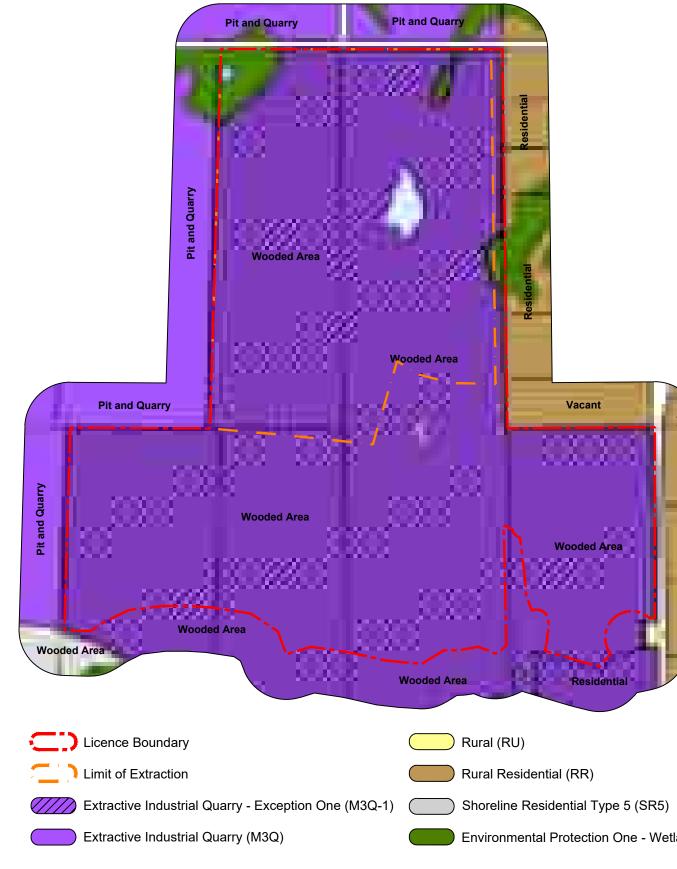


directions shown by arrows on the plan view, or by infiltration. D. Groundwater 1. Based on available water level data, the water table elevation on site ranges from 285 masl in the southwest corner to 325 masl in the northeast corner. The existing groundwater in shallow bedrock

elevations are shown in each cross section on this drawing.

- December 18, 2020.

Existing Zoning and Land Uses Scale 1:10,000



1. Two site accesses exist on-site. The first access is on Bonnie Lake Road and the second access is on the north common boundary with adjacent licence #618881 as shown on the plan view. The site

1. A haul road used to access licence #618881 exists in the location shown on the plan view. There are no additional existing aggregate operations or features on site such as processing, stockpiles,

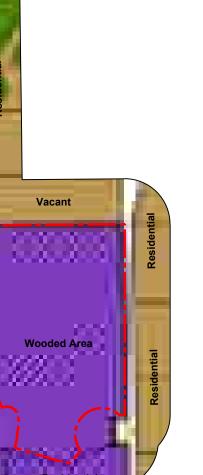
2. Cross section locations are identified on the plan view for each drawing.

1. Blast Impact Analysis, Proposed Childs Pit and Quarry Expansion, Explotech Engineering Ltd, May 2. Level 1 and Level 2 Hydrogeological and Hydrological Assessments in Support of Aggregate Resources Act Applications for the Childs Pit and Quarry Extension, Golder Associates Ltd., June 3. Natural Environment Report - Level 1 and 2 Assessment, Childs Pit and Quarry, RiverStone 4. Noise Impact Assessment, Childs Pit and Quarry Extension, Howe Gastmeier Chapnik (HGC) 5. Stage 1 Archaeological Assessment of the Childs Pit and Quarry Expansion, Concession 9 Part Lots 14-16 & Concession 10 Lots 15-16, Kinickinick Heritage Consulting, September 15, 2015. 6. Stage 2 Archaeological Assessment of the Childs Pit and Quarry Expansion, Concession 9 Part Lots 14-16 & Concession 10 Lots 15-16, Kinickinick Heritage Consulting, September 15, 2015. 7. Stage 1 and 2 Archaeological Assessment for Proposed Child's Pit & Quarry Extension, Concession 9 Part Lot 17, Kinickinick Heritage Consulting and Cameron Heritage Consulting, 8. Traffic Review, Childs Pit and Quarry Extension, Tatham Engineering, June 2020.

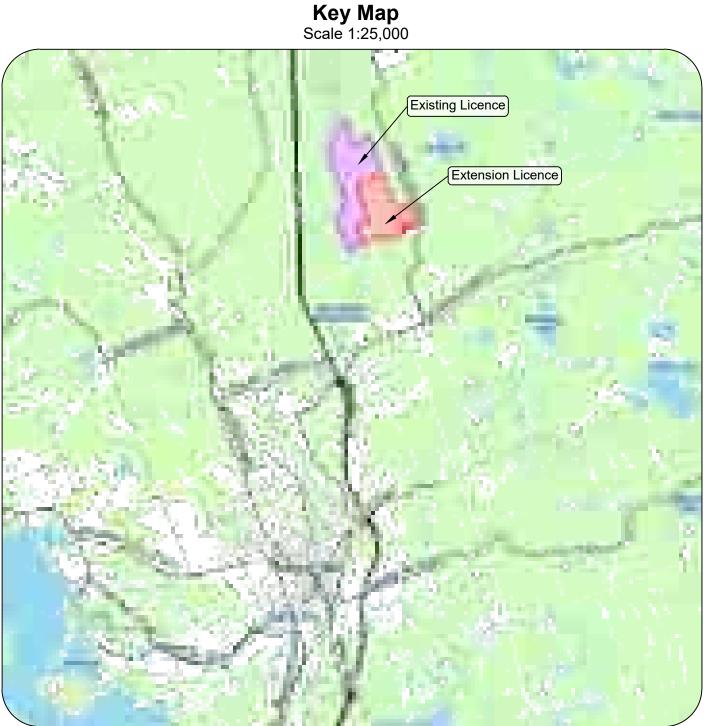
9. Consolidated Proposed Groundwater and Surface Water Monitoring Programs and Complaints Response Program, Childs Pit and Quarry Extension, WSP, April 26, 2023.

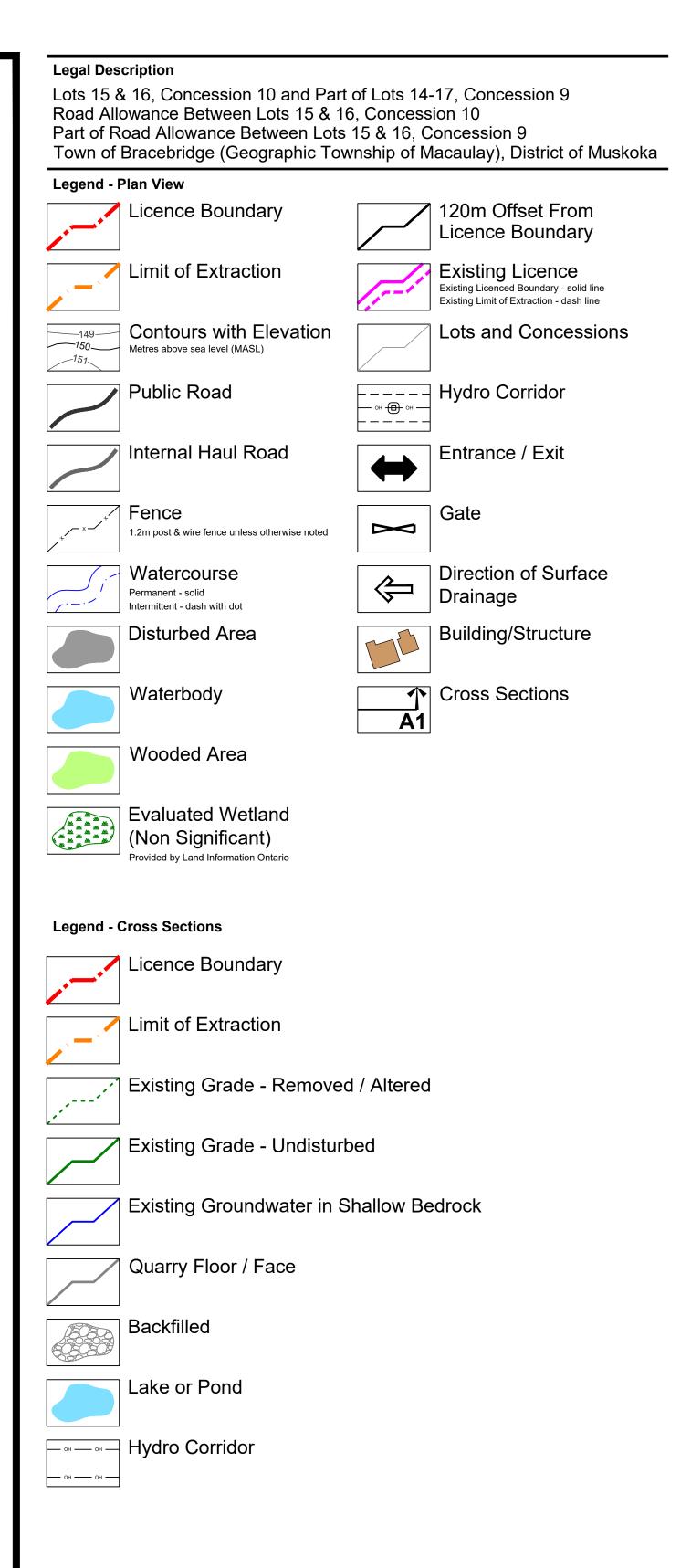






Environmental Protection One - Wetland (EPW1)





Site P	Plan Amendmen	ts					
No.	Date			Description			Ву
Site P	Plan Revisions (Pre-Licencing)					
1	November 2020	Added Archaeological Site BgGt-4 and Archaeological Potential areas to plan view. Updated note H.6 and added notes H.5 and H.7. Adjusted limit of extraction in southeast corner to remain outside of Archaeological Site.			C.P.		
2	December 2020	Updated notes A.2.a and H.7. Adjusted licence boundary and limit of extraction in southeast corner to remain outside of archaeological areas.			C.P.		
3	August 2021		Updated	site plan per feedback	from MNRF		C.P.
4	July 2022	Revi		of extraction per feedba s to reflect updated fina		tours.	C.P.
5	April 2023		Updated lim	it of extraction to rer	nove Phase B		C.P.
No.	Date			Description			Ву
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Project Child's Pit & Quarry Extension 1235 Bonnie Lake Road, Bracebridge, Ontario						n	
MNRF	Licence Refere	ence No.		Applicant's	Signature		
	62	26505					
Plan S	Scale: 1:4000 (A	rch E)		Date	Ju	ne 2020	
0 125 250		Drawn By Checked By	C.P. B.Z.	File No.	5C		
File Name Existing Features & Cross Sections							

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1 of 4

Drawing No.

A. General	M. Dust
1. Area Calculations:	1. Dust shall be mitigated on-site.
a. Licence Areab. Limit of Extraction70.8 hectares	 Water or another provincially approved dust suppressant shall be applied to internal haul roads as often as required to mitigate dust.
2. The maximum annual tonnage is 2,000,000.	 Processing equipment will be equipped with dust suppressing or collection devices where the equipment creates dust and is being operated within 300 metres of a sensitive receptor.
 A scale and scale house may be constructed on site. Deced on subleting the southwest common to 200 	N. Scrap and Recycling
4. Based on available water level data, the water table elevation on-site ranges from 285 masl in the southwest corner to 325 masl in the northeast corner. The existing groundwater in shallow bedrock elevations are shown in each cross section on drawing 1 of 4.	 Scrap may be stored on-site and shall be removed on an on-going basis. Scrap shall not be stored within 30 metres of any body of water or the licence boundary and shall be kept in close proximity
B. Hours of Operation	to the main processing plant in this licence or existing licence #618881 (see Section Q. Variations from Provincial Standards).
 Hours of operation are Monday to Sunday, 24 hours per day, excluding statutory holidays (see noise control requirements on drawing 3 of 4 for additional detail and restrictions on hours and location of equipment). Site preparation and rehabilitation is permitted Monday to Friday between 7:00am to 7:00pm excluding statutory holidays. 	 Recycling of asphalt and concrete shall be permitted on-site. Recyclication applet metarials shall not be stackpilled within:
2. Blasting is permitted Monday to Friday between 8:00am to 6:00pm excluding statutory holidays. Blasting will typically occur	4. Recyclable asphalt materials shall not be stockpiled within:a. 30 metres of any waterbody or man-made pond; or
once per week if the operation produces the maximum annual tonnage, however, blasting will typically be less frequent.	b. 2 metres of the surface of the established groundwater table
 A gated entrance/exit on Bonnie Lake Road provides access to this licence and adjacent licence #618881. The gate shall be kept closed during hours of non-operation and maintained throughout the life of this licence and licence #618881. 	 Recyclable material shall be kept in close proximity to the main processing plant in this licence or existing licence #618881. Any rebar and other structural material shall be removed from the recycled material during processing and placed in a
2. The entrance/exit shall be shifted 75 metres south prior to truck volumes exceeding 35 trucks per hour during day time hours	designated scrap pile on site and shall be removed on an on-going basis.
(7:00am to 7:00pm) or 12 trucks per hour during night-time hours (7:00pm to 7:00am). Prior to relocating the entrance/exit, the licensee shall obtain an entrance permit from the District of Muskoka. The licensee shall advise the district MNRF office once approval from the District of Muskoka is granted for the entrance permit and prior to construction of the new entrance. If	 Recycled aggregate shall be removed on an on-going basis. Once the site is depleted, no further importation of recyclable material shall be permitted.
the revised entrance/exit is not approved in the location identified on the plan view, a site plan amendment will be required to accurately depict the location of the relocated entrance/exit. Once the existing entrance is relocated, the previous entrance shall be removed and a noise attenuation berm constructed, as shown on the plan view.	9. Once final rehabilitation has been completed and approved in accordance with the site plan, all recycling operations shall cease.
 Existing licence #618881 shall be accessed through the common licence boundary with this licence. The entrance/exit for licence #618881 (as shown on the plan view) may differ to coincide with extraction operations in licence #618881 (see 	O. Report Recommendations
Section Q. Variations from Provincial Standards).	1. <u>Noise</u>
4. A portion of the existing internal haul road is situated outside the licence boundary and limit of extraction. However, the internal haul road is situated on land owned by the licensee (see Section Q. Variations from Provincial Standards).	a. See drawing 3 of 4 for noise control requirements by phase and lift.b. Operations shall be restricted to 35 trucks per hour (during the day time) or 12 trucks per hour (during the night time)
5. The east and south boundary of the licence shall be fenced with post and wire fencing, at least 1.2 metres in height, within 12 months of the licence being issued.	until the existing site access is relocated approximately 75 metres south, and a five metre high noise attenuation berm is constructed, in the locations shown on the plan view (see note C.2. on this drawing).
 Fencing shall not be required where the licence abuts existing licence #618881 (see Section Q. Variations from Provincial Standards) and will be delineated with marker posts every 30 metres. 	c. The main processing plant can operate within the alternative area shown on the plan view within Phase A1 when the plant is located on the floor of the second, third, or fourth lift (at 300 masl or lower).
 There are two locations in the southeast corner where the fencing will be located outside of the licence boundary (see plan view and Section Q. Variations from Provincial Standards). 	d. All mobile construction equipment used for site preparation and rehabilitation on site shall produce sound levels which comply with the Ministry of Environment, Conservation and Parks (MECP) Guideline NPC-115.
8. All fencing shall be maintained for the life of the extraction operation.	e. It is recognized that advancements of equipment or different configurations may allow additional equipment or equipment to be substituted for certain activities while still meeting MECP guidelines. Variations to the noise control
 Drainage and Siltation Control 1. Drainage of undisturbed areas will continue in the directions shown on drawing 1 of 4. 	measures shall be permitted provided that the revision still meets MECP guidelines as confirmed through documentation by a professional engineer. Prior to modification, notification shall be given to the MECP.
 Prior to site preparation, an Erosion and Sedimentation Control (ESC) Plan will be prepared and implemented. 	2. <u>Traffic</u> a Based on noise requirements operations shall be restricted to 35 trucks per bour (during the day time) or 12 trucks
E. Site Preparation	a. Based on noise requirements, operations shall be restricted to 35 trucks per hour (during the day time) or 12 trucks per hour (during the night time) until the existing site access is relocated approximately 75 metres south, and a five metre high noise attenuation berm is constructed, in the locations shown on the plan view (see note C.2. on this
 Prior to site preparation, a Spills Contingency Plan shall be prepared and implemented. Each Phase shall be fenced with specialized reptile fencing (see Reptile Fencing Detail on this drawing) as extraction 	drawing). b. The new access shall be constructed to satisfy District requirements with all applicable permits.
 Removal of trees within the limit of extraction shall only occur between October 15th and April 15th. 	 Prior to extraction exceeding 1,000,000 tonnes per year, an eastbound left turn lane shall be constructed to provide 30 metres of vehicular storage on Muskoka Road 117, satisfying District requirements with all applicable permits.
4. Timber resources will be salvaged for use as saw logs, fence posts and fuel wood where appropriate. Stumps and brush	3. <u>Blasting</u>
cleared will be burned (with applicable permits), used for aquatic habitat enhancement or mulched for use in progressive rehabilitation.	a. An attenuation study shall be undertaken by an independent blasting consultant during the first 12 months of operation in order to obtain sufficient quarry data for the development of site specific attenuation relations. Blast designs and
 Prior to commencing extraction activities in Phase A, removal of wetlands within the proposed extraction area shall occur in two stages to minimize impacts on species using the features. 	parameters implemented during the study period shall be representative of typical production blasts anticipated for the quarry. This study will be used to confirm the applicability of the initial guideline parameters and assist in developing future blast designs.
a. Stage 1 shall occur in the month of July and involves the draining of the wetland feature only (i.e., mechanical clearing of vegetation, grubbing, stripping etc. shall not occur until Stage 2). Draining the wetland first will remove the function	b. All blasts shall be monitored for both ground vibration and overpressure at the closest privately owned sensitive
of this community for turtles at a time that allows for turtles within the wetland to move to alternative habitats prior to the fall hibernation season. Every effort shall be made to collect and relocate any turtles found in the wetland feature, as some turtles may choose to remain.	receptors adjacent to the site, or closer, with a minimum of two (2) instruments - one installed in front of the blast and one installed behind the blast.
b. Stage 2 involves the mechanical clearing of vegetation, grubbing, stripping, etc. and shall commence after the wetland has been maintained in a dry state for one hibernation season (one winter) and shall begin no earlier than June of the	c. Blasts shall be designed to maintain vibrations below 13mm/s at the location of the closest identified active spawning bed as per the Department of Fisheries and Oceans Canada (DFO) guidelines. When blasting during active spawning season, a minimum of one supplemental vibration monitor shall be installed on the shoreline adjacent to the closest
following year after completing Stage 1. 6. Wetland removal within the limit of extraction shall not occur during the turtle hibernation season between October 1 st and	spawning bed to confirm the vibration levels. d. The guideline limits for vibration and water overpressure shall adhere to standards as outlined in the publications
May 15 th .	Guidelines For the Use of Explosives In or Near Canadian Fisheries Waters (1998) or any such document, regulation or guideline which supersedes this standard.
7. Prior to removing any portion of the fen community in the northwest corner on drawing 1 of 4 (including alterations to the water balance in that community), a new 4.2 hectare wetland shall be created adjacent to the Muskoka River (see Proposed Offsite Wetland Detail on this drawing for proposed location).	e. The guideline limits for ground vibration and air overpressure shall adhere to standards as outlined in the Model Municipal Noise Control By-law publication NPC 119 (1978) or any such document, regulation or guideline which
 Topsoil and overburden shall be stripped and stored separately wherever feasible (see Section Q. Variations from Provincial Standards). 	supersedes this standard. f. In the event of an exceedance of NPC 119 limits or any such document, regulation or guideline which supersedes this
 Topsoil and overburden shall be placed in noise attenuation berms or used immediately for progressive rehabilitation in this licence or adjacent licence #618881 (see Section Q. Variations from Provincial Standards). 	standard, blast designs and protocol shall be reviewed prior to any subsequent blasts and revised accordingly in order to return the operations to compliant levels.
 Excess topsoil and overburden not required for immediate use in berms or rehabilitation may be temporarily stockpiled on the pit and guarry floor. Topsoil and overburden stockpiles shall be located within the limit of extraction and remain a minimum of 	g. Blasts shall be designed to maintain vibrations at the transmission towers in the Hydro One Corridor below 50mm/s or any such document, regulation or corporate policy in effect at the time. When vibration calculations suggest vibrations at the towers may exceed 35mm/s, the closest tower shall be monitored for ground vibration.
30 metres from the licence boundary (except where the licence boundary abuts existing licence #618881 - see Section Q. Variations from Provincial Standards) and 90 metres from a property with a residential use.	h. Orientation of the aggregate extraction operation will be designed and maintained so that the direction of the
11. 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.	overpressure propagation and flyrock from the face will be away from structures as much as possible. i. Blast designs shall be continually reviewed with respect to fragmentation, ground vibration and overpressure. Blast
F. Berms and Screening	 designs shall be modified as required to maintain compliance with current applicable guidelines and regulations. j. Detailed blast records shall be maintained in accordance with current industry best practices.
 Noise attenuation berms shall be constructed to the height specified in the locations shown on the plan view (see Noise note 'b' under Section O. Report Recommendations for details regarding timing of berm construction). 	4. <u>Hydrology and Hydrogeology</u>
2. Berm side slopes shall not exceed 2:1.	a. Prior to the start of water taking and/or water discharge, a PTTW and an ECA for Industrial Sewage Works shall be obtained and the licensee shall operate in compliance with these approval instruments, including the associated
 Berms shall not be located within three metres of the licence boundary. Berms shall be vegetated with a native mix of wildflowers and grasses to stabilize slopes and minimize mowing and 	monitoring and reporting. The proposed groundwater and surface water monitoring programs in the Consolidated Proposed Groundwater and Surface Water Monitoring Programs document (prepared by WSP, dated April 26, 2023) shall be considered for inclusion in these instruments.
maintenance. The vegetation on the berms shall be maintained until the berms are removed for rehabilitation. 5. Once required, noise attenuation berms shall be maintained throughout the operational life of the pit and quarry and may	b. If a water well complaint is received by the licensee the following actions shall be taken:
 Existing deciduous and coniferous trees within the setbacks shall be maintained except where the relocated entrance and 	b.a. The local MECP District Office shall immediately be notified of any complaint arising from the taking of water at the site.
noise attenuation berms are required.	b.b. When a complaint is received by the licensee, the Complaints Response Program detailed below shall be initiated immediately. As soon as can be arranged, a representative of the licensee or their agent will visit the site to make an initial assessment of the complaint. This will include a well/system inspection (where accessible) by a licensed
 G. Site Dewatering 1. The licensee shall operate in accordance with Environmental Compliance Approval (ECA) and Permit to Take Water 	pump maintenance contractor to determine the groundwater level, pump depth setting and condition of the well system. The available groundwater level data from the existing on-site monitoring well network will be reviewed
(PTTW). H. Extraction Sequence	by a licensed professional hydrogeologist/engineer to develop an estimate of the potential groundwater level drawdown at the potentially affected well that is the subject of the complaint response.
1. Phase A1	b.c. The information obtained by the contractor from the well/well system inspection and the review of the available groundwater level data will be used by the professional hydrogeologist/engineer to prepare an opinion on the likelihood that the well interference complaint is attributed to quarry dewatering.
a. Prepare Phase A1 for extraction and ensure all requirements in Sections 'C' through 'G' of this drawing are met.b. Strip Phase A1 and use material for berm construction or store the material for future rehabilitation and berm	b.d. If it is concluded that the well interference complaint is most likely attributable to quarry dewatering activities at the site and the water supply is at risk, then a temporary supply shall immediately be arranged and a water supply
construction.	restoration program shall be implemented. The decision as to whether to proceed with the water supply restoration program will be based on a review of groundwater level information by the professional
c. Extract Phase A1 by commencing at the common boundary with existing licence #618881 and proceeding in a southerly and/or easterly direction.	hydrogeologist/engineer and well construction and performance information from the licensed pump maintenance contractor as noted above.
 Undertake attenuation study for blasting with the first 12 months of operation (see Blasting note "a" under Section O. Report Recommendations for additional information). 	b.e. The water supply restoration program consists of the following measures which are applicable for local water supply wells where the operation of the water supply wells may have been compromised by quarry excavation or, based on the analysis of all monitoring data, are assessed to likely be compromised in the near future:
e. Phase A1 may be extracted to a maximum depth of 270 masl.f. As excavation reaches the limit of extraction or maximum depth, progressive rehabilitation shall commence.	b.e.a. Well System Rehabilitation - The well system could be rehabilitated by replacement or lowering of pumps, pump lines flushing, well deepening, etc. to improve performance. Where water is unavailable in the
g. Progressive rehabilitation shall consist of backfilling the east and south phase boundary to establish 2:1 side slopes on	shallow bedrock and a well in deeper bedrock is being considered, a water sample(s) would be taken from the existing well for chemical, physical and bacteriological analyses prior to deepening the well to
the top bench.h. Prepare Phase A2 for extraction and ensure all requirements in Sections 'C' through 'G' of this drawing are met.	provide a basis of comparison. If the groundwater in the deeper bedrock is found to be of acceptable quality by the homeowner, either directly from the well or with treatment, it will be developed as the domestic supply. Any modifications to a well would be conducted in accordance with <i>Ontario Regulation</i>
2. Phase A2	903.
a. Strip Phase A2 and use the material for progressive rehabilitation in Phase A1 and/or existing licence #618881 or to construct any required berms.	
Extract Phase A2 in a southerly direction from the common licence boundary with existing licence #618881 and/or easterly from Phase A1.	
c. Phase A2 may be extracted to a maximum depth of 300 masl. In certain areas, selective blasting and excavation may occur to an elevation of 298 masl to create wetland habitat for rehabilitation purposes (see drawing 4 of 4).	
d. As excavation reaches the limit of extraction or maximum depth, progressive rehabilitation shall commence.	
e. Progressive rehabilitation shall consist of backfilling portions of the east phase boundary, and all of the south phase boundary, to establish 3:1 side slopes. Cliff with talus slopes shall also be created where 3:1 side slopes transition to vertical faces along the east phase boundary.	Proposed Offsite Wetland Detail Scale 1:10,000 / 1:15,000
 f. At least 50% of the side slopes for Phase A1 and the landform for Phase A2 shall have rehabilitation completed before proceeding to any potential future extraction in Phase B. 	Utale 1.10,000 / 1.13,000
I. Extraction Details	
1 All trees within five metres of the excavation face inside the limit of extraction shall be removed	

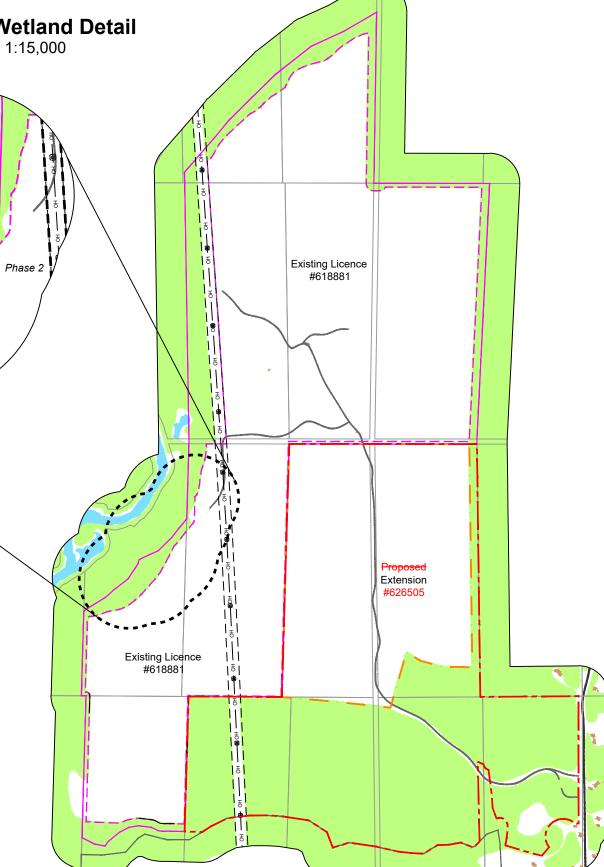
- 1. All trees within five metres of the excavation face inside the limit of extraction shall be removed.
- 2. Lifts will typically be 15 metres in height. The maximum height of a lift shall be 20 metres.
- 3. The maximum depth of material in Phase A1 is approximately 60 metres and shall be extracted in four lifts.
- 4. The maximum depth of material in Phase A2 is approximately 35 metres and shall be extracted in two lifts.
- 5. Extraction may occur concurrently in Phases A1 and A2. 6. Extraction shall occur concurrently with existing licence #618881.
- 7. Aggregate stockpiles (including recyclable material) 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 #618881 see Section Q. Variations from Provincial Standards) and 90 metres from a property with a residential use. 8. Internal haul road locations will vary as extraction progresses and will be located on the pit and quarry floor.
- Equipment and Processing
- 1. Equipment used on-site may include but shall not be limited to drills, scrapers, excavators, front-end loaders, feed bin, crushing plant, screening plant, wash plant, conveyors and haul trucks.
- 2. All primary processing equipment will be portable and move with the extraction operation.
- 3. If required, an ECA will be obtained for processing equipment to be used on-site.
- 4. Aggregate will be processed at the main processing plant (which includes a wash plant) located on existing licence #618881 and/or in the alternate location in the southern extent of Phase A1 as shown on the plan view (see Noise note "c" under Section O. Report Recommendations and drawing 3 of 4 for additional information).
- 5. Processing 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 #618881 - see Section Q. Variations from Provincial Standards) and 90 metres from a property with a residential use. See noise mitigation measures on drawing 3 of 4 for additional restrictions on the location of processing equipment. 6. Material from this licence or existing licence # 618881 shall be processed in either licence.
- K. Wash Pond and Sump
- 1. Wash ponds and a sump will be permitted on the quarry floor in accordance with ECA and PTTW requirements. The pond and sump will move throughout the life of the operation as extraction progresses horizontally and vertically.
- L. Fuel Storage 1. Fuel storage tanks will be installed in close proximity to the main processing plant and shall be maintained in accordance
- with the Liquid Fuels Handling Code. 2. Fuel trucks shall be used to transfer fuel to on-site equipment in accordance with the Liquid Fuels Handling Code
- 3. Prior to site preparation, a Spills Contingency Plan shall be prepared and implemented.

shall be applied to internal haul roads as often as required to ing or collection devices where the equipment creates dust and is

- b.e.b. Well Replacement or Additional Well(s) The well could be replaced or augmented with a new well(s) that could be located further from the quarry excavation. The feasibility of well replacement would be based on a test drilling program that could include more than one test well. Where water is unavailable in the shallow bedrock and a well in deeper bedrock (compared to the original water supply well) is being considered, a water sample(s) would be taken from the existing well for chemical, physical and bacteriological analyses to provide a basis of comparison. If the groundwater in the deeper bedrock is found to be of acceptable quality by the homeowner, either directly from the well or with treatment, it will be developed as the domestic supply. Construction of a new well(s) would be conducted in accordance with Ontario Regulation 903.
- b.e.c. Trickle Wells and Storage Where feasible, the existing well(s) could be converted to a low yield pumping system, or installation of an additional well(s), along with non-pressurized water storage to augment water supplies, if required. b.e.d. Water Treatment Considerations - Appropriate water treatment will be incorporated into any restored water supply as discussed above.
- b.f. The licensee shall be responsible for all costs associated with the water supply restoration program. Water supply restoration activities undertaken to address an adverse effect shall be done so in consultation with the affected property owner in order to ensure a mutually agreeable solution is implemented. 5. Natural Environment
- Water Quality and Quantity
- a. The ECA (see Section 9.3.2 of the Level 1 and Level 2 Hydrogeological and Hydrological Assessment Report) shall be designed to protect the quality and quantity of water discharged to Muskoka River North (MR-North) to protect fish and fish habitat. b. Appropriate sediment and erosion control measures shall be used to prevent the erosion of unstable soils and the
- movement of sediment into watercourses. These measures shall be in place prior to soil exposure and shall be maintained whenever exposed soils are present. c. All stockpiled aggregates shall be stored in a location that will prevent the movement of sediment laden runoff into the buffers, watercourses, and wetlands.
- d. All stockpiled topsoil/overburden shall be stabilized as quickly as possible to minimize the potential for runoff (see note E.11 on this drawing).
- e. A qualified person shall be retained to certify the adequacy of sedimentation and erosion controls for all Phases of pit and quarrying, and to inspect and ensure necessary repairs following winter thaws, spring freshets, and heavy rainfall
- events. f. The surface/ground water monitoring program shall be implemented as per the Level 1 and 2 Hydrogeological and Hydrological Assessment Report, Golder 2020.
- Floodback and Post-Rehabilitation Conditions
- g. The final design of the quarry lakes shall provide for overflow channels directed towards the MR-North tributary. The final design of the channels shall be developed with the assistance of a qualified professional and shall provide end uses for fish and wildlife. h. Analysis of monitoring data shall be undertaken prior to cessation of extraction to establish ecologically based flow
- requirements for the MR-North tributary between the limit of extraction and the North Branch of the Muskoka River to ensure adequate flow during the flood back period. Fish and Fish Habitat i. Baseflow shall be maintained to the downstream portions of the MR-North tributary located downstream of the existing
- j. The DFO shall be notified immediately if a situation occurs or if there is imminent danger of an occurrence that could
- cause serious harm to fish. If there is an occurrence, corrective measures shall be implemented. k. Blast designs shall be in accordance with Fisheries and Oceans Canada Guidelines for the use of explosives in or near Canadian fisheries waters provided in Appendix 9.
- I. A qualified professional shall be retained to prepare a blasting plan that is compliant with DFO regulations. Habitat of Endangered and Threatened Species
- m. Specialized barrier fencing for reptiles shall be erected at the limit of extraction for each Phase. This fencing shall be consistent with provincial guidance documents. n. The specialized barrier fencing for reptiles shall be installed to match the proposed phasing. Clearing and stripping
- shall be completed for a given phase followed by the installation of the barrier fencing around the new perimeter. This fencing shall be removed and re-installed as extraction progresses to match the proposed phasing. o. Removal of trees within the extraction limit shall only occur between October 15th and April 15th to avoid the active
- season for Endangered Bat species. p. Removal of vegetation shall occur in a phased manner that matches the phasing plan.
- Significant Wildlife Habitat
- q. A wetland community of no less than 14.9 hectares shall be provided on the Rehabilitation Plan (see rehabilitation recommendations on this drawing and the plan view on drawing 4 of 4). r. Water depths within a portion of the created wetland will be variable and include deep pockets of sufficient depth to
- prevent freezing completely to the bottom (these areas will have the potential to function as turtle hibernation habitat). Substrates within these deep pockets will be primarily comprised of muck and other fine sediments. s. Wetland removal within the proposed extraction area shall not occur during the turtle hibernation season (October 1st
- to May 15th). t. Prior to commencing extraction activities in Phase A, removal of wetlands within the proposed extraction area shall occur in two stages to minimize impacts on species using the features. Stage 1 shall occur in July and involves the draining of the wetland feature only (i.e., mechanical clearing of vegetation, grubbing, stripping etc. shall not occur until Stage 2). Draining the wetland first will remove the function of this community for turtles at a time that allows for turtles within the wetland to move to alternative habitats prior to the fall hibernation season. The wetland shall be maintained in a dry state for one hibernation season (one winter) prior to proceeding to Stage 2. Stage 2 shall begin no earlier than June of the year following the completion of Stage 1.
- u. Following the Stage 1 drawdown described above, every effort shall be made to collect and relocate any turtles found in the wetland feature, as some turtles may choose to remain. v. The specialized barrier fencing for reptiles shall be installed to match the proposed Phasing. Clearing and stripping
- shall be completed for a given Phase followed by the installation of the barrier fencing around the new perimeter. This fencing shall be removed and re-installed as extraction progresses to match the proposed Phasing. w. Tree removal within the licence shall proceed in a phased manner to minimize the extent of vegetation removal to the extent possible.
- x. Removal of trees within the extraction limit shall only occur between October 15th and April 15th. Other Natural Features and Functions
- y. Buffers shall be protected from rock shatter and/or physical disruption through proper blast design, blast orientation, and monitoring Rehabilitation - Offsite Wetland
- z. Prior to removing any portion of the fen community in the northwest corner (see drawing 1 of 4), including alterations to the water balance in that community, a new 4.2 hectare wetland shall be created adjacent to the Muskoka River (see Proposed Offsite Wetland Detail on this drawing for proposed location). aa. Approximately 50% of the wetland shall have a maximum depth of 2.5 metres (wet depth) during average water levels
- and contain a minimum sustained water depth of 1.0 metre during annual low water conditions. ab. Slopes surrounding the wetland shall vary to permit access by a variety of species and shall not exceed 3:1.
- ac. Basking structures constructed from natural features (e.g., rock piles, logs, rootwads, etc.) shall be placed in the wetland and along its edges. The diameter of logs shall vary to permit use by small and large turtles.
- ad. Where used, logs and rootballs shall be placed at a variety of angles and water depths. The majority of these features shall extend from the wetland edge into the open water areas. Only a small number of logs or rootballs shall be placed
- parallel to the shoreline. ae. Where possible, logs features that are installed, shall contain limbs. Where available, full trees (canopy and root ball)
- shall be used as basking structures. af. Substrates within the wetland shall be dominated by 'muck' organics, especially in the deeper sections of the wetland.
- ag. The wetland shall be planted with a variety of aquatic and emergent vegetation. Where possible, species that will produce floating mats of vegetation shall be prioritized. A list of suitable wetland vegetation is provided in Table 1 on drawing 4 of 4.
- ah. Following the creation of the offsite wetland, a qualified ecologist shall review the wetland in June and/or August of each year, for invasive species, area of open water and depth, and general wildlife habitat opportunities. A summary of observations and, if required, any recommended mitigation measures shall be provided for inclusion in the annual Compliance Assessment Report to ensure the wetland provides suitable habitat and is not degraded by invasive species.

Rehabilitation - On Site Wetland

drawing 4 of 4). aj. The edge of the created wetland shall be variable.



Phase 3



5.9 5.10

5.19

Standard

51

- ai. A wetland community of no less than 14.9 hectares shall be provided on the Rehabilitation Plan in Phase A2 (see

ak. Water depths within the wetland shall be variable; however, a minimum of 25% of the area shall be constructed to provide minimum water depths of 1 metre during low water conditions. al. Slopes, substrates, and basking structures shall be included in the 14.9 hectare rehabilitation wetland (see Natural Environment notes 'ab' to 'af' under Section O. Report Recommendations on this drawing). Rehabilitation - Terrestrial

am. Terrestrial rehabilitation shall be established in the areas identified on drawing 4 of 4. The list of plant species for progressive rehabilitation is provided in Table 2 on drawing 4 of 4 to allow for naturalization that blends with the adjacent natural features buffers. an. Rehabilitation of the terrestrial portions of the quarry shall include the creation of cliff and talus slope along the eastern

edge of the extraction area in Phase A2. ao. Rehabilitation of Phase A2 shall include both wetland and terrestrial communities.

ap. Where possible, terrestrial communities within the Phase A2 shall be rehabilitated using fines and other organic material available on site to provide variations in the topography and therefore encourage growth of new plant life.

aq. Where planting is to occur within the rehabilitation plan, terrestrial species outlined in Table 2 on drawing 4 of 4 shall be used. ar. To permit wildlife access to both the restored terrestrial communities and wetlands located in Phase A2, areas of no

more than 3:1 slope shall be included along the eastern and southerly boundary of Phase A2. 6. <u>Archaeology</u>

a. Should deeply buried archaeology remains be found during the course of site preparation and/or extraction related activities, the MHSTCI shall be notified. b. In the event that human remains are encountered during construction or extraction activities associated with the development proposal, the licensee shall immediately contact both the MHSTCI and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services (MGCS).

P. Potential Future Phase B 1. The area identified as Phase B on the Operational Plan shall not be disturbed, except to allow for the construction of the haul route, berms, and any mitigation or monitoring required in accordance with requirements set out by other approval agencies for the operation of Phase A. 2. Extraction in Phase B is not currently approved with this site plan, if the applicant intends to pursue extraction within Phase

B, review and approval at the sole discretion of the ministry will be required. 3. Should extraction in Phase B be approved by the ministry, the licensee shall be required to obtain and operate in accordance with requirements set out by other approval agencies.

Q. Variations from Provincial Standards

Variation The common boundary with existing licence #618881 shall not be fenced. There are two locations in the southeast corner where fencing shall be located outside of the licence boundary. Gates shall not be required where haul roads cross the owned by the licensee outside the licence boundary. may not be stored separately.

Scrap may be stored within 30 metres of the common boundary with existing licence #618881 in close proximity to the main processing plant.

boundary abuts existing licence #618881. 5.13 Aggregate, recycled aggregate, topsoil and overburden

stockpiles as well as processing equipment may be located within 30 metres of the common boundary with existing licence #618881. 5.16 Topsoil and/or overburden may be transferred between This will allow stripped material from site preparation to be this licence and existing licence #618881.

Portions of the quarry face shall remain vertical.

Unfenced portions of the licence boundary shall be demarcated with marker posts every 30 metres or less in order to maintain visibility from one marker post to the next.

Rational

This will eliminate constraints to the movement of common boundary with Licence #618881 or cross land | equipment between licences owned by the same licensee and to utilize an existing haul route. Depending on site conditions, topsoil and overburden Wherever there are no distinguishable layers and sufficient thickness to allow separate handling, topsoil and overburden will not be stored separately. The adjacent licence #618881 is owned by the same

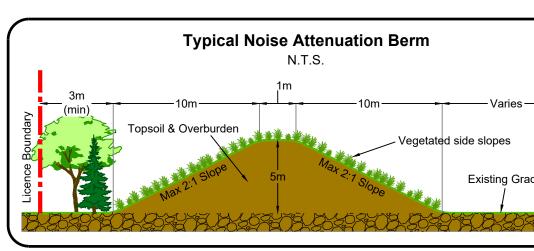
A 0 metre setback shall be provided where the licence This will enable material to be extracted along the common boundary and for rehabilitation to transition between licences. A site plan amendment for existing licence #618881 is required.

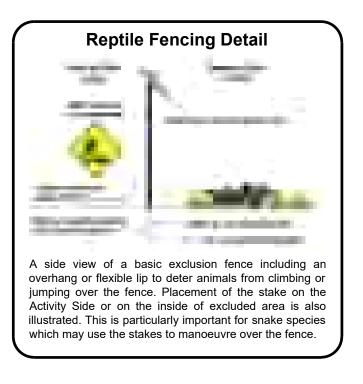
licensee.

licensee. used for berm construction and/or progressive rehabilitation

The adjacent licence #618881 is owned by the same

in other parts of this licence and the existing licence. Vertical faces will create a more diverse habitat and visually appealing rehabilitated landform.

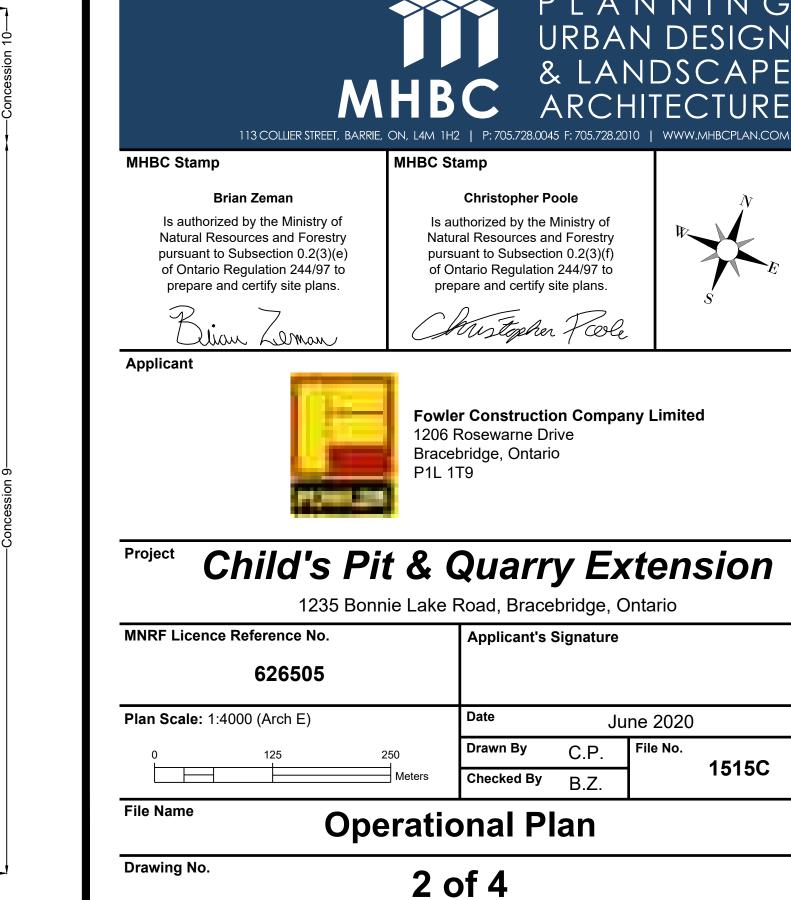




Existing Grac

Legal Description					
Lots 15 & 16, Concession 10 and Part of Lots 14-17, Concession 9 Road Allowance Between Lots 15 & 16, Concession 10 Part of Road Allowance Between Lots 15 & 16, Concession 9 Town of Bracebridge (Geographic Township of Macaulay), District of Muskoka					
Legend					
Licence Boundary	120m Offset From Licence Boundary				
Limit of Extraction	Existing Licenced Boundary - solid line Existing Limit of Extraction - dash line				
Contours with Elevation ¹⁴⁹ ¹⁵⁰ ¹⁵¹ ¹⁵¹ ¹⁵⁷	Lots and Concessions				
Public Road	Hydro Corridor				
Internal Haul Road	Existing Entrance / Exit				
Fence 1.2m post & wire fence unless otherwise noted	Future Entrance / Exit				
Vatercourse Permanent - solid Intermittent - dash with dot	Gate				
Waterbody	Direction of Extraction				
Wooded Area	Phase Boundary				
Alternative Location of Main Processing Plant	Berm Noise attenuation				
Evaluated Wetland (Non Significant) Provided by Land Information Ontario	Building/Structure				
	Max. Depth of Extraction				
	Cross Sections				

lan Amendmen	its		
Date	Description		
an Revisions (Pre-Licencing)		
November 2020	Added Archaeological Site BgGt-4 and Archaeological Potential areas to plan view and notes O.6.a, O.6.b & O.6.c. Adjusted limit of extraction in southeast corner to remain outside of Archaeological Site. Updated notes A.1.b, A.1.b.b. and F.3.		
December 2020	Updated notes A.1.a & F.3, added note C.6. and removed notes O.6.a, O.6.b & O.6.c. Updated Section P. Variations from Provincial Standards row 5.1 and 5.10. Adjusted licence boundary and limit of extraction in southeast corner to remain outside of archaeological areas.		
August 2021	Updated notes A.3, C.2, F.4, F.6, O.1.b, O.1.d, O.2.a, O.5.a, O.5.ae, and O.5.ao. Added notes A.5 and B.2. Update Section P. Variations from Provincial Standards row 5.13. Identified setbacks from limit of extraction to existing water courses in Phase B. Adjusted notes to be written as enforceable conditions per feedback from MNRF.		
July 2022	Updated limit of extraction per feedback from MNRF. Adjusted location of off-site wetland. Revised notes A.1.b, A.1.b.a, A.1.b.b, A.5, C.2, C.7, E.9, H.3.d, H.4.d, O.2.c., P.5.1, P.5.2 and P.5.19. Added notes C.4, E.8, E.11 - E.13 H.1.f, H.1.g, H.2.d - H.2.f, H.3.e - H.3.g, H.4.d and H.4.e. Added sump, mitigation & pumping feature to plan view		
April 2023	Updated limit of extraction to remove Phase B		
Date	Description		
	Date an Revisions (November 2020 December 2020 August 2021 July 2022 April 2023	Date Description an Revisions (Pre-Licencing) November 2020 Added Archaeological Site BgGL4 and Archaeological Potential areas to plan view and notes 0.6.a, 0.6.b & 0.6.c. Adjusted limit of extraction in southeast comer to remain outside of Archaeological Site. Updated notes A.1.b, A.1.b.b. and F.3. December 2020 Added Archaeological Site BgGL4 and Archaeological Potential areas to plan view and notes 0.6.a, 0.6.b & 0.6.c. Adjusted limit of extraction in southeast comer to remain outside of Archaeological Site. Updated notes A.1.b, A.1.b.b. and F.3. December 2020 Updated notes A.1.a & F.3, added note C.6. and removed notes 0.6.a, 0.6.b & 0.6.c. Updated Section P. Variations from Provincial Standards row 5.1 and 5.10. Adjusted licence boundary and limit of extraction in southeast corner to remain outside of archaeological areas. Updated notes A.3. C.2, F.4, F.6, O.1.b, O.1.d, O.2.a, 0.5.a, 0.5.a, and O.5.ao. Added notes A.5 and B.2. August 2021 Updated Inotes A.3, C.2, F.4, F.6, O.1.b, O.1.d, O.2.a, 0.5.a, O.5.ao. and C.5.ao. Added notes A.5 and B.2. July 2022 Updated Inition from Provincial Standards row 5.13. Identified setbacks from MNRF. Updated Initi of extraction to extraction to existing water courses in Phase B. Adjusted notes to be written as enforceable conditions per feedback from MNRF. July 2022 A.1.b, A, 5.0.2, C.7, T.E, 9, H.3.d, H.4.d, O.2.c., P.5.1, P.5.2 and P.5.19. Added notes C.4, E.8, E.11 - E.1, H.1.f, H.1.g, H.2.d - H.2.f, H.3.e - H.3.g, H.4.d and H.4.e. Added sump, mitigation & pumping feature to plan view April 2023 Updated limit of extraction to rem	



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File Path

1515C

Daytime (7:00am to 7:00pm) Physical Noise Control Measures - Phase A, Lifts 1 - 4

Rock Drill Option 1 Localized barrier with eight 40-foot shipping containers stacked two high and four long, in a "D" shape, providing shielding to north, east and south.

Rock Drill Option 2 Use quieter drill with maximum sound power level of 110 dBA.

Primary Crusher & Loader

• Localized shielding to north, east and south. Can be achieved by working face or supplemental noise barriers with a height of 15 metres, located within 40 metres of the primary crusher.

Existing Main Processing Plant Location • Localized shielding with 17 metre high stockpile on the east side of the processing area as shown on the plan view.

Alternative Main Processing Plant Location - Lifts 2 to 4 Only • Localized shielding in the form of a working face or stockpile with a height of 17 metres to the north, east and south of the processing plant. The processing plant shall be constructed at an elevation of 300 masl or lower, in the southern extent of Phase A1 as shown below.

Loading & Shipping • When more than 35 trucks visit the site per hour, the site entrance shall be relocated and a 5 metre high noise berm shall be constructed along the southeast licence boundary as shown on drawing 2 of 4. • Loading and shipping activities can operate simultaneously with any other operation.

Night-time (7:00pm to 7:00am) Physical Noise Control Measures - Phase A, Lifts 1 - 4

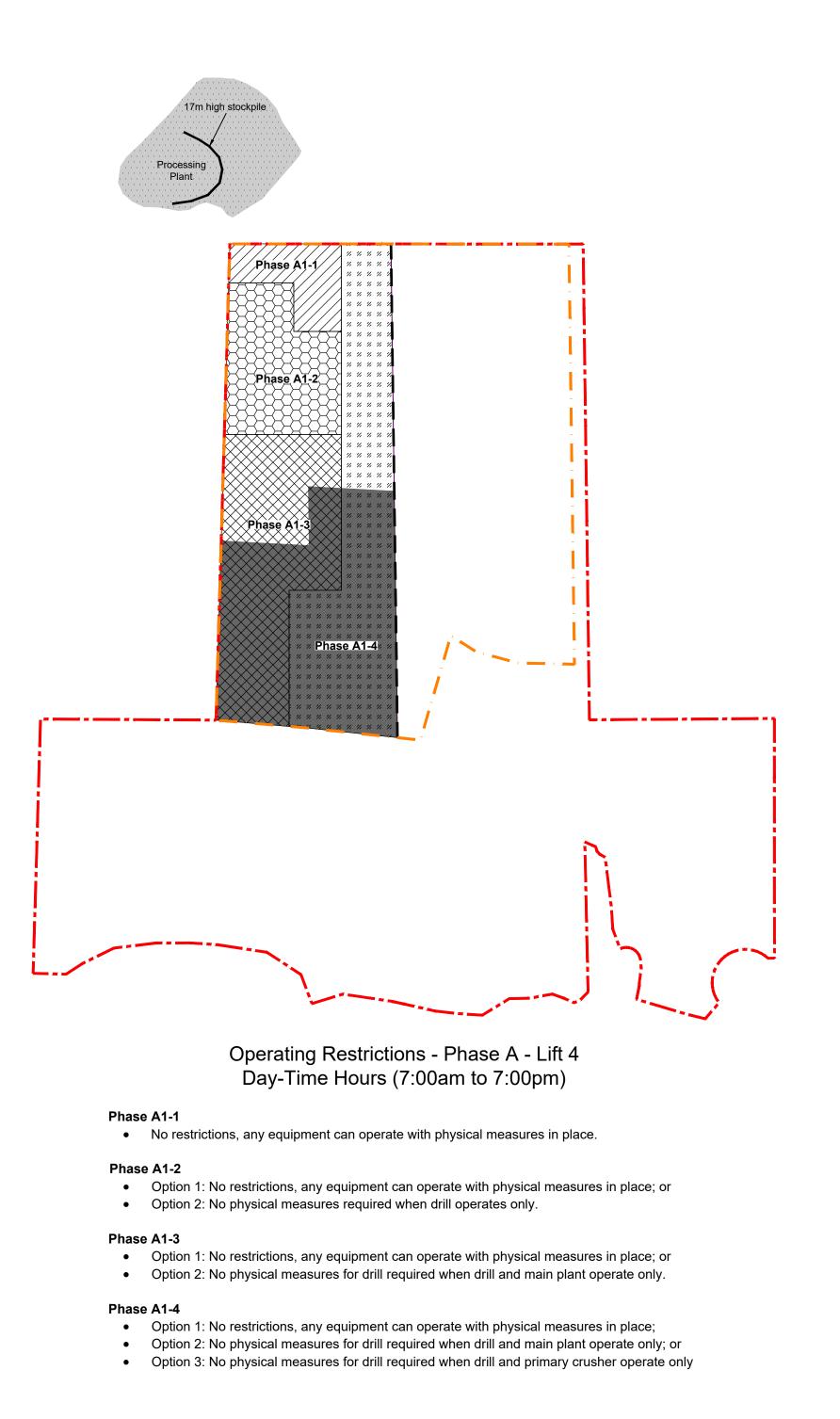
Primary Crusher & Loader Localized shielding to north, east and south. Can be achieved by working face or supplemental noise barriers with a height of 15 metres, located within 40 metres of the primary crusher.

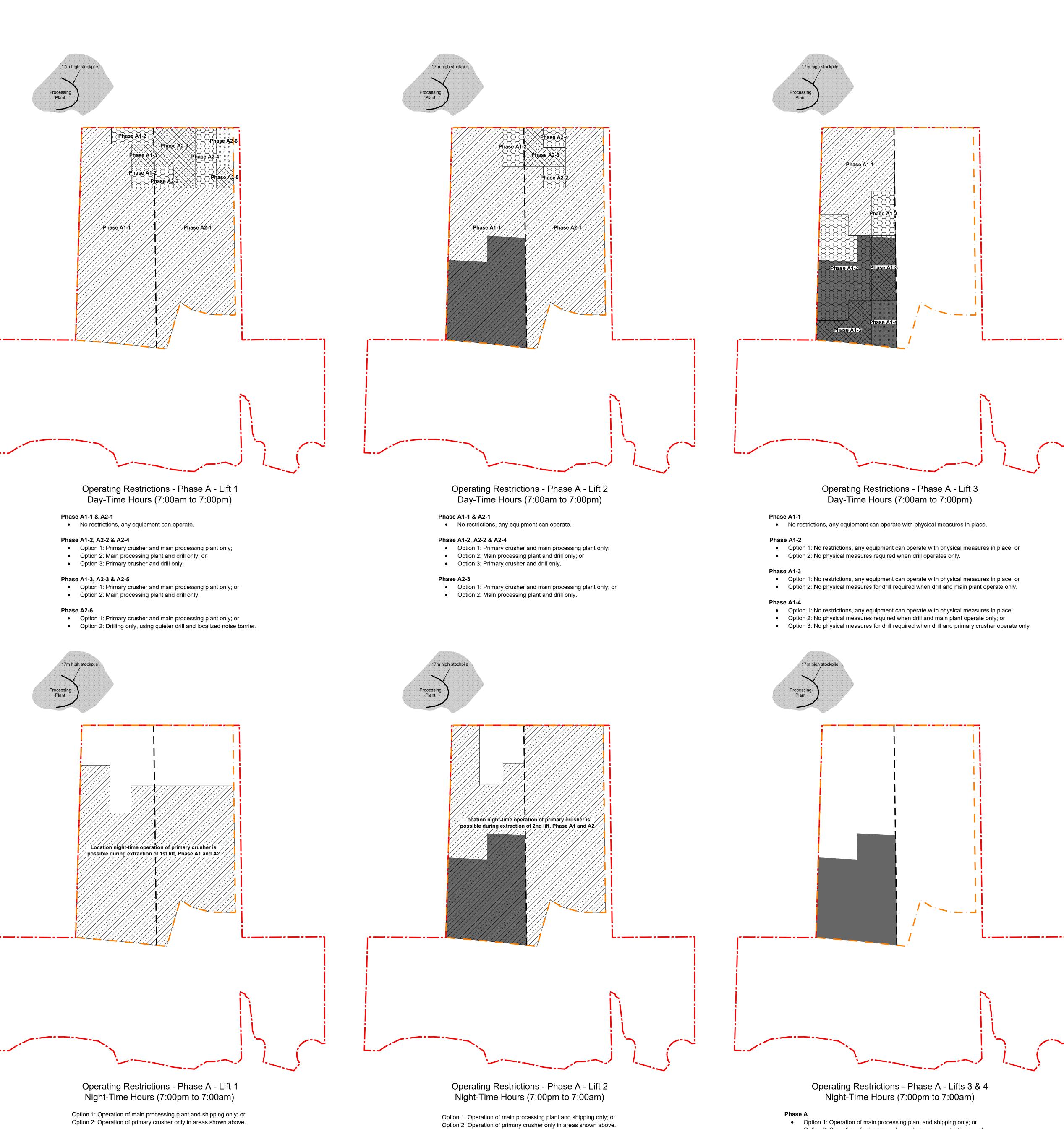
Existing Main Processing Plant Location • Localized shielding with 17 metre high stockpile on the east side of the processing area as shown on the plan view.

Alternative Main Processing Plant Location - Lifts 2 to 4 Only • Localized shielding in the form of a working face or stockpile with a height of 17 metres to the north, east and south of the processing plant. The processing plant shall be constructed at an elevation of 300 masl or lower, in the southern extent of Phase A1 as shown below.

Loading & Shipping
When more than 12 trucks visit the site per hour, the site entrance shall be relocated and a 5 metre high noise berm shall be constructed along the southeast licence boundary as shown on drawing 2 of 4.

DrillingNo drilling during night-time hours





• Option 1: Operation of main processing plant and shipping only; or • Option 2: Operation of primary crusher only, no area restrictions apply.

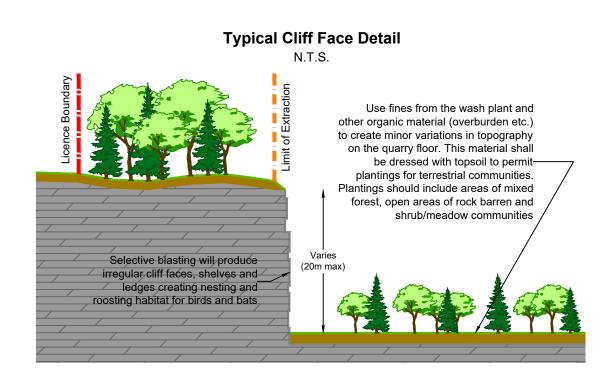
Legal Description				
Lots 15 & 16, Concession 10 and Part of Lots 14-17, Concession 9 Road Allowance Between Lots 15 & 16, Concession 10 Part of Road Allowance Between Lots 15 & 16, Concession 9 Town of Bracebridge (Geographic Township of Macaulay), District of Muskoka				
Legend				
Licence Boundary				
Limit of Extraction				
Phase Boundary				
Existing Main Processing Area				
Alternative Location of Main Processing Plant				

Site P	Plan Amendment	ts	
			<u> </u>
No.	Date	Description	Ву
Site P	Plan Revisions (I	Pre-Licencing)	
1	November 2020	Adjusted limit of extraction in southeast corner to remain outside of Archaeological Site.	
2	December 2020	Adjusted licence boundary and limit of extraction in southeast corner to remain outside of archaeological areas.	
		Updated site plan per feedback from MNRF. C.P.	
3	August 2021	Updated site plan per feedback from MNRF.	C.P.
3	August 2021 July 2022	Updated site plan per feedback from MNRF. Updated limit of extraction per feedback from MNRF.	C.P. C.P.
-	<u> </u>		

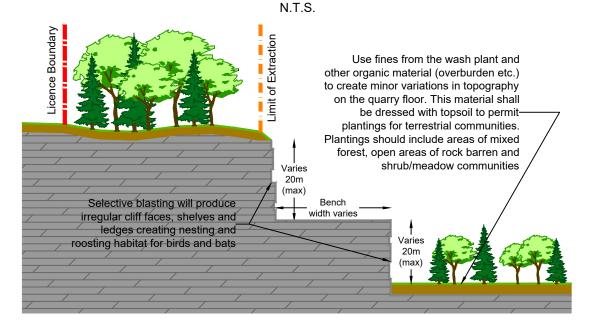
	HB		JRBA & LA ARCI	n Di NDS HITEC	ESIGN CAPE CTURE
113 COLLIER STREET, BARRIE, MHBC Stamp	2 P: 705.728.00 amp	45 F: 705.728.2	2010 WWW	.MHBCPLAN.COM	
Brian Zeman		Christopher F	کممام		٦ .
Is authorized by the Ministry of Natural Resources and Forestry pursuant to Subsection 0.2(3)(e) of Ontario Regulation 244/97 to prepare and certify site plans.	uthorized by the Ministry of ural Resources and Forestry suant to Subsection $0.2(3)(f)$ Ontario Regulation 244/97 to pare and certify site plans.				
Elian Leman	Ć	tustophe	n Xcol	e e	
Project Child's Pit & Quarry Extension					
		Road, Brace	-		
MNRF Licence Reference No.		Applicant's Signature			
626505					
Plan Scale: 1:7,500 (Arch E)		Date	J	une 2020	
0 250	500	Drawn By Checked By	C.P. B.Z.	File No.	1515C
File Name Operational	File Name Operational Plan - Noise Attenuation				
Drawing No. 3 of 4					

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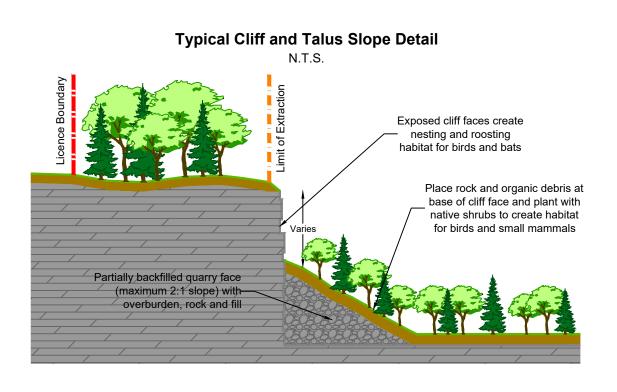
Stepped Cliff Face Detail



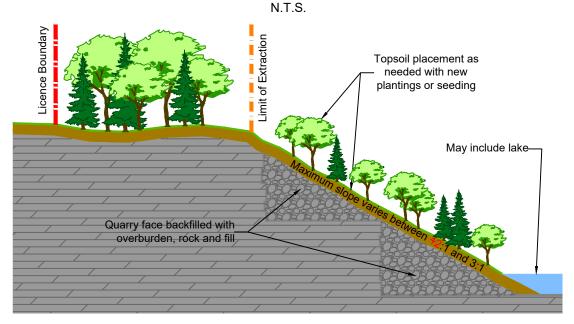
Progressive Rehabilitation E. Terrestrial Habitat A. General 1. Area Calculations: adjacent natural features. a. Licence Area 160.3 hectares Table 2: Vegeta b. Limit of Extraction 70.8 hectares Trees and S B. Phasing White Spr 1. As excavation reaches the limit of extraction or maximum depth within each phase, progressive (Picea glau rehabilitation shall commence. Eastern White 2. Progressive rehabilitation shall follow the direction and sequence of extraction identified on the plan (Thuja occide view and described in the notes on drawing 2 of 4. C. Slopes and Grading (Larix larici Largetooth A 1. Progressive rehabilitation will utilize a variety of rehabilitation techniques including: (Populus grandi Backfilling extraction faces and pit & quarry floors; Trembling A (Populus tremu Partially backfilling extraction faces to create a cliff with talus slope; or Pin Cherr Leaving extraction faces vertical. (Prunus pensyl 2. The final rehabilitated landforms established using the rehabilitation techniques will consist of a Red Map lake, wetland, and terrestrial habitat. Side sloping on-site will range from vertical face, 2:1 and 3:1 (Acer rubru side slopes as shown on the plan view. White Bird 3. In order to permit wildlife access to the wetland and terrestrial communities in Phase A2, the south (Betula papyr and east boundary of Phase A2 shall be backfilled to create a 3:1 side slope except where cliff faces and cliff with talus slopes are required. Choke Che (Prunus virgir 4. Excess soil, as defined in Ontario Regulation 244/97, may be imported to this site to facilitate the following rehabilitation: Red-osier Dog (Cornus stolor 4.1. Creation of 3:1 slopes (or sloping ratio otherwise described and depicted on this drawing) Staghorn Su 4.2. Top dressing to establish vegetation (Rhus typhi 5. Liquid soil, as defined in Ontario Regulation 406/19 under the Environmental Protection Act, is not Narrow-leaved Mea authorized for importation to the site. (Spirea alt 6. The quality of excess soil imported to the site for final placement must be equivalent to or more Red Raspb stringent than the applicable excess soil quality standards as determined in accordance with (Rubus idae 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. Downy Service (Amelanchier A 7. 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 Common Blac to the advice of the qualified person. (Rubus alleghe 8. Excess soil imported to facilitate rehabilitation as described on this site plan shall be undertaken in White O accordance with Ontario Regulation 244/97 under the Aggregate Resources Act, as amended from (Quercus A time to time. Northern Red 9. The cumulative total amount of excess soil that may be imported to this site for rehabilitation (Quercus Ru purposes is 1,100,000 m³. Eastern White D. Wetland Creation (Pinus Strot 1. A 15.0 hectare wetland shall be established in Phase A2 at the location and elevations shown on (Pinus Resin the plan view. 2. 25% of the wetland in Phase A2 shall be constructed to provide minimum water depths of 1.0 2. Rehabilitation of the terrestrial portions of the quarry shall include the creation of cliff and talus metres during low water conditions, while the remainder of the wetland will range in depth between slope along portions of the eastern limit of extraction for Phase A2. 0.1 metre and 1.0 metres. 3. Turtle basking structures constructed from natural features (e.g., rock ramps, logs, rootwads, etc.) shall be placed in the wetland and along its edges in a manner suitable for turtles to crawl onto. growth of new plant life. The diameter of the rocks and logs shall vary to permit use by small and large turtles. 4. Where used, logs and root balls shall be placed at a variety of angles and water depths. Only a F. Drainage small number of logs or root balls shall be placed parallel to the shoreline. plan view. 5. All rock ramps shall be constructed by placing small to medium sized round and flat rocks below the water line to gradually above the water line, in a manner that allows turtles to crawl from the water to the basking area. 6. Where possible, logs features that are installed shall contain limbs. Where available, full trees (canopy and root ball) shall be used as basking structures. 3. Analysis of monitoring data shall be undertaken prior to cessation of extraction to establish 7. Substrates within the wetland shall be dominated by 'muck' organics, especially in the deeper sections of the wetland. 8. The wetland shall be planted with a variety of aquatic and emergent vegetation. Where possible, Final Rehabilitation species that will produce floating mats of vegetation shall be prioritized. A list of suitable wetland vegetation is provided in Table 1 - Vegetation Species Suitable for Wetland Creation and A. General Rehabilitation below. Table 1: Vegetation Species Suitable for Wetland Creation and Rehabilitation the final landform. Wetland Fringe Floating / Emergent / Submergent 3. The established groundwater table is approximately 295 masl. White Water Lily Broadleaf Cattail (Nymphaea Odorata) (Typha latifolia) Yellow Pond Lily Canada Blue-joint (Nuphar lutea ssp. Viriegata) (Calamagrostis canadensis) American Eel-grass Tamarack (Larix laricina) (Vallisneria americana) Harlequin Blue Flag Black Spruce (Iris versicolor) (Picea mariana) Pickerelweed Speckled Alder (Pontederia cordata) (Alnus incana) Narrow-leaved Burreed Mountain Holly (parganium emersum) (llex mucronatus)

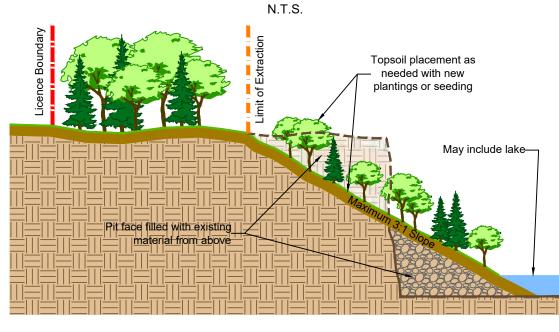
Northern Wild Russian (Viburnum cassinoides)

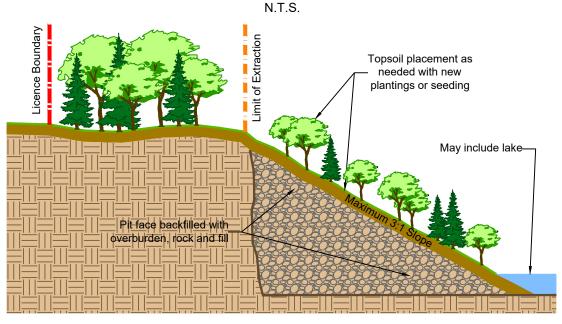
Common Elderberry (Sambucus canadensis)



Typical Backfilled Side Slope Detail - Quarry







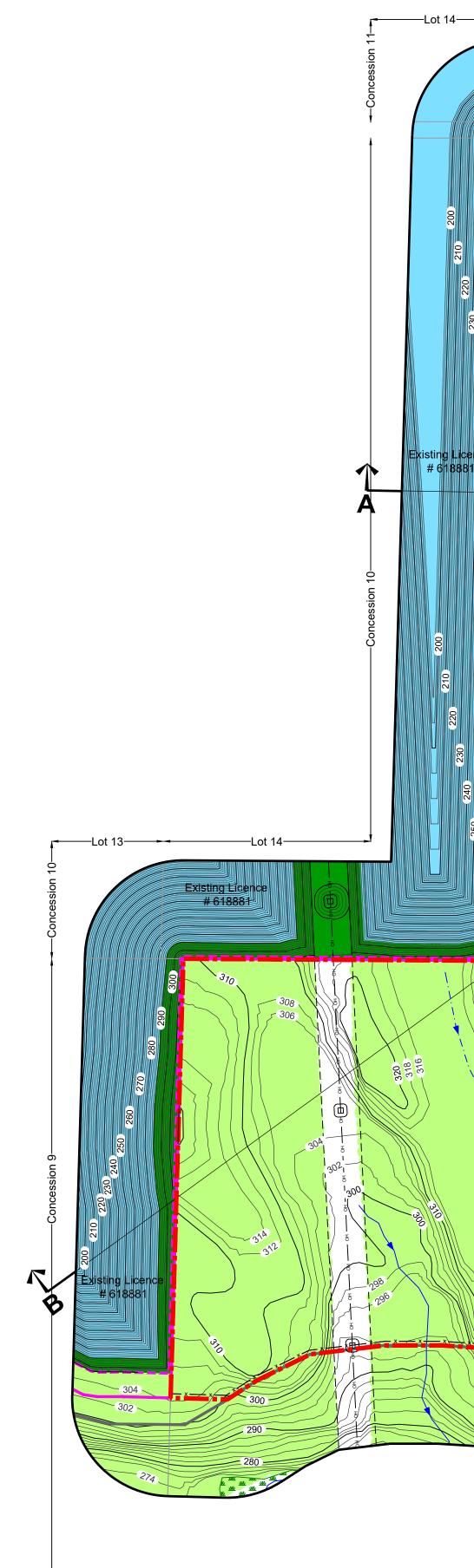
1. Terrestrial rehabilitation shall be established in the areas identified on the plan view. The list of plant species for progressive rehabilitation is provided in Table 2 - Vegetation Species Suitable for Pit and Quarry Rehabilitation below to allow for naturalization that blends with the buffers for the

ees and Shrubs	Herbaceous Species
White Spruce	Canada Bluegrass
(Picea glauca)	(Poa compressa)
stern White Cedar	Timothy
huja occidentalis)	(Phleum pratense)
Tamarack	Perennial Rye
(Larix laricina)	(Lolium perenne)
argetooth Aspen	Alfalfa
ulus grandidentata)	(Medicago sativa)
rembling Aspen	Red Clover
pulus tremuloides)	(Trifolium pratense)
Pin Cherry	Rough Hair Grass
Inus pensylvanica)	(Agrostis scabra)
Red Maple	Poverty Oat Grass
(Acer rubrum)	(Danthonia spicata)
White Birch	Little Bluestem
Betula papyrifera)	(Schizachyrium scoparium)
Choke Cherry	Sideoats Grama
runus virginiana)	(Bouteloua curtipendula)
ed-osier Dogwood	New England Aster
ornus stolonifera)	(Aster novae-angliae)
Staghorn Sumac	Lanceleaf Coreopsis
(Rhus typhina)	(Coreopsis lanceolata)
-leaved Meadowsweet	Flat Topped White Aster
(Spirea alba)	(Aster umbellatus var. umbellatus)
Red Raspberry	Philadelphia Fleabane
(Rubus idaeus)	(Erigeron philadelphicus ssp. philadelphicus)
wny Serviceberry	Black-eyed Susan
elanchier Arborea)	(Rudbeckia hirta)
mmon Blackberry	Canada Goldenrod
ous allegheniensis)	(Solidago canadensis)
White Oak	Gray Goldenrod
(Quercus Alba)	(Solidago nemoralis ssp. Nemoralis)
orthern Red Oak	Canada Milkvetch
Quercus Rubra)	(Astragalus canadensis)
astern White Pine (Pinus Strobus)	
Red Pine Pinus Resinosa)	

3. Where possible, terrestrial communities within Phase A2 shall be created using fines and other organic material available on-site to provide variations in the topography and therefore encourage 1. Final surface drainage will follow the rehabilitated contours and directional arrows shown on the 2. The final design of the quarry lakes shall provide for overflow channels directed towards the MR-North tributary. The final design of the channels shall be developed with the assistance of a qualified professional and shall provide end uses for fish and wildlife.

ecologically based flow requirements for the MR-North tributary between the limit of extraction and the North Branch of the Muskoka River to ensure adequate flow during the flood back period.

1. All equipment and buildings/structures shall be removed from the site. 2. The internal haul roads through the potential Phase B lands shall may remain to provide access to



-----Lot 13------—Lot 14—

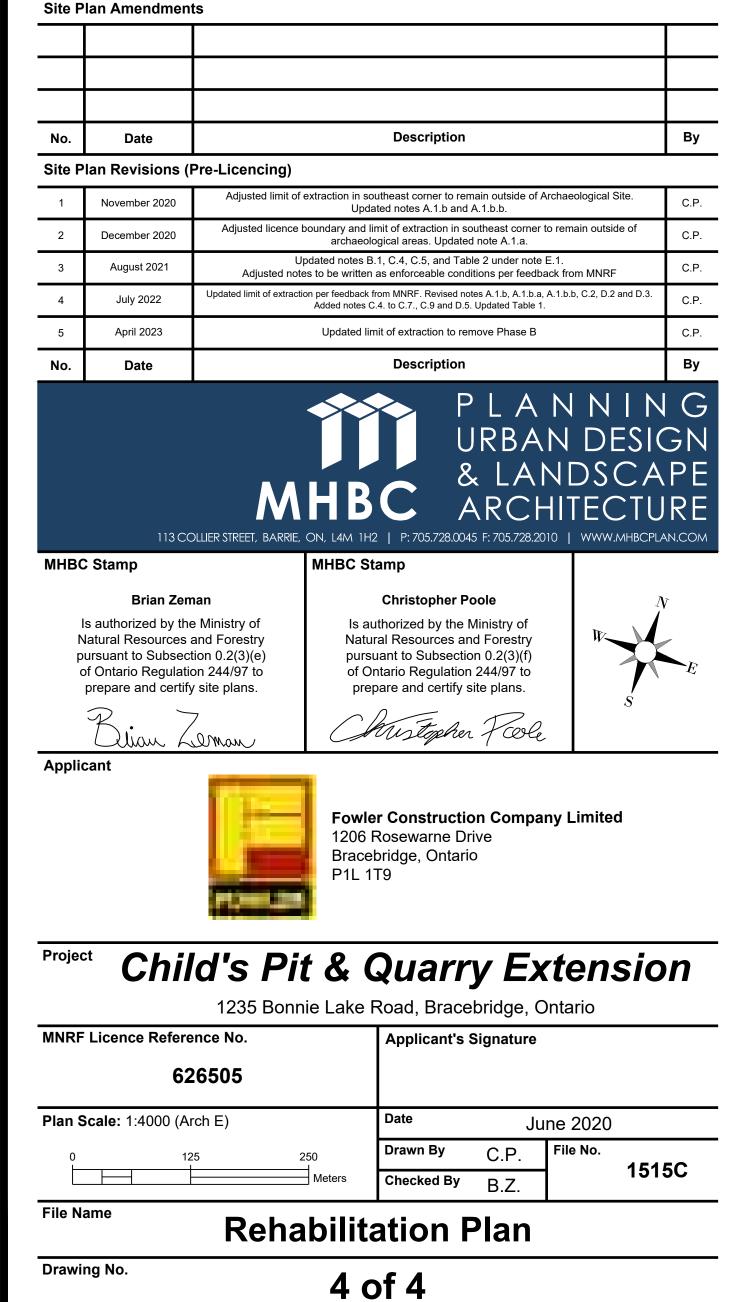
Typical Cut and Fill Side Slope Detail - Pit

Typical Wetland Detail N.T.S. Maximum 3:1 slope Place organic material, topsoil, substrates & cover materials, and structures along shallow -wetland edge to promote riparian and shoreline aquatic vegetation, amphibian breeding, and cover for other aquatic organisms Place large woody debris and rubble/boulder material along lake edge to provide waterfowl and turtle loafing and bird perching and waterfowl nesting areas Varying water depths (0.1-2.0m) with select áreas up to 2m deep to permit overwintering habitat for turtles (see note D.2 on this drawing)

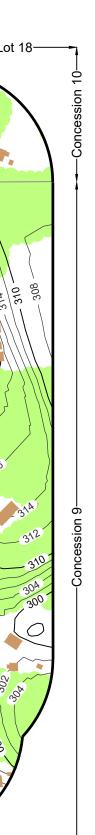
Typical Backfilled Side Slope Detail - Pit

 $\overline{5}$ Lot 14 –Lot 16––––Lot 17––– ng Licence \$ 270 -3.0:1 \$200 \$20 320 Lot 17———Lot 18—— 310 -Lot 17-----Lot 18-----—Lot 15— —Lot 16 -----てい

Legal Description					
Lots 15 & 16, Concession 10 and Part of Lots 14-17, Concession 9 Road Allowance Between Lots 15 & 16, Concession 10					
Part of Road Allowance Between Lots	15 & 16, Concession 9				
Town of Bracebridge (Geographic Tow	wnship of Macaulay), District of Muskoka				
Legend					
Licence Boundary	120m Offset From Licence Boundary				
Limit of Extraction	Existing Licenced Boundary - solid line Existing Limit of Extraction - dash line				
Contours with Elevation ¹⁵⁰ ¹⁵¹ ¹⁵⁷	Lots and Concessions				
Public Road	Fence 1.2m post & wire fence unless otherwise noted				
Internal Road	Hydro Corridor				
Extraction Face	Gate				
Watercourse Permanent - solid Intermittent - dash with dot	Final Direction of Surface Drainage				
Waterbody	Building/Structure				
Wetland 14.9 hectares	Metres above sea level (MASL)				
Terrestrial Habitat	Proposed Final Grade and Slope				
Wooded Area	Cross Sections				
Evaluated Wetland (Non Significant) Provided by Land Information Ontario					



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File Path