

GENERAL NOTES

**SCOPE OF WORK**  
INSTALL AND TEST NEW SPRINKLER SYSTEM WITH VALVES AND EQUIPMENT TO COVER THE ENTIRE BUILDING PER OUR SCOPE. TO COMPLY WITH NFPA-13D, ANY CHANGES TO THE WORK OR LAYOUT MUST BE IN WRITING PRIOR TO STARTING WORK.

**SYSTEM DESIGN**  
PIPE SIZING TO BE PER HYDRAULIC CALCULATIONS UTILIZING NEW SPRINKLERS.  
OWNER TO MAINTAIN 18" OF CLEARANCE BELOW SPRINKLER DEFLECTORS TO ANY STORAGE OR OBSTRUCTIONS.

**HANGERS**  
PIPE HANGERS SHALL BE INSTALLED AS REQUIRED BY NFPA FOR SUPPORTING SPRINKLER PIPING. NO OTHER PIPING AND/OR DEVICES ARE TO BE ATTACHED TO THE SPRINKLER PIPE HANGER SYSTEM UNLESS THE HANGER HAS BEEN SPECIFICALLY DESIGNED FOR THE ADDITIONAL LOADING. THIS CONTRACT DOES NOT INCLUDE ANY MATERIAL OR DEVICE TO IMPROVE THE STRUCTURAL STRENGTH OF THE BUILDING TO ENABLE IT TO CARRY THE LOAD OF THE FIRE PROTECTION SYSTEM.

**PIPE MATERIALS**  
ALL PIPE TO BE CPVC (UNLESS NOTED OTHERWISE)

**PENETRATIONS TO OUTSIDE** - SCH. 40 GALV

**SHUT-DOWNS & CONNECTIONS**  
BEFORE SHUTTING OFF A SECTION OF THE FIRE SERVICES TO MAKE SPRINKLER OR STANDPIPE SYSTEM CONNECTIONS OR MODIFICATIONS, PROVIDE AND COORDINATE A FIRE-PLAN THAT INCLUDES THE FOLLOWING: PROPER NOTIFICATION WITH 24HR NOTICE TO OWNER, FIRE DEPT. AND ALL AFFECTED SHALL NOTIFY THE A.J.H., OWNER'S IMPARTMENT COORDINATOR, INSURANCE CARRIER, ALARM COMPANY AND ARCHITECT/ENGINEER.

**PROVIDE TAGS** INDICATING THAT A SYSTEM OR PART OF HAS BEEN REMOVED FROM SERVICE AND POST AT EACH FIRE AFFECTED CONTROL VALVE, ALARM CONTROL PANEL AND AS DIRECTED BY THE A.H.U.

**MAINTENANCE**  
THE BUILDING OWNER SHALL BE RESPONSIBLE FOR MAINTAINING TEMPERATURES AT OR ABOVE 40° F IN ALL AREAS PROTECTED BY A WET SPRINKLER SYSTEM. THE OWNER SHALL PROTECT ALL WET PIPE SPRINKLERS AND SYSTEM COMPONENTS FROM FREEZING.

**THE BUILDING OWNER SHALL BE RESPONSIBLE FOR THE PROPER INSPECTION, TESTING, AND MAINTENANCE (ACCORDING TO NFPA-25) OF ALL SPRINKLER & STANDPIPE SYSTEMS AND COMPONENTS.**

**REQUIRED SYSTEM TESTING:**  
24.2.1 HYDROSTATIC TEST FOR NEW PIPING:  
ALL PIPING AND ATTACHED APPURTENANCES SUBJECT TO SYSTEM WORKING PRESSURE SHALL BE HYDROSTATICALLY TESTED AT 200 PSI AND SHALL MAINTAIN THAT PRESSURE WITHOUT LOSS FOR 2 HOURS. PORTIONS OF SYSTEMS NORMALLY SUBJECT TO SYSTEM WORKING PRESSURES IN EXCESS OF 150 PSI SHALL BE TESTED AT A PRESSURE OF 50 PSI IN EXCESS OF SYSTEM WORKING PRESSURE.

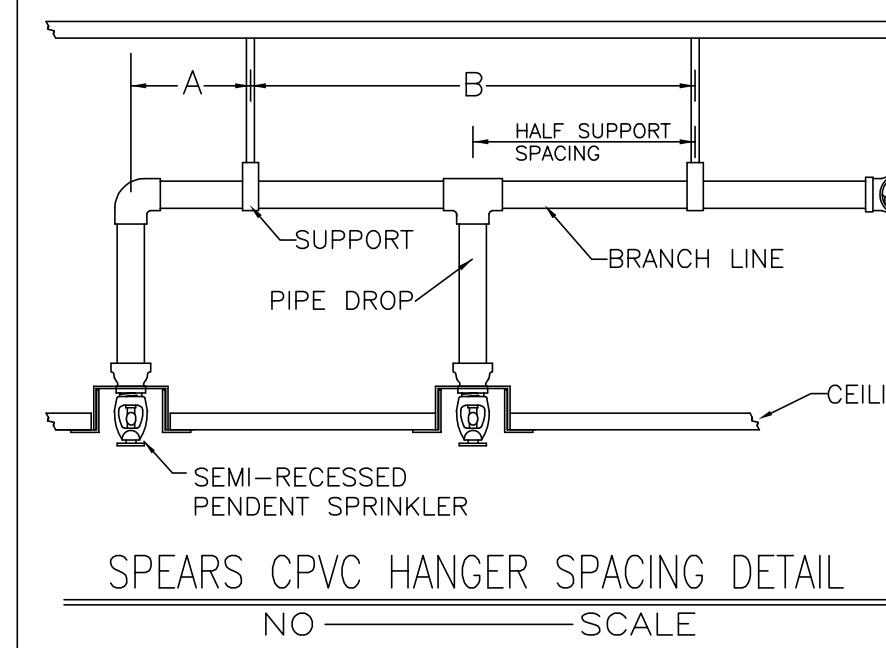
**NEW WATERFLOW DEVICES:** WATERFLOW DETECTING DEVICES INCLUDING THE ASSOCIATED ALARM CIRCUITS SHALL BE FLOW TESTED THROUGH THE INSPECTOR'S TEST CONNECTION AND SHALL RESULT IN AN AUDIBLE ALARM ON THE PREMISES THAT MEETS NFPA 72 AFTER SUCH FLOW BEGINS AND UNTIL SUCH FLOW STOPS.

**HYDROSTATIC TESTS OF THIS EXISTING SYSTEM AND COMPONENTS THAT ARE NOT ABLE TO BE ISOLATED, SUCH AS RELOCATED DROPS, SHALL NOT REQUIRE TESTING IN EXCESS OF SYSTEM NORMAL WORKING PRESSURE.**

**ACCEPTANCE REVIEW** BY FIRE DEPARTMENT FOR PIPING INSTALLATION, HANGER REQUIREMENTS, AND OTHER NORMAL CODE PRACTICES PRIOR TO CLOSING IN CEILING SPACES WITH FP PIPING TYPICALLY.

**SYSTEM OPERATIONAL TESTS OF THIS EXISTING SYSTEM AND COMPONENTS AND ARE NOT REQUIRED AS THEY HAVE ALREADY BEEN CERTIFIED AND ARE CHECKED REGULARLY DURING NORMAL MAINTENANCE.**

**GENERAL NOTES:**  
SYSTEM DESIGNER AND INSTALLED PER NFPA-13D AND LOCAL FIRE DEPARTMENT  
ALL EQUIPMENT FOR THIS SYSTEM SHALL BE U.L. LISTED (SEE CUT SHEETS)  
MINIMUM PIPE SIZE SHALL BE 1" NOMINAL PIPE ALL HANGERS FOR THIS SYSTEM SHALL BE PER MINIMUM REQUIREMENTS OF NFPA-13 CHAPTER 9  
ALL THREADED PIPING TO BE U.L. & F.M. APPROVED THREADED PIPING WITH DUCTILE IRON SCREWED FITTINGS.  
NO INSTALLATION OR FABRICATION TO BEGIN WITHOUT APPROVED SHOP DWG.  
ELECTRICAL WIRING, ALARM, DETECTION, AND SUPERVISORY BY OWNER



**TABLE A - MAXIMUM SUPPORT SPACING DISTANCE END LINE SPRINKLER HEAD DROP ELBOW**

PIPE SIZE NOMINAL INCHES	LINE PRESSURE <100 PSI	LINE PRESSURE >100 PSI
3/4" (DN20)	9 INCHES	6 INCHES
1" (DN25)	12 INCHES	9 INCHES
1 1/4" (DN32)	16 INCHES	12 INCHES
1 1/2" (DN40-DN50)	24 INCHES	12 INCHES

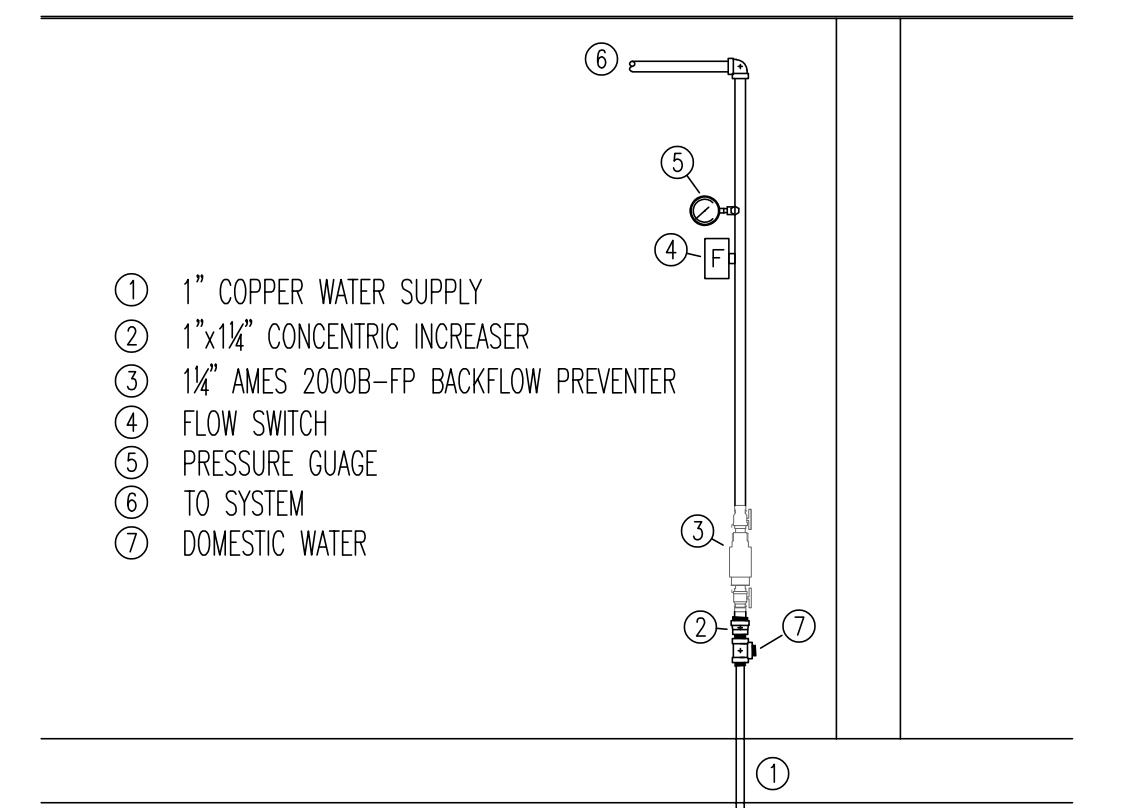
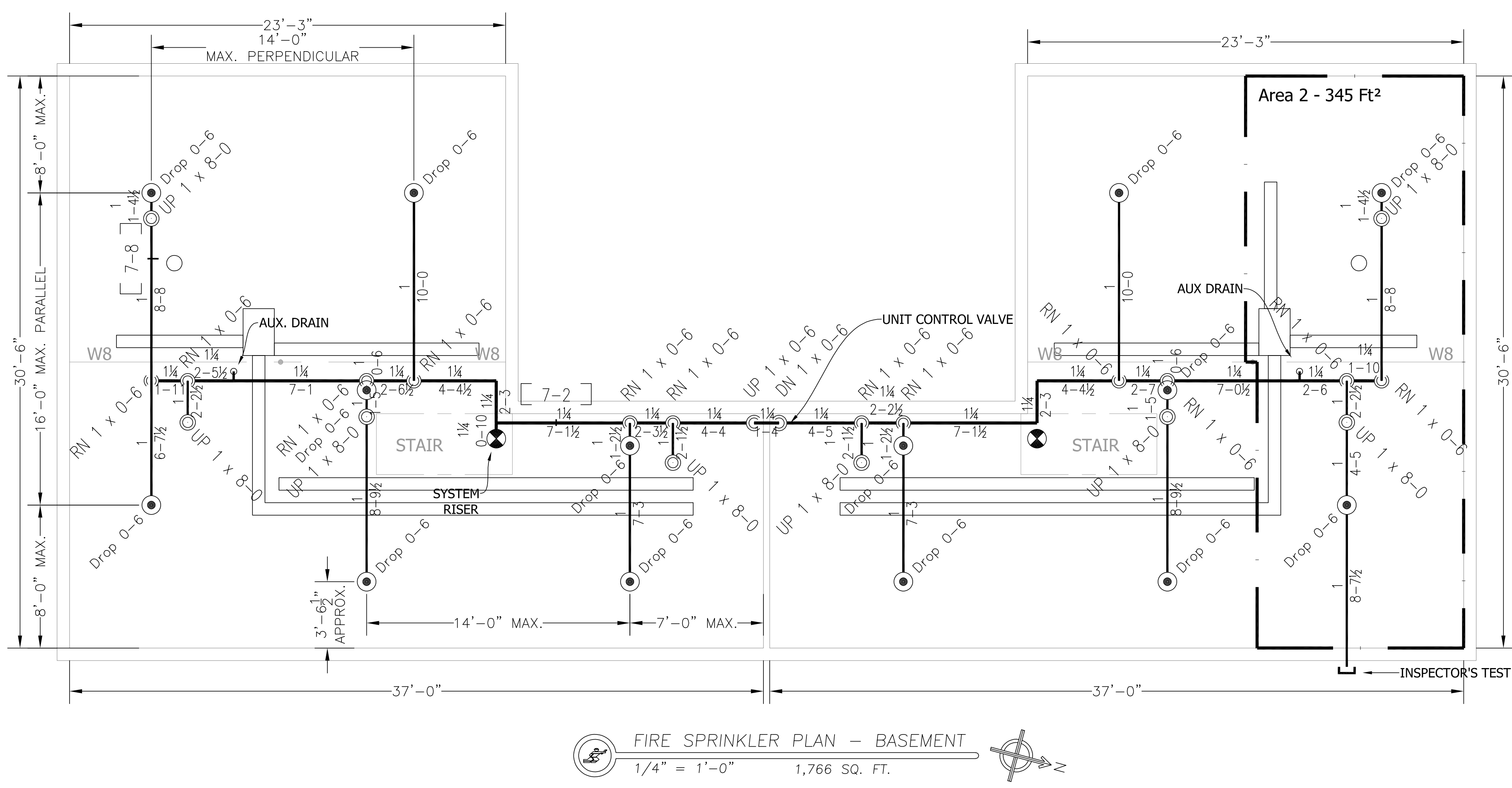
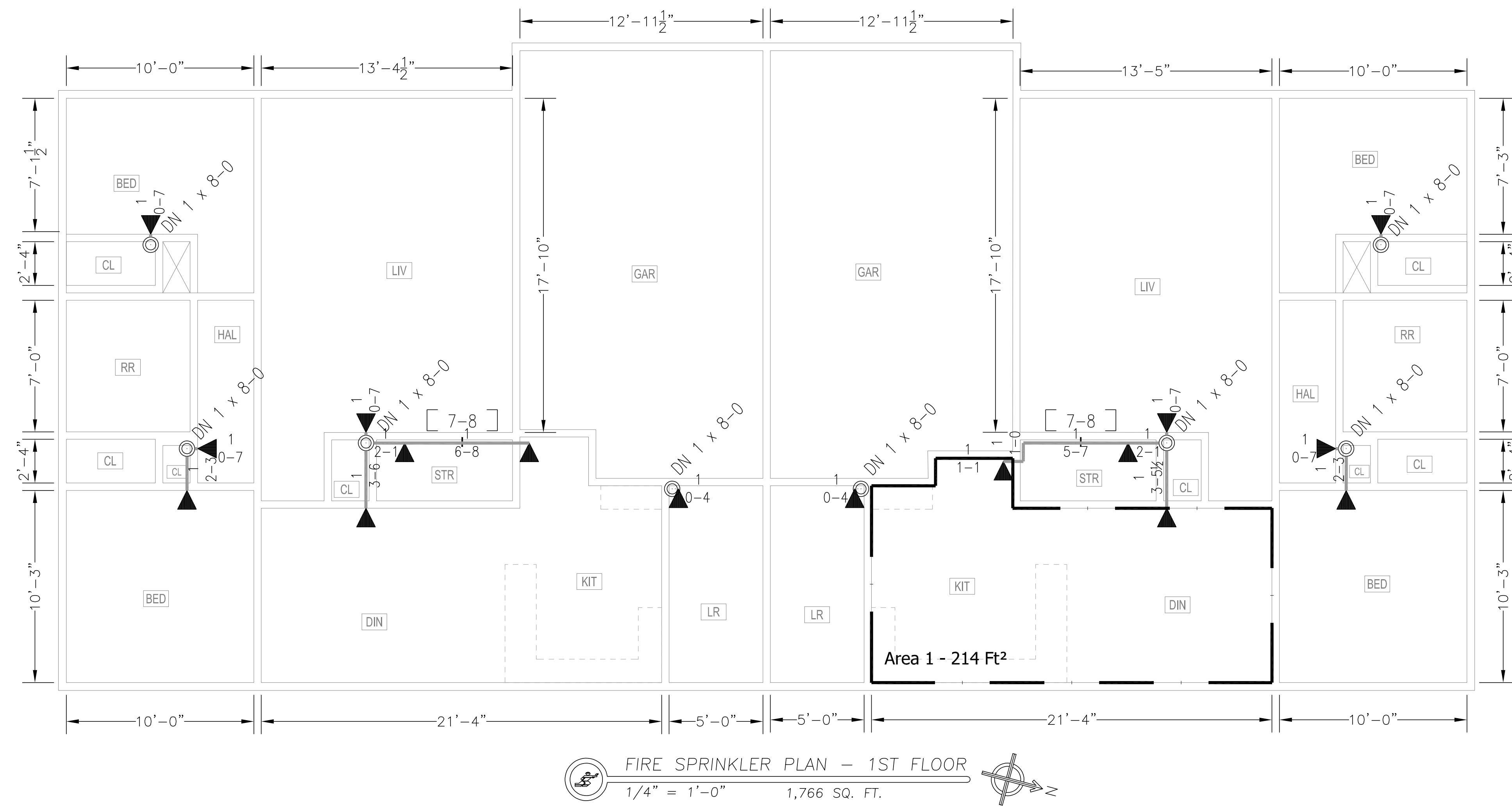
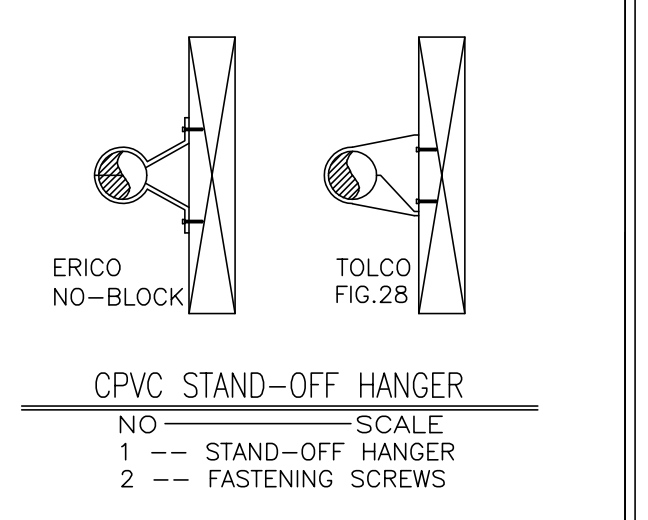
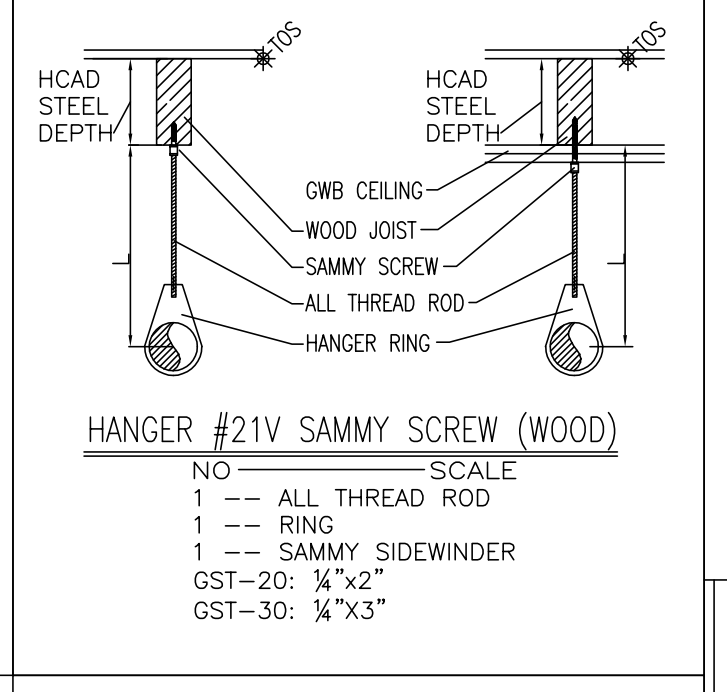
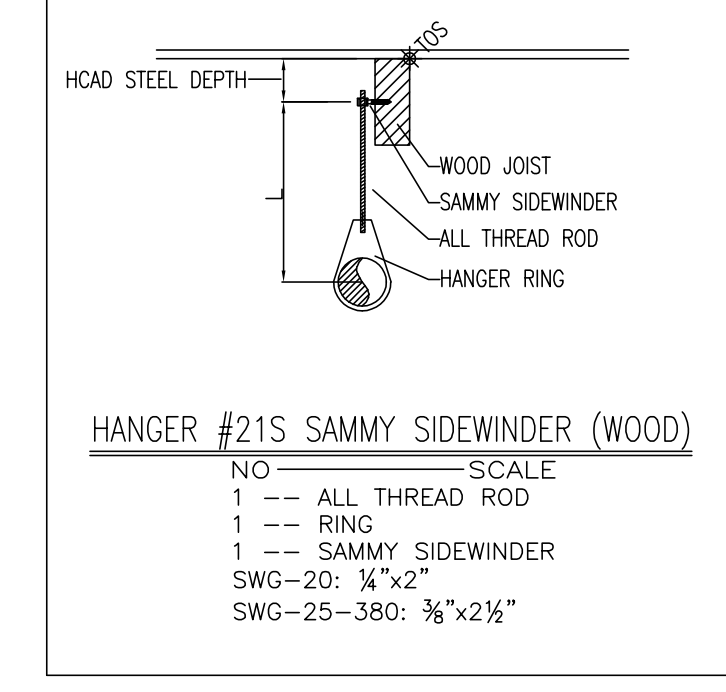
\*SURGE CLIPS REQUIRED ON END HANGER FOR SYSTEMS >100 PSI

**TABLE B - MAXIMUM SUPPORT SPACING DISTANCE IN-LINE SPRINKLER HEAD DROP TEE**

PIPE SIZE NOMINAL INCHES	LINE PRESSURE <100 PSI	LINE PRESSURE >100 PSI
3/4" (DN20)	4 FEET	3 FEET
1" (DN25)	5 FEET	4 FEET
1 1/4" (DN32)	6 FEET	5 FEET
1 1/2" (DN40-DN50)	7 FEET	7 FEET

8.2.5.1.1 Pendent sprinklers shall be located at least 3 ft (900 mm) away from obstructions such as ceiling fans and light fixtures unless the requirements of 8.2.5.3 are met.

8.2.5.2.1 Sidewall sprinklers shall be located at least 5 ft (1.5 m) away from obstructions such as ceiling fans and light fixtures unless the requirements of 8.2.5.4 are met.



**WATER SUPPLY INFORMATION**

DATE & TIME:	10-3-14, 9:00 AM
STATIC PSI:	60
RESIDUAL PSI:	50
FLOW GPM:	1060
TEST ELEVATION:	102'-0"
SOURCE:	MADISON WATER DEPT



**AUTOMATIC FIRE SPRINKLER LEGEND**

SYM	QTY	SIN	MODEL	WRENCH	SIZE	K	RESP	TEMP	FINISH	TYPE	TRIM/ESC	MAXIMUM SPACING
◀	16	VK466	FREEDOM	13655	3/4"	4.0	QR	175°	WHITE	RES HSW	E-1 ESCUTCHEON	16x18
●	14	VK468	FREEDOM	13577	3/4"	4.9	QR	175°	WHITE	RES PEND	E-1 ESCUTCHEON	16" PARALLEL x 14" PERPENDICULAR

TOTAL 30

THE BUILDING OWNER SHALL BE RESPONSIBLE FOR MAINTAINING TEMPERATURES AT OR ABOVE 40°F IN ALL AREAS WHERE WET SPRINKLER PIPING IS LOCATED. THE OWNER SHALL PROTECT ALL WET PIPE SPRINKLERS AND SYSTEM COMPONENTS FROM FREEZING AT ALL TIMES.

THE BUILDING OWNER SHALL BE RESPONSIBLE FOR THE PROPER INSPECTION, TESTING, AND MAINTENANCE IN ACCORDANCE WITH NFPA 25. THIS IS FOR ALL SPRINKLER/STANDPIPE SYSTEMS AND COMPONENTS.

**HYDRAULIC CALCULATION - RA1 KITCHEN**

DESIGN CRITERIA: NFPA 13D  
DENSITY: .05 GPM OVER HYDRAULICALLY MOST DEMANDING 214 SQ FT  
CALCULATING 2 SPRINKLERS @ 288 SQ. FT. MAXIMUM SPACING  
TOTAL DEMAND @ BOR: 31.76 GPM @ 60.55 PSI  
OUTSIDE HOSE ALLOWANCE: N/A GPM  
SYSTEM SAFETY FACTOR: 9.45 PSI, 13.5%

**HYDRAULIC CALCULATION - RA2 BASEMENT**

DESIGN CRITERIA: NFPA 13D  
DENSITY: .05 GPM OVER HYDRAULICALLY MOST DEMANDING 345 SQ FT  
CALCULATING 2 SPRINKLERS @ 324 SQ. FT. MAXIMUM SPACING  
TOTAL DEMAND @ BOR: 34.08 GPM @ 54.43 PSI  
OUTSIDE HOSE ALLOWANCE: N/A GPM  
SYSTEM SAFETY FACTOR: 16.57 PSI, 22.2%

**MONONA PLUMBING AND FIRE PROTECTION, INC.**  
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608-273-4556

**REVISIONS**

NO.	DATE	DESCRIPTION
1	10-20-24	ISSUE FOR PERMITS

**SYMBOL DESCRIPTION**

EXISTING SPRINKLER PIPE	NEW SPRINKLER PIPE
INSTALL FLUSH	REMOVE EXISTING PIPE
INSTALL MECHANICAL TEE	REMOVE EXISTING TEE
LOW POINT DRAIN	REMOVE EXISTING DRAIN
CEILING HEIGHT	REMOVE EXISTING CEILING
PIPE CENTER BELOW FINISH FLOOR	REMOVE EXISTING PIPE
PIPE CENTER ABOVE FINISH FLOOR	REMOVE EXISTING PIPE
HYDRAULIC CALCULATION NODE	REMOVE EXISTING NODE
REVISION NUMBER TAG	REMOVE EXISTING TAG
MAIN FABRICATION TAG	REMOVE EXISTING TAG
LINE FABRICATION TAG	REMOVE EXISTING TAG
HANGER LOCATION	REMOVE EXISTING HANGER

**1103 S. THOMPSON DUPLEX**  
FIRE SPRINKLER PLAN  
ADDRESS: 1103 SOUTH THOMPSON DRIVE  
MADISON, WI 53716

PROJECT NUMBER: 202410974  
DATE: 11/18/2024  
DRAWN BY: T. STENSON  
SHEET NUMBER: FP 1 OF 1