# SUBMITTAL

NO SPRINKLERS REQUIRE	ED IN:
BATHROOMS 55 SQ.FT. OR LES PER NFPA 13D SECTION 8	S IN ARE
CLOSETS 24 SQ.FT. OR LESS I PER NFPA 13D SECTION 8	N AREA .6.3

PROJECT SQUARE FOOTAGES  $\begin{array}{rcl} \text{LOWER FLOOR} &=& 1279 \text{ S.F.} \\ \text{MAIN FLOOR} &=& 2689 \text{ S.F.} \end{array}$ 

UPPER FLOOR = 592 S.F.

NFPA 13 - Table 9.2.2.1(a) Maximum Distance Between Hangers (ft-in.)										
	Nominal Pipe Size (in.)									
	3⁄4	1	11⁄4	11/2	2	21/2	3	4	6	8
Steel Pipe except threaded lightwall	N/A	12-0	12-0	15-0	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	N/A
Copper tube	8-0	8-0	10-0	10-0	12-0	12-0	12-0	15-0	15-0	15-0
CPVC	5-6	6-0	6-6	7-0	8-0	9-0	10-0	N/A	N/A	N/A

## SPRINKLER SPACING

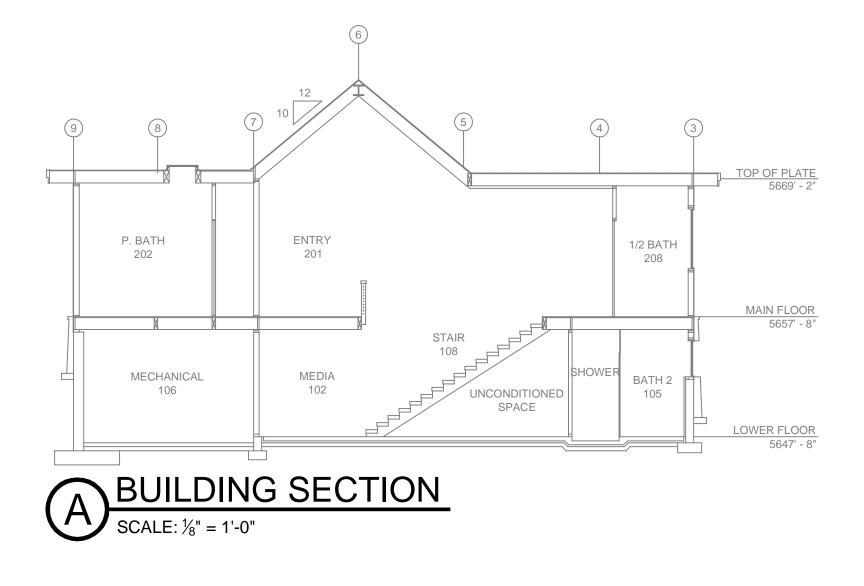
- A SINGLE PENDENT SPRINKLER MAY BE SPACED AT A
- MAXIMUM OF 18'x18'(324 sq. ft.) or UP to 9' off a WALL. (MINIMUM 8'-0" BETWEEN SPRINKLERS)
- TWO OR MORE HEADS IN A COMPARTMENT SHALL BE SPACED AT A MAXIMUM OF 18'x18'(324'SQ. FT.) OR UP TO 9' OFF
- A WALL. (MINIMUM 8'-0" BETWEEN SPRINKLERS) SPRINKLERS SHALL BE MEASURED AT PERPENDICULAR ANGLES
- TO WALLS AND ALONG THE SLOPES OF CEILINGS.

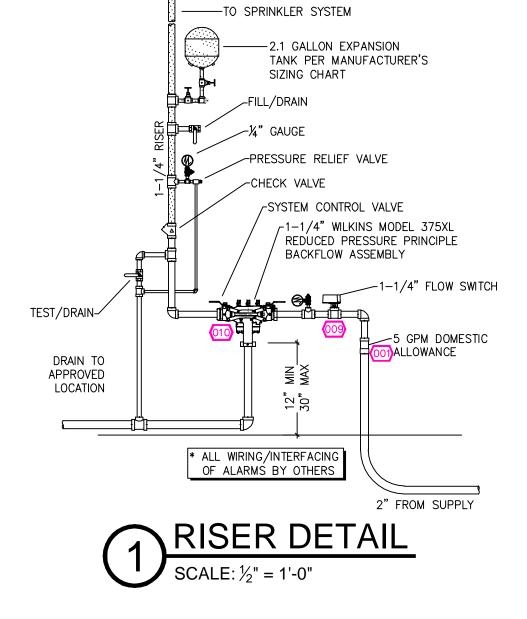
THIS FIRE SPRINKLER SYSTEM UTILIZES THE NOBLE COMPANY FIREFIGHTER ELIMINATOR ANTI-FREEZE SOLUTION

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 FLUES & UNINSULATED HEAT DUCT	18"	9"
UNINSULATED HOT WATER PIPES & 250–499 WATT LIGHTS	12"	6"
SIDE OF CEILING OR WALL MOUNTED HOT AIR DIFFUSERS	24"	12"
FRONT OF WALL MOUNTED HOT AIR DIFFUSE	RS 36"	18"
HOT WATER HEATER, FURNACE, LIGHT FIXTUR 0-250 WATT	E 6"	3"

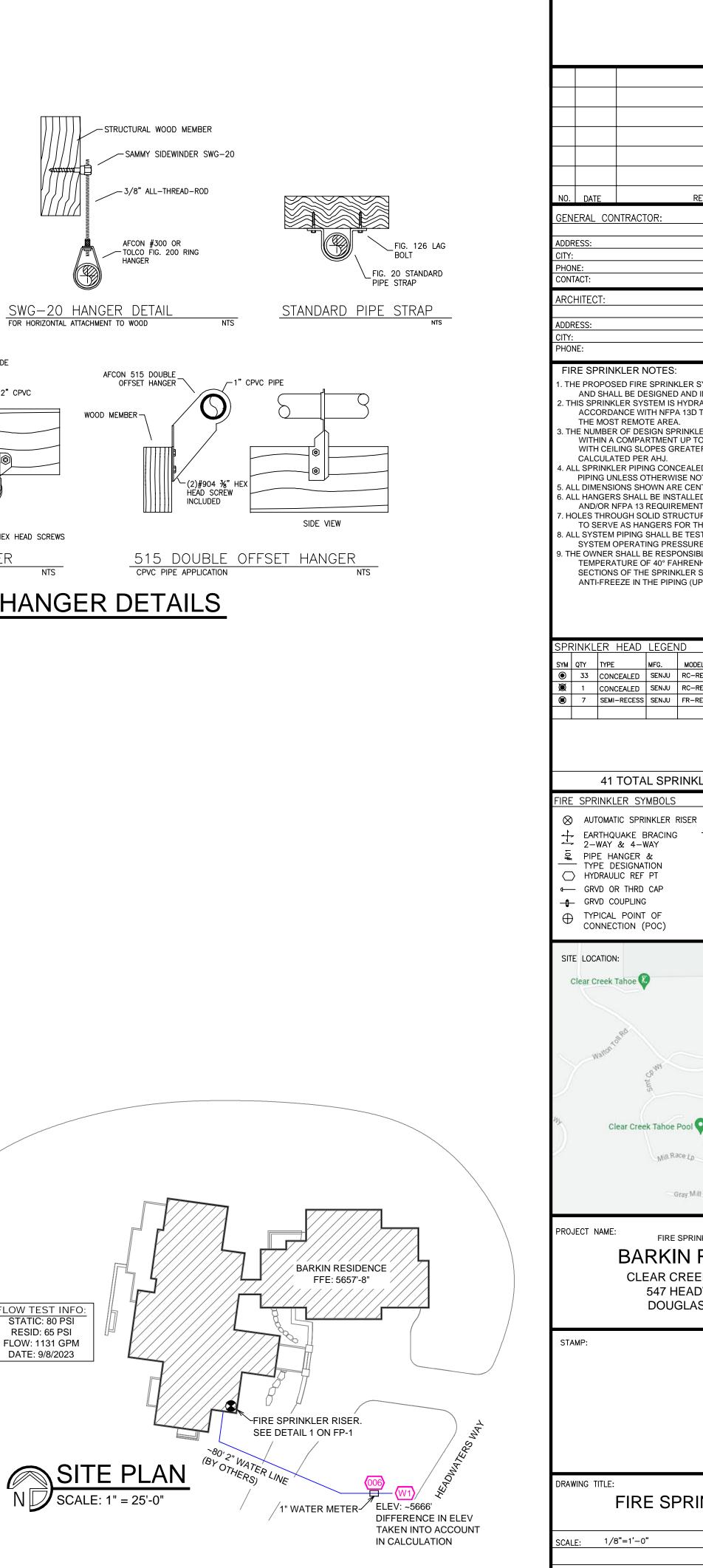
### **PROJECT SUMMARY:**

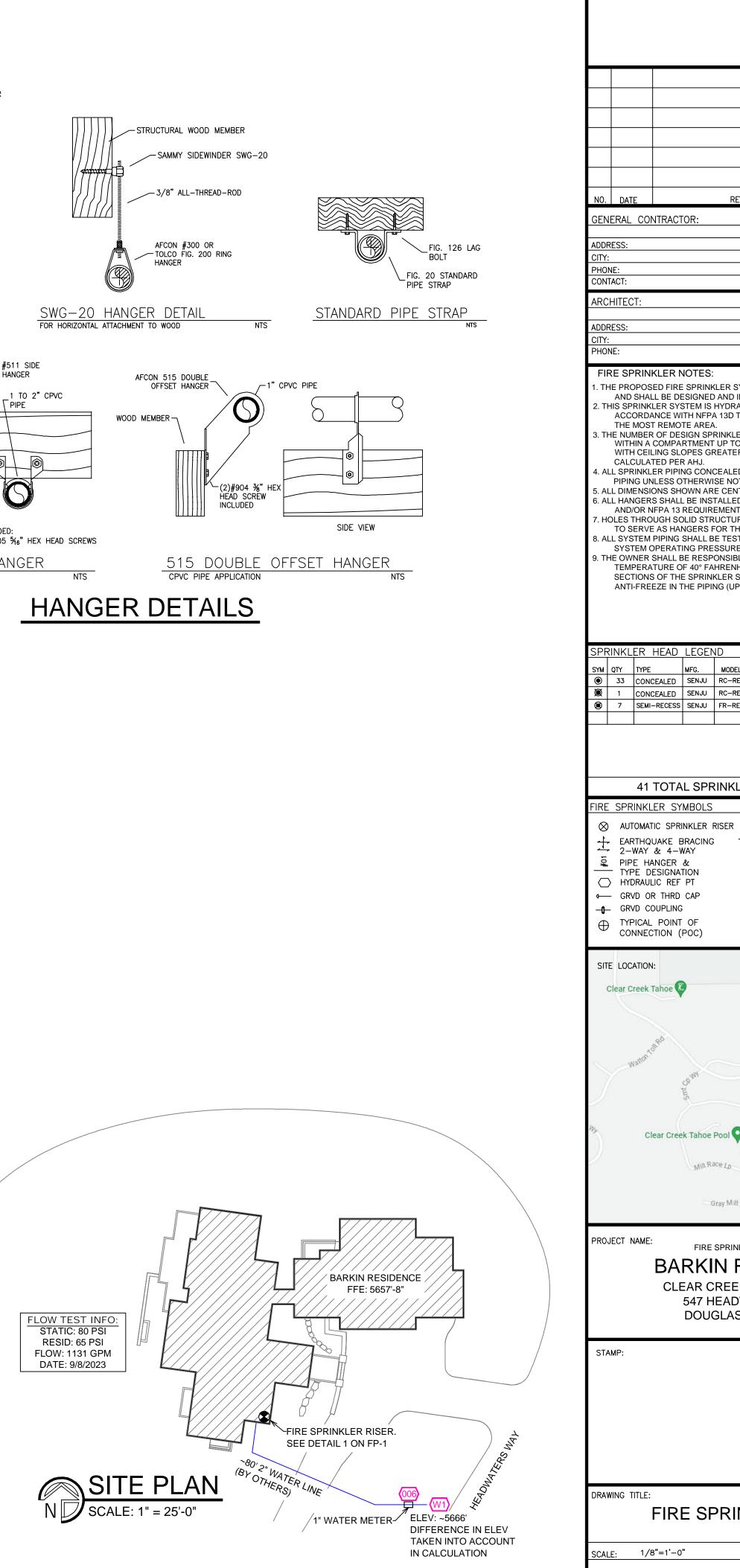
I IVOJECI DUMIMATVI.	
PROJECT NAME:	BARKIN RESIDENCE
PROJECT ADDRESS: 547 HEA	DWATERS WAY, CLEAR CREEK TAHO
APN:	<u>1419-03-002-156</u>
PROJECT TYPE:	NEW T.I.
TYPE OF CONSTRUCTION:	V
OCCUPANCY GROUP(S):	R3
OCCUPIED LEVELS:	3
TOTAL SPRINKLERED AREA:	4560 SQ. FT.
NFPA CODE REQUIREMENT:	□NFPA 13 □NFPA 13R ₩NFPA 13D
NUMBER OF SYSTEMS:	1
SYSTEM TYPE(S):	WET MANTI-FREEZE DRY PREACTI
TOTAL SPRINKLERS:	
SPECIAL NOTES:	SEE FIRE SPRINKLER NOTES THIS SHEET

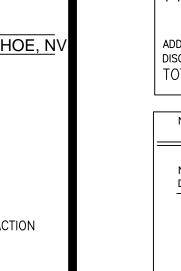




-TRANSITION TO CPVC





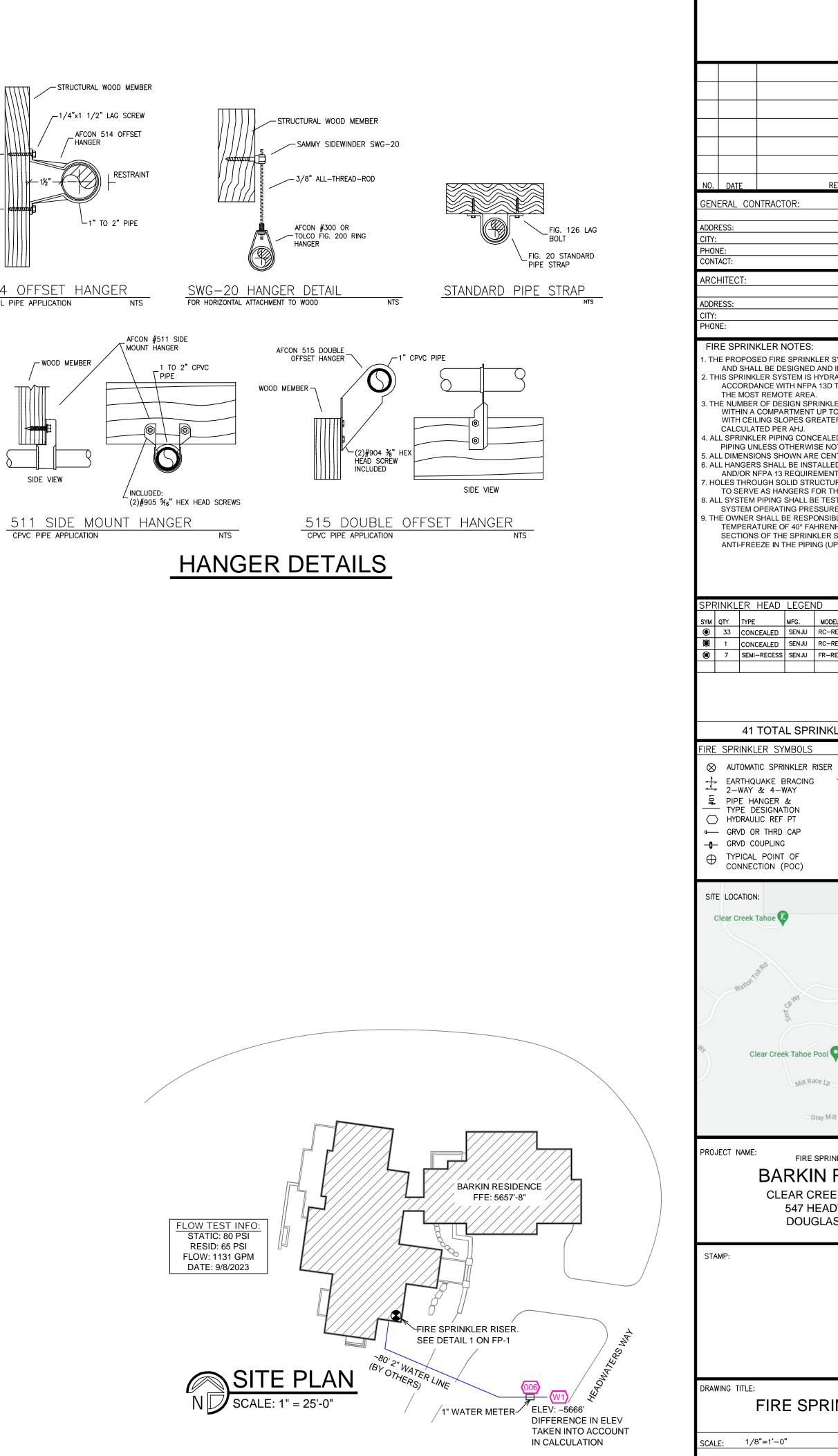


TOTAL PIPE FOOTAGI 1"= 326' 1-1/4"= 115'	E AND CAPA (16.12 G/ (9.12 GA	AL)				
ADD 10% FOR DROPS AND PIPE SIZE DISCREPANCIES TOTAL VOLUME: $\pm 27.76$ GALLONS						
NFPA 13 - Table A (Based on Actu	•		e			
Pipe Nominal Pipe Schedule 40 Schedule 10 CPVC Diameter (in.) (gal)						
1	0.045	0.049	0.049			
11⁄4	0.078	0.085	0.079			
11/2	0.106	0.115	0.104			
2	0.174	0.190				

0.248 0.283

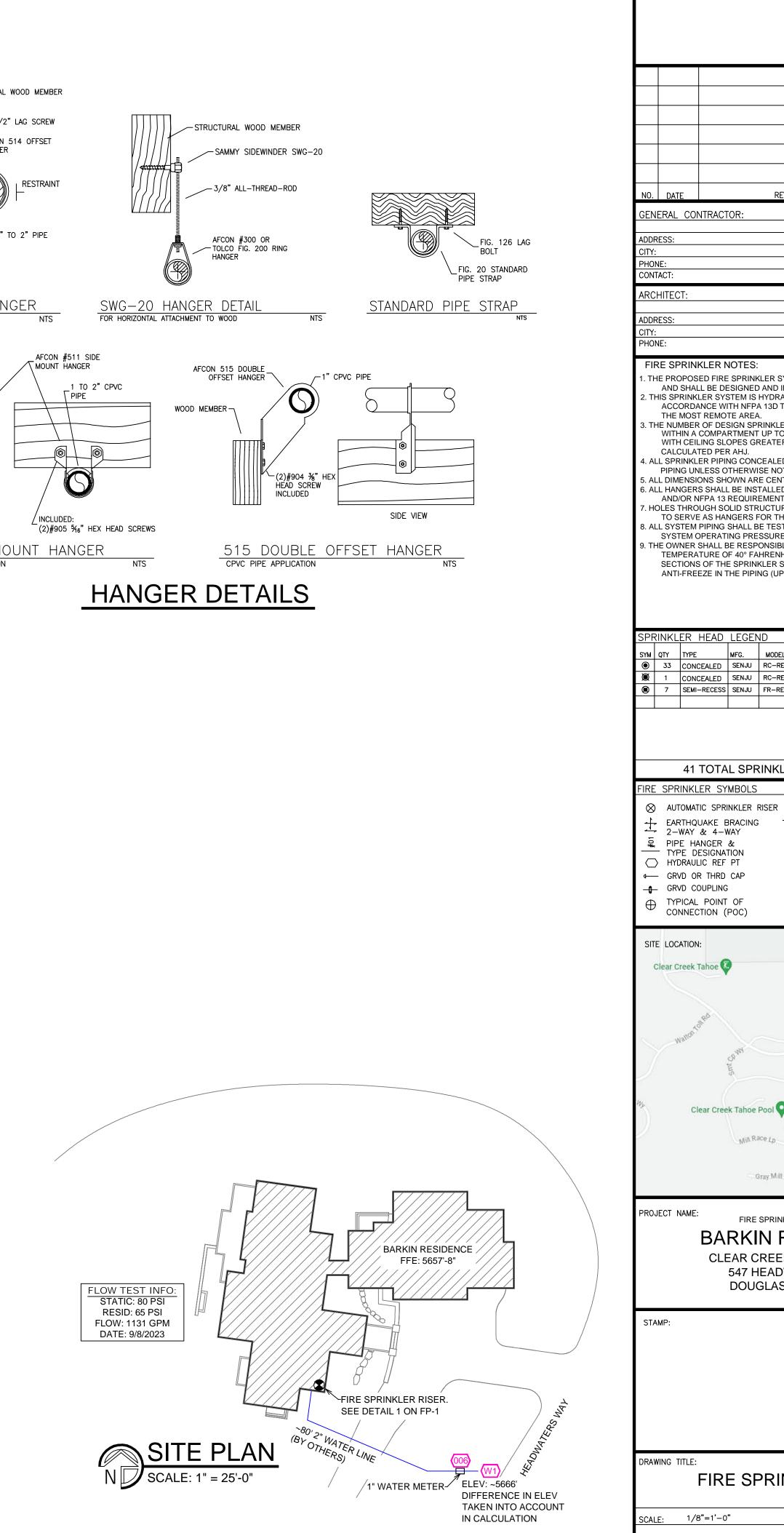
PIPE VOLUMES:

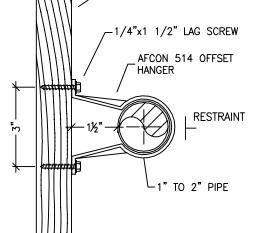
21/2

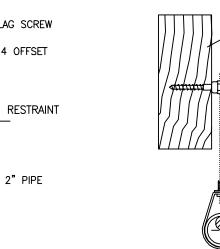




SIDE VIEW

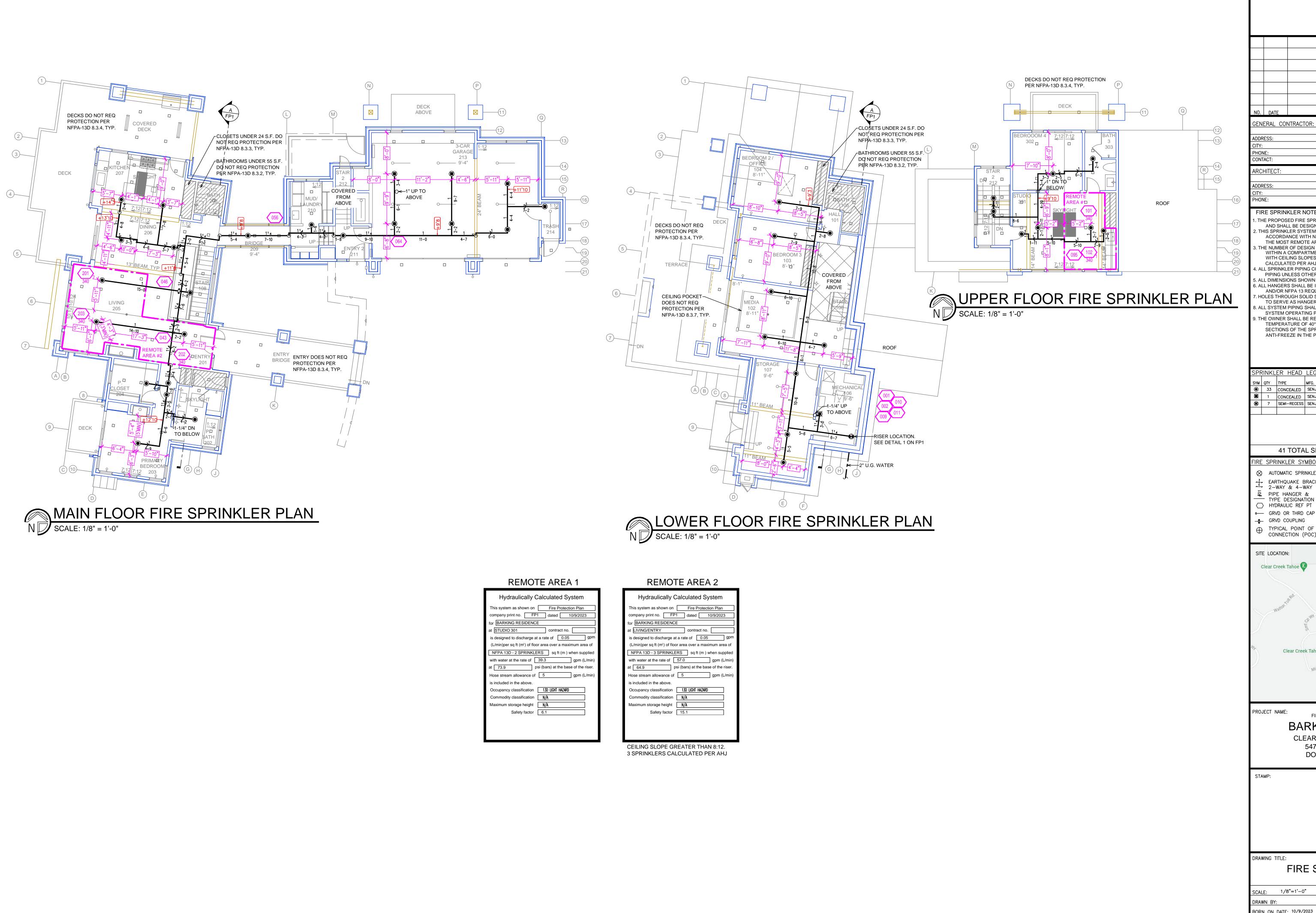






N0.	DAT	E			REVISI	ONS			DRAW	N CHECKED
GENERAL CONTRACTOR: AUTHORITY HAVING JURISDICTION: DOUGLAS CITY FIRE STATION										
ADDRESS:       ADDRESS: 96024 STEINER FLAT RD         CITY:       CITY: DOUGLAS CITY, CA         PHONE:       PHONE: 530-623-5110								LAIRD		
	CONTACT: CONTACT: ARCHITECT: FIELD INSPECTIONS: 1.									
ADDRESS:         2.           CITY:         3.										
1. TH 2. TH 3. TH 4. AL 5. AL 6. AL 7. HC 8. AL	E SP E PRC AND IIS SP ACCO THE E NUTH WITH CALC L SPR PIPIN L DIMI L DIMI L DIMI L DIMI L DIMI L SPR SYST E OW TEMI SECT	DPOS SHAI RINK ORDA MOS MBEF IIN A I CEII CULA IG UN IG UN IG UN IG UN IG UN IG IN IG IN IG IN IG IN IG IN IG IN IG IN IG IN IG IN IC IN IN IN IC IN IN IN IN IN IN IN IN IN IN IN IN IN I	ED FIRE LL BE DE LL RE SYS ANCE W T REMO COMPA LING SLI TED PEF ER PIPII ALESS C ONS SH S SHALL S SHALL PIPING DUGH SC DUGH SC E AS HAL PIPING DPERAT SHALL E TURE C S OF TH	ESIGNEI STEM IS ITH NFP TE ARE/ SIGN SP RTMENT OPES G R AHJ. NG CON ITHERW OWN AF _ BE INS REQUIR DLID STF NGERS I SHALL E ING PRE BE RESF IF 40° FA E SPRIN	KLER SYST D AND INST HYDRAULI A 13D TO F	ALLED CALLY PROVID SHALL MAXIMU HAN 8:1 BOVE C D. TO CE ACCOI MEMBI UPPOF FOR L FOR L TO PR FOR MA	IN ACC CALCU E 0.05 ( INCLU JM OF : 2, 3 SP EEILING NTER ( RDANC ERS SH EAKAG INTAIN OTECT HERE T	CORDA JLATEE GPM PI DE ALL 2 SPRII 2 SPRII 2 SPRII 3 S SHA J.O.N. E WITH IALL BE 3 YSTEM E AT N IING A FROM HERE	NCE WITH DIN ER SQ. FT NKLERS. ERS SHAL LL BE CP NFPA 13 E PERMIT PIPING. ORMAL MINIMUM 1 FREEZIN IS NO	H NFPA 13D C OVER LERS LL BE VC SD TED
	INKL QTY 33 1 7	TYPE CON CON	HEAD CEALED CEALED -RECESS	LEGEI MFG. SENJU SENJU SENJU	ND MODEL# RC-RES RC-RES FR-RES	NPT 1/2" 1/2" 1/2"	К 4.9 4.9 4.9	TEMP 162 205 205	FINISH WHITE WHITE WHITE	S.I.N. SS8464 SS8464 SS8464 SS4451
10#	EAR 2-V PIP TYF HYD GR\ GR\ TYF	RTHQ WAY E HA PE D DRAUI /D OI /D CO PICAL		BRACING WAY TION PT CAP	, 	'–9" El —● Cŀ —● Cŀ	EV. A IANGE IANGE SPECTO IX DRA	BOVE ELEVAT ELEVAT DRS TE IN NOTAT	FINISHEE TON UP TON DN ST	R TOS ) FLOOR
SITE	E LOC			,						
с		reek	Tahoe	,				<b>9</b> 39.	105516, -1	19,832494
				Shirs	GC	At Club D	1			
2		CI	ear Cree	k Tahoe	Pool	KIN do				
				Mill R	ace Lp	or Smt				
				9	Gray Mill Ct	& Golf Club				
PROJECT NAME: FIRE SPRINKLER PLANS FOR BARKIN RESIDENCE CLEAR CREEK TAHOE LOT 354 547 HEADWATERS WAY DOUGLAS COUNTY, NV										
STA	MP:									
ORAW	'ING T		FIR	E SF	PRIN	<le< td=""><td>ir f</td><td>PLA</td><td>N</td><td></td></le<>	ir f	PLA	N	
SCALI BORN			3"=1'-0				NO.: NO.:	FF	<b>-</b> 1	

SHEET <u>1</u> OF <u>2</u>



Hydraulically Calculated System							
This system as shown on     Fire Protection Plan       ompany print no.     FP1     dated     10/9/2023							
BARKING RESIDENCE							
STUDIO 301 contract no.							
s designed to discharge at a rate of 0.05 gpm							
(L/min)per sq ft (m <sup>2</sup> ) of floor area over a maximum area of							
NFPA 13D - 2 SPRINKLERS sq ft (m) when supplied							
vith water at the rate of 39.3 gpm (L/min)							
73.9 psi (bars) at the base of the riser.							
lose stream allowance of 5 gpm (L/min)							
s included in the above.							
Dccupancy classification 13D UGHT HAZARD							
Commodity classification N/A							
laximum storage height N/A							
Safety factor 6.1							

Hydraulically Calculated System
This system as shown on Fire Protection Plan
company print no. FP1 dated 10/9/2023
for BARKING RESIDENCE
at LIVING/ENTRY contract no.
is designed to discharge at a rate of 0.05 gpm
(L/min)per sq ft (m <sup>2</sup> ) of floor area over a maximum area of
NFPA 13D - 3 SPRINKLERS sq ft (m ) when supplied
with water at the rate of 57.0 gpm (L/min)
at 64.9 psi (bars) at the base of the riser.
Hose stream allowance of 5 gpm (L/min)
is included in the above.
Occupancy classification 13D LIGHT HAZARD
Commodity classification N/A
Maximum storage height N/A
Safety factor 15.1

									1	
N0.	DAT	E			REVISI	ONS			DRAW	N CHECKED
GEN	GENERAL CONTRACTOR: AUTHORITY HAVING JURISDICTION: DOUGLAS CITY FIRE STATION									
ADDR CITY:								024 S AS CIT	TEINER F TY, CA	LAT RD
PHON CONT						PHONE CONTA		-623-	5110	
ARCI	ARCHITECT: FIELD INSPECTIONS: 1.									
ADDR CITY:						2. 3.				
PHON		ייאוק		NOTES:		4.				
<ol> <li>THE PROPOSED FIRE SPRINKLER SYSTEM IS AN ANTI-FREEZE SYSTEM AND SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 13D</li> <li>THIS SPRINKLER SYSTEM IS HYDRAULICALLY CALCULATED IN ACCORDANCE WITH NFPA 13D TO PROVIDE 0.05 GPM PER SQ. FT. OVER THE MOST REMOTE AREA.</li> <li>THE NUMBER OF DESIGN SPRINKLERS SHALL INCLUDE ALL SPRINKLERS WITHIN A COMPARTMENT UP TO A MAXIMUM OF 2 SPRINKLERS. WITH CEILING SLOPES GREATER THAN 8:12, 3 SPRINKLERS SHALL BE CALCULATED PER AHJ.</li> <li>ALL SPRINKLER PIPING CONCEALED ABOVE CEILINGS SHALL BE CPVC PIPING UNLESS OTHERWISE NOTED.</li> <li>ALL DIMENSIONS SHOWN ARE CENTER TO CENTER U.O.N.</li> <li>ALL DIMENSIONS SHOWN ARE CENTER TO CENTER U.O.N.</li> <li>ALL HANGERS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13D AND/OR NFPA 13 REQUIREMENTS.</li> <li>HOLES THROUGH SOLID STRUCTURAL MEMBERS SHALL BE PERMITTED TO SERVE AS HANGERS FOR THE SUPPORT OF SYSTEM PIPING.</li> <li>ALL SYSTEM PIPING SHALL BE TESTED FOR LEAKAGE AT NORMAL SYSTEM OPERATING PRESSURE.</li> <li>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).</li> </ol>										
SPR	INKI	FR	HFAD	LEGEN	1D					
SYM	QTY	TYPE		MFG.	MODEL#	NPT	K	TEMP	FINISH	S.I.N.
() () () () () () () () () () () () () (	33 1 7	CONC	EALED EALED -RECESS	SENJU SENJU SENJU	RC-RES RC-RES FR-RES	1/2" 1/2" 1/2"	4.9 4.9 4.9	162 205 205		SS8464 SS8464 SS4451
FIRE ⊗ + ↓ 10# ○ ↓ ♣ ⊕	AUT EAF 2-\ PIP TYF HYE GR\ GR\ TYF	TOMAT RTHQI WAY E HA PE DI DRAUL /D OF /D OF /D CO	IC SPRI JAKE E & 4-V NGER ESIGNA IC REF IC REF THRD DUPLING POINT	& TION PT CAP	+12'	-9"EL ● CH ● CH	EV. A ANGE ANGE SPECTO X DRA VISION	BOVE ELEVAT ELEVAT DRS TE IN NOTAT	tion up tion dn st	R TOS ) FLOOR
Clear Creek Tahoe										
				Smile		If Club D				
M2			0010	k Tel	Deal	KM-				
		CI	ear Cree	k Tahoe	2	omt.cp				
				Mill Ra	ace Lp Smit Co	& Golf Club Dr				
PROJECT NAME: FIRE SPRINKLER PLANS FOR BARKIN RESIDENCE CLEAR CREEK TAHOE LOT 354 547 HEADWATERS WAY DOUGLAS COUNTY, NV										
				547 H	EADWA	ATER	SW	AY		
STA	MP:			547 H	EADWA	ATER	SW	AY	54	
STA	MP:			547 H	EADWA	ATER	SW	AY		
	MP: VING T		CLE	547 H DOU(	EADWA	ATER OUN	SW, TY, I	AY V		
DRAW	VING T E:	1/8	CLE	547 H DOUG	EADW/ GLAS C		SW, TY, I	AY V		
DRAW SCAL DRAW	VING T E: VN BY:	1/E :	FIRI	547 H DOUG	EADW/ GLAS C		S W, TY, I R F	AΥ ₩ PLA		