



FINAL

Social Impact Assessment Port Colborne Quarries Inc. Pit 3 Extension

**Part of Lot 17, 18 and 19, Concession 2,
(formerly Township of Humberstone)
and Plan 59R-16702
City of Port Colborne, Ontario**



Prepared for Port Colborne Quarries Inc.
by IBI Group
January 8, 2021

Table of Contents

1	Introduction	1
2	Technical Studies Completed	2
3	Social Impact Analysis	3
3.1	Potential Direct Social Impacts	3
3.2	Potential In-direct Social Impacts	7
3.3	Summary.....	11
4	Enforcement	11
5	Summary	12

1 Introduction

This Report has been prepared to support applications for the re-designation, rezoning and licensing of lands owned by Port Colborne Quarries Inc. (PCQ) to permit aggregate extraction. The subject lands are located east of the existing PCQ properties (Pit 2 and Pit 3) that are currently licensed under the Aggregate Resources Act (ARA) to operate a Category 2- Class A Quarry Below Water, identified as Licence 4444.

PCQ is requesting approval to extend the existing Pit 3 licensed operation eastward on additional lands owned by PCQ.

In order for extraction to occur on the subject lands, the following approvals are required:

- Amendment to the Region of Niagara Official Plan 2014, to designate the lands as *Licensed Pits and Quarries*.
- Amendment to the City of Port Colborne Official Plan 2017, to re-designate the lands from *Agricultural* to *Mineral Aggregate Operation*.
- Amendment to the City of Port Colborne Zoning By-Law 6575/30/18, to rezone the lands from *Agricultural (A)* to *Mineral Aggregate Operation*. (MAO) and to reduce the minimum setback from a Provincial Highway from 90.0 m to 30.0 m.
- Application to the Ministry of Natural Resources, under the Aggregate Resources Act for a Category 2 Licence (Class A Quarry Below Water).

The subject lands are in the central portion of the City of Port Colborne just outside and to the northeast of the existing built-up area and bounded by Miller Road to the east, Highway 3 (Main Street) to the south and Second Concession Road to the north. The existing quarry lands owned by PCQ are to the west and rear lot line of homes fronting onto Miller Road are to the east.

As specified during the Pre-Submission Consultation Meeting (April 23, 2020) and as part of the Region of Niagara application requirements for a Regional Official Plan Amendment, is the completion of a Social Impact Assessment. The study is to be informed by the following:

- Technical studies undertaken regarding specific or direct social interactions with the proposed quarry include:
 - Acoustical (noise)
 - Air quality (dust)
 - Blasting / Vibration
 - Traffic
 - Visual
- Technical studies undertaken regarding associated social interactions with the proposed quarry include:
 - Archaeology
 - Cultural Heritage
 - Surface water
 - Groundwater
 - Natural Environment

2 Technical Studies Completed

Port Colborne Quarries Inc. retained experts to undertake technical studies related to the above noted disciplines as follows:

- a) A Noise (Acoustical) Impact Assessment has been completed and is attached to the Planning Justification Report as Appendix B. The report was prepared by Golder Associates Inc. and authored by J. Tomaselli and is dated December 2020. The Curriculum Vitae for J. Tomaselli is also attached to that report.
- b) An Air Quality Impact Study has been completed and is attached to the Planning Justification Report as Appendix D. The report was prepared by Golder Associates Inc. authored E. Lau and is dated December 2020. The Curriculum Vitae for E. Lau is attached to that report.
- c) A Blasting (Vibration) Impact Study has been completed and is attached to the Planning Justification Report as Appendix F. The report was prepared by Golder Associates Inc. and authored by D. Corkery and dated July 2020. The Curriculum Vitae for D. Corkery is attached to that report.
- d) Traffic Impact Assessment has been completed and is attached to the Planning Justification Report as Appendix O. The report was prepared by IBI Group and authored by D. Hook and dated October 2020. Curriculum Vitae for D. Hook is attached to that report.
- e) Visual Impact Assessment has been completed and is attached to the Planning Justification Report as Appendix P. The report was prepared by IBI Group and authored by D. Sisco and dated December 23, 2020. The Curriculum Vitae for D. Sisco is attached to that report.

As well as:

- f) Archaeology Study (Stage 1 and 2) has been completed and is attached to the Planning Justification Report as Appendix Ei and Eii). The reports were prepared by Golder Associates Inc. and authored by M. Teal and dated July 2020. The Curriculum Vitae for M. Teal is attached to that report.
- g) Cultural Heritage Screening Report has been completed and is attached to the Planning Justification Report as Appendix G. The report was prepared by Golder Associates Inc. and authored by H. Cary and dated July 2020. The Curriculum Vitae for H. Cary is attached to that report.
- h) Surface water Study has been completed and is attached to the Planning Justification Report as Appendix I. The report was prepared by Golder Associates Inc. and authored by K. Mackenzie and dated August 2020. The Curriculum Vitae for K. Mackenzie is attached to that report.
- i) Groundwater Study has been completed and is attached to the Planning Justification Report as Appendix J. The report was prepared by Golder Associates Inc. and authored by S. McFarland and dated August 2020. The Curriculum Vitae for S. McFarland is also attached to that report.
- j) Natural Environment Study has been completed and is attached to the Planning Justification Report as Appendix L. The report was prepared by Golder Associates Inc. and authored by H. Melcher and dated August 2020. The Curriculum Vitae for H. Melcher is also attached to that report.

3 Social Impact Analysis

3.1 Potential Direct Social Impacts

Each of the above investigations identified potential impacts related to social impacts. Specifically, those that may have the potential for direct social impacts include the following:

- a) **Noise:** Noise issues will include:
 - noise from the rock drill rig preparing the blasting holes,
 - the actual blasting,
 - the extraction of the rock from the quarry face with front-end loaders,
 - quarry trucks hauling the rock to the off-site processing area, (Pit 1 and then eventually to Pit 3),
 - the aggregate processing, (crushing, screening, washing),
 - stockpile stackers,
 - haul trucks [dump trucks] being loaded and
 - hauling the material from the quarry,
 - importation of clean inert fill for rehabilitation.
 - Other incidental and minor noises would include vehicle activity including: employee vehicles, maintenance / service trucks such as fuel deliveries and equipment repair, road sweepers and/or wash-trucks.

The threshold for stationary noise limits has been established by the Ministry of Environment Conservation and Parks (MECP). The Acoustical (noise) Impact Study specifically included in their modeling, all the above noted noise sources and made assumptions to ensure that worst-case scenarios were being considered. The result was that the Report made numerous recommendations to address and attenuate noise to the surrounding community which include:

- Minimum berm heights of 4 metres high along the south property line and a minimum 2 metres high along the east and north property lines.
- Identifying areas requiring additional and/or specific noise controls and/or quieter types of equipment (Noise Zone 1, Noise Zone 2 and Noise Zone 3).
- The local barrier height and alternative controls required to achieve compliance with applicable noise limits within the identified areas are noted below:

NOISE ZONE	EQUIPMENT SPECIFIC NOISE CONTROLS
1	Drill – local barrier extending 2.0 m above major noise source associated with the drill.
2	Drill – local barrier extending 3.0 m above major noise source associated with the drill.
3	Drill – attenuated equipment (i.e. reduced noise emissions or replace with quieter equipment)

- Extraction and processing operations will occur only during the daytime period (7:00 am – 7:00 pm).
- The general extraction progression to be followed is shown on the Operational Plan.

Prepared for Port Colborne Quarries Inc.

- Setback distances between the drilling rig/blasting and receptors will be determined/ confirmed through the blast monitoring program.
- All existing on-site/perimeter berms shall remain in place for the Port Colborne Quarries Inc.: Pit 1, Pit 2 and Pit 3 lands.
- Extraction equipment will not exceed specified Overall Sound Power Levels.
- On-site haul trucks will not exceed 35 km/h.

Based on the above, it can be determined that the possible social impacts have been identified, and the noise report has identified the nearest sensitive receivers. In some portions of the site, the report has recognised that additional and/or overriding noise restrictions are expected based on the blast monitoring program. As such, the report has provided detailed recommendations to ensure the proposed quarry noise is attenuated to meet provincial noise guidelines, and therefore, social impacts are deemed to have been successfully met.

b) Dust: This will include particulate matter that may be created as a result of:

- blasting,
- front-end loader activity in loading the blasted rock and
- general activity in and around the quarry face,
- haul trucks travelling to and from the quarry face to the processing plant,
- stockpile stackers used to create segregated/processed aggregate stockpiles,
- haul trucks being loaded and from the trucks hauling aggregate through the quarry to the weigh scales and from there to the Highway 3 exit.

The Air Quality Impact Assessment Study specifically included in their modeling, all the above noted dust sources and made assumptions to ensure that worst-case scenarios were being considered. The result was that the Assessment made numerous recommendations to address and mitigate fugitive dust to the surrounding community including the requirement for a Best Management Practices Plan for the Control of Fugitive Dust (BMPP) and these include:

- The amount of explosive used will be reduced to less than 6,160 kg when meteorological conditions require it, such as wind gusts exceeding 40 km/hr, and/or when the extraction face approaches the property line and/or sensitive receptors. The actual reduced amount of explosive will be determined through the blast monitoring program.
- The amount of material handling at the extraction face will be reduced to less than 4,500 kg per day when meteorological conditions require it, such as wind gusts exceeding 40 km/hr, and/or extraction face approaches the property line and/or sensitive receptors.
- The licensee shall use water as a dust suppressant to control fugitive emissions as necessary and during dry periods.
- The Best Management Practices Plan for the Control of Fugitive Dust (BMPP) prepared by Golder Associates Ltd. dated December 2020, and as amended, shall be posted in the on-site pit administration office. Compliance with the BMPP is deemed to be a Site Plan condition.

Further passive techniques being implemented into the operational plan to augment the potential for fugitive dust include:

- Significant setbacks for sensitive receivers.

- The construction of perimeter berms that will be vegetated with a grass-type legume as soon as possible. The vegetation not only will prevent erosion from occurring but will help capture dust.
- Quarry activity, extraction and trucking activity to be operated at the lowest quarry floor whenever possible which will be a minimum 8.0 m below grade.

Based on the above, it can be determined that potential social impacts have been identified, and the air quality report has identified all nearest 76 sensitive receivers. The report has also provided recommendations to ensure quarry dust is mitigated on-site to meet federal guidelines. However, most importantly is the implementation of the Best Management Practices Plan (BMPP) which will be a living document that is updated as necessary to address and necessary regulatory changes. Therefore, social impacts are deemed to have been successfully met.

- c) **Blasting / Vibration:** Although the duration of blasting is measured in milliseconds, and expected to only occur about twice per week, noise and vibration impacts can result. Impacts might include:

- excessive noise,
- excessive vibration
- structural damage to buildings or other infrastructure.

The threshold for blasting noise has been established by the Ministry of Environment Conservation and Parks (MECP) and specifically NPC 119. The Blast Impact Assessment specifically included in their modeling, all the above noted dust sources and made assumptions to ensure that worst-case scenarios were being considered. The result was that the Report made numerous recommendations to address and mitigate dust to the surrounding community which include:

- The initial series of test blasts, occurring with approximately one month of the commencement of blasting shall be monitored at a minimum of five (5) locations at varying distances from each blast to refine the ground and air vibration attenuation characteristics and confirm that MECP – NPC 119 of the Model Municipal Noise Control By-Law is being met. This will entail establishing monitoring stations between the blast site and neighbouring receptors [residences], during the sinking cut and development of the initial bench face. The site-specific attenuation data developed during this monitoring period shall then be used to better define ground vibration and air concussion effects at the nearest receptors.
- Routine monitoring of all blasting operations shall be carried out in the vicinity of the closest receptor to the proposed blasting operations. As extraction continues with the quarry and blasting operations move, the actual monitoring site shall be routinely and regularly reviewed so that the closest receptor is always being monitored for ground and air vibration effects.
- Maintained a record of all blasting details including a seismic record of the ground and air vibration monitoring results. The blast details and monitoring results shall be made available to the Ministry of Natural Resources and Forestry (MNRF) and the Ministry of Environment, Conservation and Parks (MECP) upon request.
- Prohibit blasting on Saturdays, Sundays and Statutory holidays.
- When blasting within approximately 300.0 metres of adjacent residences, the quarry shall regularly review their blast procedures in conjunction with the blast monitoring results to assess when it is necessary to reduce the maximum explosive weight detonation per delay period with the blast. The termination point for the blasting operations will be governed by the results of the on-site monitoring program.

Based on the above, and the detailed assessment undertaken via the Blasting Impact Assessment, it can be determined that the resolution of potential social impacts due to blasting impacts has been successfully attained.

d) Traffic:

A) Internal truck traffic - has the potential to result in noise and dust impacts.

As noted above, both the noise study and dust study included internal truck traffic into their modelling calculations and therefore, the above noted applicable recommendations will apply to this use of internal truck movements.

B) Off-site traffic – has the potential for safety concerns as trucks egress and ingress and to have implication to the larger road system in terms of capacity.

Initially, truck traffic generated from Pit 3 Extension will be directed through the existing Pit 1 entrance / exit onto Ramey Road and Highway 140.

Eventually, and during the Phase 1 extraction, a new entrance will be required. Based on initial discussions with MTO regarding their position/direction for a new quarry access location onto a provincial highway, it was denied and that Ministry identified the preferred option was that truck traffic would access the highway at Miller Road, (thereby necessitating an entrance on the Miller Road frontage). Such an entrance location was perceived by the Region, City and PCQ as having the potential for land-use conflicts due to traffic, off-site noise, and the general sense of quarry activity spilling out onto the regional road. Furthermore, the Region had concerns with the engineering capacity of the road to accommodate large aggregate trucks.

Further to ongoing discussions with MTO initiated by the Regional staff, MTO agreed to support a quarry access location subject to it being coincident with the existing Weaver Street intersection (at Carl Road location).

The findings of the Traffic report concluded that from a capacity basis, no impacts are predicted. From a safety basis, the report made one recommendation:

1. Construct a minimum 35-metre-long eastbound left-turn lane by 2039 (or upon completion of Pit 1 backfilling) to accommodate quarry-related traffic reassigned to the proposed Highway 3 access.

PCQ will be required to obtain a Provincial Highway access permit and be responsible for all the design and construction costs associated with constructing the quarry access.

Based on the above, and the detailed assessment undertaken via the Traffic Impact Study, it can be determined that the resolution of potential social impacts due to traffic, has been successfully attained.

e) Visual: Although the majority of quarry activities will be a considerable depth below grade, there is a general public preference that all extraction activity be visually screened to limit views of the industrial activity in an otherwise rural setting. The focus of the visual screening is primarily for the neighbouring residents and less so on vehicular traffic on adjacent roads.

The critical views toward the quarry are primarily the Miller Road residents which back onto the quarry, and those along Highway 3 which front or back onto the quarry site. The visual impact will include:

- Possible views of on-going quarry activity

- Especially those which will occur at the upper grades of the quarry, (drill rig and blasting truck) and initial quarry lift (8.0 metres below grade) which might include the top portions of a stock pile and/or stacker.

The key tool for visual screening is earth berms constructed along the perimeter of the site. The berms serve a variety of mitigation purposes (noise, dust) but certainly are the primary strategy to block sight-lines.

The Visual Impact Assessment confirmed possible views that may be possible and provided a series of detailed cross-sections to identify the potential impacts and how the berms would provide suitable screening. In most cases, the significant separation distance between the sensitive receptor and quarry is significant (i.e., 300 metres).

In addition to the above, numerous additional recommendations were made:

- To visually screen the Pit 3 Extension, the following is recommended:
 - Berm A: A 4.0 metre-high berm along the Second Concession frontage built with a 4:1 slope on the external side and 3:1 on the internal side and with vegetation plant between the berm and boundary fence as recommended in the NEL 1-2 report.
 - Berm B: A 2.0 metre-high berm along the northern portion of the eastern property boundary with a 3:1 slope. Existing hedgerow vegetation is to be retained where possible.
 - Berm C: A 2.0 metre-high berm along the northern portion of the 'eastern-tab' built with a 3:1 slope.
 - Berm D: A 4.0 metre-high berm along the Miller Road frontage and extending latterly for 100.0 metres along the northern and southern property limits of the 'eastern-tab' with a 4:1 slope on the external side.
Where the 4.0 metre gap is retained at the mid-frontage location in the berm for farm equipment access, a temporary minimum 2.0 metre-high berm (minimum 50.0 metres long) will be constructed behind the 4.0 metre berm at the gap location.
 - Berm E: A 2.0 metre-high berm along the eastern boundary of the property extending south to Main Street and built with a 3:1 slope.
 - Berm F: A 4.0 metre high along the Main Street frontage built with a 4:1 slope on the external side.
 - Berm G: A 3.0 metre-high berm along the western property boundary associated with 1326 Main Street.
- During the initial 8.0 metre deep excavation lift, all stockpiles within 200.0 metres of Highway 3, Miller Road and Second Concession Road shall not exceed 10.0 metres in height.
- Both coniferous and deciduous trees are to be planted between the berm and the Highway 3 (Main Street) and Miller Road boundary fence.
- That all berms be immediately vegetated with a grass type legume ground cover to avoid erosion, sedimentation and dust.

3.2 Potential In-direct Social Impacts

In addition to the above issues that clearly have the potential for direct and consequential social impacts to neighbouring sensitive land uses, the following matters have indirect and/or associated social interactions between the proposed quarry and the neighbouring community. These include: archaeology, cultural heritage, surface water, groundwater and natural

environment. Social concerns are possible to arise if the application has not carefully considered these matters and made accommodations to ensure their protection both, during both the on-going extraction operation and the progressive and final rehabilitation stage as well.

Recommendations arising from these disciplines include:

a) Agricultural Community

There is policy support in the Provincial Policy Statement, Regional Official Plan and City of Port Colborne Official Plan that extraction is permitted on prime agricultural lands and that full rehabilitation to an agricultural use is not required subject to:

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

Given that the application has satisfied these requirements, it remains important that the proposed quarry does not socially impact the larger agricultural community that it is partially surrounded by. To address this, an Agricultural Impact Assessment was undertaken by Colville Consulting Inc., dated September 2020. Recommendations from that Assessment were provided to ensure no such impacts and included:

- That where possible, displaced topsoil not required for post-extractive rehabilitation, should be available for re-use to improve the agricultural conditions for cultivation at other locations where opportunities exist.
- Lands not immediately required for extraction shall remain available for agricultural production when possible. This will ensure that the agricultural use remain for the longest extent possible. This has been implemented through the Phasing Notes: Phase 1A - Note a), Phase 1B – Note a) Phase 2 – Note a) and Phase 3 – Note a).
- The licensed boundary area should be aligned with existing property boundaries where possible. PCQ has been deliberate to include all their lands in order to avoid fragmentation of the property boundaries.
- Appropriate buffering abutting agricultural lands shall employ such things as:
 - Vegetated berms, which can offer both visual and physical buffers,
 - Dust suppression techniques and noise management according to appropriate regulations.
- When agricultural vehicles utilize interior quarry roads to access agricultural lands, a safety protocol will be developed to ensure the safety of all farm traffic through the licensed area, or alternate access should be provided. To avoid this, specific external farm access locations have been created, with one accessing from Miller Road and the second from Second Concession Road. This has been implemented through Site Plan Note 6.

- The proposed quarry entrance onto Highway 3 shall be designed and constructed to accommodate existing land uses in the vicinity.
- Perimeter fencing shall be established to minimize the potential for trespass and vandalism. This has been implemented through Site Plan Note 3.
- Monitoring of all vegetation within the setbacks and on berms will continue throughout the life of the quarry and if any vegetation dies, it will be replaced immediately (during the proper planting season). This has been implemented through Site Plan Note 18e).
- Erosion/Vegetation Monitoring: If there is any substantial areas of erosion that would result in increased levels of sedimentation either during the quarry operation or during the progressive rehabilitation stage, those areas shall be regraded and reseeded immediately. If there is any substantial vegetation die-out, including berm vegetation, upland trees/shrubs, aquatic vegetation, it shall be replaced immediately and/or during the next appropriate planting season. This has been implemented through Site Plan Note 18e).
- The groundwater monitoring program shall identify and monitor any changes related to ground water resources surrounding the quarry operation to ensure farm operations dependent on ground water are not impacted. If any well interference issues are identified, the Licensee shall ensure that adequate water supply is available for adjacent farm operations.
- The Licensee shall ensure that quarry signage on Main Street (Highway 3) includes a phone number for neighbours to call if any issues should arise.
- The Licensee shall ensure that all MOECC standards regarding blasting, noise and dust emissions are met.
- The Licensee shall use non-invasive, native plant species for berm plantings and other landscaped features surrounding the quarry operation.

Based on the above, and notwithstanding that the existing PCQ quarry (Pit 2 and Pit 2) already exist as an industrial extractive land use within the rural / agricultural community, the expansion will extend the bounds eastwardly. The proposed recommendations of the AIA will be essential to ensure that the attributes of the agricultural community are maintained and that there will be the least amount of social disruption as possible by focusing all the activities inward and the only external haul access point being onto a provincial highway.

b) Archaeology

A series of archaeological assessments have been carried out on the site including: Archaeological Assessment, Stage 1 and 2, Golder Associates Inc., dated July 2020 and Supplementary Stage 1 and 2, also dated July 2020.

Through the completion of these reports, numerous archaeological find spots were identified and where Stage 3 investigations have been recommended. No soil disturbance or other activities can occur in those sites until further field work has been undertaken and that the sites have been cleared based on MHSTC criteria.

Portions of the PCQ land holdings have been excluded from the Limit of Extraction in areas where significant amounts of archaeological artifacts have been identified and currently there are challenges to economically clear those sites.

The local community including the local First Nations Communities can be reassured that all the site artifacts have either been: i) retrieved, inventoried, documented, and archived into storage, or, ii) remain on-site in locations that have been specifically geo-referenced for future assessment if necessary, and or protected for the long-term.

c) Surface Water (Hydrology)

Given the presence of wetland features on the site, it was critical to have a full in-depth understanding relationship between the surface water, groundwater and natural environment. As such, the Hydrological Study by Golder Associates Inc., dated October 2020 is an important document to that understanding.

Through that Study, confirmation was provided that there will be no changes to the surface water regime, and to ensure this, strategic monitoring has been recommended when extraction occurs in proximity to the wetland boundary. Furthermore, because the site will be extracted in dry conditions through dewater, that discharged water that will be released into the Wignell Drain (east and west branch), will be regulated through the provincial Ministry of Environment, Conservation and Parks (MECP) via an Industrial Sewage Works Environmental Compliance Approval (ECA).

As such, the local community can be assured that the natural environment and specifically the surface water regime will be protected.

d) Groundwater (Hydrogeology)

As noted above, the Pit 3 Extension quarry will be operated under dry conditions, meaning that the quarry must be dewatered. The result of dewatering is that a significant drawdown cone results which has been predicted to have a sphere of influence that extends 0.75 - 1.0 km from the quarry boundary. The Hydrogeological Study that was undertaken by Golder (October 2020) confirmed that all the private water wells within that radius, access their water source from a deeper aquifer and therefore, no groundwater quantity impacts are predicted but on-going groundwater monitoring will confirm same. In addition, and although no chemicals are used in the extraction process, groundwater quality testing will occur during the on-going quarry operation.

The above actions are being characterized as an in-direct social matter, but it could equally be argued to be a matter directly impacts the social well-being of the local community. However, it is categorized, the important element is that the local community has an understanding and knowledge that their potable water source remains safe and will not be interrupted. Therefore, , the extensive groundwater monitoring program as described on the Site Plans including the 'Private Well Complaints Response Program' are key components to assuring the local community that their potable water access has been protected and to provide the social well-being in that knowledge.

e) Natural Environment

In a similar context as the surface water issue, the Natural Environment Report prepared by Golder, dated October 2020 is critical to have a full in-depth understanding relationship between the surface water, groundwater and natural environment. As such, the Natural Environment Study is an important document to that understanding.

Through that Study, confirmation was provided that all the significant habitat was identified and all will be protected. To ensure this, strategic monitoring has been recommended when extraction occurs in proximity to the wetland boundary to monitor potential changes to the wetland vegetation. Furthermore, the report has provided numerous recommendations for ecological enhancement,

As such, the local community can be assured that the natural environment will be protected including matters related to:

- The use of identifiable setbacks
- Bird Breeding Habitat avoidance
- Fish Habitat where necessary, obtaining MNR permit to collect fish

Prepared for Port Colborne Quarries Inc.

- Sediment/Erosion Control
- Appropriate noise and dust mitigation
- Wetland Vegetation Monitoring Program
- Proposed Vegetation in strategic locations throughout the site
- Use of locally native, non-invasive species
- Rehabilitated side slopes to be vegetated.

f) **Tree Preservation Plan**

The extraction plan proposes to remove a small grove of trees within Phase 2. The undertaking of the Tree Preservation Plan focused on identifying the quality of this woodlot. Ultimately, the report recommended removal to the trees given the presence of Emerald Ash Borer damage, high occurrence of Ash trees, pioneer species and possible restoration plantings, as the relatively young age of the trees.

Based on this assessment, the local community will be provided the social well-being knowledge that the woodlot did not contain any significant tree species.

3.3 Summary

There are numerous potential social impacts that could arise because of this proposed quarry that can be divided into possible direct impacts and possible indirect impacts.

Possible direct impacts include:

- Noise
- Air Quality (dust)
- Blasting (Vibration)
- Traffic
- Visual

Possible in-direct impacts include:

- Archaeology
- Cultural Heritage
- Surface water
- Groundwater
- Natural Environment

As highlighted above, each of these matters has been considered in terms the possible negative impacts that could occur through the active day to day quarrying operation. Each of these impacts was assessed by experts and they each provided specific recommendations to ensure that no real or perceived impacts will result.

4 Enforcement

Knowing that the Licensee is both responsible and accountable to others is important to creating trust. As they currently do, PCQ is responsible to undertake an annual self-assessment of the

Prepared for Port Colborne Quarries Inc.

quarry which is known as a Compliance Assessment Report that must be conducted annually to ensure the quarry operation is in compliance with the approved Site Plans.

In addition, MNRF has dedicated and trained aggregate staff whose role it is to carry out regular and random site audits and if compliance is not occurring, they have a range of enforcement powers up to and including locking the quarry gates until such time that the matter is addressed.

Lastly, the public are always afforded the opportunity to raise any operational matter that they see might not be in conformity. The preferred first point of action is to call quarry as this route usually can result in the fastest action. This is one of the key reasons that the quarry phone number is listed on the prescribed quarry notice sign at the front gate. However, if immediate action is not taken or the action is not sufficient, the public are encouraged to contact MNRF.

One of the key mechanisms to ensure that there is no mis-understanding of the Licensee's responsibilities in operating the quarry, is that all the notes associated with the Site Plans must be clear, succinct and worded enforceable. This is achieved by avoiding ambiguous language and through actionable terms such as will, shall, must.

Such action applies to all the General Operational notes that deal with matters of timing of berm construction, timing of vegetation planting, direction of extraction, ongoing monitoring responsibilities, immediate replacement of eroded areas and replanting of significant dead vegetation.

5 Summary

Based on the above, and subject to the inclusion of all the technical recommendations and general operational notes, it is our opinion that all forms of social impacts being direct and indirect have been addressed

Yours truly

IBI GROUP



David R. Sisco, BA, MCIP, RPP
Senior Planner

DRS/baw
Encl.



I hereby certify that this Social Impact Assessment was prepared by a Registered Professional Planner, within the meaning of the Ontario Professional Planner's Institute Act, 1994

Jan 18 2021
Date

David R. Sisco, BA, MCIP, RPP

David R. Sisco BA, MCIP, RPP Senior Planner

Mr. Sisco's expertise includes: land use planning involving large developments encompassing sites over 500 acres to single severances; development including residential, recreational, and commercial; coordination of resource management development projects for both the private sector and government bodies with specialized expertise in post-extraction rehabilitation techniques and design; management of provincial and community resource and policy based studies.

Representative Experience

Land Development

Pinebush Residential Park, Cambridge – 200-1,000 unit plan for subdivision.

Reid's Heritage Homes Ltd., Adult Style Community Plan, Township of Puslinch – 200 units.

Beechwood, Waterloo – 125 acre residential/commercial neighbourhood.

Pinebush Industrial Park, Cambridge – 200 acre industrial/business park.

Deercrest Park, Cambridge – 200 acre rural estate and 800 to 1,200 mixed residential plan including senior's complex, nursing home.

South Bend Estates, Grand Bend – 500 acre, four season recreation complex including 18 hole golf course, motel, recreational park and 586 residential lots.

Blueberry Trails Estates, Town of Wasaga Beach – 400 lot residential plan.

Hilltop Estates, Township of North Dumfries – 350 lot mixed residential plan.

Ontario Realty Corporation, City of Cambridge Official Plan – 300-acre industrial proposal.

Regina, Stayner – Regina Boulevard Severance/Subdivision Development.

Forwell, Kitchener – Centennial Street, Industrial Development.

Forestlawn, Waterloo – Residential development of 60 lots.

Simone, Riverbend Subdivision, Ayr – Residential development and coordination of Phase 1–3.

Woolner Residential, Kitchener – Coordination assistance between pending residential development and ongoing extraction.

Education

B.A. (Geography), Wilfrid Laurier University, ON, 1994

Diploma of Applied Arts (Urban Design), Fanshawe College, London, ON, 1981

Commissioner For Taking Affidavits

WSIB Certification, Parts 1 and 2

Experience

2014–Present

IBI Group, Waterloo, ON, Associate,

2007–2014

IBI Group, Kitchener, ON, Associate,

1982–2007

Planning & Engineering Initiatives Ltd., Planners, Engineers and Landscape Architects, Principal/Senior Planner

1981

Parking Authority of Toronto, Planning Technician

Memberships

Canadian Institute of Planners, Full Member

Ontario Professional Planners Institute, Registered Professional Planner

Ontario Stone, Sand & Gravel Association

- Land Use Committee

Canadian Land Reclamation Association

Greater K-W Chamber of Commerce, Environment Committee

Certified By The Ontario Ministry of Natural Resources and Forestry to Prepare Site Plans Pursuant to the Aggregate Resources Act Section 8(4)



Aggregate Resource Studies

Grand River Conservation Authority/MNR, Cambridge – Aggregate and Floodline Study.

Ontario Land Corporation, Kitchener – Esker Study, Resource Investigation and Land Use Study.

Ministry of Natural Resources, Southern Ontario, Aggregate Resources: State of the Resource Study

Ministry of Northern Development & Mines, Regional of Waterloo – Ontario Government Survey, Comprehensive Update and Consolidation of Five Township Aggregate Resource Inventory Papers (ARIPS).

Ministry of Northern Development & Mines, Wellington County – Ontario Government Survey, Comprehensive Update and Consolidation of Twelve Township Aggregate Resource Inventory Papers (ARIPS).

Grand River Conservation Authority, West Garafraxa Twp. – Guelph and Belwood Lakes – Aggregate Resource Management Strategy.

Caledon Community Resources Study, Town of Caledon – Aggregate Resource Management Study, Master Rehab. Plan, Policy Formulation.

Town of Caledon – Caledon Shale Resources Study

County of Brant – Aggregate Resources Guide

Aggregate Resource Investigations and Planning Services

Barrie Farm, North Dumfries Township – Resource Investigation, Severance.

Blue Circle, Dabrowski Pit, North Dumfries Township – Licensing, Pit Plans, and Rezoning.

Blue Circle, Cedar Street Pit, North Dumfries Township – Resource Investigations, Pit Plans, Licensing, rezoning, and OMB.

Blue Circle, David Pit, North Dumfries Township – Licensing, Pit Plans, and Rezoning.

Caledon Sand & Gravel, Caledon Pit, Caledon – Pit Plans, Rehabilitation Designs.

CBM, Brown Pit, North Dumfries Township – Licensing, Pit Plans, and Rezoning.

Cruickston Estate, University of Guelph, Cambridge – Aggregate Resource Inventory.

Dufferin, Aberfoyle Pit, Puslinch Township – Noise Investigations.

E & E Seegmiller Ltd., Cober Pit 2, Kitchener – Pit Plans, Resource Investigation, Licence Application, and Rezoning.

E & E Seegmiller Ltd., Woolner Pit, Kitchener – Pit Plans, Resource Investigation, Licence Application, and Rezoning.

E & E Seegmiller, Country Squire Pit, Woolwich Township – Pit Plans.

Fastrock, Oliver Pit, North Dumfries Township – Pit Plans, Rehabilitation, Designs, Rezoning.

Faulkner Pit, Guelph-Eramosa Township – Resource Investigation, Pit Plans, Licensing, Official Plan Amendment and OMB.

Fermar Group Inc., Greenfield Aggregates, Sherk Pit, North Dumfries Township – Pit Plans, Licence Applications, Rezoning.

Forwell Sand & Gravel, Bickle Upper Pit, Kitchener – Pit Plans, Licence Application, Resource Inventory, Industrial Subdivision and Rezoning.

Forwell Sand & Gravel, Bickle Lower Pit, Kitchener – Pit Plans, Resource Investigation, Licence Application, Floodplain Design, and Rezoning.



Forwell Sand & Gravel, Brown Pit, North Dumfries Township – Pit Plans, Licence Application, Wetland Ecology, and Rezoning.

Forwell Sand & Gravel, Blair Pit, Cambridge – Pit Plans, Resource Investigation.

Franceschini Brothers Ltd., Caledon – Pit Plans, Resource Investigation.

Gary Farms, West Garafraxa – Pit Plans, Licence Application, Rezoning.

Gingerich Pit, Wilmot Township – Pit Plans, Resource Investigation, Licence Application, and Rezoning.

Grand River Conservation Authority, Belwood Lake, West Garafraxa Township – Aggregate Resource Investigations, and Rezoning.

Grand River Conservation Authority, Guelph Lake, Guelph Township – Aggregate Resource Investigations.

Grand River Conservation Authority, Horst Pit, Waterloo – Aggregate Resource Investigation, Pit Plans.

Grand River Conservation Authority, Washington Pit, Blanford/Blenheim Township – Aggregate Resource Investigations.

Homefounders, Uxbridge – OMB Hearing.

Howe Island Resident's Association, Frontenac Island Township – Peer Review of Proposed Quarry.

Hunder Development Ltd., Hunsberger Pit, Woolwich Township – Pit Plans, Licence Application.

King & Benton Developments, Oak Park Pit, Brant County – Licence Surrender.

Kitchener, City of – Resource Inventory, Pit Plans, Licence Application, Floodplain/Recreation Plan.

Kuntz Topsoil Sand & Gravel, Bridge Street Pit, Township of Woolwich – Pit Plans, Licence Application.

Kuntz Topsoil Sand & Gravel, Jigs Hollow Pit, Township of Woolwich – Pit Plans, Licence Application, Rezoning.

Lake of Bays Township – Multiple Land Use Compatibility, Justification Reports for Severances Contiguous to Pits.

Lakeview Sand and Gravel, North Dumfries Township – Pit Plans, Licence Application and Expansion.

Maty Management, Ojibway Pit, City of Windsor – Pit Plans, Licence Application.

Milani, Rizmi Holdings, Vaughan – EIS, Pit Plan, Licence Application.

Mill-Gate Holdings, Cedar Creek Pit Expansion, North Dumfries Township – Pit Plans, Licence Application, Rezoning.

Preston Sand & Gravel Company Ltd., Croft Pit, Puslinch Township – Pit Plans, Resource Investigation, Licence Application and Agricultural Rehabilitation, Below Water Table Extraction, Rezoning, Licence Surrender.

Preston Sand & Gravel Company Ltd., MacArthur Pit, North Dumfries Township – Pit Plans, Resource Inventory, Application, Agricultural Rehabilitation and Amendments, and Rezoning.

Preston Sand & Gravel Company Ltd., Henning Pit, North Dumfries Township – Pit Plans, Licence Application, Rezoning.

Preston Sand & Gravel Company Ltd., Marshall Pit, Laurier Township – Pit Plans, Licence Application.



Preston Sand & Gravel Company Ltd., Bell Pit, Strong Township – Pit Plans, Licence Application.

Preston Sand & Gravel Company Ltd., Bala Quarry, Medora Township – Quarry Plans, Licence Application.

Preston Sand & Gravel Company Ltd., Bloomingdale Pit, Township of Woolwich – Pit Plans (Extraction in Floodplain), Rezoning.

Rapson Farms, Harvey Township – Resource Investigation, Land Use Planning.

Reid's Heritage Homes Ltd., Heritage Pit, Puslinch Township – Resource Investigation, Pit Plans, Residential/Environmental Rehabilitation Plans, Rezoning, and Official Plan Amendment.

Ross Roth, Roth Pit Expansion, Wilmot Township – Pit Plans, Licence Application, Rezoning and Amendments.

Tri-City Materials Ltd., Germet Pit Extension – Licence Coordination and Rezoning.

Tridon Construction Ltd., Heritage Pit, Municipality of Thames Centre – Licence Coordination and OMB Hearing.

Tridon Construction Ltd., Lakeside Pit, Municipality of Thames Centre – Licence Coordination and OMB Hearing.

Tullis Estates, Butler Pit Extension, North Dumfries Township – Pit Plans, Licence Application, Rezoning.

University of Guelph, Puslinch Pit, Township of Puslinch – Pit Plans, Licence Application, Official Plan Amendment and Rezoning.

Upper Grand District School Board – Aggregate Assessment for a school site expropriation process.

Warren Bitulithic, McMillan Pit, Puslinch Township – Pit Plans, Resource Investigation, Licence Application, Groundwater Monitoring.

Warren Bitulithic, Cattleland Pit, Wilmot Township – Pit Plans, Resource Investigation, Licence Application and Sustainable Wetlands, and Rezoning.

Warren Bitulithic, Brown/Cambridge Pit, North Dumfries Township – Pit Plans, Residential Investigation, Licence Application, and Rezoning.

Waterford Sand & Gravel Limited – Vinemount Quarry Expansion – City of Hamilton – Expansion of a below water quarry.

Wayne Monk, Bentinck Pit – Resolution of Land Use Compatibility Issues With Pit Operator.

William Seip Management Inc., Top of the Hill Pit, Wilmot Township – Pit Expansion, Rezoning and Lowering of Pit Floor.

Wilmot Township, Pit No. 1, Wilmot Township – Expansion for Below Water Table Extraction.

Guest Lecturer

University of Guelph, LARC 4740 Case Study

University of Waterloo, Planning 403, Professional Practice and Administration

University of Waterloo, Planning 474, Aggregate Resource Planning, Development and Management

