

Sprinkler Head Schedule

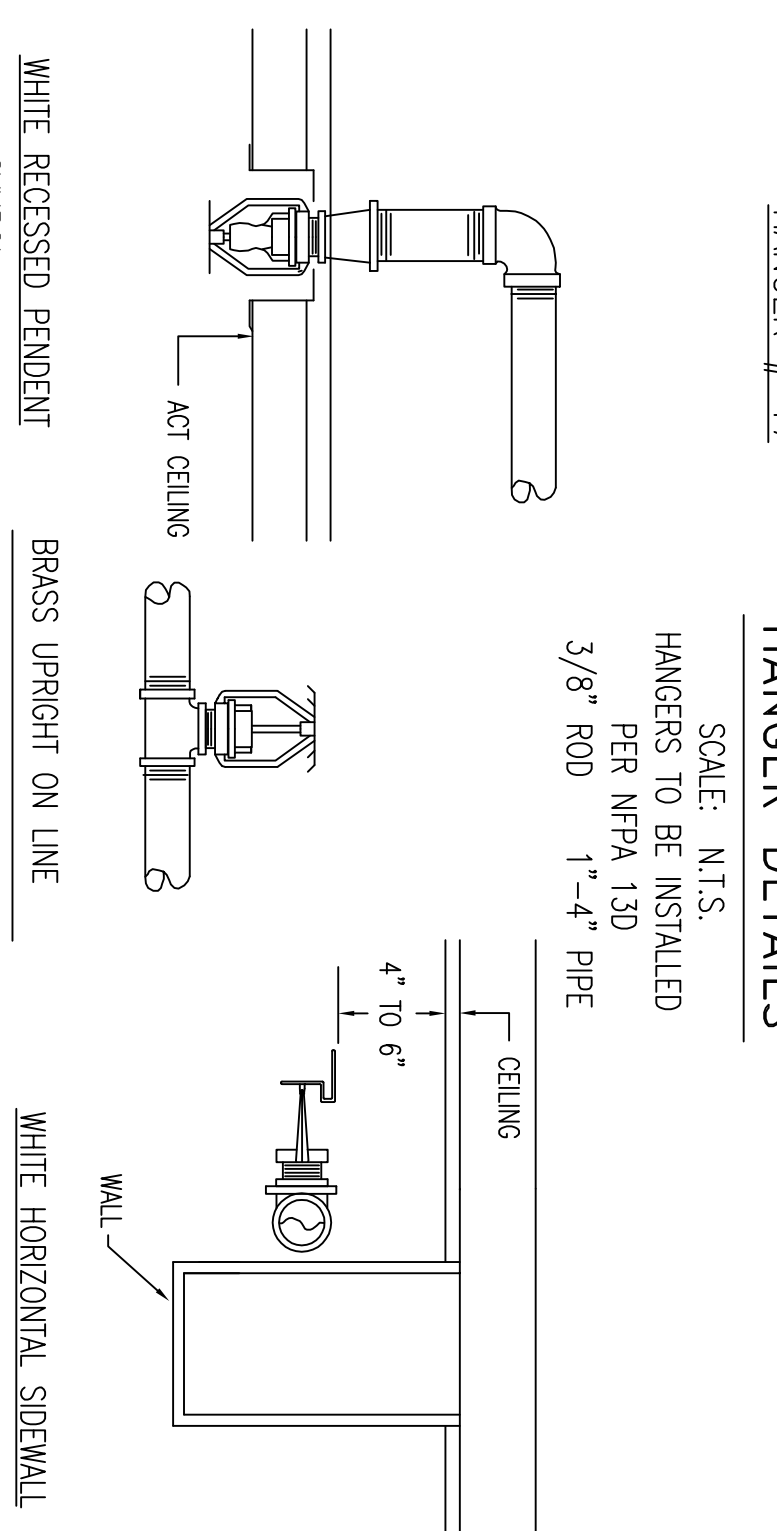
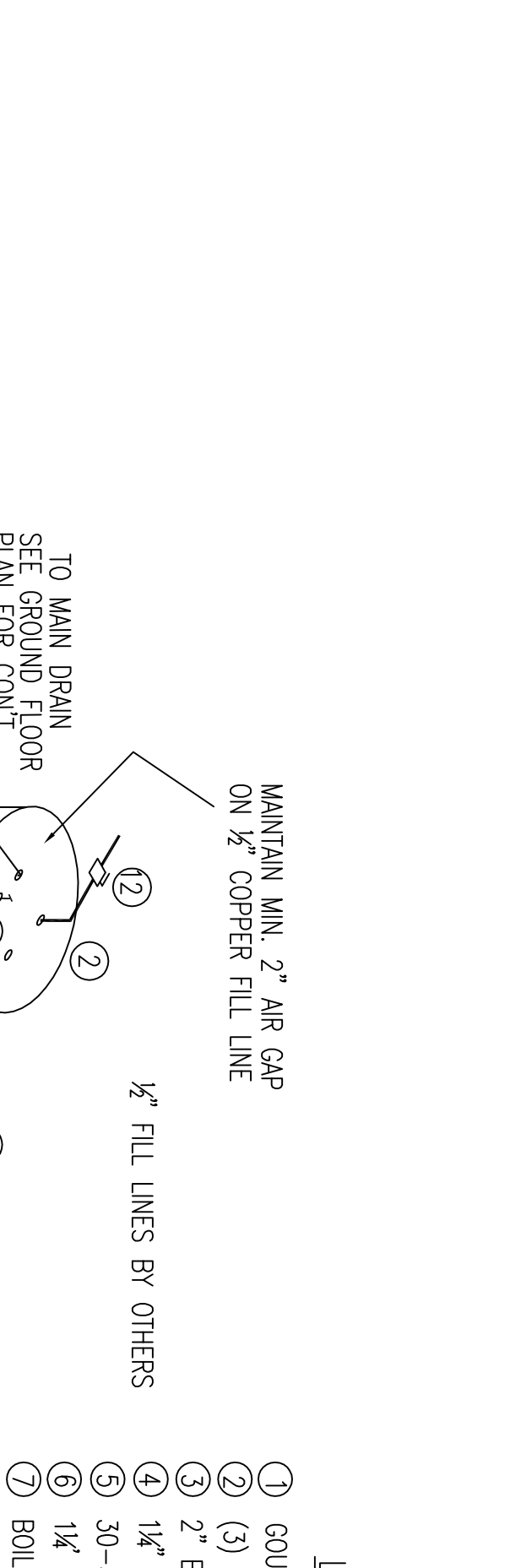
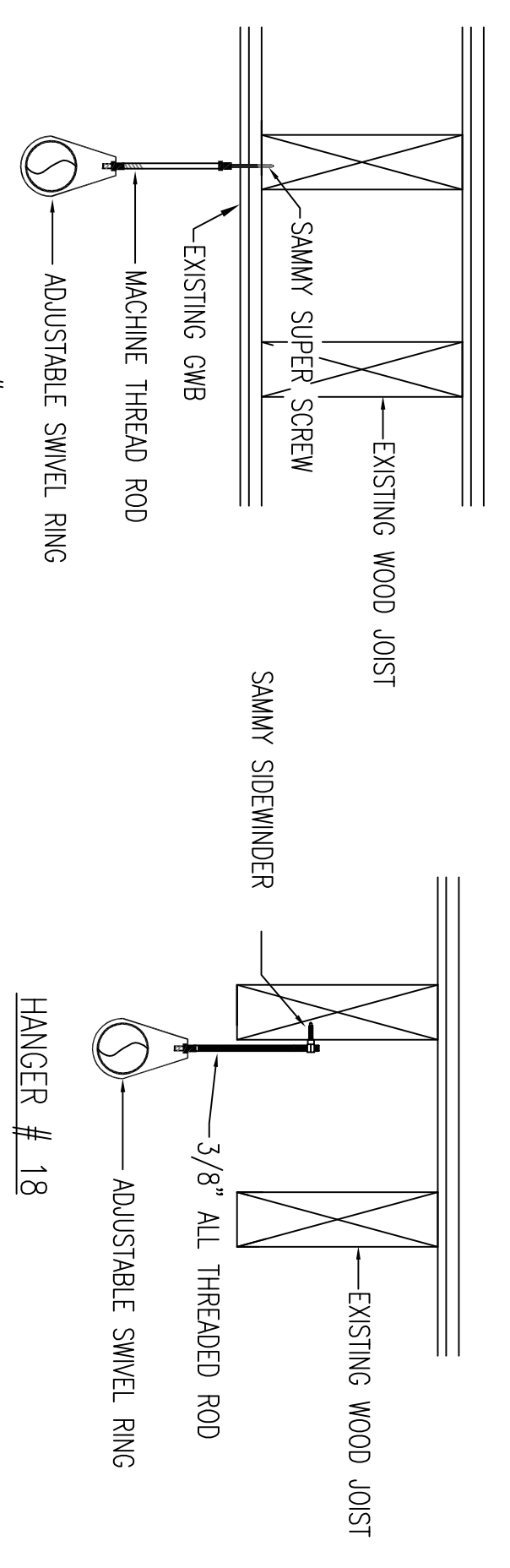
Symbol	Count	Thread	K-Factor	Temp.	Description	Note
⊙	6	1/2"	4.9	155°	TYCO L.F. II WHITE RECESSED PENDENT SMH T2234	on 7'9"
○	4	1/2"	5.6	200°	TYCO T-RING BRASS UPRIGHT SMH T2313	on Line

12 = Total Number of Heads in the Room

Sprinkler Head Schedule

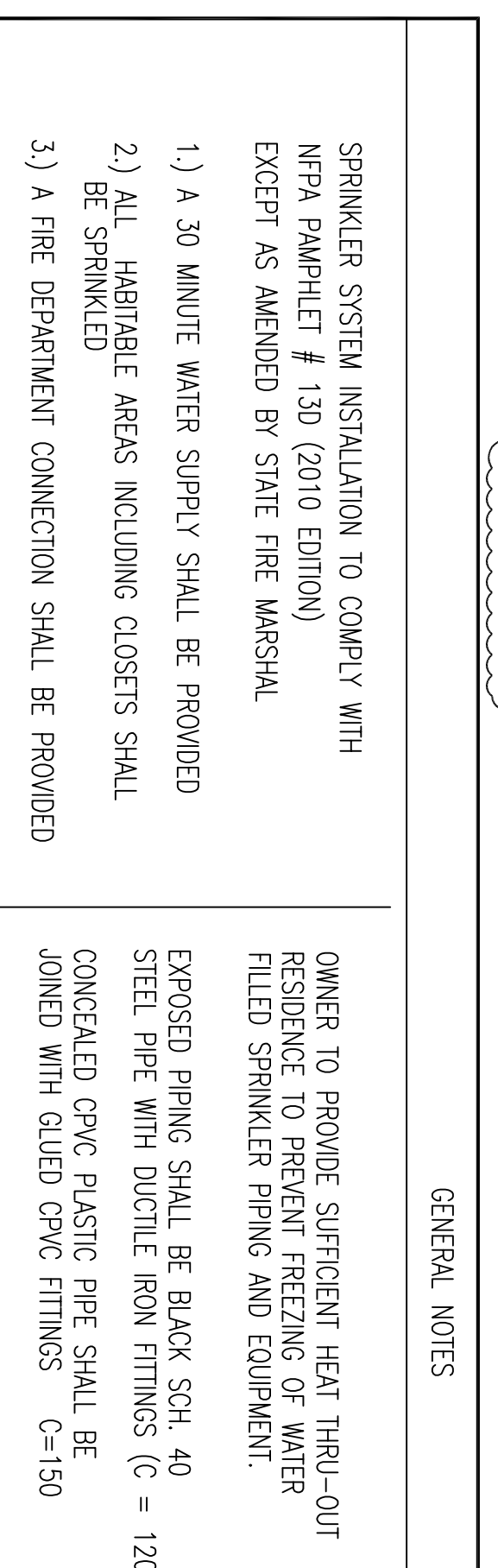
Symbol	Count	Thread	K-Factor	Temp.	Description	Note
⊙	31	1/2"	4.4	155°	TYCO L.F. II WHITE HORIZONTAL SIDEWALL SMH T2234	on Line
▲	1	1/2"	4.4	155°	TYCO L.F. II WHITE HORIZONTAL SIDEWALL SMH T2234	on Line

31 = Total Number of Heads in the Room



L.F. II RESIDENTIAL HORIZONTAL SIDEWALL SPRINKLER DESIGN REQUIREMENTS

MODEL	COVERGE AREA	MINIMUM DESIGN FLOW AND RESIDUAL PRESSURE	TOP OF DEFLECTOR TO CEILING, 4 TO 6 INCHES	TOP OF DEFLECTOR TO CEILING, 6 TO 12 INCHES
LF II 12	12' x 12'	146GPM(8.7psl)	146PM(10.1psl)	155F/79C
LF II 14	14' x 14'	146PM(10.1psl)	146PM(10.1psl)	155F/79C
LF II 16	16' x 16'	166PM(13.2psl)	166PM(14.9psl)	155F/79C
LF II 18	18' x 18'	186PM(18.6psl)	186PM(20.7psl)	155F/79C
LF II 20	20' x 20'	206PM(20.7psl)	206PM(20.7psl)	155F/79C



GENERAL NOTES

- 1) A 30 MINUTE WATER SUPPLY SHALL BE PROVIDED
- 2) ALL HABITABLE AREAS INCLUDING CLOSETS SHALL BE SPRINKLED
- 3) A FIRE DEPARTMENT CONNECTION SHALL BE PROVIDED

OWNER TO PROVIDE SUFFICIENT HEAT THROUGH REFRIGERATION SYSTEMS TO MAINTAIN THE FILLED SPRINKLER SPRING AND EQUIPMENT:

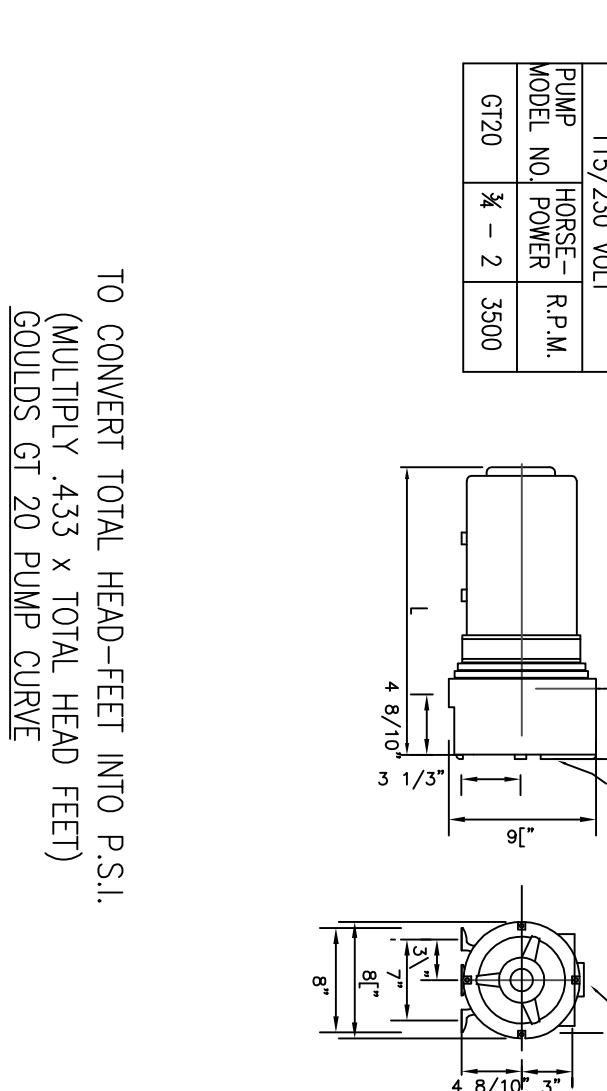
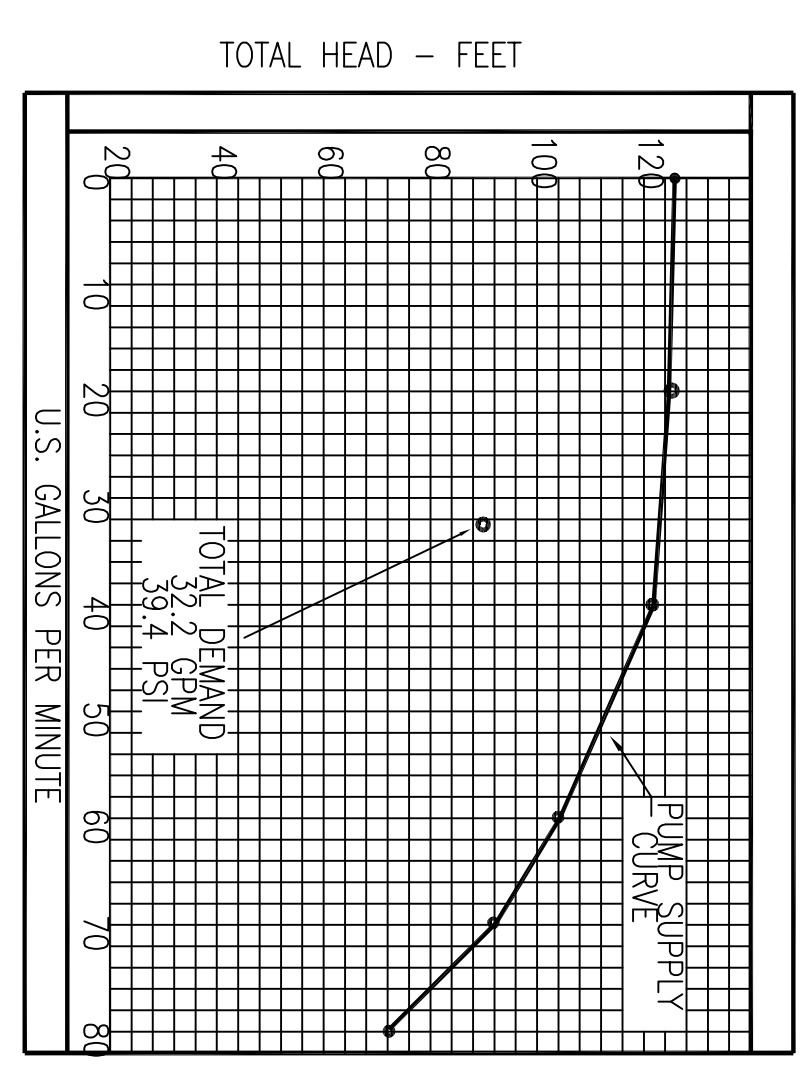
EXPOSED BRASS SHALL BE BLACK SQ. 40 STEEL PIPE WITH DUCTILE IRON FITTINGS (C = 120). CONCEALED CPVC PLASTIC PIPE SHALL BE JOINED WITH GUNDED CPVC FITTINGS C=150

REVISIONS

NO.	DATE	DESCRIPTION
1		SPRINKLERS ARE NOT REQUIRED IN THE FOLLOWING AREAS AS PER NFPA 13D: AMENDED FOR BOARD & CARE FACILITIES
2		OPEN ATTACHED PORCHES, GARAGES AND OUTSIDE STORAGE AREAS
3		ANY OTHER LIVING PURPOSES
4		C. OPEN ATTACHED PORCHES, GARAGES AND SIMILAR STRUCTURES.
5		D. COVERED UNHEATED PRODUCTIONS AT ENTRANCES/EXITS IF NOT THE ONLY MEANS OF EGRESS

LEGEND FOR NFPA 13D SPRINKLER SYSTEM

- 1) COULDS 0'-20.2' 2 HR., 30 GPM @ 53.69 PSI PUMP 2300//60
- 2) 3" 300 GALLON PLASTIC WATER STORAGE TANK (55' x 81") (ACTUAL CAPACITY 330GAL/TANK)
- 3) 2" BALL VALVE (NORMALLY OPEN WITH LOCK)
- 4) 1/4" SWING CHECK VALVE
- 5) 30-50 PUMP CONTROL SWITCH (230 VOLTS)
- 6) 1K PER POTTER VSR-5F FLOW SWITCH
- 7) BOILER DRAIN VALVE (AUX. DRAIN)
- 8) 300# PRESSURE GAUGE W/ 1/4" 3-WAY GLOBE VALVE
- 9) 1" MAIN DRAIN & ALARM TEST VALVE
- 10) ELECTRIC BELL (SEE BSMT FLOOR PLAN)
- 11) 1/4" VENT CAP
- 12) 1/2" COPPER BALL VALVE FOR TANK FILL LINE (NORMALLY CLOSED) (BY OTHERS)
- 13) 2" GROOVED COUPLING
- 14) SPARE HEAD BOX
- 15) NFPA 13D PUMP CONTROL PANEL
- 16) NOT USED
- 17) 1/2"x1/4" THREADED REDUCING COUPLING
- 18) 1/4" UNION
- 19) 2" FIRE DEPT. CONNECTION (SEE BSMT PLAN)
- 20) 1/2" AUTOMATIC BALL DRIP (SEE BSMT PLAN)
- 21) 1/2" BRASS UPRIGHT



56 ALLISON AVE.

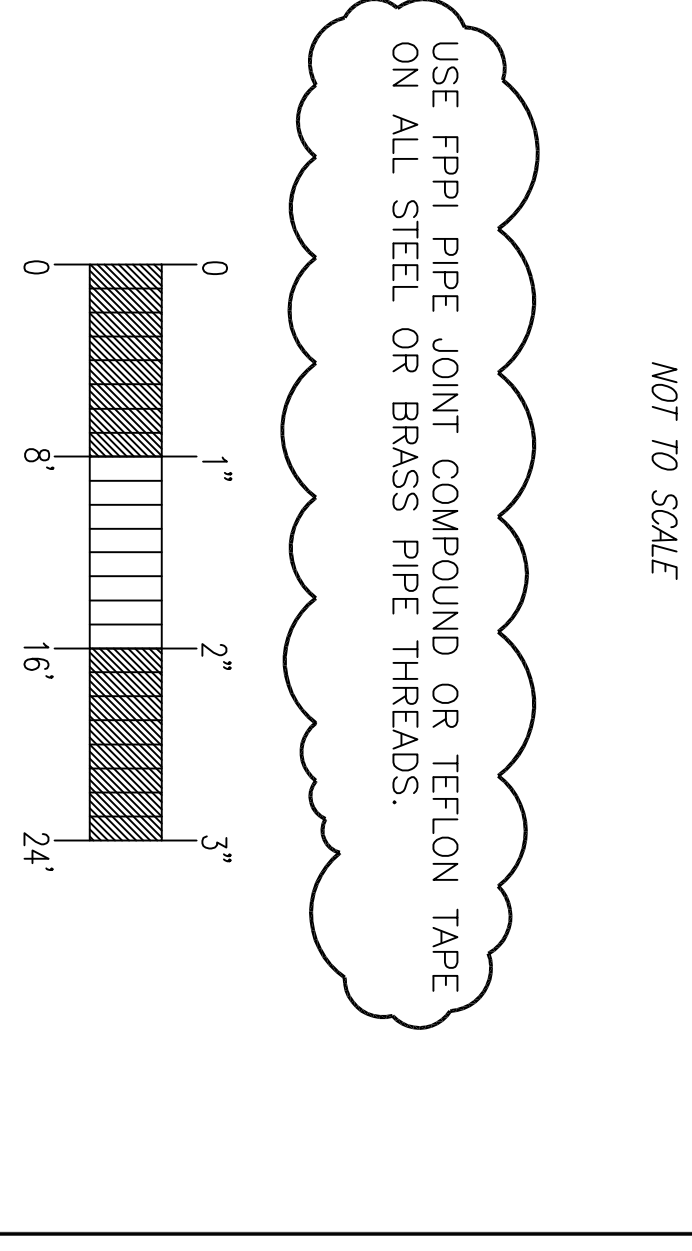
56 ALLISON AVE
PORTLAND, ME

EASTERN FIRE PROTECTION

AUBURN/LEWIS/INDUSTRIAL
AUBURN, MAINE 04210

CONTRACT WITH: CENTINE WORK SYSTEMS

DATE: 11/01/13



APPLY LIVING CEMENT, SETTING AND CURE TIMES

Prepare pipe by beveling outside end and 10" to 15", deburring end and wiping away excess filings. Apply a heavy, even coat of solvent cement to the outside end of the pipe, a medium coat to the inside of the fitting socket and for pipe sizes larger than 1", apply a second coat to the end of the pipe. Beveling allows the cement to remain in the fitting socket inside wall.

A bead of solvent cement should be evident around the pipe and fitting juncture. If this bead is not continuous around the socket shoulder, it may indicate that insufficient cement was applied.

Type of excess cement on the outside of the joint. The solvents will evaporate, but the solvent cement inside the fitting will stay there.

WARNING:

Applying too much cement. Do not allow the cement to drip beyond the bottom of fitting socket. Excess cement on the pipe and/or fitting can result in decreasing the overall strength of the pipe and/or fitting and may cause cracks when pressure is applied. Failure to comply could result in property damage due to leaks.

Solvent cement set and cure times are a function of pipe size, temperature, relative humidity, and thickness of fit. Drying time is faster for drier environments, smaller pipe sizes, high temperatures, and tighter fits. The assembly must be allowed to set, without any stress on the joint, for 1 to 5 minutes, depending on the pipe size and temperature. Following the initial set period, the assembly can be handled carefully avoiding significant stresses to the joints. Refer to the cure time tables for minimum cure times prior to pressure testing.

Store cement in a warmer area when not in use and make sure they remain in fluid. Do not allow the cement to freeze or become "gelly-like". Gelled cement shall be discarded.

Sprinkler heads shall be installed only after all the CPVC pipe and fittings, including the sprinkler head adapters, are solvent welded to the piping and allowed to cure for a minimum of 30 minutes. Sprinkler head fittings should be visually inspected and probed with a wooden dowel to insure that the water way and threads are clear of any excess cement.

It is an unacceptable practice to thread the sprinkler head into the adapter fitting prior to cementing the adapter to the pipe.

Once an installation is completed and cured, per the appropriate table, the system should be tested with water at 200 psi for 2 hours, or at 50 psi in excess of the maximum pressure when the maximum pressure to be maintained in the system is in excess of 150 psi, in accordance with the requirements established by NFPA 13. Sprinkler systems in one and two family dwellings and mobile homes may be tested at 150 psi. In accordance with the requirements established by NFPA 13D, when pressure testing, the sprinkler system shall be filled with water and air bleed from the highest and farthest sprinkler head before test pressure is applied. Air or compressed gas should never be used for pressure testing. If a leak is found, the fitting must be cut out and discarded. A new section can be installed using couplings or a union. Unions should be used in accessible areas only.

NOTES:

Listings and approvals do not cover any painted CPVC fire sprinkler products. Water-based acrylic latex paint is the preferred and recommended paint to be used on Blazemaster CPVC pipe and fittings. Oil or solvent-based paints may be chemically incompatible with Blazemaster CPVC.

Teflon thread tape is the recommended sealant for threaded connections to CPVC fire sprinkler products. When using Dacey Great White Thread Sealant, it should be applied to male threads only.

Firestop systems such as Hilti FS-One have been found to be compatible with CPVC fire sprinkler products. A list of these firestop systems can be found along with approved thread sealants on-line at www.blazemaster.com. Use only those products that have been approved.

CURE TIMES WITH ONE STEP SOLVENT CEMENT

PIPE SIZE	200 psi (MAXIMUM) TEST PRESSURE	Ambient Temperature Drying Cure Period	OF TO 59°F
3/4"	60°F to 120°F	40°F to 59°F	24 hr.
1-1/4"	45 min.	1.5 hr.	24 hr.
1-1/2"	1.5 hr.	1.5 hr.	24 hr.
1-3/4"	1.5 hr.	1.5 hr.	24 hr.
2"	6 hr.	36 hr.	See Note 1
2-1/2"	8 hr.	72 hr.	See Note 1
3"			See Note 1

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