

REMOTE AREA 1

Hydraulically Calculated System

This system as shown on Fire Protection Plan
company print no. FPI dated 12/10/2021
for ISAAK RESIDENCE

at TRUCKEE, CA contract no. [REDACTED]
is designed to discharge at a rate of 0.05 gpm
to protect a floor area of 100 sq ft (m) when supplied
with water at the rate of 22.5 gpm (l/min)
at 34.2 psi (bars) at the base of the riser.
Hose stream allowance of 5 gpm (l/min)
is included in the above.

Occupancy classification 13 UOI H240
Commodity classification N/A
Maximum storage height N/A
Safety factor 7.1

REMOTE AREA 2

Hydraulically Calculated System

This system as shown on Fire Protection Plan
company print no. FPI dated 12/10/2021
for ISAAK RESIDENCE

at TRUCKEE, CA contract no. [REDACTED]
is designed to discharge at a rate of 0.05 gpm
to protect a floor area of 100 sq ft (m) when supplied
with water at the rate of 21.1 gpm (l/min)
at 33.9 psi (bars) at the base of the riser.
Hose stream allowance of 5 gpm (l/min)
is included in the above.

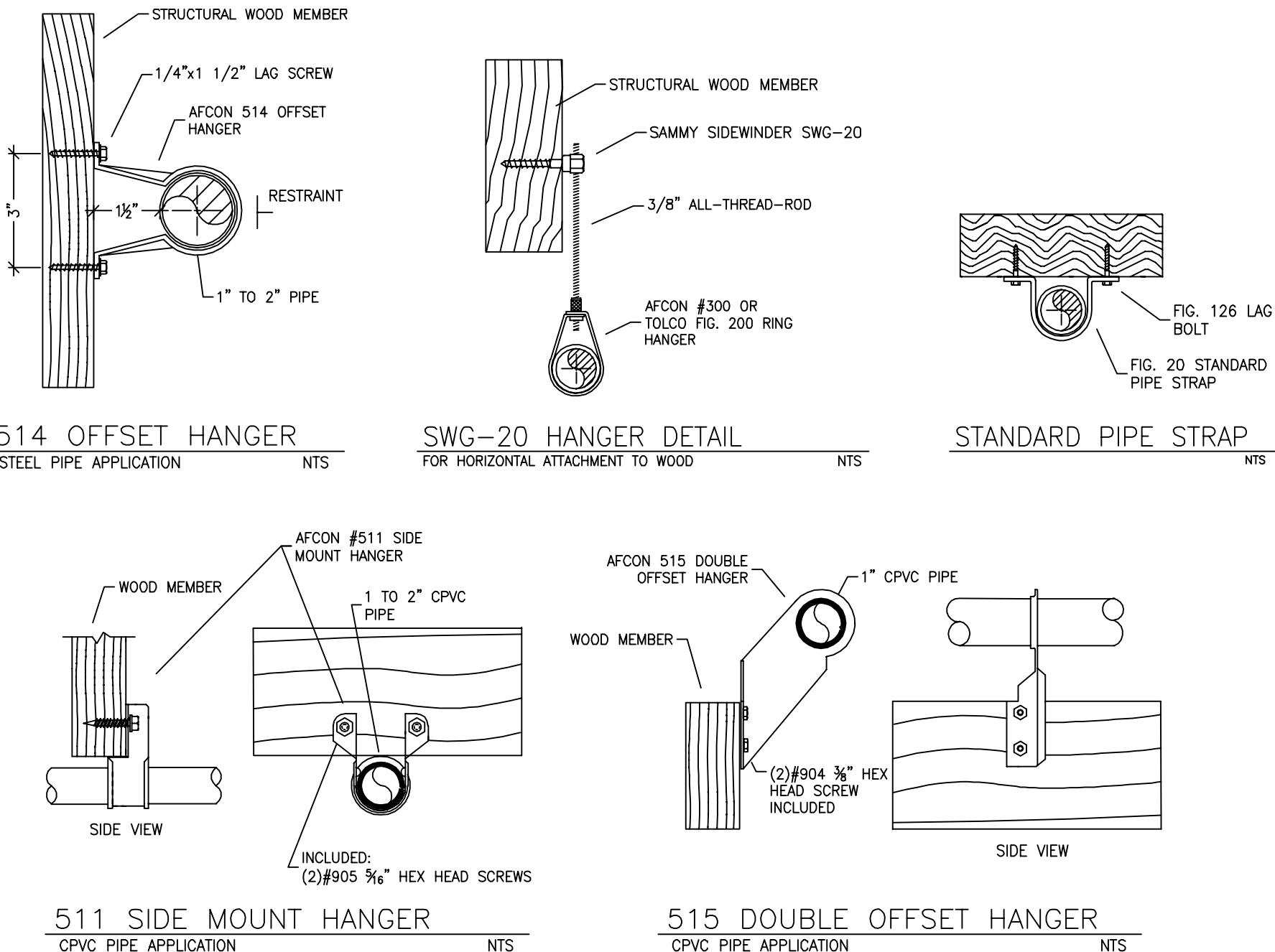
Occupancy classification 13 UOI H240
Commodity classification N/A
Maximum storage height N/A
Safety factor 4.1

LOWER LEVEL FIRE SPRINKLER PLAN
SCALE: 1/8" = 1'-0"

UPPER LEVEL FIRE SPRINKLER PLAN
SCALE: 1/8" = 1'-0"

PROJECT SUMMARY:

PROJECT NAME: ISAAK RESIDENCE
PROJECT ADDRESS: 10811 LABELLE CT
APN: 019-910-016
PROJECT TYPE: NEW
TYPE OF CONSTRUCTION: V
OCCUPANCY GROUP(S): R3
OCCUPIED LEVELS: 2
TOTAL SPRINKLERED AREA: 5,232 SQ. FT.
NFA CODE REQUIREMENT: NFPA 13 NFPA 13R NFPA 13D
NUMBER OF SYSTEMS: 1
SYSTEM TYPE(S): WET ANTI-FREEZE DRY PREACTION
TOTAL SPRINKLERS: 46
SPECIAL NOTES: SEE FIRE SPRINKLER NOTES THIS SHEET



HANGER DETAILS

SPRINKLER SPACING

1. A SINGLE PENDENT SPRINKLER MAY BE SPACED AT A MAXIMUM OF 18'x18' (324 SQ. FT.) OR UP TO 9' OFF A WALL.

2. TWO OR MORE HEADS IN A COMPARTMENT SHALL BE SPACED AT A MAXIMUM OF 16'x16' (256 SQ. FT.) OR UP TO 8' OFF A WALL.

3. SPRINKLERS SHALL BE MEASURED AT PERPENDICULAR ANGLES TO WALLS AND ALONG THE SLOPES OF CEILINGS.

SPRINKLER HEAT ZONES:

HEAT SOURCE:	ORDINARY TEMP. SPRINKLER	INTERMEDIATE TEMP. SPRINKLER
SIDE OF OPEN OR RECESSED FIRE PLACE	36"	12"
FRONT OF RECESSED FIRE PLACE	60"	36"
COAL OR WOOD BURNING STOVE	42"	12"
RANGE/OVEN, HOT AIR FLEXES & UNINSULATED HOT WATER PIPES & 250-699 WATT LIGHTS	18"	6"
SIDE OF CEILING OR WALL MOUNTED	12"	6"
HOT AIR DIFFUSERS	24"	12"
FRONT OF WALL MOUNTED HOT AIR DIFFUSERS	36"	18"
HOT WATER HEATER, FURNACE, LIGHT FIXTURE	6"	3"

PIPE VOLUMES:

(Based on Actual Internal Pipe Diameter)

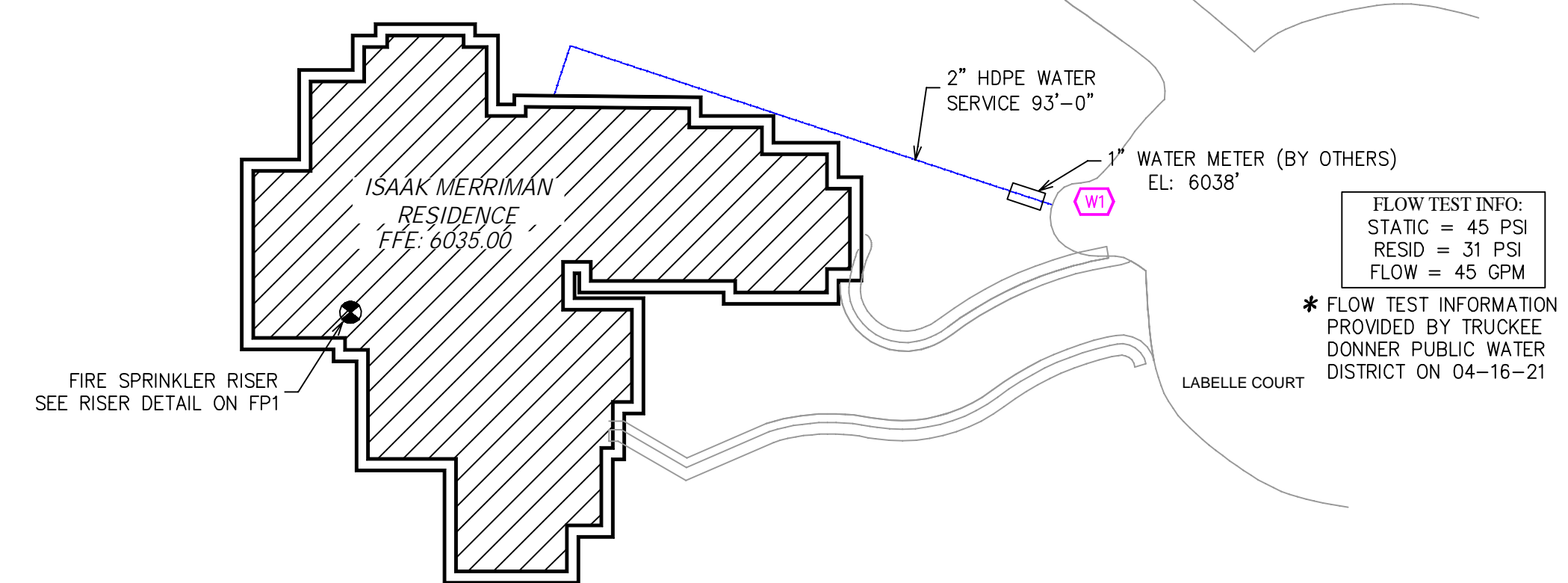
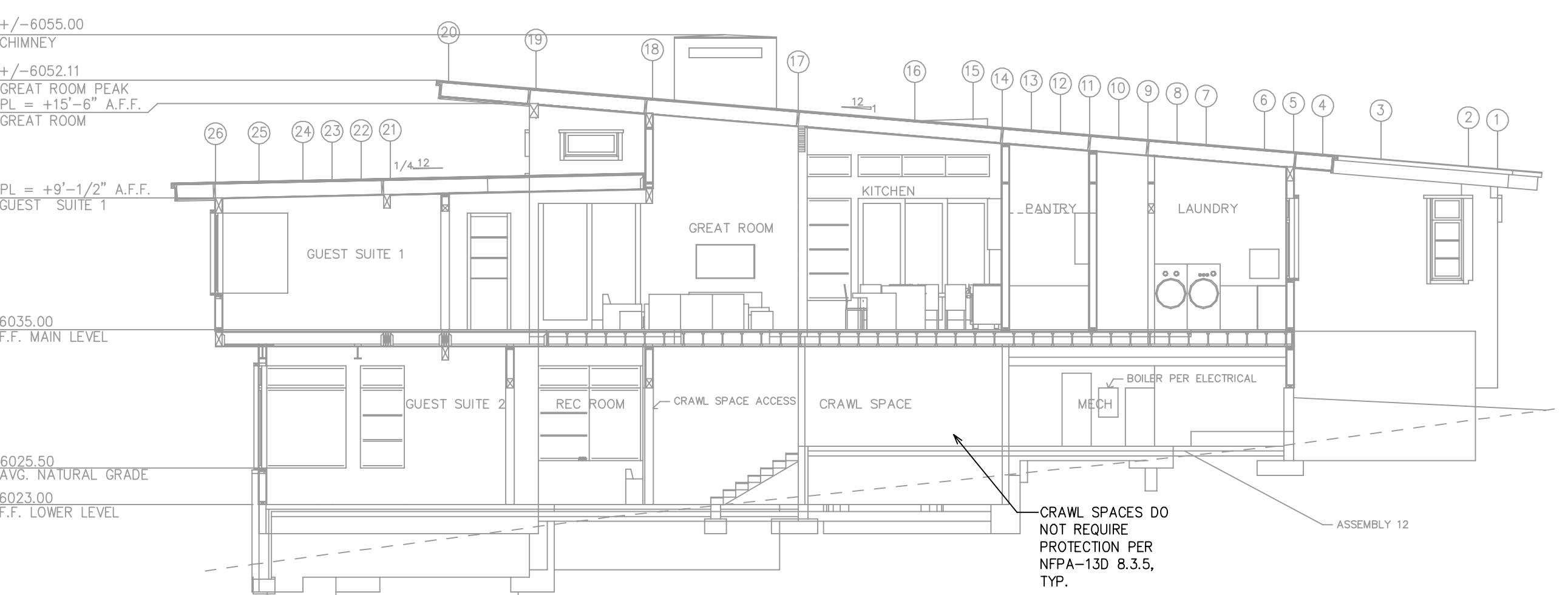
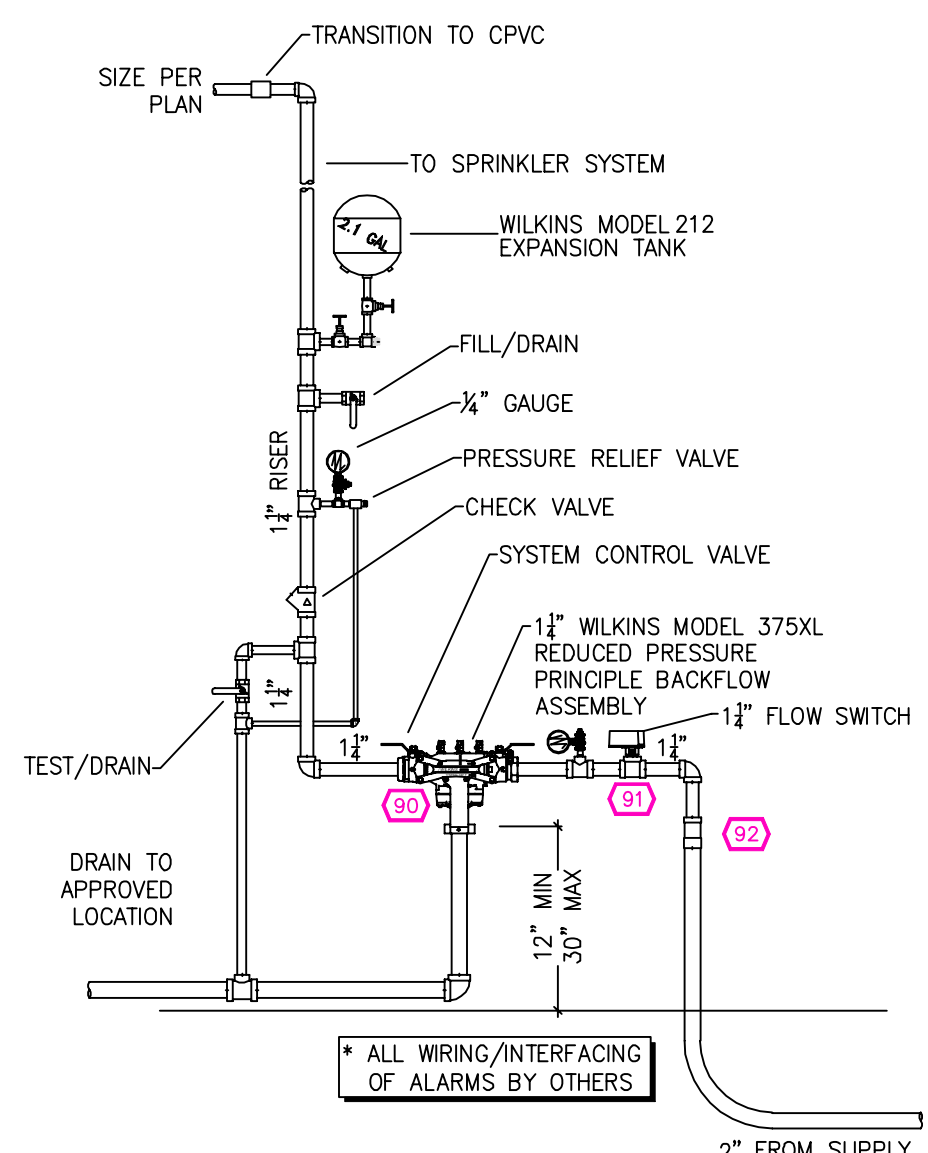
TOTAL PIPE FOOTAGE AND CAPACITY:
1" = 218' (10.94 GAL)
1 1/2" = 219' (17.51 GAL)

ADD 10% FOR DROPS AND PIPE SIZE DISCREPANCIES
TOTAL VOLUME: ± 31.29 GALLONS

THIS FIRE SPRINKLER SYSTEM UTILIZES THE TYCO LFP ANTI-FREEZE SOLUTION

PROJECT SQUARE FOOTAGES
LOWER FLOOR = 2,118 S.F.
UPPER FLOOR = 3,114 S.F.

NO SPRINKLERS REQUIRED IN:
BATHROOMS 55 SQ. FT. OR LESS IN AREA PER NFPA 13D SECTION 8.6.2
CLOSETS 24 SQ. FT. OR LESS IN AREA PER NFPA 13D SECTION 8.6.3



NFPA 13 - Table 9.2.2.1(a) Maximum Distance Between Hangers (ft-in.)									
	Nominal Pipe Size (in.)								
	¾	1	1¼	1½	2	2½	3	4	8
Steel Pipe except threaded lightwall	N/A	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0
Threaded lightwall steel pipe	N/A	12-0	12-0	15-0	15-0	15-0	15-0	N/A	N/A
Copper tube	8-0	8-0	10-0	10-0	12-0	12-0	12-0	15-0	15-0
CPVC	5-6	6-0	6-6	7-0	8-0	9-0	10-0	N/A	N/A

NFPA 13 - Table A.7.2.3 Capacity of 1 ft of pipe (Based on Actual Internal Pipe Diameter)

Nominal Pipe Diameter (in.)	Schedule 40 Schedule 10	CPVC
1	0.045	0.049
1 1/4	0.078	0.085
1 1/2	0.106	0.115
2	0.174	0.190
2 1/2	0.248	0.263

SUBMITTAL

NO.	DATE	REVISIONS	DRAWN	CHECKED
1	12/10/2021			

GENERAL CONTRACTOR: TOWN OF TRUCKEE BUILDING DIVISION
AUTHORITY HAVING JURISDICTION: CITY OF FERNLEY
ADDRESS: 195 E MAIN ST
CITY: FERNLEY
PHONE: 775-575-3310
CONTACT: [REDACTED]
ARCHITECT: FIELD INSPECTIONS:
ADDRESS: 2
CITY: 3
PHONE: 4

FIRE SPRINKLER NOTES:

1. THE PROPOSED FIRE SPRINKLER SYSTEM IS AN ANTI-FREEZE SYSTEM AND SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 13D AND THE AUTHORITY HAVING JURISDICTION.
2. THIS SPRINKLER SYSTEM IS HYDRAULICALLY CALCULATED IN ACCORDANCE WITH NFPA 13D TO PROVIDE 0.05 GPM PER SQ. FT. OVER THE MOST REMOTE AREA.
3. THE NUMBER OF DESIGN SPRINKLERS SHALL INCLUDE ALL SPRINKLERS WITHIN A COMPARTMENT UP TO A MAXIMUM OF 2 SPRINKLERS.
4. ALL SPRINKLER PIPING CONCEALED ABOVE CEILINGS SHALL BE CPVC PIPING UNLESS OTHERWISE NOTED.
5. ALL DIMENSIONS SHOWN ARE CENTER TO CENTER U.O.N. AND/OR NFPA 13 REQUIREMENTS.
7. HOLES THROUGH SOLID STRUCTURAL MEMBERS SHALL BE PERMITTED TO SERVE AS HANGERS FOR THE SUPPORT OF SYSTEM PIPING.
8. ALL SYSTEM PIPING SHALL BE TESTED FOR LEAKAGE AT NORMAL SYSTEM OPERATING PRESSURE.
9. THE OWNER SHALL BE RESPONSIBLE FOR MAINTAINING A MINIMUM TEMPERATURE OF 40° FAHRENHEIT TO PROTECT FROM FREEZING. THE SECTIONS OF THE SPRINKLER SYSTEM WHERE THERE IS NO ANTI-FREEZE IN THE PIPING (UPSTREAM OF THE RISER).

SPRINKLER HEAD LEGEND

SYM	QTY	TYPE	WHS.	MODEL	K	TEMP	FINISH	S.N.
1	35	CONCEALED	RENU	RC-RES	1/2"	4.9	162	WHITE
2	2	CONCEALED	RENU	RC-RES	1/2"	4.9	175	WHITE
8	8	RECESSED	RENU	PR-RES	1/2"	4.9	162	WHITE
1	1	RECESSED	RENU	PR-QR	1/2"	5.6	205	WHITE

46 TOTAL SPRINKLERS ON THIS SHEET

FIRE SPRINKLER SYMBOLS

⊕	AUTOMATIC SPRINKLER RISER	+13" ELEV. BELOW DECK OR TOS
⊕	EARTHQUAKE BRACING	+12"-9" ELEV. ABOVE FINISHED FLOOR
⊕	2-WAY & 4-WAY	CHANGE ELEVATION UP
⊕	PIPE HANGER & TYPE DESIGNATION	CHANGE ELEVATION DN
⊕	HYDRAULIC RES. PT	INSPECTORS TEST
⊕	GRID OR THIRD CAP	AUX DRAIN
⊕	GRID COUPLING	REVISION NOTATION
⊕	TYPICAL POINT OF CONNECTION (POC)	LOCAL ALARM
⊕		RESTRAINT



PROJECT NAME: FIRE SPRINKLER PLANS FOR ISAAK - MERRIMAN RESIDENCE
10811 LABELLE COURT
TRUCKEE, CA 96161

DRAWING TITLE: FIRE SPRINKLER PLAN

SCALE: 1/8"=1'-0"	JOB NO.:
DRAWN BY: [REDACTED]	DWG NO.:
BORN ON DATE: 12/10/2021	FP-1
FILE: [REDACTED]	SHEET 1 OF 1