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2. ALL WATERMAN INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE CITY OF OTTAWA AND THE ONTARIO PROVINCIAL STANDARDS.
3. ALL P.W. WATERMANS SHALL BE AWWA C-900 CLASS 150, STD. 18 OR APPROVED EQUIVALENT.
4. ALL WATERMANS SHALL BE BEDDING SHALL BE 150 MM. OF 10/20 GRADE SAND, UNLESS SPECIFIED OTHERWISE.
5. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY THE PROJECT GEOTECHNICAL ENGINEER.
6. ALL P.W. WATERMANS SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TWO (2) OR TRJ RACER TRJW IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
7. CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS PER CITY OF OTTAWA STD. W40 AND W42.
8. ALL WATERMANS SHALL BE INSTALLED PER CITY OF OTTAWA STD. W25.1 AND W25.2.
9. WATERMAIN IN FIELD AREAS TO BE INSTALLED WITH RESTRAINED JOINTS PER CITY OF OTTAWA STD. W25.1 AND W25.6.
10. THROST BLOCKING OF WATERMANS TO BE INSTALLED PER CITY OF OTTAWA STD. W25.3 AND W25.4.
11. ALL WATERMANS SHALL BE INSTALLED WITH TESTING AND DISINFECTION POINTS PER CITY OF OTTAWA STD. W25.5 AND W25.6.
12. ALL WATERMANS OVER AND BELOW SEWERS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. W25.2 AND W25.5, RESPECTIVELY.
13. ALL WATERMANS SHALL BE IN SLOPE PER CITY STD. W25.7 WHERE SEPARATION BETWEEN SERVICES AND MAINTENANCE HOLES ARE LESS THAN 2.4m.
14. THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER / UTILITY IS 60.0cm PER MOE GUIDELINES. FOR CROSSING UNDER EXISTING STRUCTURAL SUPPORT FOR THE SEWERS IS REQUIRED TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AGAINST SETTLEING. THE LENGTH OF WATER PIPE SHALL BE CENTRED AT THE POINT OF CROSSING TO ENSURE THAT THE JOINTS WILL BE AT LEAST 1.0m FROM THE CROSSING.
15. ALL WATERMANS SHALL HAVE A MINIMUM COVER OF 2.4m. OTHERWISE THERMAL INSULATION IS REQUIRED AS PER STD W20.2 ABOVE.
16. FIRE HYDRANT INSTALLATION AS PER STD DWG. W19, ALL BOTTOM OF HYDRANT FLANGE ELEVATIONS TO BE INSTALLED 0.10m ABOVE FINISHED GRADE.
17. BUILDING SERVICE TO BE CAPPED 1.0m OFF THE FACE OF THE BUILDING UNLESS OTHERWISE NOTED MUST BE RESTRAINED AT MINIMUM OF 12cm BACK FROM SLOPE.
18. ALL WATERMANS TO BE 100% HYDRAULICALLY TESTED IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO GUIDELINES UNLESS OTHERWISE DIRECTED. PROVISIONS FOR FLUSHING WATER LINE PRIOR TO TESTING, ETC. MUST BE PROVIDED.
19. ALL DISCHARGED WATER SHALL BE TREATED TO MEET THE REQUIREMENTS OF THE ONTARIO GUIDELINES. ALL DISCHARGED WATER, INCLUDING CHLORINATED WATER TO BE DISCHARGED AND PRETREATED TO ACCEPTABLE LEVELS PRIOR TO DISCHARGE. ALL DISCHARGED WATER SHALL BE TREATED TO MEET THE REQUIREMENTS OF THE ONTARIO GUIDELINES.
20. CONTRACTOR TO ENSURE THAT ALL MUNICIPAL AND/OR PROVINCIAL REQUIREMENTS ARE FOLLOWED.
21. ALL WATERMANS SHALL BE 100% HYDRAULICALLY TESTED WITH A PLUS MINUS 10% TOLERANCE.
22. ALL HYDRANTS TO BE 0.60m OFF FACE OF CURB PER CITY STD W19, UNLESS OTHERWISE NOTED.

GENERAL

LASER ALIGNMENT CONTROL TO UTILIZED ON ALL SEWER INSTALLATIONS.

2. CLAY SEALS SHALL BE INSTALLED AS PER CITY STANDARD DRAWING 58. 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 FRONT LINE AND BACK LINE OF THE TRENCH TO THE TRENCH WALLS. THE SEALS SHOULD BE PLACED AT THE SITE BORDERS AND 225mm (9") SPACED AT THE INTERSECTIONS OF 90° SPREAD. THE CLAY SEALS SHOULD BE PLACED AT THE SITE BORDERS AND 225mm (9") SPACED AT THE INTERSECTIONS IN THE SERVICE TRENCHES.

3. SERVICES TO BUILDINGS TO BE TERMINATED 1.0m FROM THE OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.

4. ALL SEWERS SHALL BE CONSTRUCTED WITH A MINIMUM OF 10% SLOPE TO THE NEXT MANHOLE OR STRUCTURE COMPACTED TO 98% STANDARD PROCTOR DENSITY, A MINIMUM OF 300mm FROM STRUCTURES.

5. ALL TRENCHES SHALL BE PROTECTED BY A 100mm DEEP CONCRETE CURB WITH 150mm HIGH BUSHING COMPACTED TO 98% STANDARD PROCTOR DENSITY. THE CURB SHALL BE 100mm HIGH AND 150mm WIDE. THE CURB SHALL BE USED IN LIEU OF BRICKS. LARGE ADJUSTING UNITS ON THE OUTSIDE ONLY.

6. SAFETY PLASTIC SHALL BE PER OSP 404-02.

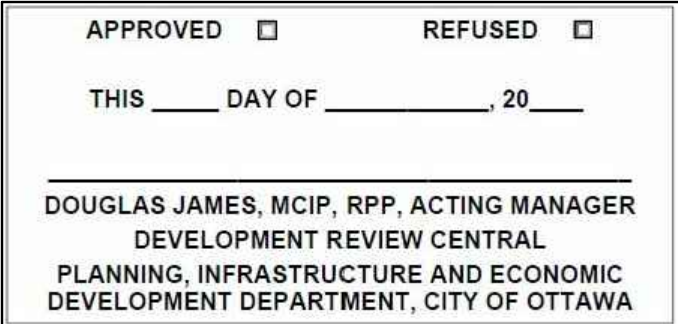
7. DROPP STRUCTURES SHALL BE IN ACCORDANCE WITH OSP 100.301 AND 100.302, IF APPLICABLE.

8. THE CONTRACTOR IS TO PROVIDE CCTV CAMERA INSPECTIONS OF ALL SEWERS, INCLUDING PICTORIAL RECORD, ONE (1) CD COPY AND ONE (1) DVD COPY OF THE INSPECTION. THE INSPECTION SHALL BE PLACED IN THE VIDEO INSPECTION OF SEWERS AND NECESSARY REPAIRS HAVE BEEN MADE.

9. CONTRACTOR SHALL PERFORM LEAKAGE TESTING, IN THE PRESENCE OF THE CONSULTANT, FOR SANITARY SEWERS IN ACCORDANCE WITH THE CITY STANDARD DRAWING 58. THE TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE CONSULTANT. THE CONSULTANT SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW AND APPROVAL, PRIOR TO PLACEMENT OF WEAR COURSE ASPHALT.

10. ALL SANITARY SEWER INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE CITY OF OTTAWA AND THE ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSP).
11. 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.
12. EXISTING MAINTENANCE STRUCTURES TO BE RE-RECORDED WHERE A NEW CONNECTION IS MADE.
13. SANITARY GRAVITY SEWER TRENCH AND BEDDING SHALL BE PER CITY OF OTTAWA STD. S6 AND S7, CLASS "B" BEDDING, UNLESS SPECIFIED OTHERWISE.
14. SANITARY MAINTENANCE STRUCTURE FRAME AND COVERS SHALL BE PER CITY OF OTTAWA STD. S24 AND S25.
15. SANITARY MAINTENANCE STRUCTURES SHALL BE BENCHMARKED PER OPSD 701.021.

16. ALL REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.2, OR LATEST AMENDMENT. ALL OTHER REINFORCED CONCRETE PIPE SHALL BE IN ACCORDANCE WITH CSA A257.2 OR LATEST AMENDMENT. PIPE SHALL BE JOINTED WITH STD. RUBBER GASKETS AS PER CSA A257.2, OR LATEST AMENDMENT.
17. ALL STORM SEWER TRENCHES AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. 58 AND 57 CLASS "B" UNLESS OTHERWISE SPECIFIED. TRENCHES SHALL BE 1.5m DEEP MINIMUM. TRENCHES SPECIFICALLY ABOVE, WHERE THE SPECIFIED TRENCH WIDTH IS EXCEEDED, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE AND SHALL BE RESPONSIBLE FOR EXTRA TRENCH AND/OR PERMANENT REPAIRS MADE NECESSARY BY THE WIDENED TRENCH.
18. ALL STORM SEWER MANHOLES SHALL BE IN ACCORDANCE WITH CITY STD. 58 UNLESS OTHERWISE NOTED.
19. PERFORATED SUBDRAIN FOR REAR YARD AND LANDSCAPING APPLICATIONS SHALL BE INSTALLED PER CITY STD. 529, S30, AND 531, WHERE APPLICABLE.
20. RIP-RAP TREATMENT FOR SEWER AND CULVERT OUTLETS PER OPSD B10.010.
21. ALL STORM SEWERS / CULVERTS TO BE INSTALLED WITH TROUGH TREATMENT PER OPSD 803.031 WHERE APPLICABLE.



TOPOGRAPHIC INFORMATION
TOPOGRAPHIC INFORMATION PROVIDED BY FAIRHALL, MOFFATT & WOODLAND LIMITED
PROJ. NO. T41200
DATED JANUARY 15, 2015

SITE PLAN PROVIDED BY HOBIN ARCHITECTURE INC.
PROJ. NO. 1508
DATED SEPTEMBER 1, 2017

GEOTECHNICAL RECOMMENDATIONS PROVIDED BY PATERSON GROUP
PROJ. NO. PG3202-1
DATED OCTOBER 5, 2015

SERVICING AND STORMWATER MANAGEMENT RECOMMENDATIONS PROVIDED BY DSEL
PROJ. NO. 14-717
DATED JUNE 2017

MULTIPLE ON-SITE AS PER SURVEY

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