

NOT FOR CONSTRUCTION

No.	Issue / Revision	Date	Auth.
1	ISSUED FOR CLIENT REVIEW	JAN. 2023	
2	ISSUED FOR PERMITS / APPROVAL	JUNE 2025	
3	ISSUED FOR TENDER	APRIL 2026	



Client:
TOWNSHIP OF NORTH HURON
 274 JOSEPHINE STREET
 WINGHAM, ONTARIO
 N0G 2W0

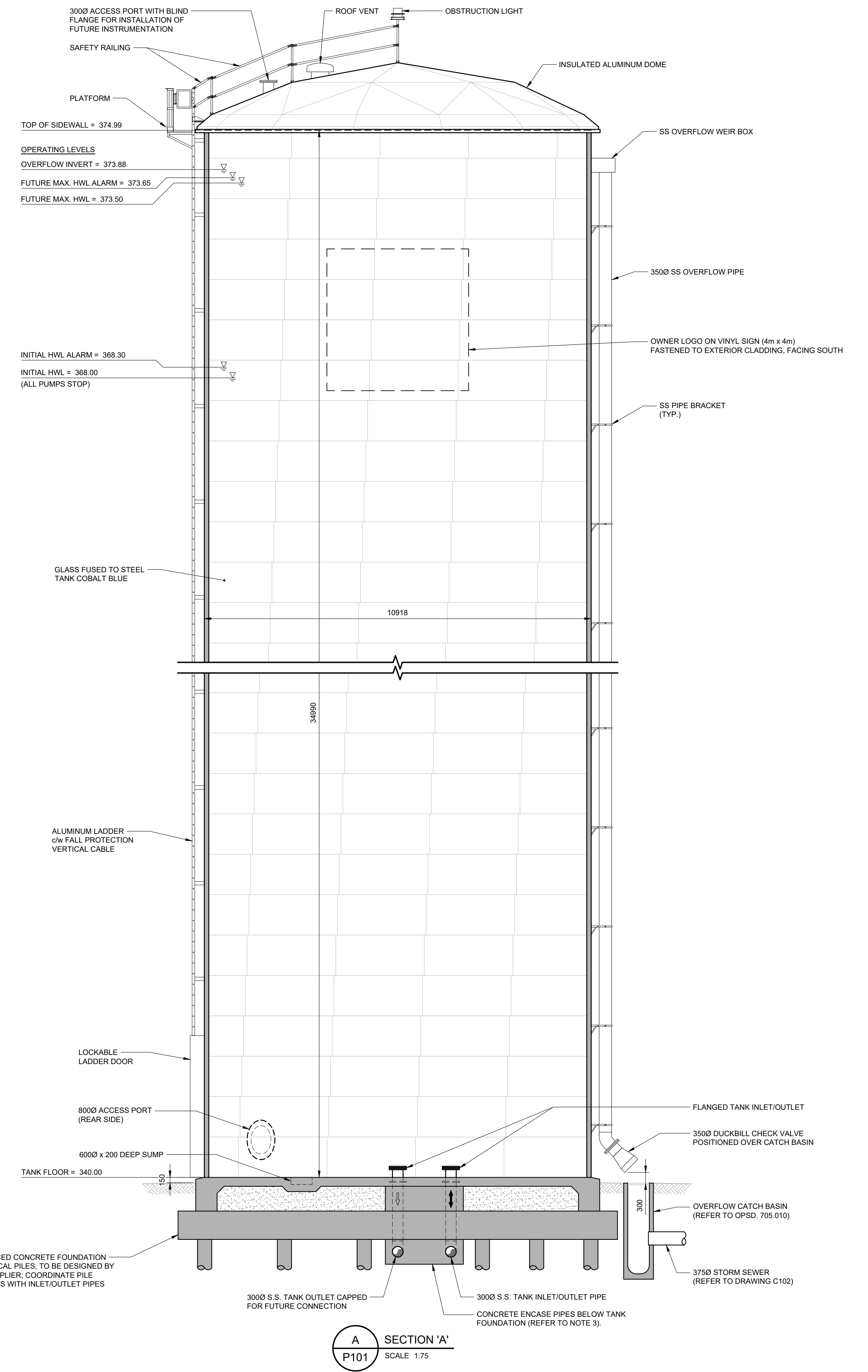
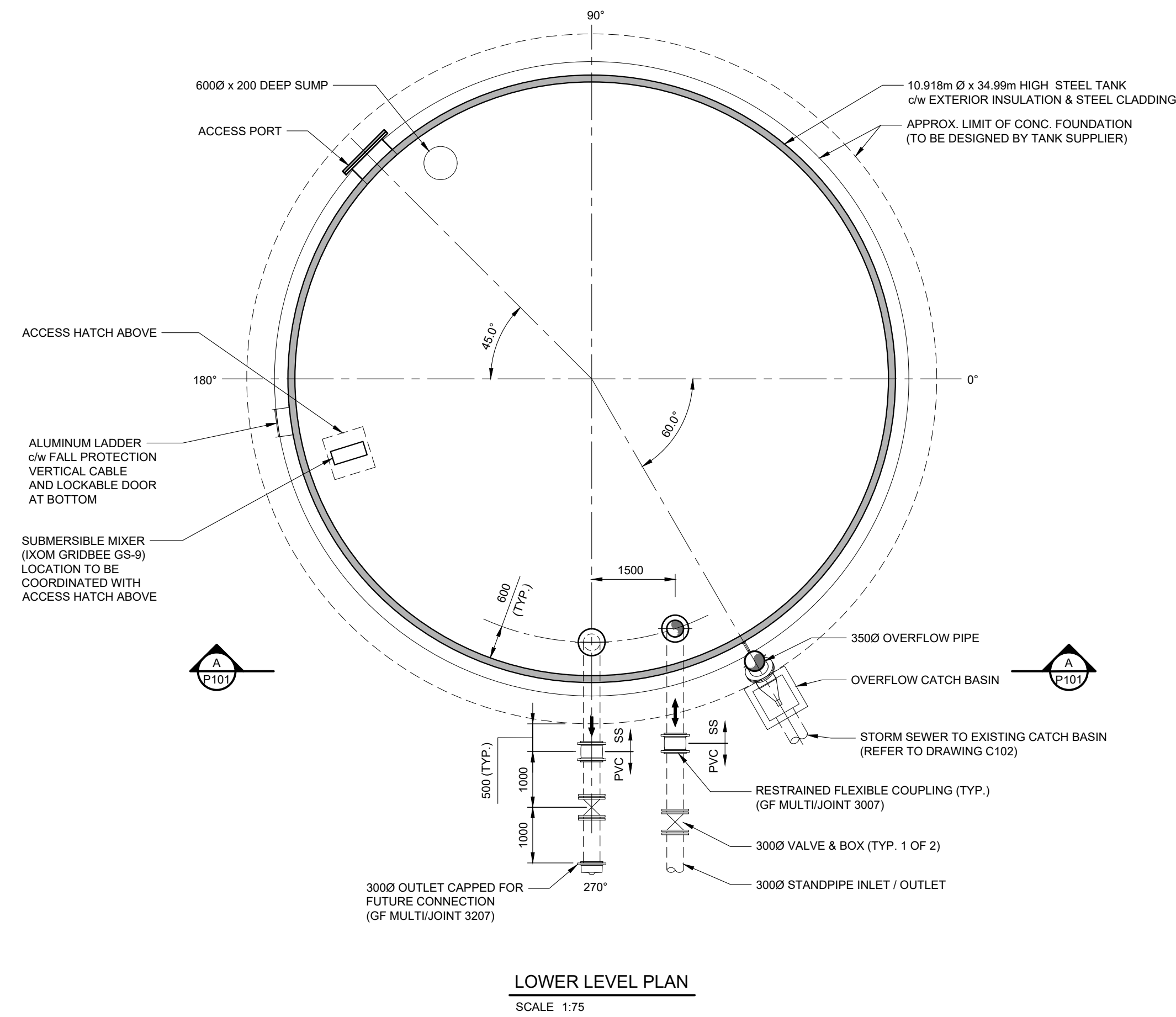
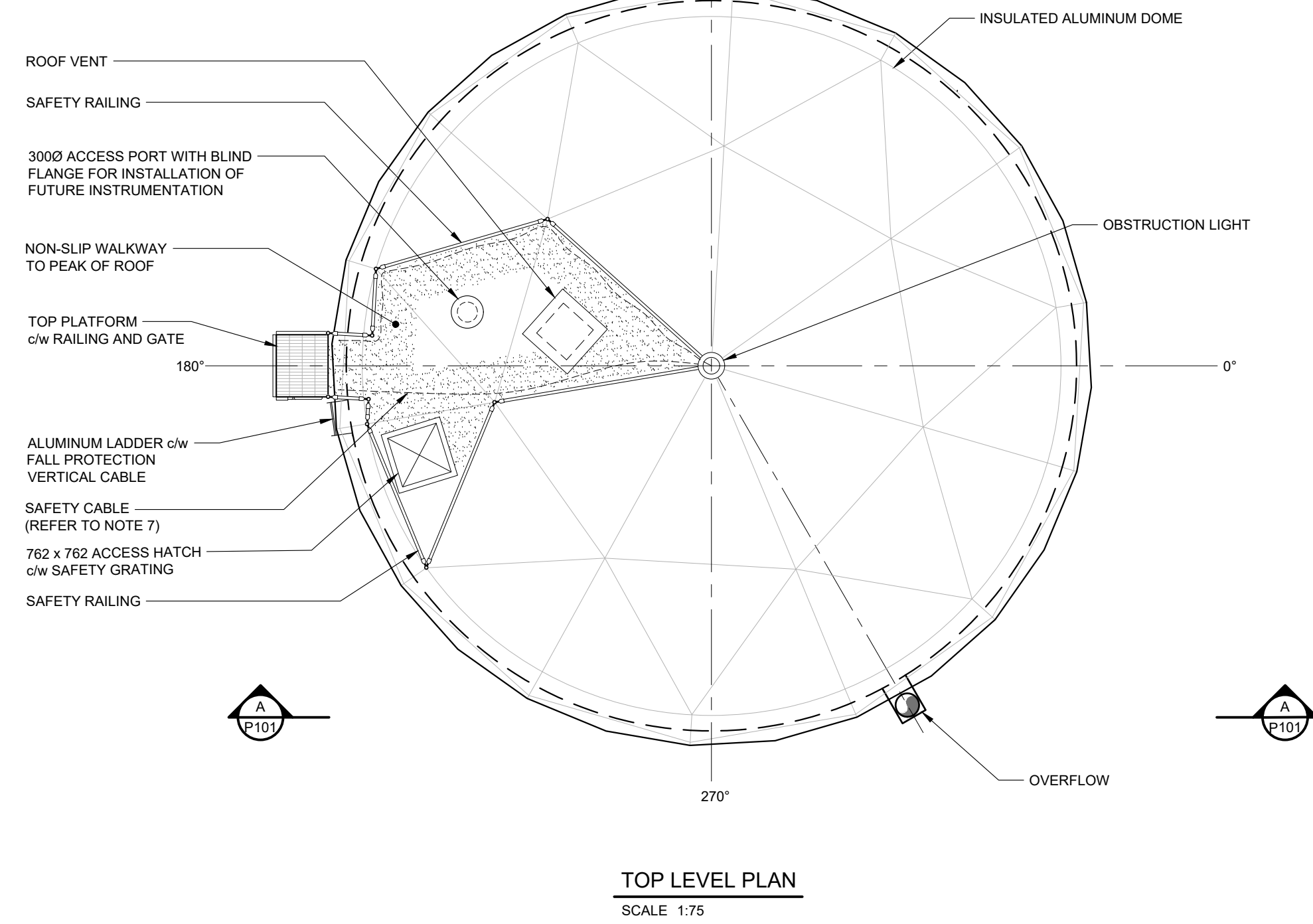
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 web www.rjburnside.com

Drawing Title		Drawing No.	
WINGHAM STANDPIPE REPLACEMENT		C102	
PROPOSED SITE PLAN			
Drawn A.K.S./J.R.	Checked G.V./J.R.	Designed G.V./J.R.	Checked J.P.
Project No. 300053193	Contract No.	Date 22/12/19	Revision No. 3
Scale 1:150	0 3.0 6.0 9.0m		

File: \\wingham\shared\work\2025\03193 - C102 PROPOSED SITE PLAN.rvt Date: 2025-04-14 11:41 AM

NOTES:

- TANK SUPPLIER TO DETAIL AND PROVIDE REQUIRED SUPPORT BRACKETS FOR ALL PIPE AND CONDUIT SECURED TO SIDE OF TANK.
- ALL PENETRATIONS / OPENINGS THROUGH TANK ROOF AND FOUNDATION TO BE COORDINATED WITH TANK SUPPLIER.
- ALL PIPING BENEATH TANK TO BE CONCRETE ENCASED TO UNDERSIDE OF TANK FLOOR. CONCRETE ENCASEMENT SHALL INCLUDE A MINIMUM OF 150 mm OF UNREINFORCED CONCRETE BENEATH PIPE AND UP THE PIPE/TRENCH SIDEWALLS. CONCRETE TO CSA A23.1-19 EXPOSURE CLASS F-2, MINIMUM COMPRESSIVE STRENGTH OF 25 MPa AT 28 DAYS, MAXIMUM W/C RATIO OF 0.55, 4% TO 7% AIR ENTRAINMENT, 20 mm COARSE AGGREGATE.
- OTHER EXCAVATED AREAS BENEATH TANK, FROM SUITABLE SUBGRADE / FOUNDATION LEVEL TO UNDERSIDE OF FLOOR TO BE BACKFILLED WITH GRANULAR 'B' TYPE 2 COMPACTED TO 100% SPMD.
- ALL UNDERGROUND STAINLESS STEEL PIPING, INCLUDING PIPING BENEATH STRUCTURE, SHALL BE SCHEDULE 40S, 316L. ALL STAINLESS STEEL PIPE AND FITTINGS SHALL BE CLEANED, PICKLED, AND PASSIVATED IN ACCORDANCE WITH ASTM A380.
- ALL PIPE FITTINGS BENEATH STRUCTURE TO BE COMPLETE WITH WELDED JOINTS.
- ALL WELDING WORK, WHETHER PERFORMED IN THE SHOP OR IN THE FIELD, SHALL BE CARRIED OUT IN ACCORDANCE WITH ASME BOILER AND PRESSURE VESSEL CODE, SECTION IX, WELDING PROCEDURES AND WELDER QUALIFICATIONS SHALL COMPLY WITH CSA W47.1 AND SHALL BE CERTIFIED BY THE CANADIAN WELDING BUREAU (CWB).
- PIPE FLANGES INSIDE THE TANK SHALL BE WELDED 316L SS SLIP ON FLANGES TO ASME B16.5 CAPABLE OF WITHSTANDING 1035 kPa.
- CONTRACTOR TO SUPPLY 2 BLIND FLANGES (316SS) FOR USE DURING PRESSURE TESTING OF THE INLET/OUTLET PIPING AND SHALL BE LEFT IN THE CONTROL BUILDING FOLLOWING CONSTRUCTION FOR FUTURE USE.
- TANK INSTALLATION SHALL INCLUDE ADEQUATE ANCHOR POINTS FOR TRAVEL RESTRAINT SYSTEM TIE OFF FOR USE ON ROOF SURFACE AND UPPER PLATFORM AS PER CONSTRUCTION PROJECTS REGULATION O. REG. 213/91 SECTION 26.7.
- TANK SUPPLIER TO PROVIDE DESIGN AND INSTALLATION OF LIGHTNING PROTECTION SYSTEM FOR THE TANK IN ACCORDANCE WITH CSA B72.20. LIGHTNING ROD(S) TO EXTEND A MINIMUM OF 1 m HIGHER THAN OBSTRUCTION LIGHTING OR AS PER MANUFACTURER REQUIREMENTS.
- ROTATING TYPE CL-865 MEDIUM INTENSITY WHITE FLASHING OBSTRUCTION LIGHTING SYSTEM TO BE INSTALLED AT THE TANK ROOF IN ACCORDANCE WITH TRANSPORT CANADA STANDARD 621.



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WINGHAM, ONTARIO
N0G 2W0

Drawing Title:
WINGHAM STANDPIPE REPLACEMENT
STANDPIPE DETAIL

Drawn	Checked	Designed	Checked	Date	Drawing No.
A.K.S./J.R.	G.V./J.R.	G.V./J.R.	J.P.	22/12/19	
Project No.	Contract No.	Revision No.			
300053193		3			

Scale: 1:75
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P101

GENERAL NOTES:

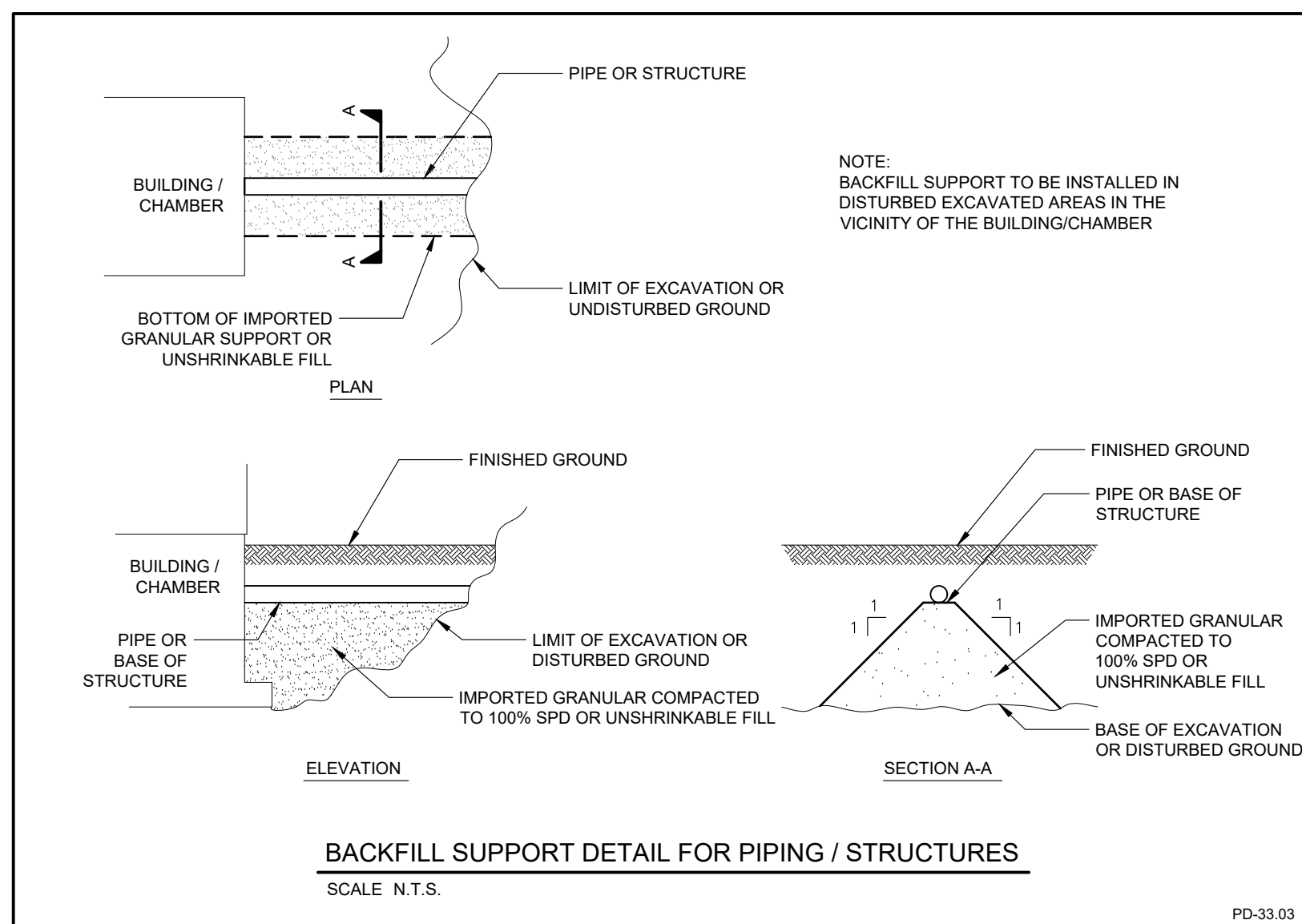
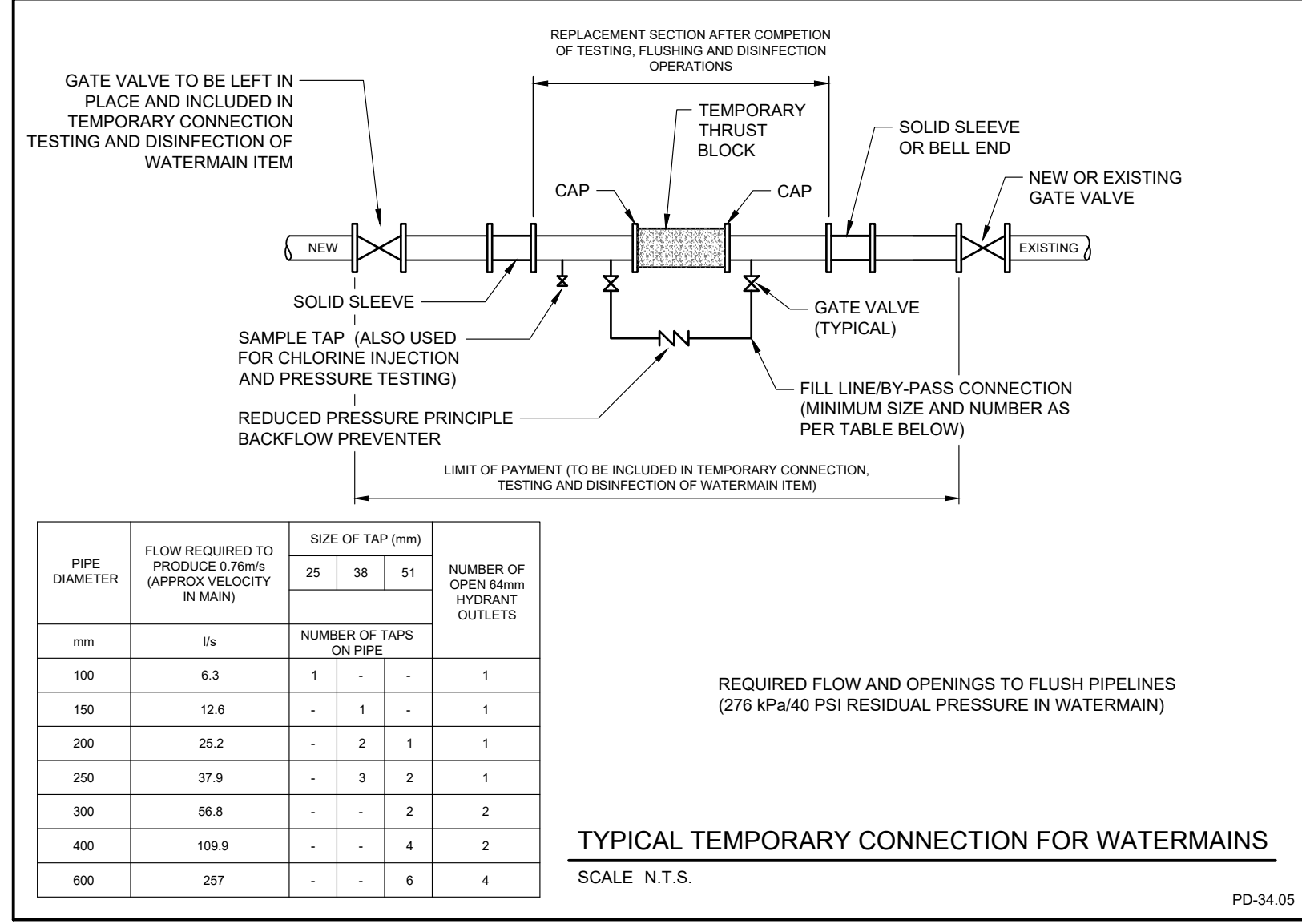
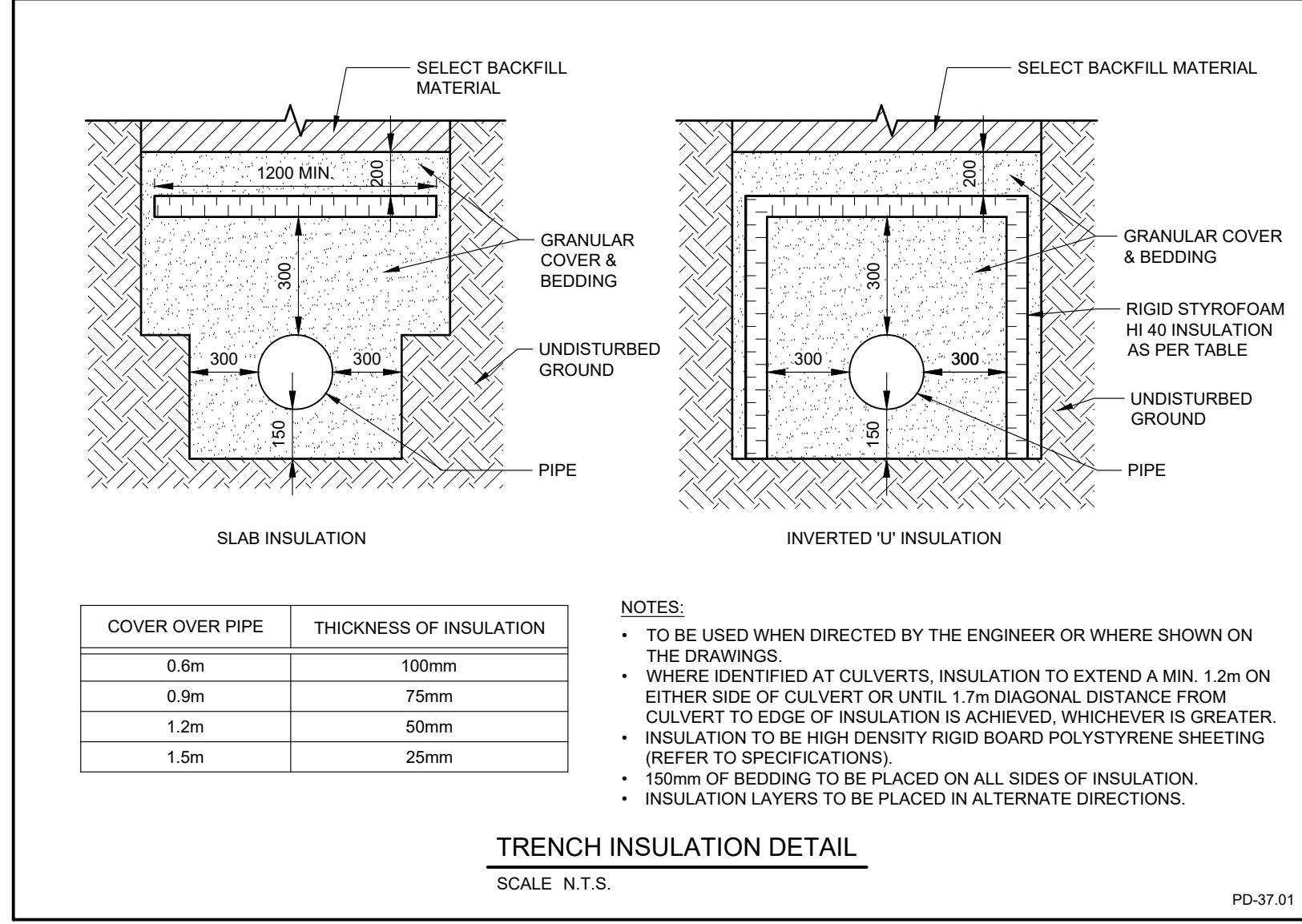
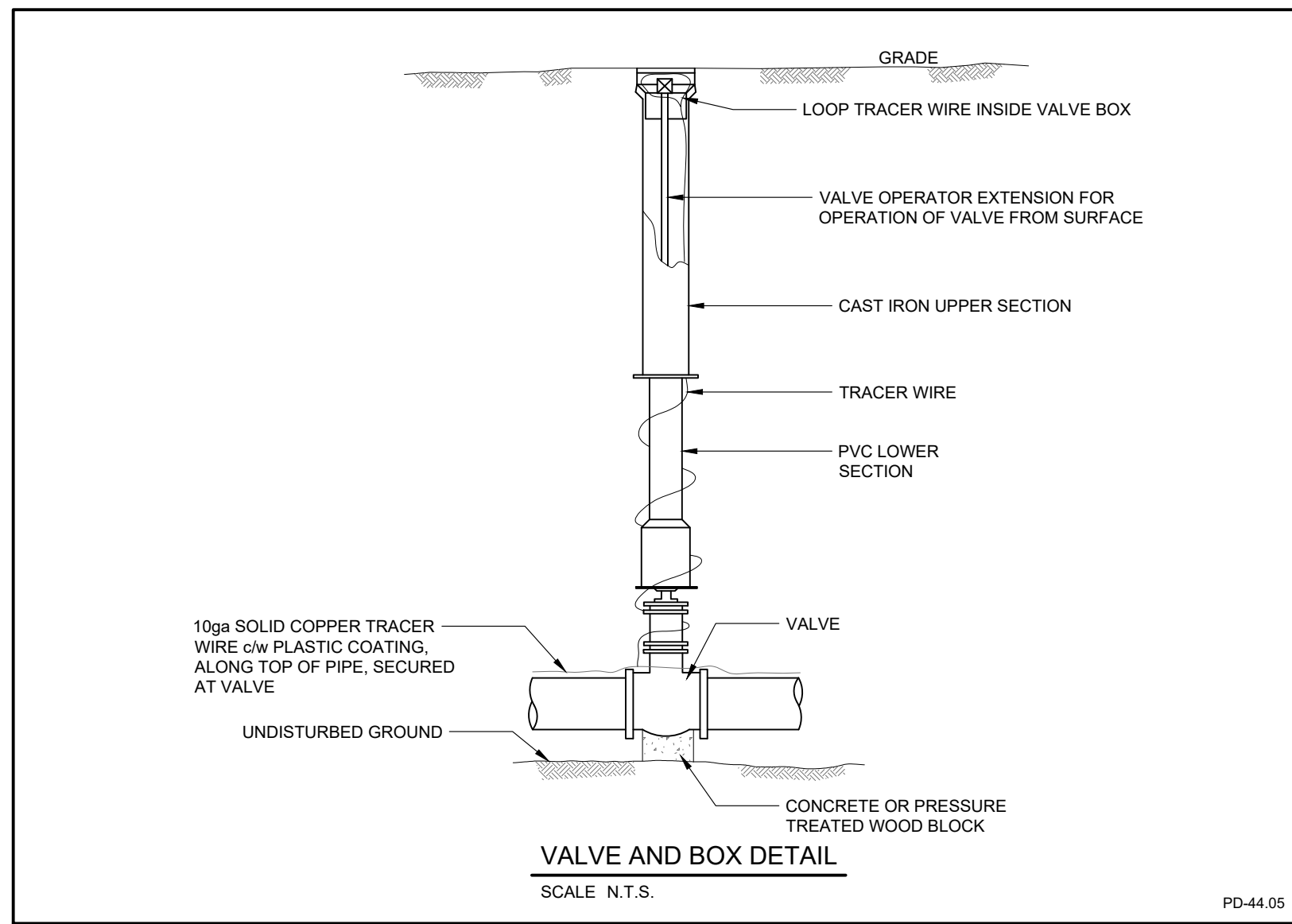
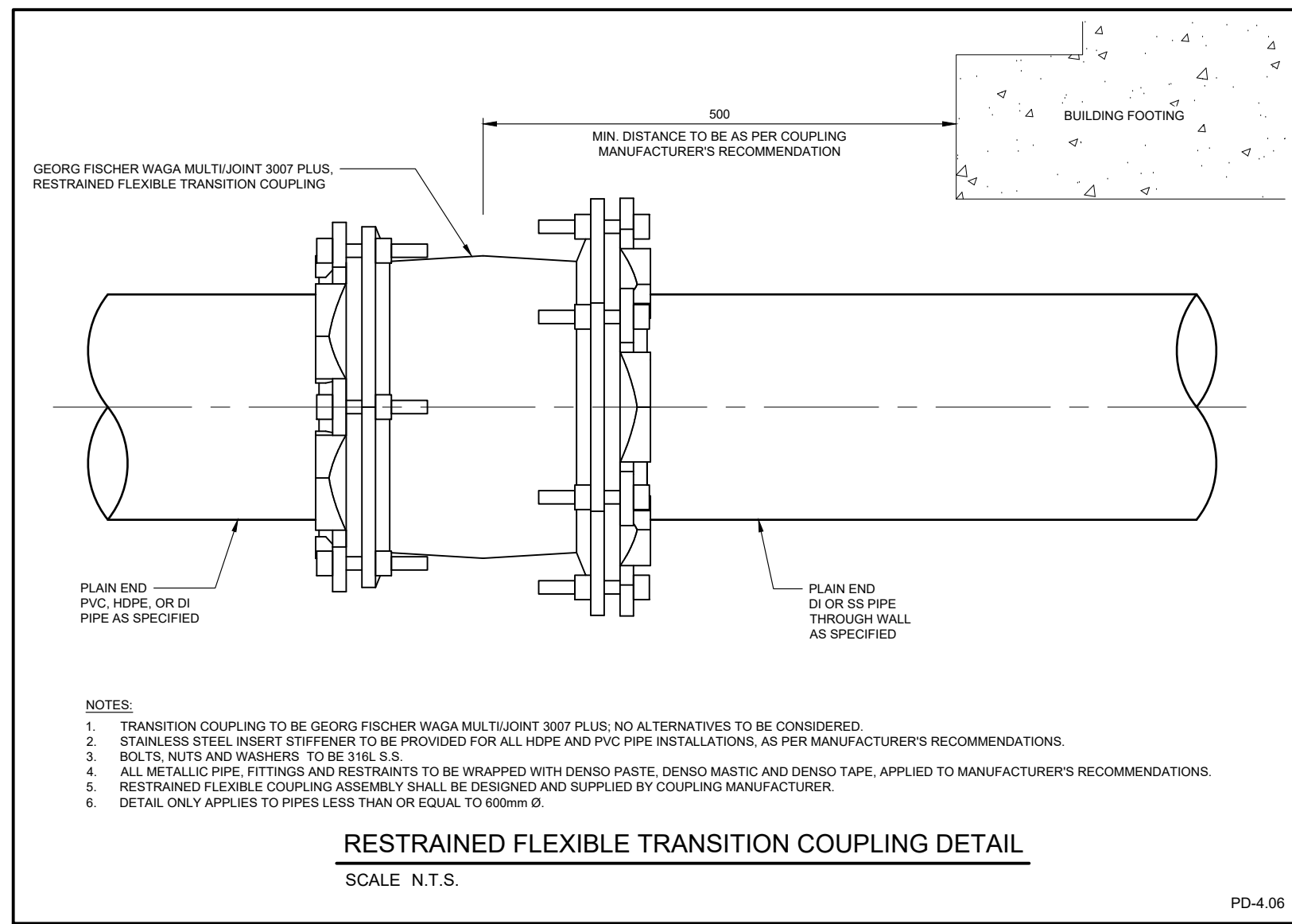
- DO NOT SCALE DRAWINGS.
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE "OCCUPATIONAL HEALTH AND SAFETY ACT". THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE CONSTRUCTOR AS DEFINED IN THE ACT.
- UNLESS NOTED OTHERWISE, ALL AREAS/ITEMS DISTURBED AS A RESULT OF CONSTRUCTION OPERATIONS TO BE RESTORED TO ORIGINAL OR BETTER CONDITIONS, INCLUDING SIDEWALKS, ROADWAYS, AND PARKING LOTS. ALL DITCHES DISTURBED SHALL BE REGRADED TO PROVIDE POSITIVE DRAINAGE. ALL AREAS WITHIN PROPERTY LINES SHALL BE RESTORED WITH 100mm OF TOPSOIL AND TERRASEEDING.
- UNLESS NOTED OTHERWISE, ALL ITEMS DESIGNATED TO BE REMOVED OR DEMOLISHED, INCLUDING SURPLUS EXCAVATED MATERIALS, ARE TO BE REMOVED AND DISPOSED OF OFF SITE AT THE CONTRACTOR'S EXPENSE.
- ALL DIMENSION UNITS ARE MILLIMETERS AND ALL ELEVATION UNITS ARE METERS UNLESS OTHERWISE SPECIFIED.
- STRIP TOPSOIL FROM WORKING AREAS AND STOCKPILE ON SITE. REPLACE TOPSOIL AT COMPLETION OF PROJECT. NEATLY GRADE ALL AREAS TO MATCH ADJACENT ELEVATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING INFORMATION IN REGARD TO THE EXACT LOCATION OF BURIED UTILITIES, WATERMANS, AND SEWERS INCLUDING SERVICE CONNECTIONS. THIS SHALL INCLUDE EXCAVATION OF INSPECTION HOLES AS NECESSARY.
- DO NOT OPERATE ANY VALVES WITHOUT THE WRITTEN PERMISSION OF THE OPERATING AUTHORITY.
- THE CONTRACTOR SHALL AS PART OF THEIR WORK CHECK AND VERIFY ALL DIMENSIONS THROUGH MEASUREMENT OR CALCULATION AND REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR BEFORE PROCEEDING WITH CONSTRUCTION.
- ALL OPEN EXCAVATIONS SHALL HAVE ADEQUATE PROTECTION BARRIERS AROUND THEM AT ALL TIMES.
- ALL MATERIALS, INSTALLATIONS, RESTORATIONS AND TESTING SHALL BE IN ACCORDANCE WITH CURRENT MUNICIPAL AND OPSS SPECIFICATIONS.
- ALL NATIVE BACKFILL TO BE APPROVED BY THE GEOTECHNICAL ENGINEER RETAINED BY THE GENERAL CONTRACTOR UNDER THE SOILS TESTING ALLOWANCE.
- ALL SURPLUS EXCAVATED MATERIAL SHALL BE REMOVED AND DISPOSED OF "OFF SITE" AT A LOCATION LICENSED TO ACCEPT SUCH WASTE IN ACCORDANCE WITH O. REG. 406/19.
- GRANULAR MATERIAL AS APPROVED BY THE GEOTECHNICAL ENGINEER SHALL BE COMPACTED TO A DENSITY OF 100% OF THE PROCTOR MAXIMUM DRY DENSITY IN ACCORDANCE TO OPSD 501.
- A MINIMUM 48 HOURS WRITTEN NOTICE TO AFFECTED PROPERTY OWNERS, THE OWNER AND THE CONTRACT ADMINISTRATOR IS REQUIRED PRIOR TO ANY DISRUPTIONS TO WATER, GAS, POWER AND TELEPHONE/COMMUNICATIONS.
- THE CONTRACTOR SHALL SCHEDULE ALL REMOVALS TO ENSURE ACCESS TO ALL BUILDINGS AT ALL TIMES. THE CONTRACTOR SHALL MAINTAIN ACCESS BY PROVIDING TEMPORARY WALKS AND STEPS AS REQUIRED AND AS APPROVED BY THE CONTRACT ADMINISTRATOR.
- ALL TESTING SHALL BE CARRIED OUT AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
- THE CONTRACTOR SHALL ENSURE THAT ALL EXISTING PIPES THAT ARE TO REMAIN DURING CONSTRUCTION PERIOD SHALL BE PROTECTED FROM ANY POTENTIAL DAMAGE, DUE TO CONSTRUCTION ACTIVITY.
- EROSION AND SEDIMENT CONTROL MEASURES TO BE IN PLACE PRIOR TO START OF ANY CONSTRUCTION, AND MUST BE MAINTAINED AT ALL TIMES.
- CONTRACTOR TO IMPLEMENT APPROPRIATE DUST CONTROL MEASURES TO PREVENT EXCESSIVE DUST ON SITE OR MIGRATION OF DUST TO ADJACENT PROPERTIES.
- CONTRACTOR TO MAINTAIN ALL ROADS AFFECTED BY CONSTRUCTION FREE OF SEDIMENT BY SWEEPING AS NECESSARY OR AS DIRECTED BY THE TOWNSHIP OR CONTRACTOR ADMINISTRATOR.
- LOCATION, SIZE AND INVERT ELEVATIONS OF EXISTING WATERMAIN PIPES SHALL BE VERIFIED PRIOR TO COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL ADVISE THE ENGINEER OF ANY DISCREPANCIES.
- EXISTING BURIED UTILITIES HAVE BEEN SHOWN FOR DESIGN PURPOSES ONLY. THE LOCATION OF EXISTING POLE LINES, CONDUITS, WATERMANS, SEWERS, FORCEMANS, GAS, HYDRO, TELECOMMUNICATIONS AND OTHER UNDERGROUND OR ABOVE GROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE DRAWINGS AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. CONDUITS, WATERMANS, SEWERS, FORCEMANS, GAS, HYDRO, TELEPHONE, OR OTHER UTILITIES THAT MAY EXIST ON THE SITE OR WITHIN THE ROAD RIGHT-OF-WAYS MUST BE LOCATED BY THE OWNER OF THE UTILITY OR SPECIALIZED COMPANY HIRED BY THE CONTRACTOR AND VERIFIED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL EXCAVATE AND CONFIRM THE ELEVATION OF BURIED UTILITIES USING "DAYLIGHTING" TECHNIQUES. ANY CONFLICTS SHALL BE IMMEDIATELY REPORTED TO THE CONTRACT ADMINISTRATOR PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING, PRESERVING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION.
- THE CONTRACTOR IS TO IMPLEMENT SUITABLE MEASURES TO PROTECT NEW AND EXISTING PIPES FROM FREEZING DURING THE CONSTRUCTION PERIOD.
- AT PROPOSED/EXISTING CONNECTION POINTS CONTRACTOR TO EXCAVATE AND LOCATE EXISTING PIPES TO DETERMINE REQUIRED CONNECTION FITTINGS AND ADAPTORS PRIOR TO ORDERING CONNECTION MATERIALS.
- ALL PENETRATIONS THROUGH THE EXISTING CONTROL BUILDING'S WALLS MUST BE COMPLETED IN ACCORDANCE WITH THE BUILDING'S ASBESTOS MANAGEMENT PLAN INCLUDED IN THE TENDER DOCUMENTS.

STORM SEWER NOTES:

- STORM SEWER SHALL BE PVC SDR 35 PIPE, 320 kPa WITH BELL AND SPIGOT JOINTS. 200mm DEPTH OF GRANULAR A BEDDING AND 300mm COVER MATERIAL AND BACKFILL TO FINISHED SUBGRADE TO OPSD 802.010 UNLESS NOTED OTHERWISE.
- OVERFLOW CATCH BASIN (CB) SHALL BE 600x600 TO OPSD 705.010 WITH FRAME AND GRATE TO OPSD 400.100.
- STORM SEWER MANHOLE SHALL BE 1200mm to OPSD 701.010 WITH FRAME AND COVER TO OPSD 401.010 TYPE A AND BENCHING TO OPSD 701.021.
- FRAMES AND COVERS SHALL BE SET ON 3 (MIN.) TO 6 (MAX.) MODULOC PRECAST UNITS WHICH SHALL BE PARGED ON THE OUTSIDE FACE.
- PVC SEWER PIPING SHALL CONNECT TO ALL PRECAST STRUCTURES WITH FLEXIBLE KOR-N-SEAL CONNECTIONS MEETING ASTM C923.
- EXTERIOR JOINTS OF ALL NEW PRECAST CONCRETE STRUCTURES ARE TO BE EVENLY WRAPPED WITH 900mm WIDE BLUESKIN WP200 AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- ALL PRECAST STRUCTURES AND PIPE CONNECTIONS ARE TO BE WATERTIGHT.
- LEAK TESTING TO BE COMPLETED IN ACCORDANCE WITH OPSS 410.

WATERMAIN NOTES:

- WATERMAIN BETWEEN THE STAINLESS STEEL (SS) PIPING INTO THE STANDPIPE AND THE CONNECTION TO THE EXISTING WATERMAIN SHALL BE POLYVINYL CHLORIDE (PVC) DR18 AWWA C900 TO CSA B137.3. PROVIDE MIN. 200mm DEPTH OF GRANULAR A BEDDING, 300mm GRANULAR A COVER MATERIAL AND BACKFILL TO FINISHED SUBGRADE TO OPSD 802.010 UNLESS NOTED OTHERWISE.
- ALL PIPE JOINTS SHALL BE RESTRAINED. ALL BURIED VALVES AND FITTINGS SHALL BE DUCTILE IRON AND HAVE MECHANICAL JOINTS. ALL MECHANICAL JOINTS TO BE RESTRAINED WITH SIGMA ONE-LOK (FOR MJ TO PVC PIPE) OR SIGMA PVL-OK (FOR PVC PIPE TO PVC BELL AND SPIGOT JOINTS). PROTECTO-CAPS SACRIFICIAL ANODES SHALL BE INSTALLED ON EVERY BOLT.
- THE MINIMUM COVER ON WATERMANS SHALL BE 1.8m AT ALL POINTS (UNLESS OTHERWISE NOTED). INSTALL INSULATION AS PER DETAIL WHERE WATERMAIN COVER IS LESS THAN 1.8m AS NOTED ON DRAWINGS OR AS DIRECTED BY CONTRACT ADMINISTRATOR.
- BEFORE BEING PLACED IN SERVICE, THE WATER SYSTEM SHALL BE TESTED IN ACCORDANCE WITH OPSS 441 AND DISINFECTED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE AWWA C651 AND MECP 2020 ONTARIO WATERMAIN DISINFECTION PROCEDURE AND TO THE SATISFACTION OF THE OPERATING AUTHORITY.
- ANY SECTIONS FAILING THE TEST SHALL BE REPAIRED AND RETESTED AT THE CONTRACTOR'S EXPENSE.
- TRENCH BACKFILL FOR WATERMAIN IN ROADWAYS TO BE SUITABLE NATIVE MATERIAL, COMPACTED TO 98% SPMD. BACKFILL IN OTHER AREAS TO BE SUITABLE NATIVE MATERIAL COMPACTED TO 95% SPMD.
- CONTRACTOR TO USE ADEQUATE TRENCH SUPPORT AS REQUIRED TO ENSURE THAT EXISTING FACILITIES STRUCTURES, AND ROADWAYS ARE NOT DISTURBED.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THERE IS NO DISRUPTION OF WATER SERVICE TO PRIVATE PROPERTIES WHICH ARE CONNECTED TO THE EXISTING WATER SUPPLY SYSTEM, UNLESS OTHERWISE APPROVED BY THE OPERATING AUTHORITY.
- FITTING CONNECTIONS SHOWN ON DRAWINGS ARE BASED ON AVAILABLE INFORMATION. CONTRACTOR TO VERIFY THROUGH EXPLORATION, SUITABILITY OF PROPOSED FITTING PRIOR TO ORDERING MATERIAL. IF A FITTING CHANGE IS REQUIRED, CONTRACTOR IS TO INFORM CONTRACT ADMINISTRATOR.
- RESTRAINED FLEXIBLE COUPLINGS (GEORG FISCHER MULTIJOINT) TO BE INSTALLED FOR TRANSITION FROM NEW PVC TO SS PIPING AND FOR PVC WATERMAIN CONNECTION TO EXISTING WATERMAIN PIPE.
- MECHANICAL THRUST RESTRAINTS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- VALVES SHALL BE RESILIENT WEDGE GATE VALVES COMPLYING WITH AWWA C509 (MUELLER OR APPROVED EQUAL). VALVES SHALL OPEN COUNTER-CLOCKWISE. VALVE BOXES SHALL BE 133 mm DUCTILE IRON SLIDER TYPE WITH GUIDE PLATE (BIBBY-STE-CROIX OR APPROVED EQUAL).
- TRACER WIRE TO BE INSTALLED AND BROUGHT TO SURFACE AT EACH VALVE AND AT EDGE OF TANK FOUNDATION IN A PVC CONDUIT AND TEST STATION. TRACER WIRE SHALL BE TWJ 12/7 STRAND COPPER CABLE HAVING THERMOPLASTIC INSULATION RATED FOR UNDERGROUND USE AND STRAPPED TO THE TOP OF THE PIPE WITH A GALVANIZED CLAMP EVERY 5 m ON THE PVC WATERMAIN.
- 5.4kg ZINC ANODE SHALL BE CONNECTED TO EACH BURIED VALVE AND FITTING IN ACCORDANCE WITH OPSS 442. EACH BURIED VALVE AND FITTING AND APPURTANCES TO BE WRAPPED WITH DENSO PETROLATUM SYSTEM IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.



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274 JOSEPHINE STREET
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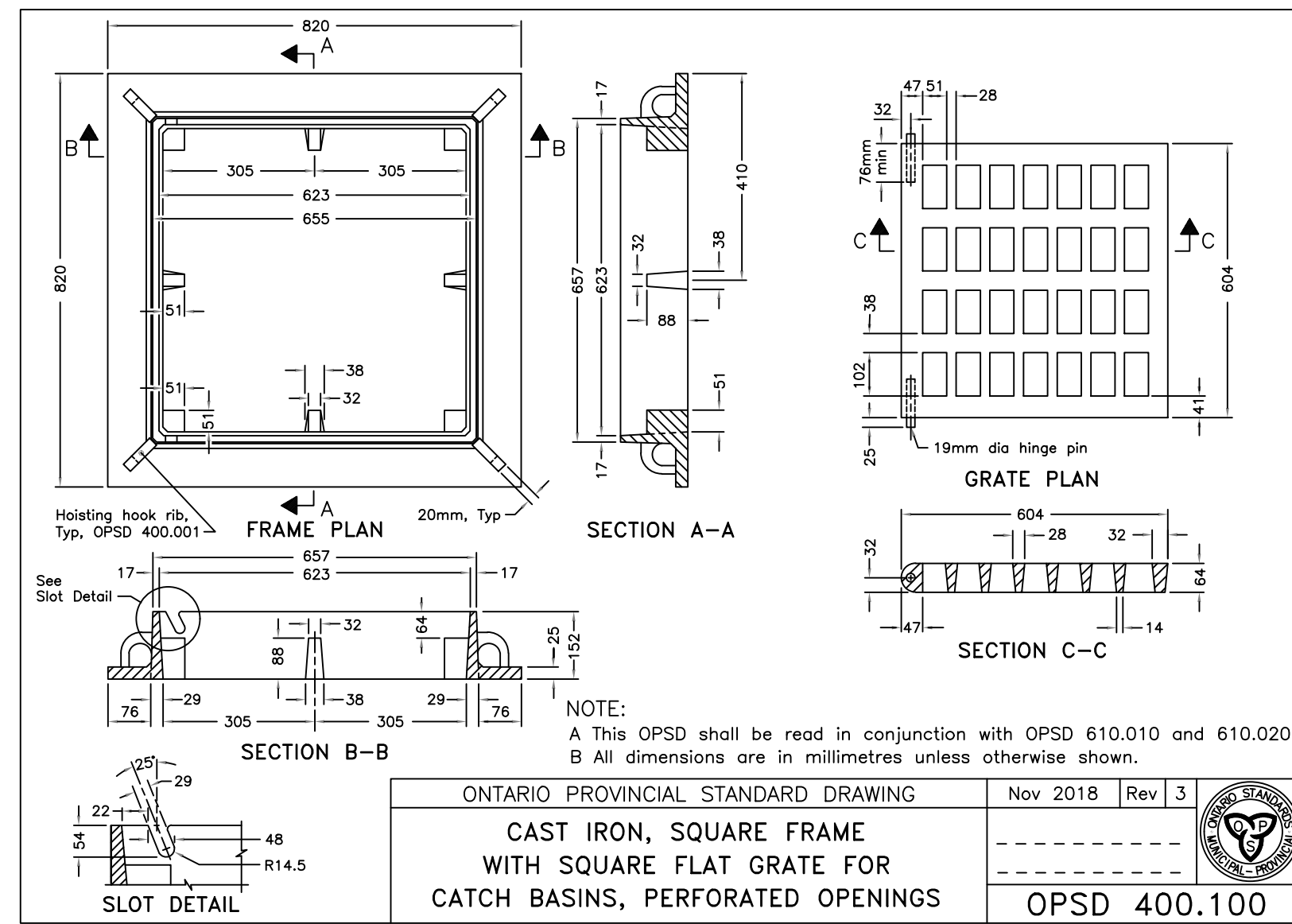
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Drawing Title: **WINGHAM STANDPIPE REPLACEMENT**
NOTES AND DETAILS

Drawn: J.R.	Checked: G.V.	Designed: G.V.	Checked: J.P.	Date: 25/06/05	Drawing No.:
Project No.: 30053193	Contract No.:	Revision No.:	2		D201

Scale: NOT TO SCALE

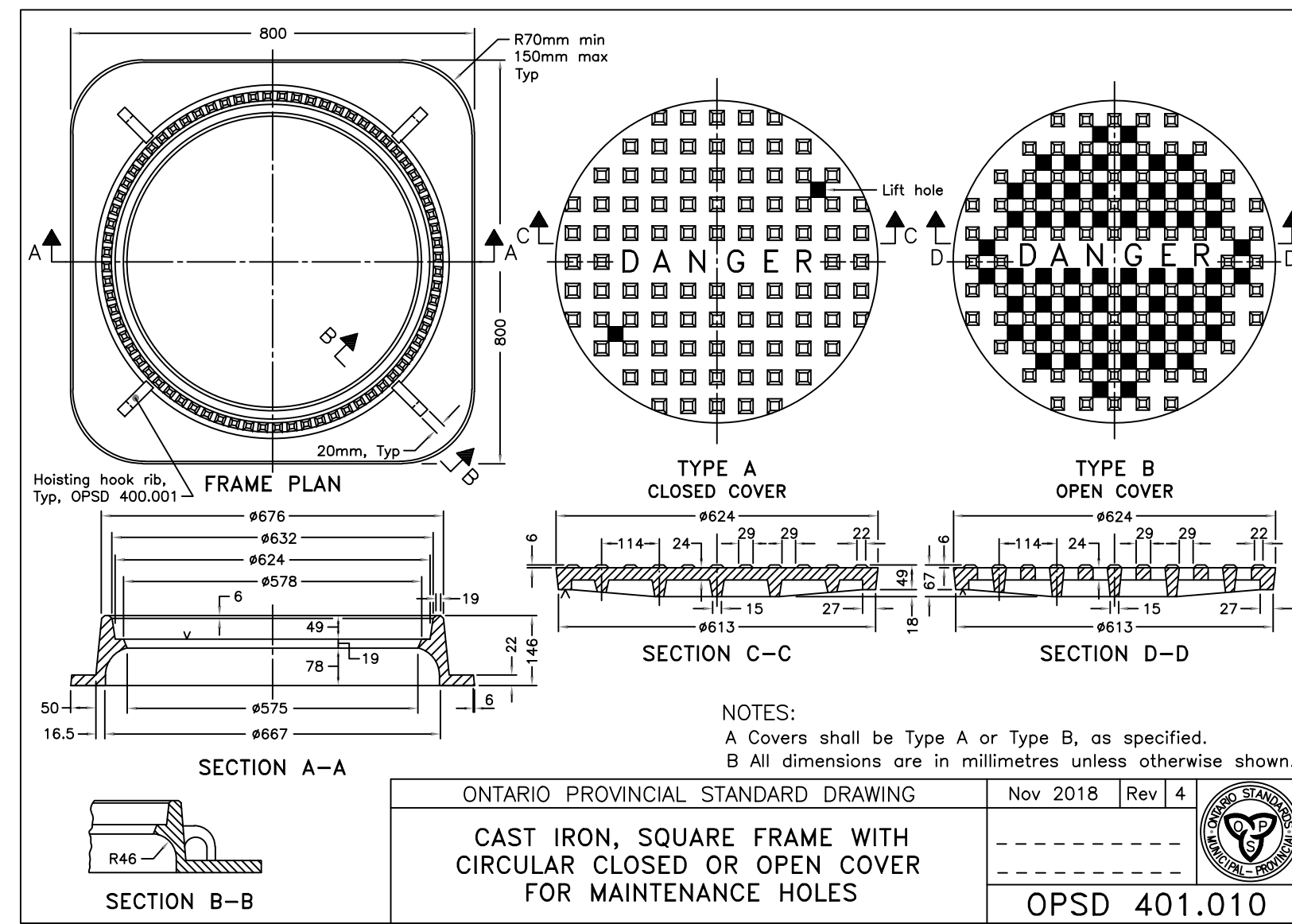
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ONTARIO PROVINCIAL STANDARD DRAWING
Nov 2018 Rev 3

CAST IRON, SQUARE FRAME WITH SQUARE FLAT GRATE FOR CATCH BASINS, PERFORATED OPENINGS

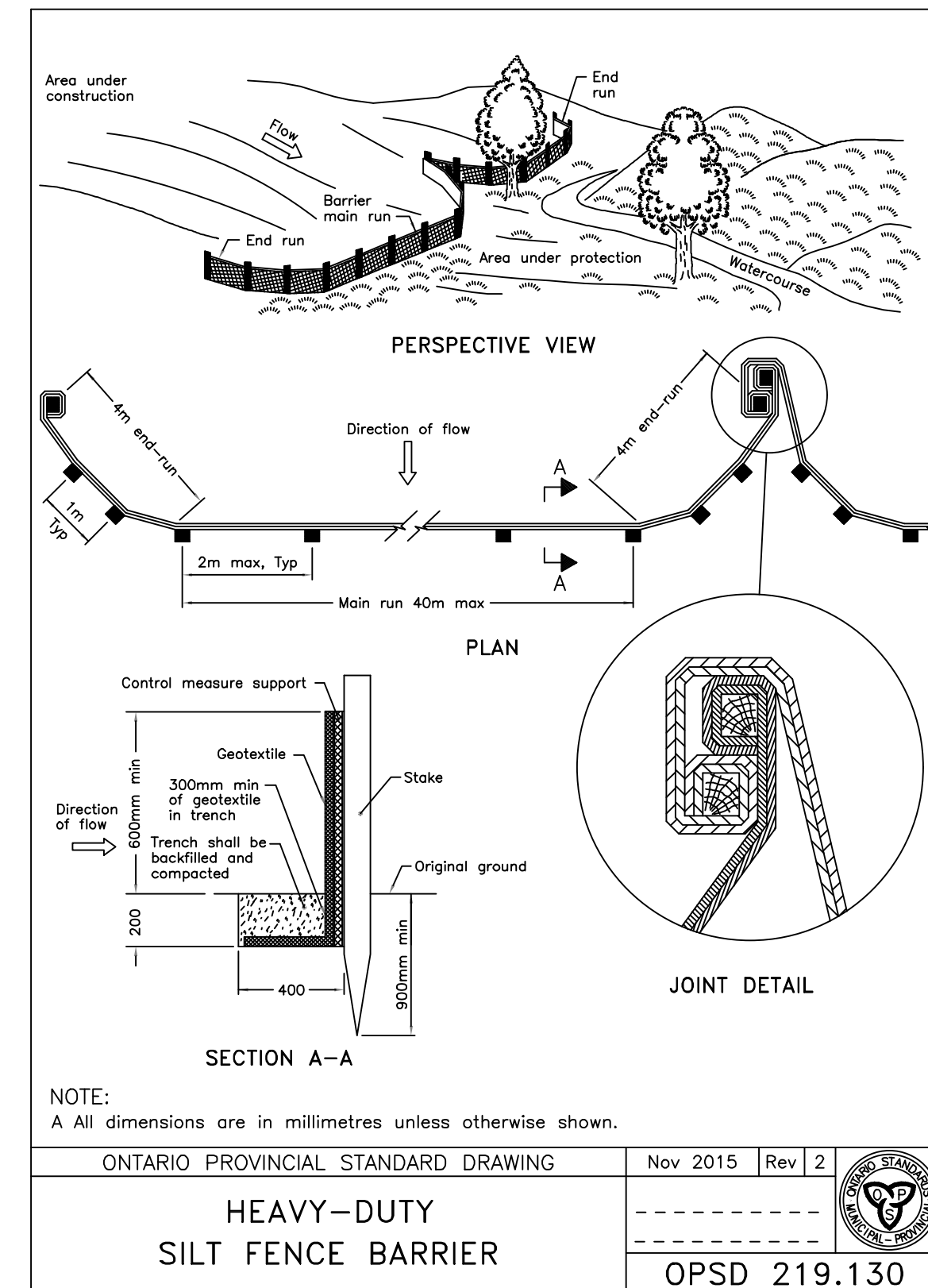
OPSD 400.100



ONTARIO PROVINCIAL STANDARD DRAWING
Nov 2018 Rev 4

CAST IRON, SQUARE FRAME WITH CIRCULAR CLOSED OR OPEN COVER FOR MAINTENANCE HOLES

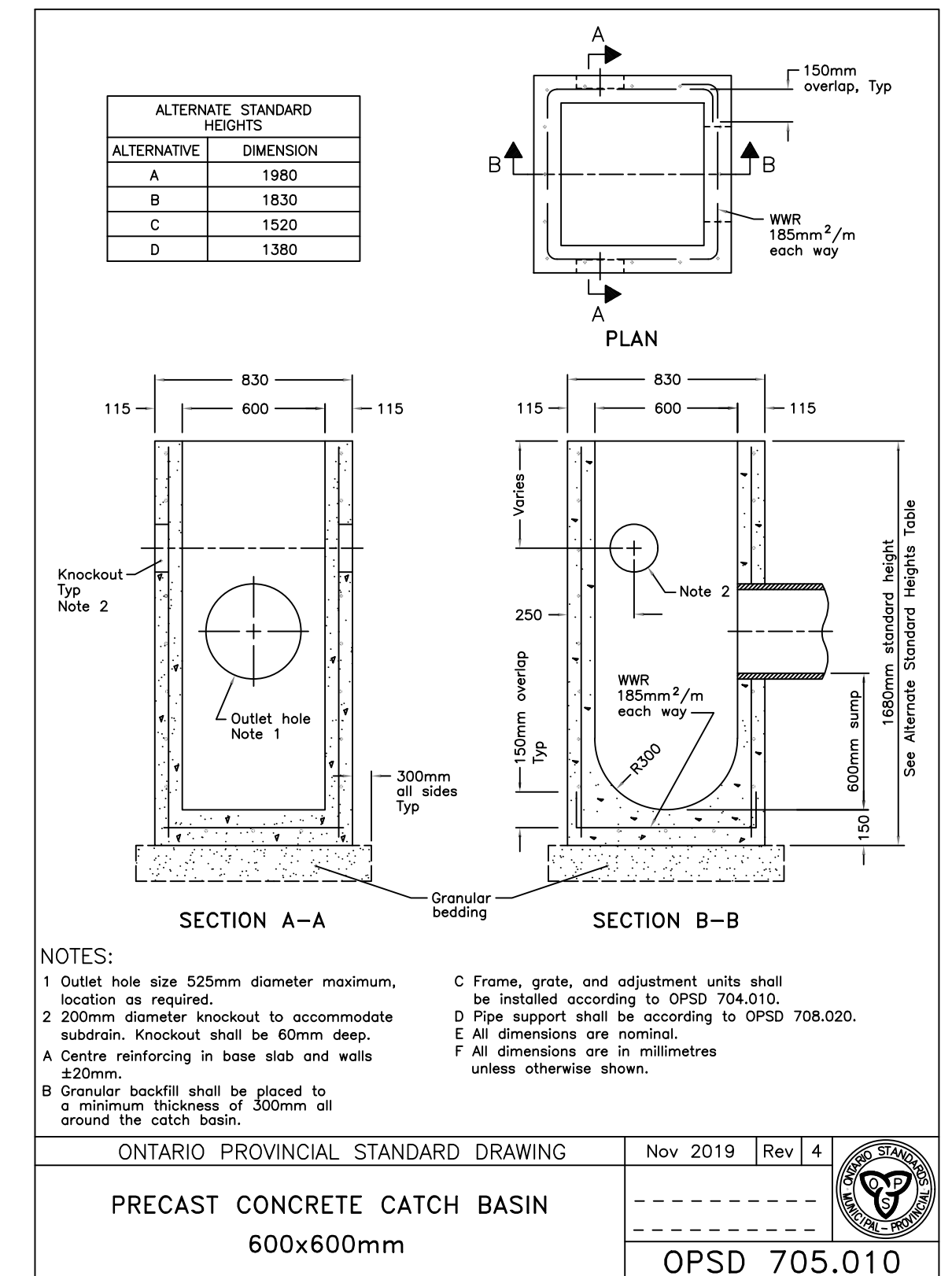
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ONTARIO PROVINCIAL STANDARD DRAWING
Nov 2015 Rev 2

HEAVY-DUTY SILT FENCE BARRIER

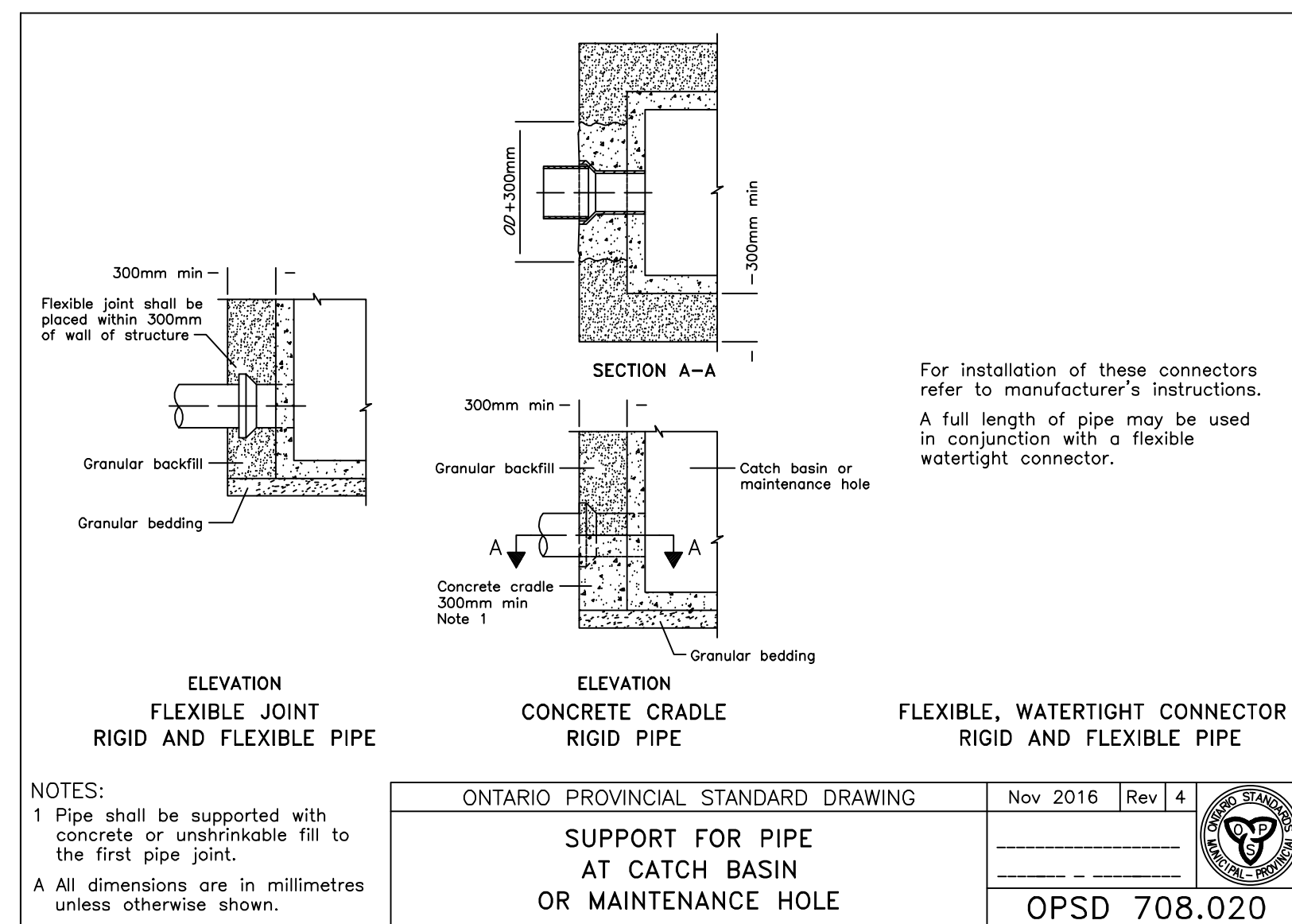
OPSD 219.130



ONTARIO PROVINCIAL STANDARD DRAWING
Nov 2019 Rev 4

PRECAST CONCRETE CATCH BASIN 600x600mm

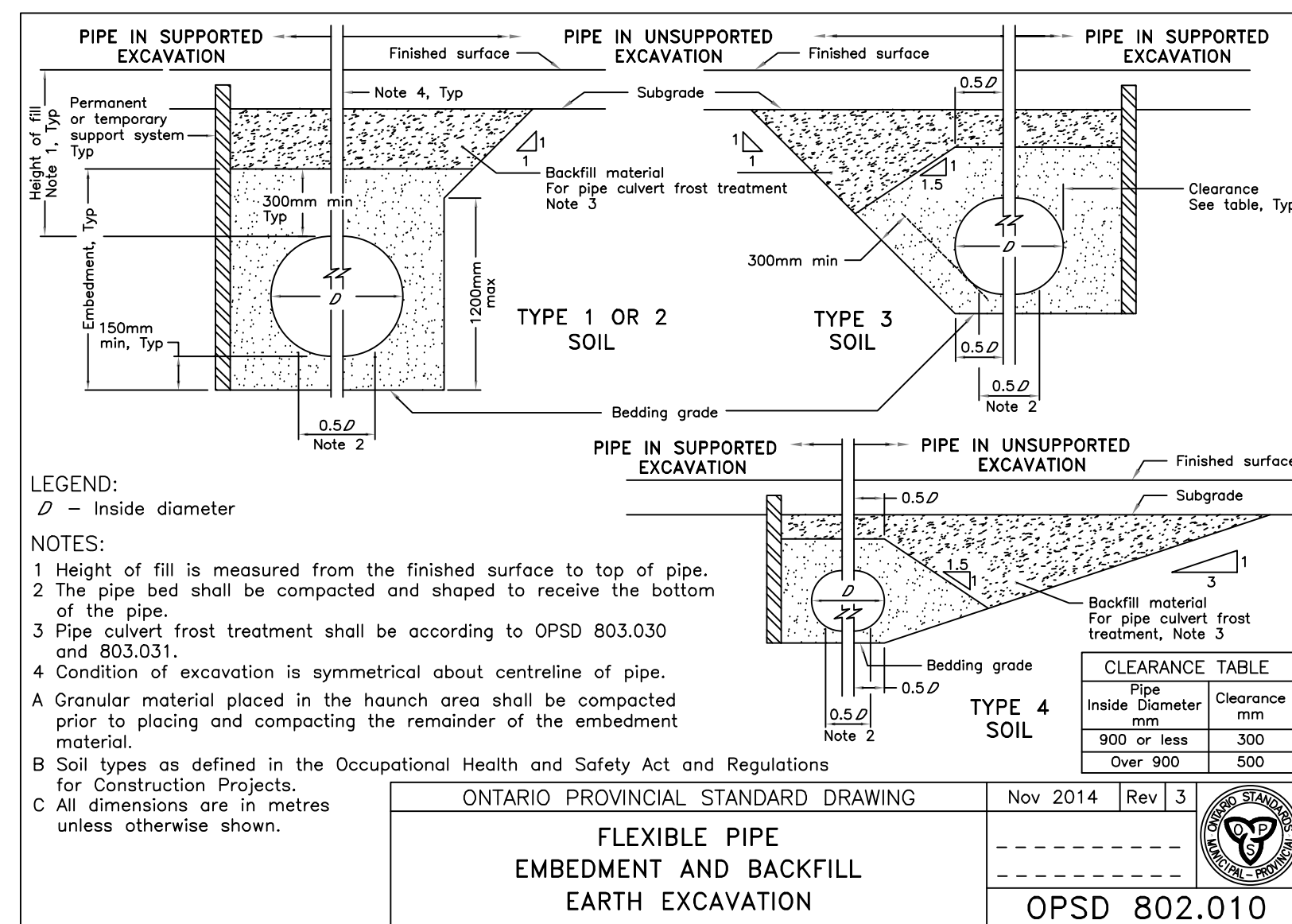
OPSD 705.010



ONTARIO PROVINCIAL STANDARD DRAWING
Nov 2016 Rev 4

SUPPORT FOR PIPE AT CATCH BASIN OR MAINTENANCE HOLE

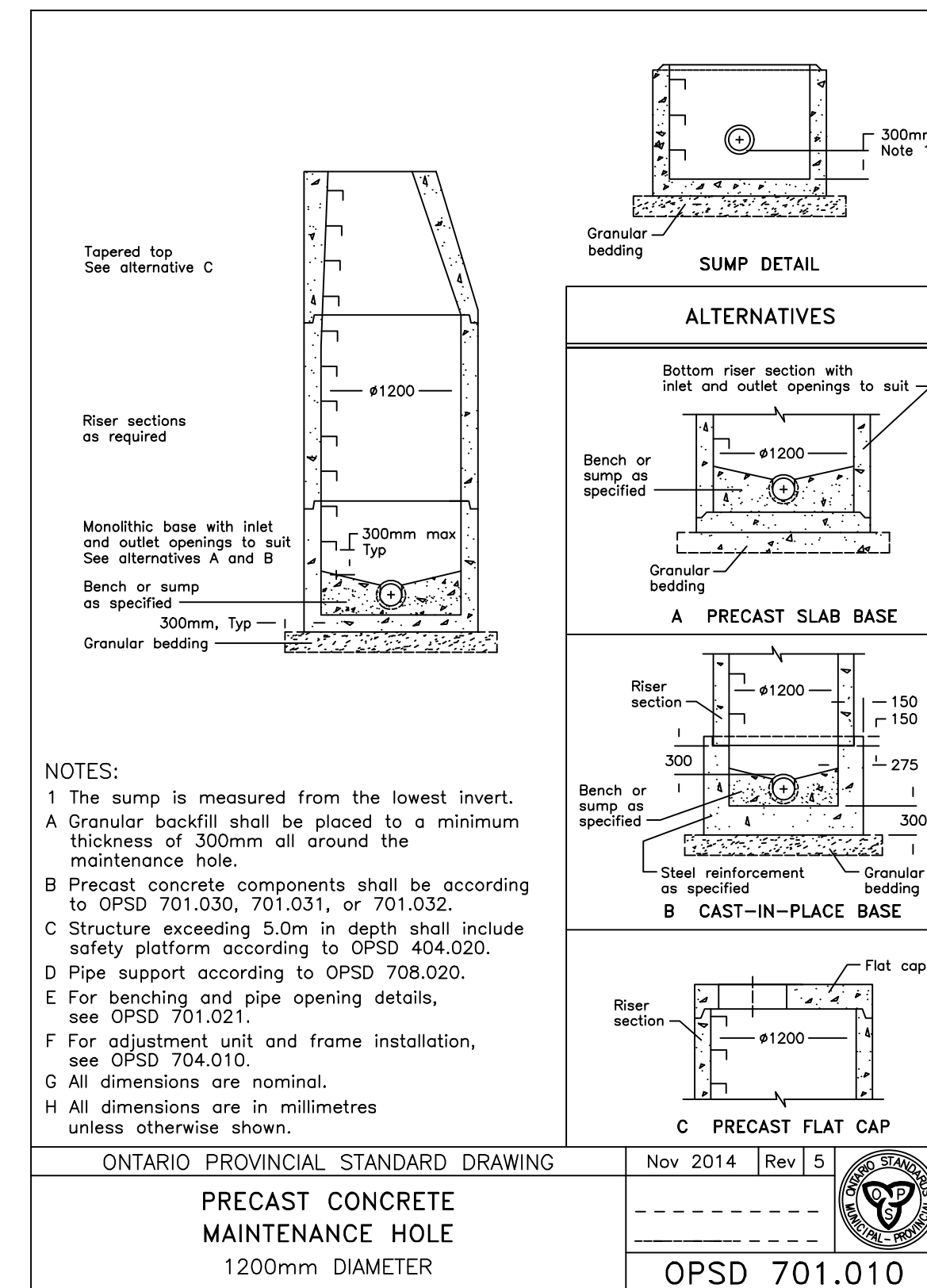
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ONTARIO PROVINCIAL STANDARD DRAWING
Nov 2014 Rev 3

FLEXIBLE PIPE EMBEDMENT AND BACKFILL EARTH EXCAVATION

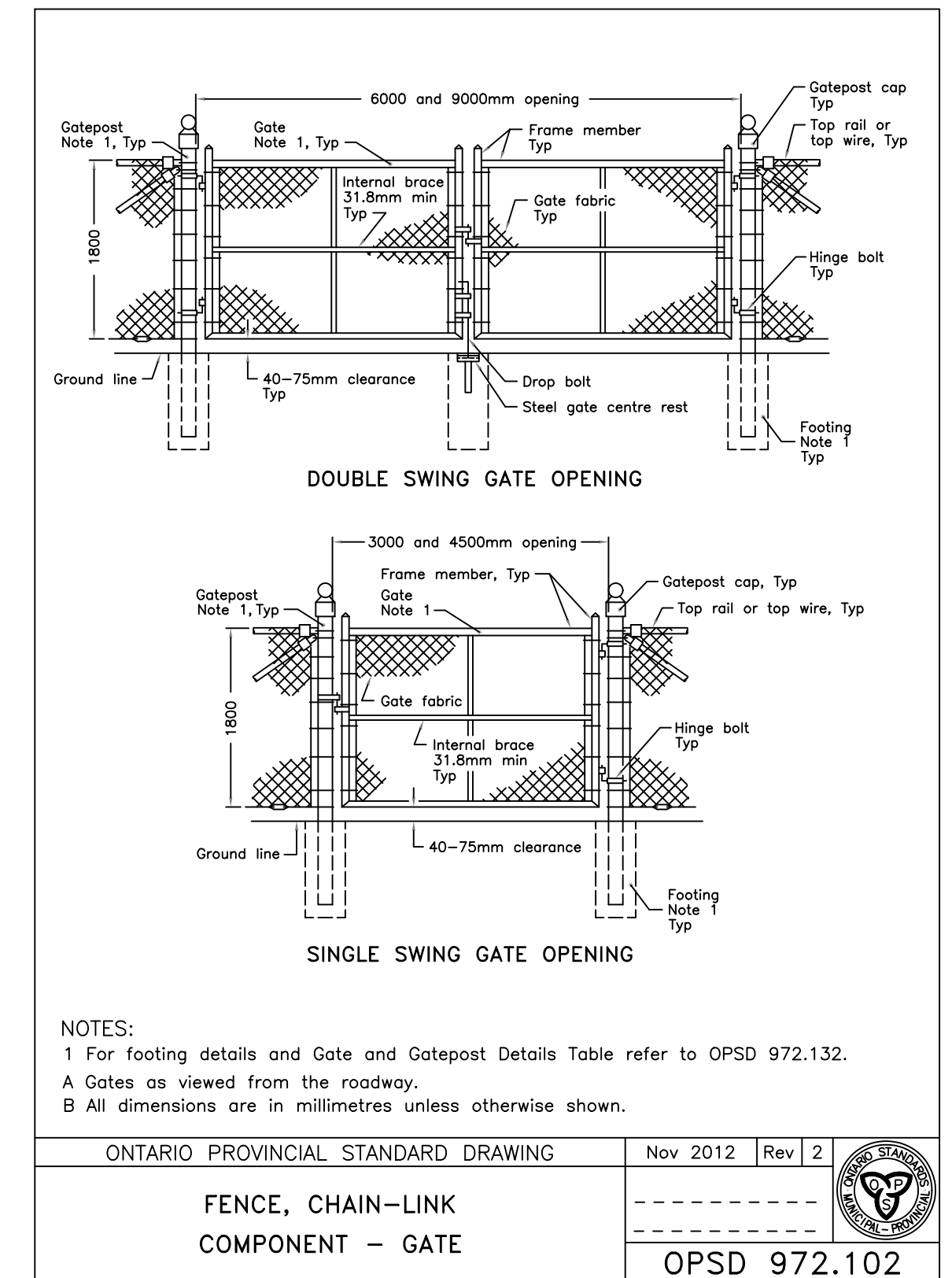
OPSD 802.010



ONTARIO PROVINCIAL STANDARD DRAWING
Nov 2014 Rev 5

PRECAST CONCRETE MAINTENANCE HOLE 1200mm DIAMETER

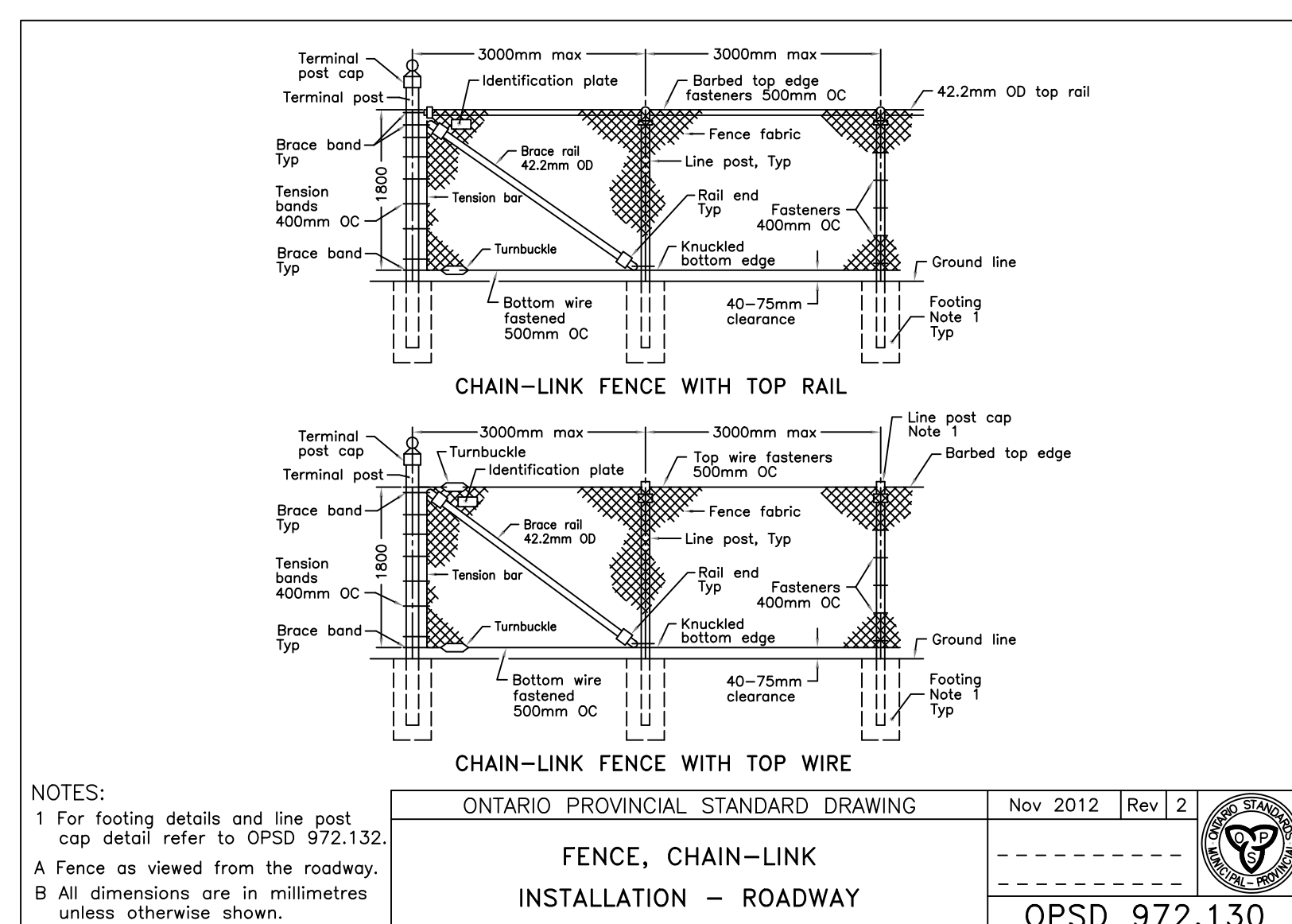
OPSD 701.010



ONTARIO PROVINCIAL STANDARD DRAWING
Nov 2012 Rev 2

FENCE, CHAIN-LINK COMPONENT - GATE

OPSD 972.102



ONTARIO PROVINCIAL STANDARD DRAWING
Nov 2012 Rev 2

FENCE, CHAIN-LINK INSTALLATION - ROADWAY

OPSD 972.130

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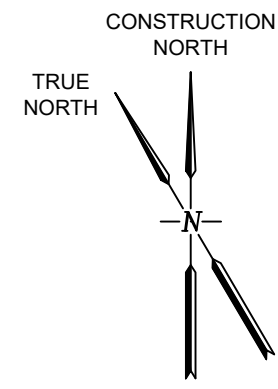
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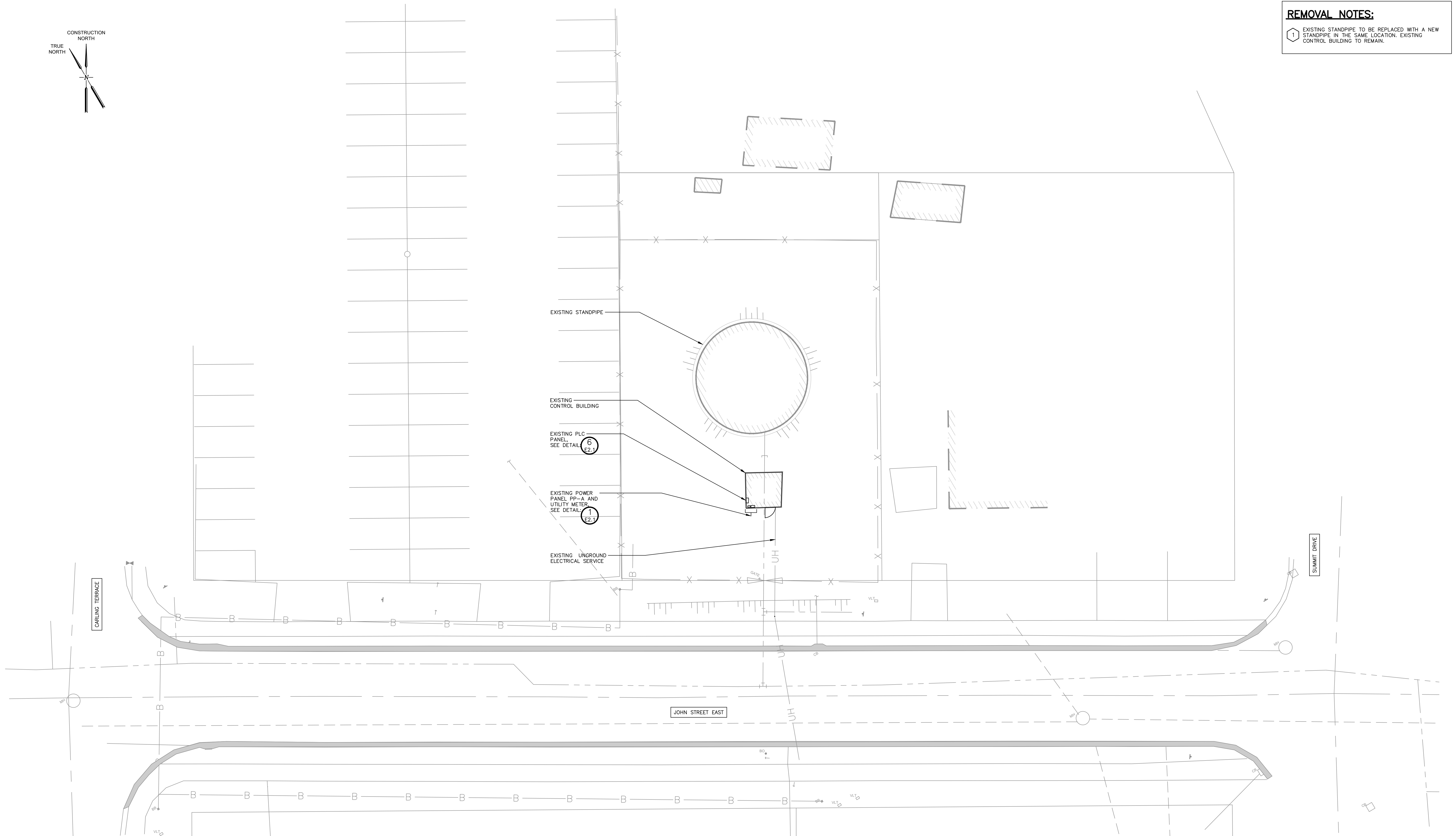
Drawing Title
WINGHAM STANDPIPE REPLACEMENT

TYPICAL DETAILS (OPSD)

Drawn	Checked	Designed	Checked	Date	Drawing No.
J.R.	G.V.	G.V.	J.P.	22/12/19	D202
Project No.	Contract No.	Revision No.			
300053193		2			
Scale	NOT TO SCALE				



REMOVAL NOTES:
 1 EXISTING STANDPIPE TO BE REPLACED WITH A NEW STANDPIPE IN THE SAME LOCATION. EXISTING CONTROL BUILDING TO REMAIN.



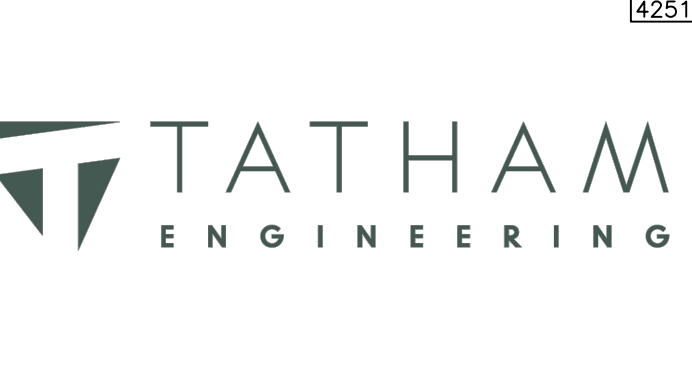
1 SITE PLAN - EXISTING CONDITIONS 1
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1	ISSUED FOR CLIENT REVIEW	9/30/2025	
2	ISSUED FOR CLIENT REVIEW	3/13/2026	
3	ISSUED FOR TENDER	4/15/2026	



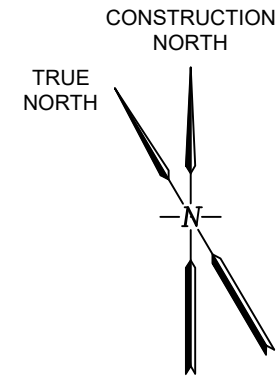
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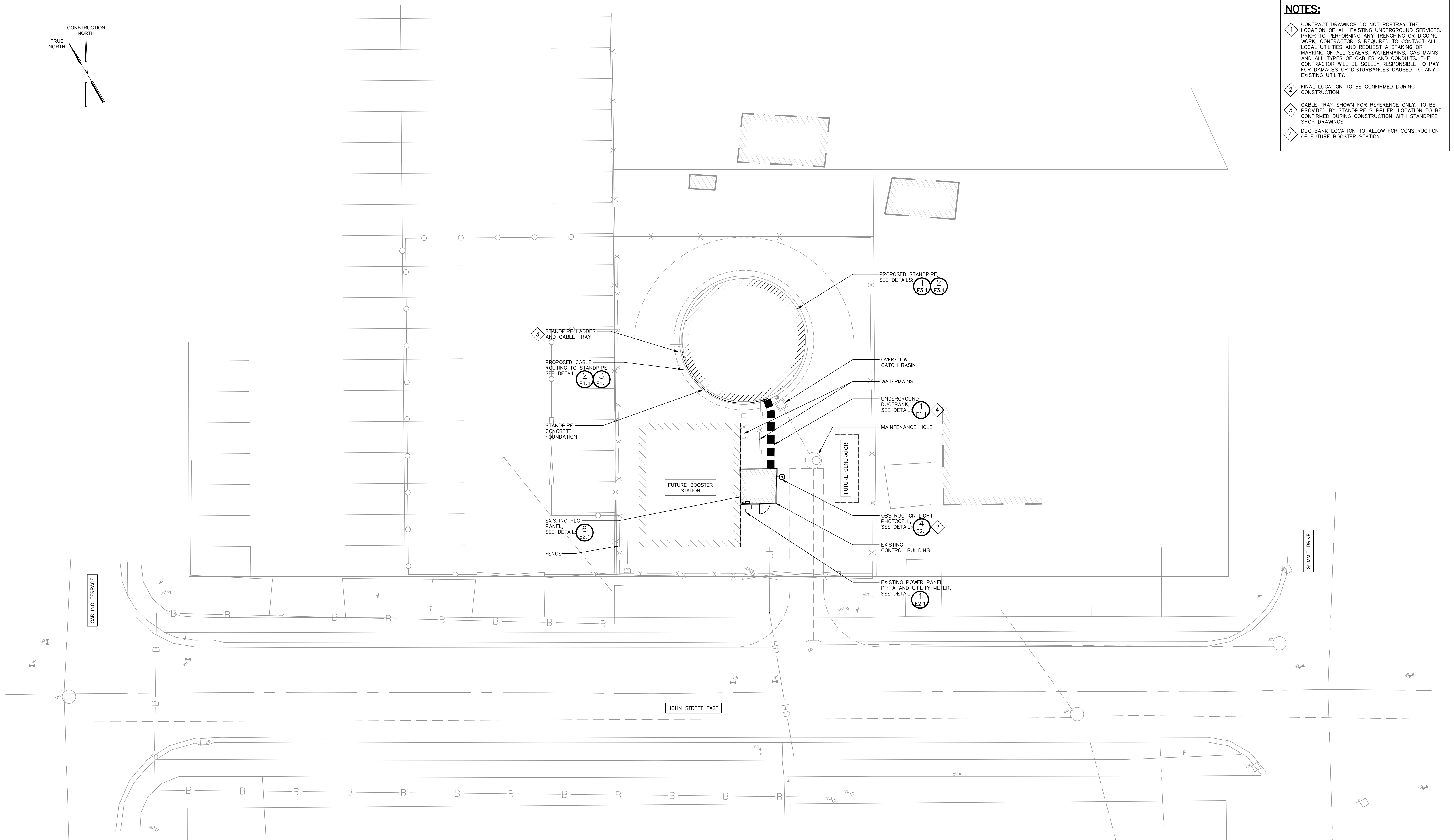
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NKS	GGR	DR	GGR	22/12/19	E1.2

Project No: 300553193
 Contract No: 1
 Revision No: 1
 Scale: AS SHOWN



- NOTES:**
- 1 CONTRACT DRAWINGS DO NOT PORTRAY THE LOCATION OF ALL EXISTING UNDERGROUND SERVICES. PRIOR TO PERFORMING ANY TRENCHING OR DIGGING WORK, CONTRACTOR IS REQUIRED TO CONTACT ALL LOCAL UTILITIES AND REQUEST A STAKING OR MARKING OF ALL SEWERS, WATERMANS, GAS MAINS, AND ALL TYPES OF CABLES AND CONDUITS. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE TO PAY FOR DAMAGES OR DISTURBANCES CAUSED TO ANY EXISTING UTILITY.
 - 2 FINAL LOCATION TO BE CONFIRMED DURING CONSTRUCTION.
 - 3 CABLE TRAY SHOWN FOR REFERENCE ONLY. TO BE PROVIDED BY STANDPIPE SUPPLIER. LOCATION TO BE CONFIRMED DURING CONSTRUCTION WITH STANDPIPE SHOP DRAWINGS.
 - 4 DUCTBANK LOCATION TO ALLOW FOR CONSTRUCTION OF FUTURE BOOSTER STATION.



1 SITE PLAN - PROPOSED CONDITIONS
 1:150
 DIMENSIONS SHOWN IN mm (MILLIMETERS)

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.
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No.	Issue / Revision	Date	Auth.
1	ISSUED FOR CLIENT REVIEW	9/30/2025	
2	ISSUED FOR CLIENT REVIEW	3/13/2026	
3	ISSUED FOR TENDER	4/15/2026	

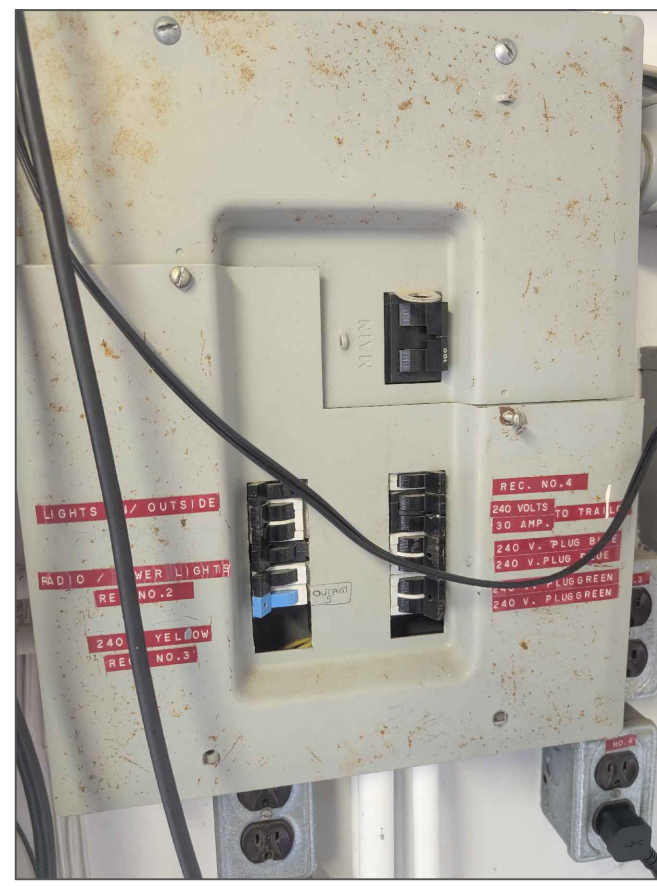
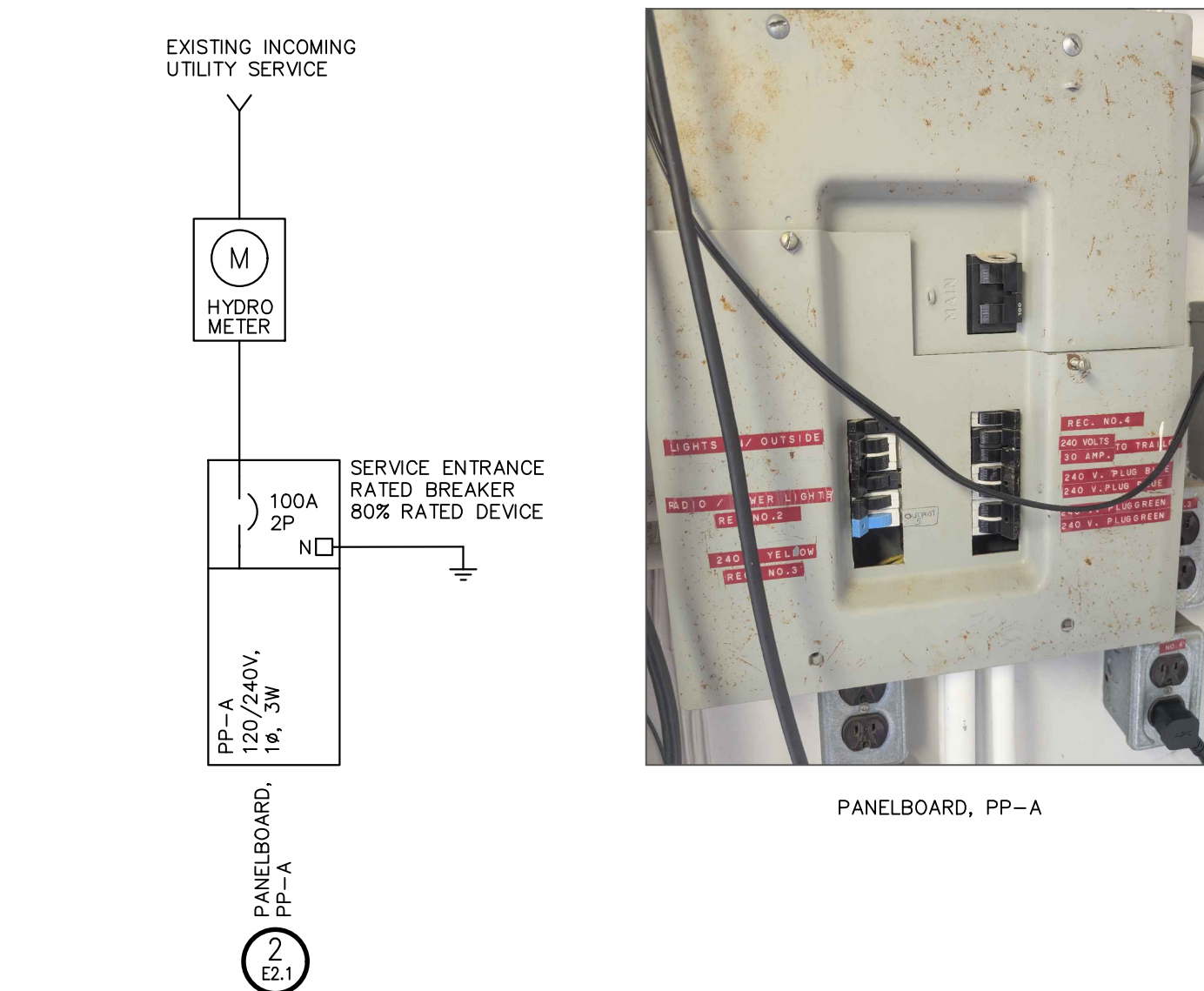


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Drawing Title		Drawing No.	
WINGHAM STANDPIPE REPLACEMENT		E1.3	
SITE PLAN - PROPOSED CONDITIONS			
Drawn	Checked	Designed	Date
NKS	GGR	DR	22/12/19
Project No.	Contract No.	Revision No.	
30053193	1	1	
Scale			
AS SHOWN			

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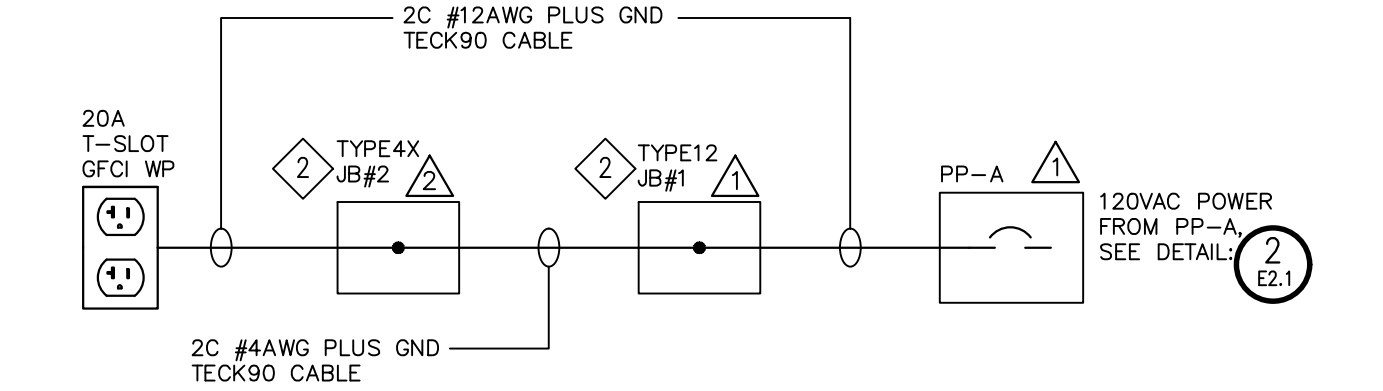


1 EXISTING 120/240VAC SINGLE LINE DIAGRAM
• NTS

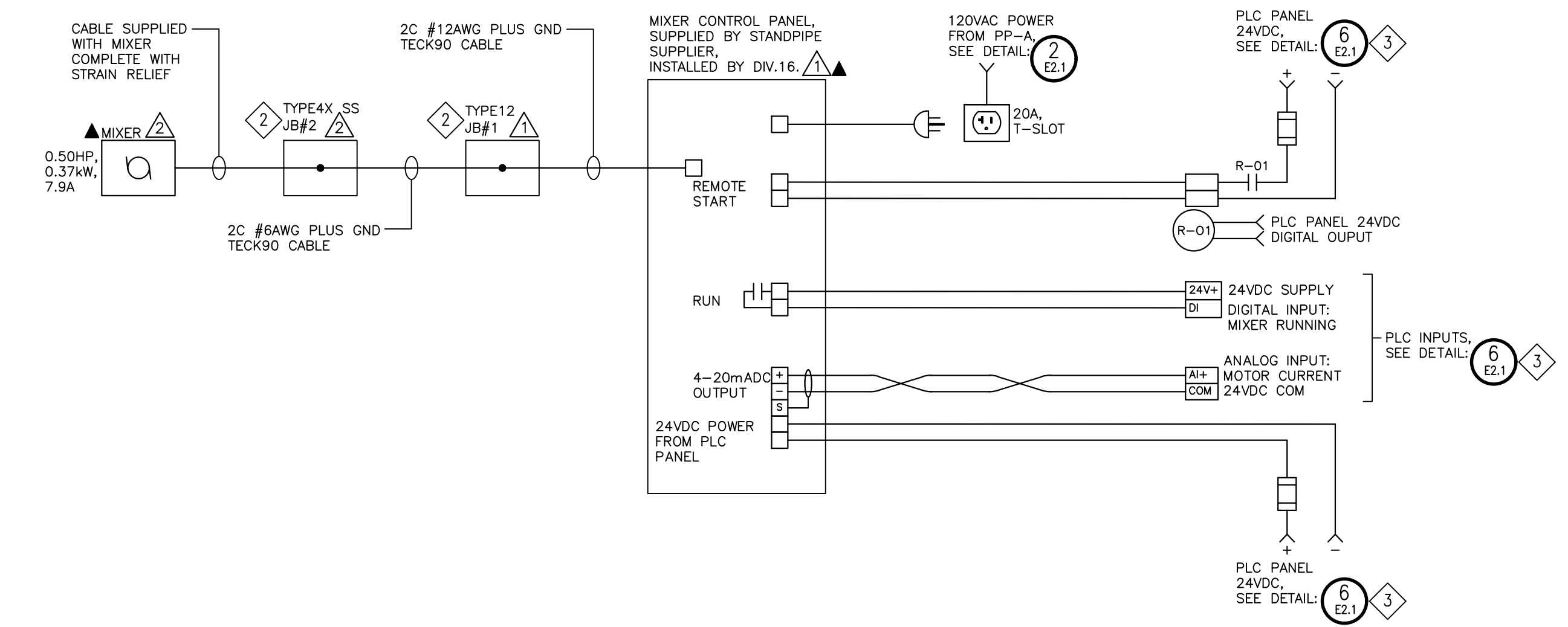
PANEL TAG NAME: 'PP-A'

LOAD-W		CIRCUIT DESCRIPTION		PROT.		CIRCUITS		PROT.		LOAD-W	
15A	1	A	2	15A	REC. NO.4						
20A	3	B	4	30A	TRAILER						
2P	5	C	6	2P							
15A	7	A	8	20A	PLUG BLUE						
15A	9	B	10	2P							
15A	11	C	12	20A	PLUG GREEN						
20A	13	A	14	2P							
15A	15	B	16	20A	RECEPTACLE						

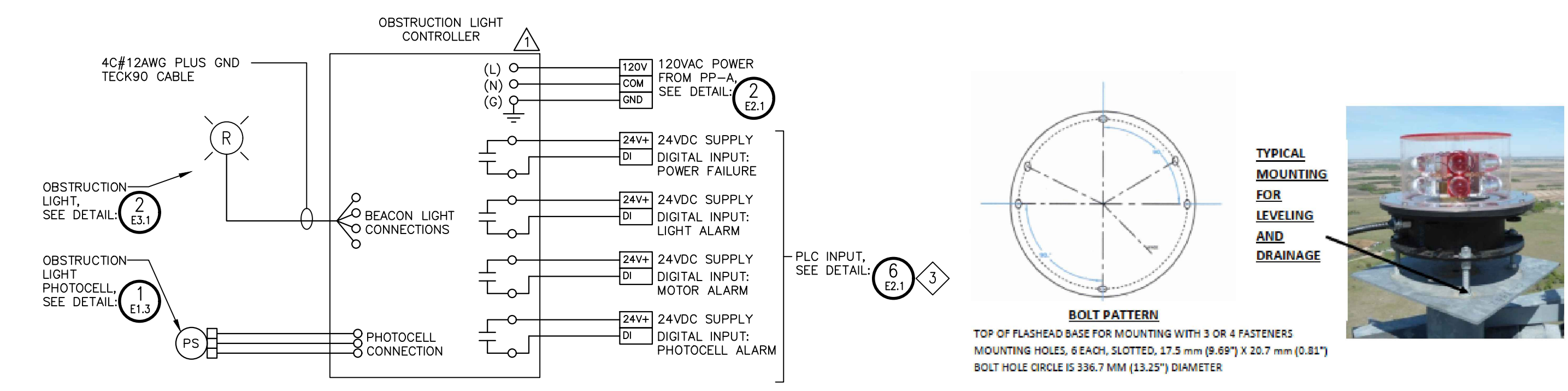
2 POWER PANEL SCHEDULE
• NTS



5 RECEPTACLE WIRING DIAGRAM
• PROVIDE ALL NECESSARY JUNCTION BOXES TO SUIT INSTALLATION
• RECEPTACLE LOCATION ON TOP OF STANDPIPE



3 MIXER WIRING DIAGRAM
• CONCEPT DRAWING ONLY. CONTRACTOR TO VERIFY WIRING REQUIREMENTS WITH MANUFACTURER INSTALLATION INSTRUCTIONS
• PROVIDE ALL NECESSARY JUNCTION BOXES, TO SUIT INSTALLATION



4 OBSTRUCTION LIGHT WIRING DIAGRAM
• CONCEPT DRAWING ONLY. CONTRACTOR TO VERIFY WIRING REQUIREMENTS WITH MANUFACTURER INSTALLATION INSTRUCTIONS
• PROVIDE ALL NECESSARY JUNCTION BOXES AND MOUNTING BASE TO SUIT INSTALLATION
• OBSTRUCTION LIGHT LOCATED ON TOP OF STANDPIPE



6 EXISTING PLC PANEL
• NTS

NOTES:

- PANELBOARD NOTES:
 - BREAKER SIZES LISTED ARE PROVIDED AS A GENERAL GUIDE. PRIOR TO INSTALLATION, CONTRACTOR TO CONFIRM ALL BREAKER SIZES WITH FINAL EQUIPMENT LOADS.
 - CONTRACTOR TO REVIEW ALL CIRCUITS OF EXISTING POWER PANEL AND UPDATE PANELBOARD SCHEDULE AS PART OF AS BUILT CONDITIONS
 - CONTRACTOR TO UTILIZE TECK CABLE FOR ALL ELECTRICAL EQUIPMENT LOCATED WITHIN AND AT THE TOP OF THE STANDPIPE WATER TANK
- CONTRACTOR TO PROVIDE JUNCTION BOX, SIZED TO SUIT, TO ACCOMMODATE TRANSITIONING OF TECK CABLE FOR VOLTAGE DROP MITIGATION.
- COORDINATE SPECIFIC PLC I/O WITH CSI DURING INSTALLATION.
- EXISTING SCADAPACK32 PLC AND HMI (LOCATED IN PLC PANEL DOOR) TO BE REPLACED WITH ROCKWELL 5069 SERIES PLC AND A NEW HMI. EQUIPMENT REPLACEMENT TO BE COMPLETED, BY CSI, IN ADVANCE OF STANDPIPE REPLACEMENT PROJECT (NOT PART OF THIS CONTRACT). NEW PLC TO INCLUDE SPARE I/O TO ACCOMMODATE NEW I/O ASSOCIATED WITH STANDPIPE REPLACEMENT PROJECT. COORDINATE INSTALLATION OF NEW I/O WITH CSI (AS PART OF THIS CONTRACT).

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WINGHAM STANDPIPE REPLACEMENT
SINGLE LINE DIAGRAM AND MISCELLANEOUS WIRING DIAGRAMS

Drawn	Checked	Designed	Checked	Date	Revision No.	Drawn No.
NKS	GGR	DR	GGR	22/12/19	1	E2.1



- 1 PROPOSED WALL OPENING FOR TECK90 CABLE TO STANDPIPE
- CONTROL BUILDING NORTH WALL
- 3 MIXER CONTROL PANEL, SEE DETAIL E2.1
- 4 OBSTRUCTION LIGHT CONTROL PANEL, SEE DETAIL E2.1
- CONTROL BUILDING EAST WALL

3 CONTROL BUILDING INTERIOR – NORTH AND EAST WALL
• NTS



- 1 HYDRO METER, SEE DETAIL E2.1
- 1 PANELBOARD PP-A, SEE DETAIL E2.1

4 CONTROL BUILDING – SOUTH WALL
• NTS



- CORE DRILL HOLES THROUGH WALL, SEAL OPENINGS WATERTIGHT
- 6 TECK90 CABLE TO STANDPIPE, SEE DETAIL E2.1
- CHANNEL SUPPORT FOR SECURING TECK90 CABLE, TYP.
- PROVIDE CONDUIT CLAMPS, TYP.
- 1 DUCTBANK TO STANDPIPE, SEE DETAIL E1.3

1 CONTROL BUILDING – NORTH WALL
• NTS



- 6 PLC PANEL, SEE DETAIL E2.1
- 2 EXISTING PRESSURE INSTRUMENTS (STANDPIPE LEVEL)

2 CONTROL BUILDING – WEST WALL
• NTS



- NOTES:**
- 1 FINAL LOCATION TO BE CONFIRMED DURING CONSTRUCTION.
 - 2 CONTRACTOR TO RE-CALIBRATE PRESSURE INSTRUMENTS WITH INTEGRATOR FOR NEW STANDPIPE.
 - 3 CONTROL PANEL LOCATION TO BE CONFIRMED DURING CONSTRUCTION TO ENSURE 1m CLEARANCE IN FRONT OF PANEL. CONTRACTOR TO INCLUDE FOR MOUNTING OF CONTROL PANEL ANYWHERE WITHIN EXISTING CONTROL BUILDING. DIMENSIONS SHOWN ARE APPROXIMATE AND SHOWN FOR REPRESENTATION PURPOSES ONLY.
 - 4 ALL PENETRATIONS THROUGH BUILDING WALLS MUST BE COMPLETED IN ACCORDANCE WITH OWNERS ASBESTOS MANAGEMENT PLANS.

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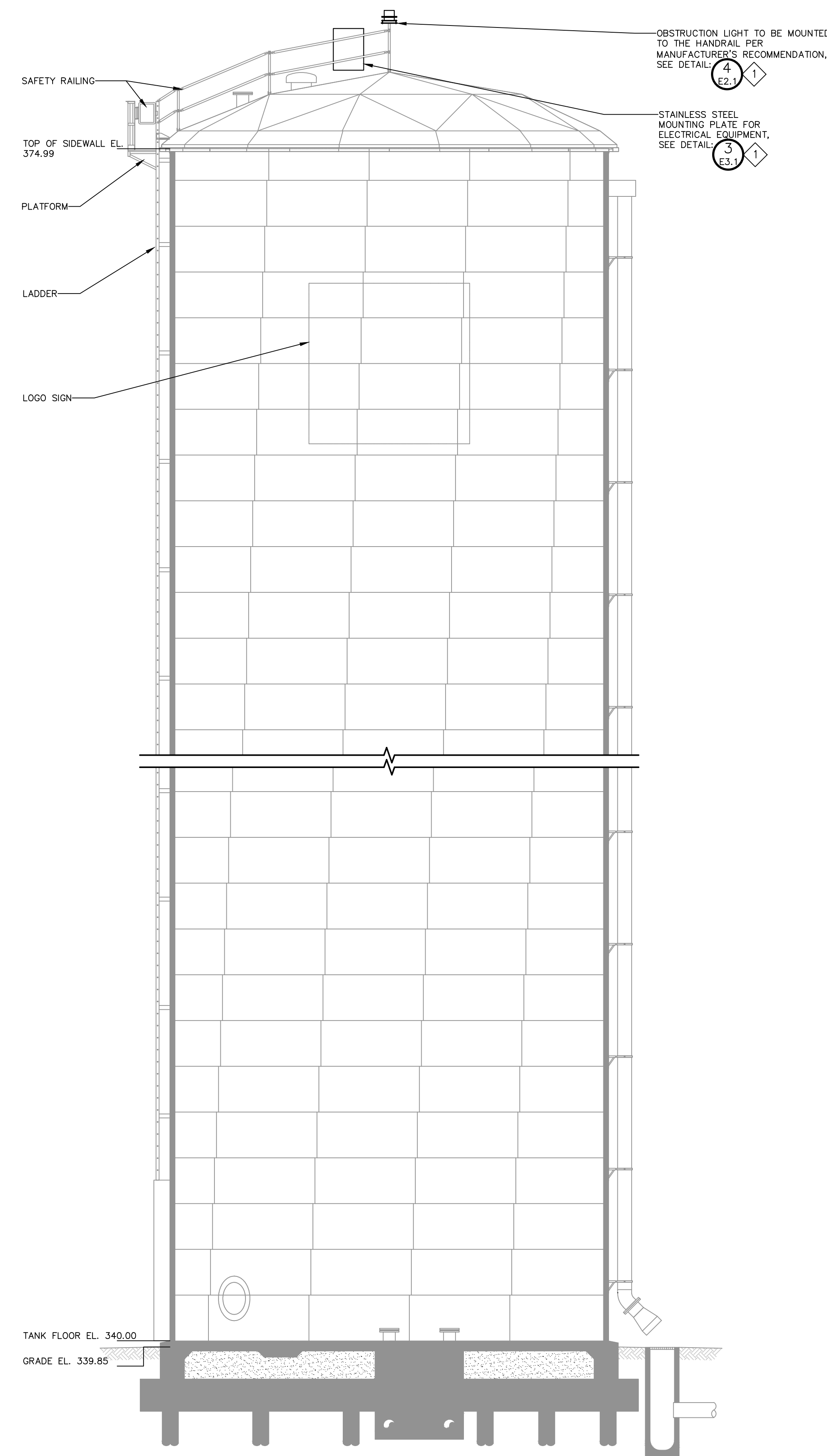


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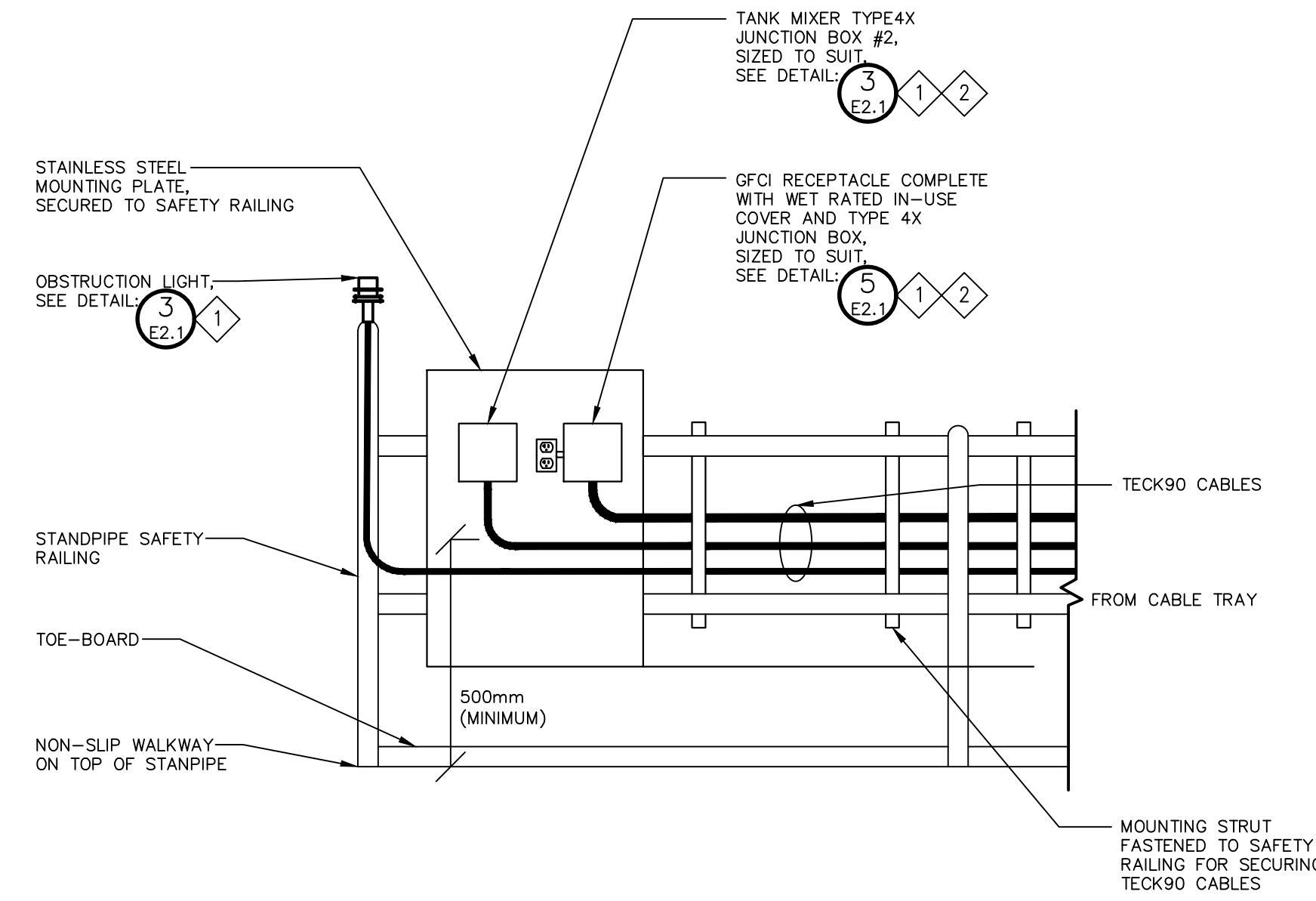
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Drawing Title		Drawing No.	
WINGHAM STANDPIPE REPLACEMENT		E2.2	
CONTROL BUILDING DETAILS			
Drawn NKS	Checked GGR	Designed DR	Checked GGR
Project No. 300053193		Revision No. 1	
Scale AS SHOWN		Date 22/12/19	

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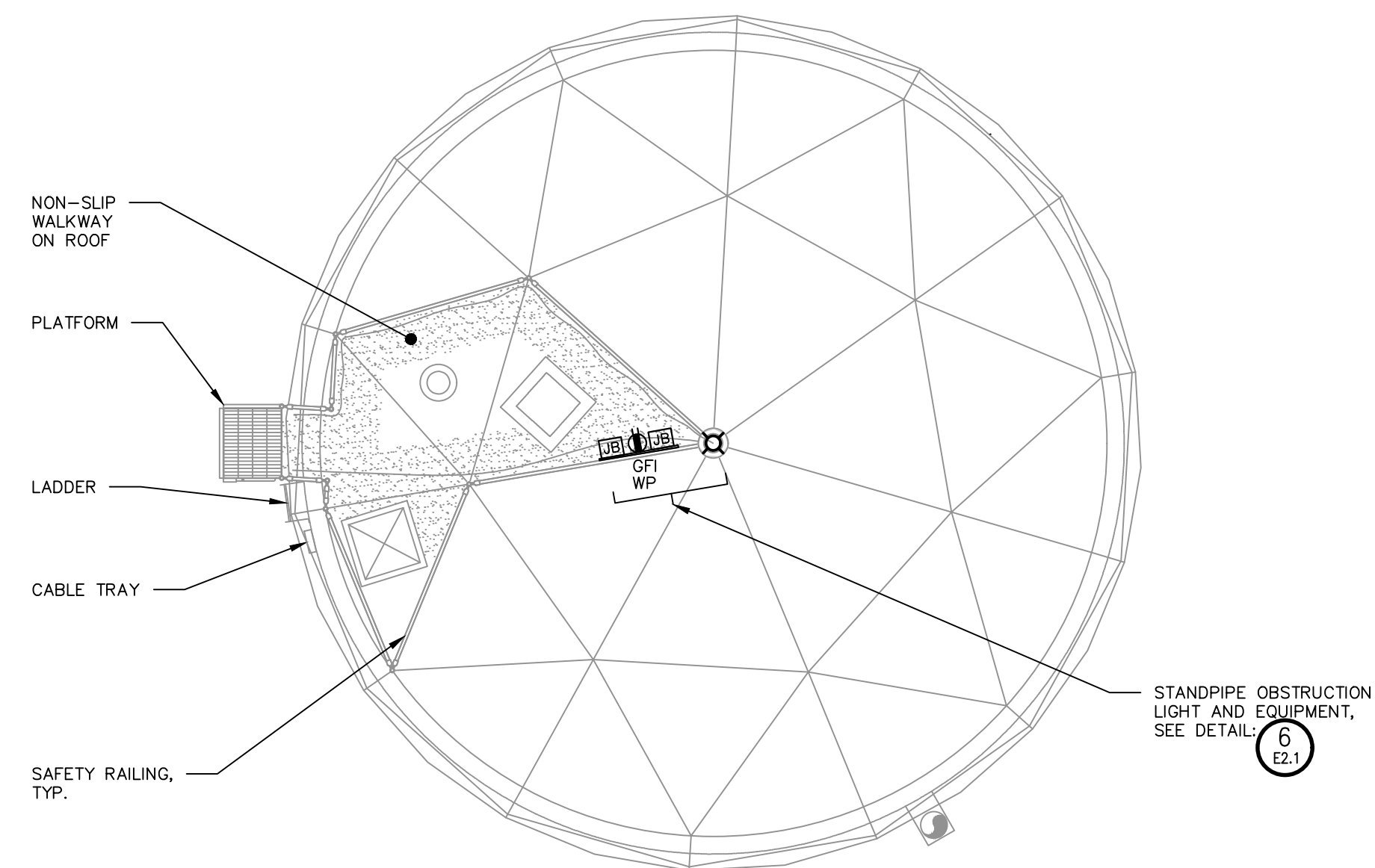


1 STANDPIPE SECTION VIEW
E3.1 • 1:75



3 JUNCTION BOX INSTALLATION AND OBSTRUCTION LIGHT INSTALLATION DETAIL
E3.1

- NTS, DIMENSIONS SHOWN IN MILLIMETRES (mm)
- DETAIL FOR DIAGRAMMATIC PURPOSES ONLY
- FINAL LOCATION OF EQUIPMENT TO BE CONFIRMED DURING CONSTRUCTION

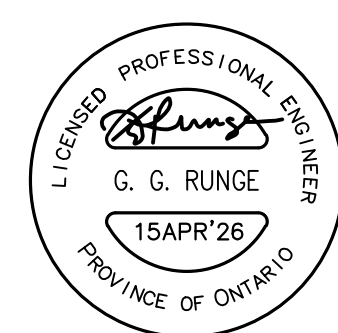


2 STANDPIPE - PLAN VIEW
E3.1 • 1:75

- NOTES:**
- FINAL LOCATION TO BE CONFIRMED DURING CONSTRUCTION
 - FOR EACH ELECTRICAL WIRE CONNECTION INSIDE A JUNCTION BOX, PROVIDE COMPRESSION CONNECTIONS COMPLETE WITH HEAT SHRINK AND WRAPPED WITH VULCANIZING ELECTRICAL TAPE.
 - CABLE TRAY LOCATED ADJACENT TO STANDPIPE LADDER, CABLE TRAY TO BE SUPPLIED AND INSTALLED BY STANDPIPE SUPPLIER, FOR USE BY ELECTRICAL CONTRACTOR. FINAL LOCATION TO BE CONFIRMED DURING CONSTRUCTION.

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Drawing Title
WINGHAM STANDPIPE REPLACEMENT

STANDPIPE DETAILS

Drawn	Checked	Designed	Checked	Date	Drawing No.
NKS	GGR	DR	GGR	22/12/19	
Project No.	Contract No.	Revision No.			
300053193	1	1			
Scale	AS SHOWN				

E3.1