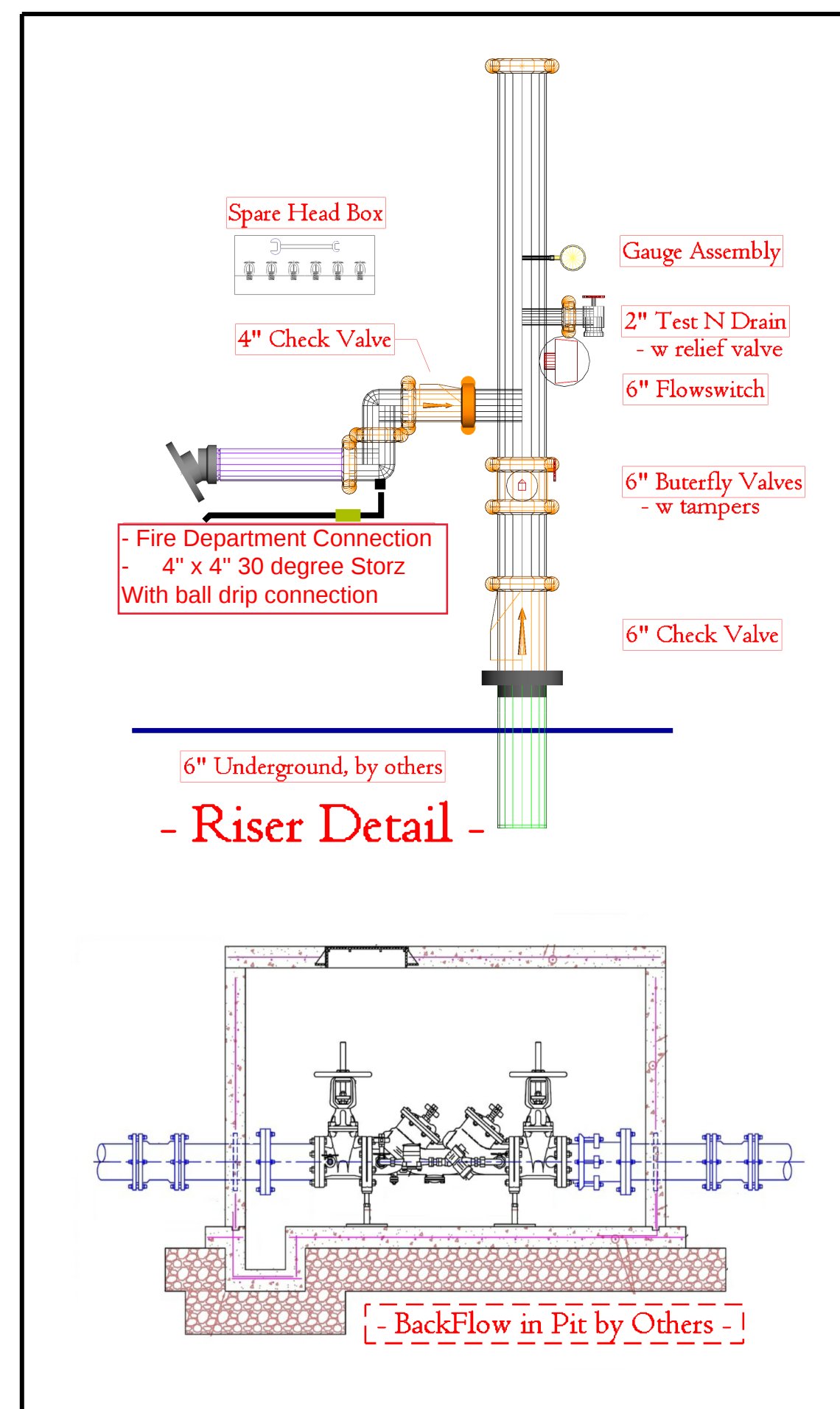
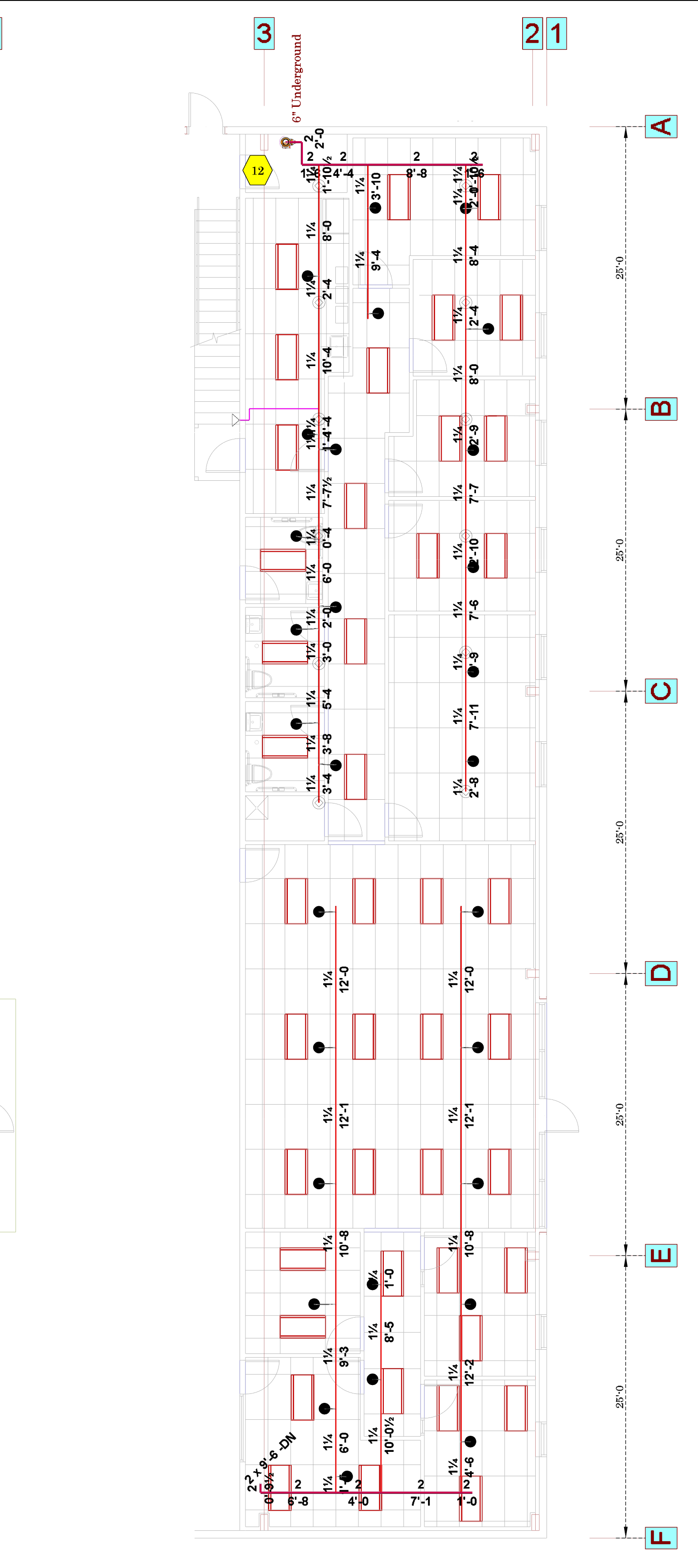
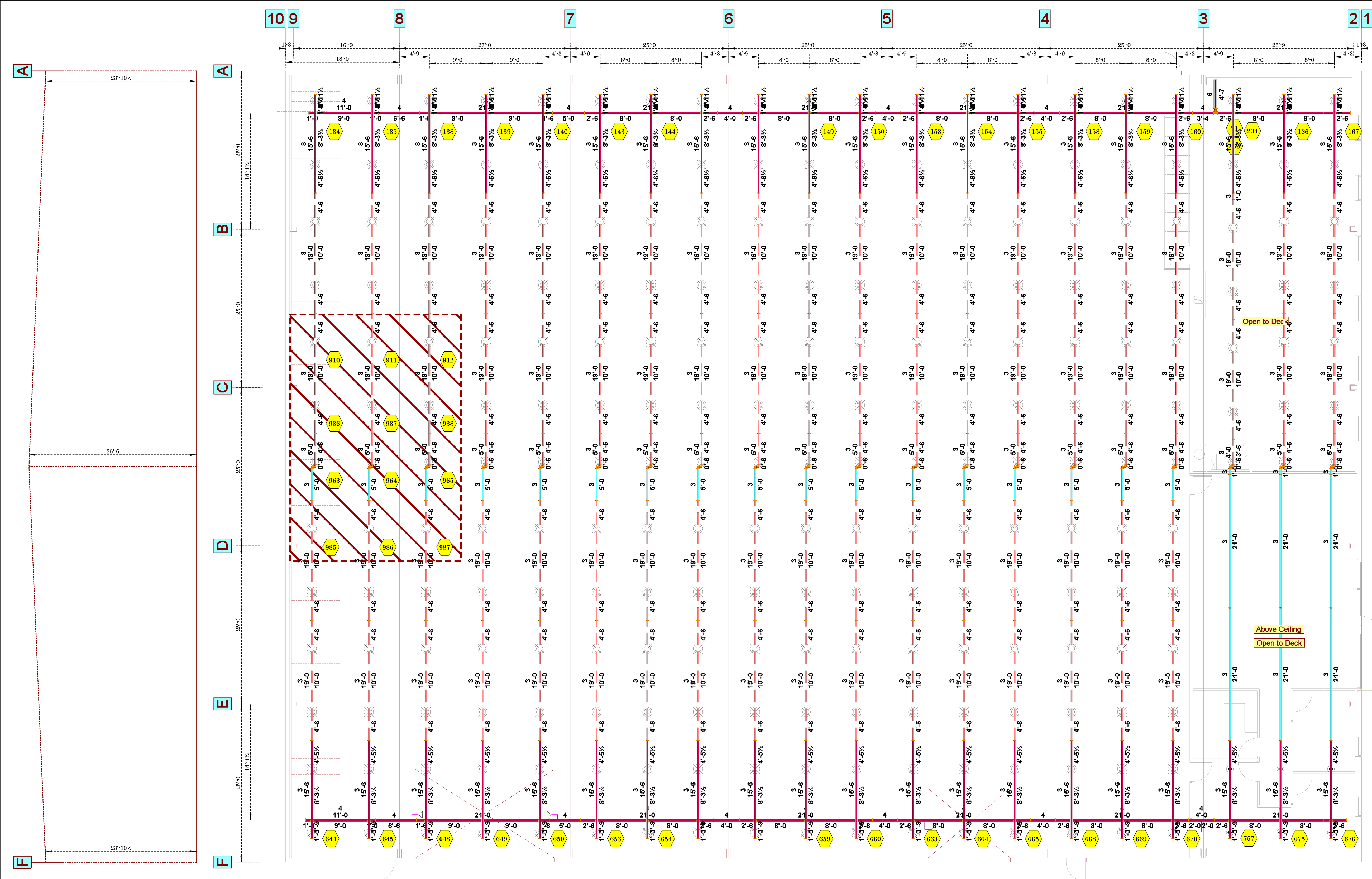
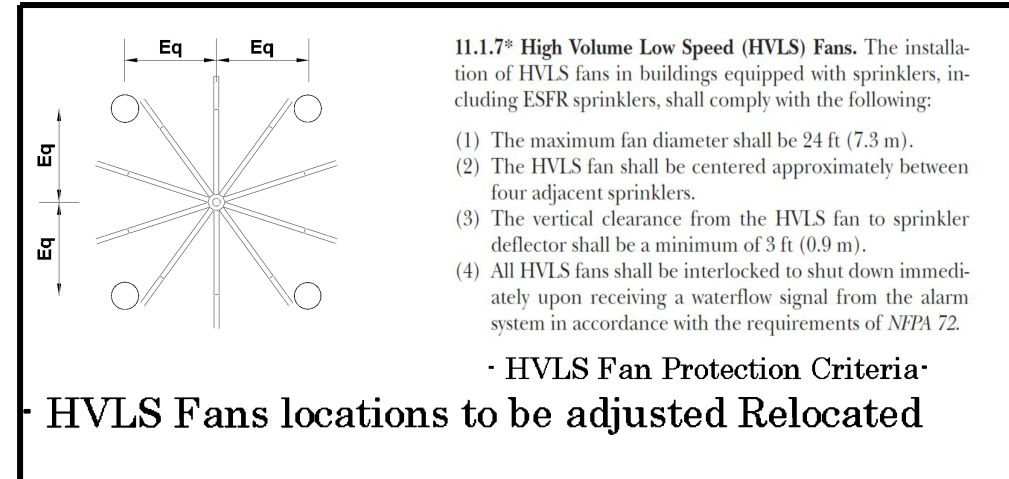




Weight of Water filled Pipe

2 1/2"	5.9 lb / ft
3"	7.9 lb / ft
4"	10.9 lb / ft
6"	23.1 lb / ft
8"	40.2 lb / ft



Hanger Schedule for Steel Pipe

Pipe Size	Max Hanger Spacing
1"	12'-0"
1 1/4"	12'-0"
1 1/2"	12'-0"
2"	12'-0"
2 1/2"	15'-0"
3"	15'-0"
4"	15'-0"

Branchline Hangers w SWD 10"

All Branch Line Hangers to be 0'-4" ATB

Hanger Schedule for Steel Pipe

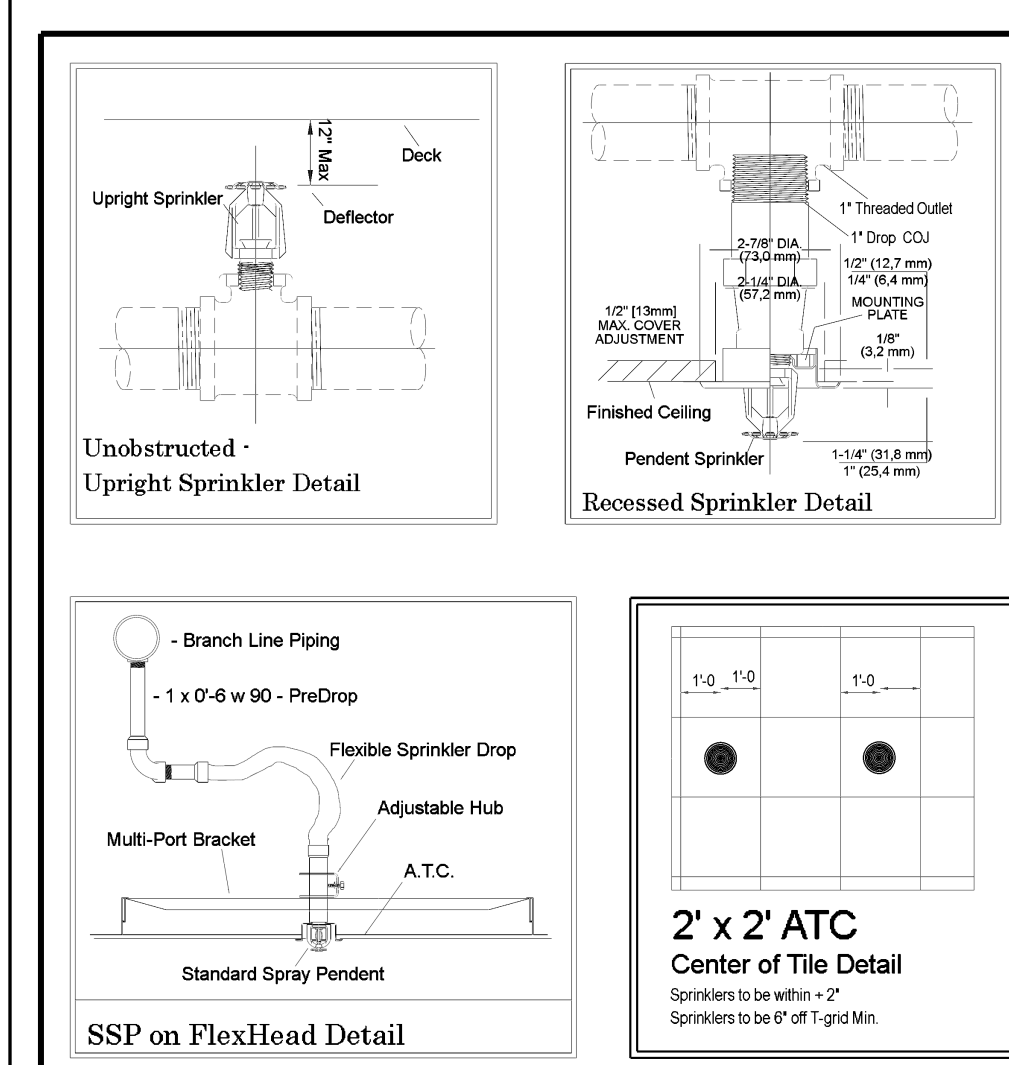
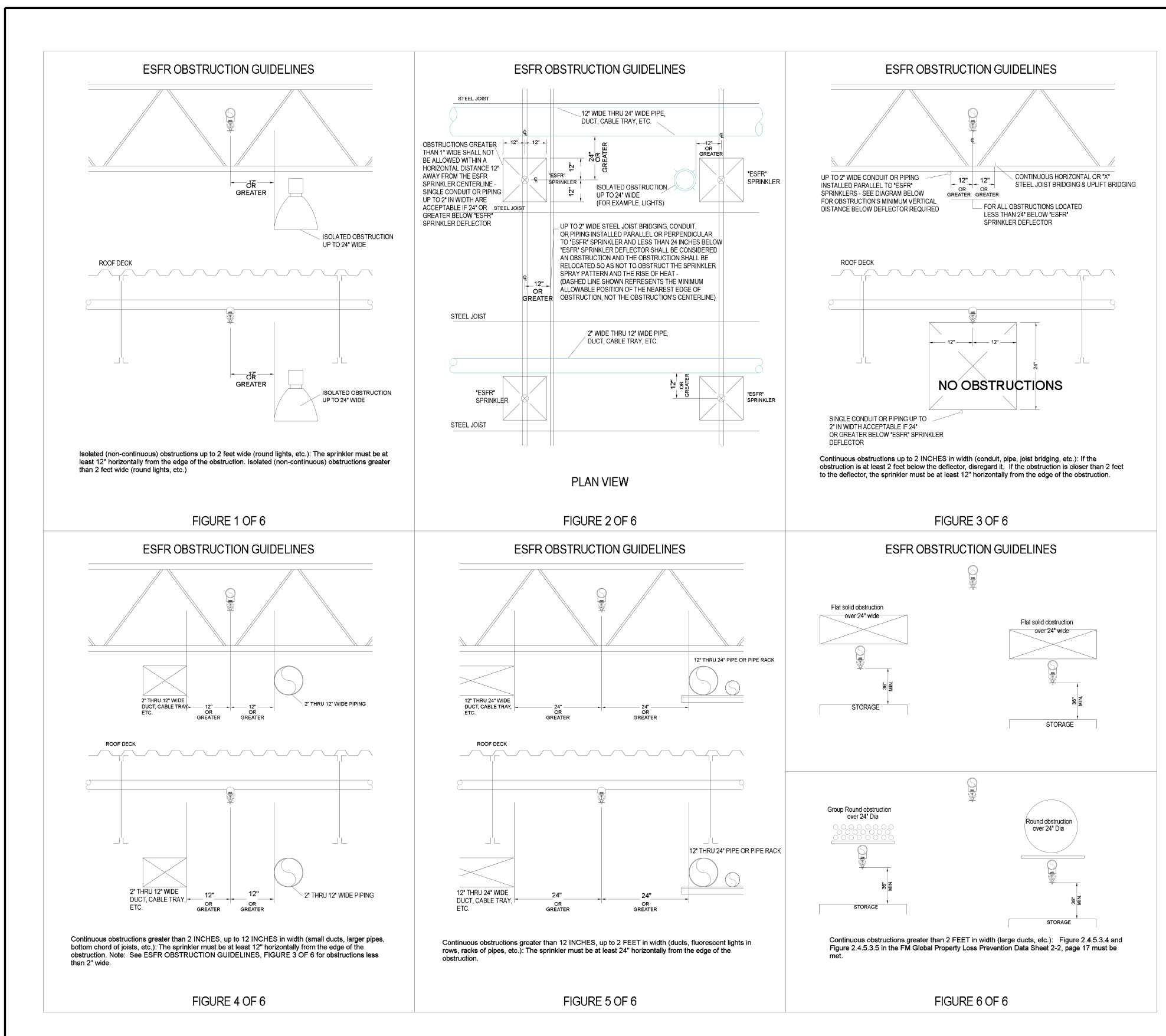
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3"	15'-0"
4"	15'-0"

Main Hangers w Sammy X-Press

ESFR Design Criteria:
Protection for storage areas with roof deck under 30' based on NFPA 13 - 2016
protection of Class 1-4 commodities, encapsulated or unencapsulated cartoned
Group A plastic in racking to 25' or lesser hazard.
12 K25.2 ESFR heads at 15psi.

Hydraulic Information

Remote Area Storage - ESFR - Sys 01	
OCCUPANCY CLASSIFICATION	ESFR
MIN. END HEAD PRESSURE	15.000 (ESFR)
TOTAL HOSE STREAMS	250.00
TOTAL HEADS FLOWING	12
K-FACTOR	25.2
TOTAL WATER REQUIRED	1435.77
TOTAL PRESSURE REQUIRED	53.808
SAFETY MARGIN (psi)	+10.779 (16.7%)



Flow Test

Test Conducted By	LS Water
Date of Test	12/5/2024
Location	1460 Broadway Dr
Static Pressure	89.000
Residual Pressure	49.000
Flow	1875.00
Test Witnessed By	LS Water
Hydrant Numbers	H20545 & H20538
Hydrant Elevation	1007

GENERAL NOTES

- This design is based upon the owner's acceptance of NFPA 13 - 2016 for installation and NFPA 25 for maintenance of this fire protection system.
- All above ground Threaded piping to be Sch 40 or equal.
- All above ground Grooved piping 6" or more to be Eddy Flow or equal.
- All sprinkler material to comply w local requirements & applicable NFPA Standards.
- Continuous central monitoring of sprinkler systems per NFPA 72 to be by others.
- All electrical wiring to be by others.
- All underground piping to be by others.
- All painting of sprinkler pipe to be by others.
- All patching and/or painting of penetrated drywall & masonry walls to be by others.
- Building to be provided with adequate heat to prevent piping from freezing.
- All marking or labeling of sprinkler piping to be by others.

Submittal

09-04-2025

1460 Broadway Dr
Lee's Summit, MO 64081

Fire Protection Plan

Alliance Fire Protection