

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND BUILDING PERMIT

This is to certify that
HIGH TECH FIRE PROTECTION CO, INC.
PO BOX 156
MINOT, ME 04258

For installation at
18 LUTHER ST
LOT 16

Job ID: **2012-11-5419-FAFS**

CBL: **087- Z-015-001**

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 Statutes 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 closed-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


Fire Prevention Officer


Code Enforcement Officer / Plan Reviewer

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (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.**

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.



PORTLAND MAINE

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Director of Planning and Urban Development
Jeff Levine

Job ID: 2012-11-5419-FAFS
install NFPA 13D sprinkler system

For installation at:
18 LUTHER ST
LOT 16

CBL: 087- Z-015-001

Conditions of Approval:

Fire

1. The sprinkler system shall be installed in accordance with NFPA 13D.
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. A copy of the required state sprinkler permit with RMS signoff shall be provided prior to the final inspection.

City of Portland, Maine - Building or Use Permit Application

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

Job No: 2012-11-5419-FAFS	Date Applied: 11/16/2012	CBL: 087- Z-015-001	
Location of Construction: 22 LUTHER ST- lot #16 PEAKS ISLAND	Owner Name: VOLUNTEERS OF AMERICA - NORTHERN NEW ENGLAND	Owner Address: 14 MAINE STREET STE #301 BRUNSWICK, ME 04011	Phone:
Business Name:	Contractor Name: HIGH TECH FIRE PROTECTION	Contractor Address: 84 HACKETT MILLS ROAD POLAND, ME 04274	Phone: 998-2551
Lessee/Buyer's Name:	Phone:	Permit Type: Fire SUPPRESSION SYSTEM	Zone: C-55
Past Use: New Single Family Dwelling	Proposed Use: Same: Single Family Dwelling - to install fire suppression system	Cost of Work: \$6,000.00 Fire Dept: 12/5/12 <input checked="" type="checkbox"/> Approved w/ conditions <input type="checkbox"/> Denied N/A Signature: <i>[Signature]</i> (50)	CEO District: Inspection: Use Group: Type: Signature:
Proposed Project Description: water based suppression system - Lot #16		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Gayle		Zoning Approval	

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
2. Building Permits do not include plumbing, septic or electrical work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work.

Special Zone or Reviews

- ☐ Shoreland
☐ Wetlands
☐ Flood Zone
☐ Subdivision
☐ Site Plan

___ Maj ___ Min ___ MM

Date:

[Signature]
11/20/12**Zoning Appeal**

- ☐ Variance
☐ Miscellaneous
☐ Conditional Use
☐ Interpretation
☐ Approved
☐ Denied

Date:

Historic Preservation

- ☒ Not in Dist or Landmark
☐ Does not Require Review
☐ Requires Review
☐ Approved
☐ Approved w/Conditions
☐ Denied

Date:

*[Signature]***CERTIFICATION**

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT

ADDRESS

DATE

PHONE

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE

DATE

PHONE



By mail 2012 11 5419 Lot 16

Water-Based Fire Suppression System 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.

C-55 015
Installation address: 22 Luther Street - Peaks Island CBL: 087 7 016

Exact location: (within structure) Entire Structure

Type of occupancy(s) (NFPA & ICC): Single Family Residential

Building owner: Volunteers of America - Northern New England

Managing Supervisor (RMS): Jeremy A Foss License No: 808

Supervisor phone: (207) 998-2551 E-mail: JFoss@fairpoint.net

Installing contractor: High Tech Fire Protection License No: 102

Contractor phone: (207) 998-2551 E-mail: HTFP@fairpoint.net

The suppression work to be done will be: New: ☒ Renovation: ☐ Addition to existing system: ☐

This is an amendment to an existing permit: Yes: ☐ NO: ☒ Permit no: _____

NFPA Standard this system is designed to: 13D Edition: 2010

*Non-NFPA systems are not approved for use within the City of Portland.

Download a new copy of this document from
www.portlandmaine.gov/fire for every submittal. Attach all working documents and complete approved submittals as may be required by the State Fire Marshal's Office on electronic PDF's in addition to full sized plans.

Contractor shall verify location and type of all FDCs shall be approved in writing by the Fire Prevention Bureau.

COST OF WORK: \$6,000

PERMIT FEE: \$80

(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)

RECEIVED

NOV 16 2012

Dept. of Building Inspections
City of Portland Maine

Submit all information to the Building Inspections Department, 389 Congress Street, Room 315, Portland, Maine 04101.

Prior to acceptance of any fire protection system, a complete commissioning and acceptance test must be coordinated with all fire system contractors and the Fire Department, and proper documentation of such test(s) provided.

All installation(s) must comply with NFPA and the Fire Department Technical Standard(s).

Applicant signature: _____

Date: 10/02/2012



. . . Fire Protection by Computer Design

HIGH TECH FIRE PROTECTION
84 HACKETT MILLS ROAD
POLAND, ME 04274
998-2551

Job Name : Second Floor Calc.
Building : Lot #16 Homestart Colonial
Location : 22 Luther Street - Peaks Island
System : NFPA 13D
Contract : 021312-3
Data File : Second Floor Calc.wxf

HYDRAULIC DESIGN INFORMATION SHEET

Name - Second Floor Bedroom Calc. Date - 10/02/2012
Location - 22 Luther Street - Peaks Island
Building - Lot #16 Homestart Colonial System No. - NFPA 13D
Contractor - High Tech Fire Protection Contract No. - 021312-3
Calculated By - Jeremy A Foss Drawing No. - FP-1.1
Construction: (X) Combustible () Non-Combustible Ceiling Height 8'-0"
OCCUPANCY - Single Family Residential

S Type of Calculation: () 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 - 10.2 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 Reliable Model F1 Res 44
I Elevation at Highest Outlet - 22.5 Feet Size 1/2" K-Factor 4.4
G Note: Temperature Rating 155
N

Calculation Gpm Required 29 Psi Required 46 At Test
Summary C-Factor Used: Overhead 150 Underground 140

W Water Flow Test: Pump Data: Tank or Reservoir:
A Date of Test - 08/19/2004 Rated Cap. Cap.
T Time of Test - @ Psi Elev.
E Static (Psi) - 84 Elev.
R Residual (Psi) - 78 Other Well
Flow (Gpm) - 237 Proof Flow Gpm
S Elevation - 0

P Location: Test Hydrant Located at Corner of Island and Church Avenues

P
L Source of Information: Portland Water District
Y

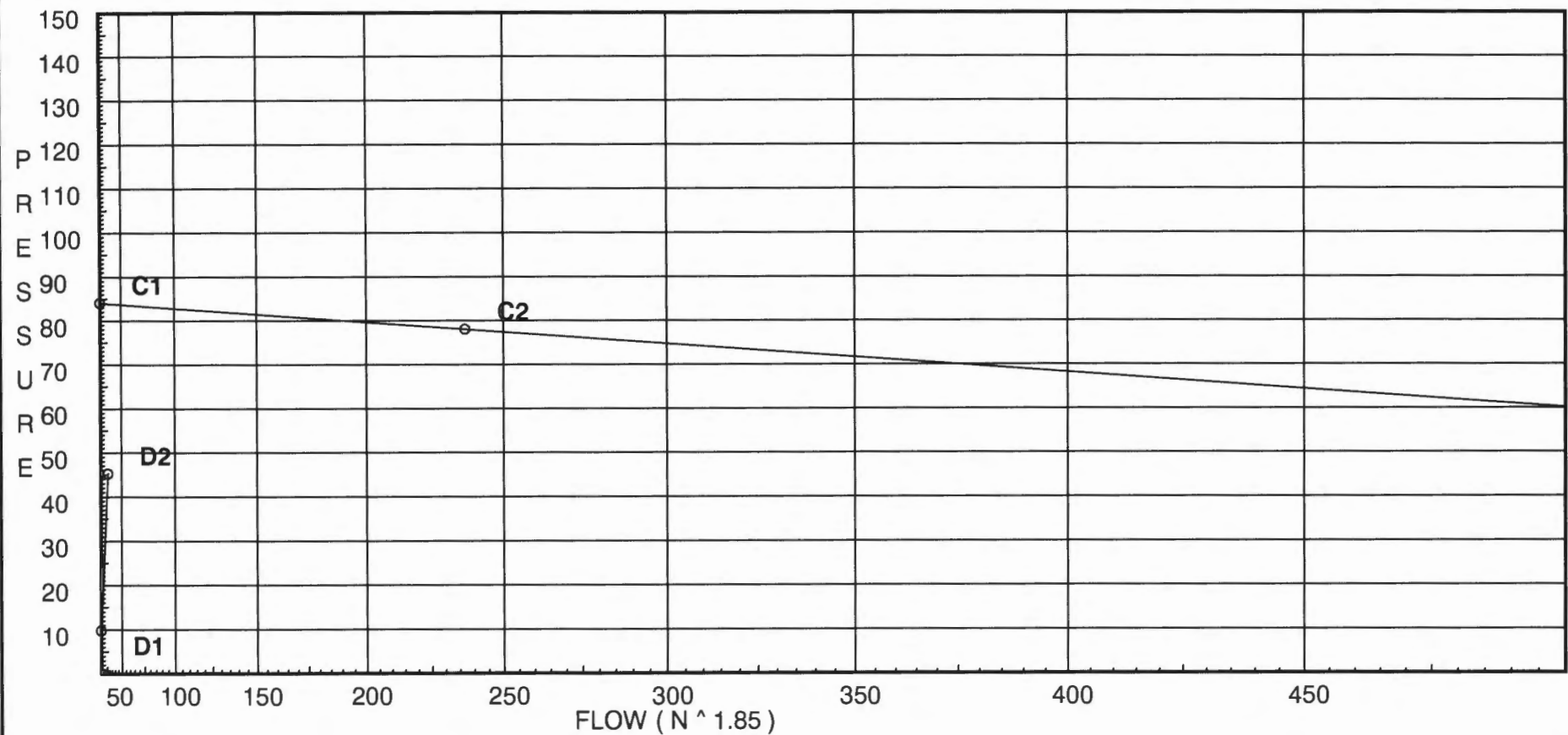
Water Supply Curve (C)

HIGH TECH FIRE PROTECTION
Second Floor Calc.

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City Water Supply:
C1 - Static Pressure : 84
C2 - Residual Pressure: 78
C2 - Residual Flow : 237

Demand:
D1 - Elevation : 9.745
D2 - System Flow : 28.4275
D2 - System Pressure : 45.233
Hose (Adj City) :
Hose (Demand) :
D3 - System Demand : 28.4275
Safety Margin : 38.649



Fittings Used Summary

HIGH TECH FIRE PROTECTION
Second Floor Calc.

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Fitting Legend

Abbrev.	Name	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	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
G	Generic Gate Valve	0	0	1	1	1	1	1	1	1	2	2	3	4	5	6	7	8	10	11	13
N *	CPVC 90'Ell Harvel-Spears	7	7	7	8	9	11	12	13	0	0	0	0	0	0	0	0	0	0	0	0
O *	CPVC Tee-Branch	3	3	5	6	8	10	12	15	0	0	0	0	0	0	0	0	0	0	0	0
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
Z	Generic Flow Switch	2	2	2	3	4	5	6	7	8	10	12	14	18	22	27	35	40	45	50	61
Zik	Wilkins 950XL	Fitting generates a Fixed Loss Based on Flow																			

Units Summary

Diameter Units	Inches
Length Units	Feet
Flow Units	US Gallons per Minute
Pressure Units	Pounds per Square Inch

Note: Fitting Legend provides equivalent pipe lengths for fittings types of various diameters. Equivalent lengths shown are standard for actual diameters of Sched 40 pipe and CFactors of 120 except as noted with *. The fittings marked with a * show equivalent lengths values supplied by manufacturers based on specific pipe diameters and CFactors and they require no adjustment. All values for fittings not marked with a * will be adjusted in the calculation for CFactors of other than 120 and diameters other than Sched 40 per NFPA.

Pressure / Flow Summary - STANDARD

HIGH TECH FIRE PROTECTION
Second Floor Calc.

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Node No.	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.
201	22.5	4.4	10.2	na	14.05	0.05	196	10.2
A1	14.5		14.2	na				
A2	14.5		14.67	na				
A3	13.5		15.39	na				
A4	13.5		15.92	na				
202	22.5	4.4	10.67	na	14.38	0.05	196	10.2
A5	14.5		14.69	na				
A6	14.5		14.99	na				
A7	13.5		15.72	na				
A8	13.5		16.23	na				
A9	13.5		18.56	na				
A10	4.5		24.13	na				
TOR	4.5		29.17	na				
BOR	1.0		32.56	na				
BASE	1.0		43.89	na				
H1	3.0		43.91	na				
H2	-1.0		45.65	na				
H3	-11.0		49.99	na				
H4	0.0		45.23	na				
TEST	0.0		45.23	na				

The maximum velocity is 10.55 and it occurs in the pipe between nodes A10 and TOR

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	*****	Notes	*****
201 to A1	14.05 14.05	1.101 150.0 0.0354	1N 7.0 0.0	8.000 7.000 15.000	10.200 3.465 0.531			K Factor = 4.40	
A1 to A2	0.0 14.05	1.101 150.0 0.0354	1N 7.0 1O 5.0 0.0	1.500 12.000 13.500	14.196 0.0 0.478			Vel = 4.73	
A2 to A3	0.0 14.05	1.101 150.0 0.0355	1N 7.0 0.0	1.000 7.000 8.000	14.674 0.433 0.284			Vel = 4.73	
A3 to A4	0.0 14.05	1.101 150.0 0.0354	2O 10.0 0.0 0.0	4.900 10.000 14.900	15.391 0.0 0.527			Vel = 4.73	
A4 to A8	0.0 14.05	1.101 150.0 0.0355	0.0 0.0 0.0	8.800 0.0 8.800	15.918 0.0 0.312			Vel = 4.73	
	0.0 14.05				16.230			K Factor = 3.49	
*P									
202 to A5	14.38 14.38	1.101 150.0 0.0369	1N 7.0 0.0	8.000 7.000 15.000	10.674 3.465 0.553			K Factor = 4.40	
A5 to A6	0.0 14.38	1.101 150.0 0.0370	1N 7.0 0.0	1.000 7.000 8.000	14.692 0.0 0.296			Vel = 4.85	
A6 to A7	0.0 14.38	1.101 150.0 0.0370	1N 7.0 0.0	1.000 7.000 8.000	14.988 0.433 0.296			Vel = 4.85	
A7 to A8	0.0 14.38	1.101 150.0 0.0369	2O 10.0 0.0 0.0	3.900 10.000 13.900	15.717 0.0 0.513			Vel = 4.85	
A8 to A9	14.05 28.43	1.101 150.0 0.1304	2N 14.0 0.0 0.0	3.900 14.000 17.900	16.230 0.0 2.334			Vel = 9.58	
A9 to A10	0.0 28.43	1.101 150.0 0.1304	1E 3.825 0.0 0.0	9.000 3.825 12.825	18.564 3.898 1.672			Vel = 9.58	
A10 to TOR	0.0 28.43	1.049 120.0 0.2494	2E 4.0 0.0 0.0	16.200 4.000 20.200	24.134 0.0 5.038			Vel = 10.55	
TOR to BOR	0.0 28.43	1.049 120.0 0.2495	1Z 2.0 1E 2.0 0.0	3.500 4.000 7.500	29.172 1.516 1.871			Vel = 10.55	

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	*****	Notes	*****
BOR to BASE	0.0 28.43	1.049 120.0 0.2492	1Zik 1E	0.0 2.0 0.0	3.000 2.000 5.000	32.559 10.086 1.246		* Fixed loss = 10.086 Vel = 10.55	
	0.0 28.43					43.891		K Factor = 4.29	
*P									
BASE to H1	28.43	1.72 150.0 0.0148	1E 1G	3.087 0.617	50.000 9.879	43.891 -0.866			
H1 to H2	28.43	0.0148	1T	6.174	59.879	0.889		Vel = 3.93	
H1 to H2	0.0	8.27 140.0	1T	55.354 0.0	425.000 55.354	43.914 1.732			
H2 to H3	28.43	0.0		0.0	480.354	0.005		Vel = 0.17	
H2 to H3	0.0	8.23 100.0	1E	14.92 0.0	750.000 14.920	45.651 4.331			
H3 to H4	28.43	0.0		0.0	764.920	0.012		Vel = 0.17	
H3 to H4	0.0	12.34 140.0		0.0 0.0	360.000 0.0	49.994 -4.764			
H4 to TEST	28.43	0.0		0.0	360.000	0.0		Vel = 0.08	
H4 to TEST	0.0	6.16 140.0	1E 1G	20.084 4.304	15.000 67.425	45.230 0.0			
TEST	28.43	0.0	1T	43.037	82.425	0.003		Vel = 0.31	
	0.0 28.43					45.233		K Factor = 4.23	



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Receipts Details:

Tender Information: Check , BusinessName: High Tech fire protecton, Check Number: 18354\$80.00

Tender Amount: 80.00

Receipt Header:

Cashier Id: gguertin

Receipt Date: 11/16/2012

Receipt Number: 50322

Receipt Details:

Reference ID:	8771	Fee Type:	BP-Constr
Receipt Number:	0	Payment Date:	
Transaction Amount:	80.00	Charge Amount:	80.00
Job ID: Job ID: 2012-11-5419-FAFS - water based suppression system			
Additional Comments: 22 Luther St. Lot #16			

Thank You for your Payment!