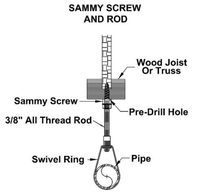
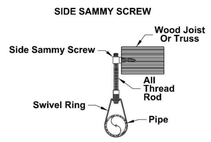
GENERAL INFORMATION

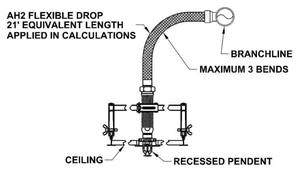
1. INTERNATIONAL BUILDING CODE (2021)
   - 1.1 OCCUPANCY: TYPE B, R-2, S-2
   - 1.2 TYPE OF CONSTRUCTION: V-B
   - 1.3 SPRINKLERED AREAS (APPROXIMATE - SEE ARCHITECTURAL PLANS FOR ACTUAL)
     - WET = 20,850 S.F.
     - DRY = 850 S.F.
   - 1.4 DESIGN & INSTALLATION STANDARDS: NFPA-13 (2022)
2. SPRINKLER PIPE TYPES:
   - -WET-
   - 2.1 1" PIPE TO BE SCHEDULE 40 BLACK STEEL w/ THREADED FITTINGS
   - 2.2 1-1/4" THROUGH 6" MAINS & BRANCH LINES TO BE BLK SCHEDULE 10 w/ GROOVED FITTINGS
   - 2.3 MAINS & BRANCH LINES TO BE ROLL-GROOVED BLK SCHEDULE 10
   - 2.4 2" AND LARGER TO USE GROOVED SHORT RADIUS FITTINGS
   - -DRY-
   - 2.5 1" PIPE TO BE SCHEDULE 40 BLACK STEEL w/ THREADED FITTINGS
   - 2.6 1-1/2" THROUGH 2-1/2" MAINS & BRANCH LINES TO BE BLK SCHEDULE 10 w/ GROOVED FITTINGS
   - 2.7 MAINS & BRANCH LINES TO BE ROLL-GROOVED BLK SCHEDULE 10
3. DESIGN CRITERIA:
   - 3.1 LIGHT HAZARD AREAS INCLUDE OFFICE/ADMINISTRATIVE, LOUNGES, RESTROOMS, CORRIDORS, AND DORMS
   - 3.2 ORDINARY HAZARD GROUP I AREAS INCLUDE MECHANICAL AND ELECTRICAL ROOMS
   - 3.3 ORDINARY HAZARD GROUP II AREAS INCLUDE LARGE STORAGE AREAS, SHOP SPACES, AND VEHICLE MAINTENANCE AREAS
   - 3.4 REMOTE AREA REDUCTIONS HAVE BEEN TAKEN WHERE APPLICABLE PER NFPA 13 SEC. 19.2.3.2.3
   - 3.5 REMOTE AREA INCREASED BY 30% FOR DRY AND DOUBLE INTERLOCK PREACTION SYSTEMS PER NFPA 13 SEC. 19.2.3.2.5
   - 3.6 INTERSTITIAL SPRINKLERS SHALL BE USED WHERE POSSIBLE WHEN THE STRUCTURE ACCOMMODATES THE PRODUCT LISTING
4. NOTES:
   - 4.1 ALL MATERIAL TO BE NEW AND MEET U.L. STANDARDS
   - 4.2 HANGERS TO BE INSTALLED IN ACCORDANCE WITH NFPA 13 - SEE PLAN FOR HANGING REQUIREMENTS
   - 4.3 DRY SYSTEM REQUIREMENTS:

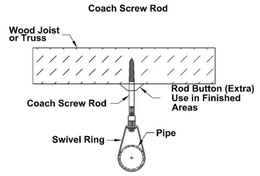
     DRY SYSTEM PIPE SLOPE INSTALLATION
     SPRINKLER MAINS TO BE 1/4" PER 10'-0 (NONREFRIGERATED AREAS)
     SPRINKLER BRANCH LINES TO BE 1/2" PER 10'-0

     DRY SYSTEM CAPACITY
     95 GALLONS
5. SYMBOLS USED ON DRAWINGS:
   - ★ X'-X" FF — PIPE ELEVATION ABOVE FINISH FLOOR
   - ★ X'-X" TS — PIPE ELEVATION BELOW TOP OF STEEL
   - OH1 — ROOM HAZARD CLASSIFICATION (ALL ROOMS ARE CONSIDERED LIGHT HAZARD U.N.O.)
   - (M) — HYDRAULIC CALCULATION JUNCTION POINT
   - 9'-0" — CEILING HEIGHT
   - FIRE RATED WALL
   - WET BLACK STEEL PIPE
   - DRY BLACK STEEL PIPE
6. SCOPE OF WORK:
   - 6.1 INSTALL A COMPLETE ONE-WET ZONE AND ONE-DRY ZONE FIRE SPRINKLER SYSTEM TO COVER ALL AREAS OF BUILDING INCLUDING EXTERIOR PROJECTIONS
   - 6.2 ALL AREAS OF THE BUILDING TO BE INSTALLED AND COVERED IN ACCORDANCE WITH THE LOCAL





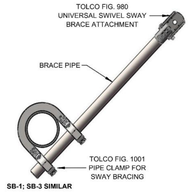


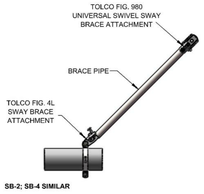


HANGER DETAILS

MAXIMUM DISTANCE BETWEEN HANGERS (FT.-IN.)

	3/4 "	1"	1 1/4 "	1 1/2 "	2"	2 1/2 "	3"	4"	6"	8"
STEEL PIPE EXCEPT THREADED LIGHTWALL	NA	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0





FLEXIBLE COUPLINGS SHALL BE INSTALLED AS FOLLOWS:

(1) WITHIN 24" OF TOP AND BOTTOM OF ALL RISERS
   - (a) FLEXIBLE COUPLINGS MAY BE OMITTED ON RISERS LESS THAN 3'-0" IN LENGTH
   - (b) ONLY ONE FLEXIBLE COUPLING ON RISERS 3'-0" TO 7'-0" IN LENGTH

(2) WITHIN 12" ABOVE AND WITHIN 24" BELOW THE FLOOR IN MULTISTORY BUILDINGS
   - (a) RISERS UP TO 7'-0" IN LENGTH TERMINATING ABOVE A ROOF ASSEMBLY OR TOP LANDING MAY OMIT FLEXIBLE COUPLING ABOVE LANDING OR ROOF

(3) ON BOTH SIDES OF CONCRETE OR MASONRY WALLS WITHIN 1'-0" OF THE WALL SURFACE, UNLESS CLEARANCE IS PROVIDED

(4) WITHIN 24" OF BUILDING EXPANSION JOINTS (MORE FLEXIBILITY IS REQUIRED FOR SEISMIC JOINTS)

(5) WITHIN 24" OF THE TOP OF DROPS EXCEEDING 15'-0" IN LENGTH TO PORTIONS OF SYSTEMS SUPPLYING MORE THAN ONE SPRINKLER, REGAURDLESS OF PIPE SIZE

(6) WITHIN 24" ABOVE AND 24" BELOW ANY INTERMEDIATE POINTS OF SUPPORT FOR A RISER OR OTHER VERTICAL PIPE

SEISMIC BRANCH LINE RESTRAINT (Cp=0.58):
1" PIPE = 28'-0" MAX SPACING
1-1/4" PIPE = 30'-0" MAX SPACING
1-1/2" PIPE = 32'-0" MAX SPACING
2" PIPE = 35'-0" MAX SPACING

SEISMIC BRACE SPACING:
SB-1 = 15'-0" MAX SPACING
SB-2 = 75'-0" MAX SPACING
SB-3 = 25'-0" MAX SPACING
SB-4 = 80'-0" MAX SPACING

SEISMIC KEY:
LATERAL BRACE — SB-#
LONGITUDINAL BRACE — SB-#
BRANCH LINE RESTRAINT

SEISMIC DETAILS

Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temp	MAX. Spacing	Escutcheon	Notes
	Victaulic	V2708	FL-QR	119	5.6	Pendent	½	Quick	Chrome	200°F	225 S.F./130 S.F.	Recessed	N/A
	Victaulic	V2704	FL-QR	87	5.6	Upright	½	Quick	Brass	200°F	130 S.F.	Sprig	N/A
	Victaulic	V3402	FL-QR	105	8	Upright	¾	Quick	Chrome	200°F	130 S.F.	Sprig	N/A
	Victaulic	V3610	FL-QR/DRY/SW	19	5.6	Horizontal Sidewall	1	Quick	Chrome	200°F	14' x 12'	Recessed	Dry
	Victaulic	V2710	FL-QR/SW	22	5.6	Horizontal Sidewall	½	Quick	Chrome	200°F	14' x 12'	N/A	N/A
	Victaulic	V5608	FL-SA/IC	29	5.6	Upright	½	Quick	Brass	200°F	256 S.F.	Sprig	N/A
				Total = 377									

*V2722 REQUIRES DRAFT CURTAINS PER EVERY 1000S.F. PER PRODUCT LISTING. AREAS WITH INSULATION-FILLED JOISTS DO NOT REQUIRE DRAFT CURTAINS. INSULATION SHALL BE INSTALLED PER SPRINKLER LISTING WHERE APPLICABLE.

STRUCTURE NOTE

INSTALL RECESSED PENDENT SPRINKLERS WITH DEFLECTOR 15/16" TO 1-11/16" BELOW CEILING

INSTALL STANDARD SPRAY UPRIGHT SPRINKLERS WITH DEFLECTOR 1" TO 4" BELOW BOTTOM OF SOLID WOOD MEMBERS AND COMPOSITE JOISTS. INSTALL DEFLECTOR 6" TO 12" BELOW TOP OF STRUCTURE IN AREAS WITH OPEN WEB TRUSSES.

INSTALL INTERSTITIAL SPRINKLERS PER PRODUCT LISTING. DEFLECTOR SHALL BE INSTALLED 1-1/2" TO 2" BELOW BOTTOM OF STRUCTURE.

INSTALL HORIZ. SIDEWALL SPRINKLERS WITH DEFLECTOR 6" BELOW CEILING, OR PER THE PRODUCT LISTING.

IN ALL CASES THE PRODUCT LISTING SHALL GOVERN

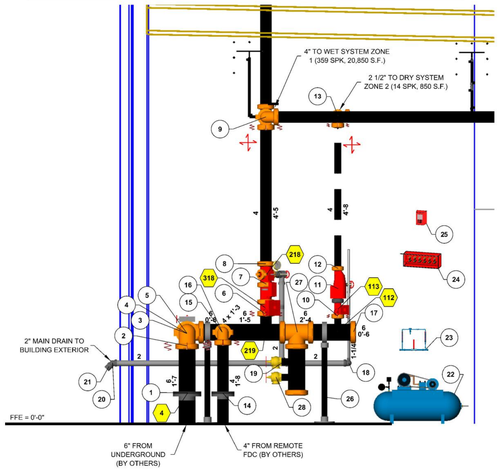
VICINITY MAP

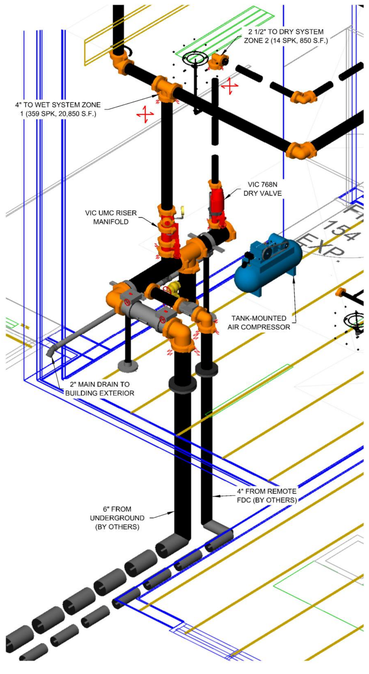
N.T.S.

NORTH

RISER LEGEND

Item No.	Size	Description	Quantity
1	6	No. 744, F-Grooved, Flanged Adapter, FireLock, DI, Blk, Vic-Plus E Gasket	1
2	6	Sytle 177N, Push On Flexible Coupling, Org, EHP Gasket	1
3	6	No. 001, FireLock Short Radius, 90° Elbow, DI, Org	2
4	6	Style 009N, Push On Rigid Coupling, Install-Ready, Org, Vic-Plus E Gasket	8
5	6	Deringer 30, Backflow, DCDA, Butterfly, G-G, GPM Meter	1
6	4	Sytle 177N, Push On Flexible Coupling, Org, EHP Gasket	2
7	4	Vic UMC Riser Manifold w/ Control Valve (Normally Open, Supervised)	1
8	4	Style 009N, Push On Rigid Coupling, Install-Ready, Org, Vic-Plus E Gasket	4
9	4	No. 002, Grooved Short Radius Tee, DI, Org	1
10	2 1/2	Sytle 177N, Push On Flexible Coupling, Org, EHP Gasket	2
11	2 1/2	768N NXT, Dry Pipe Valve, G-G, w/ Control Valve, Supervised (Normally Open)	1
12	2 1/2	Style 009N, Push On Rigid Coupling, Install-Ready, Org, Vic-Plus E Gasket	1
13	2 1/2	No. 001, FireLock Short Radius, 90° Elbow, DI, Org	1
14	4	No. 744, F-Grooved, Flanged Adapter, FireLock, DI, Blk, Vic-Plus E Gasket	1
15	4	No. 001, FireLock Short Radius, 90° Elbow, DI, Org	1
16	4	716, Spring Check Valve, G-G	1
17	6	No. 006, FireLock Cap, DI, Org	2
18	2 x 1-1/4	Threaded, 90° Reducing Elbow, DI, Blk	1
19	2	Threaded, Straight Tee, DI, Blk	1
20	2	Threaded, 45° Elbow, DI, Galv	1
21	2	Threaded, Plug, DI, Galv	1
22	N/A	Air Compressor, Tank Mounted	1
23	N/A	AMD-1, Air Maintenance Device	1
24	N/A	Spare Head Cabinet	1
25	N/A	Horn and Strobe, Weatherproof	1
26	2	Adjustable Pipe Stand, per NFPA 13 Sec. 17.5.3.2 and Sec. 18.8	2
27	6	No. 002, Grooved Short Radius Tee, DI, Org	1
28	2 1/2	Hose Valve, T-G	2



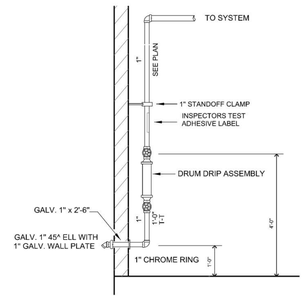


RISER DETAIL

A — SCALE: 1/2" = 1'-0"

TANK MOUNTED AIR COMPRESSOR

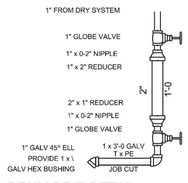
NOT TO SCALE



DRY SYSTEM INSPECTORS TEST DETAIL

SEE ROOF LEVEL PPIPING FOR LOCATION

NOT TO SCALE



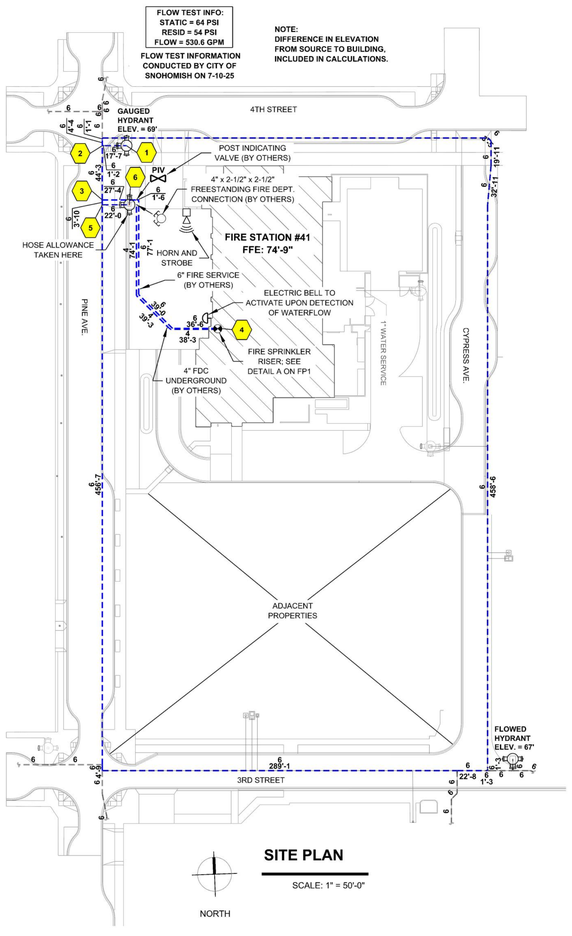
DRUM DRIP DETAIL
DRY SYSTEM

NOT TO SCALE

FLOW TEST INFO:
STATIC = 64 PSI
RESID = 54 PSI
FLOW = 530.6 GPM

FLOW TEST INFORMATION CONDUCTED BY CITY OF SNOHOMISH ON 7-10-25

NOTE: DIFFERENCE IN ELEVATION FROM SOURCE TO BUILDING, INCLUDED IN CALCULATIONS.



SITE PLAN

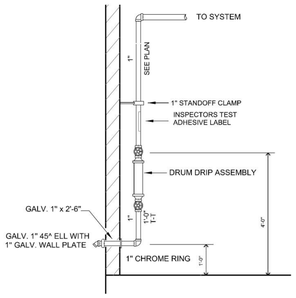
SCALE: 1" = 50'-0"

NORTH

REV.	DATE	REVISION	INITIAL
5			
4			
3			
2			
1			

CUSTOMER NAME	Fire Station #41
ADDRESS	300 Block Pine Avenue
CITY, STATE	Snohomish, WA 98290
SYSTEM TYPE	NFPA 13 FIRE SPRINKLER SYSTEM
DWG TYPE	SUBMITTAL
PARCEL NO.	T.B.D. - PARCEL 2 IN SURVEY
SHEET DESCRIPTION	SITE PLAN AND DETAILS
DRAWN BY	WYATT W.
NICET CERT. NO.	
JOB NO.	DATE 10/14/2025
DWG. NO.	SCALE As indicated
SHEET	FP1 OF 3
PLOT DATE	10/14/25

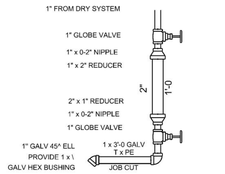
FP1



DRY SYSTEM INSPECTORS TEST DETAIL

SEE ROOF LEVEL PPIPING FOR LOCATION

NOT TO SCALE



DRUM DRIP DETAIL

DRY SYSTEM

NOT TO SCALE

STRUCTURE NOTE

INSTALL RECESSED PENDENT SPRINKLERS WITH DEFLECTOR 15/16" TO 1-11/16" BELOW CEILING

INSTALL STANDARD SPRAY UPRIGHT SPRINKLERS WITH DEFLECTOR 1" TO 4" BELOW BOTTOM OF SOLID WOOD MEMBERS AND COMPOSITE JOISTS. INSTALL DEFLECTOR 6" TO 12" BELOW TOP OF STRUCTURE IN AREAS WITH OPEN WEB TRUSSES.

INSTALL INTERSTITIAL SPRINKLERS PER PRODUCT LISTING. DEFLECTOR SHALL BE INSTALLED 1-1/2" TO 2" BELOW BOTTOM OF STRUCTURE.

INSTALL HORIZ. SIDEWALL SPRINKLERS WITH DEFLECTOR 6" BELOW CEILING, OR PER THE PRODUCT LISTING.

IN ALL CASES THE PRODUCT LISTING SHALL GOVERN

Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temp	MAX. Spacing	Escutcheon	Notes
	Victaulic	V2708	FL-QR	119	5.6	Pendent	½	Quick	Chrome	200°F	225 S.F./130 S.F.	Recessed	N/A
	Victaulic	V2704	FL-QR	87	5.6	Upright	½	Quick	Brass	200°F	130 S.F.	Sprig	N/A
	Victaulic	V3402	FL-QR	105	8	Upright	¾	Quick	Chrome	200°F	130 S.F.	Sprig	N/A
	Victaulic	V3610	FL-QR/DRY/SW	19	5.6	Horizontal Sidewall	1	Quick	Chrome	200°F	14' x 12'	Recessed	Dry
	Victaulic	V2710	FL-QR/SW	22	5.6	Horizontal Sidewall	½	Quick	Chrome	200°F	14' x 12'	N/A	N/A
	Victaulic	V5608	FL-SA/IC	25	5.6	Upright	½	Quick	Brass	200°F	256 S.F.	Sprig	N/A
				Total = 377									

*V2722 REQUIRES DRAFT CURTAINS PER EVERY 1000S.F. PER PRODUCT LISTING. AREAS WITH INSULATION-FILLED JOISTS DO NOT REQUIRE DRAFT CURTAINS. INSULATION SHALL BE INSTALLED PER SPRINKLER LISTING WHERE APPLICABLE.

DISPLAY 164

Remote Area 1	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft²)	0.10 for 513ft² (Actual 513ft²)
TOTAL HOSE STREAMS	100.0
DRY CAPACITY	95gal
TOTAL HEADS FLOWING	10
K-FACTOR	5.6
TOTAL WATER REQUIRED	258.9
TOTAL PRESSURE REQUIRED	52.9
BASE of RISER (gpm)	158.9
BASE of RISER (psi)	46.1
SAFETY MARGIN (psi)	+0.4 (13.8%)

CALCULATED USING ROOM DESIGN METHOD PER NFPA 13 SEC. 19.2.3.3; ENTIRETY OF MOST REMOTE BRANCH OF DRY SYSTEM CALCULATED

STORAGE 149

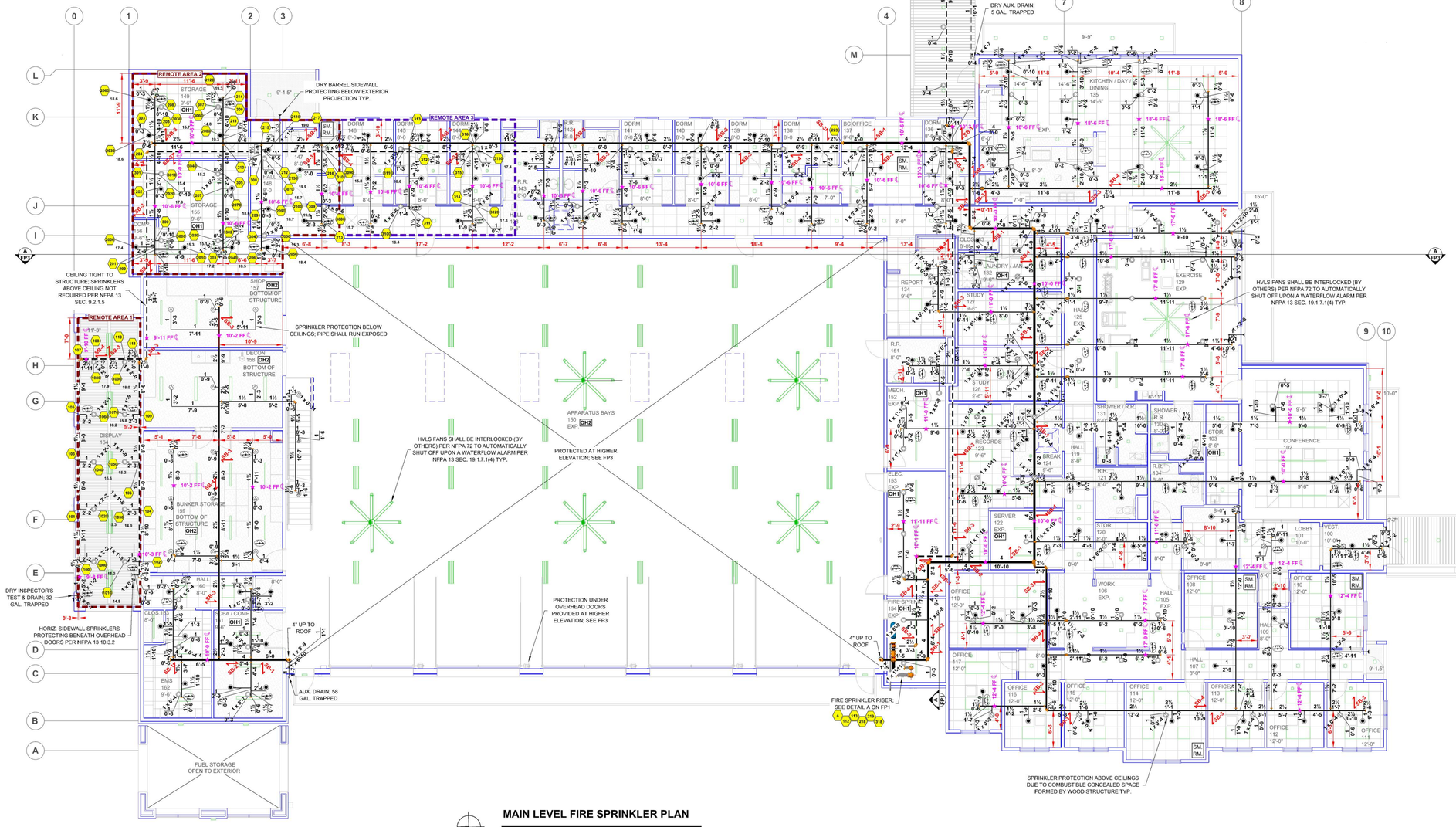
Remote Area 2	
OCCUPANCY CLASSIFICATION	Ordinary Group I
DENSITY (gpm/ft²)	0.15 for 1500ft² (Actual 994ft²)
QUICK RESPONSE REDUCTION	9'-6 Ceiling (40.0%) 900ft²
TOTAL HOSE STREAMS	250.0
TOTAL HEADS FLOWING	14
K-FACTOR	5.6
TOTAL WATER REQUIRED	509.4
TOTAL PRESSURE REQUIRED	45.1
BASE of RISER (gpm)	259.4
BASE of RISER (psi)	39.1
SAFETY MARGIN (psi)	+9.7 (17.7%)

CALCULATED USING DENSITY/AREA METHOD PER NFPA 13 SEC. 19.2.3.2; QR REDUCTION APPLIED PER NFPA 13 SEC. 19.2.3.2.3

STORAGE 149 ATTIC

Remote Area 3	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft²)	0.10 for 1500ft² (Actual 1573ft²)
TOTAL HOSE STREAMS	100.0
TOTAL HEADS FLOWING	14
K-FACTOR	5.6
TOTAL WATER REQUIRED	321.7
TOTAL PRESSURE REQUIRED	31.1
BASE of RISER (gpm)	221.7
BASE of RISER (psi)	25.7
SAFETY MARGIN (psi)	+29.0 (48.3%)

CALCULATED USING DENSITY/AREA METHOD PER NFPA 13 SEC. 19.2.3.2



NORTH

MAIN LEVEL FIRE SPRINKLER PLAN

SCALE: 1/8" = 1'-0"

REV.	DATE	REVISION	INITIAL
5			
4			
3			
2			
1			

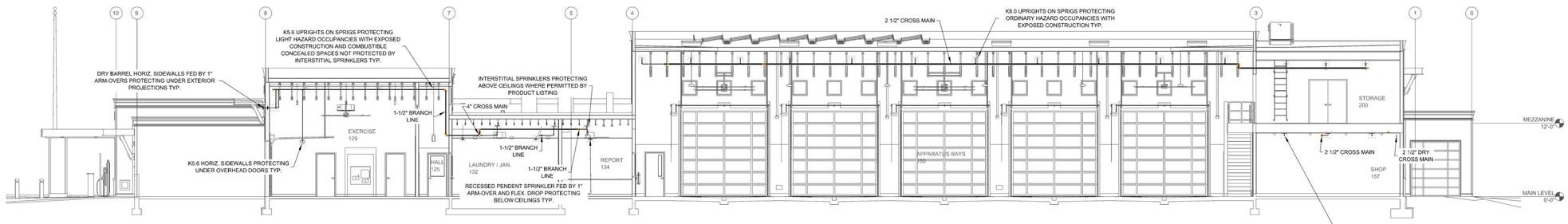
CUSTOMER NAME	Fire Station #41
ADDRESS	300 Block Pine Avenue
CITY, STATE	Snohomish, WA 98290
SYSTEM TYPE	NFPA 13 FIRE SPRINKLER SYSTEM
DWG TYPE	SUBMITTAL
PARCEL NO.	T.B.D. - PARCEL 2 IN SURVEY
SHEET DESCRIPTION	MAIN LEVEL FIRE PROTECTION PLANS
DRAWN BY	WYATT W.
INCIDENT / REF. NO.	
JOB NO.	
DATE	10/14/2025
DWG. NO.	
SCALE	As indicated
SHEET	FP2 OF 3
PLOT DATE	10/14/25

FP2

Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temp	MAX. Spacing	Escutcheon	Notes
	Victaulic	V2708	FL-QR	119	5.6	Pendent	½	Quick	Chrome	200°F	225 S.F./130 S.F.	Recessed	N/A
	Victaulic	V2704	FL-QR	87	5.6	Upright	½	Quick	Brass	200°F	130 S.F.	Sprig	N/A
	Victaulic	V3402	FL-QR	105	8	Upright	¾	Quick	Chrome	200°F	130 S.F.	Sprig	N/A
	Victaulic	V3610	FL-QR/DRY/SW	19	5.6	Horizontal Sidewall	1	Quick	Chrome	200°F	14' x 12'	Recessed	Dry
	Victaulic	V2710	FL-QR/SW	22	5.6	Horizontal Sidewall	½	Quick	Chrome	200°F	14' x 12'	N/A	N/A
	Victaulic	V5608	FL-SA/IC	25	5.6	Upright	½	Quick	Brass	200°F	256 S.F.	Sprig	N/A
				Total = 377									

*V2722 REQUIRES DRAFT CURTAINS PER EVERY 1000S.F. PER PRODUCT LISTING. AREAS WITH INSULATION-FILLED JOISTS DO NOT REQUIRE DRAFT CURTAINS. INSULATION SHALL BE INSTALLED PER SPRINKLER LISTING WHERE APPLICABLE.



A **BUILDING SECTION**

SCALE: 1/8" = 1'-0"

STRUCTURE NOTE

INSTALL RECESSED PENDENT SPRINKLERS WITH DEFLECTOR 15/16" TO 1-11/16" BELOW CEILING

INSTALL STANDARD SPRAY UPRIGHT SPRINKLERS WITH DEFLECTOR 1" TO 4" BELOW BOTTOM OF SOLID WOOD MEMBERS AND COMPOSITE JOISTS. INSTALL DEFLECTOR 6" TO 12" BELOW TOP OF STRUCTURE IN AREAS WITH OPEN WEB TRUSSES.

INSTALL INTERSTITIAL SPRINKLERS PER PRODUCT LISTING. DEFLECTOR SHALL BE INSTALLED 1-1/2" TO 2" BELOW BOTTOM OF STRUCTURE.

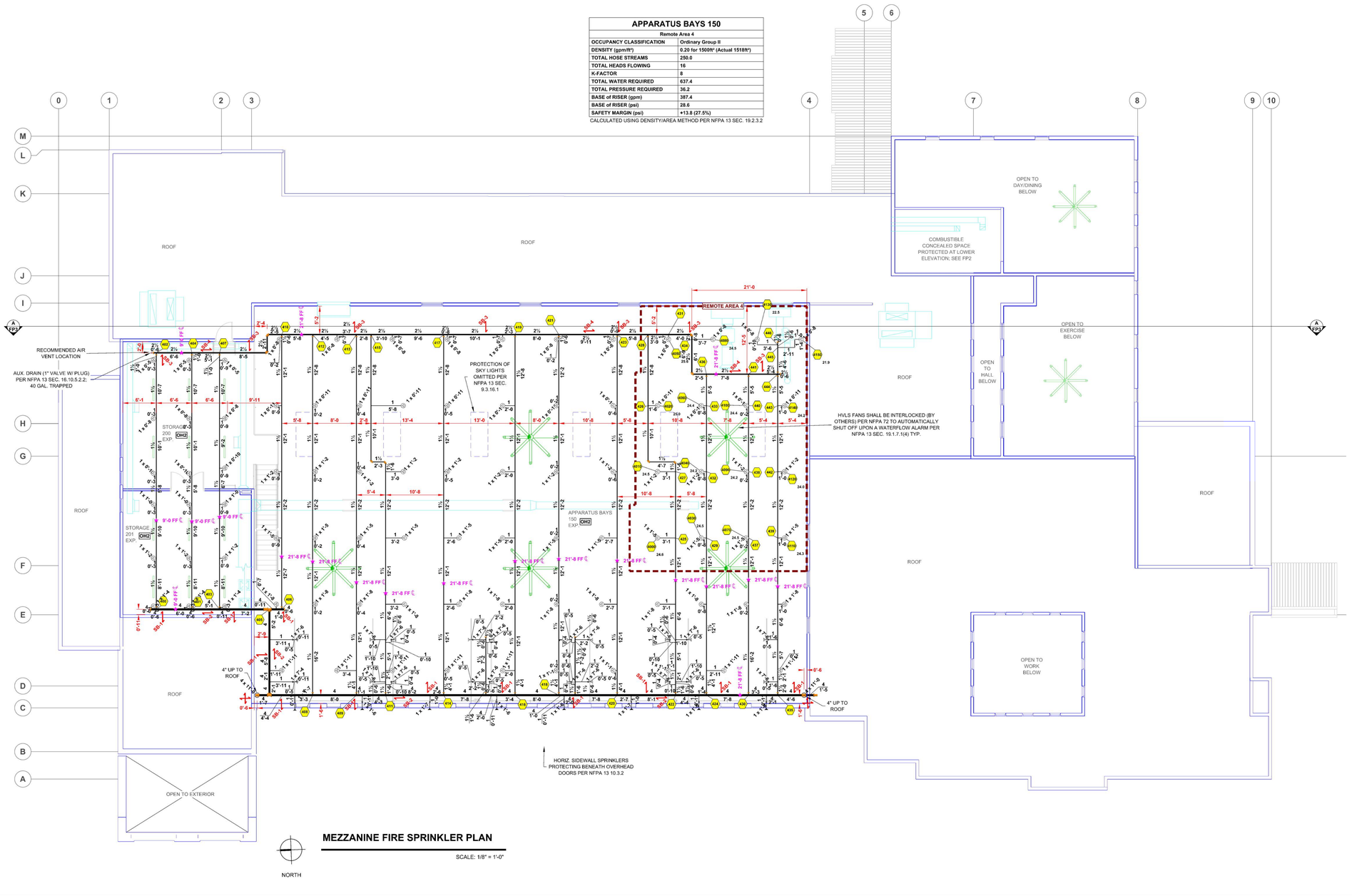
INSTALL HORIZ. SIDEWALL SPRINKLERS WITH DEFLECTOR 6" BELOW CEILING, OR PER THE PRODUCT LISTING.

IN ALL CASES THE PRODUCT LISTING SHALL GOVERN

APPARATUS BAYS 150

Remote Area 4	
OCCUPANCY CLASSIFICATION	**Ordinary Group II**
DENSITY (gpm/ft²)	**0.20 for 1500ft² (Actual 1518ft²)**
TOTAL HOSE STREAMS	**250.0**
TOTAL HEADS FLOWING	**16**
K-FACTOR	**8**
TOTAL WATER REQUIRED	**637.4**
TOTAL PRESSURE REQUIRED	**36.2**
BASE of RISER (gpm)	**387.4**
BASE of RISER (psi)	**28.6**
SAFETY MARGIN (psi)	**+13.8 (27.5%)**

CALCULATED USING DENSITY/AREA METHOD PER NFPA 13 SEC. 19.2.3.2



MEZZANINE FIRE SPRINKLER PLAN

SCALE: 1/8" = 1'-0"

REV.	DATE	REVISION	INITIAL
5			
4			
3			
2			
1			

CUSTOMER NAME	Fire Station #41
ADDRESS	300 Block Pine Avenue
CITY, STATE	Snohomish, WA 98290
SYSTEM TYPE	NFPA 13 FIRE SPRINKLER SYSTEM
DWG TYPE	SUBMITTAL
PARCEL NO.	T.B.D. - PARCEL 2 IN SURVEY
SHEET DESCRIPTION	MEZZANINE FIRE PROTECTION PLANS
DRAWN BY	WYATT W
JOB NO.	
DWG. NO.	
SHEET	FP3 OF 3
INCIDENT NO.	
DATE	10/14/2025
SCALE	As indicated
PLOT DATE	10/14/25

FP3