

FIRE SPRINKLER PLAN - FIRST FLOOR
SCALE: 1/8"=1'
AREA PROTECTED: 956 SQ.FT.
FINISH FLOOR ELEVATION : 50.0'
COLOR CODE: YELLOW

FIRE SPRINKLER PLAN - SECOND FLOOR
SCALE: 1/8"=1'
AREA PROTECTED: 956 SQ.FT.
FINISH FLOOR ELEVATION : 61.66'
COLOR CODE: YELLOW

FIRE SPRINKLER PLAN - THIRD FLOOR
SCALE: 1/8"=1'
AREA PROTECTED: 956 SQ.FT.
FINISH FLOOR ELEVATION : 75.66'
COLOR CODE: YELLOW

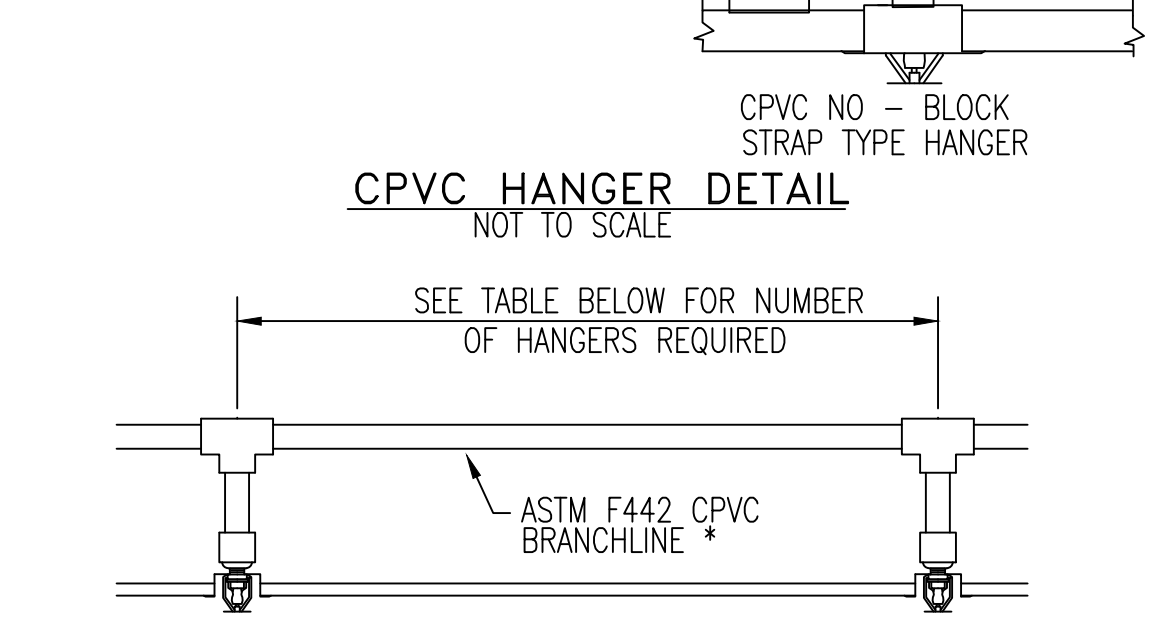
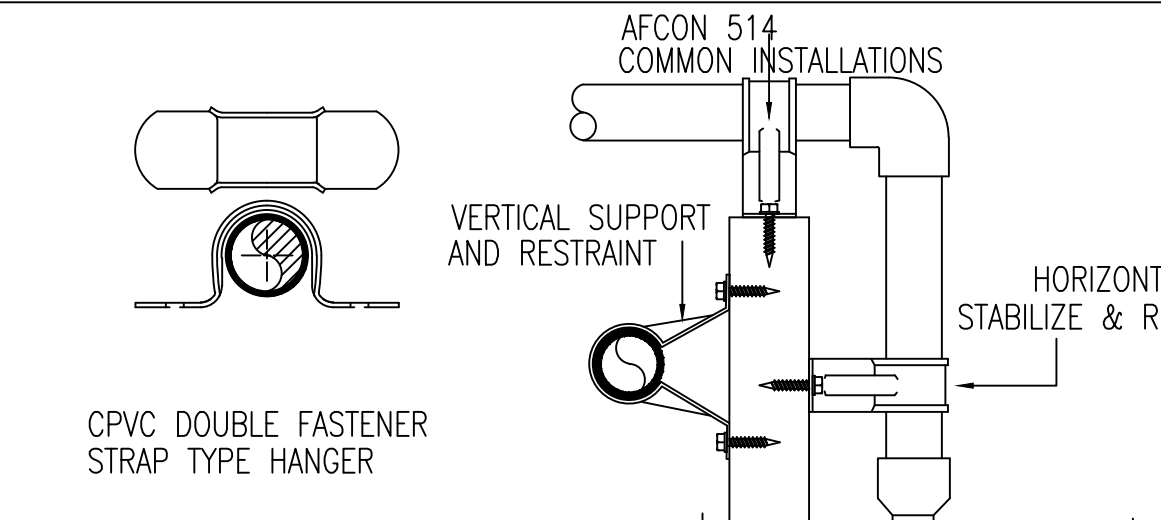
FIRE SPRINKLER PLAN - ROOF
SCALE: SCALE
AREA PROTECTED: 956 SQ.FT.
FINISH FLOOR ELEVATION : 92.66'
COLOR CODE: YELLOW

Symbol	Count	Thread	K-Factor	Description	Note
⊙	4	1/2"	4.9	RELIABLE F1RES49 WHITE RECESSED PENDENT	on Drop
○	3	1/2"	5.6	RELIABLE F1FR56 BRASS UPRIGHT 200"	
◀	1	1/2"	4.4	RELIABLE F1RES44 WHITE RECESSED HORIZONTAL SIDEWALL SIN#	Sidewall
◁	1	1/2"	4.4	RELIABLE F3RES44 DRY RECESSED HORIZONTAL SIDEWALL 4.4K 155' SIN#RA5231	
9 = Total Number of Heads This Floor					

Symbol	Count	Thread	K-Factor	Description	Note
⊙	5	1/2"	4.9	RELIABLE F1RES49 WHITE RECESSED PENDENT	on Drop
◁	1	1/2"	4.4	RELIABLE F3RES44 DRY RECESSED HORIZONTAL SIDEWALL 4.4K 155' SIN#RA5231	
6 = Total Number of Heads This Floor					

Symbol	Count	Thread	K-Factor	Description	Note
⊙	5	1/2"	4.9	RELIABLE F1RES49 WHITE RECESSED PENDENT	on Drop
◁	1	1/2"	4.4	RELIABLE F3RES44 DRY RECESSED HORIZONTAL SIDEWALL 4.4K 155' SIN#RA5231	
6 = Total Number of Heads This Floor					

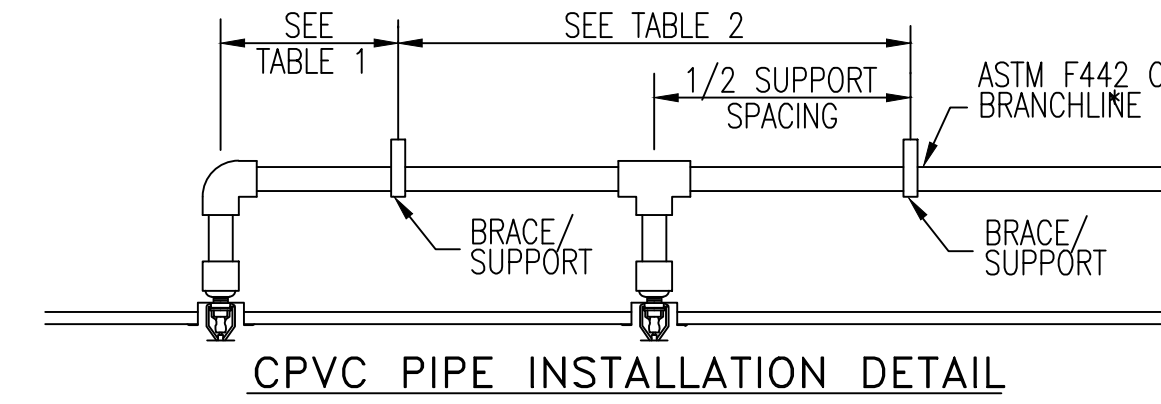
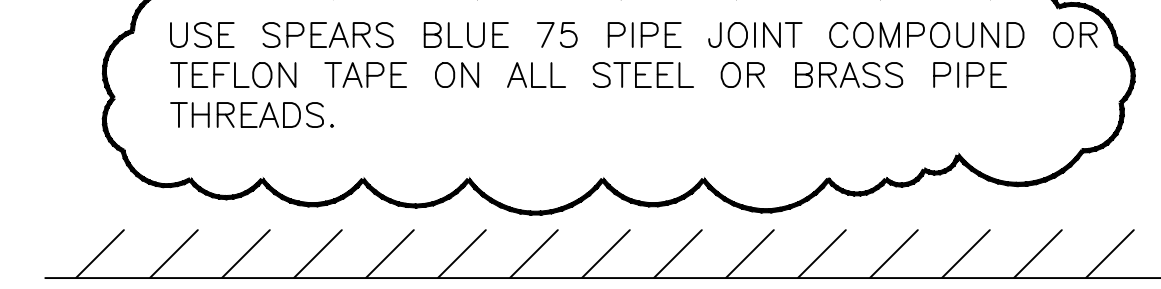
Symbol	Count	Thread	K-Factor	Description	Note
◁	1	1/2"	4.4	RELIABLE F1RES44 WHITE RECESSED HORIZONTAL SIDEWALL SIN#	Sidewall
1 = Total Number of Heads This Floor					



PIPE SIZE	1 HANGER	2 HANGERS	3 HANGERS
3/4"	0'-0" TO 5'-6"	5'-7" TO 11'-0"	11'-1" TO 16'-6"
1"	0'-0" TO 6'-0"	6'-1" TO 12'-0"	12'-1" TO 18'-0"
1 1/4"	0'-0" TO 6'-6"	6'-7" TO 13'-0"	13'-1" TO 19'-6"
1 1/2"	0'-0" TO 7'-0"	7'-1" TO 14'-0"	14'-1" TO 21'-0"
2"	0'-0" TO 8'-0"	8'-1" TO 16'-0"	16'-1" TO 24'-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"

PIPE SIZE	60°F TO 120°F	40°F TO 59°F	0°F TO 39°F
3/4"	45 min.	1.5 hr.	24 hr.
1"	45 min.	1.5 hr.	24 hr.
1 1/4"	1.5 hr.	1.6 hr.	120 hr.
1 1/2"	1.5 hr.	1.6 hr.	120 hr.
2"	6 hr.	36 hr.	See Note 1
2 1/2"	8 hr.	72 hr.	See Note 1
3"	8 hr.	72 hr.	See Note 1

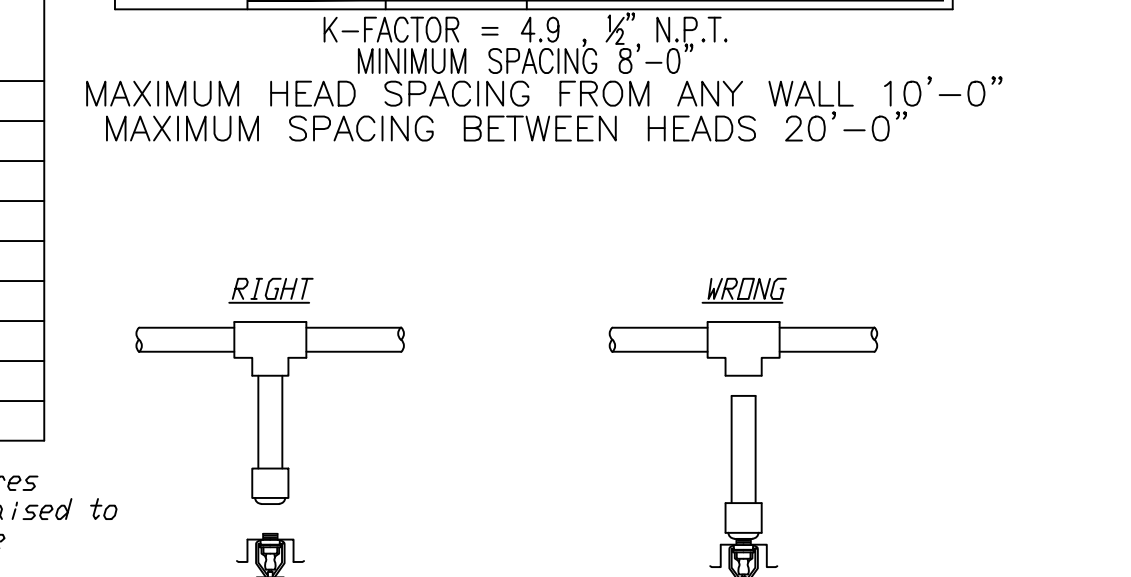
Note 1 For these sizes, the solvent cement can be applied at temperatures below 40°F; however, the sprinkler system temperature must be raised to a temperature of 40°F or above and allowed to cure per the above recommendations prior to pressure testing.



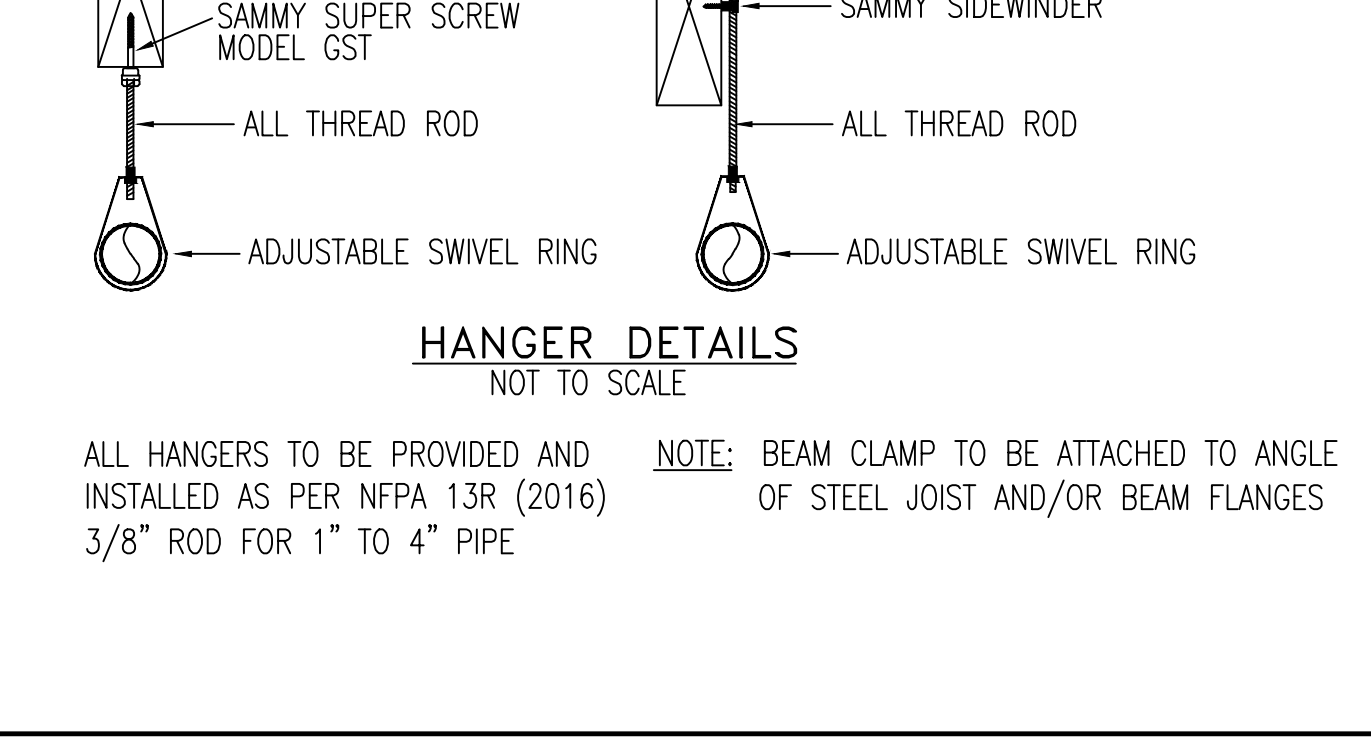
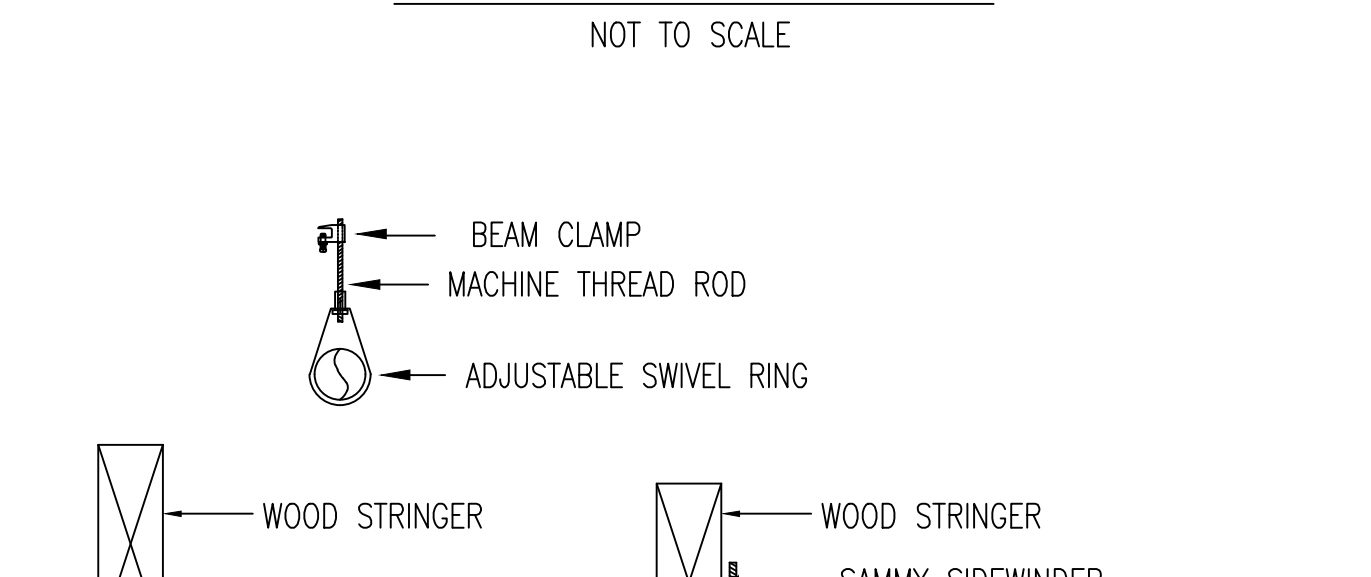
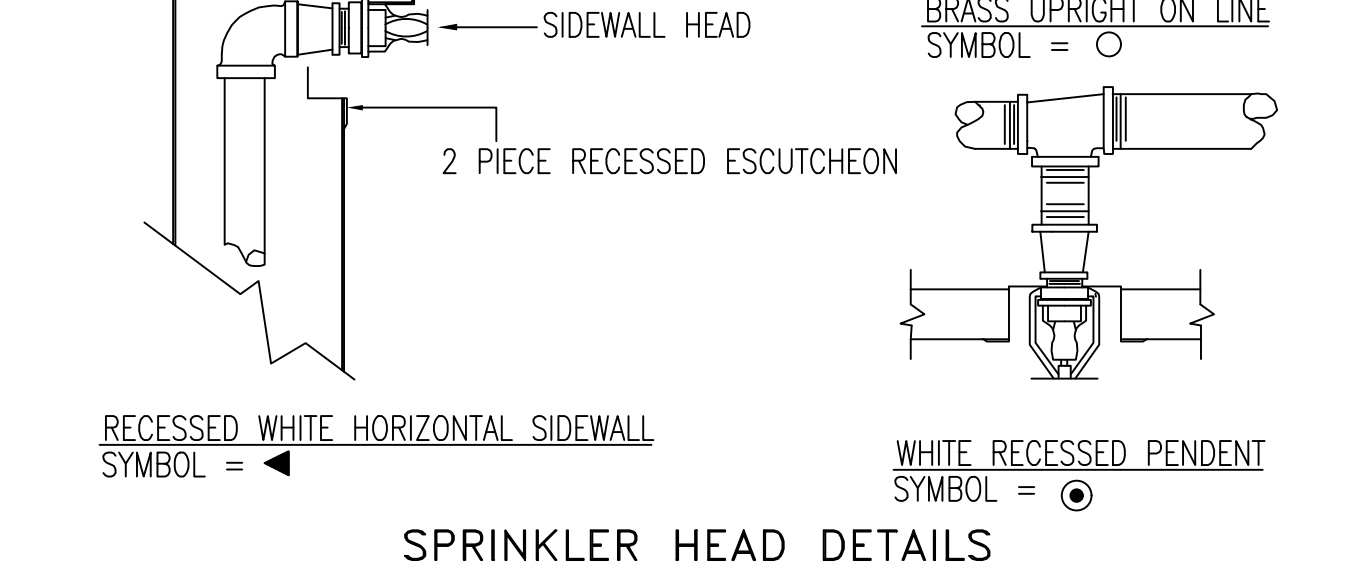
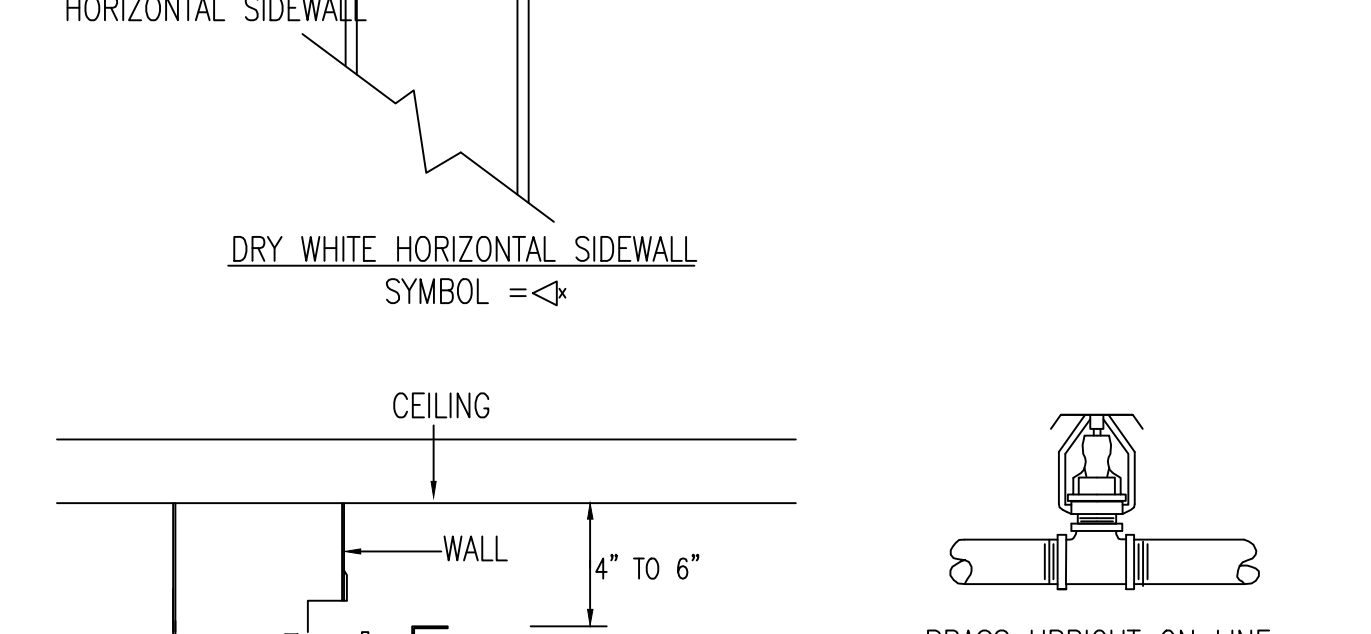
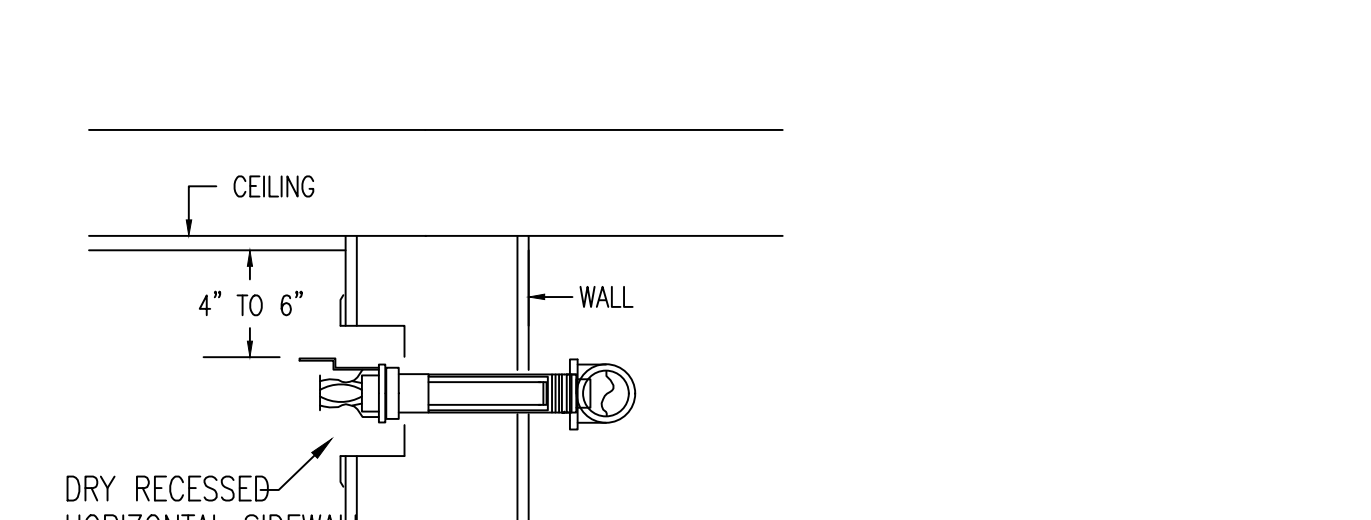
PIPE SIZE	SYSTEM PRESSURE	MAXIMUM SUPPORT SPACING DISTANCE END LINE SPRINKLER HEAD DROP ELBOW
3/4"	< 100 psi	9'
1"	> 100 psi	9'
1 1/4"	< 100 psi	12'
1 1/2" - 3"	> 100 psi	24'

MODEL	WIDTH	MAXIMUM SPACING	MINIMUM DESIGN FLOW AND RESIDUAL PRESSURE
F1 RES 44	12 x 12	12"	120PM(7.0psi)
	14 x 14	14"	140PM(10.2psi)
	16 x 16	16"	160PM(13.3psi)
	16 x 18	16"	160PM(16.0psi)
	18 x 18	16"	190PM(18.7psi)
	16 x 20	16"	230PM(27.4psi)

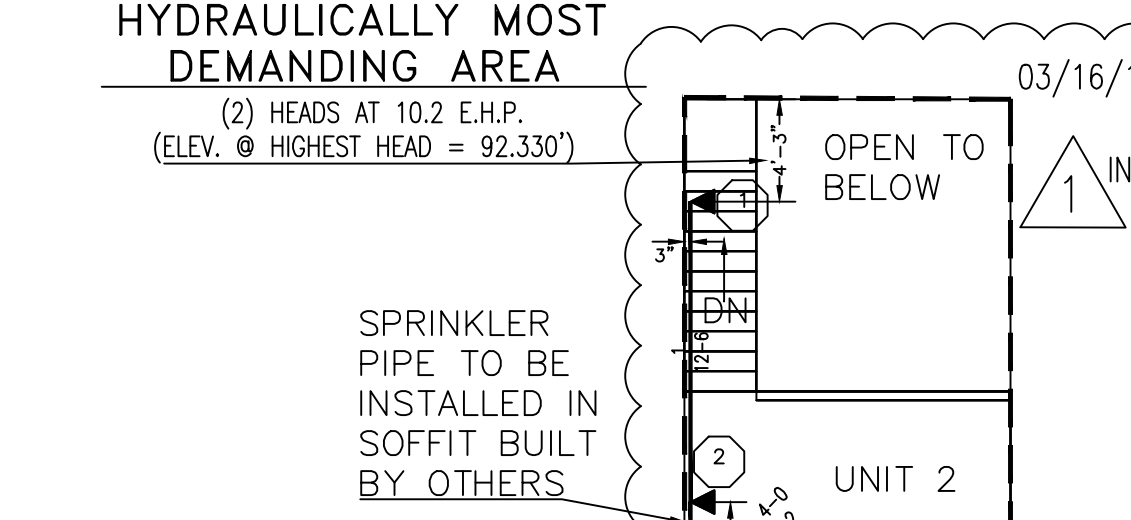
MODEL	MAX. SPACING BETWEEN SPRINKLERS	MINIMUM DESIGN FLOW AND PRESSURE FOR HORIZONTAL CEILING (MAX. 2" RISE FOR 12" RUN)
F1RES49 RECESSED PENDENT	12 x 12	6"(OR LESS)
	14 x 14	7"
	16 x 16	8"
	18 x 18	9"
	20 x 20	10"



PIPE SIZE	SYSTEM PRESSURE	MAXIMUM SUPPORT SPACING DISTANCE INLINE SPRINKLER HEAD DROP TEE
3/4"	< 100 psi	9'
1"	> 100 psi	9'
1 1/4"	< 100 psi	12'
1 1/2" - 3"	> 100 psi	24'

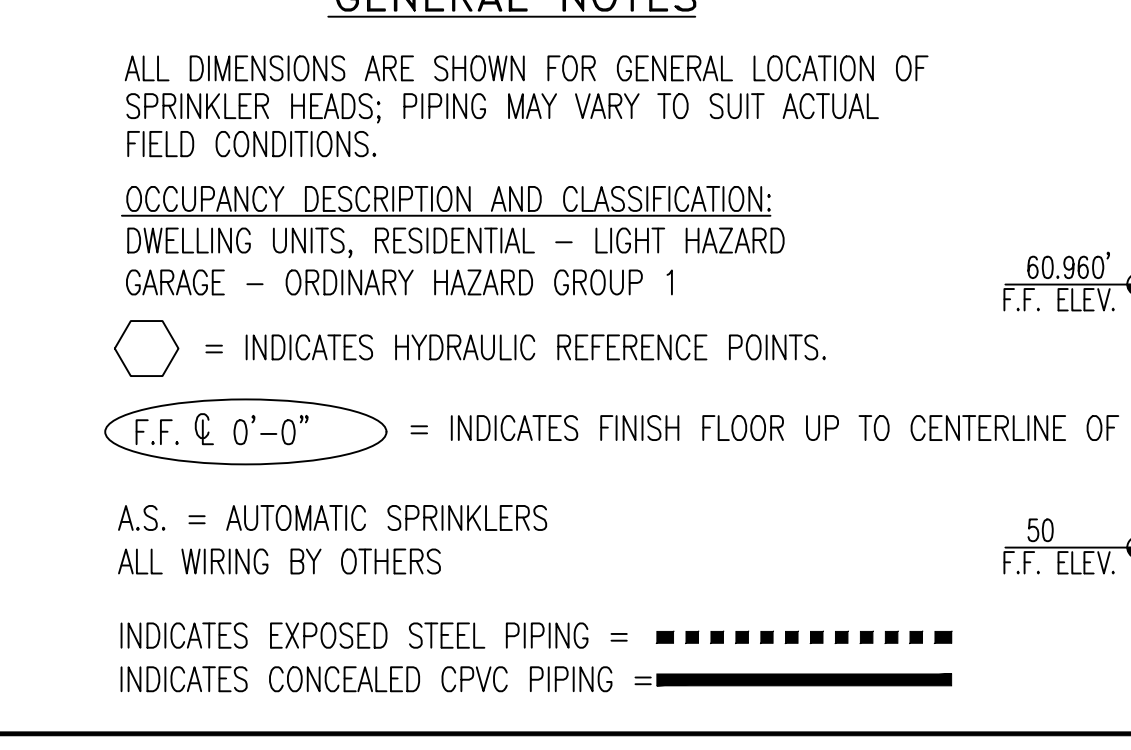
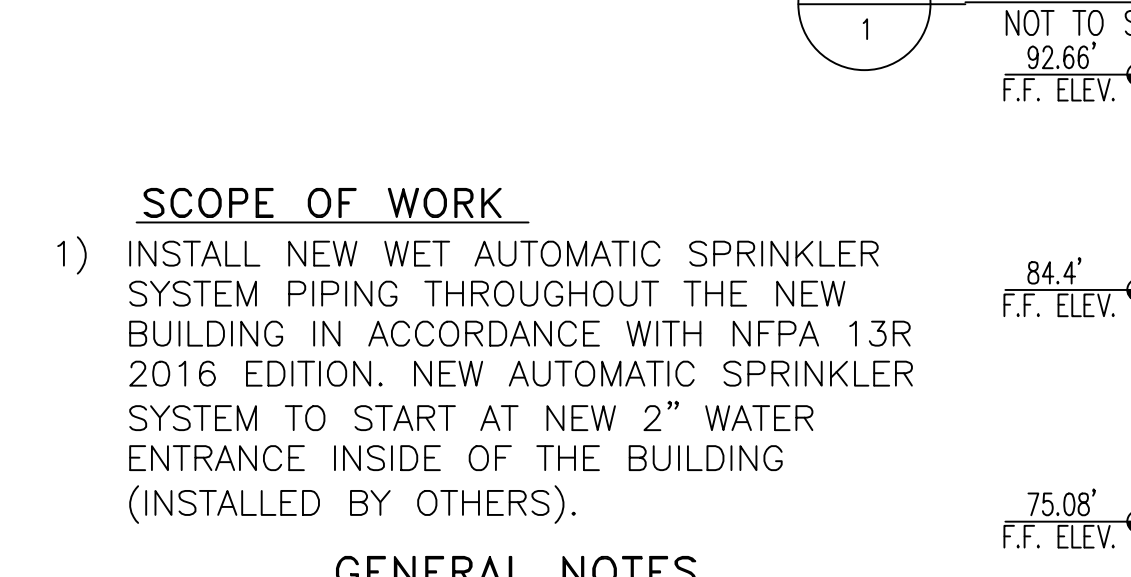


PIPE SIZE	SYSTEM PRESSURE	MAXIMUM SUPPORT SPACING DISTANCE END LINE SPRINKLER HEAD DROP ELBOW
3/4"	< 100 psi	9'
1"	> 100 psi	9'
1 1/4"	< 100 psi	12'
1 1/2" - 3"	> 100 psi	24'

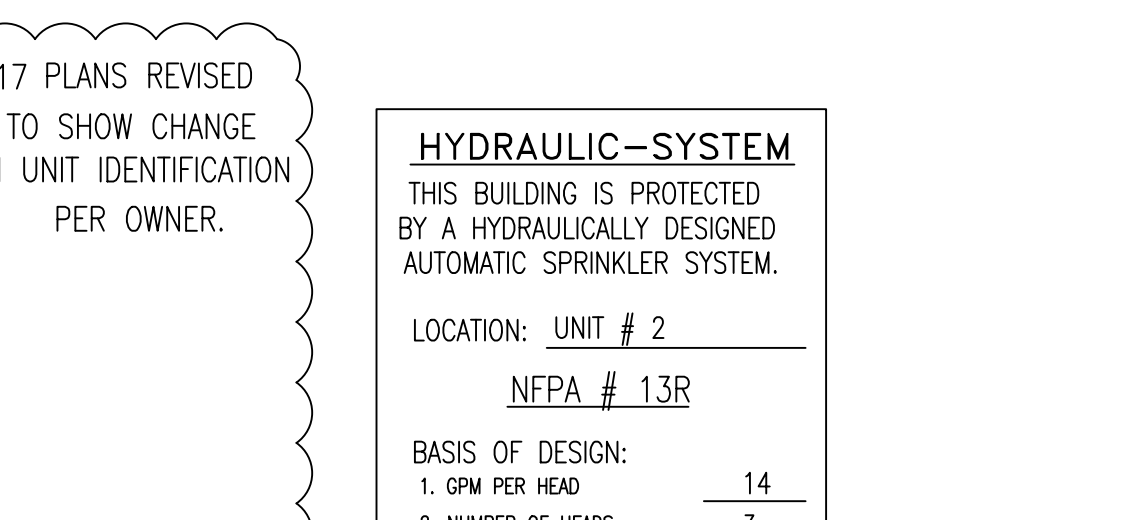


FIRE SPRINKLER PLAN - UNIT 2 LOFT
SCALE: 1/8"=1'
AREA PROTECTED: 157 SQ.FT.
FINISH FLOOR ELEVATION : 84.4'
COLOR CODE: YELLOW

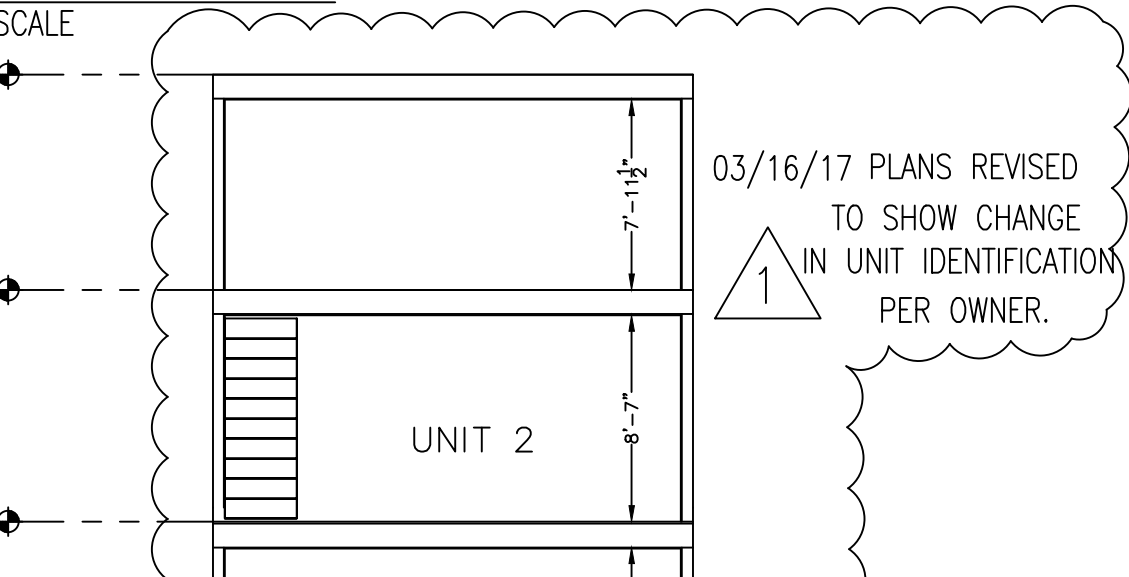
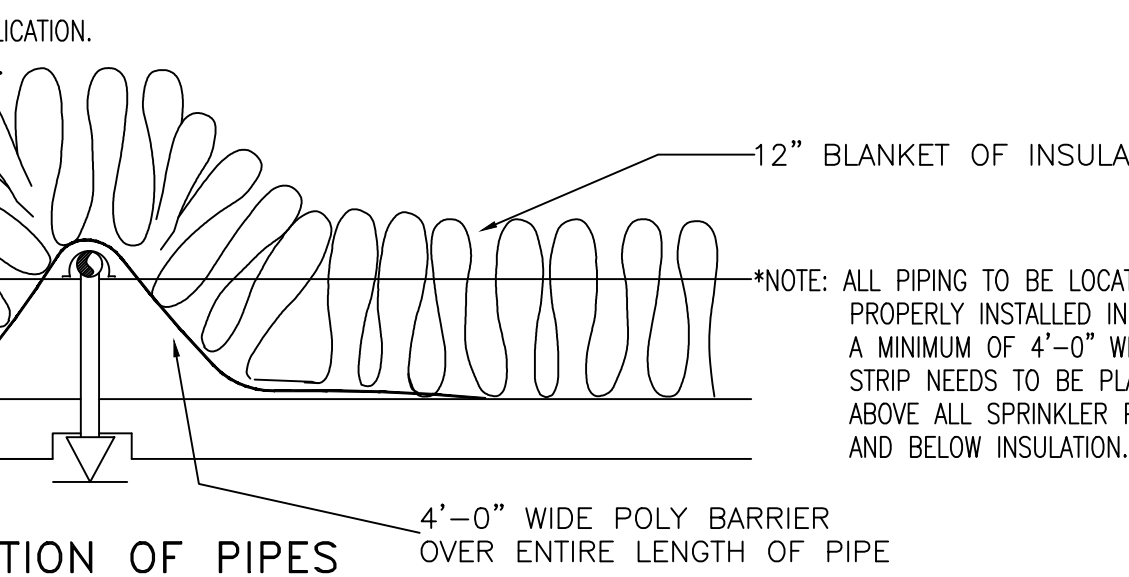
Symbol	Count	Thread	K-Factor	Description	Note
◁	2	1/2"	4.4	RELIABLE F1RES44 WHITE RECESSED HORIZONTAL SIDEWALL SIN#	Sidewall
2 = Total Number of Heads This Floor					



DATE	REVISIONS	REQUIRED APPROVALS
03/16/17	PLANS REVISED TO SHOW CHANGE IN UNIT IDENTIFICATION PER OWNER.	OWNER/ARCHITECT STATE FIRE MARSHAL PORTLAND FIRE DEPARTMENT

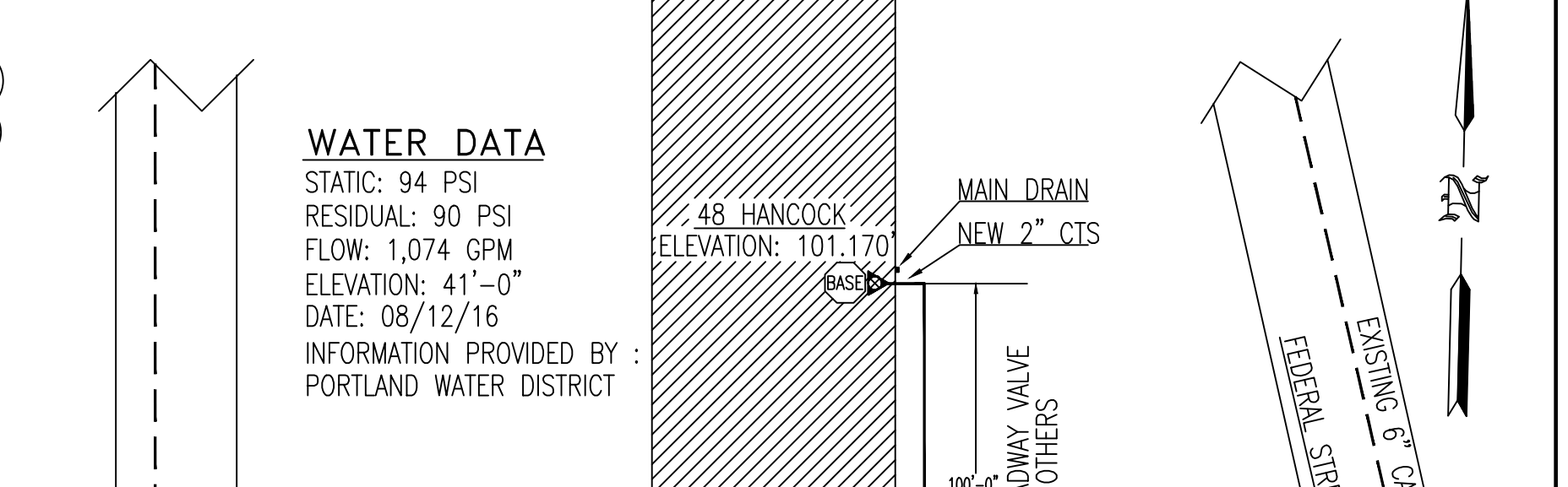
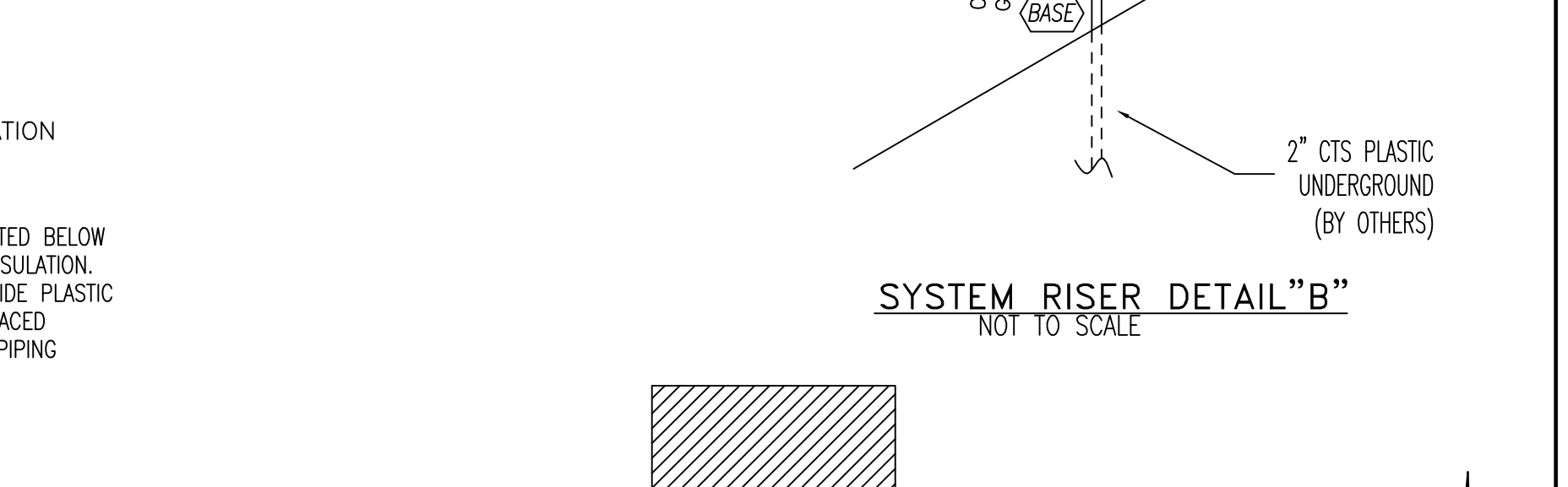


SYMBOL	COUNT	THREAD	K-FACTOR	DESCRIPTION	NOTE
⊙	5	1/2"	4.9	RELIABLE F1RES49 WHITE RECESSED PENDENT	on Drop
◁	1	1/2"	4.4	RELIABLE F3RES44 DRY RECESSED HORIZONTAL SIDEWALL 4.4K 155' SIN#RA5231	
6 = Total Number of Heads This Floor					



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- LEGEND FOR NFPA 13D SPRINKLER SYSTEM**
- 1 1/4" AMES MOD. 2000B BACKFLOW PREVENTER W/ 1/4" BALL VALVES W/CHAIN & LOCK
 - 2 WATER PRESSURE GAUGE W/ 1/4" THREE-WAY VALVE.
 - 3 1/4" POTTER MOD. VSR-S FLOW SWITCH WIRED TO ELECTRONIC BELL
 - 4 1/4" TEST-AND-DRAIN WITH 7/16" ORIFICE (TO OUTSIDE DISCHARGE)(SEE FIRST FLOOR PLAN)
 - 5 1/4" UNION
 - 6 2" PLASTIC TO STEEL ADAPTER
 - 7 3-HEAD SPARE HEAD BOX W/ HEAD WRENCH
 - 8 2"x1/4"x1/2" GALVANIZED TEE



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03/16/17	PLANS REVISED TO SHOW CHANGE IN UNIT IDENTIFICATION PER OWNER.	OWNER/ARCHITECT STATE FIRE MARSHAL PORTLAND FIRE DEPARTMENT