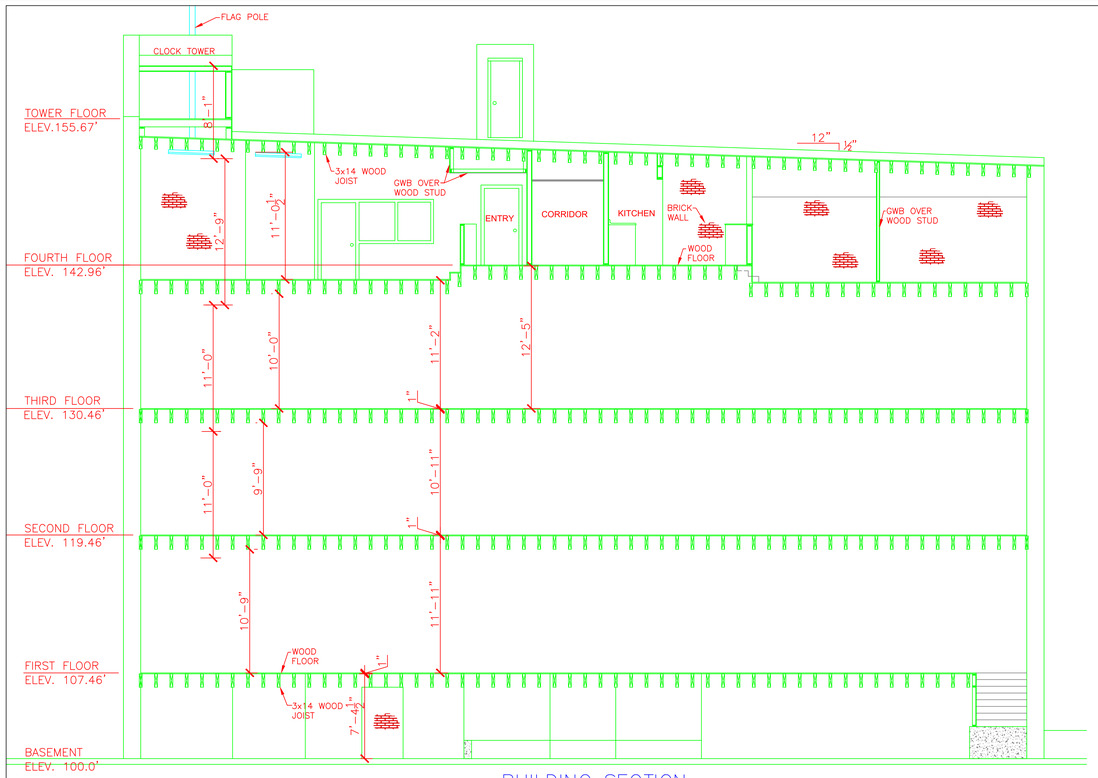
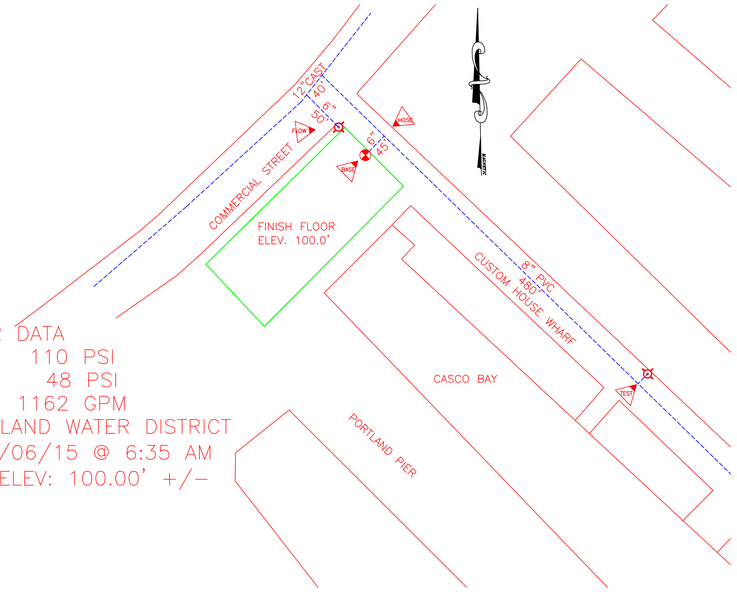
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 01/11/16



BUILDING SECTION

SCALE: 3/16"= 1'-0"



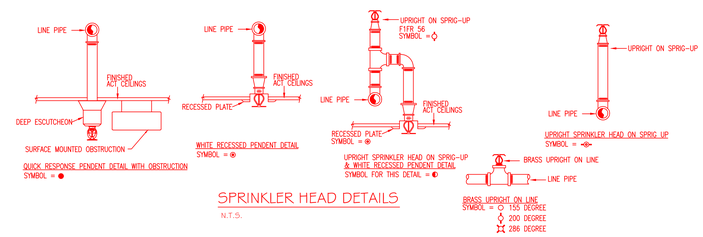
WATER DATA
STATIC 110 PSI
RESIDUAL 48 PSI
FLOW 1162 GPM
BY PORTLAND WATER DISTRICT
DATE 10/06/15 @ 6:35 AM
HYDRANT ELEV: 100.00' +/-

GENERAL NOTES:

- IT IS THE BUILDING OWNERS RESPONSIBILITY TO PROVIDE ADEQUATE HEAT FOR ALL AREAS IN THE BUILDING PROTECTED BY WET SPRINKLER SYSTEMS AND FOR ALL WATER FILLED SUPPLY PIPES, VALVES AND SYSTEM RISERS IN ALL DRY PIPE SPRINKLER SYSTEMS.
- ALL NEW PIPING IS TO 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 NFPA 13)
- WHETHER OR NOT INDICATED ON DRAWINGS, THE FOLLOWING ITEMS ARE TO BE PROVIDED:
  . SPARE HEAD CABINET WITH WRENCH (NFPA 13).
  . PROVISIONS FOR FLUSHING CONNECTIONS AND DRAINING OF ALL PIPE.
  . INSPECTORS TEST CONNECTION SHALL BE PROVIDED FOR EACH SYSTEM
    A) FOR WET PIPE SYSTEMS SEE NFPA 13)
    B) FOR DRY PIPE SYSTEMS SEE NFPA 13)
  . AIR PRESSURE SHALL BE MAINTAINED ON ALL DRY PIPE SYSTEMS BY AN APPROVED AUTOMATIC AIR COMPRESSOR OR PLANT AIR SYSTEM SPECIFICALLY APPROVED FOR AND CAPABLE OF AUTOMATICALLY MAINTAINING THE REQUIRED AIR PRESSURE.
  . WET PIPE SYSTEMS SHALL BE PROVIDED WITH A RELIEF VALVE NOT LESS THAN 1/2" IN SIZE. (NFPA 13).
- ALL PIPE 1" SHALL BE SCHEDULE 40 STEEL WITH MALLEABLE IRON FITTINGS.
- ALL PIPE 1¼" AND LARGER, SHALL BE SCHEDULE 10 STEEL, WITH GROOVED COUPLINGS AND VICTAULIC" MECHANICAL FITTINGS OR EQUIVALENT.
- ALL MECHANICAL TRADES ARE TO COORDINATE THEIR WORK WITH SPRINKLER WORK AS SHOWN ON THESE PLANS.
- ALL HANGERS AND LOCATIONS ARE TO BE IN ACCORDANCE WITH N.F.P.A. 13.
- ALL SPRINKLER HEADS IN SUSPENDED CEILING TILES ARE TO BE LOCATED IN THE CENTER OF THE 1 FOOT BY 1 FOOT PORTION OF THE ACOUSTICAL CEILING PANEL.
- ALL PIPING IS TO BE PITCHED IN ACCORDANCE WITH N.F.P.A. 13.
- HYDRAULIC DATA REFERENCE POINTS: (25)
- CENTER LINE OF PIPE ABOVE FINISH FLOOR 12'-0" BELOW DECK (12")
- PROTECTIVE CAPS ARE TO REMAIN ON THE SPRINKLER HEADS UNTIL AFTER CEILINGS ARE INSTALLED.
- WHERE SURFACE MOUNTED OBSTRUCTIONS EXIST DEEP ESCUTCHEON SPRINKLER HEADS WILL BE INSTALLED.
- WORK IS LIMITED TO THE WORK SHOWN ON THESE DOCUMENTS.
- SCOPE OF WORK IN PHASE 1 IS TO DESIGN AND INSTALL A WET COMBINED STAND PIPE SYSTEM IN STAIR #1, A WET STAND PIPE IN STAIR #2, AND SPRINKLER COVERAGE IN UNITS 403, 405, AND 407. A DRY SYSTEM IN THE BASEMENT, ENTRY CANOPY AND CLOCK TOWER.
- CONCEALED SPACES OVER ISOLATED SMALL ROOMS NOT EXCEEDING 55ft³ IN AREA SHALL NOT REQUIRE SPRINKLER PROTECTION. NFPA 13, 8.15.1.2.9 2013 EDITION.

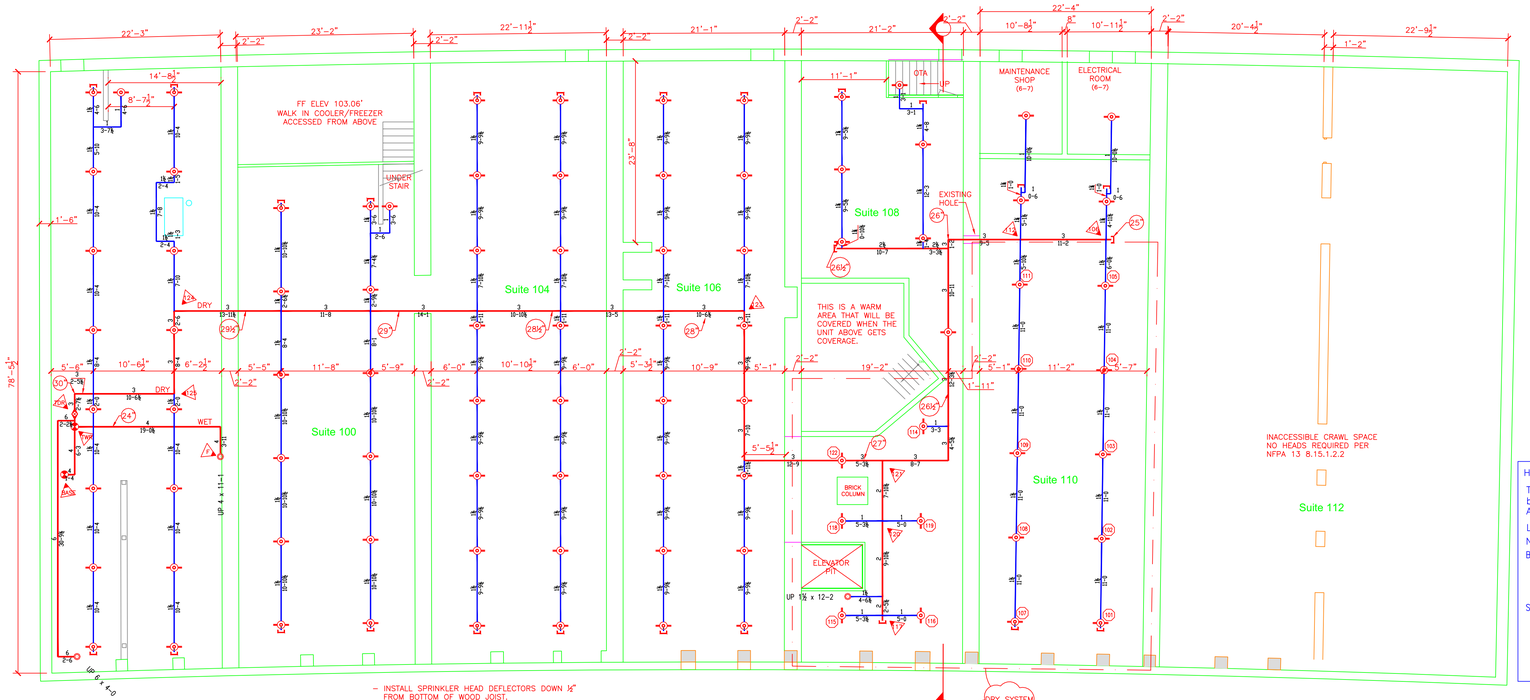
DRY SYSTEMS NOTES

- THE VOLUME OF THE DRY SYSTEM IS 198 GALLONS.
- A SYSTEM SIZE OF NOT MORE THAN 500 GALLONS (1893 L) SHALL BE PERMITTED WITHOUT A QUICK-OPENING DEVICE AND SHALL NOT BE REQUIRED TO MEET ANY SPECIFIC WATER DELIVERY REQUIREMENT TO THE INSPECTION TEST CONNECTION, PER NFPA 7.2.3.3



SPRINKLER HEAD DETAILS

N.T.S.



- INSTALL SPRINKLER HEAD DEFLECTORS DOWN ½" FROM BOTTOM OF WOOD JOIST.
- VERTICAL DIMENSIONS ARE FROM THE DECK ABOVE BECAUSE FLOORS ARE INCONSISTENT.

BASEMENT SPRINKLER PLAN

SCALE: 1/8"= 1'-0"
FINISH FLOOR ELEV. 100.0' AT RISER

DRY SYSTEM PHASE 1

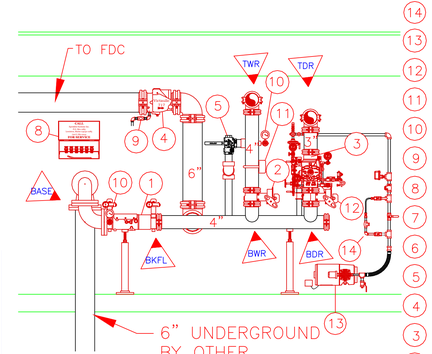
HYDRAULIC DATA NAMEPLATE

This Building is protected by a hydraulically designed Automatic Sprinkler System

Location AREA-1
No. of Sprinkler 16
Basis of design
1. Density .15 GPM/FT²
2. Design area of discharge 1950 FT²
System Demand
1. Water Flow Rate
@ Base/Pump 360.26 GPM
2. Residual Pressure
@ Base/Pump 65.618 PSI
CUSHION = 23.99 psi

MOST REMOTE

◐ ABOVE AND BELOW COVERAGE, ONE BRONZE UPRIGHT 200° HEAD AND ONE WHITE SEMI-RECESSED PENDENT 155°. SEE SPRINKLER HEAD DETAILS.



RISER DETAIL & LEGEND

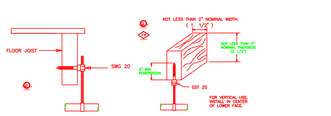
NOT TO SCALE

(14) BASE MOUNTED AIR COMPRESSOR KIT
(13) JENNY AIR COMPRESSOR 1 HP MODEL K1S-BS
(12) 3" BUTTERFLY VALVE 705W
(11) 4" FLOW SWITCH
(10) ¼" THREE WAY VALVE WITH PRESSURE GAUGE
(9) ½" BALL DRIP VALVE
(8) SPARE HEAD AND WRENCH BOX
(7) ELECTRIC ALARM BELL POTTER, SEE 1ST FLOOR
(6) 4" STORZ FIRE DEPARTMENT CONNECTION
(5) 2" TEST AND DRAIN VALVE
(4) 6" SWING CHECK VALVE VICTAULIC MODEL 717
(3) 3" DRY PIPE VALVE RELIABLE MODEL EX
(2) 4" BUTTERFLY VALVE VICTAULIC 705W
(1) 4" DERINGER 20 DOUBLE CHECK BACKFLOW

5 4 3 2 1 0 5 10 15 20

PHASE 1 SUBMITTAL COPY

1. Type of Hazard LIGHT/ORDINARY
2. Pipe Type Used BLK SCH 10/40
5. Type of Construction COMBUSTIBLE
6. Maximum Spacing Allowed PER NFPA 13
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
2. Deflector Distance PER SPEC
4. Sprinkler Area PER SPEC



HANGER DETAILS
N.T.S.

HANGERS

✓	AS SHOWN IN DETAIL

ABBREVIATIONS

B	Bottom of Beam
D	Bottom of Deck
P	Bottom of Pipe
HV	Hose Valve
N & C	Nipple and Cap
NC	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		●

SPRINKLER HEAD LEGEND

SYMBOL	MAKE	MODEL	SIN	FINISH	TYPE	TEMP	NPT	ORIFICE	K-FACTOR	TOTAL
⊗	RELIABLE	F1FR 56	RA1414	WHITE	SEMI-RECESSED PENDENT	155° F	1/2"	1/2"	5.6	21
◇	RELIABLE	F1FR 56	RA1425	BRONZE	UPRIGHT	200° F	1/2"	1/2"	5.6	134
									TOTAL →	155

SUBMITTALS

SENT TO		DATE SENT 11/17/15	DATE RECEIVED
I S O			
F M			
L M			
I R I			
L A			
STATE FIRE	●		
LOCAL FIRE	●		
LOCAL WATER			
OWNER	●		

LICENSE# 093
R.M.S.# 442
PERMIT # ????

SPRINKLER SYSTEMS INC.
P.O. BOX 1285
LEWISTON MAINE
04243-1285

THOMAS BLOCK
100 COMMERCIAL STREET
PORTLAND, MAINE 04101

CONTRACT WITH EAST BROWN COW

SYSTEM TYPE	
WET	■
DRY	■
DELUGE	☐
PREACTION	☐
ME. LIFE	☐
HYDRO-PRO	☐

REVISIONS		
NO.	DATE	DESCRIPTION

SCALE AS NOTED
DRAWN BY JJP
CHECKED BY CDS
DATE 09/11/2015
TOTAL SPKRS ON JOB 155
SHEET# 1 of 3
JOB# 15095