

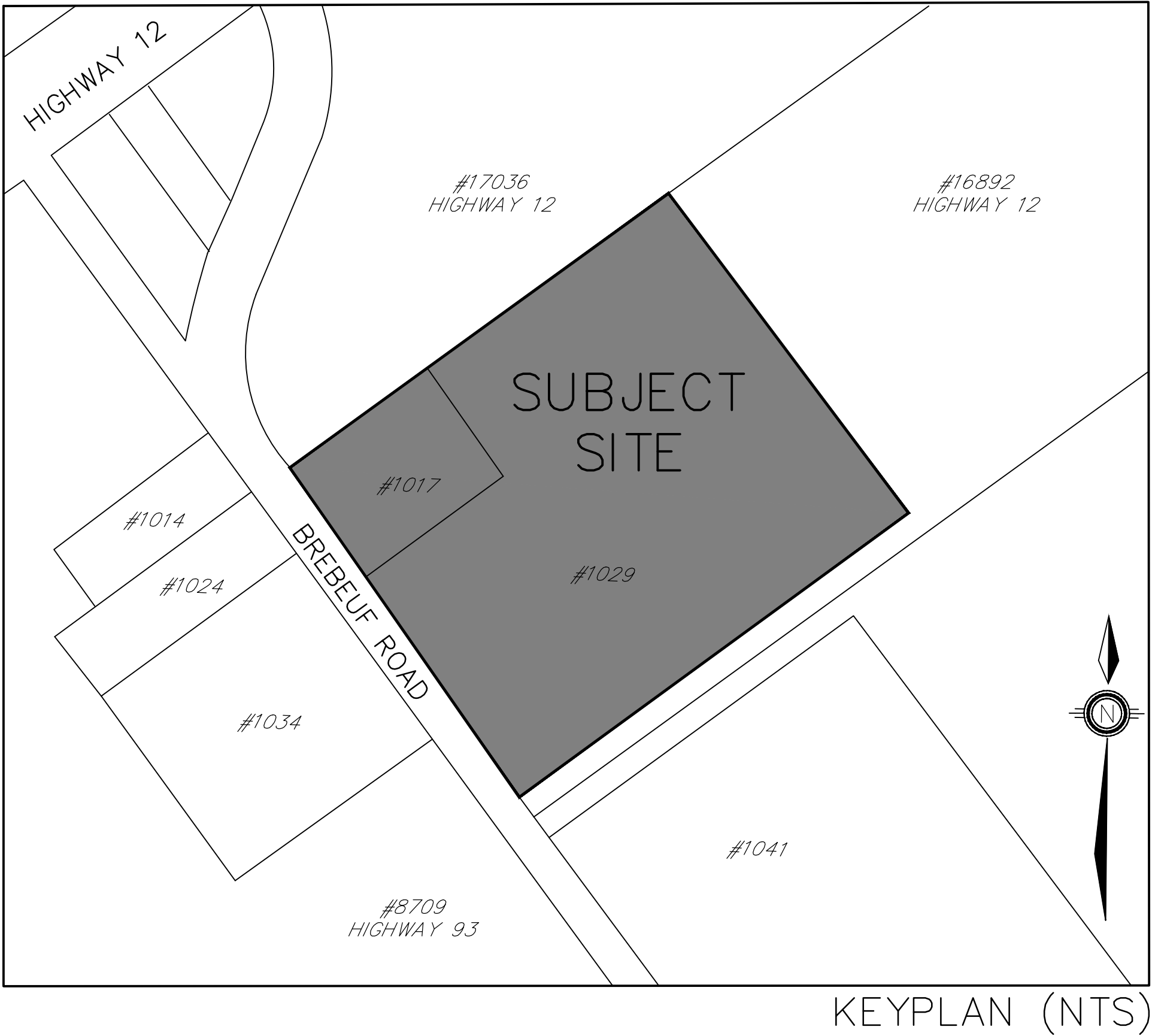
1017 & 1029 BREBEUF ROAD CONCRETE MIXING PLANT TOWN OF MIDLAND, ONTARIO

THE JONES CONSULTING GROUP LTD. DRAWING LIST

SG-1	SITE GRADING PLAN
SS-1	SITE SERVICING PLAN
ESC-1	EROSION AND SEDIMENT CONTROL PLAN PHASE 1 INTERIM
ESC-2	EROSION AND SEDIMENT CONTROL PLAN PHASE 2 INTERIM
ESC-3	EROSION AND SEDIMENT CONTROL PLAN PHASE 3 ULTIMATE
ESC-4	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
SWM-1	PRE-DEVELOPMENT STORMWATER MANAGEMENT PLAN
SWM-2	POST-DEVELOPMENT STORMWATER MANAGEMENT PLAN

EME ENGINEERING INC. DRAWING LIST

E-001	ELECTRICAL SPECIFICATIONS
E-002	SYMBOLS AND ABBREVIATIONS
E-101	SITE SERVICING PLAN
E-201	SITE PHOTOMETRIC PLAN
E-301	SITE DETAILS



KEYPLAN (NTS)

MUNICIPALITY:

TOWN OF MIDLAND
575 DOMINION AVENUE
MIDLAND, ON L4R 1R2
PH. 705.526.4275

CLIENT:

THE SARJEANT Co. LTD.
15 SARJEANT DRIVE
BARRIE, ONTARIO L4N 4V9

CONSULTANT:



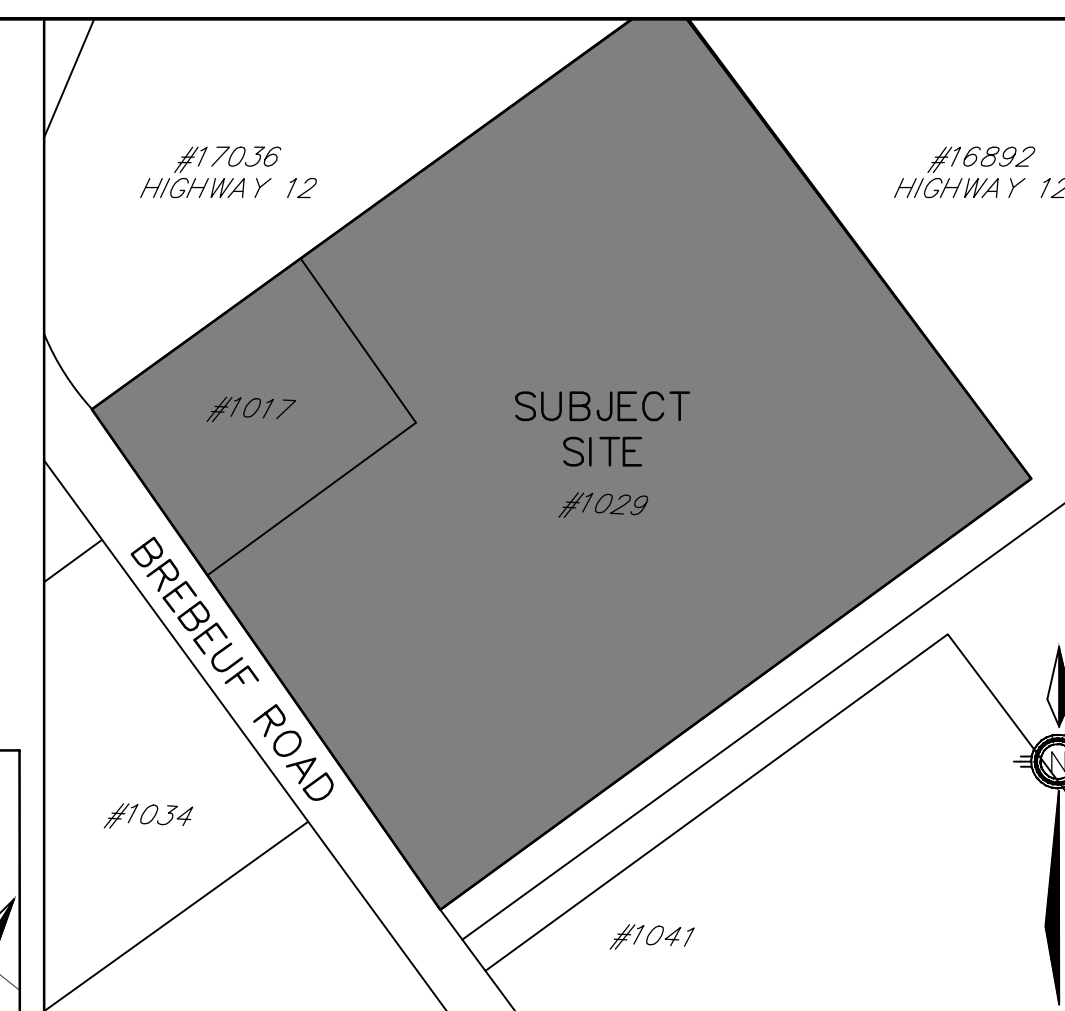
229 Mapleview Dr. E, Unit 1
Barrie, ON L4N 0W5
P. 705.734.2538
F. 705.734.1056

PROP. FILTER BED, c/w 275mm DEEP SEPTIC STONE, 11 RUNS OF 75mm PIPE, 4.7m LONG SPACED AT 0.60m O/C SLOPED AT 0.5% BOTTOM OF FILTER BED AT 208.64m
 UTILIZE LOADING AREA FILL MATERIAL T-TIME OF 10 min/cm OVER FILTER BED TO UNDERSIDE OF TOPSOIL
 PROP. SURFACE 150mm THICK TOPSOIL AND SOD 0.5%
 PROP. JERSEY BARRIER
 SAN. INV. 208.82
 750mm FILTER SAND T-TIME OF 4-8 min/cm
 5m FILTER BED
 15m MANTLE
 20m LOADING AREA
 NATIVE GROUND
 PROPOSED 250mm THICK LEACHING BED FILL MATERIAL T-TIME OF 10 min/cm EXISTING GROUND TO SCARIFIED
 SCALE 1:250

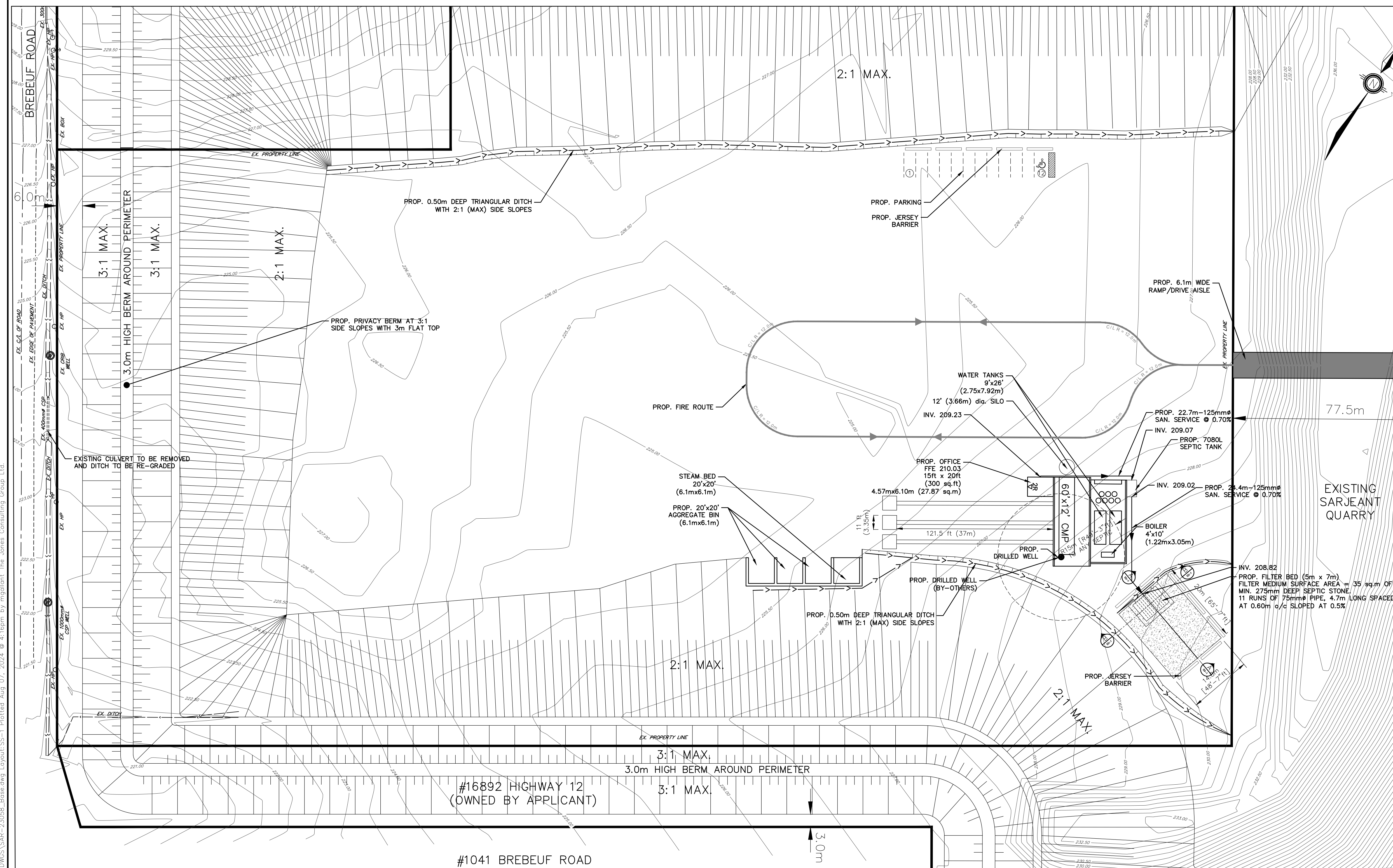
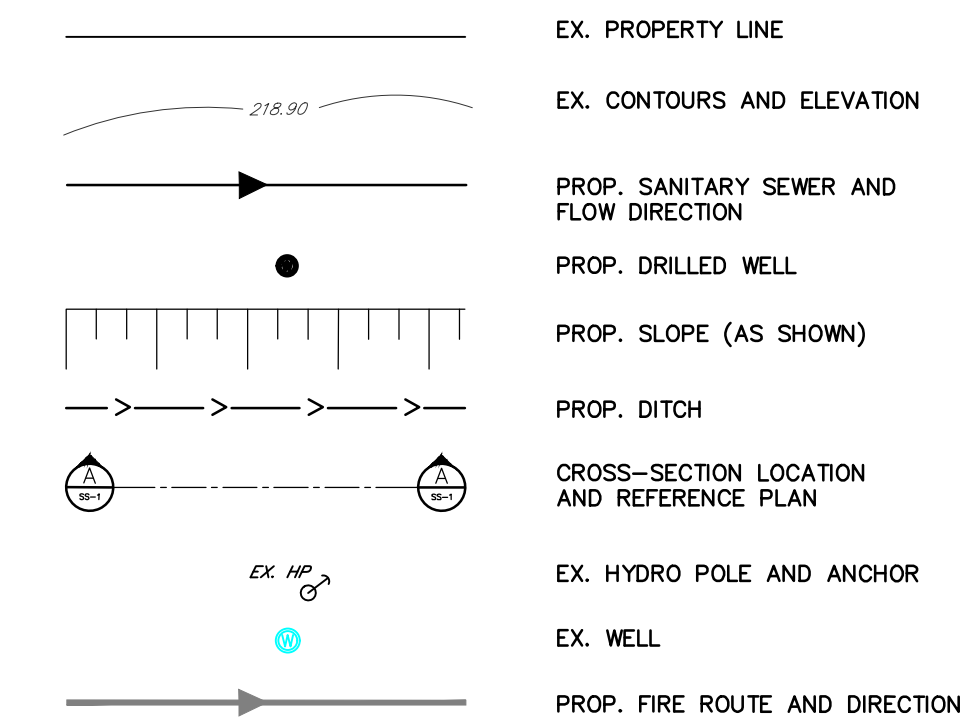
Diagram illustrating a cross-section of a proposed road improvement project, showing various layers and structures:

- PROPOSED SURFACE:** 150mm THICK TOPSOIL AND SOD
- PROPOSED FILTER BED:** c/w 275mm DEEP SEPTO STONE, 11 RUNS OF 75mmØ PIPE, 4.7m LONG SPACED AT 0.60m O/C SLOPED AT 0.5% BOTTOM OF FILTER BED AT 208.64m
- PROPOSED JERSEY BARRIER**
- UTILIZE LOADING AREA FILL MATERIAL:** T-TIME OF 10 min/cm OVER FILTER BED TO UNDERSIDE OF TOPSOIL
- 750mm FILTER SAND:** T-TIME OF 4-8 min/cm
- EXISTING GROUND TO SCARIFIED**
- PROPOSED 0.50m DEEP TRIANGULAR DITCH WITH 2:1 (MAX) SIDE SLOPES**
- Labels and Dimensions:**
 - 209.19
 - 209.69
 - 209.53
 - 209.48
 - 209.43
 - 0.23m
 - 6.60m
 - 7m FILTER BED
 - 14.8m FILTER MANTLE
 - PROF. DITCH

SCALE 1:250



LEGEND



3	OPA, ZBLA & SPA SUBMISSION	AUG. 2024	MG
2	ISSUED FOR PRE-CONSULTATION	DEC. 2023	DR
1	ISSUED TO CLIENT	OCT. 2023	DR
NO.	REVISIONS	DATE	INITIAL



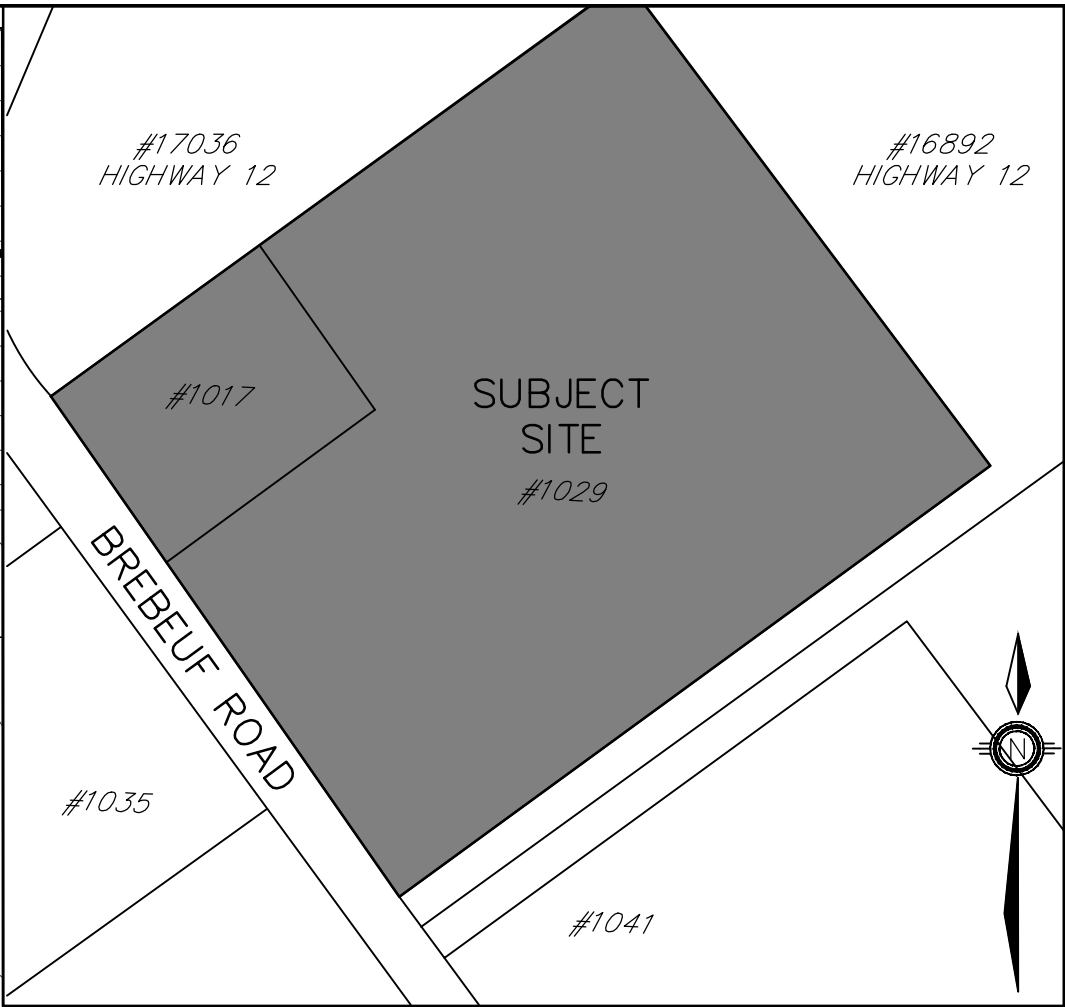
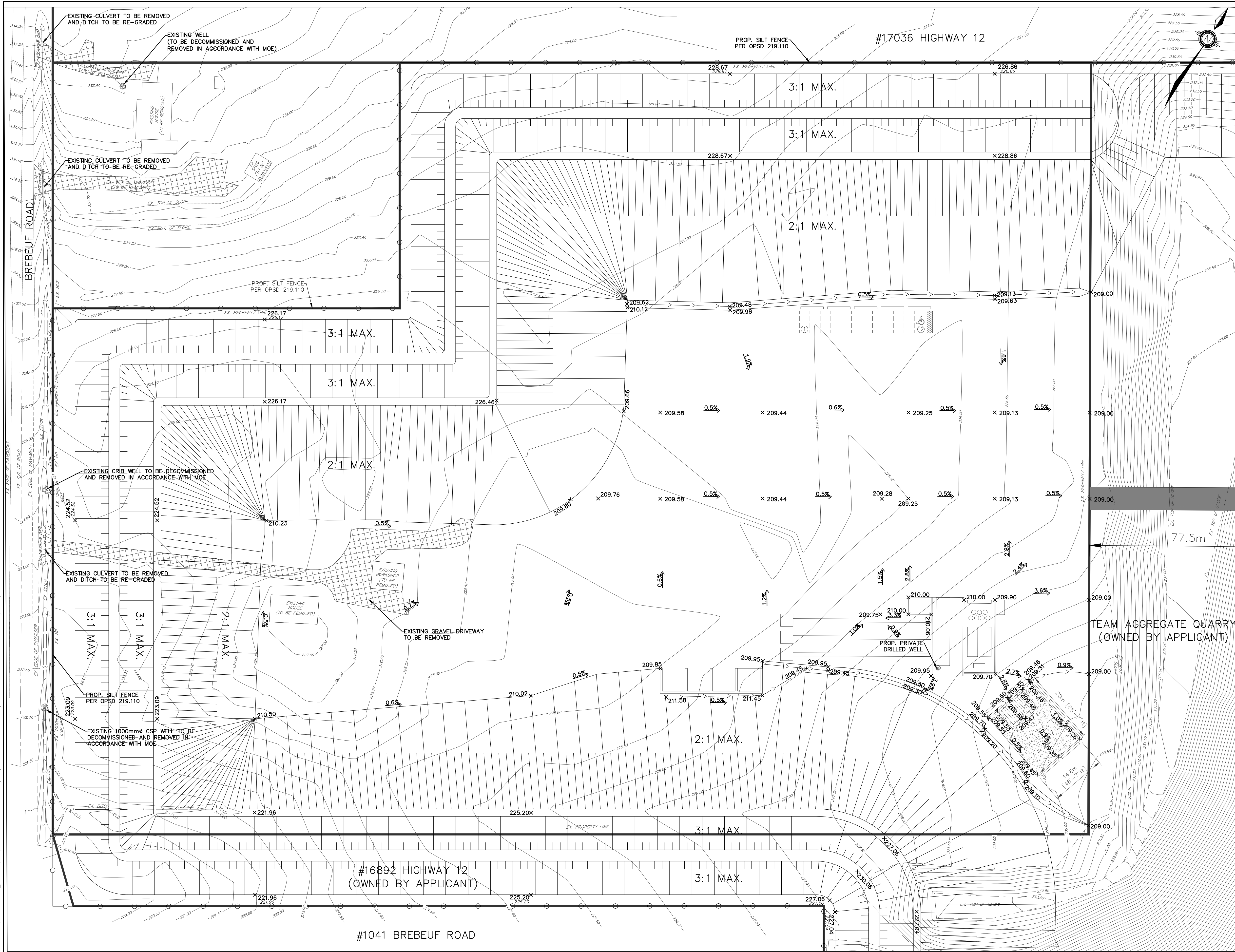
SITE SERVICING PLAN



**229 Maplevlew Dr. E, Unit 1
Barrie, ON L4N 0W5
P. 705.734.2538
F. 705.734.1056**

DESIGN	DR	SCALE: 1:500	DATE JULY 2024
DRAWN	KS	PROJECT SAR-23058	DWG. N ^o
CHECKED	DR		SS-1

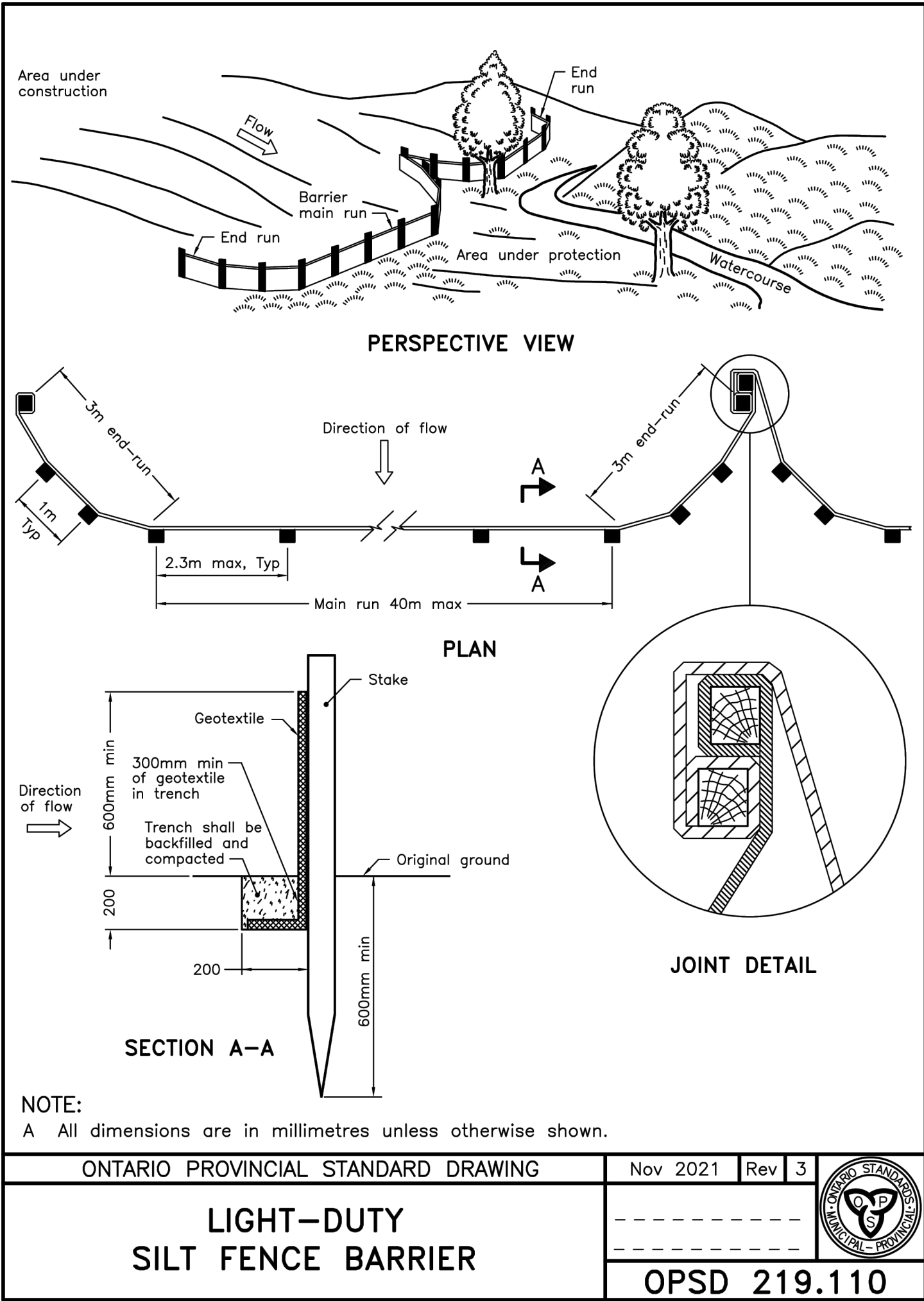
C:\Eng_3D\SAR-23058\Production DWGS\SAR-23058_Base.dwg Layout:SS-1 Plotted Aug 07, 2024 @ 4:16pm by mgallant The Jones Consulting Group Ltd.



KEYPLAN NTS	
LEGEND	
	EX. PROPERTY LINE
	EX. CONTOURS AND ELEVATION
	PROP. SLOPE (AS SHOWN)
	PROP. SILT FENCE PER OPSD 219.110
	PROP. ELEVATION EX. ELEVATION
	PROP. GRADIENT AND FLOW DIRECTION
	AREA TO BE REMOVED
	EX. HYDRO POLE AND ANCHOR
	EX. WELL

BENCHMARK: 0011971U523 MIDLAND - HIGHWAY NO. 12 BRIDGE OVER WYE RIVER, 4.5km SOUTHEAST OF POST OFFICE AND IMMEDIATELY WEST OF MARTYRS SHRINE, TABLET IN SOUTHWEST OUTSIDE FACE OF COPING, 1.28m BELOW TOP OF CONCRETE END POST AND 34cm NORTHWEST OF SOUTHEAST END. VERT. ORDER: FIRST ORDER ELEVATION: 182.460m		1 OPA, ZBLA & SPA SUBMISSION JUL. 2024 MG		2024-08-07		1017 & 1029 BREBEUF ROAD TOWN OF MIDLAND EROSION AND SEDIMENT CONTROL PLAN PHASE 2 INTERIM		JONES CONSULTING GROUP LTD. PLANNERS & ENGINEERS 229 Mapleview Dr. E. Unit 1 Barrie, ON L4N 0W5 P. 705.734.2538 F. 705.734.1056		DESIGN DR SCALE: 1:500 DATE JULY 2024	DWG. NO SAR-23058 ESC-2
NO.		REVISIONS		DATE		INITIAL					

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EROSION CONTROL NOTES

1. THE ACCOMPANYING PLANS SET OUT THE MEASURES THAT WILL BE TAKEN BY THE DEVELOPER AND ITS CONTRACTORS TO CONTROL DOWNSTREAM SEDIMENT TO THE LOWEST LEVEL PRACTICALLY ACHIEVABLE. THE CONDITIONS AND TECHNIQUES SET OUT ARE TO BE FOLLOWED UNLESS APPROVED OTHERWISE BY THE CONTRACT ADMINISTRATOR, CONSERVATION AUTHORITY AND/OR MUNICIPALITY.
2. ALL TEMPORARY SILT CONTROL AND EROSION PROTECTION DEVICES (I.E. SILT FENCING, DRAINAGE SWALES, ROCK CHECK DAMS, SEDIMENT BASIN(S), GRAVEL ACCESS PAD, ETC.) SHALL BE CONSTRUCTED PRIOR TO COMMENCEMENT OF SITE WORKS AND SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL CONSTRUCTION IS COMPLETE AND THE GRASS HAS ESTABLISHED GROWTH, SUBJECT TO APPROVAL BY THE CITY ENGINEERING DEPARTMENT.
3. ALL SEDIMENTATION CONTROL MEASURES ARE TO BE INSPECTED REGULARLY (MINIMUM WEEKLY), AS WELL AS AFTER EVERY RAINFALL EVENT AND ANY DAMAGED SILT CONTROL AND EROSION PROTECTION DEVICES SHALL BE PROMPTLY REPAIRED OR REPLACED BY THE CONTRACTOR.
4. THE CONTRACTOR MUST USE MATERIALS, CONSTRUCTION PRACTICES, AND MITIGATION TECHNIQUES IN ORDER TO PREVENT THE UNAUTHORIZED HARMFUL ALTERATION, DISRUPTION OR DESTRUCTION OF VEGETATION OR THE IMPAIRMENT OF WATER QUALITY.
5. THE CONTRACTOR SHALL BE PREPARED FOR UNEXPECTED CONDITIONS AND ACCORDINGLY HAVE STOCKPILED MATERIALS ON SITE FOR NECESSARY REPAIRS AS A RESULT OF FAILED OR INADEQUATE CONTROL MEASURES.
6. AREAS WITHOUT STABLE GROUND COVER SHALL BE PROTECTED WITH SILTATION CONTROL FENCING, STRAW MULCH, ETC, AND MAINTAINED BY THE CONTRACTOR UNTIL VEGETATION HAS BECOME ESTABLISHED IN THE SUBSEQUENT GROWING SEASON.
7. ALL EXPOSED SOIL MUST BE GRADED TO A STABLE SLOPE AND TREATED AS QUICKLY AS POSSIBLE TO PREVENT EROSION AND SEDIMENT FROM LEAVING THE SITE. ALL AREA STRIPPED OF VEGETATIVE COVER FOR LONGER THAN 30 DAYS SHALL BE TOPSOILED AND SEEDED AT THE DIRECTION OF THE ENGINEER.
8. ALL SITE DRAINAGE TO BE DIRECTED TO THE TEMPORARY SEDIMENT BASINS AND OTHER CHECK DAMS VIA SHEET DRAINAGE, BERMS OR SWALES (AS NECESSARY) TO FACILITATE THE COMPLETION OF GRADING WORKS. THE CONTRACTOR SHALL CONSTRUCT ANY ADDITIONAL SWALES OR BERMS THAT MAY BE NECESSARY TO DIRECT RUN-OFF IN A CONTROLLED MANNER OF SUITABLE QUALITY.
9. ALL CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE FROM PROPOSED CONSTRUCTION ACCESS VIA THE GRAVEL ACCESS PAD.
10. ANY DEWATERING WASTE SHALL BE DISCHARGED TO A VEGETATED AREA AT LEAST 30m FROM ANY WATERCOURSE AND FILTERED. FILTERING METHODS MUST BE APPROVED BY THE SITE INSPECTOR.
11. TECHNIQUES FOR EROSION AND SEDIMENT CONTROLS ARE TO ADHERE TO ACCEPTED ENGINEERING PRACTICE AND MUNICIPAL, CONSERVATION AUTHORITY AND ONTARIO PROVINCIAL STANDARD SPECIFICATIONS AND DRAWINGS. THE CONTRACTOR SHALL OBTAIN A CURRENT COPY AND BECOME FAMILIAR WITH OPSS 805; CONSTRUCTION SPECIFICATION FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES, AS WELL AS APPLICABLE MUNICIPAL STANDARDS AND/OR APPROVAL AGENCY STANDARDS.
12. THE CONTRACTOR MAY CONSIDER ALTERNATIVE SEDIMENT AND EROSION CONTROL MEASURES, SUCH MEASURES MUST BE PRESENTED IN WRITING FOR APPROVAL BY THE CONTRACT ADMINISTRATOR AND MUST BE APPROVED IN WRITING BY THE APPLICABLE APPROVAL AGENCIES.
13. SEDIMENT CONTROL FENCE TO USE GEOTEXTILE WITH WEAVE DENSITY OF 270R TERRAFIX OR EQUIVALENT.
14. CHECK DAMS ARE TO BE USED IN ANY TEMPORARY DRAINAGE SWALES REQUIRED DURING THE CONSTRUCTION PERIOD.
15. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED AND SHALL BE DETERMINED BY THE ENGINEER OR THE TOWN OF MIDLAND.
16. ROCK CHECK DAMS ARE TO BE CLEANED OF ALL ACCUMULATED SEDIMENT AS SOON AS SEDIMENT HAS ACCUMULATED TO A DEPTH GREATER THAN 50% OF ALL UPSTREAM CHECK DAMS.
17. MATERIALS TO REPAIR DAMAGED ESC MEASURES MUST BE KEPT ON-SITE AT ALL TIMES.
18. ESC STRATEGIES ON THESE PLANS ARE NOT STATIC AND MAY NEED TO BE UPGRADED/AMENDED AS SITE CONDITIONS CHANGE TO PREVENT SEDIMENT RELEASES. FAILED ESC MEASURES MUST BE REPAIRED IMMEDIATELY.
19. SERVICING OF CONSTRUCTION EQUIPMENT ON SITE IS PROHIBITED.
20. THE CONTRACTOR MUST CLEAN ADJACENT ROADS ON A REGULAR BASIS. THE ROAD SHALL BE, AT A MINIMUM SCRAPPED DAILY AND FLUSHED (IF NECESSARY).
21. DUST CONTROL TO BE REVIEWED DAILY. WATER TRUCK OR CALCIUM CHLORIDE IS TO BE PROVIDED ON-SITE AND HAUL ROADS/WORKING AREAS ARE TO BE TREATED AS REQUIRED TO ENSURE THAT DUST IS CONTROLLED ON-SITE.

CONSTRUCTION SEQUENCE

THE FOLLOWING CONSTRUCTION SEQUENCE IS PROVIDED FOR CONTRACTOR GUIDANCE:

1. CONSTRUCT ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES INCLUDING SILT FENCE, TREE PRESERVATION FENCE, CHECK DAMS, SWALES/BERMS, ETC.
 2. STRIPPING AND REMOVAL OF TOPSOIL AND HARD SURFACES OFF-SITE.
 3. PROCEED WITH EARTH EXCAVATION AND PRE-GRADING. PROCEED WITH SEEDING OF RESTORATION OF ALL DISTURBED AREAS AS DIRECTED BY ENGINEER. ALL AREAS STRIPPED OF VEGETATIVE COVER FOR LONGER THAN 15 DAYS SHALL BE HYDROSEEDDED AT THE DIRECTION OF THE ENGINEER. HYDROSEED WITH FIBRETAC AT 100KG/HA. HYDROSEED MIXTURE OF 48% ANNUAL RYE GRASS; 48% FALL RYE, 4% RED CLOVER WILL NEED TO BE APPLIED TO EXPOSED AREAS FOLLOWING TOPSOIL STRIPPING.
 4. PROCEED WITH SITE WORKS I.E. SITE SERVICING AND SURFACE WORKS INSTALLATIONS.
 2. RESTORATION OF DISTURBED AREAS.
 3. REMOVAL OF SEDIMENT AND EROSION CONTROLS.
- **NOTE**** SILTATION AND EROSION CONTROL MEASURES ARE TO BE MONITORED AND MAINTAINED THROUGHOUT CONSTRUCTION AND NECESSARY REPAIRS TO BE PROMPTLY COMPLETED AS REQUIRED.

CONTINGENCY PLAN

IF UNFORESEEN EVENTS CAUSE THE STRATEGIES SET OUT IN THIS PLAN TO BE INSUFFICIENT OR INAPPROPRIATE TO MEET THE OBJECTIVE, THE CONTRACTOR IS EXPECTED TO RESPOND IN A TIMELY MANNER WITH ALL REASONABLE MEASURES CONSISTENT WITH SAFETY, TO PREVENT, COUNTERACT OR REMEDY DOWNSTREAM SEDIMENTATION AND EROSION.

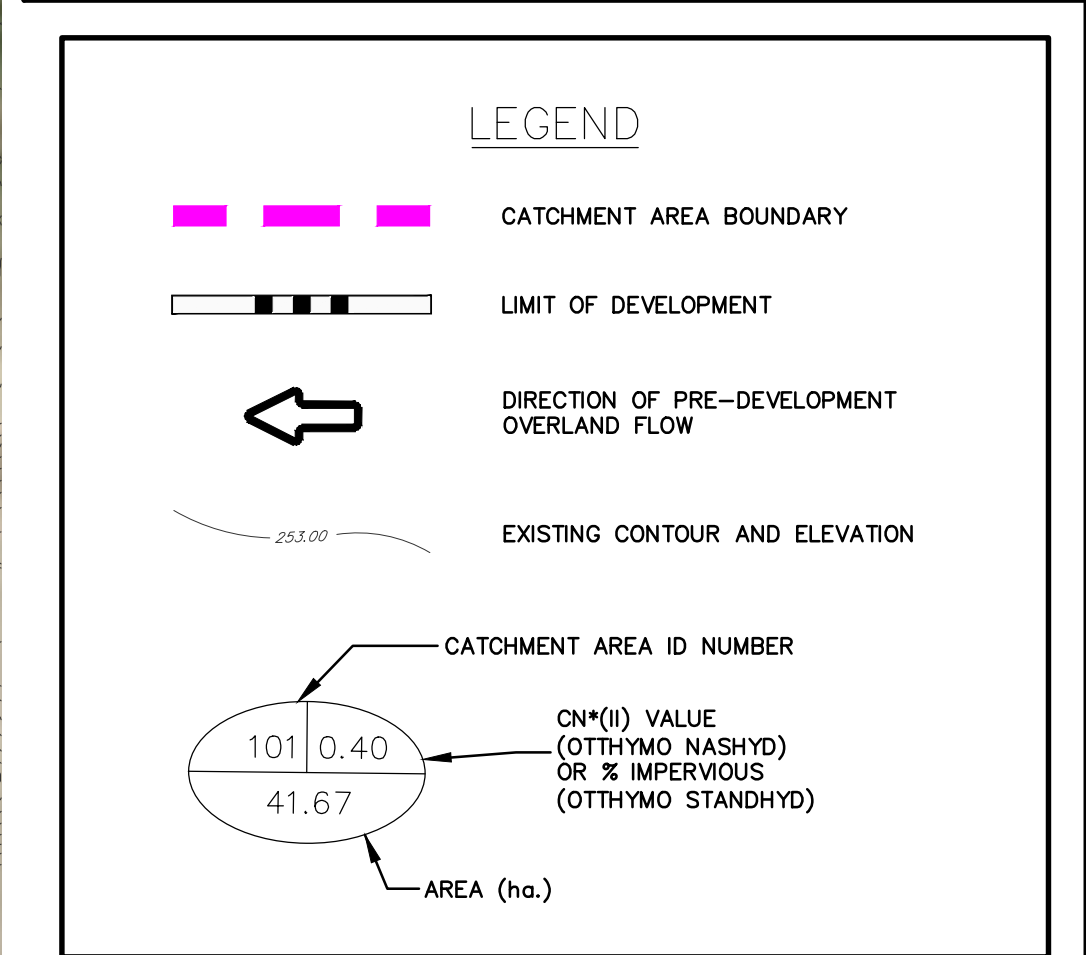
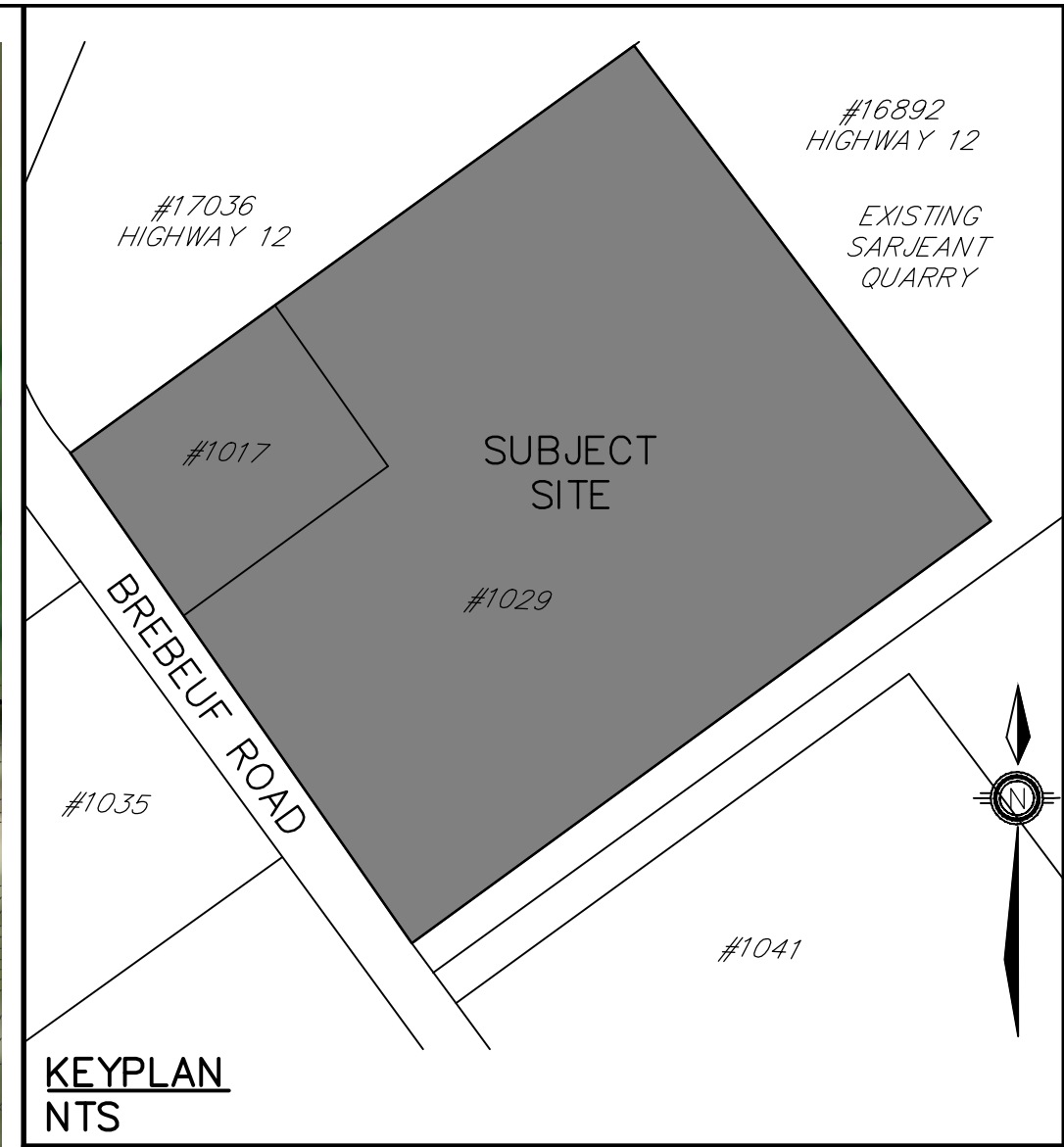
IF A SPILL OCCURS IT SHALL BE REPORTED TO THE MINISTRY OF ENVIRONMENT, CONSERVATION AND PARKS SPILLS ACTION CENTRE AT 1-800-268-6060.

IF APPROVAL AGENCIES DETERMINE THAT LONG TERM DAMAGE TO THE NATURAL ENVIRONMENT HAS OCCURRED DUE TO FAILURE OF THIS PLAN TO CONTROL SEDIMENTS, A RESTORATION PLAN WILL BE DEVELOPED BY THE CONTRACTOR IN CONSULTATION WITH AND APPROVAL FROM THE APPROPRIATE AGENCIES FOR IMPLEMENTATION BY THE CONTRACTOR.

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BENCHMARK: 0011971U523 MIDLAND – HIGHWAY NO. 12 BRIDGE OVER WYE RIVER, 4.5km SOUTHEAST OF POST OFFICE AND IMMEDIATELY WEST OF MARTYRS SHRINE, TABLET IN SOUTHWEST OUTSIDE FACE OF COPING, 1.28m BELOW TOP OF CONCRETE END POST AND 34cm NORTHWEST OF SOUTHEAST END. VERT. ORDER: FIRST ORDER ELEVATION: 182.460m					LICENSED PROFESSIONAL ENGINEER  M.D. GALLANT 100535706 2024-08-07 PROVINCE OF ONTARIO			1017 & 1029 BREBEUF ROAD TOWN OF MIDLAND	 229 Mapleview Dr. E, Unit 1 Barrie, ON L4N 0W5 P : 705.734.2538 F : 705.734.1058 DESIGN DRSCALE: 1:500DATE JULY 2024 DRAWN KSPROJECT DWG. NO CHECKED DRSAR–23058ESC–4
	1	OPA, ZBLA & SPA SUBMISSION	AUG. 2024	MG					
	NO.	REVISIONS	DATE	INITIAL					

G:\eng_3D\SAR-23058\Production DWG\SAR-23058_Stormwater Management.dwg Layout:SWM-1 Plotted Aug 07, 2024 @ 4:20pm by mgallant The Jones Consulting Group Ltd.



BENCHMARK: 0011971U523 MIDLAND — HIGHWAY NO. 12 BRIDGE OVER WYE RIVER, 4.5km SOUTHEAST OF POST OFFICE AND IMMEDIATELY WEST OF MARTYRS SHRINE, TABLET IN SOUTHWEST OUTSIDE FACE OF COPING, 1.25m BELOW TOP OF CONCRETE END POST AND 34cm NORTHWEST OF SOUTHEAST END. VERT. ORDER: FIRST ORDER ELEVATION: 182.460m CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENSE — ONTARIO		1.	IN SUPPORT OF OPA, ZBLA & SPA	JULY 2024	MG
		NO.	REVISIONS	DATE	INITIAL
1017 & 1029 BREBEUF ROAD TOWN OF MIDLAND			PRE-DEVELOPMENT STORMWATER MANAGEMENT PLAN		
		DESIGN	MG	SCALE: 1:1000	DATE JULY 2024
		DRAWN	CG	PROJECT	DWG. NO
		CHECKED	DR	SAR-23058	SWM-1

