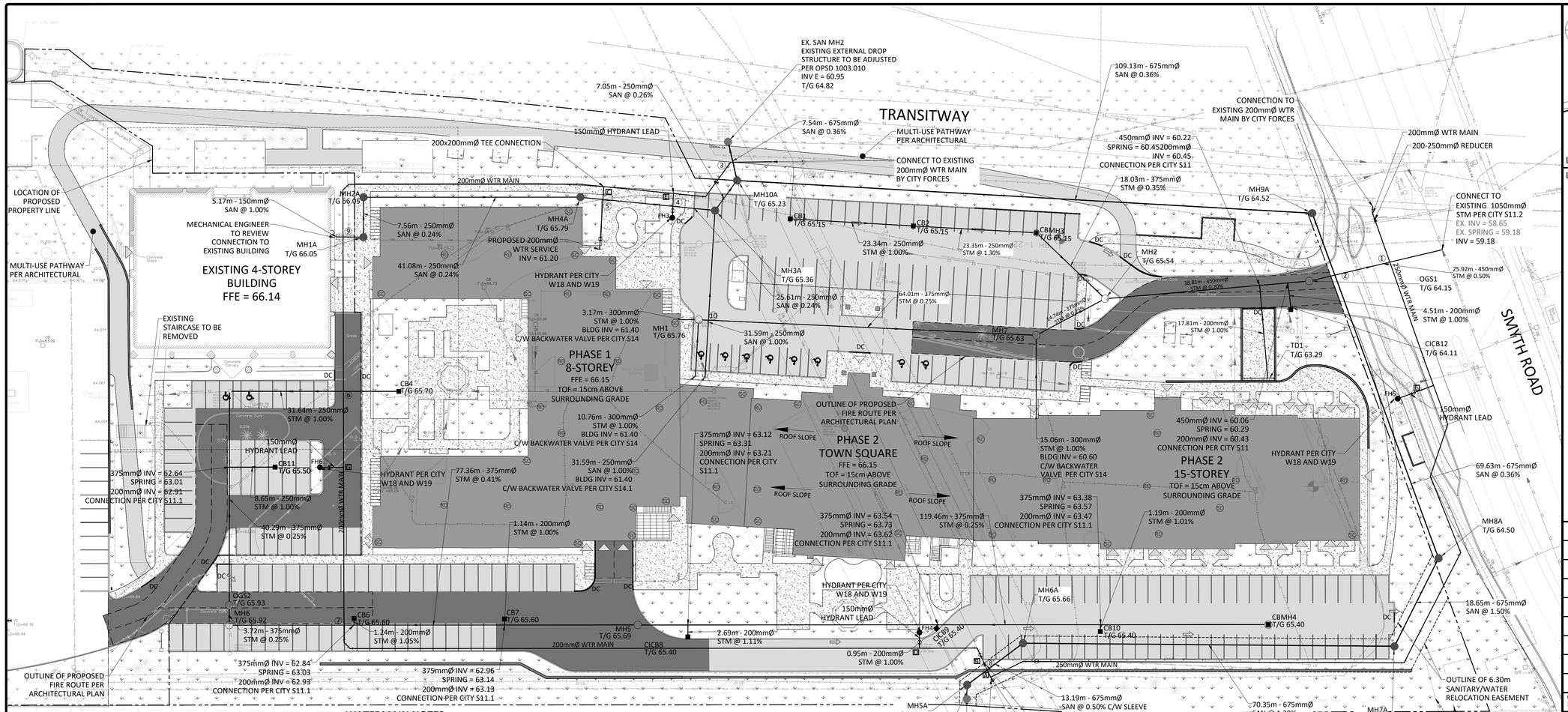

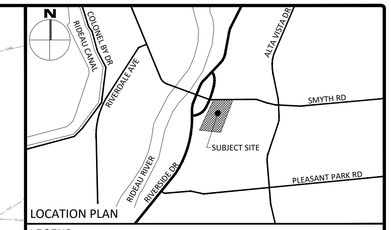

LOCATION PLAN

LEGEND

PROPERTY LINE	CENTRELINE OF SWALE
BARRIER CURB & CURB DEPRESSION	CENTRELINE OF DITCH
PROPOSED ASPHALT	SLOPING AT 3:1 UNLESS SPECIFIED
PROPOSED HEAVY DUTY ASPHALT	PROPOSED ELEVATION / EXISTING ELEVATION
CONCRETE WALKWAY	SWALE ELEVATION
STORM MANHOLE	TOP/BOTTOM WALL FACE ELEVATIONS
CATCHBASIN, CURB INLET OR DITCH INLET	EMERGENCY OVERLAND FLOW ROUTE
LANDSCAPE CATCHBASIN	SILT FENCE BARRIER PER OPSD 219.110
SANITARY MANHOLE	STRAW BALE CHECK DAM PER OPSD 219.180
PERFORATED PIPE	INLET SEDIMENT CONTROL DEVICE
WATER VALVE/CHAMBER	BUILDING ENTRANCE OVERHEAD DOOR
PROPOSED FIRE HYDRANT PER CITY W18 & W19	REDUCER
WATER WELL LOCATION	SIAMESE CONNECTION
PROPOSED BOLLARD	
PROPOSED WALL	
ROOF DRAIN AND SCUPPER LOCATION	

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

No.	Revisions	Date
4	ISSUED FOR REVIEW	APR 14, 2023
3	ISSUED FOR REVIEW	DEC 20, 2022
2	ISSUED FOR REVIEW	APR 8, 2022
1	ISSUED FOR REVIEW	NOV 2, 2021

Check and verify all dimensions before proceeding with the work — Do not scale drawings

SCALE 1 : 400
0 10 20 30 40 Metres

GENERAL 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 INFORMATION SUPPLIED BY (OR SHOWN ON) FARLEY, SMITH & DENIS SURVEYING LTD. SURVEY PLAN #639-20, DATED NOVEMBER 27, 2020 AND CANNOT BE RELIED UPON TO BE ACCURATE OR COMPLETE. THE PRECISE LOCATION OF THE CURRENT PROPERTY BOUNDARIES AND EASEMENTS CAN ONLY BE DETERMINED BY AN UP-TO-DATE LAND TITLES SEARCH AND A SUBSEQUENT CADASTRAL SURVEY PERFORMED AND CERTIFIED BY AN ONTARIO LAND SURVEYOR.
3. THE CONTRACTOR IS TO OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY BEFORE COMMENCING CONSTRUCTION.
4. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION PHASING AND LAYOUT. A PHASING PLAN SHALL BE ESTABLISHED FOR THE REALIGNMENT OF THE PROPOSED WATER AND SANITARY SERVICES TO ENSURE CONTINUAL SERVICE FOR THE OFF-SITE FLOWS.
5. 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 THESE DRAWINGS. IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.
6. RESTORE ALL TRENCHES AND SURFACES OF PUBLIC ROAD ALLOWANCES TO CONDITION EQUAL OR BETTER THAN ORIGINAL CONDITION AND TO THE SATISFACTION OF THE CITY AUTHORITIES.
7. EXCAVATE AND DISPOSE OF ALL EXCESS EXCAVATED MATERIAL, SUCH AS ASPHALT, CURBING AND DEBRIS, OFF SITE AS DIRECTED BY THE ENGINEER AND THE CITY.
8. TOPSOIL TO BE STRIPPED AND STOCKPILED FOR REHABILITATION. CLEAN FILL TO BE PLACED IN FILL AREAS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
9. ALL DISTURBED AREAS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER UNLESS OTHERWISE SPECIFIED.
10. 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.
11. DO NOT ALTER GRADING OF THE SITE WITHOUT PRIOR APPROVAL OF THE CITY.
12. ALL ROADWAY, PARKING LOT, AND GRADING WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH CITY STANDARDS AND SPECIFICATIONS. THE CONTRACTOR IS TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING.
13. CONTACT THE CITY FOR INSPECTION OF ROUGH GRADING OF PARKING LOTS, ROADWAYS AND LANDSCAPED AREAS PRIOR TO PLACEMENT OF ASPHALT AND TOPSOIL. ALL DEFICIENCIES NOTED SHALL BE RECTIFIED TO THE CITY SATISFACTION PRIOR TO PLACEMENT OF ANY ASPHALT, TOPSOIL, SEED & MULCH AND/OR SOD.
14. CONTACT THE CITY FOR INSPECTION OF ROUGH GRADING OF PARKING LOTS, ROADWAYS AND LANDSCAPED AREAS PRIOR TO PLACEMENT OF ASPHALT AND TOPSOIL. ALL DEFICIENCIES NOTED SHALL BE RECTIFIED TO THE CITY SATISFACTION PRIOR TO PLACEMENT OF ANY ASPHALT, TOPSOIL, SEED & MULCH AND/OR SOD.
15. ALL DIMENSIONS AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION, IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.
16. ELECTRICAL, GAS, TELEPHONE AND TELEVISION SERVICE LOCATIONS ARE SUBJECT TO THE INDIVIDUAL AGENCY:
    - ELECTRICAL SERVICE - HYDRO OTTAWA,
    - GAS SERVICE - ENBRIDGE,
    - TELEPHONE SERVICE - BELL CANADA,
    - TELEVISION SERVICE - ROGERS.
17. INSTALLATION TO BE IN ACCORDANCE WITH CURRENT CODES AND STANDARDS OF APPROVAL AGENCIES HYDRO OTTAWA, BELL AND THE CITY.
18. ALL PROPOSED CURB SHALL BE CONCRETE BARRIER CURB UNLESS SPECIFIED.
19. ALL EXISTING REDUNDANT PRIVATE APPROACHES FRONTING THIS DEVELOPMENT MUST BE REMOVED TO THE SATISFACTION OF THE CITY.
20. NO EXCESS DRAINAGE, EITHER DURING OR AFTER CONSTRUCTION, IS TO BE DIRECTED TOWARDS NEIGHBORING PROPERTIES.
21. NO ALTERATION OF EXISTING GRADES AND DRAINAGE PATTERNS ON PROPERTY BOUNDARIES.
22. THIS PLAN MUST BE READ IN CONJUNCTION WITH THE GEOTECHNICAL REPORT COMPLETED BY PATERSON GROUP AND DATE JULY 18, 2022

WATERMAIN NOTES

1. CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH OPSD STANDARDS AND SPECIFICATIONS, AS WELL AS CITY STANDARDS.
2. INDUSTRIAL/COMMERCIAL SERVICE CONNECTIONS TO BE 50mm COPPER PIPING AND SHALL CONFORM TO ASTM B88 TYPE 'K' SOFT.
3. WATERMAINS AND/OR WATER SERVICES ARE TO HAVE A MINIMUM COVER OF 2.4m. OTHERWISE THERMAL INSULATION IS REQUIRED AS PER CITY STANDARDS (IF AVAILABLE) OR OPSD 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. THERMAL INSULATION OF WATERMAINS AT OPEN STRUCTURES AS PER CITY STANDARDS (IF AVAILABLE) OR OPSD 1109.030.
6. VALVES TO BE OPERATED BY CITY STAFF ONLY.
7. NO CONNECTION TO EXISTING WATER NETWORK SHALL BE COMPLETED UNTIL A WATER PERMIT IS OBTAINED FROM THE CITY. CITY TO BE PRESENT FOR WATERMAIN CONNECTION. CONNECTION, EXCAVATION, BACKFILLING AND REINSTATEMENT TO BE COMPLETED BY CONTRACTOR.
8. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ANY WATERMAIN CONNECTION(S) REQUIRED. THIS SHALL BE COMPLETED IN THE PRESENCE OF A DESIGNATED MUNICIPAL WATER OPERATOR AND THE SELECTED CONTRACTOR SHALL PROVE TO THE SATISFACTION OF THE CITY THAT THEY ARE COMPETENT TO PERFORM THE WORKS PRIOR TO INITIATING CONSTRUCTION.
9. ALL WATERMAINS SHALL BE EQUIPPED WITH BUTTERFLY AND GATE VALVES AS PER OPSD 1100.011.
10. ALL FIRE HYDRANTS, VALVE AND VALVE BOX SHALL CONFORM TO OPSD 1103.020.
11. CONCRETE THRUST BLOCKS TO CONFORM TO OPSD 1103.010 AND OPSD 1103.020.
12. ALL WATERMAIN TO BE CLASS 150 DR-18 OR APPROVED EQUIVALENT.
13. ALL WATERMAIN TO BE EQUIPPED WITH TRACER WIRE.

SEWER NOTES:

1. CONSTRUCT ALL SEWERS, CATCH BASINS, MANHOLES AND APPURTENANCES IN ACCORDANCE WITH OPSD STANDARDS AND SPECIFICATIONS, AS WELL AS CITY.
2. SEWER TRENCHING AND BEDDING SHALL CONFORM TO OPSD 802.010 AND 802.013 UNLESS NOTED OTHERWISE.
   2.1. A MINIMUM OF 150 MM OF OPSS GRANULAR A SHOULD BE PLACED FOR BEDDING FOR SEWER OR WATER PIPES WHEN PLACED ON A SOIL SUBGRADE. THE BEDDING SHOULD EXTEND TO THE SPRINGLINE OF THE PIPE. COVER MATERIAL, FROM THE SPRING LINE TO A MINIMUM OF 300 MM ABOVE THE OBVERT OF THE PIPE, SHOULD CONSIST OF OPSS GRANULAR A (CONCRETE OR PSM PVC PIPES) OR SAND (CONCRETE PIPE). THE BEDDING AND COVER MATERIALS SHOULD BE PLACED IN MAXIMUM 225 MM THICK LIFTS AND COMPACTED TO 98% OF THE SPMDD.
   2.2. WHERE HARD SURFACE AREAS ARE CONSIDERED ABOVE THE TRENCH BACKFILL, THE TRENCH BACKFILL MATERIAL WITHIN THE FROST ZONE (ABOUT 1.8 M BELOW FINISHED GRADE) AND ABOVE THE COVER MATERIAL SHOULD MATCH THE SOILS EXPOSED AT THE TRENCH WALLS TO MINIMIZE DIFFERENTIAL FROST HEAVING. THE TRENCH BACKFILL SHOULD BE PLACED IN MAXIMUM 225 MM THICK LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 98% OF THE MATERIAL'S SPMDD. ALL COBBLES LARGER THAN 200 MM IN THEIR LONGEST DIRECTION SHOULD BE SEGREGATED FROM RE-USE AS TRENCH BACKFILL.
3. SANITARY SEWERS AND CONNECTIONS 150mmØ AND SMALLER TO BE PVC SDR-28.
4. SEWERS AND CONNECTIONS 200mmØ AND LARGER TO BE PVC SDR-35. BEDDING TO BE TYPE "B" EXCEPT AT RISERS, UNLESS NOTED OTHERWISE.
5. ALL STORM AND SANITARY SEWERS/SERVICES TO HAVE 2.0m COVER.
6. SEWER CONNECTIONS ARE TO BE MADE ABOVE THE SPRINGLINE OF THE SEWERMAIN AS PER CITY OF OTTAWA STANDARD DRAWING S11, S11.1 & S11.2.
7. SUPPLY AND INSTALL ALL PIPING AND APPURTENANCES AS SHOWN AND DETAILED TO WITHIN 1.0m OF BUILDING. ALL ENDS OF SERVICES TO BE PROPERLY CAPPED AND LOCATED WITH 2"x4"X8' LONG MARKER.
8. CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS ON SITE, 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 & APPURTENANCES.
9. DYE TESTING IS TO BE COMPLETED ON SANITARY SERVICE TO CONFIRM PROPER CONNECTION TO SANITARY SEWER MAIN.

ICD TABLE

STRUCTURE ID	ICD SIZE (mm)	AREA ID	STYLE	5-YEAR DESIGN HEAD (m)	100-YEAR DESIGN HEAD (m)	5-YEAR DESIGN FLOW (L/s)	100-YEAR DESIGN FLOW (L/s)
CBMH3	166	B3	PLUG	N/A	4.68	N/A	124.39
CB11	77	B5	PLUG	2.65	2.73	20.35	20.65
MH6	100	B6-B9	PLUG	2.82	2.89	34.70	35.13

CROSSING CONFLICT TABLE

LOCATION	DESCRIPTION	SEPARATION
1	450mmØ STM SEWER OBV 59.67 / 250mmØ WTR MAIN INV 61.35	1.68
2	675mmØ SAN SEWER INV 61.70 / 450mmØ STM SEWER OBV 59.77	1.93
3	675mmØ SAN SEWER OBV 61.64 / 200mmØ WTR MAIN INV 62.46	0.83
4	250mmØ SAN SEWER OBV 62.69 / 150mmØHYDRANT LEAD INV 63.06	0.37
5	250mmØ SAN SEWER OBV 62.73 / 200mmØ WTR SERVICE INV 63.14	0.41
6	250mmØ STM SEWER INV 62.95 / 200mmØ WTR MAIN OBV 62.45	0.50
7	750mmØ STM SEWER INV 62.80 / 200mmØ WTR MAIN OBV 62.30	0.50
8	1050mmØ SAN SEWER INV 62.83 / 250mmØ WTR MAIN OBV 62.33	0.50
9	150mmØ SAN SERVICE INV 62.71 / 200mmØ WTR MAIN OBV 62.21	0.50
10	200mmØ SAN SERVICE INV 61.30 / 375mmØ STM SEWER OBV 60.95	0.35

WATER COVER TABLE

LOCATION	STATION	FINISHED GRADE	TOP OF PIPE	COVER
A - 250 X 250 TEE	0+100.00	69.35	66.50	2.40
22.50° BEND	0+106.84	66.05	63.66	2.40
VALVE	0+109.24	66.10	63.96	2.40
45.00° BEND	0+179.02	66.36	63.96	2.40
45.00° BEND	0+202.48	63.30	60.90	2.40
45.00° BEND	0+218.067	63.32	60.92	2.40
45.00° BEND	0+224.55	63.16	60.76	2.40
200X250 REDUCER	0+269.71	64.62	62.22	2.40
22.50° BEND	0+271.51	64.62	62.22	2.40
200 X 200 TEE	0+272.37	64.67	62.27	2.40
B - 200X250 REDUCER	1+100.00	66.10	63.70	2.40
VALVE	1+101.88	65.88	63.45	2.40
45.00° BEND	1+103.38	65.85	63.45	2.40
45.00° BEND	1+222.18	65.70	63.30	2.40
45.00° BEND	1+223.79	66.69	63.29	2.40
45.00° BEND	1+310.87	66.00	63.60	2.40
45.00° BEND	1+312.84	65.95	63.55	2.40
11.25° BEND	1+354.82	65.85	63.45	2.40
45.00° BEND	1+379.05	65.35	62.95	2.40
VALVE	1+382.71	64.35	61.95	2.40
45.00° BEND	1+386.05	65.35	62.95	2.40
200 X 200 TEE	1+394.24	65.00	62.60	2.40
C - 200X200 TEE	2+100.00	65.65	63.25	2.40
VALVE	2+109.90	66.00	63.60	2.40
BLDG	2+111.90	66.12	61.20	4.92
D - 200X150 TEE	3+100.00	65.49	63.09	2.40
VALVE	3+101.12	66.47	64.07	2.40
HYDRANT	3+103.50	65.60	63.20	2.40
E - 200X150 TEE	4+100.00	65.57	63.17	2.40
VALVE	4+103.35	65.62	63.22	2.40
HYDRANT	4+104.59	66.62	64.22	2.40
F - 250X150 TEE	5+100.00	63.45	61.05	2.40
VALVE	5+104.64	63.62	61.22	2.40
HYDRANT	5+105.82	63.96	61.56	2.40
G - 200X150 TEE	6+100.00	65.85	63.45	2.40
VALVE	6+102.70	65.82	63.42	2.40
HYDRANT	6+104.80	63.96	61.56	2.40

STM STRUCTURE TABLE

NAME	RIM ELEV.	INVERT IN	INVERT OUT	DESCRIPTION
CB1	65.15		NE61.453	OPSD 705.010
CB2	65.15	SW61.220	NE61.204	OPSD 705.010
CB4	65.70		S62.866	OPSD 705.010
CB6	65.60		E63.093	OPSD 705.010
CB7	65.60		E63.191	OPSD 705.010
CB10	65.40		W63.792	OPSD 705.010
CB11	65.50		S62.997	OPSD 705.010 C/W ICD
CBMH3	65.15	SW60.900	NE60.563	COVER CITY STD. S28.1 FRAME CITY STD. S25 STRUC OPSD 701.010 C/W ICD
CBMH4	65.40		S63.419	COVER CITY STD. S28.1 FRAME CITY STD. S25 STRUC OPSD 701.010
CICB8	65.40		W63.410	FRAME CITY S22 COVER CITY S23 STRUC OPSD 705.010
CICB9	65.40		W63.630	FRAME CITY S22 COVER CITY S23 STRUC OPSD 705.010
CICB12	64.11		W60.475	FRAME CITY S22 COVER CITY S23 STRUC OPSD 705.010
MH1	65.76	SE61.292 S61.368	NE60.620	COVER CITY STD. S24.1 FRAME CITY STD. S25 STRUC OPSD 701.010
MH2	65.54	S60.360 SW60.500	N60.260	COVER CITY STD. S24.1 FRAME CITY STD. S25 STRUC OPSD 701.010

STM STRUCTURE TABLE

NAME	RIM ELEV.	INVERT IN	INVERT OUT	DESCRIPTION
MH5	65.69	N63.120	S63.087	COVER CITY STD. S24.1 FRAME CITY STD. S25 STRUC OPSD 701.010
MH6	65.92	N62.770	W62.709	COVER CITY STD. S24.1 FRAME CITY STD. S25 STRUC OPSD 701.010 C/W ORIFICE ICD
MH7	65.63	SW60.460 E60.450	N60.397	COVER CITY STD. S24.1 FRAME CITY STD. S25 STRUC OPSD 701.010
OGS1	64.15	S60.182	N59.310	HYDRO DEFENSE FD-4HC OR APPROVED EQUIVALENT
OGS2	65.93	E62.700	W62.681	HYDRO DEFENSE FD-3HC OR APPROVED EQUIVALENT
TD1	63.29		W62.790	CITY STD S15

SAN STRUCTURE TABLE

NAME	RIM ELEV.	INVERT IN	INVERT OUT	DESCRIPTION
EX SAN MH1	69.70	E66.480	W66.450	EX.675mm Sewer
EX. SAN MH2	64.82	N53.340 E60.953	SW53.340	EX. 1350mm TRUNK SEWER
MH1A	66.05	S62.730	W62.668	COVER CITY STD S24 FRAME CITY STD S25 STRUC OPSD 701.010
MH2A	66.05	E62.650	N62.609	COVER CITY STD S24 FRAME CITY STD S25 STRUC OPSD 701.010
MH3A	65.36	SE61.084 SW62.430	NW61.060	WATER TIGHT LID PER OPSD 401.030 FRAME CITY STD S25 STRUC OPSD 701.010
MH4A	65.71	S62.510	N62.491	COVER CITYS24 FRAME CITY STD S25 STRUC OPSD 701.010
MH5A	69.50	E66.439	N63.306	COVER CITY STD S24 FRAME CITY STD S25 STRUC OPSD 701.011 C/W EXTERNAL DROP STRUCTURE
MH8A	65.66	S63.240	N63.185	WATER TIGHT LID PER OPSD 401.030 FRAME CITY STD S25 STRUC OPSD 701.011
MH7A	65.80	S62.340	NW62.280	COVER CITY STD S24 FRAME CITY STD S25 STRUC OPSD 701.011
MH8A	64.50	SE62.000	W61.940	COVER CITY STD S24 FRAME CITY STD S25 STRUC OPSD 701.011
MH9A	64.52	E61.686	SW61.640	COVER CITY STD S24 FRAME CITY STD S25 STRUC OPSD 701.011
MH10A	65.23	SE61.042 NE61.248	W60.980	COVER CITY STD S24 FRAME CITY STD S25 STRUC OPSD 701.011

McINTOSH PERRY
115 Walgreen Road, RR3, Carp, ON K0A 1L0
Tel: 613-836-2184 Fax: 613-836-3742
www.mcintoshperry.com

Stamp: LICENSED PROFESSIONAL ENGINEER R. D. FREEL 100155197 2023-04-14 PROVINCE OF ONTARIO

Client: RBJ SCHLEGEL HOLDINGS
325 MAX BECKER DRIVE SUITE 201
KITCHENER, ON N2E 4H5

Project: SCHLEGEL VILLAGES OTTAWA
1919 RIVERSIDE DRIVE

Drawing Title: SITE SERVICING PLAN

Scale: 1:400	Project Number: CCO-21-2955
Drawn By: R.R.R.	
Checked By: A.J.G.	Drawing Number: C102
Designed By: A.J.G.	

D07-12-21-0170

18600

FILENAME: U:\Ottawa\01 Project - Proposals\2021 Jobs\CCO\CCO-21-2955 Cornerstone_Schlegel Villages_1919 Riverside Dr\Civil\12 - Drawings\CCO-21-2955 - Presentation1.dwg
LAST SAVED: Friday, April 14, 2023 LAST SAVED BY: r.robineau
LAST PLOTTED: Friday, April 14, 2023 FILE SIZE: ---