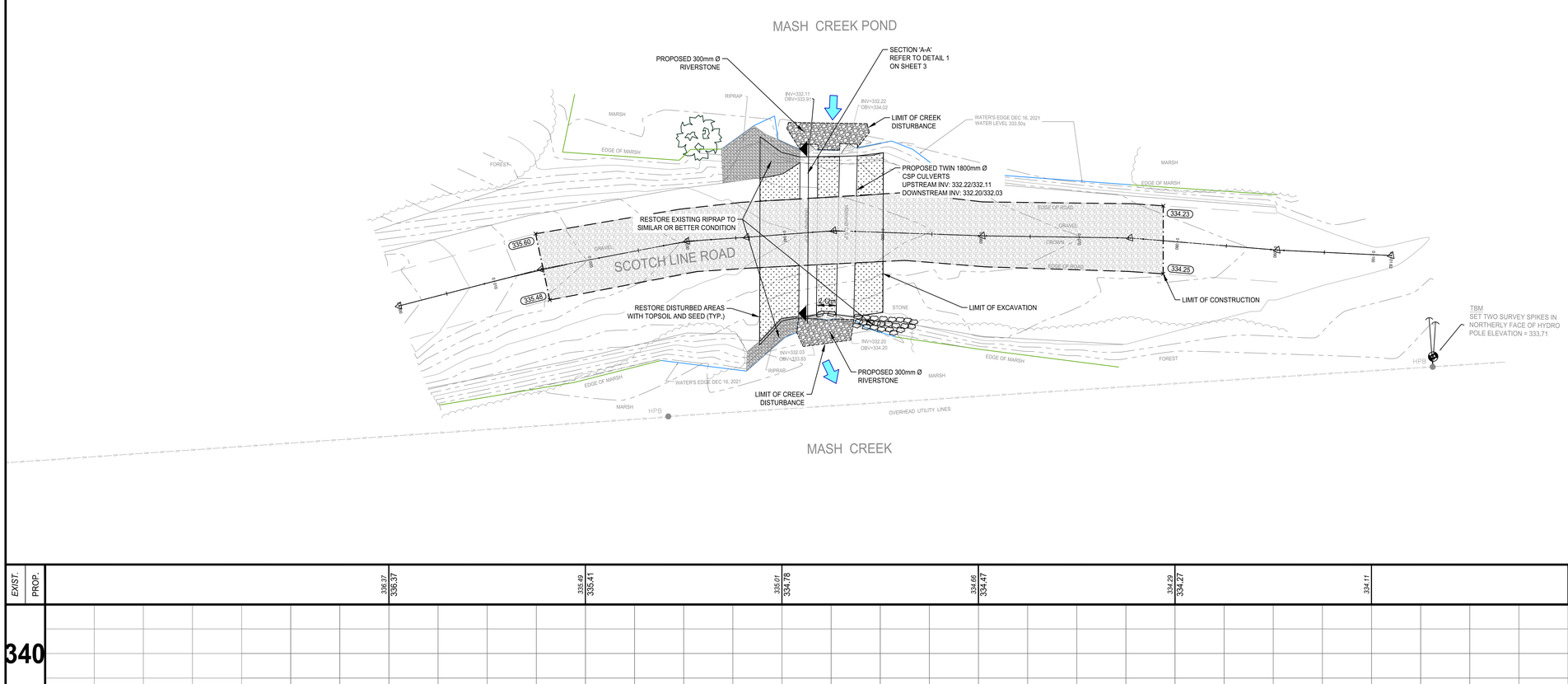

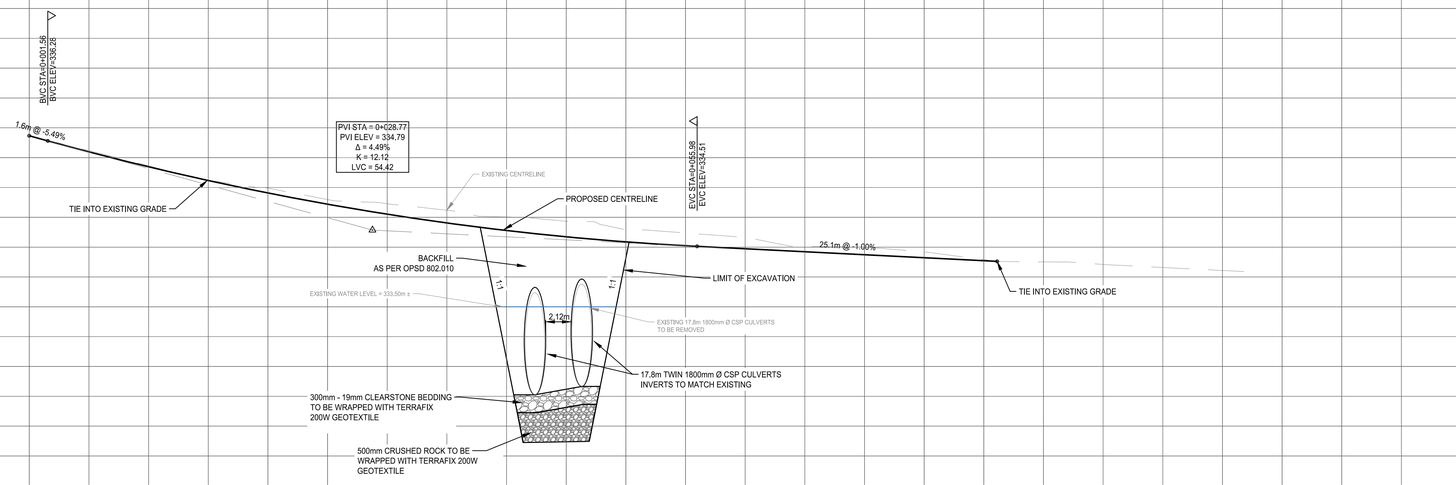

EXIST. / PROP.

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340 338 336 334 332

STM

SAN

STA: 0+000 0+020 0+040 0+060 0+080 0+100

21100 - PP1
PROPOSED SITE GRADING & SERVICING PLAN

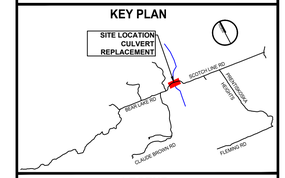
NORTH

BENCHMARK

BENCHMARK LOCATED AT THE NEAREST HYDRO POLE SOUTHEAST OF THE CULVERTS.

ELEV: 333.71m

KEY PLAN



LEGEND:

PR.	EX.	FEATURE
		EDGE OF PAVEMENT
		BACK OF CURB
		EDGE OF GRAVEL
		CENTRELINE OF ROAD
		DITCH
		SIDEWALK
		FENCE LINE
		RETAINING WALL
		LIGHT DUTY ASPHALT
		HEAVY DUTY ASPHALT
		GRASS/LANDSCAPED
		CONC. DRIVEWAY RAMP
		ASPH. DRIVEWAY RAMP
		INTERLOCK BRICK
		GAS MAIN
		OVERHEAD BELL
		UNDERGROUND BELL
		OVERHEAD HYDRO
		UNDERGROUND HYDRO
		WATERMAIN
		STORM SEWER
WS		SANITARY SEWER
SS		WATER SERVICE
		SANITARY SERVICE
		PROPERTY LINE
		RIGHT-OF-WAY

No.	REVISION	BY	DATE
1.	ISSUED FOR REVIEW	JL	YYYY-MM-DD

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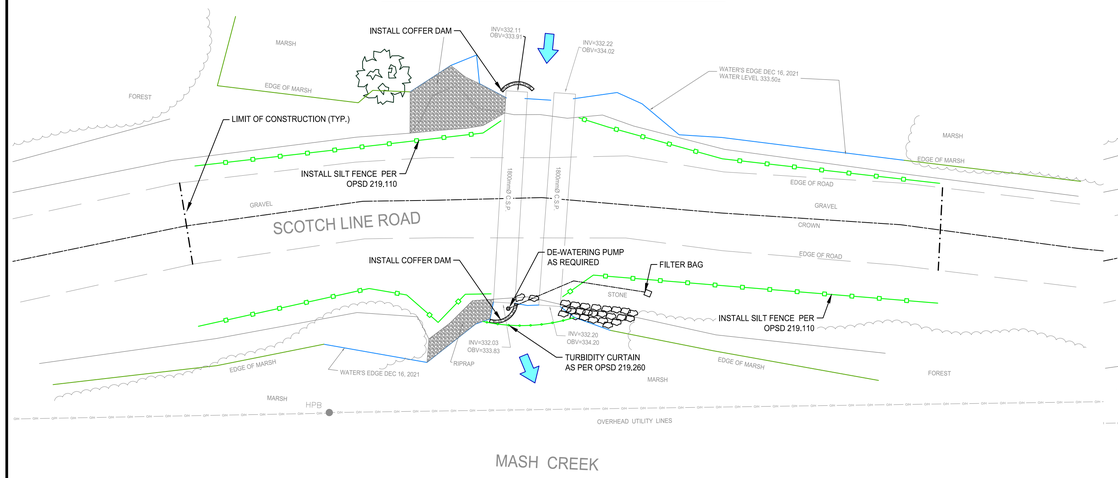
SCOTCH LINE RD CULVERT REPLACEMENTS

MASH CREEK PLAN & PROFILE

DRAWN BY: J.LATTA	STAMP:
DESIGNED BY: J.LATTA	
APPROVED BY: J.ARMSTRONG	
DATE: 2022-02-02	
SCALE: 1:250	
PROJECT NUMBER: 21100	FILE NAME: 21100 - PP1
SHEET: 1 of 3	

Date: May. 30, 2022 - 9:24 am Plotted by: Jaime Filename: S:\01 - Projects\21000\21100 - Mash Creek Culverts\02 Design\01 - Drawings\01 - Culvert Drawings\21100 - PP1.dwg

STAGE 1 - CONSTRUCTION PREPARATION



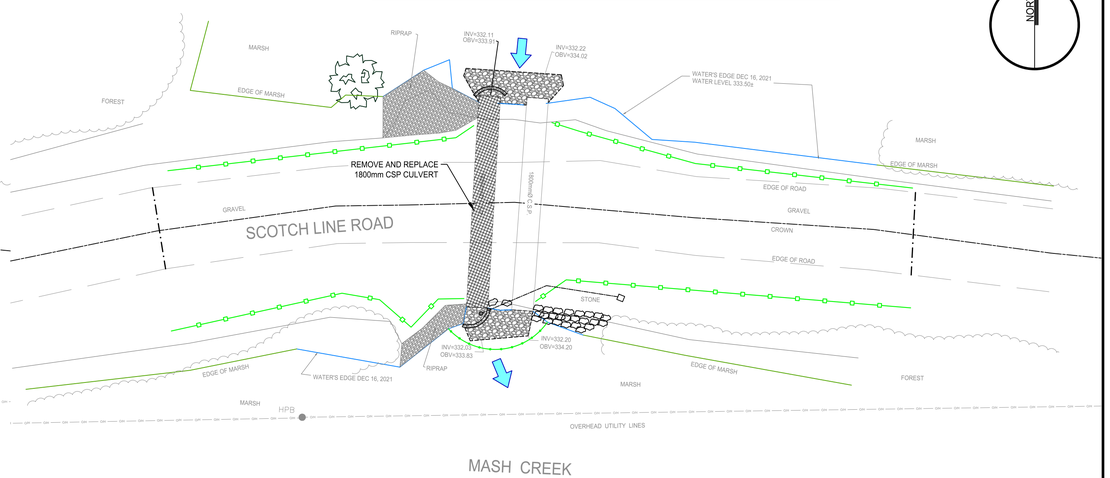
STAGE 1 - CONSTRUCTION PREPARATION

1. INSTALL TRAFFIC CONTROL DEVICES AND SIGNAGE AS PER TRAFFIC PLAN.
2. COORDINATE AND OBTAIN UTILITY LOCATES.
3. INSTALL SILT FENCE PER OPSD 219.110 AT SPECIFIED LOCATION.
4. INSTALL COFFER DAM AT UPSTREAM AND DOWNSTREAM SPECIFIED LOCATIONS. COFFER DAM SHALL CONSIST OF SAND BAGS OR PEA STONE FILLED BAGS. THE COFFER DAM SHALL BE WRAPPED IN POLYETHYLENE WRAP TO PREVENT SEEPAGE.
5. INSTALL TURBIDITY CURTAIN DOWNSTREAM OF CULVERT AND COFFER DAM AS PER OPSD 219.260 AT SPECIFIED LOCATION.
6. INSTALL DEWATERING PUMP(S) & FILTER BAG.

ENVIRONMENTAL PROTECTION NOTES:

1. EQUIPMENT SHALL BE KEPT OUT OF THE WATER DURING CONSTRUCTION.
2. EQUIPMENT SHALL BE KEPT CLEAN AND FREE OF LEAKS AND SHALL NOT BE CLEANED WITHIN 30m OF THE WATER COURSE.
3. NO EQUIPMENT REFUELING OR STORAGE OF FUELS WITHIN 30m OF THE WATER COURSE.
4. ENSURE THAT CONSTRUCTION DEBRIS IS NOT RELEASED INTO THE WATER COURSE.
5. ENSURE THAT APPROPRIATE RESPONSE IS TAKEN FOR SPILLS AND ANY INCIDENTS ARE PROPERLY DOCUMENTED AND REPORTED.
6. ANY AREA DISTURBED BY CONSTRUCTION SHALL BE RESORTED TO THE EXISTING CONDITION OR BETTER.
7. RECONSTRUCTION SHALL FOLLOW IMMEDIATELY AFTER CONSTRUCTION HAS COMPLETED USING NON-ERODIBLE MATERIAL.
8. ALL EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED TO ENSURE PROPER FUNCTION AND SHALL BE INSPECTED AFTER ALL STORM EVENTS AND REPAIRED/REPLACED IF NECESSARY. ANY MATERIAL REQUIRED TO REPAIR/REPLACE ALL EROSION AND SEDIMENT CONTROLS SHALL BE KEPT WITHIN CLOSE PROXIMITY TO THE WATER COURSE.

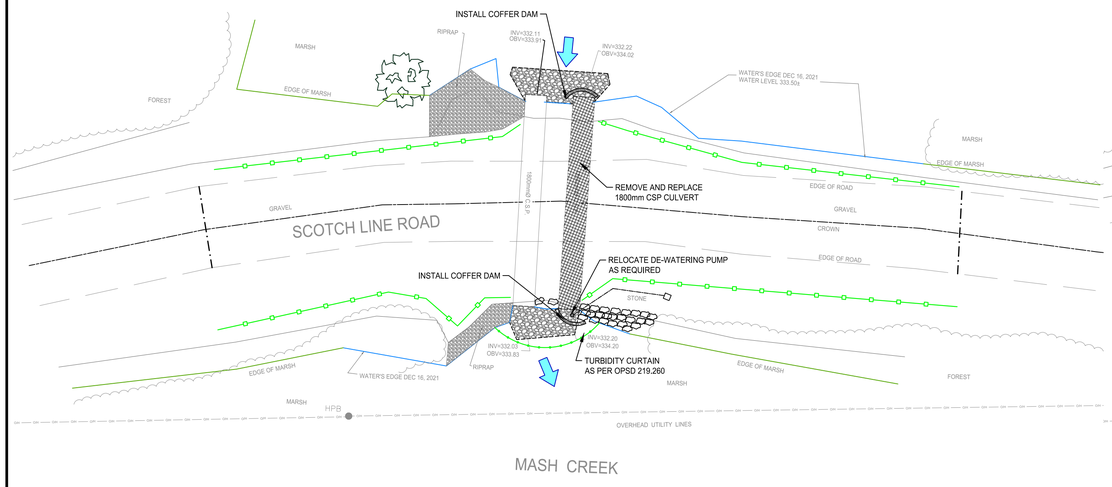
STAGE 2 - REMOVAL & INSTALLATION OF WEST CULVERT



STAGE 2 - REMOVALS/CONSTRUCTION - WEST CULVERT

1. MAINTAIN EROSION CONTROL MEASURES.
2. MAINTAIN ONE LANE OF THROUGH TRAFFIC AT ALL TIMES.
3. REMOVE EXISTING 1800mm Ø CSP CULVERT.
4. INSTALL PROPOSED 1800mm Ø CSP CULVERT..
5. INSTALL RIVERSTONE, RIP-RAP AND CLAY PLUG AT INLET.
6. REMOVAL ANY SEDIMENT FROM WEST CULVERT.
7. DIVERT FLOWS FROM EXISTING EAST CULVERT INTO NEW WEST CULVERT.

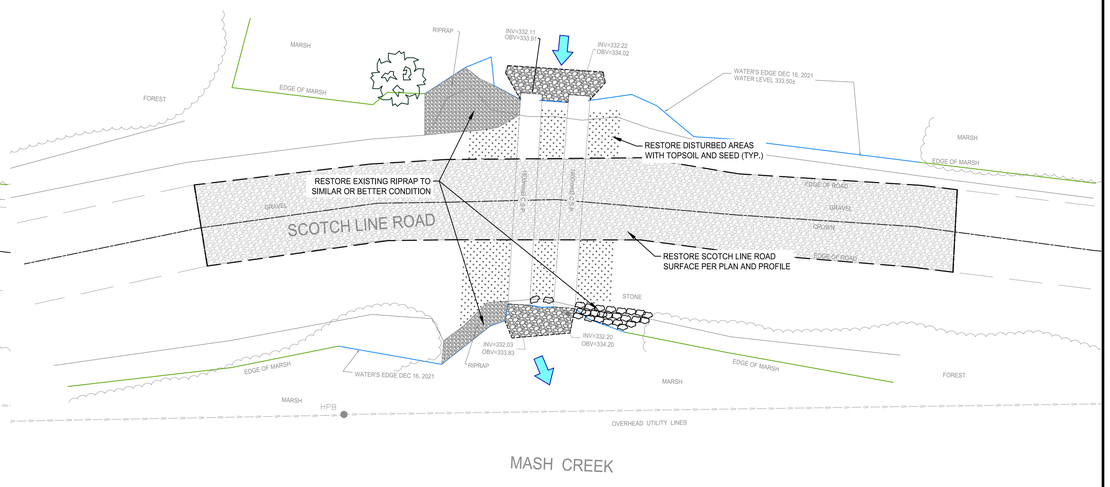
STAGE 3 - REMOVAL & INSTALLATION OF EAST CULVERT



STAGE 3 - REMOVALS/NEW CONSTRUCTION - EAST CULVERT

1. INSTALL COFFER DAM AT UPSTREAM AND DOWNSTREAM SPECIFIED LOCATIONS. COFFER DAM SHALL CONSIST OF SAND BAGS OR PEA STONE FILLED BAGS. THE COFFER DAM SHALL BE WRAPPED IN POLYETHYLENE WRAP TO PREVENT SEEPAGE.
2. MAINTAIN EROSION CONTROL MEASURES.
3. MAINTAIN ONE LANE OF THROUGH TRAFFIC AT ALL TIMES.
4. RE-LOCATE DEWATERING PUMPS & FILTER BAG
5. REMOVE EXISTING 1800mm Ø CSP CULVERT.
4. INSTALL PROPOSED 1800mm Ø CSP CULVERT..
5. INSTALL RIVERSTONE, RIP-RAP AND CLAY PLUG AT INLET.
6. REMOVAL ANY SEDIMENT FROM EAST CULVERT.

STAGE 4 - RESTORATION



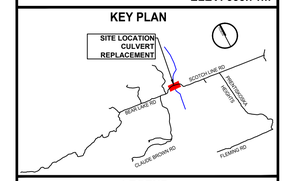
STAGE 4 - RESTORATION

1. REMOVE UPSTREAM COFFER DAM SLOWLY TO GRADUALLY REINTRODUCE FLOWS BACK INTO EAST CULVERT.
2. REMOVE TURBIDITY CURTAIN AND ANY SEDIMENT. REMOVE DOWNSTREAM COFFER DAM.
3. TOPSOIL AND SEED DISTURBED AREAS.
4. REMOVE SILT FENCE.
5. RE-GRADE SCOTCH LINE ROAD TO PROPOSED GRADES AND RESTORE SURFACE AND SHOULDER TO EXISTING OR BETTER CONDITION.
6. REMOVE TRAFFIC CONTROLS AND SIGNAGE.

BENCHMARK
BENCHMARK LOCATED AT THE NEAREST HYDRO POLE SOUTHEAST OF THE CULVERTS.

ELEV: 333.71m

KEY PLAN



LEGEND:

PR.	EX.	FEATURE
		EDGE OF PAVEMENT
		BACK OF CURB
		EDGE OF GRAVEL
		CENTRELINE OF ROAD
		DITCH
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		SANITARY SEWER
WS		WATER SERVICE
SS		SANITARY SERVICE
		PROPERTY LINE
		RIGHT-OF-WAY

No.	REVISION	BY	DATE
1.	ISSUED FOR REVIEW	JL	YYYY-MM-DD

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SCOTCH LINE RD CULVERT REPLACEMENTS

CONSTRUCTION STAGING & EROSION CONTROL PLAN

DRAWN BY: JLATTA	STAMP:
DESIGNED BY: JLATTA	
APPROVED BY: J.ARMSTRONG	
DATE: 2022-02-09	
SCALE: 1:250	

PROJECT NUMBER:	FILE NAME:	SHEET:
21100	21100 - ENS	2 of 3

Date: Jun. 01, 2022 - 4:42 pm Plotted by: jatta File name: S:\01 - Projects\21000\21100 - Mash Creek Culverts\2 Design\01 - Current Drawings\21100 - ENS.dwg

21100 - ENS
PROPOSED SITE GRADING & SERVICING PLAN

GENERAL:

1. ALL CONSTRUCTION AND MATERIALS TO BE IN ACCORDANCE WITH:

   -TOWNSHIP OF MINDEN HILLS DESIGN STANDARDS
   -ONTARIO PROVINCIAL STANDARD DRAWINGS & SPECIFICATIONS
   -APPLICABLE CONTRACT DOCUMENTS AND ALL SPECIFICATIONS REFERENCED HEREIN.

2. THE CONTRACTOR SHALL CONSTRUCT ALL WORK IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT, HEALTH AND SAFETY REGULATIONS FOR CONSTRUCTION PROJECTS.

3. THE CONTRACTOR SHALL RESTORE OR REPLACE DAMAGED SERVICES TO EXISTING OR BETER CONDITION.

4. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO EXISTING OR BETTER CONDITION, OR PER THE ENGINEERING AND LANDSCAPE SPECIFICIATIONS REFERENCED HEREIN.

5. THE CONTRACTOR SHALL COORDINATE AND PAY FOR ALL TRAFFIC CONTROL AND SAFETY MEASURES IN ACCORDANCE WITH THE ONTARIO TRAFFIC MANUAL, BOOK 7, TEMPORARY CONDITIONS.

6. THE CONTRACTOR SHALL DISPOSE OF ALL WASTE MATERIALS IN ACCORDANCE WITH THE MINISTRY OF THE ENVIRONMENT GUIDELINES AND LOCAL MUNICIPAL BYLAWS.

7. WHERE UTILITIES ARE SHOWN ON THE CONTRACT DRAWINGS, THEIR LOCATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

8. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS TO COMPLETE THE WORK INCLUDING ROAD CUT PERMITS, OCCUPANCY PERMITS, ENCROACHMENT AGREEMENTS.

9. ANY UTILITY POLES THAT MAY BE UNDERMINED BY THE CONSTRUCTION ACTIVITY ARE TO BE BRACED. THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS TO HAVE THE POLES BRACED IN ACCORDANCE WITH THE APPROPRIATE UTILITY REQUIREMENTS; THE COST FOR THIS WORK IS INCLUDED IN THE UNIT PRICES FOR THE WORK ITEMS AFFECTED.

10. ALL EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED ON THE CONTRACT DRAWINGS ARE TO BE IN PLACE PRIOR TO THE START OF CONSTRUCTION.

11. ACCESS TO ALL PRIVATE PROPERTIES FRONTING THE CONSTRUCTION SHALL BE MAINTAINED AT ALL TIMES. TEMPORARY ACCESS RESTRICTIONS WILL ONLY BE PERMITTED WHERE REQUIRED TO FACILITATE UNDERGROUND SERVICING, ASPHALT AND CONCRETE PLACEMENT. THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE TO THE COUNTY AND THE AFFECTED PROPERTY OWNERS PRIOR TO ACCESS INTERRUPTION.

12. ALL PROPERTY BARS DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT THE CONCLUSION OF THE CONTRACT, AT THEIR EXPENSE.

13. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.

14. EXISTING SIGNAGE WITHIN THE ROAD ALLOWANCE SHALL BE REMOVED AND SALVAGED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND REINSTALLED UPON COMPLETION. REGULATORY SIGNAGE SHALL REMAIN IN PLACE AT ALL TIMES.

SURVEY:

1. EXISTING UNDERGROUND SERVICES, UTILITIES, AND TOPOGRAPHIC INFORMATION IS BASED UPON:
   - AS-CONSTRUCTED INFORMATION PROVIDED BY THE TOWNSHIP OF MINDEN HILLS
   - TOPOGRAPHIC SURVEY PROVIDED BY THE TOWNSHIP OF MINDEN HILLS
   - PROPERTY FABRIC OBTAINED FROM THE TOWNSHIP OF MINDEN HILLS AND IS APPROXIMATE.

2. THE CONTRACTOR SHALL PROVIDE DETAILED LAYOUT FOR THE WORK INCLUDING CALCULATIONS OF LAYOUT DIMENSIONS AND ELEVATIONS.

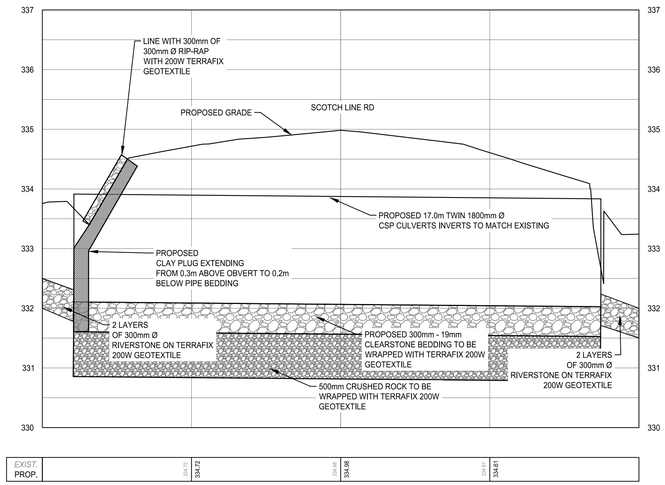
3. THE CONTRACTOR SHALL PROVIDE AUTOCAD AND ACCOMPANYING HARDCOPY OF THE AS CONSTRUCTED SERVICING, AND SITE GRADING. THE DRAWINGS SHALL CONVEY ALL UNDERGROUND SERVICING AND INFRASTRUCTURE BASED ON TOPOGRAPHIC SURVEY OF THE WORKS.

STORM SEWER:

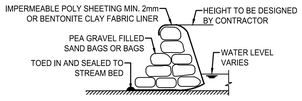
1. THE CONTRACTOR SHALL INSTALL BEDDING, BACKFILL AND COVER PER ONTARIO PROVINCIAL STANDARD DRAWING OPSD 802.010 FOR FLEXIBLE PIPE.

2. THE CONTRACTOR SHALL CLEAN AND FLUSH ALL STORM SEWERS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

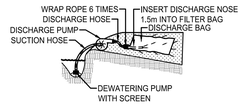
3. THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE TO THE TOWNSHIP PRIOR TO CONDUCTING CLEANING OF THE STORM SEWER.



1 CROSS SECTION 'A-A'
SCALE: N/A



2 COFFERDAM DETAIL
SCALE: N/A



3 PUMP & FILTERBAG DETAIL
SCALE: N/A

NORTH

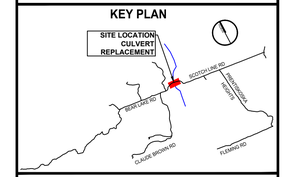
ENVIRONMENTAL PROTECTION NOTES:

1. EQUIPMENT SHALL BE KEPT OUT OF THE WATER DURING CONSTRUCTION.
2. EQUIPMENT SHALL BE KEPT CLEAN AND FREE OF LEAKS AND SHALL NOT BE CLEANED WITHIN 30m OF THE WATER COURSE.
3. NO EQUIPMENT REFUELING OR STORAGE OF FUELS WITHIN 30m OF THE WATER COURSE.
4. ENSURE THAT CONSTRUCTION DEBRIS IS NOT RELEASED INTO THE WATER COURSE.
5. CHANNEL FLOW THROUGH THE WORK AREA IS TO BE MAINTAINED AT ALL TIMES.
6. ENSURE THAT APPROPRIATE RESPONSE IS TAKEN FOR SPILLS AND ANY INCIDENTS ARE PROPERLY DOCUMENTED AND REPORTED.
7. ANY AREA DISTURBED BY CONSTRUCTION SHALL BE RESORTED TO THE EXISTING CONDITION OR BETTER.
8. RECONSTRUCTION SHALL FOLLOW IMMEDIATELY AFTER CONSTRUCTION HAS COMPLETED USING NON-ERODIBLE MATERIAL.
9. ALL EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED TO ENSURE PROPER FUNCTION AND SHALL BE INSPECTED AFTER ALL STORM EVENTS AND REPAIRED/REPLACED IF NECESSARY. ANY MATERIAL REQUIRED TO REPAIR/REPLACE ALL EROSION AND SEDIMENT CONTROLS SHALL BE KEPT WITHIN CLOSE PROXIMITY TO THE WATER COURSE.
10. THE CONTRACTOR SHALL MONITOR THE WEATHER SEVERAL DAYS IN ADVANCE OF THE ONSET OF THE PROJECT TO ENSURE THAT THE WORKS WILL BE CONDUCTED DURING FAVOURABLE WEATHER CONDITIONS. SHOULD AN UNEXPECTED STORM ARISE, THE CONTRACTOR WILL REMOVE ALL UNFIXED ITEMS FROM THE CHANNEL THAT WOULD HAVE THE POTENTIAL TO CAUSE A SPILL OR AN OBSTRUCTION TO FLOW, E.G., FUEL TANKS, PORTAPOTTIES, MACHINERY, EQUIPMENT, CONSTRUCTION MATERIALS, ETC.
11. CONSTRUCTION NEEDS TO TAKE PLACE OUTSIDE OF MARCH 15-JULY 15 TO RESPECT ENVIRONMENTAL AND FISH TIMING WINDOWS.

BENCHMARK
BENCHMARK LOCATED AT THE NEAREST HYDRO POLE SOUTHEAST OF THE CULVERTS.

ELEV: 333.71m

KEY PLAN



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1.	ISSUED FOR REVIEW	JL	YYYY-MM-DD

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SCOTCH LINE RD CULVERT REPLACEMENTS

DETAILS & GENERAL NOTES

DRAWN BY:	J.LATTA
DESIGNED BY:	J.LATTA
APPROVED BY:	J.ARMSTRONG
DATE:	2022-02-02
SCALE:	1:250
STAMP:	

PROJECT NUMBER:	FILE NAME:	SHEET:
21100	21100 - DT	3 of 3

Date: May. 30, 2022 - 9:34 am Plotted by: jlatta Filename: S:\01 - Projects\2020\21100 - Main Creek Culverts\02 Design\01 - Drawings\01 - Current Drawings\21100 - DT.dwg