

[illegible]

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 WATERMANS SHALL BE AWWA C-300 CLASS 150, SDR 18 OR APPROVED EQUIVALENT.
3. WATERMAIN TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD T7. UNLESS SPECIFIED OTHERWISE, TRENCHES SHALL BE GRADED TO ALLOW PROPER DRAINAGE AND PROPER SLOPE.
4. ALL P.V.C WATERMANS SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TUB OR RWJ TRACER WIRE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD T7.
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 AREAS TO BE INSTALLED WITH RESTRAINED JOINTS PER CITY OF OTTAWA STD. W25.5 AND W26.6.
8. THRUST BLOCKING OF WATERMANS 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 WATERMANS.
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 INSTALLED PER CITY STD. W23 WHERE SEPARATION BETWEEN SERVICES AND MAINTENANCE HOLES ARE LESS THAN 1.0M.
12. THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER / UTILITY IS 0.50m PER MGO GUIDELINES. FOR CROSSING UNDER WATERMANS, THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER / UTILITY SHALL BE 0.75m PER MGO GUIDELINES. THE LENGTH OF WATER PIPE SHALL BE CENTRED AT THE POINT OF CROSSING TO INSURE THAT THE JOINTS WILL BE EQUIDISTANT AND AS CLOSE TO THE CENTERLINE OF THE WATERMAIN AS POSSIBLE.
13. ALL WATERMANS SHALL HAVE A MINIMUM COVER OR 2.4m, OTHERWISE IDENTIFICATION IS REQUIRED AS PER STD D22.
14. GENERAL WATER PLANT TO UTILITY CLEARANCE OR PER STD D20
15. ALL HYDRANT MAINS SHALL BE INSTALLED WITH A MINIMUM OF 1.0M OF HYDRANT FLANGE ELEVATIONS TO BE INSTALLED 0.10m ABOVE PROPOSED FINISHED GRADE AT HYDRANT. FIRE HYDRANT LOCATION AS PER STD D20 W18 UNLESS OTHERWISE NOTED.
16. ALL HYDRANT MAINS SHALL BE 150mm DIA. AND SHALL BE APPROPRIATELY LOCATED AS PER THE BUILDING ULTIMATE NOTED AND MUST BE RESTRAINED A MINIMUM OF 12m BACK FROM STREET.
17. ALL WATERMANS SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO GUIDELINES UNLESS OTHERWISE NOTED.
18. ALL WATERMANS SHALL BE BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO GUIDELINES. ALL WATERMANS SHALL BE DISINFECTED IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO GUIDELINES. ALL WATERMANS SHALL BE CONTROLLED AND TREATED SO AS NOT TO ADVERSELY EFFECT THE ENVIRONMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO CONSTRUCTION.
19. ALL WATERMAIN STUBS SHALL BE TERMINATED WITH A PLUG AND 50mm Blow Off UNLESS OTHERWISE NOTED.

1. LASER ALIGNMENT CONTROL TO UTILIZED ON ALL SEWER INSTALLATIONS SR.
2. CLAY SEALS SHALL BE INSTALLED AS PER CITY STANDARD DRAWING SR. THE SEALS SHOULD BE AT LEAST 1.5m LONG (IN THE TRENCH DIRECTION) AND SHOULD EXTEND FROM TRENCH WALL TO TRENCH WALL. THE SEALS SHOULD EXTEND FROM THE FROST LINE AND FULLY ENCASED WITH GRANULAR MATERIAL. THE JOINTS BETWEEN THE SEALS SHOULD BE OVERLAPPED BY AT LEAST 75mm. THE SEAL SHOULD BE BROWN SLITLY CLAY PLACED IN MAXIMUM 225mm LIFTS AND COMPACTED TO A MINIMUM OF 95% SPDM. THE CLAY SEALS SHOULD BE PLACED AT THE BOTTOM OF THE TRENCH.
3. SERVICES TO BUILDINGS TO BE TERMINATED 1.0m FROM THE OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
4. ALL MAINTENANCE STRUCTURE AND CATCH BASIN EXCAVATIONS TO BE BACKFILLED WITH GRANULAR MATERIAL COMPACTED TO 98%.
5. "MODULOC" OR APPROVED PRE-CAST MAINTENANCE STRUCTURE AND CATCH BASIN ADJUSTERS TO BE USED IN LIEU OF BRICKWORK. PARGE DRIVING JETTING TO BE USED TO CLEAN OUT THE INSIDE OF MODULOCS.
6. SAFETY PLATFORMS SHALL BE PER ASP 400.42.
7. DROP STRUCTURES SHALL BE IN ACCORDANCE WITH OPSD 100301 AND 100302, IF APPLICABLE.
8. CONTRACTOR IS REQUIRED TO PROVIDE VIDEO RECORDING OF SEWER INSPECTIONS. SEWERS INCLUDING PHOTOGRAPHIC RECORD, ONE (1) CD COPY AND TWO (2) VIDEO RECORDINGS ARE ACCEPTABLE TO ANYONE.
9. VIDEO RECORDING SHALL BE PROVIDED TO THE CONSULTANT FOR REVIEW. IT SHALL BE FLUSHED PRIOR TO CATCH AREA INSPECTION. ASPHALT WEAR COURSE SHALL NOT BE PLACED UNTIL THE VIDEO INSPECTION OF SEWERS AND NECESSARY REPAIRS HAVE BEEN COMPLETED.
10. CONTRACTOR SHALL PERFORM LEAKAGE TESTING, IN THE PRESENCE OF THE CONSULTANT, FOR SANITARY SEWERS IN ACCORDANCE WITH OPSD 100301. RECORDING OF TEST RESULTS SHALL BE PROVIDED TO THE CONSULTANT FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF WEAR COURSE ASPHALT.
11. THE RECORDING OF RESULTS SHALL BE PROVIDED TO THE CONSULTANT FOR REVIEW. 1.5m AND SANITARY SEWERS WITH LESS THAN 1.5m FROM GROUND SURFACE TO PIPE OVERTO BE PROVIDED BY GEOTECHNICAL ENGINEER.

11. ALL SANITARY SEWER INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE CITY OF OTTAWA AND THE ONTARIO PROVINCIAL STANDARD DRAWINGS (PSTD) AND SPECIFICATIONS (PSSS).
12. ALL SANITARY GRAVITY SEWERS SHALL BE PVC-SR 36, IPEX "RING-TITE" (OR APPROVED EQUIVALENT) PER CSA STANDARD B182.2 OR LATEST AMENDMENT. UNLESS OTHERWISE SPECIFIED.
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 PIPE SHALL BE IN ACCORDANCE WITH CSA A257.2, OR LATEST AMENDMENT. ALL REINFORCED CONCRETE STORM SEWER MANHOLES SHALL BE IN ACCORDANCE WITH CSA A257.3, OR LATEST AMENDMENT. PIPE SHALL JOINTED WITH STD. RUBBER GASKETS AS PER CSA A257.3, OR LATEST AMENDMENT.
18. ALL STORM SEWER TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD 92 AND 97 CLASS "B" UNLESS OTHERWISE SPECIFIED. BEDDING SHALL BE REINFORCED CONCRETE OR GRANULAR FILL, AS SPECIFIED BY PROJECT GEOTECHNICAL ENGINEER.
19. ALL PVC STORM SEWERS ARE TO BE SDR 35 APPROVED PER CSA A312.2 OR LATEST AMENDMENT, UNLESS OTHERWISE SPECIFIED.
20. CATCH BASINS SHALL BE IN ACCORDANCE WITH CAN 705.010.
21. CATCH BASIN LEADS SHALL BE 200MM DIA. AT 1% SLOPE (MIN) UNLESS SPECIFIED OTHERWISE.
22. ALL CATCH BASIN LEADS SHALL HAVE 600MM SPLANS, UNLESS SPECIFIED OTHERWISE.
23. ALL CATCH BASIN LEAD INVERTS TO BE 1.5M BELOW FINISHED GRADE UNLESS SPECIFIED OTHERWISE.
24. ALL CATCH BASIN LEADS SHALL BE REINFORCED CONCRETE. IF THE TRENCH DEPTH SPECIFIED ABOVE THE SPECIFIED TRENCH WIDTH IS EXCEEDED, THE CONTRACTOR IS REQUIRED TO PROVIDE AND SHALL BE RESPONSIBLE FOR EXTRA TEMPORARY AND/OR PERMANENT REPAIRS MADE NECESSARY BY THE WIDENED TRENCH.
25. PERFORATED SUBIRRIAN FOR SEWER AND DRAINING LOT CATCH BASIN SHALL BE INSTALLED PER CITY STD R1 AND GEOTECHNICAL RECOMMENDATIONS UNLESS OTHERWISE NOTED.
26. PERFORATED SUBIRRIAN FOR SEWER YARD AND LANDSCAPING APPLICATIONS SHALL BE INSTALLED PER CITY STD S29, S30, AND S31, WHERE APPLICABLE.
27. RIP-RAP REQUIRED FOR REAR AND CULVERT OUTLETS PER SPDS 810.010.
28. STORM SEWERS TO BE INSTALLED WITH FROST TRENCH DEPTHS PER SPDS 903.031 WHERE APPLICABLE.
29. STORM MAINTENANCE STRUCTURE FRAME AND COVER SHALL BE PER CITY OF OTTAWA STD S25 AND S241. UNLESS OTHERWISE NOTED.
30. CATCH BASIN FRAME AND COVER SHALL BE PER SPDS 40.002 AND CITY STD S191. UNLESS OTHERWISE NOTED.

GARAGE ENTRANCE DRAINAGE TO BE
ACCOMMODATED IN BUILDING MECHANICAL SYSTEM
PER MECHANICAL ENGINEER

— — — — —	PROPERTY LINE	— — — — —	PROPOSED WATERMAIN
—————	30m SETBACK FROM SHIRLEY'S BROOK	—————	PROPOSED SANITARY SEWER
100.00	EXISTING SPOT ELEVATION	—————	PROPOSED STORM SEWER
D.C.	DEPRESSED CURB	—————	PROPOSED SWALE
	OVERLAND FLOW DIRECTION	VB	PROPOSED VALVE BOX
	TRENCH DRAIN		PROPOSED FIRE HYDRANT
			PROPOSED REMOTE WATER METER
			PROPOSED WATER METER
			PROPOSED CATCH BASIN
		—————	EXISTING WATERMAIN
		—————	EXISTING SANITARY SEWER
		—————	EXISTING STORM SEWER
			EXISTING MANHOLE
			EXISTING CATCH BASIN
			EXISTING FIRE HYDRANT
			EXISTING VALVE BOX
		—————	EXISTING UNDERGROUND HYDRO

TOPOGRAPHIC INFORMATION
TOPOGRAPHIC INFORMATION PROVIDED BY J.D.BARNES LTD
PROJ. NO. 17-10-136-00
DATED JULY 18, 2018

SITE PLAN PROVIDED BY PROJECT1 STUDIO
PROJ. NO. 11 802
DATED APRIL 14, 2020

GEOTECHNICAL RECOMMENDATIONS PROVIDED BY GEOFIRMA ENGINEERING LTD
 PROJ. NO. 18-206-2
 DATED JULY 13, 2018

SERVICING AND STORMWATER MANAGEMENT RECOMMENDATIONS PROVIDED BY DSEL
PROJ. NO. 18-1039
DATED MAY 2020

TOP OF CUT CROSS ELEVATION=77.52m
LOCATED AT THE INTERSECTION OF MARCH ROAD AND KLONDIKE ROAD

4	A.J.G.	20.05.28	ISSUED FOR MUNICIPAL REVIEW
3	A.A.S	18.12.20	ISSUED FOR MUNICIPAL REVIEW
2	A.A.S	18.08.23	ISSUED FOR MUNICIPAL REVIEW
1	B.N.C	18.08.17	ISSUED FOR MUNICIPAL REVIEW
No.	BY	YY.MM.DD	DESCRIPTION

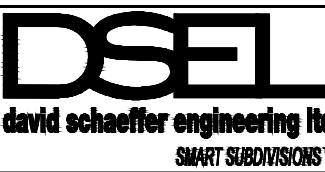


PROJECT No.18-1039

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DRAWN BY:	A.J.G.	CHECKED BY:	A.D.F.	DRAWING NO.	SHEET NO.
DESIGNED BY:	A.J.G.	CHECKED BY:	S.J.P.	SSP-1	3 of 4
SCALE:	1:300	DATE:	MAY 2020		