

# PLANNING JUSTIFICATION & AGGREGATE RESOURCES ACT SUMMARY STATEMENT REPORT

Arnott Pit

1443 Pine Grove Road

Part of Lot 3, Concession 5 (Lanark)

Township of Lanark Highlands, County of Lanark

Date:

**September 28, 2020**

Prepared for:

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# TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b> .....	1
<b>1.0 INTRODUCTION</b> .....	4
1.1 Project Overview.....	6
1.2 Required Applications.....	7
<b>2.0 BACKGROUND</b> .....	8
2.1 Description of the Subject Lands.....	8
2.2 Adjacent and Surrounding Land Uses.....	8
2.3 Mineral Aggregate Resources.....	9
2.4 Agricultural Resources and Soils.....	9
2.5 Natural Heritage Features.....	9
2.6 Water Resources.....	10
2.7 Archaeological Resources.....	10
<b>3.0 PLANNING ANALYSIS</b> .....	12
3.1 Provincial Policy Statement, 2020.....	12
3.2 County of Lanark Sustainable Communities Official Plan.....	17
3.3 Township of Lanark Highlands Official Plan.....	20
3.4 Township of Lanark Highlands Zoning By-Law No. 2003-451.....	23
<b>4.0 AGGREGATE RESOURCES ACT SUMMARY STATEMENT</b> .....	24
<b>5.0 CONCLUSIONS</b> .....	28

## LIST OF FIGURES & TABLES

---

Figure 1: Site Location

Figure 2: Air Photo Map

Figure 3: Arnott Pit Operational Plan

Figure 4: County of Lanark Sustainable Communities Official Plan - Schedule A, Land Use Designations

Figure 5: Township of Lanark Highlands Official Plan - Schedule A, Land Use & Transportation

Figure 6: Township of Lanark Highlands Official Plan - Schedule B, Development Constraints

Figure 7: Township of Lanark Highlands Zoning

### Tables

Table 1: List of Required Technical Reports.....4

Table 2: Required Applications and Approval Authorities.....7

# APPENDICES

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## **Appendix 1**

Draft Lanark County Sustainable Communities Official Plan Amendment

## **Appendix 2**

Draft Township of Lanark Highlands Official Plan Amendment

## **Appendix 3**

Draft Township of Lanark Highlands Zoning By-law Amendment

## **Appendix 4**

Curricula Vitae of Report Authors

# EXECUTIVE SUMMARY

Thomas Cavanagh Construction Limited (Cavanagh) is proposing a pit for the removal of sand and gravel on a portion of property they own at 1443 Pine Grove Road (County Road 12) in the Township of Lanark Highlands (Pt. Lot 3, Con. 5, geographic township of Lanark). The proposed pit would operate above the water table. The property is approximately 39 hectares (96 acres) in size. The licence area proposed for the Arnott Pit operation is approximately 19.5 hectares (48 acres) in size. It will operate as an extension to Cavanagh's existing Pine Grove Road Pit which abuts the site to the west.

The site is currently in use as farmland, for corn, and includes a residential dwelling and outbuildings. Land uses in the area of the site are comprised of aggregate extraction, farmland, rural residential dwellings and a cemetery. Within 300 m of the site, there are three ARA-licensed aggregate operations in various stages of development, with a further three ARA sites beyond.

Extraction boundaries have been established on the basis of avoiding impacts to natural features and archaeological sites; and, addressing sensitive land uses, being nearby homes. Mitigation techniques for the two closest homes, on the south side of Pine Grove Road include noise control berms. For the homes located either side of Township Concession Road 6A to the east of the site, a separation distance of approximately 300 m is in place.

Under the ARA, Cavanagh will be making a Category 3 application for a Class 'A' Licence to operate a pit above the water table. The maximum annual tonnage is proposed to be 250,000 tonnes, and routine truck traffic levels are expected to be similar to what currently occurs.

The site contains aggregate resources of quality similar to that of the Pine Grove Pit, and that economically serve known market areas from an area established for pit operations for well-over 50 years. There are approximately 1.5 to 2 million tonnes of high quality sand and gravel resources. The subject geological deposit is mapped by the Province as being the largest single Sand and Gravel Resource Area of 'Primary Significance' in the County.

To permit the proposed pit, applications are required to amend the Lanark County Sustainable Communities Official Plan, and Township of Lanark Highlands Official Plan and Zoning By-law. The majority of adjacent properties are currently zoned and designated for aggregate extraction and related uses. The site is recognized as containing significant aggregate resources based on both the Township's Official Plan and Zoning By-law.

While the Arnott Pit proposal is considered a new ARA licence application, it will be operated in conjunction with Cavanagh's Pine Grove Pit which is located immediately west of the site. The type of material to be extracted, and how extraction occurs and the material is processed, will be similar to that of the Pine Grove Pit, which will also provide primary access to and from the Arnott Pit site.

Aggregate material will be transported onto the County road using the Pine Grove Pit's existing entrance/exit at 1589 Pine Grove Road. Cavanagh may in the future wish to utilize a secondary access directly onto Pine Grove Road for truck traffic. This would be further reviewed with the County and would require appropriate entrance permit(s).

Extraction will commence at the central part of the west boundary of the Arnott Pit as an easterly progression of extraction from the Pine Grove Pit. Extraction will then generally proceed radially towards the north, east and south excavation setback limits. The extraction area has been divided into 9 discrete areas based on recommendations of the Noise Impact Assessment; and, 2 broad zones based on maintaining the pit floor above the water table, as recommended by the

Groundwater Table Assessment. Farmland uses of the site are proposed to continue until such time as those lands are required for aggregate extraction. Extraction will occur above the established water table to a maximum depth of 16 m and 8 m, subject to the zone of the site.

Processing of aggregate will occur on-site through use of a screening plant, to be operated on the pit floor and in accordance with recommendations of the Noise Impact Assessment. Noise control berms will be located proximal to the boundary segments closest to the nearest non-owned homes along Pine Grove Road. A visual screening berm will be located along Pine Grove Road where existing screening does not exist. The Arnott Pit is proposed to operate during the daytime hours between 07:00 - 19:00.

Rehabilitation of the site involves returning the pit floor to a condition suitable for agricultural use, as pasture. MNRF will be consulted at the time final rehabilitation is being undertaken. Given the potential for bedrock to be exposed during extraction, some elevated bedrock outcrops will remain un-vegetated to provide for a diversity of wildlife habitat.

The following technical reports and plans have been prepared in support of the proposed applications:

- Stage 1 and 2 Archaeological Assessment (Golder);
- Noise Impact Assessment (Golder);
- Groundwater Table Assessment (Golder);
- Natural Environment Level 1 and 2 Technical Report (Golder);
- Planning Justification & Aggregate Resources Act Summary Statement Report (MHBC);
- Site Plan (Golder).

Based on the natural environment fieldwork, a significant natural feature in the form of a Barn Swallow nest was identified in the on-site barn. As the proposed extraction will require removal of the barn, avoidance of potential impact or injury to birds or habitat is not possible. Mitigation for barn swallow will require 'registering' the proposed pit activity under the Endangered Species Act; and, creating replacement habitat, and preparing associated reporting. On adjacent lands to the site, within 120 m, mitigation for potential impacts to an unevaluated wetland is achieved through a minimum 30 m setback to be identified on the ground around the feature.

As recommended by Golder in the Groundwater Table Assessment, Cavanagh will periodically excavate test pits in the immediate area of active extraction during pit operations. These test pits will be used to further define the position of the groundwater table in close proximity to the active extraction area to ensure that extraction operations remain at least 1.5 m above the groundwater table. Should, during extraction operations, the groundwater table be encountered, excavation at that location shall cease and the area backfilled, and subsequent excavation will terminate at least 1.5 m above the groundwater table. There are no defined surface watercourses on or adjacent to the site.

Two early 19th century archaeological sites were identified as a result of the Archaeological Assessment prepared by Golder. These both lie outside of the proposed licensed area and will be protected from pit operations. The Ministry of Tourism, Culture and Sport (now Ministry of Heritage, Sport, Tourism and Culture Industries) has issued a letter confirming 'Review and Entry' into the Ontario Public Register of Archaeological Reports, for the subject Archaeological Assessment.

The Aggregate Resources Act Licence application has been prepared to meet requirements of the Provincial Standard for a Category 3, Class A pit and provide information relative to Section 12 of the ARA on how the proposed aggregate operation will be undertaken to ensure that any potential adverse impacts are minimized.

The *Planning Act* applications have been prepared in accordance with County and Township Requirements.

# 1.0 INTRODUCTION

Thomas Cavanagh Construction Limited ("Cavanagh") is a family-owned and operated company with over 700 employees based in the Ashton, Ontario. Founded in 1953 by Thomas Cavanagh, the firm specializes in all sectors of the construction industry. It has 40 pit and quarry operations across eastern Ontario.

Cavanagh is making an Aggregate Resources of Ontario Provincial Standards (AROPS) Category 3 application for a Class 'A' Licence under the *Aggregate Resources Act* (ARA) ("proposed Arnott Pit"). The applied for Licence would permit the operation of a pit for the extraction and processing of sand and gravel from above the water table. Applications for a County of Lanark and Township of Lanark Highlands Official Plan Amendments (OPA) and a Township of Lanark Highlands Zoning By-law Amendment (ZBA) under the *Planning Act* will also be submitted to re-designate and re-zone the property to permit aggregate extraction.

The Subject Lands are located on the south side of Lanark County Road 12 (Pine Grove Road), approximately 4 km northeast of the Village of Lanark. The lands are legally described as Part of Lot 3, Concession 5, geographic township of Lanark, Township of Lanark Highlands, County of Lanark (municipal address 1443 Pine Grove Road) – see **Figure 1: Site Location**. The area proposed to be licensed under the ARA for the proposed Arnott Pit is approximately 19.5 hectares (48 acres) and the proposed extraction area is 18.6 hectares (46 acres). The property owned by Cavanagh on which the subject Lands are located is 39 hectares (98 acres) in size and is currently in an agricultural condition (i.e. field crop). A farmstead (house and farm buildings) located at the northeast corner of the Subject Lands.

As shown on **Figure 2: Air Photo Map**, the proposed Arnott Pit is located in a rural area of the Township, where aggregate extraction and agricultural uses predominate, and with scattered rural residential uses.

In the process of preparing the *Planning Act* applications required for the proposed Arnott Pit, Cavanagh undertook pre-consultation with the County of Lanark, the Township of Lanark Highlands and the Mississippi Valley Conservation Authority, to discuss the Arnott Pit proposal and determine the application requirements. In addition, the Ministry of Natural Resources and Forestry (MNRF) was contacted and advised of the ARA application for the proposed Arnott Pit. The following table identifies the reports and technical studies required to accompany the applications under the *Planning Act* and *Aggregate Resources Act*.

Table 1: List of Required Technical Reports

Report	Author	Date
Planning Justification & Aggregate Resources Act Summary Statement Report	MHBC Planning	September 28, 2020
Groundwater Table Assessment	Golder Associates Ltd.	August 29, 2019

Natural Environment Level 1 and 2 Technical Report	Golder Associates Ltd.	August 2019
Noise Impact Assessment	Golder Associates Ltd.	September 2019
Stage 1 and 2 Archaeological Assessment	Golder Associates Ltd.	November 29, 2018
ARA Site Plan	Golder Associates Ltd.	September 24, 2020

This Report is the Planning Justification & ARA Summary Report for the proposed Arnott Pit. Included in the Report is an analysis of applicable planning policy contained within the Provincial Policy Statement (PPS), the County of Lanark Sustainable Communities Official Plan, the Township of Lanark Highlands Official Plan and Zoning By-law; and, the Summary Statement requirements pursuant to the type of *Aggregate Resources Act* application being filed.



# 1.1 Project Overview

Cavanagh's proposed Arnott Pit is located on Part of Lot 3, Concession 5, geographic township of Lanark, Township of Lanark Highlands, County of Lanark (the "site"), on property owned by Cavanagh. Approval of the ARA and *Planning Act* applications being filed by Cavanagh, with the MNRF and County/Township, respectively, will allow for the operation of an AROPS Category 3 aggregate extraction operation, being a pit for the extraction of sand and gravel from at least 1.5 m above the water table with annual production permitted to be over 20,000 tonnes.

The aggregate deposit on the site is deeper (i.e. thicker) at the north of the site and thins at the southern and eastern margins of the site, where it overlies bedrock. The deposit is comprised of sand and gravel glacial deposits (Groundwater Table Assessment, Golder August 2019). The site is estimated to contain approximately 1.5 to 2 million tonnes of quality aggregate resources suitable for use in road based granular construction materials as well as aggregate used for the manufacture of asphalt and concrete. Aggregate resources extracted from the site will be used to supply material for Cavanagh's construction projects in the area as well supplying aggregate in raw form to Cavanagh's processing plant equipment located at its other pit/quarry operations in the immediate area.

The proposed Licence area is about 19.5ha, with an extraction area of about 18.6ha. The maximum annual extraction tonnage for the site will be 250,000 tonnes, although an annual extraction rate of 50,000 to 100,000 tonnes is anticipated throughout the life of the operation. Truck traffic will utilize the existing entrance/exit onto County Road 12 at Cavanagh's existing Pine Grove Pit, which abuts the west boundary of the proposed Arnott Pit, to access the market area or other Cavanagh pit operations. Cavanagh may in the future wish to utilize a new secondary access directly onto County Road 12 for truck traffic. This would be further reviewed with the County at that time and would require the necessary County approvals and entrance permit(s).

The area proposed to be extracted is in an agricultural condition, with approximately 16.5 ha in cultivation and the remaining 2 ha being occupied by the farmstead (house, farm outbuildings and associated land). The site does not contain any significant terrestrial or aquatic natural heritage features, with the only feature of significance being barn swallow, an endangered bird species, found to be nesting in the barn. Access to the farmstead will be maintained via the existing driveway at 1443 Pine Grove Road (County Road 12) until such time as the buildings must be cleared to permit extraction. The necessary approvals under the Endangered Species Act for removal of bank swallow habitat will be applied for at that time, in advance of habitat removal.

Extraction at the proposed Arnott Pit will commence at the central part of its west boundary as an easterly progression of extraction from the Pine Grove Pit - see **Figure 3: Arnott Pit Operational Plan**. Extraction will then generally proceed radially towards the north, east and south excavation limits. The extraction area has been divided into 9 discrete 'areas' based on recommendations of the Noise Impact Assessment; and, 2 broad 'zones' based on maintaining the pit floor above the water table, as recommended in the Groundwater Table Assessment. Farmland uses of the site are proposed to continue until such time as those lands are required for aggregate extraction. Extraction will occur above the established water table to a maximum depth of 16 m and 8 m, subject to the 'zone' of the site.

Processing of aggregate will occur on-site through use of a portable screening plant, to be operated on the pit floor and in accordance with recommendations of the Noise Impact Assessment. Noise control berms will be located proximal to the boundary segments closest to the nearest non-owned homes on Pine Grove Road and Arnott Road. A visual screening berm will be located along Pine

Grove Road where pre-existing screening does not exist. The Arnott pit is proposed to operate during the daytime hours between 07:00 - 19:00.

Rehabilitation of the site will occur on a progressive basis, subject to site operations, and involves returning the pit floor to a condition suitable for agricultural use, as pasture. MNRF will be consulted at the time final rehabilitation is being undertaken. Given the potential for bedrock to be exposed during extraction, some elevated bedrock outcrops areas may remain un-vegetated to provide for a diversity of wildlife habitat.

The proposed operation, including setbacks, noise control berms, equipment controls and phasing has been designed to minimize impacts on surrounding land uses and allow for progressive rehabilitation of the site. Details of the proposed operations and rehabilitation are provided in the *Aggregate Resources Act* Site Plan.

## 1.2 Required Applications

The following applications are required to permit the proposed Arnott Pit.

**Table 2: Required Applications and Approval Authorities**

Application	Approval Authority
Township of Lanark Highlands Zoning By-law Amendment	Township of Lanark Highlands
Township of Lanark Highlands Official Plan Amendment	County of Lanark
County of Lanark Sustainable Communities Official Plan Amendment	County of Lanark
Aggregate Resources Act (ARA) Licence application	Ministry of Natural Resources and Forestry

# 2.0 BACKGROUND

## 2.1 Description of the Subject Lands

The site is an approximately rectangular-shaped parcel with its north boundary, i.e. frontage, on County Road 12 (Pine Grove Road) - see **Figure 2: Air Photo Map**. Its west boundary is at the property line adjacent to Cavanagh's existing Pine Grove Pit. The south boundary is at the rear property line. The east boundary is fully within the property includes a small curve just north of its mid-point, which has been incorporated to address setbacks from houses east of the site. In general, site boundaries have been established on the basis of being able to extract viable aggregate material, avoiding impacts to natural features and archaeological sites; and, with consideration to sensitive land uses, being nearby rural homes.

The site and Cavanagh's adjacent owned property is in use for agricultural purposes, including a farmstead at the northeast corner of the site which is currently occupied by a tenant. The farmstead includes a residence, farm buildings (barn, sheds) and associated land.

## 2.2 Adjacent and Surrounding Land Uses

The proposed Arnott Pit is approximately 4 km (by road) northeast of the Village of Lanark. Regionally, it is about 18 km (straight-line distance) from the Town of Perth to the south and Town of Carleton Place to the east. Land uses in the area of the site are comprised of aggregate extraction, farmland, rural residential dwellings and the Pine Grove Cemetery.

Within 300 metres (m) of the site, there are three ARA-licensed aggregate operations in various stages of development, with a further three ARA sites beyond (see **Figure 2: Air Photo Map**). This level of extractive activity is a reflection of the significance of the geological sand and gravel deposit that exists in the area, which has been proven to economically serve known market areas for well-over 50 years. Other natural features in the immediate area include sugar maple woodlots beyond the south and east corners of the site and a sugar maple-white ash woodlot beyond the northeast corner of the site. A small unevaluated wetland also exists within the northeast woodlot. These features are located outside of the proposed Arnott Pit site.

Four homes are located within 300 m of the proposed Arnott Pit (not including the Cavanagh-owned on-site farmstead residence). For the closest of these, being the home at 1519 Pine Grove Road and the home on Arnott Road, the Noise Impact Assessment has recommended the construction of noise control berms, which recommendation has been incorporated into the ARA site plan. For the remaining homes, a separation distance of over 250 m has been provided for through the location of site boundaries.

## 2.3 Mineral Aggregate Resources

Sand and gravel deposits on the site range in thickness from approximately 15m at the north and northwest to up to 8 m at the south and southeast. The site contains known aggregate resources of quality similar to that of the Pine Grove Pit. These proposed Arnott Pit resources have been investigated by Cavanagh and Golder Associates Ltd. (Golder) through a subsurface test-pitting and borehole drilling program undertaken as part of the groundwater table assessment. Cavanagh estimates up to 1.5 to 2 million tonnes of reserves are available for extraction.

The subject geological deposit is mapped by the Province through Aggregate Resources Inventory Paper (ARIP) 189 as a Selected Sand and Gravel Resource Area comprising a glaciofluvial complex, made up of component deposits such as eskers, deltas and fans. Such types of deposits are typically considered the most important sand and gravel deposits. In the case of the subject deposit, it is the largest single identification of a Sand and Gravel Resource Area of 'Primary Significance' in the County, as mapped in ARIP 189.

## 2.4 Agricultural Resources and Soils

The proposed site is currently in an active agricultural condition and is primarily used for cash cropping.

The Canada Land Inventory (CLI) soil classification for the site (as per mapping from Land Information Ontario) is Class 4. As such, the proposed Arnott Pit is not considered to be located on prime agricultural land within a prime agricultural area. Under such conditions, there is no Provincial or Municipal (i.e. Official Plan) requirement to return the site, through rehabilitation, to an agricultural condition.

That being said, it is Cavanagh's desire through progressive and final rehabilitation to return the site to an agricultural use, such as pasture, on those areas of the pit floor where sufficient soil is available to be re-spread to provide for agricultural use. This is the most logical use of the pit site, once depleted and rehabilitated, and will be consistent with surrounding land uses, including the remainder of Cavanagh's property.

## 2.5 Natural Heritage Features

A Natural Environment Level 1 and 2 Technical Report was prepared by Golder to meet ARA and Provincial and Municipal (County/Township) planning policy considerations.

The subject site is primarily in a fully agricultural condition, with no defined watercourses on or adjacent to the site. However, it does contain farmstead structures, and mature sugar maple and white ash woodlots occur off-site to the southwest, southeast and northeast, with a small unevaluated wetland in the northeast woodlot<sup>1</sup>. As such, these areas received specific attention during the completion of the Natural Environment Report for the proposed Arnott Pit.

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<sup>1</sup> It should be noted that a portion of the southwest woodlot occurs on the existing Pine Grove Pit licensed area and it may be removed in whole or in part subject to that pit site's permitted extraction activity.

Based on the natural environment fieldwork, a significant natural feature in the form of a Barn Swallow nest was identified in the on-site barn. As the proposed extraction will require removal of the barn, avoidance of potential impact or injury to birds or habitat is not possible. Mitigation for barn swallow will require 'registering' the proposed pit activity under the Endangered Species Act; and, creating replacement habitat, and preparing associated reporting.

The Natural Environment Report (Golder, August 2019) verified there are no surface water resources on-site. An unevaluated wetland lies in a forested area to the northeast of the site, within the 120 m study area. The Report found there would be no impacts to this feature given the pit is to be operated above the water table, the separation distance, and the lack of any surface connection to it. It recommended that a minimum 30 m setback be identified on the ground around the feature. The setback is located outside of the proposed licensed area.

## 2.6 Water Resources

Given the type of ARA Licence application being submitted by Cavanagh, and the resultant technical report and review requirements, the proposed Arnott Pit will be restricted to operate at least 1.5m above the established groundwater table.

In order to determine the established level of the groundwater table at the site, a Groundwater Table Assessment (Golder, August 29, 2019) was undertaken. This Assessment involved a subsurface investigation of the site using test-pitting and drilled boreholes, and installation of groundwater table monitoring equipment.

The Assessment concluded that the water table occurs in the sand and gravel at the north and northwest parts of the site, and in the bedrock, which underlies a less thick sand and gravel layer, at the south and southeast parts of the site. This information was used to identify the maximum depth of excavation at the pit site to ensure that extraction remains at least 1.5 m above the established groundwater table, and that information has been incorporated into the ARA site plan.

In addition, as recommended by Golder in their Assessment, Cavanagh will periodically excavate test pits in the immediate area of active extraction during pit operations. These test pits will be used to further define the position of the groundwater table in close proximity to the active extraction area to ensure that extraction operations remain at least 1.5 m above the groundwater table. Should, during extraction operations, the groundwater table be encountered, excavation at that location shall cease and the area backfilled, and subsequent excavation will terminate at least 1.5 m above the groundwater table.

## 2.7 Archaeological Resources

Provincial, County and Township planning policies require that archaeological assessments be carried out as part of the development application and approval process. Where significant archaeological resources are found, the typical Provincial requirement is that they are conserved by removal and documentation; or, by preservation on-site.

A Stage 1 and 2 Archaeological Assessment (Golder, November 2018) was completed for the site as a requirement under the ARA and *Planning Act* application processes. The Stage 2 (i.e. field investigations) Archaeological Assessment was undertaken in mid-2017 and identified two early 19th century archaeological sites on the Cavanagh property. Almost all of the artifacts were of a food/beverage function, and were all mostly sherds of ceramic tableware.

On finding these sites and considering their location with respect to the known presence of viable mineral aggregate resources, Cavanagh decided to locate the licensed boundary of the proposed Arnott Pit such that the archaeological sites and a buffer around each of them would not be part of the ARA licensed area. The buffer assigned to the archeological sites by Golder was 70 m.

The Ministry of Tourism, Culture and Sport (now Ministry of Heritage, Sport, Tourism and Culture Industries) has issued a letter confirming 'Review and Entry' into the Ontario Public Register of Archaeological Reports, for the subject Archaeological Assessment. This letter is provided with the Stage 1 and 2 Archaeological Assessment (Golder, November 2018).

# 3.0 PLANNING ANALYSIS

The following is an assessment of the proposed Arnott Pit relative to the planning policies and provisions of the following documents:

- Provincial Policy Statement, 2020;
- County of Lanark Sustainable Communities Official Plan (adopted June 27, 2012);
- Township of Lanark Highlands Official Plan (August 2016);
- Township of Lanark Highlands Zoning By-Law No. 2003-451 (November 18, 2003);
- Aggregate Resources Act Provincial Standards.

## 3.1 Provincial Policy Statement, 2020

The 2020 Provincial Policy Statement (PPS) came into effect on May 1, 2020, and replaced the PPS, 2014. Planning decisions made on or after May 1, 2020, must be consistent with the PPS, 2020<sup>2</sup>.

The PPS provides policy direction on matters of provincial interest related to land use planning and development. The PPS provides for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural environment. (Part I, Preamble).

The PPS is a policy-led planning approach that recognizes the complex inter-relationship among environmental, economic and social factors in land use planning. The PPS supports a comprehensive, integrated and long-term approach to planning and recognizes linkages among policy areas. (Part III, How to Read the Provincial Policy Statement).

The PPS recognizes that the Province's natural heritage resources, water, agricultural lands, mineral aggregate resources, cultural heritage, including those of indigenous communities; and, archaeological resources, provide important environmental, economic and social benefits. The wise use and management of these resources over the long term is a key Provincial interest. The Province must ensure that its resources are managed in a sustainable way to protect essential ecological processes and public health and safety, minimize environmental and social impacts, including those brought on by climate change, and meet its long-term economic needs. (Part IV, Vision for Ontario's Land Use Planning System).

Part V of the PPS, 2020, is made-up of the Policies, broken-down into three main Sections. Of relevance to the proposed Arnott Pit are Section 1.0, Building Strong Healthy Communities, and Section 2.0, Wise Use and Management of Resources. (Section 3.0 provides policies on Protecting Public Health and Safety relating to natural and human-made hazards).

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<sup>2</sup> The majority of the changes in the PPS, 2020, relate to housing and employment areas. As it relates to agriculture and natural heritage, water, mineral aggregate; and archaeological resources, the PPS, 2020, is essentially unchanged from the PPS, 2014 which it replaced.

As part of this Planning Analysis, each specific and relevant PPS, 2020, Part V Section 1.0 and 2.0 policy provision is excerpted below in italics, and a response is provided to demonstrate how the Arnott Pit Proposal is consistent with the PPS:

## 1.0 Building Strong Healthy Communities

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

#### 1.1.5 Rural Lands in Municipalities

*1.1.5.2 "On rural lands located in municipalities, permitted uses are:*

- a) the management or use of resources;*
- b) resource-based recreational uses (including recreational dwellings);*
- c) limited residential development;"*
- d) agricultural uses, agriculture-related uses, on-farm diversified uses and normal farm practices, in accordance with provincial standards;*

*1.1.5.5 "development shall be appropriate to the infrastructure which is planned or available, and avoid the need for the unjustified and/or uneconomical expansion of this infrastructure."*

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

The proposed Arnott Pit is located on rural lands and the management or use of mineral aggregate resources is a permitted use in the rural area. The proposed pit represents the wise management of a non-renewable resource from a long-established and Provincially-mapped aggregate supply area to known markets, and will support long-term economic prosperity and diversity of the rural economy by optimizing the use of land and resources. Agricultural uses on the site will continue and co-exist with pit extraction. Once depleted and rehabilitated, on a progressive and final basis, the proposed Arnott Pit will be returned to an agricultural use.

## 1.2 Coordination

### 1.2.6 Land Use Compatibility

*1.2.6.1 "Major facilities and sensitive land uses shall be planned and developed to avoid, or if avoidance is not possible, minimize and mitigate any potential adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term operational and economic viability of major facilities in accordance with provincial guidelines, standards and procedures."*

The proposed Arnott Pit has been located to avoid sensitive uses and has been designed and buffered to mitigate potential adverse effects on such uses. The risk to public health and safety are minimized by implementation of the recommendations of the technical reports and studies, as prescribed on the ARA Site Plan, and through adherence to Provincial Standards and Prescribed ARA Licence Conditions, which will apply to any Licence that is issued. Further, the site is identified in Provincial geological mapping and municipal planning documents as containing significant sand and gravel resources.



## 1.6 Infrastructure and Public Service Facilities

### 1.6.7 Transportation Systems

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

*1.6.7.2 "Efficient use should be made of existing and planned infrastructure..."*

The proposed Arnott Pit represents an efficient use of existing infrastructure by utilizing existing truck routes including a County 'Arterial Rural' road.

## 1.7 Long Term Economic Prosperity

*1.7.1 "Long-term economic prosperity should be supported by:*

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

The proposed Arnott Pit optimizes the long-term availability of mineral aggregate resources and utilizes existing infrastructure.

Section 2.0 of Part V of the PPS is entitled "Wise Use and Management of Resources". The introduction to this section reads:

*"Ontario's long-term prosperity, environmental health, and social well-being depend on protecting natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for their economic, environmental and social benefits."*

Making this site available for aggregate extraction represents the wise use and management of resources, providing economic and social benefits, while minimizing potential environmental impacts.

## 2.1 Natural Heritage

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

The subject lands are predominately active agricultural land with no woodlot cover or surface water features. Natural features in the area will be protected for the long term.

*2.1.5 "Development and site alteration shall not be permitted in:*

- a) significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E';*
- b) significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)';*
- c) significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)';*
- d) significant wildlife habitat;*
- e) significant areas of natural and scientific interest; and*

- f) coastal wetlands in Ecoregions 5E, 6E and 7E<sup>1</sup> that are not subject to policy 2.1.4(b) unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions."*

The significant natural features identified in 2.1.5 are not located within the proposed Arnott Pit area.

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

No fish habitat exists on site.

*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."*

A small portion of the proposed Arnott Pit contains habitat of endangered and threatened species. The barn which forms part of the farmstead at the northeast part of the site provides habitat for Barn Swallow. As it will be removed, when necessary, to allow for pit extraction, the Natural Environment Report (EIS) completed by Golder for the Proposal has identified the requirement to apply for the necessary approvals under the Endangered Species Act that would permit the removal of habitat, and provide for creating replacement habitat, and preparing associated reporting. This technical report recommendation, as required under the ARA, has been incorporated into the ARA site plan and forms part of the requirements the ARA licensee must adhere to.

Therefore extraction may only occur in this area in accordance with requirements under the Endangered Species Act.

*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 no negative impacts on the natural features or on their ecological functions."*

The adjacent lands to the pit (within 120 m) contain an unevaluated wetland. The Natural Environment Report concluded that there will be no negative impact on this feature given the separation distance, lack of any surface water connections; and, the pit being operated above the water table. A 30 m setback will be marked on the ground around the wetland feature.

## 2.2 Water

*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."*

No sensitive surface water features and sensitive ground water features have been identified with respect to the proposed Arnott pit location or operation. The pit will be operated such that extraction occurs at least 1.5 m above the groundwater table, as established through the Groundwater Table Assessment carried-out by Golder. A program of determining the location of the water table through the ongoing (i.e. as the pit is being operated) digging of test-pits has been recommended by Golder and is included on the ARA site plan.

## 2.3 Agriculture

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

The proposed Arnott Pit is not located on lands classified as a 'prime agricultural area'. Nevertheless, the rehabilitation plan for the pit, part of the ARA site plan, is to return the site to an agricultural use where sufficient previously stripped and retained soil overburden is available to be re-spread over the pit floor.

## 2.5 Mineral Aggregate Resources

### 2.5.1 *"Mineral aggregate resources shall be protected for long-term use and, where provincial information is available, deposits of mineral aggregate resources shall be identified."*

The subject lands contain mineral aggregate resources consisting of sand and gravel of known quality and proven acceptability for aggregate 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."*

The proposal makes available a mineral aggregate resource that will serve well-established market areas and customers, including Provincial and municipal public authorities.

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

The Arnott Pit operation has been designed in a manner which minimizes social, economic and environmental impacts. It will utilize the presence of Cavanagh's abutting Pine Grove Pit and other nearby infrastructure and facilities to provide for a continued supply of quality aggregate material from a known and Provincially and locally identified aggregate resource.

#### *"Mineral aggregate resource conservation shall be undertaken, including through the use of accessory aggregate recycling facilities within operations, wherever feasible." (2.5.2.3)*

Mineral aggregate resource conservation will be undertaken through making available primary aggregate resource which can be blended, or mixed, with former aggregate products as a part of recycling the former products into secondary aggregate resource material. Note that recycling activities as described are not proposed to occur at the Arnott Pit, given Cavanagh's other pit and associated facilities in the immediate area.

#### 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."*

Rehabilitation of the pit will be progressive, culminating in the final rehabilitation of the site once the pit is depleted and processing operations have ceased. The floor area of the pit will be returned to an agricultural use, where sufficient depth of re-applied soil is available. This proposed final land

use is compatible with surrounding land use and conforms to the current and future anticipated land use designations in the Township and County Official Plans.

## 2.6 Cultural Heritage and Archaeology

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

The above types of resources have not been identified at the site.

*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."*

An Archaeological Assessment undertaken by Golder identified two locations of early 19<sup>th</sup> century habitation on the property on which the proposed Arnott Pit will be located. These archaeological find locations, and a Golder recommended 70 m buffer around them, are located outside of the proposed Arnott Pit site and therefore will not be impacted by the pit operation.

*2.6.3 "Planning authorities shall not permit development and site alteration on adjacent lands to protected heritage property except where the proposed development and site alteration has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved." (2.6.3)*

There are no protected heritage properties located on or adjacent to the subject lands.

In summary, based on the planning analysis described above, the proposed Arnott Pit is consistent with the Provincial Policy Statement, 2020.

## 3.2 County of Lanark Sustainable Communities Official Plan

The County of Lanark Sustainable Communities Official Plan (SCOP) was adopted by the County on June 27, 2012<sup>3</sup>.

The proposed Arnott Pit applications are required to conform to the SCOP. Within the SCOP, the subject lands are designated 'Rural' - see **Figure 4: County of Lanark Sustainable Communities Official Plan Schedule A, Land Use Designations**. Also of note is that the site lies outside of the following designations: Agricultural Land, Provincially Significant Wetland (PSW), Area of Natural and Scientific Interest (ANSI), Significant Woodland and Floodplain. The site is adjacent to Licensed Aggregate Extraction Operations.

Given the designation of the site as 'Rural', an amendment to the SCOP is required to permit the proposed Arnott Pit. The SCOP Official Plan Amendment (OPA) will be to amend the designation from 'Rural' to 'Licensed Aggregate Extraction Operation', which requires several policy provisions to be addressed. The relevant policies are excerpted below, in the order they appear in SCOP, with

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<sup>3</sup> The *Planning Act* required Official Plan for the County has been combined with an Integrated Community Sustainability Plan (ICSP) to result in the Sustainable Communities Official Plan (SCOP). The ICSP is not a part of the Official Plan under the meaning of the *Planning Act*.

a response provided to each specific policy to demonstrate how the Proposal conforms to the County SCOP:

#### **5.4 General Land Use Policies**

*5. Where the policies in this Plan provide for the undertaking of an Environmental Impact Statement (EIS), it is understood that, on the basis of consultation with the appropriate review agency, the EIS may be scoped or eliminated in those instances where the potential impact of development is reduced or non-existent.*

The Natural Environment Report (NER) completed by Golder for the Proposal has been prepared to address the SCOP requirement of an Environmental Impact Statement (EIS) as well as the Provincial Standards' licence application requirements under the ARA.

The NER identified habitat of endangered species exists at the site, in the form of a single Barn Swallow nest in the on-site barn. As the barn is within an area proposed for pit extraction, application will be made under the Endangered Species Act (ESA) to remove the barn, and provide for the necessary replacement habitat, mitigation measures; and, monitoring and reporting requirement under the ESA.

The NER also identified the presence of an unevaluated wetland in the woodlot beyond and to the northeast of the site. By virtue of the distance between the site and the wetland, being a minimum of 30 m, the lack of any surface water connections; and, the pit being operated above the water table, the NER determined there would be no impacts to the wetland.

#### **6.2.2.5 Zoning and Development Control**

*The establishment of any new pit or quarry or the expansion to existing licensed areas shall be in accordance with the Aggregate Resources Act and will require an amendment to this Plan and to the local Official Plan. Studies and site plans required under the Aggregate Resources Act shall be reviewed prior to any Official Plan Amendment or rezoning.*

The establishment of the proposed Arnott Pit including the technical studies and site plan are in accordance with the ARA. An amendment is being submitted to the SCOP and the local Official Plan.

#### **7.8 Noise and Vibration**

*Noise and vibration impacts shall be addressed for new sensitive land uses adjacent to stationary or line sources where noise and vibration may be generated. The approval authority may require the proponent to undertake noise and/or vibration studies to assess the impact on existing or proposed sensitive land uses within minimum distances identified in Ministry of Environment guidelines including Publication LU- 131, Noise Assessment Criteria in Land Use Planning. Noise and/or vibration attenuation measures will be implemented, as required, to reduce impacts to acceptable levels.*

#### **7.9 Incompatible Land Uses**

*Every effort shall be made to prevent or minimize future land use conflicts which can arise when incompatible land uses develop in close proximity to one another. Ministry of the Environment guidelines on Land Use Compatibility (Guidelines D-1, D-2, D-4 and D-6 and any other relevant or future MOE Guideline documents) should be considered when preparing and adopting local Official Plans and Zoning By-laws and when considering amendments to this Plan.*

A Noise Impact Assessment has been prepared to address ARA requirements and the above-described SCOP requirements. The Assessment has made several recommendations regarding the design and operation of the proposed Arnott Pit, in order to address land use compatibility issues

most notably being noise levels from pit operations and haulage. Vibration is not an impact that occurs at sand and gravel pit operations.

Physical mitigation is accomplished by the required construction of two noise control berms. The berm at the northwest corner of the site is designed to mitigate noise for the receptor at 1519 Pine Grove Road. The berm located just beyond the northeast corner of the site, on Cavanagh property, is designed to mitigate noise for the receptor on Arnott Road. The berm is located off-site to maximize reserves at that part of the pit. Operational mitigation is provided through controls and restrictions on the types and number of operating equipment, and their location.

The Assessment and its recommendations have been considerations in the location of the site's extraction area, and operational methods, and are included in the ARA site plan.

To provide for enhanced visual screening of the pit from traffic on County Road 12, a berm is proposed at the frontage of the pit site where existing topography does not screen the site from view.

#### **8.2.10 Consultation with First Nations**

*The Algonquins of Ontario shall be consulted on any Archaeological Studies related to proposed developments where areas of Algonquin Interest and/or Native Values and/or the potential for aboriginal artifacts to be encountered have been identified.*

*The Algonquins of Ontario shall be consulted on any Environmental Impact Studies related to proposed developments where areas of Algonquin interest and/or Native Values and/or the potential for aboriginal artifacts to be encountered have been identified.*

The Algonquins of Ontario will be consulted on the proposed application including the Archaeological Assessment and Environmental Impact Study as part of the ARA application process (administered by MNRF).

#### **8.3.1 Amendments to the Sustainable Communities Official Plan**

*Amendments to this Plan shall be considered in accordance with related policies elsewhere in this Plan. In general, amendments will only be considered when they are justified and when the required supportive information is provided as stated in the policy sector proposed for revision. Proposed amendments to this Plan shall be accompanied by sufficient information to allow Council to fully understand and consider the following:*

- 1. the impact of the proposed change on the achievement of the stated goals, objectives and policies expressed in this Plan;*
- 2. the need for the proposed change;*
- 3. the effect of the proposed change on the need for public services and facilities;*
- 4. the physical suitability of the land for the proposed use.*

*Accordingly applications to amend this Plan will not be considered complete until the information and materials required under the Planning Act and Regulation 543/06 have been provided.*

The SCOP OPA being submitted for the proposed Arnott Pit concerns an amendment to Schedule A. Land Use Designations (from 'Rural' to 'Licensed Aggregate Extraction Operation'). No policy section is being proposed for amendment. This Planning Justification & Aggregate Resources Act Summary Statement Report provides the necessary and relevant information as required by SCOP, and consistent with the PPS, in support of the Arnott Pit SCOP OPA.

#### **8.3.4 Local Official Plans and Official Plan Amendments**

*Lanark County is the approval authority for local Official Plans and Official plan Amendments. In addition to any requirements of the Local Official Plans, the complete application requirements*

*which are listed in section 8.3.1 shall also apply to the review of local Official Plans and Official plan Amendments by the County.*

See section 3.3 of this Report which addresses the local, i.e. Township, OPA process.

In conclusion, the proposed Arnott Pit conforms to the County of Lanark Sustainable Communities Official Plan.

See **Appendix 2** for a copy of the draft County of Lanark Sustainable Communities Official Plan Amendment and Schedule.

## 3.3 Township of Lanark Highlands Official Plan

The Township of Lanark Highlands Official Plan was approved by the Ministry of Municipal Affairs and Housing on December 17, 2012, and the Ontario Municipal Board on August 4, 2016.

The proposed Arnott Pit is required to conform to the Township Official Plan (OP). Within the Township Official Plan, the subject lands are designated 'Rural Communities' - see **Figure 5: Township of Lanark Highlands Official Plan, Schedule A, Land Use & Transportation**).

Also of note, and consistent with the County SCOP, the site is outside of the 'Provincially Significant Wetland' land use designation; and, the Area of Natural & Scientific Interest, Deer Yard and Flood Plain mapped areas on SCOP Schedule B, Development Constraints. The site is partially within the 'Mineral Aggregate Reserve' mapped area on Schedule B.

Given the designation of the site as 'Rural Communities', an amendment to the Township OP is required to permit the proposed Arnott Pit. The Township Official Plan Amendment (OPA) will be to amend the designation from 'Rural Communities' to 'Mineral Aggregate Resource Policy Area – Pit', which requires several policy provisions to be addressed. The relevant policies are excerpted below, in the order they appear in the OP, with a response provided to each specific policy to demonstrate how the Proposal conforms to the Township's OP:

### 4.0 OUR RESOURCE LANDS

*Resource lands make up a significant component of land uses in Lanark Highlands. Mineral resources and forestry are important to the overall economic base of the Township. Aggregate resources such as sand, gravel and limestone have been evaluated and appropriate land use policies have been developed to ensure the wise use and conservation of these resources for future generations.*

The proposed Arnott Pit will allow for the utilization of sand and gravel resources and thereby contribute to the local economy by virtue of positive benefits from continued local employment, purchases and provision of services such as fuel, maintenance, and construction. The ARA site plan for the proposed pit has been designed based on input from technical specialists and professional planners, and to meet the requirements of the *Aggregate Resources Act*. The site plan will become legally binding on the licensee at the time a licence is issued by MNRF, and will provide for the wise use of this non-renewable and economically crucial natural resource.

*4.1.3.2 Where an Official Plan amendment is proposed which could result in the redesignation of lands to Mineral Aggregate Resource Policy Area in order to facilitate the establishment or addition of previously unlicensed area to a licensed extraction operation and where the limits of the extraction operation could ultimately be located within 300 metres (984 feet) of a residential,*

*institutional or commercial use on another lot for a licensed pit and 500 meters (1640 feet) for a licensed quarry, such proposed amendment shall be supported by the following:*

- 1. Hydrogeological investigations, in accordance with the Aggregate Resources Act, conducted by a qualified professional, which demonstrate conclusively that the extraction operation will not result in negative impacts on the existing non-extraction development's water and sewer services;*
- 2. Any other investigation as required by the approval authority such as traffic studies, noise studies, vibration studies, slope stability studies etc. are carried out and demonstrate conclusively that the proposed extraction operation can proceed without negative impacts on the existing non-extraction development. Such studies are to be carried out by qualified professionals.*

The Groundwater Table Assessment carried out by Golder has been prepared in accordance with the Provincial Standards' licence application requirements for a Class A pit licence, where the pit is to be operated above the water table. Based on the results of their investigation, Golder has identified to what maximum depths (or elevations) the pit can be operated to, in order that extraction occurs at least 1.5 m above the established groundwater table, thereby addressing Provincial requirements. These elevations are incorporated into the ARA site plan.

In their Assessment, Golder state that the operation of the pit will not result in alteration (lowering) of the groundwater table in the overburden or the bedrock; and, consequently, there is no potential for the pit operation to negatively impact existing water supply wells or septic systems in the vicinity of the site.

At the time of a pre-consultation meeting with Township Planning Staff, no other study requirements were identified for the purposes of preparing and submitting the OPA for consideration by the Township.

#### **4.1.4 Mineral Aggregate Reserve**

*Potential pit and quarry resources are identified as Mineral Aggregate Reserve on Schedule B – Development Constraints as a constraint overlay. It is the intent of this Plan that these areas be protected by directing permanent development away from them, and from adjacent land as set out in Section 4.1.5. Development and activities which would preclude or hinder the establishment of new extractive operations or access to the resources shall only be permitted if it is demonstrated that:*

- 1. The resource use would not be feasible; or*
- 2. The proposed land use or development serves a greater long-term public interest; and*
- 3. Issues of public health, public safety and environmental impact are addressed.*

*4.1.4.1 The establishment of a mineral aggregate operation within the lands identified as Mineral Aggregate Reserve shall require an amendment to the Official Plan.*

The proposed Arnott Pit site is partially located within an area mapped as 'Mineral Aggregate Reserve' – see **Figure 6 Township of Lanark Highlands Official Plan, Schedule B, Development Constraints**. Of note, the OP mapping seems to coincide with the area described by Golder, through their subsurface investigation, as containing the thickest sequence of sand and gravel resources on the proposed Arnott Pit site.

Given the 'Mineral Aggregate Reserve' mapping of part of the site, the OP planned long-term use of the subject site is for the establishment of new extractive operations. While the OP's planning policy provisions do serve to identify and protect the subject sand and gravel resource from incompatible development that may preclude or significantly hinder a future aggregate use, the most secure method by which to ensure the availability of the resource is to obtain its licensing under the ARA.



In the case of the proposed Arnott Pit, an application to amend the Township OP is also being submitted, in accordance with Policy 4.1.4.1.

*6.7.2.1 Noise and vibration impacts shall be addressed for new sensitive land uses adjacent to existing railway lines, highways, sewage treatment facilities, waste management sites, industries, or aggregate extraction operations, or other stationary or line sources where noise and vibration may be generated. Council may require the proponent to undertake noise and/or vibration studies to assess the impact on existing or proposed sensitive land uses within minimum distances identified in Ministry of Environment guidelines including Publication LU – 131, Noise Assessment Criteria in Land Use Planning. Noise and/or vibration attenuation measures will be implemented, as required, to reduce impacts to acceptable levels.*

A Noise Impact Assessment has been prepared to address ARA requirements and the above-described Township OP requirements. The Assessment has made several recommendations regarding the design and operation of the proposed Arnott Pit, in order to address land use compatibility issues most notably being noise levels from pit operations and haulage. Vibration is not an impact that occurs at sand and gravel pit operations.

Physical mitigation is accomplished by the required construction of two noise control berms. The berm at the northwest corner of the site is designed to mitigate noise for the receptor at 1519 Pine Grove Road. The berm located just beyond the northeast corner of the site, on Cavanagh property, is designed to mitigate noise for the receptor on Arnott Road. The berm is located off-site to maximize reserves at that part of the pit. Operational mitigation is provided through controls and restrictions on the types and number of operating equipment, and their location.

The Assessment and its recommendations have been considerations in the location of the site's extraction area, and operational methods, and are included in the ARA site plan.

To provide for enhanced visual screening of the pit from traffic on County Road 12, a berm is proposed at the frontage of the pit site where existing topography does not screen the site from view.

*8.4.6.1 Potential negative impacts will be examined through a process of Environmental Impact Statement, carried out on a case by case basis, prior to development approval.*

*8.4.6.2 The preparation of an Environmental Impact Statement (EIS) study may be required for submission prior to the approval authority making a formal decision on a planning application (e.g. Official Plan amendment, zoning amendment, site plan control, subdivision, consent, etc.) to assess the negative impacts on the natural features and the ecological functions of the area in question. The EIS shall be completed by a qualified individual or company and shall fulfill each of the following steps...*

The Natural Environment Report (NER) completed by Golder for the Proposal has been done so to address the Township OP requirements of an Environmental Impact Statement (EIS) as well as the Provincial Standards' licence application requirements under the ARA.

The NER identified habitat of endangered species exists at the site, in the form of a single Barn Swallow nest in the on-site barn. As the barn is within an area proposed for pit extraction, application will be made under the Endangered Species Act (ESA) to remove the barn, and provide for the necessary replacement habitat, mitigation measures; and, monitoring and reporting requirement under the ESA.

The NER also identified the presence of an unevaluated wetland in the woodlot beyond and to the northeast of the site. By virtue of the distance between the site and the wetland, being a minimum

of 30 m, the lack of any surface water connections; and, the pit being operated above the water table, the NER determined there would be no impacts to the wetland.

In conclusion, the proposed Arnott Pit conforms to the Township of Lanark Highlands Official Plan.

See **Appendix 2** for a copy of the draft Township of Lanark Highlands Official Plan Amendment and Schedule.

## 3.4 Township of Lanark Highlands Zoning By-Law No. 2003-451

The site falls under two zoning categories in the Township of Lanark Highlands Zoning By-Law (ZBL) No. 2003-451 (November 2003): 'Mineral Aggregate Reserve' (MAR-h) and 'Rural' (RU) – see **Figure 7: Township of Lanark Highlands Zoning**.

The h-suffix attached to the MAR Zone identifies it as a 'holding' zone. Section 5.5 of the ZBL states the intent of a 'holding' symbol is to signify Council's approval in principle to future development of the land for the purposes indicated by the zone preceding the symbol, which in the subject case is MAR or 'Mineral Aggregate Reserve'.

Neither the RU nor MAR zone categories permit the operation of a pit use. Accordingly, a Zoning By-law Amendment (ZBA) is being submitted, concurrent with the County and Township OPA applications, to amend the zoning from RU/MAR-h to 'Mineral Aggregate Resources Pit' (MXP), in which zone a pit is a permitted use.

Section 4.32.3 states that "the minimum setback distances for pits and quarries from property lines shall be as set out in the *Aggregate Resources Act*". This provision recognizes that extraction setbacks are outlined on the site plan approved under the *Aggregate Resources Act* and that the site plan prevails to the extent of any conflicts with a municipal by-law.

Regardless of the preceding provision and based on pre-consultation discussions, the proposed Arnott Pit ZBA application will include special provisions to address the MXP zone's standard minimum yard requirement of 15 m from the property line. This will be varied to allow for a 10 m setback at the north boundary alongside County Road 12 and a nil setback at the west boundary where the extraction areas of both the proposed Arnott Pit and the existing Pine Grove Pit share a common boundary (both properties owned by Cavanagh). The 10 m setback at the north will allow for maximization of resource availability at the thickest part of the deposit. Given the surface topography at that location, this is not expected to cause any impact to the adjacent road allowance. The nil setback at the west will allow for extraction to proceed progressively from the Pine Grove Pit into the Arnott Pit. Allowance for both setbacks is provided for through the ARA site plan for the proposed Arnott Pit.

See **Appendix 3** for a copy of the draft Township of Lanark Highlands Zoning By-law Amendment and Schedule.

# 4.0 AGGREGATE RESOURCES ACT SUMMARY STATEMENT

Thomas Cavanagh Construction Limited (“Cavanagh”) is making an Aggregate Resources of Ontario Provincial Standards (AROPS) Category 3 application for a Class ‘A’ Licence under the *Aggregate Resources Act* (ARA) (“proposed Arnott Pit”). The applied for Licence would permit the operation of a pit for the extraction and processing of sand and gravel from above the water table, in an amount exceeding 20,000 tonnes annually. The area to be licensed under the ARA is 19.5 hectares (48 acres) and the proposed extraction area is 18.6 hectares (46 acres).

The proposed Arnott Pit is designed to be operated in two broad zones based on maintaining the pit floor above the water table, as recommended by the Groundwater Table Assessment; and, the extraction area has been divided into 9 discrete areas based on recommendations of the Noise Impact Assessment. Truck access to the proposed pit will be through Cavanagh’s existing Pine Grove Pit, abutting to the west, and its access onto County Road 12. The proposed maximum annual tonnage for the pit will be 250,000 tonnes with an expected average annual tonnage of 50,000 to 100,000 tonnes.

## *Planning and Land Use Considerations – Standard 2.1.1*

The proposed Arnott Pit site is presently under a ‘Rural’ designation in the Lanark County Sustainable Communities Official Plan (SCOP), a ‘Rural Communities’ designation in the Township of Lanark Highlands Official Plan (OP), and under ‘Mineral Aggregate Reserve’ and ‘Rural’ zone categories in the Township of Lanark Highlands Zoning By-law (ZBL) 2004-451. Amendments will be filed to both Official Plans and the Zoning By-law to permit the proposed Arnott Pit.

Lands surrounding the site are designated ‘Rural’ and ‘Licensed Aggregate Extraction Operation’ in the County SCOP. Surrounding designations of ‘Pit’, ‘Quarry’ and ‘Rural Communities’ occur in the Township OP. In the ZBL, surrounding zones include ‘Mineral Aggregate Resources Pit’, ‘Mineral Aggregate Resources Quarry’, ‘Rural’ and ‘Commercial Industrial’.

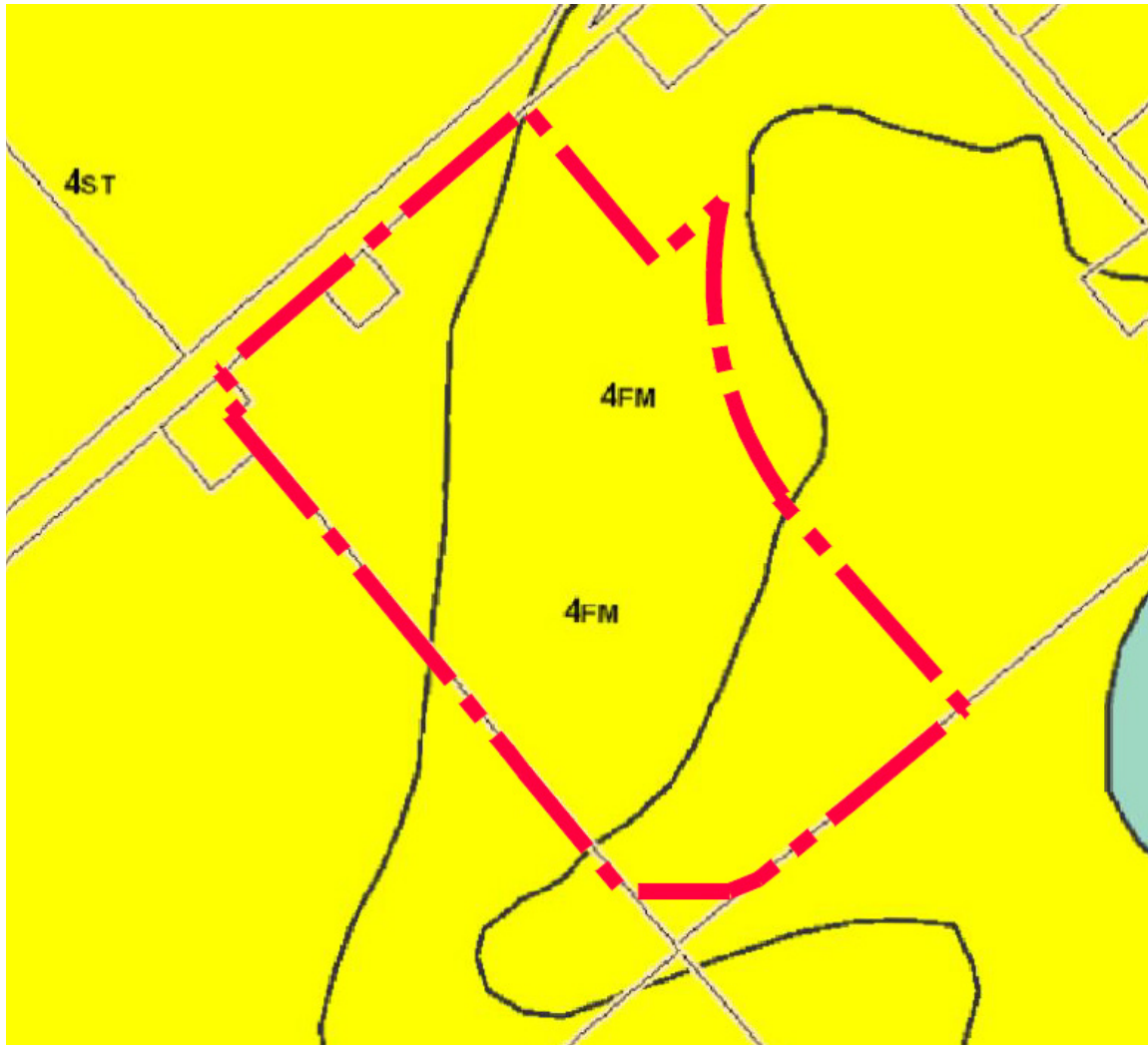
Approval of the proposed Arnott Pit site represents good planning and is consistent with the Provincial Policy Statement, 2020, and conforms to the County of Lanark Sustainable Communities Official Plan and to the Township of Lanark Highlands Official Plan. See Section 2.0 and 3.0 of this Report for a detailed assessment of planning and land use considerations.

## *Agricultural Classification of the Proposed Site – Standard 2.1.2*

The proposed Arnott Pit is mapped as Class 4 soil according to the Canada Land Inventory (CLI) Soil Capability for Agriculture mapping. The subject site is not within a Prime Agricultural Area on Prime Agricultural Land.

Although rehabilitation back to agriculture is not required by Provincial or Municipal (County/Township) planning policy, Cavanagh is proposing through the ARA site plan to return the site to agricultural use, on a progressive rehabilitation basis. The site is currently in use for agriculture and this use is expected to continue until such time as lands are required to be prepared for, and undergo, extraction.

The subject CLI mapping is provided below:



### *Quality and Quantity of Aggregate On-site– Standard 2.1.3*

Provincial Aggregate Resources Inventory Paper (ARIP) mapping and the Township of Lanark Highlands Official Plan identifies the location of the proposed Arnott Pit as being a known deposit of sand and gravel resources. The deposit is mapped by the ARIP as a Sand and Gravel Resource Area of 'Primary Significance'. This has been verified by site specific subsurface investigation carried-out by Cavanagh and Golder, in relation to the completion of a Groundwater Table Assessment.

The site is estimated to contain up to approximately 1.5 to 2 million tonnes of quality aggregate resources suitable for use in road based granular construction materials as well as aggregate used for the manufacture of asphalt and concrete.

### *Main Haulage Routes – Standard 2.1.4*

Aggregate resources extracted and processed from the proposed Arnott Pit will be transported off-site via Cavanagh's existing Pine Grove Pit which lies on the abutting property to the west. Entry to the public highway, at County Road 12, will be made via the existing pit's entrance/exit.

Trucks will travel east or west on County Road 12 per existing haul routes, subject to market demands. Arnott Pit extracted material that is proposed for processing at Cavanagh's processing facility at its pit operation on the north side of County Road 12, will travel east on the County Road to that pit's entrance/exit.

Cavanagh may in the future wish to utilize a secondary access directly onto County Road 12 for truck traffic. This would be further reviewed with the County at that time and would require the necessary County approvals and entrance permit(s).

### *Progressive and Final Rehabilitation – Standard 2.1.5*

Rehabilitation of the site will be progressive, and the site will be returned to an agricultural condition as proposed in the Rehabilitation Plan of the site plan. Currently, the site (and adjacent property) is in an agricultural condition. The surrounding land uses are utilized for extractive, agricultural, and rural residential uses. The proposed rehabilitation plan to return the site to an agricultural use is suitable and compatible with adjacent current and anticipated future land uses.

Topsoil overburden stripped and stored in berms or stockpiles will be used in the rehabilitation effort. Subject to the ability to re-spread topsoil to sufficient depth on the slopes and floor of the pit, some areas of the pit may be left as exposed bedrock as the pit will be excavated to the bedrock in Zone B, where the sand and gravel resource is generally the thinnest.

### *Surface Water – Standard 2.1.6*

As verified by the Natural Environment Report (Golder, August 2019) for the proposed Arnott Pit, there are no surface water resources on-site. An unevaluated wetland lies in a forested area to the northeast of the site, within the 120 m study area. The Report found there would be no impacts to this feature given the pit is to be operated above the water table, the separation distance, and the lack of any surface connection to it.

### *Ground Water Elevation – Standard 2.1.7*

The Groundwater Table Assessment (Golder, August 29, 2019) for the proposed Arnott Pit was conducted using subsurface investigation methods, and professional analysis of the results.

The groundwater elevation at the north end of the site is approximately 148.4 metres (m) above sea level (asl). Moving to the south and southeast, the water table was found to slope downward to approximately 146.4 masl. Moving further to the south and southeast, the groundwater table was not encountered in the surficial sand and gravel resource, leading to the interpretation that the groundwater table is within the underlying bedrock. Based on the measured groundwater level at the southern end of the property, the water table is at least 1.5 m below the bedrock surface.

On the above basis, the extraction area has been broadly divided into Zone A, where the groundwater table is in the sand and gravel; and, Zone B, where the groundwater table is interpreted to be in the bedrock. These Zones are incorporated on the ARA site plan, and the pit floor elevations assigned on the basis of extraction being at least 1.5 m above the groundwater

table. In Zone A, the floor elevation, at maximum vertical extraction, will vary between 147.9 masl and 149.9 masl, being highest at the north end of the site and generally sloping downward towards Zone B where the pit floor would be the bedrock surface, which itself varies in elevation between 145.4 masl and 151.75 masl.

As recommended by Golder in their Assessment, Cavanagh will periodically excavate test pits in the immediate area of active extraction during pit operations. These test pits will be used to further define the position of the groundwater table in close proximity to the active extraction area to ensure that extraction operations remain at least 1.5 m above the groundwater table. Should, during extraction operations, the groundwater table be encountered, excavation at that location shall cease and the area backfilled, and subsequent excavation will terminate at least 1.5 m above the groundwater table.

# 5.0 CONCLUSIONS

The proposed Arnott Pit contains approximately 1.5 to 2 million tonnes of quality aggregate resources suitable for use in road based granular construction materials as well as aggregate used for the manufacture of asphalt and concrete. Aggregate resources extracted from the site will be used to supply material for Cavanagh's construction projects in the area as well supplying aggregate in raw form to Cavanagh's processing plant equipment located at its other pit/quarry operations in the immediate area.

The Arnott Pit operation has been designed in a manner which minimizes social, economic and environmental impacts. It will utilize the presence of Cavanagh's abutting Pine Grove Pit and other nearby infrastructure and facilities to provide for a continued supply of quality aggregate material from a known and Provincially and locally identified aggregate resource.

Further, the proposed pit has been designed to ensure no negative impacts on surrounding natural heritage features.

The proposed Arnott Pit represents good planning and:

- Is consistent with the Provincial Policy Statement;
- Conforms to the Lanark County Sustainable Communities Official Plan;
- Conforms to the Township of Lanark Highlands Official Plan; and
- Includes information required by the *Aggregate Resources Act*.

Respectfully submitted by,  
**MacNaughton Hermsen Britton Clarkson Planning Limited**



---

Neal DeRuyter, BES, MCIP, RPP



---

Amarjit Sandhu, B.Sc.





**Figure 1**  
**Location Map**

**Legend**

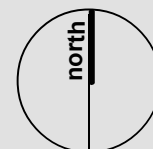
- - - - - Proposed Licence Boundary
- Property Boundary

**Date:** Sept 29, 2020

**Scale:** 1:40,000

**File:** 9918A

**Drawn:** GC



Thomas Cavanagh  
Construction Limited  
Part of Lot 3, Concession 5  
(Geographic Township of Lanark)  
Township of Lanark Highlands  
County of Lanark

Document Path: K:\0851D-Thomas Cavanagh Construction-Arnott  
Pit\RPt\Location.mxd



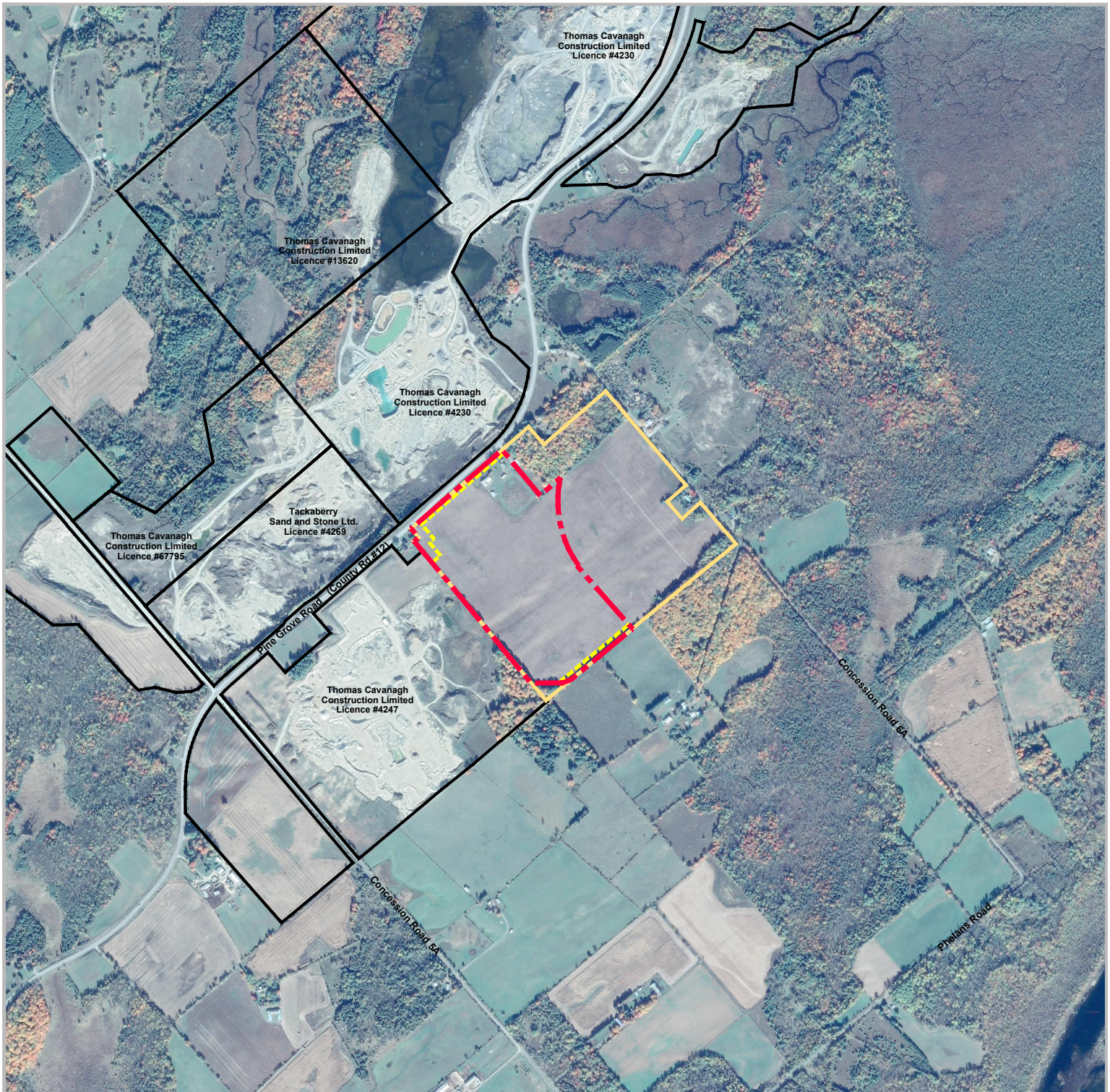


Figure 2  
**Air Photo Map**

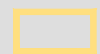
**LEGEND**



Proposed Licensed Boundary (±19.5 ha)



Proposed Limit of Extraction (±18.6 ha)



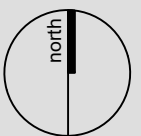
Property Boundary (±38.8 ha)

**DATE:** July 15, 2020

**SCALE:** 1:20,000

**FILE:** 0851D

**DRAWN:** DGS



K:\0851D-THOMAS CAVANAGH CONSTRUCTION-ARNOTT PIT\PTVAIRPHOTO.DWG

**Thomas Cavanagh  
Construction Limited**  
Part of Lot 3, Concession 5  
(Geographic Township of Lanark)  
Township of Lanark Highlands  
County of Lanark

Base Map Source:  
Google Earth 2019



**PLANNING  
URBAN DESIGN  
& LANDSCAPE  
ARCHITECTURE**

200-540 BINGEMANS CENTRE DR. KITCHENER, ON, N2B 3X9  
P: 519.576.3650 F: 519.576.0121 | WWW.MHBCPLAN.COM



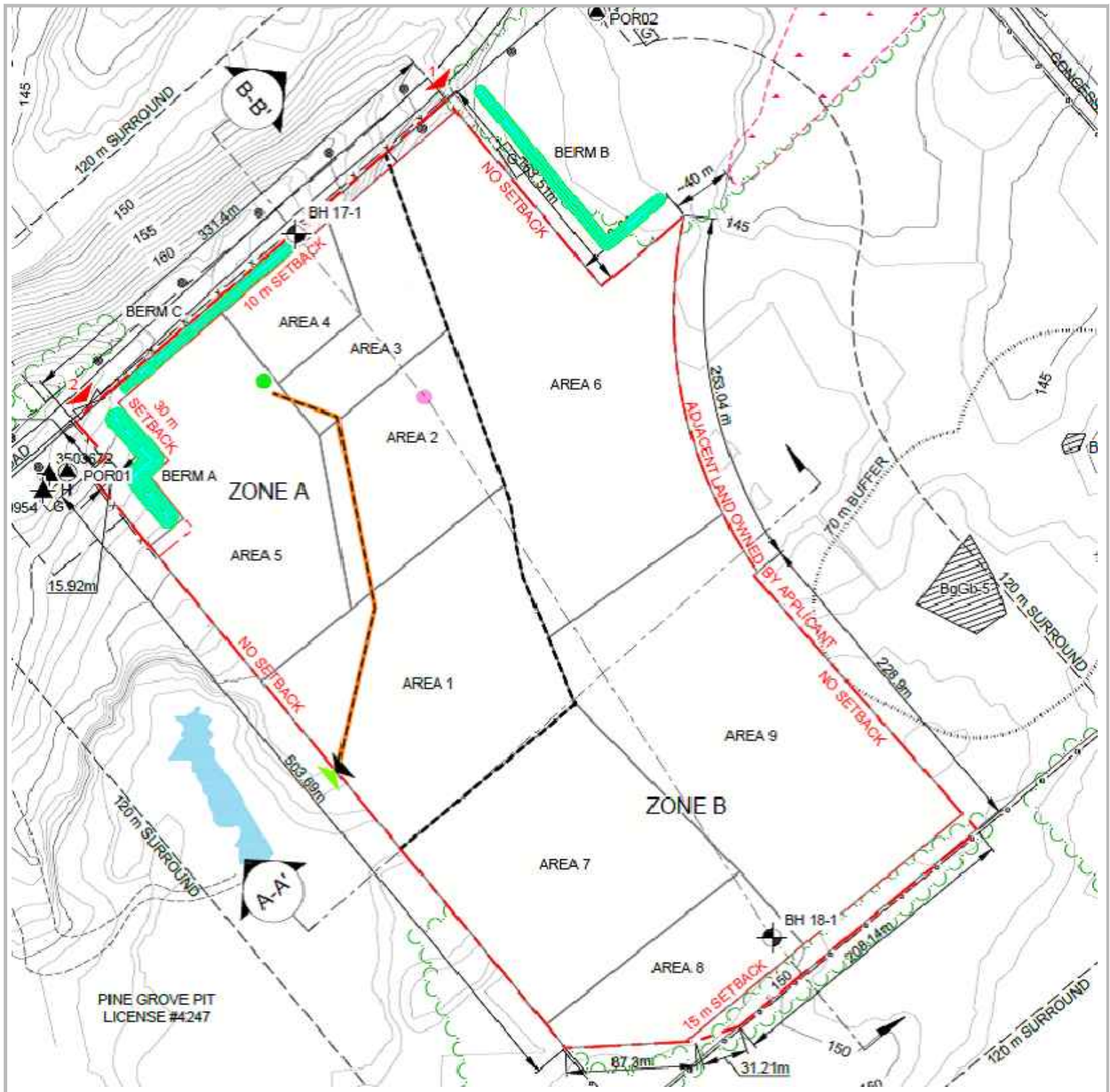


Figure 3  
**Arnott Pit  
Operational Plan**

**LEGEND**

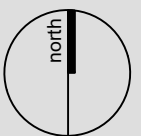
Refer to Planning Justification & Aggregate  
Resources Act Summary Statement Report  
(MHBC, September 2020)

**DATE:** July 15, 2020

**SCALE:** 1:20,000

**FILE:** 0851D

**DRAWN:** DGS



K:\0851D-THOMAS CAVANAGH CONSTRUCTION-ARNOTT PIT\PT\PT\OPERATIONSPLAN.DWG

**Thomas Cavanagh  
Construction Limited**  
Part of Lot 3, Concession 5  
(Geographic Township of Lanark)  
Township of Lanark Highlands  
County of Lanark

**MHBC** PLANNING  
URBAN DESIGN  
& LANDSCAPE  
ARCHITECTURE  
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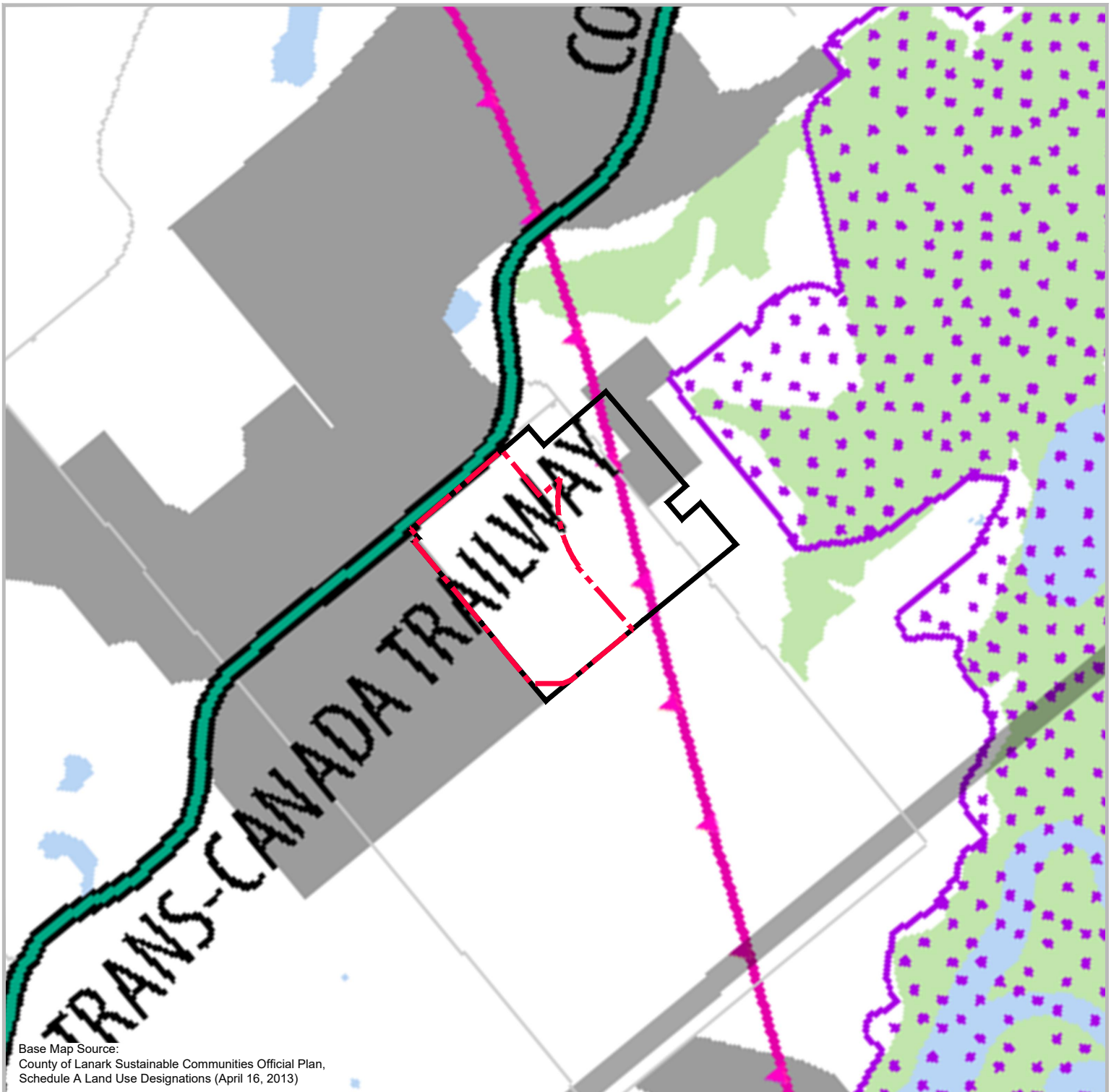


Figure 4  
**County of Lanark  
Sustainable  
Communities  
Official Plan  
Schedule A**

**Thomas Cavanagh  
Construction Limited**  
Part of Lot 3, Concession 5  
(Geographic Township of Lanark)  
Township of Lanark Highlands  
County of Lanark

**LEGEND**



Proposed Licensed Boundary



Property Boundary



LICENSED AGGREGATE EXTRACTION OPERATION



WATER BODIES & COURSES



PROVINCIALY SIGNIFICANT WETLANDS



AREAS OF NATURAL AND SCIENTIFIC INTEREST



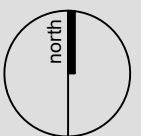
CANADIAN SHIELD

**DATE:** July 15, 2020

**SCALE:** 1:15,000

**FILE:** 0851D

**DRAWN:** DGS



K:\0851D-THOMAS CAVANAGH CONSTRUCTION-ARNOTT PIT\RPT\COUNTY OF LAND USE.DWG



**PLANNING  
URBAN DESIGN  
& LANDSCAPE  
ARCHITECTURE**

200-540 BINGEMANS CENTRE DR. KITCHENER, ON, N2B 3X9  
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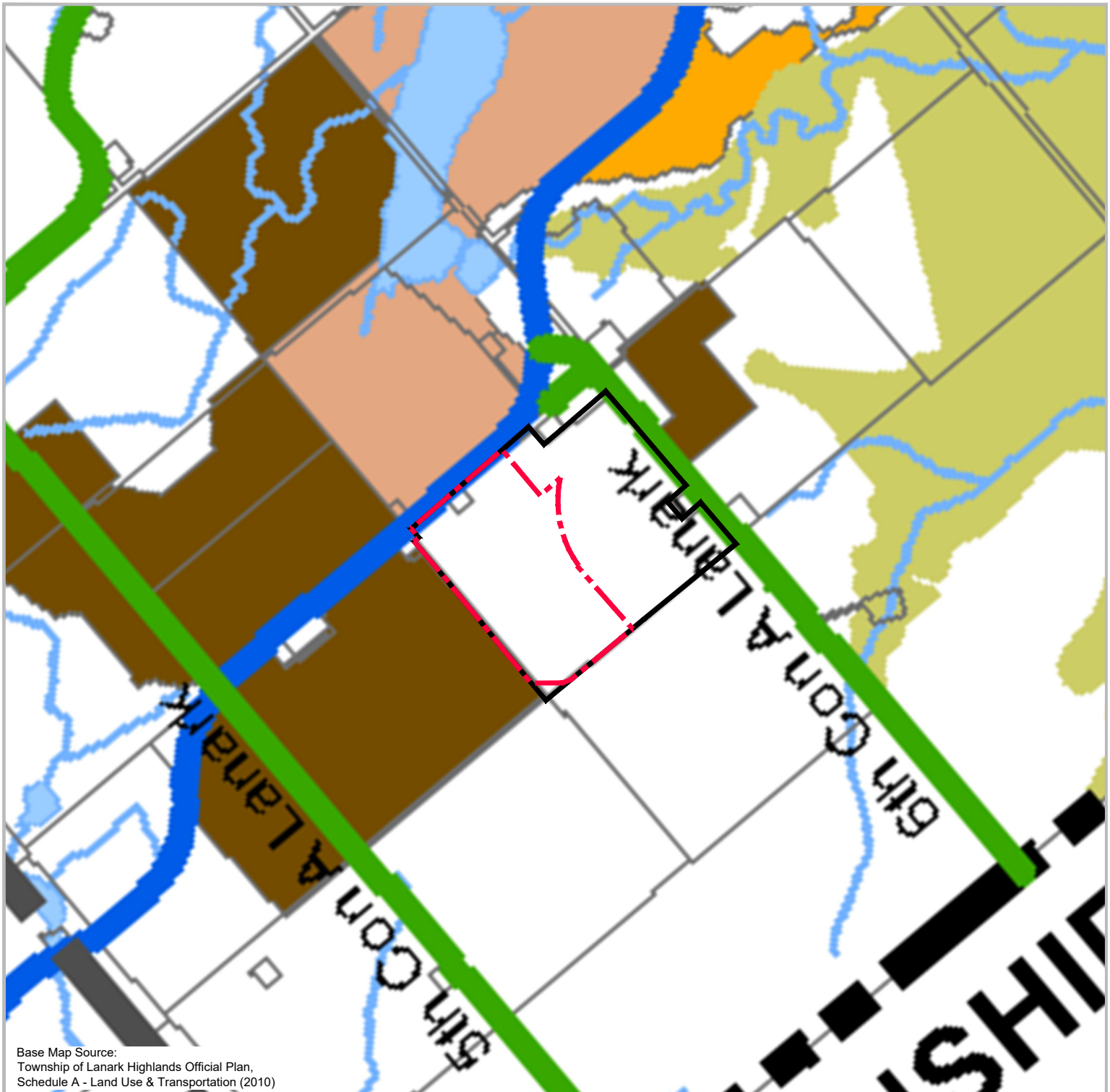











Figure 5  
**Township of  
Lanark Highlands  
Official Plan**  
Schedule A  
Land Use and  
Transportation

**Thomas Cavanagh  
Construction Limited**  
Part of Lot 3, Concession 5  
(Geographic Township of Lanark)  
Township of Lanark Highlands  
County of Lanark

**LEGEND**

-  Proposed Licensed Boundary
-  Property Boundary

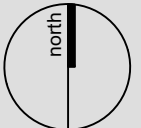
-  Rural Communities
-  Provincially Significant Wetland
-  Pit
-  Quarry
-  Pit and Quarry
-  County Road (ROW 26 metres)
-  Municipal Road (ROW 20 metres)

**DATE:** July 15, 2020

**SCALE:** 1:20,000

**FILE:** 0851D

**DRAWN:** DGS



K:\0851D-THOMAS CAVANAGH CONSTRUCTION-ARNOTT PIT\RP\TOWNSHIP OF LAND USE.DWG

**MHBC** PLANNING  
URBAN DESIGN  
& LANDSCAPE  
ARCHITECTURE  
200-540 BINGEMANS CENTRE DR. KITCHENER, ON, N2B 3X9  
P: 519.576.3650 F: 519.576.0121 | WWW.MHBCPLAN.COM

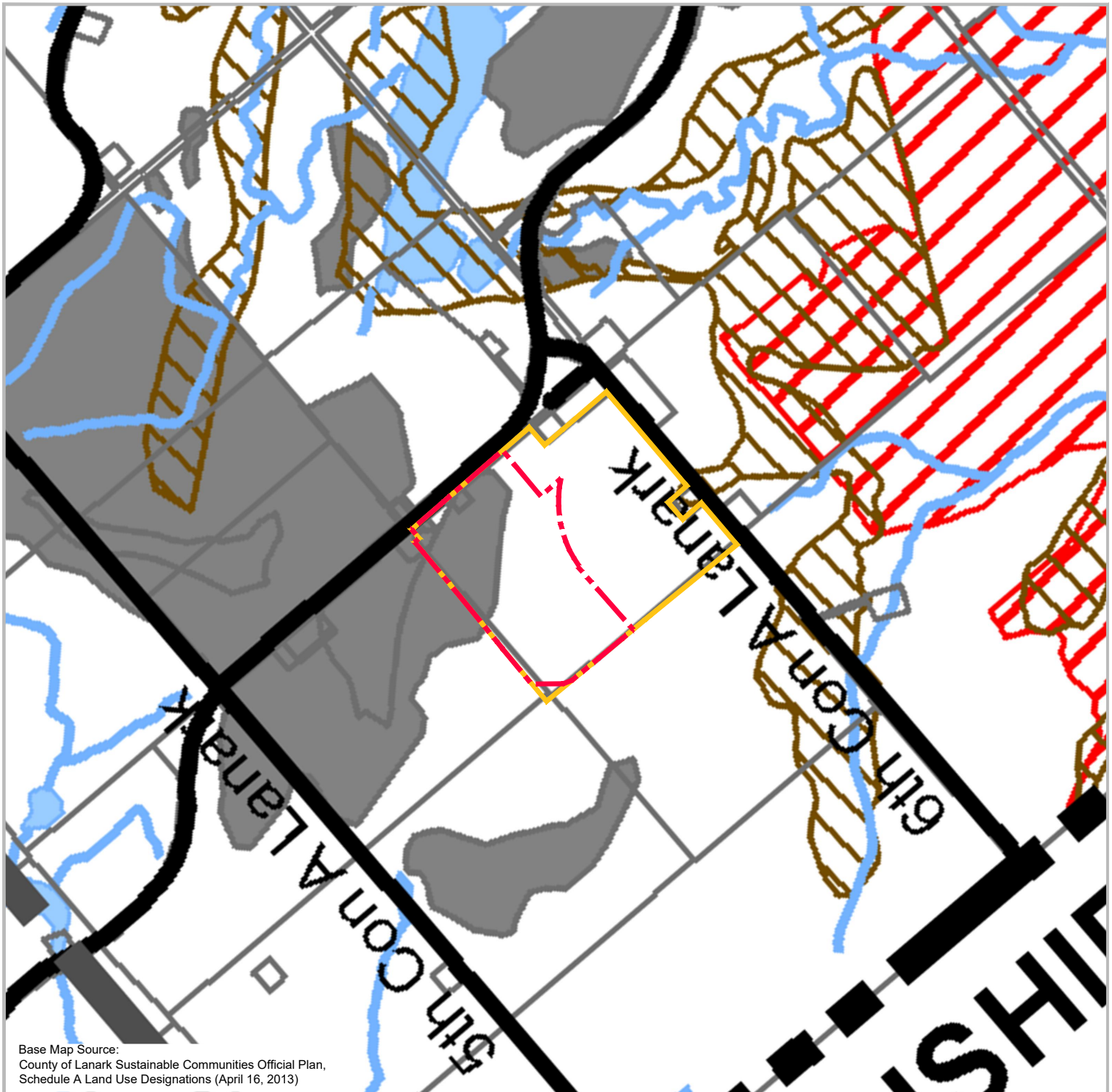








Figure 6  
**Township of  
Lanark Highlands  
Official Plan**  
Schedule B  
Development Constraints

**Thomas Cavanagh  
Construction Limited**  
Part of Lot 3, Concession 5  
(Geographic Township of Lanark)  
Township of Lanark Highlands  
County of Lanark

**LEGEND**

-  Proposed Licensed Boundary
-  Property Boundary

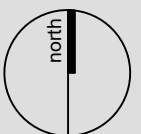
-  Mineral Aggregate Reserve
-  Organic Soil
-  Area of Natural & Scientific Interest
-  Water Courses

**DATE:** July 15, 2020

**SCALE:** 1:15,000

**FILE:** 0851D

**DRAWN:** DGS



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CONSTRAINTS.DWG



**PLANNING  
URBAN DESIGN  
& LANDSCAPE  
ARCHITECTURE**

200-540 BINGEMANS CENTRE DR. KITCHENER, ON, N2B 3X9  
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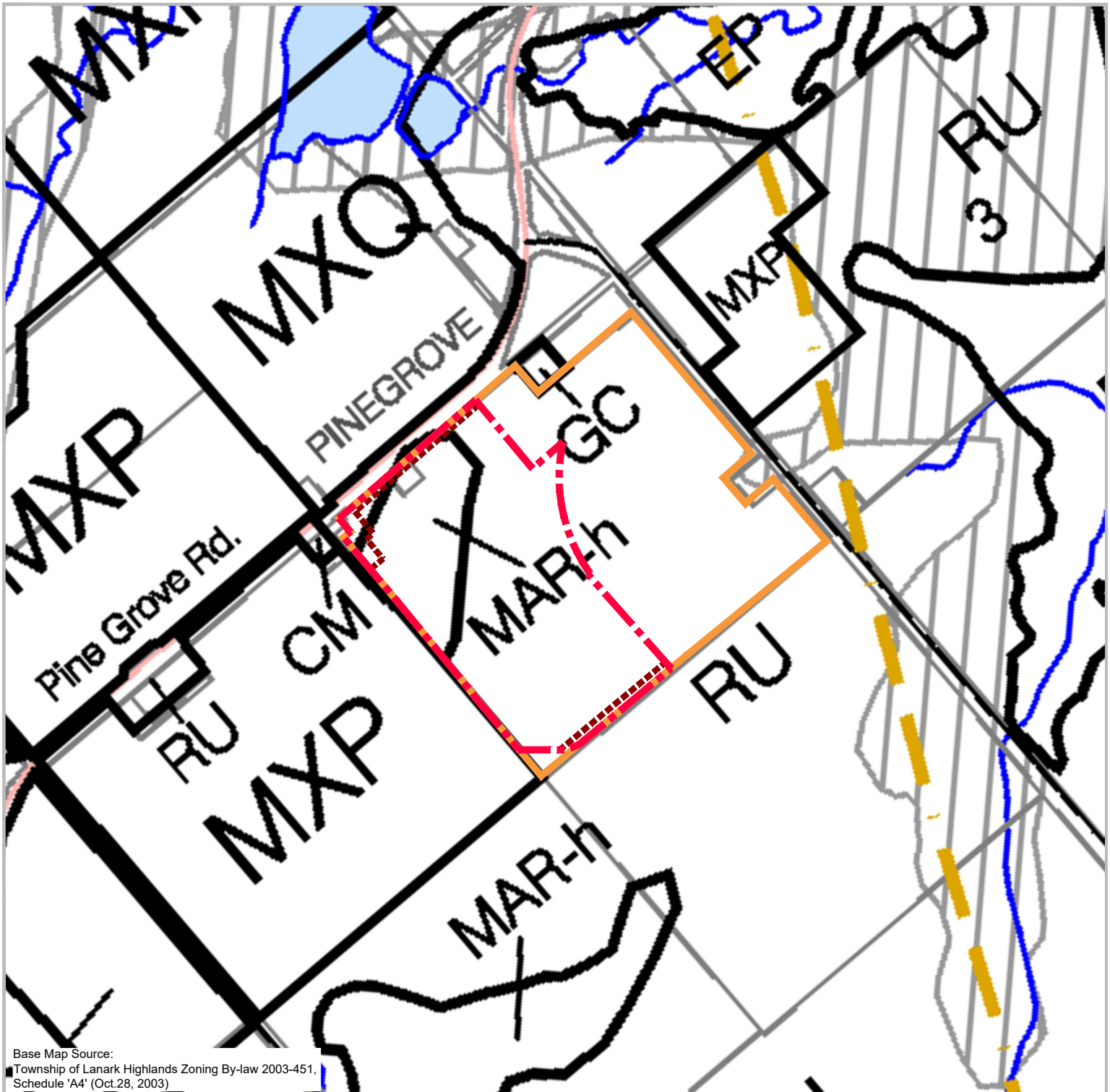


Figure 7  
**Township of  
Lanark Highlands  
Zoning By-law  
2003-451**  
Schedule 'A4'

**Thomas Cavanagh  
Construction Limited**  
Part of Lot 3, Concession 5  
(Geographic Township of Lanark)  
Township of Lanark Highlands  
County of Lanark

#### LEGEND

- Proposed Licensed Boundary
- Proposed Limit of Extraction
- Property Boundary

Rural  
General Commercial  
Commercial Industrial  
Mineral Aggregate Resources Pit  
Mineral Aggregate Resources Quarry  
Mineral Aggregate Resources Reserve  
Environmental Protection  
Environmental Protection - Organic Soils  
Deer Yards

RU  
GC  
CM  
MXP  
MXQ  
MAR  
EP

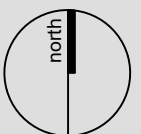
**DATE:** July 15, 2020

**SCALE:** 1:10,000

**FILE:** 0851D

**DRAWN:** DGS

K:\0851D-THOMAS CAVANAGH CONSTRUCTION-ARNOTT PIT\RP\T\ZONING MAP.DWG



**PLANNING  
URBAN DESIGN  
& LANDSCAPE  
ARCHITECTURE**

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**Appendix 1 –  
Draft Lanark County  
Sustainable Communities  
Official Plan Amendment**

---

# **Official Plan Amendment No. \_\_\_\_**

## **To the Lanark County Sustainable Communities Official Plan**

### **PART A – PREAMBLE**

#### **PURPOSE AND EFFECT OF THE OFFICIAL PLAN AMENDMENT**

The purpose of Official Plan Amendment No. \_\_\_\_ is to remove the “Rural” designation and replace it with a “Licensed Aggregate Extraction Operation” designation on Schedule “A” to the Lanark County Sustainable Communities Official Plan (SCOP) for land located at Part of Lot 3, Concession 5, Geographic Township of Lanark, now in the Township of Lanark Highlands. The land subject to this Amendment comprises approximately 19.5 ha of a 39 ha property.

The location of the land subject to this Amendment is shown on Schedule “A” to Official Plan Amendment \_\_\_\_.

The effect of Official Plan Amendment \_\_\_\_ is to allow Thomas Cavanagh Construction Limited to operate a pit extracting sand and gravel resources above the water table (known as the Arnott Pit). The proposed pit will act an extension to Cavanagh’s existing Pine Grove Pit located immediately west of the property.

#### **BASIS OF THE AMENDMENT**

The lands subject to the proposed Amendment contain approximately 1.5 to 2 million tonnes of high quality sand and gravel resources. These aggregate resources have been identified in both provincial geological mapping (Aggregate Resources Inventory Paper 189) as well as municipal planning documents where they are protected from incompatible development and land uses.

The Amendment would allow for the continuation of existing aggregate extraction in the area. The proposed pit would utilize existing infrastructure including the haul route (County Road 12), existing truck access and the processing plant at adjacent Cavanagh operations.

Technical studies have been prepared in support of the proposed pit including a Planning Justification Report and Aggregate Resources Act Summary Statement, Groundwater Table Assessment, Natural Environment Report, Noise Impact Assessment, Archaeological Assessment and Aggregate Resources Act Site Plan. The studies have demonstrated that the proposed pit can be operated in a manner in which potential impacts are minimized on surrounding land uses as well as natural features.

The following applications have also been submitted concurrently with this proposed Amendment:

1. Township of Lanark Highlands Official Plan Amendment to add the “Mineral Aggregate Resource Policy Area – Pit” designation.
2. Township of Lanark Highlands Zoning By-law Amendment to rezone the lands to “Mineral Aggregate Resources Pit (MXP)”.
3. Class A, Category 3 Licence under the Aggregate Resources Act (administered by the Ministry of Natural Resources and Forestry).



## **PART B – THE AMENDMENT**

### **The Introductory Statement**

All of this part of the document entitled Part B – The Amendment constitutes Amendment No. \_\_\_\_ to the Lanark County Sustainable Communities Official Plan.

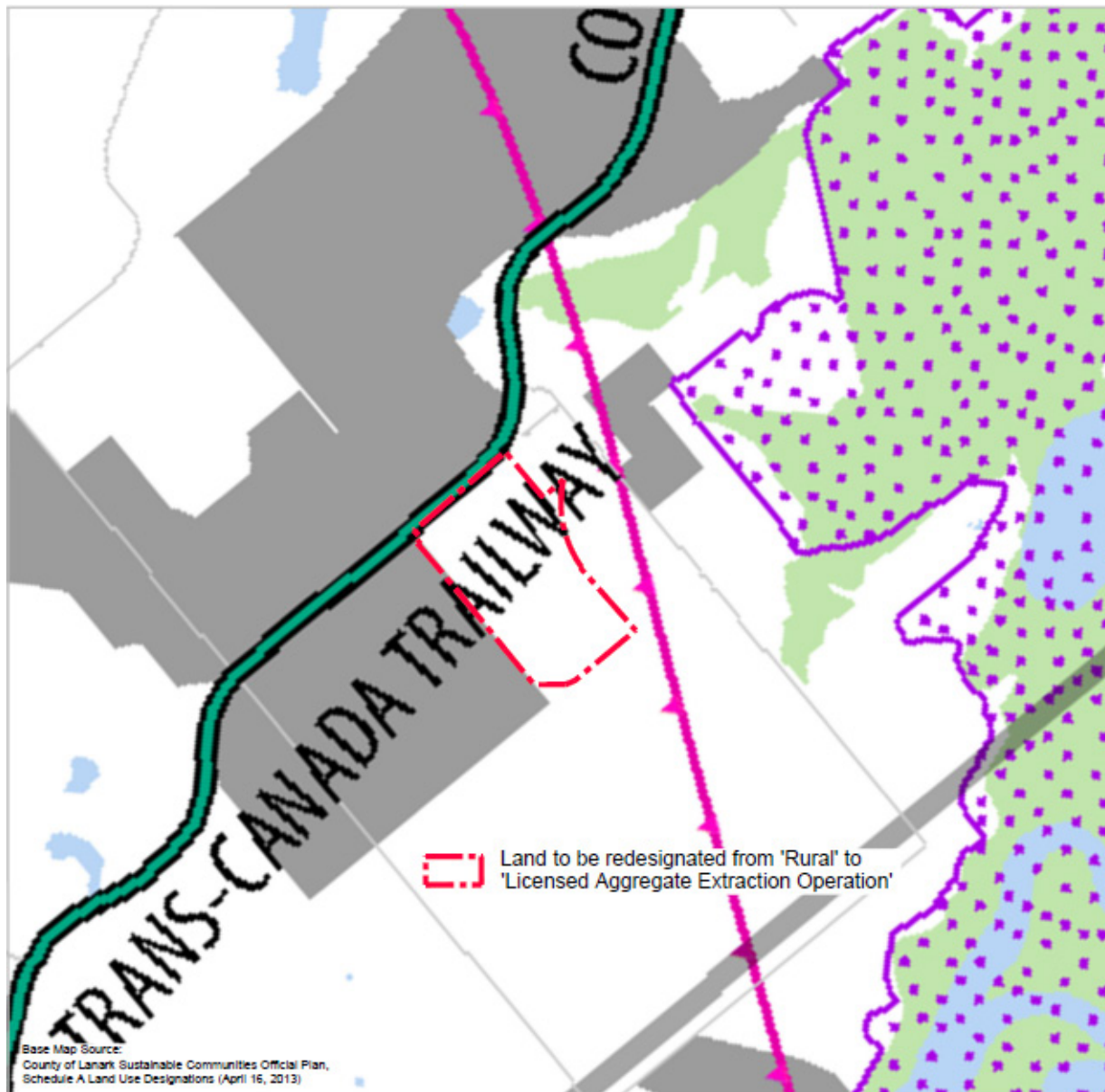
### **Details of the Amendment**

The Lanark County Sustainable Communities Official Plan is hereby amended by amending Schedule “A” to the Official Plan by changing the designation of land described as Part of Lot 3, Concession 5, Geographic Township of Lanark, now in the Township of Lanark Highlands as shown on Schedule “A” to this Amendment from “Rural” to “Licensed Aggregate Extraction Operation”.

LANARK COUNTY SUSTAINABLE COMMUNITIES OFFICIAL PLAN AMENDMENT NO. \_\_\_\_

SCHEDULE "A"

Part of Lot 3, Concession 5, Geographic Township of Lanark, now in the Township of Lanark Highlands



# **Appendix 2 – Draft Township of Lanark Highlands Official Plan Amendment**

# **Official Plan Amendment No. \_\_\_\_**

## **To the Lanark Highlands Official Plan**

### **PART A – PREAMBLE**

#### **PURPOSE AND EFFECT OF THE OFFICIAL PLAN AMENDMENT**

The purpose of Official Plan Amendment No. \_\_\_\_ is to remove the “Rural Communities” designation and replace it with a “Mineral Aggregate Resource Policy Area - Pit” designation on Schedule “A” to the Lanark Highlands Official Plan for land located at Part of Lot 3, Concession 5, Geographic Township of Lanark, now in the Township of Lanark Highlands. The land subject to this Amendment comprises approximately 19.5 ha of a 39 ha property.

The location of the land subject to this Amendment is shown on Schedule “A” to Official Plan Amendment \_\_\_\_.

The effect of Official Plan Amendment \_\_\_\_ is to allow Thomas Cavanagh Construction Limited to operate a pit extracting sand and gravel resources above the water table (known as the Arnott Pit). The proposed pit will act an extension to Cavanagh’s existing Pine Grove Pit located immediately west of the property.

#### **BASIS OF THE AMENDMENT**

The lands subject to the proposed Amendment contain approximately 1.5 to 2 million tonnes of high quality sand and gravel resources. These aggregate resources have been identified in both provincial geological mapping (Aggregate Resources Inventory Paper 189) as well as municipal planning documents where they are protected from incompatible development and land uses.

The Amendment would allow for the continuation of existing aggregate extraction in the area. The proposed pit would utilize existing infrastructure including the haul route (County Road 12), existing truck access and the processing plant at adjacent Cavanagh operations.

Technical studies have been prepared in support of the proposed pit including a Planning Justification Report and Aggregate Resources Act Summary Statement, Groundwater Table Assessment, Natural Environment Report, Noise Impact Assessment, Archaeological Assessment and Aggregate Resources Act Site Plan. The studies have demonstrated that the proposed pit can be operated in a manner in which potential impacts are minimized on surrounding land uses as well as natural features.

The following applications have also been submitted concurrently with this proposed Amendment:

1. Lanark County Sustainable Communities Official Plan Amendment to add the “Licensed Aggregate Extraction Operation” designation.
2. Township of Lanark Highlands Zoning By-law Amendment to rezone the lands to “Mineral Aggregate Resources Pit (MXP)”.
3. Class A, Category 3 Licence under the Aggregate Resources Act (administered by the Ministry of Natural Resources and Forestry).

## **PART B – THE AMENDMENT**

### **The Introductory Statement**

All of this part of the document entitled Part B – The Amendment constitutes Amendment No. \_\_\_\_ to the Lanark Highlands Official Plan.

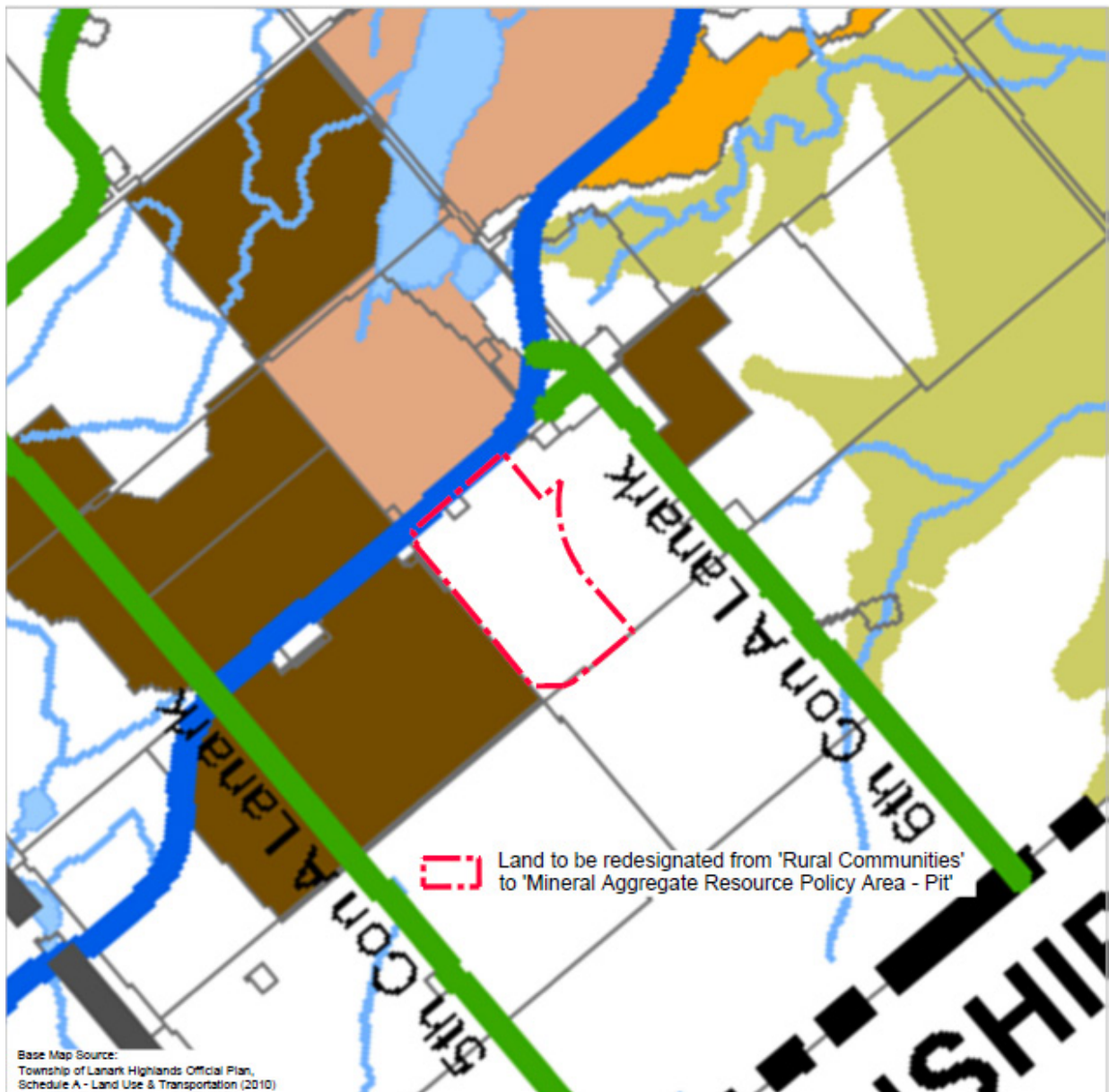
### **Details of the Amendment**

The Lanark Highlands Official Plan is hereby amended by amending Schedule “A” to the Official Plan by changing the designation of land described as Part of Lot 3, Concession 5, Geographic Township of Lanark, now in the Township of Lanark Highlands as shown on Schedule “A” to this Amendment from “Rural Communities” to “Mineral Aggregate Resource Policy Area - Pit”.

LANARK HIGHLANDS OFFICIAL PLAN AMENDMENT NO. \_\_\_\_

SCHEDULE "A"

Part of Lot 3, Concession 5, Geographic Township of Lanark, now in the Township of Lanark Highlands



# **Appendix 3 – Draft Township of Lanark Highlands Zoning By-law Amendment**

# THE CORPORATION OF THE TOWNSHIP OF LANARK HIGHLANDS

---

## BY-LAW NO. \_\_\_\_ - \_\_\_\_ A BY-LAW TO AMEND ZONING BY-LAW NO. 2003-451 (Arnott Pit – File #ZA-\_\_ - \_\_)

---

**WHEREAS**, the Planning Act, R.S.O. 1990, Chapter P. 13 Section 34 as amended, provides that the Councils of local municipalities may enact by-laws regulating the use of land and the erection, location and use of buildings and structures within the municipality;

**AND WHEREAS**, By-law No. 2003-451 regulates the use of land and the erection, location and use of buildings and structures within the Township of Lanark Highlands;

**AND WHEREAS**, the Council of the Corporation of the Township of Lanark Highlands deems it advisable to amend By-law No. 2003-451 as hereinafter set out;

**AND WHEREAS**, this By-law implements the policies and intentions of the Official Plan for the Township of Lanark Highlands;

**NOW THEREFORE BE IT RESOLVED THAT**, the Council of the Corporation of the Township of Lanark Highlands enacts as follows:

### 1. GENERAL REGULATIONS

**1.1 THAT** By-Law No. 2003-451, as amended, is hereby further amended by amending the zoning on the lands legally described as Pt. Lot 3, Concession 5, former Township of Lanark, now in the Township of Lanark Highlands, from Mineral Aggregate Resources Reserve – Hold “MAR-h” and Rural “RU” to Mineral Aggregate Resources Pit - \_\_\_\_ “MXP-\_\_” in accordance with Schedule “A” attached hereto and forming part of this By-law.

**1.2 AND THAT** all applicable standards of By-law No. 2003-451 and the MXP zone shall apply to the subject property except as amended below:

**1.2.1** Minimum Yard Requirements  
Interior Side Yard: 0 m (adjacent to Part Lot 3, Concession 5)  
Front Yard: 10 m

**1.3 AND FURTHER THAT** this By-law shall come into force and effect with the passing thereof, in accordance with the Planning Act, R.S.O. 1990.

### 2. EFFECTIVE DATE

ENACTED AND PASSED this \_\_\_\_ day of \_\_\_\_\_.



---

**Peter McLaren, Reeve**

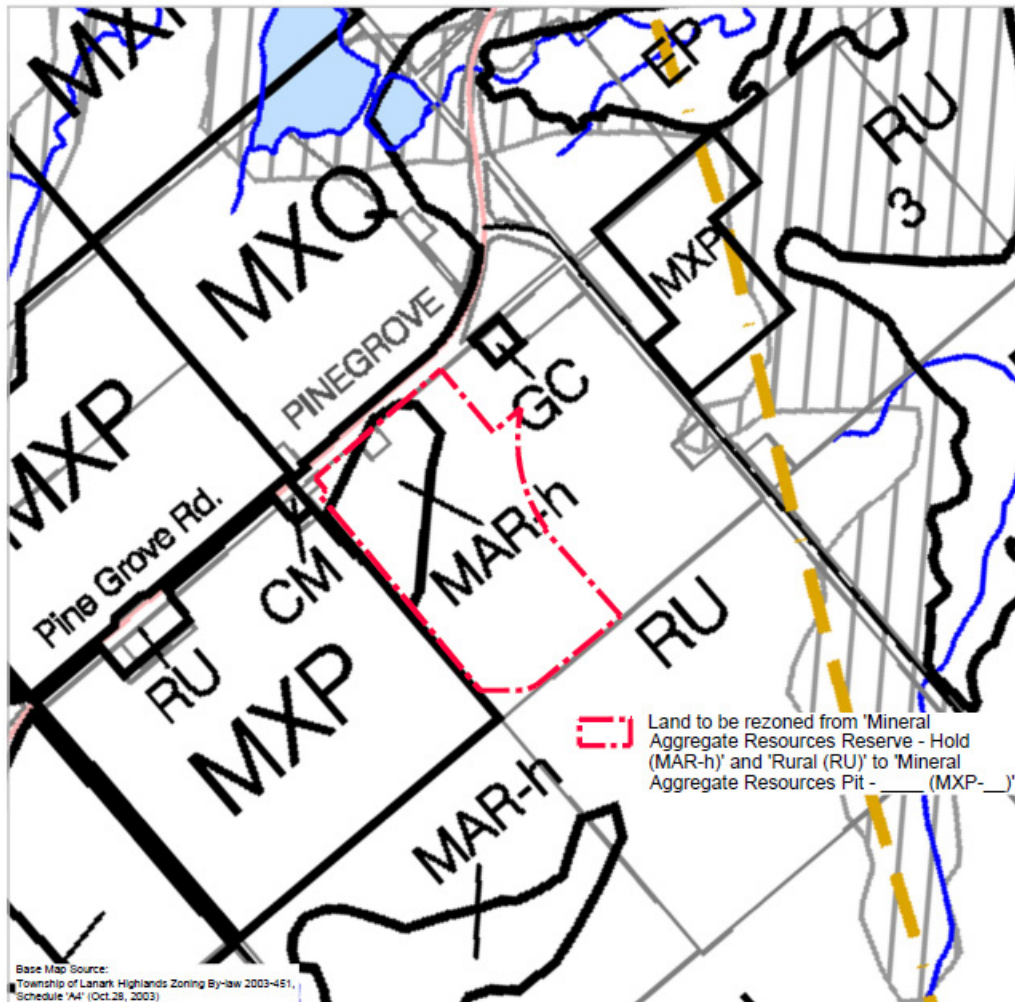
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**Amanda Noel,  
Planning Administrator, Deputy Clerk**

THE CORPORATION OF THE TOWNSHIP OF LANARK HIGHLANDS  
BY-LAW NO. \_\_\_\_-\_\_\_\_

SCHEDULE "A"

Pt. Lot 3, Concession 5  
Former Township of Lanark now in the  
Township of Lanark Highlands



To By-law No. \_\_\_\_ - \_\_\_\_  
Geographic Township of Lanark  
Township of Lanark Highlands

Area affected by this By-law  
Mineral Aggregate Resources Reserve –  
Hold and Rural to Mineral Aggregate  
Resources Pit - \_\_\_\_

This is Schedule "A" to By-law \_\_\_\_-\_\_\_\_ passed this \_\_\_\_ day of \_\_\_\_\_.

\_\_\_\_\_  
Reeve

\_\_\_\_\_  
Deputy Clerk

# **Appendix 4 – Curricula Vitae of Report Authors**

## CURRICULUM **VITAE**

### Amarjit S. Sandhu, B.Sc.

Amarjit Sandhu is an Associate with MHBC, and a Senior Planner and Aggregate Resource Planner/Specialist in the MHBC Kingston Office. Prior to joining MHBC in 1996, Mr. Sandhu was employed as an Aggregate Resources Officer with the Ontario Ministry of Natural Resources with whom he had been since 1988.

Mr. Sandhu specializes in approvals under the Aggregate Resources Act and Planning Act for aggregate operations. Mr. Sandhu also provides planning services and support for a range of the firm's projects and clients in Eastern Ontario.

### PROFESSIONAL HISTORY

Sept. 1996 - Present	Aggregate Resource Specialist, MacNaughton Hermesen Britton Clarkson Planning Limited (MHBC)
Feb. 1991 - Sept. 1996	Aggregate Resources Officer, Ontario Ministry of Natural Resources (MNR), Napanee
Sept. 1989 - Feb. 1991	Aggregate Resources Technician, Ontario Ministry of Natural Resources (MNR), Kemptville
Mar. 1989 - Sept. 1989	Assistant Pits and Quarries Inspector, Ontario Ministry of Natural Resources (MNR), Carleton Place
June 1988 - Dec. 1988	Aggregate Resources Assistant, Ontario Ministry of Natural Resources (MNR), Carleton Place

### CONTACT

10 Davey Crescent  
Kingston, ON K7N 1X6  
T 613 384 7067  
F 613 384 8959  
mhbc@kingston.cogeco.ca  
www.mhbcplan.com

## CURRICULUM **VITAE**

**Amarjit S. Sandhu, B.Sc.**

### SUMMARY OF PROFESSIONAL EXPERIENCE

#### **MHBC**

Plan evaluations and analysis for mineral aggregate development and resource management

Supervise the design and preparation of site plans under the Aggregate Resources Act

Research, preparation and co-ordination of reports/applications under the Planning Act and Aggregate Resources Act

Provide expert testimony at OMB and LPAT Hearings

Undertake Compliance Assessment Report inspections and preparation

#### **MNR**

Plan, co-ordinate and implement the Aggregate Resources Program of the Ontario Ministry of Natural Resources

Assist applicants in preparation of site plans and reports submitted under the Aggregate Resources Act and review/approval of same

Monitor and audit aggregate resource extraction activity in the District and administer requirements of the Aggregate Resources Act and its Regulations

Enforcement of Aggregate Resources Act

Provided advice to municipalities on pit and quarry licenses and permits, interpretation of the Act, and issues of aggregate resources management relating to provincial planning policy statements

Represented the Ministry at Hearings of the OMB

Developed and conducted extensive office and field mapping methodology to delineate potential areas of limestone bedrock suitable for aggregate production

#### CONTACT

10 Davey Crescent  
Kingston, ON K7N 1X6  
T 613 384 7067  
F 613 384 8959  
mhbc@kingston.cogeco.ca  
www.mhbcplan.com

## CURRICULUM **VITAE**

### Amarjit S. Sandhu, B.Sc.

Inspection of licensed pits and quarries for compliance with the Pits and Quarries Control Act

Conducted a geological inventory of aggregate reserves within licensed pits and quarries

Carried out field inspections and commented on planning proposals such as severances and zoning by-law amendments, in areas adjacent to mineral resource deposits

### SELECTED PROJECT EXPERIENCE

Pit/Quarry License applications (Aggregate Resources Act and/or Planning Act)

- Thurlow Aggregates (Kimmitt)
- Tackaberry Construction  
(Sweets / Maple Grove / O'Reilly / Fox / Sly & Dunkin)
- Power Concrete Products (Picton)
- Ron Fitzgerald (Seeley's Bay)
- Blue Circle Canada (Fonthill Pit / Pottruff Pit)
- Drew Harrison Haulage (Prince Edward County)
- St. Marys Cement / CBM Aggregates  
(Brighton / Godfrey / Schrama / Codrington)
- Shelter Valley Aggregates (Castelton)
- Bettschen Construction (Wilton Road Quarry Extension and Deepening)
- Rideauview Contracts (McCallum / Petworth)
- Donald Palmer (Westport)
- Lafarge Canada  
(McAdoos Quarry Extension / Fitzgerald Pit Deepening / McGill Pit / French Settlement Road Pit)
- Scaletta Sand & Gravel (Trenton)
- Keyes Sand & Stone (Joyceville)

### CONTACT

10 Davey Crescent  
Kingston, ON K7N 1X6  
T 613 384 7067  
F 613 384 8959  
mhbc@kingston.cogeco.ca  
www.mhbcplan.com

Aggregate Resources Act Permit Applications

- MTO Northern Region (100 sites)
- MTO Eastern Region (6 sites)
- Floyd Preston Limited (Mountain Lake Quarry)

## CURRICULUM **VITAE**

### Amarjit S. Sandhu, B.Sc.

Due Diligence Review for Aecon - WCSG (Ottawa) and LASCL (Timmins)

Impact on Licensed Reserves from Hydro Line Construction (Bruce to Milton) - Hydro One Networks Inc.

Co-author of State of Aggregate Resources of Ontario Study (SAROS) - OMNR

Class 'B' Site Plans for New Designees under the ARA (Eastern Ontario) - OMNR

Aggregate Resources Inventory Paper for Renfrew County – Ontario Ministry of Northern Development and Mines (to be released)

Compliance Assessment Reports - Numerous Pit/Quarry operations throughout Southern and Northern Ontario

Site Plan Amendments - numerous pit/quarry operations throughout Southern Ontario.

Property Investigation / Evaluation Reports - various clients throughout Southern Ontario

#### CONTACT

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F 613 384 8959  
mhbc@kingston.cogeco.ca  
www.mhbcplan.com



# CURRICULUM VITAE

Neal DeRuyter, BES, MCIP, RPP

## EDUCATION

2008  
Bachelor of Environmental Studies  
Honours Planning (Co-op)  
University of Waterloo

Neal DeRuyter, a Partner with MHBC, joined the firm in 2009 after graduating from the University of Waterloo in the Honours Planning Co-op program. Mr. DeRuyter has worked as a Planner in the private and public sectors with experience in aggregate resource, development and municipal planning.

Mr. DeRuyter has processed and managed several development applications including zoning by-law amendments, official plan amendments, and licence and site plan applications under the Aggregate Resources Act. He is certified by the Ministry of Natural Resources & Forestry to prepare site plans under the Aggregate Resources Act. He is a Registered Professional Planner and is a member of the Canadian Institute of Planners. He has provided expert evidence before the Ontario Municipal Board and Local Planning Appeal Tribunal.

He has participated and authored several research studies and articles related to aggregate resource management. Mr. DeRuyter has presented on several occasions for various events at the School of Planning at the University of Waterloo. Mr. DeRuyter is a member of the Executive Committee for the Pragma Council at the University of Waterloo.

## PROFESSIONAL HISTORY

2017- Present	Partner MacNaughton Hermesen Britton Clarkson Planning Limited
2013- 2017	Associate, MacNaughton Hermesen Britton Clarkson Planning Limited
2009- 2013	Planner, MacNaughton Hermesen Britton Clarkson Planning Limited

## PROFESSIONAL ASSOCIATIONS

Full Member, Ontario Professional Planners Institute  
Full Member, Canadian Institute of Planners

## CONTACT

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## CURRICULUM VITAE

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### PROFESSIONAL SERVICE

- |              |   |
|--------------|---|
| 2014-Present | Member, Executive Committee, University of Waterloo PRAGMA Council          |
| 2012-Present | Member, Ontario Expropriation Association                                   |
| 2015-Present | Member, Eastern Ontario Committee, Ontario Stone, Sand & Gravel Association |

### PUBLICATIONS

- 'Future Aggregate Availability and Alternatives Analysis, State of the Aggregate Resource in Ontario Study, 2009' (MNR)
- 'The Future of Ontario's Close to Market Aggregate Supply: The 2015 Provincial Plan Review' (OSSGA, 2015)
- Agricultural Impact Assessment and Rehabilitation Plan Guidelines for Aggregate Extraction, 2016 (OMAFRA)

### SELECTED PROJECT EXPERIENCE

- Research, preparation and coordination of reports / applications under the Planning Act, Niagara Escarpment Planning and Development Act and Aggregate Resources Act.
- Project management services for development applications.
- Conduct notification and consultation processes under the Aggregate Resources Act.
- Due diligence and property overview reports for prospective aggregate sites.
- Aggregate Resources Act site plan amendments.
- Planning assessment for commercial, residential, agricultural and industrial developments.

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- Planning assessment for proposed urban use requests in Niagara Escarpment Plan through 2015-2017 Review.
- Research and preparation of reports / evidence for hearings before the Ontario Municipal Board / Local Planning Appeal Tribunal.
- Planning research and assessment for expropriation matters on behalf of public and private sector clients.

### SELECTED PROJECT EXAMPLES

- AAROC Aggregates Bardoel Pit, Township of Southwest Oxford
- Badger Daylighting Pits, Township of Puslinch and City of Ottawa
- Brock University, Niagara Escarpment Plan Lands, City of St. Catharines
- CBM Ayr Pit Site Plan Amendment, Township of North Dumfries
- CBM Bromberg Pit, Township of North Dumfries
- CBM Eramosa Pit Extension, Township of Centre Wellington
- CBM Lake Pit, Township of Puslinch
- CBM Lanci Pit Expansion, Township of Puslinch
- Caledon Sand & Gravel Site Plan and Licence Amendments, Town of Caledon
- Capital Paving Shantz Station Pit, Township of Woolwich
- City of Kingston, Barriefield Affordable Housing Feasibility Study
- Graham Brothers Caledon Pit Site Plan Amendment and NEP Amendment, Town of Caledon
- Halton Crushed Stone Erin Pit Extension, Town of Erin
- James Dick Construction Ltd. Adjala Pit Extension, Township of Adjala-Tosorontio
- James Dick Construction Ltd. Erin Pit Extension, Town of Caledon
- James Dick Construction Ltd. Gamebridge Quarry Site Plan Amendment, Township of Ramara
- James Dick Construction Ltd. Reid Road Quarry, Town of Milton
- Kaneff Properties, Royal Niagara Golf Club, City of St. Catharines
- Kieswetter Excavating Heidelberg Pit Site Plan Amendment, Township of Wilmot
- KPM Brantford Plant Expansion, Brant County
- Lillycrop Highway 6 Expropriation, Township of Puslinch
- Limehouse Clay Products Ltd. New Licence, NEP Amendment & Site Plan Amendment, Town of Halton Hills
- Ministry of Transportation, Highway 410 Expropriation, Town of Caledon

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- Ontario Stone, Sand & Gravel Association, City of Ottawa Official Plan
- Ontario Trap Rock Quarry, Town of Bruce Mines
- Queenston Quarry Reclamation Company Redevelopment, Town of Niagara-on-the-Lake
- Ramada Beacon Hotel, Town of Lincoln
- R.W. Tomlinson Ltd. Brickyards Quarry, City of Ottawa
- R.W. Tomlinson Ltd. Moodie Quarry Expropriation, City of Ottawa
- R.W. Tomlinson Ltd. Moore Quarry, City of Ottawa
- R.W. Tomlinson Ltd. Reids Mills Pit, City of Ottawa
- R.W. Tomlinson Ltd. Stittsville Quarry, City of Ottawa
- R.W. Tomlinson Ltd. Ready-Mix Site Plan Approval, City of Ottawa
- Township of Guelph-Eramosa, Review of Tri-City Spencer Pit
- Township of West Lincoln, Preliminary Bedrock Resource Assessment in Smithville

### PRESENTATIONS

- "Planning as a Profession" – Faculty of Environment Open House at the University of Waterloo, March 2013
- "Rehabilitation of Licensed Pits and Quarries" – Canadian Association of Certified Planning Technicians Professional Development Conference, October 21, 2011
- Professional Practice, Public and Private Administration (PLAN 403), University of Waterloo, January 2010

### ARTICLES

- "Planning for a sustainable community" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 1, Issue 2, 2011
- "The closer the better" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 2, Issue 2, 2012
- "Diminishing supply" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 3, Issue 1, 2013
- "Shipping aggregate from further afield" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 3, Issue 2, 2013
- "The feasibility of alternative transportation options" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 4, Issue 1, 2014
- "Keeping residents safe and dry" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 4, Issue 2, 2014

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