CAUTION:
THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, 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 HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

ECO PARKWAY INDUSTRIAL DEVELOPMENT PHASE 1 TOWNSHIP OF SOUTHGATE COUNTY OF GREY

CONTRACT NO. 23-03710-01

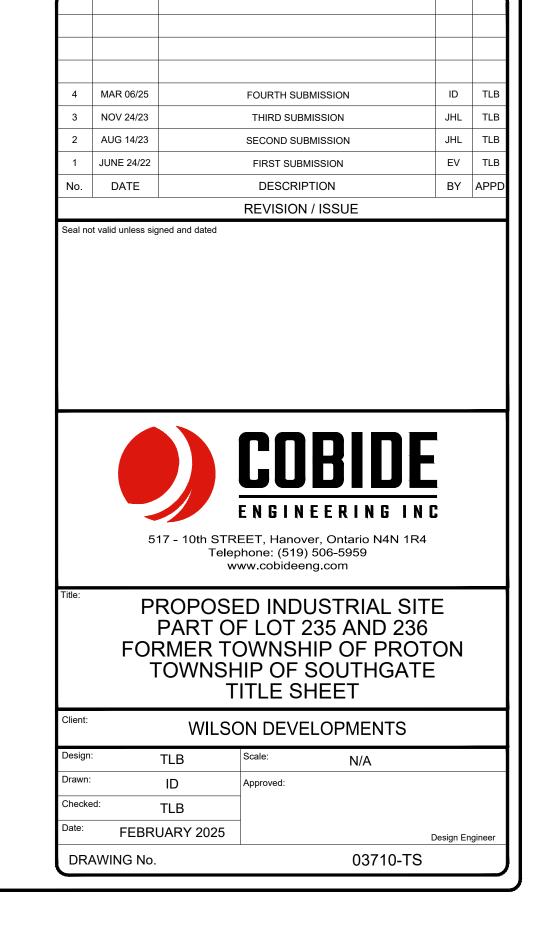
MAYOR : MR. BRIAN MILNE
CHIEF ADMINISTRATIVE OFFICER : MS. DINA LUNDY
CHIEF BUILDING OFFICIAL : MR. BEV FISHER

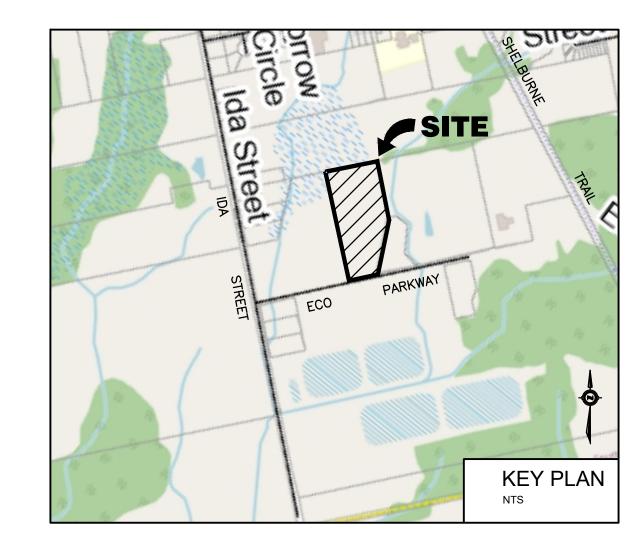
OWNER: WILSON DEVELOPMENTS

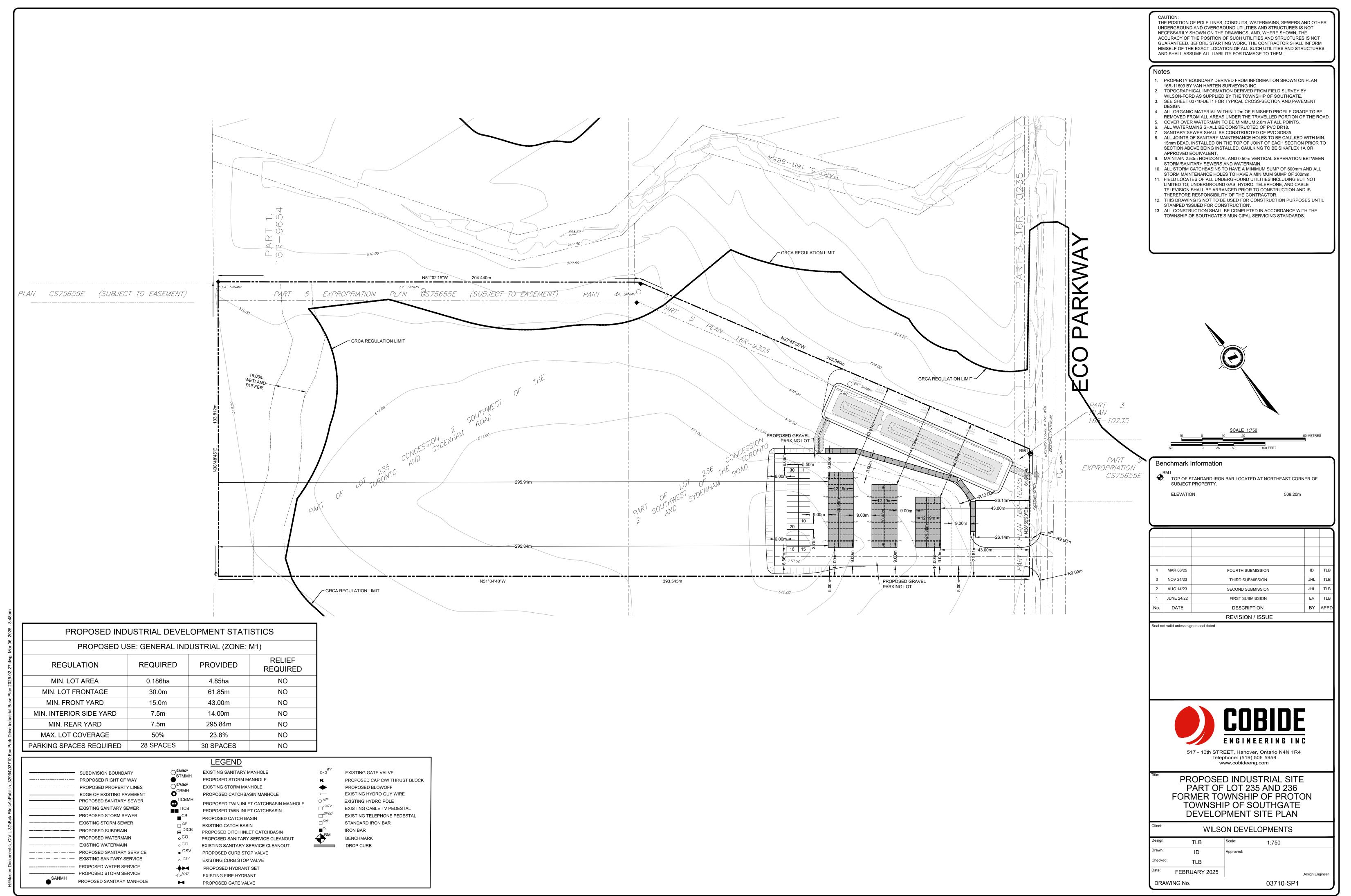


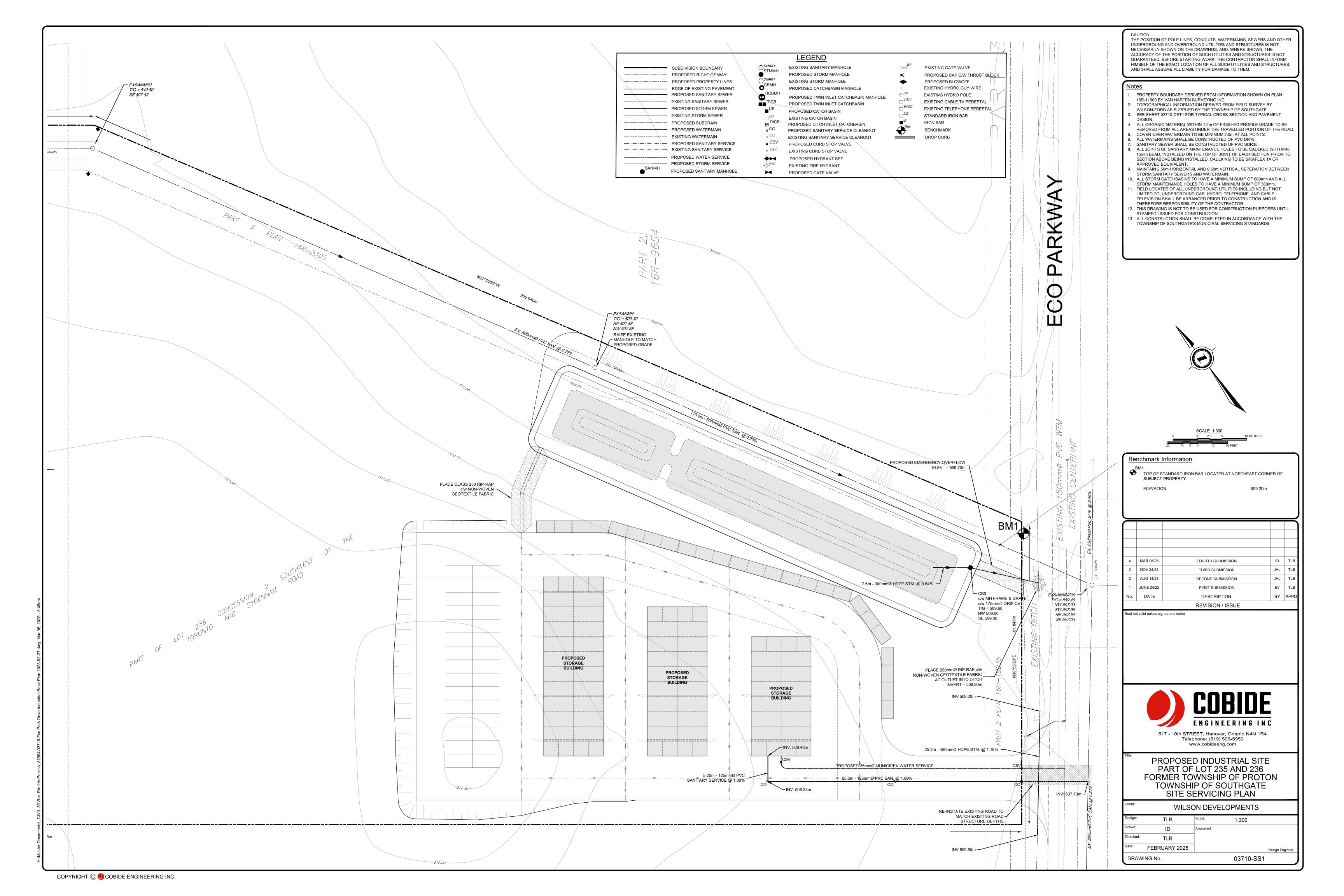
Index

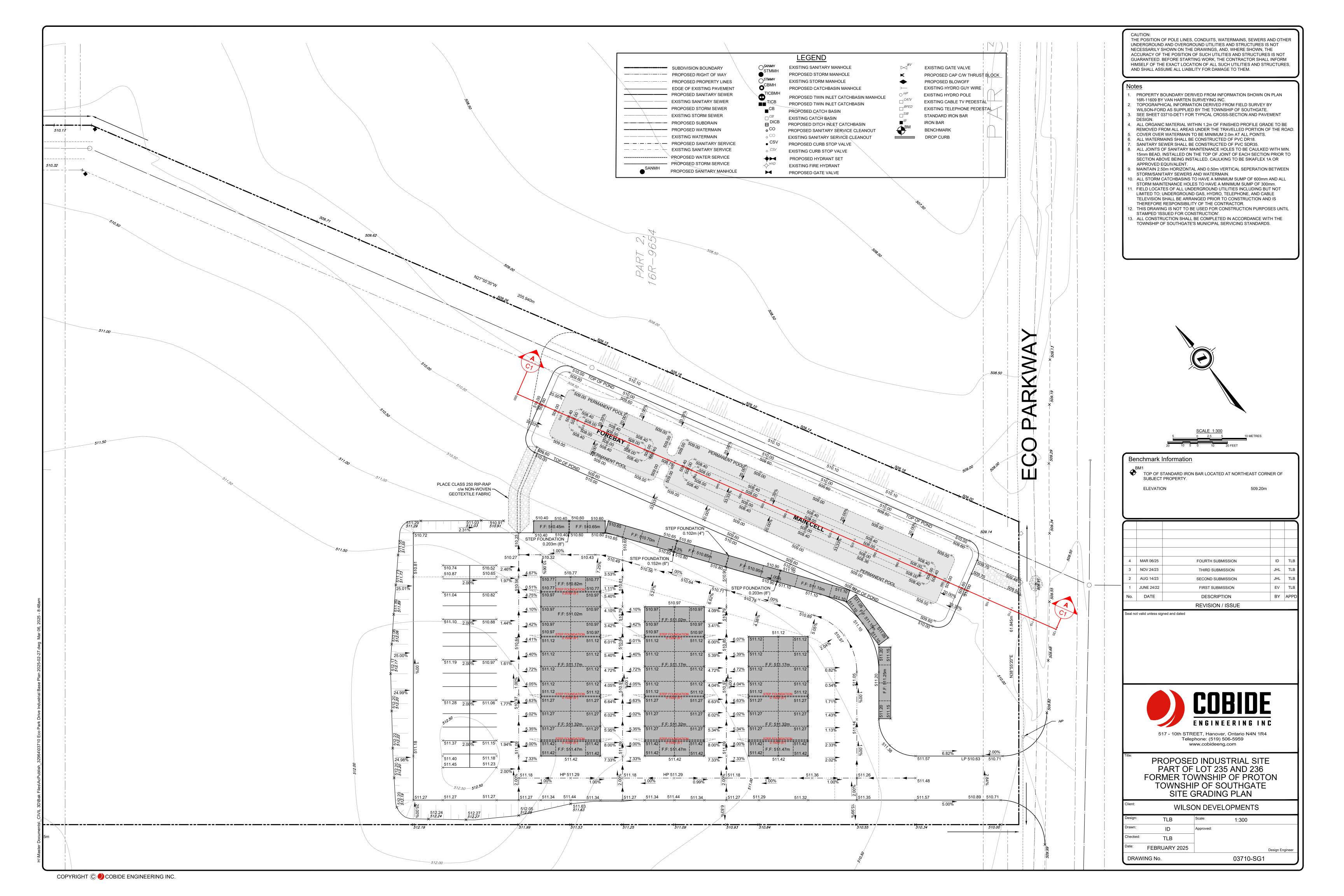
SHEET No.	DESCRIPTION
03710-SP1	DEVELOPMENT SITE PLAN
03710-SS1	SITE SERVICING PLAN
03710-SGR1	SITE GRADING PLAN
03710-LP1	LANDSCAPE PLAN
03710-ESC1	EROSION AND SEDIMENTATION PLAN
03710-C1	SITE SECTION A-A
03710-DET1	MISCELLANEOUS DETAILS I
03710-DET2	MISCELLANEOUS DETAILS II

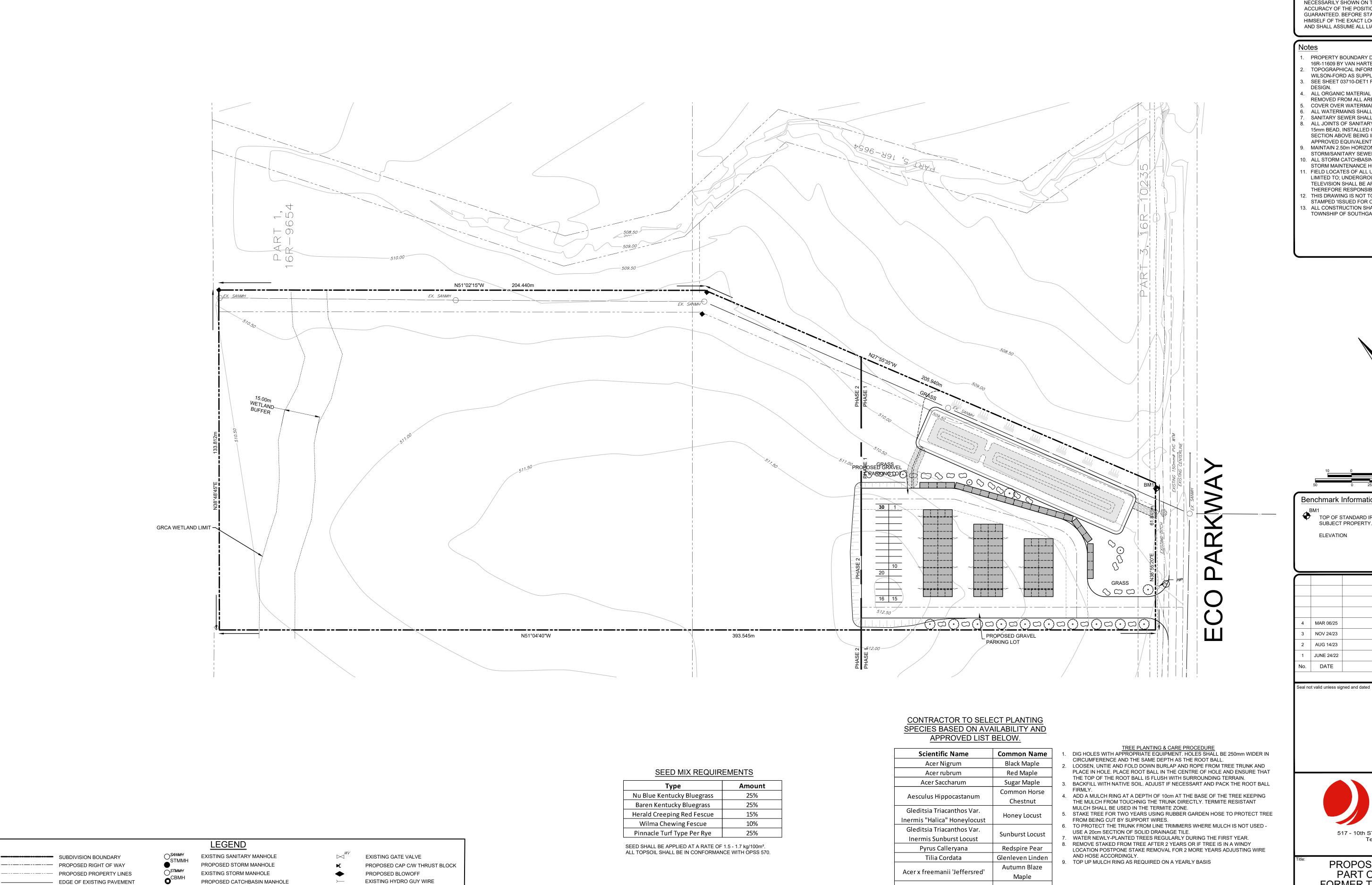












Celtis occidentalis

Quercus macrocarpa

Quercus rubra

Tilia americana 'Redmond'

Ulmus americana 'Princeton'

Common Hackberry

Bur Oak

Red Oak

Redmond

Basswood

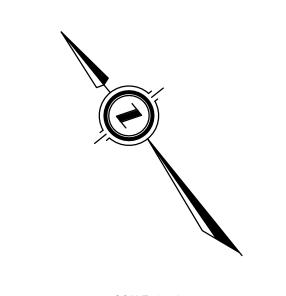
Princeton Elm

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PROPERTY BOUNDARY DERIVED FROM INFORMATION SHOWN ON PLAN 16R-11609 BY VAN HARTEN SURVEYING INC. TOPOGRAPHICAL INFORMATION DERIVED FROM FIELD SURVEY BY

AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

- WILSON-FORD AS SUPPLIED BY THE TOWNSHIP OF SOUTHGATE. SEE SHEET 03710-DET1 FOR TYPICAL CROSS-SECTION AND PAVEMENT
- ALL ORGANIC MATERIAL WITHIN 1.2m OF FINISHED PROFILE GRADE TO BE REMOVED FROM ALL AREAS UNDER THE TRAVELLED PORTION OF THE ROAD.
- COVER OVER WATERMAIN TO BE MINIMUM 2.0m AT ALL POINTS. ALL WATERMAINS SHALL BE CONSTRUCTED OF PVC DR18.
- SANITARY SEWER SHALL BE CONSTRUCTED OF PVC SDR35. ALL JOINTS OF SANITARY MAINTENANCE HOLES TO BE CAULKED WITH MIN.
- 15mm BEAD, INSTALLED ON THE TOP OF JOINT OF EACH SECTION PRIOR TO SECTION ABOVE BEING INSTALLED. CAULKING TO BE SIKAFLEX 1A OR APPROVED EQUIVALENT.
- MAINTAIN 2.50m HORIZONTAL AND 0.50m VERTICAL SEPERATION BETWEEN STORM/SANITARY SEWERS AND WATERMAIN.). ALL STORM CATCHBASINS TO HAVE A MINIMUM SUMP OF 600mm AND ALL
- STORM MAINTENANCE HOLES TO HAVE A MINIMUM SUMP OF 300mm. I. 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.
- 2. THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNTIL STAMPED 'ISSUED FOR CONSTRUCTION'.
- 3. ALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE TOWNSHIP OF SOUTHGATE'S MUNICIPAL SERVICING STANDARDS.



Benchmark Information

TOP OF STANDARD IRON BAR LOCATED AT NORTHEAST CORNER OF SUBJECT PROPERTY.

ELEVATION

MAR 06/25 FOURTH SUBMISSION NOV 24/23 JHL TLE THIRD SUBMISSION AUG 14/23 SECOND SUBMISSION JHL TLB

FIRST SUBMISSION

DESCRIPTION

REVISION / ISSUE

EV TLB

BY APPE

JUNE 24/22

DATE

ENGINEERING INC

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

PROPOSED INDUSTRIAL SITE PART OF LOT 235 AND 236 FORMER TOWNSHIP OF PROTON TOWNSHIP OF SOUTHGATE LANDSCAPE PLAN

Client:	WILS	WILSON DEVELOPMENTS		
Design:	TLB	Scale:	1:750	
Drawn:	ID	Approved:		
Chockod:				

FEBRUARY 2025 Design Engineer 03710-LP1 DRAWING No.

PROPOSED SANITARY MANHOLE

EXISTING SANITARY SEWER

PROPOSED STORM SEWER

-- PROPOSED WATERMAIN

EXISTING WATERMAIN

---- PROPOSED WATER SERVICE

PROPOSED STORM SERVICE

EXISTING HYDRO POLE

STANDARD IRON BAR

IRON BAR

BENCHMARK

DROP CURB

EXISTING CABLE TV PEDESTAL

EXISTING TELEPHONE PEDESTAL

PROPOSED TWIN INLET CATCHBASIN MANHOLE

PROPOSED TWIN INLET CATCHBASIN

PROPOSED DITCH INLET CATCHBASIN

PROPOSED CURB STOP VALVE

EXISTING CURB STOP VALVE

PROPOSED HYDRANT SET

EXISTING FIRE HYDRANT

PROPOSED GATE VALVE

PROPOSED SANITARY SERVICE CLEANOUT

EXISTING SANITARY SERVICE CLEANOUT

PROPOSED CATCH BASIN

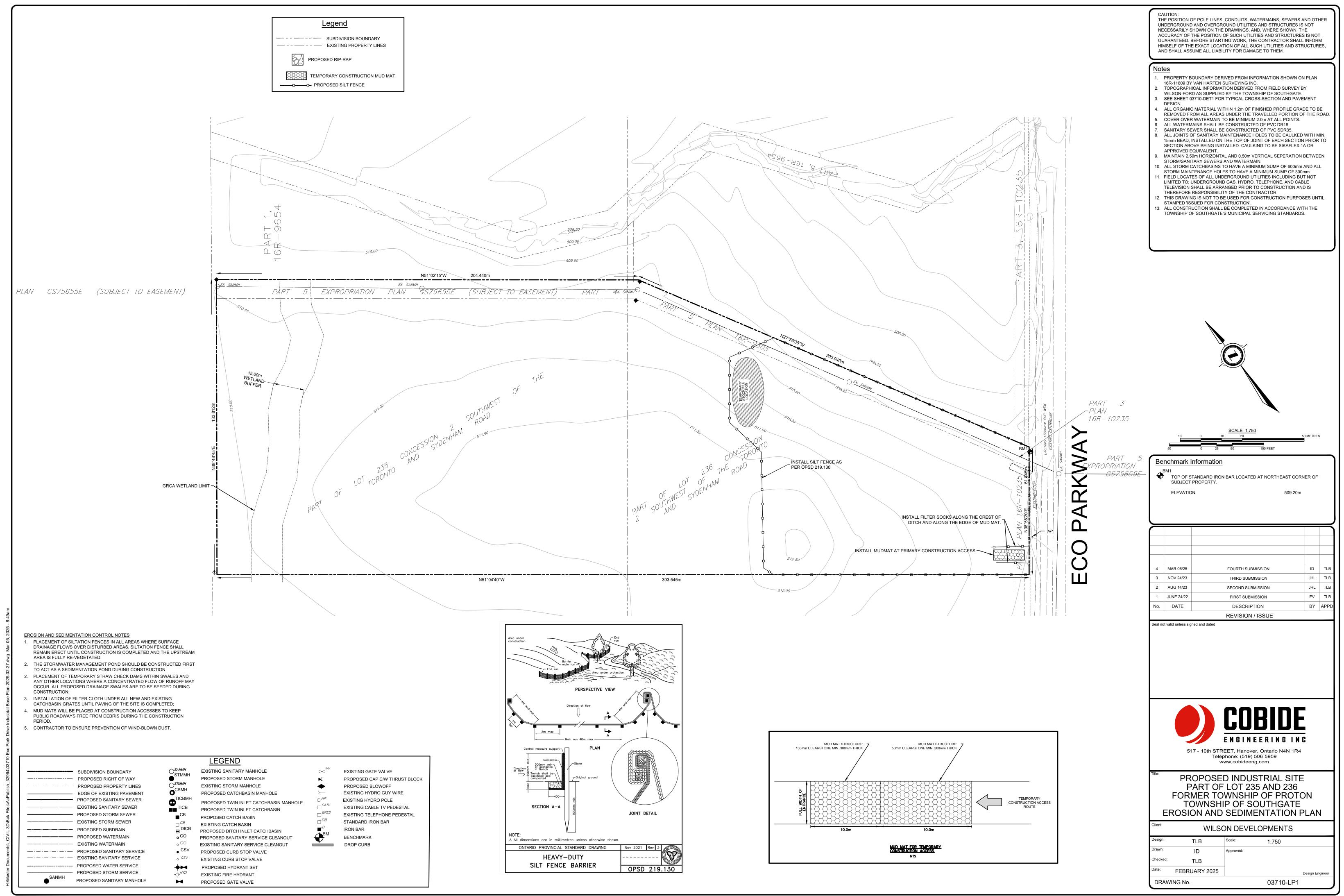
EXISTING CATCH BASIN

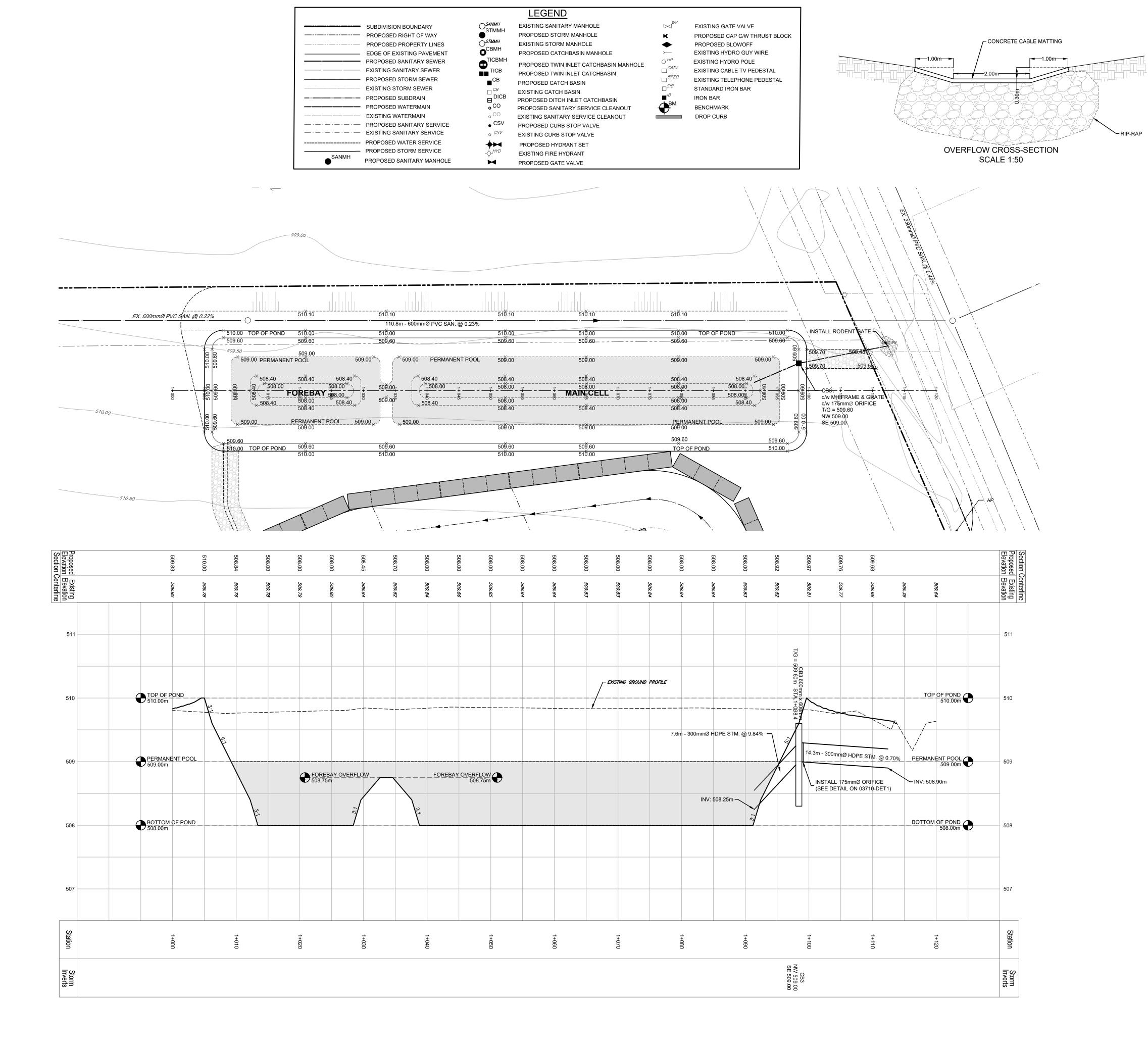
PROPOSED SANITARY SEWER

----- PROPOSED SANITARY SERVICE

— · — · — · — · — EXISTING SANITARY SERVICE

PROPOSED SUBDRAIN

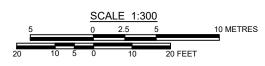




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- WILSON-FORD AS SUPPLIED BY THE TOWNSHIP OF SOUTHGATE. SEE SHEET 03710-DET1 FOR TYPICAL CROSS-SECTION AND PAVEMENT
- ALL ORGANIC MATERIAL WITHIN 1.2m OF FINISHED PROFILE GRADE TO BE REMOVED FROM ALL AREAS UNDER THE TRAVELLED PORTION OF THE ROAD.
- COVER OVER WATERMAIN TO BE MINIMUM 2.0m AT ALL POINTS.
- . ALL WATERMAINS SHALL BE CONSTRUCTED OF PVC DR18. SANITARY SEWER SHALL BE CONSTRUCTED OF PVC SDR35.
- ALL JOINTS OF SANITARY MAINTENANCE HOLES TO BE CAULKED WITH MIN. 15mm BEAD, INSTALLED ON THE TOP OF JOINT OF EACH SECTION PRIOR TO
- SECTION ABOVE BEING INSTALLED. CAULKING TO BE SIKAFLEX 1A OR APPROVED EQUIVALENT.
- MAINTAIN 2.50m HORIZONTAL AND 0.50m VERTICAL SEPERATION BETWEEN STORM/SANITARY SEWERS AND WATERMAIN.). ALL STORM CATCHBASINS TO HAVE A MINIMUM SUMP OF 600mm AND ALL
- STORM MAINTENANCE HOLES TO HAVE A MINIMUM SUMP OF 300mm. I. 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
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- 13. ALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE TOWNSHIP OF SOUTHGATE'S MUNICIPAL SERVICING STANDARDS.





Benchmark Information

TOP OF STANDARD IRON BAR LOCATED AT NORTHEAST CORNER OF SUBJECT PROPERTY.

ELEVATION

509.20m

					=
1					
	4	MAR 06/25	FOURTH SUBMISSION	ID	TLB
	3	NOV 24/23	THIRD SUBMISSION	JHL	TLB
	2	AUG 14/23	SECOND SUBMISSION	JHL	TLB
	1	JUNE 24/22	FIRST SUBMISSION	EV	TLB
	No.	DATE	DESCRIPTION	BY	APPD

REVISION / ISSUE Seal not valid unless signed and dated



Telephone: (519) 506-5959 www.cobideeng.com

PROPOSED INDUSTRIAL SITE PART OF LOT 235 AND 236 FORMER TOWNSHIP OF PROTON TOWNSHIP OF SOUTHGATE SITE SECTION A-A

nt:	WILS	WILSON DEVELOPMENTS			
gn:	TLB	Scale:	H 1:300 V 1:30	_	
vn:	ID	Approved:			

TLB FEBRUARY 2025

Design Engineer 03710-C1 DRAWING No.

Approved Products

Kor-N-Seal for manholes, Prefab tees for PVC pipe

Concrete CSA#A257.1/A257.2 (latest revision)

(non-reinforced), and A257.2 (latest revision)

CSA A257.1 (latest revision) (non-reinforced) and

Leads to rear yard catchbasins are to be concrete.

(minimum 1.6 mm thickness) or HDPE Boss 2000,

Kor-N-Seal for manholes Prefab tee for HDPE and

PVC pipe or Kor-N-Tee (services for Concrete pipe

or Kor-N-Tee for concrete pipe services

375 mm diameter or less:

IPEX "Ultra Rib"

Big 'O' Boss Polytite

Royal Rib "Korflo"

450 mm diameter or greater:

A257.2 (latest revision) (reinforced)

All culverts shall be galvanized CSP,

320 kPa stiffness c/w Ultra Stab 75 Joint

Ductile Iron ANSI A21.51 (latest revision)

AWWA C151 (latest revision) with Tyton

C900 PVC Class 235 (DR 18), B 137.3

and restraints shall be approved by the

Bionax PVCO C909 PVC (Associated fittings

Cement Lined with Copper Straps

(latest revision) and Tracer Wire

(Township) and Tracer Wire

Loc Pipe "Loc PVC"

CSA A257.1 (latest revision)

Table 2: Approved Materials and Product List

PVC DR 35

PVC DR 28

<u>PVC DR 35</u>

(reinforced).

PVC DR 28

ltem

Sewer Pipe

Service Pipe

Connections

Sewer Pipe

Service Pipe

Connections

Watermain

Service

SANITARY

STORM

WATER

TOWNSHIP OF SOUTHGATE MUNICIPAL SERVICING STANDARDS

GENERAL - CONSTRUCTION

- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH TOWNSHIP OF SOUTHGATE STANDARDS AND OPSS. WHERE CONFLICT OCCURS. TOWN STANDARDS GOVERN.
- DEWATERING TO BE CARRIED OUT IN ACCORDANCE WITH OPSS 517 AND 518 TO MAINTAIN ALL TRENCHES IN A DRY ALL ENGINE DRIVEN PUMPS TO BE ADEQUATELY SILENCED, SUITABLE FOR OPERATION IN A RESIDENTIAL
- 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
- 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 c/w PULL ROPES. INSTALL CONDUITS TO LOCAL
- MAINTAIN A 150mm 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. CONTRACTOR TO PROVIDE CCTV FOOTAGE
- WATERMAIN TO BE TESTED AND MEET AWWA AND OCWA STANDARDS. MUNICIPAL REPRESENTATIVE TO BE PRESENT FOR ALL TESTING PROCEDURES.

ROADWAYS

- MINIMUM GRADE: TO MAINTAIN 0.50% MINIMUM ON GUTTER GRADE. MAXIMUM GRADE: 8.0% ASPHALT DEPTH:
- 2.1. 90mm MIN (50mm HL4 & 40mm HL3 COMPACTED) ON LOCAL RESIDENTIAL. REFER TO STD R1. 110mm MIN (70mm HL4 & 40mm HL3 COMPACTED) ON COLLECTOR & ARTERIAL. REFER TO STD R2 AND R3.
- 75mm MIN (TWO LIFTS OF HL4) ON RURAL LOCAL STREET 2.4. 50mm HL4 ON TEMPORARY CUL-DE-SAC OR TEMPORARY ACCESS ROADS GRANULAR DEPTH: DEPENDING ON SOIL CONDITIONS AND A GEOTECHNICAL REPORT, BUT NO LESS THAN 150mm
- GRANULAR 'A' AND 450mm GRANULAR 'B' CONCRETE CURB AND GUTTER SHALL BE CONSTRUCTED ON BOTH SIDES OF ALL STREETS IN ACCORDANCE WITH TABLE 1 AND STD DWG R1, R2 & R3. DRIVEWAY CUTS SHALL NOT BE MADE UNTIL AFTER BUILDING FOUNDATION IS CONSTRUCTED. ALL CUTS SHALL BE MECHANICALLY CUT IN ACCORDANCE WITH SPECIFICATIONS APPROVED BY THE TOWNSHIP OF SOUTHGATE. THE USE OF TEMPORARY (THROW-AWAY) CURB, CONSTRUCTED OF LOW MPA
- CONCRETE, IS PERMISSIBLE AND IS TO BE REPLACED PRIOR TO PLACEMENT OF SURFACE ASPHALT. CONCRETE SIDEWALKS THAT ARE 1.5 M WIDE SHALL BE PROVIDED ON BOTH SIDES OF RESIDENTIAL COLLECTOR AND ARTERIAL STREETS AND ONE SIDE ON RESIDENTIAL LOCAL STREETS. RAMPS SHALL BE PROVIDED AT ALL INTERSECTIONS WITH CURB. MINIMUM 100 MM GRANULAR "A" BASE AND 125MM CONCRETE THICKNESS AND 200MM THICKNESS AT ALL DRIVEWAYS. TACTILE WARNING PLATES SHALL BE PROVIDED WHERE EVER SIDEWALK RAMPS ARE PROVIDED AT ROADWAY AND IN ACCORDANCE WITH THE LATEST VERSION OF THE ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES ACT. EXPANSION JOINT MATERIAL IS TO BE BITUMINOUS IMPREGNATED
- FIBREBOARD PEDESTRIAN WALKWAYS SHALL BE CONCRETE, 1.8 M WIDE WITH 1.5 M MINIMUM HEIGHT BLACK VINYL COATED GALVANIZED CHAIN LINK FENCE ON EACH SIDE WITHIN PROPERTY LIMITS. MINIMUM R.O.W WIDTH IS TO BE 6.0 M. IF THE WALKWAY IS ALSO TO BE USED FOR MAINTENANCE VEHICLE ACCESS. TOWNSHIP STD L3 AND L4 IS TO BE USED. IF WALKWAY IS ONLY FOR PEDESTRIAN USE, BOLLARDS ARE TO BE INSTALLED 1.1 M EITHER SIDE OF CENTRE OF SIDEWALK, AT BOTH ENDS OF THE WALKWAY AS PER TOWNSHIP STD L6, MINIMUM R.O.W. TO BE INCREASED TO A MINIMUM OF 9.0 M WHERE UNDERGROUND MUNICIPAL SERVICING EXCEEDS ONE SERVICE TYPE
- AND A WALKWAY EXIST THROUGH A CORRIDOR. ALL BOULEVARDS SHALL BE GRADED, TOPSOILED WITH A MINIMUM DEPTH OF 200 MM, AND SODDED FROM THE PROPERTY LINE TO THE BACK OF CURB.
- TRAFFIC CONTROL SIGNS WILL BE PROVIDED AT LOCATIONS DESIGNATED BY THE TOWNSHIP AND SHALL BE IN ACCORDANCE WITH THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" PUBLISHED BY THE MTO. STREET NAME SIGNS SHOULD BE 16 CM HIGH WITH A GREEN BACKGROUND AND WHITE LETTERING (BOTH SIDES), REFLECTORIZED AND MOUNTED ON GALVANIZED STEEL 60 MM DIA. X 3.2 M POSTS IN ACCORDANCE WITH THE TOWNSHIP OF SOUTHGATE SPECIFICATIONS.
- MINIMUM 6.0 M EASEMENTS REQUIRED FOR SINGLE MUNICIPAL SERVICES; MINIMUM 9.0 M EASEMENTS REQUIRED FOR TWO MUNICIPAL SERVICES. WHERE MORE THAN TWO SERVICES ARE TO BE ACCOMMODATED BY AN EASEMENT CONSULT WITH THE TOWNSHIP FOR SPECIFIC EASEMENT REQUIREMENTS. FOR REAR YARD STORM SEWERS 300 MM DIAMETER OR LESS, AND CATCHBASINS, MINIMUM EASEMENT WIDTH TO BE 3.0 M, ALONG REAR YARDS EASEMENT TO BE ENTIRELY ON ONE PROPERTY WITH PIPE 1 M OFF PROPERTY LINE, ALONG SIDEYARDS EASEMENT TO BE EVENLY SPLIT ON BOTH PROPERTIES WITH PIPE OFFSET 0.5 M FROM PROPERTY LINE. FOR STORM SEWERS LARGER THAN 300 MM DIAMETER CONSULT WITH TOWNSHIP FOR SPECIFIC EASEMENT REQUIREMENTS

SANITARY SEWERS AND SERVICES

- MAINTENANCE HOLE DIAMETER: MIN 1200mmØ OR AS PER MANUFACTURER'S
- SPECIFICATIONS/RECOMMENDATIONS, PRE-BENCHED STRUCTURES TO BE USED WHERE POSSIBLE. MAINTENANCE HOLE PIPE CONNECTIONS: APPROVED KOR-N-SEAL PIPE ADAPTORS SHALL BE USED FOR THE CONNECTION OF ALL PIPES AT MAINTENANCE HOLES
- MAINTENANCE HOLE DROP STRUCTURE: REQUIRED WHERE THE INLET AND OUTLET INVERTS DIFFER BY MORE THAN 0.6m
- INVERT DROPS ACROSS DETERMINED BY HYDRAULIC CALCULATIONS FOR ALL JUNCTION AND MAINTENANCE HOLES: TRANSITION MAINTENANCE HOLES. FOR ALL OTHERS:
- 4.1. 0° Turn = 20 mm 4.2. 10° - 45° Turn = 50 mm
- 4.3. $46^{\circ} 90^{\circ}$ Turn = 80 mm MAINTENANCE HOLE ADJUSTMENT: PRECAST CONCRETE ADJUSTMENT UNITS TO BE USED. MIN 150mm ADJUSTMENT ALLOWANCE. MAX 300mm ADJUSTMENT ALLOWANCE. NO BRICK, BLOCK OR STEEL LIFT RINGS
- MAINTENANCE HOLE WATER TIGHT FRAMES AND COVERS: WHERE THERE IS A POSSIBILITY OF FLOODING, WATER TIGHT LIDS AND MAINTENANCE HOLE INSERT (AS MANUFACTURED BY MANPAN®) SHALL BE INSTALLED. FOR MAINTENANCE HOLE DEPTHS BETWEEN 5.0m AND 10.0m, A SAFETY GRATE MUST BE INSTALLED AT THE
- MID-POINT, FOR MAINTENANCE HOLE DEPTHS BETWEEN 10.0m AND 15.0m. A SAFETY GRATE MUST BE INSTALLED AT THE THIRD POINTS. REFER TO OPSD 404.020 (LATEST REVISION). ALL MAINTENANCE HOLE JOINTS, ADJUSTMENT RING ASSEMBLIES SHALL BE SEALED WATER TIGHT WITH THE RISER-WRAP® WATER INFILTRATION SYSTEM AS MANUFACTURED BY PIPELINE SEAL AND INSULATOR INC. OR MEL-ROL WATERPROOFING MEMBRANE INSTALLED WITH ALL NECESSARY ACCESSORY PRODUCTS ALL IN
- ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. SERVICE CONNECTIONS: MINIMUM DIAMETER - 100 mm FOR RESIDENTIAL SERVICES AND 150mm FOR COMMERCIAL AND INDUSTRIAL OR MATCH EXISTING. MINIMUM GRADE - 2%. MAXIMUM GRADE - 8%. ALL CONNECTIONS TO BE MADE WITH A FACTORY-MADE TEE OR WYE OR APPROVED EQUIVALENT UNLESS CONNECTING TO AN EXISTING MAIN. WHERE A STAINLESS-STEEL STRAP AND SADDLE MAY BE PERMITTED. ONE SERVICE/RESIDENTIAL UNIT FO SINGLES, SEMIS, ROW OR BLOCK TOWNHOUSES, SERVICES ARE NOT TO BE PLACED IN THE DRIVEWAY WHERE POSSIBLE. SEE STANDARD DRAWING S1 FOR SERVICE LAYOUT. FOR INDUSTRIAL SERVICES A MAINTENANCE HOLE SHALL BE INSTALLED ADJACENT TO LIMIT OF THE ROAD RIGHT-OF-WAY (ROW) BUT ENTIRELY WITHIN THE ROW. TYPICALLY, SERVICE CONNECTIONS ARE NOT TO HAVE CLEAN-OUTS. HOWEVER, IN CERTAIN CIRCUMSTANCES (I.E., LONG SERVICES, CONSTRAINED) SERVICES MAY NEED TO BE OUTFITTED WITH CLEAN-OUTS AT PROPERTY LINE,
- THIS WILL BE AT THE DISCRETION OF THE TOWNSHIP. CLOSED CIRCUIT T.V. (CCTV) INSPECTIONS OF THE MAIN SEWER AND SERVICES CONNECTIONS UP TO THE
- PROPERTY LINE WILL BE REQUIRED AT THE FOLLOWING 3 MILESTONES. 10.1. PRIOR TO PRELIMINARY ACCEPTANCE (AFTER BASE ASPHALT AND CURB IS PLACED)
- 10.2. PRIOR TO SURFACE ASPHALT 10.3. PRIOR TO FINAL ACCEPTANCE OF DEVELOPMENT
- . MAINTENANCE HOLES SHALL BE TESTED IN ACCORDANCE WITH O.P.S.S. 407 (LATEST REVISION) FIELD TESTING OF SANITARY SEWERS SHALL BE TESTED IN ACCORDANCE WITH O.P.S.S. 410 (LATEST REVISION)

WATERMAIN AND WATER SERVICES

- MIN SIZE = 150mmØ MAINS MIN DEPTH OF COVER = 2.0 METRES FOR MAINS AND SERVICES.
- TRACER WIRE: ALL WATERMAIN AND SERVICES SHALL BE INSTALLED WITH TRACER WIRE. #12 AWG COPPER CLAD STEEL. HIGH STRENGTH WITH MINIMUM 450 LB. BREAK LOAD AND MINIMUM 30 MIL HDPE INSULATION THICKNESS SUITABLE FOR DIRECT BURIAL AND COLOUR CODED BLUE. DIRECT BURY WIRE CONNECTORS SHALL INCLUDE 3-WAY LOCKABLE CONNECTORS AND MAINLINE TO LATERAL LUG CONNECTORS SPECIFICALLY MANUFACTURED FOR USE IN UNDERGROUND TRACE WIRE INSTALLATIONS. CONNECTORS SHALL BE DIELECTRIC SILICON FILLED TO SEAL OUT MOISTURE AND CORROSION. NON-LOCKING FRICTION FIT, TWIST OR TAPED CONNECTORS ARE PROHIBITED. ABOVE GROUND TRACER WIRE ACCESS BOXES SHALL BE ATTACHED TO UNDERSIDE OF BOTTOM FLANGE OF FIRE HYDRANTS. (STD. DWG. NO. W3)
- 4. FITTINGS: DUCTILE IRON, MECHANICAL JOINT, AWWA C110 APPROVED, PRESSURE RATING 1035 KPA. PVC BEND AND TEES, TO BE USED WITH MECHANICAL JOINT RESTRAINTS. VALVES: ONE LESS VALVE THAN NUMBER OF STREETS AT AN INTERSECTION WITH VALVE LOCATED AT
- EXTENSION OF THE PROPERTY LINE OF THE INTERSECTING STREET. MAXIMUM 200 m SPACING ON STRAIGHT RUNS. MAXIMUM 250 m SPACING ON TRUNK LINES. CHAMBERS WILL BE REQUIRED FOR ALL VALVES OVER 300
- mmØ (OPSD 1101.01) HYDRANTS: ALL HYDRANTS TO BE PAINTED RED WITH RED STORZ CAP. ANCHOR TEES TO BE USED WITH
- HYDRANT INSTALLATION. HYDRANT SPACING 150m MAX. 7. SERVICES: 25 mm DIAMETER SERVICES. ALL SERVICES TO BE TYPE "K" COPPER PIPE UNLESS OTHERWISE APPROVED BY THE TOWNSHIP OF SOUTHGATE PUBLIC WORKS DEPARTMENT, CROSS-LINKED POLYETHYLENE ('MUNICIPEX' BY REHAU AND 'BLUE904' BY IPEX) MAY BE CONSIDERED FOR SERVICES OVER 20 m IN LENGTH. 75 mm PVC SLEEVES ARE REQUIRED WHERE CURB STOPS ARE LOCATED IN DRIVEWAYS. NOTE: CURB STOPS ARE
- FOR ALL LINCONNECTED SERVICES 8. ANODES: DZP-24, 10.9 KG SHALL BE INSTALLED ON ALL CONNECTIONS TO EXISTING IRON WATERMAIN. DZP-12, 5.4 KG SHALL BE INSTALLED ON ALL IRON FITTINGS, VALVES ETC.

NOT TO BE PLACED IN DRIVEWAYS WHERE POSSIBLE. TEMPORARY PLASTIC BLOW-OFF PIPES ARE REQUIRED

- MECHANICAL JOINT RESTRAINTS: 9.1. UNI-FLANGE SERIES 1300 MANUFACTURED BY FORD METER BOX COMPANY, INC.
- MEGALUG SERIES 1100 FOR DUCTILE IRON PIPE MEGALUG SERIES 2000 PV FOR PVC C900 PIPE STARGRIP SERIES 3000 FOR DUCTILE IRON PIPE
- 9.5. PVC STARGRIP SERIES 4000 FOR PVC C900 PIPE 10. WATER SAMPLING STATIONS: SAMPLING STATIONS SHALL BE ECLIPSE #88 ON A PEDESTAL AS MANUFACTURED BY THE KUPFERLE FOUNDRY COMPANY ON THE SAME SIDE OF THE ROW AS THE WATERMAIN. THE NUMBER
- AND LOCATION OF WATER SAMPLING LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE TOWNSHIP. ADDITIONAL DETAILS ARE SHOWN ON THE TOWNSHIP OF SOUTHGATE STANDARD DRAWINGS.
- THE DEVELOPER'S CONTRACTOR SHALL NOT OPERATE ANY VALVE OR HYDRANT OF THE EXISTING WATER DISTRIBUTION SYSTEM. OPERATION OF VALVES AND HYDRANTS ON THE MUNICIPAL SYSTEM SHALL ONLY BE
- UNDERTAKEN BY CERTIFIED MUNICIPAL STAFF. 13. GROUNDING OF HYDRO SERVICES TO THE MUNICIPAL WATER SYSTEM IS PROHIBITED. 14. WATERMAIN TESTING PROCEDURES TO BE IN ACCORDANCE WITH TOWNSHIP REQUIREMENTS.
- STORM SEWERS AND SERVICES
- 1. MAINTENANCE HOLE DIAMETER: MINIMUM OF 1200mm@ OR AS PER MANUFACTURER'S SPECIFICATIONS/RECOMMENDATIONS
- 2. STRUCTURE PIPE CONNECTIONS: BRICK, BLOCK AND NON-SHRINK GROUT TO BE USED FOR THE CONNECITON OF CONCRETE AT STRUCTURE. APPROVED 'KOR-N-SEAL' PIPE ADAPTORS SHALL BE USED FOR THE CONNECTION OF PVC PIPES AT STRUCTURES
- STRUCTURE ADJUSTMENT: PRECAST CONCRETE ADJUSTMENT UNITS SHALL BE USED. MIN 150mm ADJUSTMENT ALLOWANCE. MAX 300mm ADJUSTMENT ALLOWANCE. NO BRICK, BLOCK OR STEEL LIFT RINGS
- CATCHBASIN SPACING OF 75m MAX, CATCHBASIN LEADS AT 1.0% MIN SLOPE. 5. REAR YARD DRAINAGE: SURFACE INLETS (CATCHBASIN OR INLET BASIN) ARE REQUIRED EVERY 2 UNITS TOWNHOUSE OR SINGLES) ALONG REAR LOT LINE SWALES. SINGLES WILL REQUIRE FULL CATCHBASINS FOR ALL STRUCTURES. TOWNHOUSES REQUIRE A CATCHBASIN AT THE LEAD FROM THE ROAD BUT INLET BASINS CAN BE USED THEREAFTER. SEWER FROM THE ROAD THE REAR YARD (I.E. ON SIDEYARD) IS TO BE A MINIMUM OF 300 MM DIAMETER CONCRETE PIPE OFFSET 0.5 M FROM THE LOT LINE SITUATED ON A 3 M EASEMENT DIVIDED EQUALLY ON THE SIDE LOT LINE. SEWERS ACROSS THE REAR LOT LINE TO BE OFFSET 1 M FROM THE LOT LINE ON A 3 M EASEMENT ENTIRELY ON ONE LOT. SEWERS ALONG THE REAR LOT LINES OF TOWNHOUSES ARE TO BE A MINIMUM OF 200 MM IN DIAMETER. WHERE THE NUMBER OF UPSTREAM INLETS BASINS EXCEEDS 2, THE PIPE SIZE IS TO BE INCREASED TO A MINIMUM OF 250 MM IN DIAMETER. THESE SEWERS ALONG THE REAR CAN BE PVC OR HDPE. SEWERS ALONG THE REAR LOT LINES OF SINGLES ARE TO BE A MINIMUM OF 250 MM IN DIAMETER. WHERE THE NUMBER OF UPSTREAM CATCHBASINS EXCEEDS 1, THE PIPE SIZE IS TO BE
- INCREASED TO A MINIMUM OF 300 MM IN DIAMETER. THESE SEWERS ALONG THE REAR CAN BE PVC OR HDPE. 6. IN-LINE DRAINS: WHERE STORM SEWERS ARE EXTENDED ALONG REAR YARD SWALES BEHIND MULTIPLE UNIT BLOCKS, IN-LINE DRAINS ARE TO BE INSTALLED FOR EVERY TWO UNITS.
- TWIN INLET CATCHBASINS: REQUIRED AT ALL SAG POINTS.
- 8. BLIND CONNECTIONS NOT PERMITTED TO STORM SEWERS UNDER 900 mm DIAMETER. 9. SUMPS: 450 mm DIAMETER PIPES AND UNDER REQUIRE 600 mm SUMP IN CATCHBASINS AND MAINTENANCE
- 10. BENCHING REQUIRED FOR PIPES OVER 450mmØ.
- 11. MINIMUM COVER = 1.2m. 12. MINIMUM SIZE: 12.1. 200 mm WHERE ONLY SERVICES ARE CONNECTED
- 12.2. 300 mm (TRUNK)
- 12.3. SINGLE CB LEADS 250 mm 12.4. TWIN INLET CB LEADS 300 mm
- 12.5. 375 mm CULVERT 13. SERVICE CONNECTIONS
- 13.1. MINIMUM SIZE: 100 mm 150 mm (2 SHARED TOWNHOUSE UNITS) 13.2 MINIMUM GRADE: 1% 13.3. MINIMUM DEPTH @ PROPERTY LINE: 1.2 METRES
- 13.4. SERVICES TO BE LOCATED 1.5 m MINIMUM FROM SIDE LOT LINE, FOR SINGLES LOCATE ON LOW SIDE OF LOT. ONE SERVICE/RESIDENTIAL UNIT FOR SINGLES, AND TWO UNITS PER SHARED SERVICE ON SEMIS, ROW OR BLOCK TOWNHOUSES. SEE STANDARD DRAWING S1 FOR SERVICE LAYOUT. 13.5. ALL CONNECTIONS TO BE MADE WITH AN APPROVED PREFABRICATED TEE OR "KOR-N-TEE".
- 14. ROOF DRAINS: ALL ROOF DRAINS SHALL DISCHARGE TO SURFACE. 15. STORM SEWER OUTLETS: SUITABLE BANK AND STREAM BOTTOM EROSION PROTECTION MUST BE PROVIDED
- I.E., HEADWALLS, RIP RAP, CSP END SECTION, ETC. 16. SUBDRAIN: A MINIMUM OF 6 m OF 100 mm DIAMETER GEOTEXTILE WRAPPED SUBDRAIN IS REQUIRED UPSTREAM OF ALL STORM STRUCTURES AND IN BOTH DIRECTIONS AT SAGS IN THE ROAD PROFILE. ADDITIONAL SUBDRAIN AS RECOMMENDED BY GEOTECHNICAL CONSULTANT
- MAINTENANCE HOLES SHALL BE TESTED IN ACCORDANCE WITH O.P.S.S. 407 (LATEST REVISION) 18. FIELD TESTING OF STORM SEWERS SHALL BE TESTED IN ACCORDANCE WITH O.P.S.S.410 (LATEST REVISION)

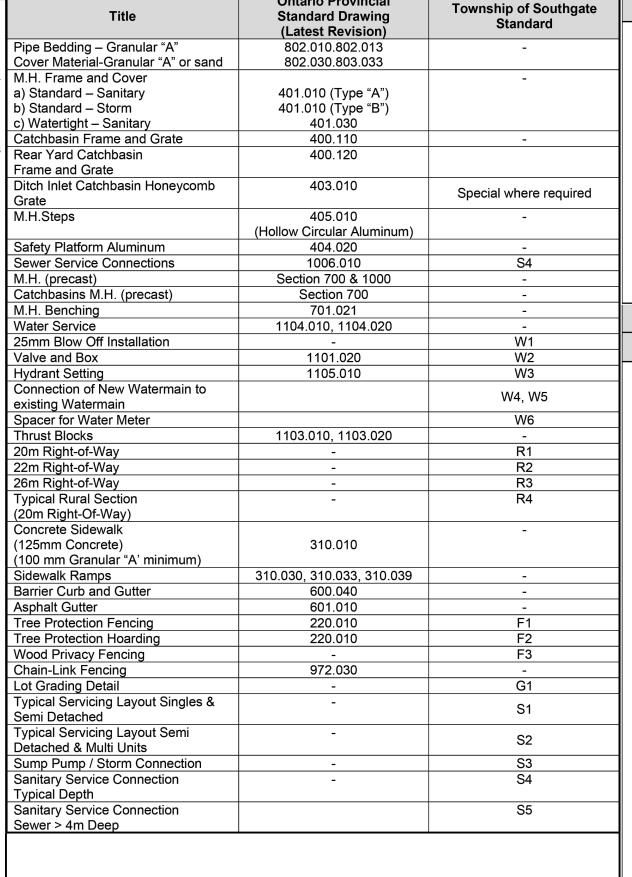
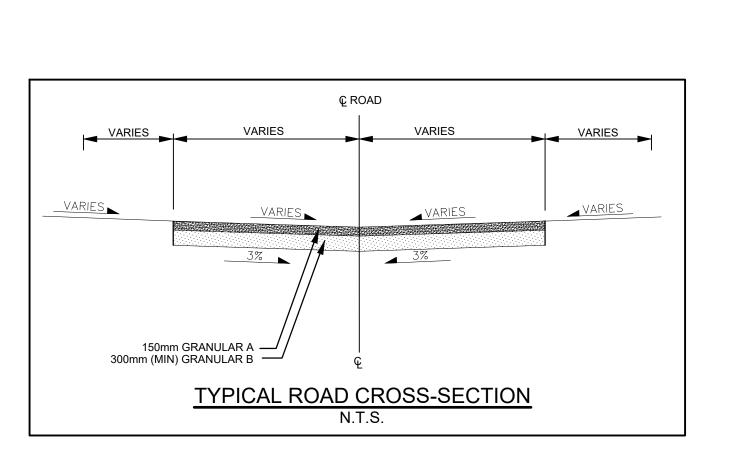
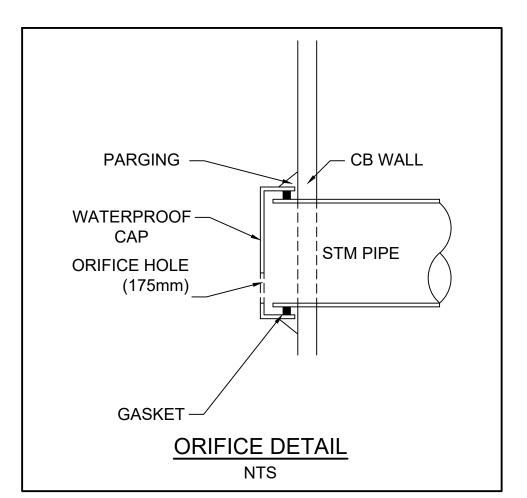
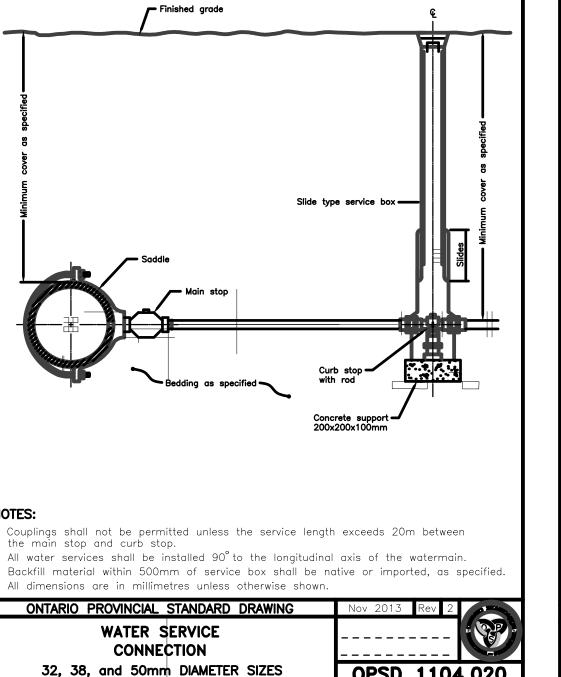


Table 1: Standard Drawings

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Title	Ontario Provincial Standard Drawing (Latest Revision)	Township of Southgate Standard	Service	Item	Approved Products diameter shall be a minimum of 200mm	
Bedding – Granular "A"	802.010.802.013	<u>-</u>	1			
er Material-Granular "A" or sand	802.030.803.033			Manhanian Laint	Rods and pins shall be stainless steel.	
. Frame and Cover		-		Mechanical Joint Restraints	 Uni-Flange Series 1300 manufactured by Ford Meter Box Company, Inc. 	l
tandard – Sanitary	401.010 (Type "A")			Restraints	- Megalug Series 1100 for ductile iron pipe	l
tandard – Storm	401.010 (Type "B")				- Megalug Series 2000 PV for PVC C900 pipe	
/atertight – Sanitary	401.030 400.110		_		- Stargrip Series 3000 for ductile iron pipe	
chbasin Frame and Grate r Yard Catchbasin	400.110	-	-		- PVC Stargrip Series 4000 for PVC C900 pipe	l
ne and Grate	400.120				- Sigma ONE-LOK Series SLCE for PVC pipe	l
h Inlet Catchbasin Honeycomb	403.010	Special where required	_	Tracer Wire	Refer to Section E2. Attached to underside of bottom flange of fire hydrant (Std. Dwg. No. W3)	
.Steps	405.010 (Hollow Circular Aluminum)	-		Water Service Material	Copper Seamless Type "K" for services less than or	
ety Platform Aluminum	404.020	-			equal to 20.0 m in length	l
ver Service Connections	1006.010	S4			Cross-Linked Polyethylene ("Municipex" by Rehau	l
. (precast)	Section 700 & 1000	-			and "Blue904" by Ipex) for services greater than 20m	l
chbasins M.H. (precast)	Section 700	-			in length	l
. Benching	701.021	-		Table 2: Approved	Materials and Product List	l
er Service	1104.010, 1104.020	-		1 4510 217 (\$\$)1010 4	indicinals and Froduct List	l
m Blow Off Installation	-	W1	Service	Item	Approved Products	l
re and Box	1101.020	W2		Valves	Mueller Resilient Wedge Gate Valve AWWA	l
rant Setting	1105.010	W3	_	Valves	C509 (latest revision), mechanical joint with:	l
nection of New Watermain to ting Watermain		W4, W5			- fusion-bonded epoxy coating, AWWA C550 (latest	l
cer for Water Meter		W6	-		revision)	l
ist Blocks	1103.010, 1103.020	-	-		- bronze stem	l
Right-of-Way	-	R1	1		- open counter clockwise	l
Right-of-Way	-	R2	1		Clow Resilient Wedge Valve AWWA C509 (latest	l
Right-of-Way	-	R3			revision), F-6100 mechanical joint with:	1
cal Rural Section	-	R4			- fusion-bonded epoxy coating, AWWA C550 (latest	l
n Right-Of-Way)					revision)	l
crete Sidewalk		-			- bronze stem	l
mm Concrete)	310.010				- open counter clockwise	l
mm Granular "A' minimum)	240 000 040 000 040 000		_		American AVK Co., Series 25 Resilient Seated Gate	<u> </u>
ewalk Ramps ier Curb and Gutter	310.030, 310.033, 310.039 600.040	-	-		Valve AWWA C509 (latest revision), mechanical joint	l
halt Gutter	601.010		-		with:	l
Protection Fencing	220.010	F1	1		- fusion-bonded epoxy resin coating, AWWA C550	l
Protection Hoarding	220.010	F2			(latest revision) - standard stainless steel stem	l
od Privacy Fencing	-	F3			- open counter clockwise	l
in-Link Fencing	972.030	-		Hydrants	Canada Valve Century Compression Type Valve	l
Grading Detail	-	G1		, ,	Seats, or Clow Canada Brigadier Heritage Style	l
cal Servicing Layout Singles & ni Detached	-	S1			Hydrant with McAvity M59M shape, both with "Storz" pumper connection.	
cal Servicing Layout Semi ached & Multi Units	-	S2		Corporation Main Stop	Cambridge Brass, Ball Style, Series 301NL (No Lead), AWWA X CB Compression Assembly,	
np Pump / Storm Connection	-	S3			,,	
itary Service Connection	-	S4			Mueller Canada, Mueller 300, Ball Type, No Lead, B-25008, AWWA x Mueller "CC" Compression	
cal Depth itary Service Connection		S5			assembly	
er > 4m Deep			1		Ford Meter Box Company, Ball Style, FB-1000-NL, No Lead, AWWA x "CC" Compression assembly	
				Curb Stop	Cambridge Brass, Ball Style, Series 202NL (No Lead), CB Compression x CB Compression	
					assembly.	
					Mueller Canada, Mueller 300, Ball Type, No Lead, Mueller "CC" x Mueller "CC" compression assembly	
					Ford Metter Box Company, Ball Style, B44 Series, No Lead, "CC" compression assembly	
				Saddle	Cambridge Brass, Series 8403, Type 304 Stainless Steel, Double Bolt, AWWA Thread	
					Robar 2616DB, Type 304 Stainless Steel, Double Bolt, AWWA Thread,	
					Ford Meter Box Company, FS323, Type 304 Stainless Steel, Double Bolt, AWWA Thread	
					 Band width for services 25mm in diameter or less shall be a minimum of 150mm Band width for services greater than 25mm in 	
			Ц		Danu wium ioi services greater than 25mm in	







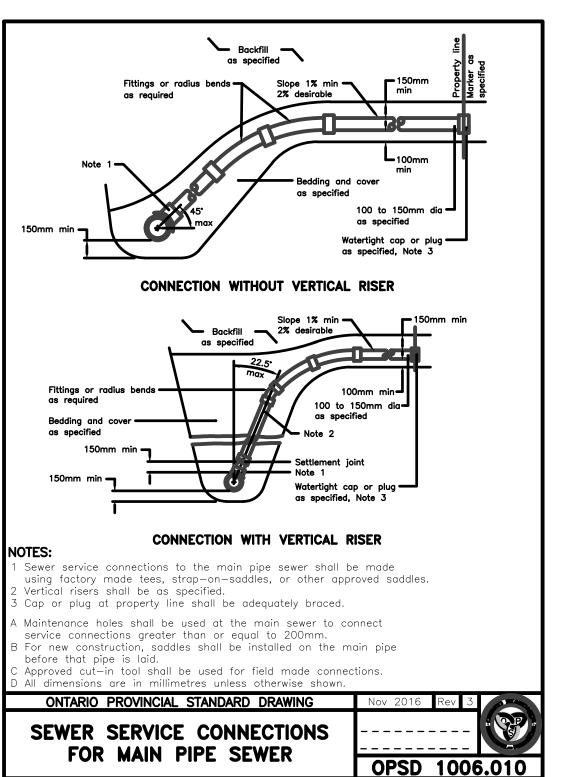
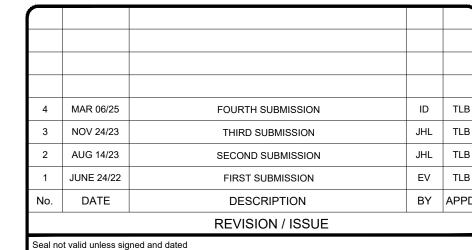


Table 2: Approved Materials and Product List



DRAWING No.



PROPOSED INDUSTRIAL SITE PART OF LOT 235 AND 236 FORMER TOWNSHIP OF PROTON

www.cobideeng.com

TOWNSHIP OF SOUTHGATE MISCELLANEOUS DETAILS WILSON DEVELOPMENTS

ooigii.	ILB	Scale.	N/A
rawn:	ID	Approved:	
necked:	TLB		
ate:	FEBRUARY 2025		Desig

03710-DET1

