

NOTE:
 BOUNDARY SURVEY
 BOUNDARY INFORMATION DERIVED FROM REGISTERED SURVEY 4R-30029 PREPARED BY FARHALL MOFFATT & WOODLAND LIMITED DATED JANUARY 3, 2017
 VERIFIED BY FARHALL MOFFATT & WOODLAND LIMITED DATED JUNE 17, 2022
 HORIZONTAL DATUM: MTM ZONE 9, NAD 83 (ORIGINAL)

EASEMENT SURVEY
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TOPOGRAPHIC SURVEY
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 HORIZONTAL DATUM: MTM ZONE 9, NAD 83 (ORIGINAL)
 VERTICAL DATUM: CANADIAN GEODETIC VERTICAL DATUM OF 1928 (CGVD28)

LEGEND

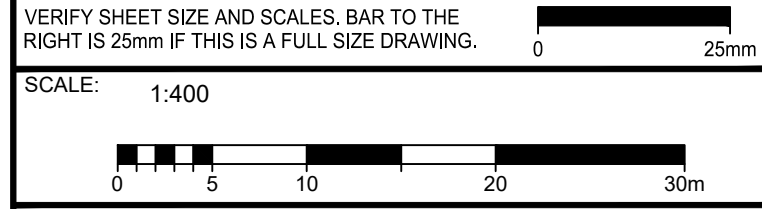
X	REMOVALS
-----	EXISTING PAVEMENT REMOVAL
-----	EXISTING GRAVEL REMOVAL
- - - - -	LOT LINE
○	EXISTING TREE
-----	EXISTING CHAIN LINK FENCE
-----	EXISTING BUILDING

PRELIMINARY DESIGN

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02	RE-ISSUED FOR CITY SITE PLAN APPROVAL	12/09/22
01	ISSUED FOR CITY SITE PLAN APPROVAL	06/04/22
00	ISSUED FOR CLIENT REVIEW	04/04/22
No.	ISSUE / REVISION	DDMMYY

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CLIENT:

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CONSULTANT:

JLR J.L. Richards
 ENGINEERS - ARCHITECTS - PLANNERS

CONSULTANT:

PROFESSIONAL STAMP	PROJECT NORTH

PROJECT:

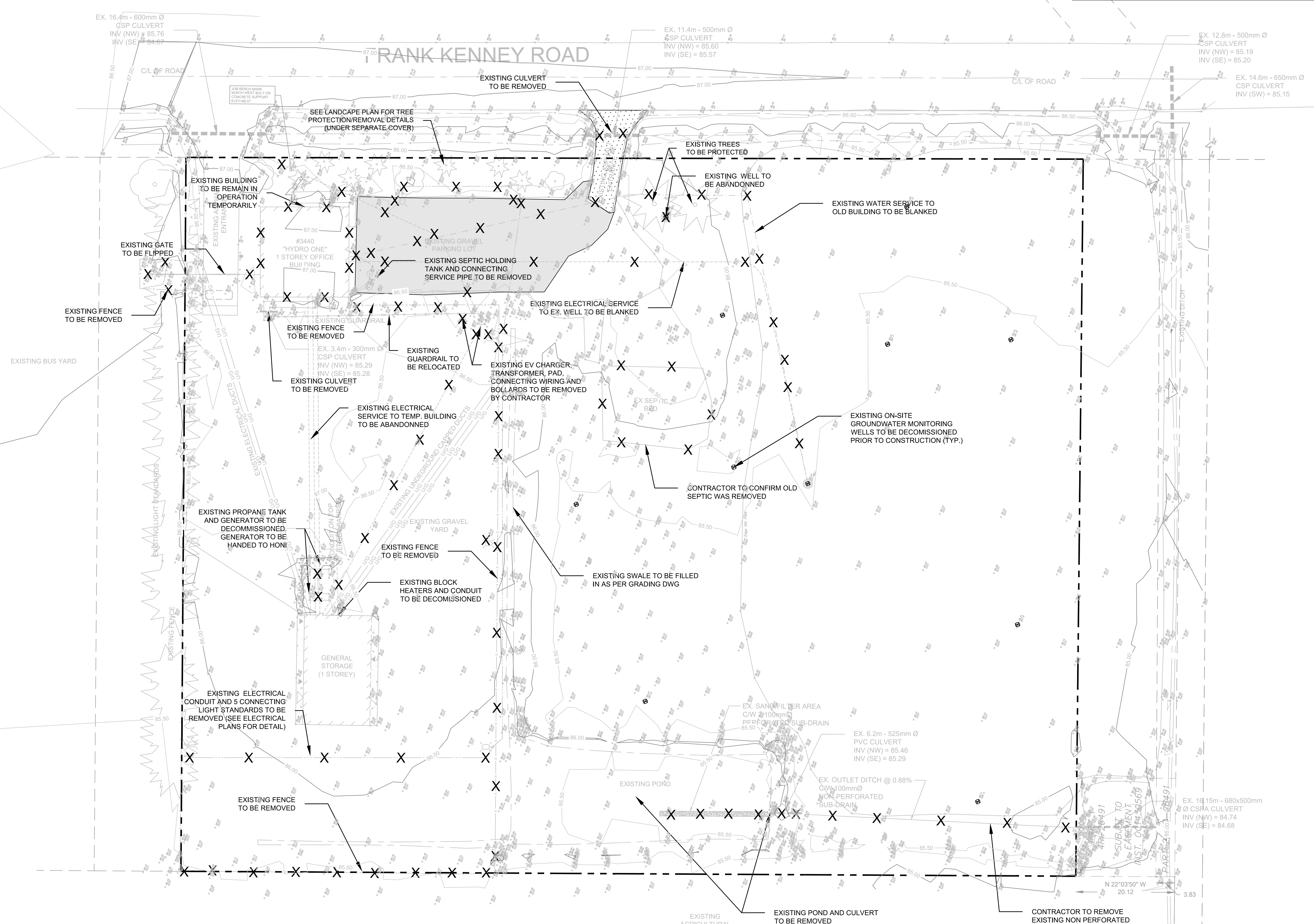
HYDRO ONE OPERATIONS CENTRE, ORLEANS

3440 FRANK KENNY ROAD

DRAWING:

EXISTING CONDITIONS & DEMO PLAN

DESIGN: M.D.	DRAWING #:
DRAWN: G.C.	C-002
CHECKED: D.U.	JLR #:
JLR #: 31500-000	



File Location: P:\1100031500-000 - HONI Orleans OPC3-Production\1-Civil\31500-000.C EXISTING CONDITIONS & REMOVALS PLAN.dwg

PLOT DATE: Tuesday, September 13, 2022 3:33:24 PM

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LEGEND:

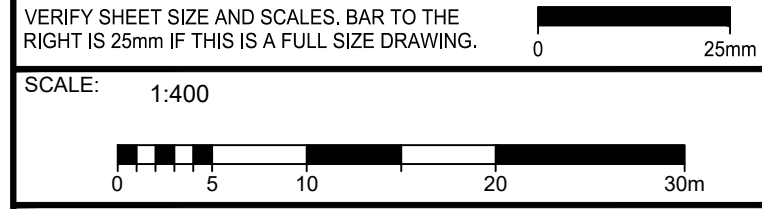
- PROPERTY LINE
- PROPOSED ELEVATION
- ORIGINAL GROUND ELEVATION FROM TIPS
- SURFACE SLOPE
- TERRACING (MAX. 3:1)
- CONCRETE BARRIER CURB
- PROPOSED CULVERT
- EXISTING CULVERT
- PROPOSED SIGNS
- PROPOSED MAN DOOR
- PROPOSED GARAGE DOOR
- PROPOSED CONCRETE BOLLARD
- EXISTING VES
- PROPOSED CHAINLINK FENCE
- EXISTING CHAINLINK FENCE
- PROPOSED GUARDRAIL
- EXISTING GUARDRAIL
- PROPOSED DITCH/SWALE AND FLOW DIRECTION
- PROPOSED OVERLAND FLOW DIRECTION
- PROPOSED LIGHT DUTY ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- EXISTING UNDERGROUND UTILITY DUCTS
- PROPOSED UNDERGROUND LIGHT STANDARD WIRING
- EXISTING UNDERGROUND LIGHT STANDARD WIRING
- PROPOSED UNDERGROUND DUCTS
- PROPOSED LIGHT STANDARD
- EXISTING LIGHT STANDARD

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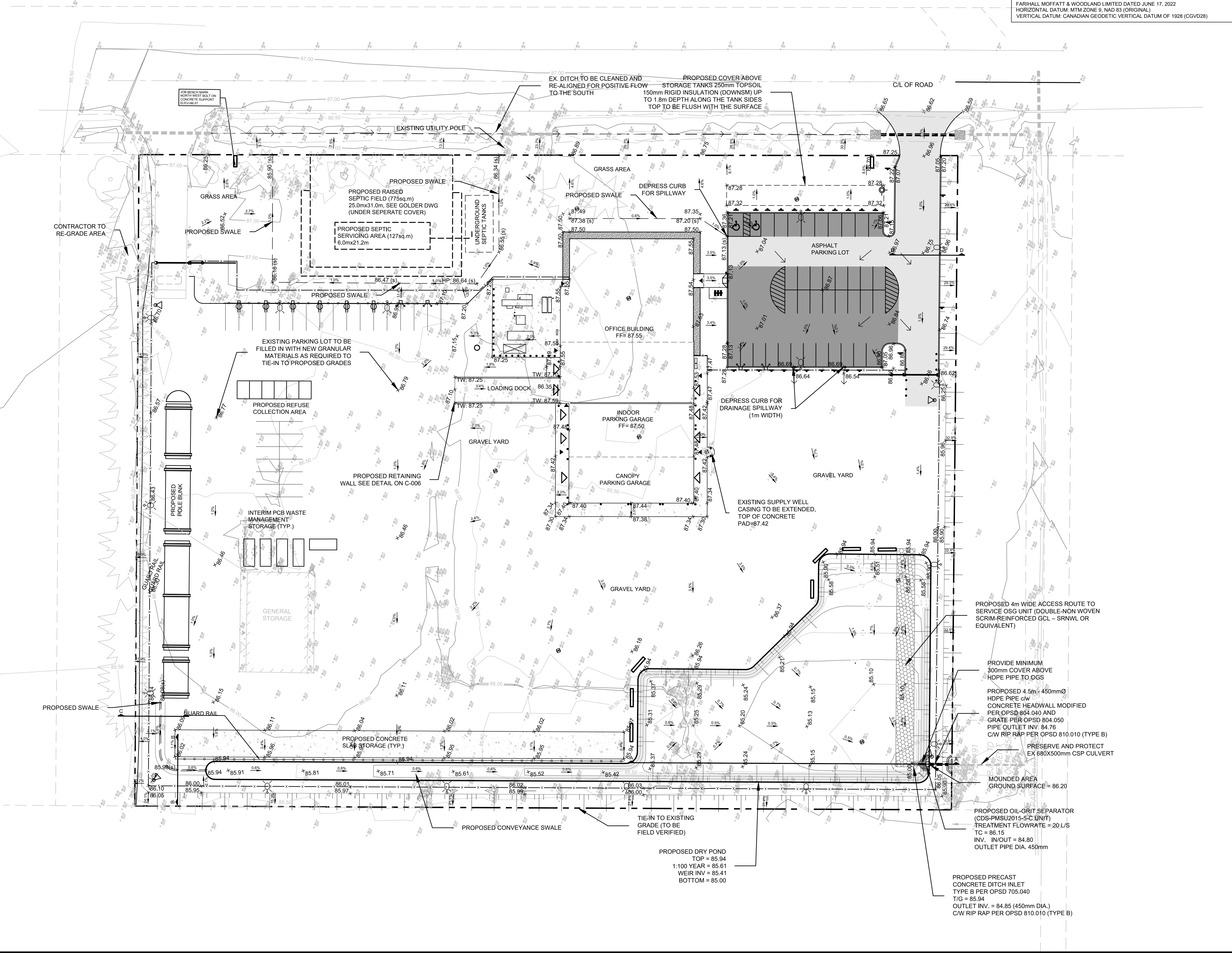
HYDRO ONE OPERATIONS CENTRE, ORLEANS

3440 FRANK KENNY ROAD

DRAWING:

GRADING PLAN

DESIGN: M.D.	DRAWING #:
DRAWN: G.C.	C-004
CHECKED: D.U.	JLR #:
JLR #: 31500-000	



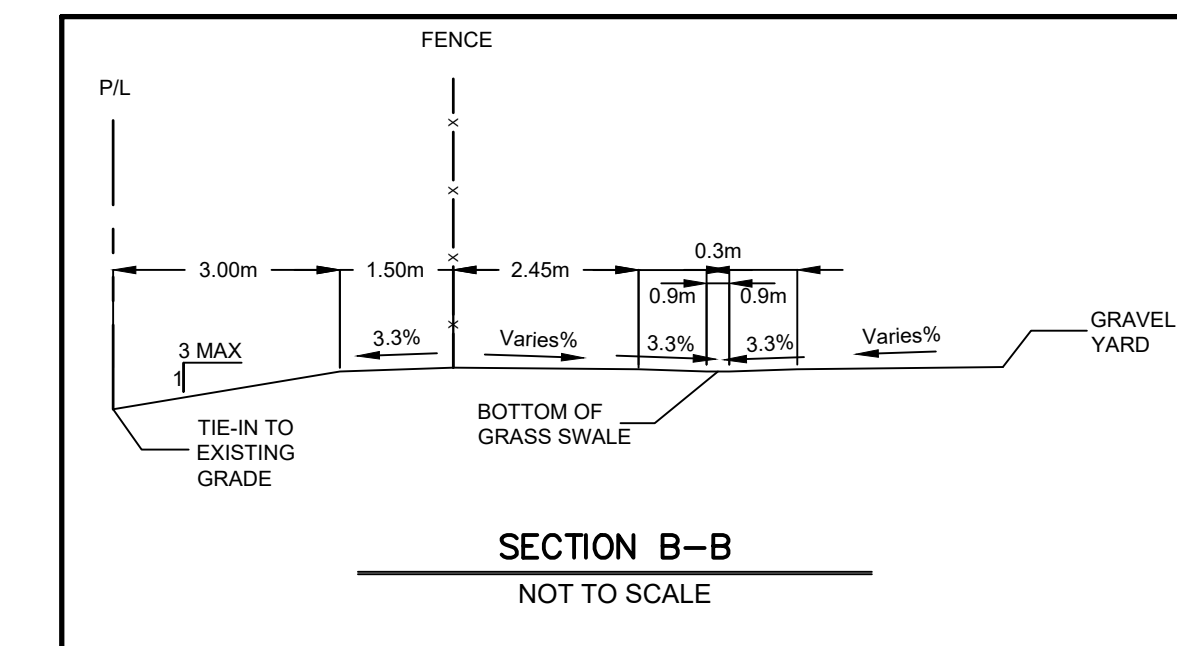
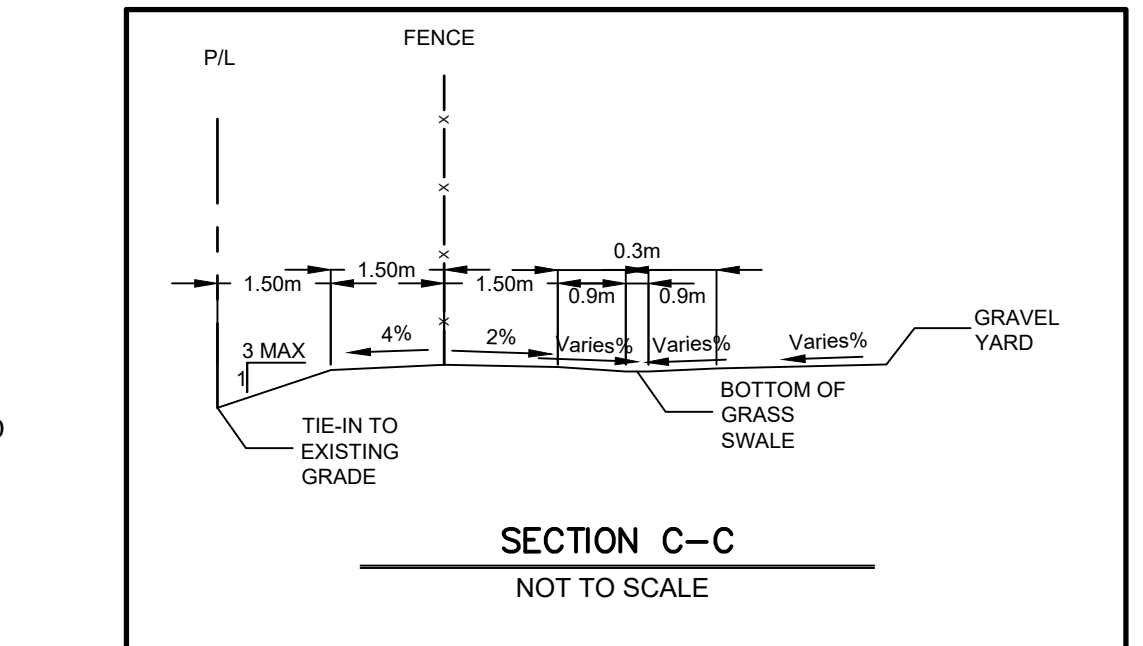
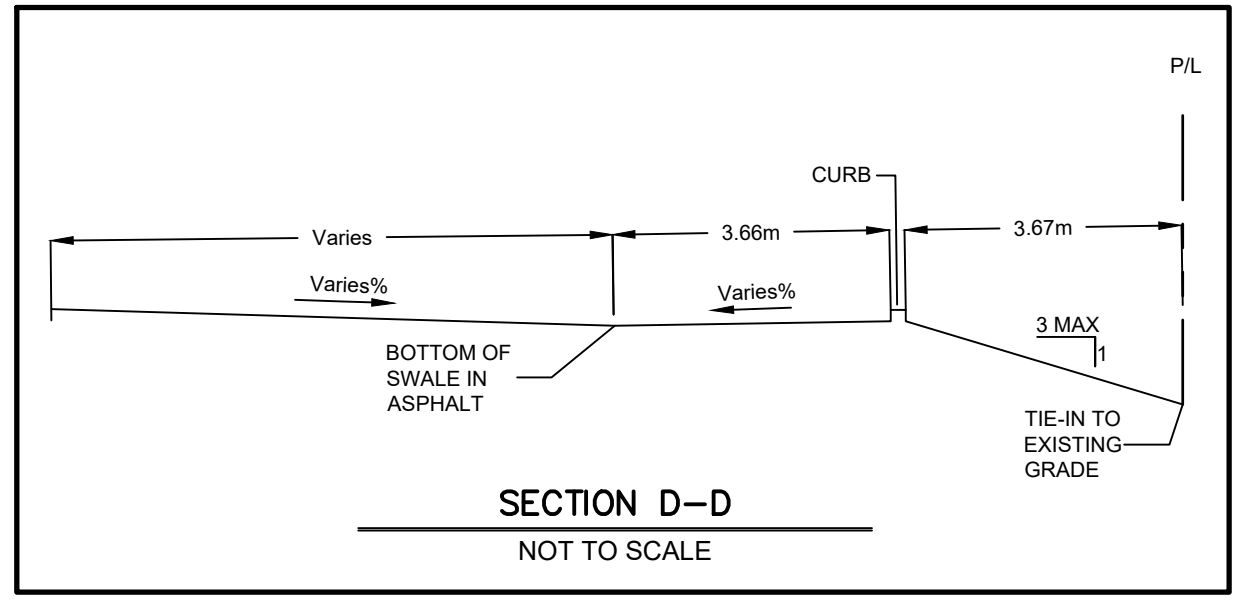
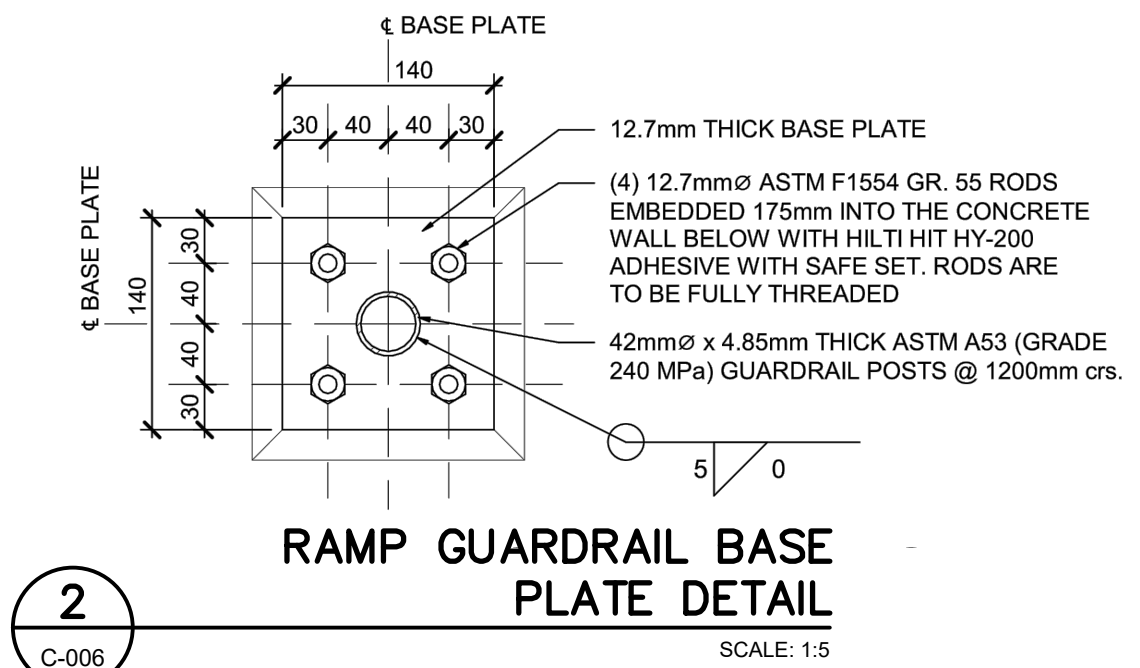
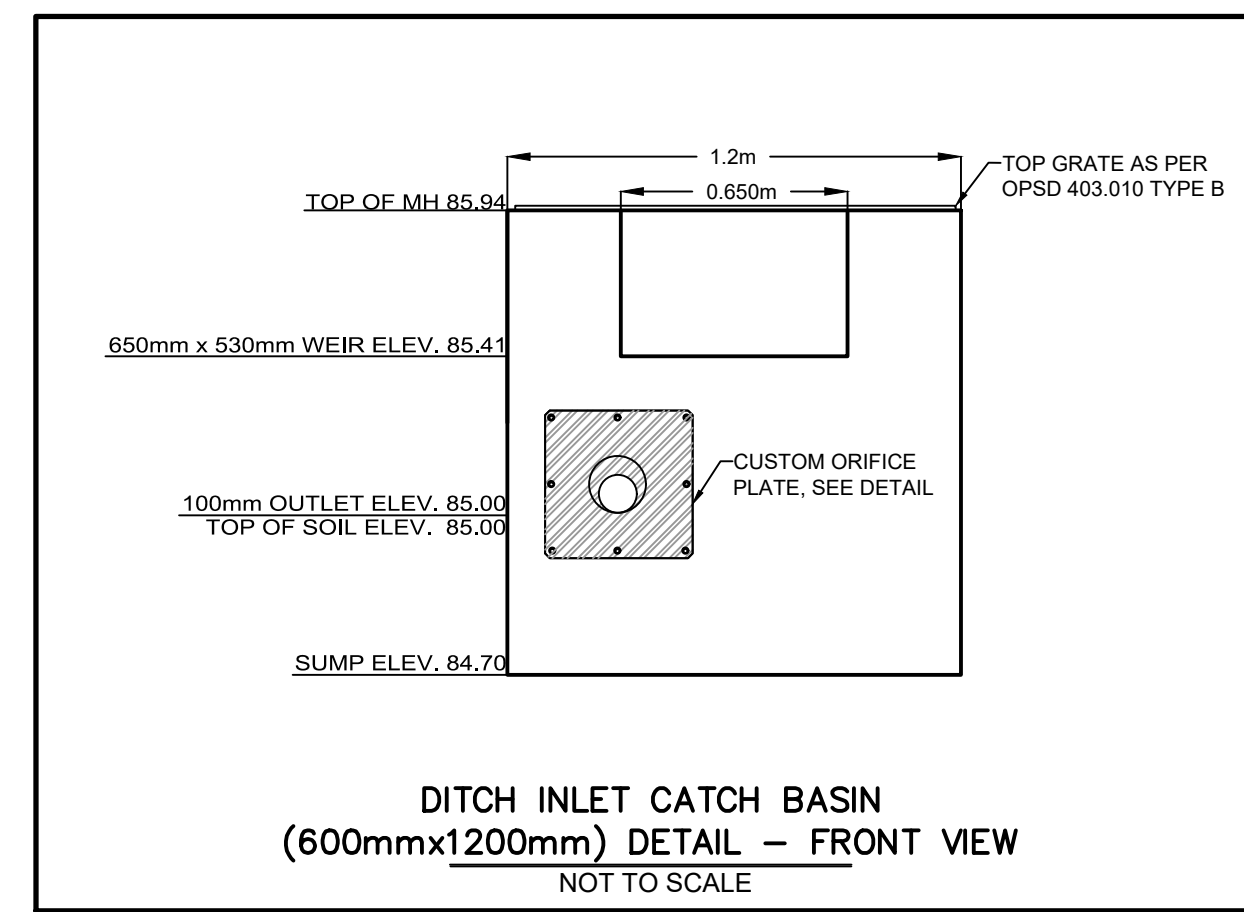
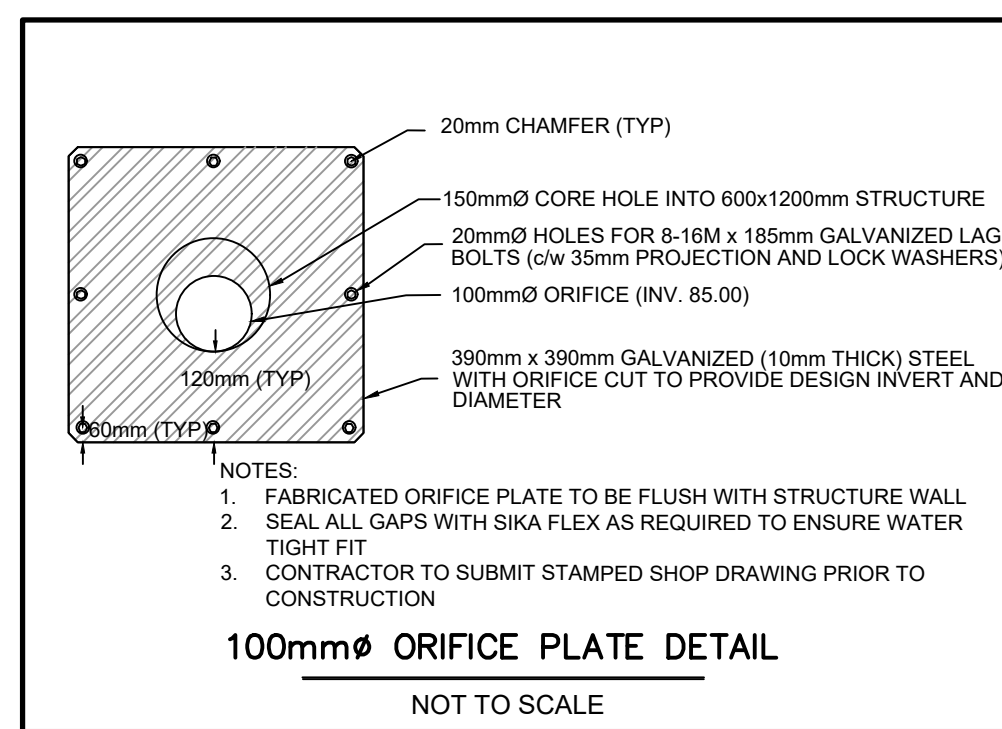
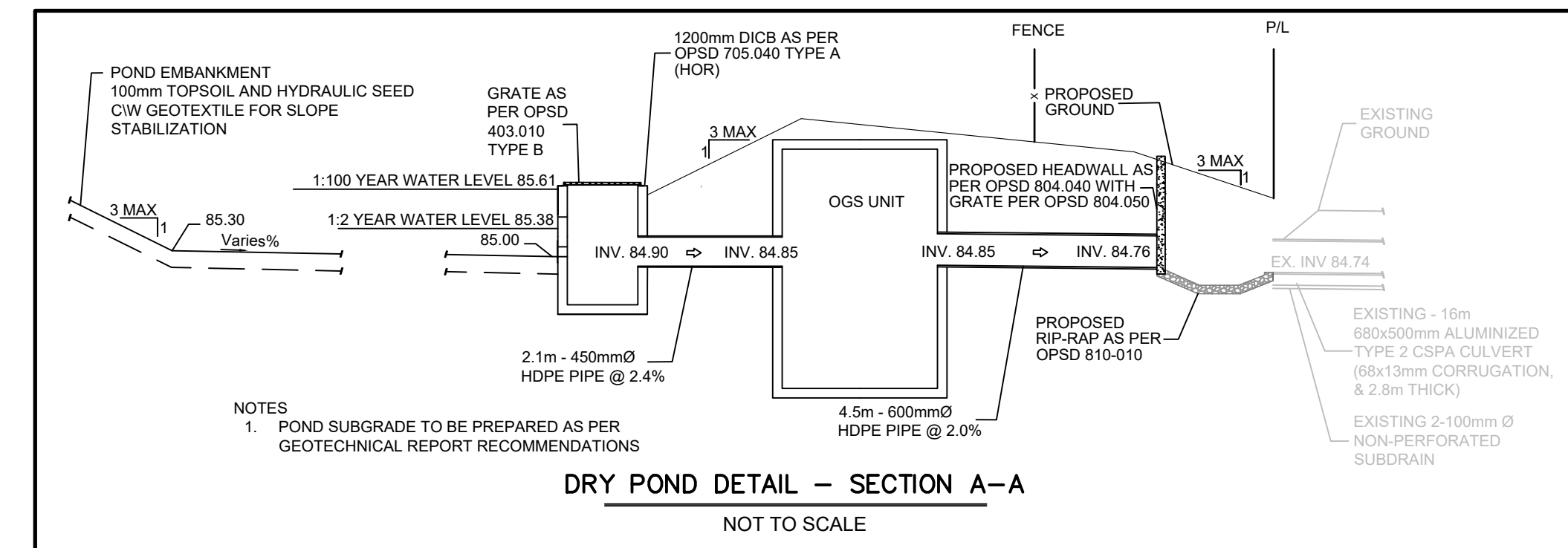
PLOT DATE: Tuesday, September 13, 2022 3:34:47 PM

GENERAL CONSTRUCTION NOTES

- CONTRACTOR TO CARRY OUT WORKS PER THE CURRENT CITY OF OTTAWA STANDARD DRAWINGS AND SPECIFICATIONS AND PER THE ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS.
- CONTRACTOR TO READ THE SITE'S SERVICING DESIGN PLAN IN CONJUNCTION WITH THE LATEST SITE SERVICING REPORT, PREPARED BY J.L. RICHARDS & ASSOCIATES LIMITED, FOR THE PROPOSED CONSTRUCTION WORKS.
- ALL SOIL DISPOSAL FROM SITE TO BE COORDINATED WITH THE HYDRO ONE ENVIRONMENTAL TEAM.
- THE NOMINAL DIAMETER OF PIPES ARE REFERRED TO IN PLAN VIEW.
- CONTRACTOR RESPONSIBLE FOR OBTAINING ALL SITE UTILITY LOCATES BEFORE CONSTRUCTION.
- CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, BACKFILL AND REINSTATEMENT OF ALL AREAS DISTURBED DURING CONSTRUCTION AND ANY ASSOCIATED WORKS TO THE SATISFACTION OF THE ENGINEER AND CITY OF OTTAWA.
- SEPTIC SYSTEM (TREATMENT TANKS & LEACHING BED) PER WSP GOLDER'S - NEW SEPTIC DESIGN - TECHNICAL MEMORANDUM (SEPT. 2022).
- ALL CONNECTIONS TO EXISTING WELL TO BE IN ACCORDANCE WITH THE CITY OF OTTAWA DESIGN GUIDELINES. CONTRACTOR TO PROVIDE EXCAVATION BACKFILLING, COMPACTION AND REINSTATEMENTS, IN ACCORDANCE WITH THE LATEST GEOTECHNICAL INVESTIGATION PREPARED BY GOLDER ASSOCIATES FOR THE SITE.
- CONTRACTOR RESPONSIBLE FOR DETERMINING, VIA EXCAVATION, THE EXACT LOCATION AND ELEVATION OF THE EXISTING UNDERGROUND UTILITIES AND STRUCTURES AS REQUIRED FOR ALL PROPOSED CONNECTIONS, RELOCATIONS, AND BLANKINGS.
- FOR ALL PROPOSED CONNECTION POINTS (IF ANY), THE CONTRACTOR IS RESPONSIBLE FOR THE REINSTATEMENT OF ALL SURFACES TO EXISTING CONDITIONS OR BETTER. PAVEMENT STRUCTURE RESTORATION (FRANK KENNEY ROAD) SHALL BE PER CITY OF OTTAWA STANDARDS. THE THICKNESS OF GRANULAR AND ASPHALT LAYERS SHALL MATCH EXISTING.
- CONTRACTOR RESPONSIBLE FOR VERIFYING THAT THE SITE BENCHMARK(S) HAVE NOT BEEN ALTERED OR DISTURBED AND THAT THEIR RELATIVE ELEVATION(S) AND DESCRIPTION(S) AGREE WITH THE INFORMATION DEPICTED ON THE PLAN.
- CONTRACTOR TO MATCH EXISTING ELEVATIONS AT PROPERTY LIMITS AND ENSURE POSITIVE DRAINAGE TOWARDS A SUITABLE OUTLET, WHETHER INDICATED OR NOT ON THE PLANS.
- CONTRACTOR TO PROVIDE ALL PAVEMENT MARKINGS AS SHOWN, INCLUDING HANDICAPPED PARKING SYMBOLS.
- ALL GROUNDWATER PUMPED FROM THE SITE TO BE METERED AND A PERMIT TO TAKE WATER OBTAINED AS APPLICABLE.
- PAVEMENT DESIGN TO BE PER THE SITE'S GEOTECHNICAL INVESTIGATION REPORT (SEPT. 2022), PREPARED BY GOLDER ASSOCIATES LTD. (21493887):
LIGHT-DUTY PAVEMENT STRUCTURE (CAR PARKING AREAS):
50 MM - H.L. 3 SURFACE COURSE OR 12.5 SUPERPAVE
150 MM - BASE - OPSS GRANULAR A
450 MM - SUBBASE - OPSS GRANULAR B TYPE II
HEAVY-DUTY PAVEMENT STRUCTURE (ACCESS LANES AND PAVED TRUCK TRAFFIC AREAS):
40 MM - H.L. 3 SURFACE COURSE OR 12.5 SUPERPAVE
50 MM - H.L. 8 BINDER COURSE OR 19.0 SUPERPAVE
150 MM BASE - OPSS GRANULAR A
450 MM SUBBASE - OPSS GRANULAR B TYPE II
GRANULAR TRAFFIC AREAS (UNPAVED ACCESS LANES AND TRUCK TRAFFIC AREAS):
250 MM BASE - OPSS GRANULAR A
450 MM SUBBASE - OPSS GRANULAR B TYPE II
- CONTRACTOR TO ENSURE ALL PROPOSED PAVEMENT AREAS ARE PREPARED PER THE SITE'S GEOTECHNICAL INVESTIGATION RECOMMENDATIONS AND ALL TOPSOIL AND OTHER UNSUITABLE FILL (FILLS CONTAINING ORGANIC MATTER) ARE EXCAVATED FROM THESE SURFACES.
- CONTRACTOR TO ENSURE PROPOSED PAVEMENT AREAS SUBGRADE HAS BEEN ACCEPTABLY PREPARED, WHERE THE TRENCH BACKFILL AND GRADE RAISE FILL HAVE BEEN ADEQUATELY COMPACTED TO THE REQUIRED DENSITY AND THE SUBGRADE SURFACE NOT DISTURBED BY CONSTRUCTION OPERATIONS OR PRECIPITATION. DEPENDING ON THE ACTUAL CONDITIONS OF THE PAVEMENT SUBGRADE AT THE TIME OF CONSTRUCTION, IT MAY BE NECESSARY TO INCREASE THE THICKNESS OF THE SUBBASE AND/OR TO PLACE A WOVEN GEOTEXTILE BENEATH THE GRANULAR MATERIALS.
- CONTRACTOR TO ENSURE GRANULAR BASE AND SUBBASE MATERIALS ARE UNIFORMLY COMPACTED TO AT LEAST 100% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY USING SUITABLE VIBRATORY COMPACTION EQUIPMENT. THE ASPHALTIC CONCRETE IS TO BE COMPACTED PER TABLE 9 OF OPSS 310.
- REQUIREMENT FOR ADDITIONAL GRANULAR 'B' AND/OR GEOTEXTILE TO BE CONFIRMED ON-SITE BY GEOTECHNICAL ENGINEER
- CURBS TO BE BARRIER TYPE PER CITY OF OTTAWA STANDARD SC1.1.
- THE EXISTING ON-SITE MODULAR OFFICE AND ASSOCIATED SERVICES (WELL, SEPTIC TANK, ETC.) TO REMAIN IN SERVICE UNTIL THE PROPOSED OFFICE IS COMPLETED. ONCE THE NEW OFFICE IS OPERATIONAL, THE CONTRACTOR SHALL COORDINATE THE MODULAR REMOVAL AND COMPLETE THE REMAINING PROPOSED WORKS (FENCE, LANDSCAPE, ETC.).
- CONTRACTOR RESPONSIBLE TO DEVELOP DEMOLITION AND TEMPORARY SERVICING STAGING PLAN FOR APPROVAL BY HONI PRIOR TO CONSTRUCTION
- LINE PAINTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 1710.
- ASPHALT LINE PAINTING FOR THE PARKING STALLS AS PER OPSS 1716.
- FENCE TO BE IN ACCORDANCE WITH HYDRO ONE STANDARD SD-14100-001-R3 DATED: OCTOBER 2017.
- WHERE POSSIBLE CONTRACTOR TO RE-USE EXISTING ON SITE JERSEY BARRIER
- PROPOSE CONCRETE BARRIERS PER OPSD 911.14
- CONCRETE WALKWAY TO BE INSTALLED IN ACCORDANCE WITH OPSS 351.
- CONCRETE CURB SHALL BE INSTALLED IN ACCORDANCE WITH OPSS 353.
- SUBDRAINS SHALL BE COMPLETE WITH FILTER SOCK AND INSTALLED AS PER OPSS 405.
- CULVERTS SHALL BE INSTALLED IN ACCORDANCE WITH OPSS 421.

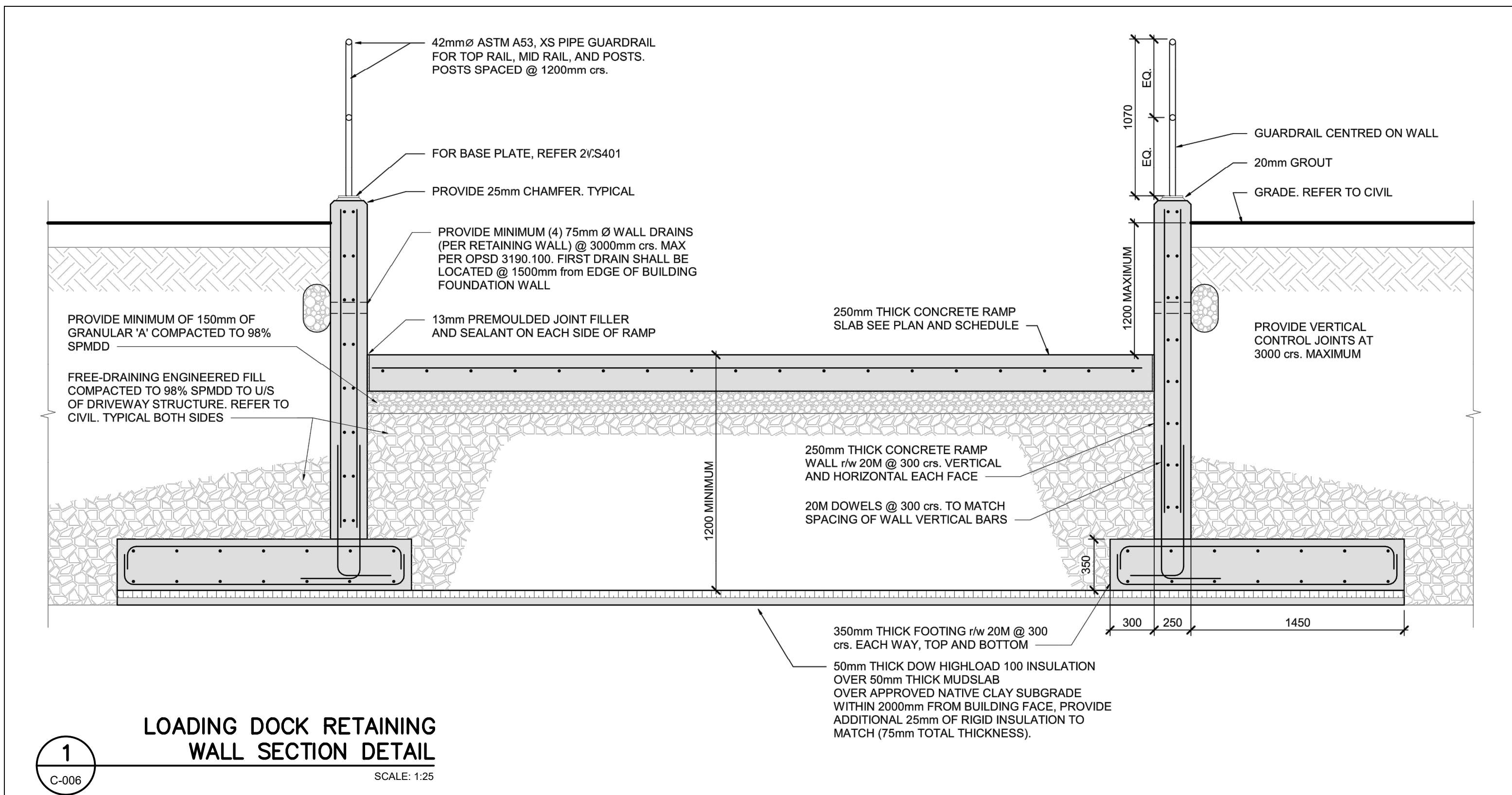
EROSION AND SEDIMENT CONTROL NOTES

- ALL SEDIMENTATION CONTROL MEASURES ARE TO BE IMPLEMENTED PER OPSS AND OPSD. SILT FENCE BARRIER PER OPSD 219.110.
- CONTRACTOR TO ENSURE ALL SEDIMENT AND EROSION CONTROL MEASURES ARE IMPLEMENTED BEFORE WORK AND MAINTAINED DURING THE WORK PHASE TO PREVENT ENTRY OF SEDIMENT INTO THE RECEIVING WATERCOURSES.
- CONTRACTOR TO ENSURE ALL SEDIMENT AND EROSION CONTROL MEASURES TO BE INSPECTED DAILY AND THEY ARE FUNCTIONING PROPERLY AND ARE BEING MAINTAINED AND/OR UPGRADED AS REQUIRED. IF THE SEDIMENT AND EROSION CONTROL MEASURES ARE NOT FUNCTIONING PROPERLY, NO FURTHER WORK SHALL OCCUR UNTIL THE PROBLEM HAS BEEN ADDRESSED AND RECTIFIED.
- HYDROSEEDING OF ALL DITCHES IS TO BE PROVIDED IMMEDIATELY FOLLOWING FINAL SHAPING/GRADING.
- CONTRACTOR TO SUPPLY AND INSTALL STRAW BALE BARRIER (PER OPSD 219.100) UPSTREAM OF ALL CULVERT INSTALLATIONS AND SHALL ONLY BE REMOVED ONCE UPSTREAM VEGETATION HAS BEEN ESTABLISHED.
- CONTRACTOR TO SUPPLY AND INSTALL SILT FENCE BARRIER (PER OPSD 219.110) TO ENCLOSE ALL BORROW AND STOCKPILE AREAS RESULTING FROM TOPSOIL STRIPPING ACTIVITIES OR ANY EXCAVATING ACTIVITIES.
- CONTRACTOR TO ENSURE ALL STOCKPILED MATERIALS ARE STORED ON A FLAT AREA ARE STABILIZED AND AWAY FROM ANY FLOW PATHS.
- IF A STOCKPILE IS PLACED IN AREAS WITH POTENTIAL WASH OFF TO A CONVEYANCE SYSTEM, SILT FENCE BARRIERS (PER OPSD 219.110) WILL NEED TO BE INSTALLED TO ENCLOSE THE MATERIALS AND PREVENT ANY WASH OFF.
- CONTRACTOR TO ENSURE ALL PUMPED STORMWATER/GROUNDWATER IS FILTERED THROUGH SEDIMENT DEWATERING BAGS BEFORE ITS RELEASE TO THE RECEIVING STREAM.
- CONTRACTOR TO ENSURE THAT ALL MATERIALS AND EQUIPMENT USED FOR THE PURPOSE OF SITE PREPARATION AND PROJECT COMPLETION ARE OPERATED AND STORED IN A MANNER THAT PREVENTS ANY DELETERIOUS SUBSTANCES (I.E., PETROLEUM PRODUCTS, SILT, ETC.) FROM ENTERING THE RECEIVING WATERCOURSE.
- CONTRACTOR TO ENSURE ANY VEHICLE AND EQUIPMENT RE-FUELLING AND MAINTENANCE TO BE CONDUCTED AWAY FROM DRAINAGE CHANNELS AND ANY PART OF EQUIPMENT ENTERING A CHANNEL TO BE FREE OF FLUID LEAKS AND EXTERNALLY CLEANED/DEGREASED TO PREVENT ANY DELETERIOUS SUBSTANCES FROM ENTERING THE RECEIVING WATERCOURSE.
- ALL SPILL PREVENTION AND CONTINGENCY PLANS SHALL BE MAINTAINED AND MONITORED/RECORDED ON A REGULAR BASIS AS REQUIRED TO ENSURE CONTAMINANTS DO NOT ENTER THE NATURAL ENVIRONMENT.
- CONTRACTOR TO ANTICIPATE THE USE OF CONSTRUCTION MAT (GEOTERRA OT EQUIVALENT) WITHIN THE PHASE 2 BUILDING SITE AREA.



RETAINING WALL NOTES:

- DESIGN BASED ON CSA S6-19 AND OBC 2012 (AMENDED 2020). LOADING AS FOLLOWS:
A. BACKFILL PRESSURES IN ACCORDANCE WITH GOLDER/WSP GEOTECHNICAL REPORT.
B. LIVE LOAD SURCHARGE PRESSURE: 12 kPa
C. COMPACTION PRESSURES AS PER CSA S6-19.
D. DRAINED BACKFILL CONDITIONS
E. DESIGN FOR SEISMIC PRESSURES AS PER CSA S6-19 AND GOLDER/WSP GEOTECHNICAL REPORT.
F. GUARDRAIL HAS BEEN DESIGNED IN ACCORDANCE WITH OBC 2012, CLAUSE 4.1.5.14 FOR LOCATIONS WITH LIMITED OCCUPANCY WHERE GATHERING OF MANY PEOPLE IS IMPROBABLE.
- FOUNDATIONS SHALL BE FOUNDED ON NATIVE WEATHERED CLAY CRUST WITH A MINIMUM BEARING CAPACITY OF 165 kPa (ULS) AND 125 kPa (SLS).
- CAST-IN-PLACE CONCRETE: CLASS 'C1', MINIMUM SPECIFIED COMPRESSIVE STRENGTH = 35 MPa @ 56 DAYS.
- ALL REINFORCING TO CSA G30.18, GRADE 400W.
- ALL LAP SPLICES SHALL BE CLASS 'B' LAP SPLICES IN ACCORDANCE WITH CSA A23.3-14.
- MINIMUM COVER IS 75mm CAST DIRECTLY AGAINST SOIL AND 60mm EXPOSED TO SALTS AND CHLORIDES.
- STEEL DESIGN IN ACCORDANCE WITH CSA S16-14.



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CLIENT:

CONSULTANT:

J.L. Richards
ENGINEERS - ARCHITECTS - PLANNERS

PROFESSIONAL STAMP

PROFESSIONAL STAMP

PROJECT:

HYDRO ONE OPERATIONS CENTRE, ORLEANS

3440 FRANK KENNY ROAD

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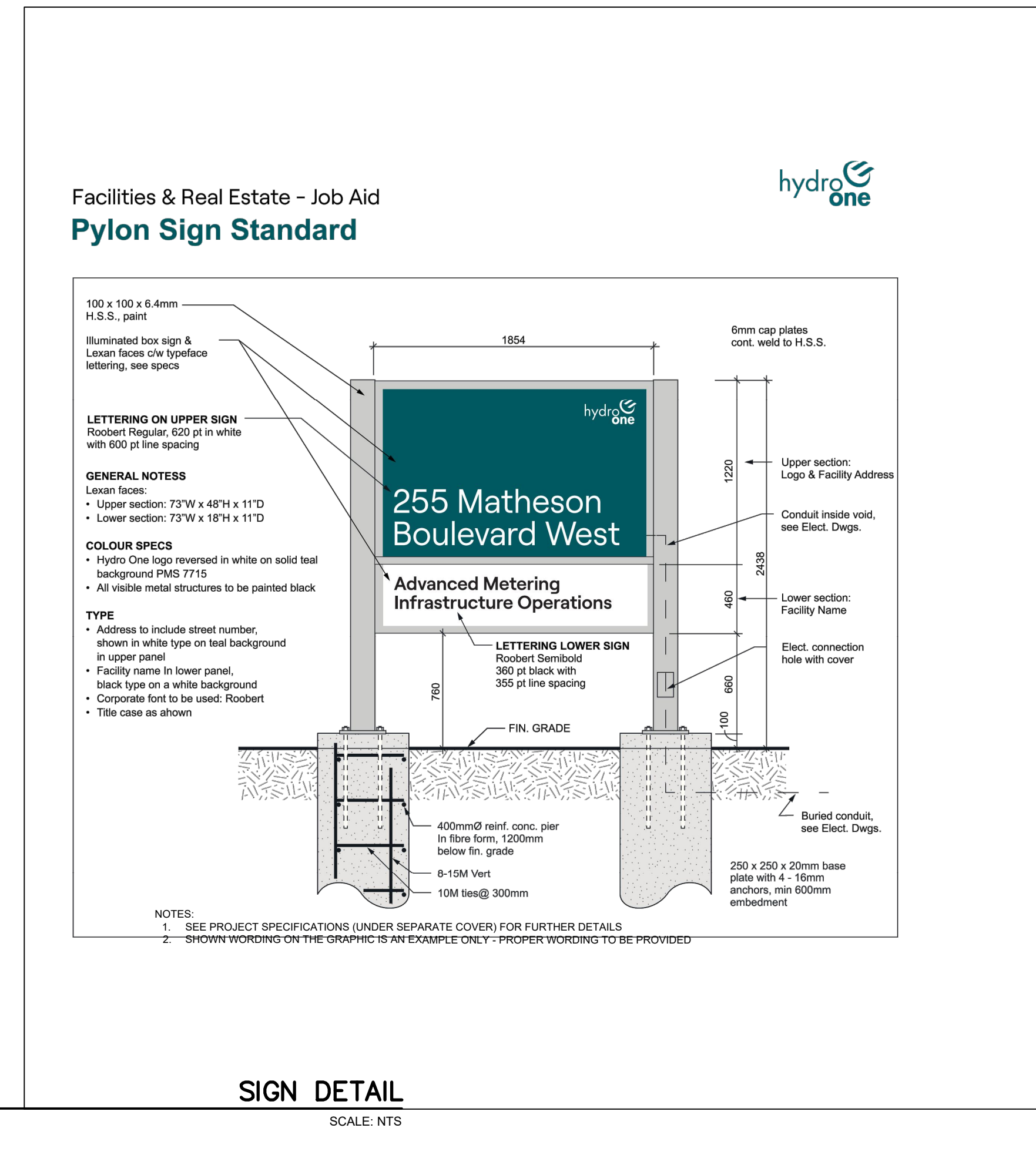
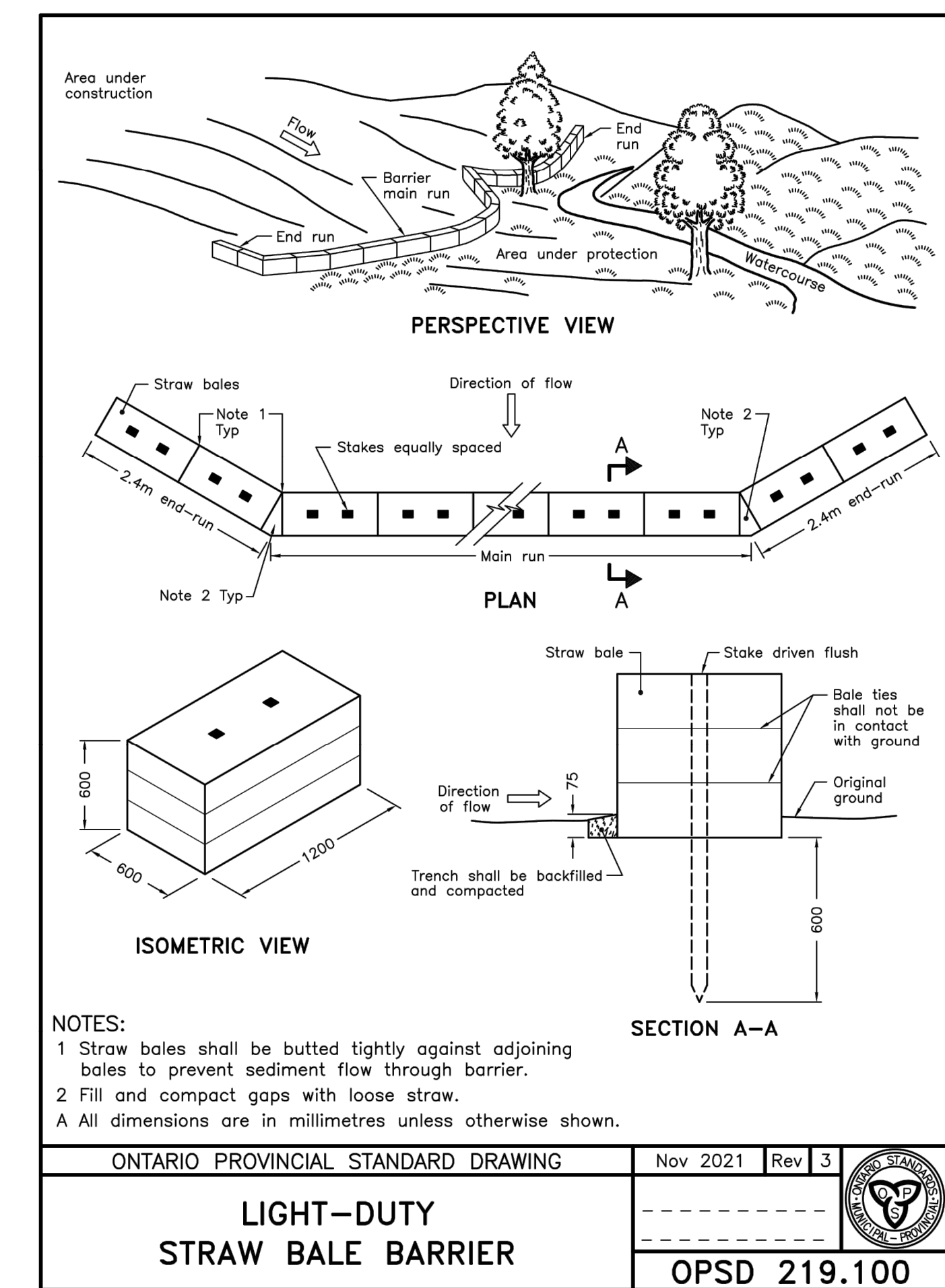
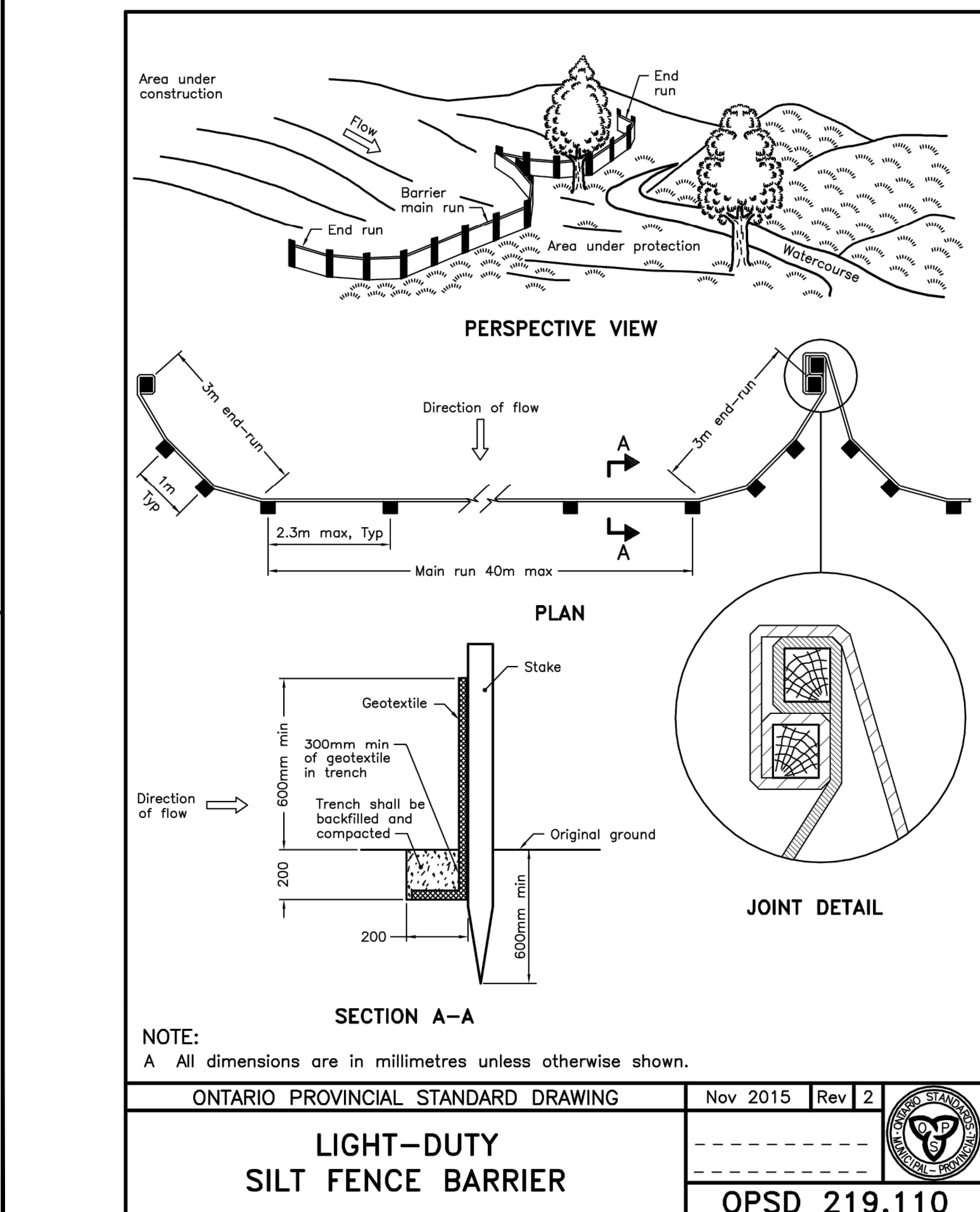
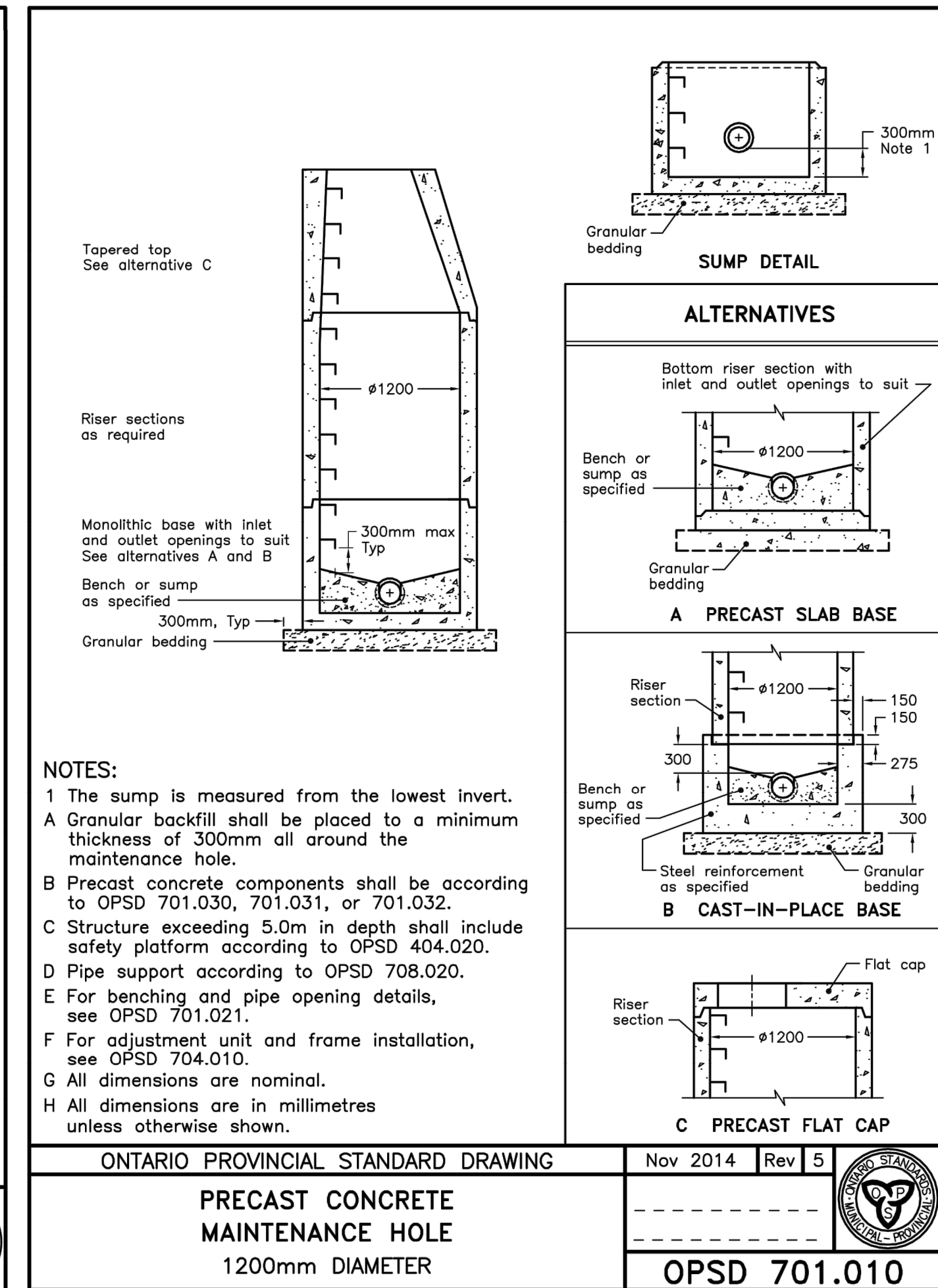
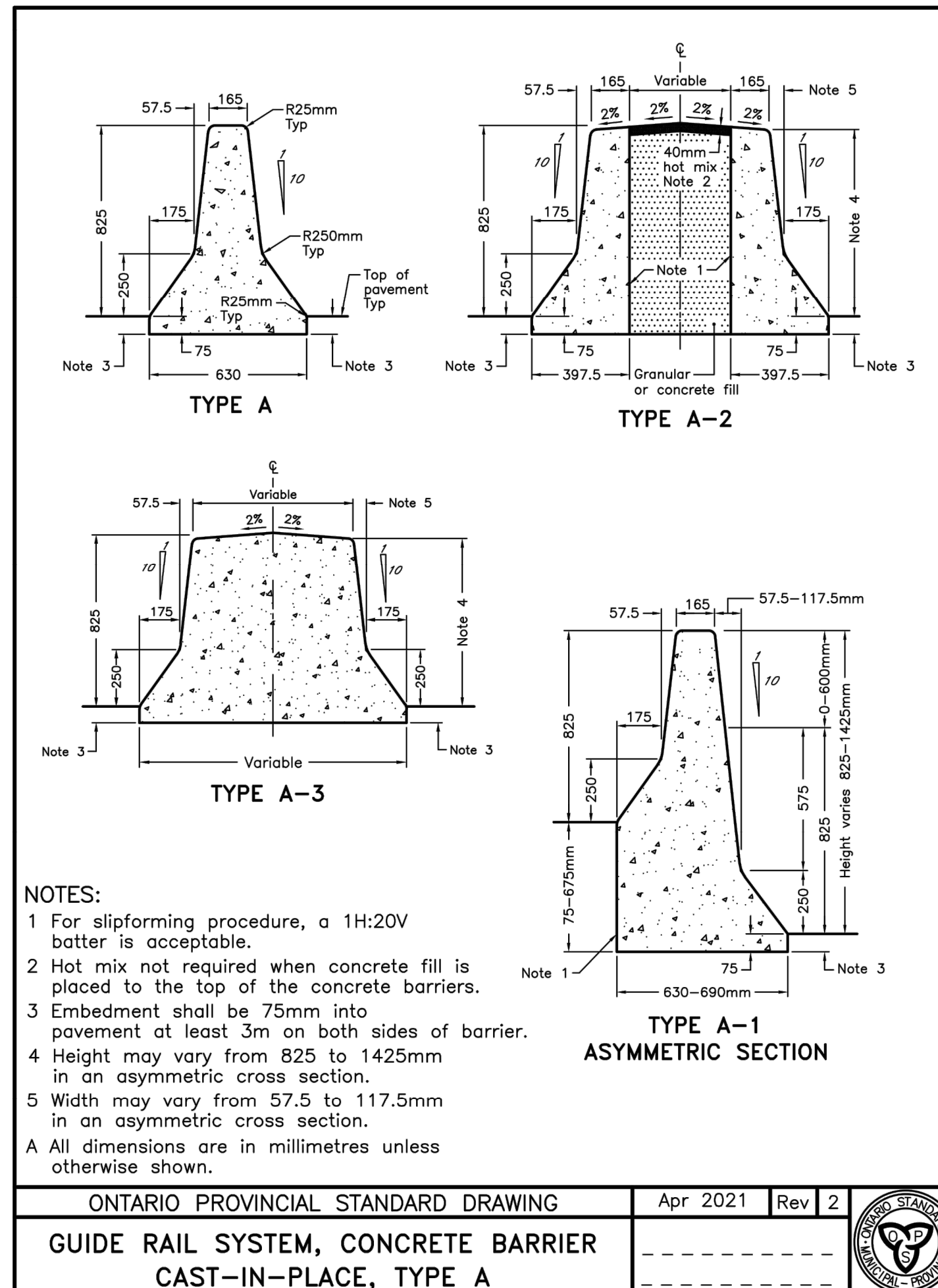
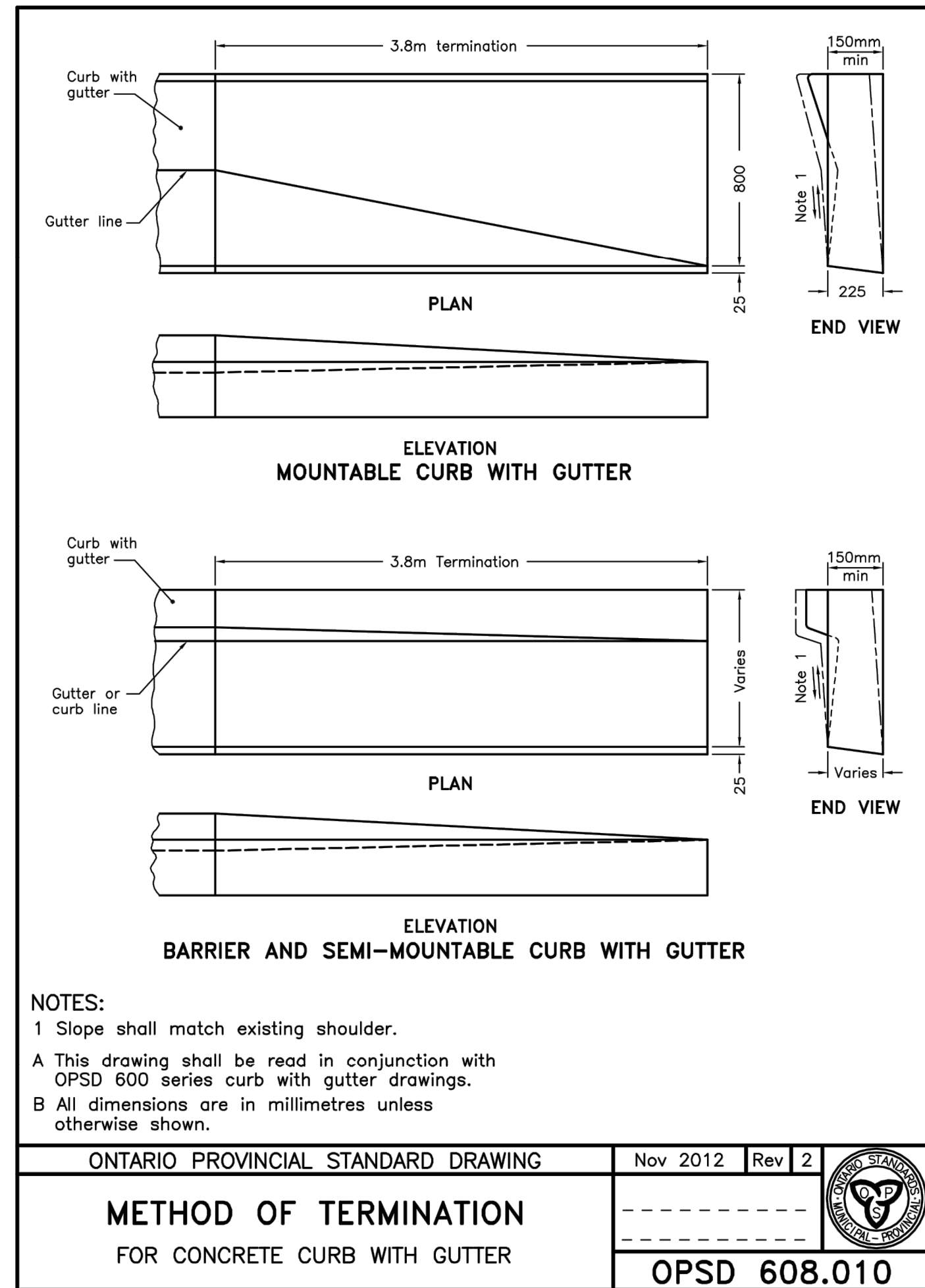
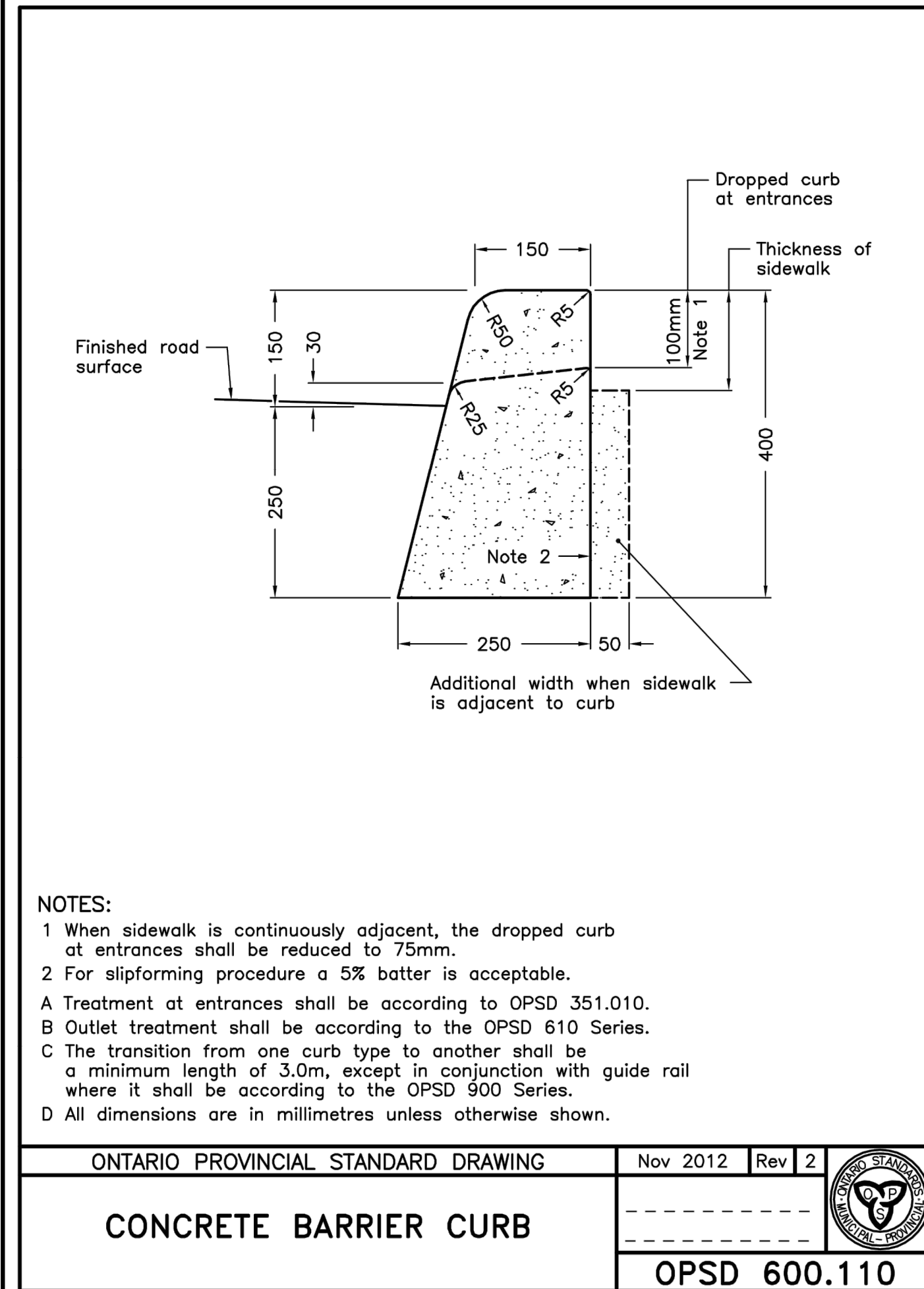
DETAILS 1

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DRAWING #: **C-006**

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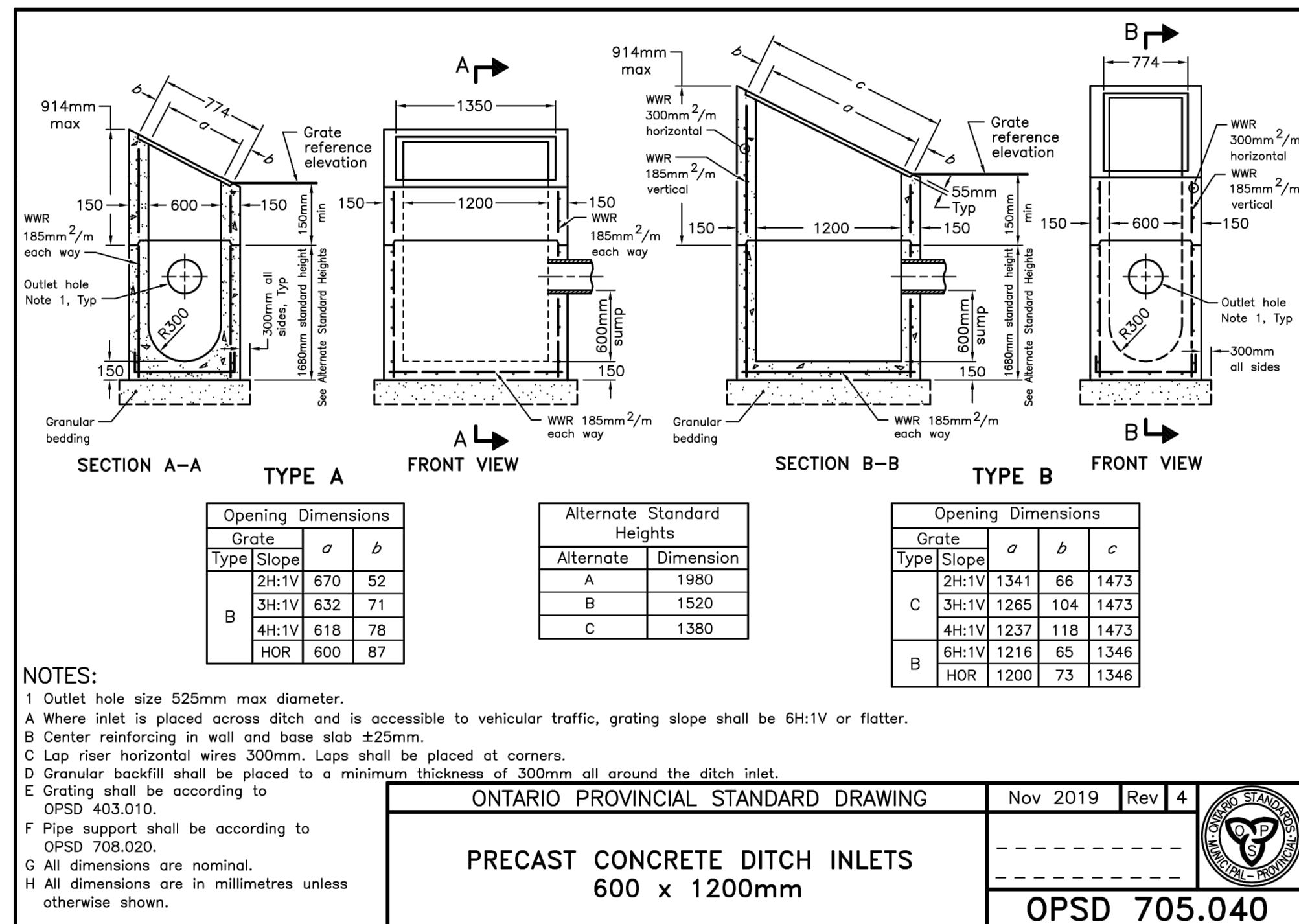
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JLR J.L.Richards ENGINEERS-ARCHITECTS-PLANNERS

CONSULTANT:
PROFESSIONAL STAMP

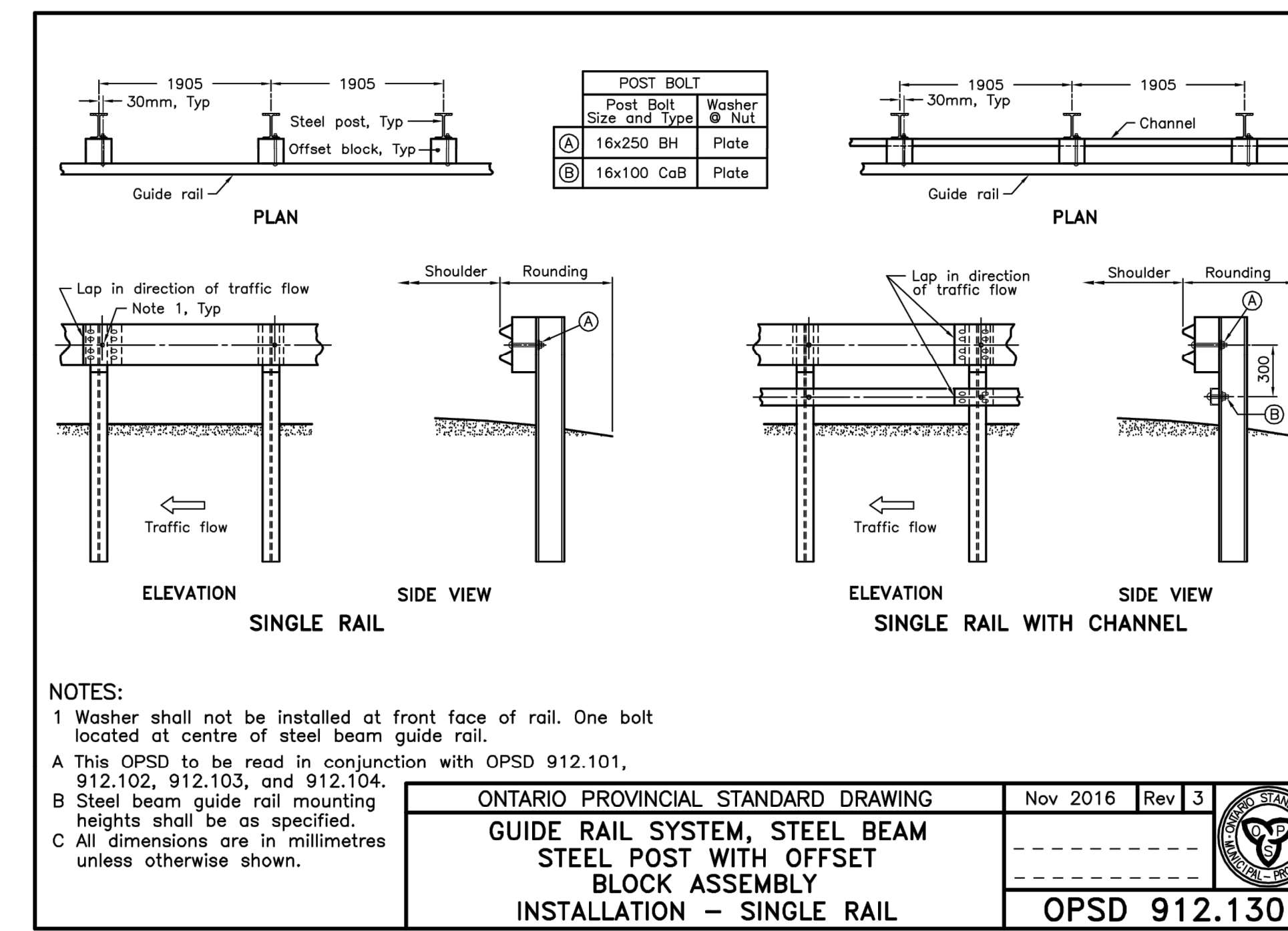
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DETAILS 2

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DRAWN: G.C.	C-007
CHECKED: D.U.	
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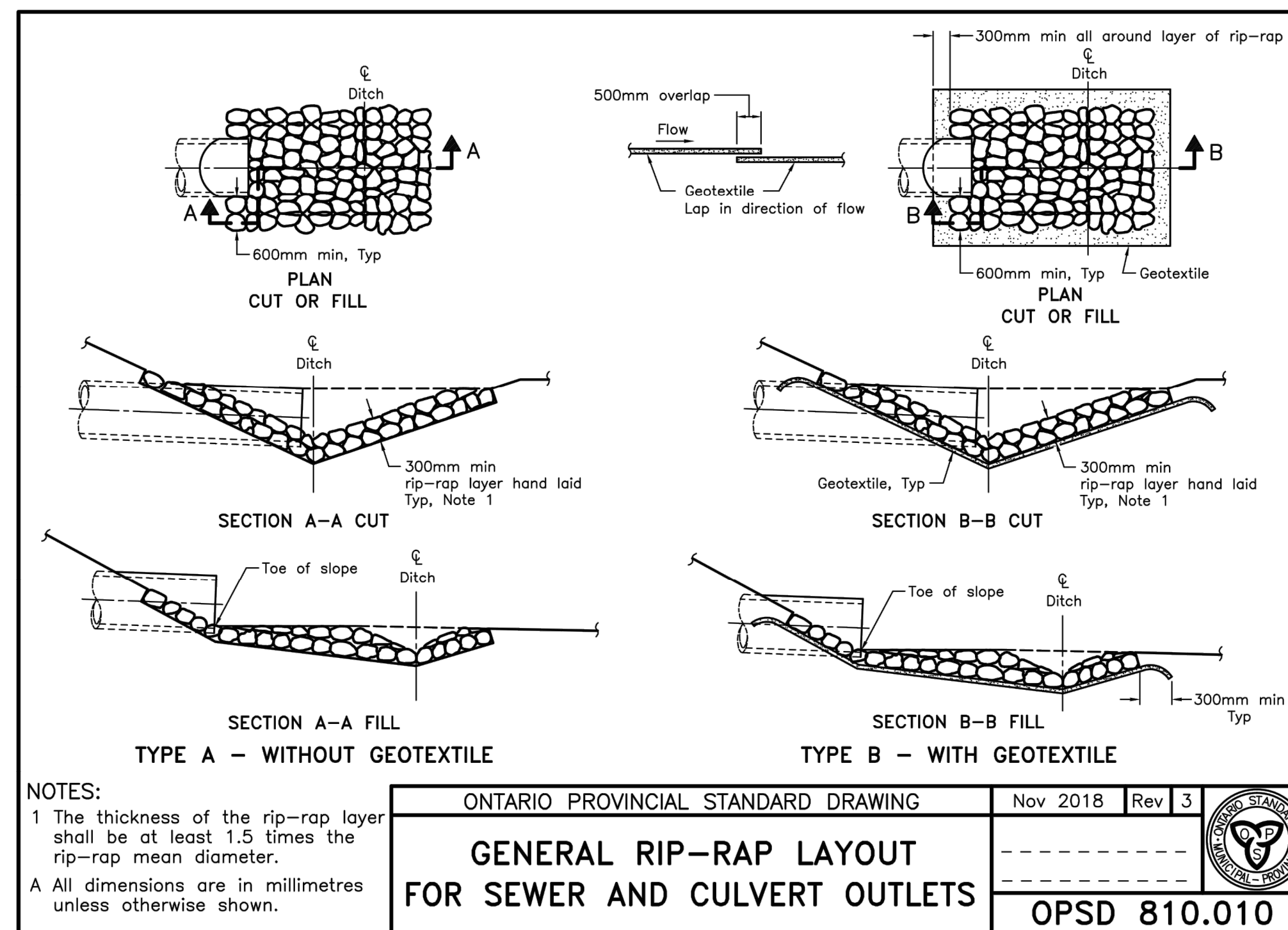


ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2019	Rev 4	
PRECAST CONCRETE DITCH INLETS 600 x 1200mm	OPSD 705.040		



ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2016	Rev 3	
GUIDE RAIL SYSTEM, STEEL BEAM STEEL POST WITH OFFSET BLOCK ASSEMBLY INSTALLATION - SINGLE RAIL	OPSD 912.130		

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ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 3	
GENERAL RIP-RAP LAYOUT FOR SEWER AND CULVERT OUTLETS	OPSD 810.010		

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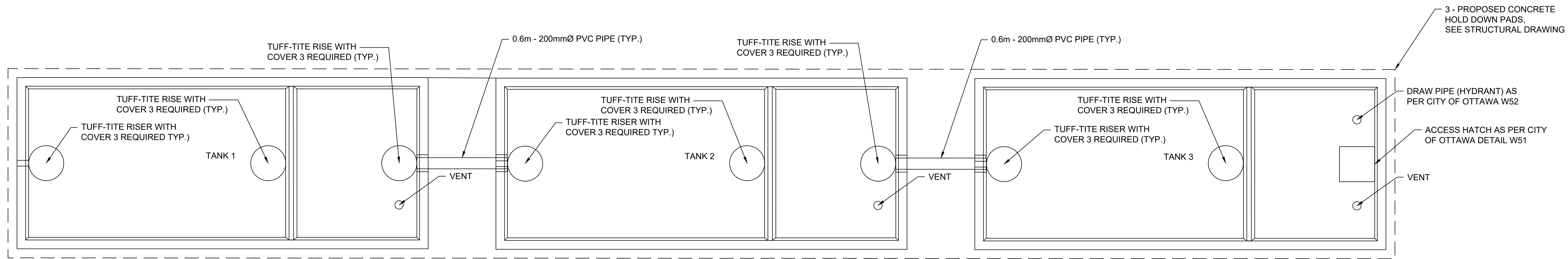
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 DETAILS 3

DESIGN:	M.D.	DRAWING #:	C-008
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JLR #:	31500-000		



END TO END CONNECTION- 3 TANKS
NOT TO SCALE

PRELIMINARY DESIGN

THESE DOCUMENTS ARE NOT COMPLETE IN ALL DETAILS AND MAY BE SUBJECT TO CHANGE AS DESIGN DEVELOPMENT AND CODE REVIEW IS ADVANCED.

02	RE-ISSUED FOR CITY SITE PLAN APPROVAL	12/09/22
01	ISSUED FOR CITY SITE PLAN APPROVAL	06/04/22
00	ISSUED FOR CLIENT REVIEW	04/04/22
No.	ISSUE / REVISION	DD/MM/YY

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VERIFY SHEET SIZE AND SCALES, BAR TO THE RIGHT IS 25mm IF THIS IS A FULL SIZE DRAWING.

SCALE: 0 25mm

CLIENT:

CONSULTANT:

CONSULTANT:

PROFESSIONAL STAMP

PROFESSIONAL STAMP

PROJECT:

HYDRO ONE OPERATIONS CENTRE, ORLEANS

3440 FRANK KENNY ROAD

DRAWING:

TANK DETAILS

DESIGN:	M.D.	DRAWING #:	C-009
DRAWN:	G.C.		
CHECKED:	D.U.		
JLR #:	31500-000		

GENERAL NOTES:

1. UNITS ARE SEALED WITH BUTYL TAPE AT THE JOINTS
2. CONTRACTOR TO ENSURE CRANE IS ON-SITE TO OFFLOAD AND SET TANK
3. EXCAVATION MUST BE READY FOR INSTALL
4. MIN OVERHEAD CLEARANCE OF 18FT (5.5 METRES) IS REQUIRED
5. ALL UNITS MUST BE HANDLED WITH PROPER LIFTING EQUIPMENT
6. TANK DESIGNED FOR A MAXIMUM FILL COVER DEPTH OF 1000mm, MO MINIMUM FILL COVER DEPTH, AND 12 KPa VEHICLE LOADING.
7. SCHEDULE 80 FLANGE FOR DRY HYDRANT TO BE FITTED ON SITE

* TANKS SUITABLE FOR TRAFFIC LOADING

SINGLE FIRE WATER TANK

	CONCRETE TYPE: SCC CONCRETE: 45MPa at 28 days / 6,500PSI AIR ENTRAINMENT: 5-8% REINFORCEMENT: STEEL TO CSA CAN A23.1/A23.3 G30.18 Fy=400MPa	WEIGHT: BOTTOM - 78,034lbs / 35,470kg TOP - 77,753lbs / 35,342kg CSA APPROVED MEETS CAN/CSA-B66 *AGINP*	DRAWN BY: JAY PATEL DATE: MAR/2022	84000 LITRES WORKING CAPACITY: 89752L TO INVERT OF INLET TOTAL CAPACITY: 91606L TO UNDERSIDE OF CHAMBER LID
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UNDERGROUND WATER RESERVOIR DRAW PIPE DETAIL

DATE: MARCH 2016
REV. DATE:
DWG. No.: W52