
TO: GENERAL COMMITTEE

SUBJECT: BELL FARM ROAD MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT
PHASES 3 AND 4

WARD: 2

**PREPARED BY AND
KEY CONTACT:** B. GRATRIX, P. Eng.
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SUBMITTED BY: R. SUTTON, P. Eng.
DIRECTOR OF ENGINEERING

**GENERAL MANAGER
APPROVAL:** R. J. FORWARD, MBA, M.Sc., P. Eng.
GENERAL MANAGER OF INFRASTRUCTURE AND GROWTH MANAGEMENT

**CHIEF
ADMINISTRATIVE
OFFICER APPROVAL:** C. LADD
CHIEF ADMINISTRATIVE OFFICER

RECOMMENDED MOTION

1. That the preferred design alternative for the Municipal Class Environmental Assessment for Bell Farm Road, Phases 3 and 4 and attached as Appendix "C" to Staff Report ENG005-17, be adopted.
2. That in accordance with the requirements of the Class Environmental Assessment process, the Engineering Department publish a Notice of Completion for the Bell Farm Road Class Environmental Assessment Phases 3 and 4 Environmental Study Report.
3. That based on the successful conclusion of this Class Environmental Assessment process and available budgets being approved through the capital planning process:
 - a) The Engineering Department proceed with the implementation of the preferred design alternative for transportation improvements on Bell Farm Road;
 - b) That the Director of Legal Services be authorized to commence negotiations for the acquisition of all required property interests subject to the property acquisition budget being approved;
 - c) That the Director of Legal Services be delegated the authority to settle any negotiated agreements up to the maximum amount budgeted for property acquisition; and
 - d) That the City Clerk be authorized to execute all associated and required documents in a form approved by the Director of Legal Services.

PURPOSE & BACKGROUND

4. Bell Farm Road was identified for renewal by Corporate Asset Management to address road structure renewal needs, lack of sidewalks and drainage deficiencies. As road widening and implementation of active transportation was identified in the Multi-Modal Active Transportation Master Plan (MMATMP), a Phase 3 & 4 Class Environmental Assessment (Class EA) was undertaken.

5. On December 2, 2013, City Council adopted motion 13-G-289 regarding Growth Management Update: Infrastructure Master Plans and Fiscal Impact Analysis as follows:

“That the six Infrastructure Master Plans (Water Supply, Water Storage and Distribution, Wastewater Treatment, Wastewater Collection, Drainage and Stormwater Management, and Multi-Modal Active Transportation) related to growth from 2012-2031 be approved so that staff may complete the public consultation process in accordance with the Municipal Class Environmental Assessment process.”
6. The preferred design alternative from Phases 1 & 2 of the Class EA process completed as part of the MMATMP endorsed by Council, recommended transportation improvements including the addition of a continuous two-way left turn lane, bicycle lanes and sidewalks on Bell Farm Road.
7. Phase 3 & 4 of the Class EA process developed alternative design concepts for the preferred alternative identified in the MMATMP and documented the process and methodology employed throughout the study to prepare the Environmental Study Report (ESR).
8. Bell Farm Road has been divided into a west section and east section to reflect recommendations from the MMATMP and Development Charge Background Study. The west section is between St. Vincent Street to approximately 150 m east of Alliance Boulevard. The east section is 150 m east of Alliance Boulevard to Duckworth Street (refer to Appendix “A” for the study area map).
9. The west section of Bell Farm Road is an existing rural road section with ditches; there are no sidewalks on this section. The east section of Bell Farm Road transitions to a 4-lane urbanized section with a sidewalk on the north side for the full section length and on the south side for approximately 185 m from Duckworth Street.
10. Renewal needs have been identified for the existing road surface (rated as “very poor”). The existing 200 mm ductile iron watermain (1972) will be replaced with a 300 mm watermain to reinforce the water distribution network in Zone 2N. As part of urbanization, stormwater management (SWM) improvements including low impact development (LID) will be installed along with curbs and gutters. The existing sanitary sewer is being recommended for replacement to align asset lifecycles.
11. The 2017-2026 Capital Plan identifies this project for design funding in 2017/2018, property acquisition in 2018, utility relocation in 2019 and construction in 2020/2021.
12. Two public information centres were held as part of a joint study with the Ross Street /Collier Street /Bayfield Street Class EA Phases 3 & 4 study. The first Public Information Centre (PIC) was held on Wednesday, November 23, 2016; the public was invited to attend the PIC to review and provide comments on the proposed alternatives.
13. The second PIC was held on Wednesday, May 3, 2017; the public was invited to attend the PIC to review and provide comments on the preliminary preferred design alternative.

ANALYSIS

14. A comprehensive set of alternatives were evaluated to determine the optimal corridor configuration.
15. Comments received throughout the Class EA process, along with the Engineering Department’s responses to the comments, are summarized in the ESR which is available in the Councillors’ Lounge for review and on the City of Barrie website at www.barrie.ca/eastudies. Areas of major concern include:

- Poor condition of roadway
- Business disruption due to construction
- Road drainage spilling onto private property
- Existing lack of sidewalks and bicycle infrastructure
- Need for pedestrian crosswalk

Refer to Appendix “B” for responses to major concerns.

16. Twelve (12) people signed the attendance register at the first PIC and twelve (12) people signed the attendance register at the second PIC.
17. Through evaluation of impacts to the physical, natural, social, economic and cultural environments as well as comments and responses received from the PICs, the following alternative was selected as the preferred design alternative (refer to Appendix “C” for figures of the preferred design alternative):

Preferred Design Alternative	Proposed ROW (m)	Number of Through Lanes	Lane Width (m)	Two-Way Left Turn Lane Width (m)	Bicycle Lane Width (m)	Sidewalk	Median	Official Plan Property Protection (m)
West Section	26	2	3.5	4.2	1.5	North Side	East of reverse curve for traffic calming	26
East Section	26	2	3.5	4.2	1.5	Both Sides	None	29

18. The preferred design alternative addresses immediate renewal needs (road structure, watermain, sanitary sewer) and transportation improvements identified for Bell Farm Road while mitigating property impacts. The cross-section will consist of two through lanes with a continuous two-way left turn lane; sidewalks and bicycle lanes. Implementation will include stormwater management with LID.
19. As part of the preferred design alternative, mitigation elements were incorporated to reduce environmental, social and economic impacts through the following measures:

West Section

The trees on the south side of Bell Farm Road have been identified as a buffer to be preserved (between residences on Cynthia Court and Bell Farm Road). As part of detailed design, buffer details will be finalized and will include protection of existing trees and replacement where required. To facilitate the preservation of this buffer; sidewalks will be only installed on the north side of Bell Farm Road.

To mitigate additional property impacts; the existing horizontal curve geometrics will be maintained with the addition of a curve advisory sign with speed tab. Traffic Services are undertaking an assessment to determine if an advisory sign is warranted based on existing conditions.

East Section

Based on 2031 traffic volume projections; the implementation of 4 vehicular lanes of traffic (requiring a 29 metres ROW) is not required within the 2031 planning horizon based on revised traffic projections completed as part of this study. This will allow implementation of a road diet; this facilitates the inclusion of 2 through lanes, 1 continuous two-way left turn lane, bicycle lanes and sidewalks on both sides within the existing 26 metres ROW. The ESR recommends property protection for a 29 metres ROW as identified in the Official Plan.

20. The preferred design alternative identifies the required minor property acquisition for daylighting triangles and standard road platform in the vicinity of the reverse curve (refer to Appendix "C" for figures of the preferred design alternative including property requirement details).
21. Staff are recommending that the preferred design alternative be adopted by Council, in order that a Notice of Completion can be filed as required as part of the Class EA process. The Notice of Completion is the final point in the public process where the public can express their concerns if they feel issues raised through the Class EA process have not been sufficiently addressed. If there are no Part II requests received, Phases 3 & 4 of the Class EA process can be considered complete and the City can proceed with the implementation of the preferred design alternative. This implementation would include the property acquisition, utility relocations, detailed design phase and construction.
22. This project coordinates with completed and planned works in the area as follows:
 - Duckworth Street at Bell Farm Road – reconstruction completed.
 - St. Vincent Street widening – reconstruction scheduled for 2030.
 - Alliance Boulevard – reconstruction scheduled for 2023.

ENVIRONMENTAL MATTERS

23. This project has followed the guidelines for a Municipal Class EA, and physical, natural, social, cultural/heritage and economic environmental matters have been considered in the development of the recommendations. The ESR discusses how environmental matters have been considered in the development of the recommended preferred design alternative. The evaluation process considered criteria for natural, social, cultural/heritage and economic environmental matters and physical environment criteria such as traffic, pedestrians, cyclists, transit, property, noise, utilities, municipal services and driveway grades/operations.

ALTERNATIVE

24. The following alternative is available for consideration by General Committee:

Alternative #1 General Committee could alter the proposed recommendation by selecting another design alternative.

This Alternative is not recommended because the preferred design alternative provides for transportation improvements which minimize the effects to the physical, natural, social, cultural/heritage and economic (financial) environments.

FINANCIAL

25. The 2017 - 2026 Capital Plan includes funding of \$5,450,000 for the west section of Bell Farm Road based on a planning level cost estimate from the MMATMP.
26. The preliminary cost estimate for the preferred design alternative is \$8,900,000; \$5,900,000 for the west section and \$3,000,000 for the east section. Through completion of the Class EA study; the cost estimates have been further refined and include additional costs for retaining walls, sanitary sewer replacement and inclusion of the east section of Bell Farm Road. The additional costs will be included in the 2018 capital planning process.
27. This estimate is based on full reconstruction of existing roads including stormwater management, watermain replacement, sanitary sewer replacement, land acquisition, 15% utility relocation cost, 10% for engineering design and in-house costs, 10% construction contract administration, 25% for construction contingency and 1.76% non-recoverable HST.

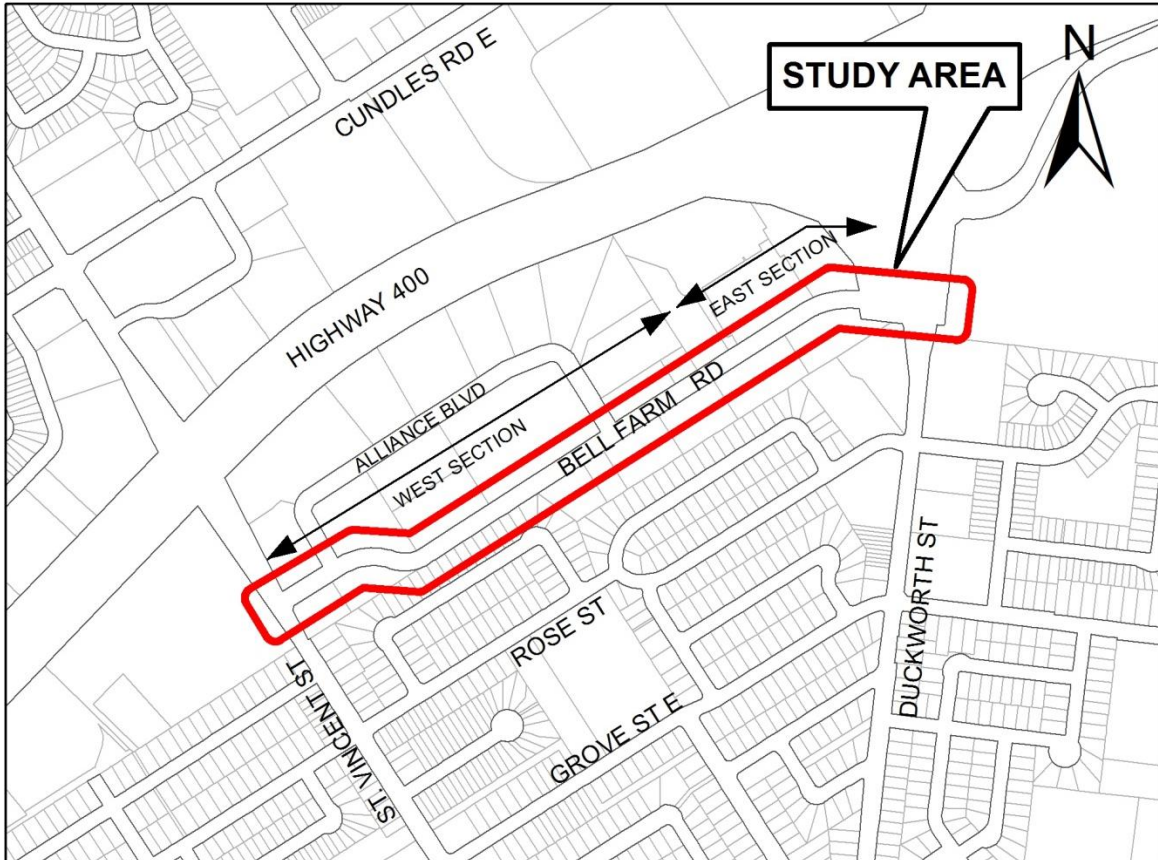
28. This project is development charges eligible with 65% of non-renewal related infrastructure eligible for cost recovery (35% is the benefit to existing development). As part of the 2018 Development Charges By-Law update; construction costs will be revised to reflect the development charges eligible costs in the latest cost estimate.
29. Operational cost increases are estimated at \$5,500/year.

LINKAGE TO 2014 – 2018 COUNCIL STRATEGIC PLAN

30. The recommendation(s) included in this Staff Report support the following goals identified in the 2014-2018 Strategic Plan:
- Responsible Spending
 - Well Planned Transportation
31. The planned transportation improvements are being implemented based on asset renewal needs (road reconstruction and widening occurring at end of asset life).
32. The preferred design alternative provides necessary active transportation infrastructure that serves Georgian College students, businesses on Bell Farm Road and the general area as it serves as a strong east-west connector to St. Vincent Street (alternative Highway 400 crossing route).

APPENDIX "A"

Map of Study Area



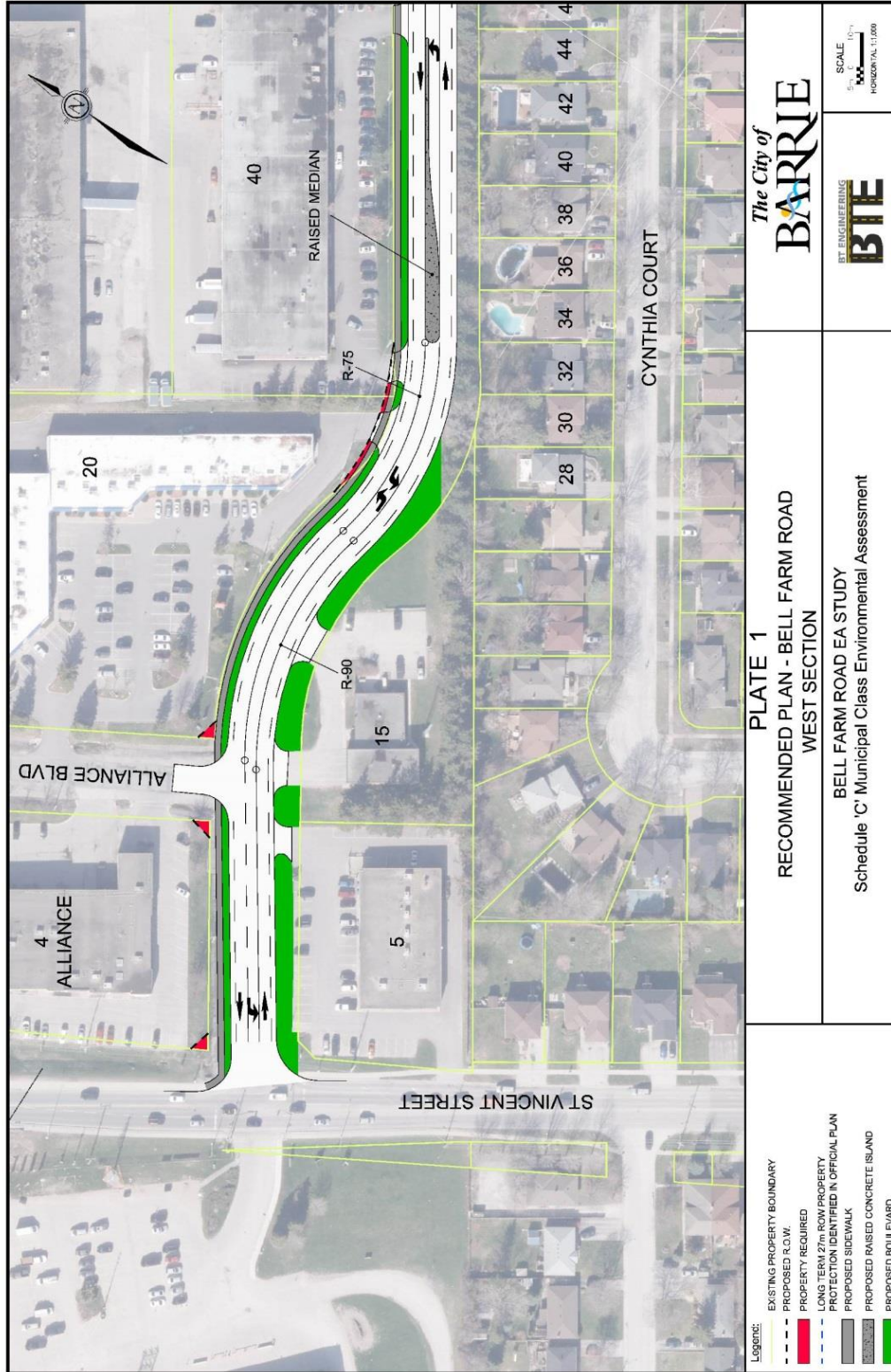
APPENDIX "B"

Summary of Major Concerns and Responses

Comments	Response
Concerns about business disruption and loss of business.	Communication will be provided in advance of construction including a PIC at 60% detailed design. During construction, information bulletins will be provided and the City will provide advance notice of road access restrictions.
Design should resolve drainage issues including spills from the roadway onto private property.	The Preferred Design Alternative consists of an urbanized road cross-section that will contain drainage generated from the roadway within the right-of-way.
Customers of businesses utilizing parking of other businesses. Concerned that loss of shoulders on Bell Farm Road will exacerbate this problem.	The Preferred Design Solution will be signed as "no-parking" as per City standards. The procedure to engage City By-Law Enforcement Officers to provide enforcement on private property has been provided.
Minimize impacts to boulevard landscaping/signs.	The Preferred Design Alternative can be generally implemented within the existing 26 m right-of-way. Landscaping installed within the municipal right-of-way (on City property) will be removed to accommodate construction. A legal survey will be completed as part of this project to determine property boundaries.
Addition of sidewalks requested.	The Preferred Design Alternative includes sidewalks on the north side of Bell Farm Road from St. Vincent Street to Alliance Boulevard (east intersection) and both sides from Alliance Boulevard (east intersection) to Duckworth Street.
Crosswalk on Bell Farm Road at Alliance Boulevard requested (east intersection).	The Preferred Design Solution includes a pedestrian crosswalk.

APPENDIX "C"

Preferred Design Alternative Drawings



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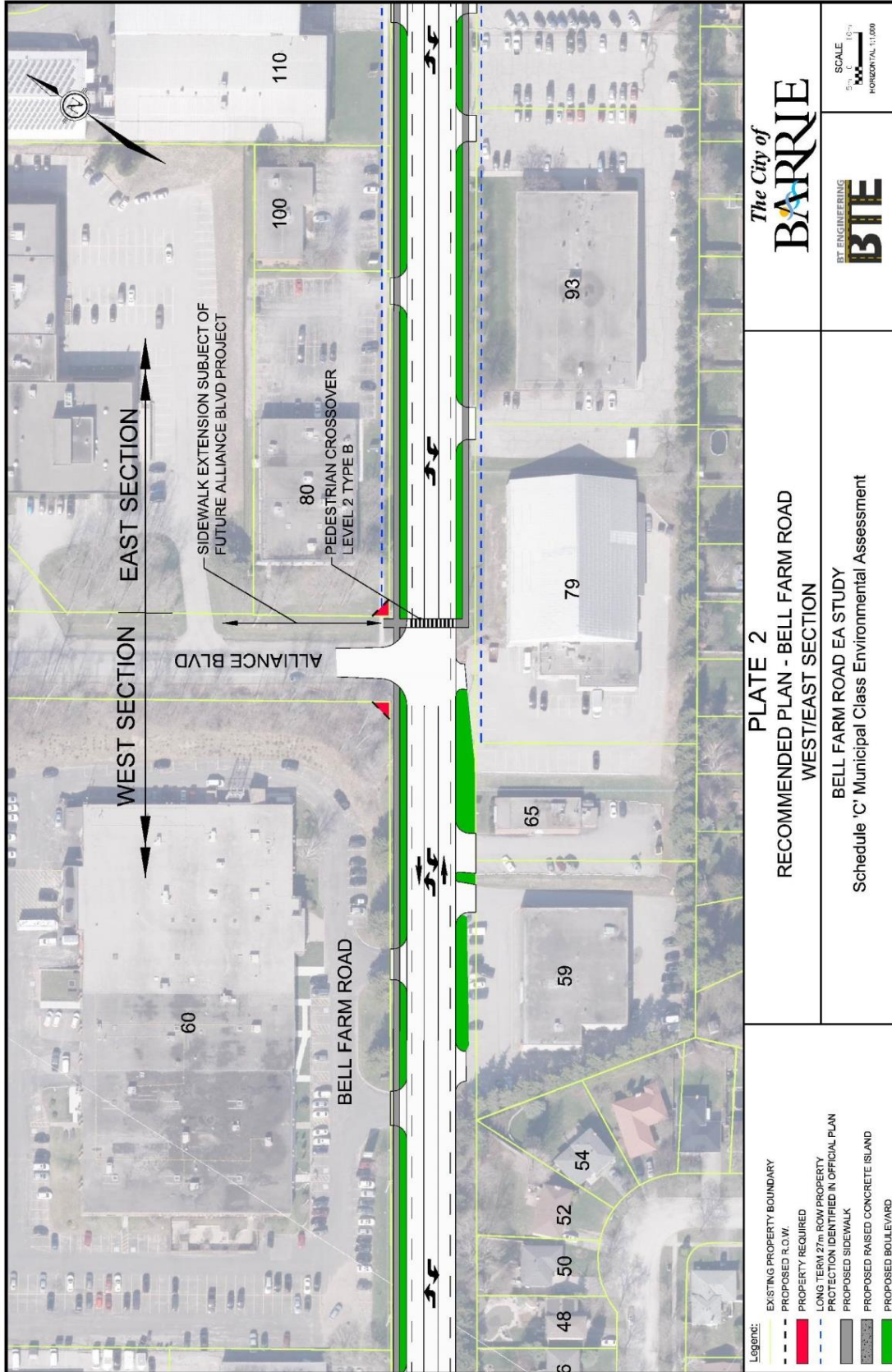




PLATE 3
RECOMMENDED PLAN - BELL FARM ROAD
EAST SECTION

BELL FARM ROAD EA STUDY
Schedule 'C' Municipal Class Environmental Assessment



SCALE
5m 10m 15m
HORIZONTAL 1:1,000

- Legend:
- EXISTING PROPERTY BOUNDARY
 - PROPOSED R.O.W.
 - PROPERTY REQUIRED
 - LONG TERM 27m ROW PROPERTY
 - PROTECTION IDENTIFIED IN OFFICIAL PLAN
 - PROPOSED SIDEWALK
 - PROPOSED RAISED CONCRETE ISLAND
 - PROPOSED BOULEVARD

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