City of Portland, Maine - Building or Use Permit Application

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

Permit No:	Issue Date:	CBL:
10-1244		434 C005001

Location of Construction:	Owner Name:	Owner Address:	Phone:
331 Veranda St	Martin's Point Health Care Inc	331 Veranda St	
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
Martin's Point Health Care Inc	Sprinkler System, Inc	P.O. Box 1285 Lewiston	2077820104
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	**Zone:**
		Sprinkler Systems	R-P

Past Use:	Proposed Use:	Permit Fee:	Cost of Work:	CEO District:
Commercial / Martin's Point Health Care Inc.	Commercial / Martin's Point Health Care Inc.: Install Sprinkler System.	$340.00	$32,000.00	4

FIRE DEPT: ☑ Approved ☐ Denied

*See Conditions

Signature: KG

INSPECTION:
Use Group: Type:

Signature:

Proposed Project Description:
Install Sprinkler System.

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)

Action: ☐ Approved ☐ Approved w/Conditions ☐ Denied

Signature: Date:

Permit Taken By:	Date Applied For:
gg	10/05/2010

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..

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
☐ Shoreland	☐ Variance	☐ Not in District or Landmark
☐ Wetland	☐ Miscellaneous	☐ Does Not Require Review
☐ Flood Zone	☐ Conditional Use	☐ Requires Review
☐ Subdivision	☐ Interpretation	☐ Approved
☐ Site Plan	☐ Approved	☐ Approved w/Conditions
Maj ☐ Minor ☐ MM ☐	☐ Denied	☐ Denied
Date: OK 10/8/10	Date:	Date: OLD Hospital Bldgs is ALandmark Bldg

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

MAIL PERMIT TO: SPRINKLER SYSTEMS INC
PO BOX 1205
LEWISTON, ME 04240

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: 331 Veranda Street CBL: 434 C 005

Exact location: (within structure) Entire Building

Type of occupancy(s) (NFPA & ICC): Office and Automobile Parking

Building owner: Martin's Point Health Care

Managing Supervisor (RMS): Clayton Saucier License No: 442

Supervisor phone: 782-0104 E-mail: Clayton@SprinklerSystemsInc.com

Installing contractor: Sprinkler Systems, Inc. License No: 093

Contractor phone: 782-0104 E-mail:

The suppression work to be done will be: New: (X) Renovation: ( ) Addition to existing system: ( )

This is an amendment to an existing permit: Yes: ( ) NO (X) Permit no:

NFPA Standard this system is designed to: 13 Edition: 2007

*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: 32,000

PERMIT FEE: 340.00

($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: Michael Farley Date: 10/4/10

Sprinkler Systems, Inc.

P.O. Box 1285
Lewiston, Maine 04243-1285
Ph. (207) 782-0104 Fax (207) 783-4865
Fire Protection Professionals Since 1973

October 4, 2010

Pizzagalli Construction
131 Presumpscot Street
Portland, ME 04103

Re: Martin's Point

Gentlemen:

This letter is to certify that the sprinkler system in the aforementioned location is active and is designed and installed in accordance with NFPA #13 and all other state and local codes.

If there are any questions or concerns please do not hesitate to call.

Very truly yours,
Sprinkler Systems, Inc.

Michael Lahey
General Manager

07-082

Sprinkler Systems, Inc.

Contractor's Material & Test Certificate for Aboveground Pipe

Procedure

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defect shall be corrected and system left in service before contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, and contractor. It is understood the owner's representative signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

Property Name Martin's Point Health Care – Medical Office Building — **Date** 6/24/10

Property Address 331 Veranda Drive, Portland, Maine

Plans

Accepted by approving authorities (Names) Maine State Fire Marshals Office
Address 52 State House Station Augusta, Maine 04333-0052
Installation conforms to accepted plans — Yes ☒ No ☐
Equipment used is approved, if no, explain deviations — Yes ☒ No ☐

Instructions

Has person in charge of fire equipment been instructed as to location of control valve and care and maintenance of this new equipment? — Yes ☒ No ☐
If no, explain:

Have copies of the following been left on the premises?
1. System components instructions — Yes ☒ No ☐
2. Care and maintenance instructions — Yes ☒ No ☐
3. NFPA 25 — Yes ☐ No ☒

Location of System

Supplies Area: Level 1 - Parking / Level 2 - Parking

Sprinklers

Make	Model	Year of Mfg.	Orifice Size	Quantity	Temp Rating
Globe	GL5615	2010	½"	334	200°F.
Globe	GL5635	2010	½"	2	200°F.
Globe	GL5626	2010	½"	2	200°F

Pipe and Fittings

Type of pipe: As Per N.F.P.A.-13
Type of fittings: As Per N.F.P.A.-13

Alarm Valve or Flow Indicator

NA

Alarm Device			Maximum time to operate through test connection	
Type	Make	Model	Min	Sec

Dry Pipe Operating Test

Dry Valve				QOD		
Make		Model	Serial #	Make	Model	Serial #

	Time to trip through test connection	Water Pressure	Air Pressure	Trip Point Air Pressure	Time Water Reached Test Outlet	Alarm Operated Properly
With QOD	MIN SEC	PSI	PSI	PSI	MIN SEC	YES NO
W/O QOD	MIN SEC	PSI	PSI	PSI	MIN SEC	YES NO

If no explain:

Deluge & Preaction Valve NA	Operation:	*Circle One*	Pneumatic	Electric	Hydraulic			
	Piping Supervised	Yes	No	Detection Media Supervised		Yes	No	
	Does valve operate from the manual trip, remote, or both control stations?					Yes	No	
	Is there an accessible facility in each circuit for testing? If no, explain.					Yes	No	
	Make	Model	Does each circuit operate supervision loss alarm?		Does each circuit operate valve release?		Maximum time to operate release	
			Yes	No	Yes	No	Min____ Sec___	
Pressure Reducing Valve NA	Location & Floor	Make & Model	Setting	Static Pressure Inlet (psi) Outlet (psi)		Residual Pressure Inlet (psi) Outlet (psi)		Flow Rate Flow (gpm)
Test Description	HYDROSTATIC: Hydrostatic tests shall be made at not less than 200 psi (13.6 bars for 2 hours or 50 psi (3.4 bars) above static pressure in excess of 150 psi (10.2 bars) for 2 hours. Differential dry-pipe valve clappers shall be left open during the test to prevent damage. All aboveground piping leakage shall be stopped. PNEUMATIC: Establish 40 psi (2.7 bars) air pressure and drop, which will not exceed 1 ½ psi (.01 bars) in 24 hours. Test pressure tanks at normal water level and air pressure and measure air pressure drop, which shall not exceed 1 1/2 psi (.01 bars) in 24 hours.							
Tests	All piping hydrostatically tested at 200 psi (____ bars) for 2 hours Dry piping pneumatically tested *(check one)* NA ☒ Yes ☐ No ☐ Equipment operates properly *(check one)* Yes ☒ No ☐					If no, state reason:		
	Do you certify as the sprinkler contractor that additives and corrosive chemicals, sodium silicate or derivatives or sodium silicate, brine, or other corrosive chemicals were not used for testing systems or stopping leaks?					*Check one:* Yes ☒ No ☐		
	Drain Test: Reading of gauge located near water supply test connection: ____ psi (____ bars)					Residual pressure with valve in test connection open wide: ____ psi (____ bars)		
Hydraulic Data Nameplate ☐	Nameplate provided: Yes ☒ No ☐		If no, explain:					
Remarks	Date left in service with all control valves open:							
Signatures	Sprinkler Contractor: Sprinkler Systems, Inc. P.O. Box 1285 Lewiston, Maine 04243-1285 Phone: 207-782-0104 Fax: 207-783-4865							
	Property Owner Signature: X Nick Duncan		Title: PCC Intern		Date: 6/24/10			
	Sprinkler Contractor Signature: Tommy Thibodeau		Title: FOREMAN		Date: 6/24/10			

Additional Explanations and Notes:

09032

Sprinkler Systems, Inc.

Contractor's Material & Test Certificate for Aboveground Pipe

Procedure

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, and contractor. It is understood the owner's representative signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

Property Name Martin's Point Health Care – Medical Office Building

Date 6/18/10

Property Address 331 Veranda Drive, Portland, Maine

Plans

Accepted by approving authorities (Names) Maine State Fire Marshals Office

Address 52 State House Station Augusta, Maine 04333-0052

Installation conforms to accepted plans — Yes ☒ No ☐

Equipment used is approved, if no, explain deviations — Yes ☒ No ☐

Instructions

Has person in charge of fire equipment been instructed as to location of control valve and care and maintenance of this new equipment? — Yes ☒ No ☐

If no, explain:

Have copies of the following been left on the premises?

1. System components instructions — Yes ☒ No ☐
2. Care and maintenance instructions — Yes ☒ No ☐
3. NFPA 25 — Yes ☐ No ☒

Location of System Supplies Buildings: 3rd Level Medical Office – West Side

Sprinklers

Make	Model	Year of Mfg.	Orifice Size	Quantity	Temp Rating
Globe	GL5601	2010	½"	214	155 DEG.
Globe	GL5606	2010	½"	32	155 DEG.
Globe	GL5615	2010	½"	2	200 DEG.
Globe	GL5626	2010	½"	6	200 DEG.

Pipe and Fittings

Type of pipe: As Per N.F.P.A.-13

Type of fittings: As Per N.F.P.A.-13

Alarm Valve or Flow Indicator

Alarm Device			Maximum time to operate through test connection	
Type	Make	Model	Min	Sec
Flow Switch	Potter	VSR-F		

Dry Pipe Operating Test NA

	Dry Valve			QOD		
	Make	Model	Serial #	Make	Model	Serial #

	Time to trip through test connection	Water Pressure	Air Pressure	Trip Point Air Pressure	Time Water Reached Test Outlet	Alarm Operated Properly
With QOD	MIN SEC	PSI	PSI	PSI	MIN SEC	YES NO
W/O QOD	MIN SEC	PSI	PSI	PSI	MIN SEC	YES NO

If no, explain:

Deluge & Preaction Valve NA	Operation: *Circle One:* Pneumatic Electric Hydraulic						
	Piping Supervised Yes No		Detecting Media Supervised Yes No				
	Does valve operate from the manual trip, remote, or both control stations?					Yes	No
	Is there an accessible facility in each circuit for testing? If no, explain.					Yes	No
	Make	Model	Does each circuit operate supervision loss alarm?		Does each circuit operate valve release?		Maximum time to operate release
			Yes	No	Yes	No	Min____ Sec____

Pressure Reducing Valve NA	Location & Floor	Make & Model	Setting	Static Pressure Inlet (psi)	Static Pressure Outlet (psi)	Residual Pressure Inlet (psi)	Residual Pressure Outlet (psi)	Flow Rate Flow (gpm)

Test Description

HYDROSTATIC: Hydrostatic tests shall be made at not less than 200 psi (13.6 bars for 2 hours or 50 psi (3.4 bars) above static pressure in excess of 150 psi (10.2 bars) for 2 hours. Differential dry-pipe valve clappers shall be left open during the test to prevent damage. All aboveground piping leakage shall be stopped.

PNEUMATIC: Establish 40 psi (2.7 bars) air pressure and drop, which will not exceed 1 ½ psi (.01 bars) in 24 hours. Test pressure tanks at normal water level and air pressure and measure air pressure drop, which shall not exceed 1 1/.2 psi (.01 bars) in 24 hours.

Tests		
	All piping hydrostatically tested at 200 psi (____ bars) for 2 hours Dry piping pneumatically tested *(check one)* NA ☒ Yes ☐ No ☐ Equipment operates properly *(check one)* Yes ☒ No ☐	If no, state reason:
	Do you certify as the sprinkler contractor that additives and corrosive chemicals, sodium silicate or derivatives or sodium silicate, brine, or other corrosive chemicals were not used for testing systems or stopping leaks?	*Check one:* Yes ☒ No ☐
	Drain Test: Reading of gauge located near water supply test connection: _____ psi (____ bars)	Residual pressure with valve in test connection open wide: _____ psi (____ bars)

Hydraulic Data Nameplate☐	Nameplate provided: Yes ☒ No ☐	If no, explain:
Remarks	Date left in service with all control valves open:	

Signatures

Sprinkler Contractor:
Sprinkler Systems, Inc.
P.O. Box 1285
Lewiston, Maine 04243-1285
Phone: 207-782-0104
Fax: 207-783-4865

Property Owner Signature	Title	Date
Nick Duncan	PCC Intern	6/8/10
Sprinkler Contractor Signature	**Title**	**Date**
[signature]	FOREMAN	6/8/10

Additional Explanations and Notes:

09052

Sprinkler Systems, Inc.

Contractor's Material & Test Certificate for Aboveground Pipe

Procedure

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, and contractor. It is understood the owner's representative signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

Property Name

Martin's Point Health Care – Medical Office Building

Date 7/8/10

Property Address

331 Veranda Drive, Portland, Maine

Plans

Accepted by approving authorities (Names) Maine State Fire Marshals Office

Address 52 State House Station Augusta, Maine 04333-0052

Installation conforms to accepted plans — Yes ☒ No ☐

Equipment used is approved, if no, explain deviations — Yes ☒ No ☐

Instructions

Has person in charge of fire equipment been instructed as to location of control valve and care and maintenance of this new equipment? — Yes ☒ No ☐

If no, explain:

Have copies of the following been left on the premises?

1. System components instructions — Yes ☒ No ☐
2. Care and maintenance instructions — Yes ☒ No ☐
3. NFPA 25 — Yes ☐ No ☒

Location of System

Supplies Buildings: **4th Level Mechanical**

Sprinklers

Make	Model	Year of Mfg.	Orifice Size	Quantity	Temp Rating
Globe	GL5615	2010	½"	16	155 DEG.

Pipe and Fittings

Type of pipe: **As Per N.F.P.A.-13**

Type of fittings: **As Per N.F.P.A.-13**

Alarm Valve or Flow Indicator

Alarm Device			Maximum time to operate through test connection	
Type	Make	Model	Min	Sec
Flow Switch	Potter	VSR-F		

Dry Pipe Operating Test

NA

Dry Valve			QOD		
Make	Model	Serial #	Make	Model	Serial #

	Time to trip through test connection	Water Pressure	Air Pressure	Trip Point Air Pressure	Time Water Reached Test Outlet	Alarm Operated Properly
With QOD	MIN SEC	PSI	PSI	PSI	MIN SEC	YES NO
W/O QOD	MIN SEC	PSI	PSI	PSI	MIN SEC	YES NO

If no, explain:

Deluge & Preaction Valve

NA

Operation:	*Circle One:*	Pneumatic	Electric	Hydraulic	
Piping Supervised	Yes	No	Detecting Media Supervised	Yes	No
Does valve operate from the manual trip, remote, or both control stations?				Yes	No
Is there an accessible facility in each circuit for testing? If no, explain.				Yes	No

Make	Model	Does each circuit operate supervision loss alarm?	Does each circuit operate valve release?	Maximum time to operate release
		Yes No	Yes No	Min___ Sec___

Pressure Reducing Valve

NA

Location & Floor	Make & Model	Setting	Static Pressure Inlet (psi) Outlet (psi)	Residual Pressure Inlet (psi) Outlet (psi)	Flow Rate Flow (gpm)

Test Description

HYDROSTATIC: Hydrostatic tests shall be made at not less than 200 psi (13.6 bars for 2 hours or 50 psi (3.4 bars) above static pressure in excess of 150 psi (10.2 bars) for 2 hours. Differential dry-pipe valve clappers shall be left open during the test to prevent damage. All aboveground piping leakage shall be stopped.

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Tests

All piping hydrostatically tested at 200 psi (____ bars) for 2 hours Dry piping pneumatically tested *(check one)* NA ☒ Yes ☐ No ☐ Equipment operates properly *(check one)* Yes ☒ No ☐	If no, state reason:
Do you certify as the sprinkler contractor that additives and corrosive chemicals, sodium silicate or derivatives or sodium silicate, brine, or other corrosive chemicals were not used for testing systems or stopping leaks?	*Check one:* Yes ☒ No ☐
Drain Test: Reading of gauge located near water supply test connection: _____ psi (____ bars)	Residual pressure with valve in test connection open wide: _____ psi (____ bars)

Hydraulic Data Nameplate☐

Nameplate provided: Yes ☒ No ☐	If no, explain:

Remarks

Date left in service with all control valves open:

Signatures

Sprinkler Contractor:
Sprinkler Systems, Inc.
P.O. Box 1285
Lewiston, Maine 04243-1285
Phone: 207-782-0104
Fax: 207-783-4865

Property Owner Signature	Title	Date
John A. Bill	SP Engineer	7/8/10
Sprinkler Contractor Signature	**Title**	**Date**
Tony Dubois	FOREMAN	

Additional Explanations and Notes:

Sprinkler Systems, Inc.

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

Letter of Transmittal

DATE 4 October 2010	JOB # 09032
ATTENTION:	
RE: Martin's Point Health Care Medical Office Building	

TO: Building Inspections Dept.
389 Congress Street
Portland, Maine 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** ☐ _____

COPIES	DATE	NO.	DESCRIPTION
2			Shop Drawings – Fire Sprinklers FP-1, FP-2, FP-3 & FP-4 and Calculations
2			Reduced Scale Drawings FP-1 to FP-4 – 11x17
2			SFMO Permit
2			PWD Water Flow Map
1			Permit Application
1			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:

SIGNED: Alan Small

State of Maine
Department of Public Safety
Fire Sprinkler System Permit

8864

Martin's Point Healthcare MOB

Located at: 331 Veranda Street
In the Town of: Portland
Occupancy/Use: Medical Office Building
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 # **2091440**, 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 **11/14/2009** for a fee paid of **$1,144.00**

This permit will expire at midnight on *Thursday, May 13, 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: Kannegieser J. Marc

RMS Signature: _____

Form # P 04

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING INSPECTION

PERMIT

Permit Number: 101244

Please Read Application And Notes, If Any, Attached

This is to certify that Martin's Point Health Care Inc /Sprinkler System, Inc

has permission to Install Sprinkler System.

AT 331 Veranda St CBL 434 C005001

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. L. Gautreau

Health Dept.

Appeal Board

Other

Department Name

Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

CITY OF PORTLAND, MAINE
Department of Building Inspections

Original Receipt

Oct 5 2010

Received from [illegible]

Location of Work 331 Veranda St.

Cost of Construction $_____ Building Fee:_____

Permit Fee $_____ Site Fee:_____

Certificate of Occupancy Fee:_____

Total: 30.00

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

Other Sprinkler

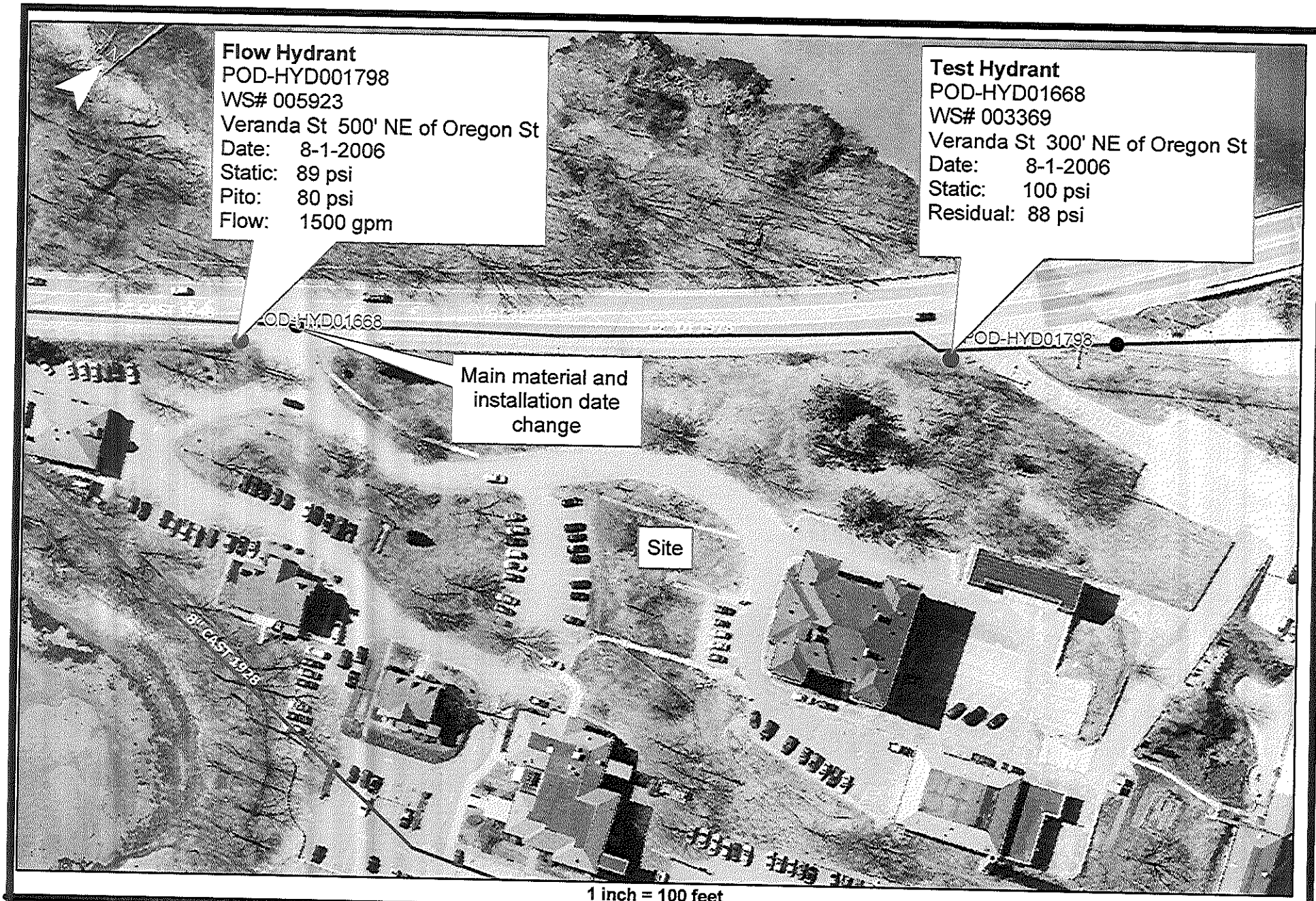
CBL: 434 C005

Check #: 25790 **Total Collected $** 30.00

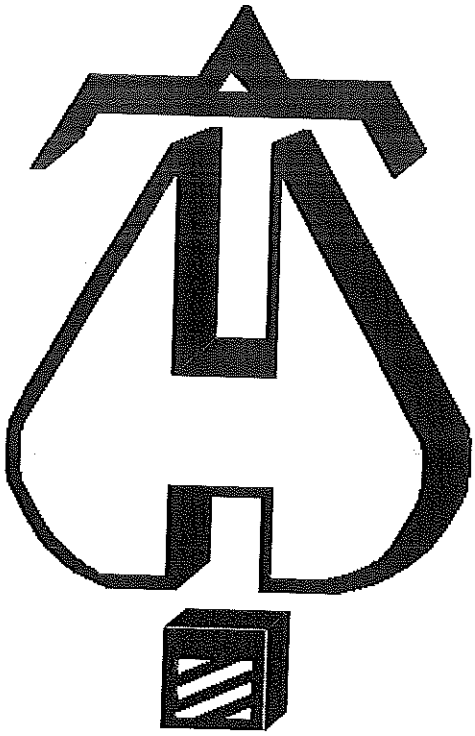
No work is to be started until permit issued.
Please keep original receipt for your records.

Taken by: [illegible]

WHITE - Applicant's Copy
YELLOW - Office Copy
PINK - Permit Copy



PORTLAND WATER DISTRICT 225 Douglass Street Portland, ME 04104	Drawn By: DPW Date: 7/1/2009	Scale: As Noted	**331 Veranda Street** **Portland**	Disclaimer: This map is suitable for preliminary study and analysis and is based on PWD record information. PWD is not liable for any damages whatsoever resulting from inaccurate data or from errors made in the location and marking of its infrastructure.	Prepared for: Sprinkler Systems, Inc Sheet No. 1 of 1



. . . Fire Protection by Computer Design

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

Job Name : MARTIN'S POINT HEALTH CARE AREA 1
Building : NEW
Location : US ROUTE 1 PORTLAND, MAINE
System : 1 WET
Contract : 09032
Data File : MtPtA1a.WXF

Fitting Legend

Abbrev.	Name	½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8	10	12	14	16	18	20	24
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
F	45' Elbow	1	1	1	1	2	2	3	3	3	4	5	7	9	11	13	17	19	21	24	28
G	Generic Gate Valve	0	0	0	0	0	1	1	1	1	2	2	3	4	5	6	7	8	10	11	13
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
Zac	Ames 2000SS	Fitting generates a Fixed Loss Based on Flow																			
Zf	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

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	16.80	1.049	1E 2.0	1.500	9.000		K Factor = 5.60
to		120	1T 5.0	24.000	0.0		
ARM	16.8	0.0943	1Eql 17.0	25.500	2.404		Vel = 6.24
	0.0						
	16.80				11.404		K Factor = 4.97
ARM1	26.18	1.049	1E 2.0	3.500	21.857		K Factor = 5.60
to		120	1T 5.0	7.000	0.0		
10	26.18	0.2142	0.0	10.500	2.249		Vel = 9.72
	0.0						
	26.18				24.106		K Factor = 5.33
9	24.21	1.442	0.0	10.750	23.683		K Factor @ node ARM
to		120	0.0	0.0	0.0		
10	24.21	0.0393	0.0	10.750	0.423		Vel = 4.76
10	26.18	1.442	0.0	8.500	24.106		
to		120	0.0	0.0	0.0		
11	50.39	0.1527	0.0	8.500	1.298		Vel = 9.90
11	25.08	1.442	0.0	12.000	25.404		K Factor @ node ARM
to		120	0.0	0.0	0.0		
12	75.47	0.3223	0.0	12.000	3.868		Vel = 14.83
12	26.91	1.442	1T 7.432	42.500	29.272		K Factor @ node ARM
to		120	0.0	7.432	0.0		
13	102.38	0.5668	0.0	49.932	28.301		Vel = 20.11
	0.0						
	102.38				57.573		K Factor = 13.49
2	17.44	1.049	1E 2.0	4.000	9.703		K Factor = 5.60
to		120	1T 5.0	7.000	0.0		
3	17.44	0.1010	0.0	11.000	1.111		Vel = 6.47
	0.0						
	17.44				10.814		K Factor = 5.30
1	17.12	1.049	1E 2.0	8.000	9.350		K Factor = 5.60
to		120	1T 5.0	7.000	0.0		
3	17.12	0.0976	0.0	15.000	1.464		Vel = 6.36
3	17.45	1.442	0.0	7.750	10.814		
to		120	0.0	0.0	0.0		
4	34.57	0.0761	0.0	7.750	0.590		Vel = 6.79
4	16.80	1.442	0.0	9.250	11.404		K Factor @ node ARM
to		120	0.0	0.0	0.0		
5	51.37	0.1582	0.0	9.250	1.463		Vel = 10.09
5	17.84	1.442	0.0	8.500	12.867		K Factor @ node ARM
to		120	0.0	0.0	0.0		
6	69.21	0.2747	0.0	8.500	2.335		Vel = 13.60

Sprinkler Systems Inc.
MARTIN'S POINT HEALTH CARE AREA 1

Hyd. Ref. Point	Qa / Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	******* Notes ******
BASE	0.0	8.27	2E 53.91	600.000	80.106		
to		140	1G 5.99	139.268	5.197		
HOSE	213.31	0.0003	2F 26.955	739.268	0.248		Vel = 1.27
			1T 52.413				
HOSE	100.00	12.34	0.0	145.000	85.551		Qa = 100.0
to		140	0.0	0.0	0.0		
TEST	313.31	0.0001	0.0	145.000	0.015		Vel = 0.84
	0.0						
	313.31				85.566		K Factor = 33.87

Hydraulic Design Information Sheet

Name - MARTIN'S POINT HEALTH CARE WET SYS. AREA 2
Location - US ROUTE 1 PORTLAND, MAINE
Building - NEW
Contractor - SPRINKLER SYSTEMS INC.
Calculated By - CDS
Construction: ( ) Combustible (X) Non-Combustible
Occupancy - MEDICAL OFFICES

Date - 7/22/09
System No. - 1 WET
Contract No. - 09032
Drawing No. - 4 OF 4
Ceiling Height - VARIES

SYSTEM DESIGN

(X) NFPA 13 (X) Lt. Haz. Ord.Haz.Gp. ( ) 1 ( ) 2 ( ) 3 ( ) Ex.Haz.
( ) NFPA 231 ( ) NFPA 231C ( ) Figure Curve
Other
Specific Ruling Made By Date

Area of Sprinkler Operation	- 945	System Type	Sprinkler/Nozzle
Density	- .10	(X) Wet	Make VIKING
Area Per Sprinkler	- 168	( ) Dry	Model VK302
Elevation at Highest Outlet	- 110.500	( ) Deluge	Size 1/2" X 1/2"
Hose Allowance - Inside	- 0	( ) Preaction	K-Factor 5.6
Rack Sprinkler Allowance	- 0	( ) Other	Temp.Rat.155 DEG.
Hose Allowance - Outside	- 100		

Note

Calculation Summary: Flow Required - 214.71 Press Required - 61.285 AT BASE
C-Factor Used: 120 Overhead 140 Underground

WATER SUPPLY

Water Flow Test:
Date of Test - 08/01/06
Time of Test - AM
Static Press - 100
Residual Press - 88
Flow - 1500
Elevation - 68.0'

Pump Data:
Rated Cap.-
@ Press -
Elev. -

Tank or Reservoir:
Cap. -
Elev.-

Well
Proof Flow

Location - ON SITE

Source of Information - OWNER AND WATER DISTRICT

COMMODITY STORAGE

Commodity
Storage Ht.
Storage Method: Solid Piled Class Area % Location Aisle W. Palletized %

( ) Single Row	( ) Conven. Pallet		( ) Auto. Storage	( ) Encap.
( ) Double Row	( ) Slave Pallet		( ) Solid Shelf	( ) Non
( ) Mult. Row			( ) Open Shelf	

Flue Spacing
Longitudinal
Clearance:Storage to Ceiling
Transverse

Horizontal Barriers Provided:

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	16.80	1.049	1E 2.0	1.500	9.000		K Factor = 5.60
to		120	1T 5.0	24.000	0.0		
ARM	16.8	0.0943	1Eql 17.0	25.500	2.404		Vel = 6.24
	0.0						
	16.80				11.404		K Factor = 4.97
14	26.15	1.442	0.0	10.750	27.635		K Factor @ node ARM
to		120	0.0	0.0	0.0		
15	26.15	0.0454	0.0	10.750	0.488		Vel = 5.14
15	26.39	1.442	1T 7.432	58.500	28.123		K Factor @ node ARM
to		120	0.0	7.432	0.0		
16	52.54	0.1649	0.0	65.932	10.875		Vel = 10.32
16	0.0	4.26	0.0	10.500	38.998		
to		120	0.0	0.0	0.0		
27	52.54	0.0008	0.0	10.500	0.008		Vel = 1.18
	0.0						
	52.54				39.006		K Factor = 8.41
17	24.17	1.442	0.0	7.500	23.602		K Factor @ node ARM
to		120	0.0	0.0	0.0		
18	24.17	0.0392	0.0	7.500	0.294		Vel = 4.75
18	24.32	1.442	0.0	13.000	23.896		K Factor @ node ARM
to		120	0.0	0.0	0.0		
19	48.49	0.1422	0.0	13.000	1.849		Vel = 9.53
19	25.24	1.442	0.0	3.750	25.745		K Factor @ node ARM
to		120	0.0	0.0	0.0		
26	73.73	0.3088	0.0	3.750	1.158		Vel = 14.48
	0.0						
	73.73				26.903		K Factor = 14.21
20	16.80	1.442	0.0	3.500	11.404		K Factor @ node ARM
to		120	0.0	0.0	0.0		
21	16.8	0.0200	0.0	3.500	0.070		Vel = 3.30
21	16.85	1.442	0.0	4.250	11.474		K Factor @ node ARM
to		120	0.0	0.0	0.0		
22	33.65	0.0722	0.0	4.250	0.307		Vel = 6.61
22	17.08	1.442	0.0	8.000	11.781		K Factor @ node ARM
to		120	0.0	0.0	0.0		
23	50.73	0.1546	0.0	8.000	1.237		Vel = 9.97
23	17.95	1.442	0.0	10.250	13.018		K Factor @ node ARM
to		120	0.0	0.0	0.0		
24	68.68	0.2707	0.0	10.250	2.775		Vel = 13.49
24	19.77	1.442	1T 7.432	2.500	15.793		K Factor @ node ARM
to		120	0.0	7.432	0.0		
25	88.45	0.4324	0.0	9.932	4.295		Vel = 17.38

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	*******	Notes	******

Hydraulic Design Information Sheet

Name - MARTIN'S POINT HEALTH CARE WET SYS. AREA 3 Date - 7/22/09
Location - US ROUTE 1 PORTLAND, MAINE
Building - NEW
Contractor - SPRINKLER SYSTEMS INC. System No. - 1 WET
Calculated By - CDS Contract No. - 09032
Construction: ( ) Combustible (X) Non-Combustible Drawing No. - 4 OF 4
Occupancy - MEDICAL OFFICES Ceiling Height - VARIES

SYSTEM DESIGN

(X) NFPA 13 (X) Lt. Haz. Ord.Haz.Gp. ( ) 1 ( ) 2 ( ) 3 ( ) Ex.Haz.
( ) NFPA 231 ( ) NFPA 231C ( ) Figure Curve
Other
Specific Ruling Made By Date

Area of Sprinkler Operation - 945	System Type	Sprinkler/Nozzle
Density - .10	(X) Wet	Make VIKING
Area Per Sprinkler - 168	( ) Dry	Model VK302
Elevation at Highest Outlet - 110.500	( ) Deluge	Size 1/2" X 1/2"
Hose Allowance - Inside - 0	( ) Preaction	K-Factor 5.6
Rack Sprinkler Allowance - 0	( ) Other	Temp.Rat.155 DEG.
Hose Allowance - Outside - 100		

Note

Calculation Summary: Flow Required - 207.62 Press Required - 82.092 AT BASE
C-Factor Used: 120 Overhead 140 Underground

WATER SUPPLY

Water Flow Test:
Date of Test - 08/01/06
Time of Test - AM
Static Press - 100
Residual Press - 88
Flow - 1500
Elevation - 68.0'

Pump Data:
Rated Cap.-
@ Press -
Elev. -

Tank or Reservoir:
Cap. -
Elev.-

Well
Proof Flow

Location - ON SITE

Source of Information - OWNER AND WATER DISTRICT

COMMODITY STORAGE

Commodity
Storage Ht.
Storage Method: Solid Piled % Class Area Palletized % Location Aisle W. Rack

( ) Single Row	( ) Conven. Pallet		( ) Auto. Storage	( ) Encap.
( ) Double Row	( ) Slave Pallet		( ) Solid Shelf	( ) Non
( ) Mult. Row			( ) Open Shelf	

RACK STORAGE

Flue Spacing
Longitudinal
Clearance:Storage to Ceiling
Transverse

Horizontal Barriers Provided:

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	16.80	1.049	1E	2.0	1.500	9.000		K Factor = 5.60
to		120	1T	5.0	24.000	0.0		
ARM	16.8	0.0943	1Eql	17.0	25.500	2.404		Vel = 6.24
	0.0							
	16.80						11.404	K Factor = 4.97
ARM1	18.91	1.049	1E	2.0	4.000	11.403		K Factor = 5.60
to		120	1T	5.0	7.000	0.0		
110	18.91	0.1174		0.0	11.000	1.291		Vel = 7.02
	0.0							
	18.91						12.694	K Factor = 5.31
ARM2	20.19	1.049	1E	2.0	4.250	12.993		K Factor = 5.60
to		120	1T	5.0	7.000	0.0		
111	20.19	0.1324		0.0	11.250	1.489		Vel = 7.50
	0.0							
	20.19						14.482	K Factor = 5.31
ARM3	17.27	1.049	1E	2.0	6.500	9.512		K Factor = 5.60
to		120	1T	5.0	7.000	0.0		
101	17.27	0.0992		0.0	13.500	1.339		Vel = 6.41
	0.0							
	17.27						10.851	K Factor = 5.24
108	17.21	1.442		0.0	8.000	11.969		K Factor @ node ARM
to		120		0.0	0.0	0.0		
109	17.21	0.0210		0.0	8.000	0.168		Vel = 3.38
109	17.33	1.442		0.0	7.330	12.137		K Factor @ node ARM
to		120		0.0	0.0	0.0		
110	34.54	0.0760		0.0	7.330	0.557		Vel = 6.79
110	18.91	1.442		0.0	10.500	12.694		
to		120		0.0	0.0	0.0		
111	53.45	0.1703		0.0	10.500	1.788		Vel = 10.50
111	20.19	1.442		0.0	7.000	14.482		
to		120		0.0	0.0	0.0		
112	73.64	0.3080		0.0	7.000	2.156		Vel = 14.47
112	20.29	1.442		0.0	82.000	16.638		K Factor @ node ARM
to		120		0.0	0.0	0.0		
112A	93.93	0.4833		0.0	82.000	39.629		Vel = 18.45
112A	0.0	1.442	1T	7.432	1.000	56.267		
to		120		0.0	7.432	0.0		
113	93.93	0.4833		0.0	8.432	4.075		Vel = 18.45
	0.0							
	93.93						60.342	K Factor = 12.09
HSW1	17.17	1.049	1E	2.0	2.500	9.406		K Factor = 5.60
to		120	1T	5.0	7.000	0.650		
102	17.17	0.0981		0.0	9.500	0.932		Vel = 6.37

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv.	Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	******* Notes ******
31	0.0	4.26	2E	26.334	14.250	70.363		
to		120		0.0	26.334	0.0		
32	207.62	0.0107		0.0	40.584	0.435		Vel = 4.67
32	0.0	4.26	2E	26.334	13.000	70.798		
to		120		0.0	26.334	5.197		
TWR	207.62	0.0107		0.0	39.334	0.422		Vel = 4.67
TWR	0.0	4.26	1Zf	10.0	8.000	76.417		
to		120	1T	26.334	52.134	2.599		
3000	207.62	0.0107	1B	15.8	60.134	0.645		Vel = 4.67
3000	0.0	4.026	2E	20.0	5.000	79.661		
to		120		0.0	20.000	-0.866		
BKFL	207.62	0.0141		0.0	25.000	0.353		Vel = 5.23
BKFL	0.0	4.026	1T	20.0	1.000	79.148		
to		120	1Zac	0.0	20.000	2.648		* Fixed loss = 2.648
BASE	207.62	0.0141		0.0	21.000	0.296		Vel = 5.23
BASE	0.0	8.27	2E	53.91	600.000	82.092		
to		140	1G	5.99	139.268	5.197		
HOSE	207.62	0.0003	2F	26.955	739.268	0.236		
			1T	52.413				Vel = 1.24
HOSE	100.00	12.34		0.0	145.000	87.525		Qa = 100.0
to		140		0.0	0.0	0.0		
TEST	307.62	0.0001		0.0	145.000	0.014		Vel = 0.83
	0.0							
	307.62					87.539		K Factor = 32.88

Hydraulic Design Information Sheet

Name - MARTIN'S POINT HEALTH CARE WET SYS. AREA 4 Date - 7/22/09
Location - US ROUTE 1 PORTLAND, MAINE
Building - NEW System No. - 1 WET
Contractor - SPRINKLER SYSTEMS INC. Contract No. - 09032
Calculated By - CDS Drawing No. - 4 OF 4
Construction: ( ) Combustible (X) Non-Combustible Ceiling Height - VARIES
Occupancy - MECHANICAL ROOM

SYSTEM DESIGN

(X) NFPA 13 ( ) Lt. Haz. Ord.Haz.Gp. (X) 1 ( ) 2 ( ) 3 ( ) Ex.Haz.
( ) NFPA 231 ( ) NFPA 231C ( ) Figure Curve
Other
Specific Ruling Made By Date

Area of Sprinkler Operation	- ENTIRE	System Type	Sprinkler/Nozzle
Density	- .15	(X) Wet	Make VIKING
Area Per Sprinkler	- 130	( ) Dry	Model VK300
Elevation at Highest Outlet	- 122.25	( ) Deluge	Size 1/2" X 1/2"
Hose Allowance - Inside	- 0	( ) Preaction	K-Factor 5.6
Rack Sprinkler Allowance	- 0	( ) Other	Temp.Rat.200 DEG.
Hose Allowance - Outside	- 250		

Note

Calculation Summary: Flow Required - 248.91 Press Required - 52.311 AT BASE
C-Factor Used: 120 Overhead 140 Underground

WATER SUPPLY

Water Flow Test:
Date of Test - 08/01/06
Time of Test - AM
Static Press - 100
Residual Press - 88
Flow - 1500
Elevation - 68.0'

Pump Data:
Rated Cap.-
@ Press -
Elev. -

Tank or Reservoir:
Cap. -
Elev.-

Well
Proof Flow

Location - ON SITE

Source of Information - OWNER AND WATER DISTRICT

COMMODITY STORAGE

Commodity
Storage Ht.
Storage Method: Solid Piled % Class Area Palletized % Location Aisle W. Rack

( ) Single Row ( ) Conven. Pallet ( ) Auto. Storage ( ) Encap.
( ) Double Row ( ) Slave Pallet ( ) Solid Shelf ( ) Non
( ) Mult. Row ( ) Open Shelf

RACK STORAGE

Flue Spacing
Longitudinal
Clearance:Storage to Ceiling
Transverse

Horizontal Barriers Provided:

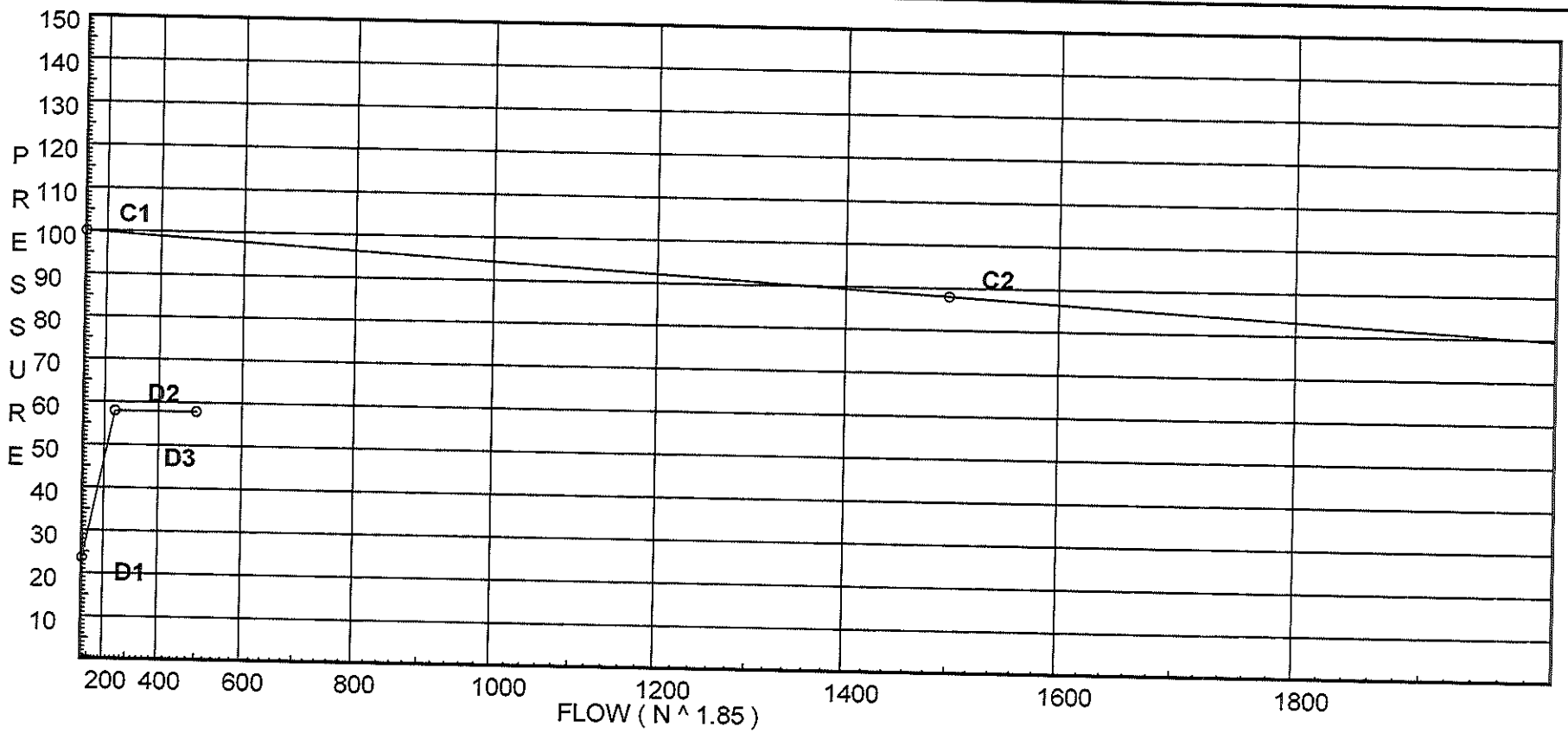
Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv.	Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	******* Notes ******
209	19.86	1.442		0.0	12.250	12.572		K Factor = 5.60
to		120		0.0	0.0	0.0		
210	19.86	0.0273		0.0	12.250	0.334		Vel = 3.90
210	20.11	1.442		0.0	12.250	12.906		K Factor = 5.60
to		120		0.0	0.0	0.0		
211	39.97	0.0994		0.0	12.250	1.218		Vel = 7.85
211	21.05	1.442		0.0	12.250	14.124		K Factor = 5.60
to		120		0.0	0.0	0.0		
211A	61.02	0.2176		0.0	12.250	2.666		Vel = 11.99
211A	22.95	1.442	1T	7.432	5.750	16.790		K Factor = 5.60
to		120		0.0	7.432	0.0		
212	83.97	0.3927		0.0	13.182	5.176		Vel = 16.50
212	0.0	2.157	1T	12.307	1.750	21.966		
to		120		0.0	12.307	-0.108		
213	83.97	0.0553		0.0	14.057	0.777		Vel = 7.37
	0.0							
	83.97					22.635		K Factor = 17.65
205	19.59	1.442		0.0	12.000	12.238		K Factor = 5.60
to		120		0.0	0.0	0.0		
206	19.59	0.0267		0.0	12.000	0.320		Vel = 3.85
206	19.85	1.442		0.0	12.250	12.558		K Factor = 5.60
to		120		0.0	0.0	0.0		
207	39.44	0.0970		0.0	12.250	1.188		Vel = 7.75
207	20.76	1.442		0.0	12.250	13.746		K Factor = 5.60
to		120		0.0	0.0	0.0		
207A	60.2	0.2122		0.0	12.250	2.600		Vel = 11.83
207A	22.64	1.442	1T	7.432	5.750	16.346		K Factor = 5.60
to		120		0.0	7.432	-0.108		
208	82.84	0.3829		0.0	13.182	5.048		Vel = 16.27
	0.0							
	82.84					21.286		K Factor = 17.96
201	19.50	1.442		0.0	14.000	12.125		K Factor = 5.60
to		120		0.0	0.0	0.0		
202	19.5	0.0264		0.0	14.000	0.369		Vel = 3.83
202	19.79	1.442		0.0	12.250	12.494		K Factor = 5.60
to		120		0.0	0.0	0.0		
203	39.29	0.0964		0.0	12.250	1.181		Vel = 7.72
203	20.71	1.442		0.0	9.000	13.675		K Factor = 5.60
to		120		0.0	0.0	0.0		
203A	60.0	0.2109		0.0	9.000	1.898		Vel = 11.79
203A	22.10	1.442	1T	7.432	6.500	15.573		K Factor = 5.60
to		120		0.0	7.432	0.0		
204	82.1	0.3768		0.0	13.932	5.249		Vel = 16.13

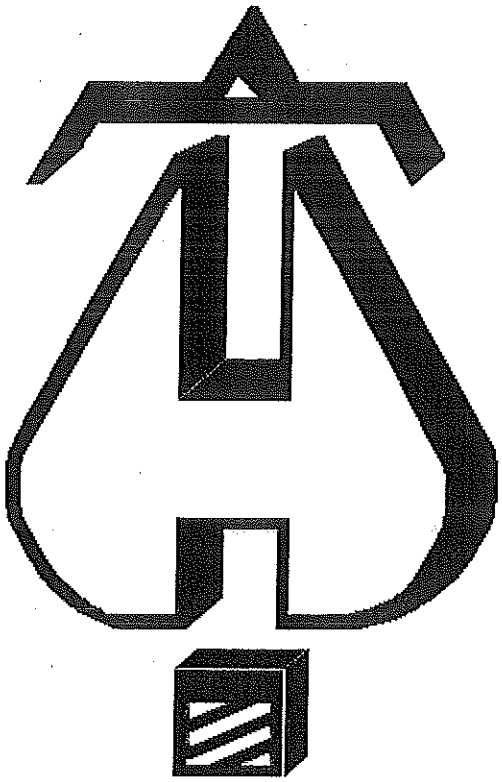
City Water Supply:

C1 - Static Pressure	: 100
C2 - Residual Pressure	: 88
C2 - Residual Flow	: 1500

Demand:

D1 - Elevation	: 23.604
D2 - System Flow	: 248.907
D2 - System Pressure	: 57.894
Hose (Adj City)	:
Hose (Demand)	: 250
D3 - System Demand	: 498.907
Safety Margin	: 40.540





. . . Fire Protection by Computer Design

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

Job Name : MARTIN'S POINT HEALTH CARE SECOND LEVEL PARKING AREA 1
Building : NEW
Location : US ROUTE 1 PORTLAND, MAINE
System : 2 DRY
Contract : 09032
Data File : MtPtD2A1R.WXF

Fitting Legend

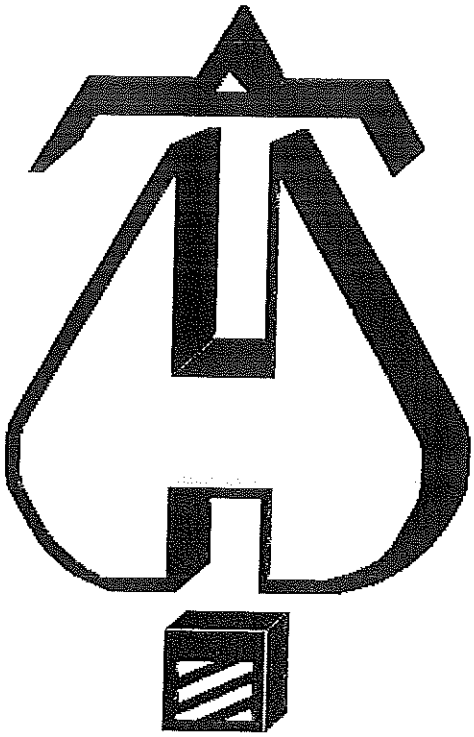
Abbrev.	Name	½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8	10	12	14	16	18	20	24
B	Generic Butterfly Valve	0	0	0	0	0	0	7	10	0	12	9	10	12	19	21	0	0	0	0	0
D	Generic Dry Pipe Valve	0	0	0	0	0	0	9.5	17	0	28	0	47	0	0	0	0	0	0	0	0
E	90' Standard Elbow	2	2	2	3	4	5	6	7	8	10	12	14	18	22	27	35	40	45	50	61
F	45' Elbow	1	1	1	1	2	2	3	3	3	4	5	7	9	11	13	17	19	21	24	28
G	Generic Gate Valve	0	0	0	0	0	1	1	1	1	2	2	3	4	5	6	7	8	10	11	13
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
Zac	Ames 2000SS	Fitting generates a Fixed Loss Based on Flow																			

Units Summary

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

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	19.50	1.049	1T	3.568	1.000	12.125		K Factor = 5.60
to		100		0.0	3.568	0.0		
DROP	19.5	0.1740		0.0	4.568	0.795		Vel = 7.24
	0.0							
	19.50					12.920		K Factor = 5.43
317	32.76	1.682	2E	7.065	9.000	36.474		K Factor @ node DROP
to		100		0.0	7.066	0.0		
318	32.76	0.0456		0.0	16.066	0.733		Vel = 4.73
318	33.10	1.682	2T	14.131	12.250	37.207		K Factor @ node DROP
to		100	1E	3.533	17.664	0.217		
319	65.86	0.1658		0.0	29.914	4.961		Vel = 9.51
	0.0							
	65.86					42.385		K Factor = 10.12
315	34.16	1.682	2T	14.131	13.250	39.661		K Factor @ node DROP
to		100		0.0	14.131	0.0		
316	34.16	0.0492		0.0	27.381	1.348		Vel = 4.93
	0.0							
	34.16					41.009		K Factor = 5.33
309	19.68	1.682		0.0	8.250	13.165		K Factor @ node DROP
to		100		0.0	0.0	0.0		
310	19.68	0.0178		0.0	8.250	0.147		Vel = 2.84
310	19.80	1.682		0.0	8.250	13.312		K Factor @ node DROP
to		100		0.0	0.0	0.0		
311	39.48	0.0644		0.0	8.250	0.531		Vel = 5.70
311	20.18	1.682		0.0	8.250	13.843		K Factor @ node DROP
to		100		0.0	0.0	0.0		
312	59.66	0.1382		0.0	8.250	1.140		Vel = 8.61
312	21.00	1.682		0.0	8.250	14.983		K Factor @ node DROP
to		100		0.0	0.0	0.0		
313	80.66	0.2413		0.0	8.250	1.991		Vel = 11.65
313	22.35	1.682		0.0	8.250	16.974		K Factor @ node DROP
to		100		0.0	0.0	0.0		
314	103.01	0.3795		0.0	8.250	3.131		Vel = 14.87
314	24.33	1.682	1E	3.533	9.000	20.105		K Factor @ node DROP
to		100	1T	7.065	10.599	0.0		
ZZ	127.34	0.5617		0.0	19.599	11.009		Vel = 18.39
	0.0							
	127.34					31.114		K Factor = 22.83
301	19.50	1.682		0.0	8.250	12.920		K Factor @ node DROP
to		100		0.0	0.0	0.0		
302	19.5	0.0175		0.0	8.250	0.144		Vel = 2.82

Hyd. Ref. Point	Qa / Qt	Dia. "C" Pf/Ft	Fitting or Eqv.	Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	******* Notes ******
TDV2	0.0	4.026	1D	28.0	2.000	63.308		
to		120	1B	12.0	60.000	1.732		
2000	387.6	0.0448	1T	20.0	62.000	2.779		Vel = 9.77
2000	0.0	4.26		0.0	3.000	67.819		
to		120		0.0	0.0	0.0		
3000	387.6	0.0340		0.0	3.000	0.102		Vel = 8.72
3000	0.0	4.026	2E	20.0	5.000	67.921		
to		120		0.0	20.000	-0.866		
BKFL	387.6	0.0448		0.0	25.000	1.120		Vel = 9.77
BKFL	0.0	4.026	1T	20.0	1.000	68.175		
to		120	1Zac	0.0	20.000	3.728		* Fixed loss = 3.728
BASE	387.6	0.0448		0.0	21.000	0.941		Vel = 9.77
BASE	0.0	8.27	2E	53.91	600.000	72.844		
to		140	1G	5.99	139.268	5.197		
HOSE	387.6	0.0010	2F	26.955	739.268	0.748		Vel = 2.32
			1T	52.413				
HOSE	250.00	12.34		0.0	145.000	78.789		Qa = 250
to		140		0.0	0.0	0.0		
TEST	637.6	0.0004		0.0	145.000	0.053		Vel = 1.71
	0.0							
	637.60					78.842		K Factor = 71.81



. . . Fire Protection by Computer Design

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

Job Name : MARTIN'S POINT HEALTH CARE FIRST LEVEL PARKING AREA 1
Building : NEW
Location : US ROUTE 1 PORTLAND, MAINE
System : 1 DRY
Contract : 09032
Data File : MtPtD1A1.WXF

Fitting Legend

Abbrev.	Name	½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8	10	12	14	16	18	20	24
B	Generic Butterfly Valve	0	0	0	0	0	0	7	10	0	12	9	10	12	19	21	0	0	0	0	0
D	Generic Dry Pipe Valve	0	0	0	0	0	0	9.5	17	0	28	0	47	0	0	0	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
F	45' Elbow	1	1	1	1	2	2	3	3	3	4	5	7	9	11	13	17	19	21	24	28
G	Generic Gate Valve	0	0	0	0	0	1	1	1	1	2	2	3	4	5	6	7	8	10	11	13
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
Zac	Ames 2000SS	Fitting generates a Fixed Loss Based on Flow																			

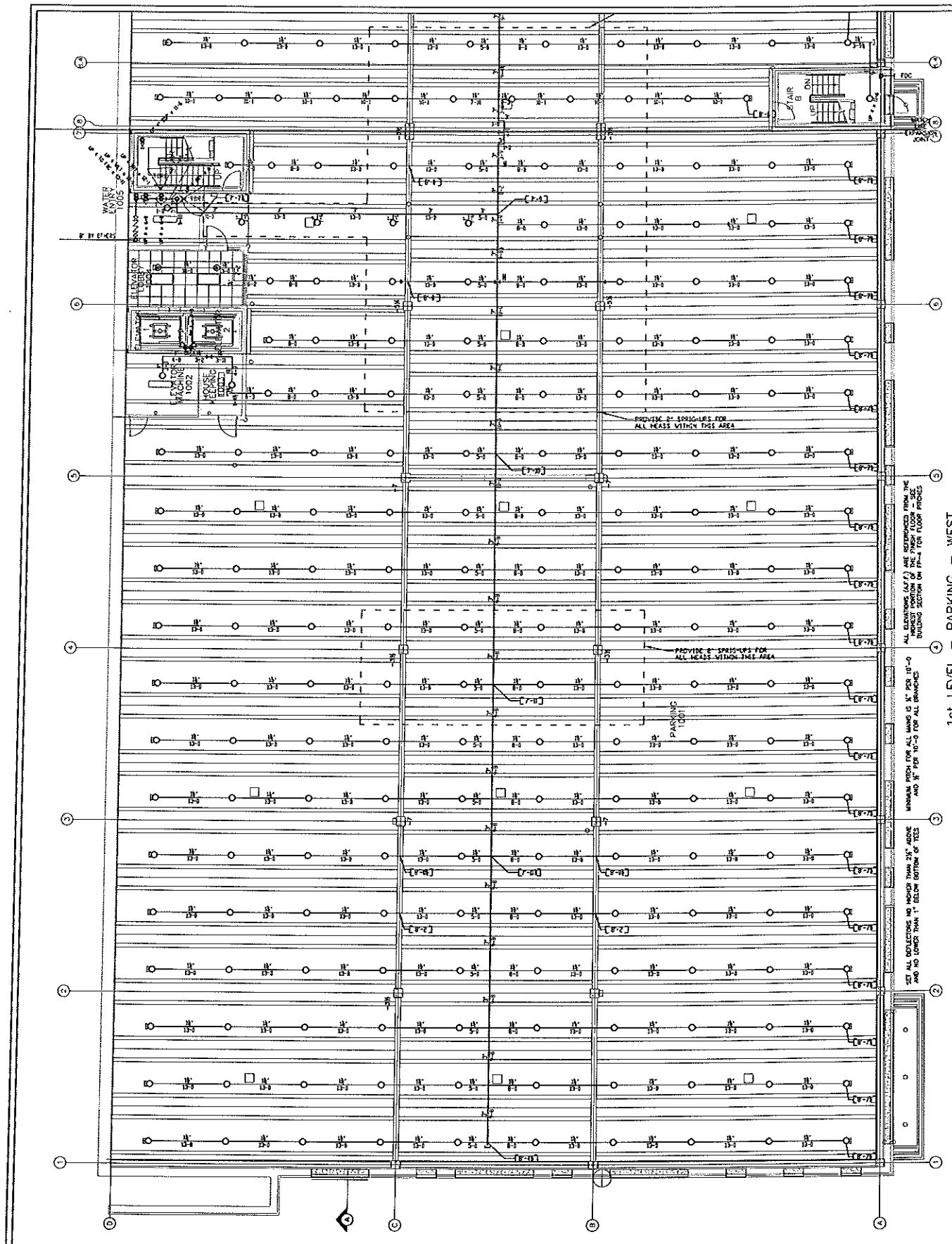
Units Summary

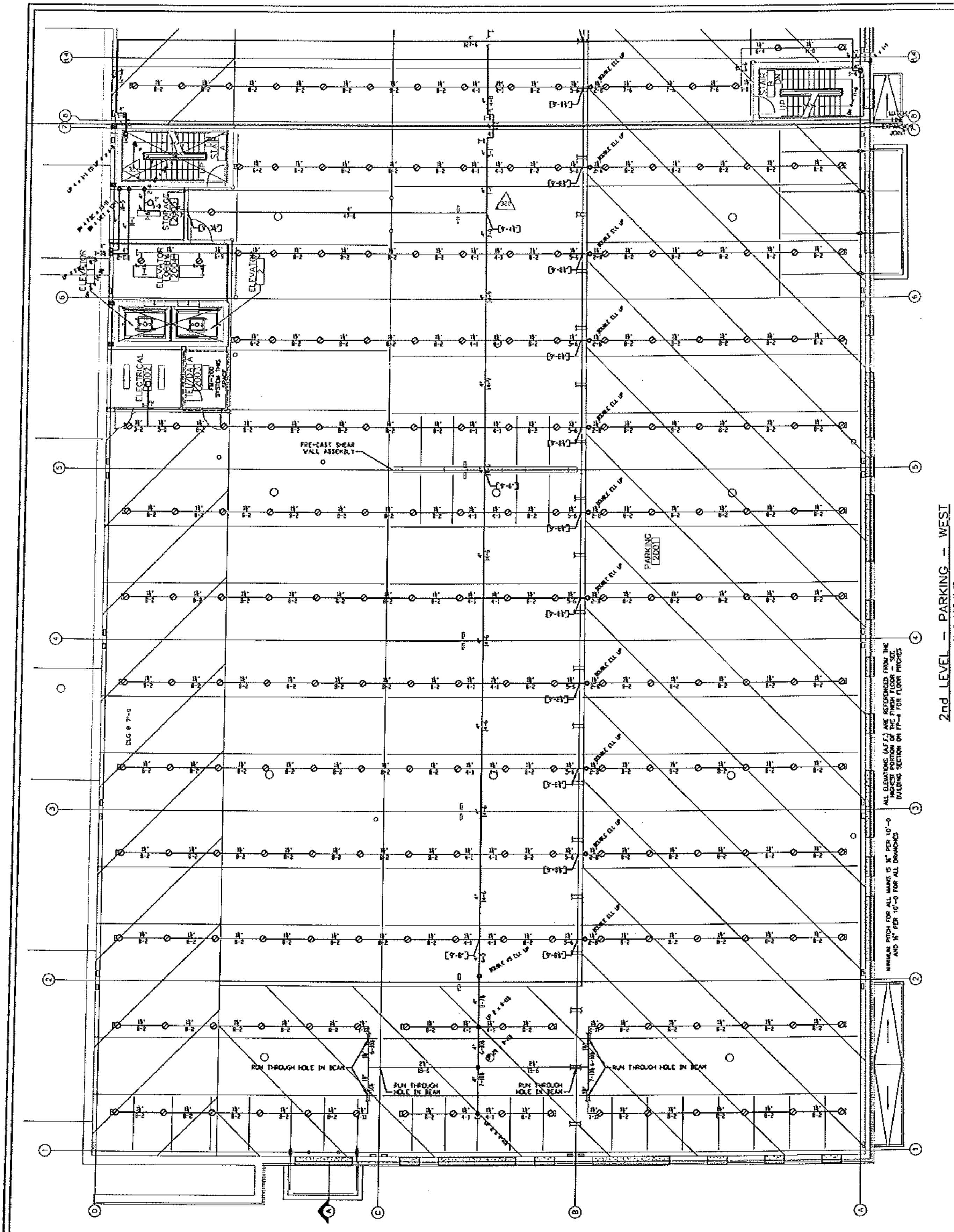
Diameter Units	Inches
Length Units	Feet
Flow Units	US Gallons per Minute
Pressure Units	Pounds per Square Inch

Hyd. Ref. Point	Qa / Qt	Dia. "C" Pf/Ft	Fitting or Eqv.	Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	*******	Notes ******
219	30.21	1.682	2T	14.131	8.000	29.110			K Factor = 5.60
to		100	1E	3.533	17.664	0.0			
220	30.21	0.0392		0.0	25.664	1.007			Vel = 4.36
	0.0								
	30.21						30.117		K Factor = 5.50
213	19.75	1.682		0.0	13.000	12.443			K Factor = 5.60
to		100		0.0	0.0	0.0			
214	19.75	0.0179		0.0	13.000	0.233			Vel = 2.85
214	19.94	1.682		0.0	13.000	12.676			K Factor = 5.60
to		100		0.0	0.0	0.0			
215	39.69	0.0650		0.0	13.000	0.845			Vel = 5.73
215	20.59	1.682		0.0	13.000	13.521			K Factor = 5.60
to		100		0.0	0.0	0.0			
216	60.28	0.1408		0.0	13.000	1.831			Vel = 8.70
216	21.94	1.682		0.0	13.000	15.352			K Factor = 5.60
to		100		0.0	0.0	0.0			
217	82.22	0.2501		0.0	13.000	3.251			Vel = 11.87
217	24.16	1.682	2T	14.131	8.000	18.603			K Factor = 5.60
to		100	1E	3.533	17.664	0.0			
218	106.38	0.4027		0.0	25.664	10.336			Vel = 15.36
	0.0								
	106.38						28.939		K Factor = 19.78
207	19.56	1.682		0.0	13.000	12.194			K Factor = 5.60
to		100		0.0	0.0	0.0			
208	19.56	0.0175		0.0	13.000	0.228			Vel = 2.82
208	19.73	1.682		0.0	13.000	12.422			K Factor = 5.60
to		100		0.0	0.0	0.0			
209	39.29	0.0638		0.0	13.000	0.830			Vel = 5.67
209	20.39	1.682		0.0	13.000	13.252			K Factor = 5.60
to		100		0.0	0.0	0.0			
210	59.68	0.1382		0.0	13.000	1.797			Vel = 8.62
210	21.72	1.682		0.0	13.000	15.049			K Factor = 5.60
to		100		0.0	0.0	0.0			
211	81.4	0.2455		0.0	13.000	3.191			Vel = 11.75
211	23.92	1.682	2T	14.131	8.000	18.240			K Factor = 5.60
to		100	1E	3.533	17.664	0.0			
212	105.32	0.3954		0.0	25.664	10.147			Vel = 15.21
	0.0								
	105.32						28.387		K Factor = 19.77
201	19.50	1.682		0.0	13.000	12.125			K Factor = 5.60
to		100		0.0	0.0	0.0			
202	19.5	0.0175		0.0	13.000	0.227			Vel = 2.82

Sprinkler Systems Inc.
MARTIN'S POINT HEALTH CARE FIRST LEVEL PARKING AREA 1

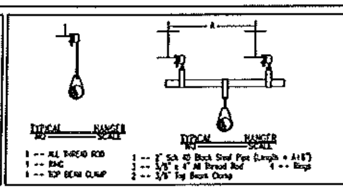
Hyd. Ref. Point	Qa / Qt	Dia. "C" / Pf/Ft	Fitting or Eqv.	Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	******* Notes ******
BKFL	0.0	4.026	1T	20.0	1.000	70.002		
to		120	1Zac	0.0	20.000	3.482		* Fixed loss = 3.482
BASE	346.94	0.0365		0.0	21.000	0.767		Vel = 8.74
BASE	0.0	8.27	2E	53.91	600.000	74.251		
to		140	1G	5.99	139.268	5.197		
HOSE	346.94	0.0008	2F	26.955	739.268	0.610		Vel = 2.07
			1T	52.413				
HOSE	250.00	12.34		0.0	145.000	80.058		Qa = 250
to		140		0.0	0.0	0.0		
TEST	596.94	0.0003		0.0	145.000	0.046		Vel = 1.60
	0.0							
	596.94					80.104		K Factor = 66.70


WATER ENTRY TOOLS
ELEVATOR LOBBY 1001
ELEVATOR MACHINE 1002
HOUSE KEEPING 1003
PARKING 1001
STAIR B
UP
DN
FDC
PROVIDE 8" SPRINKLERS FOR ALL HEADS WITHIN THIS AREA
PROVIDE 8" SPRINKLERS FOR ALL HEADS WITHIN THIS AREA
1st LEVEL - PARKING - WEST
ALL ELEVATIONS (ALF.) ARE REFERENCED FROM THE HIGHEST PORTION OF THE FINISH FLOOR - SEE BUILDING SECTION ON FP-4 FOR FLOOR PITCHES
MINIMUM PITCH FOR ALL MAINS IS 1/2" PER 10'-0 AND 3/4" PER 10'-0 FOR ALL BRANCHES
SET ALL DEFLECTORS NO HIGHER THAN 2" ABOVE AND NO LOWER THAN 1" BELOW BOTTOM OF TEES
NORTH
1. Type of Hazard ORD / LIGHT 2. Deflector Distance
2. Pipe Type Used 10/40 BLK. 4. Sprinkler Area XX,XXX SQ FT
3. Type of Construction NON COMBUSTIBLE
6. Maximum Spacing Allowed LIGHT=225 SQ FT/HD & ORD=130 SQ FT/HD
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
TYPICA
1 -- ALL THREAD ROD
1 -- BRG
1 -- MULTI SHELD
1 -- ALL THREAD ROD
1 -- BRG
1 -- DIE SOCKET
1 -- MULTI SHELD
1 -- 1/2" BOLT
AS SHOWN
ABBREVIATIONS
Bottom of Beam
Bottom of Deck
Bottom of Pipe
Brass Valve
Angle and Cap
Not in Contract
Not to Scale
Open Air Joists
Prospect Red Valve
Roof Manhold
Sidewalk
Top of Beam
Top of Pipe
Top of Slab
Unless Otherwise Noted
Underfloor
Wet Automatic Sprinklers
Open to Above
CONTRACT RESPONSIBILITIES
ITEM
FPC
STREET CONN
BDD MAIN
EXCAVATION
FLUSHING
WIRING
PAINTING
TAMPER SWITCHES
FLOW SWITCHES
STREET CONN



NORTH

1. Type of Hazard ORD / LIGHT 2. Deflector Distance ______
3. Pipe Type Used 10/40 BLK 4. Sprinkler Area XX,XXX SQ FT
5. Type of Construction NON COMBUSTIBLE
6. Maximum Spacing Allowed LIGHT=225 SQ FT/HD & ORD=130 SQ FT/HD
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



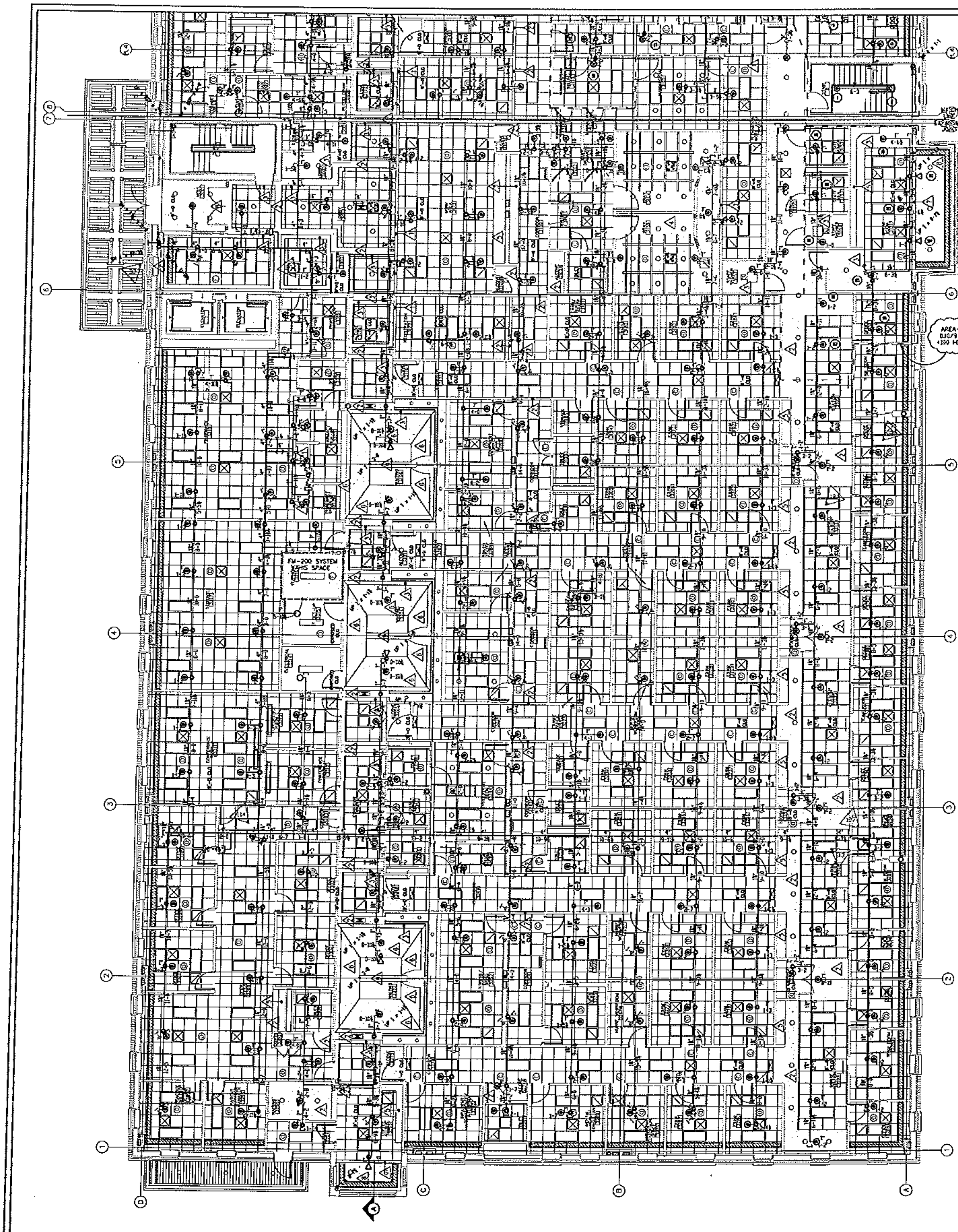
AS SHOWN

ABBREVIATIONS

B	Bottom of Beam
BD	Bottom of Deck
BP	Bottom of Pipe
[illegible]	[illegible] Valve
N & C	Nipple and Cap
NIC	Not in Contract
NTS	Not to Scale
OBJ	Open Bar Joists
PRV	Pressure Red Valve
RM	Roof Manifold
SP	Standpipe
TOB	Top of Beam
TOP	Top of Pipe
TOS	Top of Steel
UON	Unless Otherwise Noted
CL	Centerline
NAS	No Automatic Sprinklers
OTA	Open to Above

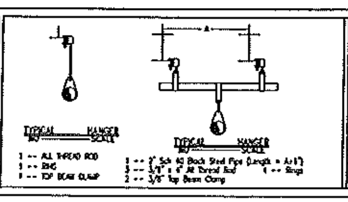
CONTRACT RESPONSIBILITIES

ITEM	FPC	OTHER
STREET CONN		●
[illegible] MAIN		●
EXCAVATION		●
FLUSHING		●
WIRING		●
PAINTING		●
TAMPER SWITCHES	●	
FLOW SWITCHES	●	
STREET CONN		●



NORTH

1. Type of Hazard ORD / LIGHT 2. Deflector Distance
2. Pipe Type Used 10/40 BLK 4. Sprinkler Area XX,XXX SQ FT
5. Type of Construction NON COMBUSTIBLE
6. Maximum Spacing Allowed LIGHT=225 SQ FT/HD & ORD=130 SQ FT/HD
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



TYPICAL HANGER
NTS SCALE

1 -- ALL THREAD ROD
1 -- RING
1 -- TOP BEAM CLAMP

TYPICAL HANGER
NTS SCALE

1 -- 2" Sch 40 Black Steel Pipe (Length = A+6")
3 -- 3/8" x 6" All Thread Rod 1 -- Rings
2 -- 3/8" Top Beam Clamp

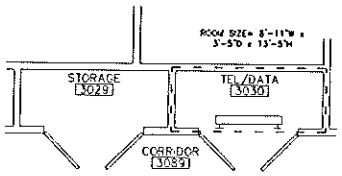
AS SHOWN

ABBREVIATIONS

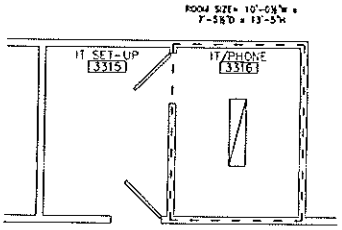
B	Bottom of Beam
D	Bottom of Deck
P	Bottom of Pipe
HV	Hose Valve
N & C	Nipple and Cap
NIC	Not in Contract
NTS	Not to Scale
OBJ	Open Bar Joists
PRV	Pressure Red Valve
RM	Roof Manifold
SP	Standpipe
TOB	Top of Beam
TOP	Top of Pipe
TOS	Top of Steel
UON	Unless Otherwise Noted
CL	Centerline
NAS	No Automatic Sprinklers
OTA	Open to Above

CONTRACT RESPONSIBILITIES

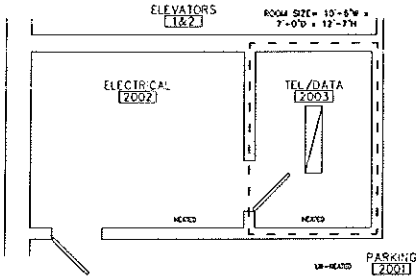
ITEM	FPC	OTHERS
STREET CONN		●
UGD MAIN		●
EXCAVATION		●
FLUSHING		●
WIRING		●
PAINTING		●
TAMPER SWITCHES	●	
FLOW SWITCHES	●	
STREET CONN		●



M.O.B. TEL/DATA



M.O.B. IT/PHONE



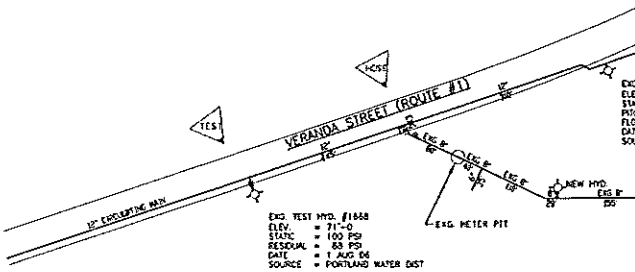
SECOND LEVEL - TEL/DATA

PART PLANS OF FM-200 SYSTEMS

SCALE: 1/4"=1'-0"

GENERAL NOTES:

1. SCOPE OF WORK: THE FIRST AND SECOND LEVELS ARE PRIMARILY UNHEATED PARKING PROTECTED WITH 2 DEDICATED DRY PIPE SYSTEMS. THE THIRD LEVEL MEDICAL OFFICES AND THE FOURTH LEVEL MECHANICAL PENTHOUSE ARE PROTECTED USING A SINGLE DRY VALVE. ALSO, 3 FM-200 SYSTEMS ARE PROVIDED TO PROTECT DATA CLOSETS, ONE ON THE SECOND LEVEL AND 2 ON THE THIRD LEVEL.
2. THE BUILDING OWNER SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE HEAT FOR ALL AREAS IN THE BUILDING PROTECTED BY WET SPRINKLER SYSTEMS AND FOR ALL WATER FILLED SUPPLY PIPES.
3. ALL NEW PIPING SHALL BE HYDROSTATICALLY TESTED AT NOT LESS THAN 200 PSI FOR 2 HOURS OR AT 50 PSI IN EXCESS OF THE MAXIMUM PRESSURE, WHEN THE MAXIMUM PRESSURE TO BE MAINTAINED IS IN EXCESS OF 150 PSI. (PER N.F.P.A. 13)
4. WHETHER OR NOT INDICATED ON DRAWINGS, THE FOLLOWING ITEMS SHALL BE PROVIDED:
   - SPARE HEAD CABINET WITH WRENCH (N.F.P.A. 13)
   - PROVISIONS FOR FLUSHING AND DRAINING ALL PIPING.
   - INSPECTOR'S TEST CONNECTION FOR EACH SYSTEM.
5. ALL 1" PIPING SHALL BE SCHEDULE 40 BLACK STEEL WITH MALLEABLE IRON FITTINGS.
6. ALL PIPING 1½" AND LARGER SHALL BE SCHEDULE 10 BLACK STEEL WITH GROOVED COUPLINGS AND "VICTAULIC FIRELOCK" FITTINGS OR EQUAL.
7. ALL SPRINKLER HEADS IN S.A.T. CEILINGS SHALL BE LOCATED IN AN AESTHETIC, SYMMETRICAL PATTERN WHENEVER POSSIBLE WITH THE HEADS CENTERED WITHIN THE T.B.E.
8. CENTERLINE OF PIPE ABOVE FINISH FLOOR IS INDICATED AS 9'-0" OR BELOW DECK AS (9)
9. HYDRAULIC DATA REFERENCE POINTS ARE INDICATED AS:
10. ALL HANGER SHALL BE SIZED AND LOCATED IN ACCORDANCE WITH N.F.P.A. 13.
11. ALL PIPING SHALL BE PITCHED IN ACCORDANCE WITH N.F.P.A. 13 REQUIREMENTS.
12. ALL MECHANICAL TRADES MUST COORDINATE THEIR WORK WITH THE SPRINKLER WORK SHOWN ON THESE PLANS.
13. THE SCOPE OF WORK UNDER THIS CONTRACT IS LIMITED TO THE WORK SHOWN ON THESE DOCUMENTS



N

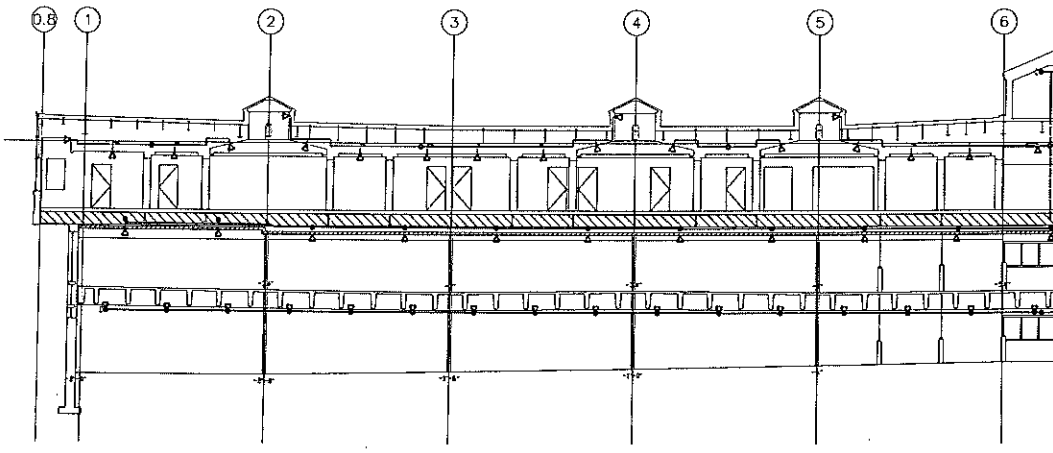
SITE PLAN

SCALE: 1"=100'-0"

MARTIN'S P
MEDICAL
1st FLOOR ELE
2nd FLOOR ELE
3rd FLO

HYDRAULIC DATA NAMEPLATE	
This Building is protected by a hydraulically designed Automatic Sprinkler System	
Location	AREA-4
No. of Sprinkler	12
Basis of design	
1. Density	0.15 gpm/ft²
2. Design area of discharge	ENTIRE sq ft
System Demand	
1. Water Flow Rate @ Base	248.91 gpm
2. Residual Pressure @ Base	52.311 psi

GROSS AREA SQ.FT. 1,300



BUILDING SECTION A-A

SCALE: 3/32"=1'-0"

NORTH

1. Type of Hazard ORD / LIGHT 8. Deflector Distance
2. Pipe Type Used 10/40 BLK 4. Sprinkler Area XX,XXX SQ FT
5. Type of Construction NON COMBUSTIBLE
6. Minimum Spacing Allowed LIGHT=225 SQ FT/HD & ORD=130 SQ FT/HD
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

TYPICAL HANGER DETAIL — TYPICAL HANGER DETAIL

1 -- ALL THREAD ROD
1 -- PAC
1 -- TOP BEAM CLAMP
1 -- 2" Sch 40 Black Steel Pipe (Length = 6'-6")
1 -- 3/8" ø All Thread Rod
1 -- Ring
1 -- 3/8" Top Beam Clamp

AS SHOWN

ABBREVIATIONS	
B	Bottom of Beam
B	Bottom of Deck
B	Bottom of Pipe
BW	Braced Wall
B & C	Hydrant and Cap
BIC	Bid in Contract
BIS	Bid in Scope
OBJ	Open Bar Joists
PRV	Pressure Reducing Valve
RM	Roof Mounted
SUS	Suspended
TOB	Top of Beam
TOP	Top of Pipe
TOS	Top of Steel
UON	Unless Otherwise Noted
CX	Connection
NAS	Not Automatic Sprinklers
OTA	Open to Above

CONTRACT RESPONSIBILITIES		
ITEM	FPC	OWNER
STREET CONN.		●
MOB MAIN		●
EXCAVATION		●
FLUSHING		●
WIRING		●
PAINTING		●
TAMPER SWITCHES	●	
FLOW SWITCHES	●	
STREET CONN.		●