

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
- Public Road - Paved
- Driveway - Gravel
- Driveway - Paved
- Existing Access
- Hydro Pole
- Hydro Tower
- 120m Zone
- Unevaluated Wetland
- Groundwater Monitor
- Limit of Significant Woodland
- Greenbelt Plan Boundary
- Limit of Extraction
- Contour with Elevation
- Existing Spot Height Elevation
- Building/Structure
- Existing Vegetation
- Direction of Surface Drainage
- Parcel Fabric
- Archaeological Site
- Significant Wildlife Habitat
- Species at Risk Habitat
- Cross Sections

Site Plan Amendments

No.	Date	Description	By

MHC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE
 300-540 BRIDGMAN CENTRE DR., KITCHENER, ON, N2B 3X9 | P: 519.576.3650 | WWW.MHCPLAN.COM

MNR Approval Stamp

Stamp

Neal DeWitt
 NEAL DEWITT
 REG. M.P. 107

North

Applicant

Applicant's Signature

VOTORANTIM cimentos **cbm**

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: _____

Plan Scale 1:2,000 (Arch D) **SCALE** 0 25 50 100 METRES

Plot Scale 1:2.0 [1mm = 2.0 units] MODEL

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

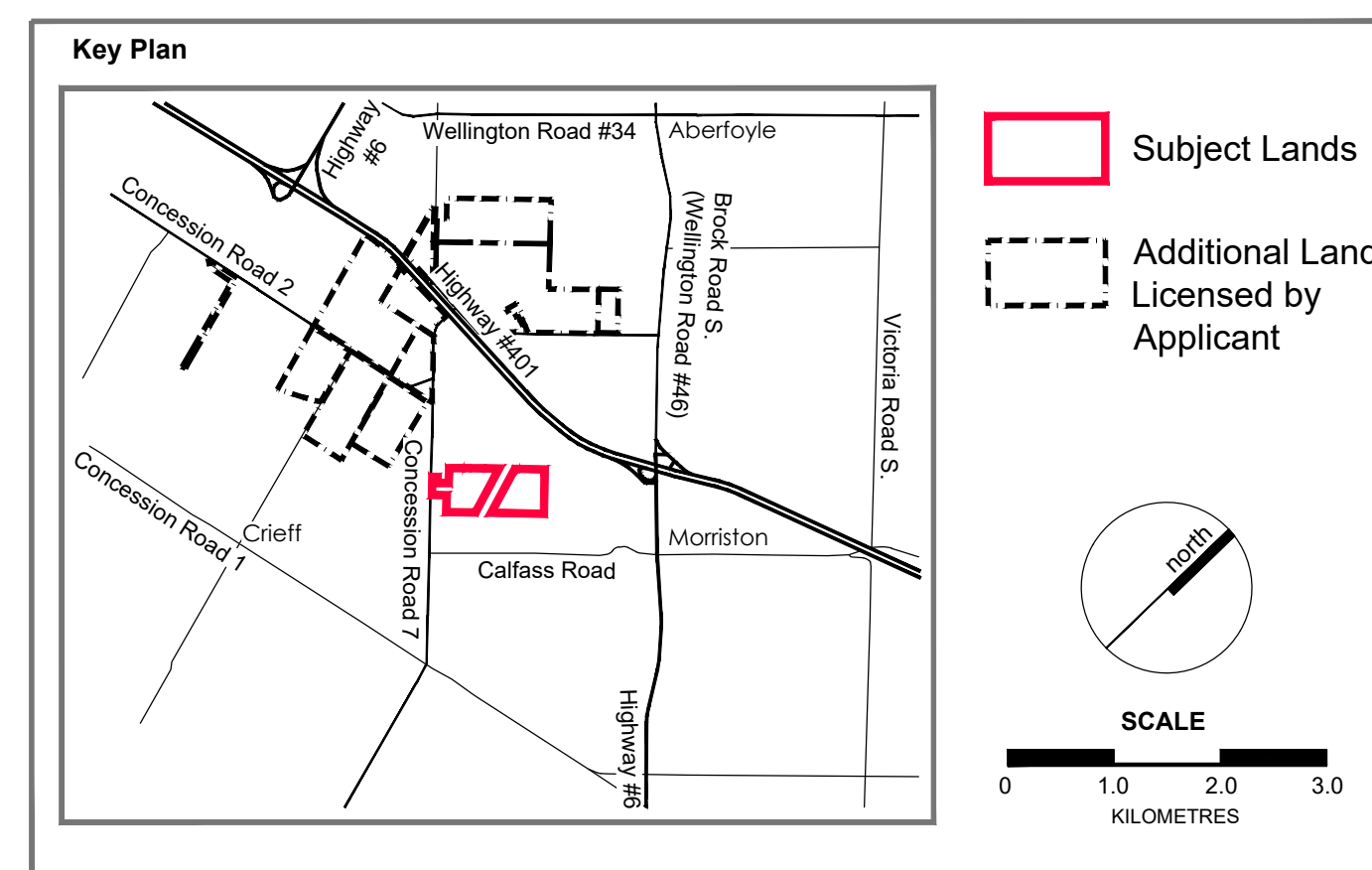
Checked By N.D.

File Name **EXISTING FEATURES PLAN**

Drawing No. **1 OF 5**

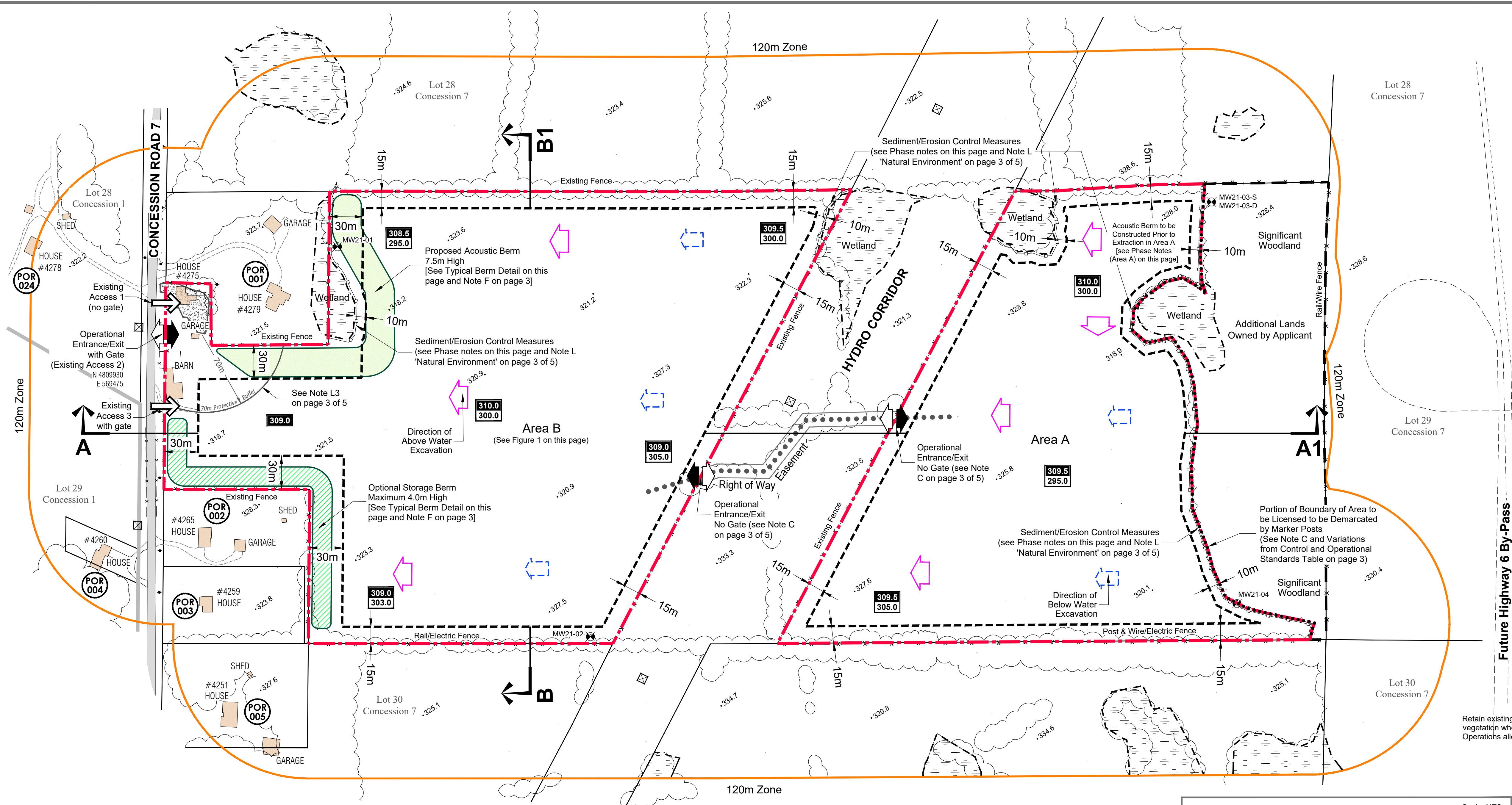
- Notes**
- A. General**
- This site plan is prepared under the Aggregate Resources Act (ARA) for a Class A licence for a pit below the ground water table and follows the Aggregate Resources of Ontario: Site Plan Standards August 2020, specifically Existing Features for all sites (Numbers 1-26 in the standards).
 - Area Calculations:
 Licence Area: 27.6 hectares (68.2 acres)
 [0.9 ha or 0.3% of Licence Area is within the Greenbelt Area Protected Countryside]
 Limit of Extraction: 21.3 hectares (52.6 acres)
 - All measurements shown are in metres unless specified otherwise.
- B. References**
- Topographic information compiled by GeoOptic (a division of Aeon Egmond Ltd.). Data from GeoOptic was produced from aerial photography that was flown on April 25, 2023. Mapping is produced in real world scale and coordinates (NAD83 UTM Zone 17N). Contour interval is 1m. All elevations are geodetic (HT2 2010v70).
 - Plan of Survey prepared by Delph & Jenkins North Ltd. December 8, 2022.
 - Adjacent parcel fabric from Wellington County GIS/Open data.
 - The subject lands are zoned Agricultural (A) and Natural Environment (NE) in the Township of Puslinch Comprehensive Zoning By-law No. 023-18 [Consolidation Date: May 2021].
 - Wetland boundaries provided by WSP Canada Inc.
 - Land use information compiled from 2023 imagery, site visits and client input.
- C. Drainage**
- Surface drainage on and within 120 metres of the licence boundary is by overland flow in the directions shown by arrows on the plan view or by infiltration.
- D. Groundwater**
- Based on the available groundwater elevation data, the maximum water table on the site is 306.99 masl in the western portion of the site [as measured at MW21-01(SAF)] to 308.52 masl in the east portion of the site [as measured at MW21-03-D (SAF)].
- E. Site Access and Fencing**
- There are existing field accesses to the site from Concession Road 7 in the location shown on the plan view. Also, a right of way easement exists across the hydro corridor for access to the easternmost parcel.
 - Post and wire fencing (unless noted otherwise) exists in the locations shown on the plan view.
- F. Aggregate Related Site Features**
- There are no existing aggregate operations or features on-site such as processing areas with stationary or portable equipment, stockpiles, recyclable materials, scrap, haul roads, fuel storage, berms or excavation faces.

- G. Significant Natural Features**
- On-site: unevaluated wetlands, significant woodlands, significant wildlife habitat (barn swallow, grasshopper sparrow) and species at risk [SAR] habitat (eastern small-footed myotis, little brown myotis, Bobolink, Eastern meadowlark)
 - Off-site within 120m: Galt Moraine ANSI, unevaluated wetlands, significant woodlands, significant wildlife habitat (amphibian breeding, barn swallow, eastern wood peewee, grasshopper sparrow, Hairy Solomon's Seal) and species at risk [SAR] habitat (eastern red bat, hoary bat, silver-haired bat, eastern small-footed myotis, little brown myotis, Bobolink, Eastern meadowlark)
- H. Human-made Features**
- On-site: House, Garage, Barn
 - Off-site within 120m: Hydro Corridor, Houses and other associated buildings, Roads
- I. Cross Sections**
- As shown on this page. Detailed sections are shown on page 5 of 5.
 - Cross section locations are identified on the plan view for each drawing.
- J. Report References**
- Noise: "Noise Assessment Report, Proposed Safarik Pit" November 2025 (Source: WSP Canada Inc.)
 - Natural Environment: "Natural Environment Report, Proposed Safarik Pit" September 26, 2025 (Source: WSP Canada Inc.)
 - Hydrogeology: "Safarik Pit Level One and Two Water Report" October 10, 2025 (Source: WSP Canada Inc.)
 - Maximum Predicted Water Table Report: "Safarik Pit Maximum Predicted Water Table Report" October 2, 2025 (Source: WSP Canada Inc.)
 - Archaeology: "Stage 1 and 2 Archaeological Assessment Safarik Pit" September 2025 (Source: WSP Canada Inc.)
 - Traffic: "Traffic Impact Study CBM Safarik Pit" August 2025 (Source: TYLin)
 - Dust: "Best Management Practices Plan for the Control of Fugitive Dust" October 2025 (Source: WSP Canada Inc.)
 - Heritage: "CBM Safarik Pit Heritage Impact Assessment" October 15, 2025 (Source: WSP Canada Inc.)



Legend

- Boundary of Area to be Licensed
- Additional Lands Owned by Applicant
- Existing Spot Height Elevation (METRES ABOVE SEA LEVEL)
- Existing Fence (POST & WIRE FENCE UNLESS OTHERWISE NOTED)
- Building/Structure (LOCATION AND USE FOR BUILDINGS ON-SITE AND WITHIN 120m ARE SHOWN)
- Existing Vegetation
- Existing Access
- Unevaluated Wetland (WSP (2022))
- Groundwater Monitor (WSP 2023)
- Limit of Significant Woodland (STAKED BY WSP 2024)
- Cross Sections (SEE PAGE 5 OF 5 FOR EXISTING AND REHABILITATED CROSS SECTIONS)
- Limit of Extraction (ALL SETBACKS ARE DRAWN TO SCALE AND SHOW LABELLED DISTANCES)
- Operational Entrance/Exit (MAINTAINED BY A GATE WHICH WILL BE CLOSED WHEN PIT IS NOT IN OPERATION)
- Direction of Above Water Excavation (SEE NOTES ON THIS PAGE/PAGE 3 OF 5)
- Direction of Below Water Excavation (SEE NOTES ON THIS PAGE/PAGE 3 OF 5)
- Elevation (ABOVE WATER DEPTH OF EXTRACTION; MAXIMUM DEPTH OF BELOW WATER EXTRACTION/PIT FLOOR)
- Internal Haul Road (INITIAL TYPICAL LOCATION; LOCATION TO VARY AS OPERATIONS PROGRESS)
- Acoustic Berm (SEE "TYPICAL BERM DETAIL" ON THIS PAGE AND NOTES ON PAGE 3 OF 5)
- Optional Storage Berm (SEE "TYPICAL BERM DETAIL" ON THIS PAGE AND NOTES ON PAGE 3 OF 5)
- Receptor Locations
- Sediment/Erosion Control Measures



Site Plan Amendments

No.	Date	Description	By

MHC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE
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MNR Approval Stamp:

Stamp:

North Arrow:

Applicant: **VOTORANTIM cimentos** **cbm**

Applicant's Signature:

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 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: _____

Plan Scale 1:2,000 (Arch D) **SCALE** 0 25 50 100 METRES

For submittal to MNR - November 2025
 Plot Scale 1:2.0 [1mm = 2.0 units] MODEL

Drawn By: D.G.S. File No. _____
 Checked By: N.D. Y321AR

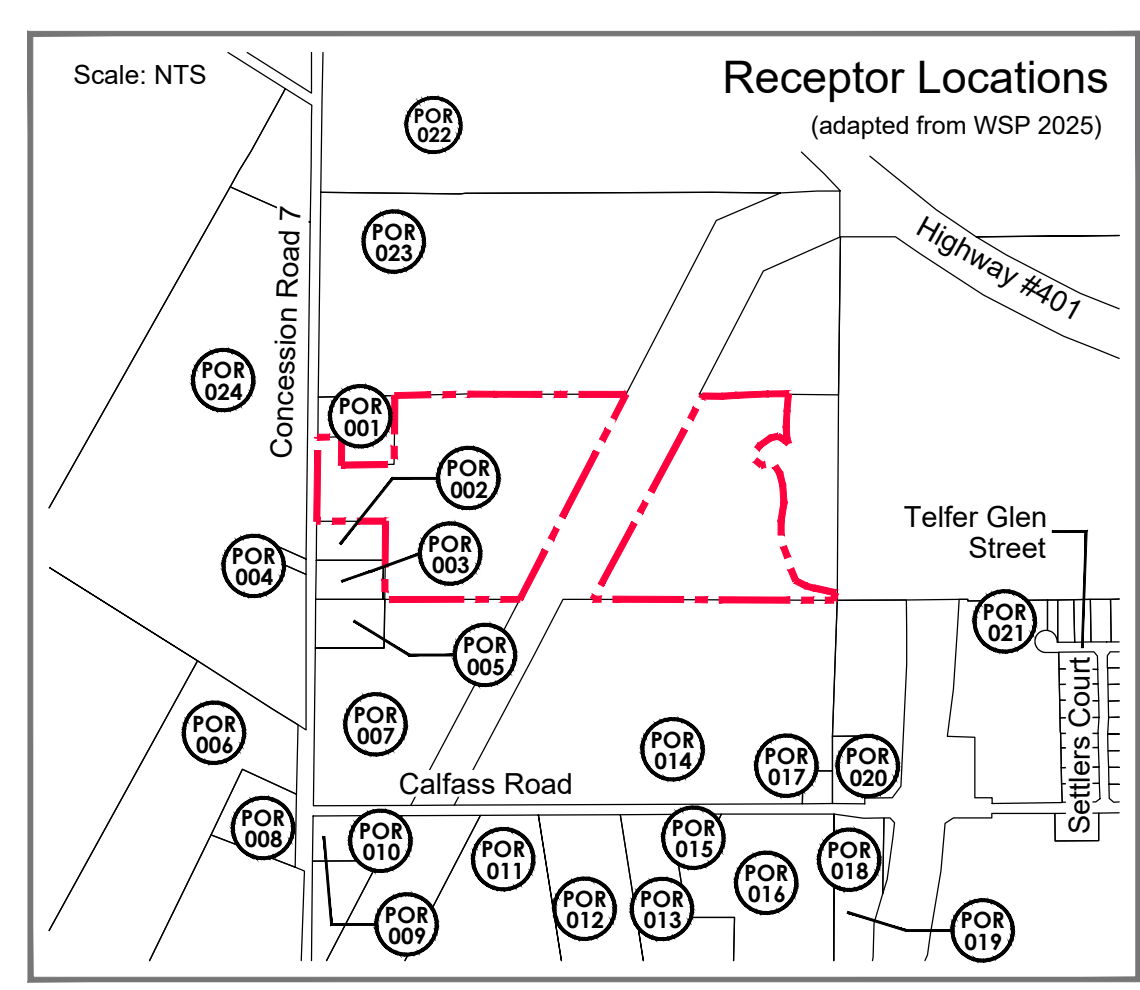
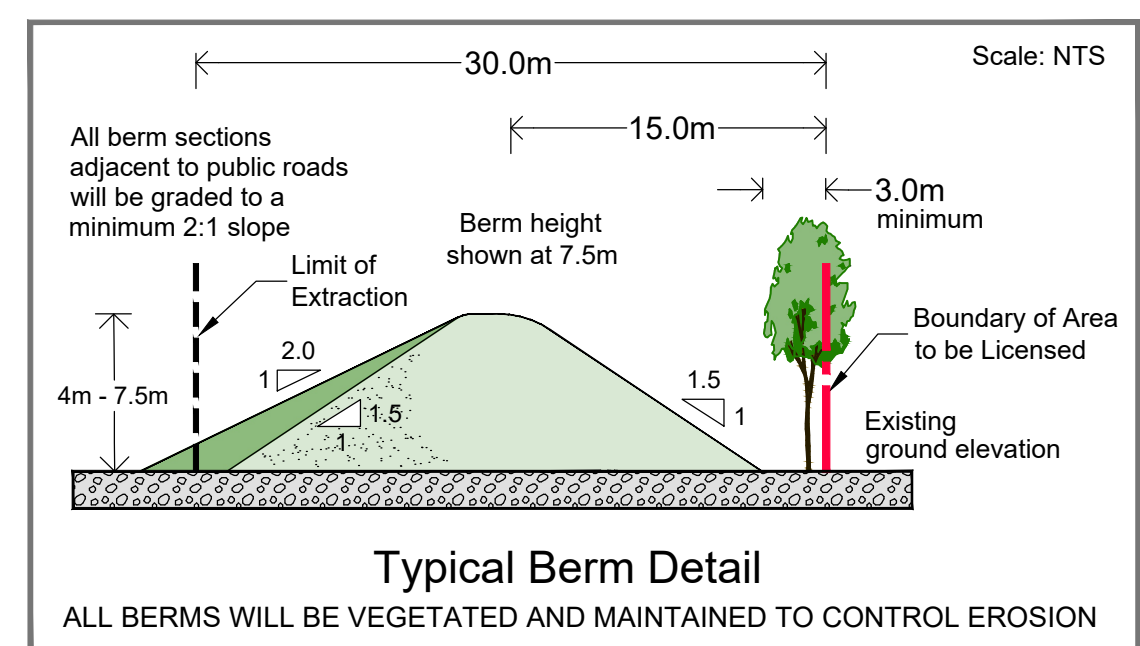
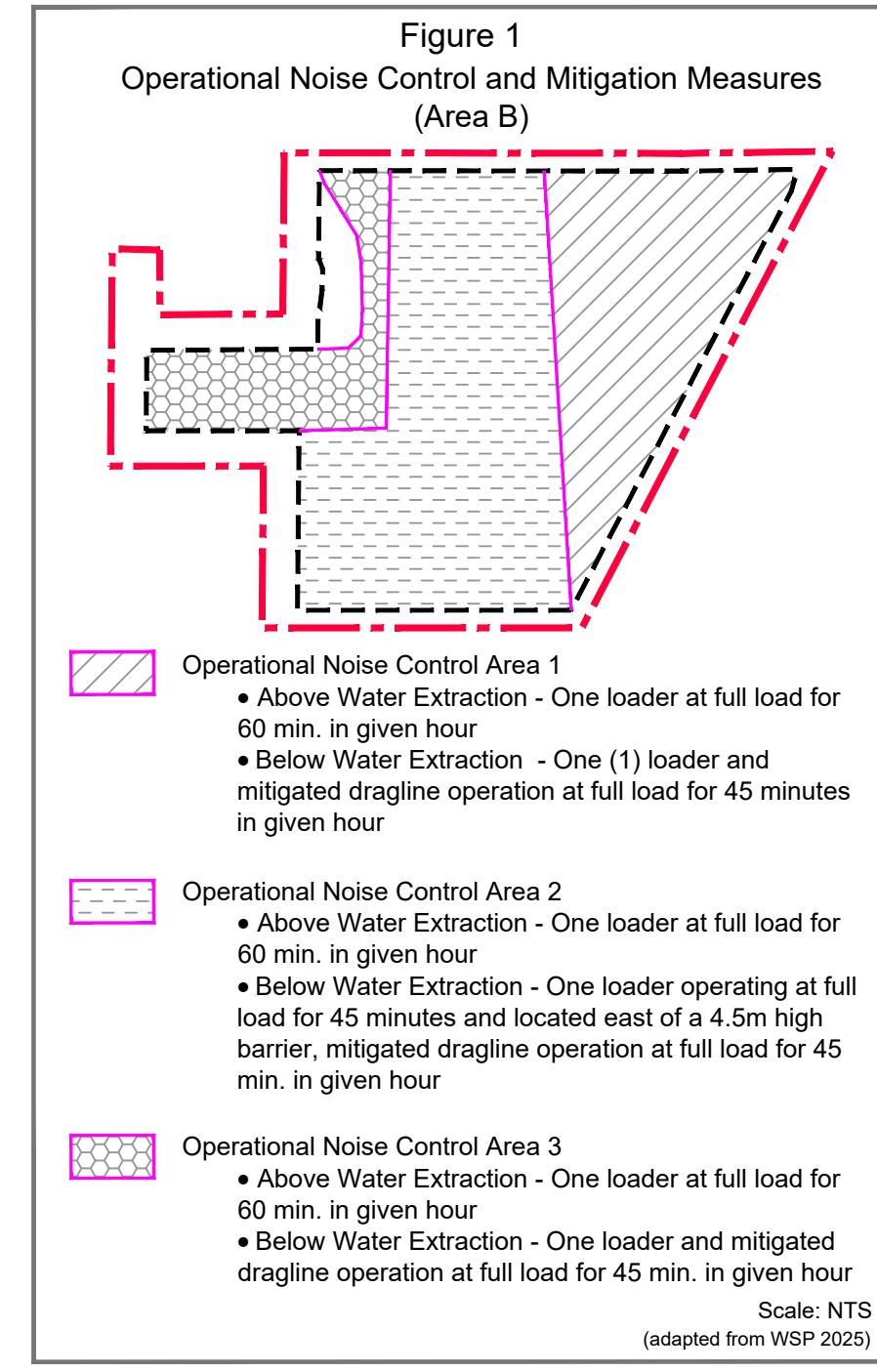
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 Drawing No. **2 OF 5**

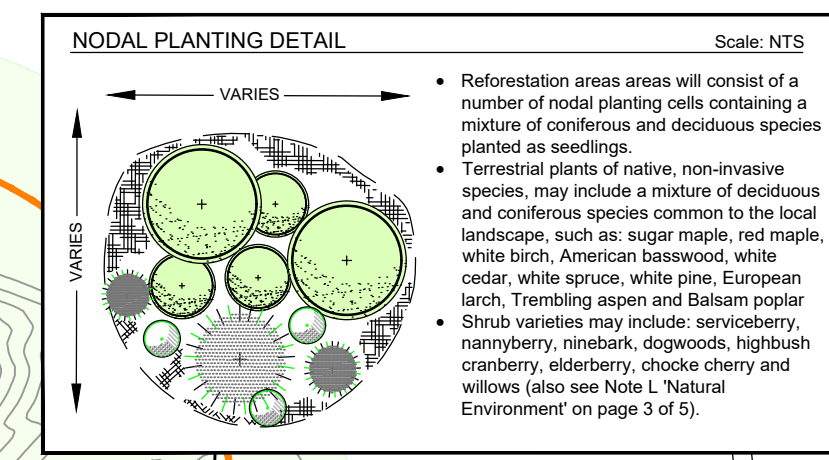
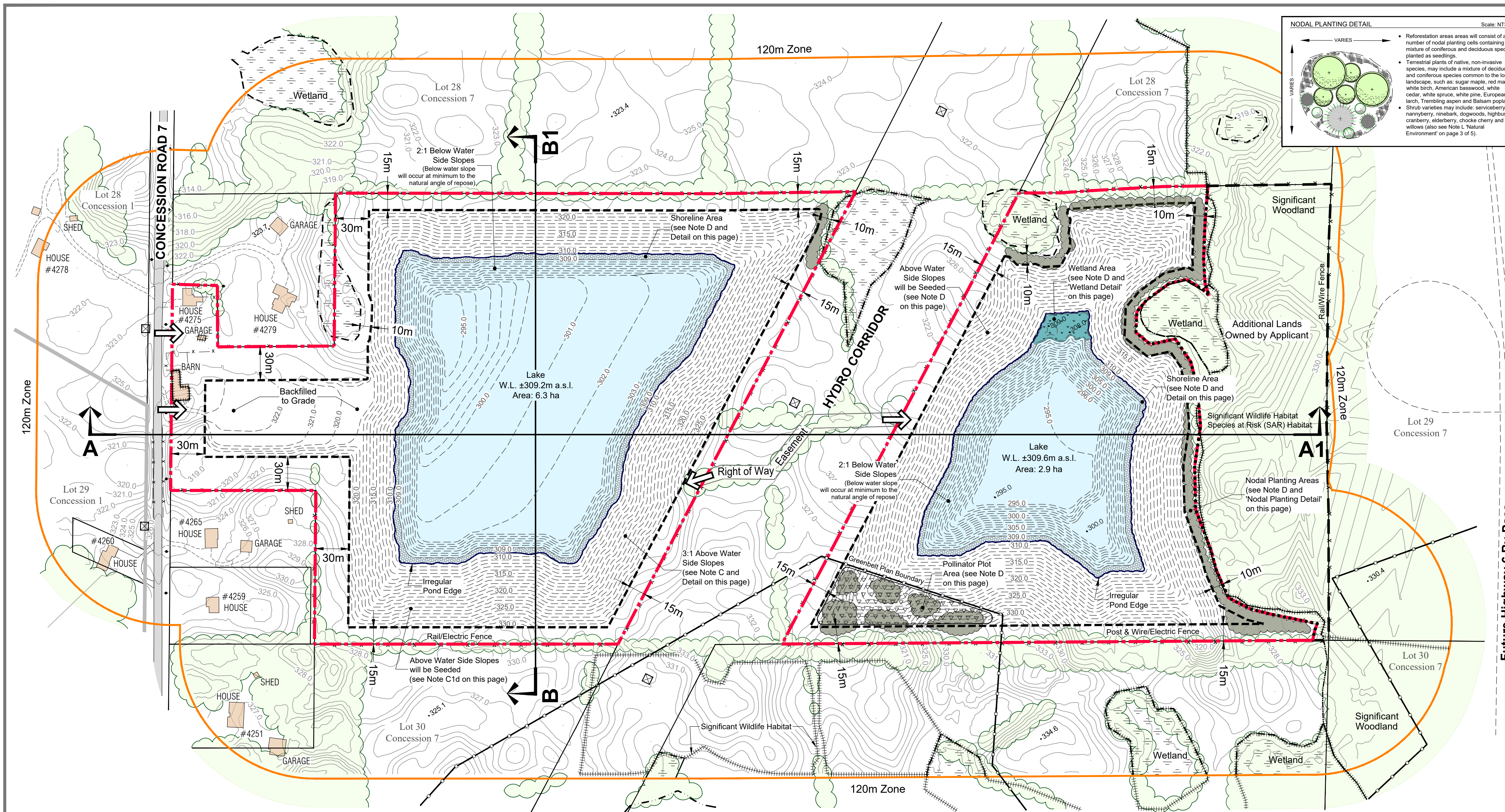
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- Phase Notes:**
- Area A**
- Establish 10m setback/limit of extraction from significant woodlands and wetlands as shown.
 - Prior to extraction, and where applicable, sediment/erosion control measures (eg. silt fencing) will be installed as shown.
 - 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 Operational 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 a 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
- Contour with Elevation METRES ABOVE SEA LEVEL
- Existing Spot Height Elevation METRES ABOVE SEA LEVEL
- Building/Structure LOCATION AND USE FOR BUILDINGS ON-SITE AND WITHIN 120m AREA SHOWN
- Existing Vegetation
- Existing Fence POST & WIRE FENCE UNLESS OTHERWISE NOTED
- Existing Access
- Unevaluated Wetland WSP (2022)
- Significant Woodland STAKED BY WSP 2024
- Greenbelt Plan Boundary
- Cross Sections SEE PAGE 5 OF 5 FOR EXISTING AND REHABILITATED CROSS SECTIONS
- Limit of Extraction ALL SETBACKS ARE DRAWN TO SCALE AND SHOW LABELLED DISTANCES
- Proposed Contour METRES ABOVE SEA LEVEL
- Proposed Elevation REHABILITATED ELEVATION
- Post Extraction Pond
- Proposed Wetland Area (SEE DETAIL ON THIS PAGE)
- Proposed Shoreline Area (SEE DETAIL ON THIS PAGE)
- Nodal Planting Areas LOCATION APPROXIMATE
- Pollinator Plot Area
- Significant Wildlife Habitat WSP 2025
- Species at Risk Habitat WSP 2025

Site Plan Amendments

No.	Date	Description	By

MHC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE
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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 slopes.
- 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/forestation 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 provided the subject area is of an appropriate area to undergo rehabilitation (See Note G on page 3 of 5 for details).
- 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.
- Side slopes will be vegetated where located above the final water level of the pit lakes 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).

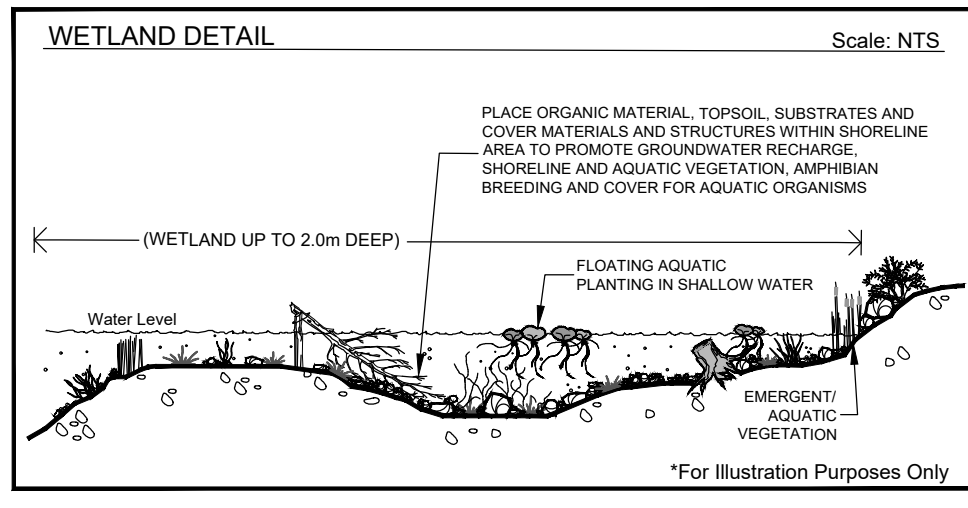
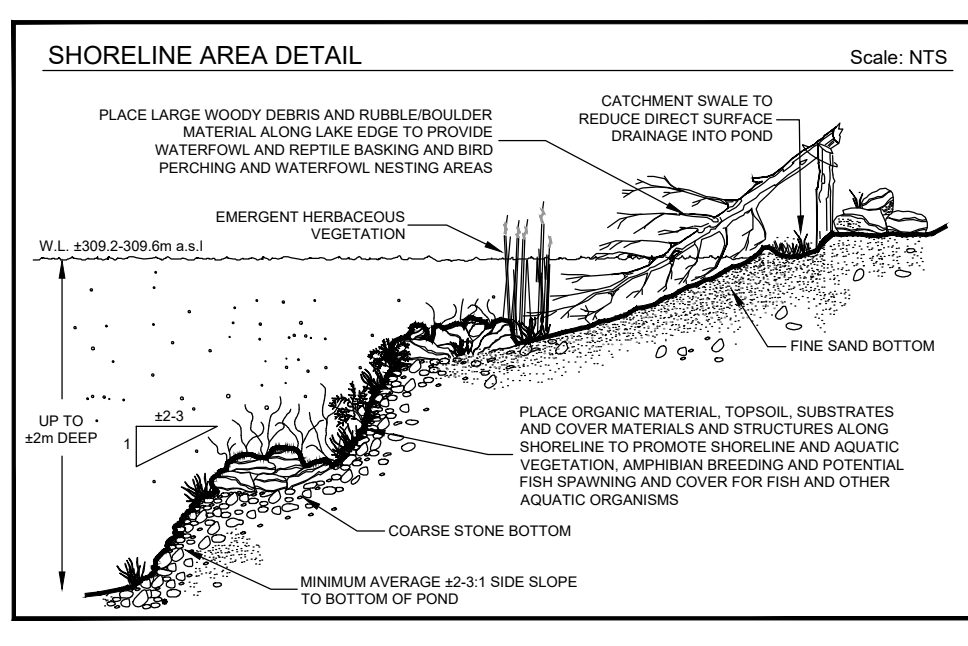
C. Slopes and Grading

- Topsoil and overburden will be used in the progressive rehabilitation of the side slope areas. Side slopes above the water table will be established using a combination of backfill and/or cut and fill methods using on-site overburden, unmarketable material (fill), and/or imported materials. Side slopes will be irregular with an average top to bottom 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.
- 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)
 - Top dressing to establish vegetation
 - Liquid soil, as defined in Ontario Regulation 406/19 under the Environmental Protection Act, is not authorized for importation to the site.
 - The quality of excess soil imported to the site for final placement must be equivalent to or more stringent than the applicable excess soil quality 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.
 - 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.
 - 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.
 - The cumulative total amount of excess soil that may be imported to this site for rehabilitation purposes is 1,800,000 m³.

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 areas. 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.
 - 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 peipolaris*), and herbaceous plants such as water plantain (*Alisma plantago-aquatica*), lake sedge (*Carex lasiocarpis*), swamp milkweed (*Asclepias incarnata*), softstem bulrush (*Scheuchzeria palustris*), and common cattail (*Typha* spp.). Shallow emergent marsh vegetation (i.e., herbaceous species listed above) will be planted in water ±0.15 m deep and be interspersed with cover structures (e.g., boulders and root wads) in the shoreline areas. Basking logs, nesting platforms and boxes will be created for turtle, waterfowl, and swallows respectively.
 - 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 (*Symphoricarum pilosum*), Smooth aster (*Symphoricarum 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.
 - 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).

- 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 operations sequence shown will require approval from MNR.
 - Topsoil will be used in the progressive rehabilitation of the above water side slope areas. Side slope areas will be covered with a minimum 150mm 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.
- 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.
- 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.
- Drainage**
 - Final surface drainage will follow the rehabilitated contours as shown.
- Final Rehabilitation**
 - No buildings or structures associated with aggregate operations will remain on site.
 - The water level of the proposed lakes (±309.2 and ±309.6m a.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.



MNR Approval Stamp

Stamp

(Signature)

Applicant's Signature

(Signature)

Applicant

VOTORANTIM cimentos **cbm**

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Telephone: (416) 696-4411

Applicant's Signature

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

0 25 50 100 METRES

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

Checked By N.D. Y321AR

File Name **REHABILITATION PLAN**

Drawing No. **4 OF 5**

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