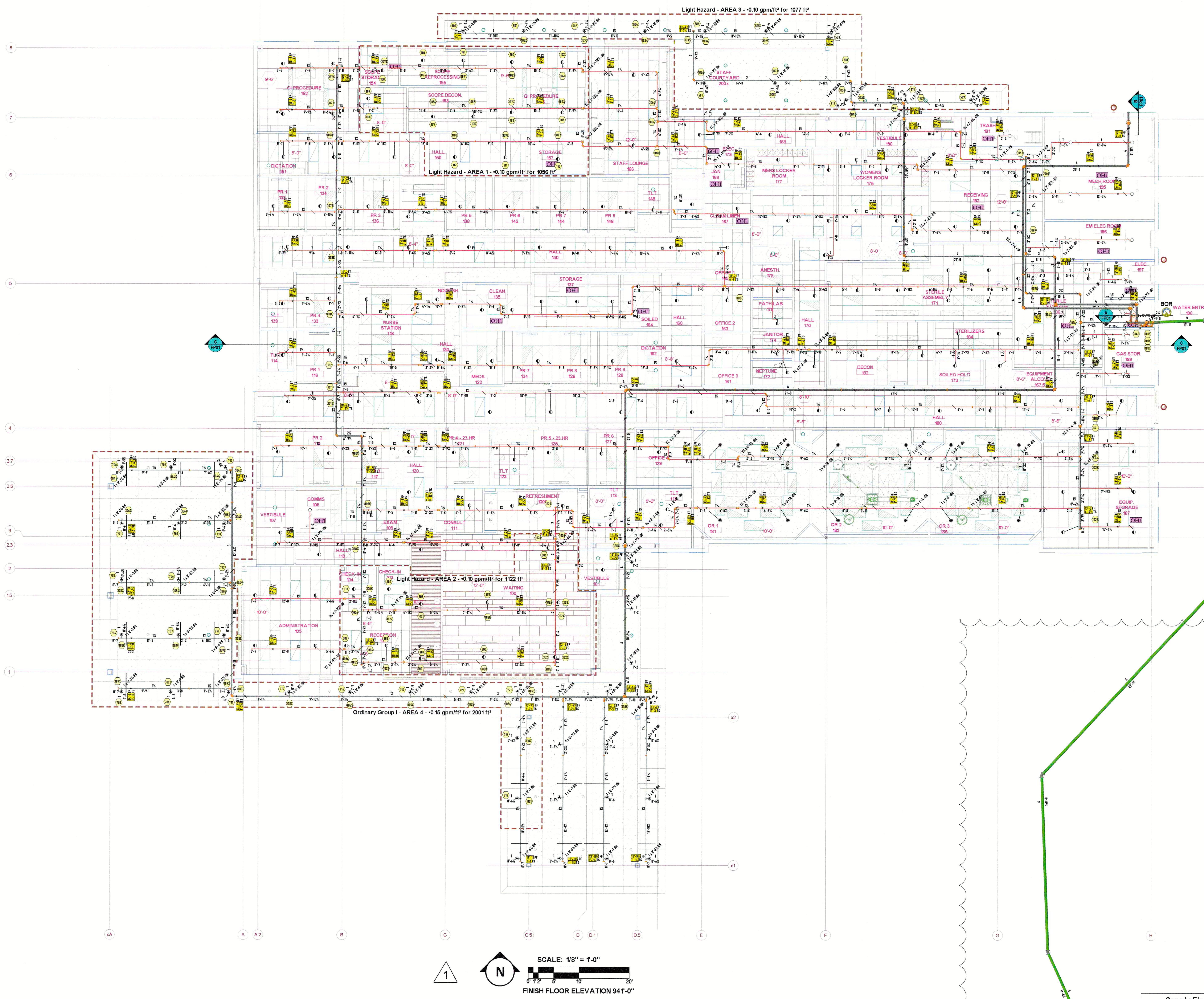
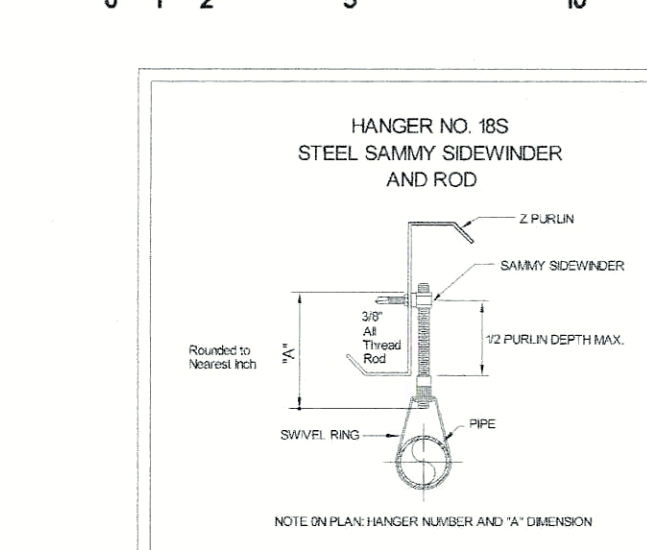
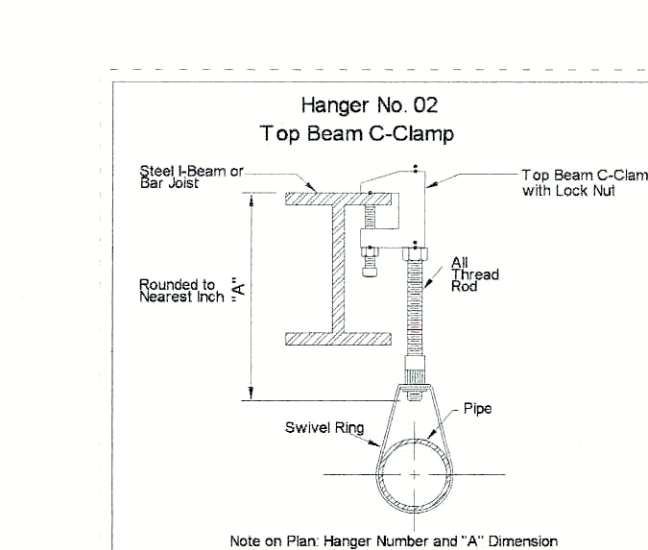
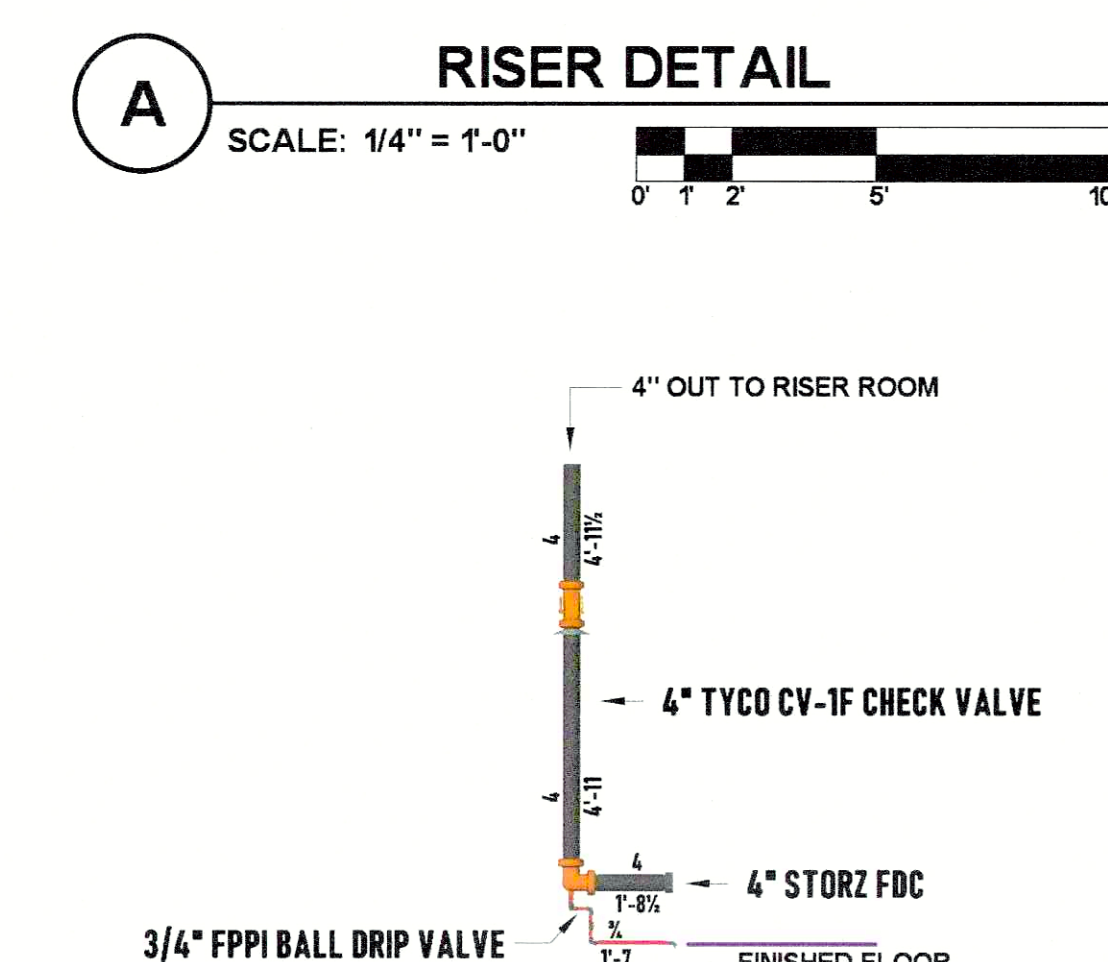
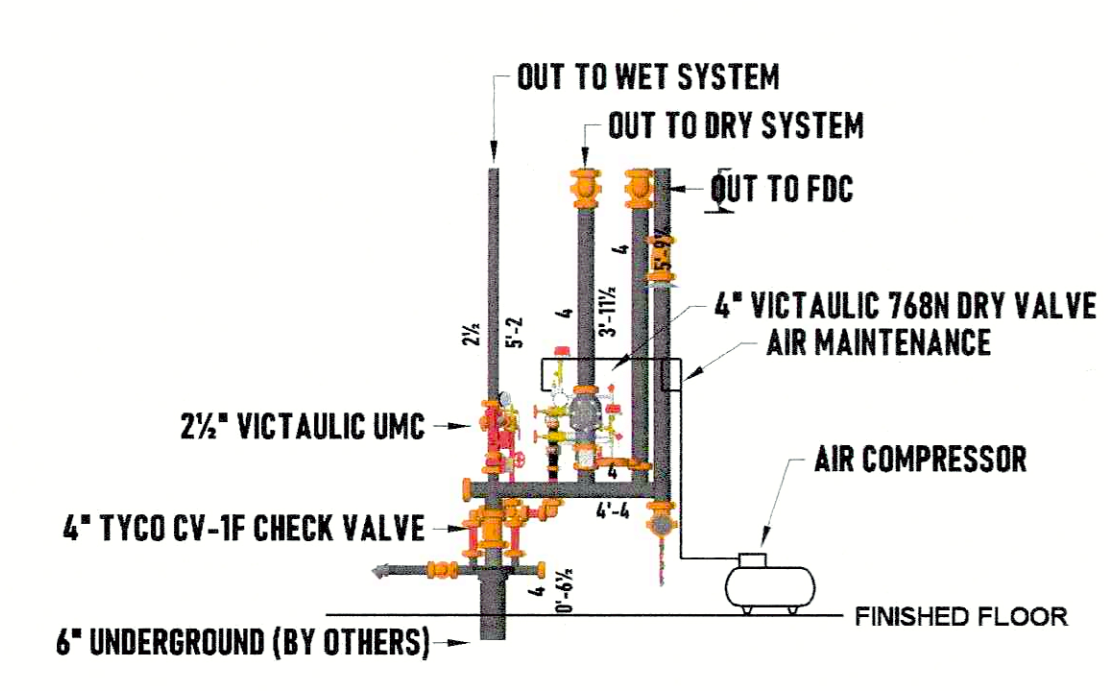




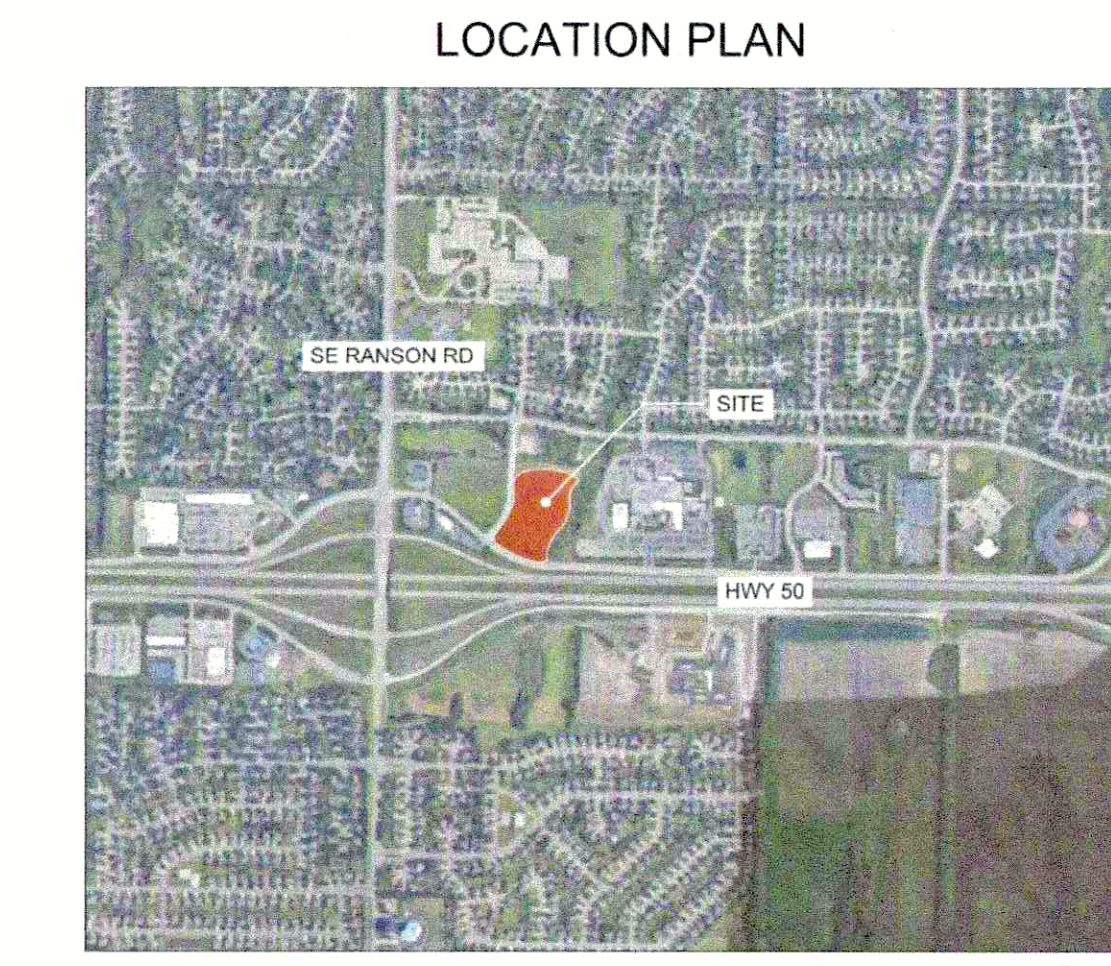
- GENERAL NOTES:**
- THE SYSTEMS SHALL CONFORM WITH THE REQUIREMENTS OF NFPA 13, 2016.
 - ALL THREADED PIPING / PIPING 2" & SMALLER SHALL BE SCHEDULE 40, BLACK/GALV. STEEL. ALL GROOVED PIPING 2 1/2" AND LARGER SHALL BE SCHEDULE 40, BLACK/GALV. STEEL.
 - FITTINGS FOR 1" THRU 1 1/2" SHALL BE DUTILE IRON THREADED OR ARE TO BE GROOVED WITH STANDARD TAKE-OUTS OR WELDED OUTLETS AS INDICATED ON THE DRAWING. FITTINGS FOR 2" AND LARGER ARE TO BE GROOVED WITH FIRELOCK TAKE-OUTS OR WELDED OUTLETS AS INDICATED ON THE DRAWING. ALL WELDS ARE TO BE SHOP WELDED.
 - PIPE LENGTHS ON DRAWING ARE SHOWN AS OUT LENGTH DIMENSIONS.
 - ALL SECTIONS OF TRAPPED PIPING SHALL HAVE AUXILIARY DRAINS WHERE REQUIRED PER NFPA 13.
 - ALL HANGERS ARE TO BE IN CONFORMANCE WITH NFPA 13.
 - PENETRATIONS THRU FIRE WALLS SHALL BE FIRE CAULKED AS REQUIRED.
 - THE OWNER SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE HEAT TO PREVENT THE WATER IN THE PIPING FROM FREEZING.
 - AMERICAN FIRE SPRINKLER CORP. IS NOT CONTRACTED TO PROVIDE THE ALARM WIRING OR THE CENTRAL STATION ALARM SYSTEM.
 - ALL DRY SYSTEM PIPING SHALL BE SLOPED PER NFPA 13.



MAXIMUM DISTANCE BETWEEN HANGERS										
NOMINAL PIPE SIZE (in)	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	5"
STEEL PIPE EXCEPT THREADED LIGHTWALL	N/A	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0

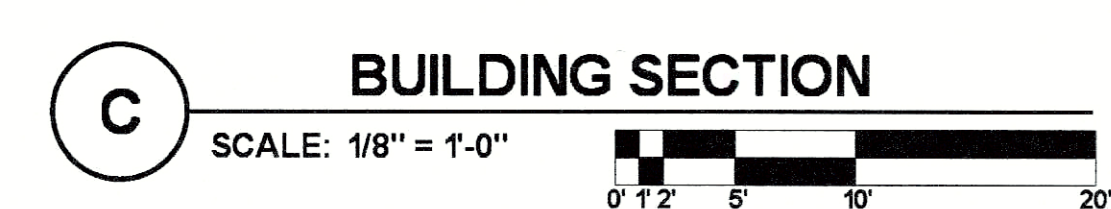
Sprinkler Legend									
Symbol	Quantity	Manufacturer	SIN	K-Factor	Type	Size	Finish	Temperature	Note
●	166	Viking	VK4621	5.6	Pendent	1/2"	Chrome	200 °F	CONCEALED
○	12	Viking	VK4621	5.6	Pendent	1/2"	Chrome	200 °F	W/ SEALING CVR PLT
○	49	Viking	VK3001	5.6	Upright	1/2"	Brass	200 °F	
▲	49	Reliable	RA5114	5.6	Pendent	1/2"	Brass	212 °F	CONCEALED
Total = 239									

Supply Flow Test Data									
Test Conducted By	City of Lee's Summit								
Test Witnessed By	Ryan								
Date of Test	10/16/2023								
Time of Test	11:20AM								
Location	1950 SE Shenandoah Drive								
Static Pressure	90.000								
Residual Pressure	72.000								
Flow	2275.00								



Hydraulic Information									
OCCUPANCY CLASSIFICATION	Light Hazard - AREA 1 - 0.10 for 1500 ft² (Actual 1056 ft²)				OCCUPANCY CLASSIFICATION	Light Hazard - AREA 2 - 0.10 for 1500 ft² (Actual 1122 ft²)			
DENSITY (gpm/ft²)	0.10 for 1500 ft² (Actual 1056 ft²)				DENSITY (gpm/ft²)	0.10 for 1500 ft² (Actual 1122 ft²)			
QUICK RESPONSE REDUCTION	9.4 Ceiling (40.0%) 900 ft²				QUICK RESPONSE REDUCTION	12.0 Ceiling (37.0%) 945 ft²			
TOTAL HOSE STREAMS	100.00				TOTAL HOSE STREAMS	100.00			
TOTAL HEADS FLOWING	13				TOTAL HEADS FLOWING	11			
K-FACTOR	5.6				K-FACTOR	5.6			
TOTAL WATER REQUIRED	345.67				TOTAL WATER REQUIRED	284.07			
TOTAL PRESSURE REQUIRED	48.330				TOTAL PRESSURE REQUIRED	51.690			
BASE OF RISER (gpm)	211.57				BASE OF RISER (gpm)	184.07			
BASE OF RISER (psi)	35.721				BASE OF RISER (psi)	38.053			
SAFETY MARGIN (psi)	+40.215 (44.9%)				SAFETY MARGIN (psi)	+37.801 (42.3%)			

Hydraulic Information									
OCCUPANCY CLASSIFICATION	Light Hazard - AREA 3 - 0.15 for 1500 ft² (Actual 1077 ft²)				OCCUPANCY CLASSIFICATION	Ordinary Group I - AREA 4 - 0.15 for 1950 ft² (Actual 2001 ft²)			
DENSITY (gpm/ft²)	0.15 for 1500 ft² (Actual 1077 ft²)				DENSITY (gpm/ft²)	0.15 for 1950 ft² (Actual 2001 ft²)			
QUICK RESPONSE REDUCTION	9.4 Ceiling (40.0%) 900 ft²				QUICK RESPONSE REDUCTION	12.0 Ceiling (37.0%) 945 ft²			
TOTAL HOSE STREAMS	100.00				TOTAL HOSE STREAMS	100.00			
TOTAL HEADS FLOWING	13				TOTAL HEADS FLOWING	11			
K-FACTOR	5.6				K-FACTOR	5.6			
TOTAL WATER REQUIRED	345.67				TOTAL WATER REQUIRED	284.07			
TOTAL PRESSURE REQUIRED	48.330				TOTAL PRESSURE REQUIRED	51.690			
BASE OF RISER (gpm)	211.57				BASE OF RISER (gpm)	184.07			
BASE OF RISER (psi)	35.721				BASE OF RISER (psi)	38.053			
SAFETY MARGIN (psi)	+40.215 (44.9%)				SAFETY MARGIN (psi)	+37.801 (42.3%)			



RELEASED FOR CONSTRUCTION
As Noted on Plan/Review
Lee's Summit Fire Department
Lee's Summit, Missouri
06/16/2024



AMERICAN FIRE SPRINKLER
OFFICE 6750 W 47TH TERR. MISSION, KS 66203
MAIL P.O. BOX 805, 67220-8000
FIRE PROTECTION SYSTEMS - CONSULTANTS - DESIGN
FABRICATION - SALES - SERVICE

PAY ITEM: SPR
REVIEWING AUTHORITY: OWNER / CITY
HEADS THIS SHEET: 239
HEADS THIS JOB: 239
DRAWN BY: ALEC MOBLEY
DATE: 11-20-2023
REVISION DATE: 03-21-2024
SCALE: AS SHOWN
CONTRACT: 4333CK
DWG #: FP01