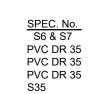
GENERAL NOTES:

- 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
- 7. ALL DIMENSIONS AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION. IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.
- 8. ALL ELEVATIONS ARE GEODETIC AND ARE REFERRED TO THE CGVD28 GEODETIC DATUM. BASE MAPPING IS REFERANCED TO THE MTM ZONE 9 NAD-83 (ORIGINAL) DATUM. THE SITES BENCHMARKS ARE AT THE TOP OF THE SPINDLE FIRE HYDRANTS. SITE BENCHMARK #1 IS OUTSIDE THE SOUTH-EAST (GEORGE STREET) CORNER OF THE SITE FIRE HYDRANT SPINDLE T/G=62.03. SITE BENCHMARK #2 IS OUTSIDE THE NORTH-EAST (YORK STREET) CORNER OF THE SITE FIRE HYDRANT SPINDLE T/G=60.07.
- 9. REFER TO GEOTECHNICAL REPORT (PG2733-3, REV.5, DATED OCTOBER 29,2024), 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.
- 10. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARDSURFACE AREAS AND DIMENSIONS.
- 11. REFER TO SERVICING AND STORMWATER MANAGEMENT REPORT (R-2023-103) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD. DATED JUNE 23, 2025
- 12. SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
- 13. PROVIDE LINE/PARKING PAINTING.
- 14. 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.
- 15. 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.
- 16. CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.

SEWER NOTES:

SPECIFICATIONS:	
<u>ITEM</u>	SPEC. No.
SEWER TRENCH	S6 & S7
STORM SEWER	PVC DR 3
SANITARY SEWER	PVC DR 3
CATCHBASIN LEAD	PVC DR 3
INSULATION FOR SHALLOW SEWERS	S35



- 2. INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 2.0m COVER WITH 50mmX1200mm HI-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION (REFER TO DETAIL).
- 3. SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0% (2.0% IS PREFERRED).
- 4. SEWER SERVICE CONNECTIONS PER CITY OF OTTAWA DETAILS S11 AND S11.1.
- 5. A MINIMUM OF 150 mm OPSS GRANULAR A SHOULD BE PLACED FOR BEDDING FOR SEWER OR WATER PIPES WHEN PLACED ON A SOIL SUBGRADE. THE BEDDING SHOULD EXTEND TO THE SPRING LINE OF THE PIPE. COVER MATERIAL, FROM THE SPRING LINE TO A MINIMUM OF 300 mm ABOVE THE OBVERT OF THE PIPE, SHOULD CONSIST OF OPSS GRANULAR A (CONCRETE OR PSM PVC PIPES) OR SAND (CONCRETE PIPE). THE BEDDING AND COVER MATERIALS SHOULD BE PLACED IN MAXIMUM 225 MM THICK LIFTS AND COMPACTED TO 98% OF THE SPMDD.
- 6. WHERE HARD SURFACE AREAS ARE CONSIDERED ABOVE THE TRENCH BACKFILL, THE TRENCH BACKFILL MATERIAL WITHIN THE FROST ZONE (ABOUT 1.8 M BELOW FINISHED GRADE) AND ABOVE THE COVER MATERIAL SHOULD MATCH THE SOILS EXPOSED AT THE TRENCH WALLS TO MINIMIZE DIFFERENTIAL FROST HEAVING. THE TRENCH BACKFILL SHOULD BE PLACED IN MAXIMUM 225 MM THICK LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 98% OF THE MATERIAL'S SPMDD. ALL COBBLES LARGER THAN 200 MM IN THEIR LONGEST DIRECTION SHOULD BE SEGREGATED FROM RE-USE AS TRENCH BACKFILL.
- 7. 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.
- 8. 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
- 9. STORM MANHOLES AND CBMHS ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED.
- 10. CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS, 200mmØ OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES.

WATERMAIN NOTES:

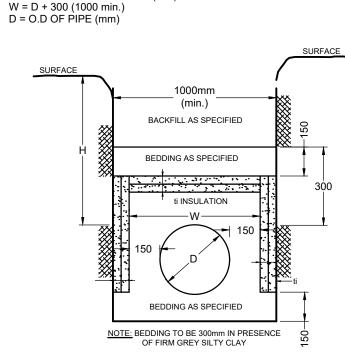
SPECIFICATIONS:

WATERMAIN TRENCHING THERMAL INSULATION IN SHALLOW TRENCHES CITY OF OTTAWA W22 WATERMAIN CROSSING BELOW SEWER/ABOVE SEWER W25 / W25,2 CITY OF OTTAWA WATERMAIN PVC DR 18 CITY OF OTTAWA VALVE AND VALVE BOX

- 2. SUPPLY AND CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS 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. ANY WATERMAIN WITH LESS THAN 2.4m COVER TO BE INSULATED PER THE SHOWN DETAIL.
- 4. PROVIDE MINIMUM 0.25m ABOVE, 0.5m IF BELOW, CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS PER CITY OF OTTAWA STANDARDS W25/W25.2
- 5. WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE
- 6. CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS CITY OF OTTAWA STANDARD DETAILS W-39, 40, 41, 42, 43 AND 44.
- 7. PROVIDE THERMAL INSULATION FOR WATERMAIN AT OPEN STRUCTURES PER CITY OF OTTAWA STANDARD DETAIL W-23.
- 8. IF WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.

SEWER & WATERMAIN INSULATION NOTES:

<u>OEMER & MATERIMANT INCOERTIO</u>	1 110 1 E O .		
1. INSULATE ALL SEWER PIPES THAT HAVE LESS THAN 2.0m COVER AND ALL WATERMAIN WITH LESS THAN 2.4m OF COVER WITH EXPANDED POLYSTYRENE INSULATION AS PER OPSD	COVER INSULATION THICKNES (mm) (mm)		
EQUIVALENT OF SErver FOR EVERY 200	2000-1700 / 2400-2100	50	
	1700-1400 / 2100-1800	75	
COVER WITH 50mm MINIMUM (SEE TABLE)	1400-1100 / 1800-1500	100	
T = THICKNESS OF INSULATION (mm) W = WIDTH OF INSULATION (mm)			



INSULATION DETAIL FOR SHALLOW SEWERS & WATERMAIN

PROPOSED WATER SERVICE (1+00	0.0)				
STATION SURFACE T/WM ELEVATION COMM	MENTS				
1+000.0 61.73 59.33* TEE CONNECTION TO EXIS	STING 300mmØ WATERMAIN				
1+002.7 61.60 60.32 CROSS ABOVE 900mm OTTAWA DETAIL W25.2	(CLEARANCE =±0.30m)				
1+008.0 61.37 60.27 CROSS ABOVE 1.9m S OTTAWA DETAIL W25.2					
1+024.2 61.59 59.09 VALVE AND	VALVE BOX				
1+024.5 61.60 59.09 CAP SERVICE 1.0m FROM	THE FOUNDATION WALL				
PROPOSED WATER SERVICE (2+00	0.0)				
STATION SURFACE T/WM ELEVATION COMM	MENTS				
2+000.0 61.73 59.33* TEE CONNECTION TO EXIS	STING 300mmØ WATERMAIN				
2+002.7 61.55 60.32 CROSS ABOVE 900mm OTTAWA DETAIL W25.2	(CLEARANCE =±0.31m)				
2+008.0 61.31 60.27 CROSS ABOVE 1.9m 3 OTTAWA DETAIL W25.2	SAN AS PER CITY OF (CLEARANCE =±0.31m)				
2+024.2 61.48 59.08 VALVE AND	VALVE BOX				
2+024.5 61.49 59.09 CAP SERVICE 1.0m FROM	CAP SERVICE 1.0m FROM THE FOUNDATION WALL				

* CONTRACTOR TO CONFIRM THE ELEVATION OF THE EXISTING WATER STUB AND NOTIFY THE ENGINEER IF DIFFERENT

PROPOSED WATER SERVICE (3+000.0)								
STATION	SURFACE ELEVATION	COMMENIS						
3+000.0	60.90	58.50*	CONNECTION TO EXISTING 200mmØ SERVICE					
3+004.9	60.65	58.80	CROSS ABOVE 1200mm SAN AS PER CITY OF OTTAWA DETAIL W25.2 (CLEARANCE =0.30m)					
3+007.8	60.70	59.23	CROSS ABOVE 675mm STM AS PER CITY OF OTTAWA DETAIL W25.2 (CLEARANCE =0.30m)					
3+023.0	60.16	V&VB						
3+024.0	61.26	58.54	CAP SERVICE 1.0m FROM THE FOUNDATION WALL					
PROPOSED WATER SERVICE (4+000.0)								
STATION	STATION SURFACE TELEVATION ELE		COMMENTS					
4+000.0	60.90	58.50*	CONNECTION TO EXISTING 200mmØ SERVICE					
4+004.8	60.65	58.77	CROSS ABOVE 1200mm SAN AS PER CITY OF OTTAWA DETAIL W25.2 (CLEARANCE =0.30m)					

* CONTRACTOR TO CONFIRM THE ELEVATION OF THE EXISTING WATER STUB AND NOTIFY THE ENGINEER IF DIFFERENT

59.21

4+007.8

4+023.0

4+024.0

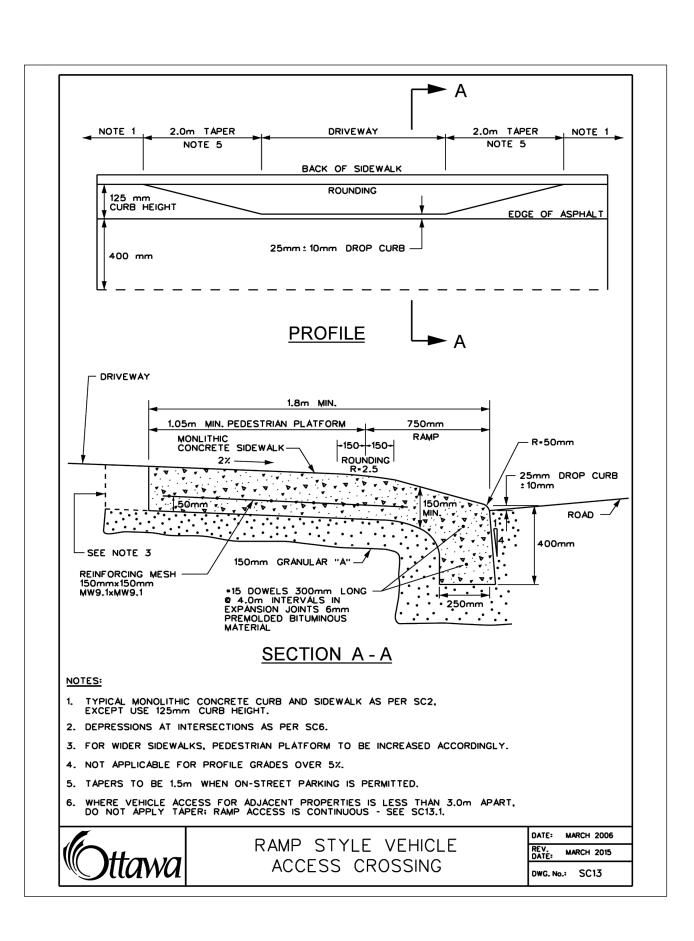
60.70

60.15

CROSS ABOVE 675mm STM AS PER CITY OF

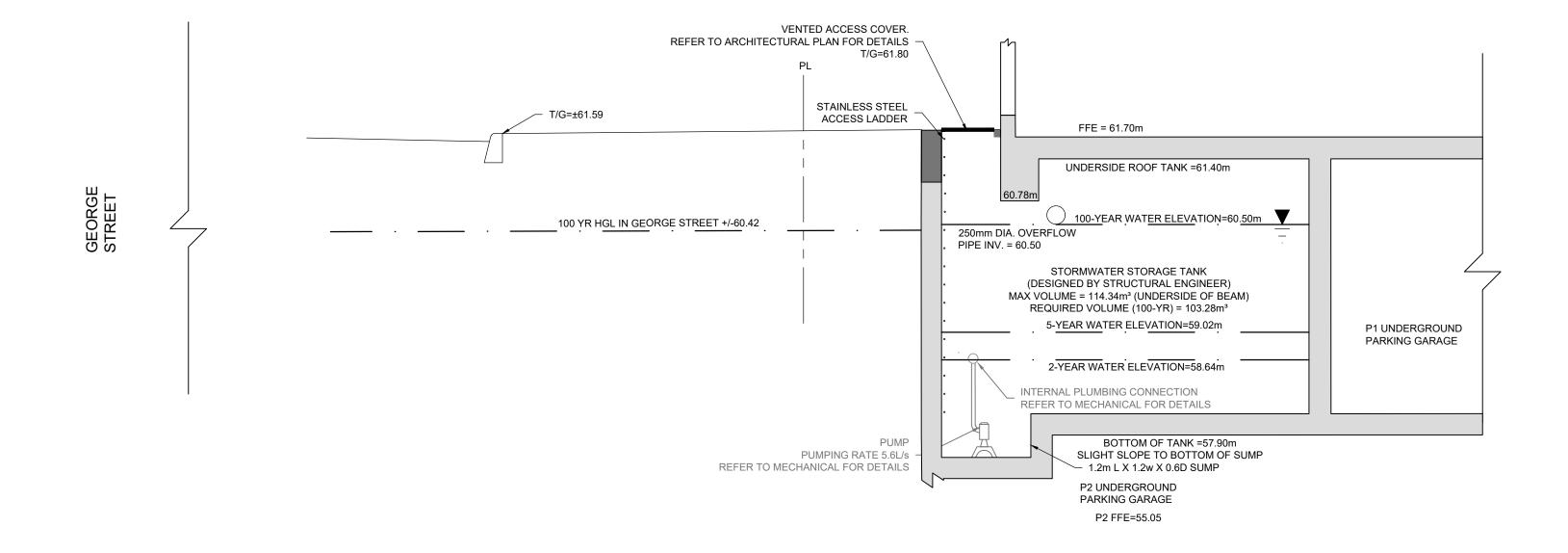
OTTAWA DETAIL W25.2 (CLEARANCE =0.30m)

CAP SERVICE 1.0m FROM THE FOUNDATION WALL

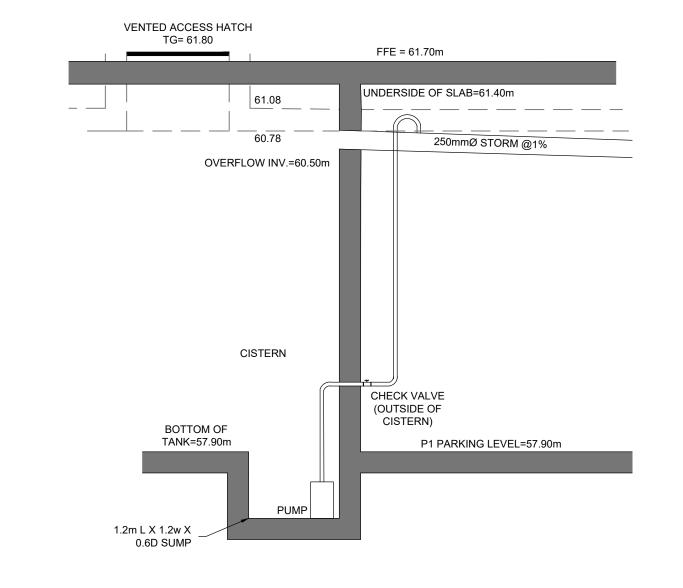


PIPE CROSSING TABLE							
CROSSING	LOWER PIPE	HIGHER PIPE	CLEARANCE				
1	1980x1500mmØ SAN OBV = 59.81 ₩	250mmØ STM INV = 60.11	±0.30m				
2	1980x1500mmØ SAN OBV = 59.82₩	150mmØ WTM INV = 60.12	±0.30m				
3	900mmØ STM OBV = 59.87 ★	150mmØ WTM INV = 60.17	±0.30m				
4	1980x1500mm∅ SAN OBV = 59.81 ×	150mmØ WTM INV = 60.12	±0.31m				
(5)	900mm∅ STM OBV = 59.86 💥	150mmØ WTM INV = 58.82	±0.31m				
6	675mmØ STM OBV = 58.63 ¥	200mmØ SAN INV = 59.02	±0.38m				
7	1200mmØ SAN OBV = 58.35 ★	150mmØ WTM INV = 58.65	±0.30m				
8	675mmØ STM OBV = 58.78 ★	150mmØ WTM INV = 59.08	±0.30m				
9	1200mmØ SAN OBV = 58.32 ¥	150mmØ WTM INV = 58.62	±0.30m				
10	675mmØ STM OBV = 58.76 ★	150mmØ WTM INV = 59.06	±0.30m				

* DENOTES OUTSIDE DIAMETER



GP CISTERN SCHEMATIC - CONNECT TO GEORGE STREET



GP CISTERN OVERFLOW SCHEMATIC

MANAGER, DEVELOPMENT REVIEW CENTRAL PLANNING, DEVELOPMENT & BUILDING SERVICES **DEVELOPMENT DEPARTMENT, CITY OF OTTAWA**

ANDREW MCCREIGHT

APPROVED By Andrew McCreight at 3:10 pm, Nov 19, 2025

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

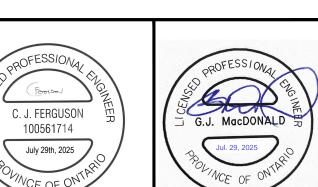
505 PRESTON STREET,

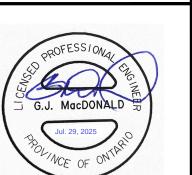
OTTAWA , ONTARIO

K1S 4N7.



				8.	ISSUED FOR TENDER	MAY 16/24	GJM	SCALE	DESIGN	
				7.	ISSUED FOR CONSTRUCTION	MAY 2/24	GJM		ARM/CJF	
				6.	WATER SERVICING ALTERATIONS	MAR 22/24	GJM	AS SHOWN	CHECKED	
13.	REVISED PER CITY COMMENTS	JUL 29/25	GJM	5.	REVISED PER CITY COMMENTS	MAR 20/24	GJM	AS SHOWN	ARM DRAWN	
12.	REVISED DRAINAGE CATCHMENTS	JUNE 23/25	GJM	4.	REVISED PER CITY COMMENTS	MAR 12/24	GJM		ARM/CJF	CENSE
11.	REVISED PER CITY COMMENTS	MAY 26/25	GJM	3.	ISSUED FOR TENDER	FEB 02/24	GJM		CHECKED	
10.	REVISED PER CITY COMMENTS	JAN 23/25	GJM	2.	ISSUED FOR PERMIT	DEC 21/23	GJM		ARM	\ \ \
9.	REVISED SPA TO INCLUDE ENTIRE PARKING GARAGE FOR 141 GEORGE, 110 & 116 YORK	SEPT 24/24	GJM	1.	ISSUED FOR FOUNDATION PERMIT	AUG 11/23	GJM		APPROVED	1/3/2
No.	REVISION	DATE	BY	No.	REVISION	DATE	BY		GJM	





Engineers, Planners & Landscape Architects Suite 200, 240 Michael Cowpland Drive Ottawa, Ontario, Canada K2M 1P6 (613) 254-9643 Facsimile Website (613) 254-5867 www.novatech-eng.com

CITY OF OTTAWA 137, 141 GEORGE ST, 110, 116 YORK ST, AND 321, 325 DALHOUSIE ST

DRAWING NAME NOTES AND DETAILS (GEORGE)

REV #13 112142-ND

#19325

112142