



Final

Comprehensive Rehabilitation Strategy

Pit 1, Pit 2, Pit 3, Pit 3 Extension



Prepared for Port Colborne Quarries Inc.
by IBI Group
October 30, 2020

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1 Introduction

Port Colborne Quarries Inc. (PCQ) is making application for an expansion to their existing network of licensed and non-licensed sites within the City of Port Colborne. Currently, their network spans the majority of three rural lots, totaling approximately about 209 hectares of which 142.1 hectares are licensed under the Aggregate Resources Act. The pending application will extend this network over most of another rural lot and add another 106.3 hectares sited between Highway 140, Highway 3 (Main Street), Regional Road 84 (Miller Road) and Second Concession Road.

Integral to the direction of the province, the Region of Niagara and the City of Port Colborne is that where multiple extraction sites occur that an overall 'comprehensive rehabilitation plan' should be developed. This report summarizes the status of the existing extraction sites, reviews the ongoing progressive rehabilitation efforts and examines the final rehabilitation options. As well, the report provides a vision for a long-term comprehensive rehabilitation strategy of all the PCQ land holdings.

2 Policy Framework for Comprehensive Rehabilitation

As noted above, numerous levels of government have specific policies that require aggregate applicants to consider rehabilitation not just in a 'site by site' manner, but to have a larger view, taking into consideration the regional landscape. These policies include:

2.1 Provincial Policy Statement 2020

Within the Provincial Policy Statement (PPS), Policy 2.5.3.2 states the following:

Comprehensive rehabilitation planning is encouraged where there is a concentration of mineral aggregate operations.

In the context of the PPS, 'comprehensive rehabilitation' is defined as "rehabilitation of land from which *mineral aggregate resources* have been extracted that is coordinated and complementary, to the extent possible, with the rehabilitation of other sites in an area where there is a high concentration of *mineral aggregate operations*."

2.2 Niagara Region – Regional Official Plan (ROP)

The Niagara Region Official Plan also provides guidance regarding rehabilitation and specifically as follows:

Policy 6.C.8

In the case of adjacent pit or quarry operations, the Region will, wherever practical, encourage the removal of all economically viable material between the pits, and encourage continuous and harmonious rehabilitation.

2.3 City of Port Colborne – Official Plan (OP)

The City of Port Colborne Official Plan provides the following policies regarding rehabilitation:

Policy 10.2.1

- j) Progressive Rehabilitation Master Plan which will show how the rehabilitation will be completed sequentially within a reasonable time and in accordance with the *Aggregate Resources Act*, and any other regulations or applicable plans;

Policy 10.2.2

- d) Outside the *prime agricultural areas* or where agricultural rehabilitation is not required, the City will require progressive rehabilitation of pits and quarries to an appropriate after use as determined by the City that is in conformity with the adjoining land use designation and policies, the surrounding natural environment and existing uses.
- e) In environmental areas, as provided in Section 4, the City will require rehabilitation to enhance the restoration of ecosystem integrity in accordance with the policies of this Plan, the Regional Policy Plan and the appropriate *watershed/sub-watershed* study.
- f) Where such resources exist, the City will promote and encourage rehabilitation of *aggregate* operations in a manner which incorporates the cultural and heritage resources in or adjacent to the site, including the conservation of *significant* cultural or heritage features where practical.

3 Existing Extraction Sites

PCQ operates several existing quarry sites within the area bounded by Highway 140, Highway 3 (Main St.), Miller Road and Second Concession Road. Some of these sites are active but not licensed and therefore do not have an established rehabilitation plan, and other sites are licensed under the Aggregate Resources Act which are both active and non-active extraction areas. The following provides a description of these sites and their individual final rehabilitation design.

Figure 1 highlights the regional context of the PCQ lands and the extent of the historical extraction over the past +65 years.

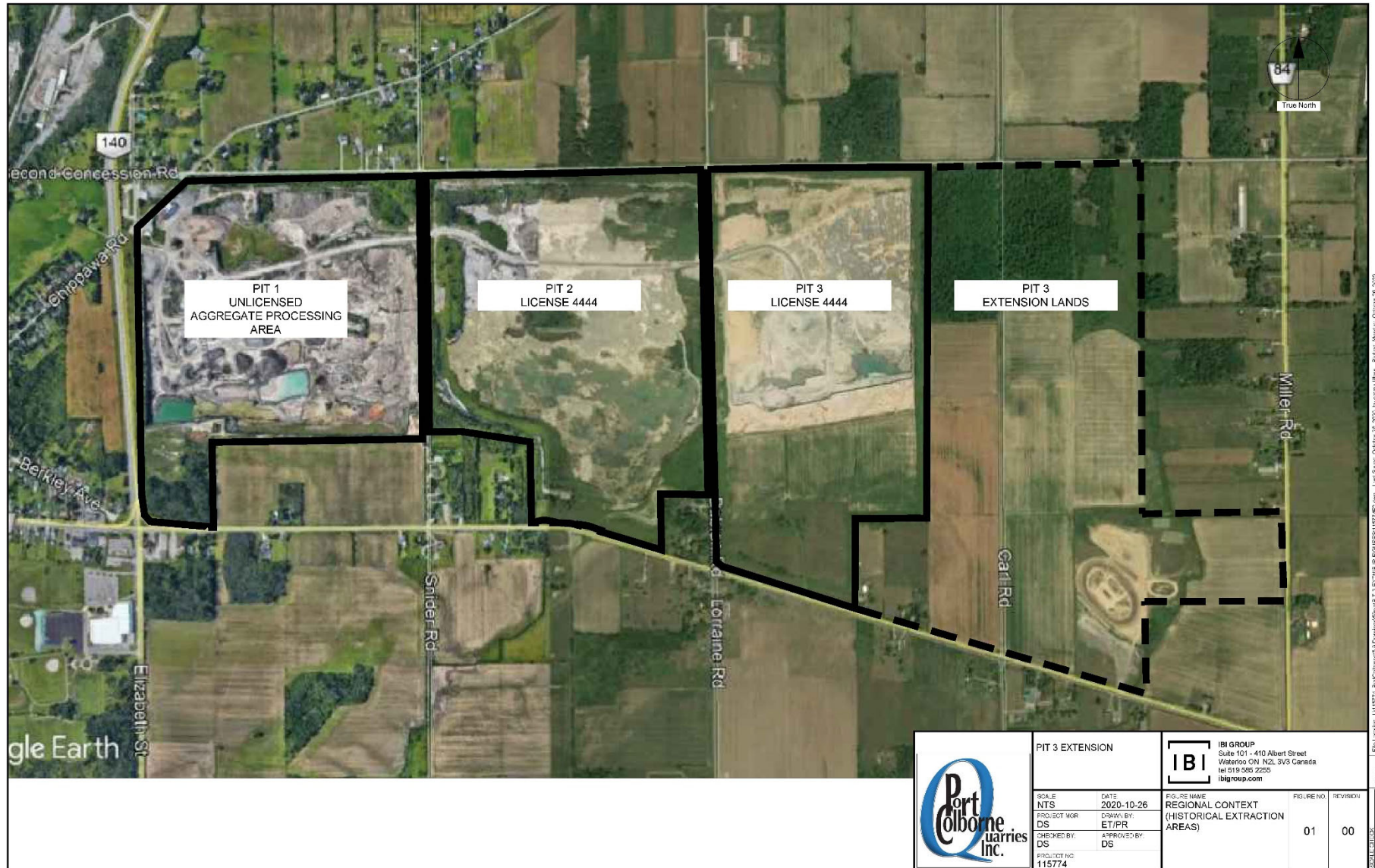
3.1 Pit 1



Pit 1 lands are located adjacent to Highway 140. These lands are not licensed under the *Aggregate Resources Act (ARA)* as full extraction of these lands occurred even prior to its predecessor, the *Pits and Quarries Control Act, (1971)*.

COMPREHENSIVE REHABILITATION STRATEGY
 PIT 1, PIT 2, PIT 3, PIT 3 EXTENSION

Prepared for Port Colborne Quarries Inc.

Figure 1 Regional Context (Historical Extraction Areas)



	PIT 3 EXTENSION		 IBI GROUP Suite 101 - 410 Albert Street Waterloo ON, N2L 3V3 Canada Tel 519 585 2255 ibigroup.com	FIGURE NO.	01
	SCALE	DATE		FIGURE NAME	REVISION
	NTS	2020-10-26		REGIONAL CONTEXT	
				(HISTORICAL EXTRACTION AREAS)	
PROJECT MGR	DS	DRAWN BY:	ET/PR		
CHECKED BY:	DS	APPROVED BY:	DS		
PROJECT NO.	115774				

According to PCQ staff, quarrying initially began on the subject lands sometime between 1954 and 1955 under the ownership of the Grey Nuns. Shortly thereafter, the lands were purchased by Canada Steamship Lines and under their ownership, the level of quarrying activity escalated. It is believed that during the peak production years, the quarry had as many as 60 employees with an annual production in the range of 2 million tonnes. By 1971 when the provincial Pits and Quarries Control Act (P&QCA) came into effect, the site was completely exhausted of its' aggregate reserves and consequently, the site did not get licensed under the aforementioned Act. As such, the Pit 1 reserves were fully extracted in a span 16 years.

An easement in favour of Ontario Hydro traverses the property in a north/south direction including two large towers/pylons which are associated with the hydro line. In the southwest corner of the site is a 5.27 hectare parcel of land that represents a jog in the property boundary. These lands are outside the limits of the former quarry but form part of the overall PCQ land holdings. These lands are undisturbed and are occupied by a grove of trees.

Although fully extracted, these lands continue to be a critical component of the ongoing PCQ operation as currently, aggregate from the PCQ Pit 3 lands are extracted and hauled through Pit 2 into Pit 1 for processing and shipping. The aggregate processing includes crushing, screening, blending and a wash plant including a series of wash ponds located along the site's southern boundary. In addition, dispersed throughout the central portion of the quarry floor are product stockpiles of processed material which, on an on-going basis, are loaded by front-end loaders into awaiting haul trucks. Accessory uses include an office, a scale house and other associated out-buildings.

Since Pit 1 was excavated below the groundwater level, dewatering occurred by lowering the natural groundwater during active extraction so that the site was kept dry by discharged the water off-site. In order to facilitate the ongoing processing operation located on the Pit 1 quarry floor, and to keep the site dry, the dewatering pumps continue to operate.

The current zoning of the lands are as follows:

- MAO Mineral Aggregate Operations
- MAO-38-H Mineral Aggregate Operations permitting concrete manufacturing plant subject to a (H) provision requiring a Site Plan Agreement
- L1-35 Light Industrial permitting a Hotel
- Environmental Protection (pertaining to an identified ANSI - geological formation)

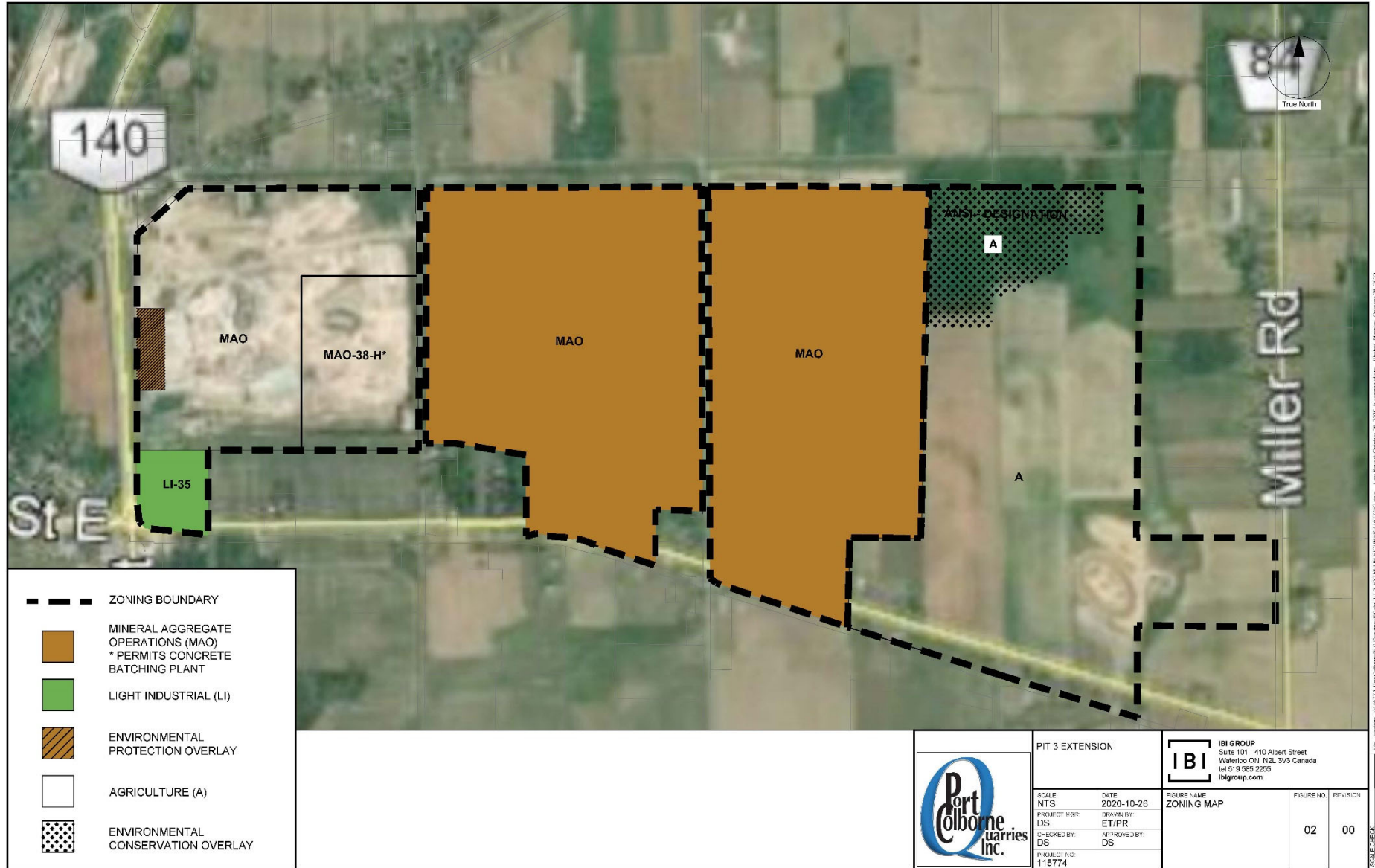
Figure 2 illustrates the zoning provisions for Pit 1. Based on the current site zoning, the active aggregate processing operation properly zoned. In addition, within the area noted, PCQ is also permitted to operate a concrete manufacturing plant, and light industrial uses (including a hotel) at the southern portion of the site.

The reference to the Environmental Protection Area that parallels a portion of the Highway 140 frontage corresponds with an area designated by the Ministry of Natural Resources and Forestry (MNRF) as an Area of Natural or Scientific Interest (ANSI) of the Earth Science category based on a local geological formation. The significance of this ANSI lies in the fact that it is a representative sequence of the Bertie Formation with a major disconformity. The *Earth Science Inventory Checklist* associated with this ANSI dated July 1980, does not indicate the limits/size of the ANSI. Most recent dialogue with MNRF, (winter 2020) specified that on-going protection of the ANSI will require the permanent exposure of the of this portion of the quarry face.

COMPREHENSIVE REHABILITATION STRATEGY
 PIT 1, PIT 2, PIT 3, PIT 3 EXTENSION

Prepared for Port Colborne Quarries Inc.

Figure 2 Zoning Map



Because the subject lands were never licensed under either the Pits and Quarries Control Act or the Aggregate Resources Act, Pit 1 does not have any stipulated progressive and/or final rehabilitation requirements.

The City of Port Colborne has identified a 1982 Site Plan Agreement dealing with the Pit 2 and Pit 3 lands and it does make mention of the subject lands in Clause 23 and Clause 14 is included for context as follows:

Clause 14:

[PCQ] has as a condition of licensing pursuant to the P&QCA, agreed to undertake and maintain a rehabilitation program comprising a passive recreational lake which would only be used by sail boats, canoes and row boats. [PCQ], however, reserve the right to change the type of rehabilitation program subject to concurrence by both the Ministry of Natural Resources and the City of Port Colborne and the resultant amending of this Agreement.

Clause 23:

[PCQ] agrees to the undertaking and maintenance of a rehabilitation program compatible to the program contemplated in Clause 14 of this Agreement for that area west of Snider Road, being Part of Lots 23 and 24 Concession 2.

Notwithstanding this Site Plan Agreement, as part of a Site Alteration Permit application in July 2018, IBI Group provided the following professional planning opinion to the city regarding these clauses:

Clause 23 is requesting that the final land use of Pit 1 be compatible to the final land use of Pits 2 and 3, and the final land use of Pit 2 and 3 (as being described in Clause 14), is proposed to be a passive recreational lake. Of note:

- It is acknowledged that the final land use of Pit 2 and 3 is for a passive recreational lake, (as proposed by the existing ARA approved Site Plans).
- Clause 23 requests that the final land use of Pit 1 should be compatible to the final land use of Pits 2 and 3.

It was our position that compatible is not defined as meaning the same or identical, but rather development that can co-exist in harmony with the surrounding area or co-exist without causing undue adverse impacts on the surrounding properties.

The above noted Site Alteration Permit was to initiate a clean fill program that will allow the Pit 1 to be backfilled back to its' pre-extraction grades in order to accommodate the development of a mixed-use industrial development. Planning for a proposed industrial development was intended to occur in conjunction with the clean fill program and as such, a future Zone Change Application will be required to permit the final land use.

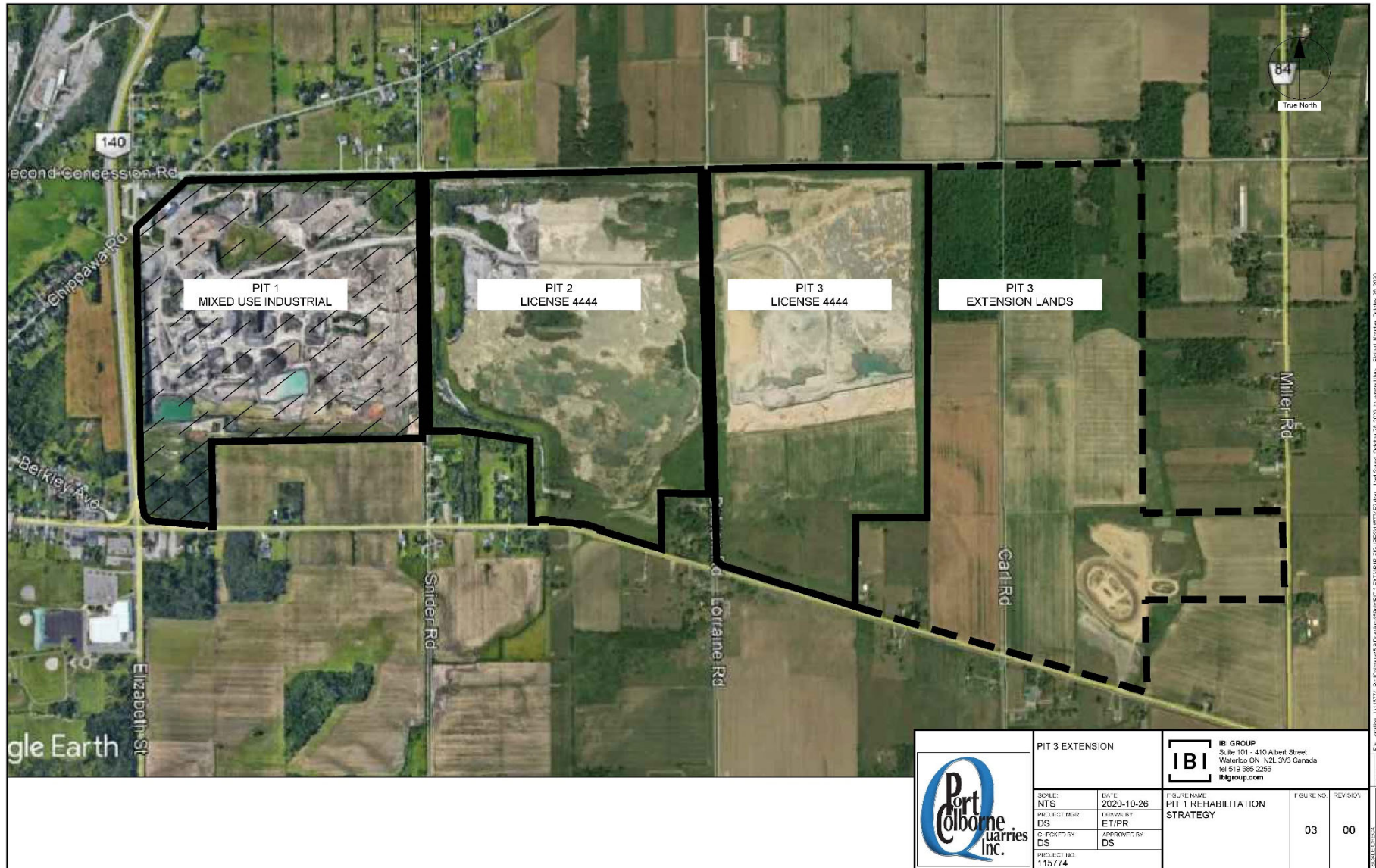
The subject site is well-suited as a mixed-use industrial development as it is within the Region's delineated urban area as identified on Schedule A of the Regional Official Plan and shown as "Industrial" on the City of Port Colborne Official Plan - Schedule A.

The site occupies a prominent location at the intersection of Regional Road 140 and Highway 3, which are key transportation corridors within Port Colborne and the southern Ontario region at large. It is in close proximity to the Welland Canal allowing for additional access and connectivity. Thus in terms of location, the site enjoys direct access to major transportation corridors, while being buffered from existing sensitive uses; making it well-suited for future industrial/employment, yet one which is compatible use with a passive recreational lake to the east.

COMPREHENSIVE REHABILITATION STRATEGY
PIT 1, PIT 2, PIT 3, PIT 3 EXTENSION

Prepared for Port Colborne Quarries Inc.

Figure 3 Pit 1 Rehabilitation Strategy



	PIT 3 EXTENSION		 IBI GROUP Suite 101 - 410 Albert Street Waterloo ON N2L 3V3 Canada tel 519 586 2255 ibigroup.com	FIGURE NAME PIT 1 REHABILITATION STRATEGY	FIGURE NO. 03	REV. NO. 00
	SCALE: NTS	DATE: 2020-10-26				
	PROJECT MGR: DS	DRAWN BY: ET/PR				
	CHECKED BY: DS	APPROVED BY: DS				
PROJECT NO: 115774						

Therefore, the intent of PCQ is that Pit 1 be returned to its' original pre-extraction grade and ultimately be re-zoned for a mixed-use industrial development. To facilitate this, PCQ have met with Regional and City staff (January 21, 2019) to discuss PCQ's providing financial support for a Secondary Plan for these lands to be undertaken by a third party consulting firm under the supervision and leadership of the Region.

In summary, it remains the position of PCQ that the Pit 1 lands be converted to an industrial land use.

3.2 Pit 2

Pit 2 is located immediately east of Pit 1 and specifically between Snider Road (unopened) and Babion Road and totals 73.1 hectares. Pit 2 is licensed under the Aggregate Resources Act as Licence # 4444. Extraction of the site is all but complete. PCQ are aware of approximately 1 MT of reserve remaining within the north-east portion of the site but its' retrieval is problematical and expensive since the previous licensee buried these reserves under overburden.

The Site Plans for Pit 2 are combined with Pit 3 and the Rehabilitation Plan is the same for both, being that of a passive recreational use as a lake.

Because Pit 2 (along with Pit 1 and 3) were/are being excavated below the groundwater level, during active extraction the site was kept dry through 'dewatering' that occurs by lowering the natural groundwater and discharging the water off-site. Today, the dewatering pumps continue to operate in an effort to keep the site dry since the site continues to be used as a haul road to link Pit 3 to Pit 1. Furthermore, it is intended that for several years upon the opening of Pit 3 Extension, the aggregate from those lands will also be hauled through Pit 2 to Pit 1 for processing. Ultimately, PCQ intends to construct a new processing plant within the Pit 3 lands and when that occurs, final rehabilitation and ultimately the surrendering of that portion of Licence 4444 will occur.

Because progressive rehabilitation is a key component of the Aggregate Resources Act and a policy requirement of the PPS, to date, PCQ has created side slopes around the perimeter of the proposed lake and initiated an extensive replanting program above what will be the final shoreline.

Once the dewatering pumps are removed, the site will begin to fill with both groundwater and surface water (i.e. precipitation). Because of the tightness or density of the insitu rock, Golder anticipates it may require **30 to 40 years** for the groundwater to reach equilibrium **for both Pit 2 and Pit 3**. At that stage, the lake will be approximately 12.0 metres deep and be 50 hectares in size.

Refer to Figure 4 illustrating the final Rehabilitation Strategy for Pit 1 and Pit 2.

3.3 Pit 3

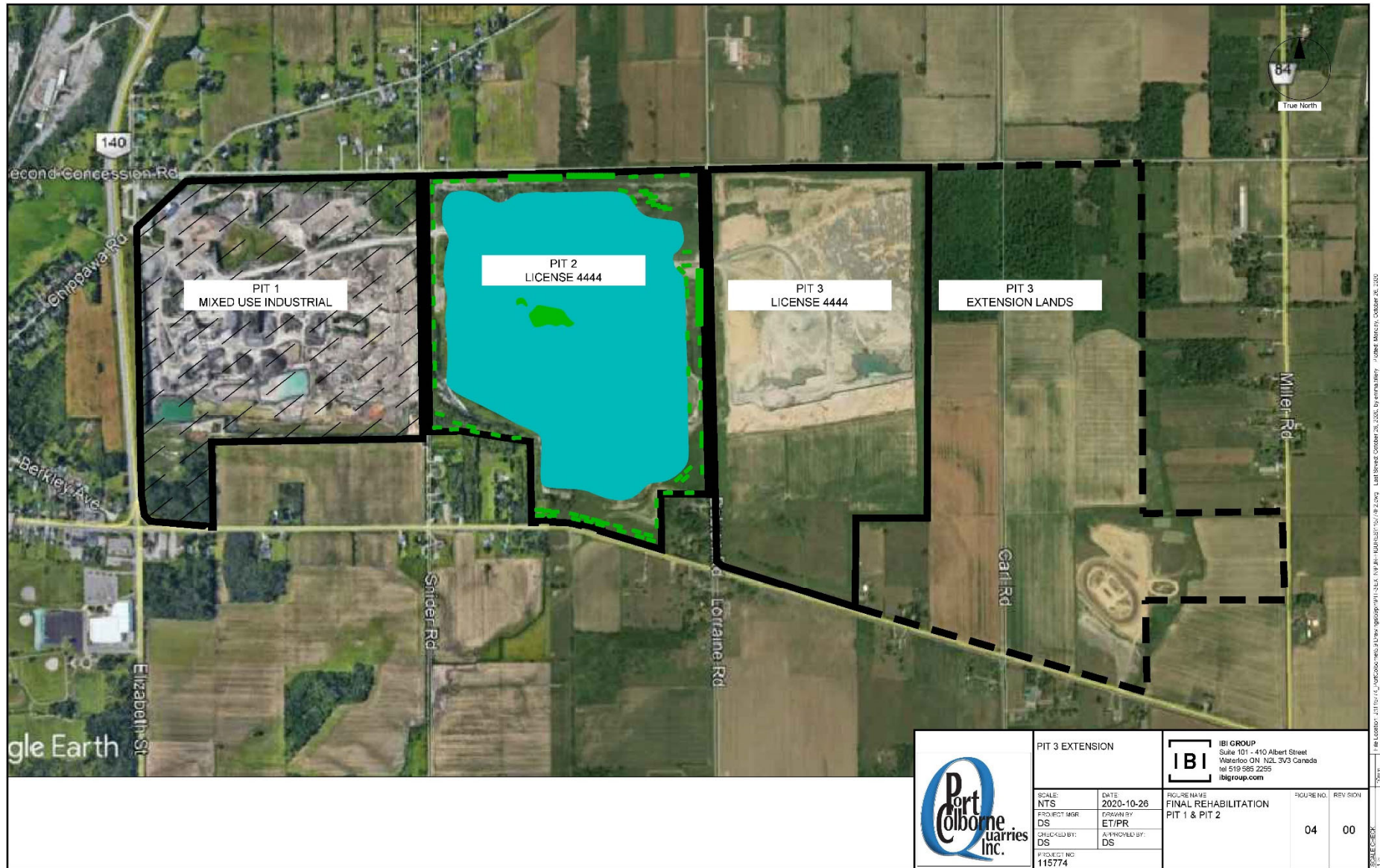
Pit 3 is located immediately east of Pit 2 and specifically east of Babion Road and totals 70.5 hectares. Pit 3 is licensed under the Aggregate Resources Act as Licence # 4444 and extraction is approximately 2/3 complete and is progressing in a north to south direction.



As with Pit 2, Pit 3 is being excavated below the groundwater level and is kept dry through 'dewatering' that occurs by lowering the natural groundwater and discharging the water off-site. Once again, when the dewatering pumps are removed, the site will begin to fill with both groundwater and surface water (i.e., precipitation).

COMPREHENSIVE REHABILITATION STRATEGY
 PIT 1, PIT 2, PIT 3, PIT 3 EXTENSION

Prepared for Port Colborne Quarries Inc.

Figure 4 Final Rehabilitation Pit 1 and Pit 2



	PIT 3 EXTENSION		 IBI GROUP Suite 101 - 410 Albert Street Waterloo ON N2L 3V3 Canada tel 519 585 2255 ibigroup.com	FIGURE NO. 04	REV. SION 00
	SCALE: NTS PROJECT MGR: DS CHECKED BY: DS PROJECT NO: 115774	DATE: 2020-10-26 DRAWN BY: ET/PR APPROVED BY: DS			

To date, PCQ has begun to create side slopes around the northern perimeter of the proposed lake and as extraction continues southward, side sloping and vegetation planting will continue. However, final rehabilitation of Pit 3 will not be able to occur until after the Pit 3 extension is complete. The reasons for this are multiple. The primary reason is that the eastern face of Pit 3 will continue to be excavated eastward at the same general quarry floor elevation. Therefore, the dewatering pumps will need to continue to keep Pit 3 dry. Second, during the initial operation of Pit 3 Extension, the haul trucks will continue to feed the existing processing plant in Pit 1, therefore having to traverse through Pit 3. Lastly, once Pit 3 Extension is established, the processing plant will be relocated from Pit 1 to the Pit 3 quarry floor.

The Rehabilitation Plan for Pit 3 is that the lands are to be rehabilitated to a passive recreational use as a lake. The lake depth will be approximately 12.0 metres deep and total about 117 hectares in size. Subject to the approval of the Pit 3 extension, Pit 3 will extend eastward at the same or similar depth.

4 Proposed Extraction Site

4.1 Pit 3 Extension

The balance of this report will illustrate that the Comprehensive Rehabilitation Strategy will be completed sequentially from Pit 2, to Pit 3 and Pit 3 Extension.

In terms of the Comprehensive Rehabilitation Strategy being completed within a reasonable time, (as per the City of Port Colborne OP Policy 10.2.1) there are several factors which dictate the timing:

- a) The annual tonnage of Pit 2 and Pit 3 is 1,815,00 tonnes. The current market has generally been < 1,000,000 tonnes and as such, the completion of extraction of Pit 2 will require 1-2 years and the completion of Pit 3 will necessitate 5-7 years.
- b) The annual tonnage requested for Pit 3 Extension is 1,000,000 tonnes and with a moderate increase in the current production, the minimum life expectancy of the quarry will be 45 years.
- c) Because the haul route will continue to bisect Pit 2 until the Pit 1 processing plant is relocated into Pit 3, final rehabilitation of Pit 2 (where it begins to fill with water) will be delayed.
- d) Because:
 - i. The Pit 1 processing plant is to be relocated to Pit 3 and remain on the quarry floor until Pit 3 Extension is completed,
 - and
 - ii. Pit 3 Extension will be an eastward continuation of Pit 3 with the same / similar final quarry floor elevation, and because all the lands must be dewatered so that the extraction can occur in a dry environment,the final rehabilitation of Pit 3 (i.e. where it begins to fill with water) will be delayed.
- e) Based on a minimum quarry life of 45 years to ensure land use impacts can be suitably managed, and using progressive rehabilitation throughout the quarry life, rehabilitation of all the subject lands will be completed within this 45-year time line.

Based on the above, the Comprehensive Rehabilitation Strategy will be both i) continuous over the life of the quarry and ii) as rapid as possible since it can't be accelerated due to the above noted factors.

As highlighted above, Pit 3 Extension will be a direct extension of Pit 3 with a similar final quarry floor. Therefore, once Pit 3 Extension is complete and the dewatering pumps removed, both the Pit 3 and Pit 3 Extension lands will begin to fill with water and ultimately become a lake that totals 71 hectares with a varying depth of 8.0 metres to 16.0 metres. Although the ARA stipulates that the maximum steepness of the side slopes is a 2 (horizontal) to 1 (vertical) slope, PCQ is proposing to create variable side slopes that will range from 2:1 to 3:1 and 4:1 thereby creating portions of the site where the side slopes are much more shallow (less steep).

As extraction is completed progressively, moving through the three phases, PCQ will progressively create the side slopes. The side slopes; from the top of the existing grade to the bottom of the quarry floor will be created using:

- i. on-site overburden,
- ii. excess wasted rock/rubble,
- iii. during the final extraction phase, the redistribution of the topsoil/subsoil within the perimeter berms.
- iv. Annual clean-out material from the wash plant ponds

As part of the backfill program, and at the proposed final lake level of 178.0 metres, PCQ will create shallow permanent ponds (wetland enhancement areas) which will provide ecological diversity for both plant life and amphibian species. Once the ponds are constructed, they will be lined with a veneer of clay so as to retain precipitation to become functional without having to wait until the final extraction is completed and the overall lands (177 hectares) fill with water.

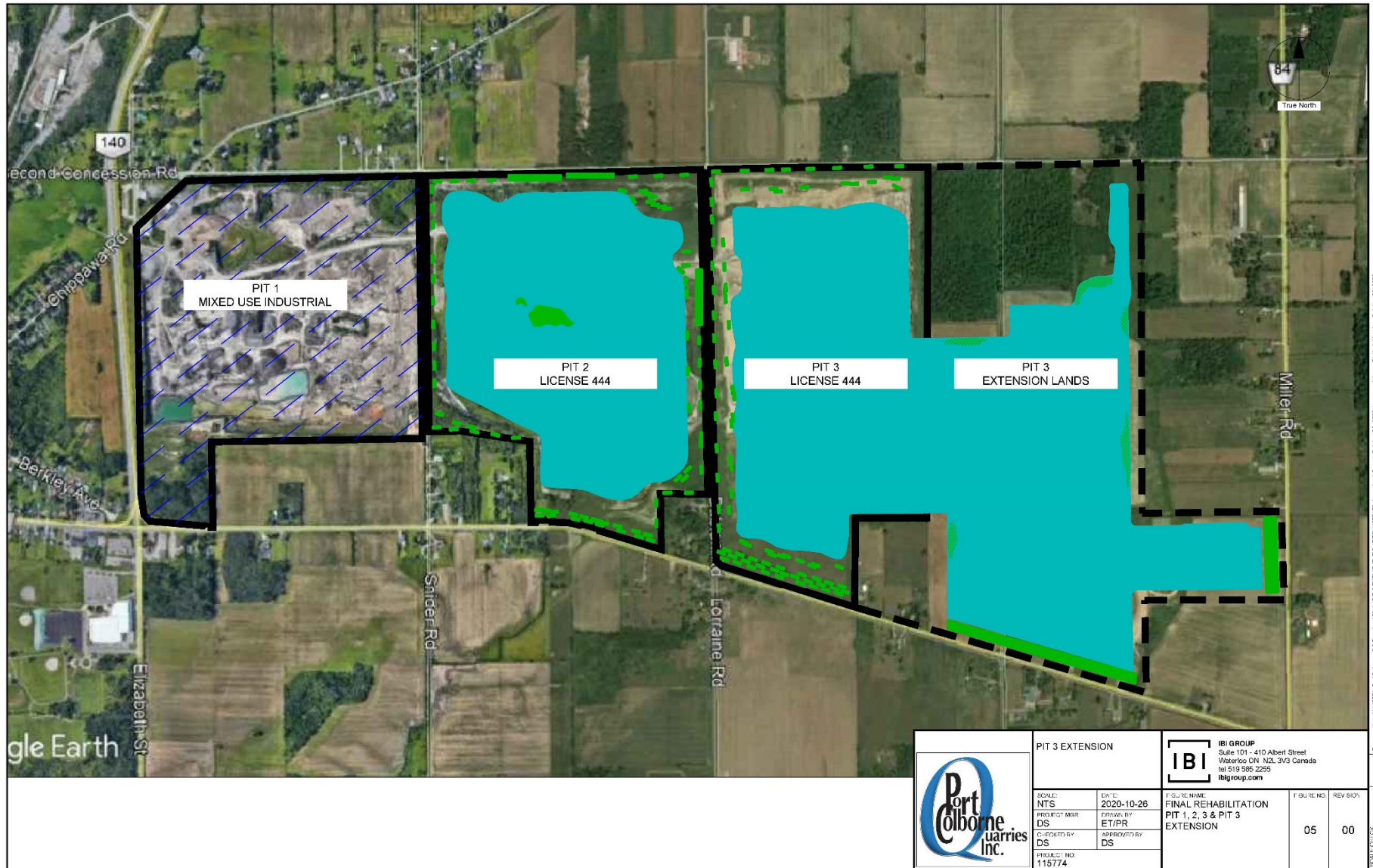
As the slopes are finalized, they will be vegetated with native grass legumes to provide maximum erosion and sedimentation control. Vegetation will also be planted around the ponds and upland along the setback.

Refer to Figure 5 illustrating the final Rehabilitation Strategy for Pit 1, Pit 2, Pit 3 and Pit 3 Extension

COMPREHENSIVE REHABILITATION STRATEGY
 PIT 1, PIT 2, PIT 3, PIT 3 EXTENSION

Prepared for Port Colborne Quarries Inc.

Figure 5 Final Rehabilitation Pit 1, Pit 2, Pit 3, and Pit 3 Extension



	PIT 3 EXTENSION		IBI GROUP Suite 101 - 410 Albert Street Waterloo ON, N2L 3V3 Canada Tel 519 595 2295 ibigroup.com	PROJECT NO. 115774	DATE 2020-10-26	DRAWN BY ET/PR	CHECKED BY DS	PROJECT MGR DS	SCALE NTS	PROJECT NAME FINAL REHABILITATION PIT 1, 2, 3 & PIT 3 EXTENSION	I.G.U. NO. 05	REV. NO. 00
	IBI GROUP FINAL REHABILITATION STRATEGY PIT 1, 2, 3, PIT 3 EXTENSION October 30, 2020 (Revised December 15, 2021)											

5 Current Rehabilitation Plan

Once completed, the PCQ lands will comprise of two lakes, being:

- a) the western lake located between Snider Road and Babion Road will be 50 hectares and,
- b) the eastern lake between Babion Road and Miller Road will be 177 hectares.

At this time, long-term ownership of the lands is intended to remain with PCQ.

6 Timing of Rehabilitation

Based on historical and anticipated extraction levels generated from this site, the following is the anticipated timing of the progressive rehabilitation and final rehabilitation of the various portions of the site. As a qualifier, this timing is heavily dependent on the stability of the aggregate market, timing of approvals for Pit 3 Extension and potentially other unforeseen influences on the provincial, regional and local market.

2030:	Pit 2: Pit 3: Pit 3 Extension:	Aggregate reserves are exhausted. Final excavation being completed and progressive rehabilitation (side slopes) ongoing. Being prepared for extraction.
2035:	Pit 2: Pit 3: Pit 3 Extension:	Dewatering pumps removed and the lake is begins to fill. Processing plant is operational on the quarry floor and the progressive rehabilitation of the side slopes is being completed. In full extraction mode.
2040:	Pit 2: Pit 3 Pit 3 Extension:	Partially full of water to form passive-use lake. Utilized for aggregate processing Active Extraction and progressive rehabilitation of side slopes
2050	Pit 2: Pit 3 Pit 3 Extension:	Passive-use lake. Utilized for aggregate processing Active Extraction and progressive rehabilitation of side slopes
2060	Pit 2: Pit 3 Pit 3 Extension:	Passive-use lake Utilized for aggregate processing Active Extraction and progressive rehabilitation of side slopes
2070	Pit 2: Pit 3 Pit 3 Extension:	Passive-use lake. Utilized for aggregate processing Active Extraction and progressive rehabilitation of side slopes
2080	Pit 2: Pit 3 Pit 3 Extension:	Passive-use lake. Dewatering pumps removed, and lake is beginning to fill. Dewatering pumps removed, and lake is beginning to fill.

7 Long-Term Monitoring

During the life of a licensed pit or quarry, along with self-filing of the annual Compliance Assessment Reports, MNRF staff undertake ongoing audits to ensure the operator remains in compliance with the approved Site Plans, and this includes phasing and progressive rehabilitation. A key component of Phasing is to ensure that as the operator begins a new extraction phase, that progressive rehabilitation is actively occurring in the previous phases in an ongoing manner.

With above water pits and quarries, once substantial portions of a site are progressively rehabilitated, it is possible to request MNRF to inspect those lands and request a surrender of that portion of the licence that has been rehabilitated.

That option is not available for a below water quarry as no final rehabilitation of any portion of the site would practically not be completed until all the lands have been progressively rehabilitated (proposed lake side slopes). However, based on this scenario, upon final extraction of the site is achieved, the amount of rehabilitation left to complete should only be minor.

Once the final 'progressive rehabilitation is accomplished, the licensee would contact MNRF to inspect the site and request full surrender of the licence.

Based on this approach, seldom is it necessary to require monitoring of a site beyond the final extraction period. From a public relations perspective; MNRF, the public and the aggregate industry (i.e. OSSGA) are typically anxious to have such sites not only fully rehabilitated, but the licence surrendered, so that the annual provincial tally of total lands rehabilitated can be showcased. Practically, and as noted above, by the end of the quarry life, the only remaining portion of the site that should necessitate rehabilitation work is the final side sloping of Phase 3. In advance of this, the shoreline should be backfilled and side slope vegetation (ground cover and trees/shrubs) planted.

It may be necessary that some final vegetation may require further monitoring for an extended period of a few years to ensure that if there is any isolated erosion/gully or vegetation die-out, that it is addressed, repaired and replaced as necessary, but beyond that, ongoing monitoring of the site is not being proposed.

There may be some ongoing surface and groundwater monitoring that an approval authority (i.e., Region) may request, but at this time, we are unaware of what those may include.

8 Comprehensive Rehabilitation Strategy

In order to provide a modified option for the Pit 2, Pit 3 and Pit 3 Extension lands, PCQ would suggest the following.

In support of the Niagara Region ROP Policies 6.C.8 and 6.C.9, PCQ would be prepared to examine the possibility of extracting the Babion Road right of way. These lands are owned by the City of Port Colborne which is an opened right-of-way. In further support of the removal of Babion Road, changes to the ARA include stronger support for excavation within a highway right-of-way.

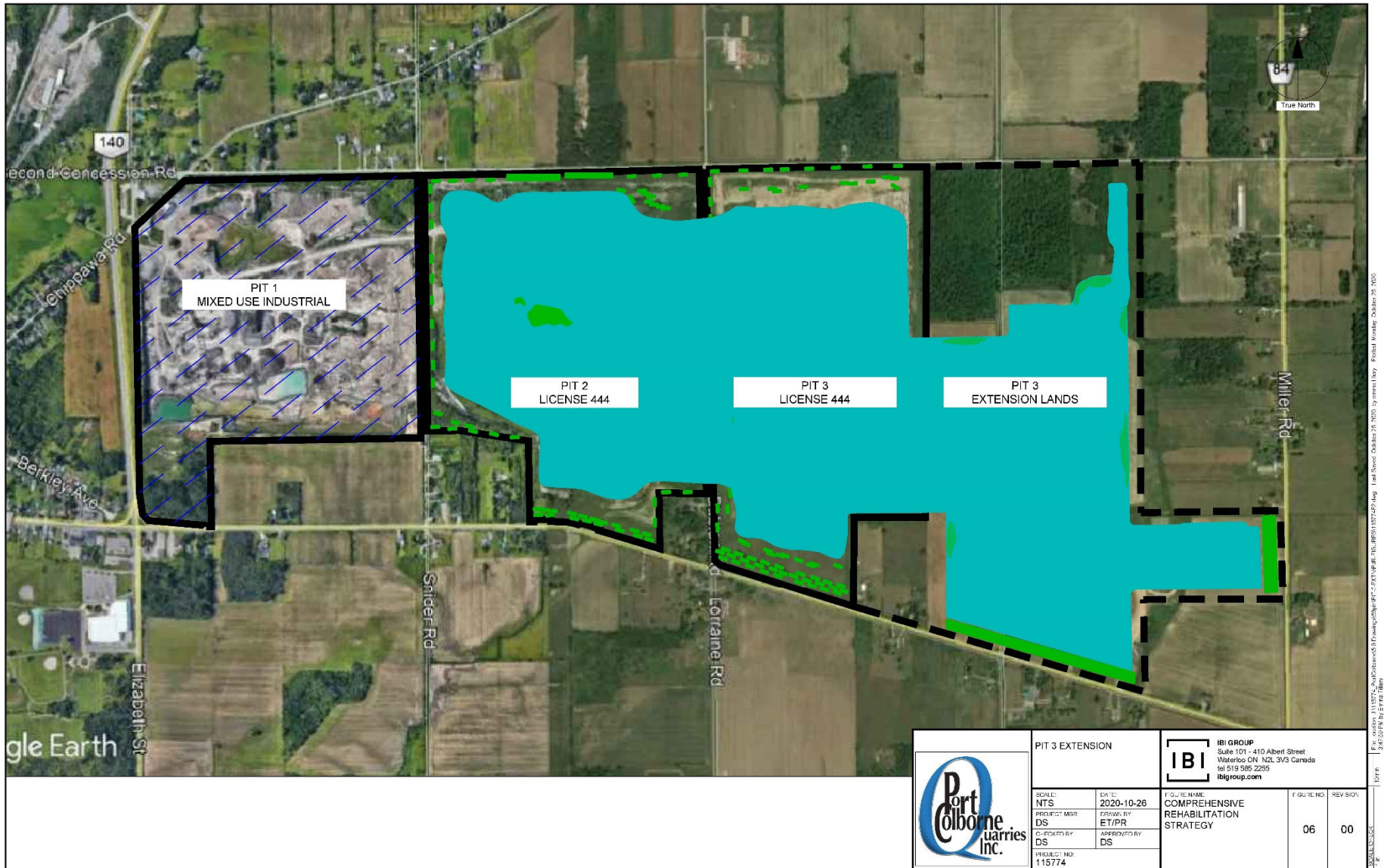
Prior to the removal of dewatering pumps in Pit 2, and based on planning policies at the time, PCQ could consider the removal of Babion Road subject to:



- City of Port Colborne support,

COMPREHENSIVE REHABILITATION STRATEGY
PIT 1, PIT 2, PIT 3, PIT 3 EXTENSION

Prepared for Port Colborne Quarries Inc.

Figure 6 Comprehensive Rehabilitation Strategy



	PIT 3 EXTENSION		 IBI GROUP Suite 101 - 410 Albert Street Waterloo ON N2L 3V3 Canada tel 519 596 2255 ibigroup.com	PROJECT NO. 06	REV NO. 00	
	SCALE: NTS	DATE: 2020-10-26				PROJECT NAME COMPREHENSIVE REHABILITATION STRATEGY
	PROJECT MGR DS	DRAWN BY ET/PR				
	CHECKED BY DS	APPROVED BY DS				
PROJECT NO. 115774						

- A Traffic Impact Study to confirm the full removal of the road would not impact existing traffic patterns,
- A hydrogeological investigation to ensure the linking of the proposed western lake and proposed eastern lake could be supported based on groundwater science.

Based on the above, it is possible that a final rehabilitation design could look similar to what is illustrated on Figure 6.

9 Summary

PCQ owns a large tract of land in the eastern portion of the City of Port Colborne. The lands are divided by two bisecting north/south local municipal roads (Snider Road and Babion Road). The various sub-portions of the overall site have varying licensing approval and therefore varying visions for final rehabilitation. In order to satisfy numerous provincial, regional and local planning policies, PCQ proposes a comprehensive rehabilitation strategy be developed that provides the following;

- Western Lake:** The lands situated between Snider Road and Babion Road be rehabilitated into a passive-use lake that is approximately 50 hectares in size with an eventual final lake depth of 12.0 metres deep. The side slopes of the lake will be 3:1 and vegetated with grass cover and trees/shrubs. Final ownership of the lake will remain with PCQ.
- Eastern Lake:** The lands situated between Babion Road and Miller Road be rehabilitated into a passive use lake that is approximately 177 hectares in size with an eventual final lake depth of 8.0 metres to 16.0 metres deep. The side slopes of the lake will range from 2:1 to 4:1 and vegetated with grass cover and trees/shrubs. Final ownership of the lake will remain with PCQ.

Yours truly

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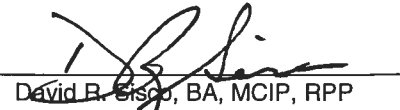
David R. Sisco, BA, MCIP, RPP
Senior Planner

DRS/baw



I hereby certify that this Comprehensive Rehabilitation Strategy was prepared by a Registered Professional Planner, within the meaning of the Ontario Professional Planner's Institute Act, 1994.

Jan. 28th 2022
Date


David R. Sisco, BA, MCIP, RPP