



LEGEND	
SYMBOL	DESCRIPTION
○	UPRIGHT SPRINKLER HEAD
⊙	1" RISER WITH UPRIGHT SPRINKLER HEAD
↑	UPRIGHT SPRINKLER HEAD
⊕	RIGID COUPLING
≡	MAIN HANGER BOLTED TO TRAPEZE 3/8" ATR, RING & RETAINING STRAP (SEE DETAIL III, SH-2)
≡	MAIN HANGER FROM BOTTOM OF BEAM WITH C-CLAMP 3/8" ATR, RING & RETAINING STRAP (SEE DETAIL II, SH-2)
≡	HANGER WITH C-CLAMP 3/8" ATR, NUT, WASHER, RING & RETAINING STRAP (SEE DETAIL I, SH-2)
⊕	4-WAY SWAY BRACE
⊕	2-WAY SWAY BRACE
⊙	DRY PIPE VALVE W/TRIM
⬇	WATER MOTOR GONG
AFF	ABOVE FINISH FLOOR
②	NODE POINT
Ⓐ	NODE POINT

- HEAD COUNT:**
- ⊙ — 32 — 286°F UPRIGHT, CENTRAL MODEL SSU 1/2" ORIFICE, BRASS FINISH
  - ⊙ — 1 — 212°F UPRIGHT, CENTRAL MODEL SSU 1/2" ORIFICE, BRASS FINISH

- GENERAL NOTES:**
- ALL DIMENSIONS ARE CENTER TO CENTER FOR ALL PIPING UNLESS OTHERWISE NOTED WITH ( ).
  - ALL PIPING SHALL BE DOMESTIC MANUFACTURE SCHEDULE 40 BLACK. PIPE SCHEDULE PER NFPA-13, SECTION 3-6.
  - PACK WALL PENETRATIONS WITH FIBERGLASS OR MINERAL WOOL PACKING AND SEAL ON BOTH SIDES OF WALL WITH POLYSULFIDE SEALANT. INSTALL ESCUTCHEONS ON SIDES EXPOSED TO VIEWS.
  - ALL FIRE PROTECTION PIPING SHALL BE PAINTED PER FEDERAL STANDARD(FED STD) NUMBER 595. FINISH COLOR SHALL BE RED(#11105).
  - THE DRY PIPE SYSTEM MAXIMUM CAPACITY IS 60 GALLONS OF WATER AND THE SYSTEM COVERS 3,500 SQUARE FEET OF FLOOR.
  - REPLACE EXISTING HEADS WITH NEW HIGH TEMPERATURE RATED (286°F) 1/2 INCH ORIFICE HEADS.
  - INSTALL ANY HANGER OR SWAY BRACING THAT IS MISSING BUT REQUIRED BY NFPA 13 AND THIS DRAWING.
  - INSTALL LOCKING NUTS OR RESTRAINING STRAPS ON C CLAMPS AS REQUIRED BY NFPA 13.
  - SPRINKLER SYSTEM MEETS NFPA 13 (1999), FOR OCCUPANCY CLASSIFICATION OF NOT LESS THAN ORDINARY, GROUP 2 AND PROTECTION OF COMMODITIES DEFINED AS CLASS IV.

**HYDRAULIC DESIGN DATA**  
 0.125 GPM/SQ FT OVER 3500 SQ FT AREA (TOTAL FLOOR AREA) REQUIRES 1162.0 GPM AT 56.3 psi AT LOOP, INCL. 500 GPM FOR HOSE STREAMS, 32 HEAD CALCULATED. ADD DATA PLAQUE TO RISER PER NFPA 13 WITH THE ABOVE DATA.

**WATERFLOW TEST INFORMATION**  
 STATIC PRESSURE AT HYDT 1-WF -100 psi  
 RESIDUAL PRESSURE AT HYDT 9-WF - 65 psi  
 FLOW - 1187 GPM AT HYDT 2-WF  
 FLOW AND PRESSURE HYDT ARE AT ASSUMED ELEVATION OF DRY PIPE VALVE - 0.0 FT  
 BOTTOM OF RISER, ASSUMED - 3.5 FT

HYDRAULIC DESIGN INFORMATION				
AREA NUMBER 1	CODE NFPA 13	HAZARD Ordinary I	SYSTEM DRY	
REMOTE AREA SQ. FT. 3500	DENSITY GPM/SQ. FT. 0.125	DOMESTIC WATER ALLOWANCE 0	OUTSIDE HOSE ALLOWANCE 500	AREA PER SPRINKLER 130
TOTAL SYSTEM REQUIREMENTS: 45 PSI 662 GPM AT BASE OF RISER				

**2402-WI SPRINKLER PLAN**  
 SCALE: 3/8"=1'-0"

DWG NUMBER	TITLE	REV NO.	DESCRIPTION
H-2-838815	2402 SERIES FIRE RISER SYSTEM		
CVI-21958	FIRE PROTECTION SYSTEM		
H-2-80737	DWG LIST/CIVIL SITE PLAN		
5	RELEASED PER ECR-20-000253		

BLDG. NO. 2402WI	<b>CAUTION</b> NOT COMPLETE WITHOUT CURRENT CHANGE DOCUMENTS FROM DATABASE	<b>ATTENTION</b> DESTROY THIS DOCUMENT BY SHREDDING MAY CONTAIN SENSITIVE INFORMATION
INDEX NO. 8509	U.S. DEPARTMENT OF ENERGY Richland Operations Office <b>FIRE PROTECTION SPRINKLER SYSTEM</b>	
	NAME H4519458-JS POGUE H8062991-AD MCLAIN H8062991-AD MCLAIN	DATE 5/2/2021 5/2/2021 5/2/2021
	SIZE F DRAWING NUMBER H-2-821888 SCALE 3/8"=1'	SHEET 1 REV 5

**DATE:**  
 Mar 02, 2021  
 HANFORD RELEASE