

Index

Tab

Document

1

Planning Report, Proposed By-Law Amendment, Hidden Quarry, Stovel and Associates Inc., Sept 2012

2

Summary Statement, Proposed Hidden Quarry, Category 2 Quarry, Stovel and Associates Inc., Sept 2012

3

Agricultural Impact Assessment, Hidden Quarry, Stovel and Associates Inc., August 5, 2015

4

Hidden Quarry Site Plans Pages 1 to 5, April 2016 version.

5

Form of the zoning By-Law Amendment

6

Addendum Report April 29, 2016

7

Rob Stovel C.V.

8

Executed OMB Experts Duty Form - R Stovel

ONTARIO MUNICIPAL BOARD

Commission des affaires municipales de l'Ontario

PROCEEDING COMMENCED UNDER subsection 34(11) of the *Planning Act*, R.S.O. 1990, c. P. 13, as amended

Applicant and Appellant: James Dick Construction Limited
Subject: Application to amend Zoning By-law No. 57/1999 - Refusal or neglect of Township of Guelph/Eramosa to make a decision
Existing Zoning: Agriculture (A) and Hazard (H).
Proposed Zoning: Extractive Industrial (M3) and Hazard (H)
Purpose: To permit a quarry
Property Address/Description: Part Lot 1, Concession 6
Municipality: Guelph Eramosa
Municipality File No.: ZBA09/12
OMB Case No.: PL150494
OMB File No.: PL150494
OMB Case Name: James Dick Construction Limited v. Guelph/Eramosa (Township)

PROCEEDING COMMENCED UNDER subsection, 11(5) of the *Aggregate Resources Act*, R.S.O. 1990, c. A.8, as amended

Referred by: Jane Ireland
Objector: Shirley Allen
Objector: Ron & Debbie Brennen
Objector: John & Ann Brophy
Objector: Dennis & Laura Campbell; and others
Applicant: James Dick Construction Limited
Subject: Application for a Class A licence for the removal of aggregate
Property Address/Description: Part Lot 1, Concession 6
Municipality: Guelph Eramosa
OMB Case No.: PL150494
OMB File No.: MM150034
OMB Case Name: James Dick Construction Limited v. Guelph/Eramosa (Township)

WITNESS STATEMENT FOR ROBERT PAUL STOVEL

1. I am a registered professional planner and a professional agrologist in the Province of Ontario.
2. I received approval from the Ministry of Natural Resources and Forestry (MNRF) to prepare Class A Site Plans under the Aggregate Resources Act (ARA).
3. I have practiced as a consultant since 1988 and have extensive experience dealing with agricultural, environmental, aggregate and land use planning uses.

4. I have provided testimony before the Ontario Municipal Board and the Joint Board.
5. A copy of my experience and qualifications is appended to this Witness Statement (see Tab 6).
6. An executed Acknowledgement of Experts Duty – Ontario Municipal Board Form is appended to this Witness Statement (see Tab 7).
7. I will provide evidence related to the following: planning, agriculture, site plans, Aggregate Resources Act. My evidence will consist of a presentation and review of the following documents:

Tab No.

1	Planning Report, Proposed By-Law Amendment, Hidden Quarry, Stovel and Associates Inc., Sept 2012
2	Summary Statement, Proposed Hidden Quarry, Category 2 Quarry, Stovel and Associates Inc., Sept 2012
3	Agricultural Impact Assessment, Hidden Quarry, Stovel and Associates Inc., August 5, 2015
4	Hidden Quarry Site Plans Pages 1 to 5, April 2016 version.
5	Form of the Zoning By-Law Amendment

8. In addition, I will refer to the Ministry and Agency Review Comments and the Township of Guelph/Eramosa Peer Review Comments set out in the Document Books prepared and provided by James Dick Construction Limited.
9. I was retained in 2010 by James Dick Construction Limited to review the Hidden Quarry property and surrounding land uses and to prepare a Planning Report, Agricultural Impact Assessment and Site Plans for the proposed mineral aggregate operation. These reports and site plans and associated correspondence set out my work, findings, conclusions and opinions with respect to the proposed land use.
10. It is my opinion that the proposed mineral aggregate operation is consistent with the Provincial Policy Statement and conforms to the County of Wellington Official Plan.

11. It is my opinion that the Site Plans meet the requirements of the ARA and effectively implement the relevant Technical Recommendations.
12. It is my opinion that the proposed mineral aggregate operation, together with the Site Plans and Prescribed Conditions for Category 2 Quarries, meets the requirements of Section 12. (1) of the ARA.
13. I will provide opinion evidence with respect to the following issues:
 - CRC List: Issues #'s 3, 10, 12, 17, 18, 19, 20, 21, 22;
 - Township of Guelph-Eramosa: Issues #'s 8, 10, 14, 31, 32, 33, 37; and
 - Halton Region and Town of Halton Hills: #'s 1-6, 14, 19.

Apr. 20, 2016
Date

Robert Paul Stovel
Robert Paul Stovel

PLANNING REPORT

PROPOSED ZONING BY-LAW AMENDMENT

HIDDEN QUARRY

**PART OF LOT 6
CONCESION 1
TOWNSHIP OF GUELPH-ERAMOSA
(FORMER TOWNSHIP OF ERAMOSA)
COUNTY OF WELLINGTON**

SEPTEMBER, 2012

PREPARED FOR:

**JAMES DICK CONSTRUCTION LIMITED
P.O. Box 470
Bolton, ON
L7E 5T4**

PREPARED BY:

**STOVEL AND ASSOCIATES INC.
297 Briarhill Drive
Stratford, ON
N5A 7T1**

PHONE: 519-272-2884

EMAIL: STOVEL.ASSOCIATES@SYMPATICO.CA

1. INTRODUCTION

1.1 Description of Development

James Dick Construction Limited (JDCL) has operated a commercial aggregate and concrete business in southern Ontario since the early 1960's. The customer base for JDCL's business activities is primarily road construction projects, however JDCL also supplies private sector consumers with construction aggregate and concrete fine and coarse aggregate. In an effort to maintain reserves of high quality aggregate, JDCL purchased the subject property, located on Part of Lot 6, Concessions 1 in the Township of Guelph-Eramosa, former Township of Eramosa, County of Wellington (Map 1 – Location Map) in 1985.

JDCL has an extended history of planning-related approvals on the subject property. Since 1985 when the site was purchased by JDCL, the property was identified in the Township of Eramosa's Official Plan as an Existing Gravel Pit Operation. In 1993, when the former Township of Eramosa updated its local Official Plan, the site was identified as an Aggregate Resource area, in recognition of its future possible use as a quarry. JDCL has attempted to keep both the Township of Guelph-Eramosa and County of Wellington well-informed as to its interest in developing a quarry on the subject property.

Recently, the applicant has submitted an application for a Zoning By-law Amendment to the Township of Guelph-Eramosa to permit the use of the site as a mineral aggregate operation. An Official Plan Amendment is not required as the site is mapped as a Mineral Aggregate Area in the County of Wellington Official Plan.

The total area of the lands in question is approximately 39.4 ha, however the proposed area to be extracted is approximately 24.9 ha.

The licence sought is a Class A – Category 2 licence with extraction permitted both above and below the established water table. The proposed zoning application does not seek approval for the following land uses: Ready-mix concrete plant, asphalt plant, aggregate transfer station or a waste recycling depot.

1.2 Proposed Planning Amendments

The Hidden Quarry is designated Prime Agricultural and Core Greenlands in the County of Wellington Official Plan (1999). An Official Plan Amendment is not required to permit the establishment of a new aggregate operation on the subject property, given that the site is mapped in a recognized Mineral Aggregate Area in the County of Wellington Official Plan (Map 2).

The subject land is zoned Agricultural and Environmental Protection in the Township of Guelph-Eramosa Comprehensive Zoning By-law (Map 3). A Zoning By-law Amendment is required to permit the establishment of a new mineral aggregate operation on the subject land. The Zoning By-law Amendment will change the zone from Agricultural to Extractive Industrial.

1.3 Purpose of the Study

This report addresses the following planning matters:

- a) the impact on adjacent land uses and residents and public health and safety;
- b) the impact on the physical (including natural) environment;
- c) the capabilities for agriculture and other land uses;
- d) the impact on the transportation system;
- e) existing and potential municipal water supply resource areas;
- f) the possible effect on the water table or surface drainage patterns;
- g) the manner in which the operation will be carried out;
- h) the nature of rehabilitation work that is proposed;
- i) the effect on cultural heritage resources and other relevant matters deemed relevant by Council.

These planning issues are among the matters to be considered by Council prior to an amendment to the Zoning By-law to permit new or expanded areas for extractive purposes.

2. ADJACENT LAND USES

The subject land consists mainly of coniferous plantations/woodlands (Map 4). Two small, former pit areas are also located onsite. These lands have been colonized with wetland species and are now mapped as wetlands.

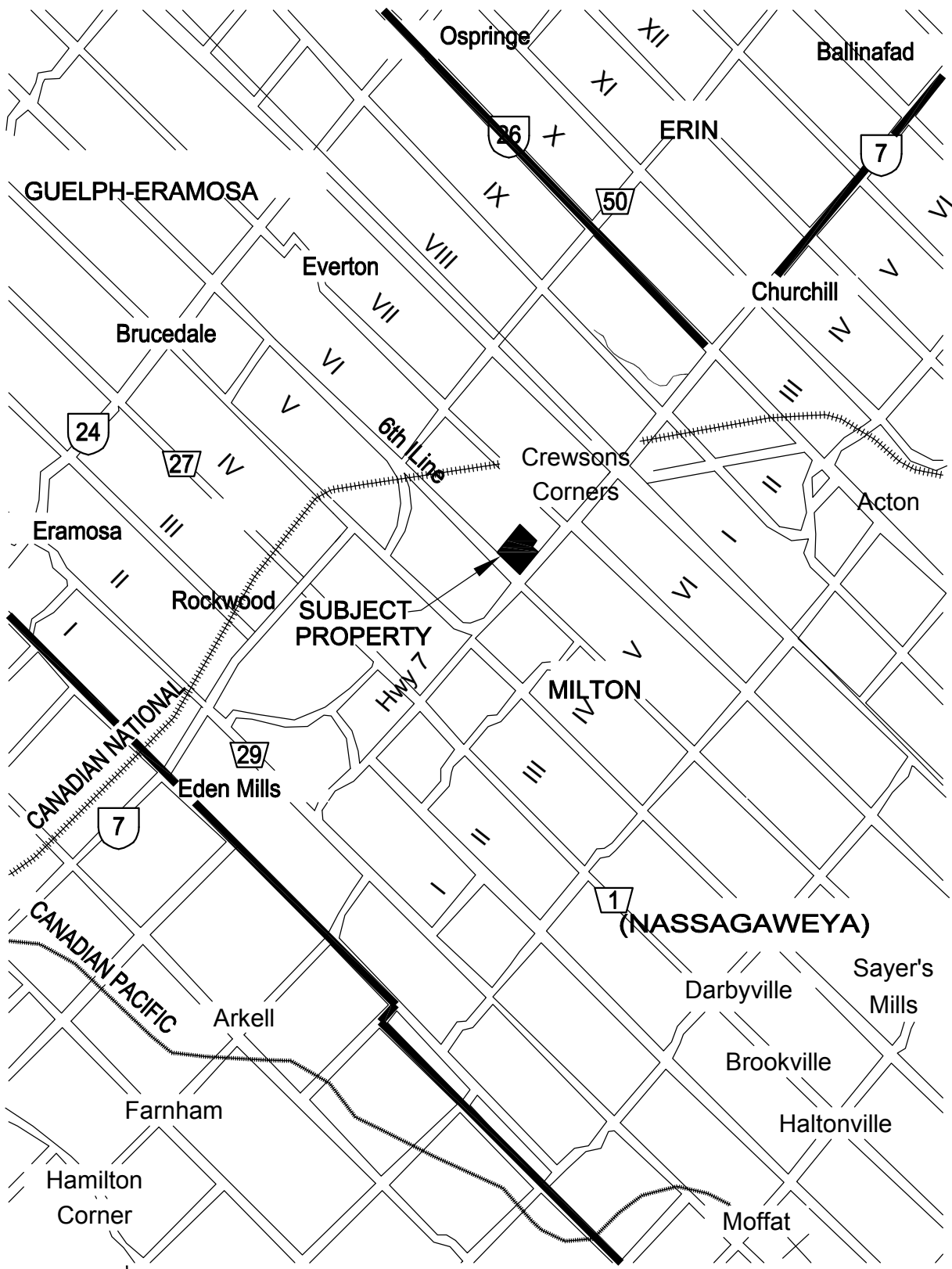
Adjacent land uses include the following:

- Farmland to the north and west,
- Scattered non-farm residences to the north, south and east,
- A recently approved industrial subdivision to the east,
- Provincial Highway 7 is located to the south, and
- Existing industrial to the south.

The closest non-farm residence not associated with the existing farm is located approximately 165 m south of the proposed area to be extracted.

2.1 Potential Social Impacts

Potential concerns associated with new mineral aggregate operations relate to the following types of issues: noise, dust, blasting and vibration, and water-related concerns. These potential impacts are addressed in the following paragraphs. Technical



NTS



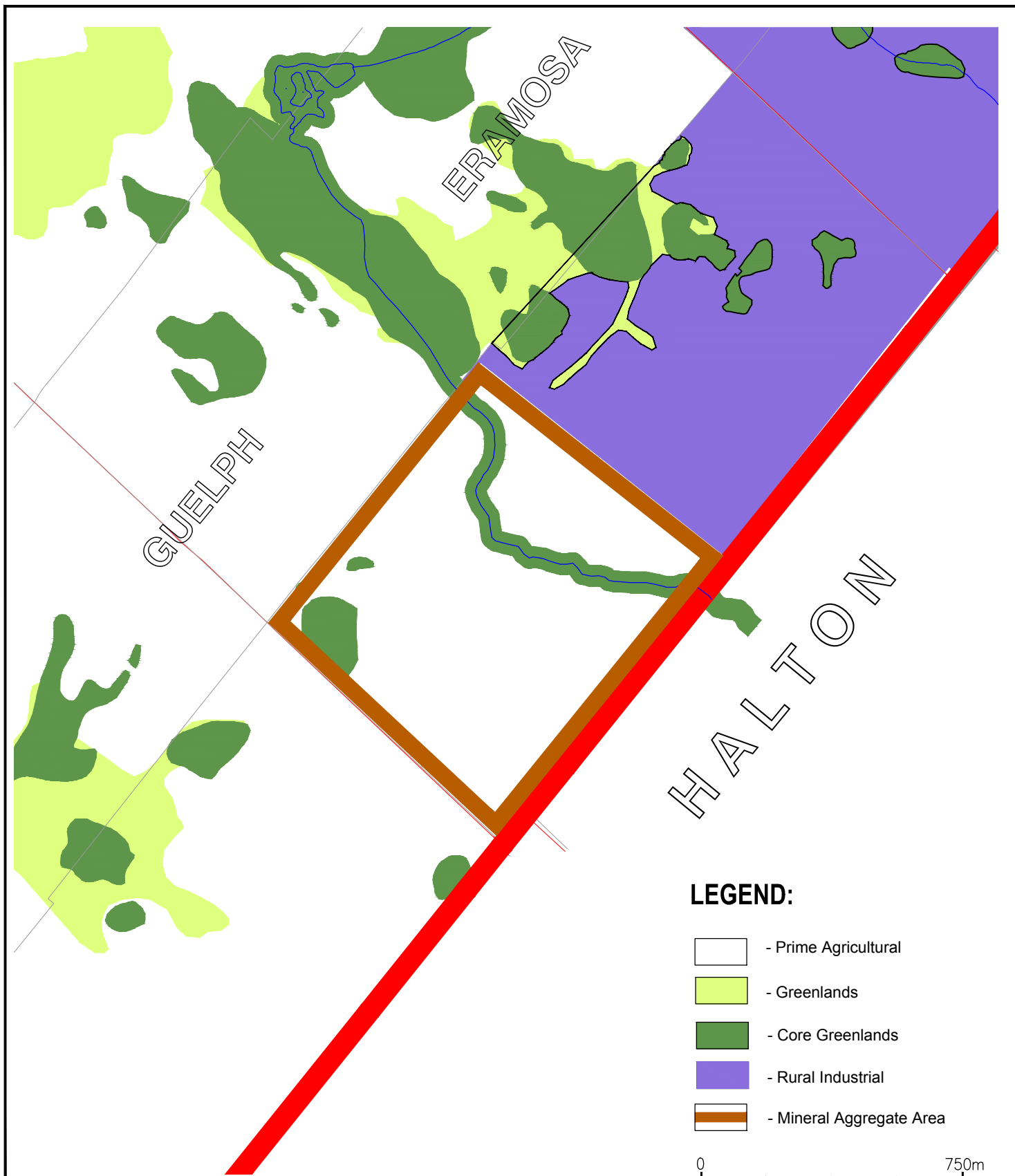
**JAMES DICK
CONSTRUCTION LTD.**

**STOVEL
and Associates Inc.**

**HIDDEN QUARRY
LOCATION OF
SUBJECT LANDS**






PART OF LOT 1, CONCESSION 6
TOWNSHIP OF GUELPH-ERAMOSHA
FORMER TOWNSHIP OF ERAMOSHA
COUNTY OF WELLINGTON

**MAP
1**



Source: County of Wellington Official Plan. Schedule A-1 Centre Wellington

LEGEND:

-  - Prime Agricultural
-  - Greenlands
-  - Core Greenlands
-  - Rural Industrial
-  - Mineral Aggregate Area

0 750m
Scale 1 : 15,000

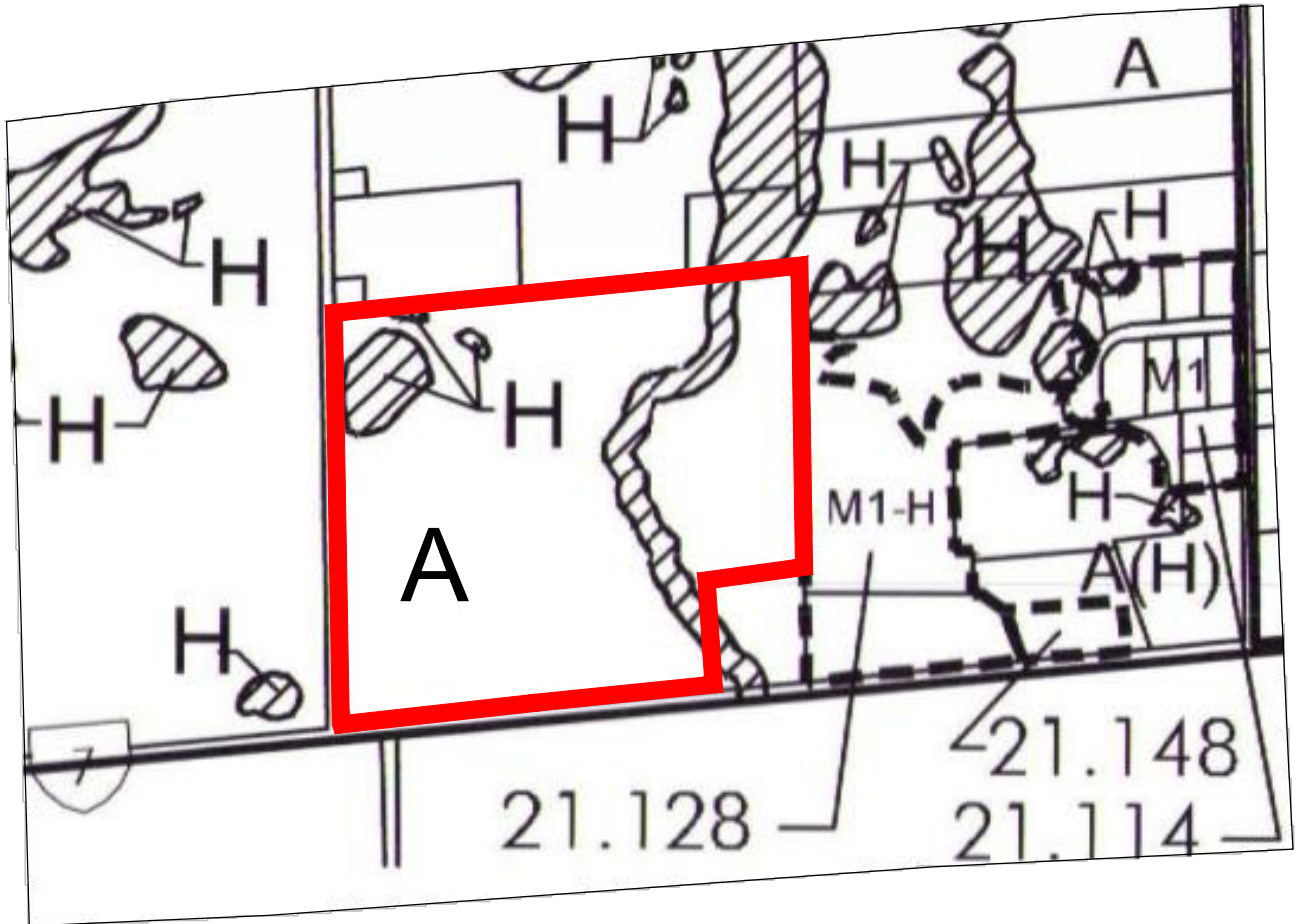
**JAMES DICK
CONSTRUCTION LTD.**

**STOVEL
and Associates Inc.**


**HIDDEN QUARRY
OFFICIAL PLAN
DESIGNATION**

PART OF LOT 1, CONCESSION 6
TOWNSHIP OF GUELPH-ERAMOSA
FORMER TOWNSHIP OF ERAMOSA
COUNTY OF WELLINGTON

MAP NO:
2



LEGEND:

- M1**
-  **H**
- A**

- RURAL INDUSTRIAL
- HAZARD LAND
- AGRICULTURAL

 BOUNDARY TO BE LICENSED

N.T.S.

<p>JAMES DICK CONSTRUCTION LTD.</p>	<p>STOVEL and Associates Inc.</p>	<p>HIDDEN QUARRY ZONING MAP</p>	<p>PART OF LOT 1, CONCESSION 6 TOWNSHIP OF GUELPH-ERAMOSA FORMER TOWNSHIP OF ERAMOSA COUNTY OF WELLINGTON</p>	<p>MAP NO: 3</p>
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W = WOODLAND
A = AGRICULTURE

FP = FLOODPLAIN

— — — — — PROPOSED LICENCE LIMITS

N.T.S.

JAMES DICK
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STOVEL
and Associates Inc.

LAND USE

HIDDEN QUARRY
PART OF LOT 1, CONCESSION 6
TOWNSHIP OF GUELPH-ERAMOSA
FORMER TOWNSHIP OF ERAMOSA
COUNTY OF WELLINGTON

MAP NO:
4

recommendations have been summarized in the following paragraphs but it is recommended that the reader review the appropriate technical reports and refer to detailed figures, appendices and technical recommendations contained within these documents.

Noise and Blasting

A Noise and Blast Impact Study for the proposed operation was completed by Aercoustics Engineering Limited (“Aercoustics”). The phasing of the proposed quarry operation was developed in consultation with Aercoustics. The mitigation measures recommended by the Aercoustics were included on the Site Plans.

There are several important considerations related to the potential for affecting the current noise environment. These considerations relate to the following:

- the existing topography and extraction face have been used as a natural noise barrier;
- a main processing area will be established in the western portion of the site. The processing plant will be enclosed by stockpiles that will have a minimum height of 10 m and 12 m;
- onsite mitigation measures, such as perimeter berming and setbacks, will be employed to ensure that noise levels do not exceed regulated limits; and
- a phased approach to extraction that will make use of the extraction face as a shield between the operation and the sensitive receptors.

In terms of operating hours, JDCL will use the following:

- Extraction and processing operations may occur between the hours of 7 am and 7 pm, Monday to Fridays and 7 am to 1 pm on Saturdays; and
- Loading and hauling operations may occur between the hours of 6 am and 6 pm, Mondays to Fridays, and 6 am to 1 pm on Saturdays;
- Drilling and Blasting will occur from 8 am to 5 pm weekdays (no drilling or blasting on weekends).

These operational protocols are addressed in the Noise and Blast Impact Study and set out on the Site Plans. Despite the times indicated, the practice at James Dick is to operate shipping from 7 am to 5 pm and production from 7 am to 5 pm. Saturday work is rarely done and then usually only in response to a government project that has certain time restrictions on it such as a highway closure only on weekends. The reader is directed to review the Noise and Blast Impact Study and the Site Plans to obtain more details on noise impacts and mitigation measures.

Blasting and Vibration

Overpressure and vibration due to quarry production blasting shall meet the specific limits outlined in MOE publication NPC-119. Provided that routine monitoring of levels is employed, the target criteria defined by this publication are 128dB Lin and 12.5mm/sec. peak for overpressure and vibration, respectively.

Recommendations

The following recommendations are provided in order to meet the applicable criteria:

- 12m and 10m high stockpiles should be maintained in certain locations around the processing plant for each phase and stage. The stockpile peaks should be located no further than 30m from the processing plant, and should be located such that, in plan, they block line-of-sight between processing plant equipment and sensitive receptors, as described in the table below:

Table 4: Recommended Stockpile Height and Position

Stockpiles Positioned to Shield Receptor	Minimum Stockpile Height (m)
R1, R15, R16, R17, R18	10
R3, R4, R5, R11, R19	12

This configuration is illustrated on Figure 3.

- A quiet drill with a maximum sound power rating of 112dBA should be used. This corresponds to a maximum sound pressure level rating of 75dBA at 30 meters.
- Earth berms should be constructed to the elevations shown and located as shown on Figure 3.
- The recommended direction of extraction is indicated on Figure 3.
- The processing plant area should be established at an elevation of 349m, and a haul route trench connecting the processing plant area to the Phase 1 extraction area should be excavated to the same 349m elevation.
- A blast design should be employed which limits the allowable weight of charge per minimum delay period. Typically the minimum delay period is in the order of 10 milliseconds and the weight of charge is designated accordingly depending on setback distance.

- All construction equipment used in site preparation/construction must meet the sound emission standards defined in MOE publication NPC-115. The relevant background information on non-stationary noise sources as well as publication NPC-115 is given in MOE Model Municipal Noise Control Bylaw, 1978 as well as the sound source exclusions defined in MOE publications NPC 205/232, 1995, included in the attached.

These recommendations have been incorporated onto the Site Plans.

Dust

Dust will be controlled through the regular application of water, on an as needed basis.

A requirement to mitigate dust-related impacts is set out in Prescribed Conditions under the Aggregate Resources Act. Prescribed Conditions are appended to the licence. The Prescribed Conditions that relate to the control of dust are as follows:

- 3.1 Dust will be mitigated on site.
- 3.2 Water or another provincially approved dust suppressant will be applied to internal haul roads and processing areas as often as required to mitigate dust.
- 3.3 Processing equipment will be equipped with dust suppressing or collection devices, where the equipment create dust and is being operated within 300 m of a sensitive receptor.

RWDI Inc. has completed an Air Quality Assessment for the proposed Hidden Quarry. The following recommendations were developed to ensure that the proposed quarry operates within acceptable limits:

1. *The quarry is limited to 12 hours of operation per day, from 7:00 am to 7:00 pm for site preparation, drilling, blasting, excavation, processing operations and rehabilitation activities, and 6:00 am to 6:00 pm for shipping operations.*
2. *The maximum processing rate of 6,000 tonnes per day is not exceeded.*
3. *Equipment-specific controls (tailpipe emission tiers, dust suppression, speed limits, etc.) listed in Appendix B of this report will be implemented;*
4. *An Environmental Compliance Approval under Section 9 of the Environmental Protection Act (EPA) will be obtained as required.*
5. *A Best Management Practices Plan will be developed and implemented.*

6. *The processing plant should be located approximately as shown on the site plans*
7. *Stripping of overburden should be limited to times when extraction, production and shipping activities are well below the estimated peak rate of 6,000 tonnes per day.*

3. NATURAL ENVIRONMENT

In accordance with Provincial Standards, a Natural Environment Report was prepared. The purpose of the Natural Environment Report was to:

“...determine whether any of the following features exist on and within 120m of the site: significant wetland, significant portions of habitat of endangered or threatened species, fish habitat, significant woodlands (south and east of the Canadian Shield), significant valley lands (south and east of the Canadian Shield), significant wildlife habitat and significant areas of natural and scientific interest.”

Subsequently, a Natural Environment Level 2 study will be required if:

“...where the Level 1 study identified any features on and within 120 m of the site ... (a natural environment Level 2 study will be required)... in order to determine any negative impacts on the natural features or ecological functions for which the area is identified, and any proposed preventative, mitigative or remedial measures.”

GWS Forestry and Ecological Services Inc. prepared a Level 2 Natural Environment Technical Report. The Natural Environment Technical Report was conducted to determine the significance of natural features that occur in the study area and assess the potential impacts associated with proposed mineral aggregate extraction. Natural features found on the property and adjacent lands include provincially significant wetlands, significant woodlands and significant wildlife habitat. The following conclusions have been reached.

- *There will be no direct or indirect impacts to on-site or off-site PSWs and their significant wildlife habitat functions.*
- *The woodlands on the subject property have not been previously identified as significant and the analysis provided herein confirms that only a small portion of the existing woodland area has attributes that could potentially warrant this designation.*
- *There will be no effects on significant wildlife habitat, including amphibian breeding areas and snapping turtle habitat. The progressive rehabilitation will enhance habitat for these species.*

- *Progressive site rehabilitation will, over time, increase biodiversity on the site through the creation of a lake, additional marsh and meadow habitat, cliff habitat and forested sideslopes. Existing ecological linkages to adjacent natural features will be maintained.*

These conclusions are based on implementation of the following recommended environmental protection and mitigation measures.

Recommendations

- *A 30m buffer will be established from the limit of the PSW provided the identified archaeological feature is cleared. If this is not the case, a hydraulic barrier will be installed approximately 20m from the PSW in this area in order to maintain buffer requirements around the archaeological feature. This is shown in Figure 4.2 of the Hydrogeological Investigation Hidden Quarry by Harden Environmental Services Ltd. A 20 to 30m buffer will be established from the banks of the intermittent stream and the edge of the locally significant wetland (MAM3-2) as shown on the Site Plans. Wetland boundaries will be flagged by GWS staff and confirmed by GRCA staff prior to staking setback limits.*
- *In the southeastern portion of the site GWS staff will flag and/or stake the dripline of trees which mark the boundary of FOM2-02 and will also assist the surveyors in staking the setback required from the existing off-site residence (i.e. minimum of 165m) which traverses portions of woodland units CUP3-12a, FOC2-2, FOD5-7 and CUP3-12d. Elsewhere on the property the surveyor must stake the required setbacks from property boundaries.*
- *Prior to the initiation of tree clearing operations trees which occur immediately beyond the specified setbacks will be marked with orange spray paint by GWS staff to further ensure there are no intrusions into tree protection areas. Trees to be removed will be marked with an orange dot at chest height and a slash of the butt which extends to the ground.*
- *Tree protection fencing will be installed around the limit of the extraction area after all tree clearing and grubbing is completed as discussed in Section 7.5 and shown the Site Plan. All protective fencing will be monitored during operations and maintained in a functional condition.*
- *To facilitate access to the eastern extraction area an appropriately sized culvert must be installed in the intermittent stream at the location shown in the Operations Plan. Culvert installation should occur in the summer months when there is no flow in the stream.*

- *Topsoil and overburden will be stripped and stored separately in bermed stockpiles as illustrated on the Operational Plan. All berms will be graded to stable slopes and seeded with a native uplands meadow mix to prevent erosion and minimize dust.*
- *Dust control will be implemented in accordance with the procedures described on the Operational Plan.*
- *Progressive rehabilitation will be implemented as specified in the Site Plans and replanting will commence as early as possible with an emphasis on the area adjacent of the PSW and northern property line (i.e. Phase 1 on the Operational Plan).*
- *All tree and shrub planting stock will be obtained from nurseries that utilize seed from the same genetic seed zone wherein the James Dick property is located.*
- *Shoreline wetlands will only be planted with native species taken from local wetlands.*

The Site Plans implement these recommendations.

4. SOIL CAPABILITY FOR AGRICULTURE

The Ministry of Agriculture, Food and Rural Affairs (correspondence dated October 1, 1997) indicates that the subject property consists of primarily 50% Class 3 and 50% Class 5 lands, with some Class 2 lands, according to the Canada Land Inventory manuscript mapping of Soil Capability for Agriculture. The Ministry noted that the subject property has been designated for a use other than agriculture and are not of provincial interest from an agricultural perspective.

5. TRANSPORTATION

Cole Engineering Limited (2012) prepared a Traffic Impact Study for the proposed quarry. As set out in the conclusions of this study, the potential for impacts related to transportation is minimal.

The annual extraction rate of the proposed quarry is set at a maximum of 700,000 tonnes per year.

The proposed quarry will use Concession Road 6 to gain access to Provincial Highway 7. The entrance will be located approximately 200 m north of the intersection of Highway 7 and Concession 6. Both the entrance and the intersection at Highway 7 provide clear sight lines. On Concession Road 6, no residences will be affected by the proposed haul route as there are no houses located along this stretch of the municipal road.

The proposed quarry will not have an impact on the County road system, as no County roads are used as part of the primary haul route.

6. WATER

A Level 1 and 2 Hydrogeological Investigation of the Proposed Hidden Quarry was prepared by Harden Environmental Services Ltd (2012). Harden provided the following conclusions for their investigations:

- 1) The proposed extraction will be conducted with conventional methods above the water table. Where the dolostone occurs below the water table, the rock will be removed by dragline after being broken by blasting. This results in a relatively minor disturbance to groundwater levels in the dolostone aquifer. The maximum predicted impact on water levels at the property boundary is 1.8 metres.
- 2) The on-site wetland is underlain by a layer of silt till. The proposed extraction will ultimately result in additional vertical movement of groundwater beneath the wetland. A hydraulic barrier will be constructed to retain water in the overburden sediments beneath the wetland, thus minimizing any impact to flora and fauna in the wetland. It is predicted that the water balance of the wetland will change by less than 4% of the present hydrologic inputs to the wetland. The groundwater level beneath the wetland naturally falls below the surface water level in the wetland, therefore. The wetland is capable of retaining water in the absence of groundwater support
- 3) There is a net increase in the water available to the wetland post-extraction. This is mainly due to the retention of water on the wetland side of the hydraulic barrier. The calculated 6 % increase in the water volume available to the wetland is not significant. An overflow culvert will be installed at an elevation of 355.8 m AMSL to ensure that the wetland is not flooded above historical high water level mark.
- 4) There will be no negative impacts to off-site wetlands. The ground surface of the Allen wetland located north of the site is at least six metres above the groundwater level measured in nearby on-site monitor TP8. There is a loss of water in Tributary B as it passes through the Allen wetland and the wetland is situated at a higher elevation than lands to the west, south and

east thereby eliminating the potential for groundwater contributions from those directions. The Allen wetland is therefore supported by direct precipitation, runoff from the property to the north (De Grandis) and interflow.

- 5) There will not be any loss of water to wetlands, ponds or streams downgradient of the site. It is predicted that water levels in the bedrock aquifer will increase downgradient of the quarry.
- 6) The measured surface water levels in the northeast wetland are 3.5 metres above the groundwater elevation measured in TP8 nearby. This wetland is not groundwater dependant and will not be affected by the proposed extractive activities.
- 7) Local residences obtain water from the dolostone aquifer. The minor disturbance to water levels in the dolostone aquifer will not significantly affect any water well with respect to quantity or quality of water available to the residence. The maximum predicted impact to the nearest water well is a drawdown of 1.6 metres. The aquifer in this area productive over a saturated thickness of more than forty metres, therefore no significant change in the yield in the nearest well, or any other well will occur.
- 8) Spring discharge on the Allen and De Grandis properties will not be affected by the proposed extraction. These springs occur in areas higher in elevation relative to the site and are sourced from permeable overburden sediments distant from the proposed quarry. Spring discharge on the Brydson Farm will not be negatively impacted by the proposed extraction.
- 9) The slow extraction process and extraction phasing will allow for monitoring to detect changes in groundwater levels in the overburden and dolostone. Should unexpected water level changes arise, mitigation measures will be implemented.
- 10) The predicted final water level in the West Quarry pond is 348.6 m AMSL and in the East Quarry Pond is 348.4 m AMSL.

Municipal water is not available to the subject property or near surrounding area. There are no potential for impacts on the existing water-related municipal services as a result of the proposed project.

The subject property is not located within a Well Head Protection Area.

The monitoring program for this proposed pit/quarry involves the following activities:

- measuring groundwater levels,
- obtain water quality samples,
- monitoring water levels in the on-site wetland and stream, and
- stream flow measurements.

Parameter	Monitoring Locations	Frequency
Groundwater Levels	M1 S/D, M2, M3, M4, M6, M13S/D, M14 S/D M, MPN1, MPN2, MPS1, MPS2, MPE1, MPE2, MPW1, MPW2, TP1, TP8, TP9	Monthly April to November, February
Groundwater Levels	M2, M3, TP1, M13 S/D M14 S/D	Weekly during first 3 months of extraction
Surface Water Levels	SW6	Monthly April to November
Surface Water Flow	SW4, SW8, SW3	Monthly April to November
Groundwater Quality	M2, M4	Annually
Surface Water Quality	West Pond, East Pond	Annually

A hydraulic barrier shall be installed along the southern and eastern portions of the wetland. The barrier will limit the outflow of groundwater downgradient of the wetland. The schematic of the hydraulic barrier is set out on the Site Plans.

A water well complaint protocol will be implemented. Details are contained in the Harden report.

7. OPERATIONS AND REHABILITATION

Extraction on the subject property will occur above and below the established water table. Standard processing methods, such as extraction by a front-end loader, processing on the floor and loading/shipping from a main processing area are included for the extraction process above the water table.

Extraction below the water table involves the drilling and blasting of dolostone resources. Once the dolostone has been broken up, the raw aggregate will be removed by an excavator or drag-line, and stockpiled in the main processing

area. In the main processing area, the aggregate will be crushed/screened to appropriate sizes, stockpiled and then loaded for transport to market. Extraction will be done at the site without the need for dewatering of the excavation area, therefore there is anticipated to be minimal impacts to the water levels at the proposed quarry.

The main mitigation measures include:

- a) the use of perimeter berming for acoustic shielding, and
- b) the use of a main processing area where the processing plant will be shielded by 10 and 12 m high stockpiles.

With regard to transport of aggregate, trucks will be loaded by a front-end loader, from stockpiles in the main processing area. Trucks will haul material onto Concession Road 6 and then to Provincial Highway 7. County roads are not part of the main haul route for this proposed mineral aggregate operation.

Extraction of the subject property should be viewed as an interim land use. Extraction will be phased thus permitting progressive rehabilitation of the subject property as soon as the operational equipment is removed.

Rehabilitation will include the following:

- The two cells that will be extracted below the water table will be rehabilitated to diverse shorelines that include wetland areas along the shoreline and deep and shallow water fish habitat.
- Tableland areas, including setback areas, will be largely reforested with native trees and shrubs.

8. CULTURAL HERITAGE

A Cultural Heritage study was completed by a qualified archaeologist, York North Archaeological Services. One significant cultural heritage feature was identified in the northwest portion of the site.

Technical recommendations of the archaeologist have been incorporated onto the Site Plan to ensure protection of the cultural heritage resources.

- *An archaeological resource area has been identified in the north-western portion of the site, as outlined on the Site Plans.*
- *The extent of the archaeological site has been buffered with a 20 m setback area. A 50 m monitoring zone has also been established around the site and around a buffer zone. Site disturbance will not be permitted within the 20 m buffer zone.*
- *Any soil disturbance within the monitoring zone will be monitored by a licensed archaeologist who is empowered to stop construction if*

there is a concern for impact to the archaeological site. The area within the 20 m buffer is a no go zone for construction crews at any time.

- *No activities within the confines of this site are allowed until after the Stage 3 archaeological assessment has been implemented to the satisfaction of the Ministry of Tourism, Culture and Sport and the report has been entered into the Ontario Registry of Reports. A partial clearance is requested and a letter from the Ministry confirming that there are no further concerns with regard to alterations to archaeological sites for the specified are of the project area namely AjHa-50 (Section 7.8.5-a-e).*
- *A Stage 3 archaeological study and removal will be required to clear this property post licensing. The buffer zone shall not be disturbed should archaeological clearance not be granted. The acoustic berm will be relocated to the east and south of the Buffer zone if clearance is not granted. The limit of extraction will also be modified in this area.*
- *Should deeply buried archaeological material be found on the property during construction activities, the Ministry of Culture shall be contacted immediately (519) 675-7742.*
- *In the event that human remains are encountered during construction, the licensee shall immediately contact bout the Ministry of Culture and the Registrar of the Cemeteries Regulations Unit of the Ministry of Consumer and Commercial Relations (416) 326-8404.*

9. ECONOMIC IMPACTS

The economic impacts of the proposed pit are considered to be positive, and include the following:

- The provision of a continuous supply of high quality aggregate resources in close proximity to the primary market;
- The employment of 18 full-time and contract workers;
- The contribution of fees and taxes to various levels of government;
- Payment of Aggregate Resources Act levies to the local municipality;
- Local contribution of \$84,000,000 over 20 years of goods and labour; and
- Additional expenditures in procuring local transportation services.

The most significant economic benefit of this proposed quarry relates to the continuous supply of essential construction materials in close proximity to the market. This proposed operation will provide high quality construction materials in proximity to the Halton and Peel Regions, as well as local Wellington County markets. Most of the material produced will be shipped to the east of this source location. Proximity to consumers (primarily associated with urban areas) reduces transportation costs. Transportation costs can account for up to 60% of the cost

of delivered aggregate. Close proximity to markets can also reduce wear and tear on infrastructure, such as bridges and roads, and it minimizes pollution. The products produced from this source will be capable of meeting the highest quality specifications for concrete and asphalt that will provide great value to the consumer considering the proximity to market.

10. PLANNING CONSIDERATIONS

The following paragraphs summarize the proposed pit applications relative conformity to the planning policy framework. The policies and plans that are considered in the following paragraphs include the Provincial Policy Statement (2005), the County of Wellington Official Plan and the Township of Guelph-Eramosa Zoning By-law.

10.1 Provincial Policy Statement

Based on a review of the policies set out in the Provincial Policy Statement (2005), it is my opinion that the proposed application is consistent with these policies. These policies are assessed in the following paragraphs.

Natural Heritage

The Level 1 and 2 Natural Environment Report indicates that the following significant natural heritage features are located on or adjacent to the subject property:

- Significant wetland,
- Significant wildlife,
- Significant woodland.

To ensure that negative impacts do not result from the proposed quarry, recommendations have been implemented on the Site Plans. These measures include, but are not limited to the following:

- Installation of a hydraulic barrier which will protect the onsite wetlands,
- Implementation of dust mitigation,
- Rehabilitation of the site to include ecological enhancement measures both for the aquatic/wetland systems and reforestation of the tableland areas.

Given these findings, it is my opinion that the proposed application is consistent with the provincial planning policies associated with the Natural Heritage features and functions.

Water

A Level 1 and 2 Hydrogeological Investigation was completed for the subject property. A hydraulic barrier will be installed in the northwestern portion of the

site to protect the adjacent wetland. In addition, monitoring measures and contingency plans were set out to ensure that the proposed quarry would not result in an impact on the adjacent natural heritage features.

Mineral Aggregate Resources

The main provincial policies related to Mineral Aggregate Resources are as follows:

- 2.5.1 *Mineral aggregate resources shall be protected for long-term use.*
- 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. 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.*
- 2.5.2.2 *Extraction shall be undertaken in a manner which minimizes social and environmental impacts.*
- 2.5.2.3 *The conservation of mineral aggregate resources should be promoted by making provision for the recovery of these resources, wherever feasible.*
- 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.*
- 2.5.4.1 *In prime agricultural areas, on prime agricultural land, extraction of mineral aggregate resources is permitted as an interim use provide 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 subject property is located within **Selected Bedrock Resource Area 5**, as set out in the County of Wellington Aggregate Resources Inventory Paper. Selected Bedrock Resource Area 5 covers an area of the Amabel Formation that is located at the southern boundary of Eramosa Township and extends into Erin Township. The sediments that overlie the bedrock are ice-contact stratified sand and gravel which have been designated as a selected sand and gravel resource area of primary significance.

Bedrock Resource Area 5 is well situated with respect to road (Highway 7) and rail transport routes and, for the most part, is sparsely populated. Consequently, it may be well suited for large-scale extractive development.

The Site Plans for proposed pit have been prepared based on the results and recommendations of technical studies (i.e. Noise, Environmental, and Hydrogeological Studies) to ensure that social and environmental effects are

minimized. In addition, considerations relating to rehabilitation have been considered in the preparation of the Site Plans. Progressive and Final Rehabilitation measures have been set out to ensure that ecological enhancements are incorporated on the Site Plans.

Full agricultural restoration is not required as the subject property is not comprised primarily of good quality, i.e. Class 1-3 soils, and the lands have already been removed from agricultural use, as per correspondence from the Ontario Ministry of Agriculture, Food and Rural Affairs.

It is my opinion that the approval of the proposed pit satisfies these policies, thus providing for as much of the mineral aggregate resource as is realistically possible as close to the market as possible.

Archaeology

As previously noted, a Level 2 Cultural Heritage Study was completed for the subject property. A significant archaeological resource was found in the north-western portion of the lands in question. Mitigation measures recommended in the study were implemented on the Site Plans.

Based on the results of this study, it is my opinion that the proposed application is consistent with this provincial planning policy.

10.2 County of Wellington Official Plan

The subject land is designated “Prime Agricultural” and is shown as a Mineral Aggregate Area” overlay in the County of Wellington Official Plan. An Official Plan Amendment is not required to permit the establishment of a new aggregate operation in the Mineral Aggregate Area.

Section 6.6.5 of the Official Plan sets out a series of tests for the zoning of new mineral aggregate operations. This section reads as follows:

“...New aggregate operations may be established within the Mineral Aggregate Area subject to the appropriate re-zoning and licensing. New operations proposed outside of this area shall require an amendment to this Plan. In considering proposals to establish new aggregate operations, the following matters will be considered:

- a) the impact of the adjacent land uses and residents and public health and safety;*
- b) the impact on the physical (including natural) environment;*
- c) the capabilities for agricultural and other land uses;*
- d) the impact on the transportation system;*
- e) the impact on any existing or potential municipal water supply resource areas;*

- f) *the possible effect on the water table or surface drainage pattern;*
- g) *the manner in which the operation will be carried out;*
- h) *the nature of rehabilitation work that is proposed; and*
- i) *the effect on cultural heritage resources and other matters deemed relevant by Council.*

It is essential that extraction be carried out with as little social and environmental cost as practicable. Provincial standards, guidelines and regulations will be used to assist in minimizing impacts.”

These matters were discussed in preceding sections of this Planning Report. It is my opinion that the proposed application is consistent with these planning policies.

10.3 Township of Guelph-Eramosa Zoning By-law

The approval of the proposed quarry will require a site-specific amendment to the Township of Guelph-Eramosa Zoning By-law. The zoning amendment would result in the re-zoning of the lands in question from “Agriculture” to “Extractive Industrial”.

11. SUMMARY AND CONCLUSIONS

James Dick Construction Limited proposes to establish a mineral aggregate operation in the Township of Guelph-Eramosa (former Township of Eramosa). The site is referred to as the Hidden Quarry. A Zoning By-law Amendment is required to permit this land use. An Official Plan Amendment is not required as the site has already been mapped as part of the Mineral Aggregate Area overlay in the County of Wellington Official Plan.

This Planning Report summarizes the key issues associated with the proposed application. Based on the findings of this report, it is my opinion that the proposed application is consistent with the planning policies set out in the Provincial Policy Statement and the County of Wellington Official Plan. The approval of this application will ensure that valuable mineral aggregate resources are utilized, not sterilized.

Technical reports have been prepared to address impacts related to the following:

- noise,
- dust,
- blasting and vibration,
- traffic,
- ecology,
- cultural heritage, and

- water-related concerns.

The Site Plans incorporate the recommendations of the various technical reports. Based on the findings and recommendations of these technical reports, it is concluded that the proposed quarry application will be undertaken in a manner that minimizes social impacts and environmental impacts.

In conclusion, it is my opinion that the proposed pit application represents good planning and is consistent with the planning principles set out in the Provincial Policy Statement, 2005 and the County of Wellington Official Plan. The mitigation measures / technical recommendations set out on the Site Plans, coupled with the Prescribed Conditions of the Class A Licence – Category 2, adequately protect environmental resources and ensure that potential social impacts are minimized.

SUMMARY STATEMENT

PROPOSED HIDDEN QUARRY

**CATEGORY 2 QUARRY
(CLASS 'A' QUARRY BELOW WATER)**

**PART OF LOT 6
CONCESSION 1
FORMER TOWNSHIP OF ERAMOSA
TOWNSHIP OF GUELPH-ERAMOSA
COUNTY OF WELLINGTON**

SEPTEMBER, 2012

PREPARED FOR:

**JAMES DICK CONSTRUCTION LIMITED
Box 470, Bolton ON
L7E 5T4**

INTRODUCTION

This Summary Statement is prepared in support of a Category 2 Quarry licence application (Class A Quarry – Extraction Below the Water Table), as required under the Provincial Standards of the Aggregate Resources Act (ARA).

The site is located on Part of Lot 6, Concession 1, Township of Guelph-Eramosa (Eramosa), County of Wellington. Map 1 shows the location of the subject land.

The total area to be licensed is approximately 39.4 ha. The proposed area to be extracted is approximately 24.8 ha.

The total annual volume of material that the applicant has applied for is 700,000 tonnes per year.

After extraction, the subject land will be rehabilitated to an ecological end use, including two ponds and reforested areas.

PLANNING AND LAND USE CONSIDERATIONS

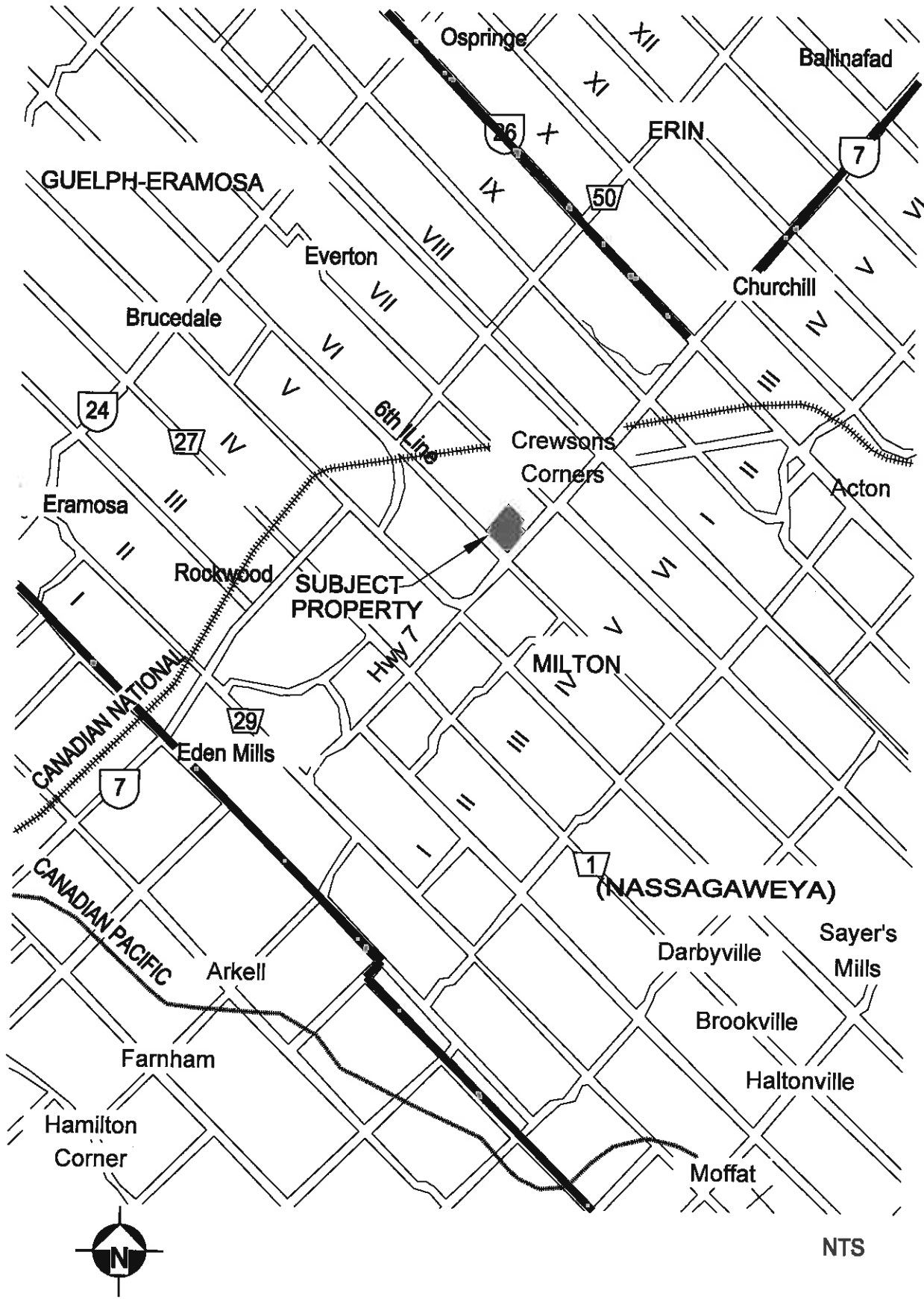
The site is comprised mainly of a coniferous plantation. There are two former gravel pits on the property. Immediately north of the property is a small rural, non-farm residence. An industrial subdivision is located immediately east of the subject property.

Land uses surrounding the site include:

- Active agricultural land,
- Active agricultural operations,
- Rural non-farm residences,
- Rural industrial lands, and
- Small woodlands, wetlands and an un-named creek.

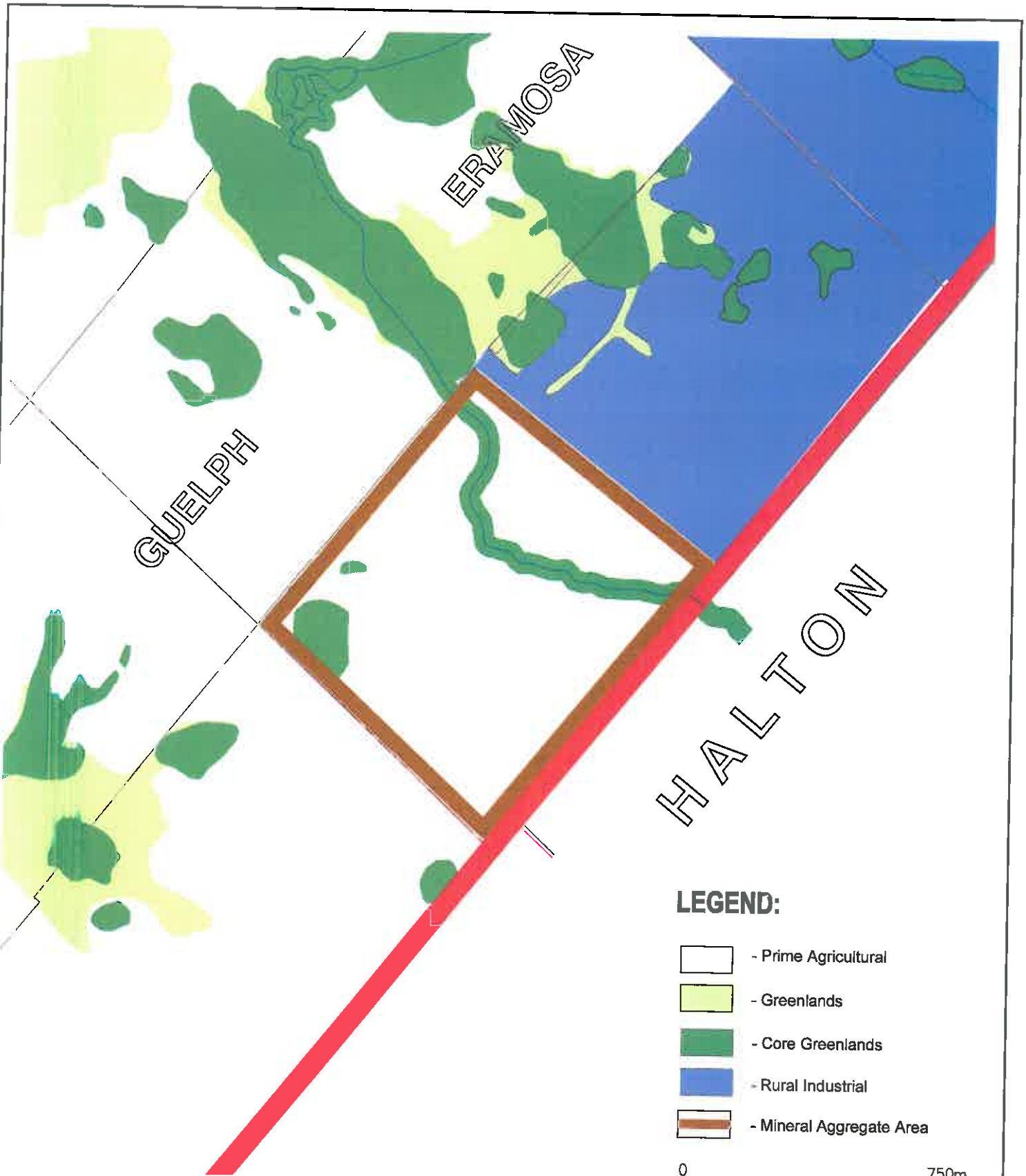
The subject property is designated Prime Agricultural and Core Greenland in the County of Wellington Official Plan. The subject lands are mapped as part of a Mineral Aggregate Area in the County Official Plan (Map 2). An Official Plan Amendment is not required to permit the operation of a mineral aggregate operation, given that the site is included in the County mapping as a Mineral Aggregate Area.

The site is zoned Agricultural and Environmental Protection (Map 3). The Environmental Protection lands relate to the creek and wetland areas associated with the site. A Zoning By-law Amendment is required to permit the establishment of this mineral aggregate operation.








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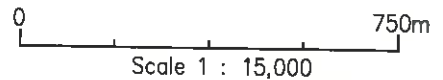
<p>JAMES DICK CONSTRUCTION LTD.</p>	<p>STOVEL and Associates Inc.</p>	<p>HIDDEN QUARRY LOCATION OF SUBJECT LANDS</p>	<p>PART OF LOT 1, CONCESSION 6 TOWNSHIP OF GUELPH-ERAMOSA FORMER TOWNSHIP OF ERAMOSA COUNTY OF WELLINGTON</p>	<p>MAP 1</p>
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Source: County of Wellington Official Plan. Schedule A-1 Centre Wellington

LEGEND:

-  - Prime Agricultural
-  - Greenlands
-  - Core Greenlands
-  - Rural Industrial
-  - Mineral Aggregate Area



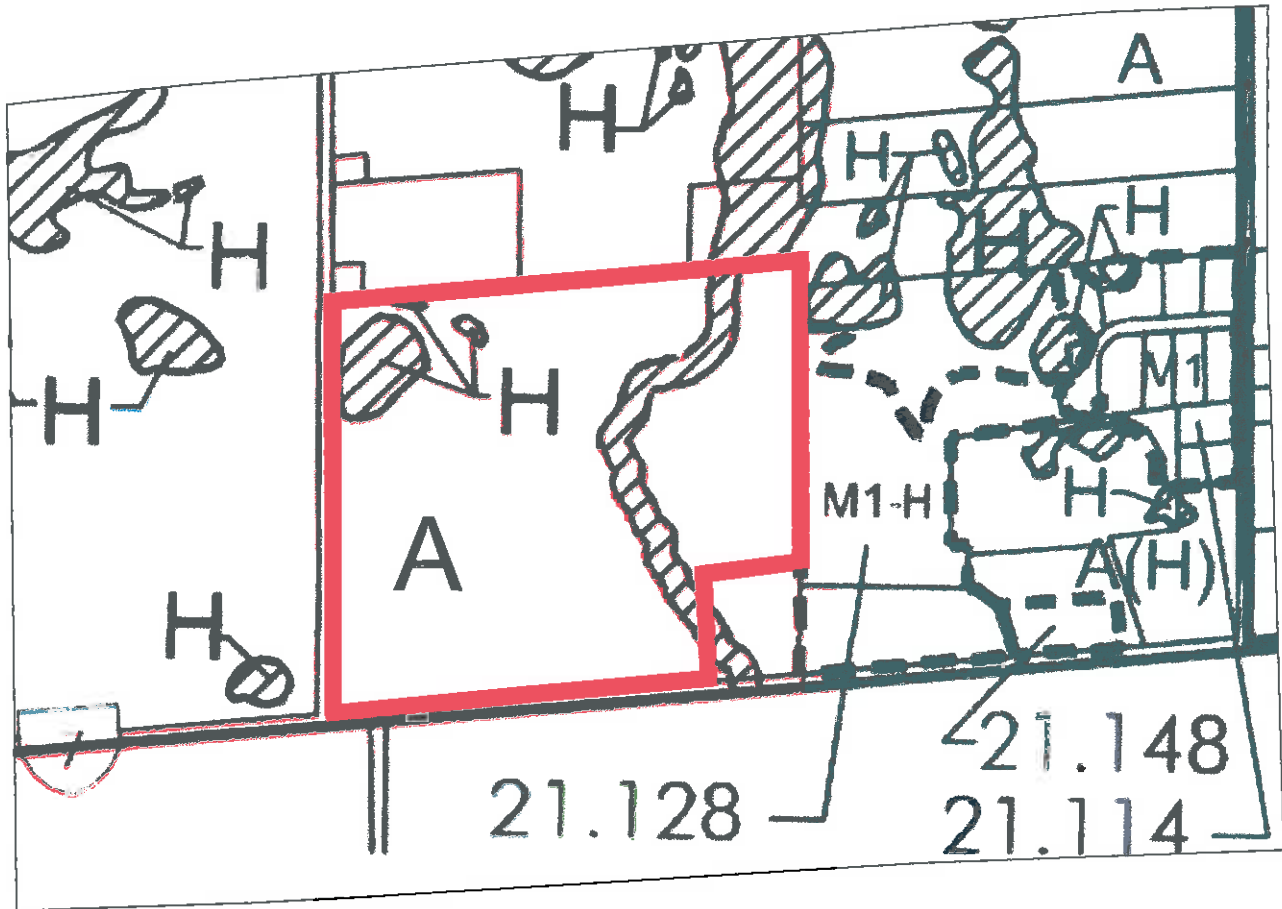
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**STOVEL
and Associates Inc.**


**HIDDEN QUARRY
OFFICIAL PLAN
DESIGNATION**

**PART OF LOT 1, CONCESSION 6
TOWNSHIP OF GUELPH-ERAMOSA
FORMER TOWNSHIP OF ERAMOSA
COUNTY OF WELLINGTON**

**MAP NO:
2**



LEGEND:

- M1** RURAL INDUSTRIAL
-  **H** HAZARD LAND
- A** AGRICULTURAL

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HIDDEN QUARRY
ZONING MAP

PART OF LOT 1, CONCESSION 6
TOWNSHIP OF GUELPH-ERAMOSA
FORMER TOWNSHIP OF ERAMOSA
COUNTY OF WELLINGTON

MAP NO:
3

Extraction of aggregate resources will allow for the utilization of provincially significant mineral aggregate resources. This is in keeping with the principles of the Provincial Policy Statement and the policies of the County of Wellington Official Plan.

AGRICULTURAL CLASSIFICATION

The subject property consists of primarily 50% Class 3 and 50% Class 5 lands, with some small inclusions of Class 2 lands, according to the Canada Land Inventory manuscript mapping of Soil Capability for Agriculture. The Ministry of Agriculture, Food and Rural Affairs (correspondence dated October 1, 1997) noted that the subject property has been designated for a use other than agriculture and are not of provincial interest from an agricultural perspective.

QUALITY AND QUANTITY OF AGGREGATE

The overburden at this site contains ice-contact stratified sand and gravel which has been designated as a selected sand and gravel resource area of primary significance. There are two areas on site that were historically used for some sand and gravel supply.

Information from the Ontario Geological Survey indicates that the subject land is mapped as part of the Amabel formation. The dolostone bedrock is recognized as a provincially significant resource.

A series of test wells were completed on the subject property. The overall thickness of this deposit is 43.7 m. It is proposed to excavate the dolostone to approximately 30 m in depth. The bedrock lies mostly below the water table, except for a few meters.

Based on the onsite testing program, it is estimated that approximately 12 million tonnes of aggregate are available for extraction, including 10 million tonnes of dolostone and 2 million tonnes of sand and gravel.

The quality of both the sand and gravel and the dolostone resources are suitable for high end uses in hot-mix asphalt paving and Portland cement concrete products in addition to other construction-related uses.

MAIN HAULAGE ROUTES

The Hidden Quarry will utilize 6th Concession Road via a proposed entrance to be approved by the Township as a haul route. This road is a fully maintained municipal road that accesses Provincial Highway 7. Highway 7 will be used to access urban areas of the western GTA, mainly Halton and Peel Regions.

This is expected to reduce the existing traffic currently transporting aggregate east through the town of Rockwood from sources further west of the town.

PROPOSED PROGRESSIVE AND FINAL REHABILITATION

Aggregate extraction of these lands should be viewed as an interim land use giving way to a diverse ecosystem as a final land use. The proposed plan will result in the creation of two ponds. The shoreline of the ponds will be diversified to create shoals, wetlands, and aquatic habitat. The tableland areas will be reforested with native trees and shrubs.

Progressive rehabilitation of the site will be undertaken over the course of three phases of operations. Gravel and bedrock extraction may occur simultaneously in a phased sequence of progressive creation of wetlands and re-vegetation of the slopes and tablelands following the extraction through the phasing. Tree planting will begin in peripheral portions of the site.

Topsoil and subsoil originating on the site will be used for rehabilitation purposes. The licensee will take proper efforts to minimize the mixing of soils during the stripping activities on the site. Once the overburden and soil have been replaced on the tableland areas, the rehabilitated area will be seeded with an appropriate seed mixture that is compatible with the soil conditions.

SURFACE WATER

There are three existing surface water features located within the proposed area to be licensed; two of these water features are small, isolated wetlands that have been created in the former pit excavations and the third is a small, intermittent watercourse located in the eastern portion of the site. These surface water features are not located within the proposed extraction area.

No water diversions or points of discharge to surface water offsite are proposed as a result of the extraction of aggregate. Extraction of aggregate below the water table will occur without dewatering thus there will be no related surface water discharge. Rehabilitation of the site will be to an ecological after-use. Post extraction surface drainage will drain internally into the two ponds.

A certain amount of water will be used in the production process. The water will be obtained from a small pond in the processing area and returned back into the larger permanent ponds. A water-taking permit will be obtained if required, depending on the amount of water to be used in processing.

A monitoring program for surface water levels, flows and quality is proposed in the hydrogeological report prepared by Harden Environmental.

DETERMINATION OF ESTABLISHED GROUNDWATER TABLE

Information on the depth of extraction and water table elevation is provided in a detailed hydrogeological report prepared by Harden Environmental (Professional Engineer). The final elevation of the water table within the two quarry ponds will be in the range of 349.4 to 349.6 mAMSL. The Site Plans have been prepared based on this information. The Harden report proposes a monitoring program for groundwater levels, flows and quality

This report was prepared by Robert P. Stovel, September 29, 2012.

AGRICULTURAL IMPACT ASSESSMENT PROPOSED HIDDEN QUARRY



HIGHWAY 7

DATE: FEBRUARY 3, 2015
REVISED: AUGUST 5, 2015

Rob Stovel

JAMES DICK
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STOVEL
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PART OF LOT 1, CONCESSION 6
TOWNSHIP OF GUELPH-ERAMOSIA
FORMER TOWNSHIP OF ERAMOSIA
COUNTY OF WELLINGTON

1. INTRODUCTION

1.1 Description of Development

James Dick Construction Limited (JDCL) has operated a commercial aggregate and concrete business in southern Ontario since the early 1960's. The customer base for JDCL's business activities is primarily road construction projects, however JDCL also supplies private sector consumers with construction aggregate and concrete fine and coarse aggregate. In an effort to maintain reserves of high quality aggregate, JDCL purchased the subject property, located on Part of Lot 1, Concession 6 in the Township of Guelph/Eramosa, former Township of Eramosa, County of Wellington (Map 1 – Location Map) in 1989.

JDCL has an extended history of planning related approvals on the subject property. Since 1989 when the site was purchased by JDCL, the property was identified in the Township of Eramosa's Official Plan as an Existing Gravel Pit Operation and designated as Rural Industrial. Surficial aggregate deposits were extracted on the subject property and two aggregate stockpiles still remain on the site. In 1993, when the former Township of Eramosa updated its local Official Plan, the site was identified as an Aggregate Resource area, in recognition of its future possible use as a pit and quarry. JDCL has kept both the Township of Guelph/Eramosa and County of Wellington informed as to its interest in developing a mineral aggregate operation on the subject property.

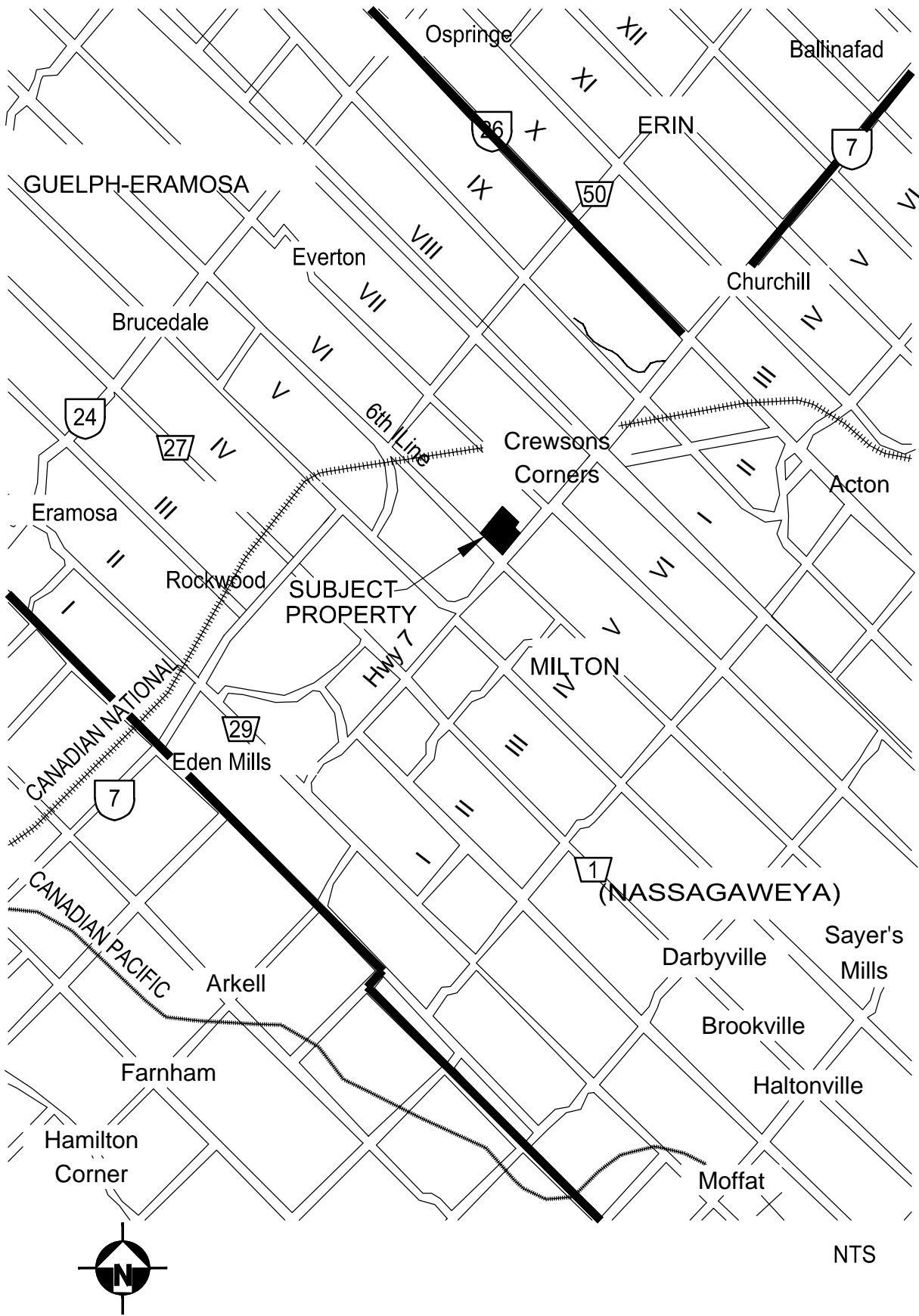
Recently, JDCL has submitted an application for a Zoning By-law Amendment to the Township of Guelph/Eramosa to permit the use of the site as a mineral aggregate operation. An Official Plan Amendment is not required as the site is mapped as a Mineral Aggregate Area in the County of Wellington Official Plan.

The total area of the lands in question is approximately 39.4 ha, however the proposed area to be extracted is approximately 24.9 ha.

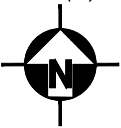
1.2 Proposed Planning Amendments

The Hidden Quarry is designated Prime Agricultural and Core Greenlands in the County of Wellington Official Plan (1999). An Official Plan Amendment is not required to permit the establishment of a new aggregate operation on the subject property, given that the site is mapped in a recognized Mineral Aggregate Area in the County of Wellington Official Plan.

The subject land is zoned Agricultural and Environmental Protection in the Township of Guelph-Eramosa Comprehensive Zoning By-law. A Zoning By-law Amendment is required to permit the establishment of a new mineral aggregate operation on the subject land. The Zoning By-law Amendment will change the zone from Agricultural to Extractive Industrial.



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**HIDDEN QUARRY
LOCATION OF
SUBJECT LANDS**

PART OF LOT 1, CONCESSION 6
TOWNSHIP OF GUELPH-ERAMOSA
FORMER TOWNSHIP OF ERAMOSA
COUNTY OF WELLINGTON

MAP
1

1.3 Purpose of the Study

The County of Wellington Official Plan provides the following direction with respect to Agricultural Impact Assessments.

Where development is proposed in prime or secondary agricultural areas, a Council may require an assessment of the impacts the development may have on agricultural activities in the area. An assessment may include any or all of the following:

- a) the opportunity to use lands of lower agricultural potential;*
- b) compliance with the minimum distance separation formula for livestock operations;*
- c) the degree to which agricultural expansion may be constrained;*
- d) potential interference with normal agricultural activities and practices;*
- e) potential interference with the movement of agricultural machinery on roads;*
- f) such other concerns as a Council may consider relevant.*

(Taken from: Wellington County Official Plan, May 6, 1999 (Last Revision December 5, 2014).

2. STUDY METHODS AND INFORMATION SOURCES

The study methodology used to complete this Agricultural Impact Assessment is comprised of the following study activities:

- collect and review relevant background information (e.g. correspondence from OMAFRA, soil maps, aerial photography, official plan land use schedule and zoning by-law land use schedule);
- complete an agricultural land use inventory of the study area;
- inventory agricultural operations in the study area;
- review the Operations and Rehabilitation Plan for the proposed quarry;
- assess the potential for impacts on the agricultural resources in the study area based on an evaluation of quarry impact reports – blasting, vibration, noise, dust, traffic and hydrogeology;
- consider the need for mitigation protocol and monitoring programs to protect agricultural resources;
- comparatively evaluate the proposed quarry application in terms of planning policies related to the protection of agricultural resources.

2.1 Background Information Sources

The following background information was reviewed as part of this study:

- Provincial Policy Statement, 2014;
- The Canadian System of Soil Classification;
- County of Wellington Official Plan, 1999;

- Minimum Distance Separation (MDS) Formulae Implementation Guidelines;
- Official Plan for the Township of Eramosa, 1985;
- 2010 Aerial Photography;
- Historic Aerial Photography from Harden Environment, Appendix I;
- Soil Survey of Wellington County;
- 1:50,000 Map – Canada Land Inventory – Soil Capability for Agriculture;
- Soil Survey Map of the subject property (Ecological Services for Planning Ltd. 1997);
- Ontario Geological Survey (OGS) - Aggregate Resources Inventory Papers: Wellington County and Eramosa Township;
- The Physiography of Southern Ontario;
- Class A Site Plans – Hidden Quarry; and
- Correspondence with Township of Guelph/Eramosa and Ministry of Agriculture, Food and Rural Affairs ('OMAFRA').

2.2 Soil Survey

A detailed soil survey of the subject property was completed by Ecological Services for Planning Limited (ESP) in 1997. Soil conditions on the subject lands were assessed using a hand held Dutch Soil Auger, to a minimum depth of 1 m or to refusal due to bedrock or stone obstruction.

Each soil profile was examined to assess inherent soil characteristics. Soil attributes were correlated with Canadian System of classification and the Field Manual for Describing Soils in Ontario. A hand held clinometer was used to assess percent slope characteristics. Slopes were also assessed based on detailed 1 m contour interval mapping for the subject property. Soils were assigned to a soil map unit (series) based on soil texture (hand texturing assessment), soil drainage class and topography (position and slope). Names for the soil series were taken from the Wellington County Soil Survey. Canada Land Inventory (CLI) ratings were assigned to each soil polygon by correlating the soil series with the CLI information presented on the 1:50,000 scale CLI – Soil Capability for Agriculture map.

2.3 Identification of Land Uses

Land uses on the site were identified through an examination of aerial photography and confirmed by onsite surveys.

Agricultural and non-agricultural land uses on the adjacent properties within the study area were identified through the completion of a reconnaissance-level road-side survey (October 2014 and January 09, 2015). This information was supplemented with aerial photography and land use mapping contained within Ontario Base Mapping, and land use schedules set out in the County of Wellington Official Plan and the Township of Guelph/Eramosa Zoning By-law. Agricultural and non-agricultural land uses were noted.

Cropping patterns were identified as part of the agricultural land use survey. Emphasis was placed on identifying specialty crops. Common field crop systems were noted and include such crops as corn, grain, and soy beans. Forage and pasture lands were also noted.

The study area was defined by the applicant, in conjunction with staff from the Township of Guelph/Eramosa (Email Correspondence from G. Sweetnam to L. Howson, September 03, 12 and 15, 2014).

2.4 Minimum Distance Separation (MDS)

As per direction from the Ontario Ministry of Agriculture, Food and Rural Affairs (“OMAFRA”), MDS provisions do not apply to mushroom farms and mineral aggregate resources. This was reinforced by OMAFRA during the 2015 review of MDS when they stated in the summary of key changes to MDS Formulae and Implementation Guidelines that: “...MDS does not apply to extraction of minerals, aggregate and petroleum resources, infrastructure and landfills”. MDS 2 provisions are not impacted negatively by the presence of an adjacent mineral aggregate operation. The potential for agricultural expansion on adjacent agricultural operations will not be affected by the approval of the proposed mineral aggregate operation.

3. MINERAL AGGREGATE RESOURCES ON THE SUBJECT PROPERTY

The subject property is located within an ice-contact stratified drift deposit that forms part of the Paris Moraine. The area has been identified as Selected Sand and Gravel Resource Area 31 and mapped as part of the Mineral Aggregate Area within the County of Wellington Official Plan.

Extraction has occurred at the site in the past. Three former extraction areas have been identified. The 1985 Official Plan for the Township of Eramsoa illustrates the subject property to be an active gravel pit. In the northwestern corner of the site, two existing stockpiles remain.

“Selected Bedrock Resource Area 5 covers an area of the Amabel Formation that is located at the southern boundary of Eramosa Township and extends into Erin Township. The limit of resource area 6 is defined by the 8 m drift thickness contour. The sediments that overlie the bedrock are ice-contact stratified sand and gravel which have been designated as a selected sand and gravel resource area of primary significance. The combined resource potential of this area makes it attractive for resource protection. Bedrock resource area 5 occupies a total of 1054 ha of which 918 ha are available for extraction. Assuming a workable thickness of 18 m the crushed stone resources possibly available for extraction are 440 million tonnes.

Bedrock Resource Area 5 is well situated with respect to road (Highway 7) and rail transport routes and, for the most part, is sparsely populated. Consequently,

it may be well suited for large-scale extractive development” (OGS, 32).

The subject property is unique in that it contains significant mineral aggregate reserves of consolidated bedrock deposit overlain by sand and gravel deposits. The proposed extraction contains approximately 12 million tonnes of the highest quality aggregate in Southern Ontario. Approximately 70% of the onsite aggregate resource is located below the established water table.

4. DESCRIPTION OF AGRICULTURAL RESOURCES

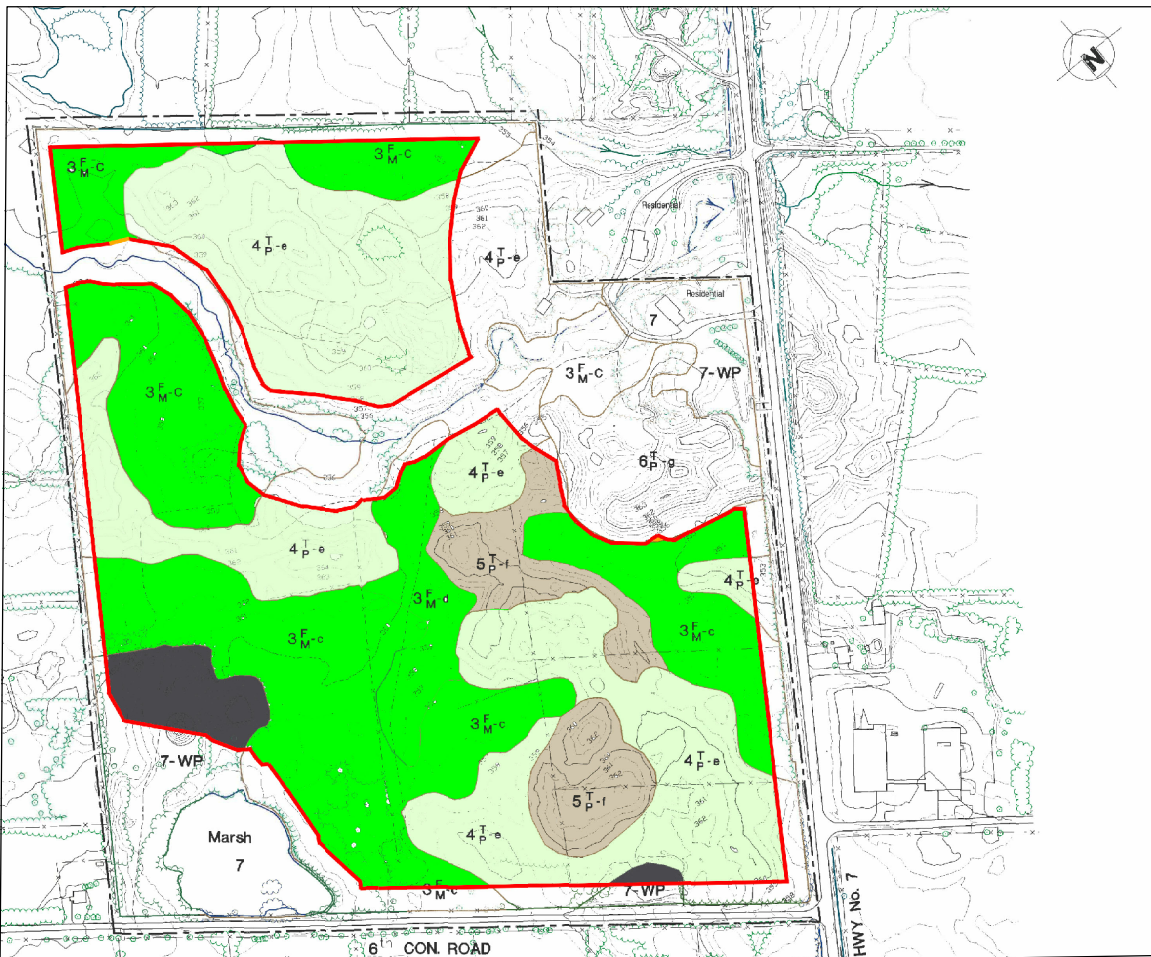
4.1 Soils and Soil Capability for Agriculture

According to the Wellington County Soil Survey (Hoffman and Matthews, 1963) the site is entirely characterized by the Dumfries soil type that is derived from stony calcareous sandy loam till. A typical soil profile exhibits about 30 cm of loam topsoil (A horizon) over 30 cm of clay loam subsoil (B horizon) over parent material (C horizon). Since the porous Dumfries soils occur on irregular, moderately sloping land they are well drained, except in poorly drained potholes that contain surface water during most or all of the growing season. These potholes cannot be easily drained and hence they do not represent arable land. Soil erosion is common on most cultivated slopes. Stones and boulders are abundant on the surface and throughout the soil mass. Consequently, annual stone picking is often required in cultivated fields and the presence of stone pile and fence lines on the subject property confirms this stoniness limitation to agricultural use. All of the land surrounding the site is also characterized by Dumfries soils, except for the lowland forest to the northwest where poorly drained muck and Parkhill loam soils predominate (ESP, 1997).

The 1:50,000 Canada Land Inventory (CLI) mapping of soil capability for agriculture identifies the site as 50% Class 3 soils and 50% Class 5 soils. Where the slopes are less severe the soil is rated as a Capability 3 with low fertility (F) and droughtiness (M) being the major subclass limitations to agricultural production. The Class 5 land is characterized by adverse topography (T) and surface stoniness (P) that impedes tillage, planting and harvesting.

Correspondence from OMAFRA (Carol Neumann, October 1, 1997 to James Parkin) sets out the following direction with respect to the subject property:

“Lot 1, Concession 6, Eramosa Township, Wellington County – The subject property consists of primarily 50% Class 3 and 50% Class 5 lands, with some Class 2 lands, according to the Canada Land Inventory at a scale of 1:50,000. As stated in your letter these lands are designated Rural Industrial. These lands have been designated for a use other than agriculture and are not of provincial interest from an agricultural perspective. The policies of the local plans would apply with respect to rehabilitation.”



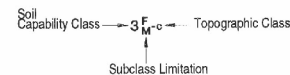
SOURCE: ECOLOGICAL SERVICES GROUP, 1997

Legend

- Study Area Boundary
- Soil Capability Boundary
- Forest Edge
- Trail
- Permanent Stream
- Intermittent Stream
- Fenceline
- Contour Line (1.0m Interval)
- 399
- WP
- Old Wayside Sand and Gravel Pit

- APPROXIMATE LIMITS OF EXTRACTION

**Agricultural Soil Capability
Map Convention**



Soil Capability Subclass Limitations

- F - Low Fertility
- M - Low Moisture Holding Capacity (Droughtiness)
- P - Surface Stoniness
- T - Adverse Topography

Topographic Classes

Capability Classes	Simple Slopes	%	Complex Slopes	%
1	A,B,C	0-5	a,b	0-2
2T	D	6-9	c	2-5
3T	E	10-15	d	6-9
4T			e	10-15
5T	F	16-30	f	16-30
6T	G	31-60	g	31-60
7T	H	60+	h	60+

SCALE



Metres

**PROJECT NAME: HIDDEN QUARRY
AGRICULTURAL IMPACT ASSESSMENT**

**PREPARED FOR:
JAMES DICK CONSTRUCTION LIMITE**

**MAP 2 : CLI - SOIL CAPABILITY
FOR AGRICULTURE**

STOVEL
and Associates Inc.
PLANNERS, AGROLOGISTS
AND ENVIRONMENTAL CONSULTANTS

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With the aid of detailed topographic mapping at a scale of 1:2,000 and 1:10,000 aerial photography, the soil capability of the property was re-mapped to more accurately reflect topographic subclass limitations. The refined mapping is presented in Map 2 and it yielded the following area breakdown of map units:

Capability Class	Area (ha)	%
3	15.01	39
4	14.37	38
5	2.31	6.0
6	1.78	5.0
7*	<u>4.61</u>	<u>12</u>
	38.08	100

Notes: * Class 7 includes marsh, old extraction areas and residential development.
Source: ESP, 1997.

The results of the detailed soil survey generally corroborate the background manuscript mapping; the property does not contain any CLI – Soil Capability for Agriculture Class 1 or 2 soils and the balance of the property consists of a mixture of lower agricultural potential soils, i.e. Classes 4, 5, 6 and 7 soils. The property is not considered prime agricultural land.

Based on a review of the proposed extraction plan, it is estimated that approximately 7.9 ha of Class 3 soils will be removed as a result of the proposed quarry operation.

Prime Agricultural Land is defined as specialty crop areas and/or CLI Class 1, 2 and 3 lands, as amended from time to time, in this order of priority for protection (Provincial Policy Statement, 46).

Prime Agricultural Area means areas where prime agricultural lands predominate. This includes areas of prime agricultural lands and associated CLI Class 4 through 7 lands, and additional areas where there is a local concentration of farms which exhibit characteristics of ongoing agriculture. Prime agricultural areas may be identified by OMAFRA using guidelines developed by the Province as amended from time to time. A prime agricultural area may also be identified through an alternative agricultural land devaluation system approved by the Province (Provincial Policy Statement, 46).

4.2 Onsite Capital Investment Related to Agriculture

There are no buildings or structures related to agriculture on the subject property.

4.3 Agricultural and Non-agricultural Land Uses

Map 3 illustrates the distribution of agricultural and non-agricultural land uses on the subject property and in the immediate area.

There are no agricultural land uses on the subject property other than the managed conifer plantation. The subject property consists of the following non-agricultural land uses:

- Woodlands,
- Wetlands,
- Disturbed lands associated with former extraction operations.

The study area is approximately 600 ha in size and includes lands in both the Township of Guelph/Eramosa and the Town of Milton. Highway 7 cuts through the central portion of the study area. Municipal roads mark the periphery of the study area except in the northern extent, which is marked by the CNR railroad.

Cropping patterns within the study area include the following systems: hay/pasture/forage systems, small grains (such as wheat), corn and soybeans. It is estimated that approximately 300 ha or 50 % of the study area consists of agricultural land uses. There are no specialty crops within the study area. Neither the subject land or study area is identified as a Specialty Crop Area.

Specialty crop area means areas designated using guidelines developed by the Province, as amended from time to time. In these areas, specialty crops are predominantly grown such as tender fruits (peaches, cherries, plums), grapes, other fruit crops, vegetable crops, greenhouse crops, and crops from agriculturally developed organic soil, usually resulting from:

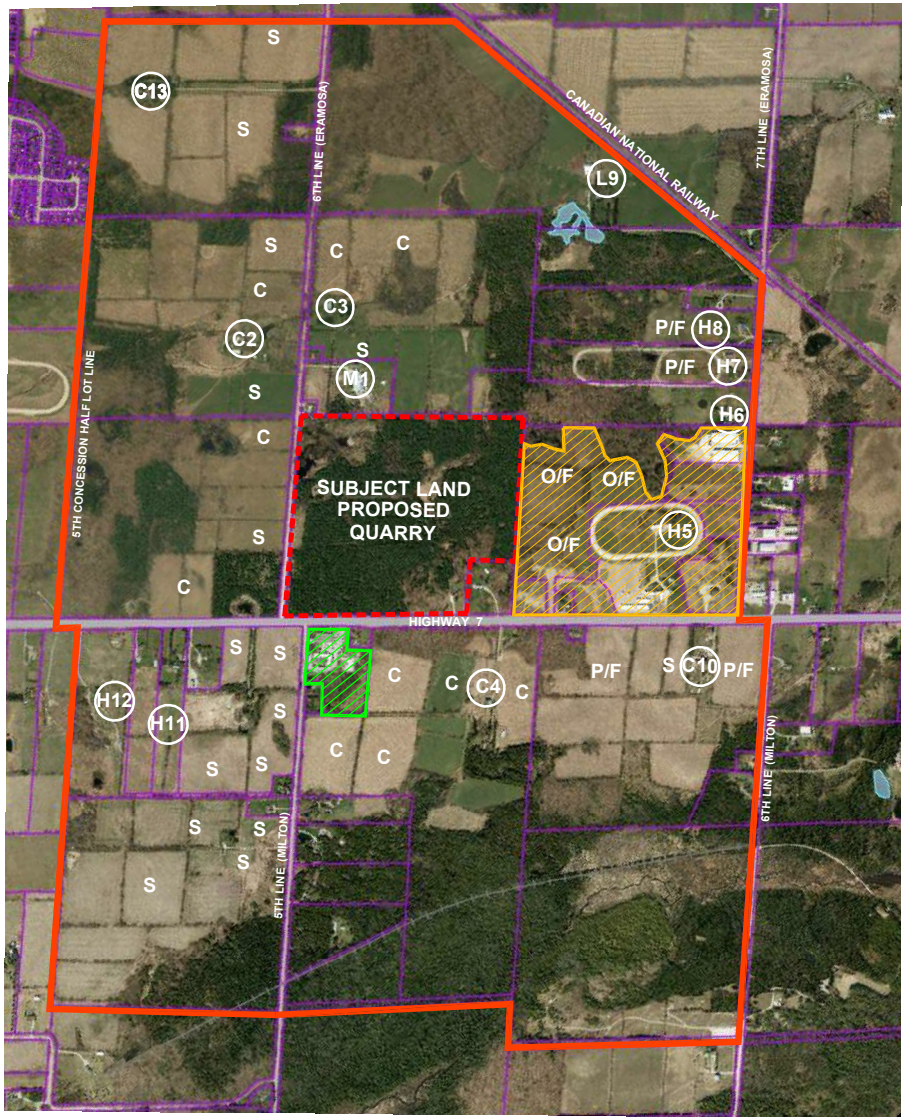
- a) *soils that have suitability to produce specialty crops, or lands that are subject to special climatic conditions, or a combination of both;*
- b) *farmers skilled in the production of specialty crops, and*
- c) *a long-term investment of capital in areas such as crops, drainage, infrastructure and related facilities and services to produce, store, or process specialty crops. (Provincial Policy Statement, 49).*

Non-agricultural land uses within the study area consist of the following:

- Rural industrial subdivision immediately east of the subject property,
- Rural commercial facility, i.e. System Fencing,
- Woodlands and wetlands,
- Rural non-farm residential lands.

There are several agricultural operations in the study area as described below:

<u>No.</u>	<u>Address</u>	<u>Description</u>	<u>Comments</u>
M1	4999 6 th Line	W & T Mushroom	Barn (with manure storage)
C2	4958 6 th Line	Cash Crop	Several structures – no livestock seen
C3	4963 6 th Line	Cash Crop	Rockwood Farm – no livestock seen
C4	5134 Hwy 7 (Milton)	Cash Crop	No livestock observed



SOURCE GRCA AERIAL PHOTOGRAPHY, 2010

LEGEND

Agricultural Land Use Systems

Unimproved Land=U
 Pasture/Forage System= P/F
 Row Crop= RC
 Small Grains= SG
 Soybeans= S
 Corn= C
 Old Field= OF

Agricultural Operations

① = Agricultural Operation Reference
 M = Mushroom Farm
 H = Horse Farm
 L = Livestock Farm
 A = Abandoned or Remnant Farmstead
 C = Cash Farm Crop

STUDEY AREA

SUBJECT LANDS

RURAL INDUSTRIAL LAND

SYSTEM FENCING AND TACK SHOP



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PROJECT NAME:
**HIDDEN QUARRY
 AGRICULTURAL IMPACT
 ASSESSMENT**

PROJECT TITLE:
**AGRICULTURAL
 LAND USE MAP**

MAP
3

H5	4922 Hwy 7 (Eramosa)	Horse Farm*	Located adjacent to Rural Industrial Use
H6	4944 7 th Line	Horse Farm	
H7	4952 7 th Line	Horse Farm	
H8	4960 7 th Line	Horse Farm	Farm For Sale
L9	4970 7 th Line	Walnut Hill Farm	Livestock
C10		Cash Crop	Barns are in poor repair – not in use
H11		Hobby Horse	
H12		Hobby Horse	
C13	5006 6 th Line	Cash Crop	No Livestock observed at time of survey

*Note: a re-zoning application (ZBA 05/14) has been submitted to the Township of Guelph-Eramosa to permit industrial uses and to remove the existing equine use on the subject property. At the time of preparation of this report, it is not known as to whether the re-zoning application was approved.

4.4 Agricultural Drainage

The subject property is not tile drained. Drainage is complex and is either infiltrated or flows into the onsite ponds/wetland systems or creek that flows through the property.

Offsite drainage flows into the creek that flows through the subject property.

4.5 Agricultural Water Supply

The adjacent farm operations are supplied by private wells; municipal water services are not available in the study area. Harden Environmental Services Inc. completed a Hydrogeological Impact Assessment. The results of this assessment are summarized in section 6.5.

5. DESCRIPTION OF MINERAL AGGREGATE OPERATION

Extraction on the subject property will occur above and below the established water table. The processing area will be established in the southwest portion of the mineral aggregate operation. Figure A – Operations Plan illustrates the operational phases of the proposed mineral aggregate operation.

It is estimated that the central processing will be located approximately +/- 450 m from the mushroom farm and +/- 1000 m from the horse farm.

Extraction below the water table involves the drilling and blasting of dolostone. Once the dolostone has been broken up, the raw aggregate will be removed from the water by an excavator or drag-line, trucked and stockpiled in the main processing area. In the main processing area, the aggregate will be crushed/screened/washed, stockpiled and then loaded for transport to market.

Mitigation measures include:

- a) perimeter berming for acoustic shielding,
- b) tree screens to limit sight lines into the quarry,
- c) a main processing area where the processing plant will be shielded by 10 and 12 m high stockpiles:

- the processing area elevation is below grade,
- the location of the processing area is in the southernmost part of the site, and
- water treatment of internal haul roads and processing area.

In terms of operating hours, JDCL will use the following:

- Extraction and processing operations may occur between the hours of 7 am and 7 pm, Monday to Fridays and 7 am to 1 pm on Saturdays; and
- Loading and hauling operations may occur between the hours of 6 am and 6 pm, Mondays to Fridays, and 6 am to 1 pm on Saturdays;
- Drilling and Blasting will occur from 8 am to 5 pm weekdays (no drilling or blasting on weekends).

These operational protocols are addressed in the Noise Impact Study and set out on the Site Plans.

An extensive water-monitoring program has been developed to ensure that water-related impacts do not occur. The water-monitoring program includes a set of trigger values for each monitoring well and a contingency program. Water-related effects and mitigation measures are further described in section 6.2.5 of this report.

Rehabilitation will include the following:

- The two cells that will be extracted below the water table will be rehabilitated to diverse shorelines that include wetland areas along the shoreline and deep and shallow water fish habitat.
- Tableland areas, including setback areas, will receive suitable application of subsoil and topsoil.
- The rehabilitated tableland areas will be suitable for the establishment of agricultural cropping and/or reforested with native trees and shrubs.

6. ASSESSMENT OF IMPACTS ON AGRICULTURE

The following paragraphs address the potential for onsite and offsite agricultural impacts. Potential onsite agricultural impacts include: a) removal of prime agricultural lands; b) consumption or retirement of infrastructure related to agriculture. Offsite impacts concern the potential for indirect effects on adjacent agricultural resources.

6.1 Direct Impacts

The subject land is not comprised primarily of CLI Classes 1-3 agricultural soils. Therefore, the proposed mineral aggregate operation will not result in a significant consumption of good quality agricultural land.

The subject land does not have any barns or agricultural tile drainage systems. The proposed mineral aggregate operation will not result in the consumption or retirement of infrastructure related to agriculture.

6.2 Offsite Impacts

The following section deals with the potential for offsite impacts on adjacent agricultural resources.

The proposed quarry will not impact on offsite agricultural crops or cropping patterns. There are no specialty crop lands on adjacent parcels. Agricultural cropping patterns on adjacent lands are comprised mainly of common field crop systems; the proposed quarry will not affect the agricultural potential of these offsite lands.

Based on a review of the Agricultural Land Use Map, there are 13 active and former agricultural operations in the study area: 1 mushroom farm, 1 livestock operation, 5 cash crop farms, and 6 horse and/or small-scale hobby horse farms. Two hobby horse farms (H11 and H12) are located over 300 m southwest of the subject property. These hobby farms are located south of Highway 7 in the Town of Milton and are set on small properties with limited agricultural land bases (i.e. less than 4 ha of tillable land). No horses were observed at the time of survey, but it is anticipated that, in the past, horses may have pastured on these properties. Four of the horse and/or small-scale hobby farms, located east of the subject property, abut or are in close proximity to existing rural industrial lands. The closest horse farm is the subject of a zoning by-law amendment application that will result in additional rural industrial uses being permitted and the existing equine facility will be removed. The closest agricultural operation is the mushroom farm that is located immediately north of the proposed quarry.

It is reasonable to anticipate that potential impacts on offsite agricultural resources could be most noticeable at the farm operations that are located closest to the proposed mineral aggregate operation. In this regard, specific attention has been focused on: a) mushroom farm located immediately north of the proposed quarry (Lot 2), and b) the horse farms located east and northeast of the proposed quarry. The potential for effects on these farm operations has taken into consideration the following types of issues: noise, vibration and blasting, dust, water, traffic and nuisances. The results of this assessment are described below.

6.2.1 Noise

A Noise Impact Study for the proposed operation was completed by Aercoustics Engineering Limited (“Aercoustics”). Based on this assessment, it was concluded that noise emissions from the proposed mineral aggregate operation does not exceed MOE guidelines. The mitigation measures recommended by Aercoustics were included on the Site Plans.

Noise emissions will not impact on the operation of the mushroom farm. In the vicinity of the mushroom farm, noise mitigation measures were specified to ensure that noise levels meet (or are below) the specified limits.

The potential for interference related to noise emissions from the quarry on the adjacent horse farms is considered to be minimal. The adjacent horse farms to the east/northeast of the subject property are well separated and buffered from the proposed quarry. The estimated setbacks from the closest of these adjacent horse farms are as follows:

- Setback from the closest portion of the extraction face to the closest track = +/- 250 m,
- Setback from the closest portion of the extraction face to the closest horse barn = +/- 450 m,
- Setback from the closest portion of the central processing area to the closest track = +/- 550 m, and
- Setback from the closest portion of the central processing area to the closest horse barn = +/- 750 m.

In calculating these distances, it is important to recognize that the lands between the horse farm and the proposed quarry form part of an approved Industrial subdivision and much of these lands are designated Rural Industrial. The closest horse farm is also the subject of a re-zoning application. If approved, the zoning amendment would result in the removal of the existing equine use. Regardless, farm H5 is designated Rural Industrial and is constrained by the presence of the adjacent industrial land uses.

6.2.2 Blasting

A Blast Impact Analysis was completed by Explotech Engineering Ltd. ("*Explotech*") for the proposed mineral aggregate operation. Explotech provided a series of recommendations related to blasting, all of which have been implemented on the Site Plans. The key recommendations that relate to adjacent agricultural operations are as follows:

- *An attenuation study shall be undertaken by an independent blasting consultant during the first 12 months of operation in order to obtain sufficient quarry data for the development of site-specific attenuation relations. This study will be used to confirm the applicability of the initial guideline parameters and assist in developing future blast designs.*
- *All blasts shall be monitored for both ground vibration and overpressure at the closest privately owned sensitive receptors adjacent the site, or closer, with a minimum of two (2) digital seismographs, - one installed in front of the blast and one installed behind the blast. Monitoring shall be performed by an independent third party engineering firm, with specialization in blasting and monitoring.*

- *Orientation of the aggregate 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.*
- *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.*
- *Once blasting progress encroaches to within 250 m of any offsite sensitive receptor, a formal review of accumulated blast records including vibration data and blast designs shall be undertaken. This review will identify what modifications to blasting protocol and procedure are required to address the reduced separation distance.*
- *Primary and secondary dust collectors will be employed on the rock drills to keep the level of rock dust to a minimum.*
- *Blasting procedures such as drilling and loading shall be reviewed on a yearly basis and modified as required to ensure compliance with industry standards.*
- *Detailed blast records shall be maintained.*

Based on the Explotech assessment, it was concluded that vibrations and overpressure related to blasting will remain minimal at the nearest receptors and will be compliance with applicable guideline limits.

The Explotech study was peer reviewed by Novus. Novus stated that they are in agreement with the guidelines used, the assessment techniques, and with the general conclusions of the study. Golder Associates also reviewed the Blasting Impact Analysis and determined that the recommendations were reasonable and acceptable.

From an agricultural perspective, there is not anticipated to be any impact from blasting or vibration on the adjacent mushroom farm.

The potential for blasting-related interference on the adjacent horse farm is considered to be minimal given that the horse farms are well separated and screened from the proposed mineral aggregate operation.

To ensure that impacts on the adjacent horse farms are minimized, monitoring along the easterly licence limit should be implemented during Phase 2 of the mineral aggregate operation.

As part of the operations program, it is important to implement a complaint protocol. This will provide neighbouring farm operators with an established procedure to record a complaint and to ensure corrective action.

6.2.3 Dust

Dust will be controlled through the regular application of water, on an as needed basis.

A requirement to mitigate dust-related impacts is set out in Prescribed Conditions under the Aggregate Resources Act. Prescribed Conditions are appended to the licence. The Prescribed Conditions that relate to the control of dust are as follows:

- 3.1 Dust will be mitigated on site.*
- 3.2 Water or another provincially approved dust suppressant will be applied to internal haul roads and processing areas as often as required to mitigate dust.*
- 3.3 Processing equipment will be equipped with dust suppressing or collection devices, where the equipment create dust and is being operated within 300 m of a sensitive receptor.*

RWDI Inc. has completed an Air Quality Assessment for the proposed Hidden Quarry. The following recommendations were developed to ensure that the proposed quarry operates within acceptable limits and to ensure that sensitive land uses are not impacted:

- 1. The quarry is limited to 12 hours of operation per day, from 7:00 am to 7:00 pm for site preparation, drilling, blasting, excavation, processing operations and rehabilitation activities, and 6:00 am to 6:00 pm for shipping operations.*
- 2. The maximum processing rate of 6,000 tonnes per day is not exceeded.*
- 3. Equipment-specific controls (tailpipe emission tiers, dust suppression, speed limits, etc.) listed in Appendix B of this report will be implemented;*
- 4. An Environmental Compliance Approval under Section 9 of the Environmental Protection Act (EPA) will be obtained.*
- 5. A Best Management Practices Plan will be developed and implemented.*
- 6. The processing plant should be located approximately as shown on the site plans.*

- 7. Stripping of overburden should be limited to times when extraction, production and shipping activities are well below the estimated peak rate of 6,000 tonnes per day.*

Sensitive land use means buildings, amenity areas or outdoor spaces where routine or normal activities occurring at reasonably expected times would experience one or more adverse effects from contaminant discharges generated by a nearby major facility. Sensitive land uses may be part of the natural or built environment. Examples may include, but are not limited to: residences, day care centres, and educational and health facilities (PPS, 48).

The potential for adverse effects from dust emissions on the adjacent mushroom farm is considered minimal, given that dust emissions have been mitigated at the property line. Mitigation measures have been implemented along the northerly property line to assist in buffering the adjacent mushroom farm. During Phase 1 of the proposed quarry, additional dust monitoring along the northerly quarry limits should be considered to ensure that airborne particulate, beyond acceptable concentrations do not disperse on the mushroom farm.

It is unlikely that there will be an adverse effect of dust on the adjacent horse farms. The adjacent horse farms are well separated and buffered from the proposed quarry. The potential for interference with normal agricultural activities and practices is considered to be minimal.

6.2.4 Transportation

Cole Engineering Limited (2012) prepared a Traffic Impact Study for the proposed quarry. As set out in the conclusions of this study, the potential for impacts related to transportation is minimal.

The annual extraction rate of the proposed quarry is set at a maximum of 700,000 tonnes per year. The Traffic Impact Study is conservative and under normal conditions, truck traffic will be substantially less than evaluated in the Study.

The proposed quarry will use Concession Road 6 to gain access to Highway 7. The entrance will be located approximately 200 m north of the intersection of Highway 7 and Concession 6. Both the entrance and the intersection at Highway 7 provide clear sight lines. JDCL will complete improvements to the haul road, to the satisfaction of the municipality and Ministry of Transportation, thus ensuring that the haul road is safe.

On Concession Road 6, the haul road will not result in trucks passing residences or farm operations. The quarry will provide sufficient storage within the site to ensure that trucks will not park on the township road. Based on the fact that township road will be widened and paved in proximity to the quarry, the potential

interference with the movement of agricultural machinery on roads is anticipated to be minimal.

6.2.5 Water-Related Effects

Harden Environmental Services Ltd. (“Harden”) completed a Hydrogeological Impact Assessment. The groundwater model presented by Harden predicts a 1.6 m water level change in the dolostone aquifer for the nearest water well (i.e. mushroom farm). Harden concludes that, *“It is our profession opinion, based on our knowledge that dolostone aquifer has a relatively high transmissivity, that a water level change of 1.6 m will not adversely affect the availability of water to any domestic well. A rigorous on-site monitoring program will be instituted to confirm this opinion. JDCL has also agreed to conduct a voluntary private well survey commencing well in advance of any below-water table extraction. The combination of the two programs will allow for the early detection of possible changes in the potentiometric elevation on the site and in neighbouring wells”* (Harden, 6).

In addition, JDCL has retained a water well contractor and Harden Environmental Services Ltd. on stand-by to address any water quantity or quality issue that arises. In the event of a water shortage a supply of bottled water for drinking/cooking will be delivered within 12 hours of the complaint and an alternative water supply will be delivered within 24 hours of the complaint being received. A similar commitment will be made by JDCL for agricultural operations; should an adjacent farm operation (within the study area) experience water quality or quantity issues, a supply of clean water will be delivered within 24 hours of a complaint being received.

Within 48 hours, JDCL will initiate a hydrogeological investigation conducted by an independent hydrogeologist to determine the cause of the water issue. The investigation will include but not be limited to the following actions:

- Confirmation of water levels in on-site groundwater monitoring wells.
- Review of historical trends in groundwater levels and groundwater quality obtained in on-site groundwater monitoring wells.
- Review of historical measured precipitation rates.
- Interview with resident regarding well complaint.
- Investigation of subject well including flow testing, water level measurements and water quality testing, if necessary.
- Written report summarizing the findings.

In the event that quarry activities are likely to be the cause of the complaint, James Dick Construction will undertake appropriate mitigative measures such as:

- Lowering the level of the pump within the well.
- Extending the cased portion of the well.
- Deepening the well.

- Well replacement.
- Water Treatment.
- Modification of quarry activities.

Based on the aforementioned assessment, there are no anticipated water-related impacts on adjacent agricultural operations. The potential for interference on adjacent agricultural operations is considered to be minimal.

7. AGRICULTURAL POLICY FRAMEWORK

The subject property is designated Prime Agricultural and Core Greenlands in the County of Wellington Official Plan (1999). An Official Plan Amendment is not required to permit the establishment of a new aggregate operation on the subject property, given that the site is mapped in a recognized Mineral Aggregate Area in the County of Wellington Official Plan.

Permitted uses in the Prime Agricultural designation includes agricultural uses, secondary uses including home businesses and farm businesses, agriculture-related uses, single detached homes, forestry uses, licensed aggregate operations, among others.

One of the objectives of the Prime Agricultural designation is to promote agricultural uses and to protect normal farm practices.

Within the Prime Agricultural designation, known areas of high potential for mineral aggregate extraction are shown as an overlay on the land use schedule. The overlay for mineral aggregate areas only indicates that aggregate deposits are likely to be available; it does not presume that all conditions are appropriate to allow extraction or processing of the resource to proceed. The intention is to make as much aggregate resources available as close to the market as is realistically possible.

Therefore, policies within the County of Wellington Official Plan contemplate and direct mineral resource extraction to recognized Mineral Aggregate Areas within the Prime Agricultural designation.

With regard to the Provincial Policy Statement (2014), the following policy provides direction with respect to rehabilitation:

2.5.4.1 In prime agricultural areas, on prime agricultural land, extraction of mineral aggregate resources is permitted as an interim use provide that the site will be rehabilitated back to an agricultural condition.

Complete rehabilitation to an agricultural condition is not required if:

- a) *outside of a specialty crop area, there is a substantial quantity of mineral aggregate resources below the water table warranting extraction, or the depth of planned extraction in a quarry makes restoration of pre-extraction agricultural capability unfeasible;*
- b) *in a specialty crop area, there is a substantial quantity of high quality mineral aggregate resources below the water table warranting extraction, and the depth of planned extraction makes restoration of pre-extraction agricultural capability unfeasible;*
- c) *other alternatives have been considered by the applicant and found unsuitable. The consideration of other alternatives shall include resources of Canada Land Inventory Class 4 through 7 lands, resources on land identified as designated growth areas, and resources on prime agricultural lands where rehabilitation is feasible. Where no other alternatives are found, prime agricultural land shall be protected in this order of priority: specialty crop areas, Canada Land Inventory Class 1, 2 and 3 lands; and*
- d) *agricultural rehabilitation in remaining areas is maximized.*

It has been determined that the subject property is not comprised mainly of prime agricultural land. The proposed quarry will result in the extraction of a substantial quantity of mineral aggregate resources below the water table. Therefore, complete rehabilitation to an agricultural condition is not required.

Agricultural condition means:

- a) *in regard to specialty crop areas, a condition in which substantially the same areas and save average soil capability for agriculture are restored, the same range and productivity of specialty crops common in the area can be achieved, and, where applicable, the microclimate on which the site and surrounding area may be dependent for specialty crop production will be maintained or restored; and*
- b) *in regard to prime agricultural land outside of specialty crop areas, a condition in which substantially the same areas and same average soil capability for agriculture are restored. (Provincial Policy Statement, 38).*

8. SUMMARY AND CONCLUSION

James Dick Construction Limited has proposed to establish a mineral aggregate operation on Part of Lot 1, Concession 6 in the Township of Guelph/Eramosa, in the County of Wellington. The proposed quarry will extract above and below the water table without dewatering. Access to the quarry will be from Concession 6 to

Provincial Highway 7. The quarry will be rehabilitated to naturalized greenland area with two ponds, wetland systems and re-forested tablelands.

The subject property was previously designated for Rural Industrial uses in the Official Plan of Eramosa Township (1985). In addition, the property was identified as having and existing gravel pit operation. When the County of Wellington Official Plan replaced the Official Plan of Eramosa Township, the County of Wellington planning department confirmed that the subject property is mapped as part of the Mineral Aggregate Area. For over the past 30 years, the subject property has not been cultivated for pasture, forage or row crops and there has been no agricultural livestock or cultivation operations since these Official Plans were in force.

The following study findings have been based on the aforementioned assessment:

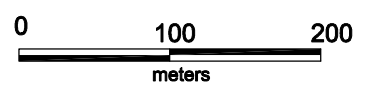
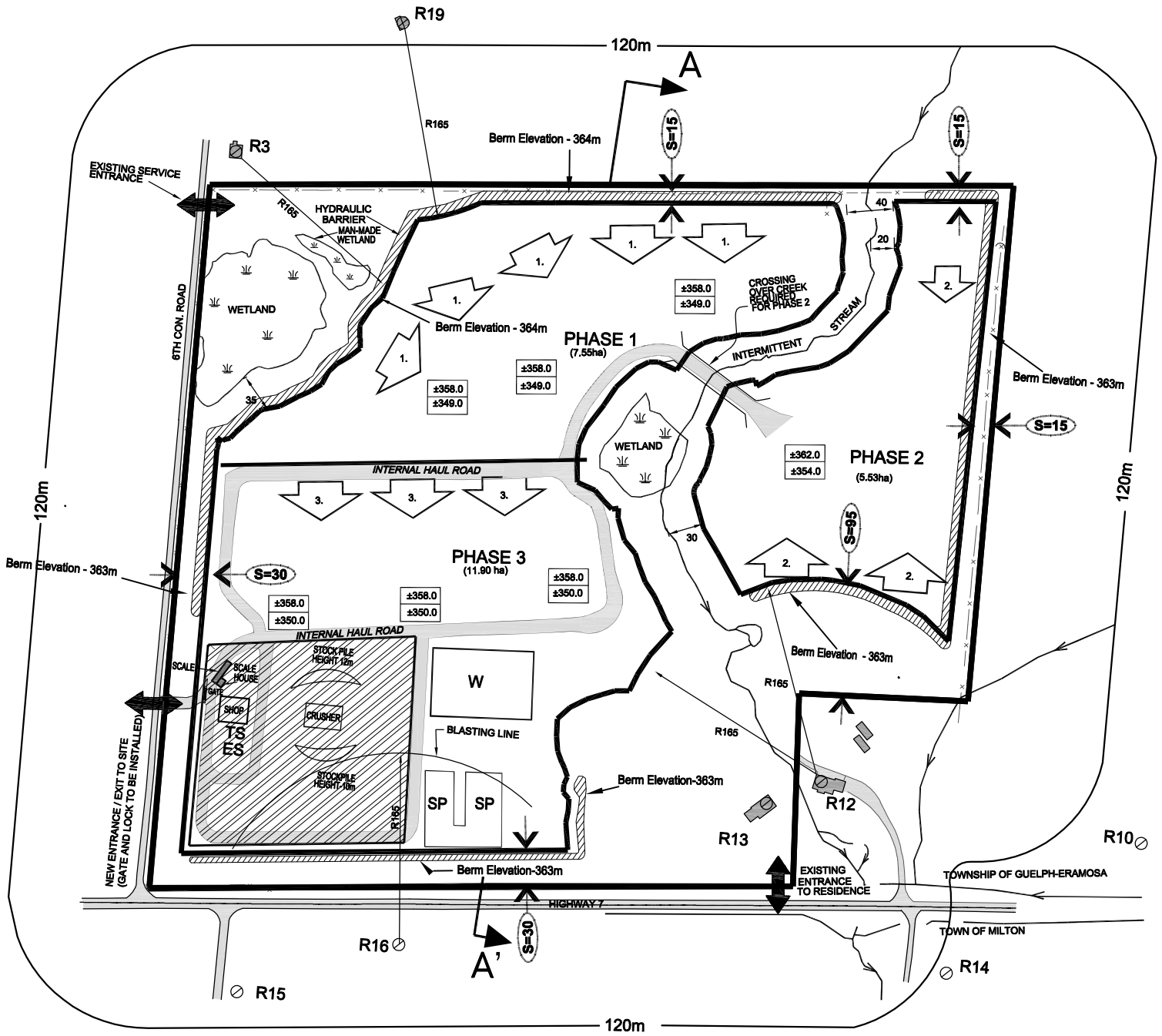
- The subject property is not located in a known specialty crop area,
- There is a substantial quantity of mineral aggregate resource below the water table warranting extraction,
- The subject lands are comprised mainly of lower capability agricultural soils,
- Complete rehabilitation to an agricultural condition is not required,
- The proposed mineral aggregate operation will not result in a loss of capital investment related to agriculture,
- The proposed mineral aggregate operation will not conflict with provisions of MDS 1 or 2, as MDS provisions do not apply,
- The proposed mineral aggregate operation will not affect the potential future expansion opportunities or existing farm practices of adjacent agricultural operations,
- Based on the extensive engineering reports, there is not anticipated to be any potential interference with normal agricultural activities and practices.
- Extensive technical recommendations have been implemented on the Site Plans to ensure that potential impacts are mitigated and monitored as necessary; and
- The proposed mineral aggregate operation is not anticipated to interfere with the movement of agricultural machinery on municipal roads.
- The applicant will complete improvements to the municipal road system. This will ensure that the roads are safe and accessible for agricultural machinery, trucks and automobiles in accordance with the accepted engineering standards.

Two agricultural operations have been closely considered: mushroom farm to the north and horse farm(s) to the east. The main concern related to the mushroom farm focuses on the potential for impacts related to dust. Design features are set out on the Site Plan, i.e. berm and vegetative screening, to mitigate impacts.

The closest horse farm to the east is set in an Industrial development. A zoning amendment, submitted by the landowner, will remove the equine facility. The main concern related to the horse farm is blasting. Given the large vegetated setback/buffer between the proposed quarry and the horse farm(s), blasting-related impacts are anticipated to be minimal. The potential for effects on the other horse farms located to the east/northeast have also been considered. Given the technical recommendations included within the blasting, hydrogeology, dust and noise reports, impacts on these adjacent horse farms are considered to be minimal.

It is important to note that an extensive monitoring program and a complaint protocol has been established to ensure that concerns from adjacent residents and farmers are quickly addressed.

In conclusion, Stovel and Associates Inc. have completed an Agricultural Impact Assessment of the proposed Hidden Quarry. Impacts on the agricultural resource base and on adjacent agricultural operations are anticipated to be minimal. Monitoring measures are implemented on the Site Plans to ensure that adjacent sensitive land uses and farm operations are not negatively affected by the mineral aggregate operation.



<p>JAMES DICK CONSTRUCTION LTD.</p>	<p>STOVEL and Associates Inc.</p>	<p>OPERATIONS</p>	<p>HIDDEN QUARRY PART OF LOT 1, CONCESSION 6 TOWNSHIP OF GUELPH-ERAMOSIA FORMER TOWNSHIP OF ERAMOSIA COUNTY OF WELLINGTON</p>	<p>FIGURE: A</p>
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PLACE HOLDER SHEET FOR APRIL SITE PLANS

**THE CORPORATION OF
THE TOWNSHIP OF GUELPH/ERAMOSA**

BY-LAW NO. __ - XX

A by-law to amend By-law No 57/1999,
the Township of Guelph/Eramosa Zoning By-
law, in order to permit a quarry.

WHEREAS the Council of the Corporation of the Township of Guelph/Eramosa deems it desirable to amend the Township of Guelph/Eramosa Zoning By-law No. 57/1999, as amended, pursuant to Section 34 of the Planning Act, R.S.O. 1990;

NOW THEREFORE THE ONTARIO MUNICIPAL BOARD HEREBY ENACTS AS FOLLOWS:

1. Map 1 to By-law No. 57/1999, as amended, is hereby further amended in accordance with the attached Schedule "A" which forms part of this by-law.
2. Section 20.1 of By-law No. 57/1999, as amended, is hereby further amended by adding the following Permitted Uses for the Hidden Quarry:

20.1: Structure to permit the crossing of the creek (Hidden Quarry).
3. All other applicable provisions of By-law 57/1999 shall continue to apply to the land affected by this amendment.
4. This by-law shall come into effect on the date of final enactment pursuant to section 34 of the Planning Act, R.S.O, 1990.

READ A FIRST AND SECOND TIME THIS __ DAY OF _____, 2016.

Mayor

Clerk

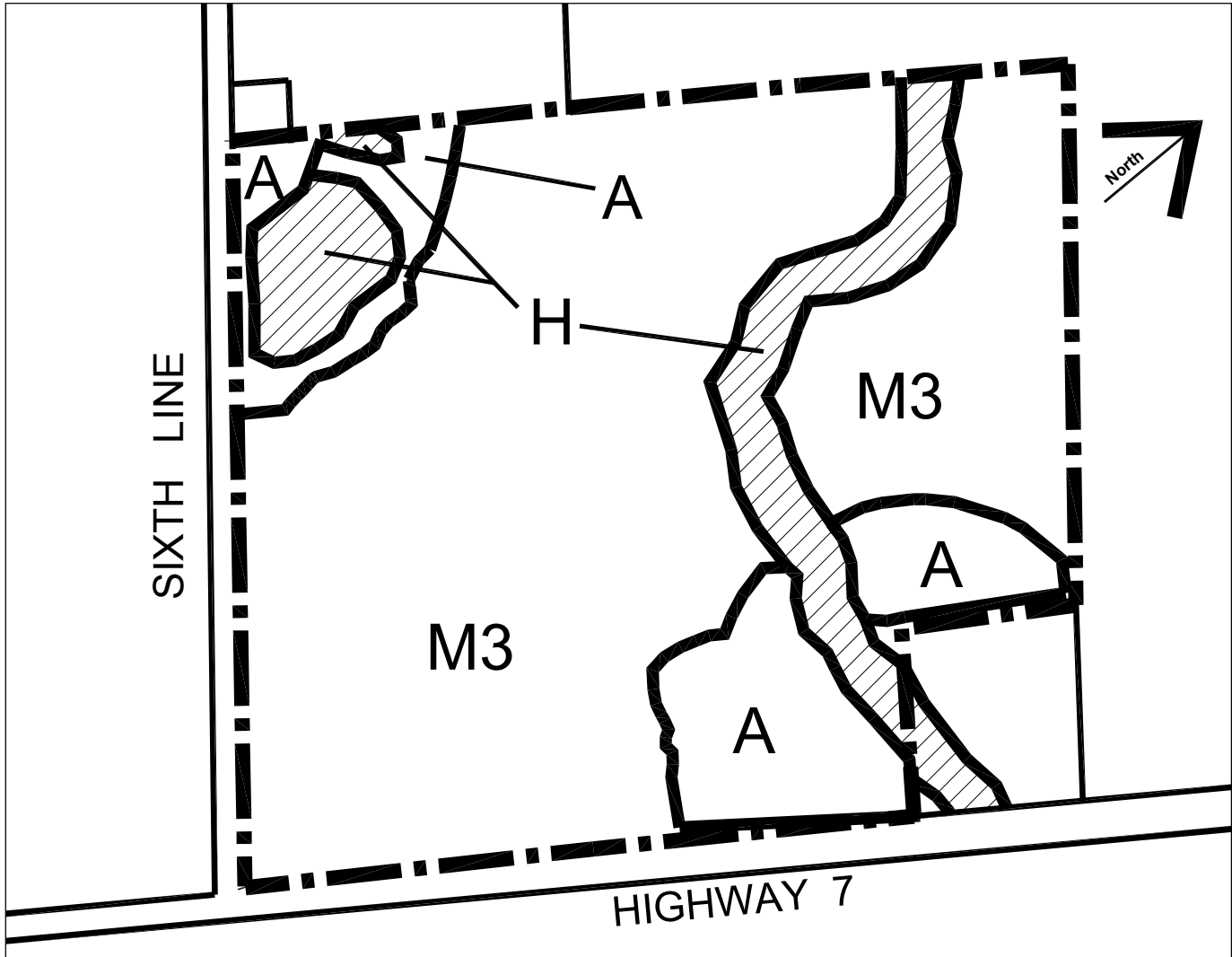
READ A THIRD TIME AND PASSED THIS __ DAY OF _____, 2016.

Mayor

Clerk

SCHEDULE "A"

An Amendment to Township of Guelph-Eramosa Zoning By-Law
No. 2009-045 as amended



THIS IS SCHEDULE "A" TO BY-LAW NO. 57 / 1999
PASSED THIS _____ DAY OF _____, 2016

MAYOR

CLERK

PROPOSED HIDDEN QUARRY

Part of Lot 1
Concession 6
(Former Township of Eramosa)
Township of Guelph/Eramosa
County of Wellington

PLANNING ADDENDUM REPORT

APRIL 29, 2016

Prepared for:

JAMES DICK CONSTRUCTION LIMITED

Prepared by:

STOVEL AND ASSOCIATES INC.

655 Orangeville Road

Fergus, ON

N1M 1T9

1. PURPOSE OF REPORT

Stovel and Associates Inc. (SAI) was retained by James Dick Construction Limited (JDCL) to complete an update of the Planning Report and relevant provincial and municipal planning policies related to the proposed Hidden Quarry application. JDCL submitted an application to amend the zoning by-law for the Township of Guelph/Eramosa to permit the establishment of a proposed mineral aggregate operation on the subject property (referred to as the Hidden Quarry and located on part of Lot 1, Concession 6 in the Township of Guelph/Eramosa). In addition, JDCL has submitted a Class A licence application (Category 2) to the Ministry of Natural Resources and Forestry (MNRF).

The following report provides an update and summary of key issues related to the following:

- Summary of agency correspondence,
- Review of Township Planning Report,
- Assessment of Section 12 – Aggregate Resources Act (ARA),
- Assessment of Section 2 – Planning Act,
- Assessment of 2014 Provincial Policy Statement (PPS),
- Assessment of the Greenbelt Plan, and
- Assessment of County of Wellington Official Plan.

2. SUMMARY OF AGENCY FINAL COMMENTS

As part of the agency circulation and peer review process, several government agencies have examined the proposed application to determine if the application satisfies the technical requirements under their Ministry mandate. The following clearance letters :

- Ministry of Tourism, Culture and Sport (MTCS) (Letter dated November 1, 2012) – archaeological clearance subject to the inclusion of technical recommendations on the Site Plan;
- Ministry of Natural Resources and Forestry (MNRF) (Letter dated November 6, 2013) – MNRF is responsible for ensuring protection of significant natural heritage features, including significant wetlands, significant forests, threatened and endangered species, and significant wildlife habitat. This letter confirms the MNRF is satisfied with respect to the protection of natural heritage features, hydrogeological resources (related to these natural heritage features) and the Site Plans. This letter acknowledges the removal of their objection to the licence application.

- Ministry of Environment and Climate Change (MOECC) (Letter dated October 10, 2013) – the MOECC is responsible for ensuring protection of surface and ground water, including wetlands, seeps, water courses, wells amongst other water resource features. The MOECC was satisfied that the items related to surface water and groundwater were satisfactorily addressed.
- Ministry of Transportation (MOT) (Letter dated February 3, 2014) – the MOT is responsible for ensuring the protection of provincial highways and the safe operation of those highways. The MOT advised that, we have no objections with re-zoning the property from Agricultural/Hazard Land to Extractive Industrial to permit the establishment of a mineral aggregate operation. Subject to receipt of approved zoning, JDCL may apply for the relevant permits relating to development near Provincial Highway 7.
- Grand River Conservation Authority (GRCA) (Letter dated July 29, 2014) - the GRCA provided correspondence indicate no further comments and no objection to the application being taken forward for consideration.

In addition, a letter of clearance was obtained from Union Gas (May 7, 2013) subject to maintaining a 30 m setback to their natural gas pipeline and ensuring that vibrations at the pipeline remain below 50 mm/sec.

The Township of Guelph/Eramosa conducted separate third party peer reviews of several disciplines including blasting/vibration, noise, hydrogeology, natural environment. The results of these peer reviews are as follows:

- Novus (April 8, 2013) - Novus reviewed the Exlotech vibration report and stated, *“We are in agreement with the guidelines used, the assessment techniques used and with the general conclusions of the study.”*
- Novus (August 21, 2013) - Novus provided the following conclusion with regard to noise impacts. *“We have revised the updated noise impact assessment prepared by AEL and their response to our comments and in general we are satisfied. Based on the revised information, noise levels from the proposed quarry operations will meet the applicable guideline limits at all noise sensitive points of reception.”*
- R. J. Burnside (RJB) (April 7, 2014) - reviewed the Natural Heritage component of the proposal and concluded that all concerns related to Natural Environment have been adequately addressed including protection of wetlands as well as Species at Risk and their habitat.
- RJB (March 4, 2015) - reviewed the Emissions Summary and Dispersion Modelling (ESDM) prepared by RWDI and concluded there was nothing to indicate that the site could not request and receive an Environmental Compliance Approval.

REVIEW OF HOWSON PLANNING REPORT (TOWNSHIP OF GUELPH/ERAMOSIA)

The Township of Guelph/Eramosa retained Liz Howson, RPP of Macaulay Shiomi Howson (MSH) to complete a planning assessment of the proposed quarry application.

The purpose of the Howson planning report was to make a determination as to the appropriateness of the zoning amendment application, based on the information and review carried out to date. The report described the background to the application and the review process, and then outlines the planning status of the application; the status of the technical review of each of the technical reports submitted by the applicant, followed by a discussion of input received from the public and an evaluation of the application. The report concluded with a recommendation with respect to the application.

A detailed technical review of the application and supporting reports was carried out by the Township of Guelph/Eramosa. In addition, the application was reviewed by MNRF, MOECC, GRCA, the County of Wellington, MOT, and Union Gas with respect to their individual mandates. The Region of Halton, the Town of Halton Hills and the Town of Milton also initiated reviews of specific areas of concern particularly hydrogeology, natural heritage and the haul route. As part of this, the Township of Guelph/Eramosa directed that an economic impact study be carried out.

In general, Howson concluded that the results of the detailed technical review indicate that the proposed quarry, based on revised plans which reflect the technical input, can be permitted from a technical perspective as it would be anticipated to have minimal impacts with respect to the following issues:

- *hydrogeology including water levels in up-gradient domestic wells, water quality in down-gradient domestic wells, the potential for impacts on Rockwood Well Number 4 and other related issues subject to a number of conditions including a private well survey, monitoring and refinement of the well contingency plan;*
- *natural environment including protection of wetlands, as well as Species at Risk and their habitat subject to a number of conditions;*
- *air quality;*
- *traffic impact subject to upgrading Sixth Line and the addition of turn lanes on Highway 7;*
- *haul route subject to completion of the Haul Route Study;*
- *noise and blast vibration subject to blast monitoring, provision of blast record information and a third party acoustical audit in the first year of operation;*
- *archaeology subject to a Stage 3 assessment for an area on the west side of the site;*

- *cultural heritage including the cultural landscape on Sixth Line;*
- *visual impact;*
- *agriculture, provided the recommendations related to the other issues are satisfactorily addressed; and,*
- *economic impact.*

Approval of the proposed quarry would be subject to the detailed conditions of development to the satisfaction of the Township as well as other agencies as deemed appropriate.

The Howson report provides the following recommendation to Township Council:

“...that the request to amend the Township of Guelph/Eramosa Zoning By-law, OMB Case File No. PL140985, be recommended to the Ontario Municipal Board for approval in principle, subject to detailed conditions of development being developed to the satisfaction of the Township, in consultation with the Region of Halton, Town of Halton Hills and Town of Milton and County of Wellington, as well as other agencies if appropriate, and established through the Aggregate Resources Act licence approval, an amendment to the Township Zoning By-law Amendment and through other available mechanisms.”

SECTION 2: PLANNING ACT

Section 2 of the Planning Act requires that planning authorities to have regard to the following matters of provincial interest:

- a) the protection of ecological systems, including natural areas, features and functions;
- b) the protection of agricultural resources of the Province;
- c) the conservation and management of natural resources and the mineral resource base;
- d) the conservation of features of significant architectural, cultural, historical, archaeological or scientific interest;
- e) the supply, efficient use and conservation of energy and water;
- f) the adequate provision and efficient use of communication, transportation, sewage and water services and waste management systems;
- g) the minimization of waste;
- h) the orderly development of safe and healthy communities;

- h.1) the accessibility for persons with disabilities to all facilities, services and matters to which this Act applies;
- i) the adequate provision and distribution of educational, health, social, cultural and recreational facilities;
- j) the adequate provision of a full range of housing, including affordable housing;
- k) the adequate provision of employment opportunities;
- l) the protection of the financial and economic well-being of the Province and its municipalities;
- m) the co-ordination of planning activities of public bodies;
- n) the resolution of planning conflicts involving public and private interests;
- o) the protection of public health and safety;
- p) the appropriate location of growth and development;
- q) the promotion of development that is designed to be sustainable, to support public transit to be oriented to pedestrians;
- r) the promote of built form that, is well-designed, encourages sense of place, and provides for public spaces that are of high quality, safe, accessible, attractive and vibrant.

It is my opinion that the proposed development has had regard to Section 2, in particular as the proposal relates to the protection of natural heritage features, agricultural resources, water resources, public health and safety and the conservation of the mineral resource base. The following paragraphs document how the proposed Hidden Quarry conforms to relevant provisions of Section 2 of the Planning Act.

Natural Heritage

The Hidden Quarry proposal is supported through the completion of detailed environmental and hydrogeological studies. These studies have been peer reviewed by relevant government agencies and all objections to the proposed quarry from these government review agencies have been resolved. Technical recommendations to ensure the protection of ecological systems, including natural areas, features and functions have been incorporated on the Site Plans.

Agricultural Resources

The Hidden Quarry proposal is supported through the completion of an agricultural impact assessment. This study was reviewed by the township planning consultant and no concerns with respect to agricultural impacts were noted.

Mineral Resources

The proposed Hidden Quarry is set in a portion of the County of Wellington that is underlain by a provincially significant deposit of consolidated bedrock. The mineral aggregate resource associated with this bedrock deposit is considered to be of the highest quality in the Province, capable of meeting the most rigorous specifications for exposed concrete. There are no other licensed quarries in the Township of Guelph/ Eramosa or the County of Wellington that are set in the Amabel Formation. The approval of the proposed quarry licence will ensure the conservation of this natural resource and the mineral resource base.

Cultural and Archeological Features

An archaeological resource feature was identified on the proposed Hidden Quarry. Appropriate mitigation measures were established by a licensed archaeologist, and approved by the MTCS.

In addition, a Cultural Heritage Resource Assessment was completed. This report assessed the built heritage resources and cultural heritage landscapes on and adjacent to the proposed quarry site. Unterman McPhail peer reviewed the Cultural Heritage Resource Assessment, on behalf of the Township, and determined that the report was satisfactory and no additional work was required.

Transportation

A Traffic Impact Study was completed by a qualified engineer. This report determined the required road improvements to ensure a safe access onto Provincial Highway 7. This report was reviewed by the MOT and the MOT has no objections to the proposed rezoning. Improvements to the local township road are also required and JDCL has acknowledged and agreed to undertake these improvements to the satisfaction of the municipality.

Employment, Financial and Economic Well-Being

An Economic Impact Assessment of the proposed Hidden Quarry was completed. A net positive economic impact, including the provision of several onsite jobs and numerous trucking jobs, was predicted. In addition, the Hidden Quarry project will result in increased industrial taxes for the Township and an aggregate royalty. The approval of the Hidden Quarry satisfies these matters of provincial interest.

Protection of Public Health and Safety

JDCL has committed to ensuring the protection of public health and safety. In this regard, JDCL has completed relevant reporting to examine the potential impacts on drinking water and from onsite activities such as blasting and the control of dust. JDCL has set out mitigation measures on the Site Plans to ensure that the public is safe. These reports and the technical recommendations stemming from the reports were critically reviewed by qualified engineers and technical specialists. Through the

implementation of the Site Plans, the relevant planning authorities can be assure that the public are protected and remain safe.

2014 PROVINCIAL POLICY STATEMENT

The initial Planning Report (SAI, 2012) provides a conformity assessment with the relevant policies of the Provincial Policy Statement (2005) that was in place at the time when the application was submitted to the Township of Guelph/Eramosa. Since then, the Province of Ontario approved a new Provincial Policy Statement (PPS) in 2014. Transition provisions set out in Section 4.1 of the PPS (2014) require that planning authorities make decisions that shall be consistent with the 2014 PPS.

For the most part, the policies that relate to the proposed quarry application were not substantially changed. It is my opinion that the conclusions set out in this prior report remain valid, and the proposed Hidden Quarry application, is consistent with policies and principles set out in the PPS 2014.

The following paragraphs provide a summary of the relevant policies of the PPS 2014 as they relate to the proposed Hidden Quarry application:

1.1.1. Healthy, livable and safe communities are sustained by:

a) Promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;

b) Accommodating an appropriate range and mix of residential...., employment...., institutional...., recreational, park and open space and other uses to meet long term needs;

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

1.1.4.1 Healthy, integrated and viable rural areas should be supported by:

a) building up rural character, and leveraging rural amenities and assets;...

f) promoting diversification of the economic base and employment opportunities through goods and services, including value-added products and the sustainable management or use of resources;....

h)conserving biodiversity and considering the ecological benefits provided by nature....”

1.1.4.4 Growth and development may be directed to rural lands in accordance with policy 1.1.5.....

The proposed Hidden Quarry is consistent with these objectives by providing for use of a provincially significant mineral aggregate resource, while protecting key natural features and allowing for the eventual rehabilitation of the site for an ecological end use. The extensive studies completed by the proponent show that the operation of the quarry, as set out in the Site Plans, will not result in a negative social impact on the nearby communities or adjacent land uses.

1.1.5.1 When directing development on rural lands, a planning authority shall apply the relevant policies of Section 1:.....Section 2... and Section 3.

As required all relevant policies have been reviewed and considered.

*1.1.5.2 On rural lands located in municipalities, permitted uses are:
a) management or use of resources....*

The proposed quarry is consistent with the permitted uses.

1.1.5.6 Opportunities should be retained to locate new or expanding land uses that require separation from other uses.

1.1.5.7 Opportunities to support a diversified rural economy should be promoted by protecting agricultural and other resource-related uses and directing non-related development to areas where it will minimize constraints on these uses.

The proposed quarry is consistent with these policies in a manner which minimizes impacts on the surrounding area.

1.1.5.9 New land uses.... shall comply with the minimum distance separation formulae.

As noted in the Agricultural Impact Assessment, MDS 1 provisions do not apply to aggregate extraction applications.

1.2.6.1 Major facilities and sensitive land uses should be planned to ensure they are appropriately designed, buffered and/or separated from each other to prevent or mitigate adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long term viability of major facilities.

Major facilities: means facilities which may require separation from sensitive land uses, including.....mineral extraction activities.

The Site Plans prepared on behalf of JDCL illustrate how adjacent land uses are protected. The Site Plans incorporate all of the Technical Recommendations from the various studies related to air quality, noise/blast vibration, traffic, agriculture and cultural

heritage. The proposed quarry has been designed, buffered and/or separated from adjacent sensitive uses in a manner consistent with this policy.

- 1.6.7.2 Efficient use shall be made of existing and planned infrastructure.....
- 1.6.7.5 *Transportation and land use considerations shall be integrated at all stages of the planning process.*
- 1.6.8.3 *.....New development proposed on adjacent lands to existing or planned corridors and transportation facilities should be compatible with, and supportive of, the long-term purposes of the corridor and should be designed to avoid, mitigate or minimize negative impacts on and from corridor and transportation facilities.*

Provincial Highway 7 is an appropriate and efficient haulage route for the proposed quarry. MOT has indicated that they have no objections to the application. Based on this input, the proposed development is considered compatible with and supportive of the long term purposes of the Highway 7 corridor.

- 1.7.1 *Long-term economic prosperity should be supported*

The proposed quarry achieves this objective as shown in the Economic Impact Study.

- 1.8.1 *Planning authorities shall support energy conservation and efficiency, improved air quality, reduced greenhouse gas emissions, and climate change adaptation through land use and development patterns which:.....*
 - d) *focus freight-intensive land uses to areas well served by major highways, airports, rail facilities and marine facilities;....*

The proposed quarry is located on a Provincial highway. Access to Provincial Highway 7 will allow for an effective and efficient movement of aggregate to the market.

- 2.1.2 *The diversity and connectivity of natural features in the 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....*
- 2.1.3 *Natural heritage systems shall be identified in Ecoregions 6E and 7E.....*
- 2.1.4 *Development and site alteration shall not be permitted in: a) significant wetlands in Ecoregions 5E, 6E and 7E....*

- 2.1.5 *Development and site alteration shall not be permitted in:....
b)significant woodlands.... d)significant wildlife habitat.....”*
- 2.1.6 *Development and site alteration shall not be permitted in fish
habitat except in accordance with provincial and federal
requirements.*
- 2.1.7 *Development and site alteration shall not be permitted in habitat of
endangered species and threatened species, except in accordance
with provincial and federal requirements.*
- 2.1.8 *Development and site alteration shall not be permitted on adjacent
lands to the natural heritage features and areas identified in policies
2.1.4, 2.1.5 and 2.1.6 unless the ecological function of the adjacent
lands has been evaluated and it has been demonstrated that there
will be not negative impacts on the natural features or on their
ecological functions.*

The applicant has completed extensive ecological inventories over the course of several years. The interdisciplinary environmental analysis that was completed on behalf of the proposed quarry development considered input from a variety of expert's including foresters, ecologists and hydrogeologists. The reporting was peer reviewed by the MOECC, MNRF and GRCA and no outstanding concerns or objections remain with respect to the consideration of significant natural heritage features. Through the implementation of the Progressive and Final Rehabilitation Plans, the proposed Hidden Quarry should result in an overall net positive impact on the natural environment.

- 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. Mitigative
measures and/or alternative development approaches may be
required in order to protect, improve or restore sensitive surface
water features, sensitive ground water features and their hydrologic
functions.*

The applicant has completed extensive investigations with respect to hydrogeology. The MOECC, MNRF and GRCA have reviewed the reporting and mitigation/monitoring protocol and all agencies have indicated that they have no further concerns with respect to hydrogeology.

- 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 approval of the Class A - Category 2 Licence for the subject lands will satisfy this policy.

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

The proposed extraction plan at the Hidden Quarry must be shown to minimize impacts. The review of the studies submitted as part of the application indicate that extraction can be undertaken in a manner that minimizes social, economic and environmental impacts subject to the recommended conditions of development including on-going monitoring.

2.5.3.1 *Progressive and final rehabilitation is required to accommodate subsequent land uses, to promote land use compatibility, to recognize the interim nature of extraction, and to mitigate negative impacts to the extent possible. Final rehabilitation shall take surrounding land use and approved land use designations into consideration.*

The Site Plan illustrates a quarry phasing plan and a plan for the progressive rehabilitation and final rehabilitation of the site. These plans illustrate how progressive and final rehabilitation will occur and recognize the interim nature of extraction. The site will be rehabilitated to an ecological land use that will be compatible with the surrounding rural land use and natural features and result in an overall net enhancement from an ecological perspective.

2.5.4.1 *In prime agricultural areas, on prime agricultural land extraction of mineral aggregate resources is permitted as an interim use provided the site will be rehabilitated back to an agricultural condition.*

Complete rehabilitation to an agricultural condition is not required if:

a) Outside of a specialty crop area, there is a substantial quantity of mineral aggregate resources below the water table warranting extraction, or the depth of planned extraction in a quarry makes restoration of pre- extraction agricultural capability unfeasible.

The subject property is not considered to be prime agricultural land. In addition, there is a substantial quantity of mineral aggregate resources below the water table warranting extraction and the depth of planned extraction in the Hidden quarry makes restoration of pre-extraction agricultural capability unfeasible. Therefore, rehabilitation to an agricultural condition is not required. The Progressive and Final Rehabilitation Plan incorporates ecological restoration program that is compatible with the adjacent land uses.

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

A Cultural Heritage Resource Assessment was completed. This report assessed the built heritage resources and cultural heritage landscapes on or adjacent to the proposed quarry site. Unterman McPhail peer reviewed the Cultural Heritage Resource Assessment, on behalf of the Township, and determined that the report was satisfactory and no additional work is required.

2.6.2 *Development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved.*

A Stage I-II Archaeological Assessment was carried out by York North Archaeological Services Inc..The report identifies an area on the west side of the subject site) as the only area where historic archaeological resources were located. It has been identified as requiring a Stage 3 assessment. A note to this effect was placed as a condition on the Site Plan. The MTCS has advised that they are satisfied with the archaeological assessment.

Based on the aforementioned policy assessment, it is concluded that the proposed Hidden Quarry is consistent with the policy framework set out in the PPS, 2014.

GREENBELT PLAN

The Greenbelt Plan does not apply to and lands within the Township of Guelph/ Eramosa, including the proposed Hidden Quarry site. Based on a review of relevant correspondence, it is understood that the Region of Halton (Letter dated September 16, 2014) concur that the policies of the Greenbelt Plan do not apply to this proposed application.

GROWTH PLAN

All planning decisions are required to conform with the applicable provisions of the Growth Plan. For the most part, the Growth Plan focuses on policies related to the development of settlement areas. The Growth Plan recognizes that certain development must be located outside of settlement areas , such as “*development related to the management or use of resources.... that cannot be located in settlement areas*” (Section 2.2.2.1 (i)).

The policy framework in the Growth Plan provides a general policies similar to, although much less detailed, than the policy direction of the PPS with respect to mineral aggregate.

Specifically, the Growth Plan also identifies the need to carry out a sub-area assessment “*to identify significant mineral aggregate resources in the Greater Golden Horseshoe (GGH), and to develop a long-term strategy for ensure the wise use, conservation, availability and management of mineral aggregate resources in the GGH, as well as identifying opportunities for resource recovery and for co-ordinated*

approaches to rehabilitation where feasible” (Section 4.2.3). However the sub-area assessment has not yet been carried out.

The Growth Plan also places a priority on improving corridors for goods movement (Section 3.2.4).

The proposed Hidden Quarry conforms to the policies set out in the Growth Plan.

COUNTY OF WELLINGTON OFFICIAL PLAN

The subject property is mapped as part of the Mineral Aggregate Area overlay. Section 6.6.5 of the County of Wellington Official Plan sets out the following direction: “*New aggregate operations may be established within the Mineral Aggregate Area subject to the appropriate zoning and licensing.*” Therefore, an Official Plan Amendment is not required to permit the establishment of a mineral aggregate operation on the subject property.

The initial Planning Report (SAI, 2012) provides a conformity assessment with the relevant policies of the County of Wellington Official Plan (OP). It is my opinion that the conclusions set out in this prior report remain valid, and the proposed Hidden Quarry application, conforms to the planning policies and principles set out in the Official Plan.

SECTION 12: AGGREGATES RESOURCES ACT

Section 12 of the Aggregate Resources Act (ARA) requires that in considering whether a licence should be issued or refused, the the Minister or Board, as the case may be, shall have regard to the following:

- (a) the effect of the operation of the pit or quarry on the environment;
- (b) the effect of the operation of the pit or quarry on nearby communities;
- (c) any comments provided by a municipality in which the site is located;
- (d) the suitability of the progressive rehabilitation and final rehabilitation plans for the site;
- (e) any possible effects on ground and surface water resources;
- (f) any possible effects of the operation of the pit or quarry on agricultural resources;
- (g) any planning and land use considerations;
- (h) the main haulage routes and proposed truck traffic to and from the site;
- (i) the quality and quantity of the aggregate on the site;

(j) the applicant's history of compliance with this Act and the regulations, if a licence or permit has previously been issued to the applicant under this Act or a predecessor of this Act; and

(k) such other matters as are considered appropriate.

It is my opinion that the proposed quarry application has had regard to Section 12. The extensive reporting and peer review process has resulted in an improved quarry application and satisfactory clearance letters from all relevant provincial government agencies, including the MNR and MOECC. The following paragraphs document how the proposed Hidden Quarry conforms to relevant provisions of Section 12 of the ARA.

Effect of Operation on the Environment

It is my opinion that the proposed quarry application will not have a negative impact on significant natural heritage features. The agencies responsible for protecting natural heritage features, including the MNR, MOECC and GRCA, have reviewed the application and these agencies do not object to the proposed quarry.

Effect on Nearby Communities

The proposed Hidden Quarry is well separated and buffered from nearby communities. The closest communities are Rockwood and Crewson's Corners. Through the implementation of the Site Plans, sight lines into the proposed quarry are limited from these communities; the perimeter berming and landscaping in addition to existing natural vegetation help to screen the quarry from nearby communities. The potential for impacts related to water, blasting/vibration, noise and dust were all examined by the proponent. Extensive mitigative protocol and monitoring programs were set out on the Site Plans, as per the requirement of the ARA. These reports were peer reviewed by qualified engineers and technical specialists. No outstanding concerns remain with government authorities. extensive reporting and peer review process has resulted in an improved quarry application. Therefore, it is my opinion that the proposed quarry will have a minimal effect on nearby communities.

Comments by the Municipality

The Township of Guelph/Eramosa issued a comprehensive planning report (Howson, 2015) related to the proposed Peyton Pit. This report documented the status of the peer review process and set out a series of conditions that should be considered as part of the zoning approval process. JDCL is prepared to satisfy these conditions and enter into an agreement that would result in the improvement of the local road, such that it will be suitable as a haul route and entrance/exist to the quarry.

Suitability of Progressive and Final Rehabilitation Plans

The Progressive and Final Rehabilitation Plans have been designed to promote an ecological after use of the subject property. Measures, such as the reforestation of the site (with native trees and shrubs) and the creation of artificial wetlands, have been

implemented to ensure that the overall net positive impact on the local environment will result.

Any Possible Effects on Surface or Groundwater

The potential for negative effects on surface or groundwater is considered to be minimal. Detailed hydrogeological investigations have been completed in support of the proposed quarry application. The GRCA, MNRF and MOECC have reviewed the application and these agencies do not object to the project.

It is my opinion that the possible effects on surface and groundwater are minimal and effective mitigative protocols (and monitoring programs) have been implemented on the Site Plans to ensure that water resources are protected.

Effects on Agricultural Resources

The agricultural resources base, both onsite and on adjacent lands, was documented in the Agricultural Impact Assessment. In summary, there are no significant onsite structures related to agriculture and the site is not considered to be prime agricultural lands. Offsite impacts on agricultural resources is expected to be minimal.

Any Planning and Land Use Considerations

This report documents the conformity of the proposed application to relevant planning policies.

The only remaining planning/land use consideration relates to the approval of a zoning by-law amendment for the subject property. A draft of such amendment is included in the document package that was forwarded to the OMB and parties to the hearing. It is my opinion that the zoning by-law amendment is in a form suitable for the Minister and Board to issue a licence for the making, establishment and operation of a pit and quarry on the subject property.

Main Haulage Roads

The Hidden Quarry proposes to utilize Concession Road 6 (approximately 200 m) to gain access to Provincial Highway 7. Highway 7 is a major road in the area and it is well recognized as an appropriate haul road for truck traffic. Highway 7 will be improved, subject to the requirements of the MTO, such that trucks will have a safe access to and from the site.

With regard to Concession 6, there are no residences located on this portion of the township road. Therefore trucks will not have to pass residential or farm entrances, thus limiting the potential for impacts related to truck traffic and the haulage road. Concession 6, in the vicinity of the proposed quarry, will be improved to the municipal standard as directed by the township engineer.

It is my view that the potential for impacts related to the haulage road is minimal and acceptable.

Quality and Quantity of Aggregate

The subject property is situated on a unique mineral aggregate resource; the material overlying the bedrock consists of sand and gravel and the underlying bedrock resource is of provincial significance. The proposed extraction program will yield approximately 12 million tonnes of the highest quality reserves. Based on a review of aggregate mapping, the proposed Hidden Quarry will be the only such licence in the County of Wellington and Township of Guelph/Eramosa that exposes the Amabel Formation.

Applicant's History of Compliance

I am not aware of any compliance-related matters.

Any Other Matters

I am not aware of any other matters that the Minister or Board need to consider.

ROBERT P. STOVEL, M.Sc., RPP, MCIP, P.Ag.

EDUCATION

M.Sc, Rural Planning, University School of Rural Planning and Development, University of Guelph, 1988.

B.A. Geography, Wilfrid Laurier University, 1986.

MEMBERSHIPS

Member of the Ontario Professional Planners Institute.

Member of the Canadian Institute of Planners.

Member of the Ontario Institute of Agrolgists.

POSITIONS HELD

1995 - Present: Stovel and Associates Inc., Fergus, ON - President.

1993 - 1995: Ecological Services Group, Guelph, ON - Senior Project Manager.

1988 - 1992: Ecological Services For Planning Ltd., Guelph, ON - Planner.

EXPERIENCE

Mr. Stovel has extensive project experience on public sector and private sector developments. Aggregate projects that Mr. Stovel has provided consulting expertise include:

- Licence applications for pits and quarries,
- Wayside permit applications for pits,
- Site Plan amendments,
- Licence transfers and licence surrender,
- Compliance Assessment Reporting,
- Peer review assessments, and
- Evidence at Ontario Municipal Board hearings.

Coordinated private sector pit and quarry licence applications include: Wilson Quarry (Wellington North), Flamboro Quarries Licence Expansion, Cox Construction's Puslinch Pit Expansion, Ospringe Pit Expansion (Erin Township - Mulmur Aggregates), Weber Pit Licence (Arthur Township - Mulmur Aggregates), Lockhart Pit Expansion (Woolwich Township), Shoemaker Pit, Whitelaw Pit (TMGL - Pilkington Township), Wridale Pit (TMGL - Bentinck Township), Carter Pit, Simpson Pit, Devin Pit, Cole Pit (Centre Wellington -Hustonville Sand & Gravel), Roszell Pit (Puslinch Township - Preston Sand & Gravel), Plume Pit (Town of Minto - Hustonville and TMGL), Dufferin Construction - Wayside Borrow Pit (Hamilton Airport), Holstein Wayside Pit (Cox - Southgate), Aiken Pit (Southgate Township - Mulmur Aggregates), MTO Highway 8 Bridge and Road Development in the City of Kitchener (MTO/Seegmiller), MTO 406 Wayside Permit Project (Niagara), 407 Borrow and Aggregate Permit (Durham Region - MTO).

Mr. Stovel is certified under Section 8.4 of the Aggregate Resources Act to prepare Site Plans in Ontario.

Mr. Stovel has completed Level 1 and/or Level 2 Natural Environment Reports for the following pit licence applications: Bosomworth Pit (Pilkington), Whitelaw Pit (Pilkington), Darrington Pit (Pilkington), Plume Pit (Minto), Hale Farm (Minto), I-ON-X Acres Pit (Southwest Oxford), Schwartz Pit Expansion (Sullivan), Legge Pit (Sullivan), Greenwood Pit (East Garafraxa), Palen Pit Expansion (Hibbert), Kraemer Pit (Huron East), Martin Pit (Huron East), the Hartung Pit (North Perth), Puslinch Pit Expansion (Puslinch), Cole and Devin Pits (Pilkington), Holstein Pit (Southgate), Flanagan Pit (Southgate), Roszell Pit (Puslinch), Simpson Pit (Pilkington), Carter Pit (Pilkington), and Lewis Pit (Southgate).

Mr. Stovel has completed major site plan amendments for the Forbes Quarry to allow for a deeper extraction face for the quarry (below the water table).

Mr. Stovel has completed major site plan amendments for Mann Construction to allow for deeper pit extraction (below the water table) at their Martin and Wilson Pits.

Mr. Stovel assisted in the design of a commercial campground within a depleted aggregate pit (Highland Pines Campground – Phase 3).

Planning assignments include site plan preparation, official plan amendments, zoning by-law amendments, consent applications, plan of subdivision applications and peer review of pit applications. These projects have required considerable government and non-government agency liaison, interdisciplinary team coordination and the integration of a variety of disciplines. I have been qualified to provide evidence at both the Ontario Municipal Board and Joint Board.

Selected projects in planning projects include the following: peer review of Wind Power reporting, OPA/ZBA/Plan of Subdivision for Audrey Meadows and Bouck/Morrison Residential Developments in Puslinch Township, selected plan review for the Town of Halton Hills planning department, testimony at the OMB related to the Hoddinott Plan of Condominium development, environmental planning evaluation in support of proposed residential severance in Ballinafad, planning opinion report for the Van Ryn application, planning opinion report for the Trafalgar Road Sports Complex and environmental and agricultural planning justification reports relating to estate residential development applications in the Town of Milton and the Town of Halton Hills.

Public sector projects include the following: planning/resources management review for the Town of Halton Hills (residential development), County of Grey (agricultural) and the Township of North Dumfries (aggregate); input to provincial highway expansion in the County of Peterborough (MTO Class EA of Highway 7) and the County of Essex (MTO Class EA of Highway 3); municipal landfill site searches and site expansions in the County of Victoria, County of Peterborough, County of Essex, and Regional Municipality of Haldimand-Norfolk; municipal road widening project in the Region of York (Weston Road); municipal bridge project in the Township of Mono (County of Dufferin); YDSS expansion project in the Town of Markham and Town of Pickering; and municipal water and sewage works EA in the City of Stratford.

Mr. Stovel has completed Agricultural Impact Assessments for a range of projects including: highway corridor expansions, landfill expansions, estate residential developments, natural gas pipeline development, residential consents and mineral aggregate operations. Mr. Stovel has provided expert testimony to the Ontario Municipal Board on MDS 1 and 2 conformity and agricultural impacts. Mr. Stovel has prepared agricultural rehabilitation and restoration plans and has provided evidence to the Normal Farm Practices Protection Board.



Ontario

Ontario Municipal Board
Commission des affaires municipales de l'Ontario

ACKNOWLEDGMENT OF EXPERT'S DUTY

Case Number	Municipality
PL 150494	Township of Guelph-Eramosa

1. My name is Robert Paul Strel (name)
 I live at the Township of Centre Wellington (Fergus) (municipality)
 in the County of Wellington (county or region)
 in the Province of Ontario (province)
2. I have been engaged by or on behalf of James D. K. Construction Limited (name of party/parties) to provide evidence in relation to the above-noted Board proceeding.
3. I acknowledge that it is my duty to provide evidence in relation to this proceeding as follows:
 - a. to provide opinion evidence that is fair, objective and non-partisan;
 - b. to provide opinion evidence that is related only to matters that are within my area of expertise; and
 - c. to provide such additional assistance as the Board may reasonably require, to determine a matter in issue.
4. I acknowledge that the duty referred to above prevails over any obligation which I may owe to any party by whom or on whose behalf I am engaged.

Date Apr. 12/16

Robert Paul Strel
Signature