

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

Please Read Application And Notes, If Any, Attached

PERMIT

PERMIT ISSUED
MAY 29 2002
CITY OF PORTLAND

This is to certify that Peaks Island Company Llc/Sprinkler Systems
has permission to install fire suppression system per plans
AT 33 Island Ave PI 084 L00700

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 inspection must be given and written permission procured before this building or part thereof is altered or closed-in. **48 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. [Signature]
Health Dept. _____
Appeal Board _____
Other _____
Department Name _____

[Signature]
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

Inspection Services
Michael J. Nugent
Manager

Housing & Neighborhood Services
Mark B Adelson
Director



02-0449

CITY OF PORTLAND

April 17, 2002

Peaks Island Company LLC
C/o Ric Weinschenk
33 Island Ave.
Peaks Island, ME 04108

Mike Lahey
Sprinkler Systems, Inc.
P.O.Box 1285
Lewiston, ME 04243

RE: 33 Island Ave. (084 L007)

Hand Delivery/Tele-fax

Dear Mr. Weinschenk

This office has received a set of non-stamped fire suppressions system plans for the above project. Attached is a copy of a memo that was sent on 11/26/01. These plans must be stamped submitted and approved, and a separate permit issued prior to commencement of the installation of the sprinkler system. This office has not issued such a permit. The plans show a system that does not comply with either Chapter 9 of the 1999 BOCA Code or N.F.P.A. 13, the local ordinances that regulate Sprinkler installation. The building was designed exercising design alternatives that require a Fire suppression system in compliance with Section 906 of the BOCA Code. Section 906 references NFPA 13. The proposed system does not comply with either standard. This negates the original building permit approval.

Construction cannot commence until such time as a set of stamped construction documents for the system that comply with both NFPA 13 and BOCA 1999 Chapter 9 are filed with an application and a permit is issued.

Please feel free to contact me at 874-8700 if you wish to discuss the matter or have any questions.

Sincerely,

Mike Nugent
Manager of Inspections Services

SPRINKLER SYSTEMS INC.

P.O. Box 1285
LEWISTON, ME 04243-4865

(207) 782-0104 FAX (207) 783-4865

Letter of Transmittal

TO CITY OF PORTLAND
INSPECTIONS
PORTLAND ME

DATE	<u>S-1-02</u>	JOB NO.	<u>02410</u>
ATTENTION	<u>MIKE NULANT</u>		
RE	<u>INN AT PEAKS ISLAND</u>		
	<u>PEAKS ISLAND, ME</u>		

- > WE ARE SENDING YOU Attached Under separate cover via _____ the following items:
- Shop drawings Prints Plans Samples Specifications
- Copy of letter Change order HYDRAULIC CALC

COPIES	DATE	NO.	DESCRIPTION
<u>2</u>	<u>S-1-02</u>	<u>132F3</u>	<u>REVISED SPRINKLER SHOP DRAWINGS</u>
<u>2</u>	<u>S-1-02</u>	<u>29 PLS</u>	

THESE ARE TRANSMITTED as checked below:

For approval Approved as submitted Resubmit _____ copies for approval

For your use Approved as noted Submit _____ copies for distribution

As requested Returned for corrections Return _____ corrected prints

For review and comment _____

FOR BIDS DUE _____ 20 _____ PRINTS RETURNED AFTER LOAN TO USE

REMARKS PLEASE RETURN 1 APPROVAL LETTER

THANK YOU,
SLOTT E. CARLAND, Sr

COPY TO _____ SIGNED: SLOTT E. CARLAND



State of Maine
Department of Public Safety



Fire Sprinkler System Permit

4373

The Inn at Peaks Island

Located at: Island Avenue
In the Town of: Peaks Island
Occupancy/Use: Mercantile & Restaurant
Type of System: NFPA 13R

Note: Application was resubmitted along with appropriate information to reflect change from Hydro-Pro standard to NFPA 13R.

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 # 202121, 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 4/4/2002 for a fee paid of \$170.00
This permit will expire at midnight on Tuesday, October 01, 2002

Fire Department Connection Location/Type per Local Fire Department

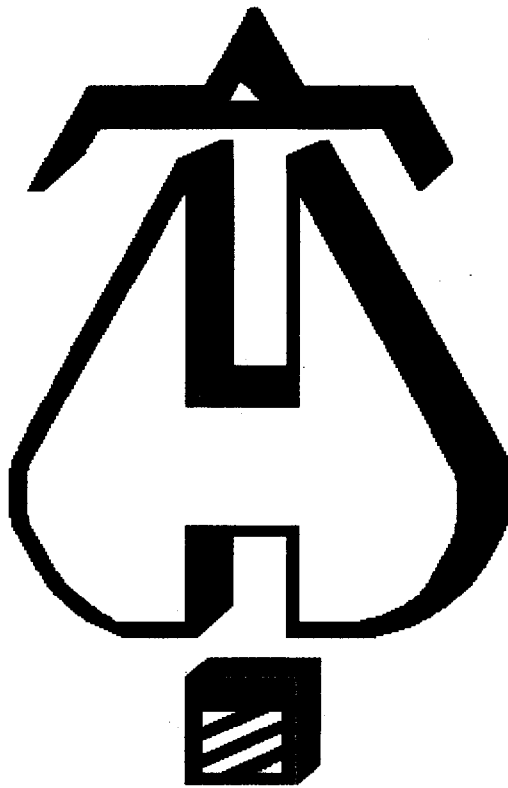
Commissioner

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: J. Marc Kannegieser

RMS Signature: _____



... Fire Protection by Computer Design

SPRINKLER SYSTEMS INC
2-4 AVON STREET
PO BOX 1285
LEWISTON ME 04243
207-782-0104

Job Name : THE INN AT PEAKS (2ND)
Building :
Location : ISLAND AVENUE. PEAKS ISLAND. MAINE 04108
System : 1 OF 1
Contract : 02410
Data File : PEAKS12.WXF

HYDRAULIC DESIGN INFORMATION SHEET

Name - THE INN AT PEAKS ISLAND Date - 5-1-2002
Location - ISLAND AVENUE. PEAKS ISLAND. MAINE 04108
Building - System No. - 1 OF 1
Contractor - RIC WEINSCHENK BUILDERS Contract No. - 02410
Calculated By - SCOTT E. GARLAND Drawing No. - 1-3 OF 3
Construction: (X) Combustible () Non-Combustible Ceiling Height VARIES
OCCUPANCY - RESIDENTIAL - INN

S Type of Calculation: ()NFPA 13 Residential (X)NFPA 13R ()NFPA 13D
Y Number of Sprinklers Flowing: ()1 ()2 ()4 ()
S ()Other
T ()Specific Ruling Made by Date
E
M Listed Flow at Start Point - 16.5 Gpm System Type
Listed Pres. at Start Point - 17.9 Psi (X) Wet () Dry
D MAXIMUM LISTED SPACING 16 x 18 () Deluge () PreAction
E Domestic Flow Added - Gpm Sprinkler or Nozzle
S Additional Flow Added - 100 Gpm Make RELIABLE Model F1/RES 3
I Elevation at Highest Outlet - 66.917Feet Size 3/8 X 1/2 K-Factor 3.9
G Note:DESIGN AREA #1 - 2ND FLOOR UNITS Temperature Rating 155 DEG
N

Calculation Gpm Required 171.51 Psi Required 54.174 At Test
Summary C-Factor Used: Overhead 150 Underground 140

W Water Flow Test: Pump Data: Tank or Reservoir:
A Date of Test - 6-8-1995 Rated Cap. Cap.
T Time of Test - @ Psi Elev.
E Static (Psi) - 90 Elev.
R Residual (Psi) - 38 Other Well
Flow (Gpm) - 1034 Proof Flow Gpm
S Elevation - 43.0

P Location: ISLAND AVENUE. 65 FEET FROM WELSH STREET

P
L Source of Information: PORTLAND WATER DISTRICT
Y

Fitting Legend
Abbrev.

Name

A	Generic Alarm Va
B	Generic Butterfly Valve
C	Roll Groove Coupling
D	Dry Pipe Valve
E	90' Standard Elbow
F	45' Elbow
G	Gate Valve
H	45' Grvd-Vic Elbow
I	90' Grvd-Vic Elbow
J	90' Grvd-Vic Tee
K	Detector Check Valve
L	Long Turn Elbow
M	Medium Turn Elbow
N	PVC Standard Elbow
O	PVC Tee Branch
P	PVC 45' Elbow
Q	Flow Control Valve
R	PVC Coupling/Run Tee
S	Swing Check Valve
T	90' Flow thru Tee
U	45' Firelock Elbow
V	90' Firelock Elbow
W	Wafer Check Valve
X	90' Firelock Tee
Y	Mechanical Tee
Z	Flow Switch

Unadjusted Fittings Table

	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
A							7.7	21.5		17.0
B							7	10		12
C	1	1	1	1	1	1	1	1	1	1
D							9.5	17		28
E	2	2	2	3	4	5	6	7	8	10
F	1	1	1	1	2	2	3	3	3	4
G						1	1	1	1	2
H			1	1.5	2	2	3	3	3.5	3.5
I			2	3	4	3.5	6	5.0	8	7
J			4.5	6	8	8.5	10.8	13	17	16
K								14		14
L	1	1	2	2	2	3	4	5	5	6
M		2	2	3	3	4	5	6	6	8
N	7	7	7	8	9	11	12	13		
O	3	3	5	6	8	10	12	15		
P	1	1	1	2	2	2	3	4		
Q						18		29		35
R	1	1	1	1	1	1	2	2		
S	4	5	5	7	9	11	14	16	19	22
T	3	4	5	6	8	10	12	15	17	20
U						1.8	2.2	2.6		3.4
V						3.5	4.3	5		6.8
W										10.3
X						8.5	10.8	13		16
Y	2.0	4.0	5.0	6.0	8.0	10.5	12.5	15.5		22
Z	2	2	2	3	4	5	6	7	8	10
	5	6	8	10	12	14	16	18	20	24

A	17	27	29							
B	9	10	12	19	21					
C	1	1	1	1	1	1	1	1	1	1
D		47								
E	12	14	18	22	27	35	40	45	50	61
F	5	7	9	11	13	17	19	21	24	28
G	2	3	4	5	6	7	8	10	11	13
H	4.5	5	6.5	8.5	10	18	20	23	25	30
I	8.5	10	13	17	20	23	25	33	36	40
J	21	25	33	41	50	65	78	88	98	120
K		36	55	45						
L	8	9	13	16	18	24	27	30	34	40
M	10	12	16	19	22					
N										
O										
P										
Q		33								
R										
S	27	32	45	55	65	76	87	98	109	130
T	25	30	35	50	60	71	81	91	101	121
U	4.2	5.0	5.0							
V	8.5	10	13							
W		13.1	31.8	35.8	27.4					
X	21	25	33							
Y										
Z	12	14	18	22	27	35	40	45	50	61

Node No.	Elevation	K-Fact	Pt Actual	Pn Actual	Flow Added	Density Req.	Area	Press Req.
TYP	0	3.9	7.25	na	10.5	.1	105	7.2
1	66.917	3.9	17.9	na	16.5	.1	165	17.9
2	62.167	K = K @ DRO	20.57	na	17.44			
3	61.333	3.9	23.2	na	18.78	.1	16.5	17.9
4	61.333	3.9	23.2	na	18.78	.1	16.5	17.9
C	61.333		23.2	na				
A	53.417		30.18	na				
B	53.417		30.38	na				
7	53.417		30.72	na				
D	53.417		31.85	na				
8	53.417		32.43	na				
ET	53.417		35.23	na				
E	52.583		37.94	na				
F	52.583		40.54	na				
G	52.583		42.92	na				
L	52.583		44.74	na				
N	52.583		45.6	na				
R	52.583		46.27	na				
S	42		51.27	na				
T	41.458		52.28	na				
RT	41.458		52.48	na				
RB	37.083		56.47	na				
X1	37.083		56.64	na				
X2	37.083		56.73	na				
X3	43		54.17	na	100			
TEST	43		54.17	na				

The maximum velocity is 14.9 and it occurs in the pipe between nodes B and 7

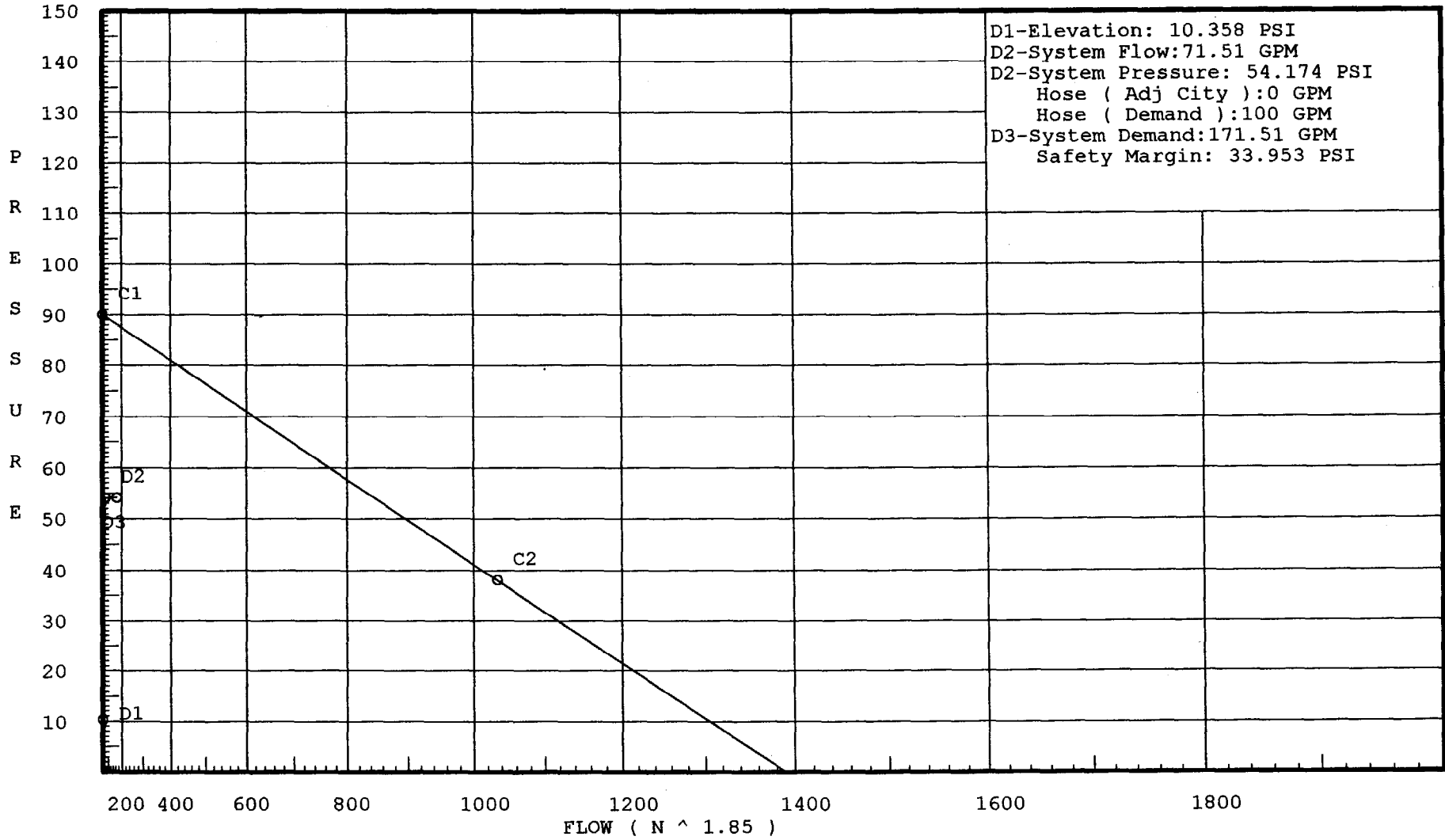
Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/UL	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	***** Notes *****
TYP to DRO	10.50	1.109 150 0.0200	1T	9.906	0.417 9.905 10.322	7.249 0.206	K Factor = 3.9 Vel = 3.488
	10.50					7.455	K Factor = 3.85
1 to 2	16.50	1.109 150 0.0460	1E	3.962	9.250 3.962 13.212	17.900 2.057 0.608	K Factor = 3.9 Vel = 5.480
	16.50					20.565	K Factor = 3.64
2 to A	33.94	1.109 150 0.1747	2E 1T	3.962 9.906	15.500 17.829 33.329	20.565 3.790 5.824	K Factor @ node DRO Vel = 11.273
	33.94					30.179	K Factor = 6.18
3 to C	18.78	1.109 150			0.001	23.196	K Factor = 3.9 Vel = 6.238
	18.78					23.196	K Factor = 3.90
4 to C	18.78	1.109 150			0.001	23.196	K Factor = 3.9 Vel = 6.238
	18.78					23.196	K Factor = 3.90
C to B	37.57	1.109 150 0.2109	1T	9.906	7.917 9.905 17.822	23.197 3.428 3.758	Vel = 12.479
	37.57					30.383	K Factor = 6.82
A to B	33.94	1.109 150 0.1748			1.167	30.179	Vel = 11.273
B to 7	37.57	1.4 150 0.2227			1.500	30.382	Vel = 14.904
7 to D	71.51	1.4 150 0.2231			5.083	30.717	Vel = 14.904
D to 8	71.51	1.4 150 0.2230			2.583	31.850	Vel = 14.904
8 to ET	71.51	1.4 150 0.2230	1T	9.724	2.833 9.724 12.557	32.426 2.800	Vel = 14.904

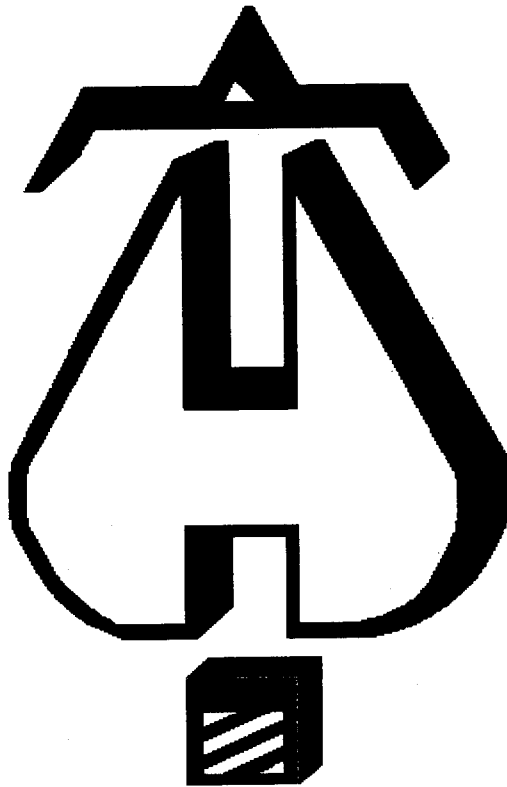
Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/UL	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	***** Notes *****
ET to E	71.51	1.4 150 0.2230	1T	9.724	0.833 9.724 10.557	35.226 0.361 2.354	Vel = 14.904
E to F	71.51	1.4 150 0.2230			11.667 11.667	37.942 2.602	Vel = 14.904
F to G	71.51	1.4 150 0.2230			10.667 10.667	40.543 2.379	Vel = 14.904
G to L	71.51	1.4 150 0.2230			8.167 8.167	42.922 1.821	Vel = 14.904
L to N	71.51	1.4 150 0.2231			3.833 3.833	44.743 0.855	Vel = 14.904
N to R	71.51	2.154 120 0.0414	1T	12.224	4.000 12.224 16.224	45.598 0.671	Vel = 6.296
R to S	71.51	2.635 120 0.0155	1T	16.474	10.583 16.474 27.057	46.268 4.583 0.419	Vel = 4.207
S to T	71.51	2.635 120 0.0155	1E 1T	8.237 16.474	25.083 24.711 49.794	51.271 0.235 0.771	Vel = 4.207
T to RT	71.51	3.260 120 0.0055	1T	20.159	17.000 20.159 37.159	52.277 0.204	Vel = 2.749
RT to RB	71.51	3.026 120 0.0079	2E 1Z	2.489 2.489	4.375 7.468 11.843	52.481 3.895 0.094	Fixed loss = 2 Vel = 3.190
RB to X1	71.51	4.1 140 0.0014	1E 1G 1T	14.534 2.907 29.067	80.000 46.508 126.508	56.469 0.171	Vel = 1.738
X1 to X2	71.51	4.1 140 0.0013	1T	29.067	40.000 29.067 69.067	56.640 0.093	Vel = 1.738
X2 to X3	71.51	8.27 140			65.000 65.000	56.734 -2.563 0.003	Vel = 0.427
X3 to TEST	100.00 171.51	8.27 140			0.001 0.001	54.174	Qa = 100 Vel = 1.024
	171.51					54.174	K Factor = 23.30

City Water Supply:
C1-Static Pressure: 90 PSI
C2-Residual Pressure: 38 PSI
C2-Residual Flow: 1034 GPM

Pump Data:

D1-Elevation: 10.358 PSI
D2-System Flow:71.51 GPM
D2-System Pressure: 54.174 PSI
Hose (Adj City):0 GPM
Hose (Demand):100 GPM
D3-System Demand:171.51 GPM
Safety Margin: 33.953 PSI





... Fire Protection by Computer Design

SPRINKLER SYSTEMS INC
2-4 AVON STREET
PO BOX 1285
LEWISTON ME 04243
207-782-0104

Job Name : THE INN AT PEAKS (1ST)
Building :
Location : ISLAND AVENUE. PEAKS ISLAND. MAINE 04108
System : 1 OF 1
Contract : 02410
Data File : PEAKS22.WXF

Hydraulic Design Information Sheet

Name - THE INN AT PEAKS ISLAND Date - 5-1-2002
 Location - ISLAND AVENUE, PEAKS ISLAND, MAINE 04108
 Building - System No. - 1 OF 1
 Contractor - RIC WEINSCHENK BUILDERS Contract No. - 02410
 Calculated By - SCOTT E. GARLAND Drawing No. - 1-3 OF 3
 Construction: (X) Combustible () Non-Combustible Ceiling Height - 9-11
 Occupancy - RESIDENTIAL - INN

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

S Other NFPA 13-R

T Specific Ruling Made By Date

E
 M Area of Sprinkler Operation - 900 System Type Sprinkler/Nozzle
 Density - .10 (X) Wet Make RELIABLE
 D Area Per Sprinkler - 148.7 () Dry Model F1FR
 E Elevation at Highest Outlet - 53.417 () Deluge Size 1/2 X 1/2
 S Hose Allowance - Inside - () Preaction K-Factor 5.62
 I Rack Sprinkler Allowance - () Other Temp.Rat.155 DEG
 G Hose Allowance - Outside - 100

N

Note DESIGN AREA #2 - SEATING (1ST FLOOR)

Calculation Flow Required - 268.55 Press Required - 61.136 At Test
 Summary C-Factor Used: 150 Overhead 140 Underground

W Water Flow Test: Pump Data: Tank or Reservoir:
 A Date of Test - 6-8-1995 Cap. -
 T Time of Test - Rated Cap.- Elev.-
 E Static Press - 90 @ Press -
 R Residual Press - 38 Elev. - Well
 Flow - 1034 Proof Flow
 S Elevation - 43.0

U

P Location - ISLAND AVENUE, 65 FEET FROM WELSH STREET

P

L 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

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

G

E Horizontal Barriers Provided:

Node No.	Elevation	K-Fact	Pt Actual	Pn Actual	Flow Added	Density Req.	Area	Press Req.
TYP	0	5.62	7	na	14.87	.1	148.7	7.0
5	53.417	K = K @ DRO	7.4	na	14.87			
6	53.417	K = K @ DRO	7.73	na	15.2			
A	53.417		8.47	na				
B	53.417		8.64	na				
7	53.417	K = K @ DRO	8.7	na	16.13			
D	53.417		9.21	na				
8	53.417	K = K @ DRO	9.47	na	16.82			
9	53.417	K = K @ DRO	10.84	na	18			
10	53.417	K = K @ DRO	7.94	na	15.4			
11	53.417	K = K @ DRO	8.29	na	15.74			
12	53.417	K = K @ DRO	9.48	na	16.84			
13	53.417	K = K @ DRO	12.03	na	18.96			
14	53.417	K = K @ DRO	14.16	na	20.58			
ET	53.417		11.68	na				
FT	53.417		14.5	na				
E	52.583		15.01	na				
F	52.583		18.29	na				
G	52.583		29.91	na				
L	52.583		38.8	na				
N	52.583		42.98	na				
R	52.583		46.26	na				
S	42		52.89	na				
T	41.458		56.89	na				
RT	41.458		57.89	na				
RB	37.083		62.39	na				
X1	37.083		63.23	na				
X2	37.083		63.68	na				
X3	43		61.14	na	100			
TEST	43		61.14	na				

The maximum velocity is 35.13 and it occurs in the pipe between nodes F and G

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/UL	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	***** Notes *****
TYP to DRO	14.87	1.109 150 0.0380	1T	9.906	0.500 9.905 10.405	7.001 0.395	K Factor = 5.62 Vel = 4.939
	14.87					7.396	K Factor = 5.47
5 to 6	14.87	1.109 150 0.0379			8.750	7.396	K Factor @ node DRO Vel = 4.939
6 to A	15.20 30.07	1.109 150 0.1397			5.333	7.728 0.745	K Factor @ node DRO Vel = 9.988
A to B	30.07	1.109 150 0.1397			1.167	8.473 0.163	Vel = 9.988
B to 7	30.07	1.4 150 0.0447			1.500	8.636 0.067	Vel = 6.267
7 to D	16.13 46.20	1.4 150 0.0994			5.083	8.703 0.505	K Factor @ node DRO Vel = 9.629
D to 8	46.20	1.4 150 0.0995			2.583	9.208 0.257	Vel = 9.629
8 to ET	16.82 63.02	1.4 150 0.1765	1T	9.724	2.833 9.724 12.557	9.465 2.216	K Factor @ node DRO Vel = 13.134
	63.02					11.681	K Factor = 18.44
9 to ET	18.00	1.109 150 0.0541	1T	9.906	5.667 9.905 15.572	10.840 0.842	K Factor @ node DRO Vel = 5.979
	18.00					11.682	K Factor = 5.27
10 to 11	15.40	1.109 150 0.0405			8.750	7.936 0.354	K Factor @ node DRO Vel = 5.115
11 to 12	15.75 31.15	1.109 150 0.1491			8.000	8.291 1.193	K Factor @ node DRO Vel = 10.346
12 to 13	16.84 47.99	1.109 150 0.3317			7.667	9.484 2.543	K Factor @ node DRO Vel = 15.940
13 to FT	18.96 66.95	1.4 150 0.1974	1T	9.724	2.833 9.724 12.557	12.026 2.479	K Factor @ node DRO Vel = 13.954

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/UL	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	***** Notes *****
	66.95					14.505	K Factor = 17.58
14 to FT	20.58	1.4 150	1T	9.724	5.667 9.724	14.162	K Factor @ node DRO
	20.58	0.0223			15.391	0.343	Vel = 4.289
	20.58					14.505	K Factor = 5.40
ET to E	81.03	1.4 150	1T	9.724	0.833 9.724	11.682	
	81.03	0.2810			10.557	2.967	Vel = 16.888
	81.03					15.010	K Factor = 20.91
FT to F	87.53	1.4 150	1T	9.724	0.833 9.724	14.505	
	87.53	0.3241			10.557	3.422	Vel = 18.243
	87.53					18.288	K Factor = 20.47
E to F	81.03	1.4 150			11.667	15.009	
	81.03	0.2810			11.667	3.279	Vel = 16.888
F to G	87.52	1.4 150			10.667	18.287	
	168.55	1.0893			10.667	11.620	Vel = 35.129
G to L		1.4 150			8.167	29.908	
	168.55	1.0894			8.167	8.897	Vel = 35.129
L to N		1.4 150			3.833	38.805	
	168.55	1.0895			3.833	4.176	Vel = 35.129
N to R		2.154 120	1T	12.224	4.000 12.224	42.980	
	168.55	0.2019			16.224	3.276	Vel = 14.840
R to S		2.635 120	1T	16.474	10.583 16.474	46.256	
	168.55	0.0757			27.057	2.047	Vel = 9.916
S to T		2.635 120	1E 1T	8.237 16.474	25.083 24.711	52.887	
	168.55	0.0757			49.794	3.768	Vel = 9.916
T to RT		3.26 120	1T	20.159	17.000 20.159	56.889	
	168.55	0.0268			37.159	0.997	Vel = 6.479
RT to RB		3.026 120	2E 1Z	2.489 2.489	8.375 7.468	57.887	
	168.55	0.0386			15.843	0.611	Fixed loss = 2 Vel = 7.519

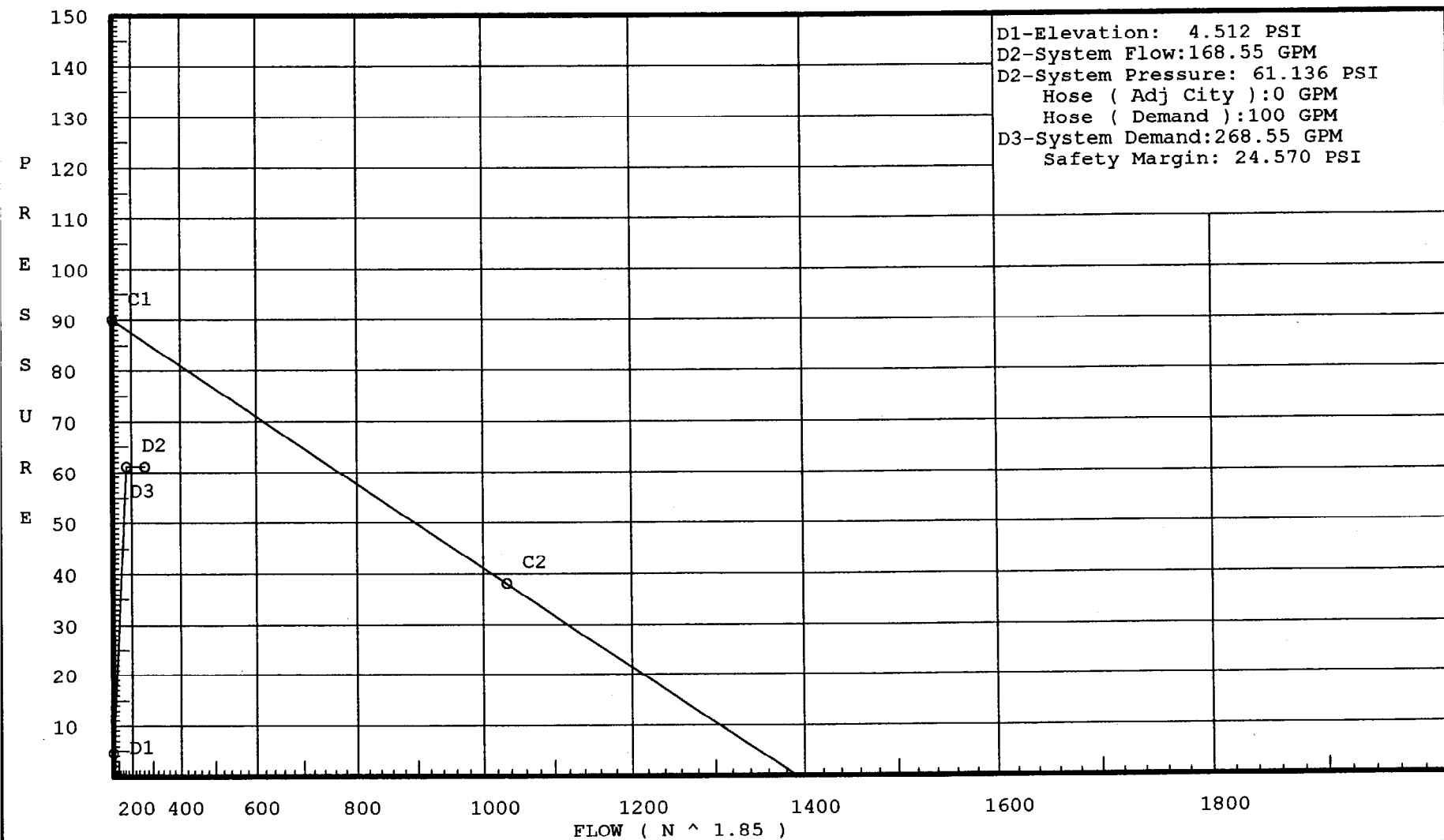
Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/UL	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	***** Notes *****
RB to X1	168.55	4.1 140 0.0066	1E 1G 1T	14.534 2.907 29.067	80.000 46.508 126.508	62.393 0.836	Vel = 4.096
X1 to X2	168.55	4.1 140 0.0066	1T	29.067	40.000 29.067 69.067	63.228 0.456	Vel = 4.096
X2 to X3	168.55	8.27 140 0.0002			65.000 63.685 -2.563 65.000	0.014	Vel = 1.007
X3 to TEST	100.00 268.55	8.27 140			0.001 61.136		Qa = 100 Vel = 1.604
	268.55				61.136		K Factor = 34.35

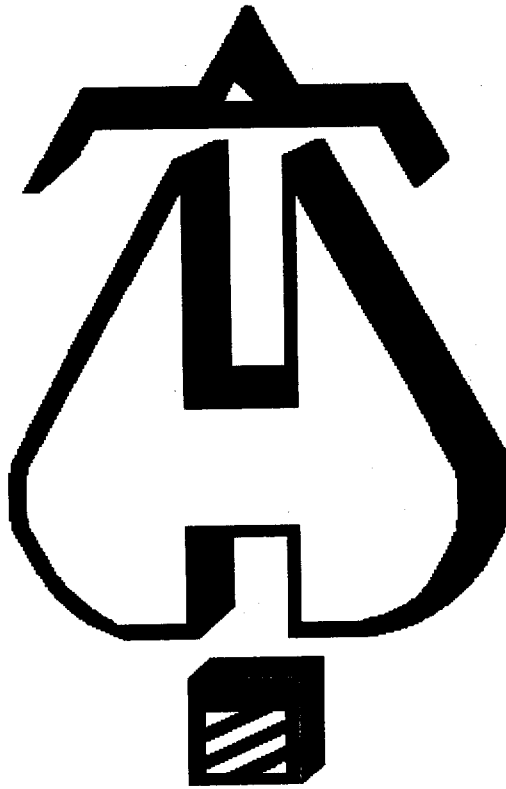
City Water Supply:

C1-Static Pressure: 90 PSI
C2-Residual Pressure: 38 PSI
C2-Residual Flow: 1034 GPM

Pump Data:

D1-Elevation: 4.512 PSI
D2-System Flow:168.55 GPM
D2-System Pressure: 61.136 PSI
Hose (Adj City):0 GPM
Hose (Demand):100 GPM
D3-System Demand:268.55 GPM
Safety Margin: 24.570 PSI





... Fire Protection by Computer Design

SPRINKLER SYSTEMS INC
2-4 AVON STREET
PO BOX 1285
LEWISTON ME 04243
207-782-0104

Job Name : THE INN AT PEAKS (1ST)
Building :
Location : ISLAND AVENUE. PEAKS ISLAND. MAINE 04108
System : 1 OF 1
Contract : 02410
Data File : PEAKS32.WXF

Hydraulic Design Information Sheet

Name - THE INN AT PEAKS ISLAND Date - 5-1-2002
Location - ISLAND AVENUE, PEAKS ISLAND, MAINE 04108
Building - System No. - 1 OF 1
Contractor - RIC WEINSCHENK BUILDERS Contract No. - 02410
Calculated By - SCOTT E. GARLAND Drawing No. - 1-3 OF 3
Construction: (X) Combustible () Non-Combustible Ceiling Height - 9-11
Occupancy - RESIDENTIAL - INN

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

T	Specific Ruling	Made By	Date
E			
M	Area of Sprinkler Operation - 900	System Type	Sprinkler/Nozzle
	Density - .15	(X) Wet	Make RELIABLE
D	Area Per Sprinkler - 130	() Dry	Model F1FR
E	Elevation at Highest Outlet - 53.417	() Deluge	Size 1/2 X 1/2
S	Hose Allowance - Inside -	() Preaction	K-Factor 5.62
I	Rack Sprinkler Allowance -	() Other	Temp.Rat.200 DEG
G	Hose Allowance - Outside - 250		
N			

Note DESIGN AREA #3 - KITCHEN (1ST FLOOR)

Calculation Flow Required - 477.44 Press Required - 67.779 At Test
Summary C-Factor Used: 150 Overhead 140 Underground

W	Water Flow Test:	Pump Data:	Tank or Reservoir:
A	Date of Test - 6-8-1995		Cap. -
T	Time of Test -	Rated Cap.-	Elev.-
E	Static Press - 90	@ Press -	
R	Residual Press - 38	Elev. -	Well
	Flow - 1034		Proof Flow
S	Elevation - 43.0		

U
P Location - ISLAND AVENUE, 65 FEET FROM WELSH STREET

P
L Source of Information - PORTLAND WATER DISTRICT

C	Commodity	Class	Location
O	Storage Ht.	Area	Aisle W.
M	Storage Method:	Solid Piled %	Palletized % Rack
	() 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:

Node No.	Elevation	K-Fact	Pt Actual	Pn Actual	Flow Added	Density Req.	Area	Press Req.
TYP	0	5.62	10.43	na	18.15	.15	121	10.43
15	53.417	K = K @ DRO	23.42	na	26.48			
AA	53.417		24.66	na				
14	53.417		25.23	na				
FT	53.417		25.76	na				
16	53.417	K = K @ DRO	15.02	na	21.21			
H	53.417		15.38	na				
17	53.417	K = K @ DRO	15.67	na	21.66			
18	53.417	K = K @ DRO	17.75	na	23.06			
19	53.417	K = K @ DRO	11	na	18.15			
20	53.417	K = K @ DRO	11.44	na	18.51			
21	53.417	K = K @ DRO	12.95	na	19.69			
22	53.417	K = K @ DRO	21.56	na	25.41			
23	53.417	K = K @ DRO	22.48	na	25.95			
24	53.417	K = K @ DRO	24.93	na	27.32			
M	53.417		27.27	na				
GT	53.417		20.16	na				
LT	53.417		30.77	na				
F	52.583		26.5	na				
G	52.583		26.88	na				
L	52.583		33.94	na				
N	52.583		41.21	na				
R	52.583		46.43	na				
S	42		54.58	na				
T	41.458		61.37	na				
RT	41.458		63.11	na				
RB	37.083		68.07	na				
X1	37.083		69.52	na				
X2	37.083		70.32	na				
X3	43		67.78	na	250			
TEST	43		67.78	na				

The maximum velocity is 47.4 and it occurs in the pipe between nodes L and N

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/UL	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	***** Notes *****
TYP to DRO	18.15	1.109 150 0.0549	1T	9.906	0.500 9.905 10.405	10.430	K Factor = 5.62 Vel = 6.028
	18.15					11.001	K Factor = 5.47
15 to AA	26.48	1.109 150 0.1104	1T	9.906	1.333 9.905 11.238	23.421	K Factor @ node DRO Vel = 8.795
AA to 14	26.48	1.4 150 0.0355			16.000 16.000	24.662	Vel = 5.519
14 to FT	26.48	1.4 150 0.0355	1T	9.724	5.250 9.724 14.974	25.230	Vel = 5.519
FT to F	26.48	1.4 150 0.0355	1T	9.724	0.833 9.724 10.557	25.761	Vel = 5.519
	26.48					26.497	K Factor = 5.14
16 to H	21.21	1.109 150 0.0732			4.833 4.833	15.021	K Factor @ node DRO Vel = 7.045
H to 17	21.21	1.109 150 0.0733			4.000 4.000	15.375	Vel = 7.045
17 to 18	21.66	1.109 150 0.2692			7.750 7.750	15.668	K Factor @ node DRO Vel = 14.239
18 to GT	23.06	1.4 150 0.1918	1T	9.724	2.833 9.724 12.557	17.754	K Factor @ node DRO Vel = 13.741
	65.93					20.163	K Factor = 14.68
19 to 20	18.15	1.109 150 0.0549			8.000 8.000	11.001	K Factor @ node DRO Vel = 6.028
20 to 21	18.51	1.109 150 0.2015			7.500 7.500	11.440	K Factor @ node DRO Vel = 12.176
21 to GT	19.69	1.109 150 0.4464	1T	9.906	6.250 9.905 16.155	12.951	K Factor @ node DRO Vel = 18.716
	56.35					20.162	K Factor = 12.55

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/UL	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	***** Notes *****
22 to 23	25.41 25.41	1.109 150 0.1023		9.000 9.000	21.561 0.921		K Factor @ node DRO Vel = 8.440
23 to 24	25.95 51.36	1.109 150 0.3760		6.500 6.500	22.482 2.444		K Factor @ node DRO Vel = 17.059
24 to M	27.32 78.68	1.109 150 0.8277		2.833 2.833	24.926 2.345		K Factor @ node DRO Vel = 26.133
M to LT		1.4 150 0.2661	1T 9.724	3.417 9.724 13.141	27.270 3.497		Vel = 16.398
	78.68				30.767		K Factor = 14.18
GT to G	122.28 122.28	1.4 150 0.6016	1T 9.724	0.833 9.724 10.557	20.163 0.361 6.351		Vel = 25.485
	122.28				26.875		K Factor = 23.59
LT to L	78.68 78.68	1.4 150 0.2661	1T 9.724	0.833 9.724 10.557	30.767 0.361 2.809		Vel = 16.398
	78.68				33.937		K Factor = 13.51
F to G	26.48 26.48	1.4 150 0.0355		10.667 10.667	26.497 0.379		Vel = 5.519
G to L	122.28 148.76	1.4 150 0.8646		8.167 8.167	26.876 7.061		Vel = 31.004
L to N	78.68 227.44	1.4 150 1.8964		3.833 3.833	33.937 7.269		Vel = 47.402
N to R		2.154 150 0.2326	1T 18.471	4.000 18.470 22.470	41.206 5.227		Vel = 20.025
R to S		2.635 120 0.1317	1T 16.474	10.583 16.474 27.057	46.433 4.583 3.564		Vel = 13.381
S to T		2.635 120 0.1317	1E 1T 16.474	8.237 24.711 49.794	25.083 0.235 6.559		Vel = 13.381
T to RT		3.26 120 0.0467	1T 20.159	17.000 20.159 37.159	61.374 1.736		Vel = 8.742

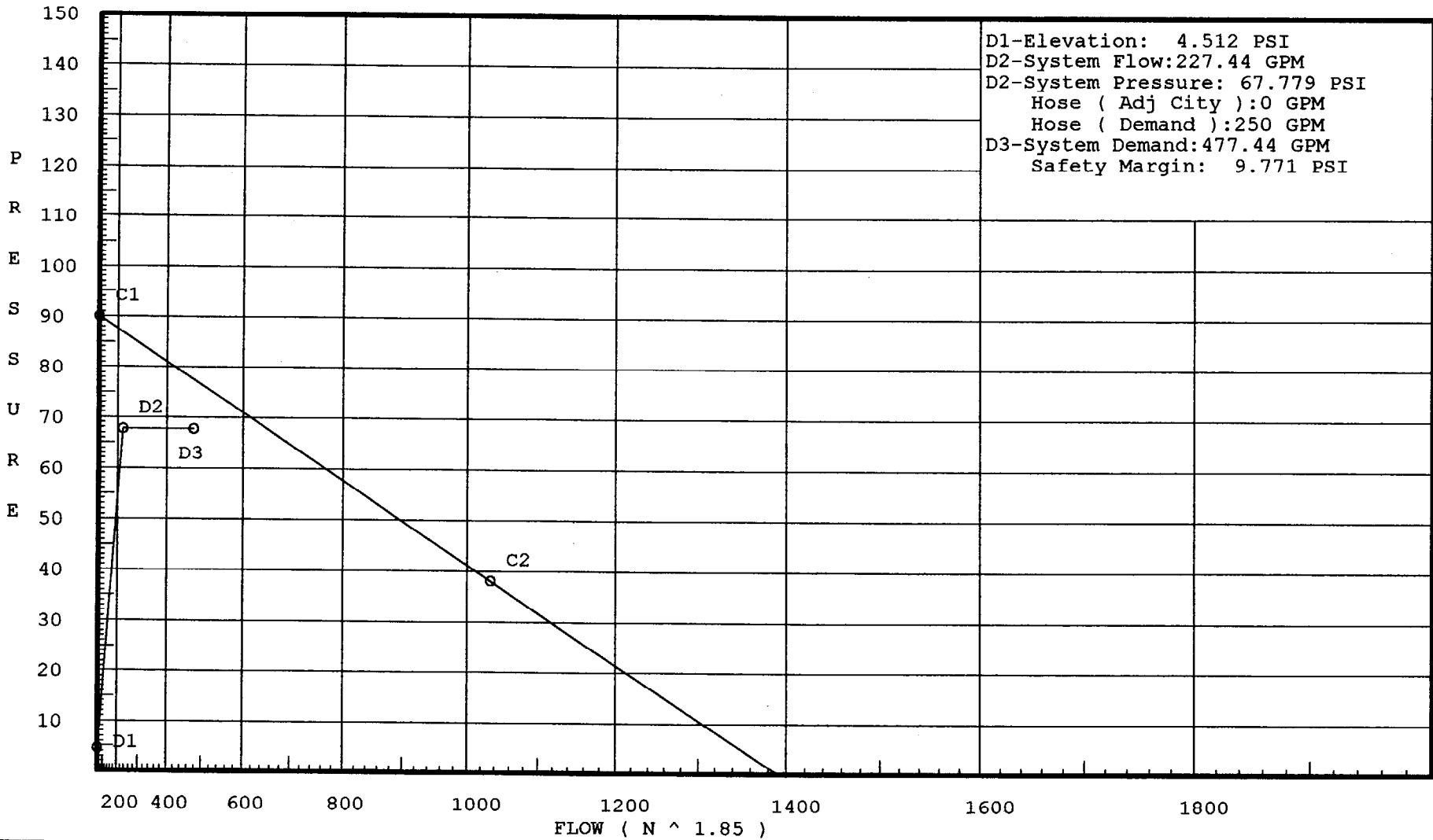
Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/UL	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	***** Notes *****
RT to RB	227.44	3.026 120 0.0672	2E 1Z	2.489 2.489	8.375 7.468 15.843	63.110 3.895 1.064	Fixed loss = 2 Vel = 10.147
RB to X1	227.44	4.1 140 0.0115	1E 1G 1T	14.534 2.907 29.067	80.000 46.508 126.508	68.068 1.455	Vel = 5.527
X1 to X2	227.44	4.1 140 0.0115	1T	29.067	40.000 29.067 69.067	69.523 0.794	Vel = 5.527
X2 to X3	227.44	8.27 140 0.0004			65.000 65.000	70.318 -2.563 0.025	Vel = 1.358
X3 to TEST	250.00 477.44	8.27 140			0.001 0.001	67.779	Qa = 250 Vel = 2.852
	477.44					67.779	K Factor = 57.99

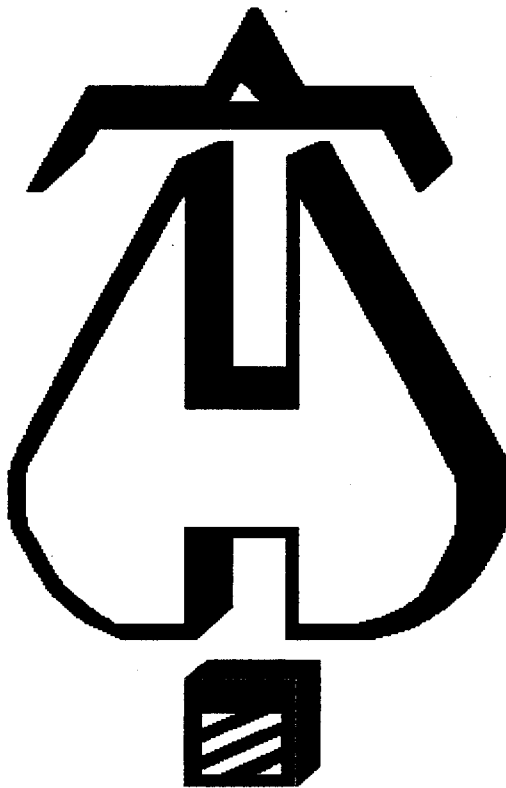
City Water Supply:

C1-Static Pressure: 90 PSI
C2-Residual Pressure: 38 PSI
C2-Residual Flow: 1034 GPM

Pump Data:

D1-Elevation: 4.512 PSI
D2-System Flow: 227.44 GPM
D2-System Pressure: 67.779 PSI
Hose (Adj City): 0 GPM
Hose (Demand): 250 GPM
D3-System Demand: 477.44 GPM
Safety Margin: 9.771 PSI





... Fire Protection by Computer Design

SPRINKLER SYSTEMS INC
2-4 AVON STREET
PO BOX 1285
LEWISTON ME 04243
207-782-0104

Job Name : THE INN AT PEAKS (1ST)
Building :
Location : ISLAND AVENUE. PEAKS ISLAND. MAINE 04108
System : 1 OF 1
Contract : 02410
Data File : PEAKS42.WXF

Hydraulic Design Information Sheet

Name - THE INN AT PEAKS ISLAND Date - 5-1-2002
 Location - ISLAND AVENUE, PEAKS ISLAND, MAINE 04108
 Building - System No. - 1 OF 1
 Contractor - RIC WEINSCHENK BUILDERS Contract No. - 02410
 Calculated By - SCOTT E. GARLAND Drawing No. - 1-3 OF 3
 Construction: (X) Combustible () Non-Combustible Ceiling Height - 9-11
 Occupancy - RESIDENTIAL - INN

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

S Other NFPA 13-R

T Specific Ruling Made By Date

E
 M Area of Sprinkler Operation - 900 System Type Sprinkler/Nozzle
 Density - .20 (X) Wet Make RELIABLE
 D Area Per Sprinkler - 120 () Dry Model F1FR
 E Elevation at Highest Outlet - 53.417 () Deluge Size 1/2 X 1/2
 S Hose Allowance - Inside - () Preaction K-Factor 5.62
 I Rack Sprinkler Allowance - () Other Temp.Rat.155 DEG
 G Hose Allowance - Outside - 250
 N

Note DESIGN AREA #4 - HARDWARE STORE (1ST FLOOR)

Calculation Flow Required - 538.92 Press Required - 65.498 At Test
 Summary C-Factor Used: 150 Overhead 140 Underground

W Water Flow Test: Pump Data: Tank or Reservoir:
 A Date of Test - 6-8-1995 Cap. -
 T Time of Test - Rated Cap.- Elev.-
 E Static Press - 90 @ Press -
 R Residual Press - 38 Elev. - Well
 Flow - 1034 Proof Flow
 S Elevation - 43.0

U
 P Location - ISLAND AVENUE, 65 FEET FROM WELSH STREET

P
 L 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:

Node No.	Elevation	K-Fact	Pt Actual	Pn Actual	Flow Added	Density Req.	Area	Press Req.
TYP	0	5.62	13.93	na	20.98	.20	104.89	13.933
30	53.417	K = K @ DRO	14.68	na	20.98			
31	53.417	K = K @ DRO	15.31	na	21.42			
32	53.417	K = K @ DRO	17.42	na	22.85			
33	53.417	K = K @ DRO	18.86	na	23.78			
34	53.417	K = K @ DRO	20.56	na	24.83			
35	53.417	K = K @ DRO	21.33	na	25.29			
TA	53.417		23.06	na				
36	53.417	K = K @ DRO	15.89	na	21.83			
37	53.417	K = K @ DRO	16.57	na	22.29			
38	53.417	K = K @ DRO	18.84	na	23.77			
39	53.417	K = K @ DRO	20.39	na	24.73			
TB	53.417		24.91	na				
40	53.417	K = K @ DRO	26.77	na	28.33			
41	53.417	K = K @ DRO	27.75	na	28.84			
TC	53.417		29.95	na				
AB	52.583		30.02	na				
BB	52.583		30.02	na				
CB	52.583		30.67	na				
R	52.583		35.69	na				
S	42		45.82	na				
T	41.458		56.27	na				
RT	41.458		58.97	na				
RB	37.083		64.52	na				
X1	37.083		66.79	na				
X2	37.083		68.02	na				
X3	43		65.5	na	250			
TEST	43		65.5	na				

The maximum velocity is 20.4 and it occurs in the pipe between nodes TB and BB

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/UL	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	***** Notes *****
TYP to DRO	20.98	1.109 150 0.0718	1T	9.906	0.500 9.905 10.405	13.933 0.747	K Factor = 5.62 Vel = 6.968
	20.98					14.680	K Factor = 5.48
30 to 31	20.98	1.109 150 0.0718			8.750	14.680	K Factor @ node DRO Vel = 6.968
31 to 32	21.42 42.40	1.109 150 0.2638			8.000	15.308 2.110	K Factor @ node DRO Vel = 14.083
32 to 33	22.85 65.25	1.4 150 0.1882			7.667	17.418 1.443	K Factor @ node DRO Vel = 13.599
33 to TA	23.78 89.03	1.4 150 0.3345	1T	9.724	2.833 9.724 12.557	18.861 4.200	K Factor @ node DRO Vel = 18.555
	89.03					23.061	K Factor = 18.54
34 to 35	24.83	1.109 150 0.0980			7.833	20.563	K Factor @ node DRO Vel = 8.247
35 to TA	25.29 50.12	1.4 150 0.1155	1T	9.724	5.250 9.724 14.974	21.331 1.730	K Factor @ node DRO Vel = 10.446
	50.12					23.061	K Factor = 10.44
TA to TB	139.14	2.154 120 0.1416	1T	12.224	0.833 12.224 13.057	23.061 1.849	Vel = 12.250
	139.14					24.910	K Factor = 27.88
36 to 37	21.83	1.109 150 0.0773			8.750	15.894	K Factor @ node DRO Vel = 7.251
37 to 38	22.29 44.12	1.109 150 0.2839			8.000	16.569 2.271	K Factor @ node DRO Vel = 14.654
38 to 39	23.76 67.88	1.4 150 0.2026			7.667	18.840 1.553	K Factor @ node DRO Vel = 14.147
39 to TB	24.73 92.61	1.4 150 0.3598	1T	9.724	2.833 9.724 12.557	20.393 4.518	K Factor @ node DRO Vel = 19.302

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/UL	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	***** Notes *****
TB to BB	139.14 231.75	2.154 120 0.3639	1T	12.224	0.833 12.224 13.057	24.910 0.361 4.752	Vel = 20.404
	231.75					30.023	K Factor = 42.30
40 to 41	28.33 28.33	1.109 150 0.1251			7.833 7.833	26.767 0.980	K Factor @ node DRO Vel = 9.410
41 to TC	28.84 57.17	1.4 150 0.1474	1T	9.724	5.250 9.724 14.974	27.746 2.207	K Factor @ node DRO Vel = 11.915
TC to CB		2.154 120 0.0273	1T	12.224	0.833 12.224 13.057	29.953 0.361 0.357	Vel = 5.033
	57.17					30.671	K Factor = 10.32
AB to BB	-0.01 -0.01	2.635 120			7.500 7.500	30.023	Vel = -0.001
BB to CB	231.76 231.75	2.635 120 0.1364			4.750 4.750	30.023 0.648	Vel = 13.635
CB to R	57.17 288.92	2.635 120 0.2051	1T	16.474	8.000 16.474 24.474	30.671 5.019	Vel = 16.998
	288.92					35.690	K Factor = 48.36
R to S	288.92 288.92	2.635 120 0.2050	1T	16.474	10.583 16.474 27.057	35.690 4.583 5.548	Vel = 16.998
S to T		2.635 120 0.2051	1E 1T	8.237 16.474	25.083 24.711 49.794	45.822 0.235 10.211	Vel = 16.998
T to RT		3.26 120 0.0727	1T	20.159	17.000 20.159 37.159	56.267 2.703	Vel = 11.105
RT to RB		3.026 120 0.1045	2E 1Z	2.489 2.489	8.375 7.468 15.843	58.970 3.895 1.656	Fixed loss = 2 Vel = 12.889
RB to X1		4.1 140 0.0179	1E 1G 1T	14.534 2.907 29.067	80.000 46.508 126.508	64.521 2.265	Vel = 7.021
X1 to X2		4.1 140 0.0179	1T	29.067	40.000 29.067 69.067	66.786 1.237	Vel = 7.021

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/UL	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	***** Notes *****
X2 to X3	288.92	8.27 140 0.0006		65.000	68.023 -2.563 0.038		Vel = 1.726
X3 to TEST	250.00 538.92	8.27 140		0.001	65.498		Qa = 250 Vel = 3.219
	538.92				65.498		K Factor = 66.59

City Water Supply:

C1-Static Pressure: 90 PSI
C2-Residual Pressure: 38 PSI
C2-Residual Flow: 1034 GPM

Pump Data:

D1-Elevation: 4.512 PSI
D2-System Flow: 288.92 GPM
D2-System Pressure: 65.498 PSI
Hose (Adj City): 0 GPM
Hose (Demand): 250 GPM
D3-System Demand: 538.92 GPM
Safety Margin: 8.926 PSI

