

CAUTION:
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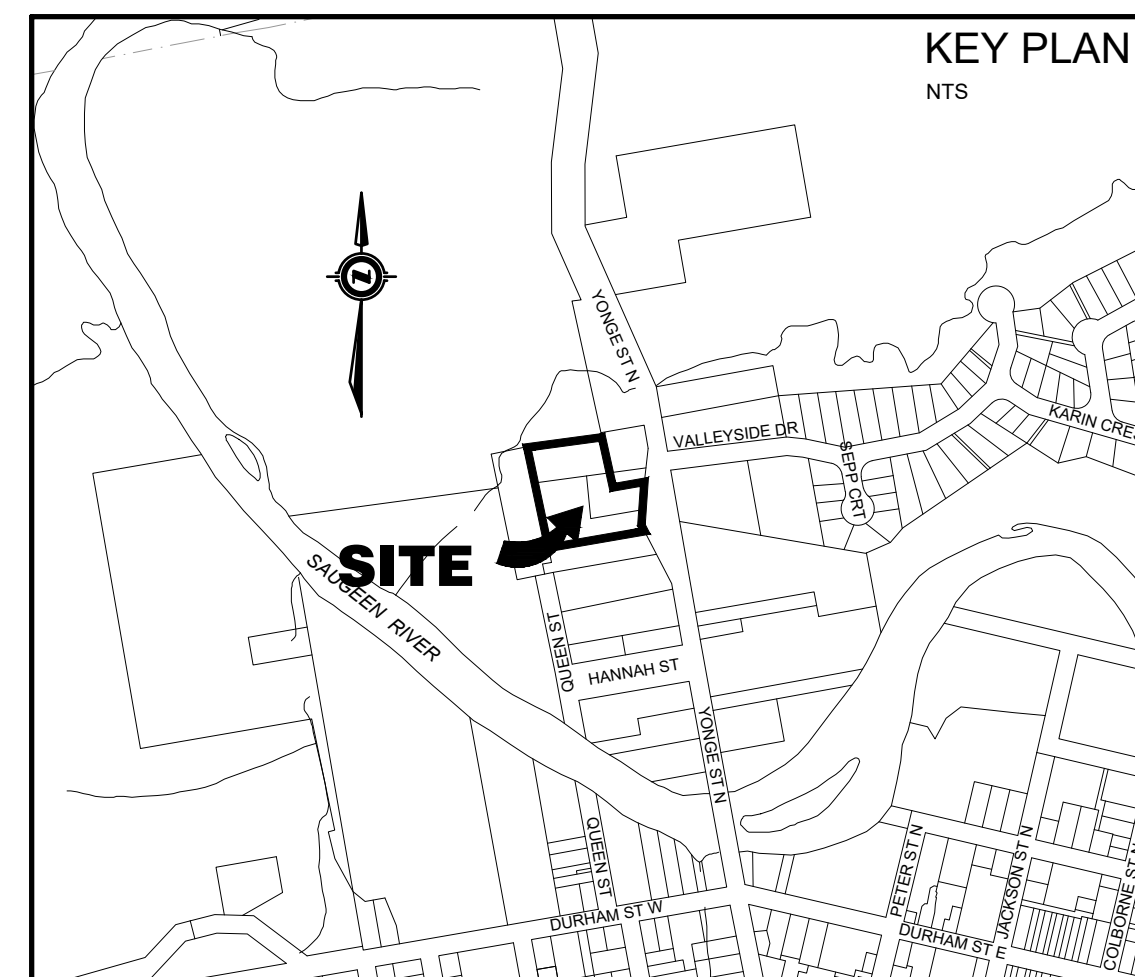
37 YONGE ST TOWNHOUSE DEVELOPMENT

MUNICIPALITY OF BROCKTON

CONTRACT NO. 24-01892-01

MAYOR : MR. CHRIS PEABODY
 CHIEF ADMINISTRATIVE OFFICER : MS. SONYA WATSON
 DIRECTOR OF OPERATIONS : MR. NICHOLAS SCHNURR

OWNER :
 WILSON DEVELOPMENTS



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No.	DATE	DESCRIPTION	BY	APPD
2	AUG 08/24	THIRD SUBMISSION	JHL	TLB
1	JUL 23/24	SECOND SUBMISSION	JHL	TLB
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REVISION / ISSUE

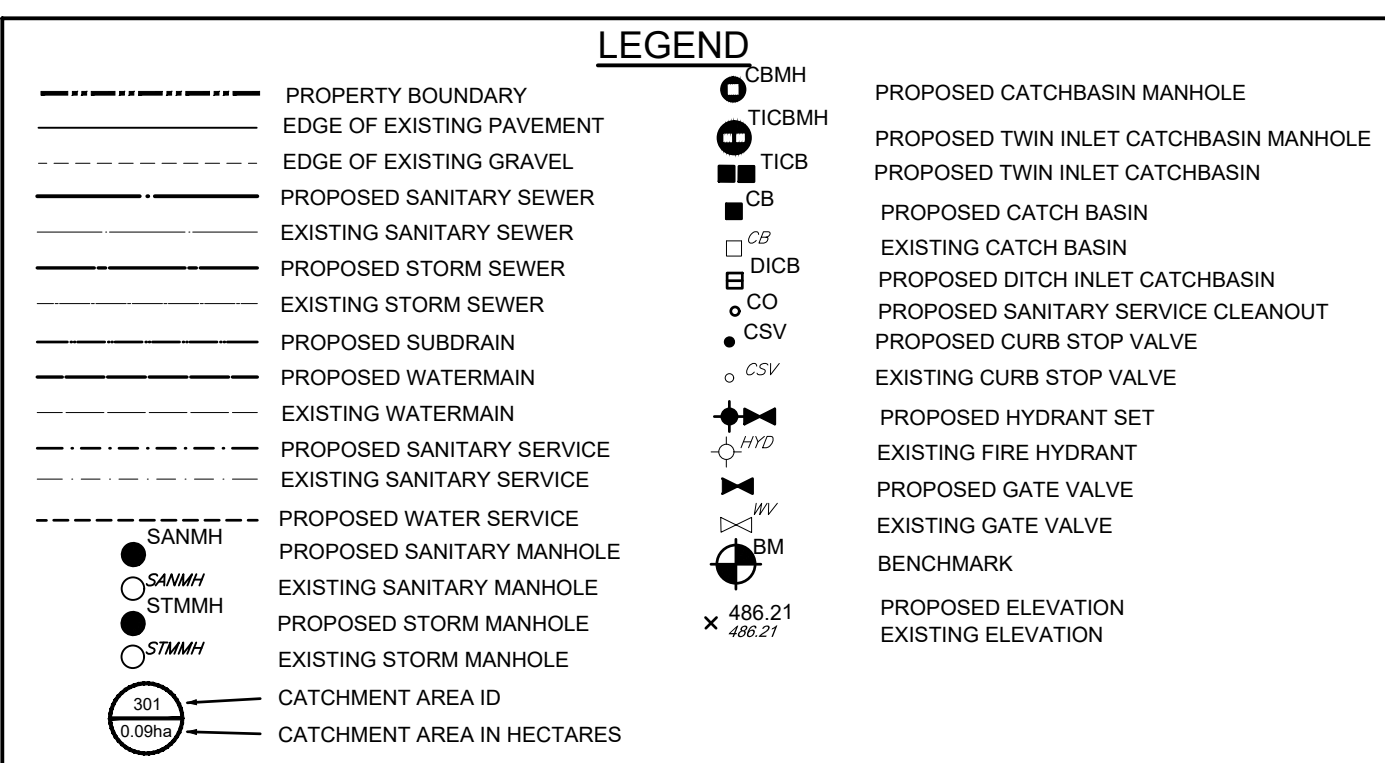
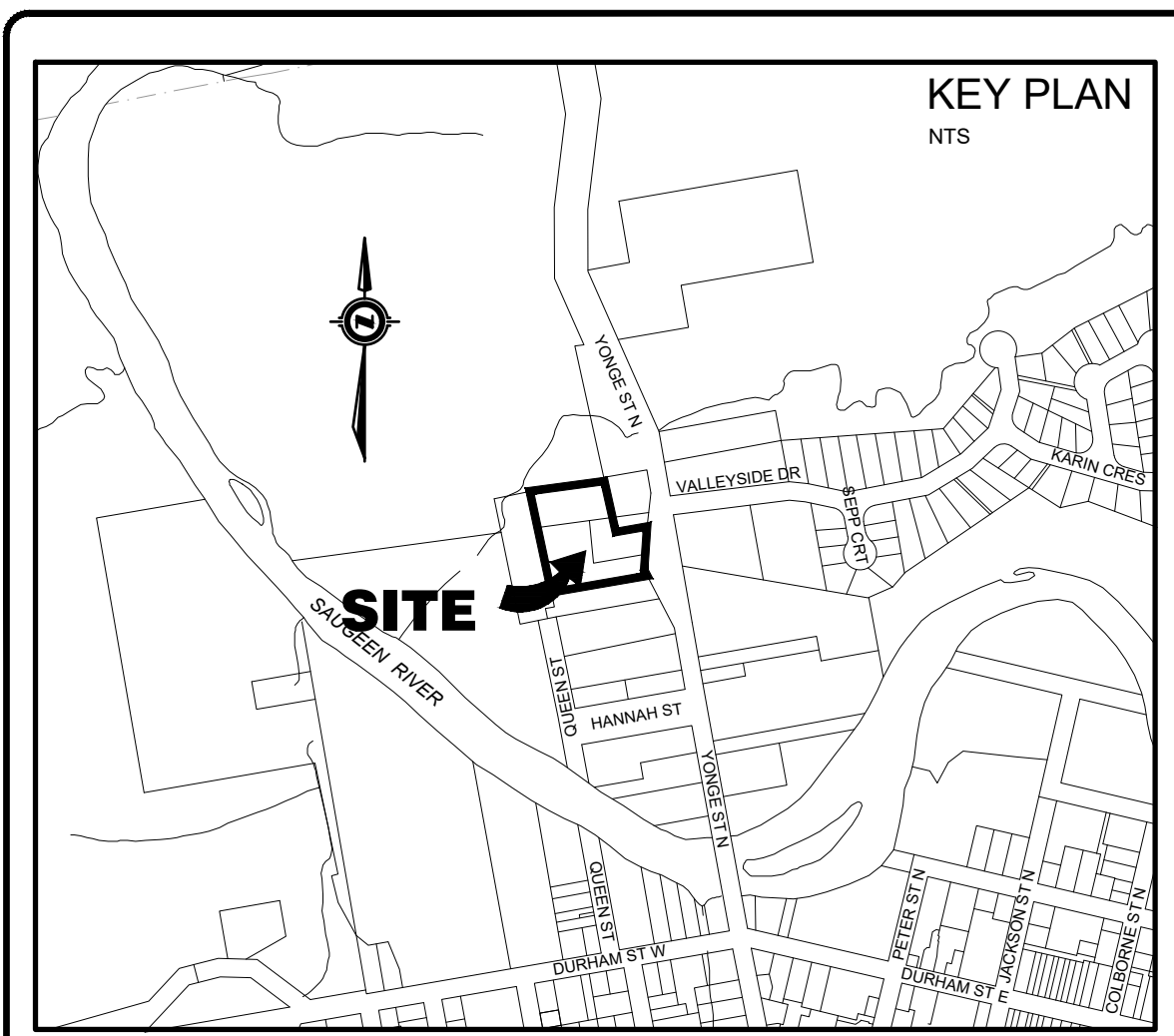
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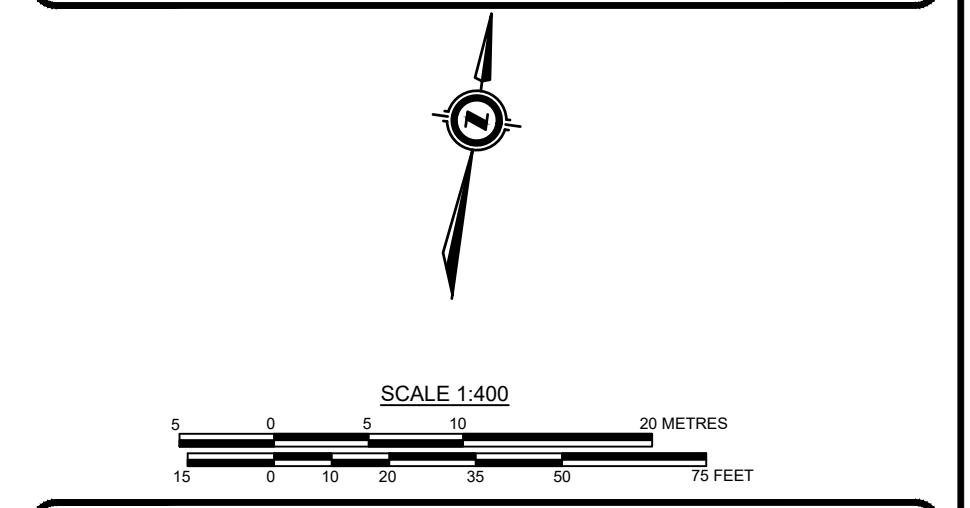
Title: RIVER BREEZE TOWNHOUSES
 PROPOSED DEVELOPMENT

MUNICIPALITY OF BROCKTON
 (FORMERLY TOWN OF WALKERTON)
 TITLE SHEET

Client:	WILSON DEVELOPMENTS	
Design:	TLB	Scale:
Drawn:	JHL	Approved:
Checked:	TLB	
Date:	JAN 2024	Design Engineer:
DRAWING No.	01892-TS	



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- PROPERTY BOUNDARY DERIVED FROM PLAN 3R-3215 PREPARED BY HARRY R. WHALE INC. DATED APRIL 27, 1982 & PLAN 3R-10758 PREPARED BY R.F. DORE SURVEYING LTD. DATED JUNE 20, 2023.
 - TOPOGRAPHICAL INFORMATION DERIVED FROM FIELD SURVEY BY SMC GEOMATICS INC. ON JUNE 23, 2021.
 - ALL ORGANIC MATERIAL WITHIN 1.2m OF FINISHED PROFILE GRADE TO BE REMOVED FROM ALL AREAS UNDER THE TRAVELLED PORTION OF THE DRIVEWAY, SIDEWALK AND PARKING LOT.
 - COVER OVER WATER SERVICES TO BE MINIMUM 1.8m AT ALL POINTS, AND SHALL BE CONSTRUCTED OF 60mmØ MUNICIPEX.
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 - TRACER WIRE - PROVIDE TYPE TWU No. 12/7 STRAND COPPER CABLE HAVING THERMOPLASTIC INSULATION RATED FOR UNDERGROUND USE AND SHALL HAVE A CONDUCTIVITY TEST COMPLETED FOLLOWING CONSTRUCTION.
 - WATERMAIN SHALL BE TESTED IN ACCORDANCE WITH OPSS 441, AWWA C651 AND MECP "WATERMAIN DISINFECTION PROCEDURE". ALL CHEMICALS AND MATERIALS USED SHALL CONFORM TO AWWA B300, AWWA B301, NSF/ANSI 60, NSF/ANSI 61.
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 - RESTORE DISTURBED/GRADING AREAS WITH 150mm TOP SOIL, SEED AND MULCH.



Benchmark Information

BM1	IB NORTHEAST CORNER OF PROPERTY.	ELEVATION	262.22m
BM2	SIB AT SOUTHEAST CORNER OF INTERSECTION OF STREET AND VALLEYSIDE DRIVE.	ELEVATION	260.41m

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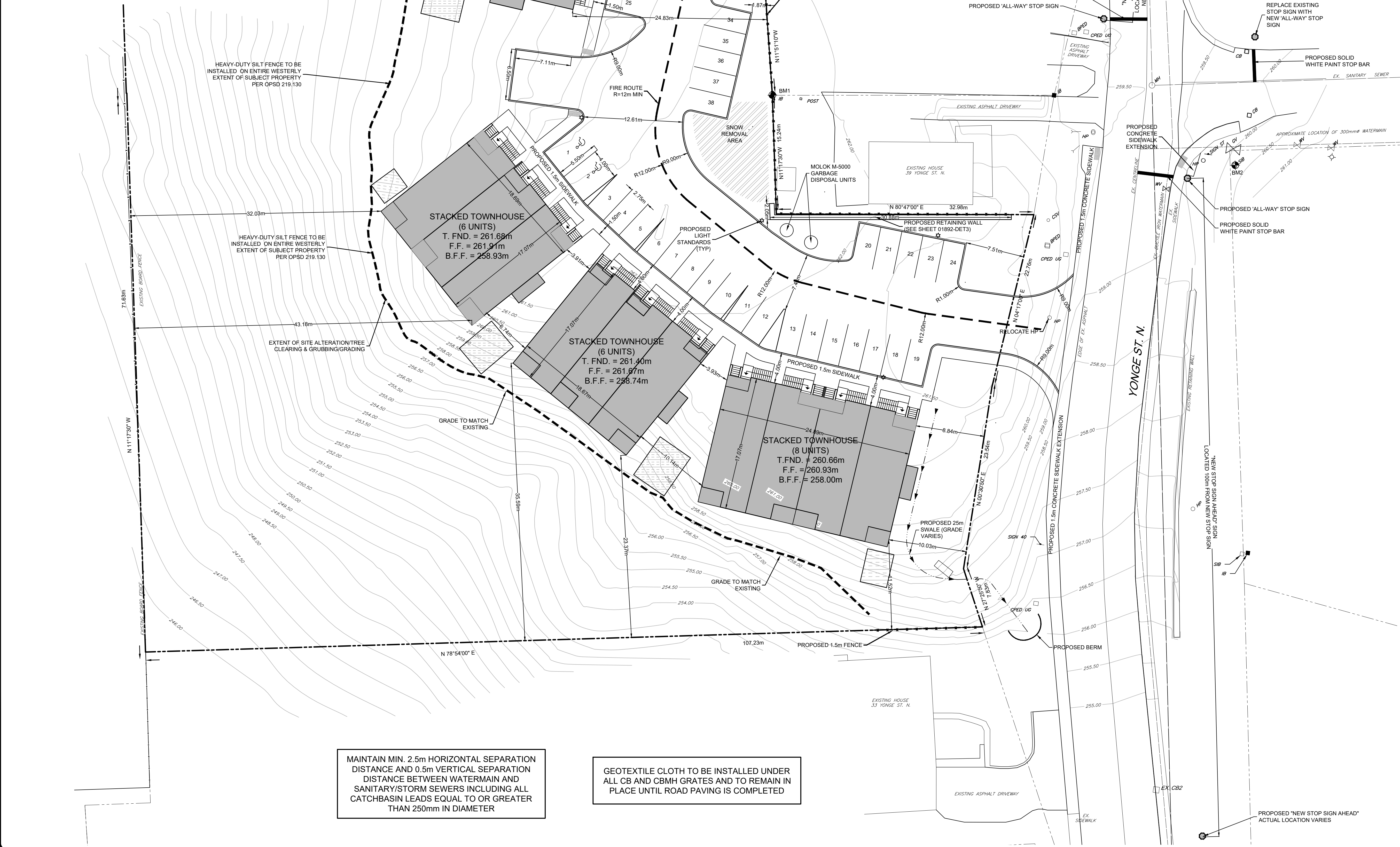
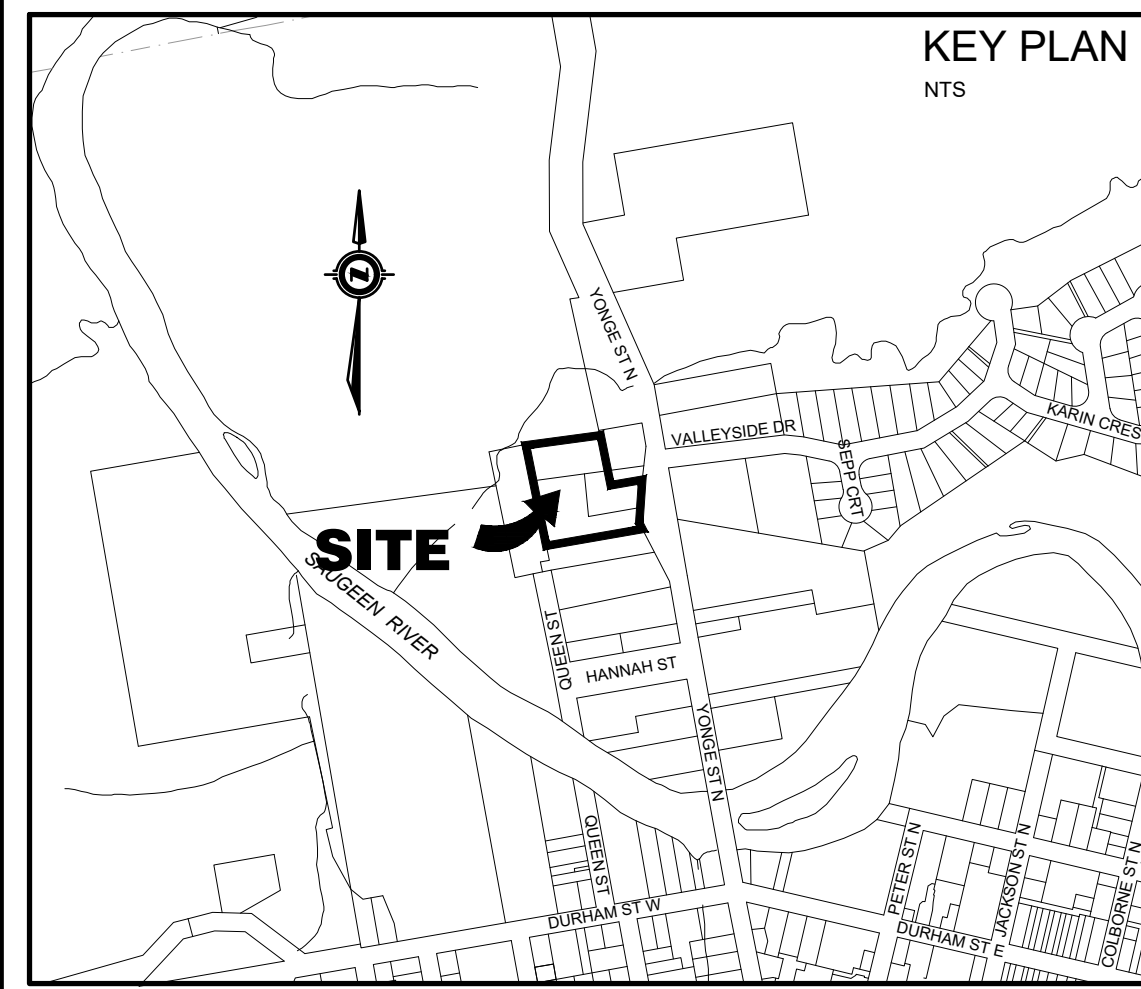
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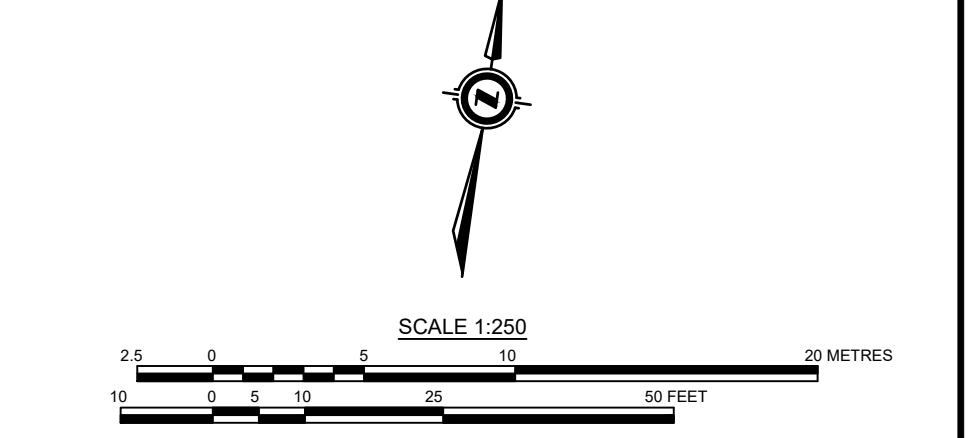
517 10th Street, Hanover, Ontario N4N 1R4
Telephone: (519) 506-5959
www.cobideeng.com

Title: RIVER BREEZE TOWNHOUSES PROPOSED DEVELOPMENT	
Municipality of Brockton (Formerly Town of Walkerton) EXISTING CONDITIONS AND REMOVALS PLAN	
Client: WILSON DEVELOPMENTS	
Design: TLB	Scale: 1:400
Drawn: JHL	Approved:
Checked: TLB	
Date: JAN 2024	
DRAWING No. 01892-EX1	

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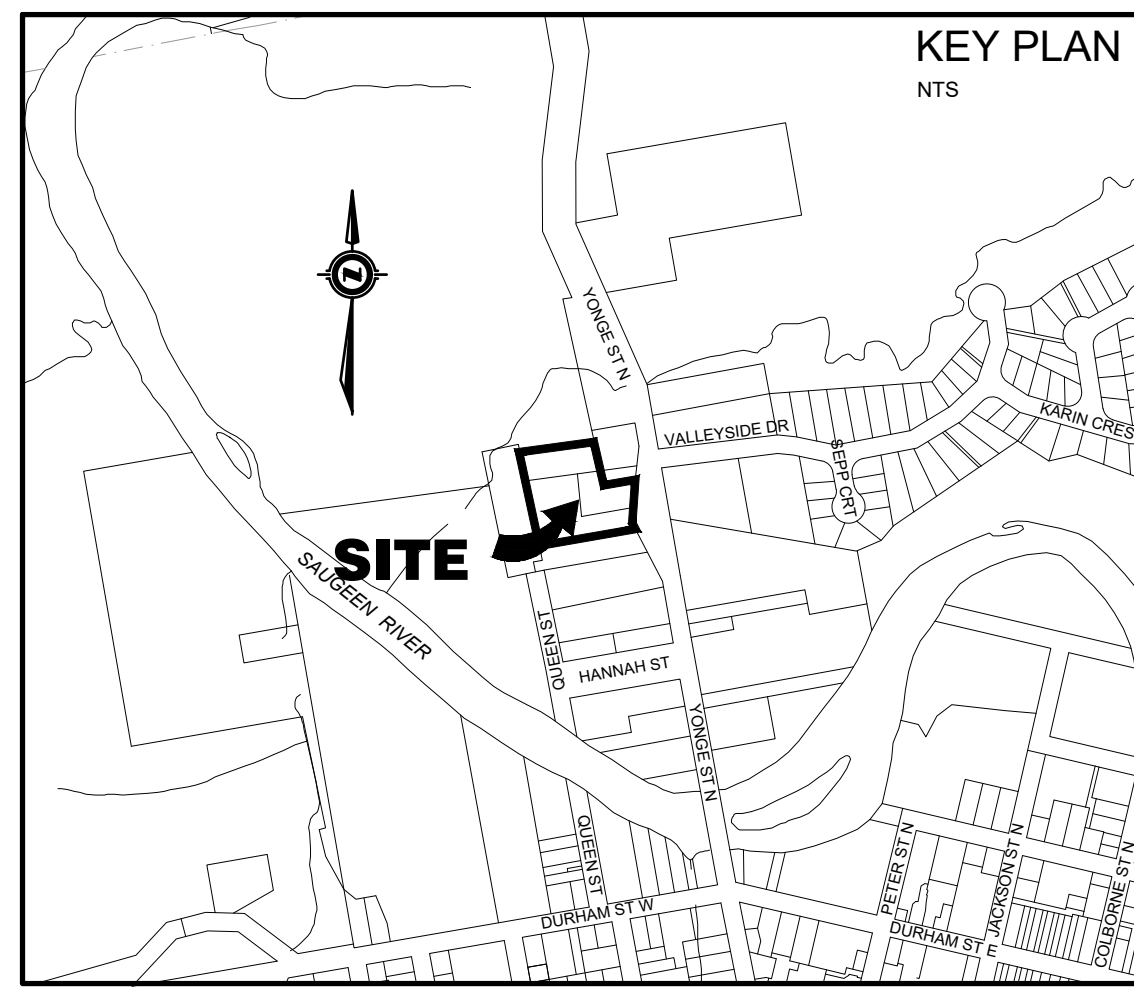
517 10th Street, Hanover, Ontario N4N 1R4
Telephone: (519) 506-5959
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Client: WILSON DEVELOPMENTS

Title: RIVER BREEZE TOWNHOUSES PROPOSED DEVELOPMENT
MUNICIPALITY OF BROCKTON (FORMERLY TOWN OF WALKERTON) DEVELOPMENT SITE PLAN

Design:	TLB	Scale:	1:250
Drawn:	JHL	Approved:	
Checked:	TLB		
Date:	JAN 2024		

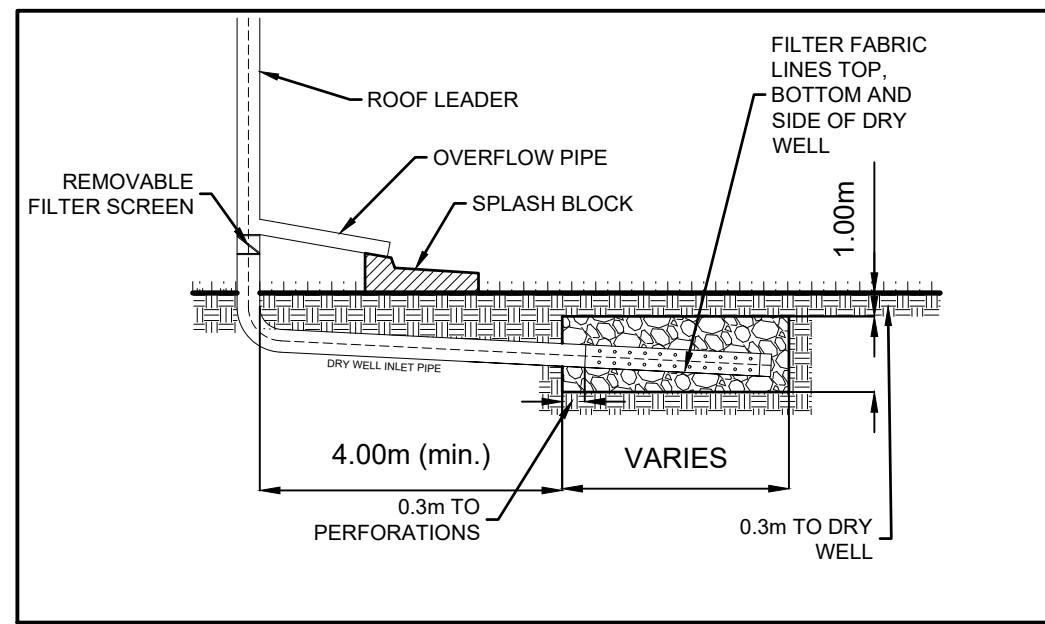
DRAWING No. 01892-SP1



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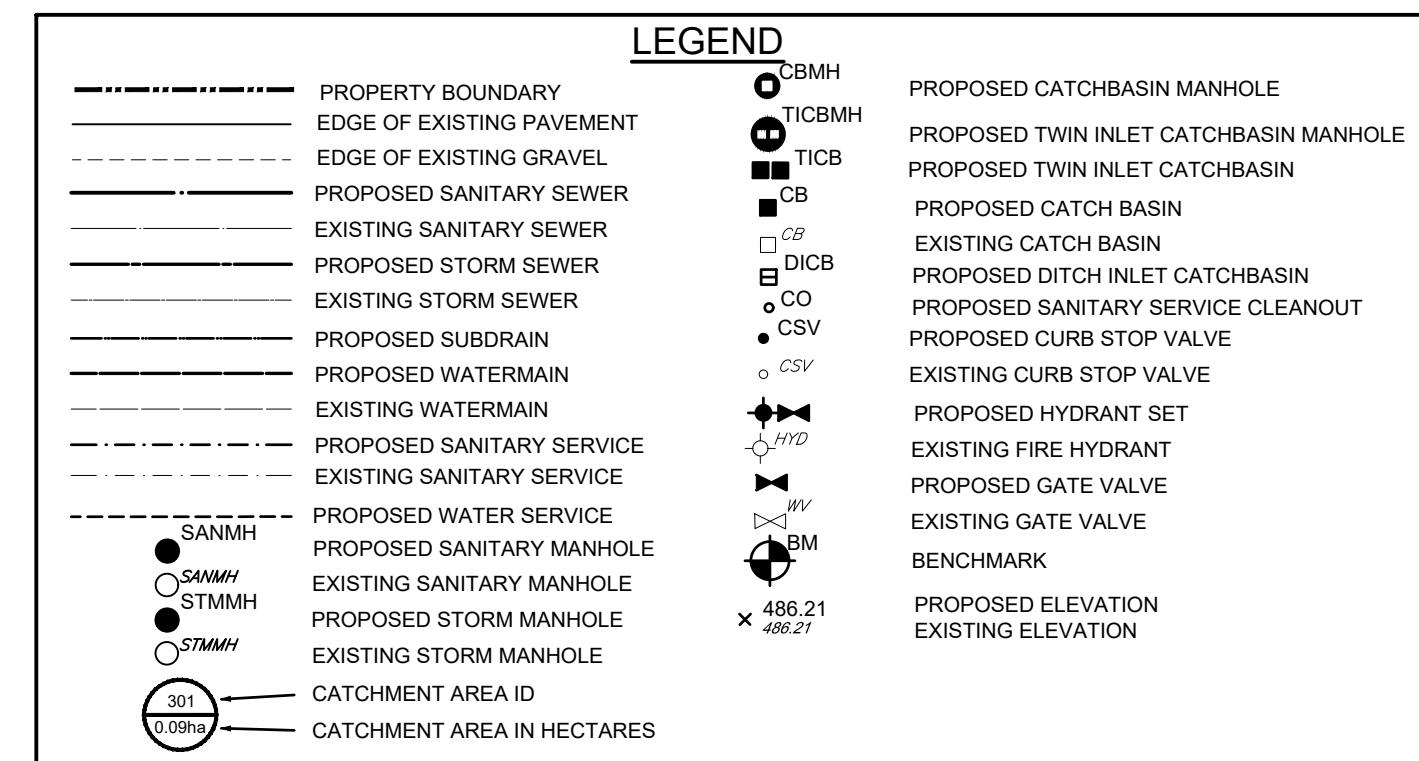
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INFILTRATION GALLERY DETAIL

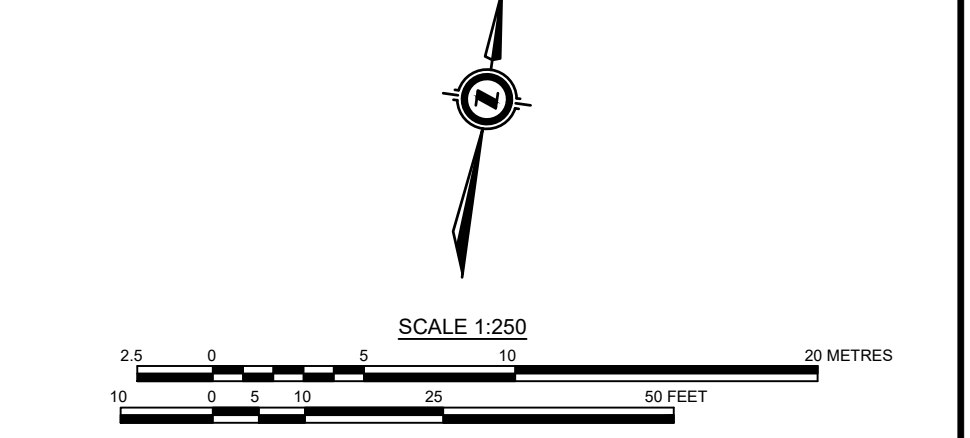


INFILTRATION GALLERY TO BE DESIGNED BASED UPON ROOF AREA. GALLERY TO BE MIN 1m IN DEPTH. GALLERY TO PROVIDE 0.05m³ PER m² OF ROOF AREA. 50mm WASHED CLEAR STONE TO BE USED FOR INFILTRATION GALLERY

VOLUME BASED ON 40% VOIDS IN STONE



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Project: RIVER BREEZE TOWNHOUSES PROPOSED DEVELOPMENT

Client: WILSON DEVELOPMENTS

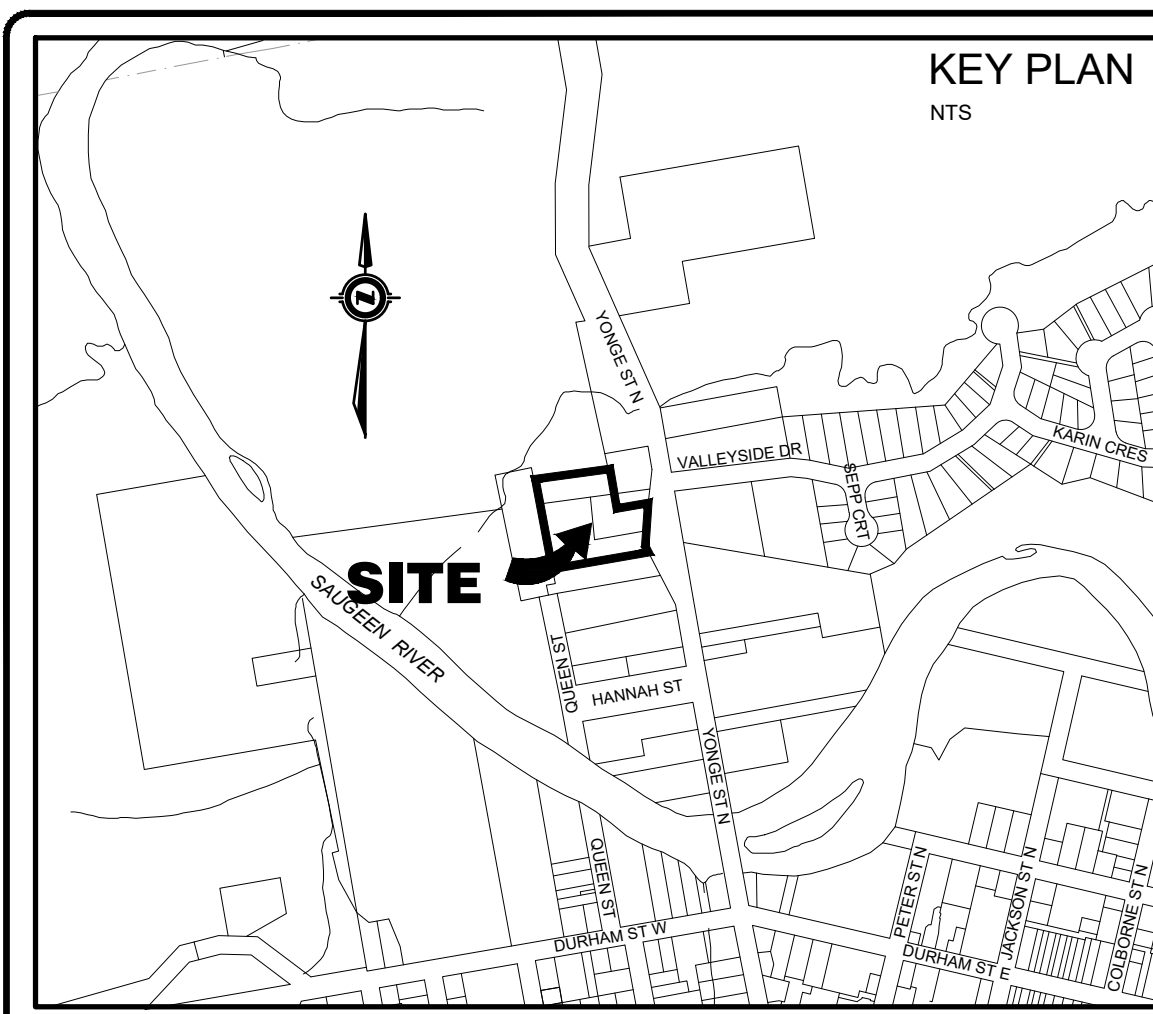
Design: TLB **Scale:** 1:250

Drawn: JHL **Approved:**

Checked: TLB

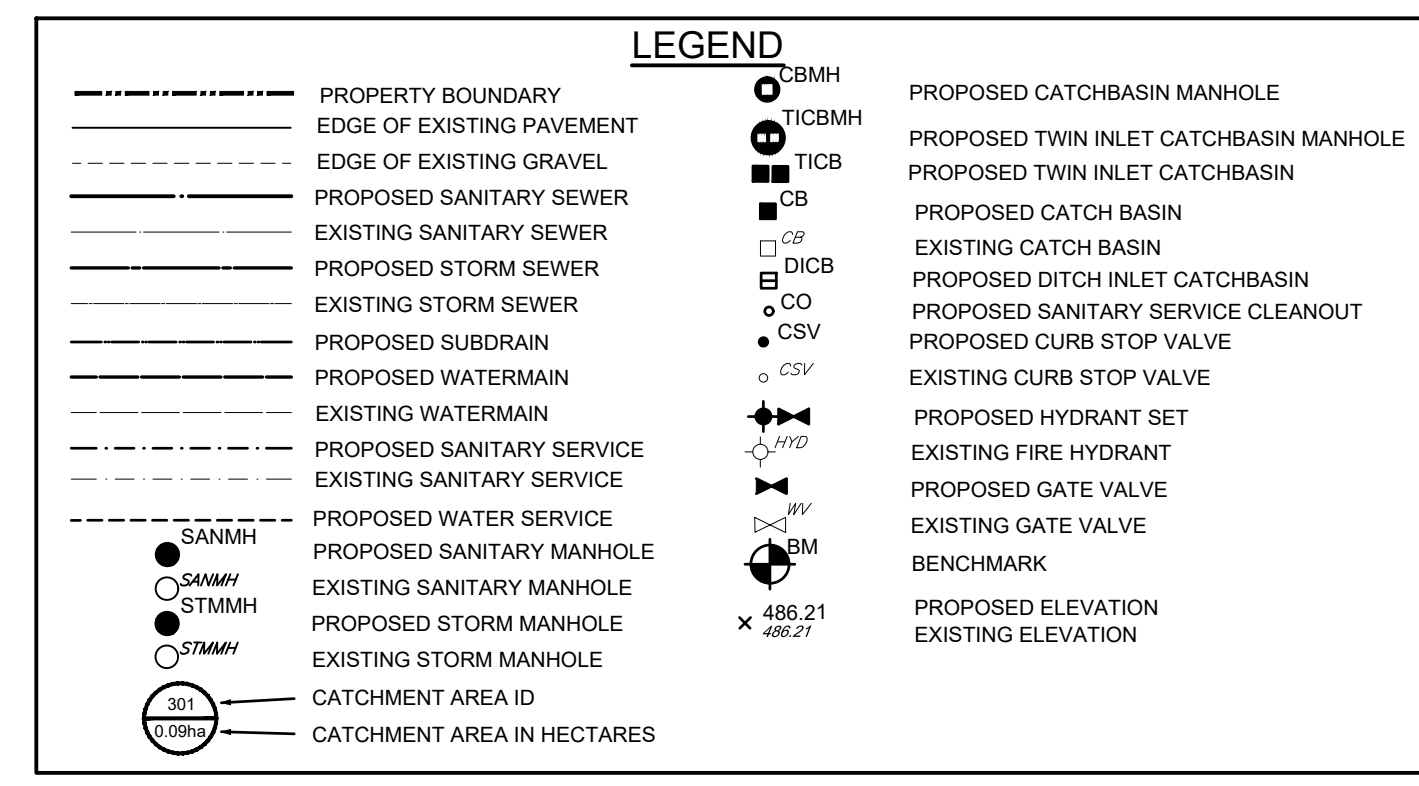
Date: JAN 2024 **Design Engineer:**

DRAWING No.: 01892-SS1



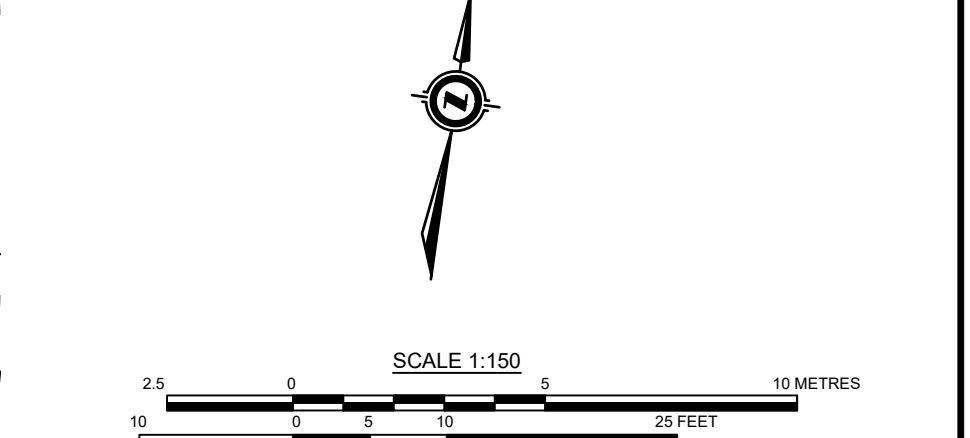
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 - GEOTEXTILE FABRIC TO BE INSTALLED UNDER STORM GRATES UNTIL THE COMPLETION OF PAVING.
 - RESTORE DISTURBED/GRADING AREAS WITH 150mm TOP SOIL, SEED AND MULCH.



Benchmark Information

BM1	IS NORTHEAST CORNER OF PROPERTY.	ELEVATION	262.22m
BM2	SIB AT SOUTHEAST CORNER OF INTERSECTION OF YONGE STREET AND VALLEYSIDE DRIVE.	ELEVATION	260.41m

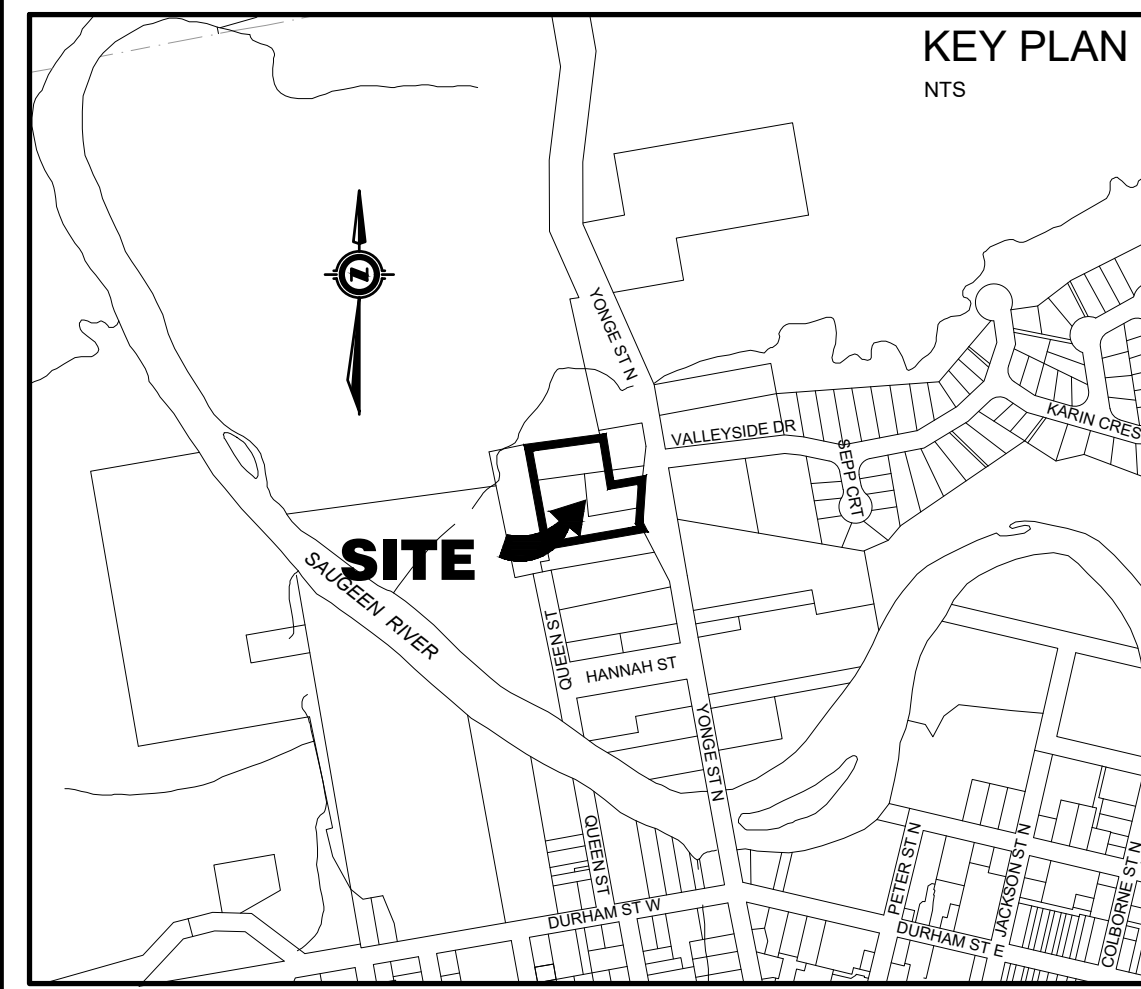
No.	DATE	DESCRIPTION	BY	APPRO
2	AUG 08/24	THIRD SUBMISSION	JHL	TLB
1	JUL 23/24	SECOND SUBMISSION	JHL	TLB
0	APR 02/24	FIRST SUBMISSION	JHL	TLB

Seal not valid unless signed and dated

517 10th Street, Hanover, Ontario N4N 1R4
Telephone: (519) 506-5959
www.cobideeng.com

Title		RIVER BREEZE TOWNHOUSES PROPOSED DEVELOPMENT	
Client		WILSON DEVELOPMENTS	
Design:	TLB	Scale:	1:150
Drawn:	JHL	Approved:	
Checked:	TLB	Date:	JAN 2024
Date:	JAN 2024	Design Engineer	
DRAWING No.	01892-SGR1		

H:\Con Ex\01892 - 37 Yonge Street Townhouses\Drawings\Submissions\2024-08-08 Third Submission\01892-37 Yonge - Base 2024-08-08.dwg

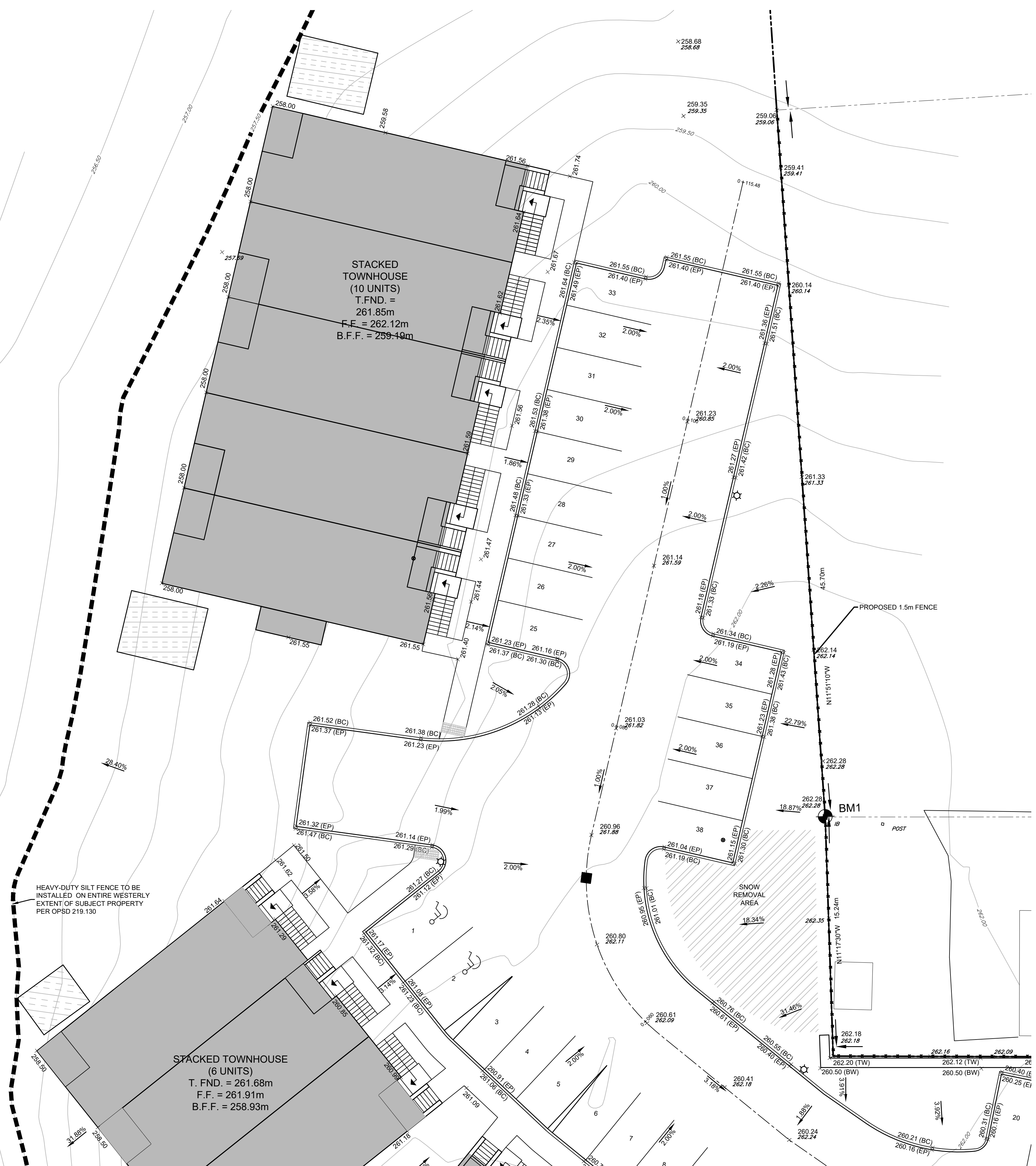


KEY PLAN
NTS

LEGEND	
---	PROPERTY BOUNDARY
---	EDGE OF EXISTING PAVEMENT
---	EDGE OF EXISTING GRAVEL
---	PROPOSED SANITARY SEWER
---	EXISTING SANITARY SEWER
---	PROPOSED STORM SEWER
---	EXISTING STORM SEWER
---	PROPOSED SUBDRAIN
---	PROPOSED WATERMAIN
---	EXISTING WATERMAIN
---	PROPOSED SANITARY SERVICE
---	EXISTING SANITARY SERVICE
---	PROPOSED WATER SERVICE
---	PROPOSED SANITARY MANHOLE
---	EXISTING SANITARY MANHOLE
---	PROPOSED STORM MANHOLE
---	EXISTING STORM MANHOLE
---	CATCHMENT AREA ID
---	CATCHMENT AREA IN HECTARES
○	PROPOSED CATCHBASIN MANHOLE
○	PROPOSED TWIN INLET CATCHBASIN MANHOLE
○	PROPOSED CATCH BASIN
○	EXISTING CATCH BASIN
○	PROPOSED DITCH INLET CATCHBASIN
○	PROPOSED SANITARY SERVICE CLEANOUT
○	PROPOSED CURB STOP VALVE
○	EXISTING CURB STOP VALVE
○	PROPOSED HYDRANT SET
○	EXISTING FIRE HYDRANT
○	PROPOSED GATE VALVE
○	EXISTING GATE VALVE
○	BENCHMARK
○	PROPOSED ELEVATION
○	EXISTING ELEVATION

MAINTAIN MIN. 2.5m HORIZONTAL SEPARATION DISTANCE AND 0.5m VERTICAL SEPARATION DISTANCE BETWEEN WATERMAIN AND SANITARY/STORM SEWERS INCLUDING ALL CATCHBASIN LEADS EQUAL TO OR GREATER THAN 250mm IN DIAMETER

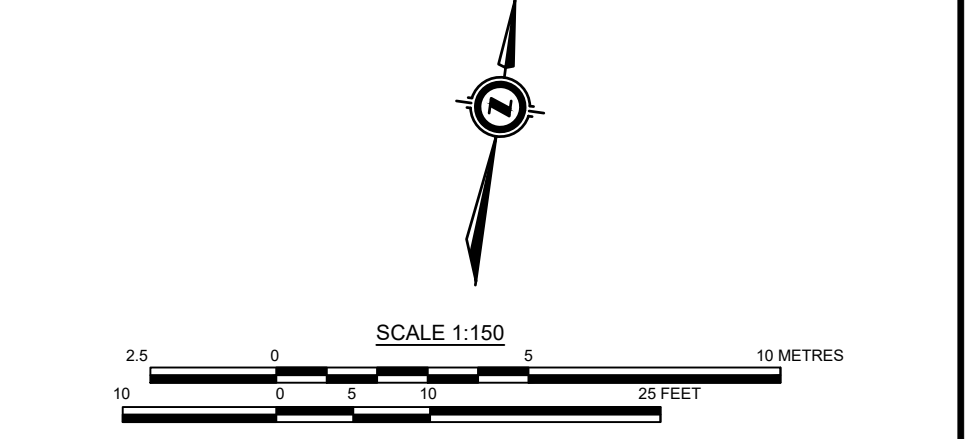
GEOTEXTILE CLOTH TO BE INSTALLED UNDER ALL CB AND CBMH GRATES AND TO REMAIN IN PLACE UNTIL ROAD PAVING IS COMPLETED



SEE SHEET 01892-SGR1

CAUTION:
THE POSITION OF POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND 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. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM THEMSELVES OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

- Notes**
- PROPERTY BOUNDARY DERIVED FROM PLAN 3R-3215 PREPARED BY HARRY R. WHALE INC. DATED APRIL 27, 1982 & PLAN 3R-10758 PREPARED BY R.F. DORE SURVEYING LTD. DATED JUNE 20, 2023.
 - TOPOGRAPHICAL INFORMATION DERIVED FROM FIELD SURVEY BY SMC GEOMATICS INC. ON JUNE 23, 2021.
 - ALL ORGANIC MATERIAL WITHIN 1.2m OF FINISHED PROFILE GRADE TO BE REMOVED FROM ALL AREAS UNDER THE TRAVELLED PORTION OF THE DRIVEWAY, SIDEWALK AND PARKING LOT.
 - COVER OVER WATER SERVICES TO BE MINIMUM 1.8m AT ALL POINTS, AND SHALL BE CONSTRUCTED OF 50mmØ MUNICIPEX.
 - ALL WATERMANS SHALL BE CONSTRUCTED OF PVC DR18, AWWA C900 OR C905.
 - TRACER WIRE - PROVIDE TYPE TWU No. 12/7 STRAND COPPER CABLE HAVING THERMOPLASTIC INSULATION RATED FOR UNDERGROUND USE AND SHALL HAVE A CONDUCTIVITY TEST COMPLETED FOLLOWING CONSTRUCTION.
 - WATERMAIN SHALL BE TESTED IN ACCORDANCE WITH OPSS 441, AWWA C651 AND MCEP "WATERMAIN DISINFECTION PROCEDURE". ALL CHEMICALS AND MATERIALS USED SHALL CONFORM TO AWWA B300, AWWA B301, NSF/ANSI 60, NSF/ANSI 61.
 - WATERMAIN RESTRAINTS TO COMPLY WITH OPSS 441.07.23. REFER TO MUNICIPALITY OF BROCKTON - MUNICIPAL DEVELOPMENT AND SERVICING GUIDELINES SECTION 6.4.
 - SANITARY SEWER SHALL BE CONSTRUCTED OF PVC SDR35 (OR APPROVED ALTERNATIVE), AT A MINIMUM 2.5m DEPTH OF COVER CONFORMING TO OPSS 410. SEWERS SHALL BE TESTED IN ACCORDANCE WITH OPSS 410 CONNECTIONS TO EXISTING SANITARY SERVICES SHALL BE MADE WITH PRE-MANUFACTURED APPROVED TEES.
 - STORM SANITARY SEWERS AND WATERMAIN.
 - ALL STORM CATCHBASINS TO HAVE A MINIMUM SUMP OF 600mm AND ALL CATCHBASIN MAINTENANCE HOLES TO HAVE A MINIMUM SUMP OF 300mm. ALL STORM MAINTENANCE HOLES SHALL BE BENCHED.
 - FIELD LOCATES OF ALL UNDERGROUND UTILITIES INCLUDING BUT NOT LIMITED TO: UNDERGROUND GAS, HYDRO, TELEPHONE, AND CABLE TELEVISION SHALL BE ARRANGED PRIOR TO CONSTRUCTION AND IS THEREFORE RESPONSIBILITY OF THE CONTRACTOR.
 - THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNTIL STAMPED ISSUED FOR CONSTRUCTION.
 - ALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE MUNICIPALITY OF BROCKTON'S MUNICIPAL DEVELOPMENT AND SERVICING GUIDELINES.
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 - EXTERIOR LIGHTING TO BE IN ACCORDANCE WITH MUNICIPAL BY-LAW 3.26.11 & 3.30. LIGHTING TO COMPLY WITH DARK SKY PROVISIONS.
 - STORM SEWERS UP TO AND INCLUDING 900mmØ ARE BOSS 2000. ALL STORM SEWERS 1050mmØ AND LARGER ARE BOSS 3000. SEWERS TO BE MANDREL TESTED AND VIDEOED FOLLOWING CONSTRUCTION.
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Benchmark Information

BM1	IB NORTHEAST CORNER OF PROPERTY.	ELEVATION	262.22m
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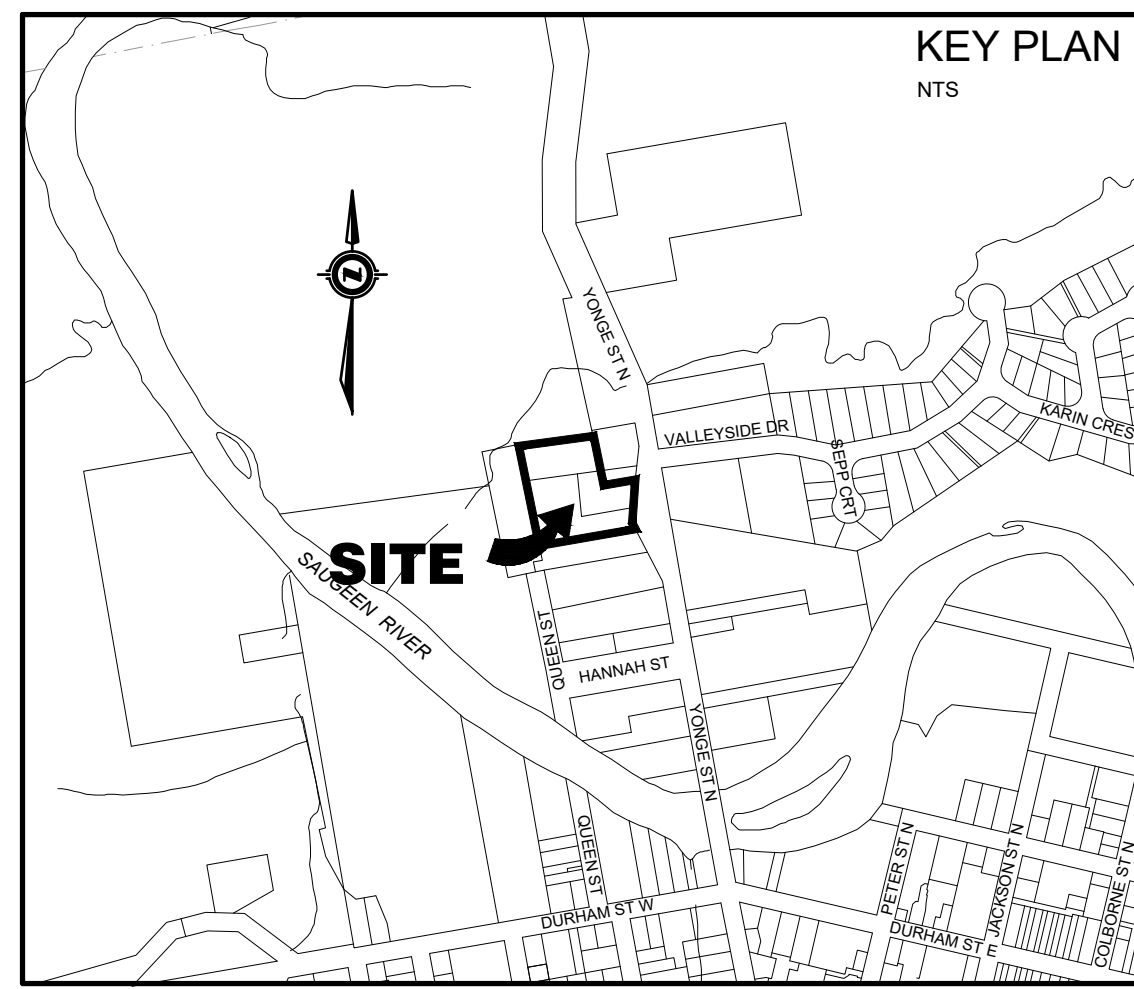
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REVISION / ISSUE	

517 10th Street, Hanover, Ontario N4N 1R4
Telephone: (519) 506-5959
www.cobideeng.com

Project: RIVER BREEZE TOWNHOUSES PROPOSED DEVELOPMENT
Client: WILSON DEVELOPMENTS

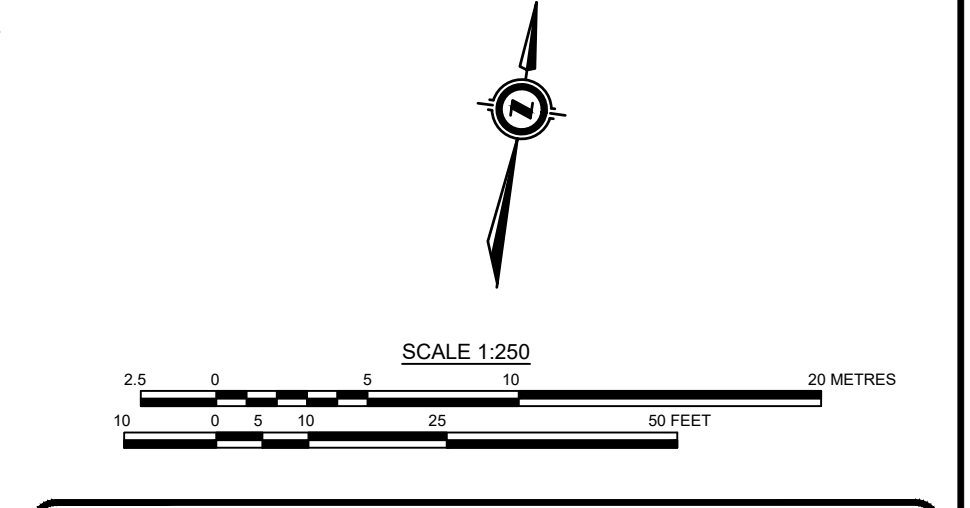
Design:	TLB	Scale:	1:150
Drawn:	JHL	Approved:	
Checked:	TLB		
Date:	JAN 2024		
DRAWING No.	01892-SGR2		



LEGEND

---	PROPERTY BOUNDARY	○ CBMH	PROPOSED CATCHBASIN MANHOLE
- - - -	EDGE OF EXISTING PAVEMENT	○ TICB	PROPOSED TWIN INLET CATCHBASIN MANHOLE
---	PROPOSED SANITARY SEWER	□ CB	PROPOSED TWIN INLET CATCHBASIN
---	EXISTING SANITARY SEWER	□ CP	PROPOSED CATCH BASIN
---	PROPOSED STORM SEWER	□ DICB	PROPOSED DITCH INLET CATCHBASIN
---	EXISTING STORM SEWER	○ CO	PROPOSED SANITARY SERVICE CLEANOUT
---	PROPOSED SUBDRAIN	○ CSV	PROPOSED CURB STOP VALVE
---	PROPOSED WATERMAIN	○ HYD	EXISTING CURB STOP VALVE
---	EXISTING WATERMAIN	○ FHYD	PROPOSED HYDRANT SET
---	PROPOSED SANITARY SERVICE	○ FHYD	EXISTING FIRE HYDRANT
---	EXISTING SANITARY SERVICE	○ GVAL	PROPOSED GATE VALVE
---	PROPOSED WATER SERVICE	○ GVAL	EXISTING GATE VALVE
---	EXISTING WATER SERVICE	○ BM	BENCHMARK
---	PROPOSED SANITARY MANHOLE	○ 486.21	PROPOSED ELEVATION
---	EXISTING SANITARY MANHOLE	○ 486.21	EXISTING ELEVATION
---	PROPOSED STORM MANHOLE		
---	EXISTING STORM MANHOLE		
○ 204	CATCHMENT AREA ID		
○ 0.02ha	CATCHMENT AREA IN HECTARES		

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 - MAINTAIN 2.50m HORIZONTAL AND 0.50m VERTICAL SEPARATIONS BETWEEN STORM/SANITARY SEWERS AND WATERMAIN.
 - ALL STORM CATCHBASINS TO HAVE A MINIMUM SUMP OF 600mm AND ALL CATCHBASIN MAINTENANCE HOLES TO HAVE A MINIMUM SUMP OF 300mm. ALL STORM MAINTENANCE HOLES SHALL BE BENCHED.
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REVISION / ISSUE	

517 10th Street, Hanover, Ontario N4N 1R4
Telephone: (519) 506-5959
www.cobideeng.com

Title: RIVER BREEZE TOWNHOUSES PROPOSED DEVELOPMENT

Municipality of Brockton (Formerly Town of Walkerton) Storm Sewer Catchment Areas

Client: WILSON DEVELOPMENTS

Design:	TLB	Scale:	1:250
Drawn:	JHL	Approved:	
Checked:	TLB		
Date:	JAN 2024		

DRAWING No. 01892-STM1

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MUNICIPALITY OF BROCKTON ENGINEERING STANDARDS

GENERAL - CONSTRUCTION

- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH MUNICIPALITY OF BROCKTON STANDARDS AND OPSS. WHERE CONFLICT OCCURS, MUNICIPAL STANDARDS GOVERN.
- DEWATERING TO BE CARRIED OUT IN ACCORDANCE WITH OPSS 517 AND 518 TO MAINTAIN ALL TRENCHES IN A DRY CONDITION.
- ALL ENGINE DRIVEN PUMPS TO BE ADEQUATELY SILENCED, SUITABLE FOR OPERATION IN A RESIDENTIAL DISTRICT.
- DISTURBED AREAS TO BE REINSTATED TO PREVIOUS CONDITION OR BETTER.
- ALL MAINTENANCE HOLE FRAMES AND COVERS TO BE INITIALLY SET TO BASE COURSE HL4 ASPHALT ELEVATION AND ULTIMATELY RAISED BY ADDING SOLID ONE PIECE CAST IRON ADJUSTMENT RINGS PRIOR TO PLACING SURFACE COURSE HL3 ASPHALT.
- ALL EXISTING MAINTENANCE HOLES TO BE RAISED OR LOWERED TO PROPOSED GRADE. MAXIMUM ALLOWABLE HEIGHT OF ADJUSTMENT TO BE 300mm.
- ALL EXISTING HYDRANTS AND VALVES TO BE RAISED OR LOWERED TO PROPOSED GRADE.
- TRENCHES FOR UTILITIES TO BE MINIMUM 600mm WIDE BACKFILLED WITH APPROVED NATIVE MATERIAL AND COMPACTED ALL TO THE SATISFACTION OF THE LOCAL UTILITY.
- CONDUITS FOR ROAD CROSSINGS TO EXTEND 1.0m BEYOND CURB ON PULL ROPES. INSTALL CONDUITS TO LOCAL STANDARDS.
- MAINTAIN A 300mm VERTICAL SEPARATION (MINIMUM) BETWEEN SEWERS AT CROSSINGS.
- CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL UTILITY COMPANIES PRIOR TO COMMENCING WORK AND COORDINATE CONSTRUCTION ACCORDINGLY.
- TOPSOIL TO BE STRIPPED FROM SITE SHALL BE STOCKPILED AS DIRECTED BY ENGINEER.

ROADWAYS

- CONCRETE CURB AND GUTTER TO OPSS 600.100.
- CURB AND GUTTER TERMINATION TO OPSS 608.010.
- CURB AND GUTTER CONSTRUCTION SHALL CONFORM TO OPSS 353, NOV. 2006.
- CONTRACTOR TO SUPPLY AND INSTALL STREET AND TRAFFIC SIGNS TO TOWN STANDARD. POSTS TO BE 'U-FLANGE' GALVANIZED METAL POSTS OR APPROVED EQUIVALENT. POSTS TO BE 3.75m LONG EMBEDDED 1.2m.
- SUBGRADE TO BE COMPACTED TO A MAXIMUM DRY DENSITY OF 95% OF THE MATERIAL'S MAXIMUM DRY DENSITY (MDD). COMPACTION PER OPSS 501, NOV. 2005.
- GRANULAR 'A' AND 'B' MATERIALS TO BE COMPACTED TO 100% MDD, PER OPSS 501, NOV. 2005.
- BOULEVARD CONSTRUCTION TO 95% OF MATERIALS MDD.
- ROADWAY SUBGRADE TO BE PROOF ROLLED IN PRESENCE OF GEOTECHNICAL ENGINEER.
- STANDARD ROAD BASE SHALL CONSIST OF 300mm GRANULAR 'B' AND 150mm GRANULAR 'A'.
- PAVEMENT ON NEW ROADS TO BE HOT MIX HL4 (40mm) BASE COURSE AND HL3 (40mm) PER OPSS 310, NOV. 2003.

SANITARY SEWERS AND SERVICES

- MAINTENANCE HOLES TO OPSS 1001.01 (1200mmØ)
- BENCHING TO OPSS 1004.01
- FRAMES AND COVERS TO BE OPSS 401.01 TYPE 'A', CLOSED COVER.
- SERVICE CONNECTIONS TO BE 125mm, TERMINATED AT THE PROPERTY LINE WITH A 125x125x100mm WYE C/W CAP. A 100mmØ RISER C/W 100mmØ LONG SWEEP CAPPED AT SURFACE.
- SERVICE CONNECTIONS TO OPSS 1006.02 WITH SUITABLE NATIVE BEDDING OR GRANULAR 'A'.
- BEDDING FOR SEWER SHALL BE PER OPSS 1005.02. BEDDING MATERIAL FOR SANITARY SEWER AND SERVICES SHALL BE GRANULAR 'A'.
- BACKFILL PER OPSS 803.04 USING APPROVED NATIVE BACKFILL.
- BACKFILL AND BEDDING MATERIAL TO BE COMPACTED PER OPSS 410 AND 514.
- TESTING TO OPSS 410.

ENGINEERING STANDARDS	
Watermain Pipe	PVC D18 (Class 150)
100 mm Ø and larger	PVC Series 160
50 mm Ø	PVC Series 160
Gate Valves	Muller, mechanical joint, resilient seat, right hand closing
Valve Boxes	130 mm Ø (5 1/4") cast iron or ductile iron slider type with a standard lower section and guide plate at manufacturer by Bibby - St. Croix or approved equivalent
Hydrants	Canada Valve "Century", yellow with one standard 100 mm Storz quick connect fitting on the pumper port and two 63.5 mm (2 1/2") nozzles with CSA Standard Thread. Left hand closing
Fittings	Tees, bends, reducers, sleeves, etc. Mechanical joint, cast iron or ductile iron
Saddles	Broad band, stainless steel, double bolt
Corporation Stops	Muller H1500B or Ford F1000
Curb Stops	Muller H15207 or Ford 244-333 (3/4") or Ford 244-444 (1")
Service Material	Rehau Municipex service line
Curb Boxes	Muller A-726-7 for 1500 mm to 1900 mm cover
Curb Box Extension Rods	Stainless Steel to within 600 mm of surface
Tracer Wire	Copperhead Superflex 1030 Blue Wire
Grip Rings	To be used at all mechanical joint fittings
Fasteners	Protecto caps and zinc sacrificial anodes on all mechanical joints
Test Station	50mm underground test station by Handley Industries

WATERMAIN AND WATER SERVICES

- THRUST BLOCKS PER OPSS 1103.010 AND 1103.020.
- SERVICE CONNECTIONS PER OPSS 1104.01.
- HYDRANT, INSTALLATION PER OPSS 1105.01 AND TO TOWN STANDARDS.
- USE APPROVED NATIVE MATERIAL OR GRANULAR 'A' BEDDING PER OPSS - 1102.02. BACKFILL TO BE APPROVED NATIVE MATERIAL PER OPSS 803.04.
- WATERMAIN, SERVICES, AND HYDRANTS TO BE INSTALLED PER OPSS 701, NOV. 2006.
- ALL PVC WATERMAIN TO HAVE TRACER WIRE BETWEEN HYDRANTS AND OTHER CONDUCTING APPURTENANCES.
- MINIMUM COVER TO BE 1.8m.
- ALL FITTINGS (BENDS, TEES, VALVES, HYDRANTS, MAIN STOPS, CURB STOPS ETC) SHALL BE PROVIDED WITH CATHODIC PROTECTION. ANODES SHALL BE CONNECTED TO WATERMAIN FITTINGS USING CADCWELD METHOD. ALL CADWELDS TO BE COVERED WITH MASTIC MATERIAL.
- MAIN STOPS AND CURB STOPS TO HAVE GROUNDING SCREW FOR ATTACHING ANODE.
- ALL FITTINGS TO BE FITTED WITH 19MM SACRIFICIAL ZINC CAPS. CAPS TO BE "PROTECTO-CAPS" OR APPROVED EQUIVALENT.

ANODES SHALL BE AS FOLLOWS:

- MAIN STOPS AND CURB STOPS - 5.5 KG
- ALL OTHER FITTINGS - 5.5 KG

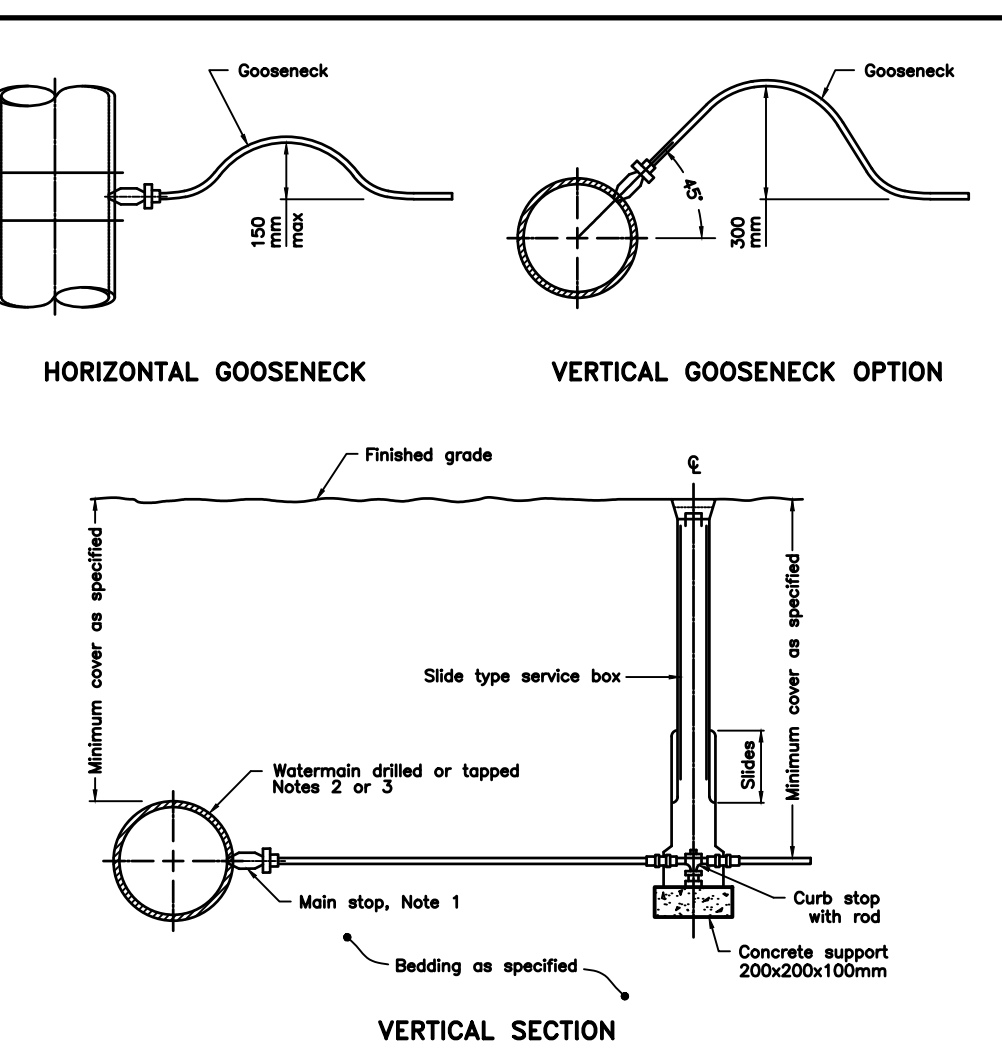
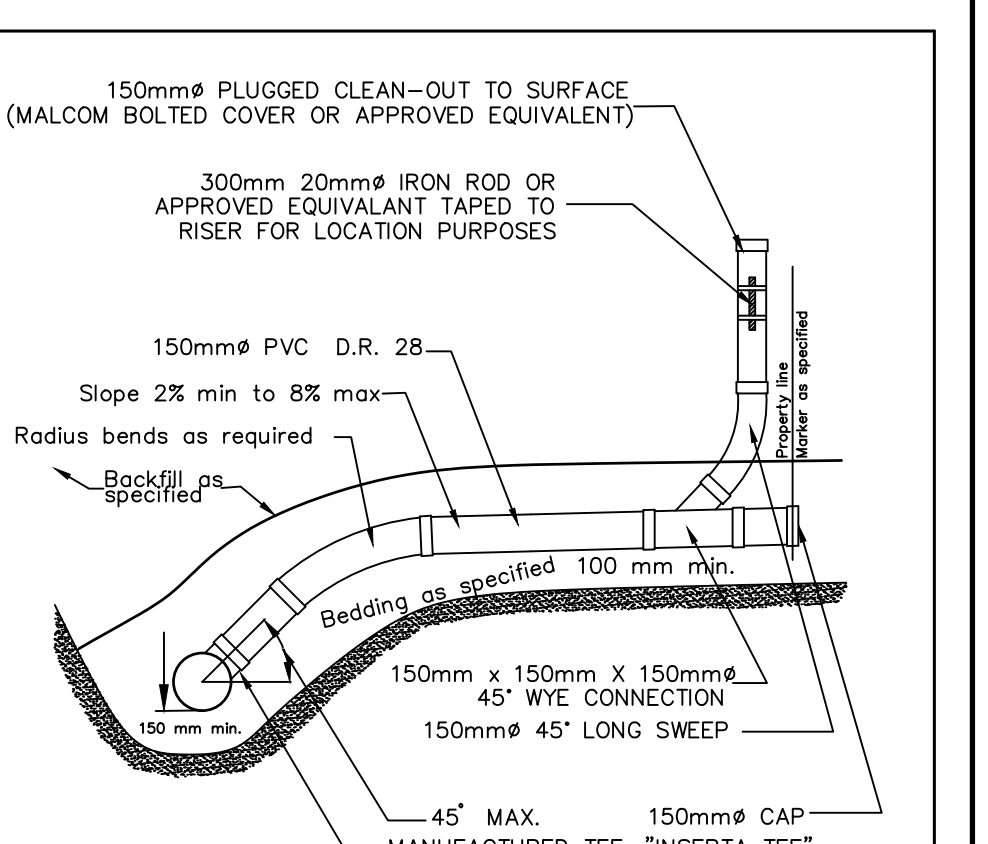
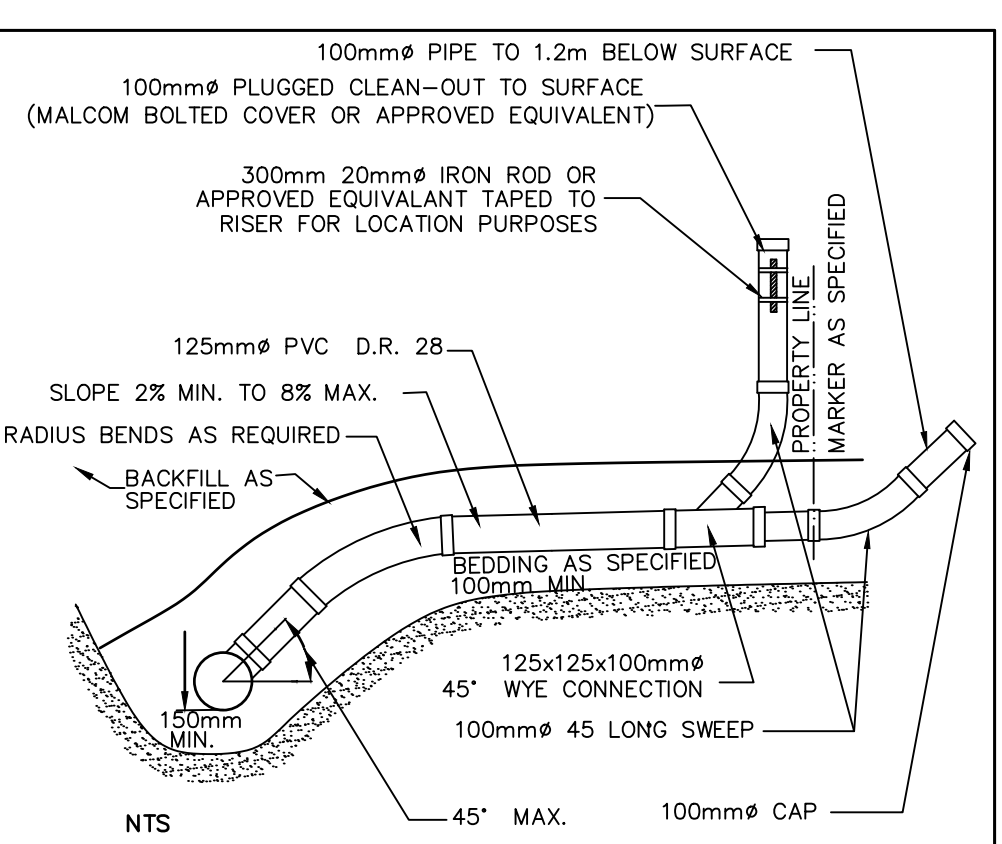
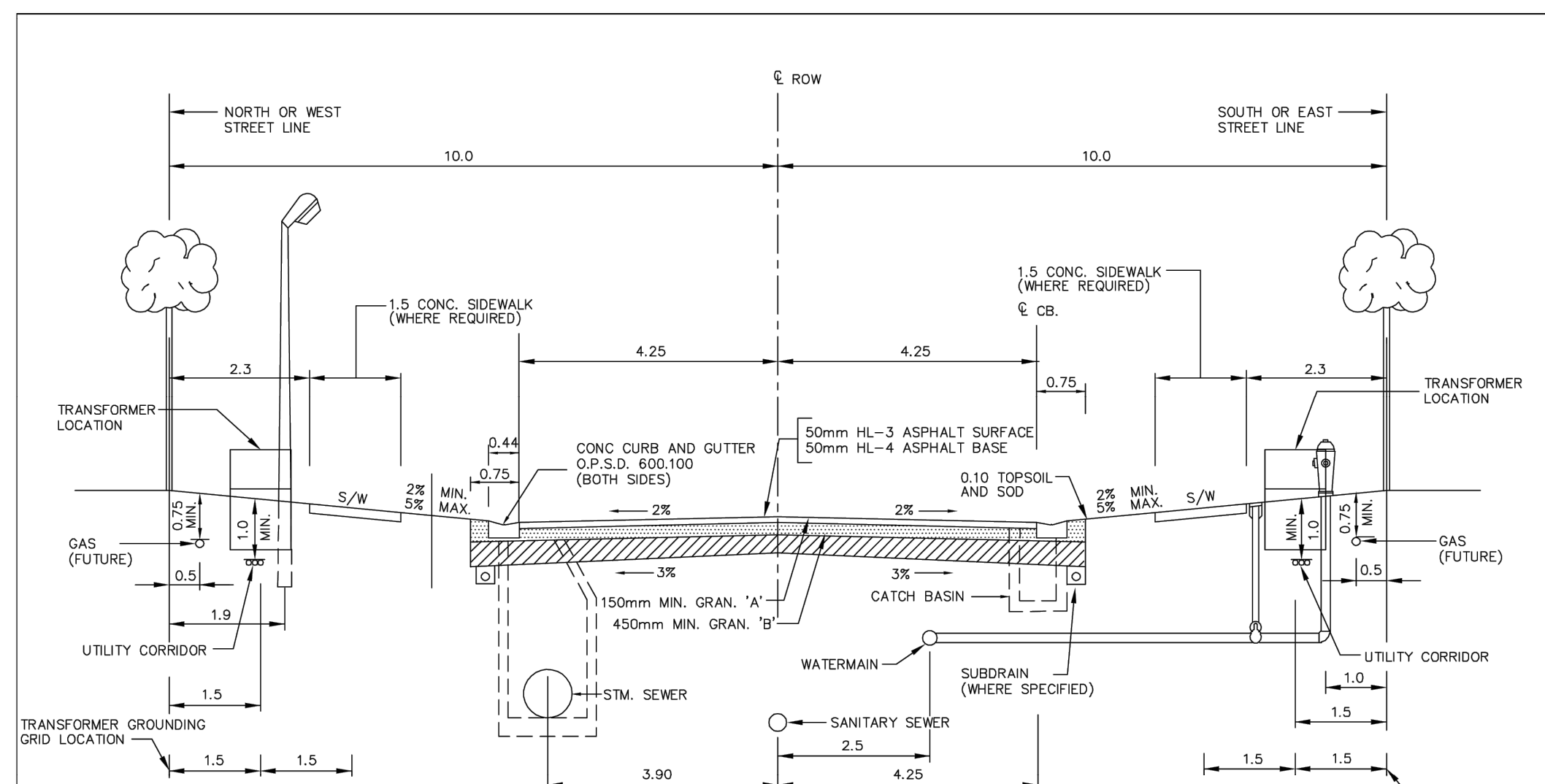
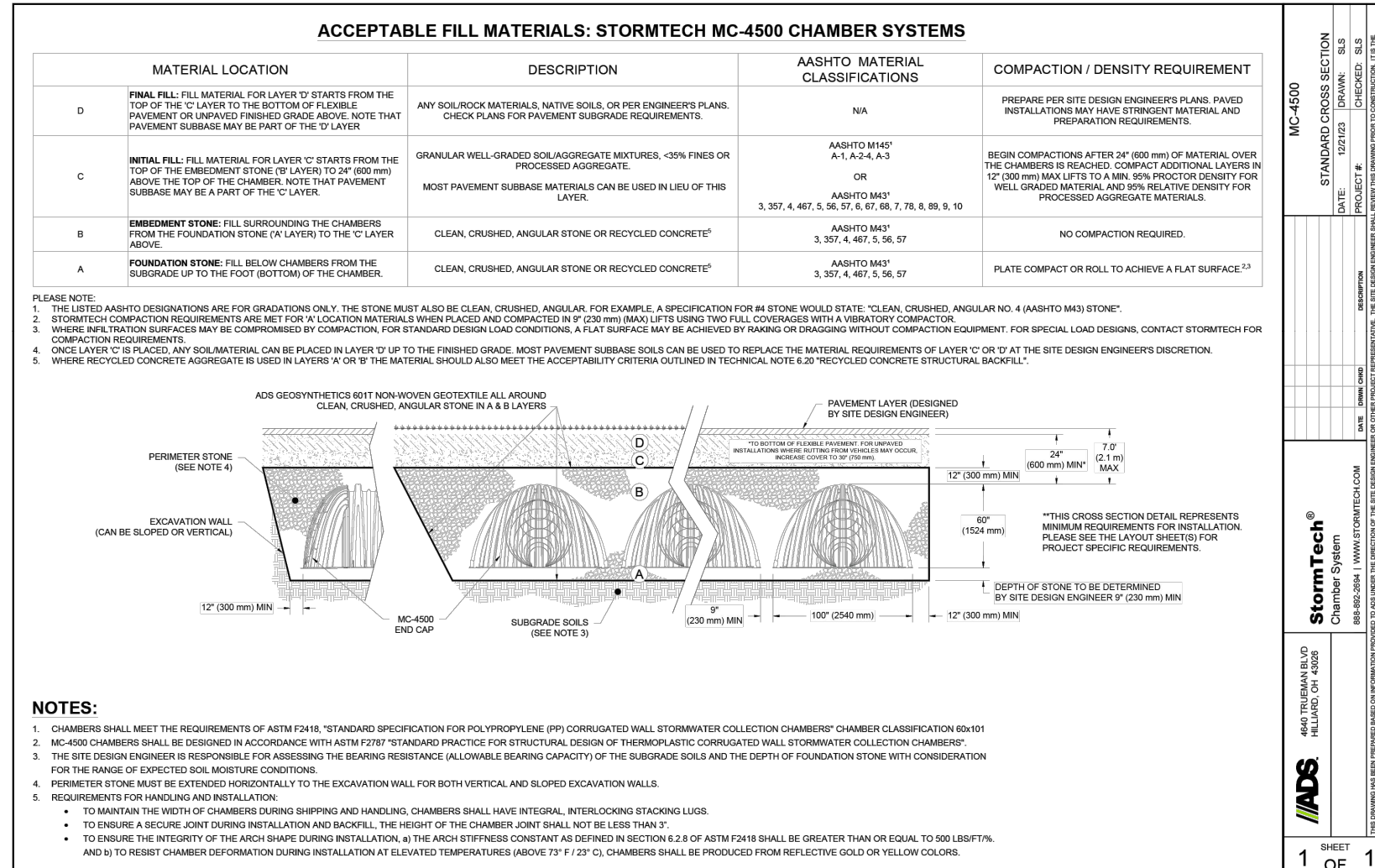
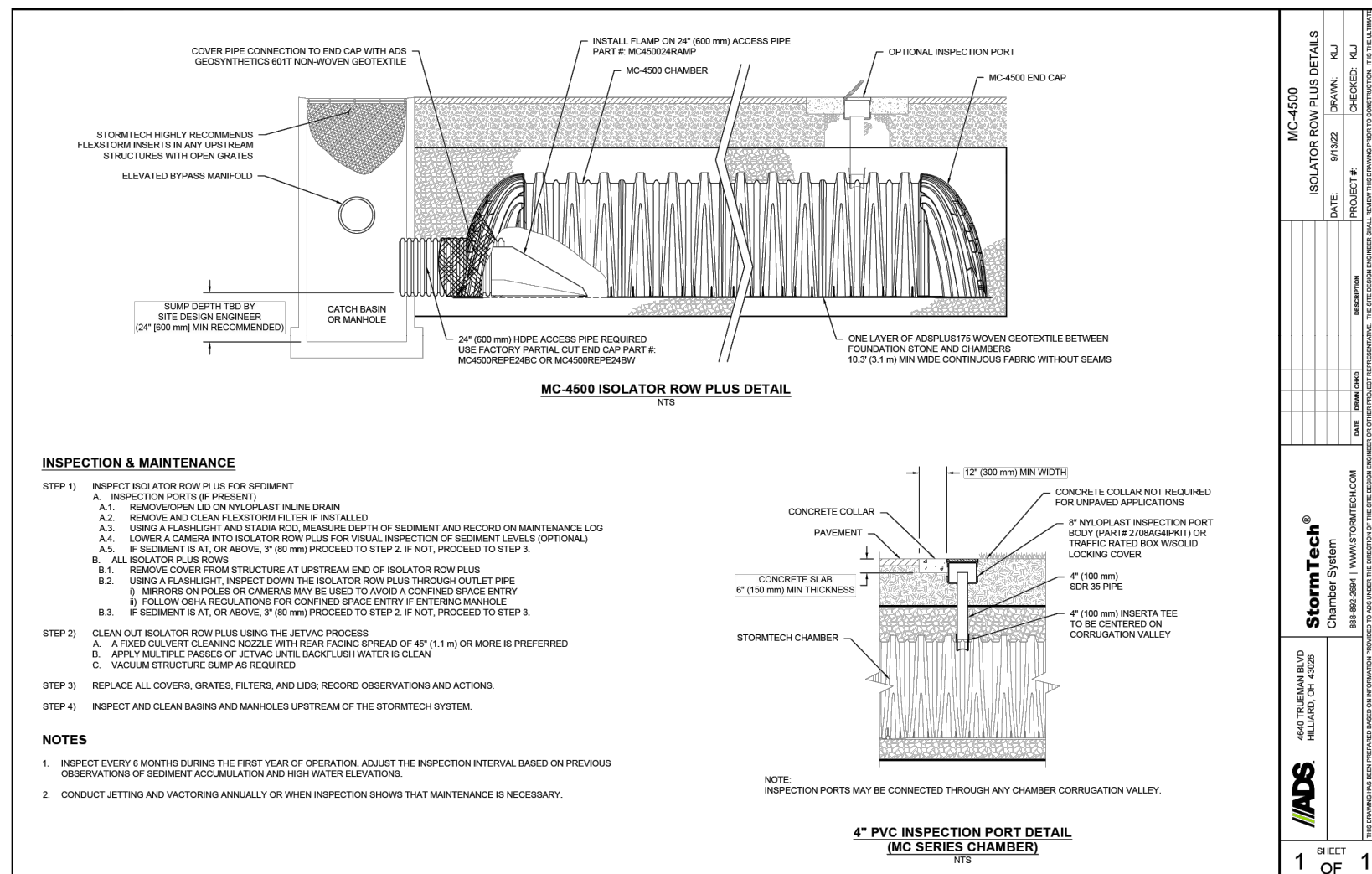
STORM SEWERS AND SERVICES

- MAINTENANCE HOLES TO OPSS 1001.01 (1200mmØ)
- BENCHING TO OPSS 1004.01
- FRAMES AND COVERS TO BE OPSS 401.01 TYPE 'A', CLOSED COVER.
- SERVICE CONNECTIONS TO BE 150mm, TERMINATED AT THE PROPERTY LINE WITH A 150mmØ RISER C/W 150mmØ LONG SWEEP CAPPED AT SURFACE.
- SERVICE CONNECTIONS TO OPSS 1006.02 WITH SUITABLE NATIVE BEDDING OR GRANULAR 'A'.
- BEDDING FOR SEWER SHALL BE PER OPSS 1005.02. BEDDING MATERIAL FOR STM SHALL BE GRANULAR 'A'.
- BACKFILL PER OPSS 803.04 USING APPROVED NATIVE BACKFILL.
- BACKFILL AND BEDDING MATERIAL TO BE COMPACTED PER OPSS 410 AND 514.

MATERIALS

- SANITARY SEWER - SDR35 PVC.
- SANITARY SERVICES - SDR28 PVC, 125Ø USING TEE CONNECTIONS TO MAIN.
- STORM SEWER - PE (PS 320).
- ALL DRAINAGE PIT MATERIAL TO BE PERFORMED P.E. (PS 320) STORM SEWER.
- WATERMAIN - DR18 PVC INCLUDING 12 AWG TWO TRACER WIRE. ALL MECHANICAL JOINTS TO BE EQUIPPED WITH GRIP RINGS.
- WATERMAIN SERVICES - 19mmØ, REHAU MUNIPEX. MAIN STOP (FORD F1000 OR MUELLER 1500B), CURB STOP (MUELLER H 15207 OR FORD 244-333) C/W CURB BOX (MUELLER A-726-7). SERVICE SADDLES SHALL BE DOUBLE BOLT STAINLESS STEEL ROCKWELL SERIES 371 OR CAMBRIDGE BRASS SERIES 403.
- HYDRANTS - CANADA VALVE CENTURY WITH 2-63.5mm PORTS AND 100Ø STORTZ PUMPER PORT, OR AS APPROVED BY THE FIRE CHIEF OF WALKERTON TOWN. MUELLER #55 OR CONCORD 200Ø WEDGE STYLE GATE VALVE SHALL BE PLACED 1.0m FROM HYDRANT. EACH HYDRANT TO BE C/W 50mm DIA. UNDERGROUND TEST STATION PER TOWN STANDARDS.

- ALL HYDRANT INSTALLATIONS WILL ALSO INCLUDE A 50mm DIA. UNDERGROUND TEST STATION. THE TEST STATION WILL BE APPROX. 300m BEHIND EACH HYDRANT AND COME COMPLETE WITH 2 TERMINALS ON THE TERMINAL BLOCK THAT IS FASTENED TO THE LID. THE LID SHALL HAVE A PERMANENT MAGNET AND/OR A METAL LID FOR EASY DETECTION WITH AN ELECTRONIC LOCATOR. THE TOP OF THE TEST STATION SHALL BE INSTALLED FLUSH TO THE PROPOSED FINISH GRADE ELEVATION. TEST STATIONS SHALL BE SUPPLIED BY HANDLEY INDUSTRIES OR APPROVED EQUIVALENT.
- VALVES - AWWA C509 RESILIENT SEATED GATE VALVES (RIGHT HAND CLOSING) WITH MECHANICAL JOINT ENDS. VALVE BOX SHALL BE 130 MAX. DIA. CAST OR DUCTILE IRON SLIDER TYPE WITH STANDARD LOWER SECTION AND GUIDE PLATE BY BIBBY-ST. CROIX. PREFABRICATED HOLES SHALL BE PLACED NEAR TOP OF VALVE BOX FOR TRACER WIRE.
- "STOP AND DRAIN" VALVES ARE TO BE USED AT BLOW-OFFS. MUELLER H-15219 OR APPROVED EQUIVALENT TO BE USED.
- HYDRANTS TO BE PAINTED RED BARREL WITH RED TOP. 100mm(4") DIAMETER CONNECTION CAP IN BLACK. OTHER CONNECTION CAPS TO BE RED. SUPPLY AND PLACE FIBERGLASS POST AND SIGN ON 63.5mm(2-1/2") PORT TO INDICATE LOCATION IN WINTER WEATHER.
- UTILITY ROAD CROSSING CONDUITS - 100mmØ TYPE II PVC.



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2	AUG 08/24	THIRD SUBMISSION	JHL	TLB
1	JUL 23/24	SECOND SUBMISSION	JHL	TLB
0	APR 02/24	FIRST SUBMISSION	JHL	TLB

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Seal not valid unless signed and dated

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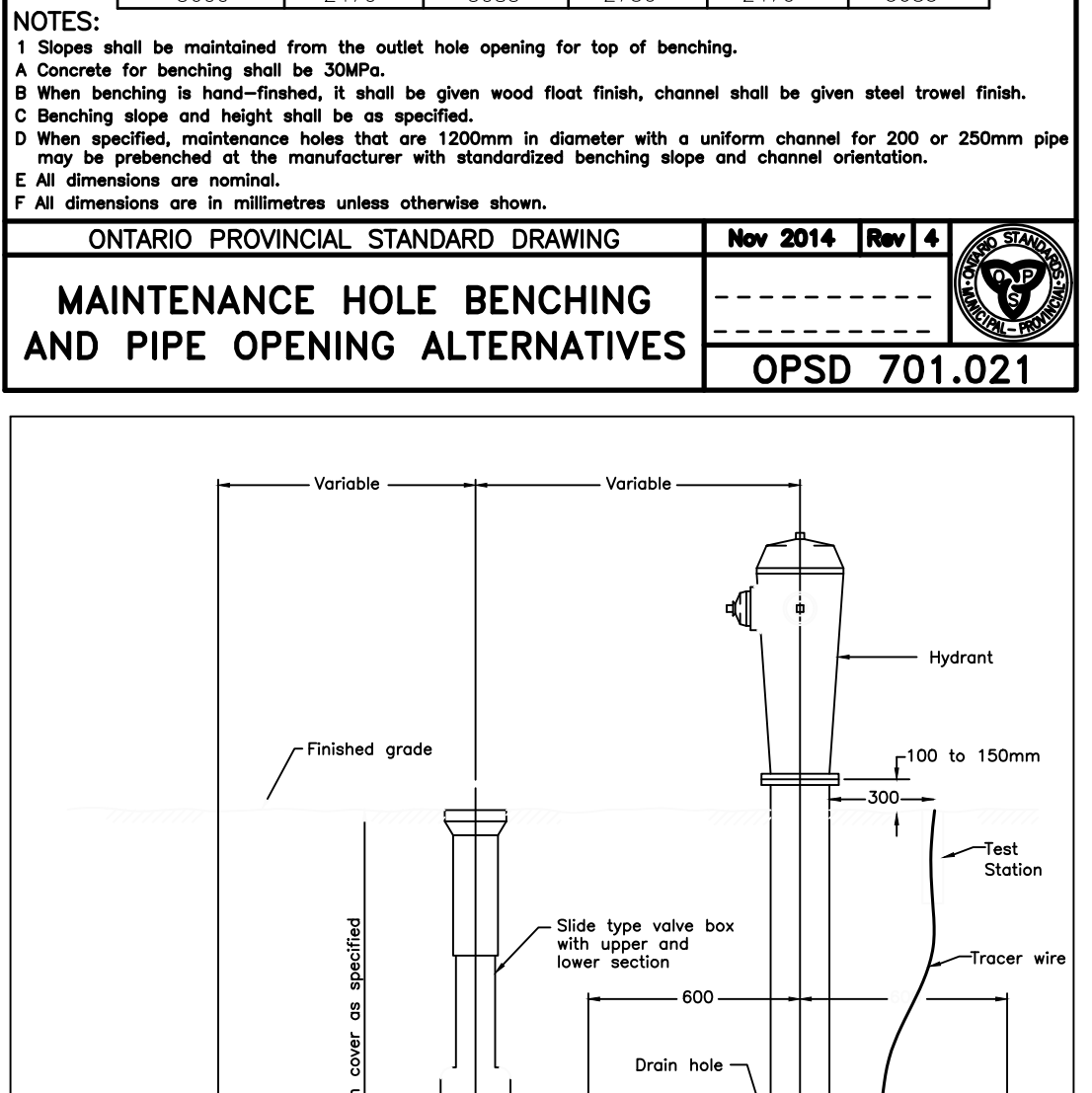
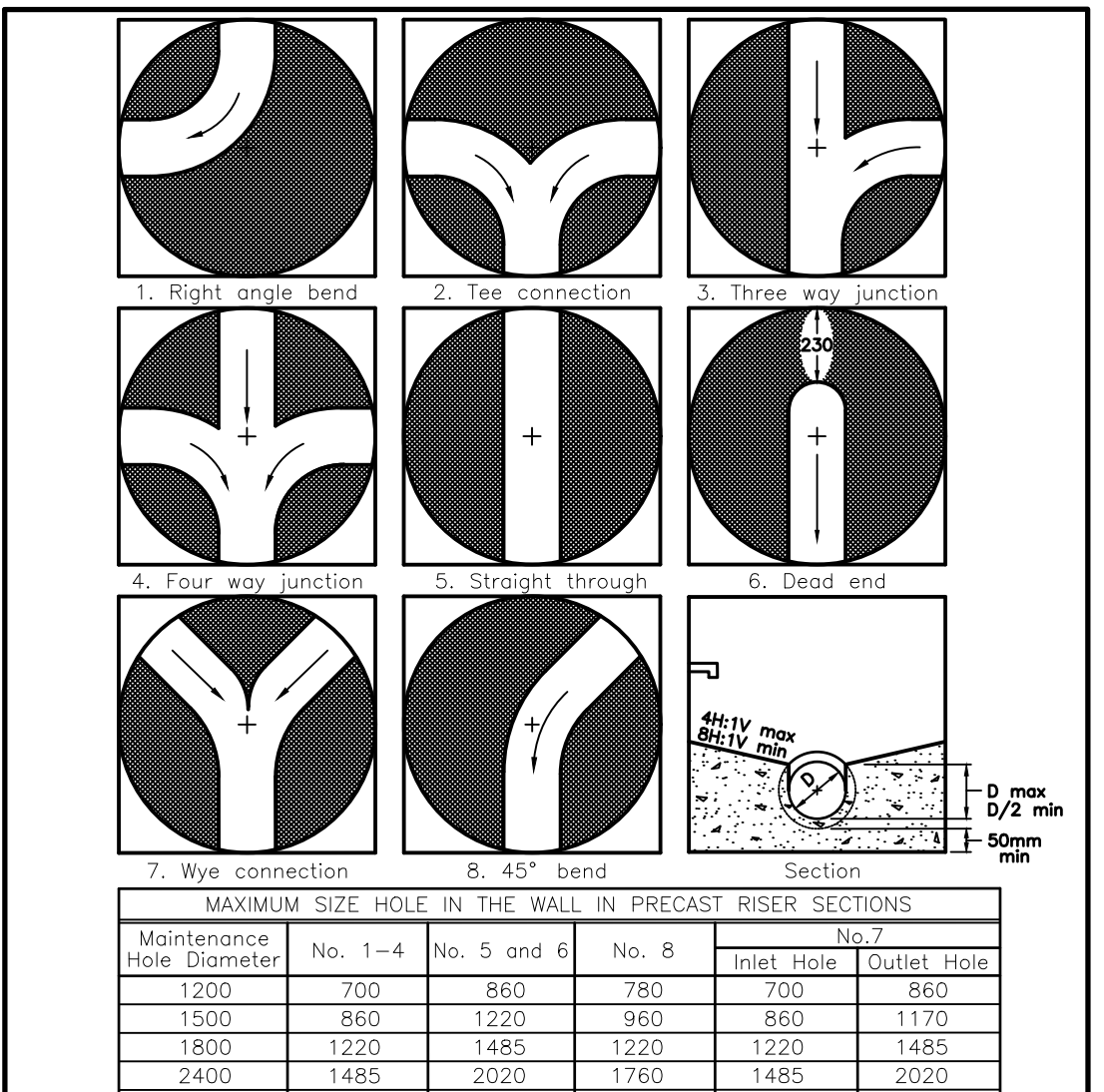
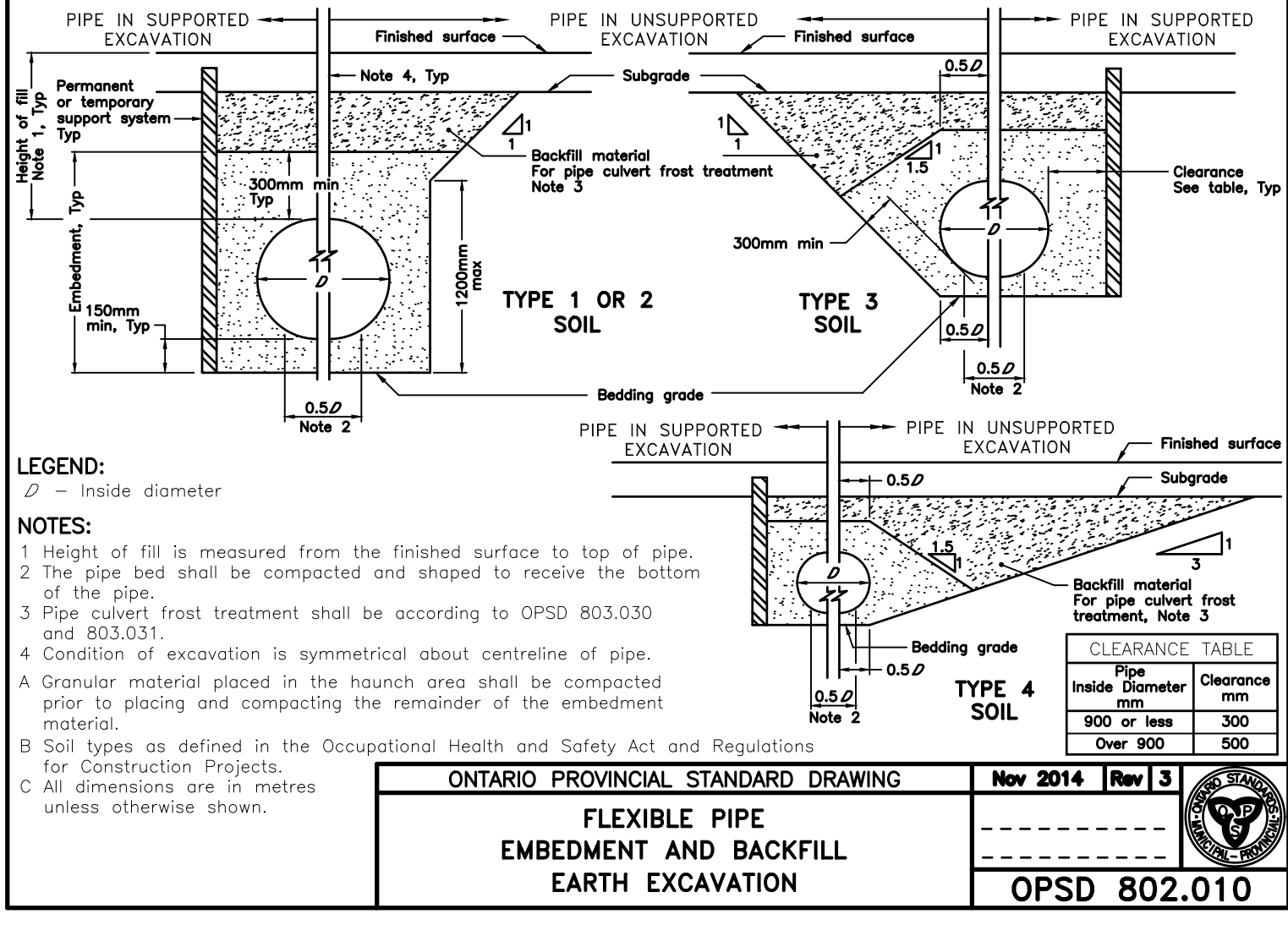
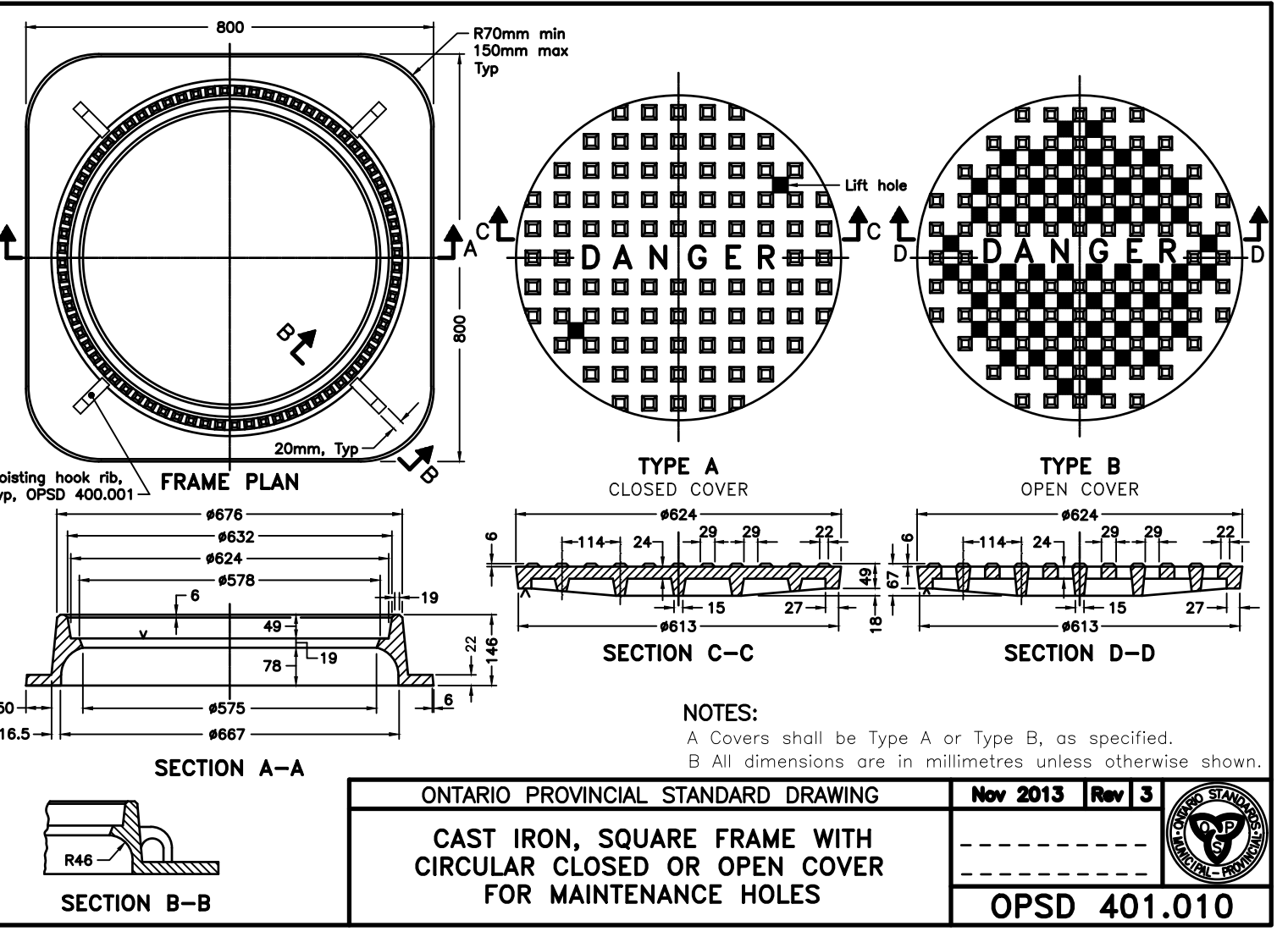
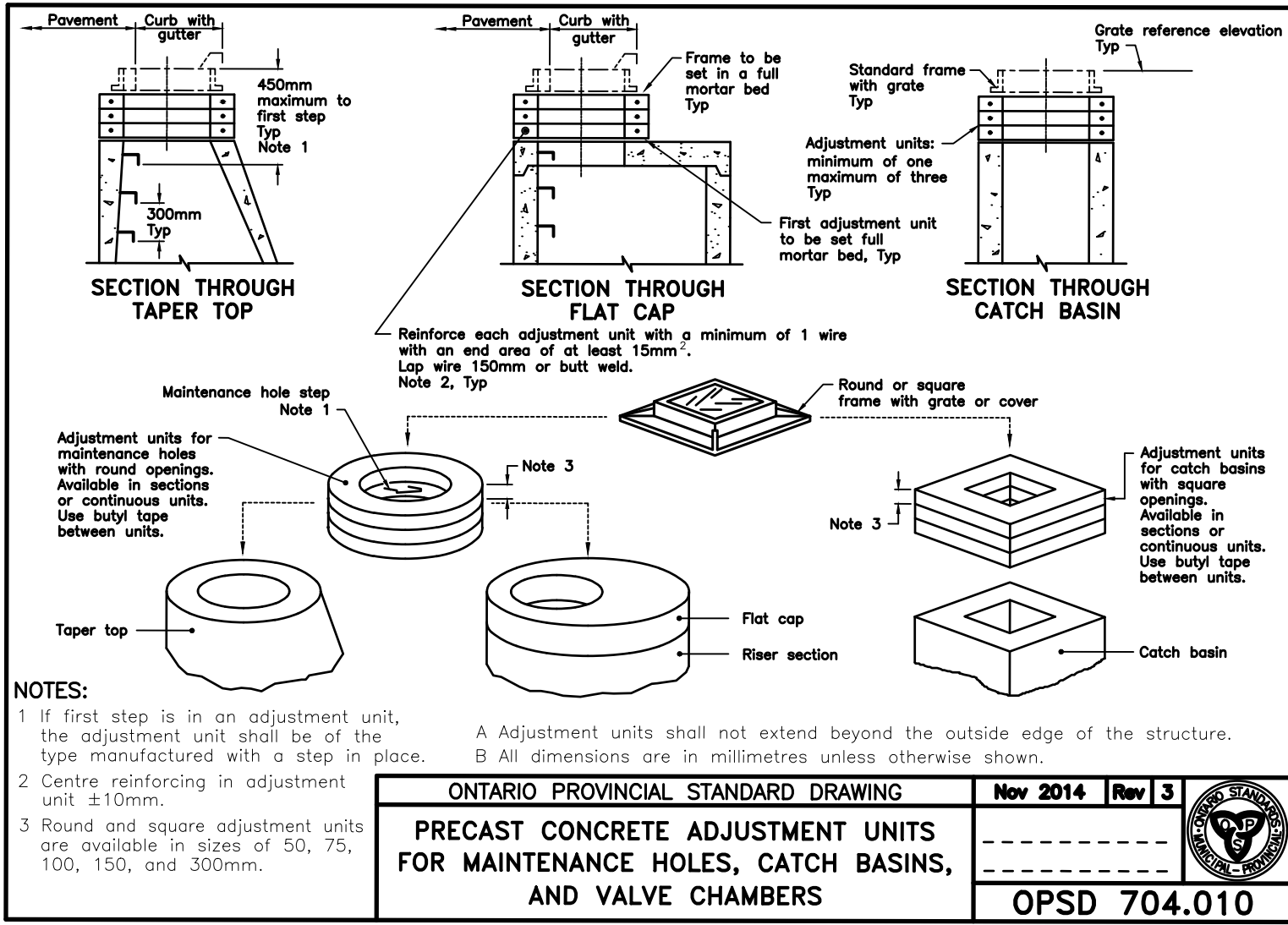
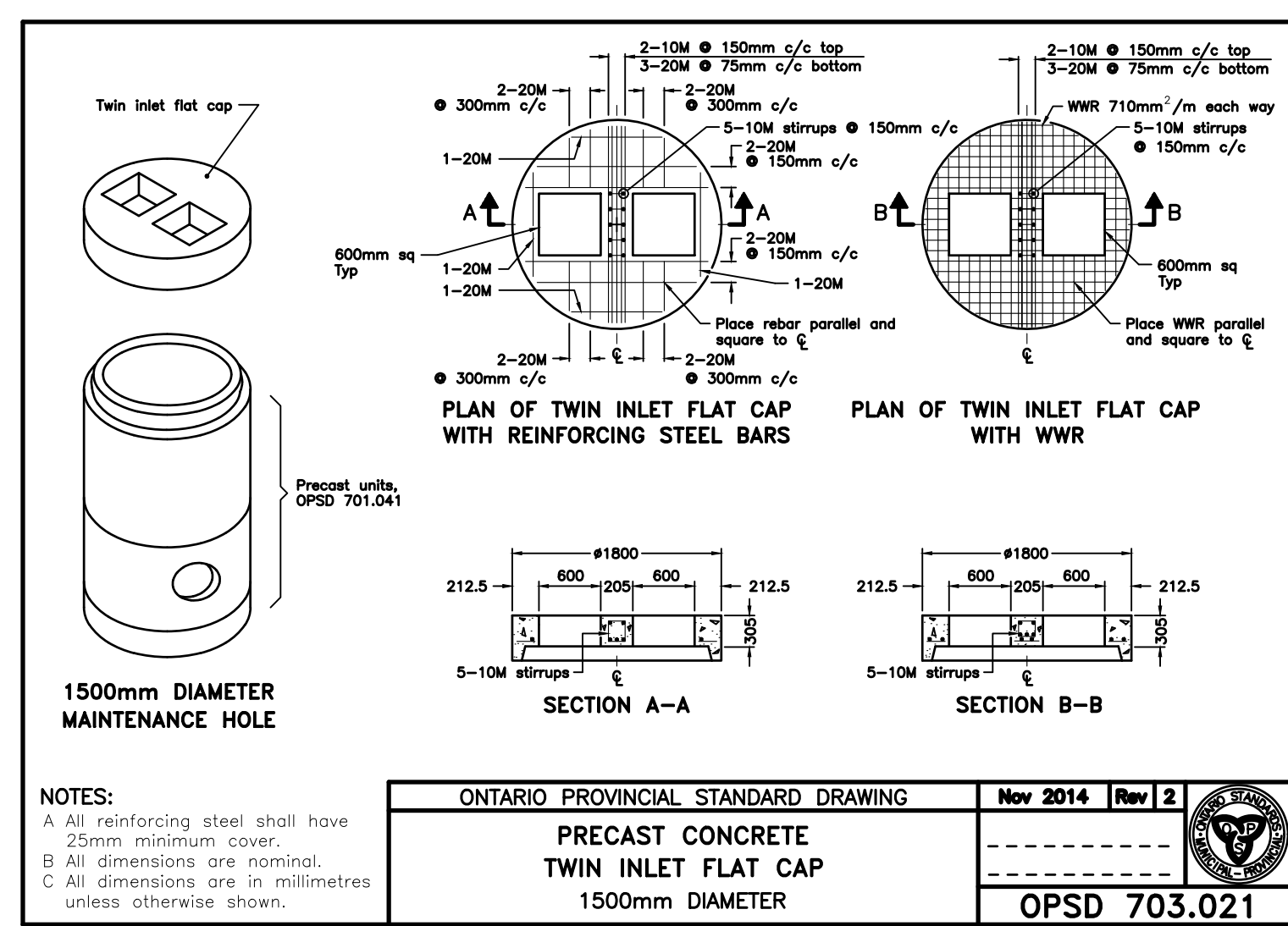
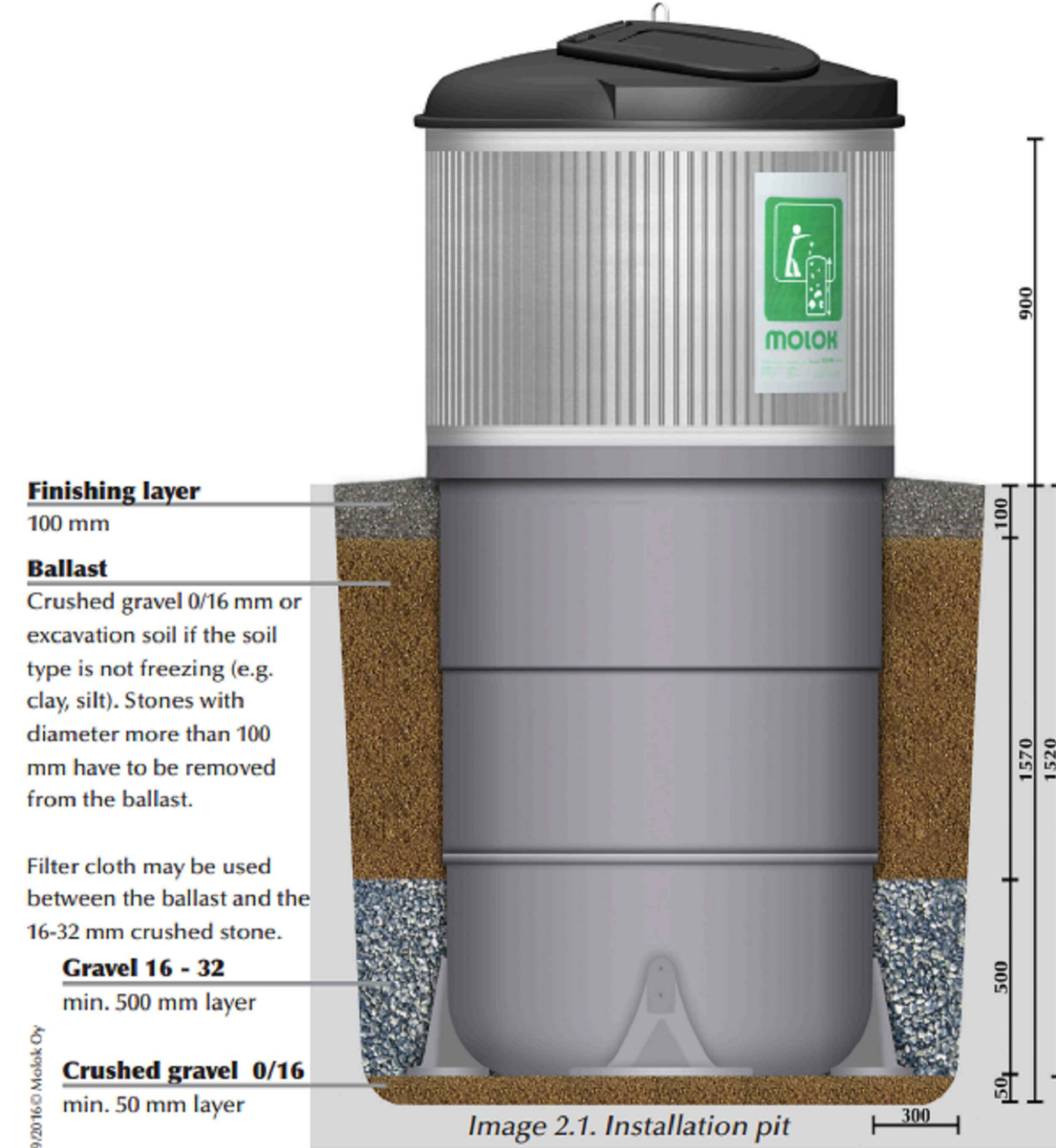
Client: WILSON DEVELOPMENTS

Project: RIVER BREEZE TOWNHOUSES PROPOSED DEVELOPMENT

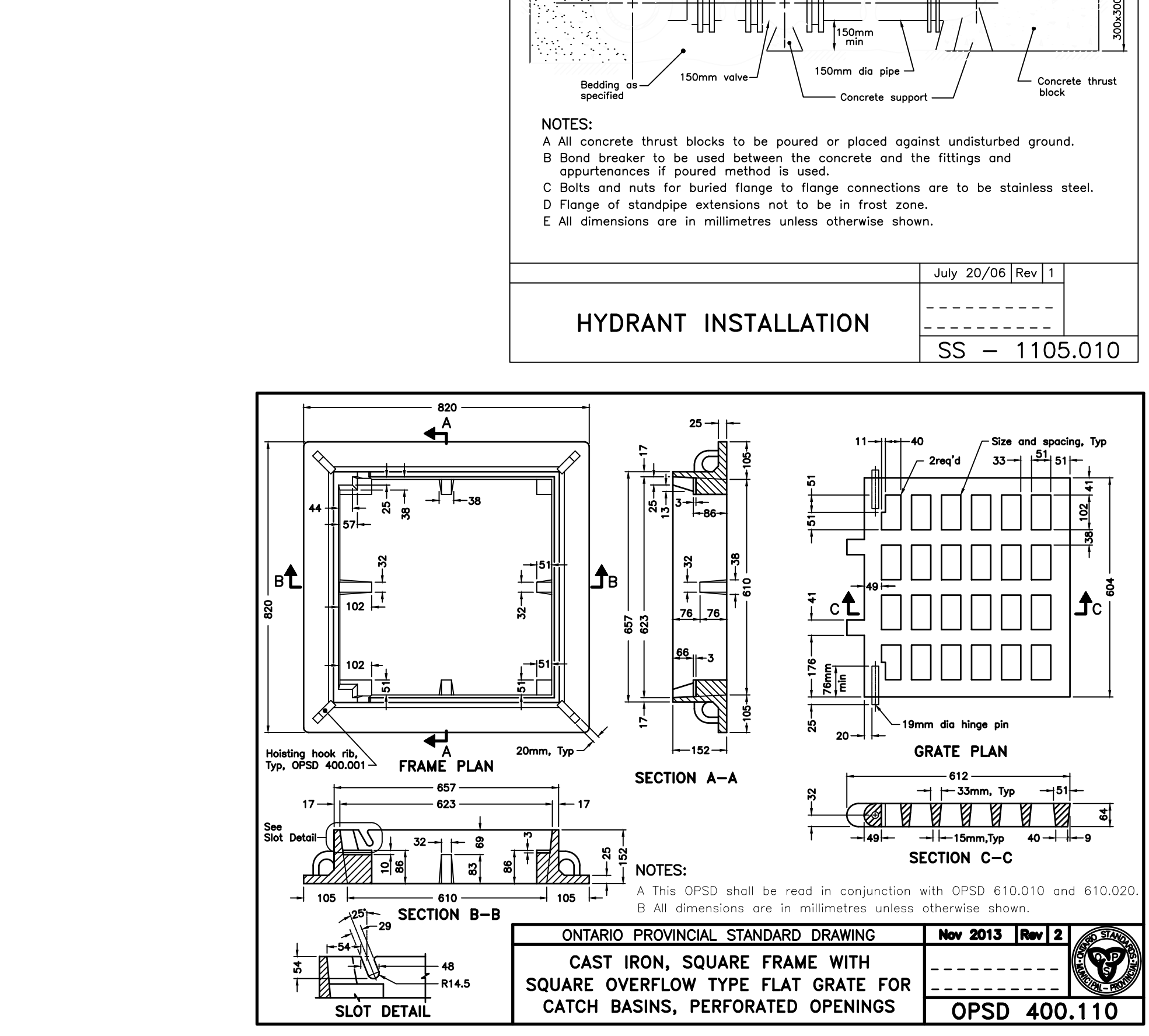
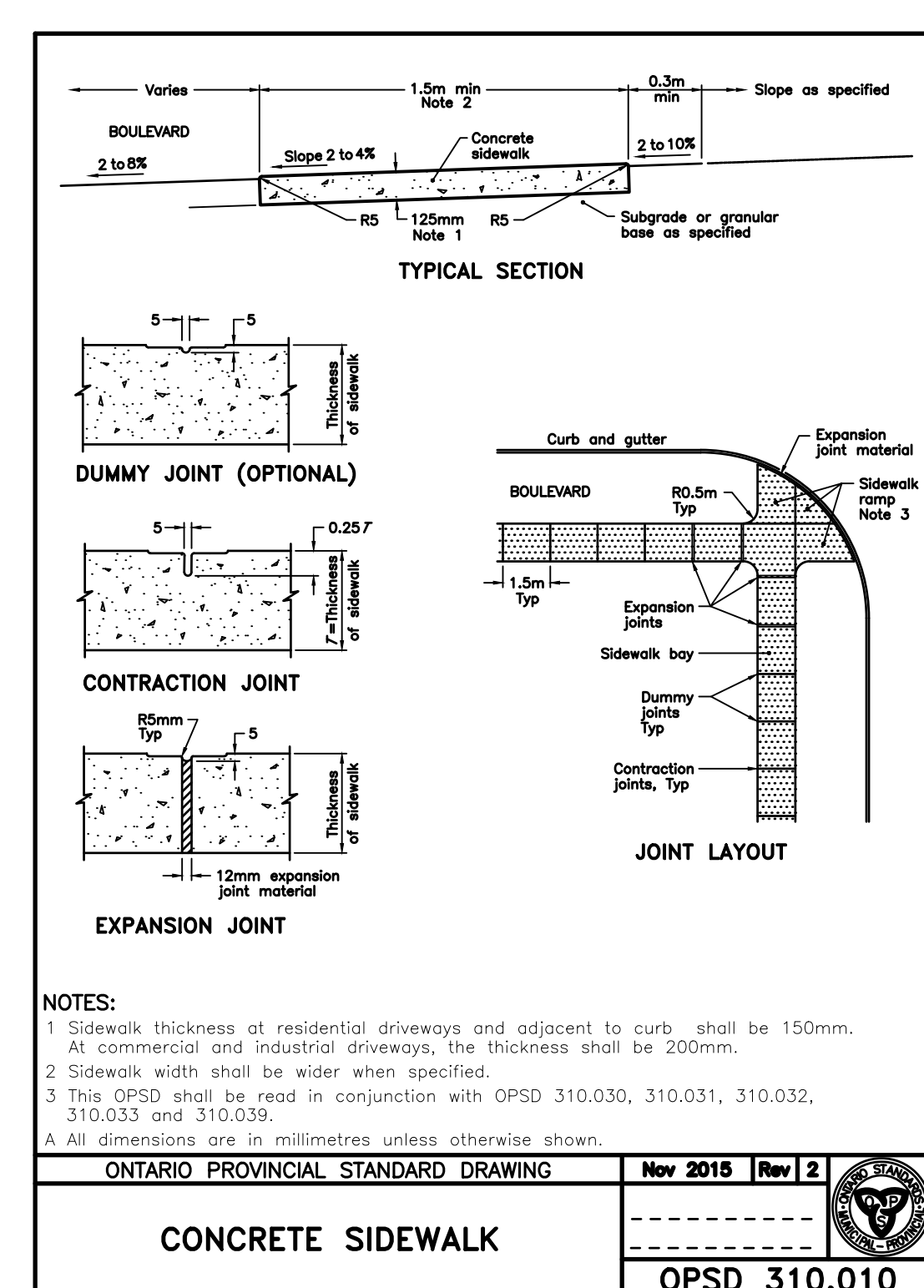
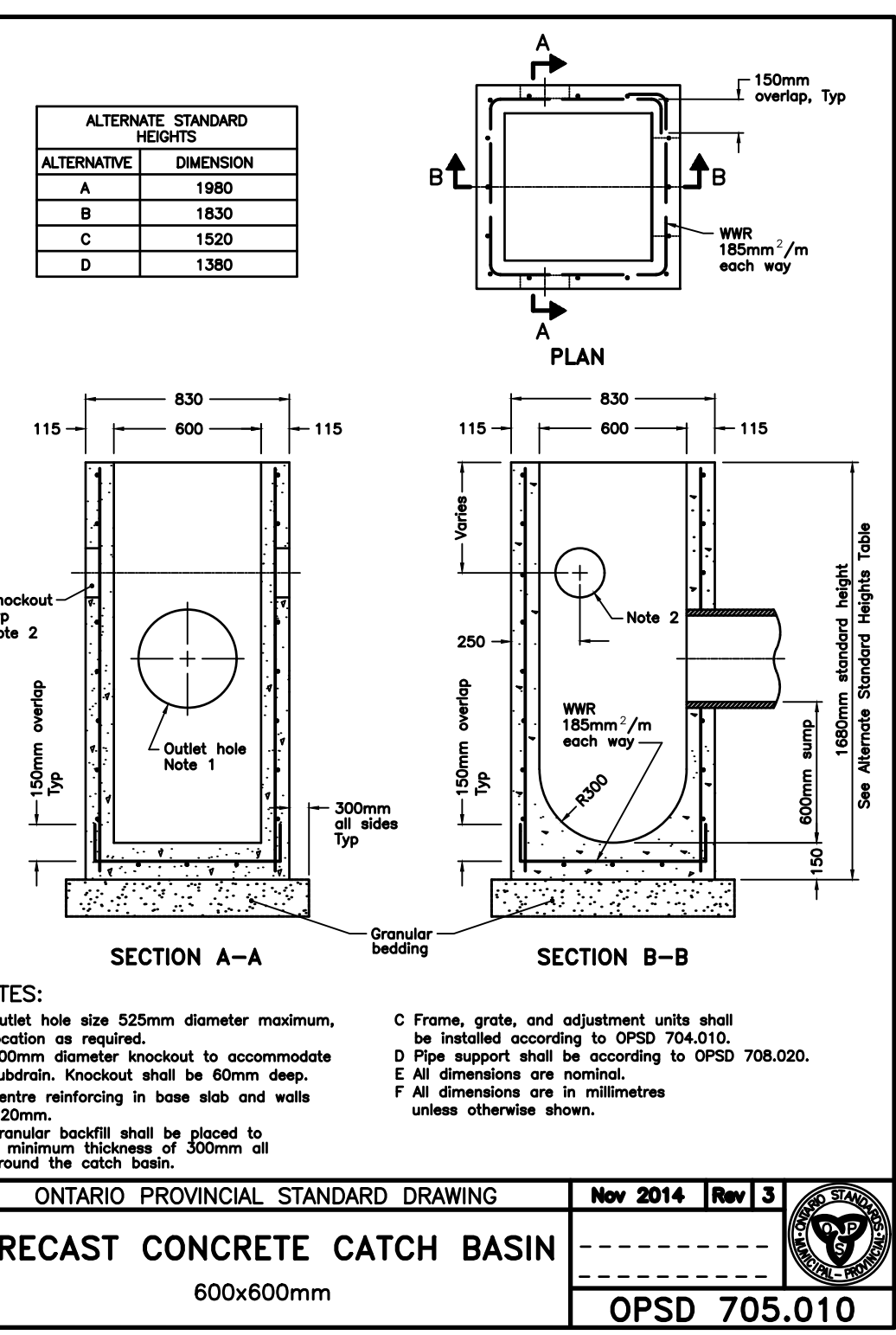
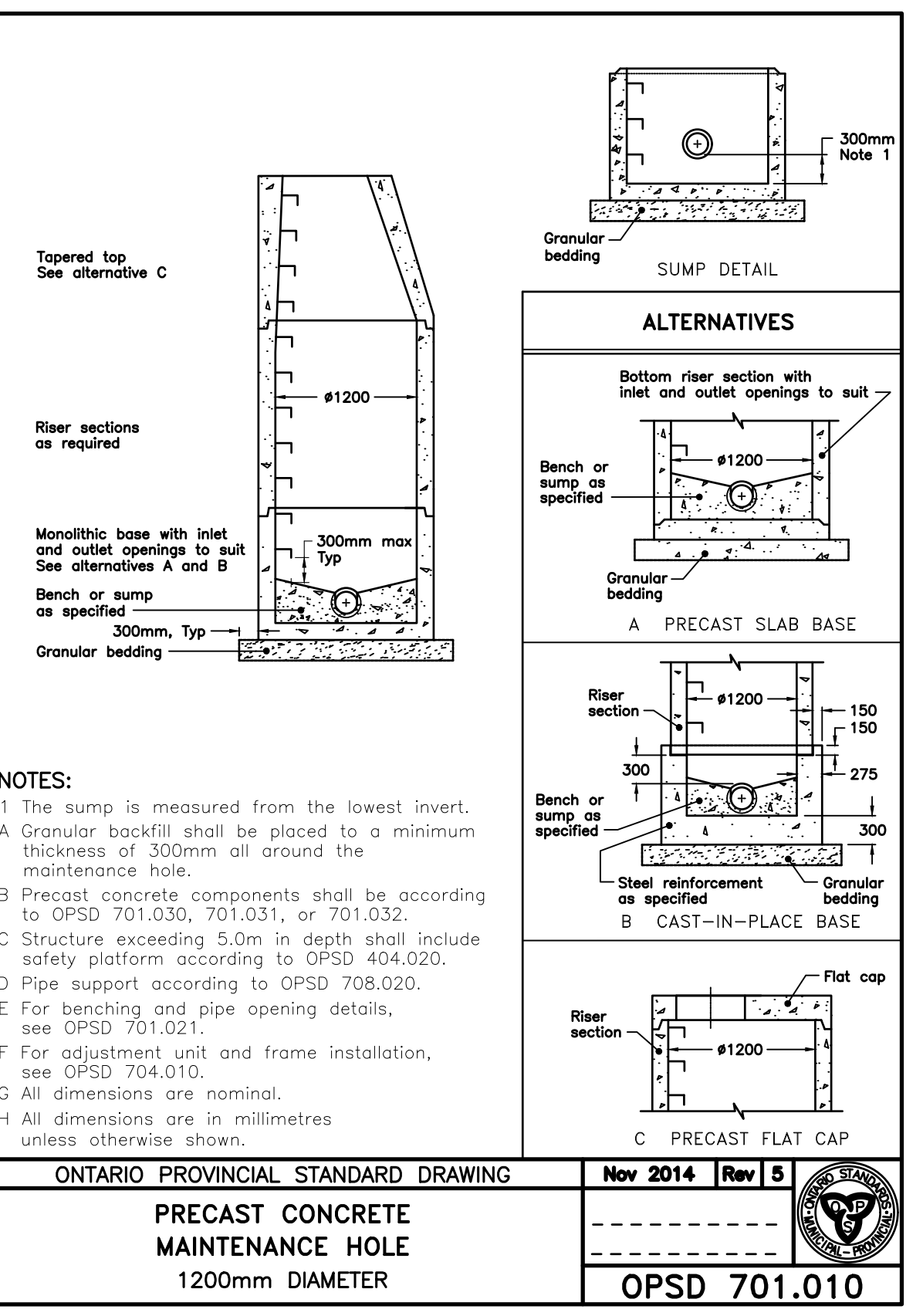
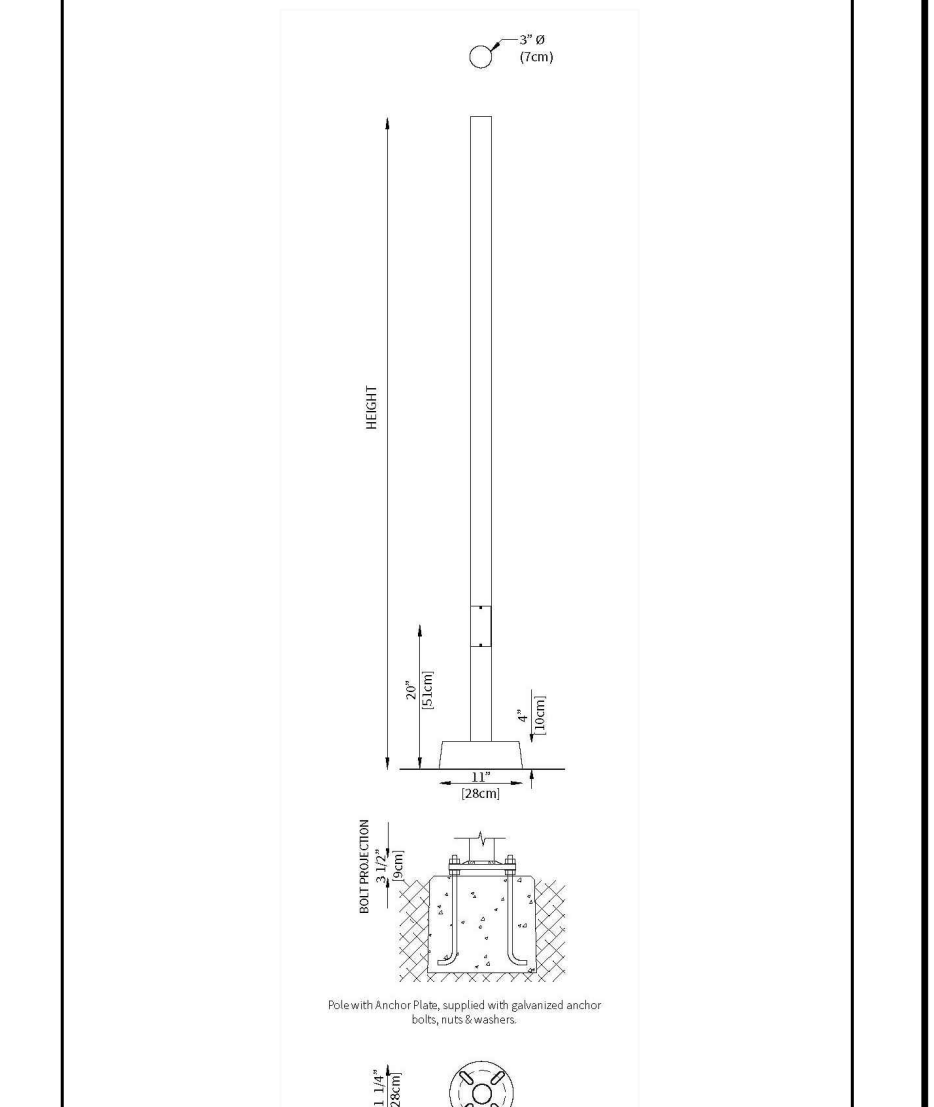
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Scale:
Drawn: JHL
Approved:
Checked: TLB
Date: JAN 2024

Ontario Provincial Standard Drawing: Nov 2013 Rev 3
WATER SERVICE CONNECTION
19 and 25mm DIAMETER SIZES
OPSD 1104.010

DRAWING No. 01892-DET1



CAUTION: THE POSITION OF POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND 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. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM THEMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.



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RIVER BREEZE TOWNHOUSES PROPOSED DEVELOPMENT

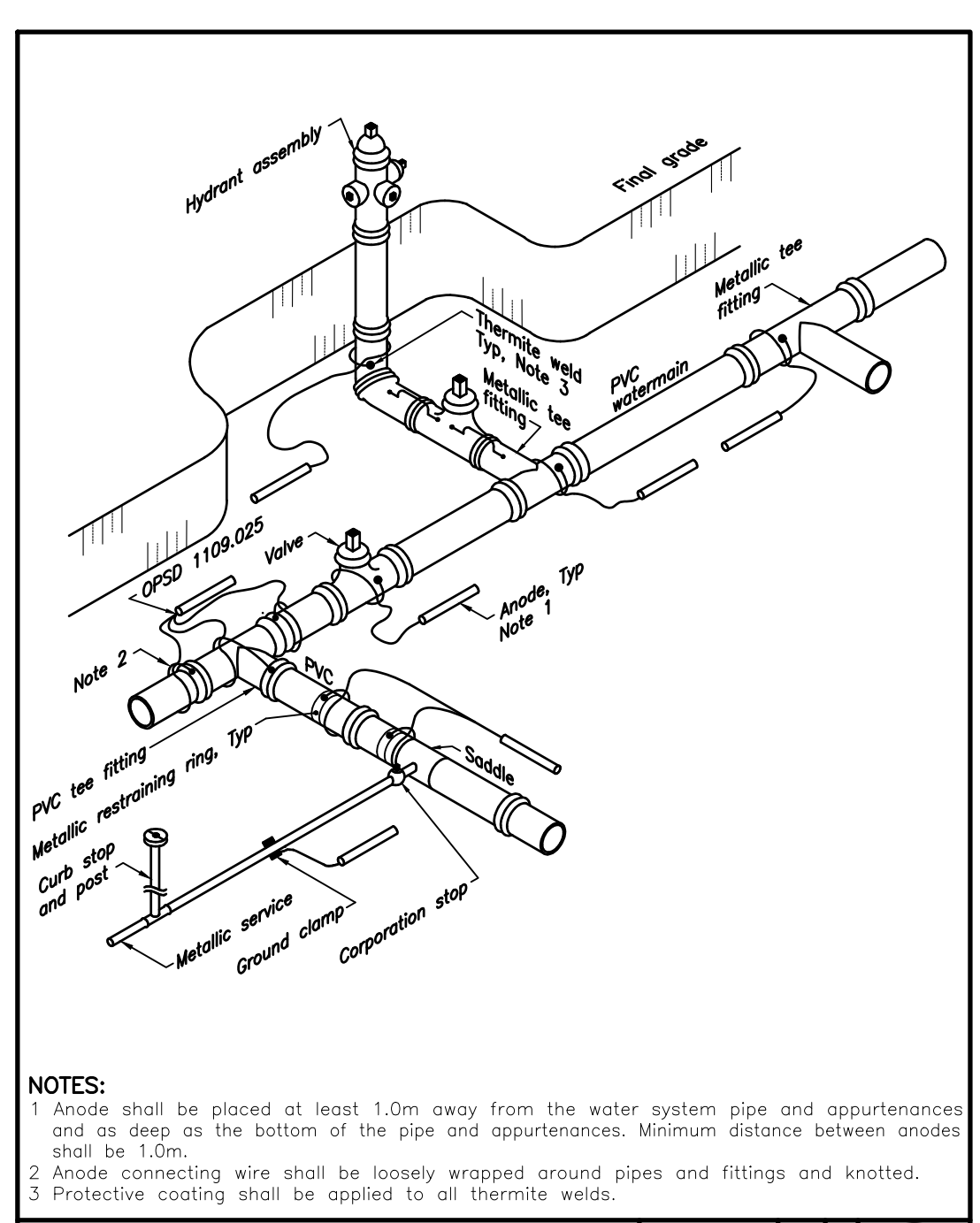
MUNICIPALITY OF BROCKTON (FORMERLY TOWN OF WALKERTON) MISCELLANEOUS DETAILS II

Client: **WILSON DEVELOPMENTS**

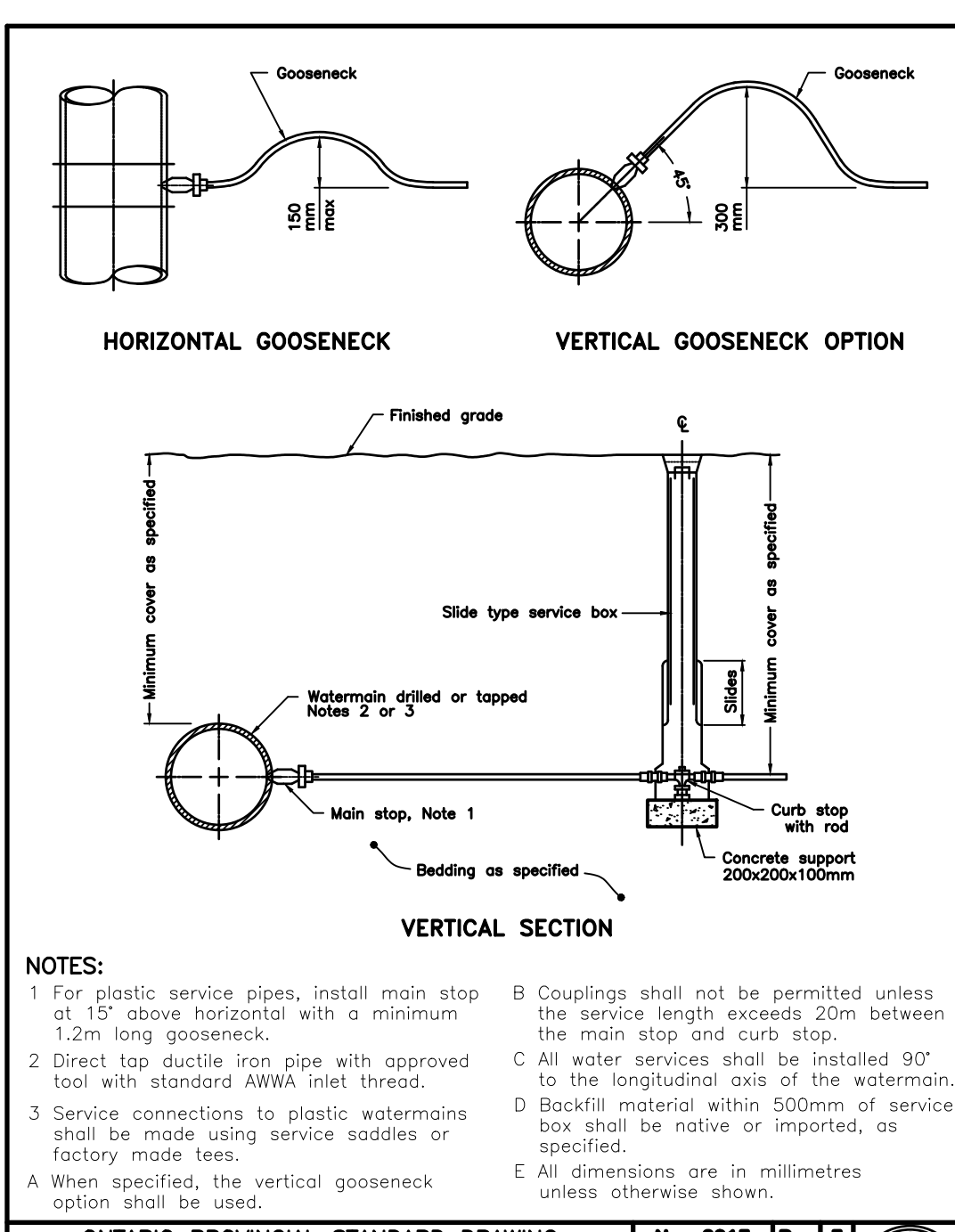
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Checked: TLB
Date: JAN 2024

DRAWING No. 01892-DET2

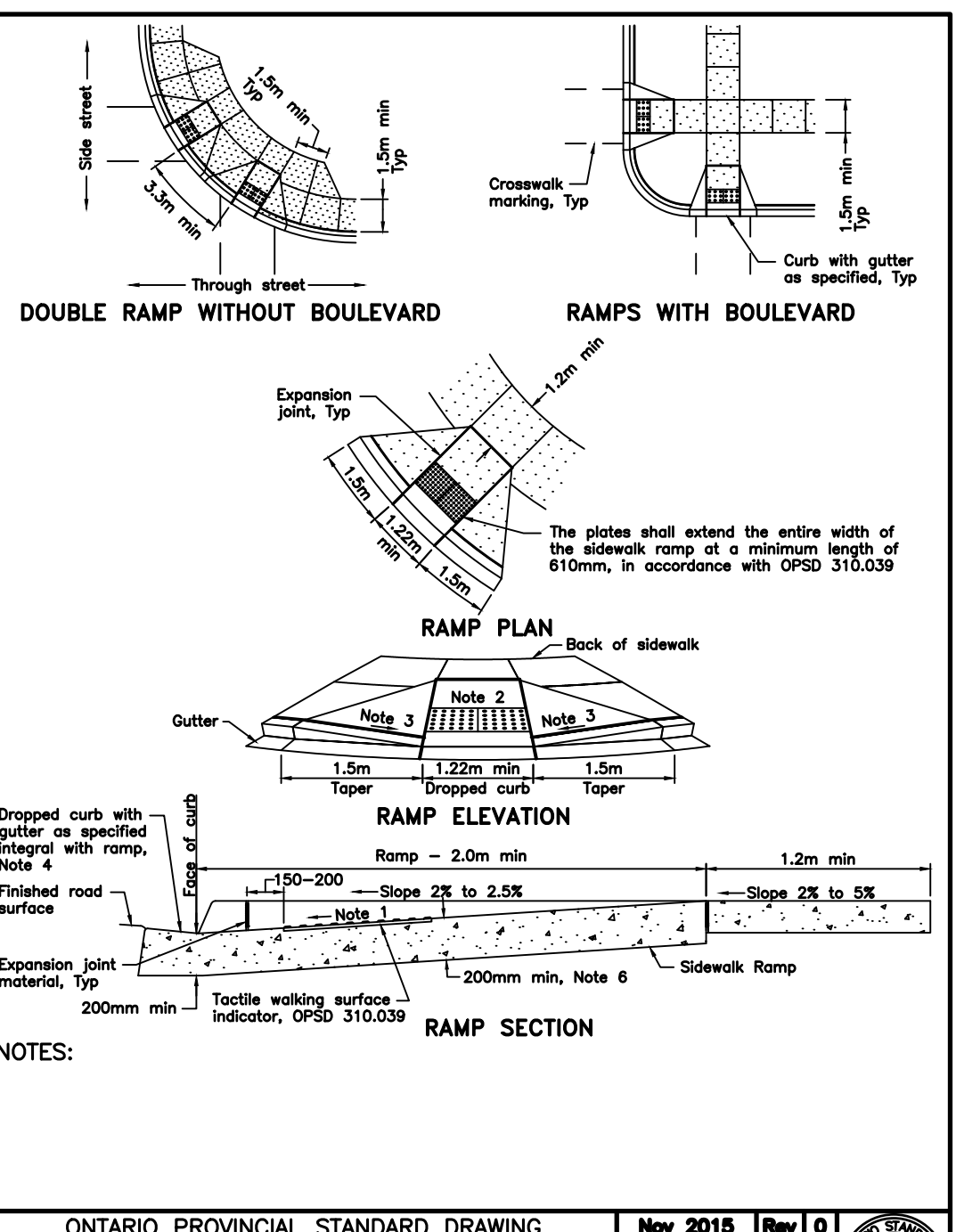
CAUTION: THE POSITION OF POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE DRAWINGS, AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM THEMSELVES OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.



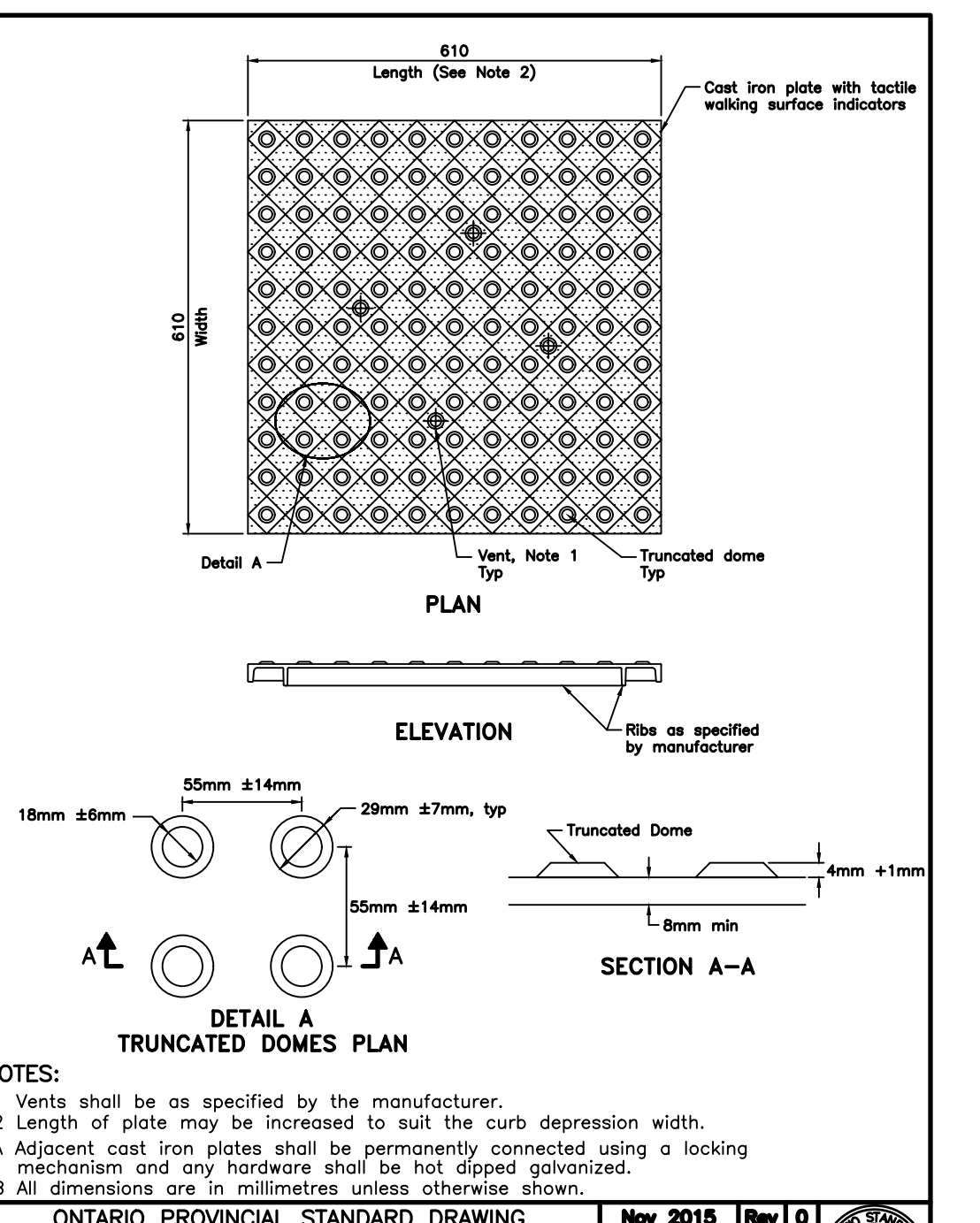
ONTARIO PROVINCIAL STANDARD DRAWING Nov 2018 Rev 2
CATHODIC PROTECTION FOR PVC WATERMAIN SYSTEMS
OPSD 1109.011



ONTARIO PROVINCIAL STANDARD DRAWING Nov 2013 Rev 3
WATER SERVICE CONNECTION
19 and 25mm DIAMETER SIZES
OPSD 1104.010



ONTARIO PROVINCIAL STANDARD DRAWING Nov 2015 Rev 0
CONCRETE SIDEWALK RAMPS AT UNSIGNALIZED INTERSECTIONS
OPSD 310.033



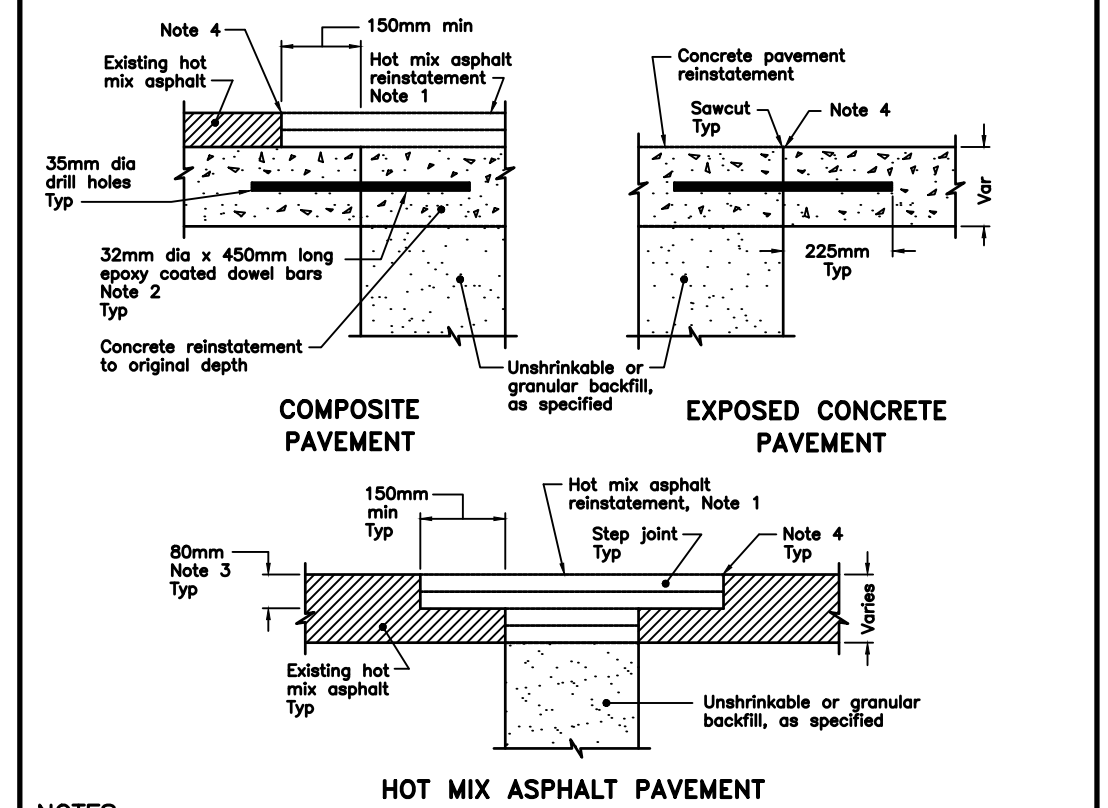
ONTARIO PROVINCIAL STANDARD DRAWING Nov 2015 Rev 0
CONCRETE SIDEWALK RAMPS TACTILE WALKING SURFACE INDICATORS COMPONENT
OPSD 310.039

SIENA STONE®
RETAINING WALL GRAVITY SECTION

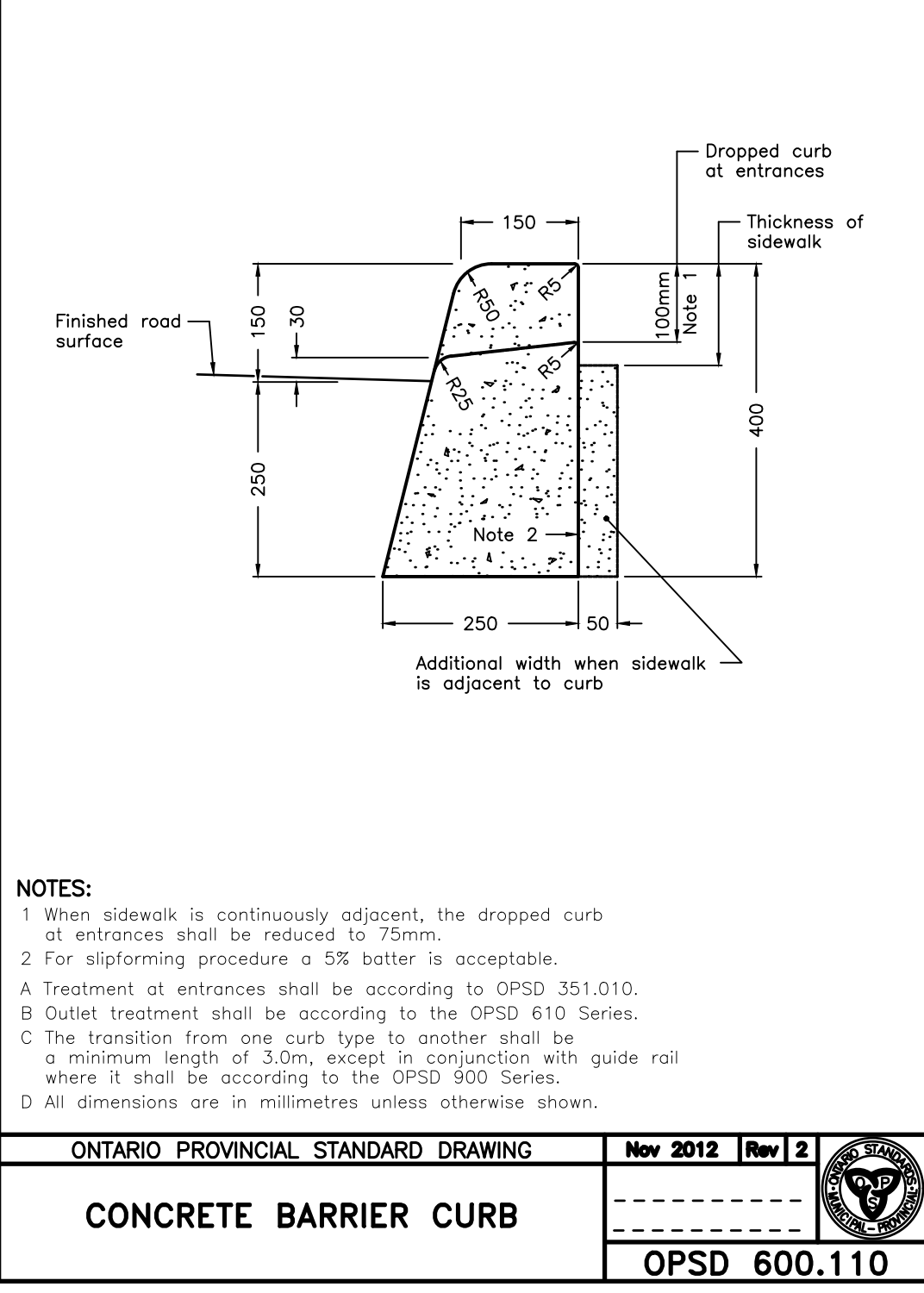
2040mm (6.69ft) Site: Surcharge - Clays Infill: Drainage Layer

Design Specific Geometric Information		Design Specific Soil Information	
Retaining Wall Section	SIENA STONE	Soil Region	Soil
Maximum Height (m)	2040 (6.69)	Soil Type	Clay
Minimum Height (m)	1020 (3.34)	Soil Description	Clay
Maximum Slope Allow (m)	Horizontal	Soil Unit Weight (kN/m³)	20
Minimum Slope Allow (m)	Horizontal	Soil Cohesion (kN/m²)	10
Allow Backfill (m)	Horizontal	Soil Friction Angle (°)	15
Allow Backfill (m)	Horizontal	Soil Permeability (m/s)	0.0001
Allow Backfill (m)	Horizontal	Soil Compaction	95%
Allow Backfill (m)	Horizontal	Soil Moisture Content (%)	15
Allow Backfill (m)	Horizontal	Soil Liquid Limit (%)	25
Allow Backfill (m)	Horizontal	Soil Plasticity Index (%)	10
Allow Backfill (m)	Horizontal	Soil Shrinkage (%)	1
Allow Backfill (m)	Horizontal	Soil Swell (%)	0

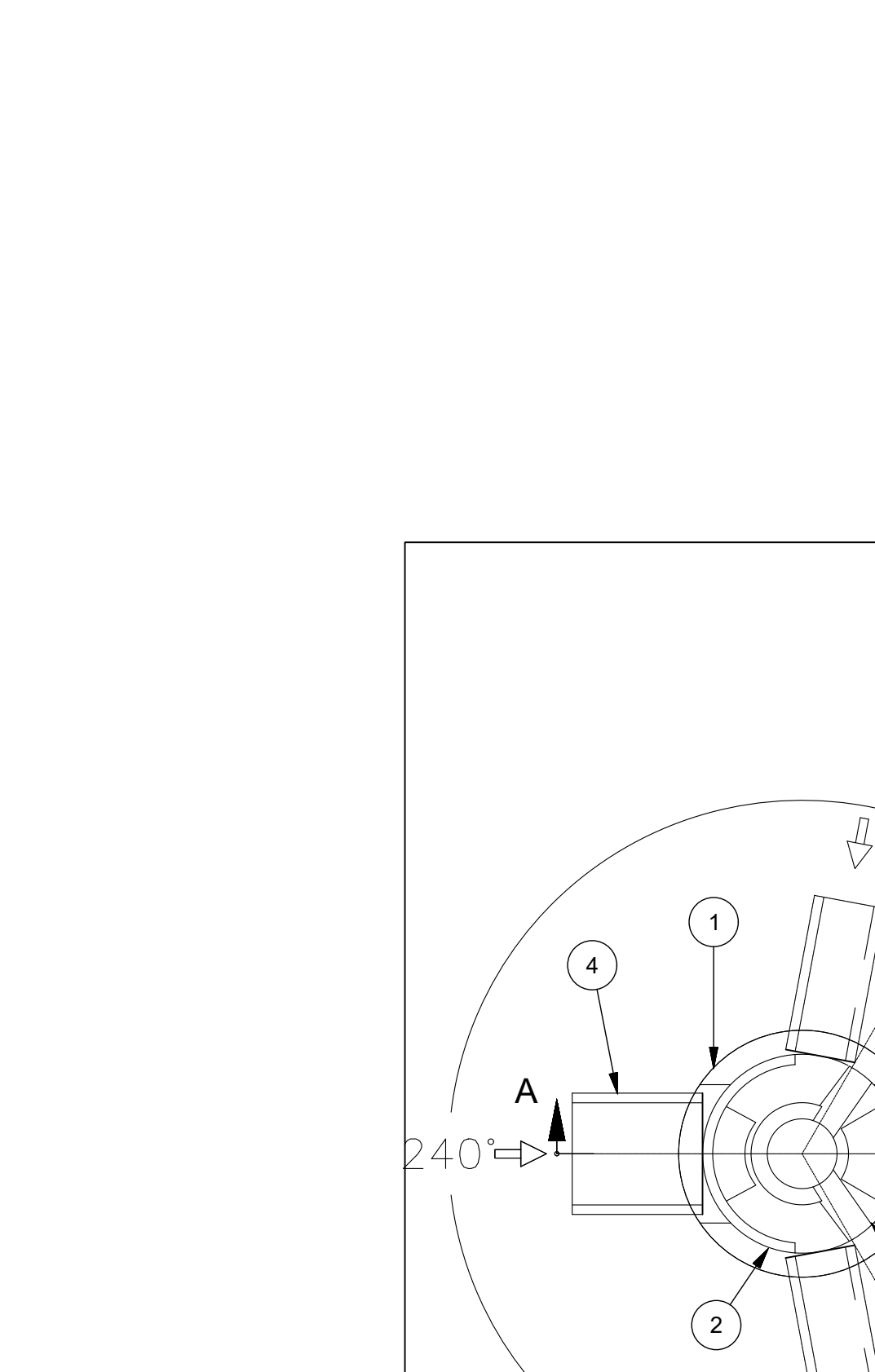
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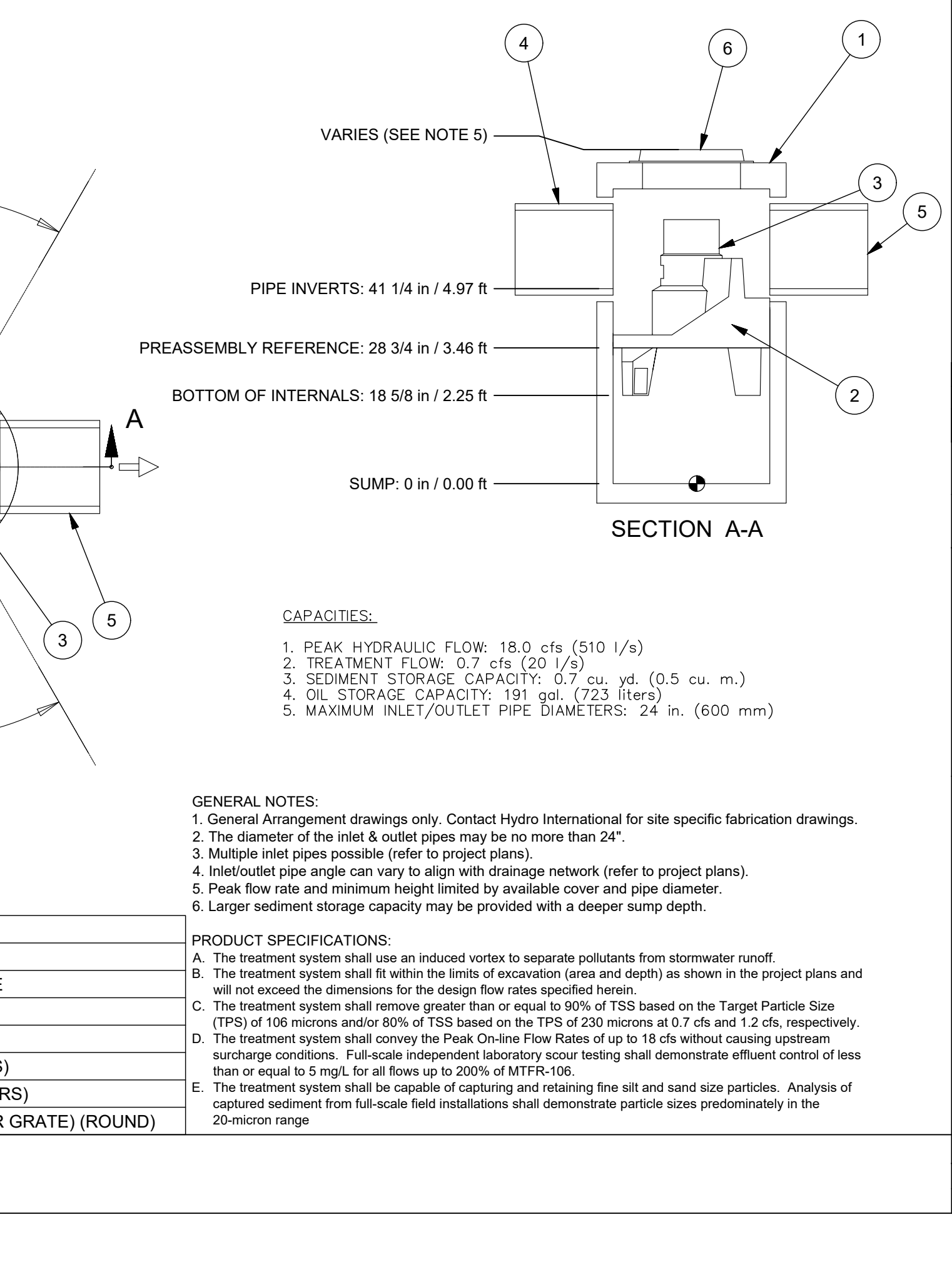
ONTARIO PROVINCIAL STANDARD DRAWING Nov 2013 Rev 2
PAVEMENT REINSTATEMENT FOR UTILITY CUTS
OPSD 509.010



ONTARIO PROVINCIAL STANDARD DRAWING Nov 2012 Rev 2
CONCRETE BARRIER CURB
OPSD 600.110



ONTARIO PROVINCIAL STANDARD DRAWING Nov 2014 Rev 4
PRECAST CONCRETE MAINTENANCE HOLE COMPONENTS
1200mm DIAMETER TAPERED TOP AND FLAT CAP
OPSD 701.030



1. MANHOLE WALL AND SLAB THICKNESSES ARE NOT TO SCALE.
2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING FIRST DEFENSE MANHOLE.
3. CONTRACTOR TO CONFIRM RIM, PIPE INVERTS, PIPE DIA. AND PIPE ORIENTATION PRIOR TO RELEASE OF UNIT TO FABRICATION.

REVISION HISTORY

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4-FT DIAMETER FIRST DEFENSE COMMENTS

TITLE SUBJECT

Hydro International

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Fax: (207) 756-6212
stormwaterinquiry@hydro-int.com

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Client: WILSON DEVELOPMENTS

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MUNICIPALITY OF BROCKTON (FORMERLY TOWN OF WALKERTON)
MISCELLANEOUS DETAIL III

Design: TLB
Drawn: JHL
Checked: TLB
Date: JAN 2024

DRAWING No. 01892-DET3