

SCANNED

PERMIT ISSUED

JAN 18 2011

City of Portland

Form # P 04

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING INSPECTION

PERMIT

Permit Number: 101502

Please Read Application And Notes, If Any, Attached

This is to certify that 501 DANFORTH LLC / Eastern Fire Protection Co., Inc.
has permission to install a water-based fire suppression system
AT 501 DANFORTH ST CBL 070 C002001

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 buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and written permission procured before this building or part thereof is lathed or otherwise closed-in. 24 HOUR NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS

Fire Dept. CAPT. R. [Signature]
Health Dept. _____
Appeal Board _____
Other _____
Department Name _____

[Signature] H18-11
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD



CITY OF PORTLAND, MAINE

Department of Building Inspections

Original Receipt

_____ 12-3 20 10 _____

Received from _____

Location of Work _____ 301 ... _____

Cost of Construction \$ _____ Building Fee: _____

Permit Fee \$ _____ Site Fee: _____

Certificate of Occupancy Fee: _____

Total: _____ 170 _____

Building (IL) _____ Plumbing (I5) _____ Electrical (I2) _____ Site Plan (U2) _____

Other _____

CBL: _____ 170 _____

Check #: _____ 123456789 _____ Total Collected \$ _____ 170 _____

**No work is to be started until permit issued.
Please keep original receipt for your records.**

Taken by: _____ [Signature] _____

WHITE - Applicant's Copy

YELLOW - Office Copy

PINK - Permit Copy

City of Portland, Maine - Building or Use Permit Application

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

Permit No: 10-1502	Issue Date:	CBL: 070 C002001
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Location of Construction: 501 DANFORTH ST (505)	Owner Name: 501 DANFORTH LLC	Owner Address: 53 LISBON ST STE 2400	Phone:
Business Name:	Contractor Name: Eastern Fire Protection Co., Inc.	Contractor Address: 170 Kittyhawk Ave., PO Box 1390 Au	Phone: 2077841507
Lessee/Buyer's Name	Phone:	Permit Type: Fire Suppression System	Zone: B-2b

Past Use: Commercial - <i>connected to permit #10-0664</i> <i>new 60' x 100' building</i>	Proposed Use: Commercial - install a water-based fire suppression system	Permit Fee: \$170.00	Cost of Work: \$15,000.00	CEO District: 2
		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied <i>*See Conditions</i>	INSPECTION: Use Group: <i>S-1</i> Type: <i>Sprinkler</i> <i>NFPD</i> <i>ML</i>	

Proposed Project Description: install a water-based fire suppression system	Signature: <i>(KG)</i>	Signature: <i>(ML)</i>
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)		
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied		
Signature: _____ Date: _____		

Permit Taken By: Idobson	Date Applied For: 12/08/2010	Zoning Approval
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<ol style="list-style-type: none"> This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. Building permits do not include plumbing, septic or electrical work. 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.. 	Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date: <i>12/16/10</i> <i>AKU</i>	Zoning Appeal <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: _____	Historic Preservation <input checked="" type="checkbox"/> <i>YES</i> <input 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: <i>requires a separate review approval thru historic preservation</i>
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City of Portland

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

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 Inspection 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 with construction.**

 X **Final inspection required at completion of work.**

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OR 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: 10-1502	Date Applied For: 12/08/2010	CBL: 070 C002001
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Location of Construction: 501 DANFORTH ST	Owner Name: 501 DANFORTH LLC	Owner Address: 53 LISBON ST STE 2400	Phone:
Business Name:	Contractor Name: Eastern Fire Protection Co., Inc.	Contractor Address: 170 Kittyhawk Ave., PO Box 1390 Au	Phone: (207) 784-1507
Lessee/Buyer's Name	Phone:	Permit Type: Fire Suppression System	

Proposed Use: Commercial - install a water-based fire suppression system	Proposed Project Description: install a water-based fire suppression system
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Dept: Zoning **Status:** Approved with Conditions **Reviewer:** Ann Machado **Approval Date:** 12/08/2010
Note: **Ok to Issue:**

- 1) ANY exterior work requires a separate review and approval thru Historic Preservation. This property is located within an Historic District.
- 2) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.

Dept: Building **Status:** Approved with Conditions **Reviewer:** Nicholas Adams **Approval Date:** 01/18/2011
Note: **Ok to Issue:**

- 1) Permit approved based on the plans submitted and reviewed w/owner/contractor, with additional information as agreed on and as noted on plans.
- 2) Separate permits are required for any electrical, plumbing, fire alarm HVAC systems, heating appliances, including pellet/wood stoves, commercial kitchen exhaust hood systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.
- 3) ANY exterior work requires separate review and approval thru Historic Preservation
- 4) Sprinkler systems to be designed and installed per IBC 2003 standards Sec. 903.3.1

Dept: Fire **Status:** Approved with Conditions **Reviewer:** Capt Keith Gautreau **Approval Date:** 01/11/2011
Note: **Ok to Issue:**

- 1) 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.
- 2) The Fire alarm and Sprinkler systems shall be reviewed by a licensed contractor[s] for code compliance. Compliance letters are required.
- 3) Buildings with a Fire Alarm or sprinkler system require a Knox Box to be installed per city ordinance
- 4) The sprinkler system shall be installed in accordance with NFPA 13.
- 5) Application requires State Fire Marshal approval.
- 6) System acceptance and commissioning must be co-ordinated with alarm and suppression system contractors and the Fire Department. Call 874-8703 to schedule.
- 7) The Fire Department will require knox locking caps on all Fire Department Connections on the exterior of the building.
- 8) Fire department connection type and location shall be approved in writing by fire prevention bureau.

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Location of Construction: 501 DANFORTH ST	Owner Name: 501 DANFORTH LLC	Owner Address: 53 LISBON ST STE 2400	Phone:
Business Name:	Contractor Name: Eastern Fire Protection Co., Inc.	Contractor Address: 170 Kittyhawk Ave., PO Box 1390 Au	Phone (207) 784-1507
Lessee/Buyer's Name	Phone:	Permit Type: Fire Suppression System	

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City of Portland



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: 501 Danforth Street CBL: 47. A. 13

Exact location: (within structure) _____

Type of occupancy(s) (NFPA & ICC): Ordinary Hazard Group I

Building owner: _____

Managing Supervisor (RMS): William Flynt License No: 368

Supervisor phone: 207-784-1507 E-mail: flyntwa@teameastern.com

Installing contractor: Eastern Fire Protection License No: 101

Contractor phone: 207-784-1507 E-mail: dussaultgr@teameastern.com

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: NFPA13 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: \$15,000
PERMIT FEE: \$170.00
(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)

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: [Signature] Date: 12-2-10



EASTERN FIRE PROTECTION

P.O. Box 1390
Kittyhawk Ave.
Auburn, ME 04210

PH # (207) 784-1507
FAX # (207) 782-0566

LETTER OF TRANSMITTAL

DATE	12-2-10	JOB NO.	AU-4699-10
ATTENTION	BOBSON LANNIE		
RE:	DOBSON		
501 DANFORTH ST.			

TO CITY OF PORTLAND
389 CONGRESS ST., RM 315
PORTLAND, ME 04101

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:
 Shop drawings Descriptive data Hydraulic calculations
 Copy of letter Literature

QUANTITY	DRAWING NO.	DATE	DESCRIPTION	STATUS
1	1 OF 1	12-1	FIRE SPRINKLER PLAN 30x42	C
1	1 OF 1	12-1	" " 11x17	C
1			HYDRAULIC CALCULATIONS	C
1			PERMIT APPLICATION	E
1			CHECK FOR \$170.00	E

Status code

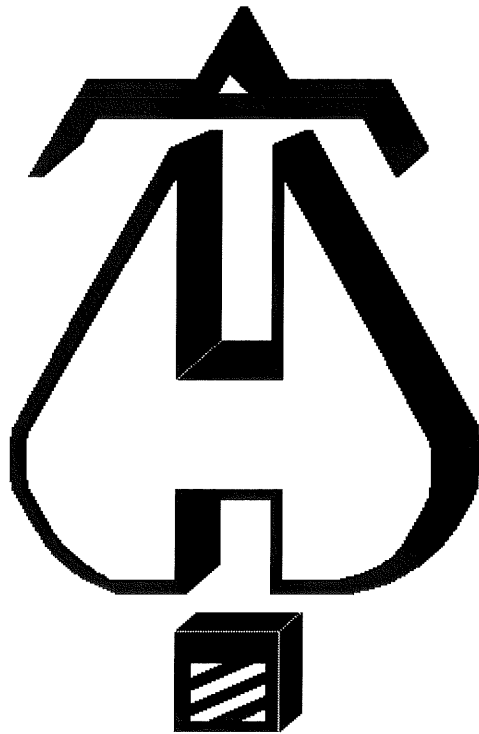
- A. Approved
- B. Approved as noted
- C. Submitted for approval
- D. Corrected & resubmitted
- E. For your files
- F. Refer to remarks

Please return 1 ~~copies each~~ indicating your approval and/or comments.

REMARKS PERMIT

COPY TO _____

SIGNED [Signature]



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

EASTERN FIRE PROTECTION
170 KITTY HAWK AVE
AUBURN, ME 04210
207-784-1507

Job Name : AU-4649-10 501 DANFORTH ST PORTLAND ME
Drawing : 1 OF 1
Location : PORTLAND, ME
Remote Area : AREA#1
Contract : AU-4649-10
Data File : AU-4649-10 501 DANFORTH ST PORTLAND ME AREA 1.wxf

HYDRAULIC CALCULATIONS
for

Project name: 501 DANFORTH ST
Location: PORTLAND, ME
Drawing no: 1 OF 1
Date: 12-1-10

Design

Remote area number: AREA#1
Remote area location: VEHICLE STORAGE
Occupancy classification: ORDINARY GROUP I
Density: .15 - Gpm/SqFt
Area of application: 2043 - SqFt
Coverage per sprinkler: 130 - SqFt
Type of sprinklers calculated: TYCO TY-B UPRIGHT K5.6
No. of sprinklers calculated: 17
In-rack demand: - GPM
Hose streams: 250 - GPM
Total water required (including hose streams): 670.62 - GPM @ 53.25 - Psi
Type of system:
Volume of dry or preaction system: 118 - Gal

Water supply information

Date: 8-6-2007
Location: SEE PLOT PLAN
Source: PORTLAND WATER DISTRICT

Name of contractor: EASTERN FIRE PROTECTION
Address: 170 KITTY HAWK AVE / / AUBURN, ME 04210
Phone number: 207-784-1507
Name of designer: GRD
Authority having jurisdiction: STATE FIRE MARSHAL
Notes: (Include peaking information or gridded systems here.)

Water Supply Curve (C)

EASTERN FIRE PROTECTION
AU-4649-10 501 DANFORTH ST PORTLAND ME

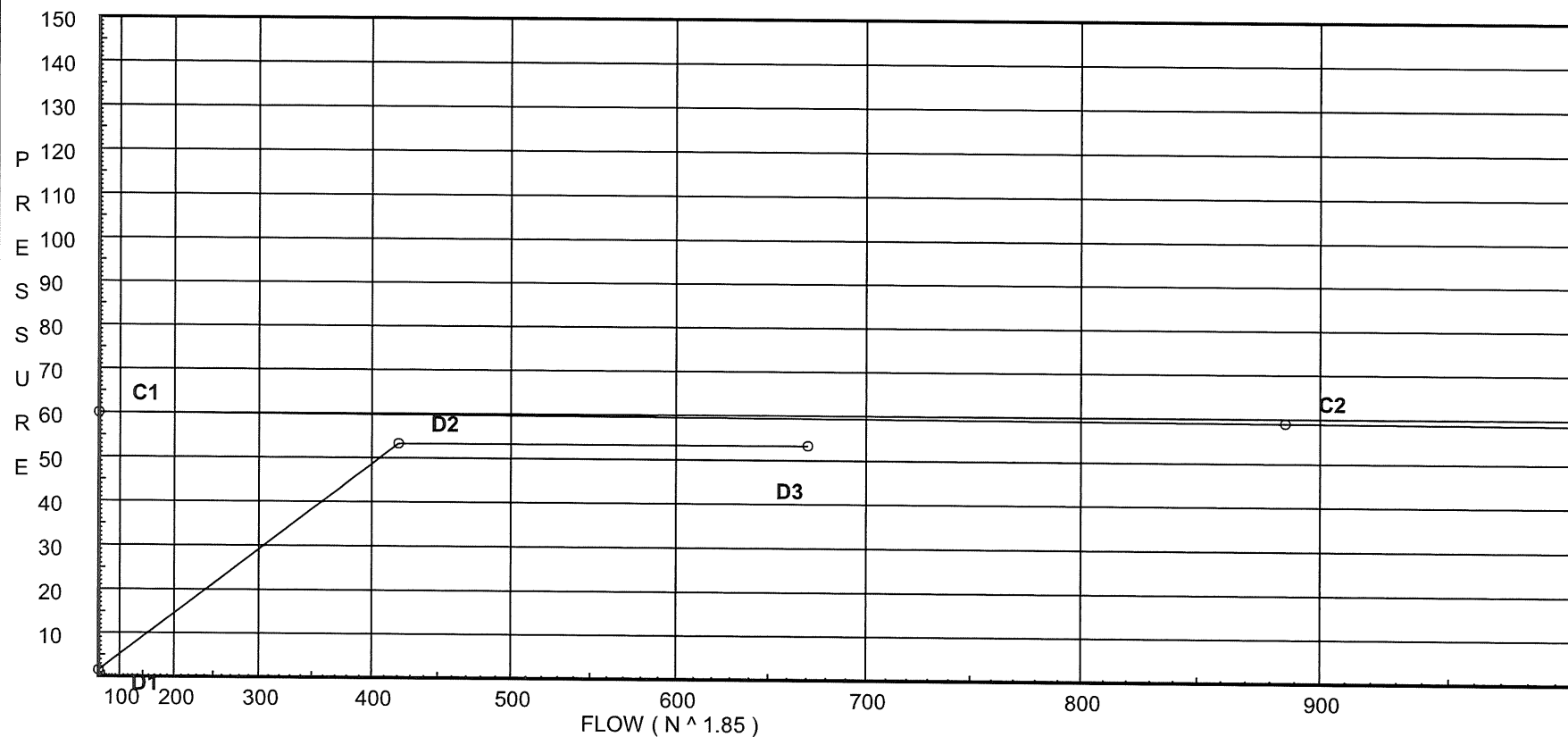
Page 2
Date

City Water Supply:

C1 - Static Pressure : 60
C2 - Residual Pressure: 59
C2 - Residual Flow : 886

Demand:

D1 - Elevation : 1.516
D2 - System Flow : 420.618
D2 - System Pressure : 53.248
Hose (Demand) : 250
D3 - System Demand : 670.618
Safety Margin : 6.155



Fittings Used Summary

EASTERN FIRE PROTECTION
 AU-4649-10 501 DANFORTH ST PORTLAND ME

Page 3
 Date

Fitting Legend		½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8	10	12	14	16	18	20	24
Abbrev.	Name																				
B	NFPA 13 Butterfly Valve	0	0	0	0	0	6	7	10	0	12	9	10	12	19	21	0	0	0	0	0
D	Dry Rel D										28		47								
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
G	NFPA 13 Gate Valve	0	0	0	0	0	1	1	1	1	2	2	3	4	5	6	7	8	10	11	13
I	90' Grvd-Vic Elbow #10	0	0	2	3	4	3.5	6	5	8	7	8.5	10	13	17	20	23	25	33	36	40
S	NFPA 13 Swing Check Valve	4	5	5	7	9	11	14	16	19	22	27	32	45	55	65	76	87	98	109	130
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

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.

Flow Summary - NFPA 2007

EASTERN FIRE PROTECTION
 AU-4649-10 501 DANFORTH ST PORTLAND ME

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 Date

SUPPLY ANALYSIS

<i>Node at Source</i>	<i>Static Pressure</i>	<i>Residual Pressure</i>	<i>Flow</i>	<i>Available Pressure</i>	<i>Total Demand</i>	<i>Required Pressure</i>
TEST	60.0	59	886.0	59.403	670.62	53.248

NODE ANALYSIS

<i>Node Tag</i>	<i>Elevation</i>	<i>Node Type</i>	<i>Pressure at Node</i>	<i>Discharge at Node</i>	<i>Notes</i>
100	117.5	5.6	12.13	19.5	
101	117.5	5.6	13.63	20.68	
102	117.5	5.6	15.14	21.79	
103	117.5	5.6	16.43	22.7	
104	117.5	5.6	19.26	24.58	
105	117.5	5.6	20.61	25.42	
106	117.5	5.6	22.32	26.46	
107	116.0		40.64		
108	116.0		41.11		
109	116.0		42.3		
TOR	108.0		47.18		
DPV	105.0		48.64		
BASE	100.0		55.28		
UG1	100.0		58.9	250.0	
UG2	100.0		59.0		
TEST	114.0		53.25		
111	117.0	5.6	12.19	19.55	
112	117.0	5.6	13.7	20.73	
113	117.0	5.6	15.22	21.85	
114	117.0	5.6	16.51	22.76	
115	117.0	5.6	19.36	24.64	
116	117.0	5.6	20.71	25.48	
117	117.0	5.6	22.43	26.52	
118	117.0		40.06		
120	118.0	5.6	33.76	32.54	
121	118.0	5.6	33.9	32.61	
122	118.0	5.6	34.35	32.82	

Final Calculations - Hazen-Williams - 2007

EASTERN FIRE PROTECTION
 AU-4649-10 501 DANFORTH ST PORTLAND ME

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 Date

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqv.	Ln.	Pipe Ftng's Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
100 to 101	117.500 117.500	5.60	19.50 19.5	1 1.049		0.0 0.0 0.0	8.670 0.0 8.670	100 0.1740	12.125 0.0 1.509		Vel = 7.24	
101 to 102	117.500 117.500	5.60	20.68 40.18	1.25 1.38		0.0 0.0 0.0	8.670 0.0 8.670	100 0.1743	13.634 0.0 1.511		Vel = 8.62	
102 to 103	117.500 117.500	5.60	21.79 61.97	1.5 1.61		0.0 0.0 0.0	7.000 0.0 7.000	100 0.1834	15.145 0.0 1.284		Vel = 9.77	
103 to 104	117.500 117.500	5.60	22.70 84.67	1.5 1.61		0.0 0.0 0.0	8.670 0.0 8.670	100 0.3268	16.429 0.0 2.833		Vel = 13.34	
104 to 105	117.500 117.500	5.60	24.58 109.25	2 2.067		0.0 0.0 0.0	8.670 0.0 8.670	100 0.1550	19.262 0.0 1.344		Vel = 10.45	
105 to 106	117.500 117.500	5.60	25.42 134.67	2 2.067		0.0 0.0 0.0	7.500 0.0 7.500	100 0.2283	20.606 0.0 1.712		Vel = 12.88	
106 to 107	117.500 116	5.60	26.45 161.12	2 2.067	1E 1T	3.568 7.137 0.0	44.833 10.705 55.538	100 0.3182	22.318 0.650 17.671		Vel = 15.40	
107 to 108	116 116		161.53 322.65	4 4.26		0.0 0.0 0.0	14.000 0.0 14.000	100 0.0340	40.639 0.0 0.476		Vel = 7.26	
108 to 109	116 116		0.0 322.65	4 4.26	2I	13.156 0.0 0.0	21.625 13.157 34.782	100 0.0340	41.115 0.0 1.181		Vel = 7.26	
109 to TOR	116 108		97.97 420.62	4 4.26	2I	13.156 0.0 0.0	12.333 13.157 25.490	100 0.0555	42.296 3.465 1.414		Vel = 9.47	
TOR to DPV	108 105		0.0 420.62	4 4.26		0.0 0.0 0.0	3.000 0.0 3.000	100 0.0557	47.175 1.299 0.167		Vel = 9.47	
DPV to BASE	105 100		0.0 420.62	4 4.26	1D 2E 1S 1B	36.868 26.334 28.968 15.8	5.000 107.970 112.970	120 0.0396	48.641 2.166 4.472		Vel = 9.47	
BASE to UG1	100 100		0.0 420.62	4 4.1	2E 1T 1G	29.067 29.067 2.907	40.000 61.041 101.041	140 0.0359	55.279 0.0 3.625		Vel = 10.22	
UG1 to UG2	100 100	H250	250.00 670.62	16 16.41	1T	166.859 0.0 0.0	800.000 166.860 966.860	140 0.0001	58.904 0.0 0.095		Vel = 1.02	
UG2 to TEST	100 114		0.0 670.62	12 12.34	1E 1T	42.195 93.767 0.0	650.000 135.962 785.962	140 0.0004	58.999 -6.063 0.312		Vel = 1.80	
TEST			0.0 670.62						53.248		K Factor = 91.90	

Final Calculations - Hazen-Williams - 2007

EASTERN FIRE PROTECTION
 AU-4649-10 501 DANFORTH ST PORTLAND ME

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 Date

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqv.	Ln.	Pipe Ftng's Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
111 to 112	117 117	5.60	19.55	1		0.0	8.670	100	12.188			
			19.55	1.049		0.0	0.0	0.1749	0.0	Vel =	7.26	
112 to 113	117 117	5.60	20.73	1.25		0.0	8.670	100	13.704			
			40.28	1.38		0.0	0.0	0.1752	0.0	Vel =	8.64	
113 to 114	117 117	5.60	21.85	1.5		0.0	7.000	100	15.223			
			62.13	1.61		0.0	7.000	0.1843	0.0	Vel =	9.79	
114 to 115	117 117	5.60	22.76	1.5		0.0	8.670	100	16.513			
			84.89	1.61		0.0	0.0	0.3283	0.0	Vel =	13.38	
115 to 116	117 117	5.60	24.64	2		0.0	8.670	100	19.359			
			109.53	2.067		0.0	0.0	0.1558	0.0	Vel =	10.47	
116 to 117	117 117	5.60	25.48	2		0.0	7.500	100	20.710			
			135.01	2.067		0.0	0.0	0.2293	0.0	Vel =	12.91	
117 to 118	117 117	5.60	26.52	2	1E 1T	3.568 7.137	44.458 10.705	100	22.430			
			161.53	2.067		0.0	0.0	0.3197	0.0	Vel =	15.44	
118 to 107	117 116		0.0	4		0.0	15.000	100	40.064			
			161.53	4.26		0.0	0.0	0.0095	0.433	Vel =	3.64	
107			0.0 161.53						40.639	K Factor =	25.34	
120 to 121	118 118	5.60	32.54	2		0.0	8.670	100	33.759			
			32.54	2.067		0.0	0.0	0.0165	0.0	Vel =	3.11	
121 to 122	118 118	5.60	32.60	2		0.0	7.500	100	33.902			
			65.14	2.067		0.0	0.0	0.0596	0.0	Vel =	6.23	
122 to 109	118 116	5.60	32.82	2	1T 1E	7.137 3.568	45.167 10.705	100	34.349			
			97.96	2.067		0.0	0.0	0.1267	0.866	Vel =	9.37	
109			0.0 97.96						42.296	K Factor =	15.06	

HYDRAULIC-SYSTEM
 THIS BUILDING IS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM.

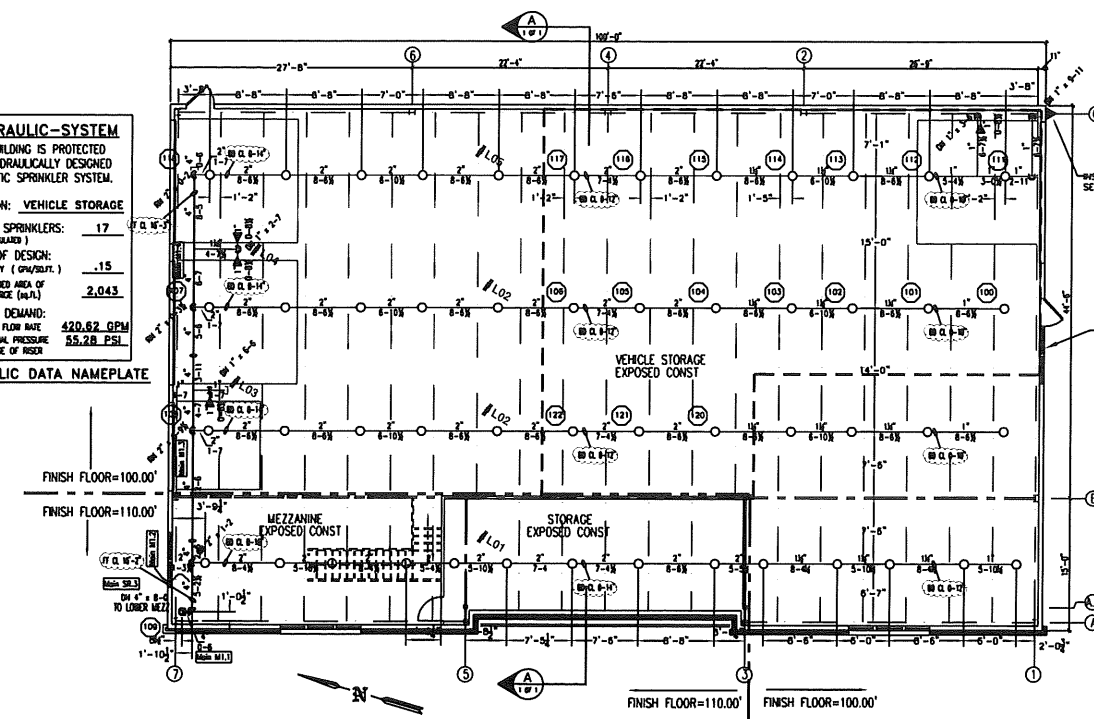
LOCATION: VEHICLE STORAGE

No. OF SPRINKLERS: 17
 (COURT) 17

BASIS OF DESIGN:
 1. DENSITY (GPM/FT.²) .15
 2. DESIGN AREA OF EXPOSURE (S.A.) 2,043

SYSTEM DEMAND:
 1. WATER FLOW RATE 420.62 GPM
 2. DESIGN PRESSURE 55.28 PSI AT BASE OF RISER

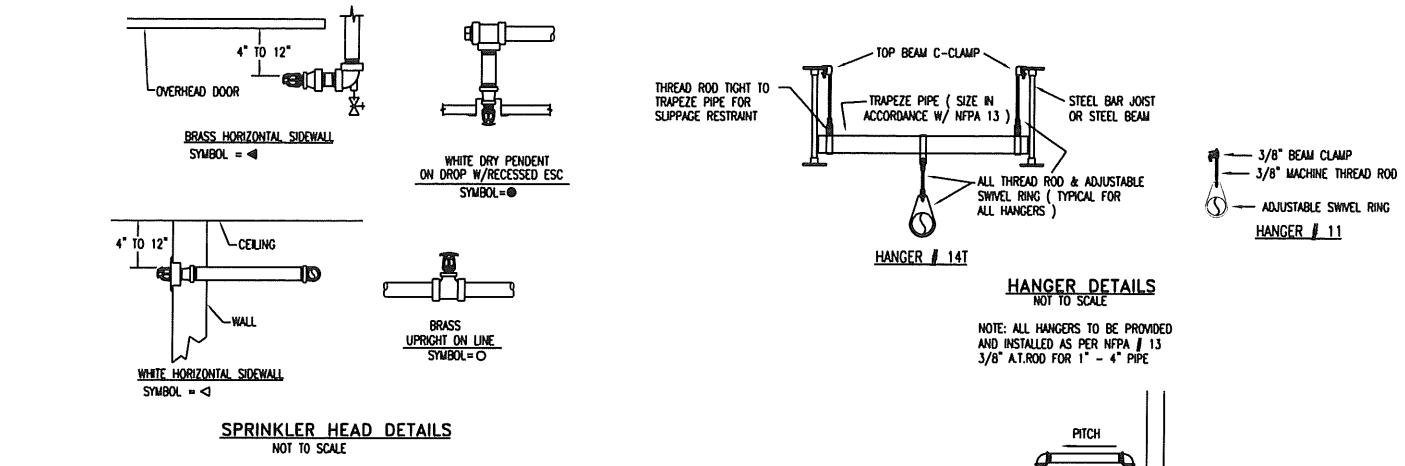
HYDRAULIC DATA NAMEPLATE



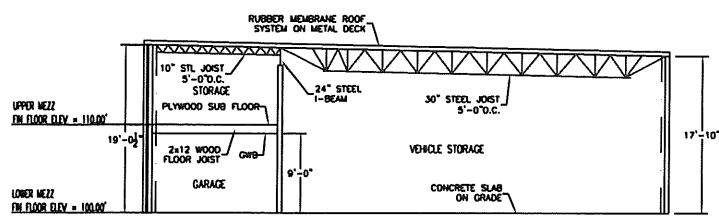
FIRE SPRINKLER PLAN - UPPER MEZZ / HIGHBAY
 SCALE: 1/8" = 1'-0"
 AREA PROTECTED: 5,737 SQ.FT.
 FINISH FLOOR ELEVATION: 100.00' - 110.00'
 COLOR CODE:

Symbol	Count	Thread	K-Factor	Description	Note
○	49	1/2"	5.6	TYCO TY-B BRASS UPRIGHT 155' TY3151	ON LINE
◁	4	1/2"	5.6	TYCO TY-B BRASS HORIZ SIDEWALL 155' TY3331	EXPOSED BELOW DOOR

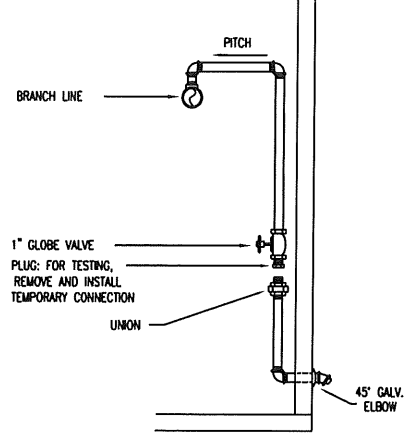
53 = Total Number of Heads this floor



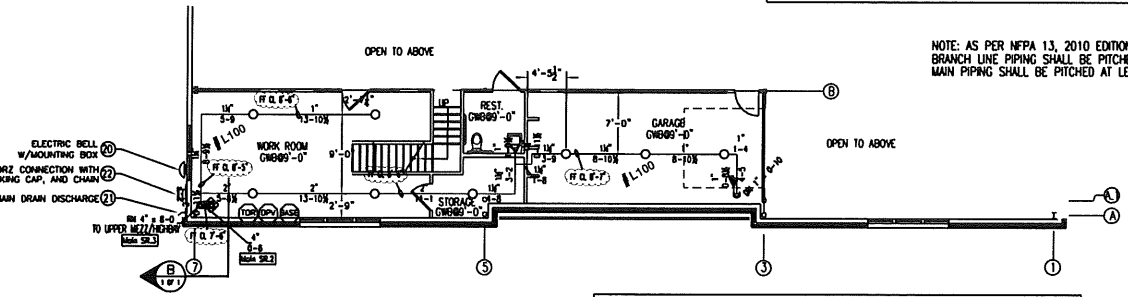
SPRINKLER HEAD DETAILS
 NOT TO SCALE



BUILDING SECTION A-A
 NOT TO SCALE



DRY INSPECTOR'S TEST DETAIL
 NOT TO SCALE



FIRE SPRINKLER PLAN - LOWER MEZZ
 SCALE: 1/8" = 1'-0"
 AREA PROTECTED: 889 SQ.FT.
 FINISH FLOOR ELEVATION: 100.00'
 COLOR CODE:

Symbol	Count	Thread	K-Factor	Description	Note
○	8	1/2"	5.6	TYCO TY-B BRASS UPRIGHT 155' TY3151	ON LINE
◁	1	1/2"	5.6	TYCO TY-FRB WHITE HORIZ SIDEWALL 155' W/WHITE RECESSED ESC TY3331	
◁	1	1/2"	5.6	TYCO TY-B BRASS HORIZ SIDEWALL 155' TY3331	EXPOSED BELOW DOOR

10 = Total Number of Heads this floor

NOTE: AS PER NFPA 13, 2010 EDITION SECTION 8.16.2.3.1
 BRANCH LINE PIPING SHALL BE PITCHED AT LEAST 1/2" PER 10'-0"
 MAIN PIPING SHALL BE PITCHED AT LEAST 1/4" PER 10'-0"

GENERAL NOTES

SPRINKLER SYSTEM INSTALLATION TO COMPLY WITH NFPA PAMPHLET #13, 2010 EDITION
 OCCUPANCY DESCRIPTION AND CLASSIFICATION:
 LIGHT HAZARD = BATH ROOM
 ORDINARY HAZARD GROUP 1 = VEHICLE STORAGE, WORK ROOM, GARAGE, MEZZANINE, STORAGE RM

SCOPE OF WORK:
 INSTALL NEW DRY SPRINKLER SYSTEM IN COMPLIANCE WITH NFPA PAMPHLET #13, 2010 EDITION THROUGHOUT THE ENTIRE BUILDING.

ALL DIMENSIONS ARE SHOWN FOR GENERAL LOCATION OF SPRINKLER HEADS; PIPING MAY VARY TO SUIT ACTUAL FIELD CONDITIONS.

SYSTEM CAPACITY FOR DRY SYSTEM: 118 GALLONS
 STORAGE OF MATERIAL SHALL NOT EXCEED 8'-0" IN HEIGHT.

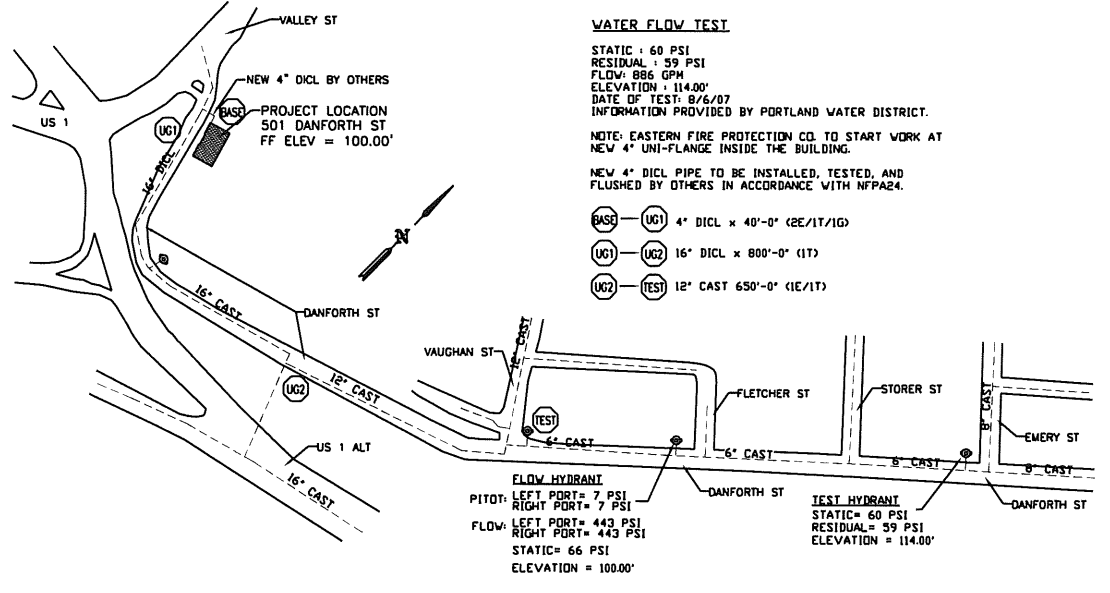
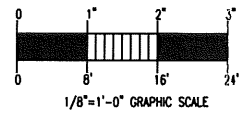
ALL WIRING TO BE DONE BY OTHERS.

FF CL = FINISH FLOOR UP TO CENTERLINE OF PIPE.
 BD CL = DECK DOWN TO CENTERLINE OF PIPE.

LEGEND

- ① 4" DI CL BY OTHERS
- ② WATER PRESSURE GAUGE (0-300 PSI)
- ③ 1/4" 3-WAY VALVE
- ④ 4" TYCO BVF GROOVED BUTTERFLY VALVE W/ TAMPER SWITCH
- ⑤ 4" UNI-FLANGE
- ⑥ 4" FLANGED ELL 90°
- ⑦ 2" MAIN DRAIN VALVE
- ⑧ 4" TYCO DPV-1 DRY PIPE VALVE GxG
- ⑨ 4" TYCO CV-1F GROOVED CHECK VALVE
- ⑩ 1/2" BALL DRIP VALVE
- ⑪ 1/2" DRIP LEG W/VALVE
- ⑫ FURNAS AIR COMPRESSOR AUTOMATIC ON-OFF SWITCH (MOD.69W44B)
- ⑬ POTTER LOW AIR PRESSURE SWITCH (PS40-2)
- ⑭ DRY PIPE VALVE AIR LINE BY-PASS W/ LOAD GENIE
- ⑮ JENNY AIR COMPRESSOR MODEL F125-BS 1/2 HP, 115V SINGLE PHASE
- ⑯ AIR PRESSURE GAUGE
- ⑰ POTTER PS-10 PRESSURE SWITCH
- ⑱ HEAD BOX 8 SPARE HEADS AND HEAD WRENCH
- ⑲ PIPE STAND
- ⑳ ELECTRIC BELL (SEE LOWER MEZZ PLAN SHEET 1 OF 1)
- ㉑ 2" MAIN DRAIN DISCHARGE (SEE LOWER MEZZ PLAN SHEET 1 OF 1)
- ㉒ 5" STORZ CONNECTION W/ KNOX LOCKING CAP (SEE LOWER MEZZ PLAN SHI

NOTE: AS PER NFPA 13, 2010 EDITION SECTION 8.16.2.3.1
 BRANCH LINE PIPING SHALL BE PITCHED AT LEAST 1/2" PER 10'-0"
 MAIN PIPING SHALL BE PITCHED AT LEAST 1/4" PER 10'-0"



WATER FLOW TEST

STATIC: 60 PSI
 RESIDUAL: 59 PSI
 FLOW: 886 GPM
 ELEVATION: 114.00'
 DATE OF TEST: 8/6/07
 INFORMATION PROVIDED BY PORTLAND WATER DISTRICT.

NOTE: EASTERN FIRE PROTECTION CO. TO START WORK AT NEW 4" UNI-FLANGE INSIDE THE BUILDING.
 NEW 4" DI CL PIPE TO BE INSTALLED, TESTED, AND FLUSHED BY OTHERS IN ACCORDANCE WITH NFPA24.

- ① 4" DI CL BY OTHERS
- ② 16" DI CL x 800'-0" (17)
- ③ 12" CAST 650'-0" (1E/1T)

FLOW HYDRANT
 PITOT: LEFT PORT= 7 PSI
 RIGHT PORT= 7 PSI
 FLOW: LEFT PORT= 443 PSI
 RIGHT PORT= 443 PSI
 STATIC= 66 PSI
 ELEVATION = 100.00'

TEST HYDRANT
 STATIC= 60 PSI
 RESIDUAL= 59 PSI
 ELEVATION = 114.00'

PLOT PLAN
 NOT TO SCALE

GENERAL NOTES	DATE	REVISIONS	REQUIRED APPROVALS	FIRE SPRINKLER PLANS & DETAILS
SPRINKLER SYSTEM INSTALLATION TO COMPLY WITH NFPA PAMPHLET #13, 2010 EDITION. BRANCH LINE PIPING 1" THRU 2" TO BE BLACK STEEL SCH'D 40 JOINED BY THREADED DUCTILE IRON FITTINGS. MAIN PIPING 2" AND LARGER TO BE BLACK STEEL SCH'D 10 W/ GROOVED ENDS & WELDED OUTLETS JOINED BY MECHANICAL COUPLINGS. OWNER TO PROVIDE SUFFICIENT HEAT AT MAIN ENTRANCE AND AREAS CONTAINING RETURN BENDS TO PREVENT FREEZING OF WATER FILLED SPRINKLER PIPING AND EQUIPMENT. (MIN. 40° F)			OWNER / ARCHITECT STATE FIRE MARSHAL PORTLAND FIRE DEPT	501 DANFORTH STREET PORTLAND, ME.
			DRAWN BY: GRD CHECK LEVEL: CERT# 090388	CONTRACT WITH: DAVIS & HANSCOM
			CHECKED BY: WAF CHECK LEVEL: CERT# 095574 CONTRACTOR LICENSE # CONTRACTOR REG #	EASTERN FIRE PROTECTION AUBURN/LEWISTON INDUSTRIAL AIRPARK, AUBURN, MAINE 04210
				JOB NUMBER: AU-4649-10 SCALE: AS NOTED DATE: 12/1/10