APPENDIX F:
NOTICE OF COMPLETION AND ASSOCIATED DOCUMENTS

The City of BARRIE

Engineering Department
MEMORANDUM

TO: **Mayor J. Lehman and Members of General Committee**

FROM: **R. W. McArthur, P. Eng., Director of Engineering**

NOTED: **R. J. Forward, MBA, M.Sc., P. Eng., General Manager of Infrastructure, Development & Culture**

J. M. Babulic, Chief Administrative Officer

RE: **Huronia Road Transportation Improvements (Yonge Street to Lockhart Road)**
Municipal Class Environmental Assessment, Phases 3 and 4
Evaluation of Alternative Designs
(File: T05-HU)

DATE: **May 19, 2011.**

The Engineering Department is proceeding with the Municipal Class Environmental Assessment (Class EA) Study, Phases 3 and 4 for Huronia Road from Yonge Street to Lockhart Road as per Council Motion 09-G-392.

The public consultation process of the Class EA requires that the public, who requested to be kept informed of the Class EA process, be advised of the recommendations prior to consideration by General Committee. To advise the concerned public of the staff recommendations that will be contained in the staff report, the attached letter will be distributed. To ensure that Council has the information at the same time as the public, this memo has been provided with a copy of the letter.

The Final Draft Environmental Study Report (ESR), which contains details of the design alternatives, will be available in the Councillors' Lounge for review on May 20, 2011.

If there are any questions, please contact Ralph Scheunemann at extension 4782, or e-mail rscheunemann@barrie.ca.

Ralph Scheunemann

R. E. Scheunemann, P. Eng.
Infrastructure Planning Engineer

S. Patterson, P. Eng.
Manager of Infrastructure Planning

R. W. McArthur

R. W. McArthur, P. Eng.
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BARRIE, ONTARIO
L4M 4T5

THE CORPORATION OF THE CITY OF BARRIE
Engineering Department
"Committed to Total Service Excellence"

May 20, 2011

File: T05-HU

To All Area Residents / Business Owners / Tenants / Agencies:

RE: Huronia Road Transportation Improvements
(Yonge Street to Lockhart Road)
Municipal Class Environmental Assessment, Phases 3 and 4
Evaluation of Alternative Designs

The Engineering Department of the Corporation of the City of Barrie is undertaking a Municipal Class Environmental Assessment (Class EA), to address transportation issues on Huronia Road, from Yonge Street to Lockhart Road, in accordance with the requirements of the 2000 Municipal Class Environmental Assessment Guidelines as amended in 2007.

The first Public Information Centre (PIC) was held on June 18, 2008, to allow the public and applicable review agencies the opportunity to review the alternatives and ask any questions. Comment sheets containing the public/review agency comments and/or concerns from the first PIC were considered in the development of the Preferred Alternative Solution.

On September 28, 2009, Barrie Council adopted the following Motion 09-G-392:

> That the Preferred Alternative for the Municipal Class Environmental Assessment Study for Huronia Road (Class EA) from Yonge Street to Lockhart Road be adopted as follows:
>
> a) Three (3) lanes within a ±23m road dedication from Yonge Street to just north of Herrell Avenue.
>
> b) Five (5) lanes within a ±30m road dedication from north of Herrell Avenue to Lockhart Road.
>
> c) From just south of Mapleview Drive to Lockhart Road, the implementation of the ultimate five (5) lanes could be phased with an interim three (3) lane improvement.
>
> That in accordance with the requirements for a Schedule "C" Class EA study, the Engineering Department continues with Phases 3 and 4 of the Class EA process which includes the development and evaluation of alternative designs, a second Public Information Centre, and the recommendation to Council for a preferred design for Huronia Road from Yonge Street to Lockhart Road.

A second PIC was held on November 25, 2010, to allow the public and applicable review agencies the opportunity to review the design alternatives and ask any questions. Comment sheets containing the public/review agency comments and/or concerns from the second PIC have been considered in the development of the Preferred Design Alternative Solution. For a summary of the major concerns raised, and the City's response to those concerns, please see Appendix "A". Please see the Final Draft Environmental Study Report (ESR) for detailed comments and responses.

The various design alternatives have been evaluated based on the physical, natural, social, cultural and economic environments, and the Engineering Department is recommending the following to General Committee (see attached Figure 1 for a location of the Preferred Design Alternatives):

Ultimate Preferred Design Alternative

Design Alternative 3-7: Huronia Road, from Yonge Street to ±50 metres south of Little Avenue, has a three lane urban cross section, minor centreline shift to the west, one 3.5 metre through lane in each direction, a 4.0 metre centre two-way left turn lane, right turn lane from Burton Avenue to Huronia Road, sidewalks on both sides, intersection improvements and reduced boulevard width in areas where the existing right-of-way is only 20 metres (additional right-of-way width required at Huronia Road/Little Avenue intersection).

Design Alternative 3-6: Huronia Road, from ±50 metres south of Little Avenue to ±180 metres north of Herrell Avenue, has a three lane urban cross section, minor centreline shift to the west, one 3.5 metre through lane in each direction, a 4.0 metre centre two-way left turn lane, sidewalks on both sides, and intersection improvements within the proposed 23.0 metre right-of-way (additional right-of-way width required at Huronia Road/ Little Avenue intersection to accommodate right turn lanes).

Design Alternative 5-7: Huronia Road, from ±180 metres north of Herrell Avenue to ±150 metres south of Herrell Avenue, has a five lane urban cross section, centreline shift to the west at Herrell Avenue, two 3.5 metre through lanes in each direction, a 4.0 metre centre two-way left turn lane, sidewalks on both sides, decommissioning of existing water well, new traffic signals at Huronia Road/Herrell Avenue and intersection improvements within a proposed right-of-way which varies from 23.0 metres to 30.0 metres.

Design Alternative 5-5: Huronia Road, from ±150 metres south of Herrell Avenue to Loon Avenue, has a five lane urban cross section, two 3.5 metre through lanes in each direction, a 4.0 metre centre two-way left turn lane, reduced boulevard width, sidewalks on both sides, traffic signals at Loon Avenue/ Huronia Road and intersection improvements within a proposed 27.0 metre to 29.0 metre right-of-way.

Design Alternative 5-6: Huronia Road, from Loon Avenue to ±60 metres north of Mapleview Drive East, has a five lane urban cross section, two 3.5 metre through lanes in each direction, a 4.0 metre centre two-way left turn lane, a 1.5 metre sidewalk on the west side, a 3.0 metre multi-use trail on the east side, traffic signals at Loon Avenue/Huronia Road and intersection improvements within a proposed 31.5 metre right-of-way (additional right-of-way width required at Huronia Road/Mapleview Drive East intersection to accommodate right turn lanes).

Design Alternative 5-8: Huronia Road, from ±60 metres north of Mapleview Drive East to ±160 metres south of Saunders Road, has a five lane urban cross section, centreline shift to the west, two 3.5 metre through lanes in each direction, a 4.0 metre centre two-way left turn lane, a 1.5 metre sidewalk on the west side, a 3.0 metre multi-use trail on the east side and intersection improvements within a right-of-way which varies from 30.0 metres to 36.0 metres (additional right-of-way width required at Huronia Road/Mapleview Drive East intersection to accommodate right turn lanes).

Design Alternative 5-1: Huronia Road, from ±160 metres south of Saunders Road to ±210 metres south of Lockhart Road, has a five lane urban cross section, two 3.5 metre through lanes in each direction, a 4.0 metre centre two-way left turn lane, a 1.5 metre sidewalk on the west side, a 3.0 metre multi-use trail on the east side and intersection improvements, within a proposed right-of-way which varies from 35.2 metres to 46.1 metres.

Potential Interim Design Alternative

Interim Design Alternative 3R-6: Huronia Road, from ±170 metres north of Saunders Road to ±160 metres south of Saunders Road, has a three lane rural cross section, centreline shift to the west, one 3.5 metre through lane in each direction, a 4.0 metre centre two-way left turn lane, 2.0 metre shoulders on both sides, a 3.0 metre multi-use trail on the east side and intersection improvements within a proposed 31.5 metre right-of-way.

Interim Design Alternative 3R-1: Huronia Road, from ±160 metres south of Saunders Road to Lockhart Road, has a three lane rural cross section, one 3.5 metre through lane in each direction, a 4.0 metre centre two-way left turn lane, 2.0 metre shoulders on both sides, a 3.0 metre multi-use trail on the east side and intersection improvements within a proposed right-of-way width that varies from 20.1 metres (existing) south of Lockhart Road to 46.1 metres (proposed) in the vicinity of the proposed channel relocation.

Preferred Design Alternative

Acquisition of Property Rights: Acquire property for improvements as identified in the final Environmental Study Report.

Culvert Upgrades: Provide 1:100 year storm culvert conveyance upgrades or extensions as identified in the final Environmental Study Report.

Relocation of Existing Watercourse: Relocate the existing watercourse from the west side of Huronia Road to the east side of Huronia Road from ±160 metres south of Saunders Road to ±320 metres south of Saunders Road.

The final draft ESR document has been prepared and is available online at: http://www.barrie.ca/Living/Environment/Pages/EnvironmentalAssessmentStudies.aspx. The ESR document will also be available for review in the following locations during business hours:

City of Barrie
Clerk's Office
1st Floor City Hall
70 Collier Street
Barrie, ON

City of Barrie
Engineering Department
6th Floor City Hall
70 Collier Street
Barrie, ON

Barrie Public Library
Information Desk
60 Worsley Street
Barrie, ON

The above staff recommendations will be presented to General Committee on June 6, 2011. General Committee's recommendations may be approved by City Council on June 13, 2011. Subject to the endorsement of the Preferred Alternative Solution by City Council, the Notice of Completion will be filed.

If concerns are raised during the Class EA process which cannot be resolved in discussion with the Corporation of the City of Barrie, the Ministry of the Environment may be requested to make an Order for the project to comply with Part II of the Environmental Assessment Act (referred to as a Part II Order). Requests for a Part II Order must be received by the Ministry of the Environment within 30 days of the publication of the Notice of Completion. A copy of the request must also be sent to the City of Barrie Engineering Department. See contact information below.

The Honourable John Wilkinson
Minister of the Environment
77 Wellesley Street West
11th Floor, Ferguson Block
Toronto, ON M7A 2T5

Mr. Ralph Scheunemann, P. Eng.
City of Barrie, Engineering Department
P.O. Box 400
70 Collier Street, 6th Floor
Barrie, ON L4M 4T5

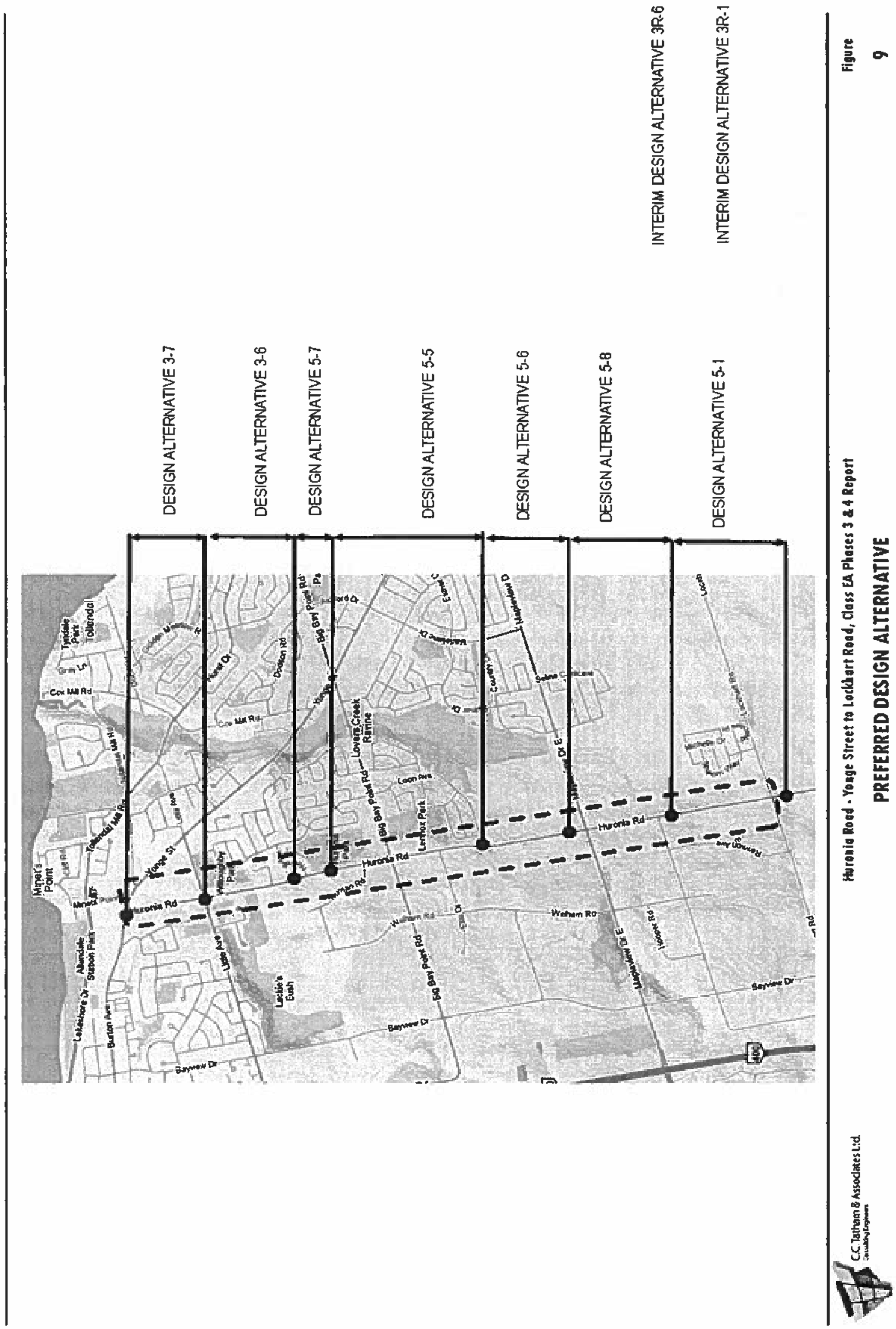
Following the successful completion of the Class EA process, and providing no Part II Orders have been received, it would be the City's intention to consider the Preferred Design Alternative Solution for inclusion in the 2012-2021 Business Plan.

If you have any questions and/or concerns, please feel free to contact Mr. Ralph Scheunemann at (705) 739-4220, extension 4782, or e-mail rscheunemann@barrie.ca.

Yours truly,

R. Scheunemann, P. Eng.,
Infrastructure Planning Engineer

Figure 1


DESIGN ALTERNATIVE 3-7
DESIGN ALTERNATIVE 3-6
DESIGN ALTERNATIVE 5-7
DESIGN ALTERNATIVE 5-5
DESIGN ALTERNATIVE 5-6
DESIGN ALTERNATIVE 5-8
DESIGN ALTERNATIVE 5-1
INTERIM DESIGN ALTERNATIVE 3R-6
INTERIM DESIGN ALTERNATIVE 3R-1
Huronia Rd
Yonge St
Bayview Dr
Huronia Road - Yonge Street to Lockhart Road, Class EA Phases 3 & 4 Report
PREFERRED DESIGN ALTERNATIVE
Figure
9
C.C. Tatham & Associates Ltd.

APPENDIX "A"

Summary of Major Public and Review Agency Comments and Concerns (PIC #2)

Comments	Response
Protection of existing mature trees within the road allowance.	Some trees within the existing and/or expanded rights-of-way may need to be removed to accommodate road improvements. However, every reasonable effort will be made to identify and protect trees and their root systems during construction through provisions in the contract. In developed areas the boulevard width was adjusted to minimize impact to property.
Pedestrian safety and need for sidewalks on one and/or both sides of the road.	Sidewalks are proposed on both sides of Huronia Road. South of Loon Avenue a 3 metre multi-use trail is proposed on the east side of Huronia Road to Lockhart Road.
Request for bicycle lanes.	Providing dedicated bicycle lanes on Huronia Road was considered but deemed problematic due to potential safety concerns associated with the volume of vehicular and truck traffic on Huronia Road. As a result and given the available existing Trans Canada trail system, provisions for on street bike lanes are not recommend. In support of the City's Active Transportation initiative, a combination of design alternatives 5-6 and 5-8 which include provisions for a 3 metre multi-use trail on the east side of Huronia Road from Loon Avenue to south of Mapleview Drive East has been identified as the preferred design alternatives.
Increase traffic volumes and speeding due to proposed road improvements.	No additional through lanes are proposed in residential areas. Centre turn lane will improve access to adjacent property.
Impact to driveway parking space.	Boulevard width was reduced in residential areas to minimize impact to adjacent properties. Transportation improvements will maintain the minimum required driveway length of 7 metres as per the City Zoning By-Law.
Impact of proposed landscape median island to access to future development lands.	Landscape median has been removed.
Heavy truck traffic on Huronia Road north of Big Bay Point Road.	City of Barrie's permissive truck route on Huronia Road does not extend north of Big Bay Point Road. Speeding and use of heavy trucks on Huronia Road north of Big Bay Point Road is an enforcement issue.
Traffic congestion at Mapleview Drive intersection.	Improvements on Mapleview Drive East including the intersection with Huronia Road are currently being designed. These improvements which involve road widening to accommodate additional through and turn lanes will improve the capacity and operation of Mapleview Drive East as well as traffic entering / exiting the adjacent commercial plaza.

Comments	Response
Impact to watercourses.	The proposed road improvements may require a Federal Authorization for Works or Undertakings Affecting Fish Habitat through LSRCA. In support of such an application, a fish habitat compensation plan may be required. Compensation requirements and opportunities will be determined in consultation with LSRCA during the final design and permit approval stage.
Accessibility concerns during construction.	Proposed upgrades to Huronia Road, which will involve a combination of the design alternatives considered, will include full road reconstruction and new asphalt surface. Every reasonable effort will be made during construction to provide suitable road surface for vehicular and pedestrian traffic. However, due to construction staging and traffic management constraints, it may be necessary for traffic to travel on a gravel surface temporarily until base asphalt can be placed.
Wildlife impact.	Due to the existing high traffic volumes on Huronia Road, it is expected that wildlife movement is currently significantly restricted. As such the proposed road improvements will not alter wildlife crossing movements. Opportunities to reduce wildlife mortalities by improving crossing movements will be provided through the instillation of larger span open bottom culverts.
Protection of wetlands.	Based on findings of the environmental impact study, wetland loss is not anticipated to be significant and will be limited to the edges. To mitigate property and tree/vegetation impacts on Huronia Road from Loon Avenue to Herrell Avenue, design alternative 5-5 which involves a reduced boulevard width has been identified as the preferred design alternative.
Diversion of a tributary to Lovers Creek on Huronia Road from approximately 560 metres north of Mapleview Drive East southerly to Mapleview Drive East, then easterly outfalling at the main channel to Lovers Creek to reduce drainage issues associated with development west of Lovers Creek, north of Mapleview Drive East and east of Huronia Road (Part of the South ½ Lot 11, Concession 12)	The preliminary cost estimate to divert the regional flows is approximately $9.6 million if constructed as part of road reconstruction (costs do not include design, taxes or property acquisition). Given the costs and the potential negative environmental effects on the Lovers Creek tributary east of Huronia Road, the proposed creek diversion is not currently recommended. A meeting will be held with the LSRCA and the property owner to discuss this proposed diversion and potentially other options.

The City of BARRIE

STAFF REPORT ENG031-11
June 6, 2011

TO:	**GENERAL COMMITTEE**
SUBJECT:	**HURONIA ROAD TRANSPORTATION IMPROVEMENTS (YONGE STREET TO LOCKHART ROAD), MUNICIPAL CLASS EA, PHASES 3 & 4 EVALUATION OF ALTERNATIVE DESIGNS**
PREPARED BY AND KEY CONTACT:	**R. E. SCHEUNEMANN, P. Eng.** RS **INFRASTRUCTURE PLANNING ENGINEER (Ext. 4782)**
SUBMITTED BY:	**R. W. MCARTHUR, P. Eng.** R. W. McArthur **DIRECTOR OF ENGINEERING**
GENERAL MANAGER APPROVAL:	**R. J. FORWARD, MBA, M.Sc., P. Eng. GENERAL MANAGER OF INFRASTRUCTURE, DEVELOPMENT & CULTURE**
CHIEF ADMINISTRATIVE OFFICER APPROVAL:	**JON M. BABULIC CHIEF ADMINISTRATIVE OFFICER**

RECOMMENDED MOTION

1. That the Preferred Design Alternative for the Municipal Class Environmental Assessment Study for Huronia Road (Class EA) from Yonge Street to Lockhart Road Phase 3 & 4 be adopted as outlined in Staff Report ENG031-11.

2. That in accordance with the requirements of the Class EA process, the Engineering Department publishes a Notice of Completion for the Class EA Report.

PURPOSE & BACKGROUND

3. In 1999 the City of Barrie Transportation Study identified the need for additional north-south vehicular capacity, east of Highway 400, to meet existing and future traffic demands. Huronia Road is an arterial route connecting Yonge Street to County Road 54 (the extension of Huronia Road into Innisfil).

4. Undeveloped areas adjacent to Huronia Road between Lockhart Road and Yonge Street are at various stages of approval. The draft June 2009 Official Plan identifies Huronia Road as a future arterial road within a 30 metre right-of-way south of Big Bay Point Road and 26 metre right-of-way north of Big Bay Point Road.

5. City Staff have initiated a Municipal Class Environmental Assessment (Class EA) to examine the need for roadway improvements along Huronia Road to accommodate existing and future traffic needs in south Barrie.

6. As part of the Class EA process, the public and review agencies were notified of the Class EA undertaking, and were invited to attend a Public Information Centre (PIC) that was held on June 18, 2008, from 4:00 p.m. to 7:00 p.m. at City Hall in Huronia Room "B".

7. Interested parties were given the opportunity to submit comments on the alternatives presented. Respondents were asked to rank, comment, and indicate any concerns with the alternatives. Adjacent property owners generally supported transportation improvements, but were concerned with the potential impact that these improvements would have on their existing properties.

8. On September 28, 2009, Barrie Council adopted the following Motion 09-G-392:

> "That the Preferred Alternative for the Municipal Class Environmental Assessment Study for Huronia Road (Class EA) from Yonge Street to Lockhart Road be adopted as follows:
>
> a) Three (3) lanes within a ±23 metre road dedication from Yonge Street to just north of Herrell Avenue.
>
> b) Five (5) lanes within a ±30 metre road dedication from north of Herrell Avenue to Lockhart Road.
>
> c) From just south of Mapleview Drive to Lockhart Road, the implementation of the ultimate five (5) lanes could be phased with an interim three (3) lane improvement.
>
> That in accordance with the requirements for a Schedule "C" Class EA study, the Engineering Department continues with Phases 3 and 4 of the Class EA process which includes the development and evaluation of alternative designs, a second Public Information Centre, and the recommendation to Council for a preferred design for Huronia Road from Yonge Street to Lockhart Road."

9. In accordance with the Class EA Process, a second PIC was held on November 25, 2010 to give the interested public and review agencies the opportunity to provide input into the design alternatives. A copy of the newspaper notice, the mail out information, comment sheets, and the drawings of the alternatives are in Appendix "G" of the Environmental Study Report (ESR). The report was available for review on the 6th Floor of City Hall, at the Library, Clerks Office and the City of Barrie website.

10. The following design alternatives were presented to the public and review agencies at the PIC:

Huronia Road from Yonge Street to north of Herrell Avenue:

a) Design Alternative 3-1: City of Barrie Standard (23 metre right-of-way)
b) Design Alternative 3-2: Reduced Centre Lane Width (22.5 metre right-of-way)
c) Design Alternative 3-3: Reduced Lane Width (22.6 metre right-of-way)
d) Design Alternative 3-4: Sidewalk on One Side Only (20.5 metre right-of-way)
e) Design Alternative 3-5: Reduced Boulevard Width (20 metre right-of-way)
f) Design Alternative 3-6: Proposed Centreline Shift on Huronia Road (23 metre right-of-way)

Huronia Road from north of Herrell Avenue to Lockhart Road:

a) Design Alternative 5-1: City of Barrie Standard (30 metre right-of-way)
b) Design Alternative 5-2: Reduced Centre Lane Width (29.5 metre right-of-way)
c) Design Alternative 5-3: Reduced Lane Width (29.2 metre right-of-way)
d) Design Alternative 5-4: Sidewalk on One Side Only (27.5 metre right-of-way)
e) Design Alternative 5-5: Reduced Boulevard Width (27 metre right-of-way)
f) Design Alternative 5-6: Proposed Multi-Use Trail (32.5 metre right-of-way)

Interim Huronia Road from South of Mapleview Drive to Lockhart Road

a) Design Alternative 3R-1: City of Barrie Standard (36 metre interim right-of-way)
b) Design Alternative 3R-2: Reduced Centre Lane Width (35.5 metre interim right-of-way)
c) Design Alternative 3R-3: Reduced Lane Width (35.6 metre interim right-of-way)
d) Design Alternative 3R-4: Reduced Boulevard Width (28.0 metre interim right-of-way)
e) Design Alternative 3R-5: Proposed Centreline Shift on Huronia Road (36 metre interim right-of-way)

11. Twenty-four (24) people attended the second PIC. Generally, local business and property owners supported design alternatives that minimized property impacts.

ANALYSIS

12. Comment sheets containing the public/review agency comments and/or concerns from the second PIC have been considered in the development of the Preferred Design Alternative Solution. Please see the Final Draft Environmental Study Report (ESR) for detailed comments and responses. A copy of the ESR is available for review in the Councillor's Lounge as well as on the 6th Floor of City Hall, at the Library, Clerks Office and the City of Barrie website. For a summary of the major concerns raised, and the City's response to those concerns, please see Appendix "A" of this Staff Report. Areas of concern include: minimizing impacts to property and the natural environment, pedestrian and cycling linkages, increased traffic volume, reducing trucks through residential areas, accessibility during construction and drainage issues associated with proposed development.

13. The ranking on the comment sheets were tabulated and results are summarized below (the public preferred design alternative has a rank of 1):

Huronia Road from Yonge Street to north of Herrell Avenue

Design Alternative	3-1	3-2	3-3	3-4	3-5	3-6
Rank	4	2	6	3	1	4

Huronia Road from north of Herrell Avenue to Lockhart Road

Design Alternative	5-1	5-2	5-3	5-4	5-5	5-6
Rank	1	1	4	3	4	6

Interim Huronia Road from South of Mapleview Drive to Lockhart Road

Design Alternative	3R-1	3R-2	3R-3	3R-4	3R-5
Rank	1	2	4	4	3

The public preferred Design Alternative 3-5 (Reduced Boulevard Width 20 metre right-of-way) North of Herrell Avenue, either Design Alternative 5-1 or 5-2 (City of Barrie Standard 30 metre right-of-way or Reduced Centre Lane Width 29.5 metre right-of-way) from North of Herrell to Lockhart Road and interim design Alternative 3R-1 south of Mapleview Drive (City of Barrie Standard 36 metre right-of-way).

14. Based on the comments received four additional permutations of design alternatives presented at PIC #2 were added to the evaluations of the design alternatives as follows:

Huronia Road from Yonge Street to north of Herrell Avenue:

a) Design Alternative 3-7: Centreline Shift and Reduced Boulevard Width (20 metre right-of-way)

Huronia Road from north of Herrell Avenue to Lockhart Road:

g) Design Alternative 5-7: Centreline Shift (30 metre right-of-way)
h) Design Alternative 5-8: Centreline Shift and Reduced Boulevard (31.5 metre right-of-way)

Interim Huronia Road from South of Mapleview Drive to Lockhart Road

f) Design Alternative 3R-6: Centreline Shift and Reduced Boulevard (31.5 metre right-of-way)

15. The alternatives were evaluated in consideration of comments received to determine the best alternative design solution based on the physical, natural, social, cultural and economic environments and the relative importance of the criteria. The locations of the Preferred Alternative Solutions are shown in Appendix "B" and described in detail below:

Ultimate Preferred Design Alternative

Design Alternative 3-7: Huronia Road, from Yonge Street to ±50 metres south of Little Avenue, has a three lane urban cross section, minor centreline shift to the west, one 3.5 metre through lane in each direction, a 4.0 metre centre two-way left turn lane, right turn lane from Burton Avenue to Huronia Road, sidewalks on both sides, intersection improvements and reduced boulevard width in areas where the existing right-of-way is only 20 metres (additional right-of-way width required at Huronia Road/Little Avenue intersection).

Design Alternative 3-6: Huronia Road, from ±50 metres south of Little Avenue to ±180 metres north of Herrell Avenue, has a three lane urban cross section, minor centreline shift to the west, one 3.5 metre through lane in each direction, a 4.0 metre centre two-way left turn lane, sidewalks on both sides, and intersection improvements within the proposed 23.0 metre right-of-way (additional right-of-way width required at Huronia Road/ Little Avenue intersection to accommodate right turn lanes).

Design Alternative 5-7: Huronia Road, from ±180 metres north of Herrell Avenue to ±150 metres south of Herrell Avenue, has a five lane urban cross section, centreline shift to the west at Herrell Avenue, two 3.5 metre through lanes in each direction, a 4.0 metre centre two-way left turn lane, sidewalks on both sides, decommissioning of existing water well, new traffic signals at Huronia Road/Herrell Avenue and intersection improvements within a proposed right-of-way which varies from 23.0 metres to 30.0 metres.

Design Alternative 5-5: Huronia Road, from ±150 metres south of Herrell Avenue to Loon Avenue, has a five lane urban cross section, two 3.5 metre through lanes in each direction, a 4.0 metre centre two-way left turn lane, reduced boulevard width, sidewalks on both sides, traffic signals at Loon Avenue/ Huronia Road and intersection improvements within a proposed 27.0 metre to 29.0 metre right-of-way.

Design Alternative 5-6: Huronia Road, from Loon Avenue to ±60 metres north of Mapleview Drive East, has a five lane urban cross section, two 3.5 metre through lanes in each direction, a 4.0 metre centre two-way left turn lane, a 1.5 metre sidewalk on the west side, a 3.0 metre multi-use trail on the east side, traffic signals at Loon Avenue/Huronia Road and intersection improvements within a proposed 31.5 metre right-of-way (additional right-of-way width required at Huronia Road/Mapleview Drive East intersection to accommodate right turn lanes).

Design Alternative 5-8: Huronia Road, from ±60 metres north of Mapleview Drive East to ±160 metres south of Saunders Road, has a five lane urban cross section, centreline shift to the west, two 3.5 metre through lanes in each direction, a 4.0 metre centre two-way left turn lane, a 1.5 metre sidewalk on the west side, a 3.0 metre multi-use trail on the east side and intersection improvements within a right-of-way which varies from 30.0 metres to 36.0 metres (additional right-of-way width required at Huronia Road/Mapleview Drive East intersection to accommodate right turn lanes).

Design Alternative 5-1: Huronia Road, from ±160 metres south of Saunders Road to ±210 metres south of Lockhart Road, has a five lane urban cross section, two 3.5 metre through lanes in each direction, a 4.0 metre centre two-way left turn lane, a 1.5 metre sidewalk on the west side, a 3.0 metre multi-use trail on the east side and intersection improvements, within a proposed right-of-way which varies from 35.2 metres to 46.1 metres.

Acquisition of Property Rights: Acquire property for improvements as identified in the final Environmental Study Report.

Culvert Upgrades: Provide 1:100 year storm culvert conveyance upgrades or extensions as identified in the final Environmental Study Report.

Relocation of Existing Watercourse: Relocate the existing watercourse from the west side of Huronia Road to the east side of Huronia Road from ±160 metres south of Saunders Road to ±320 metres south of Saunders Road.

Potential Interim Design Alternative

Interim Design Alternative 3R-6: Huronia Road, from ±170 metres north of Saunders Road to ±160 metres south of Saunders Road, has a three lane rural cross section, centreline shift to the west, one 3.5 metre through lane in each direction, a 4.0 metre centre two-way left turn lane, 2.0 metre shoulders on both sides, a 3.0 metre multi-use trail on the east side and intersection improvements within a proposed 31.5 metre right-of-way.

Interim Design Alternative 3R-1: Huronia Road, from ±160 metres south of Saunders Road to Lockhart Road, has a three lane rural cross section, one 3.5 metre through lane in each direction, a 4.0 metre centre two-way left turn lane, 2.0 metre shoulders on both sides, a 3.0 metre multi-use trail on the east side and intersection improvements within a proposed right-of-way width that varies from 20.1 metres (existing) south of Lockhart Road to 46.1 metres (proposed) in the vicinity of the proposed channel relocation.

Acquisition of Property Rights, Culvert Upgrades and Relocation of Existing Watercourse as previously identified in the Ultimate Preferred Design Alternative.

16. Costs for the Ultimate Design Alternatives have been summarized in Appendix "C".

17. The water crossings on Huronia Road were examined with respect to hydraulic capacity. There are ten (10) existing water crossings along the subject length of Huronia Road, from Yonge Street to south of Lockhart Road, that were considered for culvert extension or replacement. There are also two (2) proposed culverts (one (1) on Huronia Road and the other on Saunders Road). A hydraulic analysis was completed on the ten (10) existing and two (2) proposed culverts based on passing the 1:100 year design storm without overtopping the road, and six (6) of the existing culverts require replacement. All culverts are proposed to pass the 1:100 year design storm which is consistent with Table 3.10 of the Storm Drainage and Stormwater Management Policies and Design Guidelines (November 2009) for arterials roads.

18. As part of the Class EA process a detailed safety assessments of the railway crossings of Huronia Road immediately south of Ellis Drive, immediately south of Herrell Avenue and on Little Avenue immediately west of Huronia Road were undertaken. In consideration of the cross-product of rail and road traffic and the deficient sight lines, a warning system (to include both lights and bells) is currently warranted at all three grade crossings. As both train and traffic volumes increase, the warrant for gate control will also be met at all crossings. The 2011-2014 Business Plan identifies that the lights and bells for all three locations be installed in 2012.

19. The preferred design alternative recommendation is made for the following reasons:

a) Resolves existing and future traffic capacity issues for the study area by increasing the number of lanes;

b) Addresses the majority of the concerns and preferences expressed by the public;

c) Provides safe pedestrian linkages by providing sidewalks throughout the study area;

d) Minimizes impacts on adjacent residential property by recommending reduced number of lanes in residential areas;

e) Minimizes out of the way travel; and,

f) Increases safety by improving turning movements.

20. The maintenance, construction and land acquisition costs associated with the design alternatives above were assessed on a comparative basis and can be reviewed in Table 4 of the ESR.

ENVIRONMENTAL MATTERS

21. This project has followed the guidelines for a Municipal Class Environmental Assessment, and physical, natural, social, cultural 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 alternative. The ranking and scoring process considered all natural and social environmental matters which included vegetation, wildlife, fish/aquatic, drainage, property, noise, pedestrian, cyclists etc.

ALTERNATIVES

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

Alternative #1 General Committee could alter the proposed recommendation by selecting another Preferred Design Alternative.

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

FINANCIAL

23. Transportation improvements on Huronia Road would be funded per Table F-1 of the June 2008 DC Background Study as follows:

a)	Yonge Street to south of Little Avenue:	50% from DC and 50% from tax rate
b)	South of Little Avenue to Big Bay Point Road:	70% from DC and 30% from tax rate
c)	Big Bay Point Road to Mapleview Drive East:	80% from DC and 20% from tax rate
d)	Mapleview Drive East to 350 metres south of Mapleview Drive East:	70% from DC and 30% from tax rate
e)	350 metres south of Mapleview Drive East to Saunders Road	80% from DC and 20% from tax rate
f)	Saunders Road to Lockhart Road:	90% from DC and 10% from tax rate

24. The extent to which these projects will be funded by development charges will be dependent upon the availability of reserve funds. Any shortfall in the development charges reserve will need to be offset by the Tax Capital Reserve.

25. Traffic volumes on Huronia Road are approaching levels requiring transportation improvements. In addition, the level of service at the intersections is deteriorating. The City is completing an update to its Transportation Master Plan including traffic modeling, and will continue to monitor traffic growth along this roadway.

26. The following preliminary cost estimate for the Preferred Design Alternative is based on reconstructing existing roads.

Alternative	Land Costs ($ millions)	Construction Costs ($ millions)	Total Cost ($ millions)
Preferred Design Alternative	$3.3	$14.45	$17.75

Note 1: cost does not include utility relocates, culvert improvements or taxes
Note 2: please see Appendix "C" for costs associated with all the Ultimate Design Alternatives

27. The 2011-2014 Capital Plan includes funds to install lights and bells for the two railway crossings on Huronia Road (2012), the one railway crossing on Little Avenue (2012), and traffic signals at Loon Avenue (2011). Future Business Plans will consider the inclusion of the other transportation improvements identified in this staff report.

28. The Preferred Design Alternative includes the following which would become part of the City's asset inventory:

Asset Life Cycle Cost

Asset Type	Length (m)	Useful life (Years)	Annual Renewal Cost ($/year)[1]
Roads – Collector	1,200	60	$6,800 – $7,120
Roads – Arterial	3,640	45	$29,333 – $31,050
Subtotal – Lifecycle Costs			**$36,133 – $38,170**

Note 1: Renewal costs are based on 2010 dollars
Note 2: Replacement costs not included

29. Renewal costs are based on best practice lifecycle activities for roadways that are required in order to reach its maximum potential life. The total cost of lifecycle activities has been estimated, summed, and divided by the expected useful life to determine the average annual renewal cost. Additional investigation into the lifecycle costs, associated with various assets, is ongoing as part of the implementation of the Corporate Asset Management Strategy

30. The additional operating costs associated with the maintenance of extra road lanes and sidewalks will be added to future Business Plans. Acceptance of the Preferred Design Alternative will increase future operating and maintenance funding requirements due to the addition of assets to the City's asset inventory. It is anticipated that the costs will be offset, in part, by property taxes collected from increased development in the south end of Barrie. The increases in service related costs once the preferred alternative is implemented will be approximately as follows:

Asset Type	Lane Length (km)	Annual Operating Cost ($/year) [1]
Roads (e.g. Street Sweeping)	12.5	$42,000
Winter Control	12.5	$45,000
Storm Sewers	4.9	$12,000
Total Service Delivery Costs		$99,000

Note 1: Annual operating costs are derived from the 2010 cost estimates

LINKAGE TO 2010 – 2014 COUNCIL STRATEGIC PLAN

31. The recommendations included in this Staff Report support the following goals identified in the 2010-2014 City Council Strategic Plan:

☒ Manage Growth and Protect the Environment

32. This Class EA Study for the widening of Huronia Road demonstrates good, long range transportation planning. Good transportation linkages are critical in planning for and accommodating future growth in the City of Barrie.

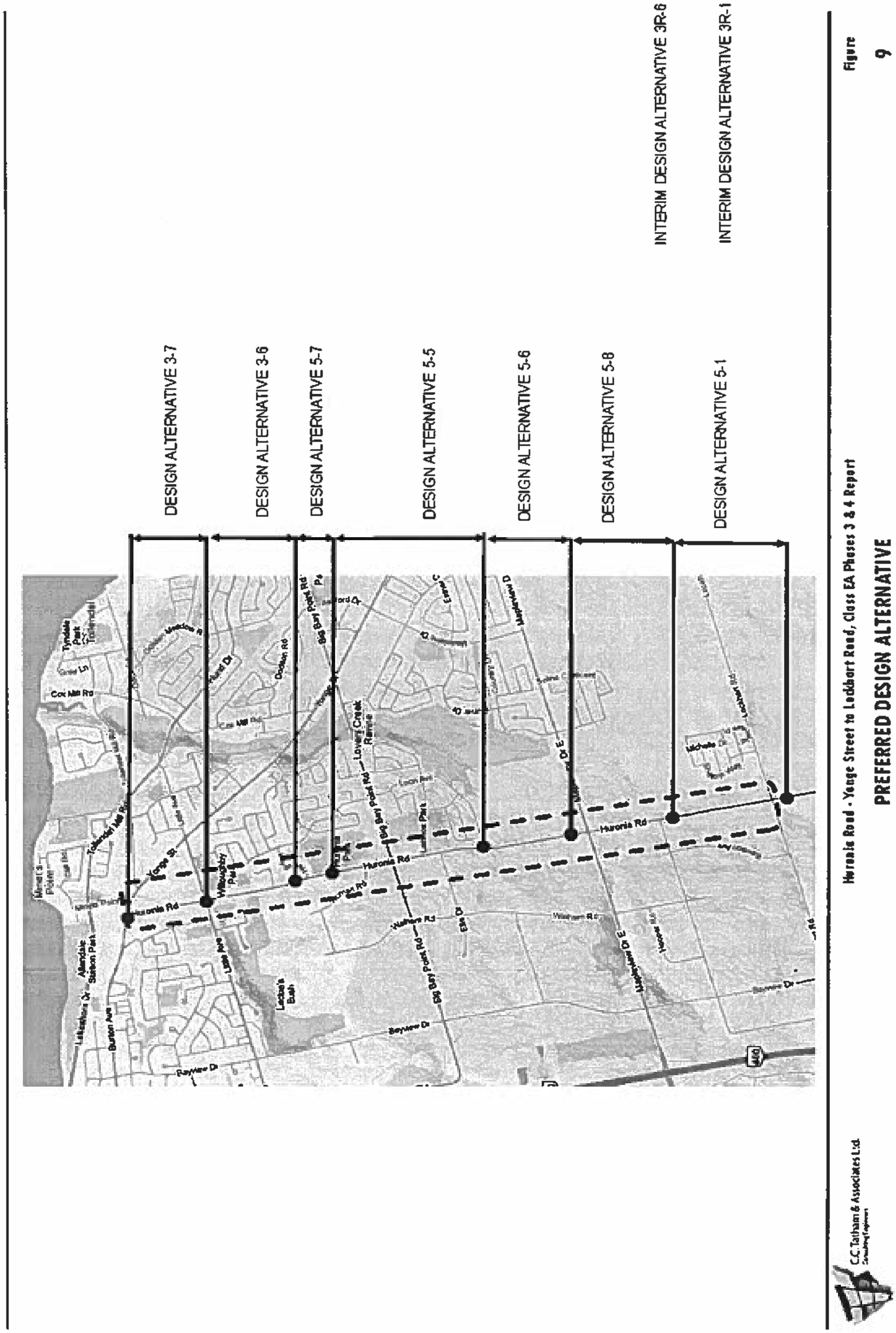
APPENDIX "A"

Summary of Major Public and Review Agency Comments and Concerns (PIC #2)

Comments	Response
Protection of existing mature trees within the road allowance.	Some trees within the existing and/or expanded rights-of-way may need to be removed to accommodate road improvements. However, every reasonable effort will be made to identify and protect trees and their root systems during construction through provisions in the contract. In developed areas the boulevard width was adjusted to minimize impact to property.
Pedestrian safety and need for sidewalks on one and/or both sides of the road.	Sidewalks are proposed on both sides of Huronia Road. South of Loon Avenue a 3 metre multi-use trail is proposed on the east side of Huronia Road to Lockhart Road.
Request for bicycle lanes.	Providing dedicated bicycle lanes on Huronia Road was considered but deemed problematic due to potential safety concerns associated with the volume of vehicular and truck traffic on Huronia Road. As a result and given the available existing Trans Canada trail system, provisions for on street bike lanes are not recommend. In support of the City's Active Transportation initiative, a combination of design alternatives 5-6 and 5-8 which include provisions for a 3 metre multi-use trail on the east side of Huronia Road from Loon Avenue to south of Mapleview Drive East has been identified as the preferred design alternatives.
Increase traffic volumes and speeding due to proposed road improvements.	No additional through lanes are proposed in residential areas. Centre turn lane will improve access to adjacent property.
Impact to driveway parking space.	Boulevard width was reduced in residential areas to minimize impact to adjacent properties. Transportation improvements will maintain the minimum required driveway length of 7 metres as per the City Zoning By-Law.
Impact of proposed landscape median island to access to future development lands.	Landscape median has been removed.
Heavy truck traffic on Huronia Road north of Big Bay Point Road.	City of Barrie's permissive truck route on Huronia Road does not extend north of Big Bay Point Road. Speeding and use of heavy trucks on Huronia Road north of Big Bay Point Road is an enforcement issue.
Traffic congestion at Mapleview Drive intersection.	Improvements on Mapleview Drive East including the intersection with Huronia Road are currently being designed. These improvements which involve road widening to accommodate additional through and turn lanes will improve the capacity and operation of Mapleview Drive East as well as traffic entering / exiting the adjacent commercial plaza.

Comments	Response
Impact to watercourses.	The proposed road improvements may require a Federal Authorization for Works or Undertakings Affecting Fish Habitat through LSRCA. In support of such an application, a fish habitat compensation plan may be required. Compensation requirements and opportunities will be determined in consultation with LSRCA during the final design and permit approval stage.
Accessibility concerns during construction.	Proposed upgrades to Huronia Road, which will involve a combination of the design alternatives considered, will include full road reconstruction and new asphalt surface. Every reasonable effort will be made during construction to provide suitable road surface for vehicular and pedestrian traffic. However, due to construction staging and traffic management constraints, it may be necessary for traffic to travel on a gravel surface temporarily until base asphalt can be placed.
Wildlife impact.	Due to the existing high traffic volumes on Huronia Road, it is expected that wildlife movement is currently significantly restricted. As such the proposed road improvements will not alter wildlife crossing movements. Opportunities to reduce wildlife mortalities by improving crossing movements will be provided through the instillation of larger span open bottom culverts.
Protection of wetlands.	Based on findings of the environmental impact study, wetland loss is not anticipated to be significant and will be limited to the edges. To mitigate property and tree/vegetation impacts on Huronia Road from Loon Avenue to Herrell Avenue, design alternative 5-5 which involves a reduced boulevard width has been identified as the preferred design alternative.
Diversion of a tributary to Lovers Creek on Huronia Road from approximately 560 metres north of Mapleview Drive East southerly to Mapleview Drive East, then easterly outfalling at the main channel to Lovers Creek to reduce drainage issues associated with development west of Lovers Creek, north of Mapleview Drive East and east of Huronia Road (Part of the South ½ Lot 11, Concession 12)	The preliminary cost estimate to divert the regional flows is approximately $9.6 million if constructed as part of road reconstruction (costs do not include design, taxes or property acquisition). Given the costs and the potential negative environmental effects on the Lovers Creek tributary east of Huronia Road, the proposed creek diversion is not currently recommended. A meeting will be held with the LSRCA and the property owner to discuss this proposed diversion and potentially other options.

APPENDIX "B"


DESIGN ALTERNATIVE 3-7
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DESIGN ALTERNATIVE 5-5
DESIGN ALTERNATIVE 5-6
DESIGN ALTERNATIVE 5-8
INTERIM DESIGN ALTERNATIVE 3R-6
DESIGN ALTERNATIVE 5-1
INTERIM DESIGN ALTERNATIVE 3R-1
Huronia Rd
Yonge St
Big Bay Point Rd
Bayview Dr
Mapleview Dr E
Lockhart Rd
Huronia Road - Yonge Street to Lockhart Road, Class EA Phases 3 & 4 Report
PREFERRED DESIGN ALTERNATIVE
Figure
9
C.C. Tatham & Associates Ltd.

APPENDIX "C"
Ultimate Design Alternative Costs
(Preferred Alternative Costs Shown in Bold)

Huronia Road from Yonge Street to Little Avenue

Design Alternative	3-1	3-2	3-3	3-4	3-5	3-6	**3-7**
Construction Cost[(1)]	$1.39	$1.39	$1.39	$1.34	$1.39	$1.39	**$1.39**
Land Costs[(1)]	$0.18	$0.17	$0.17	$0.16	$0.15	$0.18	**$0.15**

Huronia Road from Little Avenue to North of Herrell Avenue

Design Alternative	3-1	3-2	3-3	3-4	3-5	**3-6**	3-7
Construction Cost[(1)]	$1.20	$1.19	$1.19	$1.16	$1.20	**$1.20**	$1.20
Land Costs[(1)]	$0.097	$0.095	$0.095	$0.086	$0.084	**$0.097**	$0.084

Huronia Road from North of Herrell Avenue to South of Herrell Avenue

Design Alternative	5-1	5-2	5-3	5-4	5-5	5-6	**5-7**	5-8
Construction Cost[(1)]	$1.00	$1.00	$1.00	$0.98	$1.00	$1.00	**$1.00**	$1.00
Land Costs[(1)]	$0.31	$0.31	$0.30	$0.29	$0.28	$0.33	**$0.31**	$0.33

Huronia Road from South of Herrell Avenue to Loon Avenue

Design Alternative	5-1	5-2	5-3	5-4	**5-5**	5-6	5-7	5-8
Construction Cost[(1)]	$3.53	$3.53	$3.53	$3.45	**$3.53**	$3.53	$3.53	$3.53
Land Costs[(1)]	$0.43	$0.43	$0.42	$0.40	**$0.39**	$0.46	$0.43	$0.46

Huronia Road from Loon Avenue to Mapleview Drive

Design Alternative	5-1	5-2	5-3	5-4	5-5	**5-6**	5-7	5-8
Construction Cost[(1)]	$2.19	$2.19	$2.19	$2.14	$2.19	**$2.19**	$2.19	$2.19
Land Costs[(1)]	$1.19	$1.17	$1.16	$1.09	$1.07	**$1.25**	$1.19	$1.25

Huronia Road from Mapleview Drive to south of Saunders Road

Design Alternative	5-1	5-2	5-3	5-4	5-5	5-6	5-7	**5-8**
Construction Cost[(1)]	$2.31	$2.31	$2.31	$2.26	$2.32	$2.32	$2.32	**$2.32**
Land Costs[(1)]	$0.37	$0.37	$0.36	$0.34	$0.34	$0.39	$0.37	**$0.39**

Huronia Road from south of Saunders Road to Lockhart Road

Design Alternative	**5-1**	5-2	5-3	5-4	5-5	5-6	5-7	5-8
Construction Cost[(1)]	**$2.82**	$2.81	$2.81	$2.75	$2.82	$2.82	$2.82	$2.82
Land Costs[(1)]	**$0.71**	$0.70	$0.69	$0.65	$0.64	$0.75	$0.71	$0.75

Huronia Road from Yonge Street to north of Herrell Avenue (3 lanes):
Design Alternative 3-1: City of Barrie Standard
Design Alternative 3-2: Reduced Centre Lane Width
Design Alternative 3-3: Reduced Lane Width
Design Alternative 3-4: Sidewalk on One Side Only
Design Alternative 3-5: Reduced Boulevard Width
Design Alternative 3-6: Proposed Centreline Shift on Huronia Road
Design Alternative 3-7: Centreline Shift and Reduced Boulevard Width

Huronia Road from north of Herrell Avenue to Lockhart Road (5 lanes):
Design Alternative 5-1: City of Barrie Standard
Design Alternative 5-2: Reduced Centre Lane Width
Design Alternative 5-3: Reduced Lane Width
Design Alternative 5-4: Sidewalk on One Side Only
Design Alternative 5-5: Reduced Boulevard Width
Design Alternative 5-6: Proposed Multi-Use Trail
Design Alternative 5-7: Centreline Shift
Design Alternative 5-8: Centreline Shift and Reduced Boulevard

Note (1): Cost in Millions of Dollars
Note (2): Costs do not include conveyance improvements or extensions of existing watercourse crossings

The City of BARRIE

70 Collier Street
P.O. Box 400
Barrie, Ontario
L4M 4T5
www.barrie.ca

HURONIA ROAD TRANSPORTATION IMPROVEMENTS
(YONGE STREET TO LOCKHART ROAD)
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT, PHASES 3 & 4

NOTICE OF COMPLETION

The Corporation of the City of Barrie has completed a Schedule "C" Municipal Class Environmental Assessment to address transportation and other deficiencies affecting Huronia Road (Yonge Street to Lockhart Road). The implementation of the Ultimate Preferred Design Alternative, as summarized below, will be subject to future budget programs and fiscal constraints.

Huronia Road, from Yonge Street to ±50 m south of Little Avenue, has a three lane urban cross section, including:
- Minor centreline shift to the west;
- One 3.5 m through lane in each direction plus a 4.0 m centre two-way left turn lane;
- One right turn lane from Burton Avenue to Huronia Road;
- Sidewalks on both sides;
- Intersection improvements; and,
- Reduced boulevard width in areas where the existing right-of-way is only 20.0 m (additional right-of-way width required at Huronia Road/Little Avenue intersection).

Huronia Road, from ±50 m south of Little Avenue to ±180 m north of Herrell Avenue, has a three lane urban cross section, including:
- Minor centreline shift to the west;
- One 3.5 m through lane in each direction plus a 4.0 m centre two-way left turn lane;
- Sidewalks on both sides; and,
- Intersection improvements within the proposed 23.0 m right-of-way (additional right-of-way width required at Huronia Road/Little Avenue intersection to accommodate right turn lanes).

Huronia Road, from ±180 m north of Herrell Avenue to ±150 m south of Herrell Avenue, has a five lane urban cross section, including:
- Centreline shift to the west at Herrell Avenue;
- Two 3.5 m through lanes in each direction plus a 4.0 m centre two-way left turn lane;
- Sidewalks on both sides;
- Decommissioning of existing water well;
- New traffic signals at Huronia Road/Herrell Avenue; and,
- Intersection improvements within a proposed right-of-way which varies from 23.0 m to 30.0 m.

Huronia Road, from ±150 m south of Herrell Avenue to Loon Avenue, has a five lane urban cross section, including:
- Two 3.5 m through lanes in each direction plus a 4.0 m centre two-way left turn lane;
- Reduced boulevard width;
- Sidewalks on both sides;
- Traffic signals at Loon Avenue/Huronia Road; and,
- Intersection improvements within a proposed 27.0 m to 29.0 m right-of-way.

Huronia Road, from Loon Avenue to ±60 m north of Mapleview Drive East, has a five lane urban cross section, including:
- Two 3.5 m through lanes in each direction plus a 4.0 m centre two-way left turn lane;
- One 1.5 m sidewalk on the west side;
- One 3.0 m multi-use trail on the east side;
- Traffic signals at Loon Avenue/Huronia Road; and,
- Intersection improvements within a proposed 31.5 m right-of-way (additional right-of-way width required at Huronia Road/Mapleview Drive East intersection to accommodate right turn lanes).

Huronia Road, from ±60 m north of Mapleview Drive East to ±160 m south of Saunders Road, has a five lane urban cross section, including:
- Centreline shift to the west;
- Two 3.5 m through lanes in each direction plus a 4.0 m centre two-way left turn lane;
- One 1.5 m sidewalk on the west side;
- One 3.0 m multi-use trail on the east side; and,
- Intersection improvements within a right-of-way which varies from 30.0 m to 36.0 m (additional right-of-way width required at Huronia Road/Mapleview Drive East intersection to accommodate right turn lanes).

Huronia Road, from ±160 m south of Saunders Road to ±210 m south of Lockhart Road, has a five lane urban cross section, including:
- Two 3.5 m through lanes in each direction plus a 4.0 m centre two-way left turn lane;
- One 1.5 m sidewalk on the west side;
- One 3.0 m multi-use trail on the east side; and,
- Intersection improvements, within a proposed right-of-way which varies from 35.2 m to 46.1 m.

Acquisition of Property Rights:
- Acquire property for improvements as identified in the final Environmental Study Report.

Culvert Upgrades:
- Provide 1:100 year storm culvert conveyance upgrades or extensions as identified in the final Environmental Study Report.

Relocation of Existing Watercourse:
- Relocate the existing watercourse from the west side of Huronia Road to the east side of Huronia Road from ±160 m south of Saunders Road to ±320 m south of Saunders Road.

This project has been planned under Schedule "C" of the Municipal Class Environmental Assessment process. Previous public and review agency comments have been received and considered in selecting the Ultimate Preferred Design Alternative. An Environmental Study Report (ESR) has been completed, and by this Notice is being placed in the public record for review. The document is available for review during regular business hours at the following locations:

City of Barrie **Clerk's Office** 1st Floor City Hall 70 Collier Street	**City of Barrie** **Engineering Department** 6th Floor City Hall 70 Collier Street	**Barrie Public Library** **Information Desk** 60 Worsley Street

If people have concerns related to the above noted Preferred Alternative Solution, within the thirty (30) calendar days from the date of this Notice, please contact the following:

Mr. Ralph Scheunemann
City of Barrie, Engineering Department
P.O. Box 400, 70 Collier Street, 6th Floor
Barrie, ON L4M 4T5

Phone: 705-739-4220, Ext: 4782
Fax: 705-739-4245
E-mail: rscheunemann@barrie.ca

The final draft ESR document has been prepared and is available online at:
http://www.barrie.ca/Living/Environment/Pages/Environmental AssessmentStudies.aspx
or by searching for "Class EA" on the City of Barrie website.

If concerns arise, which cannot be resolved with the City of Barrie, a person or party may request that the Minister of the Environment make an Order for the project to comply with Part II of the Environmental Assessment Act (referred to as a Part II Order), which addresses individual environmental assessments. Requests must be received by the Minister within thirty (30) calendar days of this Notice being issued. See contact information below. A duplicate copy of the request must also be forwarded to **Mr. Ralph Scheunemann** of the City of Barrie. If no requests are received by **August 25, 2011**, the City of Barrie, upon receipt of necessary approvals, plans to proceed to the final design, property acquisition and construction of the Ultimate Preferred Design Alternative through a phased approach, as presented in the Environmental Study Report dependent on future budget approvals.

The Honourable John Wilkinson
Minister of the Environment
77 Wellesley Street West, 11th Floor, Ferguson Block
Toronto, ON M7A 2T5

This Notice issued July 21, 2011, July 22, 2011, and July 23, 2011.

D. McAlpine
City Clerk

R. W. McArthur, P.Eng.
Director of Engineering

Ministry of the Environment

Central Region
Technical Support Section

5775 Yonge Street, 8th Floor
North York, OntarioM2M 4J1

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Fax: (416) 325-6347

Ministère de l'Environnement

Région du Centre
Section d'appui technique

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North York, Ontario M2M 4J1

Tél. : (416) 326-6700
Téléc. : (416) 325-6347

Ontario

Via Email Only

September 7, 2011

File: EA01-06-04

Ralph Scheunemann
Infrastructure Planning Engineer
City of Barrie
Engineering Department
70 Collier Street, 4th Floor
Barrie, ON L4M 4T5

RE: Huronia Road Transportation Improvements
City of Barrie
Class Environmental Assessment
Environmental Study Report

Dear Mr. Scheunemann,

The ministry has reviewed the Environmental Study Report (ESR) dated March 2011 for the above-noted Class EA undertaking in the City of Barrie. The following comments are provided for consideration.

Stormwater Quantity and Quality:

The ESR indicates that a stormwater management (SWM) study will be completed during the detail design stage and may find that stormwater quantity control is warranted (such as acquiring additional land for stormwater detention ponds or other quantity/quality control facilities).

- The detailed design should include a description of the new stormwater system and where the outlets to the environment occur along Huronia Road. Consideration of the potential impacts of runoff from increased impervious areas and the impacts of the storm sewer outlet locations to receiving watercourses should also be included.

The ESR states that "Enhanced protection to achieve 80% removal of suspended solids will be provided through the use of an oil/grit separator, or approved equal, at the downstream reach of the drainage system prior to discharging runoff to the existing outlets."

- The SWM report completed during detail design should demonstrate how the preferred SWM approach will achieve Enhanced Level Treatment (Level 1) protection.

- Please note the ministry's Stormwater Management Planning and Design Manual (2003) statement with regards to oil/grit separators: "*oil/grit separators may be applied as one element of a multi-component approach unless it is determined that it can achieve the desired water quality as a stand-alone device on a site-specific basis*" (pg. 4-98). Therefore, consideration should be given to applying oil/grit separators in a multi-component approach for water quality control.

- The ministry's Stormwater Management Planning and Design Manual (2003) recommends that oil/grit separators (OGS) be used for small drainage areas (<2 ha). If runoff is over the capacity of the OGS mechanism, the potential for by-pass conditions with no treatment occurring during regular and storm event conditions increases. A key factor in assessing the performance of oil/grit separators is the level at which by-pass conditions occur. If the OGS are used, sizing requirements will need to be considered so that at least 90% of the runoff volume is captured and treated to ensure that on a long-term average basis, water quality objectives of 'enhanced protection' are achieved. We emphasize that the OGS sizing will be critical in achieving the desired enhanced level of treatment.

- Maintenance schedules should be developed for all SWM features (i.e. OGS, SWM pond, storm sewers, etc.) to ensure they function as designed to control and treat stormwater.

Permit to Take Water (PTTW):

- If construction of the watercourse crossings will require dewatering, please consult with the ministry to confirm any approval requirements for water takings during construction. This includes groundwater or surface water extraction, and the active diversion of surface water flows by pumping in exceedence of 50,000 litres per day. If a PTTW is required for construction dewatering, a monitoring program for discharge of water quality and quantity as well as a mitigation program may need to be developed. For more information, please contact the ministry's Central Region PTTW coordinator at 416-326-3323.

- Please note that if a project entails diverting the flow in a watercourse to bypass a small work area so that work can proceed in the dry, and if this bypassing is done using a "passive system" (i.e. using coffer dams to isolate the work area and bypassing the flow using flumes – without the use of pumps) then a PTTW is NOT required. If the diversion is done using pumps and is greater than 50,000 L/day, a PTTW is required. Please note that if a project controls seepage into the work area using sump pumps and if that pumping (taking) is greater than 50,000

L/day, a PTTW is required. A PTTW is also required if the works include active control of groundwater (other than sumps) within and adjacent to the work area.

- If water takings are below the regulated threshold, the proponent is encouraged to maintain accurate records, including times and dates, and the total measured amount of water pumped per day, for all water takings activities. Additionally, best-practice measures should be implemented during all phases of work.

Mitigation Measures:

- A monitoring and mitigation plan(s) should be developed during the detail design stage and incorporated into contract documents where possible.

- The proponent should refer to the ministry's Guideline B-6 – Guidelines for Evaluating Construction Activities Impacting on Water Resources when developing erosion and sediment control plans.

General:

- The ministry's staff has not reviewed the hydraulic analyses and proposals for sizing of stream culverts and bridge crossings in the ESR. It is understood that these documents are normally reviewed by the Lake Simcoe Region Conservation Authority's engineering staff.

Thank you for the opportunity commenting on the ESR for this undertaking. Please feel free to contact me directly at (416) 326-4886 or via email: Chunmei.Liu@ontario.ca if you have any questions about these comments.

Yours truly,

Chunmei Liu,
Environmental Resource Planner and EA Coordinator
Air, Pesticides and Environmental Planning

c. C. Hoody, Barrie District Office, MOE
Central Region EA File
A & P File