

1. STORMWATER MANAGEMENT NOTES

ROOF DRAIN DETAILS

MODEL TYPE: WATTS MODEL RD-100 WITH ACCUTROL CONTROL WEIR, ONE SLOT OR EQUAL. THE PROPOSED ROOF DRAIN TO BE USED AT THIS SITE SHALL CONFORM TO THE REQUIREMENTS OF ONTARIO BUILDING CODE 2012 SEC. 7.4.10.4.

NUMBER OF CONTROL DEVICES: 1 CONTROLLED ROOF DRAIN PER DESIGNATED ROOF AREA FOR SWM ATTENUATION.

FLOW PER ROOF DRAIN: 10.0 U.S. GAL/MIN. OR 0.63 L/S, ONE NOTCH PER DRAIN UNDER A HEAD OF 150mm.

TOTAL FLOW FROM FLAT ROOFTOP OF BUILDING AT MAXIMUM HEAD OF 150mm PER DRAIN
AT THE (2) PROPOSED DRAINS: 1.26 L/S

DEPTH AND VOLUME:

E:	ROOF AREA No.	DEPTH (mm)		VOLUME (m	
		5 YR	100 YR	5 YR	100 YR
	1	110	150	3.23	7.94
	2	110	150	3.23	7.94

SCUPPER LOCATION: AS SHOWN ON THIS DRAWING

5 YEAR ELEVATION: 110mm ABOVE THE ROOF DRAIN FOR ROOF AREA#1 AND #2.

100 YEAR ELEVATION: 150mm ABOVE THE ROOF DRAIN FOR ROOF AREA#1 AND #2.

- EACH ROOF DRAIN SHALL BE SIZED FOR A RELEASE RATE OF 10 U.S. GAL/MIN. OR 0.63 L/S. THE OWNER'S MECHANICAL ENGINEER SHALL SPECIFY THE REQUIRED ROOF DRAIN TYPE AND MODEL No. AND PROVIDE THE NECESSARY INFORMATION TO THE CITY OF OTTAWA FOR THEIR RECORDS TO ENSURE PROPER RELEASE RATE FOR STORMWATER MANAGEMENT COMPLIANCE.

- ROOF PITCH IS ASSUMED TO HAVE 1.6% (MIN.) SLOPE.
- ROOF SCUPPERS ARE RECOMMENDED TO BE INSTALLED 0mm ABOVE EDGE OF ROOFTOP ELEVATION FOR EMERGENCY OVERFLOW PURPOSES AT ROOF AREA #1 AND #2.

- SEE STORM DRAINAGE REPORT No. R-818-19 DATED FEBRUARY 2019 FOR DETAILS ALSO.


2. PROPOSED ROOF DRAINS AND SCUPPER LOCATIONS SHOWN ON THIS PLAN SHALL BE REVIEWED BY THE OWNER AND OWNER'S ARCHITECT FOR APPROVAL.

3. THE OWNER'S ARCHITECT AND STRUCTURAL ENGINEER SHALL ENSURE THAT THE ADDITIONAL STORMWATER STORAGE VOLUME FROM STORMWATER MANAGEMENT MEASURES ARE ACCOUNTED FOR IN THE STRUCTURAL DESIGN OF AND WATERPROOFING OF ROOF AREA #1 AND #2 AND ANY OF THE SUPPORTING STRUCTURES THAT MAY BE AFFECTED BY THE STORED WATER.

4. ROOF DRAIN #1 AND #2 SHALL OUTLET INTO THE DESIGNATED 125mmØ PVC STORMWATER PIPE AS SHOWN ON THIS DRAWING. THE BUILDING WEEPING TILE WATER WILL WYE INTO THE PROPOSED 150mmØ PVC STORM LATERAL FROM THIS BUILDING AS SHOWN ON THE PROPOSED GRADING AND SERVING PLAN (DWG. No. 818-19, G-1).

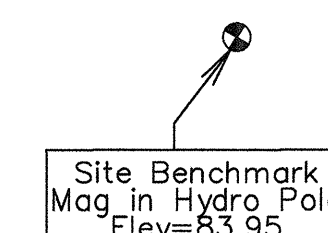
5. FOR GRADING AND SERVICING DETAILS OF THIS SITE, REFER TO DWG. No. 818-19, G-1.


APPROVED
By Lily Xu at 3:31 pm, Feb 13, 2020



LILY XU, MCIP, RPP

(A) MANAGER, DEVELOPMENT REVIEW - SOUTH
PLANNING, INFRASTRUCTURE & ECONOMIC
DEVELOPMENT DEPARTMENT, CITY OF OTTAWA





Adjustable Accutrol Weir

Tag: _____

Adjustable Flow Control for Roof Drains

ADJUSTABLE ACCUTROL (for Large Sump Roof Drains only)

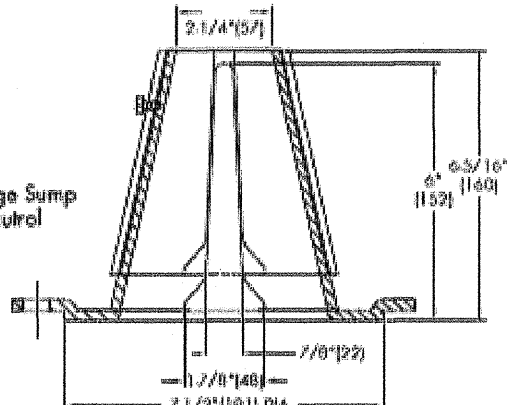
For more flexibility in controlling flow with heads deeper than 2", Watts Drainage offers the Adjustable Accutrol. The Adjustable Accutrol Weir is designed with a single parabolic opening that can be covered to restrict flow above 2" of head to less than 5 gpm per inch, up to 6" of head. To adjust the flow rate for depths over 2" of head, set the slot in the adjustable upper cone according to the flow rate required. Refer to Table 1 below.

Note: Flow rates are directly proportional to the amount of weir opening that is exposed.

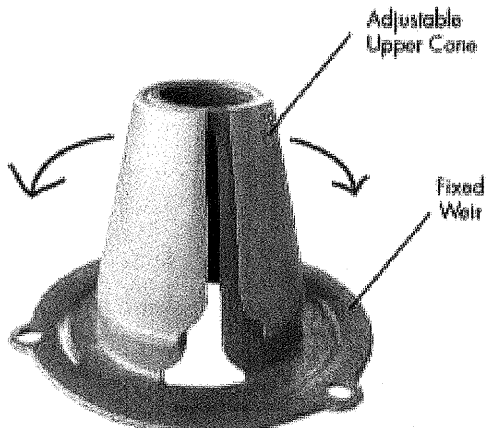
EXAMPLE:

For example, if the adjustable upper cone is set to cover 1/2 of the weir opening, flow rates above 2" of head will be restricted to 2-1/2 gpm per inch of head.

Therefore, at 3" of head, the flow rate through the Accutrol Weir that has 1/2 the slot exposed will be:
 [5 gpm [per inch of head] x 2 inches of head] + 2-1/2 gpm [for the third inch of head] = 12-1/2 gpm.



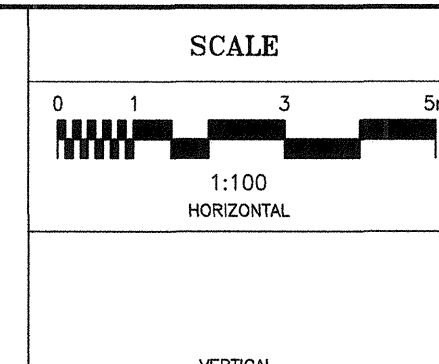
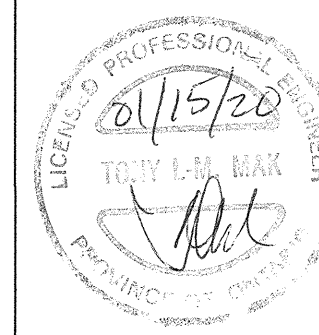
Large Sump
Accutrol



1/2 Weir Opening Exposed Shown Above

Weir Opening Exposed	1"	2"	3"	4"	5"	6"
Fully Exposed	5	10	15	20	25	30
3/4	5	10	13.75	17.5	21.25	25
1/2	5	10	12.5	15	17.5	20
1/4	5	10	11.25	12.5	13.75	15
Closed	5	5	5	5	5	5

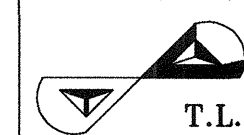
2	REVISIONS AS PER CITY'S REVIEW COMMENTS OF DECEMBER 13, 2019		12/20/19		TLM
1	REVISIONS AS PER ARCHITECT'S NEW SITE PLAN OF OCTOBER 31, 2019		11/14/19		TLM
NO.	REVISION		DATE		BY



	DESIGN	T.L.M
m	CHECKED	T.L.M
	DRAWN BY	G.U.
	CHECKED	T.L.M
	APPROVED	T.L.M

PROJECT	1295 SUMMERVILLE AVENUE PART OF LOT 43 AND PART OF 44 REGISTERED PLAN 294 CITY OF OTTAWA
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DRAWING TITLE	PROPOSED ROOFTOP STORMWATER MANAGEMENT PLAN
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T.L. MAK ENGINEERING CONSULTANTS LTD.
CONSULTING ENGINEERS

PROJECT No.	DATE	DRAWING No.
818-19	MARCH 2019	SWM-1