LEGEND

COMH EXISTING COMBINED MANHOLE	EXISTING HYDRO TRANSFORMER	G EXISTING GAS LINE	MH 101 PROPOSED SANITARY MANHOLE
MH-S EXISTING SANITARY MANHOLE	EXISTING HYDRO MANHOLE	T EXISTING TRAFFIC SIGNALE	MH 100 PROPOSED STORM MANHOLE
MH-ST EXISTING STORM MANHOLE	THMH EXISTING TRAFFIC MANHOLE	FO EXISTING FIBER OPTIC LINE	CB PROPOSED CATCHBASIN
CB EXISTING CATCH BASIN	UP EXISTING UTILITY POLE	ST EXISTING STORM SEWER	DIRECTION OF FLOW
FH EXISTING FIRE HYDRANT	GM EXISTING GAS METRE	SA EXISTING SANITARY SEWER	VAVB PROPOSED VALVE & VALVE BOX
VC EXISTING VALVE CHAMBER	TRAFFIC LT EXISTING TRAFFIC LIGHT	B EXISTING BELL LINE	PROPOSED BELL PEDESTAL
EXISTING BELL PEDESTAL	LS EXISTING LAMP STANDARD	H EXISTING HYDRO LINE	PROPOSED CABLE PEDESTAL
			CB/MH PROPOSED CATCHBASIN/MANHOLE

WV PROPOSED VALVE LOCATION	ABANDONED	RM PROPOSED REMOTE WATER METER
D.C PROPOSED DEPRESSED CURB	REMOVAL	M PROPOSED WATER METER
PROPOSED BARRIER CURB	ADJUSTED	ITP INTERNAL MONITORING TEST PORTS
IRON BAR & PROPERTY LINE	PROPOSED SOFT LANDSCAPING	
LEGAL ADJACENT	GM PROPOSED GAS METER	
PROPOSED STORM SEWER	PD PROPOSED PODIUM DRAIN	
PROPOSED SANITARY SEWER	PROPOSED SIAMESE CONNECTION	

A

WATERMAIN TABLE

STATION	SURFACE ELEVATION	TOP OF WM ELEVATION	DESCRIPTION
0+000.0	67.90	65.50 *	CONNECT TO EXISTING
0+001.5	67.86	65.46	CURB FACE
0+002.4	68.01	65.61	HYDRO DUCT
0+004.9	68.06	65.66	WM BEND 45°
0+005.6	68.06	65.66	WM BEND 45°
0+007.0	68.08	65.68	STANDPOST R
0+007.0	68.08	65.68	BLDG 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 2.6m

ROOF DRAIN TABLE

AREA ID	ZURN SPECIFICATION	NOTCHES	ZURN ROOFDRAIN CONTROL PARAMETERS			
			5-YEAR EVENT		100-YEAR EVENT	
			HEAD(m)	Q(l/s)	HEAD(m)	Q(l/s)
R-01	ZCF121-1W-X3-Z-105-10-77	1	0.112	0.83	0.143	1.07
R-02	ZCF121-1W-X2-Z-105-10-77	1	0.115	1.29	0.148	1.66
R-03	ZCF121-1W-X4-Z-105-10-77	1	0.055	0.20	0.079	0.29
R-04	ZCF121-1W-X4-Z-105-10-77	1	0.039	0.14	0.061	0.23
	TOTAL			2.47		3.25

ROOF AREAS R-01 TO R-04 WILL HAVE CONTROLLED ROOF DRAINS WHICH WILL DIRECT RUNOFF TO THE OUTLET VIA THE BUILDINGS INTERNAL PIPES.

NORTH

KEY PLAN N.T.S.

SITE LOCATION

GEODETIC BENCHMARK
NCC MON 246 6" TRANSVERS
N: 5032887.513
E: 369769.963
ELEV. 57.384

GENERAL NOTES:

1) COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.

2) 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.

3) OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.

4) 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.

5) 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.

6) 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.

7) ALL ELEVATIONS ARE GEODETIC.

8) REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARDSURFACE AREAS AND DIMENSIONS.

9) REFER TO STORMWATER MANAGEMENT REPORT (R-2011-034) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.

10) SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).

11) PROVIDE LINE/PARKING PAINTING.

12) CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVICING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, T/WM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.

13) REFER TO GEOTECHNICAL REPORT (No. PGxxxx-1, DATED xxx. xx, 2011), PREPARED BY PATERSON GROUP FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIRE MENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.

14) 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 WILL APPLY WHERE NO CITY STANDARDS ARE AVAILABLE.

15) ALL PRIVATE APPROACHES MUST BE CONSTRUCTED AS PER CITY SPECIFICATION SC13.

SEWER NOTES:

1) SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
CATCHBASIN (600x600mm)	705.010	OPSD
STORM / SANITARY MANHOLE (1200Ø)	701.010	OPSD
CB_FRAME & COVER	400.020	OPSD
STORM / SANITARY MH FRAME & COVER	401.010	OPSD
SEWER TRENCH - BEDDING (GRANULAR A)		OPSD
COVER (GRANULAR A OR GRANULAR B TYPE I, WITH MAXIMUM PARTICLE SIZE=25mm)		OPSD
STORM SEWER	PVC DR 35	
SANITARY SEWER	PVC DR 35	
CATCHBASIN LEAD	PVC DR 35	

2) INSULATE ALL PIPES (SANISTM) THAT HAVE LESS THAN 1.5m COVER WITH 50mmX1200mm HI-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.

3) SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.

4) 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.

5) 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.

6) THE OWNER SHALL REQUIRE THAT THE SITE SERVICING 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.

7) STORM MANHOLES AND CBMHS ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED.

8) CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS.

9) FULL PORT BACKWATER VALVES ARE REQUIRED ON THE SANITARY SERVICES, INSTALLED AS PER THE MANUFACTURES RECOMMENDATIONS AND A BACKWATER VALVE IS REQUIRED ON THE STORM SERVICES FOUNDATION DRAINS FOR EACH BUILDING; INSTALLED AS PER STD. DWG S14.

10) REINSTATE ALL EXISTING PAVEMENT CURB AND BOULEVARDS.

11) ALL EXISTING SANITARY AND STORM SERVICES TO BE CAPPED AT THE PROPERTY LINE TO THE SATIFACTION OF THE CITY OF OTTAWA.

WATERMAIN NOTES:

1) SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
WATERMAIN CROSSING BELOW SEWER	W25	CITY OF OTTAWA
WATERMAIN (150mm)	PVC DR 18	
WATERMAIN (50mm)	TYPE K COPPER	
THERMAL INSULATED AT OPEN STRUCTURE	W23	CITY OF OTTAWA
19mm WATER SERVICE CONNECTIONS	W28	CITY OF OTTAWA
50mm WATER SERVICE CONNECTIONS	W33	CITY OF OTTAWA
WATER SERVICE INSTALATION AT SEWER CROSSING.	W38	CITY OF OTTAWA

2) 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 CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS.

3) WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED. OTHERWISE THERMAL INSULATION IS REQUIRED AS PER STD. DWG W22.

4) PROVIDE MINIMUM 0.25m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS.

5) WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.

6) WATER DEMAND = TBD

7) ALL EXISTING WATER SERVICES TO BE BLANKED AT MAIN.

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.

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
01	ISSUED WITH SITE PLAN APPLICATION	02/18/11	GJM

SCALE 1:100

DESIGN JAG
CHECKED GJM
DRAWN MAY
CHECKED JAG
APPROVED GJM

FOR REVIEW ONLY

LICENSED PROFESSIONAL ENGINEER G.J. MacDONALD PROVINCE OF ONTARIO

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LOCATION
CITY OF OTTAWA
101 WURTEMBURG STREET

DRAWING NAME
GENERAL PLAN AND SERVICES

PROJECT No. 111013-00
REV REV #01
DRAWING No. 111013-GP

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