

- 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 Standards August 2020, specifically Existing Features for oil sites (Numbers 1-26 in the standards)
  - Area Calculations:  
Licence Area: 17.9 hectares (44.2 acres)  
Limit of Extraction: 15.4 hectares (38.1 acres)
  - All references to north, south, east and west on this site plan are based on site north (not true north).
  - All measurements shown are in metres unless specified otherwise.
- B. References**
- Topographic information compiled by GeoOptic (a Division of Aeon Edmond Ltd.) produced from aerial photography flown July 19, 2018. Mapping is produced in real world scale and coordinates (NAD83 UTM Zone 17N). Contour interval is 1m. All elevations shown are in metres above sea level (masl). Contours for existing site (Licence #6593) from drone flight flown by Lafarge, October 2020.
  - The licence boundary was established using property boundary compiled from Plan of Survey prepared by: H.F. Grandier Co. Ltd., Ontario Land Surveyor, October 5, 1971 (Plan 40R-6692).
  - Existing zoning on and within 120 metres of the licence is from the Township of Uxbridge Zoning By-law 81-19 (as amended), Office Consolidation July 2020. The site is currently zoned Rural (RU).
  - Existing designations from Township of Uxbridge Official Plan (office consolidation 2014).
  - Land use information and structures identified on or within 120 metres of the site boundary was determined using July 2018 aerial imagery and 2018/2020 site visits.
- C. Drainage**
- There are no permanent surface water features on-site or within 120m. 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. Surface water drainage in the existing Lafarge Goodwood Pit to the south is by infiltration.
- D. Maximum Predicted Water Table**
- The water table elevation on site ranges between 322.25 masl in the southeast portion of the site (MW18-02) to 320.97 masl in the northeast portion of the site (MW18-01). The existing water table elevations are shown in each cross section on this drawing and drawing 3 of 3.
- E. Site Access and Fencing**
- There is an existing field access from Concession Road 4.
  - 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 Heritage Features On and Within 120m of Site**
- On-site: Bank Swallow, Eastern Meadow Lark and Little Brown Myotis
  - Off-site and within 120m: Significant Woodland
- H. Significant Human-made Features On and Within 120m of Site**
- There are no known built heritage resources on site or within 120m of the site
  - A Euro-Canadian Archaeological Site is located on site (Site 2 BaG1-45)
- I. Cross Sections**
- As shown on this page.
  - Cross section locations are identified on the plan view for each drawing.
- J. Technical Reports - References**
- Hydrogeology: "Water Report Level 2, Lafarge Goodwood Pit Extension" June 2023 (Source: WSP)
  - Maximum Predicted Water Table Elevation: "Lafarge Goodwood Pit Extension: Maximum Predicted Water Table Elevation", June 7, 2023 (Source: WSP)
  - Natural Environment: "Proposed Goodwood Pit Extension Natural Environment Level 1 and 2 Technical Report", July 2023 (Source: WSP)
  - Noise: "Noise Impact Study - Project: 18200.00 Goodwood Pit Extension, Township of Uxbridge, Ontario" April 16, 2023 (Source: Aerocoustics Engineering Ltd.)
  - Archaeology: Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled: "Stage 3 Archaeological Assessment: Goodwood Location 1 (BaG1-45), Lafarge Goodwood Extension Property, Part of Lot 20, Concession 3, Geographic Township of Uxbridge, former Ontario County, now Regional Municipality of Durham, Ontario". Dated Jul 13, 2021. Filed with MHSTCI Toronto Office on Jul 14, 2021. MHSTCI Project Information Form Number P236-0679-2021. MHSTCI File Number 0009350.
  - Air Quality Assessment: "Lafarge Goodwood Pit Extension, Goodwood Ontario, Air Quality Assessment" April 20, 2023 (Source: RWDI Air Inc.)

**Legal Description**  
PART OF LOT 20  
CONCESSION 3  
Township of Uxbridge  
Region of Durham

**Legend**

- Boundary of Area to be Licensed
- Existing Licensed Boundary
- Existing Fence
- Public Road
- Private Driveway/Laneway
- Existing Farm/Field Access
- Monitoring Wells
- Parcel Fabric
- Hydro Pole
- Cross Sections
- Limit of Extraction
- Existing Extraction Limit
- Contour and Elevation
- Spot Height Elevation
- Building/Structure
- Existing Vegetation
- Direction of Surface Drainage
- Maximum Predicted Water Table
- Archaeological Site

**Site Plan Amendments**

No.	Date	Description	By

MNRF Approval Stamp

Stamp

**MHBC** PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

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**LAFARGE** Building better cities™

Applicant's Signature  
Chris Galway  
Senior Land Manager - East Central Ontario  
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**Project**  
**Goodwood Pit Extension**  
Lafarge Canada Inc.  
6509 Airport Road, Mississauga Ontario L4V 1S7  
Tel: (905) 738-7732

MNRF Licence Reference No. \_\_\_\_\_ Pre-approval review: \_\_\_\_\_

For Application Submission - January 2024

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

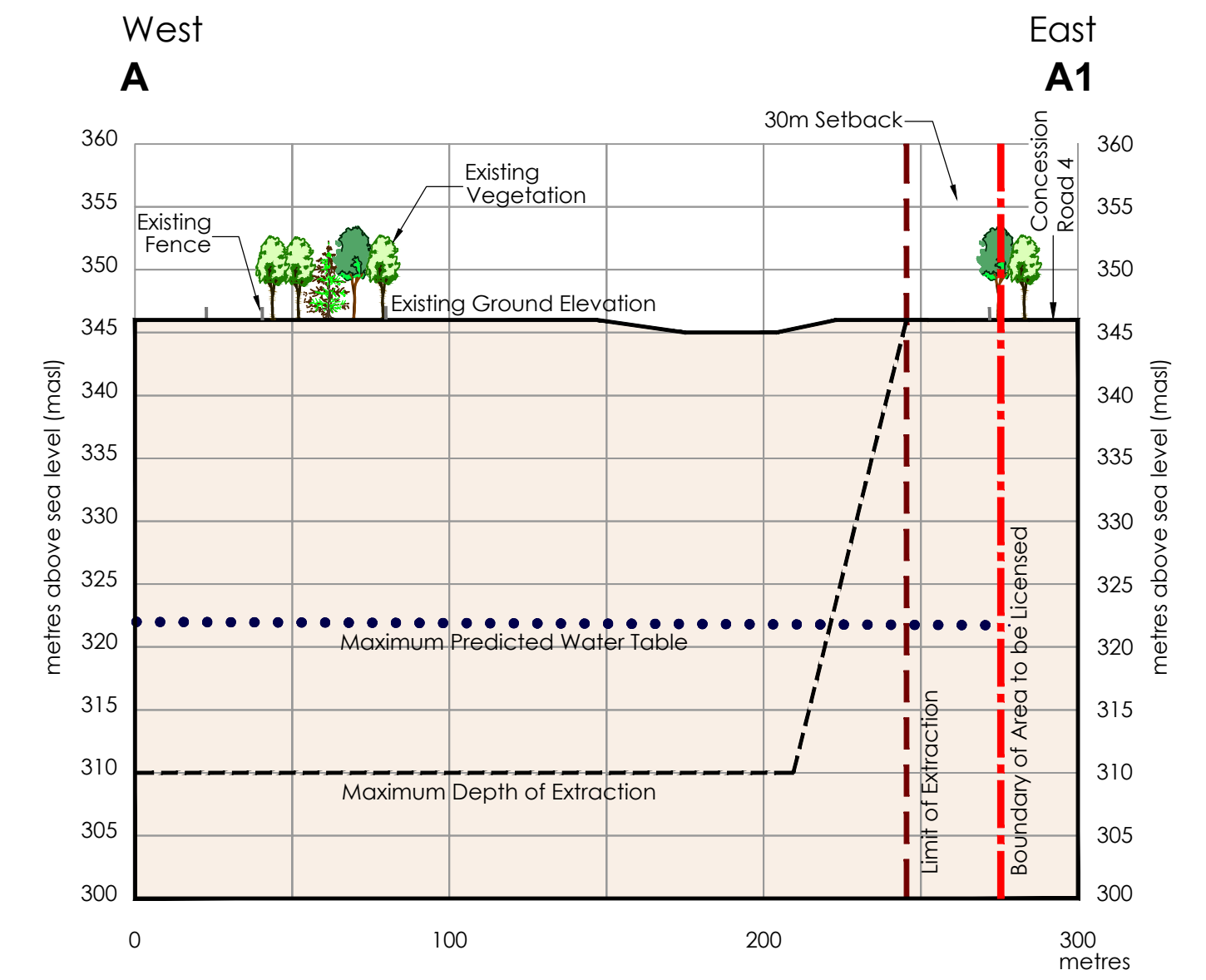
Plan Scale: See Plan

HORIZONTAL SCALE

25 0 25 50 75 100 METRES

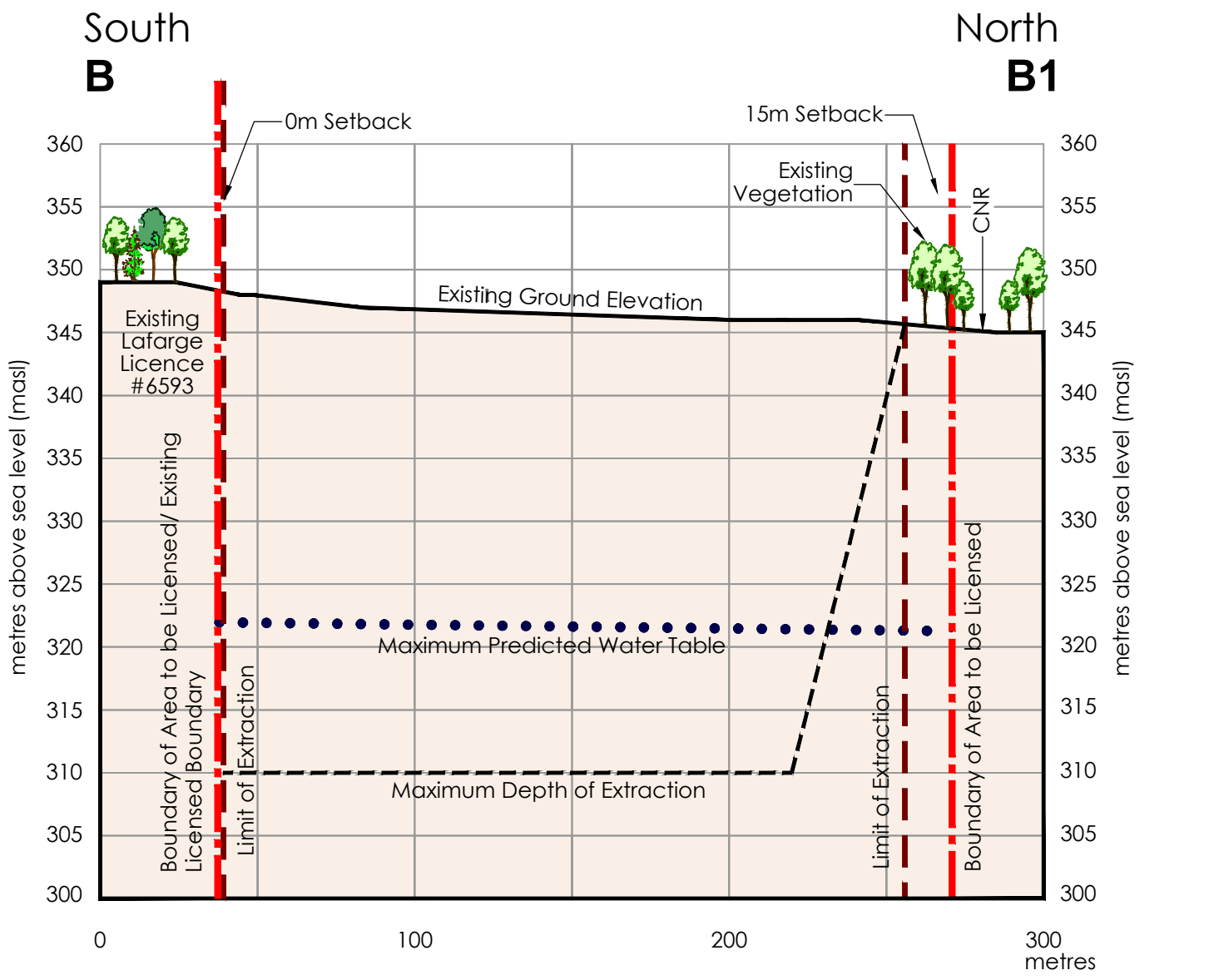
Drawn By D.G.S. File No. 9526HC

Checked By C.P.



**Section A-A1 - Existing Conditions**

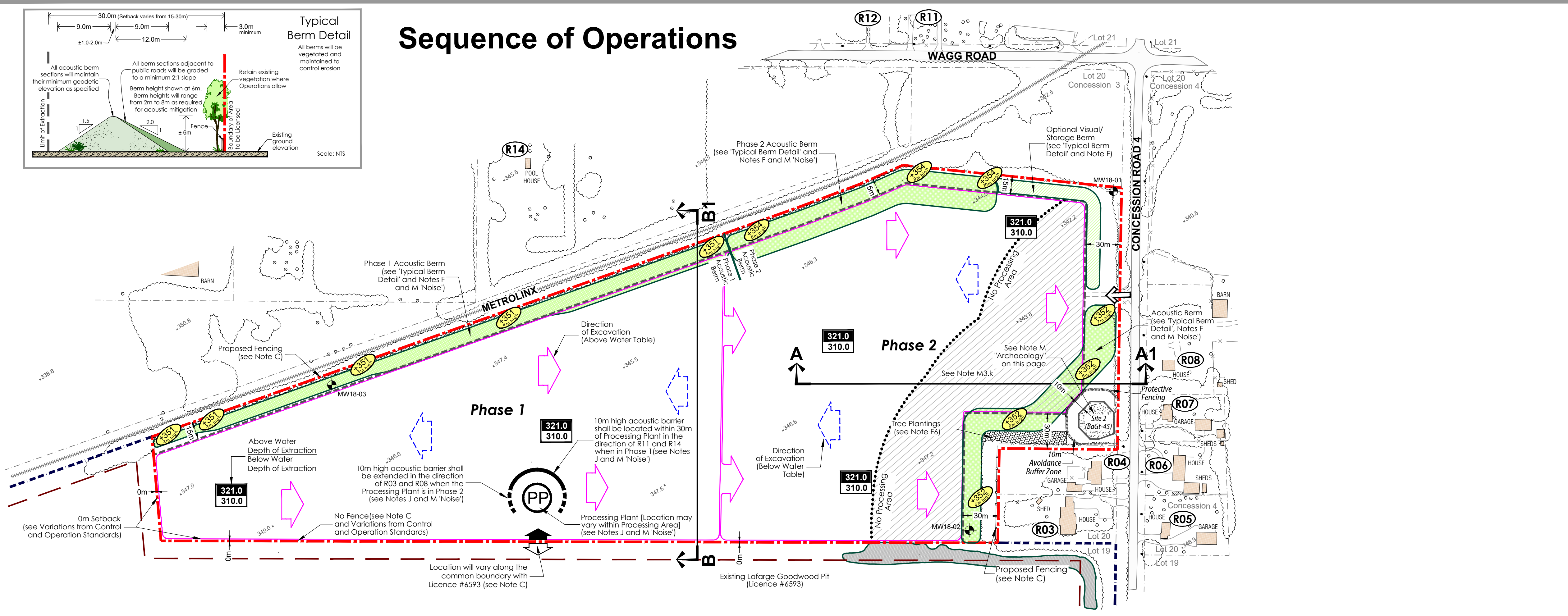
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Vertical Exaggeration 4x



**Section B-B1 - Existing Conditions**

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# Sequence of Operations



**A. General**

- Area Calculations:  
Licence Area: 17.9 hectares (44.2 acres)  
Limit of Extraction: 15.4 hectares (38.1 acres)
- The total tonnage to be excavated annually from this site, in conjunction with the existing Goodwood Pit Licence #6593, will not exceed 1,177,000 tonnes.
- No buildings or structures (including a scale and scale house) are proposed.
- The water table elevation on site ranges between 322.25 msl in the southwest portion of the site (MW18-02) to 320.97 msl in the northeast portion of the site (MW18-01). The existing water table elevations are shown in each cross section on drawings 1 and 3 of 3.
- Setbacks will be as shown and labelled on the Sequence of Operations Diagram on this page and page 1 of 3. There will be a 0m setback along the southern property boundary adjacent to Licence #6593 (see Section N Variations from Control and Operation Standards).
- Agricultural production may continue in areas not under extraction.
- Source Water Protection: The site is located in the Lake Simcoe and Couchiching/Black River Source Protection Area. The site is not mapped as being located in a Well Head Protection Area (WHPA), but is located in a Significant Groundwater Recharge Area and a Highly Vulnerable Aquifer Area. Mitigation measures are outlined in the Hydrogeology notes under Section M Report Recommendations.

**B. Hours of Operation**

- Hours of Operation are as described in the Noise notes under Section M Report Recommendations.

**C. Site Access and Fencing**

- The existing field access on Concession Road 4 may be utilized for monitoring and agricultural access. The access shall be kept closed during hours of non-operation and shall be maintained throughout the life of the licence. Aggregate trucks shall not be permitted to access the site at this location.
- The site shall be accessed through the common licence boundary with existing licence #6593 and no gate shall be required (see Section N Variations from Control and Operation Standards). The location shown on the plan view is approximate only and may occur anywhere on the common licence boundary during the life of the operation.
- Portions of the north and west (along Metrolinx right of way) and east (Concession 4 Road) licence boundary that are not currently fenced shall be fenced with post and wire fencing, at least 1.2 metres in height, prior to site preparation commencing.
- Fencing shall not be required where the licence abuts existing licence #6593 (see Section N Variations from Control and Operation Standards) and in these locations, the boundary will be demarcated by 1.2m high marker posts that are visible from one to the other. If conditions in or around the licensed property change or if either licensed site is surrendered or sold, a 1.2m high fence will be installed. All fencing shall be maintained for the life of the extraction operation.

**D. Drainage**

- Drainage of undisturbed areas will continue in the directions shown on drawing 1 of 3.

**E. Site Preparation**

- 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 fire wood where appropriate. Non-merchantable timber, stumps and brush will be used in for aquatic habitat enhancement or mulched for use in progressive rehabilitation in this licence or existing licence #6593. Excess material not required for uses mentioned above will be buried (with applicable permits).
- Topsoil and overburden shall be stripped and stored separately in accordance with the Sequence of Operations diagram.
- Topsoil and overburden shall be placed in berms or used immediately for progressive rehabilitation in this licence or adjacent licence #6593 (see Section N Variations from Control and Operation Standards).
- Excess topsoil and overburden not required for immediate use in berms or rehabilitation may be temporarily stockpiled on the pit floor or in Licence #6593. Topsoil and overburden stockpiles shall be located within the limit of extraction and remain a minimum of 30 metres from the licence boundary (except where the licence boundary abuts existing licence #6593 (see Section N Variations from Control and Operation Standards) and 90 metres from a property with a residential use.
- 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**

- Berms shall be constructed to the elevation specified in the locations shown on the plan view prior to extraction/processing operations in each Phase. Locations and heights for all berms are provided on the Sequence of Operations Diagram, this page. The heights/elevations shown are the minimum required. Overburden may be stored in separate berms throughout the extraction area.
- Berm side slopes shall not exceed 1:5.1 on the exterior facing a public road. Berms that are not adjacent to a public road shall have side slopes not exceeding 1:5.1. See 'Typical Berm Detail' on this page.
- Berms shall not be located within three metres of the licence boundary except where adjacent to existing licence #6593 (see Section N Variations from Control and Operation Standards).
- All proposed berms will be constructed in accordance with the 'Typical Berm Detail' on this page, and will be vegetated and maintained to control erosion using low maintenance grass/legume seed mixture (e.g. M10 Seed Mix) composed of Creeping Red Fescue, Kentucky Bluegrass, Kentucky Bluegrass and White Clover. Temporary erosion control will be implemented as required.
- Berms shall be maintained throughout the operational life of the pit.
- Trees will be planted on the southeast side of the berm adjacent to the residences on Concession Road 4 to enhance the existing treed area. These trees are to be established within one (1) year of licence issuance. Trees will be maintained and/or replaced if required, throughout the operation of the pit.
- Existing vegetation within the setbacks shall be maintained except where noise attenuation berms are required.

**G. Site Dewatering**

- No existing or proposed surface water diversions or discharge has and/or will occur on the proposed extraction area. There will be no dewatering or pumping of water in the extraction area as ponds are included in the final rehabilitation plan.

**H. Extraction Sequence**

- This 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 this page. Rehabilitation will be progressive and proceed as limits of extraction (area and depth) are reached.

**2. Phase 1 - Above Water Extraction**

- Site preparation in Phase 1 to include: establishing fencing around the licensed boundary prior to extraction (subject to variations from control and operation standards); removal of vegetation where necessary; initial stripping of overburden/topsoil and construct berms as shown.
- Initial set up of portable processing plant on pit floor.
- Continue with stripping of overburden/topsoil as shown. Store any excess material in optional storage berms in areas within the limit of extraction or as shown on the Sequence of Operations diagram.
- Begin Phase 1 above water extraction in an easterly direction and to the elevations as shown.
- All extraction, processing and transportation equipment operating within this Phase shall comply with the restrictions identified in Noise notes under Section M Report Recommendations.
- The maximum depth of Phase 1 above water extraction is 321.0 msl.
- All Phase 2 berms will be in place prior to extraction in Phase 2.
- Prepare Phase 2 for extraction and ensure all requirements in Sections 'C' through 'G' of this drawing are met.

**3. Phase 2 - Above Water Extraction**

- Complete stripping of overburden/topsoil and construction of Phase 2 berms. Excess material shall be used for progressive rehabilitation in existing licence #6593 or stockpile in this licence for future rehabilitation.
- The portable processing plant may be relocated to Phase 2.
- Begin Phase 2 above water extraction in an easterly direction and to the elevations as shown.
- Extract Phase 2 in an easterly direction from Phase 1.
- All extraction, processing and transportation equipment operating within this Phase shall comply with the restrictions identified in Noise notes under Section M Report Recommendations.
- The maximum depth of Phase 2 above water extraction is 321.0 msl.

**4. Phase 2 - Below Water Extraction**

- Begin Phase 2 below water extraction in a westerly direction and to the elevations as shown.
- Continue progressive rehabilitation of side slope along north boundary of Phase 1.
- All extraction, processing and transportation equipment operating within this Phase shall comply with the restrictions identified in Noise notes under Section M Report Recommendations.
- The maximum depth of Phase 2 below water extraction is 310.0 msl.
- Initiate progressive rehabilitation of Phase 2 along the east and northeast portions of the phase, adjacent to Concession 4 Road.

**5. Phase 1 - Below Water Extraction**

- Continue below water extraction in Phase 1 from Phase 2 in a westerly direction and to the elevations as shown.
- Continue progressive rehabilitation of side slope along west boundary of Phase 1 and initiate rehabilitation work along side slopes adjacent to the properties along Concession 4 Road, in the southeast portion of the phase.
- The maximum depth of Phase 1 below water extraction is 310.0 msl.

**6. Phase 3 (not shown)**

- Complete extraction activities.
- Complete progressive rehabilitation and final rehabilitation of the site.
- Remove all machinery, scrap and internal haul roads from site.

**I. Extraction Details**

- The maximum depth of extraction is as shown on the plan view. Extraction will occur in a maximum of 3 lifts (2 lifts above the water table and 1 lift below the water table) through the two phases as shown on the Sequence of Operations Diagram on this page and in accordance with the Ministry of Labour requirements. The maximum lift height will be 8m. Below water extraction will occur through the use of a dragline or excavator. The proposed pit floor is to be located at an elevation of 310 msl to 33 m west of the existing ground surface. The proposed pit floor is to be an extension of the existing Lafarge pit to the south and west.
- Extraction shall be permitted in two Phases simultaneously to allow for transition between Phases.
- Aggregate stockpiles will be located on the pit floor (interim and final elevations) and will move throughout the life of the operations of the pit. Stockpiles will not be located within 30m of the licensed boundary, except along the southern shared licence boundary with Licence #6593, as outlined in the Variations from Control and Operation Standards table on this page.
- Internal haul road locations will vary as extraction progresses and will be located on the pit floor.
- 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.

**J. Equipment and Processing**

- The equipment used for aggregate operations is listed in Note M Report Recommendations 'Noise', Table B.
- All processing equipment will be portable (crusher and screener) and subject to the noise controls and be located in close proximity to the extraction face in these Phases in order to maximize acoustical shielding. Within this area, the processing equipment shall remain a minimum of 30 metres from the licence boundary (except where the licence boundary abuts existing licence #6593 - see Section N Variations from Control and Operation Standards).
- No permanent processing areas are proposed on site. Portable processing equipment, crushing and screening may be used on site and will be located below grade on the pit floor adjacent to the active pit face. All processing equipment is subject to applicable permitting under MCEP Environmental Compliance Approval. See Note M 'Noise' and Sequence of Operations diagram for location of processing plant and limit of 'No Processing Areas'.

**K. Fuel Storage**

- No fuel or associated products will be stored on site. Mobile fuelling will occur in accordance with the Gasoline Handling Act, as amended, the Gasoline Handling Code and regulations, as amended, and Liquid Fuels Handling Code.

**L. Scrap and Recycling**

- There will be no on-site scrap storage. Temporary scrap storage will be located within the scrap storage area in the existing pit (Licence #6593) and will be removed on an on-going basis. No recycling is proposed.

**M. Report Recommendations**

- Hydrogeology: Water Report Level 2, Lafarge Goodwood Pit Extension June 2023 (Source: WSP)**
  - Groundwater monitoring shall continue through Operations. The following tasks shall be carried out:
    - Monthly manual groundwater level monitoring at the three on-site monitoring wells.
    - Annual groundwater quality sampling for general chemistry, metals, bacteria, petroleum hydrocarbons and volatile organic compounds.
  - The site domestic well will be decommissioned per O.Reg. 903 by a licensed well contractor either prior to extraction or at such time that extraction encroaches on the well location.
  - A complaint response program will be in place for residential wells within the potential draw down zone influence (i.e., 4639, 4709, 4840 and 4860 Concession Road 4) during extraction to address any complaints for surrounding residents concerning the supply of their water wells. In the event of unanticipated impacts to the water wells as a result of pit operations, mitigation and contingency measures will be implemented to restore the affected quantity or quality of the groundwater supply.
  - Prior to extraction below water, a door-to-door water well survey shall be conducted to confirm baseline conditions at private wells within 500 m of the site.
- Maximum Predicted Water Table Elevation: Maximum Predicted Water Table Elevation June 7, 2023 (Source: WSP)**  
An inferred high-water table map is developed using water levels measured during the July 31, 2020 event which represents the highest measured groundwater elevation in all three monitoring wells for the period of record. Consistent with other monitoring events, the on-site flow pattern during this period is from roughly south to north/northeast. The highest water table level occurs to the southeast at MW18-02 (322.25 msl) and the lowest water table level occurs to the northeast at MW18-01 (320.97 msl).
- Natural Environment: Proposed Goodwood Pit Extension Environmental Level 1 and 2 Technical Report**, July 2023 (Source: WSP)  
Standard best management practices to mitigate disturbance or damage to adjacent natural features include the following:
  - Avoid removal of vegetation during the migratory bird nesting period (April 5 - August 26; ECCS 2019), where vegetation removal cannot be avoided during this period, precede disturbance with a nesting survey by a qualified biologist and implement appropriate activity buffers around any active nests found during the survey until the young have fledged.
  - Remove the barn and trees on the site outside of the bat maternity roosting period (May 1 - July 31) to minimize adverse impacts on bats (not SAR) that may be roosting in these features.
  - Prior to any development or site alteration occurring within the identified Meadowlark and Bobolink habitat, the habitat will be registered with the MCEP through the on-line Habitat of Activity and a management plan will be developed and executed in accordance with O.Reg. 830/21.
- Noise: Noise Impact Study - Project: 18200.00 Goodwood Pit Extension, Township of Uxbridge, Ontario** April 16, 2023 (Source: Aerocoustics Engineering Ltd.)  
The following noise controls are recommended:  
General
  - The Hours of operation are limited as described in Table A. There will be no operations on Statutory Holidays. The pit will not operate on Sundays except as required by a specific contract. A response to emergencies is not limited by the hours of operations shown on the site plan.

Table A: Operating Hours

Time of Day	Day of Week	Operations
06:00 to 07:00	Monday to Saturday	Shipping and Loading Operations Only
07:00 to 19:00	Monday to Saturday	Full Operation - Extraction, Processing (Crushing & Screening), Loading and Shipping

Table B: Reference Sound Pressure Levels of Aggregate Pit Equipment within Extension

Equipment	Number Permitted	Reference Sound Pressure Level @ 30m (dBA)
Portable Processing Plant	1	65
Extraction Loader	2	70
Shipment Loader	2	67*
Dragline or Excavator	1	73
Conveyors	--	44**
Highway Trucks	--	66

\* The shipment loaders were assumed to operate at a 50% duty cycle.  
\*\* Reference sound level for conveyors is reported in dBA per metric at a distance of 30m.

- The aggregate pit equipment shall satisfy the noise emissions levels listed in Table B. If desired, the two Quiet Extraction Loaders (Maximum 70 dBA each) may be used in place of any one required Extraction Loader (Maximum 74 dBA) wherever the Extraction Loaders are permitted.
- The sound level limits of construction equipment involved in site preparation shall comply with the sound level limits specified in the MCEP publication NPL-115 'Construction Equipment'.
- New equipment technology or different configurations may allow proposed changes to any portion of the extraction and processing operations including additional equipment to operate on the site. Equipment to be substituted, and/or different berm heights, while still meeting the applicable sound level limits. Changes may be permitted to the site operations and noise controls provided that the changes still meet the sound level limits, as confirmed through documentation prepared by a Professional Engineer specializing in noise control. Prior to any modification, notification shall be given to the MNRFF.
- An acoustic barrier is required to be solid, with no gaps or openings, and shall satisfy a minimum area density of 20 kg/m<sup>2</sup>. It could take the form of a pit face, stockpile, acoustic fence, ISO containers, a combination of these, or any other construction solution that meets the requirements of an acoustic barrier.
- Extraction in Phase 1 and 2 shall proceed in a northeasterly direction with the extraction loaders operating within 30 m of the working face. The working face shall have a minimum height of 7 metres. All equipment shall remain on the pit floor.
- During all processing operations, a 10 m high acoustic barrier shall be located within 30m of the Portable Processing Plant, between the plant and Receptor R1 and R14. In addition, a 10 m high acoustic barrier shall be located within 30m of the Portable Processing Plant, between the plant and Receptors R03 and R08. These barriers can be satisfied by a working face or stockpiles.

**Note (cont'd)**

- Prior to below water extraction, only a single Extraction Loader shall operate near the Dragline or Excavator, or at the working face.
- Prior to extraction in Phase 1, an acoustic barrier with a minimum top of barrier elevation of 351 m a.s.l. shall be installed, extending the full length along the north boundary of Phase 1, as shown on the site plan. This barrier shall remain in place for the project lifetime.

**Phase 2**

- Prior to extraction in Phase 2, an acoustic barrier with a minimum top of barrier elevation of 354 m a.s.l. shall be installed, extending the length along the north boundary of Phase 2, meeting the acoustic barrier along the north boundary of Phase 1, as shown on the site plan. An acoustic barrier with a minimum top barrier elevation of 352 m a.s.l. shall be installed extending the length along the east boundary of Phase 2, as shown on the site plan. A gap in the barrier extending 100 m in each direction from the northeast corner of the site is permitted. This barrier shall remain in place for the remainder of the project lifetime.
- No processing shall occur in the lands located within a 140 m radius of Receptors R03, R04, R07, and R08 as shown on the site plan.

**5. Archaeology: Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, 'Stage 3 Archaeological Assessment: Goodwood Location 1 (BoGt-45), Lafarge Goodwood Extension Property, Part of Lot 20, Concession 3, Geographic Township of Uxbridge, former Ontario County, now Regional Municipality of Durham, Ontario', Dated Jul 13, 2021. Filed with MHSTCI Toronto Office on Jul 14, 2021, MHSTCI Project Information Form Number P254-0670-2021. MHSTCI File Number 0009350**

- Should previously undocumented archaeological resources be discovered that may be a new archaeological site and therefore subject to Section 48(1) of the Ontario Heritage Act, the proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the Ontario Heritage Act.
- The Cemeteries Act, R.S.O. 1990, c.4 and the Funeral, Burial and Cremation Services Act, 2001, S.O. 2002, c.33 (when proclaimed in force) requires that any person discovering human remains must notify the police or coroner and the Deputy Registrar of the Cemeteries Regulation Unit at the Ministry of Consumer and Commercial Relations (416) 326-8392.

**6. Air Quality Assessment: Lafarge Goodwood Pit Extension, Goodwood Ontario, Air Quality Assessment** April 20, 2023 (Source: RWDI Air Inc.)  
The pit will operate in accordance with the operating standards pertaining to dust outlined in section 0.12 (a) Ontario Regulation 244/97, which include:

- The licensee or permittee shall apply water or another provincially approved dust suppressant to internal haul roads and processing areas, as necessary to mitigate dust, if the pit or quarry is located within 1,000 metres of a sensitive receptor.
- The licensee or permittee shall equip any processing equipment that creates dust with dust suppressing or collection devices if it is located within 300 metres of a sensitive receptor.
- The licensee or permittee shall obtain an environmental compliance approval under the Environmental Protection Act where required to carry out operations of the pit or quarry.
- The site will operate in accordance with Lafarge's Best Management Practices Plan for the Control of Fugitive Dust Emissions, which may be amended from time to time, considering actual impacts and operational considerations. The recommendations in the BMP are based on the maximum daily production rates. All lower production rates, the control measures specified in the BMP can be reduced accordingly, provided dust remains mitigated on site.

**N. Variations from Control and Operation Standards**

O. Reg 244/97 Section 0.13	Variation	Rationale
(3)(a)	Fencing will not be required along the southern and western boundaries of the area to be licensed where it is coincident with the existing boundary for Licence #6593.	The common licensed boundary will be demarcated by 1.2m high marker posts that are visible from one to the other. If conditions in or around the licensed property change or if either licensed site is surrendered or sold, a 1.2m high fence will be installed.
(1)(1) & (1)(2)	No gate at the operational entrance/exit to site.	Operational entrances/exit to site is coincident with the existing boundary for Licence #6593.
(1)(1)	Setback reduced to 0m from 15m along south and southwest limit of site.	Material can be extracted along the common boundary and for rehabilitation to transition between licences. A site plan amendment for existing licence #6593 is required.
(1)(1) & (1)(1)	Stockpiling/processing may take place within 30m from the boundary of the south limit of the site but not within 90m of adjacent residential lands to the east.	The adjacent licence #6593 is owned by the same licensee.
(1)(1) & (1)(1)	Topsoil/overburden stripped in the area of the site to be used for the rehabilitation of the adjacent Lafarge Licence #6593.	This will allow stripped material from site preparation to be used for progressive rehabilitation in the existing licence.
(1)(1) & (1)(1)	Below water table slopes may vary from a slope that is at least three horizontal metres for every vertical metre (3:1).	Below water table slopes will stabilize at the natural angle of repose, which is estimated to range from 2:1 - 2.5:1.

**Legal Description**  
PART OF LOT 20, CONCESSION 3  
Township of Uxbridge, Region of Durham

**Legend**

- Boundary of Area to be Licensed
- Existing Licensed Boundary  
GOODWOOD PIT - LICENCE #6593
- Limit of Extraction  
ALL SETBACKS ARE DRAWN TO SCALE AND SHOWN LABELLED DISTANCES
- Existing Fence  
POST & WIRE FENCE UNLESS OTHERWISE NOTED
- Spot Height Elevation  
METRES ABOVE SEA LEVEL
- Building/Structure  
LOCATION AND USE FOR BUILDINGS ON-SITE AND WITHIN 120m ARE SHOWN ON THIS PAGE.
- Existing Vegetation
- Gated Farm/Field Access  
NO AGGREGATE HAULAGE
- Monitoring Wells  
FROM WSP 2019
- Existing Berm
- Parcel Fabric  
(LOCATION APPROXIMATE)
- Archaeological Site
- Cross Sections  
SEE PAGE 1 AND 3 OF 3 FOR EXISTING AND REHABILITATED CROSS SECTIONS
- Tree Plantings  
ALSO SEE NOTE F7
- Operational Entrance  
NO GATE (SEE NOTE C2 AND VARIATIONS FROM CONTROL AND OPERATIONS STANDARDS TABLE)
- Direction of Excavation (Above Water)  
REFER TO NOTES (THIS PAGE) FOR ADDITIONAL DETAILS
- Direction of Excavation (Below Water)  
REFER TO NOTES (THIS PAGE) FOR ADDITIONAL DETAILS
- Proposed Fence  
1.2m HIGH POST & WIRE FENCE UNLESS OTHERWISE NOTED
- Elevation  
ABOVE WATER DEPTH OF EXTRACTION  
MAXIMUM DEPTH OF BELOW WATER EXTRACTION/PIT FLOOR (masl)
- Noise Receptor  
ALSO SEE NOTE M3 'NOISE' FOR ADDITIONAL DETAILS
- Proposed Acoustic Berm  
ALSO SEE 'TYPICAL BERM DETAIL' (THIS PAGE)
- Optional Visual/Storage Berm  
ALSO SEE 'TYPICAL BERM DETAIL' (THIS PAGE)
- No Processing  
ALSO SEE NOTE M 'NOISE' FOR ADDITIONAL DETAILS
- Portable Processing Plant with Barrier  
ALSO SEE NOTE M 'NOISE'

**Site Plan Amendments**

No.	Date	Description	By

**MNRFF Approval Stamp**

**Stamp**

**Applicant's Signature**  
Chris Galway  
Senior Land Manager - East Central Ontario  
Lafarge Canada Inc.

**Project**  
**Goodwood Pit Extension**  
Lafarge Canada Inc.  
6509 Airport Road, Mississauga Ontario L4V 1S7  
Tel: (905) 738-7732

**MNRFF Licence Reference No.**

**Pre-approval review:**

**For Application Submission - January 2024**

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

**Plan Scale 1:2,000 (Arch D)**

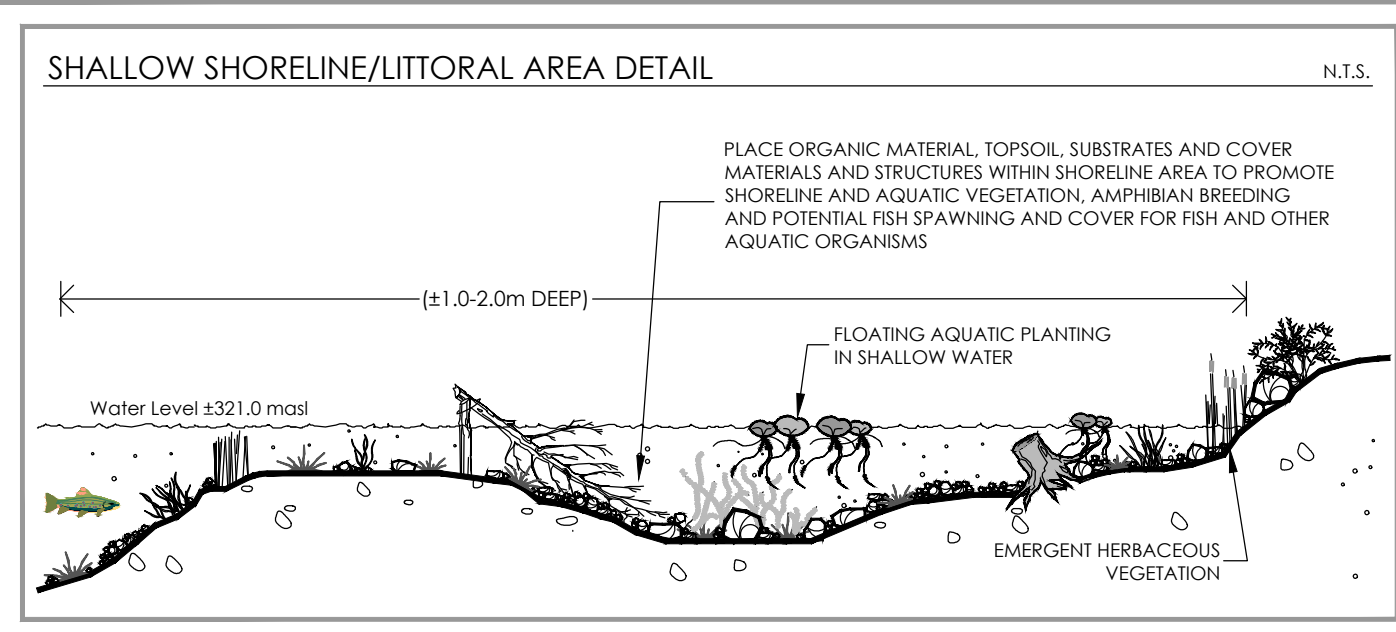
**HORIZONTAL SCALE**

25 0 25 50 75 100 METRES

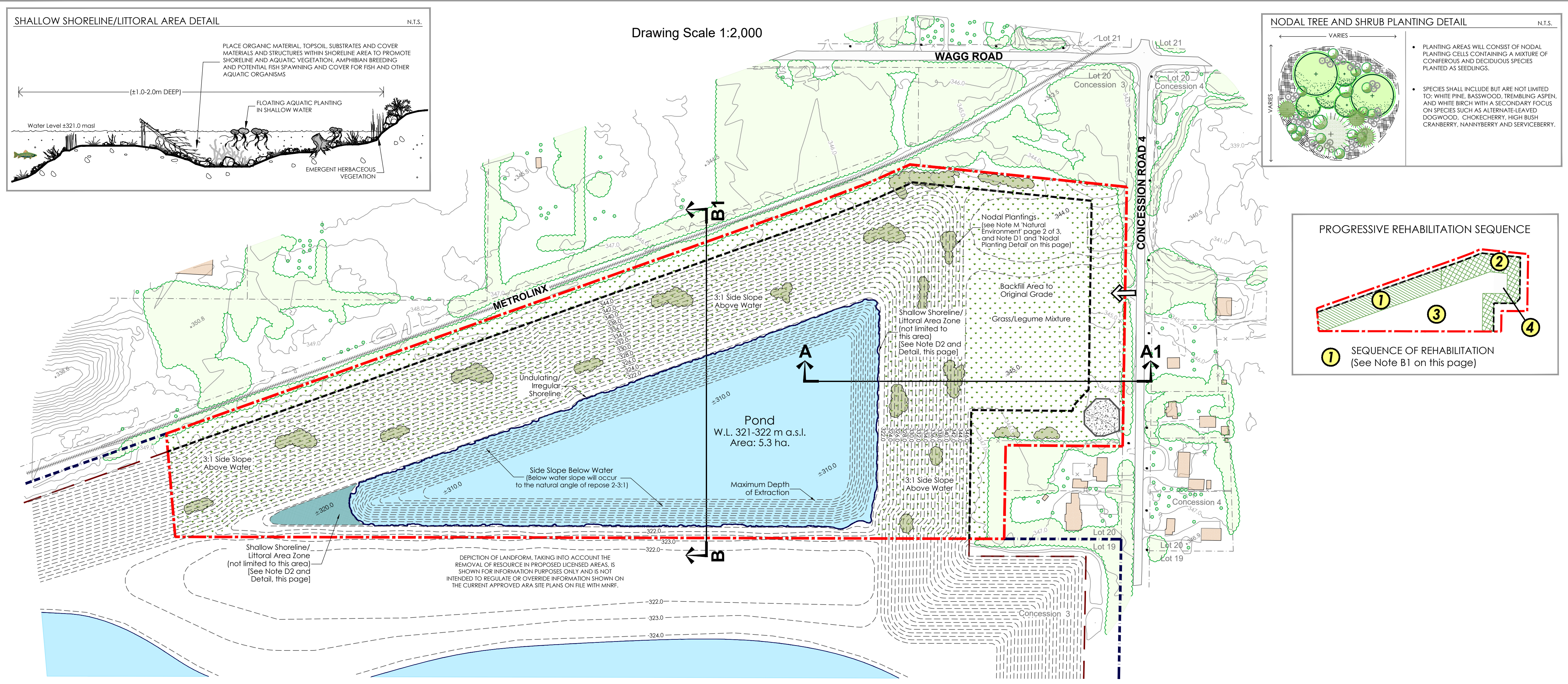
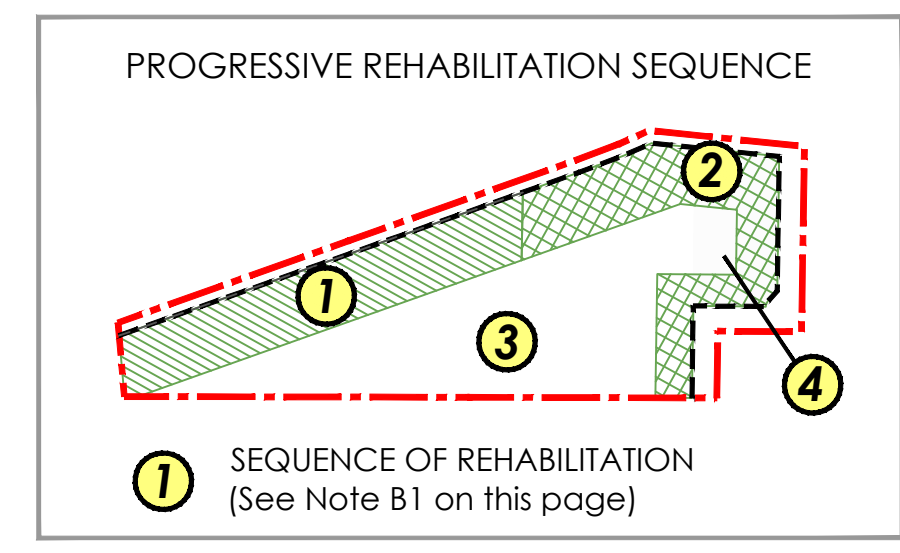
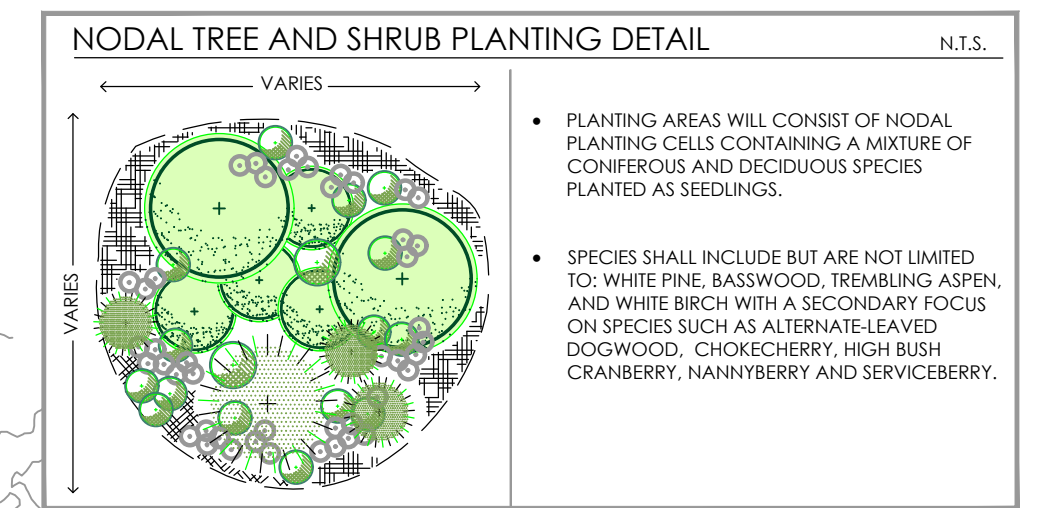
Drawn By **D.G.S.** File No. **9526HC**  
Checked By **C.P.**

**OPERATIONAL PLAN**  
**2 OF 3**

K19526HC-Lafarge-Goodwood Pit Extension-Uxbridge\A\Goodwood Pit Operplan 2of3 January2024.dwg



Drawing Scale 1:2,000



**Legal Description**  
PART OF LOT 20  
CONCESSION 3  
Township of Uxbridge  
Region of Durham

**Legend**

	Boundary of Area to be Licensed		Limit of Extraction ALL SETBACKS ARE DRAWN TO SCALE AND SHOW LABELLED DISTANCES
	Existing Licensed Boundary GOODWOOD PIT - LICENCE #6593		Existing Extraction Limit GOODWOOD PIT - LICENCE #6593
	Contour and Elevation METRES ABOVE SEA LEVEL		Proposed Contour METRES ABOVE SEA LEVEL (m A.S.L.)
	Spot Height Elevation METRES ABOVE SEA LEVEL		Proposed Spot Elevation MAXIMUM DEPTH OF EXTRACTION PROPOSED PIT FLOOR (m A.S.L.)
	Existing Vegetation		Maximum Depth of Extraction
	Field Access		Proposed Pond METRES ABOVE SEA LEVEL (m A.S.L.)
	Maximum Predicted Water Table (SEE NOTE F AND CROSS SECTIONS ON THIS PAGE)		Proposed Shallow Littoral Area (SEE DETAIL ON THIS PAGE)
	Vegetation/Trees EXISTING/PROPOSED AS INDICATED		Nodal Planting Areas SEE ALSO PAGE 2 OF 3 NOTE M "NATURAL ENVIRONMENT"
	Cross Sections SEE PAGE 1 AND 3 OF 3 FOR EXISTING AND REHABILITATED CROSS SECTIONS		Grassland Area (SEE NOTE D ON THIS PAGE)

**A. General**

- Area Calculations:  
Licence Area: 17.9 hectares (44.2 acres)  
Limit of Extraction: 15.4 hectares (38.1 acres)
- The rehabilitated landform of this site will include: pond, shallow shoreline/littoral area zone, 3:1 side slopes and an area that will be backfilled to original grade. Nodal tree and shrub plantings will also be part of rehabilitation.

**B. Phasing**

- 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 3. The above water side slopes in Phase 1 and Phase 2 will be rehabilitated prior to below water extraction commencing in Phase 2. This will involve grading to a 3:1 slope and covering the area with a minimum of 150mm of topsoil/organic matter. Below water side slopes will be rehabilitated as below water excavation proceeds across the site. The area to be backfilled to original grade adjacent to Concession 4 Road will be the final stage of land form rehabilitation on site [See "Progressive Rehabilitation Sequence" on this page].

**C. Slopes and Grading**

- Topsoil and overburden will be used in the progressive rehabilitation of the side slope areas. Above water side slope areas will be covered with a minimum 150mm of topsoil/organic matter. Overburden/soil will be used to backfill pit faces to desired finished grades (i.e. 3:1 slope). Importation of excess soil will be required to achieve the rehabilitated landform as shown.
- Importation of excess soil is planned for this site to facilitate progressive and final rehabilitation.
  - 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 for 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 2,500,000 m<sup>3</sup>.

**D. Proposed Vegetation and Rehabilitated Features**

- All nodal tree and shrub plantings and side-slope seeding will consist of native non-invasive vegetation species. All ground covers on overburden piles and 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.
- Shallow Shoreline / Shallow Littoral Area  
The following recommendations shall be incorporated into the planting design. All plantings (i.e., nodal plantings) included in the rehabilitation plan shall be locally native, non-invasive species that create habitat in the short term and promote natural succession processes. Recommended shoreline and aquatic plants 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 tobermونتاني*), and cattail (*Typha* spp.). Shallow littoral/wetland habitats should be created through construction of submerged benches up to 2 m deep. Shallow emergent marsh vegetation (i.e. herbaceous species listed above) shall be planted in water ±0.15 m deep and extend ±5 m from the shore and be interspersed with cover structures (e.g., boulders and root wads) in the shallow shoreline littoral/wetland areas. Organic material and topsoil shall be added to the shoreline areas to promote shoreline vegetation, and the placement of basking logs (i.e. large woody debris) and rubble/boulders along the shoreline is recommended to create turtle basking areas, waterfowl nesting areas and bird perching sites (see "Shallow Shoreline Detail" and "Shoreline Wetland Detail" this page). Shoreline and Aquatic plantings will coincide with the final stages of site rehabilitation.

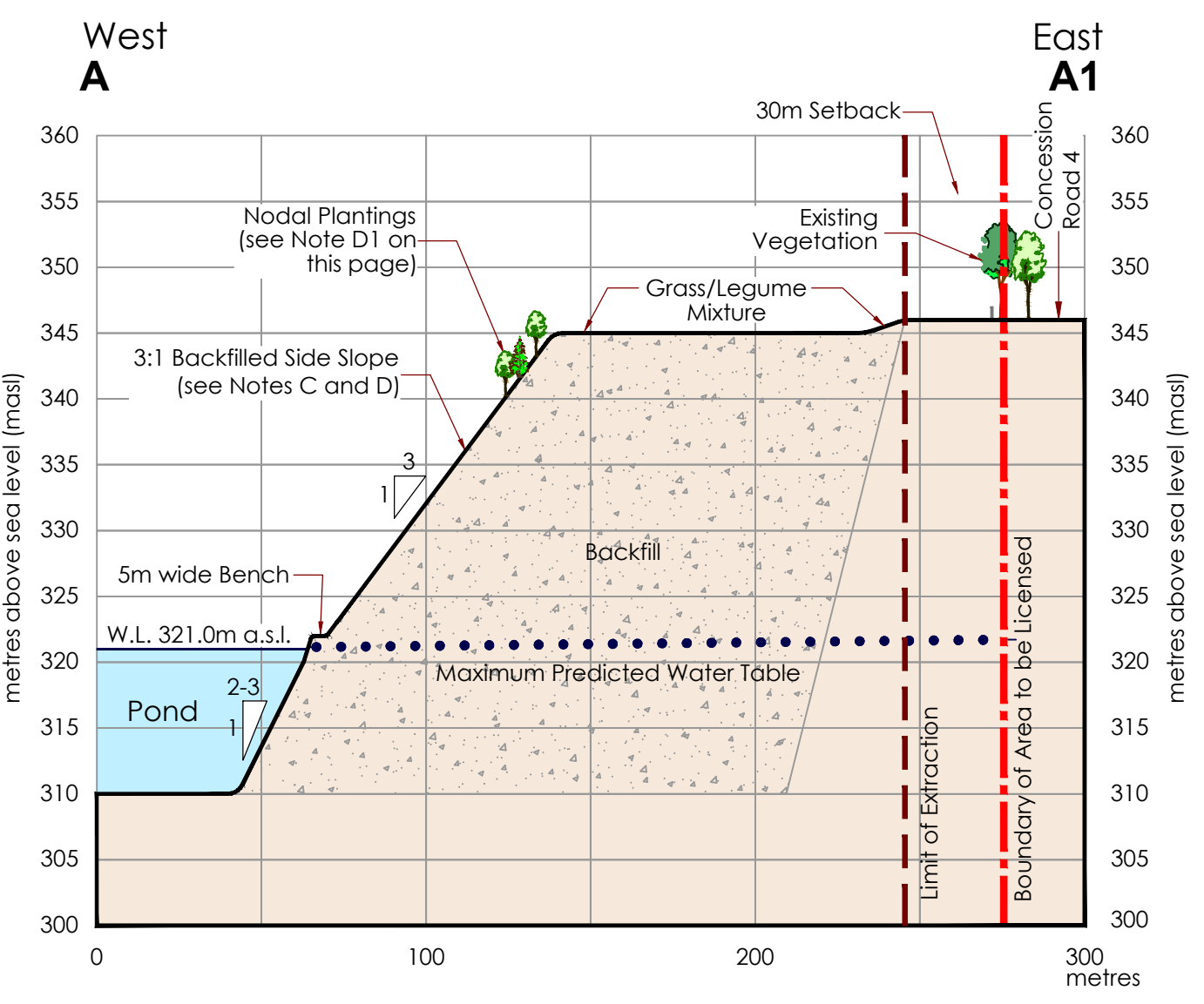
**3. Side Slopes, Setbacks & Backfilled Areas**  
Side slope and backfilled areas will be covered with a minimum 150mm of topsoil/organic matter and seeded with a grass/legume mixture. Terrestrial nodal plantings on the side slope and within the setback areas shall include a mixture of coniferous and deciduous tree species to promote species diversity and provide a variety of species to compensate for any substrate deficiencies. Recommended species include white pine, basswood, trembling aspen (*Populus tremuloides*) and white birch (*Betula papyrifera*) with a secondary focus on species such as choke cherry (*Prunus virginiana*), alternate-leaved dogwood (*Cornus alternifolia*), highbush cranberry (*Viburnum opulus*), nannyberry (*Viburnum lentago*) and serviceberry (*Amelanchier* spp.). It is recommended that ash (*Fraxinus* spp.) species be avoided in rehabilitation plantings due to the invasion of the emerald ash borer. The establishment of nodal planting areas/cells will occur progressively and generally follow the sequence of extraction and side slope/setback grading and seeding. Vegetation shall be replaced should it fail to establish and prevent erosion.

**4. Rehabilitated Landform**  
The proposed rehabilitation includes an opportunity to enhance the biological diversity of the local landscape by providing a feature that will attract migratory waterfowl and provide elements that will be of value to locally resident wildlife. Rehabilitation of this site involves the creation of 5.3 ha. of lake and 9.7 ha. of terrestrial landform comprised of overburden side slopes, setback areas and an area backfilled to original grade for future development opportunity. The final pit landform will be in accordance with the drawing as shown on this page.

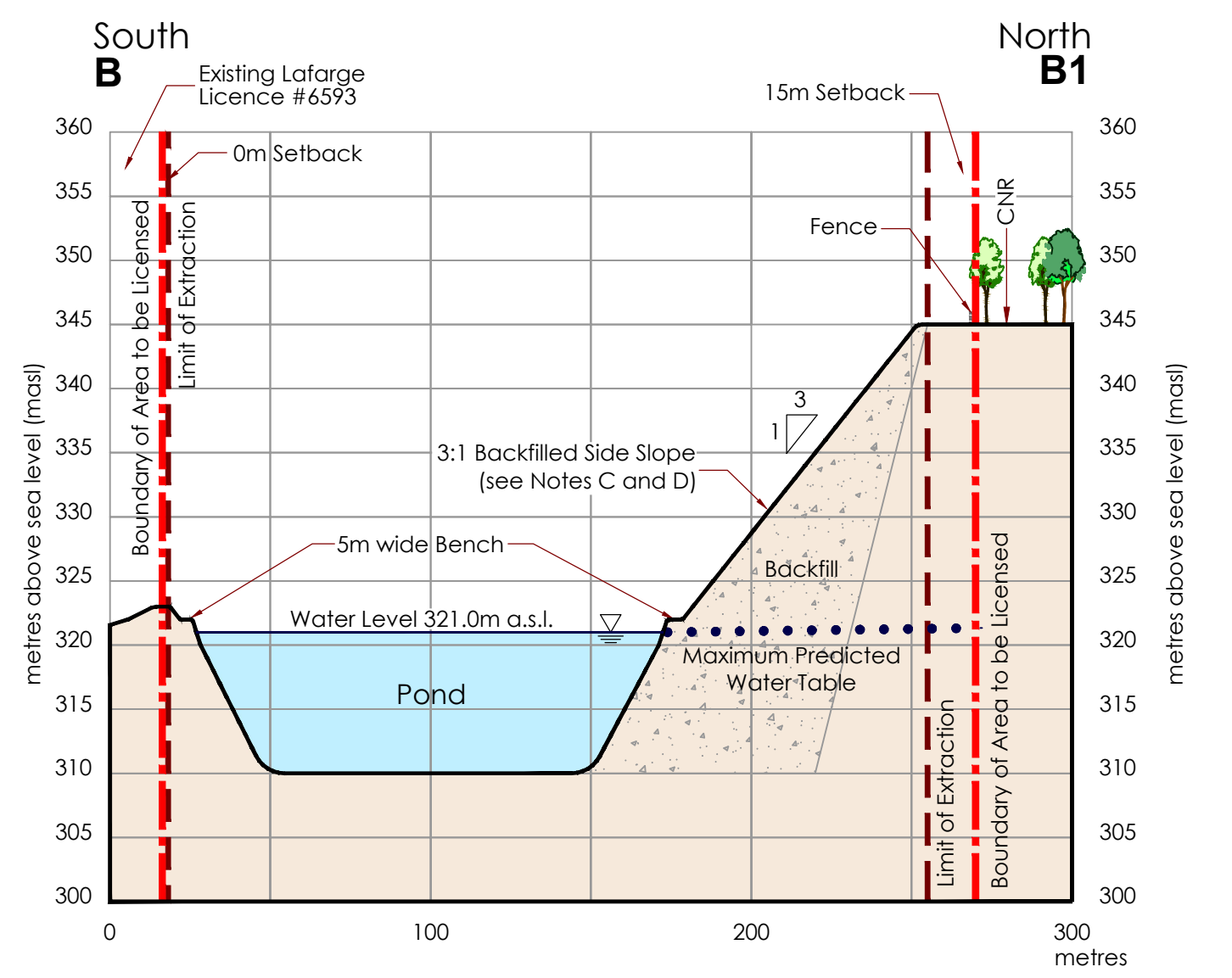
**E. Drainage**  
1. Final surface drainage will follow the rehabilitated contours as shown and be directed towards the post-extraction pond.

**F. Final Rehabilitation**

- No buildings or structures associated with aggregate operations will remain on site.
- There will be no internal roads remaining on the site.
- The water level of the proposed lake (± 321 m a.s.l.) and the post extraction ground water table, are as shown on pages 1 and 3 of 3 as per hydrogeological/hydrological assessments.



Section A-A1 - Rehabilitated Conditions



Section B-B1 - Rehabilitated Conditions

Horizontal Scale 1:2,000  
Vertical Exaggeration 4x

**Site Plan Amendments**

No.	Date	Description	By

**MNRF Approval Stamp**

**Stamp**

**MHBC**  
PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE  
200-540 BINGEVANS CENTRE DR., KITCHENER, ON. N2B 3K9 | P: 519.576.3650 F: 519.576.0121 | WWW.MHBCPLAN.COM

**Applicant's Signature**  
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Lafarge Canada Inc.

**LAFARGE**  
Building better cities™

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**For Application Submission - January 2024**  
Plot Scale 1:2.0 [1mm = 2.0 units] MODEL

Plan Scale: See Plan  
**HORIZONTAL SCALE**  
25 0 25 50 75 100 METRES

Drawn By: D.G.S. File No.: 9526HC  
Checked By: C.P.

**REHABILITATION PLAN**  
3 OF 3

File Name: K:\9526HC-Lafarge-Goodwood Pit Extension-Uxbridge\A\Goodwood Pit Rehaplan 3of3 January2024.dwg