

**City of Portland, Maine - Building or Use Permit Application**

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

Permit No: 2012-65580	Issue Date:	CBL: 2010-C-003 010 G002001
--------------------------	-------------	--------------------------------

<b>Location of Construction:</b> 56 HAMMOND ST	<b>Owner Name:</b> HAMMOND APARTMENTS LLC	<b>Owner Address:</b> PO BOX 1398	<b>Phone:</b>
<b>Business Name:</b>	<b>Contractor Name:</b> Sprinkler System, Inc	<b>Contractor Address:</b> P.O. Box 1285 Lewiston	<b>Phone:</b> (207) 782-0104
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Fire Alarm System	<b>Zone:</b> R6
<b>Past Use:</b> two lots - each lot has a 3 residential DU's on it after the split	<b>Proposed Use:</b> Same: three residential dwelling units on each lot	<b>Permit Fee:</b> \$50.00	<b>Cost of Work:</b> \$3,000.00
<b>Proposed Project Description:</b> Install water based fire suppression system for building A & B (10-G-23)		<b>FIRE DEPT:</b> 1/1/13 <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> N/A	<b>INSPECTION:</b> Use Group: Type:
		<b>Signature:</b> [Signature] (S8) ACTIVITIES DISTRICT (P.A.D.)	
		<input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date:	

<b>Permit Taken By:</b> Idobson	<b>Date Applied For:</b> 12/11/2012	<b>ing Approval</b>	
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 information may invalidate a building permit and stop all work..		<b>Speci</b> <input type="checkbox"/> SF <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date: 12/13/12	<b>Zoning Appeal</b> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date:
		<b>Historic Preservation</b> <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date:	

**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 \_\_\_\_\_

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



# CITY OF PORTLAND BUILDING PERMIT



**This is to certify that**

HAMMOND APARTMENTS LLC /Sprinkler System, Inc

**Located at**

56 HAMMOND ST

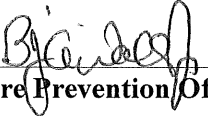
**PERMIT ID:** 2012-65580

**CBL:** 010 G002001

has permission to **install supervised NFPA 13R sprinkler systems for building A & B (10-G-2 & 3)** 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 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**

SCANNED

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

<b>Permit No:</b> 201265580	<b>Date Applied For:</b> 12/11/2012	<b>CBL:</b> 010 G002001
--------------------------------	--	----------------------------

<b>Location of Construction:</b> 56 HAMMOND ST	<b>Owner Name:</b> HAMMOND APARTMENTS LLC	<b>Owner Address:</b> PO BOX 1398	<b>Phone:</b>
<b>Business Name:</b>	<b>Contractor Name:</b> Sprinkler System, Inc	<b>Contractor Address:</b> P.O. Box 1285 Lewiston	<b>Phone</b> (207) 782-0104
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Fire Suppression System	

<b>Proposed Use:</b> Same: three residential dwelling units on each lot	<b>Proposed Project Description:</b> install supervised NFPA 13R sprinkler systems for building A & B (10-G-2 & 3)
--	---

<b>Dept:</b> Zoning	<b>Status:</b> Approved	<b>Reviewer:</b> Marge Schmuckal	<b>Approval Date:</b> 12/13/2012
<b>Note:</b>	<b>Ok to Issue:</b> <input checked="" type="checkbox"/>		

<b>Dept:</b> Fire	<b>Status:</b> Approved w/Conditions	<b>Reviewer:</b> Ben Wallace Jr	<b>Approval Date:</b> 01/01/2013
<b>Note:</b>	<b>Ok to Issue:</b> <input checked="" type="checkbox"/>		
<ol style="list-style-type: none"> <li>1) All control, drain, and test connection valves shall be provided with permanently marked weatherproof metal or rigid plastic identification signs secured with corrosion-resistant wire, chain, or other approved means.</li> <li>2) A 4100 series Knox Box is required. A hinged 3200 series Knox Box may be installed if the building is master keyed.</li> <li>3) The entire sprinkler system shall be maintained in accordance with NFPA 25, Standard for Inspection, Testing and Maintenance of Water-Based Fire Protection Systems, 2008 edition.</li> <li>4) System acceptance and commissioning must be coordinated with alarm and suppression system contractors and the Fire Department. Call 874-8703 to schedule.</li> <li>5) Fire department connection shall be one 2 ½" for each building.</li> <li>6) Sprinkler protection shall be maintained. Where the system is to be shut down for maintenance or repair, the system shall be checked at the end of each day to insure the system has been placed back in service.</li> <li>7) A separate fire alarm permit is required for each building.</li> <li>8) A sprinkler supervisory system shall be provided for each building in accordance with NFPA 101, Life Safety Code, and NFPA 72, National Fire Alarm and Signaling Code. Sprinkler supervisory systems shall monitor for water flow and sprinkler supervisory signals via an approved fire alarm panel to central station. One smoke detector shall be located over the panel, a manual pull station located at the front door, and an audible water flow alarm provided.</li> <li>9) Installation shall be in accordance with the City of Portland Fire Department Regulations and NFPA 13R as published. A copy of the State Sprinkler permit(s) with RMS date and signature and the Contractor's Material and Test Certificates for Aboveground Piping (NFPA 13R figure 10.1.2) shall be provided prior to scheduling of a final inspection.</li> </ol>			

<b>Dept:</b> DRC	<b>Status:</b>	<b>Reviewer:</b>	<b>Approval Date:</b>
<b>Note:</b>	<b>Ok to Issue:</b> <input type="checkbox"/>		



# 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.

Installation address: 56 Hammond Street CBL: 10-62-2 <sup>new</sup> 10-6-3

Exact location: (within structure) Building "A" & "B"

Type of occupancy(s) (NFPA & ICC): Residential - 3 Unit Apartment Buildings

Building owner: BH Milliken, 175 Anderson Street, Portland, ME 04101

Managing Supervisor (RMS): Scott E. Garland License No: 278

Supervisor phone: 207-775-1521 E-mail: scottg@sprinklersystemsinc.com

Installing contractor: Sprinkler Systems Inc. License No: 093

Contractor phone: 207-782-0104 E-mail: \_\_\_\_\_

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: NFPA #13-R 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](http://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.

<b>COST OF WORK:</b> <u>\$3,000.00</u>
<b>PERMIT FEE:</b> <u>\$50.00</u>
( <small>\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000</small> )
<b>RECEIVED</b> <b>DEC 11 2012</b> 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: 12-7-2012

# Sprinkler Systems, Inc.

P.O. Box 1285

Lewiston, ME 04243-1285

# Letter of Transmittal

DATE 11-28-12	JOB # 12085
ATTENTION: Code Enforcement	
RE: Hammond Apts. Bldg. A & B 56 Hammond Street Portland, ME 04104	

TO: City of Portland  
Code Enforcement  
Room 315 City Hall  
Portland, ME 04101

**WE ARE SENDING YOU:**

- Attached       Under separate cover via \_\_\_\_\_ the following items:  
 Shop drawings     Prints       Plans       Samples       Specifications     Wavier or Liens  
 Copy of letter     Change order     Signed Contracts     Hyd. Calcs., State of ME Permit, City of Portland Permit App., Flow TEST INFO, Permit Check

COPIES	DATE	NO.	DESCRIPTION
1 each	11-20-12	1-4094	Sprinkler Shop Drawings
1 each	11-20-12	7pg.	Hydraulic Calculations packet
1 each	11-20-12	1-4094	11x17 Sprinkler Shop Drawings Reduction
1 each	12-3-12	10372	State of Maine Sprinkler Permit
1 each	1-12-12	-	Flow test map
1 each	12-7-12		Portland Sprinkler permit App.
1 each	12-5-12	29026	# 5000 Permit Check

**THESE ARE TRANSMITTED as checked below:**

- For your approval       Approved as submitted       Resubmit \_\_\_\_\_ copies for approval  
 For your use       Approved as noted       Submit \_\_\_\_\_ copies for distribution

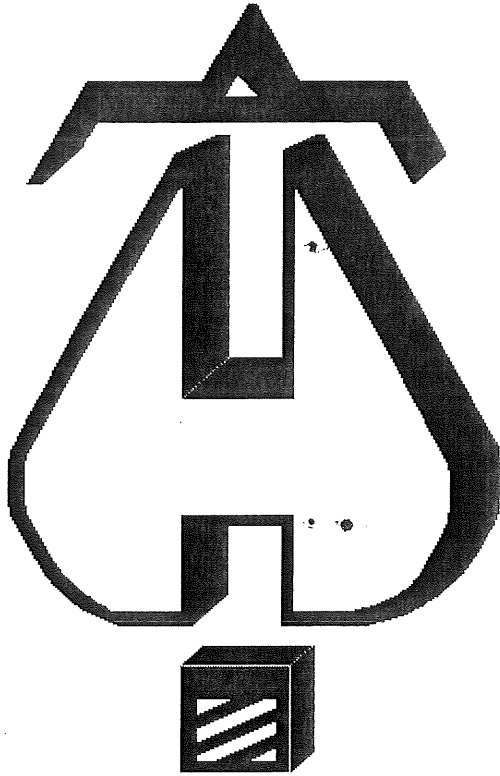
**REMARKS:**

Please return 1 sprinkler permit.

Thank You  
Ryan Ouellette

SIGNED:

*Ryan Ouellette*  
Project Designer



**... Fire Protection by Computer Design**

Sprinkler Systems Inc.  
2-4 Avon Street  
P O Box 1285  
Lewiston, Maine 04240  
207-782-0104

Job Name : 56 HAMMOND STREET  
Building : A & B (IDENTICAL BUILDINGS)  
Location : 56 HAMMOND STREET, PORTLAND, ME 04104  
System : 1 OF 1  
Contract : 12085  
Data File : 1208556HAMMONDSTREETA1.WXF

HYDRAULIC DESIGN INFORMATION SHEET

Name - 56 HAMMOND STREET Date - 11-20-2012  
Location - 56 HAMMOND STREET, PORTLAND, ME 04104  
Building - A & B (IDENTICAL BUILDINGS) System No. - 1 OF 1  
Contractor - BH MILLIKEN Contract No. - 12085  
Calculated By - SCOTT E. GARLAND Drawing No. - 1,2 OF 2  
Construction: (X) Combustible ( ) Non-Combustible Ceiling Height VARIES  
OCCUPANCY - RESIDENTIAL - 3 UNIT APARTMENT BLDG

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

E  
M Listed Flow at Start Point - 17.0 Gpm System Type  
Listed Pres. at Start Point - 12.0 Psi (X) Wet ( ) Dry  
D MAXIMUM LISTED SPACING 18 x 18 ( ) Deluge ( ) PreAction  
E Domestic Flow Added - Gpm Sprinkler or Nozzle  
S Additional Flow Added - Gpm Make RELIABLE Model F1RES49  
I Elevation at Highest Outlet - 58.542Feet Size 1/2 X 1/2 K-Factor 4.9  
G Note: Temperature Rating 155 DEG  
N DESIGN AREA #1 - 3RD FLOOR BEDROOM/STAIR/LIVING

Calculation Gpm Required 68.701 Psi Required 69.754 AT BASE OF RISER  
Summary C-Factor Used: Overhead 150 Underground 140

W Water Flow Test: Pump Data: Tank or Reservoir:  
A Date of Test - 8-30-2005 Rated Cap. Cap.  
T Time of Test - @ Psi Elev.  
E Static (Psi) - 106 Elev.  
R Residual (Psi) - 89 Other Well  
Flow (Gpm) - 2418 Proof Flow Gpm  
S Elevation - 10.7

P Location: ON ANDERSON STREET, APPROXIMATELY 625'-0" FROM THE BUILDING

P Source of Information: PORTLAND WATER DISTRICT

Y



# Fittings Used Summary

Sprinkler Systems Inc.  
56 HAMMOND STREET

Page 3  
Date 11-20-12

## 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	NFPA 13 90' Standard Elbow	1	2	2	3	4	5	6	7	8	10	12	14	18	22	27	35	40	45	50	61
Fsp	Flow Switch Potter VSR	Fitting generates a Fixed Loss Based on Flow																			
T	NFPA 13 90' Flow thru Tee	3	4	5	6	8	10	12	15	17	20	25	30	35	50	60	71	81	91	101	121

## Units Summary

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

# Pressure / Flow Summary - STANDARD

Sprinkler Systems Inc.  
56 HAMMOND STREET

Page 4  
Date 11-20-12

Node No.	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.
TYP	0.0	4.9	12.04	na	17.0	0.05	340	12.0
1	58.542	K = K @ DROP	13.08	na	17.36			
2	58.542	K = K @ DROP	13.03	na	17.32			
A	58.542		13.7	na				
3	58.542	K = K @ DROP	12.57	na	17.02			
4	58.542	K = K @ DROP	12.54	na	17.0			
C	58.542		13.1	na				
B	58.542		16.11	na				
D	58.542		20.79	na				
E	58.542		32.17	na				
F	48.792		39.57	na				
G	39.792		45.37	na				
H	30.667		54.37	na				
RT	30.667		58.06	na				
RB	26.417		63.57	na				
BR	24.417		69.75	na				
X1	30.583		71.26	na				
X2	30.583		71.27	na				
X3	10.583		79.95	na				
TEST	10.583		79.96	na				

The maximum velocity is 23.15 and it occurs in the pipe between nodes B and D

# Final Calculations - Hazen-Williams

Sprinkler Systems Inc.  
56 HAMMOND STREET

Page 5  
Date 11-20-12

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftg's Total	Pt Pe Pf	Pt Pv Pn	*****	Notes	*****
TYP to DROP	17.00 17.0	1.101 150.0 0.0504	1T	9.563 0.0 0.0	0.500 9.562 10.062	12.037 0.0 0.507		K Factor = 4.90 Vel = 5.73	
	0.0 17.00					12.544		K Factor = 4.80	
1 to A	17.36 17.36	1.101 150.0 0.0523		0.0 0.0 0.0	11.750 0.0 11.750	13.083 0.0 0.615		K Factor @ node DROP Vel = 5.85	
	0.0 17.36					13.698		K Factor = 4.69	
2 to A	17.32 17.32	1.101 150.0 0.0521	1T	9.563 0.0 0.0	3.333 9.562 12.895	13.026 0.0 0.672		K Factor @ node DROP Vel = 5.84	
	0.0 17.32					13.698		K Factor = 4.68	
A to B	34.69 34.69	1.101 150.0 0.1885	1E	3.825 0.0 0.0	9.000 3.825 12.825	13.698 0.0 2.417		Vel = 11.69	
	0.0 34.69					16.115		K Factor = 8.64	
3 to C	17.02 17.02	1.101 150.0 0.0504		0.0 0.0 0.0	10.667 0.0 10.667	12.567 0.0 0.538		K Factor @ node DROP Vel = 5.74	
	0.0 17.02					13.105		K Factor = 4.70	
4 to C	17.00 17.0	1.101 150.0 0.0503	1T	9.563 0.0 0.0	1.583 9.562 11.145	12.544 0.0 0.561		K Factor @ node DROP Vel = 5.73	
	0.0 17.00					13.105		K Factor = 4.70	
C to B	34.02 34.02	1.101 150.0 0.1817	1T	9.563 0.0 0.0	7.000 9.562 16.562	13.105 0.0 3.010		Vel = 11.46	
	0.0 34.02					16.115		K Factor = 8.47	
B to D	68.70 68.7	1.101 150.0 0.6671		0.0 0.0 0.0	7.000 0.0 7.000	16.115 0.0 4.670		Vel = 23.15	
D to E	0.0 68.7	1.101 150.0 0.6672	1T	9.563 0.0 0.0	7.500 9.562 17.062	20.785 0.0 11.384		Vel = 23.15	
E to F	0.0 68.7	1.394 150.0 0.2114	1E	4.762 0.0 0.0	10.250 4.761 15.011	32.169 4.223 3.174		Vel = 14.44	
F to G	0.0 68.7	1.394 150.0 0.2114		0.0 0.0 0.0	9.000 0.0 9.000	39.566 3.898 1.903		Vel = 14.44	

# Final Calculations - Hazen-Williams

Sprinkler Systems Inc.  
56 HAMMOND STREET

Page 6  
Date 11-20-12

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	*****	Notes	*****
G to H	0.0 68.7	1.394 150.0 0.2114	1E 1T	4.762 9.523 0.0	9.625 14.284 23.909	45.367 3.952 5.055		Vel = 14.44	
H to RT	0.0 68.7	1.610 120.0 0.1584	2E	8.0 0.0 0.0	15.250 8.000 23.250	54.374 0.0 3.683		Vel = 10.83	
RT to RB	0.0 68.7	1.610 120.0 0.1584	1Fsp	0.0 0.0 0.0	4.250 0.0 4.250	58.057 4.841 0.673		* Fixed loss = 3 Vel = 10.83	
RB to BR	0.0 68.7	1.610 120.0 0.1585		0.0 0.0 0.0	2.000 0.0 2.000	63.571 5.866 0.317		* Fixed loss = 5 Vel = 10.83	
BR to X1	0.0 68.7	1.72 150.0 0.0760	1E 1T	3.087 6.174 0.0	30.000 25.018 55.018	69.754 -2.670 4.180		Vel = 9.49	
X1 to X2	0.0 68.7	8.27 140.0 0.0	1T	55.354 0.0 0.0	150.000 55.354 205.354	71.264 0.0 0.009		Vel = 0.41	
X2 to X3	0.0 68.7	8.27 140.0 0.0	1T	55.354 0.0 0.0	250.000 55.354 305.354	71.273 8.662 0.012		Vel = 0.41	
X3 to TEST	0.0 68.7	8.27 140.0 0.0		0.0 0.0 0.0	300.000 0.0 300.000	79.947 0.0 0.013		Vel = 0.41	
	0.0 68.70					79.960		K Factor = 7.68	

# Water Supply Curve (C)

Sprinkler Systems Inc.  
56 HAMMOND STREET

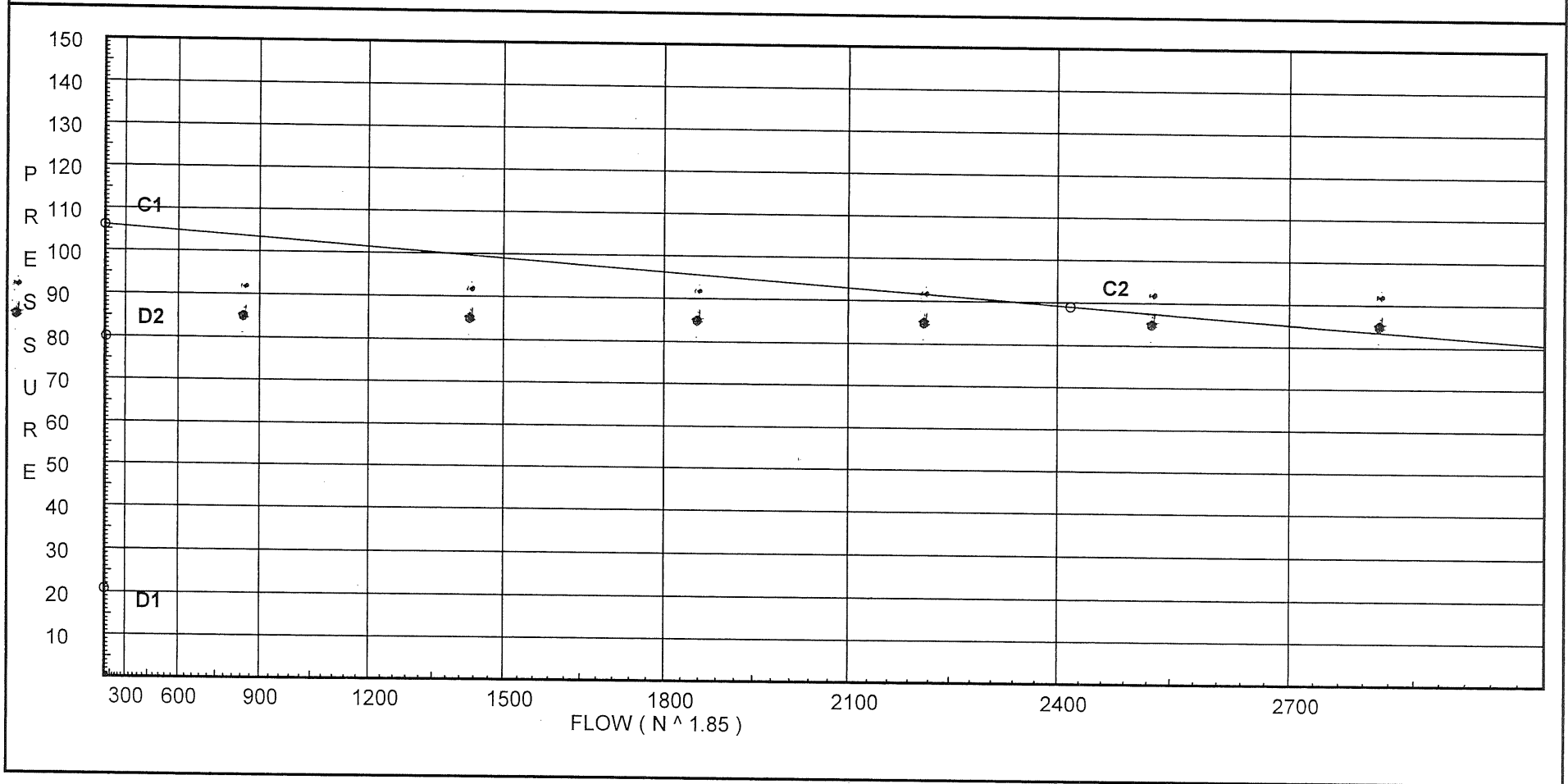
Page 7  
Date 11-20-12

### City Water Supply:

C1 - Static Pressure : 106  
C2 - Residual Pressure: 89  
C2 - Residual Flow : 2418

### Demand:

D1 - Elevation : 20.771  
D2 - System Flow : 68.7012  
D2 - System Pressure : 79.960  
Hose ( Adj City ) : \_\_\_\_\_  
Hose ( Demand ) : \_\_\_\_\_  
D3 - System Demand : 68.7012  
Safety Margin : 26.017





State of Maine  
Department of Public Safety



Fire Sprinkler System Permit

# 10372

Hammond Apts. Bldgs A&B

Located at: 56 Hammond Street  
In the Town of: Portland  
Occupancy/Use: Residential - Condominiums  
Type of System: NFPA 13R

Permission is hereby given to:

**Sprinkler Systems, Inc.**  
PO Box 1285  
Lewiston, ME 042431285  
Contractor License # 93

to begin installation according to plans submittal approved by the Office of State Fire Marshal. The submittal is filed under log # 2121539, 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 12/3/2012 for a fee paid of \$100.00

This permit will expire at midnight on Saturday, June 01, 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

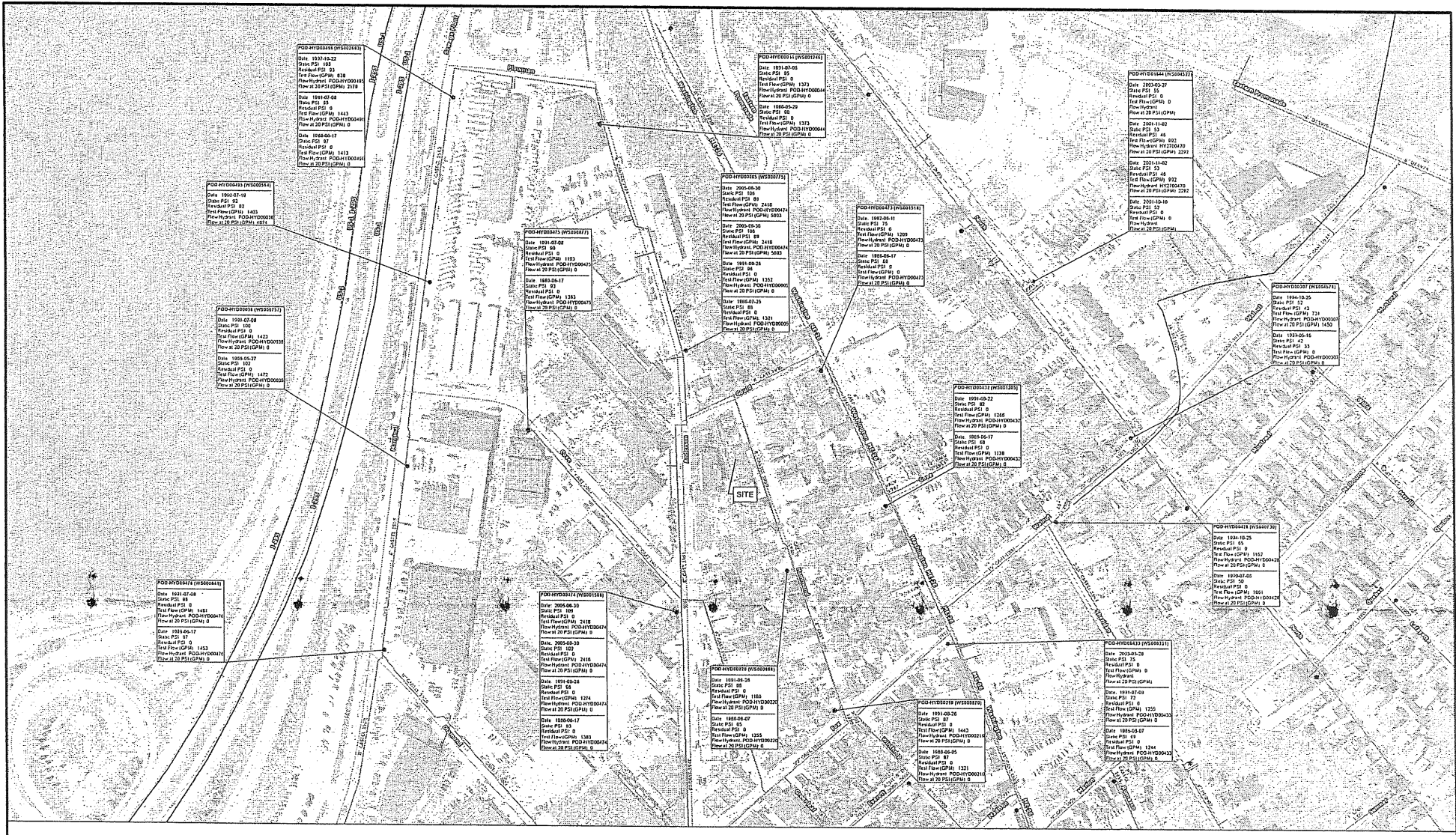
*The type of Fire Department Connection and its location is to be according to the Local Fire Department*

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: Garland Scott E.

RMS Signature: \_\_\_\_\_



0 80 160 320 480 640 Feet 1 inch = 100 feet



**PORTLAND WATER DISTRICT**  
 225 Douglass Street  
 Portland, ME 04104  
 Asset Management and Planning Dept.

Legend			
⊗ Air Valve	● Connection	○ Combined Service	● Manhole
⊗ Blow Off	● Attribute Change	○ Domestic Service	● CSO
⊗ By Pass	▲ Reducer	⊗ Fire Service	→ Gravity
⊗ Distribution	⊗ Hydrant	⊗ Private Hydrants	→ Force
⊗ Transmission	⊗ Hydrant Control	⊗ Meter Pits	

## Hydrant Flow Testing Data

56 Hammond Street  
Portland

	This map depicts flow testing data for the selected hydrants from PWD's asset management system. Note: a static pressure with a zero residual pressure and a flow hydrant that is the same as the test hydrant depicts a single-hydrant static pressure-only test.	
	Drawn By: SBM Scale: As Noted	Prepared For: Date: 1-12-12

**POD-HYD00475 (WS000877)**

Date: 1991-07-08  
Static PSI: 98  
Residual PSI: 0  
Test Flow (GPM): 1193  
Flow Hydrant: POD-HYD00475  
Flow at 20 PSI (GPM): 0

Date: 1986-06-17  
Static PSI: 93  
Residual PSI: 0  
Test Flow (GPM): 1363  
Flow Hydrant: POD-HYD00475  
Flow at 20 PSI (GPM): 0

**POD-HYD00005 (WS000775)**

Date: 2005-08-30  
Static PSI: 106  
Residual PSI: 89  
Test Flow (GPM): 2418  
Flow Hydrant: POD-HYD00474  
Flow at 20 PSI (GPM): 5803

Date: 2005-08-30  
Static PSI: 106  
Residual PSI: 89  
Test Flow (GPM): 2418  
Flow Hydrant: POD-HYD00474  
Flow at 20 PSI (GPM): 5803

Date: 1991-08-26  
Static PSI: 96  
Residual PSI: 0  
Test Flow (GPM): 1352  
Flow Hydrant: POD-HYD00005  
Flow at 20 PSI (GPM): 0

Date: 1986-07-25  
Static PSI: 88  
Residual PSI: 0  
Test Flow (GPM): 1321  
Flow Hydrant: POD-HYD00005  
Flow at 20 PSI (GPM): 0

**POD-I**

Date:  
Static  
Resid:  
Test Fl  
Flow I  
Flow a

**POD-I**

Date:  
Static  
Resid:  
Test Fl  
Flow I  
Flow a

**POD-HYD00474 (WS001506)**

Date: 2005-08-30  
Static PSI: 109  
Residual PSI: 0  
Test Flow (GPM): 2418  
Flow Hydrant: POD-HYD00474  
Flow at 20 PSI (GPM): 0

Date: 2005-08-30  
Static PSI: 109  
Residual PSI: 0  
Test Flow (GPM): 2418  
Flow Hydrant: POD-HYD00474  
Flow at 20 PSI (GPM): 0

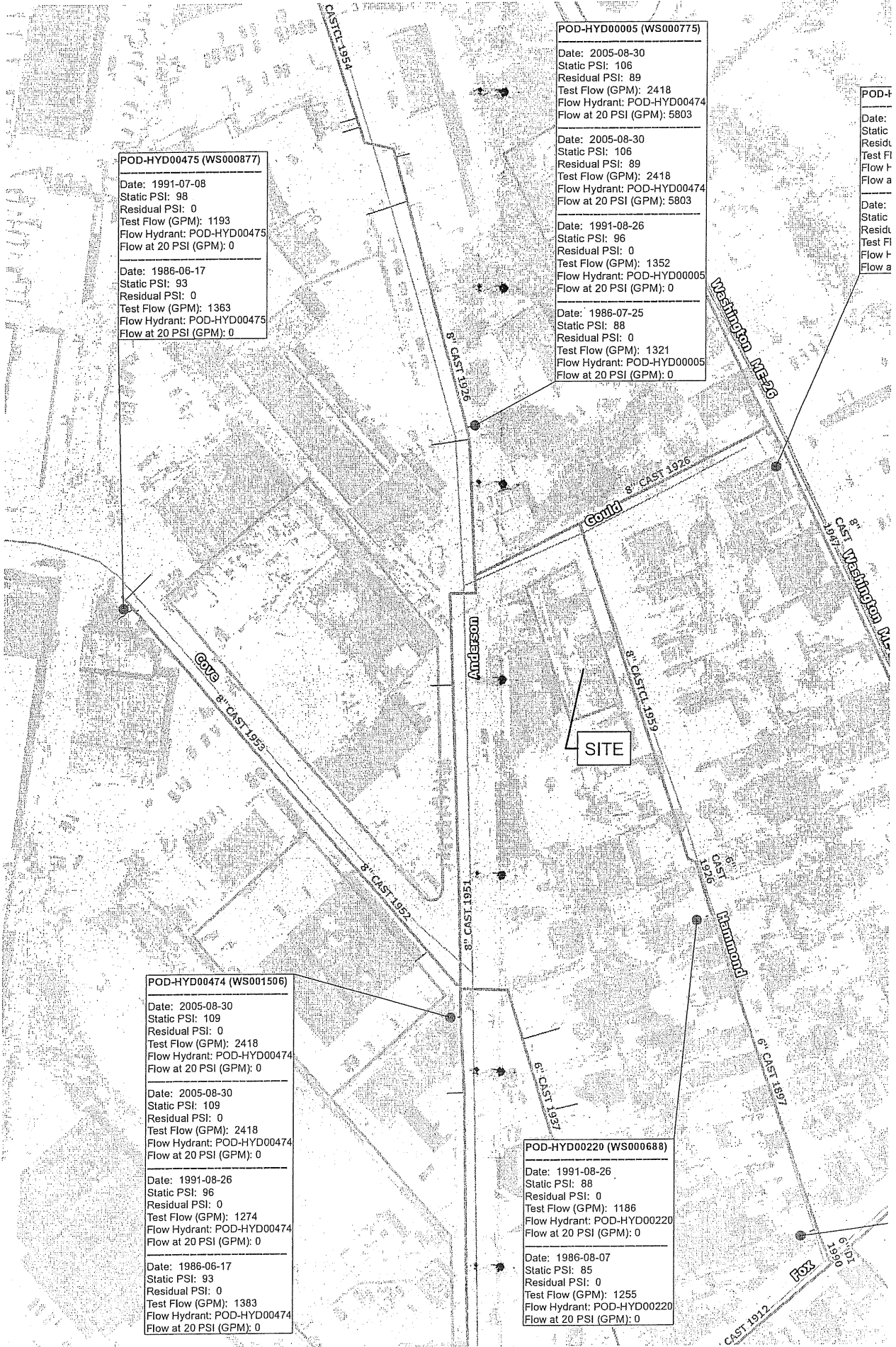
Date: 1991-08-26  
Static PSI: 96  
Residual PSI: 0  
Test Flow (GPM): 1274  
Flow Hydrant: POD-HYD00474  
Flow at 20 PSI (GPM): 0

Date: 1986-06-17  
Static PSI: 93  
Residual PSI: 0  
Test Flow (GPM): 1383  
Flow Hydrant: POD-HYD00474  
Flow at 20 PSI (GPM): 0

**POD-HYD00220 (WS000688)**

Date: 1991-08-26  
Static PSI: 88  
Residual PSI: 0  
Test Flow (GPM): 1186  
Flow Hydrant: POD-HYD00220  
Flow at 20 PSI (GPM): 0

Date: 1986-08-07  
Static PSI: 85  
Residual PSI: 0  
Test Flow (GPM): 1255  
Flow Hydrant: POD-HYD00220  
Flow at 20 PSI (GPM): 0

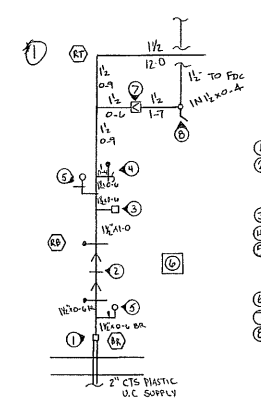
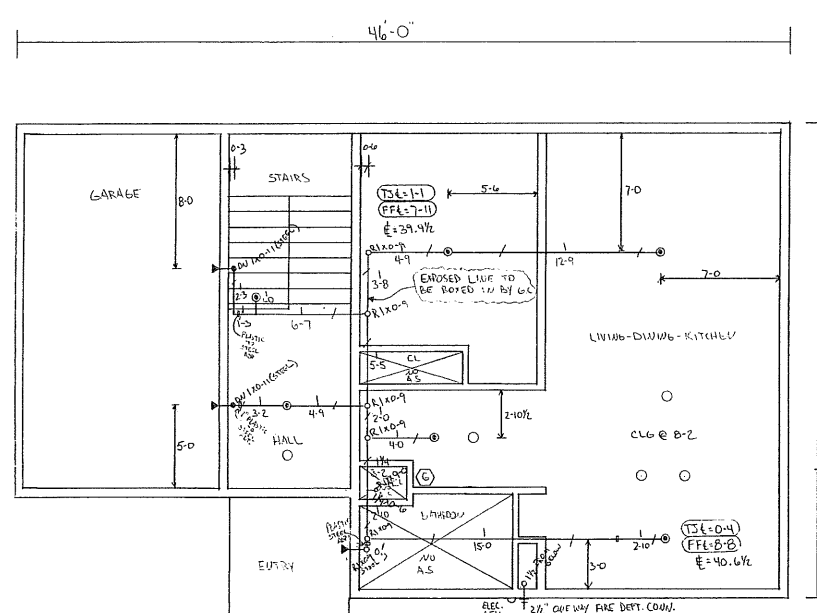
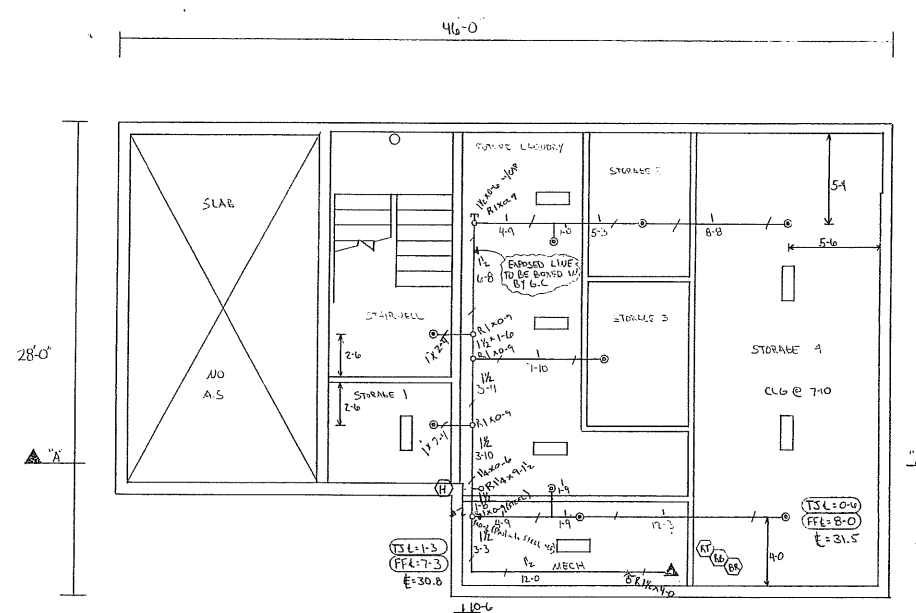




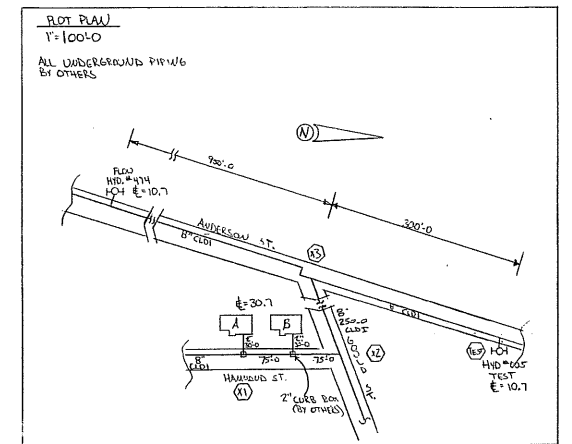
- NOTES**
- 1) OCCUPANCY: CONDOMINIUMS - RESIDENTIAL, 1B-1B
  - 2) DESIGN BASIS: HYDRAULICALLY CALCULATED UPFA 1" IRON WET SPRINKLER SYSTEM (SEE HYDRAULIC STAMP)
  - 3) ALL SPRINKLER ROOM PIPING 2" AND SMALLER TO BE BLACK STEEL SCHEDULE 40. ALL FITTINGS FOR STEEL PIPE TO BE CAST IRON SCREWED OR GROOVED. ALL OTHER PIPING TO BE CPVC BLAZEMASTER WITH PLASTIC FITTINGS.
  - 4) ALL PIPE AND HANGER DIMENSIONS ARE CENTERLINE TO CENTERLINE. CUT LENGTHS TO BE PROVIDED FOR FABRICATION AND INSTALLATION.
  - 5) T<sub>1</sub> & D<sub>1</sub> DENOTES TOP OF WOOD TRUSS TO CENTERLINE OF PIPE.
  - 6) T<sub>2</sub> & D<sub>2</sub> DENOTES TOP OF WOOD TRUSS TO CENTERLINE OF PIPE.
  - 7) FFL DENOTES FINISHED FLOOR TO CENTERLINE OF PIPE.
  - 8) COVER TO PROVIDE SUFFICIENT HEAT (MIN 40°F) TO PREVENT SPRINKLER PIPE FROM FREEZING.
  - 9) OWNER: B.H. MILLIKEN (201) 879-1577  
175 ANDERSON ST. PORTLAND, ME 04101
  - 10) ARCHITECT: KEVIN MOGAW - PORTLAND, ME

**WATER SUPPLY** 8-30-05  
 FLOW TEST DONE BY PORTLAND WATER DEPT. WATER WAS FLOWED FROM HYD #474 ON ANDERSON ST., APPROX 1300'-0" FROM THE BUILDING FROM A 8" CIRCULATING CITY MAIN. TEST HYD # OF LOCATED ON ANDERSON ST. APPROX 650'-0" FROM BUILDING.

STATIC: 106  
 RESIDUAL: 59 W/216 GPM FLOW  
 ELEVATION: 10.7



- 1) 2" FORD COPOLYESTER PLASTIC TO BRASS (1 REQ'D) (2"x1 1/2" BRASS TUBING)
- 2) 1/2" DOUBLE CHECK BACKFLOW PREVENTOR W/2-1/2" BALL VALVES SEALED OPEN
- 3) 1/2" FLOW SWITCH
- 4) 1" TEST AND DRAW VALVE WITH 1/2" TEST (PIPED OUTSIDE)
- 5) FROST 1/2"x1/4" RED. BUSH
- 6) 1/2" WATER PRESSURE GAUGE (2-REQ'D)
- 7) 1/2" HEAD SPRINKLER CABINET
- 8) 1/2" SCR. SLING CHECK VALVE
- 9) 1/2" BALL DRIP ASSEMBLY

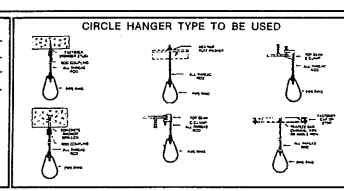


**HYDRAULIC DESIGN CRITERIA**

Density: .05 GPM / 5.0 FT.  
 Remote Area: 1116 S.F.  
 K Factor: 4.9 Head Size: 1/2"

Hose Allowance: \_\_\_\_\_  
 Water Supply: 8-30-05  
 Static: 106 PSI  
 Residual: 59 PSI  
 Water Flowing: 211 GPM  
 Size of Supply: 8"

1. Type of Hazard: RESIDENTIAL 2. Deflector Distance: 4'-10 1/2"
3. Pipe Type Used: 1" IRON WET SPRINKLER
4. Sprinkler Area: 1116 S.F.
5. Type of Construction: WOOD FRAME - COMBUSTIBLE
6. Maximum Spacing Allowed: 18'-0"
7. PIPE SIZING METHOD: PIPE SCHEDULE  HYDRAULICALLY CALCULATED
8. ALL HANGERS AND LOCATIONS TO BE IN ACCORDANCE WITH NFPA PAMPHLET NO. 13
9. HIGH DEGREE TEMPERATURE SPRINKLER HEADS TO BE INSTALLED IN ACCORDANCE WITH NFPA PAMPHLET NO. 13



**HANGERS**

Symbol	Description
(Symbol)	3/8" GALV. SWAGELOK
(Symbol)	WOOD 6x8x10
(Symbol)	WOOD 6x6x10

**ABBREVIATIONS**

B Bottom of Beam  
 D Bottom of Deck  
 P Bottom of Pipe  
 M.V. Main Valve  
 N.C. Nipple and Cap  
 M.C. Hot In Contact  
 H.B. Hot In Contact  
 O.R. Open Bar Joint  
 R.V. Relief Valve  
 S.P. Standpipe  
 T.O.B. Top of Beam  
 T.O.P. Top of Pipe  
 T.O.E. Top of Eave  
 U.C.H. Union Offset via Nipple  
 C.C. Centerline  
 M.A. Mechanical  
 O.T.A. Open To Above

**CONTRACT RESPONSIBILITIES**

ITEM	FFC	OTHERS
STREET CORN	<input checked="" type="checkbox"/>	<input type="checkbox"/>
LOGMANN	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EXCAVATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>
FLUSHING	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PAINTING	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TAUPER SWITCHES	<input checked="" type="checkbox"/>	<input type="checkbox"/>
FLOW SWITCHES	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CUT & PATCHING	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**SPRINKLER HEAD LEGEND**

SYMBOL	MAKE	MODEL	FINISH	TYPE	TEMP.	N.P.T.	ORIFICE	K-FACTOR	TOTAL
(Symbol)	RELIABLE	FIRE-99	WHITE	ES	155°	1/2"	1/2"	4.9/BSUL	31
(Symbol)	RELIABLE	F30R	WHITE	ES	155°	1/2"	1/2"	5.0/BSUL	3
									<b>TOTAL: 34</b>

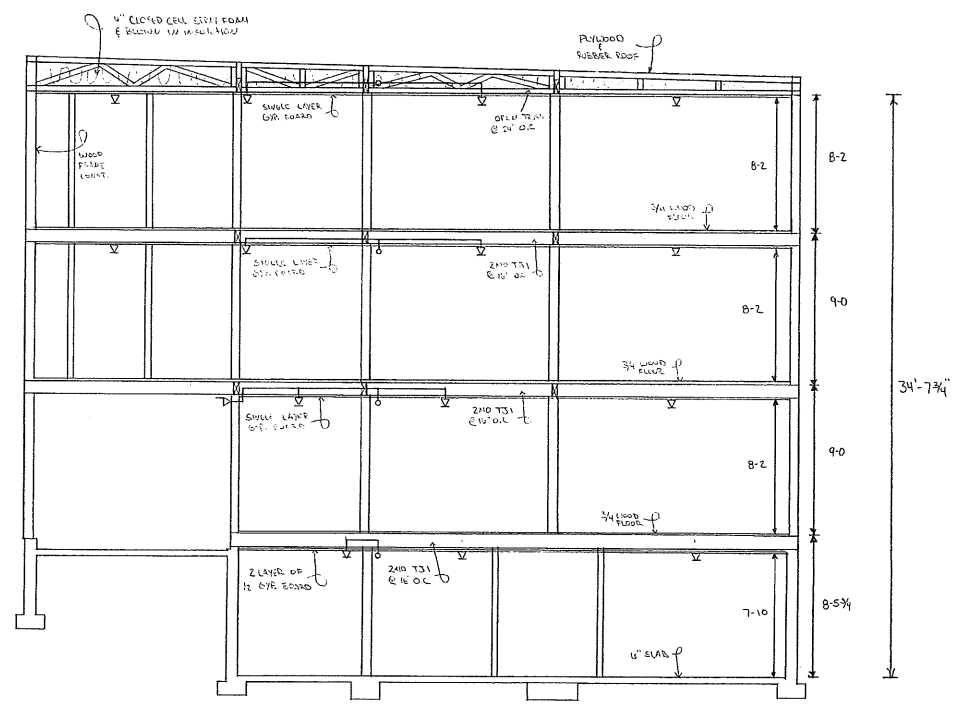
**SUBMITTALS**

DATE SENT	DATE RECEIVED
ISB	<input type="checkbox"/>
FM	<input type="checkbox"/>
TRI	<input type="checkbox"/>
LM	<input type="checkbox"/>
LA	<input type="checkbox"/>
STATE FIRE	<input checked="" type="checkbox"/>
LOCAL FIRE	<input checked="" type="checkbox"/>
LOCAL WATER	<input type="checkbox"/>
CONTRACTOR	<input type="checkbox"/>

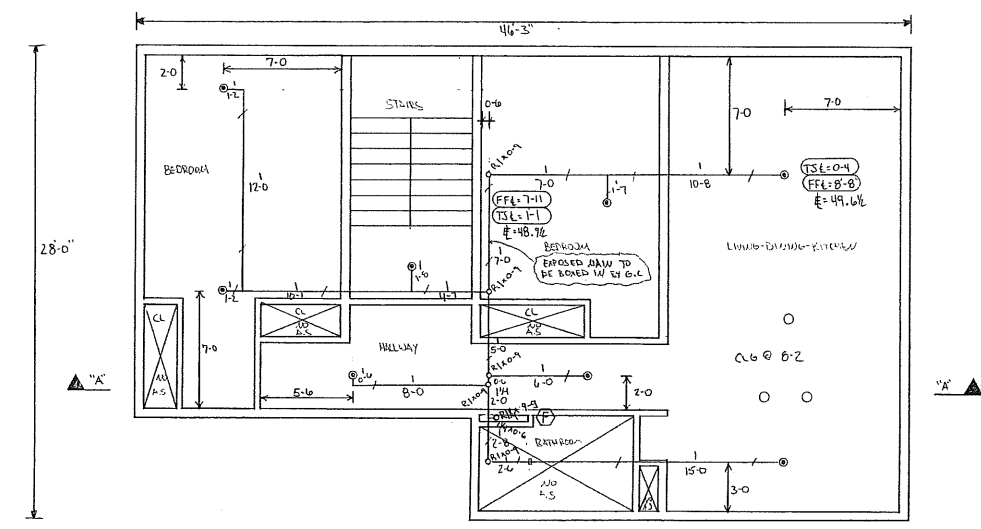
**SPRINKLER SYSTEMS INC.**  
 P.O. BOX 1285  
 LEWISTON MAINE 04240

**HAMMOND APTS. BLDG. A & B**  
 56 HAMMOND STREET  
 PORTLAND, ME 04104

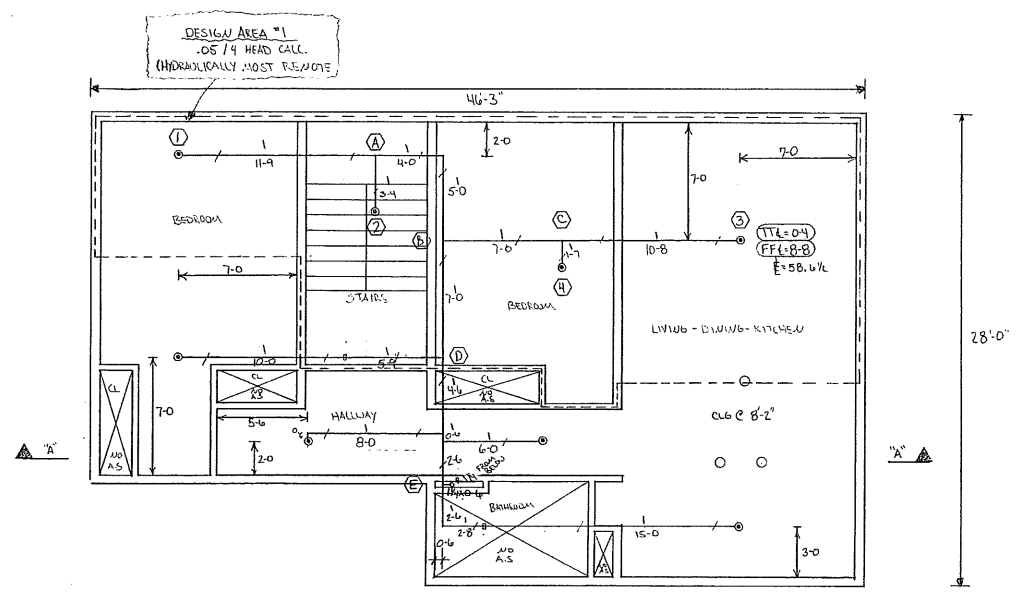
SCALE: 1/4" = 1'-0"  
 DRAWN BY: RDO  
 CHECKED BY: SEG  
 DATE: 11-20-12  
 TOTAL SPKRS ON JOB: BLDG A-34 BLDG B-34  
 SHEET # 1 OF 2  
 JOB # 12085



BUILDING CROSS SECTION - "A"  
SCALE: 1/4" = 1'-0"



BUILDING "A"  
SECOND FLOOR - 1087 S.F.  
SCALE: 1/4" = 1'-0"  
E = 49.10%



BUILDING "A"  
THIRD FLOOR - 1087 S.F.  
SCALE: 1/4" = 1'-0"  
E = 49.10%

DESIGN AREA #1  
 THIS SYSTEM IS PROTECTED BY A 100% TESTED AND APPROVED CENTRAL SMOKE SYSTEM  
 LOCATION: BLDG A - 3RD FLOOR  
 NO. OF BRANCHES: 4 BRANCHES  
 BRANCHES: 1. 0.05 GPM @ 1.5' 2. 0.05 GPM @ 1.5' 3. 0.05 GPM @ 1.5' 4. 0.05 GPM @ 1.5'  
 SYSTEM DEMAND @ BASE OF RISE:  
 1. FLOOR FLOW RATE: 0.20 GPM  
 2. MINIMUM FLOW RATE: 0.20 GPM  
 (HYDRAULICALLY MOST REMOTE)

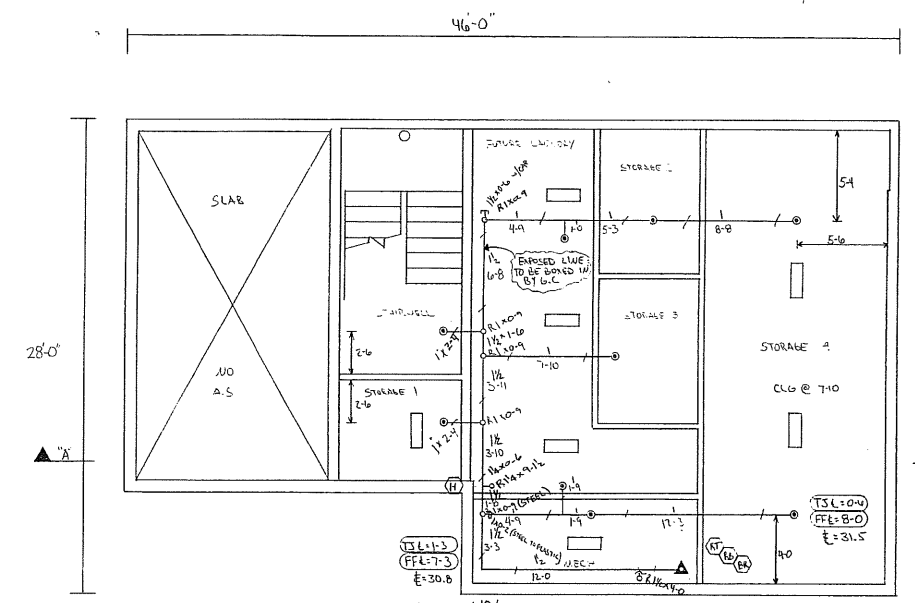
16 1/2" x 1/2" RESIDENTIAL RECESSED WHITE PENDANT BELLOWS "FIRESEAL" R.S.L. S.P.A. 3510  
 16 TOTAL SPRINKLERS DRAWING #2

<p>LICENSE # 093 R.M.S. # 278</p> <p>SPRINKLER SYSTEMS INC. P.O. BOX 1285 LEWISTON MAINE 04240</p>	HAMMOND APTS. BLDG. A & B 56 HAMMOND STREET PORTLAND, ME 04104		SCALE: 1/4" = 1'-0" DRAWN BY: RDO CHECKED BY: SEG
	CONTRACT WITH: B.H. MILLIKEN		DATE: 11-20-12 TOTAL SPKRS ON JOB: BLDG A = 34 BLDG B = 34 SHEET # 2 OF 2 JOB # 12085
SYSTEM TYPE: WET [ ] DRY [ ] DELUGE [ ] PREACTION [ ] ME. LIFE [ ]	NO. [ ] DATE [ ] DESCRIPTION [ ]	REVISIONS:	

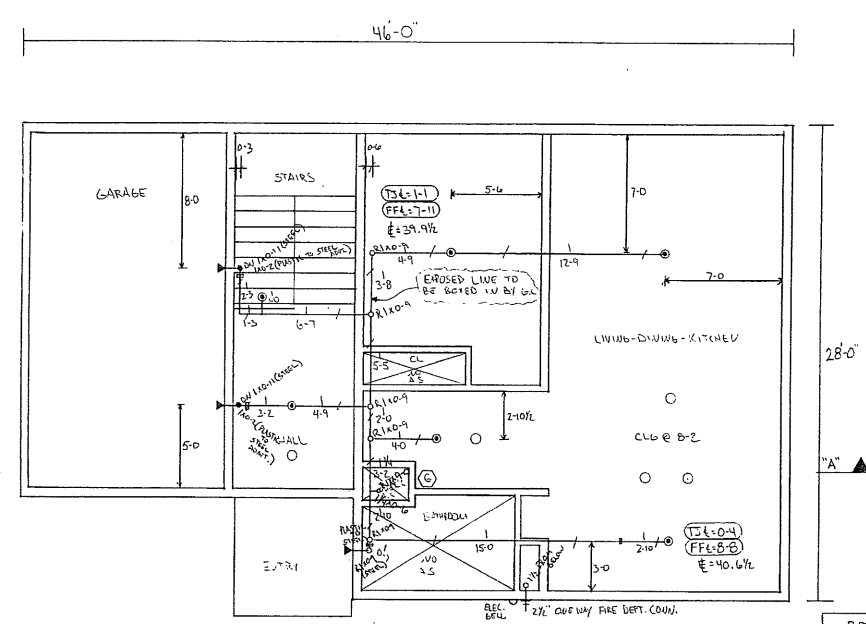
- NOTES**
- OCCUPANCY: CONDOMINIUMS - RESIDENTIAL, 18x18
  - DESIGN BASIS: HYDRAULICALLY CALCULATED (UPA) 13K WET SPRINKLER SYSTEM (SEE HYDRAULIC STAMP)
  - ALL SPRINKLER ROOM PIPING 2" AND SMALLER TO BE BLACK STEEL SCHEDULE 40. ALL FITTINGS FOR STEEL PIPE TO BE CAST IRON SCREWED OR GROOVED. ALL OTHER PIPING TO BE CPVC BLAZEMASTER WITH PLASTIC FITTINGS.
  - ALL PIPE AND HANGER DIMENSIONS ARE CENTERLINE TO CENTERLINE. CUT LENGTHS TO BE PROVIDED FOR FABRICATION AND INSTALLATION.
  - TT & DENOTES TOP OF WOOD TRUSS TO CENTERLINE OF PIPE.
  - TTSL DENOTES TOP OF WOOD TRUSS JOIST TO CENTERLINE OF PIPE.
  - FFCL DENOTES FINISHED FLOOR TO CENTERLINE OF PIPE.
  - OWNER TO PROVIDE SUFFICIENT HEAT (MIN 40°F) TO PREVENT SPRINKLER PIPING FROM FREEZING.
  - OWNER: B.H. MILLIKEN (207) 879-1877  
175 ANDERSON ST. PORTLAND, ME 04101
  - ARCHITECT: KEVIN MODIUM - PORTLAND, ME

**WATER SUPPLY** 8-30-05  
 FLOW TEST DONE BY PORTLAND WATER DISTRICT.  
 WATER WAS FLOWED FROM HYD #174 ON ANDERSON ST., APPROX 1300'-0" FROM THE BUILDING FROM A 8" CIRCULATING CITY MAIN. TEST HYD #05 LOCATED ON ANDERSON ST. APPROX 450'-0" FROM BUILDING.

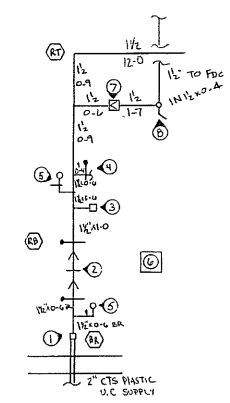
STATIC: 106  
 RESIDUAL: 89 w/246 GPM FLOW  
 ELEVATION: 10.7



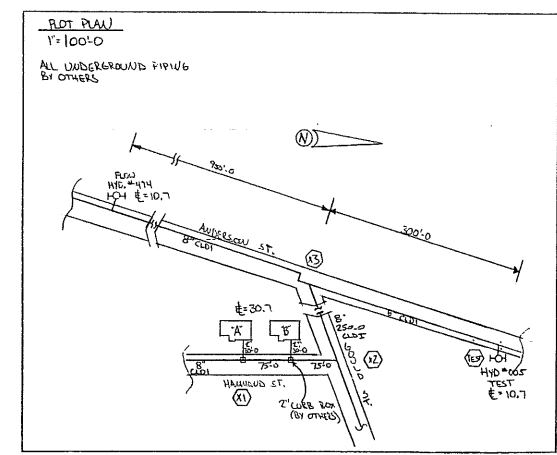
BUILDING -B5  
 BASEMENT - 1116 S.F.  
 SCALE - 1/4" = 1'-0"  
 E = 23.5'



BUILDING -B6  
 FIRST FLOOR - 1116 S.F.  
 SCALE - 1/4" = 1'-0"  
 E = 31.10'



- WET RISER DETAIL**  
 SCALE = 1/2" = 1'-0"
- 2" FORD COUPLING - PLASTIC TO BRASS, 1 REQ'D; (2" x 1 1/2" BRASS FURNISHED)
  - 1 1/2" DOUBLE CHECK BACKFLOW PREVENTOR w/ 2-1 1/2" BALL VALVES SEALED OPEN - APOLLO DC4
  - 1 1/2" FLOW SWITCH
  - 1" TEST AND DRAIN VALVE WITH 1/2" TEST (PIPED OUTSIDE)
  - FROM 1 1/2" x 1/2" RED. BUSCH N x O-2 NIP TO N x 3 WAY BALL VALVE
  - 1/4" WATER PRESSURE GAUGE (2" REQ'D)
  - 6" HEAD SPRINKLER CABINET
  - 1 1/2" COR. SWING CHECK VALVE
  - 1 1/2" BALL DRIP ASSEMBLY



0 1 2 5 10

**HYDRAULIC DESIGN CRITERIA**

Density .05 GPM / SQ FT.  
 Remote Area 4 HEAD CALC.  
 K Factor .43 Head Size 1 1/2"  
 Hose Allowance \_\_\_\_\_  
 Water Supply 8-30-05  
 Static 106 PSI  
 Residual 89 PSI  
 Water Flowing 246 GPM  
 Size of Supply 8"

- Type of Hazard RESIDENTIAL 2. Deflector Distance 4" TO 14"
- Pipe Type Used BLACK STEEL 4. Sprinkler Area 4406 S.F.
- Type of Construction WOOD FRAME - COMBUSTIBLE
- Maximum Spacing Allowed 18 x 18
7. PIPE SIZING METHOD: PIPE SCHEDULE  HYDRAULICALLY CALCULATED
8. ALL HANGERS AND LOCATIONS TO BE IN ACCORDANCE WITH N.F.P.A. PAMPHLET NO. 13
9. HIGH DEGREE TEMPERATURE SPRINKLER HEADS TO BE INSTALLED IN ACCORDANCE WITH N.F.P.A. PAMPHLET NO. 13

**CIRCLE HANGER TYPE TO BE USED**

**HANGERS**

Symbol	Description
3/8 SUBBY SUPERSECU	
WOOD SUST 10	
WOOD SUST 20	

**ABBREVIATIONS**

B	Bottom of Beam
D	Bottom of Deck
P	Bottom of Pipe
MS	Mean Sea Level
N&G	Nipple and Cap
NSC	Noisy Contact
NTS	Not to Scale
OSJ	Open End Joints
PRV	Pressure Red Valve
RM	Room Marked
ST	Standpipe
TOP	Top of Beam
TSJ	Top of Joist
TSI	Top of Sill
UN	Unless Otherwise Noted
UN	Unless Otherwise Noted
NAS	No Automatic Sprinklers
OTA	Open To Above

**CONTRACT RESPONSIBILITIES**

ITEM	FFC	OTHER
STREET CORN		
LOG MAIN		
EXCAVATION		
PLUMBING		
TRACING		
PAINTING		
TAMPER SWITCHES		
FLOW SWITCHES		
CUT PATCHING		

**SPRINKLER HEAD LEGEND**

SYMBOL	MAKE	MODEL	FINISH	TYPE	TEMP.	N.P.T.	ORIFICE	K-FACTOR	TOTAL
⊖	RELIABLE	F125-49	WHITE	ESD	155°	7/8"	7/8"	4.9 / 35.1	31
⊕	RELIABLE	F3GR	WHITE	ESD	155°	7/8"	7/8"	5.0 / 37.3	3
									TOTAL 34

**SUBMITTALS**

SENT TO	DATE SENT	DATE RECEIVED
ISO		
FIM		
LM		
IRI		
LA		
STATE FIRE		
LOCAL FIRE		
LOCAL WATER		
COURT REPORT		

LICENSE # 093  
 R.M.S. # 278

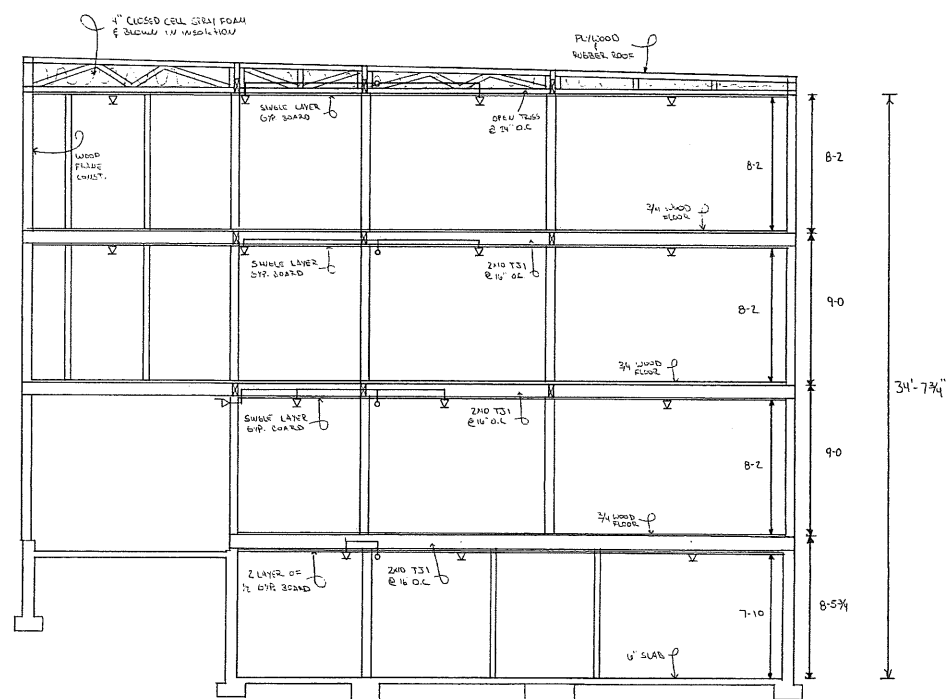
P.O. BOX 1285  
 LEWISTON MAINE  
 04240

HAMMOND APTS. BLDG. A & B  
 56 HAMMOND STREET  
 PORTLAND, ME 04104

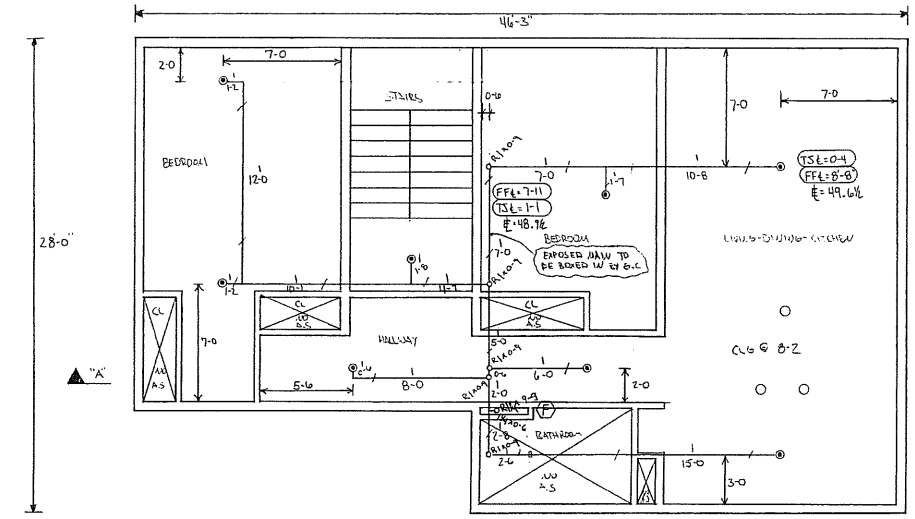
CONTRACT WITH B.H. MILLIKEN

SYSTEM TYPE	NO.	DATE	REVISIONS DESCRIPTION
WET			
DRY			
DELUGE			
PREACTION			
ME LIFE			

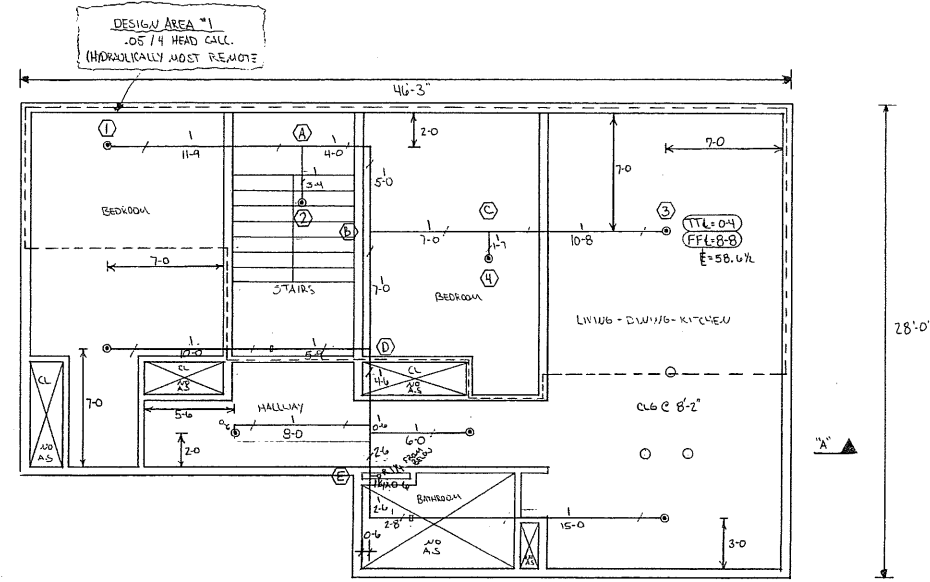
TOTAL SPRINKERS ON JOB  
 BLDG A = 34  
 BLDG B = 34  
 SHEET # 3 OF 4  
 JOB # 12085



BUILDING CROSS SECTION - "A"  
SCALE 1/4" = 1'-0"



BUILDING "B"  
SECOND FLOOR - 1087 S.F.  
SCALE 1/4" = 1'-0"  
E = 40.10%



BUILDING "B"  
THIRD FLOOR - 1087 S.F.  
SCALE 1/4" = 1'-0"  
E = 47.10%

DESIGN AREA #1  
 THIS DRAWING IS TO BE USED FOR THE DESIGN OF A RESIDENTIAL RECESSED WHITE BEAMS RELIABLE SPRINKLER SYSTEM FOR THE THIRD FLOOR OF BUILDING "B" OF HAMMOND APARTMENTS.  
 NO. OF BEAMS: 4 HEADS  
 DESIGN: 1. Density .05 SPINETS  
 2. Design area 1.05 HEAD CALL  
 SYSTEM DETAIL: @ BASE OF RISER  
 1. Riser Flow Rate 1.8, 70.1 GPM  
 2. Riser Pressure 169.75 PSI  
 @ DESIGN = 24.0L (HYDRAULICALLY MOST REMOTE)

1/2" RESIDENTIAL RECESSED WHITE BEAMS RELIABLE SPRINKLER SYSTEM  
 16 TOTAL SPRINKLERS DRAWING #2

<p>LICENSE # 093 R.M.S. # 278</p> <p>SPRINKLER SYSTEMS INC.</p> <p>P.O. BOX 1285 LEWISTON MAINE 04240</p>	<p>HAMMOND APTS. BLDG. A &amp; B 56 HAMMOND STREET PORTLAND, ME 04104</p> <p>CONTRACT WITH E.H. MILLIKEN</p>	<p>SCALE 1/4" = 1'-0"</p> <p>DRAWN BY RDO</p> <p>CHECKED BY SEG</p> <p>DATE 11-20-12</p> <p>TOTAL SPRINKERS ON JOB BLDG "A" - 34 BLDG "B" - 34 SHEET # 4 OF 4 JOB # 12085</p>
	<p>PERMIT #</p> <p>SYSTEM TYPE</p> <p>WET <input type="checkbox"/> NO. (DATE) DESCRIPTION</p> <p>DRY <input type="checkbox"/></p> <p>DELUGE <input type="checkbox"/></p> <p>PREACTION <input type="checkbox"/></p> <p>ME. LIFE <input type="checkbox"/></p>	<p>REVISIONS</p>