

#### Phase Notes:

Area A

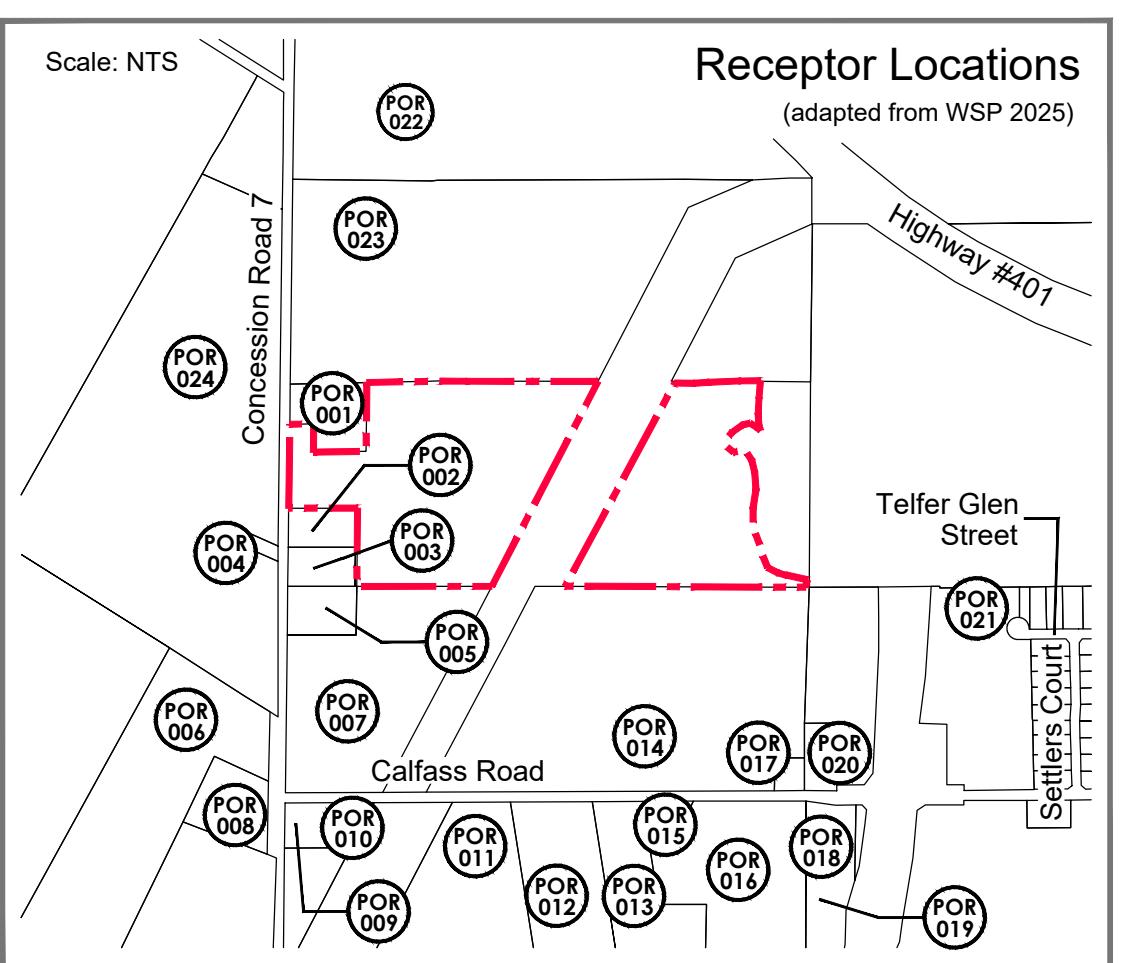
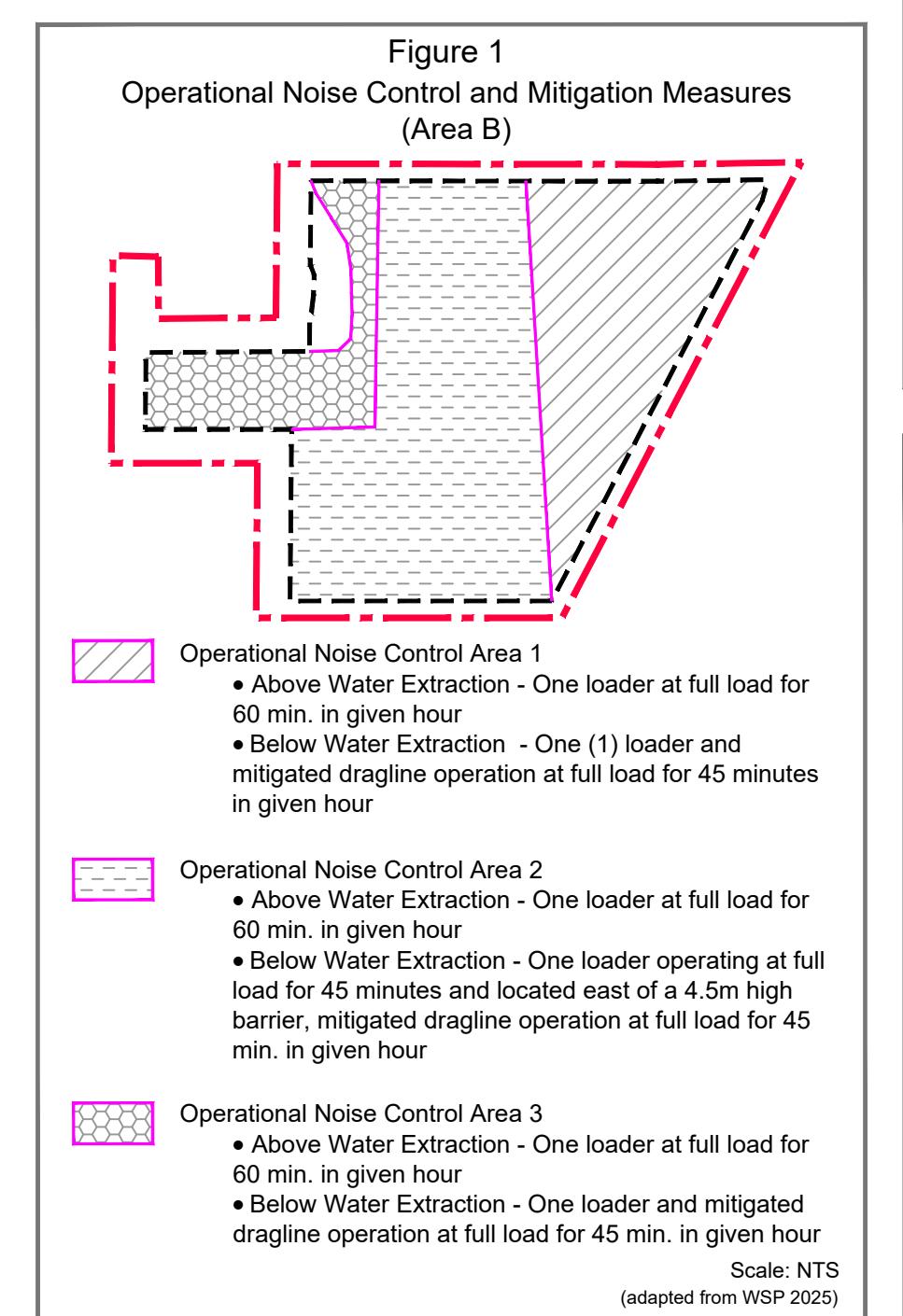
- Establish 10m setback/limit of extraction from significant woodlands and wetlands as shown.
- Prior to extraction, and where applicable, sediment/erosion control measures (eg. silt fencing) will be installed as shown.
- The perimeter of the Boundary of Area to be Licensed is fenced with the exception of the east boundary of Area A. In this location, the boundary will be demarcated by 1.2m high marker posts that are visible from one to the other. All fencing will be confirmed to be in accordance with the Aggregate Resources Act prior to commencement of extraction on the site. Fencing is to be 1.2m high post and wire fence. A 1.2m gate will be installed prior to operations at the operational entrance/exit location on Concession 7 Road as shown and kept locked when the pit is not in operation (also see Sequence of Operations and Variations from Control and Operation Standards on this page and page 3 of 5). A gate will be required for Existing Access 3.
- Remove vegetation within extraction area where applicable.
- Establish internal haul route for shipping of product off site for processing at other CBM sites.
- Strip topsoil/overburden and use it in the construction of acoustic berm. The berm shall be constructed prior to extraction in Area A. Any material not required for berm construction shall be temporarily stockpiled within the extraction area in accordance with the Sequence of Operations diagram and subject to Variations from Control and Operational Standards on page 3 of 5. See also Note L "Noise" on page 3 of 5.
- Extraction (above and below water) will commence in the northeast portion of Area A and proceed southwesterly. Below water extraction may occur simultaneously with above water extraction in order to blend materials to meet market demand. The maximum depth of extraction is 30m below the existing ground surface.
- Initiate progressive rehabilitation of above water side slopes as extraction proceeds and enough area is available without interfering with the operation of the site.
- Initial tree planting will occur in north/northeast setback of Area A. Additional tree planting in the setback areas and will be completed prior to extraction in Area B.
- Prepare Area B for above water extraction.

#### Area B

- Establish 10m setback/limit of extraction from wetlands as shown.
- Strip topsoil/overburden and store anywhere within the extraction area subject to Variations from Control and Operational Standards on page 3 of 5. An optional storage berm (as shown) may be constructed.
- Extraction (above and below water) will commence along the eastern boundary of Area B and will proceed in an westerly direction. Below water extraction may occur simultaneously with above water extraction in order to blend materials to meet market demand. The maximum depth of extraction is 25m below the existing ground surface.
- Initiate progressive rehabilitation of above water side slopes beginning in east half of Area B, (adjacent to Hydro One lands) and complete along north and south setback areas as extraction moves west and enough area is available without interfering with the operation of the site.
- The creation of shallow shoreline areas in Area A shall be initiated as part of progressive rehabilitation (see Rehabilitation Plan, page 4 of 5).

#### Phases Not Shown

- Remove any equipment and haul roads on site.
- Complete all 3:1 above water side slopes and below water side slopes.
- Complete nodal planting areas.
- Final rehabilitation to be completed (see Rehabilitation Plan on page 4 of 5).



**Legal Description**  
PART OF LOT 29  
CONCESSION 7  
(Geographic Township of Puslinch)  
TOWNSHIP OF PUSLINCH  
COUNTY OF WELLINGTON

#### Legend

	Boundary of Area to be Licensed
	Additional Lands Owned by Applicant
	Existing Fence
	Proposed Acoustic Berm (see Typical Berm Detail on this page and Note F on page 3)
	Sediment/Erosion Control Measures (see Phase notes on this page and Note L 'Natural Environment' on page 3 of 5)
	Acoustic Berm to be Constructed Prior to Extraction in Area A (see Phase Notes (Area A) on this page)
	Existing Spot Height Elevation METRES ABOVE SEA LEVEL SEE NOTES ON THIS PAGE/PAGE 3 OF 5
	Existing Fence POST & WIRE FENCE UNLESS OTHERWISE NOTED
	Building/Structure LOCATION AND USE FOR BUILDINGS ON-SITE AND WITHIN 120M ARE SHOWN
	Elevation ABOVE WATER DEPTH OF EXTRATION MAXIMUM DEPTH OF EXTRATION/PIT FLOOR
	Existing Vegetation
	Internal Haul Road INITIAL TYPICAL LOCATION, LOCATION TO VARY AS OPERATIONS PROGRESS
	Existing Access
	Acoustic Berm SEE "TYPICAL BERM DETAIL" ON THIS PAGE AND NOTES ON PAGE 3 OF 5
	Optional Storage Berm WSP (2022) SEE "TYPICAL BERM DETAIL" ON THIS PAGE AND NOTES ON PAGE 3 OF 5
	Groundwater Monitor WSP 2023
	Receptor Locations POR 001
	Limit of Significant Woodland STAKED BY WSP 2024
	Sediment/Erosion Control Measures SEE PAGE 5 OF 5 FOR EXISTING AND REHABILITATED CROSS SECTIONS

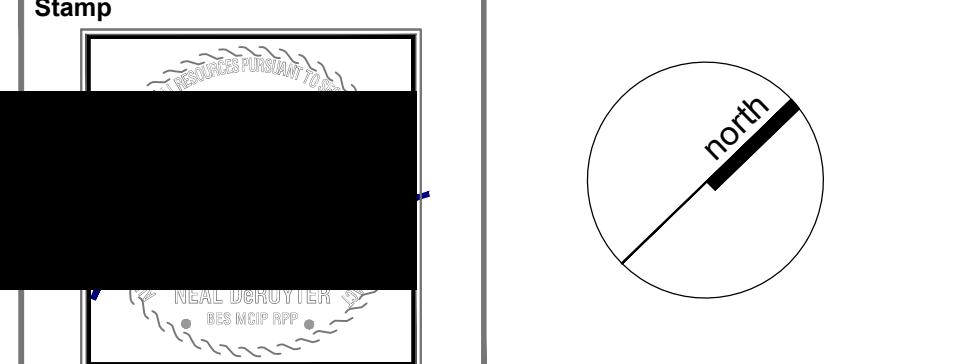
#### Site Plan Amendments

No.	Date	Description	By



200-540 BINGEMANS CENTRE DR, KITCHENER, ON N2B 3X9 | P: 519.573.3650 | [www.mhbcplan.com](http://www.mhbcplan.com)

#### MNR Approval Stamp



#### Applicant



Andreae Simard  
Director of Lands, Resources and Environment  
Votorantim Cimentos North America (VCNA)

#### Safarik Pit

ARA Licence Reference No.	Pre-approval review:
<b>For submittal to MNR - November 2025</b>	
Plan Scale 1:2,000 (Arch D)	Plot Scale 1:2.0 [1mm = 2.0 units] MODEL
Drawn By D.G.S.	File No. Y321AR
Checked By N.D.	

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Drawing No.  
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**OPERATIONAL PLAN**  
**2 OF 5**

**A. General**

- This site plan is prepared under the Aggregate Resources Act (ARA) for a Class A licence for a pit below the ground water table and follows the Aggregate Resources of Ontario: Site Plan Standards August 2020, specifically Operations for all sites (Numbers 33-56 in the standards).
- Area Calculations:**
  - Licence Area: 27.6 hectares (68.2 acres)
  - Limit of Extraction: 21.3 hectares (52.6 acres)
- No more than 1,000,000 tonnes of aggregate shall be removed from this site in any calendar year.
- Based on the available groundwater elevation data, the maximum predicted water table on the site is 306.99 masl in the western portion of the site (as measured at MW21-01) to 308.52 masl in the east portion of the site (as measured at MW21-03-D).
- Agricultural use may continue in areas not under extraction.
- Setbacks will be shown and labelled on the Site Plans.
- Source Water Protection:** The Site lies within the Grand River Source Protection Area which is part of the Lake Erie Source Protection Region (LESPR). The Site is not proximal to any Wellhead Protection Area (WHPA). The Site is located within the Wellhead Water Quantity Zone and is classed as a Significant Groundwater Recharge Area (SGRA). No proposed on-site activities are considered to be significant drinking water threats (See also 'Hydrogeology' notes on this page).

**B. Hours of Operation**

- Extraction (from above and below the water table) will be carried out between 07:00 and 19:00 with haulage occurring from 07:00 to 18:00 weekdays and 08:00 to 16:00 Saturdays.
- Activities used to prepare the site for excavation, such as stripping of topsoil, construction of the berms, or activities related to the rehabilitation of the site after extraction is completed are considered to be construction activities and are only permitted to occur during the daytime from 07:00 to 19:00 Monday to Friday.

**C. Site Access and Fencing**

- There are three existing accesses along Concession Road 7. Existing Access 1 shall be used for access to the residence at #4275 Concession Road and will not be gated. Existing Access 3 may be utilized for monitoring, setback maintenance and agricultural access and will be gated. The operational entrance/exit (Existing Access 2) along Concession 7 Road shall be gated, kept closed during hours of non-operation and shall be maintained throughout the life of the licence. Aggregate trucks shall only be permitted to access the site from Concession Road 7 at this location. Other operational entrance/exits (adjacent to Hydro One corridor) will not be gated (see also Variation to Control and Operational Standards Table on this page).
- The Boundary of Area to be Licensed is currently fenced, except for the east boundary of Area A, as shown on pages 1 and 2 of 5. The property boundary further to the east (Additional Lands Owned by Applicant) is fenced. Where the fencing is not compliant, it will meet ARA requirements prior to commencement of extraction on site.
- Sediment/erosion control measures (e.g. silt fencing) shall be installed along the portions of the licensed boundary as shown on the Sequence of Operations between the area to be disturbed and the wetlands/woodland limit prior to commencement of work (see Note L 'Natural Environment').

**D. Drainage**

- Drainage of undisturbed areas will continue and be in the directions shown on the Existing Features drawing on page 1 of 5. During above water excavation, surface drainage from active pit areas will be detained within the pit area. For below water excavation, drainage will be directed toward the pond area. Drainage will also percolate naturally through the soil.

**E. Site Preparation**

- There will be no temporary buildings or structures incidental to the pit operation on the site.
- Prior to site preparation, a Spills Contingency Plan shall be developed to address any potential spills from equipment on-site.
- Timber resources will be salvaged for use as saw logs, fence posts and fuel wood where appropriate. Non-merchantable timber, stumps and brush may be used in for aquatic habitat enhancement or mulched for use in progressive rehabilitation. Excess material not required for uses mentioned above will be burned (with applicable permits).
- Topsoil and overburden shall be stripped and stored separately in accordance with the Sequence of Operations diagram.
- Excess topsoil and overburden not required for immediate use in the construction of acoustic berms or rehabilitation, may be temporarily stockpiled within the limit of extraction. Topsoil and overburden stockpiles shall be located within the limit of extraction (see Note M 'Variations from Control and Operational Standards').
- 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 naturally in the first year.

**F. Berms and Screening**

- Acoustic berms shall be constructed as shown in Area B (see Sequence of Operations diagram and Phase Notes on page 2 of 5 for details).
- An optional visual/storage berm may be located in the western setback of Area B (see Sequence of Operations diagram on page 2 of 5).
- See 'Typical Acoustic Berm Detail' on page 2 of 5 for details relating to berm construction and will be vegetated and maintained to control erosion using a low maintenance grass/legume seed mixture (e.g. MTO Seed Mix) composed of Creeping red Fescue, Perennial Ryegrass, Kentucky Bluegrass and White Clover. Temporary erosion control will be implemented as required.
- Existing vegetation within the setbacks shall be maintained to extent possible where berms are to be located. Additional nodal plantings shall occur within setbacks as shown on the Rehabilitation Plan (page 4 of 5).

**G. Extraction Sequence**

- The operational plan depicts a schematic operations sequence for this property. Phases do not represent any specific or equal time period. The direction of extraction will be in accordance with the Sequence of Operations diagram shown on page 2 of 5. All extraction and transportation equipment operating within these Phases shall comply with the restrictions identified in Note L 'Noise'.
- Rehabilitation will be progressive and proceed as limits of extraction (area and depth) are reached. Any deviations from the operations sequence shown (extraction, stripping and rehabilitation areas) will require the approval of MNR.
- Notwithstanding the operation 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 will require approval from MNR.
- See Phase Notes on page 2 of 5 for details.

**H. Extraction Details**

- The maximum depth of extraction is as shown as spot elevations and extraction will occur in up to 3 lifts through the two (2) Extraction Areas as shown on the Sequence of Operations Diagram on page 2 of 5 and in accordance with the Ministry of Labour requirements. The maximum lift height shall be 20m, with a typical face height of 10m, but will not exceed Ministry of Labour guidelines. The proposed pit floor will range in elevation from 309.0 to 295.0 masl in both Area A and Area B (In Area B this is 15m to 25m below the existing ground surface and in Area A, this is 23m to 30m below the existing ground surface).
- Aggregate stockpiles will move throughout the life of the operations of the pit. Stockpiles may be located anywhere within the limit of extraction, subject to Variations from Control and Operational Standards, and will be a maximum 20m in height.
- There will be no aggregate processing or recycling at this pit.
- Internal haul road locations will vary as extraction progresses through the site.

**I. Equipment and Processing**

- The equipment used on site for extraction may include: Extraction Loaders (2), Product Shipment Truck and Dragline (1). Also, portable equipment will be used for site preparation and rehabilitation including hydraulic shovels, dozers and scrapers.
- There will be no aggregate processing on site. Processing will be carried out at other CBM licences.

**J. Fuel Storage**

- Mobile fuel trucks will be used for fuelling of equipment. There will be no fuel storage on site.

**K. Scrap and Recycling**

- No scrap will be stored on site.
- No recycling activities will take place on site.

**L. Report Recommendations**

- Noise:** "Noise Assessment Report - Proposed Safarik Pit" November 2025 (Source: WSP Canada Inc.)
  - On-site equipment shall meet the limits as specified in Table 1 in Section 3.0 of the noise assessment report.
  - 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 (i.e., 07:00 to 19:00) Monday to Friday except statutory holidays.
  - A 7.5 m high, 237 m long L-shaped noise berm/barrier, as specified on Figure 2, shall be installed west of the Area B near the Site entry. The berm shall be constructed prior to extraction within Area A.
  - Windrows berms of minimum 4.5 m high shall be used during below water extraction within Operational Control Area 2. The loader supporting below water extraction shall be positioned on the east side of the windrow.
  - Proposed berm/barrier can be constructed of earth berms, product stockpiles or other suitable acoustic barriers such as trailers or shipping containers as long as the height and the density requirements of 20 kg/m<sup>2</sup>, without gaps are maintained.
  - Extraction loader(s) shall operate within 30 m of the active working face to maximize noise screening by the working face.
  - The licensee shall utilize an alternative to narrow band back up alarms that meet Ministry of Labour safety requirements for on-site equipment.
  - Prior to operations commencing, sound measurements of the equipment used on the Site shall be undertaken by a qualified professional to confirm maximum emission levels are not exceeded.
  - To confirm that sound levels from the Site operations are in compliance with the MEC noise guideline limits, an acoustical audit shall be completed by a qualified professional once extraction commences in Area B below water extraction.
  - For areas where mitigated dragline operations are required, the dragline shall be equipped with additional noise control (e.g. equipment mounted noise barrier or acoustically equivalent treatment) to reduce dragline noise emissions by a minimum 5dB to target a sound power level as presented in Table 1.
  - Proposed mitigation may be substituted through equipment modification, other control measures and/or local barriers if an assessment by qualified professional is completed in accordance with MEC noise limits at surrounding sensitive receptors. Prior to any modification, notification shall be given to MNR.
  - Prior to commencement of operations, a noise assessment of Project-related trucks, while operating on public roadways (i.e., haul route noise analysis) shall be completed by a qualified professional and completed in accordance with relevant sections of the MEC Landfill Guidelines.

- Natural Environment:** "Natural Environment Report, Proposed Safarik Pit" September 26, 2025 (Source: WSP Canada Inc.)
  - Consult with MECP to map habitat for bobolink and eastern meadowlark on the Site as part of authorizations under the Endangered Species Act;
  - Sediment and erosion control measures will be installed along the dripline of the significant woodland and wetland features;
  - Extraction setbacks as identified on the Operational Plan are to be clearly demarcated and respected. Existing natural vegetation communities will be retained within the setbacks, except where berms are proposed;
  - No clearing of vegetation shall occur within the core breeding bird season (April 1 - August 31) unless a nesting survey has been completed by a qualified biologist within 24 hours of the clearing, and no active nests were observed;
  - No tree clearing or grubbing shall occur within the active season for bats (April 1 - November 30);
  - Standard best management practices shall be implemented to reduce dust and noise during operations;
  - Undertake rehabilitation as outlined in the Rehabilitation Plan;
  - Implement a SAR Training Program and Encounter Protocol. The SAR Training Program is to be provided for all new on-Site staff as part of orientation training. The Training Program will include:
    - Information / training on identifying SAR
    - What to do if a SAR is observed (Encounter Protocol)
    - How to protect a turtle or bird nest
    - Information on how to report a SAR sighting

- Archaeology:** "Stage 1 and 2 Archaeological Assessment Safarik Pit" September 25, 2025 (Source: WSP Canada Inc.)
 

Based on the results of the Stage 1 and 2 Archaeological Assessment, the following recommendations are presented:

  - The artifact assemblage recovered from Location 1 (A1Ha-71) signifies that 80% or more of the site's occupation predates 1900 and is therefore considered to have cultural heritage value or interest (CHV) according to the MCM (2021) 19th Century Rural Historical Farmstead Site Standards for Consultant Archaeologists. A Stage 3 archaeological assessment following Section 3.2.2 Standards 1-12 of 19th Century Rural Historical Farmstead Site Standards for Consultant Archaeologists is recommended:
    - Following the Standards and Guidelines for Consultant Archaeologists (MCM 2011), Table 3.1, Standards 3-4, begin test unit excavation by excavating the 1 m<sup>2</sup> test unit in a 10 m grid across the site.
    - Place and excavate additional test units amounting to a minimum of 40% of the grid unit total, focusing on areas of interest within the site extent. The Stage 3 archaeological assessment should be conducted to define the site extent, gather a representative sample of artifacts, and aid in the determination of a Stage 4 mitigation strategy, if required;
  - As per Section 2.2, Standard 1 of the Standards and Guidelines for Consultant Archaeologists (MCM 2011), Locations 2, 3, and 4 are not considered to have further cultural heritage value or interest, and no further assessment is recommended;
  - The remainder of the Study Area is considered to be sufficiently documented and no further assessment is recommended;

The MCM is requested to review and provide a letter indicating their satisfaction with the results and recommendations presented herein, with regard to the 2011 Standards and Guidelines for Consultant Archaeologists and the terms and conditions for archaeological licences, and to enter this report into the Ontario Public Register of Archaeological Reports.

- Hydrogeology:** "Safarik Pit Level One and Two Water Report" October 10, 2025 (Source: WSP Canada Inc.)
  - A proactive and long-term groundwater and surface water monitoring program will be completed during the pit operational and rehabilitation phases, until the license is surrendered;
  - A well interference and mitigation plan will be implemented proactively prior to pit operation;
  - A spill action plan will be developed and administered throughout all phases of pit operations;

**Maximum Predicted Water Table Report:** "Safarik Pit Maximum Predicted Water Table Report" October 2, 2025 (Source: WSP Canada Inc.)
 

- The proposed pit will be developed below the natural groundwater table. The maximum depth of extraction below the water table is to an elevation of 295 metres above sea level (mASL);
- The maximum water table at the Site ranges from 306.99 mASL at MW21-01 (SAF) to 308.52 mASL at MW21-03-D (SAF). Groundwater flows across the Site in a west-southwest direction.

- Traffic:** "Traffic Impact Study, CBM Safarik Pit" August 2025 (Source: TYLin)
 

The access is to be positioned closer to the southern limit of the identified northern access range.

- Dust:** "Best Management Practices Plan for the Control of Fugitive Dust Safarik Pit" October 2025 (Source: WSP Canada Inc.)
 

The pit shall be operated in accordance with the Best Management Practices Plan for the Control of Fugitive Dust.

- Heritage:** "CBM Safarik Pit Heritage Impact Assessment" October 15, 2025 (Source: WSP Canada Inc.)
  - The extant barn and farmhouse in the Study Area possess Cultural Heritage Value or Interest and should be retained in situ and avoided. Additionally, a structural assessment should be conducted on the barn and farmhouse to identify and address any deficiencies or deteriorations compromising the structural integrity of each structure. Yearly inspections should be conducted on the barn and farmhouse to prevent demolition by neglect;
  - This HIA should be distributed to the Ministry of Citizenship and Multiculturalism, the Township of Puslinch, and Wellington County.

No.	O. Reg 244/97 Section 0.13	Variation	Rationale
1	(1)1	No gate at Operational entrance/exists along Hydro One corridor.	The location of the accesses may vary along the licensed boundary in this area on both sides of Hydro One corridor.
2	(1)1	No gate at Existing Access 1.	This access is for the on-site residence at #4275 Concession Road 7.
3	(1)13i	Stockpiling of aggregate, topsoil or overburden may be located within 30m of boundary of the site other than part of the boundary described in (1)13iA below.	Stockpiling may occur within any portion of the extraction area. Some areas adjacent to agricultural fields and Hydro One corridor have a 15m setback.
4	(1)13iiA	Stockpiling of aggregate, topsoil or overburden may be located within 90m of boundary of the site coincident with properties along Concession Road 7.	Stockpiling may occur within any portion of the extraction area. There is a 30m extraction setback from the site coincident with properties along Concession Road 7.
5	(1)19i	Below water side slopes may vary from a slope that is at least three horizontal metres for every vertical metre (3:1). These will slope at minimum to the natural angle of repose.	Slopes will be no steeper than a 2:1 slope below water or the natural angle of repose.
6	(3)(a)	Fencing is not required where it is coincident with the staking of the woodlands along the east portion of the licence boundary. The property boundary further to the east is Additional Lands Owned by Applicant. If conditions in or around the licensed pit change or if licence is surrendered, a 1.2m high fence will be installed.	These boundaries will be demarcated by 1.2m high marker posts that are visible from one to the other. Adjacent lands to the east are Additional Lands Owned by Applicant. If conditions in or around the licensed pit change or if licence is surrendered, a 1.2m high fence will be installed.

**Legal Description**  
 PART OF LOT 29  
 CONCESSION 7  
 (Geographic Township of Puslinch)  
 TOWNSHIP OF PUSLINCH  
 COUNTY OF WELLINGTON

Site Plan Amendments			
No.	Date	Description	By

MNR Approval Stamp	Stamp
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Applicant	Applicant's Signature
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Project
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ARA Licence Reference No.	Pre-approval review:
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For submittal to MNR - December 2025
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Plan Scale 1:2,000 (Arch D)	Plot Scale 1:2.0 [1mm = 2.0 units] MODEL
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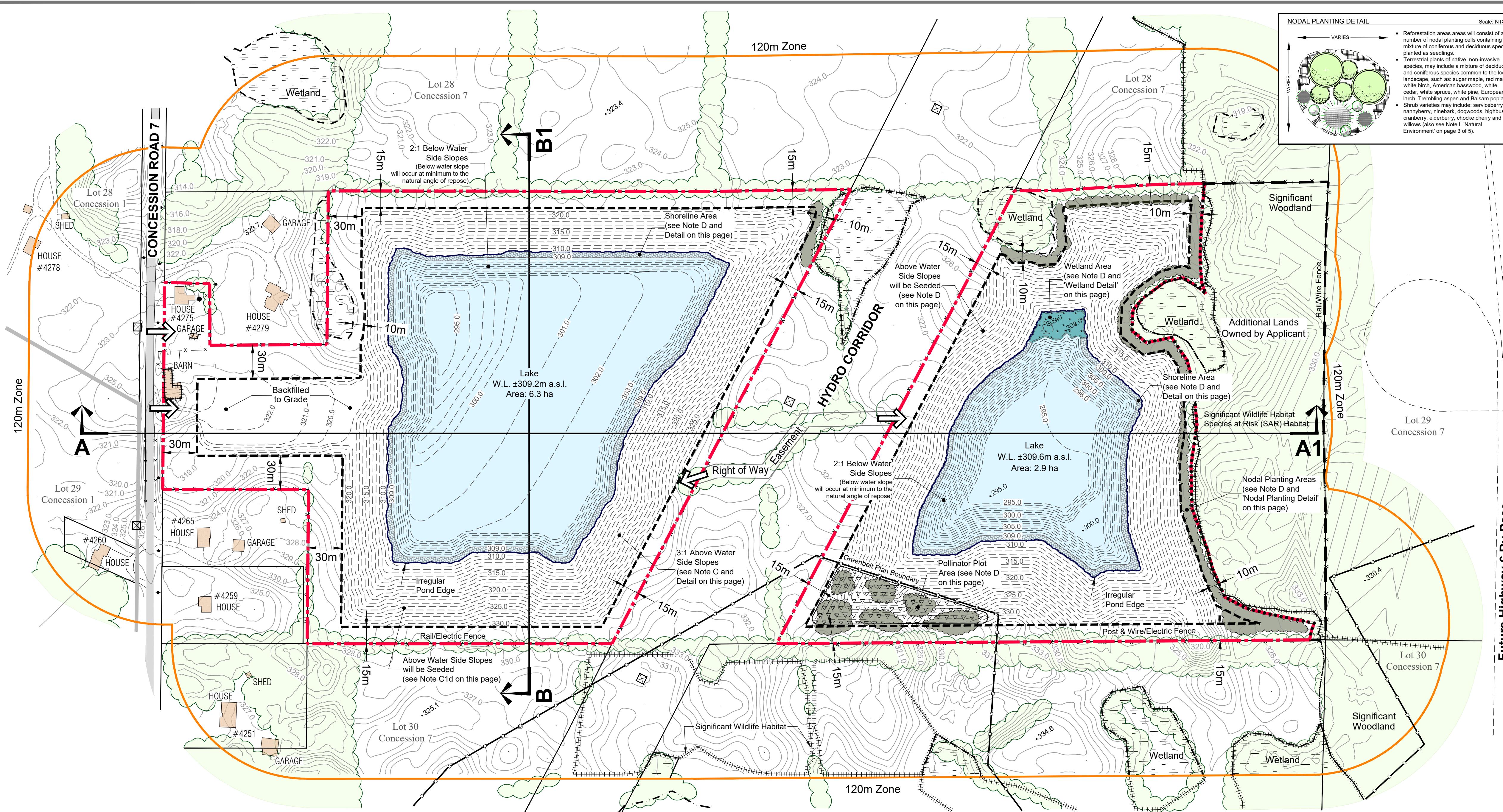
Drawn By D.G.S. File No. Y321AR

Checked By N.D.

File Name OPERATIONAL NOTES PLAN

Drawing No. 3 OF 5

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**Legal Description**  
**PART OF LOT 29**  
**CONCESSION 7**  
**(Geographic Township of Puslinch)**  
**TOWNSHIP OF PUSLINCH**  
**COUNTY OF WELLINGTON**

**Legend**

	<b>Boundary of Area to be Licensed</b> ALL SETBACKS ARE DRAWN TO SCALE AND SHOW LABELLED DISTANCES
	<b>Additional Lands Owned by Applicant</b>
	<b>Proposed Contour METRES ABOVE SEA LEVEL</b>
	<b>Proposed Elevation REHABILITATED ELEVATION</b>
	<b>Existing Vegetation</b>
	<b>Proposed Wetland Area (SEE DETAIL ON THIS PAGE)</b>
	<b>Existing Fence</b> POST & WIRE FENCE UNLESS OTHERWISE NOTED
	<b>Existing Access</b>
	<b>Unevaluated Wetland</b> WSP (2022)
	<b>Significant Wildlife Habitat</b> WSP 2025
	<b>Species at Risk Habitat</b> WSP 2025
	<b>Greenbelt Plan Boundary</b>
	<b>Cross Sections</b> SEE PAGE 5 OR 6 FOR EXISTING AND REHABILITATED CROSS SECTIONS

**Site Plan Amendments**

No.	Date	Description	By
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**PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE**  
200-540 BINGEMANS CENTRE DR, KITCHENER, ON N2B 3X9 | P: 519.576.3650 | WWW.MHBCPLAN.COM

This site plan is prepared under the Aggregate Resources Act (ARA) for a Class A licence for a pit below the ground water table and follows the Aggregate Resources of Ontario: Site Plan Standards August 2020, specifically Rehabilitation for all sites (Numbers 59-67 in the standards).

**A. General**

- The rehabilitated landform of this site will include: lakes, shallow shoreline area, wetland area, planting areas and above water and below water side slope.
- No buildings/structures or internal haul roads will remain on site upon completion of rehabilitation.

**B. Phasing**

- The proposed Safarik Pit will be rehabilitated on a progressive basis, corresponding to the operational progression of the pit excavation, to form two lakes and above water table area with nodal plantings/reforestation at final rehabilitation.
- As the pit is excavated to its maximum, or any other/lesser terminal limits, both horizontally and vertically on a lift-by-lift basis, progressive rehabilitation will follow the subject area is of an appropriate area to undergo rehabilitation (See Note G on page 3 of 5 for details).

3. The excavation perimeter will be fully side sloped at a maximum 2:1 below water (from original ground to floor), which is the natural angle of repose and a maximum of 3:1 for the above water portion. Sloping will occur as the limits of the pit excavation are reached. See Rehabilitation Plan drawing and Note C on this page.

4. Side slopes will be vegetated where located above the final water level of the pit lake and will include plantings in the setback areas and above water table final grades in order to enhance a diversity of native vegetation types and species that are anticipated to spread around the rehabilitated side slopes (see Note C and 'Nodal Planting Detail' on this page).

**C. Slopes and Grading**

1. Topsoil and overburden will be used in the progressive rehabilitation of the side slope areas. Side slopes above the water table will be rehabilitated using a combination of backfill and fill methods using on-site overburden, marketable material (til), and imported materials. Side slopes will be irregular with a maximum grade not steeper than 3:1. Above water side slope areas that will be vegetated will be covered with a minimum 15 cm of topsoil/organic matter prior to planting.

2. Importation of fill/excess soil:

- Excess soil, as defined in Ontario Regulation 244/97 may be imported to this site to facilitate the following rehabilitation:
  - Creation of 3:1 slopes (or sloping ratio otherwise described on this page)
  - Dressing to establish vegetation

b. Liquid soil, as defined in Ontario Regulation 406/19 under the Environmental Protection Act, is not authorized for importation to the site.

c. The quantity of excess soil imported to the site for final placement must be equivalent to or more than the quantity of aggregate required to meet standards as determined in accordance with Ontario Regulation 244/97 as amended from time to time and must be consistent with the site conditions and the end use identified in the approved rehabilitation plan.

d. Where a qualified person is retained or required to be retained in accordance with Ontario Regulation 244/97, the quality, storage, and final placement of excess soils shall be done according to the advice of the qualified person.

e. Excess soil imported to facilitate rehabilitation as described on this site plan shall be undertaken in accordance with Ontario Regulation 244/97 under the Aggregate Resources Act, as amended from time to time.

f. The cumulative total amount of excess soil that may be imported to this site for rehabilitation purposes is 1,800,000 m<sup>3</sup>

**D. Proposed Vegetation and Rehabilitated Features**

**Final Rehabilitation**

- The proposed final rehabilitation plan includes the creation of two lakes and terrestrial habitats comprised of backfilled areas, overburden slopes, nodal plantings and pollinator area. Shoreline widths and depths will be varied to promote maximum diversity within the habitat for fish and wildlife. The natural influx of external organic matter (i.e., leaf litter) will be promoted along shoreline areas adjacent to existing woodlands through management of forest edges and minimization of cleared areas between the extraction area and woodlands.
- The tree planting areas will be planted in accordance with the applicable details on this plan and where indicated on the Rehabilitation Plan.

**c. Plantings (i.e. nodal plantings)**

These plantings included in the rehabilitation plan should focus on locally native, non-invasive species that create habitat in the short term and promote natural succession processes. Aquatic plants will include shrubs such as red-osier dogwood (*Cornus sericea*) and slender willow (*Salix petiolaris*), and herbaceous plants such as water plantain (*Alisma plantago-aquatica*), lake sedge (*Carex lacustris*), swamp milkweed (*Asclepias incarnata*), softstem bulrush (*Schoenoplectus tabernaemontani*), and common cattail (*Typha spp.*). Shallow emergent marsh vegetation (i.e., herbaceous species listed above) will be created in water 0.15 m deep to be interspersed with cover structures (e.g., logs, debris, and root wads) in the shoreline areas. Basking logs, nesting platforms and boxes will be created for turtle, waterfowl, and swallows respectively.

**d. Plantings (i.e. pollinator plot area)**

These plantings shall include the following species: Common Milkweed (*Asclepias syriaca*), Showy tick-trefoil (*Desmodium canadense*), Wild bergamot (*Monarda fistulosa*), Foxglove beardtongue (*Penstemon digitalis*), Virginia mountain-mint (*Pycnanthemum virginianum*), Black-eyed Susan (*Rudbeckia hirta*), Early goldenrod (*Solidago juncea*), Frost aster (*Symphytum pilosum*), Smooth aster (*Symphytum laeve*), Hoary vervain (*Verbena stricta*), White vervain (*Verbena urticifolia*) and other suitable native plant species of open habitats. Wildflowers will be established in pollinator plot area by planting plugs. Local seed collection may also be used to augment wildflower species composition. Plugs should be planted when the risk of frost is low. Minor variations in species selections may be necessary depending on availability.

**e. Above water side slopes and Setback Areas**

Side slopes will be rough graded to a 3:1 aspect to ensure stability. The slopes will be seeded with a mix of grasses and legumes consisting of native, non-invasive species. Woody species planted in the setback areas may include white cedar, white spruce (*Picea glauca*), sugar maple, red maple, white birch and American basswood, white pine, white cedar, Norway spruce (*Picea abies*), European larch (*Larix decidua*), trembling aspen, and balsam poplar (see also 'Nodal Planting Detail' on this page). Shrubs such as serviceberry, nannyberry, ninebark (*Physocarpus opulifolius*), dogwoods, highbush cranberry (*Viburnum opulus*), elderberry, choke cherry (*Prunus virginiana*), willows and others may be used to add diversity and increase pollinator/wildlife diversity, particularly in the transition between wetland and upland areas (see also 'Nodal Planting Detail' on this page).

**2. Progressive Rehabilitation**

- Rehabilitation will be progressive following the direction of extraction and proceed as limits of extraction (area and depth) are reached. The sequence of rehabilitation will follow the "Sequence of Operations" diagram located on page 2 of 5. Minor deviations/variations in operational/rehabilitation sequence will be permitted in order to adjust for any variable resource and market conditions. Any major deviations from the operational sequence shown will require approval from MNR.
- This plan will be used as the primary guide for rehabilitation of the above water side slope areas. Side slope areas will be covered with a minimum 150 mm of topsoil/organic matter. Overburden will be used to backfill pit faces to desired finished grades (i.e. 3:1 slope).
- Setback areas will be planted with nodal planting cells (see the site plan and 'Nodal Planting Detail' on this page).
- The new wetland area shall be created in accordance with the Wetland Area Detail. Wetlands shall be created as part of progressive rehabilitation while operations are taking place in Area B.

**3. Vegetation**

Ground covers on above water side slopes will be established as part of the phased stripping operations that proceed extraction and will be maintained and replaced should it fail to establish itself to control erosion.

**4. Establishment of Slopes/Rehabilitated Areas**

Rehabilitation of this site involves the creation of 9.2 ha of lake including shallow shoreline areas, 0.6 ha of pollinator plot area, 0.1 ha of wetland area, 0.8 ha of tree planting areas and 11.5 ha of terrestrial landform comprised of above water side slopes and backfilled to grade area. The final pit landform will be in accordance with the drawing as shown on this page. Shallow shoreline widths and depths will be varied to promote maximum diversity within this habitat for fish and wildlife.

**E. Drainage**

**1. Final Surface Drainage**

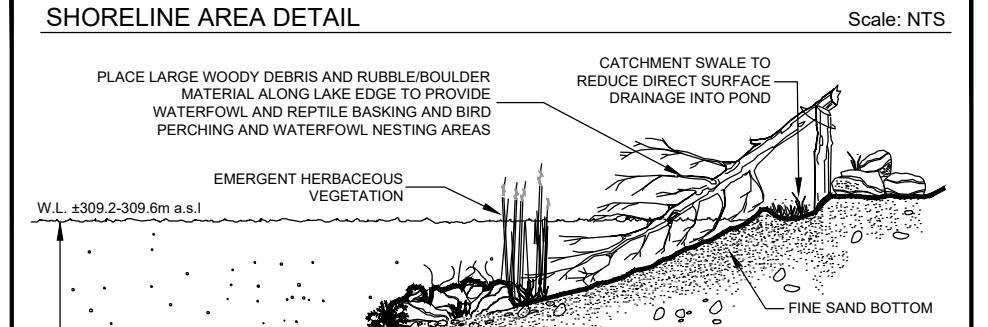
- No buildings or structures associated with aggregate operations will remain on site.
- The water level of the proposed lakes ( $\pm 309.2$  and  $\pm 309.6$  m.s.l.) and the post-extraction ground water table, are as shown on pages 1, 4 and 5 of 5 as per hydrogeological/hydrological assessment.

**F. Final Rehabilitation**

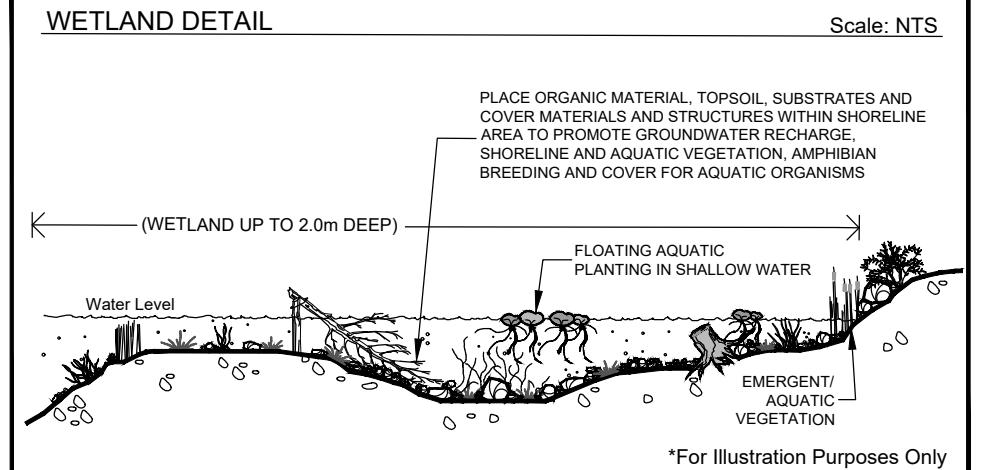
- No buildings or structures associated with aggregate operations will remain on site.

2. The water level of the proposed lakes ( $\pm 309.2$  and  $\pm 309.6$  m.s.l.) and the post-extraction ground water table, are as shown on pages 1, 4 and 5 of 5 as per hydrogeological/hydrological assessment.

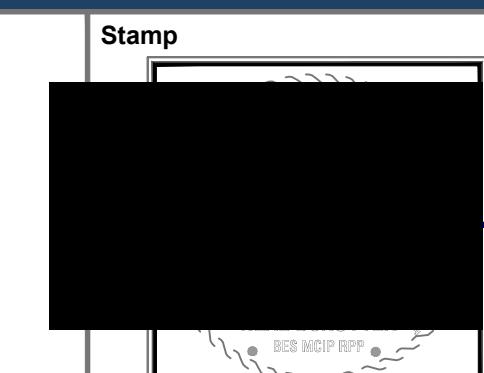
**SHORELINE AREA DETAIL**



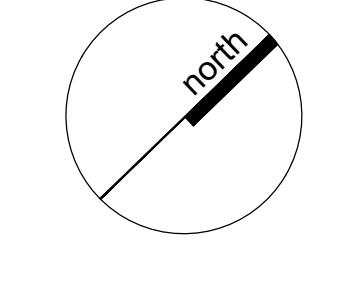
**WETLAND DETAIL**



**MNR Approval Stamp**



**Stamp**



**Applicant's Signature**

**Applicant**

**VOTORANTIM cimento**  
55 Industrial St. 4th Floor Toronto, Ontario M4G 3W9  
Telephone: (416) 696-4411

Andreanne Simard  
Director of Lands, Resources and Environment  
Votorantim Cimentos North America (VCNA)

**Project**

**Safarik Pit**

**ARA Licence Reference No.**

Pre-approval review:

**For submittal to MNR - November 2025**

Plan Scale 1:2,000 (Arch D) Plot Scale 1:2.0 [1mm = 2.0 units] MODEL

SCALE

Drawn By D.G.S. File No. Y321AR

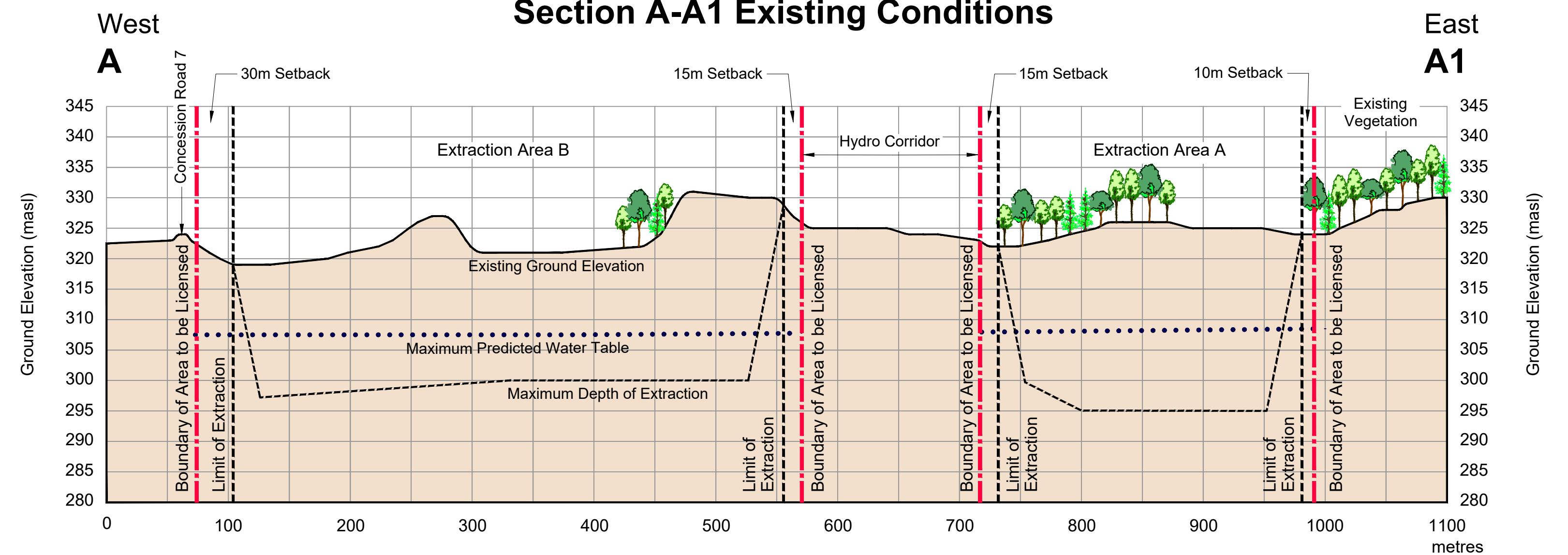
Checked By N.D.

File Name

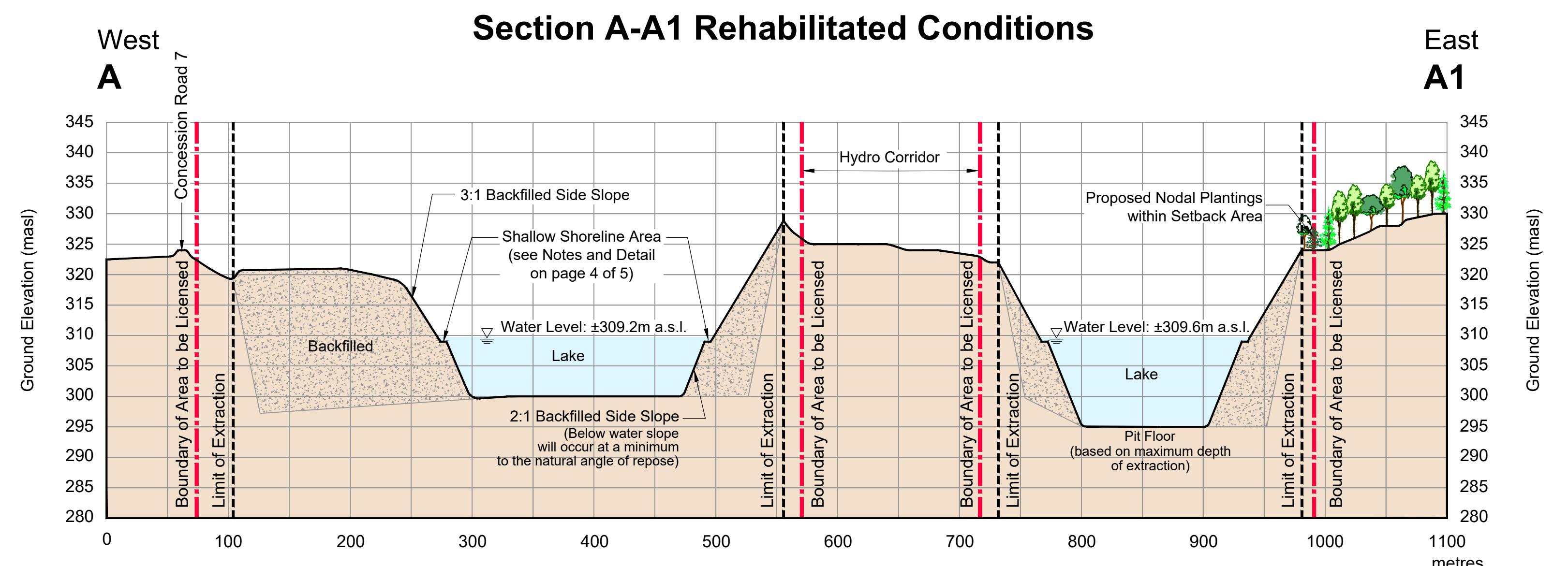
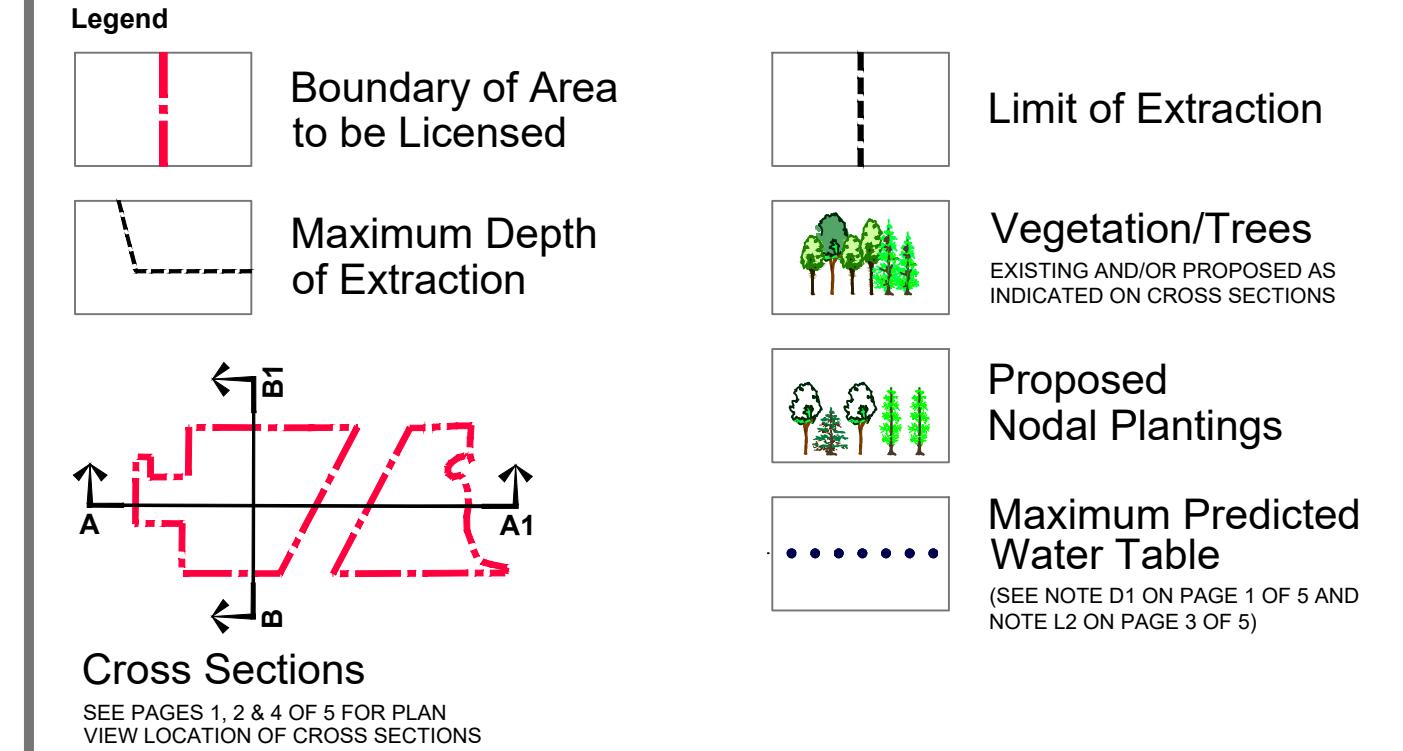
Y321AR

**REHABILITATION PLAN**

**4 OF 5**



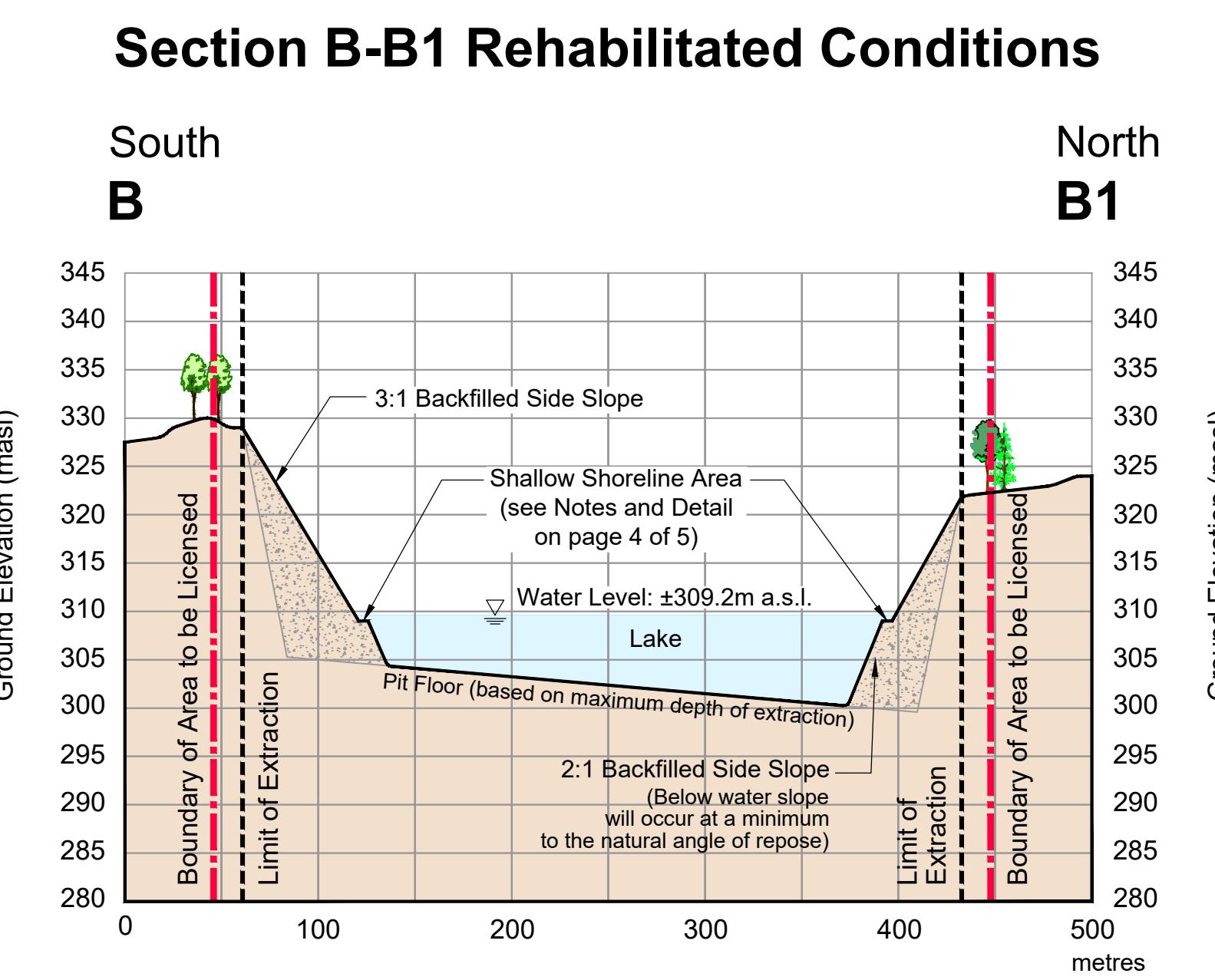
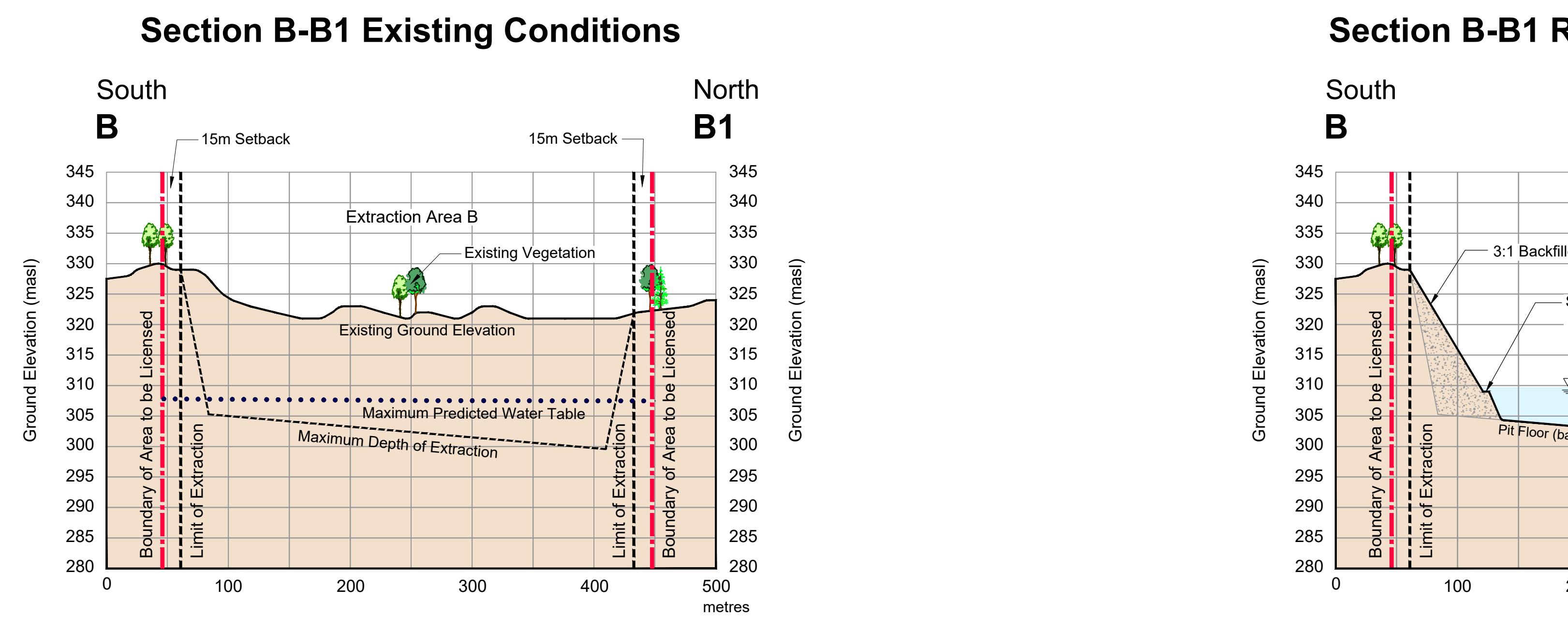
PART OF LOT 29  
CONCESSION 7  
(Geographic Township of Puslinch)  
TOWNSHIP OF PUSLINCH  
COUNTY OF WELLINGTON



Site Plan Amendments

No.	Date	Description	By
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**MHBC** PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE  
200-540 BINGEMANS CENTRE DR, KITCHENER, ON, N2B 3X9 | P: 519.576.3650 | WWW.MHBCPLAN.COM



MNR Approval Stamp

Stamp

Applicant

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Director of Lands, Resources and Environment  
Votorantim Cimentos North America (VCNA)

Project

**Safarik Pit**

ARA Licence Reference No. Pre-approval review:

For submittal to MNR - November 2025

Plan Scale: Horizontal 1:3,000 Vertical: 5x Exaggeration  
HORIZONTAL SCALE  
0 25 50 100 METRES  
Plot Scale: 1:3.0 [1mm = 3.0 units] MODEL  
Drawn By D.G.S. File No. Y321AR  
Checked By N.D.

File Name

CROSS SECTIONS PLAN

5 OF 5

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