



1. ALL WORKS AND MATERIALS SHALL CONFORM TO THE LATEST REVISION OF THE STANDARDS AND SPECIFICATIONS FOR THE CITY OF OTTAWA. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS (SPSS), WHERE APPLICABLE. LOCAL UTILITY STANDARDS AND MINISTRY OF TRANSPORTATION STANDARDS WILL APPLY WHERE REQUIRED.
2. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL EXISTING UTILITIES WITHIN THE SITE AND ADJACENT WORK AREAS. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS (SPSS), WHERE APPLICABLE. LOCAL UTILITY STANDARDS AND MINISTRY OF TRANSPORTATION STANDARDS WILL APPLY WHERE REQUIRED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION.
4. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION.
6. ANY AREAS BEYOND THE LIMIT OF THE SITE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE ENGINEER. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION.
7. RELOCATION OF EXISTING SERVICES AND/OR UTILITIES SHALL BE AS SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER AT THE SITE. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION.
8. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS. THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE "CONTRACTOR" AS DEFINED IN THE ACT.
9. ALL COORDINATION SHALL BE COMPLETED PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION.
10. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION.
12. FOR DETAILS RELATING TO STORMWATER MANAGEMENT AND ROOF DRAINAGE REFER TO THE SITE SERVING AND STORMWATER MANAGEMENT CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION.
13. ALL SEWERS CONSTRUCTED WITH GRADES LESS THAN 1.0% SHALL BE INSTALLED USING LASER ALIGNMENT AND CHECKED WITH LEVEL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND TO BEAR THE COST OF THE SAME.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL BEDDING, OR ADDITIONAL STRENGTH PIPE IF THE MAXIMUM TRENCH WIDTH AT ANY POINT EXCEEDS 1.0M.
16. ALL PIPE / CURBENT SECTION SIZES REFER TO INSIDE DIMENSIONS.
17. SHOULD PERMITTED BURIED ARCHAEOLOGICAL REMAINS BE FOUND ON THE PROPERTY DURING CONSTRUCTION ACTIVITIES, THE HERITAGE ACT AND REGULATIONS SHALL APPLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION.
18. ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH CONTRACT ADMINISTRATOR AND THE CITY OF OTTAWA PRIOR TO ANY TREE CUTTING / REMOVAL.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION.
20. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER ONE SET OF AS CONSTRUCTED SITE SERVING AND GRADING DRAWINGS.
21. BENCHMARKS: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE SITE BENCHMARKS/HAS NOT BEEN ALTERED OR MOVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION.

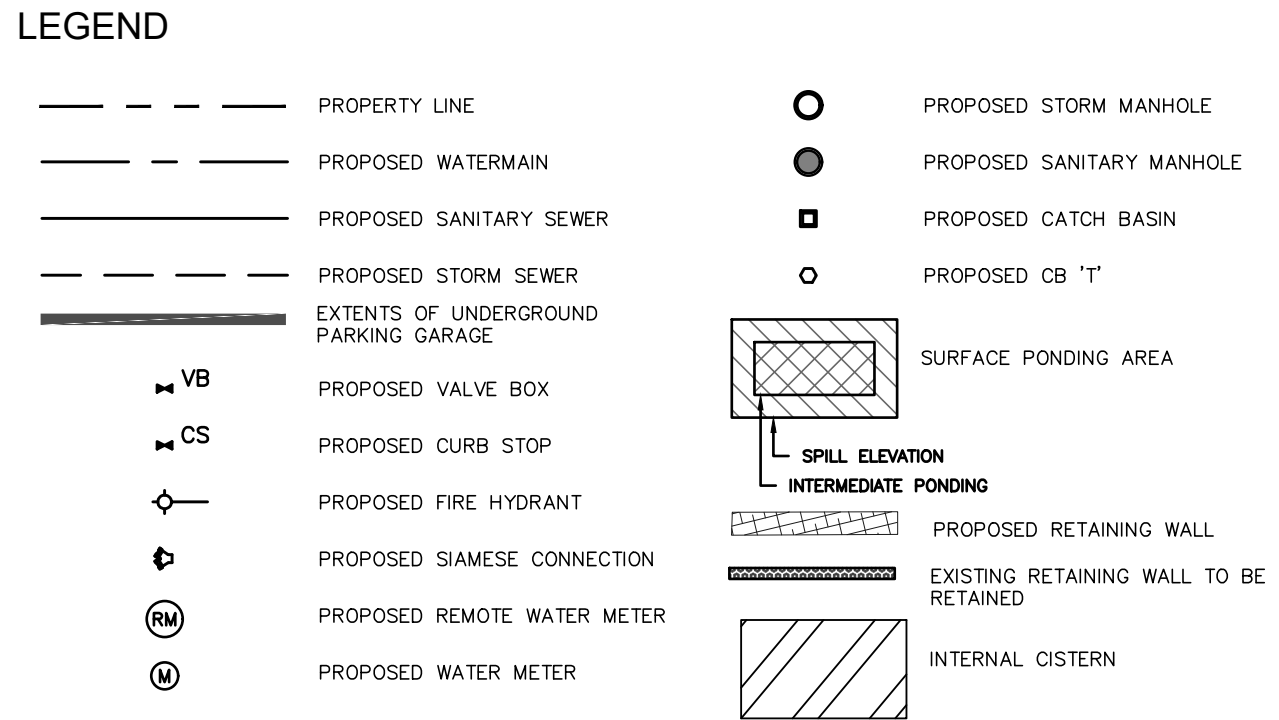
1. ALL WATERMAIN INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE CITY OF OTTAWA AND THE ONTARIO PROVINCIAL STANDARDS SPECIFICATIONS FOR WATER MAINS.
2. ALL P.V.C. WATERMAIN SHALL BE AWWA C-900 CLASS 150, SDR 18 OR APPROVED EQUIVALENT.
3. WATERMAIN TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W27. UNLESS SPECIFIED OTHERWISE, BEDDING AND BACKFILL MATERIALS SHALL BE SPECIFIED BY THE CONTRACTOR.
4. ALL P.V.C. WATERMAIN SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TUB OR RWJ TRACER WIRE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W28.
5. CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS PER CITY OF OTTAWA STD. W40 AND W42.
6. VALVE BOXES SHALL BE INSTALLED PER CITY OF OTTAWA STD W24.
7. WATERMAIN TELLER SHALL BE INSTALLED WITH RESTRAINED TENSILE PER CITY OF OTTAWA STD. W25.5 AND W25.6.
8. THRUST BLOCKING OF WATERMAINS TO BE INSTALLED PER CITY OF OTTAWA STD. W25.3 AND W25.4.
9. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY CAPS, PLUGS, BLOW-OFFS, AND NOZZLES REQUIRED FOR TESTING AND DISINFECTION OF WATERMAINS.
10. WATERMAIN CROSSING OVER AND BELOW SEWERS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. W25.2 AND W25, RESPECTIVELY.
11. WATER SERVICES ARE TO BE INSULATED PER CITY STD. W23 WHERE SEPARATION BETWEEN SERVICES AND MAINTENANCE HOLES ARE LESS THAN 1.0 METRE.
12. THE MINIMUM VERTICAL SEPARATION BETWEEN WATERMAIN AND SEWER / UTILITY IS 0.50m+ PER JOE GUIDELINES. FOR CROSSING UNDER WATERMAINS, THE MINIMUM VERTICAL SEPARATION BETWEEN WATERMAIN AND SEWER / UTILITY IS 0.75m+ PER JOE GUIDELINES. THE LENGTH OF WATER PIPE SHALL BE CENTRED AT THE POINT OF CROSSING SUCH THAT THE JOINTS WILL BE EQUIQUANT AND AS CLOSE TO THE POINT OF CROSSING AS POSSIBLE.
13. ALL WATERMAINS SHALL HAVE A MINIMUM COVER OR 2.4m, OTHERWISE THERMAL INSULATION IS REQUIRED AS PER STD W22.
14. GENERAL WATER PLANT TO UTILITY CLEARANCE AS PER STD R20
15. ALL WATERMAIN SHALL BE PROTECTED BY AN INSULATED FLANGE ELEVATIONS TO BE INSTALLED 0.10m ABOVE THE PROPOSED FINISHED GRADE AT HYDRAINT FIRE HYDRANT LOCATION AS PER STD W20 UNLESS OTHERWISE NOTED.
16. ALL WATERMAIN SHALL BE PROTECTED BY A MINIMUM 100mm COVER TO THE FACE OF THE BUILDING UNLESS OTHERWISE NOTED AND MUST BE RESTRAINED A MINIMUM OF 12" BACK FROM STUB.
17. ALL WATERMAINS SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO GUIDELINES UNLESS OTHERWISE SPECIFIED.
18. ALL WATERMAINS SHALL BE BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO GUIDELINES UNLESS OTHERWISE SPECIFIED.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND TREATMENT SO AS NOT TO ADVERSELY EFFECT THE ENVIRONMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS FROM THE PROVINCE OF ONTARIO.
20. ALL WATERMAIN STUBS SHALL BE TERMINATED WITH A PLUG AND 50mm blow off UNLESS OTHERWISE NOTED.

1. LASER ALIGNMENT CONTROL TO BE UTILIZED ON ALL SEWER INSTALLATIONS.
 - a. CLAY SEALS TO BE INSTALLED AS PER CITY STANDARD DRAWING 10003.01. THE SEALS SHOULD BE AT LEAST 1.5m LONG (ON THE TRENCH DIRECTION) AND SHOULD EXTEND FROM TRENCH WALL TO TRENCH WALL. THE SEALS SHOULD EXTEND FROM THE FIRST LINE AND FULL DEPTH OF THE TRENCH TO THE SECOND LINE AND FULL DEPTH OF THE TRENCH. THE SEALS SHOULD BE BROWN SLIP CLAY PLACED IN MAXIMUM 229mm LIFTS AND COMPACTED TO A MINIMUM OF 95% SPMDD.
 - b. CLAY SEALS SHOULD BE PLACED AT 1.5m INTERVALS IN THE SERVICE TRENCHES.
 - c. PLACEMENTS TO BUILDUP SHOULD BE TESTED AT 1.0m FROM THE END OF THE BUILDUP UNLESS OTHERWISE NOTED.
2. ALL MAINTENANCE STRUCTURE AND CATCH BASIN EXCAVATIONS TO BE BACKFILLED WITH GRANULAR MATERIAL COMPACTED TO 98% SPMDD.
3. "MODULOG" OR APPROVED PRE-CAST MAINTENANCE STRUCTURE AND CATCH BASIN ADJUSTERS TO BE USED IN LIEU OF BRICKING, PARGO ADJUSTING UNITS ON THE OUTSIDE ONLY.
4. SAFETY PLATFORMS SHALL BE PER OSP 404.02.
5. DROP STRUCTURES SHALL BE IN ACCORDANCE WITH OSP 1003.01 AND 1003.02, IF APPLICABLE.
6. THE CONTRACTOR IS TO PROVIDE CITY CAMERA INSPECTIONS OF ALL SEWERS, INCLUDING PIPELIFT REPORT, ONE (1) CD COPY AND TWO (2) PRINT COPIES OF THE REPORT TO THE CITY ENGINEER. THE REPORT SHALL BE FLUSHED PRIOR TO CAMERA INSPECTION. THE REPORT SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF WEAR COURSE ASPHALT. THE REPORT SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF WEAR COURSE ASPHALT.
7. PROTECT PROTECTION RECOMMENDATIONS FOR STORM SEWERS WITH LESS THAN 1.5m AND SANITARY SEWERS WITH LESS THAN 1.8m FROM PROPERTY LINE.

11. ALL SANITARY SEWER INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE CITY OF OTTAWA AND THE ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).
12. ALL SANITARY GRAVITY SEWER SHALL BE PVC SDR 35, IPEX "RING-IT" (OR APPROVED EQUIVALENT) PER CSA STANDARD B182.2 OR LATEST AMENDMENT, UNLESS SPECIFIED OTHERWISE.
13. EXISTING MAINTENANCE STRUCTURES TO BE RE-BENCHED WHERE A NEW CONNECTION IS MADE.
14. SANITARY GRAVITY SEWER TRENCH AND BEDDING SHALL BE PER CITY OF OTTAWA STD. S6 AND S7, CLASS "B" BEDDING, UNLESS SPECIFIED OTHERWISE.
15. SANITARY MAINTENANCE STRUCTURE FRAME AND COVERS SHALL BE PER CITY OF OTTAWA STD. S24 AND S25.
16. SANITARY MAINTENANCE STRUCTURES SHALL BE BENCHED PER OPSD 701.021.

17. ALL REINFORCED CONCRETE STORM SEWER SHAFT SHALL BE IN ACCORDANCE WITH CSA A2372, OR LATEST AMENDMENT. PIPE SHALL BE 1500MM DIAMETER. JOINTS SHALL BE IN ACCORDANCE WITH CSA A2373, OR LATEST AMENDMENT. PIPE SHALL BE JOINED WITH STD. RUBBER GASKETS AS PER CSA A2373, OR LATEST AMENDMENT.
18. ALL STORM SEWER TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. 56 AND 57 CLASS "S" UNLESS OTHERWISE SPECIFIED.
19. ALL PVC STORM SEWERS ARE TO BE 305 APPROVED PER CSA B1822 OR LATEST AMENDMENT, UNLESS OTHERWISE SPECIFIED.
20. CATCH BASINS SHALL BE IN ACCORDANCE WITH CSO 705.010.
21. ALL CATCH BASINS SHALL BE 200MM DIA. AT 1% SLOPE (MIN) UNLESS SPECIFIED OTHERWISE.
22. ALL CATCH BASIN SHALL HAVE ROOMY SUMPS, UNLESS SPECIFIED OTHERWISE.
23. ALL CATCH BASIN LEAD INVERTS TO BE 1.5m BELOW FINISHED GRADE UNLESS SPECIFIED OTHERWISE.
24. ALL CATCH BASIN SHALL BE 200MM DIA. AT 1% SLOPE (MIN) UNLESS SPECIFIED OTHERWISE.
25. IF THE DEPTH OF THE TRENCH EXCEEDS 1.5m, THE CONTRACTOR IS REQUIRED TO PROVIDE AND SHALL BE RESPONSIBLE FOR EXTRA TEMPORARY AND/OR PERMANENT REPAIRS MADE NECESSARY BY THE WIDENED TRENCH.
26. REINFORCED SUBGRADE FOR STORM ROAD AND PARKING LOT CATCH BASIN SHALL BE INSTALLED PER CITY STD. R1 AND GEOTECHNICAL RECOMMENDATIONS UNLESS OTHERWISE NOTED.
27. REINFORCED SUBGRADE FOR REAR YARD AND LANDSCAPING APPLICATIONS SHALL BE INSTALLED PER CITY STD. S29, S30, AND S31, WHERE APPLICABLE.
27. RIP-RAP TREATMENT FOR SEWER AND CULVERT OUTLETS OPENS SHALL BE CSO 810.010.
28. ALL STORM SEWERS / CULVERTS TO BE INSTALLED WITH TROST TREATMENT PER CSO 803.031 WHERE APPLICABLE.
29. ALL STORM SEWERS / CULVERTS SHALL BE INSTALLED WITH TROST TREATMENT PER CITY STD. S29 AND S241, UNLESS OTHERWISE NOTED.
30. CATCH BASIN FRAME AND COVER SHALL BE PER CSO 400.02 AND CITY STD. S191, UNLESS OTHERWISE NOTED.

NO.	INVERT	OBVERT	CLEARANCE
P.C.1.	STM INV = 69.21	SAN OBV = 68.91	0.30m
P.C.2.	STM INV = 69.33	WTR OBV = 68.71	0.62m
P.C.3.	SAN INV = 69.01	WTR OBV = 68.71	0.30m
P.C.4.	SAN INV = 70.74	WTR OBV = 70.44	0.30m



EXISTING UNDERGROUND SERVICES AND UTILITY LOCATIONS DERIVED FROM THE BEST AVAILABLE DATA, AS-CONSTRUCTED DRAWINGS, UTILITY DRAWINGS AND INFRASTRUCTURE MAPPING PROVIDED BY THE CITY OF OTTAWA.

CONTRACTOR TO CONFIRM ELEVATIONS AND LOCATIONS OF EXISTING UNDERGROUND SERVICES AND UTILITIES WITHIN THE RIGHT OF WAY PRIOR TO INSTALLATION OF SITE SERVICING INFRASTRUCTURE.

THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR ACKNOWLEDGES THAT THE FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.

TOPOGRAPHIC INFORMATION

TOPOGRAPHIC INFORMATION PROVIDED BY STANTEC
PROJ. NO. 161613750-111
DATED DECEMBER 5, 2018.

SITE PLAN INFORMATION

SITE PLAN PROVIDED BY HOBIN ARCHITECTURE INCORPORATED
PROJ. NO. CATHEDRAL HILL
DATED MARCH 11, 2019.

GEOTECHNICAL STUDY

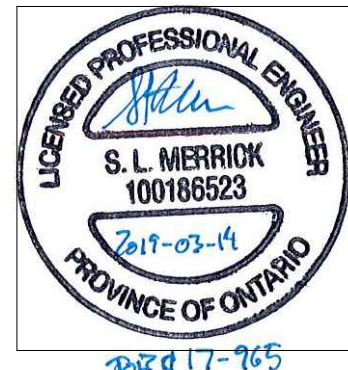
GEOTECHNICAL RECOMMENDATIONS PROVIDED BY PATERSON GROUP
 PROJ. NO. PG4271-1
 DATED OCTOBER 23, 2017.

SITE SERVICING AND STORMWATER MANAGEMENT STUDY

SERVICING AND STORMWATER MANAGEMENT RECOMMENDATIONS PROVIDED BY DSEL
PROJ. NO. 17-965
DATED MARCH 2019

BENCH MARK

LOCATED TOP OF SPINDLE ON FIRE HYDRANT
ELEV= 72.184m

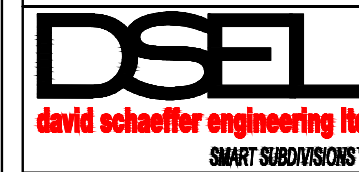
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PROJECT No. 18-965

OTTAWA RETIREMENT RESIDENCE BY SIGNATURE - 412 SPARKS STREET © DSEL

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DEVELOPMENT CORP.

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DRAWN BY:	G.G.M.	CHECKED BY:	S.L.M.	DRAWING NO.	SHEET NO.
DESIGNED BY:	S.L.M.	CHECKED BY:	S.L.M.	SSP-1	3 of 4
SCALE:	1: 200	DATE:	MARCH 2019		