

No.	ISSUE / REVISION	DDMMYY
05	RE-ISSUED FOR CITY SITE PLAN APPROVAL	11/05/23
04	CITY SITE PLAN APPROVAL	17/03/23
03	ISSUED FOR CITY SITE PLAN APPROVAL	21/12/22
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

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SCALE: 1:400

CLIENT:

**hydro one BGIS**

CONSULTANT:

**JLR J.L. Richards**  
ENGINEERS - ARCHITECTS - PLANNERS

www.jlr.ca

CONSULTANT:

**JLR J.L. Richards**  
ENGINEERS - ARCHITECTS - PLANNERS

PROFESSIONAL STAMP

**L.J. Jablonski**  
LICENSED PROFESSIONAL ENGINEER  
2023-05-15  
PROVINCE OF ONTARIO

PROJECT:

**HYDRO ONE OPERATIONS CENTRE, ORLEANS**

3440 FRANK KENNY ROAD

DRAWING:

**SITE PLAN**

DESIGN: MR

DRAWN: KTK

CHECKED: MFD

JLR #: 31500-000

DRAWING #: **C-001**

PLLOT DATE: May 12, 2023 10:37:00 AM

ADDRESS: 3440 FRANK KENNY ROAD

LEGAL DESCRIPTION: CON 8 FT LOT 10 RP-4R-30029 PART 2

ZONING PROVISION: CITY OF OTTAWA ZONING BY-LAW 2008-250 R4(10R) RURAL HEAVY INDUSTRIAL, EXCEPTION 35

PROPERTY AREA: 2.648 HA

1. PART 13 - RURAL ZONES - SECTIONS 221 AND 222 - RURAL HEAVY INDUSTRIAL ZONE

PERMITTED USES: HEAVY INDUSTRIAL USE, WAREHOUSE, STORAGE YARD, PARKING GARAGE

ZONE PROVISIONS

ZONING MECHANISMS	II ZONE PROVISIONS	PROPOSED
A. MINIMUM LOT AREA (M²)	8,000	26,480
B. MINIMUM LOT FRONTAGE (M)	50	162.36
C. FRONT YARD SETBACK (M)	15	16.3
D. INTERIOR SIDE YARD SETBACK (M)	10	58.0
E. CORNER SIDE YARD SETBACK (M)	15	
F. REAR YARD SETBACK (M)	15	67.9
G. HEIGHT (M)	15	8.1
F. LOT COVERAGE (%)	50	7

2. PARKING REQUIRED (SEC. 101-102) AREA D

USE	REQUIRED	PROPOSED (TOTAL ON-SITE)
OFFICE	10	34
STORAGE YARD	15	15
WAREHOUSE	6	6
PARKING GARAGE	0	0
<b>TOTAL</b>	<b>24</b>	<b>55</b>

ACCESSIBLE PARKING

TYPE	REQUIRED	PROPOSED
TYPE A (3.4 M X 5.2 M MIN)	1	1
TYPE B (2.4 X 5.2 M MIN)	1	1

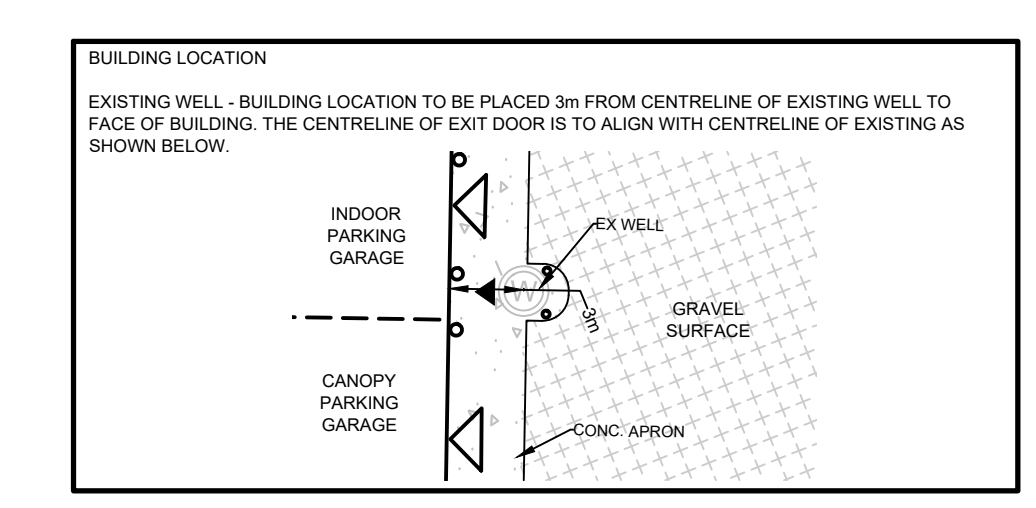
3. BICYCLE PARKING SPACE (SEC. 111)

USE	REQUIRED	PROVIDED
OFFICE 1 PER 250 sq m / (478 sq m)	1	
STORAGE YARD 1 PER 2000 sq m / (1,500 sq m)	0	3
WAREHOUSE 1 PER 2000 sq m / (716 sq m)	0	

4. LOADING SPACE RATES AND PROVISIONS (SEC. 113)

TABLE 113A. MINIMUM NUMBER OF VEHICLE LOADING SPACES REQUIRED

LAND USE	REQUIRED	PROVIDED
OFFICE		
STORAGE YARD	1	1
WAREHOUSE		



SIGN LEGEND

REFER TO SITE SIGNAGE GRAPHICS SPECIFICATIONS FOR ADDITIONAL INFORMATION

XX-L MOUNTED ON LIGHT POLE

XX-P MOUNTED ON U-CHANNEL POST

XX-F MOUNTED ON FENCE

PAVEMENT DESIGN

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

NOTE:

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

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VERTICAL DATUM: CANADIAN GEODETIC VERTICAL DATUM OF 1928 (CGVD28)

File Location: P:\31000\31500-000 - HONI Orleans OPCS\Production\Civil\31500-000 P- Site Plan.dwg

D07-12-22-0057



NOTES:  
 1. FOR POTABLE WELL PROTECTION MEASURES, SEE HYDROLOGICAL REPORT BY GOLDER  
 2. FOR MONITORING WELL & EXISTING POTABLE WELL DECOMMISSIONING MEASURES, SEE HYDROLOGICAL REPORT BY GOLDER

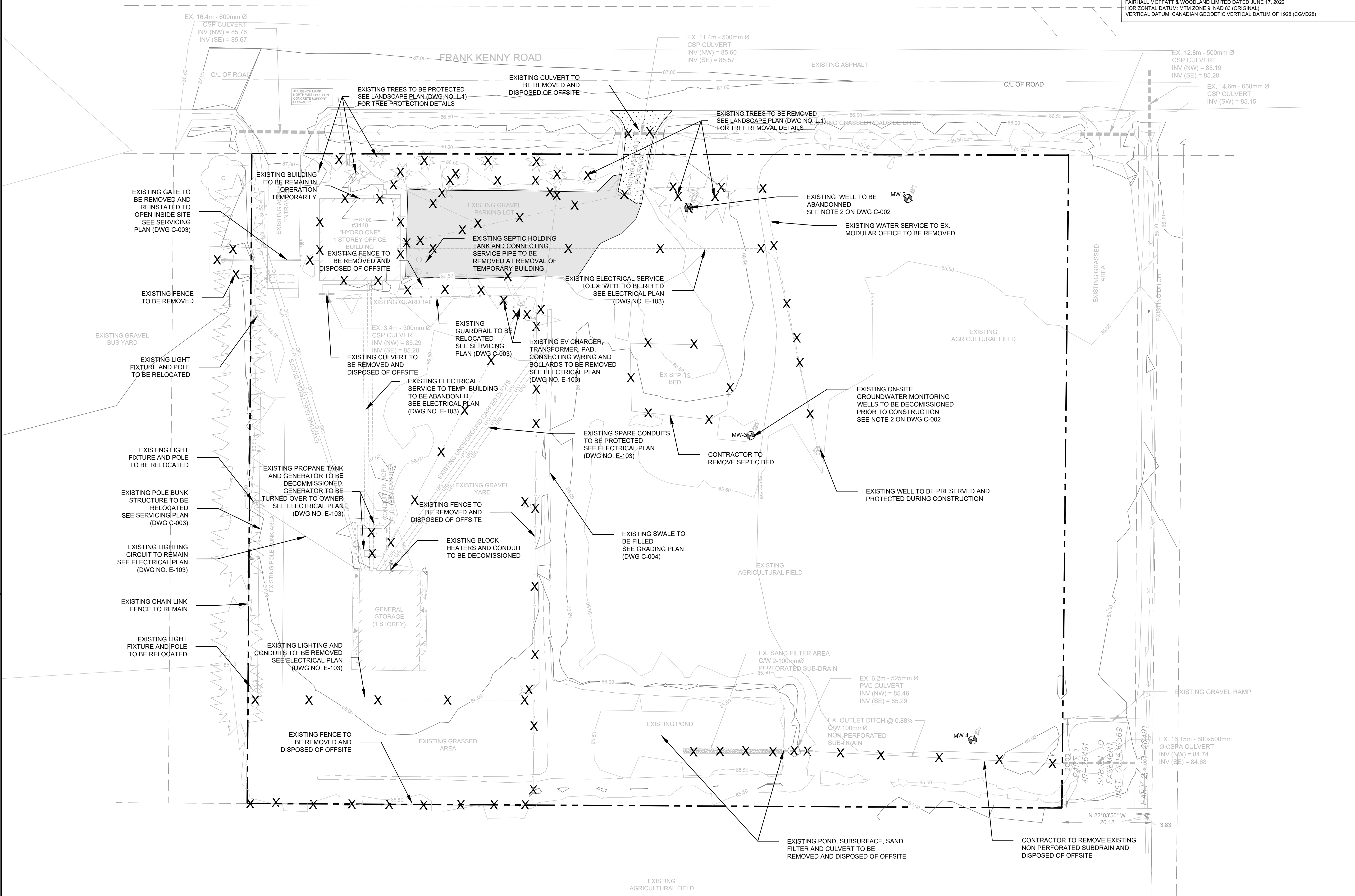
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LEGEND

X	REMOVALS
[Dotted pattern]	EXISTING PAVEMENT REMOVAL AND DISPOSED OF OFFSITE
[Hatched pattern]	EXISTING GRAVEL REMOVAL AND DISPOSED OF OFFSITE
---	LOT LINE
[Tree symbol]	EXISTING TREES
---	EXISTING CHAIN LINK FENCE
[Building symbol]	EXISTING BUILDING
[Borehole symbol]	EXISTING BOREHOLE
[Well symbol]	EXISTING MONITORING WELL
[Light symbol]	EXISTING LIGHT STANDARD
[Contour symbol]	EXISTING CONTOUR
[Elevation symbol]	ORIGINAL GROUND ELEVATION FROM TOPO

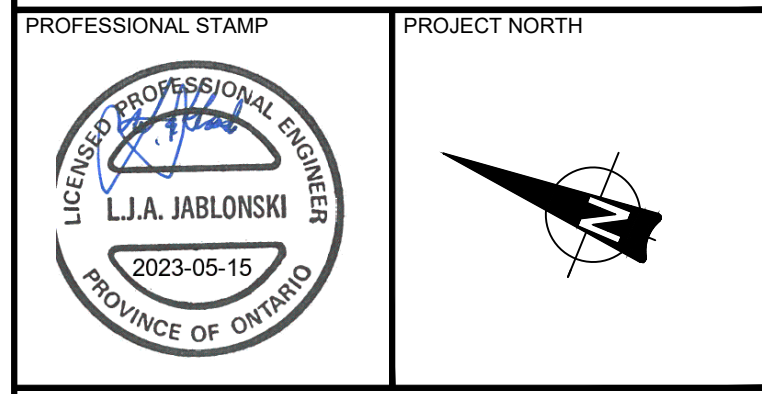
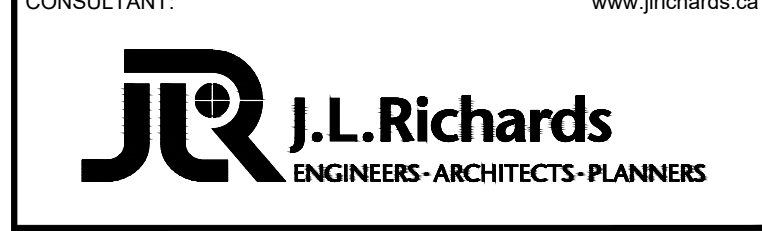


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SCALE: 1:400



PROJECT:  
**HYDRO ONE OPERATIONS CENTRE, ORLEANS**  
 3440 FRANK KENNY ROAD

DRAWING:  
**EXISTING CONDITIONS & REMOVALS PLAN**

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

PLOT DATE: May 12, 2023 10:37:12 AM

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 VERTICAL DATUM: CANADIAN GEODETIC VERTICAL DATUM OF 1928 (CGVD28)

- LEGEND:
- PROPERTY LINE
  - TERRACING (MAX 3:1)
  - CONCRETE BARRIER CURB
  - PROPOSED CULVERT
  - EXISTING CULVERT
  - PROPOSED SIGNS
  - PROPOSED MAN DOOR
  - PROPOSED GARAGE DOOR
  - PROPOSED CONCRETE BOLLARD
  - PROPOSED DOWNSPOUT TYP
  - PROPOSED DOWNSPOUT FOR TRENCH DRAIN
  - EXISTING WELL
  - 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 STANDARDS
  - PROPOSED LIGHT STANDARD

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00	ISSUED FOR CLIENT REVIEW	04/04/22

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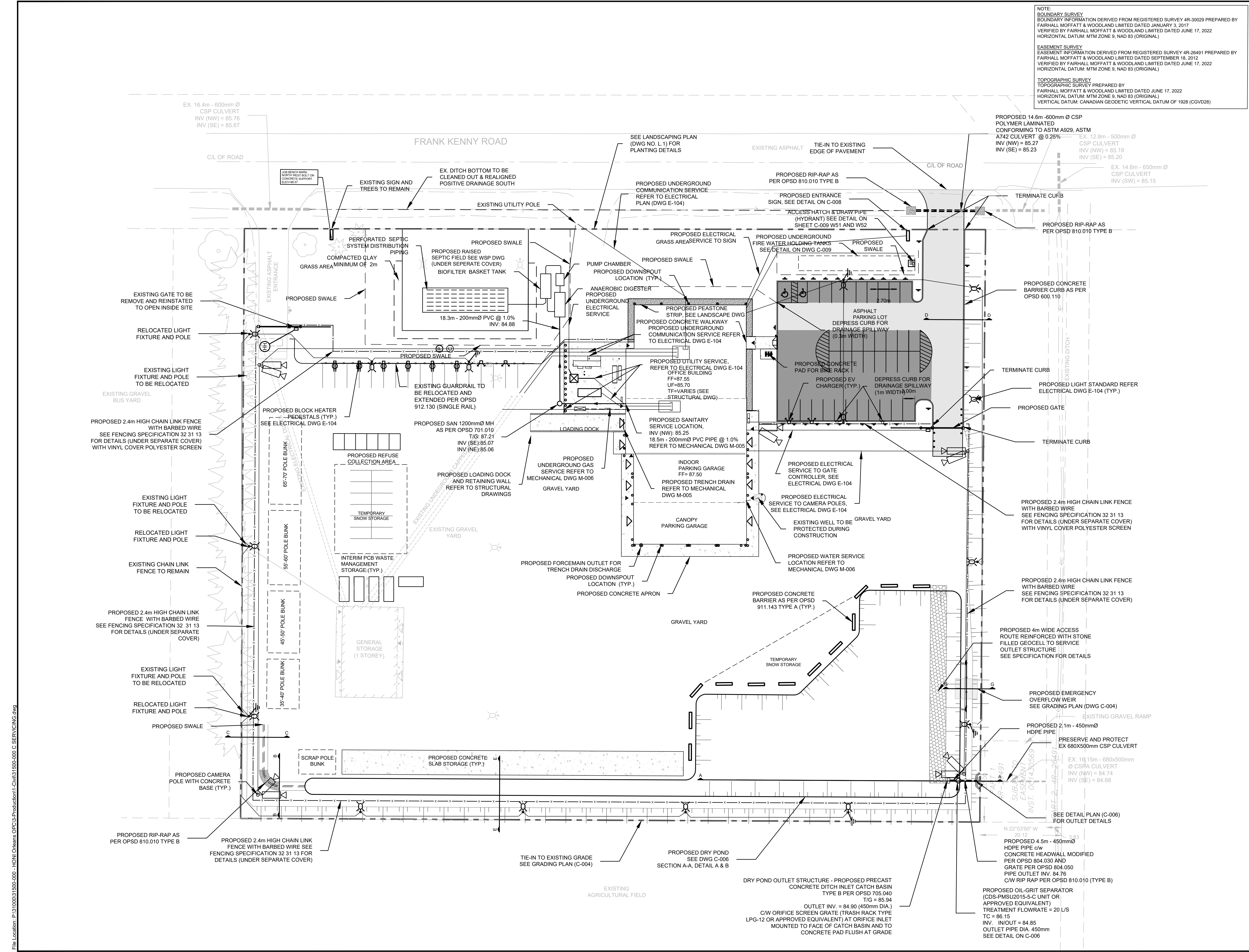
CONSULTANT:  
  
 ENGINEERS - ARCHITECTS - PLANNERS

CONSULTANT:

PROFESSIONAL STAMP  
  
 PROJECT NORTH

PROJECT:  
 HYDRO ONE OPERATIONS CENTRE, ORLEANS  
 3440 FRANK KENNY ROAD  
 DRAWING:  
 SERVICING PLAN

DESIGN: M.D.  
 DRAWN: G.C.  
 CHECKED: D.U.  
 JLR #: 31500-000  
 DRAWING #: C-003  
 PLOT DATE: May 12, 2023 10:37:21 AM



File Location: P:\31000\31500-000 - HONI Orleans OPC\3-Production1-Civil\31500-000.C SERVICING.dwg

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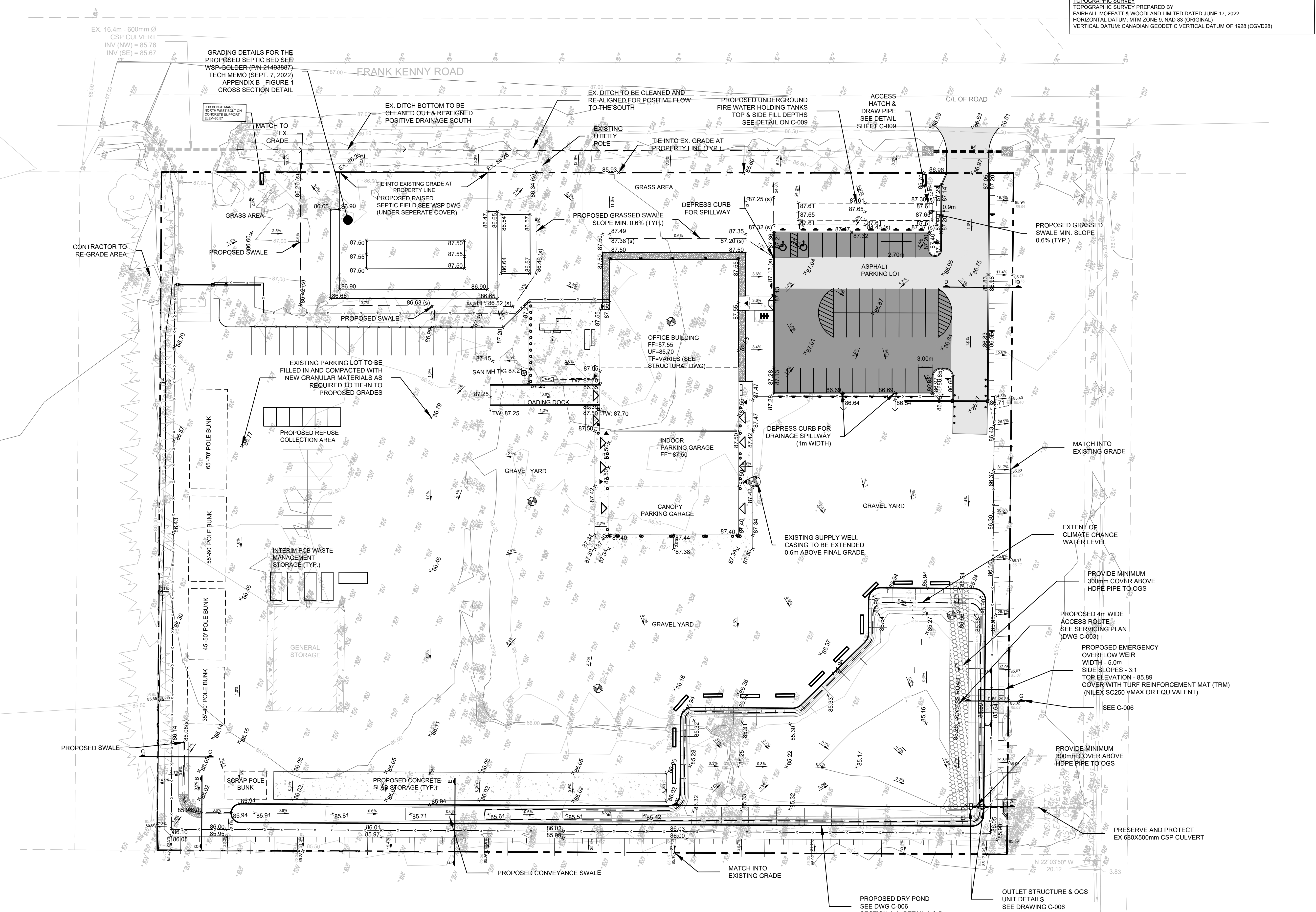
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**LEGEND:**

- 0.00' — PROPERTY LINE
- 0.00' — PROPOSED ELEVATION
- 0.00' — ORIGINAL GROUND ELEVATION FROM 1928
- 1.0% — SURFACE SLOPE
- 1.0% — TERRACING (MAX. 3:1)
- — CONCRETE BARRIER CURB
- — PROPOSED CULVERT
- — EXISTING CULVERT
- — PROPOSED SIGNS
- — PROPOSED MAN DOOR
- — PROPOSED GARAGE DOOR
- — PROPOSED BOLLARD (REFER TO STRUCTURAL DRAWINGS)
- — PROPOSED DOWNSPOUT (TYP.)
- — PROPOSED DOWNSPOUT FOR TRENCH DRAIN
- — EXISTING WELL
- — 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
- — EXISTING BOREHOLE



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CONSULTANT:

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 ENGINEERS - ARCHITECTS - PLANNERS

CONSULTANT:

PROFESSIONAL STAMP

PROJECT NORTH

PROJECT:

**HYDRO ONE OPERATIONS CENTRE, ORLEANS**

3440 FRANK KENNY ROAD

DRAWING:

**GRADING PLAN**

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



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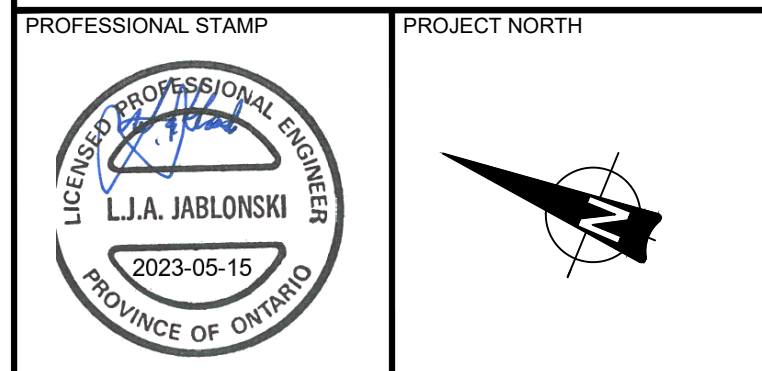
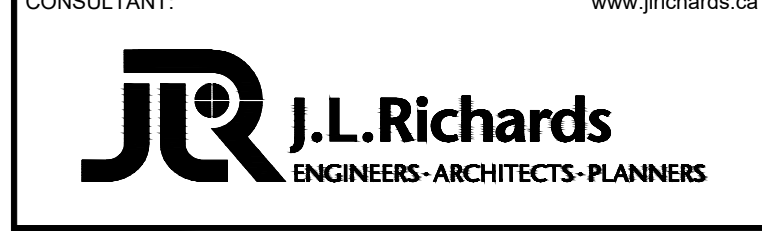
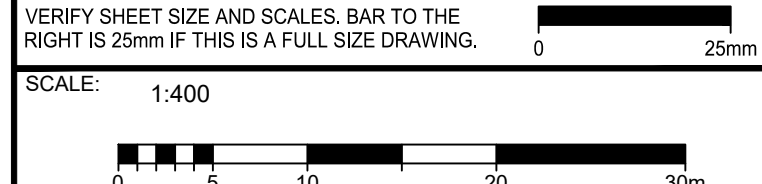
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- LEGEND**
- X — PROPOSED LIGHT DUTY SILT FENCE AS PER OPSD 219.110
  - - - - - PROPERTY LINE
  - - - - - EXISTING CHAIN LINK FENCE
  - ▭ EXISTING BUILDING
  - ▭ PROPOSED LIGHT DUTY STRAW BALE BARRIER AS PER OPSD 219.100
  - ▭ DRAINAGE BOUNDARY
  - ▭ AREA IN HECTARES
  - ▭ 5-YR RUNOFF COEFFICIENT
  - AREA ID
  - ➔ DRAINAGE DIRECTION
  - ▨ PROPOSED MUD MAT
  - EXISTING BOREHOLE
  - PROPOSED CONCRETE BOLLARD
  - PROPOSED DOWNSPOUT TYP.
  - PROPOSED DOWNSPOUT FOR TRENCH DRAIN

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PROJECT:

**HYDRO ONE OPERATIONS CENTRE, ORLEANS**

3440 FRANK KENNY ROAD

DRAWING:

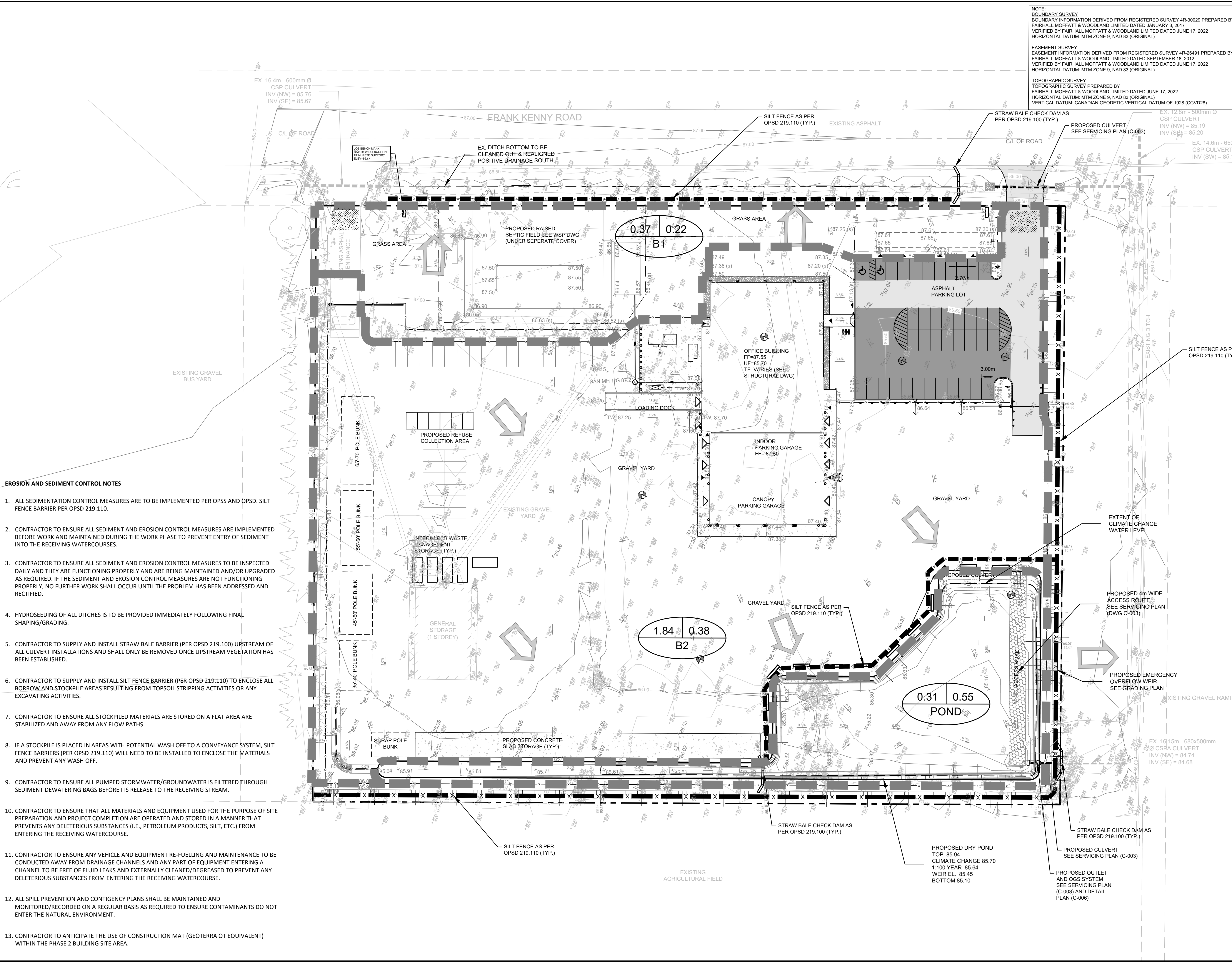
**POST DEVELOPMENT DRAINAGE AND EROSION AND SEDIMENT CONTROL PLAN**

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

DRAWING #: **C-005**

PLOT DATE: May 12, 2023 10:37:51 AM

- 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.



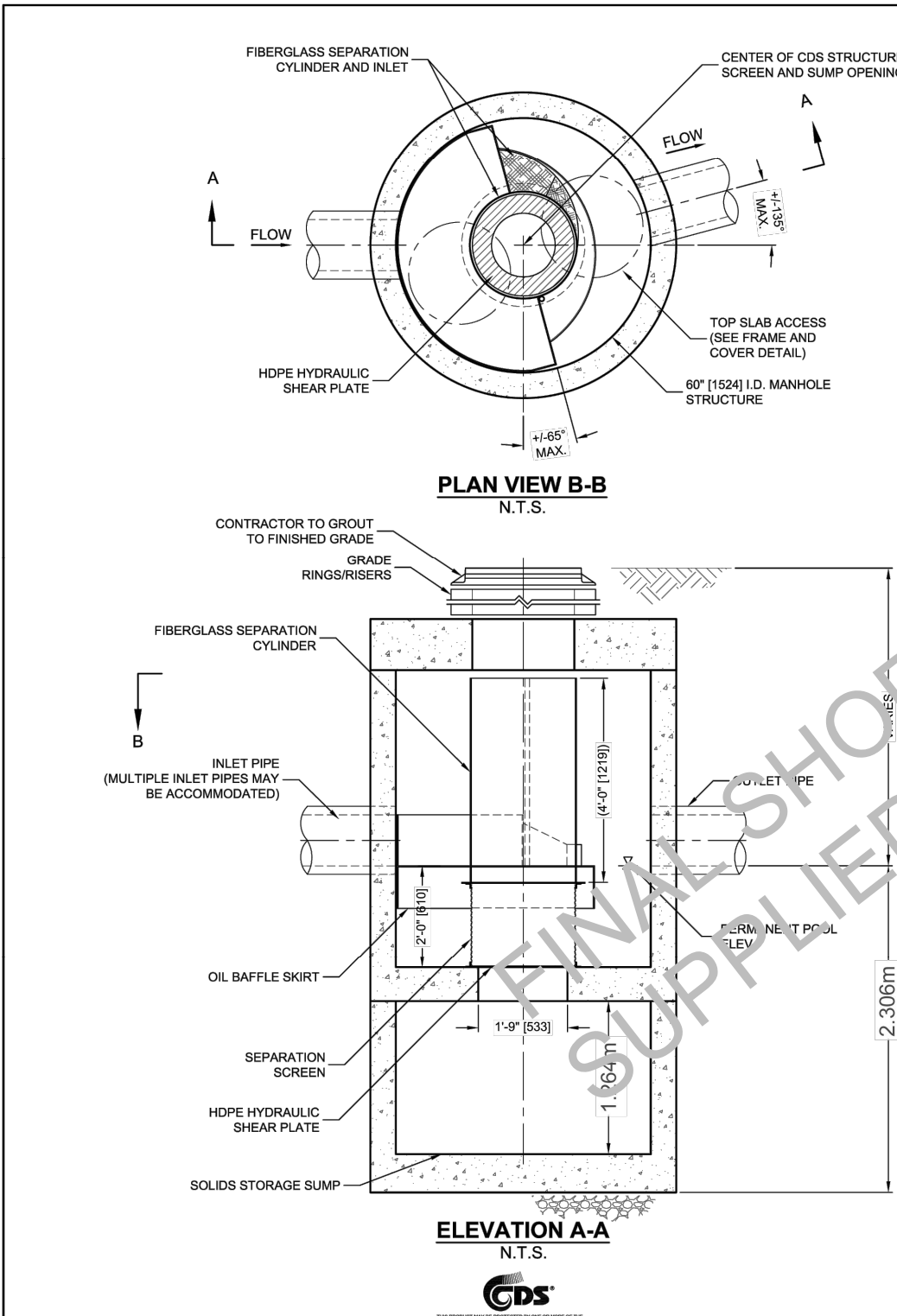
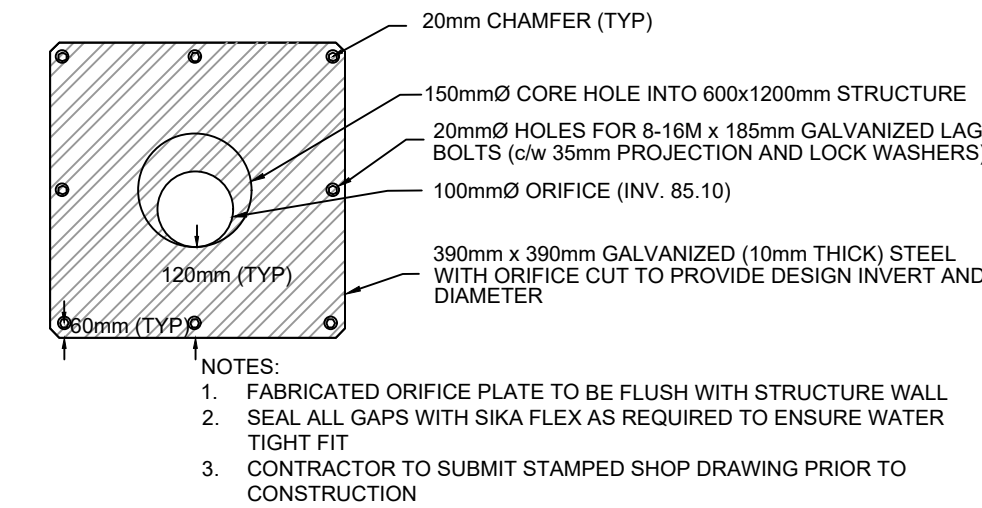
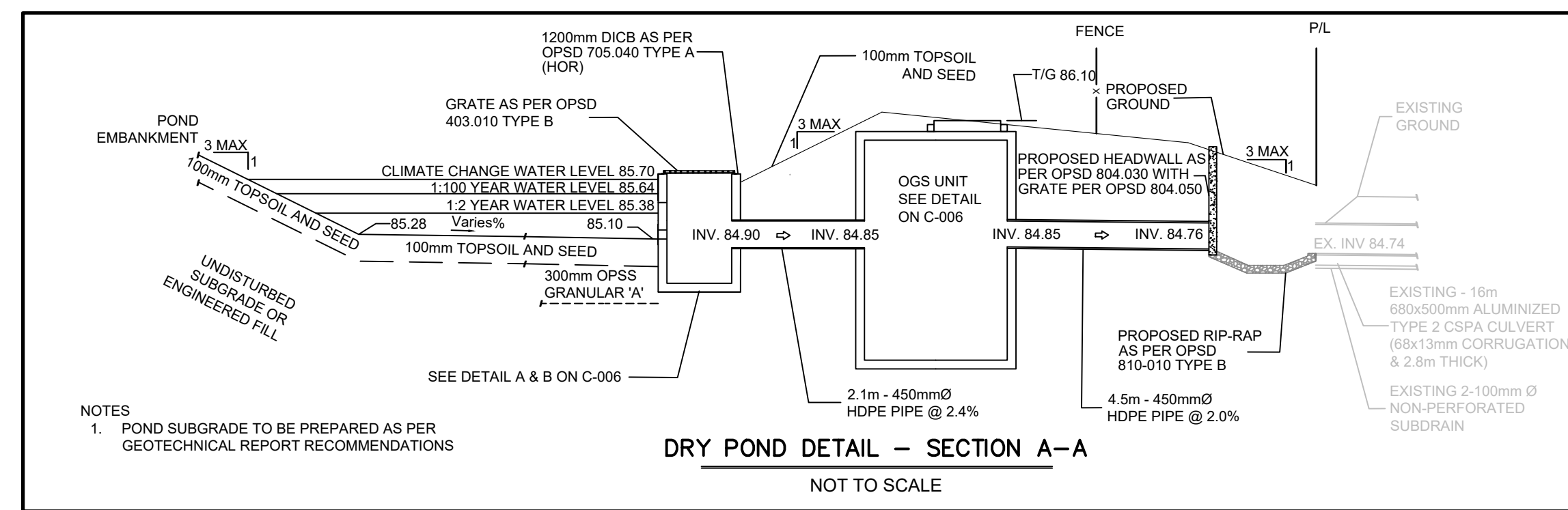
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D07-12-22-0057



**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 CONTRUCTION
- 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 SPECIFICATION, SEE SPECIFICATIONS UNDER SEPARATE COVER FOR DETAILS.
- WHERE POSSIBLE CONTRACTOR TO RE-USE EXISTING ON SITE JERSEY BARRIER
- PROPOSE CONCRETE BARRIERS PER OPSS 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.



**CDS PMSU2015-5-C DESIGN NOTES**

THE STANDARD CDS PMSU2015-5-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION	
GRATED INLET ONLY (NO INLET PIPE)	
GRATED INLET WITH INLET PIPE OR PIPES	
CURB INLET ONLY (NO INLET PIPE)	
CURB INLET WITH INLET PIPE OR PIPES	
CUSTOMIZABLE SUMP DEPTH AVAILABLE	
ANTI-FLOTATION DESIGN AVAILABLE UPON REQUEST	

SITE SPECIFIC DATA REQUIREMENTS	
STRUCTURE ID	
WATER QUALITY FLOW RATE (QFS OR LA)	
PEAK FLOW RATE (QFS OR LA)	
RETURN PERIOD OF PEAK FLOW (YRS)	
SCREEN APERTURE (2000 OR 4700)	

PIPE DATA	IE	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
TRM ELEVATION	*	*	*
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT

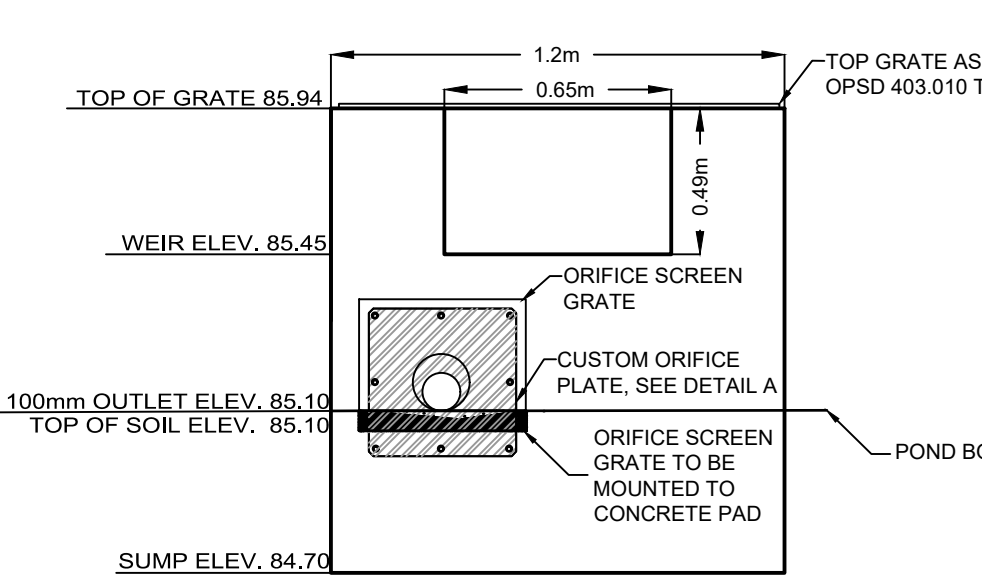
NOTES: 1. CONTRACTOR TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE. 2. DIMENSIONS MARKED WITH (\*) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY. 3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. 4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. 5. STRUCTURE SHALL MEET ALL DESIGN AND CONSTRUCTION REQUIREMENTS. MEET HIGH WATER TO 300mm RAINFALL ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. 6. HDPE HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES: A. ANY SUBBASE BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD. B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED). C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE. D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

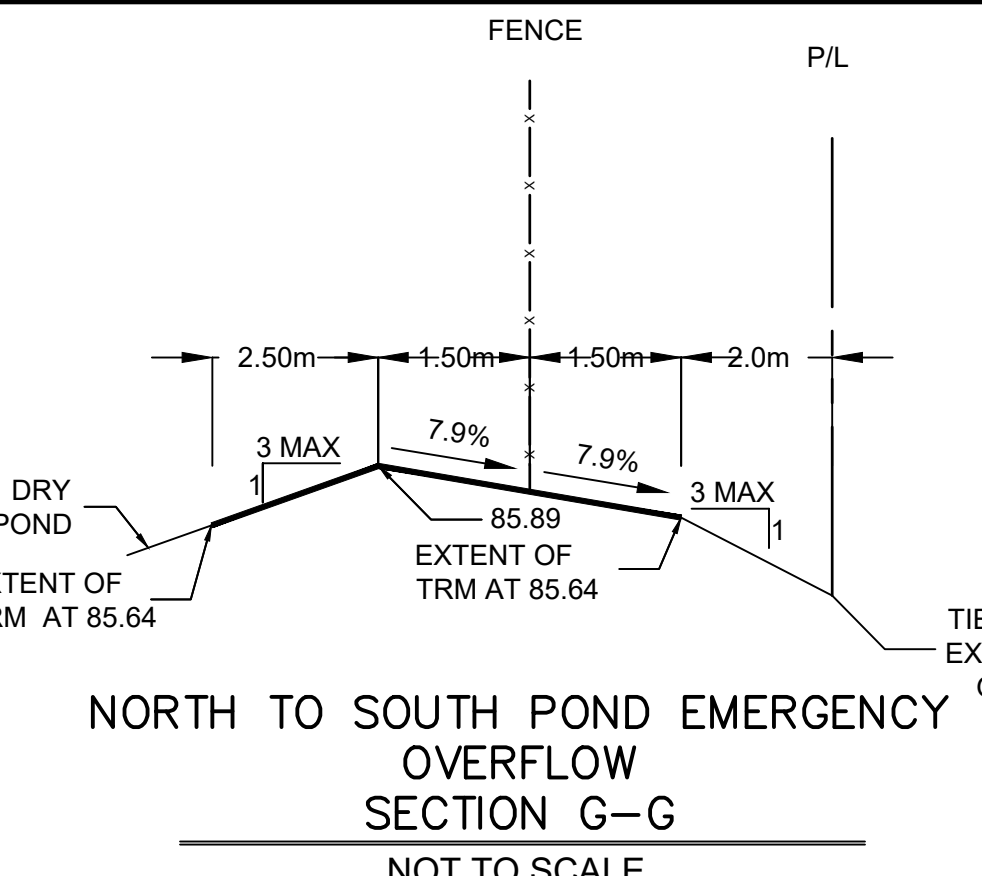
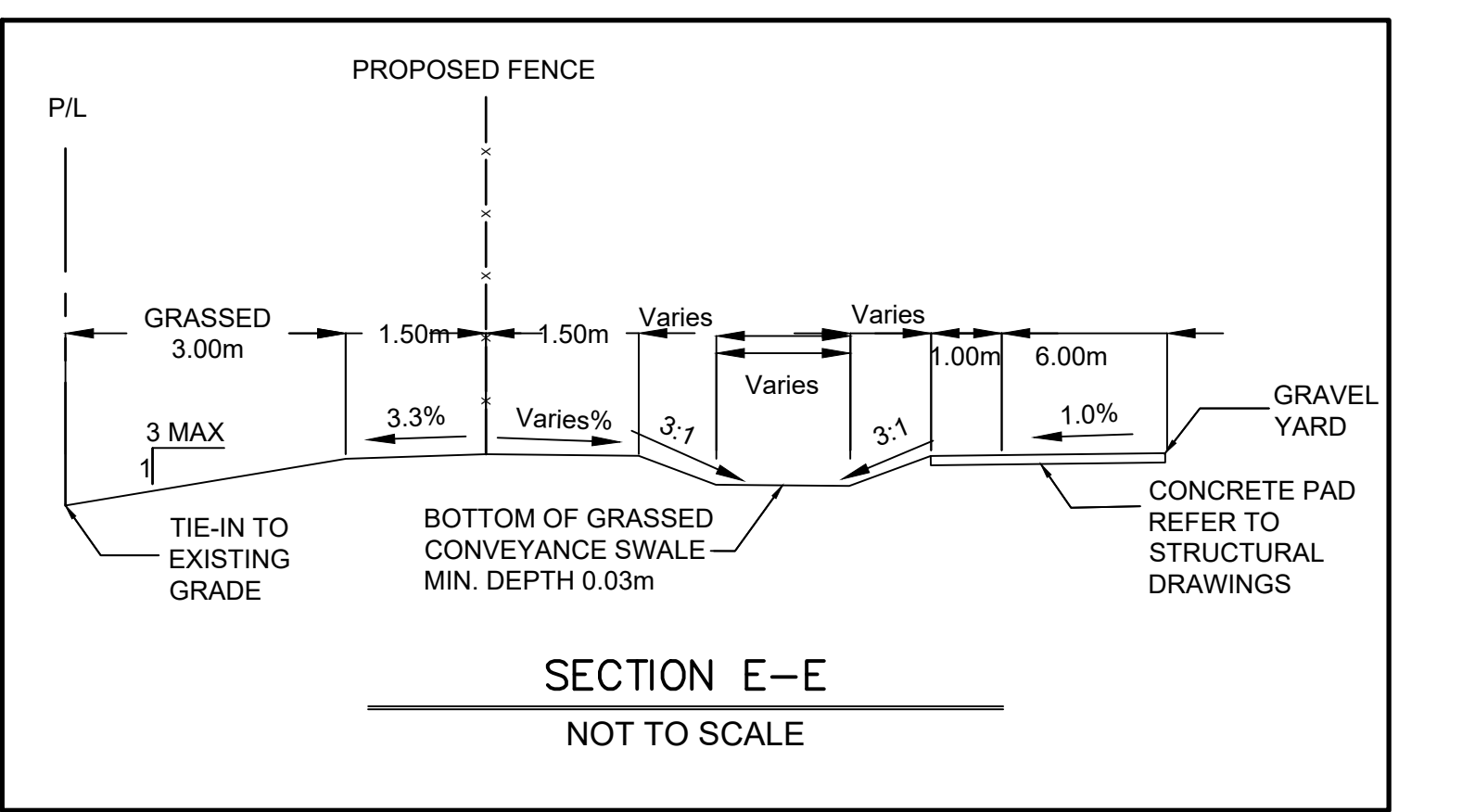
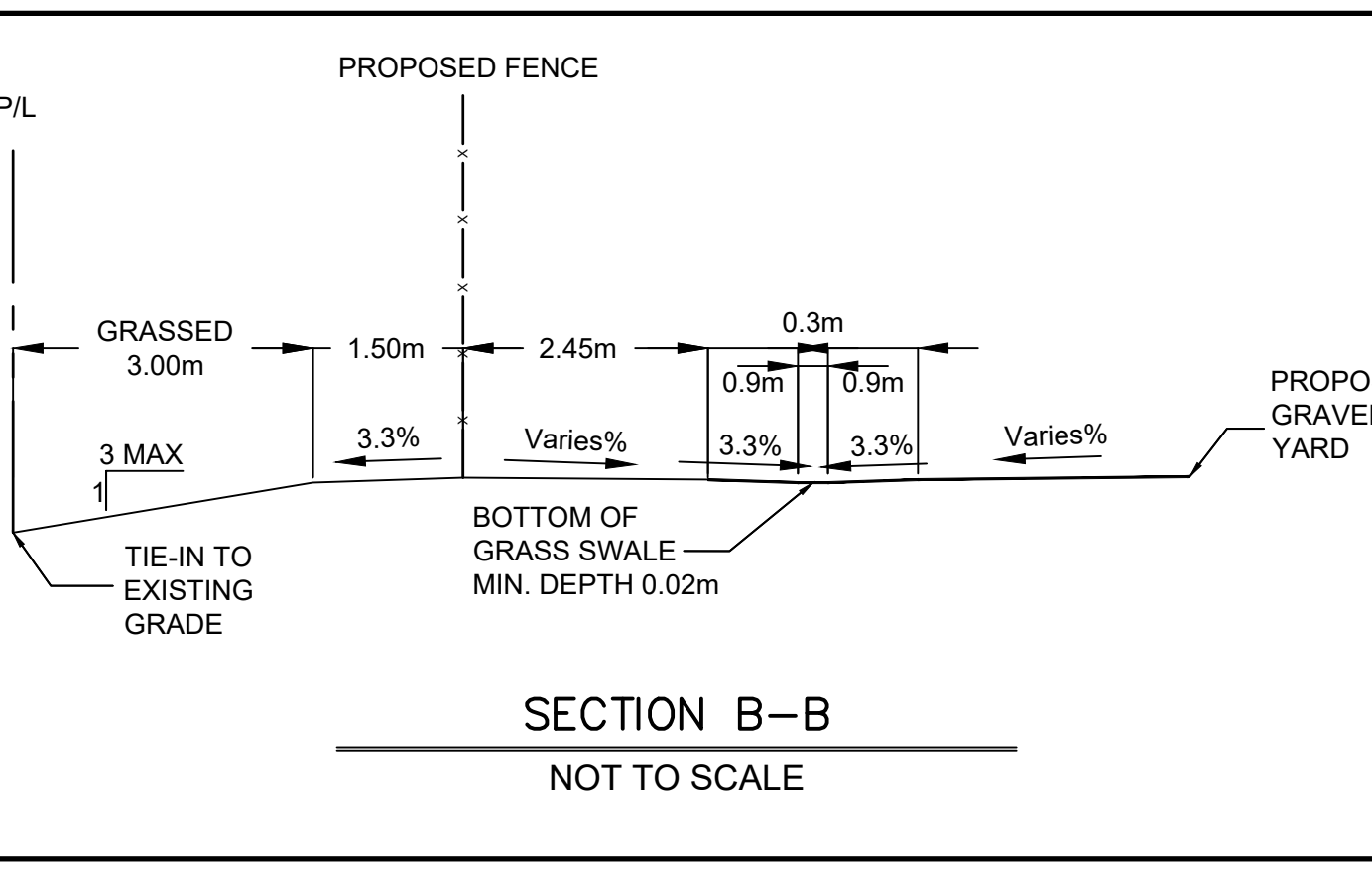
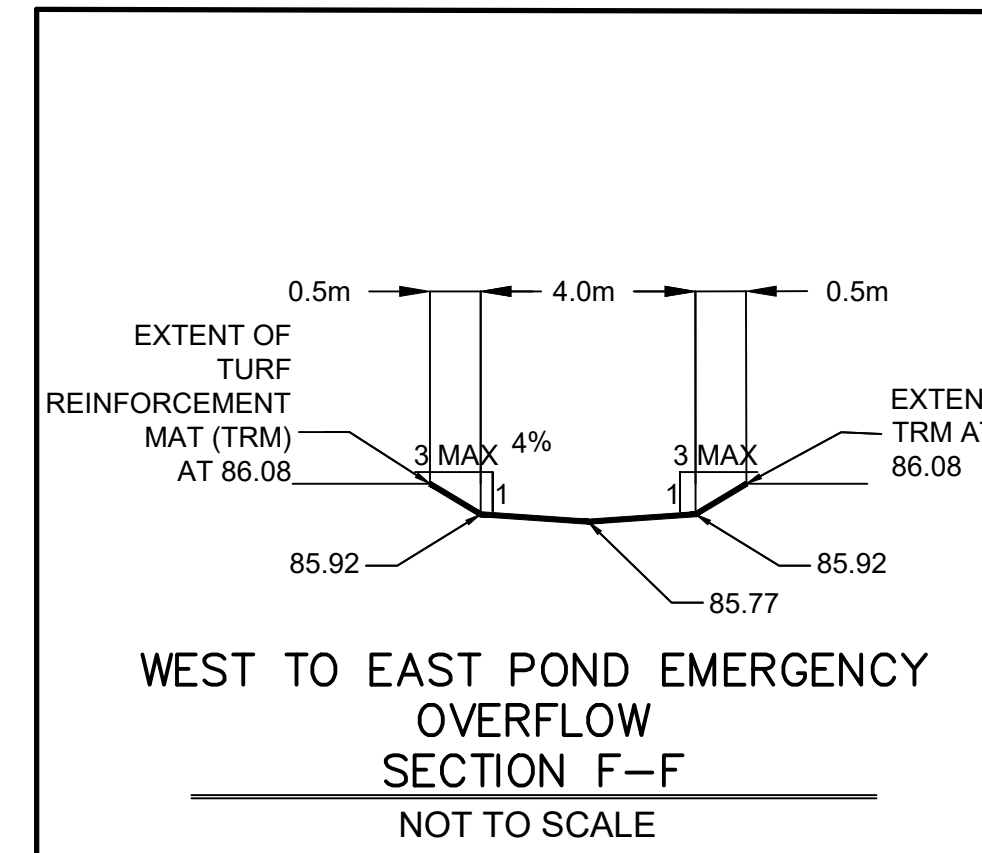
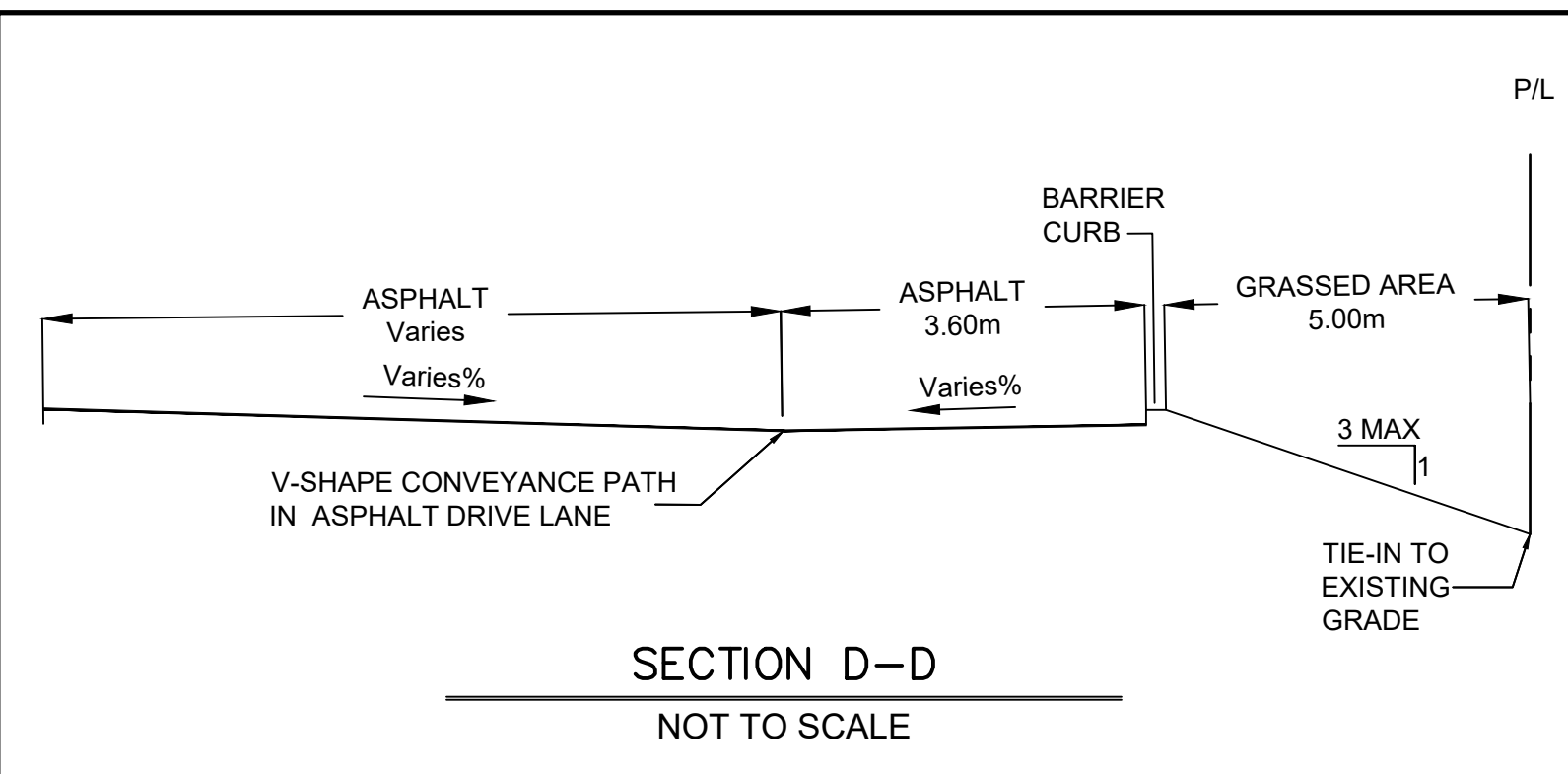
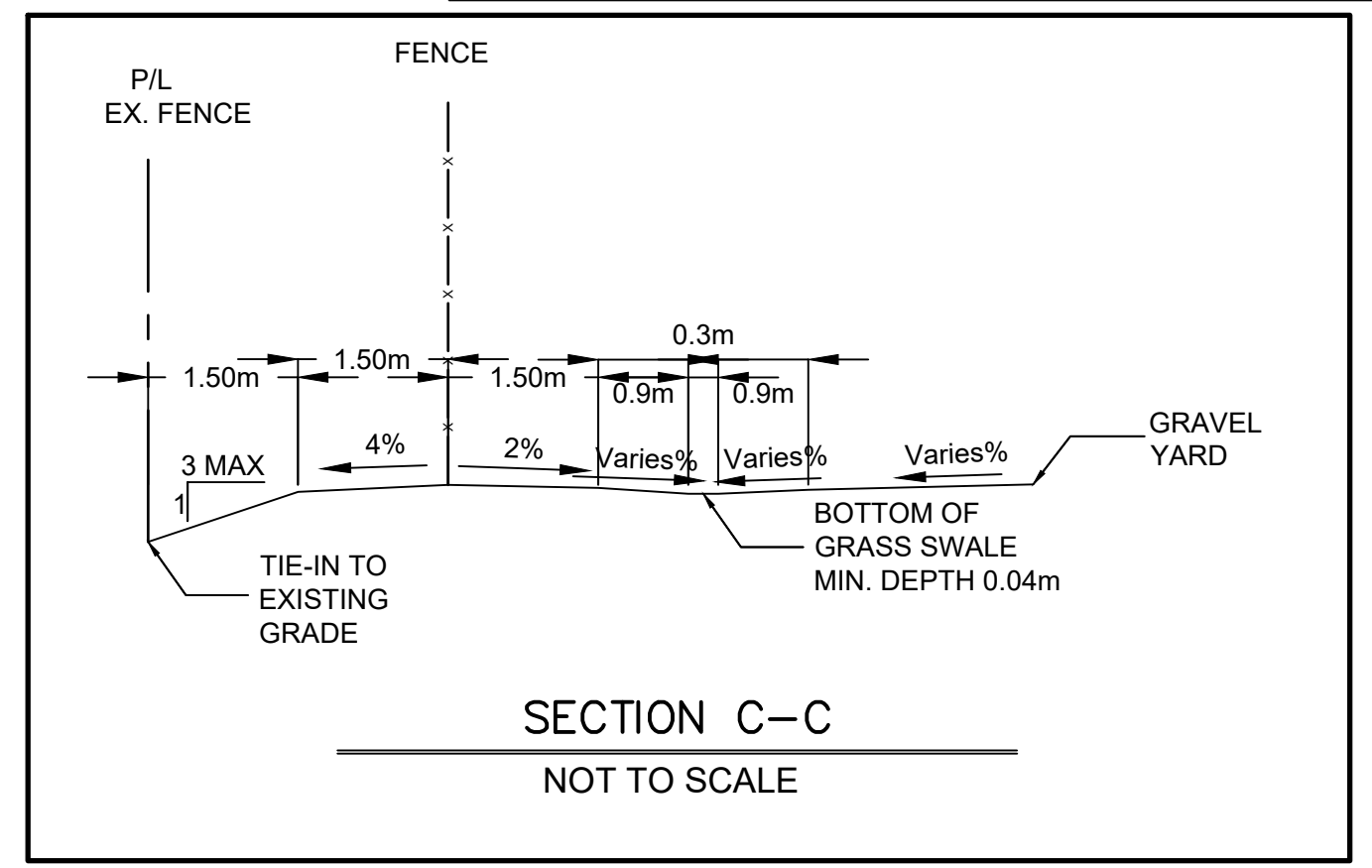
**CONTECH ENGINEERED SOLUTIONS LLC**  
 3025 Centre Pointe Dr., Suite 400, Mississauga, ON L4V 1V9  
 905-236-1122 905-236-1122 905-236-1122

CDS PMSU2015-5-C  
 INLINE CDS  
 STANDARD DETAIL

**DETAIL A - DRY POND OUTLET STRUCTURE 100mm Ø ORIFICE PLATE DETAIL**  
NOT TO SCALE



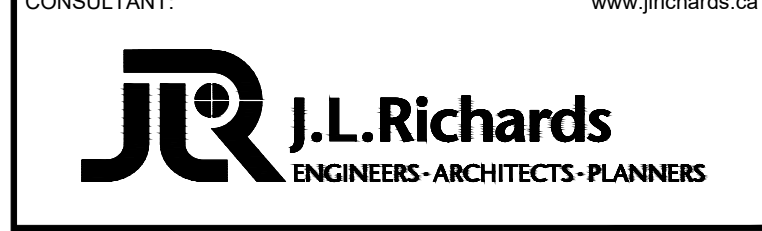
**DETAIL B - DRY POND OUTLET STRUCTURE DITCH INLET CATCH BASIN (600mmx1200mm) DETAIL - FRONT VIEW**  
NOT TO SCALE



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00	ISSUED FOR CLIENT REVIEW	04/04/22
No.	ISSUE / REVISION	DDMMYY

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 SCALE: 0 25mm



PROJECT:

**HYDRO ONE OPERATIONS CENTRE, ORLEANS**

3440 FRANK KENNY ROAD

DRAWING:

**DETAILS 1**

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

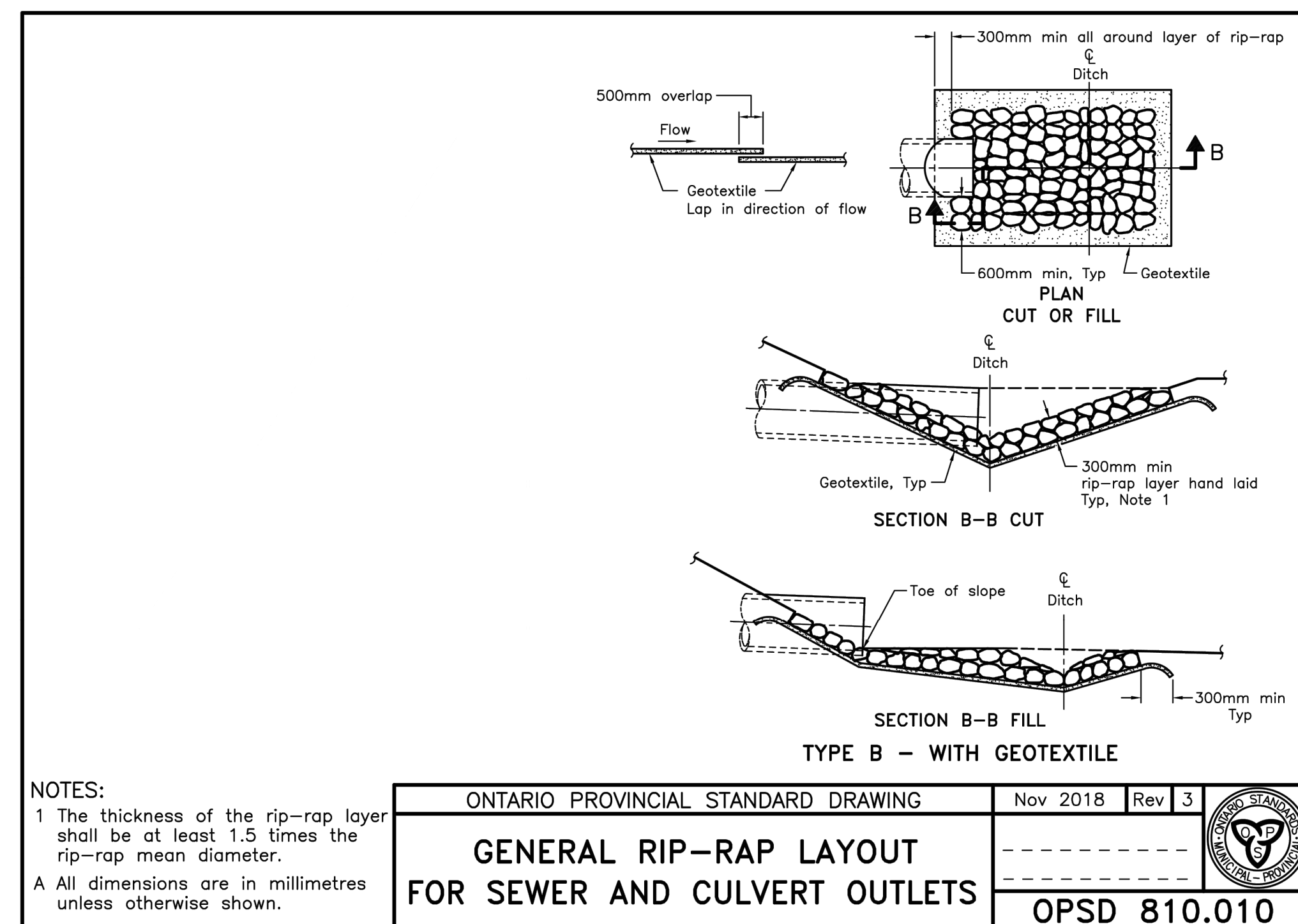
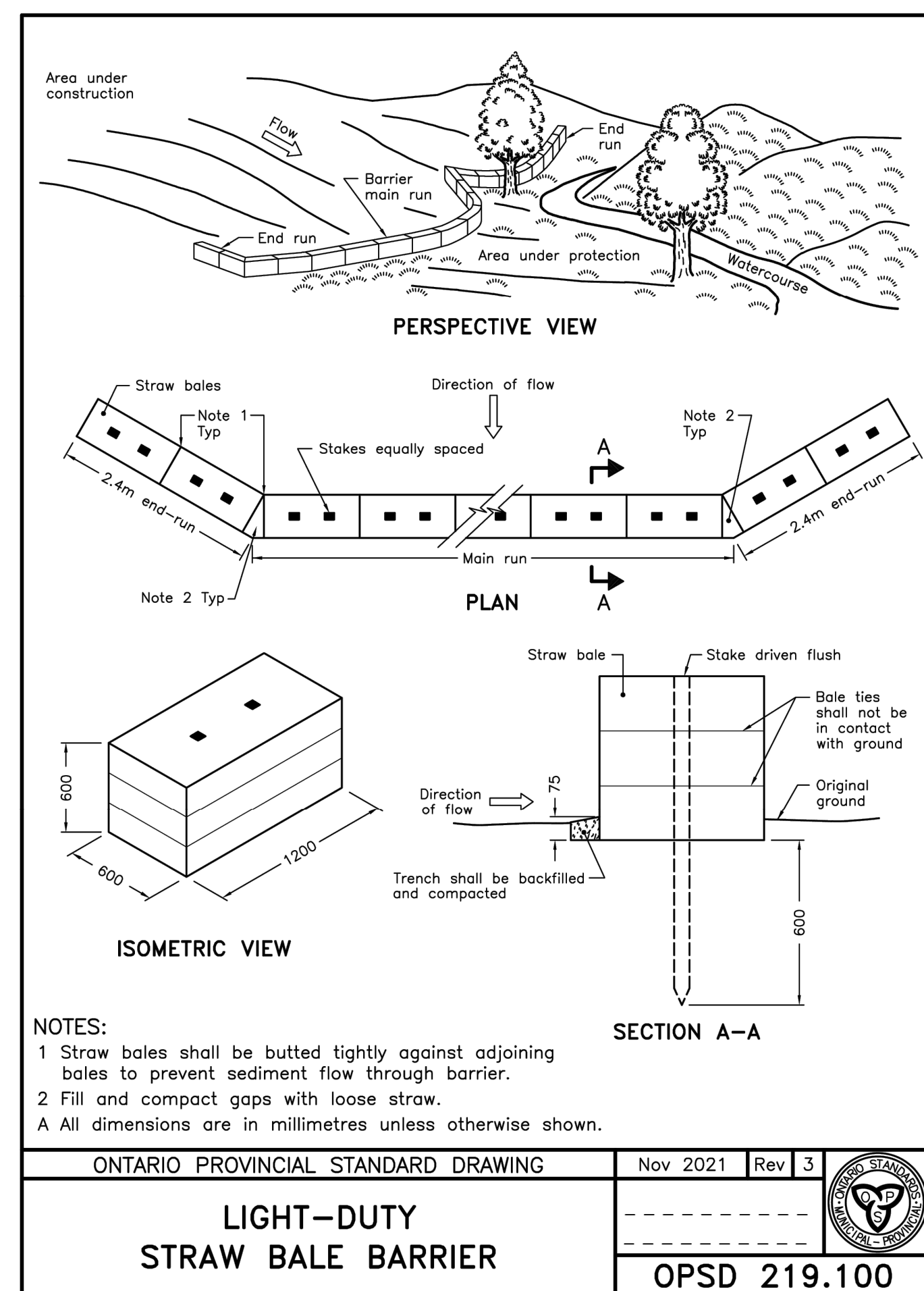
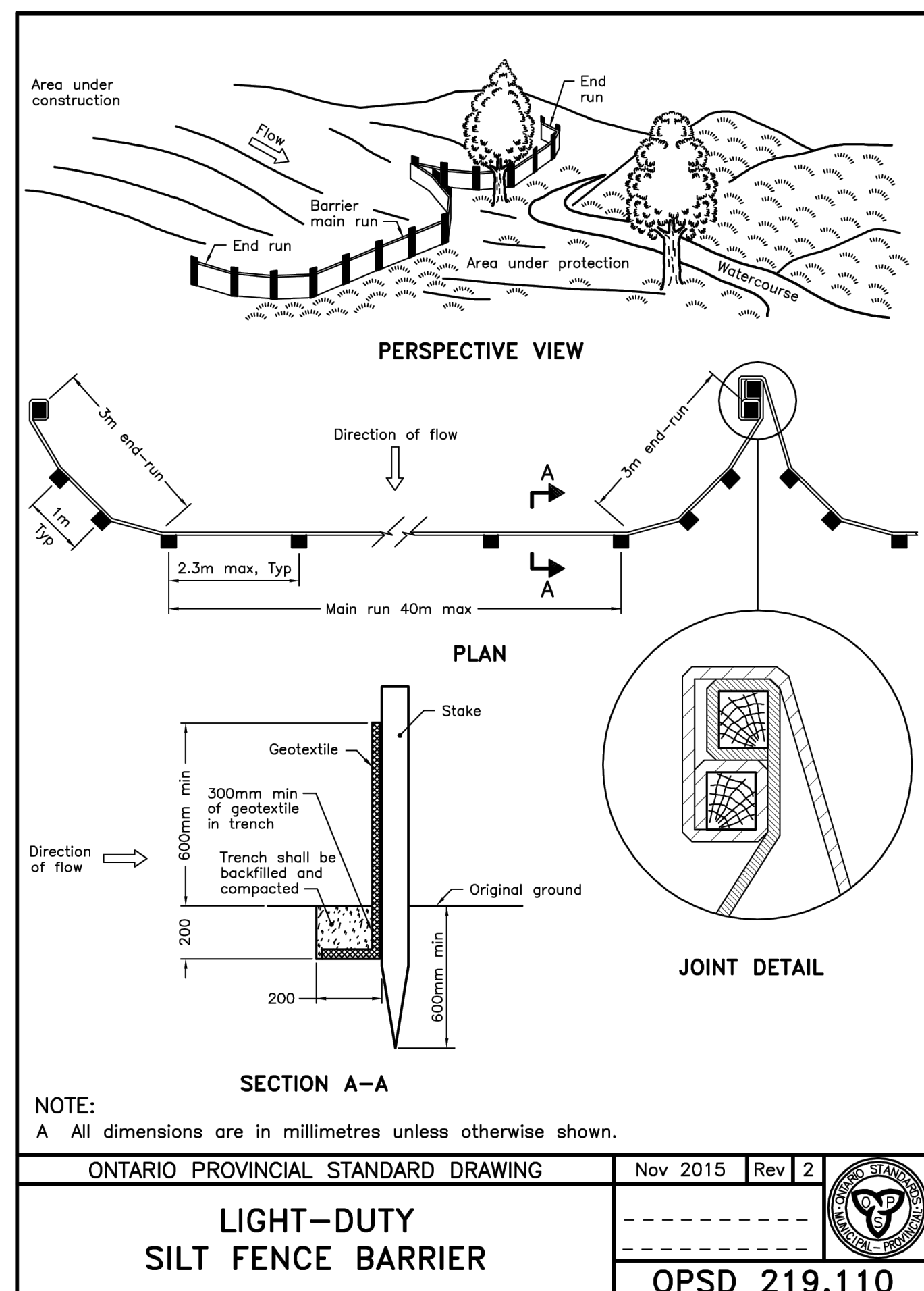
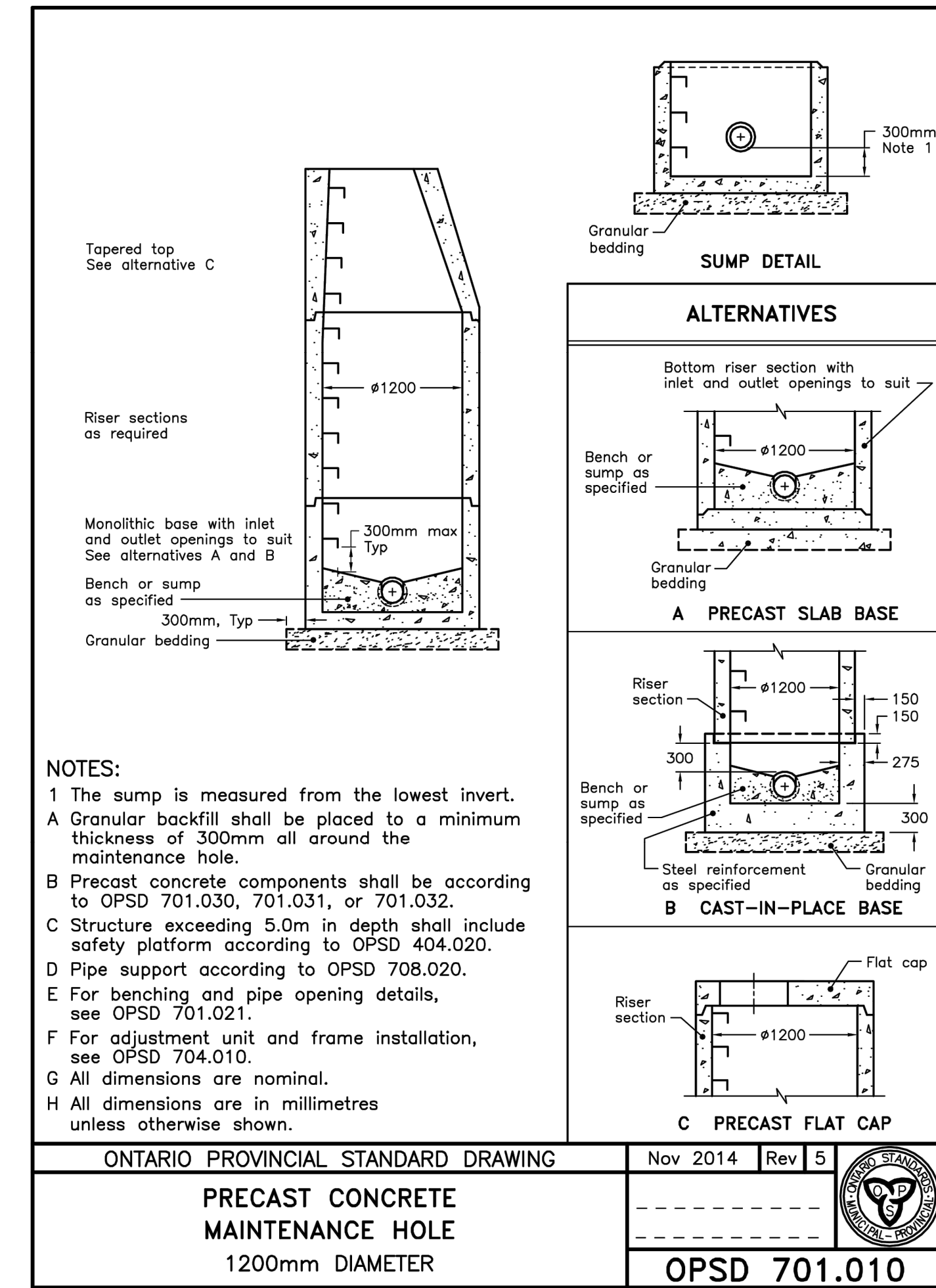
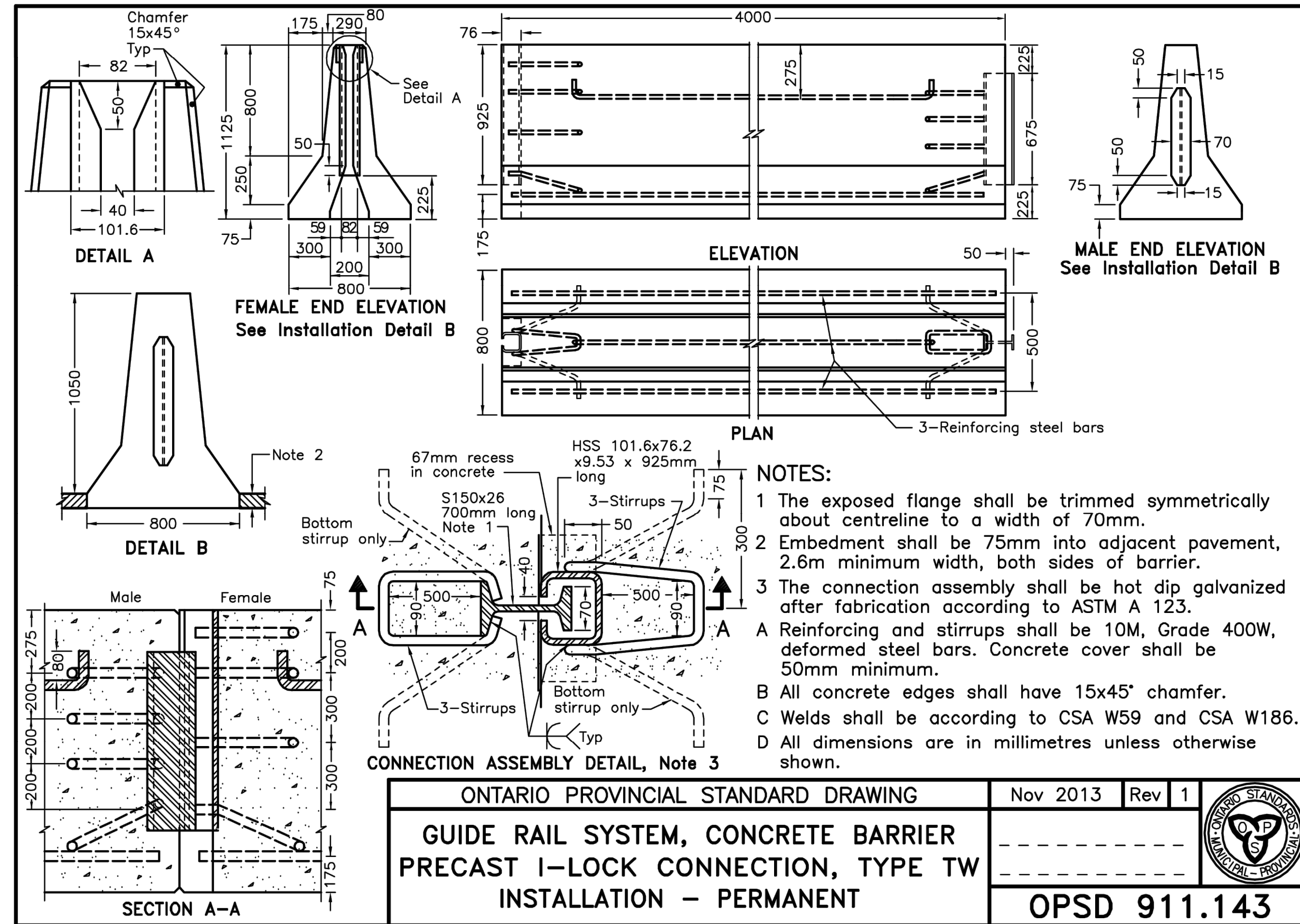
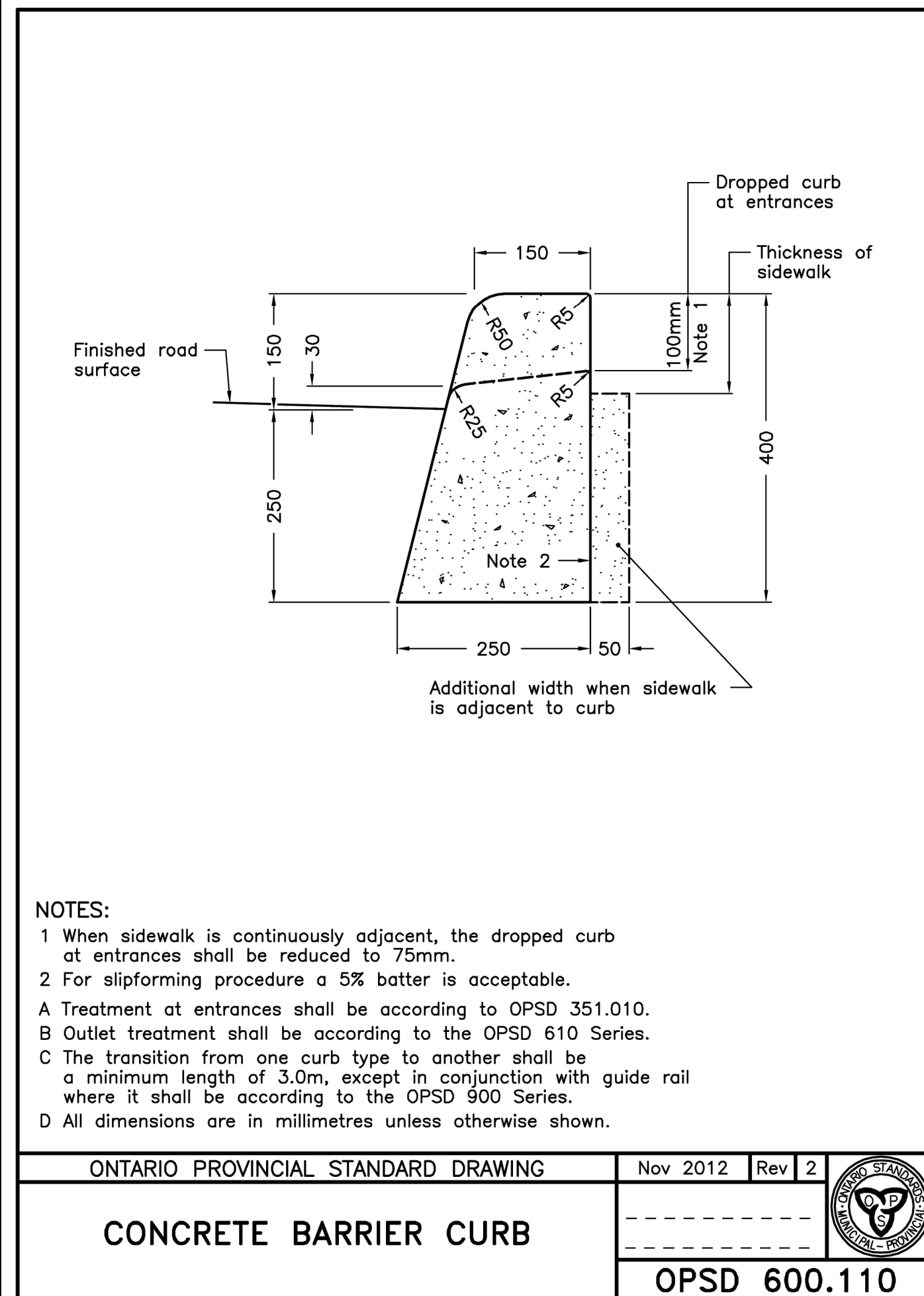
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CLIENT:  
**hydro one BGIS**

CONSULTANT:  
**J.L. Richards**  
 ENGINEERS-ARCHITECTS-PLANNERS

CONSULTANT:  
**L.J.A. JABLONSKI**  
 LICENSED PROFESSIONAL ENGINEER  
 2023-05-15  
 PROVINCE OF ONTARIO

PROJECT:  
**HYDRO ONE OPERATIONS CENTRE, ORLEANS**  
 3440 FRANK KENNY ROAD

DRAWING:  
**DETAILS 2**

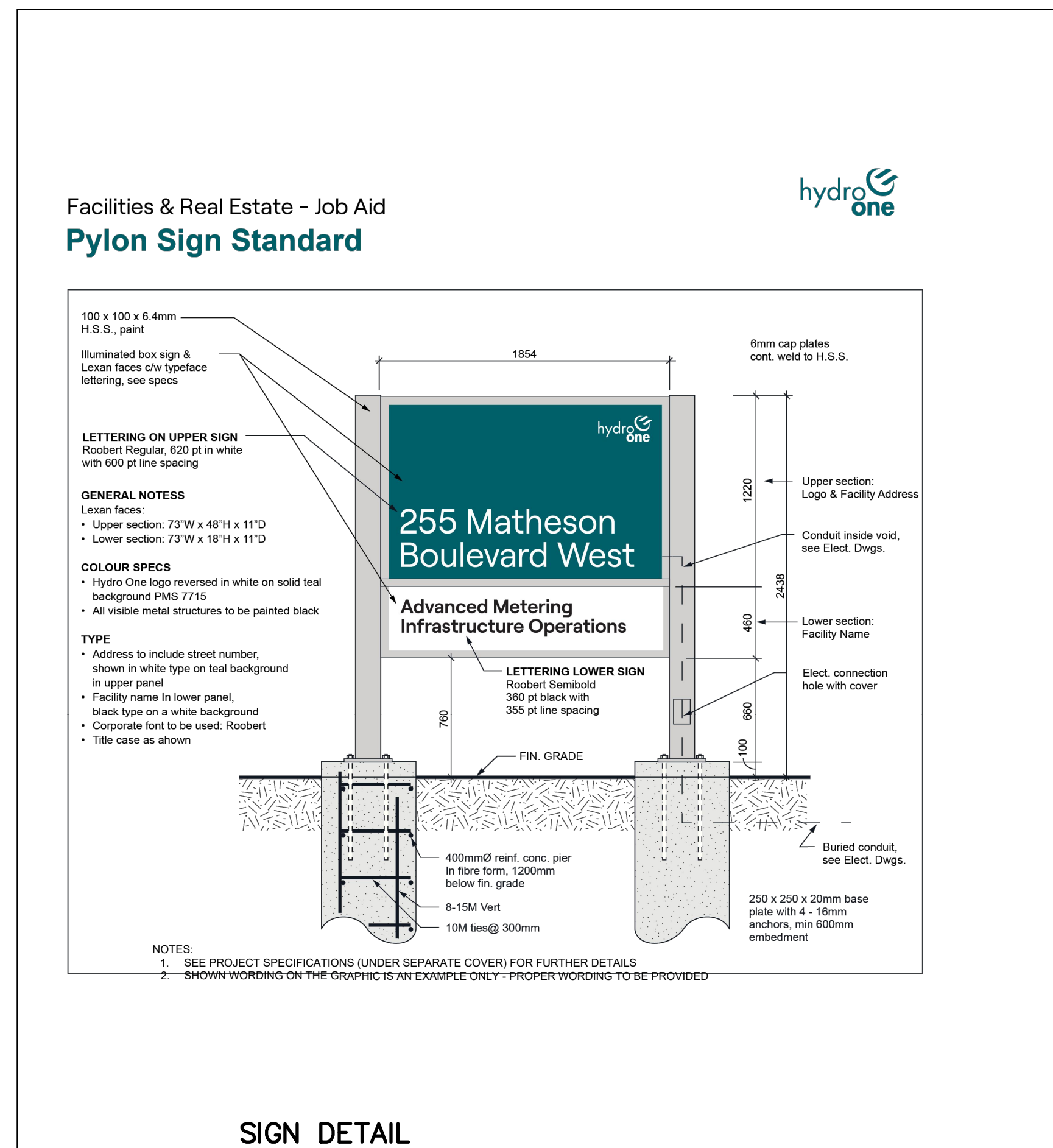
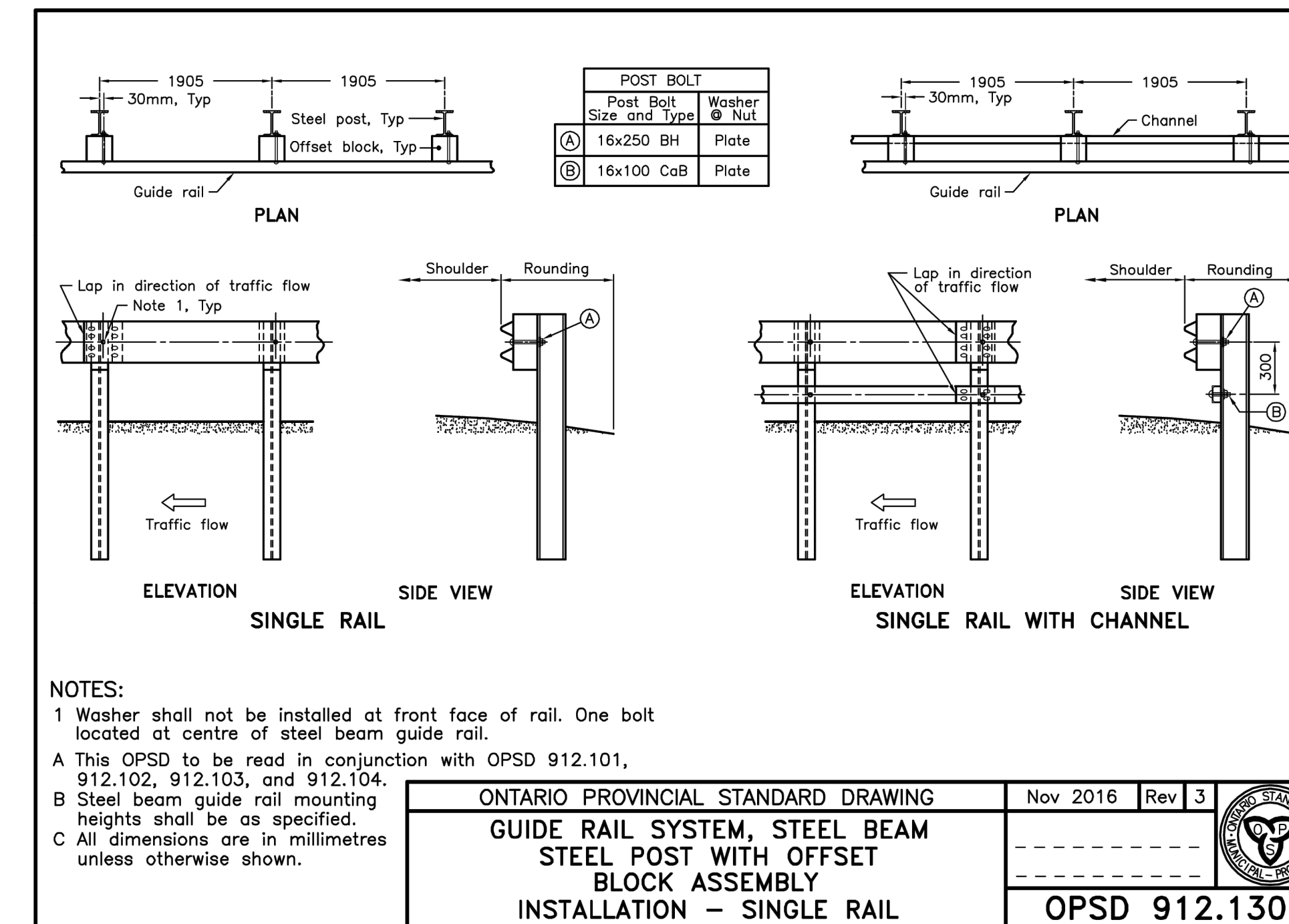
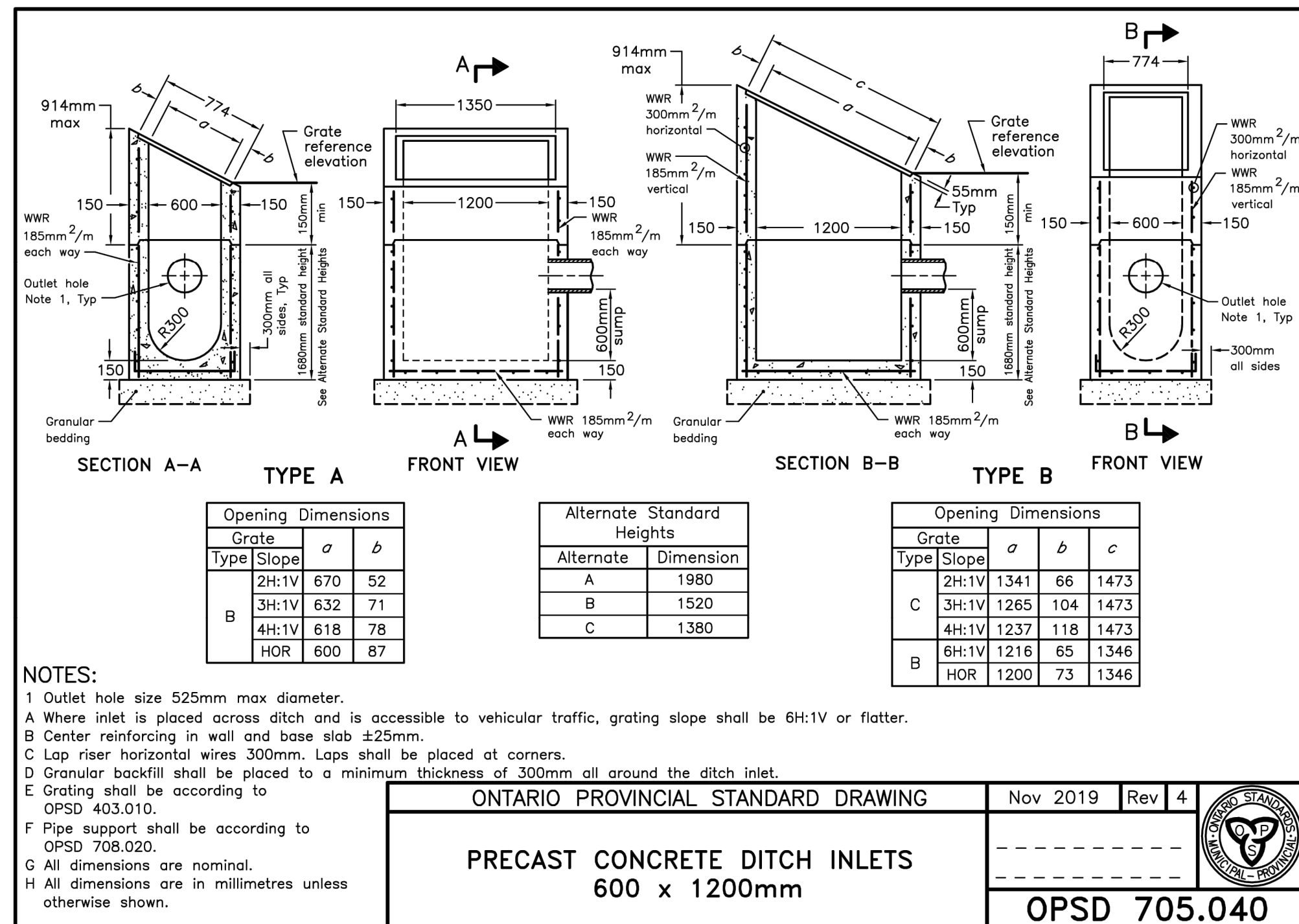
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00	ISSUED FOR CLIENT REVIEW	04/04/22

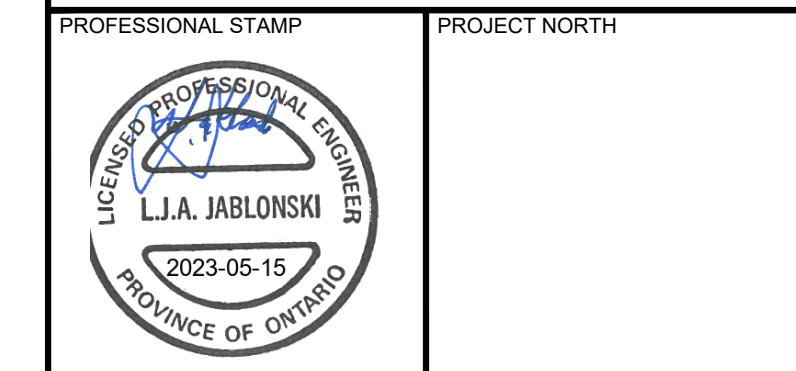
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CONSULTANT:  
 J.L. Richards  
 ENGINEERS-ARCHITECTS-PLANNERS

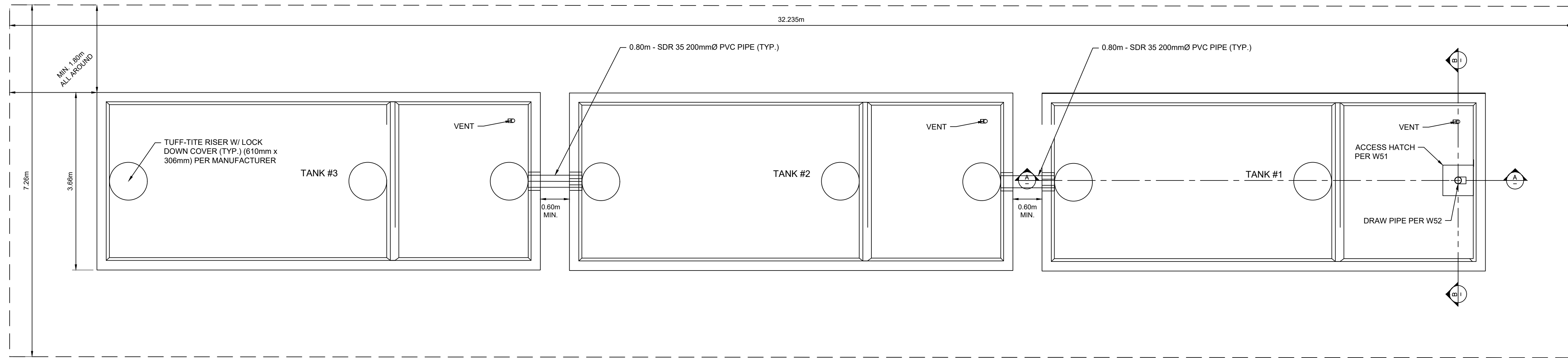


PROJECT:  
**HYDRO ONE OPERATIONS CENTRE,**  
**ORLEANS**  
 3440 FRANK KENNY ROAD

DRAWING:  
**DETAILS 3**

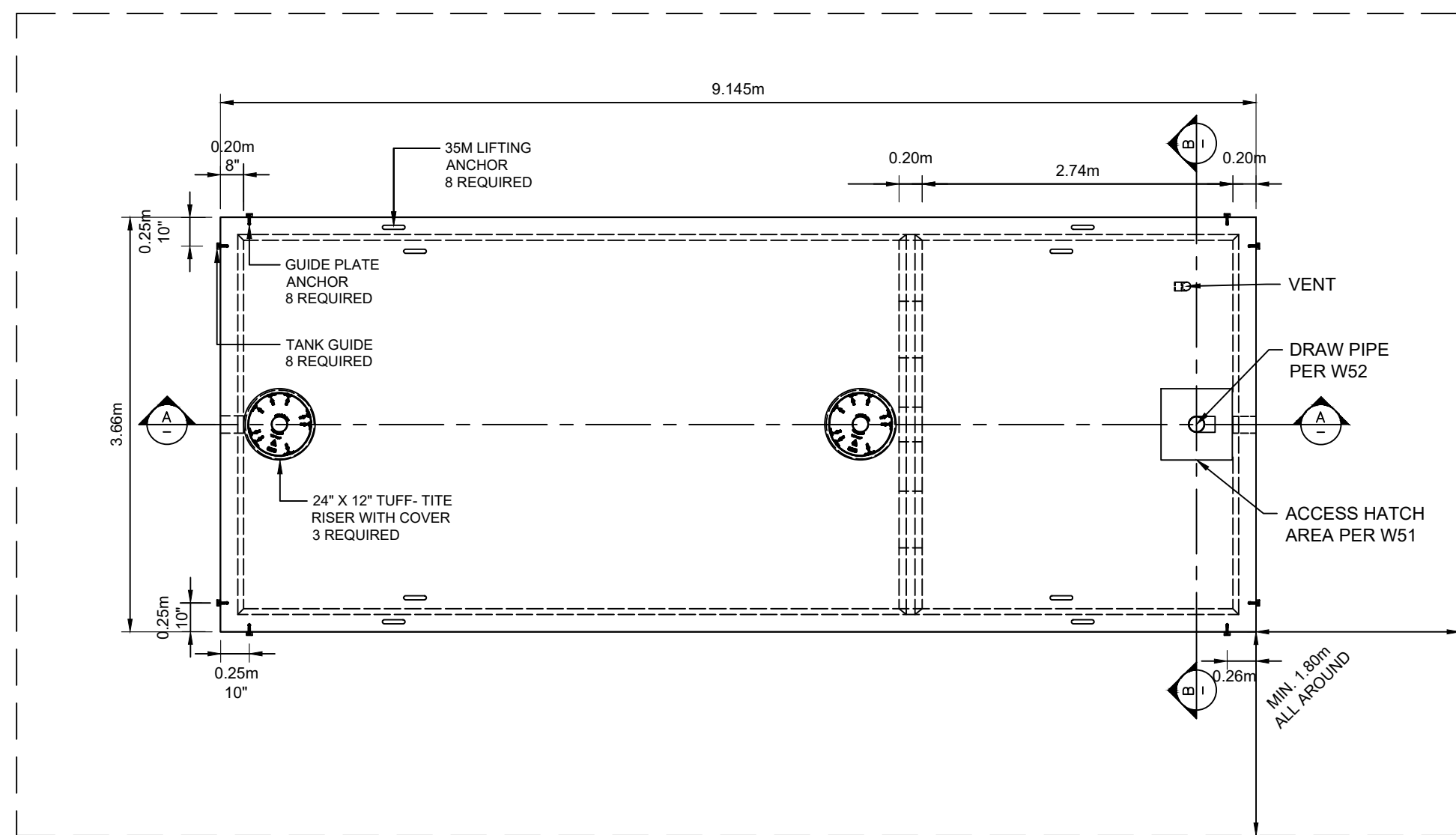
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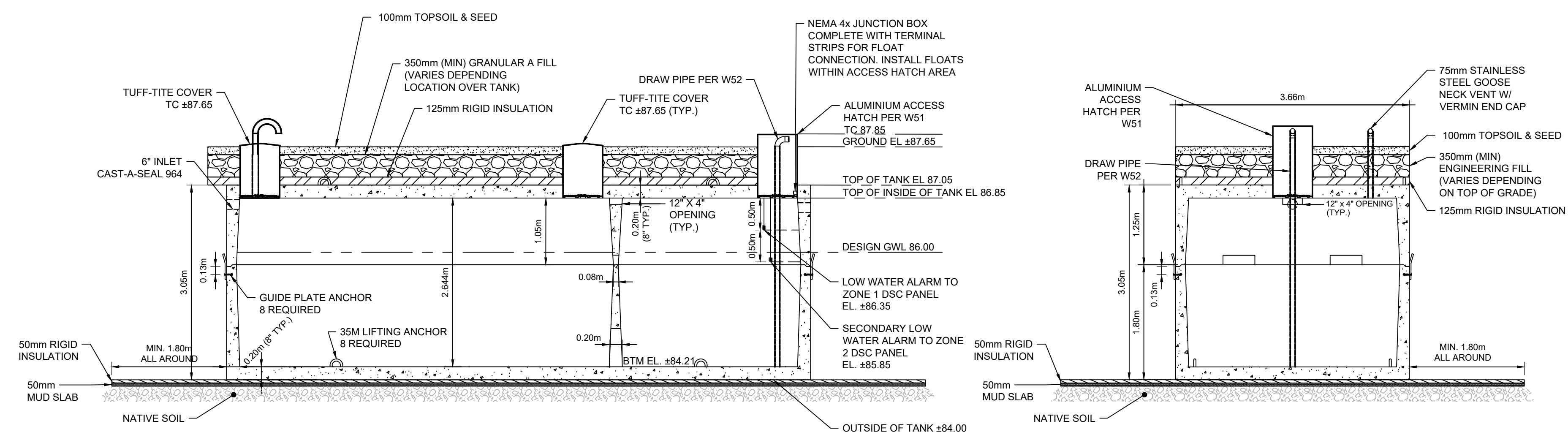
END TO END CONNECTION - 3 TANKS TOP VIEW

SCALE 1:50



TANK #1 - TOP VIEW

SCALE 1:50

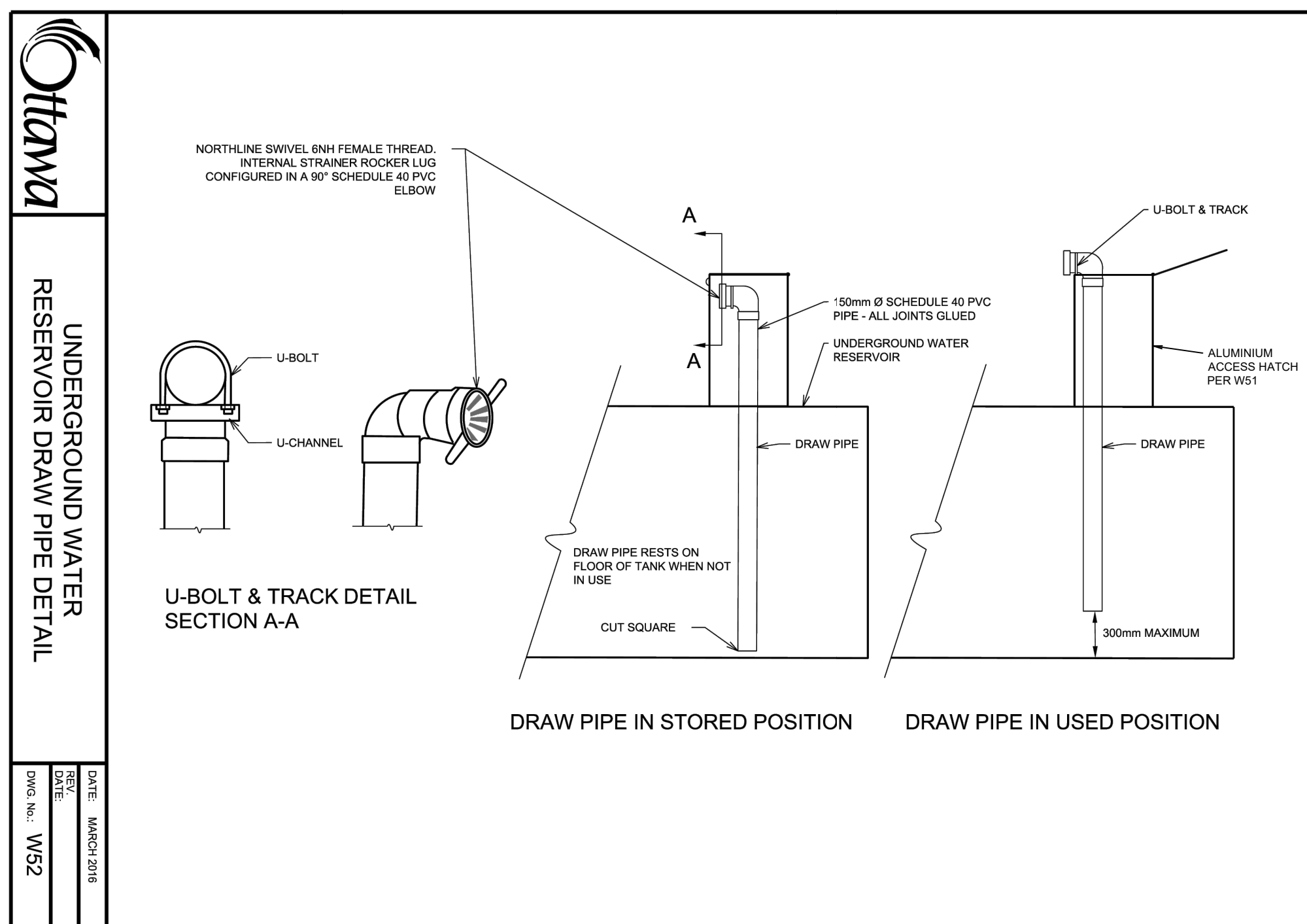


TANK #1 - SECTION VIEW A-A

SCALE 1:50

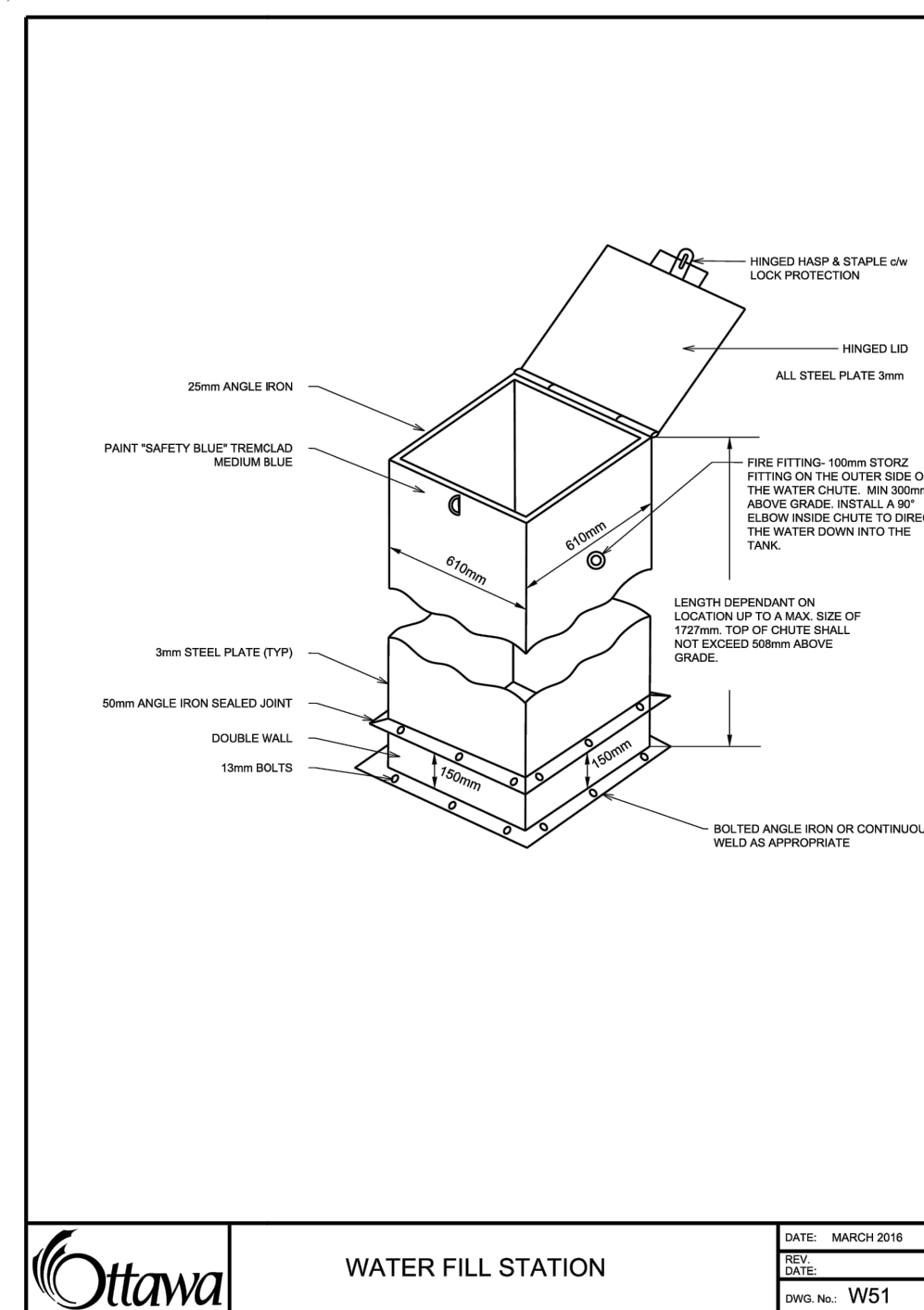
TANK #1 - SECTION VIEW B-B

SCALE 1:50



U-BOLT & TRACK DETAIL SECTION A-A

DRAW PIPE IN STORED POSITION DRAW PIPE IN USED POSITION



WATER FILL STATION

GENERAL NOTES

- CONTRACTOR TO COORDINATE PRE-CAST WATER HOLDING TANKS 68500L MODEL OR EQUIVALENT SHOP DRAWINGS WITH THE MANUFACTURE.
- ELECTRICAL CONTRACTOR TO CARRY OUT FINAL COORDINATION FOR TIE IN POINTS FOR THE FLOATS PER THE SHOP DRAWINGS PROVIDED BY TANK MANUFACTURER.
- CONTRACTOR TO REFERENCE STRUCTURAL PLAN S150 FOR THE UNDER TANK BASE MATERIAL STRUCTURE DETAILS.
- ENSURE CLEAR, MONOMERIC SILANE SEALER (SIKAGARD® SN-100) COATING, TO PROTECT THE TANKS FROM SOIL CORROSION. TO BE APPLIED TO THE TANKS BY THE MANUFACTURE BEFORE DELIVERY TO SITE. ANY TOUCH-UP TO BE PROVIDED BY THE MANUFACTURE.
- CONTRACTOR TO ENSURE PIPE CONNECTION BETWEEN TANKS TO BE MINIMUM 600mm DISTANCE BETWEEN OUTER WALL OF TANKS AND PIPE TO BE MINIMUM 200mm SDR 35 PVC PIPE.
- PROPOSED PIPE FITTINGS TO BE DIXON NORTH LINE STORZ OR EQUIVALENT.
- UNITS ARE SEALED WITH BUTYL TAPE AT THE JOINTS.
- CONTRACTOR TO ENSURE CRANE IS ON-SITE TO OFFLOAD AND SET TANK.
- EXCAVATION MUST BE READY FOR INSTALL.
- MIN OVERHEAD CLEARANCE OF 5.5m IS REQUIRED.
- ALL UNITS MUST BE HANDLED WITH PROPER LIFTING EQUIPMENT.
- TANK DESIGNED FOR A MAXIMUM FILL COVER DEPTH OF 1000mm. MINIMUM ENGINEERING FILL DEPTH OF 350mm.
- TUF-TITE SAFETY LIDS WITH LOCKING CLIP INSTALLED IN ALL OPENINGS AS PER CSA-B66-21.

ELECTRICAL NOTES

- DSC SECURITY PANEL**
- PROVIDE A DSC SERIES SECURITY PANEL INSTALLED IN IT ROOM. CONTRACTOR TO REVIEW AND COORDINATE WITH OWNER REQUIREMENTS. PROVIDE 120VAC POWER TO THE NEW DSC SERIES SECURITY PANEL FROM IT TOOM PANEL BOARD. PROVIDE COMMUNICATIONS CONNECTION TO THE DSC PANEL.
  - PROVIDE ALARM TIE FROM DSC MONITORING PANEL INTO THE BUILDING AUTOMATION SYSTEM AND SECURITY SYSTEM RACKS LOCATED IN THE IT ROOM. COMPLETE WITH CAT5E CABLING IN CONDUIT.
  - CONTRACTOR TO COORDINATE ALL WORKS WITH HONI AND TO REVIEW THE SITE TO UNDERSTAND THE HONI'S REQUIREMENTS.

LOW LEVEL FLOATS

- PROVIDE TWO (2) ITT FLYGT - ENM - 10 FLOATS FOR TANK RESERVOIR (MAIN TANK WITH ACCESS HATCH). FLOATS TO BE COMPLETE WITH STAINLESS STEEL SWAY RINGS AND STAINLESS-STEEL HOOKS FOR CABLE SLACK. PROVIDE 1.0m OF FLOAT CABLE SLACK; WRAP SLACK CABLE AROUND STAINLESS-STEEL HOOKS NEAR JUNCTION BOX. FLOATS AND CABLE CABLE TO BE ACCESSIBLE FROM THE LADDER. REFER TO TANK DETAILS FOR FLOAT ELEVATIONS.

JUNCTION BOX

- PROVIDE A NEMA 4X PVC JUNCTION BOX EQUIPPED WITH BACK PANEL AND TERMINAL BLOCKS FOR THE FIELD AND FLOAT WIRE TERMINATION.
- MOUNT JUNCTION BOX JUST BELOW THE OPEN HATCH AREA BUT ABOVE THE MAXIMUM WATER LEVEL.

CONDUITS AND WIRING

- PROVIDE ONE (1) 53mm PVC CONDUIT COMPLETE WITH 2-PAIR 18AWG RWU 90 WIRING FROM THE IT ROOM TO EACH WATER RESERVOIR. PROVIDE SUFFICIENT NUMBER OF CONDUCTORS TO SUIT PLUS 25% SPARE.

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SCALE: 0 25mm

CLIENT:

CONSULTANT:

www.jrichards.ca

CONSULTANT:

PROFESSIONAL STAMP

PROJECT:

HYDRO ONE OPERATIONS CENTRE, ORLEANS

3440 FRANK KENNY ROAD

DRAWING:

TANK DETAILS

DESIGN: M.D.

DRAWN: G.C.

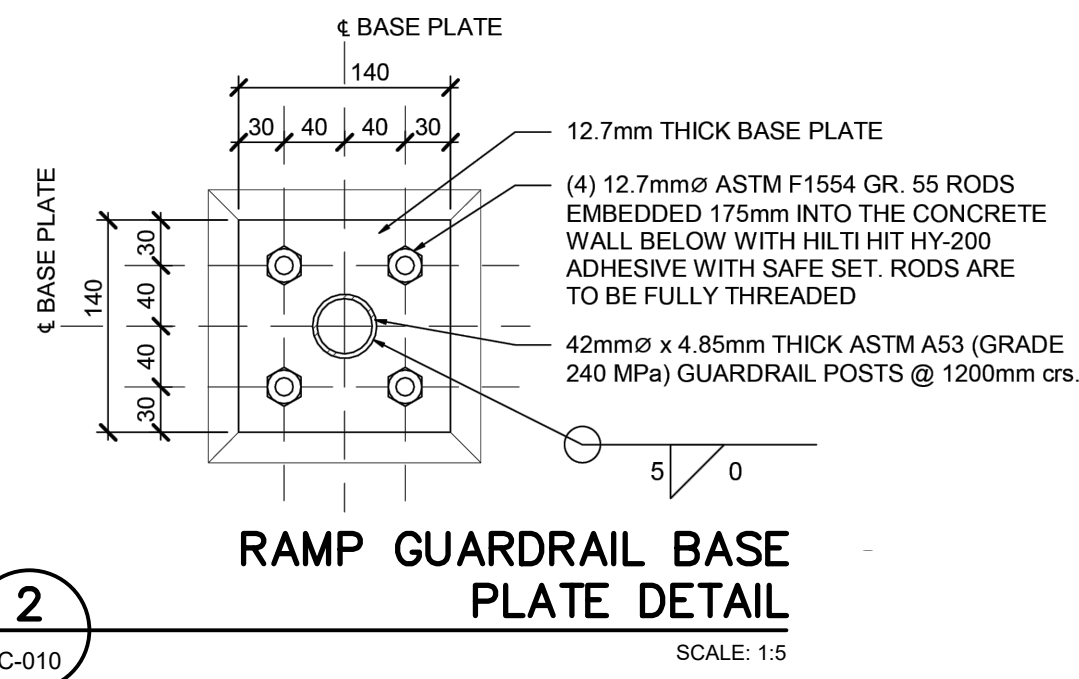
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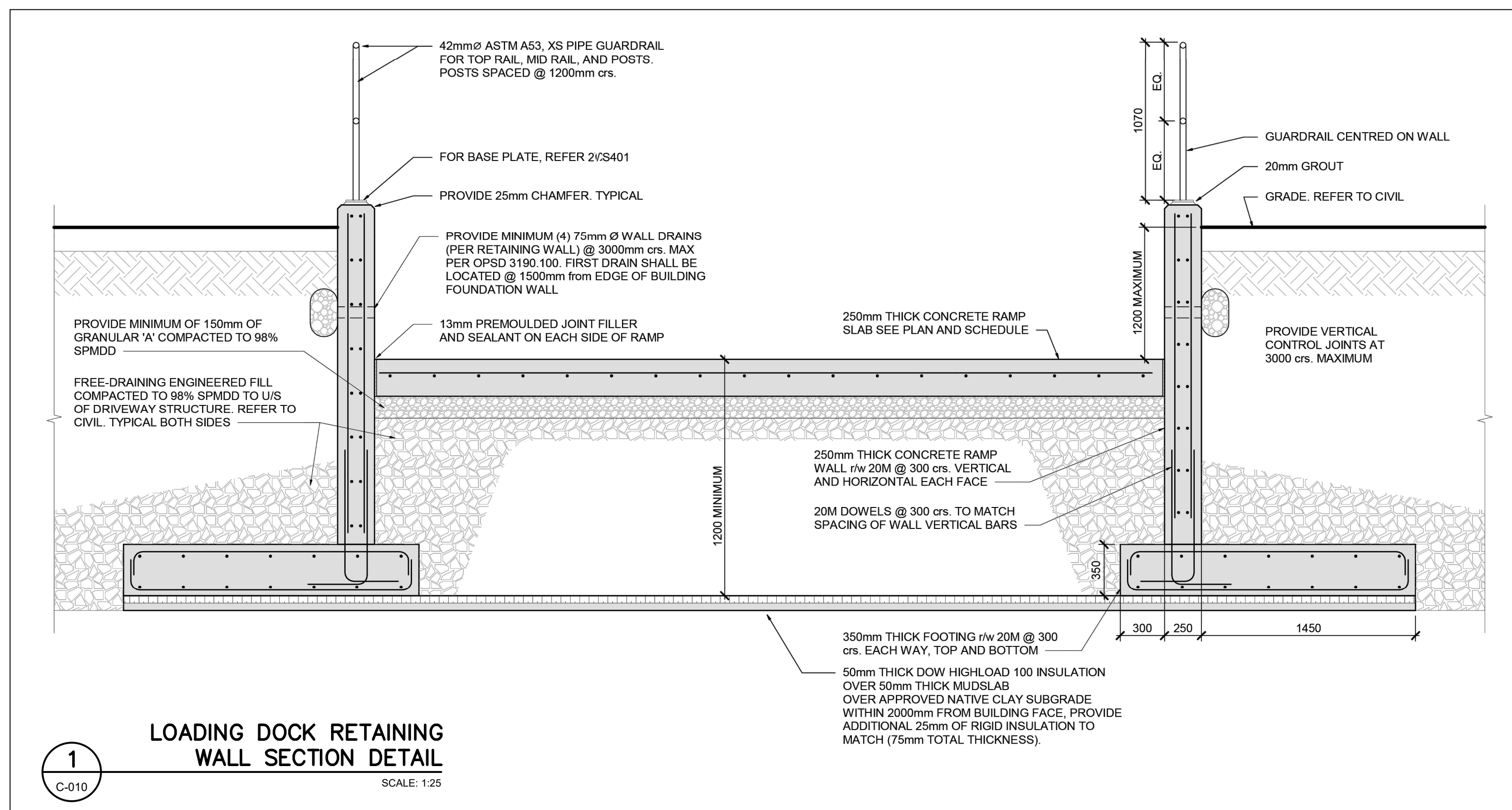
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**RETAINING WALL NOTES:**

- DESIGN BASED ON CSA S6-19 AND OBC 2012 (AMENDED 2020). LOADING AS FOLLOWS:
  - BACKFILL PRESSURES IN ACCORDANCE WITH GOLDER/WSP GEOTECHNICAL REPORT.
  - LIVE LOAD SURCHARGE PRESSURE: 12 kPa
  - COMPACTION PRESSURES AS PER CSA S6-19.
  - DRAINED BACKFILL CONDITIONS
  - DESIGN FOR SEISMIC PRESSURES AS PER CSA S6-19 AND GOLDER/WSP GEOTECHNICAL REPORT.
  - 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.



05	RE-ISSUED FOR CITY SITE PLAN APPROVAL	11/05/23
04	CITY SITE PLAN APPROVAL	17/03/23
03	ISSUED FOR CITY SITE PLAN APPROVAL	21/12/22
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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VERIFY SHEET SIZE AND SCALES. BAR TO THE RIGHT IS 25mm IF THIS IS A FULL SIZE DRAWING.  
SCALE: 0 25mm



PROFESSIONAL STAMP	PROJECT NORTH
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PROJECT:  
**HYDRO ONE OPERATIONS CENTRE, ORLEANS**  
3440 FRANK KENNY ROAD

DRAWING:  
**LOADING DOCK DETAILS**

DESIGN: M.D.	DRAWING #:
DRAWN: G.C.	<b>C-010</b>
CHECKED: D.U.	
JLR #: 31500-000	

PLOT DATE: May 12, 2023 10:38:11 AM