

Connection Multi Use Demand Table

WATER CONNECTION

Connection point ³⁾			
250 mm Ø w/m on Fifth Line West			
Pressure zone of connection point			
Total equivalent population to be serviced ¹⁾		238	
Total lands to be serviced		1.02 ha	
Hydrant flow test			
Hydrant flow test location			
Northeast of 2132 Dundas St. West on Fifth Line West (See attached)			
	Pressure (kPa)	Flow (in l/s)	Time
Minimum water pressure	400	0	1:00PM
Maximum water pressure	372	65	

PER REGION OF PEEL'S PRU + # UNITS

# UNITS	PRU
180	1.68
280	2.54

$= (119 \times 1.68) + (15 \times 2.54) = 238$ people

* SEE ATTACHED FLOW TEST RESULTS

No.	Demand type	Water demands		
		Demand (in l/s)		
		Use 1 ⁵⁾	Use 2 ⁵⁾	Total
1	Average day flow	0.77		0.77
2	Maximum day flow	1.54		1.54
3	Peak hour flow	2.31		2.31
4	Fire flow ²⁾	30		30
Analysis				
5	Maximum day plus fire flow	31.5		31.5

USE 1 → RESIDENTIAL

* SEE ATTACHED WORKSHEET AS WELL AS CORRESPONDENCE WITH COLLINS ENGINEERING GROUP INC.

WASTEWATER CONNECTION

			Total
Connection point ⁴⁾		EX 250mm Ø SAN on Fifth Line West	
Total equivalent population to be serviced ¹⁾		238	
Total lands to be serviced		1.02 ha	
6	Wastewater sewer effluent (in l/s)	3.6 L/s	

→ per Attached Std Aug 2-5-1

- The calculations should be based on the development estimated population (employment and/or residential).
- Please reference the Fire Underwriters Survey Document
- Please specify the connection point ID
- Please specify the connection point (wastewater line or manhole ID)
Also, the "total equivalent population to be serviced" and the "total lands to be serviced" should reference the connection point. (The FSR should contain one copy of Site Servicing Plan)
- Please complete as many uses are necessary for the development.
(Please specify the use)

Please include the graphs associated with the hydrant flow test information table
Please provide Professional Engineer's signature and stamp on the demand table
All required calculations must be submitted with the demand table submission.

ADDRESS: 2132 Dundas St. West / 2630 Fifth Line West

DATE: JANUARY 3, 2018

COMPANY: MTE CONSULTANTS INC



Jake Carman

From: Sabrina Vastag <sabrina@fryettarchitect.com>
Sent: Thursday, December 21, 2017 10:22 AM
To: Louise Sanford
Cc: Rick Gooyers; Neil Carter; Harrison Radersma
Subject: FW: FW: 2132 Dundas St, SP-17-010, OZ-17-001M

Good Morning Louise,

We are requiring a certified document to finally put the demand flow question to rest with the Region of Peel for SPA. Harrison has advised that it is required for yourselves to update the demand table per the supporting information below.

If you could please do so at earliest convenience and pass along to myself, Rick or Neil that would be much appreciated. Please advise if additional information is required from Arrow Fire or Collins.

Regards,

Sabrina Vastag,
B.Arch.Sci., M.Arch
Intern Architect

James Fryett Architect Inc.
115 Metcalfe Street
Elora, Ontario N0B 1S0
T: (519) 846-2201 x 233

From: Harrison Radersma [mailto:harrison@collinseng.ca]
Sent: Thursday, December 21, 2017 9:59 AM
To: Sabrina Vastag
Subject: Fwd: FW: 2132 Dundas St, SP-17-010, OZ-17-001M

Sabrina,

See below. Hopefully this answers the servicing question about fire demand flow. I think this works out to be 30 L/s apposed to the 300 L/s stated on the table.

Thanks,

Harrison Radersma, EIT
Collins Engineering Group Incorporated
Tel: 519-745-9338 x115

----- Forwarded message -----

From: ArrowFire - Siobhan MacFarlane <Siobhan@arrowfire.ca>
Date: Thu, Dec 21, 2017 at 9:54 AM
Subject: RE: FW: 2132 Dundas St, SP-17-010, OZ-17-001M
To: Harrison Radersma <harrison@collinseng.ca>
Cc: Steve Brockwell <sbrockwell@chfireinc.com>, ArrowFire - Dan Smaglinski <Dan@arrowfire.ca>

Harrison,

Per the Ontario Fire Marshal Guideline (OFM-TG-03-1999) Fire Protection Guideline for Part 3 in the Ontario Building Code we have redesigned the sprinkler system based on the new water supply information and the sprinkler system demand is as follows:

164,126.7 L (based on the sprinkler demand times 90 minutes required duration, per NFPA 13).

This is as per article “6.2 Sprinklered Buildings”

“For sprinklered buildings, NFPA 13, *Standard for the Installation of Sprinkler Systems*”, as referenced by Article 3.2.5.13. of the Building Code, shall be used to obtain sprinkler and hose stream water requirements (see also Section 8.1 of this guideline).”

Please feel free to contact me if you have any questions.

Regards,

Siobhan Macfarlane

Fire Protection Designer

Arrow Fire – Fire Protection Consultants

Address. 231 Labrador Drive, Waterloo, ON N2K 4M8

Phone. (519)-742-6030 Ext 444

Fax. (519)-742-0266

Siobhan@arrowfire.ca



 Please consider the environment before printing this email.

2132 Dundas Street West

City of Mississauga

Project No: 40602-100

Date: January 3, 2018

By: JCC

Peaking Factors ¹ :	
Avg. Day	1.0
Max. Day	2
Peak Hour	3



Demand Calculations

Location	Institutional/Residential			Final Demand			
	Site Area (ha)	Population Density (person/ha)	Population ² (persons)	Demand (l/s)	Avg Day Demand Qavg (l/s)	Max Day Demand Qmax.day (l/s)	Peak Hour Demand Qpeak (l/s)
Erinview Building	1.02	233	238	0.77	0.771	1.543	2.314
Totals	1.02		238	0.771	0.771	1.543	2.314

Water Demand	
Average Residential Daily Demands	280 l/d/person 0.0032 l/s/person

Fire Flow ³	
Fire Flow	1,800 l/min 30 l/s

Max Day + Fire Flow Demand	
Qmax.day+fire	31.5 l/s

Note 1: Peaking Factors based on Region of Peel Watermain Design Criteria

Note 2: Population based on Region of Peel's PPU and number of 1 and 2 bedroom units (119 and 15 units, and PPU of 1.68 and 2.54, respectively)

Note 3: Fire flows from Collins Engineering Group Consultation, email correspondence attached



FLOW TEST RESULTS

Form SD-008 RevDate: April 28, 2015

Date of Test: November-15-2017

Time: 1:00PM

Location: 2132 Dundas St W - Mississauga

Main Size: 250 mm PVC

Static: 58 **PSI**

Number of Openings	Size of Openings	Pitot PSI	Flow GPM	Residual PSI
1	2.5" smooth bore	18	716	54
2	2.5" smooth bore	14-12	1215	54
3				
4				

Witnessed By: Region of Peel

Century Hydrants

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