



Planning Report & Aggregate Resources Act Summary Statement

PREPARED FOR:

**Thomas Cavanagh
Construction Limited**
Part of Lots 12 & 13,
Concession 3
Geo. Township of Stafford
Township of Laurentian Valley
County of Renfrew

November 2024

Cavanagh Pembroke Quarry

Your Vision

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1.0 Introduction

On behalf of Thomas Cavanagh Construction Limited, MHBC Planning Ltd. has prepared this Planning Report & Aggregate Resources Act Summary Statement in support of applications under the Planning Act and Aggregate Resources Act to permit a new quarry located at Part of Lots 12 & 13, Concession 3 (Stafford Township) in the Township of Laurentian Valley, Renfrew County.

The following subsections provide a description of the company's background, the site and project, surrounding uses, and the applications and materials required to permit the proposal.

1.1 Thomas Cavanagh Construction Limited

Thomas Cavanagh Construction Limited ("Cavanagh") is a well-established construction company with over 50 years of experience in the extraction and production of aggregate resources, asphalt and concrete, expanded polystyrene and construction fencing. Currently, Cavanagh is based out of Ottawa and has a team of over 1200 employees who provide services to customers in Ottawa and the surrounding area. Cavanagh has over 40 licensed pits and quarries in Ontario.

1.2 Land Holdings & Surrounding Context

Subject Lands

Cavanagh owns approximately 62.3 hectares (approximately 154 acres) of land legally described as Part of Lots 12 and 13, Concession 3, Geo. Township of Stafford in the Township of Laurentian Valley and County of Renfrew. Approximately 55.9 hectares of this area (the "subject lands") is being proposed for the development of the Pembroke Quarry (the "proposed quarry"), as shown on **Figure 1**.

The subject lands contain woodlands, disturbed areas including access roads and a TransCanada pipeline. They do not contain any buildings. The TransCanada pipeline separates Extraction Area 1 from Extraction Area 3 and extends along the western edge of Extraction Area 2. A hydro corridor is located along the eastern limits of Extraction Area 3. The subject lands are bisected by an unopened road allowance that extends eastward from Dicks Road.

Surrounding Area

The surrounding land uses in the area are predominantly agriculture, aggregate extraction and wooded areas. There are no houses located within 230 m of the subject lands. Generally, existing land uses within the vicinity of the subject lands include:

NORTH: Vacant lands that are in the process of being purchased by Cavanagh by way of a severance application. Wooded areas including

plantations. Rural residential uses along Stafford Third Line.

EAST: French Hill Quarry operated by BEI (Aggregate Resources Act Licence 604041) is located immediately east and south of the subject lands. Two small wetlands along Stafford Third Line and rural residential uses.

SOUTH: Wooded areas and agricultural lands.

WEST: Proposed Greenwood Paving quarry immediately west and south of the subject lands. Agricultural lands and wooded areas. Fish Creek is located approximately 515 m from the subject lands at its closest point. Dicks Road terminates approximately 200 m west of the subject lands. Highway 41 is located over 1 km west of the subject lands.

Additional Land Holdings

Cavanagh currently owns approximately 59.6 ha of land located at Part of Lot 14, Concession 4 (39072 Highway 41) as shown on **Figure 1**. These lands front onto Highway 41 and currently contain agricultural lands and agriculture-related buildings, wooded areas and a portion of Fish Creek.

Cavanagh is in the process of purchasing approximately 30.6 ha of land located in Part of Lots 13 & 14, Concession 4 which are located immediately north of the subject lands as shown on **Figure 1**. In July 2024, Cavanagh submitted a severance application to sever these lands from adjoining lands and have them merge with the property at 39072 Highway 41.

These lands contain an existing access road that has been used for logging operations in the immediate area and is proposed to be used for trucks accessing the Pembroke Quarry. These lands are known as the “access lands” in this Report.

1.3 Project Description and Overview

The proposed Pembroke Quarry will extract bedrock resources to supply local and regional construction and infrastructure projects as well as to produce concrete and asphalt. The area proposed to be licensed under the ARA for the proposed quarry is approximately 55.9 hectares (138.1 acres) with a proposed extraction area of approximately 43.3 hectares (107 acres).

The quarry is proposed to operate above and below the groundwater table.

There will be three phases of aggregate extraction as described below (**Figure 1**):

EXTRACTION AREA 1: Extraction will commence in the western portion of the subject lands and proceed in a southerly direction.

EXTRACTION AREA 2: Extraction will then proceed south of the unopened road allowance and move in a southerly direction.

EXTRACTION AREA 3: Extraction will then proceed east of the TransCanada Pipeline and move in an easterly direction.

Extracted bedrock will be washed and processed on-site through portable equipment.

Extraction will occur in up to four lifts to a final depth ranging from 120 to 133 masl.

A maximum annual tonnage limit of 1 million tonnes is proposed for the Pembroke Quarry. The quarry is proposed to operate on a 24-hour basis with limitations on what equipment can operate between 7 pm and 7 am. The proposed hours will ensure that the quarry can provide materials to critical infrastructure projects that require overnight work e.g. MTO highway projects. Typically, the quarry would only operate during the daytime.

The quarry is proposed to be accessed via an existing access road that is located on additional lands owned and to be owned by Cavanagh. This would ensure that trucks accessing the quarry can utilize Highway 41 rather than Stafford Third Line. Trucks will not be permitted to use Stafford Third Line.

Extraction will setback 30 m from the TransCanada Pipeline and 15 m from the hydro easement, unopened road allowance and adjacent lands. A 0 m setback is proposed adjacent to lands to be owned by Cavanagh and the existing French Hill Quarry to optimize resource availability.

The extraction area will be progressively rehabilitated to natural conditions including the creation of three lakes, reforested areas, meadows and shallow shoreline areas. In addition, Cavanagh is proposing to restore portions of Fish Creek with tree and shrub plantings on lands they own near the proposed quarry.

1.4 The Applications

The following applications are required to permit the proposed Pembroke Quarry extension:

- An amendment to the Township of Laurentian Valley Official Plan to redesignate the subject lands from Rural to Mineral Aggregate Resources;
- An amendment to the Township of Laurentian Valley Zoning By-law to rezone the subject lands to Extractive Industrial (EM) Zone and permit the use of the additional Cavanagh lands for the purposes of a truck access; and,
- Class 'A' License under the *Aggregate Resources Act*.

Through Bill 185, the requirements for pre-application consultation were repealed by the Ontario government. However, the proposed quarry proposal was discussed with Township and County staff as part of the severance application for the access lands. Through these discussions, the County and Township requested that Terms of Reference be provided for several studies related to the future quarry application. In May 2024, the following terms of reference were submitted:

- Natural Environment Report, prepared by Cambium Inc., dated April 30, 2024;
- Hydrogeological Assessment, prepared by WSP Canada Inc., dated May 1, 2024;
- Hydrological Assessment, prepared by WSP Canada Inc., dated May 1, 2024;
- Traffic Impact Study, prepared by Castleglenn Consultants, dated March 28, 2024; and,
- Blast Impact Analysis, prepared by Explotech Engineering Ltd., dated March 26, 2024.

As required by the *Aggregate Resources Act* and in accordance with requirements outlined in the Township's Official Plan, the following plans and reports have been prepared in support of the applications:

- Planning Report & Aggregate Resources Act Summary Statement, prepared by MHBC, dated November 2024;
- ARA Site Plan, prepared by MHBC, dated November 2024, including the following sheets:
 - Existing Features Plan
 - Operational Plan
 - Operational Notes Plan
 - Rehabilitation Plan
 - Cross Section Plan

- Level 1 and Level 2 Water Report, prepared by WSP, dated November 2024;
- Maximum Predicted Water Table Report, prepared by WSP, dated November 2024;
- Natural Environment Report, prepared by Cambium, dated November 2024;
- Acoustic Assessment Report, prepared by Freefield Ltd., dated November 20, 2024;
- Stage 1 Archaeological Assessment, prepared by Matrix Heritage, dated July 30, 2024;
- Stage 2 Archaeological Assessment, prepared by Matrix Heritage, dated October 1, 2024;
- Blasting Impact Analysis, prepared by Explotech, dated October 30, 2024; and,
- Traffic Impact Study, prepared by Castleglenn Consultants, dated November 29, 2024.

The following Planning Justification Report and Aggregate Resources Act (ARA) Summary Statement has been prepared as part of the application package, to demonstrate consistency, conformity, and/or regard for specific matters in the Provincial Planning Statement (PPS), the County of Renfrew and Township of Laurentian Valley Official Plans, the Township of Laurentian Valley Zoning By-law, and the Aggregate Resources Act.

2.0 Summary of Supporting Studies

2.1 Maximum Predicted Water Table Report

The Maximum Predicted Water Table Report (WSP, 2024) summarizes the results of the groundwater level monitoring completed on and in the vicinity of the proposed Pembroke Quarry site.

Based on the available groundwater elevation data, the maximum predicted water table was estimated using the data collected between November 2022 and April 2024 at the shallow monitoring wells (DDH21-01B, BH21-02B and BH21-03B). The data from June 20, 2023 was used to estimate the maximum predicted groundwater table since water levels in the shallow monitoring wells were generally higher during this session as compared to the other sessions. The water table generally slopes down from the southeastern side of the site at BH21-02B (167.0 metres asl) to the northwestern side of the site at BH21-03B (152.2 metres asl).

2.2 Water Report

Based on the Level 1 and 2 Water Report (WSP, 2024), development of the proposed Pembroke Quarry will result in minor modifications to the local surface water drainage patterns such that there will be a minor decrease in overall surplus of approximately 420 m³/year (0.2%). During

the operational period, water collecting in the base of the proposed Pembroke Quarry will be directed to the sump and discharged off-site in accordance with a future Environmental Compliance Approval (Industrial Sewage Works) and Permit to Take Water.

Based on the impact assessment, it is not expected that the development of the proposed Pembroke Quarry will have a negative impact on surface water receptors or groundwater receptors (private water supply wells) during the operational life of the quarry. A comprehensive surface water and groundwater monitoring program will be in place during the operational life of the proposed Pembroke Quarry to provide confirmation that local receptors are not negatively impacted.

Following the extraction of the bedrock at the proposed Pembroke Quarry, the excavation area will be rehabilitated as three lakes. The long-term groundwater levels in the bedrock surrounding the site are predicted to increase at depth, but return to similar levels to existing conditions near the bedrock surface. Consequently, it is not expected that the development of the proposed Pembroke Quarry will have a negative impact on surface water receptors or groundwater receptors (private water supply wells) under rehabilitated conditions.

2.3 Natural Environment Report

The Natural Environment Report and Environmental Impact Study (NER/EIS, Cambium, 2024) addresses the Natural Environment Report requirements of Section 2.2 of the Aggregate Resources of Ontario: Technical Reports and Information Standards, which requires the assessment of potential environmental impacts of the proposed aggregate extraction on the natural heritage features associated with the subject lands and broader study area (which includes the 120m adjacent lands consideration specified in the ARA standards). The report is also meant to satisfy the County of Renfrew OP and Township of Laurentian Valley OP requirements for an Environmental Impact Study.

Based on the findings of the NER/EIS, the following significant natural heritage features have been identified either on the subject lands or within the study area:

- Habitat of Endangered or Threatened Species, including black ash, little brown myotis, silver-haired bat, red bat, hoary bat and tri-colored bat;
- Significant woodlands; and,
- Significant Wildlife Habitat.

Most of these significant natural heritage features are located outside of the proposed extraction area.

The proposed project has been assessed for potential ecological impacts under the ARA Provincial Standards, the PPS, policies of the County of Renfrew and the Township of Laurentian Valley, as well as other relevant provincial and federal legislation. Based on these analyses, it is expected that the proposed extraction will be in compliance with all applicable legislation. These conclusions are

based on the following recommendations, which have been incorporated on the site plan:

- Extraction setbacks as identified on the Operational Plan are to be clearly demarcated and respected. Existing natural vegetation communities will be retained within the setbacks, except where berms are proposed.
- Submit an Information Gathering Form for SAR bats to the MECP.
- No clearing of vegetation shall occur within the core breeding bird season (April 1 – August 31) unless a nesting survey has been completed by a qualified biologist within 24 hours of the clearing, and no active nests were observed.
- No tree clearing or grubbing shall occur within the active season for bats (April 1 - September 30).
- To mitigate any potential impacts from blasting, blasting shall be completed in accordance with DFO standards as outlined in Explotech (Explotech Engineering Ltd., 2024).
- Implement a SAR Training Program and Encounter Protocol. The SAR Training Program is to be provided for all new on-Site staff as part of orientation training. The Training Program will include:
 - Information / training on identifying SAR
 - What to do if a SAR is observed (Encounter Protocol)
 - How to protect a turtle or bird nest
 - Information on how to report a SAR sighting
- Standard best management practices shall be implemented to reduce dust and noise at the quarry, and shall be

- continued during operation of the project.
- Undertake rehabilitation as outlined in the rehabilitation plan.

2.4 Blast Design Report

The vibration levels assessed in the Blast Impact Analysis (Explotech, 2024) are based on the Ministry of the Environment, Conservation and Parks (MECP) Model Municipal Noise Control By-law (NPC 119) with regard to Guidelines for Blasting in Mines and Quarries. Explotech assessed the area surrounding the proposed Aggregate Resources Act license with regard to potential damage from blasting operations and compliance with the aforementioned by-law document.

Blasting operations required for operations at the proposed Thomas Cavanagh Construction Ltd. Pembroke Quarry site can be carried out safely and within governing guidelines set by the Ministry of the Environment, Conservation and Parks.

Modern blasting techniques will permit blasting to take place with explosives charges below allowable charge weights ensuring that blast vibrations and overpressure will remain minimal at the nearest receptors and compliant with applicable guideline limits.

Recommendations are included in the Blast Impact Analysis to ensure that blasting operations in all phases of this project are carried out in a safe and productive manner to ensure that no possibility of damage exists to any buildings, structures or facilities surrounding the property. In summary, these recommendations include:

1. An attenuation study.

2. Adherence to maximum explosive loads.
3. Blast monitoring near closest houses, fish habitat, TransCanada Pipeline and hydro towers.
4. Limitations on blasting near the closest active fish spawning bed and fish habitat.
5. Detailed blast records.

2.5 Acoustic Assessment Report

The Acoustic Assessment (Freefield Ltd., 2024) was carried out according to applicable MECP Noise Assessment Guidelines, including NPC-300. The assessment considers the impact on nearby noise sensitive lands, including existing residences and vacant land zoned for potential noise sensitive uses, of noise generated by all on-site equipment operations, including preparing for blasting with a rock drill, extraction operations by loaders, aggregate processing operations by a portable crushing and screening plant and a wash plant and truck movements used for the shipping of product on a 24-hour basis.

Noise impacts have been predicted and compared to the MECP sound level limits as set out in NPC-300. Where applicable, noise mitigation measures such as barriers and limits to operations have been designed to ensure all operations comply with the applicable sound level limits.

It was found that noise levels from the proposed quarry are in compliance with MECP sound level limits at nearby noise sensitive receptors, provided that the noise mitigation measures outlined in Section 7.0 of the Acoustic Assessment Report are followed.

2.6 Archaeological Assessment

The Stage 1 and 2 archaeological assessments (Matrix Heritage, 2024) were completed in advance of a proposed aggregate extraction license under the Aggregate Resources Act. The objectives of the investigation were to assess the archaeological potential of the property. This assessment is in accordance with the Ministry of Citizenship and Multiculturalism's (MCM) *Standards and Guidelines for Consultant Archaeologists*.

Indigenous Engagement for this assessment included the Algonquins of Ontario, and the Algonquins of Pikwakanagan First Nation.

The Stage 1 archaeological assessment determined that a 15.6 ha portion of the study area has archaeological potential warranting a recommendation for Stage 2 field assessment (Map 4). The remaining lands had low to no archaeological potential.

Based on the Stage 1 recommendations, a Stage 2 archaeological assessment was undertaken of the 15.6 ha area with archaeological potential. As the wooded study area could not be ploughed, the lands were subject to subsurface testing consisting of hand-excavated test pits at 5 m intervals.

The Stage 2 Archaeological Assessment resulted in no indication of archaeological remains with cultural heritage value or interest within the proposed area to be licensed.

The Stage 1 assessment has been accepted by MCM and entered into the public register of archaeological reports. The Stage 2 assessment is under review by MCM as of the date of this Report.

2.7 Traffic Impact Study

The Traffic Impact Study (Castleglenn, 2024) assessed the forecasted traffic impacts as a result of the proposed quarry on the surrounding road network. An assessment of MTO access requirements relative to the existing Highway 41 access was also undertaken.

The study determined that the existing access to Highway 41 would have to be converted from a 'field access' to a 'resource access' in accordance with MTO requirements.

The study concluded that direct access from the proposed quarry to Highway 41 is preferred over a truck access to Stafford Third Line, since it would minimize the site's impact on the local township roads which were not constructed to handle the heavy truck traffic generated by the proposed quarry.

The study determined that the proposed quarry is forecast to produce a maximum of 20 two-way truck trips during worst-case and peak conditions. All truck traffic would use the Highway 41 corridor with 75% headed to/from the north and 25% headed to/from the south.

Truck traffic from the quarry is forecasted to cause minor-to-negligible impacts on the study area intersections. It was determined that a southbound left-turn lane and northbound right-turn lane on Highway 41 at the access were not warranted.

3.0 Policy Review

The following is an assessment of the proposed quarry relative to the policies and provisions of the following documents:

- Provincial Planning Statement (2024)
- County of Renfrew Official Plan (2020)
- Township of Laurentian Valley Official Plan (2004)

3.1 Provincial Planning Statement, 2024

The 2024 Provincial Planning Statement (“PPS”) came into effect on October 21, 2024 and replaced the 2020 Provincial Policy Statement. The PPS provides policy direction on matters of provincial interest related to land use planning and development, and sets the policy foundation for regulating the development and use of land. The PPS provides for the appropriate development of land, while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment.

The PPS supports a comprehensive, integrated and long-term approach to planning, and recognizes linkages among policy areas. The PPS is to be read in its entirety and the relevant policies are to be applied to each situation. The policies in the PPS are outcome-oriented, and some policies provide flexibility of interpretation and implementation provided that provincial interests are upheld.

The Province’s natural heritage resources, water resources, agricultural resources, mineral resources, and cultural heritage and

archaeological resources provide important environmental, economic and social benefits. The wise use and management of these resources over the long term is a key provincial interest.

The PPS states that mineral aggregate resources shall be protected for long-term use. As much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible.

The proposed quarry contains significant aggregate resources, and is strategically located close to Highways 17 & 41 with access to market areas in Pembroke, Petawawa, Eganville and Renfrew.

Design recommendations have been incorporated into the Site Plans based on technical recommendations to ensure that no negative impacts occur to significant natural heritage features or adverse impacts on surrounding land uses as a result of the proposed operation.

The following are the main sections of the PPS that apply to the proposed Pembroke Quarry application along with comments on their consistency with these sections.

Transportation and Infrastructure Corridors (Section 3.3)

The PPS states that major goods movement facilities and corridors shall be protected for the long term and that new development proposed on adjacent lands to existing or planned corridors and transportation facilities should be compatible with, and supportive of, the long-

term purposes of the corridor and should be designed to avoid, or where avoidance is not possible, minimize and mitigate negative impacts on and adverse effects from the corridor and transportation facilities.

While access is proposed directly to Highway 41, the proposed quarry is located over 1 km from Highway 41 and will not result in adverse impacts on the transportation corridor or any long-term plans for the corridor.

Cavanagh will be required to obtain an access permit from MTO to convert the existing field access to a resource access to allow trucks to directly access Highway 41.

Providing direct access to Highway 41 is the preferable option compared to Stafford Third Line given that Highway 41 is built and designed to accommodate heavy truck traffic. This will also reduce impacts on the community given the number of residences located along Third Line.

The Traffic Impact Study concluded that the proposed quarry is not anticipated to negatively impact Highway 41 or the surrounding road system.

Land Use Compatibility (Section 3.5)

The proposed quarry has been appropriately designed and buffered to mitigate adverse effects on sensitive land uses. There are no houses located within 230 m of the proposed quarry. Through the implementation of setbacks, berms and operating conditions, potential adverse effects from noise and blasting will be minimized and mitigated in accordance with provincial standards.

Natural Heritage (Section 4.1)

The PPS requires that natural features and areas shall be protected for the long term. The diversity and connectivity of natural features in

an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved.

The diversity and connectivity of natural features in the area, and the long-term ecological function and biodiversity of natural heritage systems will be maintained as a result of progressively rehabilitating the quarry to natural features including three lakes, shoreline wetlands, wooded areas and stream restoration activities.

There are no significant wetlands, significant coastal wetlands, significant valleylands, significant areas of natural and scientific interest or coastal wetlands on the subject lands.

There are significant woodlands and candidate significant wildlife habitat located on the subject lands. Approximately 12.8 ha of woodlands will be removed as a result of the proposed quarry. This represents approximately 1.6% of the overall significant woodland patch that extends off-site which is approximately 800 ha in size.

Through progressive rehabilitation of the quarry, approximately 6.1 ha will be reforested on the subject lands. In addition, planting of trees and shrubs will occur on adjacent lands owned by Cavanagh along Fish Creek (approximately 2.1 ha). The Natural Environment Report concluded that there will be no negative impacts on the significant woodlands and significant wildlife habitat.

There are several significant natural features located on adjacent lands outside of the proposed quarry including significant woodlands, habitat of endangered and threatened species, and significant wildlife habitat. The Natural Environment Report concluded there will be no negative impacts on these features as a result of the implementation of the recommendations contained in the Natural Environment Report.

There is no fish habitat located on the subject lands.

The NER identified several endangered bats on the subject and adjacent lands. The NER concluded that the loss of tree cover on the subject lands (approximately 12.8 ha or 1.6% of the contiguous forest patch that extends off-site, which is approximately 800 ha in size) is not expected to impact the ability of bats to use the landscape. The single identified potential roost will not be affected by the quarry as it lies outside of the proposed licence area. Further, as part of rehabilitation, 6.1 ha of forest cover will be re-established, and all areas of the site will continue to provide foraging habitat. In addition, 2.1 ha of new forest will be established on lands owned by Cavanagh along Fish Creek. It is Cambium's opinion that no permits or authorizations under the Endangered Species Act are required for any of the bat species at the site. To confirm this, an Information Gathering Form will be prepared and submitted to the MECP.

Water (Section 4.2)

The PPS includes policies that ensure protection, improvement or restoration of the quality and quantity of water.

A Water Report (WSP, 2024) has been prepared in support of the proposed application and ARA license. It concludes that negative impacts are not expected on surface water receptors or groundwater receptors (private water supply wells) during the operational life of the quarry or under rehabilitated conditions.

Water taking (dewatering) at the site will be regulated through the Ontario Water Resources Act Permit to Take Water requirement and in accordance with a future Environmental Compliance Approval.

To confirm that local receptors are not negatively impacted, a comprehensive surface

water and groundwater monitoring program will be in place during the operation life of the proposed quarry.

Agriculture (Section 4.3)

The PPS states that prime agricultural areas shall be protected for long-term use for agriculture, and that prime agricultural areas are areas where prime agricultural lands predominate.

The PPS defines "prime agricultural lands" as specialty crop areas and/or Canada Land Inventory Class 1, 2 and 3 lands. The Canada Land Inventory maps the site as Class 6 soils (**Figure 2**). The site is therefore not identified as prime agricultural land.

Further, the subject lands are not identified within the prime agricultural area on County of Renfrew Official Plan and Township of Laurentian Valley Official Plan mapping.

As such, the agricultural policies of the PPS do not apply to the subject lands and the proposed applications.

Additional lands owned by Cavanagh are identified within a prime agricultural area. The proposed quarry however is not located on these lands. Trucks accessing the quarry will cross these lands on an existing access road.

Mineral Aggregate Resources (Section 4.5)

The PPS states that 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 which consist of high quality bedrock resources which are identified as Selected Bedrock Resource Area 3 in provincial geological mapping (**Figure 3**). There are approximately

39 million tonnes of bedrock resources available within the proposed extraction area.

The PPS states as much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible.

The proposed quarry is strategically located close to Highways 17 & 41 with access to market areas in Pembroke, Petawawa, Eganville and Renfrew.

The PPS states that extraction shall be undertaken in a manner which minimizes social, economic and environmental impacts. The proposed quarry has been designed to ensure that social, economic and environmental impacts are minimized.

The PPS states that mineral aggregate resource conservation shall be undertaken, including through the use of accessory aggregate recycling facilities within operations, wherever feasible.

Mineral aggregate resource conservation will be undertaken by making available primary aggregate resources, which can then be blended or mixed with former aggregate products as part of the aggregate recycling process.

Recycling of concrete and asphalt is proposed as an accessory activity at the quarry.

The PPS states that progressive and final rehabilitation shall be required to accommodate subsequent land uses, to promote land use compatibility, to recognize the interim nature of extraction, and to mitigate negative impacts to the extent possible. Final rehabilitation shall take surrounding land use and approved land use designations into consideration.

The PPS recognizes that rehabilitation can be used to mitigate negative impacts on natural features. The proposed quarry will be progressively rehabilitated to natural heritage

features including three lakes, woodlands, wetland habitat. Final rehabilitation will be compatible with surrounding land uses and approved land use designations.

Cultural Heritage and Archaeology (Section 4.6)

The PPS states that protected heritage property including built heritage resources and cultural heritage landscapes shall be conserved. There are no existing structures or dwellings on the subject lands and there are no built heritage resources or cultural heritage landscapes on the subject lands.

The PPS states that 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.

Stage 1-2 Archaeological Assessments were prepared and determined that the subject lands do not contain archaeological resources.

Conclusion

The proposed Pembroke Quarry is consistent with the PPS, represents good planning, wise resource management, and is in the public interest after considering the economic, environmental and social factors that apply to this application.

3.2 County of Renfrew Official Plan

The County of Renfrew Official Plan came into effect on March 26, 2020, as a result of a decision issued by the Minister of Municipal Affairs and Housing ("MMAH") on Official Plan Amendment Number 25 to the County of Renfrew Official Plan.

The purpose of the County of Renfrew Official Plan ("County OP") is to provide a policy framework for growth and development in the County. The intent of the County OP is to promote orderly and efficient development in a manner which is consistent with the desired lifestyle and needs for growth and prosperity, as envisaged by the local communities and Councils, and County Council. The County OP has been prepared to guide future development to the year 2038.

The County OP covers the majority of the lands within the County of Renfrew and is required to be read in conjunction with local Official Plans, where applicable. Schedule 'A' – Map 1 of County OP identifies the subject lands as being located in the 'Local Official Plan – Township of Laurentian Valley' ("Township OP") (**Figure 4**).

While the Township of Laurentian Valley is located within Renfrew County, the County's Official Plan does not apply to the Township except for Sections 3 & 15:

"For those areas of the County shown on Schedule 'A' as being covered by a local Official Plan and not covered by this Official Plan, only policies of Section 3 Urban Community and Section 15 Local Official Plan – Laurentian Valley, as applicable, shall apply" (Section 1.5(1)).

Therefore, only Section 15 would apply to the proposed applications. This section contains general guidelines of what should be included in the Township's Official Plan.

Policy 15.3 (1) states that the Township of Laurentian Valley designation on the Land Use Schedule(s) shall mean that the permitted uses shall include a broad variety of uses including for mineral aggregate resources.

Policy 15.3 (2) guides the content and land use policy of the Township OP, including providing direction for the inclusion of mineral aggregate resources policies that speak to identification

and protection of mineral aggregate operations and known deposits of mineral aggregate resources, and ensure the long-term protection of the resources. The Township OP includes policies for mineral aggregate resources, which is further discussed in Section 3.3 of this Report.

Policy 15.3 (4) of the County OP sets out that the Township OP must be updated to conform with the mapping contained on Schedule 'B' of the County OP. To date, this has not yet occurred in the Township OP.

There are five separate maps that make up Schedule B to the County OP, representing: Hazards; Infrastructure; Mineral Aggregate & Mining Resources; Natural Heritage Features; and, Prime Agricultural Areas. The intent of the mapping is to co-ordinate the protection of natural heritage features, hazards and resources that cross municipal boundaries.

While Schedule B has not yet been incorporated in the Township's Official Plan, the following provides a high-level review of these schedules as it relates to the subject lands. Importantly, these Schedules and their related County OP policies do not apply to the proposed applications however we have referenced these schedules for information purposes.

- Schedule B-Map 1: Hazards Map (**Figure 5**):

The subject lands are identified as containing Karst 'Inferred' and also identified as Wildland Hazards: 'High' and 'Pine – Needs Evaluation' on Schedule B – Map 1.

The County OP notes that identified karst topography is an area of limestone plain marked by sinks or holes, interspersed with abrupt ridges and irregular protuberant rock, usually underlain by caverns and underground streams. It appears the area of karst generally follows the area identified as Selected Bedrock Resource Area in provincial geological mapping. As there

are no structures proposed as part of the proposed quarry, there should be no risks to public safety. Further, there is an existing quarry operating on the adjacent lands with an additional application for a new quarry as well.

The County OP sets out general development policies for lands identified as 'Wildland Fire' Hazards. It stipulates that development may be permitted where risk is mitigated and that wildland fire mitigation measures shall not be permitted in provincially significant wetlands and significant coastal wetlands.

As there are no structures or sensitive uses proposed as part of the proposed quarry, there should be no risks to public safety. The proposed quarry will remove portions of the wildland fire hazards to accommodate the quarry and will include the creation of three new waterbodies which can act as a firebreak for potential wildland fires in the area.

- Schedule B – Map 2 Infrastructure Map (Figure 6):

Map 2 identifies the TransCanada Pipeline crossing the subject lands. Cavanagh has consulted directly with TransCanada Pipelines as part of the proposal. In accordance with TransCanada requirements, extraction will be setback 30 m from the edge of the TransCanada Pipeline easement.

- Schedule B – Map 3: Mineral Aggregate and Mining Resource (Figure 7):

Despite the presence of bedrock resources in the Township of Laurentian Valley as confirmed by provincial geological mapping, Map 3 does not identify any bedrock resources in the Township (see further discussion regarding the lack of appropriate bedrock mapping in the Official Plan in Section 3.3 of this Report). Abutting land uses include existing and planned quarries that further support the presence and availability of high-quality bedrock resources.

- Schedule B – Map 4: Natural Heritage Features (Figure 8):

Map 4 identifies Significant Woodlands on the majority of the subject lands. Environmental Protection Areas and ValleyLands are not identified on the subject lands.

Through the Natural Environment Report, the on-site woodlands were refined based on ground-truthing and site-specific assessment. As a result of the proposed progressive rehabilitation activities including reforestation, stream restoration and pond creation, the Natural Environment Report concluded that there will be no negative impacts to the significant woodland, which overlaps the subject lands.

To further restate, the Significant Woodland mapping and policies contained in the County OP do not apply to the proposed applications.

- Schedule B – Map 5: Prime Agricultural Area (Figure 9):

The subject lands are not identified as prime agricultural area on Map 5.

Additional lands owned by Cavanagh are identified within a prime agricultural area. The proposed quarry however is not located on these lands. Trucks accessing the quarry will cross these lands on an existing access road.

Conclusion

As the County OP does not apply to the proposed applications, a County Official Plan Amendment is not required and the use of aggregate resources is specifically identified as a permitted use based on Policy 15.3(1) of the County's Official Plan. Accordingly, the proposed applications conform with the County's Official Plan as it relates to Section 15.

3.3 Township of Laurentian Valley Official Plan

The Township of Laurentian Valley Official Plan (“Township OP”) was adopted by Council on July 23, 2002, and approved by the County of Renfrew with modifications on June 30, 2004. The purpose of the Township OP is to guide growth and development and to encourage growth within urban and suburban areas and limit rural development to only rural areas where appropriate.

One of the specific objectives of the Township OP is to identify and protect mineral aggregate resources in areas of the municipality considered appropriate for long-term preservation.

Land Use Designation – Subject Lands

The subject lands are currently designated as ‘Rural’ on Schedule ‘A-4’: Township of Stafford of the Township OP (**Figure 10**). The Rural designation is intended to guide rural types of development by identifying areas suitable for development while protecting the rural character, heritage of areas and agricultural resources. The Rural designation permits agricultural uses, forestry, low density residential uses, rural commercial, and institutional uses, subject to location and criteria. The Rural designation does not permit mineral aggregate operations such as quarries.

Proposed Land Use Designation – Subject Lands

The proposed Official Plan Amendment included in **Appendix A** requests to redesignate the subject lands from ‘Rural’ to ‘Mineral Aggregate Resource’ to permit the proposed quarry.

Land Use Designation – Access Lands

The additional lands owned by Cavanagh which contain the existing access road are currently designated as ‘Rural’, ‘Agriculture’ and ‘Environmental Protection’ in the Township OP (**Figure 10**). There are no changes proposed to the land use on these lands as trucks to and from the quarry are proposing to utilize the existing access road on these lands.

General Development Policies (Section 2)

The general development policies of the Township OP have been established in order that future development of the Township is controlled in an orderly and systematic fashion. New development shall follow the general policy guidelines as outlined in Section 2 of the Township OP.

Section 2.2(3) states that where different land uses abut, every effort shall be made to avoid conflicts between different uses. Where deemed necessary, buffering will be provided for the purpose of reducing or eliminating the adverse effects of one land use upon the other. A buffer may be open space, a berm, wall, fence, plantings or a land use different from the conflicting ones but compatible with both or any combination of the aforementioned sufficient to accomplish the intended purposes. Where possible, Council shall encourage the use of naturalized or treed areas as buffers.

The proposed quarry application has been designed to avoid and mitigate any potential conflicts with sensitive and other uses. There are no houses located within 230 m of the proposed quarry. The proposed extraction areas have been setback from adjoining land uses and properties at sufficient distances to mitigate impacts. Further, berms and tree plantings will be utilized around the site. The subject lands are

already well buffered from nearby residential properties and public roads. The subject lands are located adjacent to an existing quarry and proposed quarry.

Section 2.2(6) states that significant built heritage resources and cultural landscapes will be conserved. There are no significant built heritage resources, cultural landscapes or archaeological resources on the subject lands.

Section 2.2(8) states that Council will have regard for possible fire hazards when reviewing development proposals within or adjacent to areas identified as having a fire risk. Progressive rehabilitation of the subject lands provides an opportunity to potentially reduce fire risk in the area through the creation of three lakes that could act as a firebreak and/or potential source of water for firefighting purposes.

Section 2.2(9)(a) states that there are significant forest resource areas capable of timber production and that Council recognizes the importance of the timber industry to the local and regional economy and the benefits of these areas to tourism, the conservation of wildlife habitat and erosion control. Portions of the on-site wooded areas and on other lands owned by Cavanagh have been selectively harvested for timber production. Forest areas proposed for removal to accommodate the quarry will also be harvested for timber production, where feasible.

Section 2.2(9)(c) states that significant natural heritage features, such as Provincially Significant Wetlands and Areas of Natural and Scientific Interest have generally been included in the Environmental Protection designation and are specifically identified on Schedule 'C' to this Plan. The subject lands are not designated Environmental Protection and do not contain Deer Wintering Areas, Provincially Significant Wetlands, ANSI Area or Hydrography based on Schedule C (**Figure 11**).

Section 2.2(9)(h) states it is recognized that not all natural heritage features are known and identified on Schedule 'C'. Council shall have regard for any other significant natural heritage features that may be identified on or adjacent to these areas and will consult the Ministry of Natural Resources and the County of Renfrew where proposals may affect these resources.

A Natural Environment Report has been completed which has identified significant natural features on and adjacent to the subject lands. Both the MNR and County will be consulted as part of the ARA Application for review and comment.

Section 2.2(16) states that sensitive land uses shall be protected from the adverse impacts of noise. Prior to permitting development that may cause or be adversely affected by noise (i.e. rail, highway, airport, quarry, etc.), detailed noise studies may be required to be completed in accordance with Provincial Guidelines.

An Acoustic Assessment Report has been prepared for the proposed quarry. The recommendations and noise attenuation measures outlined in this report have been incorporated on the ARA Site Plan.

Section 2.2(26) provides policies with respect to TransCanada Pipelines and identifies specific requirements including minimum setbacks for blasting and heavy equipment operations.

As discussed, the TransCanada Pipeline bisects Extraction Areas 1 and 3, and is located adjacent to Extraction Area 2. Cavanagh has consulted with TransCanada as part of this proposal. Extraction will be setback a minimum of 30 m from the limits of the pipeline easement. Specific requirements are in place to monitor blasts near the pipeline as requested by TransCanada. Additional conditions are included on the ARA Site Plan as requested by TransCanada.

Section 2.2(28)(f) states within the Township, there are significant bedrock (consolidated)

aggregate resource areas capable of use for extraction purposes. Although not designated as such in the Official Plan, Council recognizes the importance of the aggregate industry to the local and regional economy and the benefits of protecting these areas which provide raw materials for road building and construction. These bedrock aggregate resource areas are shown on Appendix IA. The subject lands are located within this Bedrock Aggregate Resource Area (**Figure 12**).

Mineral Aggregate Resource (Section 13)

Section 13.1 states that the policies are intended to ensure that major aggregate deposits remain available for existing and future use and to minimize impacts on adjacent uses and the natural environment from extractive operations. Additional lands may be added to the designation in the future in order to ensure that major bedrock deposits also remain available for future uses. The proposed Official Plan Amendment application specifically seeks to do this.

Section 13.2 identifies the following objectives:

- (1) To protect known, significant deposits of aggregates, including existing pits and quarries, for future extraction.*
- (2) To prevent any change in land use that could conflict with legally existing pits and quarries.*
- (3) To regulate all pit and quarry operations so that disturbances to the environment are limited to the site, significant natural heritage features are protected, social disruption is prevented and rehabilitation to an acceptable after-use is achieved.*
- (4) To make as much of the mineral aggregate resources available as is realistically possible, to*

supply mineral aggregate resource needs as close to markets as possible.

The proposed Pembroke Quarry contains a known and significant deposit of bedrock resources. The quarry would be regulated by the Ministry of Natural Resources through the Aggregate Resources Act. The proposed quarry would make available approximately 39 million tonnes of bedrock resources in a close to market location.

Section 13.3 (2) states that Council will consider amending the Official Plan to a Mineral Aggregate Resource designation to permit extraction in areas not designated as such but which are determined to be suitable for aggregate extraction. As noted, the subject lands contain a significant amount of high-quality bedrock resources which are identified in Provincial geological mapping (**Figure 3**) and identified as a Bedrock Aggregate Resource Area in the Township OP (**Figure 12**). There are existing and proposed quarries immediately adjacent to the subject lands. The subject lands are suitable for aggregate extraction as demonstrated through the completion of the technical studies and site plan.

Section 13.3 (3) states that in considering an amendment to the Zoning By-law to permit a new pit or quarry, Council shall examine certain matters. The following provides a review of these matters as it relates to the proposed Pembroke Quarry:

- (a) degree of exposure of the operation to the public;*

The subject lands are located within a rural area of the Township of Stafford where surrounding land uses predominantly include aggregate extraction, agriculture, agriculture-related uses, woodlands, and rural residential properties. The proposed quarry is well buffered and separated from the public.

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

The proposed haulage route for the subject lands is proposed via an existing access driveway through the additional lands owned by Cavanagh with direct access to Highway 41. The existing field access will be converted to a resource access in accordance with MTO policies and requirements.

Heavy trucks will not be permitted to use Stafford Third Line and the existing access onto Third Line will be limited to passenger vehicles and for emergency purposes only.

The majority of trucks will head north on Highway 41 to market areas in and around Pembroke. Some of these trucks will head east on County Road 24 to Highway 17. The remainder of the trucks will head south on Highway 41 towards Eganville and surrounding area.

The Traffic Impact Study determined that the proposed quarry is forecast to produce a maximum of 20 two-way trucks trips per hour. This would be worst-case condition when shipping activity is the highest. The Traffic Impact Study determined that the surrounding road network can accommodate the resulting truck traffic.

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

The quarry will be progressively rehabilitated to natural conditions including the creation of three lakes, reforested areas, meadows and shallow shoreline areas. In addition, Cavanagh is proposing to restore portions of Fish Creek on agricultural lands they own near the proposed

quarry. The proposed rehabilitation has regard to the character of the surrounding lands.

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

Based on the available groundwater elevation data, the water table generally slopes down from the southeastern side of the site (167 masl) to the northwestern side of the site (152.2 masl).

There are no permanent surface water features located on the subject lands. The closest watercourse is Fish Creek which is located over 500 m from the subject lands.

(e) effects on adjacent lands, nearby communities, natural heritage features and areas and environmentally sensitive areas;

Design recommendations have been incorporated into the Site Plans based on technical recommendations to ensure that no negative impacts occur to significant natural heritage features or adverse impacts on surrounding land uses as a result of the proposed operation.

(f) the recommendations of any hydrology studies, wildlife studies or such other Impact Studies as may be required due to special concerns related to a specific site; and,

Several studies have been prepared in conjunction with these applications addressing matters including hydrology and hydrogeology, natural environment, noise, blasting, traffic and archaeology. The recommendations including required mitigation measures identified in these studies have been incorporated on the ARA Site Plan.

(g) any other matters which Council deems advisable.

This will be further determined through the application review and approvals process.

Section 13.3(5) states that the Township may adopt a by-law under the Municipal Act to regulate certain matters with respect to pits and quarries not covered by the ARA. Since the County and Township are designated under the ARA, the Township would not be able to create such a by-law as these matters are addressed and regulated under the ARA (see Section 66 of ARA and Section 124(3) of the Municipal Act).

Section 13.3(7) states that the Township will request that the proponent of a pit or quarry provide studies to demonstrate whether distance separation from sensitive uses is adequate. This same policy protects existing pits and quarries from the encroachment of incompatible land uses. To demonstrate compatibility, the studies are directed to assess the applicable general influence area of 500 metres from quarries to determine the impact of noise, dust and groundwater influence.

The subject lands are located within a rural area with existing and proposed quarries immediately adjacent. The subject lands are well setback from public roads and nearby sensitive uses. In support of the proposed applications, several studies were prepared to address potential impacts. The proposed quarry has been designed to mitigate potential impacts on surrounding land uses including sensitive uses.

Section 13.3(8) requires all pits and quarries to satisfy the requirements of the Ministry of Environment with respect to pumping and dewatering, water supply and wastewater.

The operation of the proposed quarry will require a Permit to Take Water (PTTW) for dewatering and Environmental Compliance

Approval (ECA) for water discharge. These approval processes are handled separately typically following licence issuance.

Transportation (Section 16)

Section 16 states that the policies are intended to promote the creation and maintenance of a safe and efficient road system.

Highway 41 is identified as a 'major' Provincial Highway. As opposed to Highway 17 where the policies state no direct access is permitted, it is recognized that direct access may be permitted on Highway 41 provided geometrics and safety standards are met to the satisfaction of MTO. As noted, Cavanagh has consulted with MTO regarding the proposal and a Traffic Impact Study has been prepared.

Section 16.6(1) states that development shall only be permitted if access to a public road is available prior to the development being permitted or established as a condition of approval. Cavanagh is in the process of consolidating land holdings such that they will have direct control and ownership to provide direct access to Highway 41 through the existing access road that connects to the subject lands.

Conclusion

In conclusion, the proposed Pembroke Quarry conforms with the policies in the Township of Laurentian Valley Official Plan. The draft Township Official Plan Amendment is included in **Appendix A**.

3.4 Township of Laurentian Valley Zoning By-law

The Township of Laurentian Valley Comprehensive Zoning By-law was passed on

April 9, 2008. It regulates the use of lands and the character, location and use of buildings and structures within Laurentian Valley.

Subject Lands

The subject lands are presently zoned as Rural ("RU") (**Figure 13**). The RU zone permits a range of non-residential uses and single detached dwelling. The RU zone does not permit aggregate extraction.

The subject lands are proposed to be rezoned to Extractive Industrial (EM). The draft Zoning By-law Amendment enclosed in **Appendix B** includes special provisions related to aggregate recycling, minimum landscaped open space and separation distance. These provisions are required to allow accessory aggregate recycling as permitted by the PPS and in recognition of reduced setbacks on lands adjacent to an existing quarry and other lands owned by Cavanagh.

Access Lands

The access lands are presently zoned as follows:

- Rural ("RU")
- Rural with special exception 50 ("RU-E50")

- Agriculture with special exception 6 ("A-E6")
- Agriculture with special exception 19 ("A-E19")
- Environmental Protection ("EP")

Through consultation with MTO, it was suggested that the access lands have appropriate zoning in place to permit the haul route in order that the existing field access could be converted to a resource access.

As noted in this Report, there are no changes proposed to the land use of the access lands. Trucks accessing the Pembroke Quarry will utilize the existing access road on these lands which have previously been used as part of logging operations in the immediate area.

Given that the land use is not changing on these lands, it is proposed that special exceptions be added to the access lands which permit them to be used by trucks accessing the Pembroke Quarry. This would ensure the zoning and principle uses are maintained for these lands. Please refer to the draft Zoning By-law Amendment in **Appendix B**.

4.0 Aggregate Resources Act Summary Statement

The following information is provided to address the requirements for a Summary Statement for a Class A Licence as set out in the Aggregate Resources of Ontario Standards.

4.1 Agricultural Classification of the Proposed Site

According to Ontario Ministry of Farming and Rural Affairs (OMAFRA) mapping, the subject lands contain Class 6 soil (**Figure 2**).

Based on the mapping, the subject lands do not contain prime agricultural lands. Further, the subject lands are not designated Agricultural in the Township or County Official Plans and are therefore not considered a prime agricultural area.

4.2 Planning and Land Use Considerations

The proposed planning applications consist of two components: redesignation and rezoning of the subject lands for the purposes of aggregate extraction; and, adding a special provision for the access lands to provide clarity in the zoning that trucks accessing the quarry are permitted on these lands.

The subject lands are designated 'Rural' on Schedule 'A-4' of the Township of Laurentian Valley Official Plan (**Figure 10**) and zoned 'Rural' on Schedule 'A-4' of the Township of Laurentian Valley's Comprehensive Zoning By-law 08-04-391 (**Figure 13**).

The subject lands are located within a rural area of the Township of Laurentian Valley. The primary land uses in the area are comprised of aggregate extraction (quarry), forestry, agriculture and rural residential dwellings.

The subject lands are not located within an area subject to a Provincial Plan.

For a detailed review of planning and land use considerations, please refer to Section 3 of this Report.

4.3 Source Water Protection

The subject lands are not located in a source protection area under the Clean Water Act (**Figure 14**). There is no Source Protection Plan applicable to this area.

4.4 Quality and Quantity of Aggregate

According to Aggregate Resources of Ontario-2020 (ARO-2020), the subject lands are located within Selected Bedrock Resource Area 3 which is identified as part of the Bobcaygeon Formation with less than 1 m of overburden (**Figure 3**).

The subsurface conditions on the subject lands generally consist of a 0-metre (exposed) to 0.45-metre overburden topsoil layer, underlain by limestone. The bedrock resources found on the subject lands are capable of producing asphalt, concrete and granular materials.

There are approximately 39 million tonnes of bedrock resources available within the proposed extraction area.

4.5 Haul Routes and Truck Traffic

The proposed haul route for the quarry is via an existing access driveway through the additional lands owned by Cavanagh with direct access to Highway 41.

The majority of trucks will head north on Highway 41 to market areas in and around Pembroke. Some of these trucks will head east on County Road 24 to Highway 17. The remainder of the trucks will head south on Highway 41 towards Eganville and surrounding area.

The Traffic Impact Study determined that the proposed quarry is forecast to produce a maximum of 20 two-way trucks trips per hour.

The existing field access will be converted to a resource access in accordance with MTO policies and requirements. Cavanagh will be required to obtain this approval from MTO prior to trucks using the access road.

4.6 Progressive and Final Rehabilitation

The quarry will be progressively rehabilitated to natural conditions including the creation of three lakes, reforested areas, meadows and shallow shoreline areas. In addition, Cavanagh is proposing to restore portions of Fish Creek on agricultural lands they own near the proposed quarry.

A total of 6.1 ha will be reforested on the subject lands as part of rehabilitation. On adjacent lands owned by Cavanagh, planting of trees and shrubs along Fish Creek will be completed over an area of approximately 2.1 ha within two years of licence issuance. This will increase the connectivity of the landscape by providing a more natural and sheltered route for wildlife through the existing agricultural matrix along Fish Creek, and will also increase plant species diversity, increase opportunities for wildlife foraging (through planting of mast trees and shrubs), and provide a range of benefits to the watercourses, such as shading to protect thermal regimes. Together, the on-Site reforestation and the reforestation along Fish Creek will total 8.2 ha.

Lands outside the extraction area where berms are not required shall be planted within two years of licence issuance.

The rehabilitated landform will be compatible with the surrounding area. Furthermore, the creation of three lakes will potentially act as a

firebreak for wildfires given this area is identified within a wildland fire hazard.

5.0 Conclusions

Cavanagh is applying for a Class A Licence under the Aggregate Resources Act, and a Township of Laurentian Valley Official Plan Amendment and Zoning By-law Amendment to permit a quarry on lands located at Part of Lots 12 & 13, Concession 3 (Stafford) near the town of Pembroke.

The subject lands contain high quality bedrock resources (approximately 39 million tonnes) in a location that is close to market with direct access to an existing truck route and Provincial highway. Resources extracted from the subject lands will help support the timely provision of infrastructure and reduce transportation-related greenhouse gas emissions as a result of making resources available in a close to market location.

The Pembroke Quarry has been designed to minimize impacts on nearby sensitive uses and to ensure that there will be no negative impacts to surface and groundwater resources as well as natural heritage features. The ARA Site Plan incorporates the recommendations of the technical reports in order that the quarry can operate within Provincial guidelines and minimize social, economic and environmental impacts.

The proposed Pembroke Quarry represents the wise use and management of significant aggregate resources and is in the public interest in consideration of the economic, social and environmental factors that apply to this application. The ARA Licence Application, Official Plan Amendment and Zoning By-law Amendment are:

- Consistent with the Provincial Planning Statement, 2024, and

- Conform with the County of Renfrew and Township of Laurentian Valley Official Plans.

Respectfully submitted,

MHBC



Urja Modi, BES



Vince Deschamps, M.Sc., MCIP, RPP



Neal DeRuyter, BES, MCIP, RPP

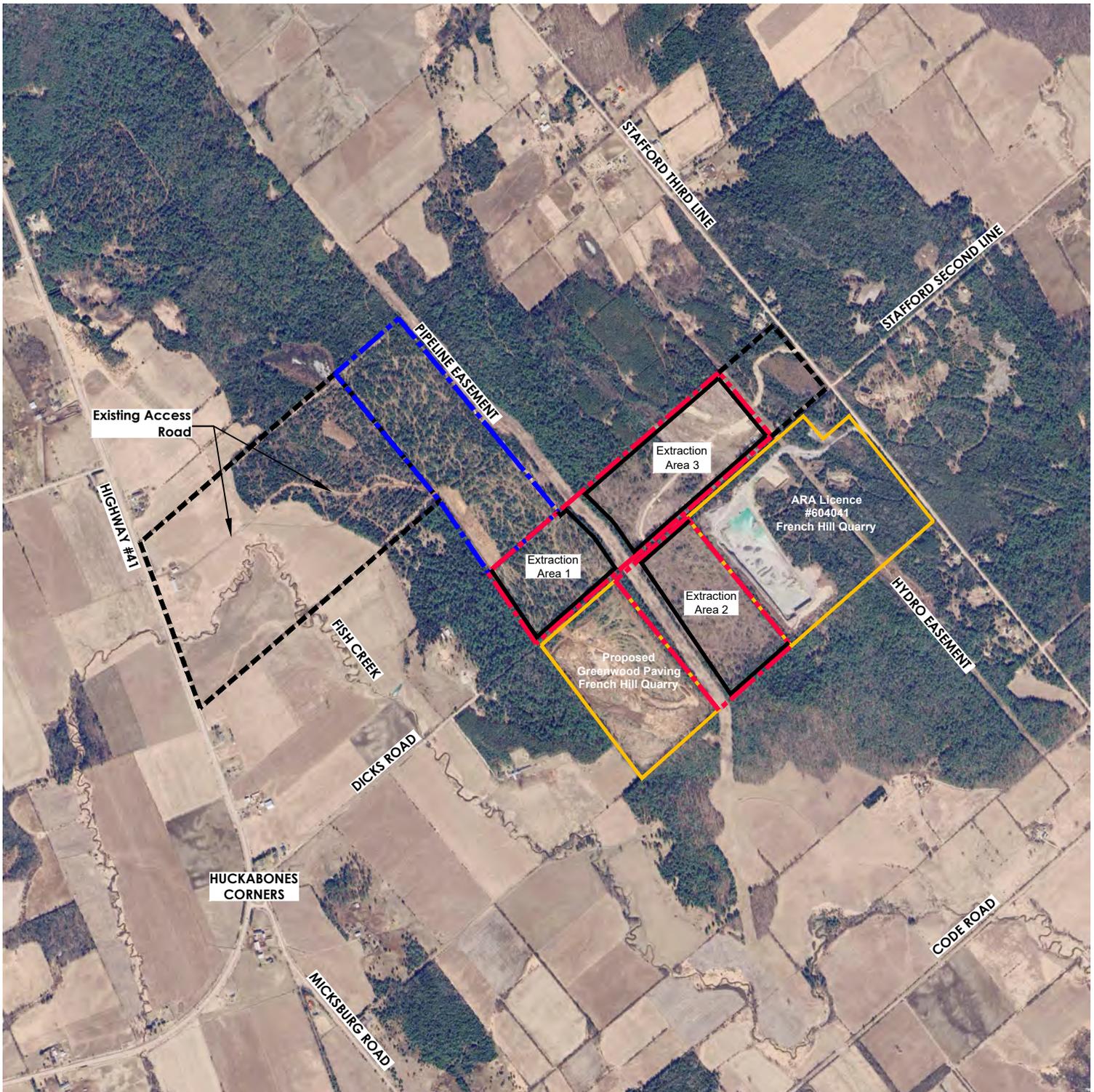


Figure 1
Context Plan

Thomas Cavanagh Construction Limited
 PART OF LOTS 13 AND 14,
 CONCESSION 3 AND 4
 (Geographic Township of Stafford)
 TOWNSHIP OF LAURENTIAN VALLEY
 COUNTY OF RENFREW

LEGEND

-  Proposed Licensed Boundary
-  Proposed Limit of Extraction
-  Lands Owned by Cavanagh
-  Lands to be Owned by Cavanagh

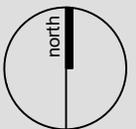
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Google Earth Imagery 2024

DATE: November 2024

SCALE: 1:20,000

FILE: 0851J

DRAWN: DGS

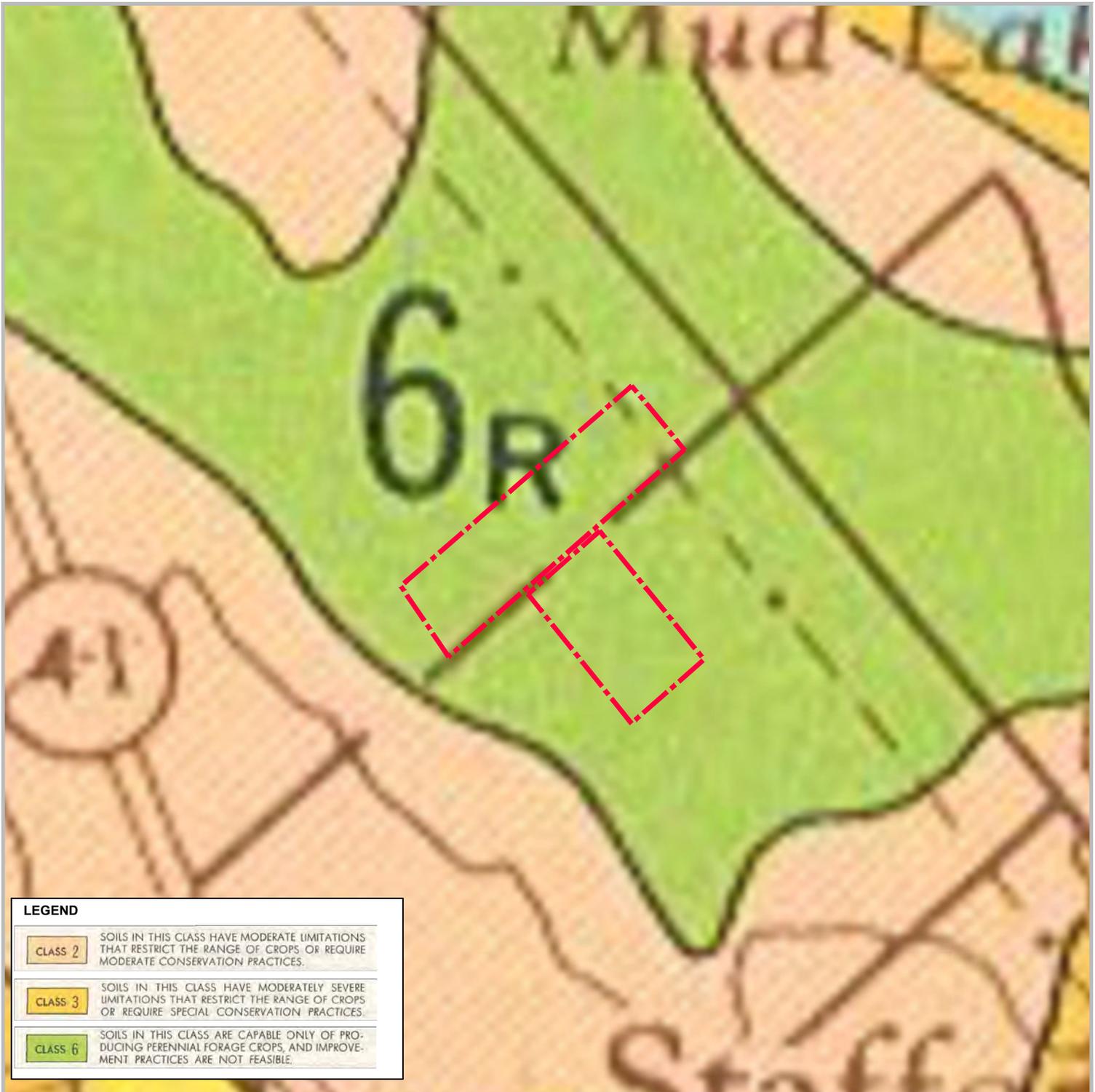


K:10851J-THOMAS CAVANAGH CONSTRUCTION-PEMBROKE\RP\CONTEXT PLAN.DWG



**PLANNING
URBAN DESIGN
& LANDSCAPE
ARCHITECTURE**

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



LEGEND	
CLASS 2	SOILS IN THIS CLASS HAVE MODERATE LIMITATIONS THAT RESTRICT THE RANGE OF CROPS, OR REQUIRE MODERATE CONSERVATION PRACTICES.
CLASS 3	SOILS IN THIS CLASS HAVE MODERATELY SEVERE LIMITATIONS THAT RESTRICT THE RANGE OF CROPS OR REQUIRE SPECIAL CONSERVATION PRACTICES.
CLASS 6	SOILS IN THIS CLASS ARE CAPABLE ONLY OF PRODUCING PERENNIAL FORAGE CROPS, AND IMPROVEMENT PRACTICES ARE NOT FEASIBLE.

Figure 2
Canada Land Inventory
Soil Capability for
Agriculture

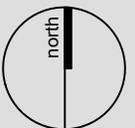
LEGEND
 Proposed Licensed Boundary

DATE: November 2024

SCALE: 1:20,000

FILE: 0851J

DRAWN: DGS



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Thomas Cavanagh
Construction Limited
 PART OF LOTS 13 AND 14,
 CONCESSION 3 AND 4
 (Geographic Township of Stafford)
 TOWNSHIP OF LAURENTIAN VALLEY
 COUNTY OF RENFREW

Base Map Source:
 Canada Land Inventory Soil Capability for Agriculture - Map Pembroke 31F



PLANNING
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& LANDSCAPE
ARCHITECTURE

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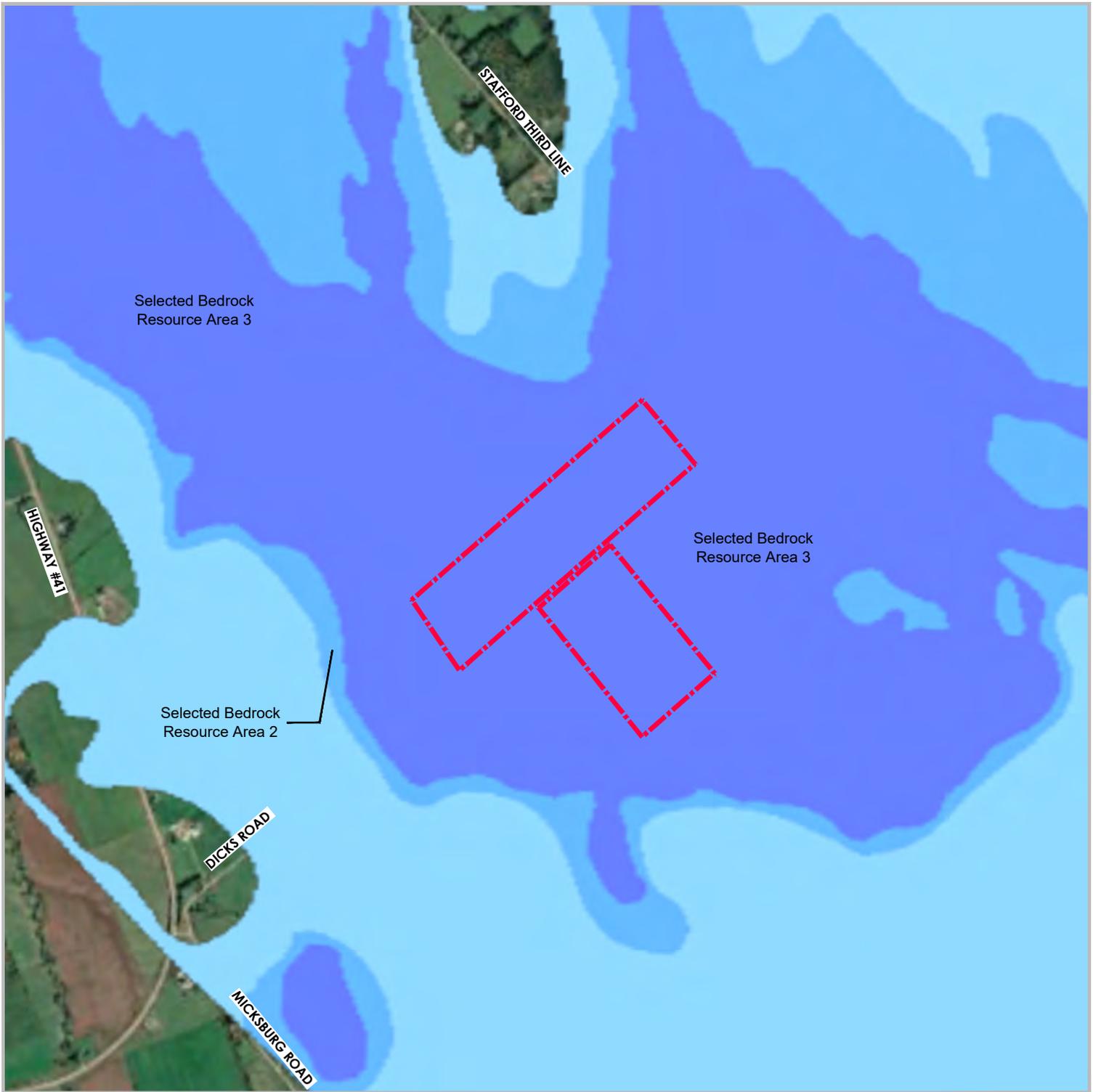


Figure 3
Bedrock Resource Mapping

Thomas Cavanagh Construction Limited
PART OF LOTS 13 AND 14,
CONCESSION 3 AND 4
(Geographic Township of Stafford)
TOWNSHIP OF LAURENTIAN VALLEY
COUNTY OF RENFREW

LEGEND

 Proposed Licensed Boundary

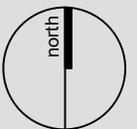
Base Map Source:
ARO-2020 Bedrock Resource Mapping - Google Earth

DATE: November 2024

SCALE: 1:20,000

FILE: 0851J

DRAWN: DGS



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**PLANNING
URBAN DESIGN
& LANDSCAPE
ARCHITECTURE**

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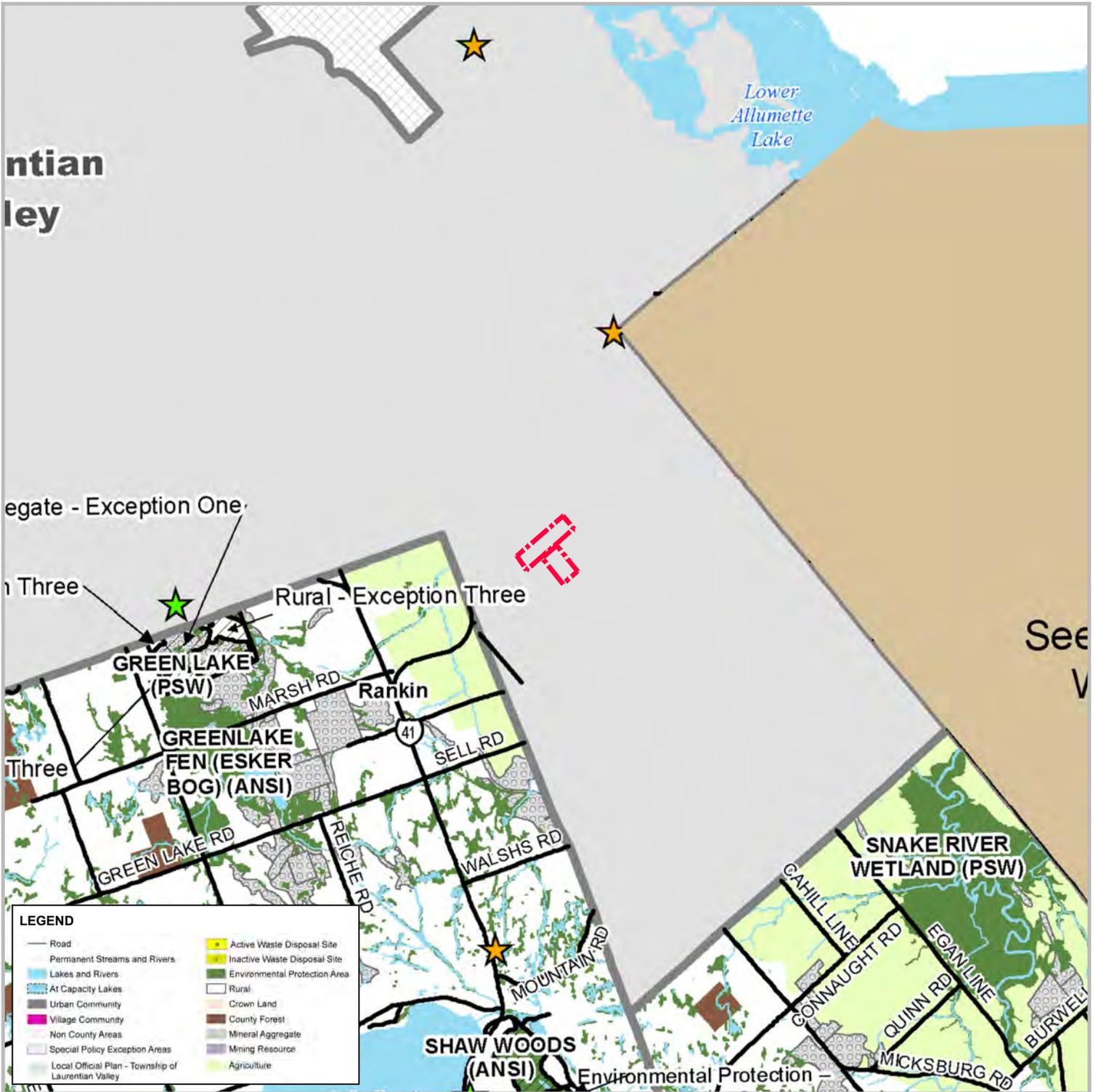


Figure 4
County of Renfrew
Official Plan
 Schedule 'A' - Map 1

Thomas Cavanagh
Construction Limited
 PART OF LOTS 13 AND 14,
 CONCESSION 3 AND 4
 (Geographic Township of Stafford)
 TOWNSHIP OF LAURENTIAN VALLEY
 COUNTY OF RENFREW

LEGEND



Proposed Licensed Boundary

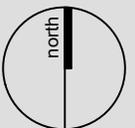
Base Map Source:
 Schedule 'A' - Map 1 to the Official Plan for the County of Renfrew
 (Date of Consolidation - August 19, 2021)

DATE: November 2024

SCALE: 1:100,000

FILE: 0851J

DRAWN: DGS



K:\0851J-THOMAS CAVANAGH CONSTRUCTION-PEMBROKE\IPT\COUNTY OF RENFREW SCHEDULE A MAP1.DWG



PLANNING
URBAN DESIGN
& LANDSCAPE
ARCHITECTURE

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



LEGEND

- Water
- Karst - known
- Karst - inferred
- Karst - potential
- Non County Areas
- Licensed Septage Hauler Area
- Municipal Boundary
- ☆ Active Waste Disposal Site
- ☆ Inactive Waste Disposal Site
- Wellhead Protection Area

Wildland Hazard

- Extreme
- High
- Pine - Needs Evaluation

Figure 5
**County of Renfrew
 Official Plan**
 Schedule 'B' - Map 1
 Hazards Map

**Thomas Cavanagh
 Construction Limited**
 PART OF LOTS 13 AND 14,
 CONCESSION 3 AND 4
 (Geographic Township of Stafford)
 TOWNSHIP OF LAURENTIAN VALLEY
 COUNTY OF RENFREW

LEGEND

- Proposed Licensed Boundary

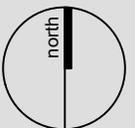
Base Map Source:
 Schedule 'B' - Map 1 to the Official Plan for the County of Renfrew
 (Date of Consolidation - August 19, 2021)

DATE: November 2024

SCALE: 1:20,000

FILE: 0851J

DRAWN: DGS



K:\0851J-THOMAS CAVANAGH CONSTRUCTION-PEMBROKE\IPT\COUNTY OF RENFREW HAZARDS MAP.DWG



**PLANNING
 URBAN DESIGN
 & LANDSCAPE
 ARCHITECTURE**

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

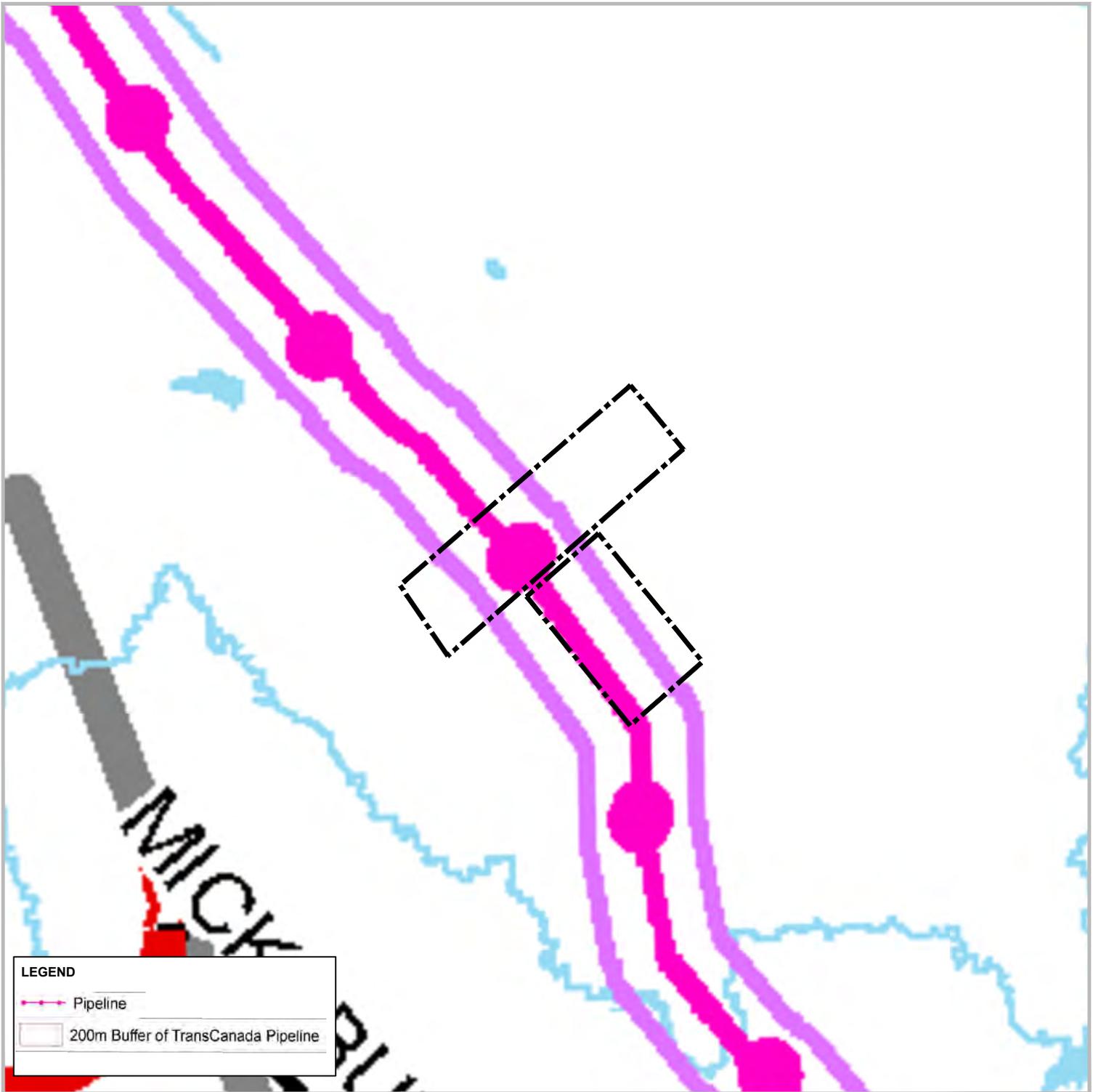


Figure 6
**County of Renfrew
 Official Plan**
 Schedule 'B' - Map 2
 Infrastructure Map

**Thomas Cavanagh
 Construction Limited**
 PART OF LOTS 13 AND 14,
 CONCESSION 3 AND 4
 (Geographic Township of Stafford)
 TOWNSHIP OF LAURENTIAN VALLEY
 COUNTY OF RENFREW

 Proposed Licensed Boundary

Base Map Source:
 Schedule 'B' - Map 2 to the Official Plan for the County of Renfrew
 (Date of Consolidation - August 19, 2021)



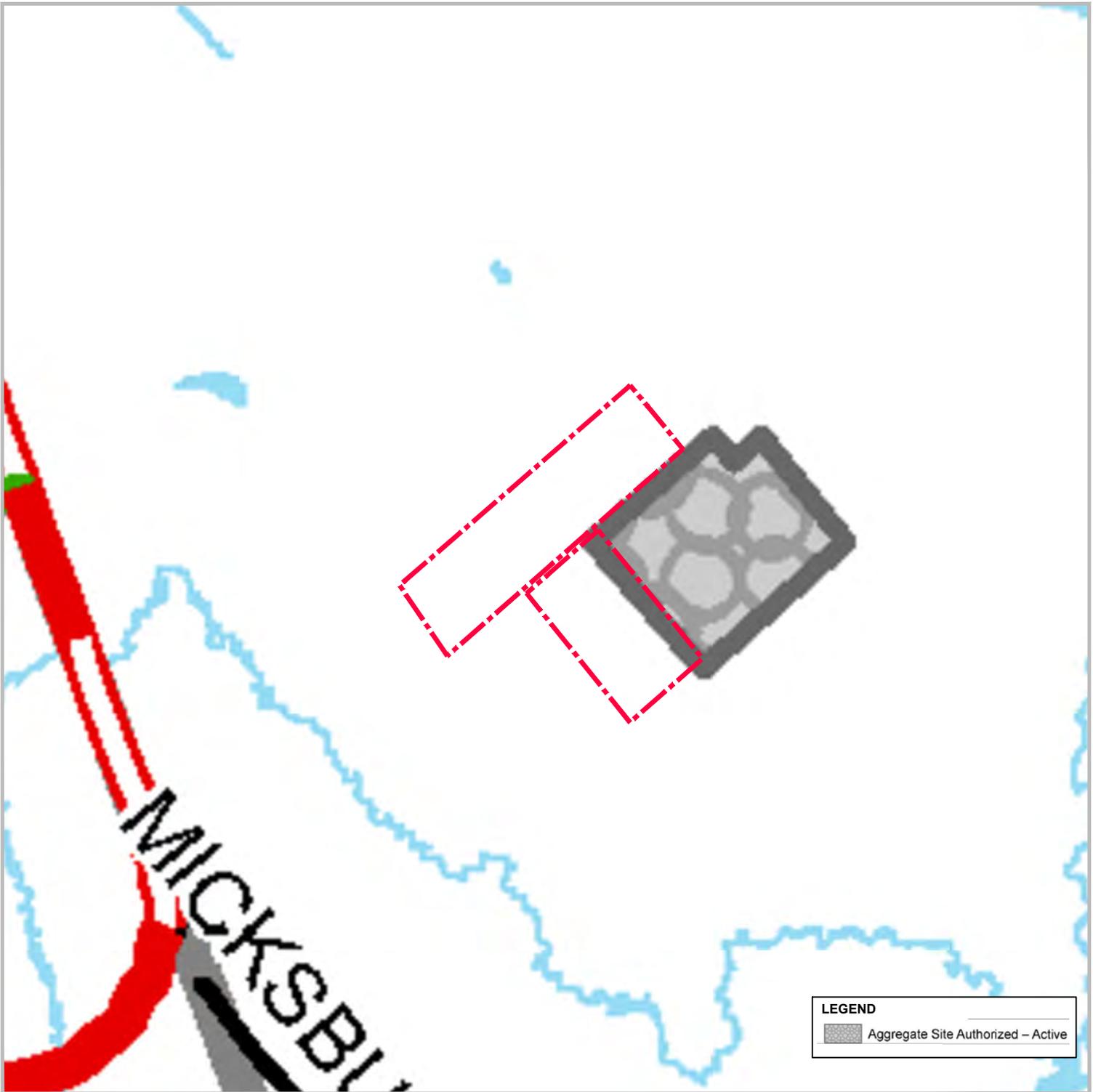


Figure 7
**County of Renfrew
 Official Plan**
 Schedule 'B' - Map 3
 Mineral Aggregate and
 Mining Resources Map

**Thomas Cavanagh
 Construction Limited**
 PART OF LOTS 13 AND 14,
 CONCESSION 3 AND 4
 (Geographic Township of Stafford)
 TOWNSHIP OF LAURENTIAN VALLEY
 COUNTY OF RENFREW

LEGEND
 Proposed Licensed Boundary

Base Map Source:
 Schedule 'B' - Map 3 to the Official Plan for the County of Renfrew
 (Date of Consolidation - August 19, 2021)

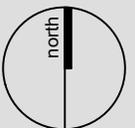
LEGEND
 Aggregate Site Authorized - Active

DATE: November 2024

SCALE: 1:20,000

FILE: 0851J

DRAWN: DGS



K:\0851J-THOMAS CAVANAGH CONSTRUCTION-PEMBROKE\RPPT\COUNTY OF
 MINERAL AGGREGATE AND MINING RESOURCES.DWG



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 & LANDSCAPE
 ARCHITECTURE**

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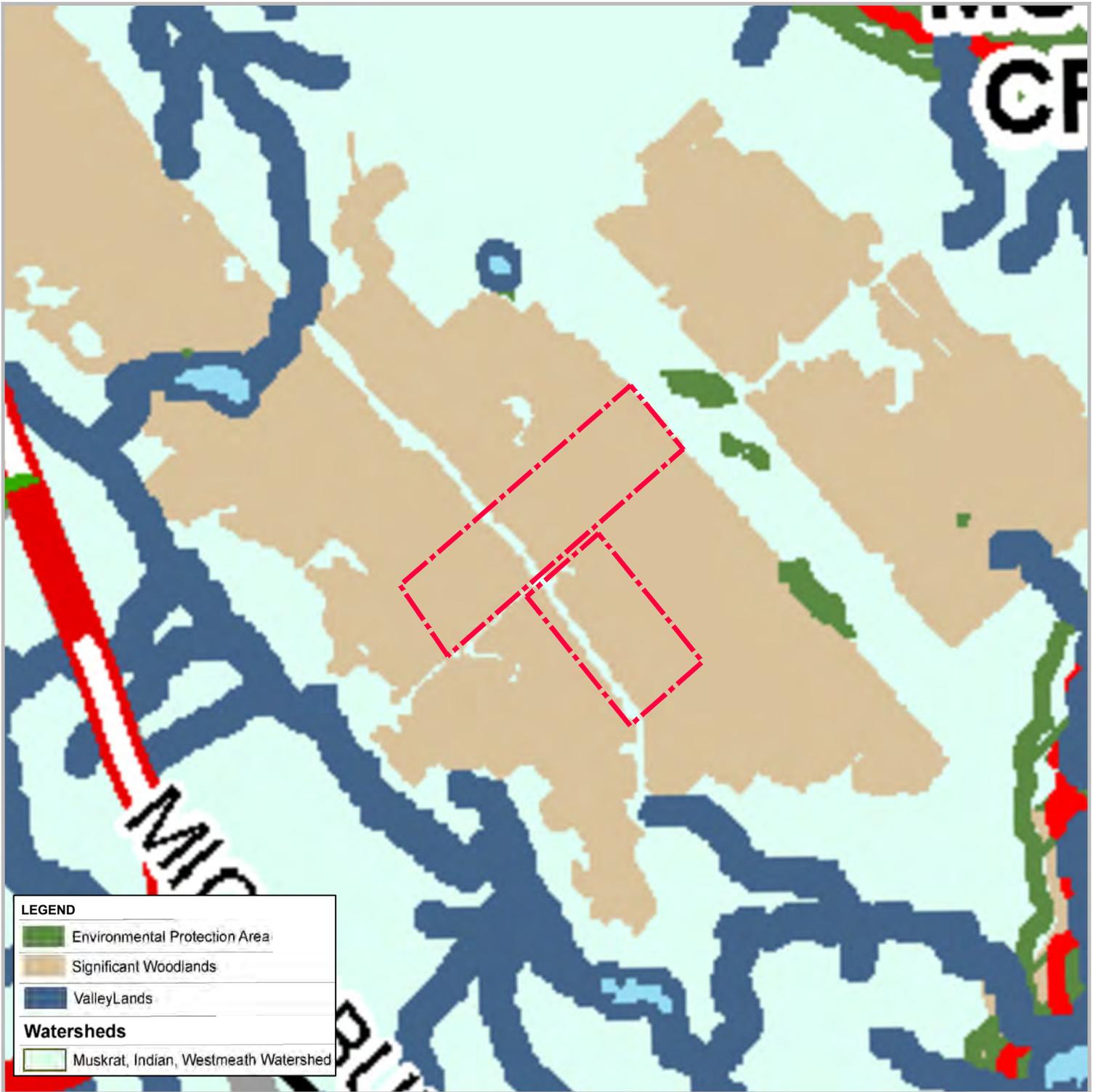


Figure 8
**County of Renfrew
 Official Plan**
 Schedule 'B' - Map 4
 Natural Heritage
 Features

**Thomas Cavanagh
 Construction Limited**
 PART OF LOTS 13 AND 14,
 CONCESSION 3 AND 4
 (Geographic Township of Stafford)
 TOWNSHIP OF LAURENTIAN VALLEY
 COUNTY OF RENFREW

LEGEND
 Proposed Licensed Boundary

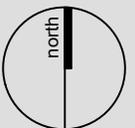
Base Map Source:
 Schedule 'B' - Map 4 to the Official Plan for the County of Renfrew
 (Date of Consolidation - August 19, 2021)

DATE: November 2024

SCALE: 1:20,000

FILE: 0851J

DRAWN: DGS



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 LAURENTIAN VALLEY NATURAL HERITAGE FEATURES.DWG



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 ARCHITECTURE**

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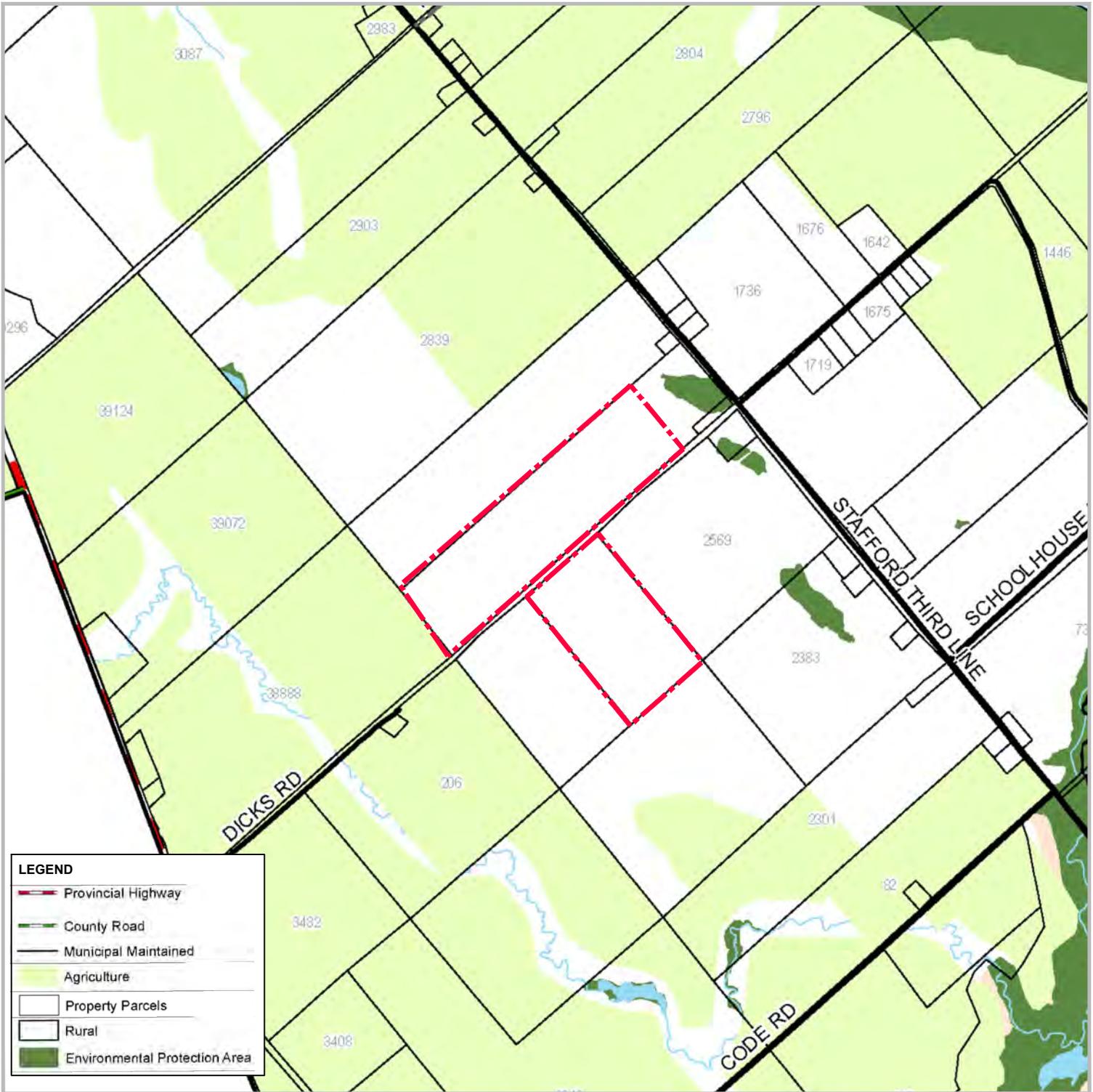


Figure 9
**County of Renfrew
 Official Plan**
 Schedule 'B' - Map 5
 Laurentian Valley
 Prime Agricultural Areas

**Thomas Cavanagh
 Construction Limited**
 PART OF LOTS 13 AND 14,
 CONCESSION 3 AND 4
 (Geographic Township of Stafford)
 TOWNSHIP OF LAURENTIAN VALLEY
 COUNTY OF RENFREW

LEGEND
 Proposed Licensed Boundary

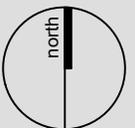
Base Map Source:
 Schedule 'B' - Map 5 to the Official Plan for the County of Renfrew
 (Date of Consolidation - August 19, 2021)

DATE: November 2024

SCALE: 1:20,000

FILE: 0851J

DRAWN: DGS



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 & LANDSCAPE
 ARCHITECTURE**

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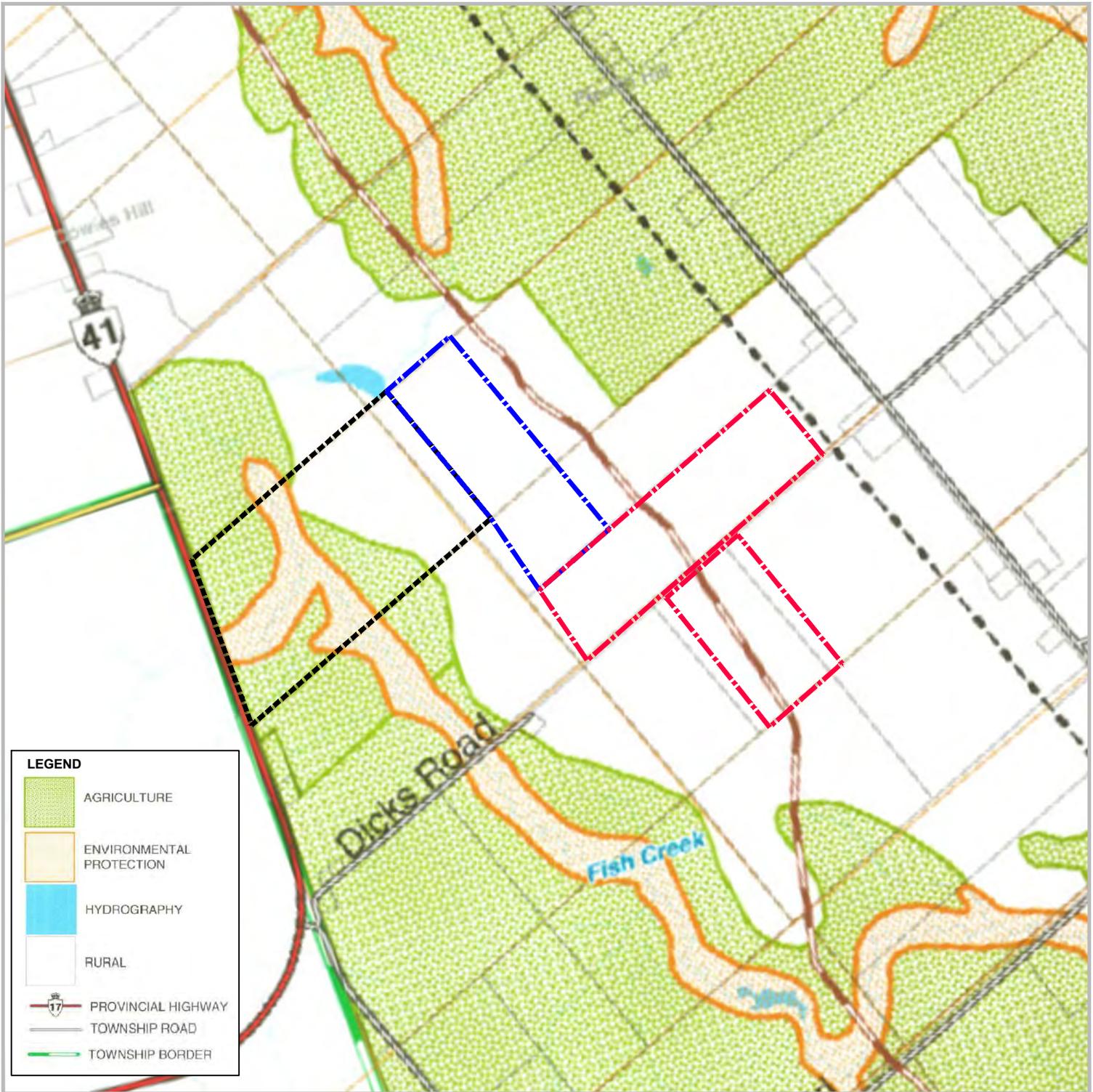
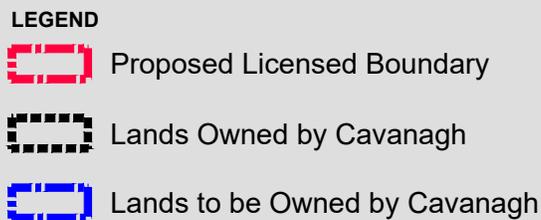


Figure 10
**Township of
 Laurentian Valley
 Official Plan**
 Schedule 'A-4'
 Township of Stafford

**Thomas Cavanagh
 Construction Limited**
 PART OF LOTS 13 AND 14,
 CONCESSION 3 AND 4
 (Geographic Township of Stafford)
 TOWNSHIP OF LAURENTIAN VALLEY
 COUNTY OF RENFREW



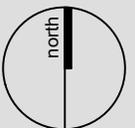
Base Map Source:
 Schedule 'A' to the Official Plan for the Township of Laurentian Valley
 (Schedule 'A-4' Township of Stafford) July 2002

DATE: November 2024

SCALE: 1:20,000

FILE: 0851J

DRAWN: DGS



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 LAND USE MAP.DWG



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 ARCHITECTURE**

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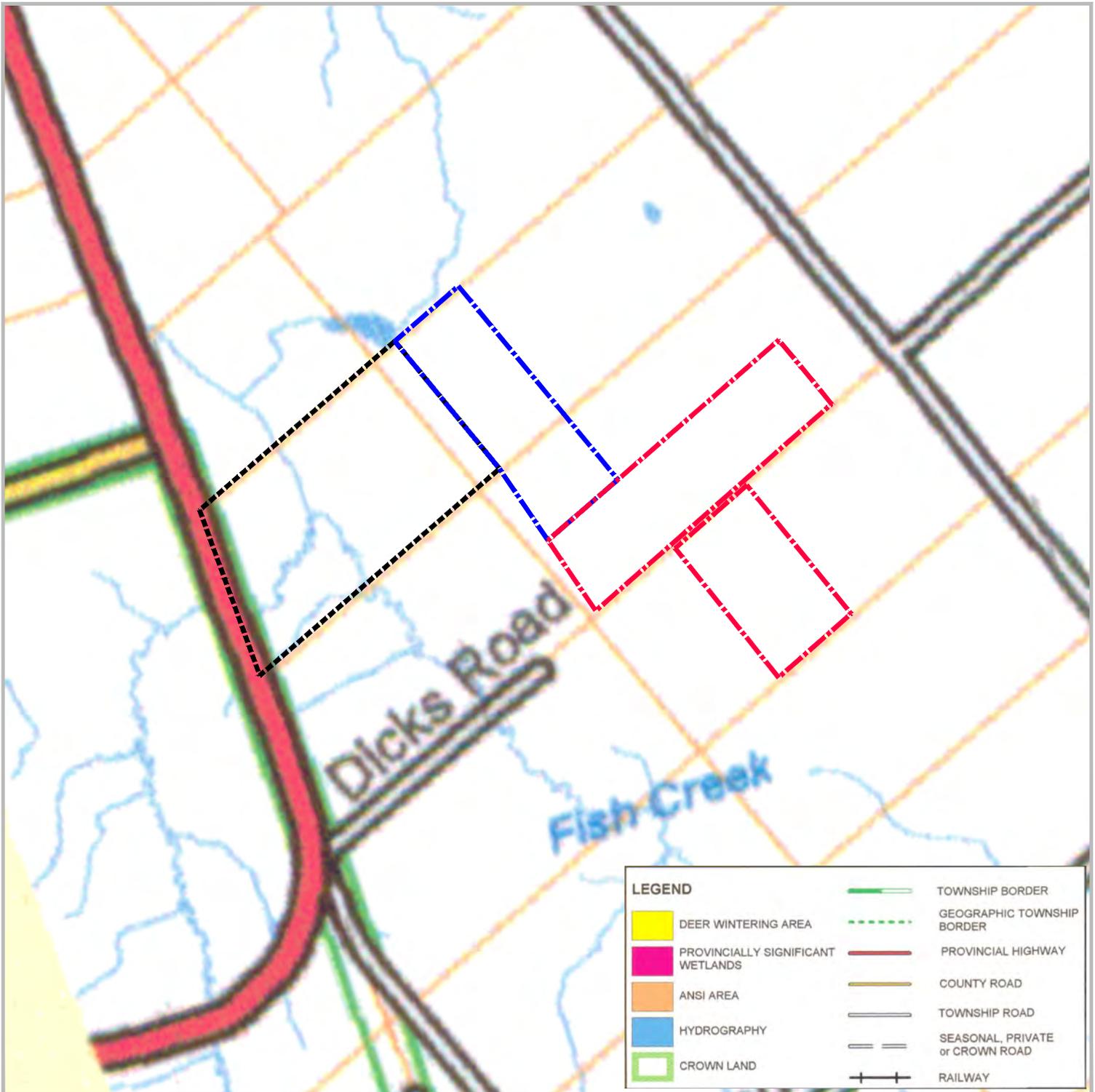


Figure 11
Township of Laurentian Valley
Official Plan
 Schedule 'C'
 Natural Heritage Areas

Thomas Cavanagh Construction Limited
 PART OF LOTS 13 AND 14,
 CONCESSION 3 AND 4
 (Geographic Township of Stafford)
 TOWNSHIP OF LAURENTIAN VALLEY
 COUNTY OF RENFREW

LEGEND

Proposed Licensed Boundary

Lands Owned by Cavanagh

Lands to be Owned by Cavanagh

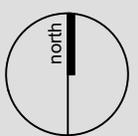
Base Map Source:
 Schedule 'C' to the Official Plan for the Township of Laurentian Valley, July 2002

DATE: November 2024

SCALE: 1:20,000

FILE: 0851J

DRAWN: DGS



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LEGEND

 Bedrock Aggregate Resource Areas to be reviewed in conjunction with Policy 2.2(28)(f) of the Official Plan.

Figure 12
Township of Laurentian Valley Official Plan
 Schedule 'IA'
 Bedrock Aggregate Resource Areas

Thomas Cavanagh Construction Limited
 PART OF LOTS 13 AND 14,
 CONCESSION 3 AND 4
 (Geographic Township of Stafford)
 TOWNSHIP OF LAURENTIAN VALLEY
 COUNTY OF RENFREW

LEGEND

 Proposed Licensed Boundary

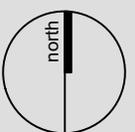
Base Map Source:
 Appendix 'IA' to the Official Plan for the Township of Laurentian Valley

DATE: November 2024

SCALE: 1:20,000

FILE: 0851J

DRAWN: DGS



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 ARCHITECTURE**

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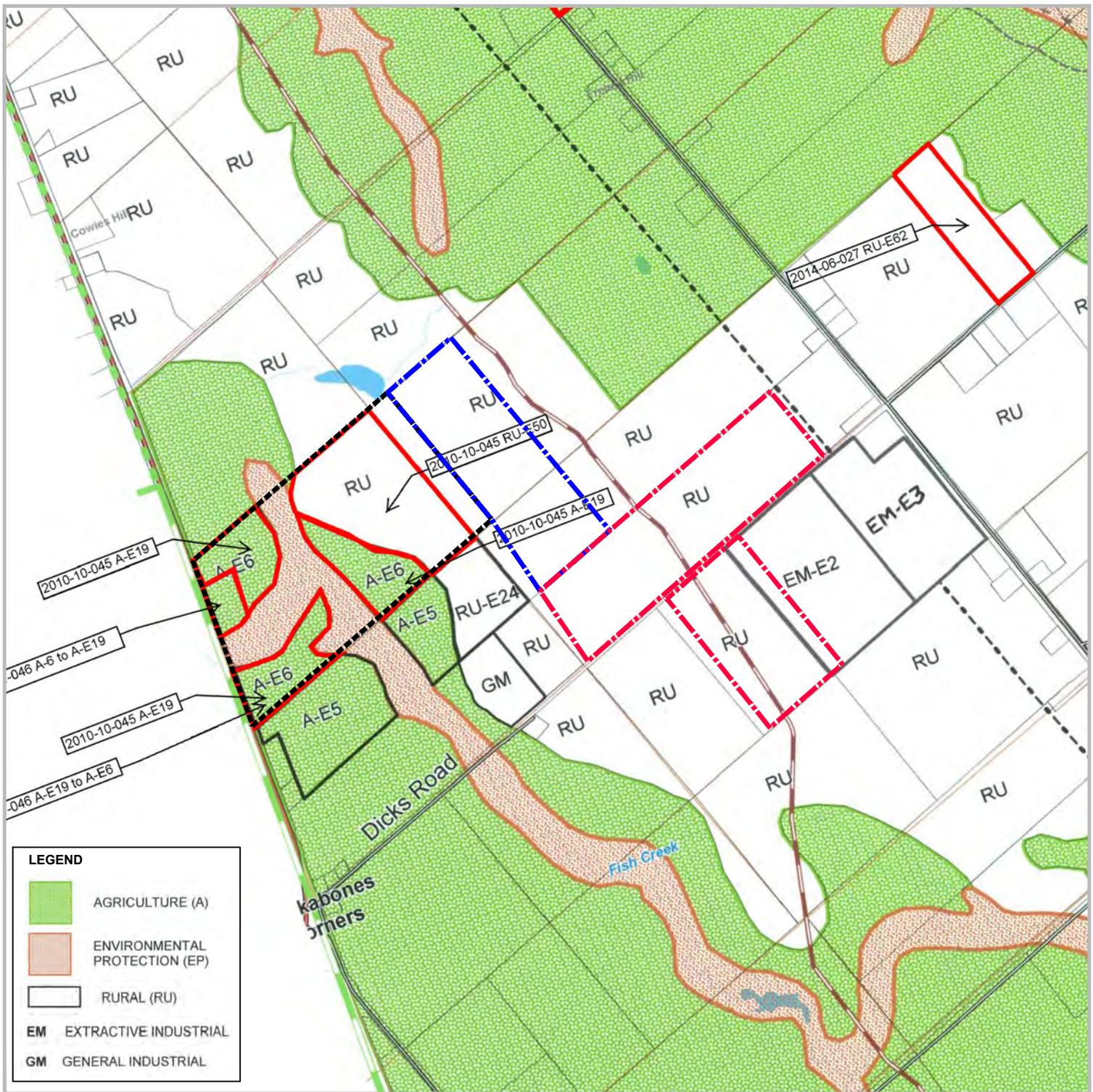
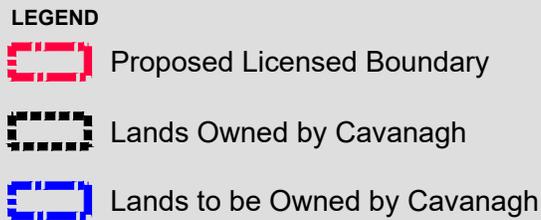


Figure 13
Township of Laurentian Valley Zoning By-law Schedule 'A-4'
 Township of Stafford

Thomas Cavanagh Construction Limited
 PART OF LOTS 13 AND 14,
 CONCESSION 3 AND 4
 (Geographic Township of Stafford)
 TOWNSHIP OF LAURENTIAN VALLEY
 COUNTY OF RENFREW



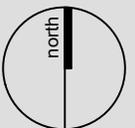
Base Map Source:
 Schedule 'A' to the Comprehensive Zoning By-law for the Township of Laurentian Valley (Schedule 'A-4' Township of Stafford) April 2008

DATE: November 2024

SCALE: 1:20,000

FILE: 0851J

DRAWN: DGS



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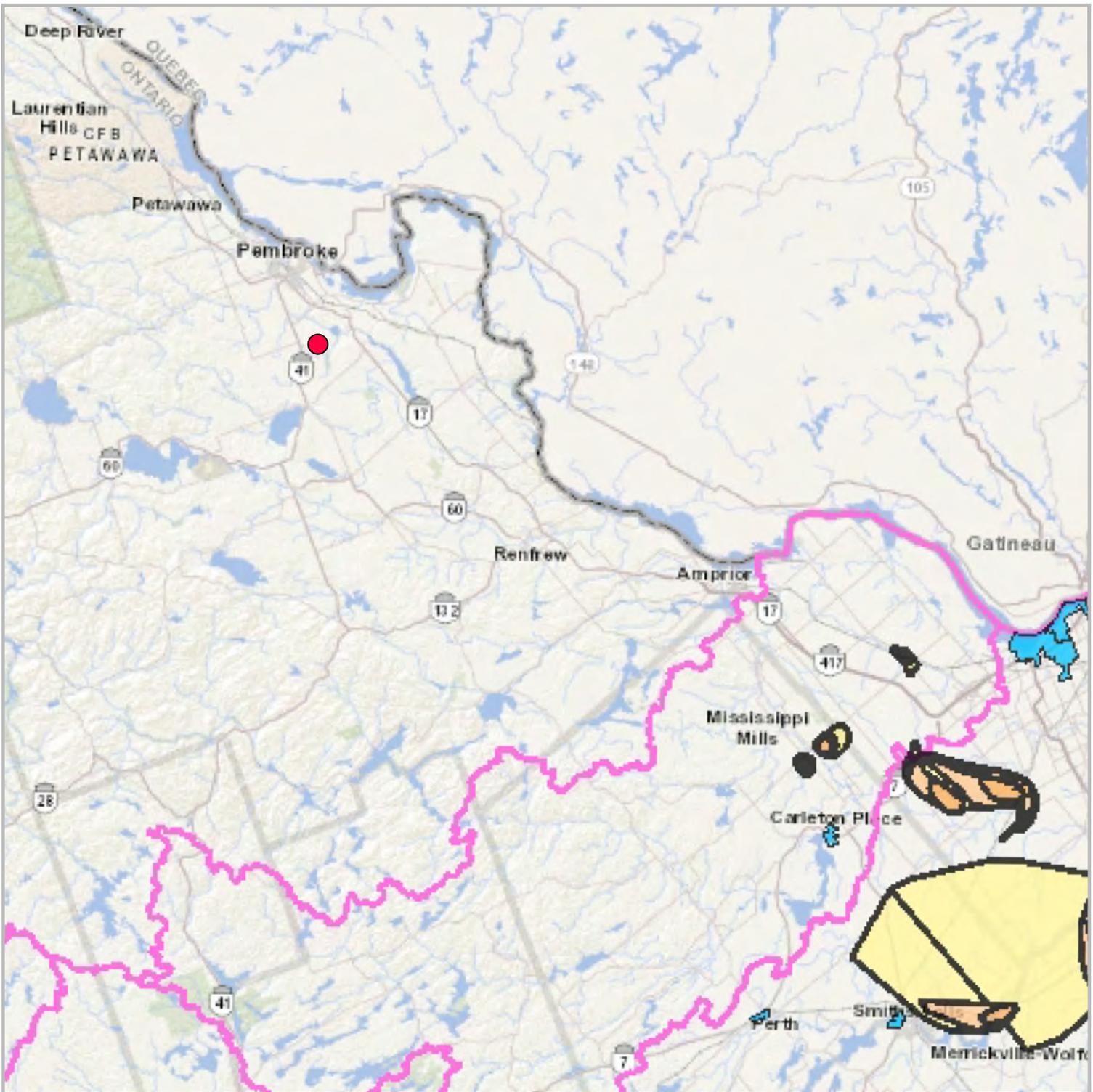


Figure 14
**Source Protection
 Information Atlas**

LEGEND

 Proposed Licensed Boundary

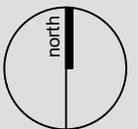
- Wellhead Protection Area**
-  A
 -  B
 -  C
 -  C1
 -  D
 -  E
 -  F
-  Intake Protection Zone 1
-  Event Based Areas
-  Intake Protection Zone 2
-  Source Protection Areas

DATE: November 2024

SCALE: NTS

FILE: 0851J

DRAWN: DGS



**Thomas Cavanagh
 Construction Limited**
 PART OF LOTS 13 AND 14,
 CONCESSION 3 AND 4
 (Geographic Township of Stafford)
 TOWNSHIP OF LAURENTIAN VALLEY
 COUNTY OF RENFREW

Base Map Source:
 Source Protection Information Atlas, © King's Printer for Ontario, 2024

K:\0851J-THOMAS CAVANAGH CONSTRUCTION-PEMBROKE\RP\T\SOURCE PROTECTION INFORMATION ATLAS.DWG



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 ARCHITECTURE**

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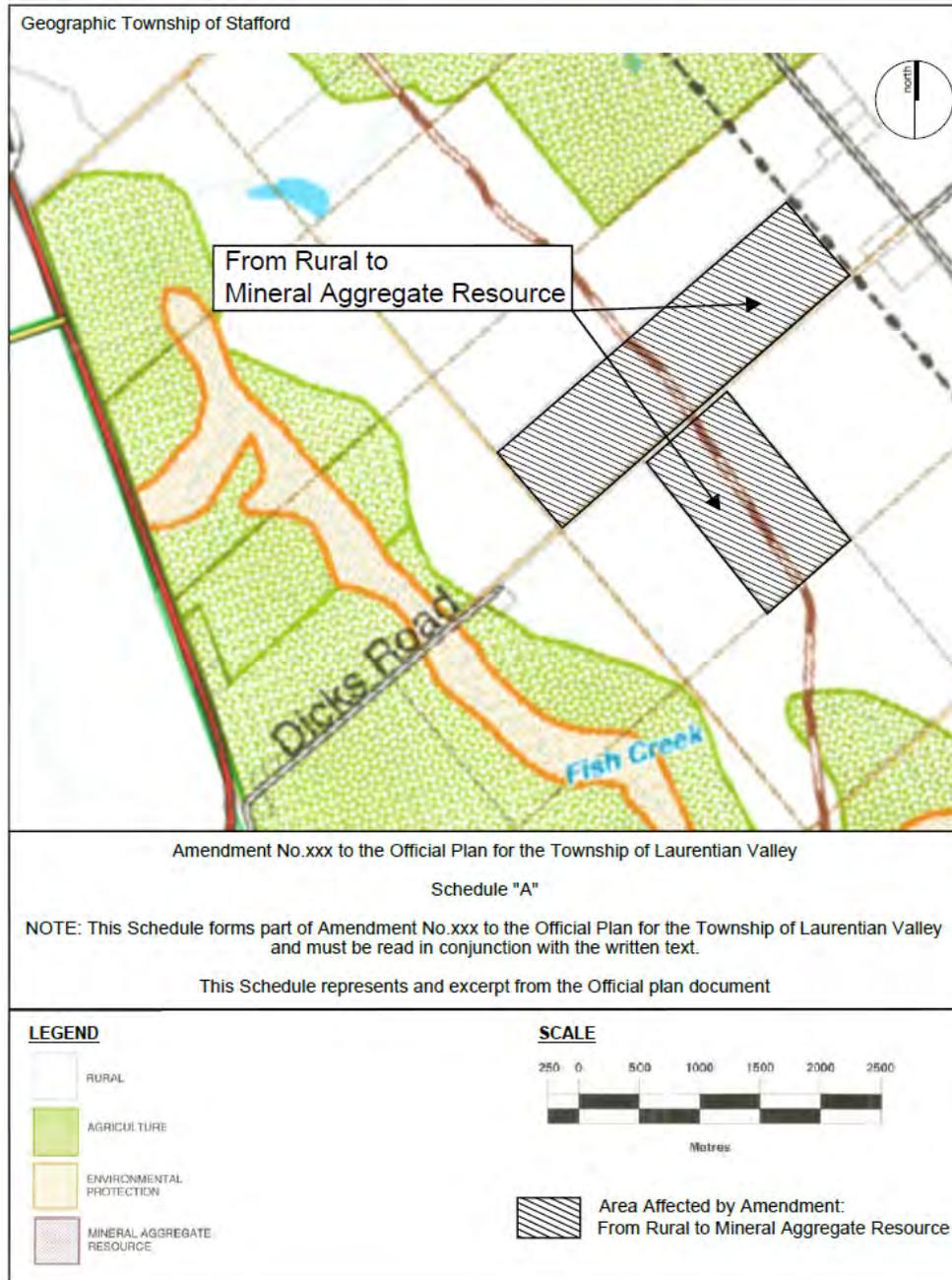
A

Appendix A: Draft Official Plan Amendment

AMENDMENT NO. ## TO THE OFFICIAL PLAN OF THE TOWNSHIP OF LAURENTIAN VALLEY

Details of the Amendment

Schedule "A-4" (Stafford) to the Official Plan of the Township of Laurentian Valley is amended by redesignating the classification of lands located within Part of Lots 12 & 13, Concession 3, geographic Township of Stafford, in the Township of Laurentian Valley, from "Rural" to "Mineral Aggregate Resource", as shown on Schedule "A" attached hereto.



B

Appendix B: Draft Zoning By-law Amendment

The Corporation of the Township of Laurentian Valley

By-Law Number 2025-XX-XXX

A By-Law to Amend Comprehensive Zoning By-law No. 08-04-391 of the Township of Laurentian Valley

Pursuant to Sections 34 of the Planning Act, R.S.O. 1990, c.p.13, as amended, the Township of Laurentian Valley hereby enacts as follows:

1. That By-Law Number 08-04-391, as amended, is hereby further amended as follows:
 - (a) By adding a new subsection to Section 19.0 - Requirements for Extractive Industrial (EM) Zone, immediately following subsection 19.3 j) Extractive Industrial – Exception Six (EM-E7) as follows:
 - “k) Extractive Industrial – Exception Eight (EM-E8)
For lands zoned Extractive Industrial (EM) – Exception Seven (EME8) within Part Lots 12 & 13, Concession 3, in the geographic Township of Stafford, the following provisions shall also apply:
 - (i) The storage and blending of recycled aggregate shall also be permitted as an accessory use to a quarry;
 - (ii) Notwithstanding Section 19.2 b)(i), the minimum landscaped open space shall be as established in accordance with the Aggregate Resources Act Site Plan;
 - (iii) Notwithstanding Section 3.27 b)(i), the separation distance for the quarry shall be established in accordance with the Aggregate Resources Act Site Plan; and,
 - (iv) All other applicable provisions of the Extractive Industrial (EM) Zone and this By-law, shall apply to lands zoned Extractive Industrial – Exception Eight (EM-E8).”
 - (b) By adding the following provision to subsection 23.3 xx):
 - “(i) The lands shall also be permitted to be used by trucks to access the quarry located at Part Lots 12 & 13, Concession 3, in the geographic Township of Stafford.”
 - (c) By adding a new subsection to Section 23.0 - Requirements for Rural (RU) Zone, immediately following subsection 23 ### as follows:

“(###) Rural – Exception ### (RU-##) Zone

Notwithstanding any other provisions of this By-law to the contrary, for the lands zoned Rural – Exception ### (RU-##) Zone and located on Part Lots 13 & 14, Concession 3, in the geographic Township of Stafford, the lands shall also be permitted to be used by trucks to access the quarry located at Part Lots 12 & 13, Concession 3, in the geographic Township of Stafford.”

(d) By adding the following provision to subsection 24.3 s):

“(i) The lands shall also be permitted to be used by trucks to access the quarry located at Part Lots 12 & 13, Concession 3, in the geographic Township of Stafford.”

(e) By adding a new subsection to Section 28.0 - Requirements for Environmental Protection (EP) Zone, immediately following subsection 28 ### as follows:

“(###) Environmental Protection – Exception ### (EP-##) Zone

Notwithstanding any other provisions of this By-law to the contrary, for the lands zoned Environmental Protection – Exception ### (EP-##) Zone and located on Part Lots 13 & 14, Concession 3, in the geographic Township of Stafford, the lands shall also be permitted to be used by trucks to access the quarry located at Part Lots 12 & 13, Concession 3, in the geographic Township of Stafford.”

(f) Schedule 'A-4' to By-Law Number 08-04-391, is further amended by rezoning the following lands in the Township of Laurentian Valley as shown on Schedule "A-4" attached hereto:

- (i) Within Part Lots 12 & 13, Concession 3, in the geographic Township of Stafford from "Rural (RU)" to "Extractive Industrial (EM-E8)";
- (ii) Within Part Lots 13 & 14, Concession 3, in the geographic Township of Stafford from "Rural (RU)" to "Rural – Exception ### (RU-##) Zone"; and,
- (iii) Within Part Lot 14, Concession 4, in the geographic Township of Stafford from "Environmental Protection (EP)" to "Environmental Protection – Exception ### (EP-##) Zone".

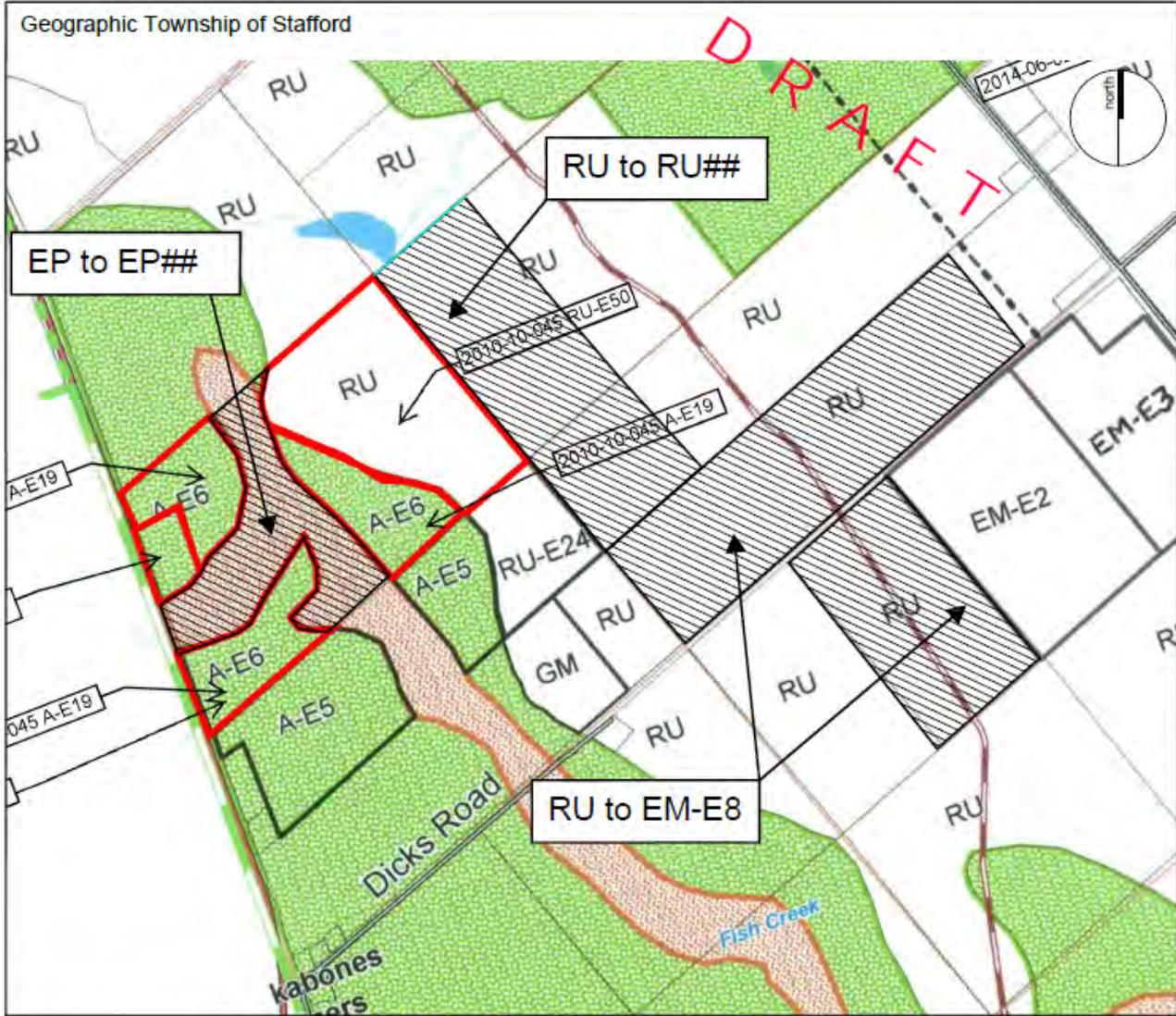
2. That save as aforesaid all other provisions of Comprehensive Zoning By-law 08-04- 391, shall be complied with.
3. This by-law shall come into force and take effect when the corresponding Official Plan Amendment Number ## (OPA No. ##) to the Township of Laurentian Valley Official Plan comes into force and effect.

READ A FIRST AND SECOND TIME THIS XXth DAY OF XXXX, 2025.

READ A THIRD TIME AND PASSED THIS THIS XX DAY OF XXXX, 2025.

Steve Bennett, Mayor

Dean Sauriol, CAO/Clerk



Corporation of the Township of Laurentian Valley
 This is Schedule "A" to By-law Number 2024-XX-XXX
 Passed this XX day of XXX, 2024
 Signatures of Signing Officers:

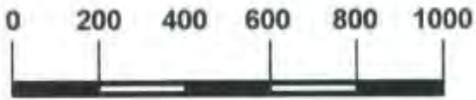
 Mayor

 Chief Administrative Officer/Clerk

LEGEND

- RURAL (RU)
- AGRICULTURE (A)
- ENVIRONMENTAL PROTECTION (EP)
- EM** EXTRACTIVE INDUSTRIAL
- GM** GENERAL INDUSTRIAL
- E** Exception

SCALE



Area Affected by Amendment

C

Appendix C: Curriculum Vitae

Education

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

Professional Associations

Full Member, Canadian Institute of Planners (CIP)

Full Member, Ontario Professional Planners Institute (OPPI)

Member, Pragma Council (University of Waterloo)

Contact

200-540 Bingham Centre Dr.
Kitchener, ON
N2B 3X9

T: 519 576 3650 x733
nderuyter@mhbcplan.com
www.mhbcplan.com

Neal DeRuyter

BES, MCIP, RPP

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 and Ontario Professional Planners Institute. He has provided expert evidence before the Ontario Municipal Board, Local Planning Appeal Tribunal and Ontario Land 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 Pragma Council at the University of Waterloo.

Professional History

Partner, MacNaughton Hermsen Britton Clarkson Planning Limited
(2017 – Present)

Associate, MacNaughton Hermsen Britton Clarkson Planning Limited
(2013 – 2017)

Planner, MacNaughton Hermsen Britton Clarkson Planning Limited
(2009 – 2013)

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)



PLANNING
URBAN DESIGN
& LANDSCAPE
ARCHITECTURE

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. including consultations with Indigenous Communities.
- 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.
- 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/Ontario Land Tribunal.
- Planning research and assessment for expropriation matters on behalf of public and private sector clients.

Selected Project Examples

- Bell Sand Farms Grose Pit Extension, Perth County
- Blueland McCormick Pit, Town of Caledon
- Brock University, Niagara Escarpment Plan Lands, City of St. Catharines
- Cambridge Aggregates Inc. Edworthy West Pit, Township of North Dumfries
- CBM Ayr Pit, Township of North Dumfries
- CBM Brantford Pit, County of Brant
- CBM Bromberg Pit, Township of North Dumfries
- CBM Dorchester Pit, Municipality of Thames Centre
- CBM Eramosa Pit Extension, Township of Centre Wellington
- CBM Aberfoyle South Pit Expansion, Township of Puslinch
- CBM Lanci Pit Expansion, Township of Puslinch
- Caledon Sand & Gravel, Town of Caledon
- Capital Paving Shantz Station Pit, Township of Woolwich
- City of Iqaluit Pit and Quarry Operations Plans
- City of Kingston, Barriefield Affordable Housing Feasibility Study
- Erie Sand & Gravel MOS Pit, Municipality of Leamington
- Fidelity Construction Colborne Pit, Township of Cramahe
- Gallo Contracting Industrial Use, Township of Puslinch
- Halton Crushed Stone Erin Pit Extension, Town of Erin
- J-AAR Materials Ltd. Bardoe Pit, Township of Southwest Oxford
- 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, Township of Ramara
- James Dick Construction Ltd. Reid Road Quarry, Town of Milton
- Kaneff Properties, Royal Niagara Golf Club, City of St. Catharines
- KPM Brantford Plant Expansion, Brant County
- Lafarge Canada Inc. Brantford Pit Expansion, County of Brant
- Lafarge Canada Inc. Hagersville Quarry, County of Haldimand
- Lafarge Canada Inc. Navan Quarry Extension, City of Ottawa
- Lafarge Canada Inc. Talbot Pit, City of London
- Lafarge Canada Inc. West Paris Pit, County of Brant
- Lillycrop Highway 6 Expropriation, Township of Puslinch
- Limehouse Clay Products Ltd. Georgetown Quarry, Town of Halton Hills
- Miller Aggregates Paris Plains Pit, Brant County
- Ministry of Agriculture, Food and Rural Affairs, Agricultural Impact Assessment and Rehabilitation Plan Guidelines for Aggregate Extraction (2016)
- Ministry of Natural Resources and Forestry, State of the Aggregate Resources in Ontario Study (2009)
- Ministry of Transportation, Highway 410 Expropriation, Town of Caledon
- North York Sand & Gravel Manvers Pit, City of Kawartha Lakes

- Nunavut Association of Municipalities Aggregate Resource Management Plans
- Ontario Stone, Sand & Gravel Association, Municipal Official Plan Reviews in Ontario
- 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. Brechin Quarry, City of Kawartha Lakes
- R.W. Tomlinson Ltd. Brickyards Quarry, City of Ottawa
- R.W. Tomlinson Ltd. East Oxford Pit, Municipality of North Grenville
- R.W. Tomlinson Ltd. Environmental Services, Joyceville Environmental Centre, City of Kingston
- R.W. Tomlinson Ltd. Kemptville Quarry, Municipality of North Grenville
- R.W. Tomlinson Ltd. Moodie Quarry Expansion, City of Ottawa
- R.W. Tomlinson Ltd. Moore Quarry, City of Ottawa
- R.W. Tomlinson Ltd. Napanee Asphalt Plant, Town of Greater Napanee
- R.W. Tomlinson Ltd. Reids Mills Pit, City of Ottawa
- R.W. Tomlinson Ltd. Stittsville Quarry, City of Ottawa
- R.W. Tomlinson Ltd. Storyland Pit, Renfrew County
- R.W. Tomlinson Ltd. Ready-Mix Site Plan Approval, City of Ottawa
- Sunrock Canada Burnt River Quarry, City of Kawartha Lakes
- Sunrock Canada Hockley Pit, Town of Uxbridge
- Tackaberry Construction, Woods Quarry Expansion, Elizabethtown-Kitley Township
- Thomas Cavanagh Construction West Carleton Quarry Extension, City of Ottawa
- Thomas Cavanagh Construction Arnott Pit, Lanark County
- Thomas Cavanagh Construction Highland Line Pit, Lanark County
- Thomas Cavanagh Construction Goulbourn Quarry, City of Ottawa
- Thomas Cavanagh Construction Pembroke Quarry, Renfrew County
- Township of Guelph-Eramosa, Review of Tri-City Spencer Pit
- Township of West Lincoln, Preliminary Bedrock Resource Assessment in Smithville
- Walker Aggregates Inc. Amherstburg Quarry and McGregor Quarry, Town of Amherstburg
- Waterford Sand & Gravel Law Quarry Extension, Township of Wainfleet
- Wm. J. Gies Construction Stockyards Lands, Township of Woolwich

Presentations

- "2024 Planning and Policies Update"- Ontario Stone Sand and Gravel Association, 2024 AGM
- "Planners Forum" - Ontario Stone Sand & Gravel Association 2023 AGM
- "Bill 23 and Provincial Planning Changes" – Ontario Stone Sand & Gravel Association 2023
- "Ontario Land Use Planning Update" – Ontario Stone Sand & Gravel Association 2022 AGM
- "Public Engagement in the Time of Covid-19" – Ontario Stone Sand & Gravel Association 2021 AGM
- "Aggregate Information Session & Tour" – OPPI Southwest District 2018
- "Coordinated Plan Review" – Ontario Stone Sand & Gravel Association 2018 AGM
- "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

Education

University of Waterloo
Doctorate- School of Planning
(ongoing)

University of Guelph
Master of Science in Rural Planning &
Development
2000

University of Waterloo
Bachelor of Environmental Studies
Honours Environment & Resource
Studies
1988

Professional Associations

Registered Professional Planner

Full Member, Ontario Professional
Planners Institute (OPPI)

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Vince Deschamps

M.Sc, MCIP, RPP

Vince Deschamps is an Associate with MHBC specializing in aggregate resource, natural heritage and rural land use planning.

Mr. Deschamps has over 30 years of professional experience across a broad range of sectors in Canada and internationally, with a deep interest in Indigenous land use planning systems, resource conservation and biodiversity assessment. Vince is at the forefront of Natural Capital and Ecosystem Service Assessment (NCESA), as a scientific discipline as well as a means to anticipate and plan for the effects of climate change. The NCESA approach is based upon the complex inter-relationships between ecological, socio-economic and cultural values of landscapes and communities, and this is reflected in Mr. Deschamps' research interests and professional practice as a land use planner.

Within the extraction industry, Mr. Deschamps has provided support in assessing the impacts of aggregate and mining activities on biodiversity both domestically across Ontario, Quebec and Labrador, as well as internationally in Indonesia and Romania. The biodiversity component of these projects comprised a variety of tasks, including the review of ecological baseline studies, the development and coordination of extensive ecological field investigations, the management of expert staff and sub-consultants, data analysis, developing management options, report preparation, client management and agency consultation.

Mr. Deschamps is a Registered Professional Planner and a citizen of the Métis Nation of Ontario.

Professional History

Associate, MacNaughton Hermsen Britton Clarkson Planning Limited

(2020-Present)

Director of Sustainability, Moneta Gold Inc.

(2021-2023)

Senior Land Use Planner, Gwich'in Land Use Planning Board

(2020-2022)

Midwestern Ontario Program Director, Nature Conservancy of Canada.

(2017-2019)

Senior Planning Ecologist, Beacon Environmental

(2016-2017)

Senior Environmental Planner, Stantec Consulting Ltd



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ARCHITECTURE

(2011-2016)

Senior Environmental Planner, AECOM

(2009-2011)

Senior Environmental Planner, ERM Canada Corp

(2007-2009)

Senior Environmental Planner (RJ Burnside & Associates Ltd)

(2005-2007)

Senior Project Manager (ESG International Inc/Stantec Consulting Ltd)

(2001-2005)

Selected Aggregate Resources Project Experience

- Tri City Lands Ltd., Spencer Pit – Natural Environment Level 1 & 2 Report
- Walker Industries, Upper's Lane Quarry – field investigations in support of a Natural Environment Level 1 & 2 Report
- Jennison Construction Ltd, Clinton Pit – Natural Environment Level 1 & 2 Report and expert witness testimony at OMB
- Waterford Sand and Gravel Ltd., Dunnville Quarry Expansion – Natural Environment Level 1 and 2 Report
- Township of East Garafraxa Gravel Pit Expansion – Natural Environmental Level 1 & 2 Report
- PT Holcim Indonesia, Semen Dwima Agung Cement Operation – IFC (World Bank) Biodiversity Evaluation

Selected Mining Project Experience

- Moneta Gold Inc. – Director of Sustainability
- Greenstone Gold Mines, Hard Rock Mine – EIA Terrestrial Discipline Lead
- Eramet/Weda Bay Nickel – ESHIA Terrestrial Biodiversity Team Leader
- Iron Ore Company of Canada – Compatibility Assessment Team Lead
- PT Freeport Indonesia – External Environmental Audit Biodiversity Lead
- Newmont Mining, Martabe Project – Biodiversity Management and Impact Assessment Lead
- Rosia Montana Gold Corporation, Rosia Montana Project – EIA Biodiversity Lead

Selected Indigenous & Land Use Planning Experience

- Gwich'in Land Use Plan Comprehensive Review
- Attawapiskat First Nation Community Based Land Use Plan
- Pays Plat First Nation Land Assessment & Selection
- Animbiigoo Zaagi'igan Anishinaabek First Nation Land Assessment and Selection
- Sand Point First Nation Land Use Plan
- Comprehensive Review & Overhaul of Barbados Groundwater Protection Zoning Policy & System

Selected Land Development Planning Experience

Rehabilitation of the Gore Road from King Street to Patterson Sideroad Municipal Class Environmental Assessment (Schedule B)

- Kincardine Avenue Municipal Service Extension Municipal Class Environmental Assessment (Schedule B)
- Municipal Class EA (Schedule C) for the East Luther Grand Valley Water Pollution Control Plant
- Oak Ridges Moraine Conservation Plan Conformity Report for the Colgan Water Supply Municipal Class EA (Schedule B)
- Bonaire Highlands Scoped Environmental Impact Study
- Veterans Way Lands Environmental Impact Study
- Aberfoyle Creek Estates Phase III Environmental Impact Statement
- Giant's Tomb Subdivision Environmental Impact Statement Review
- Pickering - Kingston Road Environmental Report
- Gamble Road, Lot 5 Environmental Impact Statement
- Hilltop Community, Ayr Environmental Impact Statement
- Churchville Planning & Heritage Study (Natural Heritage Component)
- Humber College Institute of Technology and Advanced Learning, Orangeville Campus, Environmental Management Plan

Part B: Terrestrial and Aquatic Resources

- Trelane Natural Heritage Study

Selected Renewable Energy Project Experience

- Sydenham Wind Energy Centre, Townships of Brooke-Alvinston and Dawn-Euphemia, ON
- Suncor Energy Adelaide Wind Power Project, Municipality of Adelaide-Metcalf, ON
- Suncor Energy Cedar Point Wind Power Project, Town of Plympton-Wyoming and the Municipality of Lambton Shores, ON
- Bow Lake Wind Farm, Townships of Smilsky and Peever, ON
- Environmental Permitting for Bluewater, Goshen and Jericho Wind Energy Centres, NextEra Energy Canada, Huron and Lambton Counties, ON

Selected Natural Capital & Resource Economics Project Experience

- Valuing Natural Capital in the Lake Simcoe Watershed
- Ecosystem Service Values and Great Lakes Shoreline Ecosystems
- Northwest Brampton Urban Boundary Review, Shale Resources Review
- The Nature Conservancy-Indonesia Program – Carbon/Mangrove Rehabilitation Feasibility Study
- The Nature Conservancy-Indonesia Program – Value of Water Resources in Berau Regency, East Kalimantan
- The Nature Conservancy-Indonesia Program – Value of Water Resources in Lore Lindu National Park, Central Sulawesi
- Leuser Management Unit and CIDA Awards for Canadians –Evaluation of Community Forests as a Buffer Zone Initiative

Publications

- Contributor to the Natural Capital Lab, and wrote a series of blogs on the Eco-sociocultural Values of Natural Capital (<http://naturalcapitallab.com/blog/>)
- Co-presented "Natural Capital Assessment: The Practitioner's Dilemma – Why Hasn't It Caught On In Ontario" at AD Latornell Symposium, Aliston Ontario, November 2014.
- Co-authored "Trends in Forest Ownership, Forest Resources Tenure and Institutional Arrangement: Are they Contributing to Better Forest Management and Poverty Reduction? Case Studies from Indonesia." Prepared for the FAO Regional Workshop in Bangkok, Thailand, October 2005.
- "Biodiversity and Social Benefits in Community-Based Forest Management: The Leuser Ecosystem, Indonesia". Ecological Integrity and Protected Areas, 2001: Proceedings of the Parks Research Forum of Ontario (PRFO) Annual General Meeting, pp. 201-208, 2001.

Education

University of Waterloo

Bachelor of Environmental Studies,
Honours of Urban and Regional
Planning
2021

- Minor: Political Science
- Specialization: Land Development
- Specialization: Urban Design
- Specialization: Environmental Planning & Management
- Diploma: Environmental Assessment

Professional Associations

Member, Canadian Institute of Planners (CIP)

Candidate Member, Ontario Professional Planners Institute (OPPI)

Contact

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Kitchener, ON
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umodi@mhbcplan.com
www.mhbcplan.com

Urja J. Modi

BES., RPP Candidate

Urja Modi is an Intermediate Planner with MHBC, specializing in land use planning. Urja joined MHBC in 2023. She holds an Honours Bachelor Degree in Urban and Regional Planning from the University of Waterloo, at which point she also obtained a minor in Political Science and a diploma of Environmental Assessment.

Urja has considerable land use planning experience having approved and obtained approvals for several projects throughout Ontario, ranging from infill projects to subdivisions

Prior to joining MHBC, Urja Modi gained experience at the City of Ottawa as a Planner I. In this role, she reviewed development applications, coordinated with stakeholders, managed project teams, prepared public consultation documents, assisted during and presented at public consultation events, and drafted approval reports, by-laws and supporting documents.

At MHBC, Urja works with both private and public sector clients on a variety of projects. She completes research & compiles due diligence reports, reviews & applies policy, writes planning justification reports and urban design briefs, prepares development applications, and assists with preparing materials in support of appeals, among other responsibilities.

Urja is currently working towards completing her candidacy and receiving her Registered Professional Planner designation.

Professional History

Intermediate Planner, MacNaughton Hermsen Britton Clarkson Planning Limited (2023 – Present)

Planner I, City of Ottawa (2021 – 2022)

Junior Project Planner, Kaneff Group (2020)

Planning Assistant, City of Ottawa (2019)

Student Planner, City of Hamilton (2019)

GIS Analyst, The Weather Network – Pelmorex Media Inc. (2018)



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Professional Experience

Experience in all facets of development applications including applications for minor variance, severance, Plan of Subdivision, Plan of Condominium, Site Plan approval, demolition approval, Zoning By-law and Official Plan Amendment.

Urban Design

- Urban Design Guidelines and Briefs
- Urban Design Policy Preparation

Project Management

- Subdivision approval/plan registration
- Site Plan Approval
- Coordination of technical requirements with sub-consultants

Site Plan Approvals

- Residential (townhouse developments, apartment buildings, infill development)
- Commercial
- Industrial (truck storage facility, storage facility)

Minor Variance & Consents

- Residential
- Commercial
- Industrial

Subdivision Approvals

- Residential/Mixed-Use Plans (urban, suburban, estate residential)

Other

- Receive, process, make recommendations and present on land development applications on behalf of municipal clients.
- Undertake extensive research of land use policy and regulation and prepare planning justification reports in support of development applications.
- Preparation of due-diligence reports identifying policy-based support and constraints, and the detailed requirements for the approval of residential and industrial developments in municipalities across Ontario.
- Organization of Case Management Conferences and preparation of appeal package documents (notices, affidavits, reports, applications, and forms) for appeals to the OLT.