



- LEGEND**
- Sanitary Manhole, Sewer & Direction of Flow
  - Storm Manhole, Sewer & Direction of Flow
  - Watermain and Diameter
  - Valve & Valve Box
  - Valve & Valve Chamber
  - Bend and Thrust Block
  - Hydrant CW Valve & Lead
  - Cap
  - Reducer
  - Road Catch Basin with ICD
  - Road Catch Basin with ICD
  - Landscape Catch Basin
  - Rear Yard Catch Basin
  - Rear Yard Catch Basin with ICD

- GENERAL NOTES:**
- DIMENSIONS AND LAYOUT INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
  - THE ORIGINAL TOPOGRAPHY AND GROUND ELEVATIONS, SERVICING 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: 64153.85 (DATED APRIL 4, 2018), PREPARED BY GEMTEC 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
CATCH-BASIN MANHOLE (12000)	701.010	OPSD
STORM / SANITARY MANHOLE (12000)	701.010	OPSD
ROADSIDE CB, FRAME & COVER	S2 & S19	CITY OF OTTAWA
CURB INLET CB, FRAME & COVER	S3, S22 & S23	CITY OF OTTAWA
CBM FRAME & COVER	S25 & S24.1	CITY OF OTTAWA
STORM / SANITARY MM FRAME & COVER	S24.1, S224 & S25	CITY OF OTTAWA
STORM SEWER	PVC DR 35 OR CONC.	(CLASS SPECIFIED ON PROFILE DRAWINGS)
SANITARY SEWER	PVC DR 35	
CATCH-BASIN LEAD	PVC DR 35	
  - INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.5m COVER WITH 50mmx1200mm HI-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
  - 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 SERVICING 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 SEWERS 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 SLUMPS UNLESS OTHERWISE INDICATED.
  - CONTRACTOR TO TELEPHONE (CITY) ALL PROPOSED SEWERS, 300mm 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 404.02D REQUIRED IF MANHOLE DEPTH IS GREATER THAN 5.0m.

- 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.

**CATCHBASIN TABLE**

CB ID	T/G ELEVATION	INVERT	I.C.D.
CB01	77.83	76.24 76.30	-
CB02	77.73	76.33 77mm	TEMPEST MHF
CB03	77.83	76.13 76.13	TEMPEST LMV VORTEX 93
TD1	75.79	74.93	-

**REAR YARD CATCHBASIN TABLE**

RYCB No.	T/G ELEVATION	INVERT	I.C.D.
LC1	77.67	76.67	-
LC2	77.15	76.15	-
LC3	78.00	76.56	-
LC4	77.73	76.42	-
RY1	77.40	75.91	-
RY2	77.96	75.24	TEMPEST MHF 62mm
RY3	77.15	75.45	-

**WATERMAIN TABLE**

Station	P/G ELEVATION	TOP OF WATERMAIN	DESCRIPTION
0+00.00	78.12	75.72	CONNECT TO EXISTING
0+025.00	77.85	75.45	HYD1 TEE
0+050.00	78.10	78.10	HYD2 TEE
0+054.06	78.06	75.66	44" H.BEND
0+056.73	78.01	75.61	44" H.BEND
0+061.22	78.19	75.79	HYD3 TEE
0+067.89	77.96	75.56	REDUCER
0+078.51	77.99	75.59	VB1
0+086.24	78.33	78.33	CAP

**SANITARY MANHOLE TABLE**

MANHOLE ID	SIZE(mm)	T/G ELEV (m)	INVERT (m)	PIPE DIAMETER (mm)
1	1200Ø	78.03	SW=73.45 SE=73.39	SW=200 SE=200
9	1200Ø	77.68	NW=73.05 NE=72.45	NW=200 NE=200

**STORM MANHOLE TABLE**

MANHOLE ID	SIZE(mm)	T/G ELEV (m)	INVERT (m)	PIPE DIAMETER (mm)	I.C.D.
2	1200Ø	78.09	SE=74.50 NW=74.63	SE=375 NW=250	-
4	1200Ø	78.10	SE=74.26 NW=74.33 SW=74.74	SE=450 NW=375 SW=300	-
8	1200Ø	77.63	NW=73.97 NE=72.16	NW=450 NE=450	-

**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.

**SCALE**

1:250

0 2 4 6 8 10

1. ISSUED FOR APPROVAL

NO. REVISION DATE BY

**FOR REVIEW ONLY**

DTD

LRW

DTD

LRW

MAB

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CITY OF OTTAWA  
KLONDIKE RIDGE - BLOCK 10

**SERVICING PLAN**

PROJECT No. 117034-10  
REV # 1  
DRAWING No. 117034-10-GP