

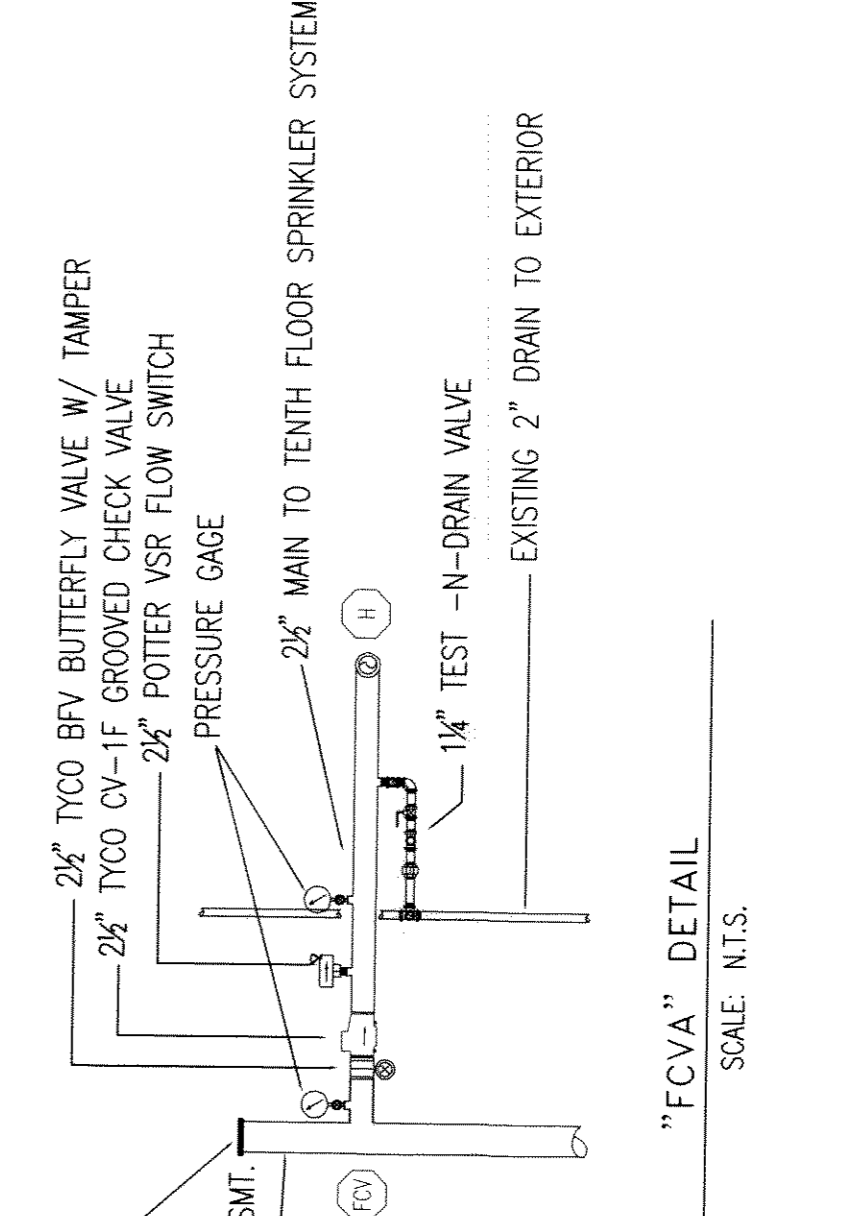
HYDRAULIC - SYSTEM	
THIS BUILDING IS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM.	
LOCATION/CONFERENCE/STAIR	10
NO. OF SPRINKLERS:	(CALCULATED)
BASIS OF DESIGN:	1. DENSITY (GPM/FOOT)
	2. DISCHARGED AREA OF SYSTEM (SQ. FT.)
SYSTEM DESIGN:	1. WATER FLOW RATE (GPM)
	2. RESIDUAL PRESSURE AT THE PUMP OUTLET (PSI)

HYDRAULIC DATA NAMEPLATE
TO BE MOUNTED AT SYSTEM HEAD

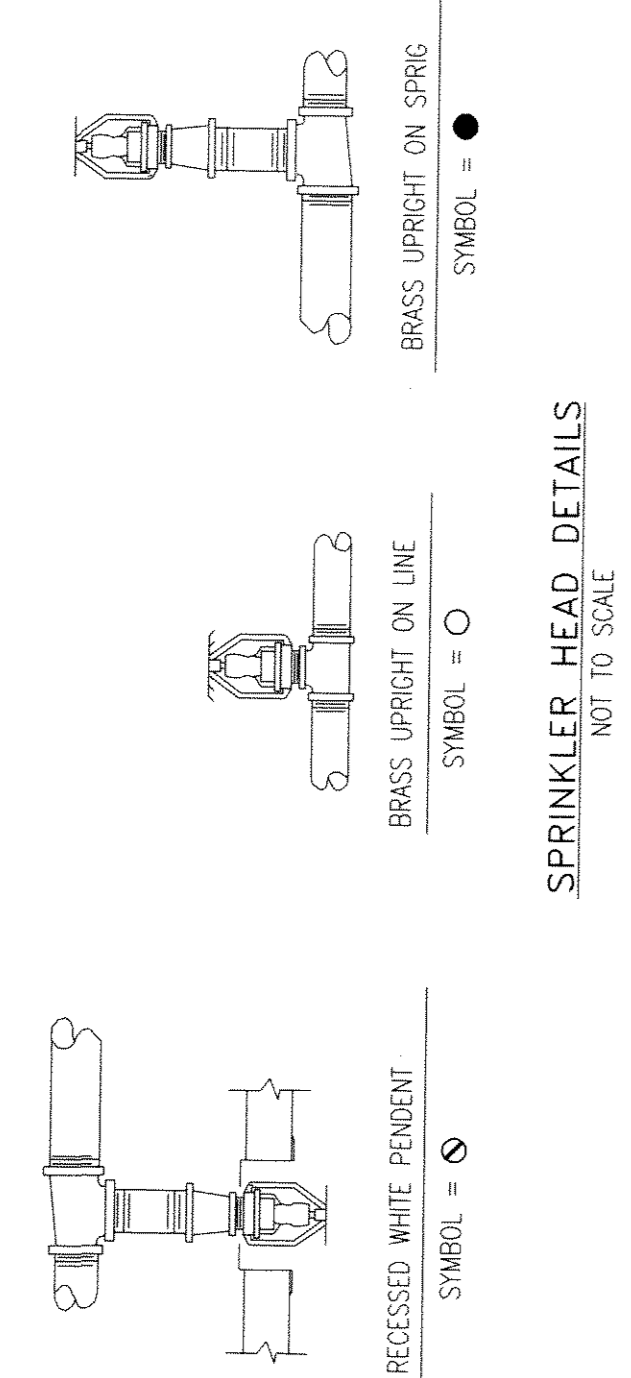
(OFFICE) PROOF CALC
(1 GPM/SQ.FT. / 1000 SQ.FT.)
TOTAL FLOOR AREA = 6480 SQ.FT.
REQUIRED FLOW PER AREA (Q) = 64.8 GPM

GENERAL NOTES

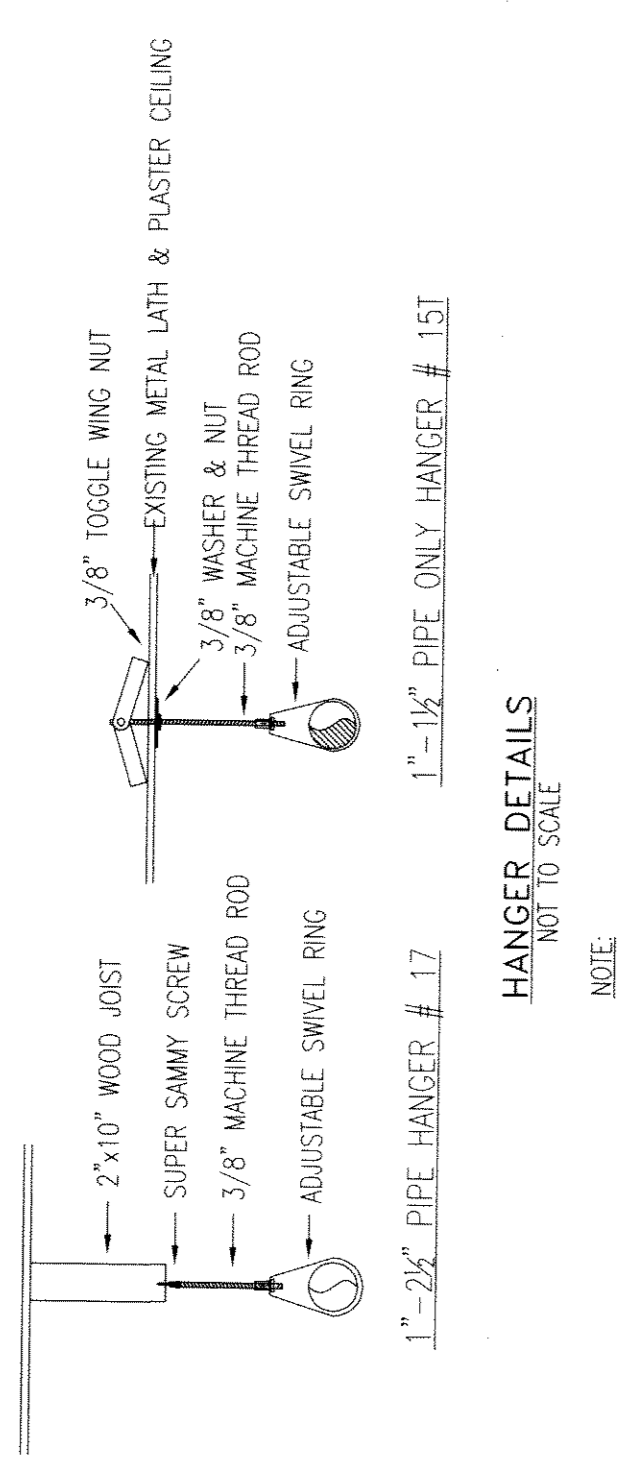
- SCOPE OF WORK: EASTERN FIRE TO START AT EXISTING 4" STANDPIPE LOCATED ON THE TENTH FLOOR, STAIRWELLS TO EXTEND TO EXISTING SPRINKLER PROTECTION IN ALL OTHER PORTIONS OF THE BUILDING TO REMAIN AS IS.
- ALL WIRING TO BE DONE BY OTHERS.
- ALTHOUGH NOT SPECIFIED, SOME SPRINKLER HEADS HAVE BEEN SHOWN @ CENTERLINE OF TILE ACTUAL ORIENTATION OF HEADS WITH RESPECT TO CEILING COMPONENTS WILL VARY ACCORDING TO FIELD CONDITIONS.
- ALL DIMENSIONS ARE SHOWN FOR GENERAL LOCATION OF SPRINKLER HEADS; PIPING MAY VARY TO SUIT ACTUAL FIELD CONDITIONS.
- ACOUSTICAL CEILING TILE (ACT) TO BE LISTED NON-COMBUSTIBLE WITH UL FLAME SPREAD OF LESS THAN 25.
- OCCUPANCY DESCRIPTION AND CLASSIFICATION: MECHANICAL & STORAGE AREAS; ORDINARY HAZARD I
- WATER SUPPLY FOR HYDRAULIC CALCULATIONS BASED UPON THE INSTALLATION OF A 750 GPM @ 80 PSI FIRE PUMP PROVIDED BY THE MAINE BANK & TRUST COMPANY. SEE DWG. 1 OF 1 MAINE BANK & TRUST FOR LOCATION.
- INDICATES HYDRAULIC REFERENCE POINTS.
- F.F. & INDICATES FINISH FLOOR UP TO CENTERLINE OF PIPE FOR RISER, SITE PLAN & WATER DATA SEE MAINE BANK & TRUST SECOND FLOOR & BASEMENT DWG #E-2196-95 SHEET 1 OF 1
- INDICATES STEEL PIPE
- INDICATES CPVC PIPE



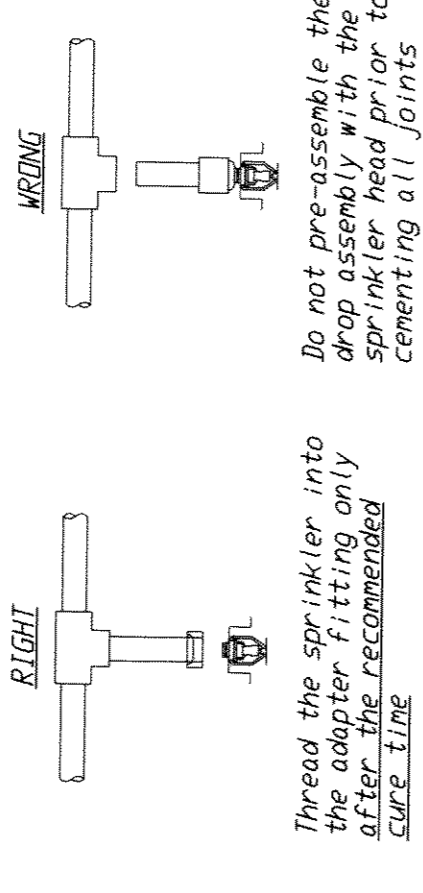
"FCVA" DETAIL
SCALE: N.T.S.



SPRINKLER HEAD DETAILS
NOT TO SCALE



HANGER DETAILS
NOT TO SCALE

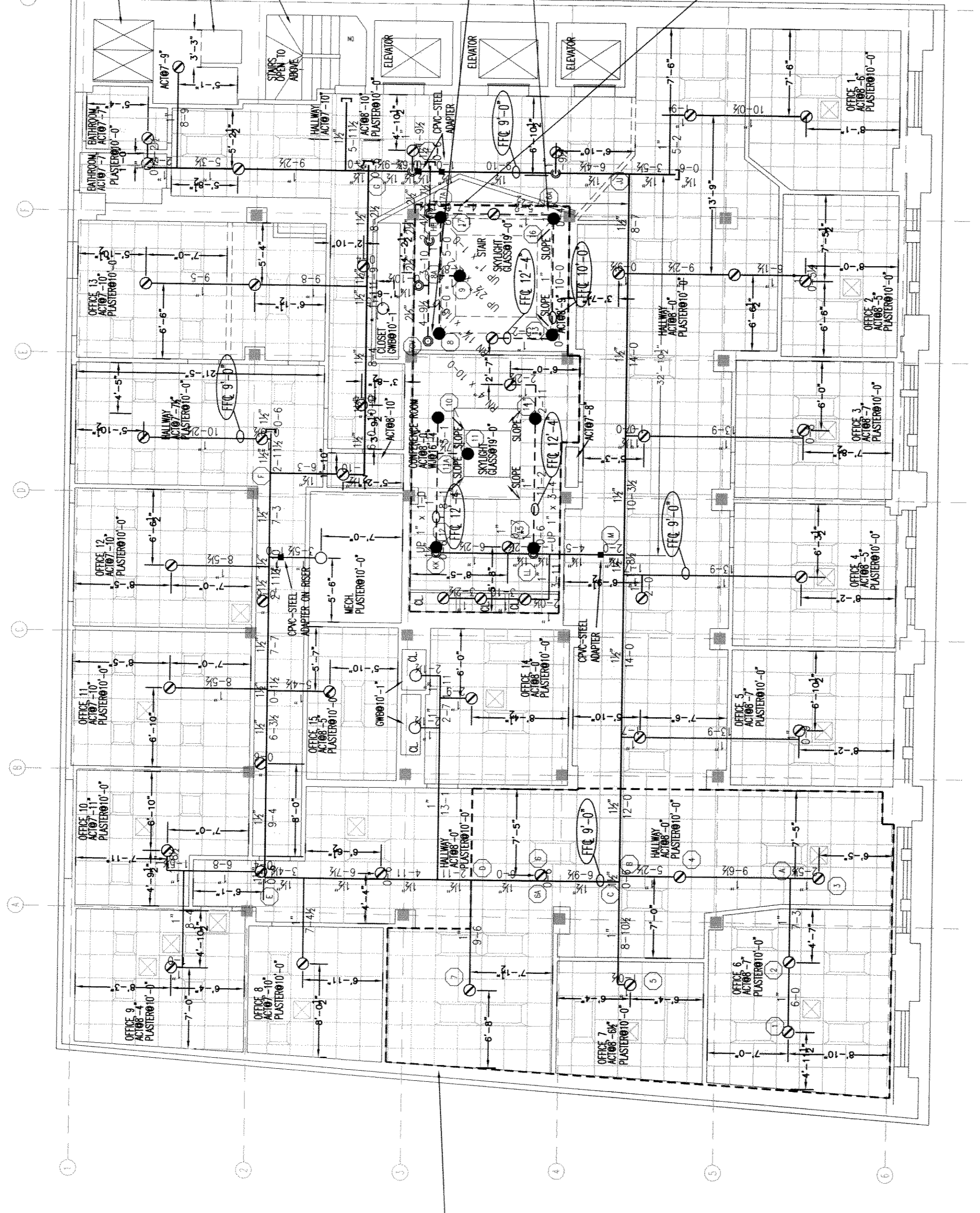


CPVC SPRINKLER HEAD INSTALLATION DETAIL
NOT TO SCALE

APPLYING CEMENT - SETTING AND CURING TIMES
Prepare pipe by leaving outside end 10" to 15" protruding and applying solvent cement to the inside of the fitting socket. Apply cement to the outside end of the pipe. A second coat to the end of the pipe leveling allows the cement to remain on the fitting socket inside well.

APPLYING CEMENT - SETTING AND CURING TIMES
Apply solvent cement to the ends of the pipe and fitting. Do not allow the cement to freeze or become overly thick. A thin coat of cement should be applied to the inside of the fitting socket. Do not allow the cement to freeze or become overly thick. A thin coat of cement should be applied to the inside of the fitting socket.

(CONFERENCE/STAIR) HYDRAULICALLY MOST REMOTE AREA
(1 GPM/SQ.FT. / 457 SQ.FT.)
(ELEV. @ HIGHEST HEAD = 237.3)

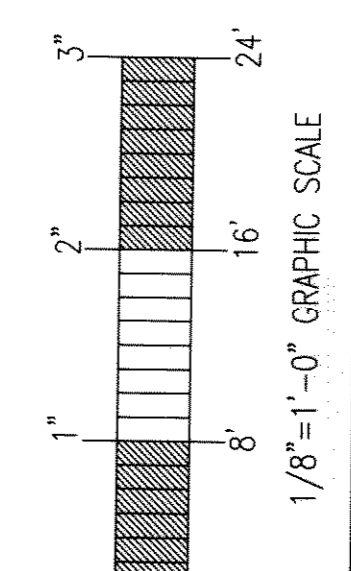


FIRE SPRINKLER PLAN - TENTH FLOOR

SCALE: 7/8" = 1'
AREA PROTECTED: 6,480 SQ.FT.
FLOOR ELEVATION: ±220'-6"
COLOR CODE:

Symbol	Quantity	Description	Note
○	4	TYCO T1-FR-7023.3 200P BRASS on Line	
●	10	TYCO T1-FR-7023.3 200P BRASS on Sprig	
○	49	TYCO T1-FR-7023.3 200P WHITE on Drop	

63 = Total Number of Heads This Floor



1/8" = 1'-0" GRAPHIC SCALE

GENERAL NOTES
SPRINKLER SYSTEM INSTALLATION TO COMPLY WITH NFPA PAMPHLET # 13 (2010) EDITION EXPOSED BRANCH LINE PIPING (1" - 1 1/2") TO BE BLACK SCHEDULE 40 JOINED BY THREADED DUCTILE IRON FITTINGS MAIN PIPING (2 1/2" - 4") TO BE SCHEDULE # 10 BLACK WITH GROOVED ENDS & WELDED OUTLETS JOINED BY MECHANICAL COUPLINGS OWNER TO PROVIDE SUFFICIENT HEAT THROUGHOUT BUILDING TO PREVENT FREEZING OF WATER FILLED SPRINKLER PIPING AND EQUIPMENT. (40° F.)

REVISIONS

DATE	DESCRIPTION
7/18/13	SUBMITTAL PLAN

REQUIRED APPROVALS

OWNER / ARCHITECT	STATE FIRE MARSHAL	PORTLAND FIRE DEPARTMENT

CONTRACT WITH: OWNER

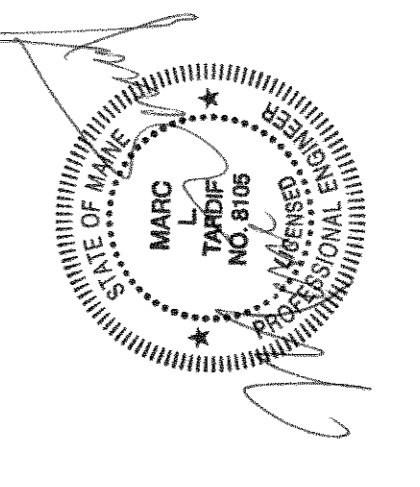
OWNER / ARCHITECT	STATE FIRE MARSHAL	PORTLAND FIRE DEPARTMENT

DRAWN BY: RJP
CHECKED BY: WAF
CONTRACTOR LICENSE #: 101

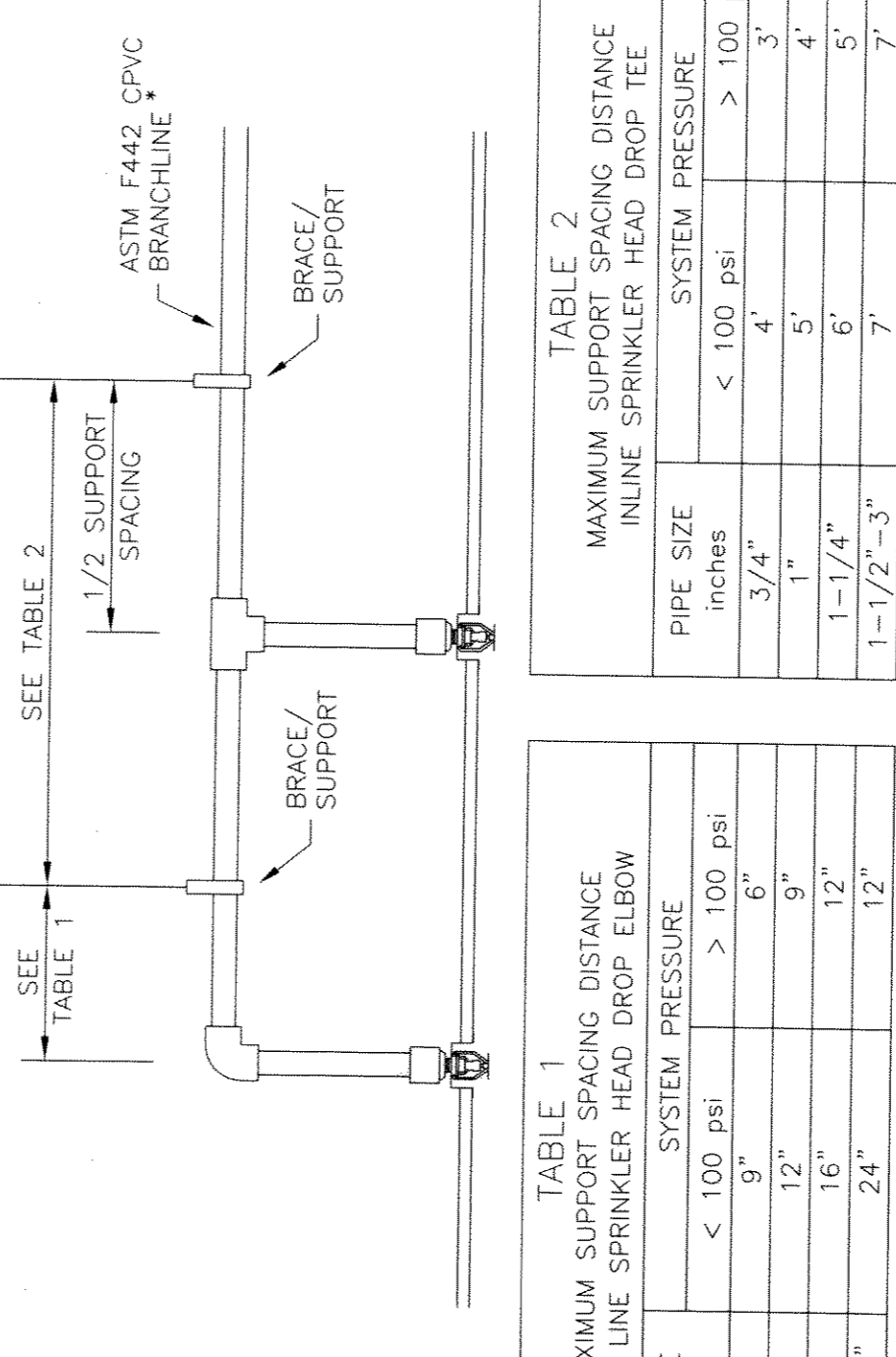
465 CONGRESS ST. TENTH FLOOR
PORTLAND, ME

EASTERN FIRE PROTECTION
AUBURN/LEWISTON INDUSTRIAL AIRPARK, AUBURN, MAINE 04210

FIRE SPRINKLER PLANS & DETAILS
DWG. NO. 1 OF 1
JOB NUMBER AU-5057-13
SCALE AS NOTED
DATE 07/18/13



CPVC HANGER INSTALLATION DETAIL
NOT TO SCALE



MINIMUM ALLOWABLE F HANGERS PER LENGTH OF PIPE

PIPE SIZE (inches)	1 Hanger	2 Hangers	3 Hangers
3/4"	0'-0" TO 5'-6"	5'-7" TO 11'-0"	11'-1" TO 16'-6"
1-1/4"	0'-0" TO 6'-6"	6'-7" TO 12'-0"	12'-1" TO 18'-0"
1-1/2"	0'-0" TO 7'-0"	7'-1" TO 14'-0"	14'-1" TO 21'-0"
2-1/2"	0'-0" TO 9'-0"	9'-1" TO 18'-0"	18'-1" TO 27'-0"
3"	0'-0" TO 10'-0"	10'-1" TO 20'-0"	20'-1" TO 30'-0"

CURE TIMES WITH ONE STEP SOLVENT CEMENT

PIPE SIZE	60°F to 70°F Ambient Temperature During Cure Period	40°F to 59°F Ambient Temperature During Cure Period	0°F to 39°F Ambient Temperature During Cure Period
3/4"	45 min.	1.5 hr.	24 hr.
1-1/4"	1.5 hr.	16 hr.	120 hr.
1-1/2"	1.5 hr.	16 hr.	120 hr.
2-1/2"	6 hr.	36 hr.	See Note 1
3"	8 hr.	72 hr.	See Note 1

FOR THESE SPACES, THE SOLVENT CEMENT CAN BE APPLIED AT TEMPERATURES BELOW 32°F, HOWEVER, THE SPRINKLER SYSTEM TEMPERATURE MUST BE RAISED TO RECOMMENDATIONS PRIOR TO PRESSURE TESTING.