

**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.
- COMPLETE ALL WORKS IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS USING THE CURRENT GUIDELINES, BYLAWS AND STANDARDS INCLUDING MATERIALS OF CONSTRUCTION, DISINFECTION AND ALL RELEVANT REFERENCES TO OPSS, OPSD, & AWWA GUIDELINES - ALL CURRENT VERSIONS AND AS AMENDED.
- 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 GEOTECHNICAL REPORT (No. PG5736-1, DATED APRIL 23, 2021), 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.
- REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARDSURFACE AREAS AND DIMENSIONS.
- REFER TO DEVELOPMENT SERVICING AND STORMWATER MANAGEMENT REPORT (R-2022-206) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.
- 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 AND GRADING PLAN INDICATING ALL SERVICING AS-BUILT INFORMATION SHOWN ON THE PLANS. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIALS, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, T/W M ELEVATIONS, ANY ALIGNMENT CHANGES, AND ALL SURFACE ELEVATION AS BUILT GRADES.

SITE BENCHMARK #1  
FH TOP OF SPINDLE  
ELEVATION = 102.14

SITE BENCHMARK #2  
FH TOP OF SPINDLE  
ELEVATION = 104.36

STATION	SURFACE ELEVATION	T/W M ELEVATION	COMMENTS
2+000.0	105.40	±103.82	CONNECTION TO EXISTING 200mmØ DI WM
2+008.2	±105.70	±103.77	VB
2+009.9	±105.77	±103.76	CROSS ABOVE 250mmØ SAN (±0.30m CLEARANCE)
2+010.7	±105.77	103.75	CAP 1.0m FROM BUILDING FACE

STATION	SURFACE ELEVATION	T/W M ELEVATION	COMMENTS
3+000.0	105.40	±103.82	CONNECTION TO EXISTING 200mmØ DI WM
3+008.2	±105.70	±103.77	VB
3+009.9	±105.77	±103.76	CROSS ABOVE 250mmØ SAN (±0.30m CLEARANCE)
3+010.7	±105.77	103.75	CAP 1.0m FROM BUILDING FACE

\* PROVIDE THERMAL INSULATION AS PER CITY OF OTTAWA DETAIL W22 IN SHALLOW TRENCHES AND/OR CITY OF OTTAWA DETAIL W23 ADJACENT TO OPEN STRUCTURES.

CONNECTION TO EXISTING 200mmØ D.I. WATERMAIN TO BE COMPLETED BY CITY FORCES. CONTRACTOR TO DETERMINE EXACT LOCATION AND ELEVATION OF WATERMAIN IN FIELD. EXCAVATION, BACKFILL AND REINSTATEMENT BY CONTRACTOR.

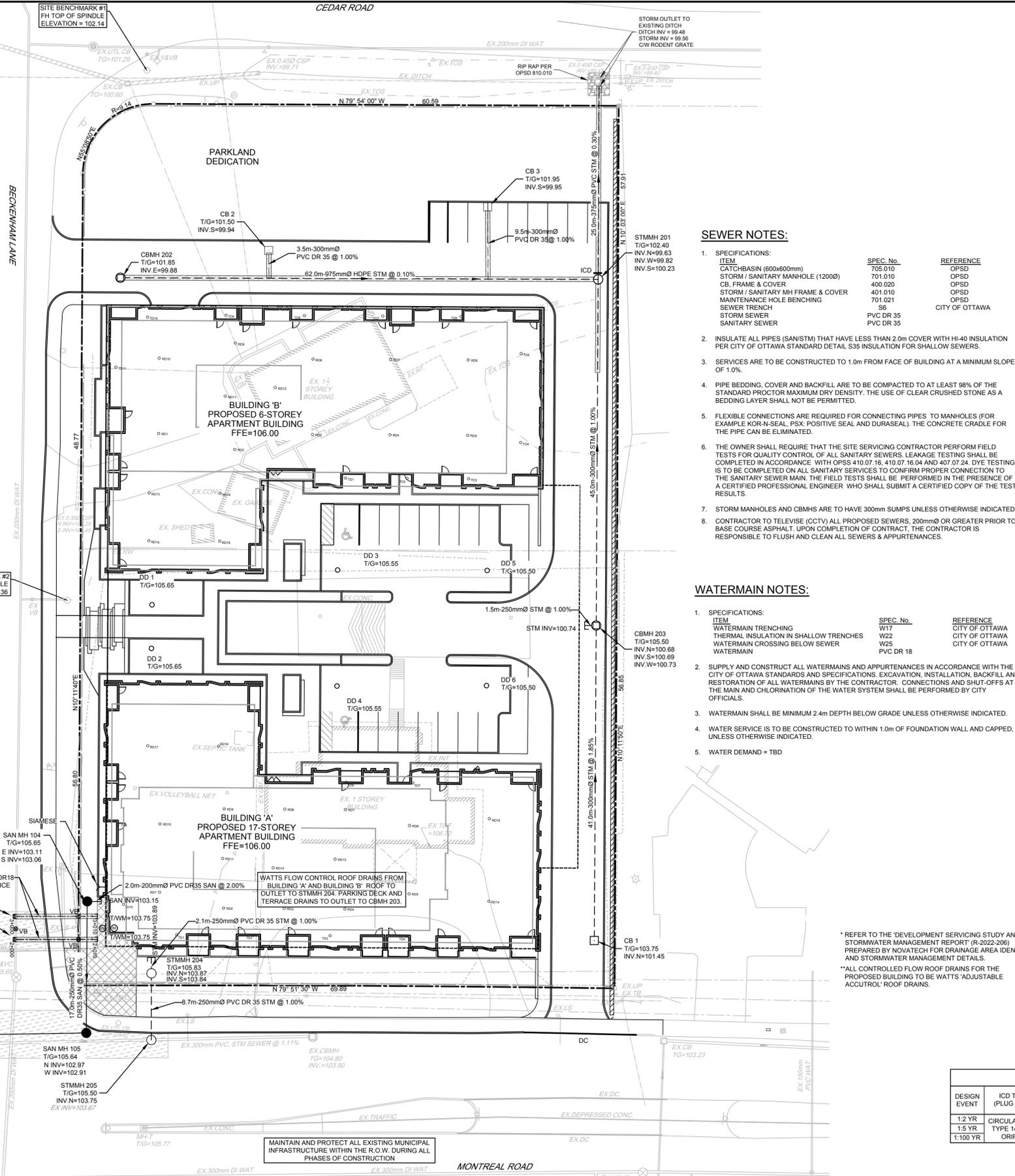
CONNECT TO EXISTING SANITARY MANHOLE. PROVIDE MANHOLE BENCHING AS PER OPSD 701.021

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.

**OWNER INFORMATION**  
LANDRIC HOMES  
63 MONTREAL ROAD EAST  
GATINEAU, QUEBEC, J8M 1K3  
NAME: ERIC DANIS  
PHONE: (819) 593-4805  
ericdanis@constructionlaverdriey.com

MAINTAIN AND PROTECT ALL EXISTING MUNICIPAL INFRASTRUCTURE WITHIN THE R.O.W. DURING ALL PHASES OF CONSTRUCTION

CEEDAR ROAD



**SEWER NOTES:**

- 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
MAINTENANCE HOLE BENCHING	701.021	OPSD
SEWER TRENCH	S9	CITY OF OTTAWA
STORM SEWER	PVC DR 35	
SANITARY SEWER	PVC DR 35	
- INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 2.0m COVER WITH HI-40 INSULATION PER CITY OF OTTAWA STANDARD DETAIL S35 INSULATION FOR SHALLOW SEWERS.
- 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 98% 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 GRADE FOR THE PIPE CAN BE ELIMINATED.
- 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 SEWERS 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.
- STORM MANHOLES AND CBMHS ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED.
- CONTRACTOR TO TELEVIEW (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.

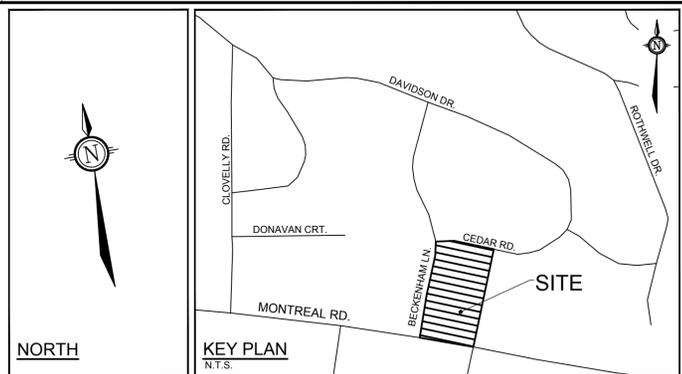
**WATERMAIN NOTES:**

- SPECIFICATIONS:
 

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	PVC DR 18	CITY OF OTTAWA
- 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.
- WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.
- WATER DEMAND = TBD

\* REFER TO THE 'DEVELOPMENT SERVICING STUDY' AND STORMWATER MANAGEMENT REPORT (R-2022-206) PREPARED BY NOVATECH FOR DRAINAGE AREA IDENTIFIERS AND STORMWATER MANAGEMENT DETAILS.

\*\* ALL CONTROLLED FLOW ROOF DRAINS FOR THE PROPOSED BUILDING TO BE WATTS' ADJUSTABLE ACCUTRUL' ROOF DRAINS.



**LEGEND:**

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
RD 1	PROPERTY LINE	FFE	FINISHED FLOOR ELEVATION
DD 1	PROPOSED ROOF DRAIN	T/FND	TOP OF FOUNDATION WALL ELEVATION
TD 1	PROPOSED PARKING GARAGE DECK DRAIN	USF	UNDERSIDE OF FOOTING ELEVATION
(M)	PROPOSED ROOF TERRACE DRAIN	X	REMOVAL AND/OR ABANDONMENT
(M)	PROPOSED WATER METER AND REMOTE METER	X	PROPOSED CAP
DC	PROPOSED BARRIER CURB	→	PROPOSED SANITARY SERVICE
DC	PROPOSED DEPRESSED CURB	→	PROPOSED STORM SERVICE
VBV	PROPOSED WATER SERVICE	→	PROPOSED SIAMISE CONNECTION
VBV	PROPOSED VALVE AND VALVE BOX	→	EXISTING HYDRANT & VALVE
TI	PROPOSED THERMAL INSULATION	→	EXISTING TREES / VEGETATION
SANMH	PROPOSED SANITARY MANHOLE	→	EXISTING UTILITY POLE
CBMH	PROPOSED CATCHBASIN MANHOLE	→	EXISTING FENCE
STMMH	PROPOSED STORM MANHOLE	→	EXISTING WATERMAIN
CB	PROPOSED CATCHBASIN	→	EXISTING HYDRANT CHW VALVE & LEAD
OHV	PROPOSED RETAINING WALL	→	EXISTING HYDRO TRANSFORMER
OHV	EXISTING OVERHEAD WIRES	→	EXISTING CATCHBASIN MANHOLE
CB	EXISTING CONCRETE CURB	→	EXISTING STORM MANHOLE & SEWER
CB	EXISTING CATCHBASIN CHW CATCHBASIN LEAD	→	EXISTING SANITARY MANHOLE & SEWER

AREA ID (RD)	ROOF DRAIN No. (WATTS MODEL)	WEIR SETTING	1.5 YEAR RELEASE RATE	APPROX. 5 YR PONDING DEPTH	1:100 YEAR RELEASE RATE	APPROX. 100 YR PONDING DEPTH
R-1	RD 1 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	13 cm
R-1	RD 2 (RD-100-A-ADJ)	CLOSED	0.32 L/s	9 cm	0.32 L/s	13 cm
R-1	RD 3 (RD-100-A-ADJ)	CLOSED	0.32 L/s	9 cm	0.32 L/s	13 cm
R-1	RD 4 (RD-100-A-ADJ)	CLOSED	0.32 L/s	9 cm	0.32 L/s	13 cm
R-1	RD 5 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	13 cm
R-1	RD 6 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	14 cm
R-1	RD 7 (RD-100-A-ADJ)	CLOSED	0.32 L/s	9 cm	0.32 L/s	13 cm
R-1	RD 8 (RD-100-A-ADJ)	CLOSED	0.32 L/s	9 cm	0.32 L/s	13 cm
R-1	RD 9 (RD-100-A-ADJ)	CLOSED	0.32 L/s	9 cm	0.32 L/s	13 cm
R-1	RD 10 (RD-100-A-ADJ)	CLOSED	0.32 L/s	11 cm	0.32 L/s	14 cm
R-1	RD 11 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	14 cm
R-1	RD 12 (RD-100-A-ADJ)	1/4 EXPOSED	0.71 L/s	9 cm	0.87 L/s	13 cm
R-1	RD 13 (RD-100-A-ADJ)	CLOSED	0.32 L/s	11 cm	0.32 L/s	14 cm
R-1	RD 14 (RD-100-A-ADJ)	1/4 EXPOSED	0.79 L/s	9 cm	0.87 L/s	13 cm
R-1	RD 15 (RD-100-A-ADJ)	1/4 EXPOSED	0.79 L/s	9 cm	0.87 L/s	13 cm
R-1	RD 16 (RD-100-A-ADJ)	1/4 EXPOSED	0.71 L/s	9 cm	0.89 L/s	12 cm
R-1	RD 17 (RD-100-A-ADJ)	1/4 EXPOSED	0.71 L/s	9 cm	0.89 L/s	12 cm
TOTAL			7.55 L/s	-	8.23 L/s	-

AREA ID (RD)	ROOF DRAIN No. (WATTS MODEL)	WEIR SETTING	1.5 YEAR RELEASE RATE	APPROX. 5 YR PONDING DEPTH	1:100 YEAR RELEASE RATE	APPROX. 100 YR PONDING DEPTH
R-2	RD 1 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	14 cm
R-2	RD 2 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	14 cm
R-2	RD 3 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	14 cm
R-2	RD 4 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	14 cm
R-2	RD 5 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	14 cm
R-2	RD 6 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	14 cm
R-2	RD 7 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	14 cm
R-2	RD 8 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	14 cm
R-2	RD 9 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	14 cm
R-2	RD 10 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	14 cm
R-2	RD 11 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	14 cm
R-2	RD 12 (RD-100-A-ADJ)	1/4 EXPOSED	0.71 L/s	9 cm	0.87 L/s	13 cm
R-2	RD 13 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	14 cm
R-2	RD 14 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	13 cm
R-2	RD 15 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	13 cm
R-2	RD 16 (RD-100-A-ADJ)	CLOSED	0.32 L/s	10 cm	0.32 L/s	13 cm
TOTAL			5.51 L/s	-	5.67 L/s	-

DESIGN EVENT	ICD TYPE (PLUG TYPE)	OUTLET STRUCTURE	DIAMETER OF OUTLET PIPE (mm)	PEAK DESIGN FLOW (L/s)	DESIGN HEAD (m)	WATER ELEVATION (m)	VOLUME (m³)	AVAILABLE STORAGE
1:2 YR	CIRCULAR PLUG	1800mmØ	375mmØ	35.5	0.60	100.30	27.5	61.0 m³
1:5 YR	TYPE 142mmØ	STMMH 201	PVC	42.6	0.87	100.57	38.5	
1:100 YR	ORIFICE			64.4	2.00	101.70	61.0	

**SCALE**  
1:300

**DESIGN**  
LSC  
MS  
ZA  
MS  
MS

**FOR REVIEW ONLY**

2 ISSUED FOR ZBA APPLICATION MAR 28/25 MS  
1 ISSUED FOR SITE PLAN APPLICATION DEC 20/22 MS

REVISION DATE BY

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

**LOCATION**  
CITY OF OTTAWA  
1765 MONTREAL ROAD

**DRAWING NAME**  
GENERAL PLAN OF SERVICES

PROJECT No. 121060  
REV #2  
DRAWING No. 121060-GP

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