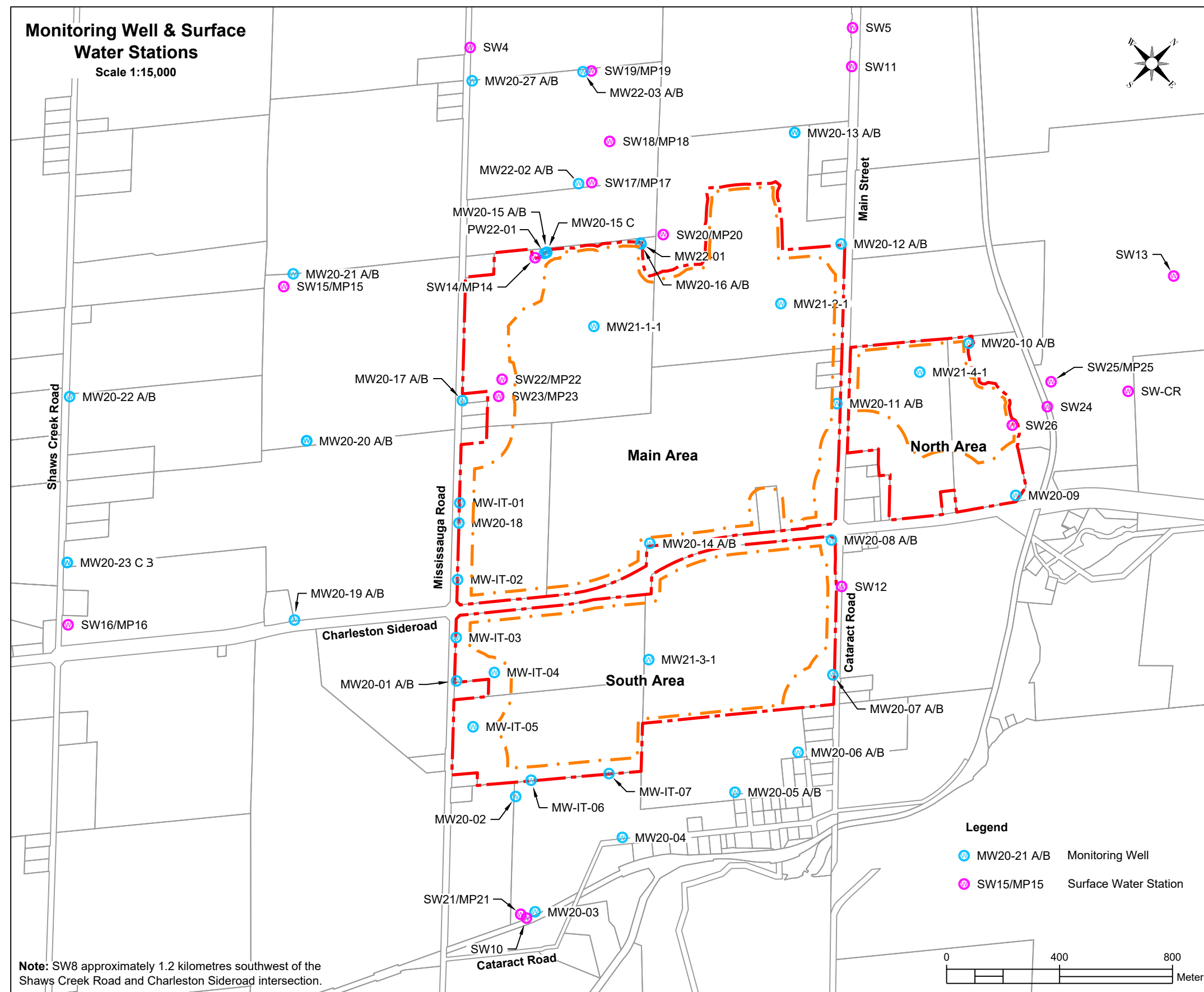
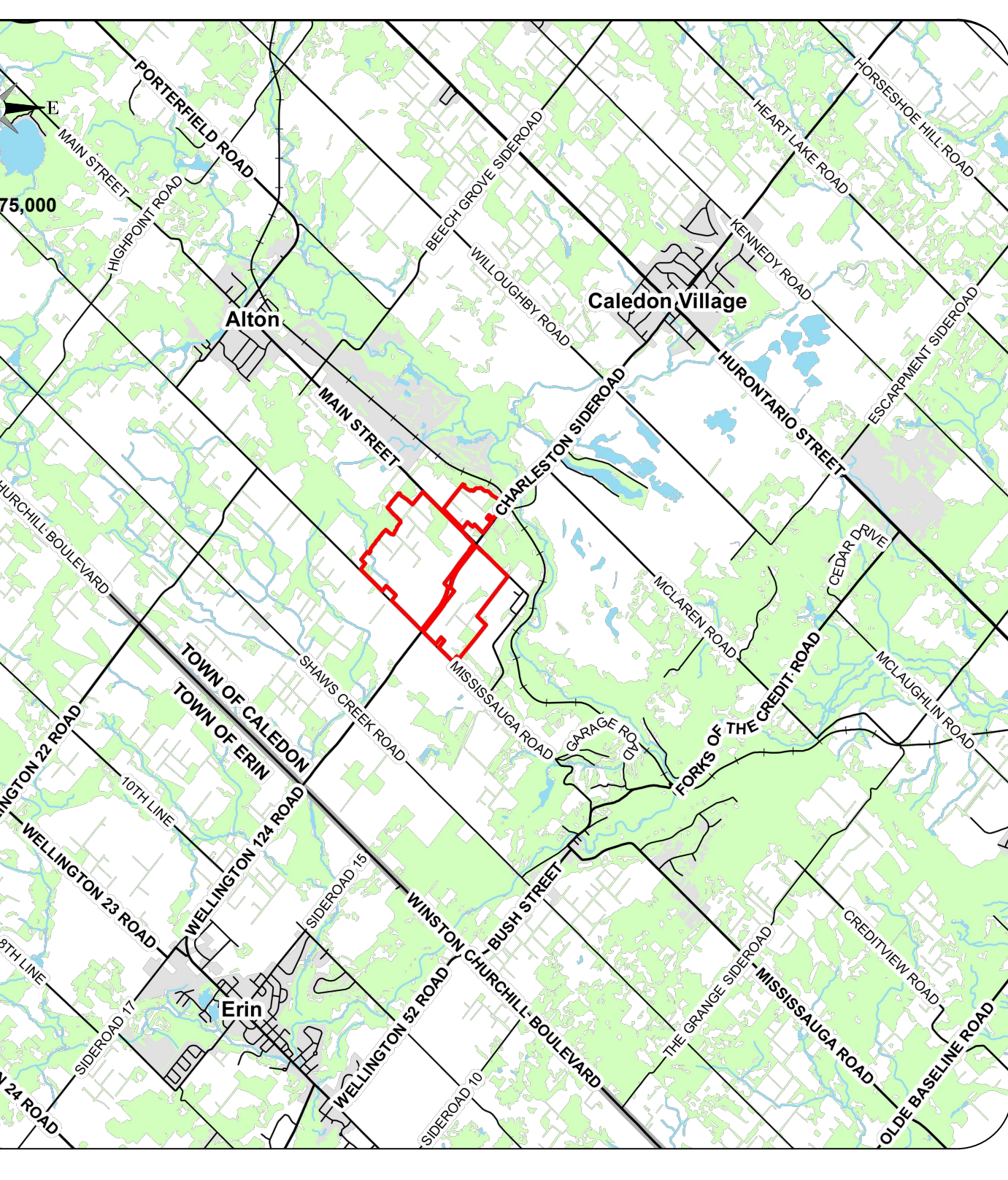
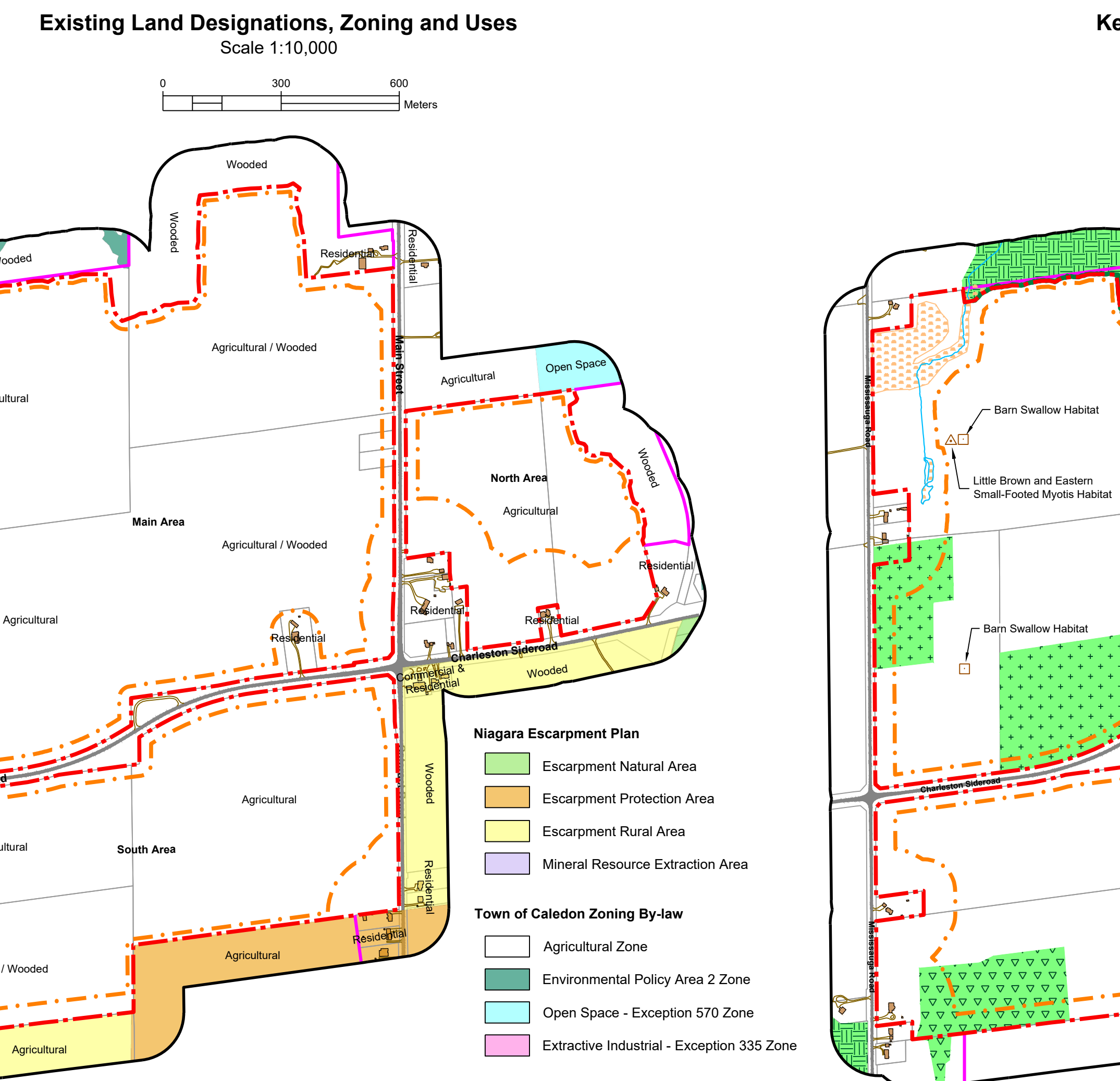


- A. General**
- This site plan is prepared under the Aggregate Resources Act for a Class 'K' licence for a pit and quarry below the ground water table.
 - Area Calculations:
 - 2.1. Licence (total) **261.2 hectares**
 - Main Area 151.5 hectares
 - North Area 90.3 hectares
 - South Area 79.4 hectares
 - Noting and staking coordinates have been provided for select corners of the licence boundaries and at the centre point of every entrance and exit that intersects the licence boundaries on the plan view of this drawing.
- B. References**
- Contours were obtained from First Base Solutions and are displayed in one metre intervals. Elevations shown are in metres above sea level (MASL).
 - Topographic information was obtained from numerous sources including First Base Solutions, Land Information Ontario and field investigations for technical reports.
 - All topographic features and structures are shown to scale in Universal Transverse Mercator (UTM) with North American Datum 1983 (NAD83), Zone 17 (metre), Central Meridian 81 degrees west coordinate system.
 - The Main Area licence boundary was established based on a completed plan of survey completed by Delph & Jenkins North Limited, Ontario Land Surveyors, on February 14, 2022 which utilized the following instruments: Plan 439-3983, 439-1407, 439-2355, 439-1577, 439-1778, 439-401, 439-21423, 439-2743, and instruments RO114474 and RO101483. The North and South Area licence boundaries are based on the Municipal Property Assessment Corporation's parcel files.
 - Existing zoning on and within 120 metres of the licence boundaries are from the Town of Caledon Zoning By-law 2005-50, Schedule 'K', Zone Maps: 64 (last updated August 21, 2015), 74 (last updated March 24, 2016) and 75 (last updated August 21, 2015). The Main Area is currently zoned Agricultural Zone (A1) and Environmental Policy Area 2 Zone (EPA2) while the North and South Areas are currently zoned Agricultural Zone (A1).
 - Existing land use designations within 120 metres of the licence boundaries are from the Niagara Escarpment Plan - Map 4, dated June 1, 2017.
 - Land use information and structures identified on and within 120 metres of the licence boundaries were determined using aerial photography captured in the spring of 2021 from First Base Solutions.
- C. Drainage**
- Surface drainage on and within 120 metres of the licence boundaries is by overland flow in the directions shown by arrows on the plan view, or by infiltration.
- D. Groundwater**
- The maximum predicted groundwater table, based on groundwater levels monitored over a 12 month period from January to December 2021, are as follows:
 - 1.1. Main Area - Ranges from 420.7 to 393.5 masl (north to south)
 - 1.2. North Area - Ranges from 407.0 to 397.3 masl (northwest to southeast)
 - 1.3. South Area - Ranges from 405.3 to 391.0 masl (northeast to south)
 - The maximum predicted groundwater table elevations are shown in each cross section on drawing 1 of 4 and of 4.



- Table 1: On-Site Groundwater and Surface Water Monitoring Program**
- | Name | Type | Northing | Easting | Monitoring Scope |
|-------------|----------|----------|---------|---|
| MW20-01 A/B | Mon Well | 4852268 | 577459 | Water level ¹ |
| MW20-07 A/B | Mon Well | 4853200 | 577360 | Water level ¹ |
| MW20-08 A/B | Mon Well | 4853575 | 578010 | Water level ¹ |
| MW20-09 | Mon Well | 4854157 | 578344 | Water level ¹ |
| MW20-10 A/B | Mon Well | 4854402 | 578658 | Water level ¹ |
| MW20-11 A/B | Mon Well | 4853621 | 577872 | Water level ¹ |
| MW20-12 A/B | Mon Well | 4854321 | 577272 | Water level ¹ |
| MW20-14 A/B | Mon Well | 4853100 | 577075 | Water level ¹ |
| MW20-15 A/B | Mon Well | 4853544 | 576577 | Water level ¹ |
| MW20-16 A/B | Mon Well | 4853907 | 577655 | Water level ¹ |
| MW20-17 A/B | Mon Well | 4852985 | 576722 | Water level ¹ |
| MW20-18 | Mon Well | 4852959 | 577058 | Water level ¹ |
| MW21-1 | Mon Well | 4853485 | 576882 | Water level ^{1,2} |
| MW21-2 | Mon Well | 4854211 | 577273 | Water level ^{1,2} |
| MW21-3 | Mon Well | 4852814 | 577872 | Water level ^{1,2} |
| MW21-4 | Mon Well | 4854211 | 577785 | Water level ^{1,2} |
| MW22-01 | Mon Well | 4853808 | 576762 | Water level ¹ |
| MW22-02 A/B | Mon Well | 4853704 | 576478 | Water level ¹ |
| MW22-03 A/B | Mon Well | 4854076 | 576201 | Water level ¹ |
| MW22-04 | Mon Well | 4853325 | 576574 | Water level ¹ |
| SW14MPP14 | SWMP | 4853506 | 576574 | Water level & temperature ² |
| SW14MPP15 | SWMP | 4853125 | 576800 | Water level & temperature ² |
| SW22MPP22 | SWMP | 4853506 | 576800 | Water level & temperature ² |
| SW23MPP23 | SWMP | 4853506 | 576800 | Water level & temperature ² |
| SW24 | SW | 4854320 | 576155 | TBD by MECF PTTW & ECA Approvals ³ |
| MW17-01 | Mon Well | 4852710 | 577009 | Water level ¹ |
| MW17-02 | Mon Well | 4852918 | 577201 | Water level ¹ |
| MW17-03 | Mon Well | 4852713 | 577246 | Water level ¹ |
| MW17-04 | Mon Well | 4852366 | 577529 | Water level ¹ |
| MW17-05 | Mon Well | 4852196 | 577617 | Water level ¹ |
| MW17-06 | Mon Well | 4852118 | 577886 | Water level ¹ |
| MW17-07 | Mon Well | 4852434 | 576066 | Water level ¹ |
- Table 2: Off-Site Groundwater and Surface Water Monitoring Program**
- | Name | Type | Northing | Easting | Monitoring Scope |
|--------------|----------|----------|---------|----------------------------|
| MW20-02 | Mon Well | 4852158 | 577000 | Water level ^{1,2} |
| MW20-03 | Mon Well | 4851907 | 576244 | Water level ^{1,2} |
| MW20-04 | Mon Well | 4852313 | 576265 | Water level ^{1,2} |
| MW20-05 A/B | Mon Well | 4852713 | 578423 | Water level ^{1,2} |
| MW20-06 A/B | Mon Well | 4852973 | 578474 | Water level ^{1,2} |
| MW20-07 A/B | Mon Well | 4854473 | 578873 | Water level ^{1,2} |
| MW20-08 A/B | Mon Well | 4854473 | 578873 | Water level ^{1,2} |
| MW20-09 A/B | Mon Well | 4852900 | 576907 | Water level ^{1,2} |
| MW20-10 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-11 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-12 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-13 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-14 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-15 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-16 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-17 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-18 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-19 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-20 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-21 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-22 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-23 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-24 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-25 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-26 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-27 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-28 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-29 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-30 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-31 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-32 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-33 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-34 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-35 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-36 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-37 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-38 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-39 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-40 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-41 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-42 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-43 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-44 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-45 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-46 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-47 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-48 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-49 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-50 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-51 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-52 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-53 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-54 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-55 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-56 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-57 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-58 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-59 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-60 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-61 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-62 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-63 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-64 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-65 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-66 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-67 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-68 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-69 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-70 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-71 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-72 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-73 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-74 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-75 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-76 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-77 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-78 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-79 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-80 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-81 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-82 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-83 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-84 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-85 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-86 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-87 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-88 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-89 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-90 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-91 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-92 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-93 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-94 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-95 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-96 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-97 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-98 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-99 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |
| MW20-100 A/B | Mon Well | 4852468 | 576478 | Water level ^{1,2} |



- Legal Description**
Part of Lots 15-18, Concession 4 WSCR and Part of Lot 16, Concession 3 WSCR (former geographic Township of Caledon)
Township of Caledon
Region of Peel
- Legend**
- Licence Boundary
 - Limit of Extraction
 - Contours with Elevation
 - Public Road
 - Driveway
 - Railway
 - Watercourse
 - Watercourse
 - Water Feature
 - Wooded Area
 - Wetland
 - Wetland
 - Additional Land Owned by Licensee
 - 120m Offset From Draft Licence Boundaries
 - Lots and Concessions
 - Parcel Fabric
 - Overhead Hydro
 - Pipeline
 - Fence
 - Entrance / Exit
 - Direction of Surface Drainage
 - Building/Structure
 - Cross Sections
- Legend - Cross Sections**
- Licence Boundary
 - Limit of Extraction
 - Existing Grade
 - Maximum Predicted Water Table
 - Maximum Depth of Excavation
 - Topsail and/or Overburden
 - Aggregate Available for Extraction
- Site Plan Acronyms**
- A - Aggregate Resources Act
 - MECP - Ministry of the Environment, Conservation and Parks
 - MGCS - Ministry of Government and Consumer Services
 - DFO - Department of Fisheries and Oceans Canada
 - MNR - Ministry of Natural Resources and Forestry
 - TSSA - Technical Standards and Safety Authority
 - MTC - Ministry of Tourism, Culture and Sport
 - ECA - Environmental Compliance Approval
 - BMPP - Best Management Practices Plan
 - WWIS - Water Well Information System
 - HIA - Heritage Impact Assessment
 - CVC - Credit Valley Conservation
 - MASL - Metres above sea level
 - PTTW - Permit to Take Water
 - NTS - Not to Scale

Site Plan Amendments

No.	Date	Description	By

Site Plan Revisions (Pre-Licensing)

No.	Date	Description	By

1 August 2023 Revised drawing to incorporate updated technical report recommendations C.P.

No. **Date** **Description** **By**

MHBC Stamp

Brian Zeman
Is authorized by the Ministry of Northern Development, Mines, Natural Resources and Forestry pursuant to Subsection 2(3)(b) of Ontario Regulation 244/97 to prepare and certify site plans.

Christopher Poole
Is authorized by the Ministry of Northern Development, Mines, Natural Resources and Forestry pursuant to Subsection 2(3)(b) of Ontario Regulation 244/97 to prepare and certify site plans.

Applicant

cbm **CBM Aggregates a Division of St. Marys Cement Inc. (Canada)**
55 Industrial Street
Toronto, Ontario
M4G 3W9

VOTORANTIM **ciimentos**

Project **Caledon Pit & Quarry**
18722 Main Street, Caledon, Ontario

MNR Licence Reference No. **626600** **Applicant's Signature**

Plan Scale: 1:5000 (Arch E) **Date** August 2023 **File No.** **8816AF**

Drawn By **C.P.** **Checked By** **B.Z.**

File Name **Existing Features**

Drawing No. **1 of 4**

File Path N:\Bian\8816AF - CBM - Caledon Quarry\Drawings\Site Plan\CAD\8816AF - Site Plan.dwg

A. General

1. Area Calculations
- 1.1. License (total) **261.2 hectares**
- Main Area 131.3 hectares
North Area 30.3 hectares
South Area 99.4 hectares
- 1.2. Limit of Extraction (bott) **199.2 hectares**
- Main Area 128.6 hectares
North Area 16.0 hectares
South Area 59.9 hectares
2. The maximum annual storage is 520,000.
3. The following structures shall be permitted within the Building Location Area identified on the plan view of this drawing:
- | Building | Width | Length | Area |
|---------------------|--------|--------|------------------------|
| Scale House | 3.7 m | 12.2 m | 45.1 m ² |
| Quality Control Lab | 3.7 m | 12.2 m | 45.1 m ² |
| Maintenance Shop | 36.0 m | 45.7 m | 1,627.0 m ² |
| Office | 13.7 m | 18.3 m | 250.7 m ² |
4. The licensee intends to retain ownership or control of additional land containing a house (to the northwest of the Main Area) during the extraction operation which shall be vacated prior to, and remain vacant while, extraction is occurring within 500 metres. Should the house remain occupied or the property sold, the licensee shall notify the MNRF immediately and provide mitigation information to ensure Provincial noise, air, dust and ground vibration limits are satisfied.
5. Table 3 on drawing 3 of 4 identifies the number of sensitive receptors within 500 metres of the licence boundary and the distance from the licence boundary to each receptor.

B. Hours of Operation

1. Activities to prepare the Site, such as the stripping of topsoil, construction of the berms, or activities related to the rehabilitation of the Site after the extraction is completed are considered to be construction activities and are only permitted to occur during the daytime period (7:00am to 7:00pm) Monday to Friday except statutory holidays.
2. Activities for site operations, such as extraction, processing and drilling are permitted to occur during the daytime period (7:00am to 7:00pm) Monday to Saturday, except statutory holidays.
3. Activities related to shipping are permitted from 6:00am to 7:00pm Monday to Saturday, except statutory holidays. Shipping is permitted from 7:00pm to 6:00am only where required to support public authority contracts that necessitate the delivery of aggregates during these hours. Shipping activities from 7:00pm to 6:00am shall be limited to highway trucks and shipping loaders and no other operations shall be permitted.
4. Blasting is permitted from 8:00am to 6:00pm Monday to Friday, except statutory holidays.

C. Site Access and Fencing

1. The existing eastern access point on Charleston Sideroad and the southern access point on Mississauga Road for the Main Area (see shown on drawing 1 of 4) shall be removed during site preparation of the Main Area. The existing western access point on Charleston Sideroad (as shown on the plan view) shall remain to access the CBM Caledon Pit / Quarry office and quality control lab. The northern access point on Mississauga Road (as shown on the plan view) may remain for maintenance purposes only.
2. The two existing access points for the North Area (see shown on drawing 1 of 4) may remain, and shall not be gated, while the North Area is utilized for agricultural purposes (see Section N Variations from Control and Operation Standards). The existing access points on Main Street and Charleston Sideroad (as shown on the plan view) may remain for maintenance purposes only.
3. The four existing access points for the South Area (see shown on drawing 1 of 4) may remain, and shall not be gated, while the South Area is utilized for agricultural purposes (see Section N Variations from Control and Operation Standards). During site preparation of the South Area, the three existing access points on Charleston Sideroad shall be removed. The site access on Mississauga Road (as shown on the plan view) may remain for maintenance purposes only.
4. The main operational entrance/exit is proposed in the location shown on the plan view of this drawing, subject to an agreement with the Region of Peel. See site access information on this drawing.
5. The North and South Areas shall be accessed by tunnels beneath both Main Street and Charleston Sideroad in the locations shown on the plan view of this drawing, subject to an agreement with the Region of Peel (see Section N Variations from Control and Operation Standards). Temporary access points shall be permitted in the North and South Areas to facilitate tunnel construction.
6. The operational, office, quality control lab, maintenance and/or temporary access points shall be kept, gated, closed during hours of non-operation and maintained throughout the life of the licence.
7. Page wire and/or fence fencing, a minimum 1.2 metres in height, shall be erected along the licence boundaries and the perimeter of the cell tower area (see Cell Tower Detail on this drawing) in a phased approach (see Section N Variations from Control and Operation Standards) if the cell tower area is removed, fencing shall be erected along the licence boundary. Prior to site preparation commencing in the Main, North or South Areas, fencing shall be installed along the perimeter of the Main Area.
8. In order to minimize disturbance to existing vegetation, perimeter fencing may be offset up to five metres from the licence boundary (see Section N Variations from Control and Operation Standards). Where perimeter fencing is offset from the licence boundary, the licence boundary shall be demarcated with highly visible 1.5m x 1.5m PVC every 30 metres, or less, to maintain visibility from one T-bay to the next.
9. All fencing shall be maintained for the life of the licence.
10. A sign of at least 0.5 metres by 0.5 metres in size shall be erected and maintained at the operational entrance/exit that says in legible words "This site is licensed under the Aggregate Resources Act license #C20807".

D. Drainage and Siltation Control

1. Drainage of undisturbed areas will continue in the directions shown on drawing 1 of 4.
2. Silt fencing shall be installed in a phased approach. Prior to site preparation commencing in the Main, North or South Areas, silt fencing shall be installed on the exterior side of perimeter berms and along the exterior of significant woodlands as shown on the plan view of this drawing. See Natural Environment note 15 under Section O Technical Recommendations on drawing 3 of 4 for additional information.
3. Silt fencing shall be inspected prior to site preparation activities to ensure it was installed correctly and during extraction operations to ensure that the fencing is being maintained and functioning properly. Any issues that are identified shall be rectified immediately.
4. Silt fencing shall not be removed until re-vegetation and soil stabilization has occurred to limit sedimentation of the setbacks.

E. Site Preparation

1. Existing structure within the licence boundary outside of the Cultural Heritage Potential areas shall be demolished or removed prior to extraction within each Area. Structures within the Cultural Heritage Potential areas shall be subject to the cultural heritage technical recommendations in Section O.4 on drawing 3 of 4.
2. Timber resources shall be salvaged for use as saw logs, fence posts and fire wood where appropriate. Cleared stumps and brush may be burned (with applicable permits), used for aquatics habitat enhancement or mulched for use in progressive rehabilitation.
3. Ensure all requirements for natural environment notes 8 to 9 under Section O Technical Recommendations on drawing 3 of 4 are met, if applicable.
4. Topsoil and overburden shall be stripped and stored separately.
5. Topsoil and overburden shall be placed in intermediate/recessed berms or used immediately for progressive rehabilitation.
6. Excavate topsoil and overburden not required for immediate use in berms or progressive rehabilitation may be temporarily stockpiled within the limit of extraction in the location shown on the plan view of this drawing. Topsoil and overburden stockpiles in this location shall not exceed eight metres in height and may be located within 30 metres of the licence boundary (see Section N Variations from Control and Operation Standards).
7. In situations where access topsoil and overburden has to be temporarily stockpiled outside the area shown on the plan view of this drawing, stockpiles shall be located within the limit of extraction and remain a maximum of 30 metres from the licence boundary and 30 metres from a property with a residential use.
8. Temporary topsoil and overburden stockpiles which remain for more than one year shall have their slopes vegetated to control erosion. Seeding shall not be required if these stockpiles have vegetated relatively in the first year.
9. No topsoil shall be removed from the site (see Section N Variations from Control and Operation Standards).
10. Ensure the cultural heritage and archaeological technical recommendations in Sections O.4 and O.5 on drawing 3 of 4 have been completed for the phase undergoing site preparation, if applicable.

F. Berms and Screening

1. Berms shall not be located within three metres of the licence boundary or cell tower area.
2. Berms shall be a minimum of five metres in height, except for a section of the berm along the western extent of the Main Area, which shall be a minimum of seven metres in height (see plan view for location).
3. Berm side slopes shall not exceed 2:1 (horizontal : vertical).
4. The minimum width of the berm crest shall be two metres.
5. See Typical Acoustic and Visual Berm Detail on this drawing for additional information.
6. Berms shall be located in accordance with visual note 6.c under Section O Technical Recommendations on drawing 3 of 4.
7. Existing vegetation within the setbacks shall be maintained where berms are not required.

G. Site Dewatering

1. Refer to the water technical recommendations in Section O.7 on drawing 3 of 4 for information regarding site dewatering.

H. Extraction Sequence

1. This plan depicts a schematic operations for the property based on the best information available at the time of preparation.
2. Extraction shall occur in eight phases (Phases 1, 2A, 2B, 3, 4, 5, 6 and 7) as shown on the plan view.
3. Notwithstanding the operational and rehabilitation notes, demand for certain products or blending of materials may require minor deviations in the extraction and rehabilitation sequence. Any major deviations from the operations sequence shown shall require approval from the MNRF.
4. Prepare Phase 1 for extraction and ensure all requirements in Sections 'C' through 'G' of this drawing are met.
5. Strip Phase 1 and use the material to construct the perimeter berm for the Main Area.
6. Extract sand and gravel in a northwesterly direction to top of bedrock.
7. Once bedrock is reached, establish facility pad for permanent processing area at an elevation of 387 m a.s.l.
8. Commence quarrying operations through sinking out.
9. Continue extracting the pit and quarry in a northwesterly direction before proceeding in a northwesterly direction.
10. Phase 1 may be extracted to a maximum depth between 384.0 and 382.7 m a.s.l.
11. Progressive rehabilitation shall consist of backfilling the southeast and northeast phase boundary to establish the final elevations and grades depicted on the plan view for drawing 4 of 4.
12. Prepare Phases 2A and 2B for extraction and ensure all requirements in Sections 'C' through 'G' of this drawing are met.

5. Phases 2A

- 5.1. Strip Phase 2A and use the material to construct the perimeter berm for the North Area, for progressive rehabilitation in Phase 1 or temporarily stockpile the material in the topsoil and overburden stockpile area.
- 5.2. Extract pit and quarry in a northwesterly direction before proceeding in a southwesterly direction.
- 5.3. Phase 2A may be extracted to a maximum depth between 387.2 and 382.7 m a.s.l.
- 5.4. Establish tunnel beneath Main Street to connect with Phase 2B.
- 5.5. Progressive rehabilitation shall consist of backfilling a portion of the phase to pre-extraction grades as well as the side slopes to establish the final elevations and grades depicted on the plan view of drawing 4 of 4.

6. Phase 2B

- 6.1. Strip Phase 2B and use the material for progressive rehabilitation in Phases 1 and 2A or temporarily stockpile the material in the topsoil and overburden stockpile area.
- 6.2. Create sinking out to establish tunnel beneath Main Street to connect with Phase 2A.
- 6.3. Extract pit and quarry in a northwesterly direction before proceeding in a northwesterly direction.
- 6.4. Phase 2B may be extracted to a maximum depth between 383.3 and 385.0 m a.s.l.
- 6.5. Progressive rehabilitation shall consist of backfilling the side slopes and quarry floor to establish the final elevations and grades depicted on the plan view of drawing 4 of 4.
- 6.6. Prepare Phase 3 for extraction and ensure all requirements in Sections 'C' through 'G' of this drawing are met.

7. Phase 3

- 7.1. Use the topsoil and overburden stockpiled in Phase 3, as well as the existing material, for progressive rehabilitation in Phases 2A and 2B.
- 7.2. Construct a slurry wall / grout zone in the southwest setback of the Main Area prior to extraction in Phase 3.
- 7.3. Extract pit and quarry in a southwest direction.
- 7.4. Phase 3 may be extracted to a maximum depth between 383.9 and 386.8 m a.s.l.
- 7.5. Progressive rehabilitation shall consist of backfilling a portion of the phase to pre-extraction grades and side sloping to establish the final elevations and grades depicted on the plan view of drawing 4 of 4.
- 7.6. Prepare Phase 4 for extraction and ensure all requirements in Sections 'C' through 'G' of this drawing are met.

8. Phase 4

- 8.1. Use the topsoil and overburden stockpiled in Phase 4, as well as the existing material, for progressive rehabilitation in Phases 2A, 2B, 3, 4 and backfilling the tunnel beneath Main Street.
- 8.2. Construct infiltration trenches in the southwest setback of the Main Area prior to extraction in Phase 4.
- 8.3. Extract pit and quarry in a southwest direction before proceeding in a northwesterly direction.
- 8.4. Phase 4 may be extracted to a maximum depth between 382.3 and 385.9 m a.s.l.
- 8.5. Progressive rehabilitation shall consist of backfilling a portion of the phase to pre-extraction grades as well as side slopes to establish the final elevations and grades depicted on the plan view of drawing 4 of 4.
- 8.6. Prepare Phase 5 for extraction and ensure all requirements in Sections 'C' through 'G' of this drawing are met.

9. Phase 5

- 9.1. Strip Phase 5 and use the material for progressive rehabilitation in Phases 4 and 5 and any other areas requiring backfilling within the Main Area. Any remaining topsoil and overburden shall be used for the future progressive rehabilitation in Phases 6 and 7.
- 9.2. Extract pit and quarry in a northwesterly direction.
- 9.3. Phase 5 may be extracted to a maximum depth between 380.9 and 384.7 m a.s.l.
- 9.4. Progressive rehabilitation shall consist of backfilling the side slopes (where applicable) to establish the final elevations and grades depicted on the plan view of drawing 4 of 4.
- 9.5. A portion of the quarry floor in the southwest corner of Phase 5 shall remain vertical (see Section N Variations from Control and Operation Standards). The exposed rock face will be approximately 128 metres in length.
- 9.6. Prepare Phase 6 for extraction and ensure all requirements in Sections 'C' through 'G' of this drawing are met.

10. Phase 6

- 10.1. Strip Phase 6 and use the material to construct the perimeter berm for the South Area or temporarily stockpile for future use with progressive rehabilitation.
- 10.2. Construct slurry wall / grout zone and infiltration trenches in the southwest and southeast setback of the South Area prior to extraction in Phase 6.
- 10.3. Create sinking out to establish tunnel beneath Charleston Sideroad to connect with Phase 1.
- 10.4. Extract pit and quarry in a southwesterly direction.
- 10.5. Phase 6 may be extracted to a maximum depth between 385.0 and 391.4 m a.s.l.
- 10.6. Progressive rehabilitation shall consist of backfilling the quarry floor and side slopes to establish the final elevations and grades depicted on the plan view for drawing 4 of 4.
- 10.7. Prepare Phase 7 for extraction and ensure all requirements in Sections 'C' through 'G' of this drawing are met.

11. Phase 7

- 11.1. Strip Phase 7 and use the material for progressive rehabilitation in Phases 6 and 7.
- 11.2. Extract pit and quarry in a southwesterly direction before proceeding in a southwesterly direction.
- 11.3. Phase 7 may be extracted to a maximum depth between 381.3 and 386.8 m a.s.l.
- 11.4. Extract facility pad in Main Area.
- 11.5. Progressive rehabilitation shall consist of backfilling the quarry floor (including tunnel) and side slopes (where applicable) to establish the final elevations and grades depicted on the plan view of drawing 4 of 4.
- 11.6. Upon completion of extraction in Phase 7, the slurry wall adjacent to the infiltration trenches in the southwest and southeast corner of the South Area shall be excavated and backfilled with sand.
- 11.7. A portion of the quarry face in the southwest and southeast corner of Phase 7 shall remain vertical (see Section N Variations from Control and Operation Standards). The exposed rock face will be approximately 465 metres in length. Two access points (one 2.1 slope from the existing grade to the final quarry face shall be provided in the locations shown on the plan view of drawing 4 of 4. The access points shall be backfilled with highly permeable sandy material (10-5) or un-compacted 18 (10-6). Should un-compacted 18 be utilized, the access points shall not exceed 30 metres in width.

L. Extraction Details

1. All trees within five metres of the excavation face inside the limit of extraction shall be removed.
2. The maximum height of a lift within the pit shall not be greater than 1.5 metres above the highest reaching excavating equipment being utilized on-site.
3. The maximum height of a lift within the quarry shall be 25 metres.
4. The maximum depth of material below top of bedrock in Phase 1 is approximately 27 metres. Areas of Phase 1 that are less than 25 metres in depth shall be extracted in one lift while areas greater than 25 metres in depth shall be extracted in two lifts.
5. The maximum depth of material below top of bedrock in Phase 2A is approximately 26 metres. Areas of Phase 2A that are less than 25 metres in depth shall be extracted in one lift while areas greater than 25 metres in depth shall be extracted in two lifts.
6. The maximum depth of material below top of bedrock in Phase 2B is approximately 14 metres and shall be extracted in one lift.
7. The maximum depth of material below top of bedrock in Phase 3 is approximately 27 metres. Areas of Phase 3 that are less than 25 metres in depth shall be extracted in one lift while areas greater than 25 metres in depth shall be extracted in two lifts.
8. The maximum depth of material below top of bedrock in Phase 4 is approximately 27 metres. Areas of Phase 4 that are less than 25 metres in depth shall be extracted in one lift while areas greater than 25 metres in depth shall be extracted in two lifts.
9. The maximum depth of material below top of bedrock in Phase 5 is approximately 25 metres and shall be extracted in one lift.
10. The maximum depth of material below top of bedrock in Phase 6 is approximately 16 metres and shall be extracted in one lift.
11. The maximum depth of material below top of bedrock in Phase 7 is approximately 16 metres and shall be extracted in one lift.
12. Extraction may occur concurrently in Phases 2A and 2B.
13. Extraction shall be permitted in two phases simultaneously to allow for transition between phases.
14. Blasting shall be permitted daily Monday to Friday (during the hours specified in note 8.4 on this drawing). However, it is anticipated that the frequency of blasts will typically be two blasts per week.
15. As excavation reaches the limit of extraction or maximum depth, progressive rehabilitation shall commence.
16. Aggregate stockpiles (including recyclable material) shall be located within the limit of extraction and remain a minimum of 30 metres from the licence boundary and 30 metres from a property with a residential use.
17. Berms that encroach within the limit of extraction shall be removed, and the underlying aggregate may be extracted, as part of final extraction/rehabilitation of the site.
18. Internal haul road locations will vary on the pit and quarry face as extraction progresses.

J. Equipment and On-site

1. Equipment used on-site may include jaw crushers, excavators, bulldozers, skid steers, screeners, conveyors, hoppers, mobile cone crushers, drill rigs, generators, front end loaders, shipping loaders, shipping trucks, haul trucks, and water trucks.
2. Processing equipment shall remain a minimum of 30 metres from the licence boundary and 90 metres from a property with a residential use.
3. Processing equipment will initially be portable and shall be situated in the location identified on the Noise Mitigation Schematic on drawing 3 of 4. As operations progress and the top of bedrock is exposed, a permanent processing plant will be constructed within the facility pad area as shown on the plan view of this drawing. Once the permanent processing plant is operational, the temporary processing plant shall be dismantled. A permanent processing plant will be constructed in the South Area once enough area is extracted within Phase 6. Once the permanent processing plant in Phase 6 is operational, the permanent processing plant on the facility pad in Phase 1 shall be dismantled and the material beneath it extracted.

K. Fuel Storage

1. Fuel storage tanks shall be located in close proximity to the maintenance shop. Fuel storage tanks shall be installed and maintained in accordance with the Technical Standards and Safety Act and Liquid Fuels Regulation 21701.
2. All fuel tanks shall be double sided or placed in containment facilities large enough to hold the tanks maximum volume.
3. Fuel trucks shall be used to transfer fuel to on-site equipment in accordance with the Liquid Fuels Handling Code.
4. A Spills Contingency Plan shall be prepared and implemented prior to site preparation. The Spills Contingency Plan shall be available on-site and all employees and contractors shall be informed and required to comply with the plan.

L. Scrap and Recycling

1. Scrap may be stored on-site and shall be removed on an on-going basis.
2. Scrap shall only include material generated directly as a result of the aggregate operation such as rebar, debris, scrap metal, lumber, discarded machinery, equipment and motor vehicles.
3. All fluids shall be drained from any discarded equipment, machinery or motor vehicle prior to storage and disposed of in accordance with the Environmental Protection Act.
4. Scrap shall not be stored within 30 metres of any body of water, or the licence boundary, and shall be kept in close proximity to the main processing plant.
5. Recycling of concrete shall be permitted on-site.
6. Recyclable material shall be kept in close proximity to the main processing plant.
7. Rebar or other structural metal shall be separated from recyclable aggregate material during processing and placed in a designated scrap pile on-site which shall be removed on an on-going basis.
8. Recycled aggregate shall be removed on an on-going basis.
9. Recycling activities shall not interfere with the operational phases of the site or with rehabilitation.
10. Once the site is depleted, no further processing of recyclable material shall be permitted.
11. Once final rehabilitation has been completed and approved in accordance with the site plan, all recycling operations shall cease.
12. The site shall be kept in an orderly condition.

M. Maximum Disturbed Area

1. The maximum disturbed area is 95.5 hectares. Disturbed areas shall include active extraction areas, stockpile areas, internal haul routes, areas being progressively rehabilitated and berms until they are vegetated. Areas that have been side-sloped and vegetated, and the adjacent un-vegetated or flooded wooded quarry floor (e.g. stockpiles and equipment removed), shall not constitute disturbed areas.

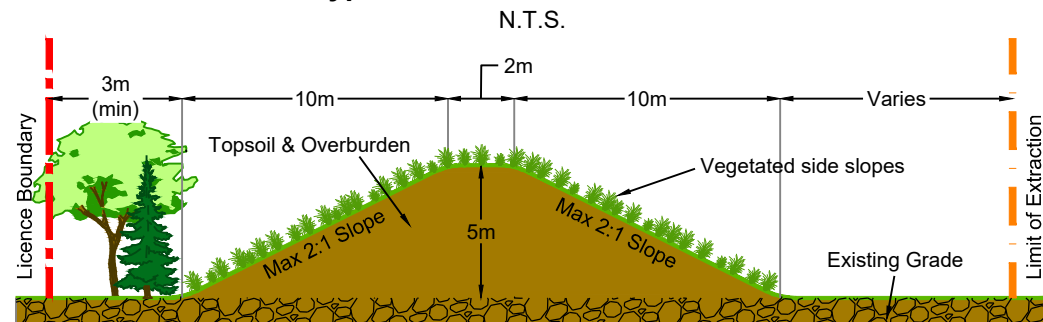
N. Variations from Control and Operation Standards

Section 6.15 Standards	Variation	Rationale
(1) 1 & 2	1. A gate shall not be required for the tunnel crossings. 2. Gates shall not be required in an Area that is not currently undergoing site preparation.	1. The tunnel crossings are beneath the road allowance. Therefore, access is already restricted. 2. This will enable agricultural operations to continue without being impeded.
(1) 3	A clear view of the road in both directions shall not be provided at the tunnel crossings.	The tunnel crossings are beneath the road allowance. Therefore, visibility in both directions is not possible.
(1) 9 & 10.1A	1. Excavation may occur within the setback at the tunnel crossings. 2. Excavation may occur within the setbacks where the groundwater infiltration trenches and slurry walls are located.	1. This will facilitate construction associated with the tunnel crossings. 2. This will facilitate construction associated with the groundwater infiltration trench and slurry wall.
(1) 11	1. Aggregate / overburden may be removed from the setback at the tunnel crossings. 2. Aggregate / overburden may be removed from the setbacks where the groundwater infiltration trenches are slurry walls are located.	1. This will facilitate construction associated with the tunnel crossings. 2. This will facilitate construction associated with the groundwater infiltration trench and slurry wall.
(1) 13.1	Topsoil and overburden within the Topsoil and Overburden Stockpile Area may be stockpiled within 30 metres of the licence boundary.	The "Topsoil and Overburden Stockpile Area" is adjacent to additional land owned by the licensee.
(1) 17	Topsoil and/or overburden may be transferred between the pit and quarry excavation areas.	This will allow stripped material from site preparation to be used for berm construction, progressive rehabilitation and/or temporary stockpiled in any Area.
(1) 19.1 & 19.1A	1. The minimum side slope within the sand and gravel deposit areas shall be 2:1. 2. A portion of the extraction face shall remain vertical in the southwest corner of Phase 5 and the southwesterly corner of Phase 7.	1. This will enable agricultural production to continue with minimal disruption and accounts for the long life expectancy of the operation. 2. Leaving a portion of the extraction face in Phases 5 and 7 vertical will meet the water mitigation requirements.
(2) (a)	1. Fencing shall be installed in a phased approach. 2. Fencing may be offset up to five metres from the licence boundary. 3. Fencing shall be installed around the perimeter of the cell tower area.	1. This will minimize the removal of existing trees to accommodate the permanent fencing. 3. It is the responsibility of the cell tower operator to control access to the area in a manner that they deem appropriate.

Site Plan Acronyms

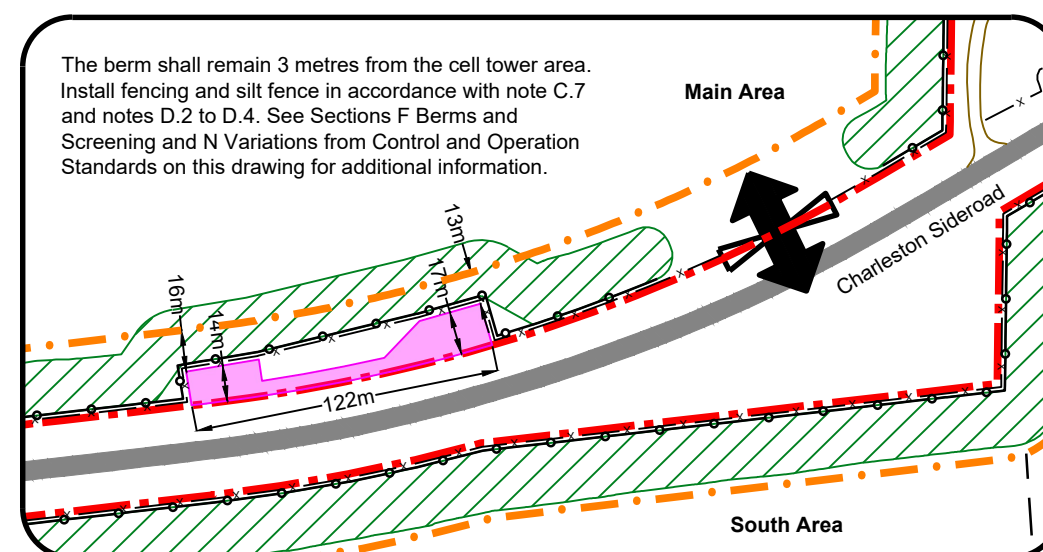
- ARA - Aggregate Resources Act
- MECP - Ministry of the Environment, Conservation and Parks
- MGCS - Ministry of Government and Consumer Services
- DFO - Department of Fisheries and Oceans Canada
- MNRF - Ministry of Natural Resources and Forestry
- TSSA - Technical Standards and Safety Authority
- MTCS - Ministry of Tourism, Culture and Sport
- ECA - Environmental Compliance Approval
- BMP - Best Management Practices Plan
- WWIS - Water Well Information System
- HIA - Heritage Impact Assessment
- CVC - Credit Valley Conservation
- MASL - Metres above sea level
- PTTW - Permit to Take Water
- NTS - Not to Scale

Typical Acoustic & Visual Berm



Cell Tower Detail

Scale - 1:3000



Legal Description

Part of Lots 15-18, Concession 4 WSCR and Part of Lot 16, Concession 3 WSCR (former geographic Township of Caledon)
Township of Caledon
Region of Peel

Legend

	Licence Boundary		Additional Land Owned by Licensee
	Limit of Extraction		120m Offset From Licence Boundary
	Contours with Elevation		Pipeline Enbridge Gas Inc.
	Public Road		Fence 1.2 m post & wire fence unless otherwise noted
	Driveway		Silt Fence
	Railway		Main Discharge
	Entrance / Exit Operational Access		Secondary Discharge (Discharge not to exceed existing surface water flow)
	Entrance / Exit Office and Maintenance Access		Berm (with 2:1 side slopes) 5.0 m in height except for section along the western extent of the Main Area identified as 1.0 m on the plan view
	Tunnel Crossing		General Direction of Excavation & Boundary
	Gate		Building/Structure
	Watercourse Permanent (Direction of flow indicated by arrows)		Topsoil & Overburden Stockpile Area (Maximum Height 8.0 m)
	Watercourse Intermittent (Direction of flow indicated by arrows)		Facility Pad and Building Location Area
	Water Feature		Archaeological Protection Area (including 70 metre buffer)
	Wooded Area		Infiltration Trench
	Wetland MNRF Evaluated - Other		Slurry Wall
	Wetland MNRF - Un-evaluated		Spot Elevation Top - Existing (MASL) / Middle - Water Table (MASL) Bottom - Maximum Depth of Extraction (MASL)
	Visual Planting Area		Cross Sections

Site Plan Amendments			
No.	Date	Description	By

Site Plan Revisions (Pre-Licensing)			
1	August 2023	Revised drawing to incorporate updated technical report recommendations	C.P.
No.	Date	Description	By

0. Technical Recommendations

A. Air Quality

- Land that is currently in agricultural production, and not required for immediate extraction and site preparation, shall be kept in agricultural production for as long as is practicable.
 - The licensee shall implement any programs involving the local agricultural community, and as part of the annual Compliance Assessment Report, shall provide information to MNRF on the nature of the complaint and actions taken by the licensee to address the issue.
- ### B. Blasting
- All quarry blasts shall be monitored at the closest residences in front of and behind the blast for ground and air vibration effects to ensure compliance with the current MECP guideline limits.
 - All quarry blasts shall be monitored within 300 metres of the nearest pipeline on the ground above that pipeline to ensure compliance with ENDSO's ground vibration limits.
 - All quarry blasts shall be monitored within 300 metres of the farmhouse and barn located at 18722 Main Street, the farmhouse located at 18601 Mississauga Road, the farmhouse located at 18667 Mississauga Road and the house (to be converted to office/warehouse during operation) located at 1420 Charleston Sideroad to ensure compliance with the ground vibration limit of 50 mm/s. Once the farmhouse(s) located at 18601 Mississauga Road and 18667 Mississauga Road is relocated outside of the license area, all quarry blasts shall be monitored to ensure compliance with the current MECP guideline limits. See cultural heritage technical recommendations Section 0.4 for additional information.
 - The vibration monitoring shall be carried out by an independent third-party engineering firm with expertise in blasting and monitoring.
 - Notification shall be provided to ENbridge when blasting operations within 300 metres of the pipeline.
 - No extraction within 30 metres of the pipeline without authorization from ENbridge.
 - Blasting shall be carried out by persons experienced, trained and qualified to conduct blasting operations.
 - The licensee shall establish a blasting notification program for residents within 500 metres.
 - Blasting shall not occur on Saturday, Sunday and on statutory holidays.
 - If there are exceedances of the vibration limits, blast design parameters shall be altered to bring results back into compliance.
 - When blasting with approximately 440 metres of adjacent residences, the quarry shall regularly report blast procedures in conjunction with the blast monitoring results to assess if it is necessary to modify blast design parameters of the blasts.

- Blasting procedures, such as drilling and loading, shall be reviewed annually and modified as required to ensure compliance with safety standards.
- The licensee shall maintain 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 MNRF and the MECP, upon written request. The blasting reports shall include the following information:
 - Location, date and time of the blast.
 - Diversified detail including photographic, if necessary, of the location of the blasting operation, and nearest point of reception.
 - Physical and topographical description of the ground between the source and the receptor location.
 - Type of material being blasted.
 - Weight of explosive used.
 - Prevailing meteorological conditions including wind speed in m/s, wind direction, air temperature in °C, relative humidity, level of cloud cover and ground moisture content.
 - Number and depth of drill holes.
 - Size of holes.
 - Depth of drilling.
 - Depth of collar (or stemming).
 - Depth of backfill.
 - Number and weight of charges per delay.
 - Number and time of delay.
 - The result and calculated value of Peak Pressure Level in dB, and Peak Vibration Velocity in mm/s.
 - Applicable limit, and
 - The excess, if any, over the prescribed limit.
- The first five regular production blasts in the Main Area of the License shall be monitored at a minimum of five locations at varying distances from each blast to better define the ground and air vibration vibration characteristics at the nearest receptors to assist with future blast designs. This shall entail establishing monitoring stations between the blast site and neighbouring receptors (residences).

- ### C. Air Quality
- The Site shall operate in accordance with the Fugitive Dust Best Management Practice (BMP) dated December 2022 (revised July 2023). The BMP shall be reviewed annually and updated if required based on current Site operation and new best management practices.
 - Unpaved haul roads shall be watered using a water truck and dust suppressant. The application of water shall be dependent on weather conditions but should be designed to achieve a watering rate of at least 2 L/m²/hour. Site personnel shall conduct daily visible inspections of visible dust from the onsite haul roads, which shall be used to inform additional watering activities if high opacity dust is reported. When temperatures fall below 10 °C, a Ministry of Environment, Conservation and Parks chemical dispersant shall be used in place of water.
 - Unpaved haul roads shall be re-graded annually (or as needed based on observations) using compact material.
 - A speed limit of 25 km/hour on all site roads shall be implemented.
 - Stockpiles shall be placed below grade where possible with drop heights of less than 1 metre maintained for fine material.
 - The processing plant shall be equipped with a water spray system with the watering rate to suppress visible dust.
 - The processing plant shall be located below grade as soon as feasible.
 - Drills shall be equipped with dust suppression systems.
 - If sustained winds exceed 40 km/hour, on-site processing activities, including drilling and blasting, will cease and not resume until two consecutive hours of winds below 40 km/hour are recorded.
 - A list of all vibration activities, dust mitigation activities and complaints shall be kept in the onsite filing system, as identified in the BMP.

- ### D. Cultural Heritage
- The HA for 1420 Charleston Sideroad determined that the property will be subject to both direct and indirect impacts. To avoid or reduce these effects, VSP recommends:
 - During operations, the farmhouse shall be adaptively re-used as an office/warehouse for the quarry operations. Prior to the summer of the license, the building shall be converted back to its original use.
 - To achieve this conservation strategy, the following mitigation measures shall be implemented:
 - If the property is vacated prior to converting the farmhouse to an office/warehouse a qualified specialist shall develop a notional plan for the farmhouse and summer kitchen, with a maintenance and inspection schedule, to conserve the structure until further action is implemented.
 - The limit of extraction shall include a 50 m buffer from the farmhouse to protect the heritage attributes of the property.
 - Prior to site preparation, erect fencing at the 50 m buffer to identify a "no-go zone" to reduce the risk of accidental damage from vehicles, heavy equipment operation, or other activities of the mineral aggregate operation.
 - Implement the recommendations of the blast impact assessment to ensure the structural integrity of the farmhouse is maintained.
 - A Heritage Documentation Plan shall be prepared for the farmhouse with a focus on the barn foundation runs on the property.
 - A Heritage Conservation Plan shall be prepared for the farmhouse prior to use of the farmhouse as office or laboratory space to guide the adaptive re-use efforts and outline how the heritage attributes of the structure will be conserved, protected, and enhanced during the rehabilitation program and into the future.
 - Prior to the summer of the license remove any temporary protective measures implemented during the time the farmhouse is used as an office/warehouse site and rehabilitate the farmhouse back to its original use.
 - The HA for 1055 Charleston Sideroad determined that the property will be subject to both direct and indirect impacts. To avoid or reduce these effects, VSP recommends:
 - Prior to site preparation in Phase 7 salvage, document, and commemorate the heritage attributes of 1055 Charleston Sideroad.
 - To achieve this conservation strategy, the following mitigations shall be implemented:
 - A Heritage Documentation Plan shall be prepared for the barn complex, Outbuilding No. 1, Redstone wall, and mature vegetation on the property.
 - A Structural Engineer should be consulted to confirm whether the farmhouse is structurally sound enough to withstand relocation. If the structural engineer determines that the farmhouse cannot be relocated the following shall be implemented:
 - The extraction area shall be revised to include a 50 m buffer from the farmhouse if fencing shall be installed at the 50 m buffer to identify the "no-go-zone"; in the recommendations of the blast impact assessment shall be implemented to ensure the structural integrity of the farmhouse is maintained;
 - A qualified specialist shall develop a notional plan for the farmhouse and summer kitchen, with a maintenance and inspection schedule, to conserve the structure until further action is implemented.
 - Implement the recommendations of the blast impact assessment to ensure the structural integrity of the farmhouse and summer kitchen shall be in tact for residential use.

- ### E. Archaeological
- A Stage 3 Archaeological Assessment shall be required for the following sites: Location 1 (AAHs-23), Location 2 (AAHs-24), Location 4 (AAHs-25), Location 7 (AAHs-26), Location 9 (AAHs-27), Location 10 (AAHs-28), Location 12 (AAHs-29), Location 15 (AAHs-30), Location 18 (AAHs-31), Location 18 (AAHs-32), Location 18 (AAHs-33), Location 22 (AAHs-34), Location 26 (AAHs-35), Location 27 (AAHs-36), and the Cemetery Site (AAHs-37).
 - The limits of these archaeological sites, plus a 70 metre buffer, are identified on the plan view of this drawing and referred to as an "Archaeological Protection Area".
 - Alterations are prohibited within the limits of the "Archaeological Protection Area" until such time that the Ministry of Citizenship and Multiculturalism (MCM) has entered a report in the Ontario Public Register of Archaeological Reports where the property is recommended that the property is vacated prior to extraction.
 - Any archaeological site that is a federal cultural heritage value or interest that remains within the licensed area at the time of the assessment of the license shall be protected through a restrictive covenant on title.
 - The protected site shall be fenced (post and rail) prior to commencing extraction.
 - Should deeply buried archaeological remains be found during the course of site preparation and/or extraction related activities, the MCM shall be notified.
 - In the event that human remains are encountered during construction or extraction activities, the licensee shall immediately contact both the MCM and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services (MGCS).

- ### F. Visual
- Berms shall be designed to mitigate visual effects and shall be constructed along the perimeter of each area (Main Area, North Area and South Area) as shown on the plan view of this drawing. The berms shall be for to level metres in height and constructed with material from each extraction area, prior to extraction commencing in the Main Area, North Area and South Area.
 - Berms shall remain in place throughout the operational phases in each of the Main Area, North Area and South Area until such time that the berms are removed and the extraction operations are completed in each area. The berms shall be removed and the material from the berms shall be used for rehabilitation.
 - The berms shall be seeded with a grass/legume seed mix in order to stabilize the soils in the berms and granular material from the berms shall be seeded with a grass/legume seed mix at a rate of 125 kg/ha. The mix should consist of 50-70% grasses (a minimum of three species) and 30-50% legumes, and may include the following species, as available at the time of application:
 - Annual ryegrass (Lolium perenne)
 - Perennial ryegrass (Lolium perenne)
 - Tall fescue (Lolium arundinaceum)
 - Perennial fescue (Lolium arundinaceum)
 - Alfalfa (Medicago sativa)
 - Clover (Trifolium repens)
 - White clover (Trifolium repens)
 - Clover (Trifolium repens)
 - Red fescue (Festuca rubra)
 - When constructing the berms, as much of the existing perimeter tree line as possible shall be left in place for additional visual screening.
 - Deciduous trees shall be planted with approximately 10 m spacing on either side of the water infiltration trench, within 1 year of issuance of the license. The trees shall include the following species and percentage mixture:
 - Sugar Maple (Acer saccharum) - 50%
 - Red Oak (Quercus rubra) - 50%

- ### G. Noise
- Berms shall be designed to mitigate visual effects and shall be constructed along the perimeter of each area (Main Area, North Area and South Area) as shown on the plan view of this drawing. The berms shall be for to level metres in height and constructed with material from each extraction area, prior to extraction commencing in the Main Area, North Area and South Area.
 - Berms shall remain in place throughout the operational phases in each of the Main Area, North Area and South Area until such time that the berms are removed and the extraction operations are completed in each area. The berms shall be removed and the material from the berms shall be used for rehabilitation.
 - The berms shall be seeded with a grass/legume seed mix in order to stabilize the soils in the berms and granular material from the berms shall be seeded with a grass/legume seed mix at a rate of 125 kg/ha. The mix should consist of 50-70% grasses (a minimum of three species) and 30-50% legumes, and may include the following species, as available at the time of application:
 - Annual ryegrass (Lolium perenne)
 - Perennial ryegrass (Lolium perenne)
 - Tall fescue (Lolium arundinaceum)
 - Perennial fescue (Lolium arundinaceum)
 - Alfalfa (Medicago sativa)
 - Clover (Trifolium repens)
 - White clover (Trifolium repens)
 - Clover (Trifolium repens)
 - Red fescue (Festuca rubra)
 - When constructing the berms, as much of the existing perimeter tree line as possible shall be left in place for additional visual screening.
 - Deciduous trees shall be planted with approximately 10 m spacing on either side of the water infiltration trench, within 1 year of issuance of the license. The trees shall include the following species and percentage mixture:
 - Sugar Maple (Acer saccharum) - 50%
 - Red Oak (Quercus rubra) - 50%

- ### H. Noise
- Berms shall be designed to mitigate visual effects and shall be constructed along the perimeter of each area (Main Area, North Area and South Area) as shown on the plan view of this drawing. The berms shall be for to level metres in height and constructed with material from each extraction area, prior to extraction commencing in the Main Area, North Area and South Area.
 - Berms shall remain in place throughout the operational phases in each of the Main Area, North Area and South Area until such time that the berms are removed and the extraction operations are completed in each area. The berms shall be removed and the material from the berms shall be used for rehabilitation.
 - The berms shall be seeded with a grass/legume seed mix in order to stabilize the soils in the berms and granular material from the berms shall be seeded with a grass/legume seed mix at a rate of 125 kg/ha. The mix should consist of 50-70% grasses (a minimum of three species) and 30-50% legumes, and may include the following species, as available at the time of application:
 - Annual ryegrass (Lolium perenne)
 - Perennial ryegrass (Lolium perenne)
 - Tall fescue (Lolium arundinaceum)
 - Perennial fescue (Lolium arundinaceum)
 - Alfalfa (Medicago sativa)
 - Clover (Trifolium repens)
 - White clover (Trifolium repens)
 - Clover (Trifolium repens)
 - Red fescue (Festuca rubra)
 - When constructing the berms, as much of the existing perimeter tree line as possible shall be left in place for additional visual screening.
 - Deciduous trees shall be planted with approximately 10 m spacing on either side of the water infiltration trench, within 1 year of issuance of the license. The trees shall include the following species and percentage mixture:
 - Sugar Maple (Acer saccharum) - 50%
 - Red Oak (Quercus rubra) - 50%

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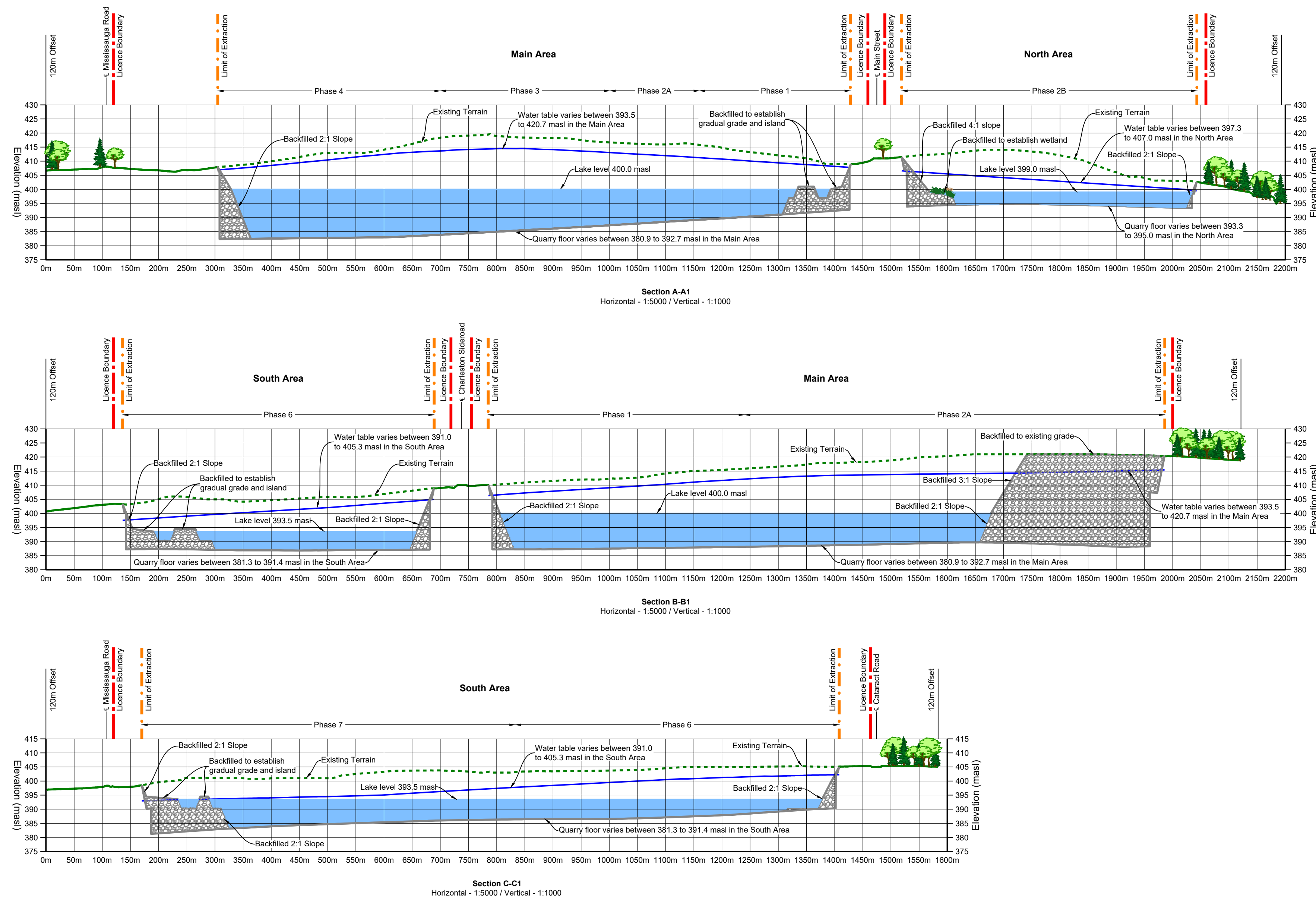
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PROGRESSIVE REHABILITATION

A. General

1. Area Calculations:	
1.1. Licence (total)	261.2 hectares
Main Area	151.5 hectares
North Area	39.3 hectares
South Area	79.4 hectares
1.2. Limit of Extraction (total)	199.6 hectares
Main Area	123.6 hectares
North Area	16.0 hectares
South Area	59.9 hectares
1.3. Final rehabilitation within licence (total)	261.2 hectares
Gradual grade or island	7.8 hectares
Classland	25.3 hectares
Lake	157.9 hectares
Meadow	7.8 hectares
Wetland	1.6 hectares
Woodland	42.2 hectares
Existing conditions	14.6 hectares

B. Phasing

- As excavation reaches the limit of extraction or maximum depth, progressive rehabilitation shall commence.
- Progressive rehabilitation shall follow the general direction and sequence of extraction identified on the plan view and described in the notes on drawing 2 of 4.
- Minor deviations in operational and rehabilitation sequence shall be permitted in order to adjust for any variable resource or market conditions.
- Each phase of extraction shall undergo progressive rehabilitation, prior to proceeding to the next phase of extraction.
- Progressive rehabilitation activities shall include sloping and grading, placement of overburden and topsoil, tree and shrub planting.

C. Slopes and Grading

- Progressive rehabilitation shall consist of backfilling the excavation faces (where applicable), tunnels and quarry floors to establish the final elevations and grades depicted on the plan view of this drawing using topsoil and overburden available on-site. A portion of the extraction face in the southeast corner of Phases 3 and 7 (as shown on the plan view) shall remain vertical (see notes 11.5 and 11.7 on drawing 2 of 4 for additional information).
- Upon completion of extraction in Phase 7, the quarry wall adjacent to the infiltration trenches in the southwest and southeast corner of the South Area shall be excavated and backfilled with sand.
- Side sloping on-site will range from 2:1 to 4:1 as well as gradual grades (see Section N Variations from Control and Operation Standards on drawing 2 of 4).
- No excess soil shall be imported on-site for rehabilitation purposes.
- Prior to the placement of natural and topsoil in locations where the quarry floor has been backfilled to establish gradual grades, islands and wetlands, the quarry floor shall be ripped and tilted to alleviate compaction, if required.

D. Drainage

- Final surface drainage will follow the rehabilitated contours and directional arrows shown on the plan view of this drawing.
- Once operations in the North Area, South Area and Main Area have been completed and the rehabilitated terrain has been established, pumping shall cease, and the land allowed to flood and form the Main, North and South ponds. The Main, North and South pond water levels post-rehabilitation are predicted to reach a level of approximately ~400, ~399 and ~393.5 masl, respectively.
- The South pond will be self contained and not require an overflow outlet.
- The Main pond overflow shall be directed via a culvert under Main Street to the North pond with its outlet invert at ~400 masl.
- The North pond overflow shall be directed via the Cleary Valley Golf Course irrigation pond system with its outlet invert at ~399 masl.
- All rehabilitated pond levels and outlets will be passive and not require pumping.

E. Natural Environment

- Lake Shoreline - Main, North and South Area
 - The shoreline of the lakes shall be contoured, where possible to create convoluted or irregular shoreline gradients.
 - Where sloping and excavation depths allow, shoals or islets shall be created to increase habitat diversity.
 - Stumps and logs shall be placed along the shoreline as wildlife habitat structure. Boulders and rock rubble from the extraction shall also be used for wildlife habitat structure.
- Woodland - Main Area
 - The woodland in the Main Area, as shown on the plan view, shall be planted with tree species representative of the woodland communities that will be removed, such as sugar maple, American beech, paper birch, white elm, white cedar, balsam fir, eastern hemlock, red maple, trembling aspen, black cherry, alternate-leaved dogwood, grey dogwood, red-osier dogwood.
 - Trees shall be planted at approximately 2.5 m spacing to achieve a density of 1000 seedlings per hectare. Two years after planting the target density shall be 1200 seedlings per hectare with a survival rate of 75%. Self-plantings shall be completed if required in year two after planting.
- Habitat for eastern small-tooled myotis and little brown myotis - Main Area
 - Rock piles shall be placed in the locations shown on the plan view to create habitat for eastern small-tooled myotis. Rock piles shall vary in size and height between 0.5 m and 2 m. Coveries shall be created through stacking slabs of flat rock varying in size from several centimetres to one meter long.
 - Bat boxes shall be installed in the same location as the rock piles to provide habitat for little brown myotis.

4. Setback areas / Slopes - Main, North and South Area

- All slopes located above the final water level shall be seeded with an appropriate native, non-invasive seed mix to prevent erosion during operation.
- Nodal plantings shall be expanded naturally through seed rain.
- Along the setback to significant Woodland B, as shown on drawing 1 of 4, plant species representative of the existing woodland, such as sugar maple (Acer saccharum), American beech (Fagus grandifolia), paper birch (Betula papyrifera), American elm (Ulmus americana), white cedar (Thuja occidentalis), balsam poplar (Populus balsamifera), black cherry (Prunus serotina), red maple (Acer rubrum), trembling aspen (Populus tremuloides), black cherry (Prunus serotina), alternate-leaved dogwood (Cornus alternifolia), gray dogwood (Cornus rogersii), red-osier dogwood (Cornus sericea), shall be planted.
- Along the setback to significant Woodland D, as shown on drawing 1 of 4, plant species representative of the existing woodland, such as sugar maple (Acer saccharum), American beech (Fagus grandifolia), red oak (Quercus rubra), paper birch (Betula papyrifera), black walnut (Juglans nigra), American elm (Ulmus americana), alternate-leaved dogwood (Cornus alternifolia), shall be planted.
- On north-facing slopes and setbacks which are expected to be cooler and moister, plant species such as white cedar (Thuja occidentalis), white spruce (Picea glauca), Norway spruce (Picea abies), red maple (Acer rubrum), paper birch (Betula papyrifera), American hawthorn (Crataegus spp.), shall be planted.
- On the southeast-facing slopes and setbacks, plant species such as white pine (Pinus strobus), white cedar (Thuja occidentalis), white spruce (Picea glauca), European larch (Larix laricina), trembling aspen (Populus tremuloides), balsam poplar (Populus balsamifera), sugar maple (Acer saccharum), black cherry (Prunus serotina), red oak (Quercus rubra), red maple (Acer rubrum), shall be planted.
- Within the setback and slope areas shrubs shall also be planted to add diversity and increase wildlife/pollinator diversity, such as: serotinous (Amelanchier spp.), nannyberry (Viburnum lentago), ironhack (Physocarpus opulifolius), dogwoods (Cornus spp.), highbush cranberry (Viburnum opulus), elderberry (Sambucus spp.), choke cherry (Prunus virginiana).

5. Shoreline Wetland - Main, North and South Areas

- Organic material shall be placed in shallow water areas to promote the establishment of shoreline and aquatic vegetation and to create habitat for aquatic fauna and amphibians. Stumps and trees of non-commercial value shall be stockpiled during clearing operations and used as habitat structure. Boulders and rock rubble from the extraction operation shall also be used to increase habitat diversity along the shoreline area, where possible.
- In the shoreline wetland areas, shallow emergent marsh vegetation shall be planted in the water with species that may consist of, but are not limited to: red-osier dogwood (Cornus sericea), slender willow (Salix petiolaris), and herbaceous plants such as water plantain (Alisma plantago-aquatica), lake sedge (Carex lasiocarpa), swamp milkweed (Asclepias incarnata), softstem bulrush (Scirpus tabernaemontani) and common cattail (Typha latifolia).

6. Riparian Plantings - Main Area

- Riparian plantings along Tributary #1, as shown on drawing 2 of 4, shall include a variety of native species including, but not limited to, white cedar (Thuja occidentalis), balsam poplar (Populus balsamifera), pussy willow (Salix discolor), slender willow (Salix petiolaris), red-osier dogwood (Cornus sericea), nannyberry (Viburnum lentago), elderberry (Sambucus canadensis), meadowswamp (Sagittaria sp.), four bluegrass (Poa palustris), lake sedge (Carex lasiocarpa), fox sedge (Carex vulpinoidea), blue vernal (Veronica hastata), and spike rush species (Eleocharis spp.).
- Turtle Habitat - North Area
 - Turtle habitat shall be created in the North Area in the location shown on the plan view.
 - The turtle habitat pond shall include sediment on the pond bottom to provide a growing medium for plants, and provide habitat for turtles (e.g., overwintering).
 - Plant emergent macrophytes shall include species such as pickereweed (Pontederia cordata), broad-leaved arrowhead (Sagittaria latifolia), water plantain species (Alisma spp.), cattail (Typha sp.), common arrowhead (Sagittaria latifolia), and greater water dock (Rumex hydrolapathum).
 - Plant submergent macrophytes shall include species such as eelgrass (Zostera marina), broad waterweed (Elodea canadensis), slender reed (Najas flexilis), common hornwort (Ceratophyllum demersum).
 - Banking features such as logs or rocks shall be placed throughout the shallow shoreline areas.
 - Areas of suitable nesting substrate shall be constructed along or adjacent to the shoreline.
- Meadow in North Area
 - Meadow habitat for eastern meadowlark and bobolink shall be created in the North Area outside of the extraction at the location shown on the plan view.
 - A minimum of 60-80% of the meadow shall be covered by at least three different grass species, such as: poverty oatgrass (Danthonia spicata), bottlebrush grass (Elymus hystrix), common panic grass (Panicum capillare), big bluestem (Andropogon gerardii), Canada wild rye (Elymus canadensis), switch grass (Panicum virgatum), wood-grass (Sorghum cypripedium), Virginia wild rye (Elymus virginicus).
 - At least one of the grass species shall be taller than 50 cm, which shall include at least one of the following: bottlebrush grass (1.3 m), big bluestem (0.5-1 m), Canada wild rye (1.3 m), switch grass (1.5 m).
 - Remaining 20-40% shall be covered by forbs or legumes such as Canada anemone (Anemone canadensis), black-eyed susan (Rudbeckia hirta), common evening primrose (Oenothera biennis), common milkweed (Asclepias syriaca), yarrow (Achillea millefolium), New England aster (Symphyotrichum novae-angliae), and wild bergamot (Monarda filidiosa).
 - Meadow seed mixes shall be sown at a rate of 25kg/ha.

FINAL REHABILITATION

A. General

- All equipment shall be removed from the site. The building structures located at 1420 Charleston Street utilized as an office and quality control lab during operations may remain on-site.
- No internal haul roads shall remain.
- The anticipated final end use will be naturalized open spaces with the creation of lakes, vegetated shorelines, islands, vertical faces, wetlands, upland forested areas, riparian plantings adjacent to the existing watercourse, nodal shrub and tree planting on upland areas, grassland meadows and specialized habitat features to create for bats and turtles.
- The long term average lake levels are:
 - Main - 400.0 masl
 - North - 399.0 masl
 - South - 393.5 masl

Legal Description
Part of Lots 15-18, Concession 4 WSCR and Part of Lot 16, Concession 3 WSCR
(former geographic Township of Caledon)
Township of Caledon
Region of Peel

Legend

	Licence Boundary		Additional Land Owned by Licensee
	Limit of Extraction		120m Offset From Licence Boundary
	Contours with Elevation (Metres above sea level (MASL))		Pipeline Enbridge Gas Inc.
	Watercourse (Direction of flow indicated by arrows)		Main Discharge
	Watercourse (Direction of flow indicated by arrows)		Secondary Discharge (Discharge not to exceed surface water flow based on existing conditions)
	Water Feature		Fence 1.2 m post & wire fence unless otherwise noted
	Wooded Area		Extraction Face (Below Water)
	Wetland MNR Evaluated - Other		Public Road
	Wetland MNR - Unassessed		Driveway
	Gradual Grade / Island		Railway
	Grassland		Gate
	Woodland		Building/Structure
	Wetland		Proposed Floor Elevation (Metres above sea level (MASL))
	Lake		Proposed Final Grade (Horizontal - Vertical)
	Meadow		Cross Sections A1
	Rock Pile & Bat Box Locations (Approximate)		

Legend - Cross Sections

	Licence Boundary
	Limit of Extraction
	Existing Grade - Removed / Altered
	Existing Grade - Undisturbed
	Maximum Predicted Water Table
	Quarry Floor
	Backfilled
	Lake

Site Plan Amendments

No.	Date	Description	By

Site Plan Revisions (Pre-Licensing)

No.	Date	Description	By

1	August 2023	Revised drawing to incorporate updated technical report recommendations	C.P.
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No.	Date	Description	By

MHBC Stamp	MHBC Stamp
Brian Zeman Is authorized by the Ministry of Northern Development, Mines, Natural Resources and Forestry pursuant to Subsection 0.2(3)(i) of Ontario Regulation 244/97 to prepare and certify site plans.	Christopher Poole Is authorized by the Ministry of Northern Development, Mines, Natural Resources and Forestry pursuant to Subsection 0.2(3)(i) of Ontario Regulation 244/97 to prepare and certify site plans.

Applicant	cbm VOTORANTIM cimentos	CBM Aggregates a Division of St. Marys Cement Inc. (Canada) 55 Industrial Street Toronto, Ontario M4G 3W9
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Project	Caledon Pit & Quarry 18722 Main Street, Caledon, Ontario
MNR Licence Reference No.	626600
Plan Scale: 1:5000 (Arch E)	Date August 2023
Drawn By C.P.	File No. 8816AF
Checked By B.Z.	
File Name	Rehabilitation Plan
Drawing No.	4 of 4
File Path	N:\Bian\8816AF - CBM - Caledon Quarry\Drawings\Site Plan\CAD\8816AF - Site Plan.dwg