

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND BUILDING PERMIT



This is to certify that

DAWSON ERIC J & KRISTINE A DAWSON
JTS/Freedom Fire Protection, Inc

PERMIT ID: 2012-65616

Located at

45 TIDE MILL RD

CBL: 212 A049001

has permission to **install NFPA 13D sprinkler system.**

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise cloosed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be procured prior to occupancy.


Fire Prevention Officer

58

Code Enforcement Officer / Plan Reviewer

**THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
THERE IS A PENALTY FOR REMOVING THIS CARD**

BUILDING PERMIT INSPECTION PROCEDURES
Please call 874-8703 (ONLY)
or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

REQUIRED INSPECTIONS:

Final - Fire

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 201265616	Date Applied For: 12/13/2012	CBL: 212 A049001
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Location of Construction: 45 TIDE MILL RD	Owner Name: DAWSON ERIC J & KRISTINE A	Owner Address: 45 TIDE MILL RD	Phone: (207) 799-9025
Business Name:	Contractor Name: Freedom Fire Protection, Inc	Contractor Address: 209 Quaker Ridge Road Casco	Phone: (207) 627-4109
Lessee/Buyer's Name	Phone:	Permit Type: Fire Suppression System	

Proposed Use: Single Family	Proposed Project Description: install NFPA 13D sprinkler system.
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Dept: Zoning	Status: Approved	Reviewer: Marge Schmuckal	Approval Date: 12/13/2012
Note:	Ok to Issue: <input checked="" type="checkbox"/>		

Dept: Fire	Status: Approved w/Conditions	Reviewer: Ben Wallace Jr	Approval Date: 01/01/2013
Note:	Ok to Issue: <input checked="" type="checkbox"/>		
1) A copy of the required state sprinkler permit with RMS signoff shall be provided prior to the final inspection. 2) All control valves shall be supervised in accordance with NFPA 13D. Pad locks shall only be installed on valves designed to be secured in the open position by pad lock. 3) The sprinkler system shall be installed in accordance with NFPA 13D.			

One- or Two-family Fire Sprinkler Permit

If you or the property owner owes real estate or property taxes or user charges on any property within the city, payment arrangements must be made before permits of any kind are accepted.

Installation address: 45 Tide Mill Road, Dawson Residence

Building owner: Mike Cloutier Phone: 207-799-9025

Installer: Freedom Fire Protection, Inc. Phone: 207-627-4109

Total sq/ft of building floor space per unit: 5,700sq/ft Single-family home
or

Sq/ft of sprinklered floor space per unit: 5,700sq/ft Two-family home

Is this a multipurpose piping system? Y / N Sprinkler piping uses Pex? Y / N

Water supply: Municipal Water Well pump Stored water Other

Include electronic copy of approved State Sprinkler permit plans: To Follow

Additional cost to the owner for the home fire sprinkler system for each dwelling unit minus costs necessary for domestic needs (See below): **A=** \$10,500.00

Attach cost breakdown: A City plumbing permit has been pulled:

COST OF WORK: \$10,500.00
(A times number of units)

NO FEE REQUIRED

Additional information and Frequently asked questions about home fire sprinkler systems may be found at

www.portlandmaine.gov/fireprevention.

Sprinkler system cost must deduct costs that would have been incurred if the system did not provide sprinkler service. In a well pump system it would include the difference between the well pump to be installed and the one that would have been installed if there were no sprinkler demand on the system. Includes additional piping and valves that are required only because of NFPA Standard 13D, and not already required for domestic needs. Includes cost of sprinkler heads and additional installation costs.



... Fire Protection by Computer Design

FREEDOM FIRE PROTECTION INC.
209 QUAKER RIDGE ROAD
CASCO, MAINE 04015
207-627-4109

Job Name : ERIC DAWSON RESIDENCE
Building : 45 TIDE MILL ROAD
Location : PORTLAND, MAINE 04102
System : #1 AREA #1
Contract :
Data File : ERIC DAWSON RESIDENCE HC.WXF

HYDRAULIC DESIGN INFORMATION SHEET

Name - ERIC DAWSON RESIDENCE Date - 12/6/12
Location - PORTLAND, MAINE 04102
Building - 45 TIDE MILL ROAD System No. - #1 AREA #1
Contractor - FREEDOM FIRE PROTECTION Contract No. -
Calculated By - MICHAEL NOBLIT Drawing No. - FP-2
Construction: (X) Combustible () Non-Combustible Ceiling Height 8'-0"
OCCUPANCY - HOUSE

S Type of Calculation: (X)NFPA 13 Residential ()NFPA 13R (X)NFPA 13D
Y Number of Sprinklers Flowing: ()1 (X)2 ()4 ()
S ()Other
T ()Specific Ruling Made by Date
E
M Listed Flow at Start Point - 14 Gpm System Type
Listed Pres. at Start Point - 10.1 Psi (X) Wet () Dry
D MAXIMUM LISTED SPACING 14' x 14' () Deluge () PreAction
E Domestic Flow Added - 0 Gpm Sprinkler or Nozzle
S Additional Flow Added - 0 Gpm Make TYCO Model LFII
I Elevation at Highest Outlet - 26'-3"Feet Size 1/2" K-Factor 4.4
G Note: Temperature Rating 155
N

Calculation Gpm Required 28.172 Psi Required 41.749 At Test
Summary C-Factor Used: Overhead 150 Underground

W Water Flow Test: Pump Data: Tank or Reservoir:
A Date of Test - Rated Cap. 45 Cap.
T Time of Test - @ Psi 45 Elev.
E Static (Psi) - Elev.
R Residual (Psi) - Other Well
Flow (Gpm) - Proof Flow Gpm
S Elevation -

P Location:
P
L Source of Information:
Y

Water Supply Curve (C)

FREEDOM FIRE PROTECTION INC.
ERIC DAWSON RESIDENCE

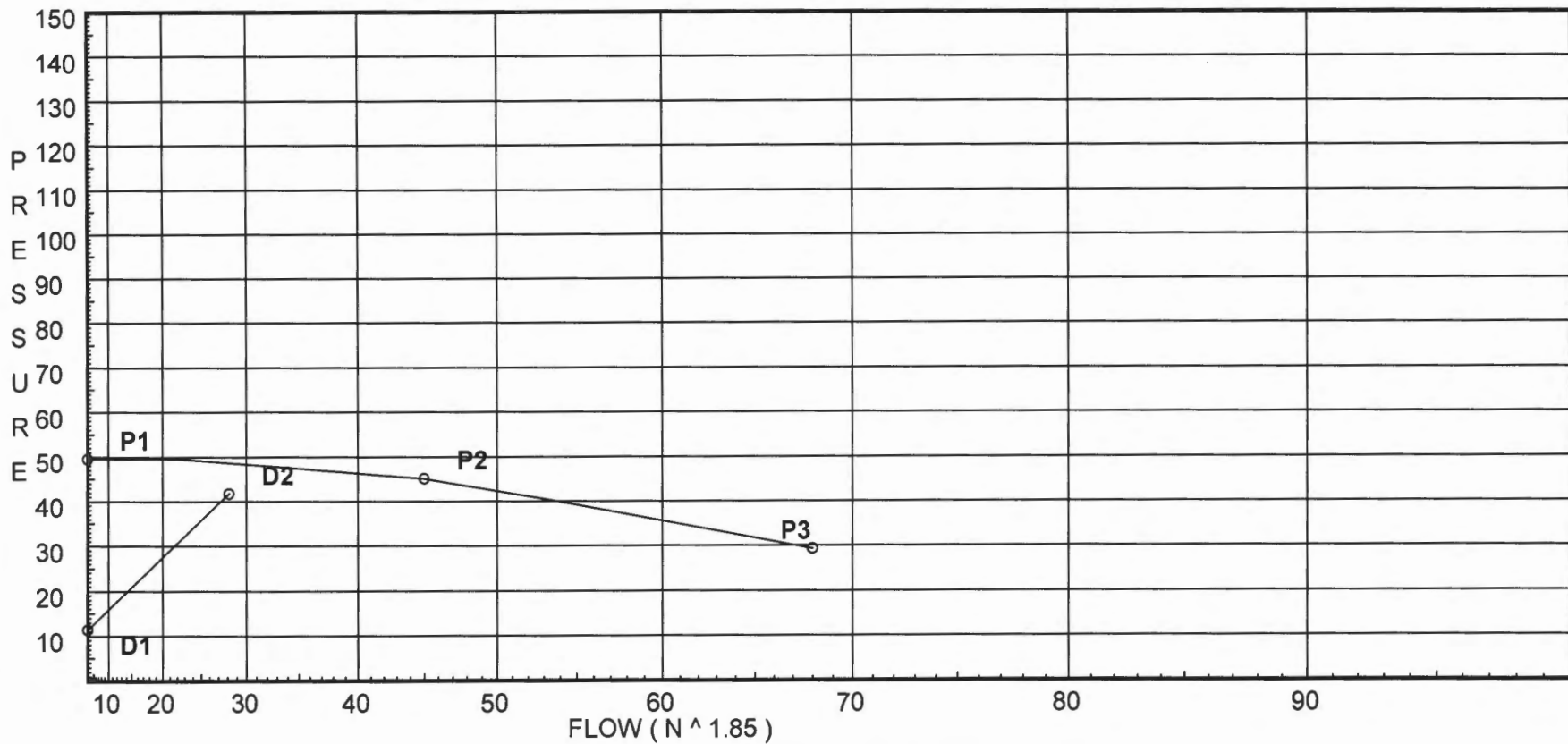
Page 2
Date 12/6/12

Pump Data:

P1 - Pump Churn Pressure : 49.5
 P2 - Pump Rated Pressure : 45
 P2 - Pump Rated Flow : 45
 P3 - Pump Pressure @ Max Flow : 29.25
 P3 - Pump Max Flow : 68

Demand:

D1 - Elevation : 11.369
 D2 - System Flow : 28.1718
 D2 - System Pressure : 41.749
 Hose (Adj City) : _____
 Hose (Demand) : _____
 D3 - System Demand : 28.1718
 Safety Margin : 6.796



Fittings Used Summary

FREEDOM FIRE PROTECTION INC.
ERIC DAWSON RESIDENCE

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Date 12/6/12

Fitting Legend																					
Abbrev. Name		½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8	10	12	14	16	18	20	24
E	90' Standard Elbow	2	2	2	3	4	5	6	7	8	10	12	14	18	22	27	35	40	45	50	61
S	Generic Swing Check Vlv	4	5	5	7	9	11	14	16	19	22	27	32	45	55	65	76	87	98	109	130
T	90' Flow Thru Tee	3	4	5	6	8	10	12	15	17	20	25	30	35	50	60	71	81	91	101	121

Pressure / Flow Summary - STANDARD

FREEDOM FIRE PROTECTION INC.
ERIC DAWSON RESIDENCE

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Date 12/6/12

Node No.	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.
101	26.25	4.4	10.1	na	13.98	0.05	0.001	10.1
14	26.25		10.45	na				
13	18.166		14.37	na				
12	18.166		14.74	na				
102	26.25	4.4	10.4	na	14.19	0.05	0.001	10.1
11	26.25		10.76	na				
10	18.166		14.69	na				
9	18.166		15.13	na				
8	18.166		15.96	na				
7	18.166		18.88	na				
6	18.166		22.52	na				
5	18.166		23.81	na				
4	6.5		32.31	na				
3	6.5		33.99	na				
2	6.5		35.87	na				
1	0.0		41.5	na				
TEST	0.0		41.75	na				

The maximum velocity is 10.46 and it occurs in the pipe between nodes 4 and 3

Final Calculations - Hazen-Williams

FREEDOM FIRE PROTECTION INC.
ERIC DAWSON RESIDENCE

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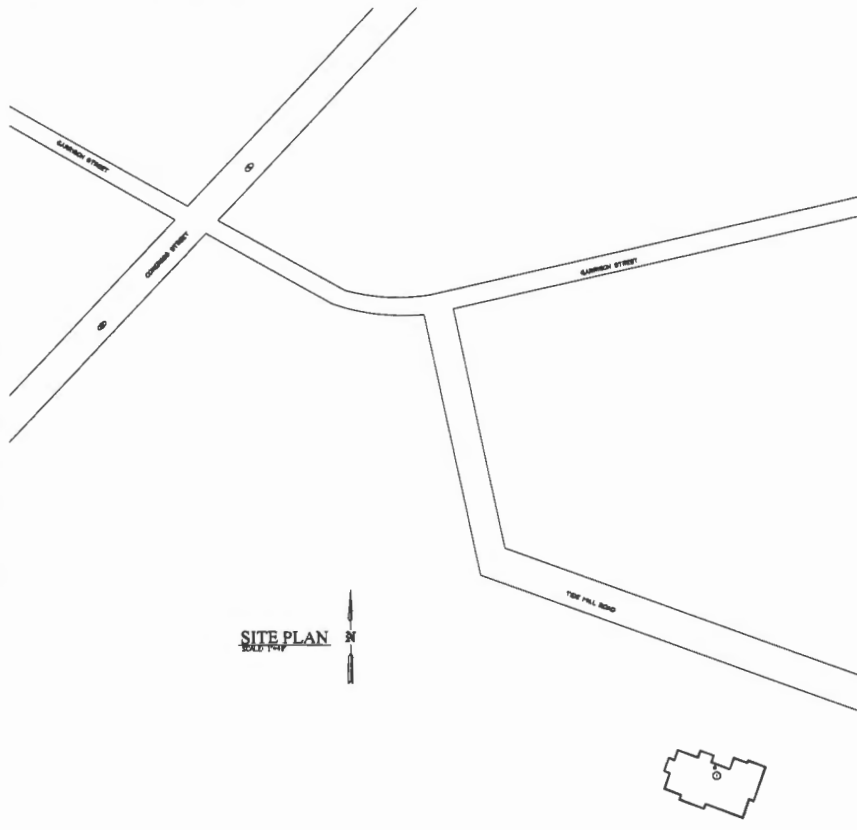
Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	*****	Notes	*****
101 to 14	13.98	1.101 150	1T 0.0	9.563 0.0	0.500 9.562	10.100 0.0		K Factor = 4.40	
14 to 13	13.98	0.0351		0.0	10.062	0.353		Vel = 4.71	
14 to 13	0.0	1.101 150	1E 0.0	3.825 0.0	8.083 3.825	10.453 3.501			
13 to 12	13.98	0.0351		0.0	11.908	0.418		Vel = 4.71	
13 to 12	0.0	1.101 150	1T 0.0	9.563 0.0	1.000 9.562	14.372 0.0			
12 to 8	13.98	0.0351		0.0	10.562	0.371		Vel = 4.71	
12 to 8	0.0	1.101 150	1T 1E	9.563 3.825	21.330 13.387	14.743 0.0			
8	13.98	0.0351		0.0	34.717	1.218		Vel = 4.71	
	0.0 13.98					15.961		K Factor = 3.50	
102 to 11	14.19	1.101 150	1T 0.0	9.563 0.0	0.500 9.562	10.398 0.0		K Factor = 4.40	
11 to 10	14.19	0.0361		0.0	10.062	0.363		Vel = 4.78	
11 to 10	0.0	1.101 150	1E 0.0	3.825 0.0	8.083 3.825	10.761 3.501			
10 to 9	14.19	0.0361		0.0	11.908	0.430		Vel = 4.78	
10 to 9	0.0	1.101 150	1T 0.0	9.563 0.0	2.660 9.562	14.692 0.0			
9 to 8	14.19	0.0360		0.0	12.222	0.440		Vel = 4.78	
9 to 8	0.0	1.101 150		0.0	23.000 0.0	15.132 0.0			
8 to 7	14.19	0.0360		0.0	23.000	0.829		Vel = 4.78	
8 to 7	13.98	1.101 150	1T 0.0	9.563 0.0	13.166 9.562	15.961 0.0			
7 to 6	28.17	0.1283		0.0	22.728	2.915		Vel = 9.49	
7 to 6	0.0	1.101 150	1T 0.0	9.563 0.0	18.830 9.562	18.876 0.0			
6 to 5	28.17	0.1282		0.0	28.392	3.641		Vel = 9.49	
6 to 5	0.0	1.101 150	1T 0.0	9.563 0.0	0.500 9.562	22.517 0.0			
5 to 4	28.17	0.1282		0.0	10.062	1.290		Vel = 9.49	
5 to 4	0.0	1.101 120	1T 0.0	6.328 0.0	11.500 6.328	23.807 5.053			
4 to 3	28.17	0.1937		0.0	17.828	3.454		Vel = 9.49	
4 to 3	0.0	1.049 120	1T 0.0	5.0 0.0	1.830 5.000	32.314 0.0			
3 to 2	28.17	0.2454		0.0	6.830	1.676		Vel = 10.46	
3 to 2	0.0	1.049 120	1E 0.0	2.0 0.0	5.660 2.000	33.990 0.0			
2	28.17	0.2452		0.0	7.660	1.878		Vel = 10.46	

Final Calculations - Standard

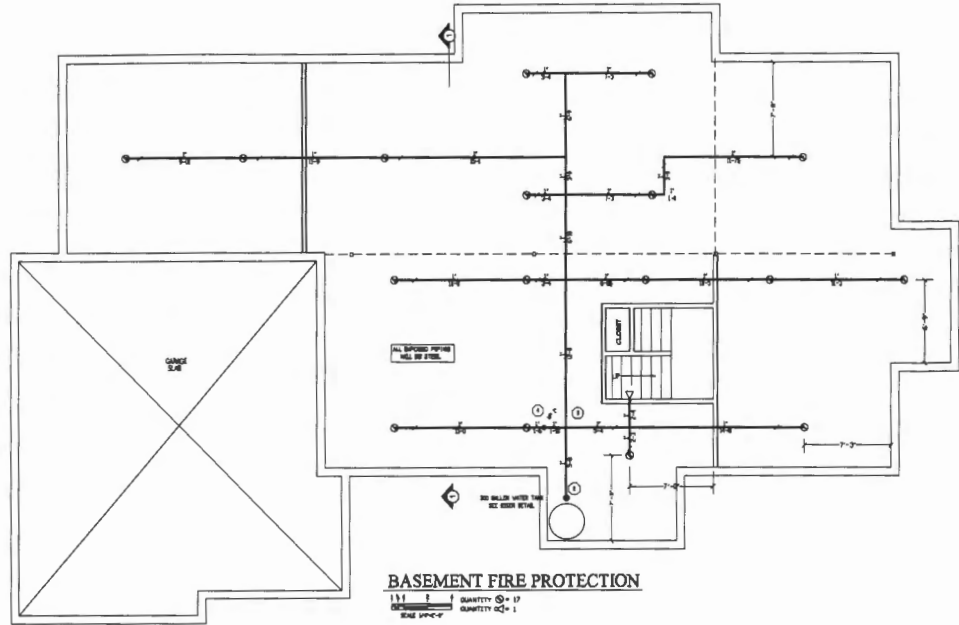
FREEDOM FIRE PROTECTION INC.
ERIC DAWSON RESIDENCE

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Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	*****	Notes	*****
2 to 1	0.0 28.17	1.049 120 0.2453	1S 5.0 0.0	6.500 5.000	35.868 2.815				
1 to TEST	0.0 28.17	1.049 120 0.2450	0.0 0.0 0.0	1.000 0.0 1.000	41.504 0.0 0.245				
	0.0 28.17								Vel = 10.46 Vel = 10.46 K Factor = 4.36

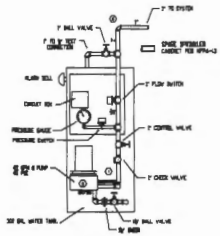


SITE PLAN
SCALE 1/4" = 1'-0"



BASEMENT FIRE PROTECTION

QUANTITY ① = 17
QUANTITY ② = 1
SCALE 1/4" = 1'-0"



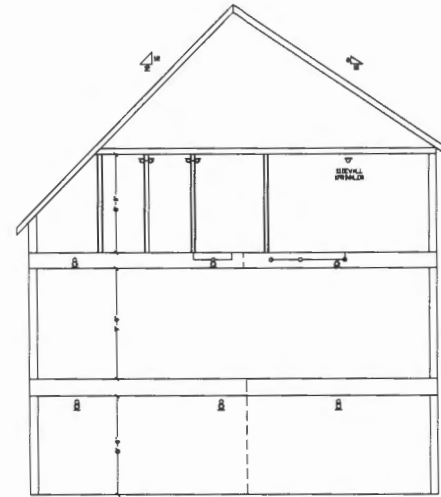
FIRE PROTECTION PUMP AND TANK DETAIL

GENERAL NOTES

SYSTEM TO BE DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA-13B. PIPE AND FITTINGS TO BE CONSTRUCTION OF BLACK STEEL, SCH. 40 TYPE AND APPROVED BLACKENED PLASTIC CPVC. SPRINKLER AND APPROVED TO BE USED WITH THIS SYSTEMS. ALL WADERS TO BE SPACED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. MIN SPACING OF RESIDENTIAL PRIORITY SPRINKLERS TO BE 14'-0". MIN SPACING OF RESIDENTIAL GENERAL SPRINKLERS TO BE 14'-0". ALL WORKS TO BE REVIEWED BY OFFICE. SAME SPRINKLERS OF EACH TYPE SHALL BE PROVIDED PER NFPA 13. SPRINKLERS MAY BE OMITTED FROM THE FOLLOWING:

- 1) BATHROOMS WHERE THE AREA DOES NOT EXCEED 30 SQ. FT. AND THE WALLS ARE CEILING, INCLUDING BATH FIXTURES ARE OF NON COMBUSTIBLE OR LIMITED COMBUSTIBLE MATERIALS PROVIDING A 30 MINUTE THERMAL BARRIER.
- 2) CLOSETS, LINEN CLOSETTS AND PARTIES WITHIN THE DWELLING UNITS WHERE THE AREA OF THE SPACE DOES NOT EXCEED 40 SQ. FT. AND THE LATEST BURNING DOES NOT EXCEED 3 FT. AND THE WALLS AND CEILING ARE SURFACED WITH NON COMBUSTIBLE OR LIMITED COMBUSTIBLE MATERIALS AS NOTIFIED BY NFPA.
- 3) ANY PORCHES, BALCONIES, CORRIDORS, AND STAIRS THAT ARE OPEN AND ATTACHED.
- 4) ATTIC, MECHANEICAL EQUIPMENT ROOMS, CHINA CLOSET, FLOORING/CEILING SPACE, ELEVATOR SHAPTS, AND OTHER CONCEALED SPACES THAT ARE NOT USED AS STORAGE FOR LIVING PURPOSES OR STORAGE.

MAINTENANCE OF THE SPRINKLER SYSTEM IS THE RESPONSIBILITY OF THE OWNER. PROTECTION OF THE SPRINKLER SYSTEM AGAINST FREEZING IS THE RESPONSIBILITY OF THE OWNER.



SECTION VIEW
SCALE 1/4" = 1'-0"

REVISIONS	NOTES	SPRINKLER TYPE	IDENTIFICATION NO.	KPa	ORC.	MODEL	FRESH	DRIP/CE	TEMP	SYMBOL	QUANT.	STANDARD SYMBOLS	STANDARD SYMBOLS	INSPECTIONS
	INSTALL PRIORITY SPRINKLER COVERED UPBY	ESD	THRESH	TYCS	WA	LFS	BR44	5/4"	50F	①	1	① - POINT BROUPTURE VALVE	① - ALARM CHECK VALVE	
	INSTALL GENERAL SPRINKLER COVERED UPBY	ESD	THRESH	TYCS	WA	LFS	BR44	5/4"	50F	②	1	② - KEY VALVE	② - RESOR R/W/ALARM VALVE	
		ESD	THRESH	TYCS	WA	LFS	BR44	5/4"	50F	③	1	③ - FRESH TREATMENT	③ - RESOR R/W/DRIP VALVE	
		ESD	THRESH	TYCS	WA	LFS	BR44	5/4"	50F	④	1	④ - FRESH DEPT CONNECTION	④ - RESOR R/W/SEC. FLOW SWITCH	
		ESD	THRESH	TYCS	WA	LFS	BR44	5/4"	50F	⑤	1	⑤ - 0.5 A 1 GATE VALVE	⑤ - RESOR R/W/SHALL VALVE	
		ESD	THRESH	TYCS	WA	LFS	BR44	5/4"	50F	⑥	1	⑥ - WATER CHECK VALVE	⑥ - WATER MOTOR BELL	
		ESD	THRESH	TYCS	WA	LFS	BR44	5/4"	50F	⑦	1	⑦ - NEW UNDERGROUND	⑦ - ELECTRIC BELL	
		ESD	THRESH	TYCS	WA	LFS	BR44	5/4"	50F	⑧	1	⑧ - EXIST UNDERGROUND	⑧ - FLUSH FIRE DEPT CONNECTION	
	TOTAL SPRINKLERS THIS DRAWING													

ERIC DAWSON RESIDENCE
45 TIDE MILL ROAD
PORTLAND, MAINE 04102

FIRE PROTECTION PLAN

FREEDOM FIRE PROTECTION, INC.
208 QUAKER RIDGE ROAD
CASCO, MAINE 04015

JOB No. 10100
DATE 12/7/18
DRAWN BY NLR
SCALE AS NOTED
SHEET No.
FP-1 of 2



State of Maine
Department of Public Safety



Fire Sprinkler System Permit

10385

ERIC DAWSON RESIDENCE

Located at: 45 TIDE MILL ROAD
In the Town of: Portland
Occupancy/Use: HOME
Type of System: NFPA 13D

COPY

Permission is hereby given to:

Freedom Fire Protection, Inc.
209 Quaker Ridge Road
Casco, ME 04015
Contractor License # 295

to begin installation according to plans submittal approved by the Office of State Fire Marshal. The submittal is filed under log # 2121560, and no departure from the application submittal shall be made without prior approval in writing. This permit is issued under the provisions of Title 32, Chapter 20, Section 12004-I. Nothing herein shall excuse the holder of this permit from failure to comply with local ordinances, zoning laws, or other pertinent legal restrictions. This permit shall be displayed at the construction site or be made readily available.

This permit was issued on 12/12/2012 for a fee paid of \$25.00

This permit will expire at midnight on Monday, June 10, 2013

The expiration date applies only if the installation has not begun by that date and no permission has been granted to extend the date. Once installation begins, then the permit is valid for however long it takes to complete the installation, assuming that the work is fairly continuous.

John E. Morris
Commissioner

The type of Fire Department Connection and its location is to be according to the Local Fire Department

Within 30 days of the completion of a new fire sprinkler system or an addition to an existing fire sprinkler system, a fire sprinkler system contractor shall provide to the Office of State Fire Marshal a copy of this permit signed and dated by the certified Responsible Managing Supervisor representing that the fire sprinkler system has been installed according to specifications of the approved plan to the best of the supervisor's knowledge, information, and belief. This requirement is part of the sprinkler law, and neglect of this duty is grounds to not renew the contractor's license to do work in the State of Maine. All renewed sprinkler licenses are good for two years and expire on a June 30th.

Job completed, tested and verified by date of _____

RMS for this job: Vess Timothy L.

RMS Signature: _____