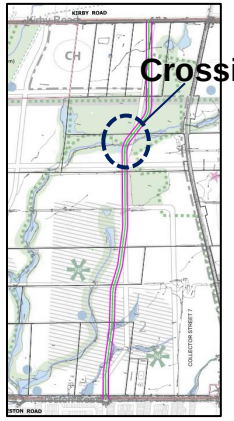
Key Map



Legend:

Crossing Required

PRELIMINARY PREFERRED ALIGNMENT
STREET 6: ALTERNATIVE 6A



Criteria	6A	6B
Transportation		
Natural Environment		
Hydrogeology & Drainage		
Socio-Economic		
Cultural Heritage		
Cost & Constructability		
Overall Evaluation		

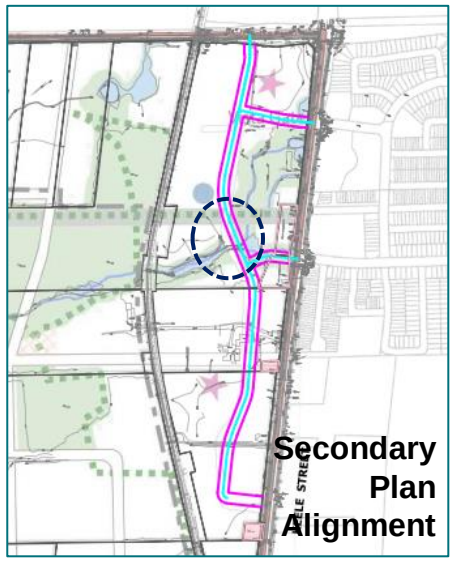
Alternative 6A is the preferred route for Street 6 for the following reasons:

- Provides the recommended distance between signalized intersection
- Brings road users closer to proposed Kirby GO station
- Provides a better level of service to proposed land-uses and urban design
- Least impacts to the significant woodlot (Note: a reduced cross-section will be implemented through the woodlot to minimize impacts)
- Impacts fewer trees with potential for species-at-risk bat roosting

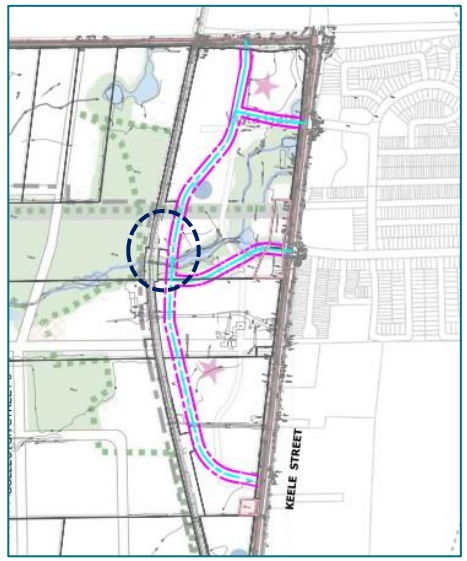
The Project Team is in correspondence with TRCA, MNRF, and Indigenous Nations on the Street 6 crossing through the woodlot

ALTERNATIVE ROAD ALIGNMENTS
STREET 8

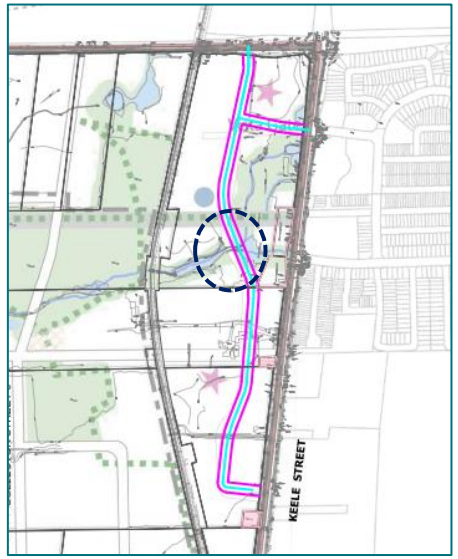
Alternative 8A



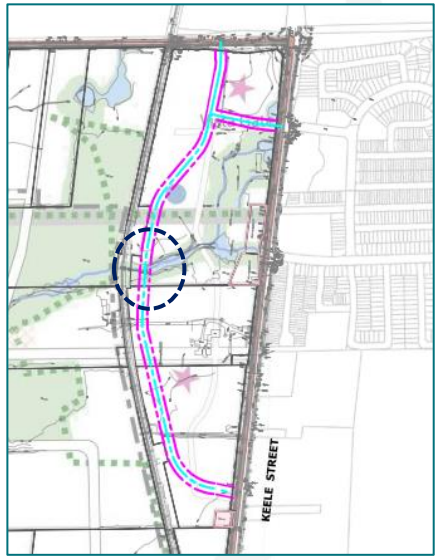
Alternative 8B



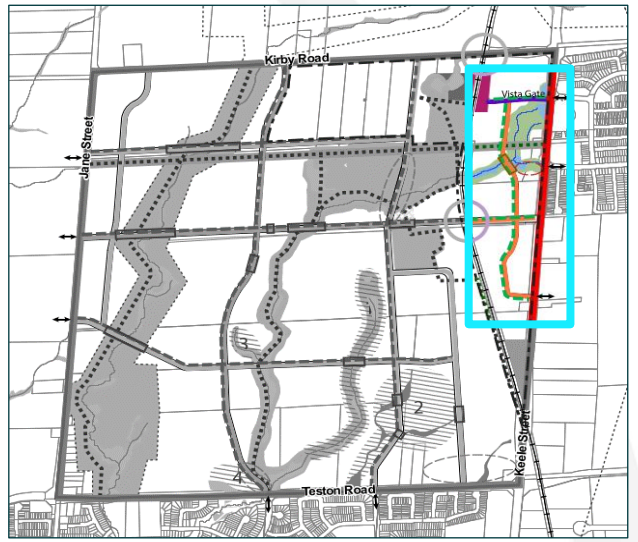
Alternative 8C



Alternative 8D



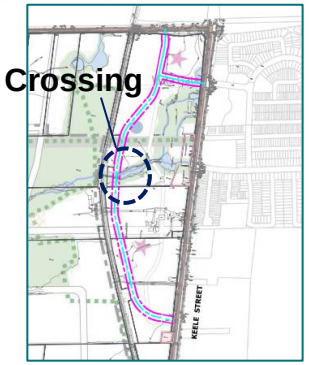
Key Map



Legend:

Crossing Required

PRELIMINARY PREFERRED ALIGNMENT
STREET 8: ALTERNATIVE 8D

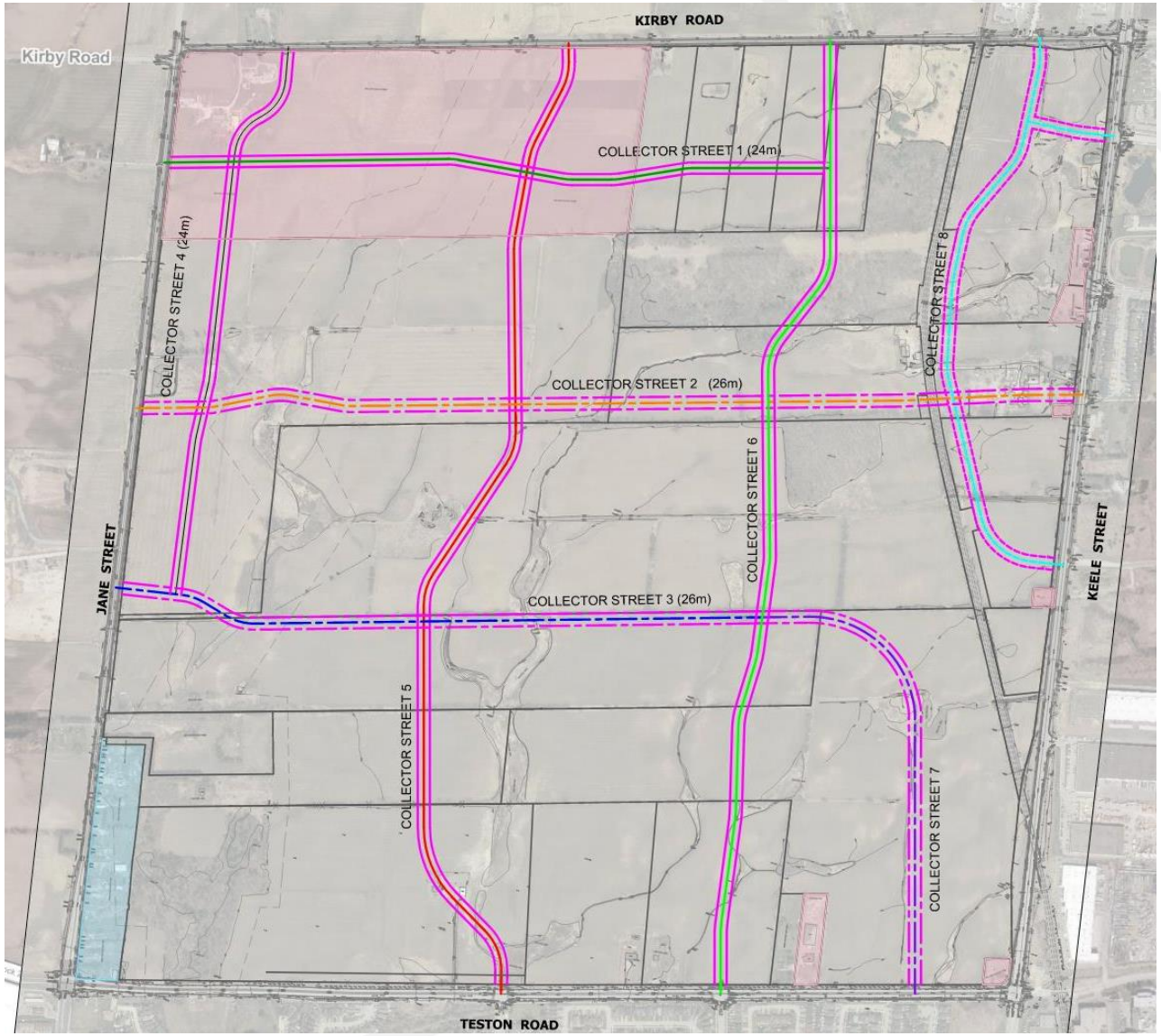


Criteria	8A	8B	8C	8D
Transportation				
Natural Environment				
Hydrogeology & Drainage				
Socio-Economic				
Cultural Heritage				
Cost & Constructability				
Overall Evaluation				

Alternative 8D is the preferred route for Street 8 for the following reasons:

- Minimizes natural environmental impacts, particularly the features that would be impacted by a road connection to Peak Point Blvd.
- Provides for better separation from Keele Street
- Accommodates driveways for properties north and south of Collector Street 2, avoiding driveways on Keele Street
- Avoids impacts to non-participating landowner properties
- Fewer direct impacts to cultural heritage resources

PRELIMINARY PREFERRED TRANSPORTATION NETWORK



LEGEND: NON–PARTICIPATING OWNERS | SMALL HOLDOUT PARCELS

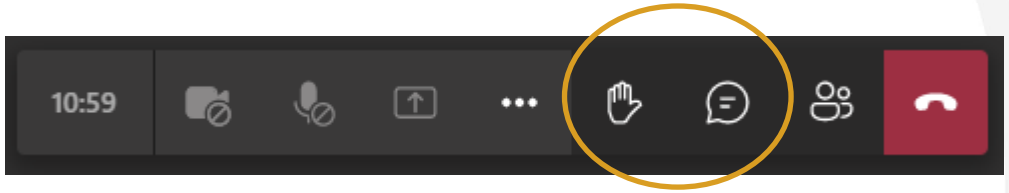
- COLLECTOR ST 1A
- MAJOR COLLECTOR ST 2B
- COLLECTOR ST 3B
- COLLECTOR ST 4A
- MAJOR COLLECTOR ST 5A
- COLLECTOR ST 6A
- COLLECTOR ST 7B
- MAJOR COLLECTOR ST 8C

DISCUSSION POINT #1

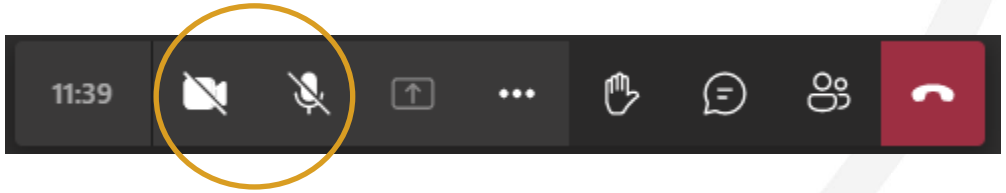
PREFERRED BLOCK 27 COLLECTOR ROAD NETWORK

REMINDER

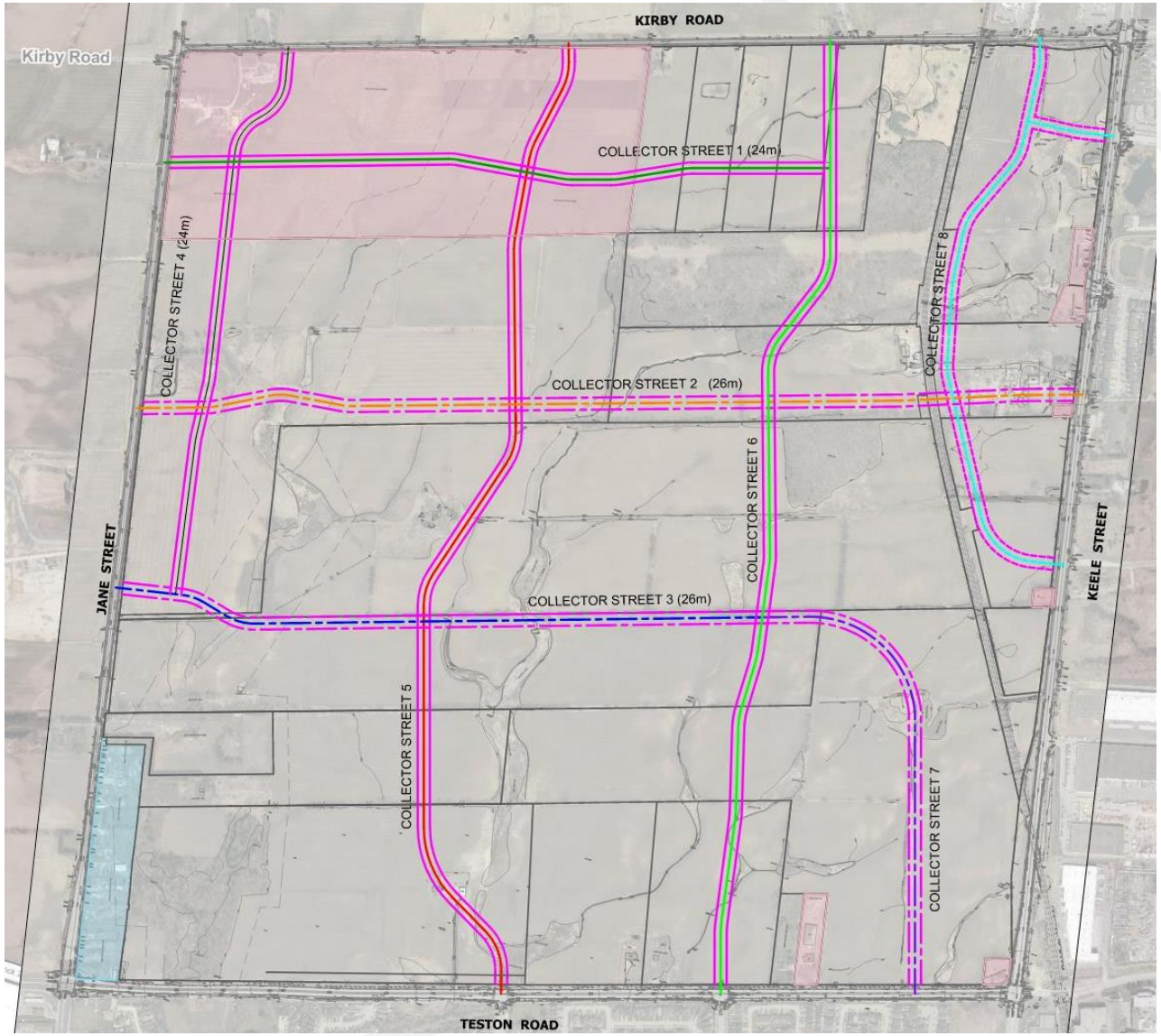
Should you wish to ask a question or make a comment, **please raise your hand or use the chat function**.



Once enabled you will need to unmute yourself to speak, please also feel free to turn your camera on while speaking.



PRELIMINARY PREFERRED TRANSPORTATION NETWORK



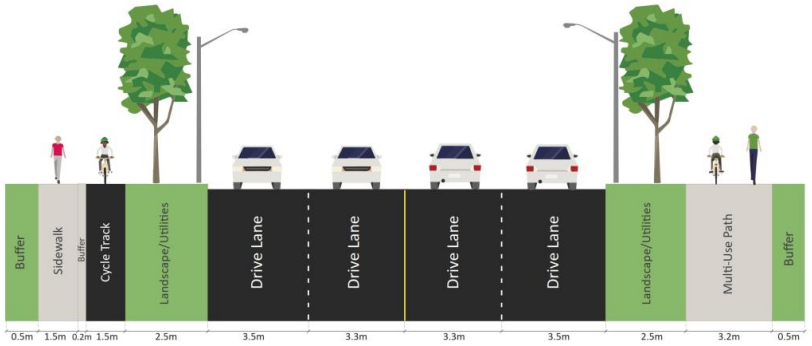
LEGEND: NON–PARTICIPATING OWNERS | SMALL HOLDOUT PARCELS

- COLLECTOR ST 1A
- MAJOR COLLECTOR ST 2B
- COLLECTOR ST 3B
- COLLECTOR ST 4A
- MAJOR COLLECTOR ST 5A
- COLLECTOR ST 6A
- COLLECTOR ST 7B
- MAJOR COLLECTOR ST 8C

CROSS SECTION ALTERNATIVES & EVALUATION

CROSS-SECTION ALTERNATIVES
MAJOR COLLECTOR ROADS (26 m)

Alternative MA-1



Side-by-Side Facilities or Multi-Use Paths*

- **Edge Buffers**: 0.5 m
- **Side-by-Side Facilities**:
  - **Sidewalk**: 1.5 m
  - **Buffer**: 0.2 m
  - **Cycle Track**: 1.5 m
- **Multi-Use Path**: 3.2 m
- **Landscape/Utilities**: 2.5 m
- **Drive Lane**: 3.5 m
- **Through Lane**: 3.3 m

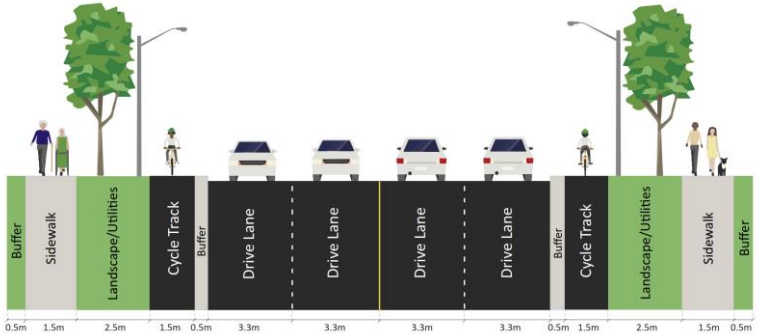
***Note**: This alternative provides flexibility to implement multi-use paths or side-by-side facilities. Both are illustrated as an example)

Alternative MA-2

Multi-Use Path & Sidewalk

- **Edge Buffers**: 0.5 m
- **Multi-Use Path**: 3.5 m
- **Sidewalk**: 2.1 m
- **Landscape/Utilities**: 3.0 m
- **Drive Lane**: 3.5 m
- **Through Lane**: 3.3 m

Alternative MA-3

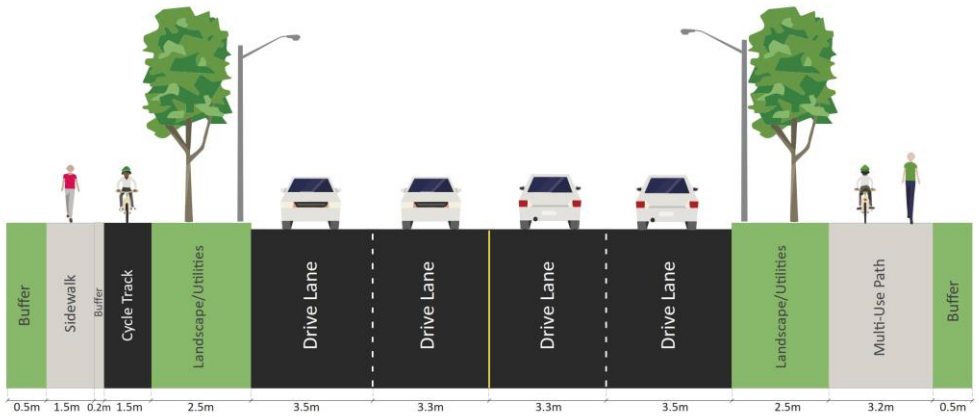


Separated Facilities

- **Edge Buffers**: 0.5 m
- **Sidewalk**: 1.5 m
- **Landscape/Utilities**: 2.5 m
- **Cycle Track**: 1.5 m
- **Buffer**: 0.5 m
- **Drive Lane**: 3.3 m
- **Through Lane**: 3.3 m

PRELIMINARY PREFERRED CROSS-SECTION MAJOR COLLECTOR ROADS| MA1: SEPARATED FACILITIES

Alternative MA1: Side-by-Side Facilities or Multi-Use Paths *



***Note**: This alternative provides flexibility to implement multi-use paths or side-by-side facilities. Both are illustrated as an example)

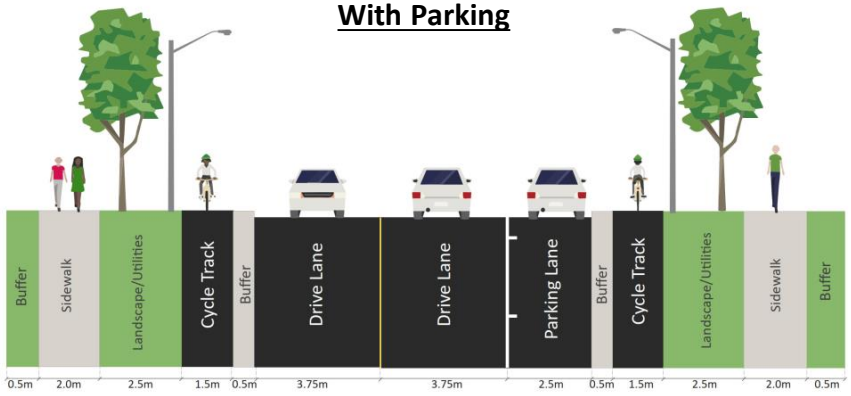
Side-by-Side Facilities or Multi-Use Paths (Alternative MA1) was selected as the preferred cross-sections for all Major Collector Roads for the following reasons:

- Complete street principles
- Conforms to City land-use policy objectives (active transportation and transit-supportive)
- Meet recommended facility widths per City Design Standards (2020) and AODA
- Provides wider facility widths and safer condition for surrounding land-uses (e.g., low-rise residential, low/mid-rise residential, mid-rise mixed-use, schools, Kirby GO Transit Hub)
- Road width accommodates transit vehicles
- Flexibility to connect with other cycle facilities on connecting roadways and proposed trails (e.g., Vaughan Super Trail)
- Active transportation facilities provided on both sides which provides convenient access to/from adjacent land-use

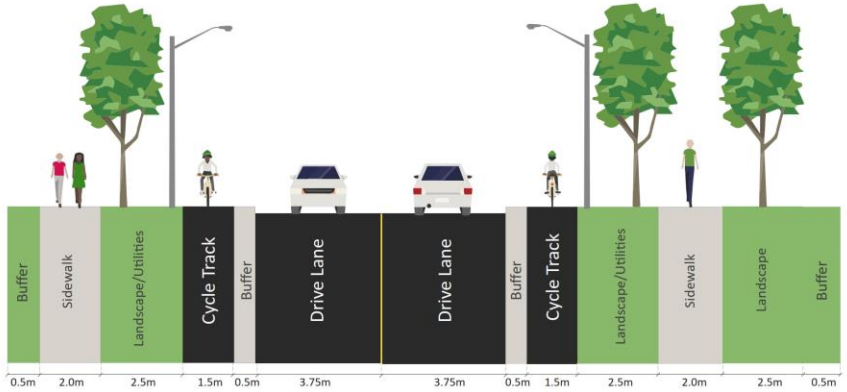
CROSS-SECTION ALTERNATIVES
MINOR COLLECTOR ROADS (24 m)

Alternative MI-1

With Parking

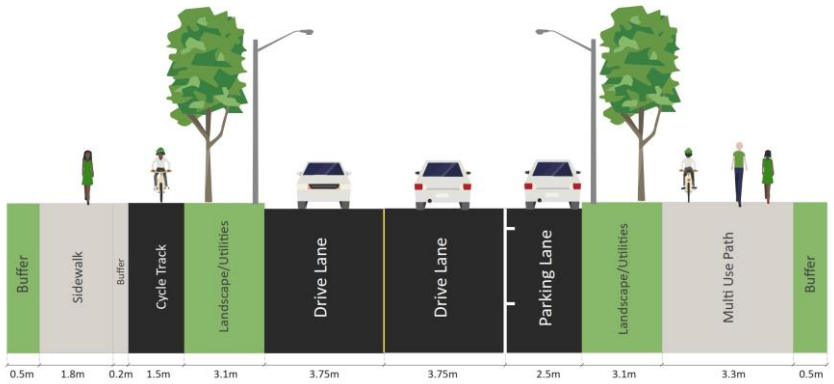


Without Parking

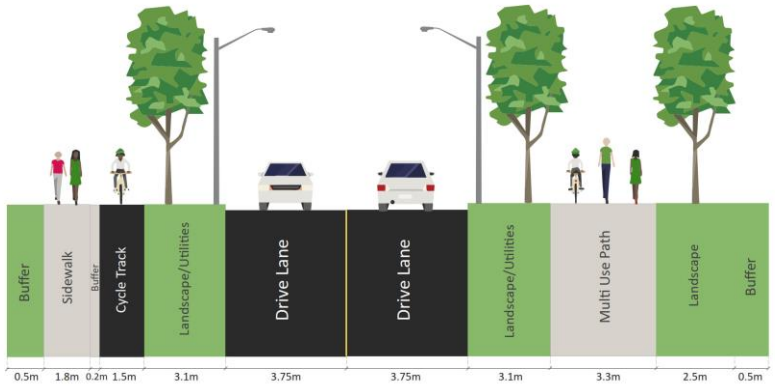


Alternative MI-2

With Parking



Without Parking



Separated Facilities

- **Edge Buffers**: 0.5 m
- **Sidewalk**: 2.0 m
- **Landscape/Utilities**: 2.5 m
- **Cycle Track**: 1.5 m
- **Buffer**: 0.5 m
- **Drive Lane**: 3.75 m
- **Parking Lane**: 2.5 m

No Parking Alternative:

- Parking Lane is converted to a 2.5 m Landscape Facility (one side)

Side-by-Side Facilities / Multi-Use Path

- **Edge Buffers**: 0.5 m
- **Side-by-Side Facilities**:
  - **Sidewalk**: 1.8 m
  - **Buffer**: 0.2 m
  - **Cycle Track**: 1.5 m
- **Multi-use Path**: 3.3 m
- **Landscape/Utilities**: 3.1 m
- **Drive Lane**: 3.75 m
- **Parking Lane**: 2.5 m

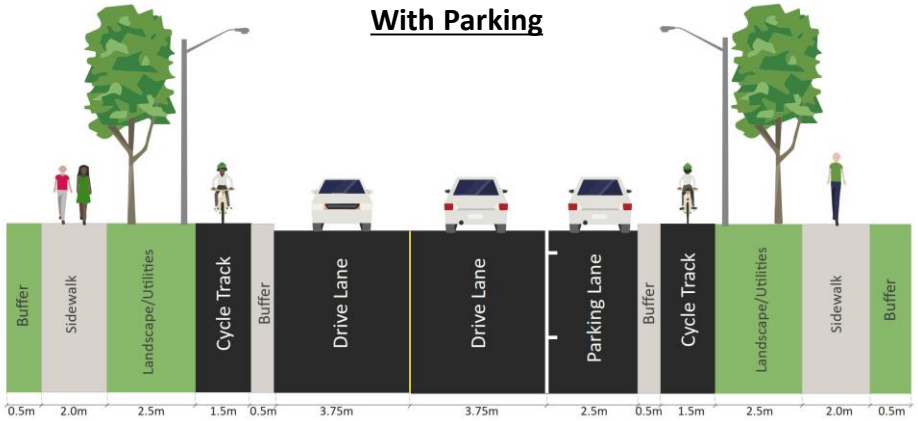
No Parking Alternative:

- Parking Lane is converted to a 2.5 m Landscape Facility (one side)

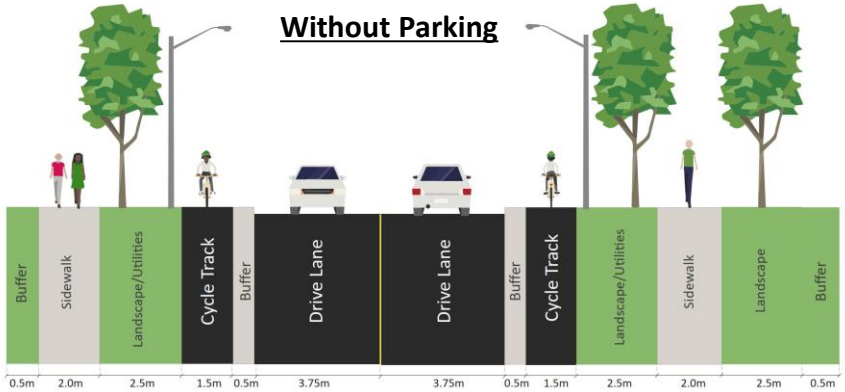
PRELIMINARY PREFERRED CROSS-SECTION
MINOR COLLECTOR ROADS | MI1: SEPARATED FACILITIES

Alternative MI1: Separated Facilities

With Parking



Without Parking

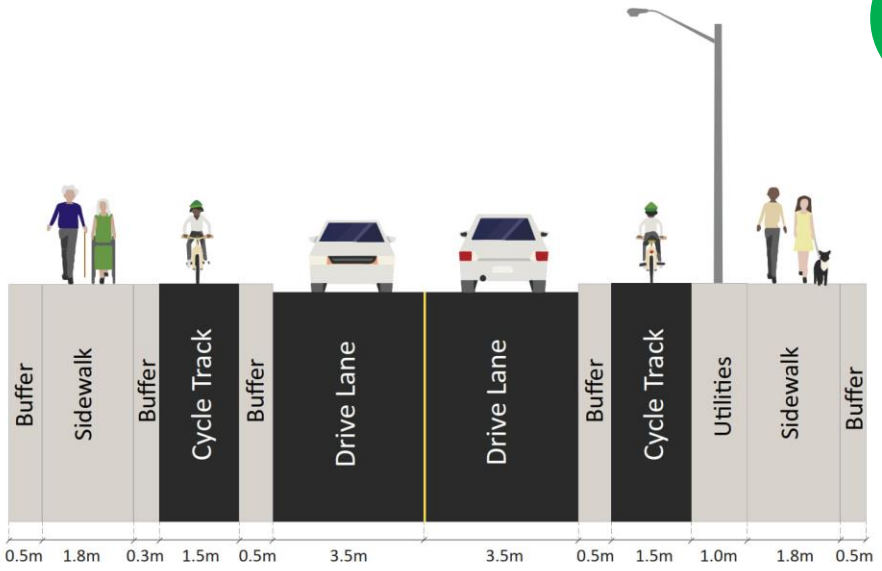


Separated Facilities (Alternative MI1) was selected as the preferred cross-section for all Minor Collector Roads for the following reasons:

- Complete street principles
- Conforms to City land-use policy objectives
- Meet recommended facility widths per in City Design Standards (2020) and AODA
- Provides safer conditions for surrounding land-uses (e.g., low/mid-rise residential, mid-rise mixed-use, community hub)
- Separated pedestrian and cycling facilities which minimizes risk for collisions
- Flexibility to connect with other cycle facilities on connecting roadways and proposed trails (e.g., Vaughan Super Trail)
- Active transportation facilities on both sides of the road which provides convenient access to/from adjacent land-uses
- City of Vaughan prefers the implementation of uni-directional cycle tracks across the City

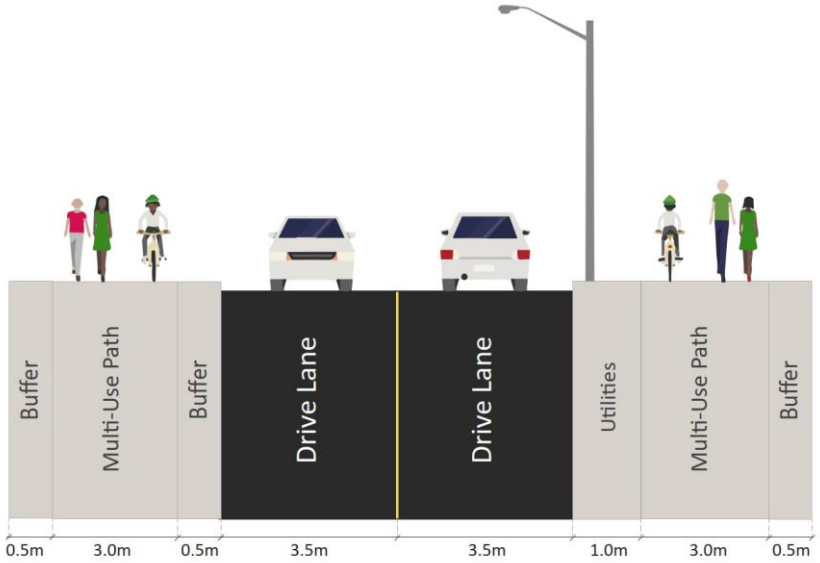
STREET 6
REDUCED CROSS-SECTIONS THROUGH THE WOODLOT

Option 1: Separated Facilities (16.9 m)



- **Edge Buffers**: 0.5 m
- **Sidewalk**: 1.5
- **Buffer between AT Facilities**: 0.3 m
- **Cycle Track**: 1.5 m
- **Buffer**: 0.5 m
- **Drive Lane**: 3.5 m
- **Utilities Corridor:** 1.0 m

Option 2: Multi-Use Path (15.5 m)

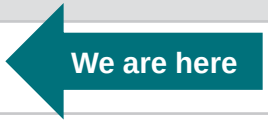


- **Edge Buffers**: 0.5 m
- **Multi-Use Path**: 3.0 m
- **Buffer**: 0.5 m
- **Drive Lane**: 3.5 m
- **Utilities Corridor:** 1.0 m

NEXT STEPS

PROJECT SCHEDULE

On-Going Stakeholder Engagement

Task	Timing
Notice of Study Commencement	January 2022
Review MCEA Phases 1 & 2	Fall 2021/Winter 2022
Identify Alternative Road Alignments and Design Concepts	Fall 2021/Winter 2022
Identify Preliminary Preferred Alternative Road Alignments and Cross-Sections	Summer/Fall 2022
Hold Public Information Session 	November 16, 2022
Finalize Preliminary Preferred Alternative Road Alignments and Cross-Sections	Fall 2022/Winter 2023
Develop 10-30% Detail Design Plans (10% for Roads, 30% for Crossings)	Fall 2022/Winter 2023
File ESR for 30-day Review Period	Winter 2023

Note: Meetings with agencies & Indigenous Nations are being undertaken on an as needed basis throughout the study (e.g., Curve Lake First Nation, Mississaugas of the Credit First Nation, Regional Municipality of York, Toronto and Region Conservation Authority, Ministry of Natural Resources and Forestry, TC Energy, Metrolinx, adjacent EA studies and Block Planning, etc.)

Q&A SESSION

PROJECT TEAM CONTACT INFORMATION

Please provide comments to the Project Team by emailing Block27EA@vaughan.ca by **Wednesday, November 30, 2022**

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Vice President, Transportation
LEA Consulting Ltd.
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Toronto, ON M5G 1T6
Tel: 416-572-1791
Email: Block27EA@vaughan.ca

Paul Grove, MCIP, RPP
Transportation Engineering Lead
City of Vaughan
2141 Major Mackenzie Drive
Vaughan, ON L6A 1T1
Tel: 905-832-2281 (ext. 8857)
Email: Block27EA@vaughan.ca

For further information about this Study, including ongoing updates, please visit the study website: vaughan.ca/Block27EA

Block 27 Collector Roads Municipal Class Environmental Assessment Study

Summary of Correspondences Comment-Response Table

The table below provide the comment(s) and question(s) made by the public and the study team's responses.

#	Agency / Stakeholder	Date Received	Comment	Action Taken	Response
Public Information Centre (PIC)					
1.	PIC participant	-	Concerns on cut-through traffic using Peak Point Boulevard to access Keele Street and Dufferin Street via Kirby Road	Responded in PIC	There will be no direct connection to Keele Street, at Peak Point Boulevard to limit cut-through traffic or infiltration into the adjacent neighbourhood. The option was previously available for the design of Street 8 which has been removed.
2.	PIC participant	-	Timeline for Phase 4 of the project and full completion of the project	Responded in PIC	This study is to be completed in the new year (2023). Next steps include detailed design and implementation. Construction of roadways anticipated to commence in 2025-2026. Phase 4 anticipated to commence in early 2023 upon completion of Phase 3.
3.	PIC participant	-	With respect to the GO train railway, are there any plans of taking the rail crossing underground at the Keele & Teston intersection and Keele & Kirby intersection in order to minimize sound pollution from the approaching train to the intersection and improve traffic?	Responded in PIC	The Regional Municipality of York is undertaking an Individual Environmental Assessment (IEA) to examine transportation improvements in the Teston Road area between Highway 400 to Bathurst Street and between Major Mackenzie Drive and Kirby Road. As part of the ongoing IEA, grade separation studies are currently underway. With respect to the rail crossing at Kirby Road, an underpass (rail over road) was the preferred GO rail crossing alternative as evaluated under the Kirby Road Widening EA study.
4.	PIC participant	-	Will the Kirby Road widening study between Dufferin Street and Keele Street be carried through to this project?	Responded in PIC	The Kirby Road Widening EA study is included in the baseline conditions of the Block 27 EA. The improvements along Kirby Road are reflected the proposed collector road network. Future detailed drawings will integrate the recommendations of the Kirby Road study.
5.	PIC participant	-	Concerns on noise relating to passing trains. Will there be any sound barrier walls? Will the residents be advised/given notice of next steps to participate?	Responded in PIC	A Transit Hub study will be undertaken will respect to the potential GO station in the NE quadrant. Previous studies have been undertaken by Metrolinx with respect to the implementation of GO service along the Barrie line. These studies have included noise studies. Information that Metrolinx has publish to date is the most recent available. Next steps will be shared with the public with additional opportunities for comments and questions for the study. A planning act application process will also be required allowing for additional public input.
6.	PIC participant	-	Will a copy of the presentation be sent to us?	Responded in PIC	Yes. A recording will be shared to the participants. A PDF and recording of the presentation will also be provided on the project website.
7.	PIC participant	Received via email on Nov 16, 2022	1. Will the Kirby Road widening affect the stretch of road between Keele and Dufferin? My concern is that many people are already driving fast on that road and disobey the stop signs posing a risk to families that live on Ravineview Drive. Introducing more lanes and more traffic to the residential area will increase that risk 2. What is the anticipated date of the road widening and the connection between Dufferin and Bathurst? 3. I believe I heard discussion surrounding a GO transit stop at Keele and Kirby. Is this correct?	Responded via email on Nov 18, 2022	1. The Kirby Road Widening Environmental Assessment is now complete and involves the segment of Kirby Road between Jane Street and Dufferin Street. Kirby Road is recommended to be widened to 4-lanes from Jane to Keele and from Keele to Dufferin. This will include dedicated active transportation facilities for both cyclists and pedestrians on both sides of the roadway as well. With respect to the Ravineview Drive & Kirby Road intersection, as part of the Kirby Road Widening EA, this intersection is recommended to be reconfigured from an all-way stop-control, to a one-way stop-control, with the stop-sign on Ravineview Drive and free-flow on Kirby Road. If you would like to learn more about the Kirby Road Widening and its recommendations, you can view the final report and recommended design of Kirby Road here: Project Updates (vaughan.ca) 2. The Kirby Road Widening Environmental Assessment being complete now allows for the detailed design stage to commence. The City is reviewing its capital budget to allocate the appropriate funds for the detailed design and subsequent construction of the roadway. While we do not have a set timeline at the moment, this process usually takes within a few years to move from EA stage to construction and full completion. 3. This is correct. The Block 27 Secondary Plan and the North Vaughan and New Communities Transportation Master Plan (NVNCTMP) completed in 2019 identified a future GO Station at Kirby Road & Keele Street. Our project protects for this recommendation by refining the road network that will

#	Agency / Stakeholder	Date Received	Comment	Action Taken	Response
					ultimately provide access to the GO Station and development in the Block. The planning of the GO Station is currently at a high-level and there are no set timelines as to when it will be implemented.
		Received via email on Nov 19, 2022	When you mention 4-lanes from Keele to Dufferin, is this including 2 driving lanes and 2 bike lanes as illustrated in the picture below? Vehicle traffic would still be limited to 2 lanes?	Responded via email on Nov 21, 2022	The Kirby Road Widening EA recommended four vehicular lanes (2-lanes per direction), with cycle tracks and sidewalks in the boulevard (not on the roadway). I have attached the recommended cross-section from the Kirby Road EA. If you'd like to learn more you can review the recommendations in full at the project website here: Kirby Road Widening (vaughan.ca) Just to clarify, the picture referenced in your email below is from our Block 27 Environmental Assessment project that is currently underway. The Block 27 EA is looking at the preferred alignments and roadway designs for the collector roads internal to Block 27. The exact picture shown is for a special segment of Street 6 that will operate through the woodlot in the northeast of the Block and requires a reduced width and cross-section. The EA is not looking at widenings of the boundary roads, such as Kirby Road.
8.	Property Owner	Received via phone call	1. Too many intersection are proposed on Keele Street A) Four intersections on Keele Street are too many B) The spacing of intersections on Keele Street would result in too much queueing and emissions while idling at red signals 2. Advocating for a road connection to Peak Point Boulevard and removing the connection at Vista Gate A) There is already a signal at Peak Point Boulevard and it should be capitalized on instead of creating a new one at Vista Gate B) The Vista Gate intersection would be too close to Kirby and the resulting queueing would have negative environmental impacts C) The wetlands to the west of Peak Point Boulevard are not significant and the net impacts of removing or crossing these wetlands and increasing intersection spacing on Keele Street over the long-term would be better than having closer intersection spacing on Keele Street with Vista Gate and higher vehicle emissions 3. Concerns regarding impacts to the cemeteries on Keele Street A) Concerns were expressed that only one of the cemeteries on Keele Street has been identified when there are two B) Concerns that the burial area of the second cemetery (assumed to be nearby Street 2) is larger than what we might be considering and that the team should find the plot or survey of the original church and cemetery	Spoke with the property owner regarding their concerns Follow up response on Dec 13, 2022	Thanks for reaching out and thanks as well for discussing your comments and concerns with me over the phone. I have taken back the comments and concerns and discussed with our consultants and project team. For added context, the current Block 27 Environmental Assessment (EA) is being undertaken to complete the final phases of the EA process where the North Vaughan and New Transportation Master Plan already completed the first phases of this process for Block 27. As such, the current Block 27 EA is being undertaken to refine the Transportation Master Plan recommendations and explore opportunities to further reduce environmental impacts. We can provide the following information in response: • <u>Connection at Vista Gate Should be Removed:</u> A connection to Vista Gate has been shown in the Block 27 EA as the approved Block 27 Secondary Plan and Transportation Master Plan recommended this connection and require us to include it. The connection to Vista Gate from Block 27 is planned to provide a primary access point to the potential future Kirby GO Station. Regarding the concern of close intersection spacing which would result in vehicle queueing and increased emissions, our consultant reviewed the spacing and the resulting traffic impacts. The intersection planned at Vista Gate is separated by approximately 210m or over 600ft to Kirby Road, and approximately 330m or over 1,000ft to Peak Point Boulevard (please see the attached figure). The traffic analyses show that these separation distances are adequate to accommodate the anticipated vehicle queueing and facilitate acceptable traffic operations along Keele Street. • <u>Number of Intersections Planned on Keele Street:</u> The approved Block 27 Secondary Plan and Transportation Master Plan require three (3) intersections be introduced on Keele Street connecting with Block 27, including at Vista Gate, Street 2, and Street 8. The Block 27 Environmental Assessment (EA) has maintained these requirements by continuing to plan for these three (3) intersections on Keele Street. Traffic analyses completed for Keele Street show that operations will be acceptable along the corridor with the introduction of these intersections. • <u>No Connection at Peak Point Boulevard:</u> As part of the evaluation of the alternatives, a connection at Peak Point Boulevard was considered on Keele Street in addition to the three (3) other intersections as discussed above. As part of the evaluation, it was determined that a connection to Peak Point Boulevard was not preferred due to impacts to the environmentally sensitive areas that are located west of Keele Street, added costs of construction and maintenance, and greater property impacts. • <u>Impact of Street 2 on the Existing Cemetery:</u> We discussed with our consultant and the cemetery west of Keele Street in the area of the Street 2 alignment had been identified and further works are

#	Agency / Stakeholder	Date Received	Comment	Action Taken	Response
					planned to determine the limits of the burial area. At this time, a shift in the alignment of Street 2 has been introduced in order to have a notable buffer to the cemetery. This will be further confirmed once the investigations are complete.
9.	Property Owner	Received via email on Nov 30, 2022	I attended the virtual meeting and the following are my comments for the Block 27 Collector Roads Municipal Class Environmental Assessment Public Information Centre held on November 16, 2022: 1. We prefer option 1C for the alignment of Street 1 as it has the least impact on the land and is straight throughout. 2. The alignment of Street 5 has been shifted west from the Secondary Plan in options 5a and 5b. We would like its alignment to be shifted east to better utilize the planned public transportation on Street 5 and Kirby Road.	Responded via email on Dec 8, 2022	Thanks for reaching out and for participating in the public engagement for Block 27. Thanks also for providing your comments to us. We have reviewed and can provide the additional information and clarification below. Please don't hesitate to reach out should you want to discuss these concerns with us any further. • Street 1: We certainly recognize that Option 1C would be the least impactful to the property in its current form and we have factored for this as part of our evaluation of the options for Street 1. Since we must also factor for a variety of other criteria through the EA process such as environmental impact, structure requirements for the greenbelt crossing, cost of construction and maintenance, and potential for accommodating future land uses in the Block, these other factors were found to outweigh property impact through the EA evaluation with Option 1A being returned as the preferred. There may be opportunities for slight refinements to the preferred alignment of Street 1 through any future development application processes for the property, should those be advanced. • Street 5: Option 5A has been selected as the preliminary preferred alignment for Street 5 which largely follows the alignment shown in the Secondary Plan and the Transportation Master Plan. The alignment does shift slightly east of where it has been shown in the Secondary Plan at the intersection with Street 2 and the intersection with Teston Road. The alignment of Street 5 at Kirby Road is maintained from the Secondary Plan. If clarification is needed on this, please let us know where you may have observed the deviations and we'd be happy to take a look to ensure the alignment is shown as intended.
10.	Resident	Received via email on Nov 30, 2022	Thank you for the opportunity to contribute to the consideration of alternative road alignments for Block 27. After reviewing the presentation provided on Nov 16th, I appreciate the opportunity to share my thoughts. Given one of the guiding principles in the Transportation Master Plan is to create more permeable transportation networks in north Vaughan and new communities, I find it interesting that you only have one east-west collector road crossing the rail tracks and connecting Jane to Keele in the Block. I recognize the added cost to build and maintain an underpass or overpass, however the extra traffic that has to be accommodated on Street 2, Kirby or Teston because of limited east-west connections will be potentially significant. One mid-block collector is essential, two would be better, especially considering the higher density developments that this Block is to accommodate. I am also concerned about some of the collector roads termination proximity to the main regional road intersections. During rush hour there is significant truck and car traffic moving up and down Jane and especially Keele Street. It would be best not to have traffic light intersections too close together because of queuing and timing conflicts. For example, on Keele St. at Kirby, traffic travelling north in rush hour is queued up below Vista Gate while waiting for the lights to change at Kirby. For Collector Street 8 to terminate on Keele at Vista Gate rather than Peak	Responded via email on Dec 14, 2022	Thanks for reaching out to share your comments and concerns. We appreciate you participating and providing us with yours comments. We have reviewed the comments with the project team and can provide the additional information below: • One East-West Collector Road: We certainly agree that having an additional east-west continuous collector road would be beneficial to the Block. The North Vaughan and New Communities Master Plan (NVNCMTP) thoroughly investigated opportunities to introduce two continuous east-west collector roads. Ultimately, one east-west collector road (Street 2) was identified through the NVNCTMP as accommodating a second continuous road was determined to be unfeasible. This is a result of the location of the Barrie GO rail corridor and the technical possibility of constructing an overpass or underpass. You may notice that the Barrie GO corridor shifts towards the east, closer to and eventually crossing Keele as it proceeds south. South of where Street 2 has been located, there is simply not enough separation between Keele Street and the rail corridor to achieve an acceptable and safe roadway slope for a grade-separation. As for the northern portion of the Block, the potential future Kirby GO Station is planned for this area and would complicate options for a continuous east-west road. The spacing of another road to the location of Street 2 would also be reduced. It is for these reasons only one road was advanced. • Proximity of Vista Gate to Kirby Road: As part of the NVNCTMP, it was determined that the preferred network for Block 27 include a Major Collector road connection between Street 8 and Keele Street, aligning with Vista Gate. One of the driving factors for this selection was that the

#	Agency / Stakeholder	Date Received	Comment	Action Taken	Response
			Point, it seems to be creating future problems even with the current volume of traffic, let alone the significant traffic volumes that will be traveling these roads once the development is in place. I recognize the complications for road development at the water retention pond outflow culvert at Peak Point, however the Peak Point intersection is heavily used by the community and would be a better placement with regard to community connections and traffic management. The storm water management pond outflow challenge is surmountable, as has been done in other similar situations in Vaughan and elsewhere. I suggest Collector Street 8 connect to Keele at Peak Point rather than Vista Gate, and the terminus at Kirby be as far west as possible. I am also concerned about Street 7 terminus at Teston, as it is also too close to Keele and will create traffic flow and light conflicts.		potential future Kirby GO Station will be located in this area, and the Vista Gate connection would serve as a gateway to the GO Station and future community. As the current Block 27 Environmental Assessment (EA) is conducting the remaining Phases of the EA process (the NVNCTMP completed the first Phases), the scope of the project does not involve significantly altering the network and their connections to the boundary roads. Rather, the scope of the EA is largely to refine the network following additional investigations and identify opportunities to reduce environmental impacts. That being stated, in the future this segment of Keele Street would become much more urbanized resulting from the GO Station and mid-rise development planned in this portion of Block 27, and the character of Keele Street is anticipated to change. we have completed traffic analyses on Keele Street with the planned road network accounting for future development and we find that traffic can operate acceptably with the appropriate coordination of the signal timings. We are continuing to consult with York Region on the intersection locations. • Proximity of Street 7 to Keele Street: Through our consultation and engagement we have held meetings with York Region on this matter and we are currently exploring options to shift this intersection further west to increase the spacing between Keele Street and Street 7. Since this intersection will be a T-intersection, the location does not have to be tied to a roadway on the opposite side, allowing for a shift. If you would like to discuss further or if you have any comments or questions please don't hesitate to let us know. Thank you again for your participation.
		Follow-up comments received via email on Dec 14, 2022	Thank you very much for your response to my concerns. I understand there is a cost benefit analysis that needs to be done to provide another east-west collector road, given the need to traverse the rail tracks, however I did not see that analysis. Please share this with me, so I can understand why you let the developer provide a less than optimal traffic network in what will be a fairly dense community. Once these decisions are made it will be impossible to fix, so let's make sure we are not selling this community short before we even get started. I also understand your justification for using Vista Gate as the point of connection to the community to the east, however I believe the proximity to Kirby will be problematic. I do understand that this will become a more urban area with the GO station just to the west, however having lights that close to Kirby will be a traffic flow challenge, as we have seen in so many areas of the City. Please reconsider, as there will also be a minimal separated intersection on Kirby. I am not sure it is necessary to create the shortest distance from the community to the east to the GO station, especially as it will be creating traffic flow problems for those moving through the area on the Regional roads. Looking forward to getting more info on your thought processes. Thanks,	Responded via email on Dec 19, 2022	I'm happy to provide more information as requested. Please see our feedback below: • Analysis Performed for One East-West Collector Road: The City completed the NVNCTMP in 2019 and devised the Secondary Plan for Block 27 which showed one east-west collector road (Street 2) based on an assessment of options to cross the GO rail corridor. You can review the assessment contained within the appendices of the NVNCTMP here: https://www.vaughan.ca/cityhall/departments/IPCAM/General Documents/NVNCTMP_Final-Report-AppCompressed.pdf. The assessment begins on page 18 and provides the rationale for why only one east-west road was eventually recommended. You will see on Exhibit 6-1 that four (4) options were reviewed, exploring options to achieve two east-west collector roads. As discussed previously, a second east-west collector road north of the TransCanada Pipeline was determined to be unfeasible due to the potential future Kirby GO Station occupying this area (also shown in Exhibit 6-1). The landowners in this case are proposing to maintain the requirements set forth by the City in its Secondary Plan for one east-west road. • Proximity of Vista Gate to Kirby Road: We understand the concerns and the spacing of Kirby Road to Vista Gate is an item we are continuing to discuss and work to optimize. I can certainly take the comments back to our team and perhaps take another look at the evaluation. However, I don't want to provide any false expectations. Since the Vista Gate connection is part of the road network of the Block 27 Secondary Plan as approved by Vaughan Council, removing this connection would be challenging and would position the current study we are undertaking, which is a continuation of that Secondary Plan process, against the work previously conducted by the City. I hope this information is helpful. Always happy to discuss further. Please don't hesitate to let us know. Thank you,

APPENDIX AIII

Consultation (Stakeholders - TAC)

Record of Meeting
20009

PROJECT:	Block 27 Collector Roads Municipal Class Environmental Assessment Study	**DATE:**	March 22, 2022
LOCATION:	Virtual – Microsoft Teams	**TIME:**	10 a.m. - 12 p.m.

IN ATTENDANCE (45)

NAME	REPRESENTING	NAME	REPRESENTING
Paul Grove (PG)	City of Vaughan	Erinn Lee (EL)	MECP
Samar Saadi Nejad	City of Vaughan	Lorne Hellreich (LH)	City of Vaughan
Ruth Rendon (RR)	City of Vaughan	Michael Habib (MH1)	City of Vaughan
Chris Sidlar (CS)	LEA	Margaret Mikolajczak (MM1)	MTO
Ken Chan (KC)	LEA	Nelson Mendes (NM)	TC Energy
Katherine Kung (KK)	LEA	Dan Della Mora (DDM)	MTO
Don Ford (DF)	TRCA	Mani Shahrokni (MS)	City of Vaughan
Catherine Warren (CW)	MNDMNF	Katrina Guy (KG)	City of Vaughan
Vi Bui (VB)	York Region	Tom Hewitt (TH)	MTO
Sharon Walker (SW)	City of Vaughan	Natosha Fortini (NF)	MNDMNF
Kaitlin Webber (KW)	MHBC Plan	Ahmad Subhani (AS)	York Region
William Francolini (WF)	MTO	Tamara Tannis (TT)	MHBC Plan
Mary Caputo (MC)	City of Vaughan	Nadia Porukova (NP)	City of Vaughan
Haris Sohail (HS)	York Region	Steve Mota (SM)	York Region
Dorinda So (DS)	Point A	Cameron Balfour (CB1)	City of Vaughan
Daniel Bertolo (DB)	York Region	Cameron Blaney (CB2)	MTO
Hilda Esedebe (HE)	City of Vaughan	Pat Becker (PB)	P Becker Consulting
Wayne Zhu (WZ)	City of Vaughan	Nancy Tuckett (NT)	City of Vaughan
Dan Minkin (DM)	MHSTCI	Dorothy Kowpak (DK)	City of Vaughan
Ruth Rendon (RR)	City of Vaughan	Ben Nagarajah (BN)	City of Vaughan
Sarah Abdulla (SA)	TC Energy	Mark Howard (MH2)	TRCA
Geoff Kneller (GK)	TC Energy	Michael McNamara (MM2)	City of Vaughan
Andrew Haagsma (AH)	City of Vaughan	Mustafa Ghassan (MG)	Delta Urban Inc.

MEETING TITLE Technical Advisory Committee (TAC) Meeting #1

ITEM	TOPIC	ACTION BY/ DUE DATE

1.0 Project Team Introductions

2.0 Presentation

CS presented the attached slide deck. The following topics were covered:

- Study Background & Overview
- MCEA Process
- Existing Conditions
- Proposed Alternative Road Alignments
  - **Street 1**: additional alignments reduce impacts to the Greenbelt (i.e., cross at narrower section)
  - **Street 2**: additional alignment which minimizes impacts to the wetland
  - **Street 3**: additional alignment to the north to mitigate impacts to wetland feature at DF-3 by shifting the crossing to an existing informal crossing (farmer)
  - **Street 4**: additional alignment is land-use planning driven and provide more efficient development spacing
  - **Street 5**: additional alignment to identify potential impacts/benefits of alignment road east of DF-3
  - **Street 6**: additional alignment to identify potential impacts/benefits of alignment road to the east side of the significant woodlot
  - **Street 7**: additional alignment to support the additional Street 3 alternative
  - **Street 8**: additional alignments to improve road geometrics (i.e., slopes), and to minimize impacts to the PSW (i.e., remove connection to Peak Point Blvd.)
- Proposed Alternative Cross-Sections (Design Concepts)
  - Major Collector Roads (5)
  - Minor Collector Roads (4)
- Next Steps

3.0 Discussion: Proposed Road Alignments

Indigenous Nation Engagement

- KG (Cultural Heritage Coordinator, City of Vaughan) inquired if other Indigenous Nations in addition to Curve Lake First Nation were consulted, particularly the Mississaugas of the Credit First Nation and Huron Wendat First Nation
- CS & PG responded that notice of pre-consult letters were sent to Indigenous Nations but Curve Lake First Nation was the only Indigenous Peoples that responded to the letter

ITEM	TOPIC	ACTION BY/ DUE DATE

- RR indicated the City had specifically reached out to Mark LaForme from the Mississaugas of the Credit First Nation, including sending preliminary work, however, no response has been received to date. Huron-Wendat First Nation has also not responded
- The City is aware the Mississaugas of the Credit First Nation has recently revitalized their outreach and consultation staff may have interest in further engagement

Cemetery Investigations

- KG (Cultural Heritage Coordinator, City of Vaughan) noted that a few road alignments come in close proximity to the cemeteries by Keele Street and inquired how the cemeteries are being considered by the Project Team
- CS responded that a boundary assessment has not been completed to date, however the Project Team has made an effort to shift the alignments away from the cemeteries understanding there is also a buffer with higher potential for archaeological finds. As part of the evaluation, impacts within the ossuary model is a factor which will be considered when selecting the preferred alignment. When the project moves into implementation / construction, any recommendations from cemetery investigations will be incorporated, in correspondence with the Project Team's archaeological specialist
- KG suggested that recommendations can also be incorporated into the development application

Coordination with the Kirby Road Widening from Jane Street to Dufferin Street, MCEA

- HE (Project Manager for Kirby Rd. Widening MCEA) asked if there is a construction timeline for the Block 27 collector roads
- MG (Block 27 Development Coordinator, Delta Urban) indicated that there are aggressive timelines in place, and that construction of the collector roads is anticipated to begin in late 2024 and completion of the road network by 2026 (except for roads located on non-participating landowner properties)
- HE indicated that Kirby Road widening from Jane St to Dufferin St is on a similar timeline and Detail Design is anticipated to be completed by 2024
- HE noted that Street 8 comes in close proximity to the Kirby Road grade separation and that Kirby Rd will go under railway. The Project Team should confirm Street 8 is feasible given the changes in elevations
- HE noted the Region's Teston Road IEA anticipates a grade separation along Teston Road as well and there will be shifts in elevations at Teston Road / Keele Street

ITEM	TOPIC	ACTION BY/ DUE DATE

- Of note, LEA is actively participating and monitoring the Teston Road and Kirby Road EA and is ensuring coordination with the Block 27 EA

[*post-meeting note*: LEA has confirmed the Street 8 location is feasible with the Kirby Road railway underpass]

City Parks Planning

- MH1 (Parks Planning, City of Vaughan) noted that City Parks Planning will be looking to see general locations of parks provides sufficient coverage for the BlockMH1 requested details on trail connections / crossing requirements and noted that that grade-separated facilities are preferred. MH1 added that once further details are provided, Parks Planning will provide additional comments
- CS indicated some of these detailed elements will be completed through the MESP process as opposed to the EA process, however the Project Team recognizes there are opportunities for discussion in both processes

Regional Roads

VB (Transportation Planning, York Region) noted that intersection spacing is an important element for any collector roads intersecting with a regional road in order to coordinate signal timing. New intersections should also align with existing roads. York Region will provide further comments once details are provided

- CS confirmed that intersection spacing along Regional Roads is being considered as well as aligning the Block 27 collector roads with adjacent blocks as much as possible
- VB indicated the Region is undertaking the Teston Road EA and that Block 27 will need to coordinate with the Region's capital delivery team to coordinate

Cultural Heritage

- DM (Heritage Planner, MHSTCI) inquired how cultural heritage is being considered in Block 27 in terms of both archaeology and built heritage
- CS responded that for archaeology, over the past decade, landowners have completed archaeological assessment reports. As part of Block 27 MCEA, a gap analysis has been undertaken to confirm recommendations and identify any areas that require further archaeological assessment by Archaeological Consultants Canada

  Unterman McPhail Associates was retained by the Block 27 Group and will be completing a Cultural Heritage Assessment as part of the Block 27 MCEA, as well as providing input into the road alignment evaluation to

ITEM	TOPIC	ACTION BY/ DUE DATE

understand how road alignments are affecting built heritage resources and cultural heritage landscapes

- KG offered to meet with DM for further detailed discussion on the history of the cultural heritage work completed for Block 27

Urban Design

- BD (Urban Designer, City of Vaughan) commented that the City prefers to preserve existing topography and to avoid stripping
- CS noted that grading is being completed as part of the Block 27 development process, however, the Project Team is currently looking to confirm road alignments and cross-section. Following the selection of the preferred alignments, further details will be developed including the vertical profiles

  The Project Team recognizes there are a number of considerations, including stormwater management pond locations, providing sufficient slopes, and ensuring the Block is developed as a whole to minimize cut and fills
- BD inquired if a tree inventory has been completed
- CS responded that a tree inventory has not been completed across Block 27, however, tree surveys have been completed in targeted areas where there are potential SAR (e.g., a targeted snag survey was completed within the significant woodlot to identify potential SAR bat habitat)
- BD suggested aligning open space facilities under existing green infrastructure as a way to cohesively organize the Block
- CS responded that urban design guidelines will be developed as part of the Block Plan Study and used as part of the Block 27 development

Street 8

- MH (Parks Planning, City of Vaughan) inquired if the proposed road alignments intersecting Keele Street aligns with existing roads east of Keele Street
- CS confirmed that all proposed road alignments intersecting Keele Street will align with existing roads
- MH asked if the study will be identifying lighting requirements at the intersections on Keele Street (e.g., fully lit)
- CS responded that major collector roads intersecting with regional roads will be fully signalized while the requirements for minor collector roads will likely be determined through the MESP process

ITEM	TOPIC	ACTION BY/ DUE DATE

4.0 Discussion: Proposed Cross-Sections

Sidewalks / MUPs

- BN noted that the City's preferred are 1.8 m sidewalks (minimum), however, the cross-sections are showing 1.5 m
- PG commented that the 1.5 m was due to following the City's engineering guidelines
- BN noted that MUPs should be aligned where there are potential parks and open spaces (i.e., MUPs should be on the side where there are open spaces)

Cycling Infrastructure

- DK (Active & Sustainable Transportation, City of Vaughan) noted the Project Team should review the City's Pedestrian and Cycling Master Plan when completing the evaluation
  - There can be exceptions based on a contextual case-by-case basis
  - e.g. there are no scenarios where major collector road does not have active transportation facilities
- CS inquired if the City has a minimum tree/landscape/utility width
- BN responded that the City's minimum is 2.5 m strips where there is landscape
- CS responded that the Project Team would like to understand if there are opportunities to narrow the landscape width if necessary
- DK noted that Project Team should reference the City's TMP to ensure consistency in the City's transportation facilities

Non-Participating Landowners

- BN inquired if there are any non-participating landowners
- CS confirmed that approximately 90% of the Owners are participated, but there are non-participating landowners within the Block 27

  Of note the non-participating owners include a Buddhist temple, and the cemeteries

The foregoing is considered to be a true and accurate record of all discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Recorded by: Katherine Kung (LEA) Email: kkung@lea.ca

Circulation: All attendees + Project Team

Record of Meeting
20009.03

PROJECT:	Block 27 Collector Roads Municipal Class Environmental Assessment Study	**DATE:**	August 29, 2022
LOCATION:	Virtual – Microsoft Teams	**TIME:**	10 a.m. - 12 p.m.
MEETING TITLE:	Technical Advisory Committee (TAC) Meeting #2		

IN ATTENDANCE (48)

NAME	REPRESENTING	NAME	REPRESENTING
Paul Grove (PG)	City of Vaughan	Margaret Mikolajczak (MM1)	MTO
Samar Saadi Nejad	City of Vaughan	Michael McNamara (MM2)	City of Vaughan
Ruth Rendon (RR)	City of Vaughan	Mustafa Ghassan (MG)	Delta Urban Inc.
Chris Sidlar (CS)	LEA	Nadia Porukova (NP)	City of Vaughan
Katherine Kung (KK)	LEA	Pat Becker (PB)	P Becker Consulting
Andrew Haagsma (AH)	City of Vaughan	Muneer Qazi (MQ)	York Region
Cameron Balfour (CB1)	City of Vaughan	Bhakti Rathod (BR)	York Region
Ben Nagarajah (BN)	City of Vaughan	Sonia Sanita (SS)	York Region
Vi Bui (VB)	York Region	Sarah Abdulla (SA)	TC Energy
Ary Rezvanifer (AR)	City of Vaughan	Sharon Walker (SW)	City of Vaughan
Christina Ciccone (CC)	City of Vaughan	Ahmad Subhani (AS)	York Region
Dmirtry Maznichenko (DM)	City of Vaughan	Suzanne Bevan (SB)	TRCA
Don Ford (DF)	TRCA	Wayne Zhu (WZ)	City of Vaughan
Dorothy Kowpak (DK)	City of Vaughan	Andrew Lam (AL)	Delta Urban
Emily Markovic (EM)	TRCA	Nancy Tuckett (NT)	City of Vaughan
William Francolini (WF)	MTO	Stephen Bohan (SB)	TRCA
Frank Suppa (FS)	City of Vaughan	Adam Sabb (AB)	TC Energy
Geoff Kneller (GK)	TC Energy	Steve Mota (SM2)	York Region
Harsimrat Pruthi (HP)	TRCA	Dan Della Mora (DDM)	MTO
Kaitlin Webber (KW)	MHBC Plan	Andy Lee (AL)	City of Vaughan
Katrina Guy (KG)	City of Vaughan	Rosalie Shan (RS)	City of Vaughan
Manirul Islam (MI)	TRCA	Katrina Guy (KG)	City of Vaughan
Mary Caputo (MC)	City of Vaughan	Shahrzad Davoudi-Strike (SDS)	City of Vaughan
Shahid Matloob (SM1)	York Region	Michael Frieri (MF)	City of Vaughan
Steve Mota (SM2)	York Region		

ITEM	TOPIC	ACTION BY
1.0	**Meeting Opening** ▶ Land Acknowledgement ▶ Safety Moment ▶ Project Team Introductions	
2.0	**Presentation** (*note: see attached for a copy of the presentation*) CS presented the attached slide deck. The following topics were covered: ▶ MCEA Overview ▶ Study Process ▶ Summary of Consultation / Engagement ▶ Evaluation Criteria ▶ Road Alignment Alternatives, Evaluation, and Preliminary Preferred Alignment (Streets 1-8) ▶ Preliminary Preferred Transportation Network ▶ Cross-Section Alternatives and Evaluation ○ Major Collector Roads ○ Minor Collector Roads & Reduced Cross-Section through woodlot ▶ Next Steps	
3.0	**Discussion**	
3.1	**Intersection Spacing & Distances** ▶ SM1 inquired if any offset intersections are being proposed ▶ CS responded that the Project Team is in correspondence with adjacent Blocks and the intent is to coordinate to avoid any offset intersections ▶ SM1 inquired if there are any roads with less than 300m separation ▶ CS responded that Street 1 to Kirby Rd is less than 300m but meets the minimum 215 m intersection spacing ▶ PG added that the Project Team is looking to find a balance between intersection spacing and minimize natural environmental impacts. The Project Team is seeking to find a shorter crossing of the Greenbelt for the Street 1 alignment. While we can meander Street 1 back to the original TMP location, the road alignment creates very inefficient lotting ▶ The Project Team has noted this comment and will have further conversations with SM following the meeting ▶ SM1 inquired what the intersection spacing between Street 8 and the underpass and Keele St.	

ITEM	TOPIC	ACTION BY
	▶ CS responded that the Project Team will send this information to SM1 following the meeting	LEA
	▶ PG commented that the TMP indicated that Street 8 would likely be a limited moves intersection subject to the development of the north-east corner / KirbyGO transit hub. Of note, the implementation of the Street 8 connection to Kirby Rd is contingent on the KirbyGO transit hub study which is underway and this MCEA study will protect for the implementation of Street 8	
	▶ SM2 suggested scheduling a coordination meeting to discuss all external concession roads and begin developing preliminary agreements in principles to avoid surprises when the plans of subdivision are submitted	
	▶ The Project Team will meet with York Region after the TAC meeting to further discuss and resolve these concerns	LEA
3.2	**Natural Environmental Impacts through Significant Woodlot (Street 6)**	
	▶ EM noted TRCA recognizes that the Project Team reviewed 2 alternatives through the woodlot in an effort to reduce impacts to the woodlot, however, there is concern that not enough attention has been provided towards the needs and justification for the road (e.g., exploring different ways for a north-south road). While the needs of Street 6 was addressed to some degree in the TMP, TRCA has consistently raised concerns with the Street 6 impacts to the significant woodlot and has not signed off that the needs outweigh the impacts	
	▶ CS responded that the TMP identified Street 6 is necessary to facilitate traffic in the north-east corner of Block 27 (high intensification due to KirbyGO transit hub). In addition, the City of Vaughan Official Plan requires the provision of 2 north-south and 2 east-west connections in all new Block communities. Due to existing constraints within Block 27, there are already limited roads connecting through the Block, as such, Street 6 forms a major function for Block 27 and helps avoid reliance on arterial roads surrounding Block 27 Traffic modelling undertaken indicated the removal of Street 6's connection to Kirby Rd would result in a high concentration of vehicles on Street 5, and findings were similar to the findings within the TMP	
	▶ PG commented that the Project Team understands we will need to work through the details, and further conversations between the Project Team and TRCA will be undertaken at the upcoming meeting that is scheduled	

ITEM	TOPIC	ACTION BY

3.2 Road Crossings

- BN inquired if the Project Team considered clear spans instead of culverts because it is less disruptive to the natural environment
- CS responded that the Project Team looked at crossing types from both a hydrogeological/fluvial geomorphological and natural environmental perspective and cost to identify which crossing type is necessary. At each crossing location, it was determined that a culvert can accommodate the necessary hydrogeological flows while accommodating the necessary openness ratio to accommodate wildlife crossing. Through the evaluation, culverts were identified as the recommended crossing type
- BN inquired if amphibian crossings are being provided
- CS responded that while specific amphibian crossings are not being provided, all culverts will be designed to the recommended openness ratio to accommodate small to medium sized animals (including amphibians) crossing

3.3 Cross-Section Facility Widths

- BN noted there were inconsistencies with the sidewalk widths – e.g., Alt MA3 has 1.5 m sidewalks while MA2 has 2.1 m sidewalks. The City and Region prefers to see 2.0 m sidewalks
- CS responded that the facility widths vary because there are trade-offs, in some instances, sidewalk widths were reduced to the minimum 1.5 m to provide sufficient space for minimum landscape widths and buffers, however, it still creates for a good cross-section as the buffers allow the spaces to be more effectively utilized

  If we want to increase sidewalk widths, other facilities will need to be reduced. Of note, cycle track and landscape facilities are already reduced to minimum widths to accommodate other facilities
- BN asked why the Street 6 cross-section did not include a landscape facility
- CS responded that landscape facilities were not included in the Street 6 cross-section through the woodlot because the intent (and per TMP direction) was to develop a cross-section with a reduced width specifically through the significant woodlot to minimize impacts / footprint of the road through the environmental feature

ITEM	TOPIC	ACTION BY
	▶ DK agreed with BN's preliminary comment for consistency of sidewalk widths, however, would prefer to see the additional space be added to the cycle track to accommodate e-scooters (allow passing movement). Requested 1.8+ m cycle tracks would be preferred to accommodate e-scooters and e-bikes Generally, 1.8 m to 2 m (1.5 m minimum) sidewalks is provided in intensification areas or heritage areas. Instead of providing 2 m sidewalks, the 'extra space' should be given to cycle tracks There may be opportunities in the minor collector alternatives where this can be achievable	
	▶ CS responded that for major collector roads, all facilities are already at minimum widths, however, wider cycle tracks/sidewalks may be achievable if reducing landscape facility is a possibility. Having separation between facilities will contribute the most towards safe use of a facility	
	▶ DK noted that providing a MUP and side-by-side facilities on either side of the road is not typical in the City of Vaughan	
	▶ PG clarified that the intent of showing both was to note that provision of both types of facilities were being contemplated in the evaluation. Since the widths are the same, either option could be implemented depending on the surrounding context	
	▶ DK requested a map showing where each width / cross-section is being proposed and for what distances	
	▶ CS responded that a map showing which collector street is a major collector and minor collector, as well as location of the reduced cross-section through the significant woodlot can be prepared. At this time, the project team is not being prescriptive on where parking will and will not be provided on minor collector roads. Areas where parking is / is not provided will need to be developed in combination with the Block Plan process.	~~LEA~~
	[*post-meeting note: a key map of the preliminary preferred road network was circulated to TAC on August 31, 2022*]	

The foregoing is considered to be a true and accurate record of all discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Recorded by: Katherine Kung (LEA) Email: kkung@lea.ca

Circulation: All attendees + Project Team

Block 27 Collector Roads Municipal Class Environmental Assessment Study
TAC Meeting #2 Comment-Response Table

Note: all comments were tracked verbatim

#	Stakeholder	Comment	Project Team Response (Final - Last Updated July 12, 2023)
1.	**Andy Lee** Manager, Development Services and Environmental Engineering City of Vaughan	**Comment received via email on September 12, 2022:** I don't think our group would have any comments although if there are any noise technical studies or Contaminant overview studies completed, please send them to Aroni for her review if needed. Thanks.	Thank you for attending the Block 27 Collector Roads Municipal Class Environmental Assessment (MCEA) study TAC Meeting #2 on August 29, 2022, and for providing comments on the project on September 12, 2022. A Noise Memo and Contaminant Overview Study will be made available for Development Services and Environmental Engineering Department as part of the ESR review.
2.	**Shahid Matloob** Regional Municipality of York	**Comment received via email on September 13, 2022:** As per our discussions in the TAC Meeting #2, Region will require a meeting with Block 27 Collector Roads EA team to discuss intersection spacing requirements and alignment with adjacent Blocks. Region will provide comments on the circulated material after the meeting. Region will also require a layout of the Block 27 collector roads showing alignment with the adjacent Blocks and intersection spacing distances.	A meeting was held with the Region on November 28, 2022, to discuss the intersection spacing requirements along regional roads. Alignments were refined to consider suggested changes to Street 1 and Street 4 to increase the intersection spacing with Kirby Road and Jane Street, respectively. In addition, Street 7 was refined to provide a roundabout intersection at Street 3 & 7 allowing for the Street 7 & Teston Road intersection to shift further west from Keele. Refined alignments were sent to the Region on March 23, 2023, for further comment.
		Comment received via email on April 19, 2023: Regional staff has reviewed the intersection spacing for Block 27 and provide the following comments: 1. It should be noted that spacing between intersections should be measured from end to start of curb returns, as shown in Figure 3 of the Region Access Guidelines. Therefore, a new intersection should strive for a minimum spacing for 215.0 meters from end to start of curb returns. 2. Region has concerns regarding minimum intersection spacing of Street 2 at Keele Street from existing signalized intersection located on the north side. The proposed Street is located only 208 meters from the existing signalized intersection measured from the edge of the ROW. Actual spacing when measured as per the Region Access Guidelines requirements with a 15.0 meter radius will only be 178.0 meters. Similarly, spacing of Street 1 and Jane Street intersection is 202.0 meters and Street 4 and Kirby Road intersection is 181.0 meters if measured as per the Region Access Guidelines methodology. 3. The signalization of proposed intersections will be dependent on meeting the signal warrants. Please contact me if you need additional information/clarification on the above.	1. The region's guidelines to measure intersection spacing have been noted. 2. There is limited ability to shift Street 2 from its current alignment due to limitations brought forth by the proposed grade separation at Street 2 with the CNR. There is limited spacing south of Street 2's current alignment, between Keele Street and the rail corridor to achieve an acceptable and safe roadway slope to accommodate the grade separation. The preferred location of Street 2 is also influenced by the cultural heritage/natural heritage features to the north and a cemetery to the south. The Project Team has revisited the alignment of Street 1 and Street 4 to provide a minimum intersection spacing of 215 m. Please note the Project Team has been in correspondence with the adjacent Block 34E on the west side of Jane Street to coordinate the alignment of Street 1 at Jane Street. The location of Block 27's Streets 2 and 3 connections to Jane Street within Block 27 is consistent with the location shown in the Block 27 Secondary Plan. 3. The region's comment on signalization has been noted by the project team. Signal warrants will be conducted as part of the block plan development submission. The Project Team would be pleased to meet with York Region to further discuss the intersection spacing. If you have any additional comments, please do not hesitate to contact me.
3.	**Kevin Haley** Public Health Regional Municipality of York	**Comment received via email on September 16, 2022:** <u>York Region Public Health (YRPH) comments</u>: Slide 11 of the August 29th TAC #2 minutes under Socio-Economic Environment mentions "Noise and Air Quality Impacts": • Is the Ministry of Environment, Conservation and Parks (MECP) requiring an air quality and noise impact study to be undertaken as part of the Block 27 Collector Roads Municipal Class EA Schedule 'C' study? YRPH is interested in reviewing these studies. These studies will help to align with York Region Official Plan policies 2.3.28, 2.3.29 and 2.3.30	Thank you for your interest in the Block 27 Collector Roads Municipal Class Environmental Assessment (MCEA) study and for providing York Region Public Health's comments on the project on September 16, 2022. Based on the Project Team's correspondence with the Ministry of Environment, Conservation and Parks (MECP) at the onset of the study, a Noise Memo and Air Quality Report (qualitative) are required as part of the MCEA study. As requested, these reports will be made available to the Regional Municipality of York as part of the ESR review. Please note that impacts to climate change and associated mitigation measures will be outlined within the Environmental Study Report. If you have any additional comments, please do not hesitate to contact me.

#	Stakeholder	Comment	Project Team Response (Final - Last Updated July 12, 2023)
		• Are climate change impacts being assessed as part of the Block 27 Collector Roads Municipal Class EA Schedule 'C' study? Here is a link to the MECP's "Considering climate change in the environmental assessment process" webpage: https://www.ontario.ca/page/considering-climate-change-environmental-assessment-process Here is a link to our York Region's Great Streets Guidelines: See Section 4.6 of the General Guidelines of the York Region Designing Great Streets Guidelines for complete streets: (page 110) for Climate Change Mitigation and Adaptation policy considerations and (page 112) for air quality policy considerations.	
4.	**Kaitlin Webber** MA | Planner (MHBC) TransCanada PipeLines Ltd. (TCPL)	**Comments received via email on September 16, 2022:** MacNaughton Hermsen Britton Clarkson (MHBC) are the planning consultants for TransCanada PipeLines Limited (TCPL), an affiliate of TC Energy Corporation (TC Energy). This letter is in response to notification of the Class Environmental Assessment Study for the Collectors Roads in the Block 27 planning area. TCPL has three high pressure natural gas pipelines crossing the study area. TCPL's pipelines and related facilities are subject to the jurisdiction of the Canada Energy Regulator (CER) – formerly the National Energy Board ("NEB"). As such, certain activities must comply with the Canadian Energy Regulator Act ("Act") and the National Energy Board Damage Prevention Regulations ("Regulations"). The Act and the Regulations noted can be accessed from the CER's website at www.cer-rec.gc.ca. In addition to the comments provided in our letter dated March 31, 2022 (attached), TCPL has reviewed the Technical Advisory Meeting #2 materials and provides the following additional comments: 1. East-West Collector Street 1, Alternative 1A: a. Alignment 1A is the preferred option from TCPL as it is the furthest alignment away from TCPL's right-of-way. b. Any paralleling road or railway, including pertinences such as grading, culverts, curbs/gutters, catch basins, etc. must be set back a minimum of 7 metres from the edge of TCPL's right-of-way. c. Any associated road infrastructure (e.g. curbs, gutters, street lighting, and signalization) shall be set back a minimum of 7 metres from TCPL's right-of-way. 2. North-South Collector Streets 4A, 5A, 6A (C6-MI1) a. Final detailed cross-sections must be submitted to TCPL for review and approval. b. TCPL will be required by the CER to prepare a detailed engineering analysis of all loads expected during construction and operation of the crossing and will provide designs for appropriate mitigation. The cost of this engineering assessment, analysis and design work, the costs of any required mitigation, and any pipe modification required will be 100% the responsibility of the proponent. 3. North-South Collector Street 8, Alternative 8D: a. Final detailed cross-sections must be submitted to TCPL for review and approval. b. TCPL requests that the crossing be as close to 90 degrees as possible, and no less than 45 degrees. c. TCPL will be required by the CER to prepare a detailed engineering analysis of all loads expected during construction and operation of the crossing and will provide designs for appropriate mitigation. The cost of this engineering assessment, analysis and design work, the costs of any required mitigation, and any pipe modification required will be 100% the responsibility of the proponent. 4. Road Crossings: a. Written consent from TCPL will be required for all proposed road crossings and any roads within 30 metres of TCPL's right-of-way. b. Road crossings must: i. Be as close to 90 degrees as possible, and no less than 45 degrees. ii. Maintain constant direction throughout the crossing of the right-of-way. iii. Not occur at a bend in a TCPL pipeline or within 7 metres of a pipeline bend.	Thank you for attending the Block 27 Collector Roads Municipal Class Environmental Assessment (MCEA) study TAC Meeting #2 on August 29, 2022, and for providing comments on the project on September 16, 2022. The Project Team has reviewed TransCanda PipeLine Limited's (TCPL) comments and requirements and provide the following response: **East-West Collector Street 1, Alternative 1A** Alternative 1A was selected as the preliminary preferred alignment for Street 1. TCPL's 7 metre set-back for the road, including grading, culverts, curbs/gutters, catch basins, and any other associated road infrastructure has been noted by the Project Team. Based on the current design, a 7m offset has been provided from the easement to the proposed stormwater management pond as well as at the collector road crossings within the vicinity of the TCPL facility. **North-South Collector Streets 4A, 5A, 6A (C6-MI1)** The final cross-section details will be submitted to TCPL for review and approval during the next design phase. The required detailed engineering analysis will also be completed in the next design phase and provided to TCPL for review and approval. **North-South Collector Street 8, Alternative 8D** Alternative 8D was selected as the preliminary preferred alignment for Street 8 and crosses the TCPL pipeline at approximately 75° which is consistent with TCPL's requirements. The final cross-section details will be submitted to TCPL for review and approval during the next design phase. The required detailed engineering analysis will also be completed in the next design phase and provided to TCPL for review and approval. **Road Crossings** The four (4) collector roads cross the TCPL pipeline within Block 27, including Streets 4, 5, 6, and 8. The Project Team has reviewed the four (4) collector road crossings and can confirm collector road crossings are consistent with TCPL's crossing angle requirements: • Street 4: 82° • Street 5: 90° • Street 6: 90° • Street 8: 75° The required minimum depth cover requirements and pipeline modification (if required) have been noted by the Project Team for consideration at the next design phase. The Block 27 development team will continue to correspond with TCPL during the next design phase to ensure all requirements are incorporated into the design and contract package and implemented. **Pathway Crossings** TCPL's pathway crossing requirements have been noted by the Project Team. All collector roads within Block 27 (i.e., Collector Roads 4, 5, 6, and 8) will include sidewalks and cycle tracks that will not exceed 3 m in width and will adhere to TCPL's requirements. The Block 27 development team will continue to correspond with TCPL

#	Stakeholder	Comment	Project Team Response (Final - Last Updated July 12, 2023)
		iv. Ensure a minimum depth of cover of 1.5 metres under the traveled surface and 1.2 metres within the road right-of-way. c. TCPL may require the installation of pipeline modification at 100% the proponent's expense. 5. Pathway Crossings: a. Sidewalks/Pathways may be permitted within the right-of-way but must: i. Not exceed 3 metres in width; ii. Maintain a minimum separation of 5 metres from the edge of the facility at all points where the pathway travels along the same direction (i.e. paralleling) as the facility within the right-of-way; iii. Cross TCPL's pipeline as close to 90 degrees as possible, but no less than 45 degrees; iv. Limit crossings to 1 per city block (approx. 200 metres); v. Use company supplied signage for crossings installed by a Third Party; and vi. Have expansion joints installed 3 metres on either side of TCPL's pipeline(s) if the pathway is cement or asphalt. 6. Landscaping: a. Landscaping of TCPL's right-of-way shall be approved in writing by TCPL. b. No trees or shrubs shall be planted within 5 metres of the pipeline edge within the right-of-way. c. TCPL's right-of-way is to be seeded with Canada #1 seed. d. A 5 metre wide, continuous access way shall be provided on each side of the pipeline within the right-of-way. e. A minimum 5 metre separation is required between all groups of trees or shrubs. A group may consist of no more than 5 trees/shrubs. f. With the exception of wooded environmentally sensitive areas or in special cases, no trees or shrubs that will reach a height greater than 4 metres shall be placed within TCPL's right-of-way. g. Tree roots shall not interfere with or cause damage to the pipeline. h. Before any excavation within 3 metres of the edge of the pipeline, the pipeline must first be located by hand or hydrovac. 7. Storage of Materials/Equipment: a. Storage of materials and/or equipment is not permitted within TCPL's right-of-way. TCPL has also been actively engaged in the Block 27 Secondary Plan, Kirby GO Transit Hub Study, and the Block 27 Block Plan Master Environmental Servicing Plan (MESP) and Terms of Reference (TOR). As such, TCPL would also like to highlight the following concerns as they relate to the Block Plan: 1. The Block 27 Secondary Plan Land Use Plan shows potential stormwater facilities near TCPL's pipelines. It should be noted that storm facilities are not permitted to cross the TCPL right-of-way. TCPL also requires a full understanding of the stormwater drainage scheme for the Block 27 lands which outlines how stormwater is proposed to cross the right-of-way and how stormwater will interact with the street network. Major system flows of stormwater shall be designed in accordance with TCPL's standards so as to not spill into TCPL's right-of-way. All post-development drainage must be directed away from TCPL's right-of-way. 2. More information is requested for the parcels abutting TCPL's right-of-way. Please ensure these land uses incorporate TCPL's requested setbacks. 2. TC Energy requests additional information on grading of Block 27 and any grading that will affect the right-of-way or drainage onto it, regardless of whether or not the grading is conducted on the right-of-way, must be reviewed and receive TC Energy written approval. 3. TC Energy requests additional information on functional servicing report (water and sanitary) of Block 27 must be reviewed and receive TC Energy written approval. Thank you for the opportunity to comment. Kindly forward future study details to the undersigned by mail or by email to TCEnergy@mhbcplan.com. If you have any questions, please do not hesitate to contact our office.	during the next design phase to ensure all requirements are incorporated into the design and contract package and implemented. **Landscaping and Storage of Materials/Equipment** TCPL's landscaping requirements and restriction of storage of materials/equipment have been noted by the Project Team. The Block 27 development team will continue to correspond with TCPL during the next design phase to ensure all requirements are incorporated into the design and contract package and implemented. Block 27 development team will continue to correspond with TCPL during the next design phase to ensure all requirements are incorporated into the design and contract package and implemented. **Block 27 Block Plan** Please note that while the Block 27 Collector Roads MCEA and Block 27 development processes are occurring concurrently, they are separate processes. As such, TCPL's comments on the Block 27 Block Plan have been forwarded to the Block 27 Development Project Team for review and response.

#	Stakeholder	Comment	Project Team Response (Final - Last Updated July 12, 2023)
5.	**Katrina Guy** Cultural Heritage Coordinator City of Vaughan	**Comments received via email on September 16, 2022:** **Archaeology** The south section of Collector Road #5 is located within 300 meters of the known site AlGv-2, a Huron-Wendat village. Detailed archaeological field work within 10 meters either side of the identified ROW for the proposed Collector Road. The proposed areas of the collector roads and streets are all located within areas of high archaeological potential. Stage 2 Archaeological Assessments must done in association of the proposed roads and right of ways. The proposed works also require ongoing engagement with the City's indigenous communities, primarily the Mississaugas of the Credit First Nation and the Huron-Wendat Nation. **Built Heritage and Cultural Heritage Landscapes** The Block 27 CHRIA identified a number of properties in Block 27 with cultural heritage value. Cultural Heritage staff is aware that a follow up assessment on the properties in the context of this EA is currently underway, and will comment further upon receipt and review of the reports. A map and list of properties in the Study area excerpted from the earlier Block 27 CHRIA to these comments for reference.	Thank you for attending the Block 27 Collector Roads Municipal Class Environmental Assessment (MCEA) study TAC Meeting #2 on August 29, 2022. The following provides a response to the comments that were submitted on September 16, 2022. **<u>Archaeology</u>** Thank you for flagging the AlGv-2 site and the areas of high archaeological potential. The Project Team is aware of the areas retaining archaeological potential and archaeology sites and will ensure any areas (along with associated buffers) impacted by the collector road network will be cleared of archaeological potential prior to construction and/or monitored during construction (e.g., ossuary monitoring). This will be included as future commitments within the Environmental Study Report. **<u>Indigenous Nation Engagement</u>** The Project Team has sent project notifications to the following Indigenous Nations as part of the MCEA, including follow-up emails to obtain comments: • Curve Lake First Nation • Mississaugas of the Credit First Nation • Huron-Wendat First Nation • Six Nations of the Grand River First Nation • Haudenosaunee Confederacy Chiefs Council • Beausoleil First Nation • Hiawatha First Nation • Mississaugas of Scugog Island First Nation • Chippewas of Georgina Island First Nation To date, Curve Lake First Nation and the Mississaugas of the Credit First Nation have expressed interest in the Block 27 Collector Roads MCEA, and the City and Project Team has been in correspondence with both Indigenous Nations and has committed to inviting both Nations on future archaeological assessment fieldwork. **<u>Built Heritage and Cultural Heritage Landscape</u>** Please note Unterman Mcphail Associates was retained as the cultural heritage technical specialist for the Block 27 Collector Roads MCEA to complete a review of the Cultural Heritage Resource Assessment Report (ASI, 2015) along with an impact assessment and recommended mitigation measures. The findings of the review and impact assessment will be documented in an updated Cultural Heritage Resource Assessment Report and made available to the City's Cultural Heritage Division as part of the ESR review.
6.	**Natosha Fortini** Management Biologist, Aurora District Ministry of Natural Resources and Forestry	Comment received via email on September 22, 2022 **Background** Block 27 in the City of Vaughan supports a number of significant natural heritage features including: • Fourteen wetlands (PSWs) that are part of the provincially significant Don River West Branch Headwater Wetland Complex that occur along West Don watercourses including DF1, DF2, DF3, DF3-1, DF3-2, and DF4 (see attached wetland evaluation and accompanying map). Three additional unevaluated wetlands occur on watercourses noted as DF5-1, DF5-2 and DF6. • A Greenbelt Plan natural heritage system valley corridor on the main tributary of the West Don which traverses the western side of the concession block and supports three provincially significant wetlands (PSWs), sensitive groundwater seepage areas and, at its southern end, a large woodlot/wetland natural core area. • A large core natural area in the northeast portion of the concession block that supports six provincially significant wetlands, a significant amphibian breeding wildlife habitat and several large woodlots. This is the largest natural core area in the concession block.	Thank you for your interest in the Block 27 Collector Roads Municipal Class Environmental Assessment (MCEA) study and for providing the Ministry of Natural Resources and Forestry's (MNRF) comments on the project on September 16, 2022. **<u>Greenbelt Crossing / Fish and Fish Habitat</u>** The Project Team understands MNRF is requesting that free-span bridges be provided at the Greenbelt crossing along Streets 1, 2, and 3 to minimize negative impacts to the wildlife corridor. First and foremost, large and onerous underpasses would be required upstream under Kirby Road and downstream under Teston Road to be consistent with the creation of bridge structures along DF1 in the Greenbelt corridor. Furthermore, the project's potential effects on wildlife movement at a landscape level and potential wildlife/highway conflicts that may already exist should be considered: it is critical to note that Block 27 and its surroundings will be highly urbanized and will not support wildlife that are urban intolerant and the continuous grid-like major infrastructure network represent wildlife movement barrier or bottleneck for larger mammals (White-tailed Deer).

#	Stakeholder	Comment	Project Team Response (Final - Last Updated July 12, 2023)
		• The watercourses of the West Don support fish habitat and species sensitive to habitat changes **Specific Comments** <u>Greenbelt Plan Valley Corridor and Collector Streets 1, 2 and 3</u> Three collector streets (1, 2 & 3) traverse the Greenbelt Plan valley corridor and the main tributary of the West Don. At these three crossings it is recommended to have free-span bridges to ensure that the negative impacts to this wildlife corridor are minimized. <u>Collector Street 1</u> This street is well aligned from a natural environment perspective. It traverses the Greenbelt Plan valley corridor and its watercourse but otherwise avoids impacts to sensitive wetlands and woodlands <u>Collector Street 2</u> This street is well aligned from a natural environment perspective. It traverses the Greenbelt Plan valley corridor but a bend in the route weaves it between PSW #8 and PSW #9 in the valley thus avoiding direct impacts to these significant wetlands. Along its eastern route the street also avoids a large woodlot and adjoining treed hedgerow to the south and PSW #14 to the north along tributary DF3-2. At its crossing of tributary DF3-2 a free-span bridge should be to provided to allow the watercourse and adjacent lands to serve as a wildlife corridor between the large wetlands to the south and the large woodlot block to the north. There also needs to be provisions made for a wildlife crossing under the street in the area of the woodlot to the south to allow for wildlife movement from this woodlot to the large woodlots to the north. <u>Collector Street 3</u> This street is as well aligned as possible from a natural environment perspective. This collector street traverses the Greenbelt Plan valley corridor and at its tributary DF1 it cuts through a narrow 18 metre wide portion of PSW #8. In its central section, the street at tributary DF3-1 appears to avoid the northern terminus of PSW #12 while at its second branch DF3-2 it cuts through a 50 metre marsh portion of PSW#12. At its crossing of tributary DF3-2 a free-span bridge should be to provided to allow the watercourse and adjacent lands to serve as a wildlife corridor between the large wetlands to the south and the large woodlot block to the north. Further east, at the crossing of tributary DF4, it avoids PSW #20 just to the north. Again a free span bridge should be provided across this tributary to provide for wildlife connections between the large wetlands to the south, PSW #20 and PSW #21 to the north and the large woodlot to the northeast. A major east-west treed hedgerow occurs on the north side of this street and in detailed design it should not come too close to the hedgerow to avoid damage to the tree root zone. <u>Collector Street 4</u> This street is well aligned from a natural environment perspective. It avoids the Greenbelt Plan valley corridor just to the east. <u>Collector Steet 5</u> Most of this street is well-aligned from a natural environment perspective avoiding impacts to the large PSW #12 to the east and the Greenbelt Plan corridor to the west. At its southern connection with Cranston Park Avenue we would recommend arcing the road even further west to further minimize impacts to the watercourse (DF3) and the highly significant groundwater-fed thicket swamp (community hS8-B) in PSW #12. MNRF would also recommend that a wildlife crossing be provided as part of an east-west corridor to connect up the Greenbelt Plan valley corridor with the large natural core area to the east. The wildlife crossing should be centred on an east-west treed hedgerow situated just south of the Collector Street 6 intersection with Collector Street 1. <u>Collector Street 6</u> The northcentral section of this street between Collector Streets 1 and 2 is aligned right through the centre of the largest natural core area in the concession block that supports wetlands and large woodlots. It would cut through the centre of a large woodlot along a 370 metre section. The Ministry would recommend eliminating this section	Due to the above consideration, the Project Team recommends that culverts are sufficient for Streets 1, 2, and 3 crossing of the Greenbelt. Please note that a variety of structure types and crossings were considered for the area. However, free-spans were not determined to be required as the proposed culverts satisfy the requirements from a hydraulic and ecological perspective. Furthermore, openness ratios have been calculated and relevant crossings will be designed to the appropriate openness ratio to accommodate the target species (i.e., amphibians and reptiles, small mammals (e.g., mouse, vole, squirrel) and mid-sized mammals (e.g. fox, raccoon, skunk, coyote)). Some larger mammals (i.e., White Tail Deer) can use most of these culverts even though they are not specific targets. The Project Team will continue to engage with MNRF to discuss crossing types and proposed/recommended mitigation measures to minimize impacts to the Greenbelt and fish and fish habitat. **<u>Street 2</u>** Openness ratio and dimensions of the proposed open bottom culverts are considered adequate for the target species or habitat, which does not warrant the use of a free-span bridge, and structure length has been minimized to the extent possible. The Project Team has also noted MNRF request for a functional connection between the two woodlots. Due to the topography constraints, Street 2 at the location between the two woodlots is at a lower elevation compared to adjacent lands (to the south and north) and is in a trenched condition. Street 2 at this location is also beginning to slope downward to accommodate the underpass under the railway to the east and retaining walls are also required north of Street 2, which would further impede the provision of a wildlife crossing under Street 2. **<u>Street 3</u>** Openness ratio and dimensions of the proposed open bottom culverts are considered adequate for the target species or habitat, which do not warrant the use of a free-span bridge, and structure length has been minimized to the extent possible. Please note the east-west hedgerow north of Street 3 will likely be removed as part of the Block 27 development. **<u>Street 5</u>** The Project Team has noted MNRF's request to arc Street 5 further west at the connection to Cranston Park Boulevard. Please note that the angle of Street 5 has been aligned to minimize impacts to DF-3 to the extent possible while intersecting Street 5 to Teston Road at a 90-degree angle, as required by City of Vaughan design standards and guidelines for a standard intersection. Wildlife crossings will be provided at all appropriate culverts and designed to the recommended openness ratio to accommodate amphibians, reptiles, and small to mid-sized mammals. Please note that the suggested wildlife crossing south of Street 6 at Street 1 will be developed into a Community Hub (Block 27 Secondary Plan) as part of the overall Block 27 development. **<u>Street 6</u>** The Project Team has noted MNRF's comment to terminate Street 6 south of the woodlot to avoid impacts to the large woodlot. Based on additional traffic modelling, while higher traffic pressure is anticipated on the adjacent roadway (i.e., Street 5), a connection of Street 6 through the woodlot may not be required from a traffic perspective provided that Street 5 develops north of the pipeline and as a 4-lane roadway at the onset of development. However, the connection provides important connectivity through the Block for all users. Furthermore, given that a portion of the northwest quadrant, north of the pipeline is owned by a non-participating landowner, removal of the Street 6 connection would require the non-participating landowner to permit a road that supports development south of Kirby Road and to accommodate forecasted traffic volumes appropriately. Given the uncertainty in the timing for the development of the non-participating landowner property, a continuous north-south connection of Street 6 has been included in the preferred road network.

<table>
<tr><th>#</th><th>Stakeholder</th><th>Comment</th><th>Project Team Response (Final - Last Updated July 12, 2023)</th></tr>
<tr><td></td><td></td><td>of the collector road due to its major natural environment impacts. Alternatively the road should swing west and north to entirely avoid the woodlot and this natural core area.

The northern section of Collector Street 6 between Collector Street 1 and Kirby Road is well-aligned from a natural environment viewpoint. It avoids PSW #11 to the east, that is also a significant wildlife habitat for breeding amphibians. Stormwater from this road should not be put into this sensitive wetland. Road salt has been known to have detrimental affects on amphibians.

At the central section of the street 6 between Collector Streets 2 and 3, a wildlife crossing should be provided midway to allow for wildlife movement between PSW #20 and PSW #21 at the terminus of tributary DF4 to the west and the large woodlot to the east.

In the southern section, MNRF would recommend shifting street 6 slightly west about 30 metres to avoid impacts to a wetland at watercourse DF5-1 and to reduce the three crossings of watercourse DF5/DF5-1 to one crossing.

<u>Collector Street 7</u>
This street is well aligned from a natural environment perspective. Its avoids a wetland and two watercourses at DF5-2 and DF6

<u>Collector Street 8</u>
This street is well aligned from a natural environment perspective. At the section where it crosses tributary DF3-2 it comes close to the railway line and PSW #17 to the east. In this area, MNRF would recommend that the road be situated right up to the edge of the toe of the railway embankment to avoid impacts to PSW #17. In this section, the toe of the railway embankment is 30 metres from the western edge of PSW #17. MNRF would recommend eliminating a side road connection to the east to Vista Gate on the east side of Keele St (Regional Road 6) to avoid impacts to the intervening PSW #18 on the west side of Keele Street.

Fish and Fish Habitat

Although subject to increased urbanization in recent years, the Upper West Don has seen less development than other Don River subwatersheds, which has historically allowed some more sensitive species such as blacknose shiner and northern redbelly dace to persist, while extirpated from other parts of the Don River.

Clear-span bridges are the preferred crossing structure from a fisheries perspective (and also from a wildlife crossing perspective, as addressed above), followed by open-bottom culverts.

While the project may not yet be at such a stage to consider site-specific water-crossing details, it is important to consider impacts to direct fish habitat, riparian vegetation, groundwater/baseflow, water flow, storm runoff, salt spray, shading, bank erosion/sedimentation, and fish passage. MNRF would like to stay engaged during future design development to support the avoidance and mitigation of negative impacts to fish and fish habitat as well as opportunities to both rehabilitate and improve direct and indirect fish habitat in Block 27.

Thank you,

Natosha</td><td>The Project Team has also reviewed the feasibility of shifting Street 6 to avoid impacts to the woodlot, however, due to intersection spacing constraints, there are very limited opportunities to shift Street 6 east or west from its current alignment (i.e., shifting Street 6 to the west to avoid impacts to the woodlot brings Street 6 too close to Street 5 and shifting Street 6 to the east will require an additional grade separation and also bring Street 6 too close to Street 8). Please note the Project Team will be reviewing mitigation opportunities (e.g., providing wildlife crossing) which will be documented in the Environmental Study Report.

<u>Street 8</u>
The connection of Street 8 to Vista Gate Boulevard is important from a transportation perspective as it provides connectivity to the future Kirby GO Transit Hub that is proposed in the north-east corner of Block 27 and provides a vital connection for traffic flows to/from Block 27 and the transit hub. Due to the slopes along Kirby Road north of Street 8 from the EA approved Kirby Road widening, it is anticipated that the Street 8 connection will be a right-in/right-out access only. As such, maintaining the connection to Vista Gate is critical from a traffic flow and network perspective. Please note the Project Team eliminated the connection to Peak Point Boulevard in recognition of the environmental impacts associated with constructing a road at that location.

The Project Team has noted MNRF’s request to shift Street 8 closer to the railway to minimize impacts to PSW #17. Please note Street 8 has already been aligned to abut against the Metrolinx railway and cannot be shifted further west to avoid impacts to the Metrolinx property. The figure below provides a map illustrating the Metrolinx property line in red and the proposed preliminary preferred Street 8 alignment right-of-way in fuchsia.

 

<u>Next Steps</u>
The Project Team would be pleased to meet with MNRF if required to further discuss MNRF’s comments if required.</td></tr>
<tr><td>7.</td><td>Andrew Haagsma
Planner I

City of Vaughan, Policy Planning and</td><td>Comments received via email on September 30, 2022:

<table><tr><th>Department/ Agency</th><th>Page / Section #</th><th>Commenter</th><th>Comments</th></tr><tr><td>PPSP</td><td>Street #1</td><td>Ruth Rendon</td><td>The shorter traverse of the Greenbelt is noted. Describe the impact and culvert design being evaluated.</td></tr></table></td><td>Thank you for attending the Block 27 Collector Roads Municipal Class Environmental Assessment (MCEA) study TAC Meeting #2 on August 29, 2022. The following provides a response to the comments that were submitted by the Policy Planning and Special Programs Department on September 30, 2022.</td></tr>
</table>

#	Stakeholder	Comment				Project Team Response (Final - Last Updated July 12, 2023)		
	Special Programs	**PPSP**	**Street #1**	**Cameron Balfour/Andrew Haagsma**	Note: potential modification to the Low-Rise Residential and Low-Rise Mixed-Use may be required to retain the original gateway vision for the intersection of Jane Street and Collector Street 1. The shift of Street 1 may require an OPA to complete a corresponding shift of these land uses.			
		PPSP	**Street #1**	**Cameron Balfour/Andrew Haagsma**	Suggested alignment allows for more developable area resulting in a less fragmented land use pattern south of Street #1 as there is a greater distance from the TCPL.			
		PPSP	**Streets #1 & #3**	**Cameron Balfour/Andrew Haagsma**	Ensure that all proposed alignments provide for approximately 50% frontage on proposed new parks where feasible as per VOP 2010 policy 7.3.2.3.d.			
		PPSP	**Street #3**	**Ruth Rendon**	New proposed alignment introduces an additional crossing as it crosses DF 3-1, 3-2, and 4. Please advise if the open culvert crossing being proposed is the best option to minimize impacts.			
		PPSP	**Street #3**	**Ruth Rendon**	Evaluate and compare the crossings at DF-3 and DF-1.			
		PPSP	**Street #3**	**Cameron Balfour/Andrew Haagsma**	Ensure that the newly proposed alignment conforms to VOP 2010 policy 7.2.3.1 and Block 27 Secondary Plan policy 3.9.2 with respect to any public street frontage requirements regarding the proposed school site as per recommendations from the appropriate school board.			
		PPSP	**Street #6**	**Ruth Rendon**	As noted through our discussion with TRCA and Curve Lake First Nation, we suggest that an alternative option to avoid the significant woodlot crossing be evaluated.			
		PPSP	**Street #7**	**Cameron Balfour/Andrew Haagsma**	Ensure that the newly proposed alignment conforms to VOP 2010 policy 7.2.3.1 and Block 27 Secondary Plan policy 3.9.2 with respect to any public street frontage requirements regarding the proposed school site as per recommendations from the appropriate school board.			
		PPSP	**Street #8**	**Cameron Balfour/Andrew Haagsma**	Confirm if Vista Gate and direct connection to the transit hub is being removed.			
		PPSP	**Street #8**	**Cameron Balfour/Andrew Haagsma**	Ensure the remaining lands between proposed realignment of Street #8 and the Barrie GO Rail Line conform to Block 27 Secondary Plan policy 3.1.5 as it relates to rail infrastructure setback requirements and land use compatibility studies.			
		PPSP	**Street #8**	**Cameron Balfour/Andrew Haagsma**	Confirm the land use vision pattern on the lands east of the Barrie GO Rail Line and both sides of the proposed realignment of Street #8. Suggested alignment decreases developable area to the west of Street #8 resulting in a more fragmented land use pattern.			
						Street	**Comments**	**Project Team Response**
						Street #1	The shorter traverse of the Greenbelt is noted. Describe the impact and culvert design being evaluated.	Based on a preliminary assessment and hydraulic and wildlife crossing (i.e., openness ratio) requirements, a 40 m conspan culvert (2.44 m x 12.81 m) is being proposed for the Greenbelt crossing along Street 1. An impact assessment will be completed along with recommended mitigation measures to further minimize potential impacts and will be documented in the Environmental Study Report.
						Street #1	Note: potential modification to the Low-Rise Residential and Low-Rise Mixed-Use may be required to retain the original gateway vision for the intersection of Jane Street and Collector Street 1. The shift of Street 1 may require an OPA to complete a corresponding shift of these land uses.	The land use designations will be reviewed in detail as part of the Block Plan process including the "gateway" locations for additional height. In our opinion, Policy 4.1.1 b) of the Secondary Plan recognizes that minor adjustments to the collector road network will not require an amendment. In our opinion, the shift of Street 1 is a minor adjustment and does not require an amendment.
						Street #1	Suggested alignment allows for more developable area resulting in a less fragmented land use pattern south of Street #1 as there is a greater distance from the TCPL.	Comment noted by the Project Team.
						Streets #1 & #3	Ensure that all proposed alignments provide for approximately 50% frontage on proposed new parks where feasible as per VOP 2010 policy 7.3.2.3.d.	The re-alignments of Streets 1 and 3 do not impact the block plan's ability to conform to Policy 7.3.2.3.d of the VOP.
						Street #3	New proposed alignment introduces an additional crossing as it crosses DF 3-1, 3-2, and 4. Please advise if the open culvert crossing being proposed is the best option to minimize impacts.	The new proposed alignment Alternative 3B is anticipated to have a lesser impact than Alternative 3A. An open culvert crossing is proposed at these locations for the following reasons: • Openness ratio dimensions of the proposed open bottom culverts are considered adequate for the target species or habitat, which does not warrant the use of a free-span bridge. • Furthermore, the potential wildlife/highway conflicts that may already exist should be considered: it is critical to note that Block 27 and its surroundings will be highly urbanized and will not support wildlife that are urban intolerant and the existing major infrastructure network represents wildlife movement barrier or bottleneck for larger mammals (White-tailed Deer). Please note the additional crossing proposed utilizes a disturbed existing crossing that appears to have been built to support farming operations.
						Street #3	Evaluate and compare the crossings at DF-3 and DF-1.	Alternative 3B is anticipated to have a lesser impact than Alternative 3A. An impact assessment will be completed along with recommended mitigation measures to further minimize potential impacts and

#	Stakeholder	Comment	Project Team Response (Final - Last Updated July 12, 2023)		
					will be documented in the Environmental Study Report. Furthermore, a variety of structure types and crossings were considered for the area. However, free-spans were not determined to be required as the proposed culverts satisfy the requirements from a hydraulic and ecological perspective. Detailed hydraulic modelling and ecological considerations will be documented in the Environmental Study Report.
				Street #3	Ensure that the newly proposed alignment conforms to VOP 2010 policy 7.2.3.1 and Block 27 Secondary Plan policy 3.9.2 with respect to any public street frontage requirements regarding the proposed school site as per recommendations from the appropriate school board.	Neither Policy 7.2.3.1 of the VOP or Policy 3.9.2 of the Secondary Plan have any public street frontage requirements. It is our understanding that it is the preference of the school boards. The re-alignment of Street 3 will not impact the Block Plan's ability to conform to these policies. Furthermore, the Block Plan is able to accommodate the school board's preference.
				Street #6	As noted through our discussion with TRCA and Curve Lake First Nation, we suggest that an alternative option to avoid the significant woodlot crossing be evaluated.	Due to the location of the woodlot and intersection spacing, a road alignment that avoids the significant woodlot crossing is limited to terminating Street 6 at Street 2, which the Project Team understands is undesirable from a City perspective due to connectivity.
				Street #7	Ensure that the newly proposed alignment conforms to VOP 2010 policy 7.2.3.1 and Block 27 Secondary Plan policy 3.9.2 with respect to any public street frontage requirements regarding the proposed school site as per recommendations from the appropriate school board.	Neither Policy 7.2.3.1 of the VOP or Policy 3.9.2 of the Secondary Plan have any public street frontage requirements. It is our understanding that it is the preference of the school boards. The re-alignment of Street 3 will not impact the Block Plan's ability to conform to these policies. Furthermore, the Block Plan is able to accommodate the school board's preference.
				Street #8	Confirm if Vista Gate and direct connection to the transit hub is being removed.	Based on the evaluation of road alignment alternatives, the connection to Vista Gate Blvd. is proposed to be retained. The Street 8 and Peak Point Blvd. connection to the transit hub will be removed. Furthermore, it is anticipated the Street 8 connection to Kirby Rd. will likely be a right-in/right-out connection due to the Kirby Rd. slopes associated with the Kirby Rd. widening.
				Street #8	Ensure the remaining lands between proposed realignment of Street #8 and the Barrie GO Rail Line conform to Block 27 Secondary Plan policy 3.1.5 as it relates to rail infrastructure setback requirements and land use compatibility studies.	The alignment of Street 8 provides sufficient space to the rail corridor and, in most cases, falls within the required setback between the rail corridor and planned sensitive land uses.
				Street #8	Confirm the land use vision pattern on the lands east of the Barrie GO Rail Line and both sides of the proposed realignment of Street #8. Suggested alignment decreases developable area	In our opinion, the alignment of Street 8 does not decrease the developable area to the west of Street 8. Instead, it utilizes the required setback area for a required collector street, which will make the

<table>
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<table>
<tr><td></td><td>to the west of Street #8 resulting in a more fragmented land use pattern.</td><td>remaining lands to the east more developable and efficient.</td></tr>
</table>
</td></tr>
<tr><td>8.</td><td>Muneer Qazi
Service Planner, Service Planning

York Region Transit (YRT)</td><td>Comments received via email on October 3, 2022:
<table>
<tr><th>Topic</th><th>Comments/Feedback</th></tr>
<tr><td>Proposed Road Alignment</td><td>• Street 7 should have signalized intersection with Teston Rd</td></tr>
<tr><td>Cross Sections for Major Collector Roads</td><td><u>Alternative MA-3</u>
• Drive lane being 3.3 meters is below standard that YRT looks for. Should be 3.5 meters for any lane that the bus would be travelling in. Need to compensate for width of bus plus 0.3m on each side for mirrors. Using 3.3m lane width only gives 0.1m buffer from edge of mirror to vehicle adjacent. (2 commercial vehicles at 3.3 m will be contacting mirrors)
• Through lanes are listed as being 3.3m, however, they are not labelled in the cross sections. Any lanes in which a bus will be operating in should be 3.5m. This will usually be the lanes beside the curbs.
• Having the cycle track adjacent to the drive lane creates conflicts when looking to service bus stops. Makes boarding/alighting the bus more difficult. Need sufficient space for cycle track to go around or behind any bus shelters/stop that would be in place.
• Ensure cycle track is raised in areas where bus is servicing stops.
• Both Alternative MA-1 and MA-2 are better from a transit perspective because they do not pose issues for boarding/alighting buses.

<u>Alternative MA-2</u>
• Alternative MA-2 is the preferred option for transit because tactile plates will not be needed in between bus pads and the cycle track
• The landscapes/utilities is 3m, which gives more room for street furniture at bus pad locations. Alternatives MA-1 and MA-3 have the minimum landscaping of 2.5m.</td></tr>
<tr><td>Cross Sections for Minor Collector Roads</td><td>• For streets with on-street parking, the curb should extend to where the drive lane is in areas that a bus stop location is identified. This will allow the bus to remain in the travel portion of the roadway and would not pull over into that space which would originally have been allocated for parking. This space should be 15m long to accommodate both doors on the bus. Bringing the curb out towards the drive lane at bus stop locations will allow for safe use of transit.
• Ensure cycle track is raised
• Drive lane being 3.75m creates safety concerns as it creates a false sense of space. When bus is stationary, the extra road width creates a gap and cars will try to go around the bus which results in contact with mirrors.
• York Region plans to improve road safety by reducing speeds in neighbourhoods, which involves narrowing streets.
• Transit would like 3.5m roads and the additional width would be better served in the buffer between the cycling track or for landscaping/utilities.
• YRT prefers option 2 as the cycle track is behind any potential bus stops and also allows for installation of bus stop facilities.</td></tr>
</table>
</td><td>Thank you for your interest in the Block 27 Collector Roads Municipal Class Environmental Assessment (MCEA) study and for providing York Region Transit’s (YRT) comments on the project on October 3, 2022. The following letter provides a response to York Region Transit’s comments on the study.

<u>Proposed Road Alignment</u>
YRT’s preference for a signalized intersection at Street 7 and Teston Road has been noted by the City and Project Team. Please note that the location for signalized intersections will be determined/confirmed at a later design stage. However, upon initial review, the distance between the signalized intersection of Keele Street and Teston Road to Street 7 meets the minimum spacing requirement per Regional Municipality of York standards and further correspondence and approvals will be required from York Region. The City will contact YRT to discuss signalization later on in the design process.

<u>Cross Sections for Major Collector Roads</u>
The cross-section evaluation for the major collector roads has been updated based on YRT’s comment that a 3.3 m lane width associated with Alternative MA-3 cannot accommodate transit vehicles. Based on the updated evaluation and balancing all aspects (i.e., natural socio-economic, and cultural environments, and constructability), the preferred cross-section for all major collector roads (i.e., Street 2, 5, and 8) is MA-1 (side-by-side / multi-use path facilities) which provides 3.5 m drive lanes.

<u>Cross Sections for Minor Collector Roads</u>
Please note the City of Vaughan’s design standard for minor collector roads provides 3.75 m drive lanes (Std. Dwgs. R-102 & R-103) and minor collector road cross-section requires a drive lane of 3.75 m to maintain consistency within the City. During the next Detailed Design phase, YRT will be contacted to identify design requirements for transit (e.g., raised cycle tracks, appropriate spacing, etc.).

<u>Reduced Cross-Section for Through the Woodlot</u>
The location for the transit stops will be determined at a later design stage and in correspondence with YRT. However, due to the natural environmental significance of the woodlot, any impacts should be minimized/avoided to the extent possible. As such, it is likely that providing a transit stop through the significant woodlot will not be recommended due to the natural environmental impacts and required permitting/approvals.</td></tr>
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<tr><th>#</th><th>Stakeholder</th><th>Comment</th><th>Project Team Response (Final - Last Updated July 12, 2023)</th></tr>
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<table>
<tr><td>Reduced Cross-Sections Through the Woodlot</td><td>• Cannot install infrastructure in Option 1 with the way it is designed. Would have to put a bus pad in cycle track which defeats purpose
• Option 2 is preferred because of the multi-use path
• Depending on the merits of that surrounding woodlot, YRT may not install bus stops on this stretch of the road due to safety concerns. Bus stops should be in safe and accessible locations without potential for nefarious activity.</td></tr>
</table>
</td><td></td></tr>
<tr><td>9.</td><td>Ben Nagarajah

Urban Design

City of Vaughan</td><td>Comment received via email on October 12, 2022:

<table>
<tr><th>Page / Section #</th><th>Commenter</th><th>Comments</th></tr>
<tr><td>TAC 2 Meeting Presentation</td><td>Ben Nagarajah (BN)</td><td>Alternative Road Alignments Street 1; Preferred alignment for Street 1- Alt 1A is acceptable. Creek crossing location should be determined based on meander belt analysis</td></tr>
<tr><td></td><td></td><td>Alternative Road Alignments Street 2; Preferred alignment for Street 2 – Alt 2B is acceptable. Creek crossing locations should be determined based on meander belt analysis</td></tr>
<tr><td></td><td></td><td>Alternative Road Alignments Street 3; Preferred alignment for Street 3 – Alt 3B is acceptable. Creek crossing locations should be determined based on meander belt analysis: 1st crossing on the east may need to be aligned to accommodate shorter crossing</td></tr>
<tr><td></td><td></td><td>Alternative Road Alignments Street 7; Preferred alignment for Street 7 - Alt 7B is acceptable.</td></tr>
<tr><td></td><td></td><td>Alternative Road Alignments Street 4; Preferred alignment for Street 4 - Alt 4A is acceptable</td></tr>
<tr><td></td><td></td><td>Alternative Road Alignments Street 5; Preferred alignment for Street 5 - Alt 5A is acceptable. Crossing at the bottom of the creek does not appear to be perpendicular to the reach.</td></tr>
<tr><td></td><td></td><td>Alternative Road Alignments Street 6; Preferred alignment for Street 6 - Alt 6A is acceptable. Please indicate where the Kirby GO transit hum is located on plan. Land use transition between Mid rise mix use to Mid rise residential zone need to be illustrated further with section etc</td></tr>
<tr><td></td><td></td><td>Alternative Road Alignments Street 8; Preferred alignment for Street 8 - Alt 8D is acceptable.</td></tr>
<tr><td></td><td></td><td>MAJOR COLLECTOR ROAD CROSS SECTIONS</td></tr>
<tr><td></td><td></td><td>Sidewalk width to be consistent on all major Collector roads at 2.0m wide not 1.5m; Preferred alternative MA3 is acceptable with the change to sidewalk width. Indicate if the function of 0.5 buffer is a splash strip for snow storage. AS indicated the sidewalk</td></tr>
<tr><td></td><td></td><td>Minor Collector roads; Alternative MI1 is acceptable. Uni directional cycle tracts are preferred.</td></tr>
<tr><td></td><td></td><td>Street 6: Option 1, Increase the sidewalk width from 1.8 to 2.0- to be consistent with rest of the development.</td></tr>
</table>
</td><td>Thank you for attending the Block 27 Collector Roads Municipal Class Environmental Assessment (MCEA) study TAC Meeting #2 on August 29, 2022. The following provides a response to the comments that were submitted by the Urban Design Department on October 12, 2022.

<table>
<tr><th>UD Comment</th><th>Comment Response</th></tr>
<tr><td>Alternative Road Alignments Street 1; Preferred alignment for Street 1- Alt 1A is acceptable. Creek crossing location should be determined based on meander belt analysis</td><td>Comment has been noted by the Project Team. Please note a fluvial geomorphological assessment is currently underway as part of the MESP. The recommendations will be incorporated into the design and documented in the ESR.</td></tr>
<tr><td>Alternative Road Alignments Street 2; Preferred alignment for Street 2 – Alt 2B is acceptable. Creek crossing locations should be determined based on meander belt analysis</td><td>Comment has been noted by the Project Team. Please note a fluvial geomorphological assessment is currently underway as part of the MESP. The recommendations will be incorporated into the design and documented in the ESR.</td></tr>
<tr><td>Alternative Road Alignments Street 3; Preferred alignment for Street 3 – Alt 3B is acceptable. Creek crossing locations should be determined based on meander belt analysis: 1st crossing on the east may need to be aligned to accommodate shorter crossing</td><td>Comment has been noted by the Project Team. Please note a fluvial geomorphological assessment is currently underway as part of the MESP. The recommendations will be incorporated into the design and documented in the ESR.</td></tr>
<tr><td>Alternative Road Alignments Street 7; Preferred alignment for Street 7 - Alt 7B is acceptable.</td><td>Comment has been noted by the Project Team.</td></tr>
<tr><td>Alternative Road Alignments Street 4; Preferred alignment for Street 4 - Alt 4A is acceptable</td><td>Comment has been noted by the Project Team.</td></tr>
<tr><td>Alternative Road Alignments Street 5; Preferred alignment for Street 5 - Alt 5A is acceptable. Crossing at the bottom of the creek does not appear to be perpendicular to the reach.</td><td>Comment has been noted by the Project Team.</td></tr>
<tr><td>Alternative Road Alignments Street 6; Preferred alignment for Street 6 - Alt 6A is acceptable. Please indicate where the Kirby GO transit hum is located on plan. Land use transition between Mid rise mix use to Mid rise residential zone need to be illustrated further with section etc.</td><td>Comment has been noted by the Project Team.

The Kirby GO Transit Hub is shown in the Block 27 Block Plan and will be shown in future EA road network mapping.</td></tr>
<tr><td>Alternative Road Alignments Street 8; Preferred alignment for Street 8 - Alt 8D is acceptable.</td><td>Comment has been noted by the Project Team.</td></tr>
<tr><td colspan="2">MAJOR COLLECTOR ROAD CROSS SECTIONS</td></tr>
<tr><td>Sidewalk width to be consistent on all major Collector roads at 2.0m wide not 1.5m; Preferred alternative MA3 is acceptable with the change to sidewalk width. Indicate if the function of 0.5 buffer is a splash strip for snow storage.
AS indicated the sidewalk</td><td>2.0 m wide sidewalks can be provided; however, given the road is constrained to 26 m, widening the sidewalk would require a reduction of 0.5 m of another facility (e.g., landscape). The preferred major collector cross-section includes 1.5 m wide sidewalks which follow the City of Vaughan’s engineering guidelines.</td></tr>
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<table>
<tr><th>#</th><th>Stakeholder</th><th>Comment</th><th>Project Team Response (Final - Last Updated July 12, 2023)</th></tr>
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<tr><td>Minor Collector roads; Alternative MI1 is acceptable. Uni directional cycle tracts are preferred.</td><td>Comment has been noted by the Project Team.</td></tr>
<tr><td>Street 6: Option 1, Increase the sidewalk width from 1.8 to 2.0- to be consistent with rest of the development.</td><td>The Project Team recognizes that a consistent sidewalk width across the development is desired, however, due to the sensitivities of the woodlot, reduced / minimum facilities are being considered to reduce the impacts of the road.

Please note TRCA is indicating a desire for a further reduction of the cross-section through the woodlot.</td></tr>
</table>
</td></tr>
<tr><td>10</td><td>Manirul Islam
Planner

Toronto and Region Conservation Authority (TRCA)</td><td>Comment received via email on September 12, 2022:

Please find below high-level draft comments from our Senior Planning Ecologist. Please note these comments pertain to the August 29 TAC Presentation and the supporting Technical Memo dated March 2022. Detailed comments on the full submission will be provided through our formal comments letter once we receive comments from all other technical review team members including Planning Ecologist. These draft and partial comments are provided in order to assist your team for meeting on September 16. Should you have any questions please do not hesitate to contact me.

High Level Draft Planning Ecology Comments on the August 29 TAC Presentation and the supporting Technical Memo dated March 2022.

1. With respect to Street 1, TRCA Planning Ecology has no concerns with the preferred alignment (Alternative 1A). Note that natural heritage and natural hazard objectives must be considered in design of the crossing - to be addressed during conceptual / preliminary design stages. Data from the MESP will be used to inform these objectives.

2. With respect to Street 2, TRCA Planning Ecology has no further comment with respect to the preferred alignment (Alternative 2B):
a. Note that natural heritage and natural hazard objectives must be considered in design of the crossings - to be addressed during conceptual / preliminary design stages. Data from the MESP will be used to inform these objectives.
b. The alignment of Street 2 is located between woodlots found within the Block. Maintaining and enhancing a functional connection between these woodlots is a critical consideration of road design and the overall Block 27 land use plan. Ecological objectives in this location should be considered during preliminary design.

3. With respect to Street 3, TRCA Planning Ecology has no further comment with respect to the preferred alignment (Alternative 3B):
a. Note that natural heritage and natural hazard objectives must be considered in design of the crossings - to be addressed during conceptual / preliminary design stages. Data from the MESP will be used to inform these objectives.

4. With respect to Street 7, TRCA Planning Ecology has no concerns with the preferred alignment (Alternative 7B). However, consideration should be made to any required changes to the alignment of Street 7 should the alignment of Street 6 change.

5. With respect to Street 4, TRCA Planning Ecology has no concerns with the preferred alignment (Alternative 4A).</td><td>A meeting was held with TRCA on September 16, 2022, and further on May 11, 2023, to discuss TRCA comments in further detail.

A formal TRCA submission was circulated on March 31, 2023, including the Project Team’s responses to TRCA’s comments dated September 29, 2022.</td></tr>
</table>

#	Stakeholder	Comment	Project Team Response (Final - Last Updated July 12, 2023)
		6. With respect to Street 5, TRCA Planning Ecology provides the following comments with respect to the preferred alignment (Alternative 5A). a. The technical challenges associated with the alignment of Street 5 are acknowledged. The Technical Memo notes that the issues associated with tributary crossings in the area are best addressed by diverting the watercourse. TRCA does not encourage that transportation challenges be resolved by relocating natural heritage features, but rather, solutions should be targeted towards maintaining or improving conditions. Thus, the need for wetland removals as well as channel realignments and modifications should be avoided to the greatest extent feasible by way of road design (reduced cross section width, flexibility in curve radius requirements, use of retaining walls, etc.). b. Through detail design, efforts to avoid and minimize impacts to the Natural System at the southern limits of the alignment will be required (e.g., minimizing channel realignment requirements and wetland impacts). Efforts to demonstrate a net gain in natural heritage feature form and function will also be required through the design phases (e.g., no loss in channel length, no loss in wetland area). c. Hydrogeological conditions will be an important consideration in Street 5 road design. d. While it is acknowledged that a preferred Major Collector Road cross section has been identified, revisions to this cross section may be required in highly sensitive areas such as this. e. Any anticipated Street 5 impacts should be considered alongside any anticipated impacts associated with the proposed stormwater management facilities and associated outfalls in this part of the Block. There may be opportunities to consolidate infrastructure requirements in the NHN, and consider adjacent land uses such as parks and SWM blocks which may be complimentary to the NHN. Thus, integration of the EA process with the MESP process is critical. f. The Technical Memo notes that the preferred alignment for Street 5 would be subject to the completion of an EA. It is not clear if this is in reference to the current Block 27 Roads EA process, or a separate process. 7. With respect to the northerly alignment of Street 6, TRCA Planning Ecology provides the following comments with respect to the preferred alignment (Alternative 6A). a. TRCA staff maintain that, with respect to Street 6, any alignment that fragments the woodland will have a significant impact on the feature's form and function. The preferred alignment not only cuts directly through the largest Significant Woodland patch within Block 27, but it also fragments connectivity between this woodland and the smaller woodland to the south-east. Block 27 does not contain large patches of woodland, and thus efforts to protect and enhance what exists should be a priority. TRCA staff continue to advocate for a Street 6 alignment that avoids woodland impacts and supports a more connected natural heritage network. b. The rationale to support the Street 6 alignment through the woodland is not clear in the Technical Memo. The Memo offers an analysis of Street 6 with and without a connection to Kirby Rd through the woodland. The Memo notes that "there do not appear to be any significant differences with respect to the traffic capacity internal to the block", however notes that without Street 6, traffic capacity at Street 5 is 'approaching capacity' and a larger, 4-lane cross section may be required. This implies that Street 5 is not at capacity, nor is it exceeding capacity, with the Street 6 connection being removed. Additionally, it is the understanding of TRCA that a 4-lane cross section is proposed for Major Collectors, as presented in alternative MA3 in the presentation. Further to this, it is not clear if this assessment considers the proposed Street 8 alignment which would direct traffic, east of Street 6, to Kirby Road thus offering additional relief from Street 5. c. Consideration for terminating Street 6 at Street 2 should be made. Please consider alternative opportunities to meet transportation objectives through the Block with a non-continuous Street 6 alignment. For instance, explore the feasibility of Street 6 (minor collector) terminating at Street 2 (major collector) and associated north-south traffic being directed to Street 5 (major collector) and Street 8 (major collector) – thus offering 2 options for traffic to continue north to Kirby Road. This approach appears to be consistent with the road layout within the existing Block immediately south of Block 27. Alternatively,	

#	Stakeholder	Comment	Project Team Response (Final - Last Updated July 12, 2023)
		the need for a larger cross section at Street 5 or Street 8 should also be explored to accommodate traffic through the Block. d. Additional transportation objectives related to active transportation may be addressed through a multi-use path through the woodland, coincident with any proposed trail network, connecting pedestrians and cyclists to the transportation hub proposed at Kriby Road and Keele Street. This would significantly reduce the impacts to the woodland while supporting active / alternative modes of transportation through the Block. e. Considering that various alternatives to the Street 6 alignment through the woodland, any preferred alignment that results in woodland removals would be subject to TRCA's compensation policies. Thus, compensation for lost ecosystem form and function would be required, along with compensation for the lost land-base to the natural heritage network. 8. With respect to the southerly alignment of Street 6, TRCA Planning Ecology notes that this alignment should be considered in the context of the Block 27 land use plan and ongoing MESP study. The proposed removal of wetlands in this area are subject to ongoing discussion through the MESP process. The limits of the natural heritage network in this portion of the block have not yet been established. Caution should thus be taken in carrying forward a preferred alignment prior to the MESP study and the land use plan being finalized. 9. With respect to the preferred alignment for Street 8 (Alternative 8D), TRCA Planning Ecology notes: a. Any Street 8 alignment must have regard for Metrolinx station needs. Opportunities to accommodate Metrolinx requirements, without causing requiring impacts to natural heritage network should be a critical consideration in road alignment and land use planning in this section of the Block. Please ensure that consultation with Metrolinx is undertaken at this stage in the EA to ensure that any preferred alignment has regard for Metrolinx requirements and demonstrates that feature impacts will be avoided. b. Note that natural heritage and natural hazard objectives must be considered in design of the crossing - to be addressed during conceptual / preliminary design stages. Data from the MESP will be used to inform these objectives. 10. With respect to the Cross Section Alternatives & Evaluation, TRCA Planning Ecology notes that in sensitive areas / crossings of the natural herniate network, further reduction to cross sections may be required by way of removing or reducing the width of buffers and landscape areas, and / or combining active transportation facilities.	

APPENDIX AIV

Consultation (Stakeholders - TRCA)

Record of Meeting
20009

PROJECT:	Block 27 Collector Roads Municipal Class Environmental Assessment Study	**DATE:**	March 16, 2022
LOCATION:	Virtual – Microsoft Teams	**TIME:**	1 - 2 p.m.

IN ATTENDANCE

NAME	REPRESENTING
Paul Grove (PG)	City of Vaughan
Chris Sidlar (CS)	LEA
Katherine Kung (KK)	LEA
Mustafa Ghassan (MG)	Delta Urban
Nancy Mather (NM)	Stonybrook Consulting
Jean-Christophe De Massiac (JCDM)	Beacon Environmental
Koryun Shahbikian (KS)	Schaeffers
Yashaswy Gollamundi (YG)	Schaeffers
Jackie Shaw (JS)	R.J. Burnside Ltd.
Manirul Islam (MI)	Toronto and Region Conservation Authority (TRCA)
Suzanne Bevan (SB)	TRCA
Harsimrat Pruthi (HP)	TRCA
Mark Howard (MH)	TRCA

MEETING TITLE Project Kick-off Meeting – TRCA

ITEM	TOPIC	ACTION BY / DUE DATE
1.0	**Project Team Introductions** Round table introductions	
2.0	**Presentation** CS presented the attached slide deck. The following topics were covered: ▶ Study Background & Overview ▶ MCEA Process ▶ Existing Conditions ▶ Proposed Alternative Road Alignments • **Street 1**: additional alignments reduce impacts to the Greenbelt (i.e., cross at narrower section) • **Street 2**: additional alignment which minimizes impacts to the wetland	

- **Street 3**: additional alignment to the north to mitigate impacts to wetland feature at DF-3 by shifting the crossing to an existing informal crossing (farmer)
- **Street 4**: additional alignment is land-use planning driven and provide more efficient development spacing
- **Street 5**: additional alignment to identify potential impacts/benefits of alignment road east of DF-3
- **Street 6**: additional alignment to identify potential impacts/benefits of alignment road to the east side of the significant woodlot
- **Street 7**: additional alignment to support the additional Street 3 alternative
- **Street 8**: additional alignments to improve road geometrics (i.e., slopes), and to minimize impacts to the PSW (i.e., remove connection to Peak Point Blvd.)

- Proposed Alternative Cross-Sections (Design Concepts)
- Summary of TRCA Comments and Preliminary Responses

3.0 Discussion

- MI requested a copy of the presentation slide to share the TRCA's technical team for review and comment — ~~LEA~~

[*post-meeting note*: a copy of the presentation slides was sent to TRCA on April 1, 2022)

Street 2

- Recognize there are 2 wetland features that the Secondary Plan (SP) alignment impacts and an additional alternative has been developed to minimize impacts to the Greenbelt
- A features-based water balance will be completed, and the Block 27 development team is in separate correspondence with TRCA
- Appropriately sized culverts will be utilized for wildlife crossing to minimize impacts of the DF-3 crossing

Street 5

- The Connection to Cranston Park Ave is critical to maintain continuity for Block 27 given Street 5 will be the major transit spine that will be important for community connectivity
- An additional road alternative has been developed which swings the road alignment to the east to address a number of challenges that were identified with the SP alignment to the west. These two alternatives will be evaluated.
- Project Team is aware there is overtopping that occurs in the area, and considerations will be included in the stormwater management work being undertaken

Street 6

- Alignment has been shifted to avoid impacts to PSWs, however impacts to a few 'Other' wetlands are unavoidable, however, these wetlands have been evaluated with MECP and they are not included in the PSW complex
- MH requested the studies being completed as part of the MESP, and indicated TRCA's Planning & Ecology team should provide feedback on the impacts to wetlands 17, 28 and 19 prior to the finalization of the alignment — TRCA
- JC noted that 3 years of groundwater and surface water monitoring in the area has been undertaken to confirm the hydrogeology of the drainage features of DF-5. Based on results, DF-5 is ephemeral and mostly dry throughout the year and is not an area with groundwater discharge
- MH indicated that TRCA would like to see the Year 3 Report / Overview Document since the results from the previous two years have been inconclusive and the results from the third year monitoring will be the tie-breaker
- CS responded that the Project Team will keep TRCA's comments in mind for consideration during the evaluation of alternatives
- A copy of the Year 3 Groundwater Report will be sent to TRCA once available — MG

Street 8

- SB noted that having been involved with the Kirby GO station study, TRCA is aware that Metrolinx is proposing a station with potential other crossings/impacts for the parking lot, and asked if the Project Team had more details on the proposed Kirby GO station design
- CS responded that the Block 27 Collector Roads EA study developed several road alignment alternatives that passes through the proposed Kirby GO station and its connection to Vista Gate and will be evaluating the linkages associated with the Street 8 connection
- PG noted that there has not been much progress on the Kirby GO station special study since the Block 27 Collector Roads EA was initiated, and it is expected that the recommendations of the Block 27 Collector Roads EA will inform the special hub study. As such, the data TRCA currently has is likely the most up-to-date. The Block 27 Collector Roads EA will consider collector roads up to Keele Street so that it does not preclude any potential connections once the Kirby GO special hub study reinitiates
- SB indicated the Project Team response is reasonable and commented that TRCA wanted to ensure that once Metrolinx proceeds, any Metrolinx exemptions do not get pushed into areas it should not

4.0 Next Steps

- TAC Meeting #1
- Project Team will provide a formal response to TRCA's comments

The foregoing is considered to be a true and accurate record of all discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Recorded by: Katherine Kung (LEA Consulting Ltd.) Email: kkung@lea.ca

Circulation: All attendees + Project Team

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July 15, 2022

Reference Number: 20009.03

Mr. Manirul Islam
Planner, Infrastructure Planning and Permits
Toronto and Region Conservation Authority
Development and Engineering Services
101 Exchange Avenue
Vaughan, ON L4K 5R6
Email: Manirul.Islam@trca.ca

RE: Block 27 Collector Roads, Municipal Class Environmental Assessment Study
Response to Notice of Study Commencement Comments (Draft)

Dear Mr. Islam,

Thank you for your interest in the Block 27 Collector Roads in the City of Vaughan Municipal Class Environmental Assessment (MCEA) Study and providing the Toronto and Region Conservation Authority's (TRCA) comments for the aforementioned project on January 28, 2022, at the March 16, 2022 meeting, and June 1, 2022. The following letter and attachments provides a response to TRCA's comments received on January 28, 2022 and June 1, 2022.

TRCA Area of Interest

The Project Team has reviewed TRCA's areas of interest and can confirm all areas of interest have been generally considered (where applicable) either within the Block 27 Collector Roads MCEA and/or as part of the development process under the Master Environmental Servicing Plan (MESP).

Any available additional data that TRCA can provide for Block 27 not available on TRCA's open data platform would be appreciated by the Project Team.

Natural Environment

Detailed natural environmental investigations have been on-going since 2010, including: headwater drainage features and watercourses, fish and fish habitat, terrestrial environment (i.e., vegetation, amphibians, breeding birds, mammals, SAR bar acoustics monitoring), designation natural heritage features / environmentally sensitive areas, meander belt, hydrogeology and groundwater, wetlands (including staking and evaluation with TRCA and the Ministry of Natural Resources and Forestry [MNRF]), woodlands, and species-at-risk.

A MESP and compensation plan is underway and will be submitted to TRCA for review and approval as part of the development application.

Aquifers and Hydrogeological Features and Functions

A hydrogeological assessment is underway as part of the Block 27 development process to characterize the soil and groundwater conditions, including a groundwater monitoring program (year 3). A review of the Source Water Protection mapping produced by CTC Source Protection Committee was also undertaken to assess potential impacts to drinking water sources.

Based on mapping obtained from secondary sources, Block 27 is located within a WHPA-Q for water quantity and significant groundwater recharge area. Water balance calculations will be completed as part of the development process and affects will be mitigated through the implementation of stormwater management plans and low impact development (LID) measures.

While the central portion of Block 27 is mapped as having high aquifer vulnerability, none of the restricted uses within Source Water Protection Policies are proposed in Block 27 with the exception of the application of road salt. However, the application of road salt will be managed by the municipality per York Region's *Salt Management Plan and Guidance for Best Management Practices for Road Salt Usage Standards*.

Based on the assessment completed, the proposed road network does not pose a threat to groundwater quantity or quality in the local aquifers. The hydrogeological assessment will be documented in the Environmental Study Report (ESR).

Stormwater Management

Block 27 is located at the boundary of East Purpleville Creek Subwatershed and Don River watershed and generally drains in a southerly direction. Stormwater management (SWM) design has been incorporated into the development plan including consideration for the planned road network. Eleven (11) SWM facilities are proposed in the development plan and will be sized to meet the quantity, quality and erosion control requirements. Where drainage from the right-of-way (ROW) cannot be conveyed to SWM ponds, the SWM plan may include oil and grit separator (OGS) and superpipe(s). The water balance will be met on a site wide basis and the feature-based water budget will be met by diverting clean water from the developments to the wetlands. As summarized at our March 22, 2022 meeting, erosion and sediment, and water quality and quantity controls will designed to meet all regulatory requirements.

Flood and Erosion Control Structures

The project team is aware of two SWM ponds located in Block 20, east of Keele Street, which drain through Block 27. There are also a few SWM ponds in Block 26 downstream of Block 27. Additionally, there is an online pond (Dam) on Don River close to Dufferin at 1600 Teston Road.

Block 27 does not drain to the dam located at 1600 Teston Road. Furthermore, Block 27 will not adversely impact the flows outletting from Block 20 nor will it adversely impact the ponds in Block 26.

If there are any other flood or erosion control structures within the vicinity of Block 27 that should be considered, the Project Team would appreciate the location and any available information.

Sustainability

The stormwater management plan has been designed to control post-development release rates to pre-development flow rates. For 2- 100 year storm events, flows will be controlled to the Don River Sub-Basin 2 Unit Peak Flows and Humber River Sub-Basin 19A flows. In addition to quantity control, the proposed SWM plan provides Enhanced Level of Treatment (80% TSS removal) and erosion control.

All collector streets will be designed as a complete street where possible and will include active transportation facilities and landscaping / street furniture zones to enhance community connectivity and provide a pleasant environment to encourage active transportation. A transit hub is also planned within Block 27 and the road network has been designed with community connectivity to the hub to the extent possible while minimizing impacts to the natural environment and Indigenous treaty rights.

Additionally, low impact development (LID) measures have been incorporated into the development plan such as directing roof runoff to pervious surfaces, infiltration trenches and/or facilities, and bioswales. The Block 27 landowners group has also retained buildABILITY to develop a Community Energy Plan for Block 27 in correspondence with the City of Vaughan.

Provincial Program Areas

Greenbelt Plan: The Project Team is aware parts of Block 27 are protected under the *Greenbelt Plan* (2017) and these areas have been designated as a natural area within the Block 27 Secondary Plan. Three (3) crossings of the Greenbeltare proposed by the approved Block 27 Secondary Plan, and the road alignments are being refined as part of the current Block 27 Collector Roads MCEA study. It is anticipated that the proposed road crossings will span the Greenbelt as structural culverts to minimize impacts to the Greenbelt and will be confirmed as the study progresses.

Oak Ridges Moraine Conservation Plan: Block 27 is not located within lands designated under the *Oak Ridges Moraine Conservation Act* (2001) and not subject to its regulations.

Credit Valley - Toronto & Region - Central Lake Ontario (CTC) Source Protection Plan: The Project Team is aware that Block 27 is located within a Significant Groundwater Recharge Area and within a Wellhead Protection Area for water quantity (WHPA-Q) in Source Water Protection Plans. As noted previously, based on the assessment completed, the proposed road network does not pose a threat to groundwater quantity or quality in the local aquifers.

Assessment of Alternatives

The Block 27 Collector Roads MCEA study is advancing the work completed in the City of Vaughan's North Vaughan and New Communities Transportation Master Plan and Block 27 Secondary Plan. As part of the Block 27 Collector Roads MCEA, new road alignment alternatives are being developed to minimize natural environmental and cultural heritage impacts, and address Indigenous Peoples concerns. Following confirmation of the road alignment alternatives, an evaluation of alternatives will be undertaken to identify a final recommended road network for Block 27 and cross-sections. The proposed evaluation criteria were presented at the Technical Advisory Committee (TAC) #1 held on March 22, 2022.

As requested, Victoria Kramkowski has been added to the study mailing list and will receive future project notification, including the Public Information Centre to be scheduled later in the study.

Submission Requirements & Review Fee

TRCA's submission requirements have been noted by the Project Team. Please note TRCA's requested review fee of $22,425.00 was sent to TRCA in April 2022. Please confirm receipt of the cheque.

Appendix D: North Vaughan New Communities Transportation Master Plan - Comments Related to Block 27

Outstanding responses to TRCA's comments noted in the Appendix D table have been provided in the attached Table 1.

Appendix A: TRCA Comments and Proponet Responses

Response to TRCA's appendix A comments from the June 1, 2022 letter have been provided in the attached Table 2.

Closing

For further information about this Study, including on-going updates, please visit the study website (https://www.vaughan.ca/Block27EA). The Project Team looks forward to continuing to work closely with TRCA to further discuss this project, and additional existing conditions details will be presented.

We have confirmed you are on the study mailing list and you will be informed of future consultation milestones, including the Public Information Centre to be held later in the study. Should you have any questions, please visit the project website (https://vaughan.ca/Block27EA), or contact Chris Sidlar, the consultant Project Manager, at CSidlar@lea.ca or 416-572-1791.

Yours truly,

LEA CONSULTING LTD.

Chris Sidlar, M.Sc.Pl., MCIP, RPP
Vice President, Transportation

cc: Paul Grove, City of Vaughan
Samar Saadi Nejad, City of Vaughan
Ruth Rendon, City of Vaughan
Katherine Kung, LEA
Beth Williston, TRCA
Suzanne Bevan, TRCA
Adam Miller, TRCA
Victoria Kramkowski, TRCA
Trina Seguin, TRCA
Harsimrat Pruthi, TRCA

Attachments: Table 1: Project Team Response Table to TRCA's Comments from NVNCTMP
Table 2: Appendix A: TRCA Comments and Proponet Responses

Table 1: Project Team Response Table to TRCA's Comments from NVNCTMP

Legend:

	No further action required at this time

#	Section	TRCA Comments (April 27, 2017)	City of Vaughan	TRCA Comments (April 26, 2019)	City of Vaughan Response (August 21, 2019)	TRCA Comment (October 11, 2019)	Block 27 Project Team Response / Action Plan
Appendix A: Block 27 Transportation Network							
1.		TRCA staff has reviewed two iterations of the Upper West Don River Subwatershed Study (UWDRSS) and has significant outstanding concerns. The secondary plan is draft and is subject to an addendum to resolve TRCA concerns. TRCA staff requests that wording be added to the TMP that the road network shown is subject to refinement through the secondary plan, block plan and project specific EA processes. Differing to the secondary plan, block plan and project specific EA processes will also allow many of the following comments to be deferred to these other processes.	Added Text in 5.1	Addressed			No further action required.
2.	4.1	The Natural Heritage System should be updated to recognize and include PSWs and SWH for amphibians (as confirmed by the City) and to include flood plains. There may be other SWH that has not yet been assessed (e.g., Great Blue Heron). TRCA maintains that the full extent of SWH has not yet been determined / confirmed.	Added text	Addressed			No further action required.
3.	5 & 6	A number of areas in Block 27 were identified that require additional hydrological and hydrogeological investigations to determine the status and potential impact of these features from both a natural heritage and a natural hazard perspective. In addition, the flood plain hazards have not been fully assessed so as to understand hazard risks associated with the proposed development of Block 27. The Transportation Master Plan (TMP) does not acknowledge the wetland features to be protected, or the flood plains within Block 27 nor does it appear to have accounted for them in the evaluation matrix in Appendix A. The evaluation scores should be revised to consider the wetland features to be protected, and the floodplains.	Under Section 2.1 of the Main Report, it identifies the governing policies and impact to Blocks 27 and 41. The NVNCTMP strive to minimize disturbance and respect the land and its key natural heritage features. Wording also has been added to Section 4.3 of the Main Report to speak to protection of Natural Heritage System	The wording in Section 4.3 appears to assume that the NHN in Block 27 has been refined. This is misleading. A number of studies are being conducted on natural features within the block to assist in determining their significance (e.g., wetlands on Tributary 5). Additionally, there are PSWs throughout the entire Block 27, not just "located centrally in the east half" of the Block. Please also indicate where in the report comments related to floodplain are acknowledged.	Section 4.3 has been updated to address comment.	Noted	No further action required.
4.	6.3	As noted above, Street 6 is proposed directly over an HDF and evaluated wetlands. Hydrological and hydrogeological studies with particular focus on high water table conditions and discharge areas is required along this tributary (Tributary 5) in order to assist MNRF in determining the significance of these wetlands and to understand potential hazards associated with development in this area. This part of Street 6 should also be addressed in this section. With respect to the more northern stretch of proposed Street 6, TRCA agrees that special design considerations will be required to minimize impacts on the natural environment.	See comment 10. This will be added both to Appendix A 6.3 and to 5.2.3	At its first bend, the south end of Street 6 should be angled westward (rather than eastward) in order to avoid elimination of the wetland features (status to be determined by the Ministry of Natural Resources and Forestry pending outcome of studies) and then eastward. TRCA prefers that crossing of the woodland feature in the northern part of the property be avoided. With a high water table in this area, the woodland being associated with wetlands and significant wildlife habitat,	Street '6' Comment noted, the exact alignment will be determined through the EA and Block plan process. Comment regarding crossing of the woodland feature noted. The City through the transportation study, has determined the need of this road. Through the Block Plan Process, the potential impact to the natural environment will be	Noted	<u>Road Alignment / Cross-Sections</u> The Street 6 alignment alternatives being considered as part of the MCEA have been refined through Block Plan design based on conclusions of the hydrogeologic assessment, further study of wetlands along Drainage Feature 5 and correspondence with MNRF. The MESP and Block Plan will document the additional work completed, including a compensation plan for the road and development impacts to wetlands. Towards the north end of Section 6, two alternatives have been developed for evaluation, one that angles eastward and one that angles westward through the significant woodland. In recognition of imapcts to the significant woodland area, a reduced cross-section (i.e., ROW width) is being contemplated for Street 6

#	Section	TRCA Comments (April 27, 2017)	City of Vaughan	TRCA Comments (April 26, 2019)	City of Vaughan Response (August 21, 2019)	TRCA Comment (October 11, 2019)	Block 27 Project Team Response / Action Plan
				requirements for construction of the road has a high likelihood of significantly impacting these features and their functions. TRCA recommends that the potential connection through this feature be identified as a "possible future connection subject to appropriate environmental studies" and be represented by a dashed line. This should be recommended in both Section 6.3 in Appendix A and Section 5.2.3 of the Final Report. See also comment 34. In addition, and as previously noted by TRCA, the extent of Significant Wildlife Habitat has not yet been determined (e.g. Great Blue Heron)	examined to determine mitigation measures to reduce level of impact		crossing through the woodland. <u>Natural Environment</u> Additional studies have been completed by Beacon Environmental within the significant woodlands of the northeast quadrant of Block 27 between 2019 and 2021 which included vegetation assessment (ELC, flora), breeding bird surveys, snag survey and bat acoustic monitoring. Eastern Wood-Pewee was recorded in the woodland situated in the north-central portion of the Block. In Beacon's opinion, the woodland areas where Eastern Wood-Pewees have been recorded do not constitute Significant Wildlife Habitat. Furthermore, under the PPS (2020) it is the responsibility of the the City of Vaughan, as planning authority, to identify SWH on a municipal-wide basis. The proposed road crossing throughout the woodland has potential to remove habitat for Eastern Wood-Pewee and other area-sensitive woodland species as well as result in fragmentation and edge effects. Specific surveys for Great Blue were completed in 2020 and did not find any evidence of herons nesting. The woodland crossed by Street 6 would not be considered maternity roosting habitat for endangered species of bats based on acoustic monitoring findings. However, this woodland has potential to be considered candidate Bat Maternity Colony SWH. Specific surveys following MNRF guidance would be required to confirm. <u>Hydrogeology</u> a) The study and assessment on the function of the Wetlands A and B (WTA and WTB) in Special Study Area 2 have been completed as part of the MESP and the IBI Monitoring Report, and NHN limits are proposed along drainage features. These two reports will fully document this work in support of the proposed NHN that is being integrated with the EA alignment evaluations. A short summary includes: • Surface water and groundwater monitoring of WTA, WTB and Drainage Feature 5 (DF5) was completed over a three year period as part of the IBI Monitoring Program. DF5 was observed to be dry and not flowing throughout much of the monitoring period. Results of the monitoring provide no indication of groundwater discharge to DF5. Interpretation of the groundwater data, flow and gradient information, concludes that this feature is ephemeral. WTA and WTB are characterized as areas of groundwater recharge, not discharge. Data suggest that the wetlands are supported by surface water runoff, and when surface water is present, recharge supports a seasonally high-water table at or near the ground surface in the spring. • MNRF did not include WTA and WTB in the Don River West Branch Headwater PSW Complex (2019). At that time, they noted that these two wetlands were unevaluated and they were waiting for further hydrogeological information for WTA and WTB to conclude their evaluation of provincially significant status. Hydrogeological data from the 2019 IBI monitoring

#	Section	TRCA Comments (April 27, 2017)	City of Vaughan	TRCA Comments (April 26, 2019)	City of Vaughan Response (August 21, 2019)	TRCA Comment (October 11, 2019)	Block 27 Project Team Response / Action Plan
							program were provided to MNRF in February 2020. Based on the IBI data, WTA and WTB were characterized as areas of groundwater recharge, not discharge, and Drainage Feature 5 was observed to be ephemeral. Following provision of this hydrogeological information to MNRF to determine the function of the wetlands (notably that they are not characterized and areas of groundwater discharge), and correspondence with them, MNRF did not include WTA or WTB in the Don River West Branch Headwater PSW Complex. Therefore, WTA and WTB are not considered to be PSWs. • WTA and WTB are agricultural wetland features, including uniform shallow marsh communities dominated by cattail species and Reed Canary Grass (Phalaris arundimacea) as well as a small willow swamp, which do not support habitat for breeding amphibians or waterfowl. The ecological function of this wetland units is considered low on account of its reliance on surface water supplies with no evidence of groundwater discharge, relatively low-quality vegetation communities with no rare or uncommon flora species, relative isolation in the agricultural matrix, and ecological disconnection from downstream natural heritage system (Don River West Branch Headwater PSW) which it is only hydrologically connected through a municipal sewer. Due to their limited ecological function and relative isolation, they are proposed for removal and replication in the NHN. The proposed wetland/woodland compensation plan will replicate/enhance WTA and WTB in locations that will provide functional improvements to the NHS and a net positive environmental outcome. • MESP analyses have also identified the extent of the NHN to the west of Drainage Feature 5, along Drainage Feature 4. This included field staking of features and the identification of the extent of the floodplain, wetlands, meander belt, fish habitat, vegetation protection zones and proposed wetland compensation areas. MESP analyses have informed the proposed NHN boundaries along Drainage Feature 4 west of Road 6. All of this data will be used as input to the Street 6 alignment evaluation.
Appendix F: Satisfying EA Requirements							
5.	Street 2	Infrastructure planning of the section of proposed Street 2 that lies within the Greenbelt Plan area should be in accordance with Section 4.2 of the Greenbelt Plan. This comment is also applicable regarding Streets 1 and 2.	Noted	Noted			Greenbelt crossings are being considered as part of the road design and will be designed considering hydraulic requirements and natural environmental impacts (terrestrial, aquatic, fluvial and wildlife). Of note, design considerations to minimize impacts ot the Greenbelt include: • Minimizing the amount of the Greenbelt occupied by road infrastructure • Minimizing the amount of the Key Natural Heritage Features traversed by road infrastructure • Minimizing fragmenting impact through optimized location of infrastructure and appropriate culverts to accommodate wildlife passage (amphibians, reptiles, small mammals)

#	Section	TRCA Comments (April 27, 2017)	City of Vaughan	TRCA Comments (April 26, 2019)	City of Vaughan Response (August 21, 2019)	TRCA Comment (October 11, 2019)	Block 27 Project Team Response / Action Plan
6.		A feature-based water balance is required for any wetlands where Street 2 is proposed to cross the watercourse/wetlands. This has been noted in the comments on the Block 27 Draft Secondary Plan as well as in the UWDRSS	Agreed. The scope of work for the Environmental Assessment of the collector roads in the Block, including Street 1 and Street 2, will include a feature-based water balance as part of the scope of work.	A three-year feature-based water balance analysis is currently underway for the entirety of the Block 27 natural features	Comment noted. This information will be included in the TOR for the EA.	Noted	A feature-based water balance analysis is currently underway for the entirety of the Block 27 natural features as part of the MESP. The need and type of hydrological monitoring of the wetland and the scope of an appropriate feature-based water balance analysis is still being discussed with TRCA.
7.		A crossing of Tributary 3b (in the centre of Block 27) is proposed. There is also an isolated woodland located west of the tracks that has been identified as part of Vaughan's Natural Heritage Network (NHN) that will be disconnected from the NHN by the proposed Street 2. Future design of Street 2 will need to consider a functional connection of the woodland with the NHN. They have recognized this in "Potential Socio-Economic and Environmental Impacts" section of Appendix F.	Agreed. The scope of work for the Environmental Assessment of the collector roads in the Block will this consideration as part of the scope of work.	The response is not clear. Please provide clarification.	Agreed, the EA and Block plan will include an evaluation of any potential woodland connection of the natural heritage system.	This should be included in the ToR.	As part of the MESP, a Compensation Plan is being developed and opportunities to improve connectivity within corridors through habitat restoration is being explored. Linkage functions along the 3 main corridors will be maintained for amphibians, reptiles, small/medium sized mammals, and some larger mammals (e.g., appropriately sized culverts / openings).
8.		The existing flood plain mapping for block 27 illustrates a spill at the railway line immediately north of proposed Street 2 which may impact Street 2 (and vice versa). This entire area need to be assessed to determine the full extent of flooding potential during the Regional storm event. Ideally, this assessment should be carried out prior to finalization of the TMP in order to provide certainty to this planning process. TRCA's comment letter on the draft Block 27 Secondary Plan requires updates to the hydrologic and hydraulic modelling to address the spill area.	The area of concern is on lands that don't belong to the City. The City has informed Metrolinx of this comment and will continue to stay engaged with Metrolinx as they continue with the track expansion work to address this concern. Landowners are also advised to work with Metrolinx in address this concern wherever applicable to their lands	This spill area was to be assessed through the subwatershed study but that work was never completed. While the cause of the spill has not been confirmed and may be located on property not owned by the City, it has implications for any Block 27 lands that may be subject to flooding from the spill where development (including the future road network) is contemplated	Comment noted. Since April 2019, the city and TRCA staff have addressed this spill area issues. this information will be reflected in the subsequent block plan studies.	Noted. The additional works indicates that the spill at the rail track does not exist.	No further action required.
9.	Street 5	Page 64 of the "Final Report" recommends a realignment of Street 5 connection with Cranston Park Avenue. Immediately across from Cranston Park Avenue is a watercourse confluence of two tributaries with an associated flood plain (engineered) and a PSW. TRCA has noted an increase in the potential depth of flooding on Teston Road at this intersection from 0.26 m to 0.32 m. This exceeds the safe access recommendations set out by the Ministry of Natural Resources and Forestry (MNRF) in their Natural Hazard Technical Guides. City of Vaughan however, usually has a more stringent requirement (i.e., no flooding on roadways) so at this stage, safe access at this intersection has not been demonstrated. The Final Report does not appear to recognize the existence of any flood plains or PSWs within the block. The recommendations make reference to the Street 5 connection to Cranston Park Avenue being subject to a separate Environmental Assessment (EA) study in section 5.2.2.2. TRCA staff recommends adding that Cranston Park Avenue must also be confirmed through the secondary plan and block plan processes, and that there is a potential flood hazard that may impact the feasibility of this connection.	Floodplain and wetland issues will be considered in the EA study. Also added text in "Potential Socio-economic and Environmental impacts" for Street 5 Block 27	On Exhibit 5-1, the Preferred Alternative for Street 5 results in a jog in the road west of Cranston Park Avenue, however, Section 6.3 follows the Alternative 2 route which provides a connection across Teston to Cranston Park Avenue. Please be advised that, given the significant natural heritage and natural hazards (flood plain) in this area, the NS collector connection alternative may not actually be feasible. It is suggested that both alternative alignments be noted as a dashed line and subject to further study.	Commented noted, the secondary plan identifies this area as Special Study Area 4. This area will be further studied to determine appropriate alignment.	Comment does not appear to have been noted.	The Project Team recognizes the Street 5 alternatives to connect with Cranston Park Avenue are located within a floodplain and in portions of a provincially significant wetland. Based on the natural environmental investigations completed, the drainage features associated with Tributary 3 are poorly defined, and the western areas in particular have been heavily modified through historical activities (i.e., channelization, loss of riparian vegetation and informal crossings). The EA Project Team has refined the watercourse realignment strategy recommended in the TMP and is proposing to extend the existing culvert to match the realigned channel extension of the existing culvert over Teston Road which will avoid requiring two new crossings and will provide and improve the watercourse alignment from a geomorphic and ecological perspective. Opportunties for riparian wetland creation will also be explored to enhance this watercourse. Any wetland removals will be compensated; and the MESP Team has been in correspondence with TRCA regarding Block 27 wetland compensation. The Project Team is aware that the Cranston Park Avenue and Teston Road intersection is within a floodplain, and the proposed Street 5 connection will match pre-development conditions. Floodplain storage will be provided upstream of the proposed crossing through the proposed channel realignment. The Project Team will be in

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							correspondence with Regional and municipal emergency service providers, MNRF, and the City to confirm the depth of flow over the road (VxD factor) is minimized and acceptable.
10.		An HDF assessment is required for the drainage feature that that connects Tributary 3a with the woodland / wetland feature to the north (see Figure 36). Additionally, a hydrogeological study with particular focus on high water table conditions and discharge areas is required along the upper reaches of this tributary. TRCA recommends that proposed Street 5 swing westward, north of Street 3, in order to avoid the feature, rather than swinging eastward through the features.	HDF will be considered in the EA study.	It is our understanding that the HDF Assessment was carried out last year. TRCA has not seen the results. Please elaborate on how the City intends to "consider" the HDF without the benefit of an analysis?	The HDF assessment was deferred to the Block Plan process, as per the Addendum report.	Staff believes that this assessment has been carried out already; however, we have not seen the results.	TRCA has requested a headwater drainage feature assessment for the drainage feature that connects Tributary 3A to the woodland/wetland feature to the north. This area had been assessed by both Beacon and North-South Environmental (NSE) as part of the Natural Heritage Network Study. Neither NSE nor Beacon mapped a feature in this area, despite carrying out field investigations in this location. However, TRCA is correct that this area was not explicitly addressed in the HDFA to conclude "no management required". To address TRCA's concern, in addition to the past work, a scoped headwater drainage feature analysis was conducted in this location in the 2018 field season by Beacon staff. Findings will be included in the MESP environmental report.
11.	Street 8	The north section of Street 8 between Streets 1 and 2 may be encumbered by flood plain	Noted	TRCA understands that the City is aware of the flood plain in this location and has noted this in the response. Please note that TRCA will require that any future proposals/applications address all applicable TRCA policies and regulatory requirements associated with the flood plain with supporting studies (e.g., determination of flood depths and velocities, possibly remediation, etc.).	Comment noted. On project sheet in Appendix F, change "may" be to "is encumbered by…	Comment addressed	All required permits / approvals from TRCA will be obtained prior to start of construction. No action required at this time.
12.	Street 6	There is no discussion on Street 6 in Appendix F. Street 6 is proposed directly over a HDF and evaluated wetlands (between Street 3 and Teston Road). Hydrological and hydrogeological studies with particular focus on high water table conditions and discharge areas is required along this tributary (Tributary 5) in order to assist MNRF in determining the significance of these wetlands and to understand potential hazards associated with development in this area. TRCA has consistently recommended that Street 5 (as it proceeds north of Street 3) swing westward in order to avoid the features, rather than eastward through them, as proposed.	The Secondary Plan is already approved. Alignment to be confirmed through block plan process.	The Secondary Plan may have been "approved" but Tributary 5 is still a part of the Study Area that is recognized in the Addendum to the Secondary Plan as requiring more detailed study (monitoring is currently on-going). It was only on the basis of additional studies that TRCA did not object to the Secondary Plan.	On project sheet for Block 27 Collector Road network, added "it is also noted there are PSWs that will need to be further evaluated"	Did not find the reference saying, "it is also noted there are PSWs that will need to be further evaluated". It may impact final street alignment. This should also be noted in Section 8.1.3.2 (page 99)	Please see response to Comment #4.
Additional							

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13.				**Appendix A** - Block 27 NHN is still DRAFT and should be noted as such in both the text of the document and on all relevant figures	Noted. In Appendix A, add the same sentence used in Section 4.3 of main report, to Page 8 paragraph 3 in appendix A.	Addressed	No further action required at this time.
14.				Page 5 – TRCA considers the location of the Transit Hub (shown in fuchsia) shown on Schedule B, premature. In addition, some natural features currently being studied are not shown on the schedule. Page 8 first paragraph – should refer to the City's **draft** NHN; it is only draft at this point and will be finalized through the MESP.	Exhibit 3-1 in appendix A to updated land use map showing schedule B of the final Secondary Plan. Further study is proposed for the transit hub special study area which contains the natural features. Added "DRAFT" to first paragraph on page 8	The PSWs are now shown on Exhibit 3-1. Comments addressed.	No further action required at this time.

APPENDIX A: TRCA COMMENTS AND PROPONENT RESPONSES

General Notes:

TRCA Technical staff were unable to benefit from the meeting held on March 16, 2022. For some of technical staff, this is the first time they are engaged with this project. The comments noted below is based on their review of the presentation slides.

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Planning Ecology: Comments (1 to 3) below for consideration in identifying the preferred alignment.		
1.	Staff notes that a number of ecological aspects are being addressed through the Block 27 MESP process, including refinements to the Natural Heritage Network (NHN), confirmation of Significant Wildlife Habitat, and additional analysis in support of the Special Study Areas to better characterize wetlands and drainage features, which may result in changes to feature designations and NHN limits. The ongoing natural heritage study/analysis as part of the MESP should be undertaken in concert with the Block 27 Roads EA process to inform final recommendations for road alignment and design, and to accommodate any changes to road alignments and crossing design that might be required to avoid and minimize impacts to features and functions. Therefore, TRCA Planning Ecology encourages that the EA identify the preferred alternatives once the background information is available to inform the final recommendations.	Please note the Block 27 Collector Roads EA is utilizing all environmental data gathered as part of the MESP to minimize duplication of work and enhance efficiencies and the Block 27 EA project team would have been provided any updates / additions / changes in the natural environmental data from the MESP. The MESP project team and Block 27 EA project team have been closely working together since the on-set of the EA study. All investigations and information gathered as part of the MESP has been used by the EA to inform the study. All natural environmental investigations have been completed within Block 27 with the exception of the north-west parcel where partial investigations were completed due to lack of permission to enter from non-participating landowner). Any outstanding natural environmental investigations required will be included as a commitment to future work in the Environmental Study Report (ESR). Natural environmental investigations that have been completed include: • Fish, Fish Habitat and Head Water Drainage Feature Assessment • Vegetation and flora • Amphibians • Breeding Birds • Targeted bat surveys • Wetlands (including wetland evaluation by MNRF and staking with MNRF and TRCA) • Species at-Risk • Fluvial geomorphology The MCEA will be informed by all investigations completed as part of the MESP, including the evaluation of alternatives to identify the final

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		recommended road network for Block 27. Please note all investigations have been completed as part of the MESP.
2.	Road alignment and design must consider natural hazard and natural heritage objectives that are established through the Block 27 Roads EA and the Block 27 MESP. This includes: a. Minimizing the number of crossings of the Natural System. b. Avoiding and minimizing impacts on natural heritage features and areas. c. Maintaining and enhancing the connectivity of the Natural System. d. Ensuring that crossings are designed to meet fish and wildlife objectives. e. Incorporating fluvial geomorphic recommendations for watercourse crossings. f. Maintaining any required feature-based water balance as established through the MESP. g. Establishing post-construction restoration objectives to address temporary construction related impacts. h. Providing sufficient compensation for Natural System and feature impacts that cannot be avoided.	a&b) Additional road alignment alternatives were developed based on the recommended road network within the Block 27 Secondary Plan to explore opportunities to minimize natural environmental impacts. c) Wetland compensation analysis that is being undertaken as part of the MESP is exploring opportunities to provide compensation in locations to enhance functions and connectivity of the natural system. Further mitigation measures will be developed as part of the EA which will be documented in the ESR. d) All crosses of watercourses that have been designated as fish habitat will be designed to meet and where possible, enhance fish passage. Culvert openness ratios have also been recommended by ecologists to accommodate wildlife passage where culverts are proposed, which will be included in the design as the study progresses. e) A fluvial geomorphological assessment was completed as part of the MESP including recommendations for watercourse crossings which has informed the EA study. f) Any feature-based water balance required will be completed as part of the overall MESP works since the roads will not be constructed independently from the surrounding developments. g) Post-construction restoration objectives will be developed as part of the next detail design phase. h) A wetlands compensation plan is underway in coordination with TRCA to compensate for impacts to the natural features and functions that cannot be avoided.
3.	TRCA Planning Ecology notes that the presentation shows the multi-modal transportation network as identified in the Secondary Plan. This network outlines the location of multi-use paths and cycling facilities. Please note that the alignment and location of trails and cycling facilities through the NHN should be comprehensively assessed through the MESP process to ensure that impacts can be avoided and mitigated.	The majority of the road network will be designed as complete streets with sidewalks and cycling facilities incorporated into the proposed right-of-way (ROW). Please note the active transportation network outside the collector road network is following the development planning process and is outside the scope of the Block 27 Collector Roads MCEA.

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4.	Ecology comments on Street 1: a) Alternative 1A and 2A are preferred. Alternative 1C is the least preferred given the larger area of Greenbelt NHS that would be impacted. Please consider advancing Alternative 1A or 2A as the preferred design. b) Ecological and Natural Hazard objectives and requirements will have to be established to inform crossing design.	a) TRCA's preference has been noted by the Project Team. An evaluation will be undertaken for alternative road alignments which will consider and balance the impacts and benefits/opportunities from the natural environmental, cultural-heritage, and socio-economic environments as well as technical considerations. b) Crossings will be designed to minimize impacts to the natural environment. Appropriate culvert design will maintain flow and sediment transport and accommodate wildlife passage (amphibians, reptiles, small mammals) along Drainage Features. For floodplain (natural hazard), the crossing will be designed to provide conveyance to minimize impacts to the upstream / downstream. The scouring will be calculated during the detail design stage.
5.	a) Ecology comments on Street 2: Alternative 2B presents an opportunity to avoid/minimize wetland impacts, however, may present a greater overall impact to the Greenbelt NHS. Please consider the need to balance avoidance of feature impacts and NHS impacts in the analysis of the alternatives for Street 2, making best efforts to minimize overall natural heritage impacts. b) Please note that the crossing of DF-3 should maintain ecological connectivity through alignment and design. c) Please note that the alignment of Street 2 is located between woodlots within the Block. Maintaining and enhancing a functional connection between these woodlots is a critical consideration of road design and the overall Block 27 land use plan.	a) TRCA's comments regarding Alternative 2B have been noted by the Project Team. The difference in impact to the provincially significant wetlands and Greenbelt lands and natural heritage system are considered and included in the road alignment alternative evaluation tables. b) The design of the DF-3 crossing will be designed to the recommended openness ratio to accommodate mid-sized mammals (e.g., fox, raccoon, skunk and coyote), amphibians, and reptiles (e.g., frogs, snakes). Crossing alignment is also reviewed from a geomorphological perspective. c) The Project Team has noted TRCA's request for a functional connection between the two woodlots. Due to the topography constraints, Street 2 at the location between the two woodlots is at a lower elevation compared to adjacent lands (to the south and north) and is in a trenched condition. Street 2 at this location is also beginning to slope downward to accommodate the underpass under the railway to the east and retaining walls are also required north of Street 2, which would further impede the provision of a wildlife crossing under Street 2.
6.	Ecology comments on Street 3: a) Alternative 3A presents an opportunity to minimize the overall impact to the Greenbelt NHS. Alternative 3A also presents an	a) The Project Team has noted the benefits of Alternatives 3A highlighted by TRCA. However, the Project Team would like to note there are two significant impacts associated with Alternative 3A

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	opportunity to utilize an existing disturbed area/crossing of DF-3 and will avoid potential impacts to both DF3-1 and DF3-2 and associated NHN. b) Any crossing design associated with Street 3 must consider ecological objectives related to fish/wildlife passage and avoidance of wetland impacts. c) Planning Ecology notes that Street 3 crosses at both Special Study Area 1 and Special Study Area 3. The results of these studies should be used to inform the final alignment and crossing design. The final recommendation for the Street 3 alignment should demonstrate that impacts to features, including stream corridors, drainage features, and wetlands will be avoided to the greatest extent feasible, and impacts to the broader Block 27 natural heritage system will be minimized.	which are avoided by Alternative 3B. Of note, Alternative 3B reduces impacts on the provincially significant wetland (i.e., 0.49 ha of PSW is impacted by Alternative 3A whereas Alternative 3B impacts 0.21 ha of PSW). Furthermore, Alternative 3A has a greater fragmentation effect as it splits a contiguous 3 ha wetland into 2 large units, whereas Alternative 3B only encroaches into the northern fringes of this wetland. Dividing habitats into two or more patches weakens the resilience and stability of ecological systems. The preferred alternative alignment for Street 3 will be selected based on an evaluation which will consider and balance the impacts and benefits/opportunities from the natural environmental, cultural-heritage, and socio-economic environments as well as technical considerations. b) All crossings associated with Street 3 will be designed to the recommended openness ratio to accommodate mid-sized mammals (e.g., fox, raccoon, skunk and coyote), amphibians, and reptiles (e.g., frogs, snakes), and all crossings that are fish habitat will be designed to maintain or enhance stream conditions (cross-sectional area below the high-water mark, stream gradient, fish passage, and streambed characteristics) and support fish. c) All studies completed as part of North Vaughan New Communities Transportation Master Plan (NVNCTMP), Block 27 Secondary Plan, and MESP will be used to inform the Block 27 Collector Roads MCEA.
7.	Please consider the following comments in reviewing the Street 5 alternative alignments: a. Alternative 5A as shown in the EA study would result in significant impacts to the NHN and associated features (DF-3 and provincially significant wetlands). This alignment could potentially require a number of crossings/enclosures of DF-3 or complete realignment of DF-3. In order to minimize the impacts of Alternative 5A, the NHN alignment would have to shift, with a realignment of DF-3 and relocation of impacted wetlands. This may necessitate the removal and relocation of the existing Teston Road culvert to accommodate the realigned channel. As such, the Alternative 5A alignment as	a) TRCA's comments on Alternative 5A and 5B have been noted by the project team. All Street 5 alignment options will require a realignment of the watercourse to accommodate the road. Please note that the proposed watercourse realignment strategy that was detailed in the NVNCTMP to accommodate Street 5 was refined by the Project Team to improve the fluvial geomorphology and ecological function. The Project Team is proposing to extend the existing culvert to match the realigned channel. b&c) The extension of the existing culvert over Teston Road which will avoid requiring two new crossings (as detailed in the NVNCTMP) will improve the watercourse alignment from a geomorphic and ecological perspective. Opportunities for riparian wetland creation will also be explored to enhance the watercourse.

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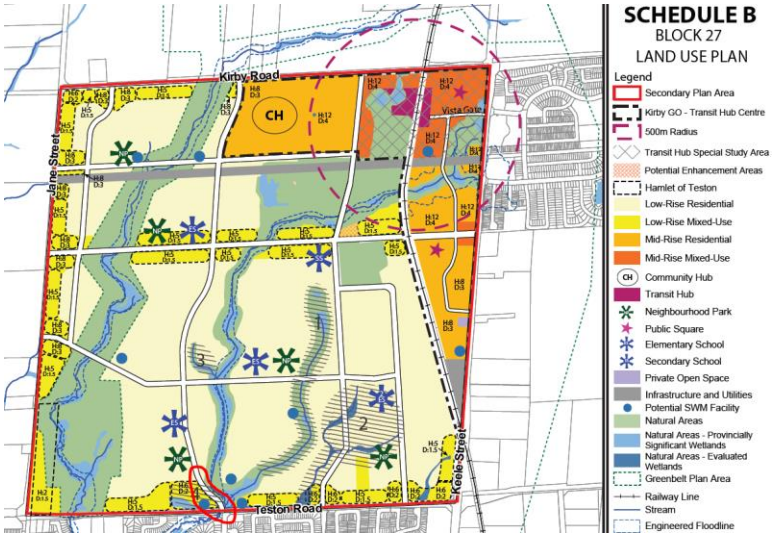
	currently presented in the EA study is difficult to support given the extent of impacts that would result. b. It is not clear why the alignment of Street 5 as shown in the Block 27 Schedule B Land Use Plan has not been included in the analysis of alternatives in the EA. The alignment in the Land Use Plan could completely avoid or drastically reduce the impacts to DR-3 and wetlands within the NHN (see image below). Alternative 5A may in fact be the preferred alignment should it be technically feasible to shift the road curvature further south. The technical feasibility of this alignment should be discussed in the EA alternatives analysis.  c. Alternative 5B, with an easterly alignment, would present significant impacts to DF-3 and wetlands at the southerly limits of the study area. Furthermore, channel realignments and replacement of lost wetlands would be required to accommodate this alignment. Alternative 5B should also be considered in the context of existing infrastructure – as the easterly alignment may also require removal and relocation of the existing culvert under Teston Road to accommodate a realigned channel.	Based on the Project Team's review of the Block 27 Secondary Plan Street 5 alignment and detail provided in the NVNCTMP, the Secondary Plan incorporated a skewed intersection for the Street 5 alternative alignment which would continue to impact/require realignment of the watercourse. Given these impacts are unavoidable, the Project Team explored opportunities to design a proper intersection and design the road to standard. Please note the alignment shown in the Secondary Plan does not specify the full right-of-way (ROW), and only accounted for the paved portion of the roadway (one-lane each way instead of two-lane each way). Given Street 5 is designated as a major collector road, w a 26 m ROW is required to accommodate the full four travel lanes, active transportation facilities (i.e., sidewalks and cycling facilities), and landscape/utilities. To accommodate the extra ROW width, a skewed intersection would be required which is undesirable from a geometry perspective, and impacts to/realignment of the watercourse would still be required to accommodate the skewed intersection, an intersection complying with all relevant design standards is contemplated at this location.

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8.	Any final Street 5 alternative alignment and crossing design should consider opportunities to maintain and enhance channel form and function, replace any lost features and functions, and provide for an overall net gain in the Natural System. Should channel realignments be required, the length of overall channel should not be reduced, and the area of channel proposed to be conveyed through culverts should be minimized. Opportunities to improve the existing Teston Road culvert should be explored, specifically to reduce the overall length of the culvert and increase the width of the culvert to better accommodate fish and wildlife objectives and NHN connectivity.	As noted above, the Project Team is proposing to extend the existing culvert to match the realigned channel extension of the existing culvert over Teston Road which will avoid requiring two new crossings (as detailed in the NVNCTMP) which will improve the watercourse alignment from a geomorphic and ecological perspective. Opportunities for riparian wetland creation will also be explored to enhance the watercourse. Compensation for impacted wetlands will also be provided in the wetland compensation plan. The existing channel has been heavily modified (channelized), and realignment of the watercourse will provide opportunities for enhancement in the form of a more natural planform (which will increase channel length) and riparian plantings. The minor extension to the existing Teston Road culvert was proposed in an effort to minimize the overall length of channel to be enclosed within culverts. Of note, shortening the water crossing will require a significant change of the alignment. Currently the culvert crosses Teston Road at a 45-degree angle. To shorten the length, the direction of the culvert has to be changed from the NE – SW direction (U/S to D/S) to N to S direction (U/S to D/S). This would mean the channel upstream of the culvert shall be relocated approximately 20-30m to the west. This would also result in two culvert crossings, one from DF-3 and the other due to DF-4. Furthermore, the outlet of the realigned culvert will be perpendicular to the downstream channel which is not a preferred configuration. We have analyzed the required width of the crossing to avoid overtopping and noted that in addition to the existing culvert, two box culverts of size 3 x 1.8m will be required to eliminate the overtopping.
9.	Any anticipated Street 5 impacts should be considered alongside any anticipated impacts associated with the proposed stormwater management facilities and associated outfalls in this part of the Block. There may be opportunities to consolidate infrastructure requirements in the NHN, and consider adjacent land uses such as parks and SWM blocks which may be complimentary to the NHN. Thus, TRCA staff recommends integration of the EA process with the MESP process.	Stormwater management is being coordinated between the MESP and the Block 27 Collector Roads MCEA.

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10.	Ecology comments on Street 6 a) With respect to the northerly alignments of Street 6, any alignment that fragments the woodland will have a significant impact on the feature's function. This woodland contains significant and sensitive features, and additional study through the MESP may identify additional characteristics. Considering the sensitivity and function of the feature, TRCA Planning Ecology encourages that this feature be protected in its entirely. While it is recognized that the Block 27 road network has been established, it is encouraged that reasonable alternatives to the alignment of Street 6 through the woodland be considered. Please consider opportunities for Street 6 to terminate at Street 2, or curves eastward to connect with Street 8, thus avoiding woodland impacts entirely. Should this not be feasible, please clearly rationalize the need for an alignment through the woodland, and demonstrate that the most appropriate alignment has been recommended that minimizes impacts on the feature and functions within it. A comprehensive strategy should be developed that maintains functional connectivity while at the same time compensates for lost features and functions. It should be demonstrated that there will be an overall net gain to NHN limits and functions through thoughtful restoration, compensation, and enhancement. b) Street 6, at its southerly alignment, should be considered in the context of the broader land use plan and ongoing MESP study. The function of the wetlands in Special Study Area 2 are being assessed through the MESP process. A final alignment should not be recommended until such time as ongoing study has been completed and the NHN limits in this area are established. Ultimately, the preferred alignment of Street 6 at its southerly limits should entirely avoid the NHN and any associated features – this requires establishing the limits of the NHN in this area prior to finalizing Street 6 alignment.	a) Please note all environmental investigations through the woodlot feature have been completed as part of the MESP and are being used to inform the Block 27 Collector Roads MCEA. As noted in the provided comments, the needs and justification for the road network, including Street 6 through the woodlot was determined as part of the NVNCTMP. Per the City of Vaughan's Official Plan (policy 4.2.1.23), all new developments are required to include the following road networks where feasible: - Minimum of 2 north/south - Minimum of 2 east/west collector street Due to constraints within Block 27, only one full east-west road was recommended, as such, the inclusion of two north-south collector roads is important from a transportation perspective. Given the location of Street 5 between the Greenbelt area and DF-3, a road connection to service the eastern side of Block 27 west of the railway corridor is required. Given the woodlot spans between Street 5 and the railway corridor, there are no viable north-south road alignment alternatives which avoids the woodlot. b) The study and assessment on the function of Wetlands A and B (WTA and WTB) in Special Study Area 2 have been completed as part of the MESP and the IBI Monitoring Report, and NHN limits are proposed along drainage features. These two reports will fully document this work in support of the proposed NHN that is being integrated with the collector road alignment evaluations through the EA. A short summary includes: • Surface water and groundwater monitoring of WTA, WTB and Drainage Feature 5 (DF5) was completed over a three-year period as part of the IBI Monitoring Report. DF5 was observed to be dry and not flowing throughout much of the monitoring period. Results of the monitoring provide no indication of groundwater discharge to DF5. Interpretation of the groundwater data, flow and gradient information, concludes that this feature is ephemeral. WTA and WTB are characterized as areas of groundwater recharge, not discharge. Data suggests that the wetlands are supported by surface water runoff, and when

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		surface water is present, recharge supports a seasonally high-water table at or near the ground surface in the spring. • MNRF did not include WTA and WTB in the Don River West Branch Headwater PSW Complex (2019). At that time, MNRF noted that these two wetlands were unevaluated and they were waiting for further hydrogeological information for WTA and WTB to conclude their evaluation of provincially significant status. Hydrogeological data from the 2019 IBI Monitoring Report were provided to MNRF in February 2020. Based on the IBI data, WTA and WTB were characterized as areas of groundwater recharge, not discharge, and DF5 was observed to be ephemeral. Following provision of this hydrogeological information to MNRF to determine the function of the wetlands (notably that they are not characterized and areas of groundwater discharge), and correspondence with them, MNRF did not include WTA or WTB in the Don River West Branch Headwater PSW Complex. Therefore, WTA and WTB are not considered to be PSWs. • WTA and WTB are agricultural wetland features, including uniform shallow marsh communities dominated by cattail species and Reed Canary Grass (*Phalaris arundimacea*) as well as a small willow swamp, which do not support habitat for breeding amphibians or waterfowl. The ecological function of this wetland unit is considered low on account of its reliance on surface water supplies with no evidence of groundwater discharge, relatively low-quality vegetation communities with no rare or uncommon flora species, relative isolation in the agricultural matrix, and ecological disconnection from downstream natural heritage system (Don River West Branch Headwater PSW) which it is only hydrologically connected to through a municipal sewer. Due to their limited ecological function and relative isolation, they are proposed for removal and replication in the NHN. The proposed wetland/woodland compensation plan will replicate/enhance WTA and WTB in locations that will provide functional improvements to the NHS and a net positive environmental outcome.

ITEM	TRCA COMMENTS (May 26, 2022)	PROPONENT/CONSULTANT RESPONSE (JULY 13, 2022)
		• MESP analyses have also identified the extent of the NHN to the west of Drainage Feature 5, along Drainage Feature 4. This included field staking of features and the identification of the extent of the floodplain, wetlands, meander belt, fish habitat, vegetation protection zones and proposed wetland compensation areas. MESP analyses have informed the proposed NHN boundaries along Drainage Feature 4 west of Street 6. All of this data will be used as input to the Street 6 alignment evaluation.
11.	Ecology comments on Street 8 a) TRCA Planning Ecology reiterates comments made during the March 16 meeting that the Street 8 alignment must have regard for Metrolinx station needs. Opportunities to accommodate Metrolinx requirements, without causing additional impacts to NHN features should be a critical consideration in road alignment and land use planning in this section of the Block. Please ensure that consultation with Metrolinx is undertaken at this stage in the EA to ensure that any preferred alignment has regard for Metrolinx requirements and demonstrates that feature impacts will be avoided. b) From an ecological perspective, Option 8D likely present the least amount of NHN impacts.	TRCA's comments have been noted by the Project Team. The Block 27 Collector Roads MCEA will accommodate for the future Kirby GO station to the extent possible, however, the station design for the Kirby GO station is still underway and the draft preferred design presented in 2018 is subject to further adjustments and refinements as the station design progresses. The Kirby GO station is being completed as part of a separate study. The Project Team has noted TRCA's comment regarding Option 8D.
Water Resources Comments:		
12.	Water Resources staff will need to ensure that proposed crossings have no negative impacts to flooding (2-100 yr and Regional storms) and that fluvial geomorphic recommendations will be considered to inform crossing location, skew and span width. Please ensure these factors are taken into consideration when exploring the preferred alternative alignments for the roads.	Noted. The culvert crossings will be sized to ensure no negative impact due to the uncontrolled flows during 2-100 year and regional events though the SWM ponds are sized to provide regional control A fluvial geomorphological assessment was completed as part of the MESP, including recommendations for watercourse crossings.
13.	It is noted that SWM will be provided for road drainage in the SWM facilities where possible. It is noted on slide 14 however that where drainage from the ROW cannot be conveyed to a SWM pond, an OGS and superpipe will be used. Please note, a typical OGS unit and typical superpipe will not provide sufficient water quality control to meet TRCA's	Alternatives to provide additional LIDs for areas that cannot drain to the proposed SWM ponds due to grading constraints will be reviewed at the MESP stage. However, the LID options will have to be discussed with the City who will ultimately be responsible for the operation and maintenance of these facilities. In case the City does not accept these

ITEM	TRCA COMMENTS (May 26, 2022)	PROPONENT/CONSULTANT RESPONSE (JULY 13, 2022)
	requirement and will not provide any on-site retention for erosion control. As such, additional treatment measures and/or LIDs will need to be considered. Further please note on slide 15 TRCA's erosion control requirements are 25 mm – 48 hour detention and 5mm runoff retention, not or, which is applicable during both the planning and design process.	facilities, additional measures such as oversizing the OGS will be reviewed.
14.	Alternative road cross-sections have been provided (slides 40 – 47) and TRCA notes that they do not contain any ROW LID measures. Please consider what LIDs may be used to treat road drainage and ensure there is adequate space provided.	The potential of implementing LID measures within the ROW will be discussed with the City since the City is ultimately responsible to take over the operation and maintenance of these facilities.
15.	Street 1: Alternative 1A and 1B appear to cross the watercourse at a more perpendicular angle which would be preferred; however, this should be confirmed by a fluvial geomorphic assessment.	A fluvial geomorphological assessment was completed as part of the MESP including recommendations for watercourse crossings. Mitigation measures, such as skewing the proposed structure to accommodate the existing watercourse, have been recommended for design scenarios such as Alternative 1C, where the road does not achieve a perpendicular angle to the central tendency of the watercourse.
16.	Street 2: Alternative 2A appears to cross the watercourse at a more perpendicular angle than 2B which would be preferred; however, this should be confirmed by a fluvial geomorphic assessment.	A fluvial geomorphological assessment was completed as part of the MESP including recommendations for watercourse crossings. Mitigation measures, such as skewing the proposed structure to accommodate the existing watercourse, have been recommended for design scenarios such as Alternative 2B, where the road does not achieve a perpendicular angle to the central tendency of the watercourse.
17.	Street 3: Alternative 3A appears to be located just downstream of a confluence. Consideration will need to be given to the fluvial impacts of this location as well to the hydraulic capacity of a proposed crossing.	A fluvial geomorphological assessment was completed as part of the MESP including recommendations for watercourse crossings. Given the minor nature of the secondary drainage feature, design implications of the confluence are largely hydraulic in nature.
18.	Street 5: As the design team is aware, there is currently overtopping of Teston Road during the Regional event at the location of the proposed connection with Street 5. The design will have to consider how to provide safe access during a flood event and not increase the flood depths on Teston Road. It is noted on Slide 29 that an extension of the existing culvert at collector Street 5 is proposed, which conflicts with comments made by TRCA Planning Ecology to explore options to reduce the length of this culvert.	Please note that the proposed spine network in Block 27 provides the required safe access from areas which aren't flood prone. As stated in Comment# 7, shortening the water crossing will require a significant change of the alignment. Currently the culvert crosses Teston Road at a 45-degree angle. To shorten the length, the direction of the culvert has to be changed from the NE – SW direction (U/S to D/S) to N to S direction (U/S to D/S). This would mean the channel upstream of the culvert shall be relocated approximately 20-30m to the west. This would also result in two culvert crossings, one from DF-3 and the other due to

ITEM	TRCA COMMENTS (May 26, 2022)	PROPONENT/CONSULTANT RESPONSE (JULY 13, 2022)
	Please ensure all alternatives are explored in an effort to accommodate the various objectives.	DF-4. Furthermore, the outlet of the realigned culvert will be perpendicular to the downstream channel which is not a preferred configuration. We have analyzed the required width of the crossing required to avoid overtopping and noted that in addition to the existing culvert, 2 box culverts of size 3 x 1.8m will be required to eliminate the overtopping.
19.	Street 6 Alternative 6B appears to cross the watercourse at a more perpendicular angle than 6A which would be preferred; however, this should be confirmed by a fluvial geomorphic assessment.	A fluvial geomorphological assessment was completed as part of the MESP including recommendations for watercourse crossings. Mitigation measures, such as skewing the proposed structure to accommodate the existing watercourse, have been recommended for design scenarios such as Alternative 2B, where the road does not achieve a perpendicular angle to the central tendency of the watercourse.
20.	Street 8 The current flood plain on the east side of the rail line is quite extensive and should be considered when designing Street 8 to ensure there is safe passage on the new road.	The Project Team is aware of the floodplain on the east side of the railway and will be taken into consideration if any roads proposed within the floodplain.
Hydrogeology Comments:		
21.	With respect to SWM, please install monitoring well(s) within footprint of proposed SWM pond(s) and carry out an in-situ test within footprint of proposed SWM pond.	Monitoring wells have been installed in or adjacent to about 40% of the proposed SWM pond locations. As part of the SWM pond design, additional monitoring wells will be installed, and hydraulic conductivity testing completed to inform the pond design.
22.	With respect to site and feature water balance, please prepare a plan view map showing seasonal high groundwater contours in relation to proposed LIDs and in situ tests. Note that TRCA recommends an insitu test at the location of all infiltration focused LIDs and a 1 m groundwater separation from the base of proposed LIDs.	A plan showing the seasonally high groundwater contours will be provided in the MESP. If LID measures for infiltration are proposed specifically for the roads, appropriate testing and groundwater level information will be considered in the design.
23.	With respect to source protection, the following vulnerable areas lie within the Site: WHPA-Q (below down gradient line), HVAs and SGRAs. Please note that SAL-10 (and SAL-12) are applicable within HVA (future) and York Region Source Protection Manager should be consulted on the preparation of a salt management plan.	Future management of road salt application within Block 27 will be the responsible of the City of Vaughan and will be implemented per York Region's *Salt Management Plan and Guidance for Best Management Practices for Road Salt Usage Standards*.

Record of Meeting
20009

PROJECT:	Block 27 Collector Roads, Municipal Class Environmental Assessment Study	**DATE:**	July 27, 2022
LOCATION:	Virtual – Microsoft Teams	**TIME:**	3 – 4:30 p.m.

IN ATTENDANCE

NAME	REPRESENTING
Paul Grove (PG)	City of Vaughan
Ruth Rendon (RR)	City of Vaughan
Cameron Balfour (CB)	City of Vaughan
Manirul Islam (MI)	Toronto and Region Conservation Authority (TRCA)
Harsimrat Pruthi (HP)	TRCA
Emily Markovic	TRCA
Allison MacLennan	TRCA
Kristina Anderson	TRCA
Suzanne Bevan (SB)	TRCA
Chris Sidlar (CS)	LEA
Katherine Kung (KK)	LEA
Mustafa Ghassan (MG)	Delta Urban
Nancy Mather (NM)	Stonybrook Consulting
Brian Henshaw (BH)	Beacon Environmental

MEETING TITLE Discussion on Project Team Responses to TRCA's May 2022 Comments

ITEM	TOPIC	ACTION BY
1.0	**Meeting Opening** *(see attached for a copy of the powerpoint presented at the meeting)*	
	▶ Land Acknowledgement ▶ Safety Moment ▶ Round Table Introductions	
2.0	**Project Background**	
	▶ Brief project background was presented ▶ New road alignment alternatives were based on approved Block 27 Secondary Plan road network	

ITEM	TOPIC	ACTION BY
	▶ Block 27 MCEA Project Team has been working closely with Block 27 MESP technical team since study commencement ▶ MCEA has been utilized all up-to-date MESP data	
3.0	**Street 1**	
	▶ TRCA indicated no further comments to Project Team responses on Street 1	
4.0	**Street 2 Discussions**	
	▶ TRCA Comment #5c) - Maintain and enhance a functional connection between the 2 woodlots ○ LEA noted there are physical challenges with providing a wildlife crossing between woodlots (i.e., topography, retaining wall, grading associated with Street 2 underpass of the CN) ○ BH commented that the 2 options to provide wildlife passage is either: 1. Overpass (expensive and not feasible due to grading and distance to St. 8 intersection as well as Keele St.) or 2. Enhanced underpass (grades will need to be considered and do not appear to be compatible with an underpass) ○ EM understands the limitations and acknowledged that there may not be a formalized underpass possible. She requested that the feasibility of opportunities for wildlife use be addressed and noted that TRCA would like the Project Team to start considering wildlife crossing mitigation options at this stage ○ Wording will be included into the ESR to explore incorporating mitigative measures to address wildlife crossing where feasible (not necessarily wildlife culvert) in the next design phase based on the road vertical and horizontal alignments, layout of landscape and wildlife present in woodlot ○ For the crossing of DF3, the culvert should be designed to the openness ratios recommended in the MESP ○ EM commented that for all crossing designs, follow-up discussions will be needed through the MESP process to confirm the type of passages and wildlife that would use the crossings ▶ TRCA indicated no further comments to Project Team responses on the other TRCA comments to Street 2	LEA NM/TRCA
5.0	**Street 3 Discussions**	
	▶ TRCA Comment #6a) - Preference for Alt 3A ○ TRCA indicated greater details on the impacts associated with each alternative need to be provided to TRCA before TRCA can provide comments	LEA

ITEM	TOPIC	ACTION BY

- LEA responded that preliminary alternative road alignment evaluation tables have been prepared which include detailed impacts / comments on each alternative which can be sent to TRCA
- LEA noted that what is being presented are the top two options for consideration, as all other alignments were more impactful from an ecological, planning, social, and economical perspective.
- TRCA will provide comments on which road alignment alternatives TRCA's preferred

- TRCA indicated no further comments to Project Team responses on the other TRCA comments to Street 3

6.0 Street 5 Discussion

- TRCA Comment #7b - Support for Street 5 as shown in Block 27 Secondary Plan since it appears to avoid or drastically reduce the impacts to DF-3
  - KK explained that the Street 5 alignment shown in the Block 27 Secondary Plan was reviewed and the geometry / proposed road did not provide/accommodate the full required 26 m ROW. When the alignment was widened to 26 m, the Secondary Plan alignment would continue to impact/require realignment of the watercourse. Given unavoidable impacts, alignments with a proper intersection design were identified and mitigate impacts
  - CS commented that providing a continuous road between Blocks was a critical consideration for the City and the Region during the TMP. Avoiding impacts to the watercourse at Cranston Park Ave will require off-setting the intersection which will not be favorable from an engineering/technical perspective due to safety concerns
  - PG commented that the City's key considerations for the road are safety, traffic operations, and continuity. From a traffic perspective, not providing a continuous connection from Cranston Park Ave will create challenges operationally for personal auto and for public transit (buses). The City recognizes the proposed location for Street 5 is unideal, however, the location of Cranston Park Ave is set and a connection of Street 5 to Cranston Park Ave is required from a land-use and transportation planning perspective, to support the City and the Region's Municipal wide auto and public transit network.

ITEM	TOPIC	ACTION BY
	○ EM commented that Street 5 is in a Special Study Area 4, and asked if the Project Team has completed the natural heritage investigations and groundwater monitoring for the Special Study Area 4 to inform the Street 5 road alignment evaluation, and when TRCA can expect to review the results of the Special Study ○ BH responded that the Natural Environment Team is taking the lead from the traffic management requirements. Of note, both road alignment alternatives considered for Street 5 will infringe on fish habitat since both Street 5 alternatives terminate at the same location and impacts at Cranston Park Ave will be similar at Teston Rd. ○ The key difference in impacts between the two Street 5 alternatives is further north where Alternative 5A only requires 1 crossing further south while Alternative 5B requires 2 crossings. Another consideration is that the mitigative options available for Alternative 5A is much better than Alternative 5B ○ EM commented that TRCA agrees that from a preliminary review, Alternative 5A is likely less impactful than Alternative 5B, and appears reasonable, however, TRCA requires the background site characteristic documentation (environmental and flooding data) to support TRCA's review of the alternative road alignments ○ The Block 27 MESP & MCEA Project Team provided preliminary existing conditions information in the March 2022 Technical Memo #1 that was submitted to the TAC. The Team will provide existing conditions information and final ground water monitoring results to support TRCA's review of the alternative road alignments	NM/KK
	► TRCA Comment #8- Should channel realignments be required, the length of overall channel should not be reduced and the alignment/crossing should maintain and enhance channel form/function, replace any lost features/functions, and provide net gain to natural system ○ LEA commented that the flooding at Teston Rd and Cranston Park Ave is existing conditions and the root of the issue is Teston Rd ○ TRCA commented that TRCA would accept this provided flooding is not worsened with the proposed Street 5 and requested the Project Team send TRCA the drawings along with the results indicating flooding will not be worsened	NM/KK NM/KK

ITEM	TOPIC	ACTION BY
	○ NM noted that Schaeffer's completed modelling of the culvert lengthening options which confirmed that existing conditions would be maintained with the proposed Street 5 watercourse realignment strategy. The modelling results will be shared with TRCA when finalized ○ KK will send TRCA a drawing showing the preliminary watercourse realignment design ○ EM requested plans of Concept 5B as well ► TRCA indicated no further comments to Project Team responses on the other comments to Street 5	
7.0	**Street 6 Discussion**	
	► TRCA Comment #10a) - Fragmentation of the woodland will have significant impact on the feature's function ○ KK explained the needs and justification for Street 6 connection to Kirby Rd is in the North Vaughan New Communities Transportation Master Plan and Block 27 Secondary Plan. Furthermore, the City of Vaughan Official Plan requires the provision of 2 north-south and 2 east-west collector roads in all new development block. Of note, Block 27 already only has 1 east-west collector road due to constraints with rail corridor. ○ In recognition of the impacts to the significant woodlot, a reduced cross-section will be implemented through the woodlot to reduce impacts ○ EM responded that the location of Street 6 is unfortunate and in hindsight should have been placed elsewhere in the Block 27 Secondary Plan, however, TRCA recognizes the existence of Street 6 is not for discussion ○ TRCA would like the Project Team to review where the most sensitive features are located and locating the road where there are least impacts ○ CS commented that the type and area of vegetation communities that are impacted by each alternative alignment is included in the road alignment evaluation tables ○ Following the identification of the preliminary preferred road alignment, the Project Team will be identifying mitigation measures for the preferred alignment, including exploring opportunities to finesse the alignment in the next design phase. The ultimate road alignment for Street 6 may not be as direct as shown in the figure once the alignment is finessed to avoid significant features	LEA/Beacon

ITEM	TOPIC	ACTION BY
	○ CS noted that an additional constraint for the Street 6 connection to Kirby Road is the railway underpass proposed just east of Street 6 ○ KK noted that a commitment to review/finesse the Street 6 road alignment to avoid sensitive features will be included in the ESR ○ TRCA agreed including this commitment would be a good mitigation measure for Street 6	LEA
	► TRCA Comment #10b) - Street 6 alignment informed by Special Study Area 2, and comment that impacts to the NHN and any associated features should be avoided ○ TRCA commented that TRCA would like to see the results of the Special Study Area 2 before a preferred Street 6 alignment is identified. The Project Team indicated that the studies have informed the EA (including consideration of groundwater and surface water monitoring results, wetland analyses, grid-like transportation system, and discussions with MNRF). ○ EM noted that the TRCA has not seen the year 3 results or final recommendations of the Special Study Area 2 study. TRCA requires this information to comment on the alternatives ○ PG suggested that the Project Team develop a scoped technical memo providing details of the specific areas that TRCA has concerns with (e.g., significant woodlot, Street 5 area, etc.) to provide TRCA with sufficient background data to be comfortable with the proposed alternative / mitigation approach ○ SB noted that TRCA has a formal EA review process and requested the Project Team submit reports (comprehensive submission) for TRCA to review to formalize comments ○ KK commented that the Groundwater Monitoring Report is in its final stages of review and will be provided to TRCA as soon as it is available along with the detailed road alignment evaluation tables and existing conditions documentation of Block 27 (excerpts from the draft MESP) for to TRCA review ○ SB commented that Metrolinx goes through a voluntary review process and asked the Project Team to work with Metrolinx to ensure designs are coordinated	NM/KK Block 27 PT NM/KK

ITEM	TOPIC	ACTION BY
	○ KK noted the project team has reviewed available information on the Kirby GO Transit Hub Study, however, there has not been detailed assessment of the Transit Hub Area as the Transit Hub Study will be led by the City and commenced following Block 27 Block Plan/MESP submission. The Block 27 designs will accommodate the Kirby GO Transit Hub Study to the extent possible based on available information ▶ TRCA indicated no further comments to Project Team responses on the other comments to Street 6	
8.0	**Street 7 Discussion**	
	▶ TRCA indicated no further comments to Project Team responses on Street 7	
	Street 8 Discussion	
	▶ TRCA indicated no further comments to Project Team responses on Street 8	
9.0	**Next Steps**	
	▶ TAC Meeting #2 will be scheduled end of August ▶ PIC is tentatively scheduled for end of September ▶ The Project Team would appreciate receiving comments from TRCA on the alternative road alignments prior to the PIC so that they can be captured ▶ A comprehensive package of background site characteristics / existing conditions reports will be sent to TRCA for review to support the alternative road alignment evaluation, including but not limited to: ○ Technical Memo #1 (re-circulation) ○ Groundwater and Surface Water Monitoring Report ○ Existing Conditions Excerpts from MESP (Natural Environment, Hydrogeology / Drainage) ○ Natural Environmental Mapping ○ Street 5 Watercourse Realignment Design & Modelling Results	NM/KK/City

The foregoing is considered to be a true and accurate record of all discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Recorded by: Katherine Kung (LEA Consulting Ltd.) Email: kkung@lea.ca

Circulation: All attendees + Project Team

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March 27, 2023

Reference Number: 20009.03

Mr. Manirul Islam
Planner, Infrastructure Planning and Permits
Toronto and Region Conservation Authority
Development and Engineering Services
101 Exchange Avenue
Vaughan, ON L4K 5R6
Email: Manirul.Islam@trca.ca

RE: Block 27 Collector Roads, Municipal Class Environmental Assessment Study
Response to Comments

Dear Mr. Islam,

LEA Consulting Ltd. (LEA) received the Toronto and Region Conservation Authority's (TRCA) comments for the Block 27 Collector Roads Municipal Class Environmental Assessment (MCEA) study on September 29, 2022. Response to TRCA's Appendix A comments from the September 2022 letter is provided in Attachment 1. Supplementary to the Project Team's responses, a revised Technical Memorandum #1 is provided in Attachment 2.

Yours truly,

LEA CONSULTING LTD.

Christopher Sidlar, M.Sc.Pl., MCIP, RPP
Vice President
Transportation

cc: Paul Grove, City of Vaughan
Pirooz Davoodnia, City of Vaughan
Christy Leung, LEA
Beth Williston, TRCA
Suzanne Bevan, TRCA
Adam Miller, TRCA
Mark Howard, TRCA
Victoria Kramkowski, TRCA
Stephen Bohan, TRCA
Harsimrat Pruthi, TRCA

Encl. Attachment 1: Appendix A: TRCA Comments and Proponent Responses
Attachment 2: Block 27 Collector Roads - Technical Memorandum #1 (Revised March 2023)

APPENDIX A: TRCA COMMENTS AND PROPONENT RESPONSES

ITEM	TRCA COMMENTS (September 29, 2022)	PROPONENT/CONSULTANT RESPONSE (March 27, 2023)
Planning Ecology: General Comments (comment from 1 to 3)		
1.	There are a number of matters that are being addressed through the Block 27 Master Environmental Servicing Plan (MESP) process, including refinements to the Natural Heritage Network (NHN), confirmation of Significant Wildlife Habitat, and additional analysis in support of Special Study Areas. These matters will influence the land use plan and NHN limits within Block 27. Results of the MESP work should be used to inform final recommendations for road alignment and design. The MESP has not yet been submitted for TRCA review and acceptance. Caution should be taken in utilizing results or conclusions from the MESP to inform the EA until such time as the MESP has been reviewed and accepted by TRCA. The Technical Memo notes a NHN through Block 27, however, the materials that have been provided in support of the Block 27 Roads alternatives assessment process do not include the limits of the proposed NHN (with the exception of the Greenbelt). Thus, the overall and cumulative impacts of the road alignments on the NHN cannot be adequately assessed at this time. TRCA Planning Ecology continues to caution the advancement of a preferred road network until such time as broader land use planning matters (e.g., limits of the NHN) are addressed through the MESP. It is recommended that flexibility be incorporated into the EA process to adjust road alignments to respect Natural System (natural hazards, natural heritage features, their buffers and potential restoration areas) limits to the greatest extent feasible. The submission of technical memos in support of the EA process is appreciated, including the recently submitted Natural Environment Existing Conditions report prepared by Beacon. Review and consideration of this Report are included in the proceeding comments with respect to the preferred road alignments, however, a fulsome review will be completed alongside the anticipated complete MESP submission.	All natural environmental fieldwork has been completed to date, including all refinements to the natural heritage network, significant wildlife habitat and special study areas and the results of the MESP work has informed the Block 27 Collector Roads MCEA study. Please note the purpose of Technical Memorandum #1 is to provide a summary of project context in terms of planning background, objectives, process, area, and project team, and a summary of previous studies and reports completed, as part of the NVNCTMP and Block 27 Secondary Plan to confirm existing conditions, the needs and justification for this Study, and road network alternatives. The MESP process has since furthered and completed the documentation of existing natural environmental conditions since the completion of the NVNCTMP and Block 27 Secondary Plan, including correspondence and coordination with TRCA and MECP (formerly MNRF). **All natural environmental data that was collected as part of the MESP since the completion of the NVNCTMP and Block 27 Secondary Plan and the determination of NHN boundaries were utilized in the Block 27 Collector Roads MCEA and evaluation of road alignments** (i.e., not just Technical Memo #1). While the MESP has not yet been submitted to the TRCA, the technical memos provided to TRCA for review on August 25, 2022 are excerpts from the draft MESP submission to provide a fulsome summary of the existing natural environmental conditions to support TRCA's review of the road alignment alternatives. The MESP team in conjunction with the planners of the Block Plan have assessed and identified NHN limits that were considered in the evaluation of alternative road alignments. The NHN will be documented in the MESP. The EA will incorporate some flexibility relating to adjustments that could be made to road alignments through subsequent stages of planning based on the ultimate NHN boundaries.
2.	Please note, that while road alignments are being discussed at this time, matters related to detail design remain outstanding. Road design must consider natural hazard and natural heritage objectives established through the Block 27 Roads EA and the Block 27 MESP. This includes: a. Avoiding and minimizing impacts on natural heritage features and areas through road design. b. Maintaining and enhancing the connectivity of the Natural System through road and crossing design. c. Ensuring that crossings are designed to meet fish and wildlife objectives, including openness ratios established through the MESP process. d. Incorporating fluvial geomorphic recommendations for watercourse crossings. e. Maintaining any required feature-based water balance as established through the MESP. f. Establishing post-construction restoration objectives to address temporary construction related impacts. g. Providing appropriate compensation for Natural System and feature impacts that cannot be avoided.	TRCA's comments have been noted by the Project Team and will be incorporated into the Environmental Study Report as commitments to future work to be further reviewed and incorporated into the design during the subsequent Detailed Design phase. However, as part of the Block 27 Collector Roads MCEA study, the following considerations have been provided: a. Impacts to the natural heritage features and areas have been minimized through the consideration of additional road alignment alternatives and reduction of cross-section widths. This work has been done with full knowledge of natural heritage features and natural hazards present in the block through coordination and inputs from ecological and engineering disciplines. Through the MESP work, the NHN has been refined based on MESP level fieldwork and analyses. b. Openness ratios have been calculated and relevant crossings will be designed to the appropriate openness ratio to accommodate the target species (i.e., amphibians and reptiles, small mammals (e.g., mouse, vole, squirrel) and mid-sized mammals (e.g., fox, raccoon, skunk, coyote). Some larger mammals (i.e., White Tail Deer) can use most of these culverts even though they are not identified as specific targets. c. All relevant crossings will be designed to meet fish and wildlife objectives, including openness ratios (as noted above). d. A fluvial geomorphic assessment was completed as part of the MESP and all recommendations have been incorporated into the water crossings for the Block 27 collector roads. e. With appropriate crossing designs and alignments, the road crossings themselves do not adversely affect wetland water balances. The MESP will address feature-based water balance requirements as part of the block's proposed SWM system.

ITEM	TRCA COMMENTS (September 29, 2022)	PROPONENT/CONSULTANT RESPONSE (March 27, 2023)
		f. Post-construction restoration plans will be developed as part of the subsequent Detailed Design phase. g. Appropriate compensation for unavoidable impacts to the natural system and features will be provided as part of the MESP process, including impacts for the collector roads.
3.	Through the review of the Block 27 Major Road EA Technical Memo (dated March 2022), the evaluation criteria used to assess various road alignments is discussed. Four main criteria were used (transportation, natural environment, socio-economic environment, and cost implementation). Transportation matters are weighted more heavily than the other criteria (as shown in Table 5-2). The rationale for the criteria weighting should be further discussed and outlined. It is recommended that natural environment criteria be weighted equally to transportation objectives in order to provide a fair and holistic evaluation. This adjustment may impact the conclusions found within the alternatives tables and the preferred alignments.	While the North Vaughan New Communities Transportation Master Plan (TMP) utilized a weighted evaluation criteria approach, the Block 27 Collector Roads MCEA weighed all criteria equally. The Block 27 Technical Memo #1 will be updated to provide text to clarify this difference.
The following Planning Ecology comments pertain to the August 29 TAC Presentation, the supporting Technical Memo dated March 2022 and the Alternative Road Alignment tables submitted August 31, 2022.		
4.	With respect to **Street 1, Street 2 and Street 3,** TRCA Planning Ecology has no concerns with the preferred alignment (Alternative 1A, Alternative 2B and Alternative 3B). Note that natural heritage and natural hazard objectives must be considered in design of the crossing - to be addressed during preliminary design stages. Data from the MESP can be used to inform these objectives. a. Note, the alignment of Street 2 is located between woodlots found within the Block. Maintaining and enhancing a functional connection between these woodlots is a critical consideration of road design and the overall Block 27 land use plan. Ecological objectives in this location should be considered during preliminary design. Recognizing grade issues and the need to cross the rail corridor to the east, alternative crossing designs may be required that considers bridges to accommodate grade requirements, wildlife passage and maintain ecological connectivity. With respect to Street 4, TRCA Planning Ecology has no concerns with the preferred alignment (Alternative 4A).	Natural heritage and natural hazard objectives will be considered in the design of the Streets 1, 2 and 3 crossings. The openness ratio (OR) and dimensions of the proposed open bottom culverts will provide passage for the target species or habitat, and structure lengths will be minimized to the extent possible. Additional mitigation measures will be considered as part of the MCEA study to minimize natural environmental impacts, and in correspondence with TRCA and the MESP process. We note the importance of considering ecological objectives for the design of Street 2. This was discussed with the TRCA in a meeting held on July 27, 2022. Grading constraints as a result of the grade separation of Street 2 at the rail corridor and the location of the woodlot at the southeast corner of Street 6 and Street 2, respective to the CNR crossing, limit the ability to provide an ecological connection from north to south. These constraints will be identified in the EA along with the recommendation to review conditions during detailed design to attempt to meet ecological objectives. TRCA's comment regarding Street 4 has been noted by the Project Team.
5.	With respect to **Street 5,** TRCA Planning Ecology provides the following comments with respect to the preferred alignment (Alternative 5A). a. The technical challenges associated with the alignment of Street 5 are acknowledged. The Technical Memo notes that the issues associated with tributary crossings in the area are best addressed by diverting the watercourse. TRCA does not encourage that transportation challenges be resolved by relocating natural heritage features, but rather, solutions should be targeted towards maintaining or improving conditions. Thus, the need for wetland removals as well as channel realignments and modifications should be avoided to the greatest extent feasible by way of road design (reduced cross section width, flexibility in curve radius requirements, use of retaining walls, etc.). Some of these matters can be addressed through preliminary design. b. The Alternatives Table provided in support of Street 5 does not offer an analysis of a Street 5 alignment that avoids the Natural System entirely (i.e., does not connect directly to Cranston Park thus avoiding watercourse, wetland and floodplain issues). It is recommended that this analysis be completed in order to inform the rationale for the preferred alignment. Considering that this area is noted as a special study area, further analysis should be included through the EA process.	The following provides responses to TRCA Planning Ecology comments to Street 5: a) At the July 27, 2022 meeting, the City advised that the connection of Street 5 to Cranston Park Avenue is required from a land-use and transportation planning perspective to support the City and the Region's Municipal wide auto and public transit network. Knowing the environmental conditions north of Teston Road, and objectives to minimize impacts to Drainage Feature 3, flexibility on road alignment design in this location was addressed. This review concluded that there is limited flexibility in modifying the curve radius of the Street 5 alignment that will allow for the design of a proper intersection that meets the City's road design standard at the Street 5 and Teston Road intersection. Based on this information, implications to natural features and natural hazards were assessed, resulting in the proposed conceptual Street 5 design. Per the Project Team's July 13, 2022 response, the Project Team is proposing to extend the existing Teston Road culvert to accommodate this new road. This will require realignment of a portion of Drainage Feature 3 which will avoid requiring two new crossings (as recommended in the NVNCTMP) and will improve the watercourse alignment from both a geomorphic and ecological perspective. The existing channel has been heavily modified (channelized), and realignment of the watercourse will provide opportunities for enhancement in the form of a more natural planform and riparian plantings. The extension to the existing Teston Road culvert was proposed in an effort to minimize the overall length of channel to be enclosed within culverts. Riparian wetland creation is proposed along the realigned channel to enhance the watercourse. Impacts to wetlands will be avoided to the extent

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	c. Through detail design, efforts to avoid and minimize impacts to the Natural System at the southern limits of the alignment will be required (e.g., minimizing channel realignment requirements and wetland impacts). Efforts to demonstrate a net gain in natural heritage feature form and function will also be required through the design phases (e.g., no loss in channel length, no loss in wetland area). d. Hydrogeological conditions will be an important consideration in Street 5 road design. e. While it is acknowledged that a preferred Major Collector Road cross section has been identified, revisions to this cross section may be required in highly sensitive areas such as this. f. Any anticipated Street 5 impacts should be considered alongside any anticipated impacts associated with the proposed stormwater management facilities and associated outfalls in this part of the Block. There may be opportunities to consolidate infrastructure requirements in the NHN, and consider adjacent land uses such as parks and SWM blocks which may be complimentary to the NHN. Thus, integration of the EA process with the MESP process is critical. g. The Technical Memo notes that the preferred alignment for Street 5 would be subject to the completion of an EA. It is not clear if this is in reference to the current Block 27 Roads EA process, or a separate process.	possible and compensation for unavoidable impacts to wetlands will be provided in the wetland compensation plan. At preliminary design, road design considerations including reduced road cross section, appropriate radius design, use of retaining walls, etc., will be addressed to minimize environmental implications where appropriate. b) A reduced cross-section width will be explored, however, a cross-section width reduction will not eliminate the need to realign the watercourse. Please note based on correspondence with York Region Transit, transit vehicles require a minimum 3.5 m lane width to operate, as such, the roadway width cannot be reduced and a reduction to the cross-section will be likely result in the removal of the landscape facility. c) As discussed at our meeting on September 16, 2022, a Street 5 alignment alternative that does not connect directly to Cranston Park Avenue was not developed because providing a continuous road between Blocks was a critical consideration for the City and the Region during the TMP. The City's key considerations for the road are safety, traffic operations, and continuity. From a traffic perspective, not providing a continuous connection from Cranston Park Avenue will create challenges operationally for personal auto and for public transit (buses). The City recognizes the proposed location for Street 5 is not ideal, however, the location of Cranston Park Ave is set and a connection of Street 5 to Cranston Park Avenue is required from a land-use and transportation planning perspective, to support the City and the Region's Municipal wide auto and public transit network. d) Hydrogeological and fluvial geomorphology input and recommendations were incorporated into the Street 5 road design and proposed channel realignment. e) Please see response to comment b) f) The stormwater management (SWM) design of the collector roads has been addressed in the context of the development of the entirety of Block 27 development as part of MESP analyses. Ten (10) SWM facilities are proposed in the development plan and will be sized to meet the quantity, quality and erosion control requirements. Road drainage will be conveyed to these facilities through the storm sewer system. Where drainage from the right-of-way (ROW) cannot be conveyed to SWM ponds, the SWM plan may include oil and grit separator (OGS) and superpipe(s). The design of Street 5 and surrounding areas near Teston Road includes two SWM facilities adjacent to the NHN. Road drainage at this location (close to Teston Road) will be directed to the online super pipe and the quantity control will be provided by the superpipe and the quality control will be provided by OGS. g) To clarify, the current Block 27 EA process will determine the preferred Street 5 alignment.

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6.	With respect to the northerly alignment of **Street 6,** TRCA Planning Ecology provides the following comments with respect to the preferred alignment (Alternative 6A). a. TRCA staff maintain that, with respect to Street 6, any alignment that fragments the woodland will have a significant impact on the feature's form and function. The preferred alignment not only cuts directly through the largest Significant Woodland patch within Block 27, but it also fragments connectivity between this woodland and the smaller woodland to the south-east. Block 27 does not contain large patches of woodland, and thus efforts to protect and enhance what exists should be a priority. TRCA staff continue to advocate for a Street 6 alignment that avoids woodland impacts and supports a more connected natural heritage network. b. The rationale to support the Street 6 alignment through the woodland is not clear in the Technical Memo. The Memo offers an analysis of Street 6 with and without a connection to Kirby Rd through the woodland. The Memo states that "there do not appear to be any significant differences with respect to the traffic capacity internal to the block", however notes that without Street 6, traffic capacity at Street 5 is 'approaching capacity' and a larger, 4-lane cross section may be required. This implies that Street 5 is not at capacity, nor is it exceeding capacity, with the Street 6 connection being removed. Additionally, it is the understanding of TRCA that a 4-lane cross section is proposed for Major Collectors, as presented in alternative MA3 in the presentation. Further to this, it is not clear if this assessment considers the proposed Street 8 alignment which would direct traffic, east of Street 6, to Kirby Road thus offering additional relief from Street 5. c. The Alternatives Table provided in support of Street 6 does not offer an analysis of a Street 6 alignment that terminates prior to the woodlot, thus avoiding feature impacts entirely. It is recommended that this analysis be completed in order to inform the rationale for the preferred alignment. Considering that this area is noted as a special study area, further analysis should be included through the EA process. To this end, analysis and consideration of terminating Street 6 at Street 2 should be made. For instance, explore the feasibility of Street 6 (minor collector) terminating at Street 2 (major collector) and associated north-south traffic being directed to Street 5 (major collector) and Street 8 (major collector) – thus offering 2 options for traffic to continue north to Kirby Road. This approach appears to be consistent with the road layout within the existing Block immediately south of Block 27. Alternatively, the need for a larger cross section at Street 5 or Street 8 could be explored to accommodate traffic through the Block. Additional transportation objectives related to active transportation may be addressed through a multi-use path through the woodland, coincident with any proposed trail network, connecting pedestrians and cyclists to the transportation hub proposed at Kirby Road and Keele Street. This would significantly reduce impacts to the woodland while supporting active / alternative modes of transportation through the Block. d. With respect to the Alternative Table for Street 6, TRCA notes the following: • The analysis states no direct impacts to fish and fish habitat – however, Street 6 would cross HDF 3-2 which has been documented to provide fish habitat in the MESP Exiting Conditions report. Please correct this in the analysis. • The level of opportunity to mitigate / minimize impacts is negligible when considered in relation to the extent of woodland removal and fragmentation proposed, and thus TRCA Planning Ecology does not agree with the assessment in these subcategories (impacts to vegetation, wildlife and wildlife habitat; impacts to natural heritage features and environmentally sensitive areas).	a) TRCA's position has been noted by the Project Team b) Traffic projections indicate that approximately 300 vehicles are expected to travel along the Street 6 connection during the AM peak hour. Without the Street 6 connection, higher traffic pressure will be placed on the adjacent roadways (i.e., Street 5). Additional traffic modelling is being undertaken to determine modifications to the road network that would be required in the event that Street 6 is not constructed through the woodlot. c) Please see response to comment b) d) Fish and Fish Habitat: TRCA's comment regarding Fish Habitat has been noted by the Project Team. DF3-2 is considered to provide Fish Habitat based on Natural Resource Solutions Inc. (NRSI) electrofishing data from May 2016 as part of the City of Vaughan's "North Vaughan and New Communities Transportation Master Plan". Potential negative effects on fish habitat through crossing of DF3-2 will be considered and the evaluation of Alternative 6A and Alternative 6B will be updated. Appropriate open-bottom culvert will maintain flow and sediment transport and mitigate potential impacts on fish habitat. Mitigation: The Project Team agrees that while removal of woodland ecosystems resulting from proposed Street 6 could be replicated through reforestation measures, fragmentation effects cannot be entirely mitigated. This has been taken into account in the assessment of the Vegetation, Wildlife, and Wildlife Habitat subcategory. Rare Species/SCC/SAR: Special Concern Eastern Wood Pewee which has been recorded in different woodlands of the subject property is not considered a Species of Conservation Concern. The presence of this species has been considered in the assessment of the Impacts to Wildlife and Wildlife habitat and Impacts to Significant Wildlife Habitat subcategories. Snag surveys and acoustic monitoring surveys conducted in June 2021 within portions of woodland which could be negatively affected by the proposed collector road network confirmed the absence of any regulated species of bat. Based on the number and timing of recorded calls, other bat species including Big Brown Bat, Silver Haired Bat, Eastern Red Bat and Hoary Bat likely use these forested communities as maternity roosting habitat. These findings have been taken into account in the assessment of the Impacts to Significant Wildlife Habitat subcategory. e) Compensation is currently under review by the development team and will be finalized as apart of the ongoing MESP for Block 27. f) The Block 27 Collector Roads MCEA Project Team and Block 27 Development Team are working closely together to ensure the MCEA study and Block 27 block plan are coordinated. As noted above, compensation is currently under review by the development team and will be finalized as part of the ongoing MESP for the Block.

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	• TRCA does not agree with the assessments within the rare species, species of conservation concern and species at risk subcategory as it implies that no impact / minimal impacts will result. Eastern Wood Pewee has been recorded in the woodland. The presences of endangered bat species or their habitat has not yet been confirmed through consultation with MECP. e. TRCA notes that any preferred alignment that results in woodland removals should be subject to TRCA's compensation policies as impacts are avoidable through alternative road network design. Thus, compensation for lost ecosystem form and function would be required, along with compensation for the lost land-base to the natural heritage network. f. With respect to the southerly alignment of Street 6, TRCA Planning Ecology notes that this alignment should be considered in the context of the Block 27 land use plan and ongoing MESP study. The proposed removal and compensation of wetlands in this area are subject to ongoing discussion through the MESP process. Thus, integration of the EA process with the MESP process is critical.	
7.	With respect to **Street 7**, TRCA Planning Ecology has no concerns with the preferred alignment (Alternative 7B). However, consideration should be made to any required changes to the alignment of Street 7 should the alignment of Street 6 change.	TRCA's comments have been noted by the Project Team.
8.	With respect to the preferred alignment for **Street 8** (Alternative 8D), TRCA Planning Ecology notes: a) Any Street 8 alignment must have regard for Metrolinx station needs. Opportunities to accommodate Metrolinx requirements, without resulting in additional impacts to the NHN should be a critical consideration in road alignment and land use planning in this section of the Block (i.e., proposed road alignment should not drive Metrolinx needs towards natural heritage features). Please ensure that consultation with Metrolinx is undertaken at this stage in the EA to ensure that any preferred alignment has regard for Metrolinx requirements and demonstrates that feature impacts will be avoided. b) Note that natural heritage and natural hazard objectives must be considered in design of the crossing to be addressed during preliminary design stages. Data from the MESP can be used to inform these objectives.	a) The Street 8 alignment does not preclude the development of the Kirby GO Station. The Project Team has reviewed the latest draft Kirby GO Station preferred design presented at the April 30, 2018 public meeting and the Street 8 alignment does not preclude the development of the Kirby GO Station. However, it is important to note that the station design is draft and Metrolinx notes that work on the station design is still underway and will be subject to further adjustments and refinements as the station design advances and the Transit Hub Special Study has not yet been initiated. Wording will be provided in the Block 27 Collector Roads MCEA ESR to allow for minor modifications to the Street 8 alignment to better accommodate / avoid environmental impacts once the design of the Kirby GO Station is underway / finalized. b) Natural environmental impacts were considered in the design of the road alignments alternatives and included as part of the evaluation of alternatives process. As part of the road alignment alternative development for Street 8, alternatives that included the removal of a road connection from Street 8 to Peak Point Blvd. which was recommended in the NVNCTMP and Block 27 Secondary Plan was developed in recognition of the environmental sensitivities (e.g., wetlands, watercourse, etc.) within the vicinity of the proposed road and following traffic analysis that demonstrated that the road connection can be removed from a traffic network perspective.
9.	With respect to the Cross Section Alternatives & Evaluation within the presentation, TRCA Planning Ecology notes that in sensitive areas / crossings of the NHN, further reduction to cross sections may be required by way of removing or reducing the width of buffers and landscape areas, and / or combining active transportation facilities. These matters can be addressed through preliminary design, however, flexibility in the EA recommended cross section widths should be provided for and noted through the EA process.	A reduced cross-section has been developed for Street 6 through the significant woodlot from a 24 m to 16.9 m (i.e., 7.1 m reduction) to minimize natural environmental impacts. Additional cross-section reductions may be explored and wording in the Environmental Study Report will provide flexibility to allow for modifications to the cross-sections (e.g., reduce widths) within environmentally sensitive areas to minimize environmental impacts in the next design phase.

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10.	**Comments on August 27, 2022 meeting minutes:** Please revise section 7.0 by removing 'TRCA recognizes the existence of Street 6 is not for discussion' and replace with 'TRCA recognizes that the need for Street 6 has been identified in the TMP however its alignment and opportunities to mitigate impacts should continue to be explored'.	Wording has been updated in the August 27, 2022 meeting notes, as requested. See attached revised meeting notes.
Water Resources Comments: The following comments are on the current submission. Please note Water Resources comments of May 2022 has not been addressed and are still valid.		
11.	**Comment on Technical Memo by LEA** It is noted on page 38 of the memo that "no regional flood controls be required for developments within the City portion of the Block 27 or remaining 'white belt' areas in the Upper West Don Subwatershed, however, this will be reviewed as a part of the development process". Through the latest work on the Block 27 MESP it has been determined that regional controls are required for the development within Block 27. Further, page 39 states that "24-hour drawdown time is to be aplite to future ponds; and 5 mm of on-site retention is to be applied to any future development area." It should also be noted that through the Block 27 MESP the erosion criteria for the site is being determined through an erosion assessment and may not result in the targets listed above. TRCA recommends that the technical memo be updated to be clear that the targets and statements listed may not be valid and will be clarified through further studies/assessments.	Responses to TRCA Water Resources' May 2022 comments were provided in response letter sent to TRCA on July 15, 2022. The Block 27 Project Team would be pleased to meet with TRCA Water Resources to further discuss any of the comments and/or responses, if required. TRCA's comments on the Technical Memo have been noted. Through the downstream assessment carried out in the Block 27 MESP, regional control for Block 27 ponds is identified and suggested. Therefore, all SWM ponds within Block 27 are sized for regional control. These ponds provide regional control for all collector roads that are subject to the Block 27 MCEA. Further, through the erosion assessment carried out in the Block 27 MESP, new erosion targets are established which are more stringent than 25mm extended detention for 48 hours (for instance 30mm detention for 48 hours). The SWM ponds are designed to meet these requirements. Please refer to MESP for the detailed erosion assessment analysis. Wording in Technical Memo #1 will be amended accordingly.
Water Resources Comments – Comment 12, 13, and 14 are on Road Alignment Alternatives:		
12.	It does not appear that fluvial geomorphic recommendations have been accounted for when determining preferred road alignments. TRCA recommends that fluvial geomorphic input be considered prior to determining the preferred alignment.	A fluvial geomorphology assessment was completed as part of the MESP process and recommendations from the fluvial assessment have been incorporated into the Block 27 Collector Roads MCEA study, including but not limited to: • Where feasible, minimize the number of watercourse crossings (Street 5); • To the extent feasible, optimize road alignment and structure skew to avoid the need for channel realignment; • Incorporation of a low flow channel within proposed road crossing structures; and • Incorporation of geomorphic span recommendations (100-year erosion limit span) into road crossing structure design.
13.	It is noted that for most of the road alignment options the quantity and quality control of runoff will be provided in the SWM ponds. Please confirm if the feasibility of directing runoff from the roads to the proposed ponds has been explored. TRCA would like reassurance that the proposed road network and SWM pond locations will be coordinated to ensure the road drainage can properly treated in the ponds and do not end up with a situation of road runoff being treated by just an OGS unit due to grading constraints. Further, please note that erosion control and water balance requirements are to be provided for road drainage as these have not been mentioned.	As noted in the Project Team's July 15, 2022 response letter, stormwater management (SWM) design is being coordinated between the Block 27 development and collector roads and the SWM design that has been incorporated into the development plan includes consideration for proposed road network. Ten (10) SWM facilities are proposed in the development plan and will be sized to meet the quantity, quality and erosion control requirements. Only where drainage from the right-of-way (ROW) cannot be conveyed to SWM ponds, the SWM plan may include oil and grit separator (OGS) and superpipe(s). The water balance will be met on a site wide basis and the feature-based water budget will be met by directing clean water from the developments to the wetlands. All erosion and sediment, and water quality and quantity controls will be designed to meet all regulatory requirements. The Project Team would be pleased to arrange a technical meeting with TRCA Water Resources for further discussion, if required.

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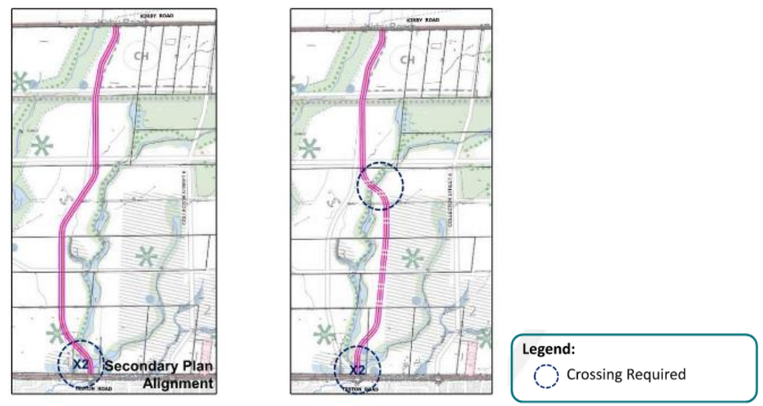
14.	For Street 5 alternative 5A was given a higher score in the Surface Water and Drainage category as it notes it 'avoids flood plain crossings'. Consideration needs to be given however to the fact that alternative 5A requires a channel realignment which could be more detrimental to the natural system than a crossing over it. Please re-examine the scoring for Street 5 alternatives.	The comment that Alternative 5A avoids a flood plain crossing refers to the additional crossing on the northern segment of Street 5 that would be required with Alternative 5B (see figure below). Please note a channel realignment will be required for both Alternatives 5A and 5B at the Street 5 and Teston Road intersection. Alternative 5A Alternative 5B 
15.	**Major and Minor Collector Road Cross-section Alternatives** As was noted by TRCA in May 2022, alternative road cross-sections have been provided TRCA is disappointed to see they do not contain any ROW LID measures. Please consider what LIDs may be used to treat road drainage and ensure there is adequate space provided.	Alternatives to provide additional LIDs for areas that cannot drain to the proposed SWM ponds due to grading constraints will be reviewed at the MESP stage. However, the LID options will have to be discussed with the City who will ultimately be responsible for the operation and maintenance of these facilities. In case the City does not accept these facilities, additional measures such as oversizing the OGS will be reviewed. The potential of implementing LID measures within the ROW will be discussed with the City since the City is ultimately responsible to take over the operation and maintenance of these facilities. While LID measures are not being implemented specifically within the right-of-way (ROW), road run-off will be redirected and treated within stormwater management facilities being developed as part of the overall Block 27 development where possible. With the implementation of LID measures on the Block 27 lands to maintain recharge volumes, no impact to the quantity of groundwater drinking supplies is anticipated, and with the use of Best Management Practices for the application of road salt, no impacts to the quality of groundwater drinking supplies related to the collector roads is anticipated. Please note a 2.5 m wide landscape facility is being provided on both major and minor collector roads with the exception of roads with reduced ROW widths within natural environmentally sensitive areas.
Hydrogeology Comments:		
16.	TRCA hydrogeology recommends that if an underpass (option 4B) on Street 4 is pursued that a feasibility assessment of the hydrostratigraphic context is undertaken as early as possible in the planning process.	The Project Team requests clarification on the structure that is being referred to. No structures are required as part of the Street 4.
Geotechnical Comments:		
17.	The following comments can be addressed at detailed design stage a. A detailed geotechnical study is required to assess the ground condition along the alignments and to provide geotechnical design recommendations for the various components of the proposed project; b. In areas that are in close proximity to valley slopes, a slope stability and erosion hazard assessment will have to be conducted to ensure the proposed structures are not undermined long-term by erosion. A slope	Comments have been noted by the Project Team and will be included as commitments to future works in the Environmental Study Report.

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	assessment is also required to ensure the development does not destabilize the valley slopes. The long-term stable top of slope, associated with a minimum safety factor of 1.50, needs to be delineated as setback requirements from the LTSTOS and/or top of bank will need to be complied with. c. In areas where slope stabilization is required, the slope stabilization work should be designed by a geotechnical engineer to ensure that a minimum safety factor of 1.50 is met; d. All structures such as retaining walls, abutments, wing walls, culverts etc. should be designed by a qualified engineer. The global stability should be also checked for the walls to confirm that a minimum safety factor of 1.50 is met; e. Cross-sections along the alignments in adequate intervals and at critical locations should be provided. The cross-sections should clearly illustrate the proposed grades with respect to the existing grades. The cross-sections should capture entire slope/bank features. Grading information should also be shown on the site plan along the alignments; f. The proposed embankments and cuts should designed by a geotechnical engineer. A slope stability assessment of the embankments and proposed side slopes of the cuts is required to ensure that a minimum safety factor of 1.50 is achieved; g. Engineering drawings of all of the proposed structures such as retaining walls, abutments and wing walls, culverts, stabilization works, embankments and cuts should be prepared by a qualified engineer. All engineering drawings should be signed and sealed by a licensed Professional Engineer; h. For areas that are in close proximity to steep slopes and valleys, the construction methodology and sequencing should be presented to ensure that the surrounding area/slope is not adversely impacted during the construction; i. Where the work requires the construction access onto the steep slopes and valleys, the cross-sections and profile should be submitted. A slope stability assessment is required to assess the cross-sections (cuts and fills) and to confirm that the slope stability is met. The slope stability analyses should also account for the heavy machinery/equipment loads and vibrations; j. If the construction results in alterations and disturbance to the slopes and valleys, the stabilization work required should be reviewed by a geotechnical engineer. Depending on the slope geometry and the extent of the alterations, the stabilization may require to be engineered (e.g. engineering structures) to ensure that the stabilization remains stable in long-term with a minimum safety factor of 1.50. Furthermore, all necessary engineering details and cross-sections should be prepared by a geotechnical engineer and submitted. The documents should be signed and sealed by licensed Professional Engineer; k. If trenchless installation of the infrastructure below the watercourse is proposed, a geotechnical study should be conducted to assess soil conditions. The trenchless installation work should be designed by a consultant or contractor using the geotechnical information and recommendations in the geotechnical report. The minimum acceptable cover from the bottom of the watercourse should be determined as per the design. The cross-sections and site plan showing the alignment and entry and exit pits/shafts and the cover from the bottom of the watercourse should be submitted. The design should also ensure that the proposed trenchless installation does not cause the inadvertent loss of drilling fluid (frac-out) or excess settlement on the ground along the alignment. Further, the shafts or pits required for the proposed trenchless installation should be properly stabilized by the means of shoring or other techniques. The details of such stabilization should be also prepared by a qualified engineer. The documents should be signed and sealed be licensed Professional Engineer	
TRCA Restoration and Infrastructure (Trail):		
18.	Staff reviewed the submission and provided following from trails and connectivity perspective:	Please note the trails system within Block 27 is being developed as part of the Block 27 development process and not the Block 27 Collector Road MCEA study. While consideration has been provided to enhance connectivity of the collector roads with the trail systems within Block 27, the overall development of the trail system is being undertaken

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	• The TRCA Trail Strategy (2019) outlines TRCA's plan to work with partners to complete, expand, manage, and celebrate a connected trail network in our regional greenspace system. It serves as a framework to protect potential trail alignments, and to guide the planning, development, and management of trails. • The TRCA Trail Strategy is a high-level masterplan that serves as a reference for TRCA and municipal partners to identify conceptual opportunities to connect gaps in existing regional-level trails. Conceptual alignments shown in the TRCA Trail Strategy are subject to factors including, but not limited to, feasibility, constructability, technical study, planning evaluation, permitting and approvals. • Schedule D: Block 27 Multi-Modal Transportation Network identifies and includes multi-use recreational paths in the proposed Block 27 network. • It appears that some of the proposed multi-use recreational paths follow the same conceptual alignments proposed in the TRCA Trail Strategy and Vaughan Super Trail. These conceptual alignments are supported in principle, but are subject to further study to evaluate feasibility: o West Don Trail (north-south conceptual alignment) o Pipeline Trail (east-west conceptual alignment) • Additionally, Schedule D: Block 27 Multi-Modal Transportation Network identifies proposed separated multi-use recreational paths in the proposed road network ROW to connect to North Maple Regional Park (NMRP); separated active transportation connections to greenspace within the road network is supported in principle.	as part of the Block 27 development process. TRCA's comments on Restoration and Infrastructure (Trail) have been forwarded to the Block 27 Development project team for review and response, as required.

Record of Meeting
20009.03

PROJECT:	Block 27 Collector Roads, Municipal Class Environmental Assessment (MCEA) Study	**DATE:**	May 11, 2023
LOCATION:	Virtual - Microsoft Team	**TIME:**	10:30AM - 12:00PM

IN ATTENDANCE

NAME	REPRESENTING	NAME	REPRESENTING
Abdul Djirdeh (AD)	TRCA	Jean-Christophe De Massiac (JD)	Beacon Environmental
Alison MacLennan (AM)	TRCA	Katherine McCarter (KM)	TRCA
Andrew Haagsma (AH)	City of Vaughan	Koryun Shahbikian (KS)	Schaeffers
Andrew Lam (AL)	Delta Urban Inc.	Manirul Islam (MI)	TRCA
Cameron Balfour (CB)	City of Vaughan	Mustafa Ghassan (MG)	Delta Urban Inc.
Chris Sidlar (CS)	LEA	Pat Becker (PB)	P. Becker Consulting
Christy Leung (CL)	LEA	Paul Grove (PG)	City of Vaughan
Don Ford (DF)	TRCA	Pirooz Davoodnia (PD)	City of Vaughan
Harsimrat Pruthi (HP)	TRCA	Stephen Bohan (SBo)	TRCA
Jackie Shaw (JS)	R.J. Burnside	Suzanne Bevan (SBe)	TRCA

MEETING TITLE Block 27 EA - TRCA Technical Submission #2

ITEM	TOPIC	ACTION BY
1.0	**Meeting Opening**	
	▶ Block 27 Project Team understands that at the time of this meeting, TRCA was in the process of reviewing the Block 27 EA - Technical Submission #2 comments and responses ▶ MI notes that a majority of the comment responses provided by the Block 27 Project Team are satisfactory, subject to final review and formal response	
2.0	**Bill 23**	
	▶ CS inquired about how TRCA is responding with Bill 23 ○ KM notes that TRCA's position is to work through a case-by-case basis to navigate natural heritage comments. Given that Block 27 was initiated prior to the change in policies, TRCA is open to helping the municipality move the process along	

- SBe adds that TRCA wants to ensure that anything impacted by the new regulation and its changes, is not lost

3.0 Ecological Comments (Street 6 Discussion)

- TRCA Comment 6 - Fragmentation of the woodland will have significant impact
  - KM noted that the topic is not something TRCA is actively commenting on in the future, but is happy to help guide the Project Team
  - KM noted that from a natural heritage perspective, the alignment through the woodlot is not ideal and would like to find an alignment that is the least ecologically impactful
  - KM asks if there are abilities to shift the road alignment once there are finer details
  - CS responds Yes. However, there are concerns:
    - Limited flexibility in road geometry - maintaining the intersection location along Kirby Road is necessary due to intersection spacing requirements and limitations with the grade separation to the east
    - JC adds that the preferred alignment was evaluated against other alternatives - from an ecological perspective, this alignment was the least impactful as it avoids more of the natural woodlot. More information will be provided in the MESP
    - CS adds that through the EA, wording will be included that refinements will be made where necessary and shifts in the road network would not trigger an addendum
    - CS notes that while there are limitations, the Project Team is still considering the ability to remove the Street 6 connection. However, there are additional challenges with landownership and the need for a N-S connection

4.0 Street 5 Discussion

- CS noted that the Project Team provided more fulsome responses to Street 5 connection to Cranston Park
  - KM acknowledged the responses and requests that meander belt and fluvial G components are considered during future detailed design

5.0 Street 2 Discussion

- TRCA Comment 4 - Maintain and enhance a functional connection between the 2 woodlots

- KM notes that there is potential for Street 2 to jog below the woodlot in order to avoid impact to the connection between the 2 woodlots. It would be an easy connection in terms of compensation or gain
- CS responds that as part of the NVNCTMP, options for Street 2 further south were explored. However, the location of the railway and where it intersects with Keele Street reduces the distance to have a viable grade-separation
- CS adds that Street 2 is also the only full east-west street

6.0 Water Resources

- AM notes that some additional details on fluvial G were added to the Technical Memo
  - CS confirms that additional details were added into the Technical Memo and noted that it's for the existing conditions. Impacts will be captured in the MESP for the road design
- AM expressed concerns that there are no LIDs and some portion of Street 5 cannot reach a SWM pond - Requests that erosion control is addressed
- KS adds that LID metrics will be better discussed through the MESP

7.0 Other Comments

- Project Team clarified that the NVNCTMP used a weighted approach for the evaluation. The EA does not. Table 5-2 in Technical Memo summarizes the approach that was used in the NVNCTMP.
- MI inquired about MESP timeline. Hoping to see info (i.e., natural heritage) in order to confirm alignments. MI also expressed that most of the responses are satisfactory but there are potential comments through the MESP review
  - CS responds that the MESP is separate from the EA. There is a desire to complete the EA side relatively quickly
- CS notes that there will be one ESR for the entire Block

8.0 Next Steps

- TRCA to send written comments to Block 27 Project Team by week of May 15 (if possible) — TRCA

The foregoing is considered to be a true and accurate record of all discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

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Circulation All attendees + Project Team

APPENDIX B: TRCA COMMENTS AND PROPONENT RESPONSES

ITEM	TRCA COMMENTS (September 29, 2022)	PROPONENT/CONSULTANT RESPONSE (March 27, 2023)	TRCA COMMENTS (May 29, 2023)	PROPONENT/CONSULTANT RESPONSE (July 20, 2023)
Natural System Boundaries				
1.	There are a number of matters that are being addressed through the Block 27 Master Environmental Servicing Plan (MESP) process, including refinements to the Natural Heritage Network (NHN), confirmation of Significant Wildlife Habitat, and additional analysis in support of Special Study Areas. These matters will influence the land use plan and NHN limits within Block 27. Results of the MESP work should be used to inform final recommendations for road alignment and design. The MESP has not yet been submitted for TRCA review and acceptance. Caution should be taken in utilizing results or conclusions from the MESP to inform the EA until such time as the MESP has been reviewed and accepted by TRCA. The Technical Memo notes a NHN through Block 27, however, the materials that have been provided in support of the Block 27 Roads alternatives assessment process do not include the limits of the proposed NHN (with the exception of the Greenbelt). Thus, the overall and cumulative impacts of the road alignments on the NHN cannot be adequately assessed at this time. TRCA Planning Ecology continues to caution the advancement of a preferred road network until such time as broader land use planning matters (e.g., limits of the NHN) are addressed through the MESP. It is recommended that flexibility be incorporated into the EA process to adjust road alignments to respect Natural System (natural hazards, natural heritage features, their buffers and potential restoration areas) limits to the greatest extent feasible. The submission of technical memos in support of the EA process is appreciated, including the recently submitted Natural Environment Existing Conditions report prepared by Beacon. Review and consideration of this Report are included in the proceeding comments with respect to the preferred road alignments, however, a fulsome review will be completed alongside the anticipated complete MESP submission.	All natural environmental fieldwork has been completed to date, including all refinements to the natural heritage network, significant wildlife habitat and special study areas and the results of the MESP work has informed the Block 27 Collector Roads MCEA study. Please note the purpose of Technical Memorandum #1 is to provide a summary of project context in terms of planning background, objectives, process, area, and project team, and a summary of previous studies and reports completed, as part of the NVNCTMP and Block 27 Secondary Plan to confirm existing conditions, the needs and justification for this Study, and road network alternatives. The MESP process has since furthered and completed the documentation of existing natural environmental conditions since the completion of the NVNCTMP and Block 27 Secondary Plan, including correspondence and coordination with TRCA and MECP (formerly MNRF). All natural environmental data that was collected as part of the MESP since the completion of the NVNCTMP and Block 27 Secondary Plan and the determination of NHN boundaries were utilized in the Block 27 Collector Roads MCEA and evaluation of road alignments (i.e., not just Technical Memo #1). While the MESP has not yet been submitted to the TRCA, the technical memos provided to TRCA for review on August 25, 2022 are excerpts from the draft MESP submission to provide a fulsome summary of the existing natural environmental conditions to support TRCA's review of the road alignment alternatives. The MESP team in conjunction with the planners of the Block Plan have assessed and identified NHN limits that were considered in the evaluation of alternative road alignments. The NHN will be documented in the MESP. The EA will incorporate some flexibility relating to adjustments that could be made to road alignments through subsequent stages of planning based on the ultimate NHN boundaries.	TRCA understands that there may be flexibility in the road alignments proposed in the EA further to the outcome of the MESP. TRCA will review and provide further comment on the road network once additional information is provided.	Acknowledged.
Natural System Impacts				

2.	Please note, that while road alignments are being discussed at this time, matters related to detail design remain outstanding. Road design must consider natural hazard and natural heritage objectives established through the Block 27 Roads EA and the Block 27 MESP. This includes: a. Avoiding and minimizing impacts on natural heritage features and areas through road design. b. Maintaining and enhancing the connectivity of the Natural System through road and crossing design. c. Ensuring that crossings are designed to meet fish and wildlife objectives, including openness ratios established through the MESP process. d. Incorporating fluvial geomorphic recommendations for watercourse crossings. e. Maintaining any required feature-based water balance as established through the MESP. f. Establishing post-construction restoration objectives to address temporary construction related impacts. g. Providing appropriate compensation for Natural System and feature impacts that cannot be avoided.	TRCA's comments have been noted by the Project Team and will be incorporated into the Environmental Study Report as commitments to future work to be further reviewed and incorporated into the design during the subsequent Detailed Design phase. However, as part of the Block 27 Collector Roads MCEA study, the following considerations have been provided: a) Impacts to the natural heritage features and areas have been minimized through the consideration of additional road alignment alternatives and reduction of cross-section widths. This work has been done with full knowledge of natural heritage features and natural hazards present in the block through coordination and inputs from ecological and engineering disciplines. Through the MESP work, the NHN has been refined based on MESP level fieldwork and analyses. b) Openness ratios have been calculated and relevant crossings will be designed to the appropriate openness ratio to accommodate the target species (i.e., amphibians and reptiles, small mammals (e.g., mouse, vole, squirrel) and mid-sized mammals (e.g., fox, raccoon, skunk, coyote). Some larger mammals (i.e., White Tail Deer) can use most of these culverts even though they are not identified as specific targets. c) All relevant crossings will be designed to meet fish and wildlife objectives, including openness ratios (as noted above). d) A fluvial geomorphic assessment was completed as part of the MESP and all recommendations have been incorporated into the water crossings for the Block 27 collector roads. e) With appropriate crossing designs and alignments, the road crossings themselves do not adversely affect wetland water balances. The MESP will address feature-based water balance requirements as part of the block's proposed SWM system. f) Post-construction restoration plans will be developed as part of the subsequent Detailed Design phase. g) Appropriate compensation for unavoidable impacts to the natural system and features will be provided as part of the MESP process, including parts for the collector roads.	a. Addressed b. Addressed c. Please provide the road crossings as they relate to the finalized MESP for TRCA review. d. TRCA will review incorporation of fluvial geomorphic recommendations for watercourse crossings. e. Addressed. f. Please provide the post construction restoration plans for TRCA review, when available. g. Any compensation related to the roads should be carried forward from the MESP and included in the MCEA if timing permits.	a. - b. - c. Road crossing designs will be provided to TRCA for review as part of the MESP. d. Acknowledged. e. - f. Post construction restoration plans will be provided to TRCA for review as part of the MESP. g. TRCA's comment on compensation is noted by the project team. Appropriate compensation for the overall block plan will be provided as part of the MESP process, including the collector roads.

Natural System Evaluation Criteria				
3.	Through the review of the Block 27 Major Road EA Technical Memo (dated March 2022), the evaluation criteria used to assess various road alignments is discussed. Four main criteria were used (transportation, natural environment, socio-economic environment, and cost implementation). Transportation matters are weighted more heavily than the other criteria (as shown in Table 5-2). The rationale for the criteria weighing should be further discussed and outlined. It is recommended that natural environment criteria be weighted equally to transportation objectives in order to provide a fair and holistic evaluation. This adjustment may impact the conclusions found within the alternatives tables and preferred alignments.	While the North Vaughan New Communities Transportation Master Plan (TMP) utilized a weighted evaluation criteria approach, the Block 27 Collector Roads MCEA weighed all criteria equally. The Block 27 Technical Memo #1 will be updated to provide text to clarify this difference.	Addressed.	-
Street 1, Street 2 and Street 3 - Alignments and Design				
4.	With respect to **Street 1, Street 2 and Street 3,** TRCA Planning Ecology has no concerns with the preferred alignment (Alternative 1A, Alternative 2B and Alternative 3B). Note that natural heritage and natural hazard objectives must be considered in design of the crossing - to be addressed during preliminary design stages. Data from the MESP can be used to inform these objectives. a. Note, the alignment of Street 2 is located between woodlots found within the Block. Maintaining and enhancing a functional connection between these woodlots is a critical consideration of road design and the overall Block 27 land use plan. Ecological objectives in this location should be considered during preliminary design. Recognizing grade issues and the need to cross the rail corridor to the east, alternative crossing designs may be required that considers bridges to accommodate grade requirements, wildlife passage and maintain ecological connectivity. With respect to Street 4, TRCA Planning Ecology has no concerns with the preferred alignment (Alternative 4A).	Natural heritage and natural hazard objectives will be considered in the design of the Streets 1, 2 and 3 crossings. The openness ratio (OR) and dimensions of the proposed open bottom culverts will provide passage for the target species or habitat, and structure lengths will be minimized to the extent possible. Additional mitigation measures will be considered as part of the MCEA study to minimize natural environmental impacts, and in correspondence with TRCA and the MESP process. We note the importance of considering ecological objectives for the design of Street 2. This was discussed with the TRCA in a meeting held on July 27, 2022. Grading constraints as a result of the grade separation of Street 2 at the rail corridor and the location of the woodlot at the southeast corner of Street 6 and Street 2, respective to the CNR crossing, limit the ability to provide an ecological connection from north to south. These constraints will be identified in the EA along with the recommendation to review conditions during detailed design to attempt to meet ecological objectives. TRCA's comment regarding Street 4 has been noted by the Project Team.	Addressed. It was noted in the meeting on May 11, 2023 that the geometry of rail line in this area impacts the road location.	-
Street 5 - Alignment and Design				

5.	With respect to **Street 5,** TRCA Planning Ecology provides the following comments with respect to the preferred alignment (Alternative 5A). a. The technical challenges associated with the alignment of Street 5 are acknowledged. The Technical Memo notes that the issues associated with tributary crossings in the area are best addressed by diverting the watercourse. TRCA does not encourage that transportation challenges be resolved by relocating natural heritage features, but rather, solutions should be targeted towards maintaining or improving conditions. Thus, the need for wetland removals as well as channel realignments and modifications should be avoided to the greatest extent feasible by way of road design (reduced cross section width, flexibility in curve radius requirements, use of retaining walls, etc.). Some of these matters can be addressed through preliminary design. b. The Alternatives Table provided in support of Street 5 does not offer an analysis of a Street 5 alignment that avoids the Natural System entirely (i.e., does not connect directly to Cranston Park thus avoiding watercourse, wetland and floodplain issues). It is recommended that this analysis be completed in order to inform the rationale for the preferred alignment. Considering that this area is noted as a special study area, further analysis should be included through the EA process. c. Through detail design, efforts to avoid and minimize impacts to the Natural System at the southern limits of the alignment will be required (e.g., minimizing channel realignment requirements and wetland impacts). Efforts to demonstrate a net gain in natural heritage feature form and function will also be required through the design phases (e.g., no loss in channel length, no loss in wetland area). d. Hydrogeological conditions will be an important consideration in Street 5 road design. e. While it is acknowledged that a preferred Major Collector Road cross section has been identified, revisions to this cross section may be required in highly sensitive areas such as this.	The following provides responses to TRCA Planning Ecology comments to Street 5: a. At the July 27, 2022 meeting, the City advised that the connection of Street 5 to Cranston Park Avenue is required from a land-use and transportation planning perspective to support the City and the Region's Municipal wide auto and public transit network. Knowing the environmental conditions north of Teston Road, and objectives to minimize impacts to Drainage Feature 3, flexibility on road alignment design in this location was addressed. This review concluded that there is limited flexibility in modifying the curve radius of the Street 5 alignment that will allow for the design of a proper intersection that meets the City's road design standard at the Street 5 and Teston Road intersection. Based on this information, implications to natural features and natural hazards were assessed, resulting in the proposed conceptual Street 5 design. Per the Project Team's July 13, 2022 response, the Project Team is proposing to extend the existing Teston Road culvert to accommodate this new road. This will require realignment of a portion of Drainage Feature 3 which will avoid requiring two new crossings (as recommended in the NVNCTMP) and will improve the watercourse alignment from both a geomorphic and ecological perspective. The existing channel has been heavily modified (channelized), and realignment of the watercourse will provide opportunities for enhancement in the form of a more natural planform and riparian plantings. The extension to the existing Teston Road culvert was proposed in an effort to minimize the overall length of channel to be enclosed within culverts. Riparian wetland creation is proposed along the realigned channel to enhance the watercourse. Impacts to wetlands will be avoided to the extent possible and compensation for unavoidable impacts to wetlands will be provided in the wetland compensation plan. At preliminary design, road design considerations including reduced road cross section, appropriate radius design, use of retaining walls, etc., will be addressed to minimize environmental implications where appropriate.	a. With the realigned watercourse, the future design should take into consideration the fluvial geomorphology of the watercourse and meanderbelt to ensure that any realignment can withstand the velocities without increasing erosion while allowing for a soft naturalized, less hardened watercourse. By providing sufficient room for the realigned watercourse future erosion protection and work within the watercourse banks will be eliminated or reduced. Please provide the design for TRCA review when available. b. Noted. TRCA will review the compensation for impacts on features as appropriate. c. Please provide details to demonstrate no loss in channel length and wetland area. d. TRCA will review the details once they are available. e. Acknowledged. Comment closed. f. Noted. g. Acknowledged. Comment closed	a. Noted. Detailed hydraulic modelling and ecological considerations have been documented in the Environmental Study Report (ESR). Final design will be sent to TRCA for review when available. b. Noted. c. Details on the length of channel and wetland areas will be confirmed as part of the MESP process. d. Noted. e. - f. - g. -

	f. Any anticipated Street 5 impacts should be considered alongside any anticipated impacts associated with the proposed stormwater management facilities and associated outfalls in this part of the Block. There may be opportunities to consolidate infrastructure requirements in the NHN, and consider adjacent land uses such as parks and SWM blocks which may be complimentary to the NHN. Thus, integration of the EA process with the MESP process is critical. The Technical Memo notes that the preferred alignment for Street 5 would be subject to the completion of an EA. It is not clear if this is in reference to the current Block 27 Roads EA process, or a separate process.	b. A reduced cross-section width will be explored, however, a cross-section width reduction will not eliminate the need to realign the watercourse. Please note based on correspondence with York Region Transit, transit vehicles require a minimum 3.5 m lane width to operate, as such, the roadway width cannot be reduced and a reduction to the cross-section will be likely result in the removal of the landscape facility. c. As discussed at our meeting on September 16, 2022, a Street 5 alignment alternative that does not connect directly to Cranston Park Avenue was not developed because providing a continuous road between Blocks was a critical consideration for the City and the Region during the TMP. The City's key considerations for the road are safety, traffic operations, and continuity. From a traffic perspective, not providing a continuous connection from Cranston Park Avenue will create challenges operationally for personal auto and for public transit (buses). The City recognizes the proposed location for Street 5 is not ideal, however, the location of Cranston Park Ave is set and a connection of Street 5 to Cranston Park Avenue is required from a land-use and transportation planning perspective, to support the City and the Region's Municipal wide auto and public transit network. d. Hydrogeological and fluvial geomorphology input and recommendations were incorporated into the Street 5 road design and proposed channel realignment. e. Please see response to comment f. The stormwater management (SWM) design of the collector roads has been addressed in the context of the development of the entirety of Block 27 development as part of MESP analyses. Ten (10) SWM facilities are proposed in the development plan and will be sized to meet the quantity, quality and erosion control requirements. Road drainage will be conveyed to these facilities through the storm sewer system. Where drainage from the right-of-way (ROW) cannot be conveyed to SWM ponds, the SWM plan may include oil and grit separator (OGS) and superpipe(s). The design of Street 5 and		

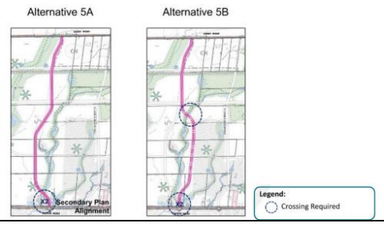
		surrounding areas near Teston Road includes two SWM facilities adjacent to the NHN. Road drainage at this location (close to Teston Road) will be directed to the online super pipe and the quantity control will be provided by the superpipe and the quality control will be provided by OGS. g. To clarify, the current Block 27 EA process will determine the preferred Street 5 alignment.		
Street 6 - Alignment and Design				
6.	With respect to the northerly alignment of **Street 6,** TRCA Planning Ecology provides the following comments with respect to the preferred alignment (Alternative 6A). a. TRCA staff maintain that, with respect to Street 6, any alignment that fragments the woodland will have a significant impact on the feature's form and function. The preferred alignment not only cuts directly through the largest Significant Woodland patch within Block 27, but it also fragments connectivity between this woodland and the smaller woodland to the south-east. Block 27 does not contain large patches of woodland, and thus efforts to protect and enhance what exists should be a priority. TRCA staff continue to advocate for a Street 6 alignment that avoids woodland impacts and supports a more connected natural heritage network. b. The rationale to support the Street 6 alignment through the woodland is not clear in the Technical Memo. The Memo offers an analysis of Street 6 with and without a connection to Kirby Rd through the woodland. The Memo states that "there do not appear to be any significant differences with respect to the traffic capacity internal to the block", however notes that without Street 6, traffic capacity at Street 5 is 'approaching capacity' and a larger, 4-lane cross section may be required. This implies that Street 5 is not at capacity, nor is it exceeding capacity, with the Street 6 connection being removed. Additionally, it is the understanding of TRCA that a 4-lane cross section is proposed for Major Collectors, as presented in alternative MA3 in the presentation. Further to this, it is not clear if this assessment	a. TRCA's position has been noted by the Project Team b. Traffic projections indicate that approximately 300 vehicles are expected to travel along the Street 6 connection during the AM peak hour. Without the Street 6 connection, higher traffic pressure will be placed on the adjacent roadways (i.e., Street 5). Additional traffic modelling is being undertaken to determine modifications to the road network that would be required in the event that Street 6 is not constructed through the woodlot. c. Please see response to comment b) d. Fish and Fish Habitat: TRCA's comment regarding Fish Habitat has been noted by the Project Team. DF3-2 is considered to provide Fish Habitat based on Natural Resource Solutions Inc. (NRSI) electrofishing data from May 2016 as part of the City of Vaughan's "North Vaughan and New Communities Transportation Master Plan". Potential negative effects on fish habitat through crossing of DF3-2 will be considered and the evaluation of Alternative 6A and Alternative 6B will be updated. Appropriate open-bottom culvert will maintain flow and sediment transport and mitigate potential impacts on fish habitat. Mitigation: The Project Team agrees that while removal of woodland ecosystems resulting from proposed Street 6 could be replicated through reforestation measures, fragmentation effects cannot be entirely mitigated. This has been taken into account in the assessment of the Vegetation, Wildlife, and Wildlife Habitat subcategory. Rare Species/SCC/SAR: Special Concern Eastern Wood Pewee which has been recorded in different woodlands of the subject property is not considered a Species of Conservation Concern. The presence of this species has been considered in the	a. Noted. TRCA understands that the final alignment of the street can be refined to minimize impacts. b. Addressed. c. Acknowledged response b in matrix. Please provide additional solutions analysis for TRCA review. d. TRCA suggests additional monitoring of impact of HDF3-2 fragmentation. e. Depending on the timing of the MESP, TRCA recommends including the compensation related to road impacts within the MCEA that is to be determined through the MESP. Comment closed. f. Noted.	a. - b. - c. Traffic modelling memo to justify the Street 6 connection through the woodlot will be sent to TRCA once available as part of the ESR review. d. Additional monitoring of impact of HDF3-2 fragmentation is included as a future commitment in the ESR. e. TRCA's comment on compensation is noted by the project team. Appropriate compensation for the overall block plan will be provided as part of the MESP process, including the collector roads. f. -

	considers the proposed Street 8 alignment which would direct traffic, east of Street 6, to Kirby Road thus offering additional relief from Street 5. c. The Alternatives Table provided in support of Street 6 does not offer an analysis of a Street 6 alignment that terminates prior to the woodlot, thus avoiding feature impacts entirely. It is recommended that this analysis be completed in order to inform the rationale for the preferred alignment. Considering that this area is noted as a special study area, further analysis should be included through the EA process. To this end, analysis and consideration of terminating Street 6 at Street 2 should be made. For instance, explore the feasibility of Street 6 (minor collector) terminating at Street 2 (major collector) and associated north-south traffic being directed to Street 5 (major collector) and Street 8 (major collector) – thus offering 2 options for traffic to continue north to Kirby Road. This approach appears to be consistent with the road layout within the existing Block immediately south of Block 27. Alternatively, the need for a larger cross section at Street 5 or Street 8 could be explored to accommodate traffic through the Block. Additional transportation objectives related to active transportation may be addressed through a multi- use path through the woodland, coincident with any proposed trail network, connecting pedestrians and cyclists to the transportation hub proposed at Kirby Road and Keele Street. This would significantly reduce impacts to the woodland while supporting active / alternative modes of transportation through the Block. d. With respect to the Alternative Table for Street 6, TRCA notes the following: • The analysis states no direct impacts to fish and fish habitat – however, Street 6 would cross HDF 3- 2 which has been documented to provide fish habitat in the MESP Exiting Conditions report. Please correct this in the analysis. • The level of opportunity to mitigate / minimize impacts is negligible when considered in relation to the extent of woodland removal and fragmentation	assessment of the Impacts to Wildlife and Wildlife habitat and Impacts to Significant Wildlife Habitat subcategories. Snag surveys and acoustic monitoring surveys conducted in June 2021 within portions of woodland which could be negatively affected by the proposed collector road network confirmed the absence of any regulated species of bat. Based on the number and timing of recorded calls, other bat species including Big Brown Bat, Silver Haired Bat, Eastern Red Bat and Hoary Bat likely use these forested communities as maternity roosting habitat. These findings have been taken into account in the assessment of the Impacts to Significant Wildlife Habitat subcategory. e. Compensation is currently under review by the development team and will be finalized as apart of the ongoing MESP for Block 27. f. The Block 27 Collector Roads MCEA Project Team and Block 27 Development Team are working closely together to ensure the MCEA study and Block 27 block plan are coordinated. As noted above, compensation is currently under review by the development team and will be finalized as part of the ongoing MESP for the Block.		

	proposed, and thus TRCA Planning Ecology does not agree with the assessment in these subcategories (impacts to vegetation, wildlife and wildlife habitat; impacts to natural heritage features and environmentally sensitive areas). • TRCA does not agree with the assessments within the rare species, species of conservation concern and species at risk subcategory as it implies that no impact / minimal impacts will result. Eastern Wood Pewee has been recorded in the woodland. The presences of endangered bat species or their habitat has not yet been confirmed through consultation with MECP. e. TRCA notes that any preferred alignment that results in woodland removals should be subject to TRCA's compensation policies as impacts are avoidable through alternative road network design. Thus, compensation for lost ecosystem form and function would be required, along with compensation for the lost land-base to the natural heritage network. f. With respect to the southerly alignment of Street 6, TRCA Planning Ecology notes that this alignment should be considered in the context of the Block 27 land use plan and ongoing MESP study. The proposed removal and compensation of wetlands in this area are subject to ongoing discussion through the MESP process. Thus, integration of the EA process with the MESP process is critical.			
Street 7 Alignment				
7.	With respect to **Street 7**, TRCA Planning Ecology has no concerns with the preferred alignment (Alternative 7B). However, consideration should be made to any required changes to the alignment of Street 7 should the alignment of Street 6 change.	TRCA's comments have been noted by the Project Team.	Noted.	-
Street 8 - Alignment and Design				
8.	With respect to the preferred alignment for **Street 8** (Alternative 8D), TRCA Planning Ecology notes: a) Any Street 8 alignment must have regard for Metrolinx station needs. Opportunities to accommodate Metrolinx requirements, without resulting in additional impacts to the NHN should be a critical consideration in road alignment and	a. The Block 27 Collector Roads MCEA Project Team and Block 27 Development Team are working closely together to ensure the MCEA study and Block 27 block plan are coordinated. As noted above, compensation is currently under review by the development team and will be finalized as part of the ongoing MESP for the Block.	a. Acknowledged. b. Acknowledged.	-

	land use planning in this section of the Block (i.e., proposed road alignment should not drive Metrolinx needs towards natural heritage features). Please ensure that consultation with Metrolinx is undertaken at this stage in the EA to ensure that any preferred alignment has regard for Metrolinx requirements and demonstrates that feature impacts will be avoided. b) Note that natural heritage and natural hazard objectives must be considered in design of the crossing to be addressed during preliminary design stages. Data from the MESP can be used to inform these objectives.	b. The Street 8 alignment does not preclude the development of the Kirby GO Station. The Project Team has reviewed the latest draft Kirby GO Station preferred design presented at the April 30, 2018 public meeting and the Street 8 alignment does not preclude the development of the Kirby GO Station. However, it is important to note that the station design is draft and Metrolinx notes that work on the station design is still underway and will be subject to further adjustments and refinements as the station design advances and the Transit Hub Special Study has not yet been initiated. Wording will be provided in the Block 27 Collector Roads MCEA ESR to allow for minor modifications to the Street 8 alignment to better accommodate / avoid environmental impacts once the design of the Kirby GO Station is underway / finalized. b) Natural environmental impacts were considered in the design of the road alignments alternatives and included as part of the evaluation of alternatives process. As part of the road alignment alternative development for Street 8, alternatives that included the removal of a road connection from Street 8 to Peak Point Blvd. which was recommended in the NVNCTMP and Block 27 Secondary Plan was developed in recognition of the environmental sensitivities (e.g., wetlands, watercourse, etc.) within the vicinity of the proposed road and following traffic analysis that demonstrated that the road connection can be removed from a traffic network perspective		
Cross Section Alternatives & Evaluation within the presentation				
9.	With respect to the Cross Section Alternatives & Evaluation within the presentation, TRCA Planning Ecology notes that in sensitive areas / crossings of the NHN, further reduction to cross sections may be required by way of removing or reducing the width of buffers and landscape areas, and / or combining active transportation facilities. These matters can be addressed through preliminary design, however, flexibility in the EA recommended cross section widths should be provided for and noted through the EA process.	A reduced cross-section has been developed for Street 6 through the significant woodlot from a 24 m to 16.9 m (i.e., 7.1 m reduction) to minimize natural environmental impacts. Additional cross-section reductions may be explored and wording in the Environmental Study Report will provide flexibility to allow for modifications to the cross-sections (e.g., reduce widths) within environmentally sensitive areas to minimize environmental impacts in the next design phase	TRCA noted the adjustments made.	-
Comments on August 27, 2022 meeting minutes:				
10.	**Comments on August 27, 2022 meeting minutes:** Please revise section 7.0 by removing 'TRCA recognizes the existence of Street 6 is not for discussion' and replace with 'TRCA recognizes that the need for Street 6 has been identified in the TMP however its alignment and	Wording has been updated in the August 27, 2022 meeting notes, as requested. See attached revised meeting notes.	Addressed.	-

	opportunities to mitigate impacts should continue to be explored'			
Comment on Technical Memo by LEA				
11.	It is noted on page 38 of the memo that "no regional flood controls be required for developments within the City portion of the Block 27 or remaining 'white belt' areas in the Upper West Don Subwatershed, however, this will be reviewed as a part of the development process". Through the latest work on the Block 27 MESP it has been determined that regional controls are required for the development within Block 27. Further, page 39 states that "24-hour drawdown time is to be aplite to future ponds; and 5 mm of on-site retention is to be applied to any future development area." It should also be noted that through the Block 27 MESP the erosion criteria for the site is being determined through an erosion assessment and may not result in the targets listed above. TRCA recommends that the technical memo be updated to be clear that the targets and statements listed may not be valid and will be clarified through further studies/assessments.	Responses to TRCA Water Resources' May 2022 comments were provided in response letter sent to TRCA on July 15, 2022. The Block 27 Project Team would be pleased to meet with TRCA Water Resources to further discuss any of the comments and/or responses, if required. TRCA's comments on the Technical Memo have been noted. Through the downstream assessment carried out in the Block 27 MESP, regional control for Block 27 ponds is identified and suggested. Therefore, all SWM ponds within Block 27 are sized for regional control. These ponds provide regional control for all collector roads that are subject to the Block 27 MCEA. Further, through the erosion assessment carried out in the Block 27 MESP, new erosion targets are established which are more stringent than 25mm extended detention for 48 hours (for instance 30mm detention for 48 hours). The SWM ponds are designed to meet these requirements. Please refer to MESP for the detailed erosion assessment analysis. Wording in Technical Memo #1 will be amended accordingly	Addressed	-
Fluvial Geomorphic Assessment				
12.	It does not appear that fluvial geomorphic recommendations have been accounted for when determining preferred road alignments. TRCA recommends that fluvial geomorphic input be considered prior to determining the preferred alignment.	A fluvial geomorphology assessment was completed as part of the MESP process and recommendations from the fluvial assessment have been incorporated into the Block 27 Collector Roads MCEA study, including but not limited to: • Where feasible, minimize the number of watercourse crossings (Street 5). • To the extent feasible, optimize road alignment and structure skew to avoid the need for channel realignment; • Incorporation of a low flow channel within proposed road crossing structures; and • Incorporation of geomorphic span recommendations (100-year erosion limit span) into road crossing structure design.	Existing fluvial geomorphic conditions details have been added to the Technical Memo and the response matrix notes that the recommendations from the Fluvial Assessment completed for the MESP have been incorporated into the MCEA study. Please provide the details for the crossings and how the fluvial recommendations have been incorporated for TRCA review when available.	Detailed hydraulic modelling and ecological considerations have been documented in the ESR. Final design will be sent to TRCA for review when available as part of the MESP.
SWM Pond Location Coordination				
13.	It is noted that for most of the road alignment options the quantity and quality control of runoff will be provided in the SWM ponds. Please confirm if the feasibility of directing runoff from the roads to the proposed ponds has been explored. TRCA would like reassurance that the proposed road network and SWM pond locations will be coordinated	As noted in the Project Team's July 15, 2022 response letter, stormwater management (SWM) design is being coordinated between the Block 27 development and collector roads and the SWM design that has been incorporated into the development plan includes consideration for proposed road network. Ten (10) SWM facilities are proposed in the	It has been noted that the SWM design for the block is being coordinated with the road network. The technical memo discusses that 10 SMW ponds are proposed and will provide SWM control (including erosion control). It is also noted that the water budget analysis for the block indicated that LIDs will need to be implemented and details will be provided at	This comment is noted and will be considered. Currently, the quantity and quality control for a small area of Street 5, close to Teston Road will be provided by online storage and OGS treatment units since this area cannot be drained to any SWM ponds.

	to ensure the road drainage can properly treated in the ponds and do not end up with a situation of road runoff being treated by just an OGS unit due to grading constraints. Further, please note that erosion control and water balance requirements are to be provided for road drainage as these have not been mentioned.	development plan and will be sized to meet the quantity, quality and erosion control requirements. Only where drainage from the right-of-way (ROW) cannot be conveyed to SWM ponds, the SWM plan may include oil and grit separator (OGS) and superpipe(s). The water balance will be met on a site wide basis and the feature-based water budget will be met by directing clean water from the developments to the wetlands. All erosion and sediment, and water quality and quantity controls will be designed to meet all regulatory requirements. The Project Team would be pleased to arrange a technical meeting with TRCA Water Resources for further discussion, if required.	a later stage in the development process. This addressed the comment. However, it is noted that a small portion of Road 5 is not able to drain to a SMW pond and will use an online storage tank and OGS for control. TRCA recommends that LIDs also be incorporated in order to provide erosion control for this portion of the road.	
Street 5 Alternative 5A				
14.	For Street 5 alternative 5A was given a higher score in the Surface Water and Drainage category as it notes it 'avoids flood plain crossings'. Consideration needs to be given however to the fact that alternative 5A requires a channel realignment which could be more detrimental to the natural system than a crossing over it. Please re-examine the scoring for Street 5 alternatives.	The comment that Alternative 5A avoids a flood plain crossing refers to the additional crossing on the northern segment of Street 5 that would be required with Alternative 5B (see figure below). Please note a channel realignment will be required for both Alternatives 5A and 5B at the Street 5 and Teston Road intersection. 	Addressed.	-
ROW LID Measures				
15.	**Major and Minor Collector Road Cross-section Alternatives** As was noted by TRCA in May 2022, alternative road cross-sections have been provided TRCA is disappointed to see they do not contain any ROW LID measures. Please consider what LIDs may be used to treat road drainage and ensure there is adequate space provided.	Alternatives to provide additional LIDs for areas that cannot drain to the proposed SWM ponds due to grading constraints will be reviewed at the MESP stage. However, the LID options will have to be discussed with the City who will ultimately be responsible for the operation and maintenance of these facilities. In case the City does not accept these facilities, additional measures such as oversizing the OGS will be reviewed. The potential of implementing LID measures within the ROW will be discussed with the City since the City is ultimately responsible to take over the operation and maintenance of these facilities. While LID measures are not being implemented specifically within the right-of-way (ROW), road run-off will be redirected and treated within stormwater management facilities being developed as part of the overall Block 27	It is noted that further discussion with the City will occur on the LID options permitted. TRCA will be a part of these discussions if desired.	Noted. The project team will continue to correspond with TRCA during the next design phase.

		development where possible. With the implementation of LID measures on the Block 27 lands to maintain recharge volumes, no impact to the quantity of groundwater drinking supplies is anticipated, and with the use of Best Management Practices for the application of road salt, no impacts to the quality of groundwater drinking supplies related to the collector roads is anticipated. Please note a 2.5 m wide landscape facility is being provided on both major and minor collector roads with the exception of roads with reduced ROW widths within natural environmentally sensitive areas.		
Street 4, Option 4B				
16.	TRCA hydrogeology recommends that if an underpass (option 4B) on Street 4 is pursued that a feasibility assessment of the hydrostratigraphic context is undertaken as early as possible in the planning process.	The Project Team requests clarification on the structure that is being referred to. No structures are required as part of the Street 4.	TRCA recommends that if an underpass (option 4B) on Street 2 is pursued that a feasibility assessment of the hydrostratigraphic context is undertaken as early as possible in the planning process.	Noted. A feasibility assessment of the hydrostratigraphic context will be undertaken during the detailed design phase.
Geotechnical Concerns				
17.	The following comments can be addressed at detailed design stage a. A detailed geotechnical study is required to assess the ground condition along the alignments and to provide geotechnical design recommendations for the various components of the proposed project; b. In areas that are in close proximity to valley slopes, a slope stability and erosion hazard assessment will have to be conducted to ensure the proposed structures are not undermined long-term by erosion. A slope assessment is also required to ensure the development does not destabilize the valley slopes. The long-term stable top of slope, associated with a minimum safety factor of 1.50, needs to be delineated as setback requirements from the LTSTOS and/or top of bank will need to be complied with. c. In areas where slope stabilization is required, the slope stabilization work should be designed by a geotechnical engineer to ensure that a minimum safety factor of 1.50 is met; d. All structures such as retaining walls, abutments, wing walls, culverts etc. should be designed by a qualified engineer. The global stability should be also checked for the walls to confirm that a minimum safety factor of 1.50 is met; e. Cross-sections along the alignments in adequate intervals and at critical locations should be	Comments have been noted by the Project Team and will be included as commitments to future works in the Environmental Study Report.	Noted.	-

	provided. The cross-sections should clearly illustrate the proposed grades with respect to the existing grades. The cross-sections should capture entire slope/bank features. Grading information should also be shown on the site plan along the alignments; f. The proposed embankments and cuts should designed by a geotechnical engineer. A slope stability assessment of the embankments and proposed side slopes of the cuts is required to ensure that a minimum safety factor of 1.50 is achieved; g. Engineering drawings of all of the proposed structures such as retaining walls, abutments and wing walls, culverts, stabilization works, embankments and cuts should be prepared by a qualified engineer. All engineering drawings should be signed and sealed by a licensed Professional Engineer; h. For areas that are in close proximity to steep slopes and valleys, the construction methodology and sequencing should be presented to ensure that the surrounding area/slope is not adversely impacted during the construction; i. Where the work requires the construction access onto the steep slopes and valleys, the cross-sections and profile should be submitted. A slope stability assessment is required to assess the cross-sections (cuts and fills) and to confirm that the slope stability is met. The slope stability analyses should also account for the heavy machinery/equipment loads and vibrations; j. If the construction results in alterations and disturbance to the slopes and valleys, the stabilization work required should be reviewed by a geotechnical engineer. Depending on the slope geometry and the extent of the alterations, the stabilization may require to be engineered (e.g. engineering structures) to ensure that the stabilization remains stable in long-term with a minimum safety factor of 1.50. Furthermore, all necessary engineering details and cross-sections should be prepared by a geotechnical engineer and submitted. The documents should be signed and sealed by licensed Professional Engineer; k. If trenchless installation of the infrastructure below the watercourse is proposed, a geotechnical study should be conducted to assess soil conditions. The			

	trenchless installation work should be designed by a consultant or contractor using the geotechnical information and recommendations in the geotechnical report. The minimum acceptable cover from the bottom of the watercourse should be determined as per the design. The cross-sections and site plan showing the alignment and entry and exit pits/shafts and the cover from the bottom of the watercourse should be submitted. The design should also ensure that the proposed trenchless installation does not cause the inadvertent loss of drilling fluid (frac-out) or excess settlement on the ground along the alignment. Further, the shafts or pits required for the proposed trenchless installation should be properly stabilized by the means of shoring or other techniques. The details of such stabilization should be also prepared by a qualified engineer. The documents should be signed and sealed be licensed Professional Engineer			
Trail Connectivity				
18.	Staff reviewed the submission and provided following from trials and connectivity perspective: • The TRCA Trail Strategy (2019) outlines TRCA's plan to work with partners to complete, expand, manage, and celebrate a connected trail network in our regional greenspace system. It serves as a framework to protect potential trail alignments, and to guide the planning, development, and management of trails. • The TRCA Trail Strategy is a high-level masterplan that serves as a reference for TRCA and municipal partners to identify conceptual opportunities to connect gaps in existing regional-level trails. Conceptual alignments shown in the TRCA Trail Strategy are subject to factors including, but not limited to, feasibility, constructability, technical study, planning evaluation, permitting and approvals. • Schedule D: Block 27 Multi-Modal Transportation Network identifies and includes multi-use recreational paths in the proposed Block 27 network. • It appears that some of the proposed multi-use recreational paths follow the same conceptual alignments proposed in the TRCA Trail Strategy and Vaughan Super Trail. These conceptual alignments are supported in principle, but are	Please note the trails system within Block 27 is being developed as part of the Block 27 development process and not the Block 27 Collector Road MCEA study. While consideration has been provided to enhance connectivity of the collector roads with the trail systems within Block 27, the overall development of the trail system is being undertaken as part of the Block 27 development process. TRCA's comments on Restoration and Infrastructure (Trail) have been forwarded to the Block 27 Development project team for review and response, as required.	Noted.	-

	subject to further study to evaluate feasibility: • West Don Trail (north-south conceptual alignment) • Pipeline Trail (east-west conceptual alignment) • Additionally, Schedule D: Block 27 Multi-Modal Transportation Network identifies proposed separated multi-use recreational paths in the proposed road network ROW to connect to North Maple Regional Park (NMRP); separated active transportation connections to greenspace within the road network is supported in principle.			

APPENDIX AV

Consultation (Indigenous)

Government Services Building
22 Winookeedaa Road
Curve Lake, Ontario K0L1R0

Phone: 705.657.8045
Fax: 705.657.8708
www.curvelakefirstnation.ca

January 5, 2022
VIA E-MAIL

Paul Grove, MCIP, RPP
Transportation Engineering Lead
905-832-2281 (ext. 8857)
Paul.Grove@vaughan.ca

RE: Block 27 Major Roads- City of Vaughan.

Dear Paul,

I would like to acknowledge receipt of correspondence, which was received on December 10th, 2021, regarding the above noted project. As you may be aware, the area in which your project is proposed is situated within the Traditional Territory of Curve Lake First Nation. Our First Nation's Territory is incorporated within the Williams Treaties Territory and was the subject of a claim under Canada's Specific Claims Policy, which has now been settled. All 7 First Nations within the Williams Treaties have had their harvesting rights legally re-affirmed and recognized through this settlement.

Curve Lake First Nation is requiring a File Fee for this project in the amount of $250.00 as outlined in our *Consultation and Accommodation Standards*. This Fee includes project updates as well as review of standard material and project overviews. Depending on the amount of documents to be reviewed by the Consultation Department, additional fees may apply. **Please make this payment to Curve Lake First Nation Consultation Department and please indicate the project name or number on the cheque.**

If you do not have a copy of *Curve Lake First Nation's Consultation and Accommodation Standards* they are available at https://www.curvelakefirstnation.ca/services-departments/lands-rights-resources/ consultation/. Hard copies are available upon request.

Based on the information that you have provided us with respect to the Proposed Block 27 Major Roads project, Curve Lake First Nation may require a Special Consultation Framework for this project. Information on this Framework can be found on page 9 of our *Consultation and Accommodation Standards* document.

In order to assist us in providing you with timely input, it would be appreciated if you could provide a summary statement indicating how the project will address the following areas that are of concern to our First Nation within our Traditional and Treaty Territory: possible environmental impact to our drinking water; endangerment to fish and wild game; impact on Aboriginal heritage and cultural values; and to endangered species; lands; savannas etc.

Government Services Building
22 Winookeedaa Road
Curve Lake, Ontario K0L1R0

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www.curvelakefirstnation.ca

After the information is reviewed it is expected that you or a representative will be in contact to make arrangements to discuss this matter in more detail and possibly set up a date and time to meet with Curve Lake First Nation in person (or virtually).

Although we have not conducted exhaustive research nor have we the resources to do so, there may be the presence of burial or archaeological sites in your proposed project area. Please note, that we have particular concern for the remains of our ancestors. Should excavation unearth bones, remains, or other such evidence of a native burial site or any other archaeological findings, we must be notified without delay. In the case of a burial site, Council reminds you of your obligations under the *Cemeteries Act* to notify the nearest First Nation Government or other community of Aboriginal people which is willing to act as a representative and whose members have a close cultural affinity to the interred person. As I am sure you are aware, the regulations further state that the representative is needed before the remains and associated artifacts can be removed. Should such a find occur, we request that you contact our First Nation immediately.

Furthermore, Curve Lake First Nation also has available, trained Cultural Heritage Liaisons who are able to actively participate in the archaeological assessment process as a member of a field crew, the cost of which will be borne by the proponent. **Curve Lake First Nation expects engagement at Stage 1 of an archaeological assessment** so that we may include Indigenous Knowledge of the land in the process. We insist that at least one of our Cultural Heritage Liaisons be involved in any Stage 2-4 assessments, including test pitting, and/or pedestrian surveys to full excavation.

Although we may not always have representation at all stakeholder meetings, as rights holders', it is our wish to be kept apprised throughout all phases of this project. Please note that this letter does not constitute consultation, but it does represent the initial engagement process.

Should you have further questions or if you wish to hire a Liaison for a project, please contact Julie Kapyrka or Kaitlin Hill, Lands and Resources Consultation Liaisons, at 705-657-8045 or via email at JulieK@Curvelake.ca and KaitlinH@Curvelake.ca .

Yours sincerely,

Chief Emily Whetung
Curve Lake First Nation

February 24, 2022 **Reference Number: 20009**

Chief Emily Whetung
Curve Lake First Nation
22 Winookeeda Road, General Delivery
Curve Lake, ON K0L 1R0
Email: EmilyW@curvelake.ca

RE: Block 27 Major Roads, Municipal Class Environmental Assessment Study
Response to January 5, 2022 Letter

Dear Chief Whetung,

Thank you for your interest in the development of the Block 27 Collector Roads in the City of Vaughan Municipal Class Environmental Assessment (MCEA) Study and providing the City with Curve Lake First Nation's comments on the aforementioned project. The following letter provides a response to the comments sent by Curve Lake First Nation on January 5, 2022.

Municipal Class Environmental Assessment This "Schedule C" MCEA is for the Block 27 Collector Roads and builds upon the studies and recommendations completed in the *North Vaughan and New Communities Transportation Master Plan* (NVNCTMP) (City of Vaughan, 2019). The MCEA is utilizing environmental and technical studies that were undertaken as part of the NVNCTMP, Block 27 Secondary Plan, and Block 27 development. These include, but are not limited to, the documentation of existing conditions for the natural environment, archaeological assessments, and hydrogeological assessment (drinking water). A brief summary of the natural environment, archaeology, and hydrogeology existing conditions has been provided in this letter and will be presented further at an upcoming meeting with Curve Lake First Nation.

The existing conditions data are informing the MCEA through the development of alternative road alignments proposed in the NVNCTMP, evaluation of road alignment alternatives, impact assessment of the proposed road alignments, and recommendation for effective / site-specific mitigation measures to minimize / avoid affects (e.g., by design or mitigation measure during construction). All mitigation measures and commitments to future work will be documented in the Environmental Study Report (ESR) which will be carried forward into future design phases and during construction.

Natural Environment

The Block 27 MCEA is utilizing existing conditions information gathered from the Block 27 Subwatershed Study (Cole Engineering and Beacon Environmental, 2017), and additional field investigations completed between 2018 to 2021. This additional work will be used to further refine the work completed in previous studies to support the Block Plan development process. All natural environment field investigations are completed, and reporting is underway to document the detailed natural environment existing conditions, impact assessment, and recommended mitigation measures and commitments to future work, including a

compensation plan. The natural environment report will form part of the Block 27 Master Environmental Servicing Plan (MESP), which will be submitted to the Toronto and Region Conservation Authority (TRCA) and the City for review later in the Study.

A summary of the existing natural environment conditions has been provided below and the attached Natural Environment Map illustrates the key environmental sensitivities and constraints documented in Block 27.

Fish and Fish Habitat

The majority of Block 27 is located within the headwaters of the West Don River, with minor portions located in the northwest corner in the vicinity of Jane Street and Kirby Road draining to the East Humber, River, and a small southwestern portion of the Block draining to Black Creek. In general, drainage features within the Block have been subject to extensive historic modifications (e.g., channelization) to facilitate agricultural land use. Six drainage features were documented within Block 27. Many of the drainage features in Block 27 are ephemeral features that lacked sufficient flows to allow fish sampling, therefore, only those reaches with sufficient flows were sampled for fish. Fish were found in Drainage Features # 1, 3 and 4 during sampling conducted in August 2010, and included: Blacknose Dace, Longnose Dace, and Creek Chub (see attached Natural Environment Map for locations). Several in-stream barriers to fish movement were identified within Drainage Features #1, 3 and 4 (TRCA, 2009) which seasonally inhibit the movement of fish into the headwater reaches found upstream of Teston Road.

As part of the MCEA, mitigation measures will be recommended to minimize / avoid impacts to the natural environment, including fish and fish habitat. Watercourses and unwetted natural banks will be maintained as part of the design, and roads crossing water features will either be through a culvert or bridge, and fish habitat will be maintained in all drainage features where fish were sampled. This Study will also explore opportunities to enhance fish habitat including the removal of the instream barriers to enhance the aquatic habitat connectivity function of the watercourses.

Designated Natural Heritage Features

Block 27 supports significant natural features, including provincially significant wetlands (PSW), significant woodlands, as well as Valleylands and Stream Corridors (see attached Natural Environment Map for locations). Road alignment impacts to wetlands have been minimized where possible, however, it is anticipated wetland impacts will be required to some degree in some areas. To accommodate the proposed collector road network, impacts to significant woodlot areas are also anticipated. Potential impacts to wetlands and woodlands can be reduced by applying buffers to natural features and naturalizing them using native species as well as avoiding directing untreated runoff to wetlands, among other mitigation measures.

The most ecologically significant area within Block 27 is located in the south-western portion of Block 27 and include the lower reaches of Drainage Feature 1 (DF 1). DF 1 flows through wide riparian and forested wetlands which contain the highest concentration of locally rare or uncommon species. This Y-shaped feature with drainage running down the middle of each arm has swampy lowland conditions and supports the highest ecological sensitivities. Impacts to the lower reaches of DF 1 will be avoided and there are no collector roads proposed within this sensitive area.

A compensation plan is being developed as part of the Block 27 development process in correspondence with the TRCA to compensate for the loss of wetlands and woodlands, and enhance wetlands and woodlands in locations within Block 27. The compensation plan will provide functional improvements to the natural heritage system and a net positive environmental outcome. Wetland compensation will include functional improvements along existing drainage features through the creation of new wetlands for the removed existing wetland areas (i.e., at a 1:1 ratio for un-treed wetlands and a 3:1 ratio for treed wetlands). Woodland compensation will include reforestation at a 3:1 ratio or 5:1 ratio for more mature forest communities proposed for removal. Please note compensation ratios are calculated by hectare (ha) (e.g., 3:1 ratio means 3 ha of new woodland must be restored for every 1 ha removed). The proposed reforestation will be located within the southern half of the Greenbelt Plan Area in proximity of existing woodland features to maximize overall size of forest continuum, forest interior habitat and linkage functions.

Species-at-Risk

Five species-at-risk (SAR) bird species were identified in Block 27, including Barn Swallow (THR), Eastern Meadowlark (THR), Bobolink (THR), Eastern Wood-Pewee (SC), and Grasshopper Sparrow (SC) and are regulated under the *Endangered Species Act* (ESA 2007). Barn Swallows were observed as fly-overs and potentially foraging along the western riparian corridor, however, no nests were located in structures of areas that were accessible for field investigation. Bobolink, Eastern Meadowlark, Eastern Wood-Pewee, and Grasshopper Sparrow were observed breeding within Block 27. Should impacts to regulated habitat be identified, all required permits will be obtained prior to the start of construction. Where required, an overall benefit plan will be prepared.

No SAR fish species were identified through secondary source background information, or field investigations.

Wildlife and Landscape Connectivity

The subject property occurs in an area where the local landscape has been altered through past and present anthropogenic use. From a wildlife perspective, the property is situated directly adjacent to existing urban land uses and major transportation infrastructure to the south, west, north and east that present a significant terrestrial barrier to wildlife movement. Natural heritage features, including woodlands, wetlands, and watercourses taken together, make up a local natural heritage system which consists of three main watercourse corridors connecting woodlands and wetlands.

As part of the MCEA, mitigation measures will be recommended to minimize potential disturbances to wildlife which could result from the Block 27 road network including interference with wildlife movement between the wetland and woodland units and increased road mortality. There are also opportunities to improve connectivity within these corridors through habitat restoration, which will be a major focus of the above-mentioned compensation plan, particularly within those portions that are presently being actively farmed. Linkage functions along the three main corridors will also be maintained for amphibians, reptiles, small and middle size mammals and even some larger mammals (i.e., white-tailed deer) through the design of appropriate culverts.

Archaeology

A review of all existing archaeological assessment reports prepared for the Block 27 Secondary Plan process has been completed as they will form part of the MCEA technical works. Approximately 85% of

lands within Block 27 has been completed between the years of 2010 and 2016 by the Block 27 landowners. As part of the current Block 27 EA, the City of Vaughan and the Block 27 landowners will carry out Stage 2 archaeological assessments on previously unassessed properties with archaeological potential that are impacted by the recommended road network within Block 27. The Curve Lake First Nation will be contacted prior to initiating all remaining archaeological assessment work to ensure engagement and inclusion for outstanding archeological fieldwork within Block 27.

Please note additional archaeological assessments on the properties that have not been previously assessed that are impacted by the Block 27 development but not impacted by the Block 27 EA recommended plan will be completed as part of the separate development process and will be assessed prior to the start of development on those lands. Indigenous Peoples will also be engaged prior to commencement of this work.

Drinking Water

A hydrogeological assessment of the Block 27 lands is underway by R.J. Burnside & Associates Limited to characterize the soil and groundwater conditions and the results will be included in the MESP for these lands. As part of the MESP, local aquifers will be identified, and water balance calculations will be completed to determine potential development impacts to infiltration volumes on the Block 27 lands. The report will include recommendations for the incorporation of Low Impact Development (LID) measures into the development design to offset reductions in infiltration that may occur as a result of the addition of impervious surfaces, including the collector roads. The recommendations of the MESP will be in accordance with the provincial Source Water Protection policies to ensure the protection of the underlying aquifers.

It is noted that the Source Water Protection mapping shows the Block 27 lands are within a Significant Groundwater Recharge Area (SGRA) and a Wellhead Protection Area for water quantity (WHPA-Q) and a portion of the Block is also mapped as having High Aquifer Vulnerability (i.e., susceptible to contamination from surface activities) (see attached Natural Environment Map). However, the proposed collector roads are generally not considered high risk from a contaminant perspective and will not include any of the restricted uses listed for areas of High Aquifer Vulnerability with the exception of the use of road salt. York Region has a detailed salt management plan and guidance for best management practices for road salt usage, and it is the responsibility of the municipality to follow this guidance during road maintenance operations in order to minimize the environmental impacts of road salt usage.

With the implementation of LID measures on the Block 27 lands to maintain recharge volumes, no impact to the quantity of groundwater drinking supplies is anticipated, and with the use of Best Management Practices for the application of road salt, no impacts to the quality of groundwater drinking supplies related to the collector roads is anticipated.

Closing

For further information about this Study, including on-going updates, please visit the study website (https://www.vaughan.ca/Block27EA). The Project Team looks forward to meeting with Curve Lake First Nation to further discuss this project, and additional existing conditions details will be presented.

Please contact me at 905-832-2281 (ext. 8857) or by email at Paul.Grove@vaughan.ca if you would like to discuss this project further.

Yours truly,

Paul Grove, MCIP, RPP
Transportation Engineering Lead

cc: Julie Kapyrka, Curve Lake First Nation (juliek@curvelake.ca)
Kaitlin Hill, Curve Lake First Nation (KaitlinH@curvelake.ca)
Kerry Sandy-McKenzie, Coordinator for Williams Treaties First Nations (k.a.sandy-mckenzie@rogers.com)
Samar Saadi Nejad, City of Vaughan
Ruth Rendon, City of Vaughan
Cameron Balfour, City of Vaughan
Mustafa Ghassan, Delta Urban
Christopher Sidlar, LEA
Kenneth Chan, LEA
Irene Hauzar, LEA
Katherine Kung, LEA

Attachment: Natural Environment Map

Record of Meeting
20009.03

PROJECT:	Block 27 Collector Roads, Municipal Class Environmental Assessment Study	**DATE:**	February 25, 2022
LOCATION:	Virtual – Microsoft Teams	**TIME:**	11 a.m. to 12 p.m.

IN ATTENDANCE

NAME	REPRESENTING
Kaitlin Hill (KH)	Curve Lake First Nation (CLFN)
Ruth Rendon (RR)	City of Vaughan
Paul Grove (PG)	City of Vaughan
Samar Saadi Nejad (SSN)	City of Vaughan
Cameron Balfour (CB)	City of Vaughan
Andrew Haagsma (AH)	City of Vaughan
Chris Sidlar (CS)	LEA Consulting Ltd.
Katherine Kung (KK)	LEA Consulting Ltd.
Mustafa Ghassan (MG)	Delta Urban Inc.
Jean-Christophe De Massiac (JCM)	Beacon Environmental
Brian Henshaw (BH)	Beacon Environmental
Matthew Muttart (MM)	Archaeology Consultants of Canada
Jackie Shaw (JS)	R.J. Burnside & Associates Limited

REGRETS

Julie Kapyrka	Curve Lake First Nation

MEETING TITLE Curve Lake First Nation – Project Kick-off Meeting

ITEM	TOPIC	ACTION BY / DUE DATE
1.0	**Project Team Introductions**	
	Round table introductions	
	▶ KH noted that Julie Kapyrka was unable to attend.	
	▶ City will send presentation to CLFN for review and comment.	~~City (RR)~~
	▶ Separate scoped meetings will be scheduled (as required) in the future to discuss / address discipline specific comments.	
	[*post-meeting note*: City to send presentation to CLFN on March 15, 2022 for comment]	

2.0 Presentation

CS presented the attached slide deck. The following topics were covered:

- Study Background
- MCEA Process
- Summary of CLFN Engagement
- Summary of Existing Conditions
  - Natural Environment
  - Archaeology
  - Drinking Water

3.0 Discussion

Pre-Consultation Notice

- KH inquired why Alderville First Nation was not circulated the pre-consultation notice.
- RR replied that the City has received correspondence from Alderville First Nation and Chippewas of Rama First Nation indicating the Nations do not have an interest in the City of Vaughan.

Fish and Fish Habitat

- CLFN would like to better understand the methodology used for the fish and fish habitat assessments:
  - When were the assessment completed;
  - Time of year;
  - Types of studies undertaken; and
  - Methods used to collect data.
- JCM responded that this request has been noted and the requested information (e.g., methodology, protocols) will be compiled and provided following the meeting.
  [*post-meeting note*: Details are included in the Methodology Memo which are to be send to CLFN on March 15, 2022]

  ~~Beacon Environmental (JCM)~~
- CLFN expressed concerns about Redside Dace and would like to understand the methodology used for Dedside Dace evaluation.
- JCM responded that based on correspondence with MECP as well as other studies (e.g., Subwatershed Study, City of Vaughan's Natural Heritage Network studies, OWES evaluation for Don River West Branch Headwater PSW) watercourses on the Block 27 study area are not designated Redside Dace habitat.

  ~~Beacon Environmental (JCM)~~
- Beacon Environmental will provide additional details on Redside Dace status background review and assessment within Block 27 following the meeting.
  [*post-meeting note*: Details are included in the Methodology Memo which are to be sent to CLFN on March 15, 2022]

Bat Monitoring

- CLFN inquired about the bat surveys and noted there are new technologies for bat monitoring.
- JCM noted that bat snag habitat assessments were also completed in the woodlot in the north-eastern quadrant of Block 27. This involved identifying individual trees that is considered bat habitat (e.g., capacity, cracks, other attributes). The study area was determined so as to include woodland areas of the woodland that could be impacted by all potential alternatives of Collector Street 6.

  Following the snag assessment, acoustic monitoring was completed within this study area. Acoustic monitors were set-up in areas with a concentration of trees identified as potential bat habitat during the snag assessment.

  25 monitors were used over a period of 10 days in June. Recorded acoustic data were analyzed (A combination of auto-identification with software and manual analysis was applied to call files to make species determinations). Based on results, while there are records of endangered species of bats within the woodlot, the data suggests that the species are likely utilizing the forests for general foraging and/or flyover habitat rather than roosting habitat as the recordings occurred infrequently and outside of the emergence times.

  ~~Beacon Environmental (JCM)~~
- Beacon Environmental will provide additional details on the bat survey methodology and results following the meeting.
  [*post-meeting note*: Details are included in the Methodology Memo which are to be sent to CLFN on March 15, 2022]

Tree Survey

- CLFN inquired about the tree survey methodology.
- JCM responded that vegetation communities were mapped and characterized following the Ecological Land Classification (ELC) for Southern Ontario. A floral inventory was undertaken including a check for endangered or threatened species.

Unevaluated Wetlands

- CLFN inquired why there are three remaining unevaluated wetlands.
- BH responded that these three wetlands were considered and evaluated under the Ontario Wetlands Evaluation System, however, based on the Ministry's assessment, the three wetlands were determined not to be provincially significant. The unevaluated wetlands are very narrow with some of the wetlands farmed through. Based on Ministry terminology, these wetlands are labelled 'other wetlands', however, they in fact were evaluated. Both evaluated and unevaluated wetlands are regulated by the Toronto and Region Conservation Authority (TRCA).

Archaeology

- CLFN inquired if additional Stage 1 and 2 archaeological assessments are planned for the future, and emphasized that CLFM would like to be involved.
- MM confirmed that future archaeological assessments are required, and that CLFN will be engaged prior to the work, if required.

  Currently, the Project Team is still in the planning phases because there is too much snow.
- CLFN indicated that that their Archaeological Administration has an interest in reviewing old Stage 1 and 2 Archaeological Assessment Reports and may provide input with the understanding that the reports have already been registered with the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI).
- MM responded that the Stage 1 Archaeological Assessment Report completed by ASI, and the subsequent Gap Analysis Report will be sent to CLFN. [*post-meeting note*: Archaeological reports to be sent to CLFN on March 15, 2022] ~~Archaeological Consultants of Canada (MM)~~

Compensation Plan

- CLFN indicated they would like to be involved and provide feedback (e.g., areas of significance that might not be known, incorporate traditional knowledge, etc.).
- Comment was noted by the Project Team.

4.0 Next Steps

Technical Report Review

- CLFN requested all technical assessments (e.g., hydrogeology, archaeology, natural environment) be sent to CLFN for review to get a sense of resource required to review the materials, and to better understand project and potential concerns / comments.
- CS responded that the Project Team will compile relevant technical reports and send to the City to send to CLFN. [*post-meeting note*: Requested technical reports will be sent to CLFN by the City on March 15, 2022] ~~LEA (KK)~~
- RR added that the response letter sent to CLFN on Feb. 24-22 includes a summary of technical data. The City will also send the review fee to CLFN to start initiating the work. ~~City (RR)~~
- KH indicated that CLFN will open a project file for Block 27 Collector Roads MCEA. CLFN

Next Meeting: March 29

- KH checked CLFN schedules and tentatively scheduled the next Block 27 meeting for March 29 (2-3:30 pm).
- Julie Kapyrka and Gary Pritchard will attend the next meeting.
- CLFN will determine if Francis and Jordon need to attend following the review of the technical reports.

The foregoing is considered to be a true and accurate record of all discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Recorded by Katherine Kung (LEA Consulting Ltd.) Email: KKung@lea.ca

Circulation All attendees + Project Team

Record of Meeting
20009

PROJECT:	Block 27 Collector Roads Municipal Class Environmental Assessment Study (MCEA)	**DATE:**	May 9, 2022
LOCATION:	Virtual – Microsoft Teams	**TIME:**	10 - 10:30 a.m.

IN ATTENDANCE

NAME	REPRESENTING
Abby Laforme (AL1)	Mississaugas of the Credit First Nation (MCFN), Department of Consultation and Accommodation
Adam Laforme (AL2)	Mississaugas of the Credit First Nation, Department of Consultation and Accommodation
Ruth Rendon (RR)	City of Vaughan (COV)
Paul Grove (PG)	City of Vaughan
Samar SaadiNejad (SS)	City of Vaughan
Katrina Guy (KG)	City of Vaughan
Pat Becker (PB)	
Chris Sidlar (CS)	LEA Consulting Ltd. (LEA)
Katherine Kung (KK)	LEA Consulting Ltd.

MEETING TITLE Block 27 – Project Introduction Meeting

ITEM	TOPIC	ACTION BY /DUE DATE
1.0	**Block 27 Presentation** PG and CS presented the attached presentation which included the following topics: ► North Vaughan New Communities Transportation Master Plan (TMP) ○ Study Background ○ Alternative Solutions ○ Block 27 Secondary Plan Road Network ► Block 27 Collector Roads MCEA ► Review of Existing Conditions ○ Natural Environment ○ Archaeology	
2.0	**Discussion: Archaeology** **Timing** ► AL2 asked when the archaeological assessments were completed in Block 27	

- CS responded that the archaeological assessments were completed within a large range from as early as 2008 up to 2021 because each landowners did the assessments individually.
- RR added that each archaeological assessment was also completed by different archaeological consultants.
- AL2 indicated that having different consultants complete archaeological assessments over a period of times is common for large areas and is not a concern.

Archaeological Assessments Prior to 2011 Standards and Guidelines

- AL2 noted that MCFN is interested in the archaeological assessments completed prior to the release of the 2011 Standards and Guidelines and would like further details on those assessments. AL2 noted he is particularly interested to know if there are any Stage 1 AAs that cleared off areas of archaeological potential without investigations, however, if those areas were subsequently investigated, then AL2 is less concerned.
- CS responded that there is an archaeologist on the Block 27 project team who can pull together a summary of the archaeological assessments completed prior to 2011 and send to the MCFN for review once available. LEA
- RR added that there will be ossuary monitoring completed as part of the AMP and asked if the MCFN would like to be circulated on that work.
- AL2 confirmed that the MCFN would like to be circulated. COV

Future Archaeological Assessments

- RR asked LEA if there are any upcoming archaeological assessments scheduled at this time.
- KK noted that there was 1 property that we have been actively trying to coordinate / schedule Stage 2 AA (Parcel 1), however, because that property is actively being farmed, the project team has run into complications. Since the property is farmland, the standards and guidelines require a more rigorous process for assessment (e.g., ploughing). Unfortunately, the current property owner replanted his crop recently we cannot plough the recently seeded fields which is required to satisfy MHSTCI requirements.

  The project team is in correspondence with the property owner in case there is an opportunity in the future for the project team to plough the field.
- AL2 asked that two weeks advanced notice be provided to the MCFN prior to any future archaeological assessment to allow sufficient time to coordinate / schedule field liaisons.
- KK noted that LEA will inform the Block 27 archaeologist to provide MCFN with a minimum of two weeks advance notice of any future archaeological assessment. LEA

Other

- RR noted that alternative road alignments for Block 27 are currently being developed at this time and asked that the MCFN let the City know if there are any concerns that the City should be aware of when identifying potential alternative road alignments.
- AL2 responded that MCFN will let the City know of any concerns. MCFN
- RR asked if the MCFN has any other questions at this time.
- AL2 noted there are no additional questions at this time.

The foregoing is considered to be a true and accurate record of all discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Email kkung@lea.ca

Recorded by	Katherine Kung	LEA Consulting
Circulation	All attendees + Project Team	