

LEGEND

- PROPERTY LINE
- PROPOSED CURB
- PROPOSED DEPRESSED CURB
- VVB VALVE & VALVE BOX
- STMMH PROPOSED STORM MANHOLE & SEWER
- DIRECTION OF FLOW
- CB 1 PROPOSED CATCHBASIN CW CATCHBASIN LEAD
- CBMH 1 PROPOSED CATCHBASIN MH
- RD1 PROPOSED ROOF DRAIN
- ICD PROPOSED INLET CONTROL DEVICE
- PROPOSED BUILDING ENTRANCE
- A1 AREA IDENTIFIER
- 0.056 DRAINAGE AREA (hectares)
- 0.32 5 YR WEIGHTED RUN-OFF COEFFICIENT
- STORM DRAINAGE AREA
- DIRECTION OF MAJOR OVERLAND FLOW
- EXISTING UTILITY POLE CW GUY WIRES
- EXISTING HYDRANT CW VALVE & LEAD
- EXISTING STORM MANHOLE & SEWER
- EXISTING CATCHBASIN CW CATCHBASIN LEAD
- EXISTING LIGHT STANDARD
- 100 YEAR 5 YEAR APPROXIMATE LIMITS OF SURFACE PONDING
- POST-DEVELOPMENT PERVIOUS AREA

- 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 \$2,000,000.00. 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 ELEVATIONS ARE GEO DETIC.
 - REFER TO GEOTECHNICAL INVESTIGATION (No. 13-339, DATED NOVEMBER, 2013) PREPARED BY HOULE CHEVRIER ENGINEERING LTD. 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 THE DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT (R-2013-210) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.

AREA A2 - INLET CONTROL DEVICE DATA - CB 1						
DESIGN EVENT	IPEX TEMPEST MODEL	DIAMETER OF OUTLET PIPE (mm)	DESIGN FLOW (L/s)	UPSTREAM HEAD (m)	SURFACE PONDING (m)	VOLUME (m ³)
1.5 YR	LMF-VORTEX ICD	200	5.2	1.36	0.16	9.0
1:100 YR	LMF-VORTEX ICD	200	5.3	1.44	0.24	24.1

AREA A3 - INLET CONTROL DEVICE DATA - CBMH 2						
DESIGN EVENT	IPEX TEMPEST MODEL	DIAMETER OF OUTLET PIPE (mm)	DESIGN FLOW (L/s)	UPSTREAM HEAD (m)	SURFACE PONDING (m)	VOLUME (m ³)
1.5 YR	LMF-VORTEX ICD	300	4.3	1.52	0.08	28.4
1:100 YR	LMF-VORTEX ICD	300	4.4	1.60	0.16	66.8

AREA A4 - INLET CONTROL DEVICE DATA - STM MH 3						
DESIGN EVENT	IPEX TEMPEST MODEL	DIAMETER OF OUTLET PIPE (mm)	DESIGN FLOW (L/s)	UPSTREAM HEAD (m)	SURFACE PONDING (m)	VOLUME (m ³)
1.5 YR	PLUG ICD-105mm ORIFICE	375	16.0	0.45	...	54.8
1:100 YR	PLUG ICD-105mm ORIFICE	375	29.5	1.55	0.18	102.2

AREA A5 - INLET CONTROL DEVICE DATA - STM MH 4						
DESIGN EVENT	IPEX TEMPEST MODEL	DIAMETER OF OUTLET PIPE (mm)	DESIGN FLOW (L/s)	UPSTREAM HEAD (m)	SURFACE PONDING (m)	VOLUME (m ³)
1.5 YR	PLUG ICD - 76mm ORIFICE	375	15.1	1.47	0.11	52.4
1:100 YR	PLUG ICD - 76mm ORIFICE	375	15.6	1.59	0.23	130.2

ROOF DRAIN TABLE - RD 1 - 7						
AREA ID	ROOF DRAIN No.	ROOF DRAIN OPENING	1.5 YEAR RELEASE RATE	APPROX. 5 YR PONDING DEPTH	1:100 YEAR RELEASE RATE	APPROX. 100 YR PONDING DEPTH
B1	RD 1	CLOSED	0.76 L/s	0.07 m	0.76 L/s	0.10 m
B1	RD 2	CLOSED	0.76 L/s	0.07 m	0.76 L/s	0.10 m
B2	RD 3	CLOSED	0.76 L/s	0.07 m	0.76 L/s	0.10 m
B2	RD 4	CLOSED	0.76 L/s	0.07 m	0.76 L/s	0.10 m
B3	RD 5	1/4 EXPOSED	0.85 L/s	0.07 m	0.95 L/s	0.10 m
B4	RD 6	1/4 EXPOSED	0.82 L/s	0.07 m	1.95 L/s	0.10 m
B4	RD 7	1/4 EXPOSED	0.82 L/s	0.07 m	1.95 L/s	0.10 m

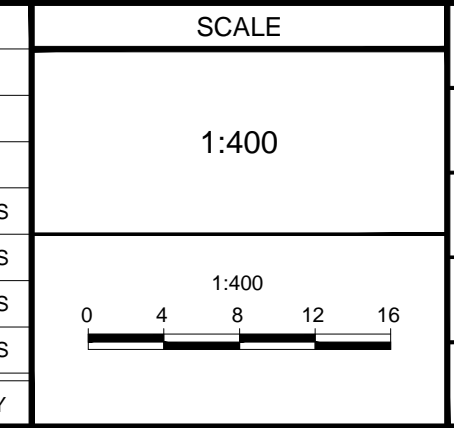
* ALL PROPOSED ROOF DRAINS TO BE WATTS ACCUTROL ADJUSTABLE FLOW CONTROL ROOF DRAINS. REFER TO APPENDIX F IN THE STORMWATER MANAGEMENT REPORT (R-2013-210) FOR ROOF DRAIN DETAILS.

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
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No.	REVISION	DATE	BY
4.	ISSUED WITH REVISED SWM REPORT	OCT 31/14	MS
3.	ISSUED WITH REVISED SWM REPORT	JUN 5/14	MS
2.	ISSUED WITH SWM REPORT	DEC 20/13	MS
1.	ISSUED FOR REVIEW	DEC 13/13	MS



SCALE
1:400

FOR REVIEW ONLY

DESIGN: MS
 CHECKED: SM / MS
 DRAWN: MTM / SM
 CHECKED: SM / MS
 APPROVED: MS

NOVATECH ENGINEERING CONSULTANTS LTD.
 11 SAVIC 100102651
 10/3/16
 PROVINCE OF ONTARIO

LOCATION
 401 MARCH ROAD, KANATA
 STARBANK DEVELOPMENTS

DRAWING NAME
STORMWATER MANAGEMENT PLAN

PROJECT No. 113023-00
 REV # 4
 113023-SWM