



Storm Network STRUCTURE TABLE				
NAME	RIM ELEV.	INVERT IN	INVERT OUT	DESCRIPTION
CB1	97.38		SE92.187	OPSD 705.010
CB2	97.60	NW91.920	SE93.698	OPSD 705.010
CB6	97.64	W93.540	E93.523	OPSD 705.010
CBMH3		NW93.560	SE93.542	COVER CITY 524.1 FRAME CITY 25 STRUC OPSD0701.010
CBMH4	97.00	NW93.250	SE93.208	COVER CITY 524.1 FRAME CITY 25 STRUC OPSD0701.010 C/W 100mm ORIFICE PLUG
LCB3	97.75		S94.328	CITY 531
MH1	98.00	SW94.023	SE93.737	STRUC OPSD0701.010 COVER 524 FRAME S25
MH2	97.29	W93.280 NW93.260	SE93.214	STRUC OPSD0701.010 COVER 524.1 FRAME S25
MHS	97.23	N93.000 NW93.000	S92.680	STRUC OPSD0701.010 COVER 524.1 FRAME S25
TCB4	97.64	N94.180	SE94.117	CITY 530
TCB5	97.64	NW93.700	E93.636	CITY 530

SAN STRUCTURE TABLE				
NAME	RIM ELEV.	INVERT IN	INVERT OUT	DESCRIPTION
MH1A	97.63	SW93.190	SE93.130	COVER CITY S24 FRAME CITY S25 STRUC. OPSD 701.010
MH2A	97.51	NW93.000	S91.825	COVER CITY S24 FRAME CITY S25 STRUC. OPSD 701.010

SEWER NOTES

1. THE ORIGINAL TOPOGRAPHY, GROUND ELEVATION AND SURVEY DATA SHOWN ARE SUPPLIED FOR INFORMATION PURPOSES ONLY, AND IMPLY NO GUARANTEE OF ACCURACY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL INFORMATION SHOWN.
2. THIS PLAN IS NOT A CADASTRAL SURVEY SHOWING LEGAL PROPERTY BOUNDARIES AND EASEMENTS. THE PROPERTY BOUNDARIES SHOWN HEREON HAVE BEEN DERIVED FROM DATA SUPPLIED BY THE CITY OF OTTAWA (J.D. BARNES LTD., JOB NO. 18-10-115-00, DATED OCTOBER 16, 2018) AND CANNOT BE RELIED UPON TO BE ACCURATE OR COMPLETE. THE PRECISE LOCATION OF THE CURRENT PROPERTY BOUNDARIES AND EASEMENTS CAN BE DETERMINED BY AN UP-TO-DATE LAND TITLES SEARCH AND A SUBSEQUENT CADASTRAL SURVEY PERFORMED AND CERTIFIED BY AN ONTARIO LAND SURVEYOR.
3. ELEVATIONS SHOWN DERIVED FROM INFORMATION SUPPLIED BY (OR SHOWN ON) J.D. BARNES LTD., JOB NO. 18-10-115-00, DATED OCTOBER 16, 2018 WERE ESTABLISHED USING GLOBAL POSITIONING SYSTEM (GPS) EQUIPMENT TO ESTABLISH ELLIPSOIDAL HEIGHTS. ELLIPSOIDAL HEIGHTS WERE TRANSFORMED TO GEOID-1928 DATUM (GEOIDETIC) USING THE FEDERAL HTZ-0 HEIGHT TRANSFORMATION MODEL.
4. THE CONTRACTOR IS TO OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
5. THE CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT.
6. THE CONTRACTOR IS TO DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME ALL RESPONSIBILITY FOR EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS PLAN. IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.
7. RESTORE ALL TRENCHES AND SURFACES OF PUBLIC ROAD ALLOWANCES TO CONDITION EQUAL OR BETTER THAN ORIGINAL CONDITION AND TO THE SATISFACTION OF THE CITY OR TOWNSHIP AUTHORITIES.
8. EXCAVATE AND DISPOSE OF ALL EXCESS EXCAVATED MATERIAL, SUCH AS ASPHALT, CURBING AND DEBRIS, OFF SITE AS DIRECTED BY THE ENGINEER AND THE CITY OR TOWNSHIP.
9. TOPSOIL TO BE STRIPPED AND STOCKPILED FOR REHABILITATION. CLEAN FILL TO BE PLACED IN FILL AREAS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
10. CONTRACTOR IS RESPONSIBLE TO KEEP ROAD FREE AND CLEAN FROM MUD OR DEBRIS, OTHERWISE SPECIFIED.
11. ALL DISTURBED AREAS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER UNLESS OTHERWISE SPECIFIED.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL AND SAFETY MEASURES DURING THE CONSTRUCTION PERIOD, INCLUDING THE SUPPLY, INSTALLATION, AND REMOVAL OF ALL NECESSARY SIGNAGE, DELINEATORS, MARKERS AND BARRIERS.
13. DO NOT ALTER GRADING OF THE SITE WITHOUT PRIOR APPROVAL OF THE CITY OR TOWNSHIP.
14. ALL ROADWAY, PARKING LOT, AND GRADING WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH CITY OR TOWNSHIP STANDARDS AND SPECIFICATIONS. THE CONTRACTOR IS TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING.
15. CONTACT THE CITY OR TOWNSHIP FOR INSPECTION OF ROUGH GRADING OF PARKING LOTS, ROADWAYS, AND LANDSCAPES PRIOR TO PLACEMENT OF ASPHALT AND TOPSOIL. ALL DEFICIENCIES NOTED SHALL BE RECTIFIED TO THE CITY OR TOWNSHIP SATISFACTION PRIOR TO PLACEMENT OF ANY ASPHALT, TOPSOIL, SEED & MULCH AND/OR SOD.
16. ALL DIMENSIONS AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION, IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.
17. ELECTRICAL, GAS, TELEPHONE AND TELEVISION SERVICE LOCATIONS ARE SUBJECT TO THE INDIVIDUAL AGENCY.
 - ELECTRICAL SERVICE - HYDRO OTTAWA,
 - GAS SERVICE - ENBRIDGE,
 - TELEPHONE SERVICE - TELUS CANADA,
 - TELEVISION SERVICE - ROGERS.
18. INSTALLATION TO BE IN ACCORDANCE WITH CURRENT CODES AND STANDARDS OF APPROVAL AGENCIES HYDRO OTTAWA, BELL AND THE CITY OR TOWNSHIP.
19. ALL PROPOSED CURB SHALL BE CONCRETE BARRIER CURB UNLESS SPECIFIED.
20. ALL EXISTING REDUNDANT PRIVATE APPROACHES FRONTING THIS DEVELOPMENT MUST BE REMOVED TO THE SATISFACTION OF THE CITY OR TOWNSHIP.
21. NO EXCESS DRAINAGE, EITHER DURING OR AFTER CONSTRUCTION, WILL BE DIRECTED TOWARDS NEIGHBOURING PROPERTIES.
22. NO ALTERATION OF EXISTING GRADES AND DRAINAGE PATTERNS ON PROPERTY BOUNDARIES AS PER CITY OF OTTAWA SITE ALTERATION BY-LAW 2018-164.
23. THIS PLAN MUST BE READ IN CONJUNCTION WITH GEOTECHNICAL REPORT BY MCINTOSH PERRY REPORT MCP-18-005, DATED MAY 2018 AND THE SITE SURVEYING REPORT BY MCINTOSH PERRY REPORT MCP-18-0534, DATED AUGUST 2019.

SEWER NOTES

1. CONSTRUCT ALL SEWERS AND APPURTENANCES TO CITY OR TOWNSHIP STANDARDS (IF AVAILABLE) OR AS PER OPSO STANDARDS.
2. SEWER TRENCHING AND BEDDING SHALL CONFORM TO OPSO 802.010 AND 802.013 UNLESS NOTED OTHERWISE.
3. BEDDING SHALL BE A MINIMUM 150mm OF GRANULAR "A", COMPACTED TO MINIMUM 95% STANDARD PROCTOR DRY DENSITY. CLEAN STONE BEDDING SHALL NOT BE PERMITTED.
4. SUB-BEDDING, IF REQUIRED SHALL BE AS PER THE DIRECTION OF A GEOTECHNICAL ENGINEER.
5. BACKFILL TO AT LEAST 300mm ABOVE TOP OF PIPE WITH GRANULAR "A" OR SAND.
 - TO MINIMIZE DIRECTIONAL FROST HEAVING, TRENCH BACKFILL (FROM PAVEMENT SUBGRADE TO 2.0m BELOW FINISHED GRADE) SHALL MATCH EXISTING SOIL CONDITIONS.
6. SEWERS AND CONNECTIONS 150mm DIAMETER AND SMALLER TO BE PVC SDR 28 OR APPROVED EQUIVALENT. SEWERS AND CONNECTIONS 200mm DIAMETER AND LARGER TO BE PVC SDR 35 OR APPROVED EQUIVALENT.
7. INSULATE ALL SEWERS AND/OR SERVICES THAT HAVE LESS THAN 1.5m OF COVER WITH THERMAL INSULATION AS PER OPSO 1109.030.
8. SUPPLY AND INSTALL ALL PIPING AND APPURTENANCES SHOWN AND DETAILED TO WITHIN 1.0m TOLERANCE. ALL ENDS OF SERVICES TO BE PROPERLY CAPPED AND LOCATED WITH 2"x4"x8" LONG MARKER.
9. CONSTRUCTION TO TRAVELER (CCTV) ALL PROPOSED SEWERS ONSITE, OUTLET CONNECTION TO THE MAIN AND PIPES 150mmØ OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & CONNECTIONS TO ACCESS.
10. DYE TESTING IS TO BE COMPLETED ON SANITARY SERVICE TO CONFIRM PROPER CONNECTION TO THE SANITARY SEWER MAIN.
11. ALL CATCHBASINS AND CATCHBASIN MANHOLE LEADS ARE TO BE MINIMUM 200mmØ WITH MINIMUM 1.0% SLOPE UNLESS OTHERWISE NOTED.
12. ALL CATCHBASINS EXCLUDING LANDSCAPE CATCHBASINS ARE TO HAVE 150 mmØ PERFORMED PIPE FOR 3.0m ON ALL AVAILABLE SITES AS PER CITY OF OTTAWA STANDARD DRAWING 'G1'.
13. ALL MATERIALS AND CONSTRUCTION TO BE IN ACCORDANCE WITH CURRENT CITY OF OTTAWA STANDARDS AND ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS, SEWER AND WATERMAIN MATERIAL TYPES AND DISINFECTION.
14. SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH CURRENT CITY OF OTTAWA STANDARDS AND ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS; ROADWAYS PUBLIC WORKS.
15. STRICT ATTENTION AND ADHERENCE TO CITY OF OTTAWA - SEWER USE BY-LAW 2003-514 IS REQUIRED DUE TO THE NATURE OF THIS FACILITY. IN PARTICULAR SECTIONS #4.5, AND 5 AS IT PERTAINS TO BIOMEDICAL AND SIMILAR WASTE AND AS IT RELATES TO THIS APPLICATION.

WATERMAIN NOTES

1. CONSTRUCT ALL WATERMANS AND APPURTENANCES IN ACCORDANCE WITH OPSO STANDARDS AND SPECIFICATIONS, AS WELL AS CITY OR TOWNSHIP STANDARDS.
2. INDUSTRIAL/COMMERCIAL SERVICE CONNECTIONS TO BE 50mm COPPER PIPING AND SHALL CONFORM TO ASSESSMENT OF PIPE V. CITY OR TOWNSHIP STANDARDS.
3. WATERMANS AND/OR WATER SERVICES ARE TO HAVE A MINIMUM COVER OF 2.4m. OTHERWISE THERMAL INSULATION IS REQUIRED AS PER CITY OR TOWNSHIP STANDARDS (IF AVAILABLE) OR OPSO 1109.030.
4. IF THE WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS EQUAL TO OR LESS THAN THAT WHICH IS RECOMMENDED BY THE MANUFACTURER.
5. USE APPROVED SADDLE CONNECTION WITH MAIN (CORPORATION) STOP AS PER CITY OF OTTAWA STANDARD DRAWING 'W26'.
6. CONNECTION TO EXISTING BY CITY OR TOWNSHIP FORCES, EXCAVATION, BACKFILLING AND REINSTATEMENT IS TO BE COMPLETED BY THE CONTRACTOR.
7. THERMAL INSULATION OF WATERMANS AT OPEN STRUCTURES AS PER CITY OR TOWNSHIP STANDARDS (IF AVAILABLE) OR OPSO 1109.030.
8. THERMAL INSULATION OF WATERMANS UNDER ROAD SIDE DITCHES AS PER CITY OF OTTAWA STANDARD DRAWING 'W21'.
9. WATER SERVICES GREATER THAN 15mm REQUIRE A WATER DATA CARD.
10. VALVES TO BE OPERATED BY CITY OF OTTAWA STAFF ONLY.
11. NO CONNECTION TO EXISTING WATER NETWORK SHALL BE COMPLETED UNTIL A WATER PERMIT IS OBTAINED FROM THE CITY OF OTTAWA. CITY OF OTTAWA FORCES TO COMPLETE WATERMAIN CONFORMS TO EXCAVATION, BACKFILLING AND REINSTATEMENT TO BE COMPLETED BY CONTRACTOR.

