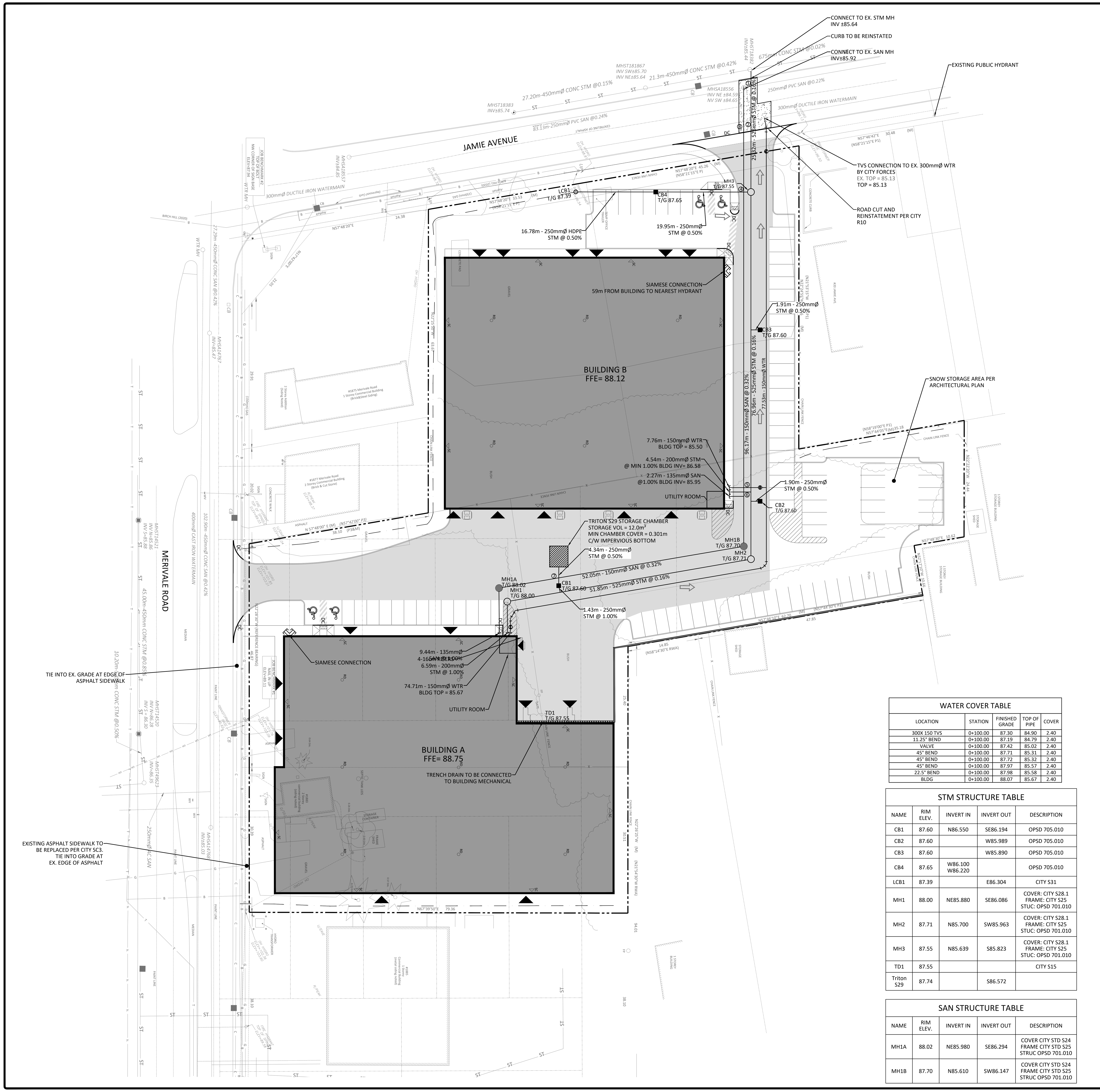


GENERAL NOTES

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 FAIRHALL MOFFATT & WOODLAND LTD. (JOB NO. AC21300) 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 ALL LAYOUT.
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. ALL DISTURBED AREAS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER UNLESS OTHERWISE SPECIFIED.
9. 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.
10. DO NOT ALTER GRADING OF THE SITE WITHOUT PRIOR APPROVAL OF THE ENGINEER/CITY.
11. 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.
12. 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'S SATISFACTION PRIOR TO PLACEMENT OF ANY ASPHALT, TOPSOIL, SEED & MULCH AND/OR SOD.
13. ALL DIMENSIONS AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION, IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.
14. 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.
16. INSTALLATION TO BE IN ACCORDANCE WITH CURRENT CODES AND STANDARDS OF APPROVAL AGENCIES HYDRO OTTAWA, BELL AND THE CITY.
17. CONTRACTOR TO ENSURE ALL APPLICABLE OPS SPECIFICATIONS ARE FOLLOWED DURING CONSTRUCTION
18. ALL PROPOSED CURB TO BE CONCRETE BARRIER CURB UNLESS OTHERWISE SPECIFIED.
19. THIS PLAN MUST BE READ IN CONJUNCTION WITH THE GEOTECHNICAL INVESTIGATION COMPLETED BY

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. BEDDING SHALL BE A MINIMUM 150mm OF GRANULAR "A", COMPACTED TO MINIMUM 95% STANDARD PROCTOR DRY DENSITY. CLEAR STONE BEDDING SHALL NOT BE PERMITTED.
   - 2.2. SUB-BEDDING, IF REQUIRED SHALL CONSIST OF 450mm OF COMPACTED GRANULAR "B" TYPE 1.
   - 2.3. BACKFILL TO AT LEAST 300mm ABOVE TOP OF PIPE WITH GRANULAR "A" OR GRANULAR "B" TYPE 1.
   - 2.4. TO MINIMIZE DIFFERENTIAL FROST HEAVING, TRENCH BACKFILL (FROM PAVEMENT SUBGRADE TO 2.0 METRES BELOW FINISHED GRADE) SHALL MATCH EXISTING SOIL CONDITIONS.
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. INSULATE ALL STORM AND SANITARY SEWERS/SERVICES THAT HAVE LESS THAN 2.0m OF COVER WITH THERMAL INSULATION AS PER OPSD 1109.030.
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.

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 HSALL 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.

WATER COVER TABLE

LOCATION	STATION	FINISHED GRADE	TOP OF PIPE	COVER
300X 150 TVS	0+100.00	87.30	84.90	2.40
11.25° BEND	0+100.00	87.19	84.79	2.40
VALVE	0+100.00	87.42	85.02	2.40
45° BEND	0+100.00	87.71	85.31	2.40
45° BEND	0+100.00	87.72	85.32	2.40
45° BEND	0+100.00	87.97	85.57	2.40
22.5° BEND	0+100.00	87.98	85.58	2.40
BLDG	0+100.00	88.07	85.67	2.40

STM STRUCTURE TABLE

NAME	RIM ELEV.	INVERT IN	INVERT OUT	DESCRIPTION
CB1	87.60	N86.550	SE86.194	OPSD 705.010
CB2	87.60		W85.989	OPSD 705.010
CB3	87.60		W85.890	OPSD 705.010
CB4	87.65	W86.100 W86.220		OPSD 705.010
LCB1	87.39		E86.304	CITY S31
MH1	88.00	NE85.880	SE86.086	COVER: CITY S28.1 FRAME: CITY S25 STUC: OPSD 701.010
MH2	87.71	N85.700	SW85.963	COVER: CITY S28.1 FRAME: CITY S25 STUC: OPSD 701.010
MH3	87.55	N85.639	S85.823	COVER: CITY S28.1 FRAME: CITY S25 STUC: OPSD 701.010
TD1	87.55			CITY S15
Triton S29	87.74		S86.572	

SAN STRUCTURE TABLE

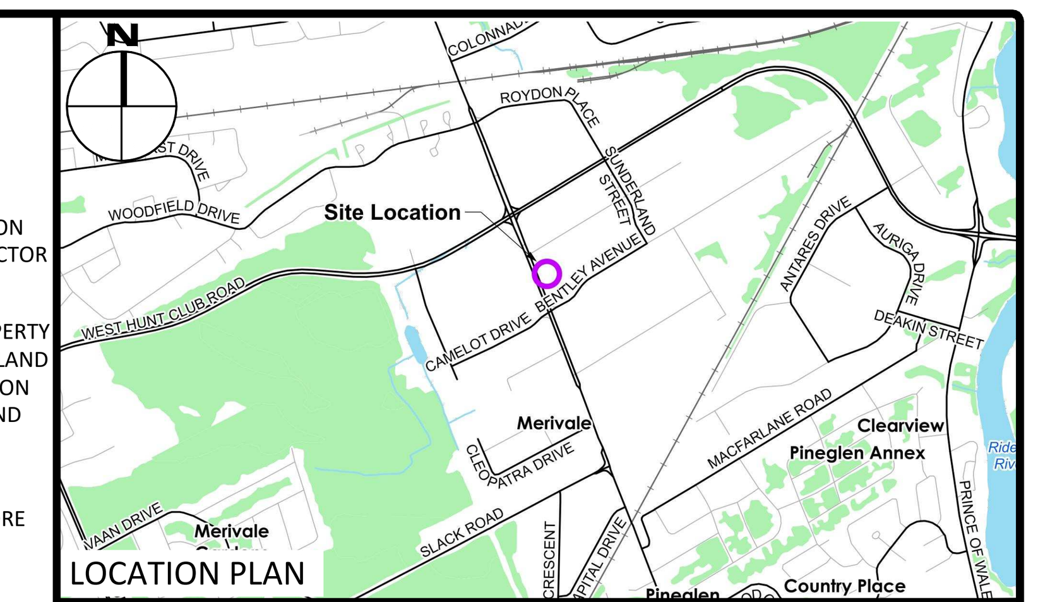
NAME	RIM ELEV.	INVERT IN	INVERT OUT	DESCRIPTION
MH1A	88.02	NE85.980	SE86.294	COVER CITY STD S24 FRAME CITY STD S25 STRUC OPSD 701.010
MH1B	87.70	N85.610	SW86.147	COVER CITY STD S24 FRAME CITY STD S25 STRUC OPSD 701.010

CROSSING CONFLICT TABLE

LOCATION	DESCRIPTION	SEPARATION
1	250mm SAN OBV = 84.84 525mm STM INV = 85.67	0.83
2	300mm WTR OBV = 85.13 525mm STM INV = 85.66	0.53
3	300mm WTR OBV = 85.13 200mm SAN INV = 85.63	0.50
4	150mm SAN OBV = 85.80 250mm STM INV = 86.10	0.30
5	150mm SAN INV = 85.85 150mm WTR OBV = 85.35	0.50
6	150mm SAN OBV = 86.25 250mm STM INV = 86.55	0.30
7	150mm SAN OBV = 86.25 250mm STM INV = 86.55	0.30

ICD TABLE

STRUCTURE ID	ICD SIZE (mm)	STYLE	5-YEAR DESIGN HEAD (m)	100-YEAR DESIGN HEAD (m)	5-YEAR DESIGN FLOW (L/s)	100-YEAR DESIGN FLOW (L/s)
CB1	101	PLUG	1.62	1.79	27.10	28.48
CB2	LMF90	TEMPEST	1.75	1.82	9.81	10.00
CB3	LMF40	TEMPEST	1.84	1.89	1.94	1.98
CB4	LMF45	TEMPEST	1.38	1.46	2.00	2.10



LOCATION PLAN

LEGEND

PROPERTY LINE		CENTRELINE OF SWALE	
DC	BARRIER CURB & CURB DEPRESSION		CENTRELINE OF DITCH
	PROPOSED HEAVY DUTY ASPHALT		SLOPING AT 3:1 UNLESS SPECIFIED
	PROPOSED CONCRETE WALKWAY	95.94 / 93.20	PROPOSED ELEVATION EXISTING ELEVATION
MH#	STORM MANHOLE	95.94 (S)	SWALE ELEVATION
CB CICB DI	CATCHBASIN, CURB INLET OR DITCH INLET	T/W100.50 B/W90.50	TOP/BOTTOM WALL FACE ELEVATIONS
			EMERGENCY OVERLAND FLOW ROUTE
MH#A	SANITARY MANHOLE		SILT FENCE BARRIER PER OPSD 219.110
	PERFORATED PIPE	O/H	BUILDING ENTRANCE OVERHEAD DOOR
	WATER VALVE/CHAMBER		REDUCER
	FIRE HYDRANT		
	PROPOSED WALL		LOCATION OF TWSI PER ARCHITECTURAL
	SEDIMENT CONTROL DEVICE PER DETAIL		LOCATION OF SIAMESE CONNECTION
	ROADCUT AND REINSTATEMENT PER CITY R10	RD	LOCATION OF ROOF DRAIN
	SERVICE/WATERMAIN BEND	SC	LOCATION OF SCUPPER
①	SERVICE/SEWER CROSSING LOCATION		

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

No.	Revisions	Date
1	ISSUED FOR SITE PLAN CONTROL	FEB 03, 2023

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

SCALE 1 : 400 (0 10 20 30 40 Metres)

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Stamp: LICENSED PROFESSIONAL ENGINEER R. D. FREEL 100163197 2023-02-03 23-1150 PROVINCE OF ONTARIO

Client:
ARNON DEVELOPMENT CORPORATION LTD
1801 WOODWARD DRIVE
OTTAWA, ON K2C 0R3

Project:
WAREHOUSE DEVELOPMENT
1881 MERIVALE ROAD
OTTAWA ON

Drawing Title:
SITE SERVICING PLAN

Scale:	1:400	Project Number:	CCO-23-1150
Drawn By:	R.R.R.		
Checked By:	R.D.F.	Drawing Number:	C102
Designed By:	R.R.R.		

D07-12-XX-XXXX

#XXXXX

FILENAME: U:\Infrastructure\2023\CCO-23-1150 Arnon Dev 1881 Merivale Road\12 - Drawings\CCO-23-1150_PRESENTATION.dwg
LAST SAVED: Thursday, February 02, 2023 LAST SAVED BY: r.robineau
LAST PLOTTED: Friday, February 03, 2023 CTB FILE USED: ----