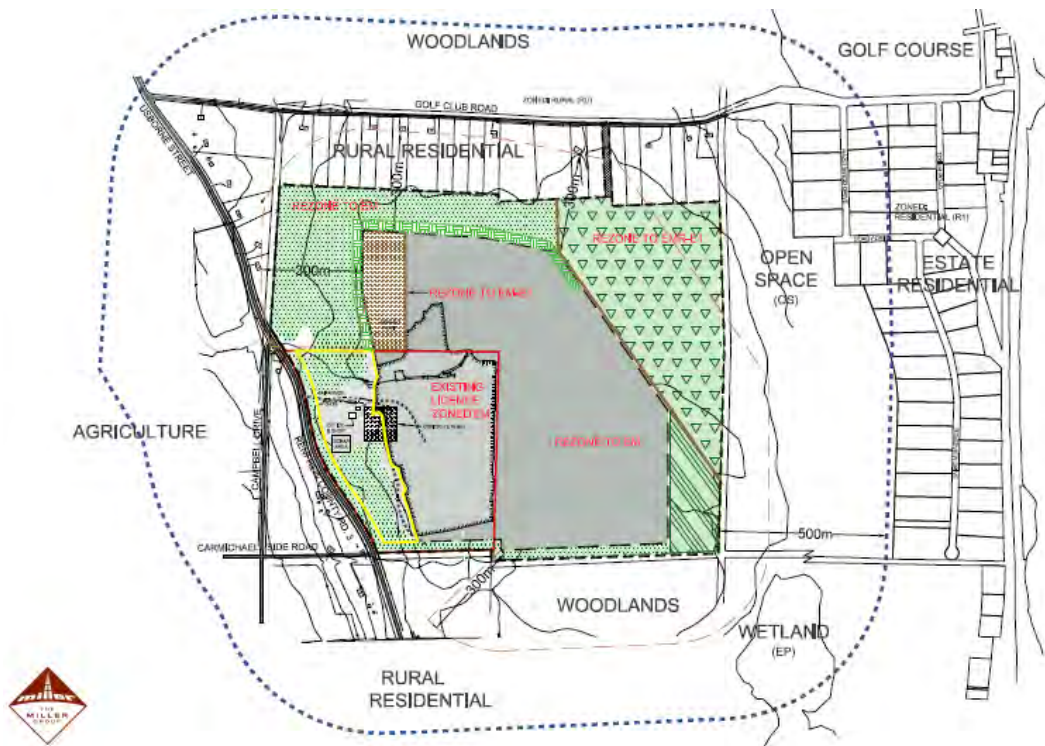


PLANNING JUSTIFICATION REPORT MILLER BRAESIDE QUARRY EXPANSION

**Township of McNab/ Braeside
County Of Renfrew**

P/N 05-2033

March 28, 2013



Prepared for: Miller Paving Limited



ENGINEERING PLANNING ENVIRONMENTAL CONSULTANTS

93 Bell Farm Road, Suite 107, Barrie, Ontario L4M 5G1

Tel: 705-726-1141 Toll Free: 877-726-1141

mail@skeltonbrumwell.ca www.skeltonbrumwell.ca

EXECUTIVE SUMMARY

Miller Paving Limited (Miller) owns and operates the Braeside Quarry on Renfrew County Road 3 known as Usborne Street in the Township of McNab/Braeside. Miller proposes to expand the quarry to add aggregate reserves for extraction and to add an asphalt plant to the permitted uses. Applications under the Planning Act and Aggregate Resources Act (ARA) were submitted in December 2007. The Planning Justification Report addresses the policies and requirements of the Official Plan of the Township of McNab/Braeside, the Provincial Policy Statement (PPS), and the Planning Act regarding the applications for an amendment to the Official Plan and to the Zoning By-law of the Township of McNab/Braeside, and of the Aggregate Resources Act for a Licence to extract aggregate from the expanded quarry.

The Miller Braeside Quarry and expansion area is located in Part of Lots 16 and 17, Concession A, geographic Township of McNab, Township of McNab/Braeside, County of Renfrew. The existing Licenced Quarry (No. 16173) is 29.7 ha. The additional area to be licenced by this expansion application is 103.0 ha. The combined area under Licence is proposed to be 132.7 ha. The quarry and property have frontage and access on Renfrew County Road 3/Usborne Street.

Miller Paving proposes to expand the area licenced for extraction of limestone to secure additional high quality resources for Miller's construction operations in eastern Ontario. Miller also proposes to install a permanent Hot Mix Asphalt Plant and a Ready Mix Concrete Plant in the quarry and to build office and shop facilities to support the quarry and related aggregate processes and uses. The maximum tonnage from the combined existing and expanded quarry is to remain at the currently licenced 1 million tonnes annually. Miller has applied for a licence under the ARA to expand the Class A, Category 2 quarry (below water).

The applications for approval of the proposed quarry expansion and asphalt plant are:

1. Official Plan Amendment (OPA) application to the Township of McNab/Braeside Official Plan for site specific permission for an asphalt manufacturing plant.
2. Zoning By- law Amendment (ZBA) application to the Township of McNab/Braeside Zoning By-law 2010-49 to permit a quarry and an asphalt plant in the expanded area.
3. Licence application under the Aggregate Resources Act (ARA), Ministry of Natural Resources, for a quarry extracting below the water table and for auxiliary operations and an asphalt plant in the expanded area.

The entire site is designated Mineral Aggregate Resource Area in the Official Plan. The Mineral Aggregate Resource Area designation permits pits and quarries along with associated manufacturing uses (e.g. crushing, screening and stockpiling). Asphalt plants are permitted in the municipality only in accordance with specific policies of the Official Plan, which include a requirement for an Official Plan Amendment. No Official Plan Amendment is required for the quarry expansion.

The existing quarry is zoned Extractive Industrial (EM). The area of the proposed expansion is considered to be zoned Extractive Industrial Reserve (EMR). Permitted uses in the EM zone include concrete manufacturing plant, extractive industrial facility, gravel pit and quarry. The Extractive Industrial Reserve (EMR) zone protects land for possible extractive use by restricting permitted uses to existing uses. A site specific zone is required to permit the proposed hot mix asphalt plant.

The aggregate resource at the Braeside quarry is high quality limestone bedrock suitable for crushing to make asphalt and concrete. Miller imports sand and stone to meet certain MTO specifications for asphalt mix. Recycled asphalt pavement (RAP) is also brought into the quarry to be crushed for reuse in asphalt mixes or sold.

Eight technical studies were undertaken in the areas of hydrogeology, hydrology, natural environment, noise, dust, blasting, traffic and archaeology. The results and recommendations of the technical reports formed the basis of design, operation controls, mitigation and monitoring requirements. All recommendations are incorporated into the Site Plan comprised of Site Environs, Existing Features and Cross Sections, Operational Plan, Progressive and Final Rehabilitation Plan, and Monitoring and Mitigation drawings.

The proposed limit of extraction was determined based on the results of the studies of the project and other setbacks regulated by the ARA and/or by Municipal Zoning provisions. Limits of extraction were developed to protect the Significant Wildlife Protection Area and the Wildlife Corridor. In compliance with Township Zoning provisions, a 300 m setback to the limit of extraction was required from existing residences. The site will continue to utilize the existing entrance from County Road 3. The quarry will be extracted in two lifts. The final end use is to be a naturalized area surrounding a lake.

Quarry traffic travels on County Roads or Campbell Drive to Highway 17 and then north or south to markets. The expansion of the Miller Braeside quarry and installation of an asphalt and concrete plant will not significantly change the traffic volume or patterns of the existing operation. No traffic mitigation measures were warranted or proposed. The County required a slip around lane and tapers as an entrance improvement. An Entrance Improvement Agreement provides for the detailed design and application for an Entrance Permit within two years of the issuance of the Licence.

The potential for social impacts of the quarry expansion and asphalt plant noise, air emissions, vibration/blasting and visual observation were assessed. The recommended measures to avoid, reduce or mitigate the effects to provincially accepted levels are implemented on the Site Plan. No unacceptable impacts from quarry expansion and the addition of the plants are expected.

The economic impacts of the quarry expansion of increased employment, assessment and taxes and revenue from annual Licence fees are described.

The report states the consistency of the proposed OPA and Zoning By-law amendment with each policy of the Provincial Policy Statement (PPS).

Conformity of the proposed Official Plan Amendment and Zoning By- law Amendment for the quarry expansion and addition of an asphalt plant is expressed on each relevant policy of the Official Plan. The OP notes the importance of the aggregate resource and the potential shortage in the future.

The proposed uses of the expanded quarry comply with the permitted uses and definitions of the Zoning By-law except for the asphalt manufacturing plant, which requires site specific use permission in the proposed Zoning By- law Amendment. The Site Plan complies with the Extractive Industrial EM zone provisions.

The Township of McNab/Braeside conducted a thorough peer review of seven technical studies submitted with the application. All of the required revisions from peer review accepted reports are implemented as revisions to the Site Plan.

The proposed Official Plan Amendment and Zoning By-Law Amendment are consistent with the Provincial Policy Statement, and conform to the Official Plan of the Township of McNab/Braeside. The proposed Licence expansion conforms to the municipal planning requirements and complies with the requirements of the Aggregate Resources Act. This represents good planning for the site and the municipality.

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	i
1.0 INTRODUCTION	1
1.1 Location.....	1
1.2 Proposed Development	1
Figure 1 - Location.....	2
Figure 2 - Area Land Use.....	3
1.3 Applications and Approvals Required	4
Table 1 - Existing and Proposed Development.....	5
Figure 3 - Proposed Quarry Expansion and Zoning.....	6
Table 2 – List of Technical and Required Reports.....	7
1.3.1 Municipal Official Plan Amendment and Zoning By- law Amendment	7
1.3.2 County Road Entrance	8
1.3.3 Ministry of Natural Resources- Aggregate Resources Act (ARA)	8
2.0 PLANNING CONTEXT	8
2.1 Provincial Policy Statement (PPS).....	8
2.2 County of Renfrew Official Plan	9
2.3 Township of McNab/Braeside	10
2.3.1 Official Plan.....	10
Figure 4 - Land Use Designations	11
2.3.2 Township of McNab/Braeside Zoning By-law	12
Figure 5 - Existing Zoning.....	13
Figure 6 - Existing Land Use and Zoning	14
3.0 PHYSICAL CONTEXT	16
3.1 Physiography and Topography.....	16
3.2 Soils and Agricultural Capability.....	16
Figure 7 –Bed Rock Resources	17
Figure 8 –Soil Capability for Agriculture	18
3.3 Area Land Use.....	19
3.4 Aggregate Resource	19
3.5 Surface Water.....	20
3.6 Ground Water.....	20
4.0 TECHNICAL REPORT SUMMARIES.....	21
4.1 Noise Impact Study	21
4.2 Air Quality Assessment.....	22
4.3 Blast Impact Assessment.....	23
4.4 Hydrogeological Study.....	25
4.5 Hydrology Report.....	28
4.6 Natural Heritage / Environmental Impact Study	32
4.7 Traffic Impact Study	34
4.8 Cultural Heritage and Archaeology.....	34
5.0 PROPOSED QUARRY EXPANSION	35
5.1 Site Plan	35
5.2 Operations	36
5.3 Rehabilitation	38

6.0	HAUL ROUTES AND TRAFFIC	38
6.1	County Road Entrance Improvement Agreement	39
7.0	SOCIAL IMPACT.....	40
7.1	Noise	40
7.2	Air Emissions	40
7.3	Visual Impact	41
	Figure 9 - West/East Cross Section.....	42
	Figure 10 - North/South Cross Section	43
7.4	Blasting	44
8.0	ECONOMIC IMPACTS.....	45
9.0	PLANNING CONFORMITY	46
9.1	Provincial Policy Statement	46
	Figure 11 – Karst Formations.....	54
9.2	Township of McNab/Braeside Official Plan	55
9.3	County of Renfrew Official Plan	67
9.4	Municipal Zoning By- law Compliance	67
	Table 3 – Compliance of the Site Plan with the EM Zone	68
10.0	MUNICIPAL PLANNING REVIEW PROCESS	69
10.1	Peer Review	69
11.0	REQUIREMENTS OF THE AGGREGATE RESOURCES ACT	70
11.1	Summary Statement	70
11.1.1	Planning and Land Use Considerations	70
11.1.2	Agricultural Classification of the Proposed Site.....	71
11.1.3	Quantity and Quality of Aggregate on Site.....	71
11.1.4	Haulage Routes and Proposed Traffic	71
11.1.5	Progressive and Final Rehabilitation	72
11.2	Considerations of the Minister	72
11.2.1	The Effect of the Operation of the Quarry on the Environment	72
11.2.2	The Effect of the Operation of the Quarry on Nearby Communities.....	73
11.2.3	Any Comments Provided by a Municipality in Which the Site is Located	73
11.2.4	The Suitability of the Progressive and Final Rehabilitation Plans for the Site...	74
11.2.5	Any Possible Effects on Ground and Surface Water Resources.....	74
11.2.6	Any Possible Effects of the Operation of the Quarry on Agricultural Resources	74
11.2.7	Any Planning and Land Use Considerations	74
11.2.8	The Main Haulage Routes and Proposed Truck Traffic To and From the Site ..	75
11.2.9	The Quality and Quantity of the Aggregate on the Site.....	75
11.2.10	The Applicant’s History of Compliance with the ARA.....	75
11.2.11	Such Other Matters as are Considered Appropriate.....	75
12.0	CONCLUSIONS	75
	REFERENCE	77

APPENDIX A

Relevant Official Plan Policies 1997 and 2008

APPENDIX B

Ministry of Culture Letter

APPENDIX C

PEER REVIEW

Summary of Peer Review Process

Correspondence of Peer Review Acceptance of Revised Reports

Subjects of Revision on Site Plan from Peer review and revised technical reports

APPENDIX D

Entrance Improvement Agreement

Quarry Entrance Plan

APPENDIX E

MUNICIPAL PLANNING AMENDMENTS

Draft Official Plan Amendment

Draft Zoning By-Law Amendment

APPENDIX F

Ministry of Natural Resources Letter

APPENDIX G

Qualifications of Author

PLANNING JUSTIFICATION REPORT
MILLER BRAESIDE QUARRY EXPANSION
TOWNSHIP OF McNAB/ BRAESIDE
COUNTY OF RENFREW

P/N 05-2033

March 28, 2013

1.0 INTRODUCTION

Miller Paving Limited (Miller) owns and operates the Braeside Quarry on Renfrew County Road 3 known as Osborne Street in the Township of McNab/Braeside. Miller proposes to expand the quarry to add aggregate reserves for extraction and to add an asphalt plant to the permitted uses. Skelton, Brumwell & Associates Inc. was retained by Miller Paving Limited in October 2005 to provide planning, environmental and engineering consulting services required for the municipal planning and licence applications for the proposed quarry expansion and asphalt plant. Applications under the Planning Act and Aggregate Resources Act (ARA) were submitted in December 2007. This report presents the planning background and analysis of the applications.

1.1 Location

The Miller Braeside Quarry and expansion area is located in Part of Lots 16 and 17, Concession A, geographic Township of McNab, Township of McNab/Braeside, County of Renfrew. The location of the property is shown on Figure 1. For the purposes of figures and descriptions in this report, a site north has been set using Golf Club Road as running generally east-west.

The existing Licenced Quarry (No. 16173) is 29.7 ha. The additional area to be licenced by this expansion application is 103.0 ha. The combined area under Licence is proposed to be 132.7 ha. The quarry and property have frontage and access on Renfrew County Road 3/Usborne Street.

1.2 Proposed Development

Miller Paving proposes to expand the area licenced for extraction of limestone to secure additional high quality resources for Miller's construction operations in eastern Ontario. Miller also proposes to install a permanent Hot Mix Asphalt Plant and a Ready Mix Concrete Plant in the quarry and to build office and shop facilities to support the quarry and related aggregate processes and uses.

The maximum tonnage from the combined existing and expanded quarry is to remain at the currently licenced 1 million tonnes annually.

The existing Miller Paving property uses and surrounding uses are shown on Figure 2 - Area Land Use.



MILLER BRAESIDE QUARRY
 McNAB / BRAESIDE TOWNSHIP
 QUARRY EXPANSION

FIGURE 1
 LOCATION

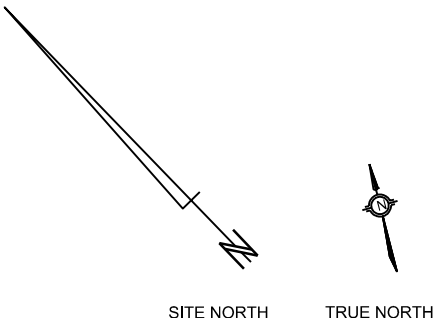
Scale 1:100,000

P/N 2033 | MARCH 2013

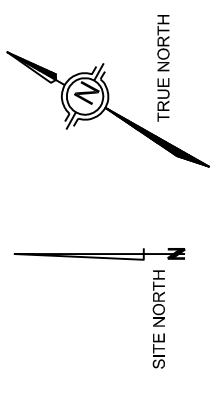
Skelton Brumwell
 & ASSOCIATES INC.
 ENGINEERING PLANNING ENVIRONMENTAL CONSULTANTS

93 BELL FARM ROAD, SUITE 107
 BARRIE, ONTARIO L4M 5G1
 TELEPHONE (705) 726-1141
 FAX (705) 726-0331

SOURCE:
 COUNTY OF RENFREW MAPPING 2013



PART LOT 16, 17
 CONCESSION A
 TOWNSHIP OF McNAB/BRAESIDE
 GEOGRAPHIC TOWNSHIP OF McNAB
 COUNTY OF RENFREW



LEGEND

- LANDS OWNED BY MILLER PAVING LIMITED.
- - - EXISTING QUARRY LICENCE
- 500m INFLUENCE AREA
- - - RESIDENTIAL LOTS
- RESIDENCE

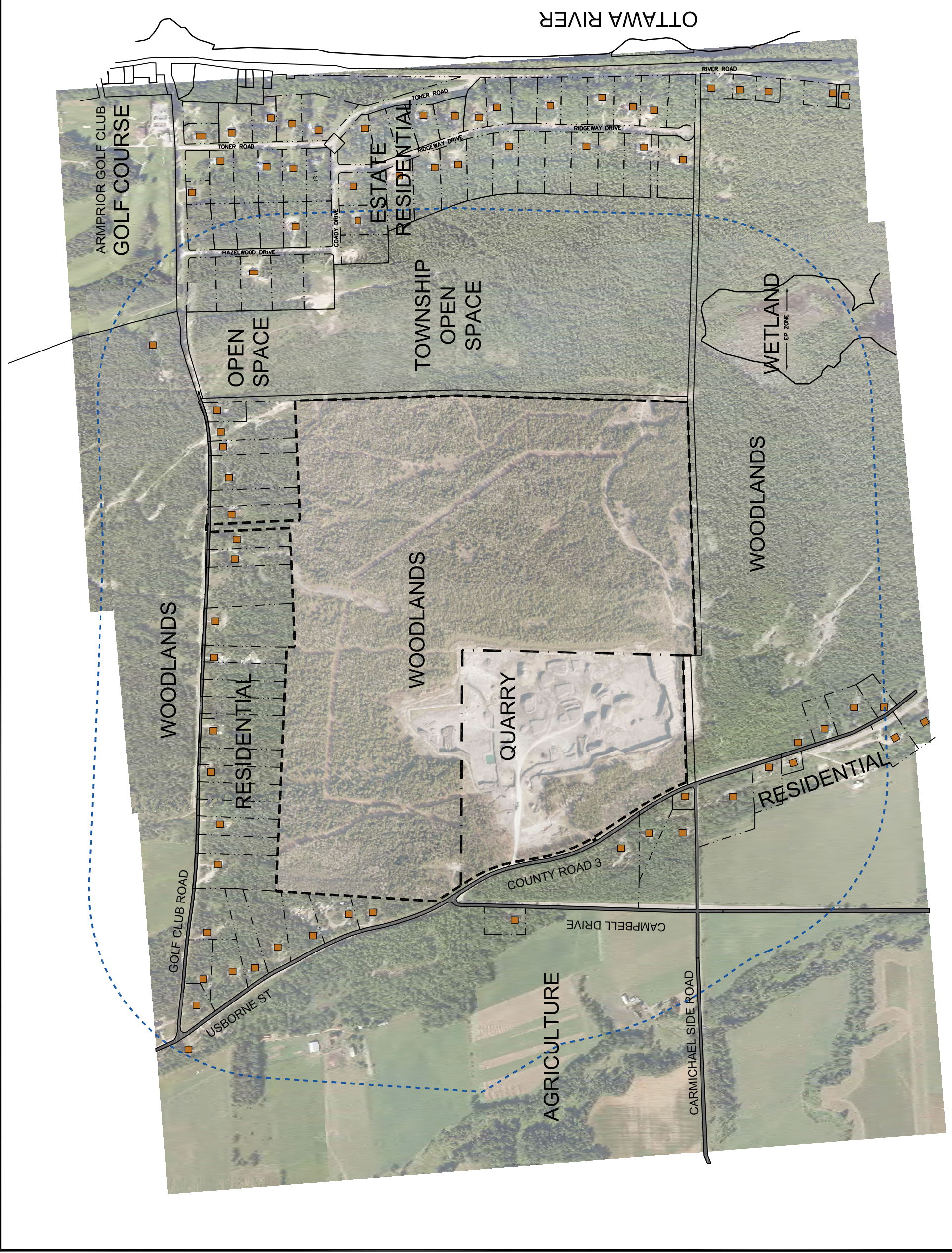
MILLER BRAESIDE QUARRY
 McNAB / BRAESIDE TOWNSHIP
 QUARRY EXPANSION

FIGURE 2
 AREA LAND USE

1:10,000

P/N 2033 MARCH 2013

Skelton Brumwell
 ENGINEERING PLANNING ENVIRONMENTAL CONSULTANTS
 93 BELL FARM ROAD, SUITE 107
 BARRIE, ONTARIO L4M 5S1
 TELEPHONE (705) 726-1141
 FAX (705) 726-5531



AIR PHOTO: FIRST BASE SOLUTIONS, DATE - 2006 and 2008

Miller has applied for a licence under the ARA to expand the Class A, Category 2 quarry (below water). The maximum annual production is to remain at 1.0 million tonnes. A comparison of the existing and proposed features and uses of the quarry is listed on Table 1.

Miller proposes to continue importing select aggregates, not available in the quarry, to meet the Ministry of Transportation (MTO) specifications for asphalt mixes and certain ready mix concrete specifications. Premium aggregates from the Turcotte Pit near Petawawa, or hard aggregates from a granite quarry source for high quality aggregate products are imported, stored on the quarry floor or near the plants, and used on an ongoing basis. Aggregates, river rock, topsoil, recycled asphalt (RAP) and recycled concrete are also imported for crushing, blending and/or resale.

Approval of the expanded Licence area provides for 9.8 ha (24 acres) of land along the Usborne Street frontage, now permitted for extraction, to become setback area and left in its existing condition for buffering and accessory uses.

The proposed quarry development is shown on Figure 3 Proposed Quarry Expansion and Zoning.

1.3 Applications and Approvals Required

The applications for approval of the proposed quarry expansion and asphalt plant are:

1. Official Plan Amendment (OPA) application to the Township of McNab/Braeside Official Plan for site specific permission for an asphalt manufacturing plant.
2. Zoning By-law Amendment (ZBA) application to the Township of McNab/Braeside Zoning By-law 2010-49 to permit a quarry and an asphalt plant in the expanded area.
3. Licence application under the Aggregate Resources Act (ARA), Ministry of Natural Resources, for a quarry extracting below the water table and for auxiliary operations and Hot Mix Asphalt Plant in the expanded area.

This Planning Justification Report, the eight reports and the Site Plan provide background, planning and technical references for the applications for approval of the proposed quarry expansion and asphalt plant. This Planning Justification Report has been prepared to address the policies and requirements of the Official Plan of the Township of McNab/Braeside, the Provincial Policy Statement (PPS), and the Planning Act regarding the applications for an amendment to the Official Plan and to the Zoning By-law of the Township of McNab/Braeside, and of the Aggregate Resources Act for a Licence to extract aggregate from the expanded quarry.

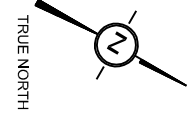
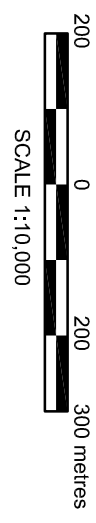
Table 1 - Existing and Proposed Development

Quarry Feature	Existing Quarry	Proposed Expanded Quarry Including Existing Quarry
Area of Licence	29.7 ha	103 ha additional area to total 132.7 ha
Area of Extraction	27.1 ha	51.1 ha added less 9.8 ha removed along Usborne Street for 68.4 ha
Maximum Tonnage to be Removed per year	1.0 million tonnes per year	No change 1.0 million tonnes per year
Maximum Depth of Excavation	125 masl	No change 125 masl
Hours of Operation	Operation hours are not identified on Site Plan	Operations- Monday to Friday except holidays 07:00 to 19:00 Blasting- 08:00 to 18:00 Night time operation with restrictions on Site Plan
Main and Accessory Uses	<ol style="list-style-type: none"> 1. Quarry- Excavation of limestone bedrock to below water table 2. Extractive industrial facility- crushing, screening, stockpiling, washing and shipping 3. Portable labs and office 4. Asphalt and concrete storage 5. Temporary asphalt plant for public projects 6. Concrete manufacturing plant (permitted) 7. Entrance on Usborne Street 	<ol style="list-style-type: none"> 1. Quarry- Excavation of limestone bedrock to below water table 2. Extractive industrial facility- crushing, screening, stockpiling, washing and shipping 3. Office, shop and portable labs 4. Recycled asphalt, recycled concrete, aggregate, river rock, topsoil and mulch stored for blending, processing and sale. 5. Hot Mix Asphalt Plant 6. Ready mix concrete plant 7. Entrance on Usborne Street to be improved with slip around lane and tapers



NOTES:

1. Proposed Licenced Area	132.7 ha	2. Annual extraction will not exceed 1,000,000 tonnes.
Proposed Area to be Extracted (Expanded to 78.2 ha less 9.8 ha removed)	68.4 ha	3. Progressive and final rehabilitation will follow extraction. The anticipated end use is a naturalized area around a lake.
Proposed Protected Area in Setbacks	64.3 ha	
Existing Licenced Area	29.7 ha	
Existing Licenced Area to be Extracted	27.1 ha	



LEGEND

- LIMIT OF EXTRACTION
- - - PROPOSED LICENCED BOUNDARY
- == PUBLIC ROAD
- INTERNAL ROAD
- ZONING LIMIT
- ▨ OTHER LANDS OWNED BY MILLER NOT PART OF APPLICATION
- ▩ QUARRY FACE
- ▭ EXISTING LICENCED QUARRY
- ▨ HOT MIX ASPHALT PLANT AND PROCESSING AREA
- ▨ BERMS
- 300m FROM EXTRACTION
- 500m INFLUENCE AREA
- EM
- EM-E1
- EMR-E1
- ▨ UNDISTURBED SETBACK
- ▨ SIGNIFICANT WILDLIFE PROTECTION AREA - VEGETATION TO REMAIN UNDISTURBED (23.4ha)
- ▨ WILDLIFE CORRIDOR - VEGETATION TO REMAIN UNDISTURBED (4.7 ha)
- ▨ AREA TO BE REMOVED FROM EXTRACTION OF THE EXISTING LICENCE UPON APPROVAL OF PROPOSED QUARRY EXPANSION (9.8 ha, 24.0 ac)

NOTE:
 FOR DETAILED PLANS SEE MILLER BRAESIDE QUARRY SITE PLAN MARCH 2013

BASE: SITE PLAN MARCH 2013

MILLER BRAESIDE QUARRY
 McNAB / BRAESIDE TOWNSHIP
 QUARRY EXPANSION

FIGURE 3
 PROPOSED QUARRY
 EXPANSION AND ZONING

SCALE 1:10,000

P/N 2033 MARCH 2013

Skelton Brumwell
 ENGINEERING PLANNING ENVIRONMENTAL CONSULTANTS
 93 BELL FARM ROAD, SUITE 107
 BARRIE, ONTARIO L4M 5G1
 TELEPHONE: (705) 726-1141
 FAX: (705) 726-0331



The technical and required reports are listed on Table 2.

Table 2 – List of Technical and Required Reports

Report	Author	Date
Acoustic Assessment Report	Hugh Williamson Associates Inc.	May 28, 2012
Air Quality Assessment Report	Church & Trought Inc.	March 2010
Blasting Impact Assessment	Explotech Engineering Ltd.	May 26, 2009
Hydrogeological Assessment Final	Jennifer B. Gorrell, P.Geo.	July 2012
Hydrological Investigation	Skelton Brumwell and Associates Inc.	July 2012
Natural Environment Report Level I & II	Skelton Brumwell and Associates Inc., and Brunton Consulting	Dec 2, 2011
Traffic Impact Study	Skelton Brumwell and Associates Inc.	June 19, 2009
Stage 1 & 2 Archaeological Assessment	Ken Swayze, Archaeological Consultant	August 1, 2001
Planning Justification Report	Skelton Brumwell and Associates Inc.	March 28, 2013

The applications for OPA and ZBA were submitted to the Township of McNab/ Braeside in December 2007 and deemed complete in March 2008. The application for an Aggregate Resources Act Licence was submitted in 2008, considered to be complete and accepted for circulation in 2008. Notice and circulation was postponed by Miller to complete the municipally required peer review process and to make any necessary revisions to the Site Plan. This has been completed.

1.3.1 Municipal Official Plan Amendment and Zoning By- law Amendment

The proposed hot mix asphalt plant requires an Official Plan Amendment to permit a permanent asphalt plant in the north- west part of the expanded quarry area. The Township of McNab/Braeside Official Plan requires both an OPA and a ZBA for permission for a permanent asphalt batching plant to consider the potential for negative impacts to the air, ground and surface and ground water. (OP Section 11.3(9))

The proposed quarry expansion requires rezoning of the expansion area from the Extractive Industrial Reserve (EMR) zone to the Extractive Industrial (EM) zone and Extractive Industrial - Exception One (EM-E1) zone to permit the asphalt manufacturing plant on a specific area, and Extractive Industrial Reserve – Exception One (EMR-E1) zone to permit only natural area use for protection of wildlife in an identified area.

1.3.2 County Road Entrance

An Entrance Permit was issued for the long established quarry, and no further approvals are required. The quarry entrance on Renfrew County Road 3 is to remain as the only entrance for the expanded quarry and asphalt plant.

The Public Works and Engineering Department, on review of the expansion application, required entrance improvements to improve traffic flow around the quarry entrance on County Road 3. This is further discussed in Section 9 of this report under 1.6 Infrastructure.

1.3.3 Ministry of Natural Resources- Aggregate Resources Act (ARA)

The ARA establishes the approval requirements for new quarries (including the expansion of existing quarries) on the basis of categories related to extraction above or below the water table, and whether extraction is from a pit or quarry.

The proposed expansion requires a Category 2 - Class "A" licence, which permits extraction of more than 20,000 tonnes of aggregate material per year from below the water table, in a quarry.

Applications for approval of this category of Licence require a Site Plan and a number of technical reports and a Summary Statement. See Section 11 of this report for reference to the Summary Statement Requirements. These requirements are addressed through this Planning Justification Report; the supporting reports listed on Table 2 and on the Site Plan as revised March 2013.

2.0 PLANNING CONTEXT

2.1 Provincial Policy Statement (PPS)

The Provincial Policy Statement (PPS) was issued under Section 3 of the Planning Act, and came into effect in March of 2005. The PPS provides policy direction on matters of provincial interest, related to land use planning and development. The PPS provides for appropriate development to occur, while protecting provincially recognized resources, public health and safety and the quality of the natural environment.

The significance of the Provincial Policy Statement for the quarry expansion and asphalt plant applications is expressed in the Preamble to the PPS.

“In respect of the exercise of any authority that affects a planning matter, Section 3 of the Planning Act requires that decisions affecting planning matters “shall be consistent with” policy statements issued under the Act.” (PPS Part I)

Planning decisions on the proposed Official Plan Amendment and the Zoning By-law Amendment are to be consistent with the Provincial Policy Statement.

The PPS is an integrated policy led reference for planning decisions which is to be read as a whole and relevant policies are to be applied to each situation. The Province set a vision for the land use planning system. The expression of that vision includes:

“The long-term prosperity and social well-being of Ontarians depend on maintaining strong communities, a clean and healthy environment and a strong economy.

The Province’s natural heritage resources, water, agricultural lands, mineral resources, and cultural heritage and archaeological resources provide important environmental, economic and social benefits. The wise use and management of these resources over the long term is a key provincial interest. The Province must ensure that its resources are managed in a sustainable way to protect essential ecological processes and public health and safety, minimize environmental and social impacts, and meet its long-term needs.”
(PPS Part IV)

Consistency with the Provincial Policy Statement is established in Section 9.1.

2.2 County of Renfrew Official Plan

The County of Renfrew Official Plan was adopted in 2002 and approved by the Minister of Municipal Affairs and Housing in 2003 with Modifications. The Official Plan establishes Mineral Aggregates policies which: *“are intended to firstly, ensure that major aggregate deposits remain available for existing and future use. Secondly, they are intended to minimize impacts on adjacent uses and the natural environment from extractive operations.”* (Renfrew County OP, Section 7)

The County Official Plan provides *“For those areas of the County shown on Schedule ‘A’ as being covered by a local Official Plan and not covered by this Official Plan, the policies of the local Official Plan shall apply.”* (Renfrew County OP Section 1.5)

On this basis the Miller Braeside Quarry expansion and asphalt plant is required to conform to the policies of the Township of McNab/ Braeside Official Plan. This conformity will establish conformity with the County of Renfrew Official Plan. This was confirmed in the project consultations with the County Planner assigned to the Township of McNab/ Braeside.

2.3 Township of McNab/Braeside

2.3.1 Official Plan

The Official Plan of the Township of McNab/Braeside, at the time of the submission of the complete OPA and Zoning By-law amendment applications in December 2007, was the Official Plan as adopted in 1997 and approved in 1998. It was consolidated in April 2002. That Official Plan was reviewed for the Planning Report submitted with the OPA and ZBA applications in 2007.

The Township of McNab/Braeside adopted an updated Official Plan December 2, 2008. That Official Plan was approved February 2009. Additional policies were added to the Mineral Aggregate section and one or more policies removed relative to the 1998 OP. A listing and comparison of the relevant policies is provided in Appendix A. It is the Official Plan 2008 which is used by the Township in reviewing all applications including the Miller applications. For certainty and completeness in assessing the proposed quarry expansion and asphalt plant, relative to the up to date OP policies, this report identifies and addresses the conformity of the project to the Official Plan 2008.

The entire site is designated Mineral Aggregate Resource Area on the Township of McNab/Braeside Official Plan Land Use Plan. Part of Schedule A in the vicinity of the Miller Braeside Quarry is shown on Figure 4 – Land Use Designations. The internal lot lines shown represent former lots which have merged into the Miller Property.

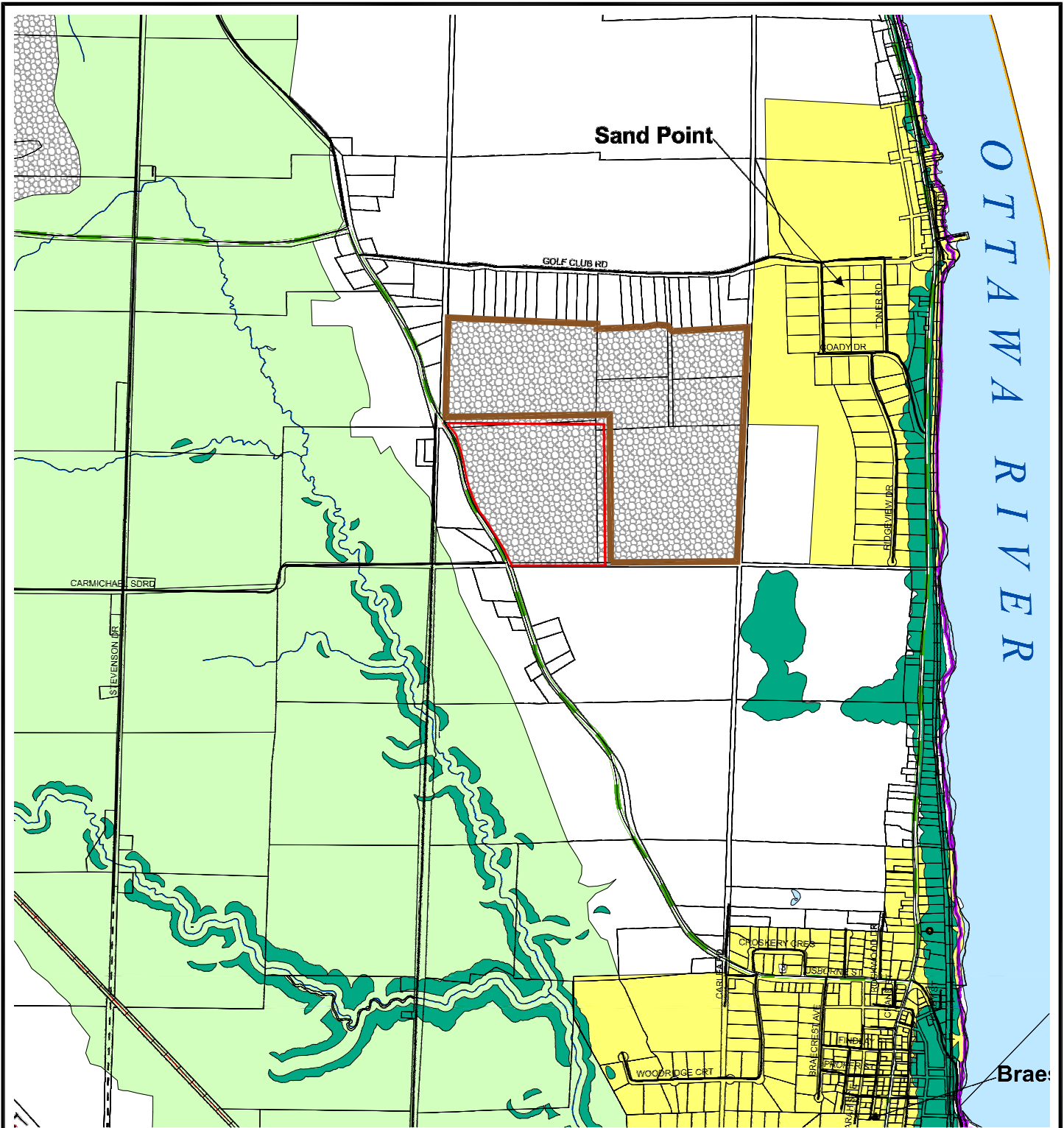
The Mineral Aggregate Resource Area designation permits:

“pits and quarries along with associated manufacturing uses (e.g. crushing, screening and stockpiling)...Asphalt plants shall be permitted in the municipality only in accordance with the policies in Section 11.3(9) and 14.2(24).” (OP Section 11.3)





Section 11.3 of the Official Plan provides the policies related to rezoning and development for quarries and pits. These policies are addressed in Section 9.2 of this report.

Official Plan Policy 14.2(24) provides permission for portable asphalt plants for temporary operation for public road authority work. This policy is not relevant as an Official Plan Amendment is required for a permanent asphalt plant.

The policies for consideration of the proposed permanent asphalt batching plant are expressed in Section 11.3.(9). Conformity with these Official Plan policies is discussed in Section 9.2 of this report.

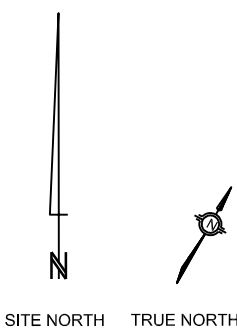


 MINERAL AGGREGATE RESOURCE AREA
  LICENCED UNDER THE AGGREGATE RESOURCES ACT

 RURAL
 SETTLEMENT AREA
 AGRICULTURAL
 ENVIRONMENTAL PROTECTION (EP)

SOURCE:
 TOWNSHIP OF McNAB/BRAESIDE OFFICIAL PLAN
 PART OF SCHEDULE "A" EAST HALF

 PROPOSED QUARRY EXPANSION AREA



MILLER BRAESIDE QUARRY
McNAB / BRAESIDE TOWNSHIP
QUARRY EXPANSION

FIGURE 4
LAND USE DESIGNATIONS

Scale 1:35,000

P/N 2033 MARCH 2013


Skelton Brumwell
 & ASSOCIATES INC.
 ENGINEERING PLANNING ENVIRONMENTAL CONSULTANTS

2.3.2 Township of McNab/Braeside Zoning By-law

At the time of submitting the applications the Township Comprehensive Zoning By-law was By-law 99-18. Since the submission of the application, the Township has completed a Zoning By-law review and update. A new comprehensive Zoning By-law was adopted November 2, 2010 as Bylaw 2010-49. There were appeals on that By-law. Correspondence from the County Planner January 2, 2013 advised: *“The Township received the decision from the OMB on the appeals to the Comprehensive Zoning By-law. Zoning By-law 2010-49 is now in force and the old 99-18 has been repealed.”*

The Zoning By-law Amendment application for the Miller Braeside Quarry expansion and asphalt plant is therefore to amend Zoning By-law 2010-49. Thus the Schedule, uses and provisions of Zoning By-law 2010-49 are to be assessed for compliance of the proposed quarry expansion and related development.

The existing Zoning of the property in By-law 2010-49 is shown on Figure 5. The existing zoning and the existing land uses of the quarry and adjacent area are represented at a larger scale on Figure 6 Existing Land Use and Zoning.

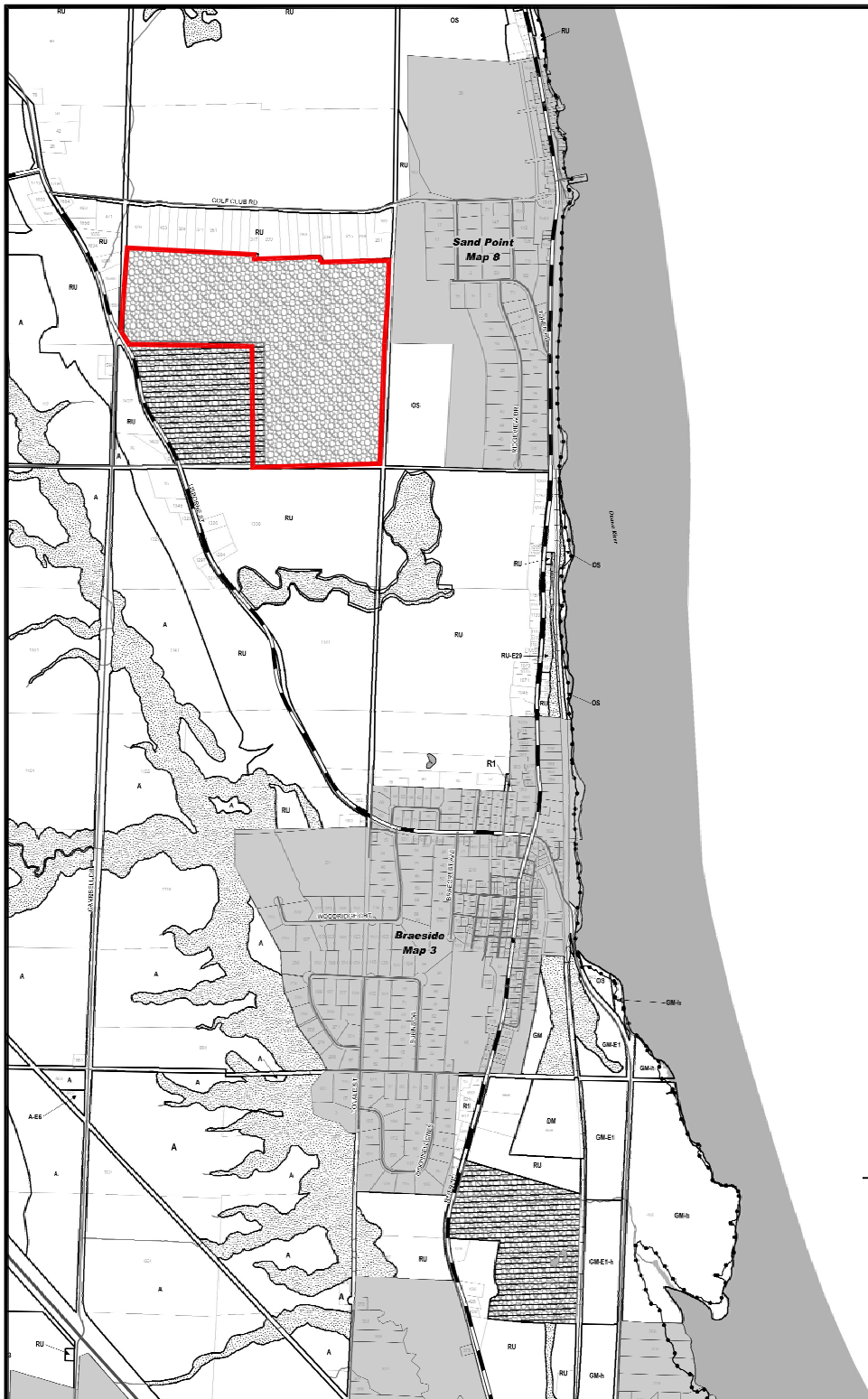
The existing quarry is zoned Extractive Industrial (EM). The EM zone extends a short distance to the east of the quarry Licence. The extent of the zone was based on mapping from the MNR which is known to have some discrepancies across the Township. The area of the proposed expansion is considered to be zoned Extractive Industrial Reserve (EMR).

Permitted uses in the Extractive Industrial (EM) zone on the existing quarry are:

- “- concrete manufacturing plant*
- extractive industrial facility*
- forestry*
- limited farm*
- gravel pit*
- quarry”*

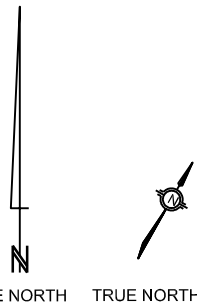
(Zoning By-law Section 13.1(b))

Section 3.3 of the By-law permits accessory uses, buildings and structures in any zone subject to compliance with the detailed location, use and other provisions of Section 3.3.1 to 3.3.10.



- County Road
- Provincial Highway
- Municipal Maintained Road
- Municipal Maintained Seasonal Road
- Private Road
- Railway
- TransCanada Pipeline
- Floodplain
- River/Stream
- Water
- Crown Land
- Provincially Significant Wetland (PSW)
- Residential One
- Rural Residential
- Limited Service Residential
- Mobile Home Park
- Hamlet Commercial
- Highway Commercial
- Tourism Commercial
- Disposal Industrial
- Extractive Industrial (EM)
- Extractive Industrial Reserve (EMR)
- General Industrial
- Light Industrial
- Rural
- Agricultural
- Community Facility
- Environmental Protection
- Open Space
- Exception One (Numbered consecutively for each respective zone classification e.g. RU-E1, RU-E2, etc.)
- Property Parcel

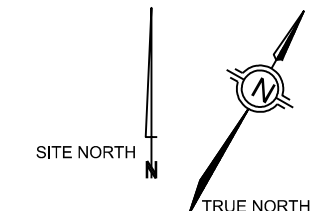
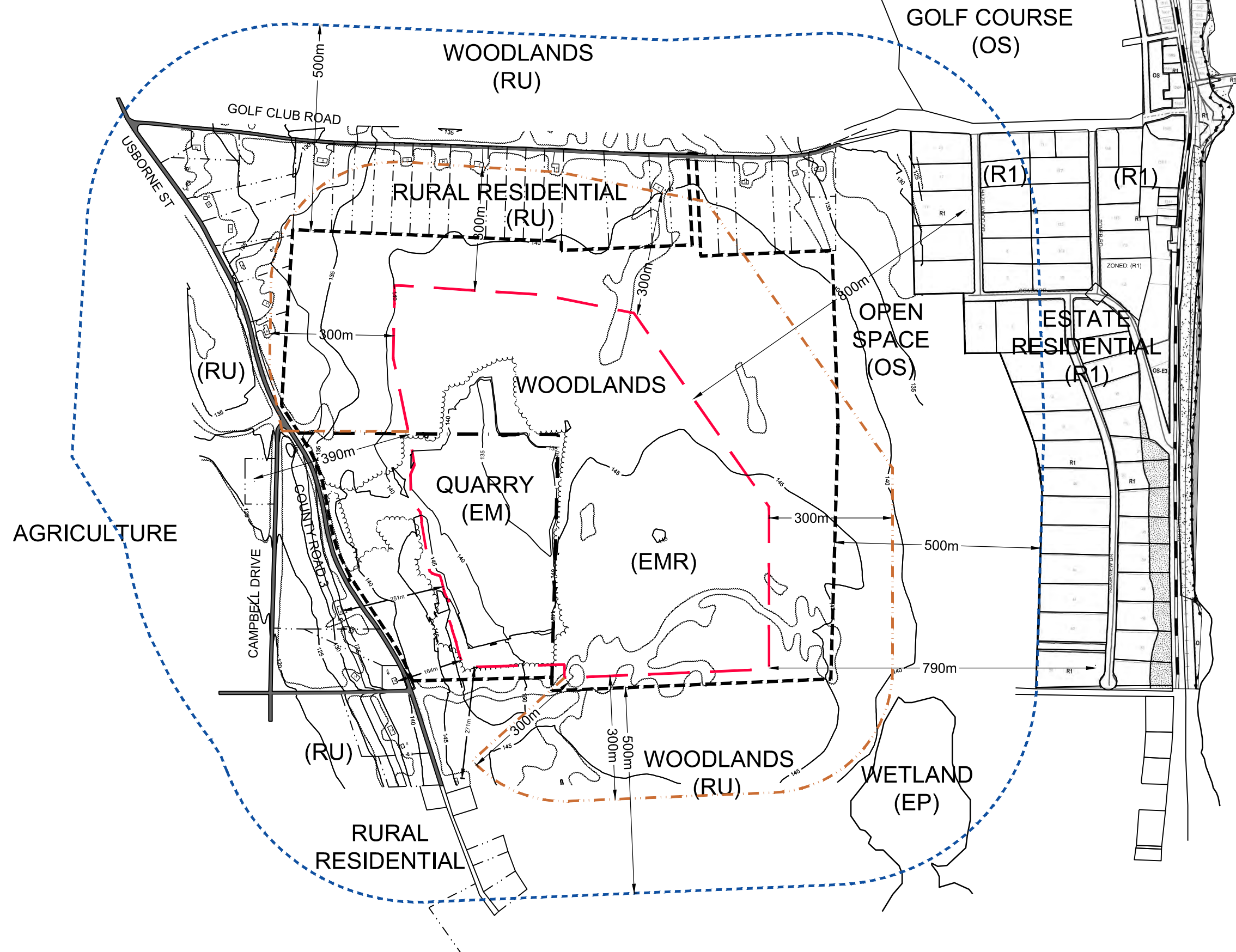
PROPOSED QUARRY EXPANSION



MILLER BRAESIDE QUARRY McNAB / BRAESIDE TOWNSHIP QUARRY EXPANSION	
FIGURE 5 EXISTING ZONING	
Scale 1:35,000	
P/N 2033	MARCH 2013
ENGINEERING PLANNING ENVIRONMENTAL CONSULTANTS	
93 BELL FARM ROAD, SUITE 107 BARRIE, ONTARIO L4M 5G1	TELEPHONE (705) 726-1141 FAX (705) 726-0331

SOURCE:
TOWNSHIP OF McNAB/BRAESIDE
ZONING BY-LAW No 2010-49 SCHEDULE "A" - EAST HALF

PART LOT 16, 17
 CONCESSION A
 TOWNSHIP OF McNAB/BRAESIDE
 GEOGRAPHIC TOWNSHIP OF McNAB
 COUNTY OF RENFREW



- LEGEND**
- EXISTING LICENCE
 - - - PROPOSED LICENCE BOUNDARY
 - 300m SETBACK FROM EXTRACTION
 - - - PROPOSED LIMIT OF EXTRACTION
 - - - 500m INFLUENCE AREA

SOURCE:
 ZONING MAPS BY-LAW SCHEDULE 'A'
 MAP 2 AND MAP 8 2010-49

MILLER BRAESIDE QUARRY
 McNAB / BRAESIDE TOWNSHIP
 QUARRY EXPANSION

FIGURE 6
 EXISTING LANDUSE AND ZONING

1:10,000

P/N 2033 MARCH 2013



93 BELL FARM ROAD, SUITE 107 TELEPHONE (705) 726-1141
 BARRIE, ONTARIO L4M 5G1 FAX (705) 726-0331

Copyright © 2012 Skelton Brumwell & Associates Inc. All rights reserved.
 This document is protected by copyright laws and may not be reproduced in any
 manner, or for any purpose, except with the written permission of the copyright holder.

The relevant definitions from the Zoning By-law 2010-49 are:

2.4 ACCESSORY when used to describe a use, building or structure, means a use, or a detached building or structure, that is naturally and normally incidental, subordinate and exclusively devoted to supporting the principle use, building or structure and located on the same lot therewith. This does not include an accessory residence unless otherwise specified.

2.5 AGGREGATE means gravel, sand, clay, earth, shale, stone, limestone, dolostone, sandstone, marble, granite and rock other than metallic ores.

2.12 ASPHALT MANUFACTURING PLANT means an industrial facility used for the production of asphalt for immediate use in the paving of roads and driveways and the damp-proofing of buildings or structures.

2.40 CONCRETE MANUFACTURING PLANT means an industrial facility used for the production of concrete for immediate use in the construction of buildings, structures, roads or driveways. This definition also means the manufacturing of finished concrete products and may include the retail sale of such products.

2.68 EXTRACTIVE INDUSTRIAL FACILITY means a building, structure or facility used for processing aggregate and includes the screening, sorting, washing, crushing, storing and other similar operations allied to an extractive industrial operation.

2.160 QUARRY means any open excavation made for the removal of any consolidated rock or mineral including limestone, sandstone or shale, in order to supply material for construction, industrial or manufacturing purposes, but shall not include an excavation incidental to the erection of a building or structure for which a building permit has been granted by the Corporation or an excavation incidental to the construction of any public works.

A temporary asphalt plant has been operated in the quarry, compliant with the Zoning By-law and PPS, for public road works. That plant was removed from the site in 2011.

An asphalt manufacturing plant as defined in definition 2.12, is not listed in the permitted uses of the EM zone. The proposed Hot Mix Asphalt Plant in the expanded quarry is to be permitted by the inclusion of an Extractive Industrial exception one (EM-E1) zone on the specific location proposed for the asphalt plant and processing area shown on the Site Plan and represented on Figure 3.

The Extractive Industrial Reserve (EMR) zone protects land for possible extractive use by restricting permitted uses to existing uses:

“14.1 Extractive Industrial Reserve:

(a) Residential Uses

- single detached dwelling existing at the date of passing of this By-law.

(b) Non-Residential Uses

- non-residential uses existing on the date of passing of this By-law

- forestry

- limited farm

- passive recreation”

(Section 14.1)

The proposed expansion area of the Braeside Quarry is now zoned EMR to reserve it for potential extraction. This EMR zone implements the Official Plan designation of Mineral Aggregate Resource Area which protects aggregate resources and permits extraction and processing subject to zoning and Licensing.

3.0 PHYSICAL CONTEXT

3.1 Physiography and Topography

The subject lands are located within the Ottawa Valley Clay Plain. The Physiography of Southern Ontario describes an outcrop of the underlying Trenton Black River limestone formation located northwest of Arnprior. The site is located on this outcrop which rises approximately 30 metres above the clay plain to the south west and 70 metres above the Ottawa River to the north.

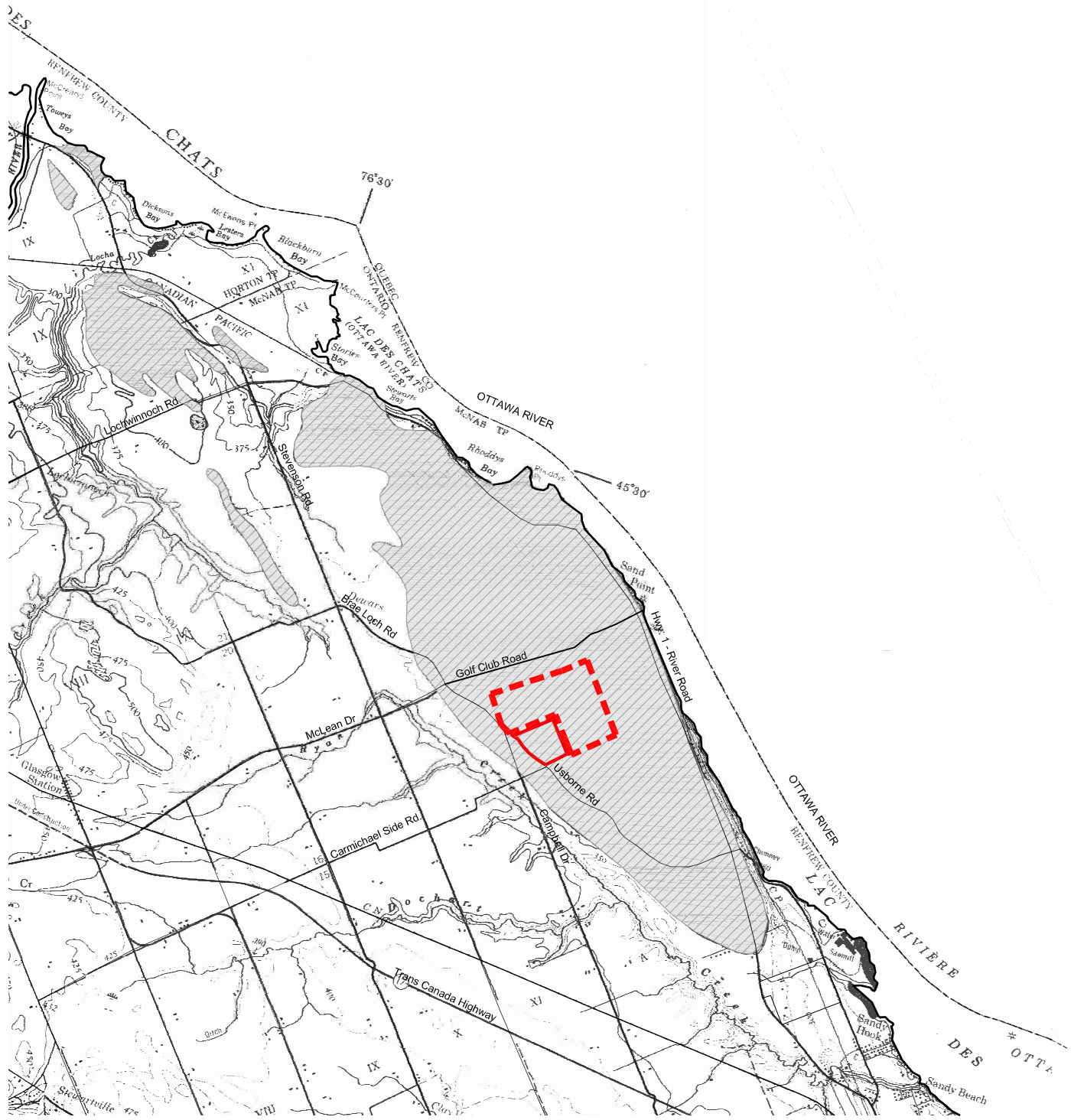
The geology and site setting are further described in the Hydrogeological Assessment.

The Miller Braeside Quarry and property are part of the Braeside limestone ridge as depicted on Figure 7 Bedrock Resources. The whole ridge is identified in the Ontario Geological Survey, Aggregate Resources Inventory Paper 1986 for Renfrew County as a Bedrock Resource Class 2A. The listed bedrock formations are suitable to crush to create Granular A and 5/8” stone.

3.2 Soils and Agricultural Capability

The report “Soil Associations of Southern Ontario” described the soil of the subject lands as Renfrew clay loam with imperfect drainage characteristics. The soil is thin over the limestone bedrock.

The site and area has an agricultural capability classification of Class 6 as shown on Figure 8. Class 6 lands are capable of producing only perennial forage crops and cannot feasibly be improved.



BEDROCK RESOURCE - CLASS A2
FORMATION SUITABLE FOR GRANULAR 'A' 5/8" CRUSHED



LICENCED QUARRY



QUARRY EXPANSION AREA



TRUE NORTH

SOURCE:
BEDROCK AGGREGATE ASSESSMENT AGGREGATE RESOURCES INVENTORY PAPER 1986

**MILLER BRAESIDE QUARRY
McNAB / BRAESIDE TOWNSHIP
QUARRY EXPANSION**

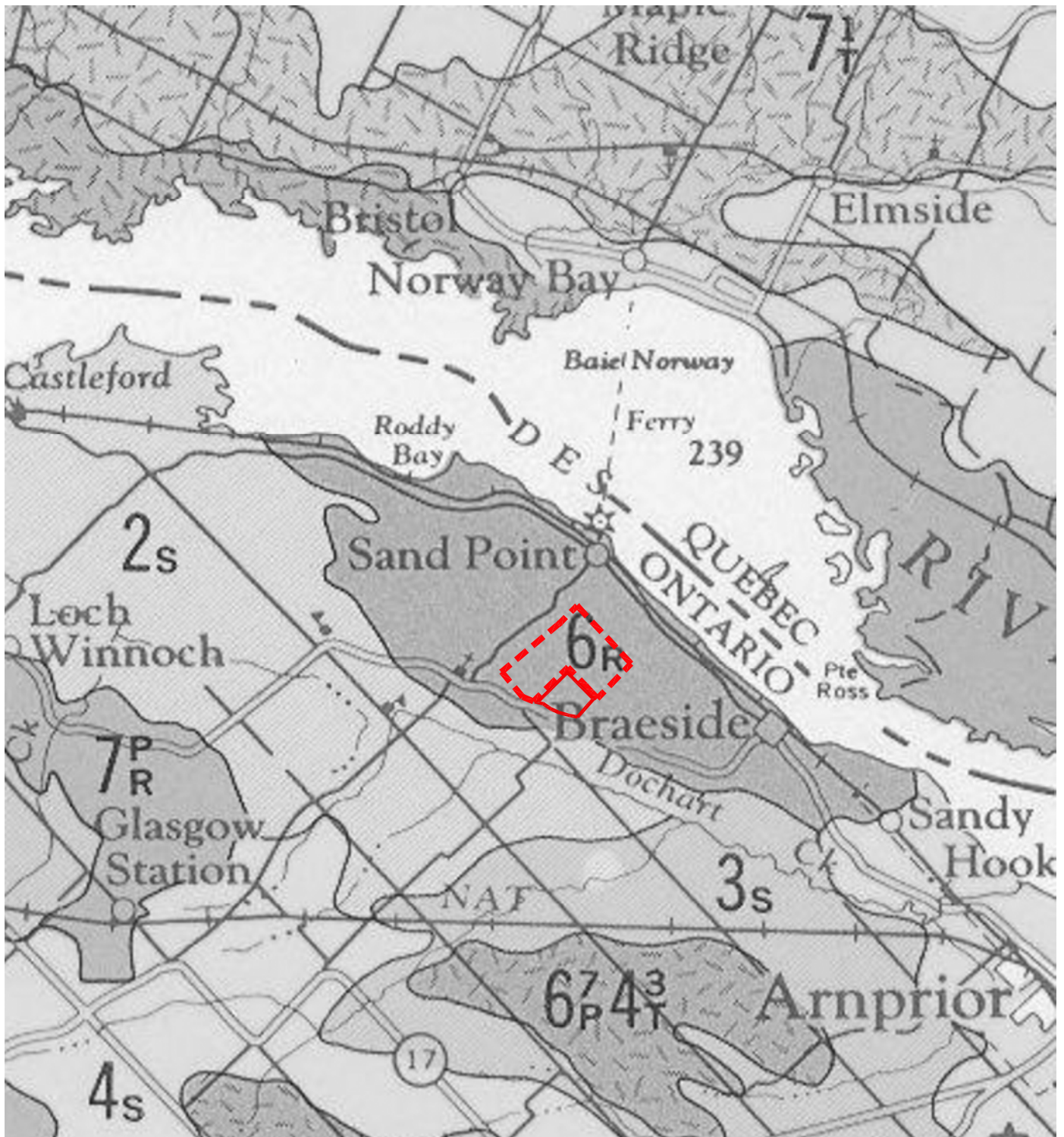
**FIGURE 7
BED ROCK RESOURCES**

Scale 1:75,000

P/N 2033 | MARCH 2013

Skelton Brumwell
& ASSOCIATES INC
ENGINEERING PLANNING ENVIRONMENTAL CONSULTANTS

93 BELL FARM ROAD, SUITE 107
BARRIE, ONTARIO L4M 5G1
TELEPHONE (705) 726-1141
FAX (705) 726-0331



- CLASS 6 SOILS IN THIS CLASS ARE CAPABLE ONLY OF PRODUCING PERENNIAL FORAGE CROPS, AND IMPROVEMENT PRACTICES ARE NOT FEASIBLE.
- LICENCED QUARRY
- QUARRY EXPANSION AREA



TRUE NORTH

MILLER BRAESIDE QUARRY McNAB / BRAESIDE TOWNSHIP QUARRY EXPANSION	
FIGURE 8 SOIL CAPABILITY FOR AGRICULTURE	
Scale 1:75,000	
P/N 2033	MARCH 2013
Skelton Brumwell <small>& ASSOCIATES INC.</small> ENGINEERING PLANNING ENVIRONMENTAL CONSULTANTS	
93 BELL FARM ROAD, SUITE 107 BARRIE, ONTARIO L4M 5G1	TELEPHONE (705) 726-1141 FAX (705) 726-0331

SOURCE:
CANADA LAND INVENTORY - SOIL CAPACITY FOR AGRICULTURE. MAP 31F PREMBROKE, 1966.

3.3 Area Land Use

The site is located on the north-easterly side of Renfrew County Road 3, Usborne Street, approximately 3 kilometres north of the community of Braeside. The lands to be zoned and licenced for the expansion of the quarry are vacant woodlands as shown on Figure 2 and Figure 6 - Land Use. The natural features and functions of the site are described in the Natural Environment Report Level I and II, and summarized in Section 4.6 of this report.

To the east is an unopened road allowance between Concessions A and B then vacant woodlands extending to the east over Township owned open space. There is a recreational trail into the open space. East of that is the estate residential development of about 55 lots on private services in part of the designated Settlement Area of Sand Point.

To the south is the unopened road allowance between Township Lots 15 and 16. The land south of that is wooded and vacant extending to several rural residential lots on Usborne Street.

Along Renfrew County Road No. 3/ Usborne Street, there are ten rural residences south of the quarry entrance. There are thirteen rural residences north of the quarry entrance up to McLean Drive. There is an unopened road allowance between the Miller property and the first four lots north of the quarry entrance.

There are 25 lots fronting on Golf Club Road along the north boundary of the property. Approximately 16 of these lots have residential dwellings. The Arnprior Golf Club and golf course is located north west of the site in the settlement area of Sand Point.

3.4 Aggregate Resource

The site geology is described in the Hydrogeological Assessment. The surficial material is flaggy limestone consisting of nodular pieces of limestone with a silty sand matrix. The bedrock is the lower member of the Bobcaygeon Formation. Part of the formation consists of medium to light grey limestone. Of all the bedrock units of the Ottawa Formation, the lower portion of the Bobcaygeon will most consistently pass the specifications required for concrete.

Based on the proposed limit of extraction on the Site Plan, it is estimated that approximately 31 million tonnes of rock can be extracted from the total expanded quarry extraction area.

The stone at Braeside quarry is suitable for base and surface course mixes used by Renfrew County and other area municipalities as well as by the City of Ottawa in superpave mixes. The stone also meets the Ministry of Transportation (MTO) requirements for base course mixes such as SP25mm and SP19mm and surface course mixes such as SP12.5mm and SP9.5mm. As part of the existing operation Miller imports sand and stone to meet certain specifications for asphalt

mix. Recycled asphalt pavement (RAP) is also brought into the quarry to be crushed for reuse in asphalt mixes and for resale.

3.5 Surface Water

The surface water conditions of the property are summarized in the Hydrological Investigation Report and as follows:

Water pools within the existing quarry upper and lower lifts in the spring, summer and fall requiring seasonal dewatering operations. The dewatering systems draw surface water from the upper lift and lower lift pump out. Water is pumped up the quarry face in a forcemain and discharged into a sediment basin at 141 masl.

The surface water flows by gravity through the sediment basin and exits via a rock check dam and then travels overland through a vegetative buffer strip, consisting of a heavily forested area founded on a thin mantle of loam soil over fractured bedrock, before reaching the Usborne Street roadside ditch. It then flows westerly off-site via the Usborne Street culvert and is conveyed southerly along ditches of Campbell Drive, and then westerly along Carmichael Side Road ditching to Ryan Creek.

Discharge water from the quarry typically does not reach Ryan Creek as it infiltrates at a moderate rate through well drained loam soil from the sediment basin to Usborne Street and then at a high rate through excessively drained gravelly sandy loam soil within ditching along Usborne Street and Campbell Drive. Discharge water is expected to only reach Ryan Creek during infrequent rainfall events and spring freshets. The outlet to Ryan Creek is about 2.2 km upstream of its confluence with Dochart Creek. Historic fisheries data prepared by the Ministry of Natural Resources has identified Dochart and Ryan Creeks as cold water systems.

3.6 Ground Water

The ground water conditions of the property are summarized in the Hydrogeological Assessment.

“A regional analysis of water well records indicates that regional groundwater flows from the plateau to the east and west. Analysis of water well records show that recorded water-bearing zones are generally below the proposed base of the quarry. There were three potential aquifers identified; an overburden aquifer, a weathered bedrock aquifer and a competent bedrock aquifer. There is also an upper competent bedrock zone which is an aquiclude/aquitard.” (HA Section 1.4)

“The elevation water found analysis shows that for the majority of wells are below the proposed quarry floor of 125 m ASL.” (HA Section 6)

4.0 TECHNICAL REPORT SUMMARIES

4.1 Noise Impact Study

The noise impact study was conducted by Hugh Williamson Associates Inc. (HWA.) The original report titled “Acoustic Assessment of the Proposed Expansion of the Miller Braeside Quarry” dated November 15, 2007. The report was peer reviewed by RWDI Air Inc. Revisions and clarification resulted in peer review acceptance on March 16, 2010. A staff report of April 13, 2010 was accepted as information by Township PAC April 13, 2010.

The noise impact study assesses the following noise sources: portable crushing plant, rock drill, Hot-Mix Asphalt Plant, Ready Mix Concrete Plant, washing and screening plants, on-site truck movements and loading and their measurable impact on identified sensitive receptors in the area surrounding the quarry. This is compared with MOE sound level limits and assessed for compliance. It was concluded that “on-site noise generated by the proposed will be in compliance with the MOE noise limits...”. Recommendations were made for implementation as part of site operations regarding hours of operation, noise mitigation measures, modifications to back up alarms for operation during dark hours, and required evaluation of any new noise sources that may be put into operation in the future.

Noise from the quarry and related operations will be kept within MOE noise limits by site design, setbacks, shielding, and restrictions on activities and hours of operation.

The noise generated from truck traffic of the expanded quarry and proposed asphalt plant, is not projected to increase in any significant way as the average annual aggregate production is not expected to change significantly. Noise along the haul route is not expected to change significantly.

The recommendations of the Acoustic Assessment are:

1. Where necessary, mitigation measures will be modified in order to ensure that MOE noise guidelines are satisfied at the noise sensitive receptors. This could include minor equipment modifications, i.e. shrouds or silencers and changes to plant layouts.
2. Noise mitigation measures as detailed in Section 5 shall be applied.

Section 5 provides 28 specific Mitigation Measures based on latest noise data available on equipment proposed for the expanded quarry operation.

The mitigation measures are provided under the headings of:

General- operation hours, night operations, crushing operation hours and shielding for receptors, plant locations and elevations and tree cover to be maintained,

Berms,
Mobile crushing operation,
Hot-Mix Asphalt Plant,
Ready Mix Concrete Plant,
Washing and screening plant, and
Truck movements.

3. At the commencement of any operation which is new to the site, the noise source level for the new operation shall be investigated by a qualified acoustical consultant. If the noise source level is found to be significantly different to that given in Table 2, then the consultant shall recommend appropriate changes to the mitigation measures, such that sound level limits are met at receptors.

The recommendations of the Acoustic Assessment are implemented on the Site Plan.

4.2 Air Quality Assessment

Church & Trought Inc. (CTI) prepared a report titled “Braeside Quarry Expansion – Air Quality Assessment Report” dated November 2007. The report was peer reviewed by RWDI Air Inc. Revisions and clarifications resulted in acceptance of the revised report on March 16, 2010. The County of Renfrew Planning Report with the finalized Air Quality Assessment, was accepted as information by Township PAC April 13, 2010.

Air Quality Air emissions from the existing and expanded quarry, including the new Hot Mix Asphalt Plant and Ready Mix Concrete Plant are minimized by operational requirements on the Site Plan such as dust suppression and dust collection. The mitigation measures were modelled to ensure that the air emissions meet the Ministry of Environment air regulations and standards established to protect public health and safety.

The air quality assessment considers the possible impacts from “particulate matter and nitrogen oxides emissions” using the AERMOD model for air dispersion modelling of identified air emission sources. It was concluded that “the impact on air quality from the site operations would not constitute an adverse effect”.

The Air Quality Assessment made the following recommendations:

1. The Braeside Quarry obtain an Environmental Compliance Approval (ECA) for air and noise emissions.
2. The Dust Management Plan, included as an Appendix to the report be adopted. The Dust Management Plan was provided with mitigation procedures for:

1. Aggregate Crushing and Screening
2. Unpaved Roads
3. Paved Roads
4. Truck Loading
5. Wind Erosion of Stockpiles and Exposed
6. Dust Collectors
7. Storage Piles
8. Vehicle Speed
9. Implementation Schedule and Implementation Plan
10. Maintenance
11. Monitoring and Record Keeping
12. Response to Complaints

The recommendations of the Air Quality Assessment, including the complete Dust Management Plan are implemented on the Site Plan.

4.3 Blast Impact Assessment

A Blast Impact Assessment was conducted by Explotech Engineering Ltd. (EEL). The original report titled “Blasting Impact Analysis” was produced in April 2007 and submitted with the applications.

The report was peer reviewed by Golder Associates (Golder) and was accepted by Golder in June of 2009. The PAC accepted the information with the County Planning report July 2009. The analysis evaluates the potential impacts to the surrounding area from blasting operations on the basis of vibration levels, assessed in compliance to the MOE Model Municipal Noise Control By-law (NPC119). It was determined that “the planned mineral extraction extension on the site can be carried out safely and within MOE guidelines”.

Recommendations were made as measures to avoid possibility of damage to infrastructure surrounding the proposed limits of the site. The recommendations are:

1. A vibration and overpressure attenuation study monitoring a minimum of four blasts will be undertaken by a qualified independent engineering firm with specialization in explosives and blasting prior to entry into the extension lands in order to obtain sufficient quarry data for the development of site specific attenuation relations. This initial monitoring program will be used to confirm the applicability of the initial guideline parameters and assist in developing future blast designs.
2. All blasts shall be monitored for both vibration and overpressure at the closest privately owned sensitive receptors adjacent the site with a minimum of one digital seismograph. Monitoring shall be performed by an independent third party engineering firm with specialization in blasting and monitoring.

3. Orientation of the mineral extraction operation will be designed and maintained so that the direction of the overpressure propagation and flyrock from the face will be away from structures as much as possible. To this end, extraction has assumed a retreat towards the North and Northeast (ie. propagation of overpressure towards the south and southwest).
4. Blast designs shall be continually reviewed with respect to fragmentation, ground vibration and overpressure. Blast designs shall be modified as required to ensure compliance with applicable guidelines and regulations. Decking, reduced hole diameters and sequential blasting techniques will be used to ensure minimal explosives per delay period initiated.
5. Minimum collar will be 1.5 m on body holes and 2.7 m on face holes. In the event of the application of boreholes greater than 100mm in diameter, collars will be increased accordingly.
6. Clear crushed stone will be used for stemming.
7. Primary and secondary dust collectors will be employed on the rock drills to keep the level of rock dust to a minimum.
8. Blasting procedures such as drilling and loading shall be reviewed on a yearly basis and modified as required to ensure compliance with industry standards.
9. Detailed blast records shall be maintained, following MOE recommendations regarding information requirements.
10. These blast parameters provide a good basis for the initial blasting operations at this location. It may be possible to refine these parameters once site-specific data from the blasting operations becomes available. MNR will be notified and modifications will be implemented without the need for a Site Plan amendment.

A blasting incident in 2007 was reviewed by Explotech and investigated by the MOE and the MNR. Results of the investigation indicate that the incident was anomalous and provisions were put in place to ensure it does not happen again.

All blasts are, and will continue to be monitored for ground and air vibrations. Blast designs will be continually reviewed and modified to ensure compliance with applicable guidelines and regulations. While vibrations from blasting may be perceptible, at the current established MOE

vibration guidelines, the blasting experts advise that damage to structures of any form is not possible.

The recommendations of the Blasting Impact Analysis to minimize impact from blasting are implemented on the Site Plan.

4.4 Hydrogeological Study

The Hydrogeological Investigation was conducted by Gorrell Resources Investigations. The original report titled “Hydrogeological Investigation, Braeside Quarry Expansion”, was prepared in September 2007 and submitted with the applications.

The hydrogeology report was peer reviewed by Golder Associates. Peer review comments and responses from September 2008 to September 2012 resulted in additional drilling, field work and analysis and expanded or clarified the recommendations. The final Hydrogeological Assessment was accepted by Golder Associates in September 12, 2012. A Planning Staff report on the Hydrogeological Assessment and peer review was accepted by PAC as information November 13, 2012.

A total of 21 test wells were installed to evaluate the potential impact of the proposed expansion on the hydrogeological conditions of the surrounding area out to 500 m. It was recommended that a “regular expanded groundwater monitoring program” continue to operate, an annual hydrogeological review would be conducted, and hydrogeological report updated every ten (10) years. There were also recommendations regarding depth of quarry floor, depth of sump installation, and procedures for emergency spill plans.

Groundwater has been examined to determine how the new operations may affect private well water supply. The actions required in operation of the quarry prevent or minimize impacts. The expanded quarry will remain 5 m above the main water bearing zone. The excavation is sufficiently set back from private wells to prevent unacceptable impact.

Monitoring of on-site wells, and where possible neighbouring wells, is a requirement. If unpredicted results occur, action will be taken to prevent impacts or to rectify problems. Requirements for fuel storage and equipment operation and maintenance meet or exceed the standards of provincial legislation to protect ground and surface water against the possibility of spills. The requirements are specified in the Permit To Take Water as noted on the Site Plan.

The summary and conclusions of the Hydrogeological Assessment state:

1. Predicted effects from the proposed Braeside Quarry expansion will have limited impacts on the surrounding groundwater and surface water environment, or can be mitigated.

2. The testing and data collection on the site identified three potential aquifers in the area, the overburden aquifer, the weathered bedrock aquifer and the deeper confined bedrock aquifer. Area groundwater users rely on the shallow weathered bedrock aquifer and the deeper bedrock aquifer for water supply.
3. The first potential aquifer, the overburden aquifer, is discontinuous and minimal on the site but may be present in other locations. Where present, it may form a restricted local aquifer. Most commonly in this setting, the overburden provides storage of groundwater, while the underlying weathered bedrock provides the transmission into a well.
4. Where there is no overburden present, the second potential aquifer, the shallow weathered bedrock aquifer has a high degree of connectivity to the surface and is influenced by precipitation events and runoff.
5. Underlying the shallow weathered bedrock is the third potential aquifer, the semi-confined to confined bedrock aquifer. Small and discrete water bearing zones occurring within the competent bedrock aquifer are discontinuous and of low yield. The first significant water bearing zone, which is used for local water supply, is found between 120 to 117 m ASL about 5 m below the proposed quarry floor(125 m ASL). The water bearing zones are not directly connected to the local surface, but are recharged through more regional basis. In the area, this aquifer discharges on either side of the escarpment through springs at approximate elevation 125 m ASL. These springs provide some recharge to the surface water systems and overburden aquifer.
6. The analysis of the site conditions shows that the proposed excavation will not impact the local groundwater setting due to the natural topography and geology. The escarpment on which the property is situated is a major influence on the hydrogeological regime of the area, controlling the groundwater elevation surface at 125 m ASL. The expansion of the quarry, which will remain at least 5 m above the significant water bearing zones in the area, will not have additional impact.
7. The predicted drawdown effects on local wells due to quarry dewatering under the worst case scenario are insignificant and can be readily mitigated, if needed. Neither of the two local wetlands, adjacent to the site were classified as significant or sensitive wetlands. The continued management of discharge from the quarry in the manner currently used at the site will maintain the natural surface water and shallow groundwater flow regime.
8. A groundwater monitoring program is proposed that will provide protection to surrounding groundwater users against perceived or actual impact from the proposed quarry operation, even though no additional impacts are predicted. Water level measurements taken every other month in site wells will be evaluated annually and

compared to historical results. An annual report will provide any recommendations on changes required, mitigation or remediation.

9. The comprehensive hydrogeological assessment will be re-evaluated on a 10 year cycle. The groundwater model and impact prediction will be updated based on the prediction of the next 10 year operation, and any predicted impacts will be mitigated before they occur.
10. Upon completion of the excavation of the quarry, the pumps will be turned off and the quarry will be allowed to fill with the water surplus associated with the quarry and infiltration/ runoff through the shallow weathered bedrock aquifer that drains to the quarry. The final lake level in the excavation is predicted to be approximately 132 m ASL, and the groundwater flow regime will be reinstated to the pre-development setting.

The recommendations of the Hydrogeological Assessment are:

1. The quarry floor should extend no lower than 125 m ASL.
2. A regular groundwater monitoring program will be continued. The details of the program will be amended as necessary based on an annual review and interpretation of the data with input from a qualified professional representing the operator, and the regulatory agency or agencies.
3. An annual review will be completed by a qualified professional. Any predicted problems identified will be addressed before they occur.
4. If an unexpected complaint regarding water supply is received, an investigation will be conducted by a qualified professional, and if the problem is attributed to the quarry operation, remediation or compensation will be offered by the operator as soon as possible.
5. Every 10 years, an update of the hydrogeology report will be prepared. The analysis will be based on the projection of the next 10 years' operations and will include an updated well inventory for at least 500 m around the excavation or for the predicted area of influence if it is greater. The first review should be conducted a year before the Permit to Take Water expiry date.
6. The depth of the pump chamber installed in the lower lift should not extend below 123 m ASL. The chamber should be constructed with a hoe ram or comparable equipment to minimize disturbance to the underlying bedrock.

7. The lower lift pump chamber should be located at the northeast corner of the existing quarry excavation to maximize the distance from local wells.
8. The quarry discharge should continue to be managed in the current pattern to maintain existing flows on west, north-west part of the Miller properties.
9. An emergency spills plan should be regularly reviewed by Miller and revised as necessary to meet regulatory requirements. The plan should be posted at the site with pertinent company and MOE telephone numbers. A supply of appropriate materials for containment and absorption should be maintained in a convenient location.

These recommendations along with others in the body of the Hydrogeological Assessment are implemented on the Site Plan.

The Hydrogeological Assessment concluded: *“Predicted effects from the proposed Braeside Quarry expansion by Miller Paving Limited will either have limited impacts on the surrounding groundwater and surface water environment, or the impacts can be mitigated.”* (HA Section 9)

4.5 Hydrology Report

The Hydrological Investigation for the Braeside Quarry Expansion was completed by Skelton Brumwell & Associates Inc. in October 2007. The report was revised in July 2012 to incorporate additional information provided to address issues raised in the peer review by Golder Associates Ltd. The Hydrological Investigation was accepted by Golder Associates peer review September 12, 2012. The County Planning Report, with the Hydrological Investigation and peer review, was accepted as information by PAC November 2012.

The primary purpose of the Hydrological Investigation was to address compliance with the Aggregate Resources of Ontario, Provincial Standards for technical reports associated with a Category 2 Class”A” Quarry below water and the Official Plan objectives and policy to limit disturbance of the environment to the site; and assess quarry drainage and three (3) potential interactions between the ultimate quarry expansion and the surrounding surface water environments. These potential interactions are as follows:

- 1) Expanding the extraction area could increase discharge from de-watering operations and adversely affect water temperature, quality and flow regime to surface water features.
- 2) Expanding the extraction perimeter could intersect existing drainage areas and reduce runoff that feeds the surface water features.

- 3) Expanding the lower lift could intercept groundwater seepage that feeds surface water features.

The first potential interaction was addressed by defining the dewatering discharge path from the pump outlet to Ryan Creek; identifying the Official Plan natural areas and significant features, conducting field investigations to identify water temperature along the discharge path, stream channel hydraulics, morphological characteristics, riparian vegetation, fish habitat and community; examining current dewatering operations, estimating the average annual water surplus, predicting the ultimate dewatering flowrate, assessing potential thermal impacts; outlining monitoring and contingency plans, sediment and erosion control plan and a stormwater quality control plan.

The second potential interaction was addressed by identifying each surface water feature within 120 m of the site, its vegetative communities on site, the presence of groundwater seeps and surface water, the natural areas and significant features, and classifying wetlands as provincially significant (PSW) or local. The drainage area of each surface water feature was delineated from mapping. Then the proposed extraction perimeter was superimposed to determine the drainage area reductions to assess impacts of reduced runoff feeding each surface water feature.

The third potential interaction was addressed by the hydrogeology report. The zone of influence associated with the future extraction floor and sump elevations was estimated to determine the potential for under-draining the surface water features.

Conclusions of the Hydrological Investigation are:

1. Seepage entering the quarry was found to be immeasurable and the quarry expansion would not result in under-draining of surface water features.
2. The quarry expansion will result in a negligible reduction in the drainage area (runoff and base flow) of the Southeast Wetland, East Plateau Lower Springs, Northwest Wetland, Unnamed Drain, Ottawa River and Ryan Creek.
3. Neither of the impacts on the Southeast Wetland, East Plateau Lower Springs, Northwest Wetland, Unnamed Drain and Ottawa River was identified as significant and thus no monitoring or protection was required.
4. The ultimate quarry dewatering operations will not result in thermal enhancement deemed to be a harmful alteration or destruction of fish and aquatic habitat.

5. The shallow pump out within the lower lift will discharge to the existing 6m deep sump within the upper lift, after each rainfall event. Thus, runoff is not expected to be thermally enhanced.
6. The ultimate off site discharge from dewatering operations will not result in flooding of local or County Roads. Quarry staff will continue to provide winter inspection and maintenance to keep the Usborne Street 600 mm CSP flowing during snow and ice pack conditions.
7. Local weather station data provides monthly and annual precipitation and temperature averages for the general area, but is not an accurate method of determining daily and monthly weather at the site.
8. The digital flow meter is currently recorded manually. This is inefficient use of staff resources with potential human error and may result in additional labour to prepare annual report.
9. The drainage conditions due to the natural topography would result in the sump pump discharge being directed to Ryan Creek via the Usborne Street 600 mm dia. CSP culvert.
10. The drainage conditions due to the existence and extent of beaver dam obstructions could result in the sump pump discharge being directed to both Ryan Creek via the Usborne Street 600 mm dia. CSP culvert and the Ottawa River via the Golf Club Roads 600 mm dia. CSP culvert on the un-named drain.
11. Ensure the beaver dams on the northwest corner of the property stay open directing sump discharge to Usborne Street, thus no potential for sump discharge to Golf Club Road.
12. Item 11 eliminates the potential flow to the un-named drain and the Golf Club Road culvert. Thus monitoring at this location is not required for the Discharge Permit C of A.
13. The thermal impact assessment of sump pump discharge on Ryan Creek (2007 Hydrology Report) remains unchanged and is considered acceptable. The estimated maximum annual water temperature of Ryan Creek due to the addition of sump water is below the threshold temperature of 22 °C.
14. The sediment basin's rock check dam requires the addition of a riprap layer over filter cloth placed on the front surface to be effective at controlling TSS.

15. The proposed quarry expansion and asphalt plant, with the recommended setbacks, operations, monitoring and contingency plans will conform with the McNab/Braeside OP, as it minimizes disturbance to surface water features.

The recommendations of the Hydrology report are:

1. Implement the Sediment and Control Measures Plan for the quarry dewatering system.
2. Implement site erosion and sediment control improvements through the Industrial Sewage Works Certificate of Approval (C of A).
3. Implement the Ryan Creek Monitoring Plan to measure the flow rate and water temperature of Ryan Creek and dewatering discharge every two weeks from July 1 to September 15 to confirm compliance with the maximum annual water temperature objective of 22 °C.
4. Implement the Ryan Creek Contingency Plan, if monitoring events are in non compliance with the aquatic ecosystem objectives.
5. Install a ball valve on the pump discharge line behind the flow meter to facilitate reducing pump capacity.
6. Complete a stormwater management report to address stormwater quality control measures as outlined in the report.
7. The Industrial Sewage Works C of A should be revised to incorporate the proposed surface water monitoring and contingency plans, when the quarry expansion has been approved.
8. Limit dewatering operations in July, August and September at 2,160 LPM to minimize any potential impacts on Ryan Creek fisheries and aquatic habitat.
9. Inspect and maintain the 600 mm CSP culvert crossing Usborne Street before pumping commences in April, to ensure that no blockage of snow and ice exists during any springtime de-watering operation minimizing any potential roadway flooding.
10. Maintain the existing heavily treed area between the sediment basin and the Usborne Street outlet for protection against thermal enhancement.

11. Install a weather station which includes a rain collector, temperature, humidity and barometric sensors, anemometer, a rain collector heater and a data logger with optional internet protocol address.
12. A data logger should be installed to interface between the automatic flow meter and the scale house computer.
13. Eliminate beaver dams on the site to ensure discharge reaches the Usborne Street 600 mm CSP culvert.

The quarry operation involves dewatering of surface water via discharge by pumps to a sediment basin and gravity flow to Ryan Creek. The existing quarry and future expansion will result in negligible reduction of drainage areas to surface water features in the vicinity. A monitoring plan and contingency plan are specified on the Site Plan to ensure no harmful alteration, disruption or destruction of fish and aquatic habitat.

The recommendations of the Hydrological Investigation including proposed monitoring and contingency plans are implemented on the Site Plan.

4.6 Natural Heritage / Environmental Impact Study

The environmental impact study was conducted by Skelton, Brumwell and Associates Inc. and Brunton Consulting Services. The report titled “Natural Environment Report Level I and II, Braeside Quarry Expansion” dated November 21, 2007, was peer reviewed by Golder Associates.

The revised report of December 2011 was accepted by peer review correspondence of September 2012. The study and peer review were accepted as information with a staff Planning Report by PAC November 2012.

The exceptional nature of part of the site generated the recommendation to preserve a large, self-sustaining Significant Wildlife Protection Area which contains virtually all of the significant natural features and functions of the study area. This recommendation was accepted early in the design process to establish the proposed limit of extraction on the east side of the expansion area.

The natural heritage features and functions of the site and surrounding lands were assessed and are described in the “Miller Braeside Quarry Expansion: Natural Environment Report, Level I & II”. The following significant features were identified on or adjacent to the site in the Level I report.

- significant woodlands;

- significant wildlife habitat relative to species of concern (rare species), rare vegetation communities (alvar), deer wintering yard and interior habitat; and
- contribution to fish habitat.

The purpose of the Level II Report was to assess the potential negative impact from the proposed development on these features. Based on the findings of the Level II report, the following recommendations were made:

- Preservation of the identified Significant Wildlife Protection Area to ensure its long-term survival;
- The wildlife corridor remain undisturbed and vegetated;
- swamp communities in the northwest corner of the property within the 300 m zoning setback remain undisturbed and vegetated; and
- a monitoring plan be implemented for the continued protection of the Significant Wildlife Protection Area.

These recommendations are implemented as follows:

1. The identified Significant Wildlife Area is to be zoned Extractive Industrial Reserve with a special provision to preserve the area as a natural area as a means to ensure its long-term survival, and

The Significant Wildlife Protection Area is shown on the Site Plan as a vegetation area of 23.4 ha to remain undisturbed in a setback to extraction.

2. The wildlife corridor is shown on the Site Plan as an area of 4.7 ha as a wildlife corridor to remain undisturbed.
3. The swamp communities in the northwest corridor are shown on the Site Plan in the setback to extraction to remain undisturbed.
4. A monitoring plan for the Significant Wildlife Protection Area is specified on the Site Plan including pre-monitoring survey, annual photo documentation, five year review, contingency planting contingency removal of invasive species, and significant features population counts..

The report concludes: *“Through the implementation of mitigation measures in the Level II Report and the Hydrological Investigation, the proposed quarry expansion and asphalt plant will have no anticipated negative impacts on natural heritage features and functions.”* (NER Section 8)

4.7 Traffic Impact Study

The Traffic Impact Study (TIS) was prepared by Skelton Brumwell & Associates Inc. (SBA). The original report titled “Traffic Impact Study Miller Braeside Quarry Expansion” was dated October 16, 2007. The peer review by J.L. Richards Associates of July 2008 result in a revised report of June 2009 which was accepted by the peer reviewer in June 29, 2009. A County of Renfrew staff report with the TIS and peer review was accepted as information by PAC in October 2009.

The TIS evaluates the existing quarry entrance/exit and haul routes based on historic traffic volumes on Highway 17, County Roads, and Campbell Drive, and a study horizon extending to the year 2018. It addresses the potential impact of the quarry expansion on site generated traffic, intersection volume/capacity ratio, and individual movement volume/capacity ratio.

The highest level of production over the study period of 2002-2009, at 155,000 tonnes, was analysed for potential increase. The total peak traffic volume of the quarry was estimated to be about 9 trips per hour. A “trip” is either full going out, or empty returning (i.e. one way). The installation of the asphalt and concrete plant is estimated to generate less than an additional 2 trips per hour or 17 trips per day. The total average traffic volume with quarry expansion and both asphalt and concrete plant installations was estimated to be 11 trips per hour.

The study it was concluded that the quarry expansion “*will not significantly change the traffic volume or patterns of the existing operation*”, and therefore no mitigation measures were proposed.

An increase in production, even to the maximum permitted tonnage, will not have a significant negative impact on the level of service of the intersections at the quarry entrance / County Road 3 (Usborne Street) and McLean Road and Campbell Drive both at Highway 17.

Future interchanges at McLean Road and Campbell Drive will, when constructed as part of the Highway 417 extension, provide for safe turning movements with higher volumes of traffic expected in the future.

There were no recommendations to implement from the Traffic Impact Study.

4.8 Cultural Heritage and Archaeology

There are no built cultural heritage features on the site. There are no identified cultural heritage resources or landscapes identified in the vicinity which could be affected by the quarry expansion.

This site is removed from surface water or other features which may have supported early settlement use or aboriginal use. The Ministry of Culture staff advised in a letter January 4, 2007, that the site is within an area with low potential for archaeological features, and has no further concerns for the application. A copy of that letter is included in Appendix B.

A report “A Stage 1&2 Archaeological Assessment of the Proposed Braeside Quarry Expansion” prepared by Ken Swayze, Archaeological Consultant, in August 2001 identified that “*No artifacts, cultural features of human remains were observed anywhere on the property.*” Mr. Swayze recommended clearing the proposed quarry expansion area of any heritage concern.

5.0 PROPOSED QUARRY EXPANSION

5.1 Site Plan

The results and recommendations from the technical studies for the expansion of the Miller Braeside Quarry formed the basis of design, operation controls, mitigation and monitoring requirements. Recommendations from reports are all incorporated into the Site Plan, which is the primary tool for ensuring compliance with provincial legislation and Municipal zoning.

The Site Plan, revised March 2013, for the Miller Paving Braeside Quarry expansion application consists of six drawings:

- 1) Site Environs – a 2007 aerial photograph to provide background information of the existing quarry and surrounding lands;
- 2) Existing Features and Cross Sections - required by the ARA, this drawing shows the conditions in place at the time of the application, detailed references that input to the creation of the Site Plan and detailed cross sections showing existing and final grades;
- 3) Operational Plan - required by the ARA, this drawing identifies the proposed operations of the quarry and covers issues such as hours of operations, drainage and siltation control, fencing, site preparation, extraction sequence, equipment and permanent plant structures, fuel storage and auxiliary uses of the existing and expanded quarry;
- 4) Progressive and Final Rehabilitation Plan - required by the ARA to show the phasing of extraction and rehabilitation while extraction is ongoing, detail notes and sketches of final rehabilitation requirements;
- 5) Monitoring and Mitigation - this drawing identifies the specific requirements for monitoring and mitigation that resulted from the technical studies with details related to Hydrogeology, Hydrology, and Natural Environment. A plan view is included.

- 6) Monitoring and Mitigation - this drawing identifies the specific requirements for monitoring and mitigation that resulted from the technical studies with details related to Acoustics, Blasting and Emissions. A plan view is included.

The proposed quarry expansion and location for the asphalt plant are shown on Figure 3 - Proposed Quarry Expansion and Zoning. This is a development plan consistent with the Site Plan Revised March 2013 submitted for a Licence application under the ARA.

5.2 Operations

The Licence Application covers the remaining Miller Paving Limited property designated Mineral Aggregate Resource Area. The licence application does not include the existing Licenced quarry. Once licenced, the existing licence and the expansion application will be incorporated into one Site Plan and one licence. A narrow strip of land to Golf Course Rd, that Miller owns, will not be licenced.

The limit of extraction shown on the Site Plan defines the maximum horizontal extent of the area to be extracted in the total proposed licenced area. The proposed limit is determined based on the results of the studies of the project and other setbacks regulated by the ARA and/or by Municipal Zoning provisions. Limits of extraction were developed to protect the Significant Wildlife Protection Area and the Wildlife Corridor. In compliance with Township Zoning provisions, a 300 m setback to the limit of extraction was required from existing residences. The horizontal and vertical extent of extraction may vary based on the quality of material encountered, but cannot exceed the limit of extraction shown on the Site Plan.

The site will continue to utilize the existing entrance from County Road 3. Internal haul roads will be temporary and will be developed to provide access to the extractive operations within the licenced area.

The sequence of extraction will provide for completion in the southern part of the existing quarry as the first phase and then the second phase is easterly to the eastern limit of extraction. The third phase moves to the north to eventually establish a long east-west face, with the fourth phase continuing full width to the northern boundary. The area under the Hot Mix Asphalt Plant in the north-west corner will be the fifth phase to be extracted. The area will be prepared and used in earlier phases for the asphalt plant.

The quarry will be extracted in 2 lifts, labelled A & B on the Site Plan. There is no connection in timing between the lifts. The lower lift may follow the upper lift, or the upper lift may be extracted in full first, before extraction starts in the lower lift. The sequence for both lifts will be the same.

The Site Plan and the quarry licence are legally binding on the quarry operator. The operator must submit an annual report assessing their compliance (Compliance Assessment Report or CAR) with the Licence and Site Plan. Non-compliance can result in charges, suspension or revocation of the Licence.

The Site Plan provides restrictions on operations as noted below:

1. Operations are permitted during the hours noted below, Monday to Friday inclusive, except public holidays;
 - Crushing, drilling, cement powder truck unloading, washing, screening, site preparation and rehabilitation, Hot Mix Asphalt and Ready Mix Concrete Plants: 07:00 - 19:00
 - Blasting: 08:00 - 18:00
2. Night operations, 19:00 to 07:00 may include; truck loading, shipping and operation of the Hot Mix Asphalt Plant, the Ready Mix Concrete Plant and the Screening / Washing Plant, provided there is no night crushing.
3. Crushing operations will generally occur during the day, but may also take place at night with the following restrictions. Crushing, and associated truck loading and movements, may take place at night, 19:00 to 07:00, in Phase 2, provided that there are no other quarry operations (Hot Mix Asphalt Plant, Ready Mix Concrete Plant, separate screening or washing) taking place at the same time. For night crushing, the crusher shall be shielded from specified receptors (R3 to R6) by stockpiles or lift faces which are at the least 8m high and no less than 30m from the crushing plant.
4. Back up beeper alarms are used on loaders during daylight operations; however for any operations during the dark hours, strobe light backup alarms shall be used instead of beepers.

The use of strobe lights is being reviewed by Miller with the Ministry of Labour. On occasion, the unloading of cement powder trucks after 7 pm is necessary. Miller is investigating the requirements to ensure compliance with the noise regulations and limits.

The Site Plan provides requirements in the notes for; drainage and siltation control, fencing and berms, site preparation, extraction sequence and details, equipment, permanent plant and structures, fuel storage and equipment maintenance and auxiliary uses of the site.

5.3 Rehabilitation

Progressive rehabilitation will follow the direction and sequence of extraction. As the horizontal limits of extraction of each lift is reached in any part of each phase, progressive rehabilitation will commence. The site plans identify where partial sloping and cliff faces (varying between 1-6 m) or full sloping will be created. Slopes will vary between 2:1 and 3:1 (horizontal:vertical). The ARA requires a slope no steeper than 2:1, however, for access to the lake, some slopes will be gentler.

Slopes will be created by backfilling with rock, pond fines, or overburden from berms or newly stripped areas. Slopes will be covered with available topsoil and seeded with a native grass seed mix.

Ledges, that will eventually be wet or dry will be created at the toe of talus slopes. The ledge at the waters edge will be blasted to graduate access to the final lake level. Dry ledges will be left as bare rock or covered in soil and left to naturally seed. Other ledges will be rough blasted between the toe of slope and the waters edge to a depth of 1-2 m to allow water from the lake to wash onto the ledges to create shallow pools. Rough rock and soil will be left or placed in areas of the ledges to provide varied shallow habitat at the shores' edge.

Where exposed cliff faces are left as part of rehabilitation, the last blast will be designed to provide a "rough", uneven face. In select locations, topsoil will be dumped from the top of the cliff face to aid in natural revegetation of pockets on the face.

The final rehabilitation of the site will involve removal of all equipment, buildings and aggregate stockpiles from the site. Roads will remain to access the property and its' perimeter. Once equipment is removed, pumping of collected surface water will cease and the quarry will gradually fill with water. It is predicted to take 21 years, based on precipitation and runoff, to fill the quarry to a final water elevation of 132 masl.

The final end use is anticipated to be a naturalized area surrounding a lake. This will be a compatible use of the land with the adjacent open space, woodland and residential uses.

6.0 HAUL ROUTES AND TRAFFIC

The market area for materials from the Miller Braeside Quarry has in the past been generally about half toward the Renfrew area with the other half toward Arnprior and Ottawa. It is anticipated that this will continue and that the current haul routes will continue to be used.

Currently quarry traffic travelling westward toward the Renfrew area uses Highway 17 via Osborne Street and McLean Road (County Road 54). Trucks heading east toward the Arnprior and Ottawa areas travel west on Osborne Street then south on Campbell Drive to Highway 17.

The maximum annual production from the quarry over the years 2002-2009 was 155,000 tonnes which generated about 19 trips per hour. That production level was analysed for potential traffic increase.

The Traffic Impact by Study Skelton Brumwell and Associates, June, 2009 concludes that:

- the expansion of the Miller Braeside quarry and installation of an asphalt and concrete plant will not significantly change the traffic volume or patterns of the existing operation;
- at a production rate of 155,000 tonnes, the total peak traffic volume of the quarry is estimated to be 9 trips per hour;
- the predicted increase in peak traffic volume generated by the asphalt and concrete plants, is approximately 2 trips per hour for a potential total of 11 trips per hour;
- at the maximum permitted annual production rate of 1,000,000 tonnes, with asphalt and concrete plants at full production, the total peak traffic volume is estimated to be 64 trips per hour;
- an increase in production, even to the maximum permitted tonnage, will not have a significant negative impact on the level of service of the intersections at the quarry entrance/Usborne Street, and McLean Drive and Campbell Drive both at Highway 17; and
- planned interchanges at McLean Road and Campbell Drive will, when constructed, address the delay issues related to left turning movements at these intersections.

Therefore, no traffic mitigation measures were warranted or proposed.

6.1 County Road Entrance Improvement Agreement

The County Roads Department required an entrance improvement to improve traffic flow around the quarry entrance on County Road No. 3. The improvements include a “slip around lane” for south bound traffic and a right turn taper lane for north bound trucks on Usborne Street.

These improvements are to be managed under a revised Entrance Permit application. Miller Paving agreed to the requirement and has signed an Entrance Improvement Agreement with the County. Miller Paving will submit a revised Entrance Permit application with detailed design within two years of issuance with the expanded Licence. Miller will construct the improvements

in accordance with County approval and conditions. The Entrance Improvement Agreement and Quarry Entrance Plan are provided in Appendix D.

7.0 SOCIAL IMPACT

The potential social impacts of a quarry and related uses are those resulting from noise, air emissions, vibration/blasting and visual observation. The potential for impacts on water supplies in individual wells was addressed in the Hydrogeological Assessment and found to be insignificant.

7.1 Noise

The Acoustic Assessment Report, prepared by Hugh Williamson Associates was conducted on the operations proposed for the Miller Braeside Expansion. The assessment was based on sound source measurements of operations at the existing Miller Braeside Quarry and sound source measurements by Hugh Williamson Associates of similar equipment operating under similar conditions to the proposed operations.

The Acoustic Assessment states “Compliance has been assessed using conservative assumptions, both with respect to the noise sources and with respect to propagated sound levels at receptors. It is concluded that on-site noise generated by the proposal will be in compliance with the MOE noise limits as set out in Publication NPC-205, Sound Level Limits for Stationary Sources in Class 1 7 2 (Urban) Areas, October 1995 provided that the mitigation measures set out in Section 5 are observed.”

Through peer review the noise attenuation measures to protect the acoustic conditions at some of the receptors along Osborne Street were increased.

The recommended mitigation measures, including berms and barriers are implemented through the Site Plan to mitigate sound levels at the nearby residences. Quarry extraction and operations may be heard at a distance but mitigated to comply with MOE sound level limits at all receptors including the Outdoor Living Area of within 30 m of the residence (AAR section 4)

7.2 Air Emissions

The Air Quality Assessment Report by Church and Trought Inc. concluded:

“Based on the results of the Regulation 346 dispersion model all air emissions meet MOE criteria and therefore it is appropriate for approval;

- 1. MOE Guideline D-6 classifies the quarry site as a Class III industrial facility. The minimum separation distance for Class III facilities is 300 metres and the potential influence area is 1000m. The separation distance between the area of*

extraction at the expanded quarry and the existing residences is 300 metres or greater.

2. *Based on the AERMOD model assessment of all particulate matter emission sources on the site, the 24-hour MOE POI limit for particulate matter is met at the closest residences. The particulate emissions from the quarry operations, including blasting, meet the MOE criteria at the property line. When the HMA and RMC plant operations are modelled with the quarry operations the particulate emissions meet the MOE criteria at the property line with the exception of only six days in a five year period. These exceedences occur at night near the entrance primarily due to truck traffic. No further mitigation is required beyond the requirements of the dust management plan, summarized in Appendix B.*
3. *Based on the AERMOD model assessment of the nitrogen oxides emission sources on site, the one-hour and 24-hour MOE POI limits for nitrogen oxides is met at the closest residences.*
4. *The impact on air quality from the site operations would not constitute an adverse effect at the property line, at the residences, within or beyond the 1000m area of influence.”*

All of the requirements of the recommended Dust Management Plan (DMP) have been implemented on the Site Plan.

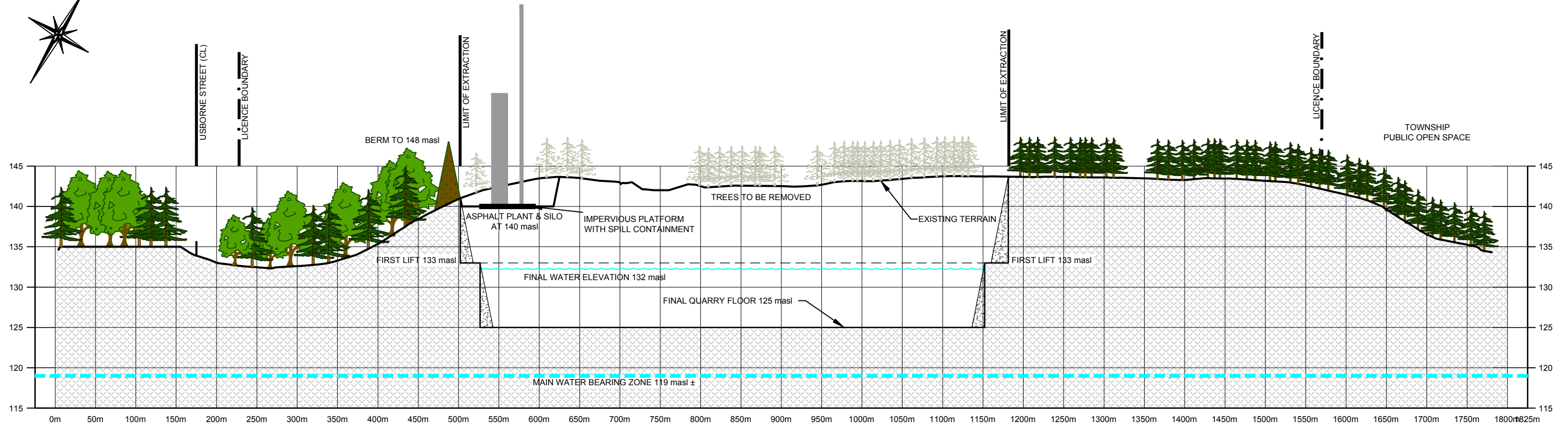
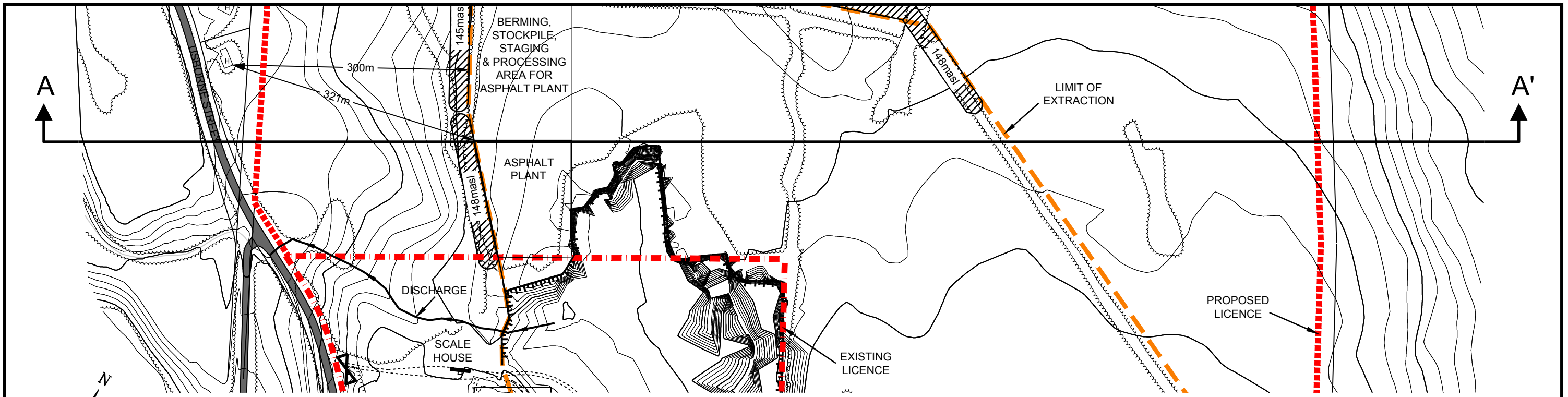
The notes on the Site Plan regarding emissions provide specific requirements to meet the prescribed conditions on dust control under the Aggregate Resources Act Provincial Standards. The notes address water spray system, spray bars, water truck for unpaved internal haul routes, and water use rate.

Dust and odour from the quarry expansion and plants may be noticed offsite at a managed and mitigated level so as not be an adverse effect complying with MOE Guidelines.

7.3 Visual Impact


The existing quarry is not visible from Usborne Street. The proposed quarry expansion will not be visible from Usborne Street or from Golf Club Road or from existing residences along these roads due to the existing extensive vegetation and the change in elevation to the Miller property. The quarry entrance on Usborne Street is at a location where there are no residences opposite and a rise in elevation of the driveway to the gate allows no direct views into the quarry.

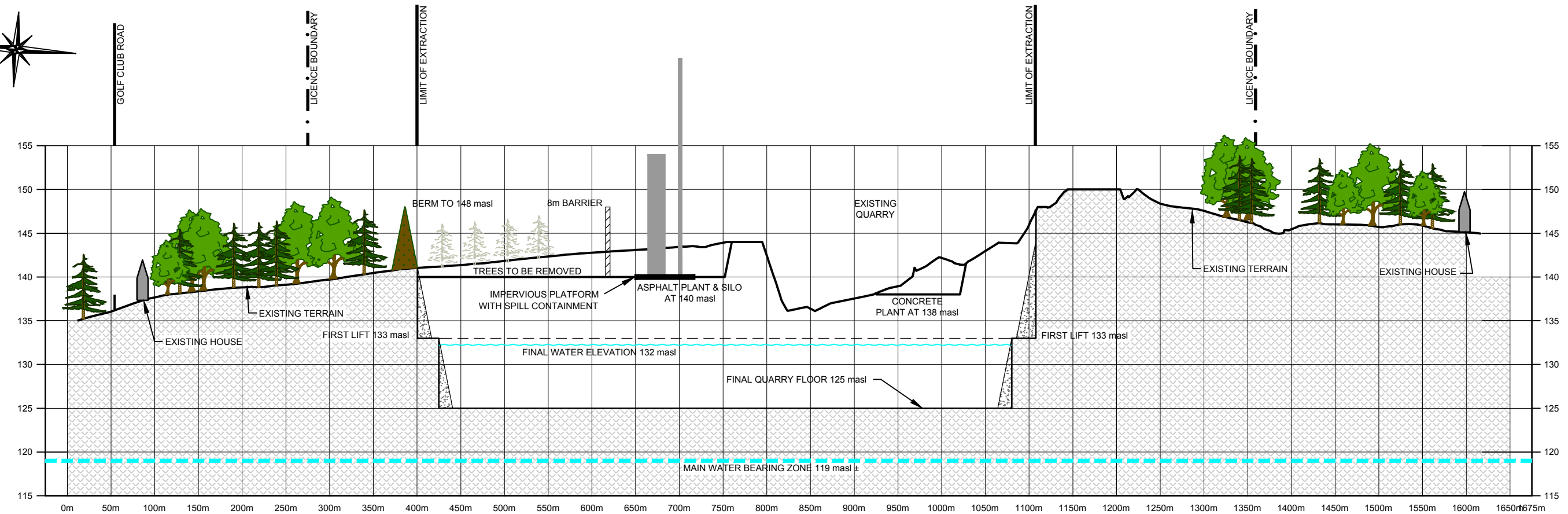
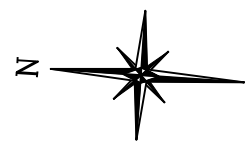
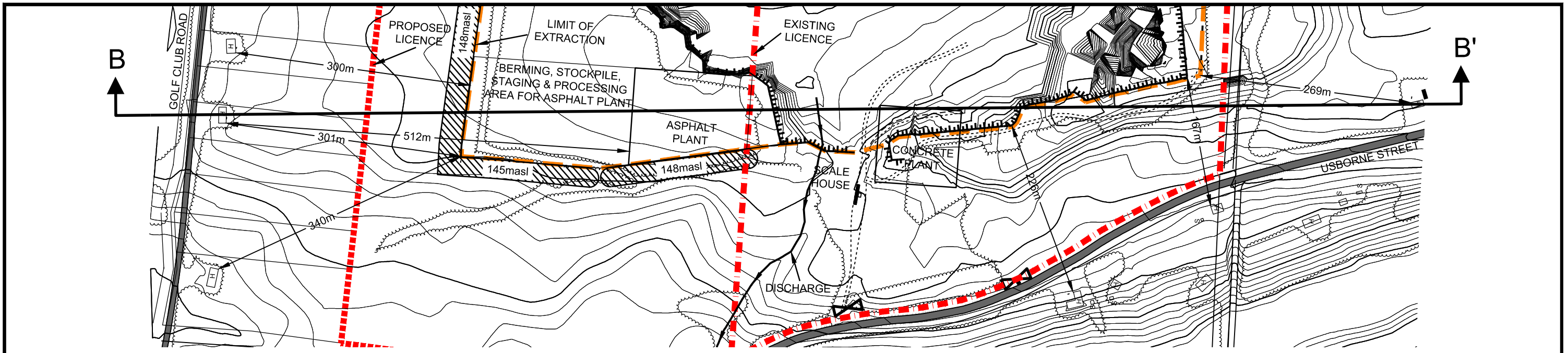
The visual isolation of the quarry expansion is shown on the cross sections on Figures 9 and 10. Figure 9 is an east-west cross section and Figure 10 is a north-south cross section, both of which



Copyright © 2013 Skelton Brumwell & Associates Inc. All rights reserved.
 This document is protected by copyright laws and may not be reproduced in any manner, or for any purpose, except with the written permission of the copyright holder.


Source: Skelton Brumwell & Associates Inc. Miller Braeside Quarry Existing Features & Cross Section - Dated February 2013.

MILLER BRAESIDE QUARRY McNAB / BRAESIDE TOWNSHIP QUARRY EXPANSION	
FIGURE 9 WEST/EAST CROSS SECTION	
Scale H=1:5000 V=1:500	
P/N 2033	MARCH 2013
 Skelton Brumwell <small>ASSOCIATES INC.</small> ENGINEERING PLANNING ENVIRONMENTAL CONSULTANTS	
93 BELL FARM ROAD, SUITE 107 BARRIE, ONTARIO L4M 5G1	TELEPHONE (705) 726-1141 FAX (705) 726-0331



Copyright © 2013 Skelton Brumwell & Associates Inc. All rights reserved.
 This document is protected by copyright laws and may not be reproduced in any
 manner, or for any purpose, except with the written permission of the copyright holder.

Source: Skelton Brumwell & Associates Inc. Miller Braeside Quarry Existing Features & Cross Section - Dated February 2013.

MILLER BRAESIDE QUARRY McNAB / BRAESIDE TOWNSHIP QUARRY EXPANSION	
FIGURE 10 NORTH/SOUTH CROSS SECTION	
Scale H=1:5000 V=1:500	
P/N 2033	MARCH 2013
 Skelton Brumwell <small>ASSOCIATES INC.</small> ENGINEERING PLANNING ENVIRONMENTAL CONSULTANTS	
93 BELL FARM ROAD, SUITE 107 BARRIE, ONTARIO L4M 5G1	TELEPHONE (705) 726-1141 FAX (705) 726-0331

are through the proposed asphalt plant area and concrete plant area. Observation of the expanded excavation area and the asphalt plant will be screened by the berm and by vegetation on the property and on the south part of the Golf Club Road lots. Observation from Usborne Street of the expanded excavation area and asphalt plant manufacturing equipment will be screened by vegetation on site in the setback area and by the 8 metre berm.

Observation of the top of the silo for asphalt storage and truck loading may be possible over the tops of the trees from some limited vantage points on Usborne Drive near Campbell Drive. Any view would be a narrow observation at distances of greater than 350 m. There are no emissions from the top of the silo. A possible observation of the top of the silo would not create a negative visual impact. The ready mix concrete plant will not be observed.

Views to the area of the expanded quarry will be screened by existing vegetation in the setbacks on site which are to be maintained in natural conditions. The excavation in the expanded quarry area will not be observed from offsite viewers due to topography and vegetation. No negative visual impact is anticipated.

7.4 Blasting

The Blasting Impact Assessment for the proposed extension of the Miller Braeside quarry includes summary opinions:

- *“Explotech is of the opinion that the planned mineral extraction extension on the site can be carried out safely and within MOE guidelines as set out in NPC 119 of the (Model Municipal Noise Control) By-Law.*
- *Recommendations are included in this report to ensure that blasting operations in all phases of this project are carried out in a safe and productive manner to ensure that no possibility of damage exists to any buildings or residences surrounding the site.”*

The Blasting Impact Assessment concludes:

“Blasting operations required for mineral extraction at the proposed Miller Braeside quarry extension can be carried out safely and well within governing guidelines set by the Ministry of the Environment.

Modern blasting techniques will permit blasting to take place with explosives charges below allowable charge weights ensuring that blast vibrations and overpressure will remain minimal at the nearest receptors.”(BIA Conclusion)

All recommendations have been incorporated on the Site Plans. Drawing 6 provides detailed Monitoring and Mitigation notes.

No unacceptable impacts from blasting are expected.

8.0 ECONOMIC IMPACTS

The proposed quarry expansion will provide additional reserves for continued use of high quality aggregate resources for local and regional markets. This has merit relative to the PPS policy that *“As much of the mineral aggregate resources as is realistically possible shall be made available as close to market as possible.”* (PPS 2.2.2.1) Providing aggregates close to market reduces travel time and costs. The quarry expansion and asphalt plant will have economic impacts in increasing employment, assessment and taxes and revenue from annual Licence fees.

The combined quarry and asphalt and concrete plants will increase and extend local employment opportunities. The expanded quarry and proposed plants are anticipated to require additional local employees in McNab/Braeside for:

quarry operation	1
asphalt plant operation	3
concrete plant operation	3
other operations	3
business management of site operations	4

Total new employment on site	14

In addition there will be full and part time jobs related to asphalt and concrete supply, Ready Mix truck drivers (company dedicated), aggregate and asphalt delivery truck drivers (dedicated and contract) and maintenance and service needs.

The assessed value of the portion of the property prepared (disturbed) for extraction or undergoing extraction and processing, will be increased by several times the current agricultural and vacant (unused) land assessment. The assessed value returns to rural value as rehabilitation is progressively completed. The assessed value of the property is also increased by the investment the owner makes in new buildings and structures in accordance with the criteria set by the Municipal Property Assessment Corporation. A Property Assessor reviews the information to set the annual property assessment. The tax rate and therefore the taxes paid to the Township are increased as the quarry expands and investments and improvements are made to the property.

Fiscal considerations for a quarry include the annual licence fee as revenue to the Township and County. The Ontario Aggregate Resources Corporation (TOARC) is responsible for collecting and disbursing the annual licence fee. The Township of McNab/ Braeside and the County of Renfrew will receive a portion of the annual Licence fee each year based on aggregates (tonnes) removed from the quarry. The annual licence fee of 11.5 cents per tonne from the Miller Braeside Quarry site will be distributed as follows:

Township of McNab/Braeside	6 cents,
Province of Ontario	3 ½ cents,
County of Renfrew	1 ½ cent,
Abandoned pits and quarries fund	½ cent.

Based on 155,000 tonnes extracted in one year, \$9,300 would be given to the Township. The maximum permitted extraction of 1,000,000 tonnes would generate \$60,000 in revenue to the Township of McNab/Braeside in a year. The County of Renfrew would receive \$15,000 for a year based on maximum extraction.

9.0 PLANNING CONFORMITY

9.1 Provincial Policy Statement

To establish consistency with the Provincial Policy Statement (PPS) each Section of Part IV POLICIES is presented below with relevant policies shown in italics followed by references to consistency.

1.0 BUILDING STRONG COMMUNITIES

Ontario's long-term prosperity, environmental health and social well-being depend on wisely managing change and promoting efficient land use and development patterns. Efficient land use and development patterns support strong, liveable and healthy communities, protect the environment and public health and safety, and facilitate economic growth.

Accordingly:

1.1 Managing and Directing Land Use to Achieve Efficient Development and Land Use Patterns

c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;

d) avoiding development and land use patterns that would prevent the efficient expansion of settlement areas in those areas which are adjacent or close to settlement areas;

The proposed quarry expansion will support economic development and long-term prosperity by providing essential construction materials. The prescriptions for the extent and methods of extraction and processing and the operation of the asphalt plant avoid causing public health and safety concerns. The intended land use pattern is evident in the Official Plan designations. The potential mineral aggregate resource extraction on more of the Miller property with suitable separations to existing rural residential development to the west and north and separation to the

designated settlement area of Sand Point to the east, including a Town owned open space area, is appropriate.

1.1.4 Rural Areas in Municipalities

1.1.4.1 In rural areas located in municipalities:

a) permitted uses and activities shall relate to the management or use of resources, resource-based recreational activities, limited residential development and other rural land uses;

b) development shall be appropriate to the infrastructure which is planned or available, and avoid the need for the unjustified and/or uneconomical expansion of this infrastructure;

f) opportunities should be retained to locate new or expanding land uses that require separation from other uses; and

g) recreational, tourism and other economic opportunities should be promoted.

The planning changes and licence will permit and regulate a resource based use permitted in the Rural Area. The quarry expansion will support long term economic prosperity by optimizing the use of land and resources at an established site with suitable access to a public (County arterial) road thus no extension of municipal infrastructure is required. The opportunity for quarry expansion is intended by the Official Plan designation. Suitable separations have been prescribed and implemented on the Site Plan. The proposed quarry expansion and asphalt plant is an economic opportunity which does not conflict with recreation or tourism.

1.6 Infrastructure and Public Service Facilities

1.6.5 Transportation Systems

1.6.5.1 Transportation systems should be provided which are safe, energy efficient, facilitate the movement of people and goods, and are appropriate to address projected needs.

1.6.5.2 Efficient use shall be made of existing and planned infrastructure.

The quarry expansion and asphalt plant will be accessed by the existing road infrastructure of County Road 3, Osborne Street. This is both safe and efficient use of existing transportation infrastructure. The County Manager of Operations considered the projected County roads needs and requested that Miller agree to improve the flow of traffic at the entrance. Miller Paving agreed to this and had a plan prepared for the entrance improvements which was approved by the

Manager of Operations. The Quarry Entrance Improvement Agreement and Entrance Plan is provided in Appendix D.

1.7 Long-Term Economic Prosperity

1.7.1 Long-term economic prosperity should be supported by:

a) optimizing the long-term availability and use of land, resources, infrastructure and public service facilities;

e) planning so that major facilities (such as airports, transportation/transit/rail infrastructure and corridors, intermodal facilities, sewage treatment facilities, waste management systems, oil and gas pipelines, industries and resource extraction activities) and sensitive land uses are appropriately designed, buffered and/or separated from each other to prevent adverse effects from odour, noise and other contaminants, and minimize risk to public health and safety;

Long term economic prosperity is supported as the quarry expansion will optimize the availability and production of aggregate resources in an area of existing extraction operations and in a location with suitable setbacks and buffers to prevent adverse effects. The risk to public health and safety are minimized by implementation of the recommendations of the technical studies and by monitoring and mitigation of potential effects as required on the Site Plan.

2.0 WISE USE AND MANAGMENT OF RESOURCES

2.1 Natural Heritage

2.1.1 Natural features and areas shall be protected for the long term.

2.1.2 The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.

The significant natural heritage features of the property will be protected. The Natural Environment Report concluded that through avoidance and mitigation, no effects are predicted to occur on the important features of the property or off-site. The identified Significant Wildlife Protection Area is to be preserved to ensure its long-term survival. The wildlife corridor at the south east corner of the property is to remain undisturbed and vegetated. See Section 4.6 of this report.

2.1.5 Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.

The Hydrological Investigation concluded that the ultimate de-watering operations will not result in a harmful alteration, disruption or destruction of fish and habitat. See Section 4.5 of this report for reference to sediment and control measures and monitoring and contingency plans which are implemented on the Site Plan.

2.1.6 Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.3, 2.1.4 and 2.1.5 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

The Natural Environment Report concluded that the proposed quarry expansion and asphalt plant will have no anticipated negative impacts on natural heritage features and functions. See Section 4.6 of this report. There is no negative impact on the wetland, which is about 260 m from the proposed limit of extraction, on land adjacent to the Miller property.

2.2 Water

2.2.1 Planning authorities shall protect, improve or restore the quality and quantity of water by:

b) minimizing potential negative impacts, including cross-jurisdictional and cross-watershed impacts;

c) identifying surface water features, ground water features, hydrologic functions and natural heritage features and areas which are necessary for the ecological and hydrological integrity of the watershed;

d) implementing necessary restrictions on development and site alteration to:

1. protect all municipal drinking water supplies and designated vulnerable areas; and
2. protect, improve or restore vulnerable surface and ground water, sensitive surface water features and sensitive ground water features, and their hydrologic functions;

e) maintaining linkages and related functions among surface water features, ground water features, hydrologic functions and natural heritage features and areas;

g) ensuring stormwater management practices minimize stormwater volumes and contaminant loads, and maintain or increase the extent of vegetative and pervious surfaces.

2.2.2 Development and site alteration shall be restricted in or near sensitive surface water features and sensitive ground water features such that these features and their related hydrologic functions will be protected, improved or restored.

Ground water and surface water features and functions were carefully and thoroughly investigated and assessed and recommendations made and implemented to protect the quality and quantity of water. There is no municipal drinking water supply potentially affected. No sensitive surface water or ground water features were identified. Large areas around the proposed quarry extraction are to be left in an undisturbed (vegetated) condition. Ground water and surface water will be protected by specified limits of extraction, methods of operation and implementation of the other recommendations of the Hydrogeological Assessment and the Hydrological Investigation. See Sections 4.4 and 4.5 of this report.

2.3 Agriculture

2.3.1 Prime agricultural areas shall be protected for long-term use for agriculture.

The property as Class 6 lands, is not Prime Agricultural land. See Section 3.2 of this report.

2.5 Mineral Aggregate Resources

2.5.1 Mineral aggregate resources shall be protected for long-term use.

2.5.2 Protection of Long-Term Resource Supply

2.5.2.1 As much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible.

The mineral aggregates of the Miller property have been protected for long term potential use by the Mineral Aggregate Resource Area designation in the Official Plan. The Zoning By-law Amendment and Licence will permit extraction of these significant aggregate resources for long-term high quality aggregate supply for the region. The expanded quarry is close to the market which has been served by the existing quarry since the 1970's.

Demonstration of need for mineral aggregate resources, including any type of supply/demand analysis, shall not be required, notwithstanding the availability, designation or licensing for extraction of mineral aggregate resources locally or elsewhere.

As aggregate resources are essential resources for the people of Ontario, demonstration of need is not required.

2.5.2.2 Extraction shall be undertaken in a manner which minimizes social and environmental impacts.

The limited extent of extraction and the measures to be taken through the Site Plan and detailed notes implement and monitor the recommendations of the technical studies. The restrictions on excavation, the methods and specified requirements of operations, the requirements for Environmental Compliance Approvals and Permit To Take Water, the monitoring and mitigation of effects will minimize social and environmental impacts.

Management of the expanded quarry and existing operation in accordance with Provincial guidelines and regulations, the municipal zoning limits and a reduction in the extent of land to be extracted along Usborne Street, will be compatible with the area's rural and residential uses. No unacceptable impacts are expected to the use and enjoyment of adjacent and nearby residential properties. The setbacks and operational notes and the monitoring and mitigation implemented on the Site Plan will minimize and mitigate impacts from excavation and operations to Provincially accepted levels.

2.5.2.3 The conservation of mineral aggregate resources should be promoted by making provision for the recovery of these resources, wherever feasible.

The existing quarry and proposed expanded quarry will provide for recycling of asphalt products and concrete by crushing, blending and/or resale.

2.5.2.4 Mineral aggregate operations shall be protected from development and activities that would preclude or hinder their expansion or continued use or which would be incompatible for reasons of public health, public safety or environmental impact. Existing mineral aggregate operations shall be permitted to continue without the need for official plan amendment, rezoning or development permit under the Planning Act.

The limit of extraction and the asphalt plant have been setback 300m from existing dwellings in compliance with Zoning By-law provision 3.22 (b) (iii and v). The reciprocal provision, for the location of new residences, will assist in preventing conflicts with the future expanded quarry. The existing and expanded quarry will have the protection of the zoning provision 3.22 (a) (iv) "No dwelling, senior citizen home, nursing home, school or hospital shall be erected within 300 metres of a quarry." Compliance with the 300m zoning setback provision is shown on the Site Plan. Once the expanded quarry is zoned and licenced the 300m setback for the new dwellings should be administered by the Township from the approved limit of extraction. The 300 m reciprocal setback for future dwellings is shown on Figure 6 Existing Land Use and Zoning.

2.5.3 Rehabilitation

2.5.3.1 Progressive and final rehabilitation shall be required to accommodate subsequent land uses, to promote land use compatibility, and to recognize the interim nature of extraction. Final rehabilitation shall take surrounding land use and approved land use designations into consideration.

Progressive and final rehabilitation, as required on the Site Plan, will rehabilitate the site to naturalized landscape around open water. This will be compatible with adjacent rural, open space and residential land uses.

2.5.4 Extraction in Prime Agricultural Areas

2.5.4.1 In prime agricultural areas, on prime agricultural land, extraction of mineral aggregate resources is permitted as an interim use provided that rehabilitation of the site will be carried out so that substantially the same areas and same average soil quality for agriculture are restored.

The property as Class 6 lands, is not prime agricultural land thus agricultural restoration is not required. See Section 3.2 of this report.

2.6 Cultural Heritage and Archaeology

2.6.1 Significant built heritage resources and significant cultural heritage landscapes shall be conserved.

There are no built cultural heritage features or archaeological resources on the site. See Section 4.8 of this report regarding cultural heritage and archaeology.

3.0 PROTECTING PUBLIC HEALTH AND SAFETY

3.1 Natural Hazards

*3.1.1 Development shall generally be directed to areas outside of:
c. hazardous sites.*

Hazardous sites: means property or lands that could be unsafe for development and site alteration due to naturally occurring hazards. These may include unstable soils (sensitive marine clays [leda], organic soils) or unstable bedrock (karst topography).

During the municipal review of the application, references have been made that the bedrock formations of the site are karst and therefore of concern for potential impacts. The County of Renfrew map of karst data is shown on Figure 11. The site is not a “Known” area of karst. The area is an “Inferred” area and as part of the County mapping exercise was not subject to direct field observations. The property was investigated during field observations by the Miller geologist/hydrogeologist, and by test drilling and analysis as referenced in Section 4.4 of this report.

The weathered bedrock of the upper zone does not create a hazard for public health and safety from development of a quarry as it is not unstable and therefore is not assessed to be karst. No karst was observed or identified in the Hydrogeological Assessment and its Appendix A Supplementary Information from 2002 to 2009 Field Investigations. Structural aspects of the proposed plants and buildings are subject to requirements of Environmental Compliance Approval and/or Building Permits which will assess the specific ground and bedrock conditions of the facility to be installed and requirements of the Ontario Building Code.

4.0 IMPLEMENTATION AND INTERPRETATION

4.1 This Provincial Policy Statement applies to all applications, matters or proceedings commenced on or after March 1, 2005.

4.2 In accordance with Section 3 of the Planning Act, as amended by the Strong Communities (Planning Amendment) Act, 2004, a decision of the council of a municipality, a local board, a planning board, a minister of the Crown and a ministry, board, commission or agency of the government, including the Municipal Board, in respect of the exercise of any authority that affects a planning matter, “shall be consistent with” this Provincial Policy Statement.

The Official Plan Amendment and Zoning By-law amendment applications were submitted in 2007, the applications request planning changes which are consistent with the PPS 2005.



OTTAWA RIVER

River Rd.




SITE

BRAESIDE

Usborne St.

McLean Dr.

KARST

-  **Known** - observed, measured field data or data from Published reports. Key features include: karren, cave types and associated precipitates, sinkholes and disappearing streams.
-  **Inferred** - regions of carbonate bedrock units highlighted as most vulnerable or susceptible to karstification, where direct field observations have not been made by OGS staff of other sources. A natural extrapolation of the known karst areas for given rock units.
-  **Potential** - areas of carbonate rock units identified as most susceptible to karst processes.

MILLER BRAESIDE QUARRY
McNAB / BRAESIDE TOWNSHIP
QUARRY EXPANSION

FIGURE 11
KARST FORMATIONS

Scale 1: 25,000

P/N 2033 | MARCH 2013



93 BELL FARM ROAD, SUITE 107
BARRIE, ONTARIO L4M 5G1
TELEPHONE (705) 726-1141
FAX (705) 726-0331

4.5 *The official plan is the most important vehicle for implementation of this Provincial Policy Statement.*

Comprehensive, integrated and long-term planning is best achieved through municipal official plans. Municipal official plans shall identify provincial interests and set out appropriate land use designations and policies. Municipal official plans should also coordinate cross-boundary matters to complement the actions of other planning authorities and promote mutually beneficial solutions.

Municipal official plans shall provide clear, reasonable and attainable policies to protect provincial interests and direct development to suitable areas.

In order to protect provincial interests, planning authorities shall keep their official plans up-to-date with this Provincial Policy Statement. The policies of this Provincial Policy Statement continue to apply after adoption and approval of a municipal official plan.

The Township of McNab/Braeside Official Plan was reviewed and updated in 2008, in part to address the policy requirements of Provincial Policy Statement, and to guide future development to the year 2026. The 2008 Official Plan Land Use Schedule maintained the Mineral Aggregate designation from the 1997 Official Plan on the Miller property and updated it to Mineral Aggregate Resource Area. The 2008 Official Plan also revised the Sand Point area designation from Suburban to Settlement Area.

Several additional policies were expanded to regarding compatibility and public health and safety.

Conformity with those policies and therefore consistency with PPS, is expressed in Section 9. 2 of this report.

9.2 Township of McNab/Braeside Official Plan

The Township of McNab/Braeside Official Plan was adopted in 2008 and approved in 2009.

It is the purpose of the Official Plan to provide a general guide for growth in the Municipality and to govern the type and physical form of development which may take place during the next ten to twenty years. (OP 1.5)

The proposed Official Plan Amendment and Zoning By-law Amendment are provided in Appendix E.

Conformity of the proposed Official Plan Amendment and Zoning By-law Amendment for the quarry expansion and addition of an asphalt plant to the permitted uses of a specific location is expressed below relative to each relevant policy of the Official Plan under the headings of

Sections of the Official Plan. The Official Plan policy is quoted in italics with the references to conformity expressed below that.

Section 1 INTRODUCTION

The Introduction of the Specific land use policies of the Official Plan indicates the Township planning intent as:

It is intended that the land resources of the Township shall be developed in accordance with the land use patterns shown on the Land Use Schedule(s) attached and the policies contained herein.

The intent of the Plan is to encourage growth in existing settlement areas and to limit rural development to appropriate areas in the Township. The merits of proposed development will be assessed to ensure that development occurs in a sustainable fashion in consideration of the environment, existing uses and the desired lifestyle of the residents of the Township.

Maintenance of the integrity of the environment and the rural landscape are key objectives of Council. (OP 1.5 and 1.6)

The relevant objectives of the Official Plan are:

(1) To strengthen and diversify the Municipality's economic base within municipal servicing limitations.

(2) To maintain and enhance the quality of the natural, built and human environments in the Municipality.

(3) To facilitate compatibility between land uses and to provide policies to guide the establishment of uses in an integrated manner.

(4) To identify and protect renewable and non-renewable resources.

(5) To ensure that development occurs in a sustainable manner which considers the natural water systems, environmentally sensitive areas, and hazard lands within the Municipality.

The proposed quarry expansion and asphalt plant will assist in achieving these objectives by adding a permanent asphalt plant to supply asphalt for commercial, not just for public projects, by maintaining significant wildlife areas, by separating and managing uses to be compatible with the surrounding uses, and by protecting a significant wildlife area while extracting a significant non-renewable aggregate resource.

Section 2 LANDUSE POLICIES

It is intended that the land resources of the Township shall be developed in accordance with the land use patterns shown on the Land Use Schedule(s) attached and the policies contained herein.

The Land Use Schedule(s) establishes the pattern for development in very general terms by dividing the Township into land use designations. The policies governing the uses of the lands within the designations are outlined herein. (OP 2.1)

The Miller property contains a significant mineral aggregate resource which has been designated in the Official Plan to protect and permit aggregate extraction since 1997. The Zoning By- law amendment will permit the intended land resource development.

Section 3 RURAL AREAS

The existing quarry and proposed quarry expansion are in a Rural Area of the Township as seen on Figure 4 land Use Designations.

The intent of the Rural designation is to conserve and protect the rural character and physical and cultural heritage of the Township. The Rural designation also focuses on the protection of the Township's natural resources for their economic value. (OP 3.2)

The economic value of the aggregate resource of the Miller property will be achieved by the quarry expansion from unseen excavation with potential impacts avoided or mitigated to protect the neighbouring properties and be a compatible land use.

The General Goals of the Official Plan include Objectives:

- (1) To preserve the open space, rural character, topography and landscape of the Rural area.*
- (4) To maintain economic and social stability in the Township by considering factors such as municipal servicing limitations, environmental factors, compatibility of land uses and land capability when reviewing development proposals.(OP 3.2)*

The proposed quarry expansion is on land designated Mineral Aggregate Resource Area which has protected it from incompatible land use and which permits the intended quarry use of this significant resource. The topography of the property and the adjacent open space and separation of existing development of the area preserves the rural character while maintaining the ability for intended economic development of designated aggregate resources.

Section 11 MINERAL AGGREGATE

The Official Plan Section 11.0 Mineral Aggregate expresses the municipal goals, objectives and policies regarding aggregate resource planning and development. The Introduction provides useful context for the consideration of the quarry expansion application.

High quality bedrock limestone deposits associated with the old post glacial shoreline run parallel to the Ottawa River. The majority of this large resource area has had significant residential development located either on it or in close proximity. The introduction of sensitive land uses into this bedrock resource area has created some serious challenges to the Municipality, the area residents and the aggregate producers for the term of this Plan. Balancing the interests of these two competing land uses will require special policy provisions.

The implication is that all deposits are of local significance and thus must be protected from future development. The policies of this Section are intended to ensure that wherever practical, aggregate deposits remain available for existing and future use and to minimize impacts on adjacent uses and the natural environment from extractive operations. (OP Section 11.1)

Consideration and protection of; adjacent and area residents and land uses, the natural heritage features and functions and the aggregate resource have been made in the individual studies and collectively by Miller Paving in its direction to comply with the zoning setback of 300 m and to preserve a large area of the property as a Significant Wildlife Protections Area.

The Official Plan Background Information in the Executive Summary in Appendix I provides a rationale for the intent to make aggregates available for existing and future use wherever practical:

A Background Study was conducted to provide a foundation for the new Official Plan. The Study examined the history, population, environment, economic base, existing land use, servicing needs and arrangements and financial situation of the Municipality. This information was analyzed to provide population and household projections. The Study also identified some key issues and future needs of the Municipality.

CONCLUSIONS

(6) Aggregate Resources – McNab/Braeside Township has just enough supply to meet its current demand for coarse materials. The Township cannot meet demand for fine materials, a deficit of 4,475,000 cubic metres exists. By the year 2025, the municipality will need to seek sources from outside of the Township's boundaries for both fine and coarse aggregate materials. (OP Appendix I)

The high quality aggregates to be produced from the existing and expanded quarry will help the Township meet its demand for coarse and fine aggregates over the planning period and will help avoid the need to seek aggregate sources outside the Township at higher transportation costs.

Conformity with the Official Plan is described for each objective or policy as indicated below.

Objectives Section 11.2

(1) To protect known, significant deposits of aggregates, including existing pits and quarries, for future extraction, wherever feasible.

The proposed expansion of the Miller Braeside Quarry is on land designated in the Official Plan for quarry development. It is a significant aggregate resources identified in the Provincial Aggregate Resources Inventory Paper (see Figure 7) as bedrock of a suitable character for crushable rock. The Miller property is the only location in the high quality bedrock limestone deposit of the Braeside Ridge, shown on Figure 7, designated to protect the aggregate resource and to permit a quarry and related uses, subject to meeting the policies for rezoning.

The site is a known deposit of high quality limestone aggregate. The expansion area is designated to permit a quarry. Extraction of the proposed area of expansion is feasible and practical as an expansion of the existing active Miller Braeside Quarry.

(2) To prevent any change in land use that could conflict with legally existing pits and quarries.

The existing zoning, with a setback of 300m from existing residences and a reciprocal provision, for the location of new residences, will assist in preventing conflicts with the future expanded quarry. Compliance with the 300m zoning setback provision is shown on the Site Plan. Once the expanded quarry is zoned and licenced the 300m setback for any new dwellings should be administered by the Township from the approved limit of extraction as shown on Figure 6.

(3) To regulate all pit and quarry operations so that disturbances to the environment is limited to the site, social disruption is prevented and rehabilitation to an acceptable after-use is achieved.

The proposed zoning and Site Plan limit the quarry expansion and operation and protects an identified significant wildlife protection area. The operational, mitigation and monitoring requirements ensure that the provincial guidelines will be met to minimize disruption or impact offsite. The rehabilitation to a naturalized area around a lake is a suitable after use in this area.

(4) To ensure that the separation distances between new and or expanding aggregate operations and sensitive land uses such as residential development, are applied reciprocally.

The excavation in the expanded area will be a minimum of 300 m from the existing residential dwellings. The Zoning By-law 2010-49 has a provision which is to be implemented by the Township to ensure that no new dwelling will be erected within 300 m of the quarry excavation limit once approved in the Zoning By-law amendment and in the Licence.

(5) Expansion of existing aggregate operations with respect to size of the operational area, annual extraction rate, types of processing permitted and changes and intensification in operation in areas in close proximity to significant residential development must demonstrate compatibility with adjacent land uses.

The technical studies demonstrate that the expanded quarry and operations will meet the Provincial standards for noise, air emissions and blasting and will not interfere with the individual water supplies of the residences within the 500 m area of influence or beyond. The maximum amount of annual extraction is not changing from 1 million tonnes. The annual amount of extraction and processing, including an asphalt plant and concrete plant is expected to increase, depending on market demand, in the order of 18 % as indicated in the Traffic Impact Study. The expanded quarry and plant operations will be compatible with adjacent land uses in accordance with the analysis and recommendations of the technical studies. Monitoring and mitigation are prescribed and implemented on the Site Plan to ensure ongoing compatibility.

Policies Section 11.3

(1) The Mineral Aggregate designation on the Land Use Schedule(s) shall mean that the predominant use of land will be for pits and quarries along with associated manufacturing uses (e.g. crushing, screening and concrete plants). Other uses which do not preclude the future use of these lands for mineral aggregate extraction purposes such as forestry, non-intensive farming, conservation and outdoor recreation, will also be permitted. Asphalt plants shall be permitted in the municipality only in accordance with the policies in Section 12.2(24).

There is a need in the Braeside/Renfrew area for an asphalt plant to provide for residential, commercial and industrial paving projects. The proposed Official Plan Amendment responds to this policy.

(3) Existing operations shall be recognized in the implementing zoning by-law. Areas designated Mineral Aggregate which are not currently used for pits and quarries or associated manufacturing uses shall be placed in a non-development type of zone in the implementing zoning by-law. The expansion or opening of a new commercial pit or quarry will require an amendment to the zoning by-law with full public notice and opportunities for appeal.

The existing Miller Braeside Quarry is zoned Extractive Industrial (EM). The proposed expansion and asphalt plant requires an amendment in the Township Zoning By-law 2010-49 from the Extractive Industrial Reserve Zone (EMR) to the Extractive Industrial (EM) zone and a site specific EM-E1 zone for permission for an asphalt manufacturing plant.

(4) The expansion or opening of a new commercial pit or quarry will require the preparation of an environmental impact assessment, site plan, operational plan and rehabilitation plan to the satisfaction of the Municipality and an amendment to the zoning by-law with full public notice and opportunities for appeal.

The technical investigation and reports, provide the environmental impact assessment as required and peer reviewed by the Township.

The reports, the Site Plan and the public and Council review process, fulfill this policy intent. In addition to an Open House on the proposal in June 2006 there will be a Public Meeting under the Planning Act and Public Information Session under the Aggregate Resources Act. There is to be Notice of the meetings as prescribed and opportunities for appeal under each Act.

The following location and development policies have been examined for the proposed Site Plan and Zoning By-law amendment:

***Development Policies* Section 11.3**

The matters to be examined in consideration of the Zoning By- law Amendment for the quarry expansion are:

(a) landscaping and visual and physical buffering from other land uses;

The quarry entrance is the only area of the quarry visible to the public. It has been suitably landscaped. The existing topography and vegetation buffer, or physically screen the balance of the property.

(b) the haulage routes and the resultant traffic density;

The haulage routes from the expanded quarry will remain as currently used. The traffic density(volume) on the haul routes will not significantly change and the level of service at the entrance and intersections will not be negatively impacted;

(c) the progressive rehabilitation and final rehabilitation plans, and the suitability of these plans having regard to the character of the surrounding lands:

The progressive rehabilitation and final rehabilitation plan, for naturalized open space around a lake is compatible with the adjacent lands and the character of the surrounding lands. Agricultural rehabilitation is not required as these are Agricultural Capability Class 6 lands.

(d) evaluation of the water table, existing and proposed drainage facilities, and setbacks from watercourses;

The water table, existing and proposed drainage facilities, and setbacks from watercourses have been evaluated and protected as shown on the Site Plan.

(e) effects on adjacent land uses, nearby communities, and environmentally sensitive areas;

The effects on adjacent land uses, nearby communities, and environmentally sensitive areas have been assessed, avoided and/or minimized in the design, operation, monitoring and mitigation measures of the Site Plan;

(f) hydrology, wildlife or such studies as may be required due to special concerns related to a specific site; and

Both hydrology and wildlife studies were required due to the nature and setting of the property. The recommendations from those studies are implemented on the Site Plan to preserve an Identified Significant Wildlife Protection Area and protect the surface water flows off site;

(g) issues of public health, public safety and environmental impact are addressed

Issues of public health, public safety and environmental impact are addressed in the studies and reports on noise, air quality and blasting as well as in the other technical studies. The recommendations of the peer reviewed studies are implemented on the Site Plan.

(h) any other matters which Council deems advisable.

Council has deemed it advisable to have the technical studies peer reviewed and has thoroughly examined the results of the peer reviews and revised reports at special technical review meetings. Council has also advised that it may extend the Public Meeting to an additional day or two to ensure that the public will be thoroughly consulted.

(6) The concept of an influence area is recognized as a means of protecting against incompatible land uses in the vicinity of Mineral Aggregate designations and to protect existing pits and quarries from the encroachment of other incompatible land uses.

Influence areas, in which studies may be required to assess impacts, are generally identified as being: 150 m from the licensed area of a pit to determine noise and dust impacts; from the licensed area of quarries, 500 m to determine the impact of noise and dust and an evaluation of potential well interference.

Applications to extract below the water table shall be discouraged, however when an application is made, a thorough assessment of the potential impact on all wells within 300 metres of the property boundary of the site of a pit and 500 metres of a quarry, shall be carried out to the satisfaction of the Municipality.

The existing quarry is licenced to permit extraction below the water table. The quarry expansion is proposed to extract to the same depth remaining 5 m above the significant water bearing zone.

The 500 m influence area is shown on Figures 2 Area land Use. Impacts on residences and lands in this area and beyond have been assessed in the hydrogeological, hydrological, natural environment, noise, air quality and blasting studies. In some studies the distance of establishing that there is no impact of consequence is 300 m with the quarry design and mitigation proposed. The technical studies and design reports were revised and clarified to the satisfaction of the qualified peer reviewers for the Municipality. Monitoring and mitigation of potential impacts from quarry and asphalt plant operation are implemented on the Site Plan.

In accordance with this concept, it will be the policy of Council to discourage incompatible land uses in areas surrounding Mineral Aggregate areas by careful review of any severance application, rezoning application or other development proposal in consultation with the Ministry of Natural Resources and the Ministry of the Environment and by including separation distances in the implementing By-law.

The Township may receive some severance applications to create new residential lots in the 500 m influence area. A concept plan for a proposed residential development on lands to the south east of the property has been presented to Planning Advisory Committee. Consistent with the Provincial Policy Statement, the expanded quarry, upon zoning and Licencing should be protected from development and activities that would preclude or hinder expansion or continued use.

(7) All pit and quarry uses must satisfy the requirements of the Ministry of the Environment and the Municipality with respect to pumping and de-watering, water supply, wastewater, solid and liquid waste disposal and all emissions to the atmosphere including noise and vibration.

In addition to the requirements of the Municipality, relative to zoning for the expanded quarry and asphalt plant, the Site Plan notes that Environmental Compliance Approval(s) are required from the Ministry of Environment for site servicing and operations.

Policies on Plants **Section 11.3(9)**

The policy regarding planning permission for processing plants for aggregates is provided in Section 11.3(9).

Wash plants are considered a normal accessory use to a mineral aggregate operation and shall be permitted. Wash plants shall meet all requirements of the Ministry of Natural Resources and the Ministry of the Environment regarding the operation of the facility.

Permanent asphalt batching plants and permanent concrete batching plants are considered heavy industrial uses which potentially have negative impacts to the air, ground and surface and ground water, shall require an Official Plan amendment and Zoning By-law amendment to be permitted. These uses shall be adequately buffered to protect adjacent land uses, and shall meet the industrial pollution control and any other applicable standards of the Ministry of the Environment. A permanent asphalt batching plant and permanent concrete batching plant shall not be permitted unless:

- a) there is no adverse impact on groundwater and surface water quality and quantity;*
 - b) there is no adverse noise, odour, or dust impacts on nearby sensitive land uses and natural heritage features;*
 - c) the operation of such a plant is addressed on a site plan approved by the province.*
- (OP Section 11.3(9))

A wash plant may operate in the existing quarry subject to a Permit To Take Water and Environmental Compliance Approval (ECA). A concrete manufacturing plant is a permitted use in the existing quarry in compliance with the Extractive Industrial EM zone also subject to an ECA.

Conformity with the policies for the proposed asphalt plant OPA and rezoning is based on:

- a) The Hydrogeological Assessment and the Hydrological Investigation identify no adverse impact on groundwater or surface water quality and quantity with the mitigation recommended. The management and operation of the asphalt plant to industry standards and legislative requirements will protect the groundwater and surface water from contaminants monitoring is also required and implemented on the Site Plan.
- b) The Acoustic Assessment concludes that using conservative assumptions, noise generated by the proposed operations, including the asphalt plant and concrete plant, will be in compliance with the Ministry of Environment noise limits at all noise sensitive receptors within 500 m of the site, provided that the mitigation measures are in place. The mitigation measures are implemented on the Site Plan.

The Air Quality Assessment concludes that the impact on air quality from the site operations would not constitute an adverse effect for the residences, within or beyond a 1000 metre area of influence. Recommendations including bag houses for each plant and A Dust Management Plan are implemented on the Site Plan.

The Natural Environment Report concludes the proposed quarry expansion and asphalt plant, with the mitigation recommended in Level II report and in the Hydrological Investigation, will have no anticipated negative impacts on natural heritage features and functions. A monitoring plan was recommended and is implemented on the Site Plan.

- c) The Site Plan Revised March 2013 shows the specific location of the proposed hot mix asphalt plant and the ready mix concrete plant and provides notes for reference to plant elevation, stormwater quality control, emergency spills procedure and surface and ground water monitoring and contingency actions. The Site Plan is to be regulated under the Licence of the Aggregate Resources Act. The installation of each plant requires an Environmental Compliance Approval from the Ministry of Environment.

General Development Policies **Section 14**

The General Development Policies of Section 14 are addressed in the technical studies and results and recommendations implemented on the Site Plan. Of particular note is the new policy 14.3 which indicates:

In implementing policies of this section, the following MOE documents will be used as guidelines as applicable: Guideline D-1: Land Use Compatibility, Guideline D-4: Land Use on or Near Landfills and Dumps, and Guideline D-6: Compatibility Between Industrial Facilities and Sensitive Land Uses.

The noise and air quality assessments specifically refer to these Provincial Guidelines to establish compatibility. The Site Plan identifies that Environmental Compliance Approval(s) are required from the Ministry of Environment and these will be subject to the specified guidelines.

General Development Policies **Section 14**

14.1 GENERAL INTENT

The general development policies of this Plan have been established in order that future development of the Township is controlled in an orderly and systematic fashion. New development shall follow the general policy guidelines outlined below. All other applicable sections of this Plan shall also apply.

(3) Land Use Compatibility

Where different land uses abut, every effort shall be made to avoid conflicts between different uses. Where deemed necessary, buffering will be provided for the purpose of reducing or eliminating the adverse effects of one land use upon the other. A buffer may be open space, a berm, wall, fence, plantings or a land use different from the conflicting ones but compatible with both or any combination of the aforementioned sufficient to accomplish the intended purpose.

The proposed quarry expansion incorporates berms, barriers, undisturbed setbacks to excavation and operational methods as prescribed by the technical studies to avoid, reduce or mitigate the impacts.

In order to implement buffering principles, regulations may be established in the Zoning By-law providing for separation distances between potentially incompatible uses. Gravel pits and quarries, . . . in relation to sensitive land uses and vice versa, shall generally be so regulated. Such regulations shall be established in accordance with applicable legislation and with regard to the policies and guidelines applied by governing agencies.

The Township has implemented this policy with a 300 m setback required reciprocally between quarry extraction and dwellings. The limit of the proposed excavation was set in compliance with this provision. Excavation occurred in the existing quarry, along Osborne Street, to less than 300 m. This excavation occurred prior to the zoning provision and is permitted to continue under the Licence and a provision of the Aggregate Resources Act. Miller Paving Limited proposes to remove that 9.8 ha area from further extraction upon approval of the expanded quarry as shown of Figure 3 Proposed Quarry Expansion and Zoning.

For the purposes of this Plan, sensitive land uses are defined as buildings, amenity areas or outdoor space where routine or normal activities occurring at reasonably expected times would experience one or more adverse effects from contaminant discharges generated nearby. Sensitive land uses may be part of the natural and built environment, and specifically include; residential dwellings, daycare facilities, educational facilities, health care facilities and seniors residential buildings.

The Acoustic Assessment notes that the point of reception of a residence would include an Outdoor Living Area, which is outdoor amenity space or area. On a large property, such as the residential lots around the Miller property, this would be anywhere within 30 m of the residence. Compliance with Ministry Guidelines on noise at sensitive receptors was assessed on that basis.

(9) Forestry, Spawning Beds and Wildlife Habitat

(c) Significant natural heritage resources, such as fish spawning areas, wetlands and Areas of Natural and Scientific Interest, are identified on Schedule B. Council shall have regard for any other significant natural heritage features that may be identified when

reviewing development proposals on or adjacent to these areas and will consult with the County of Renfrew where proposals may affect these resources. It shall be the policy of Council that, as the Ministry of Natural Resources identifies, from time-to-time, information on significant natural heritage features, such features shall be incorporated into this Official Plan through amendments to Schedule B.

The Natural Environment Report identified a Significant Wildlife Protection Area to be preserved to ensure long-term survival. This area is to be protected by a site specific zone to limit uses to conservation of wildlife in natural conditions and by the Site Plan which requires that the area remain undisturbed.

(16) Noise Attenuation

Sensitive land uses shall be protected from the adverse impacts of noise. Prior to permitting development that may cause or be adversely affected by noise (ie. rail, highway, airport, quarry, etc.), detailed noise studies shall be completed in accordance with Provincial Guidelines, in consultation with the County of Renfrew and the Municipality. The recommendations and noise attenuation measures contained in the report are to be implemented through provisions in the subdivision agreement, site plan agreement, or as a condition of consent.

The recommendations and noise mitigation measures of the Acoustic Assessment, and similarly the Blasting Impact Assessment and the Air Quality Assessment, are implemented as notes on the Site Plan regulated by Aggregate Resources Act.

9.3 County of Renfrew Official Plan

The County of Renfrew Official Plan provides for application of the Township of McNab/Braeside Official Plan as the local Official Plan. In this regard conformity is established with the County Official Plan based on conformity with the McNab/Braeside Official Plan expressed in Section 9.2.

9.4 Municipal Zoning By- law Compliance

The Extractive Industrial (EM) zone in Comprehensive Zoning By- law 2010-49 permits the uses listed in Section 2.3.2 of this report, including a quarry and extractive industrial facility.

The proposed uses of the expanded quarry comply with the permitted uses and definitions except for the asphalt manufacturing plant, which requires site specific use permission in the proposed Zoning By- law Amendment.

Compliance of the Site Plan with the EM Zone provisions is indicated in Table 3.

Table 3 - Compliance of the Site Plan with the EM Zone

Provision Section 13.2	Compliance on Site Plan to the relevant provision
(a) Lot Frontage (minimum) 35 metres	Lot frontage is more than 300m.
<p>(b) Open Storage: In accordance with the provisions for Open Storage in Section 3 - General Provisions of this By-law.</p> <p>3.19 OPEN STORAGE</p> <p>Except as otherwise specifically provided in this By-law, no open storage shall be permitted in any Zone except in accordance with the following provisions: (paraphrased)</p> <p>3.19.1 Open storage shall be accessory</p> <p>3.19.2 No open storage in any required yard</p> <p>3.19.3 No open storage area shall be visible</p> <p>3.19.4 A strip of landscaped open space</p> <p>3.19.5 Any open storage – dust and drainage</p> <p>3.19.6 No parking spaces or loading spaces.</p>	<p>3.19.1 The open storage is accessory to a permitted quarry on the same lot.</p> <p>3.19.2 The open storage is setback from the required minimum front yard and required exterior side yards.</p> <p>3.19.3 The stockpiles are not visible from any street,</p> <p>3.19.4 A landscaped open space maintaining existing vegetation is all around the quarry.</p> <p>3.19.5 The stock pile areas are managed to minimize dust and are properly drained.</p> <p>3.19.6 Required parking spaces are separate from the stock pile open storage areas.</p>
<p>(c) Parking and Loading: In accordance with Section 3 - General Provisions of this By-law.</p> <p>iii) Extractive Industrial- No yards except for the driveway portion of a parking area</p>	<p>There is no minimum parking requirement specified for Extractive Industrial uses.</p> <p>Parking areas are located beyond the required yards.</p> <p>Loading areas are beyond 16 m from the street line. Surface is gravel and stone</p>
<p>(d) Separation Distance: In accordance with the provisions for Separation Distance in Section 3 - General Provisions</p> <p>(b) Gravel Pits, Quarries and Associated Extractive and Manufacturing Plants and Facilities</p> <p>3.22 b) iii - No concrete or asphalt plant shall be located within 300 metres of an existing dwelling.</p> <p>3.22 b) v- No quarry shall be located within 300 metres of an existing dwelling.</p>	<p>i) The land identified as a buffer strip and separation area will be maintained in natural condition.</p> <p>ii) The concrete and asphalt manufacturing plants and extractive industrial facilities are located more than 50 metres from any high water mark.</p> <p>iii) The asphalt manufacturing plant will be located beyond 300 metres of a dwelling.</p> <p>v) The excavation of the quarry in the expansion area is 300 metres from any existing dwelling.</p>
<p>(e) Setbacks: In accordance with the provisions for Setbacks in Section 3 - General Provisions. (3.23 b) County Road</p>	<p>Access to the quarry expansion is at the existing quarry entrance on County Road 3 which is to be upgraded by Miller Paving in accordance with County of Renfrew Public Works and Engineering Department requirements.</p>
<p>(f) Accessory Uses, Buildings and Structures: Notwithstanding any Zone Provision of this Zone to the contrary, uses, buildings and structure that are accessory to the permitted uses of this Zone shall be permitted in accordance with the requirements for Accessory Uses, Buildings and Structures in Section 3.0 General Provisions of this By-law.</p>	<p>Accessory uses, buildings and structures will be located beyond the setbacks of the principal uses.</p>

A clause of the proposed EM- E1exception zone provisions for the asphalt plant will require compliance of the asphalt plant with an Environmental Compliance Approval (former Certificate of Approval) to be obtained from the Ministry of Environment

10.0 MUNICIPAL PLANNING REVIEW PROCESS

10.1 Peer Review

The Township of McNab/Braeside conducted a thorough peer review of the seven technical studies submitted with the application. The peer review was coordinated by the County Planner on behalf of the Township. The Township requested and received funds for the peer review from Miller Paving Limited. The process and acceptance of the peer reviews, as completed in November 2012, is outlined in Appendix C.

The peer reviewers were professional engineers, hydrogeologists, hydrologists and ecologists well qualified and experienced as experts in their disciplines to conduct a critical examination of the studies, methods, analysis and results. A number of questions and concerns were raised in each of the studies. Additional research, field testing and analysis were undertaken by the Miller consulting team as necessary to respond to the peer review comments.

The revised reports with clarified and expanded results and conclusions and improved and additional recommendations were submitted to the peer reviewers. This process occurred from 2009 to 2012 to ensure that all questions and concerns of the peer reviewers were completely and satisfactorily addressed. Each technical study and the responses to peer review comments as revised and re-submitted and finally peer reviewed over this period, received a sign off or acceptance from the Township peer reviewer. The correspondence of peer review acceptance of the revised reports is provided in Appendix C.

The subjects of the peer review results and report revisions which required implementation on the Site Plan are listed in Appendix C. All of the required revisions are implemented as additional or revised notes or drawing revisions on the Site Plan, March, 2013.

No changes were required, as a result of the peer review process, to the proposed limits of extraction, the location and extent of quarry excavation or to the location of the proposed asphalt plant. Thus no changes are required in the proposed Official Plan Amendment or in the proposed Zoning By- law Amendment.

11.0 REQUIREMENTS OF THE AGGREGATE RESOURCES ACT

The Aggregate Resources of Ontario Provincial Standards (Provincial Standards) support and provide details for the implementation of the Aggregate Resources Act for new applications. Each type of application is identified by a Category. The Braeside Quarry expansion application is a Category 2 – Class ‘A’ Quarry Below Water. The Provincial Standards provide the following minimum details required for an application:

- Site Plan Standards: a listing of the information required on the Site Plan for a quarry below the water table.
- Report Standards: two components consisting of the Technical Reports (Hydrogeology, Natural Environment, Cultural Heritage, Noise and Blasting), and the Summary Statement.
- Prescribed Conditions: these are mandatory conditions that go on every licence issued, based on the Category of application. They cannot be varied or rescinded by either the Minister or the Ontario Municipal Board.
- Notification and Consultation Process: The required steps in order for a proponent to process an application are identified, once the application has been accepted by the MNR. This process is called “proponent driven” as it is the responsibility of the proponent to ensure that all aspects of the Provincial Standards have been met.

The Ministry of Natural Resources confirmed that the application was complete and ready for notification and consultation. The letter from the Aggregate Inspector of March 2008 is provided in Appendix F. Miller Paving worked with the Township of McNab/Braeside and County of Renfrew to complete the peer review process prior to proceeding with the notification and circulation under the ARA.

11.1 Summary Statement

The Summary Statement accompanying an application must address considerations relating to planning and land use, agriculture, quality and quantity of aggregate, haul routes and proposed truck traffic and progressive and final rehabilitation. For this application, there have been technical reports undertaken to analyse some of these issues. Results are summarized below.

11.1.1 Planning and Land Use Considerations

The proposed area to be extracted contains a viable aggregate deposit and its recovery is not constrained by any natural heritage features, water resources, agricultural resources or incompatible land uses that would preclude extraction of the subject site.

An Official Plan amendment for extraction is not required as the current designation in the Official Plan of “Mineral Aggregate Resource Area” permits extraction subject to re-zoning. The

proposed asphalt plant is the subject of an Official Plan Amendment application submitted in 2007. A Zoning By-law Amendment application was also submitted in 2007 to the Township of McNab/Braeside to permit extraction and an asphalt plant in the expanded area. The review of these applications remains on-going and a Public Meeting is scheduled May 6, 2013.

11.1.2 Agricultural Classification of the Proposed Site

The proposed licence area is mapped as Class 6 with a subclass R for bedrock, as shown on Figure 8. Soils in this class are capable only of producing perennial forage crops, and improvement practices are not feasible.

As there is no Class 1 – 3 agricultural lands on site, there is no requirement to return the lands to agricultural use after extraction.

Currently the expansion lands are forested, with no agricultural use on site.

11.1.3 Quantity and Quality of Aggregate on Site

The bedrock on the upland of the site consists of the lower Bobcaygeon and Gull River Formations and has proven to be a good source of high quality aggregate resource as evidenced by the extraction, production and sale of aggregates within the existing Miller Braeside quarry.

The Ontario Geological Survey Open File Report 5579 identifies the application lands as being within an area identified as Class 2A Granular ‘A’ 5/8” crushed. It is qualified that the Gull River Formation upper member generally meets Class 1A specifications for asphalt and concrete, but detailed analysis prevents a broad identification of this. It is suggested that site specific testing will be required to determine the suitability for specific uses of stone from any locality, which is on-going on the existing licenced site.

The Hydrogeological Assessment by Jennifer B. Gorrell has a chapter that discusses the geology of the site. This report should be referred to for further details of quality of material.

The proposed licence area to be extracted contains approximately 31 million tonnes of high quality limestone aggregate.

11.1.4 Haulage Routes and Proposed Traffic

The existing haul route for the shipping of aggregate will remain the main haul route for the expanded quarry and asphalt plant. Loaded trucks leave the site at an entrance on Osborne Street/County Road 3, and travel north to either McLean Drive or Campbell Drive. Trucks travelling to destinations north, will turn west on McLean Drive, and travel about 5 km to Highway No. 17. Deliveries to Arnprior and areas south will turn left on Campbell Drive and travel south to Highway No. 17.

The expanded quarry will continue to use County Road 3, Usborne Street for access to Provincial Highways and the market, with the exception of local deliveries.

A Traffic Impact Study, by Skelton Brumwell & Associates provides further consideration and analysis on the haul routes and proposed traffic and concludes that the expansion of the Miller Braeside quarry and installation of an asphalt and concrete plant will not significantly change the traffic volume or patterns of the existing operation. Analysis of an increase in tonnage, as is permitted under the current licence, will not have a significant negative impact on the level of service of the intersections at the quarry entrance/ Usborne Street, and McLean Road and Campbell Drive, both at Highway 17.

The County of Renfrew required an entrance improvement. The detailed design of, and application for improvements of the entrance on County Road 3, are to be submitted to the County within two years of the issuance of a licence for the expanded quarry. The improvements will include a slip around lane and turning tapers. Refer to Appendix D for the Entrance Improvement Agreement with the County and the Quarry Entrance Plan.

11.1.5 Progressive and Final Rehabilitation

The existing licence provides for rehabilitation to a lake, as the extracted quarry will eventually fill up with collected surface water. The proposal for the expansion maintains this final land use, with naturalized areas around the perimeter.

The sequence of extraction was designed so that limits of extraction can be reached quickly, and the progressive rehabilitation of the slopes and naturalized cliffs can occur throughout the life of the quarry.

The Site Plan provides details for a variety of rehabilitation options along the final extraction limits including cliffs and talus slopes, full slopes to the water and both wet and dry ledges above the final water level.

11.2 Considerations of the Minister

In consideration as to whether a licence should be issued or refused, as per Section 12. (1) of the ARA, the Minister (or the Ontario Municipal Board) must have regard for 11 specific issues. Information on these issues is provided below for consideration by the Minister, and/or the Ontario Municipal Board.

11.2.1 The Effect of the Operation of the Quarry on the Environment

An analysis of the possible effects of the quarry on the environment was assessed in the Natural Environment Report by Skelton, Brumwell & Associates. The conclusion states that with the implementation of mitigation measures in the Level II Report and the Hydrological Investigation,

the proposed quarry expansion and asphalt plant will have no anticipated negative impacts on natural heritage features and functions.

The Natural Environment Report is summarized in Section 4.6 of this report, and is part of the ARA application.

Recommendations from this report have been incorporated onto the Site Plan.

11.2.2 The Effect of the Operation of the Quarry on Nearby Communities

The potential effects of the expanded quarry on the nearby communities were considered in the technical studies for the application. The recommendations are implemented on the Site Plan.

The Acoustic Assessment, summarized in Section 4.1 of this report, concludes that quarry extraction and operations may be heard at a distance but mitigated so as not to exceed the provincial guidelines.

The Air Quality Assessment, summarized in Section 4.2 of this report, concludes that the impact on air quality from the site operations would not constitute an adverse effect at the property line, at the residences, within or beyond the 1000m area of influence. A Dust management Plan has been implemented on the Site Plan.

The Blasting Impact Assessment, summarized in Section 4.3 of this report, concludes that while vibrations from blasting may be perceptible, at the current established MOE vibration guidelines, damage to structures of any form is not possible. Blasting for the quarry expansion may be noticed but will be carried out safely and within MOE guidelines.

The quarry expansion will not be visible from the surrounding properties and only a narrow view of the silo for the asphalt plant may be observed over the trees at a distance of greater than 350 m.

Section 7 of this report further describes that the expansion of the quarry as proposed will have effects which are reduced, avoided or mitigated to meet Provincial guidelines and have minimal impact on the community.

11.2.3 Any Comments Provided by a Municipality in Which the Site is Located

The municipality has been reviewing the Planning Act applications, and the applicant has been responding to questions from staff and Council members as they arise. A series of questions and concerns on the seven submitted technical reports were sent to Miller, the peer review consultants or public agencies for a response. The Miller responses are provided to the County Planner for a complete response report to be submitted to the Planning Advisory Committee of Council.

A Public Meeting by the Municipal Council is scheduled for Monday, May 6, 2013. Formal comments under the ARA have not yet been received as the 45 day circulation has not been initiated.

11.2.4 The Suitability of the Progressive and Final Rehabilitation Plans for the Site

As noted in section 11.1.5, the existing quarry proposes rehabilitation to a lake. The Site Plan for the expanded application continues with this end use, and provides for enhanced rehabilitation habitats and visual variety by requiring full slopes to the lake shore, cliff and talus slopes, and wet and dry ledges.

Due to the extensive buffer areas to be left untouched to the northwest, north and east, these buffer areas will stay in their natural state, and provide for continued habitat around the lake after it has filled with collected surface water. The final rehabilitation is worthwhile and compatible with the surrounding area.

11.2.5 Any Possible Effects on Ground and Surface Water Resources

An analysis of the possible effects on ground water resources was undertaken in the Hydrogeological Assessment by Jennifer B. Gorrel as summarized in Section 4.4 of this report. The predicted effects from the proposed Braeside Quarry expansion will either have limited impacts on the surrounding groundwater and surface water environment, or the impacts can be mitigated. The recommendations are implemented on the Site Plan.

An analysis of the possible effects on surface water resources was undertaken in the Hydrological Investigation by Skelton, Brumwell & Associates. The investigation concluded that the existing quarry and future expansion will result in negligible reduction of drainage areas to surface water features in the vicinity. A monitoring plan and contingency plan are specified on the Site Plan.

Both of these reports are part of the ARA application. Recommendations from these reports have been incorporated onto the Site Plan.

11.2.6 Any Possible Effects of the Operation of the Quarry on Agricultural Resources

The subject property is identified as Agricultural Class 6, is currently forested, with no agricultural activities occurring. As such, it has very little potential for agricultural use, and there is no policy requirement to provide for agricultural use or rehabilitation.

11.2.7 Any Planning and Land Use Considerations

This Planning Justification Report addresses all the planning and land use considerations as required under the Provincial Policy Statement, the Official Plan for Renfrew County, the Official Plan for the Township of McNab/Braeside and the Zoning By-law for the Township of McNab/Braeside.

There is no site or area specific Plan issued under the Planning Act that relates to this site.

11.2.8 The Main Haulage Routes and Proposed Truck Traffic To and From the Site

Section 11.1.4 summarizes the potential for impact on the haul routes as a result of the proposed truck traffic resulting from the addition of permanent asphalt and concrete plants and extended reserves for the licence under the ARA. The Traffic Impact Study concluded that the proposal will not have a significant negative impact on the level of service as there will be little change to traffic volumes and patterns.

11.2.9 The Quality and Quantity of the Aggregate on the Site

As noted in Section 11.1.3, the aggregate resource has been proven to be of high quality by ongoing extraction and testing on site. This estimated quantity of resource on site to be extracted as proposed is about 31 million tonnes. This aggregate resource has been designated by the Official Plan for protection for future extraction since the Official Plan of 1997.

11.2.10 The Applicant's History of Compliance with the ARA

Miller Paving advises that there have been no compliance issues under the ARA.

11.2.11 Such Other Matters as are Considered Appropriate

There have been no other matters identified by the Ministry of Natural Resources which were required to be addressed as part of this application.

12.0 CONCLUSIONS

Based on the studies, investigations and research completed, and analysis of relevant planning policy:

1. The proposed Official Plan Amendment and Zoning By-Law Amendment are consistent with the Provincial Policy Statement, in conformity with the County of Renfrew Official Plan and conform to the Official Plan of the Township of McNab/Braeside.
2. The proposed Licence expansion meets the requirements of the Aggregate Resources Act.
3. The proposed quarry expansion, shown on the Site Plan, complies with the provisions of the Extractive Industrial (EM) zone.
4. The proposed asphalt plant complies with the provisions of the Zoning By-law with the addition of the site specific Extractive Industrial– Exception One (EM-E1) zone.

5. The proposed Extractive Industrial Reserve - Exception zone (EMR-E1) is an appropriate means to implement the recommendation of the Natural Environment Report to preserve the Identified Significant Wildlife Protection Area and recognize the continuing presence of the significant aggregate resources.
6. The Site Plan suitably protects the Identified Significant Wildlife Protection Area and the wildlife corridor as undisturbed areas outside the limits of extraction.
7. The Site Plan suitably implements the recommendations of the peer reviewed revised studies and investigations.

The proposed quarry expansion as shown on the Site Plan, the addition of an asphalt plant to the permitted uses, and the proposed preservation of the significant wildlife protection area, represent good planning for the lands, the Municipality and the region.

All of which is respectfully submitted,
SKELTON, BRUMWELL & ASSOCIATES INC.

per:



Gary Bell, RPP
Principal



REFERENCE

- Church and Trought Inc., Miller Paving Limited Braeside Quarry Expansion, Air Quality Assessment Report, March 2010
- County of Renfrew, Official Plan approved with modifications by the Minister of Municipal Affairs and Housing on June 16, 2003
- Explotech Engineering Ltd, Blasting Impact Assessment, Miller Braeside Quarry Extension, May 26, 2009
- Government of Ontario, Provincial Policy Statement 2005. Queen's Printer for Ontario.
- Government of Ontario, Aggregate Resources Act, R.S.O. 1990 as amended
- Government of Ontario, Aggregate Resources of Ontario, Provincial Standard
- Government of Ontario, Planning Act, RSO 1990 as amended
- Hugh Williamson Associates Inc., Acoustic Assessment Report For The Proposed Expansion of the Miller Braeside Quarry, May 28, 2012
- Jennifer B. Gorrell, Hydrogeological Assessment – Final, Proposed Braeside Quarry Expansion. July 2012.
- Ken Swayze, Archaeological Consultant “A Stage 1&2 Archaeological Assessment of the Proposed Braeside Quarry Expansion”, August 2001.
- L.J. Chapman, D.F. Putnam, The Physiography of Southern Ontario, Second Edition, Published for the Ontario Research Foundation by University of Toronto Press, 1966.
- Ministry of Northern Development and Mines, Aggregate Resource Inventory Paper, Report 5579, Ontario Geological Survey, 1986
- Research Branch, Canada Department of Agriculture and the Ontario Agriculture College. Report No. 30 of the Ontario Soil Survey, Soil Associations of Southern Ontario Map, April 1964.
- Skelton Brumwell & Associates Inc., Braeside Quarry Expansion Hydrological Investigation, July 2012
- Skelton Brumwell & Associates Inc. and Brunton Consulting, Natural Environment Report Level I & II, Braeside Quarry Expansion, December, 2011.
- Skelton Brumwell & Associates Inc., Traffic Impact Study, Miller Braeside Quarry Expansion, June 19, 2009
- Township of McNab/Braeside, Official Plan 1998, (consolidated April 23, 2002)
- Township of McNab/Braeside, Official Plan, 2008
- Township of McNab/Braeside, Zoning By-law No. 2010-49

APPENDIX A

Relevant Official Plan Policies 1997 and 2008

RELEVANT OFFICAL PLAN POLICIES 1997 and 2008

<u>OFFICIAL PLAN 1997</u>	<u>OFFICIAL PLAN 2008</u>
<i>Policies relevant to aggregate development</i>	New or revised policies are bold
<u>Section 9</u>	<u>Section 11</u>
Designation- Mineral Aggregate	Designation- Mineral Aggregate
<u>9.2 Objectives</u> <i>(1) To protect known, significant deposits of aggregates, including existing pits and quarries, for future extraction.</i> <i>(2) To prevent any change in land use that could conflict with legally existing pits and quarries.</i> <i>(3) To regulate all pit and quarry operations so that disturbances to the environment is limited to the site, social disruption is prevented and rehabilitation to an acceptable after-use is achieved.</i>	11.2 Objectives (1) To protect known, significant deposits of aggregates, including existing pits and quarries, for future extraction, wherever feasible. (2) To prevent any change in land use that could conflict with legally existing pits and quarries. (3) To regulate all pit and quarry operations so that disturbances to the environment is limited to the site, social disruption is prevented and rehabilitation to an acceptable after-use is achieved. (4)To ensure that the separation distances between new and or expanding aggregate operations and sensitive land uses such as residential development, are applied reciprocally. (5) Expansion of existing aggregate operations with respect to size of the operational area, annual extraction rate, types of processing permitted and changes and intensification in operation in areas in close proximity to significant residential development must demonstrate compatibility with adjacent land uses.
9.3 Policies <i>(1) The Mineral Aggregate designation on the Land Use Schedule(s) shall mean that the predominant use of land will be for pits and quarries along with</i>	11. 3 Policies (1) The Mineral Aggregate designation on the Land Use Schedule(s) shall mean that the predominant use of land will be for pits and quarries along with associated manufacturing uses (e.g. crushing,

Appendix A

Planning Justification Report

<p><i>associated manufacturing uses (e.g. crushing, screening and concrete plants). Other uses which do not preclude the future use of these lands for mineral aggregate extraction purposes such as forestry, non-intensive farming, conservation and outdoor recreation, will also be permitted. Asphalt plants shall be permitted in the municipality only in accordance with the policies in Section 12.2(24).</i></p> <p><i>(3) Existing operations shall be recognized in the implementing zoning by-law. Areas designated Mineral Aggregate which are not currently used for pits and quarries or associated manufacturing uses shall be placed in a non-development type of zone in the implementing zoning by-law.</i></p> <p><i>In considering and amendment to the Zoning By-law, Council shall examine certain matters:</i></p> <p><i>(a) degree of exposure of the operation to the public;</i></p> <p><i>(b) the haulage routes and the resultant traffic density;</i></p> <p><i>c) the progressive rehabilitation and final rehabilitation plans, and the stability of these plans having regard to the character of the surrounding lands:</i></p> <p><i>(i) and (ii) policies for prime agricultural lands.</i> (Not relevant as site is Class 6)</p> <p><i>(d) the water table, existing and proposed drainage facilities, and setbacks from watercourses;</i></p> <p><i>(e) effects on adjacent land uses, nearby</i></p>	<p>screening and stockpiling). Other uses which do not preclude the future use of these lands for mineral aggregate extraction purposes such as forestry, non-intensive farming, conservation and outdoor recreation, will also be permitted. Asphalt, concrete and washing plants shall be permitted in the municipality only in accordance with the policies in Sections 11.3(9), and 14.2(24).</p> <p>(3) Existing extractive operations shall be recognized in the implementing zoning bylaw. Areas designated Mineral Aggregate which are not currently used for pits and quarries or associated manufacturing uses shall be placed in a non-development type of zone in the implementing zoning by-law.</p> <p>(4) The expansion or opening of a new commercial pit or quarry will require the preparation of an environmental impact assessment, site plan, operational plan and rehabilitation plan to the satisfaction of the Municipality and an amendment to the zoning by-law with full public notice and opportunities for appeal.</p> <p>In considering an amendment to the Official Plan or Zoning By-law, Council shall examine certain matters:</p> <p>(a) landscaping and visual and physical buffering from other land uses;</p> <p>(b) the haulage routes and the resultant traffic density;</p> <p>(c) the progressive rehabilitation and final rehabilitation plans, and the suitability of these plans having regard to the character of the surrounding lands;</p> <p>(i) and (ii) policies for prime agricultural lands. (Not relevant as site is Class 6)</p> <p>(d) evaluation of the water table, existing and proposed drainage facilities, and setbacks from watercourses;</p> <p>(e) effects on adjacent land uses, nearby communities, and environmentally sensitive</p>
--	--

Appendix A

Planning Justification Report

<p><i>communities, and environmentally sensitive areas;</i></p> <p><i>(f) hydrology, wildlife or such studies as may be required due to special concerns related to a specific site; and</i></p> <p><i>(g) any other matters which Council deems advisable.</i></p> <p><i>(4) The Municipality may adopt a by-law under the municipal Act RSO 1990 to regulate certain matters (for example hours of operation and dust control) which are not covered by the ARA.</i></p> <p><i>(6) The concept of an influence area is recognized as a means of protecting against incompatible land uses in the vicinity of Mineral Aggregate designations and to protect existing pits and quarries from the encroachment of other incompatible land uses.</i></p> <p><i>Influence areas, in which studies may be required to assess impacts, are generally identified as being: 150 m from the licensed area of a pit to determine noise and dust impacts; from the licensed area of quarries, 500 m to determine the impact of noise and dust and an evaluation of potential well interference.</i></p>	<p>areas;</p> <p>(f) hydrology, wildlife or such studies as may be required due to special concerns related to a specific site; and</p> <p>(g) issues of public health, public safety and environmental impact are addressed;</p> <p>(h) any other matters which Council deems advisable.</p> <p>(Note- this policy was removed as these matters are included on the Site Plan under the ARA)</p> <p>(6) The concept of an influence area is recognized as a means of protecting against incompatible land uses in the vicinity of Mineral Aggregate designations and to protect existing pits and quarries from the encroachment of other incompatible land uses.</p> <p>Influence areas, in which studies may be required to assess impacts, are generally identified as being: 150 m from the licensed area of a pit to determine noise and dust impacts; from the licensed area of quarries, 500 m to determine the impact of noise and dust and an evaluation of potential well interference.</p> <p>Applications to extract below the water table shall be discouraged, however when an application is made, a thorough assessment of the potential impact on all wells within 300 metres of the property boundary of the site of a pit and 500 metres of a quarry, shall be carried out to the satisfaction of the Municipality.</p> <p>In accordance with this concept, it will be the policy of Council to discourage incompatible land uses in areas surrounding Mineral Aggregate areas by careful review of any</p>
---	--

<p><i>Council recognizes the potential for existence of an area of adverse environmental influence associated with a pit or quarry. The municipality shall request that the proponent provide studies to demonstrate whether distance separation between a pit or quarry and sensitive land use is necessary, and establish dimensions of any needed separation area; and provide for implementation of the study results in consultation with provincial ministries. Council also recognizes that land use separations should be applied reciprocally to new pits and quarries encroaching upon sensitive land uses.</i></p> <p><i>(7) All pit and quarry uses must satisfy the requirements of the Ministry of the Environment * * with respect to pumping and de-watering, water supply, wastewater, solid and liquid waste disposal and all emissions to the atmosphere including noise and vibration.</i></p>	<p>severance application, rezoning application or other development proposal in consultation with the Ministry of Natural Resources and the Ministry of the Environment and by including separation distances in the implementing By-law.</p> <p>Council recognizes the potential for existence of an area of adverse environmental influence associated with a pit or quarry. The municipality shall request that the proponent provide studies to demonstrate whether distance separation between a pit or quarry and sensitive land use is necessary, and establish dimensions of any needed separation area; and provide for implementation of the study results in consultation with provincial ministries. Council also recognizes that land use separations should be applied reciprocally to new pits and quarries encroaching upon sensitive land uses.</p> <p>(7) All pit and quarry uses must satisfy the requirements of the Ministry of the Environment and the Municipality with respect to pumping and de-watering, water supply, wastewater, solid and liquid waste disposal and all emissions to the atmosphere including noise and vibration.</p> <p>(9) Wash plants are considered a normal accessory use to a mineral aggregate operation and shall be permitted. Wash plants shall meet all requirements of the Ministry of Natural Resources and the Ministry of the Environment regarding the operation of the facility.</p> <p>Permanent asphalt batching plants and permanent concrete batching plants are considered heavy industrial uses which potentially have negative impacts to the air, ground and surface and ground water, shall require an Official Plan amendment and Zoning By-law amendment to be permitted. These uses shall be adequately buffered to protect adjacent land uses, and shall meet the industrial pollution control and any other</p>
--	--

	<p>applicable standards of the Ministry of the Environment. A permanent asphalt batching plant and permanent concrete batching plant shall not be permitted unless:</p> <p>a) there is no adverse impact on groundwater and surface water quality and quantity; b) there is no adverse noise, odour, or dust impacts on nearby sensitive land uses and natural heritage features; c) the operation of such a plant is addressed on a site plan approved by the province.</p>
<p>12. General Development Policies</p> <p>(3) Land Use Compatibility</p> <p><i>Where different land uses abut, every effort shall be made to avoid conflicts between different uses. Where deemed necessary, buffering will be provided for the purpose of reducing or eliminating the adverse effects of one land use upon the other. A buffer may be open space, a berm, wall, fence, plantings or a land use different from the conflicting ones but compatible with both or any combination of the aforementioned sufficient to accomplish the intended purpose.</i></p> <p><i>In order to implement buffering principles, regulations may be established in the Zoning By-law providing for separation distances between potentially incompatible uses. Gravel pits and quarries, farms uses, kennels, septage and sewage sludge disposal sites, industrial uses and waste disposal sites, in relation to sensitive land uses and vice versa, shall generally be so regulated. Such regulations shall be established in accordance with applicable legislation and with regard to the policies and guidelines applied by governing agencies. The County of Renfrew may be consulted in this regard.</i></p>	<p>14. General Development Policies</p> <p>(3) Land Use Compatibility</p> <p>Where different land uses abut, every effort shall be made to avoid conflicts between different uses. Where deemed necessary, buffering will be provided for the purpose of reducing or eliminating the adverse effects of one land use upon the other. A buffer may be open space, a berm, wall, fence, plantings or a land use different from the conflicting ones but compatible with both or any combination of the aforementioned sufficient to accomplish the intended purpose.</p> <p>In order to implement buffering principles, regulations may be established in the Zoning By-law providing for separation distances between potentially incompatible uses. Gravel pits and quarries, farms uses, kennels, septage and sewage sludge disposal sites, industrial uses and waste disposal sites, in relation to sensitive land uses and vice versa, shall generally be so regulated. Such regulations shall be established in accordance with applicable legislation and with regard to the policies and guidelines applied by governing agencies.</p> <p>(Note- the last line of the 1997 policy regarding County of Renfrew was removed.)</p>

Appendix A

Planning Justification Report

<p><i>For the purposes of this Plan, sensitive land uses are defined as buildings, amenity areas or outdoor space where routine or normal activities occurring at reasonably expected times would experience one or more adverse effects from contaminant discharges generated nearby. Sensitive land uses may be part of the natural and built environment, and specifically include; residential dwellings, daycare facilities, educational facilities, health care facilities and seniors residential buildings.</i></p>	<p>For the purposes of this Plan, sensitive land uses are defined as buildings, amenity areas or outdoor space where routine or normal activities occurring at reasonably expected times would experience one or more adverse effects from contaminant discharges generated nearby. Sensitive land uses may be part of the natural and built environment, and specifically include; residential dwellings, daycare facilities, educational facilities, health care facilities and seniors residential buildings.</p> <p>In implementing policies of this section, the following MOE documents will be used as guidelines as applicable: Guideline D-1: Land Use Compatibility, Guideline D-4: Land Use on or Near Landfills and Dumps, and Guideline D-6: Compatibility Between Industrial Facilities and Sensitive Land Uses.</p>
<p>(9)Forestry,Spawning Beds and Wildlife Habitat</p> <p><i>(c) Significant natural heritage resources, such as fish spawning areas, wetlands and Areas of Natural and Scientific Interest, are identified on Schedule B. Council shall have regard for any other significant natural heritage features that may be identified when reviewing development proposals on or adjacent to these areas and will consult with the County of Renfrew where proposals may affect these resources. It shall be the policy of Council that, as the Ministry of Natural Resources identifies, from time-to-time, information on significant natural heritage features, such features shall be incorporated into this Official Plan through amendments to Appendix III.</i></p>	<p>(9) Forestry, Spawning Beds and Wildlife Habitat</p> <p>(c) Significant natural heritage resources, such as fish spawning areas, wetlands and Areas of Natural and Scientific Interest, are identified on Schedule B. Council shall have regard for any other significant natural heritage features that may be identified when reviewing development proposals on or adjacent to these areas and will consult with the County of Renfrew where proposals may affect these resources. It shall be the policy of Council that, as the Ministry of Natural Resources identifies, from time-to-time, information on significant natural heritage features, such features shall be incorporated into this Official Plan through amendments to Schedule B.</p>

APPENDIX B
Ministry of Culture Letter

Ministry of Culture

Ministère de la Culture



435 South James Street, Ste 334
Thunder Bay ON P7E 6S7

Bureau 334, 435 rue James sud
Thunder Bay (ON) P7E 6S7

Telephone: (807) 475-1632
Facsimile: (807) 475-1297

Téléphone: (807) 475-1632
Télécopieur: (807) 475-1297

Programs and Services Branch
Heritage Operations Unit

January 4, 2007

Skelton Brumwell & Associates Inc.
93 Bell Farm Road, Suite 107
Barrie, ON L4M 5G1

Attn: Kyle Fleming, Environmental Planner/Biologist,

Re: Project Name/No. Miller Braeside Quarry Expansion
MCL File 2007-47AG001

I have had the opportunity to review the information provided in your letter and maps of February 24, 2006 on the Miller Braeside Quarry Expansion. Based on the mapping provided and the heritage databases and mapping of this Ministry, it has been determined that there is a low potential for the discovery of archaeological resources for the subject property. Based on this, we have no further concerns for the application.

Please note that clearances and evaluations of low potential made by this Ministry do not remove the proponent's obligations under the Ontario Heritage Act (R.S.O. 1990, c. O. 18) or the Cemeteries Act (R.S.O. 1990, c. C. 4). For this reason, two standard conditions will continue to apply to the approval of this application.

1. Should human remains be identified during operations, all work in the vicinity or the discovery will be suspended immediately. Notification will be made to the Ontario Provincial Police, or local police, who will conduct a site investigation and contact the district coroner. Notification must also be made to this office and the Registrar of Cemeteries, Ministry of Government Services.
2. Should other cultural heritage values (archaeological or historical materials or features) be identified during operations, all activity in the vicinity of the recovery will be suspended and the Ministry of Culture archaeologist contacted. This condition provides for the potential for deeply buried or enigmatic local site areas not typically identified in evaluations of potential.

Please feel free to contact me regarding this project should you have any questions.

Yours,

A handwritten signature in cursive script that reads "Paige Campbell".

Paige Campbell
Acting Heritage Planner

APPENDIX C

PEER REVIEW

Summary of Peer Review Process

Correspondence of Peer Review Acceptance of Revised Reports

Subjects of Revision on Site Plan from Peer review and revised technical reports

MILLER PAVING LIMITED - BRAESIDE QUARRY EXPANSION

OFFICIAL PLAN AND ZONING AMENDMENT APPLICATIONS
TOWNSHIP OF McNAB/BRAESIDE PEER REVIEW OF STUDIES

SUBJECT	AUTHOR	STUDY REPORT / RESPONSES	PEER REVIEW / CORRESPONDENCE	STATUS
MUNICIPAL PEER REVIEWS				
1 Noise	Hugh Williamson Associates Inc. (HWA)	Acoustic Assessment of the Proposed Expansion of the Miller Braeside Quarry, November 15, 2007	RWDI Air Inc. review July 31, 2008	
		Draft memo and revised (red-lined) report, November 4, 2008 sent via email November 5, 2008 Appendix 2 “all new”	RWDI letter February 6, 2009	
		Memo, May 2, 2009 submitted with revised draft April 29, 2009	RWDI letter July 14, 2009 minor comments.	
		Response letter and final complete revised report Acoustic Assessment October 1, 2009 submitted to Township and RWDI October 7, 2009.	RWDI Email October 8, 2009 indicating no further clarification required. Final review letter March 16, 2010 confirmed acceptance.	
		Hugh Williamson revised Acoustic Assessment Report based on new data and factors submitted to Township, County and RWDI for verification of peer review. December 2, 2011	RWDI letter March 1, 2012 indicating concern for classification of some receptors	
		Hugh Williamson letter May 24, 2012, and revised Acoustic Assessment Report May 2012	RWDI letter June 25, 2012 acceptance of revised assessment.	
				Accepted by Township Peer Reviewer Planning Staff Report to PAC (Planning Advisory Committee) December 8, 2009 was accepted as information. ----- Staff Planning report to PAC November 13, 2012 was accepted as information.

2 Air Emissions	Church & Trought Inc. (CTI)	Braeside Quarry Expansion – Air Quality Assessment Report, November 2007	RWDI Air Inc. Review letter July 31, 2008	Accepted by Township Peer Reviewer Planning Staff Report to PAC April 13, 2010 was accepted as information.
		Response letter, November 12, 2008	RWDI Air Inc. email comments on CTI letter, January 22, 2009.	
			RWDI Air Inc. Review March 31, 2009.	
		Letter June 23, 2009 and Dust Management Plan submitted July 9, 2009	RWDI email August 16, 2009 with draft further review comments.	
		Basis of revised modelling established with RWDI and MOE. Response letter October 23, 2009 and memos of meetings RWDI and MOE.	RWDI letter Oct. 8, 2009 confirms MOE accepted approach AERMOD	
		Revised report submitted November 5, 2009 (dated, October 2009)	RWDI Letter to Township of McNab Braeside January 12, 2010 and RWDI Letter to C&T January 12, 2010	
		Reference email SBA October 2009, and CTI Final Report March 8, 2010 including Dust Management Plan	RWDI final review March 16, 2010. The air assessment is appropriate subject to suitable implementation.	
3 Blasting	Explotech Engineering Ltd. (EEL)	Blasting Impact Analysis, April 2007	Golder Associates review August 25, 2008	Accepted by Township Peer Review. Planning Staff Report to PAC July 7, 2009 was accepted as information.
		Response letter, October 15, 2008	Golder comment letter, February 10, 2009	
		Letter of February 23, 2009 with revised pages 15-18, and Blasting Impact Assessment May 26, 2009	Golder letter of acceptance June 11, 2009.	

4 Hydrogeology	Gorrell Resources Investigations (GRI)	Hydrogeological Investigation, Braeside Quarry Expansion September 2007	Golder Associates review September 11, 2008, Letter October 2008	
	GRI transfers project to BGC Engineering Inc. (BGC) with same Senior Hydrogeologist. December 2010	Office Meeting Nov 6, 2008 with Golder. Work program letter December 19, 2008	Discussions with Gorrell to discuss supplemental work program	
	Jennifer B. Gorrell, P.Geo., professional Geoscientist July 2012.	GRI Response Letter and Consolidated 2006- 2009 Hydrogeological Investigation report November 2010 addressing Golder issues submitted December 8, 2009	Golder consultations with GRI on initial comments on December report and Golder technical comment letter March 9, 2010	
		GRI and AECOM letter and Summary Report August 5, 2010 submitted to Township and Golder August 9, 2010	Golder Associates letter Nov. 5, 2010 – recommend changes to monitoring to meet requirements	
		Response letter by SBA on combined hydrogeological, hydrological and natural environment comments July 4, 2011	Golder Associates letter August 16, 2011- satisfied with responses with request to address two matters in final reports.	
		Revised Hydrogeological Assessment by GRI submitted Dec. 7, 2011	Golder Associates email of technical comments February 29, 2012.	
		BGC response letter April 5, 2012 addressing Golder comments		
		Letter by Jennifer Gorrell July 28, 2012, and Hydrogeological Assessment- Final July 2012 by Jennifer Gorrell	Golder Associates letter September 29, 2012 accepting the revised 3 studies and proposed monitoring, mitigation and contingency plans.	
				Accepted by Township Peer Reviewer
				Planning Staff Report to PAC November 13, 2012 was accepted as information.

5 Hydrology	Skelton Brumwell and Associates Inc.(SBA)	Braeside Quarry Expansion Hydrological Investigation, October 2007	Golder Associates review September 18, 2008	
		Partial response, December 17, 2008, including memo from B. Muncaster Fisheries Biologist, November 28,2008	Golder Associates letter, April 28, 2009 Of 20 issues 8 are resolved or accepted.	
		SBA/GRI letter of responses to Golder re: hydrogeological, surface water impacts and fisheries issues submitted December 8, 2009	Golder advised of need to have hydrogeological questions addressed prior to completing comments on hydrology. Nov. 5, 2010 Golder review of natural environment, hydrology and hydrogeology May 10, 2011	
		Response letter by SBA on combined hydrogeological, hydrological and natural environment comments July 4, 2011	Golder Associates letter August 16, 2011- generally satisfied with responses – request to address two hydrogeological matters in final report.	
		Hydrological Investigation revised per peer review December. 7, 2011	Golder Associates advised a compiled letter to be sent when Hydrogeology also peer reviewed.	
		Letter July 30, 2012 advising revisions to correspond to the Hydrogeological Assessment July 2012, and Hydrological Investigation July 2012.	Golder Associates letter September 29, 2012 accepting the revised 3 studies and proposed monitoring, mitigation and contingency plans.	

6 Natural Heritage	Skelton Brumwell and Associates Inc. (SBA), and Brunton Consulting	Natural Environment Report Level I and II, Braeside Quarry Expansion November 21, 2007	Golder Associates review March 2, 2009	Accepted by Township Peer Reviewer Planning Staff Report to PAC November 13, 2012 was accepted as information.
		SBA/Brunton Letter of response to Golder re: issues with hydrogeological, fisheries and hydrological references submitted December 8, 2009	Golder advised of need to have hydrogeological questions addressed prior to completing comments on hydrology and natural heritage. Nov.5, 2010 correspondence. Golder review of natural environment, hydrology and hydrogeology May 10, 2011 (repeated the March 2009 comments)	
		Response letter by SBA on combined hydrogeological, hydrological and natural environment comments July 4, 2011	Golder Associates letter August 16, 2011- satisfied with responses with request to address two matters in final reports.	
		Natural Environment Report Level I and II revised December 2, 2011, and SBA reference letter for reports October 12, 2012.	Golder Associates letter September 29, 2012 accepting the revised 3 studies and proposed monitoring, mitigation and contingency plans.	
7 Traffic	Skelton Brumwell and Associates Inc.	Traffic Impact Study Miller Braeside Quarry Expansion, October 16, 2007	J.L. Richards & Associates Limited review July 15, 2008	Accepted by Township Peer Reviewer Planning Staff Report to PAC October 13, 2009 was accepted as information.
		SBA response letter, December 18, 2009	J.L. Richards letter January 20, 2009	
		Revised TIS June 19, 2009 including MTO concurrence letter, and SBA reference letter (for reports) October 12, 2012.	J.L. Richards letter of acceptance June 29, 2009.	



16 March 2010

Bruce Howarth
Senior Planner
Township of McNab Braeside
2508 Russett Dr., RR2 Arnprior, Ontario
K7S 3G8

RWDI AIR Inc.
650 Woodlawn Road West
Guelph, ON
Canada N1K 1B8

**Re: Final Review of Air Quality and Noise Studies
Braeside Quarry Expansion
RWDI Project W08-5275A**

Dear Mr. Howarth,

Please find attached our final review of the air quality and acoustics reports for the Braeside Quarry Expansion.

1 BACKGROUND

RWDI initially conducted a review of the following documentation:

- 1) "Miller Paving Limited - Braeside Quarry Expansion – Air Quality Assessment Report", Prepared by Church and Trout Inc. (CTI), dated November, 2007
- 2) "Acoustic Assessment of the Proposed Expansion of the Miller Braeside Quarry", Prepared by Hugh Williamson Associates Inc., (HWA) Dated 15 November, 2007.

Following intermediate reviews and discussions with CTI and HWA, RWDI received the following finalized reports:

- 1) "Miller Paving Limited - Braeside Quarry Expansion – Air Quality Assessment Report", Prepared by Church and Trout Inc. (CTI), dated March, 2010.
- 2) "Acoustic Assessment of the Proposed Expansion of the Miller Braeside Quarry", Prepared by Hugh Williamson Associates Inc., Dated 1 November, 2009.

This correspondence addresses provides a final review of these reports, including our professional opinion of the impacts that could be experienced at receptor points due to the Braeside Quarry Expansion.

2 BASIC FACILITY INFORMATION

The facility has three components: (a) hot mix asphalt (HMA) plant (150 tonnes/h); (b) ready-mix concrete (RMC) batch plant (170 tonnes/h); and (c) limestone quarrying/processing (450 tonnes/hr). The combined total maximum production of the three components is 770 tonnes/hr.

Based on our experience of quarries of similar operating capacities, we recommend a minimum setback distance of 150 m to manage air quality impacts. Setback distances from excavation faces to property lines meet this requirement at most locations along the property line. Note however, that setback distances from the extraction face during phases 2A and 2B will approach within 30m of the southern boundary. There are no residences currently located near this area and so the short separation distances may not be an issue at this time.

3 AIR QUALITY DISPERSION MODELLING

This modelling takes calculated emission estimates and predicts what the maximum pollutant concentrations will be at off site locations. Two different computer models were used: (a) Reg. 346 model; and (b) AERMOD.

We understand that the Reg. 346 model included emissions from the following sources:

- Drum mixer baghouse,
- Ready-mix concrete cold feed bins,
- RMC weigh hopper
- HMA trucks, and
- RMC truck loadout

The Reg 346 modelling did not include emissions from the quarry processing plant, from on-site truck traffic or from storage piles. The quarry processing plant can be considered exempt from Reg 346 modelling if it is a portable crusher operating below grade¹. The remaining unmodelled sources have been addressed with a Dust Management Plan. This approach is considered acceptable for the Certificate of Approval (Air) applications under Section 9 of the Ontario EPA.

In addition, AERMOD modelling was conducted for particulate matter (PM) and Nitrogen Oxides (NO_x). AERMOD modelling included the same sources as the regulation 346 modelling, as well as blasting and drilling operations, crushing and screening operations, and the diesel generator that serves the crusher.

Predicted maximum pollutant levels were within applicable standards. Focussing on PM the maximum predicted concentrations were a 30-minute averaged value of 27 ug/m³ (from the Reg. 346 model) and a 24-hour-averaged value of 119.5 ug/m³ (AERMOD). The 30-minute averaged standard is 100 ug/m³ and the 24-hour standard is 120 ug/m³.

All in all, we believe the AERMOD modelling is the preferred modelling in the present case and gives results that, based on experience, are the right order of magnitude.

¹. The MOE's operating criteria of a mobile, below grade processing plant are the following:

1. The processing plant must operate for no more than 60 days in any operating season.
2. The processing plant is not exempted from the modelling requirement for any situations where the plant is being operated on-grade.

4 AIR QUALITY: BEST MANAGEMENT PLAN (BMP)

The management plan specifies water spray bars on the processing plant and use of a water truck for suppression of dust on unpaved haul routes. Paving of a section of the entrance road as well as cleaning of that pavement has been specified. Suspension of certain operations during high wind is also specified. The level of details is adequate.

5 ACOUSTICS

The latest version of the acoustics report has addressed all of our previous comments.

6 CONCLUSION

We believe the AERMOD modelling gives results that, based on experience, are the right order of magnitude. The prescribed mitigation measures are appropriate and, if properly implemented, are expected to adequately address potential air quality issues at this site. This conclusion is contingent on maximum hourly production and shipping rates not exceeding the specified rates in the air quality report.

The acoustics report and the proposed mitigation measures outlined in the Hugh Williamson report are expected to adequately address acoustics issues at the site.

We trust that this suits your needs at this time.

Yours very truly,

RWDI AIR Inc.



Colin Welburn, M.Eng., P.Eng.
Project Manager Specialist

CTW/klm



CONSULTING ENGINEERS
& SCIENTISTS

Tel: 519.823.1311
Fax: 519.823-1316

RWDI AIR Inc.
650 Woodlawn Road West
Guelph, Ontario, Canada
N1K 1B8
Email: solutions@rwdi.com



June 25, 2012

Bruce Howarth
McNab/Braeside Community Township
2508 Russett Dr., RR2
Arnprior, Ontario
K7S 3G8

**Re: Proposed Miller Quarry expansion
Peer review of May 28, 2012 Acoustic Assessment Report
RWDI Reference No. 1200812**

Email: BHowarth@countyofrenfrew.on.ca

Dear Mr. Howarth,

RWDI AIR Inc. (RWDI) was retained by the County of McNab Braeside to conduct a peer review of the "Acoustic Assessment for the Proposed Expansion of the Miller Braeside Quarry, County of Renfrew" dated 28 May 2012 by Hugh Williamson Associates Inc. The report is a revised edition of a previously reviewed assessment dated 30 November 2011.

The 28 May 2012 report addresses comments by RWDI regarding the 30 November 2011 report. We have reviewed the revisions, and are in agreement with all changes. It is noted that as a result of changes in source sound levels and sound level limits at receptors, mitigation measures have been revised. The revised mitigation measures include tall earthen berms, which will require a significant amount of land and material to construct. In a conversation with Hugh Williamson, it was confirmed that Miller Quarry has indicated that construction of such berms will be feasible.

Our peer review of the "Acoustic Assessment for the Proposed Expansion of the Miller Braeside Quarry, County of Renfrew" dated 28 May 2012 finds no areas of disagreement. We recommend acceptance of the assessment as submitted.

Yours very truly,

RWDI AIR Inc.

Kyle Hellewell, P.Eng.
Senior Engineer

KAH/klm

This document is intended for the sole use of the party to whom it is addressed and may contain information that is privileged and/or confidential. If you have received this in error, please notify us immediately.

© RWDI name and logo are registered trademarks in Canada and the United States of America



June 11, 2009

Project No. 08-1122-0216

Anne McVean, Planning Technician
County of Renfrew
9 International Drive
Pembroke, Ontario
K8A 6W5

**PROPOSED AMENDMENTS TO EXPLOTECH BLASTING IMPACT ASSESSMENT
PROPOSED BRAESIDE QUARRY EXTENSION
TOWNSHIP OF MCNAB/BRAESIDE, COUNTY OF RENFREW, ONTARIO**

Dear Madam:

Further to the Explotech letter to Miller Paving Limited dated February 23, 2009 (received by Golder Associates on June 8, 2009), we have no additional comments or issues concerning the blasting impact assessment for the proposed Braeside Quarry extension.

If you have any questions please do not hesitate to contact the undersigned.

Yours very truly,

GOLDER ASSOCIATES LTD.

A handwritten signature in black ink, appearing to read 'Marcus V. van Bers'.

Marcus V. van Bers, P. Eng.
Associate

MVvB/KAM/co

n:\active\2008\1122 - environmental\08-1122-0216 braeside quarry peer review\blasting\08-1122-0216 11jun09 amendments blasting impact.doc



Golder Associates Ltd.
6700 Century Avenue, Mississauga, Ontario, Canada L5N 6A4
Mail: 2390 Argenta Road, Mississauga, Ontario, Canada, L5N 5Z7
Tel: +1 (905) 567 4444 Fax: +1 (905) 567 6561 www.golder.com

Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America



August 16, 2011

Project No. 08-1122-0216

Bruce Howarth, MCIP, RPP, Senior Planner
County of Renfrew
9 International Drive
Pembroke, Ontario
K8A 6W5

**NATURAL ENVIRONMENT, HYDROLOGY AND HYDROGEOLOGY REVIEW COMMENTS
PROPOSED BRAESIDE QUARRY EXPANSION
MUNICIPALITY OF MCNAB/BRAESIDE, ONTARIO**

Dear Mr. Howarth:

The County of Renfrew has retained Golder Associated Ltd. (Golder) to conduct a technical review of various reports related to a proposed quarry expansion in the municipality of McNab/Braeside. These reports were prepared in support of an application for Zoning By-Law Amendment under the Township of McNab/Braeside Official Plan (Section 9.3(3)) as well as an application to the Ministry of Natural Resources ("MNR") for a quarry license with extraction below the water table. The owner and operator of the quarry is Miller Group Inc. (Miller).

Golder has previously completed technical reviews of documents dealing with three major areas of potential impacts arising from the proposed quarry expansion: (1) hydrogeology; (2) hydrology; and, (3) biology, including ecology, referred to as natural heritage features. This submission comprises Golder's review of the Skelton Brumwell Associates Inc. letter dated July 4, 2011 which was prepared in response to the Golder letter of May 10, 2011 (dated May 10, 2010).

Based on the review of the Skelton Brumwell Associates Inc. letter dated July 4, 2011, we are generally satisfied with the responses to our questions and comments. We note, however, that despite any proposed changes to the figures indicating the predicted radius of influence of the proposed quarry expansion, under-draining of the southeast wetland could potentially occur. Regardless, the proposed groundwater monitoring program should provide the data necessary to evaluate the potential for impacts to springs and the wetland located east and southeast of the quarry. Thus, we will not recommend that monitoring of the springs or wetlands be required, unless and until the results of the groundwater monitoring program indicate that impacts to either the springs and/or the wetland may occur. We also note that Table 1 attached to the July 4, 2011 letter includes "Well Site Reference" numbers that do not correspond to any mapping that we are aware of. This should be addressed in the final reports.


It is our understanding that revised reports will be prepared by the Miller team and submitted to the Township and the County, and that Golder will then be requested to review and comment on those reports.

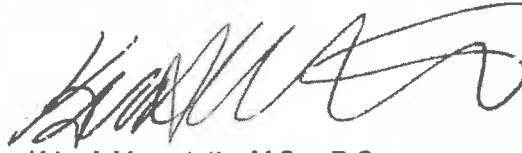


We trust that this submission meets with your approval. Please contact the undersigned if you have any questions.

Yours truly,

GOLDER ASSOCIATES LTD.


for Brian T. Byerley, M.Sc., P.Eng.
Senior Hydrogeologist/Associate


Kris. A Marentette, M.Sc., P.Geo.
Senior Hydrogeologist/Principal

BTB/KAM/sg

n:\active\2008\1122 - environmental\08-1122-0216 braeside quarry peer review\hydrogeology\ltr 16aug2011 braeside quarry review letter.docx

cc: Jennifer B. Gorrell, M.Sc.,P.Eng.,P.Geo, BGC Engineering Inc.
Tom Jones, Property Manager, Miller Paving Limited
Gary Bell, Skelton, Brumwell and Associates Inc.



**J.L. Richards
& Associates Limited**
864 Lady Ellen Place
Ottawa, ON Canada
K1Z 5M2
Tel: 613 728 3571
Fax: 613 728 6012

June 29, 2009
Our File: 23030

VIA E-MAIL

Ms. Ann McVean
Planning Technician
County of Renfrew
9 International Drive
Pembroke ON K8A 6W5

Dear Ms. McVean:

Re: **Traffic Impact Study
Miller Braeside Quarry Expansion
Township of McNab-Braeside
County of Renfrew**

We have reviewed the revised Traffic Impact Study dated June 19, 2009, by Skelton, Brumwell & Associates Inc., prepared for the above-noted project. As noted by Mr. Gary Bell in his E-mail correspondence, the Consultant has responded to our comments by circulating and receiving comments from MTO and updating their intersection analysis with the HCS+ software.

We are satisfied with the Traffic Impact Study, Miller Braeside Quarry Expansion, Township of McNab/Braeside, County of Renfrew, prepared by Skelton, Brumwell & Associates Inc., revised June 19, 2009 and recommend acceptance by the County of Renfrew.

Should you have any questions or require additional information, do not hesitate to contact me.

Yours very truly,

J.L. RICHARDS & ASSOCIATES LIMITED

Lee Jablonski, P.Eng.

LJ:jl/jd

cc: Mr. Marc Rivet, MCIP, RPP, J.L. Richards & Associates Limited

Miller Braeside Quarry Expansion and Asphalt Plant Applications

MUNICIPAL PEER REVIEW SUMMARY OF RESULTS

The Township of McNab/Braeside and the County of Renfrew conducted qualified peer review of the technical reports submitted with the Miller Braeside Quarry expansion and asphalt plant applications for an Official Plan Amendment and a Zoning By-law Amendment. The results of the peer review which required revisions or additions to the reports and implementation on the proposed Site Plan are summarized in topics for each technical study:

1. NOISE

Acoustic Assessment of the Proposed Expansion of the Miller Braeside Quarry Hugh Williamson Associates Inc. May 2012. Topics or sections of the report revised, clarified or added due to the peer review by RWDI Air Inc. include:

- Hot mix asphalt plant operation and mitigation
- Ready mix concrete plant and cement unloading operation and mitigation
- Washing and screening plant operation and mitigation
- Truck movements and loading at night
- Mitigation Measures- extent and height of stockpiles, berms and barriers
- Mobile rock drilling barriers
- Mobile crushing operation shielding

2. AIR EMISSIONS

Air Quality Assessment Report Church & Trought Inc., CTI Final Report March 8, 2010. Topics or sections of the report revised, clarified or added due to the peer review by RWDI Air Inc. include:

- Dust Management Plan included
- Extraction, crushing and screening and storage pile dust mitigation
- Paved and unpaved roads dust mitigation and vehicle speed
- Suspension of truck loading and operations to mitigate dust
- Asphalt and concrete plant bag houses
- Inspection, monitoring and record keeping and response to complaints.

3. BLASTING

Blasting Impact Assessment May 26, 2009 Explotech Engineering Ltd. Topics or sections of the report revised, clarified or added due to the peer review by Golder Associates include:

Vibration and overpressure attenuation study as required monitoring program

4. HYDROGEOLOGY

Hydrogeological Assessment- Final July 2012 by Jennifer B. Gorrell, P.Geo. Topics or sections of the report revised, clarified or added due to the peer review by Golder Associates include:

Groundwater Monitoring

Trigger Mechanism

Contingency Plan

Protection of Groundwater Quality

Emergency Spill Procedure

Water Conservation

5. HYDROLOGY

Hydrological Investigation July 2012 by Skelton Brumwell and Associates Inc. Topics or sections of the report revised, clarified or added due to the peer review by Golder Associates include:

Stormwater Quality Control and storm water management plan

Contingency plan, monitoring and actions

Reclaimed Asphalt Pavement (RAP) storage

Asphalt plant and concrete plant area storm water management and quality control

Weather station

6. NATURAL HERITAGE

Natural Environment Report Level I and II revised December 2, 2011 by Skelton Brumwell and Associates Inc. (SBA), and Brunton Consulting. Topics or sections of the report revised, clarified or added due to the peer review by Golder Associates include:

Monitoring Significant features in the Significant Wildlife Protection Area

7. TRAFFIC

Traffic Impact Study by Skelton Brumwell and Associates Inc., June 19, 2009

No changes to Conclusions or Recommendations of Traffic Impact Study were required as a result of peer review by J.L. Richards & Associates Limited.

At the request of Renfrew County Public Works and Engineering Department a note will be added to Site Plan regarding entrance improvement on County Road 3.

The final results of peer review are included in the revised final reports and implemented on the Site Plan revised March 2013.

APPENDIX D
Entrance Improvement Agreement
Quarry Entrance Plan

Letter of Agreement September 2012

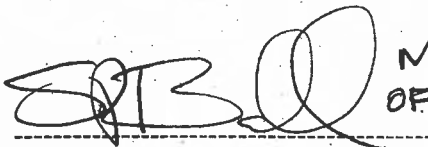
**Miller Braeside Quarry Entrance Improvement
County Road 3, Usborne Road in McNab/Braeside**

Miller Paving Limited (Miller) and the County of Renfrew (The County) agree to undertake improvements to the quarry entrance on County Road 3, Usborne Road as follows:

1. Miller will prepare a detailed design of the entrance works consistent with the preliminary design for the Quarry Entrance in Skelton Brumwell & Associates Inc. Drawing 2003- QE dated February 2011, which is attached to this Letter Agreement.
2. County Public Works and Engineering staff will meet with Miller staff or consultants at the quarry entrance to discuss and determine the drainage and detailed design information required.
3. Miller will have its engineer prepare the Detailed Design of Quarry Entrance including grading and drainage information and changes necessary to accommodate the improved quarry entrance.
4. Miller will apply for a revised Entrance Permit and submit the Detailed Design to the County for approval to construct the works. This application will be submitted within two years of issuance of a Licence by the Ministry of Natural Resources, to expand the quarry.
5. The County will review the Detailed Design and when satisfied with any required revisions will issue a revised Entrance Permit for approval to construct the works subject to County Road construction conditions normally required for notice signs, traffic diversion, safety etc.
6. Miller will construct the entrance improvements in accordance with the approved Detailed Design drawing and Conditions of the County.

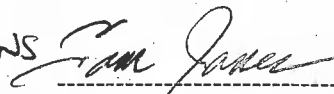
Attachment: Quarry Entrance Drawing 2033- QE, February 2011 by Skelton Brumwell & Associates Inc.

The Terms of this Letter Agreement are hereby accepted.



County of Renfrew

MANAGER
OF OPERATIONS



Miller Paving Limited

PROPERTY
MANAGER

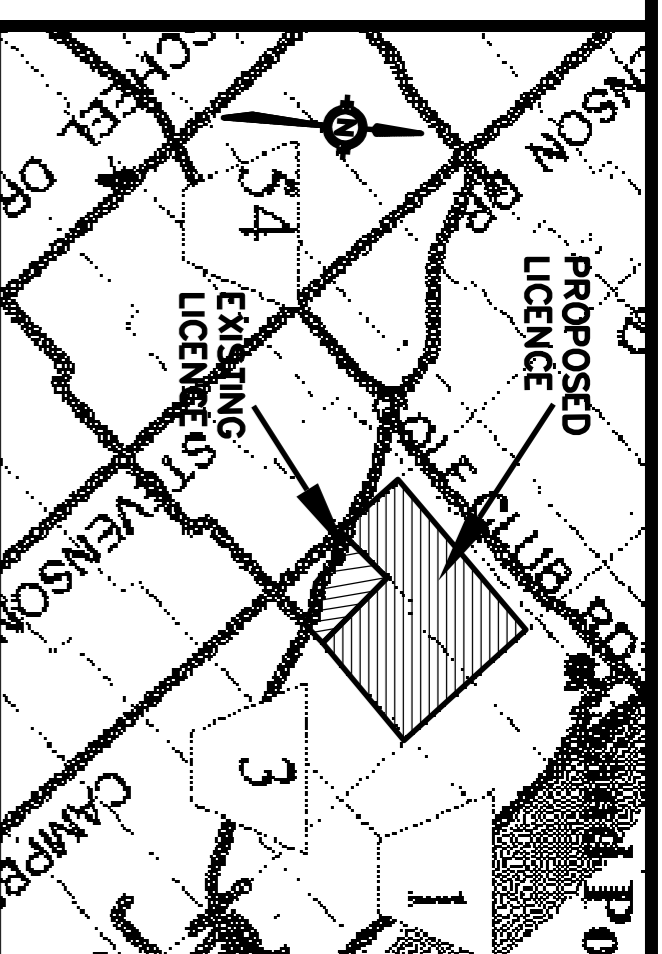
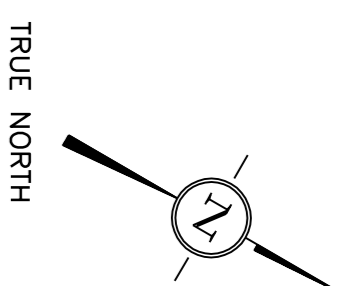
Jan 10, 2013

Date

SEPTEMBER 19, 2012

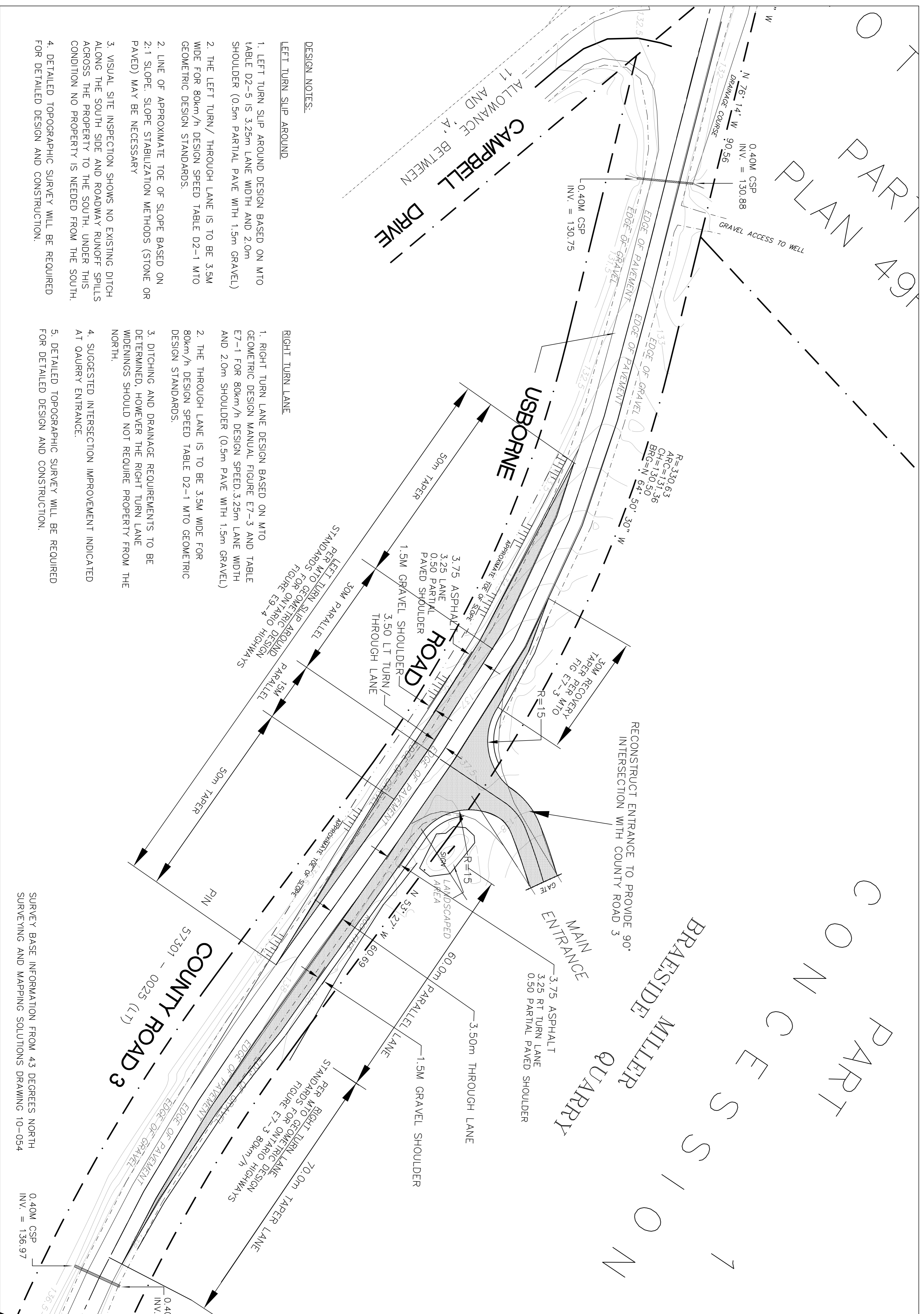
Date

**PART LOT 16, 17
 CONCESSION A
 TOWNSHIP OF MCNAB/BRAESIDE
 GEOGRAPHIC TOWNSHIP OF MCNAB
 COUNTY OF RENFREW**



LEGEND

— — — — — PROPERTY BOUNDARY



DESIGN NOTES:

- LEFT TURN SLIP AROUND**
1. LEFT TURN SLIP AROUND DESIGN BASED ON MTO TABLE D2-5 IS 3.25m LANE WIDTH AND 2.0m SHOULDER (0.5m PARTIAL PAVE WITH 1.5m GRAVEL)
 2. THE LEFT TURN/ THROUGH LANE IS TO BE 3.5M WIDE FOR 80km/h DESIGN SPEED TABLE D2-1 MTO GEOMETRIC DESIGN STANDARDS.
 2. LINE OF APPROXIMATE TOE OF SLOPE BASED ON 2:1 SLOPE. SLOPE STABILIZATION METHODS (STONE OR PAVED) MAY BE NECESSARY
 3. VISUAL SITE INSPECTION SHOWS NO EXISTING DITCH ALONG THE SOUTH SIDE AND ROADWAY RUNOFF SPILLS ACROSS THE PROPERTY TO THE SOUTH. UNDER THIS CONDITION NO PROPERTY IS NEEDED FROM THE SOUTH.
 4. DETAILED TOPOGRAPHIC SURVEY WILL BE REQUIRED FOR DETAILED DESIGN AND CONSTRUCTION.

RIGHT TURN LANE

1. RIGHT TURN LANE DESIGN BASED ON MTO GEOMETRIC DESIGN MANUAL FIGURE E7-3 AND TABLE E7-1 FOR 80km/h DESIGN SPEED. 3.25m LANE WIDTH AND 2.0m SHOULDER (0.5m PAVE WITH 1.5m GRAVEL)
2. THE THROUGH LANE IS TO BE 3.5M WIDE FOR 80km/h DESIGN SPEED TABLE D2-1 MTO GEOMETRIC DESIGN STANDARDS.
3. DITCHING AND DRAINAGE REQUIREMENTS TO BE DETERMINED, HOWEVER THE RIGHT TURN LANE WIDENINGS SHOULD NOT REQUIRE PROPERTY FROM THE NORTH.
4. SUGGESTED INTERSECTION IMPROVEMENT INDICATED AT QUARRY ENTRANCE.
5. DETAILED TOPOGRAPHIC SURVEY WILL BE REQUIRED FOR DETAILED DESIGN AND CONSTRUCTION.

SCHEDULE OF REVISIONS

NO.	DATE	DESCRIPTION	APPROVED
1	Apr 29/11	RT TURN LANE AND COUNTY COMMENTS APR 9/11 E-MAIL	

**MILLER BRAESIDE QUARRY
 MCNAB/BRAESIDE TOWNSHIP**

APPLICANT: Miller Quarry Limited
 505 Miller Avenue, P.O. Box 4080,
 Northon, Ontario
 L3R 9R8
 EX. LICENCE # 16173

QUARRY ENTRANCE

PROJECT NO. - 2033 **DRWG. NO 2033 -0E**

DATE: FEB 2011 **SCALE:** 1:500

DRAWN: DJW **CHECKED:** SWB **APPROVED:** SWB

CONSULTING ENGINEERS & PLANNERS
Skelton Brumwell
 93 BELL PAIN ROAD, SUITE 107
 BARRIE, ONTARIO L4M 5G1
 TELEPHONE (705) 728-1141 FAX: (705) 728-0331

SURVEY BASE INFORMATION FROM 43 DEGREES NORTH SURVEYING AND MAPPING SOLUTIONS DRAWING 10-054

0.40M CSP
 INV. = 136.97

APPENDIX E
MUNICIPAL PLANNING AMENDMENTS
Draft Official Plan Amendment
Draft Zoning By-Law Amendment

AMENDMENT NO. ____
TO THE OFFICIAL PLAN
OF THE
TOWNSHIP OF McNAB/BRAESIDE

January 2013

THE CONSTITUTIONAL STATEMENT

The following Amendment to the Official Plan of the Township of McNab/Braeside consists of three parts.

PART A - THE PREAMBLE - consists of the purpose, location and basis for the Amendment and does not constitute part of the actual Amendment.

PART B - THE AMENDMENT - consisting of the following text and Schedule A, constitutes Amendment No. ____ to the Official Plan of the Township of McNab/Braeside.

PART C - THE APPENDICES - consists of the background information and planning considerations associated with this Amendment. This section does not constitute part of the actual Amendment.

PART A - THE PREAMBLE

PURPOSE

The purpose of this Official Plan Amendment is to permit an asphalt plant in an expanded area of an existing quarry. The designation of the site is Mineral Extractive which permits an expansion of the quarry and related operations.

Permission for an asphalt plant requires an Official Plan Amendment as stated in policy 11.2(9). An amendment to the Zoning By-law is also necessary to permit an asphalt plant.

BASIS

The subject lands are part of the lands proposed to be zoned Extractive Industrial (EM) and Licensed under the Aggregate Resources Act for the proposed expansion of the Miller Braeside Quarry. The area proposed to be licenced is 103.0 ha. The subject property is owned by Miller Paving Limited. The production of asphalt and paving of roads, parking lots and other hard surface areas is a major part of Miller Paving Limited's business.

Production of asphalt for residential, commercial, industrial and institutional development is provided by asphalt plants available to supply hot mix asphalt of various blends. The demand for asphalt in McNab/Braeside and the presence of abundant limestone in the Miller Braeside Quarry, meeting the Ministry of Transport and commercial specifications for asphalt, warrant the development of an asphalt plant to serve economic development and constructions needs in the Township of McNab/Braeside from this quarry at this location.

The site is located on the east side of Renfrew County Road 3, Osborne Street, approximately 3 kilometres north- west of Braeside. The surrounding existing or proposed uses are:

- | | |
|--------|--|
| North: | There are a number of rural residences along the south side of Golf Course Road. The lots of these rural residences extend to the northern limit of the quarry property. |
| South: | An unopened road allowance between Township Lots 15 and 16 forms the southern boundary of the property. Vacant woodlands extend to the southeast. A recreational trail is located in part on the road allowance and in part on the subject property. |
| East: | An unopened Road Allowance between Township Concessions A and B forms the eastern boundary of the property. Vacant woodlands extend to the east to the existing estate residential subdivision. |
| West: | Along Renfrew County Road No. 3, there are a number of rural residences backing onto the northern part of the property and on the west side of the road and to the south of the property. |

The proposed asphalt plant is described in the context of the proposed quarry expansion in the Planning Justification Report, Miller Braeside Quarry expansion and in other studies for the proposed quarry expansion. The specified location for the asphalt plant is adequately separated and screened from the existing residences.

The Hydrological Investigation prescribed methods to protect the ground and surface water at the plant site from adverse impact. These are implemented on the Site Plan.

The Acoustic Assessment and the Air Quality Assessment Report provide recommendations for the development of the asphalt plant to meet Provincial standards for air and noise emissions and thus have no adverse noise, odour or dust impacts on residences in the area or on natural heritage features. This is to be established and regulated by an Environmental Compliance Approval issued by from the Ministry of Environment.

The operation of the asphalt plant is identified on the Site Plan for the Licence expansion area. The asphalt plant will require an Environment Compliance Approval prior to operation.

PART B - THE AMENDMENT

Details of the Amendment:

The Official Plan is amended as follows:

1. Schedule A East half is hereby amended by the redesignation of specified lands to Mineral Aggregate- Exception One, as shown on Schedule A to this Amendment.
2. Section 11 is hereby amended by the addition of the following new section:

“11.4 EXCEPTIONS

(a) Mineral Aggregate- Exception One (Miller Quarry) Lot 16,17 Concession A McNab

An asphalt plant of permanent operation is permitted on lands designated Mineral Aggregate Resource Area - Exception One on the Land Use Schedule to this Plan as an additional permit use of the Mineral Aggregate Resource Area designation.

Implementation:

Subsequent to the adoption of this Amendment, Council may pass a by-law amending the Zoning By-law as it relates to the subject land by rezoning specified lands to a site specific Extractive Industrial Exception zone to permit an asphalt manufacturing plant on the specified part of the quarry as an additional permitted use.

Interpretation:

This provision of the Official Plan as amended from time to time shall apply in regard to this Amendment.



Schedule 'A'



Re-designate from Mineral Aggregate Resource Area to Mineral Aggregate Resource Area - Exception One

Mayor

CAO / Clerk

Township of McNab / Braeside

Schedule 'A' to Official Plan Amendment No. _____

Passed this ____ day of _____.

THE CORPORATION OF THE
TOWNSHIP OF McNAB/BRAESIDE

BY-LAW NUMBER _____

A By-law to amend By-law Number 2010-49, being the Comprehensive Zoning By-law of the Corporation of the Township of McNab/Braeside, as amended.

PURSUANT TO SECTION 34 OF THE PLANNING ACT, THE TOWNSHIP OF McNAB/BRAESIDE HEREBY ENACTS AS FOLLOWS:

1. THAT By-law Number 2010-49, as amended, be and the same is hereby further amended as follows:

(a) Schedule “A” (Map 2) to By-law 2010-49 is amended by rezoning those lands described as part of Lots 16 and 17, Concession A, in the geographic Township of McNab, from Extractive Industrial Reserve (EMR) to Extractive Industrial (EM), Extractive Industrial-Exception One (EM-E1) and Extractive Industrial Reserve-Exception One (EMR-E1) shown as Items 1, 2 and 3 on the attached Schedule “A”.

(b) By adding the following subsection 13.3(a) Extractive Industrial-Exception One (EM-E1) to **SECTION 13.0 – REQUIREMENTS FOR EXTRACTIVE INDUSTRIAL (EM) ZONE**, immediately following subsection 13.3 **EXCEPTION ZONES**:

“(a) Extractive Industrial-Exception One (EM-E1)

Notwithstanding Section 13.1 to the contrary, for those lands described as part of Lot 17, Concession A, in the geographic Township of McNab and delineated as Extractive Industrial-Exception One (EM-E1) on Schedule “A” (Map 2) to this By-law, an asphalt manufacturing plant shall be an additional permitted use.

An asphalt plant must comply with the Ministry of the Environment separation distances and must obtain an Environmental Compliance Approval from the Ministry of the Environment.”

(c) By adding the following subsection 14.3(a) Extractive Industrial Reserve-Exception One (EMR-E1) to **SECTION 14.0 – REQUIREMENTS FOR EXTRACTIVE INDUSTRIAL RESERVE (EMR) ZONE**, immediately following subsection 14.3 **EXCEPTION ZONES**:

“(a) Extractive Industrial Reserve-Exception One (EMR-E1)

Notwithstanding Section 14.1 to the contrary, for those lands described as part of Lots 16 and 17, Concession A, in the geographic Township of McNab and delineated as Extractive Industrial Reserve-Exception One (EMR-E1) on Schedule “A” (Map 2) to this By-law, only natural area for the preservation of wildlife shall be permitted.”

2. THAT save as aforesaid all other provisions of By-law 2010-49, as amended, shall be complied with.
3. This By-law shall come into force and take effect on the day of final passing thereof.

This By-law given its FIRST and SECOND reading this _____ day of _____ 20__.

This By-law read a THIRD time and finally passed this _____ day of _____ 20__.

MAYOR

CORPORATE
SEAL OF
MUNICIPALITY

CAO\Clerk



**Corporation of The
Township of McNab / Braeside**

This is Schedule 'A' to By-law Number _____
Passed this ____ day of _____ 20__.

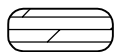
Signatures of Signing Officers

Mayor

CAO \ Clerk

Legend

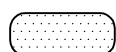
Areas affected by this Amendment:



1. Rezoning Extractive Industrial Reserve (EMR) to Extractive Industrial (EM)



2. Rezoning Extractive Industrial Reserve (EMR) to Extractive Industrial-exception One (EM-E1) (Asphalt Plant)



3. Rezoning Extractive Industrial Reserve (EMR) to Extractive Industrial Reserve-exception One (EMR-E1) (Natural Area)

--- Existing Licenced Boundary



Extractive Industrial (EM)



Rural



Environmental Protection



Agricultural



Open Space

APPENDIX F
Ministry of Natural Resources Letter

**Ministry of
Natural Resources**
31 Riverside Drive
Pembroke, ON
K8A 8R6

**Ministère des
Richesses naturelles**
Telephone: (613) 732-3661
Facsimile: (613) 732-2972



March 6, 2008

Miller Paving Limited
505 Miller Avenue,
P.O. Box 4080
Markham, ON
L3R 9R8

Attention: Tom Jones, Property Manager

Subject: Miller Braeside Quarry Expansion Application – 2nd Review for Completeness

Dear Mr. Jones:

Please be advised that the above meets with our approval. You may now proceed with Step 3 of the License Application process, Notification/Consultation/Circulation.

Please do not hesitate to contact me for any discussion on the above.

Yours truly,

A handwritten signature in black ink, appearing to read "Mike Dumouchel".

Mike Dumouchel
Aggregate Inspector
Pembroke District
613 732-5562

cc: Anne Guiot, Skelton Brumwell & Associates
93 Bell Farm Road,
Suite 107, Barrie, ON L4M 5G1

APPENDIX G
Qualifications of Author

EDUCATION

Bachelor of Environmental Studies

Honours Urban and Regional Planning
University of Waterloo, 1975

PROFESSIONAL BACKGROUND

Skelton, Brumwell & Associates Inc.

Engineering Planning Environmental Consultants
1985 to 1987, Planner
1988 to 2003, Senior Planner
2004 to present, Principal Planner

Gary Bell is responsible for land development, aggregate resources development and natural heritage project management and staff supervision; community, municipal and provincial planning and policy aspects of development projects, aggregate resources planning and development, planning surveys and special studies; Official Plan Amendments, Secondary Plans, Zoning By-Law Amendments, site and conceptual planning, Draft Plans of subdivision, public consultation, client representation and project coordination and approvals.

City of London, Planning Division 1983 - 1984

David W. Cram and Associates Limited, London 1982 - 1983

Landscape Architects and Site Planners

Jean Monteith and Associates Limited, London 1981 - 1982

Urban and Regional Planning

City of Edmonton, Planning Department 1977 - 1981

City of Barrie, Planning Department 1974 - 1975

MEMBERSHIP & ASSOCIATIONS

Member, Canadian Institute of Planners since 1981
Registered Professional Planner, Ontario Professional Planners Institute (OPPI)

MUNICIPAL PLANNING FOR AGGREGATE RESOURCES

Over twenty site specific Official Plan Amendments and Zoning By-law Amendments for aggregate development.

Grey County Aggregate Master Plan Study – Planning Report.

PUBLICATIONS

"Cumulative Effects Studies for Aggregate Development" Canadian Aggregates, November 1993.