

Stormwater Management - Grading & Drainage - Storm & Sanitary Sewers - Watermains

700 Long Point Circle Ottawa, Ontario K1T 4E9 613-425-8044 d.gray@dbgrayengineering.com

> June 14, 2023 REVISED December 7, 2023

2167 McGee Side Road Office / Warehouse Building

Ottawa, Ontario

FIRE FLOW CALCULATIONS FUS Method

RFF = Required Fire Flow in litres per minute

 $= 220CA^{0.5}$

C = Construction Coefficient related to the type of construction of the building

= 1.0 Type III Ordinary Construction

A = Total Effective Floor Area in square meters of the building

 Mezzanine:
 218
 100%
 218
 sq.m

 Ground Floor:
 1,635
 100%
 1,635
 sq.m

 1,853
 sq.m
 1,853
 sq.m Total Effective Floor Area

RFF = 9,470 L/min = 9,000 L/min (rounded to nearest 1,000 L/min)

Occupancy and Contents Adjustment Factor

15% Limited Combustible Contents
 1,350 L/min Occupancy and Contents Adjustment Factor

RFF = 10,350 L/min

Automatic Sprinkler Protection Credit

0% Sprinkler system designed, installed and maintained in accordance with NFPA standards
0% Standard water supply for both the sprinkler system and fire department hose lines
0 L/min Automatic Sprinkler Protection Credit

Exposure Adjustment Charge

Side	Charge	Distance	Construction	Length	Storeys	Factor
North	0%	over 30 m				0
East	0%	over 30 m				0
South	0%	over 30 m				0
West	0%	over 30 m				0

* with unprotected openings

0% Exposure Adjustment ChargeL/min Exposure Adjustment Charge

RFF = 10,350 L/min = 10,000 L/min (rounded to nearest 1,000 L/min)

Required duration of fire flow

= 2.0 hours as per Table 1 (FUS 2020)

Required water supply

= 1,200,000 L