## NFPA 13 PERMIT

**Unified Fire Authority** Fire Prevention Division



Inspector: Danny Egbert: 801-743-7235ACCEPTEDDate: December 31, 2020Project: La Caille - TIAddress: 9565 Wasatch BlvdContractor: Fire Suppression Service, Inc.Designer: Kent JohnstonAddress: 3802 South 2300 East, Salt Lake City, Utah 84109Phone #: (801) 277-6464Occupancy: A-2

## Plan Review Comments:

- Third party review done by WC3. See letter dated December 14, 2020.
- Verify that there are no obstructions to fire sprinkler spray pattern development.

**Inspection** Notes:

December 14, 2020



Fire Suppression Service – FINAL FIRE REVIEW Client Permit No.: N/A WC<sup>3</sup> Job No.: 220-715-002

Arun Fire Suppression Service, Inc. 3802 South 2300 East Salt Lake City, UT 84109 Phone: 801-277-6464 arunFSS@live.com

## Re: Plan Review: La Caille - FSS Address: 9565 South Wasatch Boulevard, Sandy, UT

Mr. Mills:

West Coast Code Consultants, Inc. (WC<sup>3</sup>) has completed the final review of the following documents for the project referenced above on behalf of Fire Suppression Service, Inc.:

- 1. Fire suppression plans: dated 11/15/2020, by Fire Suppression Services.
- 2. Specifications: .

The 2018 IBC, IFC, IMC, 2017 NEC, and applicable NFPA standards, were used as the basis of our review. **Please** note that our review has been completed and we have no further comments, and no further submittals are required.

Please note that West Coast Code Consultants', Inc. (WC<sup>3</sup>) plan review is limited only to the provisions regulated and enforced by the State of Utah. Please be aware that additional comments in relation to this application may be generated by other divisions/departments within the jurisdiction. Please do not return plans until all comments from all applicable divisions/departments have been addressed.

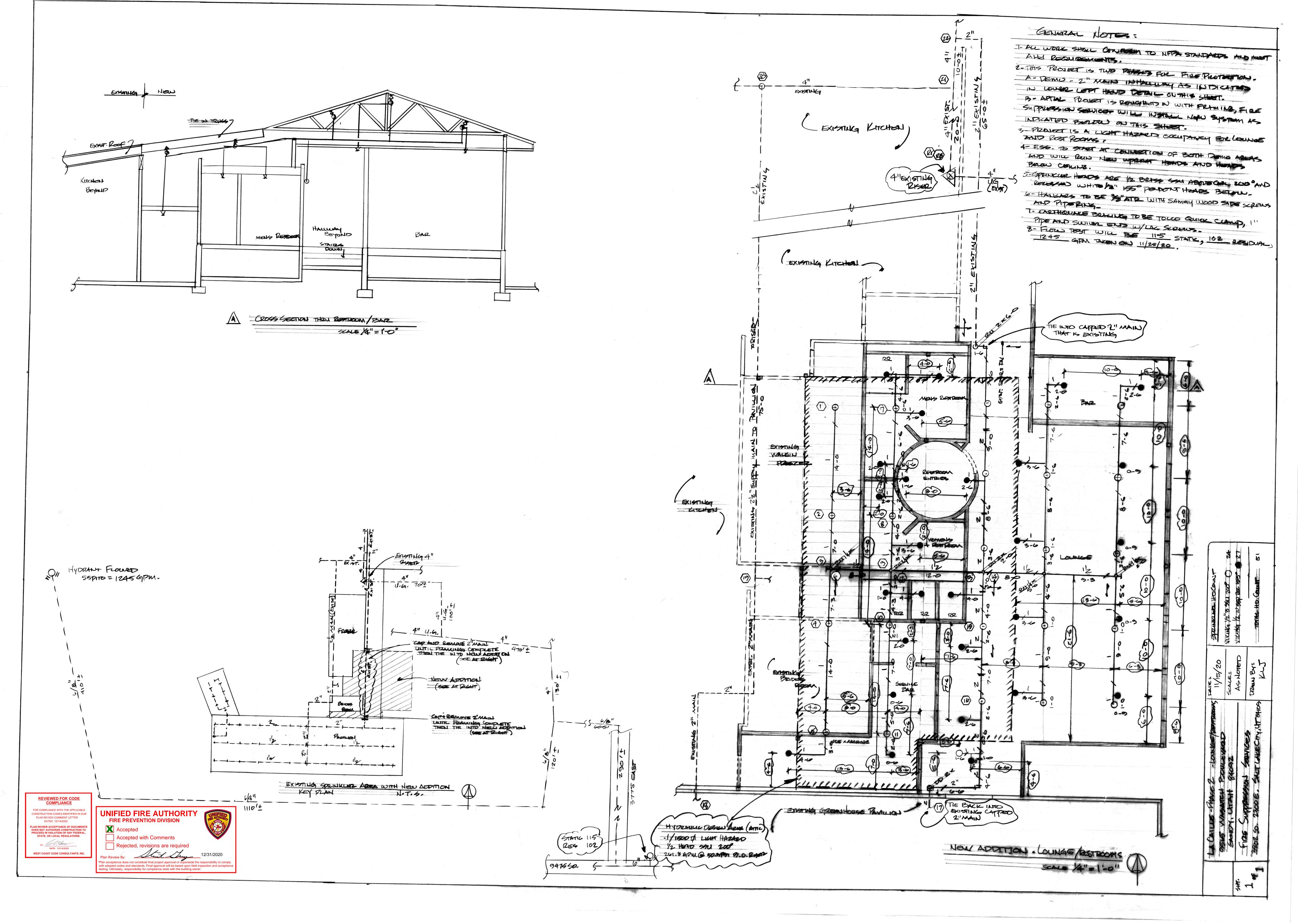
Please call if you have any questions or if we can be of further assistance.

Sincerely,

West Coast Code Consultants, Inc. (WC<sup>3</sup>) Fire Plan Review By: Craig Hanson, Fire & Life Safety Plans Examiner

cc: Fire Suppression Service, Inc. Staff

West Coast Code Consultants, Inc. 9131 South Monroe Plaza Way Suite A, Sandy, UT 84070 T | 385.237.3722 • www.wc-3.com



ENGINEERS : MAIN STREET FIRE PROTECTION. (801) 830-3856. ADDRESS : 9959 N Meadow Lane, Highland UT 84003.

LICENSE : DESIGNER : Kent Johnston DATE : 11-27-2020

FILE : C:\HYDRON59\La Caille Attic.HYD JOB NAME : La Caille Attic LOCATION : 9565 S Wasatch Boulevard Sandy, Utah

DESIGN DATA.

HAZARD :	LIGHT	HAZARD	ATTIC
DENSITY :	0.134	Sq Ft	
AREA PER SPRINKLER :	112	Sq Ft	
TOTAL CALCULATED AREA :	1456	Sq Ft	
TOTAL SPRINKLERS CALCULATED	: 13	Heads	

FLOW DATA.

TOTAL SPRINKLER FLOW	:	261.8 Gpm
TOTAL HOSE STREAM :		100.0 Gpm
TOTAL WATER REQUIRED	:	361.8 Gpm
BASE OF RISER NODE	:	RB
FLOW	:	261.8 Gpm
PRESS	:	50.3 Psi

AUTHORITY HAVING JURISDICTION : Draper UFA PHONE :

ENGINEERS : MAIN STREET FIRE PROTECTION. (801) 830-3856. ADDRESS : 9959 N Meadow Lane, Highland UT 84003. JOB : La Caille Attic DATE: 11-27-2020 FILE: C:\HYDRON59\La Caille Attic.HYD

SOURCE | STATIC : 115 Psi RESIDUAL : 102 Psi FLOW : 1245 Gpm

NODE NO.	ELEVATION Feet	K-FACTOR	PRESSURE Psi	DISCHARGE Gpm
1	16.0	5.60	7.0	14.8
2	16.0	5.60	7.9	15.7
3	16.0		10.9	
4	16.0	5.60	7.9	15.7
5	16.0	5.60	7.0	14.8
6	15.0		13.2	
7	16.0	5.60	7.5	15.3
8	16.0	5.60	8.4	16.3
9	16.0		11.7	
10	16.0	5.60	8.4	16.3
11	16.0	5.60	7.5	15.3
12	15.0		14.1	
13	15.0		19.1	
14	16.0		23.3	
15	16.0	5.60	23.5	27.2
16	16.0	5.60	23.9	27.4
17	10.0		32.5	
18	10.0		35.3	
19	10.0		40.7	
20	10.0		44.4	
21	10.0		44.6	
22	10.0		44.6	
23	16.0	5.60	25.2	28.1
24	16.0	5.60	24.3	27.6
25	16.0	5.60	23.8	27.3
RT	10.0		45.4	
RB	0.0		50.3	
CONN	0.0	SOURCE	52.2	361.8

HYDRONICS: COMMERCIAL FIRE SPRINKLER HYDRAULICS 5.9 - SUBMITTAL.

ENGINEERS : MAIN STREET FIRE PROTECTION. (801) 830-3856. ADDRESS : 9959 N Meadow Lane, Highland UT 84003. JOB : La Caille Attic DATE: 11-27-2020 File: C:\HYDRON59\La Caille Attic.HYD

SPRINKLERS FLOWING AREA PER SPRINKLER MIN SPRINKLER FLOW		13 112 15	Heads Sq Ft Gpm
REQUIRED DENSITY COMPUTED DENSITY	:	0.134	Gpm/Sq Ft Gpm/Sq Ft
TOTAL SPRINKLER FLOW INSIDE HOSE STREAM OUTSIDE HOSE STREAM TOTAL WATER REQUIRED TOTAL SPRINKLER PRESS FIXED PRESS LOSS	: : : : :	261.8 100 361.8 52.2 0.0	Gpm Gpm Gpm Psi Psi
SUPPLY PRESS AVAILABLE DEMAND PRESS REQUIRED PRESSURE CUSHION MAXIMUM VELOCITY	: :	113.7 52.2 61.5 18.6	Copyright (2018) Psi by Psi Hydronics Engineering Psi 34119 Fremont Bl, Suite 609 Fremont, CA 94555 F/S (800) 845-9819

HYDRONICS: COMMERCIAL FIRE SPRINKLER HYDRAULICS 5.9 - SUBMITTAL. Page 3

ENGINEERS : MAIN STREET FIRE PROTECTION. (801) 830-3856. ADDRESS : 9959 N Meadow Lane, Highland UT 84003. JOB : La Caille Attic

DATE: 11-27-2020 FILE: C:\HYDRON59\La Caille Attic.HYD

PIPE NO.	BEG END	ELEV FLOW (Feet) Gpm ELEV	FITTING TYPE DIAMETER	FTG FRI-LOSS	6 (Psi)
1		16.0 q= 14.8 Q= 14.8 Vel= 5.1	K= 5.60 L= F= F=	14.0 0.0 C= 120	Pt 7.0 Pt 7.0
	2	16.0			Pt 7.9
2	2	16.0 q= 15.7 Q= 30.5			Pt 7.9 Pt 7.9 Pe 0.0 Pv -0.7
		Vel= 10.5	D= 1.089 TL=	13.0 0.2367	Pf 3.1 Pn 7.1
	3	16.0			Pt 10.9
3	4	16.0 q = 14.8	K= 5.60 L=	14.0	Pt 7.9 Pt 7.9
5		Vel= 5.1	F= F= D= 1.089 TT=	0.0 C= 120 14.0 0.0622	
	5				Pt 7.0
4	3			7.0	Pt 10.9 Pt 10.9
4				6.0 C= 120 13.0 0.2367	
	4	16.0	D- 1.009 IL-	13.0 0.2367	Pf 3.1 Pn 10.2 Pt 7.9
	3		K= 0.00 L=	1.0	Pt 10.9 Pt 10.9
5		Q = 61.0	F = T = F = 1	7.0 C= 120	
	6	15.0	D= 1.420 TL=	8.0 0.2343	Pf 1.9 Pn 9.9 Pt 13.2
-	6	15.0 q= 0.0	K= 0.00 L=	8.0	Pt 13.2 Pt 13.2
6		Q= 61.0	F= F=	0.0 C= 120	Pe 0.0 Pv -0.6
	12	Vel= 9.1 15.0	D= 1.650 TL=	8.0 0.1128	Pf 0.9 Pn 12.6
-		15.0			Pt 14.1
7	7	16.0 q = 15.3	K= 5.60 L=	14.0	Pt 7.5 Pt 7.5
		Vel= 5.3	P = P = P = D = 1.089 TL = D = 1.089 TL = D = 0.089 TL = 0.089 T	14.0 0.0663	Pe 0.0 Pv -0.2 Pf 0.9 Pn 7.3
_	8	16.0			Pt 8.4
	8	16.0 q= 16.3	K= 5.60 L=	7.0	Pt 8.4 Pt 8.4
8		Q= 31.6	F = T = F =	6.0 C= 120	Pe 0.0 Pv -0.8
	9	16.0	D= 1.089 TL=	13.0 0.2525	Pf 3.3 Pn 7.6 Pt 11.7
8					
9	10	16.0 q= 15.3 0= 15.3			Pt 8.4 Pt 8.4 Pe 0.0 Pv -0.2
-		Vel= 5.3	D= 1.089 TL=	14.0 0.0663	
3 <u>440</u>	11	16.0			Pt 7.5

HYDRONICS: COMMERCIAL FIRE SPRINKLER HYDRAULICS 5.9 - SUBMITTAL. Page 4

ENGINEERS : MAIN STREET FIRE PROTECTION. (801) 830-3856. ADDRESS : 9959 N Meadow Lane, Highland UT 84003. JOB : La Caille Attic DATE: 11-27-2020 FILE: C.\HYDRONEQ

· 6 2	-	-21	-2020	면 그 나는 :	C:	\HIDRON59	\La	Caille	Attic.HYD	

PIPE NO.		(Feet) Gpm	FITTING TYPE DIAMETER	TOTAL (Psi/Ft)	PRESSURE (Psi)
10	9 10	16.0 q= 16.3 Q= 31.6	K= 5.60 L= F= T F=	7.0 Pt 6.0 C= 120 Pe 13.0 0.2525 Pf Pt	3.3 Pn 10.9 8.4
11	9 12	Q= 63.2	F= T F=	1.0 Pt 7.0 C= 120 Pe 8.0 0.2500 Pf Pt	0.4 Pv -1.1 2.0 Pn 10.6 14.1
12	12 13	15.0 q= 0.0 Q= 124.2 Vel= 18.6 15.0	F= F=	12.0 Pt 0.0 C= 120 Pe 12.0 0.4201 Pf	14.1 Pt 14.1 0.0 Pv -2.3 5.0 Pn 11.8 19.1
13	13 14	Q= 124.2	K= 0.00 L= F= T F=	2.0 Pt 9.0 C= 120 Pe 11.0 0.4201 Pf	191 D+ 101
14	14	Q= 63.1 Vel= 5.3	F= F=	7.0 Pt 0.0 C= 120 Pe	23.3 Pt 23.3 0.0 Pv -0.2 0.2 Pn 23.1
15	15	16.0 q= 27.2 Q= 90.2 Vel= 7.6 16.0	F= F=	7.0 Pt 0.0 C= 120 Pe 7.0 0.0570 Pf	23.5 Pt 23.5 0.0 Pv -0.4 0.4 Pn 23.1
-	16	16.0 q= 27.4 Q= 117.6 Vel= 9.9	F= 3ET F=	35.0 C= 120 Pe 65.0 0.0930 Pf	23.9 Pt 23.9 2.6 Pv -0.7 6.0 Pn 23.3
-		10.0 q= 0.0 Q= 117.6	K= 0.00 L= F= F=	30.0 Pt 0.0 C= 120 Pe 30.0 0.0930 Pf	32.5 Pt 32.5 0.0 Pv -0.7 2.8 Pn 31.9
-	 18 19	10.0 q= 0.0 p Q= 117.6 p	K= 0.00 L= F= 2ET F=	30.0 Pt 28.0 C= 120 Pe 58.0 0.0930 Pf	35.3 Pt 35.3 0.0 Pv -0.7 5.4 Pn 34.7 40.7

HYDRONICS: COMMERCIAL FIRE SPRINKLER HYDRAULICS 5.9 - SUBMITTAL. Page 5

ENGINEERS : MAIN STREET FIRE PROTECTION. (801) 830-3856. ADDRESS : 9959 N Meadow Lane, Highland UT 84003. JOB : La Caille Attic DATE: 11-27-2020 FILE: C:\HYDRON59\La Caille Attic.HYD

PIPE NO.	BEG END	(Feet) Gpm ELEV	FITTING TYPE DIAMETER	LENGTH C-FACTOR FTG FRI-LOSS TOTAL (Psi/Ft)	(Psi)
19	19	10.0 q= 0.0 Q= 117.6	K= 0.00 L= F= ET F=	78.0 30.0 C= 120	Pt 40.7 Pt 40.7 Pe 0.0 Pv -0.3 Pf 3.7 Pn 40.4
	20	10.0			Pt 44.4
20	20	10.0 q= 0.0 Q= 117.6	F= T F=	29.0 C= 120	Pt 44.4 Pt 44.4 Pe 0.0 Pv 0.0
	21	Vel= 2.6 10.0			Pf 0.2 Pn 44.4 Pt 44.6
21	21	Q= 144.1	K= 0.00 L= F= F=	6.5 0.0 C= 120	Pt. 44 6 Pt. 44 6
	22	Vel= 3.2 10.0	D= 4.310 TL=	6.5 0.0052	Pf 0.0 Pn 44.5 Pt 44.6
22	22	10.0 q= 28.1 Q= 144.1	K= 5.60 L=	82.5 42.0 C= 120	Pt 44.6 Pt 44.6
	23	Vel= 12.1 16.0	D= 2.203 TL=	124.5 0.1354	Pf 16.9 Pn 43.6 Pt 25.2
23	23	16.0 q= 27.6 Q= 116.0	K= 5.60 L= F= F=	9.0	Pt 25.2 Pt 25.2 Pe 0.0 Pv -0.6
	24	Vel= 9.8 16.0	D= 2.203 TL=	9.0 0.0907	Pf 0.8 Pn 24.5 Pt 24.3
24	24	16.0 q= 27.3 Q= 88.4		10.0 0.0 C= 120	Pt 24.3 Pt 24.3
-	25	Vel= 7.4 16.0	D= 2.203 TL=	10.0 0.0548	Pf 0.5 Pn 24.0 Pt 23.8
25	14	16.0 q= 27.3 Q= 61.1	K= 5.60 L= F= T F=	3.5 14.0 C= 120	Pt 23.3 Pt 23.3
_	25	Vel= 5.1 16.0	D= 2.203 TL=	17.5 0.0277	Pf 0.5 Pn 23.1 Pt 23.8
26	21	10.0 q= 0.0 0= 261.7	K= 0.00 L=		Pt 44.6 Pt 44.6
	RT	Vel= 5.8 10.0	D= 4.310 TL=	49.0 0.0155 I	Pf 0.8 Pn 44.4 Pt 45.4
27	RT	10.0 q= 0.0	K= 0.00 L=	10.0 I 32.0 C= 120 I	Pt 45.4 Pt 45.4
a and a	RB	Vel= 5.8 0.0	D= 4.310 TL=	42.0 0.0155 I	2f 0.7 Pn 45.1 Pt 50.3
-					

HYDRONICS: COMMERCIAL FIRE SPRINKLER HYDRAULICS 5.9 - SUBMITTAL. Page 6 ENGINEERS : MAIN STREET FIRE PROTECTION. (801) 830-3856. ADDRESS : 9959 N Meadow Lane, Highland UT 84003. JOB : La Caille Attic DATE: 11-27-2020 FILE: C:\HYDRON59\La Caille Attic.HYD ELEV FLOW (Feet) Gpm PIPE BEG K-FACTOR LENGTH C-FACTOR PRESSURE NO. FITTING TYPE FTG FRI-LOSS (Psi) END ELEV DIAMETER TOTAL (Psi/Ft) -----0.0 q= 0.0 K= 0.00 L= 110.0 RB Pt 50.3 Pt 50.3 Q= 261.7 F= ET F= 40.0 C= 140 Pe 0.0 Pv -0.2 28 Vel= 5.8 D= 4.280 TL= 150.0 0.0121 Pf 1.8 Pn 50.1 CONN 0.0 Pt 52.2 

E=90-Elb T=Tee L=LgtElb C=ChkVlv B=BfyVlv G=GatVlv A=AlmChk F=45-E

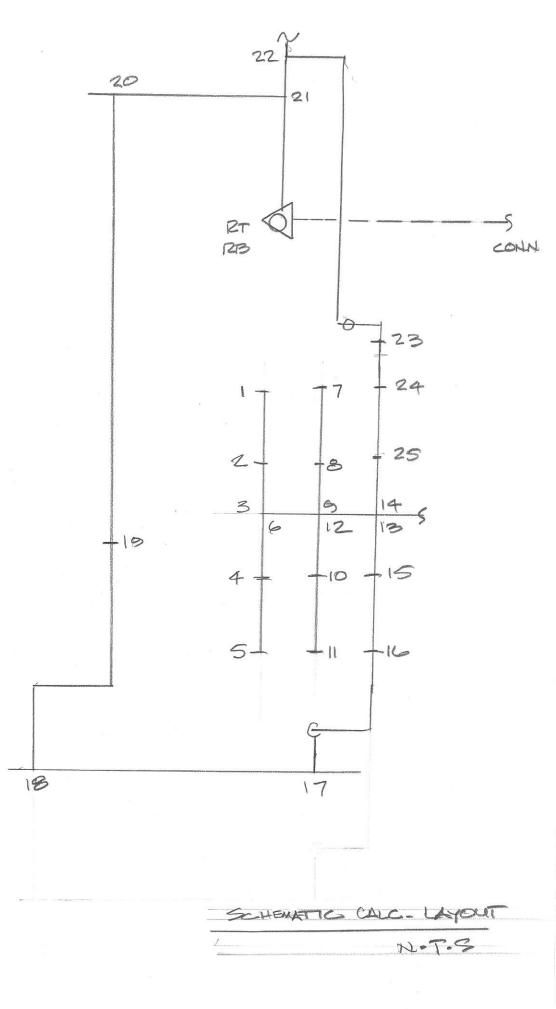
Q= 361.8

ENGINEERS : MAIN STREET FIRE PROTECTION. (801) 830-3856. ADDRESS : 9959 N Meadow Lane, Highland UT 84003. : 11-27-2020 FILE : C:\HYDRON59\La Caille Attic.HYD DATE JOB : La Caille Attic PSI FIRE SPRINKLER HYDRAULIC GRAPH 200 180 160 140 120 100 0 80 60 40 20 0 300 450 600 750 900 1050 1200 1350 1500 FLOW - GPM O------ Water Supply Static : 115 Psi Resid : 102 Psi Flow : 1245 Gpm • Water Demand Avl Press : 113.7 Psi @ 362 Gpm Req Press : 52.2 Psi @ 362 Gpm

Press Cush: 61.5 Psi

Copyright: Hydronics Engineering, 2017. 34119 Fremont Bl, Suite 609 Fremont, CA 94555. (800) 845-9819.

FLOW TEST DATA SHEET (174 SANDY CITY (UNINCORPORATED) SECTION\_ NAME OF PROPERTY\_ LA CAILLE RESTAURANT ADORESS \_ 9565 50. WAGATCH BLVD. SANDY, UTAH STATE LITAH DATE 11/25/20 TIME 11:00 A.M. Kim TEMPERATURE \_ 35° ± TYPE OF CITY SYSTEM GRAVITY\_\_\_\_ and Sharp Outlat Squara An Goal. 0.89 PUMPS\_\_\_\_\_ · Fig. 12-12. Three general types of hydrant outlets and their coefficients of disc COMBINATION X NOTES: O FLOWED HYDRINT ON PROPERTY . 2 FLESPKE MAIN COMES OFF 6/3" MAIN BETWEEN STATIC READING AND FIDE HYD TEST CONDUCTED BY I KENTNOHNKJON FIRE SUPPLESSION SERVICES WYNESSED BY: KINT LOHNSTON GHRALD STREBER (SADYF.D. INFO. 0127. JO: SANDY CITY FIRE DEPT. STEWART GRAY (UFA) DEPER City. z 1245 GPM HAZENWILLAMS 29.83 X. 9×6.25×1 55(10) 047/ET #1. SIZE\_2 AREA MAP PISIC PISIC # 1 LACAILE REPARRAN 115 STATIC (Frauer) 102 RESID. 124 PITOT 55 4" SUB. TOT. OUTLET "2 SIZE\_ 4 420 DIREC 14 GRG 6/8" STATIC 1110 RESID. PITOT M SUB. TOT. ADJUSTED TOTALS 947550.5TH STATIC OFLID



•