

- GENERAL NOTES
1. ALL WORK SHALL BE CARRIED OUT IN COMPLIANCE WITH THE ONTARIO OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
 2. ALL WORK AND MATERIALS TO CONFORM WITH CURRENT MINISTRY OF THE ENVIRONMENT & ENERGY OF ONTARIO, CITY OF OTTAWA AND ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS. LOCAL UTILITY STANDARDS AND MINISTRY OF TRANSPORTATION STANDARDS WILL APPLY WHERE REQUIRED.
 3. THE CONTRACTOR IS ADVISED THAT WORKS BY OTHERS MAY BE ONGOING DURING THE PERIOD OF THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES AND COORDINATION WITH ALL OTHER CONTRACTORS AND PREVENT CONSTRUCTION CONFLICTS.
 4. THE INFORMATION SHOWN FOR EXISTING UTILITIES WAS PROVIDED BY OTHERS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. ALL EXISTING UTILITIES MUST BE LOCATED AND VERIFIED BY EACH UTILITY PRIOR TO COMMENCEMENT OF WORK. ANY VARIANCE IS TO BE IMMEDIATELY REPORTED TO THE ENGINEER. LOST TIME DUE TO FAILURE OF THE CONTRACTOR TO CONFIRM UTILITY LOCATIONS AND NOTIFY THE ENGINEER OF POSSIBLE CONFLICTS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTORS EXPENSE.
 5. ALL CONSTRUCTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE GEOTECHNICAL REPORT.
 6. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND TO BEAR THE COST OF SAME INCLUDING WATER PERMIT AND ASSOCIATED COSTS.
 7. ALL DISTURBED AREAS SHALL BE RESTORED TO EQUAL OR BETTER CONDITION TO THE SATISFACTION THE ENGINEER AND THE CITY OF OTTAWA. PAVEMENT REINSTATEMENT FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD R10, OPS5 50.010 AND OPS5 310.
 8. BENCHMARKS: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE SITE BENCHMARK(S) HAS NOT BEEN ALTERED OR DISTURBED AND THAT ITS RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION SHOWN ON DRAWING GP-1.
 9. THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER 1 (ONE) SET OF AS CONSTRUCTED SITE SERVICING, GRADING, AND SITE ELECTRICAL DWGS.
 10. CONTRACTOR TO LOCATE EXISTING SERVICE LATERALS PRIOR TO CONSTRUCTION. EXISTING STORM AND SANITARY SERVICE LATERALS TO BE ABANDONED PER S11.4. EXISTING WATER SERVICE TO BE BLANKED AT THE MAIN (TYP.)
 11. TOPOGRAPHIC SURVEY SUPPLIED BY CALLOW DIETZ INCORPORATED DATED FEBRUARY 26, 2025 FILE NO. 25-27060.
 12. SITE PLAN PREPARED BY HOBIN ARCHITECTURE DATED APRIL 2025, PROJECT NO. 2457.
 13. GEOTECHNICAL INVESTIGATION PREPARED BY PATERSON GROUP DATED MARCH 21, 2025, REPORT NO. PG7468-1. GEOTECHNICAL INFORMATION PRESENTED ON THESE DRAWINGS MAY BE INTERPOLATED FROM THE ORIGINAL REPORT. REFER TO ORIGINAL GEOTECHNICAL REPORT FOR ADDITIONAL DETAILS AND TO VERIFY ASSUMPTIONS MADE HERE.
 14. REFER TO LANDSCAPE ARCHITECTURE PLAN FOR ALL LANDSCAPING FEATURES (i.e. TREES, WALKWAYS, PARK DETAILS, NOISE BARRIERS, FENCES etc.)
 15. STREET LIGHTING TO CITY OF OTTAWA STANDARDS.
 16. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED. DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED IMMEDIATELY TO ENGINEER.
 17. THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS PRIOR WRITTEN APPROVAL BY THE CONTRACT ADMINISTRATOR AND PROJECT ENGINEER HAS BEEN OBTAINED.
 18. HERITAGE OPERATIONS UNIT OF THE ONTARIO MINISTRY OF CULTURE TO BE NOTIFIED IF DEEPLY BURIED ARCHEOLOGICAL REMAINS ARE FOUND ON THE PROPERTY DURING CONSTRUCTION ACTIVITIES.

- WATER SUPPLY SERVICING
1. THE CONTRACTOR SHALL CONSTRUCT WATERMAIN, WATER SERVICES, CONNECTIONS & APPURTENANCES AS PER CITY OF OTTAWA SPECIFICATIONS & SHALL CO-ORDINATE AND PAY ALL RELATED COSTS INCLUDING THE COST OF CONNECTION, INSPECTION & DISINFECTION BY CITY PERSONNEL.
 2. WATERMAIN PIPE MATERIAL SHALL BE PVC CL115 DR18. DEFLECTION OF WATERMAIN PIPE IS NOT TO EXCEED 1/2 OF THAT SPECIFIED BY THE MANUFACTURER. PVC WATERMAINS TO BE INSTALLED WITH TRACER WIRE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W36.
 3. WATER SERVICES ARE TO BE PEX PIPE AS PER CITY OF OTTAWA STANDARD W26 (UNLESS OTHERWISE NOTED). STAND POST TO BE INSTALLED AT PROPERTY LINE.
 4. WATERMAIN TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. W17 UNLESS OTHERWISE SPECIFIED. BEDDING AND COVER MATERIAL TO BE SPECIFIED BY PROJECT GEOTECHNICAL CONSULTANT.
 5. SERVICE CONNECTIONS SHALL BE INSTALLED A MINIMUM OF 2400mm FROM ANY CATCHBASIN, MANHOLE, OR OBJECT THAT MAY CONTRIBUTE TO FREEZING. THERMAL INSULATION SHALL BE INSTALLED ON ALL PROPOSED CB'S ON THE W/M STREET SIDE WHERE 2400mm SEPARATION CANNOT BE ACHIEVED (AS PER CITY OF OTTAWA STD. W22 & W23).
 6. CATHODIC PROTECTION TO BE SUPPLIED ON METALIC FITTINGS AS PER CITY OF OTTAWA STD. W40 AND W42.
 7. ALL WATERMAIN BENDS, JOINTS, TEES AND PLUGS SHALL BE MECHANICALLY RESTRAINED IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS.
 8. ALL WATERMAINS SHALL HAVE MIN. COVER OF 2.4m. WATERMAINS ARE TO BE INSTALLED TO THE ELEVATIONS SHOWN ON THE APPROVED SITE SERVICING DRAWING. WHERE SPECIFIC WATERMAIN ELEVATIONS ARE NOT SHOWN ON THE SERVICING DRAWING, A MINIMUM COVER OF 2.4m FROM PROPOSED GRADES, AS SHOWN ON THE GRADING PLAN, MUST BE MAINTAINED AT ALL TIMES. IN PREGRADE AREAS COVER TO BE FROM PREGRADE ELEVATIONS. WHERE WATERMAIN COVER IS LESS THAN 2.4m, INSULATION TO BE SUPPLIED IN ACCORDANCE WITH CITY OF OTTAWA STD. W22.
 9. WATERMAINS MUST COMPLY WITH MINIMUM HORIZONTAL AND VERTICAL CLEARANCES IN ACCORDANCE WITH LOCAL PROVINCIAL GUIDELINES AND THE APPLICABLE BUILDING AND PLUMBING CODE. WHERE HORIZONTAL SEPARATIONS CANNOT BE ACHIEVED, APPROVAL FROM THE ENGINEER MUST BE OBTAINED AND A MINIMUM 500mm VERTICAL SEPARATION MUST BE MAINTAINED.
 10. ALL WATERMAINS 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.
 11. ALL WATERMAINS 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 EFFECT THE ENVIRONMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL MUNICIPAL AND/OR PROVINCIAL REQUIREMENTS ARE FOLLOWED.
 12. FIRE HYDRANTS TO BE INSTALLED AS PER CITY OF OTTAWA STANDARDS W18 AND W19.
 13. WATER VALVES TO BE INSTALLED AS PER CITY OF OTTAWA STANDARD W24.
 14. THRUST BLOCKS TO BE INSTALLED AS PER CITY OF OTTAWA STANDARDS W25.3 AND W25.4.
 15. WATERMAIN CROSSINGS ABOVE AND BELOW SEWERS TO BE INSTALLED AS PER CITY OF OTTAWA STANDARD W25 AND W25.2.
 14. SERVICE SIZES AND ELEVATIONS TO BE CONFIRMED BY MECHANICAL ENGINEER.

- STORM AND SANITARY SEWERS
1. STORM AND SANITARY SEWERS 375mm DIA. OR SMALLER SHALL BE PVC SDR35. SEWERS LARGER THAN 375mm SHALL BE CONCRETE CSA 257.2 CLASS 1000 AS PER OPS5 807.010.
 2. SEWER TRENCH SHALL CONSIST OF CLASS 'B' BEDDING PER CITY OF OTTAWA STANDARDS S6 AND S7. COMPACTION SHALL BE AS PER GEOTECHNICAL CONSULTANT RECOMMENDATIONS. THE BEDDING LAYER THICKNESS SHOULD BE INCREASED TO A MINIMUM OF 300mm WHERE THE SURFACE WILL CONSIST OF GREY SILTY CLAY. TRENCH EXCAVATIONS ADVANCED BELOW THE CLAY DEPOSIT AND THROUGHOUT THE UPPER PORTION OF THE LOOSE SILTY CLAY GLACIAL TILL MAY REQUIRE BEDDING THICKNESS IN THE RANGE OF 800 TO 400mm AND WRAPPED IN GEOTEXTILE TO CONSIDER THE LESSER STIFF NATURE OF THE IN-SITU SOILS AT THOSE DEPTHS. REFER TO GEOTECHNICAL REPORT PREPARED BY PATERSON GROUP DATED MARCH 21, 2025, REPORT NO. PG7468-1 FOR DETAILS.
 3. FOR CONSTRUCTION DETAILS NOT SHOWN ON PLANS, REFERENCE SHALL BE MADE TO THE ONTARIO PROVINCIAL STANDARDS DRAWINGS AND CITY OF OTTAWA STANDARDS.
 4. SERVICES TO BUILDINGS TO BE TERMINATED 1.0m FROM THE FACE OF BUILDING UNLESS OTHERWISE NOTED.
 5. THE CONTRACTOR IS TO PROVIDE CCTV CAMERA INSPECTIONS OF ALL SANITARY AND STORM SEWERS, INCLUDING PICTORIAL REPORT, ONE (1) CD COPY AND TWO (2) VIDEO TAPES IN A FORMAT SATISFACTORY 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 & NECESSARY REPAIRS HAVE BEEN CARRIED OUT TO THE SATISFACTION OF THE CONSULTANT.
 6. LASER ALIGNMENT CONTROL TO BE UTILIZED ON ALL SEWER INSTALLATIONS.
 7. FROST PROTECTION PER CITY OF OTTAWA STANDARD DRAWING S35 WHERE THERE IS LESS THAN 2.0m OF COVER ABOVE THE SEWER SERVICES.
 8. CONTRACTOR SHALL PERFORM LEAKAGE TESTING, IN THE PRESENCE OF THE CONSULTANT, FOR SANITARY SEWERS IN ACCORDANCE WITH OPS5 410 AND OPS5 407. A COPY OF THE INSPECTION REPORT SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW.
 9. STORM SERVICE CONNECTION AS PER CITY STD DWG S11.1; SANITARY SERVICE CONNECTION AS PER CITY STD DWG S11.1. SERVICES TO CONNECT TO THE OBVERT OF THE MAIN UNLESS OTHERWISE NOTED.
 10. CONTRACTOR TO VERIFY EXISTING SEWERS AND INVERTS, AND REPORT ANY DISCREPANCIES TO SITE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
 11. STORM AND SANITARY MANHOLES SHALL BE 1200mm DIAMETER IN ACCORDANCE WITH OPS5-701.01 (UNLESS OTHERWISE NOTED) c/w FRAME AND COVER AS PER CITY OF OTTAWA STD. S24.1 AND S25 WHERE APPLICABLE. CATCH BASIN MANHOLE FRAME AND COVERS PER S19, S28, AND S28.1 WHERE APPLICABLE. ALL STORM MANHOLES WITH SEWERS 800mm DIA SEWERS AND OVER IN SIZE SHALL BE BENCHED. ALL OTHER STORM MANHOLES SHALL BE COMPLETED WITH 300mm SUMPS AS PER CITY STANDARDS. SANITARY MANHOLES SHALL NOT HAVE SUMPS.
 12. CATCH BASINS SHALL BE IN ACCORDANCE WITH CITY STANDARDS c/w FRAME AND GRATE. REAR YARD CB'S SHALL BE AS PER S19.1, STREET CB'S AS PER S2 AND S19, AND CURB INLET CB'S AS PER S3, S22 AND S23. PROVIDE 150mm ADJUSTED SPACERS. ALL CATCH BASINS SHALL HAVE SUMPS (600mm DEEP). STREET CATCH BASIN LEADS SHALL BE 200mm DIA (MIN) PVC SDR 35 AT 1.0% GRADE WHERE NOT OTHERWISE SHOWN ON PLAN. CATCH BASINS WILL BE INSTALLED WITH INLET CONTROL DEVICES (ICD) AS PER ICD SCHEDULE ON STORM DRAINAGE PLAN.
 13. STREET CATCH BASINS TO BE INSTALLED c/w SUBDRAINS 3m LONG IN FOUR ORTHOGONAL DIRECTIONS OR LONGITUDINALLY WHEN PLACED ALONG A CURB, AND AT AN ELEVATION OF 300mm BELOW SUBGRADE LEVEL.
 14. SERVICE SIZES AND ELEVATIONS TO BE CONFIRMED BY MECHANICAL ENGINEER.
 15. CLAY SEALS TO BE INSTALLED AS PER CITY STANDARD S8. 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 ROOT LINE AND FULLY PENETRATE THE BEDDING, SUBBEDDING AND COVER MATERIAL. THE CLAY SEALS SHOULD CONSIST OF RELATIVELY DRY AND COMPATIBLE BROWN SILTY CLAY PLACED IN MAXIMUM 220mm THICK LAYERS AND COMPACTED TO A MINIMUM OF 95% OF THE MATERIALS SPMD. THE CLAY SEALS SHOULD BE PLACED AT THE SITE BOUNDARIES AND AT STRATEGIC LOCATIONS AT NO MORE THAN 60m INTERVALS IN THE SERVICE TRENCHES. FOR DETAILS REFER TO GEOTECHNICAL INVESTIGATION PREPARED BY PATERSON GROUP DATED MARCH 21, 2025, REPORT NO. PG7468-1.

ORIGINAL SHEET - ARCH 0

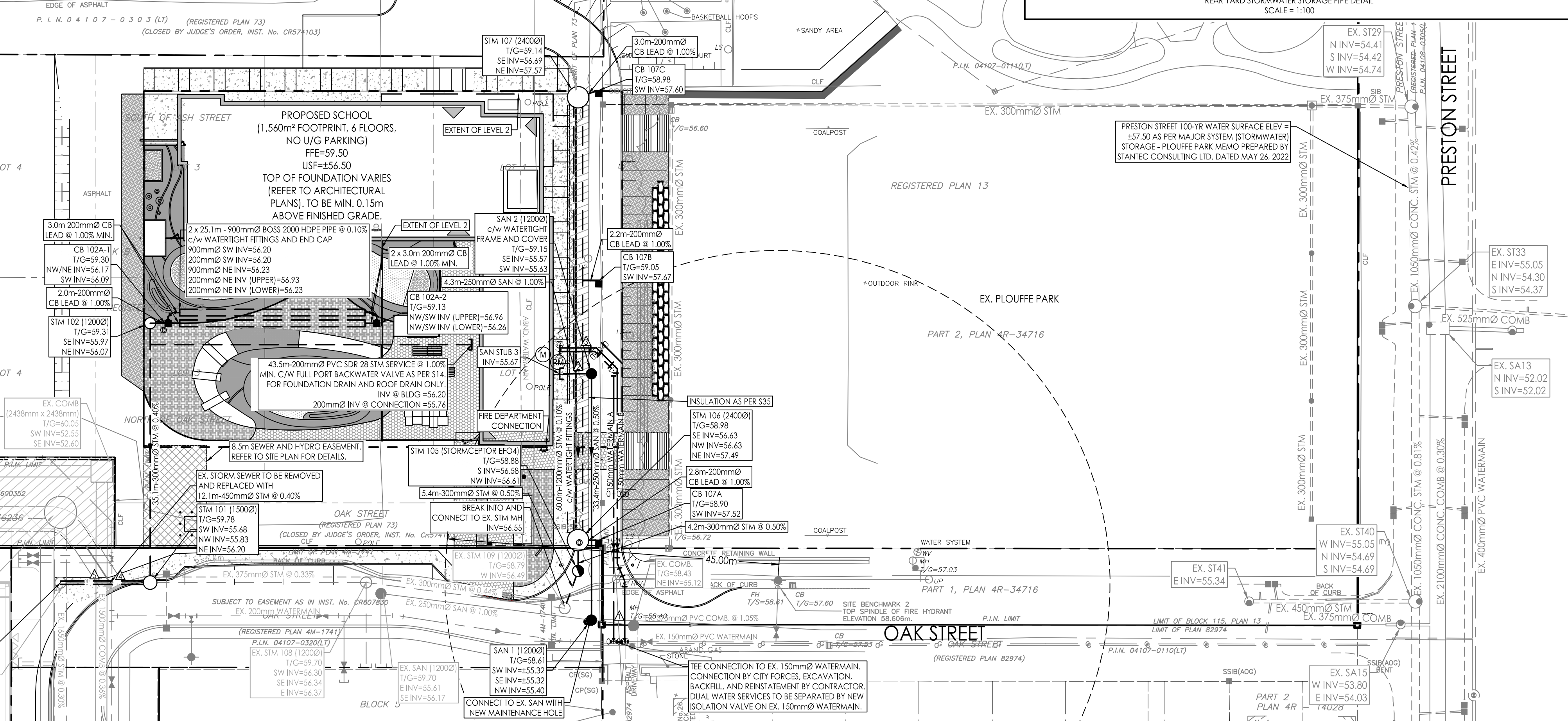
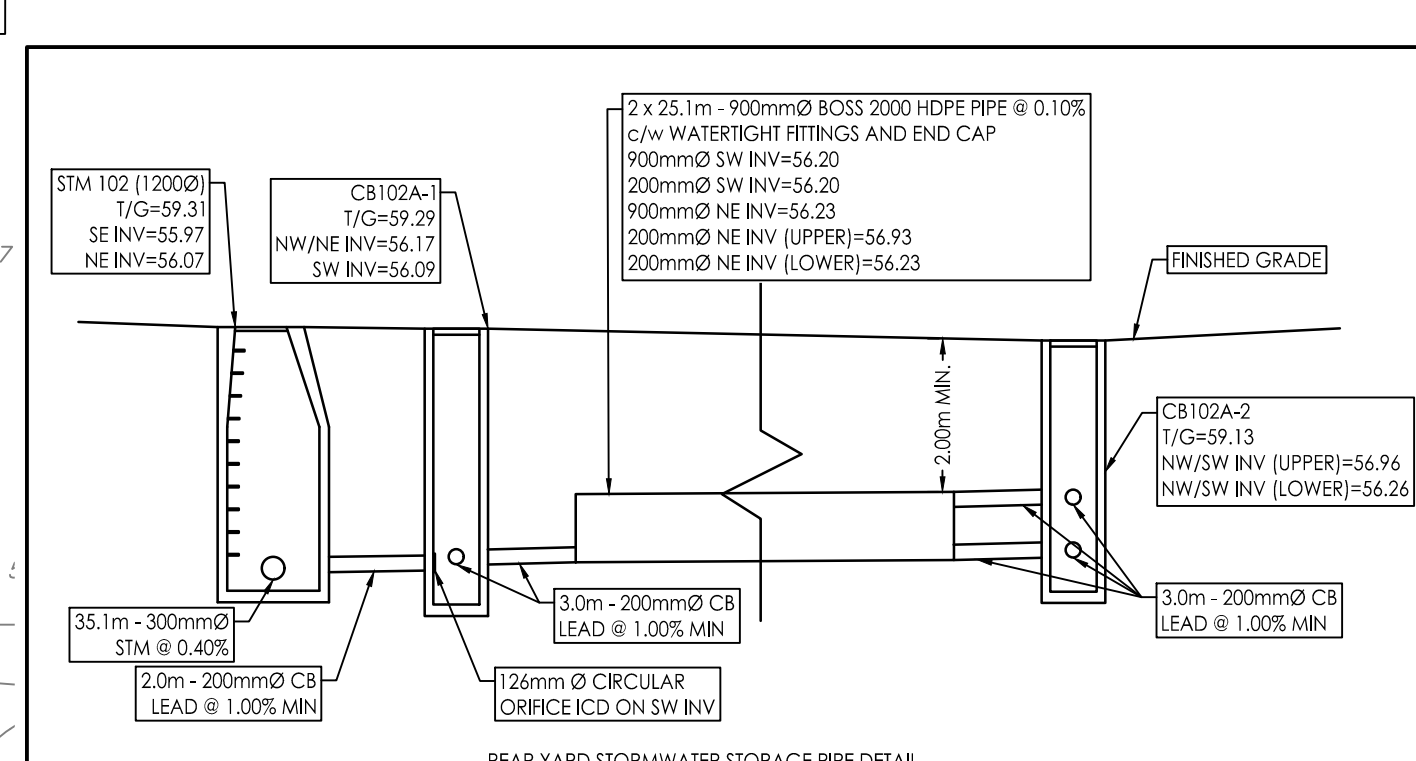
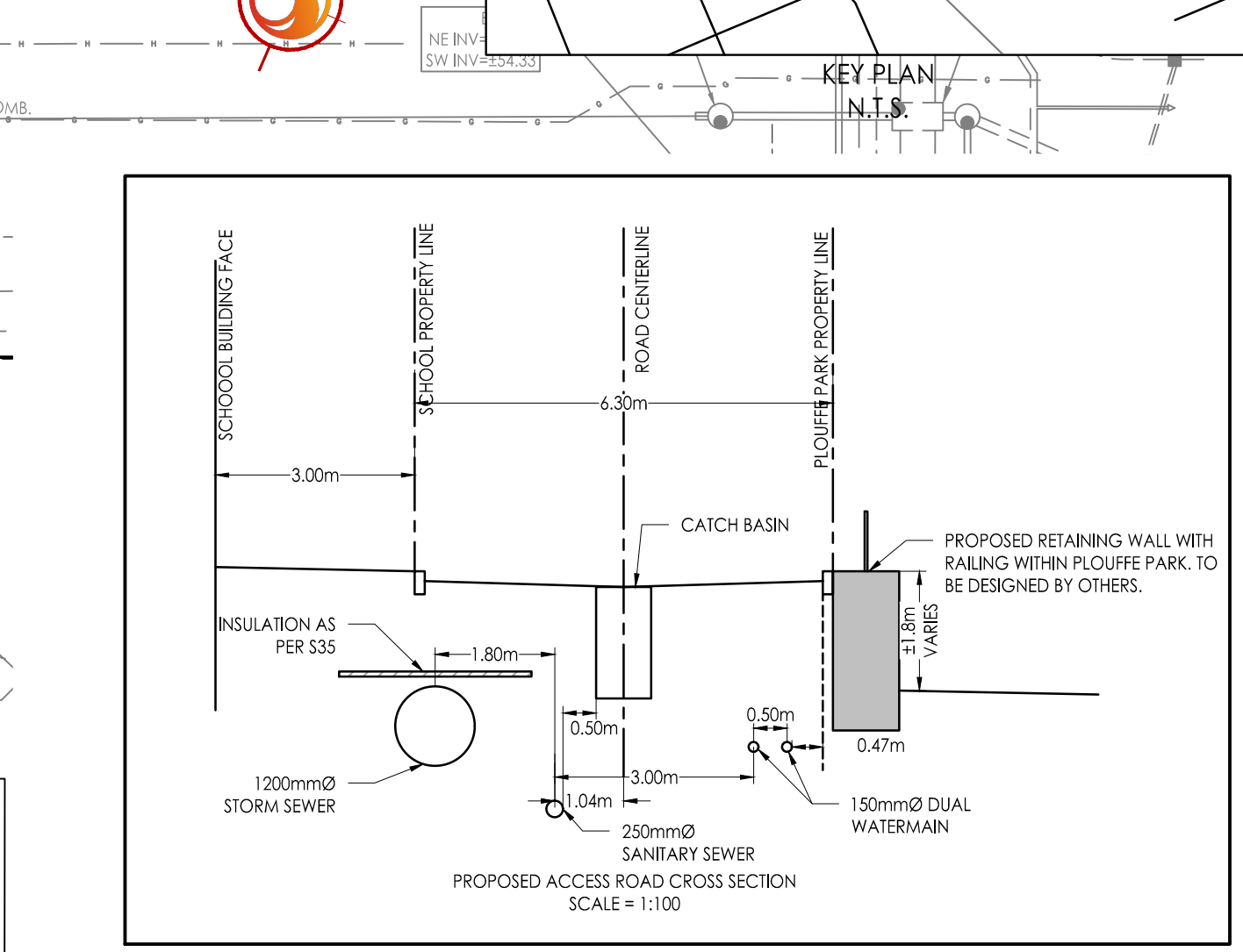
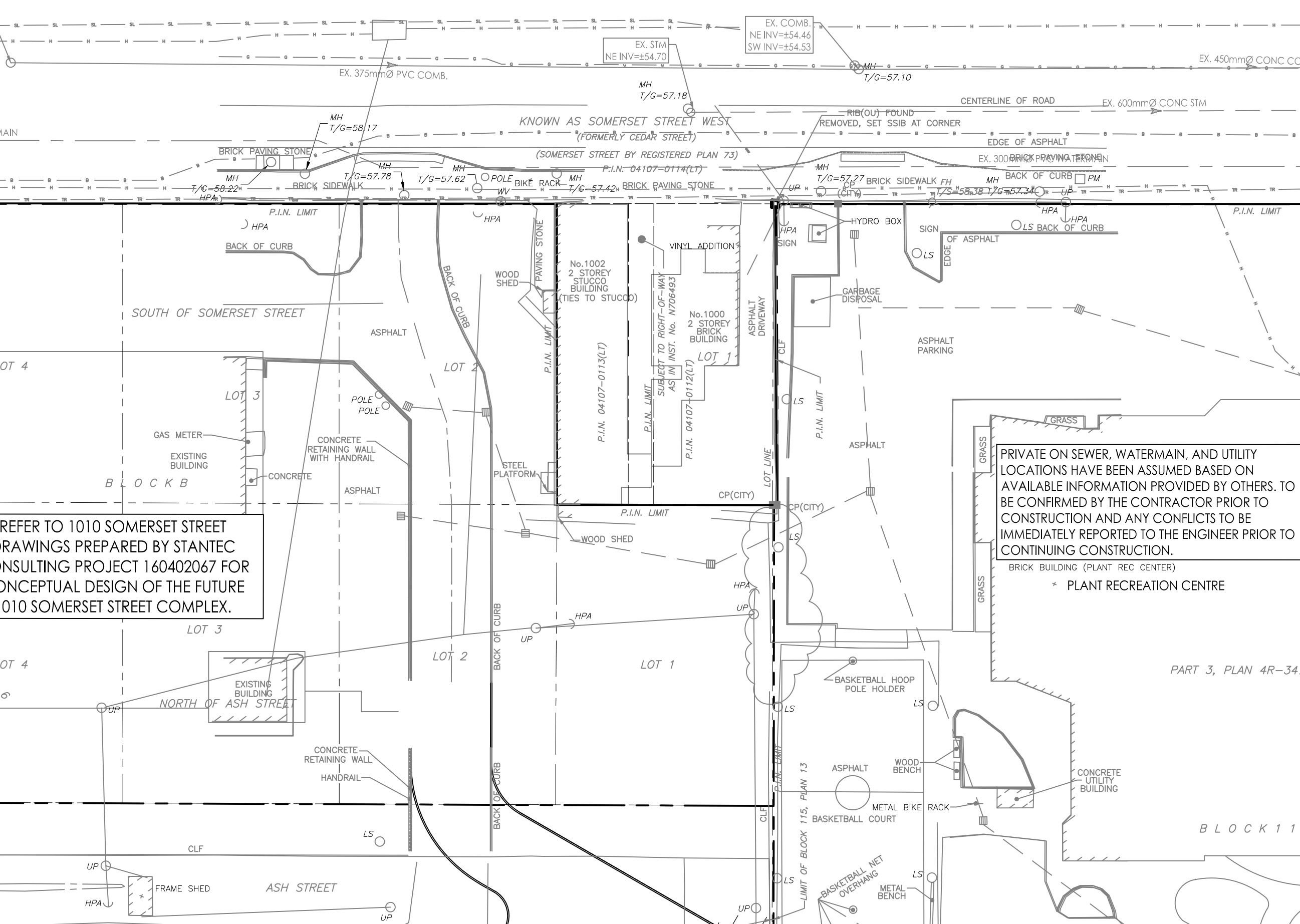
SEWER AND WATERMAIN CROSSING TABLE						
CROSSING	STM INV	STM OBV	SAN INV	SAN OBV	WTR TOP	WTR Btm
1			±55.28	±55.53	56.06	55.91
2	56.45 (56.50)	57.48 (57.43)	56.64	56.89		
3	56.66 (56.91)	57.49 (57.44)			56.01	55.86
4	55.66 (55.58)	56.11 (56.19)			±57.37	±57.17
5	55.65 (55.57)	56.10 (56.18)	±52.64 (52.49)	±54.16 (54.33)		

SCHEDULE OF INLET CONTROL DEVICES				
STRUCTURE ID	AREA ID	TYPE	100YR HEAD (m)	100YR RELEASE RATE (L/s)
STM 106	1107A, 1107B, 1107C	120mm Ø CIRCULAR ORIFICE	1.14	19.2
CB 102A-1	1102A	120mm Ø CIRCULAR ORIFICE	0.82	30.5

150mm Ø WATERMAIN A			
STATION	FINISHED GRADE	TOP OF W/M	ITEM
0+000	58.51	±56.11	CONNECTION TO EX. 150mmØ WATERMAIN
0+012.7	58.91	56.51	130mmØ VALVE AND BOX
0+020	59.06	56.66	TOP OF WATERMAIN
0+036.7	59.18	56.78	45° HORIZONTAL BEND
0+043	59.12	56.72	45° HORIZONTAL BEND
0+049.9	59.15	56.75	45° VERTICAL BEND
0+041.9	59.17	56.01	DEFLECT WATER UNDER STORM (AS PER W25)
0+042.7	59.20	56.01	DEFLECT WATER UNDER STORM (AS PER W25)
0+043.7	59.30	56.97	45° VERTICAL BEND
0+045.1	59.40	57.00	150mmØ WATERMAIN SUB

SCHEDULE OF ROOF RELEASE RATES			
DRAINAGE AREA ID	DRAIN TYPE	# DRAINS	100 YEAR HEAD (m)
R1028	WATER ACCUMUL - DRY OPEN	6	0.149
			100 YEAR RELEASE RATE (L/s)
			7.5

150mm Ø WATERMAIN B			
STATION	FINISHED GRADE	TOP OF W/M	ITEM
0+000	58.44	±56.04	CONNECTION TO EX. 150mmØ WATERMAIN
0+008.2	58.66	56.26	22.5° HORIZONTAL BEND
0+016.6	58.82	56.42	22.5° HORIZONTAL BEND
0+012.7	58.92	56.52	150mmØ VALVE AND BOX
0+020	59.08	56.68	TOP OF WATERMAIN
0+036.7	59.20	56.80	45° HORIZONTAL BEND
0+043.6	59.31	56.71	45° HORIZONTAL BEND
0+049.9	59.15	56.75	45° VERTICAL BEND
0+041.9	59.17	56.01	DEFLECT WATER UNDER STORM (AS PER W25)
0+042.7	59.20	56.01	DEFLECT WATER UNDER STORM (AS PER W25)
0+043.7	59.30	56.97	45° VERTICAL BEND
0+045.0	59.40	57.00	150mmØ WATERMAIN SUB



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- Legend
- PROPOSED WATERMAIN
 - PROPOSED VALVE AND VALVE BOX
 - PROPOSED VALVE CHAMBER
 - PROPOSED REDUCER
 - PROPOSED FIRE HYDRANT
 - PROPOSED SANITARY SEWER
 - PROPOSED STORM SEWER
 - PROPOSED CATCHBASIN MANHOLE
 - PROPOSED CATCHBASIN
 - PROPOSED SUBDRAIN CATCHBASIN
 - EXISTING WATERMAIN
 - EXISTING VALVE AND VALVE BOX
 - EXISTING VALVE CHAMBER
 - EXISTING FIRE HYDRANT
 - EXISTING SANITARY SEWER
 - EXISTING STORM SEWER
 - EXISTING CATCHBASIN MANHOLE
 - EXISTING CATCHBASIN
 - EXISTING SUBDRAIN CATCHBASIN
 - CIRCULAR ORIFICE (SEE DWG SDR-1)

Notes

1	ISSUED FOR REVIEW	WAJ	PM	25.04.29
Revision		By	Appd.	YY.MM.DD
File Name:	160401837-D8.dwg	WAJ	PM	25.03.20
		Dwn.	Chkd.	Dsgn.
				YY.MM.DD

Permit Seal

Client/Project
CITY OF OTTAWA

CEPEO ELEMENTARY SCHOOL
LOUISE-ARBOUR - 45 OAK STREET
OTTAWA, ON

Title
CONCEPTUAL SITE SERVICING PLAN

Project No. 160401837
Drawing No. SSP-1
Scale 1:400
Sheet
Revision
2 of 7