

DRIVEWAY CULVERT SCHEDULE				
Lot No.	Length	Size (mm)	Type	Thickness (mm)
1	existing			
2	13.0	600	CSP	2.0
3	13.0	500	CSP	2.0
4	13.0	500	CSP	2.0
5	13.0	400	CSP	2.0
6	13.0	400	CSP	2.0
7	13.0	400	CSP	2.0
8	13.0	400	CSP	2.0
9	13.0	400	CSP	2.0
10	13.0	400	CSP	2.0
11	13.0	400	CSP	2.0
12	13.0	400	CSP	2.0
13	13.0	400	CSP	2.0
14	13.0	400	CSP	2.0
15	13.0	600	CSP	2.0
16	13.0	400	CSP	2.0
17	13.0	400	CSP	2.0
18	13.0	400	CSP	2.0
19	13.0	400	CSP	2.0
20	13.0	400	CSP	2.0
21	13.0	400	CSP	2.0
22	13.0	400	CSP	2.0
23	13.0	400	CSP	2.0
24	13.0	400	CSP	2.0
25	13.0	600	CSP	2.0

ROAD CULVERT SCHEDULE							
Culvert No.	Street	Station	Length	Size (mm)	Thickness (mm) U/S Invert	D/S Invert	
1	Cedar Pond Road	0+730.84	22.2	800	CSP 2.8	118.45	118.34
2	William Mooney Road	Ex. 600 CSP	15.0	900	CSP 2.8	118.12	118.00

GENERAL NOTES:

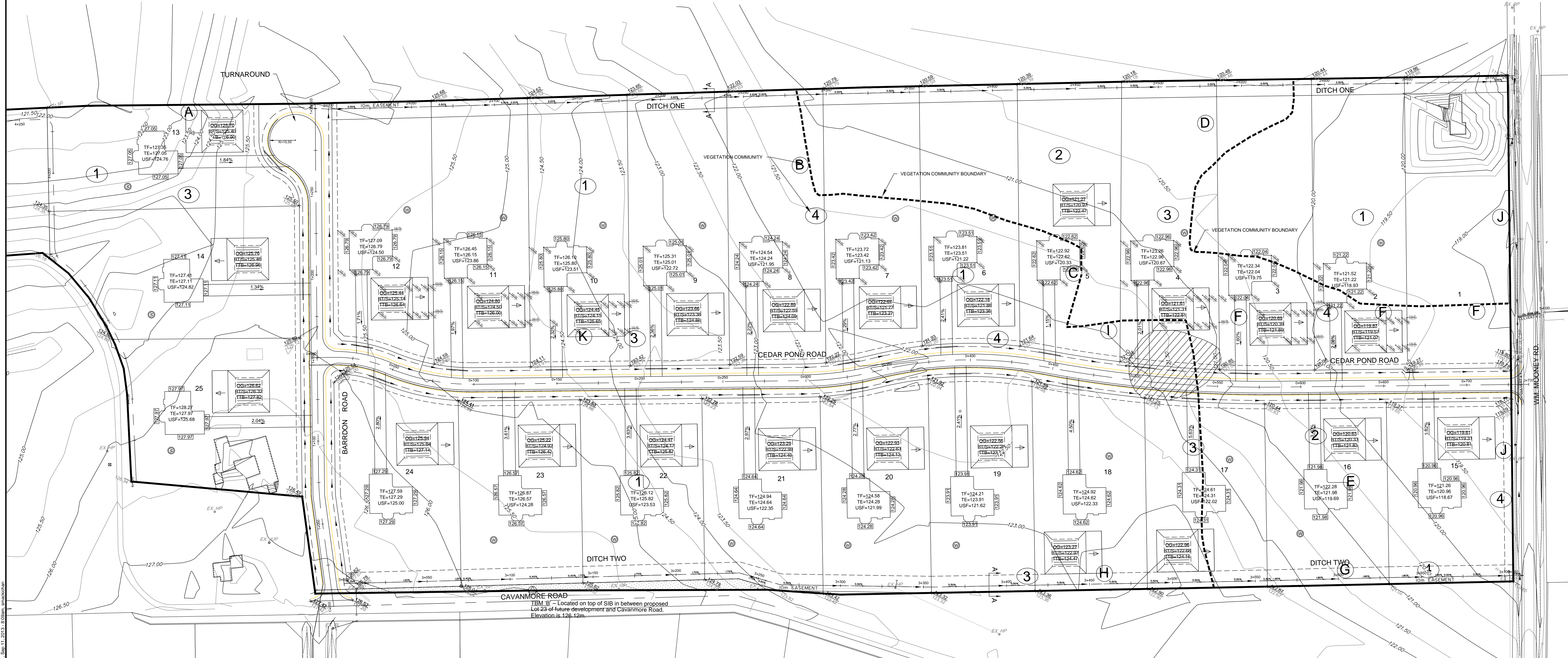
- COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
- DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING.
- OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
- BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR \$5,000,000.00, INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED.
- RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD, ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER.
- REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL, AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
- ALL ELEVATIONS ARE GEODETIC.
- REFER TO REPORT ON HYDROGEOLOGICAL ASSESSMENT AND TERRAIN EVALUATION (DATED DECEMBER, 2009), PREPARED BY HOULE CHEVRIER ENGINEERING LTD. FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.
- REFER TO STORMWATER MANAGEMENT REPORT (R-2012-162) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.
- SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
- CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVICING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, TWIN ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.
- NOTE HATCHED AREA ADJACENT TO LOT 4 IS EXCLUDED FROM SEPTIC FIELD CONSTRUCTION IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS.

GRADING NOTES:

- ALL TOPSOIL, ORGANIC OR DELETERIOUS MATERIAL MUST BE ENTIRELY REMOVED FROM BENEATH THE PROPOSED PAVED AREAS AS DIRECTED BY THE SITE ENGINEER OR GEOTECHNICAL ENGINEER.
- EXPOSED SUBGRADES IN PROPOSED PAVED AREAS SHOULD BE PROOF ROLLED WITH A LARGE STEEL DRUM ROLLER AND INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF GRANULARS.
- ANY SOFT AREAS EVIDENT FROM THE PROOF ROLLING SHOULD BE SUB-EXCAVATED AND REPLACED WITH SUITABLE MATERIAL THAT IS FROST COMPATIBLE WITH THE EXISTING SOILS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
- THE GRANULAR BASE SHOULD BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE. ANY ADDITIONAL GRANULAR FILL USED BELOW THE PROPOSED PAVEMENT SHOULD BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE.
- MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
- MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED.
- REFER TO LANDSCAPE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS.

LEGEND

- PROPOSED ELEVATION
- PROPOSED SWALE ELEVATION
- PROPOSED DITCH ELEVATION
- PROPOSED SWALE BREAK
- GRADE AND DIRECTION
- PROPOSED SWALE CW DIRECTION OF FLOW
- DIRECTION OF MAJOR OVERLAND FLOW
- PROPOSED WELL
- TEST PIT
- DRILLED TEST WELL
- PROPOSED LIGHT STANDARD
- CULTURAL MEADOW
- CULTURAL THicket
- DECIDUOUS HEDGEROW
- CONIFEROUS HEDGEROW
- TREE RETENTION CLUSTERS
- VEGETATION COMMUNITIES
- TERRACE ELEVATION (HOUSE)
- TOP OF FOUNDATION
- UNDERSIDE OF FOOTING
- ORIGINAL GROUND (@ HIGH PT. SEPTIC BED)
- BOTTOM OF TOPSOIL (@ HIGH PT. SEPTIC BED)
- TOP OF TILE BED



NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

No.	REVISION	DATE	BY
3.	SUBMITTED FOR APPROVAL	APR. 30/13	RSM
2.	SUBMITTED FOR APPROVAL	JAN 31/13	RSM
1.	SUBMITTED FOR APPROVAL	NOV 27/12	RSM

SCALE: 1:1000

FOR REVIEW ONLY

DESIGN: RSM

CHECKED: RSM

DRAWN: CKB

REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO
14/10/13

NOVATECH ENGINEERING CONSULTANTS LTD.

2500 SHEPPARD AVENUE EAST
SUITE 200, 240 MICHAEL COVINGTON DRIVE
OTTAWA, ONTARIO, CANADA

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Email: novatech@novatech-eng.com

LOCATION: CITY OF OTTAWA, MCGEE MEADOW SUBDIVISION

DRAWING NAME: GRADING PLAN

PROJECT No.: 107176

REV # 3

107176-GR1