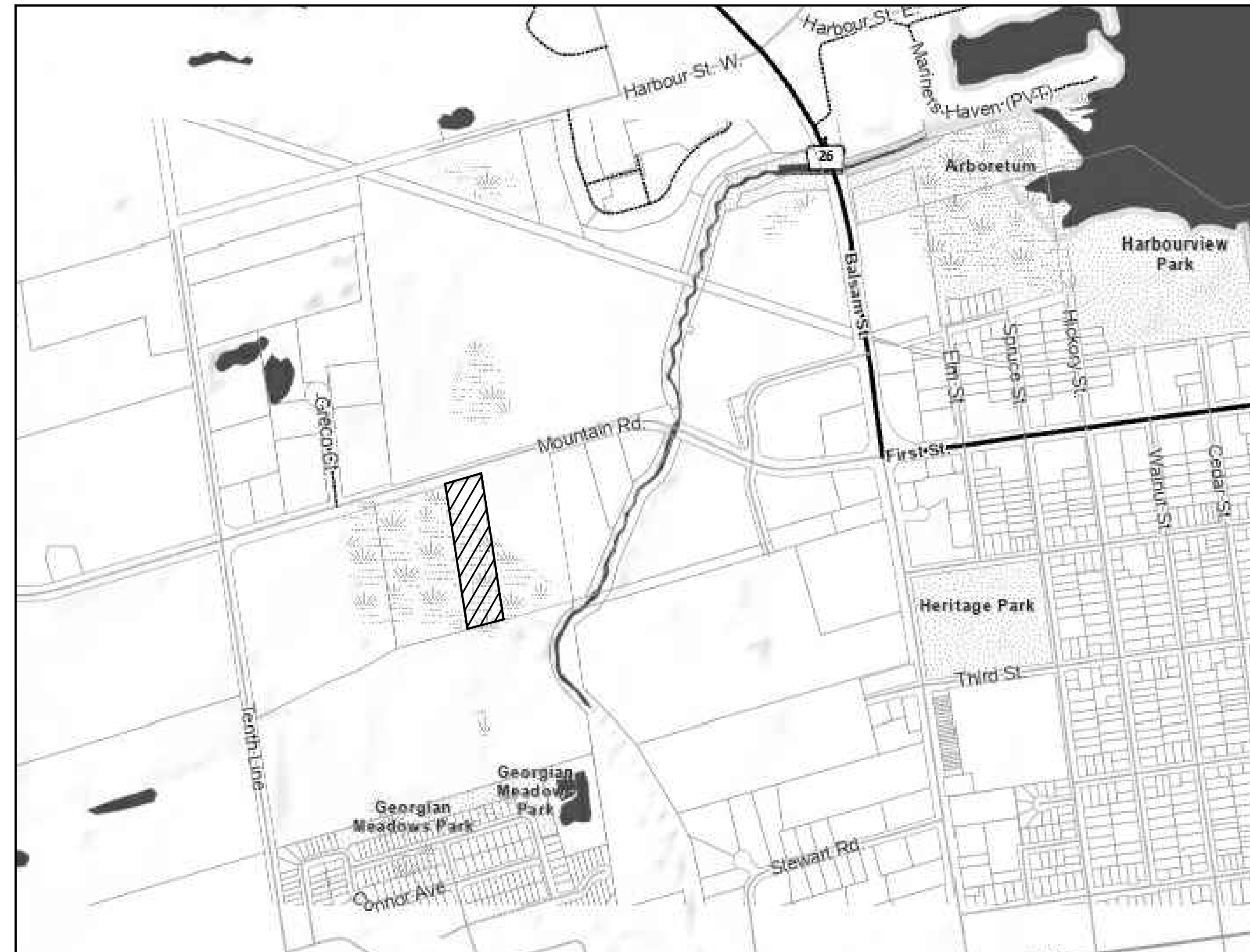


140 MOUNTAIN ROAD TOWN OF COLLINGWOOD



KEY PLAN

ACCEPTED FOR
CONSTRUCTION
TOWN OF COLLINGWOOD
PER _____
DATE: _____

INDEX

DWG. DESCRIPTION

TP-1	TITLE PAGE
IN-1	DRAWING INDEX AND LEGEND
SC-1	SILTATION AND EROSION CONTROL PLAN
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SS-1	SITE SERVICING PLAN
SG-1	SITE GRADING AND STORMWATER MANAGEMENT PLAN
DE-1	DETAILS AND NOTES

LEGEND

PROPERTY LINE	
EXISTING EDGE OF ASPHALT	
EXISTING/FUTURE EDGE OF GRAVEL	
PROPOSED EDGE OF GRAVEL	
EXISTING DITCH/DIRECTION OF FLOW	
PROPOSED DITCH/DIRECTION OF FLOW	
EXISTING SANITARY SEWER/SIZE/DIRECTION OF FLOW	
PROPOSED SANITARY SEWER/SIZE/DIRECTION OF FLOW	
EXISTING WATERMAIN/SIZE	
PROPOSED WATERMAIN/SIZE	
EXISTING WATER SERVICE	
EXISTING STORM SEWER/SIZE/DIRECTION OF FLOW	
PROPOSED STORM SEWER/SIZE/DIRECTION OF FLOW	
EXISTING CULVERT	
PROPOSED CULVERT	
PROPOSED SWALE LOCATION	
EXISTING FENCELINE	
EXISTING TREELINE	
EXISTING CONTOUR	
EXISTING GROUND ELEVATION	
PROPOSED GROUND ELEVATION	
EXISTING GRADING DIRECTION	
PROPOSED DRAINAGE DIRECTION	
PROPOSED FLOW DIRECTION	
EXISTING/FUTURE FLOW DIRECTION	
PROPOSED SWALE LOCATION	
EXISTING TEMPORARY BENCHMARK	
EXISTING STANDARD IRON BAR	
EXISTING BOREHOLE/NUMBER	
EXISTING/PROPOSED HYDRO TRANSFORMER & CONCRETE VAULT	

EXISTING/PROPOSED CABLE PEDESTAL	
CABLE - CABINET/VAULT/VARIOUS MODELS	
EXISTING/PROPOSED BELL PEDESTAL	
EXISTING HYDRO POLE	
EXISTING HYDRO GUY WIRE	
EXISTING/PROPOSED LIGHT STANDARD	
EXISTING/PROPOSED TRAFFIC SIGN	
PROPOSED STOP SIGN	
PROPOSED STREET NAME SIGN	
EXISTING DECIDUOUS TREE	
EXISTING CONIFEROUS TREE	
EXISTING DECIDUOUS / CONIFEROUS TREE TO BE REMOVED	
EXISTING SANITARY MAINTENANCE HOLE/NUMBER	
PROPOSED WATER VALVE	
EXISTING STORM MAINTENANCE HOLE	
PROPOSED RIP-RAP	
PROPOSED STRAW BALE FLOW CHECK DAM	
PROPOSED HEAVY DUTY SILT FENCE	
PROPOSED ACCESS DOOR	
PROPOSED RETAINING WALL (BY OTHERS)	

ACCEPTED FOR
CONSTRUCTION
TOWN OF COLLINGWOOD

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DISCLAIMER AND COPYRIGHT CONTRACTOR MUST VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME. ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER BEFORE COMMENCING WORK. DRAWINGS ARE NOT TO BE SCALED. TATHAM ENGINEERING LIMITED CLAIMS COPYRIGHT TO THIS DRAWING WHICH MAY NOT BE USED FOR ANY PURPOSE OTHER THAN THAT PROVIDED IN THE CONTRACT BETWEEN THE OWNER/CLIENT AND THE ENGINEER WITHOUT THE EXPRESS CONSENT OF TATHAM ENGINEERING LIMITED.	BENCHMARKS TBM2 – ELEVATION 189.765 NAIL & WASHER ON NORTH FACE OF HYDRO POLE LOCATED ON NORTH SIDE OF MOUNTAIN ROAD JUST WEST OF EXISTING ACCESS TO SITE.	NOTES LEGAL INFORMATION SHOWN FROM REGISTERED PLAN 51R-41847 BY ZUBEK, EMO, PATTEN & THOMSEN LIMITED, DATED NOVEMBER 16, 2018 AND SIGNED BY PAUL R. THOMSEN.	No.	REVISION DESCRIPTION	DATE	ENGINEER STAMP 	140 MOUNTAIN ROAD TOWN OF COLLINGWOOD	 DRAWING INDEX AND LEGEND		
			2.	SECOND SUBMISSION	AUG XX/23					
			3.	THIRD SUBMISSION	JAN 26/24					
			4.	FOURTH SUBMISSION	APR 4/24					
			5.	SUBMISSION 4A	APR 23/24					
			6.	TOWN COMMENTS	SEP 4/24					
									DESIGN: MR/KRL	FILE: 121036
						DRAWN: MR/KRL	DATE: JUN 2022			
						CHECK: KRS	SCALE: NTS			

SILTATION & EROSION CONTROL:

- A. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED. SEDIMENT AND EROSION CONTROL MEASURES THAT ARE DESIGNED TO CONTROL RUNOFF FROM SPECIFIC AREAS MUST BE INSTALLED PRIOR TO ANY DISTURBANCE OF THAT PART OF THE SITE. THE LOCATION OF ALL SILTATION AND EROSION CONTROL WORKS TO BE REVIEWED ON SITE AND MAY BE REVISED AS DIRECTED BY THE ENGINEER.
- B. THE CONTRACTOR SHALL HAVE MATERIALS AVAILABLE ON-SITE TO REPAIR SEDIMENT AND EROSION CONTROL MEASURES IN THE EVENT OF UNFORESEEN CONDITIONS: HIGH WATER, EXTREME RAINFALL EVENTS, ETC.
- C. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSPECTED, CLEANED AND MAINTAINED BY THE CONTRACTOR AFTER EACH STORM EVENT. ALL WORKS WILL BE INSPECTED BY THE ENGINEER BI-WEEKLY AND AFTER EACH MAJOR STORM EVENT.
- D. CONSTRUCTION OF ALL SILTATION AND EROSION CONTROL WORKS ARE TO BE IN ACCORDANCE WITH THE FOLLOWING STEPS:
1. INSTALL STONE MUD MAT AS PER DETAIL.
 2. INSTALL SILT FENCE AS PER NOTTAWASAGA VALLEY CONSERVATION AUTHORITY DRAWING BSD-23 DRAFT.
 3. INSTALL INTERCEPTOR SWALE ALONG PROPERTY LINE COMPLETED WITH STRAW BALE FLOW CHECKS (OPSD 219.180) AND SEDIMENT TRAP AT OUTLET (OPSD 219.220).
 4. INSTALL TEMPORARY CATCH BASIN SEDIMENT TRAPS ON ALL NEW CATCH BASIN STRUCTURES. SEDIMENT TRAPS TO BE RECTANGULAR CBST BY LAYFIED OR APPROVED EQUAL. ALL CATCH BASINS TO REMAIN SCREENED UNTIL BASE COURSE ASPHALT IS PLACED AND ALL GRADING IS COMPLETE.
- E. ALL CONSTRUCTION VEHICLES TO ACCESS SITE USING THE DESIGNATED CONSTRUCTION ENTRANCE.
- F. EROSION AND SEDIMENT CONTROL MEASURES TO BE REMOVED BY THE CONTRACTOR ONCE GROUND COVER IS ESTABLISHED AND LANDSCAPING IS COMPLETE AND AS APPROVED BY THE ENGINEER.
- G. STOCKPILE LOCATIONS ARE TO BE APPROVED BY THE ENGINEER.
- H. PROVIDE SNOW FENCE OR APPROVED EQUAL ACROSS ALL CONSTRUCTION ENTRANCES DURING PERIODS OF INACTIVITY.
- I. CONSTRUCTION AREAS THAT EXCEED 30 DAYS OF INACTIVITY SHALL BE STABILIZED BY SEEDING IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL GUIDELINE FOR URBAN CONSTRUCTION AND/OR AS DIRECTED BY THE TOWNSHIP. THIS IS TO INCLUDE STOCKPILES OF FILL AND TOPSOIL.
- J. INSTALL THE PROTECTIVE/SILT FENCE BARRIER AT OR OUTSIDE THE DRIPLINE OF PROTECTED TREES, WHICH IS DEFINED AS THE CIRCLE THAT COULD BE DRAWN ON THE SOIL AROUND A TREE DIRECTLY UNDER THE TIPS OF ITS OUTERMOST AND WIDEST BRANCHES.
- K. OBTAIN TOWN APPROVAL OF THE FENCE LAYOUT PRIOR TO COMMENCING REMOVALS WORK.
- L. NO CONSTRUCTION ACTIVITY, INCLUDING GRADE CHANGES, EXCAVATIONS, ROOT CUTTING, STORAGE OF MATERIALS OR FILL, MOVEMENT/STORAGE OF VEHICLES, OR SURFACE TREATMENTS OF ANY KIND ARE PERMITTED WITHIN TREE PROTECTION AREA.
- M. PROTECT VEGETATION AND ROOT SYSTEMS FROM DAMAGE, COMPACTION, AND CONTAMINATION RESULTING FROM CONSTRUCTION AND KEEP FREE OF CONSTRUCTION MATERIAL AND DEBRIS.
- N. CLEANLY CUT ALL ROOTS OUTSIDE TREE PROTECTION AREAS THAT BECOME EXPOSED DURING CONSTRUCTION.
- O. PROTECTIVE FENCE BARRIERS MUST REMAIN IN EFFECTIVE CONDITION UNTIL ALL SITE ACTIVITIES, INCLUDING LANDSCAPING, ARE COMPLETED.
- P. SEE TREE PRESERVATION PLAN (DRAWING TP-1) FOR ADDITIONAL LAYOUT AND MITIGATION MEASURES WHERE THE SILT FENCE IS ADJACENT TO TREE PROTECTION AREAS.

STONE SIZE
THE STONE PAD SHALL BE A MIN. 450 mm THICK. USE 50# mm STONE OR RECLAIMED CONCRETE EQUIVALENT FOR FIRST 15 m FROM ADJACENT ROAD & 150 mm# STONE FOR REMAINDER OF STONE PAD.

LENGTH
AS REQUIRED BUT NOT LESS THAN 30 m.

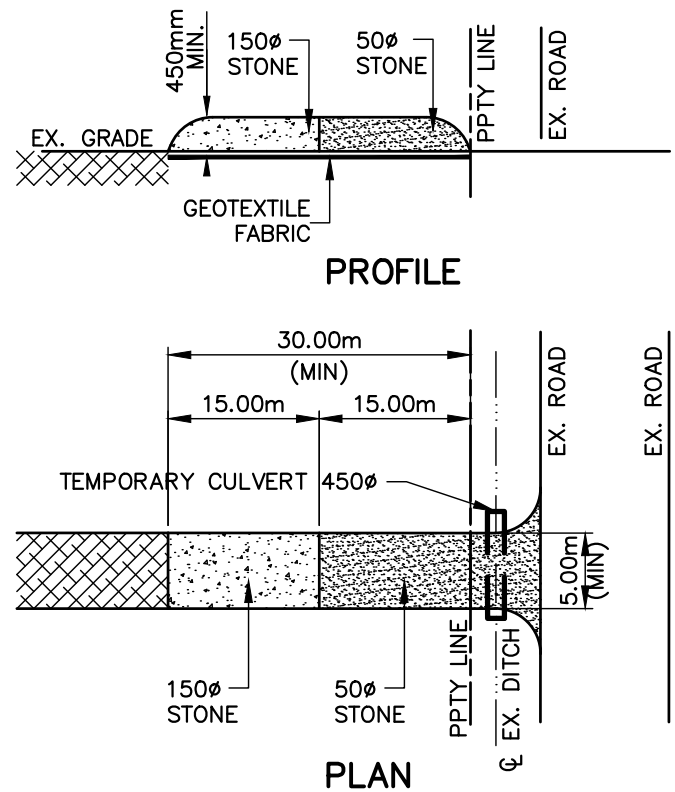
WIDTH
5 m MIN. BUT NOT LESS THAN THE WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCURS.

GEOTEXTILE FABRIC
TERRAFIX 270R OR EQUAL TO BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.

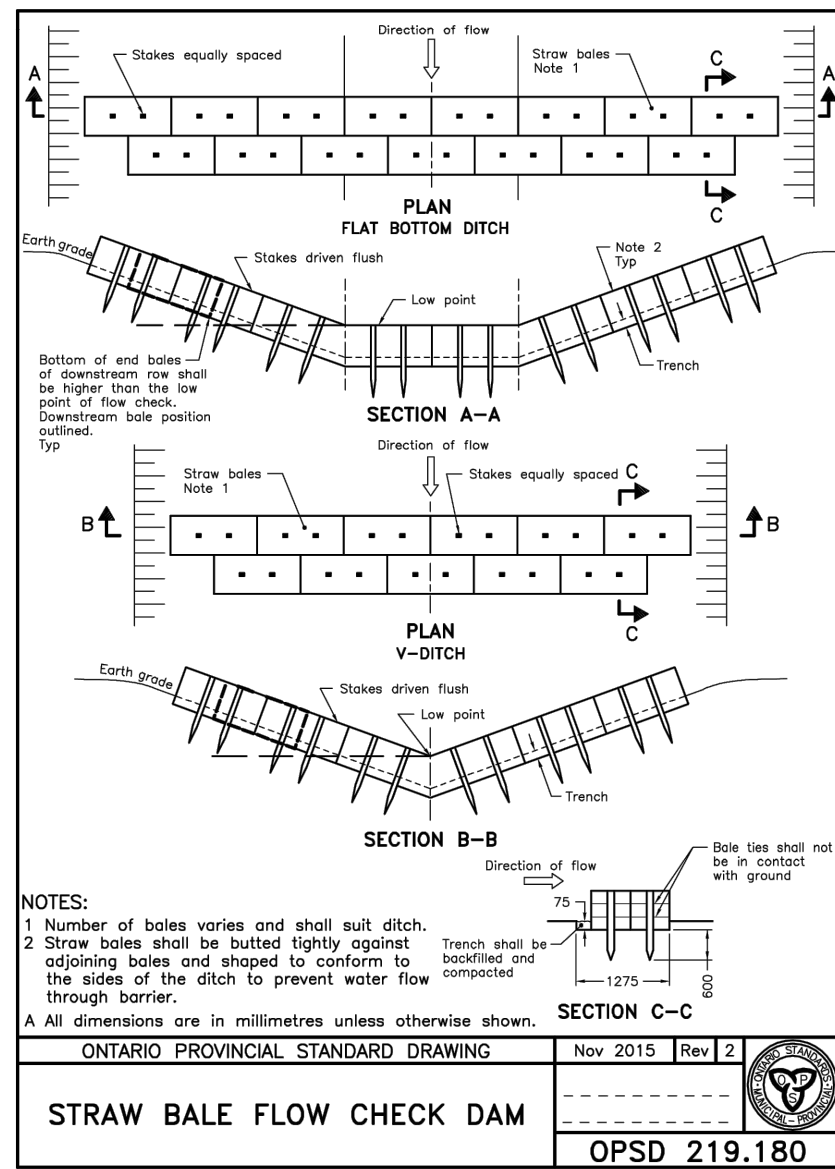
SURFACE WATER
ALL SURFACE WATER FLOWING OR DIRECTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE.

MAINTENANCE
THE CONTRACTOR SHALL MAINTAIN THE ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR. UPON OBSERVATION OF CONTINUOUS MUD TRACKING ONTO ADJACENT STREETS, THE STONE MAT IS TO BE FULLY REPLACED. INSPECTION AND REQUIRED MAINTENANCE AFTER EACH RAIN EVENT SHALL BE PROVIDED BY THE CONTRACTOR.

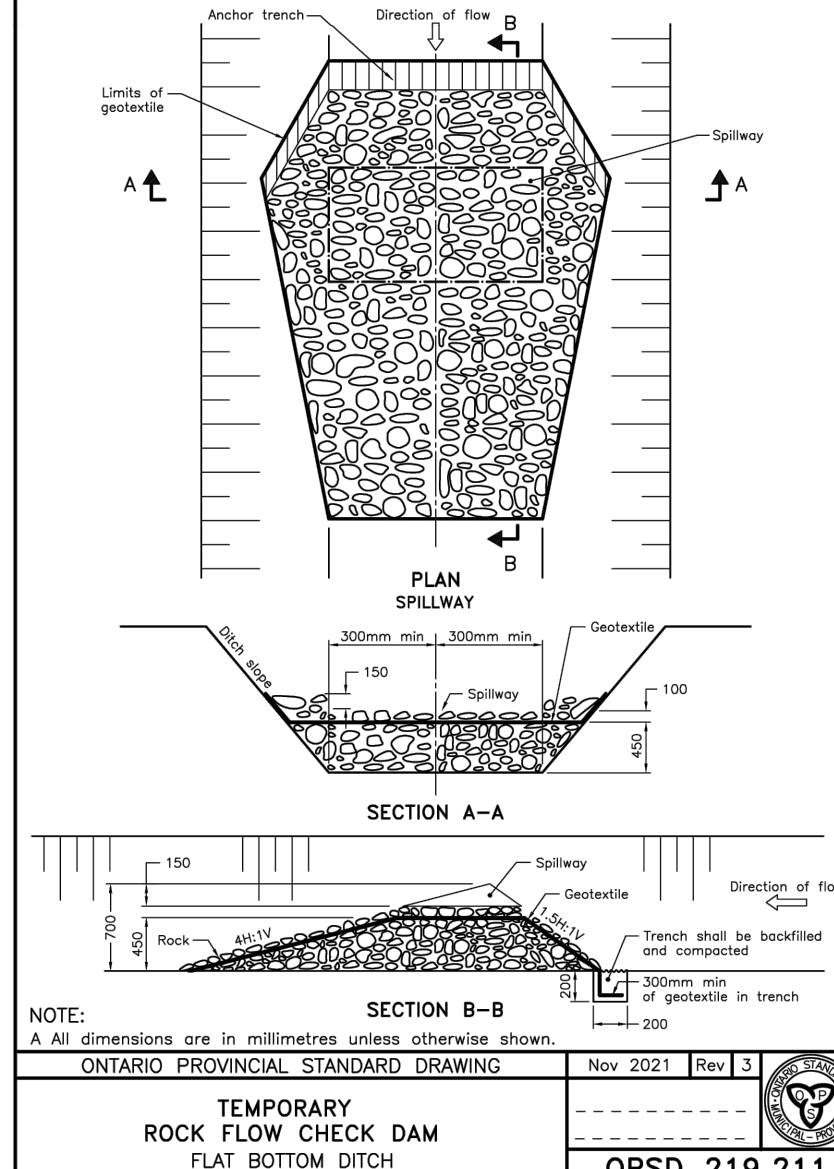
WASHING
WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.



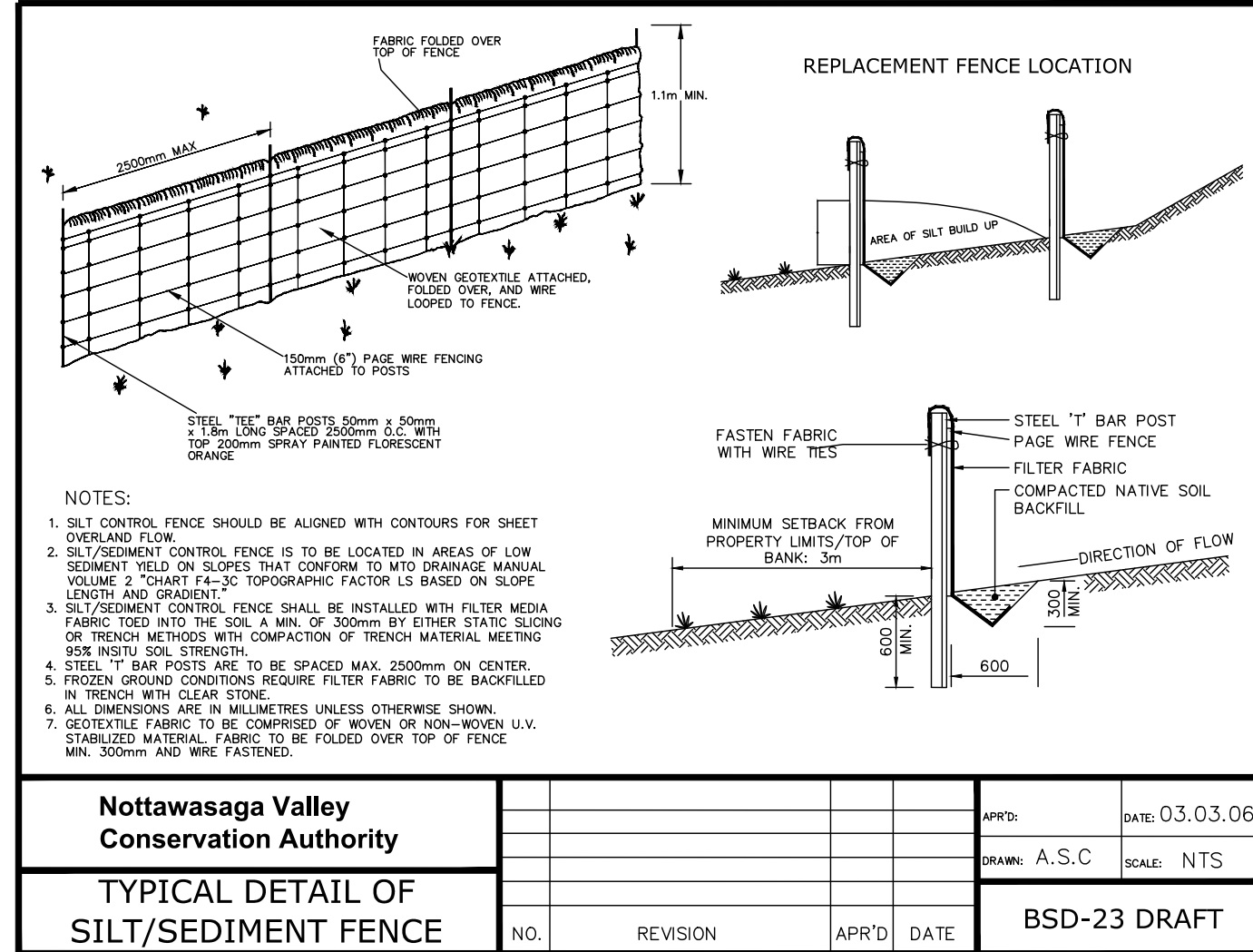
1 SC-1
STONE MUD MAT DETAIL
N.T.S.



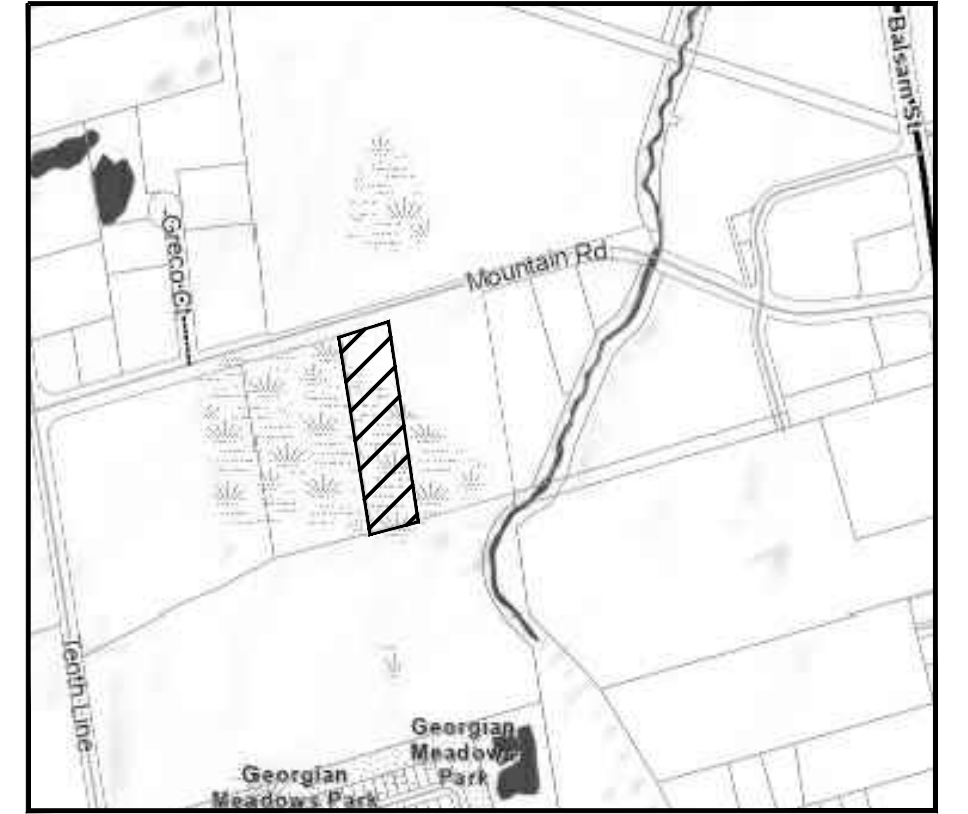
STRAW BALE FLOW CHECK DAM
OPSD 219.180



TEMPORARY ROCK FLOW CHECK DAM
FLAT BOTTOM DITCH
OPSD 219.211



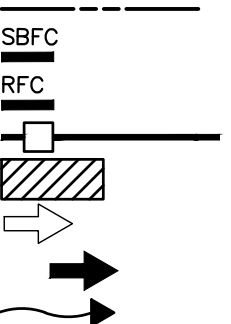
Nottawasaga Valley Conservation Authority
TYPICAL DETAIL OF SILT/SEDIMENT FENCE
NO. REVISION APR'D DATE
APR'D DATE: 03.03.06
DRAWN: A.S.C SCALE: NTS
BSD-23 DRAFT



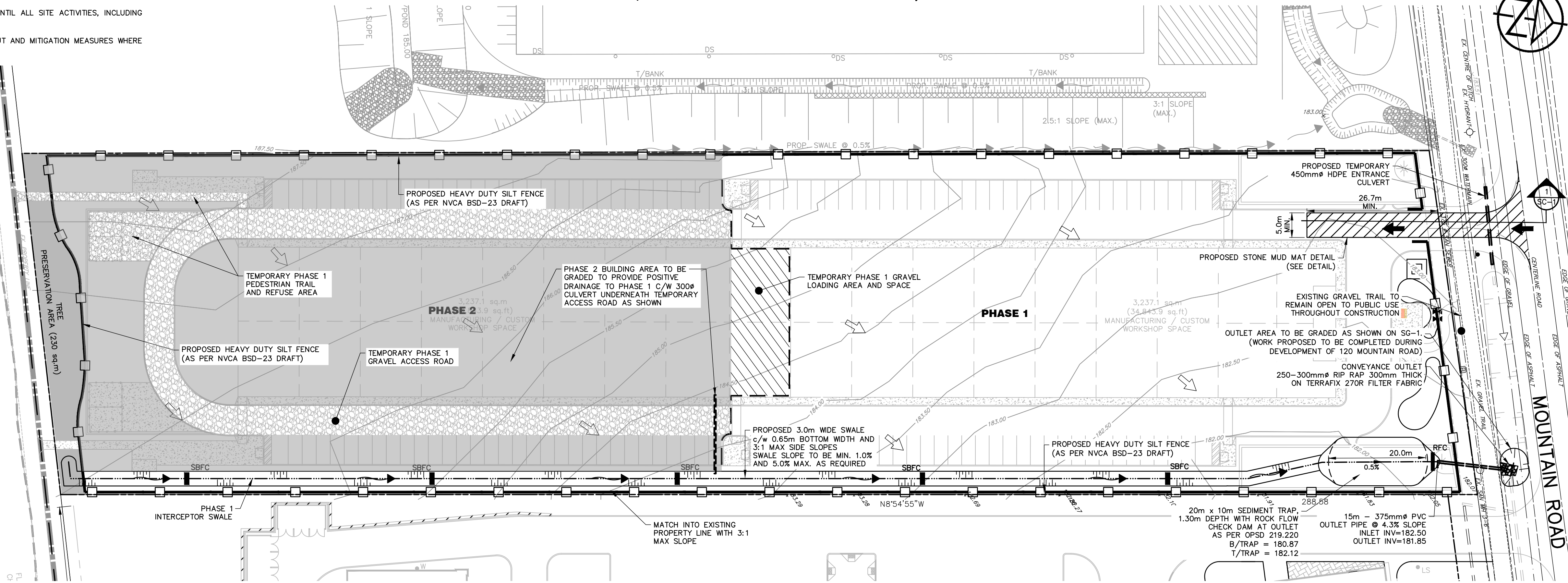
KEY PLAN

LEGEND

- SUBJECT PROPERTY BOUNDARY
PROPOSED STRAW BALE FLOW CHECK
PROPOSED ROCK FLOW CHECK
PROPOSED SILT FENCE CONSTRUCTION
PROPOSED MUD MAT
EXISTING OVERLAND FLOW ROUTE
PROPOSED CONSTRUCTION ACCESS
PROPOSED SWALE FLOW DIRECTION



180 MOUNTAIN ROAD (CONSTRUCTION IN PROGRESS)



120 MOUNTAIN ROAD (APPROVED)

ACCEPTED FOR
CONSTRUCTION
TOWN OF COLLINGWOOD
PER _____
DATE: _____

DISCLAIMER AND COPYRIGHT

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BENCHMARKS

BM2 - ELEVATION 189.765
NAIL & WASHER ON NORTH FACE OF HYDRO POLE LOCATED ON NORTH SIDE OF MOUNTAIN ROAD JUST WEST OF EXISTING ACCESS TO SITE.

NOTES

LEGAL INFORMATION SHOWN FROM REGISTERED PLAN 51R-41847 BY ZUBEK, EMO, PATTEN & THOMSEN LIMITED, DATED NOVEMBER 16, 2018 AND SIGNED BY PAUL R. THOMSEN.

No.	REVISION DESCRIPTION	DATE	ENGINEER STAMP
2.	SECOND SUBMISSION	AUG 2023	
3.	THIRD SUBMISSION	JAN 26/24	
4.	FOURTH SUBMISSION	APR 4/24	
5.	SUBMISSION 4A	APR 23/24	
6.	TOWN COMMENTS	SEP 4/24	

140 MOUNTAIN ROAD
TOWN OF COLLINGWOOD

SILT AND EROSION
CONTROL PLAN



DESIGN: MR/KRL	FILE: 121036	DWG: SC-1
DRAWN: MR/KRL	DATE: JUN 2022	
CHECK: KRS	SCALE: 1:500	

SITE STATISTICS

MUNICIPAL ADDRESS: 140 MOUNTAIN ROAD
ZONING PROVISIONS (ZONE M5 - INDUSTRIAL)

	REQUIRED	PROVIDED (PHASE 1)	PROVIDED (PHASE 2)
MINIMUM LOT AREA	2,000 m²	20,169m²	-----
MINIMUM LOT FRONTAGE	30.0m	59.8m	-----
MINIMUM FRONT YARD	12.0m	22.1m	-----
MINIMUM REAR YARD	7.5m	151.0m	38.2m
MINIMUM INTERIOR SIDE YARD	6.0m	19.2m	-----
MINIMUM EXTERIOR SIDE YARD	12.0m	N/A	-----
MAXIMUM BUILDING HEIGHT	15.0m	12.67m	-----
GROSS FLOOR AREA		4,210m²	8,436.9m²
ESTIMATED WAREHOUSE/MANUFACTURING AREA		3,478m²	3,346m²
ESTIMATED OFFICE SPACE		937.35m²	1,874.7m²
MAXIMUM LOT COVERAGE	50%	16.7%	32.6%
LANDSCAPED AREA		16.6%	33.2%

PARKING SPACE REQUIREMENTS AS PER TOWN OF COLLINGWOOD ZONING BY-LAW
CALCULATIONS INCLUDE MAIN FLOOR AREA AND MEZZANINE AREA, GFA (EXCLUDING WASHROOMS AND MECHANICAL ROOMS) = 8,436.9 m²
ESTIMATED WAREHOUSE/MANUFACTURING AREA: 8,474.2 m² = 65 SPACES (1 SPACE PER 100 m² GFA)
ESTIMATED OFFICE / OTHER USES AREA: 1,874.7 m² = 56 SPACES (3 SPACES PER 100 m² GFA)
REQUIRED = 121 SPACES (2.8m x 6.0m MIN.)
PHASE 1 = 60
PHASE 2 = 61

BARRIER FREE SPACES (2% OF TOTAL PARKING):
REQUIRED: 6 SPACE PER 25 PARKING SPACES
PROVIDED: 4 TYPE A (3.4m x 6.0m C/W 1.5m SHARED AISLE) + 2 TYPE B (2.4M X 6.0M C/W 1.5M SHARED AISLE) = 6 TOTAL
PHASE 1 = 4 (2 TYPE A & 2 TYPE B)
PHASE 2 = 2 TYPE A
TOTAL = 6

TOTAL PARKING SPACES:
PHASE 1 = 62
PHASE 2 = 62
124 + 6 BARRIER FREE = 130 TOTAL (9 EXTRA FOR SNOW STORAGE)

BICYCLE PARKING REQUIRED: 18 SPACES (13.9% OF TOTAL PARKING SPACES)

BICYCLE PARKING PROVIDED: 30 SPACES

PHASE 1 = 10

PHASE 2 = 20

LOADING SPACES:

REQUIRED: 2 (2 SPACES BETWEEN 7,000m² - 10,000m² GFA)

PROVIDED: 2 (3.5m x 20.0m w/4.5m VERTICAL CLEARANCE)

TREE CLEARING:

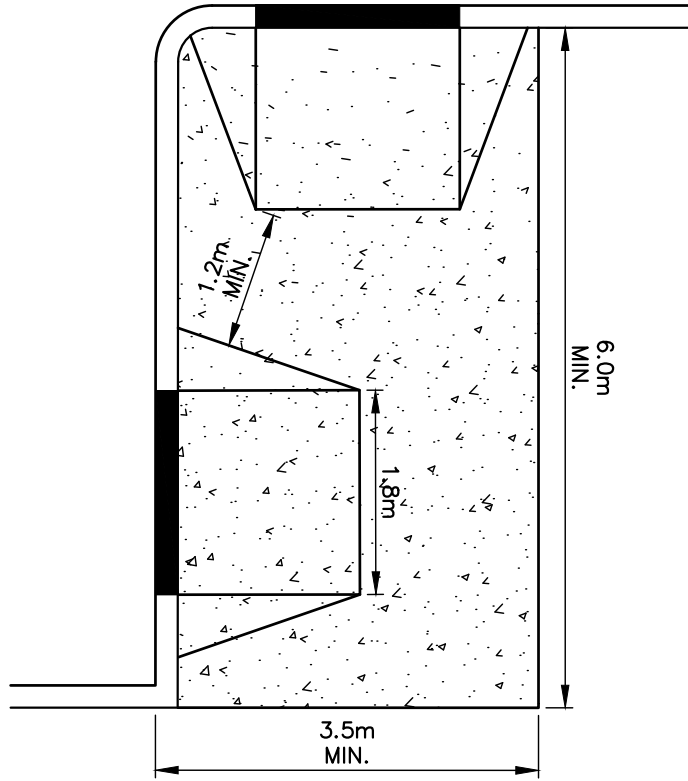
TOTAL AREA TO BE CLEARED = 19,419 m²

TREE PRESERVATION AREA REMAINING: 414 m²

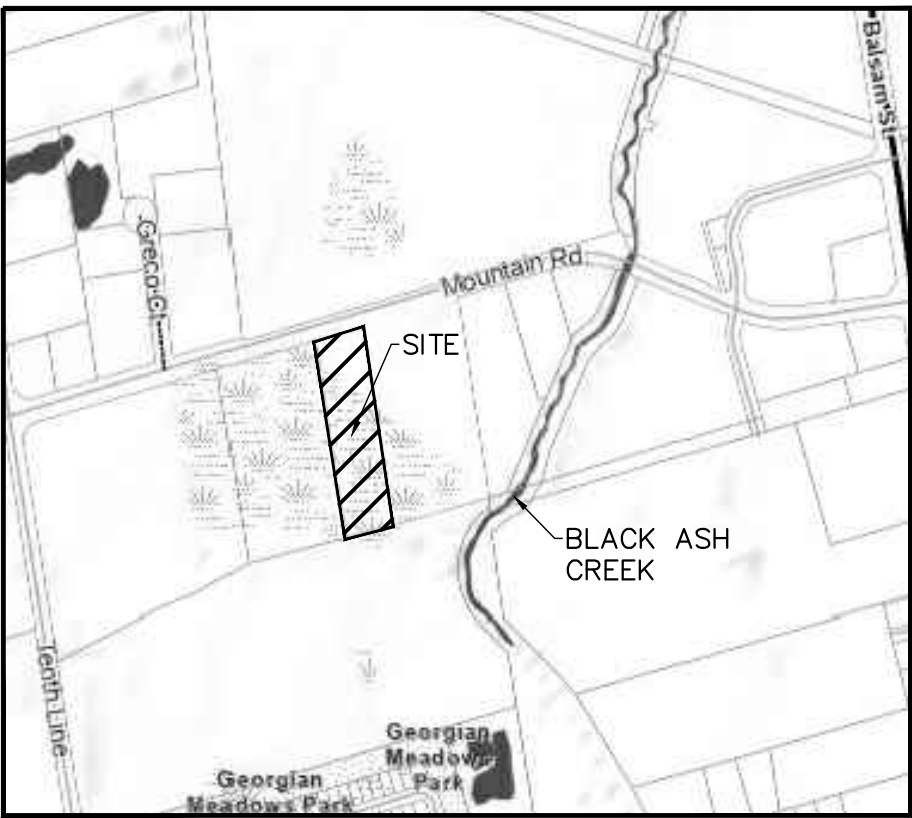
WETLAND MITIGATION STATISTICS

AREA OF LOSS = 1,542m²

AREA OF GAIN = (AREA OF LOSS x 2) + 30m BUFFER AREA = 3,084m² + 3,837m² = 6,921m² * \$120,000/ha = \$83,052

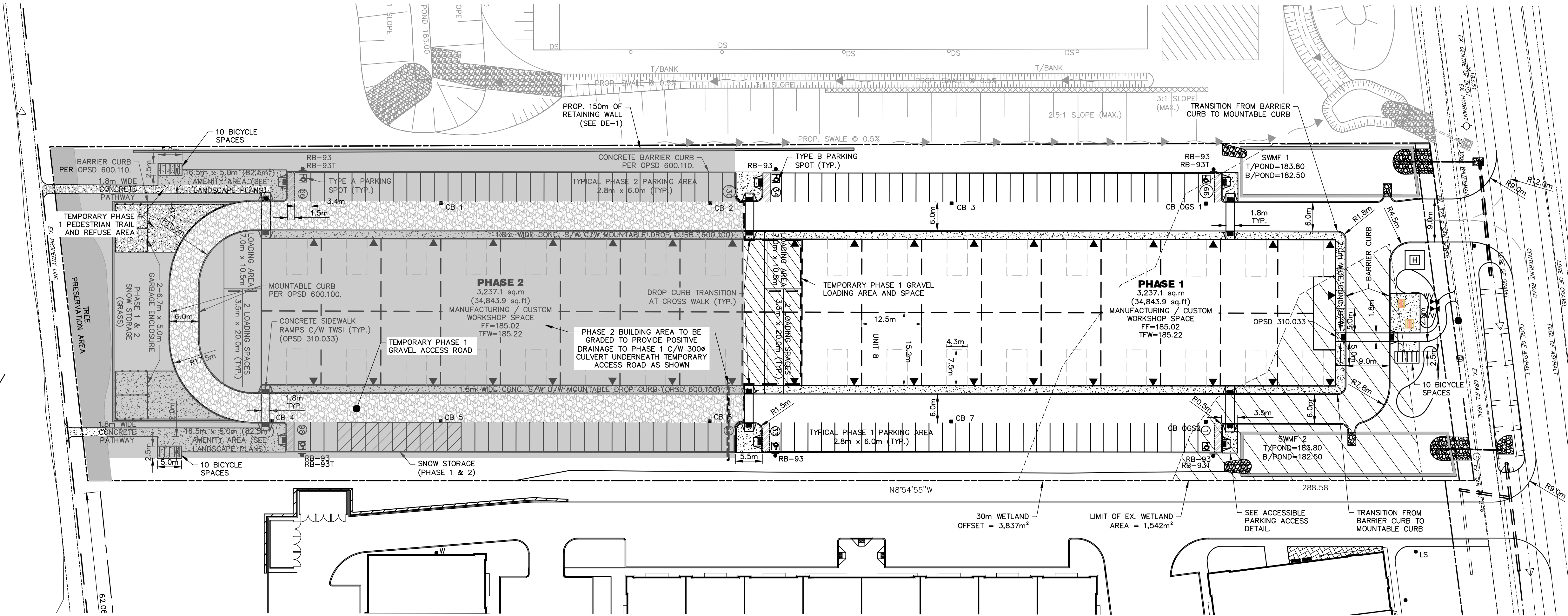


ACCESSIBLE PARKING ACCESS
NTS



KEY PLAN

180 MOUNTAIN ROAD (CONSTRUCTION IN PROGRESS.)



120 MOUNTAIN ROAD (APPROVED.)

ACCEPTED FOR
CONSTRUCTION
TOWN OF COLLINGWOOD

PER _____
DATE: _____

DISCLAIMER AND COPYRIGHT

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BENCHMARKS

BM2 - ELEVATION 189.765
NAIL & WASHER ON NORTH FACE OF HYDRO POLE LOCATED ON NORTH SIDE OF MOUNTAIN ROAD JUST WEST OF EXISTING ACCESS TO SITE.

NOTES

LEGAL INFORMATION SHOWN FROM REGISTERED PLAN 51R-41847 BY ZUBEK, EMO, PATTEN & THOMSEN LIMITED, DATED NOVEMBER 16, 2018 AND SIGNED BY PAUL R. THOMSEN.

No.	REVISION DESCRIPTION	DATE
2.	SECOND SUBMISSION	AUG 2023
3.	THIRD SUBMISSION	JAN 26/24
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5.	SUBMISSION 4A	APR 23/24
6.	TOWN COMMENTS	SEP 4/24

ENGINEER STAMP

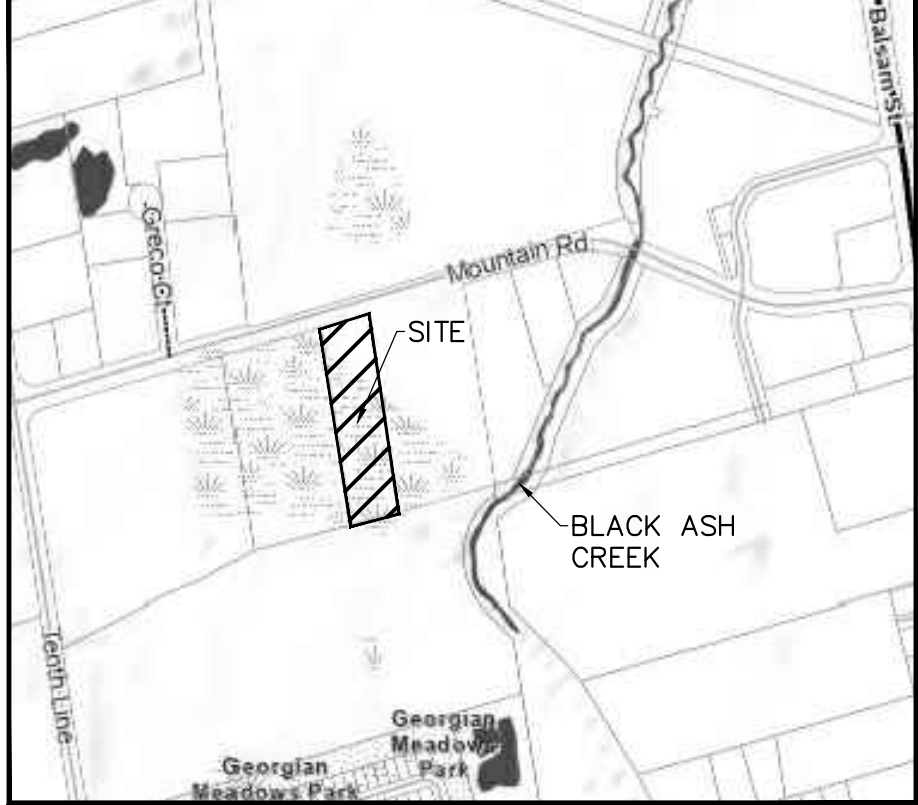


140 MOUNTAIN ROAD
TOWN OF COLLINGWOOD

SITE PLAN



DESIGN: MR/KRL	FILE: 121036	DWG:
DRAWN: MR/KRL	DATE: JUN 2022	SP-1
CHECK: KRS	SCALE: 1:500	



180 MOUNTAIN ROAD (CONSTRUCTION IN PROGRESS)



PER _____

DATE: _____

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BENCHMARKS

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NOTES

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51R-41847 BY ZUBEK, EMO, PATTEN & THOMSEN
LIMITED, DATED NOVEMBER 16, 2018 AND SIGNED BY
PAUL R. THOMSEN.

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4.	FOURTH SUBMISSION	APR 4/24
5.	SUBMISSION 4A	APR 23/24
6.	TOWN COMMENTS	SEP 4/24
7.	FIRE STORAGE	OCT 24/24

ENGINEER STAMP



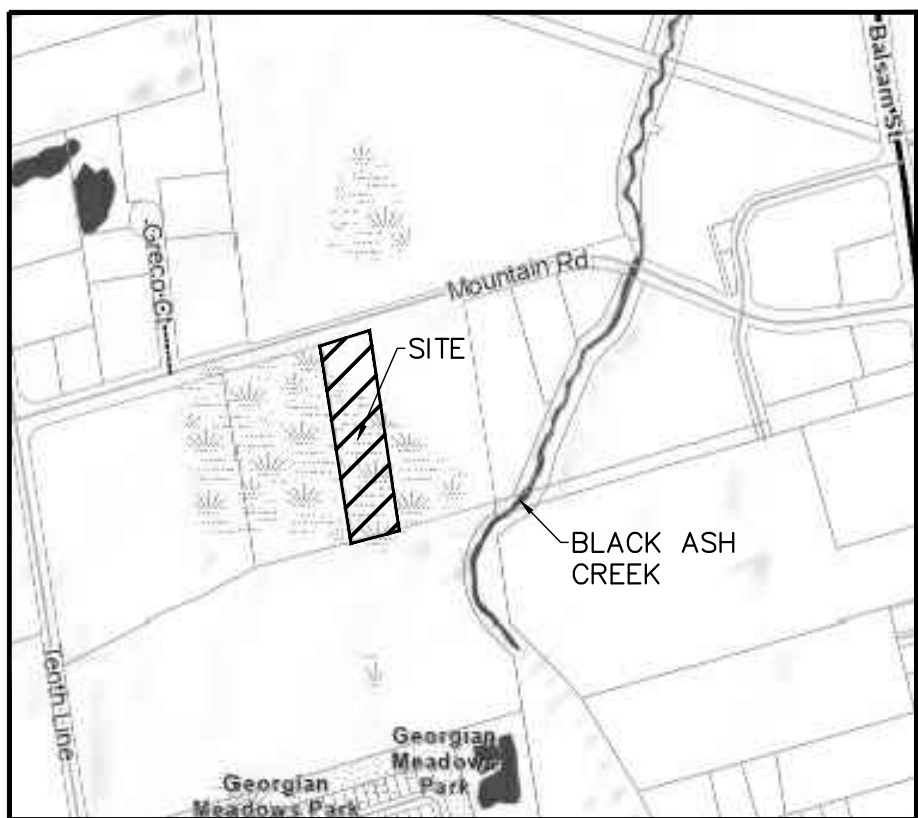
140 MOUNTAIN ROAD
TOWN OF COLLINGWOOD

SITE SERVICING PLAN



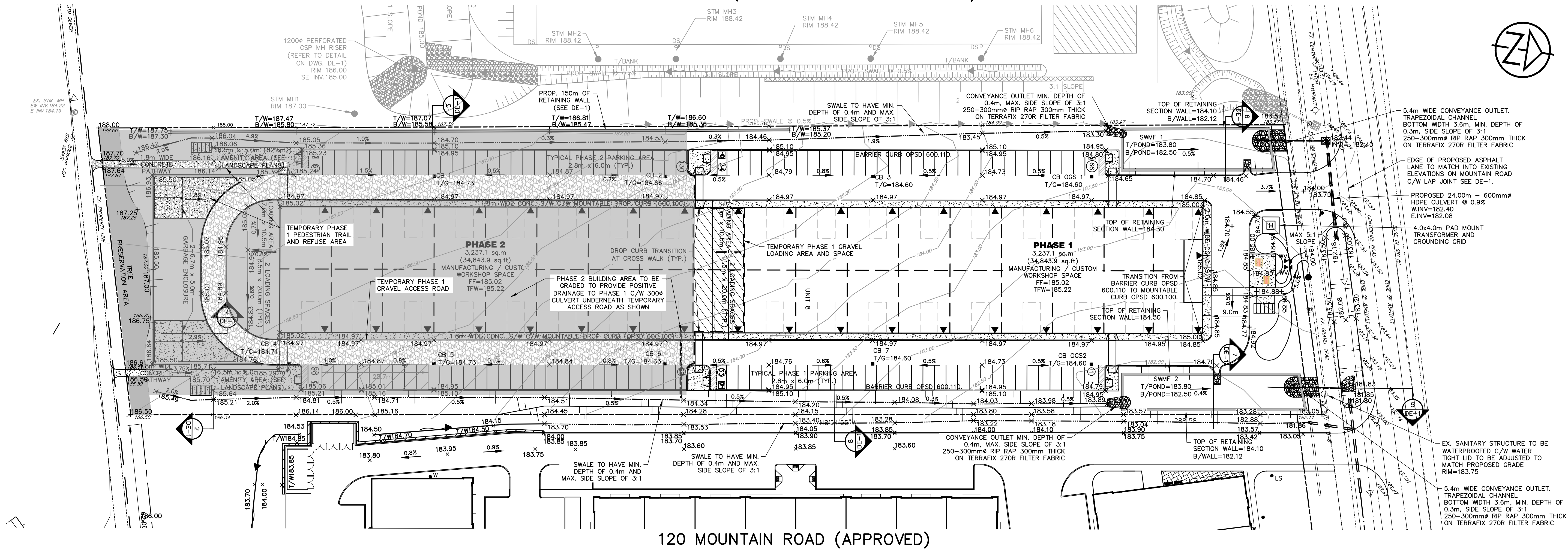
DESIGN: MR/KRL	FILE: 121036	DWG: SS-1
DRAWN: MR/KRL	DATE: JUN 2022	
CHECK: KRS	SCALE: 1:500	

Drawing Name: 121036 - SS01.dwg, Plotted: Oct 24, 2024



KEY PLAN

180 MOUNTAIN ROAD (CONSTRUCTION IN PROGRESS)



120 MOUNTAIN ROAD (APPROVED)

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TOWN OF COLLINGWOOD

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BENCHMARKS

BM2 - ELEVATION 189.765
NAIL & WASHER ON NORTH FACE OF HYDRO POLE
LOCATED ON NORTH SIDE OF MOUNTAIN ROAD JUST WEST OF EXISTING ACCESS TO SITE.

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ENGINEER STAMP



140 MOUNTAIN ROAD
TOWN OF COLLINGWOOD

SITE GRADING PLAN



DESIGN: MR/KRL	FILE: 121036	DWG:
DRAWN: MR/KRL	DATE: JUN 2022	SG-1
CHECK: KRS	SCALE: 1:500	

GENERAL CONSTRUCTION

- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH TOWN OF COLLINGWOOD STANDARDS, OP&D AND OP&S. WHERE CONFLICT OCCURS, TOWN OF COLLINGWOOD STANDARD TO GOVERN.
- TRENCH BACKFILL TO OP&D 802.010 TO BE SELECT NATIVE MATERIAL OR IMPORTED SELECT SUBGRADE TO OP&S 1010. BACKFILL TO BE PLACED IN MAXIMUM 200 mm THICK LIFTS AND COMPACTED TO 95% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD).
- PIPE BEDDING TO BE GRANULAR 'A', PIPE COVER TO BE GRANULAR 'B' MAX. AGGREGATE SIZE: 25mm FOR RIGID PIPE AND GRANULAR 'A' FOR FLEXIBLE PIPE. (MINIMUM BEDDING DEPTH 150 mm, MINIMUM COVER 300mm, COMPACTED TO A MINIMUM 95% SPMDD).
- CLEAR STONE WRAPPED IN FILTER FABRIC CAN BE SUBSTITUTED FOR EMBEDMENT MATERIAL IF APPROVED BY THE ENGINEER.
- ALL MAINTENANCE HOLES ARE 1200 mm DIAMETER UNLESS OTHERWISE SPECIFIED. ALL TOPSOIL AND EARTH EXCAVATION TO BE STOCK PILED OR REMOVED AS PER OP&S:MUNI 180 MANAGEMENT AND DISPOSAL OF EXCESS MATERIAL TO AN APPROVED SITE AS DIRECTED BY ENGINEER.
- THE OWNER'S ENGINEER SHALL PROVIDE A SURVEY BENCHMARK ELEVATION FOR USE ON SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING HORIZONTAL CONTROL AND COMPLETING ALL DETAILED LAYOUT OF THE WORK.
- ALL PROPERTY BARS TO BE PRESERVED AND REPLACED BY O.L.S. AT CONTRACTOR'S EXPENSE IF DAMAGED OR REMOVED DURING CONSTRUCTION.
- ALL MAINTENANCE HOLE AND CATCHBASIN FRAMES AND COVERS TO BE SET TO BASE COURSE HL&B ASPHALT ELEVATION AND RAISED PRIOR TO PLACEMENT OF FINAL COURSE HL3 ASPHALT.
- THE CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENTS FOR THE SUPPLY OF TEMPORARY WATER AND POWER.
- DEWATERING TO BE CARRIED OUT IN ACCORDANCE WITH OP&S:MUNI 517 AND 518 TO MAINTAIN ALL TRENCHES IN A DRY CONDITION.
- ALL ENGINE DRIVEN PUMPS TO BE ADEQUATELY SILENCED, SUITABLE FOR OPERATION IN A RESIDENTIAL DISTRICT.
- ALL DISTURBED AREAS TO BE REINSTATED TO PREVIOUS CONDITION OR BETTER.
- THE CONTRACTOR IS RESPONSIBLE FOR PRESERVATION OF ALL EXISTING FACILITIES AS WELL AS NOTIFYING ALL UTILITY COMPANIES PRIOR TO COMMENCING WORK AND COORDINATE CONSTRUCTION ACCORDINGLY.
- ALL SIGNAGE TO BE LAWFULLY ERECTED AND MAINTAINED IN ACCORDANCE TO THE TOWN SIGN BY-LAW.
- CLEARING, GRUBBING AND REMOVAL OF SURFACE BOULDERS TO MUNI:OP&S 201.
- GRADING AS PER OP&S:MUNI 206.
- COMPACTION AS PER OP&S:MUNI 501.
- DUST SUPPRESSANTS TO OP&S:MUNI 506.
- TREE REMOVALS AND/OR TRANSPLANTS TO BE COMPLETED OUTSIDE OF MIGRATORY BIRDS NESTING SEASON FROM APRIL 1ST TO AUGUST 31ST. REMOVALS MAY TAKE PLACE DURING THIS RESTRICTED TIME ONLY IF THE REQUIREMENTS OF MIGRATING BIRDS CONVENTION ACT ARE MET AND NESTING ACTIVITY IS ROUTINELY MONITORED BY QUALIFIED INDIVIDUALS (I.E. WILDLIFE BIOLOGIST).

SANITARY SEWERS

- MAINTENANCE HOLES INSTALLED AS PER OP&D 701.010 AND 701.030
- MAINTENANCE HOLE BENCHING AS PER OP&D 701.021
- MAINTENANCE HOLE ACCESS STEPS AS PER OP&D 405.010.
- FROST STRAPS SHALL BE INSTALLED ON ALL MAINTENANCE HOLES AS PER OP&D 701.100
- FRAMES AND COVERS AS PER OP&D 401.030 (SANITARY STRUCTURE TO BE WATER TIGHT)
- PIPE SUPPORT AT MAINTENANCE HOLES AS PER OP&D 708.020.
- ALL MAINTENANCE HOLES, UNLESS EXPRESSLY IDENTIFIED ARE 1200 mm DIAMETER AND TO BE WATER TIGHT.
- GENERAL INSTALLATION AND TESTING OF SEWERS AND APPURTENANCES TO BE IN ACCORDANCE WITH OP&S:MUNI. 407, 408, 409, 410, 421 AND ALL SPECIFICATIONS REFERENCED WITHIN THESE SECTIONS.
- SERVICE CONNECTION TO BE 200 mm DIA., TERMINATED WHERE SPECIFIED ON THE DRAWING COMPLETE WITH PLUG AND MARKED WITH A 38mm X 89mm POST PAINTED GREEN FROM THE INVERT OF THE SERVICE TO MIN. 600 mm ABOVE GRADE.
- SERVICE CONNECTION TO OP&D 1006.010, GRANULAR A BEDDING AND EMBEDMENT.
- RIGID BOARD INSULATION (HI-40 OR APPROVED EQUAL) REQUIRED FOR ALL STORM SEWERS AND SUBDRAINS TO BE PROVIDED AS PER OP&D 1109.030 WHERE MINIMUM FROST COVER OF 1.2 m IS NOT ACHIEVED. INSULATION TO BE A MIN. OF 50mm WITH A MIN. WIDTH OF 1.2m

MATERIALS

- SANITARY SEWER TO BE SDR 35 PVC, SANITARY SERVICES TO BE SDR 28 PVC
- WATER MAIN TO BE DUCTILE IRON CLASS 52, OR PRESSURE CLASS 350 CEMENT LINED. CONDUCTIVITY CONNECTORS TO BE USED ON ALL JOINTS.
- VALVES TO BE RESILIENT SEATED, RSGV, MECHANICAL JOINT, OPEN LEFT CLOW OR MUELLER WITH 5 SL-48 SLIDING VALVE BOX, TO AWWA C504.
- MECHANICAL JOINT DUCTILE FITTINGS AS PER AWWA/ANSI C153/A21.53.
- RESTRAINERS TO BE ROMAC GRIPPER RING FOR PIPE SIZES UP TO 300 mm
- LIVE TAP SADDLES TO BE EPOXY COATED C/W STAINLESS STEEL BOLTS.
- LIVE TAP VALVE TO BE RESILIENT SEATED RSGV, LIVE TAPE VALVE, OPEN LE.
- FILTER FABRIC TO BE TERRAFIX 270R OR APPROVED EQUAL.
- PERFORATED SUBDRAINS TO BE 100mm DIA. BIG 'O' OR AS SPECIFIED ON DRAWING WITH GEOTEXTILE FILTER SOCK OR APPROVED EQUAL.
- STORM SEWER TO BE SDR 35 PVC OR SMOOTH WALL HDPE (BOSS 2000 WITH BELL AND SPIGOT AND MIN. PIPE STIFFNESS OF 320Kpa OR EQUAL)
- ALL SPECIFIED AGGREGATES TO OP&D 1010.
- INSULATION TO BE STYROFOAM HI-40, MIN. 50MM THICK
- CATCH BASINS AND INLET STRUCTURES TO BE FITTED WITH TEMPORARY LAYFIELD CBST SEDIMENT TRAPS DURING CONSTRUCTION ACTIVITIES AND TO REMAIN IN PLACE UNTIL PLACEMENT OF ASPHALT. TRAPS TO BE CLEANED OUT AS REQUIRED PRIOR TO ASSUMPTION OF THE WORK.

WATERMAIN

- MINIMUM COVER ON WATER SERVICE AND CONNECTIONS TO BE 1.7 m.
- ALL VALVES, BENDS AND FITTINGS TO BE CONNECTED WITH GRIP RING RESTRAINING CLAMP.
- CLEARANCE BETWEEN WATER MAINS / WATER SERVICES AND SEWERS TO BE A MINIMUM OF 0.5m VERTICAL WHERE WATER MAIN IS BELOW SEWER OR 2.5m MINIMUM HORIZONTAL SEPARATION. WHERE WATER MAIN IS ABOVE SEWER, THE MINIMUM SEPARATION TO BE 150 mm (COMPACTED BEDDING MATERIAL).
- GENERAL INSTALLATION AND TESTING OF WATER MAIN AND APPURTENANCES TO BE IN ACCORDANCE WITH OP&S:MUNI 441 AND ALL SPECIFICATIONS REFERENCED WITHIN THESE SECTIONS.
- RIGID BOARD INSULATION (HI-40) REQUIRED FOR FROST PROTECTION OF WATER MAIN / SERVICE WITH LESS THAN 1.7m MINIMUM COVER. INSULATION TO BE MINIMUM 50mm THICK AND HAVE A MINIMUM WIDTH OF 1.2m FOR EVERY 0.3m OF COVER LESS THAN 1.7m. MAXIMUM DEPTH OF INSULATION TO BE 100mm.
- ALL WORK ON TOWN PROPERTY AND ON TOWN OF COLLINGWOOD WATER DEPARTMENT (TCWD) WATER MAINS MUST BE UNDERTAKEN BY TCWD OR AN APPROVED CONTRACTOR WITH TCWD INSPECTION AT DEVELOPER'S EXPENSE.
- CATHODIC PROTECTION TO INCLUDE SACRIFICIAL ZINC CAPS ON ALL FITTING BOLTS.
- WATERMAIN SERVICE CONNECTION AS PER OP&S:MUNI 441, 150 mm GRANULAR 'A' EMBEDMENT AND COVER OVER PIPE. TERMINATE WHERE SPECIFIED ON DRAWING C/W GATE VALVE AT PROPERTY LINE, PROVIDE TESTING TAIL TO SURFACE ATTACHED TO A 38mm x 89mm MARKER POST PAINTED BLUE FROM THE INVERT OF THE SERVICE TO MIN 600 mm ABOVE GRADE.
- SERVICE TO BE CONSTRUCTED IN ACCORDANCE WITH TOWN STANDARDS.
- WATER MAIN SERVICES - 50mm TYPE K COPPER, MAIN STOPS TO 201-A3H3, 3/4", BALL STYLE. AWWA THREAD BY COMPRESSION CAMBRIDGE BRASS. CURB STOPS TO 203-H3H3, 3/4" BALL STYLE WITH DRAIN, COMPRESSION JOINT CAMBRIDGE BRASS. SERVICE BOXES TO NUMBER 7, D-1 CLOW OR MUELLER WITH 24" BLACK RODS STRAIGHT OR OTHERWISE NOTED ON DRAWINGS.
- ALL WATERMAIN DISINFECTION WILL BE CONDUCTED BY THE DEVELOPER IN ACCORDANCE WITH THE MECP WATERMAIN DISINFECTION PROCEDURE, AT THE DEVELOPER'S COST, TO THE SATISFACTION OF THE TOWN. THE TOWN SHALL COLLECT THE REQUIRED MICROBIOLOGICAL WATER QUALITY SAMPLES, AT THE DEVELOPERS COST, PRIOR TO PLACING THE WATERMAIN INTO SERVICE. A WATER COMMISSIONING PLAN SHOULD BE SUBMITTED TO THE TOWN'S WATER DEPARTMENT A MINIMUM OF 2 WEEKS PRIOR TO COMMENCING ANY TESTING FOR REVIEW AND APPROVAL.
- AS A GENERAL PRINCIPLE EACH PROPERTY SHALL HAVE ONE SERVICE AND ONE METER. ADDITIONAL METERS CAN BE ADDED INTERNALLY TO MEASURE THE WATER USE FOR EACH BUILDING. HOWEVER, THE MUNICIPALITY WILL HAVE ONE METER, CONNECTED TO ONE WATER BILL.
- NO WATER VALVES ARE TO BE OPERATED WITHOUT TCWD APPROVAL.

ASPHALT AND CONCRETE AREAS

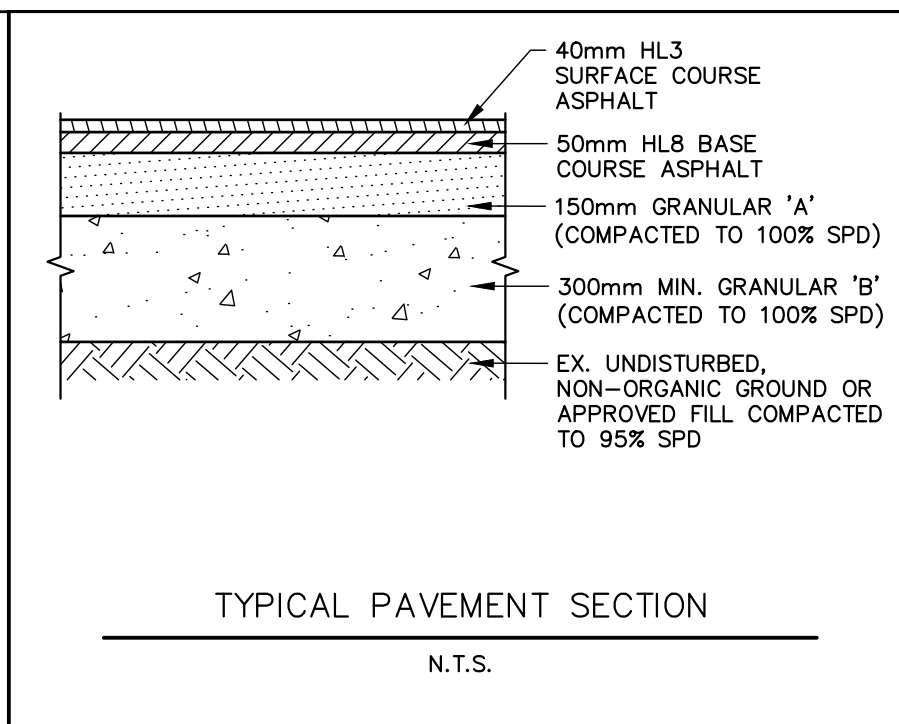
- SUBGRADE AND ALL GRANULAR 'A' MATERIAL TO BE COMPACTED TO A MINIMUM DRY DENSITY OF AT LEAST 98% SPMDD. SUBGRADE TO BE PROOF ROLLED AND CERTIFIED PRIOR TO PLACING GRANULAR 'B'.
- GRANULAR 'A' AND 'B' BASE TO BE COMPACTED TO 100% OF THE MATERIAL'S RESPECTIVE SPMDD.
- ASPHALT AREAS TO BE CONSTRUCTED WITH MIN. 300 mm GRANULAR 'B', 150 mm GRANULAR 'A', 50 mm HL&B AND 40mm HL3. ALL SUBDRAINS TO BE CONSTRUCTED IN ACCORDANCE WITH OP&S:MUNI 405.
- CONCRETE BARRIER CURB TO OP&D 600.110. CONCRETE MOUNTABLE CURB TO OP&D 600.100.
- SELECT SUBGRADE MATERIAL, OR IMPORTED GRANULAR MATERIAL APPROVED BY THE ENGINEER, COMPACTED TO 98% SPMDD. TO BE USED AS FILL IN ALL AREAS WHERE PROPOSED PIPE INVERTS ARE HIGHER THAN EXISTING GRADE OR AS INSTRUCTED BY THE ENGINEER.
- ALL GRANULAR AND ASPHALT MATERIALS TO BE PLACED AND COMPACTED IN SECTIONS 1.1m OR HIGHER AS PER OBC (SEE DETAILS)
- JOINTS WITH EXISTING ASPHALT TO BE SAW CUT STRAIGHT PRIOR TO PLACING NEW ASPHALT. WHERE EXISTING ASPHALT IS THICKER THAN 75 MM, A 300 MM WIDE BY 40 MM DEEP LAP JOINT SHALL BE GROUND INTO EXISTING ASPHALT PRIOR TO THE PLACEMENT OF SURFACE COURSE ASPHALT (SEE DETAIL).
- REINSTATEMENT OF ALL DISTURBED BOULEVARDS TO INCLUDE REGRADING, MINIMUM 150mm TOPSOIL AND 500 TO OP&S:MUNI 802 AND 803.
- ENTRANCES AS PER OP&D 350.010, SIDEWALKS TO OP&D 310.050, 310.010, 310.039 AND AODA STANDARDS.
- CONCRETE PATHWAYS TO STD #1120.

STORM SEWERS

- MAINTENANCE HOLES AND CBMH AS PER OP&D 701.010 AND 701.030.
- CATCHBASINS AS PER OP&D 705.010 WITH 600mm SUMP
- CATCHBASIN FRAMES AND GRATES AS PER OP&D 400.020.
- PIPE SUPPORT AT CB'S, CBMH'S, MH'S AS PER OP&D 708.020.
- CATCH BASINS AND INLET STRUCTURES FITTED WITH SEDIMENT TRAPS DURING CONSTRUCTION ACTIVITIES, AND CLEANED OUT AS REQUIRED PRIOR TO ASSUMPTION OF THE WORK.
- RIGID BOARD INSULATION (HI-40 OR APPROVED EQUAL) REQUIRED FOR ALL STORM SEWERS AND SUBDRAINS TO BE PROVIDED AS PER OP&D 1109.030 WHERE MINIMUM FROST COVER OF 1.2 m IS NOT ACHIEVED. INSULATION TO BE A MIN. OF 50mm WITH A MIN. WIDTH OF 1.2m

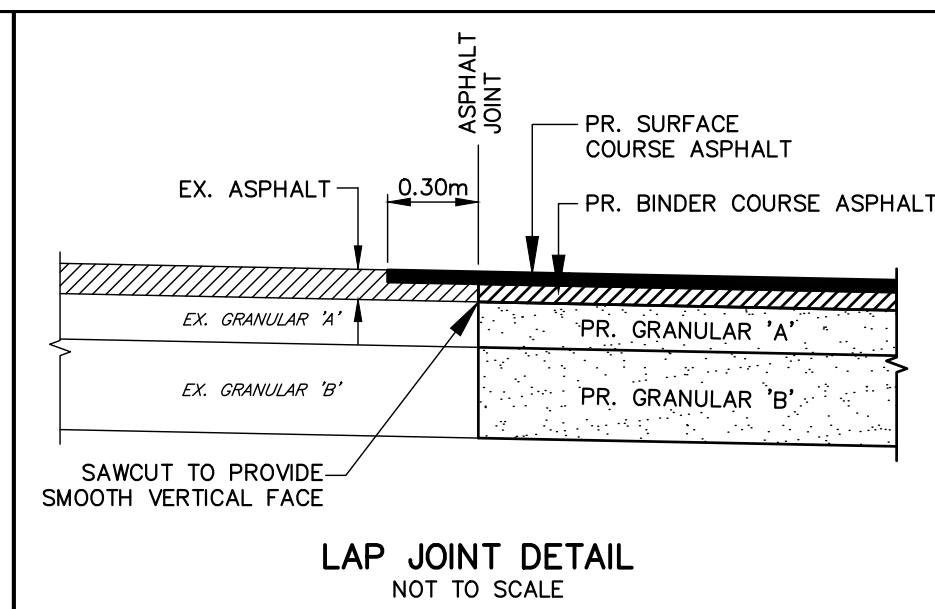
GENERAL NOTES

- POSTS SHALL BE CONNECTED TO PRECAST BLOCKS.
- ANCHORS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- POSTS AND RAILINGS SHALL BE HOT DIP GALVANIZED ACCORDING TO ASTM A123 AFTER FABRICATION.
- POSTS SHALL BE VERTICAL. ALL EXPOSED CORNERS SHALL BE GROUND SMOOTH.
- WELDING SHALL BE ACCORDING TO CSA W59.
- PROVIDE TWO COATS OF GALVAFROID FOR ALL JOINTS THAT ARE FIELD WELDED.
- ALL STEEL SHALL BE ASTM A500 GRADE C. (BLACK)
- CONTRACTOR IS TO VERIFY ALL DRAWING MEASUREMENTS IN THE FIELD.
- PEDESTRIAN GUARD HAS BEEN DESIGNED IN ACCORDANCE WITH OBC 4.1.5.14 - LOADS ON GUARDS. (BLACK)



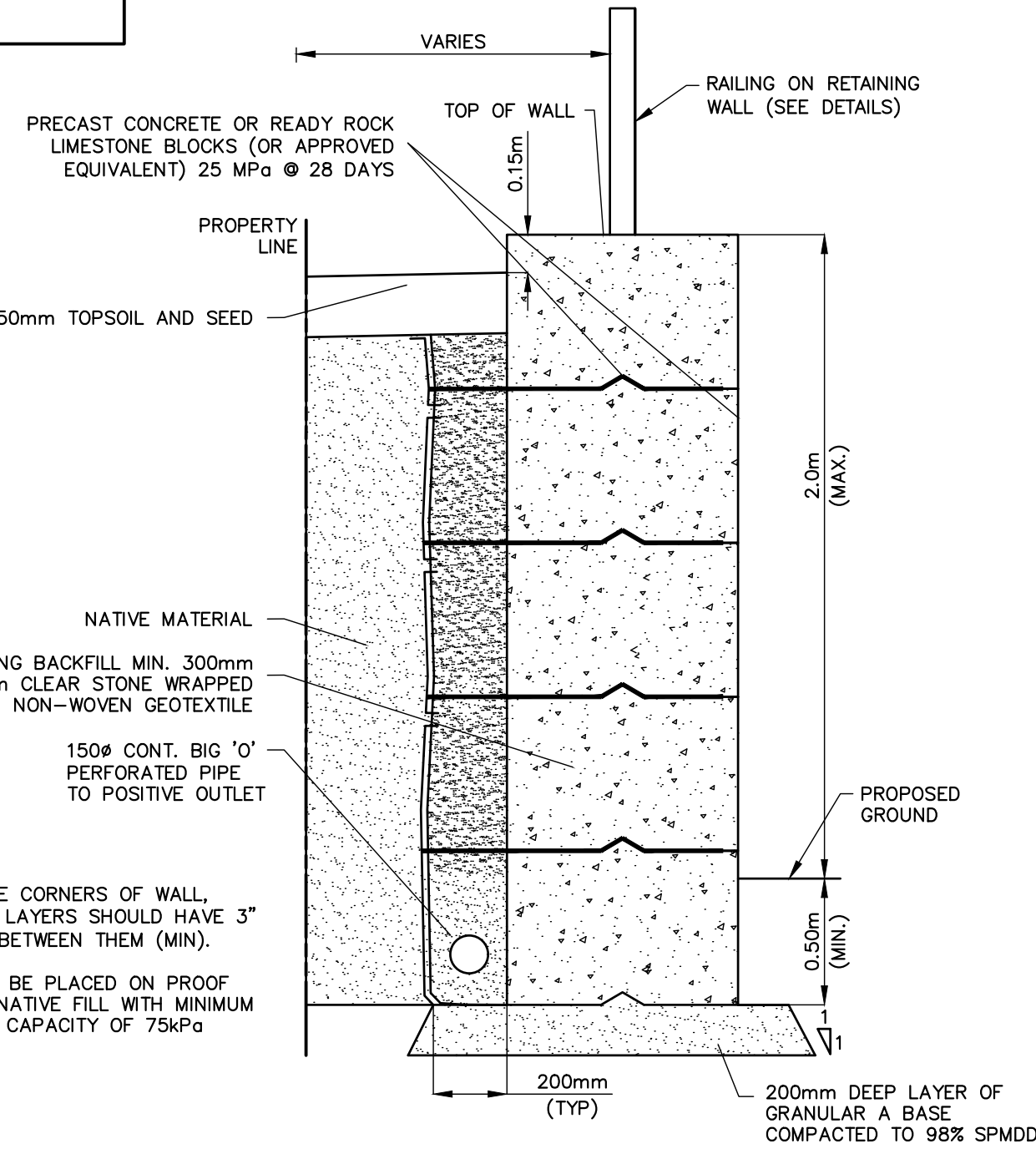
TYPICAL PAVEMENT SECTION

N.T.S.



LAP JOINT DETAIL

NOT TO SCALE

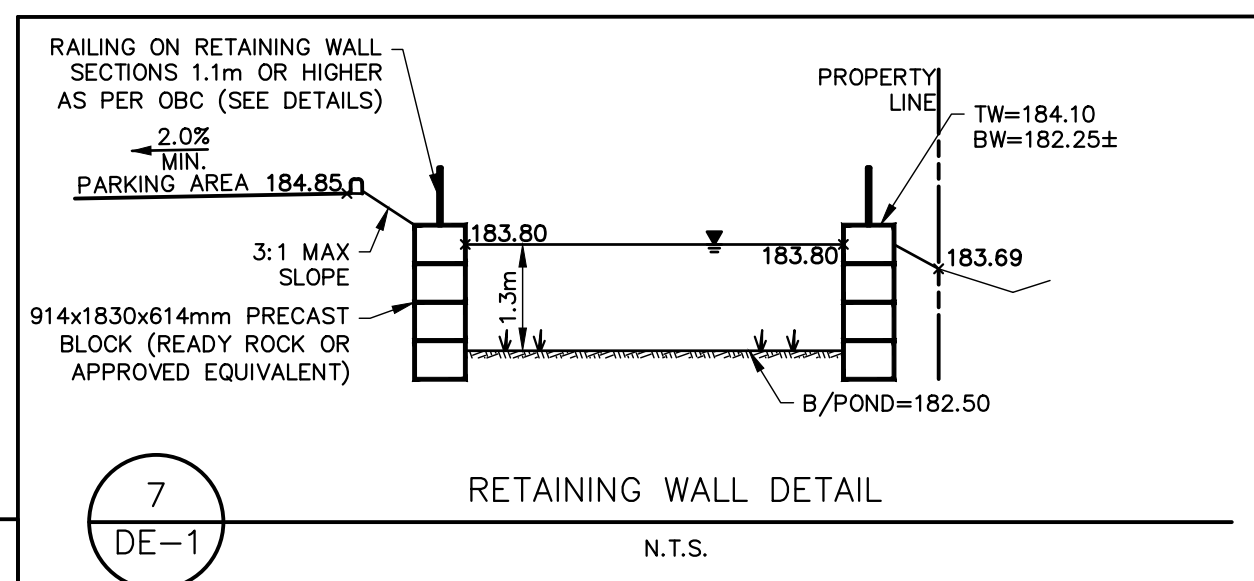


TYPICAL WALL SECTION

NTS

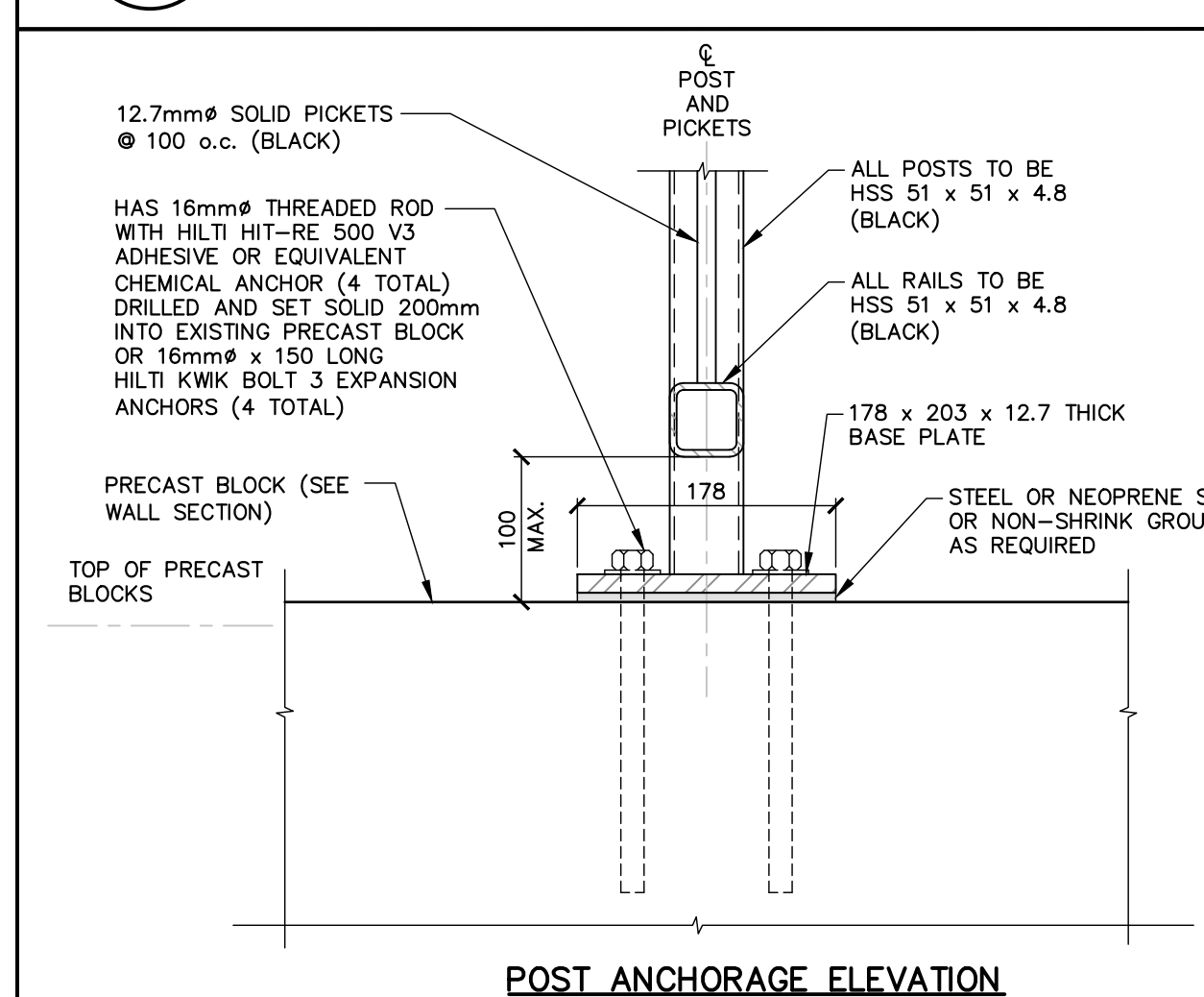
NOTES:

- AT INSIDE CORNERS OF WALL, GEOGRID LAYERS SHOULD HAVE 3" GRAVEL BETWEEN THEM (MIN).
- WALL TO BE PLACED ON PROOF ROLLED NATIVE FILL WITH MINIMUM BEARING CAPACITY OF 75Kpa

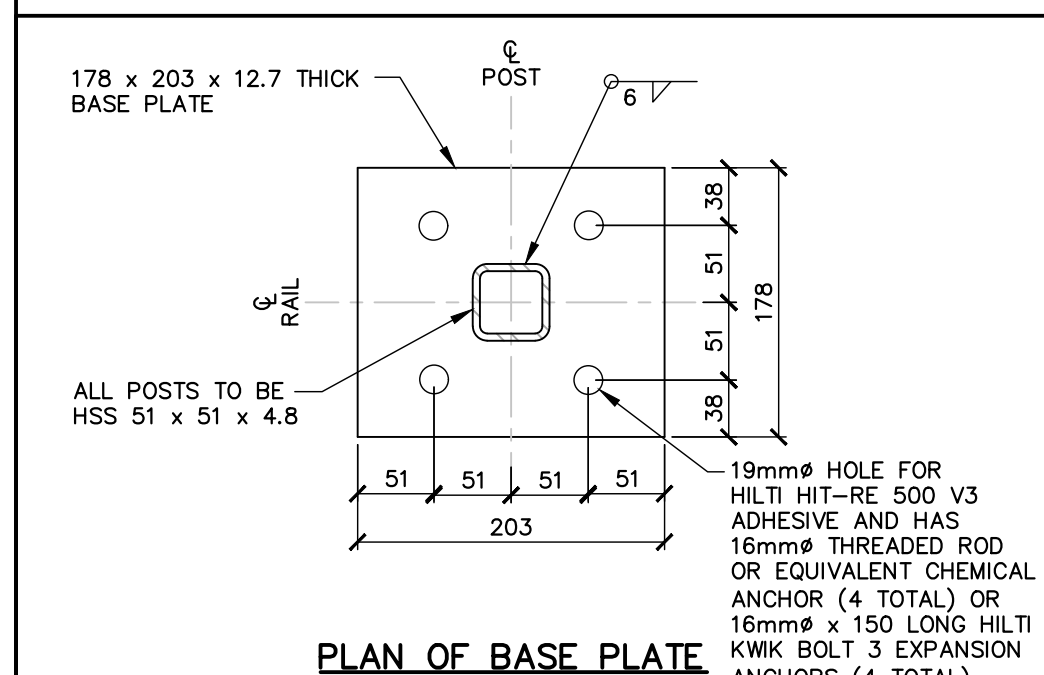


RETAINING WALL DETAIL

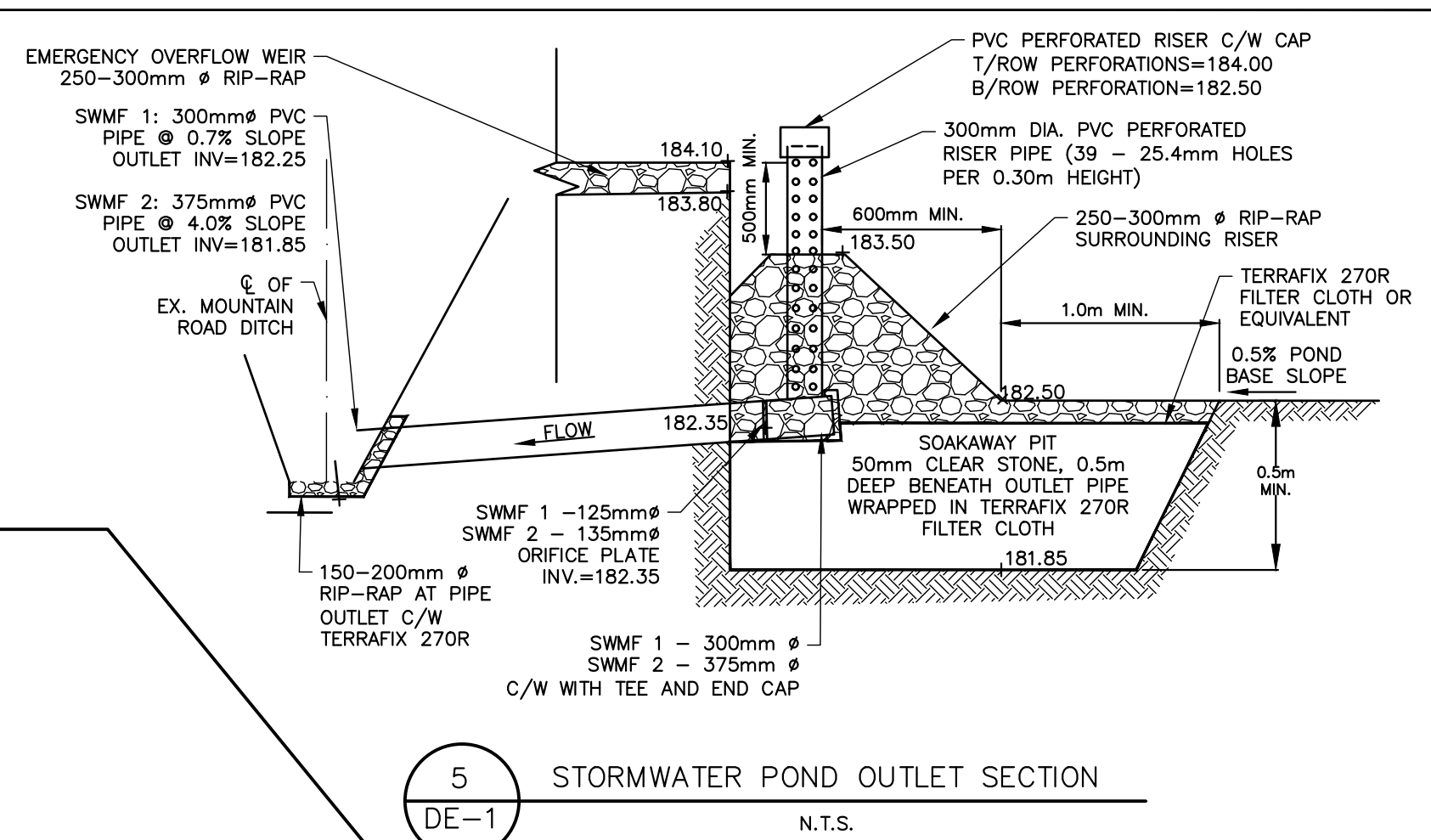
N.T.S.



POST ANCHORAGE ELEVATION

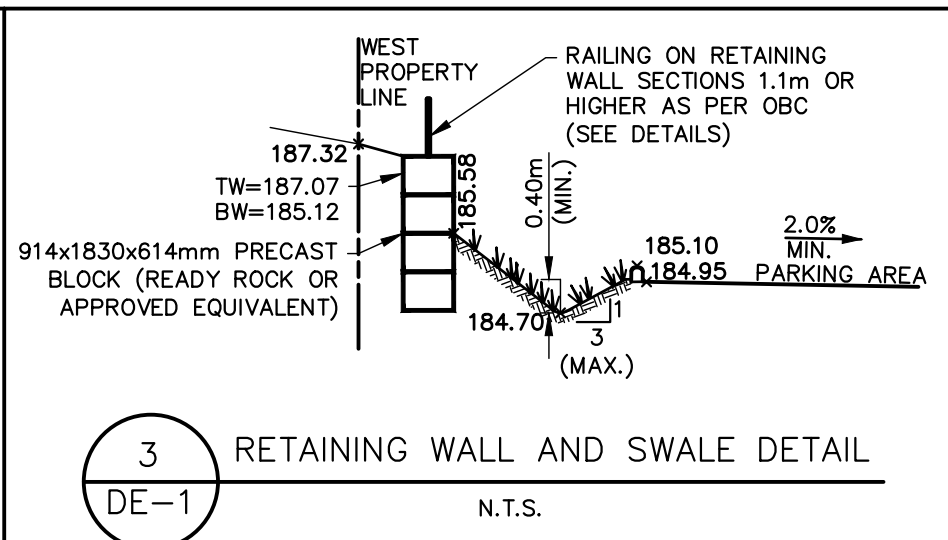


PLAN OF BASE PLATE



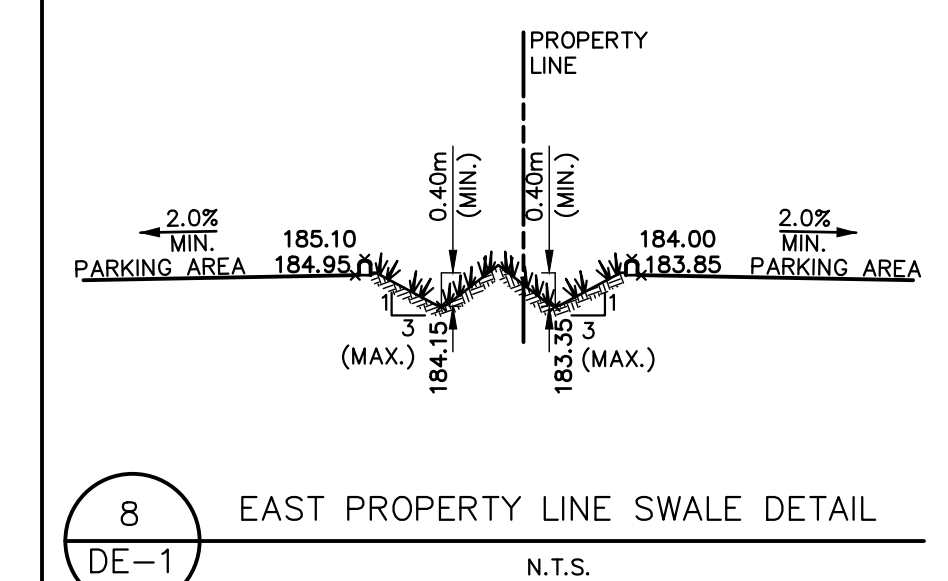
STORMWATER POND OUTLET SECTION

N.T.S.



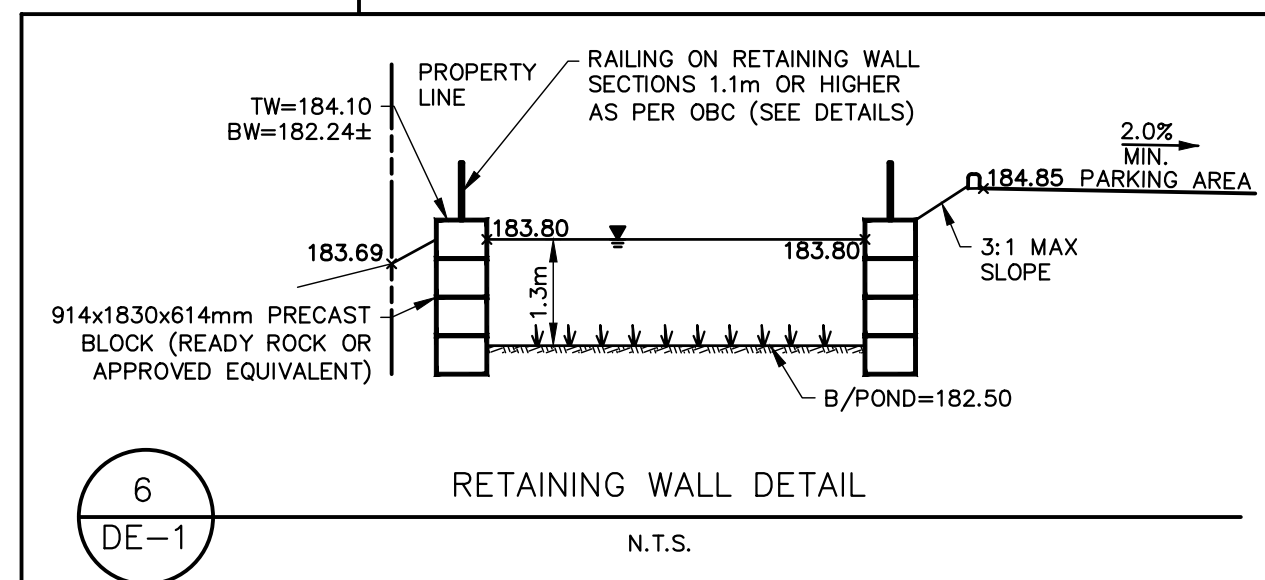
RETAINING WALL AND SWALE DETAIL

N.T.S.



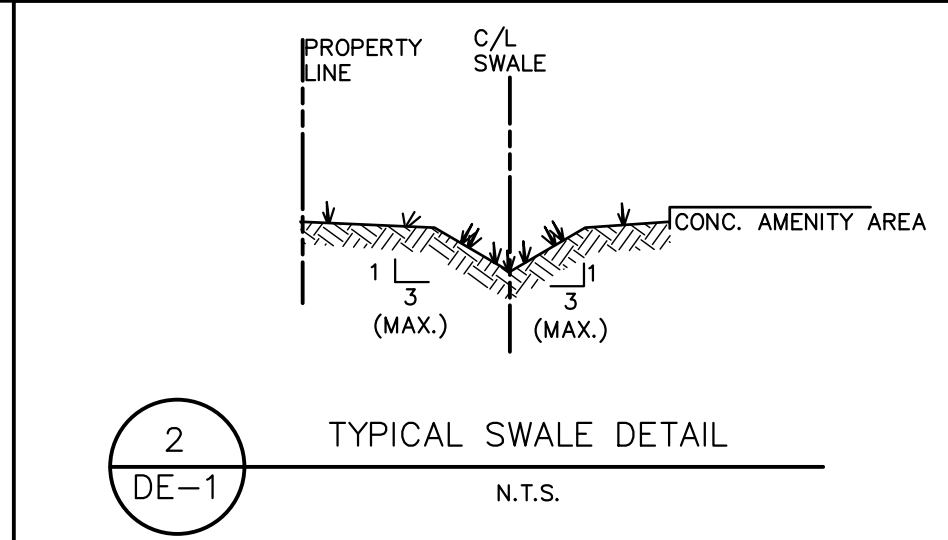
EAST PROPERTY LINE SWALE DETAIL

N.T.S.



RETAINING WALL DETAIL

N.T.S.



TYPICAL SWALE DETAIL

N.T.S.

ACCEPTED FOR
CONSTRUCTION
TOWN OF COLLINGWOOD

PER _____
DATE: _____

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BENCHMARKS

BM2 - ELEVATION 189.765
NAIL & WASHER ON NORTH FACE OF HYDRO POLE LOCATED ON NORTH SIDE OF MOUNTAIN ROAD JUST WEST OF EXISTING ACCESS TO SITE.

NOTES

LEGAL INFORMATION SHOWN FROM REGISTERED PLAN 51R-41847 BY ZUBEK, EMO, PATTEN & THOMSEN LIMITED, DATED NOVEMBER 16, 2018 AND SIGNED BY PAUL R. THOMSEN.

No.	REVISION DESCRIPTION	DATE	ENGINEER STAMP
2.	SECOND SUBMISSION	DEC 21/23	
3.	THIRD SUBMISSION	JAN 26/24	
4.	FOURTH SUBMISSION	APR 4/24	
5.	SUBMISSION 4A	APR 23/24	
6.	TOWN COMMENTS	SEP 4/24	



140 MOUNTAIN ROAD
TOWN OF COLLINGWOOD

DETAILS AND NOTES

TATHAM
ENGINEERING

DESIGN: MR/KRL	FILE: 121036	DWG:
DRAWN: MR/KRL	DATE: JUN 2022	DE-1
CHECK: KRS	SCALE: NTS	