

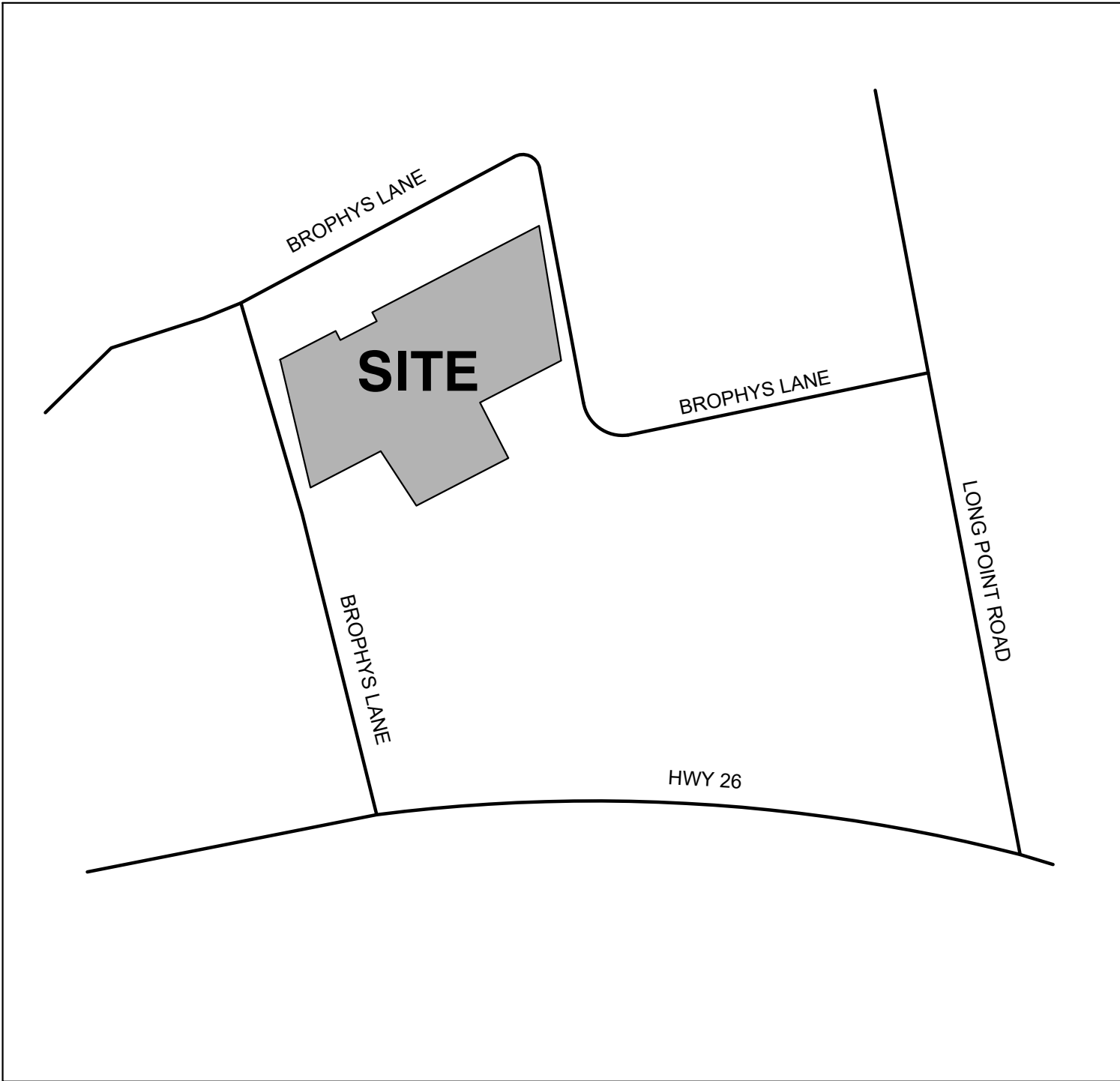
L&W PROPERTIES LTD.
PROPOSED DETACHED RESIDENTIAL SUBDIVISION
P2452E



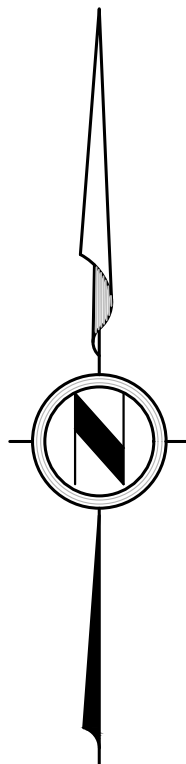
DEVELOPMENT ENGINEERING

MUNICIPALITY:
TOWN OF THE BLUE MOUNTAINS

32 MILL STREET
THE BLUE MOUNTAINS, ON
N0H 2P0
T: (519)–599–3131



SITE LOCATION
N.T.S.



DRAWING INDEX	
20-7031-C01	COVER SHEET
20-7031-C02	SITE GRADING PLAN
20-7031-C03	GRADING CROSS-SECTIONS
20-7031-C04	SITE SERVICING PLAN N
20-7031-C05	SITE SERVICING PLAN S
20-7031-C06	STORM DRAINAGE AREA PLAN - PRE
20-7031-C07	STORM DRAINAGE AREA PLAN - POST
20-7031-C08	SANITARY DRAINAGE AREA PLAN
20-7031-C09	EROSION & SEDIMENT CONTROL PLAN
20-7031-C10	EROSION & SEDIMENT CONTROL DETAILS
20-7031-C11	PLAN & PROFILE BROPHYS LANE (0+000 - 0+180)
20-7031-C12	PLAN & PROFILE BROPHYS LANE (0+180 - 0+360)
20-7031-C13	PLAN & PROFILE LAWRENCE STREET (0+000-0+300)
20-7031-C14	STANDARD NOTES
20-7031-C15	STANDARD DETAILS
20-7031-C16	STANDARD DETAILS
20-7031-C17	RETAINING WALL DETAILS
20-7031-C18	COMPOSITE UTILITY PLAN
20-7031-C19	COMPOSITE UTILITY PLAN
20-7031-C20	COORDINATION PLAN
20-7031-C21	TOWN CONSTRUCTION NOTES

OWNER'S ENGINEER:



Aplin & Martin Consultants Ltd.
405 - 55 St. Clair Ave. West, O.N. Canada M4V 2Y7
Tel: (416) 644-1900, Fax: (416) 644-1889, Email: general@aplinmartin.com

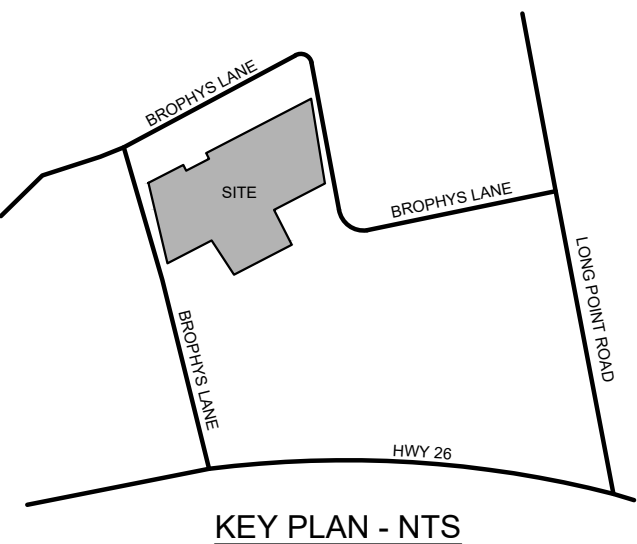
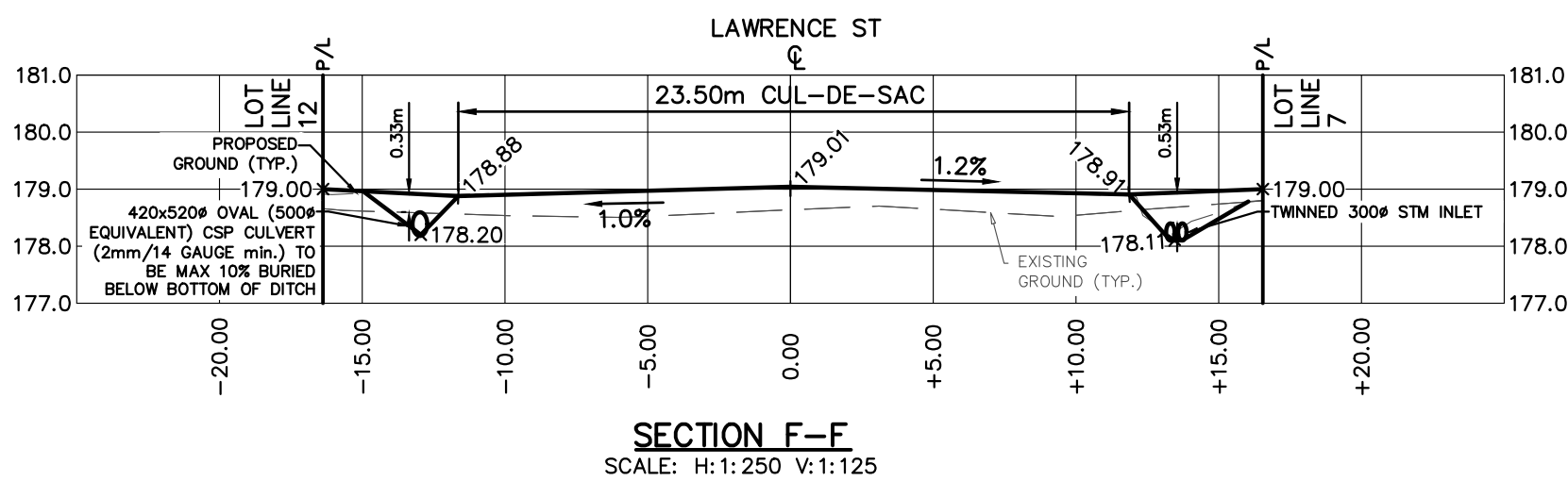
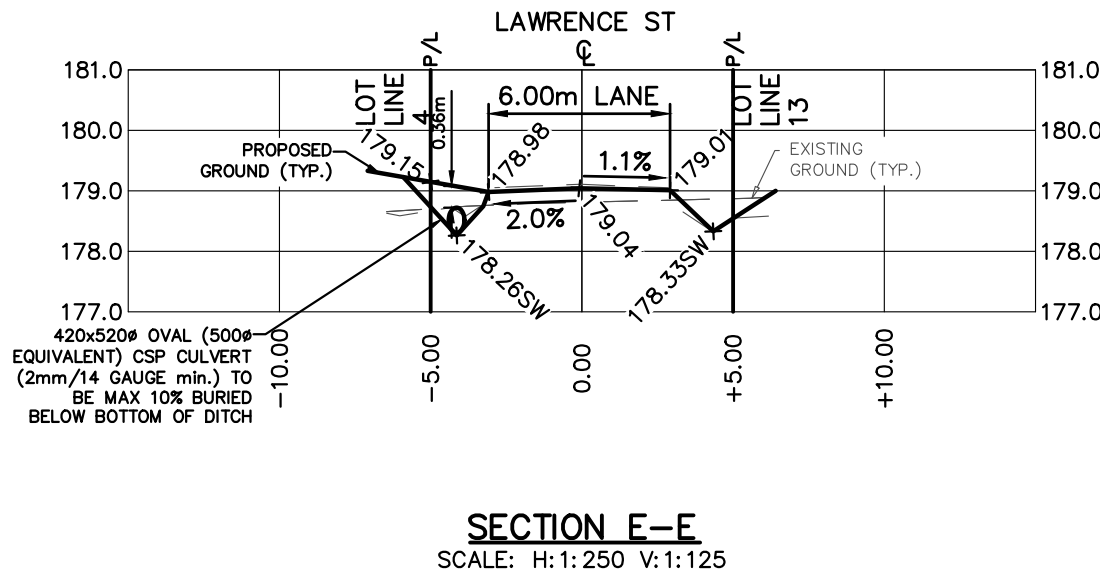
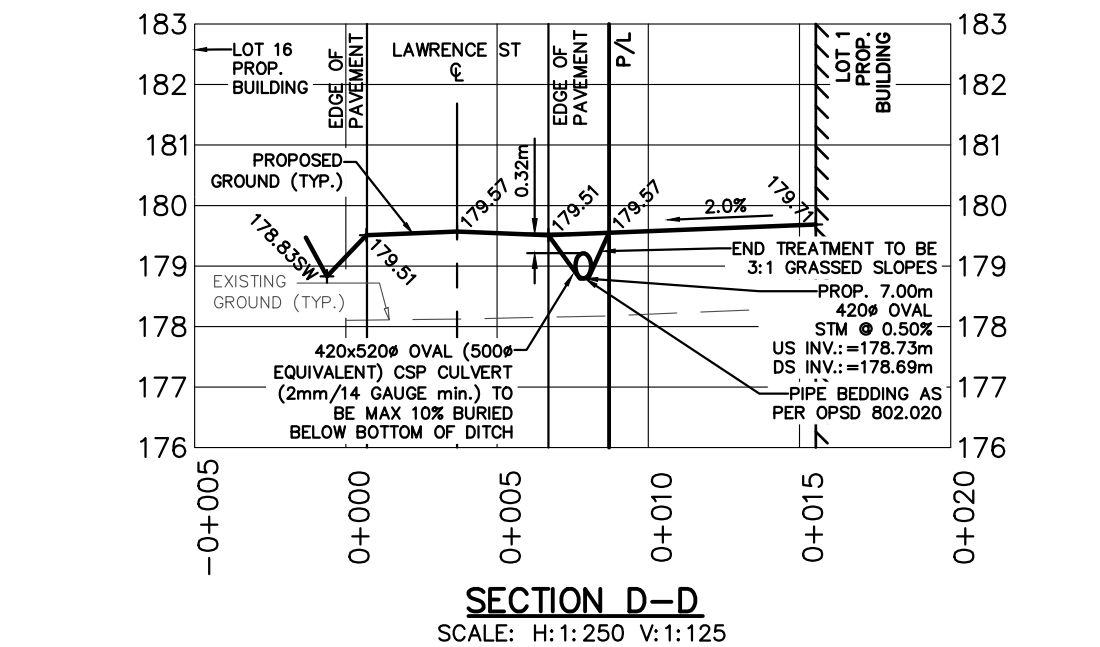
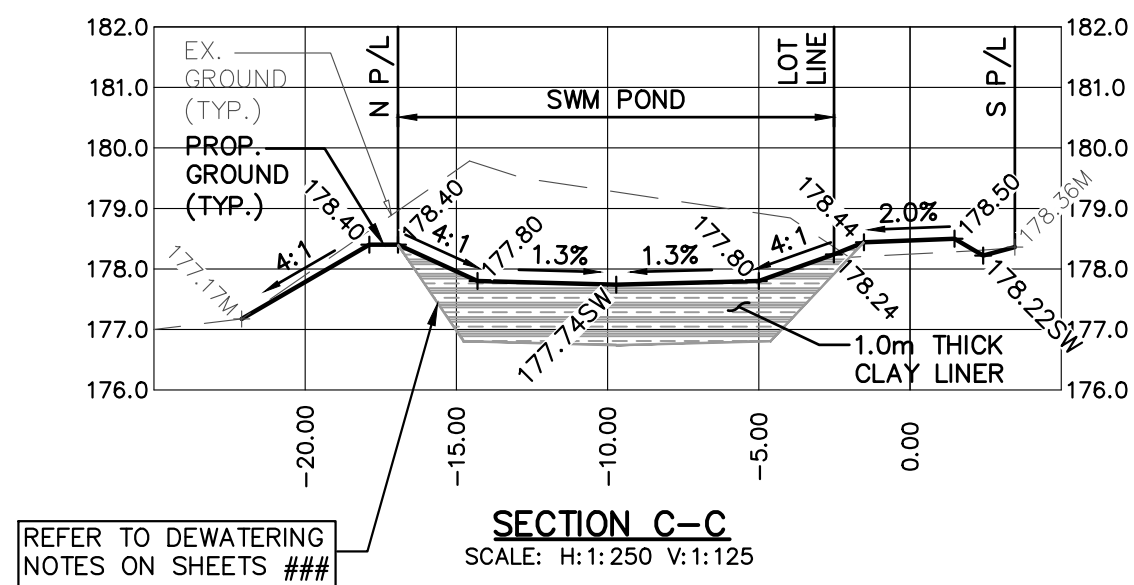
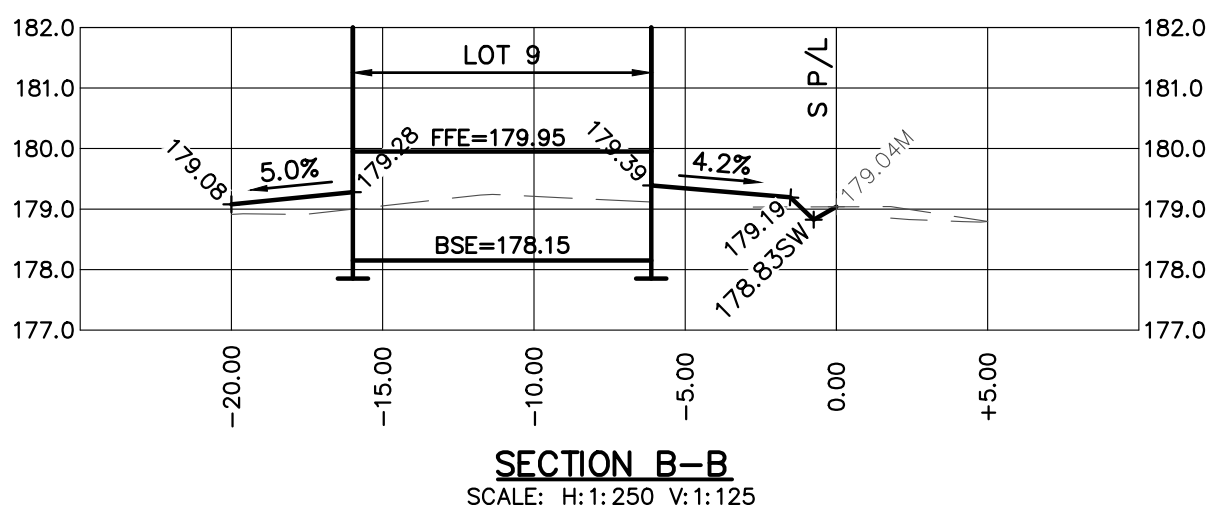
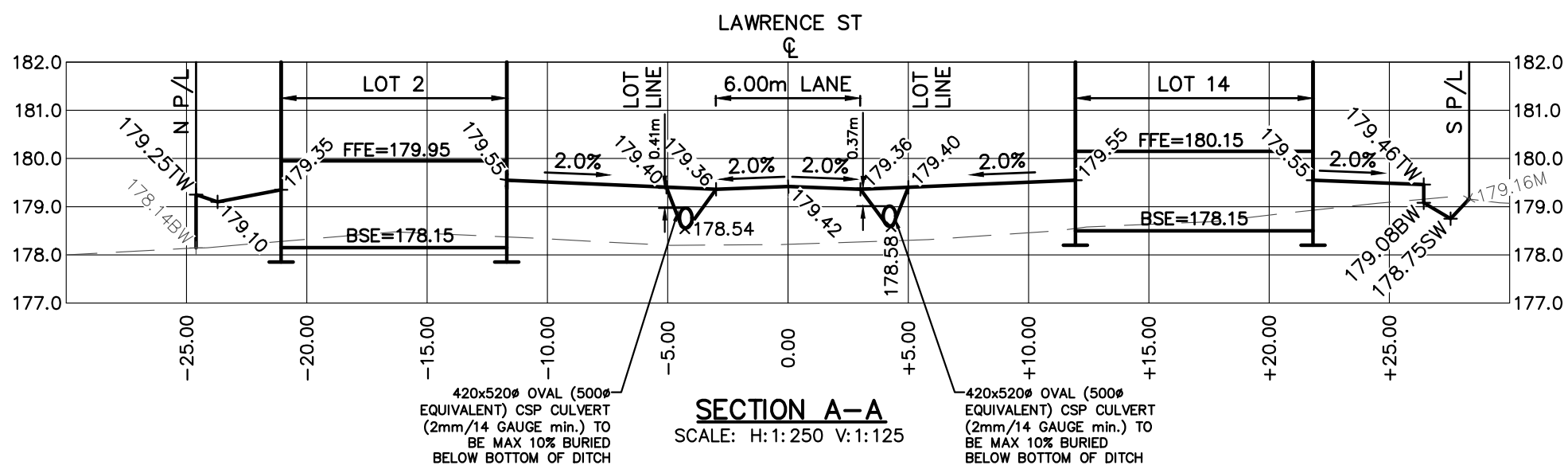
APLIN MARTIN PROJECT No. 20-7031

DEVELOPER ADDRESS:
246 RIVERSIDE DRIVE, TORO

PROJECT LOCATION:
139 BROPHYS LANE, BLUE M

LEGAL DESCRIPTION:
PLAN OF LOT 89, REGISTERED PLAN 529, (FORMERLY TOWNSHIP OF COLLINGWOOD), TOWN OF THE BLUE MOUNTAINS, COUNTRY OF GREY





LEGEND

Town of Blue Mountains
Planning and Development Services
Accepted For Construction

AFC Drawings are only valid as part and upon execution of a
Development Agreement

4-Feb-2025
date

8	24/11/2023	SEVENTH SUBMISSION	JC	CAB
7	27/10/2023	SIXTH SUBMISSION	JC	CAB
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REV	DATE	DESCRIPTION	BY	APP

	PART OF LOT 89, REGISTERED PLAN 529, (FORMERLY TOWNSHIP OF COLLINGWOOD), TOWN OF THE BLUE MOUNTAINS, COUNTRY OF GREY
ENGINEER STAMP	BENCHMARK



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CLIENT
L&W PROPERTIES LTD.
246 RIVERSIDE DRIVE
TORONTO, ON, M6S 4A9

PROJECT
**PROPOSED DETACHED
RESIDENTIAL SUBDIVISION**
139 BROPHY'S LANE
BLUE MOUNTAIN, ON

DRAWING TITLE
GRADING CROSS-SECTIONS

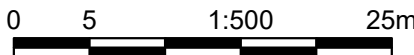
TOWN FILE: P2452E

DESIGN JC	DATE NOVEMBER, 2020	SCALE H: 1:500 V: N/A
DRAWN JC	PROJECT NO. 20-7031	
CHECKED CAB	DRAWING NO. C03	REV. 8
APPROVED CAB		

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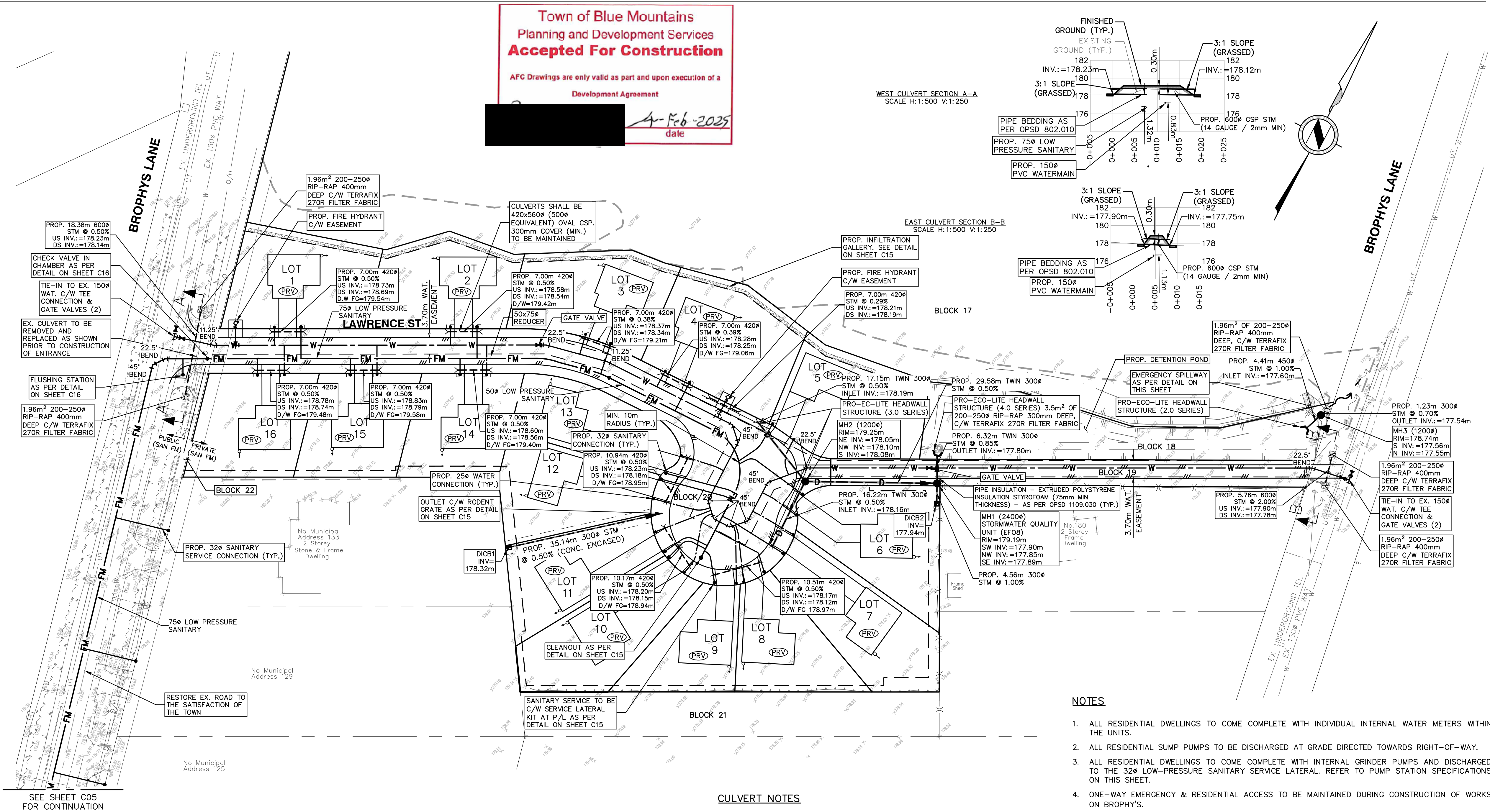
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Town of Blue Mountains
Planning and Development Services
Accepted For Construction

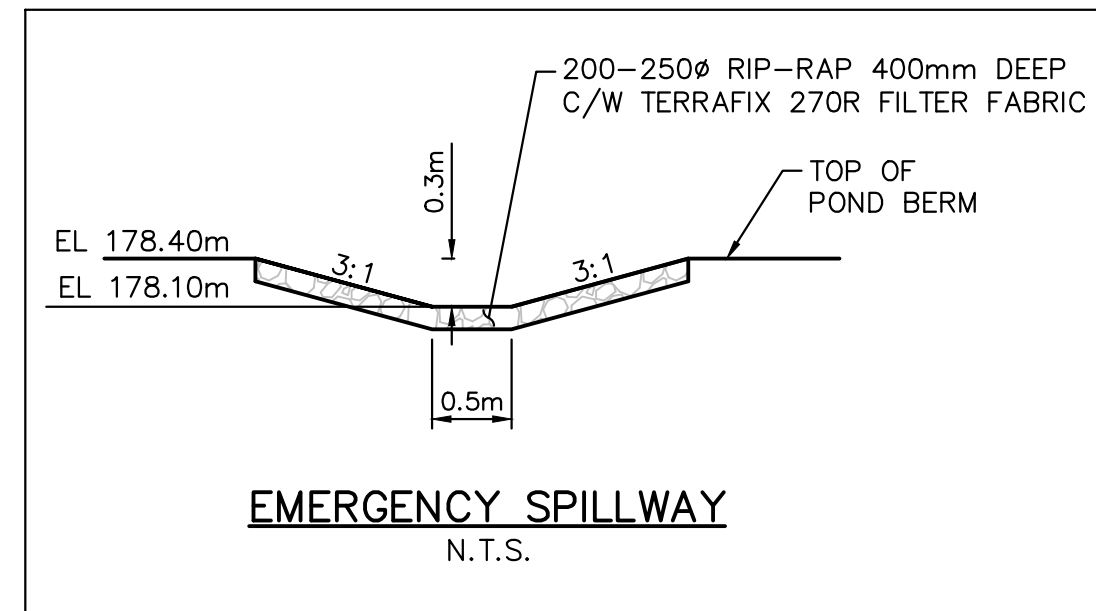
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CULVERT NOTES

- CULVERT WALL THICKNESS TO BE 2 MM/14 GAUGE FOR SITE ENTRANCE CULVERTS ON BROPHY'S LANE (EAST SIDE AND WEST SIDE).



NOTES

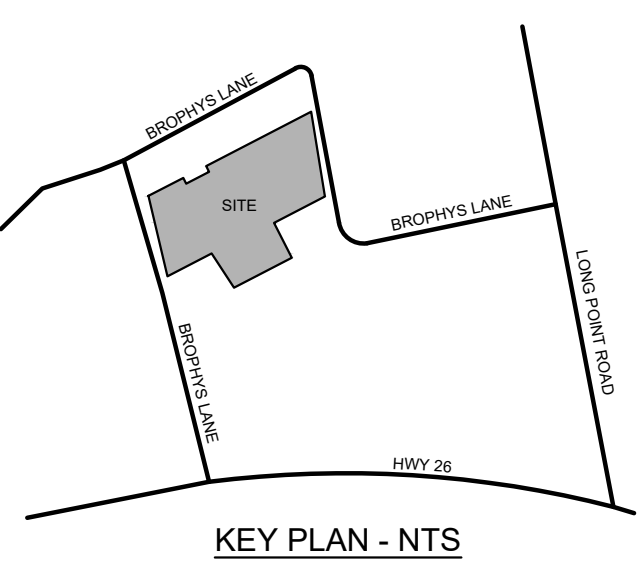
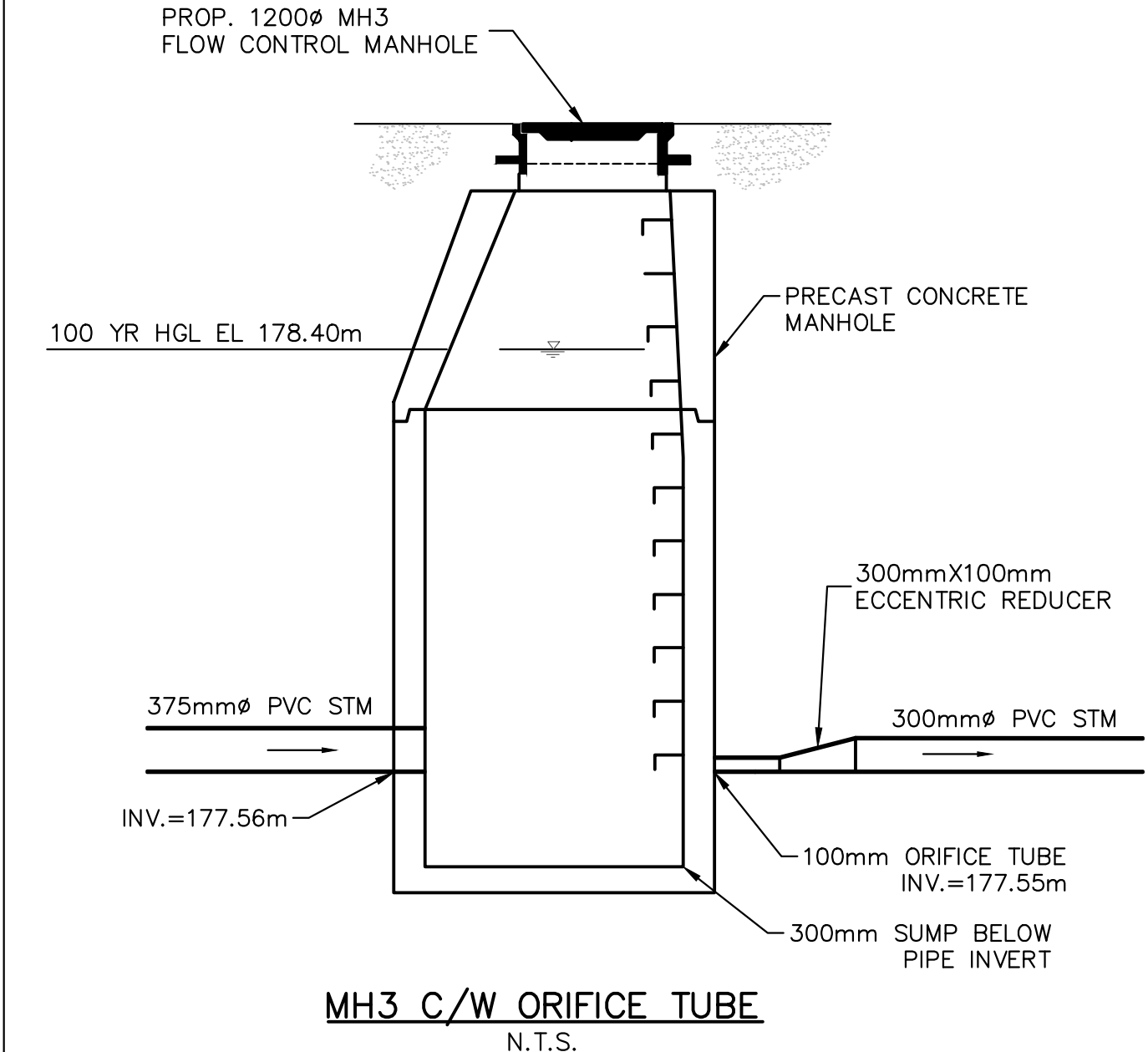
- ALL RESIDENTIAL DWELLINGS TO COME COMPLETE WITH INDIVIDUAL INTERNAL WATER METERS WITHIN THE UNITS.
- ALL RESIDENTIAL SUMP PUMPS TO BE DISCHARGED AT GRADE DIRECTED TOWARDS RIGHT-OF-WAY.
- ALL RESIDENTIAL DWELLINGS TO COME COMPLETE WITH INTERNAL GRINDER PUMPS AND DISCHARGED TO THE 32" LOW-PRESSURE SANITARY SERVICE LATERAL. REFER TO PUMP STATION SPECIFICATIONS ON THIS SHEET.
- ONE-WAY EMERGENCY & RESIDENTIAL ACCESS TO BE MAINTAINED DURING CONSTRUCTION OF WORKS ON BROPHY'S.
- EXTERNAL WORKS ON BROPHY'S LANE REQUIRES A MUNICIPAL AND OCCUPANCY PERMIT FROM THE TOWN.
- RESIDENTIAL CURB CAPS, ISOLATION VALVES AND FLUSHING CONNECTION VALVE BOX CAPS TO BE DENOTED "SEWER".
- FORCEMAIN TESTING AS PER OPSS 412 IS TO BE THE TOWN'S SATISFACTION (PLAN TO BE SUBMITTED WELL IN ADVANCE.
- CONNECTIONS TO MAINTENANCE HOLES MUST BE WATERTIGHT WITH MECHANICAL CONNECTOR.
- TRACER WIRE TO BE INSTALLED ON LOW PRESSURE FORCEMAIN.
- END TO END CULVERT SPACING TO BE 4.0m MIN.
- UNDERSIDE OF FOOTING ELEVATION (USF) OF EACH BUILDINGS HAS BEEN DESIGNED TO BE LOCATED ABOVE THE APRIL 15, 2021 HIGH WATER TABLE ELEVATION. THEREFORE, PERMANENT DEWATERING OR PERMANENT GROUNDWATER SEEPAGE IS NOT EXPECTED TO BE REQUIRED. EXCAVATIONS BELOW THE WATER TABLE MAY BE REQUIRED FOR THE INSTALLATION OF THE GRANULAR BASE OR OTHER WORKS BELOW THE USF. DEWATERING ,AY ALSO BE REQUIRED FOR SITE SERVICING PARTICULARLY IN THE VICINITY OF MH1 AND THE TIE-IN TO THE EXISTING 150mm WATERMAIN (APPENDIX A). THE BASE OF THE CLAY LINER FOR THE SWM POND IS PROPOSED TO BE INSTALLED AT AN ELEVATION OF 176.74 MASL, WHICH WILL BE BELOW THE GROUNDWATER TABLE, AND WILL REQUIRED ACTIVE DEWATERING DURING INSTALLATION.
- ALL HYDRANTS SHALL BE PAINTED CHROME YELLOW. ALL HYDRANTS SHALL HAVE A FLEXSTAKE HYDRANT MARKER MODEL FHV804, 1.2 M LONG, COLOUR YELLOW WITH A REFLECTIVE HYDRANT GRAPHIC ON BOTH SIDES AT THE TOP OF THE MARKER. THE REQUIRED HYDRANT MARKER IS POSITIONED ON THE RIGHT PORT AS VIEWED FROM THE STREET.
- A FIRE HYDRANT MARKER SHALL BE INSTALLED 0.3M BEHIND EACH HYDRANT. THE SIGN SHALL BE REFLECTIVE WITH A RED HYDRANT ON A WHITE BACKGROUND AND MEASURE 0.3 M X 0.3M. THE SIGN SHALL BE MOUNTED 1.5M ABOVE GRADE.
- ALL WATER SERVICES TO BE A MINIMUM 1 METER FROM ANY BEND OR CONNECTION ON THE WATERMAIN.
- ALL SANITARY CURB STOPS AND SERVICE CONNECTIONS ARE TO BE AS PER THE APPROVED WASTEWATER COLLECTION MATERIALS LIST AVAILABLE ON THE TOWN'S WEBSITE

GRINDER PUMP SPECIFICATIONS	
PUMP STATION:	Environment One Model IH091
SIZE:	2,650 lpd capacity, 340 L Basin
TOTAL DYNAMIC HEAD:	3.62m to 7.35m (refer to system pump curve)
MOTOR:	1 hp, 120/240V, 60 Hz, 1 Phase
PANEL:	Simplex Alarm/Disconnect Sentry Protect Panel Plus

*Approved equivalent pump stations will require a full submittal to the Engineer & Town for approval

WATERMAIN JOINT RESTRAINT CALCULATION DATA				
CONTRACTOR SHALL INSTALL APPROVED JOINT RESTRAINTS ON ALL W/M JOINTS FOR THE IDENTIFIED LENGTH ON BOTH SIDES OF FITTING				
PIPE MATERIAL: PVC SOIL TYPE: SM (SANDY SILT) FACTOR OF SAFETY: 2.0 TRENCH TYPE: 5 (PIPE COMPLETELY EMBEDDED IN BEDDING MATERIAL) TEST PRESSURE: 200 PSI				
JOINT RESTRAINT LENGTHS				
FITTING TYPE	DEPTH (m)	MAINLINE DIA. (mm)	MAINLINE RESTRAINED LENGTH (m)	BRANCH RESTRAINED LENGTH (m)
11.25	1.7	150	1.0	-
22.5	1.7	150	1.5	-
TEE	1.7	150	2.0	4.0

SECTION	EST. DEWATERING RATE (L/DAY)	DEWATERING RATE WITH 1.5x OR 2500L SAFETY FACTOR (L/DAY)
LOT 1	322	2,500
LOT 2	799	2,500
LOTS 3-5	841	2,500
LOTS 6-14	12,333	18,500
LOTS 15-16	11,928	17,892
SITE SERVICING	36,061	54,092
SWM POND	69,937	104,906



LEGEND

PROPERTY LINE	---
EXISTING WATERMAIN	---
EXISTING UNDERGROUND TELECOMMUNICATION	---
EXISTING OVERHEAD HYDRO	---
EXISTING EDGE OF GRAVEL	---
PROPOSED TOP OF BANK	---
PROPOSED BOTTOM OF BANK	---
EXISTING TOP OF BANK	---
EXISTING DITCH CENTERLINE	---
EXISTING RETAINING WALL	---
PROPOSED LOW PRESSURE SANITARY	---
PROPOSED STORM SEWER	---
PROPOSED WATERMAIN	---
PROPOSED STORM CULVERT	---
PROPOSED SANITARY SERVICE C/W VALVE BOX	---
PROPOSED WATER SERVICE C/W CURB STOP	---
PROPOSED EDGE OF PAVEMENT	---
PROPOSED INFILTRATION TRENCH	---
EXISTING/PROPOSED FIRE HYDRANT	---
PROPOSED HYDRANT LEAD & VALVE	---
EXISTING/PROPOSED WATER VALVE	---
EXISTING/PROPOSED MANHOLE	---
EXISTING BELL PEDESTAL	---
EXISTING HYDRO POLE	---
EXISTING GUY WIRE	---
INTERNAL PRESSURE REDUCING VALVE	---

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5	17/02/2023	FOURTH SUBMISSION	JC	CAB

REV	DATE	DESCRIPTION	BY	APP
PART OF LOT 89, REGISTERED PLAN 529, (FORMERLY TOWNSHIP OF COLLINGWOOD), TOWN OF THE BLUE MOUNTAINS, COUNTRY OF GREY				
ELEVATIONS ARE GEODETIC AND ARE REFERRED TO THE BENCHMARK. BENCHMARK No.: 001199720314, ELEVATION = 178.304m (DATUM: CGVD28: 78) BENCHMARK				



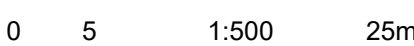
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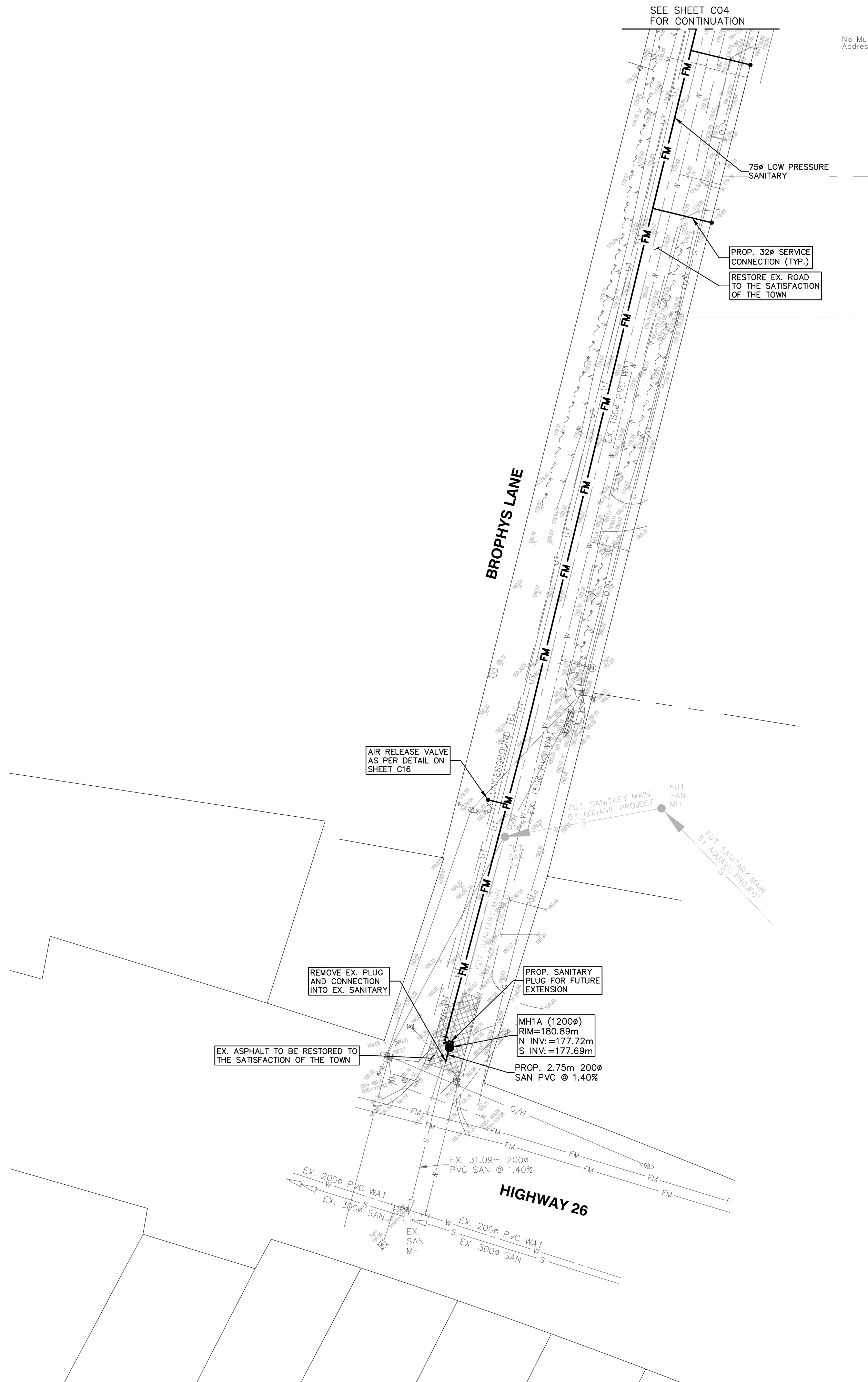
CLIENT	L&W PROPERTIES LTD. 246 RIVERSIDE DRIVE TORONTO, ON, M6S 4A9
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PROJECT	PROPOSED DETACHED RESIDENTIAL SUBDIVISION 139 BROPHY'S LANE BLUE MOUNTAIN, ON
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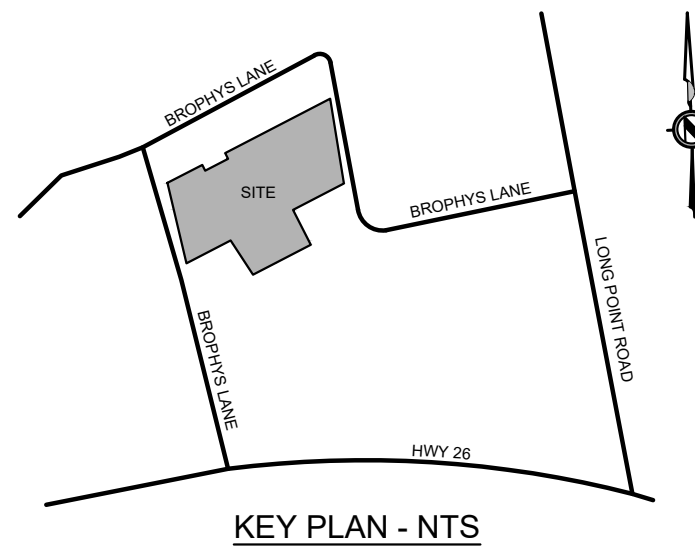
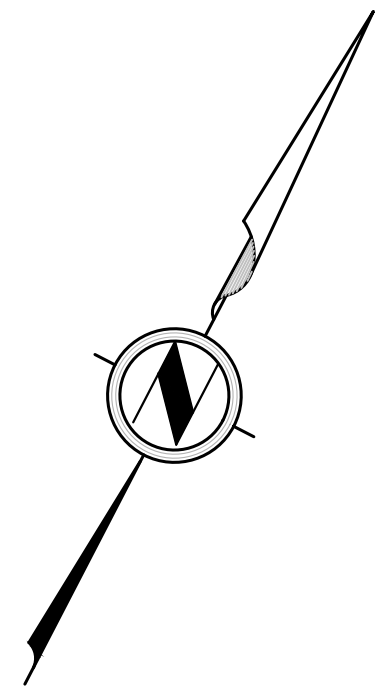
DRAWING TITLE	SITE SERVICING PLAN N
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DESIGN JC	DATE NOVEMBER, 2020	SCALE H:1:500 V:N/A
DRAWN JC	PROJECT NO. 20-7031	
CHECKED CAB	DRAWING NO.	REV.
APPROVED CAB	C04	8





No Municipal
Address 125



LEGEND

PROPERTY LINE	---
EXISTING SANITARY SEWER	---
EXISTING WATERMAIN	---
EXISTING UNDERGROUND TELECOMMUNICATION	---
EXISTING GAS MAIN	---
EXISTING RETAINING WALL	---
EXISTING EDGE OF GRAVEL	---
EXISTING EDGE OF PAVEMENT	---
ASPHALT RESTORATION	---
EXISTING TOP OF BANK	---
EXISTING DITCH CENTERLINE	---
PROPOSED SANITARY SEWER	---
PROPOSED LOW PRESSURE SANITARY	---
PROPOSED SANITARY SERVICE	---
EXISTING FIRE HYDRANT	---
EXISTING WATER VALVE	---
EXISTING/PROPOSED MANHOLE	---
EXISTING BELL PEDESTAL	---
EXISTING HYDRO POLE	---
EXISTING GUY WIRE	---

Town of Blue Mountains
Planning and Development Services
Accepted For Construction

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date **Feb 6, 2025**

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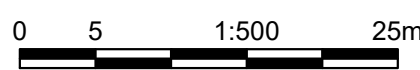
CLIENT	L&W PROPERTIES LTD. 246 RIVERSIDE DRIVE TORONTO, ON, M6S 4A9
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PROJECT	PROPOSED DETACHED RESIDENTIAL SUBDIVISION 139 BROPHY'S LANE BLUE MOUNTAIN, ON
---------	--

DRAWING TITLE	SITE SERVICING PLAN S
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TOWN FILE: P2452E

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		CHECKED CAB	DRAWING NO. C05	REV. 8
		APPROVED CAB		





KEY PLAN - NTS

LEGEND

PROPERTY LINE

CATCHMENT BOUNDARY LINE

GENERAL STORM FLOW DIRECTION

CONTOURS

CATCHMENT No. 101

CN NUMBER 50

CATCHMENT AREA (HECTARES) 2.0

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date

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APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING

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246 RIVERSIDE DRIVE
TORONTO, ON, M6S 4A9

PROJECT

PROPOSED DETACHED RESIDENTIAL SUBDIVISION
139 BROPHY'S LANE
BLUE MOUNTAIN, ON

DRAWING TITLE

STORM DRAINAGE AREA PLAN - PRE
TOWN FILE: P2452E

DESIGN JC	DATE NOVEMBER, 2020	SCALE H: 1:1000 V: N/A
DRAWN JC	PROJECT NO. 20-7031	
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0 10 1:1000 50m

Nov 23, 2023 11:45:00 AM N:\G00\2020\20-7031\TOWN\WASTE PRODUCTION\20-7031-C06-STW Drainage Area Plan Pre-Sub/C06-1.dwg



KEY PLAN - NTS

LEGEND

PROPERTY LINE
CATCHMENT BOUNDARY LINE
GENERAL STORM FLOW DIRECTION
CONTOURS
CATCHMENT No. 201
CN NUMBER 50
CATCHMENT AREA (HECTARES) 2.0

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CLIENT

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246 RIVERSIDE DRIVE
TORONTO, ON, M6S 4A9

PROJECT

**PROPOSED DETACHED
RESIDENTIAL SUBDIVISION**
139 BROPHY'S LANE
BLUE MOUNTAIN, ON

DRAWING TITLE

**STORM DRAINAGE AREA PLAN -
POST**
TOWN FILE: P2452E

DESIGN JC	DATE NOVEMBER, 2020	SCALE H: 1:1000 V: N/A
DRAWN JC	PROJECT NO. 20-7031	
CHECKED CAB	DRAWING NO. C07	REV. 8
APPROVED CAB		

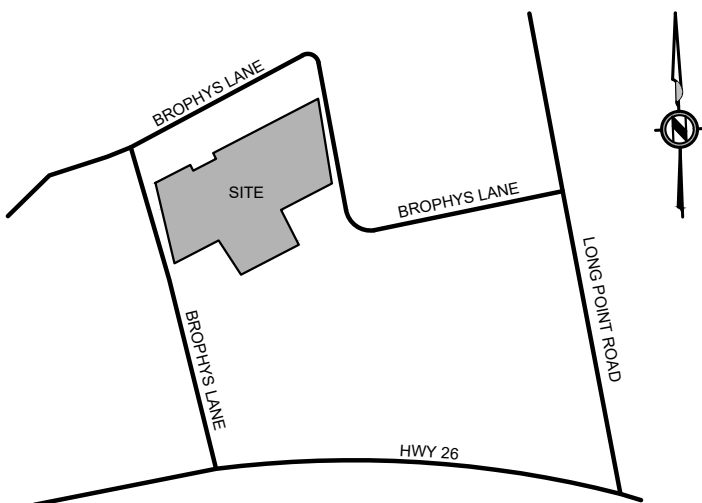
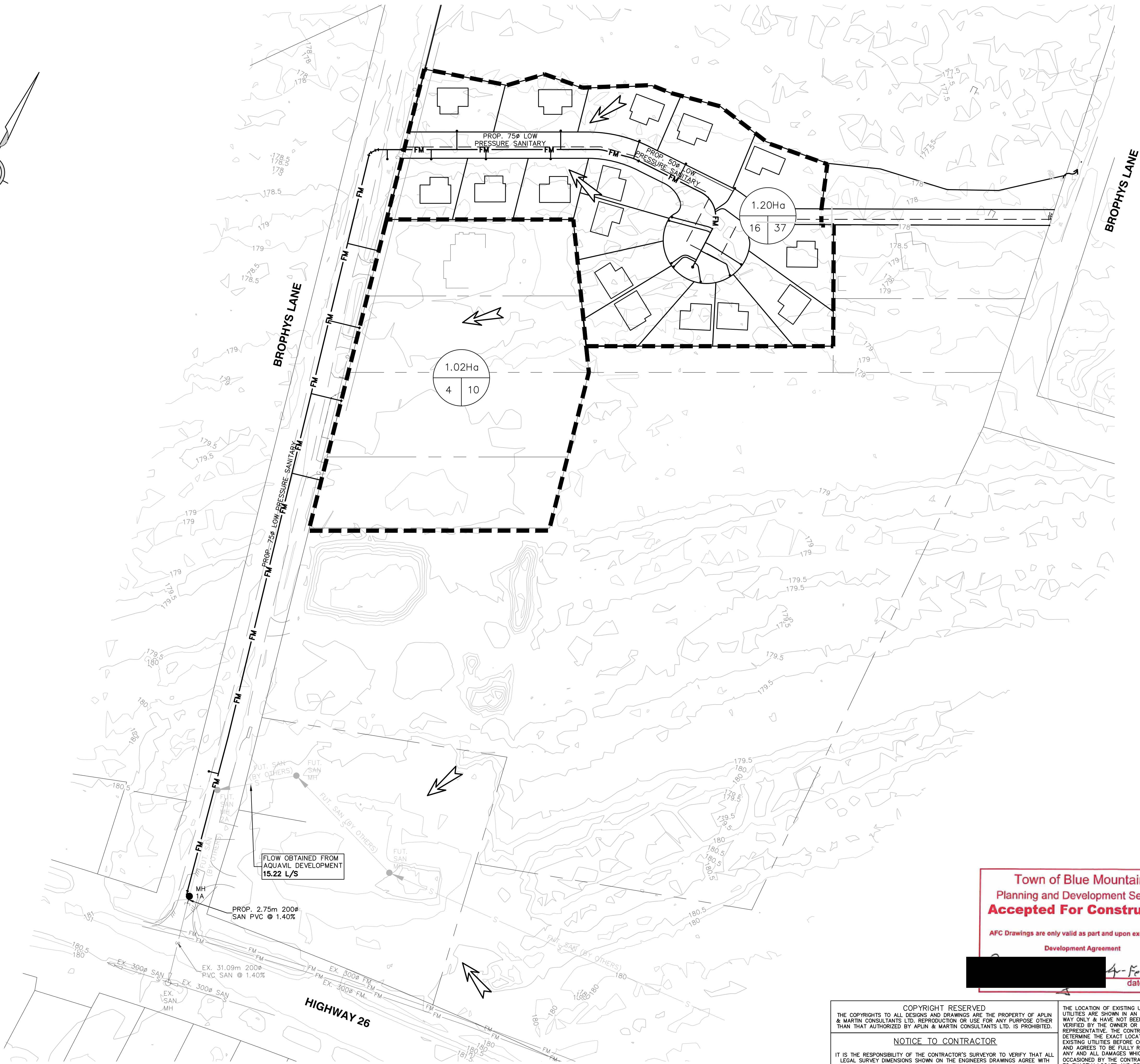
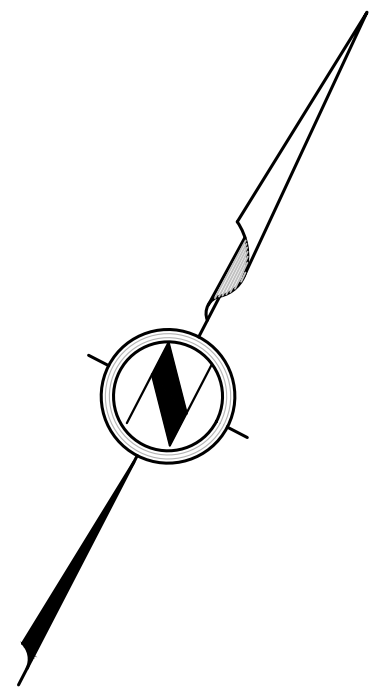
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NOTICE TO CONTRACTOR
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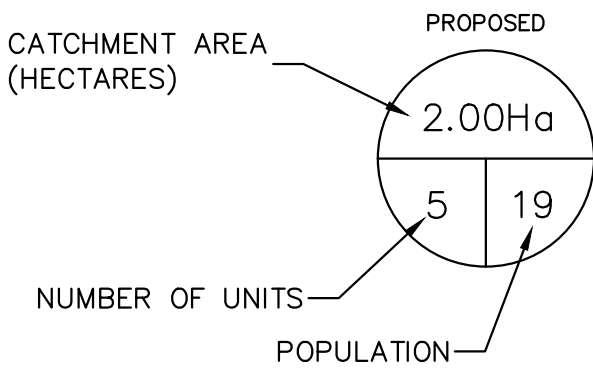
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Notes: C07 - 2023 - 11-14-2023 - M. VIGOR 20230109-1031 TOWN WASTE PRODUCTION 20-7031 - C07 - STW Drainage Area Plan Post-Layout/CDT - STW Drainage Area Plan



LEGEND

EXISTING PROPERTY LINE	---
CATCHMENT BOUNDARY LINE	---
EXISTING SANITARY SEWER	S ---
PROPOSED SANITARY SEWER	S ---
FUTURE SANITARY SEWER (BY OTHERS)	S ---
PROPOSED SANITARY LOW PRESSURE	FM ---
PROPOSED SANITARY LOW PRESSURE SERVICE CONNECTION	---
EXISTING/PROPOSED/FUTURE SANITARY MANHOLE	○/●/●
CONTOURS	179.5
EXTERNAL FLOW DIRECTION	➔



8	24/11/2023	SEVENTH SUBMISSION	JC	CAB
7	27/10/2023	SIXTH SUBMISSION	JC	CAB
6	17/07/2023	FIFTH SUBMISSION	JC	CAB
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5	17/02/2023	FOURTH SUBMISSION	JC	CAB
REV	DATE	DESCRIPTION	BY	APP



PART OF LOT 89, REGISTERED PLAN 529, (FORMERLY TOWNSHIP OF COLLINGWOOD), TOWN OF THE BLUE MOUNTAINS, COUNTRY OF GREY

ELEVATIONS ARE GEODETIC AND ARE REFERRED TO THE BENCHMARK. BENCHMARK No. : 00119972U314, ELEVATION = 178.304m (DATUM: CGVD28: 78) BENCHMARK



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CLIENT

L&W PROPERTIES LTD.
246 RIVERSIDE DRIVE
TORONTO, ON, M6S 4A9

PROJECT

PROPOSED DETACHED RESIDENTIAL SUBDIVISION
139 BROPHY'S LANE
BLUE MOUNTAIN, ON

DRAWING TITLE

SANITARY DRAINAGE AREA PLAN

TOWN FILE: P2452E

DESIGN JC	DATE NOVEMBER, 2020	SCALE H: 1:750 V: N/A
DRAWN JC	PROJECT NO. 20-7031	
CHECKED CAB	DRAWING NO. C08	REV. 8
APPROVED CAB		

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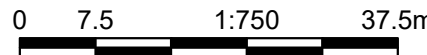
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Town of Blue Mountains
Planning and Development Services
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4-Feb-2025
date



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<u>NOTICE TO CONTRACTOR</u>	IT IS THE RESPONSIBILITY OF THE CONTRACTOR'S SURVEYOR TO VERIFY THAT ALL LEGAL SURVEY DIMENSIONS SHOWN ON THE ENGINEERS DRAWINGS AGREE WITH THOSE ON THE RELEVANT LEGAL SURVEY PLAN. SHOULD THERE BE ANY DISCREPANCIES, THEN IMMEDIATELY NOTIFY THE ENGINEER OF RECORD				

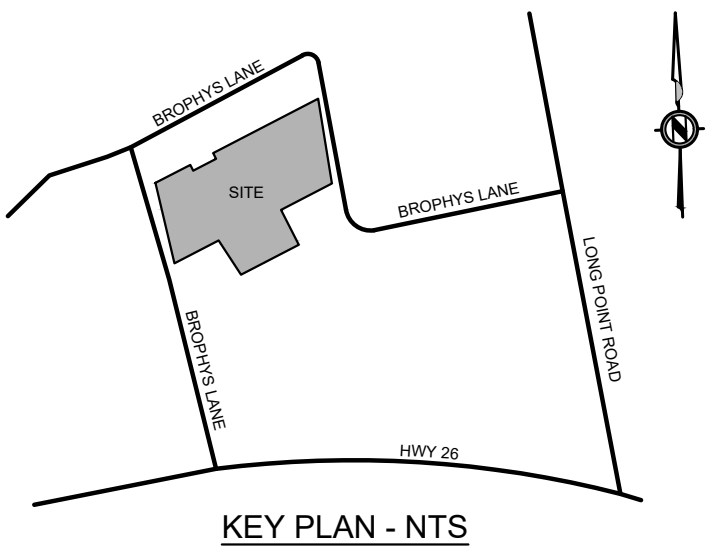
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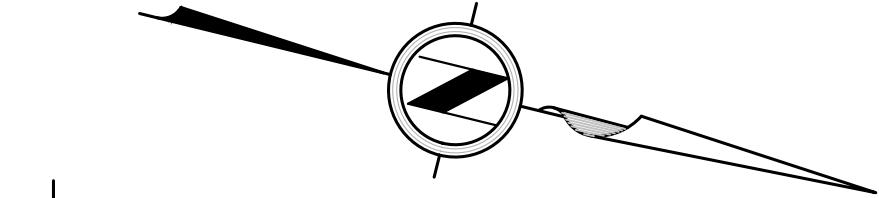
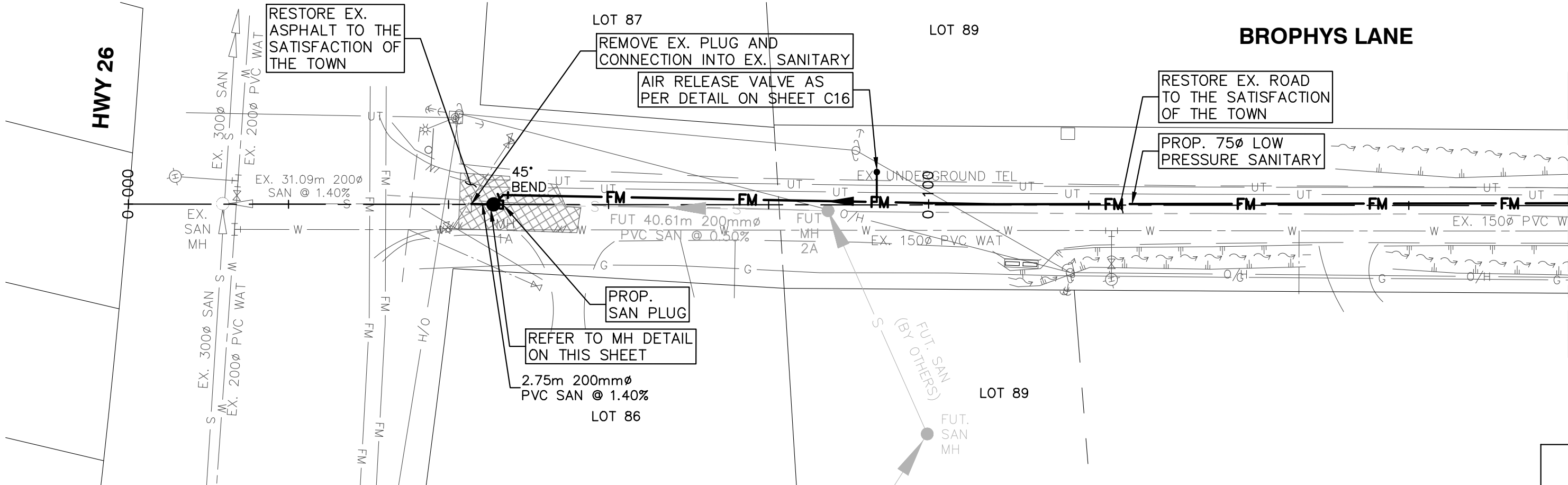
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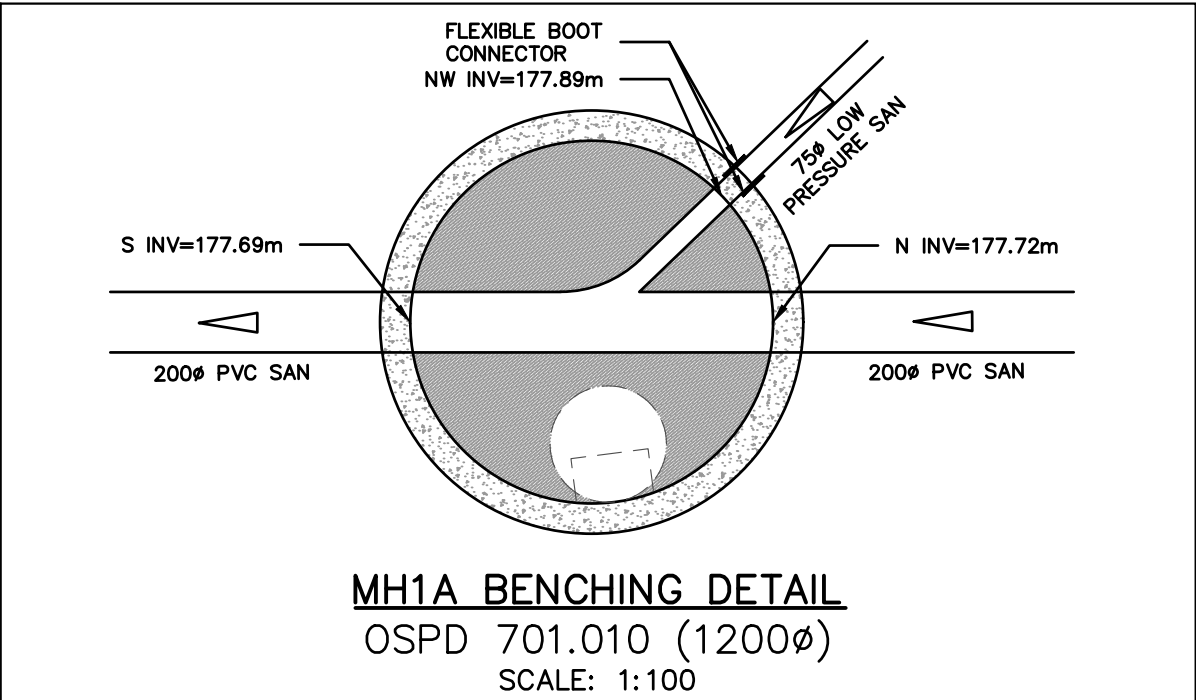


LEGEND

PROPERTY LINE	---
EXISTING SANITARY SEWER	---
EXISTING WATERMAIN	---
EXISTING UNDERGROUND TELECOMMUNICATION	---
EXISTING GAS MAIN	---
EXISTING OVERHEAD HYDRO	---
EXISTING RETAINING WALL	---
EXISTING EDGE OF GRAVEL	---
EXISTING EDGE OF PAVEMENT	---
ASPHALT RESTORATION	---
EXISTING TOP OF BANK	---
EXISTING DITCH CENTERLINE	---
PROPOSED SANITARY SEWER	---
PROPOSED LOW PRESSURE SANITARY	---
PROPOSED SANITARY SERVICE	---
EXISTING FIRE HYDRANT	---
EXISTING WATER VALVE	---
EXISTING/PROPOSED MANHOLE	---
EXISTING BELL PEDESTAL	---
EXISTING HYDRO POLE	---
EXISTING GUY WIRE	---



SEE SHEET C12 FOR CONTINUATION



PROPOSED STORM SEWER INVERT	2.75m-200mmØ PVC SDR 35 SAN @ 1.40% 1.20m-200mmØ PVC SDR 35 SAN @ 0.50%																								PROPOSED STORM SEWER INVERT							
PROPOSED SANITARY SEWER INVERT	176.86 W 177.22 N 176.66 E EX. 31.09m-200mmØ PVC SAN @ 1.40% 177.69 S 177.86 N 177.66 W 134.82 75# HDPE DR11 LOW PRESSURE SANIATRY																								PROPOSED SANITARY SEWER INVERT							
EXISTING PROPOSED ELEVATION																									EXISTING PROPOSED ELEVATION							
CHAINAGE	0+060	0+050	0+040	0+030	0+020	0+010	0+000	0+010	0+020	0+030	0+040	0+050	0+060	0+070	0+080	0+090	0+100	0+110	0+120	0+130	0+140	0+150	0+160	0+170	0+180	0+190	0+200	0+210	0+220	0+230	0+240	CHAINAGE

Town of Blue Mountains
Planning and Development Services
Accepted For Construction

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4-F-6-2025
date

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REV	DATE	DESCRIPTION	BY	APP

PART OF LOT 89, REGISTERED PLAN 529, (FORMERLY TOWNSHIP OF COLLINGWOOD), TOWN OF THE BLUE MOUNTAINS, COUNTRY OF GREY

LEGAL DESCRIPTION

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APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING

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Tel: (416) 644-1900, Fax: (416) 644-1889, Email: general@aplinmartin.com

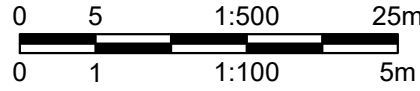
CLIENT

L&W PROPERTIES LTD.
246 RIVERSIDE DRIVE
TORONTO, ON, M6S 4A9

PROJECT

PROPOSED DETACHED RESIDENTIAL SUBDIVISION
139 BROPHY'S LANE
BLUE MOUNTAIN, ON

DRAWING TITLE		
PLAN & PROFILE BROPHY'S LANE (0+000 - 0+180)		
TOWN FILE: P2452E		
DESIGN JC	DATE NOVEMBER, 2020	SCALE H: 1:500 V: 1:100
DRAWN JC	PROJECT NO. 20-7031	
CHECKED CAB	DRAWING NO.	REV.
APPROVED CAB	C11	8

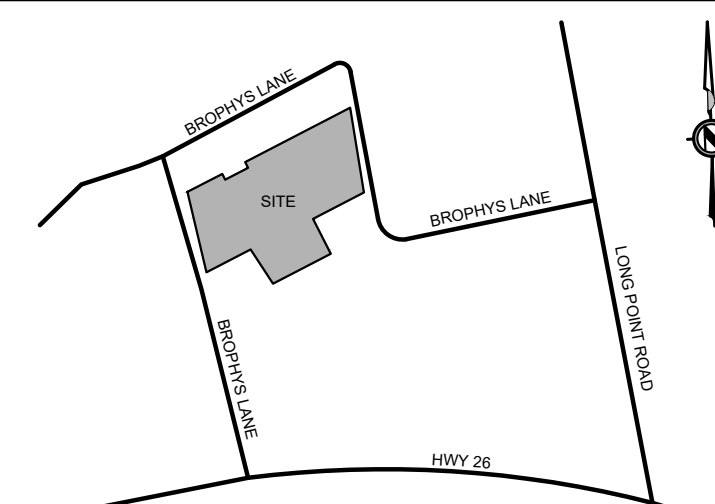


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KEY PLAN - NTS

LEGEND

PROPERTY LINE	
EXISTING WATERMAIN	
EXISTING UNDERGROUND TELECOMMUNICATION	
EXISTING OVERHEAD HYDRO	
EXISTING EDGE OF GRAVEL	
EXISTING TOP OF BANK	
EXISTING DITCH CENTERLINE	
EXISTING RETAINING WALL	
PROPOSED LOW PRESSURE SANITARY	
PROPOSED STORM SEWER	
PROPOSED WATERMAIN	
PROPOSED STORM CULVERT	
PROPOSED SANITARY SERVICE	
PROPOSED WATER SERVICE	
PROPOSED SWALE	
PROPOSED EDGE OF PAVEMENT	
EXISTING FIRE HYDRANT	
EXISTING WATER VALVE	
EXISTING /PROPOSED MANHOLE	
EXISTING BELL PEDESTAL	
EXISTING HYDRO POLE	
EXISTING GUY WIRE	

Town of Blue Mountains
Planning and Development Services
Accepted For Construction

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- Feb - 2025
date

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REV	DATE	DESCRIPTION	BY	APP

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PLAN 529, (FORMERLY
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TOWN OF THE BLUE MOUNTAINS,
COUNTRY OF GREY

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BENCHMARK



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PROJECT

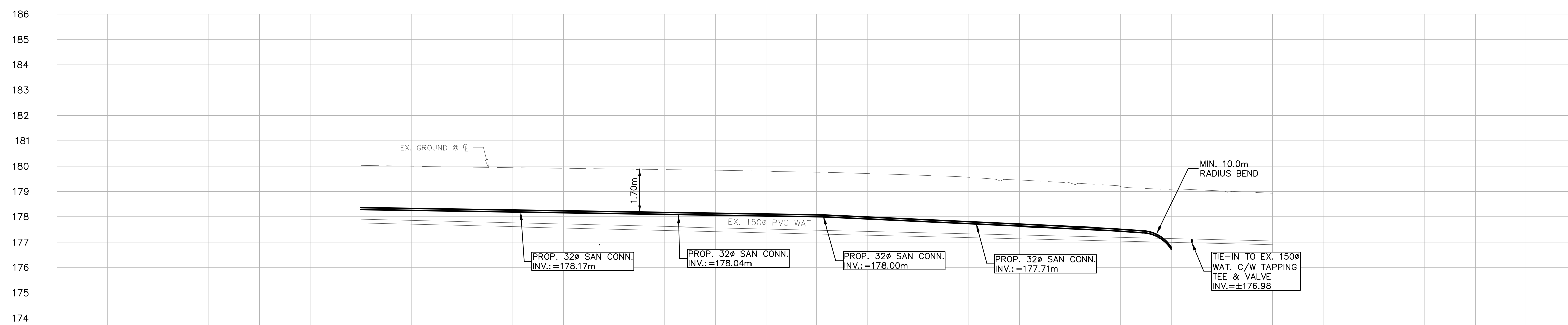
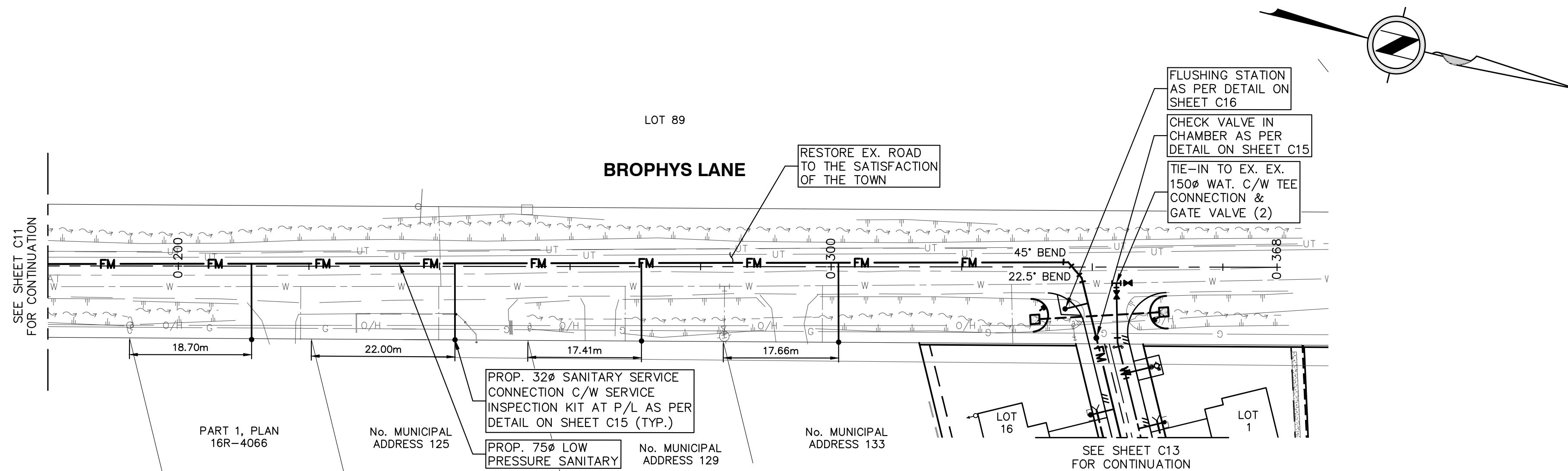
**PROPOSED DETACHED
RESIDENTIAL SUBDIVISION**

**139 BROPHY'S LANE
BLUE MOUNTAIN, ON**

DRAWING TITLE

**PLAN & PROFILE BROPHYS LANE
(0+180 - 0+360)**

DESIGN JC		DATE NOVEMBER, 2020	SCALE
DRAWN JC		PROJECT NO. 20-7031	H: 1:500 V: 1:100
CHECKED CAB		DRAWING NO.	REV.
APPROVED CAB		C12	8



PROPOSED STORM SEWER INVERT																														
PROPOSED SANITARY SEWER INVERT								160.35m 75Ø HDPE DR11 LOW PRESSURE SANIATRY																						
EXISTING PROPOSED ELEVATION	180.51	180.46	180.38	180.31	180.23	180.12	180.04	180.00	179.80	179.94	179.92	179.91	179.79	179.81	179.81	179.76	179.71	179.65	179.56	179.45	179.34	179.20	179.07	179.02	178.93					
CHAINAGE	0+120	0+130	0+140	0+150	0+160	0+170	0+180	0+190	0+200	0+210	0+220	0+230	0+240	0+250	0+260	0+270	0+280	0+290	0+300	0+310	0+320	0+330	0+340	0+350	0+360	0+370	0+380	0+390	0+400	0+410

ENGINEERING DRAWING NOTES

GENERAL

1. GRANULAR BACKFILL AROUND MANHOLES' AND CATCHBASINS SHALL BE GRANULAR 'B' COMPACTED BY MECHANICAL MEANS TO A MINIMUM OF 100% S.P.M.D.D
2. MINIMUM WIDTH OF BENCHING IN MANHOLES SHALL BE 230MM OR AS SPECIFIED ON DRAWINGS.
3. MANHOLE AND CATCHBASIN COVERS SHALL BE SET FLUSH WITH HL8 ASPHALT AND ADJUSTED TO GRADE PRIOR TO INSTALLING TOP COURSE OF ASPHALT.
4. ALL MANHOLE CHAMBER OPENING SHALL BE LOCATED ON THE UPSTREAM SIDE OF THE MANHOLE.
5. UNLESS OTHERWISE NOTED, DIMENSIONS FROM STREET LINE ARE TO CENTERLINE OF SEWER OR MANHOLE..
6. THE FOLLOWING PAVEMENT STRUCTURES (COMPACTED DEPTH) SHALL BE USED, UNLESS OTHERWISE SPECIFIED:
PAVEMENT STRUCTURES:
 - 40mm of HL3 ASPHALT SURFACE COURSE
 - 40mm of HL4 ASPHALT BASE COURSE
 - 150mm OF 20mm CRUSHER-RUN LIMESTONE BASE
 - 450mm of GRANULAR 'B' SUBBASE
 - GEOTEXTILE FILTER FABRIC (TERRAFIX 270R OR EQUIVALENT)
9. DRIVEWAYS SHALL BE PAVED IN ACCORDANCE WITH THE FOLLOWING:
 - 40mm of HL3 SURFACE ASPHALT
 - 40mm of HL8 ASPHALT
 - 150mm OF 20mm CRUSHER-RUN LIMESTONE BASE
 - 200mm OF GRANULAR 'B' SUBBASE
10. ASPHALTIC CONCRETE MATERIALS TO BE COMPACTED TO 97% MAXIMUM RELATIVE DENSITY (MRD).
11. GRANULAR 'A' AND GRANULAR 'B' BASE MATERIALS ARE TO BE COMPACTED TO 100% SPMD.D.
12. SUBGRADE IS TO BE COMPACTED TO 98% SPMD.D FOR AT LEAST THE UPPER 500mm UNLESS ACCEPTED BY THE GEOTECHNICAL ENGINEER AS PART OF THE SUBGRADE PREPARATION, PROPOSED PARKING AREAS AND ACCESS ROADWAYS SHOULD BE STRIPPED OF TOPSOIL AND OTHER OBVIOUS OBJECTIONABLE MATERIAL. FILL REQUIRED TO RAISED GRADES TO DESIGN ELEVATIONS SHOULD CONFORM TO BACKFILL REQUIREMENTS OUTLINED IN THE GEOTECHNICAL REPORT. THE SUBGRADE SHOULD BE PROPERLY SHAPED, CROWNED THEN PROOF-ROLLED. SOFT OR SPONGY SUBGRADE AREAS SHOULD BE SUB-EXCAVATED AND PROPERLY REPLACED WITH SUITABLE APPROVED BACKFILL COMPACTED TO 98% SPMD.D.
13. A PROOF ROLL IS REQUIRED OF THE ROAD SUBBASE AND SHALL BE WITNESSED BY THE TOWN, GEOTECHNICAL CONSULTANT AND CONTRACTOR. A PROOF ROLL OF GRANULAR B MAY BE REQUIRED AT THE TOWN OR GEOTECHNICAL CONSULTANT'S DISCRETION.
14. SILTATION AND EROSION CONTROL WORKS SHALL BE AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLANS DRAWING NUMBER 20-7031-C09.
15. SILTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO START OF CONSTRUCTION.
16. FOR DETAILS NOT SHOWN ON THESE DRAWINGS, REFERENCE SHOULD BE MADE TO THE DESIGN STANDARDS OF THE TOWN OF THE BLUE MOUNTAINS.
17. DESIGN BASED ON THE TOWN OF THE BLUE MOUNTAINS STANDARDS (CURRENT EDITION)

EROSION & SEDIMENT CONTROL

1. SEDIMENT AND EROSION CONTROL MEASURES WILL BE IMPLEMENTED PRIOR TO, AND MAINTAINED DURING CONSTRUCTIONS PHASES, TO PREVENT ENTRY OF SEDIMENT INTO THE WATER.
2. THE EROSION AND SEDIMENT CONTROL STRATEGIES OUTLINED ON THE PLANS ARE NOT STATIC AND MAY NEED TO BE UPGRADED/AMENDED AS SITE CONDITIONS CHANGE TO PREVENT SEDIMENT RELEASES TO THE NATURAL ENVIRONMENT.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE INSPECTED WEEKLY, AFTER EVERY RAINFALL AND SIGNIFICANT SNOW MELT EVENT, AND DAILY DURING PERIODS OF EXTENDED RAIN OR SNOW MELT.
4. ALL DAMAGED EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE REPAIRED AND/OR REPLACED WITHIN 48 HOURS OF THE INSPECTION.
5. ALL ACTIVITIES, INCLUDING MAINTENANCE PROCEDURES, WILL BE CONTROLLED TO PREVENT THE ENTRY OF PETROLEUM PRODUCTS, DEBRIS, RUBBLE, CONCRETE OR OTHER DELETERIOUS SUBSTANCES INTO THE WATER. VEHICULAR REFUELING AND MAINTENANCE WILL BE CONDUCTED 30 METERS FROM THE WATER.
6. ALL DISTURBED AREAS WILL BE STABILIZED AND RESTORED WITH NATIVE/NON-INVASIVE SPECIES UPON COMPLETION OF THE WORK.
7. A REHABILITATION PLAN IS TO BE IMPLEMENTED TO RESTORE THE CONSTRUCTION SITE BACK TO ITS PRE- CONSTRUCTION STATE, OR BETTER.
8. THE CONTRACTOR SHALL MONITOR THE WEATHER SEVERAL DAYS IN ADVANCE OF THE ONSET OF THE PROJECT TO ENSURE THAT THE WORKS WILL BE CONDUCTED DURING FAVORABLE WEATHER CONDITIONS.

GRADING

1. ALL EXTERNAL SITE AREAS DISTURBED BY THE ACTIVITIES OF THE CONTRACTOR SHALL BE RESTORED TO EXISTING CONDITION OR BETTER AND TO THE SATISFACTION OF THE TOWN. GRASSED AREAS SHALL BE RESTORED BY PLACING 150mm TOPSOIL AND SOD. ALL BOULEVARDS TO BE SODDED.
2. TOPSOIL IN FILL AREAS TO BE STRIPPED. ALL FILL MATERIAL SHALL BE APPROVED FOR SUITABILITY BY THE GEOTECHNICAL ENGINEER PRIOR TO ANY FILLING OR REUSE OF EXCAVATED MATERIAL. APPROVED FILL MATERIAL SHALL BE COMPACTED TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
3. ALL RAINWATER LEADERS SHALL DISCHARGE ONTO SPLASH PADS AT GROUND LEVEL.
4. THE SOIL'S CONSULTANT SHALL VERIFY THE SUITABILITY OF THE ENGINEERED FILL AT THE SOURCE PRIOR TO HAULING ANY MATERIAL ON SITE.
5. ALL FILL SHALL BE PLACED AND COMPACTED TO 95% STANDARD PROCTOR DENSITY (SPD) IN MAXIMUM 0.20m LIFTS TO SUBGRADE. FILL SHALL BE COMPACTED TO 98% SPD AS DIRECTED BY THE CONSULTANT.
6. EXISTING BOUNDARY ELEVATION ALONG THE SITE PERIMETER SHALL REMAIN UNDISTURBED. DRAINAGE RECEIVED FROM ADJACENT PROPERTIES SHALL BE ACCOMMODATED AND DRAINAGE FROM THE SUBJECT LANDS SHALL BE SELF-CONTAINED.
7. PAVEMENT GRADES (MIN. 0.5%, MAX. 6.0%).
8. DRIVEWAY GRADES (MIN. 2.0%, MAX. 6.0%).
9. BOULEVARD GRADES ARE TO BE (MIN. 2.0% TO MAX. 5.0%).
10. DRAINAGE SWALES WITH GRADES (MIN. 2.0%, MAX. 5.0%).
11. MINIMUM DEPTH OF PONDING FOR A SWALE SHALL BE 350mm.
12. MAXIMUM GRADE BETWEEN HOUSES SHALL NOT EXCEED 4 HORIZONTAL TO 1 VERTICAL.
13. SLOPES IN LANDSCAPED AREAS AND ON BERMS SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL WITH A MAXIMUM VERTICAL ELEVATION NOT IN EXCESS OF THE APPLICABLE TOWN STANDARD.
14. ALL GRADING TO CONFORM TO THE TOWN OF THE BLUE MOUNTAINS CRITERIA AND O.P.S.D.
15. ALL CONSTRUCTION TO BE CARRIED OUT IN ACCORDANCE WITH THE MOST CURRENT DESIGN CRITERIA, STANDARDS, AND SPECIFICATIONS OF THE TOWN OF THE BLUE MOUNTAINS AND O.P.S.D.

WATERMAIN

1. WATERMAINS 150mmØ TO 300mmØ SHALL BE PVC CL150 (DR-18) CONFORMING TO A.W.W.A. C905 AND C.S.A. B137.3 OR LATEST REVISION THEREOF WITH GASKETED JOINTS AND BE PROVIDED WITH 10 GAUGE SOLID COPPER TRACER WIRE.
2. A MIN. HORIZONTAL SEPARATION OF 2.5m AND WATERMAIN IS TO BE INSTALLED 0.50m ABOVE SEWER, OUTSIDE TO OUTSIDE OF PIPES.
3. WATERMAIN BEDDING AND EMBEDMENT MATERIAL SHALL BE GRANULAR AS PER O.P.S.D. 802.010 GRANULAR 'A' TO CONFORM TO O.P.S.S. 1010.
4. ALL HYDRANTS SHALL BE MUELLER (CENTURY) OR AVK (2780 SERIES), OPEN LEFT AND SHALL BE PAINTED CHROME YELLOW. ALL HYDRANTS SHALL HAVE A FLEXSTAKE HYDRANT MARKER MODEL FHV804, 1.2m LONG, COLOUR YELLOW WITH A REFLECTIVE HYDRANT GRAPHIC ON BOTH SIDES AT THE TOP OF THE MARKER AND PROVIDE STORZ FITTING ON ALL STEAMER PORTS.
5. A SECONDARY FIRE HYDRANT MARKER SHALL BE INSTALLED 0.3m BEHIND EACH HYDRANT. THE SIGN SHALL BE REFLECTIVE WITH A RED HYDRANT ON A WHITE BACKGROUND AND MEASURE 0.3m X 0.3m. THE SIGN SHALL BE MOUNTED 1.5m ABOVE GRADE.
6. ALL PLUGS, CAPS, TEES AND BENDS SHALL BE MECHANICALLY RESTRAINED.
7. JOINT RESTRAINTS ARE AS PER THE TOWN OF THE BLUE MOUNTAINS SPECIFICATIONS.
8. MINIMUM DEPTH OF COVER OVER WATERMAIN SHALL BE 1.70m AND MAXIMUM DEPTH SHALL BE 2.5m.
9. GATE VALVES SHALL BE RESIDENT SEAT VALVES WITH MECHANICAL JOINT, OPEN LEFT, MUELLER (A-2360 OR A-2361), CLOW F-6100) OR AVK (SERIES 45/65). VALVE BOXES SHALL BE BIBBY OR STAR (VB666A) C/W GUIDE PLATE AND DUCTILE ADJUSTABLE TOP AND LID.
10. WATER SERVICE CONNECTIONS SHALL BE 25mm DIAMETER TYPE 'K' SOFT COPPER, REHAU'S MUNICIPLEX (BLUE) OR SERIES 160 PE C/W SHUT OFF AT PROPERTY LINE AS PER THE TOWN OF THE BLUE MOUNTAINS SPECIFICATIONS.
11. CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS AS PER THE TOWN OF THE BLUE MOUNTAINS SPECIFICATIONS.
12. ALL TESTING TO BE IN ACCORDANCE WITH THE TOWN'S WATERMAIN COMMISSIONING PROTOCOL.
13. ALL CHEMICALS AND MATERIALS USED IN THE ALTERATION OR OPERATION OF THE DRINKING WATER SYSTEM SHALL MEET ALL APPLICABLE STANDARDS SET BY BOTH THE AMERICAN WATER WORKS ASSOCIATION ("AWWA") AND THE AMERICAN NATIONAL STANDARDS INSTITUTE ("ANSI") SAFETY CRITERIA STANDARDS NSF/60, NSF/61 AND NSF/372.
14. PROOF OF NSF CERTIFICATION FOR ALL COMPONENTS IS REQUIRED FOR CONNECTIONS OF NEW WATERMAIN TO TOWN SYSTEM, PER THE TOWN'S WATERMAIN COMMISSIONING PROTOCOL.

STRUCTURE BUOYANCY NOTES

1. THE GEOTECHNICAL ENGINEER IS TO REVIEW BUOYANCY CONDITIONS IN THE FIELD DURING CONSTRUCTION. IF THE COMBINATION OF THE WEIGHT OF THE STRUCTURE AND THE MOBILIZED FRICTIONAL RESISTANCE BETWEEN THE BURIED PORTION OF THE EXTERIOR WALLS AND THE BACKFILL MATERIALS IS INSUFFICIENT TO RESIST THE UPLIFT FORCES DURING ANY STAGE OF THE CONSTRUCTION AND/OR DURING THE OPERATION OF THE STRUCTURE, THEN THE SHORING WALLS USED FOR THE SUPPORT OF EXCAVATION CAN BE LEFT IN PLACE AND CONNECTED TO THE STRUCTURE TO INCREASE THE UPLIFT RESISTANCE. OTHERWISE, A FAIL-SAFE SYSTEM OF GROUTED GROUND ANCHORS IS NEEDED. REFER TO GEOTECHNICAL MEMORANDUM BY PALMER DATED OCTOBER 27, 2023.

SANITARY SEWERS

3. SANITARY MANHOLES AS PER O.P.S.D. 701.010 WITH FRAMES AND COVERS AS PER O.P.S.D. 401.010 TYPE 'A'.
 2. SANITARY MANHOLE TOPS TO BE STAMPED "SANITARY". SANITARY SEWER PIPES SHALL BE PVC OR CONCRETE AND AS SHOWN ON DRAWINGS. PVC PIPE SHALL BE SDR-35 CONFORMING TO C.S.A. SPECIFICATION B182.2-M1990 AND B182.4-M1992 OR LATEST REVISION THEREOF. 300mm AND SMALLER CONCRETE PIPES TO BE NON-REINFORCED EXTRA STRENGTH CONFORMING TO C.S.A. SPECIFICATION A257.1-M1982 DR LATEST REVISION THEREOF.
 3. ALL STRUCTURES TO HAVE FROST STRAPS AS PER OPSD 701.100.
 4. BEDDING FOR PVC SANITARY SEWERS TO BE AS PER O.P.S.D. 802.010 WITH GRANULAR 'A' BEDDING AND O.P.S.D. 802.030. CLASS 'B' WITH GRANULAR 'A' BEDDING FOR CONCRETE PIPES.
 5. BENCHING TO BE AS PER O.P.S.D. 701.021 WITH MINIMUM WIDTH OF 230mm OR AS SPECIFIED ON DRAWINGS.
 6. SAFETY PLATFORMS TO BE AS PER O.P.S.D. 404.020 AND TO BE INSTALLED IN MANHOLES WHERE DEPTH EXCEEDS 5.0m.
 7. DROP STRUCTURES SHALL BE AS PER O.P.S.D. 1003.010 OR 1003.020.
 8. SANITARY LATERALS TO BE 125mm DIAMETER PVC SDR-28 CONFORMING TO C.S.A. SPECIFICATION B182.2.
- LOW PRESSURE SANITARY SEWER**
1. LOW PRESSURE SANITARY SYSTEM TO BE SDR11 HDPE FUSION WELD JOINTS, WITH TRACER WIRE.
 2. FLUSHING PORTS IN CHAMBERS, EQUIPPED WITH QUICK CONNECT FITTINGS, REQUIRED ALONG THE LOW PRESSURE SANITARY MAIN, IN THE TOWN ROW (OR CONDOMINIUM COMMON ELEMENT) AT SHARP BENDS, INCLUDING TEE INTERSECTIONS AND A MINIMUM 300 M SPACING.
 3. INSULATION WHEN COVER IS LESS THAN 1.7m.
 4. SERVICE LATERALS KITS SHALL INCLUDE STAINLESS CHECK VALVE/CURB STOP VALVE ASSEMBLY LOCATED ENTIRELY WITHIN TOWN ROAD ROW (OR CONDOMINIUM COMMON ELEMENT). SERVICE BOX TO HAVE STAINLESS STEEL STEM. VALVE BOX COVERS TO BE STAMPED 'SEWER'.
 5. SERVICE LATERAL PIPING TO BE MINIMUM 32mm DIA, POLYETHYLENE (PE) DR-11 TUBING, COMPRESSION JOINT CONNECTIONS REQUIRING A STAINLESS-STEEL TUBE LINER WITH A FLUTED END AS SUPPLIED BY THE CORPORATION STOP MANUFACTURER.
 6. ALL STRUCTURES TO HAVE FROST STRAPS AS PER OPSD 701.100.

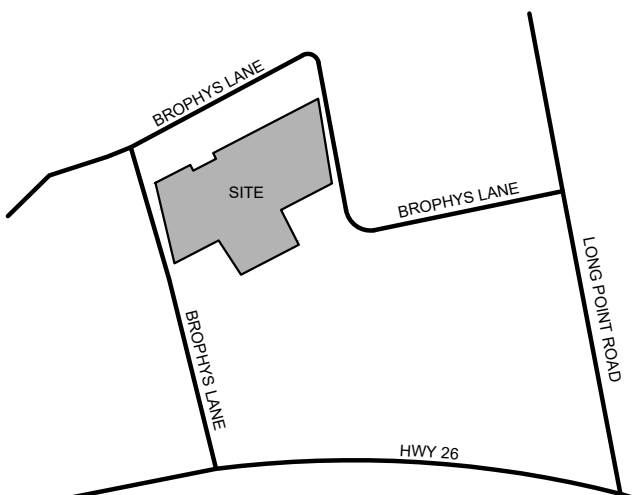
STORM SEWERS

1. STORM SEWER PIPES 300mm AND 375mm SHALL BE C.S.A. B182.4 RIBBED PVC SDR 35 CONFORMING TO C.S.A. SPECIFICATION B182.2-M1990 AND B182.4-M1992 OR LATEST REVISION THEREOF. STORM SEWER PIPES INCLUDING AND LARGER THAN 450mm SHALL BE REINFORCED CONCRETE CONFORMING TO C.S.A. SPECIFICATION A257.2-M1982 OR LATEST REVISION THEREOF. PIPE JOINTS SHALL BE BY MEANS OF APPROVED RUBBER GASKETS CONFORMING TO C.S.A. SPECIFICATION A257.3-M1982 OR LA TEST REVISION THEREOF.
2. DITCH CULVERTS ALONG BROPHY'S LANE SHALL BE EQUIPPED WITH RIP-RAP AS END-TREATMENT, WHILE DRIVEWAY CULVERTS ON-SITE ARE TO HAVE GRASS AS END-TREATMENT.
3. SEWER BEDDING AND BACKFILL FOR STORM SEWER SHALL BE AS PER O.P.S.D. 802.030 CLASS 'B' WITH GRANULAR 'A' BEDDING FOR CONCRETE PIPE, 802.010 FOR PVC PIPE AND 802.050 CLASS 'B' BEDDING FOR HORIZONTAL ELLIPTICAL PIPE.
4. STORM MANHOLES AS PER O.P.S.D. 701.010, 701.011, 701.012, 701.013 AND WITH SIZE AS NOTED ON DRAWINGS.
5. FRAME AND COVER AS PER O.P.S.D. 401.010 TYPE 'B' SAFETY PLATFORMS AS PER O.P.S.D. 404.020 AND SHALL BE INSTALLED IN MANHOLES WHERE DEPTH EXCEEDS 5.0m. STORM MANHOLE BENCHING TO BE TO OVERTOP OF PIPE AND AS PER O.P.S.D. 701.021. MINIMUM 230mm IN WIDTH AND TO CROWN OR AS SPECIFIED ON DRAWINGS.
6. ALL STRUCTURES TO HAVE FROST STRAPS AS PER OPSD 701.100.

UTILITY NOTES

1. THE LOCATION OF EXISTING UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF UTILITIES BY CONSULTING THE APPROPRIATE MUNICIPAL AND/OR UTILITY AUTHORITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE PROTECTION FOR UTILITIES AGAINST DAMAGE DURING CONSTRUCTION.
3. UTILITY DUCTS SHALL BE PLACED PRIOR TO THE COMMENCEMENT OF ROAD BASE CONSTRUCTION AND CAPPED IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY AUTHORITY.
4. PRIOR TO INSTALLING UTILITIES, BOULEVARD GRADING SHALL BE COMPLETED TO WITHIN 150mm OF PROPOSED FINAL GRADING ELEVATIONS.

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<u>NOTICE TO CONTRACTOR</u>	
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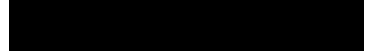


KEY PLAN - NTS

LEGEND



8	24/11/2023	SEVENTH SUBMISSION	JC	CAB
7	27/10/2023	SIXTH SUBMISSION	JC	CAB
6	17/07/2023	FIFTH SUBMISSION	JC	CAB
5A	09/05/2023	FINAL CUP SUBMISSION	JC	CAB
5	17/02/2023	FOURTH SUBMISSION	JC	CAB
REV	DATE	DESCRIPTION	BY	APP

	PART OF LOT 89, REGISTERED PLAN 529, (FORMERLY TOWNSHIP OF COLLINGWOOD), TOWN OF THE BLUE MOUNTAINS, COUNTRY OF GREY
	LEGAL DESCRIPTION ELEVATIONS ARE GEODETIC AND ARE REFERRED TO THE BENCHMARK: BENCHMARK No. : 001199723U314, ELEVATION = 178.304m (DATUM: CGVD28: 78) BENCHMARK



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TORONTO, ON, M6S 4A9

PROJECT

**PROPOSED DETACHED
RESIDENTIAL SUBDIVISION**
139 BROPHY'S LANE
BLUE MOUNTAIN, ON

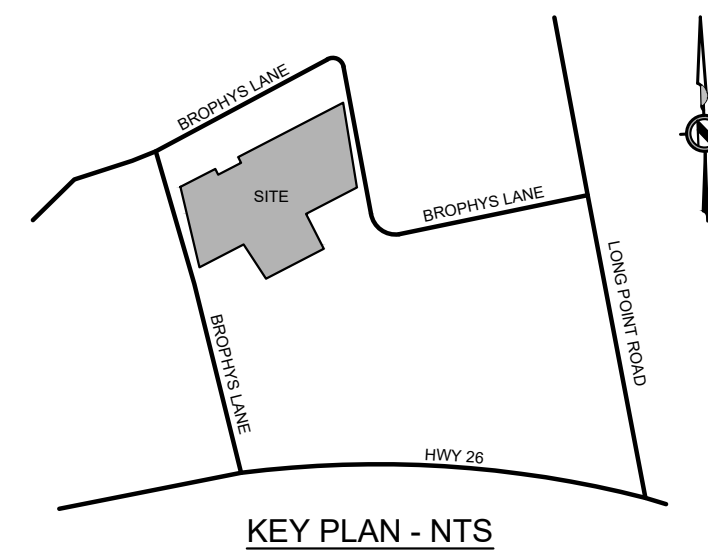
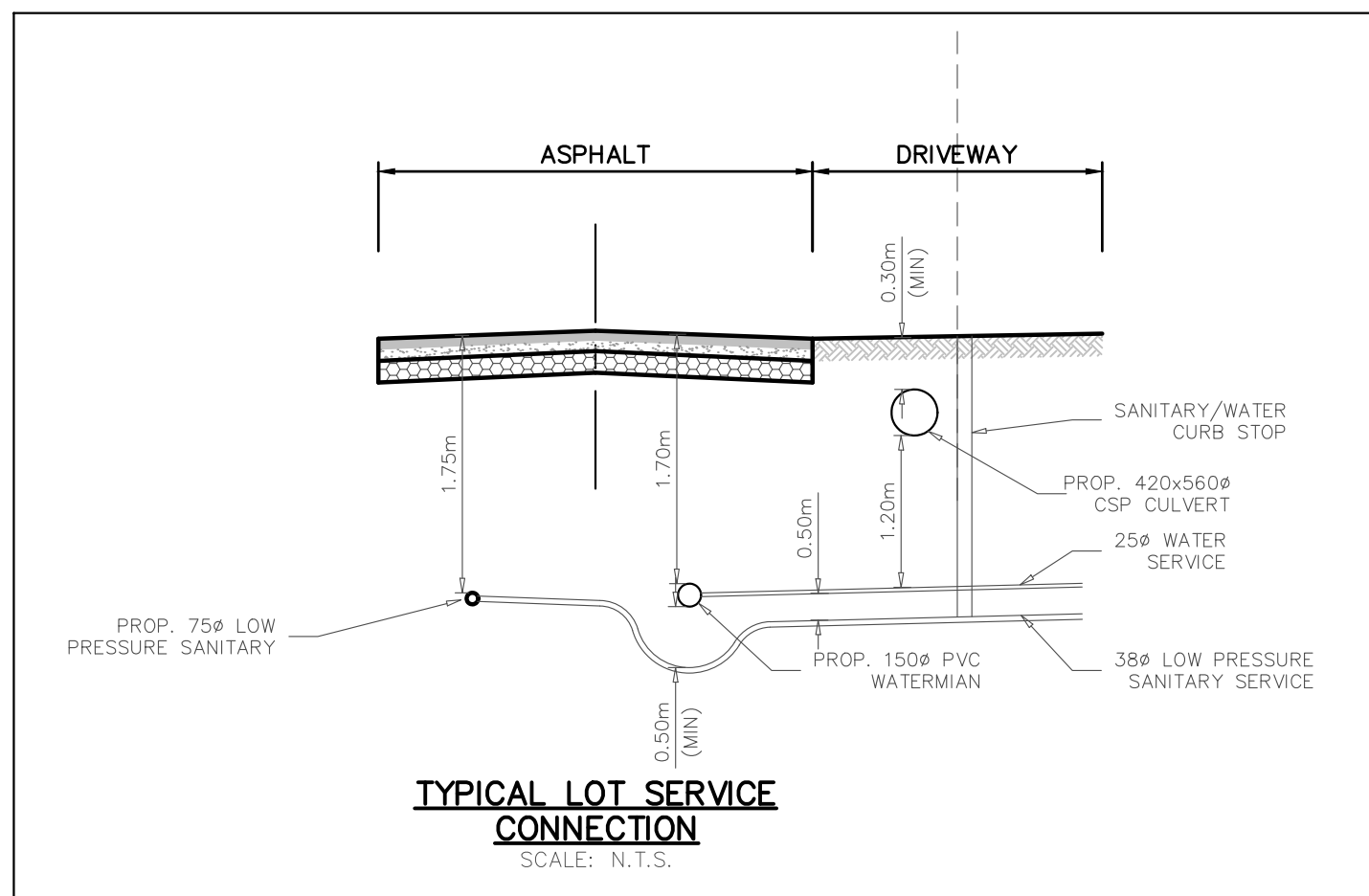
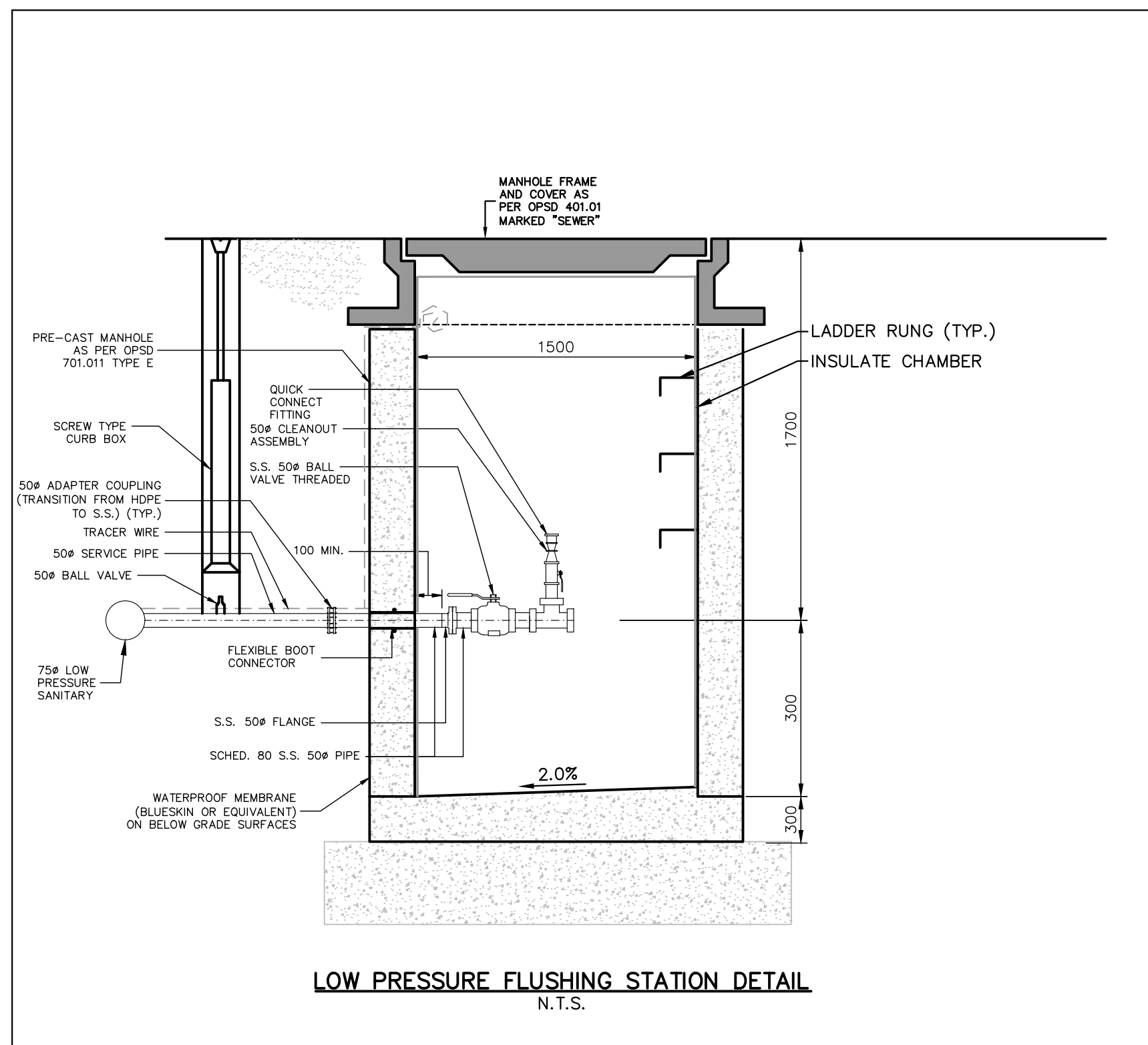
DRAWING TITLE

STANDARD NOTES

TOWN FILE: P2452E

DESIGN JC	DATE NOVEMBER, 2020	SCALE	
DRAWN JC	PROJECT NO. 20-7031	N/A	
CHECKED CAB	DRAWING NO.	C14	REV.
APPROVED CAB			8





LEGEND

Town of Blue Mountains
Planning and Development Services
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date

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REV	DATE	DESCRIPTION	BY	APP

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PROJECT	
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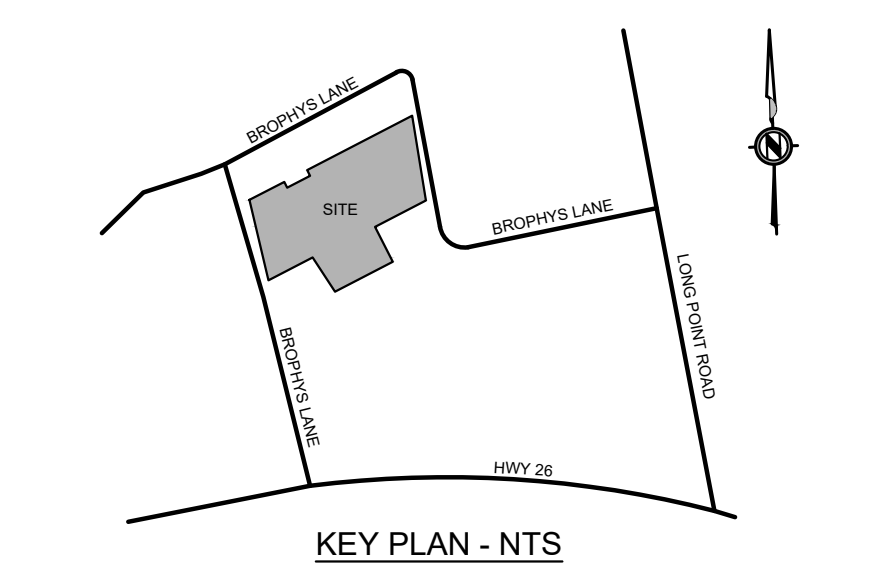
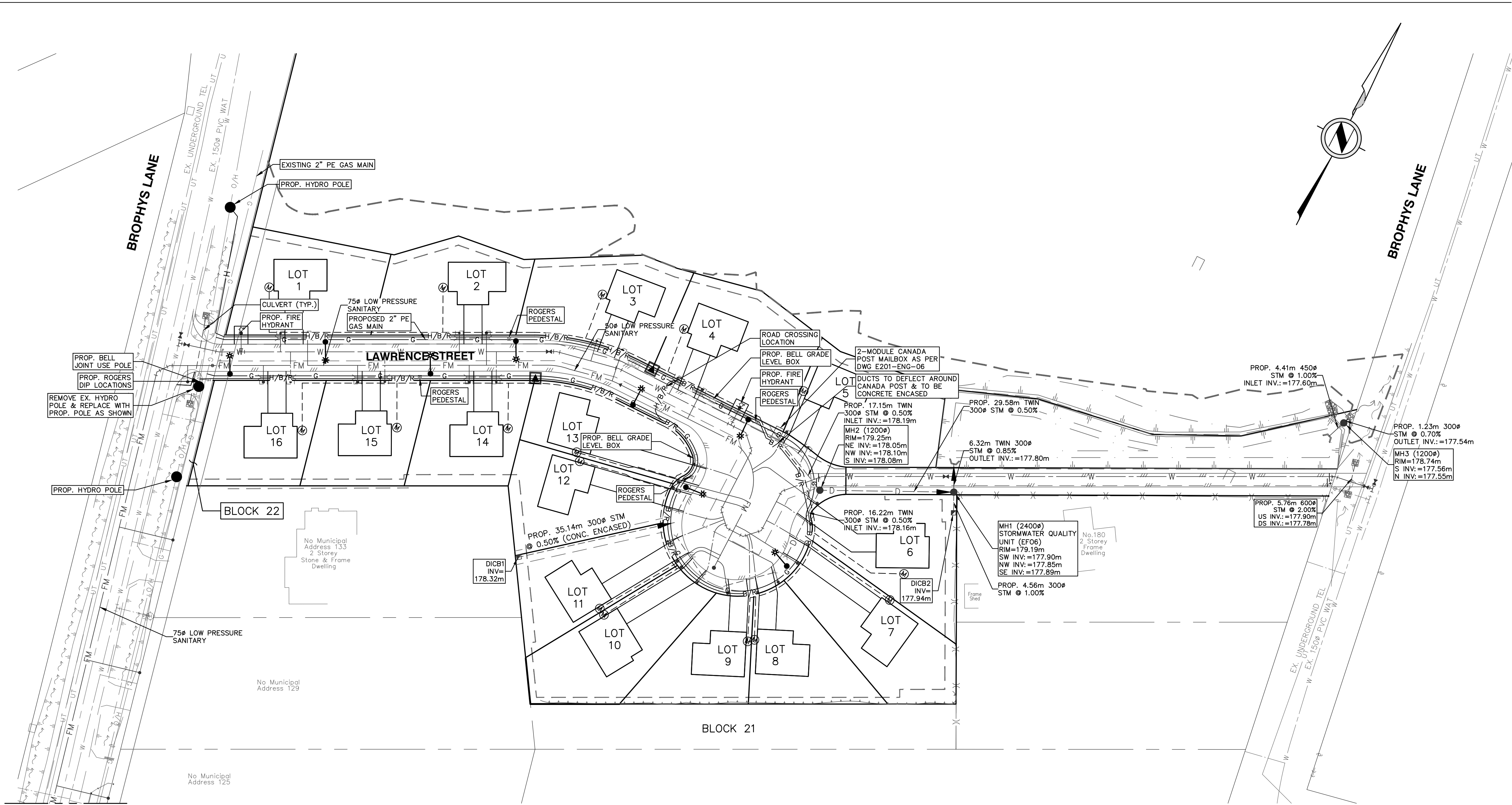
**PROPOSED DETACHED
RESIDENTIAL SUBDIVISION**
139 BROPHY'S LANE
BLUE MOUNTAIN, ON

DRAWING TITLE

STANDARD DETAILS

TOWN FILE: P2452E

DESIGN JC	DATE NOVEMBER, 2020	SCALE	
DRAWN JC	PROJECT NO. 20-7031	N/A	
CHECKED CAB	DRAWING NO. C16		REV. 8
APPROVED CAB			



LEGEND	
PROPERTY LINE	---
EXISTING/PROPOSED WATERMAIN	---/---
EXISTING UNDERGROUND TELECOMMUNICATION	UT
EXISTING/PROPOSED GAS MAIN	---/---
EXISTING OVERHEAD HYDRO	O/H
EXISTING EDGE OF GRAVEL	---
EXISTING/PROPOSED TOP OF BANK	---
PROPOSED BOTTOM OF BANK	---
EXISTING DITCH CENTERLINE	---
JOINT UTILITY TRENCH	---
PROPOSED HYDRO DISTRIBUTION	---
PROPOSED STREETLIGHT DISTRIBUTION	---
PROPOSED UNDERGROUND HYDRO	H
HYDRO/BELL/ROGERS	H/B/R
PROPOSED LOW PRESSURE SANITARY	FM
PROPOSED STORM SEWER	D
PROPOSED STORM CULVERT	---
PROPOSED SANITARY SERVICE C/W VALVE BOX	---
PROPOSED WATER SERVICE C/W CURB STOP	---
PROPOSED EDGE OF PAVEMENT	---
EXISTING/PROPOSED FIRE HYDRANT	---
EXISTING WATER VALVE	---
EXISTING/PROPOSED MANHOLE	---
EXISTING BELL PEDESTAL	---
EXISTING HYDRO POLE	---
EXISTING GUY WIRE	---
METER BASE	M
STREET LIGHT	---
PROPOSED TRANSFORMER	---
PROPOSED BELL GRADE LEVEL BOX	---
ROGERS PEDESTAL	---

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REV	DATE	DESCRIPTION	BY	APP

PART OF LOT 89, REGISTERED PLAN 529, (FORMERLY TOWNSHIP OF COLLINGWOOD), TOWN OF THE BLUE MOUNTAINS, COUNTRY OF GREY

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PROJECT

PROPOSED DETACHED RESIDENTIAL SUBDIVISION
139 BROPHY'S LANE
BLUE MOUNTAIN, ON

DRAWING TITLE

COMPOSITE UTILITY PLAN

TOWN FILE: P2452E	
DESIGN JC	DATE NOVEMBER, 2020
DRAWN JC	PROJECT NO. 20-7031
CHECKED CAB	DRAWING NO. C18
APPROVED CAB	REV. 8

REVIEWED	BY	DATE
BELL CANADA		
HYDRO ONE		
ENBRIDGE GAS		
ROGERS		
CANADA POST		

Town of Blue Mountains
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4 Feb 2025
date

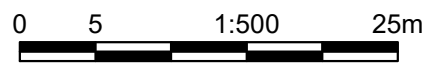
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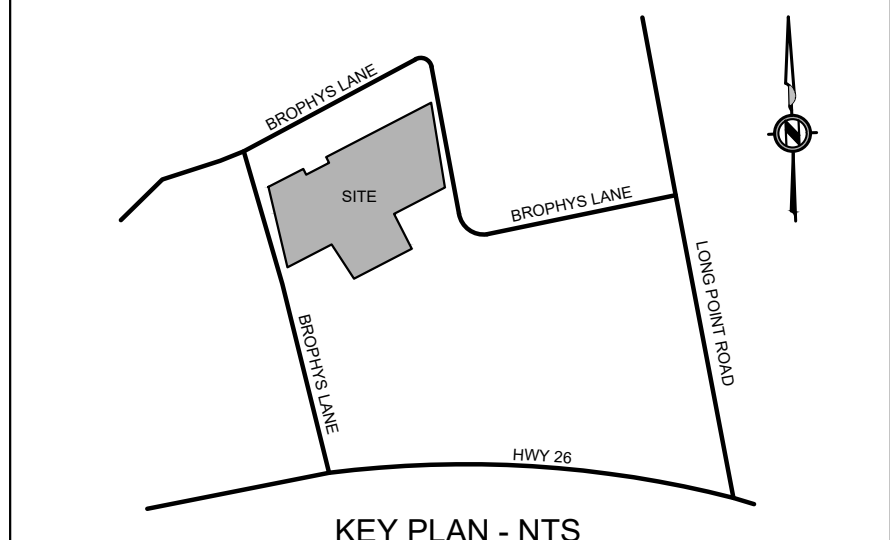
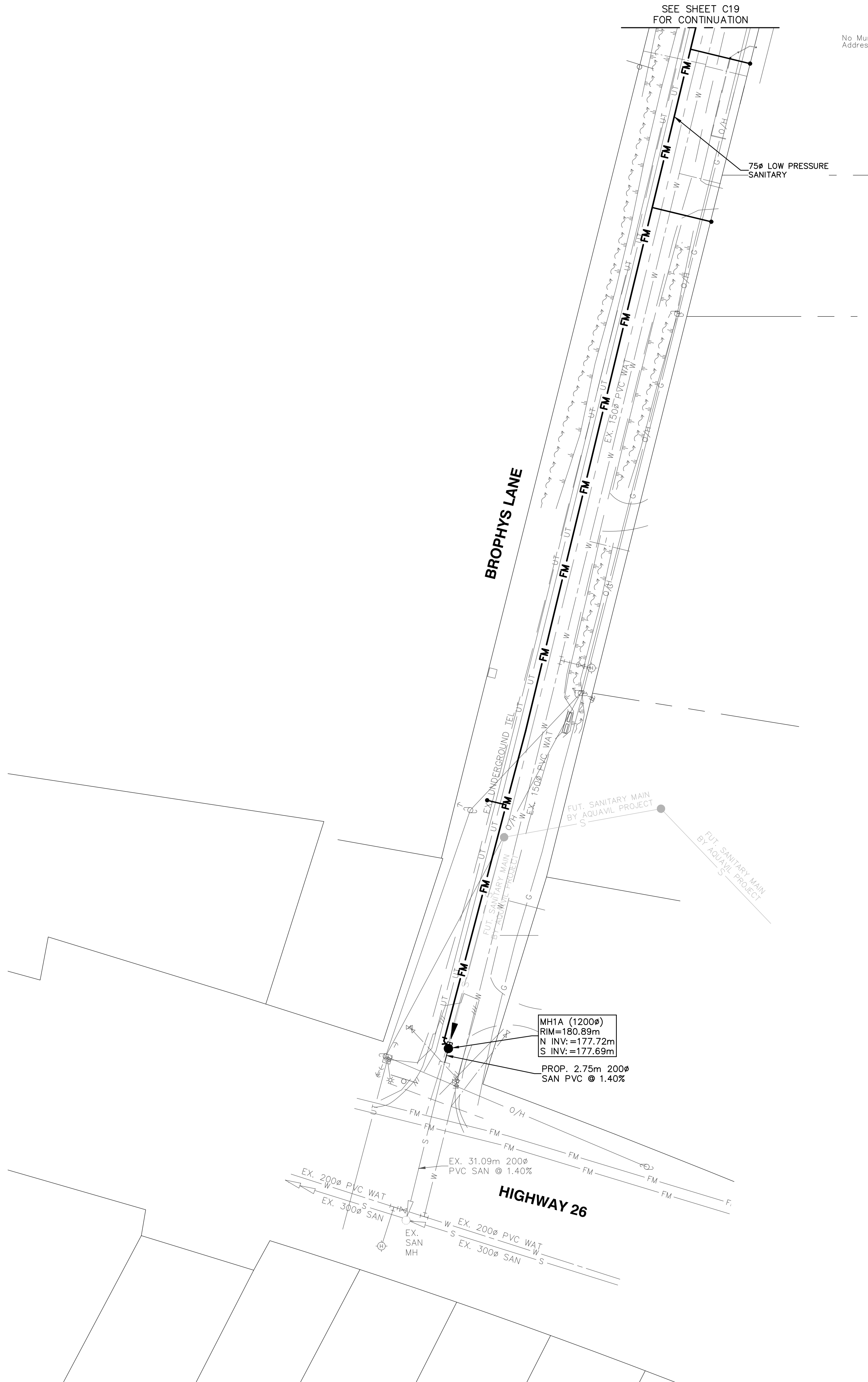
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LEGEND	
PROPERTY LINE	—
EXISTING SANITARY SEWER	— S —
EXISTING WATERMAIN	— W —
EXISTING UNDERGROUND TELECOMMUNICATION	— UT —
EXISTING GAS MAIN	— G —
EXISTING RETAINING WALL	— — — —
EXISTING EDGE OF GRAVEL	— — — —
EXISTING EDGE OF PAVEMENT	— — — —
EXISTING TOP OF BANK	— — — —
EXISTING DITCH CENTERLINE	— — — —
EXISTING FIRE HYDRANT	— — — —
EXISTING WATER VALVE	— — — —
EXISTING/PROPOSED MANHOLE	— — — —
EXISTING BELL PEDESTAL	— — — —
EXISTING HYDRO POLE	— — — —
EXISTING GUY WIRE	— — — —

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PART OF LOT 89, REGISTERED PLAN 529, (FORMERLY TOWNSHIP OF COLLINGWOOD), TOWN OF THE BLUE MOUNTAINS, COUNTRY OF GREY

LEGAL DESCRIPTION

ELEVATIONS ARE GEODETIC AND ARE REFERRED TO THE BENCHMARK. BENCHMARK No. : 00119972U314, ELEVATION = 178.304m (DATUM: CGVD28: 78) BENCHMARK

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TORONTO, ON, M6S 4A9

PROJECT

PROPOSED DETACHED RESIDENTIAL SUBDIVISION
139 BROPHY'S LANE
BLUE MOUNTAIN, ON

DRAWING TITLE

COMPOSITE UTILITY PLAN

TOWN FILE: P2452E			
DESIGN JC	DATE NOVEMBER, 2020	SCALE H: 1:500 V: N/A	
DRAWN JC	PROJECT NO. 20-7031		
CHECKED CAB	DRAWING NO. C19		
APPROVED CAB		REV. 8	

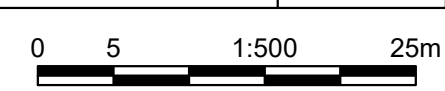
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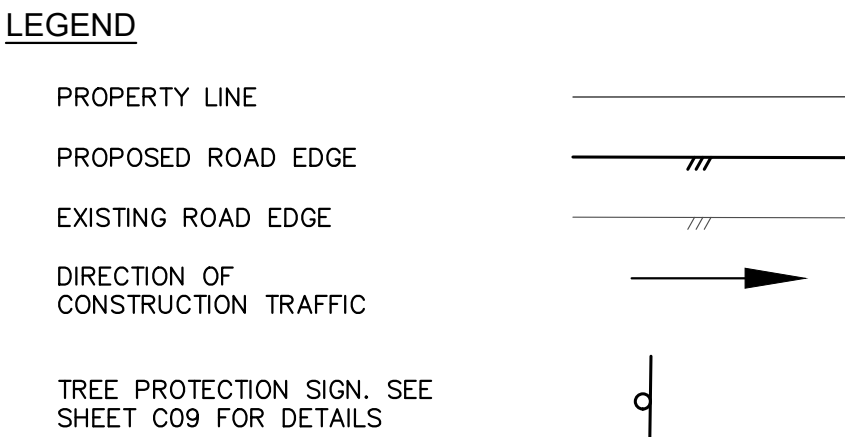
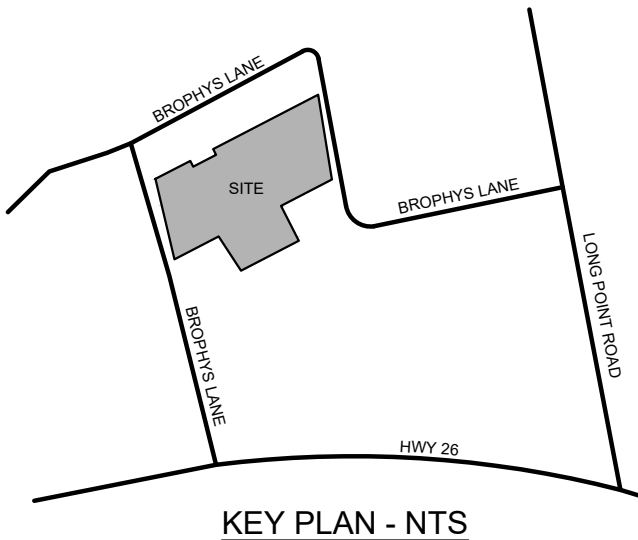
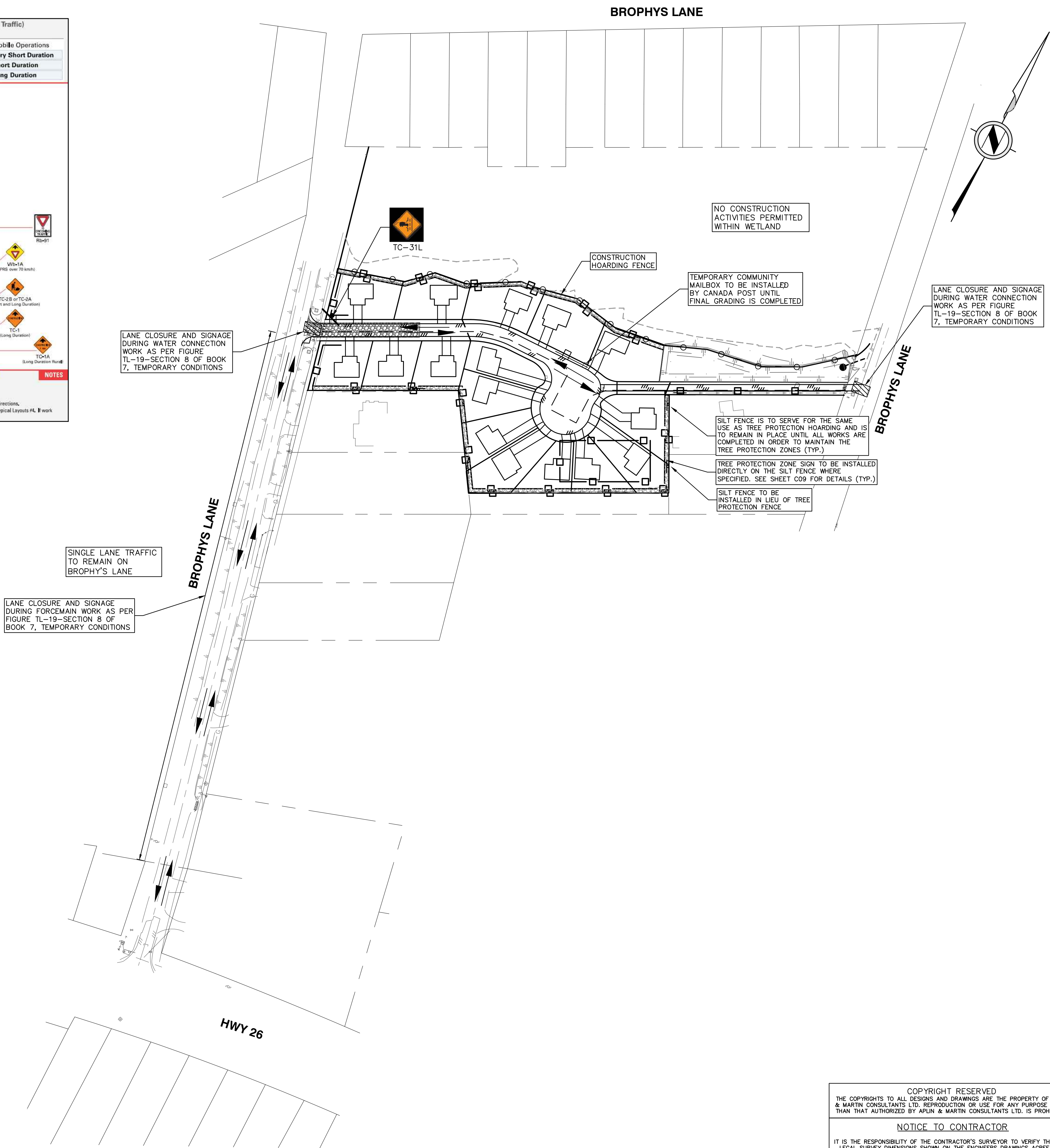
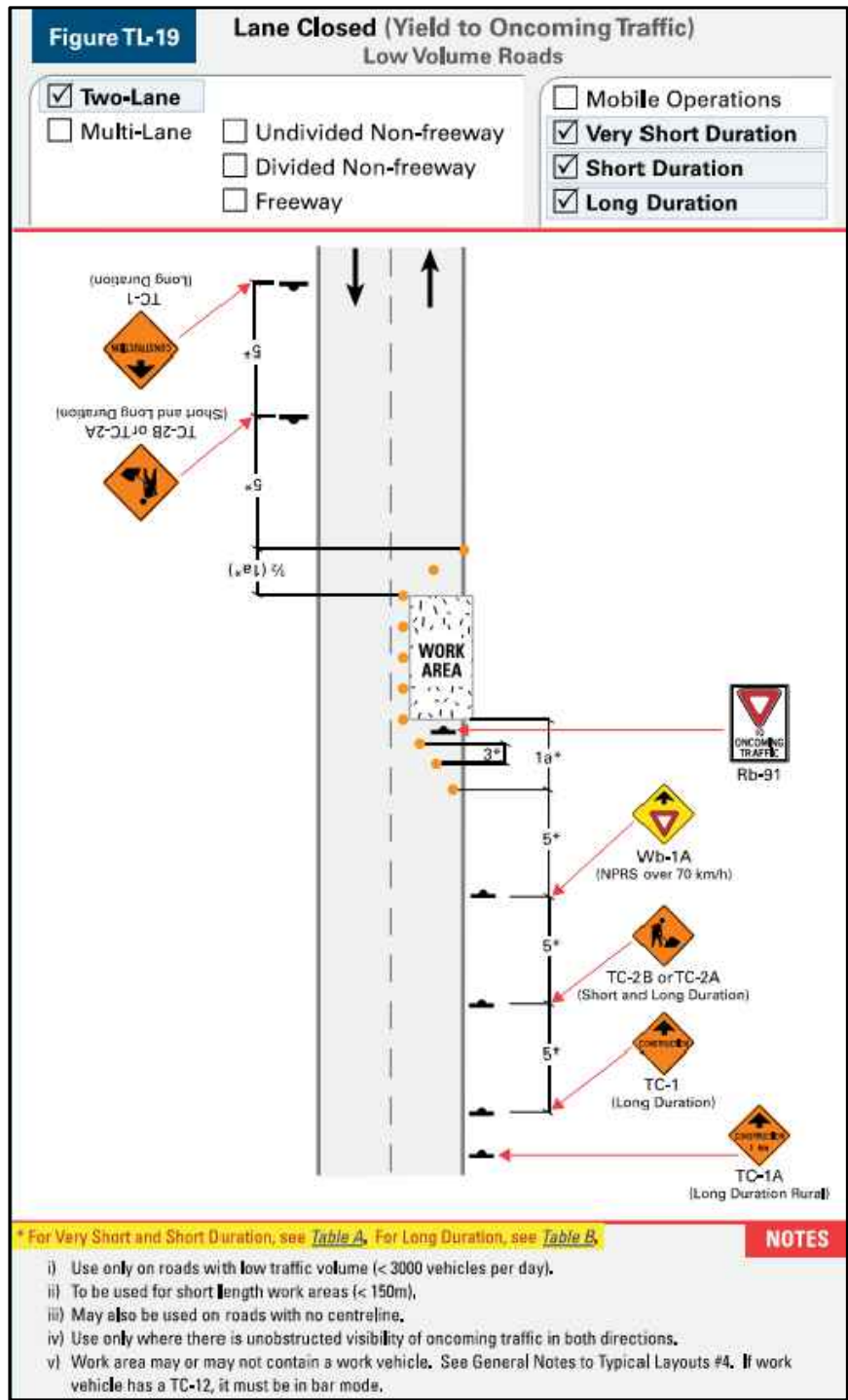
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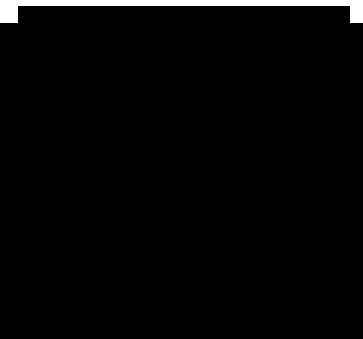


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COUNTRY OF GREY

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BENCHMARK



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246 RIVERSIDE DRIVE
TORONTO, ON, M6S 4A9

PROJECT

**PROPOSED DETACHED
RESIDENTIAL SUBDIVISION**
139 BROPHY'S LANE
BLUE MOUNTAIN, ON

DRAWING TITLE

COORDINATION PLAN

TOWN FILE: P2452E

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NOTICE TO CONTRACTOR

IT IS THE RESPONSIBILITY OF THE CONTRACTOR'S SURVEYOR TO VERIFY THAT ALL LEGAL SURVEY DIMENSIONS SHOWN ON THE ENGINEERS DRAWINGS AGREE WITH THOSE ON THE REGISTERED LEGAL SURVEY PLAN. SHOULD THERE BE ANY DISCREPANCIES, THEN IMMEDIATELY NOTIFY THE ENGINEER OF RECORD

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY & HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

DESIGN JC	DATE NOVEMBER, 2020	SCALE H: 1:1000 V: N/A
DRAWN JC	PROJECT NO. 20-7031	
CHECKED CAB	DRAWING NO. C20	REV. 8
APPROVED CAB		

0 10 1:1000 50m

5. CONSTRUCTION 5.1. Construction Preparation & Requirements The purpose of this section is to outline the requirements and best practices for construction of municipal infrastructure and private works in the Town of The Blue Mountains. These requirements are to provide direction and outline expectations to the developers, engineers and contractors related to the construction of infrastructure and works but does not relieve the developer or proponent of the infrastructure and works of the responsibility for submitting a completed project demonstrating competent engineering in full compliance with all applicable legislation, Town Standards and relevant guidelines. 5.1.1. General Site development shall require full time inspection by the developer's Engineer of Record during any construction activities associated with underground construction or construction that requires ongoing (A/C/C, i.e. curb pouring, paving, etc.). Non-resident inspection is acceptable for construction stages that can be readily corrected if deficiencies are found upon inspection. 5.1.2. Health and Safety Throughout the life of all construction projects, it is the responsibility of all personnel to adhere to the requirements outlined in the current version of the Occupational Health & Safety Act (OHSA). The Developer or Proponent shall be responsible to ensure that their employees, contractors, and consulting engineers comply with the regulations and requirements set out in the OHSA. Other regulations that are of concern on all construction sites include: traffic control, confined space entry, working from heights, trench safety, working in noisy environments, Workplace Hazardous Material Information System (WHMIS) The Contractor of any works occurring on Town Land shall have a written Traffic Control Plan and traffic control measures in place as defined in the Plan. Constructors working in new subdivisions shall be advised that the rights of way, blocks, and roads in the new subdivision are Town Land once the subdivision is assumed and are considered open roads once occupancy is granted to any home in the subdivision. Developer or Proponent shall ensure that staging/storage of material on open roads or sidewalks are removed, and the road/sidewalk cleaned by 4:30 pm each day Monday to Friday. No staging/storage of materials is allowed on weekends or holidays or between November 1st and April 1st which is the winter control season. At no time shall staging/storage of material restrict an open road to less than a 6.0 m wide clear route for emergency vehicle passage. Emergency vehicles have planned routes through the road network for emergency response and they rely on these routes to be clear of obstructions. Construction equipment and vehicles associated with the construction must also adhere to the same restrictions as staging and storage of material on open roads. Town of The Blue Mountains Engineering Standards – May 29 2023 Page 118 of 139		
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• The contractor shall assume responsibility of ordering and placing all signage and pavement markings as required for traffic control and traffic notification and inform the engineer of any impacts on the schedule. • The engineer assumes responsibility of being the point contact for the Town and the public and shall oversee the implementation of the plan. • The Town will make information prepared to communicate with those affected available on the Town website. The Town will also make information prepared available to Town and emergency services. 5.2. Municipal Infrastructure 5.2.1. General Design or construction alterations to the A/C drawings must be reviewed and approved by the Town prior to the changes being constructed. The Contractor shall have a set of clean A/C drawings updated with As-Constructed data recorded on the drawings that is not older than two working days available within 24 hours of Town request during construction. The As-Constructed redline drawings shall be presented to the engineer as a condition of Substantial Performance. The Consultant shall provide a scanned copy of the As-Constructed redline drawing to the Town as a condition the Basic Services Certificate. The As-Constructed drawings are to not Record Drawings and should be considered supplementary to the Consultant's requirement to provide Record Drawings. The Consultant shall have a clean set of A/C drawings, updated with data that will add completion of the Record Drawings results that is not older than two working days on site at all times. The drawings shall record the location of pipe bedding, cover and trench backfill compaction testing, showing both failed tests and passed tests. The location of passed test results shall be no further apart than 60 m horizontally 600 mm vertically. Record Drawings shall be prepared in accordance with section 3.6 Record Documents. Town of The Blue Mountains Engineering Standards – May 29 2023 Page 126 of 139		
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5.4.2. Thrust Restraint Thrust restraint shall be achieved through mechanical joint restraint. The contractor shall have the required length of joint restraint calculated for the entire water supply system prior to beginning the water system installation. The required length of joint restraint for all locations in the system shall be provided to the Town at the pre-construction meeting. The location and details of the joint restraints installed shall be recorded on the As-Constructed and Record Drawings. 5.4.3. Cathodic Protection Metallic watermain and appurtenances shall be protected with Cathodes. The location and details of the cathodic protection installed shall be recorded on the As-Constructed and Record Drawings. 5.4.4. Service Connections Service connections shall be installed in the Town right-of-way within 100 mm of the property being serviced and the valve box shall be marked with a wooden marker painted blue with the service tail attached to the marker terminating at least 600 mm above grade and capped or crimped. 5.4.5. Testing and Acceptance The complete water system including service connections to the property line and hydrants shall be tested in accordance with "The Blue Mountains Watermain Commissioning Protocol" available on the Town's website. Testing of the Water System shall be done with the participation of the Water Department. 5.5. Roads 5.5.1. Road Works Road work shall not commence until siltation and erosion controls measures are in place and potential discharge route from the construction is prepared. The Record Drawings shall contain all actual elevations, grades, lengths, locations, material types, sizes of works incorporated into the complete road system. Elevations at 40m intervals: • Sub-grade at centreline and the theoretical edge of asphalt. • Top of road base at centreline and theoretical edge of asphalt. • Prod rolls of the sub-grade and sub-base shall be done in coordination with the Town Inspector. 5.5.2. Entrances The Entrances are the section of a driveway that is constructed between the travelled portion of the road and the subject lot property line.

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5.1.3. Town Inspector's Responsibilities During Construction The Town does not provide full time inspection of construction sites. The Town reserves the right to attend construction sites where works are being constructed on Town lands, future Town lands or lands under Site Plan Control. The developer or proponent of the works shall retain responsibility for the quality of the work and all construction activities regardless of attendance by the Town. As indicated in the development agreement it is the developer or proponent's responsibility to administer the conditions of the agreement, the construction activities as well as the design and inspection of said works. The role of the Town Inspector shall include that they: • Coordinate with the developer's engineer on matters pertaining to construction progress. • Provide periodic site inspections to monitor adherence to municipal Engineering Standards and construction of work to approved drawings. Attendance by the Town does not relieve the developer's responsibility to assure works are constructed in conformance with Engineering Standards and or approved drawings. • Periodically inspect in conjunction with the engineer's full-time inspection the construction of sanitary and storm collection systems, water distribution systems, road systems, street lighting system, stormwater management facilities. • Witness testing of all municipal infrastructure on Town Lands including mandated testing and CCTV inspection of storm and sanitary sewers, leakage testing of storm and sanitary systems inclusive of structures, street illumination testing, traffic light system testing. • Witness proof-roll of road sub-grade prior to placement of sub-base prior to placement of base. • Witness final grading of base by a road grader prior to placement of base asphalt. • Witness watermain commissioning including certification of backflow preventer if used, swabbing, pressure testing, injection of disinfecting chlorine along with flushing and sampling for bacteriological testing, receiving laboratory test results and coordination with the Town's Water department. • Participate in joint inspection with the developer's engineer for benchmark stages in the development ahead of Town certification required by the agreement. • Monitor compliance with the conditions of the development agreement. • Review requests for security reduction and release. • Review field design changes in conjunction with the manager of Development Engineering and Infrastructure Managers of the systems affected. • Any other inspections required by the Town associated with the development. Town of The Blue Mountains Engineering Standards – May 29 2023 Page 119 of 139		
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In areas where it is difficult to control the infiltration of ground water into the sewer trenches, clear stone may be used provided it is wrapped in a suitable geotextile, selected, and installed in accordance with the Geotechnical engineer's requirement. 5.2.1.4. Maintenance Holes (General) All maintenance hole installations shall include frost straps (min. 4.0 m depth) as per OPSD 701.100 (Rev November 2018). The Record Drawings shall include the details on frost straps installed during construction including the depth to which the strap is installed. 5.2.1.5. Frames and Grates (General) All maintenance structures shall include access frames and grates. Frames shall be set flush to base asphalt elevation when surface asphalt will be delayed for more than one month. Catch basin maintenance hole and catch basin frames and grates shall be set to base course asphalt elevation and the curb for 3 m behind the structures shall be temporary asphalt per OPSD 601.010. Refer to Section 4.6.4 for additional design details as required. 5.2.2. Stormwater Management System 5.2.2.1. General Construction of the stormwater management system must consider ESCM as a priority because stormwater is the major mechanism for erosion and sediment transport on any construction site. The location of the stormwater management system is typically in the route of the subdivision drainage which makes ESCM critical during construction when the land is opened and following construction when the system can collect soils being transported storm events. Construction of stormwater management facilities shall require full time inspection by the Engineer of Record during any construction activities. 5.2.2.2. SWM Facility Acceptance for Basic Services / Final Certification Requirements Prior to acceptance of the Stormwater Management Facility acceptance for Basic Services or Final Certification the following information shall be submitted to the Town: • SWM Facility cleaning: sediment shall be completely removed from the SWM Facility. Prior to cleaning, the developer shall conduct a topographic/bathymetric survey of the entire facility and provide the Town with the following: ○ Plan and profile drawings matching the accept for construction drawing set and facility cross-section drawings at 20 m stations showing the design and post cleaning grades. ○ The permanent and active pond volumes as designed are present. ○ Record elevations of inlet(s), outlet(s), weirs, forebays, berms, emergency spillway and any other hydraulic structures within the facility; and, ○ Plan & profile record drawings of the facility showing maintenance access and representative sections of the various pond sections. • The developer shall provide the Town with Engineering Certification indicating that all components of the facility are in good repair and that they have been installed in conformance with the approved SWM report and detailed design. A comparison table shall be provided showing the design and record pond attributes (inlet/outlet pipe size and inverts, control structures, orifice size and invert, forebay berm elevation, side slopes, emergency spill way, and any other hydraulic structures in the facility) including shape/storage/overflow characteristics. Any deviation between design and record information shall be identified in the report with remediation measures proposed. • The developer shall collect field data and develop a rating curve for the hydraulic outlet control structure(s) and submit to the Town to demonstrate that the facility is functioning as designed to the satisfaction of the Town. • A copy of the MCEP Environmental Compliance Approval. • A copy of an acceptance letter from the Town. The developer shall submit to the Town a completed SWM Facility General Information Form sealed by a professional engineer licensed in Ontario. Upon receipt of the above information, the Town will perform verification checks to confirm sediment removal, facility permanent pool capacity, proper hydraulic and performance function, the condition of the facility is satisfactory and will provide subsequent feedback if deficiencies are found.
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Town related inspections include: • Investigate any complaints pursuant to the construction process received by the Town and forward the information to the developer, the Engineer of Record and/or the proponent for corrective action. • Periodically inspect erosion and sediment control measures (ESCM) including mud mats, temporary siltation control ponds, silt fences, straw bale, and rock flow checks, etc. to monitor proper maintenance and function of the elements is being addressed. The Town shall report any infractions to the developer, the developer's engineer and/or the proponent for corrective action. Should the developer, the developer's engineer and/or the proponent fail to initiate corrective actions in a timely fashion the Town may decide to have corrective actions undertaken by Town forces or contract services. All related costs will be charged back to the developer or proponent as per the terms of the development agreement. The Developer or their Engineer is responsible for notifying the Town of any milestone event as identified above for inspection/review a minimum of 48 hours in advance of any milestone. 5.1.4. Developer's Engineer, Developer or Proponent Responsibilities During Construction The developer or proponent shall have an Engineer of Record (Licensed by PEO with a Certificate of Authorization) engaged to represent them as per the development agreement. Where the project is of a minor nature and no development agreement is in place the developer or proponent may represent themselves. The role of the Engineer of Record shall include the following tasks as a minimum. Additional site specific tasks may be necessary. The objective is that inspection reflects the Professional responsibility of the Professional Engineer of Record for the project and ensures that quality assurance is completed for all aspects for the design for both the Town and other impacted stakeholders. • Coordinate works within the site and ensure all documentation (drawings, certifications, permit etc.) are relayed by the Town. • Review all grade sheets related to works and notify contractor if discrepancies exist between accepted for construction (AFC) drawings and grade sheets prior to construction. • Inspection, testing and certification of all works including underground works, above ground works, excavation grading and backfill, road sub-grade, sub-base base and pavements, curbs and sidewalks, boulevard grading, topsoil ground cover landscaping. • Coordinate sub-consultant testing to assure test undertaken are sufficient to ensure certification. • Grading Inspections and certification of all lot grading and all lot grading complaints. • Review CCTV inspection video of all sanitary and storm sewer collection systems as a condition of Town certification of Basic Services and Final Certification, report all deficiencies and provide CCTV inspection video before and after deficiencies corrected. Town of The Blue Mountains Engineering Standards – May 29 2023 Page 121 of 139		
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• Prior to disposal of sediment, the developer shall sample the sediment following acceptable methods, criteria and guidelines and provide the Town with a sediment sampling report, including test results for peer review. The report shall be signed by a qualified person. • After sediment removal and site restoration, the developer shall conduct a topographic/bathymetric survey of the entire facility and provide the Town with Record Drawings in AutoCAD and pdf format demonstrating: ○ All accumulated sediment has been removed. ○ Plan and profile drawings matching the accept for construction drawings set and facility cross-section drawings at 20 m stations showing the design and post cleaning grades. ○ The permanent and active pond volumes as designed are present. ○ Record elevations of inlet(s), outlet(s), weirs, forebays, berms, emergency spillway and any other hydraulic structures within the facility; and, ○ Plan & profile record drawings of the facility showing maintenance access and representative sections of the various pond sections. • The developer shall provide the Town with Engineering Certification indicating that all components of the facility are in good repair and that they have been installed in conformance with the approved SWM report and detailed design. A comparison table shall be provided showing the design and record pond attributes (inlet/outlet pipe size and inverts, control structures, orifice size and invert, forebay berm elevation, side slopes, emergency spill way, and any other hydraulic structures in the facility) including shape/storage/overflow characteristics. Any deviation between design and record information shall be identified in the report with remediation measures proposed. • The developer shall collect field data and develop a rating curve for the hydraulic outlet control structure(s) and submit to the Town to demonstrate that the facility is functioning as designed to the satisfaction of the Town. • A copy of the MCEP Environmental Compliance Approval. • A copy of an acceptance letter from the Town. The developer shall submit to the Town a completed SWM Facility General Information Form sealed by a professional engineer licensed in Ontario. Upon receipt of the above information, the Town will perform verification checks to confirm sediment removal, facility permanent pool capacity, proper hydraulic and performance function, the condition of the facility is satisfactory and will provide subsequent feedback if deficiencies are found.
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Ensure all CCTV inspections are performed in conformance with the Town's requirements). • Certification of all constructed municipal infrastructure systems. • Review all geotechnical testing results (soil, aggregate, concrete, and asphalt) and provide recommendations as required. Provide trench backfill testing locations visually represented on a plan and profile drawing with the test number and compaction shown as indicated no test location is more than 60 m apart horizontally nor 600 mm vertically from another. • Review and monitor all environmental issues including erosion control and sediment migration control (wind, water and traffic borne), noise, tree preservation, well monitoring, water quality requirements by authorities having jurisdiction etc. • Notify the contractor of any deficiencies in the work and instructing the contractor to take appropriate corrective measures, then confirm and report to the Town the results of the corrective measures. • Promote on-site safety. • Ensure the site work and construction activities do not affect surrounding lands such as mud tracking, redirected runoff causing erosion, wind borne dust etc. and if present conduct immediate remediation. • Respond to concerns, inquiries, complaints and provide appropriate corrective measures in a timely manner. • Identify and record all materials incorporated into the works, identify and reject all materials that do not meet the project specifications. Town Standards or unsuitable for installation due to condition or damage. Assure all materials incorporated are suitable for the project. • Distribution of all documents, reports, and test results to appropriate parties. • Coordinate and attend the project pre-construction and construction progress meetings including preparation and distribution of meeting minutes. • Coordinate all infrastructure testing with the Town Staff. Any municipal infrastructure testing conducted without Town Staff being provided adequate notice to allow them to attend at their discretion shall be considered developer assurance testing and the system tested shall be considered untested by the Town. It is the Developer's Engineer's responsibility to document notification of the Town. • Provide certification of testing, service record sheets for each lot and revised AFC drawings to record drawing standard as a condition of Town certification of Basic Services. • Monitor the site monthly (minimum) during municipal infrastructure construction hiatus during the construction of homes and provide a report on the municipal infrastructure condition and site activity every six months following issuance of the Town certification

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5.2.2.3. Landscaping of Stormwater Management Systems Landscaping within a SWM facility as well as stormwater management systems shall have a two-year warranty period. 5.2.2.4. Operating and Maintenance Manuals The facility's Operation & Maintenance Manuals shall be provided to the satisfaction of the Town as a condition of Certificate of Basic Services. 5.2.2.5. Storm Sewer Storm sewer installation shall not commence until siltation and erosion controls measures are in place and potential discharge route from the construction is prepared. The subdivision stormwater management facility or temporary stormwater management facilities are constructed and prepared to receive flows from the storm sewer construction. 5.2.2.6. Frames and Grates As per Section 4.4.3. 5.2.2.7. Ditches and Culverts Design ditch grades shall be provided for the ditch inverts on the projection of side lot lines for all blocks and lots in the subdivision. Design culvert sizes shall be shown on the plan and profile drawings. 5.2.2.8. Connections to Ditches and Storm Sewers Sump pump discharge, rainwater leaders, roof drain leaders, area drains, field tile drains, etc. shall not be discharged directly to the roadside or municipal ditches. Drainage of this nature may be discharged to the surface or to a dry well on private property. Collection and concentration of stormwater or ground water with point discharging such as a sump pump outlet must cause a nuisance such as erosion, ponding, ice accretion etc. on public or private neighbouring lands. 5.2.3. Testing and Acceptance The complete sewer system including service connections to the property line and maintenance holes shall be tested in accordance with the requirements of OPSD for the type of pipe installed. Leakage testing shall be conducted on the entire system including structures. Deformation gauge (Pig) test as required by OPSD is required for the type of pipe installed. All pipe works shall have a CCTV inspection as per OPSD 409 completed as part of the preliminary and final acceptance inspections. Testing of the Storm Sewer System shall be done with the participation of the Town inspector, who will coordinate with the department responsible for operating the system at assumption.

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5.6.5. Pavement Markings All roadway markings shall be installed on base course asphalt as a condition of Basic Services if base course asphalt will remain as the primary surface for more than three months. The permanent roadway markings shall be installed on surface course asphalt as a condition of the Town Completion Certificate. 5.7. Traffic Signals Traffic Signals shall be commissioned as per the appropriate requirements including the MTO Ontario Traffic Manual Book 12. 5.8. Street Lighting Prior to energizing the street lighting system, the electrical engineer shall obtain from the contractor a copy of the Electrical Safety Authority (ESA) certification and submit to the Town. Upon energizing the street lighting system, the electrical consultant shall carry out a field verification of the illumination design in accordance with ES specification LM-50. Upon completion of the project, the electrical engineer shall carry out a final quality verification inspection in conjunction with the Town's Inspector. The project will not be deemed complete until the Town Inspector is satisfied with the workmanship, has received all certification, test results and as-built drawings. The as-built drawings must also be provided to the Engineer of Record for inclusion in the Record Drawings set for the project. 5.9. Subdivision Grading 5.9.1. Lot Grading Lot grading elevations shall be provided on the Record Drawings. 5.9.2. Block Grading Block grading elevations shall be provided on the Record Drawings. 5.9.3. Retaining Walls Retaining walls details shall be provided on the Record Drawings. 5.9.4. Rough Grading Prior to the issuance of any certificates by the Town accepting the Works, blocks shall be rough graded as follows: • Achieve positive drainage to the satisfaction of the Town. • Lot corners, grade changes and spot elevations: 300 mm (or otherwise approved by the Town); and, • Swales and ditches, except side yard swales, without finishing topsoil: 150 mm. Town of The Blue Mountains Engineering Standards – May 29 2023 Page 134 of 139		
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with legislation and permitting required for site preparation in accordance with permits received and all applicable local, provincial, and federal legislation related to the works. 5.1.7. Erosion and Sediment Control Measures Erosion and sediment control measures (ESCM) are required by the Town for any proposed site alteration. This requirement includes all sites where the land will be disturbed and prone to erosion for more than a few days inclusive of residential construction on individual lots. Prior to construction commencing and works but does not relieve the developer or proponent of the responsibility to effectively reduce on-site erosion and minimize off-site transport. The off-site transport mechanisms that must be addressed/protected shall include overland storm flows, existing drainage channels, municipal sewer systems, wind driven and vehicular tracking. The condition of the erosion and sediment control measures shall be recorded at the end of each working day, prior to the start of any construction hiatus and following any rainfall event during a construction hiatus. Deficiencies in the siltation and erosion control measures shall be addressed immediately. Daily construction inspection reports shall be compiled and be provided to the Town monthly. Rainfall event construction inspection reports shall be provided to the Town within three days following the event. All disturbed ground left inactive for more than 90 days shall be stabilized by seeding, sodding, mulching, covering or other equivalent measures. 5.1.8. Temporary Erosion and Sediment Control Measures The temporary erosion and sediment control measures shall be installed prior to any site work, maintained during the construction period, modified if the proposed measures prove insufficient, reestablished when damaged or ahead of a planned construction hiatus, and removed once the disturbed ground is restored and stabilized. These shall be completed in accordance with the approved for construction drawings, Section 4.1.2, Provincial Standards and permits. Temporary erosion and sediment control measures shall also include on-going construction housekeeping activities including dust suppression and street sweeping. All ESC systems shall be monitored, cleaned, and maintained throughout construction and until final vegetation is achieved. 5.1.9. Tree Preservation Measures Tree preservation measures are installed on site to protect vegetation identified for preservation throughout the construction program as indicated in the AFC drawings. 5.1.10. Communication Plan Where servicing or construction is to occur within an open public highway, easement, or open space the Engineer of Record shall coordinate with the Town for the participation of the communication plan for the project. Adequate information shall be provided to the Town communications group to be posted on the Town Development Website. The communication plan must identify the responsibilities of the parties involved namely the contractor, engineer and the Town as follows:

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5.3. Sanitary Collection System 5.3.1. Sanitary Sewer No flow (sanitary or otherwise) shall be permitted from the new system to the existing Town owned sanitary sewer until the new sewer system is tested with the participation of the Town and a written approval from the Town, to connect has been issued. 5.3.2. Testing and Acceptance A commissioning plan shall be submitted to the Town for review and approval. Testing of the Sanitary Sewer System shall be coordinated with the Town Inspector with the participation of the Town department responsible for operating the system at assumption and shall strictly conform to the requirements set out in the most current revision of "The Blue Mountains Sanitary Sewer Commissioning Protocol" as found on the Town website. The complete sewer system including service connections to the property line and maintenance holes shall be tested in accordance with OPSD and "The Blue Mountains Sanitary Sewer Commissioning Protocol". Deformation gauge (Pig) test as per OPSD is required for all pipe works prior to Town acceptance. All pipe works shall have a CCTV inspection as per OPSD 409 completed as part of the preliminary and final acceptance inspections. 5.3.3. Flow Monitoring until Assumption Any system is connected to the municipal system via a public or boundary maintenance and constructed sanitary sewers that may be assumed by the Town will have a flowmeter and datalogger installed in the boundary maintenance hole. This unit shall monitor sanitary flow for a period of no less than twelve months after the development sanitary sewers are accepted by the Town or when a minimum of eighty percent (80%) of units are complete and occupied. The unit shall be installed, monitored and maintained by Town or Town contracted staff. The cost of this shall be borne by the Developer. 5.3.4. Sewage Pumping Station - Operation and Maintenance Manuals Sewage pumping stations and accessory equipment shall be supplied with a minimum of three complete hardcopy sets and one electronic PDF copy of operational instructions, shop drawings, and manual model including program control narratives, emergency procedures, shop drawings, maintenance schedules, and such tools and spare parts as may be necessary. The engineer will ensure that this documentation will be provided along with the necessary training for operation and maintenance of the equipment prior to commissioning. 5.4. Water Distribution System 5.4.1. Watermain The watermain shall not be connected to the existing Town owned watermain until the new main is tested and commissioned with the participation of the Water department who will operate the system and a written approval from the Town, to connect has been issued. A Temporary Water Connection shall be used during construction and commissioning as per Town Standard Drawing 4.7.1 in Appendix D.
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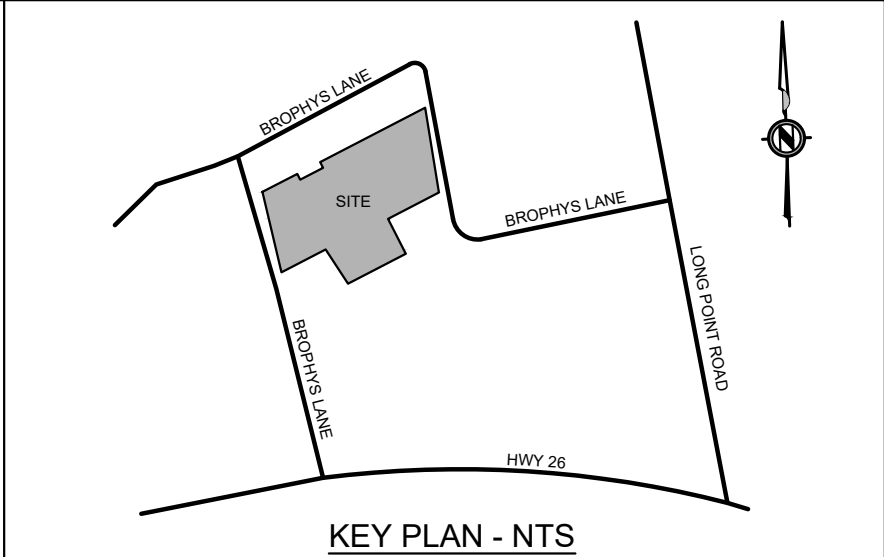
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5.10. Utilities Third party utilities installation shall require non-resident engineering supervision to be approved by the Town's Engineer to confirm that installation does not compromise any municipal infrastructure. 5.11. Streetscape Streetscaping shall be inspected and approved by the Engineer of Record or their Landscape Architect and coordinated with the Town Inspector. (end of Section 5)
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KEY PLAN - NTS

LEGEND

• The contractor shall assume responsibility of ordering and placing all signage and pavement markings as required for traffic control and traffic notification and inform the engineer of any impacts on the schedule. • The engineer assumes responsibility of being the point contact for the Town and the public and shall oversee the implementation of the plan. • The Town will make information prepared to communicate with those affected available on the Town website. The Town will also make information prepared available to Town and emergency services. 5.2. Municipal Infrastructure 5.2.1. General Design or construction alterations to the A/C drawings must be reviewed and approved by the Town prior to the changes being constructed. The Contractor shall have a set of clean A/C drawings updated with As-Constructed data recorded on the drawings that is not older than two working days available within 24 hours of Town request during construction. The As-Constructed redline drawings shall be presented to the engineer as a condition of Substantial Performance. The Consultant shall provide a scanned copy of the As-Constructed redline drawing to the Town as a condition the Basic Services Certificate. The As-Constructed drawings are to not Record Drawings and should be considered supplementary to the Consultant's requirement to provide Record Drawings. The Consultant shall have a clean set of A/C drawings, updated with data that will add completion of the Record Drawings results that is not older than two working days on site at all times. The drawings shall record the location of pipe bedding, cover and trench backfill compaction testing, showing both failed tests and passed tests. The location of passed test results shall be no further apart than 60 m horizontally 600 mm vertically. Record Drawings shall be prepared in accordance with section 3.6 Record Documents.
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• The contractor shall assume responsibility of ordering and placing all signage and pavement markings as required for traffic control and traffic notification and inform the engineer of any impacts on the schedule. • The engineer assumes responsibility of being the point contact for the Town and the public and shall oversee the implementation of the plan. • The Town will make information prepared to communicate with those affected available on the Town website. The Town will also make information prepared available to Town and emergency services. 5.2. Municipal Infrastructure 5.2.1. General Design or construction alterations to the A/C drawings must be reviewed and approved by the Town prior to the changes being constructed. The Contractor shall have a set of clean A/C drawings updated with As-Constructed data recorded on the drawings that is not older than two working days available within 24 hours of Town request during construction. The As-Constructed redline drawings shall be presented to the engineer as a condition of Substantial Performance. The Consultant shall provide a scanned copy of the As-Constructed redline drawing to the Town as a condition the Basic Services Certificate. The As-Constructed drawings are to not Record Drawings and should be considered supplementary to the Consultant's requirement to provide Record Drawings. The Consultant shall have a clean set of A/C drawings, updated with data that will add completion of the Record Drawings results that is not older than two working days on site at all times. The drawings shall record the location of pipe bedding, cover and trench backfill compaction testing, showing both failed tests and passed tests. The location of passed test results shall be no further apart than 60 m horizontally 600 mm vertically. Record Drawings shall be prepared in accordance with section 3.6 Record Documents.
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5.2.1.4. Maintenance Holes (General) All maintenance hole installations shall include frost straps (min. 4.0 m depth) as per OPSD 701.100 (Rev November 2018). The Record Drawings shall include the details on frost straps installed during construction including the depth to which the strap is installed. 5.2.1.5. Frames and Grates (General) All maintenance structures shall include access frames and grates. Frames shall be set flush to base asphalt elevation when surface asphalt will be delayed for more than one month. Catch basin maintenance hole and catch basin frames and grates shall be set to base course asphalt elevation and the curb for 3 m behind the structures shall be temporary asphalt per OPSD 601.010. Refer to Section 4.6.4 for additional design details as required. 5.2.2. Stormwater Management System 5.2.2.1. General Construction of the stormwater management system must consider ESCM as a priority because stormwater is the major mechanism for erosion and sediment transport on any construction site. The location of the stormwater management system is typically in the route of the subdivision drainage which makes ESCM critical during construction when the land is opened and following construction when the system can collect soils being transported storm events. Construction of stormwater management facilities shall require full time inspection by the Engineer of Record during any construction activities. 5.2.2.2. SWM Facility Acceptance for Basic Services / Final Certification Requirements Prior to acceptance of the Stormwater Management Facility acceptance for Basic Services or Final Certification the following information shall be submitted to the Town: • SWM Facility cleaning: sediment shall be completely removed from the SWM Facility. Prior to cleaning, the developer shall conduct a topographic/bathymetric survey of the entire facility and provide the Town with the following: ○ Plan and profile drawings matching the accept for construction drawing set and facility cross-section drawings at 20 m stations showing the design and post cleaning grades. ○ The permanent and active pond volumes as designed are present. ○ Record elevations of inlet(s), outlet(s), weirs, forebays, berms, emergency spillway and any other hydraulic structures within the facility; and, ○ Plan & profile record drawings of the facility showing maintenance access and representative sections of the various pond sections. • The developer shall provide the Town with Engineering Certification indicating that all components of the facility are in good repair and that they have been installed in conformance with the approved SWM report and detailed design. A comparison table shall be provided showing the design and record pond attributes (inlet/outlet pipe size and inverts, control structures, orifice size and invert, forebay berm elevation, side slopes, emergency spill way, and any other hydraulic structures in the facility) including shape/storage/overflow characteristics. Any deviation between design and record information shall be identified in the report with remediation measures proposed. • The developer shall collect field data and develop a rating curve for the hydraulic outlet control structure(s) and submit to the Town to demonstrate that the facility is functioning as designed to the satisfaction of the Town. • A copy of the MCEP Environmental Compliance Approval. • A copy of an acceptance letter from the Town. The developer shall submit to the Town a completed SWM Facility General Information Form sealed by a professional engineer licensed in Ontario. Upon receipt of the above information, the Town will perform verification checks to confirm sediment removal, facility permanent pool capacity, proper hydraulic and performance function, the condition of the facility is satisfactory and will provide subsequent feedback if deficiencies are found.	
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