



- GENERAL NOTES:**
- DIMENSIONS AND LAYOUT INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 - THE ORIGINAL TOPOGRAPHY AND GROUND ELEVATIONS, SERVING AND SURVEY INFORMATION SHOWN ON THIS PLAN ARE SUPPLIED FOR INFORMATION PURPOSES ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF ALL INFORMATION OBTAINED FROM THIS PLAN.
 - CO-ORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
 - BEFORE COMMENCING CONSTRUCTION, PROVIDE PROOF OF COMPREHENSIVE ALL RISK AND OPERATIONAL LIABILITY INSURANCE INCLUDING BLASTING, INSURANCE POLICY TO NAME THE OWNER, ENGINEER AND THE CITY AS CO-INSURED.
 - CONNECT TO EXISTING SYSTEMS AS DETAILED, INCLUDING ALL RESTORATION WORK NECESSARY TO REINSTATE SURFACES TO EXISTING CONDITIONS OR BETTER.
 - DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THESE DRAWINGS.
 - OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS BEFORE COMMENCING CONSTRUCTION.
 - RESTORE ALL TRENCHES AND SURFACE FEATURES TO EXISTING CONDITIONS OR BETTER AND TO THE SATISFACTION OF MUNICIPAL AUTHORITIES.
 - REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER.
 - ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
 - REFER TO GEOTECHNICAL INVESTIGATION PROJECT: XXX (DATED XXX), PREPARED BY XXX FOR SUBSURFACE CONDITIONS AND CONSTRUCTION RECOMMENDATIONS.
 - PERFORATED PIPE SUB-DRAINS TO BE PROVIDED AT SUBGRADE LEVEL EXTENDING FROM THE ROADSIDE CATCH BASIN FOR A DISTANCE OF 3.0m, PARALLEL TO THE CURB IN TWO DIRECTIONS.

- SEWER NOTES:**
- SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
CATCH-BASIN (600x600mm)	705.010	OPSD
3 STOREY SANITARY MANHOLE (12000)	701.010	OPSD
STORM MANHOLE (15000)	701.011	OPSD
ROADSIDE CB, FRAME & COVER	S2 & S19	CITY OF OTTAWA
CURB INLET CB, FRAME & COVER	S3, S22 & S23	CITY OF OTTAWA
CBMH FRAME & COVER	S25 & S24.1	CITY OF OTTAWA
DIGB STRUCTURE & GRATE	705.030, 403.010	OPSD
STORM / SANITARY MH FRAME & COVER	S24.1, S24 & S25	CITY OF OTTAWA
STORM SEWER	PVC DR 35 OR CONC.	(CLASS SPECIFIED ON PROFILE DRAWINGS)
STORAGE PIPE	PVC DR 35	(CLASS SPECIFIED ON PROFILE DRAWINGS)
SANITARY SEWER	PVC DR 35	(CLASS SPECIFIED ON PROFILE DRAWINGS)
CATCH-BASIN LEAD	PVC DR 35	(CLASS SPECIFIED ON PROFILE DRAWINGS)
 - INSULATE ALL PIPES (SANSTM) THAT HAVE LESS THAN 1.5m COVER WITH 50mmx1200mm HI-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
 - SERVICES ARE TO BE CONSTRUCTED 2.0m BEYOND THE PROPERTY LINE AT MINIMUM SLOPE OF 1.0% (2.0% IS PREFERRED).
 - PIPE BEDDING, COVER AND BACKFILL ARE TO BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. THE USE OF CLEAR CRUSHED STONE AS A BEDDING LAYER SHALL NOT BE PERMITTED.
 - SEWER SERVICE CONNECTIONS PER CITY OF OTTAWA DETAILS S11 AND S11.1.
 - THE SITE SERVING CONTRACTOR SHALL PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16 AND 407.07.24. DYE TESTING IS TO BE COMPLETED ON ALL SANITARY SERVICES TO CONFIRM PROPER CONNECTION TO THE SANITARY SEWER MAIN. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER.
 - STORM MANHOLES AND CBMHs SHALL HAVE 300mm SUMP'S UNLESS OTHERWISE INDICATED.
 - CONTRACTOR TO TELETYPE (CTV) ALL PROPOSED SEWERS, 200mm OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES.
 - SAFETY LANDING PER OPSD 404.020 REQUIRED IF MANHOLE DEPTH IS GREATER THAN 5.0m.

SEWER CROSSING TABLE

LOCATION	ELEVATIONS	CLEARANCE
C1	STM INV=135.98 WM OBV=135.16	0.83m
C2	STM INV=135.39 WM OBV=134.36	0.36m
C3	WM INV=135.00 STM OBV=134.36	0.64m
C4	WM INV=135.02 SAN OBV=134.47	0.55m
C5	SAN INV=134.62 STM OBV=134.37	0.25m
C6	WM INV=135.05 SAN OBV=134.36	0.69m
C7	WM INV=135.07 WM OBV=134.93	0.71m
C8	STM INV=135.23 WM OBV=134.93	0.30m
C9	STM INV=135.21 SAN OBV=134.27	0.94m
C10	WM INV=134.76 SAN OBV=134.33	0.43m
C11	WM INV=134.77 STM OBV=134.69	0.08m
C12	STM INV=134.51 SAN OBV=134.26	0.25m
C13	WM INV=135.05 SAN OBV=134.20	0.85m
C14	WM INV=135.07 STM OBV=134.27	0.60m
C15	SAN INV=134.52 STM OBV=134.27	0.25m
C16	WM INV=134.84 STM OBV=134.59	0.25m
C17	STM INV=134.36 SAN OBV=134.07	0.29m
C18	STM INV=134.39 WM OBV=133.99	1.00m
C19	STM INV=134.23 SAN OBV=133.86	0.35m
C20	SAN INV=133.72 WM OBV=133.34	0.38m
C21	STM INV=133.73 WM OBV=132.35	1.38m
C22	STM INV=133.72 SAN OBV=133.64	0.08m
C23	SAN INV=133.33 WM OBV=132.81	0.52m
C24	WM INV=135.28 SAN OBV=134.26	1.02m
C25	WM INV=135.28 STM OBV=134.45	0.83m
C26	STM INV=135.14 SAN OBV=134.89	0.25m
C27	STM INV=135.33 WM OBV=135.11	0.22m
C28	WM INV=135.37 SAN OBV=135.04	0.33m
C29	STM INV=135.29 SAN OBV=135.04	0.25m
C30	WM INV=135.28 STM OBV=134.62	0.66m
C31	STM INV=133.11 WM OBV=132.15	0.96m
C32	STM INV=133.10 SAN OBV=132.91	0.19m

WATERMAIN NOTES:

- GENERAL:

ITEM	DETAIL No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
WATERMAIN CROSSING BELOW SEWER / OVER SEWER	W25 / W25.2	CITY OF OTTAWA
- THE WATERMAIN SHALL BE PVC DR 18 IN ACCORDANCE WITH MATERIAL SPECIFICATION MW-18.1 UNLESS OTHERWISE INDICATED.
- SUPPLY AND CONSTRUCT ALL WATERMANS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMANS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS.
- WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.
- PROVIDE MINIMUM 0.50m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS.
- WATER SERVICE IS TO BE CONSTRUCTED TO PROPERTY LINE USING 19mm PE-X COIL LEFT FOR FUTURE EXTENSION BY BUILDER.
- HYDRANT INSTALLATION PER CITY DETAIL W19.
- MINIMUM 2.5m HORIZONTAL SEPARATION BETWEEN SEWER AND WATERMAIN (BARREL TO BARREL).

WATERMAIN TABLE

Station	FIG ELEVATION	TOP OF WATERMAIN	DESCRIPTION
1+000.00	137.65	135.25	CONNECT TO EXISTING
1+025.00	137.69	135.29	-
1+050.00	137.56	135.16	-
1+075.00	137.55	135.15	-
1+094.39	137.49	135.09	HYD-T1
1+100.00	137.55	135.15	-
1+113.91	137.57	135.17	TEE-200x100
1+125.00	137.46	135.06	-
1+150.00	137.44	135.04	-
1+162.93	137.50	135.10	HYD-T2
1+175.00	137.34	134.94	-
1+200.00	136.93	134.53	-
1+225.00	136.51	134.11	-
1+250.00	135.81	133.41	-
1+255.56	135.77	133.37	H-BEND-45
1+275.00	135.59	133.19	-
1+300.00	134.94	132.54	-
1+325.00	134.95	132.55	-
1+337.34	135.06	132.66	H-BEND-45
1+338.63	135.11	132.71	VB1
1+339.92	135.15	132.75	CONNECT TO EXISTING

ICD TABLE

STRUCTURE ID	ICD TYPE	INVERT (m)	100-YR HEAD (m)	100-YR PEAK FLOW (L/s)
CB1	TEMPEST LMF	SE=136.05	1.53	5.3
CB2	TEMPEST MHF	SW=135.41 N=135.07	2.15	16.5
CB4	TEMPEST MHF	SW=135.25 N=135.52	2.24	15.5
CBMH2	TEMPEST MHF	NW=135.40 SW=135.43	2.31	39.3
CBMH3	TEMPEST MHF	NW=134.65 E=134.65 NE=134.72	2.11	31.7
RY1	TEMPEST MHF	SW=135.42 NE=134.05	2.07	13.5
RY2	TEMPEST LMF	NE=134.05	1.61	9.6
RY3	TEMPEST LMF	SW=133.75 N=133.76 E=133.75	1.29	8.3

CATCHBASIN TABLE

CB No.	T/G ELEVATION	INVERT
CB1	137.45	136.05
CB2	137.40	135.41
CB3	137.40	135.95
CB4	137.30	135.25
CB5	137.30	135.81
CBMH1	134.97	133.57
CBMH2	137.50	135.40
CBMH3	136.50	134.65
LC1	137.17	135.81
LC2	137.66	136.26
RY1	137.17	135.37
RY2	135.45	134.05
RY3	134.70	133.75

SAN MANHOLE TABLE

MANHOLE ID	SIZE (mm)	T/G ELEV (m)	INVERT (m)
201	1200mmØ	135.14	NE=133.23 W=133.32
203	1200mmØ	135.70	E=133.63 NW=133.66
205	1200mmØ	137.66	SE=134.18 NE=134.24 SW=134.61
207	1200mmØ	137.87	NE=134.84 NW=134.53
209	1200mmØ	137.92	NE=134.96 W=134.99

STM MANHOLE TABLE

MANHOLE ID	SIZE (mm)	T/G ELEV (m)	INVERT (m)
HW1	750mmØ	133.72	W=132.71
HW2	600mmØ	133.41	W=132.72
100	1500mmØ	134.45	S=133.07 E=132.78 NW=132.84
102	1200mmØ	135.22	SW=133.10 E=132.87
104	1200mmØ	135.15	W=133.26 NE=133.23
106	1200mmØ	135.83	NW=133.47 E=133.44
108	1200mmØ	137.65	NW=133.91 SE=133.79 SW=133.98
110	1200mmØ	137.64	NE=135.75 SE=134.29
112	1200mmØ	137.79	NE=134.25

NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

REVISION

No.	REVISION	DATE	BY
2	ISSUED FOR APPROVAL	AUG 30/23	MAB
1	ISSUED TO CLIENT	JUN 6/23	MAB



FOR REVIEW ONLY

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TOWN OF STHEE
HARRIS STREET DEVELOPMENT

MAPLE LEAF HOMES

SERVICING PLAN

PROJECT No. 121225
REV # 2
DRAWING No. 121225

