

EXISTING FEATURES NOTES

GENERAL

1. THE LANDOWNER REGISTERED ON TITLE FOR THE SITE IS 1662947 ONTARIO INC. AND IS CURRENTLY USING THE SITE FOR AGRICULTURAL AND FORESTRY PRACTICES. 1662947 ONTARIO INC. HAS ENTERED INTO AN AGREEMENT WITH SEVERN AGGREGATE LIMITED TO PURSUE A CLASS A CATEGORY 2, AGGREGATE LICENSE UNDER THE AGGREGATE RESOURCES ACT.

SITE DESCRIPTION

2. THE CURRENT USES ON THE SITE INCLUDE FARMING, FORESTRY, AND WOODLANDS.

3. THE CURRENT LAND USES HAVE CREATED STOCKPILES OF BRUSH AND STUMPS THROUGHOUT THE SITE THAT WILL EVENTUALLY BE UTILIZED FOR PROGRESSIVE REHABILITATION. ALL DRAINAGE SWALES IN THE NORTH PORTION OF THE SITE, WHICH HAVE BEEN CREATED FOR FARMING PURPOSES, WILL BE MAINTAINED UNTIL THAT PORTION OF THE SITE IS READY TO BE EXTRACTED. EXISTING AND FUTURE AGRICULTURE AND FORESTRY PRACTICES WILL CONTINUE IN UNDISTURBED AREAS OF THE SITE WHILE EXTRACTION PROCEEDS.

4. THERE ARE NO BUILDINGS LOCATED ON THE SITE OR WITHIN 120 METERS OF THE SITE. THE CLOSEST BUILDING IS A RESIDENTIAL DWELLING (LABLED R1) APPROXIMATELY 180 METERS FROM THE EAST BOUNDARY OF THE SITE.

5. STRUCTURES ON THE SITE INCLUDE A STORAGE CONTAINER LOCATED IN THE SOUTH PORTION OF THE SITE, WHICH IS USED TO SECURE EQUIPMENT FOR FORESTRY AND AGRICULTURE. STRUCTURES WITHIN 120 M OF THE SITE INCLUDE THOSE RELATED TO THE SEVERN PINES QUARRY OPERATED BY WALKER AGGREGATES TO THE WEST, AND THE SILVER PIT OPERATED BY K.J. BEAMISH CONSTRUCTION CO. TO THE EAST. THERE IS ALSO A CULVERT THAT CROSSES NICHOLS LINE NEAR THE SOUTHWEST CORNER OF THE SITE.

6. PRIVATE WELL LOCATIONS WITHIN 500 METERS OF THE SITE ARE NOTED ON THE SITE PLAN. A SUMMARY OF PRIVATE WELL DETAILS IS PROVIDED ON TABLE 2.

7. THERE IS ONE STOCKPILE OF TOPSOIL AND OVERBURDEN LOCATED ON THE SITE NEAR SURFACE WATER MONITORING STATION SW7 ALONG THE SOUTHERN BOUNDARY.

8. THERE ARE NO STOCK PILES OF AGGREGATE OR AGGREGATE RECYCLABLE MATERIALS LOCATED ON THE SITE.

9. PORTABLE FUEL TANKS ARE USED ON-SITE FROM TIME TO TIME TO SERVE EXISTING AGRICULTURAL AND FORESTRY PRACTICES. SEE ALSO NOTE 41 (SHEET 2 OF 8) FOR DETAILS ON FUEL STORAGE.

10. SCRAP STORED ON THE SITE INCLUDES STOCKPILES OF BRUSH AND STUMPS, AND METAL FROM MACHINERY USED ON-SITE, WHICH MAY BE RELOCATED FROM TIME TO TIME AS AGRICULTURAL AND FORESTRY USES ARE EXPANDED. THE MAIN METAL STORAGE AREA WILL BE LOCATED IN THE PROCESSING/RECYCLING AREA IN THE SOUTHEAST CORNER OF THE SITE AS SHOWN ON SHEET 2 OF 8.

11. THERE ARE NO EXISTING FACES OR REHABILITATED AREAS ON THE SITE.

12. THERE ARE NO EXISTING BERMS ON THE SITE.

13. THE AREA TO BE LICENSED IS 138 HECTARES (341 ACRES).

14. THE AREA TO BE EXTRACTED IS 118.5 HECTARES (293 ACRES).

15. CROSS-SECTIONS SHOWING EXISTING TOPOGRAPHY, FINAL QUARRY FLOOR ELEVATION AND THE ANTICIPATED FINAL ELEVATION OF THE GROUNDWATER TABLE, WITHIN THE LICENSED BOUNDARY ARE FOUND ON SHEET 3 OF 8.

16. NICHOLS LINE IS A DESIGNATED HAUL ROUTE.

17. THERE IS A PROVINCIAL SIGNIFICANT (PSW) IN THE SOUTHEAST CORNER OF THE SITE.

18. ALL MEASUREMENTS SHOWN ON THESE SITE PLANS ARE IN METRIC.

GROUNDWATER TABLE

19. BASED ON THE LEVEL 1 AND 2 HYDROGEOLOGICAL INVESTIGATION BY MTE CONSULTANTS INC. THE ESTABLISHED GROUNDWATER TABLE WITHIN THE SHALLOW BEDROCK OF THE GULL RIVER FORMATION VARIES FROM AN ELEVATION OF 238.58 MASL AT MW6-07 IN THE NORTHWEST CORNER OF THE SITE TO AN ELEVATION OF 214.97 MASL AT MW14-12 IN THE SOUTHEAST CORNER OF THE SITE.

20. 29 GROUNDWATER MONITORING WELLS WERE DRILLED ON THE SITE BETWEEN 2007 AND 2014 AS PART OF THE LEVEL 1 AND 2 HYDROGEOLOGICAL INVESTIGATION. A SUMMARY OF THE MONITORING WELLS IS PROVIDED ON THE SITE PLAN IN TABLE 1. GROUNDWATER MONITORING AT THESE WELLS IS ONGOING.

SURFACE WATER DRAINAGE

21. SURFACE WATER DRAINAGE ON THE SITE AND WITHIN 120 METERS OCCURS IN THE DIRECTION SHOWN BY THE ARROWS ON THE PLAN. WATER THAT INFILTRATES INTO THE UPPER FIVE METERS OF BEDROCK (EPH-KARST) IS QUICKLY DRAINED TO SURFACE WATER FEATURES WITHIN DAYS OF PRECIPITATION/MELT EVENTS.

22. THERE ARE TWO EXISTING SURFACE WATER FEATURES THAT SERVE TO DRAIN THE SITE. WATERCOURSE 1 RUNS THROUGH THE NORTHERN AND CENTRAL PORTIONS OF THE SITE, WHILE WATERCOURSE 2 DRAINS THE SOUTHERN PORTION OF THE SITE. BOTH WATERCOURSES FLOW INTERMITTENTLY WHEN THERE IS SUFFICIENT PRECIPITATION AND MELT WATER TO SUSTAIN FLOW.

23. WATERCOURSE 1 ALSO RECEIVES AND CONVEYS WATER FROM THE SEVERN PINES QUARRY AT SW1.

24. THE INLET OF WATERCOURSE 1 IS AT AN ELEVATION OF 232 MASL ALONG THE NORTH BOUNDARY OF THE SITE, WHILE THE OUTLET IS AT AN ELEVATION OF 217 MASL LOCATED ALONG THE EASTERN BOUNDARY. APPROXIMATELY 40 M DOWNSTREAM OF THE OUTLET, THE SURFACE WATER IN WATERCOURSE 1 MIXES WITH GROUNDWATER FROM A SPRING EMANATING FROM A TALUS SLOPE AT SW5.

25. 16 SURFACE WATER STATIONS WERE ESTABLISHED ON THE SITE IN 2014 TO MEASURE SURFACE WATER FLOW AND CHEMISTRY. A SUMMARY OF THE SURFACE WATER STATIONS IS PROVIDED ON THE SITE PLAN IN TABLE 3. SURFACE WATER MONITORING AT THESE STATIONS IS ONGOING.

SITE PLAN REFERENCES

1. THE SITE IS IDENTIFIED AS A HIGH POTENTIAL MINERAL AGGREGATE RESOURCE IN SCHEDULE 5.2.1 OF THE SIMCOE COUNTY OFFICIAL PLAN. AN OFFICIAL PLAN AMENDMENT IS NOT REQUIRED.

2. THE SITE IS DESIGNATED AS BEDROCK AGGREGATE RESOURCE ACCORDING TO SCHEDULE C OF THE TOWNSHIP OF SEVERN OFFICIAL PLAN.

3. CONTOUR INFORMATION COMPILED BY TOPOGRAPHICAL SURVEY AND AERIAL PHOTOGRAPHY BY J.D. BARNES LTD. (2012). ELEVATIONS SHOWN ARE RELATED NAD 83 TO A GEODETIC BENCHMARK DESCRIBED AS: SQUARE IRON BAR AT SOUTHWEST CORNER OF LICENCE BOUNDARY. ELEVATION: 227.620 MASL.

4. BOUNDARY INFORMATION BASED ON SURVEYING COMPLETED BY J.D. BARNES LIMITED. THE COORDINATES OF EACH CORNER BAR OF THE SITE ARE SHOWN ON THE SITE PLAN.

5. ZONING INFORMATION COMPILED FROM TOWNSHIP OF SEVERN ZONING BY-LAW 2010-05, DATED AUGUST 5, 2010.

6. SIGNIFICANT WETLAND BOUNDARY ESTABLISHED BY NIBLETT ENVIRONMENTAL ASSOCIATES INC. MAY 16, 2012.

7. STAGE 1 & 2 ARCHAEOLOGICAL ASSESSMENT DATED DECEMBER, 2007 AND STAGE 3 ARCHAEOLOGICAL ASSESSMENTS BY KINICKINICK HERITAGE CONSULTANTS, DATED MAY 2008.

8. NATURAL ENVIRONMENT LEVEL 1 AND 2 REPORT BY NIBLETT ENVIRONMENTAL ASSOCIATES INC. DATED NOVEMBER 29, 2017.

9. LEVEL 1 AND 2 HYDROGEOLOGICAL INVESTIGATION BY MTE CONSULTANTS INC., DATED NOVEMBER 28, 2014.

10. NOISE IMPACT ANALYSIS BY VALCOUSTICS CANADA LTD., DATED SEPTEMBER 14, 2017.

11. BLAST IMPACT ANALYSIS BY EXPLOTECH ENGINEERING LTD. DATED NOVEMBER 1, 2017.

12. TRAFFIC IMPACT STUDY BY SKELTON BRUMWELL & ASSOCIATES INC. DATED OCTOBER 27, 2017.



LEGEND

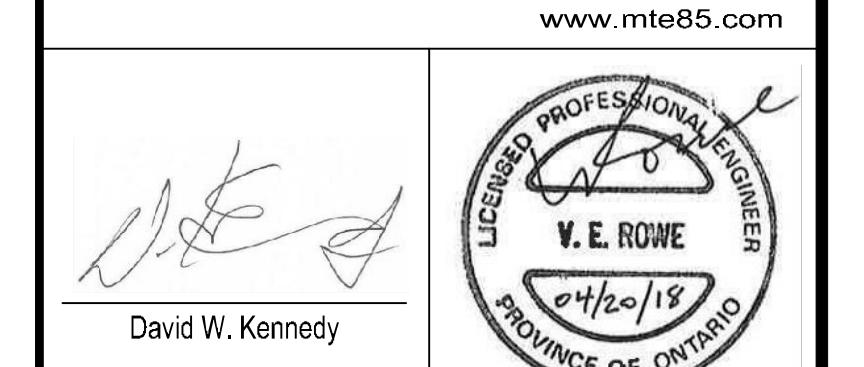
- Licence Boundary / Property Boundary
- Lot Line
- Barn
- Buildings and Structures
- Post & Page Wire Fence (unless otherwise noted)
- Internal Road
- Intermittent Water Course
- Offsite Water Course
- Contours Elevation (masl)
- General Direction of Drainage
- Gate
- Provincially Significant Wetland
- NEA Wetland Boundary
- Cross - Section Location (See Sheet 5)
- Groundwater Monitoring Well
- Private Well
- Surface Water Monitoring Station
- Noise Receptor
- 227.620 Benchmark with Elevation (masl)

SITE PLAN AMENDMENTS

No.	Revision	By Date



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DECLARATION OF PURPOSE
THIS SITE PLAN IS PREPARED UNDER THE AGGREGATE RESOURCES ACT FOR A CLASS 'A' LICENSE, CATEGORY 2.

PROJECT
CUMBERLAND QUARRY
LICENSEE: SEVERN AGGREGATES LIMITED
151 WHITEHALL DRIVE,
MARKHAM, ONTARIO
L3R 9T1

Project Manager	Project No.
Design By	Checked By
Drawn By	Checked By
Surveyed By	Sheet No.
Date April 24, 2018	1
Scale 1:4000	Sheet 1 of 8

