

FIRE SPRINKLER PLAN

16 X 16 SQ. FT. MAXIMUM PROTECTION AREA FOR RESIDENTIAL SPRINKLERS

SCOPE OF WORK:

CONTRACTOR SHALL INSTALL A NEW WET PIPE FIRE SPRINKLER SYSTEM IN NEWLY CONSTRUCTED BUILDING OF COMBUSTIBLE UNOBSTRUCTED CONSTRUCTION.

FIRE SPRINKLER NOTES:

SYSTEM DESIGNED AS PER NFPA #13D 2021 EDITION

15 TOTAL SPRINKLER HEADS 1,670 SQ. FT. TOTAL AREA PROTECTED ON WET SYSTEM

CONTRACTOR SHALL:

PROVIDE REQUIRED SIGNS & FLUSHING CONNECTIONS

CONTRACTORS MATERIAL AND TEST CERTIFICATES FOR ABOVE GROUND AND UNDERGROUND PIPE SHALL BE SUBMITTED TO THE FIRE MARSHALL PRIOR TO APPROVAL OF THE INSTALLATION

PIPE MATERIAL:

BLAZEMASTER CPVC PIPE & FITTINGS

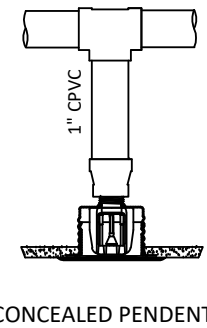
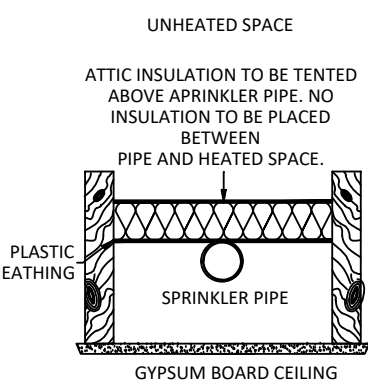
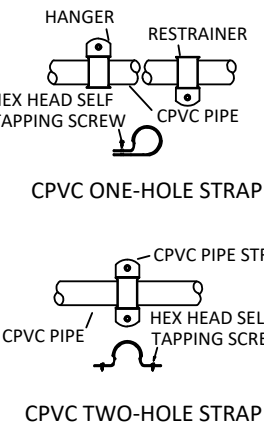
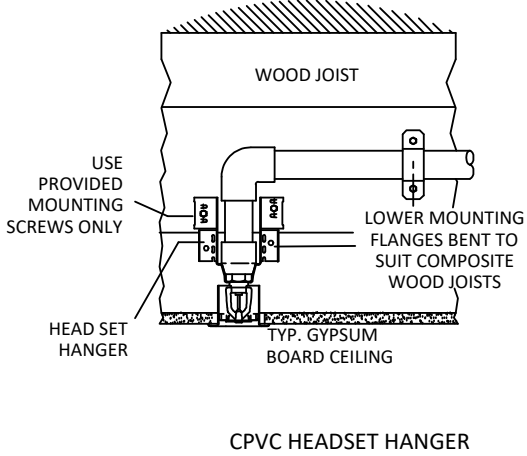
ALL DIMENSIONS & ELEVATIONS ARE CENTERLINE OF PIPE & STEEL UNLESS NOTED OTHERWISE

22-182966 DFS 01 RS

BLAZEMASTE PIPE SDR 13.5 (ASTM F442) HANGER SPACING			
NOMINAL SIZE	MAX SPACING		
inches (mm)	feet (m)		
3/4"	(20.0) 5.5'	(1.7)	
1"	(25.0) 6.0'	(1.8)	
1 1/4"	(32.0) 6.5'	(2.0)	
1 1/2"	(40.0) 7.0'	(2.1)	
2"	(50.0) 8.0'	(2.4)	
2 1/2"	(65.0) 9.0'	(2.7)	
3"	(80.0)	(3.0)	

TABLE 1 MAXIMUM SUPPORT SPACING END LINE SPRINKLER HEAD DRIP SPACING					
PIPE SIZE	SYSTEM	MAXIMUM SUPPORT SPACING DISTANCE			
inches		inches	feet	inches	feet
3/4"	<100 psi	9"		1"	5'
1"	<100 psi	12"		1"	5'
1 1/4"	<100 psi	16"		1"	5'
1 1/2"	<100 psi	24"		1"	5'
2"	<100 psi	32"		1"	5'
2 1/2"	<100 psi	40"		1"	5'
3"	<100 psi	48"		1"	5'

BLAZEMASTER PIPE



Notes/Minimum Cure Prior To Pressure Testing			
Pipe Size	Ambient Temperature During Cure	60 TO 100 Deg. F	40 TO 60 Deg. F
3/4"	1 HOUR	4 HOURS	48 HOURS
1"	1 1/2" HOUR	4 HOURS	48 HOURS
1 1/4" & 1 1/2"	3 HOURS	10 HOURS	10 DAYS
2"	6 HOURS	48 HOURS	48 HOURS
2 1/2" & 3"	24 HOURS	48 HOURS	48 HOURS

CPVC PIPE:

~DO NOT stress, support, hang equipment, or hang flexible wire/cable, especially communications cables or other material on the fire sprinkler system.  
~ONLY system compatible materials including, but not limited to solvent cements, couplings, adapters, cutting oils and thread protectors are noted by the CPVC fire sprinkler piping system manufacturer's installation instructions should be used in contact with this system.  
~DO NOT expose CPVC products to incompatible materials, such as cutting oils, non-water based paints, packing oils, traditional pipe thread protect and pipe, kerosene, turpentine, kerosene, kerosene building coatings, adhesive tapes, solder flux, flexible wire/cable (with special consideration for communications cabling), and non-approved spray from insulation materials.  
~DO NOT expose CPVC products to acidic oils, solvents, or glycol-based anti-freeze fluids.  
~DO NOT expose CPVC products to open flame, solder, or soldering flux.  
~DO NOT drop, distort, or impact CPVC products or allow objects to be dropped on them.  
~DO NOT install CPVC products with gloves contaminated with oils (hydrocarbons) or other incompatible materials.

Calculation results for Design Area 2 - DINING/LIVING			
This system as shown on	SPRINKIT FIRE INC	company print no	dated 7/4/22
for	HAB. FOR HUM.	at	2401 SW TAYLORS FERR RD UNIT 3
contract no		is designed to discharge at a rate of	0.05 gpm/ft <sup>2</sup> (L/min/m <sup>2</sup> ) of floor area over a maximum area of 383 ft <sup>2</sup> when supplied with water at a rate of 27.2 gpm at 34.1 psi at the base of the riser.
Hose stream allowance of		is included in the above.	
Occupancy classification:	RESIDENTIAL	Number of heads flowing:	2
Commodity classification:		System Type:	Wet
Maximum storage height:		Maximum velocity:	14.53 ft/s
Storage arrangement:			
Flow from In-Rack sprinklers:	0 gpm	Pressure Required at Source:	34.1 psi
Flow from Overhead sprinklers:	27.2 gpm	Pressure Available at Source:	83 psi
Flow from Inside Hoses:	0 gpm	Surplus Pressure at Source:	48.9 psi
Flow from Outside Hoses:	0 gpm		
Other fixed flows:	0 gpm		
Total flow in system piping:	27.2 gpm		
Additional flow at/beyond source:	0 gpm		
Total of all flows:	27.2 gpm		

Calculation results for Design Area 1 - BEDROOM 3 2ND FLOOR			
This system as shown on	SPRINKIT FIRE INC	company print no	dated 7/4/22
for	HAB. FOR HUM.	at	2401 SW TAYLORS FERR RD UNIT 3
contract no		is designed to discharge at a rate of	0.05 gpm/ft <sup>2</sup> (L/min/m <sup>2</sup> ) of floor area over a maximum area of 144 ft <sup>2</sup> when supplied with water at a rate of 13 gpm at 28.2 psi at the base of the riser.
Hose stream allowance of		is included in the above.	
Occupancy classification:	RESIDENTIAL	Number of heads flowing:	1
Commodity classification:		System Type:	Wet
Maximum storage height:		Maximum velocity:	6.93 ft/s
Storage arrangement:			
Flow from In-Rack sprinklers:	0 gpm	Pressure Required at Source:	28.2 psi
Flow from Overhead sprinklers:	13 gpm	Pressure Available at Source:	83 psi
Flow from Inside Hoses:	0 gpm	Surplus Pressure at Source:	54.8 psi
Flow from Outside Hoses:	0 gpm		
Other fixed flows:	0 gpm		
Total flow in system piping:	13 gpm		
Additional flow at/beyond source:	0 gpm		
Total of all flows:	13 gpm		

SPRINKLER HEAD SCHEDULE					
SYMBOL	COUNT	THREAD	K-FACTOR	DESCRIPTION	NOTE
●	15	1/2"	4.9	TYCO LF II (TY2234) RECESSED PENDENT 155° F	

