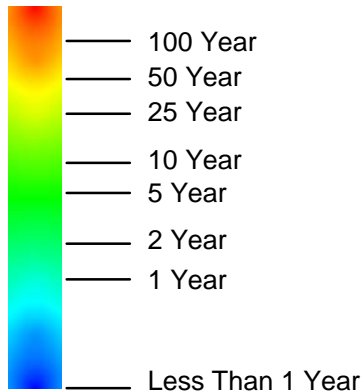


**City of Winnipeg Design Storms**

Average Rainfall Intensity (mm/hr) For Given Interval and Return Period							
Interval	1 YR	2 YR	5 YR	10 YR	25 YR	50 YR	100 YR
5 minutes	82.3	108.8	146.4	168.8	204.0	231.2	258.4
10 minutes	64.3	81.5	109.5	128.0	154.5	175.1	195.6
15 minutes	49.8	65.9	88.3	103.9	125.4	142.0	158.6
30 minutes	27.9	42.8	57.3	67.8	81.7	92.5	103.2
1 hour	20.1	26.2	34.9	41.3	49.7	56.3	62.7
2 hours	11.2	15.4	20.5	24.1	29.0	32.8	36.5
6 hours	5.6	6.4	8.5	9.8	11.8	13.3	14.8
12 hours	3.6	3.7	4.8	5.5	6.6	7.4	8.3



- Rainfall Gauge Station Location
- 4 Isohyetal Line (Return Period)
- 1 30 Min Intensity (mm/hr)

**ALL MEASUREMENTS ARE METRIC**

**MESSAGE:**  
 "IT IS HEREBY EXPRESSLY UNDERSTOOD that any calculation, or information provided to private property owners, their agents and contractors with respect to the information provided shall be accepted by such persons at their own risk, and the CITY shall assume no responsibility for the information contained therein. The records of the CITY will be supplied on the basis that they are the best knowledge of the CITY and that persons requesting such information must interpret the same for their own needs and/or requirements relative to the exact value."



THE CITY OF WINNIPEG

**WATER AND WASTE DEPARTMENT**

PRINTED: October 1, 2014 SCALE: 1:150,000

**Rainfall Intensity Over a 30 Minute Duration for June 20, 2013 (6:00 pm-10:00 pm)**