

GENERAL NOTES:

- COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
- 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 THIS DRAWING.
- OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
- BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR \$5,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED.
- RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER.
- REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
- ALL ELEVATIONS ARE GEODETIC.
- REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARDSURFACE AREAS AND DIMENSIONS.
- REFER TO SERVICING BRIEF STORMWATER MANAGEMENT REPORT (R-2012-024 DATED FEB 012) PREPARED BY NATECH ENGINEERING CONSULTANTS LTD.
- SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT IN POINTS AS PER CITY OF OTTAWA STANDARDS (R-10).
- PROVIDE LINESPAVING PAINTING.
- CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVICES AND UTILITIES INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND TIE ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, TWM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.
- REFER TO GEOTECHNICAL REPORT (No. PG 2366-1, DATED FEB. 2012) PREPARED BY PATERSON GROUP FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.
- ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS AND PROVINCIAL STANDARDS. ONTARIO PROVINCIAL STANDARDS WILL APPLY WHERE NO CITY STANDARDS ARE AVAILABLE.
- ALL PRIVATE APPROACHES MUST BE CONSTRUCTED AS PER CITY SPECIFICATION SC13.

LEGEND:

- IRON BAR & PROPERTY LINE
- LEGAL ADJACENT
- PROPOSED DEPRESSED CURB
- PROPOSED BARRIER CURB
- EXISTING BARRIER CURB
- EXISTING ROADWAY
- PROPOSED ASPHALT ROADWAY
- EXISTING CONCRETE SIDEWALK
- PROPOSED CONCRETE SIDEWALK
- EXISTING INTERLOCK
- PROPOSED INTERLOCK
- PROPOSED LANDSCAPE AREA - GRASS
- PROPOSED ROADWAY REINSTATEMENT
- PROPOSED VALVE LOCATION
- PROPOSED SIAMENISE CONNECTION
- PROPOSED SANITARY / STORM TEST PORT
- PROPOSED TRENCH DRAIN
- PROPOSED SERVICE LOCATION
- DIRECTION OF FLOW
- PROPOSED GAS METER
- AREA DRAIN
- ROOF DRAIN
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED RETAINING WALL
- UNDERGROUND PARKING LIMIT
- EXISTING COMBINED MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE
- EXISTING WATER MAIN
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING BELL LINE
- EXISTING HYDRO LINE
- EXISTING GAS LINE
- EXISTING TRAFFIC SIGNAL
- EXISTING CATCH BASIN
- EXISTING FIRE HYDRANT
- EXISTING VALVE CHAMBER
- EXISTING BELL MANHOLE
- EXISTING HYDRO MANHOLE
- EXISTING TRAFFIC MANHOLE
- EXISTING UTILITY POLE
- EXISTING TRAFFIC LIGHT
- EXISTING LAMP STANDARD

WATERMAIN NOTES:

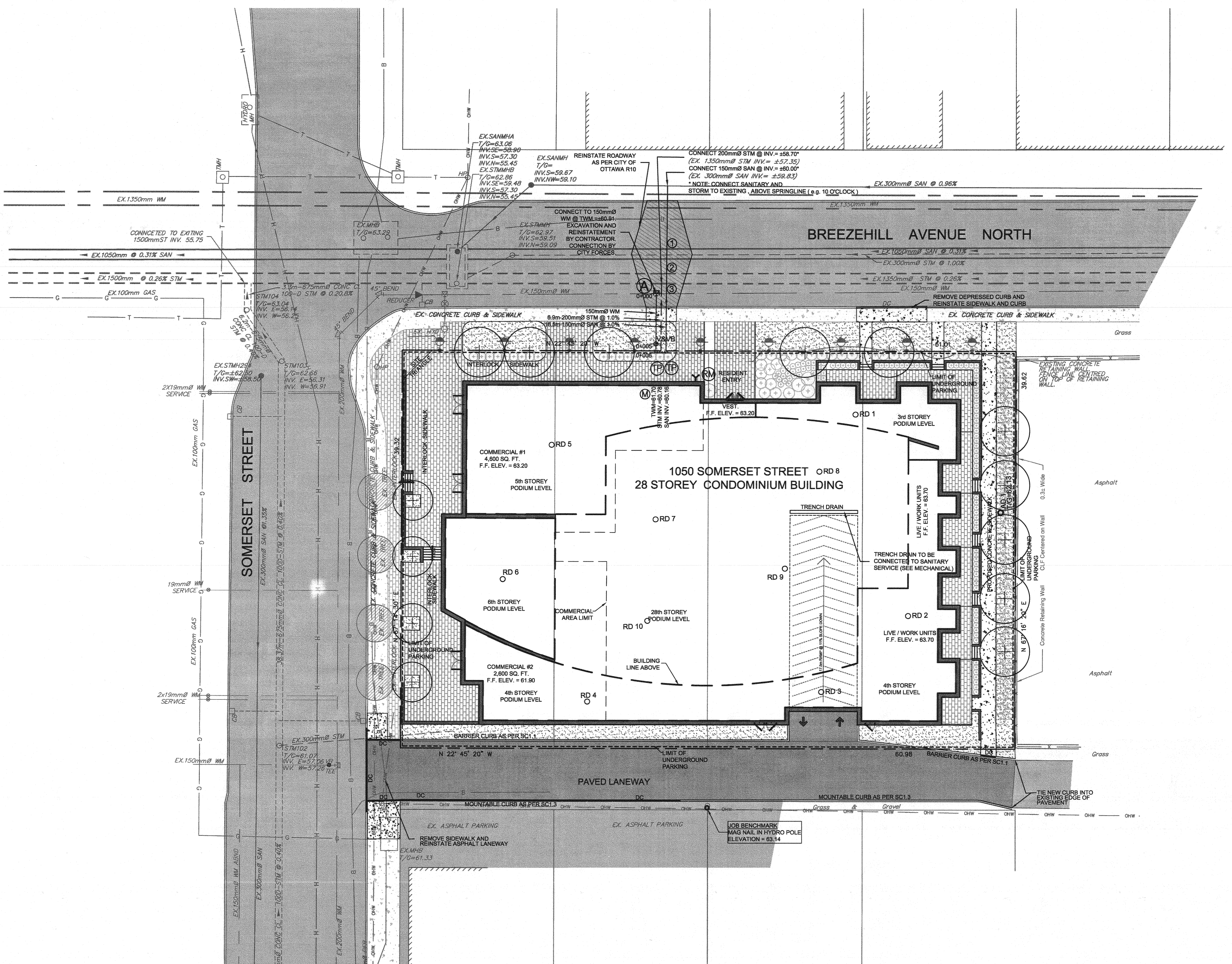
- SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
VALVE BOX ASSEMBLY	W24	CITY OF OTTAWA
CONNECTION DETAIL FROM NEW TO EXISTING WM	W25.1	CITY OF OTTAWA
WATERMAIN CROSSING OVER SEWER	W22	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
THERMAL INSULATION AT OPEN STRUCTURE	W22	CITY OF OTTAWA
SUPPORT DETAIL FOR CROSSING BELOW AN EX. WM	W29	CITY OF OTTAWA
WATER METER INSTALLATION 75mm & LARGER	W32	CITY OF OTTAWA
TYPICAL PRIVATE SECTION - 150mm CONNECTION	W30	CITY OF OTTAWA
WATERMAIN (150mm)	PVC DR 18	
- SUPPLY AND CONSTRUCT ALL WATERMANS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARD AND SPECIFICATIONS. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMANS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CH-ORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS.
- WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED. OTHERWISE THERMAL INSULATION IS REQUIRED AS PER STD. DWG. W22.
- PROVIDE MINIMUM 0.5m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS.
- WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.
- WATER DEMAND = 11.79 L/s
- ALL EXISTING WATER SERVICES TO BE BLANKED AT MAIN BY CITY OFFICES. EXCAVATION AND REINSTATEMENT BY CONTRACTOR.

SEWER NOTES:

- SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
SEWER SERVICE CONNECTION - RIGID PIPE	S 11	CITY OF OTTAWA
SEWER SERVICE ABANDONMENT	S 11.4	CITY OF OTTAWA
SEWER TRENCH - BEDDING (GRANULAR A) COVER (GRANULAR A OR GRANULAR B TYPE I, WITH MAXIMUM PARTICLE SIZE=25mm)	OPSD	
STORM SEWER	PVC DR 36	
SANITARY SEWER	PVC DR 28	
- INSULATE ALL PIPES (SANITARY) THAT HAVE LESS THAN 1.5m COVER WITH 50mmx1200mm H-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
- SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.
- 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.
- FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO MANHOLES (FOR EXAMPLE KOR-N-SEAL, PSX, POSITIVE SEAL AND DURASEAL). THE CONCRETE CRADLE FOR THE PIPE CAN BE ELIMINATED.
- THE OWNER SHALL REQUIRE THAT THE SITE SERVISING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16, 410.07.16.04 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 A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.
- FULL PORT BACKWATER VALVES ARE REQUIRED ON THE SANITARY SERVICES, INSTALLED AS PER THE MANUFACTURERS RECOMMENDATIONS AND A BACKWATER VALVE IS REQUIRED ON THE STORM SERVICES FOUNDATION DRAINS FOR EACH BUILDING, INSTALLED AS PER STD. DWG. S14.
- REINSTATE ALL EXISTING PARKING, CURB AND BOULEVARDS AS PER CITY OF OTTAWA R10.
- ALL EXISTING SANITARY AND STORM SERVICES TO BE CAPPED AT THE PROPERTY LINE TO THE SATISFACTION OF THE CITY OF OTTAWA SEWER OPERATIONS.



PROPOSED BUILDINGS - ROOF & AREA DRAIN TABLE

ROOF DRAIN ID	ZURN SPECIFICATION	NOTCHES	POST-DEVELOPMENT CONDITIONS			
			1.5 YEAR EVENT		1.100 YEAR EVENT	
			FLOW (L/S)	DEPTH (m)	FLOW (L/S)	DEPTH (m)
RD 1	ZCF121-1W-X4-Z-105-10-77	1	0.39	0.108	0.51	0.157
RD 2	ZCF121-1W-X4-Z-105-10-77	1	0.40 x 3	0.108	0.82 x 3	0.140
RD 5	ZCF121-1W-X4-Z-105-10-77	1	0.43	0.116	0.55	0.149
RD 6	ZCF121-1W-X4-Z-105-10-77	1	0.41	0.110	0.83	0.142
RD 7 - 10	ZCF121-1W-X4-Z-105-10-77	1	0.425 x 4	0.114	0.545 x 4	0.147
AD 1	ZNF121-2NH-G-PX-CV-PV	1	2.63	0.845	2.76	0.867
TOTAL			5.49		8.10	

WATERMAIN TABLE

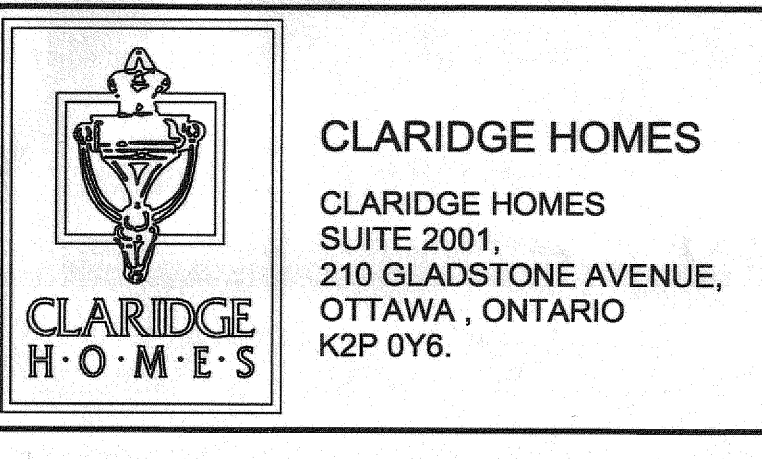
STATION	SURFACE ELEVATION	TOP OF WM ELEVATION	DESCRIPTION
0+000.0	62.71	60.91	CONNECT TO EXISTING
0+001.2	62.86	60.91	45° VERTICAL BEND / FACE OF CURB
0+001.6	62.95	60.55	45° VERTICAL BEND
0+005.0	63.50	60.60	VALVE AND VALVE BOX
0+006.9	63.10	60.70	BUILDING FACE

* EXACT DEPTH OF EXISTING WATERMAIN TO BE DETERMINED AT TIME OF EXCAVATION. CONTRACTOR TO CONFIRM TOP OF WATERMAIN. PROVIDE THERMAL INSULATION AS PER CITY OF OTTAWA DETAIL W23 WHERE COVER IS LESS THAN 2.4m

CRITICAL PIPE CROSSING TABLE

	CLEARANCE	
150mm SAN INV=60.06	300mm STM OBV=59.98	0.10m
150mm SAN INV=60.08	150mm STM INV=58.70	1.38m
150mm SAN INV=60.05	150mm WM OBV=59.88	0.17m
200mm STM INV=60.70	150mm WM OBV=59.88	0.82m

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.



NOTE: CONTRACTOR TO CONFIRM ELEVATIONS OF INFRASTRUCTURE IN THE STREET PRIOR TO EXTENDING SERVICES INTO THE SITE AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.

No.	REVISION	mm/dd/yy	BY
02	ISSUED FOR SITE PLAN APPLICATION	FEB. 06/12	GJM
01	ISSUED FOR COORDINATION	FEB. 02/12	GJM

SCALE: 1:200

FOR REVIEW ONLY

DESIGN: GJM/BHB

CHECKED: GJM

DRAWN: MWC/AJL

APPROVED: GJM

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DRAWING NAME: GENERAL PLAN OF SERVICES

PROJECT No.: 111152-01

REV: REV 02

DRAWING No.: 111152-GP