



One Woodbury Boulevard
Rochester, NY 14604
P: 585.381.3360
TurnerEngineering.com

September 16, 2025

SWBR

260 East Main Street
Suite 4000
Rochester, NY 14604

Attn: Mr. Joe Gibbons, Mr. Joe McNinch

Re: **PATHSTONE DEERFIELD AFFORDABLE HOUSING PROJECT**
T.E. Project No. 24205

Joe,

Pathstone Deerfield @ Mulaney Rd, Marcy NY 13403

1. Fire Protection

Building - 3-story - total of 76,000 SF. Type 5 construction

Breakdown of the building:

- 68,000 sf, 65 units, multi-family.
- 8,000 sf daycare on first floor.

NFPA 13R & 13 mix hazards (ordinary and light), Types of Sprinkler heads: up-rights, concealed and sidewalls.

Fire Flow gpm: 1500 gpm and Flow Duration: 2 hours.

2. Fire Pump

With the Fire Flow Data from Mohawk Valley Water Authority – The Static Pressure is 97 psi and the Residual Pressure is 87 psi.

Residual Pressure = 87 PSI

DCDA 8 PSI + Elevation 13 PSI = 21 PSI

Residual 87 PSI – 21 PSI = **66 PSI**.

A fire pump will not be required.

See the attached Fire Flow Data PDF.



Mr. Joe Gibbons.
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3. Sanitary Sewer

Total Drainage Fixture Units: 673.5 dfu.

GPM: 336.75 gpm

Sewer size: 6"

See attached plumbing load calc sheet.

4. Building Domestic Water Demand is 132.5 gpm.

See attached plumbing load calc sheet.

Sincerely,

Nadia Thompson



Daniel D. Turner PE
PE No. 070661
Expiration 02/28/2026
NYS Certificate of Authority
#260064337

FIRE FLOW DATA

Mohawk Valley Water Authority
1 Kennedy Plaza, Utica, New York 13502

CITY/TO Oriskany

COUNTY Oneida

Test No.	Location	Pressure (psi)			Orifice	Flow	Flow	Notes
		Static Ps	Residual Pt	Pitot P	in. D	(gpm) Q	@ 20 psi Qr	
1								
2	10103 Muaney Road	97	87					
	Mulaney Road west of Hill Top			25	2.5	838	2,524	
	Hill Top South of Mulaney Road			25	2.5	838	2,524	
					2.5	0	0	
					2.5	0	0	
					Total	1,676	5,047	
3								
4								
5								
	Note:							
6								

Submitted By: Dave Jones 6-17-25

BY _____ NBT _____ DATE 7/10/25
 CHECKED _____ DATE _____

PROJECT NO. 24205
 PROJECT NAME PATHSTONE DEERFIELD APARTMENTS

FIXTURE	OCCUPANCY	SUPPLY	QTY.	WATER				HOT WATER		SANITARY	
				F.U.	CW	HW	SVC	GPH	TOTAL	F.U.	TOTAL
BATHROOM GROUP	PRIVATE	FLUSH TANK	65	3.6	175.5	97.5	234.0	50	3250	5	325
BATHROOM GROUP	PRIVATE	FLUSH VALVE	0	8.0			0.0	50		5	
BATHTUB	PRIVATE	-	0	1.4			0.0	20		2	
BATHTUB	PUBLIC	-	0	4.0			0.0			2	
CLINICAL SINK	-	-	0	10.0			0.0			6	
DISHWASHER	-	-	65	1.4	-	91.0	91.0	15	975	2	130
DRINKING FOUNTAIN	-	-	1	0.25	0.25	-	0.25	-	-	0.5	0.5
EMERGENCY FLOOR DRAIN	-	-	0	-	-	-	-	-	-	0	
FLOOR DRAIN	-	-	0	-	-	-	-	-	-	2	
HAND SINK	-	-	0	3.00			0.0			2	
KITCHEN SINK	PRIVATE	-	65	1.4	65.0	65.0	91.0	10	650	2	130
KITCHEN SINK	PUBLIC	-	1	4.0	3.0	3.0	4.0	10	10	2	2
LAUNDRY SINK	-	-	3	3.0	6.75	6.75	9.0		0	2	6
LAVATORY	PRIVATE	-	15	0.7	7.5	7.5	10.5	20	300	1	15
LAVATORY	PUBLIC	-	0	4.0			0.0			1	
SERVICE SINK	-	-	4	3.0	9.00	9.00	12.0	20	80	2	8
SHOWER HEAD	PUBLIC	MIXING VALVE	0	4.0			0.0			2	
SHOWER HEAD	PRIVATE	MIXING VALVE	0	1.4			0.0	30		2	
URINAL	PUBLIC	3/4" FLUSH	0	5.0		-	0.0	-	-	2	
WASHING MACHINE (8 LB)	PRIVATE	AUTOMATIC	0	1.4			0.0			2	
WASHING MACHINE (8 LB)	PUBLIC	AUTOMATIC	6	3.0	13.50	13.50	18.0	20	120	2	12
WASHING MACHINE (15 LB)	PUBLIC	AUTOMATIC	0	4.0			0.0			3	
WATER CLOSET	PRIVATE	FLUSH VALVE	0	6.0		-	0.0	-	-	3	
WATER CLOSET	PRIVATE	FLUSH TANK	15	2.2	33.0	-	33.0	-	-	3	45
WATER CLOSET	PUBLIC	FLUSH VALVE	0	10.0		-	0.0	-	-	4	
WATER CLOSET	PUBLIC	FLUSH TANK	0	5.0		-	0.0	-	-	4	
TOTAL					313.5	293.3	502.8	POSS. MAX	5385		673.5
								SVC	6		
				GPM	102.4	99.1	132.5	DEMAND	0.3	HEAT RECOV. CAP GPH 1616	
				PIPE SIZE	3	2-1/2	3	STORAGE	1.25	USABLE CAPACITY GAL 2019	
								USABLE TANK FACTOR 0.7		STOR. TANK SIZE GAL 2885	
								TOTAL HOT WATER GPH		4904	