

**NOTE**  
REFER TO SSP-2 FOR CONFLICT AND WATERMAIN TABLE

**NOTE**  
ALL SITE WORKS TO BE IN ACCORDANCE WITH COSTCO WHOLESALE DEVELOPMENT REQUIREMENTS DATED JUNE 2014 (CWRD 2014)

**GENERAL NOTES**

1. ALL WORKS AND MATERIALS SHALL CONFORM TO THE LATEST REVISION OF THE STANDARDS AND SPECIFICATIONS FOR THE CITY OF OTTAWA (ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD), SPECIFICATIONS (SPSS), AND COSTCO WHOLESALE DEVELOPMENT REQUIREMENTS, DATED JUNE 2014 (CWRD 2014), 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 WARDEN AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OR REPLACEMENT OF ANY ADJACENT UTILITIES DISTURBED DURING CONSTRUCTION, TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION.
3. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE ENGINEER IMMEDIATELY IN WRITING OF ANY FAILURE OF THE CONTRACTOR TO CONFIRM UTILITY LOCATIONS AND NOTIFY ENGINEER OF POSSIBLE CONFLICTS. CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE SITE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION AT THE CONTRACTOR'S EXPENSE.
4. ANY AREAS BEYOND THE LIMIT OF THE SITE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION AT THE CONTRACTOR'S EXPENSE.
5. RELOCATION OF EXISTING SERVICES AND/OR UTILITIES SHALL BE AS SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER AT THE EXPENSE OF THE DEVELOPER.
6. 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 REFERRED IN THE ACT.
7. ALL CONSTRUCTION SIGNAGE MUST CONFORM TO THE MINISTRY OF TRANSPORTATION OF ONTARIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR LATEST EDITION.
8. THE CONTRACTOR IS ADVISED THAT WORKS BY OTHERS MAY BE ONGOING DURING THE PERIOD OF THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES TO PREVENT CONFLICTS.
9. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.
10. THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS PRIOR WRITTEN APPROVAL IS RECEIVED FROM THE ENGINEER.
11. ALL CONSTRUCTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE GEOTECHNICAL REPORT.
12. FOR DETAILS RELATING TO STORMWATER MANAGEMENT AND ROOF DRAINAGE REFER TO THE SITE SERVING AND STORMWATER MANAGEMENT REPORT.
13. ALL SEWERS CONSTRUCTED WITH GRADES LESS THAN 1.0% SHALL BE INSTALLED USING LASER ALIGNMENT AND CHECKED WITH LEVEL INSTRUMENT PRIOR TO BACKFILLING.
14. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND TO BEAR THE COST OF THE PERMITS.
15. THE CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL BEDDING, OR ADDITIONAL STRENGTH PIPE IF THE EXISTING TRENCH WIDTH WITH SPECIFIED BEDDING IS DEEPLY INSUFFICIENT FOR THE SEWERS TO BE INSTALLED. ALL PIPE / CULVERT SECTION SIZES REFER TO INSIDE DIMENSIONS.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL BEDDING, OR ADDITIONAL STRENGTH PIPE IF THE EXISTING TRENCH WIDTH WITH SPECIFIED BEDDING IS DEEPLY INSUFFICIENT FOR THE SEWERS TO BE INSTALLED. ALL PIPE / CULVERT SECTION SIZES REFER TO INSIDE DIMENSIONS.
17. SHOULD DEEPLY BURIED ARCHAEOLOGICAL REMAINS BE FOUND ON THE PROPERTY DURING CONSTRUCTION OF THIS PROJECT, THE HERITAGE OPERATIONS UNIT OF THE ONTARIO MINISTRY OF CULTURE MUST BE NOTIFIED IMMEDIATELY.
18. ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH CONTRACT ADMINISTRATOR AND THE CITY OF OTTAWA PRIOR TO ANY CUTTING / REMOVAL.
19. DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL SITE PLAN.
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 BENCHMARK(S) HAS NOT BEEN ALTERED SINCE THE DATE OF THE BENCHMARK(S) AND THAT ITS RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION DEPICTED ON THIS PLAN.

**WATERMAIN NOTES**

1. ALL WATERMAIN INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE CITY OF OTTAWA AND THE ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD), SPECIFICATIONS (SPSS) AND COSTCO WHOLESALE DEVELOPMENT REQUIREMENTS, DATED JUNE 2014 (CWRD 2014), WHERE APPLICABLE.
2. ALL PVC WATERMANS SHALL BE AWMA C-900 CLASS 150, SDR 18 OR APPROVED EQUIVALENT.
3. WATERMAIN TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD WIT, UNLESS SPECIFIED OTHERWISE. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY THE PROJECT GEOTECHNICAL ENGINEER.
4. ALL PVC WATERMANS SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TWO OR RWJ TRACKER WIRE IN ACCORDANCE WITH CITY OF OTTAWA STD. W2.3.
5. CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS PER CITY OF OTTAWA STD. W4.0 AND W4.2. VALVE BOXES SHALL BE INSTALLED PER CITY OF OTTAWA STD. W2.4.
6. WATERMAIN IN FILL AREAS TO BE INSTALLED WITH RESTRAINED JOINTS PER CITY OF OTTAWA STD. W2.5.3 AND W2.5.6.
7. THURST BLOCKING OF WATERMANS TO BE INSTALLED PER CITY OF OTTAWA STD. W2.5.3 AND W2.5.4.
8. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY CAPS, PLUGS, BLOW-OFFS, AND NOZZLES REQUIRED FOR TESTING AND DISINFECTION OF THE WATERMAIN.
9. WATERMAIN CROSSING OVER AND BELOW SEWERS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. W2.5.2 AND W2.5.2, RESPECTIVELY.
10. WATER SERVICES ARE TO BE INSTALLED PER CITY STD. W2.3 WHERE SEPARATION BETWEEN SERVICES AND MAINTENANCE HOLES ARE LESS THAN 2.4m.
11. THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER / UTILITY IS 0.50m PER MOST RECENT CITY OF OTTAWA STANDARD DRAWING (OPSD) W2.5.2.3. THE LENGTH OF WATER PIPE SHALL BE THE DISTANCE BETWEEN THE CENTER TO CENTER OF THE JOINTS AND AS FAR AS POSSIBLE FROM THE SEWER.
12. WATERMANS SHALL HAVE A MINIMUM COVER OF 2.4m, OTHERWISE THERMAL INSULATION IS REQUIRED AS PER STD DWG W2.2.
13. GENERAL WATER PLANT TO UTILITY CLEARANCE AS PER STD DWG W2.0.
14. FIRE HYDRANT INSTALLATION AS PER STD DWG W2.0. HYDRANT FLANGE ELEVATIONS TO BE INSTALLED 0.10m ABOVE PROPOSED FINISHED GRADE AT HYDRANT; FIRE HYDRANT LOCATION AS PER STD DWG W2.2.
15. BUILDING SERVICE TO BE CAPPED 1.5m OFF THE FACE OF THE BUILDING UNLESS OTHERWISE NOTED AND MUST BE MAINTAINED TO A MINIMUM OF 12m BACK FROM STUBS.
16. ALL WATERMANS SHALL BE HYDROSTATICALLY 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.
17. ALL WATERMANS SHALL BE BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO GUIDELINES. ALL CHLORINATED WATER TO BE DISCHARGED AND PRETREATED TO ACCEPTABLE LEVELS PRIOR TO DISCHARGE. ALL DISCHARGED WATER MUST BE CONTROLLED AND TREATED SO AS NOT TO ADVERSELY AFFECT THE ENVIRONMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL MUNICIPAL AND/OR PROVINCIAL REQUIREMENTS ARE FOLLOWED.
18. ALL WATERMAIN STUBS SHALL BE TERMINATED WITH A PLUG AND 50mm BLOW OFF UNLESS OTHERWISE SPECIFIED.

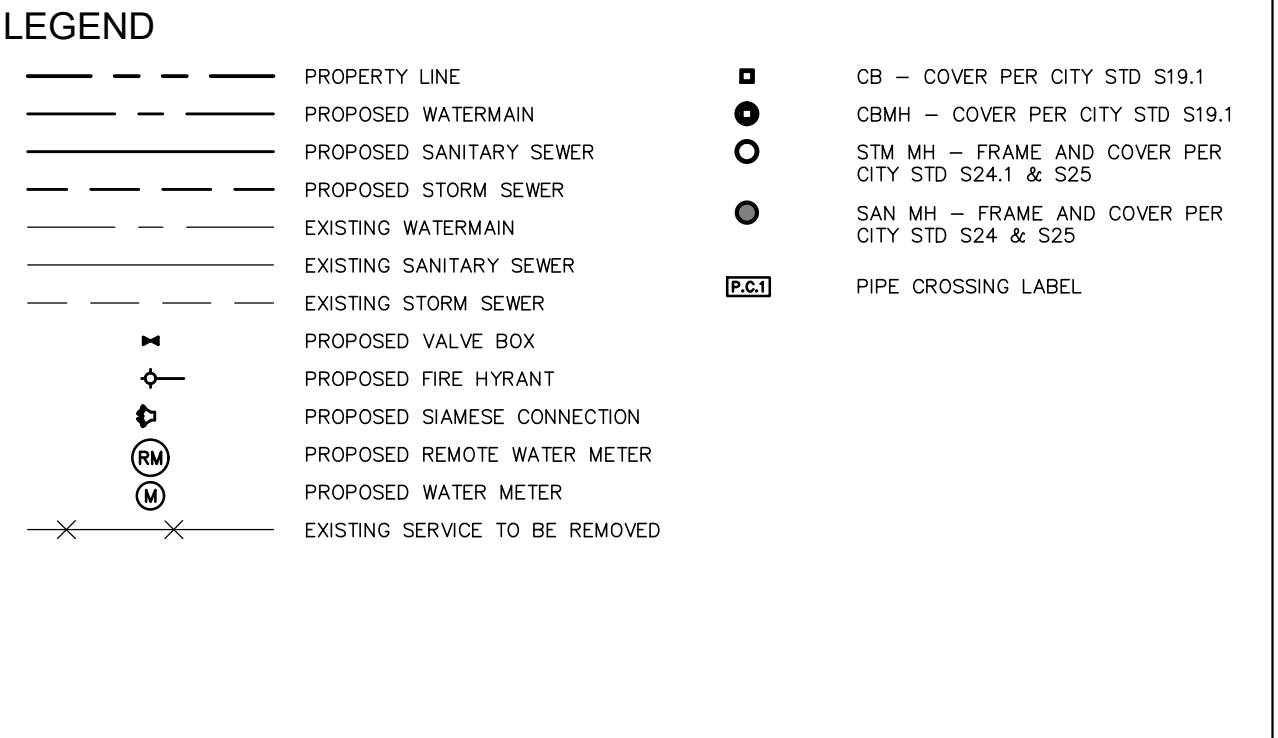
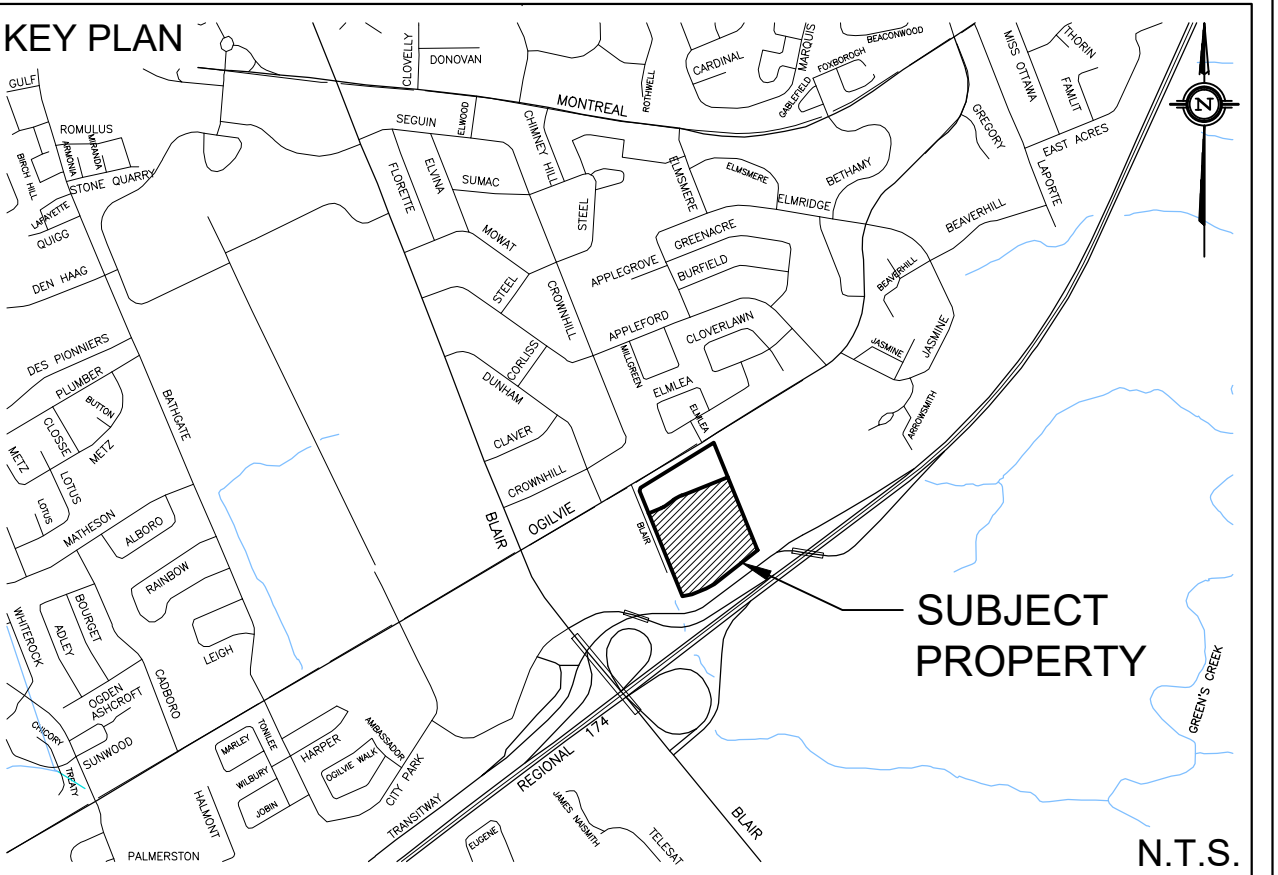
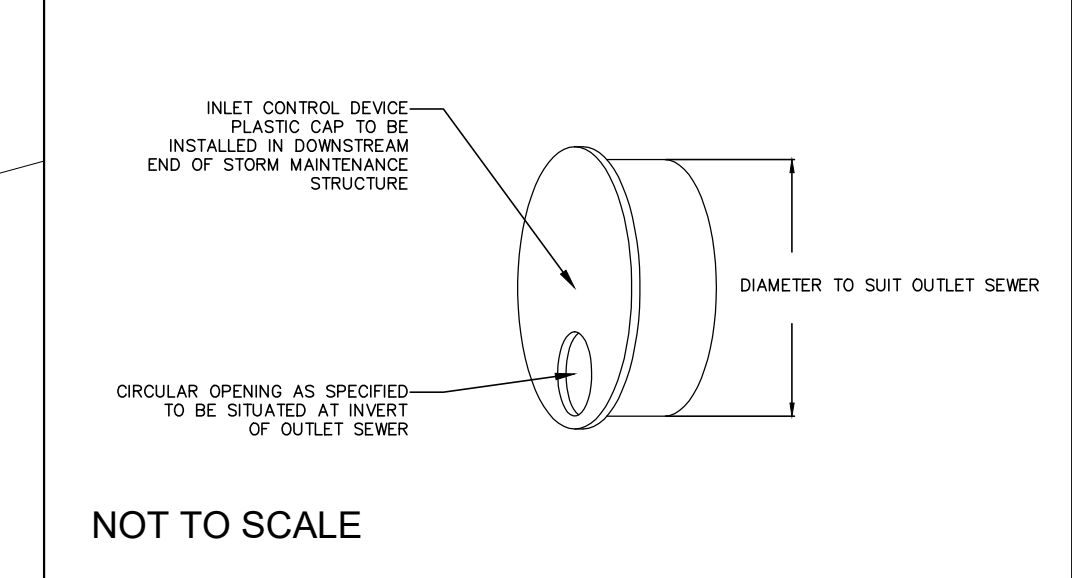
**SANITARY AND STORM SEWER NOTES**

1. LASER ALIGNMENT CONTROL TO BE UTILIZED ON ALL SEWER INSTALLATIONS.
2. CLAY SEALS TO BE INSTALLED AS PER CITY STANDARD DRAWING S8. THE SEALS SHOULD BE AT LEAST 1.5m LONG ON THE TRENCH (SECTION) AND SHOULD EXTEND FROM TRENCH WALL TO TRENCH WALL. THE SEALS SHOULD EXTEND FROM THE FRONT LINE AND FULLY PENETRATE THE BEDDING, SUB-BEDDING, AND COVER MATERIAL. THE BARRIER SHOULD BE RELATIVELY DRY AND COMPACTED BROWN SILTY CLAY PLACED IN MAXIMUM 225mm LIFTS AND COMPACTED TO A MINIMUM OF 95% SPDM. THE CLAY SHOULD BE PLACED AT 60m INTERVALS AND AT SITE BOUNDARIES AND AT INTERVALS IN SERVICE TRENCHES.
3. SERVICES TO BUILDINGS TO BE TERMINATED 1.5m FROM THE OUTSIDE FACE OF BUILDING UNLESS OTHERWISE SPECIFIED.
4. ALL MAINTENANCE STRUCTURE AND CATCH BASIN EXCAVATIONS TO BE BACKFILLED WITH GRANULAR MATERIAL COMPACTED TO 98% STANDARD PROCTOR DENSITY, A MINIMUM OF 300mm AROUND STRUCTURES.
5. "MOLDOC" OR APPROVED PRE-CAST MAINTENANCE STRUCTURE AND CATCH BASIN ADJUSTERS TO BE USED IN LIEU OF BROKING PARGE ADJUSTING UNITS ON THE OUTSIDE UOY.
6. SAFETY PLATFORMS SHALL BE PER OPSD 400.02.
7. DROP STRUCTURES SHALL BE IN ACCORDANCE WITH OPSD 1003.01 AND 1003.02, IF APPLICABLE.
8. THE CONTRACTOR IS TO PROVIDE CCTV CAMERA INSPECTIONS OF ALL SEWERS, INCLUDING PICTORIAL REPORT, ONE (1) CD COPY AND TWO (2) VIDEO RECORDINGS IN A FORMAT ACCEPTABLE TO THE ENGINEER. ALL SEWERS ARE TO BE FLUSHED PRIOR TO CAMERA INSPECTION. ASPHALT WEAR COURSE SHALL NOT BE PLACED UNTIL THE VIDEO INSPECTION OF SEWERS AND NECESSARY REPAIRS HAVE BEEN COMPLETED TO THE SATISFACTION OF THE ENGINEER.
9. CONTRACTOR SHALL PERFORM LEAKAGE TESTING, IN THE PRESENCE OF THE CONSULTANT, FOR SANITARY SEWERS IN ACCORDANCE WITH OPSD 400.01 AND OPSD 400.02. CONTRACTOR SHALL PERFORM VIDEO INSPECTION OF ALL SEWERS. A COPY OF THE VIDEO AND INSPECTION REPORT 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), SPECIFICATIONS (SPSS) AND COSTCO WHOLESALE DEVELOPMENT REQUIREMENTS, DATED JUNE 2014 (CWRD 2014).
11. ALL SANITARY GRAVITY SEWER SHALL BE PVC DSR 35, 100% RING-TITE (OR APPROVED EQUIVALENT) PER CSA STANDARD B182.2 OR LATEST AMENDMENT, UNLESS SPECIFIED OTHERWISE.
12. EXISTING MAINTENANCE STRUCTURES TO BE RE-BENCHED WHERE A NEW CONNECTION IS MADE.
13. SANITARY GRAVITY SEWER TRENCH AND BEDDING SHALL BE PER CITY OF OTTAWA STD. S8 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. SANITARY MAINTENANCE STRUCTURES SHALL BE BENCHED PER OPSD 701.021.

**SIDING**

1. ALL REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.2, OR LATEST AMENDMENT. ALL NON-REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.1, OR LATEST AMENDMENT. PIPE SHALL BE JOINED WITH STD. RUBBER GASKETS AS PER CSA A257.1, OR LATEST AMENDMENT.
2. ALL STORM SEWER TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. S8 AND S7, CLASS "B" BEDDING, UNLESS OTHERWISE SPECIFIED. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY PROJECT GEOTECHNICAL ENGINEER.
3. ALL PVC STORM SEWERS ARE TO BE SDR 35 APPROVED PER C.S.A. B182.2 OR LATEST AMENDMENT, UNLESS OTHERWISE SPECIFIED.
4. CATCH BASINS SHALL BE IN ACCORDANCE WITH OPSD 708.010 OR DWG 2104 WHERE REQUIRED.
5. CATCH BASIN LEADS SHALL BE 200MM DIA. AT ITS SLOPE (MN) UNLESS SPECIFIED OTHERWISE.
6. ALL CATCH BASINS SHALL HAVE 600MM SUMPS, UNLESS SPECIFIED OTHERWISE.
7. ALL CATCH BASIN LEAD INVERTS TO BE 1.5m BELOW FINISHED GRADE UNLESS SPECIFIED OTHERWISE.
8. THE STORM SEWER SYSTEMS HAVE BEEN DESIGNED BASED ON BEDDING CONDITIONS SPECIFIED ABOVE WHERE 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.
9. PERFORATED SUBIRAN FOR ROAD AND PARKING LOT CATCH BASIN SHALL BE INSTALLED PER CITY STD R1 OR CWRD 2014 WHERE REQUIRED.
10. PERFORATED SUBIRAN FOR REAR YARD AND LANDSCAPING APPLICATIONS SHALL BE INSTALLED PER CITY STD S29, S30, S31 AND S31, WHERE APPLICABLE.
11. RIP-RAP TREATMENT FOR SEWER AND CULVERT OUTLETS PER OPSD 810.010.
12. ALL STORM SEWERS / CULVERTS TO BE INSTALLED WITH FROST TREATMENT PER OPSD 803.031 WHERE APPLICABLE.

**INLET CONTROL DEVICE (ICD) DETAIL PLASTIC "PLUG" STYLE**



**FROST PROTECTION RECOMMENDATIONS FOR STORM SEWERS WITH LESS THAN 1.5m AND SANITARY SEWERS WITH LESS THAN 1.8m FROM GROUND SURFACE TO PIPE OVERTO BE PROVIDED BY GEOTECHNICAL ENGINEER.**

**UNLESS OTHERWISE INDICATED BUILDING SERVICES TO BE WATER TO BE MIN. 25mm DIA. STORM 200mm DIA. AND SANITARY 150mm DIA. STORM AND SANITARY SERVICES TO BE @ 1.0% MIN.**

**PROPOSED SANITARY, STORM AND WATER SERVICE SIZE TO BE SPECIFIED BY MECHANICAL ENGINEER. ROOF TOP STORM CONTROLS TO BE REVIEWED AND CONFIRMED BY MECHANICAL ENGINEER.**

**CONTRACTOR TO CONFIRM ELEVATIONS AND LOCATIONS OF EXISTING UNDERGROUND SERVICES AND UTILITIES WITHIN OGILVIE ROAD AND BLAIR PLACE RIGHT OF WAY PRIOR TO INSTALLATION OF SITE SERVING INFRASTRUCTURE.**

**THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE 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.**

**NOT FOR CONSTRUCTION**

**TOPOGRAPHIC INFORMATION**

TOPOGRAPHIC INFORMATION PROVIDED BY STANTEC GEOMATICS LTD.  
 PROJ. NO. 161613044-111  
 DATED MARCH 5, 2014

**SITE PLAN INFORMATION**

SITE PLAN PROVIDED BY PETROFF PARTNERSHIP ARCHITECTS  
 PROJ. NO. 13151  
 DATED JULY 22, 2016

**GEOTECHNICAL STUDY**

GEOTECHNICAL RECOMMENDATIONS PROVIDED BY INSP-SEL ENGINEERING SOLUTIONS  
 PROJ. NO. 1021399-1  
 DATED JUNE 30, 2015

**SITE SERVING AND STORMWATER MANAGEMENT STUDY**

SERVING AND STORMWATER MANAGEMENT RECOMMENDATIONS PROVIDED BY DSEL  
 PROJ. NO. 13-694  
 DATED JULY 2016

**BENCH MARK**

TOP OF SPINDLE OF FIRE HYDRANT LOCATED AT INTERSECTION OF OGILVIE ROAD AND BLAIR PLACE  
 ELEV=78.03

No.	BY	YYMM.DD	DESCRIPTION
5	A.J.G.	16.07.26	ISSUED FOR MUNICIPAL REVIEW
4	B.N.C.	16.05.16	ISSUED FOR MUNICIPAL REVIEW
3	B.N.C.	16.03.19	ISSUED FOR COORDINATION
2	B.N.C.	16.03.02	ISSUED FOR COORDINATION
1	B.N.C.	15.10.20	ISSUED FOR CLIENT REVIEW

**SITE SERVING PLAN 2012 OGILVIE ROAD - PHASE 2**

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DESIGNED BY: B.N.C. CHECKED BY: A.D.F. DRAWING NO. SHEET NO.  
 DESIGNED BY: S.L.M. CHECKED BY: A.D.F.  
 SCALE: 1:500 DATE: JULY 2016 SSP-1 3 of 6