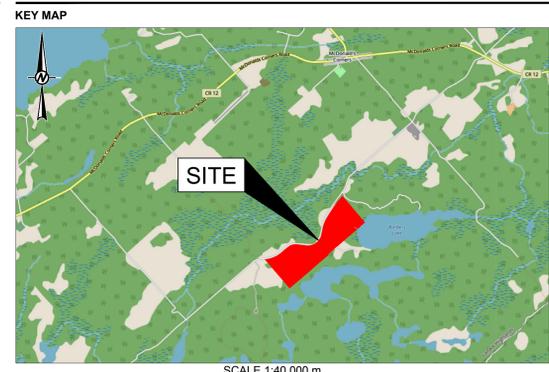


EXISTING FEATURES - SITE
SCALE 1:4,000 m

EXISTING FEATURES - SITE NOTES (PAGE 2 OF 5):
NOTE: THE NUMBERS BELOW REFER TO AGGREGATE RESOURCES OF ONTARIO: SITE PLAN STANDARDS (AUGUST 2020)

- 17 EXISTING LAND USE**
LAND USES ON AND AROUND THE SITE INCLUDE EXISTING LICENCED PITS TO THE NORTHWEST AND NORTHEAST, AN EXISTING SUGARBUSH, RESTAURANT AND MUSEUM TO THE WEST, DECIDUOUS, MIXED AND CONIFEROUS FOREST AND WETLAND TO THE SOUTH, EAST AND NORTH, INTERSPERSED WITH SMALL PATCHES OF ACTIVE AGRICULTURE. THE EXISTING LAND USE ON THE SITE IS VACANT.
- 18 MAXIMUM PREDICTED WATER TABLE**
BASED ON THE AVAILABLE GROUNDWATER ELEVATION DATA, THE MAXIMUM PREDICTED WATER TABLE ON THE SITE IS 195.4 METRES ABOVE SEA LEVEL ON THE SOUTHERN CORNER (AS MEASURED AT MW20-6). BASED ON THE GROUNDWATER ELEVATION DATA MEASURED AT MW20-3 LOCATED ON THE EASTERN SIDE OF THE SITE, THE WATER TABLE SLOPES DOWN MOVING FROM SOUTHWEST TO EAST, AND THE MAXIMUM PREDICTED WATER TABLE ON THE EAST SIDE OF THE SITE IS APPROXIMATELY 182.9 METRES ABOVE SEA LEVEL (PAGE 2 OF 5).
- 19 LOCATION OF EXISTING ENTRANCES TO AND EXITS FROM THE SITE**
THERE ARE CURRENTLY FOUR ENTRANCES/EXITS FOR THE SITE AS SHOWN ON THIS PLAN (PAGE 2 OF 5).
- 20 SIGNIFICANT NATURAL FEATURES ON AND WITHIN 120 METRES OF SITE**
SIGNIFICANT NATURAL FEATURES ON THE SITE INCLUDE HABITAT FOR ENDANGERED SPECIES (BLANDING'S TURTLE, TRI-COLOURED BAT AND BLACK ASH), UNEVALUATED WETLANDS AND SIGNIFICANT WILDLIFE HABITAT (SEEPS).
- SIGNIFICANT NATURAL FEATURES OFF OF THE SITE, BUT WITHIN 120 METRES OF THE SITE INCLUDE POTENTIAL HABITAT FOR ENDANGERED AND THREATENED SPECIES, UNEVALUATED WETLANDS, FISH HABITAT AND POTENTIAL SIGNIFICANT WILDLIFE HABITAT (VARIOUS TYPES).
- 21 SIGNIFICANT HUMAN-MADE FEATURES ON AND WITHIN 120 METRES OF SITE**
THERE ARE NO SIGNIFICANT HUMAN-MADE FEATURES ON THE SITE. SIGNIFICANT HUMAN-MADE FEATURES WITHIN 120 METRES OF THE SITE INCLUDE EXISTING PITS LOCATED TO THE NORTHWEST (LICENCE NUMBER 609261) AND TO THE NORTHEAST (LICENCE NUMBER 4257), HIGHLAND LINE TO THE NORTH AND TWO PRIVATE RESIDENCES LOCATED NORTH AND EAST OF THE SITE.
- 22 THE LOCATION AND USE OF ALL BUILDINGS AND STRUCTURES EXISTING ON AND WITHIN 120 METRES OF THE SITE**
THERE ARE CURRENTLY NO EXISTING PERMANENT BUILDINGS OR STRUCTURES LOCATED ON THE SITE. WITHIN 120 METRES OF THE SITE THERE IS ONE HOUSE LOCATED ON THE EAST SIDE OF THE SITE, ACCESSED FROM LEO JAY LANE.
- 23 SITE TOPOGRAPHY**
THE EXISTING SITE TOPOGRAPHY, ILLUSTRATED BY A ONE-METRE CONTOUR INTERVAL, EXPRESSED IN METRES ABOVE SEA LEVEL IS PRESENTED ON THIS PLAN (PAGE 2 OF 5).
- 24 EXISTING SURFACE WATER AND DRAINAGE FACILITIES ON AND WITHIN 120 METRES OF THE SITE**
SURFACE WATER FEATURES ON THE SITE INCLUDE A SINGLE SMALL INTERMITTENT WATERCOURSE THAT FLOWS TO BARBERS LAKE AS WELL AS UNEVALUATED WETLANDS. THERE ARE LOW MOIST AREAS THROUGHOUT SOME OF THE FORESTS ON THE SITE, INCLUDING A SMALL POND IN THE MIXED FOREST. BARBERS LAKE (SOUTHEAST) AND UNEVALUATED WETLANDS (NORTH AND SOUTH) ARE LOCATED WITHIN 120 METRES OF THE SITE. WITHIN 120 METRES OF THE SITE, SHALLOW ROADSIDE DITCHES EXIST ALONG THE NORTH AND SOUTH SIDES OF HIGHLAND LINE.
- 25 LOCATION OF EXISTING TREE COVER**
THE EXISTING ON-SITE AND OFF-SITE TREE COVER IS SHOWN ON THIS PLAN (PAGE 2 OF 5). THE EASTERN, SOUTHWEST AND NORTHWEST PORTIONS OF THE SITE ARE TREE COVERED. THE OFF-SITE LANDS SURROUNDING THE SITE TO THE SOUTH, NORTHEAST AND SOUTHWEST ARE GENERALLY TREE COVERED.
- 26 LOCATION/TYPE OF EXISTING FENCING**
EXISTING LOCATIONS FOR FENCING AROUND THE SITE ARE SHOWN ON THIS PLAN (PAGE 2 OF 5). PAGE WIRE FENCING EXISTS ON THE NORTHERN, EASTERN AND WESTERN BOUNDARIES. THERE IS NO FENCING PRESENT ON THE SOUTHERN BOUNDARY OF THE SITE.
- EXISTING FEATURES CROSS-SECTIONS**
69 LOCATION OF CROSS-SECTIONS
REFER TO DRAWING (PAGE 2 OF 5) FOR LOCATION OF EXISTING FEATURES CROSS-SECTIONS.
70 HORIZONTAL AND VERTICAL SCALES
APPROPRIATE HORIZONTAL AND VERTICAL SCALES ARE MARKED ON THE CROSS-SECTIONS.
71 EXISTING FEATURES CROSS-SECTIONS
THREE EXISTING FEATURES CROSS-SECTIONS ARE PROVIDED ON THE EXISTING FEATURES PLAN (PAGE 2 OF 5).
72 MAXIMUM PREDICTED WATER TABLE
THE MAXIMUM PREDICTED WATER TABLE IS IDENTIFIED ON THE EXISTING FEATURES CROSS-SECTIONS (PAGE 2 OF 5). BASED ON THE AVAILABLE GROUNDWATER ELEVATION DATA, THE MAXIMUM PREDICTED WATER TABLE ON THE SITE IS 195.4 METRES ABOVE SEA LEVEL ON THE SOUTHERN CORNER (AS MEASURED AT MW20-6). BASED ON THE GROUNDWATER ELEVATION DATA MEASURED AT MW20-3 LOCATED ON THE EASTERN SIDE OF THE SITE, THE WATER TABLE SLOPES DOWN MOVING FROM SOUTHWEST TO EAST, AND THE MAXIMUM PREDICTED WATER TABLE ON THE EAST SIDE OF THE SITE IS APPROXIMATELY 182.9 METRES ABOVE SEA LEVEL.
- 73 TYPICAL BERM DESIGN**
A CROSS-SECTION OF A TYPICAL BERM DESIGN IS SHOWN ADJACENT TO THE EXISTING FEATURE CROSS-SECTIONS (PAGE 2 OF 5).



HIGHLAND LINE PIT
LOT 5, CONCESSION 10
TOWNSHIP OF LANARK HIGHLANDS,
LANARK COUNTY, ONTARIO

APPLICANT:
THOMAS CAVANAGH CONSTRUCTION LIMITED
9094 CAVANAGH ROAD
ASHTON, ONTARIO
K0A 1B0

PIT LICENCE NO. _____

- NOTE(S)**
1. LICENCED AREA, HIGHLAND LINE PIT 50.6 HECTARES.
 2. AREA OF OPERATION, HIGHLAND LINE PIT 35.1 HECTARES.
 3. THIS SITE PLAN IS PREPARED UNDER THE AGGREGATE RESOURCES ACT FOR A CLASS A LICENCE FOR A PIT BELOW THE GROUND WATER TABLE.
 4. THIS PLAN WAS PREPARED USING PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHS.
 5. LOT, CONCESSION AND BOUNDARY LINES ON THIS PLAN ARE APPROXIMATE.
 6. THIS IS NOT A LEGAL SURVEY DRAWING IN ACCORDANCE WITH THE PROVINCE OF ONTARIO SURVEYORS ACT 1987. THIS DRAWING WAS PRODUCED USING STANDARD PHOTOGRAMMETRIC PRACTICES.

LEGEND

- BOUNDARY OF AREA TO BE LICENCED
- LIMIT OF EXTRACTION
- 120-METRE SURROUND
- BOREHOLE / MONITORING WELL
- PRIVATE WELL (AS PER MINISTRY OF ENVIRONMENT, CONSERVATION AND PARKS WATER WELL INFORMATION SYSTEM)
- CON 10, LOT 5
CON 10, LOT 4
--- LOTS AND CONCESSION LINES
- ADJACENT PIT AND QUARRY BOUNDARY
- UTILITY POLE
- BUILDING; S-SILO, H-HOUSE, G-GARAGE, B-BARN, S-SHED, O-OFFICE, SC-SCALE HOUSE
- ROAD: PAVED
- ROAD: GRAVEL
- CONTOURS/INDEX CONTOURS
- WOODED AREA
- WATERCOURSE
- WETLAND
- x --- x PAGE WIRE FENCE/GATE
- CROSS-SECTIONS
- ENTRANCE
- EXIT

- REFERENCE(S)**
1. KEY PLAN: Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community.
 2. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2016
 3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 18, VERTICAL DATUM: CGVD28

CLIENT
THOMAS CAVANAGH CONSTRUCTION LIMITED

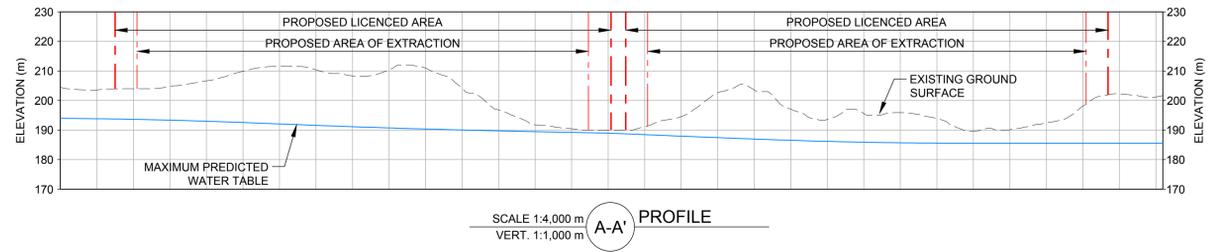
PROJECT
HIGHLAND LINE PIT

TITLE
EXISTING FEATURES - SITE

APPLICANT
THOMAS CAVANAGH CONSTRUCTION LIMITED

DESIGNED: BH
PREPARED: JM
REVIEWED: KAM
APPROVED: KAM

PROJECT NO. 19126620 CONTROL 0014 REV. 0 DRAWING 2 OF 5



Brian Henderson 03-13-23
SIGNATURE OF APPLICANT/LICENCEE DATE

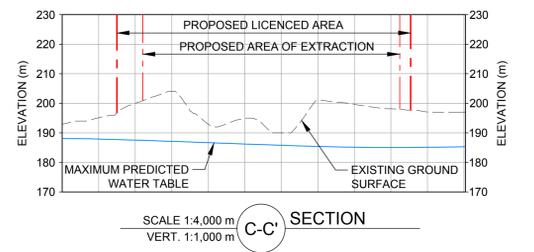
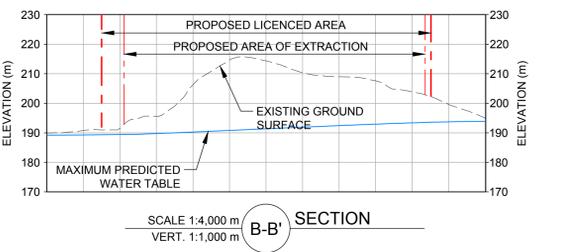
Brian Henderson 03-13-23
PREPARED UNDER THE DIRECTION OF: DATE
BRIAN HENDERSON

THOMAS CAVANAGH CONSTRUCTION LIMITED

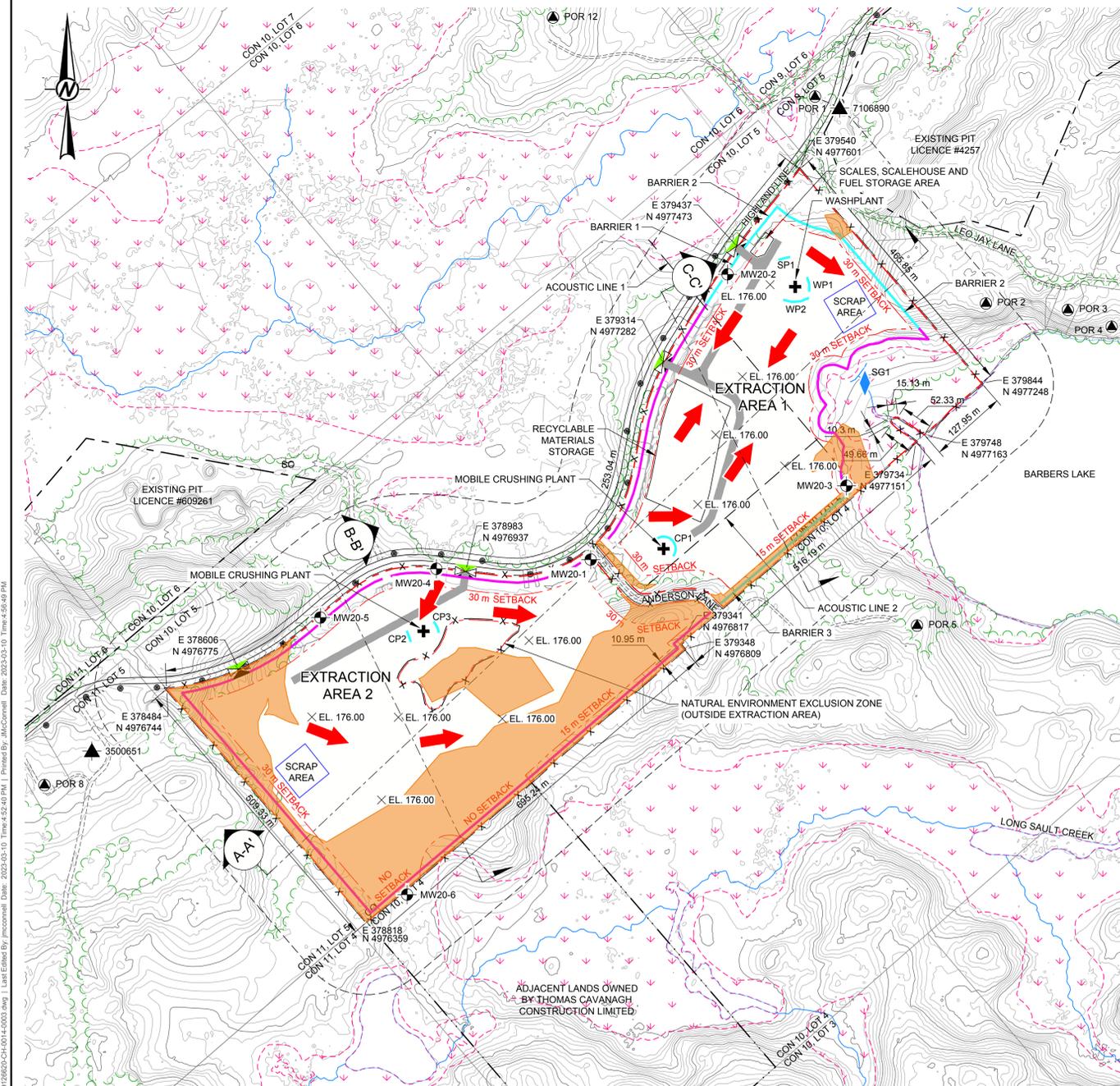
AMENDMENTS	DATE	APPROVAL DATE

SITE PLANS APPROVED BY THE MINISTRY OF NATURAL RESOURCES AND FORESTRY.

SIGNATURE _____ DATE _____



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EXISTING FEATURES - SITE
SCALE 1:4,000 m

RECOMMENDED NOISE BARRIERS						
BARRIER	MINIMUM HEIGHT (M / MASL)	MINIMUM LENGTH (M)	MAXIMUM DISTANCE FROM SOURCE (M)	REQUIRED TO SHIELD LINE OF SIGHT FROM IDENTIFIED SOURCE ID	REQUIRED TO SHIELD LINE OF SIGHT TO IDENTIFIED RECEPTORS	DESCRIPTION
BARRIER_1 (SITE BERM)	196 MASL	UP TO 100 M	-	MOBILE SCREENING PLANT AND EXTRACTION OPERATIONS OCCURRING IN EXTRACTION AREA 1 EAST OF LINE AA	POR_12*	NEW BARRIER (BERM / LIFT FACE); REQUIRED TO SHIELD NOISE IMPACTS TO THE IDENTIFIED RECEPTORS WHEN OPERATING IN EXTRACTION AREA 1 EAST OF ACOUSTIC LINE 1
BARRIER_2 (SITE BERM)	196 MASL	UP TO 400 M	-	MOBILE SCREENING PLANT AND EXTRACTION OPERATIONS OCCURRING IN EXTRACTION AREA 1 EAST OF LINE AA	POR_1 POR_2 POR_3 POR_4	NEW BARRIER (BERM / LIFT FACE); REQUIRED TO SHIELD NOISE IMPACTS TO THE IDENTIFIED RECEPTORS WHEN OPERATING IN EXTRACTION AREA 1 EAST OF ACOUSTIC LINE 1
BARRIER_3 (SITE BERM)	3 M	UP TO 285 M	-	MOBILE SCREENING PLANT AND EXTRACTION OPERATIONS OCCURRING IN EXTRACTION AREA 1 SOUTH OF LINE BB	POR_5	NEW BARRIER (BERM); REQUIRED TO SHIELD NOISE IMPACTS AT THE IDENTIFIED RECEPTOR WHEN OPERATING IN EXTRACTION AREA 1 SOUTH OF ACOUSTIC LINE 2
BARRIER_SP1 (STOCKPILE)	4 M	10 M	20 M	SCREENER WHEN OPERATING IN EXTRACTION AREA 1	POR_1 POR_2 POR_3 POR_5	NEW BARRIER (STOCKPILE); REQUIRED TO BE MAINTAINED TO SHIELD NOISE IMPACTS AT THE IDENTIFIED RECEPTORS WHEN OPERATING GREATER THAN 20 M FROM A LIFT FACE OR SITE BERM THAT OTHERWISE SHIELDS IN THE DIRECTION OF THE IDENTIFIED RECEPTORS
BARRIER_WP1 (STOCKPILE)	7 M	20 M	25 M	WASH PLANT AND ASSOCIATED GENERATOR WHEN OPERATING IN EXTRACTION AREA 1	POR_2	NEW BARRIER (STOCKPILE); REQUIRED TO BE MAINTAINED TO SHIELD NOISE IMPACTS AT THE IDENTIFIED RECEPTOR
BARRIER_WP2 (STOCKPILE)	6 M	30 M	25 M	WASH PLANT AND ASSOCIATED GENERATOR WHEN OPERATING IN EXTRACTION AREA 1	POR_5	NEW BARRIER (STOCKPILE); REQUIRED TO BE MAINTAINED TO SHIELD NOISE IMPACTS AT THE IDENTIFIED RECEPTOR
BARRIER_CP1 (STOCKPILE)	47 M (65 M)*	20 M	20 M	CRUSHER WHEN OPERATING IN EXTRACTION AREA 1	POR_1 POR_2 POR_3 POR_5 POR_12	NEW BARRIER (STOCKPILE); REQUIRED TO BE MAINTAINED TO SHIELD NOISE IMPACTS AT THE IDENTIFIED RECEPTOR
BARRIER_CP2 (STOCKPILE)	6 M	20 M	25 M	CRUSHER WHEN OPERATING IN EXTRACTION AREA 2	POR_8	NEW BARRIER (STOCKPILE); REQUIRED TO BE MAINTAINED TO SHIELD NOISE IMPACTS AT THE IDENTIFIED RECEPTOR
BARRIER_CP3 (STOCKPILE)	6 M	30 M	25 M	CRUSHER WHEN OPERATING IN EXTRACTION AREA 2	POR_1 POR_2 POR_3 POR_4 POR_5	NEW BARRIER (STOCKPILE); REQUIRED TO BE MAINTAINED TO SHIELD NOISE IMPACTS AT THE IDENTIFIED RECEPTOR

RECOMMENDED NOISE BARRIERS
*SHIELDING OF RECEPTORS REPRESENTING VACANT LOTS ONLY REQUIRED FOLLOWING DEVELOPMENT OF A NEW NOISE SENSITIVE DEVELOPMENT.



HIGHLAND LINE PIT
LOT 5, CONCESSION 10
TOWNSHIP OF LANARK HIGHLANDS,
LANARK COUNTY, ONTARIO

APPLICANT:
THOMAS CAVANAGH CONSTRUCTION LIMITED
9094 CAVANAGH ROAD
ASHTON, ONTARIO
K0A 1B0

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- CONTOURS/INDEX CONTOURS
- WOODED AREA
- WATERCOURSE
- WETLAND
- PAGE WIRE FENCE/GATE
- CROSS-SECTIONS
- ENTRANCE
- EXIT
- GENERAL DIRECTION OF EXCAVATION
- POINTS OF RECEPTION (PORs) FROM ACOUSTIC REPORT
- ACOUSTIC BERM
- BERM
- HAUL ROAD
- ARCHAEOLOGICAL EXCLUSION ZONE
- EL. 176.00 PROPOSED PIT FLOOR SPOT ELEVATION, MASL

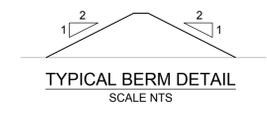
ITEM/OPERATIONAL STANDARD (O.REG. 244/97)	VARIATION TO OPERATIONAL STANDARDS	RATIONALE
EXCAVATION SETBACK AREAS 0.13 (1) 9 0.13 (1) 10 0.13 (1) 11	EXCAVATION IN THE SETBACK AREAS CAN OCCUR ALONG HIGHLAND LINE ROAD IN AREAS WHERE ELEVATIONS OF THE EXISTING GROUND SURFACE IS ABOVE THE ELEVATION OF THE ROAD. AGGREGATE WILL BE REMOVED IN THE SETBACK AREA TO MATCH THE ELEVATION OF THE ROAD.	REMOVAL OF AGGREGATE WITHIN THE SETBACK AREA ALONG THE ROAD WILL ALLOW FOR A CLEARER VIEW OF THE HIGHWAY IN BOTH DIRECTIONS AT THE ENTRANCES AND EXISTS.
SETBACKS 0.13 (1) 10i	NO SETBACK ALONG THE SOUTHEASTERN EDGE OF THE SITE WHERE THE ADJACENT LANDS ARE OWNED BY THE APPLICANT.	REDUCTION OF SETBACK ALONG COMMON BOUNDARY TO ALLOW FOR AGGREGATE EXTRACTION.

SIGNATURE OF APPLICANT/LICENCEE: *[Signature]* DATE: 03-13-23

PREPARED UNDER THE DIRECTION OF: *[Signature]* DATE: 03-13-23

BRIAN HENDERSON

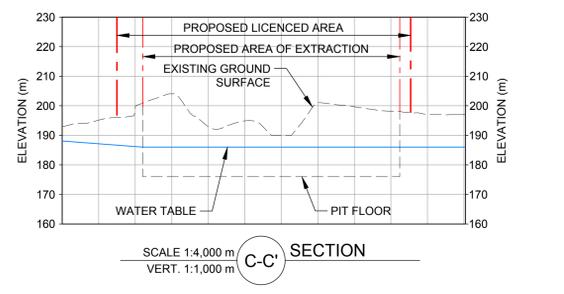
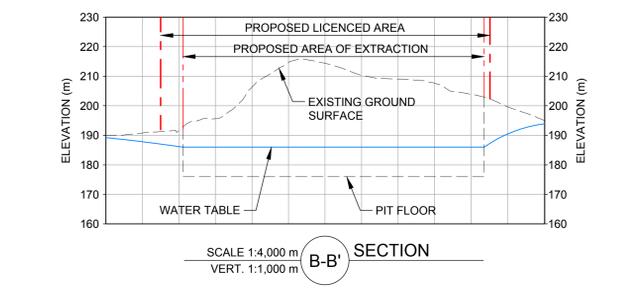
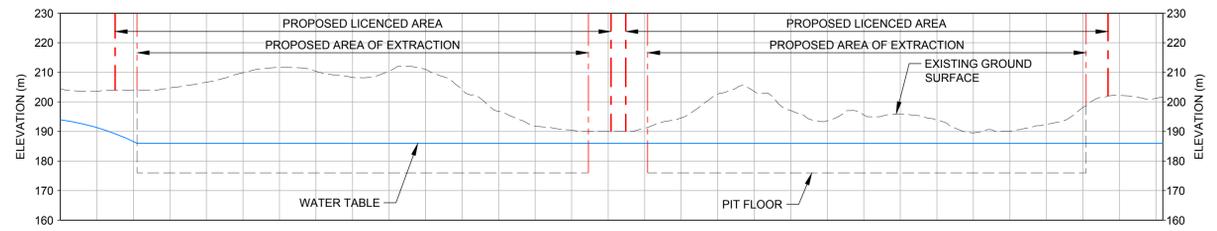
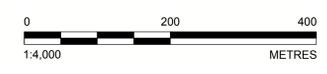
THOMAS CAVANAGH CONSTRUCTION LIMITED



AMENDMENTS	DATE	APPROVAL DATE

SITE PLANS APPROVED BY THE MINISTRY OF NATURAL RESOURCES AND FORESTRY.

SIGNATURE _____ DATE _____



- REFERENCE(S)
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CLIENT
THOMAS CAVANAGH CONSTRUCTION LIMITED

PROJECT
HIGHLAND LINE PIT

TITLE
OPERATIONS PLAN

APPLICANT	YYYY-MM-DD	2023-03-13
DESIGNED	BH	
PREPARED	JM	
REVIEWED	KAM	
APPROVED	KAM	

PROJECT NO. 19126620 CONTROL 0014 REV. 0 DRAWING 3 OF 5

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