



**LEGEND**

PROPERTY LINE  
PROPOSED UNDERGROUND BUILDING LIMITS (APPROX.)  
EXISTING LEGAL ADJACENT  
PROPOSED WATERMAIN SERVICE (WITH CAP)  
PROPOSED STORM SERVICE (WITH CAP)  
PROPOSED SANITARY SERVICE (WITH CAP)  
PROPOSED FLOW DIRECTION  
PROPOSED WATER METER  
PROPOSED STORM/SANITARY TEST PORT  
PROPOSED REMOTE WATER METER  
PROPOSED WATERMAIN SHUT OFF VALVE BOX  
PROPOSED SIAMSE CONNECTION  
PROPOSED LANDSCAPE DRAIN (ELBOW)  
PROPOSED LANDSCAPE DRAIN (TEE)  
PROPOSED CATCHBASIN  
PROPOSED CURB INLET CATCHBASIN  
EXISTING SERVICE TO BE ABANDONED  
PROPOSED BUILDING ENTRANCE / EXIT  
PROPOSED FINISHED FLOOR ELEVATION  
PROPOSED TOWER

EXISTING UNDERGROUND UTILITIES  
CHAMBER, SANITARY, STORM  
EXISTING FIBRE OPTIC CONDUIT  
ATRIA / TELUS  
EXISTING ROGERS CABLE  
EXISTING GAS MAIN  
EXISTING HYDRO CONDUIT  
EXISTING BELL CONDUIT  
EXISTING HYDRO / UTILITY POLE AND GUY WIRE  
EXISTING OVERHEAD WIRE  
EXISTING TRAFFIC CONTROL BOX  
EXISTING VERTICAL TRAFFIC LIGHT DISCONNECT  
EXISTING TRAFFIC MANHOLE  
EXISTING ABANDONED INFRASTRUCTURE  
EXISTING UNDERGROUND SEWERS  
CHAMBER, SANITARY, STORM  
EXISTING SANITARY MANHOLE  
EXISTING STORM MANHOLE  
EXISTING SANITARY SEWER  
EXISTING STORM SEWER  
EXISTING FLOW DIRECTION OF SEWERS  
EXISTING WATERMAIN VALVE CHAMBER  
EXISTING WATERMAIN SHUT-OFF VALVE BOX  
EXISTING WATERMAIN  
EXISTING HYDRANT C/W LEAD & SHUT OFF VALVE BOX  
EXISTING BELL MANHOLE  
EXISTING JOINT TELECOMMUNICATIONS MANHOLE

- 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 \$500,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED.
  - ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS AND ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS. ONTARIO PROVINCIAL STANDARDS APPLY WHERE NO CITY STANDARDS ARE AVAILABLE.
  - 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 ARCHITECTS AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACE AREAS AND DIMENSIONS.
  - REFER TO THE DEVELOPMENT SERVICES STUDY AND STORMWATER MANAGEMENT REPORT (R-2018-026, PREPARED BY NOVATECH).
  - SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
  - PROVIDE LINE/PARKING PAINTING.
  - CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVING AS-BUILT 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 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 PRIVATE APPROACHES MUST BE CONSTRUCTED AS PER CITY SPECIFICATIONS SC13.
  - PRIOR TO COMMENCEMENT OF ANY WORKS, CONTRACTOR TO OBTAIN SERVICE LOCATES BY CALLING ONTARIO ONE AT 1-800-400-2255
- SEWER NOTES:**
- SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
  - SPECIFICATIONS:

SPEC. No.	REFERENCE
ITEM	
SEWER SERVICE CONNECTION - RIGID PIPE	S 11 CITY OF OTTAWA
SEWER SERVICE ABANDONMENT	S 11 CITY OF OTTAWA
CATCHBASIN	S 1 CITY OF OTTAWA
CURB INLET CATCHBASIN	S 3 CITY OF OTTAWA
SEWER TRENCH - BEDDING (GRANULAR A) COVER (GRANULAR A OR GRANULAR B TYPE), WITH MAXIMUM PARTICLE SIZE (25mm)	OPSD
STORM SERVICE/CB LEAD	PVC DR 35
SANITARY SERVICE	PVC DR 35

  - INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.5m COVER WITH H-40 INSULATION PER INSULATION DETAIL FOR SHALLOW SEWERS, 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, PSK, POSITIVE SEAL AND DURASEAL) THE CONCRETE CRADLE FOR THE PIPE CAN BE ELIMINATED.
  - THE OWNER SHALL REQUIRE THAT THE SITE SERVING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPS 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.
  - ALL STORM AND SANITARY SERVICE LATERALS SHALL BE EQUIPPED WITH BACKFLOW PREVENTION DEVICES AS PER THE CITY OF OTTAWA STANDARD DETAILS S14 AND S14.1 OR S14.2. FULL PORT BACKWATER VALVES ARE REQUIRED ON THE SANITARY SERVICES AND ARE TO BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS.
  - CONTRACTOR TO TELETYPE (CCTV) ALL PROPOSED SEWERS/LATERALS PRIOR TO BASE COURSE ASPHALT, UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES.
  - ALL EXISTING SANITARY AND STORM SERVICES ARE TO BE CAPPED AT THE PROPERTY LINE TO THE SATISFACTION OF THE CITY OF OTTAWA SEWER OPERATION.
  - SAN AND STM SERVICES TO END 1.0m BEFORE BUILDING WALL FOUNDATION. MECHANICAL CONTRACTOR TO CONNECT.

**WATERMAIN NOTES:**

- SUPPLY AND CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARD AND SPECIFICATIONS, EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMAINS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND OR ORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS.
- SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W1	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W2	CITY OF OTTAWA
VALVE BOX ASSEMBLY	W24	CITY OF OTTAWA
CONNECTION DETAIL FROM EXISTING TO NEW WM	W25.1	CITY OF OTTAWA
WATERMAIN CROSSING OVER SEWER	W25.2	CITY OF OTTAWA
WATER SERVICE	PVC DR 18	CITY OF OTTAWA
THERMAL INSULATION AT OPEN STRUCTURE	W28	CITY OF OTTAWA
WATER SERVICE INSTALLATION AT SEWER CROSSING	W33	CITY OF OTTAWA

- WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED. OTHERWISE THERMAL INSULATION IS REQUIRED AS PER STD. DIWO W22.
- PROVIDE MINIMUM 0.5m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS WHEN WATERMAIN IS BELOW AND MINIMUM 0.25m CLEARANCE WHEN WATERMAIN IS ABOVE.
- WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1m OF BUILDING FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED. MECHANICAL CONTRACTOR TO CONNECT.
- ALL EXISTING WATER SERVICES TO BE BLANKED AT MAIN. EXCAVATION AND REINSTATEMENT BY CONTRACTOR.

**INSULATION DETAIL FOR SHALLOW SERVICES**

1. THE THICKNESS OF SEWER INSULATION SHALL BE THE EQUIVALENT OF 25mm FOR EVERY REQUIRED DEPTH OF COVER LESS THAN 1500mm (SEE TABLE)

COVER (mm)	INSULATION THICKNESS (mm)
1500-1200	75
1200-800	100
800-400	125

2. THE THICKNESS OF INSULATION (mm) = 25mm x DEPTH OF COVER (mm) / 1500

3. W = WIDTH OF INSULATION (mm) = 0.375 OF PIPE (mm)

4. REFER TO DRAWING 109111-GP2 FOR SERVING PROFILES.

NOTE: THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, 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.

**CLARIDGE HOMES**

CLARIDGE HOMES SUITE 2001,  
210 GLADSTONE AVENUE,  
OTTAWA, ONTARIO  
K2P 0Y6.

No.	REVISION	DATE	BY
6.	ISSUED PER REVISED SITE PLAN	MAY 22/2019	GJM
5.	REVISED PER CITY COMMENTS	APR 09 / 2019	GJM
4.	REVISED PER CITY COMMENTS	MAR 21 / 2019	GJM
3.	ISSUED WITH SITE PLAN APPLICATION	FEB 19 / 2019	GJM
2.	ISSUED FOR SITE PLAN APPROVAL	AUG 15 / 2018	FST
1.	ISSUED WITH SITE PLAN APPLICATION	OCT 18 / 2013	JGR

SCALE

1:200

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**FOR REVIEW ONLY**

LG/BSFT  
GJM  
MW/CLB  
GJM

APPROVED

**NOVATECH**

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LOCATION  
CITY OF OTTAWA  
383 ALBERT STREET / 340 QUEEN STREET  
MOON DEVELOPMENT

DRAWING NAME  
GENERAL PLAN OF SERVICES

PROJECT No.  
109111

REV  
REV #5

DRAWING No.  
109111-GP1

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D07-12-18-0129

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