

LEGEND

- LTSTOS - LONG TERM STABLE TOP OF SLOPE
- INV - INVERT ELEVATION
- TP - TOP OF PORCH ELEVATION
- BP - BOTTOM OF PORCH ELEVATION
- TB - TOP OF BERM ELEVATION
- FF - FINISHED FLOOR ELEVATION
- TW - TOP OF WALL ELEVATION
- BW - BOTTOM OF WALL ELEVATION
- HYD - FIRE HYDRANT
- WV - WATER VALVE

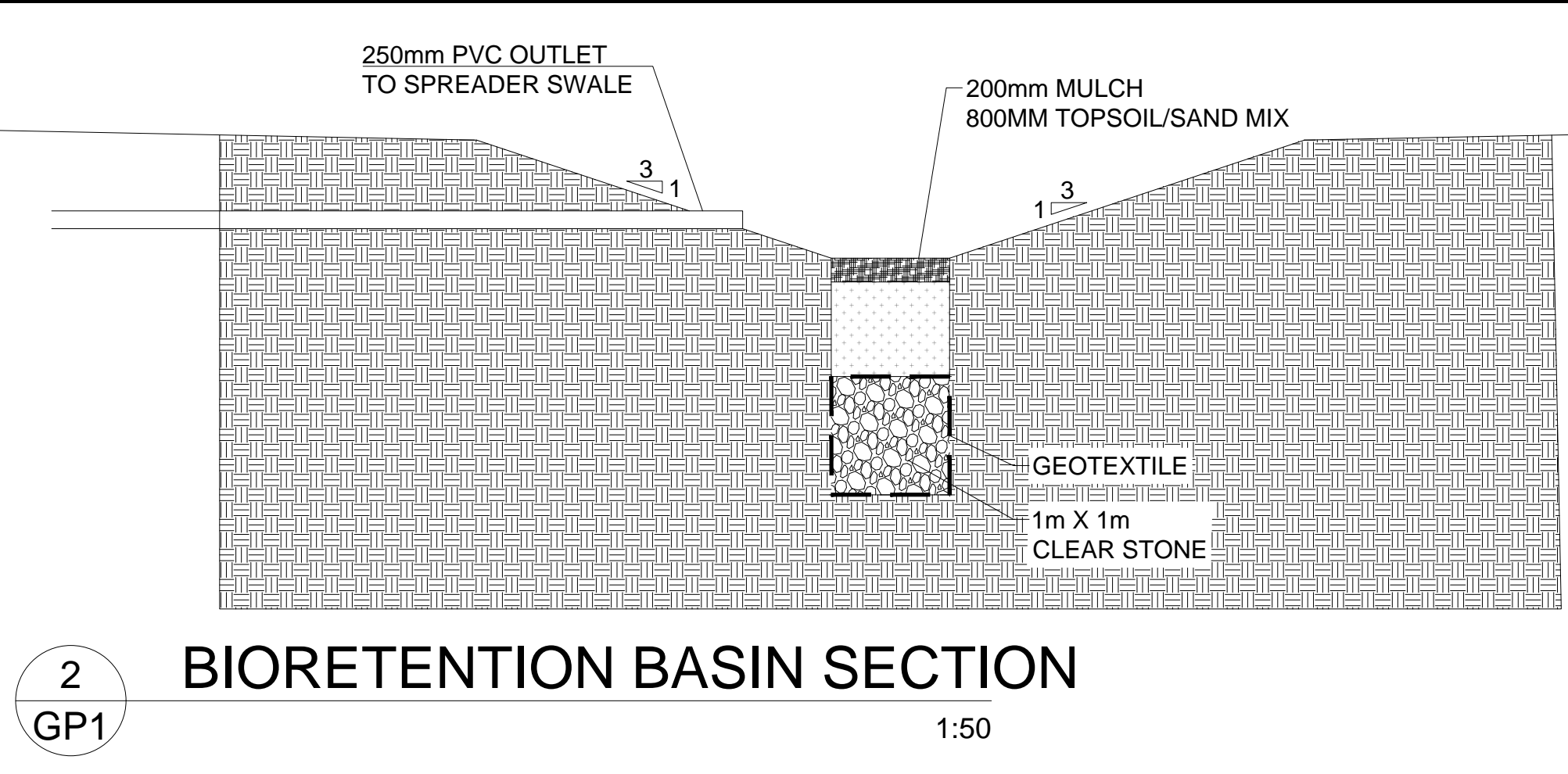
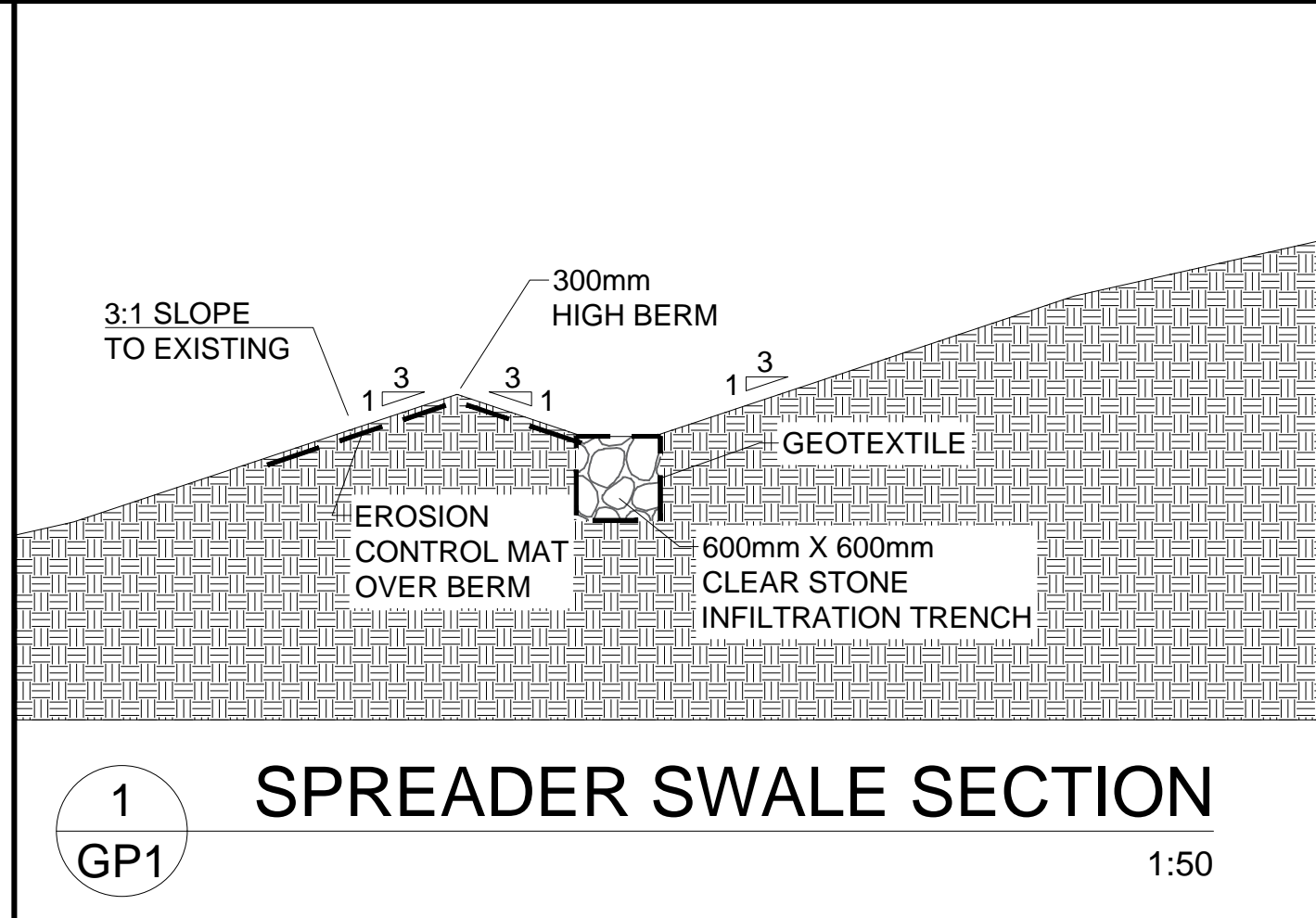
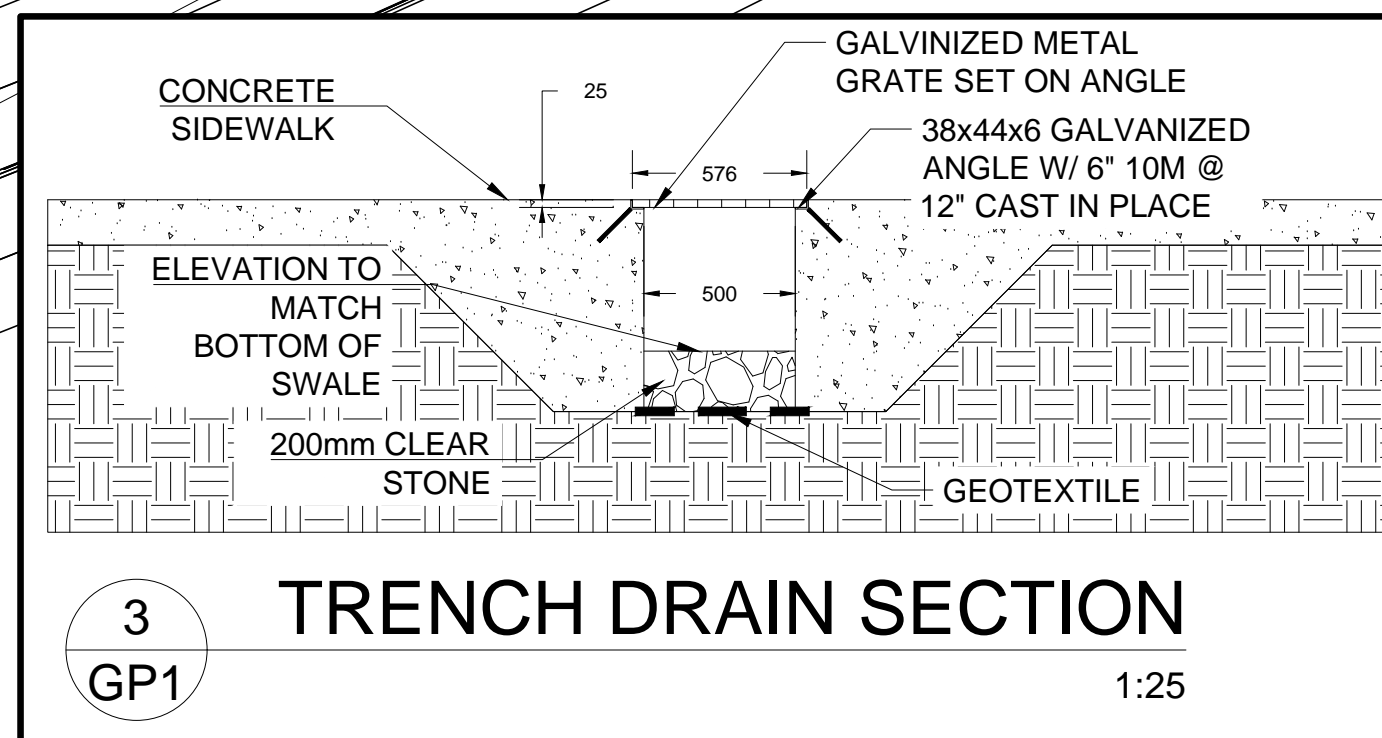
ENGINEER:

M.V. Wilson Engineering Inc.

245 Kent Street West, Lindsay
Ontario, Canada
K9V 2Z3

Tel: (705) 334-8335
Fax: (705) 328-1268

NO.	DESCRIPTION	DATE	BY
7.	RE-ISSUED FOR TENDER	22.06.23	SC
6.	ISSUED FOR TENDER	16.06.23	SC
5.	ISSUED FOR COORDINATION	01.06.23	SC
4.	ISSUED FOR SPA #3	28.11.22	SC
3.	ISSUED FOR SPA #2	28.07.22	SC
2.	ISSUED FOR SPA	15.02.22	SC
1.	ISSUED FOR REVIEW	23.12.21	SC



- GENERAL NOTES**
- Drainage shall be self-contained on site by the construction of swales or drains to a protected outlet. Drainage shall not impact adjacent properties.
 - Sediment and erosion control measures shall be implemented to prevent migration of silt and sediment from the subject lot to any adjacent lot, including municipal right-of-way. Special care shall be taken to ensure that silt and sediment laden surface water does not enter any watercourses or environmentally sensitive areas, either overland or through the storm drainage system. The owner/builder shall comply with all directives issued by any of the environmental agencies.
 - Interim grading measures may be required during building construction to ensure that drainage does not adversely affect the neighboring properties. Rough grading of the property shall be completed such that drainage is contained on site or controlled to a protected outlet.
 - All downspouts and other drainage discharge points shall discharge on to a splash pad or approved equivalent.
 - The owner/builder is responsible for obtaining utility and servicing locates prior to any works.
 - All disturbed areas are to be sodded or seeded over a minimum of 150mm of topsoil or approved equivalent.
 - The owner/builder must obtain a Road Occupancy Permit from Public Works prior to any works within the Municipal Road allowance.
 - A copy of the REVIEWED BY Engineering lot grading and drainage plan is to be on site for reference at all times during construction.

- **IMPORTANT****
- Heavy machinery is not permitted over the Bioretention Basin to reduce compaction of native soils.
 - Placement of filter media, sand filter and stone base shall occur after stabilization of the site or installation of erosion control and by-pass measures have been installed on the site. Written consent must be granted by M.V. Wilson Engineering Inc. prior to proceeding with the construction of the bioretention basin.
- CLEAN-UP:**
Clean-up of any debris on municipal roads shall be completed periodically or prior to any storm event to prevent damage of municipal infrastructure and to protect watercourses and/or environmentally sensitive areas.
- GRADINGS:**
Swales with less than 2% slope have the potential for ponding water. This ponding may be intentional to achieve the SWM requirements. Please consult the design engineer prior to making any adjustments to the design.

NORTH ARROW

STAMP

Licensed Professional Engineer
M.V. Wilson
100115578
2023-06-22
PROVINCE OF ONTARIO

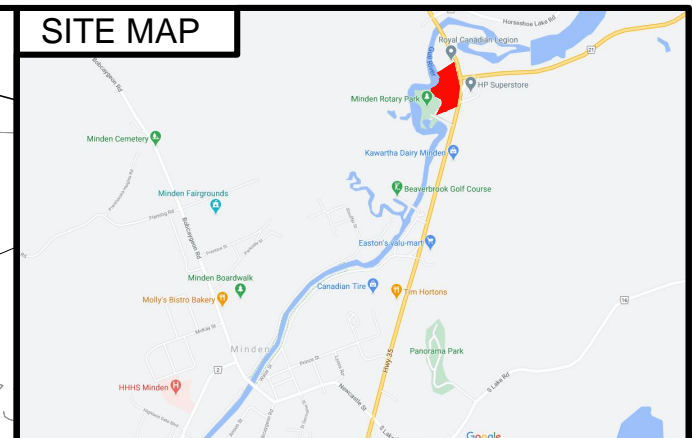
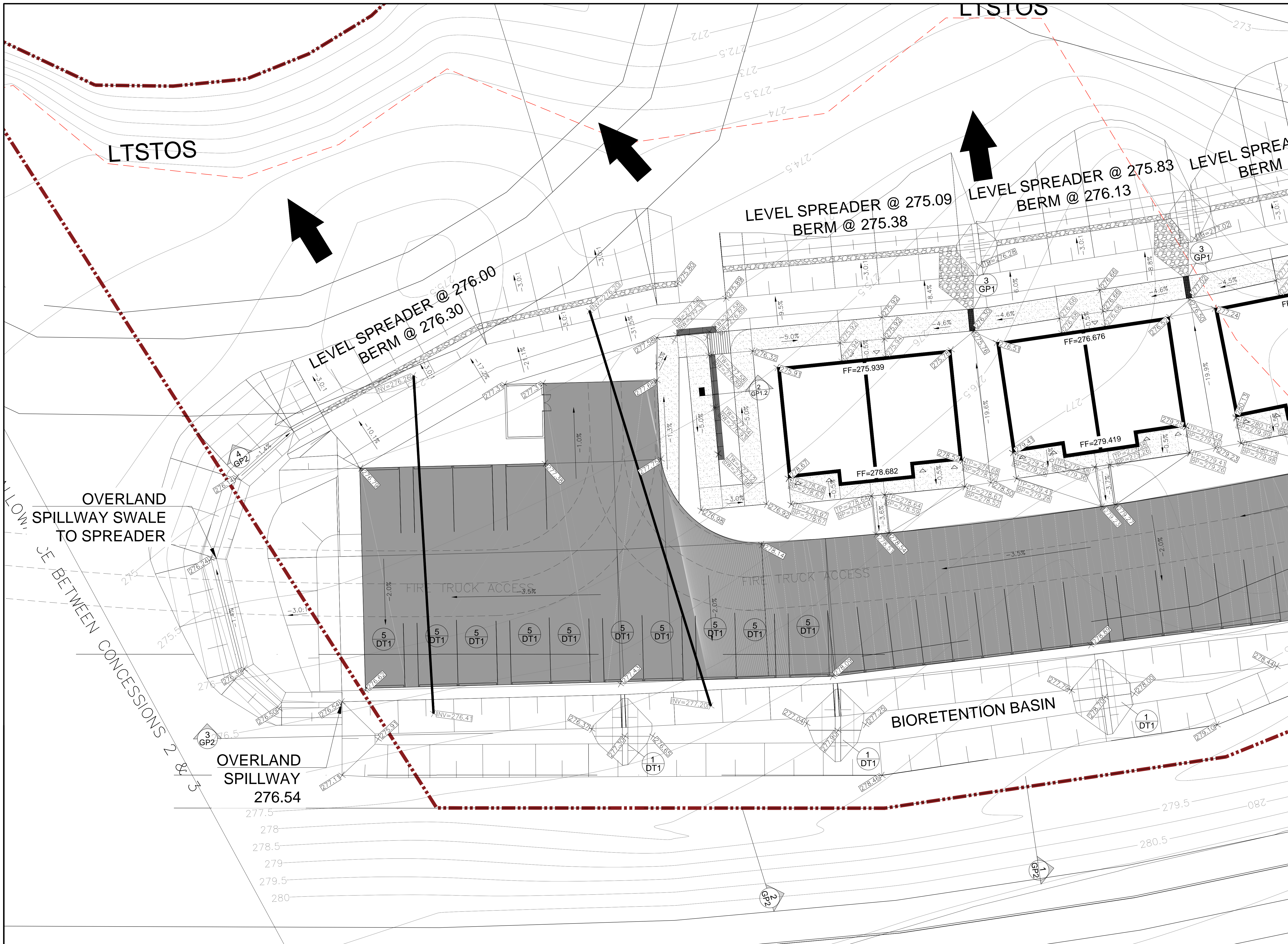
PROJECT
GULL RIVER HOUSING

MINDEN, ON.

TITLE
SITE GRADING PLAN

SCALE	1:300	DRAWING NO.	
DRAWN BY	SC		
PLOT DATE	Jun. 16, 23		
PROJECT	P20045		

GP1.0



LEGEND

- LTSTOS - LONG TERM STABLE TOP OF SLOPE
- INV - INVERT ELEVATION
- TP - TOP OF PORCH ELEVATION
- TS - TOP OF BERM ELEVATION
- BP - BOTTOM OF PORCH ELEVATION
- FF - FINISHED FLOOR ELEVATION
- TW - TOP OF WALL ELEVATION
- BW - BOTTOM OF WALL ELEVATION
- HYD - FIRE HYDRANT
- WV - WATER VALVE

ENGINEER:
M.V. Wilson Engineering Inc.
 245 Kent Street West, Lindsay
 Ontario, Canada
 K9V 2Z3
 Tel: (705) 324-8335
 Fax: (705) 328-1268

NO.	DESCRIPTION	DATE	BY
7.	RE-ISSUED FOR TENDER	22.06.23	SC
6.	ISSUED FOR TENDER	16.06.23	SC
5.	ISSUED FOR COORDINATION	01.06.23	SC
4.	ISSUED FOR SPA #3	28.11.22	SC
3.	ISSUED FOR SPA #2	28.07.22	SC
2.	ISSUED FOR SPA	15.02.22	SC
1.	ISSUED FOR REVIEW	23.12.21	SC

ISSUES

NORTH ARROW

STAMP

LICENSED PROFESSIONAL ENGINEER
 M.V. WILSON
 100115578
 2023-06-22
 PROVINCE OF ONTARIO

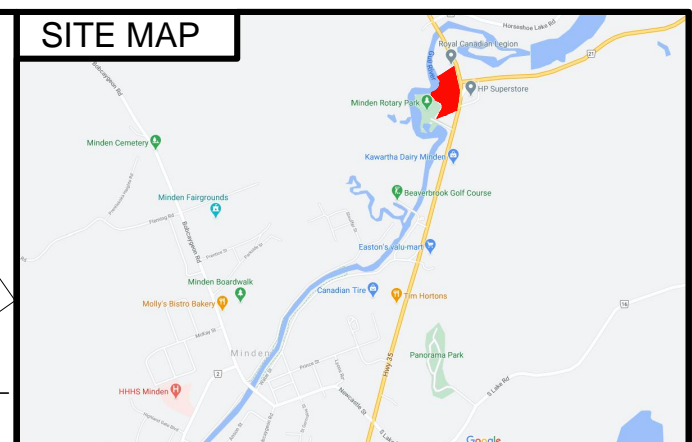
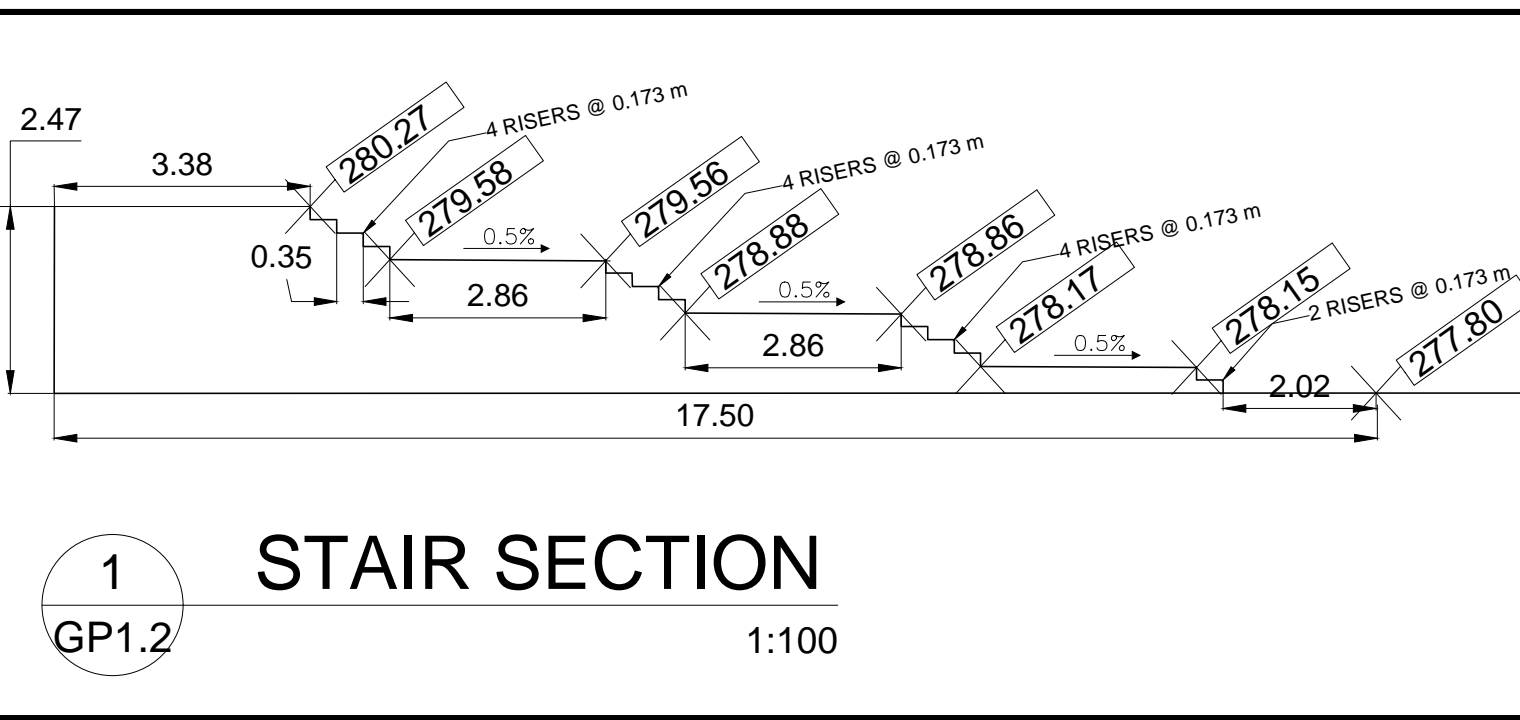
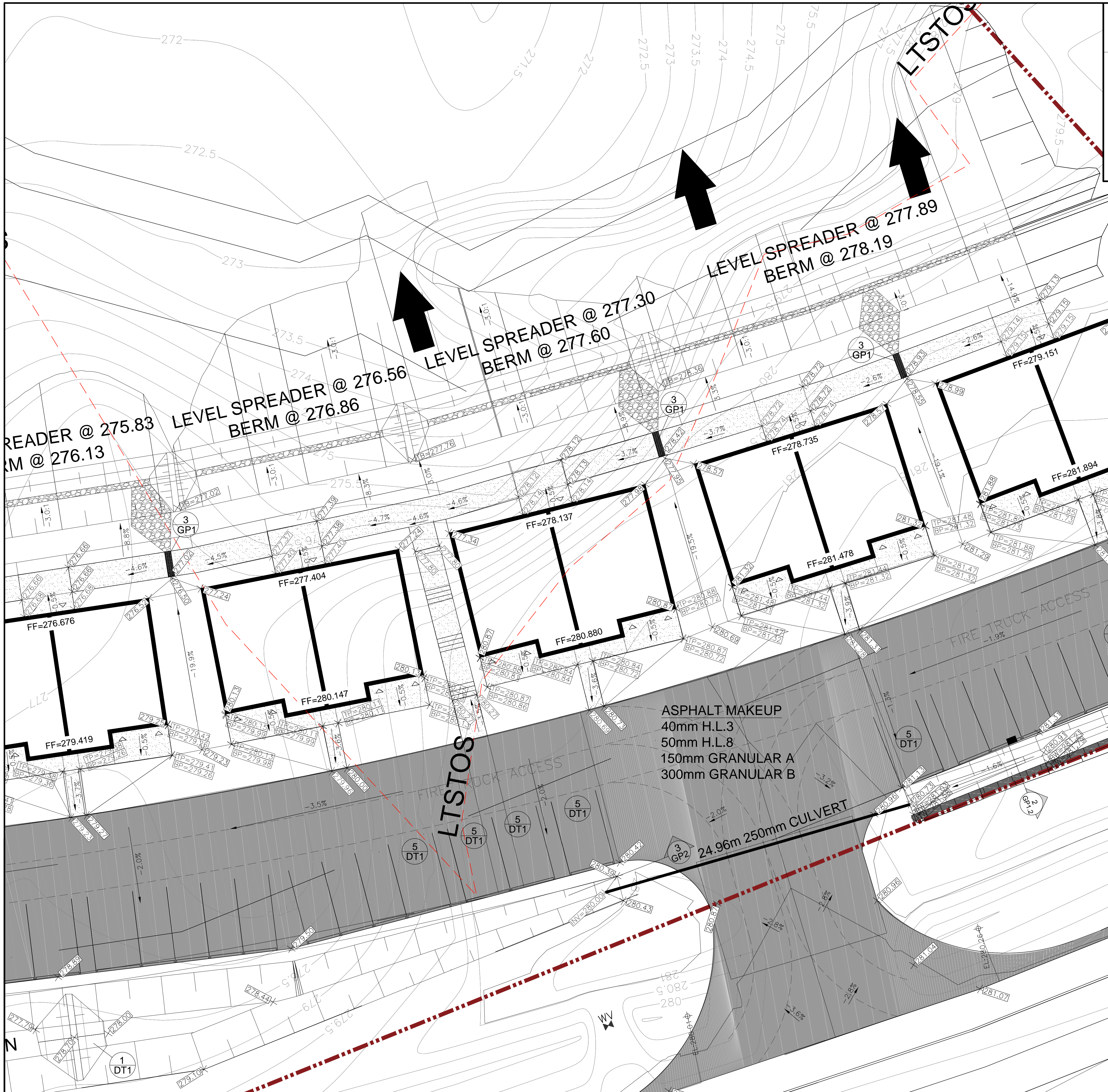
PROJECT
GULL RIVER HOUSING

MINDEN, ON.

TITLE
ENLARGED SITE GRADING PLAN

SCALE 1:150 DRAWING NO.
 DRAWN BY SC
 PLOT DATE Jun. 16, 23
 PROJECT P20045

GP1.1



LEGEND

LTSTOS - LONG TERM STABLE TOP OF SLOPE
 INV - INVERT ELEVATION
 TP - TOP OF PORCH ELEVATION
 BP - BOTTOM OF PORCH ELEVATION
 TB - TOP OF BERM ELEVATION
 FF - FINISHED FLOOR ELEVATION
 TW - TOP OF WALL ELEVATION
 BW - BOTTOM OF WALL ELEVATION
 HYD - FIRE HYDRANT
 WV - WATER VALVE

SYMBOLS

- FIRE HYDRANT
- ⊕ WATER VALVE
- ↘ SLOPE ON GRADE
- △ ELEVATION MARKER

ENGINEER:
M.V. Wilson Engineering Inc.
 245 Kent Street West, Lindsay
 Ontario, Canada
 K9V 2Z3
 Tel: (705) 324-8335
 Fax: (705) 328-1268

NO.	DESCRIPTION	DATE	BY
7.	RE-ISSUED FOR TENDER	22.06.23	SC
6.	ISSUED FOR TENDER	16.06.23	SC
5.	ISSUED FOR COORDINATION	01.06.23	SC
4.	ISSUED FOR SPA #3	28.11.22	SC
3.	ISSUED FOR SPA #2	28.07.22	SC
2.	ISSUED FOR SPA	15.02.22	SC
1.	ISSUED FOR REVIEW	23.12.21	SC

ISSUES

NORTH ARROW

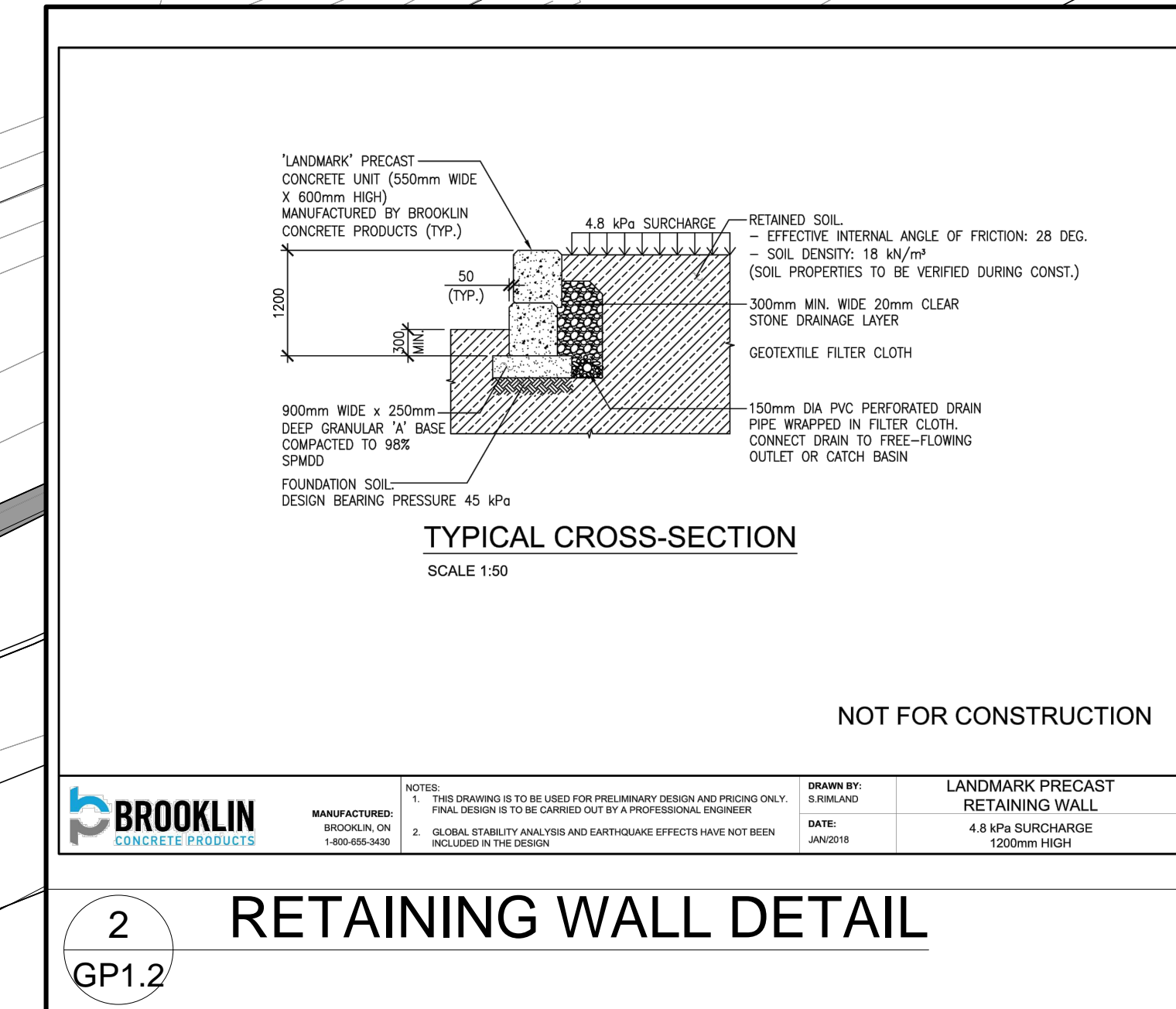
STAMP

PROJECT
GULL RIVER HOUSING

MINDEN, ON.

TITLE
ENLARGED SITE GRADING PLAN

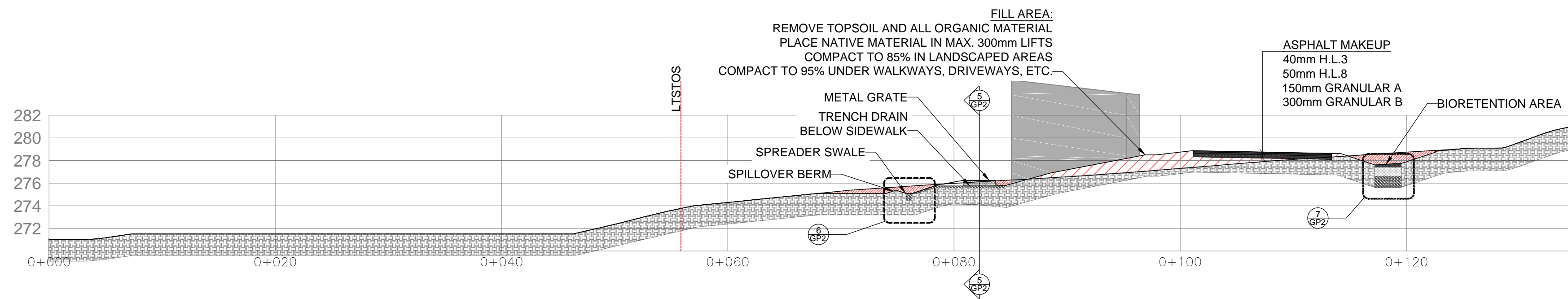
SCALE 1:150 DRAWING NO. GP1.2
 DRAWN BY SC
 PLOT DATE Jun. 16, 23
 PROJECT P20045



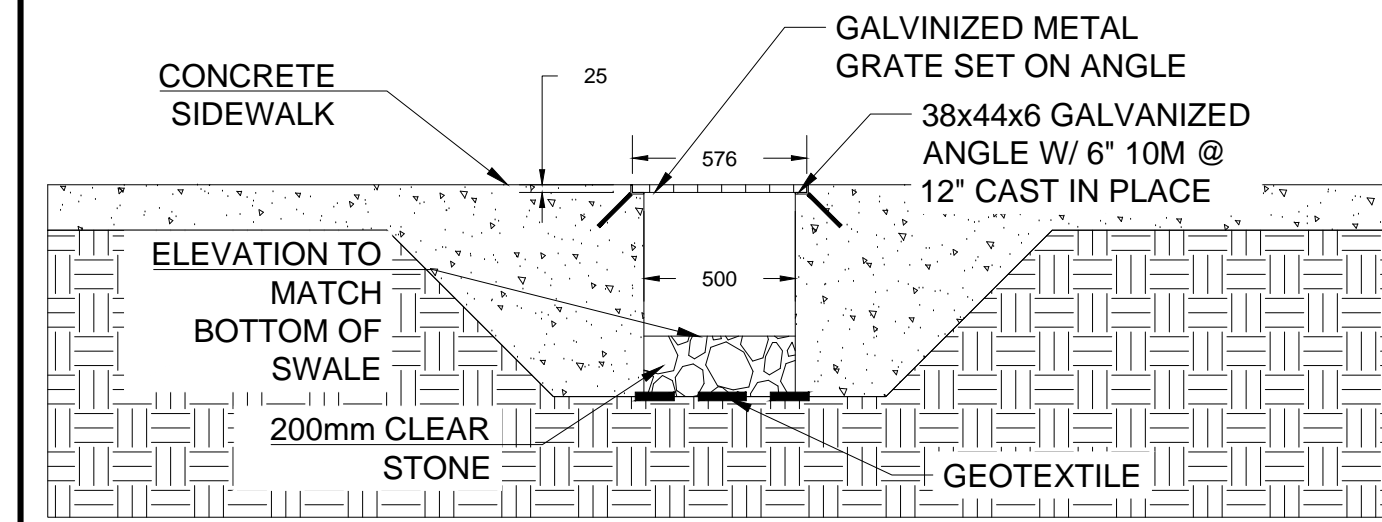
BROOKLIN
 CONCRETE PRODUCTS

NOTES: THIS DRAWING IS TO BE USED FOR PRELIMINARY DESIGN AND PRICING ONLY. FINAL DESIGN IS TO BE CARRIED OUT BY A PROFESSIONAL ENGINEER.
 1. GLOBAL STABILITY ANALYSIS AND EARTHQUAKE EFFECTS HAVE NOT BEEN INCLUDED IN THIS DESIGN.

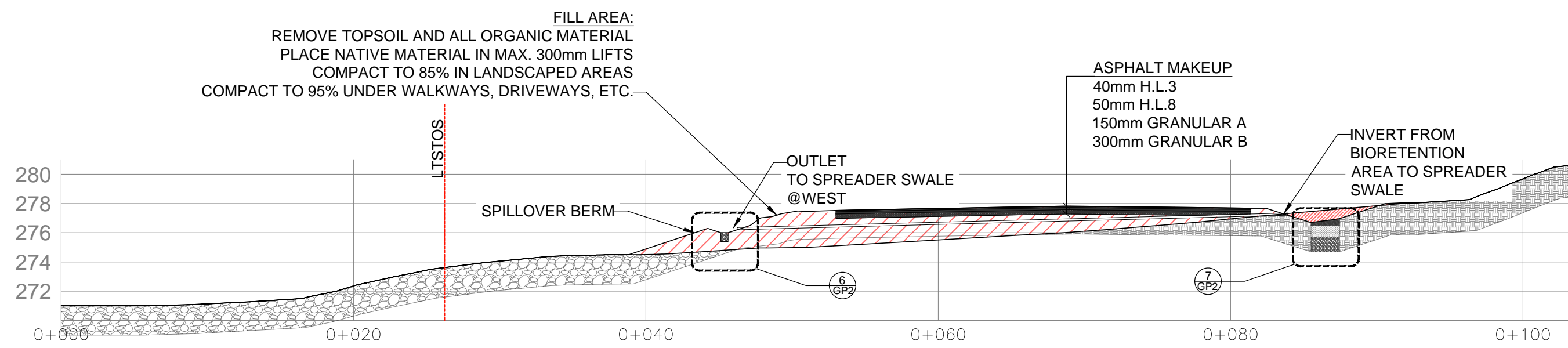
DRAWN BY: LANDMARK PRECAST RETAINING WALL
 DATE: 4.8 kPa SURCHARGE
 JAN/23 1200mm HIGH



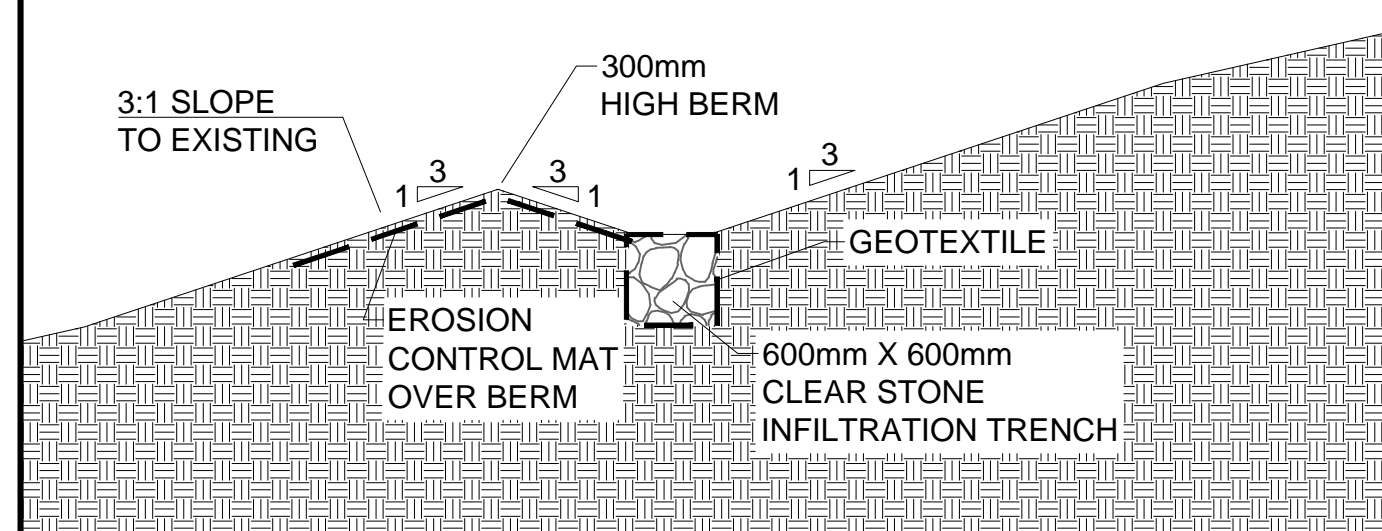
1 CROSS SECTION
GP2 1:300



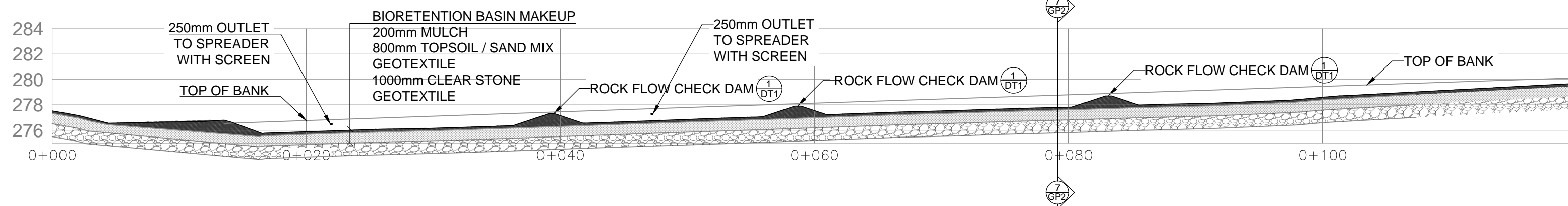
5 TRENCH DRAIN SECTION
GP2 1:25



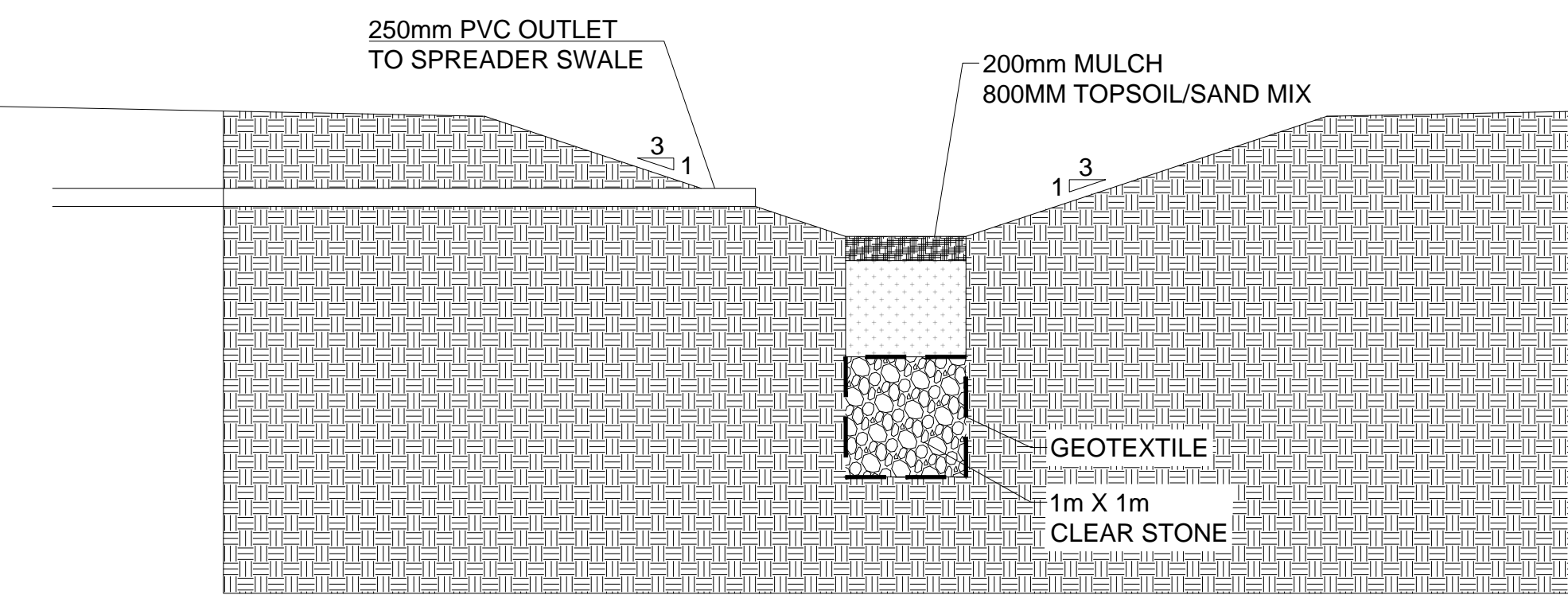
2 CROSS SECTION
GP2 1:300



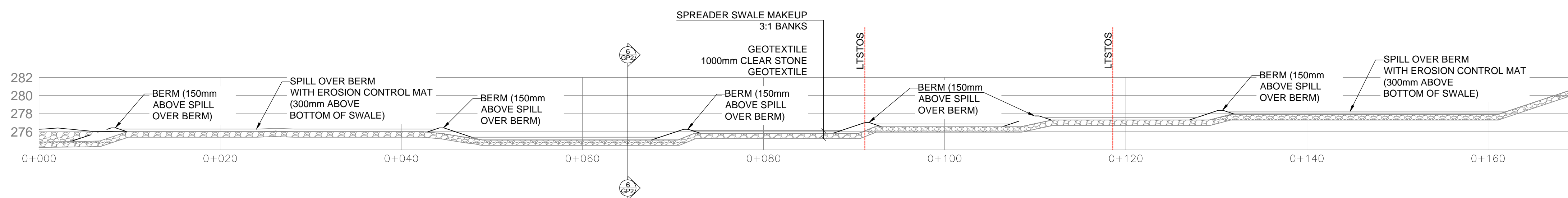
6 SPREADER SWALE SECTION
GP2 1:50



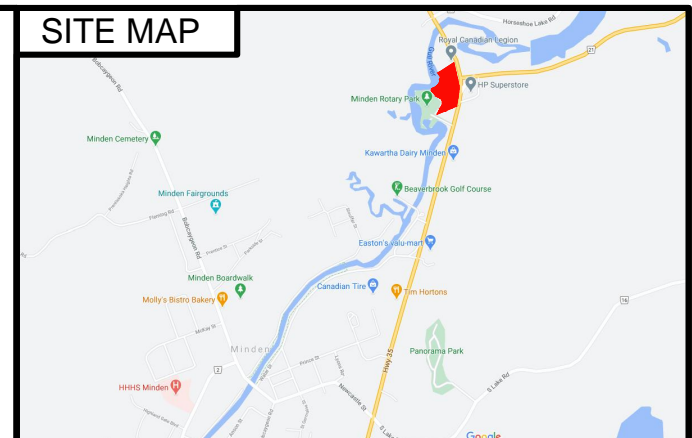
3 BIORETENTION PROFILE
GP2 1:300



7 BIORETENTION BASIN SECTION
GP2 1:50



4 SPREADER SWALE PROFILE
GP2 1:300

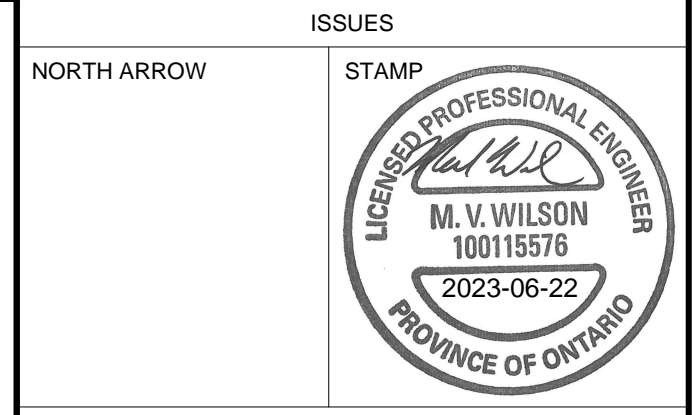


LEGEND

 L1STOS - LONG TERM STABLE TOP OF SLOPE

ENGINEER:
M.V. Wilson Engineering Inc.
 245 Kent Street West, Lindsay
 Ontario, Canada
 K9V 2Z3
 Tel: (705) 324-8335
 Fax: (705) 328-1268

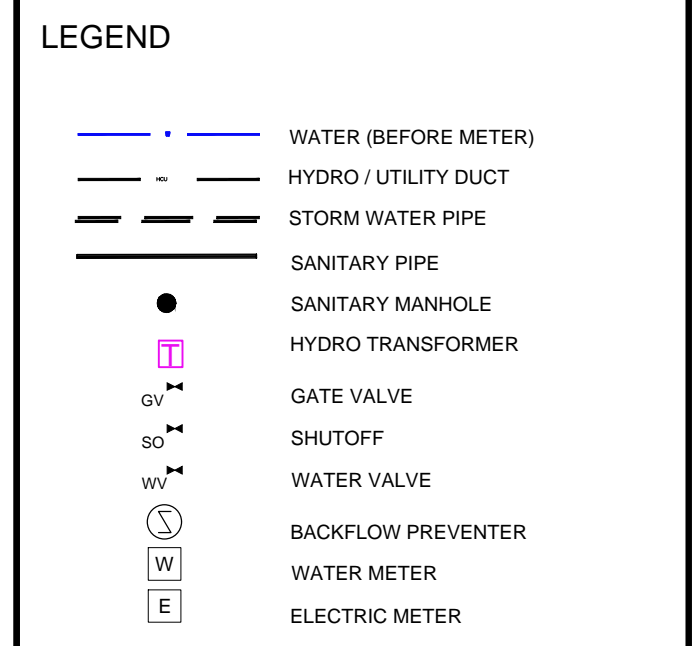
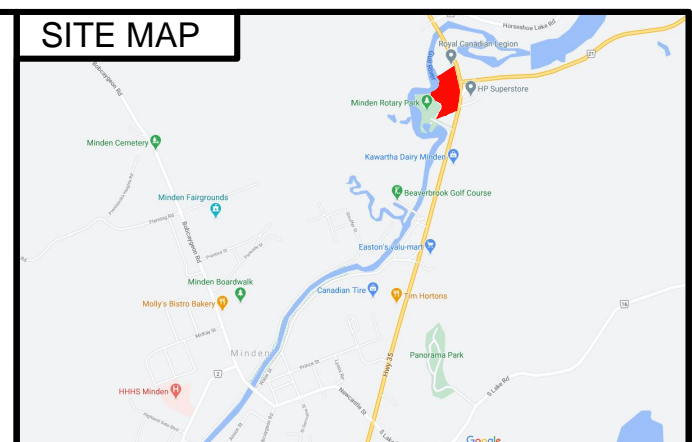
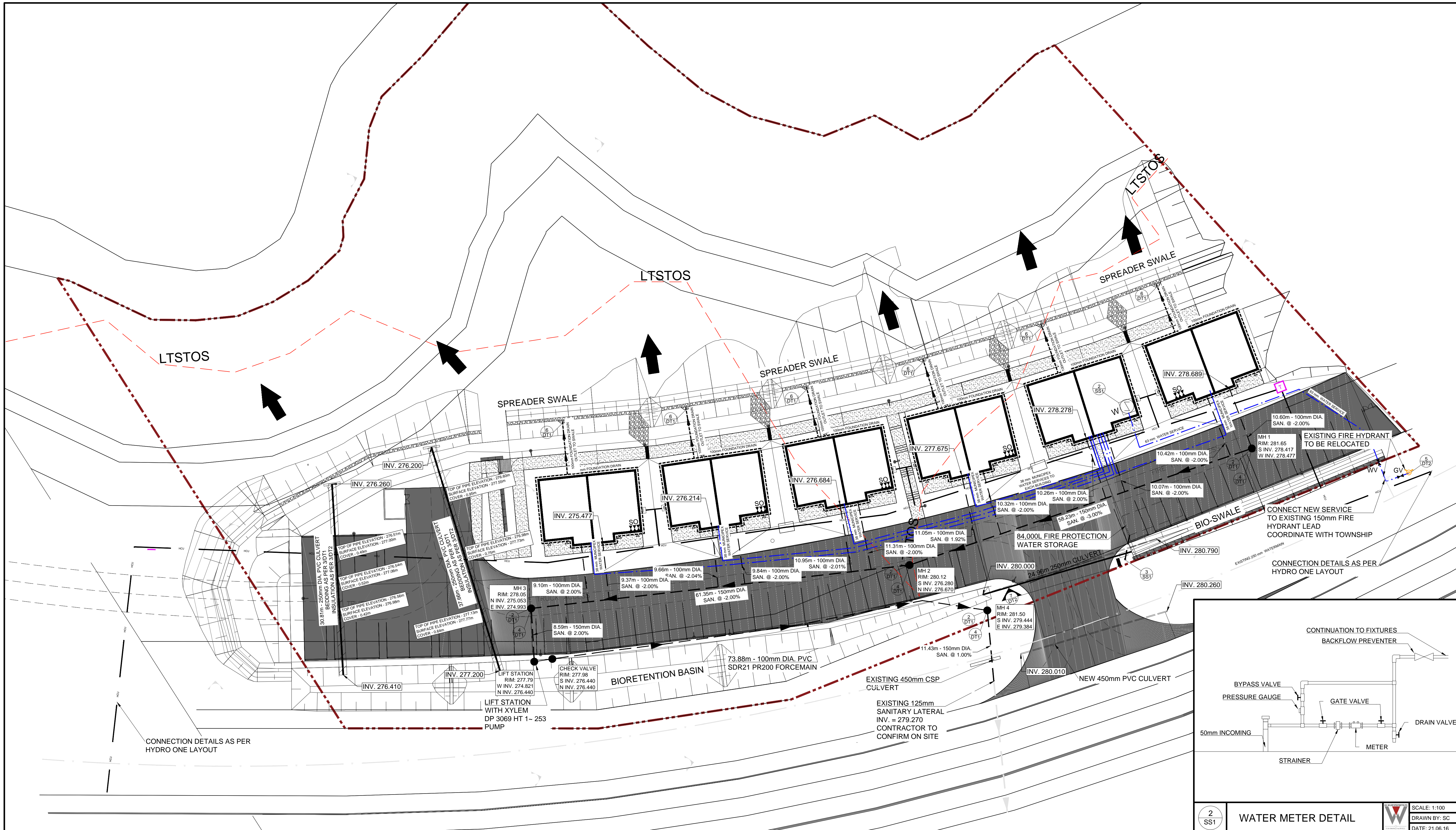
NO.	DESCRIPTION	DATE	BY
7.	RE-ISSUED FOR TENDER	22.06.23	SC
6.	ISSUED FOR TENDER	16.06.23	SC
5.	ISSUED FOR COORDINATION	01.06.23	SC
4.	ISSUED FOR SPA #3	28.11.22	SC
3.	ISSUED FOR SPA #2	28.07.22	SC
2.	ISSUED FOR SPA	15.02.22	SC
1.	ISSUED FOR REVIEW	23.12.21	SC



PROJECT
GULL RIVER HOUSING
 MINDEN, ON.

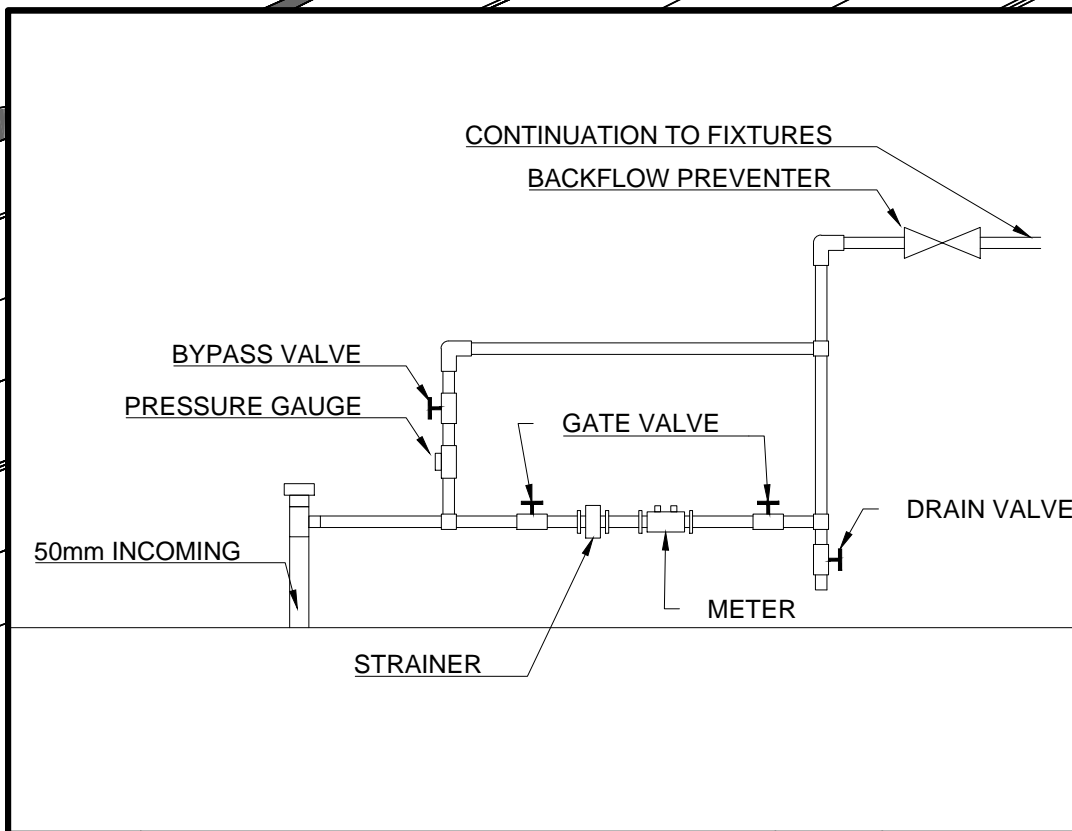
TITLE
SITE SECTIONS

SCALE 1:300 DRAWING NO. GP2.0
 DRAWN BY SC
 PLOT DATE Jun. 16, 23
 PROJECT P20045



ENGINEER:
M.V. Wilson Engineering Inc.
 245 Kent Street West, Lindsay
 Ontario, Canada
 K9V 2Z3
 Tel: (705) 324-8335
 Fax: (705) 328-1268

NO.	DESCRIPTION	DATE	BY
7.	RE-ISSUED FOR TENDER	22.06.23	SC
6.	ISSUED FOR TENDER	16.06.23	SC
5.	ISSUED FOR COORDINATION	01.06.23	SC
4.	ISSUED FOR SPA #3	28.11.22	SC
3.	ISSUED FOR SPA #2	28.07.22	SC
2.	ISSUED FOR SPA	15.02.22	SC
1.	ISSUED FOR REVIEW	23.12.21	SC

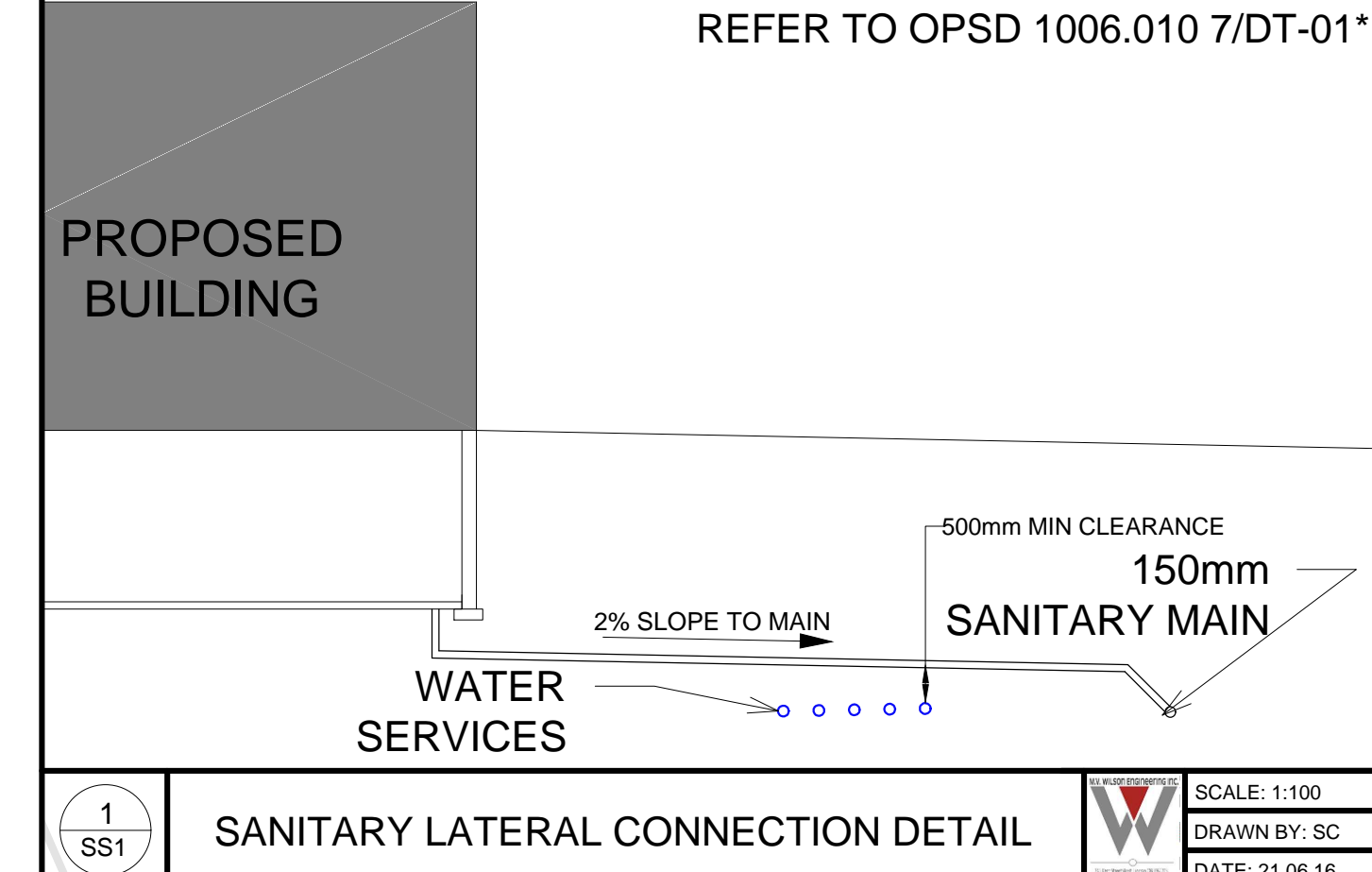


2 SS1 WATER METER DETAIL SCALE: 1:100 DRAWN BY: SC DATE: 21.06.16

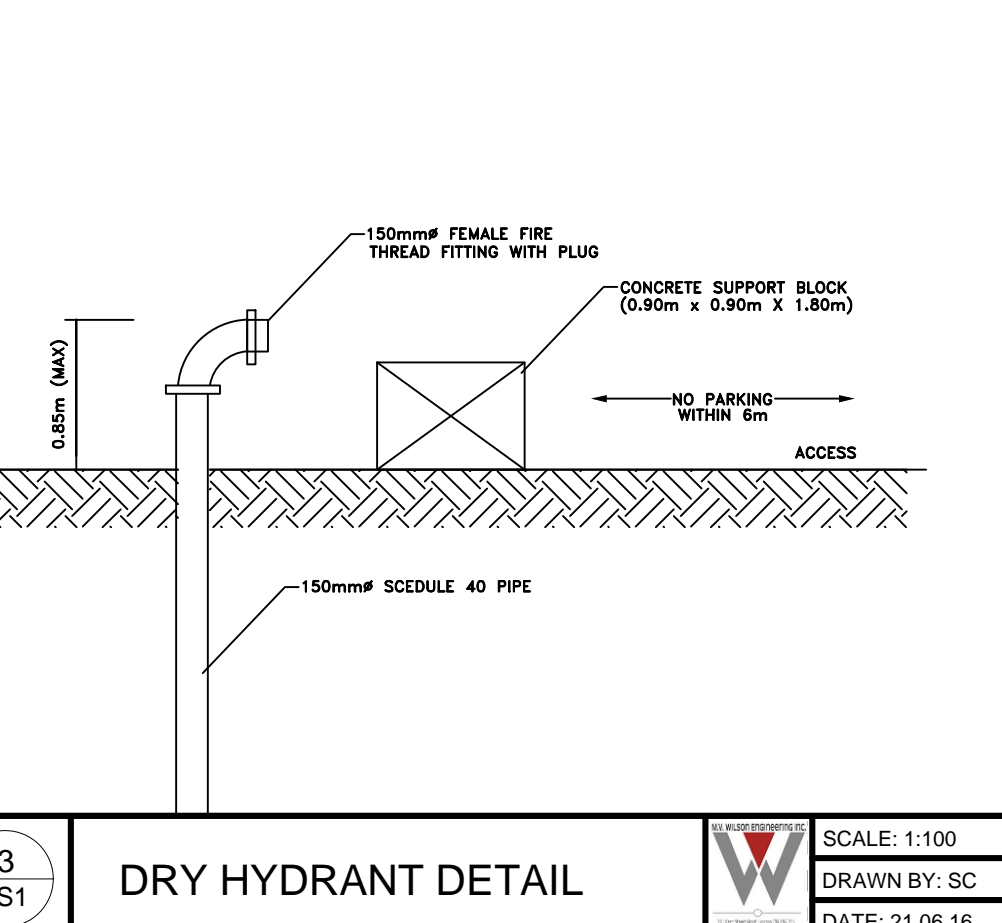
- GENERAL NOTES**
- CONSTRUCTION OF WATER, STORM AND SANITARY SERVICES MUST BE IN ACCORDANCE WITH THE MINISTRY OF ENVIRONMENT (MOE) GUIDELINES (LATEST REVISION).
 - ALL DIMENSION AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION. ANY DISCREPANCY MUST BE COMMUNICATED TO M.V. WILSON ENGINEERING INC. (705) 324-7281.
 - THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND THE PROTECTION OF ALL UTILITIES DURING CONSTRUCTION.
 - TOPSOIL IN FILL AREA TO BE STRIPPED AND CLEAN FILL TO BE PLACED AND COMPACTED TO 95% PROCTOR DENSITY.
 - BEDDING TRENCHES OF PIPES PASSING THROUGH UN-COMPACTED FILL AREAS SHALL BE EXCAVATED TO THE UNDISTURBED GROUND LEVEL AND BACK FILLED WITH GRANULAR 'A' COMPACTED TO 100% PROCTOR DENSITY.
 - TRACER WIRE TO BE INSTALLED ON ALL WATERMANS, SERVICES, AND FORCEMANS.
- SANITARY SEWER**
- SANITARY SEWER CONNECTIONS ARE TO BE 100mmØ PVC DR 28.
 - 100mmØ SANITARY SEWERS MUST BE PVC SDR 35 ASTM D3034-81 WITH 20mm CRUSHER RUN GRAN 'A' BEDDING TO TOP OF PVC PIPE. COVER MATERIAL SHALL BE SAND. ALTERNATIVE MATERIALS MAY BE ACCEPTED PROVIDED WRITTEN APPROVAL HAS BEEN OBTAINED FROM M.V. WILSON ENGINEERING. MUST BE IN ACCORDANCE WITH OPSD 802.010.
 - MANHOLE FRAMES AND COVERS MUST BE AS PER OPSD 401.010 (CLOSED FOR SAN MH'S).
 - REFER TO OPSD 1006.010 (REFER TO DT-01) FOR SANITARY SEWER CONNECTION DETAIL.
 - SANITARY CONNECTIONS TO SEWER LINE ARE TO BE MANUFACTURED TEES.
 - FROST STRAPS MUST BE PROVIDED ON ALL MANHOLES.

- WATERMAIN**
- ALL WATERMANS MUST HAVE A MINIMUM VERTICAL CLEARANCE OF 0.5m OVER UNDER SEWERS AND ALL OTHER UTILITIES WHEN CROSSING.
 - WATERMANS ARE TO HAVE A MINIMUM COVER OF 1.8m FROM THE GROUND SURFACE TO THE OVERTOP OF PIPE.
 - A 2.5m HORIZONTAL SEPARATION MUST BE MAINTAINED FROM ANY SEWER OR SEWER MAINTENANCE HOLE. THE DISTANCE IS TO BE MEASURED FROM THE NEAREST EDGE.
 - 100mmØ WATERMANS TO BE PVC CLASS 150 (DR18) AND MUST CONFORM TO AWWA SPECIFICATIONS C900-75.
 - WATER SERVICE CONNECTIONS ARE TO BE 20mmØ MUNICIPAL EX. (OPSD 1104.010 - REFER TO DT-01).
 - ALL JOINTS TO BE MECHANICALLY RESTRAINED. ALL TEES, PLUGS, HORIZONTAL BENDS, AND VERTICAL BENDS MUST CONFORM TO OPSD 1103.010 AND OPSD 1103.000 (REFER TO DT-01).
 - CATHODIC PROTECTION TO BE PROVIDED:
 - ONE 2.3kg ZINC ANODE FOR EVERY 100m OF TRACER WIRE
 - ONE 2.3kg ZINC ANODE ON EVERY FITTING CONNECTED TO THE WATERMAIN
 - ONE 2.3kg ZINC ANODE ON EVERY COPPER SERVICE CONNECTION

- FLUSHING, SWABBING, AND TESTING**
- ALL NEW WATERMANS ARE TO BE SWABBED IN ACCORDANCE WITH ONTARIO PROVINCIAL SPECIFICATIONS (OPS), THE AMERICAN WATERWORKS ASSOCIATION (AWWA) STANDARDS, AND THE ONTARIO SAFE DRINKING WATER ACT (CANCSA - B64.10).
 - A REDUCED PRESSURE ZONE BACK FLOW PREVENTER (MATT'S SERIES 809 OR APPROVED EQUIVALENT) IS REQUIRED ON THE TEMPORARY SUPPLY LINES USED FOR FILLING AND FLUSHING OR SWABBING OF WATERMANS.
 - M.V. WILSON ENGINEERING MUST BE CONTACTED PRIOR TO ALL CLEANING, HYDROSTATIC TESTING, DISINFECTION, AND SAMPLING ACTIVITIES. THE PROJECT ENGINEER MUST BE ON SITE WITH THE SPECIALIST CARRYING OUT ANY OF THESE ACTIVITIES.
 - ALL WORKS ASSOCIATED WITH LEAKAGE TESTING, SWABBING, CHLORINATION AND STERILIZATION OF THE WATERMANS IS TO BE PERFORMED BY A COMPANY SPECIALIZED IN THE WORK SUCH OR A COMPANY APPROVED BY THE CITY ENGINEER.
- VALVES & VALVE BOXES**
- ALL VALVE BOXES TO BE SET TO PROPOSED GRADES.
 - FOR MAINLINE VALVES, RESILIENT SEAT GATE VALVES CONFORMING TO AWWA C509 (LATEST REVISION) MUST BE USED.



1 SS1 SANITARY LATERAL CONNECTION DETAIL SCALE: 1:100 DRAWN BY: SC DATE: 21.06.16



3 SS1 DRY HYDRANT DETAIL SCALE: 1:100 DRAWN BY: SC DATE: 21.06.16

ISSUES

NORTH ARROW

STAMP: LICENSED PROFESSIONAL ENGINEER M.V. WILSON 100115578 2023-06-22 PROVINCE OF ONTARIO

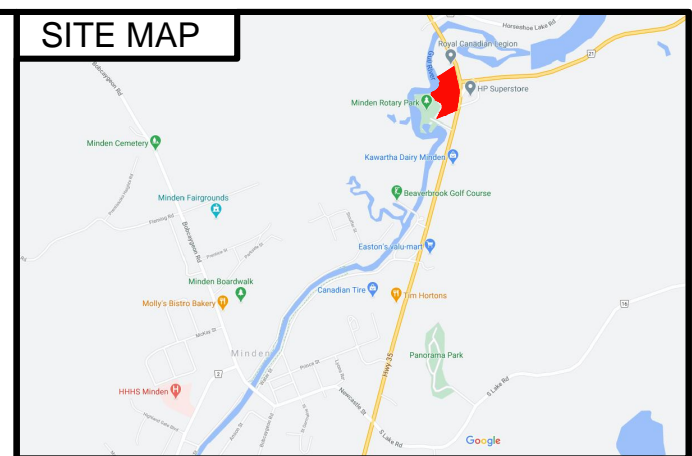
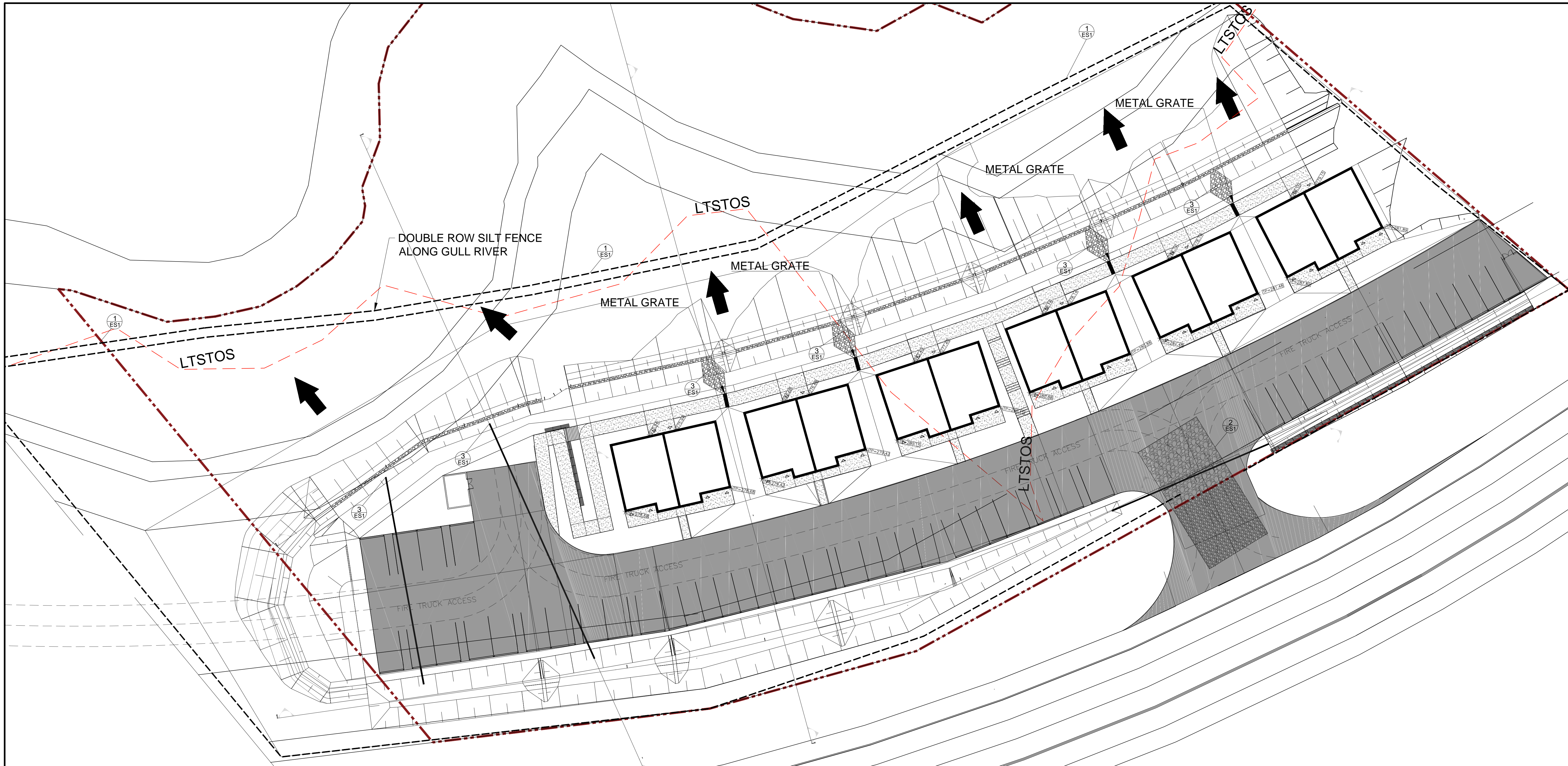
PROJECT: GULL RIVER HOUSING

MINDEN, ON.

TITLE: SITE SERVICING PLAN

SCALE	1:300	DRAWING NO.	
DRAWN BY	SC		
PLOT DATE	Jun. 21, 23		
PROJECT	P20045		

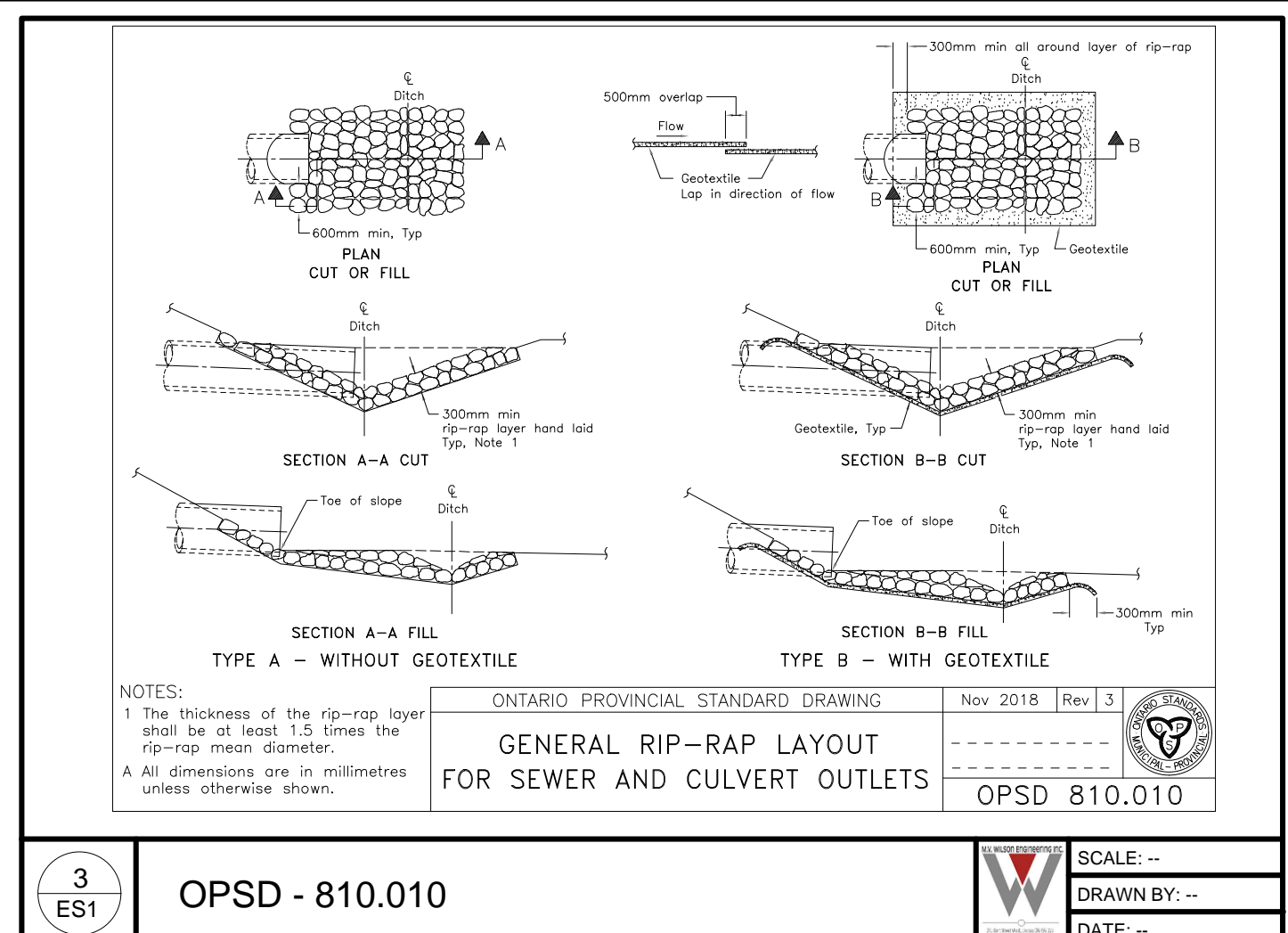
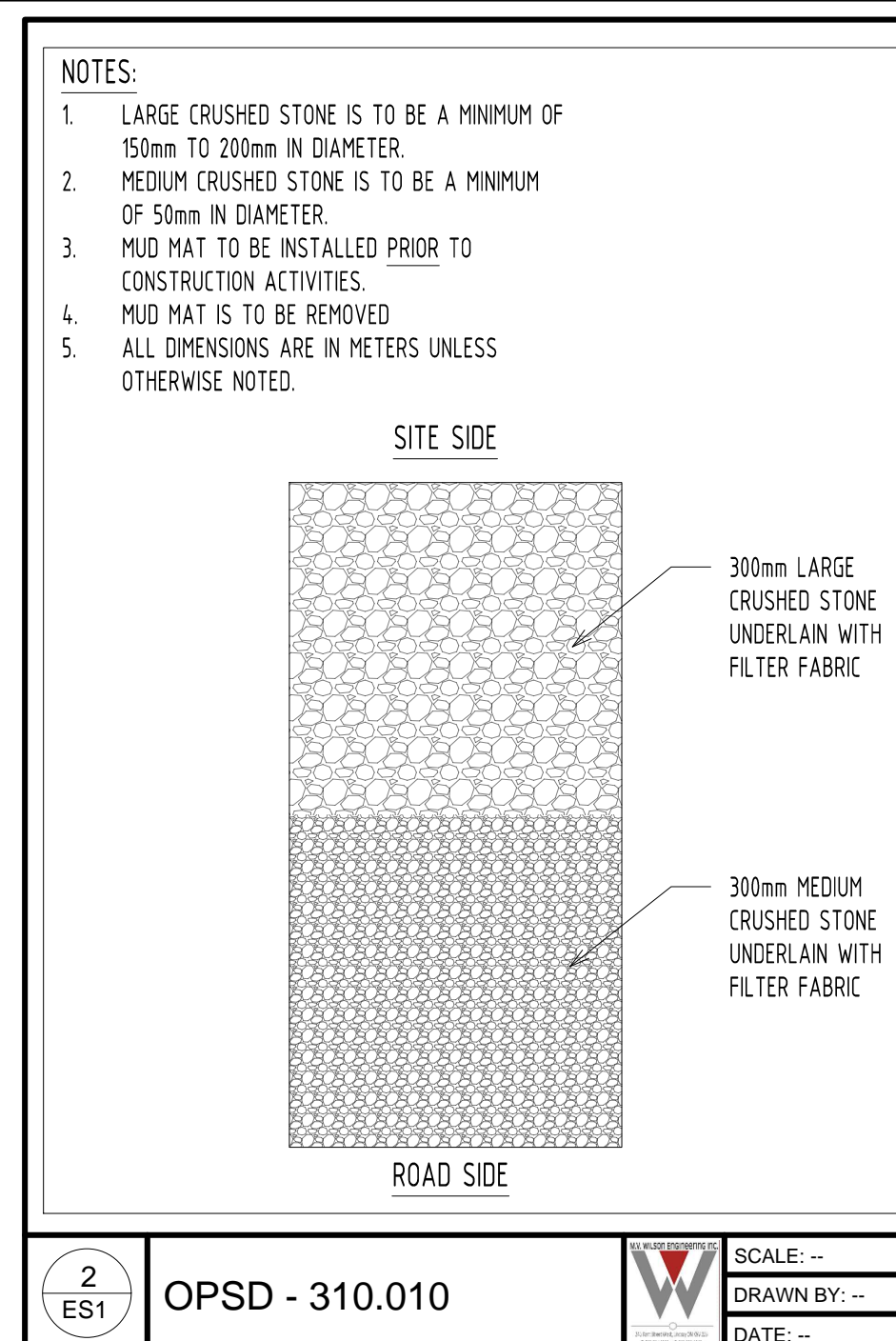
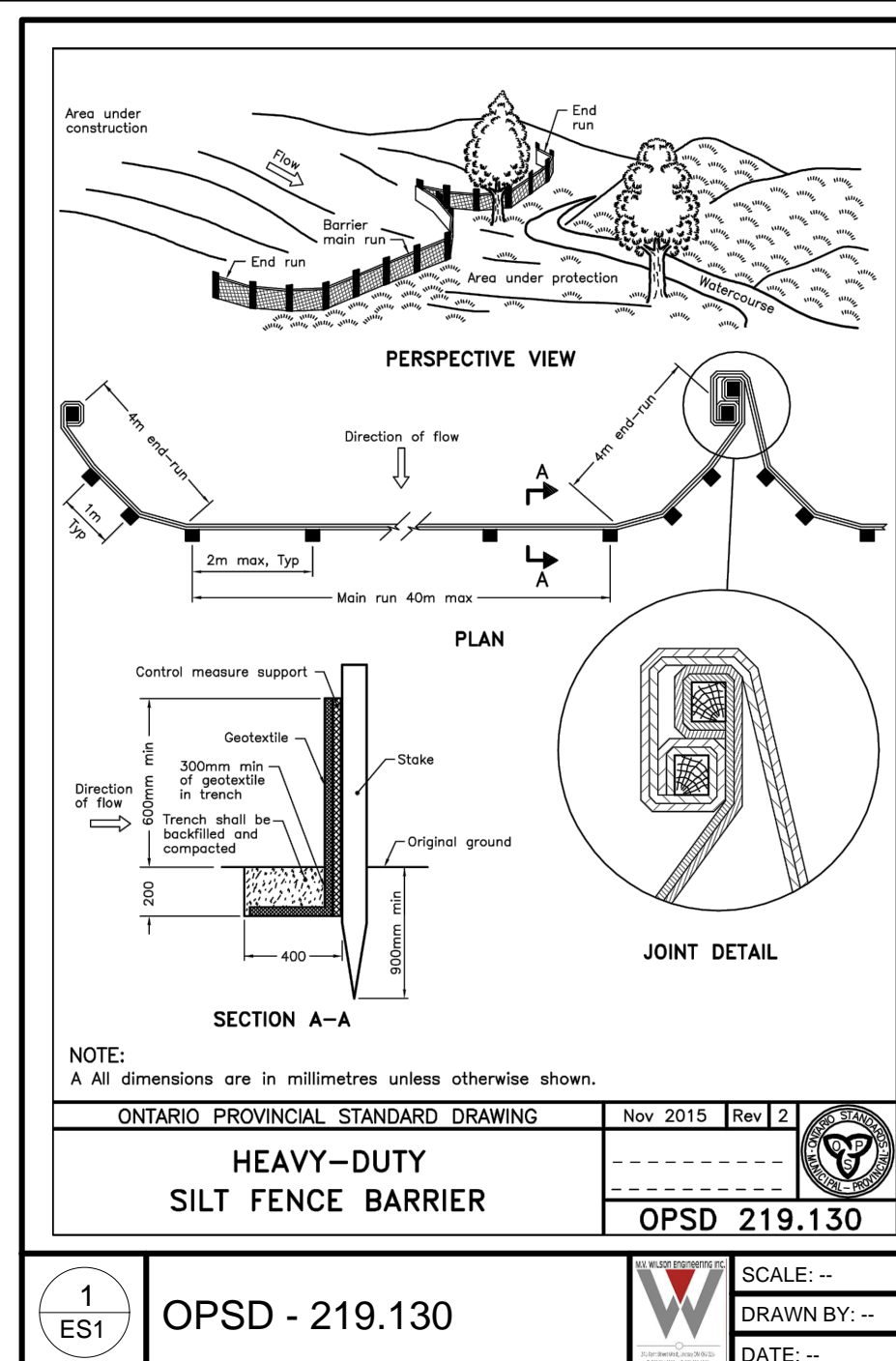
SS1



ENGINEER:
M.V. Wilson Engineering Inc.
 245 Kent Street West, Lindsay
 Ontario, Canada
 K9V 2Z3
 Tel: (705) 324-8335
 Fax: (705) 328-1268

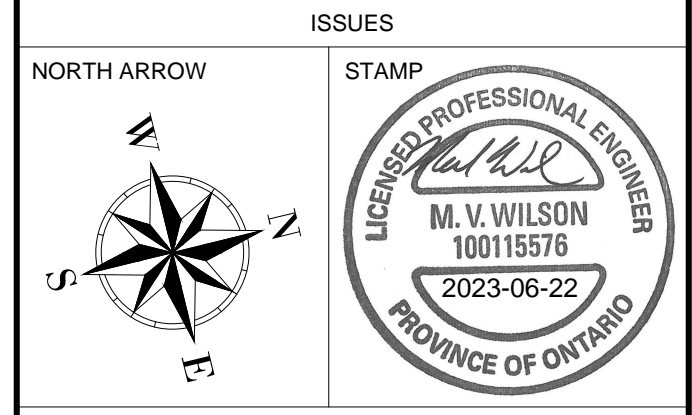
EROSION & SEDIMENT CONTROL NOTES:

- CLEAN-UP OF ANY DEBRIS ON MUNICIPAL ROADS SHALL BE COMPLETED PERIODICALLY OR PRIOR TO ANY STORM EVENT TO PREVENT DAMAGE OF MUNICIPAL INFRASTRUCTURE AND TO PROTECT WATERCOURSES AND/OR ENVIRONMENTALLY SENSITIVE AREAS.
- ALL EROSION AND SEDIMENT CONTROL MEASURE ARE TO BE INSTALLED, MAINTAINED AND REMOVED ACCORDING THE THE CONSTRUCTION SCHEDULE PROVIDED ON THE DRAWINGS. ANY DEVIATIONS SHALL BE COMMUNICATED AND APPROVED BY THE REVIEW ENGINEER.



- RIP-RAP NOTES:**
- 50mm STONE TO BE USED
 - RIP RAP TO EXTEND FROM TRENCH DRAIN TO BOTTOM OF SPREADER SWALE

NO.	DESCRIPTION	DATE	BY
7.	RE-ISSUED FOR TENDER	22.06.23	SC
6.	ISSUED FOR TENDER	16.06.23	SC
5.	ISSUED FOR COORDINATION	01.06.23	SC
4.	ISSUED FOR SPA #3	28.11.22	SC
3.	ISSUED FOR SPA #2	28.07.22	SC
2.	ISSUED FOR SPA	15.02.22	SC
1.	ISSUED FOR REVIEW	23.12.21	SC



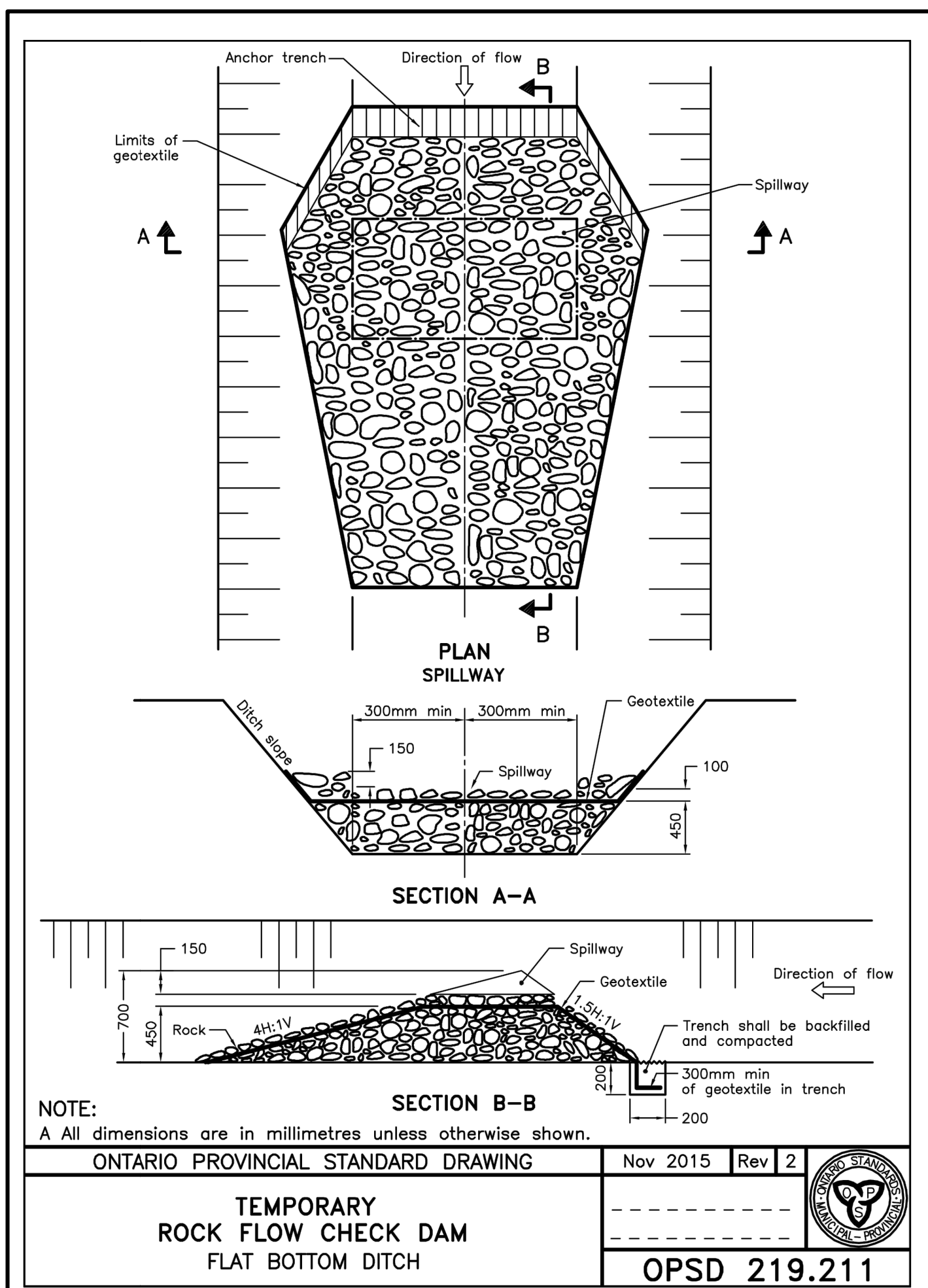
PROJECT
GULL RIVER HOUSING

MINDEN, ON.

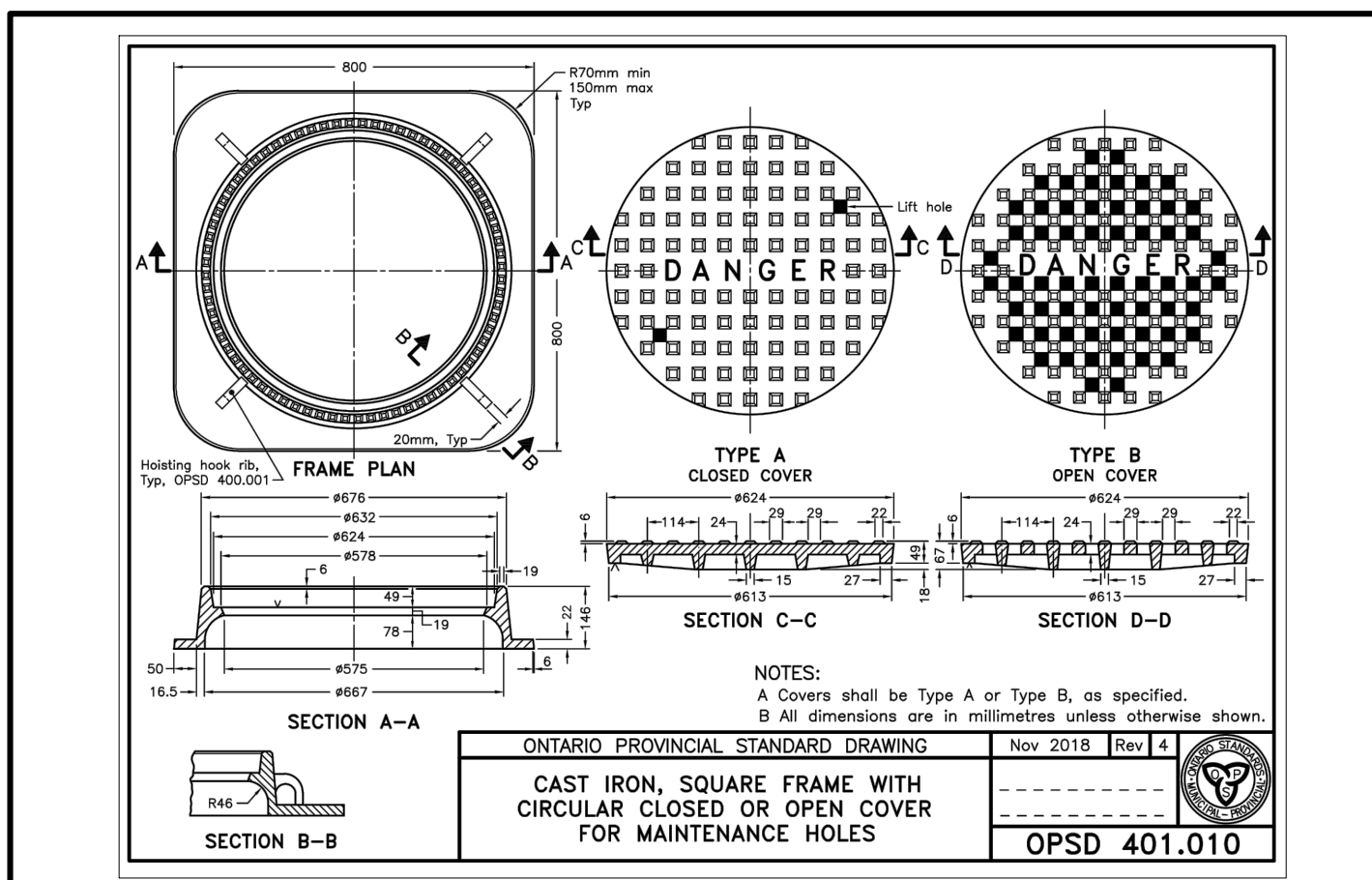
TITLE
EROSION & SEDIMENT CONTROL PLAN

SCALE: 1:300 DRAWING NO. P20045
 DRAWN BY: SC
 PLOT DATE: Jun. 16, 23
 PROJECT: P20045

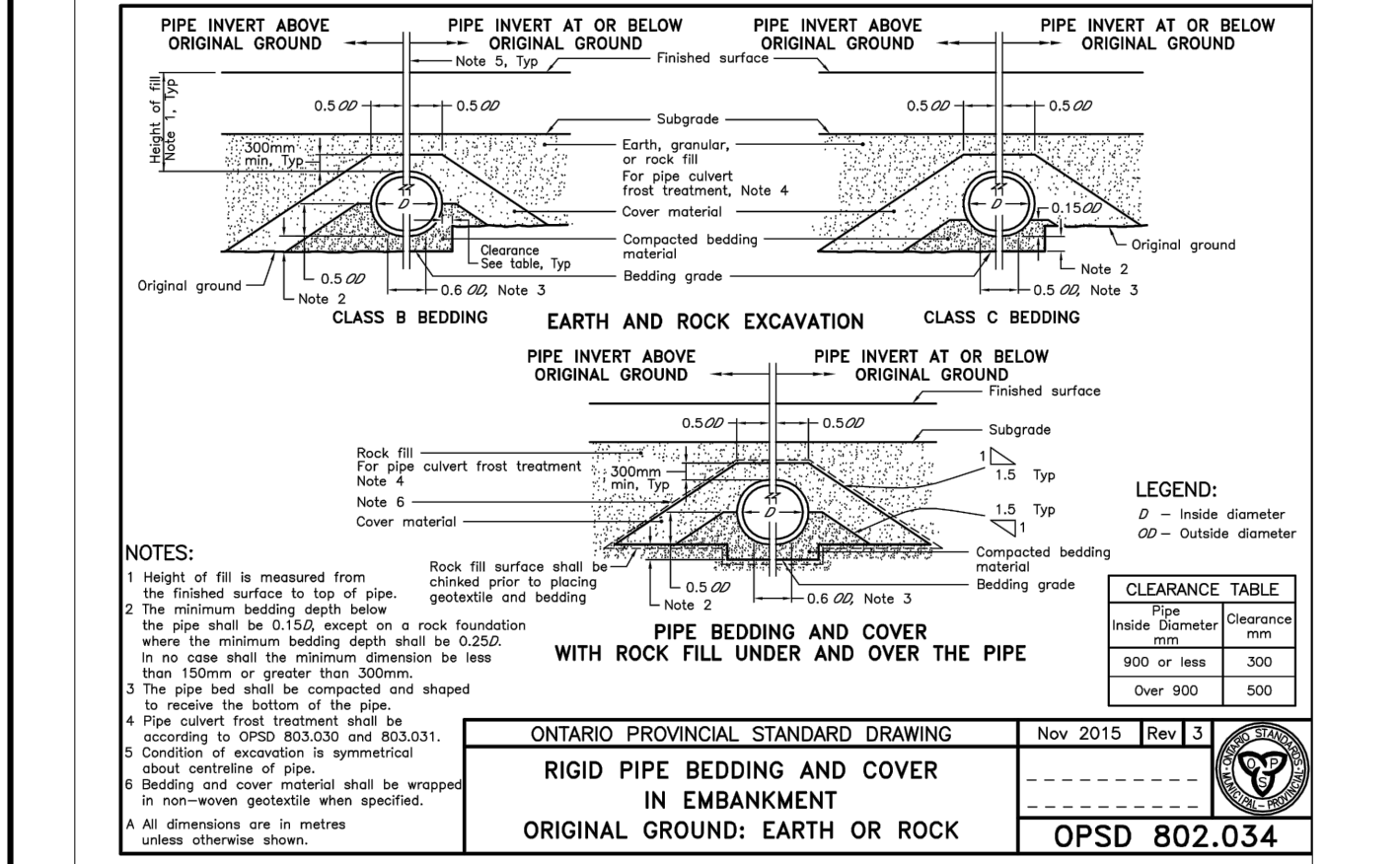
ES1



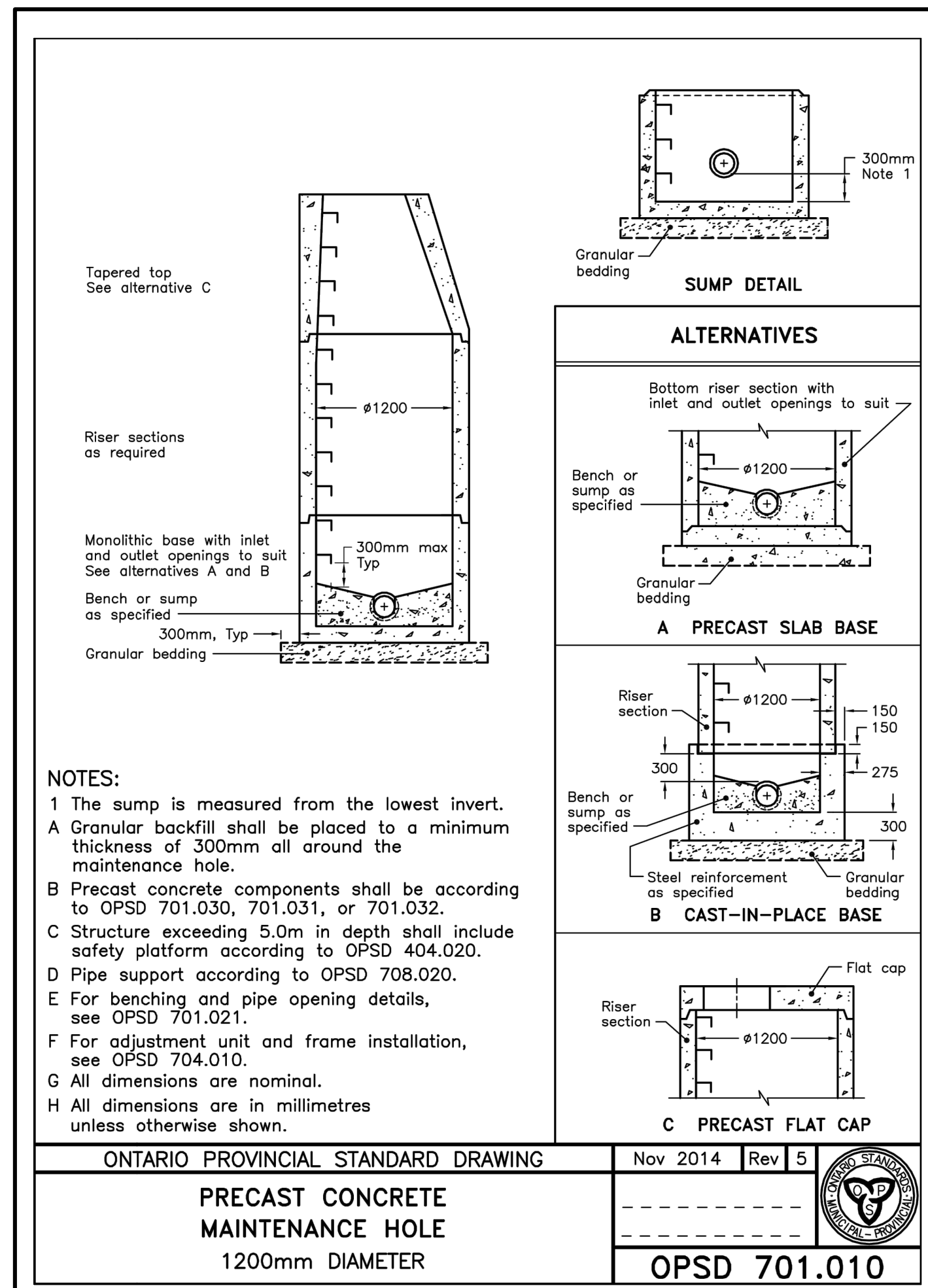
1 DT-01 OPSD - 219.211 SCALE: -- DRAWN BY: -- DATE: --



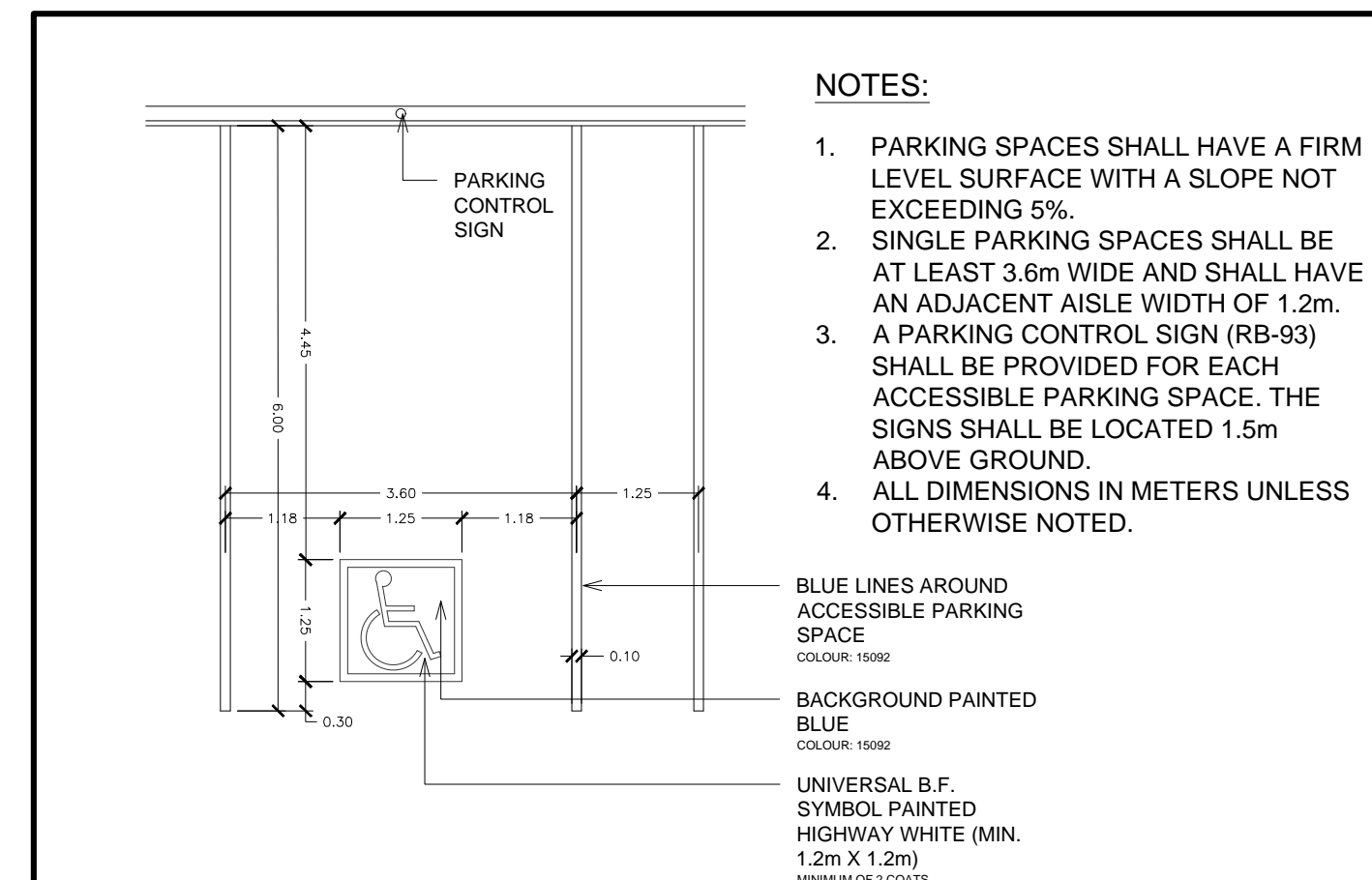
2 DT-01 OPSD 401.010 SCALE: 1:5 DRAWN BY: SS DATE: 18.08.17



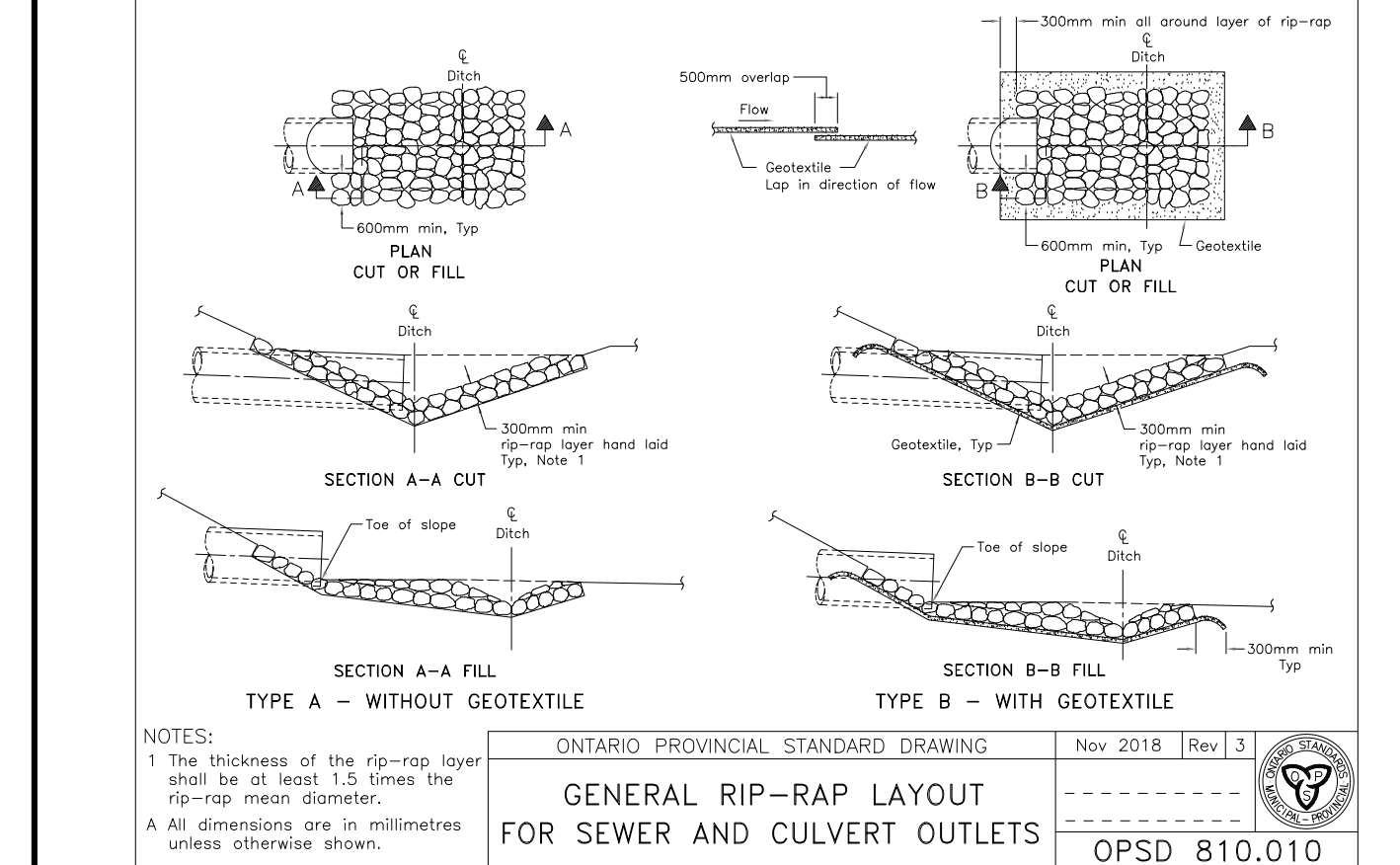
3 DT-01 OPSD - 802.034 SCALE: 1:5 DRAWN BY: SS DATE: 18.08.17



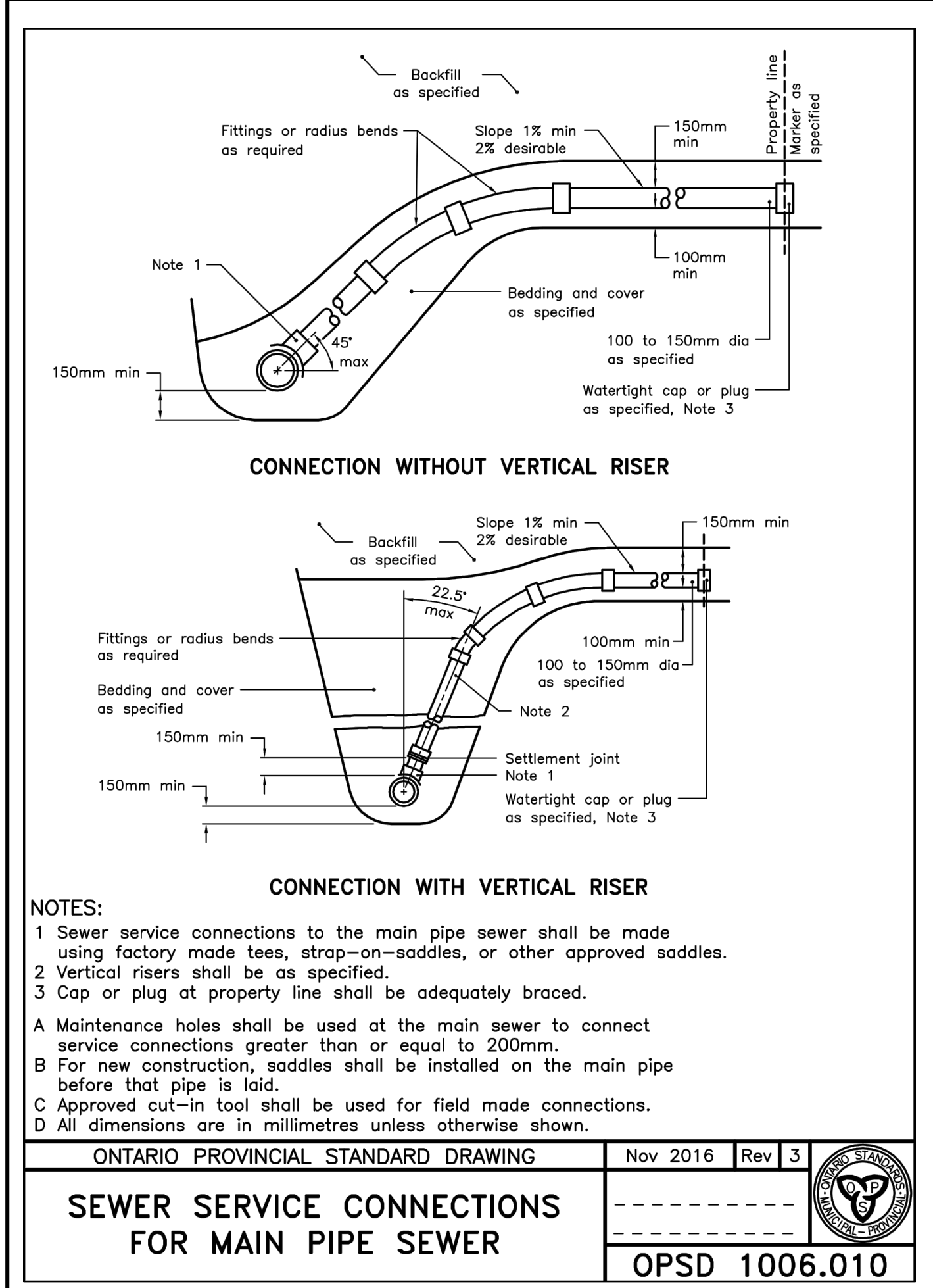
4 DT-01 OPSD - 701.010 SCALE: -- DRAWN BY: -- DATE: --



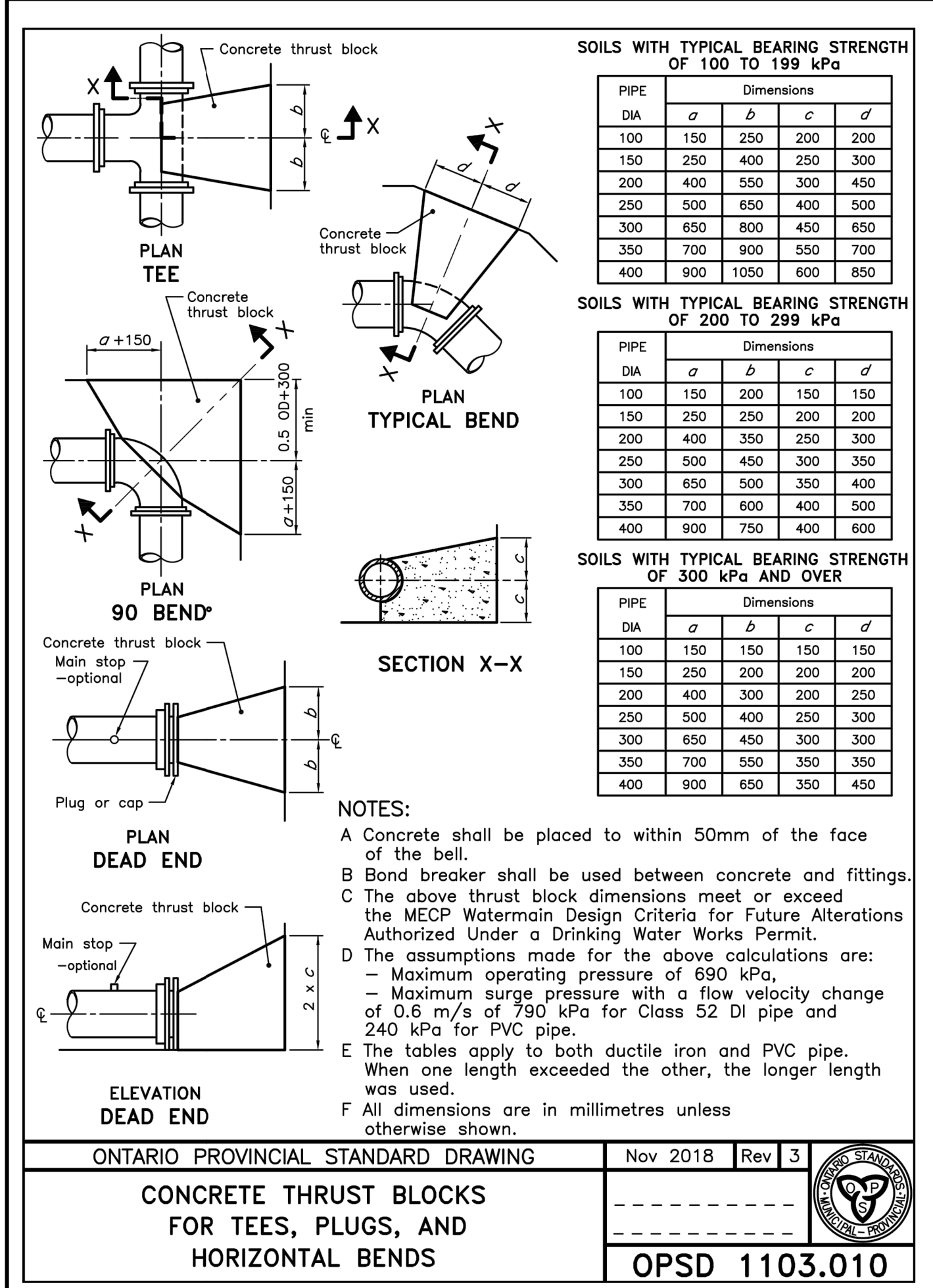
5 DT-01 ACCESSIBLE PARKING SPACE SCALE: 1:75 DRAWN BY: SS DATE: 18.08.17



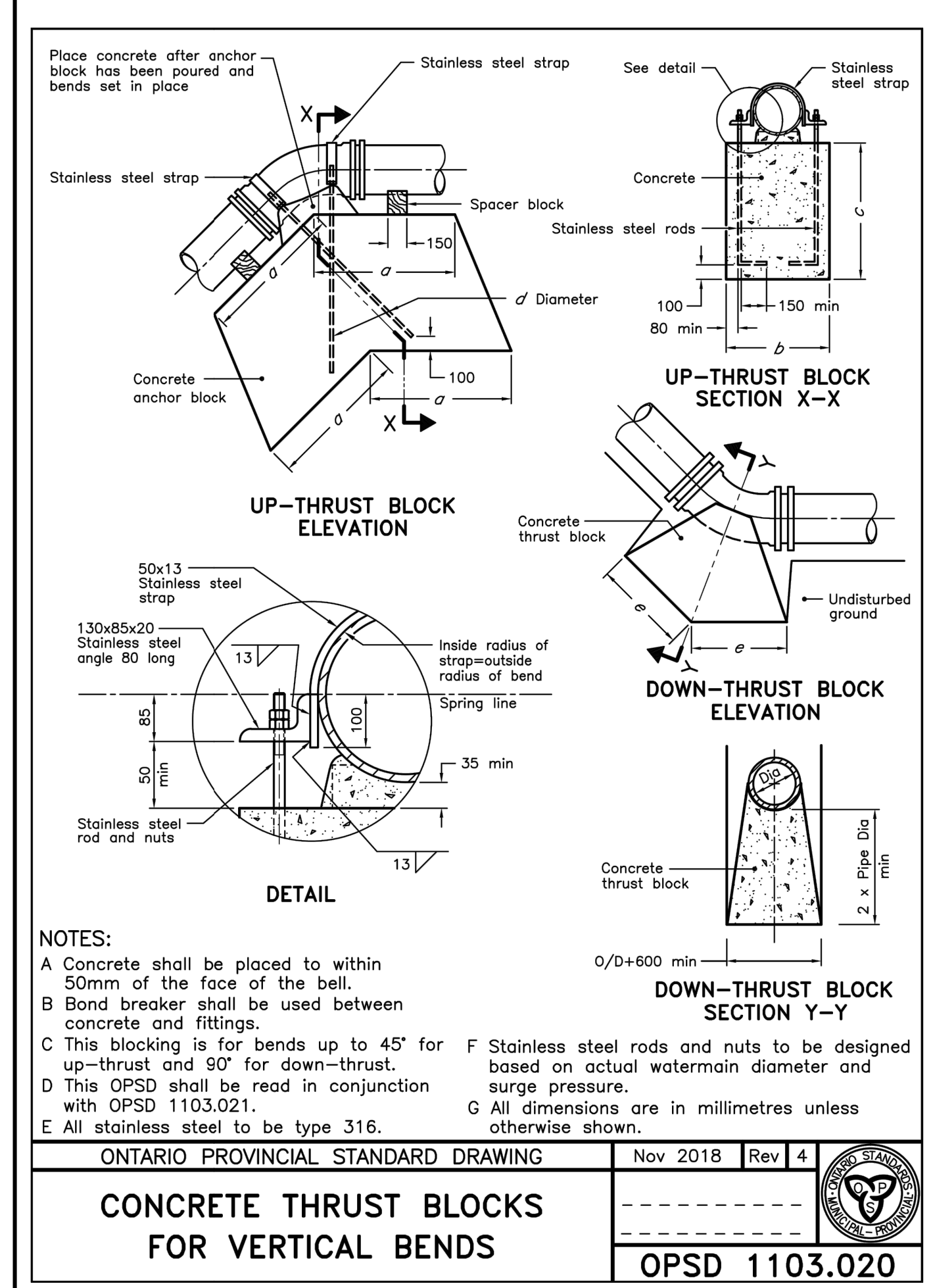
6 DT-01 OPSD - 810.010 SCALE: -- DRAWN BY: -- DATE: --



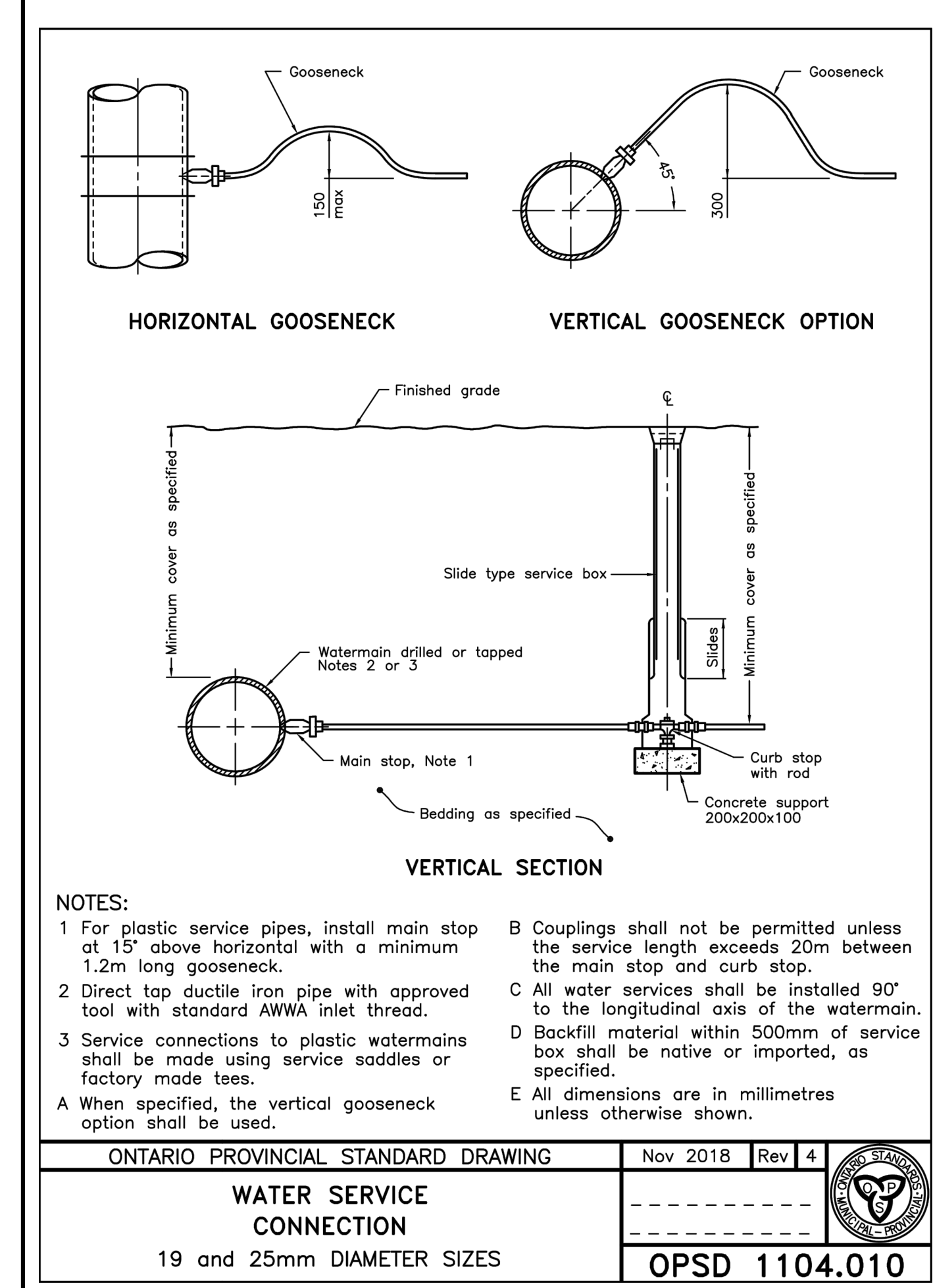
7 DT-01 OPSD - 1006.010 SCALE: -- DRAWN BY: -- DATE: --



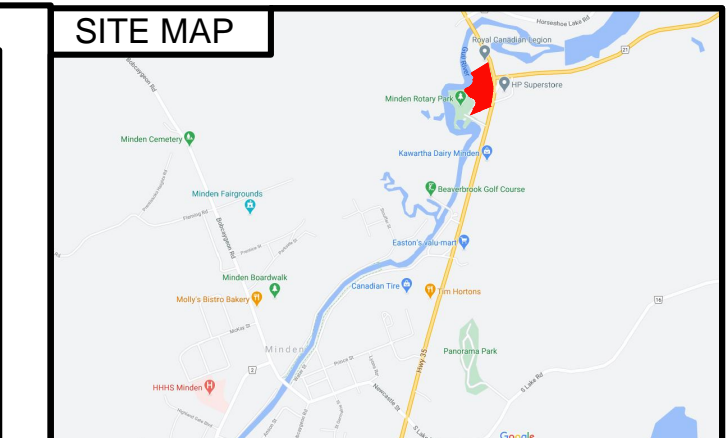
8 DT-01 OPSD - 1103.010 SCALE: -- DRAWN BY: -- DATE: --



9 DT-01 OPSD - 1103.020 SCALE: -- DRAWN BY: -- DATE: --



10 DT-01 OPSD - 1104.010 SCALE: -- DRAWN BY: -- DATE: --



ENGINEER:
M.V. Wilson Engineering Inc.
 245 Kent Street West, Lindsay Ontario, Canada K9V 2Z3
 Tel: (705) 324-8335 Fax: (705) 328-1268

NO.	DESCRIPTION	DATE	BY
7.	RE-ISSUED FOR TENDER	22.06.23	SC
6.	ISSUED FOR TENDER	16.06.23	SC
5.	ISSUED FOR COORDINATION	01.06.23	SC
4.	ISSUED FOR SPA #3	28.11.22	SC
3.	ISSUED FOR SPA #2	28.07.22	SC
2.	ISSUED FOR SPA	15.02.22	SC
1.	ISSUED FOR REVIEW	23.12.21	SC

ISSUES

NORTH ARROW

STAMP
 LICENSED PROFESSIONAL ENGINEER
 M.V. WILSON
 100115578
 2023-06-22
 PROVINCE OF ONTARIO

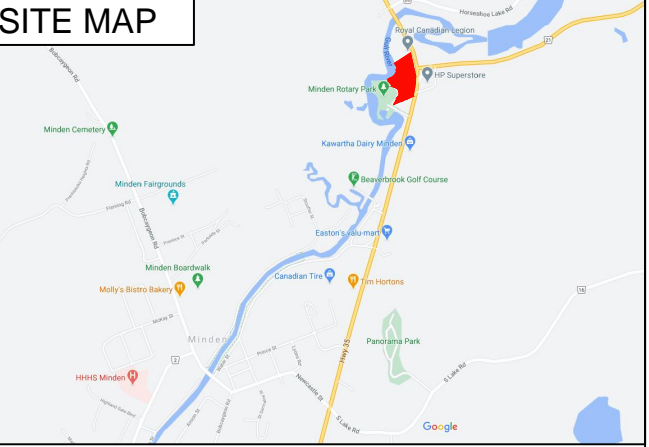
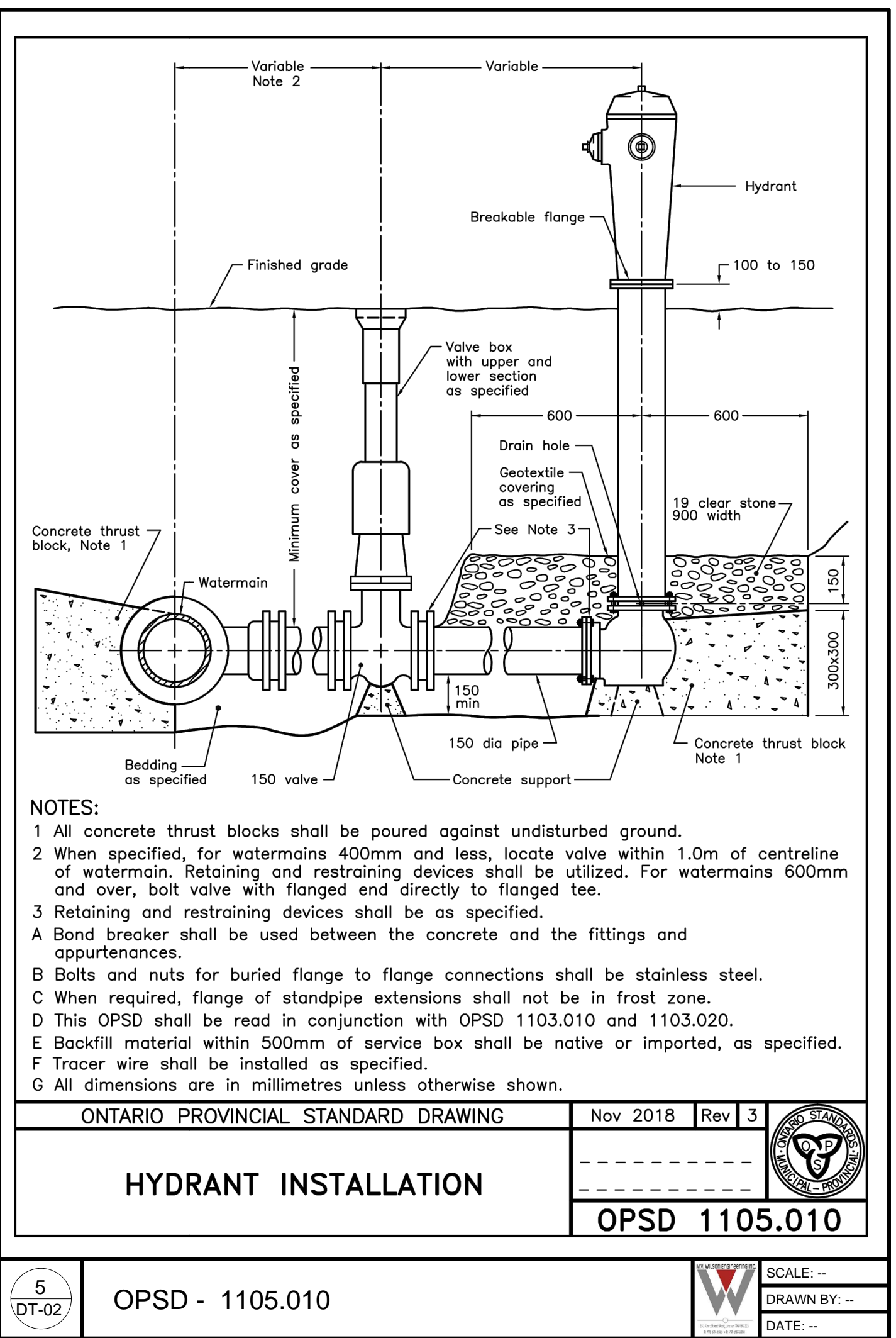
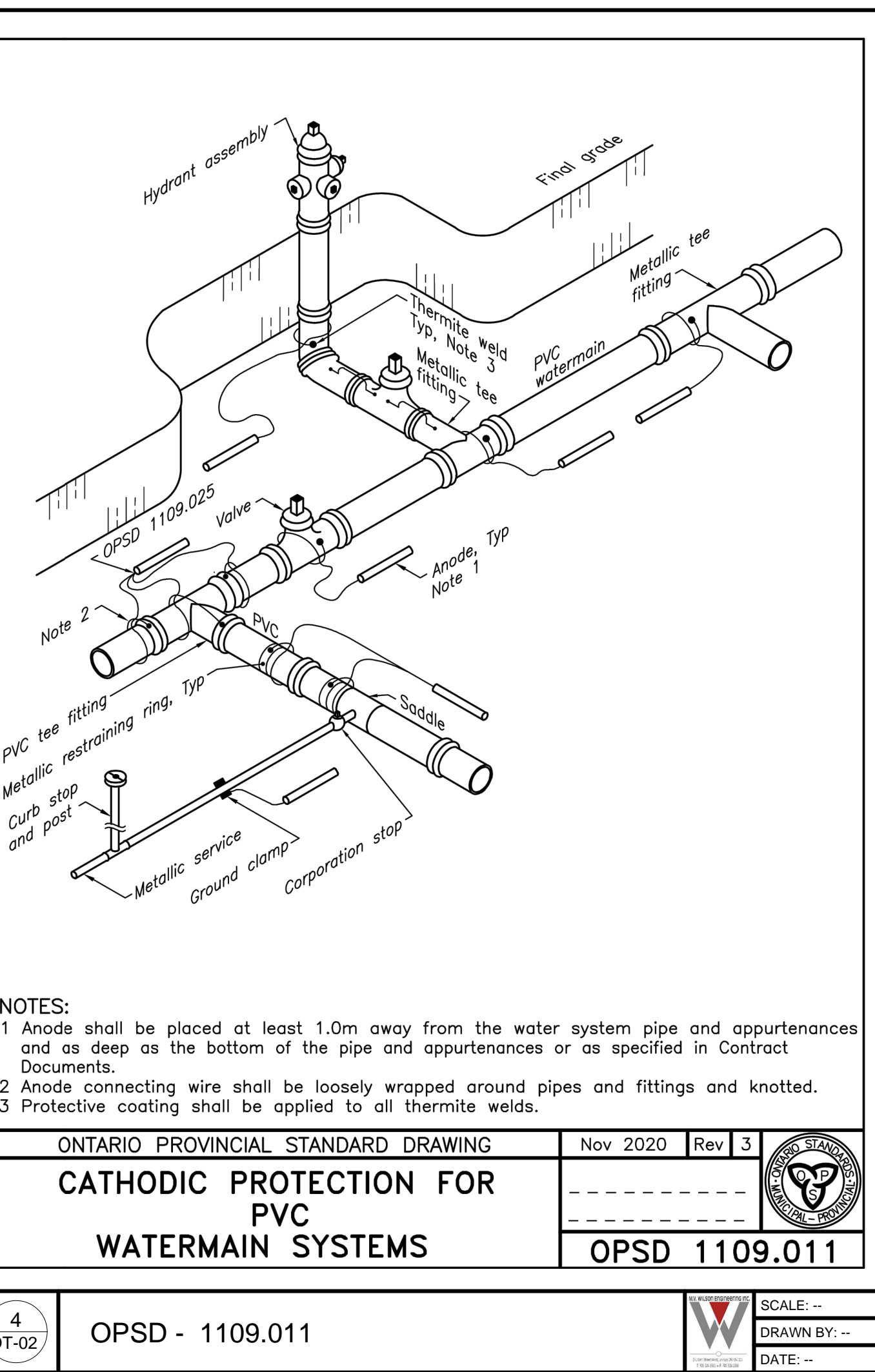
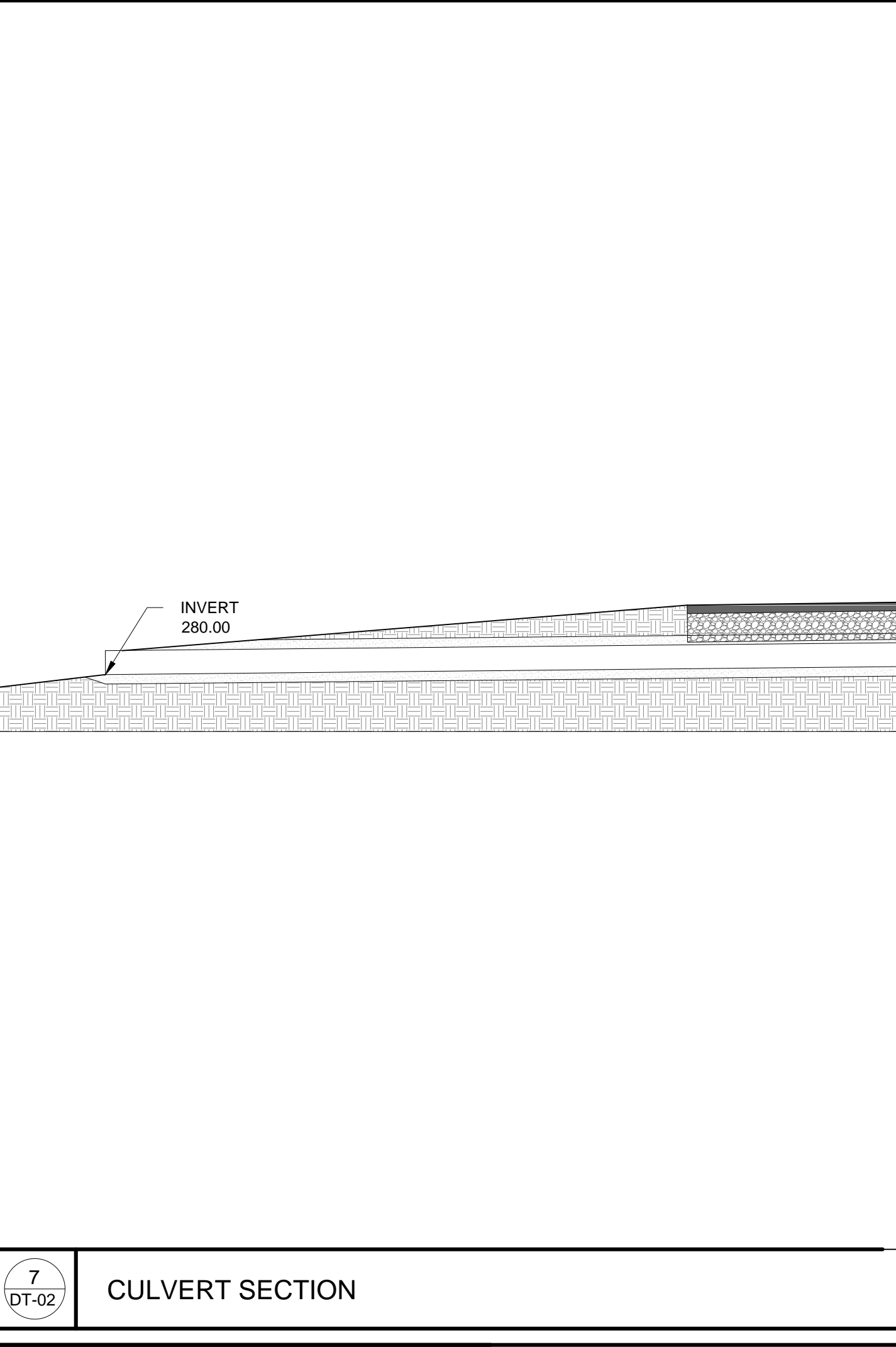
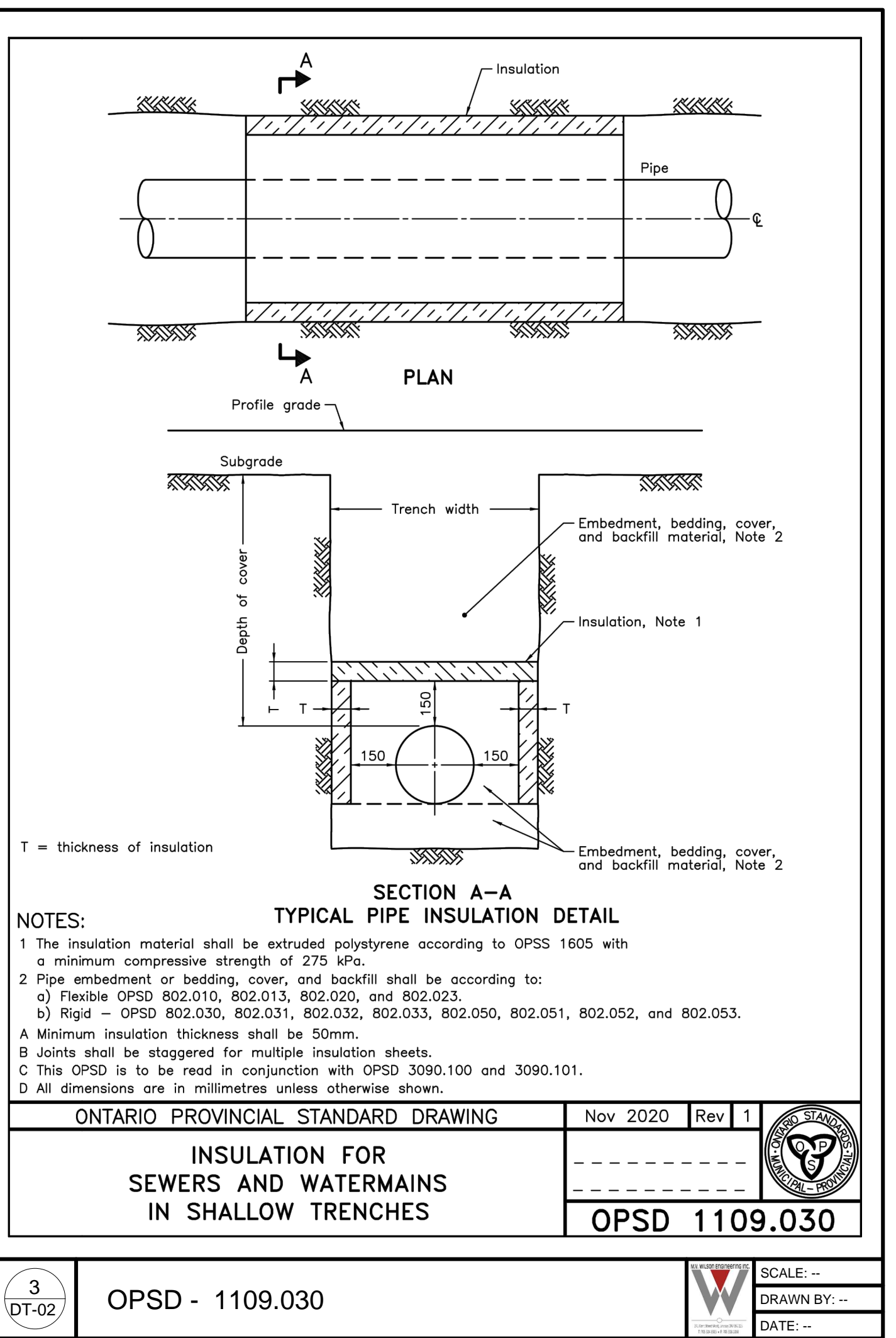
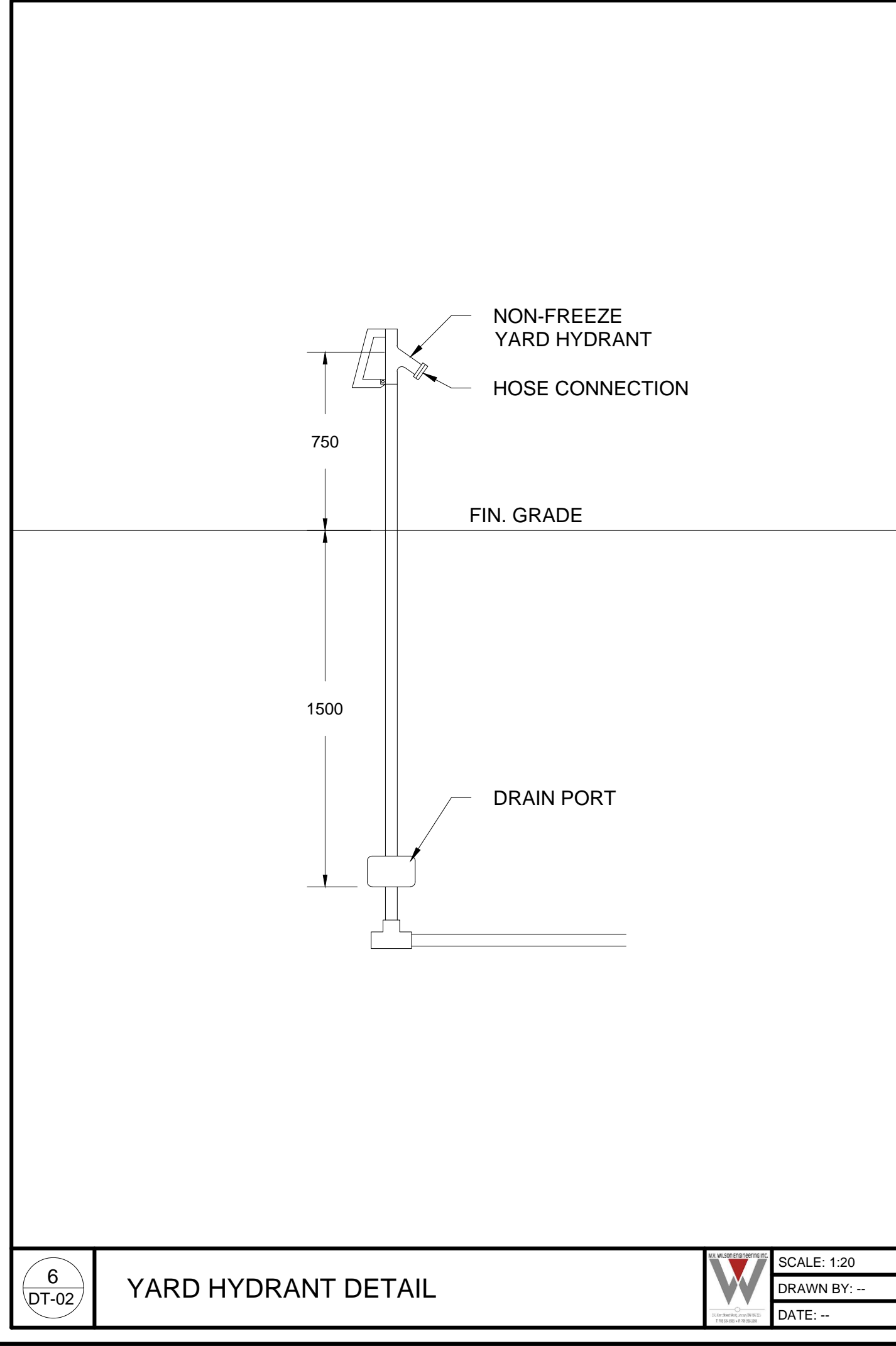
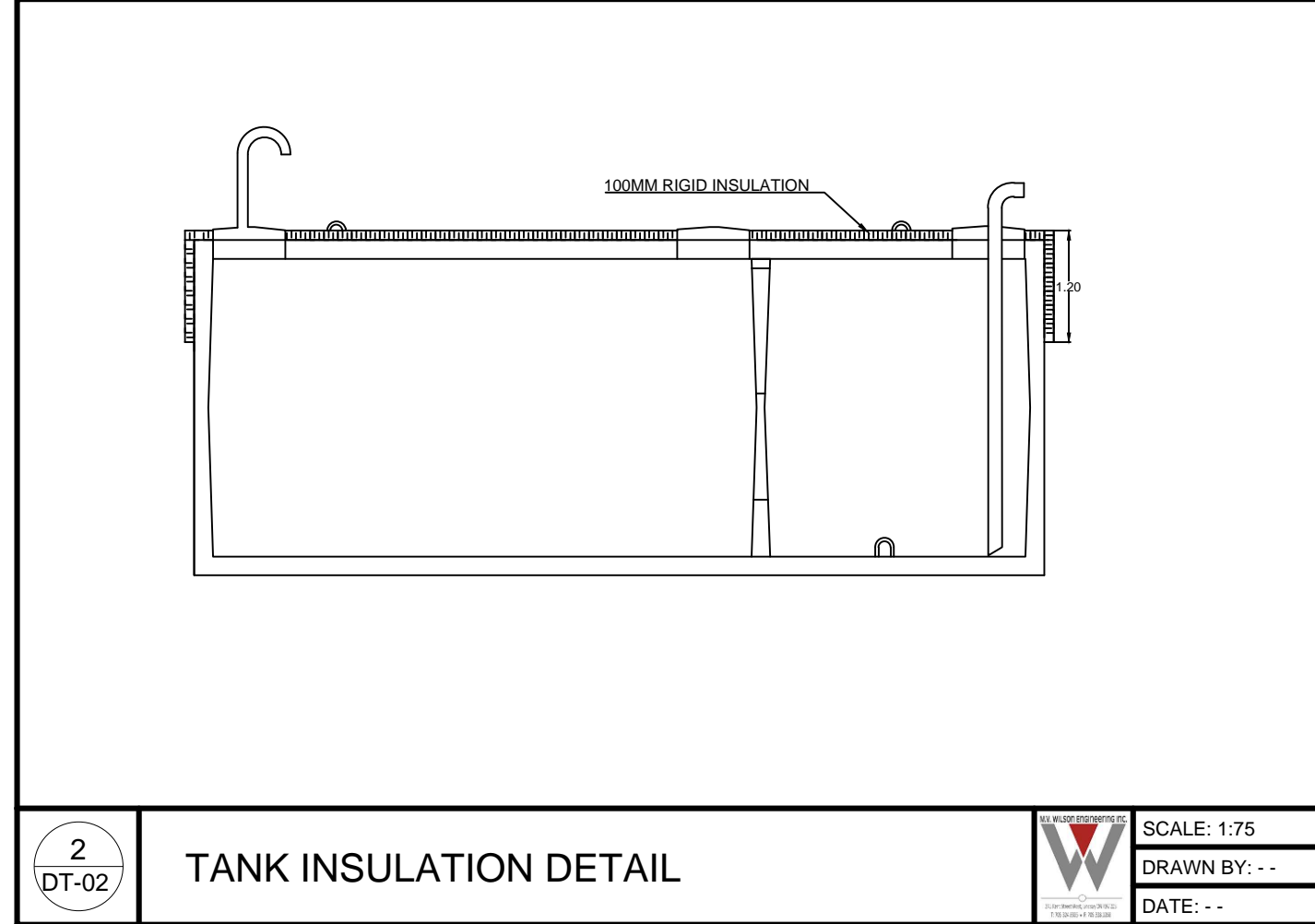
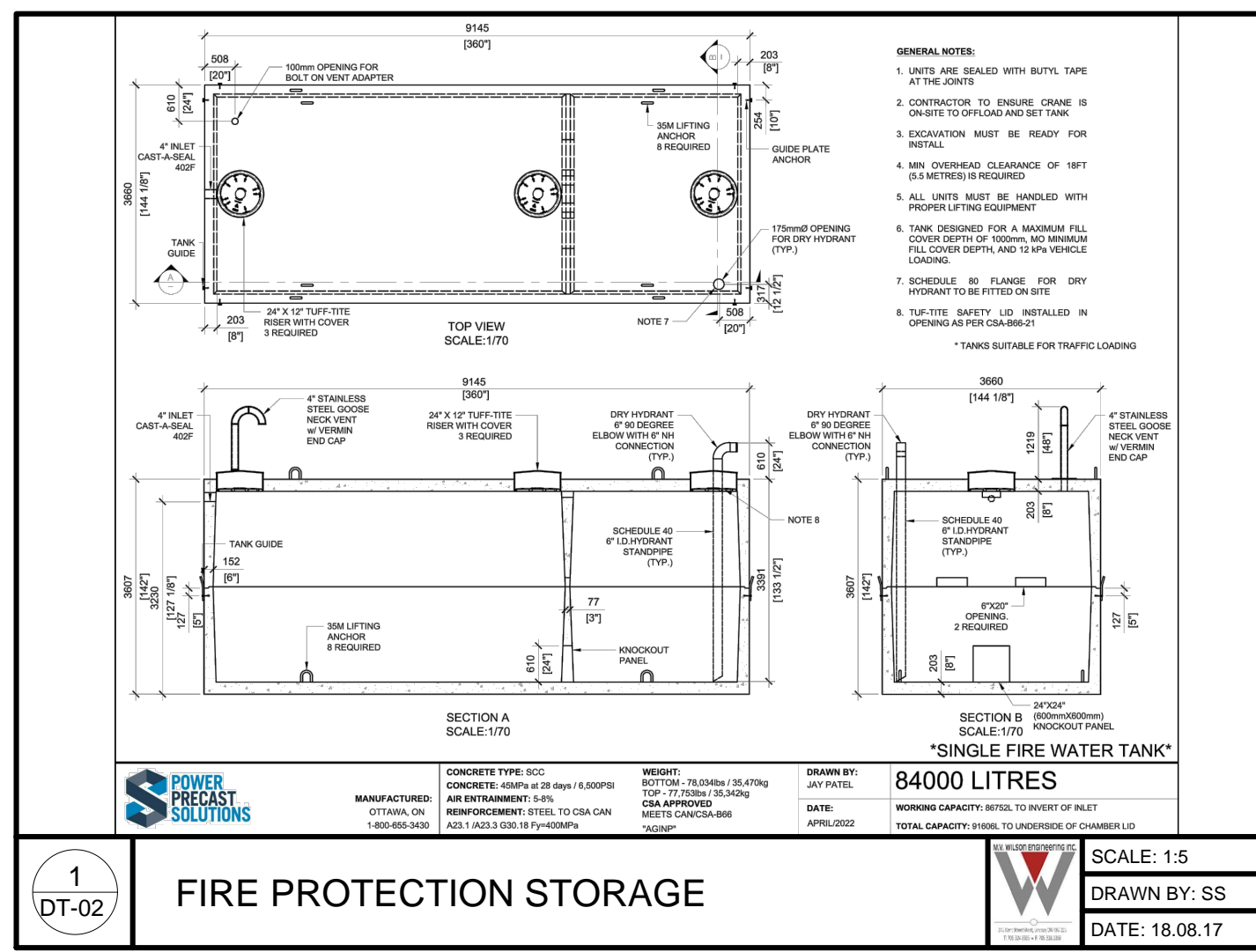
PROJECT
GULL RIVER HOUSING

MINDEN, ON.

TITLE
DETAILS

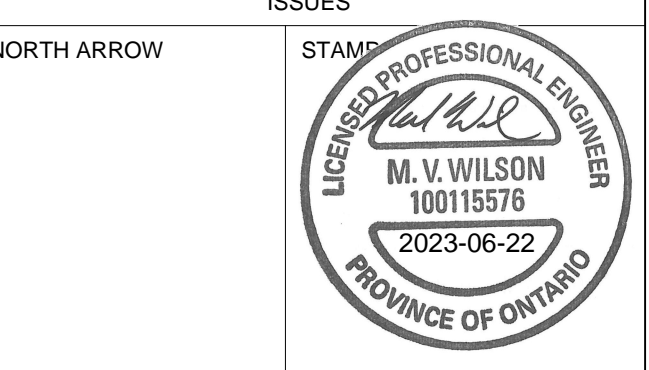
SCALE N.T.S. DRAWING NO.
 DRAWN BY
 PLOT DATE 22.07.21
 PROJECT P20045

DT1



ENGINEER:
M.V. Wilson Engineering Inc.
245 Kent Street West, Lindsay
Ontario, Canada
K9V 2Z3
Tel: (705) 324-8335
Fax: (705) 328-1268

NO.	DESCRIPTION	DATE	BY
7.	RE-ISSUED FOR TENDER	22.06.23	SC
6.	ISSUED FOR TENDER	16.06.23	SC
5.	ISSUED FOR COORDINATION	01.06.23	SC
4.	ISSUED FOR SPA #3	28.11.22	SC
3.	ISSUED FOR SPA #2	28.07.22	SC
2.	ISSUED FOR SPA	15.02.22	SC
1.	ISSUED FOR REVIEW	23.12.21	SC



PROJECT
GULL RIVER HOUSING

MINDEN, ON.

TITLE
DETAILS

SCALE: N.T.S. DRAWING NO. DT2

PROJECT P20045