

Form # P 04

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK
CITY OF PORTLAND PERMIT ISSUED

Please Read Application And Notes, If Any, Attached

BU...TION

PERMIT

Permit Number **NOV 30 1232**

This is to certify that Gre Congress Canal Llc/Sprink System,
has permission to Install Sprinkler System
AT 1 Canal Plaza City of Portland
CP 032 1036001

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 lath or other used-in. 2 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. Gauthier
Health Dept. _____
Appeal Board _____
Other _____
Department Name

[Signature]
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application
 389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 09-1232	Issue Date:	CBL: 032 I036001
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Location of Construction: 1 Canal Plaza	Owner Name: Gre Congress Canal Llc	Owner Address: One Canal Plaza 5th Floor	Phone:
Business Name:	Contractor Name: Sprinkler System, Inc	Contractor Address: P.O. Box 1285 Lewiston	Phone: 2077820104
Lessee/Buyer's Name	Phone:	Permit Type: Fire Suppression System	Zone: B-3

Past Use: Commercial	Proposed Use: Commercial / Install Sprinkler System	Permit Fee: \$180.00	Cost of Work: \$16,000.00	CEO District: 1
Proposed Project Description: Install Sprinkler System		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied <i>* See Conditions</i>	INSPECTION: Use Group: <input checked="" type="checkbox"/> Type: <i>Sprinkler</i>	
		Signature: <i>(KG)</i>	Signature: <i>[Signature]</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: gg	Date Applied For: 11/03/2009	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 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"/>	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	Historic Preservation <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>11/4/09</i>
	Date: _____	Date: _____	Date: _____	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.

PERMIT ISSUED

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE	DATE	PHONE	

NOV 30
DATE

City of Portland
DATE

City of Portland, Maine - Building or Use Permit

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

Permit No: 09-1232	Date Applied For: 11/03/2009	CBL: 032 I036001
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Location of Construction: 1 Canal Plaza	Owner Name: Gre Congress Canal Llc	Owner Address: One Canal Plaza 5th Floor	Phone:
Business Name:	Contractor Name: Sprinkler System, Inc	Contractor Address: P.O. Box 1285 Lewiston	Phone: (207) 782-0104
Lessee/Buyer's Name	Phone:	Permit Type: Fire Suppression System	

Proposed Use: Commercial / Install Sprinkler System	Proposed Project Description: Install Sprinkler System
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Dept: Zoning	Status: Approved	Reviewer: Marge Schmuckal	Approval Date: 11/04/2009	Note:	Ok to Issue: <input checked="" type="checkbox"/>
Dept: Building	Status: Approved with Conditions	Reviewer: Tammy Munson	Approval Date: 11/30/2009	Note:	Ok to Issue: <input checked="" type="checkbox"/>
1) All penetrations shall be protected with approved firestop materials per Sec. 712 of IBC.					
Dept: Fire	Status: Approved with Conditions	Reviewer: Capt Keith Gautreau	Approval Date: 11/09/2009	Note:	Ok to Issue: <input checked="" type="checkbox"/>
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) The sprinkler system shall be installed in accordance with NFPA 13.					
4) Fire department connection type and location shall be approved in writing by fire prevention bureau.					

PERMIT ISSUED

NOV 30 2009

City of Portland

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

to schedule your inspections as agreed upon

Permits expire in 6 months, if the project is not started or ceases for 6 months.

The Owner or their designee is required to notify the inspections office for the following inspections and provide adequate notice. Notice must be called in 48-72 hours in advance in order to schedule an inspection:

By initializing at each inspection time, you are agreeing that you understand the inspection procedure and additional fees from a "Stop Work Order" and "Stop Work Order Release" will be incurred if the procedure is not followed as stated below.

A Pre-construction Meeting will take place upon receipt of your building permit.

 X **Final inspection performed by the Fire department required at completion of work.**

Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects DO require a final inspection.

If any of the inspections do not occur, the project cannot go on to the next phase, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.

CERIFICATE OF OCCUPANICES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED.

Signature of Applicant/Designee

Date

Signature of Inspections Official

Date

PERMIT ISSUED
NOV 30
City of Portland

CBL: 032 1036001

Building Permit #: 09-1232



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: ONE CANAL PLAZA CBL: 032 I036
 Exact location: (within structure) 10TH FLOOR
 Type of occupancy(s) (NFPA & ICC): OFFICE SPACE
 Building owner: BENCHMARK / BOULOS
 Managing Supervisor: CLOYD D. AKERS, PE License No: 284
 Supervisor phone: 207-775-1521 E-mail: LLOYD552@MAINE.RR.COM
 Installing contractor: SPRINKLER SYSTEMS, INC License No: 93
 Contractor phone: 207-782-0104 E-mail: SPRINKLERSYSTEMSINC.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 will this system is designed to: 13 Edition: _____

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

Attach all design information and complete approved submittals as may be required by the State Fire Marshal's Office.

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

COST OF WORK:	<u>16,000</u>
PERMIT FEE:	<u>\$180.00</u>
(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)	
RECEIVED	
NOV - 3 2009	

Download a new copy of this document from www.portlandmaine.gov for every submittal. Submit all information to the Building Inspections Department, 389 Congress Street, Room 315, Portland, Maine 04106. **Dept. of Building Inspections City of Portland Maine**

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: <u>Cloyd D Akers</u>	Date: <u>11-3-09</u>
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Sprinkler Systems, Inc.

P.O. Box 1285
Lewiston, ME 04243-1285

Letter of Transmittal

DATE	11-3-09	JOB #	09052
ATTENTION: Keith Gautereau			
Re: 10 th Floor Renovations One Canal Plaza			

TO: City of Portland
Fire Department
380 Congress Street
Portland, ME

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 _____

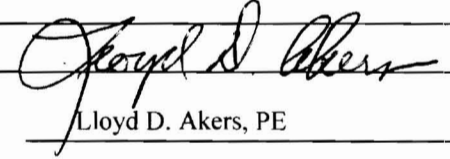
COPIES	DATE	NO.	DESCRIPTION
1	9-23-09		Sheet 3 of 5 - Sprinkler Layout Drawing
1	9-23-09		Hydraulic Calculations
1			State Fire Marshal's Permit #8805

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

Attached is a permit check # 24676 in the amount of \$180.00 for the sprinkler piping
Work at One Canal Plaza.

SIGNED:  Lloyd D. Akers, PE



State of Maine
Department of Public Safety
Fire Sprinkler System Permit



8805

One Canal Plaza 10th Floor Curtis Thaxter

Located at: One Canal Plaza
 In the Town of: Portland
 Occupancy/Use: Offices
 Type of System: NFPA 13

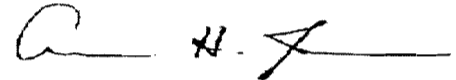
Permission is hereby given to:

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

according to plans submittal filed with the Licensing and Inspections Unit and are now approved. This application form/plans are filed under log # **2091373**, and no departure from application form/plans 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 for failure to comply with local ordinances, zoning laws, or other pertinent legal restrictions. Each permit issued shall be displayed/available at the site of construction.

This permit was issued on **10/4/2009** for a fee paid of **\$100.00**

This permit will expire at midnight on Friday, April 02, 2010



Anne H. Jordan
 Commissioner

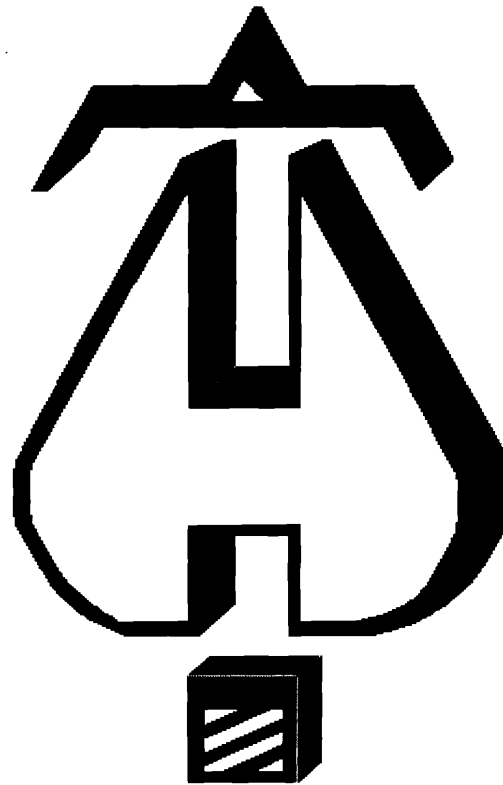
Fire Department Connection Location/Type per Local Fire Department

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 Licensing and Inspections Unit 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 sprinkler licenses expire June 30th every year.

Job completed, tested and verified on date of _____

RMS for this job: Akers, P.E. Lloyd D.

RMS Signature: _____



... Fire Protection by Computer Design

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

Job Name : ONE CANAL PLAZA 10 TH FLOOR - CURTIS THAXTER
Building :
Location : ONE CANAL PLAZA, PORTLAND, MAINE 04101 (10TH FLOOR)
System : 1 OF 1
Contract : 09052
Data File : ONECANALPL10FL.WXF

Hydraulic Design Information Sheet

Name - CURTIS THAXTER STEVENS BRODER & MICOLEAU, LLC Date - 9-23-09
 Location - ONE CANAL PLAZA, PORTLAND, MAINE 04101 (10TH FLOOR)
 Building - System No. - 1 OF 1
 Contractor - BENCHMARK / BOULOS Contract No. - 09052
 Calculated By - LLOYD D. AKERS, PE Drawing No. - 3 OF 5
 Construction: () Combustible (X) Non-Combustible Ceiling Height - VARIES
 Occupancy - OFFICES - LIGHT HAZARD

S (X) NFPA 13 (X) Lt. Haz. Ord.Haz.Gp. () 1 () 2 () 3 () Ex.Haz.
 Y () NFPA 231 () NFPA 231C () Figure Curve

S Other

T Specific Ruling Made By Date

E
 M Area of Sprinkler Operation - 900 SF System Type Sprinkler/Nozzle
 Density - .10 (X) Wet Make RELIABLE
 D Area Per Sprinkler - 148.2 () Dry Model FLFR
 E Elevation at Highest Outlet - 221.417 () Deluge Size 1/2 X 1/2
 S Hose Allowance - Inside - () Preaction K-Factor 5.6
 I Rack Sprinkler Allowance - () Other Temp.Rat.155 DEG
 G Hose Allowance - Outside - 100

N Note DESIGN AREA #1 A - 10TH FLOOR OFFICE AREA

Calculation Flow Required - 275.727 Press Required - 56.787
 Summary C-Factor Used: 150 Overhead 140 Underground

W Water Flow Test: Pump Data: Tank or Reservoir:
 A Date of Test - 7/19/1991 Cap. -
 T Time of Test - Rated Cap.- 750 GPM Elev.-
 E Static Press - 83 @ Press - 71 PSI
 R Residual Press - 63 Elev. - 101.167 Well
 Flow - 1332 Proof Flow
 S Elevation - 110.0

U Location - AT UNION AND MIDDLE STREET, 300 FEET AWAY

P Source of Information - PORTLAND WATER DISTRICT

Y

C Commodity Class Location
 O Storage Ht. Area Aisle W.
 M Storage Method: Solid Piled % Palletized % Rack
 M () Single Row () Conven. Pallet () Auto. Storage () Encap.
 S R () Double Row () Slave Pallet () Solid Shelf () Non
 T A () Mult. Row () Open Shelf

O C
 R K Flue Spacing Clearance:Storage to Ceiling
 A Longitudinal Transverse

G
 E Horizontal Barriers Provided:

Fittings Used Summary

Sprinkler Systems, Inc.
 ONE CANAL PLAZA 10 TH FLOOR - CURTIS THAXTER

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 Date 9-23-09

Fitting Legend		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
Abbrev.	Name																				
A	Generic Alarm Valve	0	0	0	0	0	0	7.7	21.5	0	17	17	27	29	0	0	0	0	0	0	0
B	Generic Butterfly Valve	0	0	0	0	0	0	7	10	0	12	9	10	12	19	21	0	0	0	0	0
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	0	0	0	1	1	1	1	2	2	3	4	5	6	7	8	10	11	13
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
Z	Generic Flow Switch	2	2	2	3	4	5	6	7	8	10	12	14	18	22	27	35	40	45	50	61

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.
 ONE CANAL PLAZA 10 TH FLOOR - CURTIS THAXTER

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 Date 9-23-09

Node No.	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.
TYP	0.0	5.6	7.0	na	14.82	0.1	148.2	7.0
TYP1	0.0	5.6	14.6	na	21.4	0.1	210	14.6
TYP2	0.0	5.6	15.88	na	22.31	0.1	222.5	15.875
14	221.417	K = K @ DRO	12.44	na	19.01			
15	221.417	K = K @ DRO	13.19	na	19.57			
16	221.417	K = K @ DRO1	15.71	na	21.4			
17	221.417	K = K @ DRO	20.9	na	24.63			
18	221.417	K = K @ DRO	28.8	na	28.91			
19	221.417	K = K @ DRO	30.41	na	29.71			
20	221.417	K = K @ DRO	36.38	na	32.5			
AA	221.417		55.43	na				
BB	221.417		56.14	na				
CC	221.417		70.74	na				
DD	221.417		76.7	na				
F	221.25		80.43	na				
G	221.25		83.57	na				
J	221.25		85.75	na				
K	109.0		134.54	na				
L	109.0		134.72	na				
PO	109.0		134.89	na				
PI	101.167		85.31	na				
BASE	101.167		85.51	na				
HOSE	110.0		81.9	na	100.0			
TEST	110.0		81.91	na				

The maximum velocity is 30.71 and it occurs in the pipe between nodes 20 and BB

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	*****	Notes	*****
TYP to DRO	14.82 14.82	1.101 150 0.0391	1E 1T	3.825 9.563 0.0	1.000 13.387 14.387	7.004 0.0 0.562		K Factor = 5.60 Vel = 4.99	
	0.0 14.82					7.566		K Factor = 5.39	
TYP1 to DRO1	21.40 21.4	1.101 150 0.0771	1E 1T	3.825 9.563 0.0	1.000 13.387 14.387	14.600 0.0 1.109		K Factor = 5.60 Vel = 7.21	
	0.0 21.40					15.709		K Factor = 5.40	
TYP2 to DRO2	22.31 22.31	1.101 150 0.0833	1E 1T	3.825 9.563 0.0	1.000 13.387 14.387	15.875 0.0 1.199		K Factor = 5.60 Vel = 7.52	
	0.0 22.31					17.074		K Factor = 5.40	
14 to 15	19.01 19.01	1.101 150 0.0619		0.0 0.0 0.0	12.000 0.0 12.000	12.444 0.0 0.743		K Factor @ node DRO Vel = 6.41	
15 to 16	19.56 38.57	1.101 150 0.2293		0.0 0.0 0.0	11.000 0.0 11.000	13.187 0.0 2.522		K Factor @ node DRO Vel = 13.00	
16 to 17	21.40 59.97	1.101 150 0.5189		0.0 0.0 0.0	10.000 0.0 10.000	15.709 0.0 5.189		K Factor @ node DRO1 Vel = 20.21	
17 to AA	24.63 84.6	1.101 150 0.9806	2E 1T	7.65 9.563 0.0	18.000 17.212 35.212	20.898 0.0 34.529		K Factor @ node DRO Vel = 28.51	
	0.0 84.60					55.427		K Factor = 11.36	
18 to 19	28.91 28.91	1.101 150 0.1346		0.0 0.0 0.0	12.000 0.0 12.000	28.799 0.0 1.615		K Factor @ node DRO Vel = 9.74	
19 to 20	29.72 58.63	1.101 150 0.4975		0.0 0.0 0.0	12.000 0.0 12.000	30.414 0.0 5.970		K Factor @ node DRO Vel = 19.76	
20 to BB	32.50 91.13	1.101 150 1.1252	1T	9.563 0.0 0.0	8.000 9.562 17.562	36.384 0.0 19.761		K Factor @ node DRO Vel = 30.71	
	0.0 91.13					56.145		K Factor = 12.16	
AA to BB	84.60 84.6	2.003 150 0.0532		0.0 0.0 0.0	13.500 0.0 13.500	55.427 0.0 0.718		Vel = 8.61	

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	*****	Notes	*****
BB to CC	91.13 175.73	2.003 150 0.2057	1T 0.0	12.965 12.965	58.000 70.965	56.145 0.0		Vel = 17.89	
CC to DD	0.0 175.73	2.003 150 0.2057	0.0 0.0	29.000 0.0	29.000 0.0	70.739 0.0		Vel = 17.89	
DD to F	0.0 175.73	2.635 120 0.0817	1E 2T 0.0	8.237 32.948	3.500 41.185 44.685	76.703 0.072 3.652		Vel = 10.34	
F to G	0.0 175.73	2.635 120 0.0817	1T 0.0	16.474 0.0	22.000 16.474 38.474	80.427 0.0 3.145		Vel = 10.34	
G to J	0.0 175.73	3.26 120 0.0290	2E 1B 1T 1Z	18.815 13.44 20.159 9.408	13.333 61.822 75.155	83.572 0.0 2.178		Vel = 6.75	
J to K	0.0 175.73	6.065 120 0.0014	1E 0.0	14.0 14.000	112.250 14.000	85.750 48.616		Vel = 1.95	
K to L	0.0 175.73	6.065 120 0.0014	3E 1T 0.0	42.0 30.0	50.000 72.000 122.000	134.544 0.0 0.172		Vel = 1.95	
L to PO	0.0 175.73	6.065 120 0.0014	3E 1A 1G 1S	42.0 27.0 3.0 32.0	20.000 104.000 124.000	134.716 0.0 0.175		Vel = 1.95	
	0.0 175.73					134.891		K Factor = 15.13	
System Demand Pressure						134.891			
Safety Margin						25.128			
Continuation Pressure						160.019			
Pressure @ Pump Outlet						160.019			
Pressure From Pump Curve						-74.705			
Pressure @ Pump Inlet						85.314			
PI to BASE	0.0 175.73	6.065 120 0.0014	5E 2G 1T	70.0 6.0 30.0	30.000 106.000 136.000	85.314 0.0 0.192		Vel = 1.95	
BASE to HOSE	0.0 175.73	6.16 140 0.0010	1E 1G 1T	20.084 4.304 43.037	160.000 67.425 227.425	85.506 -3.826 0.223		Vel = 1.89	
HOSE to TEST	100.00 275.73	12.34 140 0.0001	0.0 0.0	0.0 0.0	150.000 0.0	81.903 0.0		Qa = 100 Vel = 0.74	

Final Calculations - Standard

Sprinkler Systems, Inc.
 ONE CANAL PLAZA 10 TH FLOOR - CURTIS THAXTER

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 Date 9-23-09

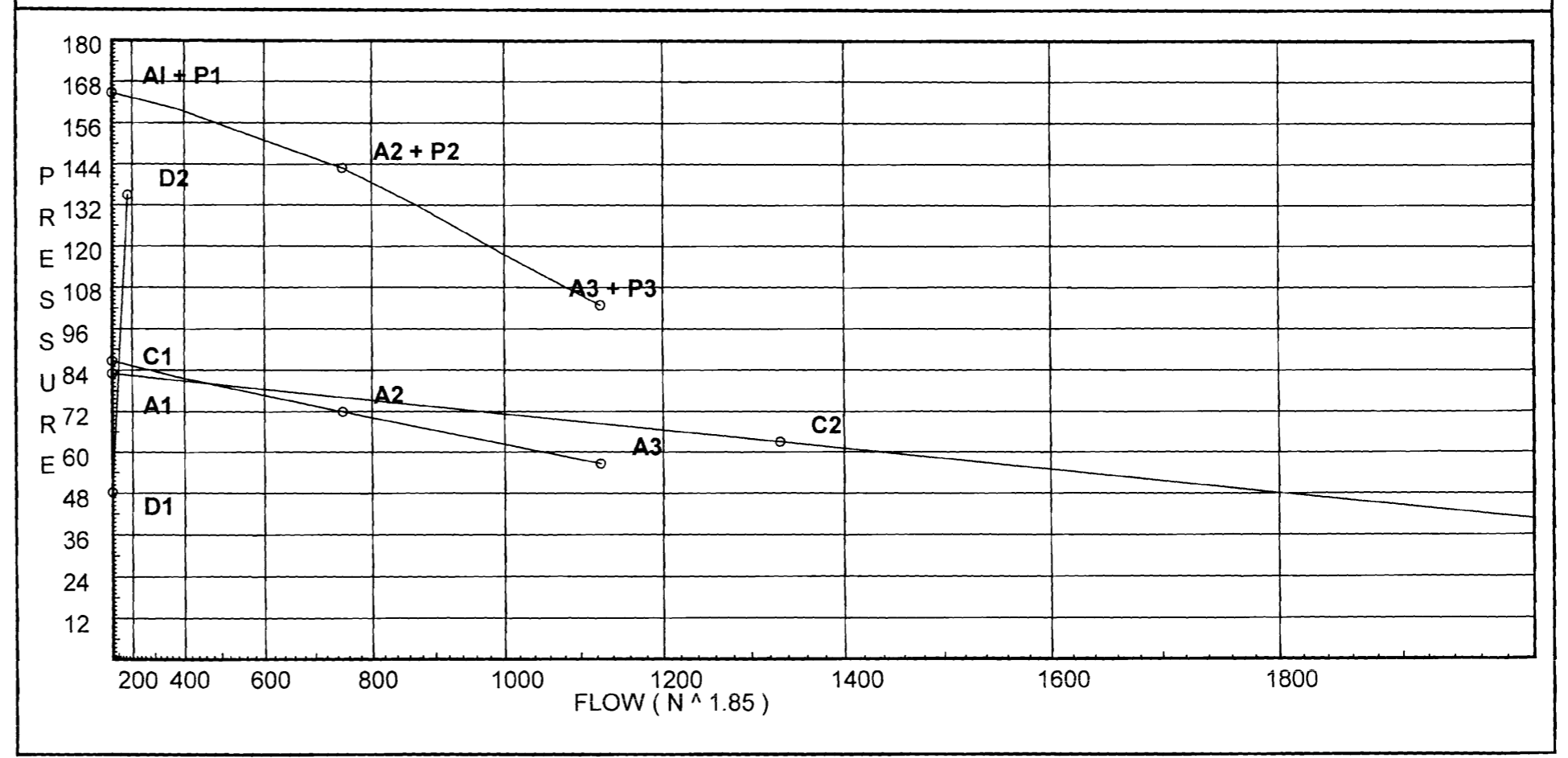
Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	*****	Notes	*****
	0.0 275.73				81.915			K Factor = 30.47	

Water Supply Curve (C)

Sprinkler Systems, Inc.
ONE CANAL PLAZA 10 TH FLOOR - CURTIS THAXTER

Page 7
Date 9-23-09

City Water Supply: C1 - Static Pressure : 83 C2 - Residual Pressure: 63 C2 - Residual Flow : 1332 City Water Adjusted to Pump Inlet for Pf - Elev - Hose Flow A1 - Adjusted Static: 86.654 A2 - Adj Resid : 71.936 @ 750 A3 - Adj Resid : 56.631 @ 1125	Pump Data: P1 - Pump Churn Pressure : 78.1 P2 - Pump Rated Pressure : 71 P2 - Pump Rated Flow : 750 P3 - Pump Pressure @ Max Flow : 46.15 P3 - Pump Max Flow : 1125 City Residual Flow @ 0 = 2874.65 City Residual Flow @ 20 = 2476.63 City Water @ 150% of Pump = 68.37	Demand: D1 - Elevation : 48.255 D2 - System Flow : 175.727 D2 - System Pressure : 134.891 Hose (Adj City) : 100 Hose (Demand) : 100 D3 - System Demand : 175.727 Safety Margin : 25.128
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DESIGN AREA #1 (PHASE 1)

HYDRAULIC DATA NAMEPLATE

The Building is protected by a fire sprinkler system designed by Curtis Thaxter, Inc. All Sprinkler System.

1. System: Wet

2. Design Area: 10,000 sq ft

3. Design Density: 1.5 gpm/sq ft

4. Demand: 150 gpm

5. System Pressure: 175 psi

6. System Temperature: 150°F

7. System Type: Wet

8. System Code: 100

9. System Description: 10,000 sq ft, 1.5 gpm/sq ft, 150 gpm, 175 psi, 150°F, Wet, 100

10. System Manufacturer: Curtis Thaxter, Inc.

11. System Date: 10/20/09

12. System Location: 10 Canal Plaza, Portland, ME

13. System Notes: 7 Sprinkler Heads

DESIGN AREA No. 1A (CURTIS THAXTER)

HYDRAULIC DATA NAMEPLATE

The Building is protected by a fire sprinkler system designed by Curtis Thaxter, Inc. All Sprinkler System.

1. System: Wet

2. Design Area: 10,000 sq ft

3. Design Density: 1.5 gpm/sq ft

4. Demand: 150 gpm

5. System Pressure: 175 psi

6. System Temperature: 150°F

7. System Type: Wet

8. System Code: 100

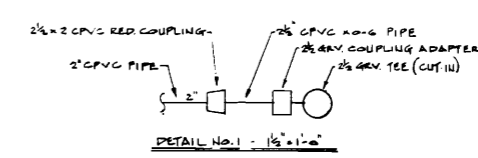
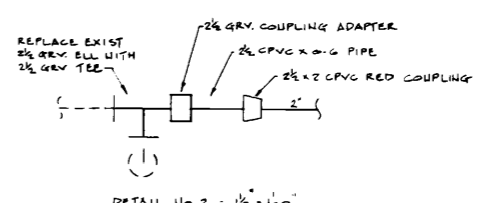
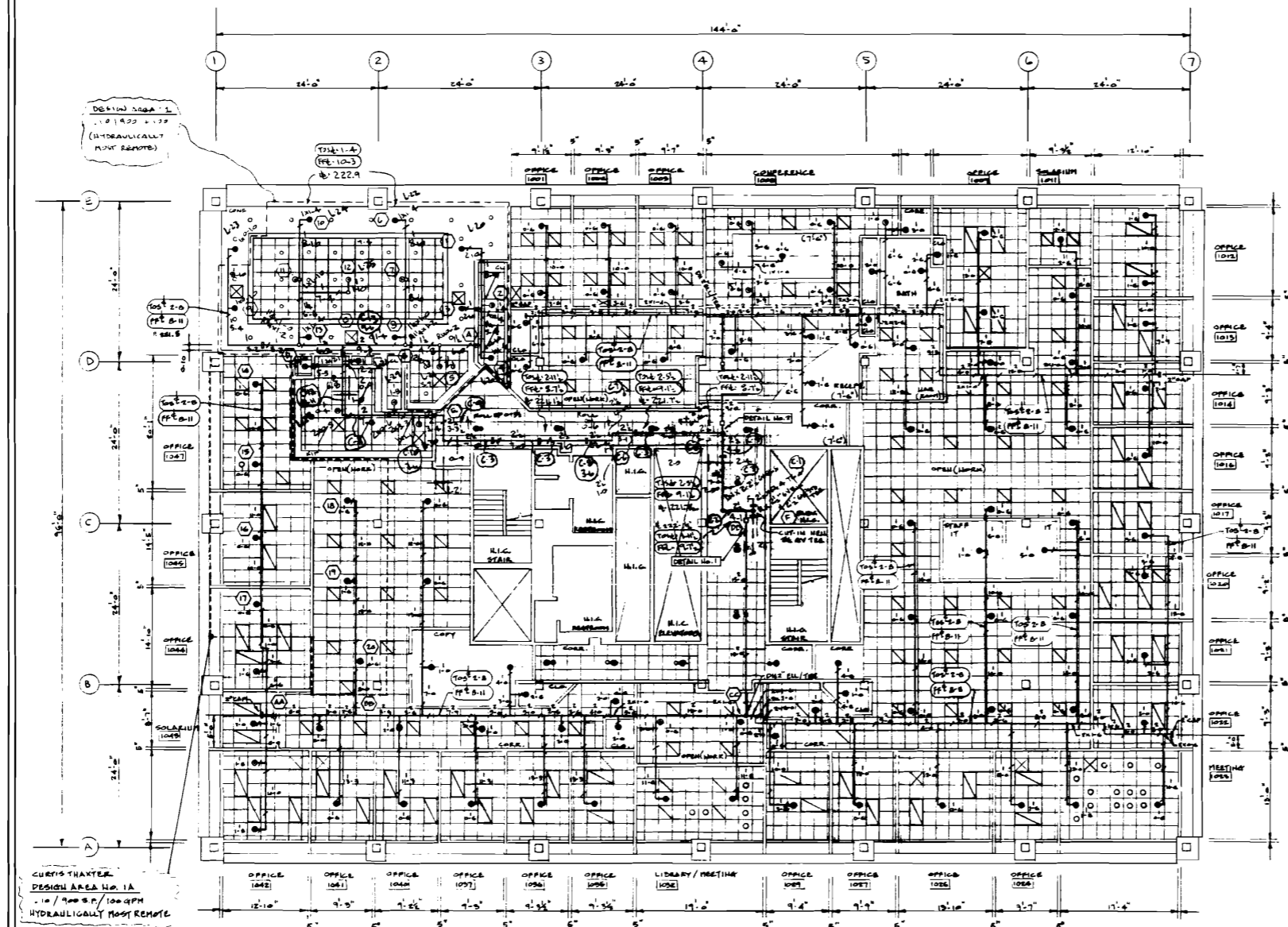
9. System Description: 10,000 sq ft, 1.5 gpm/sq ft, 150 gpm, 175 psi, 150°F, Wet, 100

10. System Manufacturer: Curtis Thaxter, Inc.

11. System Date: 10/20/09

12. System Location: 10 Canal Plaza, Portland, ME

13. System Notes: 7 Sprinkler Heads



HYDRAULIC NODE SUMMARY

1	2	3	4	5	6	7	8	9	10
2 1/2 x 22-0 BL TW	3 x 13-4 BL TW	4 x 11-2 BL TW	4 x 50-0 BL TW	4 x 20-0 BL TW	4 x 30-0 BL TW	4 x 16-0 CLTS	12 x 15-0 CLTS	20, 30, 40, 50	30, 40, 50
T	T	E	3E, T	3E, CV, CV, CV	3E, CV, T	3E, CV, T	3E, CV, T	3E, CV, T	3E, CV, T
221.3	221.3	221.3	109.0	109.0	101.2	101.2	110.0	110.0	110.0

(1278 S.P.) (100 S.P.) (100 S.P.)

PHASE 1	PHASE 2	PHASE 3
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20
21	21	21
22	22	22
23	23	23
24	24	24
25	25	25
26	26	26
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95	95	95
96	96	96
97	97	97
98	98	98
99	99	99
100	100	100

CURTIS THAXTER
DESIGN AREA No. 1A
10,000 S.P. / 100 GPM
HYDRAULICALLY MOST REMOTE
7 SPRINKLER HEADS

PHASE 1 (100 S.P.)
TENTH FLOOR - CURTIS THAXTER (10,000 S.P.)
1/4\"/>

012 5 10 20

LICENSE # 055 R.M.S. # 278 PERMIT # 8078 8079 8080 8081 8082 8083 8084 8085 8086 8087 8088 8089 8090 8091 8092 8093 8094 8095 8096 8097 8098 8099 8100

P.O. BOX 1285 LEWISTON MAINE 04240

KEY BANK RENOV ONE CANAL PLAZA PORTLAND, MAINE 04101

CONTRACT WITH BENCHMARK / BOULOS

SYSTEM TYPE	NO.	DATE	REVISIONS
WET	1	10/20/09	107 FLOOR
DRY	2	11/10/09	CURTIS THAXTER DESIG
DELUGE	3	11/10/09	CURTIS THAXTER DESIG
PREACTION	4	11/10/09	CURTIS THAXTER DESIG
ME LIFE	5	11/10/09	CURTIS THAXTER DESIG

SCALE: DRAWING CHECKED DATE 3/1/10 TOTAL SHEETS 10 PHASE SHEET # SHEET # JOB # 0000 1/1