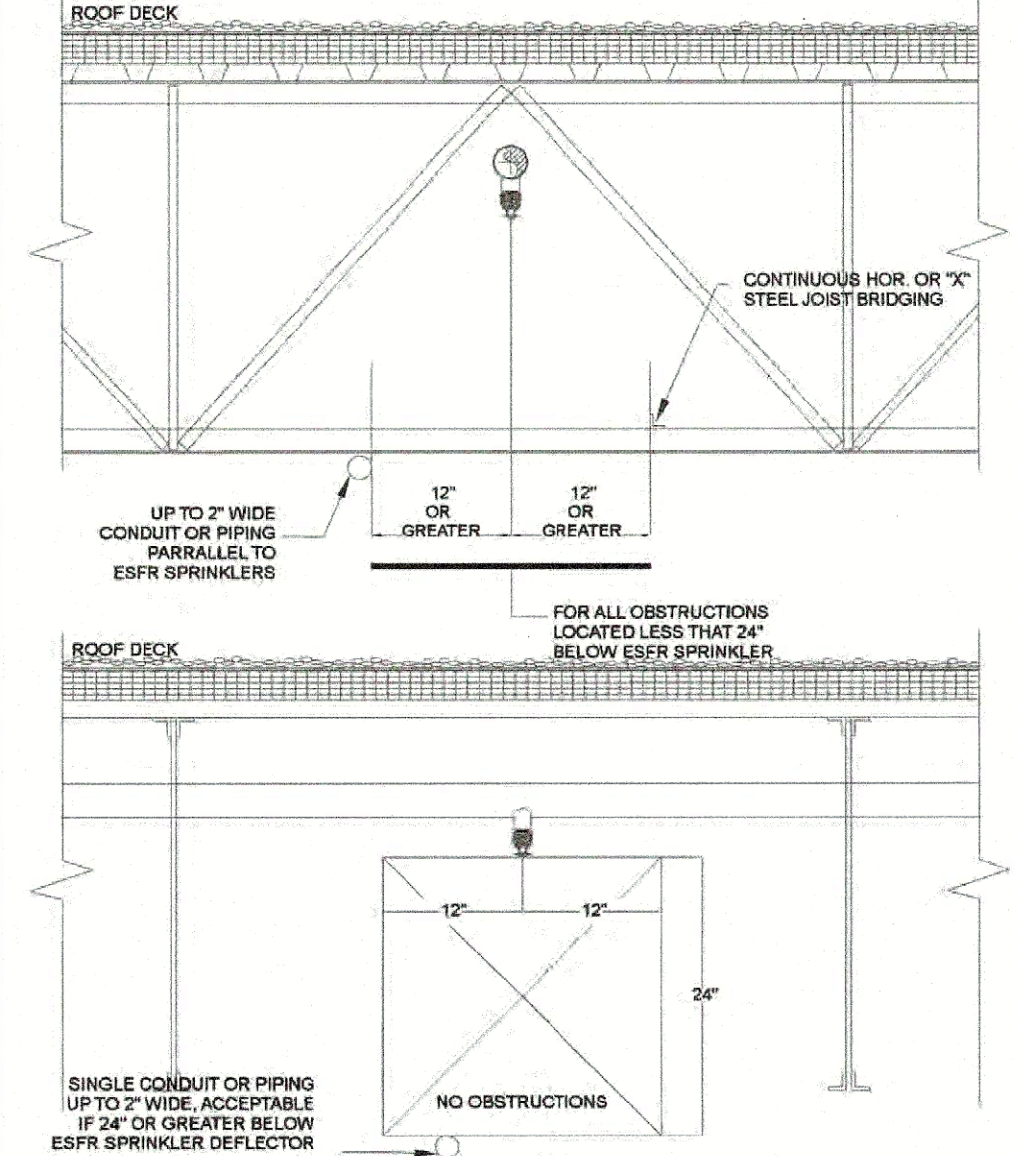
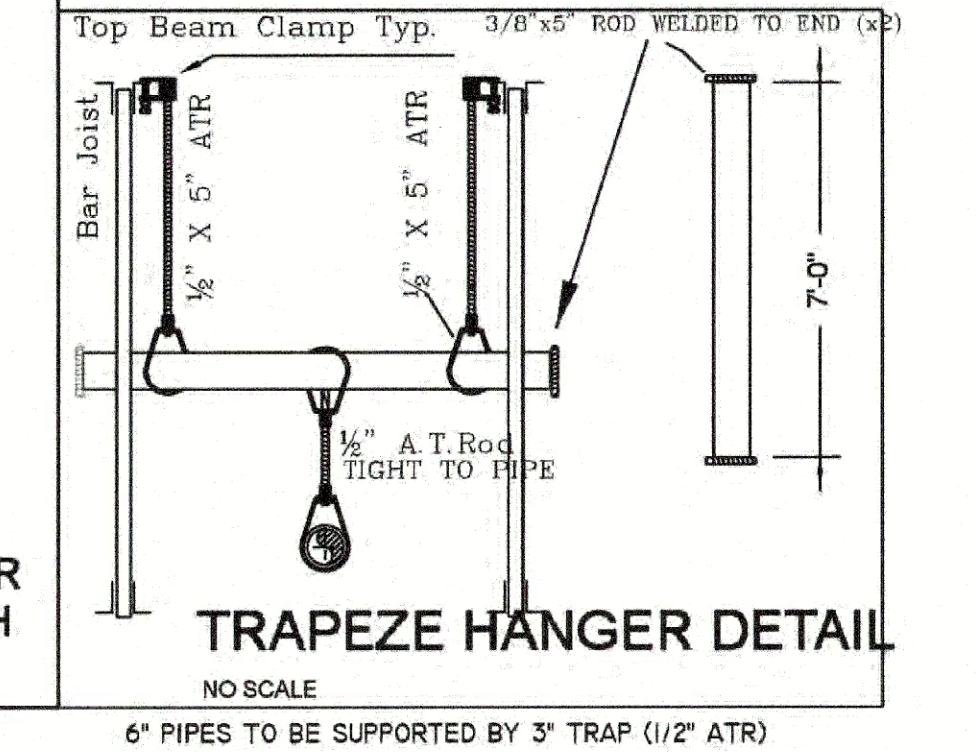
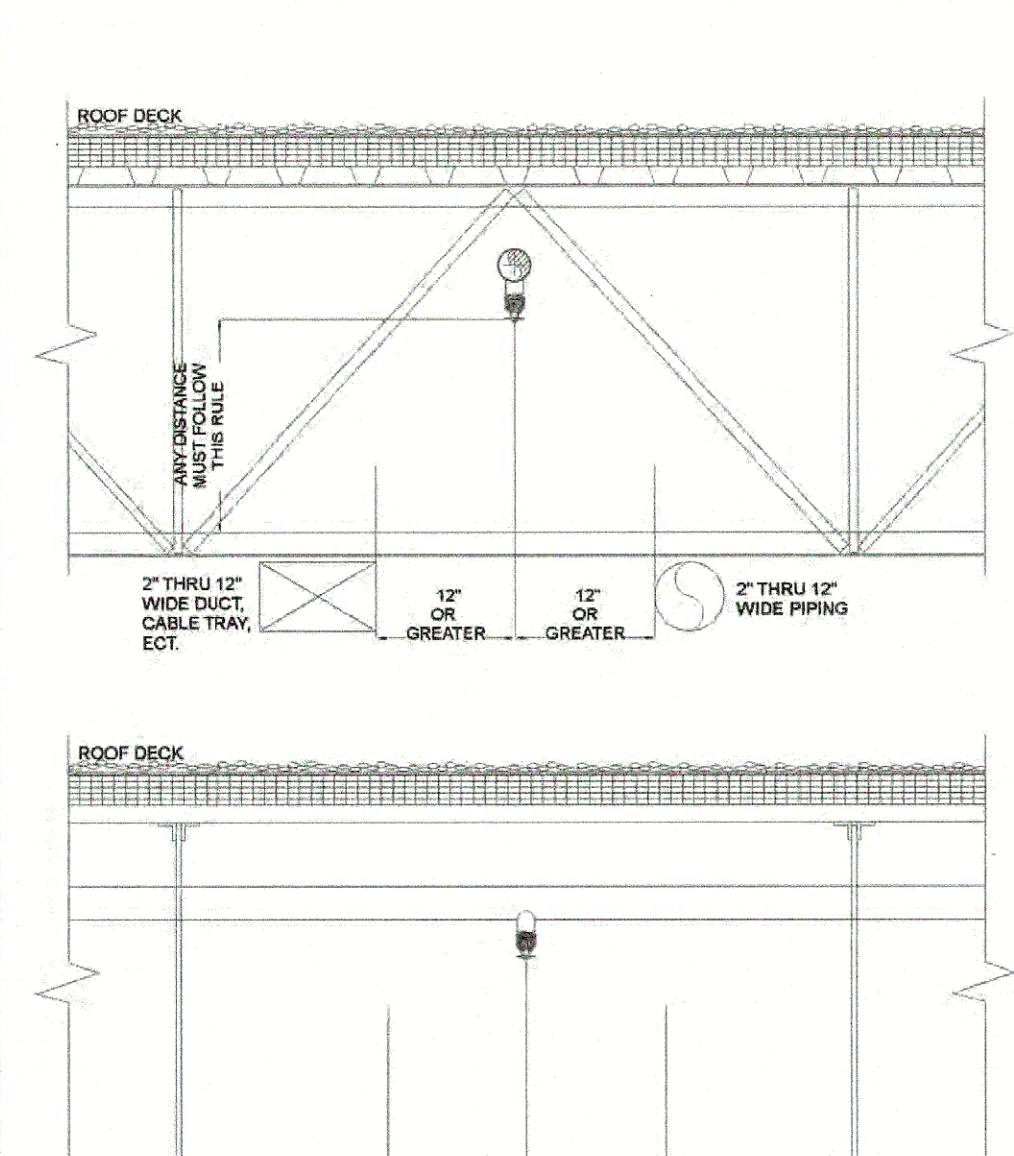


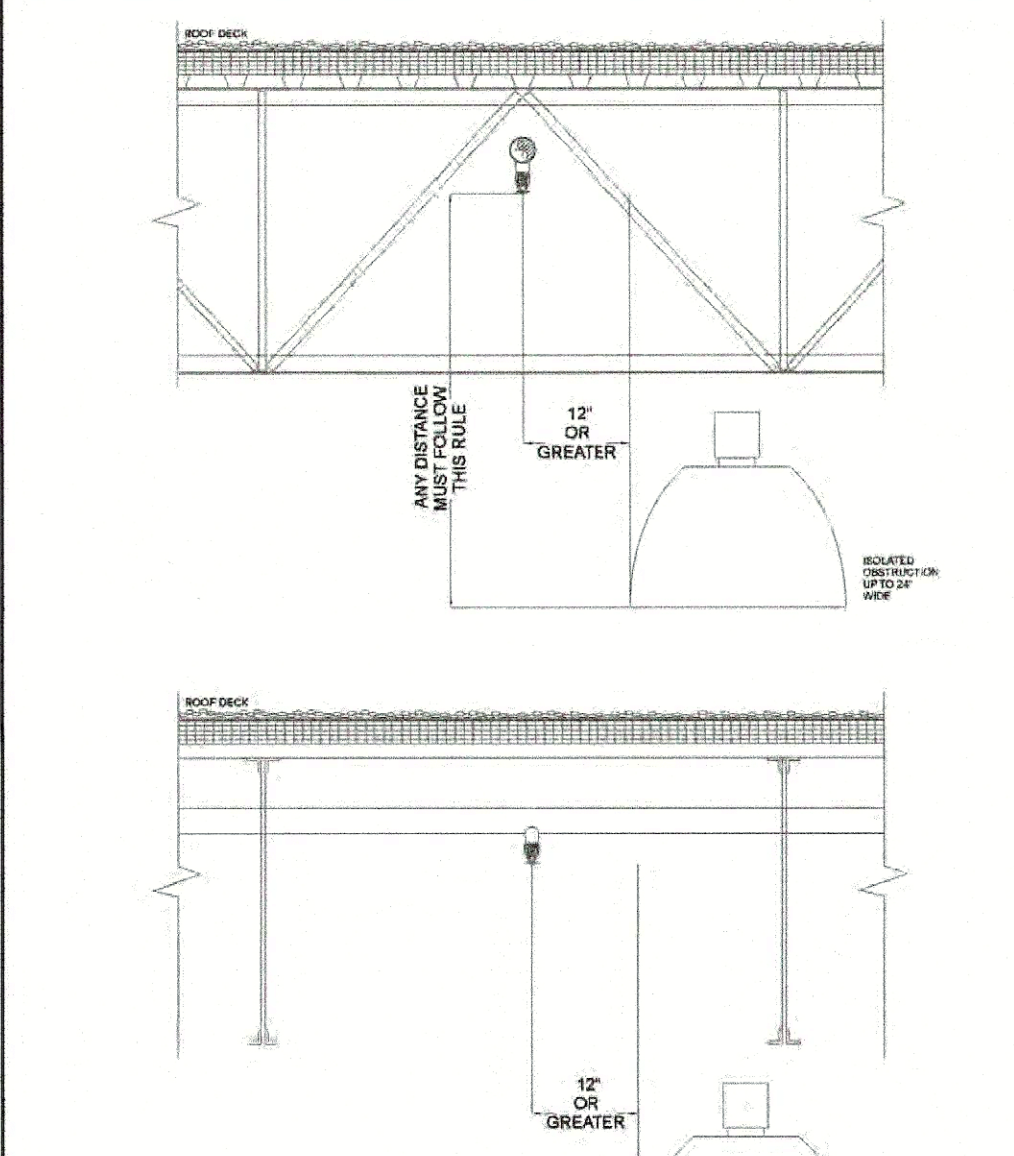
1 OF 9	TITLE PAGE
2 OF 9	PUMP HOUSE
3 OF 9	BUILDING SECTION & RISER DETAILS
4 OF 9	SYSTEM 1 FIRE PROTECTION PLAN
5 OF 9	SYSTEM 2 FIRE PROTECTION PLAN
6 OF 9	SYSTEM 3 & 4 FIRE PROTECTION PLAN
7 OF 9	SYSTEM 5 FIRE PROTECTION PLAN
8 OF 9	SYSTEM 6 & 7 FIRE PROTECTION PLAN
9 OF 9	SYSTEM 8 FIRE PROTECTION PLAN



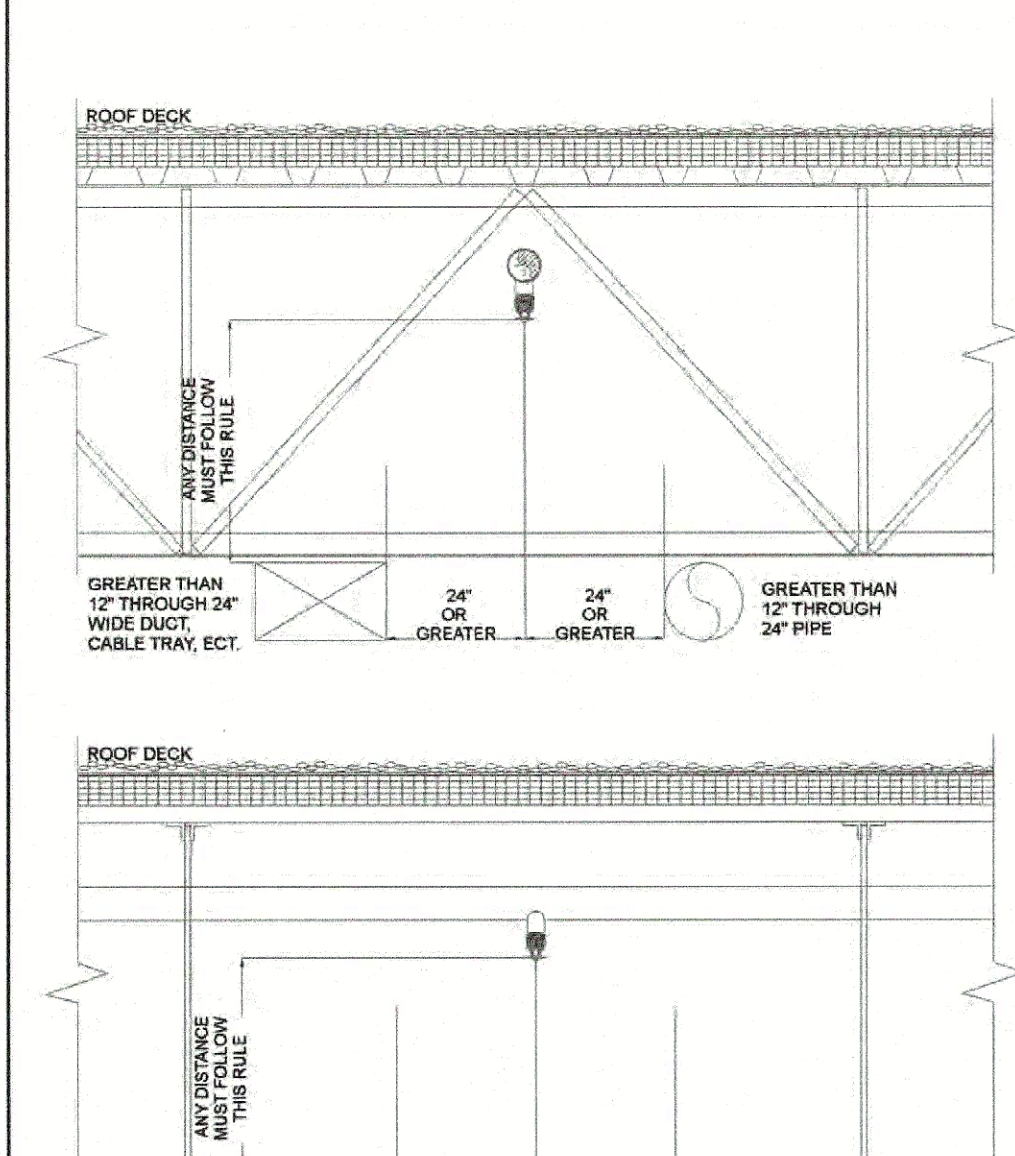
**ESFR CONTINUOUS OBSTRUCTIONS 0\"/>**



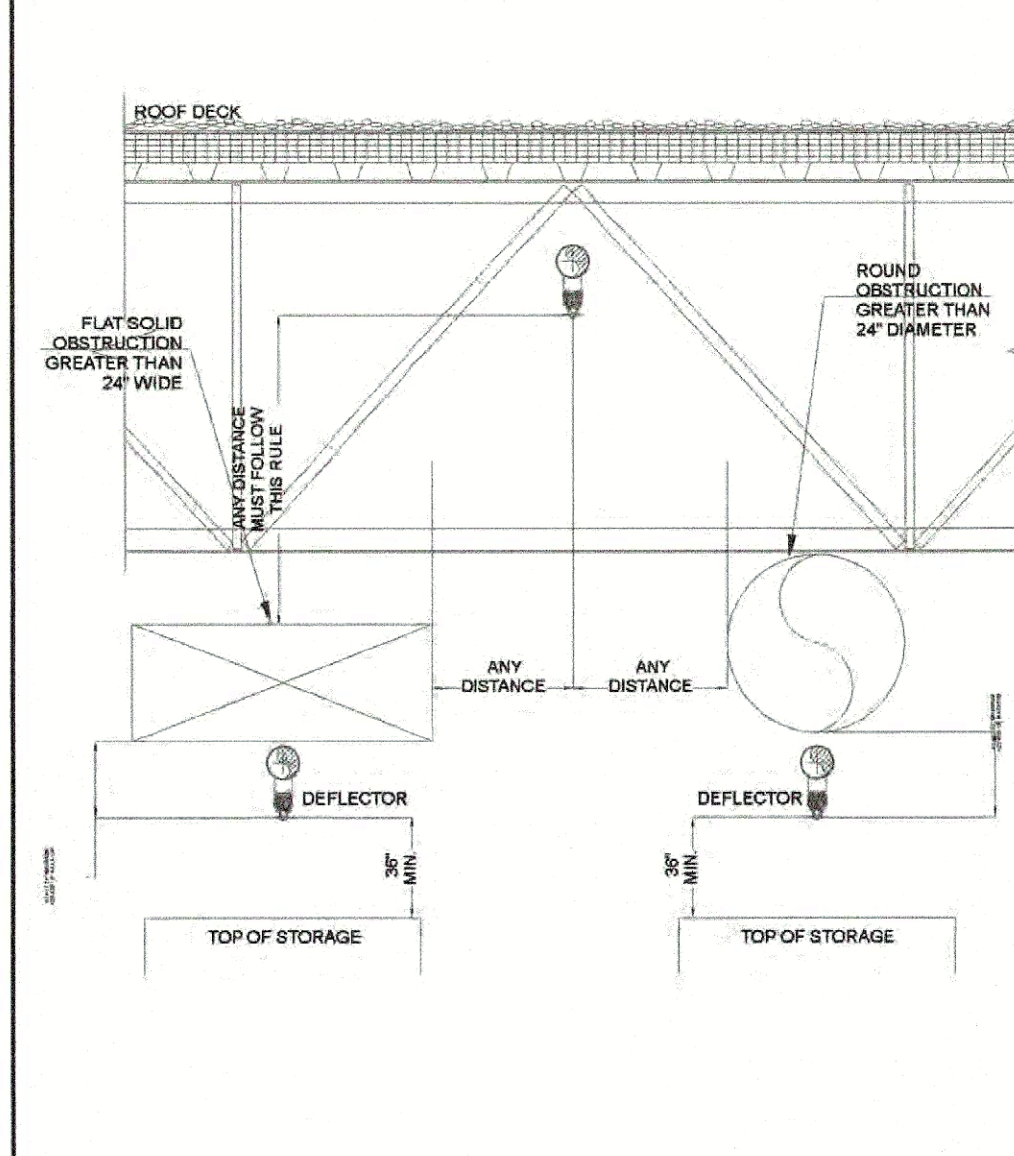
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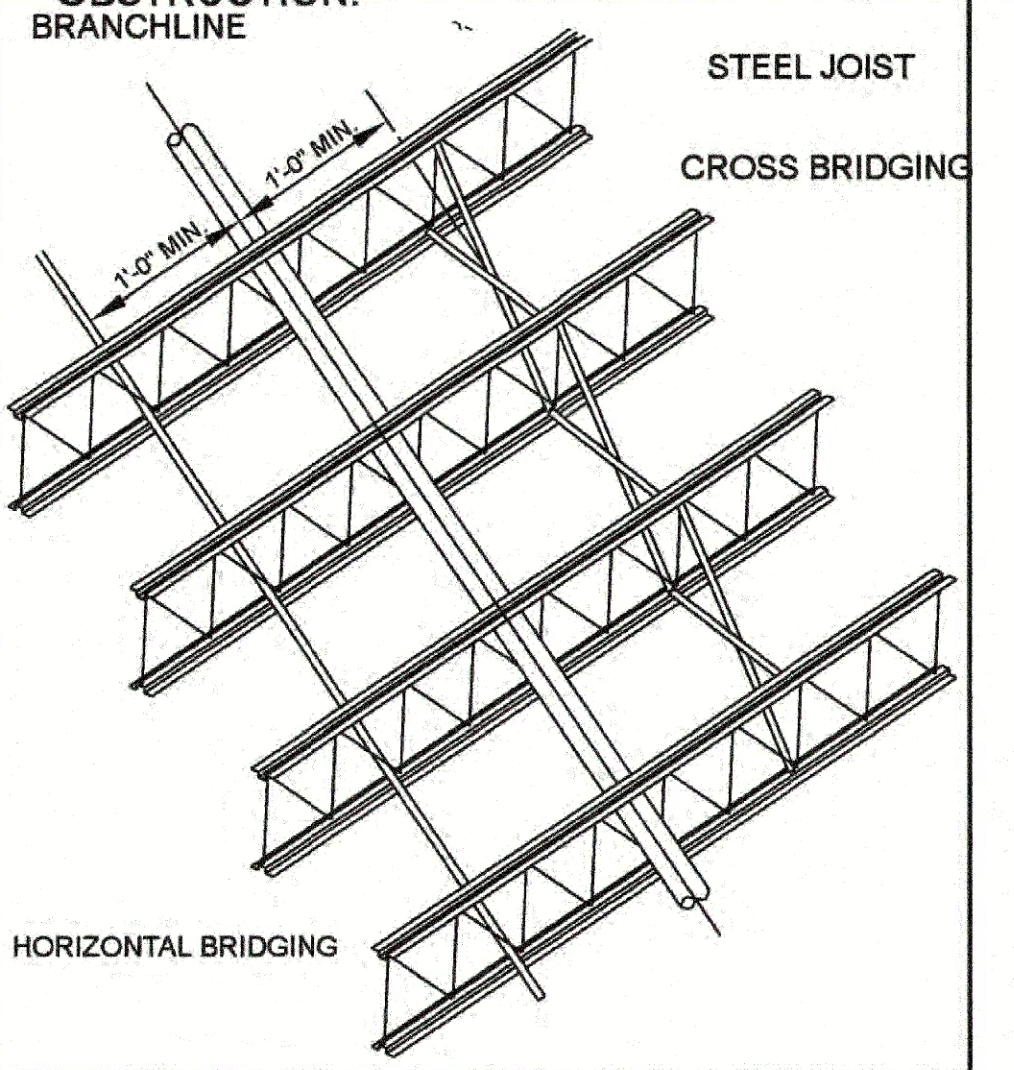
**ESFR ISOLATED OBSTRUCTIONS 0\"/>**



**ESFR CONTINUOUS OBSTRUCTIONS 12\"/>**

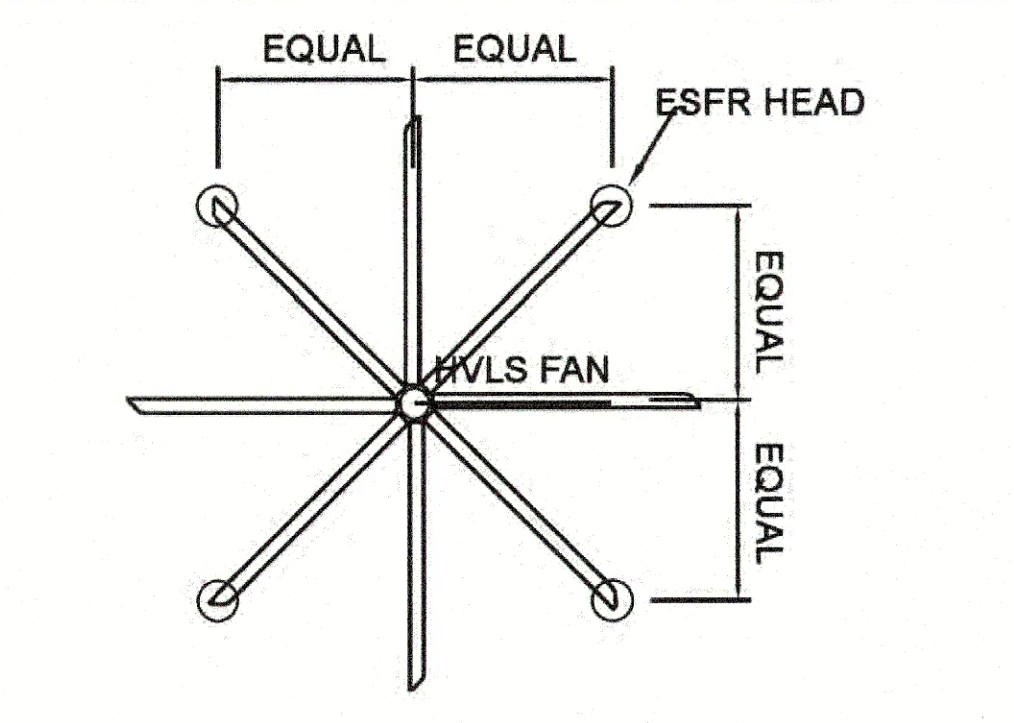


**ESFR CONTINUOUS OBSTRUCTIONS 24\"/>**

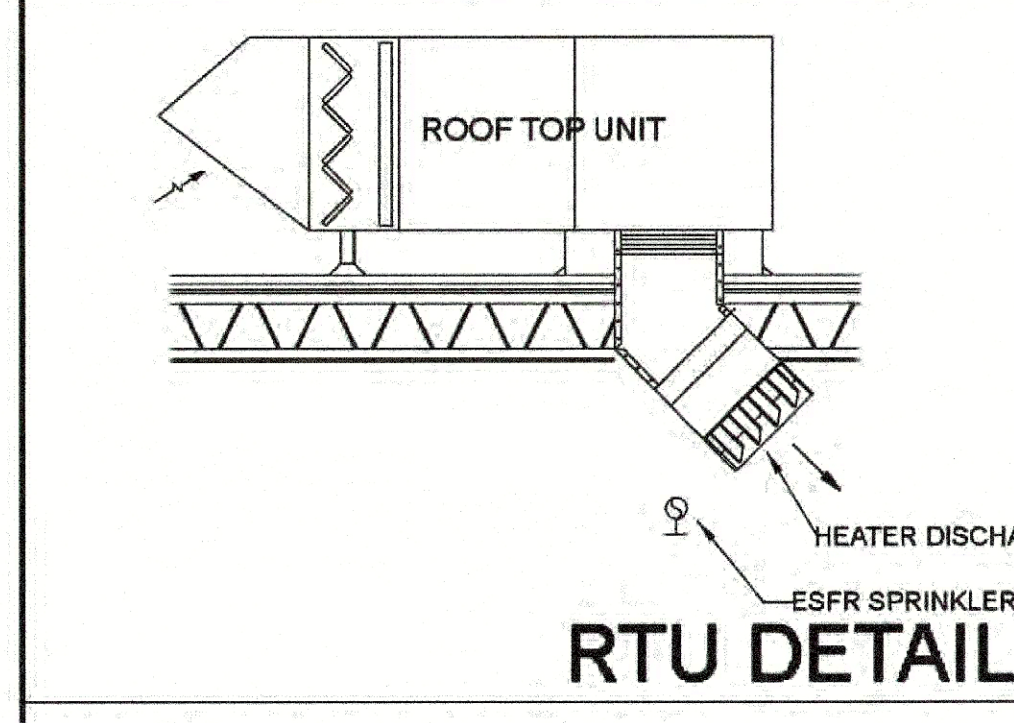


IN ACCORDANCE WITH NFPA THE DISTANCE FROM THE EDGE OF THE BRIDGING TO THE CENTERLINE OF THE BRANCHLINE SHALL BE NO LESS THAN 10\", TO PREVENT AN OBSTRUCTION TO THE ESFR SPRINKLER HEAD.

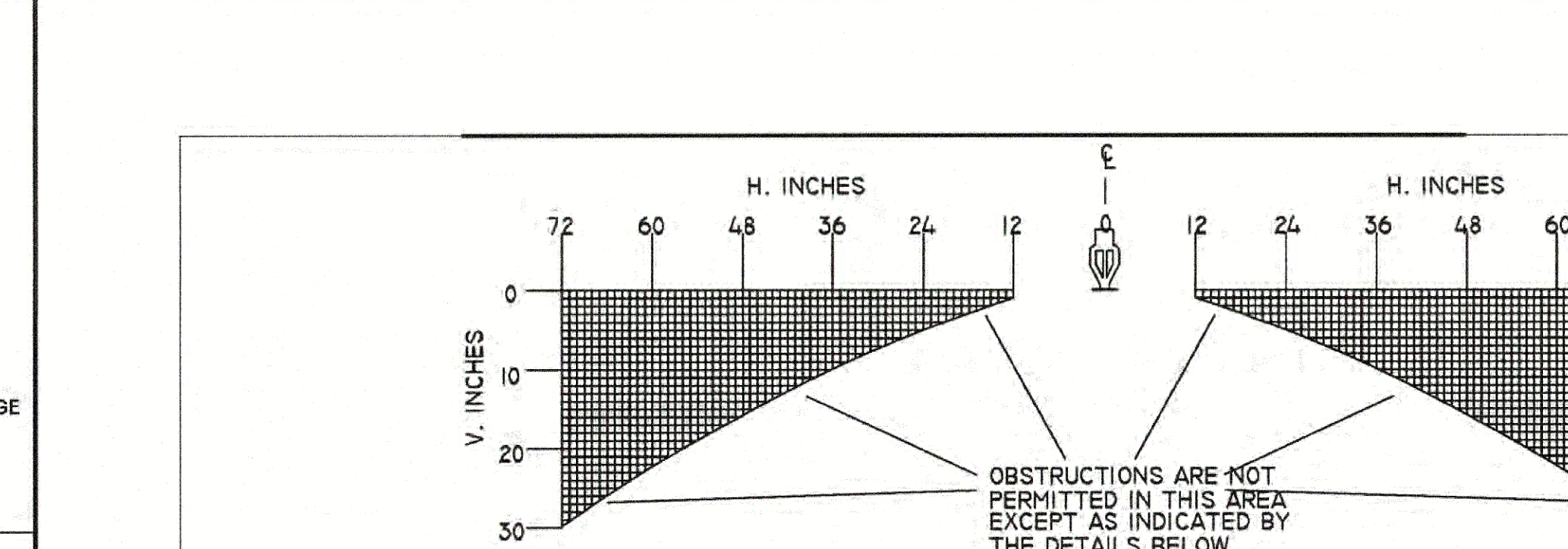
**STRUCTURAL OBSTRUCTION DETAIL**  
SCALE: NONE



**RTU DETAIL**  
1. THE MAXIMUM FAN DIAMETER SHALL BE 24 FT  
2. THE HVLS FAN SHALL BE CENTERED APPROXIMATELY BETWEEN FOUR ADJACENT SPRINKLERS.  
3. THE VERTICAL CLEARANCE FROM THE HVLS FAN TO SPRINKLER DEFLECTOR SHALL BE A MINIMUM OF 3 FT.  
4. ALL HVLS FANS SHALL BE INTERLOCKED TO SHUT DOWN IMMEDIATELY UPON RECEIVING A WATERFLOW SIGNAL FROM THE ALARM SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 72.



**ROOF MOUNTED GAS-FIRED SPACE HEATER DETAIL**



**THIS JOB HAS ESFR SPRINKLERS YOU MUST COORDINATE!**  
PLUMBING, HVAC, ELECTRICAL, STEEL BRIDGING

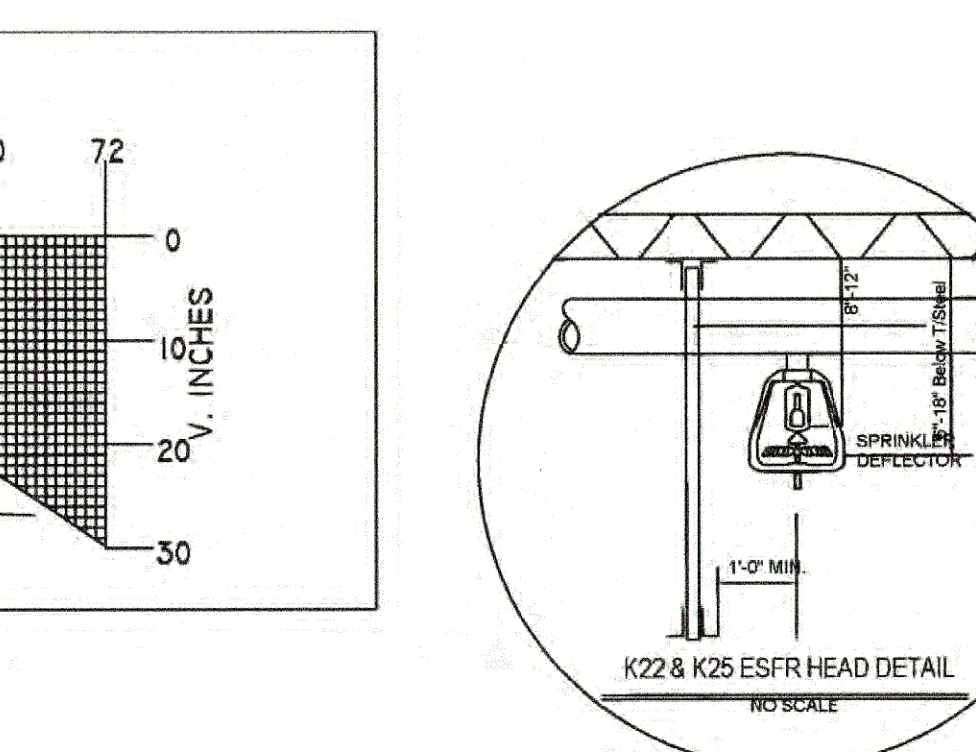
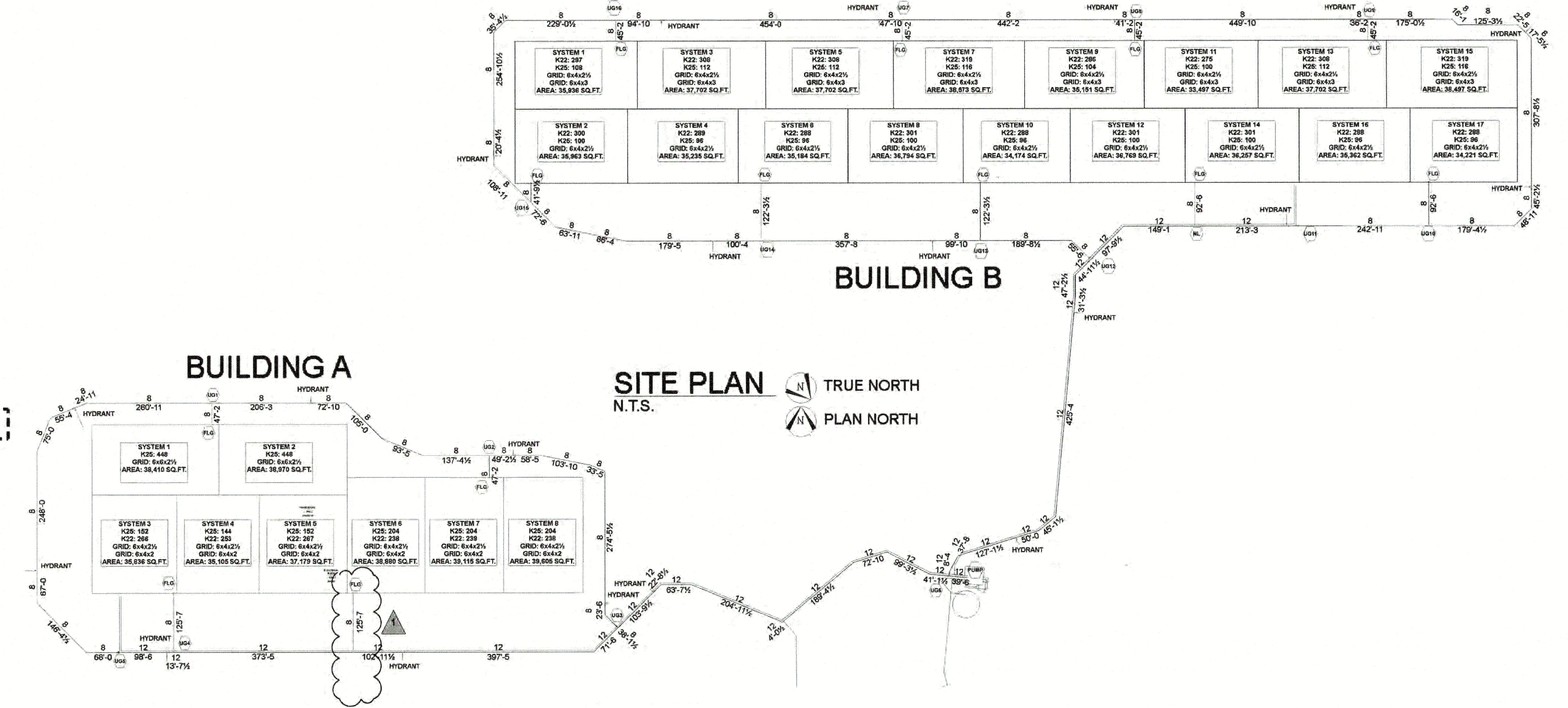


Table 14.1.1 ESFR Protection of Purlins and Sub-Floor Storage of Chais Through Chais IV Conditions

Condition	Minimum Design Weight	Minimum Ceiling Height	Minimum Sprinkler Protection	Minimum Operating Pressure
Chais I, II, III, IV (unenclosed and unobstructed)	30	5.1	38	1.8
	45	5.1	38	1.8
	60	5.1	38	1.8
	75	5.1	38	1.8
Chais I, II, III, IV (unenclosed and unobstructed with opening)	30	5.1	38	1.8
	45	5.1	38	1.8
	60	5.1	38	1.8
	75	5.1	38	1.8

Description	Specification, UL
Sprinkler Type	ESFR
Temperature Rating F (C)	165F (75C) / 212F (100C)
Response Type	CR
Sprinkler Position	Pendant, frame arms aligned with plan, deflector parallel with ceiling or roof
System Type	Wet
Minimum Area of Coverage	100 sq ft (9.3 sq m)
Minimum Area of Coverage	64 sq ft (5.9 sq m)
Maximum Slope Ceiling	2 in. rise for 12 in. run (16.7%)
Maximum Spacing	10 ft (3.1 m)
Minimum Spacing	8 ft (2.4 m)
Deflector Distance from Walls	Minimum of 4 in. (100 mm) from walls but no more than 12 in. (300 mm) distance permitted between sprinklers
Deflector to Top of Storage	Minimum of 36 in. (914 mm)
Deflector to Ceiling Distance	6 in. to 14 in. (152 mm to 356 mm)
Maximum Ceiling Height	48 ft (14.6 m)
Maximum Storage Height	43 ft (13.1 m)
Storage Arrangement	Palletized, solid piled, open frame, single row or double row
Commodity	Reference NFPA 13, Chapter 6
Sprinkler System Design	NFPA 13 for ESFR Sprinklers based upon 45 psi (3.1 bar) design pressure 169 gpm (640 L/min) with 12 sprinkler remote area
Obstruction Criteria	Reference NFPA 13, Chapter 6
Minimum Area Width	5 ft (1.5 m)
Hose Stream Allowance and Water Supply Duration	250 gpm for 60 minutes (850 L/min for 60 minutes)



STANDARD DRAWING SYMBOLS

SP	SPRINKLER	DENOTES CENTERLINE OF PIPE ABOVE FINISH FLOOR
ST	STEEL TRUSS	DENOTES CENTERLINE OF PIPE BELOW TOP OF STEEL
SB	STEEL BRIDGE	DENOTES CENTERLINE OF PIPE BELOW BOTTOM OF JOIST
SB	STEEL BRIDGE	DENOTES CENTERLINE OF PIPE BELOW BOTTOM OF BEAM
SR	SPRINKLER RISER	DENOTES CENTERLINE OF PIPE BELOW THE CEILING
SH	SPRINKLER HANGER	DENOTES HANGER
SR	SPRINKLER RISER	DENOTES HANGER ROD LENGTH
SR	SPRINKLER RISER	DENOTES CEILING HEIGHT
SR	SPRINKLER RISER	DENOTES CALC. REF. POINT
SR	SPRINKLER RISER	DENOTES FLOW SWITCH
SR	SPRINKLER RISER	DENOTES GROOVE CHECK VALVE
SR	SPRINKLER RISER	DENOTES FIRE HOSE VALVE
SR	SPRINKLER RISER	DENOTES FIRE HOSE VALVE CABINET
SR	SPRINKLER RISER	DENOTES HYDRAULIC DATA STICKER

TYPICAL HANGER ASSEMBLIES BY NUMBER

D1	TOP BEAM CLAMP (TBC)	D8A	SAMMY SWC-20 SIDE CONCRETE
D1A	WIDE MOUTH TOP BEAM CLAMP	D9	SAMMY GST-20 STRAIGHT WOOD
D1B	INVERTED TOP BEAM CLAMP	D9A	SAMMY SWG-20 SIDE WOOD
D1C	INVERTED WIDE MOUTH TBC	10	
D1D	TBC W/CLIPS RING	10B	SAMMY SWDR-516 SIDE STEEL
D1E	TBC W/ 1\"/>		
D1F	TBC W/ 1\"/>		
D1G	ROD RING	13A	U-HOOK HANGER
D1H	ROD RING, NUTS & WASHER	14	STRUT NUT, ROD & RING
D1I	CLEAVE HANGER BRIDG	15	
D1J	CONCRETE/HELI DROP IN ANCHOR	16	Z-PURLIN CLAMP
D1K	HILT SHOT & STUD	17	SAMMY DSTR-75 STRAIGHT LIGHT WEIGHT STEEL
D1L	SAMMY GST-20 STRAIGHT CONCRETE	18	SAMMY SWDR-516 SIDE, HEAVY WEIGHT STEEL

**FIRE PROTECTION SPECIFICATIONS**

1. DO NOT SCALE DRAWINGS

2. ALL PIPES ARE UNDRIVEN END TO CENTER UNLESS OTHERWISE NOTED TO OTHERWISE INDICATED BY THE MATERIAL SPECIFICATION (LENGTH IN INCHES)

3. DESIGN, INSTALLATION & MATERIALS TO BE PER NFPA 13, 2013

4. HANGERS AND ATTACHMENTS TO BE UL LISTED AND APPROVED PER NFPA 13, 2013

5. ALL NEW PIPING SHALL BE HYDROSTATICALLY TESTED AT 250 PSI FOR 2 HOURS IN NO VISIBLE SIGN OF LEAKAGE.

6. OWNER SHALL PROVIDE MINIMUM OF 40\"/>

**MATERIAL SPECIFICATIONS**

GRID/MAINLINE	SUPPLY THE FOLLOWING	Yes/No
1	American Made (Domestic)	NO
2	Smith-Cooper Filings	NO
3	Smith-Cooper Couplings	NO
4	Firelock Filings	NO
5	Firelock Couplings	NO
6	Standard V-Central Figs	NO
7	Weld-On Late Trid	YES
8	Weld-On Late Div	YES
9	Weld-On Late Buff	YES
10	Cast Iron Filings	NO
11	Safety Screens	NO
12	Cast Iron Fittings	NO
13	Pipe/Strut/Angle Iron	NO
14	Cast Iron Figs 150#	NO
15	Malleable Figs 300#	NO
16	Cast Iron Figs 150#	NO
17	Cast Iron Figs 300#	NO
18	Cast Iron Figs 450#	NO
19	Cast Iron Figs 600#	NO
20	Cast Iron Figs 750#	NO
21	Cast Iron Figs 900#	NO
22	Cast Iron Figs 1050#	NO
23	Cast Iron Figs 1200#	NO
24	Cast Iron Figs 1350#	NO
25	Cast Iron Figs 1500#	NO
26	Cast Iron Figs 1650#	NO
27	Cast Iron Figs 1800#	NO
28	Cast Iron Figs 1950#	NO
29	Cast Iron Figs 2100#	NO
30	Cast Iron Figs 2250#	NO
31	Cast Iron Figs 2400#	NO
32	Cast Iron Figs 2550#	NO
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94	Cast Iron Figs 11850#	NO
95	Cast Iron Figs 12000#	NO
96	Cast Iron Figs 12150#	NO
97	Cast Iron Figs 12300#	NO
98	Cast Iron Figs 12450#	NO
99	Cast Iron Figs 12600#	NO
100	Cast Iron Figs 12750#	NO

**REVISIONS**

NO.	DESCRIPTION	BY	DATE	SYMBOL	QTY.
1	PER GC REVIEW/ADDED LEAD-IN	JB	8.15.23		
2	PER LARGER TRANK	JB	10.21.23		
3	PER GHD REVIEW	JB	11.17.23		
4	PER SCH 10 UPGRADE	JB	8.23.23		

**SPRINKLER LEGEND**

SYMBOL	DESCRIPTION	SIN#	THD	K#	TEMP
(Symbol)	PERFECT SPRINKLER THIS DRAWING	3,489			
(Symbol)	TOTAL SPRINKLERS ON ENTIRE PROJECT				

**SEISMIC DESIGN CATEGORY 'B'**  
SEISMIC BRACING NOT REQUIRED

USE GROUP: S-1, B  
CONSTRUCTION TYPE: 2B  
AREA OF WORK: 300,943 SQ. FT.

PROJECT NAME: LINCOLN EQUITIES  
PROJECT LOCATION: BREWSTER, NY  
JOSEPH R. FOWLER IV  
PROFESSIONAL ENGINEER  
NY PE LIC # 087280

SIGNATURE: *Justin*  
DATE SIGNED: 8/23/23

**S.A. COMUNALE Co. Inc.**  
FIRE PROTECTION CONTRACTORS  
2800 NEWPARK DR. BARBERTON, OHIO 44203 330-708-3040 FAX: 330-881-0860  
CLEVELAND: 440-884-9325 COLUMBUS: 614-291-7051 CINCINNATI: 513-874-4288  
FREMONT: 419-334-3841 PHILADELPHIA, PA: 856-848-4688/OLINGTOWN: 330-856-4449  
MARION: 740-383-8789 WASHINGTON, DC 410-788-1991 READING, PA: 610-670-3960

LINCOLN EQUITIES SOUTHEAST  
NY312 & PUGSLEY RD, BREWSTER, NY 10509

TITLE PAGE  
DATE: 8.23.23 SCALE: AS NOTED DRAWN BY: JUSTIN BEUGHER JOB #: 50531092 DWG #: 1 OF 9

DESIGNER / BUILDER  
**ARCO**  
DESIGN/BUILD INDUSTRIAL  
44 SOUTH BROADWAY, SUITE 1003  
WHITE PLAINS, NY 10601  
P: 914.821.5535 F: 914.306.6101

ADBI DESIGN SERVICES  
Lincoln Equities Group, LLC

PROJECT TITLE  
**LINCOLN EQUITIES - NY-131- BLDG A**  
NY-312 & PUGSLEY RD, SOUTHEAST, NY 10509

ARCHITECT  
ADBI / DESIGN SERVICES LLC  
44 SOUTH BROADWAY, SUITE 1003  
WHITE PLAINS, NY 10601

CIVIL ENGINEER  
LANGAN ENGINEERING  
300 KIMBALL DRIVE  
PARSIPPANY, NJ 07054

STRUCTURAL ENGINEER  
SMITH ROBERTS AND ASSOCIATES, INC.  
6501 BLUFF RD.  
INDIANAPOLIS, INDIANA 46217

MECHANICAL ENGINEER  
NATIONAL DESIGN BUILD SERVICES  
11540 BORMAN DRIVE  
ST. LOUIS, MO 63146

ELECTRICAL ENGINEER  
FXB ENGINEERING  
5 CHRISTY DRIVE, SUITE 307  
CHADDSD FORD, PA 19317

PLUMBING ENGINEER  
MCARTHUR ENGINEERING ASSOCIATES, INC.  
315 EAST SECOND STREET  
BOYERTOWN, PA 19512

FIRE PROTECTION ENGINEER  
S.A. COMUNALE CO. INC.  
2800 NEWPARK DRIVE  
BARBERTON, OH 44203

SEAL

JOSEPH V. DIGIORGIO | NY: 042848

KEY PLAN

SUBMITTALS  
NO. DATE DESCRIPTION

PROJECT NO. AS286-211 | NY131  
DRAWN BY KS

SHEET TITLE  
**TITLE PAGE**

SHEET NO. **1 OF 9**