

# 10 WATSON ROAD WAREHOUSE SITE DEVELOPMENT

## DRAWING

## TITLE

### GENERAL

SURVEY PLAN LOT 3 REGISTERED PLAN 130

### ARCHITECTURAL:

21081601_A100	PROJECT DATA
21081601_A200	3D VIEWS
21081601_A300	BUILDING SITE PLAN
21081601_A400	LEVEL 1 - FLOOR PLAN
21081601_A500	PROPOSED EXTERIOR ELEVATIONS 1
21081601_A501	PROPOSED EXTERIOR ELEVATIONS 2

### CIVIL:

21081601_C100	GENERAL NOTES
21081601_C101	OVERALL SITE PLAN
21081601_C200	SITE SERVICING PLAN
21081601_C300	SITE GRADING PLAN
21081601_C400	STORM DRAINAGE PLAN
21081601_C401	PRE DEVELOPMENT DRAINAGE PLAN
21081601_C402	POST DEVELOPMENT DRAINAGE PLAN
21081601_C500	SANITARY DRAINAGE PLAN
21081601_C600	EROSION & SEDIMENTATION PLAN
21081601_C700	STANDARD DETAILS 1
21081601_C701	STANDARD DETAILS 2
21081601_C702	STANDARD DETAILS 3



KEYPLAN

### COUNTY



CORPORATION OF  
THE COUNTY OF DUFFERIN  
W. & M. EDELBROCK CENTRE,  
30 CENTRE STREET, ORANGEVILLE,  
ON L9W 2X1

### TOWN



TOWN OF GRAND VALLEY  
5 MAIN ST. N.  
GRAND VALLEY, ONTARIO L9W 5S6

### OWNER

CEPE INTERNATIONAL (2222183 ONTARIO INC.)  
105 WHITWELL DRIVE  
BRAMPTON, ONTARIO L6P 1E3

### CONSULTING ENGINEER

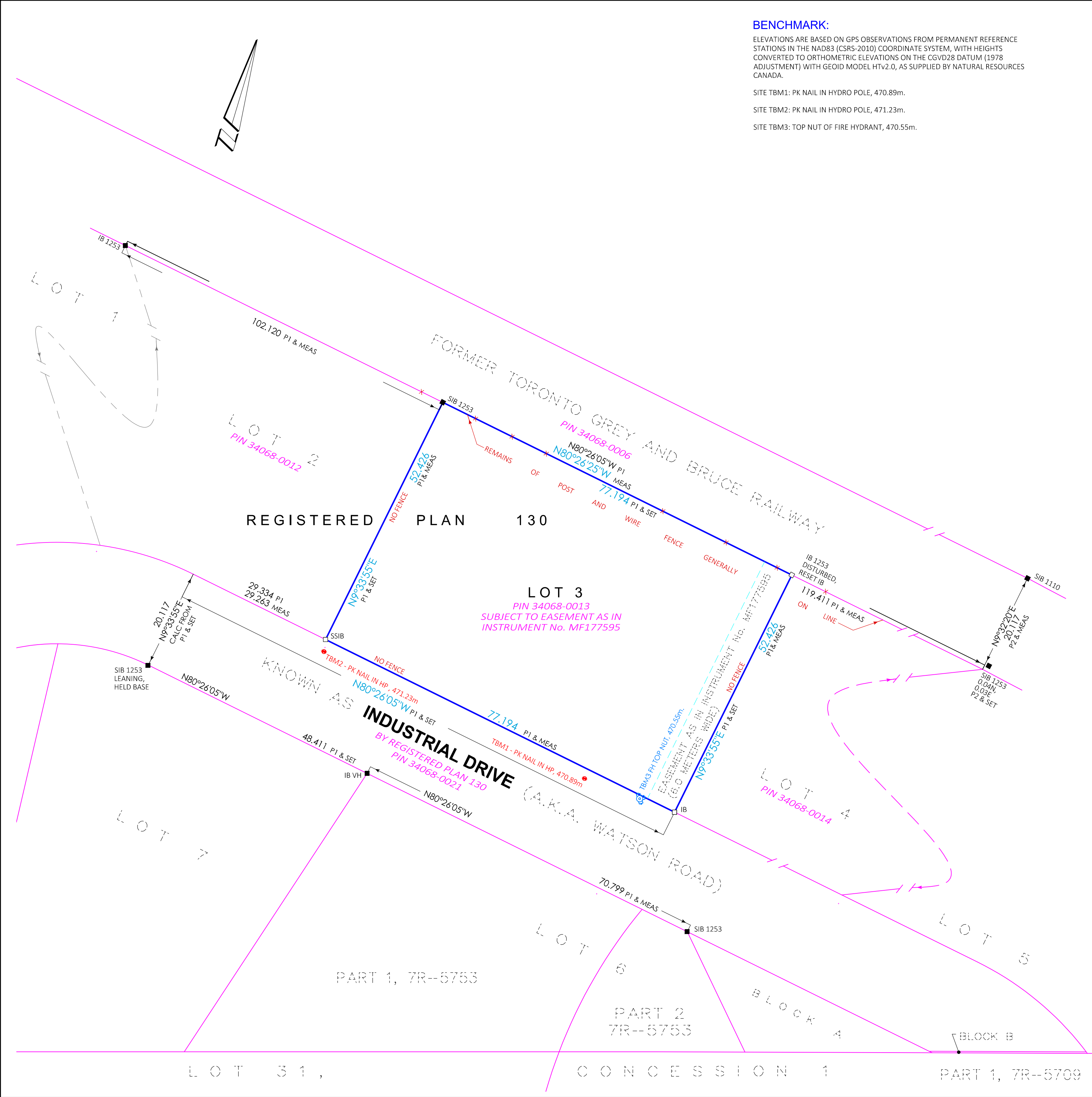


RA ENGINEERING INC.  
UNIT 210 - 18705 LESLIE ST.,  
NEWMARKET ONTARIO, L3Y9A4

DATE: 31 MAY 2022  
REVISION:0

ISSUED FOR SITE PLAN APPROVAL - 1<sup>ST</sup> SUBMISSION

PROJECT No.: 21081601  
1<sup>st</sup> Submission



**BENCHMARK:**

ELEVATIONS ARE BASED ON GPS OBSERVATIONS FROM PERMANENT REFERENCE STATIONS IN THE NAD83 (CSRS-2010) COORDINATE SYSTEM, WITH HEIGHTS CONVERTED TO ORTHOMETRIC ELEVATIONS ON THE CGVD28 DATUM (1978 ADJUSTMENT) WITH GEOID MODEL HTV2.0, AS SUPPLIED BY NATURAL RESOURCES CANADA.

SITE TBM1: PK NAIL IN HYDRO POLE, 470.89m.

SITE TBM2: PK NAIL IN HYDRO POLE, 471.23m.

SITE TBM3: TOP NUT OF FIRE HYDRANT, 470.55m.

**PART 2: SUMMARY REPORT**

**CLIENT:**  
THIS PLAN WAS PREPARED FOR RA ENGINEERING INC. AND THE UNDERSIGNED ACCEPTS NO RESPONSIBILITY FOR USE BY OTHER PARTIES.

**DESCRIPTION OF LAND:**  
ALL OF PIN 34068-0013 (LT)  
ALL OF LOT 3, REGISTERED PLAN 130  
TOWN OF GRAND VALLEY,  
COUNTY OF DUFFERIN  
AREA = 0.405 Ha.

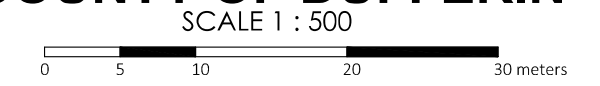
**REGISTERED EASEMENTS AND/OR RIGHTS-OF-WAY:**  
SUBJECT TO EASEMENT AS IN INSTRUMENT No. MF177595

**BOUNDARY FEATURES:**  
NONE

**COMPLIANCE WITH MUNICIPAL ZONING BY-LAWS:**  
NOT CERTIFIED BY THIS REPORT

**COMMENTS/REMARKS:**  
THE SUBJECT LANDS ARE VACANT.

**PART 1 SURVEYOR'S REAL PROPERTY REPORT  
PLAN OF SURVEY OF  
LOT 3  
REGISTERED PLAN 130  
(FORMERLY THE TOWNSHIP OF EAST LUTHER)  
THE TOWN OF GRAND VALLEY  
COUNTY OF DUFFERIN**



VAN HARTEN SURVEYING INC.  
THE INTENDED PLOT SIZE OF THIS PLAN IS 610 mm IN WIDTH BY 457 mm IN HEIGHT WHEN PLOTTED AT A SCALE OF 1:500

**LEGEND:**

- DENOTES SURVEY MONUMENT SET
- DENOTES SURVEY MONUMENT FOUND
- SIB DENOTES .025 X .025 X 1.20 STANDARD IRON BAR
- IB DENOTES .015 X .015 X 0.60 IRON BAR
- SSIB DENOTES .025 X .025 X 0.60 SHORT STANDARD IRON BAR
- RP DENOTES .015 DIA. X 0.07 ROUND IRON BAR WITH STAMPED WASHER
- PB DENOTES .025 X .025 X 0.30 PLASTIC BAR
- CC DENOTES CUT CROSS
- WIT DENOTES WITNESS
- OU DENOTES ORIGIN UNKNOWN
- VH DENOTES VAN HARTEN SURVEYING INC., O.L.S.'S
- P1 DENOTES REGISTERED PLAN 130
- P2 DENOTES PLAN 7R-5890
- 1253 DENOTES D.J. CULLEN, O.L.S.
- 1110 DENOTES R.D. TOMLINSON, O.L.S.

**NOTES:**

1. BEARINGS ARE GRID BEARINGS AND ARE DERIVED FROM GPS OBSERVATIONS AND ARE REFERRED TO THE UTM PROJECTION, ZONE 17. NAD 83-CSRS (2010) ADJUSTMENT.
2. DISTANCES SHOWN ON THE PLAN ARE ADJUSTED GROUND DISTANCES AND CAN BE CONVERTED TO UTM GRID DISTANCES BY MULTIPLYING BY AN AVERAGED COMBINED SCALE FACTOR OF 0.999571
3. THE ORIGINAL VERSION OF THIS PLAN WAS PREPARED IN COLOUR.

**BEARING COMPARISONS:**

FOR THE PURPOSES OF BEARING COMPARISONS, PREVIOUS SURVEYS HAVE BEEN ROTATED TO UTM BEARINGS BY THE ANGLES SHOWN BELOW.

PLAN	ROTATION FOR NORTHEAST BEARINGS
P1	-0°25'35"

**METRIC:**

DISTANCES ON THIS PLAN ARE MEASURED IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

**SURVEYOR'S CERTIFICATE**

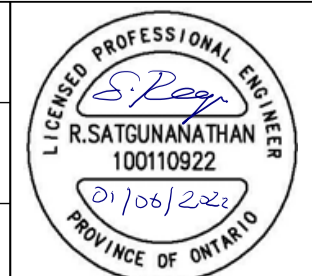
- I CERTIFY THAT:
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.
  2. THIS SURVEY WAS COMPLETED ON THE 6TH DAY OF DECEMBER 2021.

DATE: DECEMBER 23, 2021.

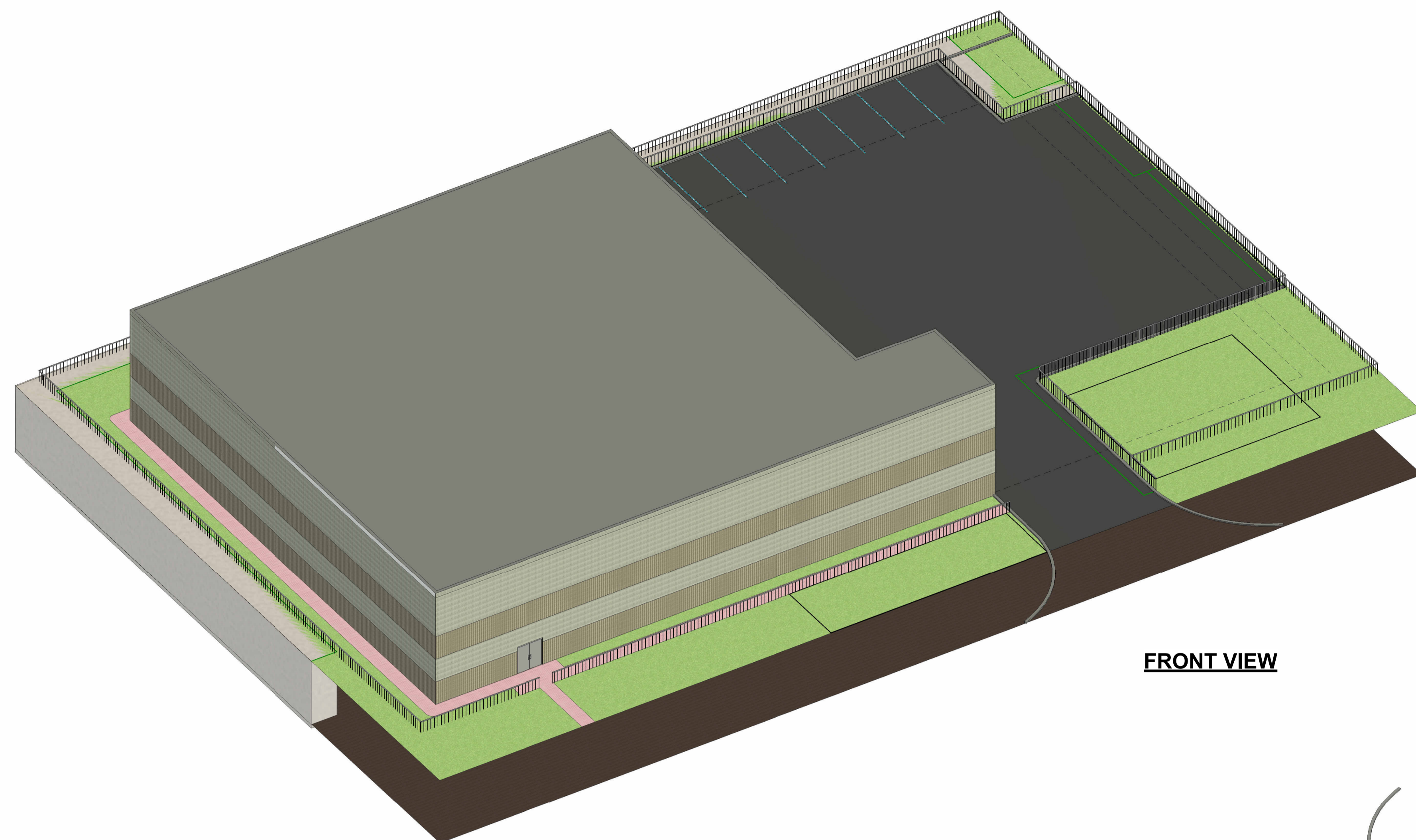
**MATT DE JAGER**  
ONTARIO LAND SURVEYOR

ASSOCIATION OF ONTARIO LAND SURVEYORS PLAN SUBMISSION FORM 2176806 			
	Kitchener/Waterloo Ph: 519-742-8371	Guelph Ph: 519-821-2763	Orangeville Ph: 519-940-4110
<a href="http://www.vanharten.com">www.vanharten.com</a> <a href="mailto:info@vanharten.com">info@vanharten.com</a>			
DRAWN BY: FCF CHECKED BY: MDJ PROJECT No. 30546-21	Dec 23, 2021-12:54:07 PM L:\East Luther\RP 130\ACAD\SRPR.LT3.RA-ENGINEER(30546-21) UTM 2010.dwg		
THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR In accordance with Regulation 1026, Section 29(3).	NO PERSON MAY COPY, REPRODUCE, DISTRIBUTE OR ALTER THIS PLAN IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF VAN HARTEN SURVEYING INC.		

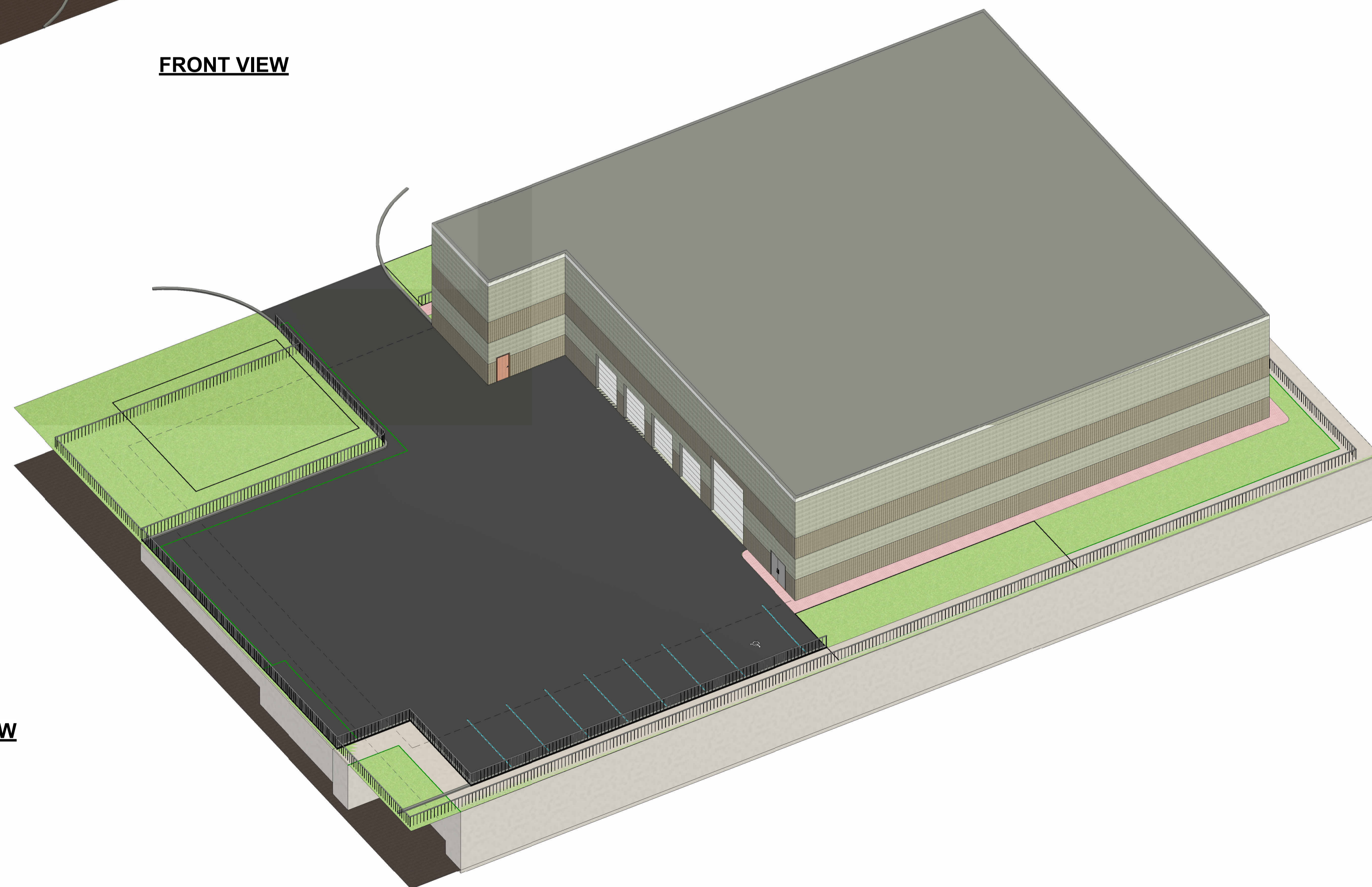
PROJECT DATA				
Item		Proposed	Zoning By-law	Zoning By-law Reference
A	Zoning Category: D - Employment and zoned Development	Employment (M1) Zone	Zoning By-law 2018 09-10	
B	Total Lot Area (m <sup>2</sup> )	0.405ha (1 Acre)	Min 0.25 ha (0.61acres)	Town of Grand Valley Zoning Bylaw 2018 09-10
C	BLDG Area (for OBC Calculation) (m <sup>2</sup> )	1440 (0.144ha)		Zoning By-law 2018 09-10
	Gross Floor Area (GFA) (m <sup>2</sup> )	1440		
	Warehouse/Production (Total)	1200		
	Office (Total)	194		
D	Lot Coverage (%)	0.144/0.405*100 =36%	Max of 50%	By-law 2018 09-10 4.9 "M1"
E	Standard Parking Spaces (Req'd/Provided)	7	33	
	Warehouse/Production Spaces - 1.25 Space/Employee		1 parking space + 1 space per 50m <sup>2</sup> of gross floor area	Zoning By-law 2018 09-10 3.15.7
	Office Spaces	8	1 parking space + 1 per 30m <sup>2</sup> of gross floor area	Zoning By-law 2018 09-10 3.15.7
	Accessible Parking Spaces (Req'd/Provided)	1 Type A	1 parking space if total is 12 or less	Ontario Integrated Accessibility Standards O.Reg 191/11 - 80.86
	Total Parking Spaces	8	33	
F	Parking Stall Dimensions	3 m (w) and 6 m (l)	3 m (w) and 6 m (l)	Zoning By-law 2018 09-10 3.15.1
	Accessible Parking Space Dimensions	1 Type A	3.4 m (w) and 6 m with 1.5 m (w) Access Isle	Zoning By-law 2018 09-10 3.15.1
G	Number of Loading Spaces	5	1 space with area between 2301 to 10000 m <sup>2</sup>	Zoning By-law 2018 09-10 3.8 Table 2
	Proposed BLDG	1440 m <sup>2</sup>		
	Drive-in	1		
	Dock-Level	4		
H	Impermeable Coverage Calculations			
	Proposed Building Area (m <sup>2</sup> )	1440		
	Landscaping Area (Hard) (m <sup>2</sup> )	239		
	Paved Area (Asphalt) (m <sup>2</sup> )	1300		
	Total (m <sup>2</sup> )	2979		
I	Permeable Coverage Calculations			
	Landscaping Pathway Areas Soft (m <sup>2</sup> )	N/A		
	Sodded and Planted Areas (m <sup>2</sup> )		10% minimum	
	Untouched Planted Area (m <sup>2</sup> )			
	Total (m <sup>2</sup> )			
J	Maximum BLDG Setbacks			
	Front Yard	7.5m	7.5m min	
	Rear Yard	7.5m	7.5m min	
	Side Yard - Interior		4.5m min	
	Side Yard - Exterior	4.5m	7.5m min	
	Frontage	77.16m	30m	
K	Maximum BLDG Height	9.1m	12m max	

No.	DATE	REVISIONS	BY	SCALE			RA ENGINEERING INC. A SOLUTION PROVIDER FOR INDUSTRIES & AGENCIES Unit 210 - 18075 Leslie St. Newmarket Ontario, L3Y 9A4 Tel: (905) 235-9105 Fax: (905) 235-9150 Email: info@raengineer.com Web: www.raengineer.com	DRAWN BY	10 WATSON ROAD WAREHOUSE FACILITY	DWG NO.
1	05.31.22	ISSUED FOR SPA APPROVAL	R.N.	N.T.S.						
				RAE FILE REFERENCE				DESIGNED BY	PROJECT DATA	CONTRACT NO.
				21081601				A.N./Y.R.		00000000
				DATE				CHECKED BY		SHEET NO.
				13.04.22				R.N.		A100

WAREHOUSE FACILITY FOR CEPE

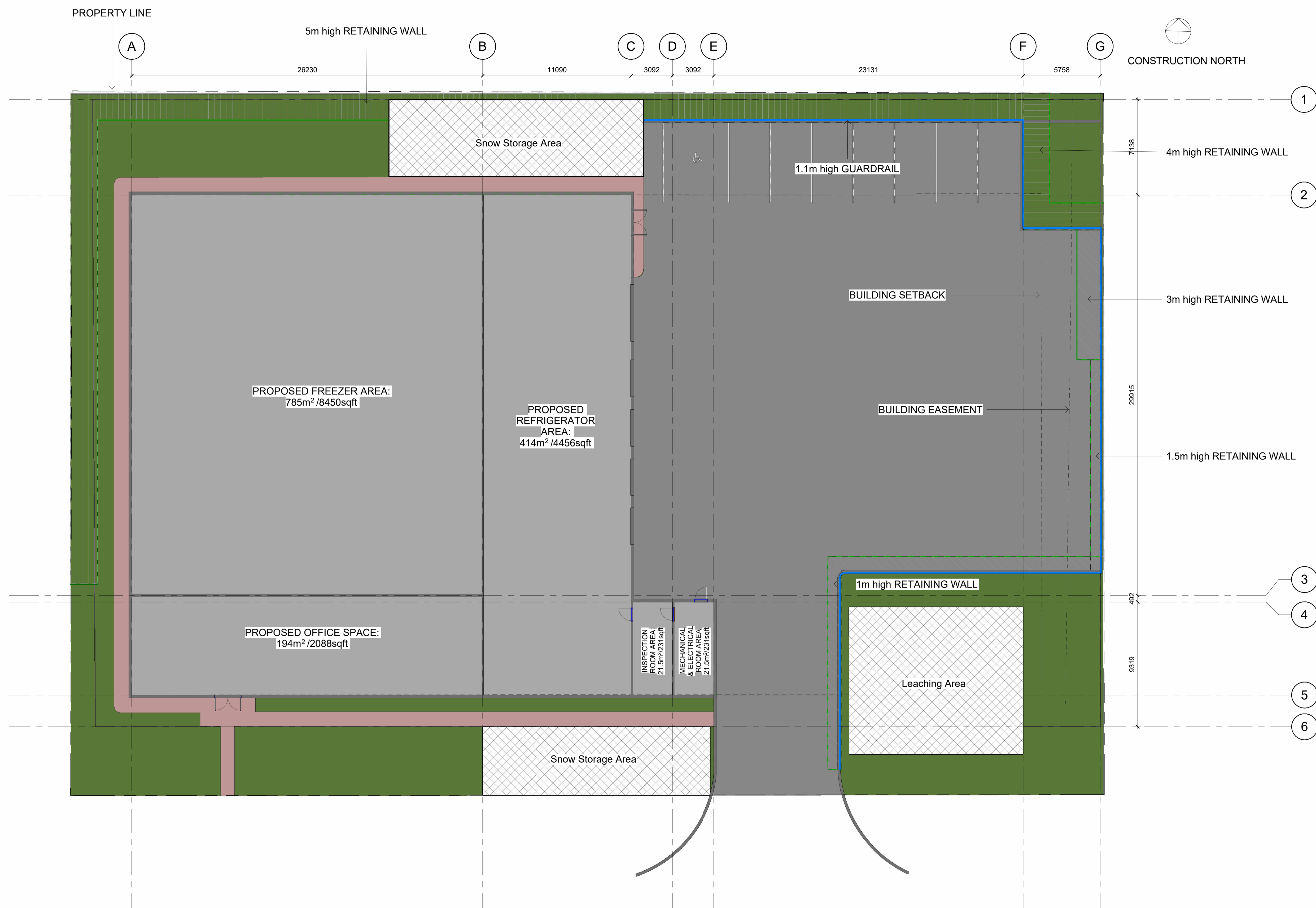


**FRONT VIEW**



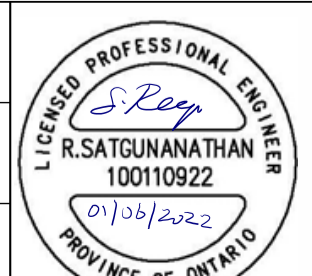
**REAR VIEW**

No.	DATE MM.DD.YY	REVISIONS	BY	SCALE			RA ENGINEERING INC. A SOLUTION PROVIDER FOR INDUSTRIES & AGENCIES Unit 210 - 18075 Leslie St. Newmarket Ontario, L3Y 9A4 Tel: (905) 235-9105 Fax: (905) 235-9150 Email: info@raengineer.com Web: www.raengineer.com	WAREHOUSE FACILITY FOR CEPE	DRAWN BY	10 WATSON ROAD WAREHOUSE FACILITY	DWG NO.
1	05.31.22	ISSUED FOR SPA APPROVAL	R.N.	1:200					CONTRACT NO.		
				RAE FILE REFERENCE					00000000		
				DATE					SHEET NO.		
				13.04.22		A200					
									DESIGNED BY		
									A.N./Y.R.	3D VIEWS	
									CHECKED BY		
									R.N.		



No.	DATE MM.DD.YY	REVISIONS	BY
1	05.31.22	ISSUED FOR SPA APPROVAL	R.N.

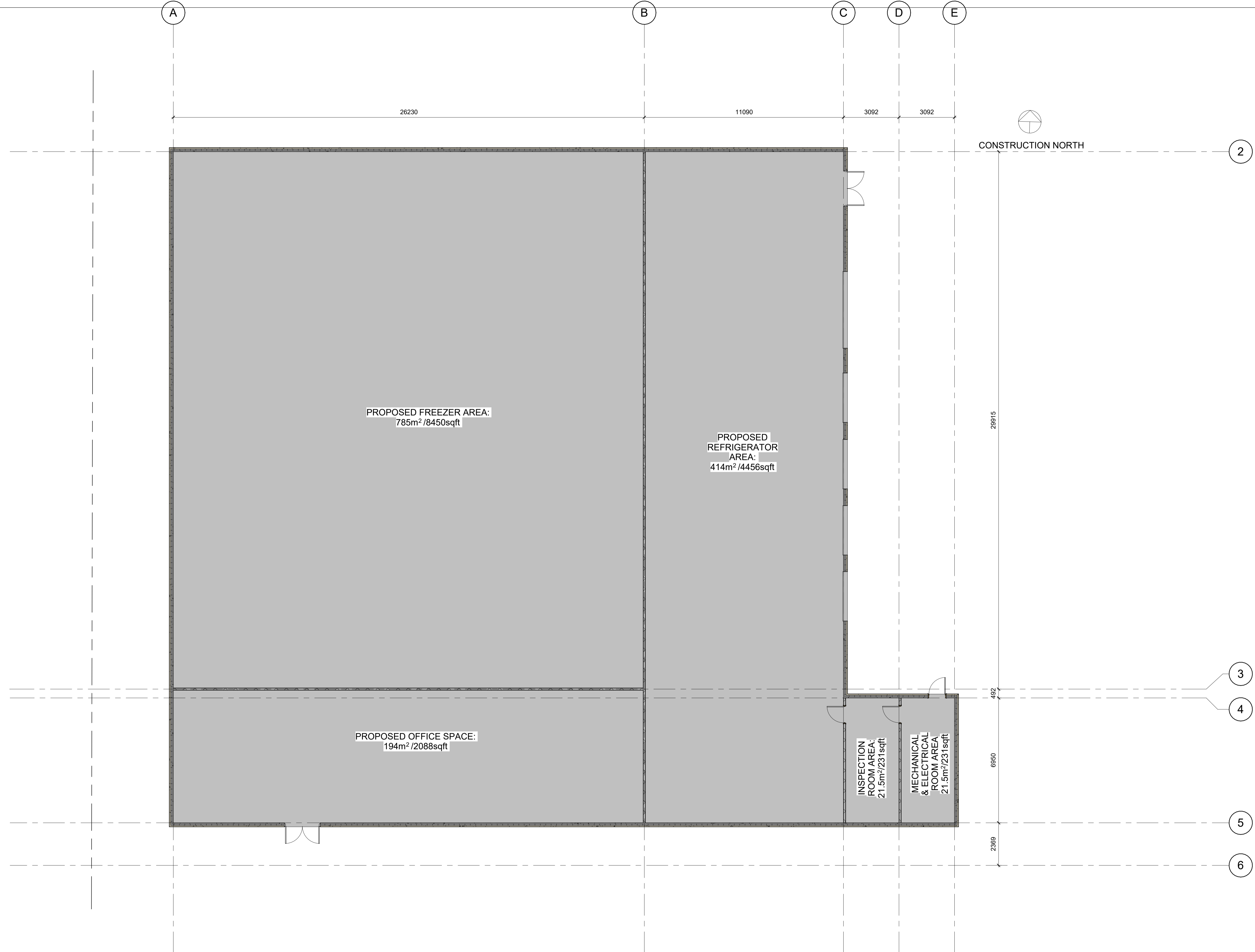
SCALE 1:150
RAE FILE REFERENCE 21081601
DATE 13.04.22



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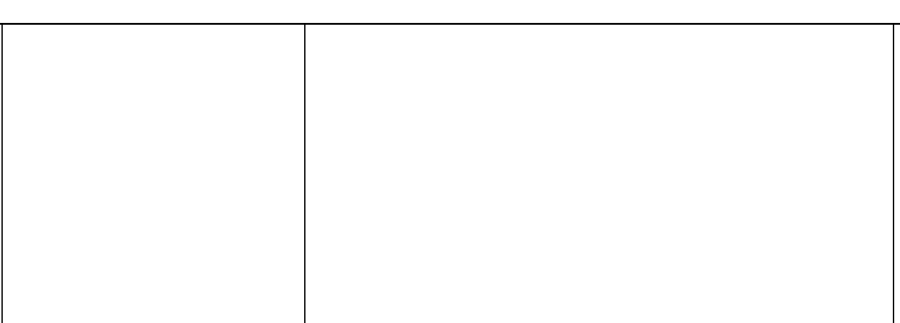
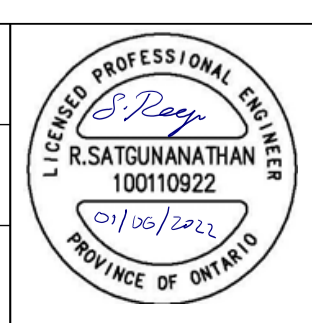
**WAREHOUSE FACILITY FOR CEPE**

DRAWN BY A.N.	<b>10 WATSON ROAD WAREHOUSE FACILITY</b>	DWG NO. 21081601-A300
DESIGNED BY A.N./Y.R.		CONTRACT NO. 00000000
CHECKED BY R.N.		SHEET NO. A300
<b>SITE PLAN</b>		



No.	DATE MM.DD.YY	REVISIONS	BY
1	05.31.22	ISSUED FOR SPA APPROVAL	R.N.

SCALE 1:100
RAE FILE REFERENCE 21081601
DATE 13.04.22



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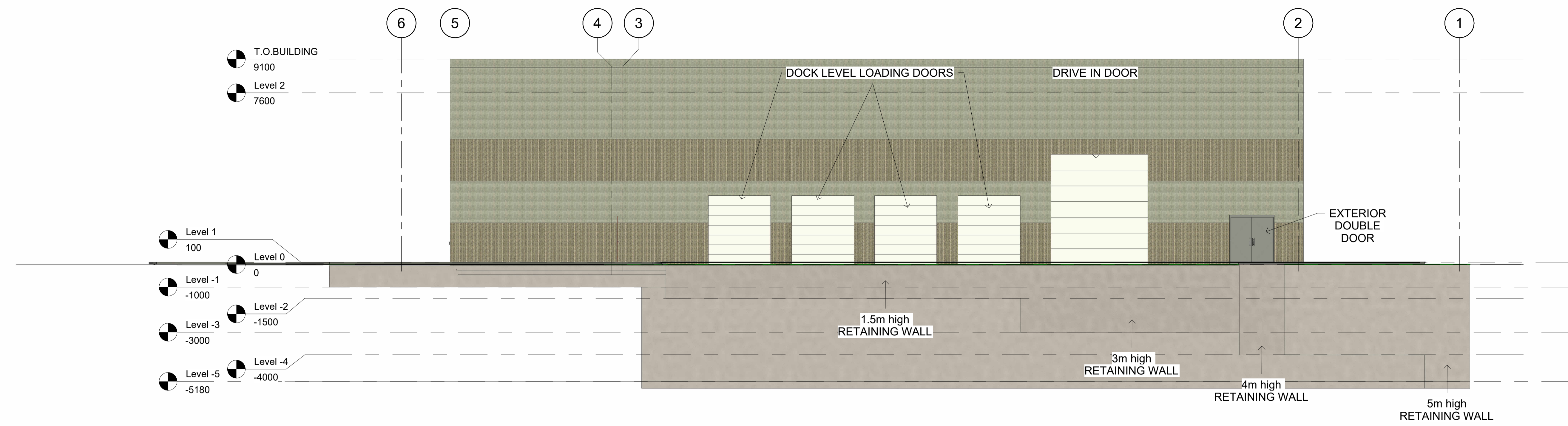
**WAREHOUSE FACILITY FOR CEPE**

DRAWN BY A.N.
DESIGNED BY A.N./Y.R.
CHECKED BY R.N.

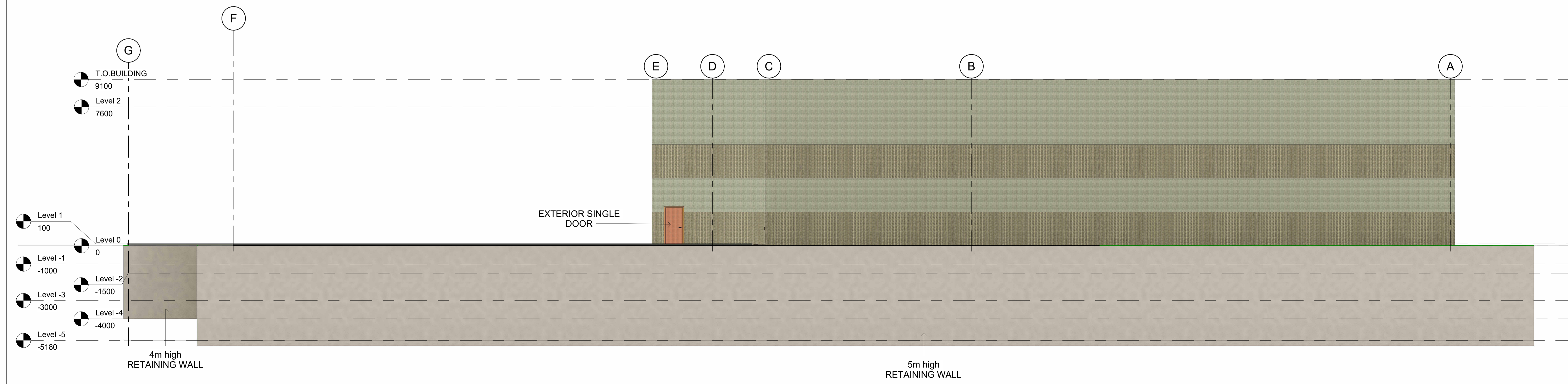
**10 WATSON ROAD  
 WAREHOUSE FACILITY**

**LEVEL 1 - FLOOR PLAN**

DWG NO. 21081601-A400
CONTRACT NO. 00000000
SHEET NO. A400



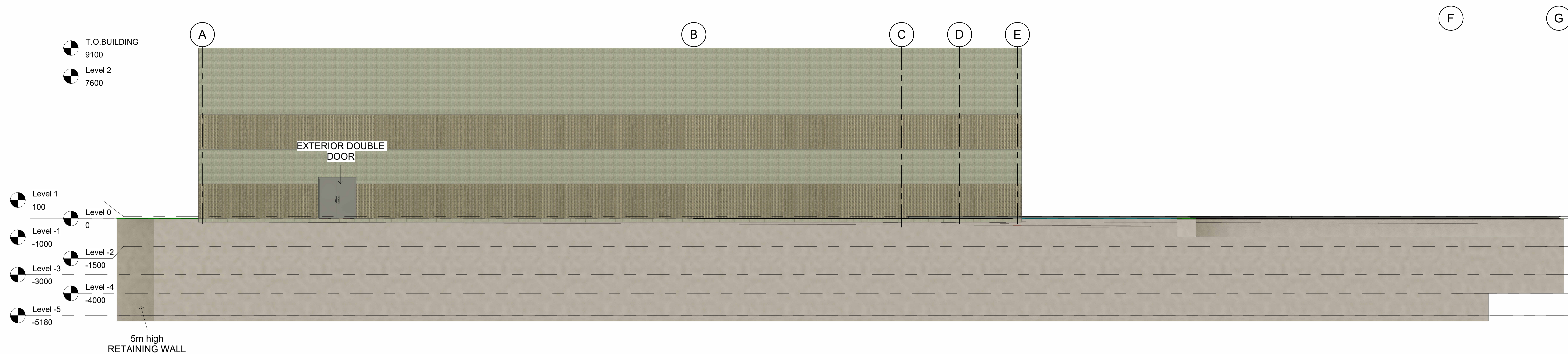
1 East  
1:100



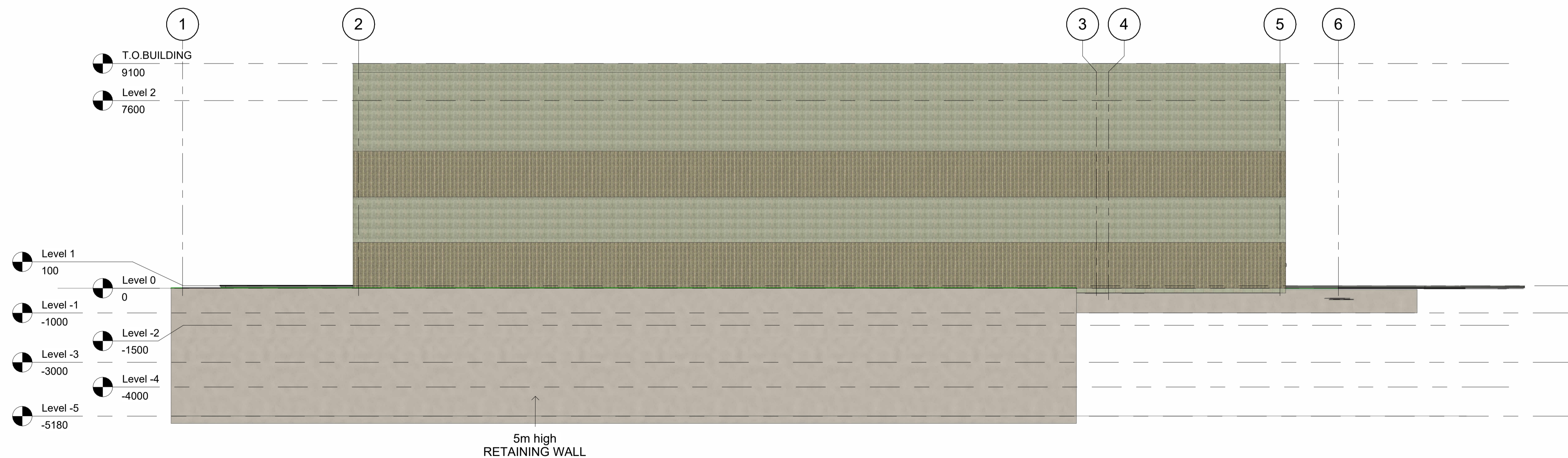
2 North  
1:100

No.	DATE MM.DD.YY	REVISIONS	BY	SCALE			<b>WAREHOUSE FACILITY FOR CEPE</b>	DRAWN BY A.N. DESIGNED BY A.N./Y.R. CHECKED BY R.N.	10 WATSON ROAD WAREHOUSE FACILITY  PROPOSED EXTERIOR ELEVATIONS 1	DWG NO. 21081601-A500 CONTRACT NO. 00000000 SHEET NO. A500
1	05.31.22	ISSUED FOR SPA APPROVAL	R.N.	1:100						
				RAE FILE REFERENCE 21081601						
				DATE 13.04.22						


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**1 South**  
1 : 100



**2 West**  
1 : 100

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1	05.31.22	ISSUED FOR SPA APPROVAL	R.N.	1:100				A.N.	21081601-A501	
				RAE FILE REFERENCE 21081601	A.N./Y.R.	CONTRACT NO. 00000000				
				DATE 13.04.22	R.N.	SHEET NO. A501				



**CONSTRUCTION NOTES**

**GENERAL**

- ALL WORK TO CONFORM WITH MINISTRY OF ENVIRONMENT & GRCA, TOWN OF GRAND VALLEY, AND ONTARIO PROVINCIAL STANDARDS SPECIFICATIONS WHERE CONFLICT OCCURS, TOWN STANDARDS TO GOVERN.
- 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.
- THE LOCATION OF ALL UNDERGROUND AND ABOVEGROUND UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE LOCATION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.
- ALL DIMENSIONS AND ELEVATIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR 72 HOURS PRIOR TO ANY CONSTRUCTION AND HE SHALL REPORT ANY DISCREPANCIES TO THE CONSULTANT IMMEDIATELY. DETAILS ARE NOT TO BE SCALED FROM THE DRAWINGS. ALL DIMENSIONS ARE SHOWN IN S.I. UNITS UNLESS OTHERWISE NOTED.
- FOR ALL CONSTRUCTION DETAILS NOT SHOWN ON PLANS, REFERENCE SHALL BE MADE TO THE ONTARIO PROVINCIAL STANDARD DRAWINGS.
- ALL TEMPORARY TRAFFIC CONTROL AND SIGNAGE DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT ONTARIO TRAFFIC MANUAL BOOK 7, TEMPORARY CONDITIONS FIELD EDITION.
- ALL CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE FROM THE APPROVED TEMPORARY CONSTRUCTION ACCESS. UNDER NO CIRCUMSTANCES ARE CONSTRUCTION SUPPLIERS, BUILDERS OR TRADE VEHICLES TO ACCESS THE SITE THROUGH OTHER STREETS. THE CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION ACCESS SIGNS FOR DIRECTING CONTRACTORS AND BUILDING TRAFFIC.
- THE CONTRACTOR SHALL RECTIFY ALL EXISTING DISTURBED AREAS TO THE ORIGINAL CONDITION OR BETTER AND TO THE SATISFACTION OF THE GRAND VALLEY ENGINEERING DEPARTMENT.
- FENCING, AS THE TOWN MAY DIRECT BE INSTALLED, SHALL BE BLACK, VINYL COATED, CHAIN LINK FENCE, WITH A 1.8 METRE CONSTRUCTED HEIGHT, CONFORMING TO THE APPLICABLE OPS SPECIFICATION.
- EROSION AND SEDIMENT CONTROL MEASURES TO BE IN PLACE PRIOR TO START OF ANY CONSTRUCTION, AND MUST BE MAINTAINED AT ALL TIMES, IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

**SANITARY AND STORM SEWERS**

- SANITARY SEWER: (MAIN LINE SEWER) PVC TO CONFORM TO ASTM D3034, F679 - DR 35, CSA B182.2 CERTIFIED OR LATER VERSION, GRANULAR "A" BEDDING AND COVER IN ACCORDANCE WITH OPSD 802.010.
- STORM SEWER: (MAIN LINE SEWER) PVC (CSA B182.4 - CLASS 320) OR PE (CSA - B182.6) OR LATEST VERSION MAY BE USED FOR SEWER PIPES 600MM DIAMETER AND SMALLER, UNLESS OTHERWISE NOTED. GRANULAR "A" BEDDING AND COVER IN ACCORDANCE WITH OPSD 802.10. REINFORCED CONCRETE PIPE 675MM AND LARGER TO CONFORM TO CSA A257.2 (MINIMUM CLASS 65-D), UNLESS OTHERWISE SPECIFIED.
- NON-REINFORCED CONCRETE PIPE 300MM AND SMALLER TO CONFORM TO CSA A257.1-CLASS 3. BEDDING SHALL BE GRANULAR "A" IN ACCORDANCE WITH OPSD 802.030 CLASS 'B'.
- MAINTENANCE HOLES SHALL CONFORM TO OPSD 701.010 UNLESS NOTED OTHERWISE.
- MAINTENANCE FRAMES AND GRATES TO CONFORM TO OPSD 401.030.
- SEWERS TO HAVE PREFABRICATED "T" CONNECTION.
- ALL MH & CB FRAMES AND COVERS TO BE SET TO BASE COURSE ASPHALT ELEVATION AND RAISED IN ACCORDANCE WITH TOWN OF GRAND VALLEY AND OPSS SPECIFICATIONS PRIOR TO TOP ASPHALT.
- SANITARY SERVICES SHALL BE 150MM MINIMUM P.V.C. (CSA B182.2 CERTIFIED, CONFORM TO ASTM D3034, F679-DR28) OR LATEST VERSION, AND LAID AT A MINIMUM SLOPE OF 2%, AND SHALL BE GREEN IN COLOUR.

(FOR DUPLEX RESIDENTIAL HOUSES)

- CATCH BASINS SHALL CONFORM TO OPSD 705.010 (SINGLE) AND OPSD 705.020 (DOUBLE), FRAMES AND GRATES TO CONFORM TO OPSD 400.010.
- DITCH INLETS CATCH BASINS SHALL CONFORM TO OPSD 705.030 AND 705.040.
- ALL CATCH BASIN FRAMES AND GRATES TO BE SET SQUARELY ON THE STRUCTURE WITH NO OVERHAND INTO THE ROADWAY OR BOULEVARD.
- CATCH BASIN LEADS TO BE 250MM FOR SINGLE CATCH BASINS AND 300MM FOR DOUBLE CATCH BASINS UNLESS OTHERWISE NOTED AND APPROVED BY THE TOWN OF GRAND VALLEY.
- CATCH BASIN LEADS MAY BE CONCRETE CSA A257.1 - CLASS 3, EXTRA STRENGTH OR PVC DR 35 MATERIAL.
- SANITARY SEWERS THAT DO NOT HAVE SERVICES CONNECTED TO THEM SHALL BE INSTALLED WITH A MINIMUM 2.0 METERS OF COVER.

**WATER DISTRIBUTION SYSTEM**

- FOR PIPE SIZES 100MM TO 300MMØ WATERMAIN SHALL BE PVC CLASS 150 DR 18 AND CONFORM TO AWWA C900-07 AND CSA B137-1-09 WITH BELL AND SPIGOT JOINTS
- A 12 GAUGE, 7 STRAND COPPER TRACER WIRE, WITH AN OUTER PLASTIC COATING, SHALL BE ATTACHED TO EVERY NON-METALLIC WATERMAIN, HYDRANT LEAD AND SERVICE CONNECTION.
- BACKFILL AND EMBEDMENT SHALL BE AS PER OPSD 802.010 WITH GRANULAR "A". BACKFILL TO BE SELECT NATIVE MATERIAL AS APPROVED BY THE GEOTECHNICAL CONSULTANT.
- MINIMUM COVER ON WATERMAIN AND SERVICES SHALL BE 1.8M.
- ALL NEW WATERMANS SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE TO TOWN SPECIFICATIONS AND PROVINCIAL GUIDELINES. THE SYSTEM SHALL BE CONSTRUCTED AND TESTED AS PER OPSS 701.
- OPERATION OF IN-SERVICE FIRE HYDRANTS AND VALVES ARE TO BE OPERATED BY THE TOWN OF GRAND VALLEY LICENSED WATER WORKS STAFF.
- ALL HYDRANTS SHALL BE MUELLER CANADA CENTURY HYDRANTS, COMPRESSION TYPE WITH 2 - 65MM THREADED OUTLETS AND 1 0-1MM PUMPER NOZZLE WITH A STARZ CONNECTION THAT IS COMPATIBLE WITH THE TOWNS EQUIPMENT. HYDRANT SHALL BE SELF-DRAINING, COUNTER CLOCKWISE OPENING, AND PAINTED RED. CONNECTION SHALL FACE THE ROADWAY.
- ALL FITTINGS, VALVES AND HYDRANT LEADS SHALL HAVE STAINLESS STEEL MECHANICAL RESTRAINTS AND ALL T-BOLTS TO BE STAINLESS STEEL. CONCRETE THRUST BLOCKING AS SOIL CONDITIONS DICTATE
- WATER SERVICE CONNECTIONS SHALL BE 100MM MINIMUM P.V.C. (CSA B182.2 CERTIFIED, CONFORM TO ASTM D3034, F679-DR28) OR LATEST VERSION, AND LAID AT A MINIMUM SLOPE OF 2%, AND SHALL BE GREEN IN COLOUR.
- WATERMANS MUST FOLLOW THE MINISTRY OF THE ENVIRONMENT PROCEDURES THAT GOVERN THE SEPARATION OF SEWERS AND WATERMANS P. 8-1. A MINIMUM VERTICAL CLEARANCE OF 0.5M IS REQUIRED BETWEEN PIPES, AT THE SOLE DISCRETION OF THE DIRECTOR OF PUBLIC WORKS THAT REQUIREMENT MAY BE WAIVED IN LIEU OF OTHER MITIGATING MEASURES AS DIRECTED.
- ALL VALVES LESS THAN 250MM Ø SHALL BE IN A VALVE BOX. ALL VALVES 300MM AND LARGER SHALL BE IN A CHAMBER. VALVES SHALL BE "CANADA VALVE DARLING", OR APPROVED EQUIVALENT AND SHALL INCLUDE RESILIENT SEAR GATES, COUNTER CLOCKWISE OPENING, TO AWWA C 569-09, WITH MECHANICAL JOINT END CONFIGURATIONS.
- CATHODIC PROTECTION SHALL INCLUDE THE FOLLOWING: SACRIFICIAL NUTS AND WASHERS ON ALL WATERMAIN FITTINGS, STAINLESS STEEL ROD AND COTTER PIN TO BE USED ON CURB STOP, AND PROTECTO CAPS/NUTS ON ALL BOLTS, MECHANICAL JOINTS AND FITTINGS.
- HYDRANT MARKERS SHALL BE "OWL LITE" MODEL H804Y OR EQUIVALENT.
- CORPORATION STOPS SHALL BE BALL TYPE, WITH AWWA THREAD ON THE INLET SIDE AND COPPER TUBE SIZE COMPRESSION FITTING END ON THE OUTLET SIDE.
- CURB STOPS SHALL BE BALL TYPE WITH A COPPER TUBE SIZE COMPRESSION FITTING ON BOTH ENDS.
- CURB BOXES SHALL BE THE SLIDING TYPE. IRON CURB BOXES. THE OPERATING ROD AND PIN SHALL BE STAINLESS STEEL.
- SERVICES THAT ARE 50MM Ø AND LESS SHALL BE CONNECTED TO THE WATERMAIN USING STAINLESS STEEL, DOUBLE BOLT, SERVICE SADDLES.

**ROADS, SIDEWALKS AND WALKWAYS**

- NO ALTERATIONS TO EXISTING BOUNDARY ELEVATIONS OR ADJACENT LANDS SHALL BE UNDERTAKEN UNLESS WRITTEN AGREEMENT WITH THE ADJACENT PROPERTY OWNER IS OBTAINED AND SUBMITTED IN A FORMAT ACCEPTABLE TO THE TOWN.
- ALL BOULEVARDS AND REINSTATEMENT OF DISTURBED AREAS TO INCLUDE FINE GRADING, 150MM MINIMUM TOPSOIL AND SOD TO OPSS 570 AND 571.
- ALL BEDDING AND BACKFILL MATERIAL, ROAD SUBGRADE, BOULEVARD AND GENERALLY ALL FILL MATERIAL USED FOR LOT GRADING, ETC. SHALL BE COMPACTED AS PER RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER. ALL MATERIAL SHALL BE PLACED IN LAYERS NOT EXCEEDING 300MM LIFTS.
- SUBGRADE TO BE PROOF ROLLED AND CERTIFIED BY THE SOILS CONSULTANT PRIOR TO THE PLACING OF ANY GRANULAR ROAD BASE MATERIALS.
- ALL GRANULAR AND ASPHALT MATERIALS AND PLACEMENT TO BE IN ACCORDANCE WITH OPSS 314, 1010, AND 310 OR OTHERWISE SPECIFIED.
- GRANULAR "B" TO BE IN ACCORDANCE WITH TOWN MODIFIED GRANULAR "B" SPECIFICATIONS AS FOLLOWS:

- CONCRETE SIDEWALK SHALL BE AS PER TOWN STANDARD, OPSD 310.010 AND OPSS 351. SIDEWALK SHALL BE MINIMUM THICKNESS OF 125MM. THE THICKNESS SHALL BE INCREASED TO 175MM WHERE SIDEWALK CROSSES A DRIVEWAY. 28 DAY COMPRESSIVE STRENGTH OF SIDEWALK CONCRETE SHALL BE 30 MPA, WITH MINIMUM 150MM GRANULAR "A" BASE.
  - SIDEWALK RAMPS ARE REQUIRED AT ALL INTERSECTIONS AS PER OPSD 310.033.
  - CONCRETE CURB AND GUTTER TO BE AS PER OPSD 600.040 OR AS PER TOWN STANDARD FOR TWO STAGE CONSTRUCTION.
  - SUBDRAINS TO BE 150MM Ø PERFORATED HIGH DENSITY POLYETHYLENE PIPE AND SHALL BE PLACED CONTINUOUSLY ALONG THE FULL LENGTH OF A CURB.
  - INTERSECTION CURB RETURN RADIUS TO BE 10.0M UNLESS NOTED OTHERWISE ON THE DRAWINGS.
  - WHERE THE SIDEWALK CROSSES A DRIVEWAY, THE BOULEVARD BETWEEN THE CURB AND THE SIDEWALK SHALL BE PAVED WITH A MINIMUM 50 MM LIFT OF ASPHALT ON A MINIMUM 300 MM GRANULAR A BASE. AT DRIVEWAYS, WHERE THERE IS SIDEWALK ON ONE SIDE OF THE STREET ONLY, THE BOULEVARD BETWEEN THE CURB AND THE PROPERTY LINE SHALL BE PAVED WITH A MINIMUM 50 MM LIFT OF ASPHALT ON A MINIMUM 300 MM GRANULAR A BASE.
- THE ROAD STRUCTURE SHALL CONSIST OF GRANULAR B, GRANULAR A, BASE COURSE ASPHALT AND SURFACE COURSE ASPHALT. THE MINIMUM DEPTH OF EACH MATERIAL THAT IS TO BE USED SHALL BE AS SET OUT IN THE FOLLOWING TABLE. THE GEOTECHNICAL CONSULTANT MAY RECOMMEND ADDITIONAL DEPTHS OF SOME OR ALL OF THE MATERIALS BASED ON THE SITE SPECIFIC SOIL CONDITIONS THAT ARE ENCOUNTERED.

MATERIAL	MINIMUM DEPTH (mm)	
	LOCAL STREETS	COLLECTOR ROADS
Granular B	450	600
Granular A	150	150
Base Asphalt (HL 8)	50	60
Surface Asphalt (HL 3)	40	50

**GRADING NOTES**

- DRIVEWAY GRADES TO BE A MINIMUM OF 2% AND A MAXIMUM OF 6%.
- SWALE GRADES SHALL BE A MINIMUM OF 2% AND SHALL BE DESIGNED USING A GENTLE "U" SHAPE CROSS-SECTION.
- THE SLOPE ON THE MUNICIPAL BOULEVARD BETWEEN THE STREET LINE AND THE CURB SHALL RANGE FROM 2% TO 4%.
- FRONT YARDS SHALL BE GRADED SO THEY DRAIN TO THE STREET.
- THE SLOPE FROM THE FINISHED GRADE AT THE HOUSE TO THE BOTTOM OF THE SIDE YARD SWALE SHALL BE 2% MINIMUM, OR THE ELEVATION OF THE SIDE YARD SWALE SHALL 150 MM LOWER THAN THE FINISHED GRADE AT THE HOUSE, WHICHEVER IS GREATER.
- REAR YARD CATCH BASINS ARE TO BE LOCATED ENTIRELY ON ONE LOT AND SHALL BE LOCATED 1.0 METRE FROM THE LOT LINE(S), AS MEASURED TO THE OUTSIDE EDGE OF THE CATCH BASIN.
- DRAINAGE SWALES SHALL NOT DISCHARGE ONTO THE TOWN ROAD ALLOWANCE IN SUCH A WAY THAT WATER CAN RUN ACROSS A SIDEWALK AND CREATE AN ICING PROBLEM. IF NECESSARY, CATCH BASINS SHALL BE INSTALLED BEHIND THE SIDEWALK TO CAPTURE THE DRAINAGE BEFORE IT CROSSES THE SIDEWALK.

**EROSION AND SEDIMENT CONTROL NOTES**

**1.0 GENERAL**

- ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT TOWN OF GRAND VALLEY, COUNTY OF DUFFERIN AND ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS.
- 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.
- THE LOCATION OF ALL UNDERGROUND AND ABOVEGROUND UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE LOCATION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.
- ALL CONSTRUCTION EQUIPMENT TO USE MAIN ACCESS POINT, LOCATED AT MAIN ENTRANCE, AS INDICATED WITHIN THIS DRAWINGS SET.
- MUD MAT AND CULVERTS TO BE CONSTRUCTED AT LOCATION SHOWN AND PER MUD MAT DETAIL.
- NO MAINTENANCE OR REPAIR WORK ON CONSTRUCTION EQUIPMENT IS ALLOWED WITHIN 30m OF AN EXISTING WATER COURSE OR DITCH.
- ALL SEDIMENT AND EROSION CONTROL FACILITIES AND WORKS ARE TO BE CONSTRUCTED AND IN PLACE TO THE APPROVAL OF THE SITE ENGINEER PRIOR TO ANY GRADING OPERATIONS COMMENCING. TYPICAL WORKS INCLUDE SILT FENCES, CONSTRUCTION ACCESS MUD MAT AND ROCK CHECK DAMS.
- CONTRACTOR TO STABILIZE THE SITE AS REQUIRED THROUGHOUT THE CONSTRUCTION SCHEDULE.
- TEMPORARY AND PERMANENT DRAINAGE DITCHES ARE TO BE HYDROSEEDDED INCLUDING THE PROPOSED DITCHES.
- UPON COMPLETION OF EARTHWORKS, THE SITE AND THE DISTURBED AREAS SHALL BE TREATED WITH SEED.

**2.0 EROSION CONTROL**

**A) SILT FENCE**

- THE GEOTEXTILE MATERIAL MUST BE STRETCHED TIGHT WHEN INSTALLING THE MATERIAL AND THE BOTTOM EDGE BURIED A MINIMUM OF 150 MM WITH COMPACTION OF THE EXCAVATED BACKFILL. DIAGONAL BRACING OF THE POSTS IS RECOMMENDED WHERE DEEP PONDING IS EXPERIENCED OR ANTICIPATED.
- ANY FAILURE MUST BE REPAIRED IMMEDIATELY.
- SEDIMENT CONTROL FENCE MUST BE INSPECTED REGULARLY, AND AFTER EVERY RAINFALL, TO IDENTIFY FAILED SECTIONS. IF WET CONDITIONS PERSIST, REPAIRS MUST BE UNDERTAKEN TO RESTORE THE INTEGRITY OF THE FENCING
- WHEN SEDIMENT ACCUMULATES TO HALF THE HEIGHT OF THE GEOTEXTILE IT SHOULD BE REMOVED AND DISPOSED OF IN A CONTROLLED AREA.
- ALL SILT FENCES MUST BE REMOVED ONLY WHEN THE ENTIRE SITE IS STABILIZED AND AS DETERMINED BY THE SITE ENGINEER.
- A SUPPLY OF SEDIMENT CONTROL FENCE SHOULD BE KEPT ON SITE TO PROVIDE FOR QUICK REPAIRS OR THE INSTALLATION OF AN ADDITIONAL FENCE AS REQUIRED.

**B) ROCK CHECK DAMS**

- SEDIMENT MONITORING AND REMOVAL REQUIRED FROM THE BASE OF THE STRUCTURE WHEN ACCUMULATION BECOMES VISIBLE.
- INSPECTION SHOULD TAKE PLACE WEEKLY AND AFTER EVERY RAINFALL AND SIGNIFICANT SNOWMELT EVENTS TO IDENTIFY ANY PROBLEM AREAS.
- ROCK CHECK DAM AND ALL ACCUMULATED SEDIMENT MUST BE REMOVED WITH CARE ONCE THE CONSTRUCTION SITE IS STABILIZED AND AS DIRECTED BY THE SITE ENGINEER.
- REPAIR OF THE SEDIMENT TRAP SHOULD TAKE PLACE WITHIN 24 HOURS OF DETERMINING THE DEFICIENCY.

**C) CONSTRUCTION ACCESS MUD MAT**

- THE GRANULAR MATERIAL WILL REQUIRE PERIODIC REPLACEMENT AS IT BECOMES CONTAMINATED BY VEHICLE TRAFFIC.
- SEDIMENT SHALL BE CLEANED FROM PUBLIC ROADS AT THE END OF EACH DAY.
- SEDIMENT SHALL BE REMOVED FROM PUBLIC ROADS BY SHOVELLING OR SWEEPING AND DISPOSED OF PROPERLY IN A CONTROLLED SEDIMENT DISPOSAL AREA.
- MAT TO REMAIN IN PLACE UNTIL SITE IS STABILIZED OR AS DIRECTED BY SITE ENGINEER.
- STORM INLETS BOTH ON AND IN PROXIMITY OF THE SITE SHALL BE PROTECTED WITH INLET CONTROL MEASURES PRIOR TO SITE DEVELOPMENT AND ROAD CLEANING ACTIVITIES.

**D) SILTBOX™**

- THE INSTALLER SHALL REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE SILTBOX™ WHEN THEY REACH 1/2 OF THE EXPOSED HEIGHT OF THE SILTBOX™, OR AS DIRECTED BY THE ENGINEER.
- SILTBOX™ SHOULD BE INSPECTED WEEKLY AND AFTER ALL RAINFALL AND/OR SNOWMELT EVENTS TO MAKE SURE THEY HOLD THEIR SHAPE AND ARE PRODUCING ADEQUATE FLOW THROUGH. FOR PURPOSES OF LONGER TERM SEDIMENT CONTROL OBJECTIVES, SILTBOX™ CAN BE SEEDED AT THE TIME OF INSTALLATION TO CREATE AN ADDITIONAL VEGETATIVE FILTERING COMPONENT.
- WHEN CONSTRUCTION IS COMPLETED ON SITE, THE SILTBOX™ MAY BE DISPERSED WITH A LOADER, RAKE, BULLDOZER OR OTHER DEVICE TO BE INCORPORATED IN THE SOIL OR LEFT ON TOP OF THE SOIL FOR FINAL SEEDING TO OCCUR. THE MESH NETTING MATERIAL WILL BE DISPOSED OF IN NORMAL TRASH CONTAINER OR REMOVED BY THE INSTALLER.

PERCENT PASSING		
SIEVE SIZE mm	MINIMUM	MAXIMUM
150	100	—
53	—	100
26.50	50	90
4.75	20	55
1.18	10	20
0.30	5	22
0.075	0	8

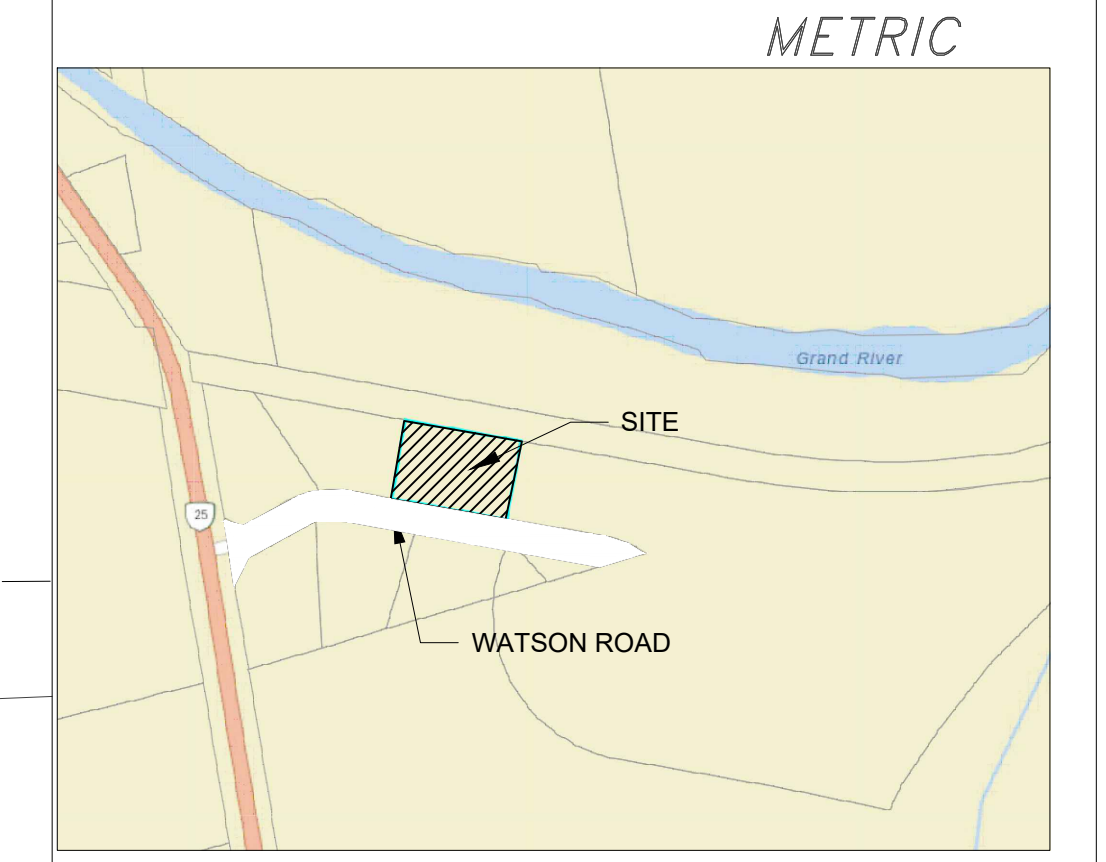
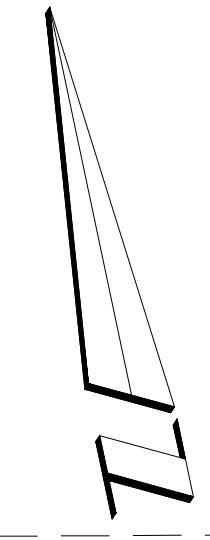
NOTE: ALL MATERIAL MUST BE SCREENED

Drawn By: [Name] Date: 05/31/22  
 Checked By: [Name] Date: 05/31/22  
 Title: [Title]

No.	DATE MM.DD.YY	REVISIONS	BY	SCALE			RA ENGINEERING INC. A SOLUTION PROVIDER FOR INFRASTRUCTURE & SERVICES Unit 210 - 18075 Leslie St. Newmarket Ontario, L3Y9A4 Tel : (905) 235-9105 Fax : (905) 235-9150 Email : info@raengineer.com Web : www.raengineer.com	DRAWN BY	10 WATSON ROAD WAREHOUSE FACILITY	DWG NO.
1.	05.31.22	ISSUED FOR SPA APPROVAL.	R.N.	N.T.S.				DRAWN BY A.N.		CONTRACT NO.
				DLW FILE REFERENCE				DESIGNER		00000000
				21081601				A.N.Y.R.		SHEET NO.
				DATE	CHECKED BY	C100				
				01.11.22	R.N.					

**WAREHOUSE FACILITY FOR CEPE**

RAILWAY  
FORMER TORONTO GREY AND BRUCE RAILWAY



KEYPLAN

**LEGEND**

	SITE BOUNDARY/PROPERTY LINE
	BUILDING SETBACK
	PROPOSED BUILDING
	LIGHT DUTY ASPHALT
	HEAVY DUTY ASPHALT
	LANDSCAPED AREA
	SIDEWALK

REGISTERED  
PLAN

LOT 3  
PROPOSED FREEZER AREA:  
785m<sup>2</sup>/8450sqft  
FFE = 471.42

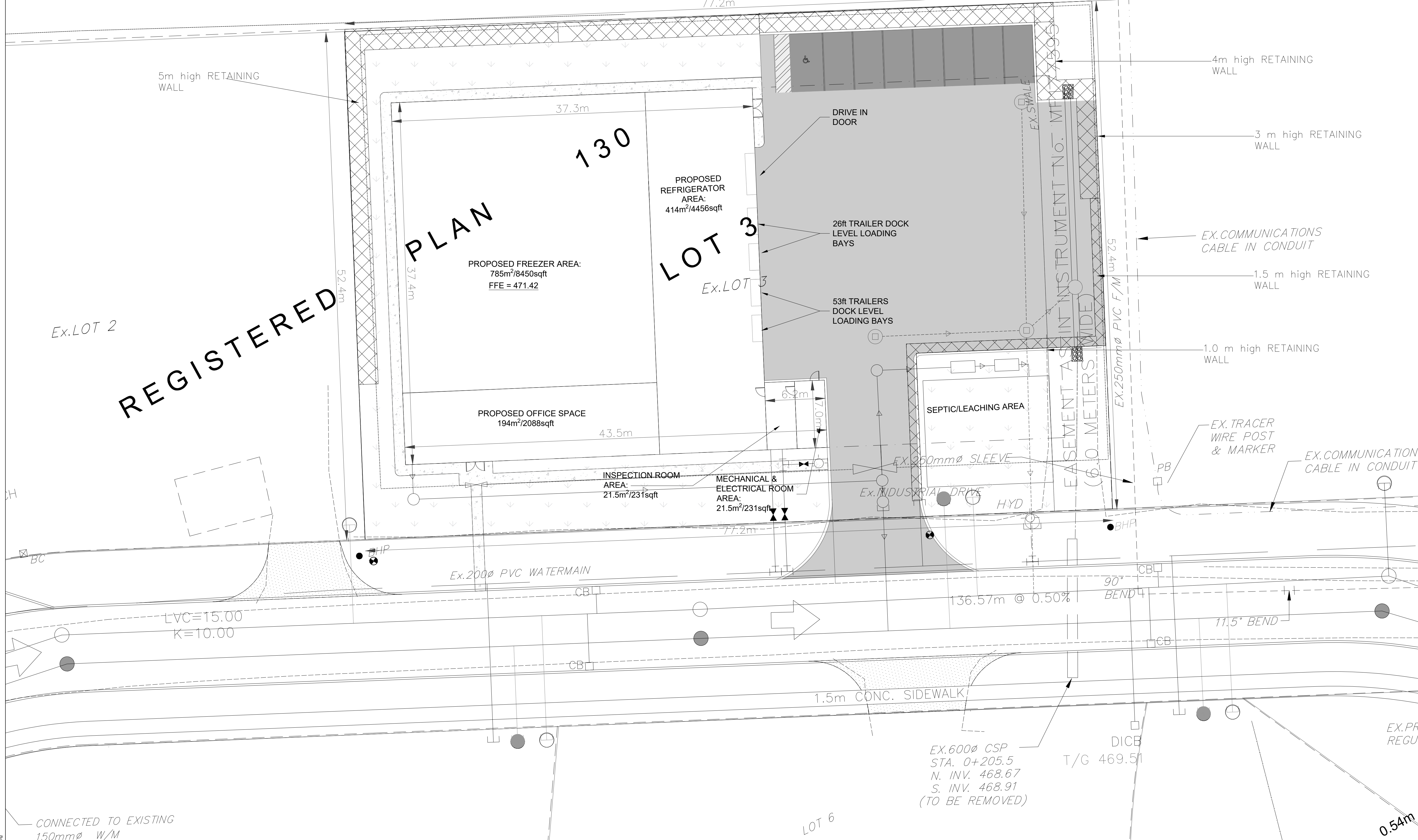
PROPOSED REFRIGERATOR AREA:  
414m<sup>2</sup>/4456sqft

PROPOSED OFFICE SPACE  
194m<sup>2</sup>/2088sqft

INSPECTION ROOM AREA:  
21.5m<sup>2</sup>/231sqft

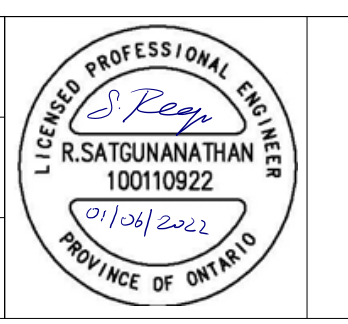
MECHANICAL & ELECTRICAL ROOM AREA:  
21.5m<sup>2</sup>/231sqft

SEPTIC/LEACHING AREA



RA ENGINEERING INC. 2022-01-11 10:00 AM

No.	DATE MM.DD.YY	REVISIONS	BY	SCALE
1.	05.31.22	ISSUED FOR SPA APPROVAL.	R.N.	1:200
				DLW FILE REFERENCE
				21081601
				DATE
				01.11.22



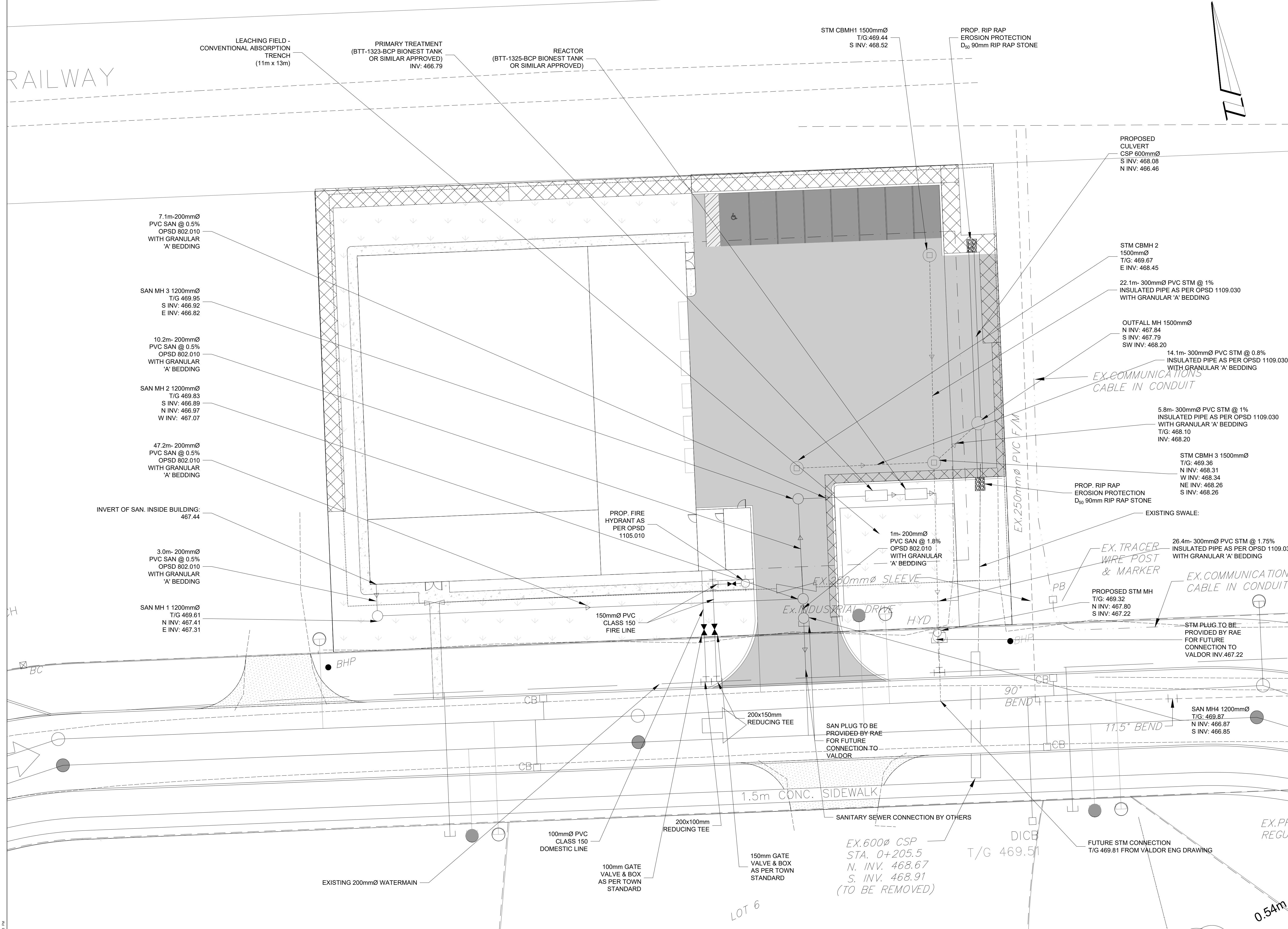
**RA ENGINEERING INC.**  
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**WAREHOUSE FACILITY FOR CEPE**

DRAWN BY  
A.N.Y.R.  
DESIGNER  
Y.R.A.R.  
CHECKED BY  
R.N.

10 WATSON ROAD WAREHOUSE FACILITY	DWG NO. 21081601-C-101
OVERALL SITE PLAN	CONTRACT NO. 00000000
	SHEET NO. C101

RAILWAY



KEYPLAN

**LEGEND**

(Symbol)	SITE BOUNDARY/PROPERTY LINE
(Symbol)	BUILDING SETBACK
(Symbol)	PR. BUILDING
(Symbol)	PR. STORMWATER SEWER
(Symbol)	PR. STORM CATCHBASIN MANHOLE
(Symbol)	PR. SANITARY SEWER
(Symbol)	PR. SANITARY MANHOLE
(Symbol)	PR. WATER VALVE & BOX
(Symbol)	PR. FIRE HYDRANT & VALVE
(Symbol)	LIGHT DUTY ASPHALT
(Symbol)	HEAVY DUTY ASPHALT
(Symbol)	LANDSCAPED AREA
(Symbol)	SIDEWALK

No.	DATE MM.DD.YY	REVISIONS	BY	SCALE
1.	05.31.22	ISSUED FOR SPA APPROVAL.	R.N.	1:200
				DLW FILE REFERENCE 21081601
				DATE 01.11.22

**R. SATYANATHAN**  
100110922  
PROVINCE OF ONTARIO

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**WAREHOUSE FACILITY FOR CEPE**

DRAWN BY	A.N.Y.R.
DESIGNER	Y.R.I.A.R.
CHECKED BY	R.N.

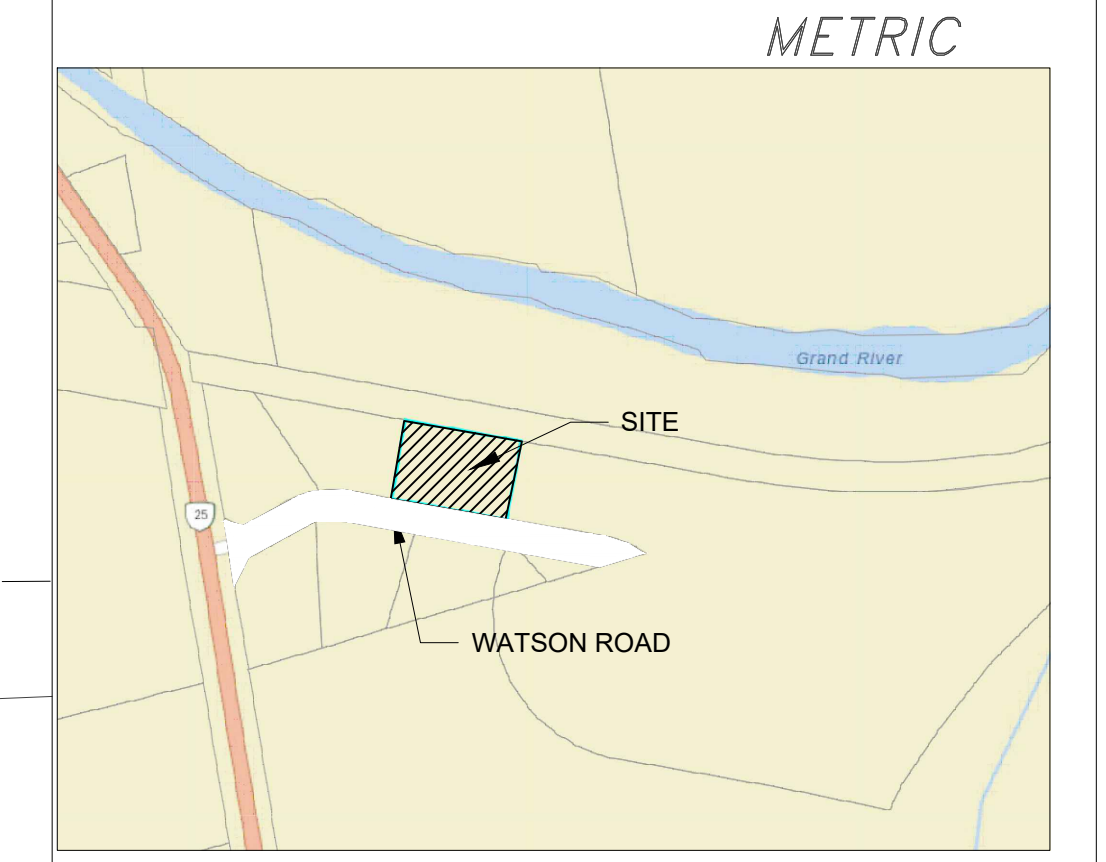
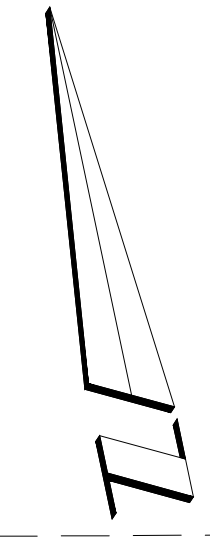
**10 WATSON ROAD WAREHOUSE FACILITY**

SERVICING PLAN

DWG NO.	21081601-C-200
CONTRACT NO.	00000000
SHEET NO.	C200

Drawn by: R. Satyanathan  
Checked by: R. N.  
Date: 01/11/22  
Scale: 1:200  
Project: 10 WATSON ROAD WAREHOUSE FACILITY FOR CEPE

RAILWAY  
FORMER TORONTO GREY AND BRUCE RAILWAY



KEYPLAN

**LEGEND**

	SITE BOUNDARY/PROPERTY LINE
	BUILDING SETBACK
	PROPOSED BUILDING
	PR. STORMWATER SEWER
	PR. STORM CATCHBASIN MANHOLE
	PR. SANITARY SEWER
	PR. WATER VALVE & BOX
	PR. FIRE HYDRANT & VALVE
	PR. MAJOR OVERLAND FLOW DIRECTION
	EXISTING SURFACE ELEVATION
	PR. SURFACE ELEVATION
	PR. SLOPE
	LIGHT DUTY ASPHALT
	HEAVY DUTY ASPHALT
	LANDSCAPED AREA
	SIDEWALK

REGISTERED PLAN

130

FFE = 471.42

LOT 3  
Ex.LOT 3

EASEMENT AS INSTRUMENT NO. M173005  
(6.0 METERS WIDE)  
EX. 250mm $\phi$  PVC F/M

5m high RETAINING WALL

4m high RETAINING WALL

3 m high RETAINING WALL

1.5 m high RETAINING WALL

1.0 m high RETAINING WALL

EX. TRACER WIRE POST & MARKER

EX. COMMUNICATIONS CABLE IN CONDUIT

Ex. 200 $\phi$  PVC WATERMAIN

EX. 250mm $\phi$  SLEEVE

EX. INDUSTRIAL DRINK HYD

LVC=15.00  
K=10.00

136.57m @ 0.50%  
90° BEND

11.5° BEND

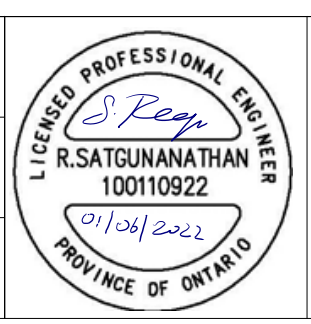
1.5m CONC. SIDEWALK

EX. 600 $\phi$  CSP  
STA. 0+205.5  
N. INV. 468.67  
S. INV. 468.91  
(TO BE REMOVED)

DICB  
T/G 469.51

CONNECTED TO EXISTING  
150mm $\phi$  W/M

No.	DATE MM.DD.YY	REVISIONS	BY	SCALE
1.	05.31.22	ISSUED FOR SPA APPROVAL.	R.N.	1:200
DLW FILE REFERENCE				
21081601				
DATE				
01.11.22				



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WAREHOUSE FACILITY FOR CEPE

DRAWN BY	A.N.Y.R.
DESIGNER	
Y.R./A.R.	
CHECKED BY	
R.N.	

10 WATSON ROAD  
WAREHOUSE FACILITY

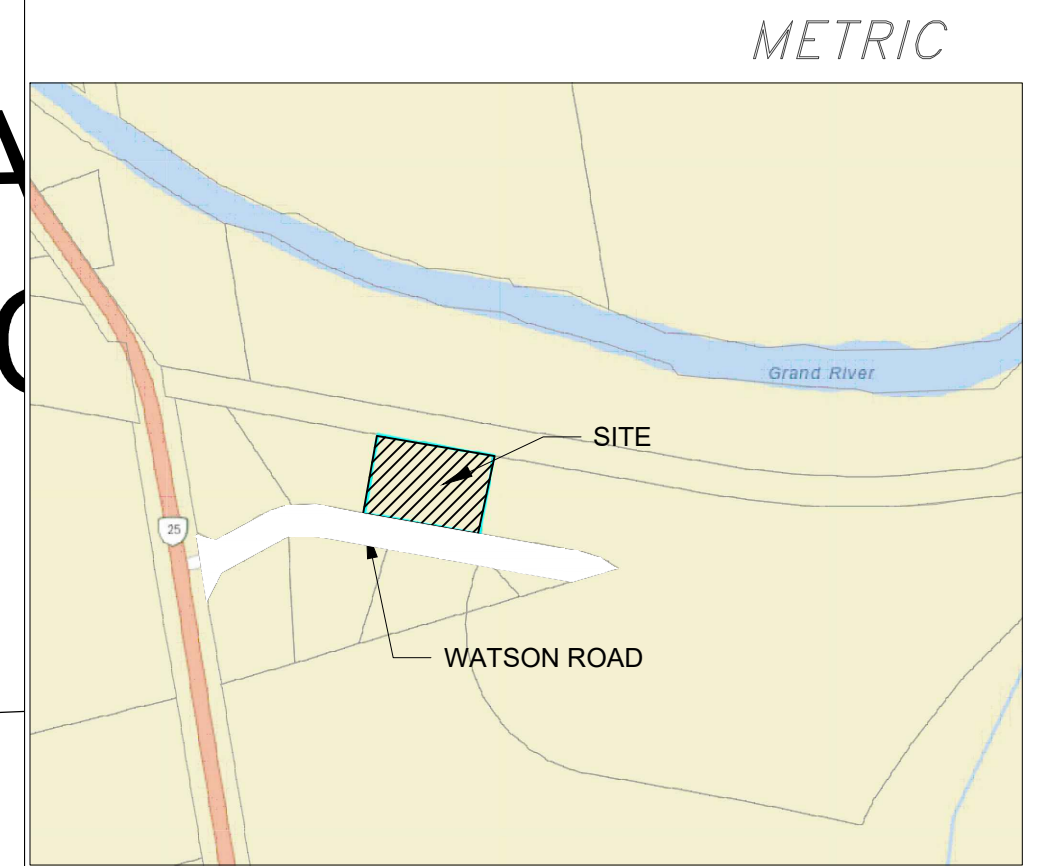
GRADING PLAN

DWG NO.	21081601-C-300
CONTRACT NO.	00000000
SHEET NO.	C300

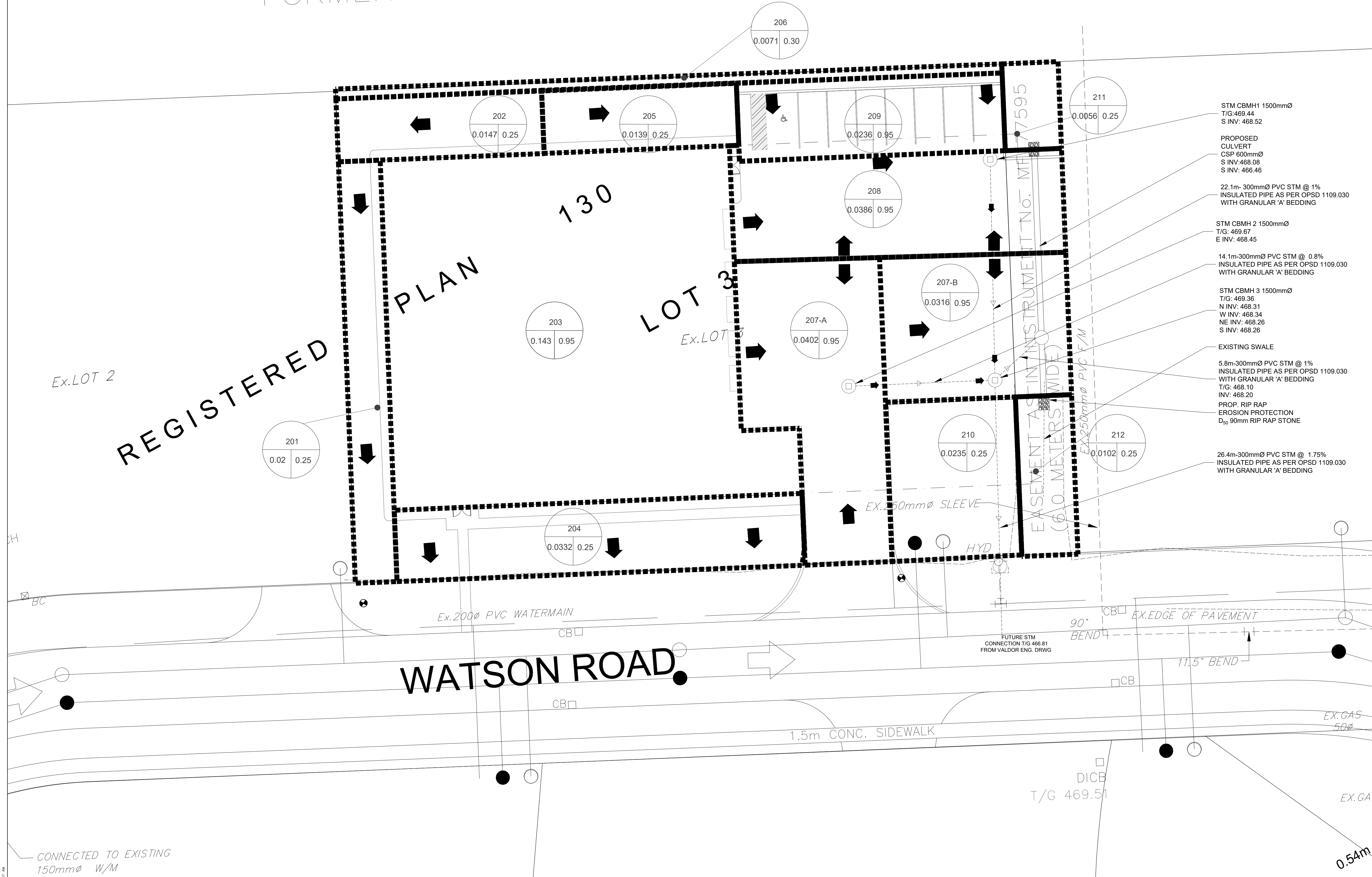
Project No: 21081601-01  
 Drawing Title: Warehouse Facility for CEPE  
 Drawing Date: 05/31/22  
 Drawing Scale: 1:200  
 Drawing Author: R.N.  
 Drawing Checker: R.N.  
 Drawing Date: 01/11/22  
 Drawing File: C:\Users\RA\Documents\RA ENGINEERING INC\PROJECTS - DOCUMENTS\21081601\_10 WATSON ROAD FOR CEPE\CAD\2BA STAGE\21081601\_10 WATSON ROAD\_C-300\300\_SERVING & GRADING PLAN-V2.DWG

RAILWAY

# UPPER CANADA TRAIL WA FORMER TORONTO-GREY AND BRUC



KEYPLAN



**LEGEND**

- SITE BOUNDARY/PROPERTY LINE
- - - BUILDING SETBACK
- ▭ PROPOSED BUILDING
- ➔ MAJOR OVERLAND FLOW ARROW
- ▬ CATCHMENTS AREA BOUNDARY
- PR. STORM CATCHBASIN MANHOLE
- PR. STORMWATER SEWER
- X ○ DRAINAGE AREA ID
- XX XX RUNOFF COEFFICIENT
- DRAINAGE AREA (HA)

- STM CBMH1 1500mmØ  
T/G: 469.44  
S INV: 468.52
- PROPOSED CULVERT  
CSP 600mmØ  
S INV: 468.08  
S INV: 466.46
- 22.1m- 300mmØ PVC STM @ 1%  
INSULATED PIPE AS PER OPSD 1109.030  
WITH GRANULAR 'A' BEDDING
- STM CBMH 2 1500mmØ  
T/G: 469.67  
E INV: 468.45
- 14.1m-300mmØ PVC STM @ 0.8%  
INSULATED PIPE AS PER OPSD 1109.030  
WITH GRANULAR 'A' BEDDING
- STM CBMH 3 1500mmØ  
T/G: 469.36  
N INV: 468.31  
W INV: 468.34  
NE INV: 468.26  
S INV: 468.26
- EXISTING SWALE
- 5.8m-300mmØ PVC STM @ 1%  
INSULATED PIPE AS PER OPSD 1109.030  
WITH GRANULAR 'A' BEDDING  
T/G: 468.10  
INV: 468.20  
PROP. RIP RAP  
EROSION PROTECTION  
D<sub>90</sub> 90mm RIP RAP STONE
- 26.4m-300mmØ PVC STM @ 1.75%  
INSULATED PIPE AS PER OPSD 1109.030  
WITH GRANULAR 'A' BEDDING

No.	DATE MM.DD.YY	REVISIONS	BY	SCALE
1.	05.31.22	ISSUED FOR SPA SUBMISSION	R.N.	1:200

RAE FILE REFERENCE	DATE
21081601	01.11.22

PROFESSIONAL ENGINEER  
R. SATGUNATHAN  
100110922  
PROVINCE OF ONTARIO

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WAREHOUSE FACILITY FOR CEPE

DRAWN BY	A.N.Y.R.
DESIGNER	Y.R.I.A.R
CHECKED BY	R.N.

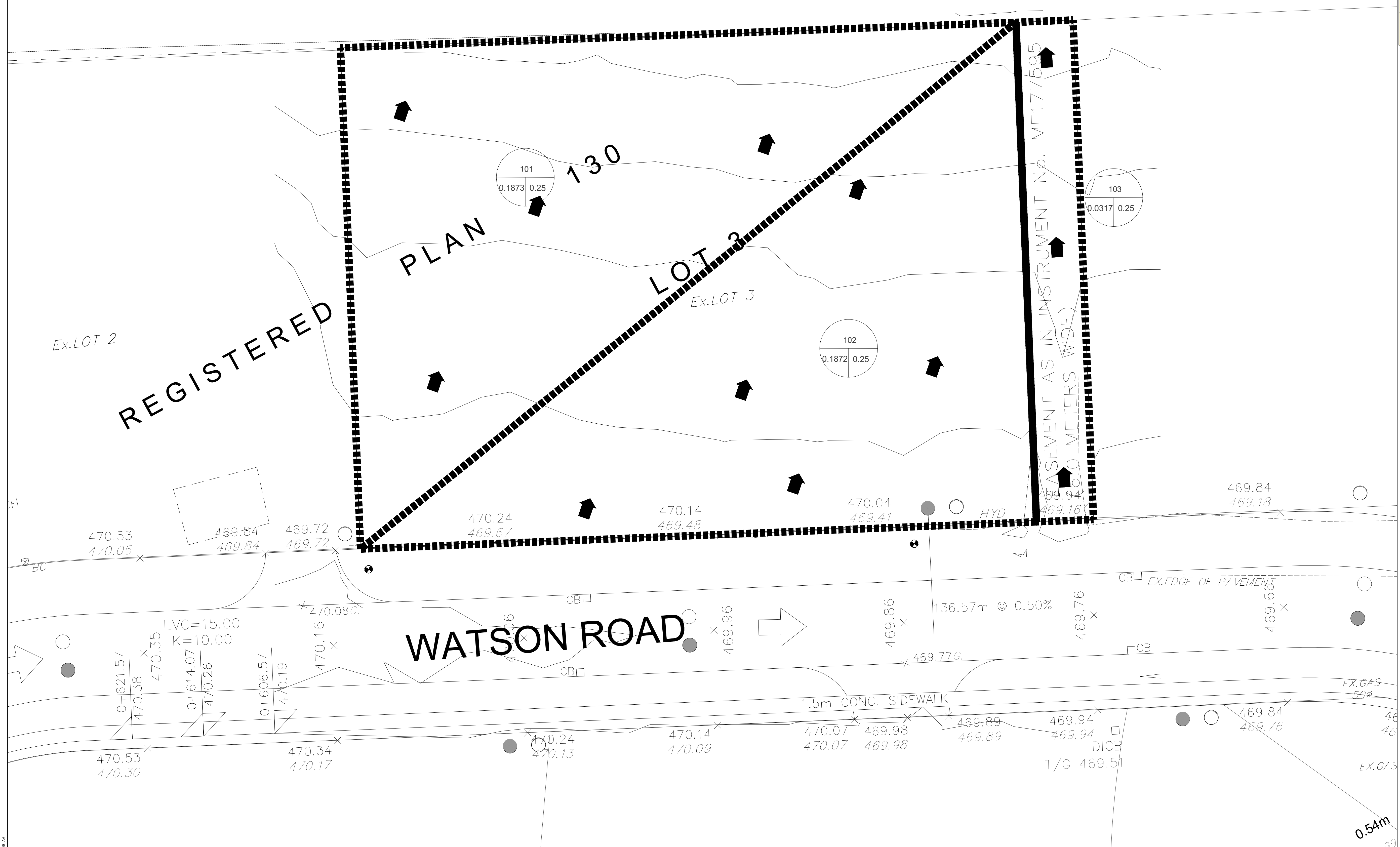
10 WATSON ROAD  
WAREHOUSE FACILITY  
STORM DRAINAGE PLAN

DWG NO.	21081601-C-400
CONTRACT NO.	21081601
SHEET NO.	C400

# UPPER CANADA TRAIL WA FORMER TORONTO-GREY AND BRUC



KEYPLAN



**LEGEND**

- SITE BOUNDARY / PROPERTY LINE
- MAJOR OVERLAND FLOW ARROW
- CATCHMENTS AREA BOUNDARY
- DRAINAGE AREA ID
- RUNOFF COEFFICIENT
- DRAINAGE AREA (HA)

No.	DATE MM.DD.YY	REVISIONS	BY	SCALE
1.	05.31.22	ISSUED FOR SPA SUBMISSION	R.N.	1:200
				RAE FILE REFERENCE 21081601
				DATE 01.11.22

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**WAREHOUSE FACILITY FOR CEPE**

**RA ENGINEERING**  
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**WAREHOUSE FACILITY FOR CEPE**

DRAWN BY  
A.N.Y.R.  
DESIGNER  
Y.R.I.A.R.  
CHECKED BY  
R.N.

**10 WATSON ROAD  
WAREHOUSE FACILITY**

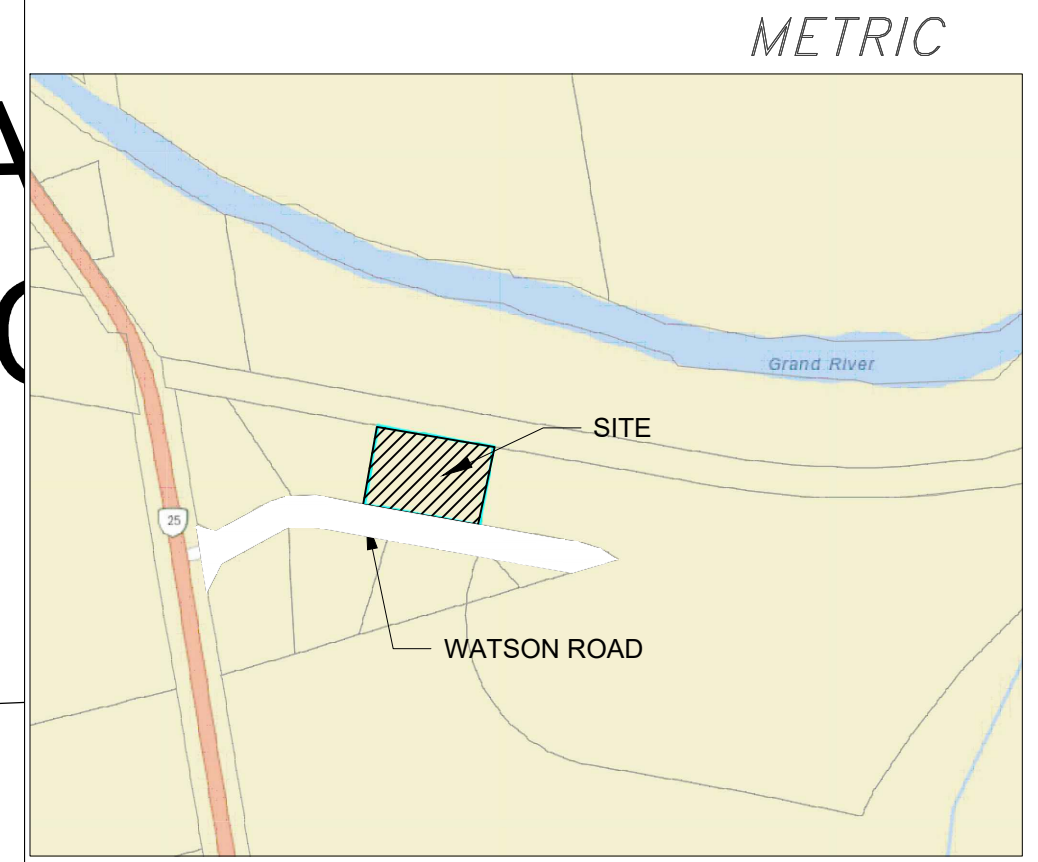
**PRE DEVELOPMENT DRAINAGE PLAN**

DWG NO.  
21081601-C-401  
CONTRACT NO.  
00000000  
SHEET NO.  
C401

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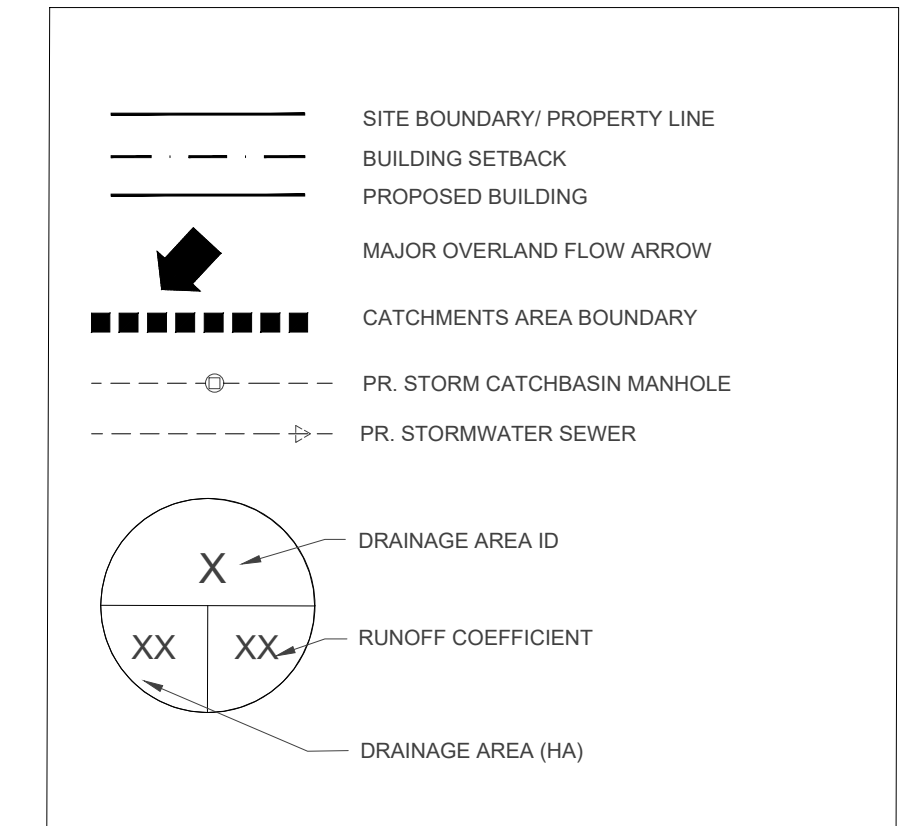
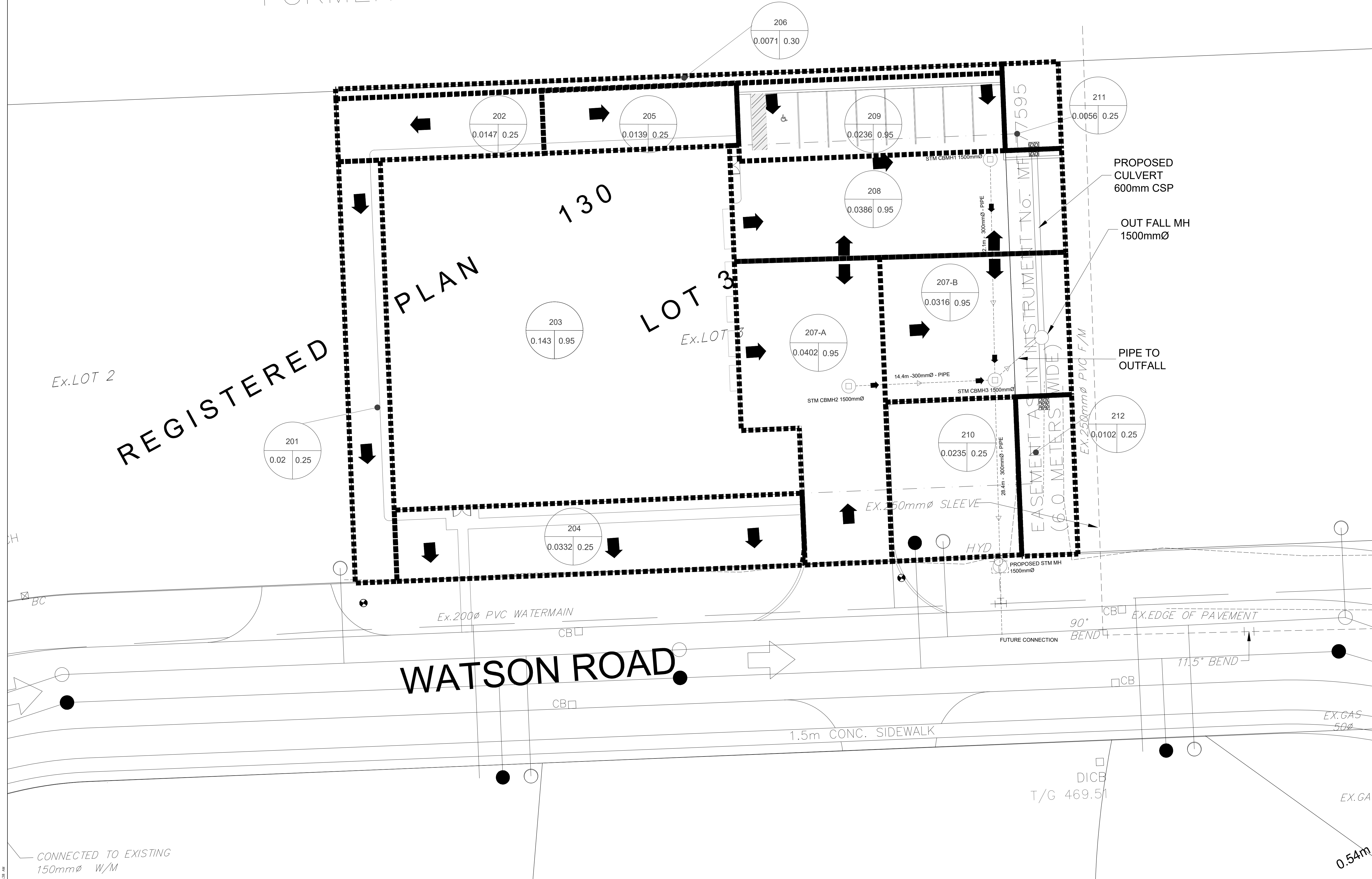
RAILWAY

# UPPER CANADA TRAIL WA FORMER TORONTO-GREY AND BRUC



METRIC

KEYPLAN



CONNECTED TO EXISTING  
150mm $\phi$  W/M

No.	DATE MM.DD.YY	REVISIONS	BY	SCALE
1.	05.31.22	ISSUED FOR SPA SUBMISSION	R.N.	1:200
				RAE FILE REFERENCE 21081601
				DATE 01.11.22

PROFESSIONAL ENGINEER  
R. SATJINATHAN  
100110922  
PROVINCE OF ONTARIO

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WAREHOUSE FACILITY FOR CEPE

DRAWN BY  
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DESIGNER  
Y.R./A.R.  
CHECKED BY  
R.N.

10 WATSON ROAD  
WAREHOUSE FACILITY  
POST DEVELOPMENT DRAINAGE PLAN

DWG NO.  
21081601-C-402  
CONTRACT NO.  
00000000  
SHEET NO.  
C402

RAILWAY

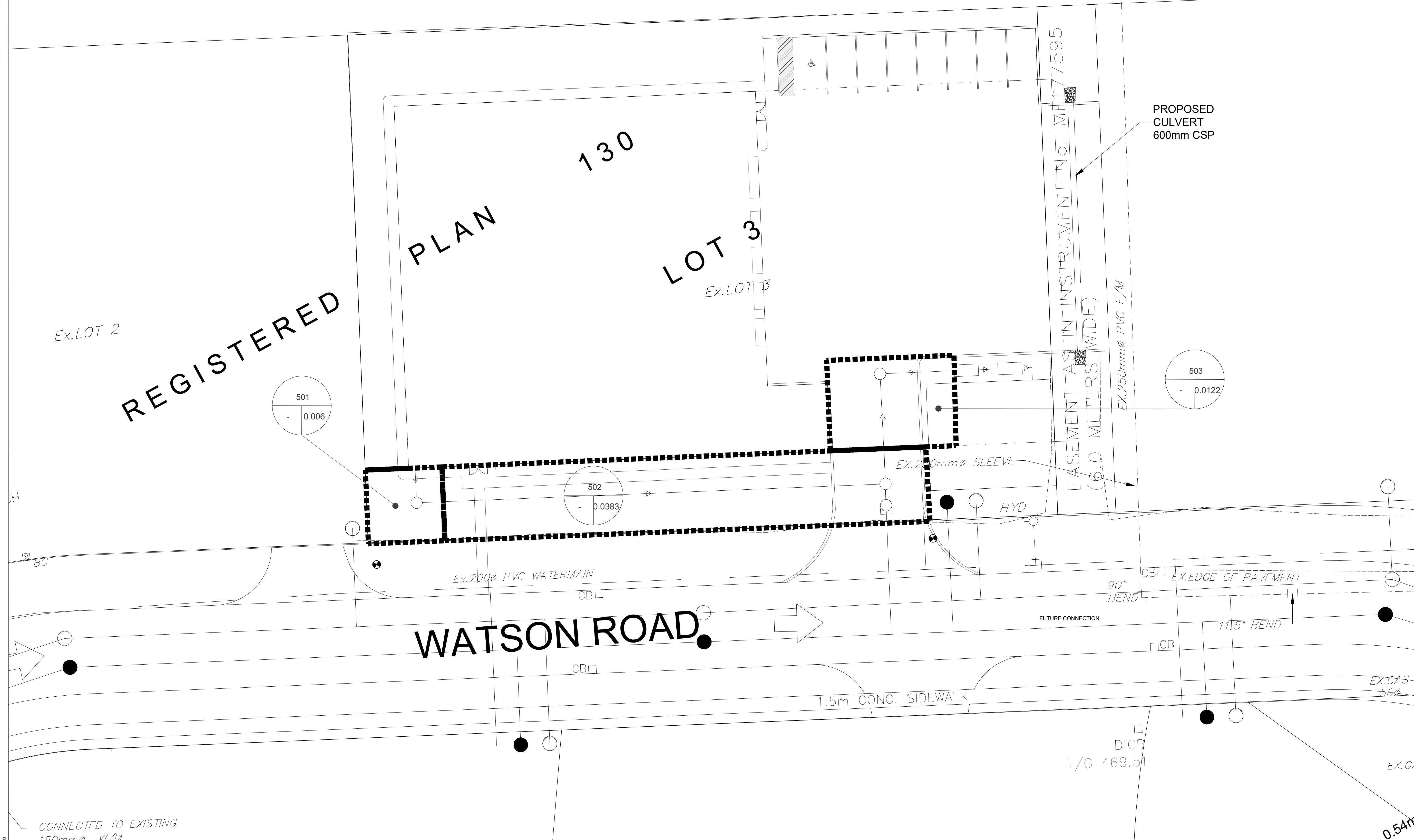
FORMER TORONTO GREY AND BRUCE RAILWAY

# UPPER CANADA TRAIL WA FORMER TORONTO-GREY AND BRUCE

METRIC



KEYPLAN



**LEGEND**

- SITE BOUNDARY/PROPERTY LINE
- BUILDING SETBACK
- PROPOSED BUILDING
- CATCHMENTS AREA BOUNDARY
- PR. SANITARY SEWER
- PR. SANITARY MANHOLE
- DRAINAGE AREA ID
- SANITARY DRAINAGE AREA (HA)
- AREA PRODUCING SANITARY FLOW (HA)

REGISTERED

PLAN 130

LOT 3  
Ex. LOT 3

PROPOSED  
CULVERT  
600mm CSP

EASEMENT AS IN INSTRUMENT NO. M1177595  
(6.0 METERS WIDE)

501  
- 0.006

502  
- 0.0383

503  
- 0.0122

WATSON ROAD

Ex. 200mm PVC WATERMAIN

EX. 200mm SLEEVE

HYD

90° BEND  
EX. EDGE OF PAVEMENT

1.5m CONC. SIDEWALK

DICE  
T/G 469.51

EX. GAS 500

EX. GAS

0.54m

CONNECTED TO EXISTING  
150mm W/M

No.	DATE MM.DD.YY	REVISIONS	BY R.N.	SCALE 1:200
1.	05.31.22	ISSUED FOR SPA SUBMISSION		

RAE FILE REFERENCE  
21081601

DATE  
01.11.22

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WAREHOUSE FACILITY FOR CEPE

DRAWN BY  
A.N.J.R.  
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Y.R.J.A.R.  
CHECKED BY

R.N.

10 WATSON ROAD  
WAREHOUSE FACILITY

SANITARY DRAINAGE PLAN

DWG NO.  
21081601-C-500

CONTRACT NO.  
00000000

SHEET NO.  
C500



# UPPER CANADA TRAIL WAY

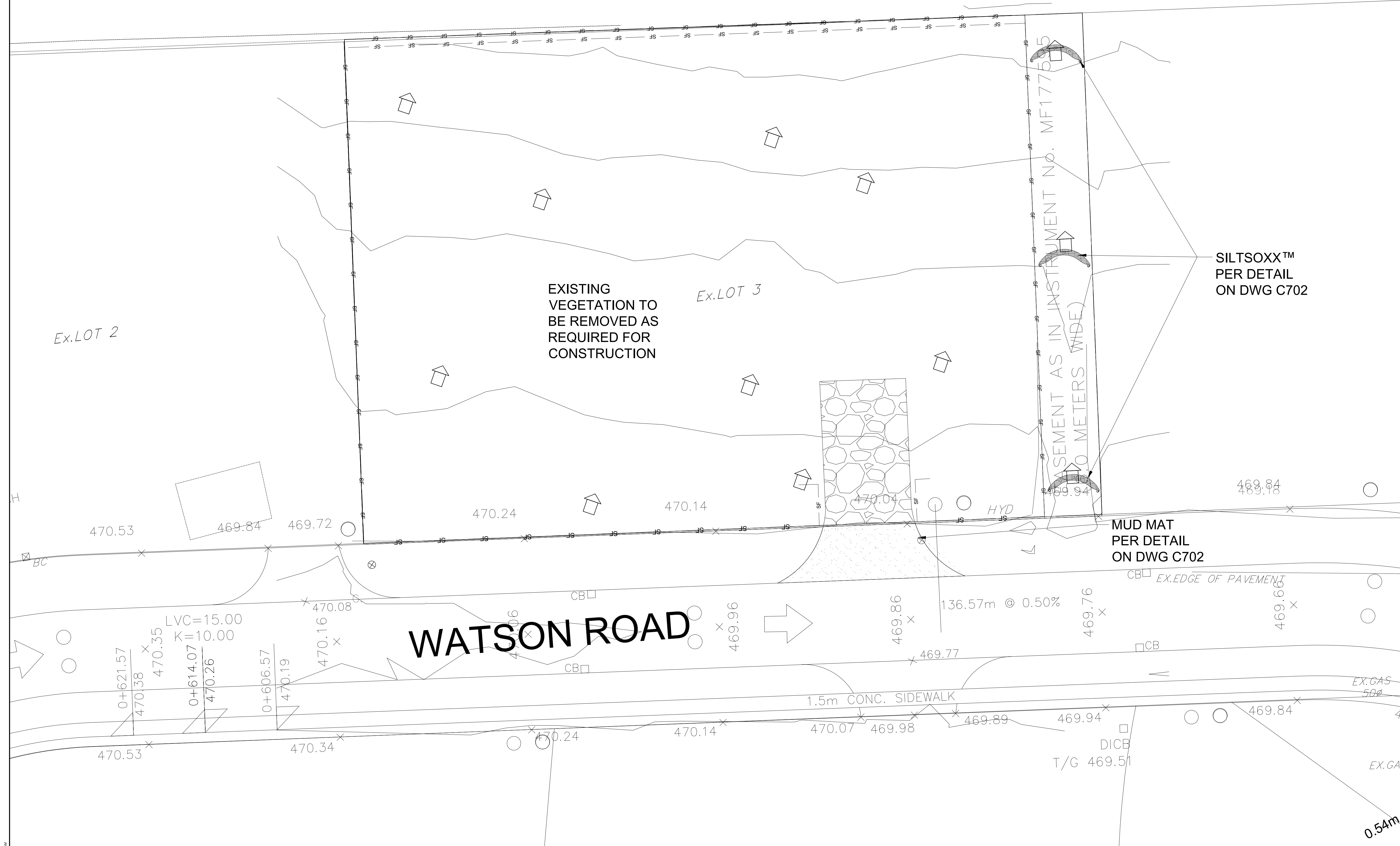
## FORMER TORONTO GREY AND BRUCE RAILWAY



KEYPLAN

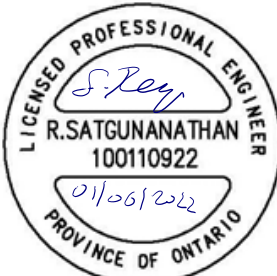
**LEGEND**

- SITE BOUNDARY/PROPERTY LINE
- SINGLE LAYER HEAVY DUTY SILT FENCE
- DOUBLE LAYER HEAVY DUTY SILT FENCE
- PR. MUD MAT  
DETAIL ON DWG C702
- PR. SILTSOXX™  
DETAIL ON DWG C702
- +250.50 EXISTING ELEVATION
- EXISTING OVERLAND FLOW DIRECTION



No.	DATE	REVISIONS	BY	SCALE	DATE
1.	05.31.22	ISSUED FOR SPA APPROVAL.	R.N.	1:200	01.11.22

DLW FILE REFERENCE	21081601
DATE	01.11.22



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DRAWN BY A.N.	DESIGNER A.N./Y.R.	CHECKED BY R.N.
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10 WATSON ROAD WAREHOUSE FACILITY	DWG NO. 21081601-C-600
EROSION AND SEDIMENTATION PLAN	CONTRACT NO. 00000000
	SHEET NO. C600

Grating Type	Grating Size	Length L	Width W
A	762	768	
B	1338	768	
C	1465	768	

**NOTES:**  
 1 Equivalent (13x100mm Galvanized J-Bolt) cast-in-place anchor may be used.  
 A Fastener shall be inserted to maintain minimum concrete cover requirements.  
 B All steel components and rivets shall be galvanized.  
 C All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2017 Rev 3  
**GALVANIZED STEEL HONEYCOMB GRATING FOR DITCH INLETS**  
 OPSD 403.010

**TABLE 1 - NUMBER OF RODS IN FRAME**

PIPE DIA	No. of RODS
450	1
525	1
600	2
675	3
750	3
825	4
900	4
975	5
1050	6
1200	7

**TABLE 2 - NUMBER OF FIXED RODS IN UPPER SECTION**

PIPE DIA	No. of RODS
1350	3
1500	4
1650	5
1800	6
1950	7
2100	8
2250	9
2400	10

**NOTES:**  
 1 Grates shall be secured by either a bolt and nut or a locking device as specified.  
 A Metal surfaces shall be either painted with 2 coats of self priming abrasion resistant immersion grade epoxy or hot dip galvanized as specified.  
 B Frame, hinge strap, mounting bracket, and steel rods shall be medium grade steel.  
 C All welding shall be according to CSA W59.  
 D All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2021 Rev 3  
**GRATING FOR CONCRETE ENDWALL**  
 OPSD 804.050

Opening Dimensions			
Grate Type	Slope	a	b
C	2H:1V	1341	66
	3H:1V	1265	104
	4H:1V	1237	118
B	6H:1V	1216	65
	8H:1V	1210	68
	10H:1V	1206	70
HOR		1200	73

**NOTES:**  
 1 The sump is measured from the lowest invert. Benching as shown in Benching Detail.  
 2 Lap horizontal 10M rebar 300mm. Laps shall be placed at corners.  
 3 Lap horizontal wires 300mm or weld. Welds to develop 75% of yield strength of wire. Laps or welds shall be placed at corners.  
 4 End rebar or WWR in base 75mm from outside face of wall.  
 A Where inlet is placed across ditch and is accessible to vehicular traffic, grading slope shall be 6H:1V or flatter.  
 B Granular backfill shall be placed a minimum thickness of 300mm all around the ditch inlet maintenance hole.  
 C Concrete for benching shall be 30MPa.  
 D Benching slope and height shall be as specified.  
 E Grating shall be according to OPSD 403.010.  
 F Steps shall be according to OPSD 403.010 or 405.020.  
 G Maximum pipe size: straight through-1200mm dia; right angle pipes - 700mm diameter.  
 H Pipe support shall be according to OPSD 708.020.  
 I Centre reinforcing in walls ±35mm. All other reinforcing shall have a minimum cover of 25mm.  
 J All dimensions are nominal.  
 K All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2014 Rev 3  
**PRECAST CONCRETE DITCH INLET MAINTENANCE HOLE - TYPE B**  
 1200 x 1200mm  
 OPSD 702.050

**NOTES:**  
 1 The sump is measured from the lowest invert.  
 A Granular backfill shall be placed to a minimum thickness of 300mm all around the maintenance hole.  
 B Precast concrete components shall be according to OPSD 701.030, 701.031, or 701.032.  
 C Structure exceeding 5.0m in depth shall include safety platform according to OPSD 404.020.  
 D Pipe support according to OPSD 708.020.  
 E For benching and pipe opening details, see OPSD 701.021.  
 F For adjustment unit and frame installation, see OPSD 704.010.  
 G All dimensions are nominal.  
 H All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2014 Rev 5  
**PRECAST CONCRETE MAINTENANCE HOLE**  
 1200mm DIAMETER  
 OPSD 701.010

CLEARANCE TABLE	
Pipe Inside Diameter mm	Clearance mm
900 or less	300
Over 900	500

**NOTES:**  
 1 Height of fill is measured from the finished surface to top of pipe.  
 2 The pipe bed shall be compacted and shaped to receive the bottom of the pipe.  
 3 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.  
 4 Condition of excavation is symmetrical about centreline of pipe.  
 A Granular material placed in the haunch area shall be compacted prior to placing and compacting the remainder of the embedment material.  
 B Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.  
 C All dimensions are in metres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2014 Rev 3  
**FLEXIBLE PIPE EMBEDMENT AND BACKFILL EARTH EXCAVATION**  
 OPSD 802.010

CLEARANCE TABLE	
Pipe Inside Diameter mm	Clearance mm
900 or less	300
Over 900	500

**NOTES:**  
 1 Height of fill is measured from the finished surface to top of pipe.  
 2 The minimum bedding depth below the pipe shall be 0.15D. In no case shall this dimension be less than 150mm or greater than 300mm.  
 3 The pipe bed shall be compacted and shaped to receive the bottom of the pipe.  
 4 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.  
 5 Condition of excavation is symmetrical about centreline of pipe.  
 A Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.  
 B All dimensions are in metres unless otherwise shown.

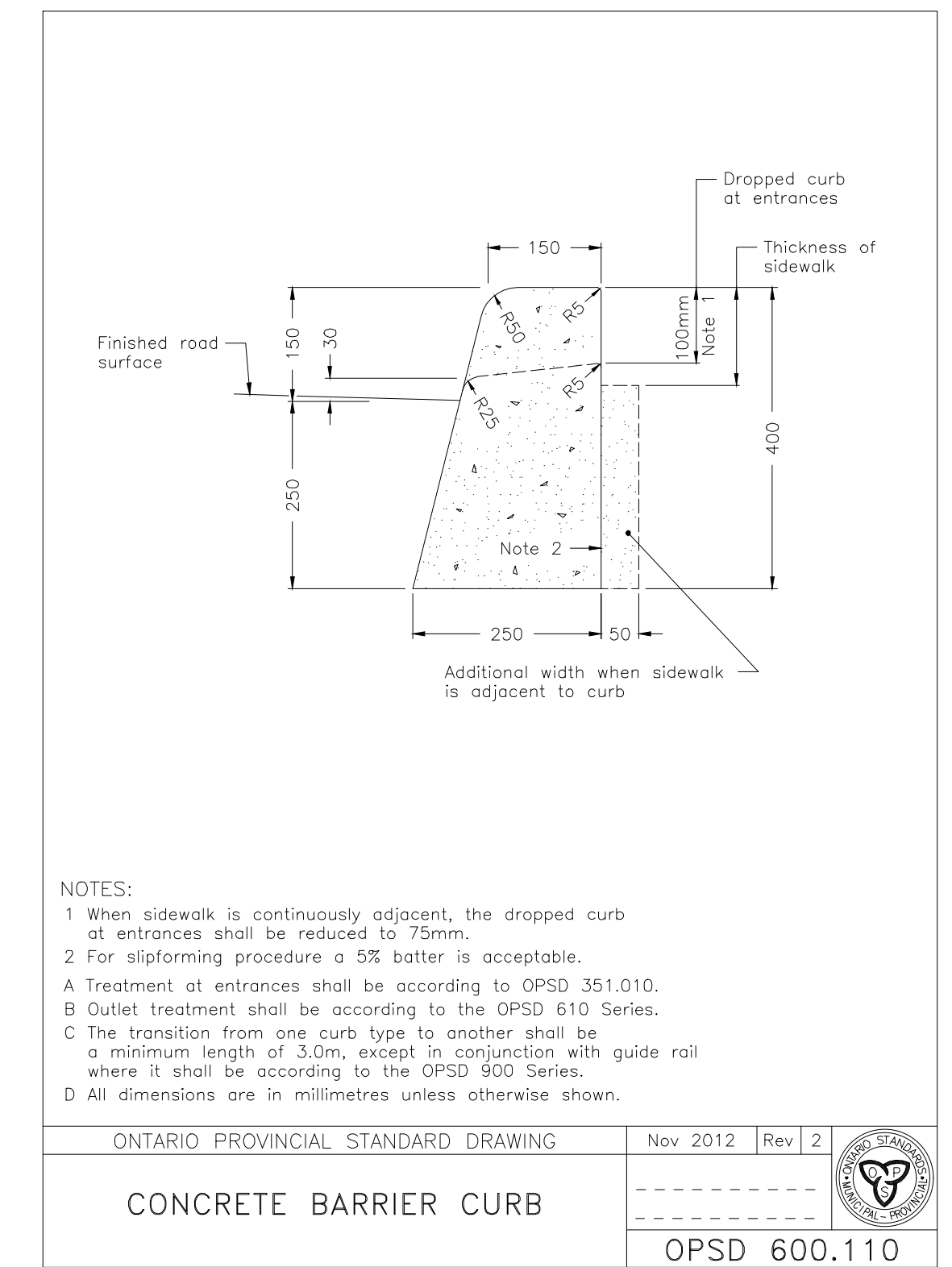
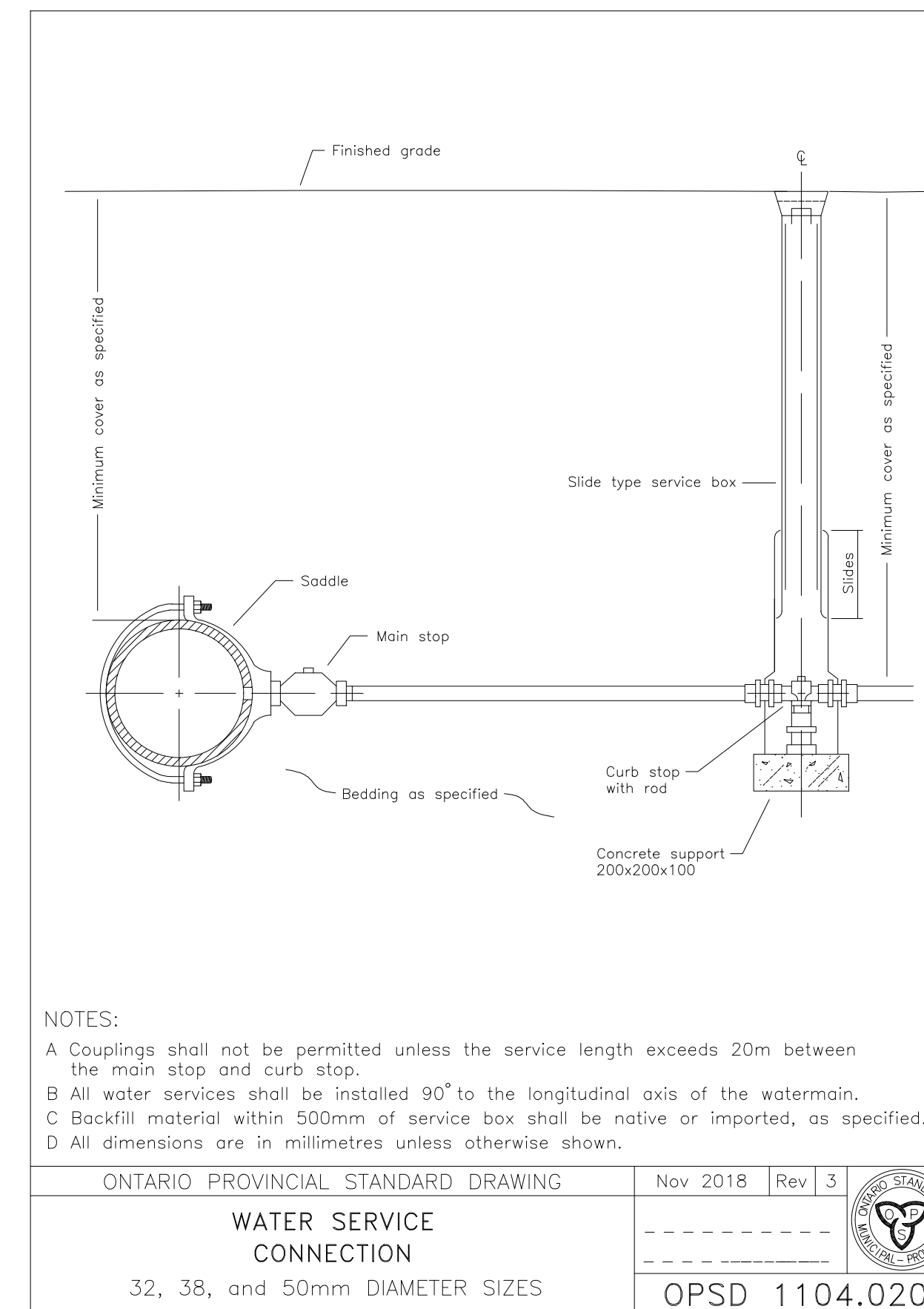
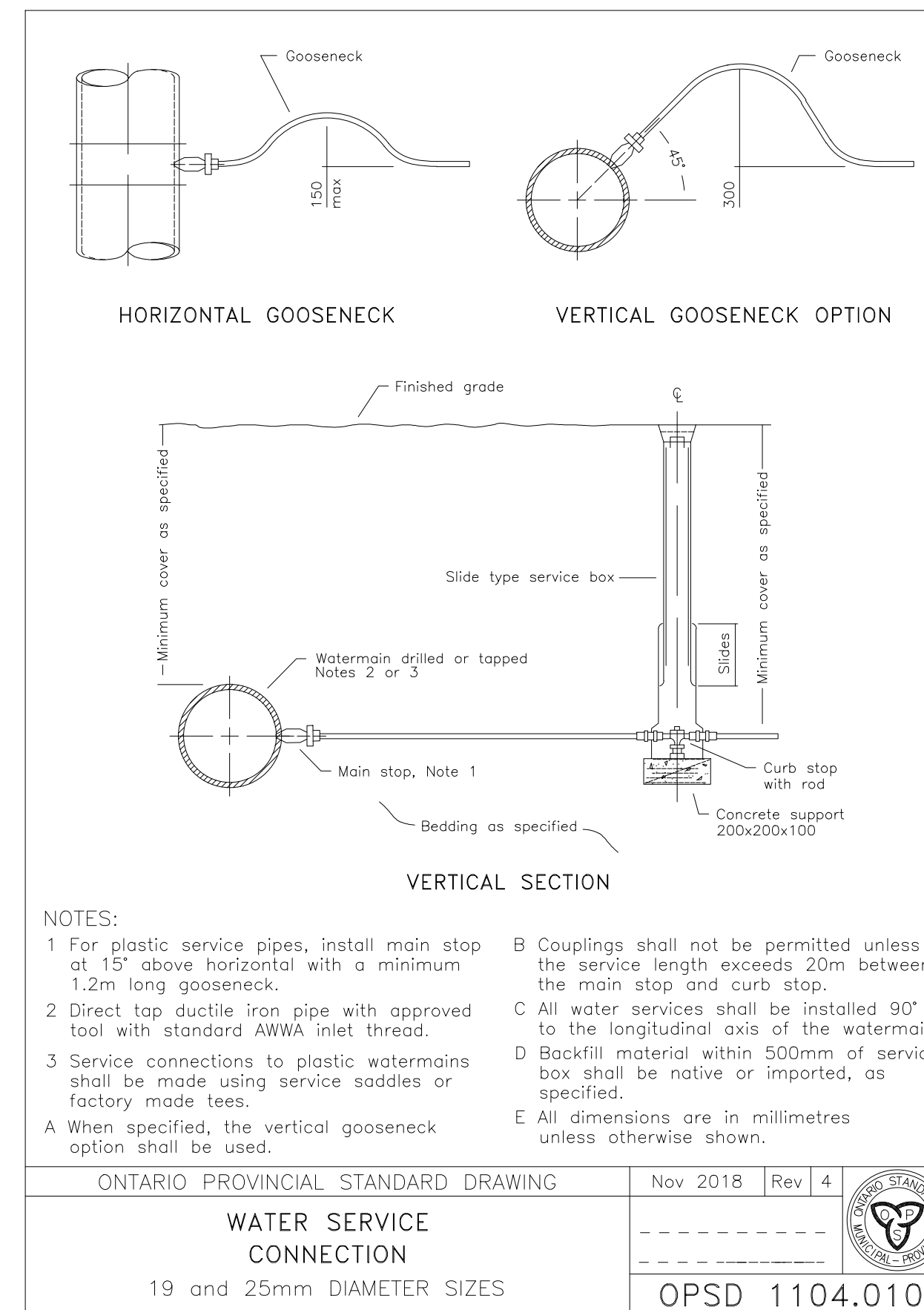
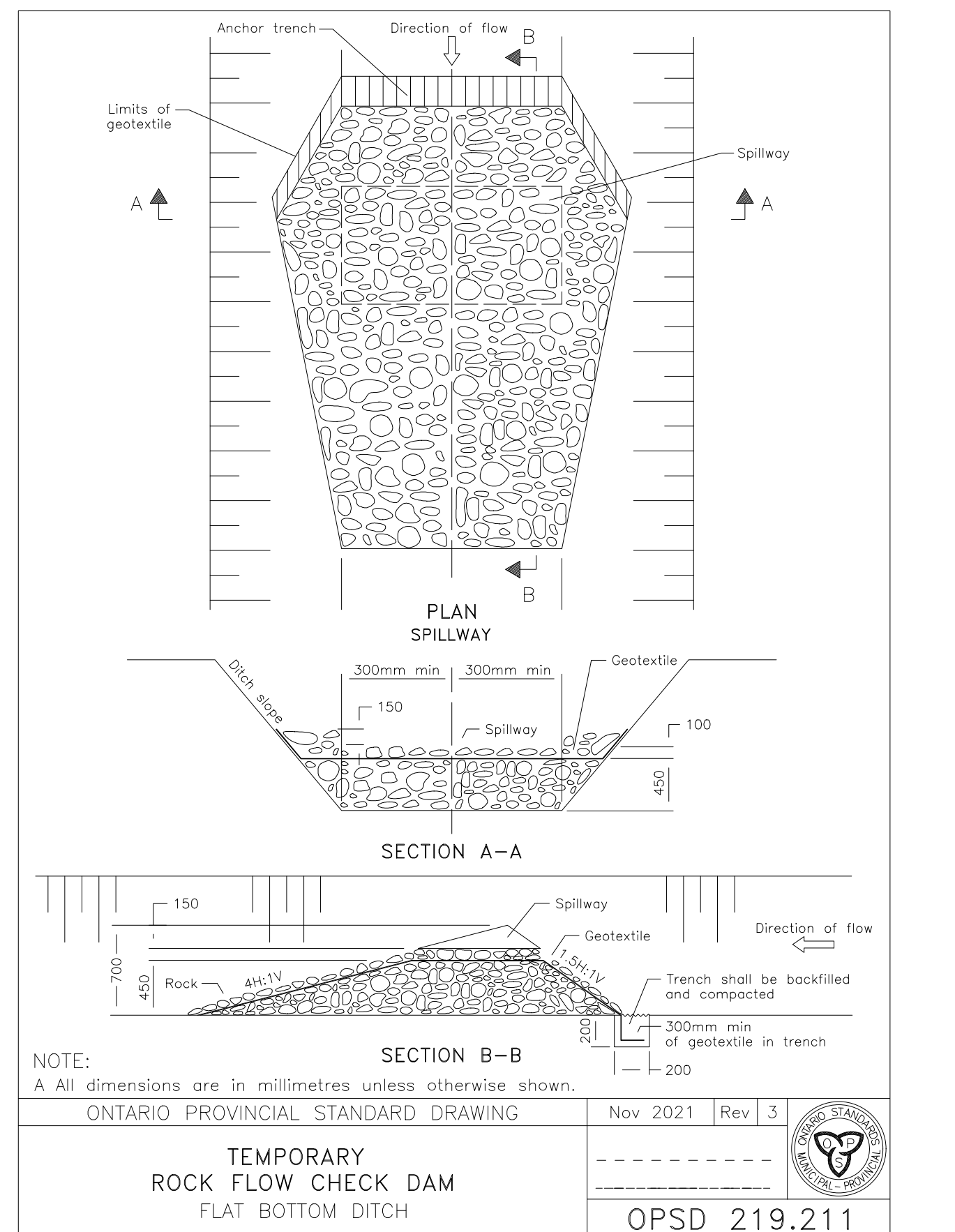
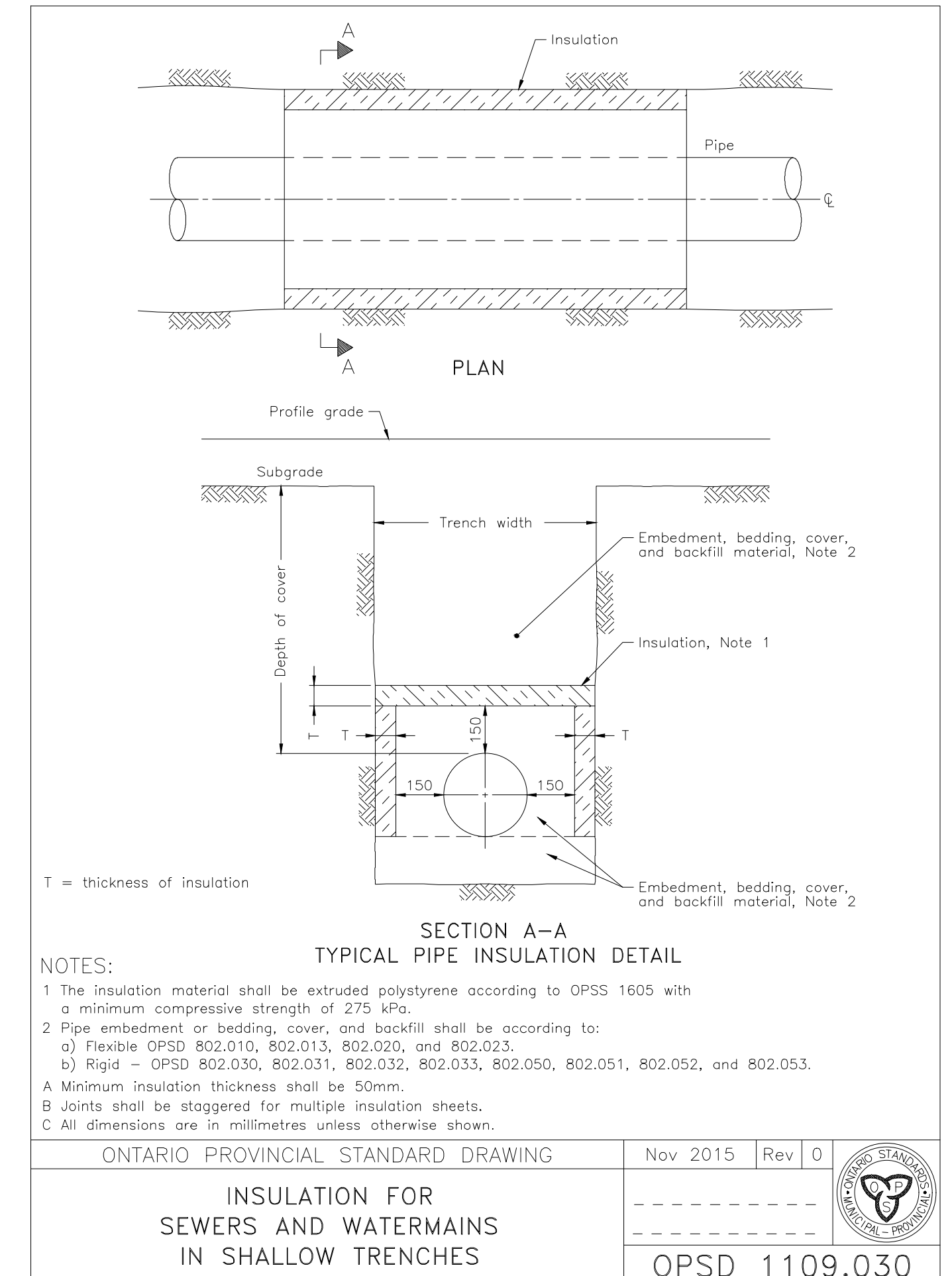
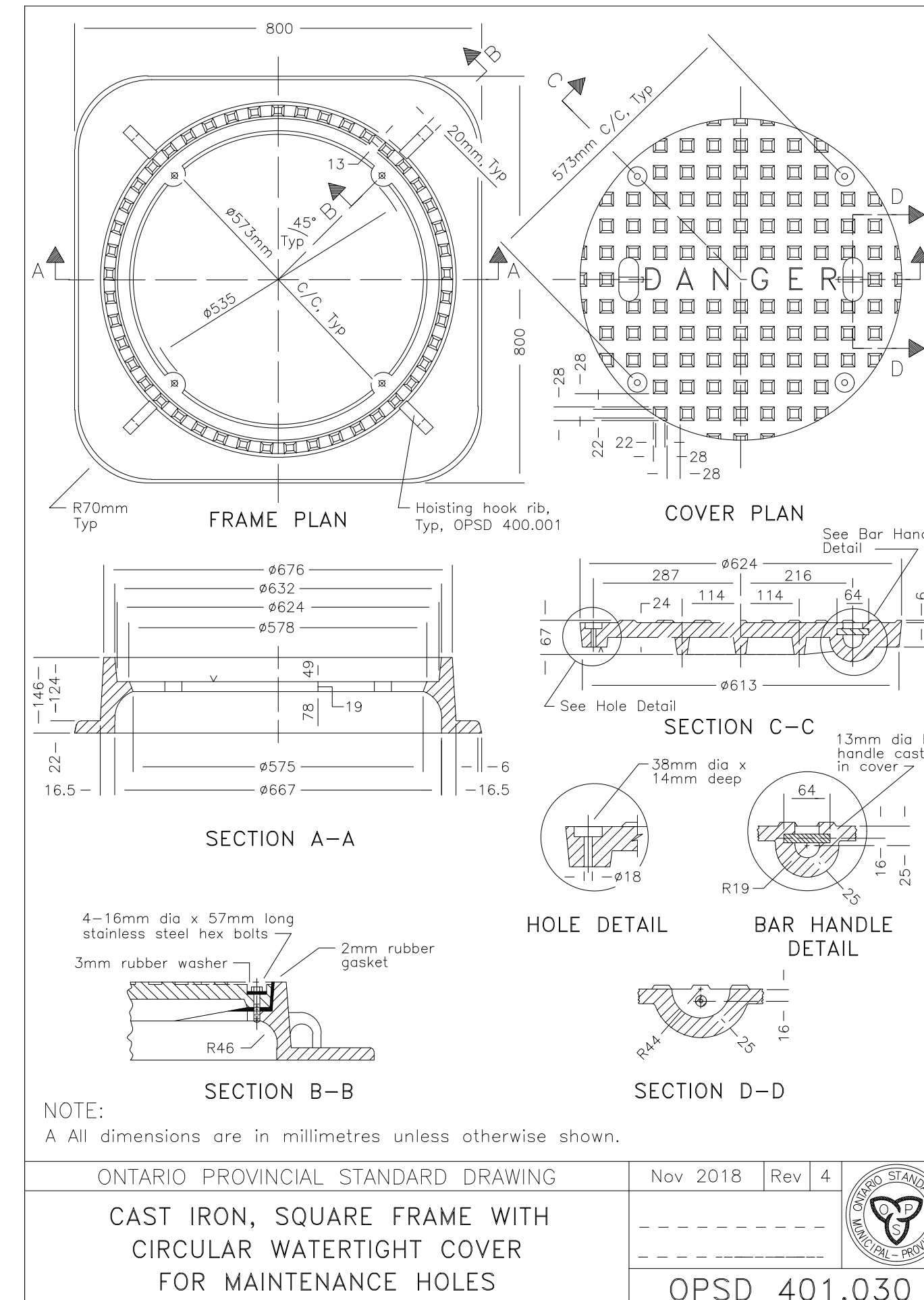
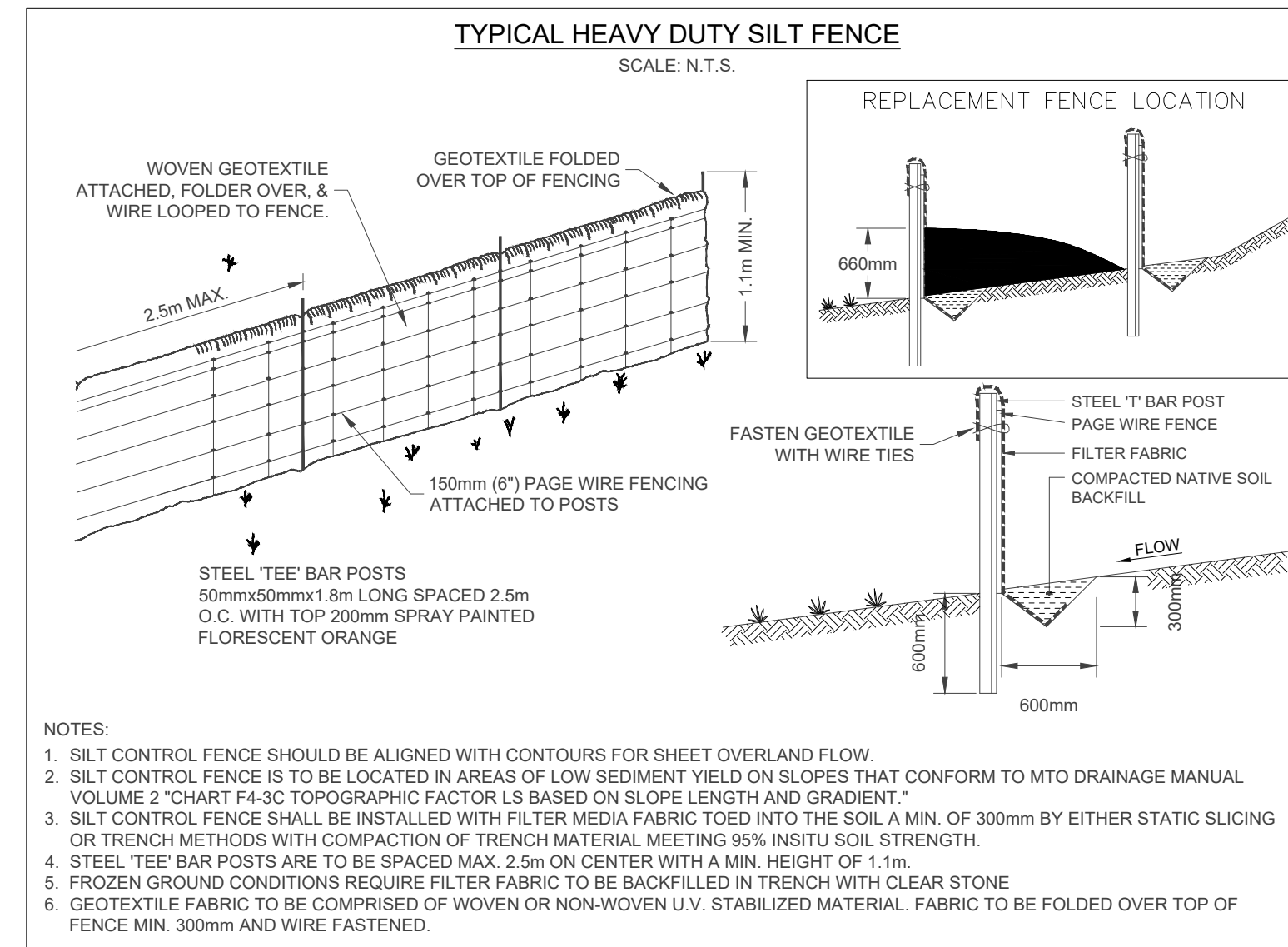
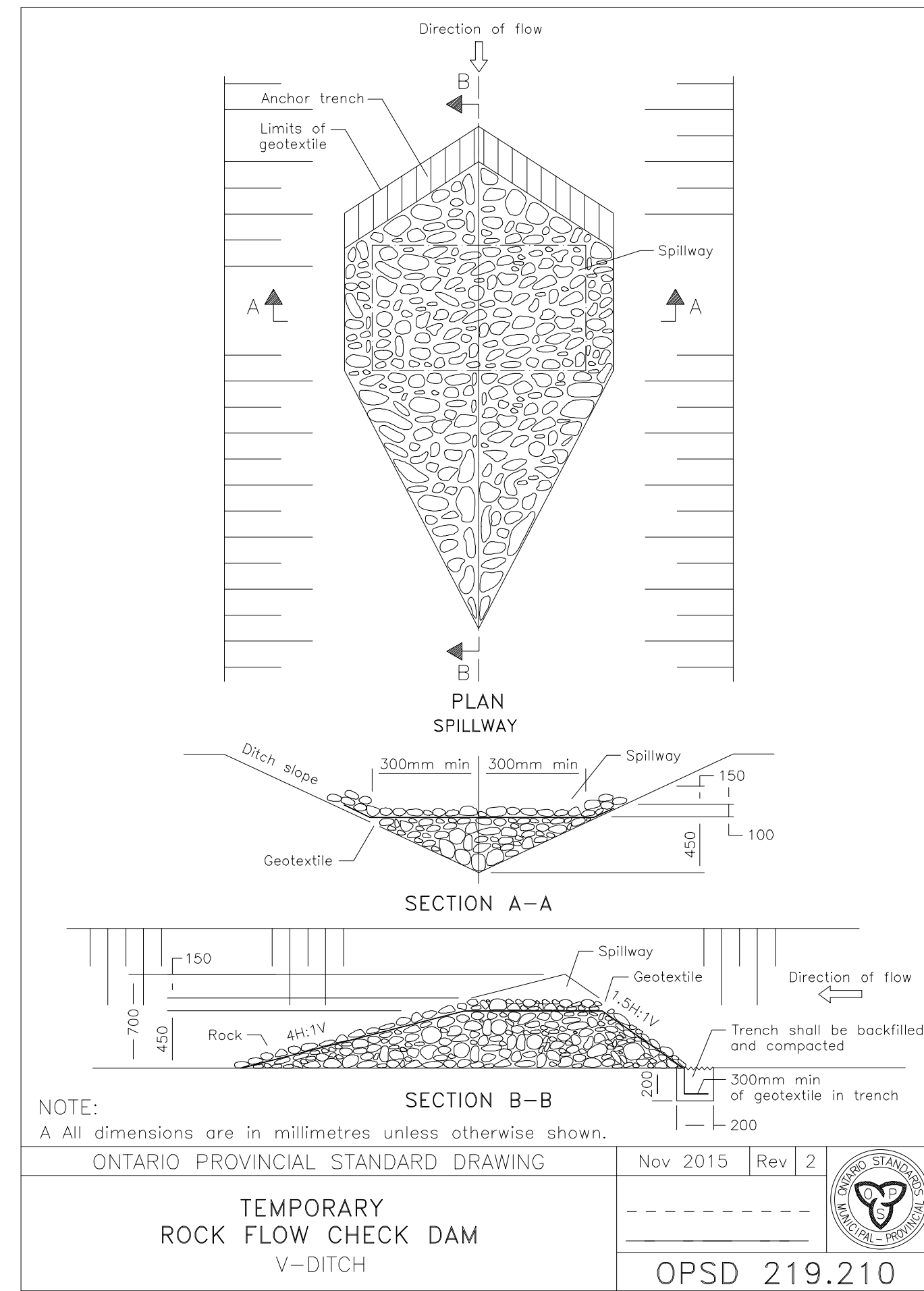
ONTARIO PROVINCIAL STANDARD DRAWING Nov 2015 Rev 3  
**RIGID PIPE BEDDING, COVER, AND BACKFILL TYPE 1 OR 2 SOIL - EARTH EXCAVATION**  
 OPSD 802.030

**NOTES:**  
 A This OPSD shall be read in conjunction with OPSD 610.010 and 610.020.  
 B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2018 Rev 3  
**CAST IRON, SQUARE FRAME WITH SQUARE OVERFLOW TYPE DISHED GRATE FOR CATCH BASINS, HERRING BONE OPENINGS**  
 OPSD 400.010

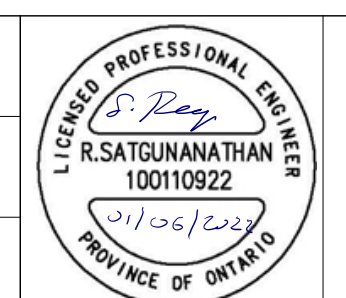
No.	DATE MM.DD.YY	REVISIONS	BY	SCALE			RA ENGINEERING INC. A SOLUTION PROVIDER FOR INDUSTRIES & AGENCIES Unit 210 - 18075 Leslie St. Newmarket Ontario, L3Y9A4 Tel : (905) 235-9105 Fax : (905) 235-9150 Email : info@raengineer.com Web : www.raengineer.com	DRAWN BY A.N. DESIGNER A.N.Y.R. CHECKED BY R.N.	10 WATSON ROAD WAREHOUSE FACILITY STANDARD DETAILS 1	DWG NO. 21081601-C-700 CONTRACT NO. 00000000 SHEET NO. C700
1.	05.31.22	ISSUED FOR SPA APPROVAL.	R.N.	N.T.S.						
				DLW FILE REFERENCE 21081601						
				DATE 01.11.21						

File Name: C:\USERS\VANRAMPHUIS\RA ENGINEERING INC\PROJECTS - DOCUMENTS\21081601\_10 WATSON ROAD FOR CEPE\CAD\2BA STAGE\21081601\_10 WATSON ROAD\_COVER+C100+600+700.DWG



No.	DATE MM.DD.YY	REVISIONS	BY	SCALE
1.	05.31.22	ISSUED FOR SPA APPROVAL.	R.N.	N.T.S.

DLW FILE REFERENCE	DATE
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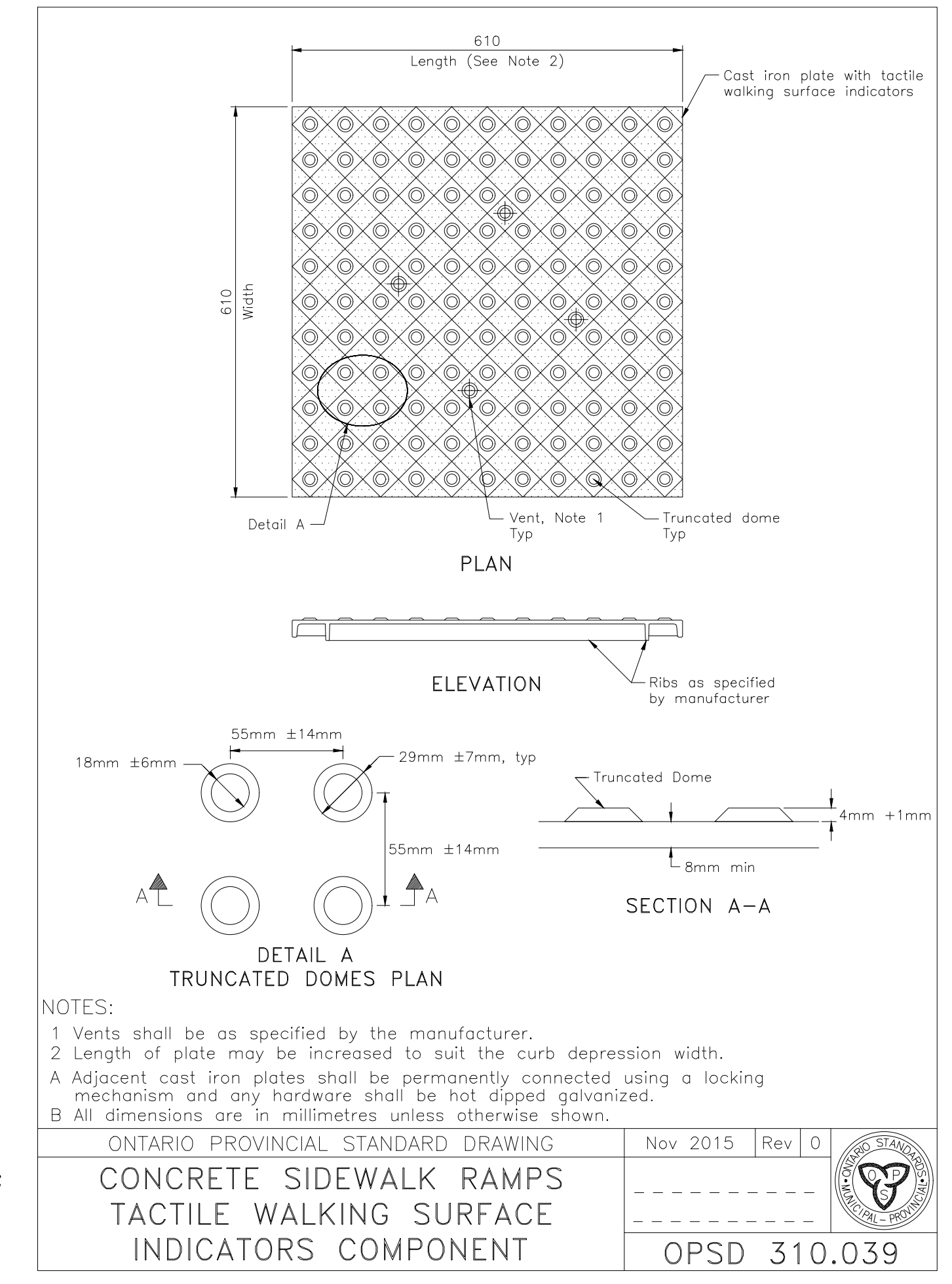
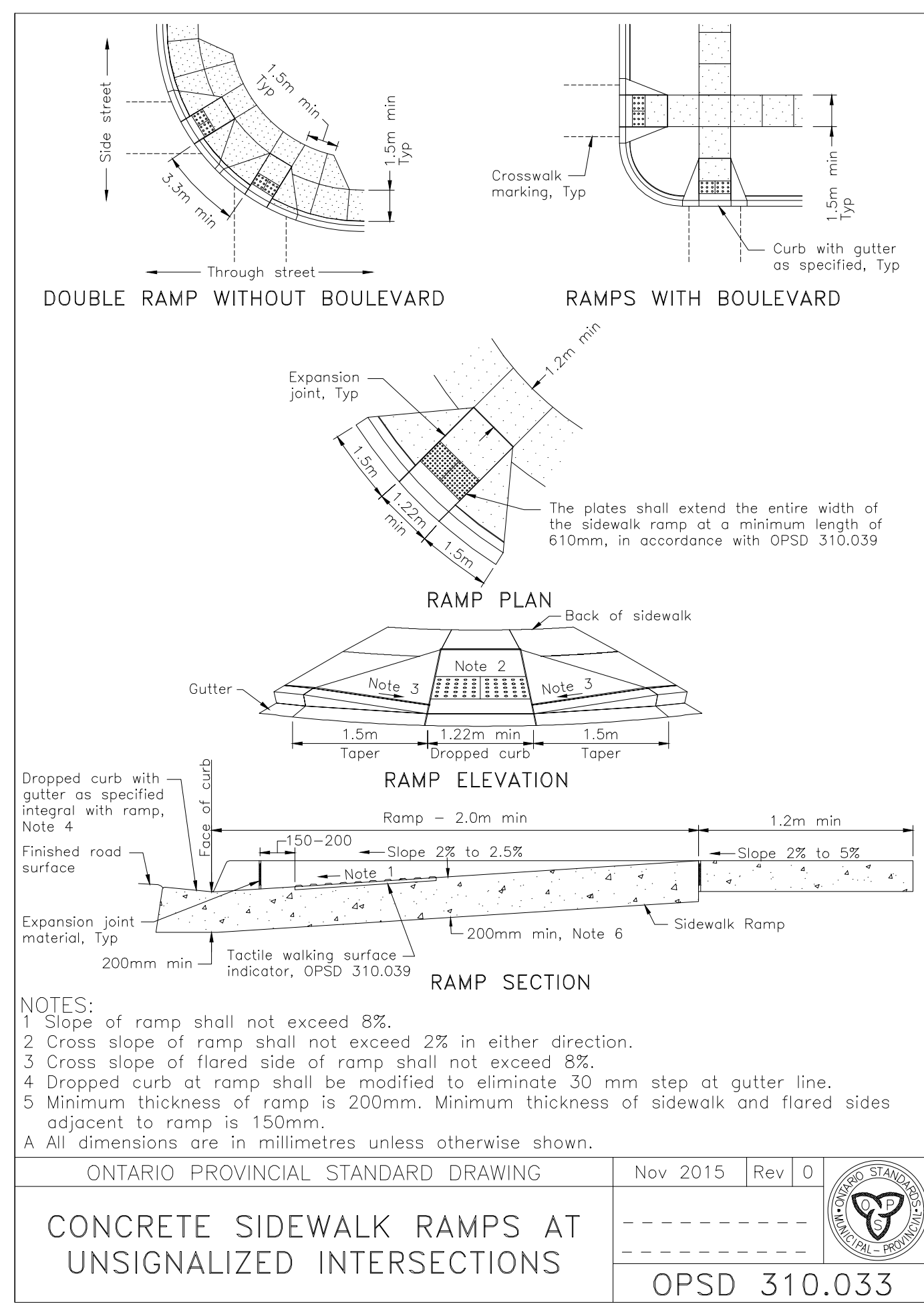
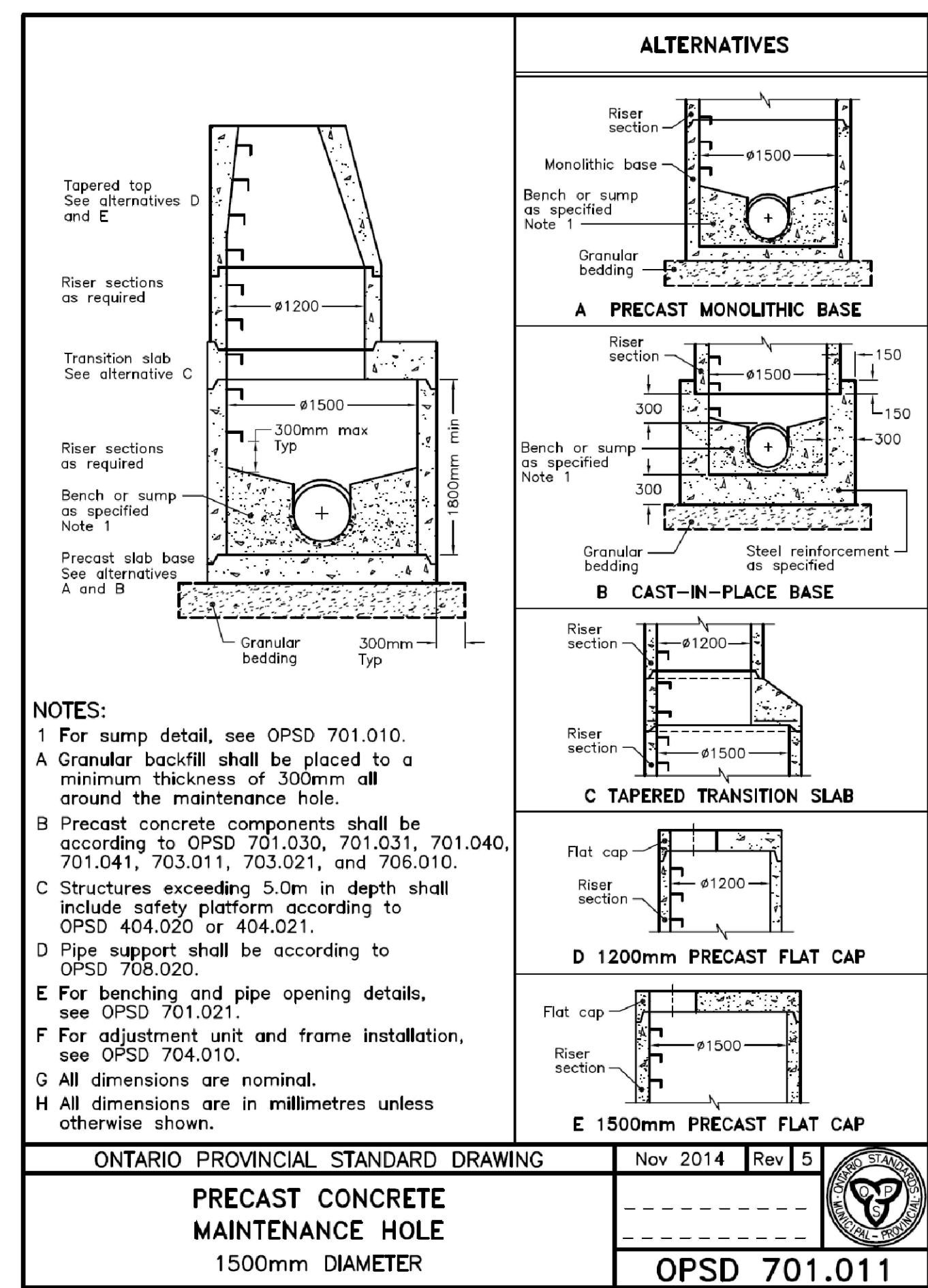
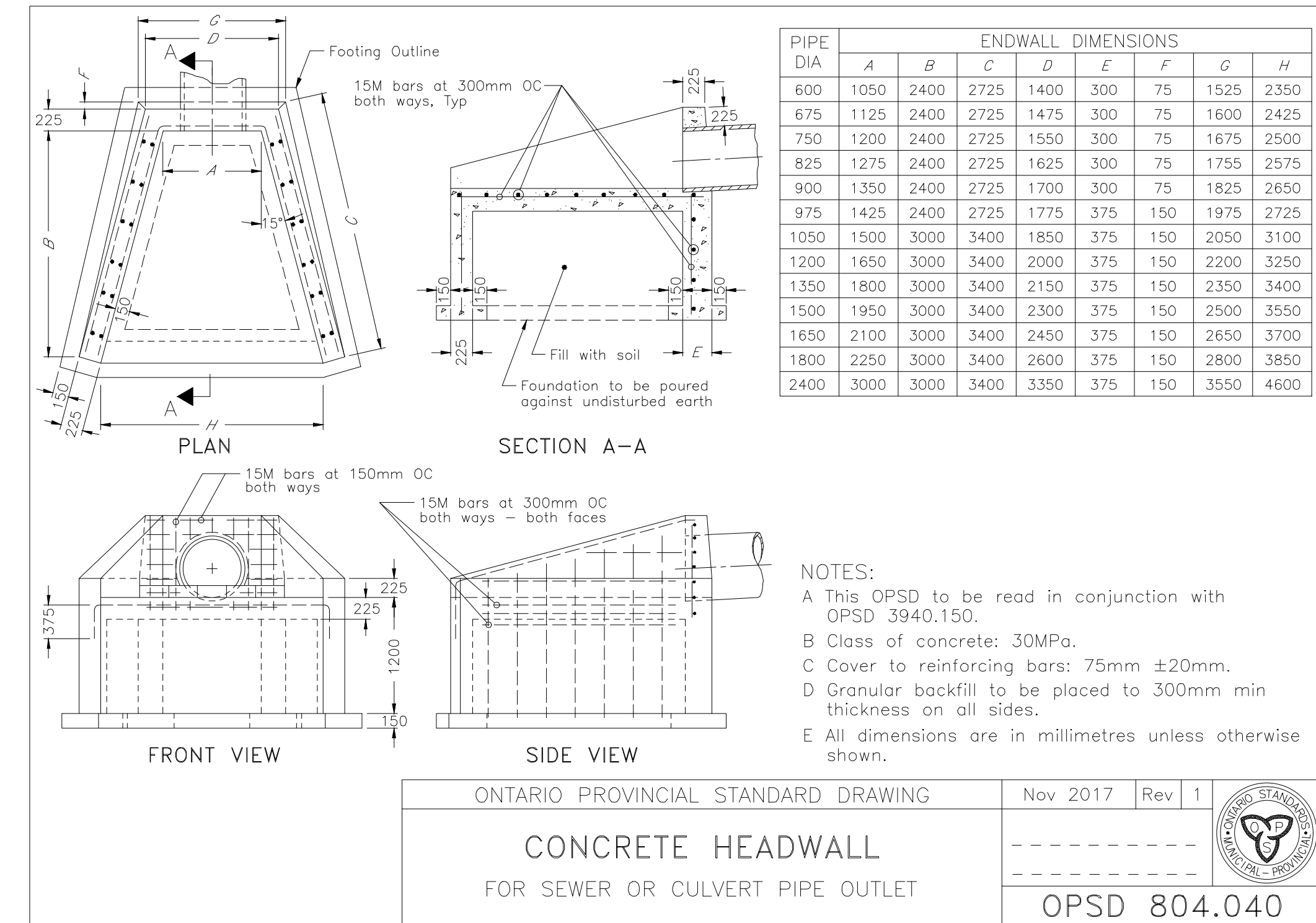
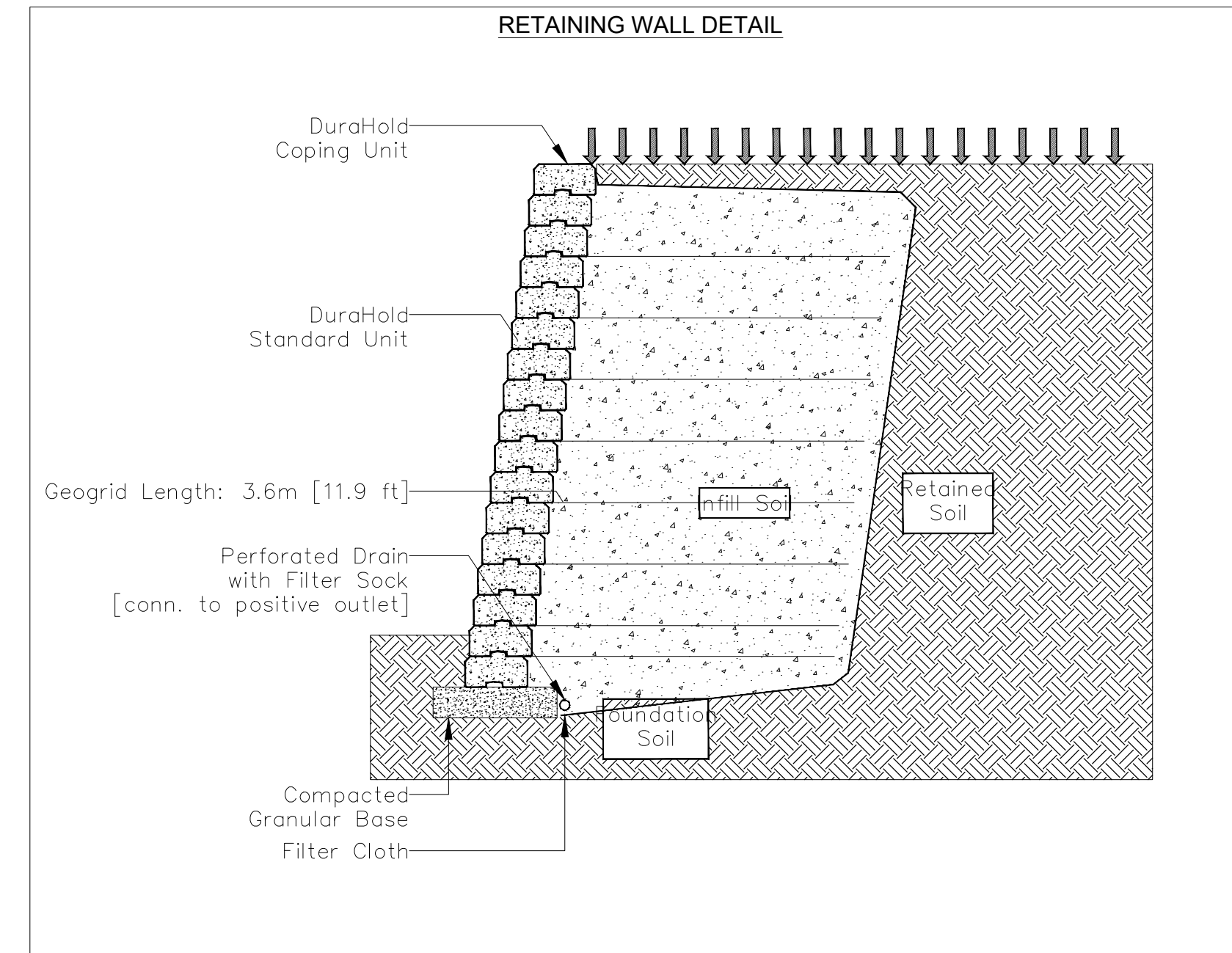
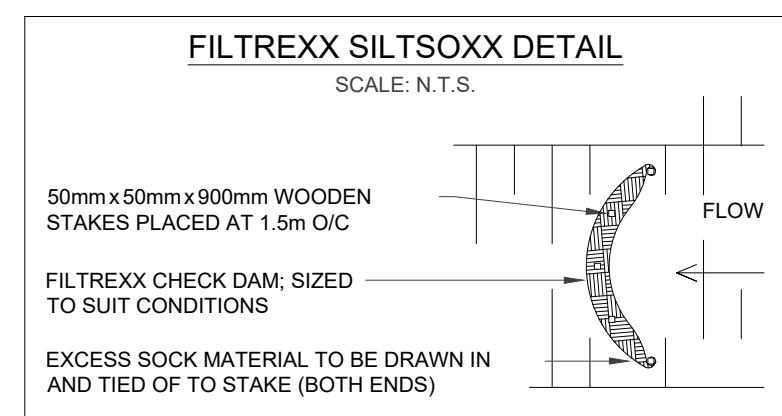
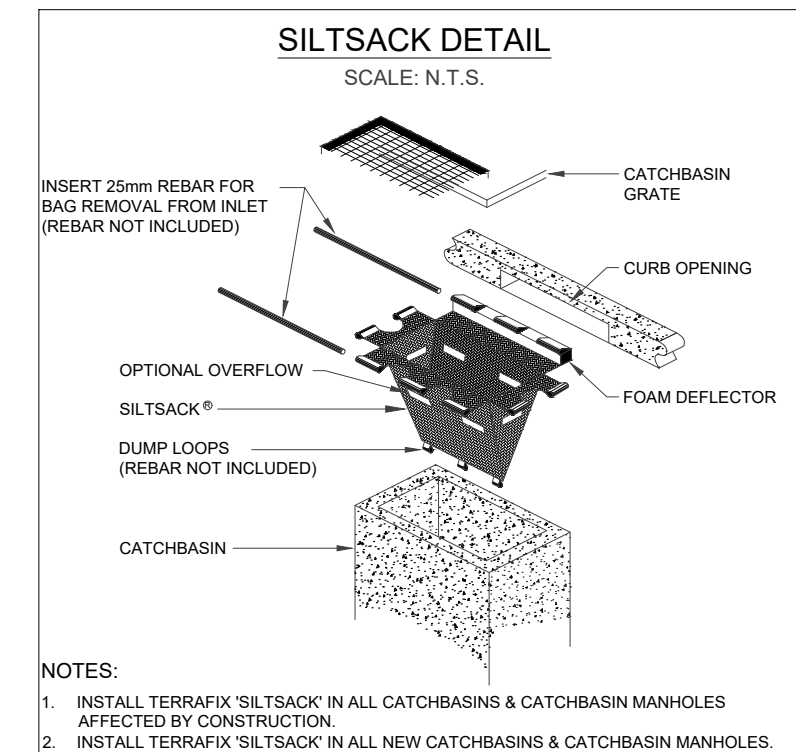
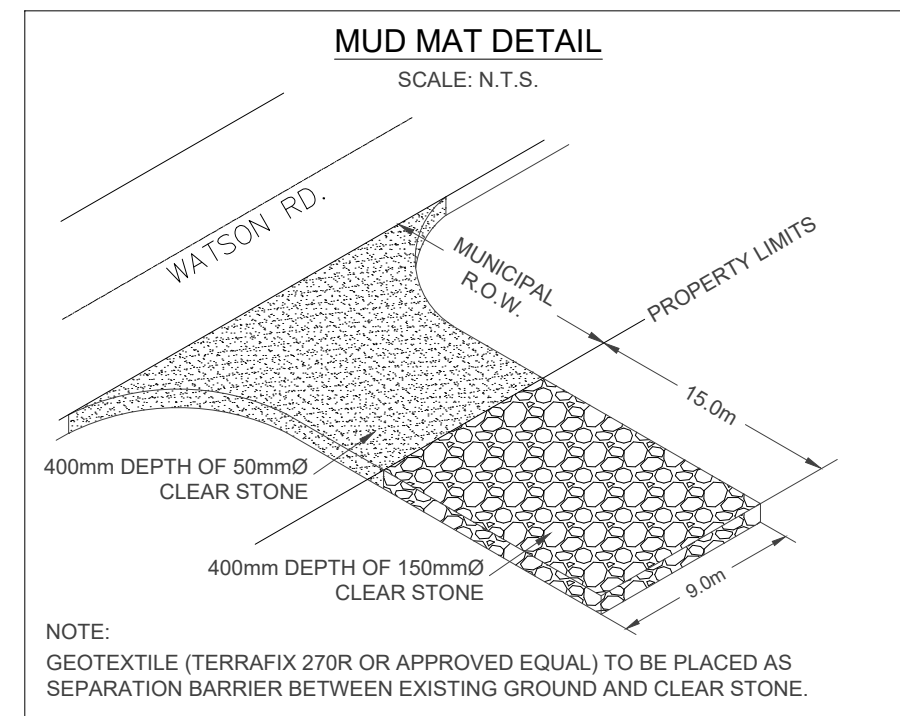
**WAREHOUSE FACILITY FOR CEPE**

DRAWN BY	DESIGNER	CHECKED BY	R.N.
A.N.	A.N.Y.R.	R.N.	

**10 WATSON ROAD WAREHOUSE FACILITY**

**STANDARD DETAILS 2**

DWG NO.	CONTRACT NO.	SHEET NO.
21081601-G-701	00000000	C701



No.	DATE MM.DD.YY	REVISIONS	BY	SCALE	LICENCED PROFESSIONAL ENGINEER R. S. ATGUNANATHAN 10010922 PROVINCE OF ONTARIO	RA ENGINEERING INC. A SOLUTION PROVIDER FOR INDUSTRIES & SERVICES Unit 210 - 18075 Leslie St. Newmarket Ontario, L3Y9A4 Tel : (905) 235-9105 Fax : (905) 235-9150 Email : info@raengineer.com Web : www.raengineer.com	DRAWN BY A.N.	DESIGNER A.N.Y.R.	CHECKED BY R.N.	10 WATSON ROAD WAREHOUSE FACILITY	DWG NO. 21081601C-702
1.	05.31.22	ISSUED FOR SPA APPROVAL.	R.N.	N.T.S.							
WAREHOUSE FACILITY FOR CEPE											SHEET NO. C702
STANDARD DETAILS 3											