ISSUED FOR REVIEW
FEBRUARY 26, 2021

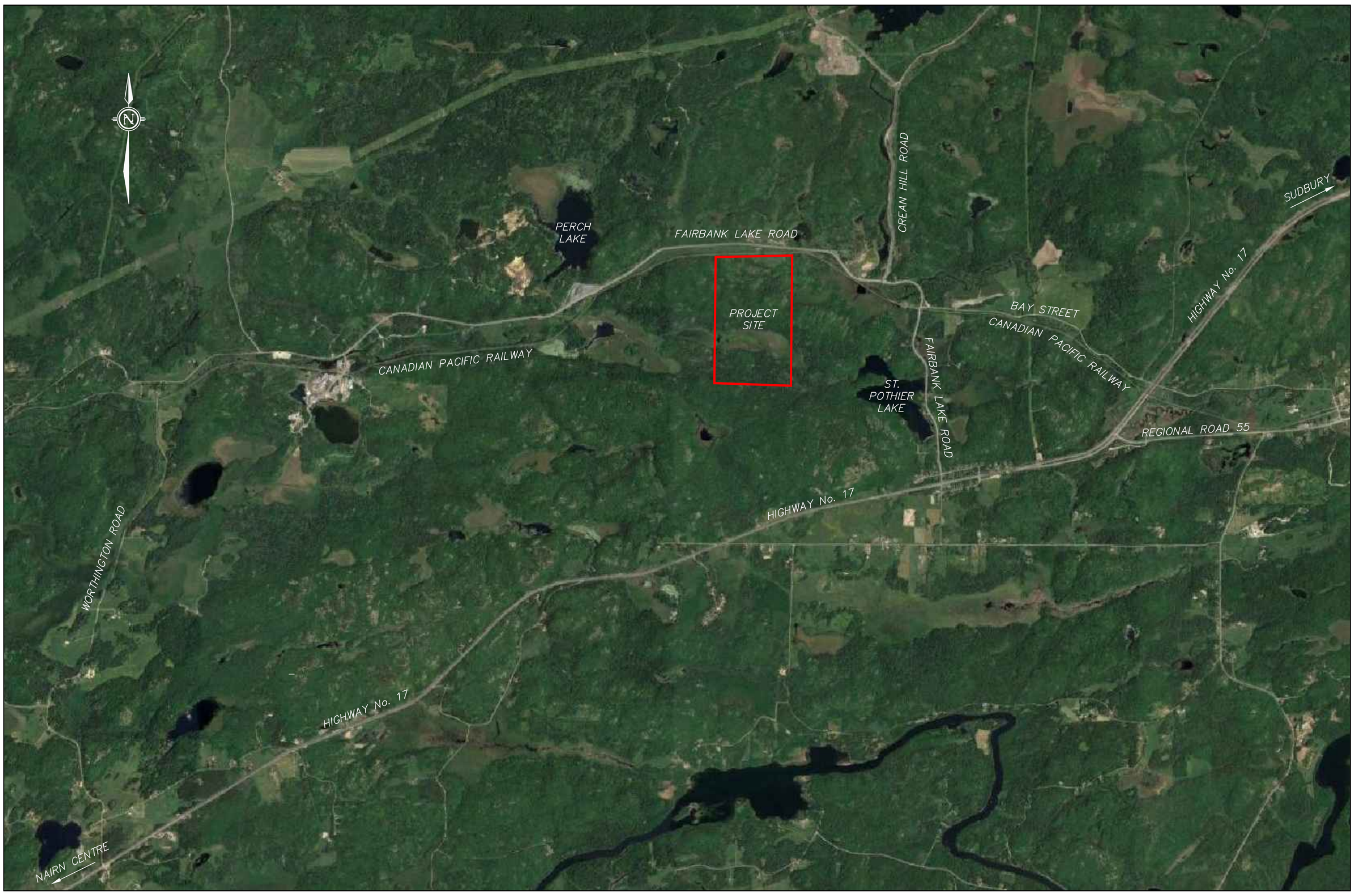
DISTRICT OF SUDBURY

TWP OF DENISON

TOWN OF WORTHINGTON

RINTALA

CLASS 'A' PIT AND CLASS 'A' QUARRY ABOVE WATER



KEY PLAN

SCALE 1:25,000

200m 0 200 400 600 800 1000m

Drawing Index:

19-1439-E1- Existing Conditions Plan

19-1439-O1- Operations and Progressive Rehabilitation Plan

19-1439-R1- Final Rehabilitation Plan

19-1439-X1- Cross Sections Plan

19-1439-N1- Notes

PROJECT NUMBER: 19-1439
CLIENT: BRAD RINTALA
ENGINEERING CONSULTANT: TULLOCH ENGINEERING

TULLOCH ENGINEERING

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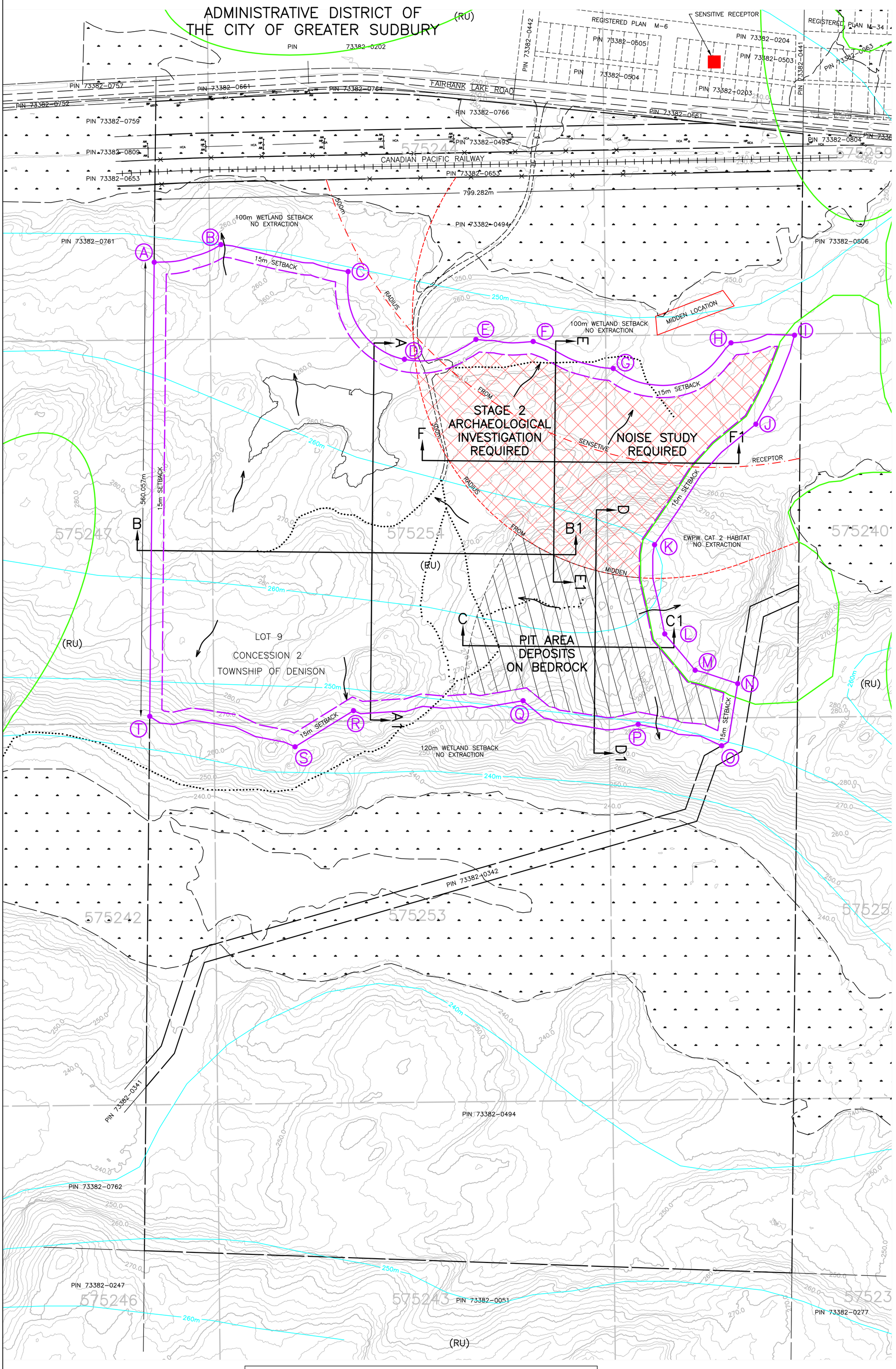
DISTRICT OF SUDBURY
TWP OF DENISON
TOWN OF WORTHINGTON
RINTALA
CLASS 'A' PIT AND CLASS 'A' QUARRY ABOVE WATER
EXISTING CONDITIONS PLAN

DRAWING 1 of 5

SCALE 1:2500
20m 0 20 40 60 80 100m



LEGEND

- PROPERTY LINES
- EXISTING ROADS
- EXISTING TRAILS
- WATERCOURSES
- WETLAND ECOSITE
- EASTERN WHIP-POOR-WILL CAT 2 HABITAT
- RAILWAY
- CONTOURS-10m INTERVAL (230)
- CONTOURS-2m INTERVAL
- MAXIMUM PREDICTED WATER TABLE (205)
- LICENCE BOUNDARY
- EXTRACTION BOUNDARY
- 300m MIDDEN OFFSET
- 500m SENSITIVE RECEPTOR OFFSET
- 100m WETLAND OFFSET
- PIT AREA
- MINING CLAIM BOUNDARY
- 575259 CLAIM NUMBERS
- RURAL (RU) LAND USE DESIGNATION
- SURFACE DRAINAGE

HORIZONTAL DATUM

OBSERVED REFERENCE POINTS (ORPS) DERIVED FROM GPS OBSERVATIONS USING THE PRECISE POINT POSITIONING (PPP) SERVICE, NAD83 UTM17 (CSRS) (2010.0).

VERTICAL DATUM

ELEVATIONS ARE GEODETIC AND ARE REFERRED TO THE CANADIAN VERTICAL DATUM OF 1928 CGVD28 AND ARE DERIVED FROM PRECISE POINT POSITIONING (PPP) SERVICE.

BOUNDARIES

PROPERTY BOUNDARIES ARE COMPILED FROM LAND REGISTRY OFFICE DOCUMENTATION AND RECORDS OF TULLOCH GEOMATICS INC..

UTM 17T		
POINT	NORTHING	EASTING
A	5137737.664	469144.627
B	5137759.522	469226.869
C	5137726.220	469383.736
D	5137617.988	469453.233
E	5137642.585	469541.366
F	5137640.061	469611.947
G	5137606.814	469710.609
H	5137638.355	469855.953
I	5137647.762	469934.189
J	5137538.120	469886.572
K	5137389.444	469761.637
L	5137279.526	469774.225
M	5137234.706	469811.694
N	5137218.235	469864.158
O	5137141.664	469844.264
P	5137168.140	469741.459
Q	5137197.193	469599.501
R	5137184.899	469390.338
S	5137140.374	469318.281
T	5137177.859	469139.079

APPLICANT NAME: BRAD RINTALA
ADDRESS: 2339 MELINS Rd.
LIVELY, ON., P3Y 1H9

BRAD RINTALA

THIS SITE PLAN IS PREPARED UNDER THE AGGREGATE RESOURCES ACT FOR A CLASS 'A' LICENCE, PIT AND QUARRY ABOVE WATER.

THIS PLAN IS PREPARED AND CERTIFIED UNDER THE DIRECTION OF KEVIN JARUS RPP, TULLOCH ENGINEERING INC.

KEVIN JARUS, RPP

REVISIONS/AMENDMENTS			
No.	DESCRIPTION	DATE	APPROVED

RINTALA QUARRY/PIT LICENCE							
EXTRACTION PHASE	AREA (ha)	VOLUME ESTIMATE (m^3)			TONNAGE ESTIMATE		
		QUARRY	PIT	TOTAL	QUARRY	PIT	TOTAL
1	14.1	1,356,511	375,030	1,731,541	3,526,929	787,563	4,314,492
2	7.5	315,692	0	315,692	820,799	0	820,799
3 (Stage 2 Archaeological Study Required)	6.4	477,342	0	477,342	1,241,089	0	1,241,089
TOTAL (QUARRY & PIT)	28.0	2,149,545	375,030	2,524,575	5,588,817	787,563	6,376,380

NOTE: PIT AREA (~3.75ha) OVERLAYS BEDROCK IN EASTERN SECTION OF PHASE 1

TULLOCH ENGINEERING

LICENCE AREA = 33.8ha EXTRACTION AREA 28ha

SITE NAME RINTALA PIT & QUARRY LOCATION 3.9km N. VIA FAIRBANK LAKE ROAD FROM THE
CO-ORD E-469538 N-5137163 INTERSECTION OF HIGHWAY #17. S. SIDE OF ROAD.
SITE PLAN CATEGORY 3 & 4 LICENCE NUMBER **** APPROX SCALE 1:2500
DISTRICT ALGOMA TOWNSHIP DENISON LOT 9 CON 2
SURVEY BY TULLOCH GEOMATICS PLAN BY TULLOCH ENGINEERING SURVEY DATE APRIL 2020

19-1439-E1_REV0

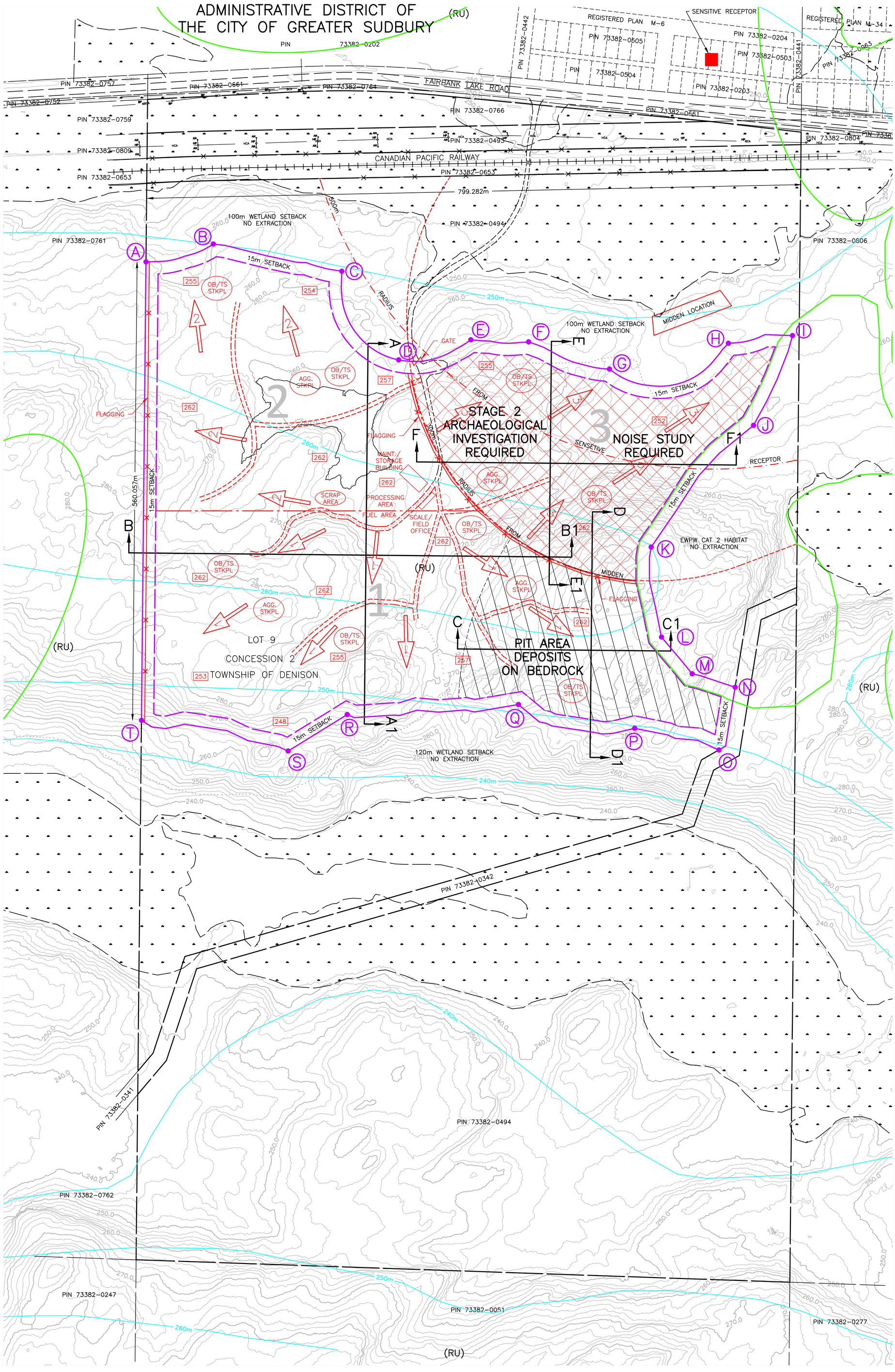
ISSUED FOR REVIEW
FEBRUARY 26, 2021

DISTRICT OF SUDBURY
TWP OF DENISON
TOWN OF WORTHINGTON
RINTALA
CLASS 'A' PIT AND CLASS 'A' QUARRY ABOVE WATER
OPERATIONS AND PROGRESSIVE REHABILITATION PLAN

DRAWING 2 of 5

SCALE 1:2500

20m 0 20 40 60 80 100m



LEGEND

- PROPERTY LINES
- EXISTING ROADS
- EXISTING TRAILS
- WATERCOURSES
- WETLAND ECOSITE
- EASTERN WHIP-POOR-WILL CAT 2 HABITAT
- RAILWAY
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- MAXIMUM PREDICTED WATER TABLE
- LICENCE BOUNDARY
- EXTRACTION BOUNDARY
- 300m MIDDEN OFFSET
- 500m SENSITIVE RECEPTOR OFFSET
- 100m WETLAND OFFSET
- PIT AREA
- RURAL (RU) LAND USE DESIGNATION
- INTERNAL HAUL ROAD
- FLAGGING
- GATE
- PHASE BOUNDARY
- 2 PHASE No.
- DIRECTION OF EXTRACTION WITH PHASE NUMBER
- 262 FINAL EXTRACTION ELEVATION
- OB/TS STKPL OVERBURDEN & TOP SOIL STOCKPILE
- AGG. STKPL AGGREGATE STOCKPILE
- STAGE 2 ARCHEOLOGICAL INVESTIGATION REQUIRED PRIOR TO EXTRACTION IN THIS AREA

HORIZONTAL DATUM

OBSERVED REFERENCE POINTS (ORPS) DERIVED FROM GPS OBSERVATIONS USING THE PRECISE POINT POSITIONING (PPP) SERVICE, NAD83 UTM17 (CSRS) (2010.0).

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BOUNDARIES

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PROGRESSIVE REHABILITATION

SEE SECTION 1.3 NOTES ON DRAWING 5 OF 5 FOR DESCRIPTION OF PROGRESSIVE REHABILITATION.

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KEVIN JARUS, RPP

REVISIONS/AMENDMENTS			
No.	DESCRIPTION	DATE	APPROVED

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NOTE: PIT AREA (~3.75ha) OVERLAYS BEDROCK IN EASTERN SECTION OF PHASE 1

TULLOCH ENGINEERING

LICENCE AREA = 33.8ha EXTRACTION AREA 28ha

SITE NAME	RINTALA PIT & QUARRY	LOCATION	3.9km N. VIA FAIRBANK LAKE ROAD FROM THE INTERSECTION OF HIGHWAY #17. S. SIDE OF ROAD.
CO-ORD	E-469538 N-5137163		
SITE PLAN CATEGORY	3 & 4	LICENCE NUMBER	****
APPROX SCALE	1:2500		
DISTRICT	ALGOMA	TOWNSHIP	DENISON
LOT	9	CON	2
SURVEY BY	TULLOCH GEOMATICS	PLAN BY	TULLOCH ENGINEERING
SURVEY DATE	APRIL 2020		

19-1439-01_REV0

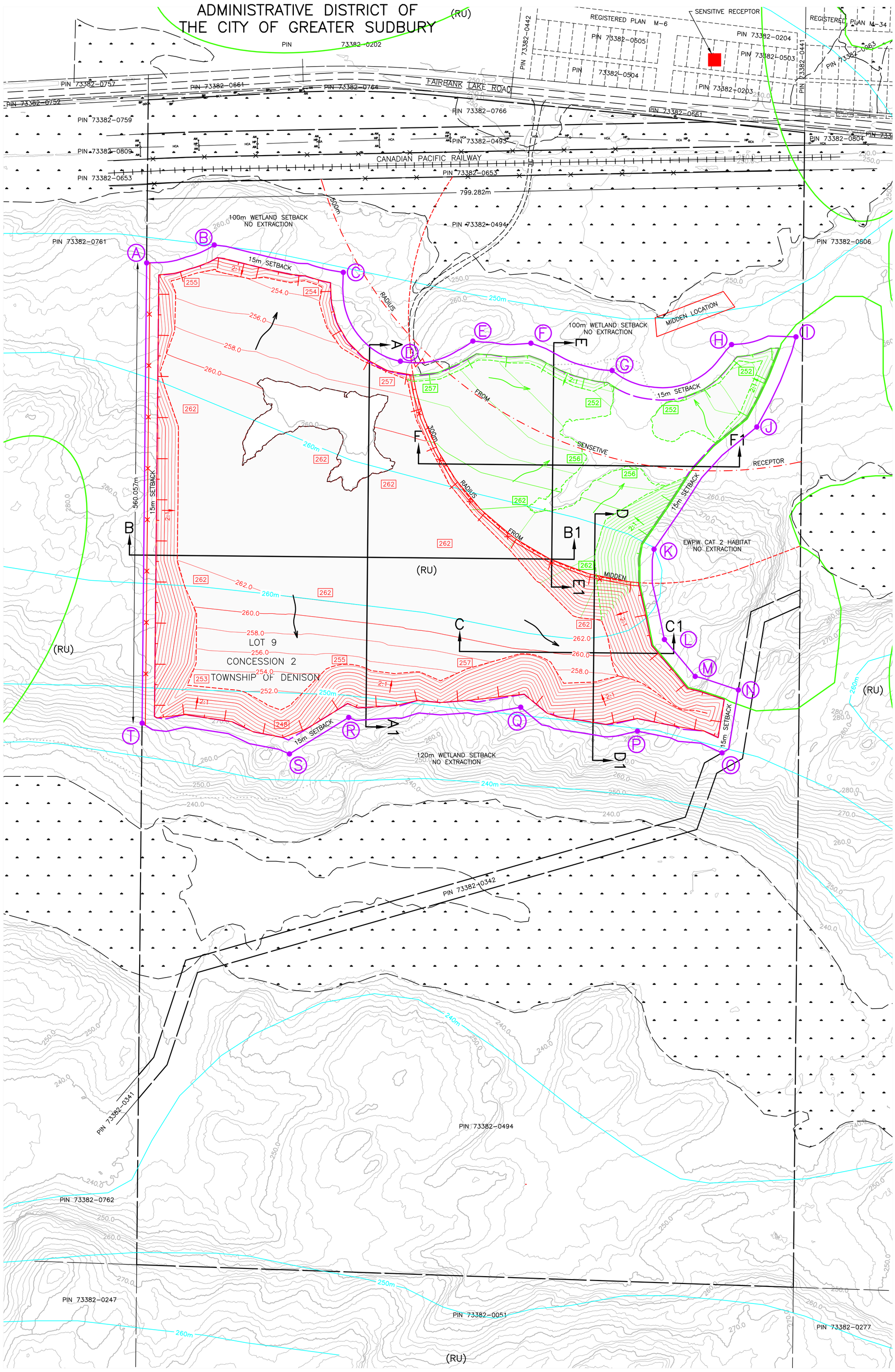
ISSUED FOR REVIEW
FEBRUARY 26, 2021

DISTRICT OF SUDBURY
TWP OF DENISON
TOWN OF WORTHINGTON
RINTALA
CLASS 'A' PIT AND CLASS 'A' QUARRY ABOVE WATER
FINAL REHABILITATION PLAN

DRAWING 3 of 5

SCALE 1:2500

20m 0 20 40 60 80 100m



LEGEND

- PROPERTY LINES
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- EXISTING TRAILS
- WATERCOURSES
- WETLAND ECOSITE
- EASTERN WHIP-POOR-WILL CAT 2 HABITAT
- RAILWAY
- 230 CONTOURS-10m INTERVAL
- CONTOURS-2m INTERVAL
- 205 GROUNDWATER TABLE
- LICENCE BOUNDARY
- EXTRACTION BOUNDARY
- 300m MIDDEN OFFSET
- 500m SENSITIVE RECEPTOR OFFSET
- 120m WETLAND OFFSET
- PIT AREA
- RURAL (RU) LAND USE DESIGNATION
- FLAGGING
- GATE
- TOP OF CUT
- BOTTOM OF CUT
- 260 CONTOURS-10m INTERVAL
- 258 CONTOURS-2m INTERVAL
- 262 FINAL EXTRACTION ELEVATION
- FINAL SURFACE DRAINAGE

PHASE 3 – STAGE 2 ARCHEOLOGICAL INVESTIGATION AREA

- TOP OF CUT
- BOTTOM OF CUT
- 260 CONTOURS-10m INTERVAL
- 258 CONTOURS-2m INTERVAL
- 262 FINAL EXTRACTION ELEVATION
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HORIZONTAL DATUM

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BOUNDARIES

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FINAL REHABILITATION

SEE SECTION 1.4 NOTES ON DRAWING 5 OF 5 FOR DESCRIPTION OF FINAL REHABILITATION.

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KEVIN JARUS, RPP

REVISIONS/AMENDMENTS			
No.	DESCRIPTION	DATE	APPROVED

RINTALA QUARRY/PIT LICENCE							
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TULLOCH ENGINEERING

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SITE PLAN CATEGORY 3 & 4 LICENCE NUMBER **** APPROX SCALE 1:2500
DISTRICT ALGOMA TOWNSHIP DENISON LOT 9 CON 2
SURVEY BY TULLOCH GEOMATICS PLAN BY TULLOCH ENGINEERING SURVEY DATE APRIL 2020

19-1439-R1_REV0

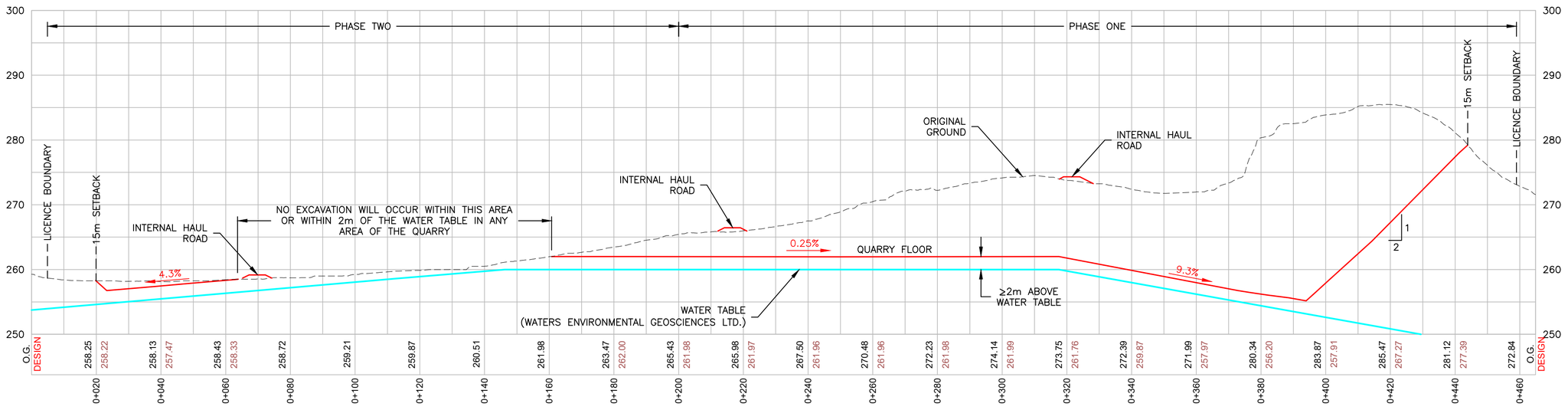
ISSUED FOR REVIEW
FEBRUARY 26, 2021

DISTRICT OF SUDBURY
TWP OF DENISON
TOWN OF WORTHINGTON
RINTALA
CLASS 'A' PIT AND CLASS 'A' QUARRY ABOVE WATER
CROSS SECTIONS PLAN
DRAWING 4 of 5

HOR. SCALE 1:1000
10m 0 10 20 30 40 50m

VER. SCALE 1:500
5m 0 5 10 15 20 25m

A



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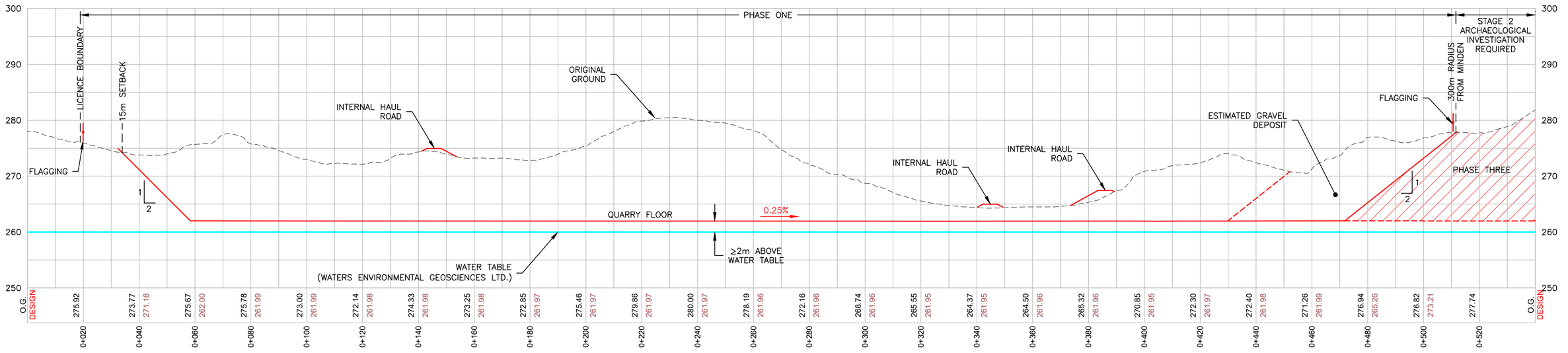
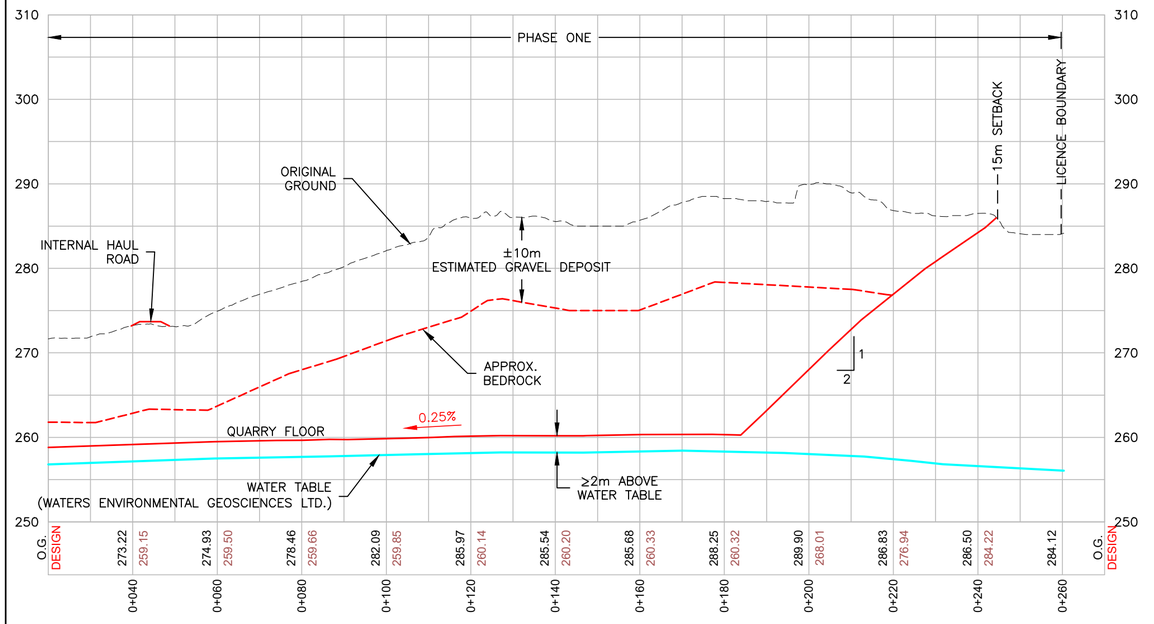
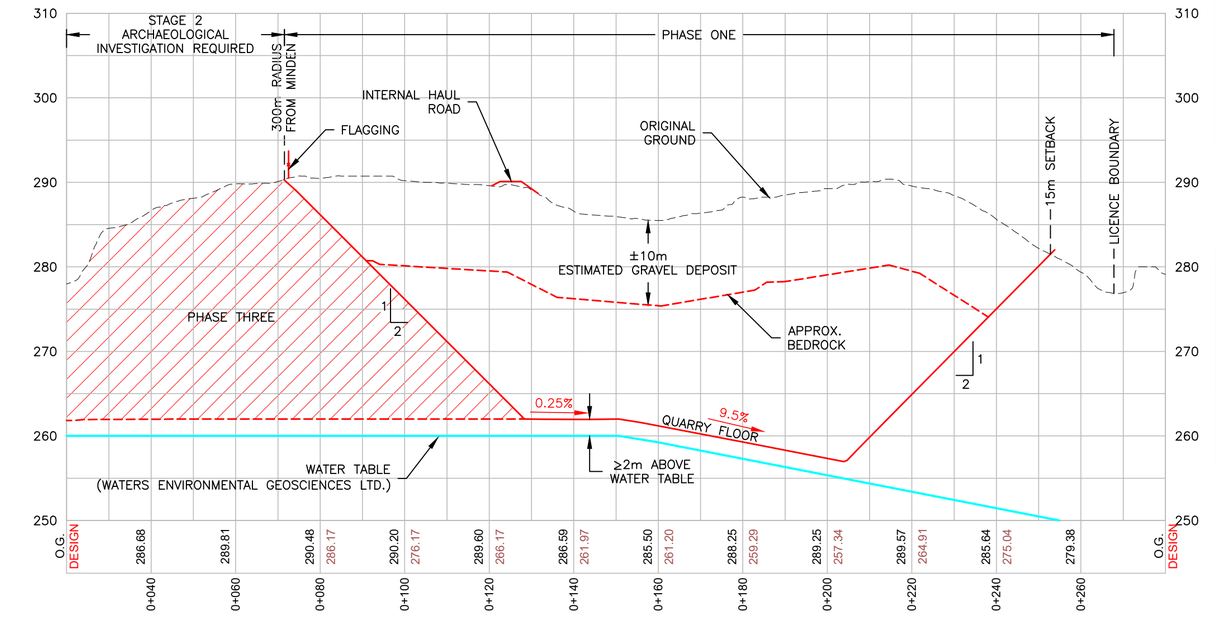


C



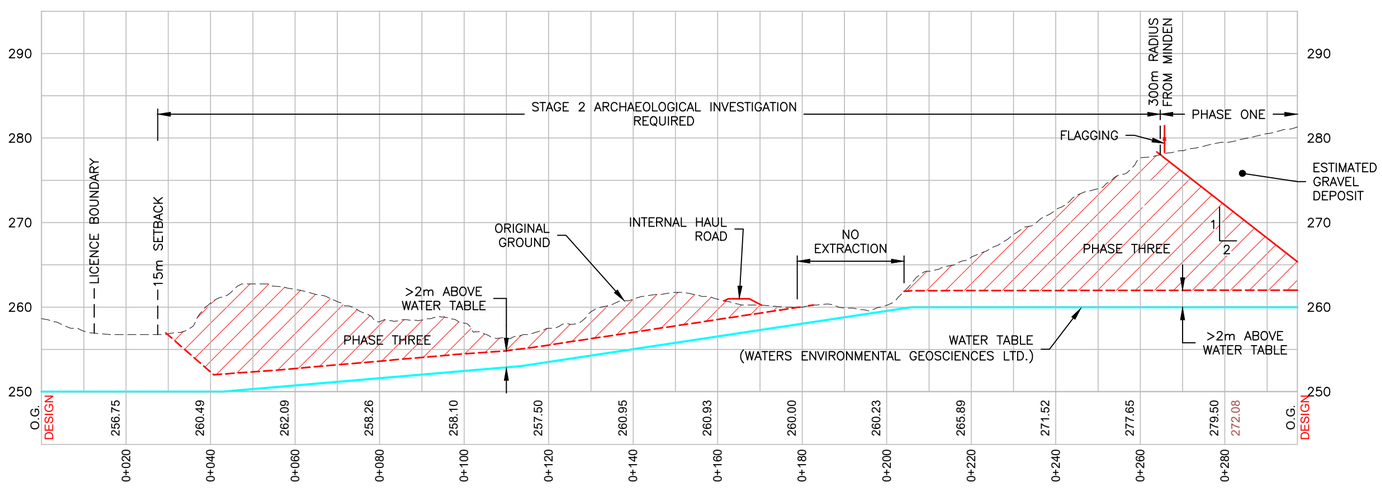
C1

D



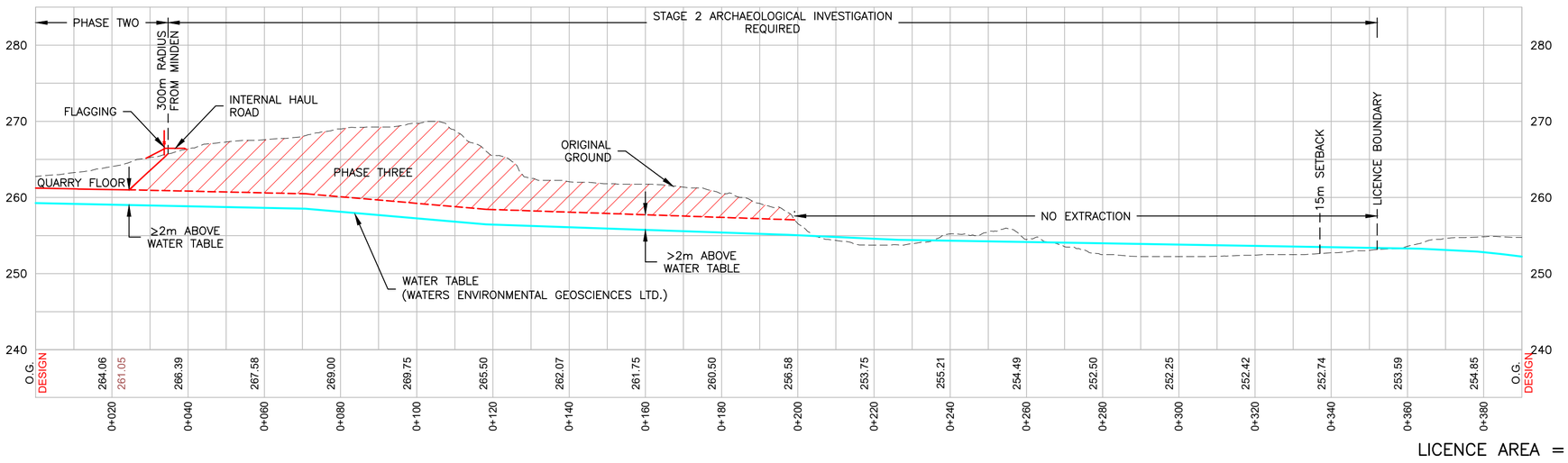
D1

E



E1

F



F1

HORIZONTAL DATUM

OBSERVED REFERENCE POINTS (ORPS) DERIVED FROM GPS OBSERVATIONS USING THE PRECISE POINT POSITIONING (PPP) SERVICE, NAD83 UTM17 (CSRS) (2010.0).

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BOUNDARIES

PROPERTY BOUNDARIES ARE COMPILED FROM LAND REGISTRY OFFICE DOCUMENTATION AND RECORDS OF TULLOCH GEOMATICS INC..

APPLICANT NAME: BRAD RINTALA
ADDRESS: 2339 MELINS Rd.
LIVELY, ON., P3Y 1H9

BRAD RINTALA

THIS SITE PLAN IS PREPARED UNDER THE AGGREGATE RESOURCES ACT FOR A CLASS 'A' LICENCE, PIT AND QUARRY ABOVE WATER.

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KEVIN JARUS, RPP

REVISIONS/AMENDMENTS			
No.	DESCRIPTION	DATE	APPROVED

LICENCE AREA = 33.8ha EXTRACTION AREA 28ha

TULLOCH ENGINEERING

SITE NAME	RINTALA PIT & QUARRY	LOCATION	3.9km N. VIA FAIRBANK LAKE ROAD FROM THE INTERSECTION OF HIGHWAY #17. S. SIDE OF ROAD.
CO-ORD	E-469538 N-5137163		
SITE PLAN CATEGORY	3 & 4	LICENCE NUMBER	****
APPROX SCALE	N.T.S.		
DISTRICT	ALGOMA	TOWNSHIP	DENISON
LOT	9	CON	2
SURVEY BY	TULLOCH GEOMATICS	PLAN BY	TULLOCH ENGINEERING
SURVEY DATE	APRIL 2020		

19-1439-X1_REV0

DISTRICT OF SUDBURY
TWP OF DENISON
TOWN OF WORTHINGTON
RINTALA
CLASS 'A' PIT AND CLASS 'A' QUARRY ABOVE WATER
NOTES
DRAWING 5 of 5

GENERAL SITE PLAN REQUIREMENTS

1. KEY MAP SHOWING THE LOCATION OF THE PROPOSED SITE: SEE COVER PAGE
2. GENERAL DESCRIPTION OF THE GEOGRAPHIC LOCATION OF THE SITE: THE PROPOSED QUARRY IS SITUATED IN THE TOWNSHIP OF DENISON LOT 9, CONCESSION 2 DISTRICT OF SUDBURY, CITY OF GREATER SUDBURY. THE SITE IS ACCESSED VIA FAIRBANK LAKE RD. IT IS TYPICALLY UNDERLAIN WITH GNEISSIC BEDROCK AS WELL AS DEPOSITS OF GROUND MORAINE TILL AND GLACIOFLUVIAL MATERIALS. LAND COVER IS PREDOMINANTLY MIXED DECIDUOUS AND CONIFEROUS FOREST OF THE GREAT LAKES – ST. LAWRENCE FOREST REGION.
3. UTM EASTING AND NORTHING COORDINATES: SEE UTM TABLE ON FACE OF DWGS
4. A SCALE OF REFERENCE USING BOTH RATIO AND GRAPHIC METHODS BETWEEN A SCALE OF 1:1000 AND 1:5000: SEE FACE OF DWGS
5. APPLICANT'S NAME, ADDRESS AND SIGNATURE: SEE FACE OF DWGS
6. WAYSIDE PERMIT APPLICATION: N/A
7. NAME AND SIGNATURE OF THE PERSON THAT PREPARED THE SITE: SEE FACE OF DWGS
8. A STATEMENT THAT "THIS SITE PLAN IS PREPARED UNDER THE AGGREGATE RESOURCES ACT FOR A CLASS A LICENCE FOR A PIT AND QUARRY ABOVE THE GROUND WATER TABLE": SEE FACE OF DWGS
9. A NORTH ARROW: SEE FACE OF DWGS
10. A SCHEDULE FOR RECORDING A DESCRIPTION OF SITE PLAN AMENDMENTS: SEE FACE OF DWGS
11. LEGEND: SEE FACE OF DWGS
12. THE PROPOSED BOUNDARY OF THE SITE: SEE FACE OF DWGS
13. THE AREA OF THE SITE EXPRESSED IN HECTARES: SEE FACE OF DWGS
14. LOT AND CONCESSION LINES: SEE FACE OF DWGS
15. REFERENCES: GROUNDWATER SUMMARY STATEMENT (TULLOCH, MARCH 23, 2020), STAGE 1 BACKGROUND STUDY (HORIZON ARCHAEOLOGICAL INC., MAY 26, 2020), NATURAL ENVIRONMENT LEVEL 1 AND 2 REPORT (TULLOCH, JANUARY 11, 2021), TRAFFIC IMPACT STUDY (JD NORTHCOTE ENGINEERING INC. DECEMBER 15, 2020) LiDAR AND BOUNDARY SURVEY (TULLOCH, JUNE 2020). CITY OF GREATER SUDBURY PRE CONSULT FILE PC2019–085 ADDENDUM DATED DECEMBER 12, 2019.

EXISTING FEATURES

16. THE EXISTING ZONING OF LAND ON AND WITHIN 120 METRES OF THE SITE: RU– SEE FACE OF DWGS
17. THE USE OF LAND ON AND WITHIN 120 METRES OF THE SITE: ADJACENT LANDS TO EAST, SOUTH AND WEST ARE UNDEVELOPED FOREST. TO THE NORTH THE CPR R/R RUNS EAST–WEST ROUGHLY PARALLEL TO MR4 (FAIRBANKS LAKE RD). THE LAND WITHIN THE SITE IS LARGELY UNDEVELOPED FOREST WITH A SINGLE ACCESS ROAD ENTERING FROM THE NORTH ENDING IN THE MIDDLE OF THE SITE.
18. THE MAXIMUM PREDICTED WATER TABLE (METRES ABOVE SEA LEVEL): SEE FACE OF DWGS
19. THE LOCATION OF ALL EXISTING ENTRANCE(S) TO AND EXIT(S) FROM THE SITE: SEE FACE OF DWGS.
20. SIGNIFICANT NATURAL FEATURES ON AND WITHIN 120 METRES OF THE SITE: A WETLAND ECOSITE RUNS EAST–WEST ACROSS NORTHERN SECTION OF THE AREA 100m FROM THE NORTHERN BOUNDARY.
21. SIGNIFICANT HUMAN–MADE FEATURES ON AND WITHIN 120 METRES OF THE SITE: THE CPR R/R COMES WITHIN 120m OF THE BOUNDARY AT THE NW CORNER. ACCESS ROADS ARE EXISTING INTO THE SITE AND WILL BECOME THE BASIS FOR INTERNAL HAUL ROAD LOCATIONS FOR AGGREGATE OPERATIONS.
22. THE LOCATION AND USE OF ALL BUILDINGS AND OTHER STRUCTURES EXISTING ON AND WITHIN 120 METRES OF THE SITE: NONE
23. THE TOPOGRAPHY OF THE SITE, ILLUSTRATED BY A ONE OR TWO METRE CONTOUR INTERVAL, EXPRESSED AS METRES ABOVE MEAN SEA LEVEL: SEE FACE OF DWGS
24. EXISTING SURFACE WATER DRAINAGE AND DRAINAGE FACILITIES ON AND WITHIN 120 METRES OF THE SITE: SEE FACE OF DWGS
25. THE LOCATION OF EXISTING TREE COVER ON SITE AND WITHIN 120 METRES OF THE SITE: MAJORITY OF SITE IS TREE/SHRUB COVERED, SEE FACE OF DWGS
26. THE LOCATION AND TYPE OF EXISTING FENCES ON THE SITE: NONE

EXISTING FEATURES FOR SITES THAT HAVE BEEN PREVIOUSLY EXCAVATED

27. EXISTING EXCAVATION FACES AND REHABILITATED AREAS: NONE
28. THE LOCATION OF ANY EXISTING RECYCLABLE MATERIALS ON THE SITE: NONE
29. ANY EXISTING FUEL STORAGE AREA(S) ON THE SITE: NONE
30. THE LOCATION OF ANY EXISTING PROCESSING AREA(S) FOR STATIONARY AND/OR PORTABLE EQUIPMENT: NONE
31. THE LOCATION OF ANY EXISTING BERMS AND THEIR HEIGHT: NONE
32. THE LOCATION OF ANY EXISTING PROCESSING AREA(S), NOTING WHETHER STATIONARY OR PORTABLE EQUIPMENT: NONE

OPERATIONS

33. THE LOCATION OF ALL PROPOSED ENTRANCE(S) TO AND EXIT(S) FROM THE SITE: ONE ENTRANCE/EXIT, SEE FACE OF DWGS.
34. THE AREA TO BE EXCAVATED EXPRESSED IN HECTARES: THE MAXIMUM EXTRACTION AREA IS 28 HA: 21.6 HA IN PHASES 1 AND 2 AND 6.4 HA IN PHASE 3. SEE DWG 2 OF 5.
35. FOR APPLICATIONS FOR AN AGGREGATE PERMIT: DETAILS ABOUT HOW THE BOUNDARY OF THE SITE WILL BE DEMARCATED AND DETAILS ABOUT WHAT MEASURES WILL BE TAKEN IN ACCORDANCE WITH THE TRESPASS TO PROPERTY ACT TO PROVIDE NOTICE THAT UNAUTHORIZED ENTRY ON THE PREMISES IS PROHIBITED: N/A
36. FOR APPLICATIONS FOR A CLASS A OR CLASS B LICENCE: THE LOCATION AND INSTALLATION SCHEDULE OR PHASING FOR ANY PROPOSED FENCING AROUND THE LICENSED BOUNDARY OF THE SITE: NO FENCING IS PROPOSED AROUND THE LICENSED BOUNDARY. THE LICENCE BOUNDARY WILL BE FLAGGED ON THE WESTERN BORDER AS THIS IS THE ONLY BORDER THAT IS WITHIN 15m OF AN ADJACENT PROPERTY. THE REMAINING BORDERS OF THE SITE ARE OFFSET SUBSTANTIAL DISTANCES FROM THE PRIVATE PROPERTY BORDERS OWNED BY THE APPLICANT.
37. A STATEMENT INDICATING IF THE FOLLOWING WILL BE LOCATED ON THE SITE AT ANY POINT DURING THE OPERATION OF THE SITE:

    A. TEMPORARY BUILDING OR STRUCTURE THAT IS INCIDENTAL TO THE OPERATION OF THE SITE: A SITE/SCALE OFFICE AND A MAINTENANCE/STORAGE BLDG WILL BE POSITIONED ON SITE. SEE DWG 2 OF 5.

    B. SCRAP STORAGE AREA: SCRAP PILES WILL BE MAINTAINED ON A TEMPORARY BASIS ONLY. SCRAP IS TO BE REMOVED ON A REGULAR BASIS AND FULLY REMOVED PRIOR TO COMPLETION OF AGGREGATE OPERATION. SEE DWG 2 OF 5

    C. A STOCKPILE OF AGGREGATE, TOPSOIL, OVERBURDEN, EXCEPT FOR ANY SUCH STOCKPILES LOCATED TO MITIGATE NOISE OR DUST: STOCKPILES WILL BE LOCATED A MINIMUM OF 30 METERS FROM THE LICENCE BOUNDARY. SEE DWG 2 OF 5.

    D. INTERNAL HAUL ROADS: PROPOSED INTERNAL HAUL ROADS ARE SHOWN ON DWG 2 OF 5.
38. THE LOCATION OF ANY PROPOSED STATIONARY AND/OR TEMPORARY PROCESSING AREA(S) ON THE SITE: PROCESSING EQUIPMENT WILL BE CENTRALLY LOCATED ON SITE SEE DWG 2 OF 5.
39. THE LOCATION OF ANY PROPOSED RECYCLABLE MATERIALS ON THE SITE: THERE WILL BE NO RECYCLED AGGREGATE MATERIAL (i.e. ASPHALT, CONCRETE) STOCKPILED ON SITE.
40. THE PROPOSED SEQUENCE AND DIRECTION OF SITE DEVELOPMENT: SEE DWG 2 OF 5. MATERIAL MAY BE EXTRACTED IN MULTIPLE PHASES SIMULTANEOUSLY AS OPERATIONS PROGRESS. PHASE 1 WILL BEGIN EXTRACTION IN THE SOUTH SIDE OF THE SITE PROGRESSING TO THE EAST. THE EASTERN HALF OF PHASE 1 HAS AN OVERLYING DEPOSIT OF NON– CONSOLIDATED MATERIAL WHICH WILL BE ACCESSED FIRST. DEPENDING ON THE QUANTITY AND QUALITY OF THIS MATERIAL EXTRACTION OPERATIONS OF CONSOLIDATED BEDROCK COULD OCCUR SIMULTANEOUSLY WITHIN PHASE 1. PHASE 2 COMPRISES THE NORTH AND WEST PORTION OF THE SITE. PHASE 3 WILL BE THE LAST AREA OF OPERATION AND IS DEPENDENT UPON A STAGE TWO ARCHAEOLOGICAL INVESTIGATION BEING COMPLETED TO DETERMINE WHAT LEVEL OF OPERATIONS ARE ALLOWED IN THIS AREA.
41. DETAILS OF HOW THE STRIPPING AND STOCKPILING OF THE TOPSOIL AND OVERBURDEN WILL BE MANAGED: STRIPPING WILL BE UTILIZED IN PROGRESSIVE REHABILITATION AREAS WHERE AVAILABLE. TOPSOIL AND OVERBURDEN STOCKPILES WILL BE PILED TOGETHER AS A VARIANCE TO O. REG 244/97 S 0.13 (1) 6. THE STOCKPILES WILL BE SEEDED WITH A RIGHT–OF–WAY MIXTURE SUCH AS LABONTE (OR EQUIV.) TO STABILIZE AND PREVENT EROSION.
42. THE MAXIMUM NUMBER OF LIFTS AND THE MAXIMUM HEIGHT OF THE LIFTS: THERE WILL BE A MAXIMUM OF 4 LIFTS WITH A MAX HEIGHT OF 7.0m PER LIFT.
43. ANY PROPOSED SURFACE WATER DRAINAGE AND DRAINAGE FACILITIES, WATER DIVERSION AND POINTS OF DISCHARGE TO SURFACE WATER ON THE SITE OR WITHIN 120 METRES OF THE SITE: NO DRAINAGE FACILITIES ARE TO BE CONSTRUCTED DURING EXTRACTION OPERATIONS. DRAINAGE OF THE SITE FOLLOWING FINAL REHABILITATION WILL CONTINUE TO BE SUBSURFACE TO GROUNDWATER RECHARGE. THERE WILL BE NO PLANNED DISCHARGE FROM THE EXCAVATION AREA(S) TO SURFACE WATER FEATURES.
44. A STATEMENT INDICATING WHETHER SOURCE WATER PROTECTION POLICIES APPLY TO THE SITE: N/A
45. IDENTIFY ANY FUEL STORAGE AREA(S): THERE WILL BE NO PERMANENT FUEL STORAGE ON SITE. THE APPLICANT WILL ADHERE TO APPLICABLE FUEL HANDLING REGULATIONS. SEE DWG 2 OF 5 FOR FUEL AREA.
46. THE LOCATION AND LABELLING OF ALL EXCAVATION SETBACKS FROM THE PROPOSED SITE BOUNDARY: THERE IS A 15m SETBACK FROM THE WESTERN BOUNDARY OF THE SITE. WETLANDS ARE OFFSET 100 METRES ON THE NORTH SIDE AND 120m ON THE SOUTH SIDE. THE EAST SIDE OFFSET VARIES FROM 15m TO 120m AS IT MIRRORS A WETLAND AND RESPECTS CAT 2 EWPW HABITAT. NO EXCAVATION CAN OCCUR WITHIN THE EXCAVATION SETBACK AREA OF THE SITE. SEE DWGS 1, 2 AND 3 OF 5.
47. THE FINAL EXCAVATION ELEVATION(S) OF THE SITE USING SPOT ELEVATIONS: SEE DWGS 2 AND 3 OF 5.
48. THE LOCATION AND MINIMUM HEIGHT OF ANY PROPOSED BERMS: NONE
49. DETAILS ON HOW THE BERMS WILL BE VEGETATED AND MAINTAINED: N/A
50. DETAILS OF HOW THE AGGREGATE MATERIALS WILL BE EXCAVATED, INCLUDING THE METHOD(S) OF EXTRACTION AND A LISTING OF THE TYPES OF EQUIPMENT TO BE USED: THE GENERAL TYPES OF EXCAVATION EQUIPMENT THAT WILL NORMALLY BE USED ONSITE INCLUDES: MATERIALS WILL BE EXCAVATED DEPENDENT ON CONSOLIDATION. PIT MATERIAL BY LOADER OR EXCAVATOR AND QUARRY MATERIAL VIA BLASTING AND THEN LOADER/EXCAVATOR TO MUCK OUT. THE LATTER THROUGH A SERIES OF BENCHES WORKING DOWN TO QUARRY FLOOR ELEVATION. ROCK DRILLS, LOADERS, EXCAVATORS, DOZERS, DUMP TRUCKS, CRUSHER, GENERATORS, SCREENING AND STACKING CONVEYOR AND OTHER ANCILLARY EQUIPMENT.
51. DETAILS OF PROPOSED TREE SCREENS AND HOW THEY WILL BE MAINTAINED: NONE
52. DETAILS ON THE HOURS OF OPERATION OF THE SITE CONSIDERING ALL OPERATIONS THAT INVOLVE THE PHYSICAL MOVEMENT OF AGGREGATE: 24 HOURS PER DAY, 7 DAYS PER WEEK.
53. DETAILS OF HOW TREES AND STUMPS SHALL BE DISPOSED OF OR UTILIZED: STUMPS WILL REMAIN ON SITE AND USED IN REHABILITATION. IF STUMPS ARE REMOVED FROM THE SITE, THEY WILL BE DISPOSED OF IN A LANDFILL OR WASTE DISPOSAL SITE.
54. A SECTION RECORDING ANY DIFFERENCES BETWEEN PROPOSED OPERATIONS AND THE OPERATIONAL REQUIREMENTS SPECIFIED IN SECTION 0.13 OF ONTARIO REGULATION 244/97:
    a. OVERBURDEN AND TOPSOIL (OB/TS) WILL BE STOCK PILED TOGETHER. THE SHALLOW TOPSOIL LAYER AND DETRITUS MAKES SEGREGATION DIFFICULT AND UNNECESSARY.
    b. A FENCE WILL NOT BE ERECTED AROUND THE PERIMETER OF THE SITE. THE LICENCE BOUNDARY WILL BE FLAGGED ON THE WESTERN BORDER AS THIS IS THE ONLY BORDER THAT IS WITHIN 15M OF AN ADJACENT PROPERTY. THE REMAINING BORDERS OF THE SITE ARE OFFSET SUBSTANTIAL DISTANCES FROM THE PRIVATE PROPERTY BORDERS OWNED BY THE APPLICANT.
55. A STATEMENT TO INDICATE THE MAXIMUM NUMBER OF TONNES OF AGGREGATE TO BE REMOVED FROM THE SITE IN ANY CALENDAR YEAR: UNLIMITED
56. IF THE PROPOSED SITE IS LOCATED WITHIN THE PROTECTED COUNTRYSIDE OF THE GREENBELT PLAN: N/A
57. FOR AN APPLICATION FOR A QUARRY PROPOSING TO BLAST: DETAILS ABOUT FREQUENCY AND TIMING OF BLASTS: BLASTING ACTIVITY IS DEPENDENT UPON OPERATIONAL REQUIREMENTS AND MARKET DEMAND. THERE WILL BE A MAXIMUM OF TWO BLASTING EVENTS PER MONTH. BLASTING WILL NOT OCCUR ON A HOLIDAY OR BETWEEN 6 P.M. ON ANY DAY AND 8 A.M. ON THE FOLLOWING DAY.
58. FOR AN APPLICATION FOR A QUARRY PROPOSING TO BLAST: THE NUMBER OF SENSITIVE RECEPTORS THAT ARE LOCATED WITHIN 500 METRES OF THE BOUNDARY OF THE SITE AND THE DISTANCE FROM THE BOUNDARY TO EACH SENSITIVE RECEPTOR: THERE IS ONE SENSITIVE RECEPTOR LOCATED 340M FROM THE CLOSEST POINT OF THE SITE BOUNDARY. A 500m RADIUS IS SHOWN ON DWGS 1, 2 AND 3 OF 5 WHICH FALLS ENTIRELY WITHIN PHASE THREE OF THE SITE. THE CITY OF GREATER SUDBURY HAS ALLOWED EXTRACTION TO BE COMPLETED IN PHASES 1 AND 2 WITHOUT A NOISE STUDY. PHASE THREE ALSO REQUIRES A STAGE 2 ARCHAEOLOGICAL STUDY BEFORE EXTRACTION CAN COMMENCE THERE. A NOISE STUDY WILL BE COMPLETED AT THE SAME TIME.

REHABILITATION

59. PROPOSED FINAL REHABILITATED STATE OF THE SITE: REVEGETATION WILL INVOLVE PLANTING OF TREES WITH THE INTENTION OF RETURNING THE LAND TO SIMILAR FOREST CONDITIONS AS EXISTING. THIS STRATEGY WILL PROVIDE COMPATIBILITY WITH THE ADJACENT FORESTED LANDS AND PROVIDE LONG TERM PROTECTION TO THE SURROUNDING WETLANDS. THE EXISTING FOREST CONDITION ON THIS SITE IS MIXED DECIDUOUS WITH SMALL CONIFER STANDS INTERSPERSED THROUGHOUT THE SITE. THE SITE IS NOT WELL STOCKED AT PRESENT AND REFORESTATION WILL BE BASED UPON 600–700 STEMS PER HECTARE. A MIXTURE OF SPECIES WILL BE PLANTED INCLUDING ASPEN, RED MAPLE, BALSAM FIR AND JACK OR RED PINE. MONITORING WILL TAKE PLACE YEARLY TO ASSESS MORTALITY AND INFILL WITH NEW SAPLINGS AS REQUIRED. ONCE THE NEW FOREST IN ESTABLISHED WITH THE TARGET STOCKING THE SITE WILL BE CLASSED AS FREE TO GROW–ESTIMATED AT FIVE YEARS AFTER PLANTING.
60. DETAILS ON HOW PROGRESSIVE REHABILITATION WILL BE CONDUCTED IN RELATION TO THE OPERATIONAL SEQUENCES: PROGRESSIVE REHABILITATION OF SLOPE FACES WILL FOLLOW OPERATIONS. CLEARING OF VEGETATION AND EXTRACTION WILL NOT ADVANCE TO THE NEXT AREA WITHOUT SLOPING TO 2:1 OF THE DEPLETED AREA. EXTRACTION IS PLANNED TO COMMENCE ON THE SOUTH SIDE OF THE SITE WITH PHASE 1. PHASE 1 IS COMPRISED OF UNCONSOLIDATED DEPOSITS ON BEDROCK IN THE PIT AREA IN THE EAST AND BEDROCK IN THE WEST. THESE AREAS WILL FIRSTLY OPERATE SIMULTANEOUSLY AS DEMAND AND MARKET CONDITIONS WARRANT. UPON REMOVAL OF THE UNCONSOLIDATED MATERIAL (ESTIMATED AT 3 YEARS) QUARRYING WILL BE CONCENTRATED IN THIS EAST AREA TO COMPLETE OPERATIONS THERE AND ALLOW THE SITE TO BE REHABILITATED: SIDES SLOPED, OVERBURDEN AND TOPSOIL SPREAD AND TREE PLANTING COMPLETED BEFORE RESUMING QUARRYING IN THE WESTERN AREA OF PHASE 1. PHASE 1 REPRESENTS APPROXIMATELY 50% OF THE TOTAL SITE FOOTPRINT WITH A 15 YEAR LIFESPAN BASED UPON AN ANNUAL EXTRACTION RATE OF 250,000 TONNES. PHASE 2 AND PHASE 3 ARE 30% AND 20% BY AREA/VOLUME AND HAVE LIFESPANS OF 8 YEARS AND 5 YEARS RESPECTIVELY. IN THE EVENT MATERIAL IS UNSUITABLE IN AN ACTIVE OPERATIONS AREA, THIS AREA WILL BE REHABILITATED IMMEDIATELY BEFORE MOVING ONTO THE NEXT AREA OR PHASE.
61. DETAILS ON HOW THE OVERBURDEN AND TOPSOIL WILL BE USED TO FACILITATE PROGRESSIVE AND FINAL REHABILITATION: TOPSOIL AND OTHER OVERBURDEN STRIPPED PRIOR TO THE EXCAVATION OF AGGREGATE WILL BE RETAINED IN STOCKPILES. THE TOPSOIL/OVERBURDEN WILL BE SPREAD OVER THE DEPLETED AREAS AS TOP DRESSING ON THE 2:1 SIDE SLOPES AS EXTRACTION PROGRESSES. THESE AREAS WILL PLANTED WITH SAPLINGS AS DESCRIBED ABOVE IN S59.
62. A STATEMENT INDICATING WHETHER ANY SOIL, TOPSOIL OR FILL MATERIAL WILL BE IMPORTED TO THE SITE FOR REHABILITATION PURPOSES. THERE WILL BE NO IMPORTATION OF SOIL, TOPSOIL OR FILL MATERIAL.
63. THE LOCATION, LAYOUT AND TYPE OF VEGETATION THAT WILL BE ESTABLISHED ON THE SITE DURING PROGRESSIVE AND FINAL REHABILITATION: DURING PROGRESSIVE REHABILITATION THE SLOPES WILL BE STABILIZED BY APPLYING RIGHT–OF–WAY GRASS MIXTURE, i.e. LABONTE SEED (OR EQUIV.) WHICH IS 25% TIMOTHY, 20% TREFOIL, 15% ANNUAL RYEGRASS, 10% CREEPING RED FESCUE, 5% RED CLOVER, 10% ALSIKE CLOVER, 3% SWEET CLOVER, 4% TALL FESCUE, 8% WHITE CLOVER APPLIED @ 1.2kg/100m². THE USE OF A LOCAL VARIETY SEED MIXTURE WILL MITIGATE ANY SPREAD OF INVASIVE SPECIES. THIS WILL BE REPLACED WITH TREE SAPLING PLANTINGS AS DESCRIBED IN S59.
64. DETAILS ABOUT HOW THE SLOPES WILL BE ESTABLISHED ON THE EXCAVATION FACES AND THE PIT/QUARRY FLOOR: EXCAVATED FACES ARE TO BE SLOPED AT 2:1. SLOPES WILL BE CREATED BY A COMBINATION OF CUT AND FILL OR THROUGH NORMAL BLASTING PATTERNS. SUFFICIENT MATERIAL WILL BE RETAINED ONSITE IN ORDER TO ACCOMPLISH THE REQUIRED 2:1 SIDE SLOPES
65. DETAILS ABOUT ANY BUILDING(S) OR STRUCTURE(S), INCLUDING ANY INTERNAL HAUL ROADS, THAT WILL REMAIN ON THE SITE AS PART OF THE FINAL REHABILITATION: NO BUILDINGS OR STRUCTURES TO REMAIN ON SITE. INTERNAL HAUL ROADS WILL BE REHABILITATED PER THE FINAL DEPLETED AREAS.
66. DETAILS ABOUT THE FINAL SURFACE WATER DRAINAGE AND WHETHER DRAINAGE FACILITIES WILL REMAIN ON THE SITE: THERE WILL BE NO DRAINAGE FACILITIES ON SITE. FINAL GRADING WILL PROMOTE GRADUAL DRAINAGE TO THE NORTH AND SOUTH WITHIN THE SITE FOOTPRINT, DRAINING TO SUBSURFACE AND RECHARGING GROUNDWATER
67. FOR AN APPLICATION FOR A CLASS A LICENCE OR AN AGGREGATE PERMIT THE WOULD AUTHORIZE THE EXTRACTION OR REMOVAL OF MORE THAN 20,000 TONNES OF AGGREGATE PER YEAR: THE FINAL ELEVATIONS OF THE REHABILITATED AREAS OF THE SITE ILLUSTRATED BY A ONE OR TWO METRE CONTOUR INTERVAL(S), EXPRESSED AS METRES ABOVE MEAN SEA LEVEL: SEE DWG 3 OF 5.
68. FOR AN APPLICATION FOR A CLASS B LICENCE OR AN AGGREGATE PERMIT THAT WOULD AUTHORIZE THE EXTRACTION OR REMOVAL 20,000 TONNES OF AGGREGATE OR LESS PER YEAR: THE FINAL ELEVATIONS OF THE REHABILITATED AREAS OF THE SITE EXPRESSED AS METRES ABOVE SEA LEVEL: N/A

CROSS SECTIONS

69. IDENTIFY THE LOCATION OF CROSS SECTIONS ON ALL DRAWINGS: SEE FACE OF DWGS 1, 2 AND 3 OF 5.
70. APPROPRIATE HORIZONTAL AND VERTICAL SCALES MUST BE CLEARLY MARKED ON ALL CROSS SECTIONS: SEE DWG 4 OF 5.
71. ONE OR MORE CROSS–SECTIONS OF EXISTING CONDITIONS AND REHABILITATION OF THE SITE, INCLUDING FINAL SLOPE GRADIENTS AND FINAL FLOOR ELEVATION: SEE DWG 4 OF 5.
72. THE MAXIMUM PREDICTED GROUND WATER TABLE: SEE DWG 4 OF 5.
73. FOR AN APPLICATION FOR A CLASS A LICENCE OR AN AGGREGATE PERMIT THAT WOULD AUTHORIZE THE EXTRACTION OR REMOVAL OF MORE THAN 20,000 TONNES OF AGGREGATE PER YEAR A CROSS–SECTION OF A TYPICAL BERM DESIGN, IF BERMS WILL BE CONSTRUCTED ON SITE: N/A

RECOMMENDATIONS FROM TECHNICAL REPORTS

NATURAL ENVIRONMENT LEVEL 1 V1.0 TULLOCH ENGINEERING, JANUARY 11, 2021.

THIS REPORT WILL SERVE AS THE BASES FOR AN NEL2 REPORT THAT WILL ASSESS POTENTIAL IMPACTS OF THE PROJECT ON THE NATURAL HERITAGE FEATURES IDENTIFIED ON (AND AROUND) THE STUDY AREA. THE NEL2 WILL ALSO IDENTIFY AVOIDANCE AND MITIGATION STRATEGIES THAT WILL ELIMINATE / REDUCE FORESEEN IMPACTS IN ORDER TO SAFEGUARD LOCAL WILDLIFE AND MAINTAIN THE ECOLOGICAL FUNCTIONS OF THE AREA.

NATURAL ENVIRONMENT LEVEL 2 V1.0 TULLOCH ENGINEERING, JANUARY 11, 2021.

THE AVOIDANCES AND MITIGATIONS PROVIDED WITHIN THE NEL2 REPORT ARE COMMITMENTS ON BEHALF OF THE PROPONENT. SEE SECTION 3 OF THE NEL2 FOR FURTHER DETAIL.

IN ADDITION:

3.11 GENERAL BEST PRACTICES

THE FOLLOWING BEST PRACTICES ARE PROVIDED TO FURTHER REDUCE PROJECT IMPACTS.

3.11.1 SPECIES AT RISK

- IN THE EVENT THAT A THREATENED OR ENDANGERED SPECIES IS ENCOUNTERED WITHIN THE PROPOSED EXTRACTION AREA, WORK SHALL BE MODIFIED OR HALTED (AS REQUIRED) TO ENSURE NO HARM OR HARASSMENT OF THE SPECIES. THE SPECIES MUST BE PROVIDED AN OPPORTUNITY TO LEAVE ON ITS OWN ACCORD. IF THE SPECIES CANNOT / WILL NOT LEAVE, THE MECP SHALL BE CONTACTED IMMEDIATELY FOR DIRECTION.
- WITH EXCEPTION TO ACTIVE NESTS OF MIGRATORY BIRD SPECIES, WILDLIFE THAT ARE NOT LISTED AS THREATENED OR ENDANGERED, IF ENCOURAGED WITHIN THE PROPOSED DEVELOPMENT AREA, MAY BE CAREFULLY REMOVED TO THE NEAREST SUITABLE HABITAT. ACTIVE NESTS OF MIGRATORY BIRD SPECIES SHOULD NOT BE REMOVED FROM SITE; WAIT UNTIL THE NEST IS NATURALLY VACATED.

3.11.2 VEGETATION REMOVAL

- PHASED VEGETATION CLEARING: VEGETATION WILL BE REMOVED FROM THE SITE ON A PHASE–BY PHASE BASIS (3 PHASES TOTAL). THIS WILL ENSURE THAT VEGETATION REMOVAL OCCURS INCREMENTALLY OVER THE LIFESPAN OF THE PROJECT.
- RESTORE NATIVE VEGETATION: RESTORATIVE PLANTINGS AND SEED MIXES OF SPECIES COMMON TO THE REGION SHOULD BE USED FOR EROSION CONTROL AND REHABILITATION OF DISTURBED AREAS, WHERE POSSIBLE.
- USE ORIGINAL SITE VEGETATION: WHERE POSSIBLE, RETAIN AND REUSE ORIGINAL VEGETATION AND TOPSOIL FOR RESTORATIVE PLANTING.

3.11.3 DAILY OPERATION – BEST PRACTICES

- CLEARLY DEFINE WORK AREAS. ACCESS AND ACTIVITY WILL BE LIMITED TO THE DESIGNATED WORK
- AREAS IN ORDER TO MINIMIZE DISTURBANCE TO ADJACENT WILDLIFE HABITAT. THESE AREAS WILL BE
- CLEARLY MARKED WITHIN THE SITE USING FENCING, STAKES, FLAGGING TAPE, SIGNS ETC.
- CHECK WORK AREAS EACH DAY. SNAKES, TURTLES, BIRDS AND BAT SPECIES ARE ATTRACTED TO
- ROADWAYS, EMBANKMENTS, TEMPORARY STOCKPILES AND MACHINERY, AS THESE SURFACES ABSORB
- HEAT FROM THE SUN AND CAN BE SUITABLE FOR BASKING, ROOSTING OR NESTING. WORK AREAS SHOULD
- BE CHECKED FOR WILDLIFE PRIOR TO WORK EACH DAY.

3.11.4 SITE EQUIPMENT

- GOOD REPAIR: KEEP SITE EQUIPMENT IN GOOD WORKING CONDITION TO REDUCE THE POTENTIAL FOR FLUID LEAKS OR UNNECESSARY ATMOSPHERIC EMISSIONS.
- CLEAN EQUIPMENT: EQUIPMENT SHOULD BE BROUGHT TO SITE CLEAN. SOIL AND DEBRIS DEPOSITED ON EQUIPMENT FROM OTHER SITES SHOULD BE WASHED OFF AT AN OFF–SITE LOCATION PRIOR TO ARRIVAL. THIS WILL PREVENT THE SPREAD OF INVASIVE PLANT SPECIES BY LIMITING THE SPREAD OF SEED.

TRAFFIC IMPACT STUDY, JD NORTHCOTE ENGINEERING INC. DECEMBER 15, 2020.

CHAPTER 6 SUMMARY EXCERPTS

- NO IMPROVEMENTS ARE RECOMMENDED WITHIN THE STUDY AREA.
- NO EXTERNAL INFRASTRUCTURE IMPROVEMENTS ARE RECOMMENDED WITHIN THE STUDY AREA.
- THE PROPOSED SITE ACCESSES WILL OPERATE EFFICIENTLY WITH ONE–WAY STOP CONTROL FOR EGRESS MOVEMENTS. A SINGLE LANE FOR INGRESS AND EGRESS MOVEMENTS WILL PROVIDE THE NECESSARY CAPACITY TO CONVEY THE TRAFFIC VOLUME GENERATED BY THE PROPOSED DEVELOPMENT.
- THE LOCATION OF THE PROPOSED SITE ACCESS IS APPROPRIATE WITH RESPECT TO MINIMUM CORNER CLEARANCE AND SPACING REQUIREMENTS AS IDENTIFIED IN THE TRANSPORTATION ASSOCIATION OF CANADA DESIGN GUIDE FOR CANADIAN ROADS (2017).
- IT IS RECOMMENDED THAT THE ASPHALT APRON INCORPORATE ASPHALT SHOULDER TAPERS (2.0–METREWIDE PAVED SHOULDER TAPER OVER A 20 METRE LENGTH, ON BOTH SIDES OF THE ENTRANCE) AND 21 METRE DRIVEWAY RADIUS.
- IN SUMMARY, THE PROPOSED DEVELOPMENT WILL NOT CAUSE ANY OPERATIONAL ISSUES AND WILL NOT ADD SIGNIFICANT DELAY OR CONGESTION TO THE LOCAL ROADWAY NETWORK.

NOISE STUDY

FROM THE CITY OF GREATER SUDBURY PLANNING SERVICES:

THE REQUIREMENT FOR A NOISE STUDY MAY BE DEFERRED PROVIDED THE LIMITS OF THE PHASE 1 AND PHASE 2 EXTRACTION ZONES CAN BE IDENTIFIED AS PARTS ON A SURVEY PLAN. A HOLDING DESIGNATION MAY BE APPLIED TO THE PHASE 3 EXTRACTION ZONE AS A CONDITION OF APPROVAL. THE CONDITIONS TO LIFTING THE HOLDING DESIGNATION MAY INCLUDE A STAGE 2 ARCHAEOLOGICAL ASSESSMENT AND A NOISE STUDY IN COMPLIANCE WITH PUBLICATION NPC–300.

GROUNDWATER SUMMARY STATEMENT, TULLOCH ENGINEERING MARCH 23, 2020

BASED ON THE AVAILABLE INFORMATION AND OUR INTERPRETATION OF THE HYDROGEOLOGIC SETTING, FUTURE DEVELOPMENT OF THE PROPOSED RINTALA QUARRY SHOULD AVOID EXCAVATIONS THAT WOULD BE DEEPER THAN 250m (AT THE NORTHERN EDGE OF THE SITE), 265m ALONG THE CREST OF THE CENTRAL BEDROCK RIDGE, 242m ALONG THE EDGES OF THE SURFACE WATER FEATURES (BETWEEN THE TWO RIDGES) AND 253m (ALONG THE SOUTHERN EDGE OF THE SITE). FIGURE 4 SHOULD BE USED TO INTERPOLATE BETWEEN THE PLOTTED WATER TABLE CONTOURS FOR ANY INTERMEDIATE ELEVATION VALUES. THESE RECOMMENDATIONS HAVE BEEN MADE IN ORDER TO MAINTAIN A MINIMUM 2.0m FREEBOARD IN THE BEDROCK FORMATION, ABOVE ANY STATIC WATER LEVEL, WHICH IS REQUIRED UNDER POLICY NO. A.R.4.01.04.

FROM THE INFORMATION REVIEWED IN THE PRESENT STUDY, IT IS OUR INTERPRETATION THAT THE PROPOSED QUARRY DEVELOPMENT, WHICH WILL REMAIN ABOVE THE WATER TABLE, WILL HAVE NO IMPACT ON THE UNDERLYING GROUNDWATER FLOW SYSTEM. SHOULD FUTURE SITE DEVELOPMENT ACTIVITIES ENCOUNTER GROUNDWATER CONDITIONS WHICH ARE NOT ANTICIPATED BY THIS REPORT, IT IS RECOMMENDED THAT TULLOCH ENGINEERING INC. BE CONTACTED TO DETERMINE THE SIGNIFICANCE OF THE NEW INFORMATION, AND ITS POTENTIAL EFFECT ON THE RECOMMENDATIONS PROVIDED HEREIN.

APPLICANT NAME: BRAD RINTALA
ADDRESS: 2339 MELINS Rd.
LIVELY, ON., P3Y 1H9

____
BRAD RINTALA

THIS SITE PLAN IS PREPARED UNDER THE AGGREGATE RESOURCES ACT FOR A CLASS 'A' LICENCE, PIT AND QUARRY ABOVE WATER.

THIS PLAN IS PREPARED AND CERTIFIED UNDER THE DIRECTION OF KEVIN JARUS RPP, TULLOCH ENGINEERING INC.

____
KEVIN JARUS, RPP

REVISIONS/AMENDMENTS

No.	DESCRIPTION	DATE	APPROVED

TULLOCH ENGINEERING
ISSUED FOR REVIEW
FEBRUARY 26, 2021

TULLOCH ENGINEERING

LICENCE AREA = 33.8ha EXTRACTION AREA 28ha

SITE NAME	RINTALA PIT & QUARRY	LOCATION	3.9km N. VIA FAIRBANK LAKE ROAD FROM THE INTERSECTION OF HIGHWAY #17. S. SIDE OF ROAD.		
CO–ORD	E–469538 N–5137163				
SITE PLAN CATEGORY	3 & 4	LICENCE NUMBER	****	APPROX SCALE	N.T.S.
DISTRICT	ALGOMA	TOWNSHIP	DENISON	LOT 9	CON 2
SURVEY BY	TULLOCH GEOMATICS	PLAN BY	TULLOCH ENGINEERING	SURVEY DATE	APRIL 2020

19–1439–N1_REV0