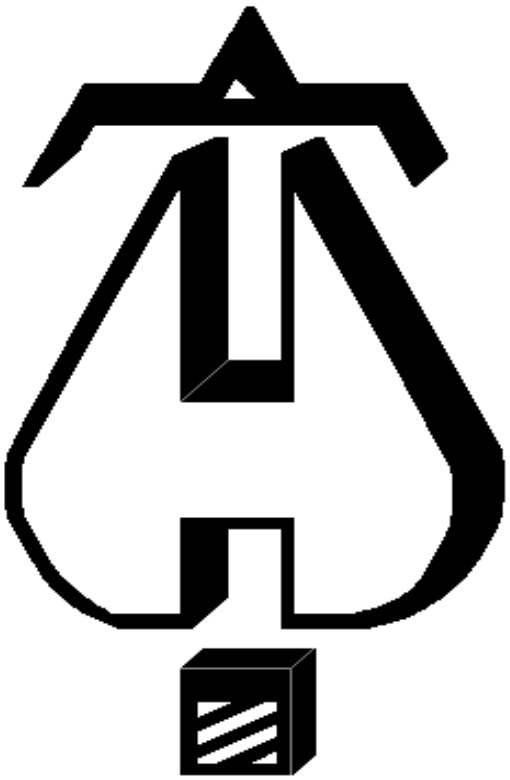

. . . Fire Protection by Computer Design

DEAN AND ALLYN, INC.
116 LEWISTON ROAD
GRAY MAINE
207 657 5646

Job Name : 38 PAMELA ROAD
Building :
Location : 38 PAMELA ROAD PORTLAND MAINE
System :
Contract : 1438
Data File : 38 Pamela Drive.WXF

HYDRAULIC DESIGN INFORMATION SHEET

Name - 38 PAMELA ROAD Date - 5-31-17
Location - 38 PAMELA ROAD PORTLAND MAINE
Building - System No. -
Contractor - DEAN AND ALLYN, INC. Contract No. - 1438
Calculated By - H. KING Drawing No. - 1 OF 1
Construction: (X) Combustible ( ) Non-Combustible Ceiling Height 8'
OCCUPANCY - RESIDENCE

SYSTEM DESIGN

Type of Calculation: ( )NFPA 13 Residential ( )NFPA 13R (X)NFPA 13D
Number of Sprinklers Flowing: ( )1 (X)2 ( )4 ( )
( )Other
( )Specific Ruling Made by Date

Listed Flow at Start Point - 13 Gpm System Type
Listed Pres. at Start Point - 9.1 Psi (X) Wet ( ) Dry
MAXIMUM LISTED SPACING 16 x 16 ( ) Deluge ( ) PreAction
Domestic Flow Added - Gpm Sprinkler or Nozzle
Additional Flow Added - Gpm Make RELIABLE Model RFC43
Elevation at Highest Outlet - 10' Feet Size 7/16" K-Factor 4.3
Note:CUSHION 16.2 PSI Temperature Rating 155

Calculation Summary: Gpm Required 26.3 Psi Required 43.4 At Test
C-Factor Used: Overhead 120 Underground 120

WATER SUPPLY

Water Flow Test:	Pump Data:	Tank or Reservoir:
Date of Test - 1-20-17	Rated Cap.	Cap.
Time of Test -	@ Psi	Elev.
Static (Psi) - 60	Elev.	
Residual (Psi) - 55	Other	Well
Flow (Gpm) - 100		Proof Flow Gpm
Elevation - 0		

Location: ON PAMELA ROAD AT SITE

Source of Information: PWD STATIC PRESSURE READING ON AN 8" CITY MAIN

Final Calculations - Hazen-Williams

DEAN AND ALLYN, INC.
38 PAMELA ROAD

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv.	Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	******* Notes ******
1	12.97	1.049	E	2.0	7.600	9.100		K Factor = 4.30
to		120.0		0.0	2.000	0.0		
2	12.97	0.0584		0.0	9.600	0.561		Vel = 4.81
2	13.37	1.049	E	2.0	14.000	9.661		K Factor = 4.30
to		120.0		0.0	2.000	0.0		
10	26.34	0.2165		0.0	16.000	3.464		Vel = 9.78
10	0.0	1.049	T	5.0	24.800	13.125		
to		120.0		0.0	5.000	0.0		
11	26.34	0.2165		0.0	29.800	6.452		Vel = 9.78
11	0.0	1.049	E	2.0	9.300	19.577		
to		120.0		0.0	2.000	4.331		
12	26.34	0.2165		0.0	11.300	2.447		Vel = 9.78
12	0.0	1.049	T	5.0	10.500	26.355		
to		120.0	3E	6.0	11.000	0.0		
TR	26.34	0.2165		0.0	21.500	4.655		Vel = 9.78
TR	0.0	1.049	S	5.0	8.000	31.010		
to		120.0		0.0	5.000	7.599		* * Fixed Loss = 5
FF	26.34	0.2165		0.0	13.000	2.815		Vel = 9.78
FF	0.0	1.314	T	2.974	60.000	41.424		
to		120.0		0.0	2.974	-2.599		
CTY	26.34	0.0723		0.0	62.974	4.553		Vel = 6.23
	0.0							
	26.34					43.378		K Factor = 4.00

Pressure / Flow Summary - STANDARD

Node No.	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.
1	10.0	4.3	9.1	na	12.97	0.05	256	9.1
2	10.0	4.3	9.66	na	13.37	0.05	256	9.1
10	10.0		13.13	na				
11	10.0		19.58	na				
12	0.0		26.36	na				
TR	0.0		31.01	na				
FF	-6.0		41.42	na				
CTY	0.0		43.38	na				

The maximum velocity is 9.78 and it occurs in the pipe between nodes 2 and 10

Water Supply Curve C

DEAN AND ALLYN, INC.
38 PAMELA ROAD

Date 5-31-17

City Water Supply:
- C1 - Static Pressure : 60
- C2 - Residual Pressure: 55
- C2 - Residual Flow : 100

Demand:
- D1 - Elevation : 4.331
- D2 - System Flow : 26.337
- D2 - System Pressure : 43.378
- Hose (Demand) : _____
- D3 - System Demand : 26.337
- Safety Margin : 16.198