THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT

# 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

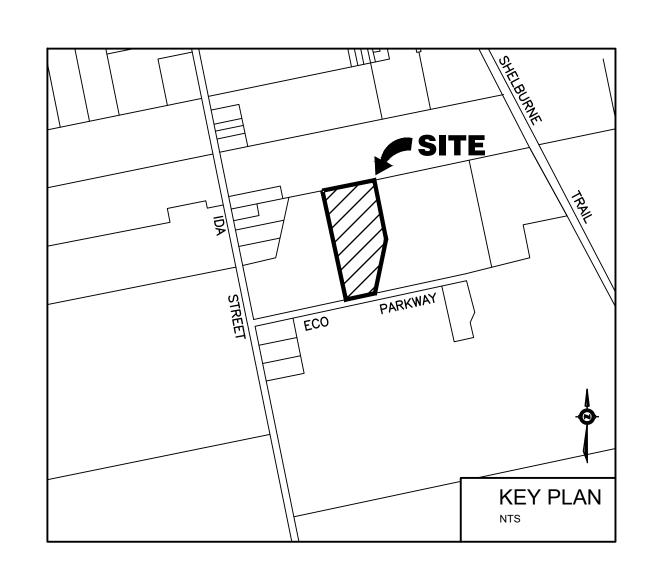
## OWNER:

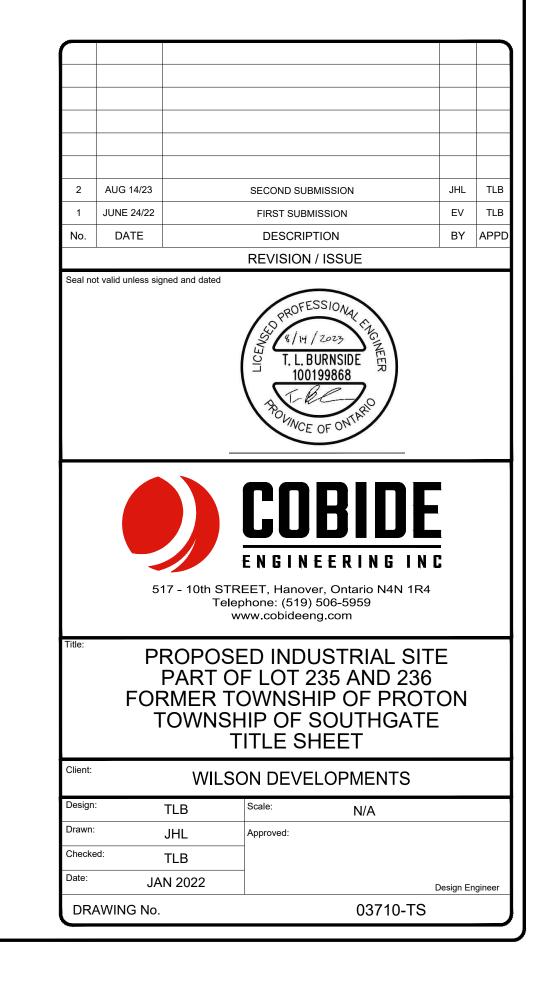
WILSON DEVELOPMENTS

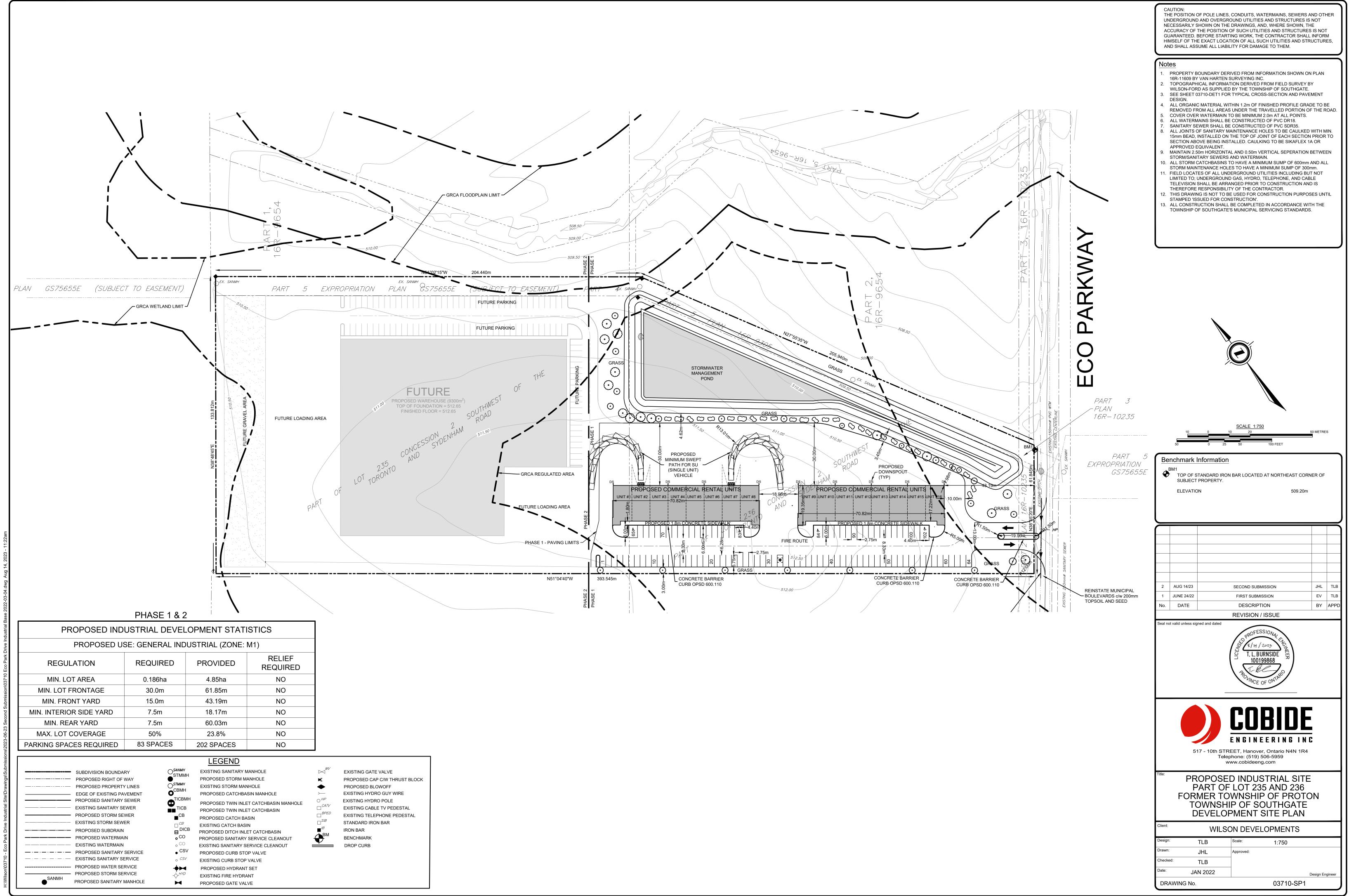


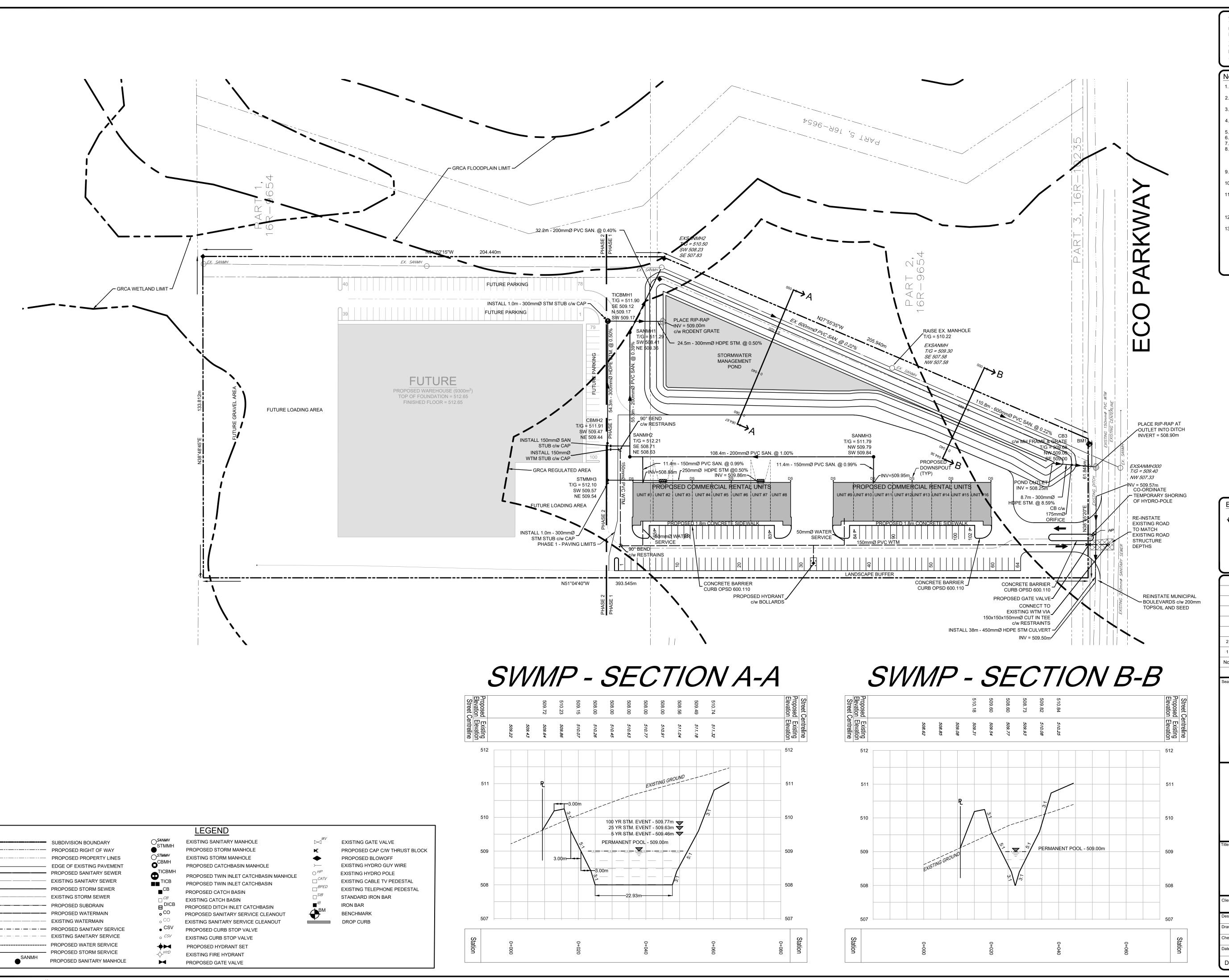
### Index

SHEET No.	DESCRIPTION
03710-TS1	TITLE SHEET
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-DET1	MISCELLANEOUS DETAILS I
03710-DET2	MISCELLANEOUS DETAILS II









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.

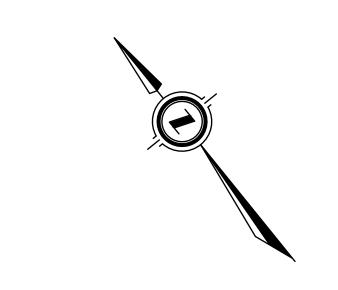
### Notes

- I. PROPERTY BOUNDARY DERIVED FROM INFORMATION SHOWN ON PLAN 16R-11609 BY VAN HARTEN SURVEYING INC.
- TOPOGRAPHICAL INFORMATION DERIVED FROM FIELD SURVEY BY WILSON-FORD AS SUPPLIED BY THE TOWNSHIP OF SOUTHGATE.
   SEE SHEET 03710-DET1 FOR TYPICAL CROSS-SECTION AND PAVEMENT
- 3. SEE SHEET 03710-DET1 FOR TYPICAL CROSS-SECTION AND PAVEMENT DESIGN.
- 4. ALL ORGANIC MATERIAL WITHIN 1.2m OF FINISHED PROFILE GRADE TO BE REMOVED FROM ALL AREAS UNDER THE TRAVELLED PORTION OF THE ROAD.
- 5. COVER OVER WATERMAIN TO BE MINIMUM 2.0m AT ALL POINTS.6. ALL WATERMAINS SHALL BE CONSTRUCTED OF PVC DR18.
- 7. SANITARY SEWER SHALL BE CONSTRUCTED OF PVC SDR35.8. 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.

   FIELD LOCATES OF ALL LINDERGROUND LITTLES INCLUDING BUT NOT.
- 11. 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.

  12. THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNTIL
- STAMPED 'ISSUED FOR CONSTRUCTION'.

  13. ALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE
- 13. ALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH TOWNSHIP OF SOUTHGATE'S MUNICIPAL SERVICING STANDARDS.



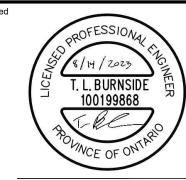
Benchmark Information

BM1
TOP OF STANDARD IRON BAR LOCATED AT NORTHEAST CORNER OF

SUBJECT PROPERTY.

AUG 14/23 SECOND SUBMISSION JHL TLB
JUNE 24/22 FIRST SUBMISSION EV TLB
D. DATE DESCRIPTION BY APPE

seal not valid unless signed and dated



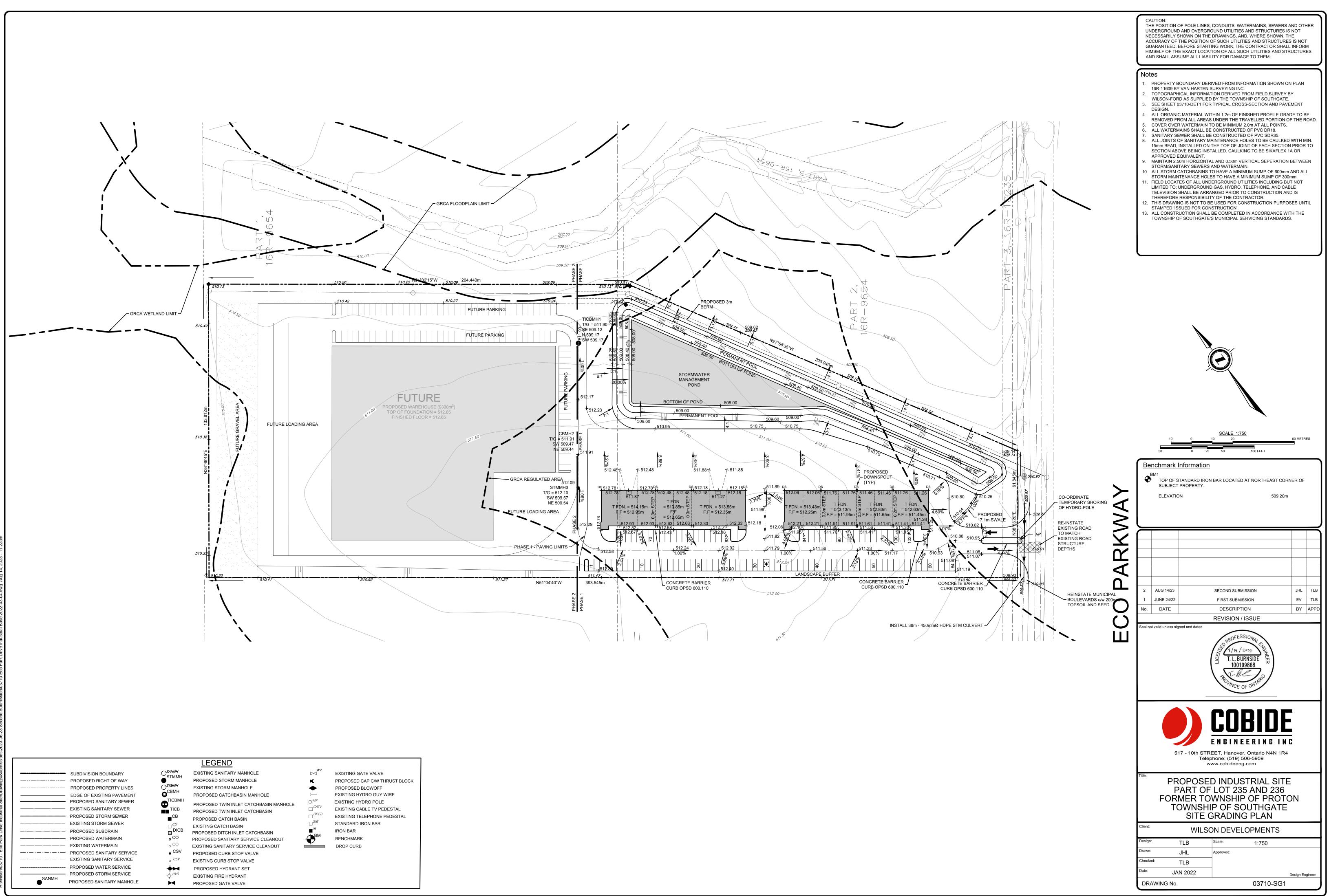
REVISION / ISSUE

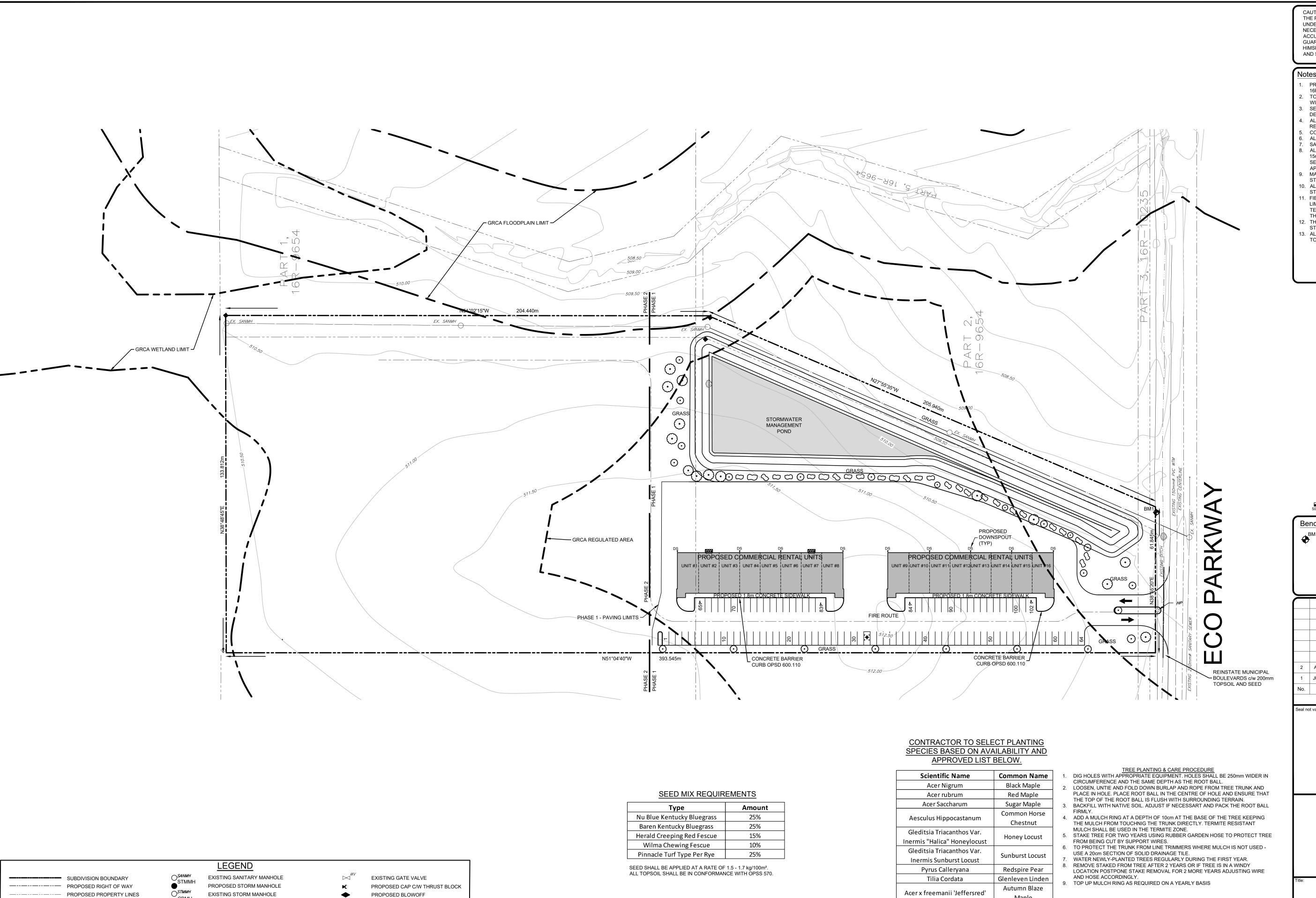


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PROPOSED INDUSTRIAL SITE PART OF LOT 235 AND 236 FORMER TOWNSHIP OF PROTON TOWNSHIP OF SOUTHGATE SITE SERVICING PLAN

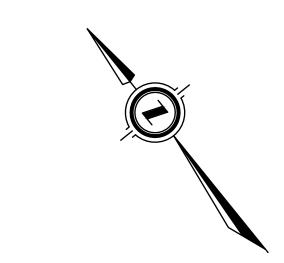
WILSON DEVELOPMENTS





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- . 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
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- 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.

				`
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





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

WILSON DEVELOPMENTS				
TLB	Scale:	1:750		

JHL TLB JAN 2022 Design Engineer 03710-LP1 DRAWING No.

## Celtis occidentalis Common Hackberry Quercus macrocarpa Bur Oak Quercus rubra Red Oak

Tilia americana 'Redmond'

Ulmus americana 'Princeton'

Basswood

Princeton Elm

PROPOSED STORM SERVICE

PROPOSED SANITARY SEWER

----- PROPOSED SANITARY SERVICE

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

PROPOSED SUBDRAIN

EDGE OF EXISTING PAVEMENT

EXISTING SANITARY SEWER

PROPOSED STORM SEWER

PROPOSED WATERMAIN

EXISTING WATERMAIN

---- PROPOSED WATER SERVICE

PROPOSED SANITARY MANHOLE

PROPOSED CATCHBASIN MANHOLE

PROPOSED TWIN INLET CATCHBASIN

PROPOSED DITCH INLET CATCHBASIN

PROPOSED SANITARY SERVICE CLEANOUT

EXISTING SANITARY SERVICE CLEANOUT

PROPOSED CURB STOP VALVE

EXISTING CURB STOP VALVE

PROPOSED HYDRANT SET

EXISTING FIRE HYDRANT

PROPOSED GATE VALVE

PROPOSED CATCH BASIN

EXISTING CATCH BASIN

PROPOSED TWIN INLET CATCHBASIN MANHOLE

EXISTING HYDRO GUY WIRE

EXISTING CABLE TV PEDESTAL

EXISTING TELEPHONE PEDESTAL

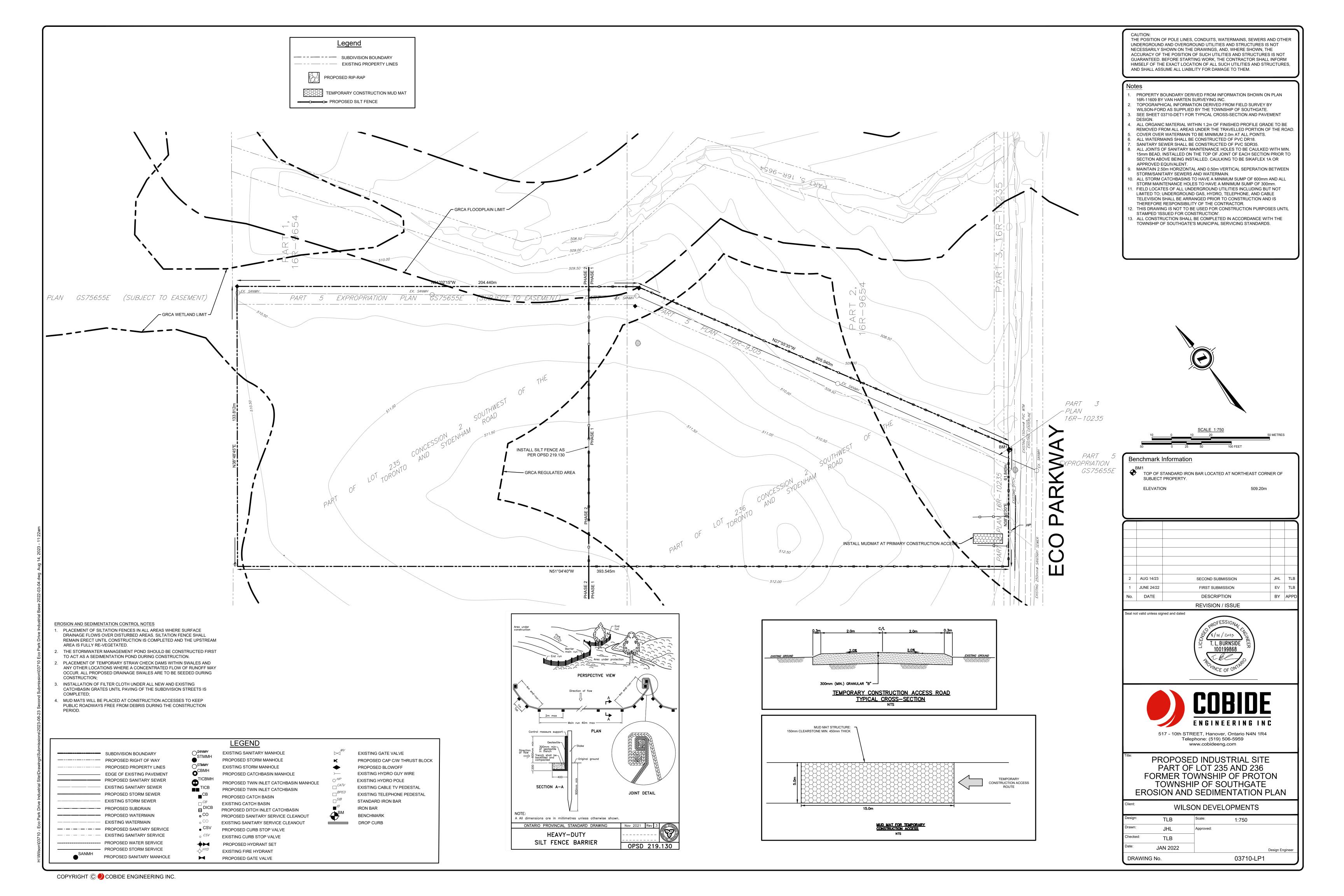
EXISTING HYDRO POLE

STANDARD IRON BAR

IRON BAR

BENCHMARK

DROP CURB



**Approved Products** 

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

### 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
- STANDARDS. 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 FASEMENT 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.  $10^{\circ} - 45^{\circ}$  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 FOR 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)

SANITARY SEWERS SHALL BE TESTED IN ACCORDANCE WITH O.P.S.S. 410 (LATEST REVISION)

- 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

### 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 SHA 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)

mm PVC SLEEVES ARE REQUIRED WHERE CURB STOPS ARE LOCATED IN DRIVEWAYS. NOTE: CURB STOPS ARE

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

- 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
- 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.
- 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.
- 12. 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 1200mmØ OR AS PER MANUFACTURER'S SPECIFICATIONS/RECOMMENDATIONS
- 2. STRUCTURE PIPE CONNECTIONS: BRICK, BLOCK AND NON-SHRINK GROUT TO BE USED FOR THE CONNECTION OF CONCRETE AT STRUCTURE. APPROVED 'KOR-N-SEAL' PIPE ADAPTORS SHALL BE USED FOR THE CONNECTION OF PVC PIPES AT STRUCTURES
- 3 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. 3. 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 HOLES. 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. 17. 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)

Title	Ontario Provincial Standard Drawing (Latest Revision)	Township of Southgate Standard	
Pipe Bedding – Granular "A"	802.010.802.013	-	
Cover Material-Granular "A" or sand	802.030.803.033		
M.H. Frame and Cover		-	
a) Standard – Sanitary	401.010 (Type "A")		
b) Standard – Storm	401.010 (Type "B")		
c) Watertight – Sanitary	401.030		
Catchbasin Frame and Grate	400.110	-	
Rear Yard Catchbasin	400.120		
Frame and Grate			
Ditch Inlet Catchbasin Honeycomb Grate	403.010	Special where required	
M.H.Steps	405.010	-	
····· ·· <del>· · · ·   · ·</del>	(Hollow Circular Aluminum)		
Safety Platform Aluminum	404.020	-	
Sewer Service Connections	1006.010	S4	
M.H. (precast)	Section 700 & 1000		
Catchbasins M.H. (precast)	Section 700	<del>-</del>	
	701.021	<del>-</del>	
M.H. Benching Water Service		<del>-</del>	
25mm Blow Off Installation	1104.010, 1104.020	-	
	- 4404.000	W1	
/alve and Box	1101.020	W2	
Hydrant Setting	1105.010	W3	
Connection of New Watermain to		W4, W5	
existing Watermain		·	
Spacer for Water Meter		W6	
Γhrust Blocks	1103.010, 1103.020	-	
20m Right-of-Way	-	R1	
22m Right-of-Way	-	R2	
26m Right-of-Way	-	R3	
Typical Rural Section	-	R4	
20m Right-Of-Way)			
Concrete Sidewalk		_	
(125mm Concrete)	310.010		
(100 mm Granular "A' minimum)			
Sidewalk Ramps	310.030, 310.033, 310.039	-	
Barrier Curb and Gutter	600.040	-	
Asphalt Gutter	601.010	-	
Tree Protection Fencing	220.010	F1	
Free Protection Hoarding	220.010	F2	
Wood Privacy Fencing		F3	
Chain-Link Fencing	972.030	-	
_ot Grading Detail	512.000	 G1	
Typical Servicing Layout Singles &	-		
Semi Detached	-	S1	
Typical Servicing Layout Semi Detached & Multi Units	-	S2	
Sump Pump / Storm Connection	-	S3	
Sanitary Service Connection  Typical Depth	-	S4	
Sanitary Service Connection		S5	
	i l		

Table 1: Standard Drawings

•	able 1. Standard Drawings				
Title	Ontario Provincial Standard Drawing (Latest Revision)	Township of Southgate Standard	Service	Item	Approved Products diameter shall be a minimum of 200mm
e Bedding – Granular "A"	802.010.802.013	<del>-</del>	1		
ver Material-Granular "A" or sand	802.030.803.033			Mechanical Joint	Rods and pins shall be stainless steel.
H. Frame and Cover Standard – Sanitary Standard – Storm	401.010 (Type "A") 401.010 (Type "B")	<del>-</del>		Restraints	<ul> <li>Uni-Flange Series 1300 manufactured by Ford Meter Box Company, Inc.</li> <li>Megalug Series 1100 for ductile iron pipe</li> <li>Megalug Series 2000 PV for PVC C900 pipe</li> </ul>
Natertight – Sanitary	401.030				- Stargrip Series 3000 for ductile iron pipe
tchbasin Frame and Grate ar Yard Catchbasin Ime and Grate	400.110 400.120	<del>-</del>	-		<ul> <li>PVC Stargrip Series 4000 for PVC C900 pipe</li> <li>Sigma ONE-LOK Series SLCE for PVC pipe</li> </ul>
ch Inlet Catchbasin Honeycomb ate	403.010	Special where required		Tracer Wire	Refer to Section E2. Attached to underside of bottom flange of fire hydrant (Std. Dwg. No. W3)
H.Steps	405.010 (Hollow Circular Aluminum)	-		Water Service Material	Copper Seamless Type "K" for services less than or equal to 20.0 m in length
fety Platform Aluminum wer Service Connections	404.020 1006.010		4		Cross-Linked Polyethylene ("Municipex" by Rehau
H. (precast)	Section 700 & 1000	S4	-		and "Blue904" by Ipex) for services greater than 20m
ղ. (precas <i>ւ)</i> tchbasins M.H. (precast)	Section 700 & 1000	<u>-</u>	-		in length
u ,	701.021	<del>-</del>			
1. Benching ter Service	1104.010, 1104.020	<u> </u>		Table 2: Approved	Materials and Product List
nm Blow Off Installation	- 1104.010, 1104.020	 W1	_		
ve and Box	1101.020	W2	Service	Item	Approved Products
drant Setting	1105.010	W3		Valves	Mueller Resilient Wedge Gate Valve AWWA
nnection of New Watermain to sting Watermain	1103.010	W4, W5			C509 (latest revision), mechanical joint with: - fusion-bonded epoxy coating, AWWA C550 (latest
acer for Water Meter		W6	1		revision)
rust Blocks	1103.010, 1103.020	-	1		- bronze stem
n Right-of-Way	-	R1	1		- open counter clockwise
n Right-of-Way	-	R2			Clow Resilient Wedge Valve AWWA C509 (latest
n Right-of-Way		R3			revision), F-6100 mechanical joint with:
pical Rural Section Im Right-Of-Way)	-	R4			<ul> <li>fusion-bonded epoxy coating, AWWA C550 (latest revision)</li> </ul>
ncrete Sidewalk :5mm Concrete) :0 mm Granular "A' minimum)	310.010	-			<ul><li>bronze stem</li><li>open counter clockwise</li></ul>
ewalk Ramps	310.030, 310.033, 310.039		-		American AVK Co., Series 25 Resilient Seated Gate
rier Curb and Gutter	600.040	<del>-</del>	1		Valve AWWA C509 (latest revision), mechanical joint
ohalt Gutter	601.010	<u>-</u>	1		with:
e Protection Fencing	220.010	 F1	1		- fusion-bonded epoxy resin coating, AWWA C550
ee Protection Hoarding	220.010	F2	1		(latest revision)
ood Privacy Fencing	-	F3	1		- standard stainless steel stem
ain-Link Fencing	972.030	-	1	11	- open counter clockwise
: Grading Detail	-	G1	1	Hydrants	Canada Valve Century Compression Type Valve Seats, or Clow Canada Brigadier Heritage Style
pical Servicing Layout Singles & mi Detached	-	S1			Hydrant with McAvity M59M shape, both with "Storz" pumper connection.
pical Servicing Layout Semi tached & Multi Units	-	S2		Corporation Main Stop	Cambridge Brass, Ball Style, Series 301NL (No Lead), AWWA X CB Compression Assembly,
mp Pump / Storm Connection	-	S3	-		Mueller Canada, Mueller 300, Ball Type, No Lead,
nitary Service Connection  Dical Depth  Initary Service Connection	-	S4 S5	1		B-25008, AWWA x Mueller "CC" Compression assembly
wer > 4m Deep			-		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,
				Saddle	No Lead, "CC" compression assembly 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
				1	Band width for services 25mm in diameter or less shall be a minimum of 150mm

**Table 2: Approved Materials and Product List** 

Connections Kor-N-Seal for manholes, Prefab tees for PVC pipe or Kor-N-Tee for concrete pipe services STORM 375 mm diameter or less: Sewer Pipe IPEX "Ultra Rib" Loc Pipe "Loc PVC" CSA A257.1 (latest revision) (non-reinforced), and A257.2 (latest revision) (reinforced). Big 'O' Boss Polytite Royal Rib "Korflo" 450 mm diameter or greater: CSA A257.1 (latest revision) (non-reinforced) and A257.2 (latest revision) (reinforced) Leads to rear yard catchbasins are to be concrete. All culverts shall be galvanized CSP, (minimum 1.6 mm thickness) or HDPE Boss 2000, 320 kPa stiffness c/w Ultra Stab 75 Joint Service Pipe PVC DR 28 Connections Kor-N-Seal for manholes Prefab tee for HDPE and PVC pipe or Kor-N-Tee (services for Concrete pipe WATER Ductile Iron ANSI A21.51 (latest revision) Watermain AWWA C151 (latest revision) with Tyton Cement Lined with Copper Straps C900 PVC Class 235 (DR 18), B 137.3 (latest revision) and Tracer Wire Bionax PVCO C909 PVC (Associated fittings and restraints shall be approved by the (Township) and Tracer Wire

**Table 2: Approved Materials and Product List** 

PVC DR 35

PVC DR 28

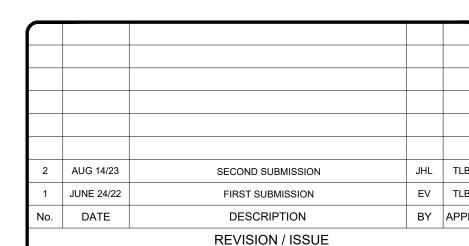
ltem

Sewer Pipe

Service Pipe

Service

SANITARY



seal not valid unless signed and dated



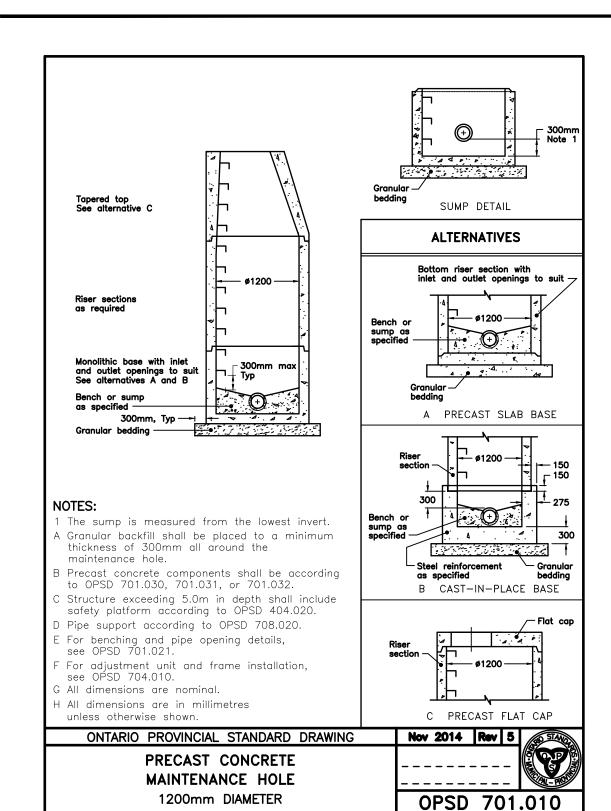


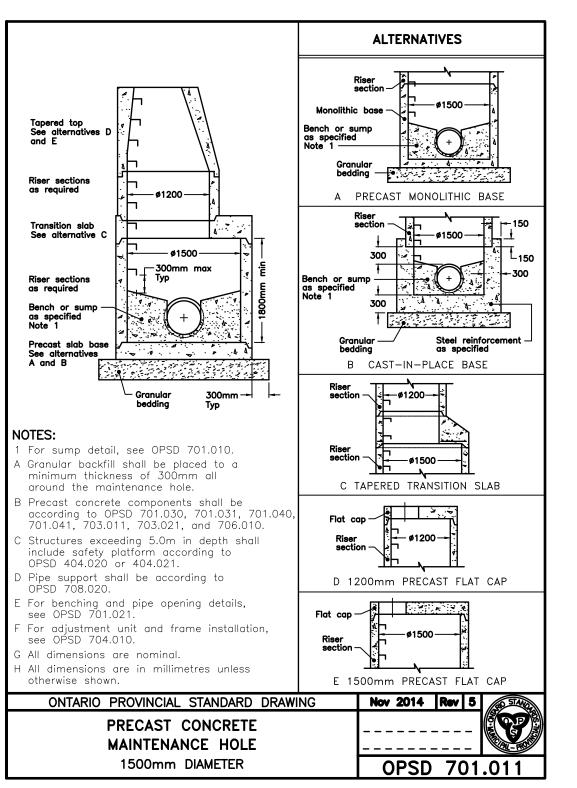
PROPOSED INDUSTRIAL SITE PART OF LOT 235 AND 236 FORMER TOWNSHIP OF PROTON TOWNSHIP OF SOUTHGATE MISCELLANEOUS DETAILS

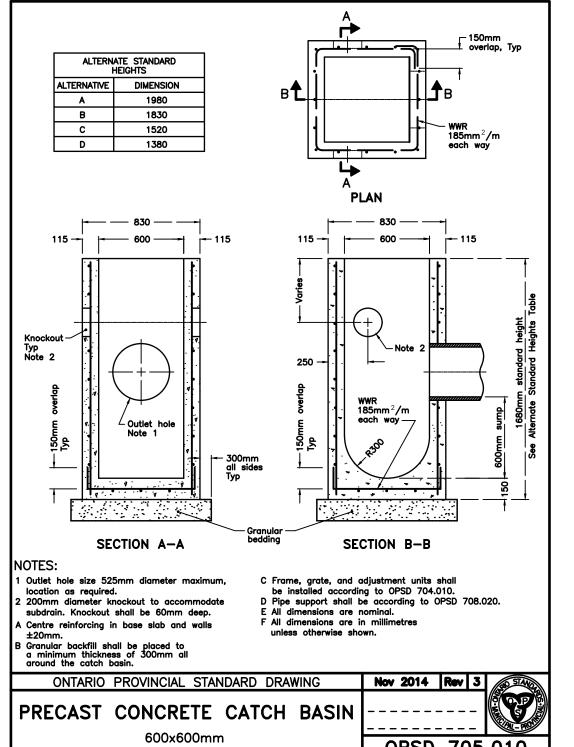
Telephone: (519) 506-5959 www.cobideeng.com

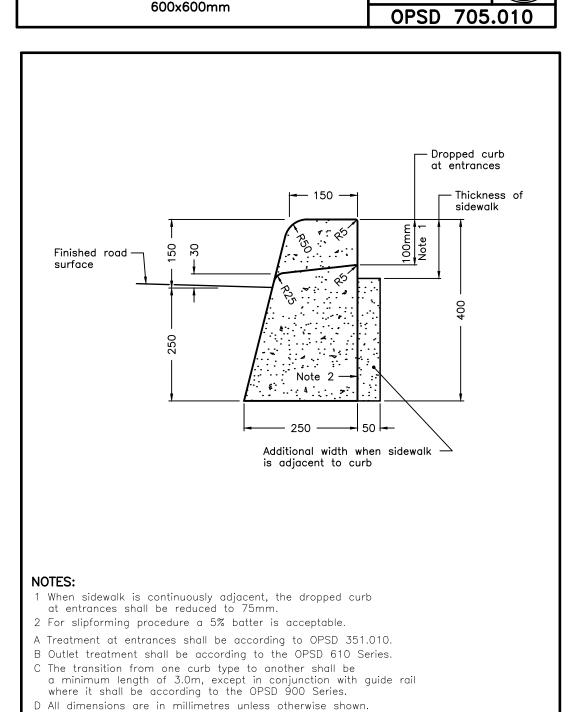
WILSON DEVELOPMENTS JHL TLB JAN 2022 Design Engineer 03710-DET1 DRAWING No.

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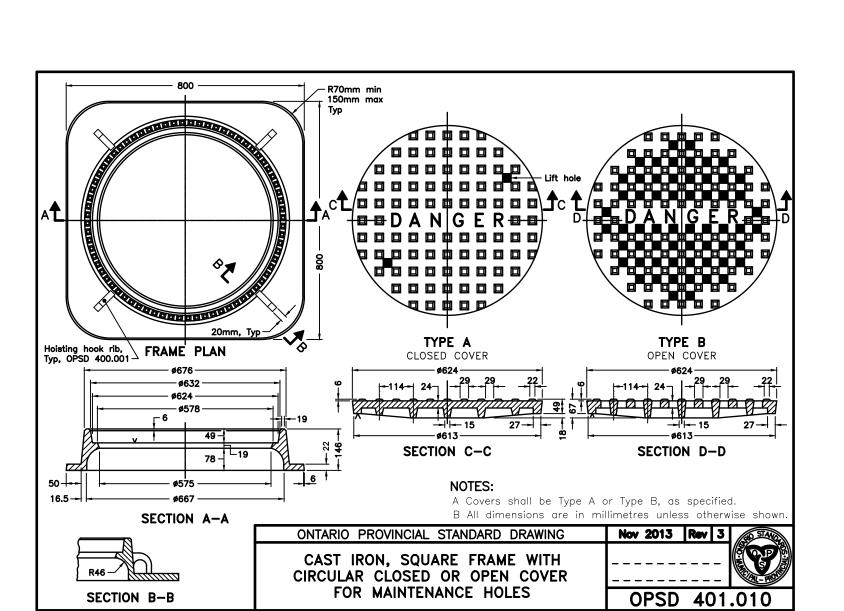


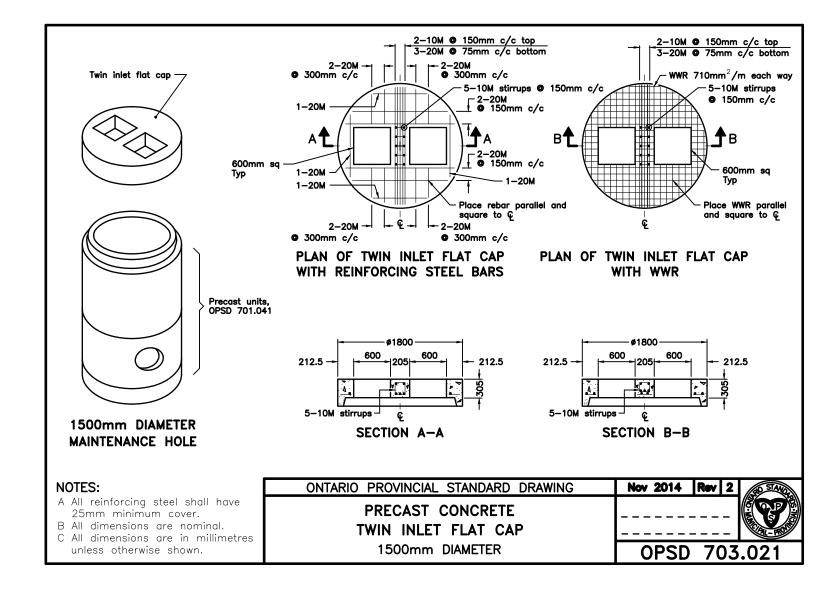


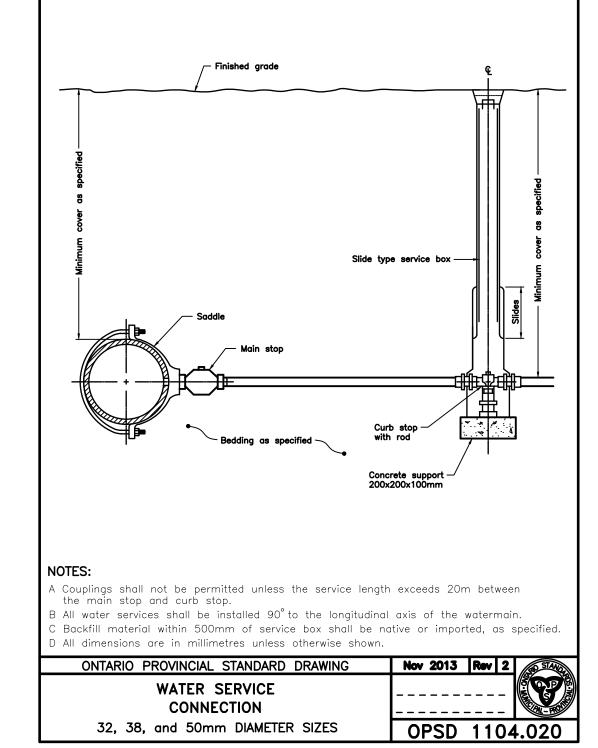
ONTARIO PROVINCIAL STANDARD DRAWING

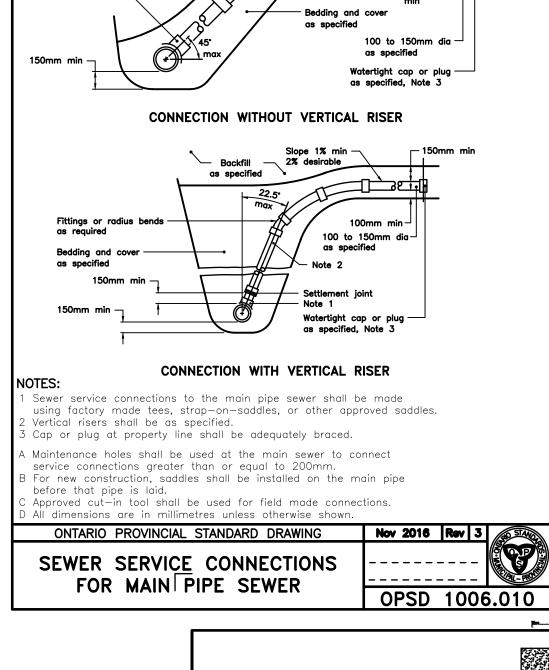
CONCRETE BARRIER CURB

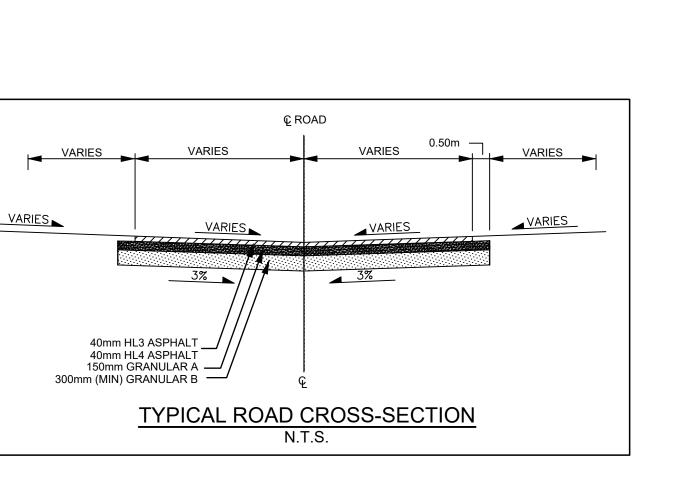
Nov 2012 Rev 2 65 STAVE

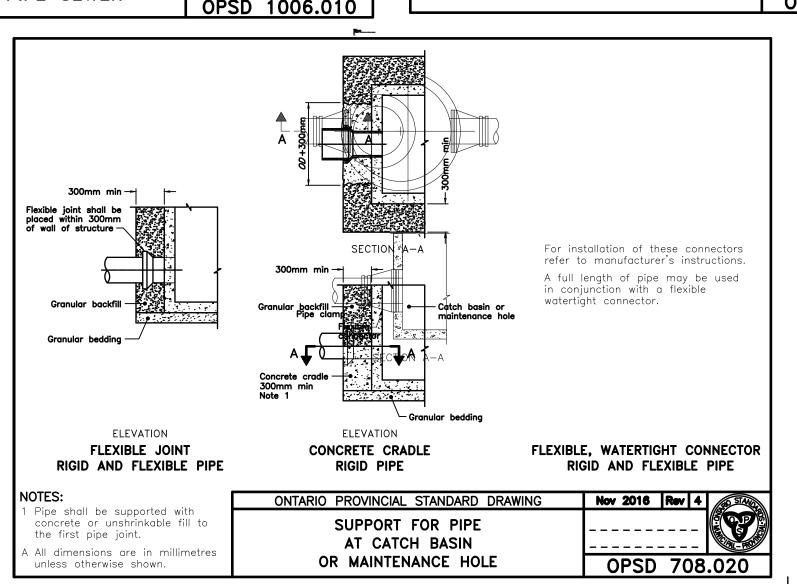


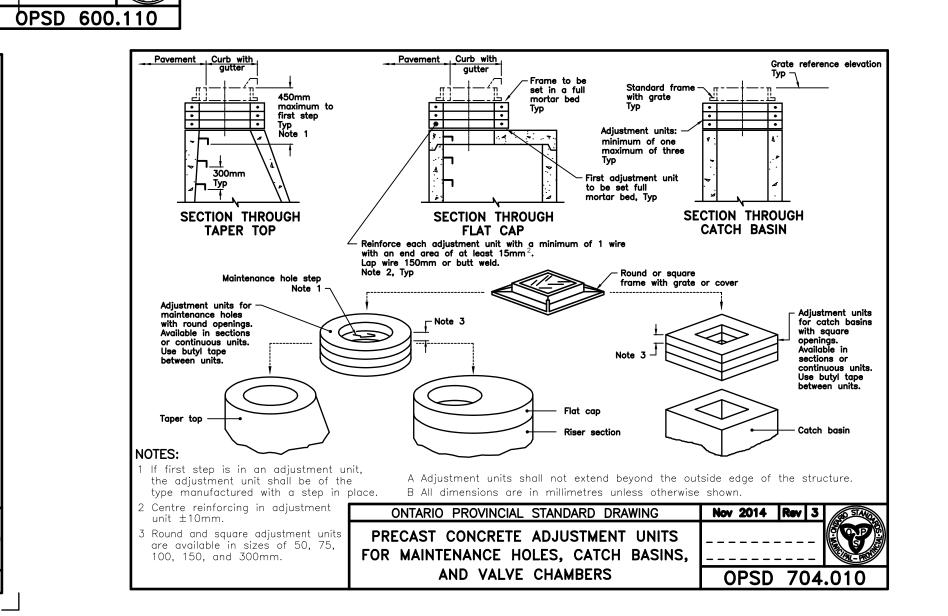


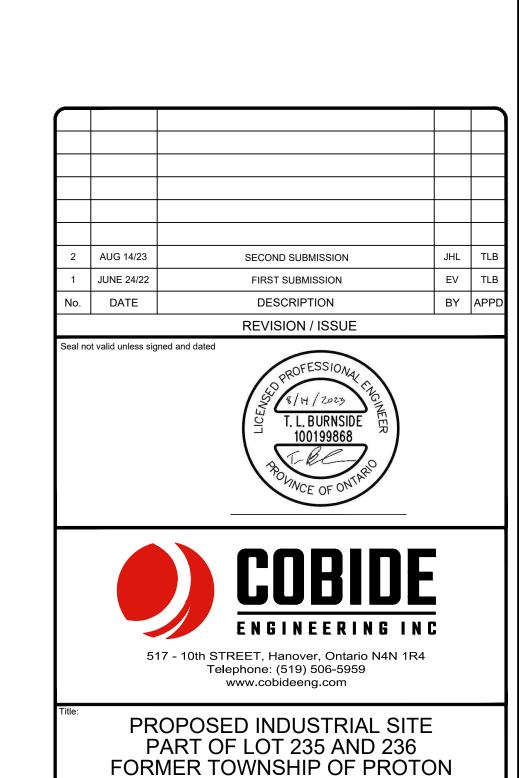












TOWNSHIP OF SOUTHGATE MISCELLANEOUS DETAILS II

TLB

JHL

TLB

JAN 2022

DRAWING No.

WILSON DEVELOPMENTS

Design Engineer

03710-DET1

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.