
TO: GENERAL COMMITTEE

SUBJECT: MCKAY ROAD INTERCHANGE AND SALEM / LOCKHART CROSSING MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT PHASES 3 AND 4 AND SALEM RESERVOIR AND PUMPING STATION MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT PHASES 1 AND 2

WARD: 7 AND 8

PREPARED BY AND KEY CONTACT: A. L. ALMUINA, P.ENG., PROJECT COORDINATOR (EXTENSION #4458)

SUBMITTED BY: ROBERT 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 Highway 400 Interchange at McKay Road and the Salem Road – Lockhart Road Crossing of Highway 400, as assessed in the Municipal Class Environmental Assessment Phases 3 and 4, attached as Appendix “A” to Staff Report ENG007-17 be adopted.
2. That, in accordance with the requirements of the Class Environmental Assessment process, Council endorse the McKay Road Interchange and Salem /Lockhart Crossing Municipal Class Environmental Assessment Phases 3 and 4 and have staff file the Environmental Study Report for public review.
3. That based on the successful conclusion of this Class Environmental Assessment, the Engineering Department proceed with the detailed design of the preferred alternative design for roadways and municipal servicing within the Salem Secondary Plan study, as presented in this Class Environmental Assessment.
4. That the preferred location for the Salem Water Reservoir and Pump Station as outlined in ENG007-17 be adopted.
5. That the Director of Legal Services be authorized to commence negotiations to acquire the property at 30 Salem Road, legally described as Part of the South half of Lot 7, Concession 11, Innisfil now Barrie and being all of PIN 587280015 (“Subject Property”).
6. That the City Clerk be authorized to execute an Agreement of Purchase and Sale for the Subject Property in a form approved by the Director of Legal Services, Director of Engineering and General Manager of Infrastructure & Growth Management.
7. That the Director of Legal Services be authorized to commence expropriation proceedings, if deemed necessary by the Director of Legal Services and Director of Engineering, to acquire a fee simple interest in the Subject Property.

8. That the Corporation of the City of Barrie make an application to City Council, as approving authority, for approval to expropriate the Subject Property and that the City Clerk be authorized to execute the necessary forms of application.
9. That the "Notice of Application for Approval to Expropriate" be served and published and that any requests for inquiries received, pursuant to the "Notice of Application for Approval to Expropriate" be forwarded to the Chief Inquiry Officer and the Chief Inquiry Officer be requested to report to Council with respect to any such request.
10. That the Director of Legal Services be delegated authority to settle the expropriation or any negotiated agreement relating to the Subject Property and 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

11. The purpose of this Staff Report is to receive Council endorsement to finalize the Environmental Study Report (ESR) for the McKay Road Interchange and Salem/Lockhart Crossing Municipal Class Environmental Assessment (Class EA) Phases 3 and 4 and request authority to file the ESR for public review.
12. A Multi-Modal Active Transportation Master Plan (MMATMP) was completed in January 2014 and identified various projects to address growth in the City of Barrie.
13. The MMATMP was conducted in accordance with the Master Plan process as described in the Municipal Engineers Association (MEA) process for the planning and design of municipal infrastructure (dated October 2000, as amended in 2007, 2011 and 2015), and addresses Phases 1 and 2 of the five-phase Municipal Class EA process.
14. All municipal road reconstruction or widening projects in Ontario require approval under the Ontario Environmental Assessment Act (EA Act). MEA Municipal Class EA process streamlines the planning and decision making process for municipal infrastructure with an approved procedure designed to protect the environment. The Class EA process provides a decision-making framework that enables the requirements of the EA Act to be met in an effective manner.
15. The City proceeded with Phases 3 and 4 of the Municipal Class EA process for the Schedule C road widenings and grade separations projects in accordance with the recommendations of the MMATMP.
16. The City of Barrie initiated a Schedule C Municipal Class EA Study to recommend improvements to the following recommendations of the MMATMP:
 - a) A new Interchange on Highway 400 at MacKay Road; and
 - b) A new bridge crossing of Highway 400 at Salem /Lockhart Road.
17. The Study Area is comprised primarily of rural agricultural land in the southern portion of the City of Barrie.
18. WSP was retained by the City of Barrie to undertake a Class EA Study for improvements described above. The study included the review of the existing work already completed as part of the MMATMP and the completion of Phases 3 and 4 of the Class EA process.

ANALYSIS

McKay Road Interchange

19. Three interchange design alternatives were considered:
 - a) Parclo A4 – full moves interchange with ramps on all four quadrants;
 - b) Parclo A3 – full moves interchange with ramps on only three quadrants; and
 - c) Diamond – full moves with all access controlled at intersections (similar to Mapleview Drive interchange).
20. The preferred alternative design for the McKay Road East Interchange consists of a “Parclo A3” configuration. This configuration does not have an on-ramp in the northeast quadrant to avoid lands with archaeological potential while still providing an all-moves interchange. However, the Class EA Study is recommending the City protect land for a future northbound ramp if the opportunity presents itself once the required archaeological studies are completed.
21. The design of the McKay Road Interchange will also be integrated with the Ministry of Transportation (MTO) Highway 400 improvements, which include the current replacement of the McKay Road bridge and future widening of Highway 400. The McKay Road Interchange and Salem/Lockhart Crossing are subject to MTO approval.

Salem Road – Lockhart Road Crossing

22. Two alternatives were developed for the connection of Salem Road and Lockhart Road across Highway 400:
 - a) An alignment along the centreline of the existing right-of-way; and
 - b) An alignment shifted to the south.
23. The preferred alternative design for the Salem Road – Lockhart Road Crossing over Highway 400 consists of a four-lane urban cross-section, with a two-way left turn lane /paved median. Over Highway 400, the median be reduced to a 2 m raised median to reduce overall structural width. A boulevard of 1.5 m is provided across the structure for side clearance and snow storage.
24. Appendix A presents the preferred conceptual alternative design for the interchange and the crossing.
25. The points of public contact as required under the Municipal Class Environmental Assessment process have been as follows to date:
 - a) Notice of Commencement and PIC #1 - September 22, 2016
 - b) PIC #2 - April 6, 2017
26. In addition, meetings were held with a wide variety of stakeholders throughout the process. The purpose of the meetings was twofold; first, to keep the various groups informed of the progress and second, to involve them in the development of the preferred alternative designs. The stakeholders with whom meetings were held included:

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- a) Lake Simcoe Region Conservation Authority;
 - b) Nottawasaga Valley Conservation Authority;
 - c) Alectra;
 - d) Ministry of Transportation – Ontario;
 - e) Individual Property owners where the impacts of the proposed road widening could have a significant effect on property;
 - f) County of Simcoe;
 - g) Town of Innisfil; and
 - h) Landowners and Developers: landowner/developer groups, agents and consultants.
27. Responses were provided to all comments received through the public meetings and compiled in the ESR. There were no comments or major concerns with regards to these two projects.
28. Preliminary property requirements have been identified in the preferred alternative design concepts. However, it is important to note that property needs will be confirmed during detailed design to account for drainage, LID, intersection improvements and utility services and other design considerations.

Salem Road Reservoir and Pumping Station

29. City of Barrie's Infrastructure Master Plan: Water Storage and Distribution Master Plan (2013) identified a need for a pumping station and reservoir located on Salem Road.
30. An assessment of potential locations for the reservoir and pump station was undertaken as part of this assignment. The assessment considered a range of environmental and technical factors including natural environment, elevation, cultural heritage, land use, life-cycle costs and space for future facilities.
31. Three sites were considered for the reservoir and pump station as illustrated in Appendix "B".
32. "Site 1" located at 30 Salem Road is the recommended site due to parcel size, site topography, ease of access, compatibility with adjacent land uses and available room for ease of future expansion.
33. To secure the property at 30 Salem Road in a timely manner, processes to acquire the property need to be initiated by City staff.

ENVIRONMENTAL MATTERS

34. 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

35. 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

36. The costs associated with the next steps of development of the transportation improvements are incorporated in the 2017-2021 Capital Plan and 2022-2026 Capital Outlook.

LINKAGE TO 2014 – 2018 COUNCIL STRATEGIC PLAN

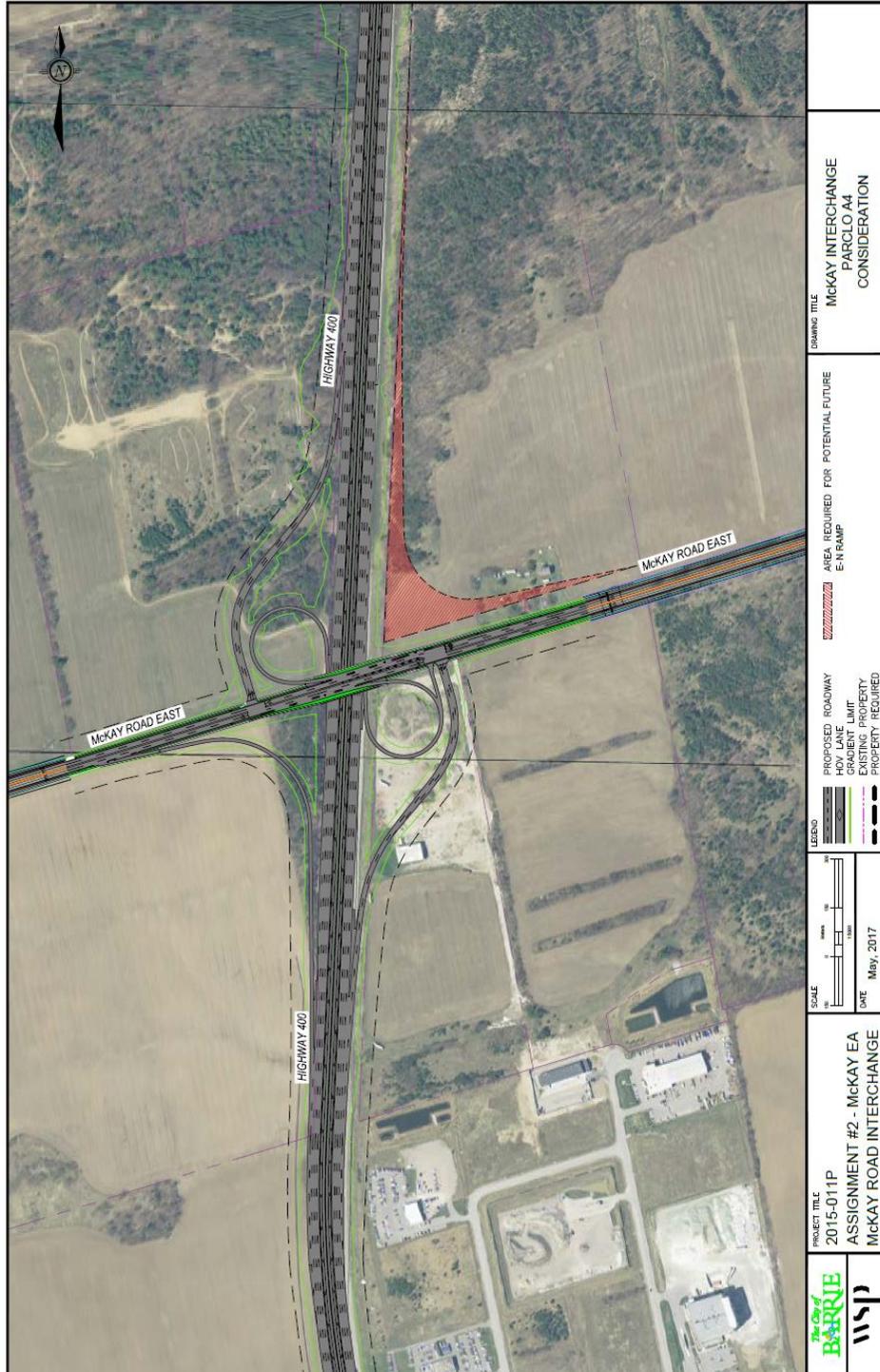
37. The recommendation(s) included in this Staff Report support the following goals identified in the 2014-2018 Strategic Plan:

- Responsible Spending
- Well Planned Transportation

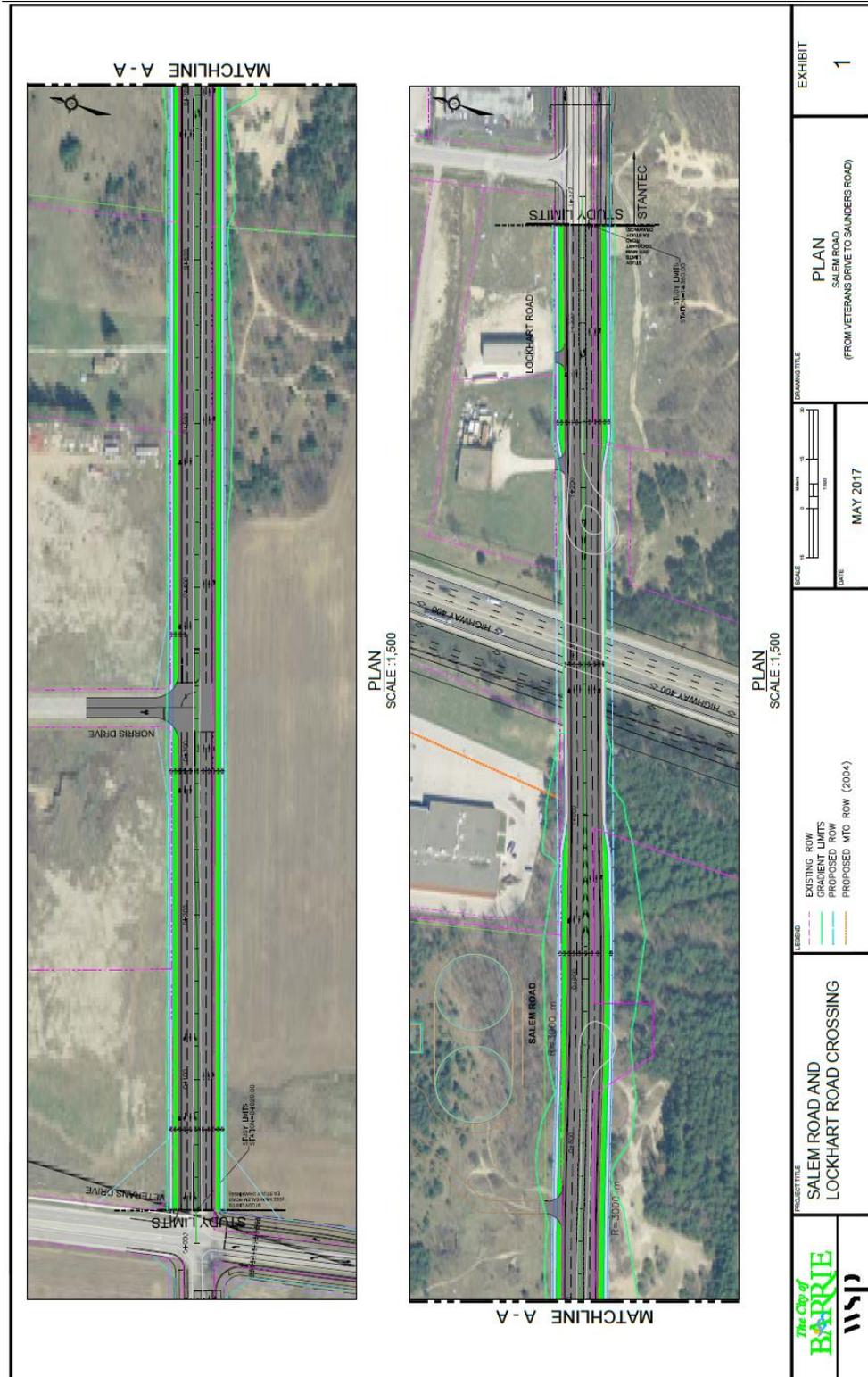
38. The planned transportation improvements are being implemented based on the need to service Barrie's Annexed Lands and growth to 2031.

Appendix "A"
Preferred Design Alternative Designs

A.1 - McKay Road East Parclo A3 Interchange



A.2 - Salem Road - Lockhart Road Crossing over Highway 400



Appendix "B"
Salem Reservoir and Pump Station

B.1 - Alternative Sites

