SMITH FIRE SYSTEMS, INC
1106 54TH AVENUE EAST TACOMA, WASHINGTON 98424
(253) 926-1880 Fax (253) 926-2350
CONTR. REG. NO. SMITHFS1360T

City of Puyallup Development & Permitting Services ISSUED PERMIT
Building | Planning | Engineering | Public Works | Fire | Traffic

GENERAL / HYDRAULIC CALCULATION INFORMATION SHEET

PROJECT NAME:	BRADLEY HEIGHTS	JOB NO. :	TC25207	OWNER :
	BUILDING H	DATE:	11/6/2025	CRP/TP BRADLEY HEIGHTS LLC
ADDRESS:	206 27TH AVE SE	BY:	A. RIDEOUT	AHJ :
	PUYALLUP, WA 98374			PUYALLUP

SYSTEM DESIGNATION: **SYSTEM #1 -L3 (4) HEAD COMPARTMENT**

DESIGN PER: **NFPA 13R (2019 EDITION)**

OCCUPANCY CLASSIFICATION: **RESIDENTIAL**

DESIGN CRITERIA:

NFPA SECTION:	**7.2.3**	SPRINKLER MANUFACTURER:	**RELIABLE**
AREA MODIFIER	**N/A**	K-FACTOR:	**4.9K**
		MODEL:	**F1RES49**
		TEMPERATURE:	**155°**
		RESPONSE TYPE:	**QR**
SYSTEM TYPE:	**WET**	TOTAL SPRINKLERS CALCULATED:	**4**
MAX CEILING HEIGHT:	**9'-1"**	MAX AREA OF COVERAGE PER SPRINKLER:	**256 SQ. FT**
CEILING HEIGHT:	**9'-1"**	MAX DISTANCE BETWEEN SPRINKLERS:	**16 FT**
ROOF SLOPE:	**4:12**		
CELING SLOPE:	**2:12**		
		FIRE PUMP:	N
		RATED CAPACITY OF PUMP:	N/A

DESIGN AREA

THE (4) HYDRAULICALLY MOST DEMANDING ADJACENT SPRINKLERS DELIVERING .05 GPM/SQ. FT. OR PER THE SPRINKLER LISTING, WHICHEVER IS MORE DEMANDING.

ALLOWANCES INCLUDED IN CALCULATIONS:		ADDED AT:
OUTSIDE HOSE	**0** GPM	CITY CONNECTION

WATER SUPPLY: ELEVATION OF TEST: 0 FT. ELEVATION OF LEVEL 1: 0 FT.

STATIC	**95** PSI	DATE OF TEST:	4/19/2001
RESIDUAL	**90** PSI	DATA PROVIDED BY:	FRUITLAND WATER
FLOW	**1055** GPM	LOCATION OF TEST:	FH @ 207 27TH AVE SE

MAIN DRAIN TEST:
S: R:
INSPECTORS TEST:
TRIP TIME:

WET SYSTEM NUMBER 1

AREA	SQ. FT.	SPRINKLERS
FLOOR 1	8400	85
FLOOR 2	8040	80
FLOOR 3	8296	90
TOTAL:	24,736	255

NOTES:

MOST DEMANDING AREA: SYS. 1

MOST DEMANDING (4) SPRINKLER(S) AT 7 PSI

BASE OF RISER: 64 GPM REQUIRED AT 54.1 PSI

SUMMARY: 64 GPM REQUIRED AT 66.7 PSI
AT CONNECTION TO **SOURCE**
(INCLUDING **0** GPM FOR HOSE STREAMS)

Expires 12/31/25
WASHINGTON STATE CERTIFICATE OF COMPETENCY FIRE SPRINKLER SYSTEMS
Aaron Stewart Nelson
2345-1019-C Level 3
Smith Fire Systems, Inc.
SMITHFS136OT
Signature — Date: 11/06/2025

SMITH FIRE SYSTEMS, INC.

WATER SUPPLY DATA		
STATIC	90	PSI
RESIDUAL	95	PSI
FLOWING	1055	GPM

JOB NAME	BRADLEY HEIGHTS APARTMENTS
ADDRESS	206 27TH AVE SE, BLDG H
DATE	PUYALLUP, WA 98374
JOB NO.	TC25207
SYSTEM/AREA	SYS 1: (4) 16x16 RES49

MOST DEMANDING AREA: SYS. 1

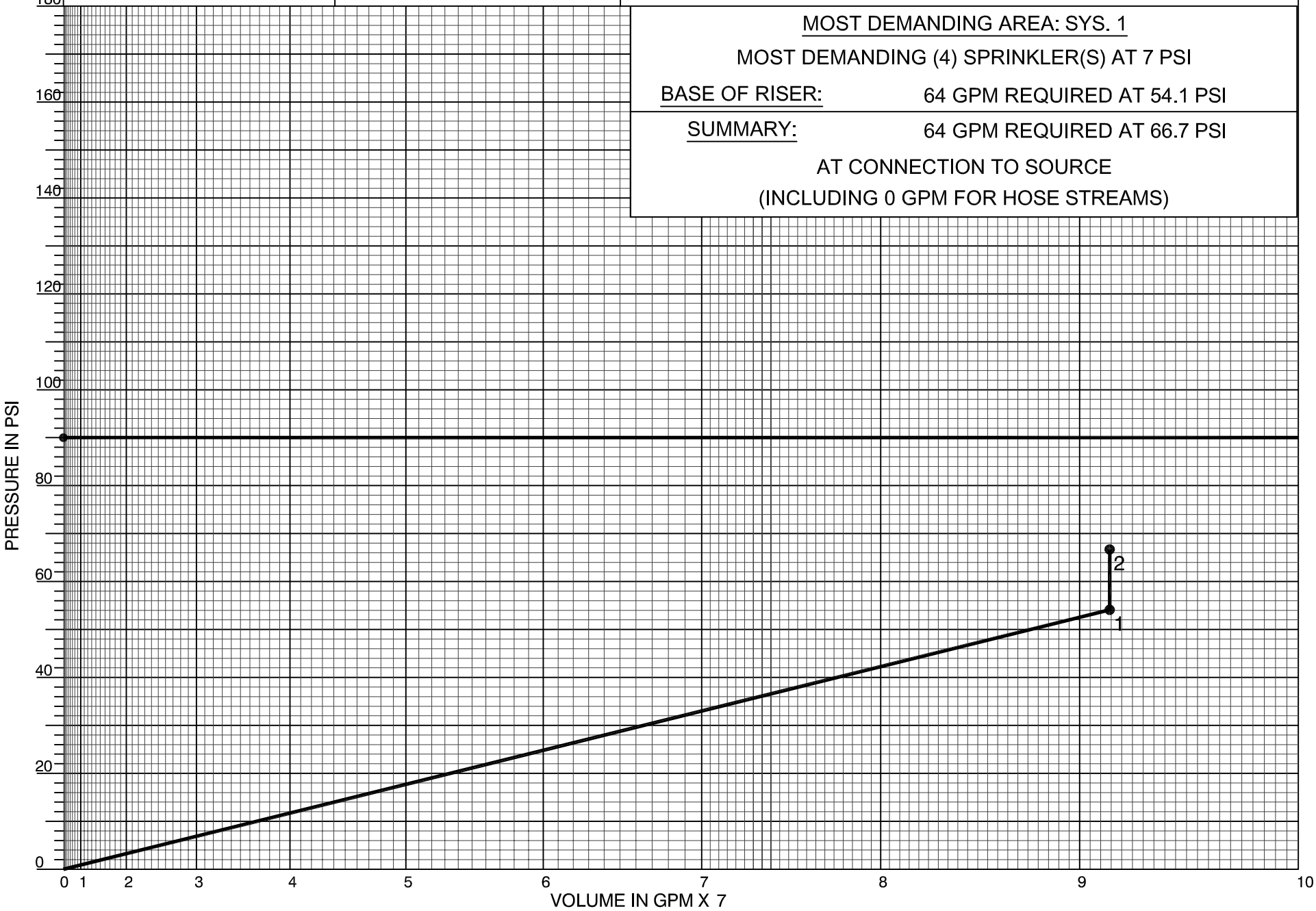
MOST DEMANDING (4) SPRINKLER(S) AT 7 PSI

BASE OF RISER: 64 GPM REQUIRED AT 54.1 PSI

SUMMARY: 64 GPM REQUIRED AT 66.7 PSI

AT CONNECTION TO SOURCE

(INCLUDING 0 GPM FOR HOSE STREAMS)



DATE: 11/6/2025RAULICS\HASS FILES\BUILDING H\H - (4) 16X16 RES49 7PSI.SDF
JOB TITLE: H - (4) 16x16 RES49 7PSI

WATER SUPPLY DATA

SOURCE NODE TAG	STATIC PRESS. (PSI)	RESID. PRESS. (PSI)	@ FLOW (GPM)	AVAIL. PRESS. (PSI)	@ TOTAL DEMAND (GPM)	REQ'D PRESS. (PSI)
SOURCE	95.0	90.0	1055.0	95.0	64.0	66.7

Available pressure is 28.3 psi (30%) greater than required pressure.

AGGREGATE FLOW ANALYSIS:

TOTAL FLOW AT SOURCE	64.0 GPM
TOTAL HOSE STREAM ALLOWANCE AT SOURCE	0.0 GPM
OTHER HOSE STREAM ALLOWANCES	0.0 GPM
TOTAL DISCHARGE FROM ACTIVE SPRINKLERS	64.0 GPM

NODE ANALYSIS DATA

NODE TAG	ELEVATION (FT)	NODE TYPE	PRESSURE (PSI)	DISCHARGE (GPM)
S2	30.3	K= 4.90	7.8	13.7
S3	31.9	K= 4.90	7.0	13.0
S4	29.3	K= 4.90	14.9	18.9
S5	32.4	K= 4.90	14.2	18.5
B1	29.8	- - - -	8.5	- - -
B2	29.8	- - - -	16.0	- - -
M2	29.8	- - - -	16.1	- - -
M3	29.8	- - - -	16.8	- - -
31	29.7	- - - -	16.9	- - -
01	9.5	- - - -	31.0	- - -
TOR	14.5	- - - -	50.9	- - -
BFP1	7.6	- - - -	54.1	- - -
BFP2	7.6	- - - -	61.1	- - -
UG1	0.0	- - - -	38.7	- - -
UG2	0.0	- - - -	40.0	- - -
UG3	2.5	- - - -	45.7	- - -
UG4	2.5	- - - -	47.3	- - -
UG7	5.0	- - - -	62.3	- - -
UG8	5.0	- - - -	62.3	- - -
UG9	-5.2	- - - -	66.7	- - -
SOURCE	-5.2	SOURCE	66.7	64.0

DATE: 11/6/2025RAULICS\HASS FILES\BUILDING H\H - (4) 16X16 RES49 7PSI.SDF
JOB TITLE: H - (4) 16x16 RES49 7PSI

PIPE DATA

PIPE TAG / END NODES	ELEV. (FT)	NOZ. (K)	PT (PSI)	DISC. (GPM)	Q(GPM) VEL(FPS)	DIA(IN) HW(C) FL/FT		LENGTH (FT)		PRESS. SUM. (PSI)
Pipe: 1					-13.7	1.101	PL	2.75	PF	0.4
S2	30.3	4.9	7.8	13.7	4.6	150	FTG	2T	PE	0.3
B1	29.8	0.0	8.5	0.0		0.034	TL	12.75	PV	
Pipe: 2					-13.0	1.101	PL	6.75	PF	0.5
S3	31.9	4.9	7.0	13.0	4.4	150	FTG	ET	PE	0.9
B1	29.8	0.0	8.5	0.0		0.030	TL	16.75	PV	
Pipe: 3					-18.9	1.101	PL	11.67	PF	1.3
S4	29.3	4.9	14.9	18.9	6.4	150	FTG	ET	PE	-0.2
B2	29.8	0.0	16.0	0.0		0.061	TL	21.67	PV	
Pipe: 4					-26.6	1.101	PL	31.17	PF	7.6
B1	29.8	0.0	8.5	0.0	9.0	150	FTG	6ET	PE	0.0
M2	29.8	0.0	16.1	0.0		0.115	TL	66.17	PV	
Pipe: 5					-18.9	1.598	PL	6.00	PF	0.1
B2	29.8	0.0	16.0	0.0	3.0	150	FTG	----	PE	0.0
M2	29.8	0.0	16.1	0.0		0.010	TL	6.00	PV	
Pipe: 6					-18.5	1.101	PL	14.42	PF	1.4
S5	32.4	4.9	14.2	18.5	6.2	150	FTG	2T	PE	1.2
M3	29.8	0.0	16.8	0.0		0.059	TL	24.42	PV	
Pipe: 7					-18.5	1.598	PL	5.25	PF	0.1
M3	29.8	0.0	16.8	0.0	3.0	150	FTG	T	PE	0.0
31	29.7	0.0	16.9	0.0		0.010	TL	13.25	PV	
Pipe: 8					-45.5	1.598	PL	7.75	PF	0.8
M2	29.8	0.0	16.1	0.0	7.3	150	FTG	T	PE	0.0
31	29.7	0.0	16.9	0.0		0.051	TL	15.75	PV	
Pipe: 9					-64.0	1.598	PL	20.24	PF	5.4
31	29.7	0.0	16.9	0.0	10.2	150	FTG	4ET	PE	8.8
01	9.5	0.0	31.0	0.0		0.095	TL	56.24	PV	
Pipe: 10					-64.0	1.598	PL	15.00	PF	3.5
01	9.5	0.0	31.0	0.0	10.2	150	FTG	2ET	PE	4.1
UG1	0.0	0.0	38.7	0.0		0.095	TL	37.00	PV	
Pipe: 11					-64.0	2.003	PL	25.08	PF	1.4
UG1	0.0	0.0	38.7	0.0	6.5	150	FTG	2E	PE	0.0
UG2	0.0	0.0	40.0	0.0		0.032	TL	43.08	PV	
Pipe: 12					-64.0	1.598	PL	55.00	PF	6.8
UG2	0.0	0.0	40.0	0.0	10.2	150	FTG	2T	PE	-1.1
UG3	2.5	0.0	45.7	0.0		0.095	TL	71.00	PV	
Pipe: 13					-64.0	2.003	PL	30.33	PF	1.5
UG3	2.5	0.0	45.7	0.0	6.5	150	FTG	2E	PE	0.0
UG4	2.5	0.0	47.3	0.0		0.032	TL	48.33	PV	

DATE: 11/6/2025RAULICS\HASS FILES\BUILDING H\H - (4) 16X16 RES49 7PSI.SDF
JOB TITLE: H - (4) 16x16 RES49 7PSI

PIPE TAG END NODES	ELEV. (FT)	NOZ. (K)	PT (PSI)	DISC. (GPM)	Q(GPM) VEL(FPS)	DIA(IN) HW(C) FL/FT	LENGTH (FT)	PRESS. SUM. (PSI)
Pipe: 16					-64.0	1.598 PL	44.00 PF	8.9
UG4	2.5	0.0	47.3	0.0	10.2	150 FTG	7E PE	-5.2
TOR	14.5	0.0	50.9	0.0		0.095 TL	93.00 PV	
Pipe: 17					-64.0	2.185 PL	6.92 PF	0.1
TOR	14.5	0.0	50.9	0.0	5.5	150 FTG	---- PE	3.0
BFP1	7.6	0.0	54.1	0.0		0.021 TL	6.92 PV	
Pipe: 18						FIXED PRESSURE LOSS DEVICE		
BFP2	7.6	0.0	61.1	0.0		7.0 psi, 64.0 gpm		
BFP1	7.6	0.0	54.1	0.0				
Pipe: 19					-64.0	4.100 PL	50.50 PF	0.1
BFP2	7.6	0.0	61.1	0.0	1.6	140 FTG	ET2G PE	1.1
UG7	5.0	0.0	62.3	0.0		0.001 TL	91.50 PV	
Pipe: 20					-64.0	8.270 PL	95.00 PF	0.0
UG7	5.0	0.0	62.3	0.0	0.4	140 FTG	TG PE	0.0
UG8	5.0	0.0	62.3	0.0		0.000 TL	148.00 PV	
Pipe: 21					-64.0	12.340 PL	460.00 PF	0.0
UG8	5.0	0.0	62.3	0.0	0.2	140 FTG	TFG PE	4.4
UG9	-5.2	0.0	66.7	0.0		0.000 TL	567.00 PV	
Pipe: 22					-64.0	6.160 PL	20.00 PF	0.0
UG9	-5.2	0.0	66.7	0.0	0.7	140 FTG	EG PE	0.0
SOURCE	-5.2	SRCE	66.7	(N/A)		0.000 TL	36.00 PV	

NOTES (HASS):

(1) Calculations were performed by the HASS 2023 D computer program in accordance with NFPA (2020) under license no. 64621553 granted by
HRS Systems, Inc.
208 Southside Square
Petersburg, TN 37144
(931) 659-9760

(2) The system has been calculated to provide an average imbalance at each node of 0.003 gpm and a maximum imbalance at any node of 0.067 gpm.

(3) Total pressure at each node is used in balancing the system. Maximum water velocity is 10.2 ft/sec at pipe 9.

(4) Items listed in bold print on the cover sheet

are automatically transferred from the calculation report.

(5) Available pressure at source node SOURCE under full flow conditions is 94.95 psi with a flow of 83.19 gpm.

(6) PIPE FITTINGS TABLE

User Pipe Table Name: SMITH

PAGE: D MATERIAL: DI HWC: 140

Diameter (in)	Equivalent Fitting Lengths in Feet E Ell	T Tee	F 45	C ChkVlv	B BfyVlv	G GatVlv
4.100	8.00	27.00	6.00	30.00	20.00	3.00
6.160	12.00	40.00	10.00	43.00	16.00	4.00
8.270	18.00	47.00	12.00	60.00	20.00	6.00
12.340	24.00	80.00	19.00	87.00	34.00	8.00

PAGE: P MATERIAL: CPVC HWC: 150

Diameter (in)	Equivalent Fitting Lengths in Feet E Ell	T Tee	F 45	R teeRun	C Coup	G Gva	B Bfy
1.101	5.00	5.00	1.00	1.00	1.00	1.00	4.00
1.598	7.00	8.00	2.00	1.00	1.00	1.00	6.00
2.003	9.00	10.00	2.00	1.00	1.00	2.00	7.00

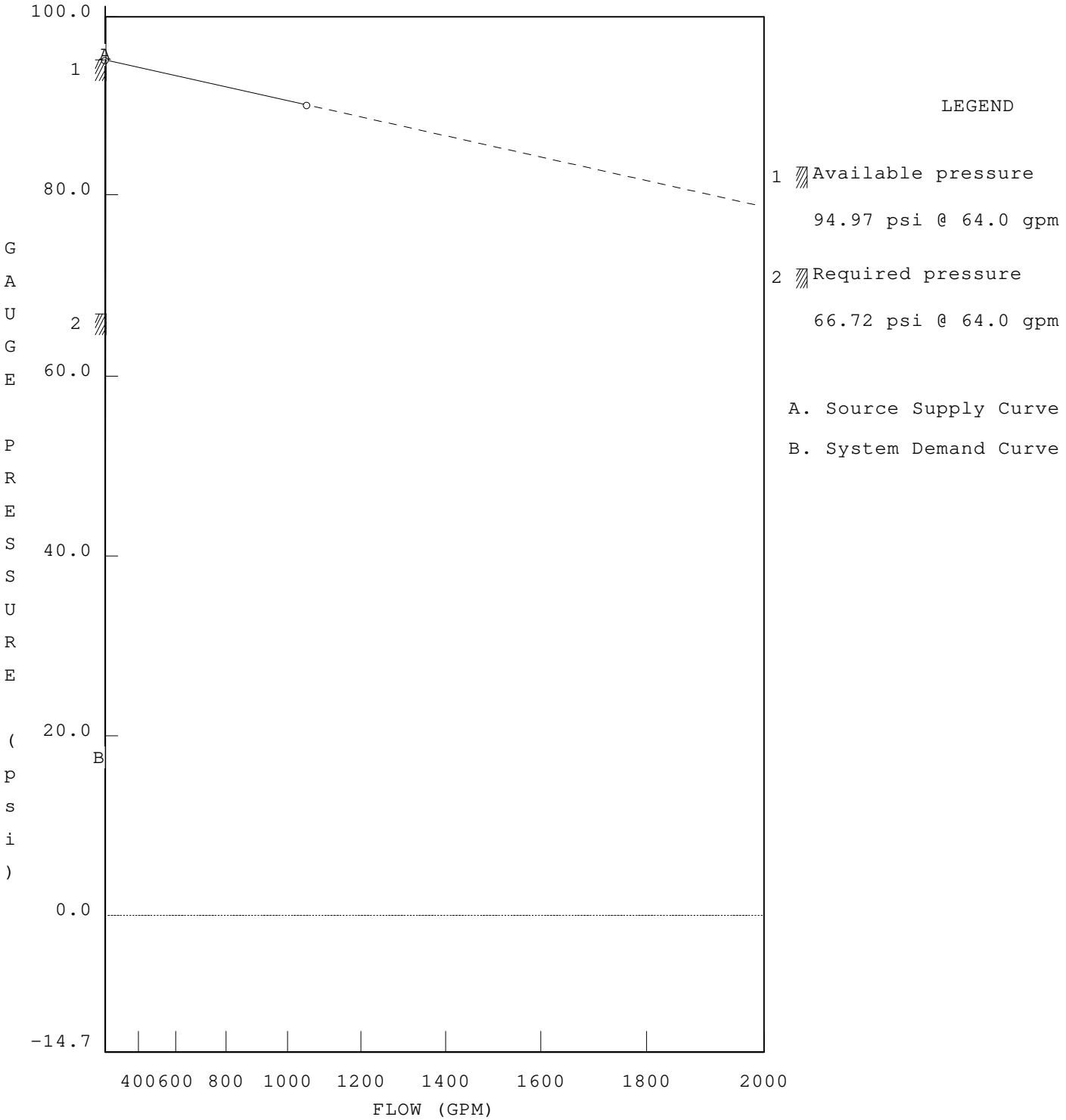
PAGE: Y MATERIAL: SCH7 HWC: 120

Diameter (in)	Equivalent Fitting Lengths in Feet E Ell	T Tee	F 45	C ChkVlv	B BfyVlv	G GatVlv	A AlmChk	D DPVlv	X fleX
2.185	4.60	15.20	2.40	14.40	6.20	1.00	12.40	12.40	0.00

DATE: 11/6/2025RAULICS\HASS FILES\BUILDING H\H - (4) 16X16 RES49 7PSI.SDF
JOB TITLE: H - (4) 16x16 RES49 7PSI

WATER SUPPLY ANALYSIS

Static: 95.00 psi Resid: 90.00 psi Flow: 1055.0 gpm



Note: (1) Dashed Lines indicate extrapolated values from Test Results

DATE: 11/6/2025RAULICS\HASS FILES\BUILDING H\H - (4) 16X16 RES49 7PSI.SDF
JOB TITLE: H - (4) 16x16 RES49 7PSI

WATER SUPPLY CURVE

```
   96*\\\\\\
     0      \\\\\\\
     |             \\\\\\
     |                  * <-90.0 psi @ 1055 gpm
   88+                      Flow Test Point
     |
     |
     |
   80+
     |
     |
     |
   72+
     |
     |
     X
 P 64+
 R   |
 E   |
 S   |
 S 56+
 U   |
 R   |
 E   |
   48+
 (   |
 P   |
 S   |
 I 40+
 )   |
     |
     |
   32+
     |
     |
     |
   24+
     |
     |
     |==============================
   16+            LEGEND            "
     |                              "
     | X = Required Water Supply    "
     |    66.72 psi @ 64.0 gpm      "
    8+                              "
     | 0 = Available Water Supply   "
     |    94.97 psi @ 64.0 gpm      "
     |                              "
    0++-+---+----+-----+------+--------+--------+---------+-----------+
       400 600  800  1000   1200     1400     1600      1800        2000
                                    FLOW (GPM)
```

SMITH FIRE SYSTEMS, INC.
JOB NO. TC25207
BRADLEY HEIGHTS: BUILDING H

SYSTEM # 1

L3 (4) DRY HSW

AUXILIARY HYDRAULIC CALCULATION

DENSITY: 0.1 GPM OVER 4 HEADS

SYSTEM DEMAND AT BASE OF RISER

64.5 GPM AT 43.1 PSI

DATE: 11/6/2025ILE\HYDRAULICS\HASS FILES\BUILDING H\H - (4) F3QR 7PSI.SDF
JOB TITLE: H - (4) F3QR 7PSI

WATER SUPPLY DATA

SOURCE NODE TAG	STATIC PRESS. (PSI)	RESID. PRESS. (PSI)	@ FLOW (GPM)	AVAIL. PRESS. (PSI)	@ TOTAL DEMAND (GPM)	REQ'D PRESS. (PSI)
SOURCE	95.0	90.0	1055.0	95.0	64.5	53.9

Available pressure is 41.0 psi (43%) greater than required pressure.

AGGREGATE FLOW ANALYSIS:

TOTAL FLOW AT SOURCE	64.5 GPM
TOTAL HOSE STREAM ALLOWANCE AT SOURCE	0.0 GPM
OTHER HOSE STREAM ALLOWANCES	0.0 GPM
TOTAL DISCHARGE FROM ACTIVE SPRINKLERS	64.5 GPM

NODE ANALYSIS DATA

NODE TAG	ELEVATION (FT)	NODE TYPE	PRESSURE (PSI)	DISCHARGE (GPM)
S6	29.3	K= 5.60	8.8	16.6
S7	29.3	K= 5.60	8.2	16.1
S8	29.3	K= 5.60	7.0	14.8
S9	29.3	K= 5.60	9.2	17.0
B3	29.8	- - - -	9.8	- - -
B4	29.8	- - - -	8.8	- - -
M3	29.8	- - - -	10.0	- - -
M4	29.8	- - - -	11.0	- - -
M5	29.8	- - - -	11.0	- - -
31	29.8	- - - -	10.3	- - -
32	32.3	- - - -	10.2	- - -
01	9.5	- - - -	19.7	- - -
02	12.0	- - - -	19.5	- - -
TOR	14.5	- - - -	38.1	- - -
BFP1	7.6	- - - -	41.2	- - -
BFP2	7.6	- - - -	48.2	- - -
UG1	0.0	- - - -	25.0	- - -
UG2	0.0	- - - -	25.4	- - -
UG3	2.5	- - - -	31.2	- - -
UG4	2.5	- - - -	32.8	- - -
UG7	5.0	- - - -	49.5	- - -
UG8	5.0	- - - -	49.5	- - -
UG9	-5.3	- - - -	53.9	- - -
SOURCE	-5.3	SOURCE	53.9	64.5

DATE: 11/6/2025ILE\HYDRAULICS\HASS FILES\BUILDING H\H - (4) F3QR 7PSI.SDF
JOB TITLE: H - (4) F3QR 7PSI

PIPE DATA

PIPE TAG / END NODES	ELEV. (FT)	NOZ. (K)	PT (PSI)	DISC. (GPM)	Q(GPM) VEL(FPS)	DIA(IN) HW(C) FL/FT		LENGTH (FT)		PRESS. SUM. (PSI)
Pipe: 1					-16.6	1.101	PL	15.00	PF	1.4
S6	29.3	5.6	8.8	16.6	5.6	150	FTG	E2T	PE	-0.2
M3	29.8	0.0	10.0	0.0		0.048	TL	30.00	PV	
Pipe: 2					-16.1	1.101	PL	8.50	PF	2.0
S7	29.3	5.6	8.2	16.1	5.4	150	FTG	5E2T	PE	-0.2
M3	29.8	0.0	10.0	0.0		0.045	TL	43.50	PV	
Pipe: 3					-14.8	1.101	PL	21.00	PF	2.0
S8	29.3	5.6	7.0	14.8	5.0	150	FTG	4E2T	PE	-0.2
B4	29.8	0.0	8.8	0.0		0.039	TL	51.00	PV	
Pipe: 4					-17.0	1.101	PL	6.00	PF	0.8
S9	29.3	5.6	9.2	17.0	5.7	150	FTG	ET	PE	-0.2
B3	29.8	0.0	9.8	0.0		0.050	TL	16.00	PV	
Pipe: 5					-17.0	1.101	PL	17.50	PF	1.1
B3	29.8	0.0	9.8	0.0	5.7	150	FTG	T	PE	0.0
M4	29.8	0.0	11.0	0.0		0.050	TL	22.50	PV	
Pipe: 6					-14.8	1.101	PL	27.00	PF	2.2
B4	29.8	0.0	8.8	0.0	5.0	150	FTG	5ET	PE	0.0
M5	29.8	0.0	11.0	0.0		0.039	TL	57.00	PV	
Pipe: 7					-14.8	1.598	PL	20.00	PF	0.3
M5	29.8	0.0	11.0	0.0	2.4	150	FTG	2ET	PE	-1.1
32	32.3	0.0	10.2	0.0		0.006	TL	42.00	PV	
Pipe: 8					-17.0	1.598	PL	28.42	PF	0.3
M4	29.8	0.0	11.0	0.0	2.7	150	FTG	T	PE	-1.1
32	32.3	0.0	10.2	0.0		0.008	TL	36.42	PV	
Pipe: 9					-32.6	1.598	PL	5.25	PF	0.4
M3	29.8	0.0	10.0	0.0	5.2	150	FTG	T	PE	0.0
31	29.8	0.0	10.3	0.0		0.027	TL	13.25	PV	
Pipe: 10					-32.6	1.598	PL	20.25	PF	0.6
31	29.8	0.0	10.3	0.0	5.2	150	FTG	----	PE	8.8
01	9.5	0.0	19.7	0.0		0.027	TL	20.25	PV	
Pipe: 11					-31.8	1.598	PL	20.25	PF	0.5
32	32.3	0.0	10.2	0.0	5.1	150	FTG	----	PE	8.8
02	12.0	0.0	19.5	0.0		0.026	TL	20.25	PV	
Pipe: 12					-32.6	1.598	PL	15.00	PF	1.2
01	9.5	0.0	19.7	0.0	5.2	150	FTG	2E2T	PE	4.1
UG1	0.0	0.0	25.0	0.0		0.027	TL	45.00	PV	
Pipe: 13					-31.8	1.598	PL	12.00	PF	0.7
02	12.0	0.0	19.5	0.0	5.1	150	FTG	2T	PE	5.2
UG2	0.0	0.0	25.4	0.0		0.026	TL	28.00	PV	

DATE: 11/6/2025ILE\HYDRAULICS\HASS FILES\BUILDING H\H - (4) F3QR 7PSI.SDF
JOB TITLE: H - (4) F3QR 7PSI

PIPE TAG / END NODES	ELEV. (FT)	NOZ. (K)	PT (PSI)	DISC. (GPM)	Q(GPM) VEL(FPS)	DIA(IN) HW(C) FL/FT		LENGTH (FT)		PRESS. SUM. (PSI)	
Pipe: 14					-32.6	2.003	PL	25.08	PF	0.4	
UG1	0.0	0.0	25.0	0.0	3.3	150	FTG	2E	PE	0.0	
UG2	0.0	0.0	25.4	0.0		0.009	TL	43.08	PV		
Pipe: 15					-64.5	1.598	PL	55.00	PF	6.9	
UG2	0.0	0.0	25.4	0.0	10.3	150	FTG	2T	PE	-1.1	
UG3	2.5	0.0	31.2	0.0		0.097	TL	71.00	PV		
Pipe: 16					-64.5	2.003	PL	30.33	PF	1.6	
UG3	2.5	0.0	31.2	0.0	6.6	150	FTG	2E	PE	0.0	
UG4	2.5	0.0	32.8	0.0		0.032	TL	48.33	PV		
Pipe: 17					-64.5	1.598	PL	44.00	PF	10.5	
UG4	2.5	0.0	32.8	0.0	10.3	150	FTG	7E2T	PE	-5.2	
TOR	14.5	0.0	38.1	0.0		0.097	TL	109.00	PV		
Pipe: 18					-64.5	2.185	PL	6.92	PF	0.1	
TOR	14.5	0.0	38.1	0.0	5.5	150	FTG	----	PE	3.0	
BFP1	7.6	0.0	41.2	0.0		0.021	TL	6.92	PV		
Pipe: 19					FIXED PRESSURE LOSS DEVICE						
BFP2	7.6	0.0	48.2	0.0	7.0 psi, 64.5 gpm						
BFP1	7.6	0.0	41.2	0.0							
Pipe: 20					-64.5	4.100	PL	50.50	PF	0.1	
BFP2	7.6	0.0	48.2	0.0	1.6	140	FTG	ET2G	PE	1.1	
UG7	5.0	0.0	49.5	0.0		0.001	TL	91.50	PV		
Pipe: 21					-64.5	8.270	PL	95.00	PF	0.0	
UG7	5.0	0.0	49.5	0.0	0.4	140	FTG	TG	PE	0.0	
UG8	5.0	0.0	49.5	0.0		0.000	TL	148.00	PV		
Pipe: 22					-64.5	12.340	PL	460.00	PF	0.0	
UG8	5.0	0.0	49.5	0.0	0.2	140	FTG	TFG	PE	4.5	
UG9	-5.3	0.0	53.9	0.0		0.000	TL	567.00	PV		
Pipe: 23					-64.5	6.160	PL	20.00	PF	0.0	
UG9	-5.3	0.0	53.9	0.0	0.7	140	FTG	EG	PE	0.0	
SOURCE	-5.3	SRCE	53.9	(N/A)		0.000	TL	36.00	PV		

NOTES (HASS):

(1) Calculations were performed by the HASS 2023 D computer program in accordance with NFPA (2020) under license no. 64621553 granted by
HRS Systems, Inc.
208 Southside Square
Petersburg, TN 37144
(931) 659-9760

(2) The system has been calculated to provide an average imbalance at each node of 0.002 gpm and a maximum imbalance at any node of 0.056 gpm.

(3) Total pressure at each node is used in balancing the system.
Maximum water velocity is 10.3 ft/sec at pipe 17.

(4) Items listed in bold print on the cover sheet

are automatically transferred from the calculation report.

(5) Available pressure at source node SOURCE under full flow conditions is
94.94 psi with a flow of 99.78 gpm.

(6) PIPE FITTINGS TABLE

User Pipe Table Name: SMITH

PAGE: D MATERIAL: DI HWC: 140

Diameter (in)	Equivalent Fitting Lengths in Feet E Ell	T Tee	F 45	C ChkVlv	B BfyVlv	G GatVlv
4.100	8.00	27.00	6.00	30.00	20.00	3.00
6.160	12.00	40.00	10.00	43.00	16.00	4.00
8.270	18.00	47.00	12.00	60.00	20.00	6.00
12.340	24.00	80.00	19.00	87.00	34.00	8.00

PAGE: P MATERIAL: CPVC HWC: 150

Diameter (in)	Equivalent Fitting Lengths in Feet E Ell	T Tee	F 45	R teeRun	C Coup	G Gva	B Bfy
1.101	5.00	5.00	1.00	1.00	1.00	1.00	4.00
1.598	7.00	8.00	2.00	1.00	1.00	1.00	6.00
2.003	9.00	10.00	2.00	1.00	1.00	2.00	7.00

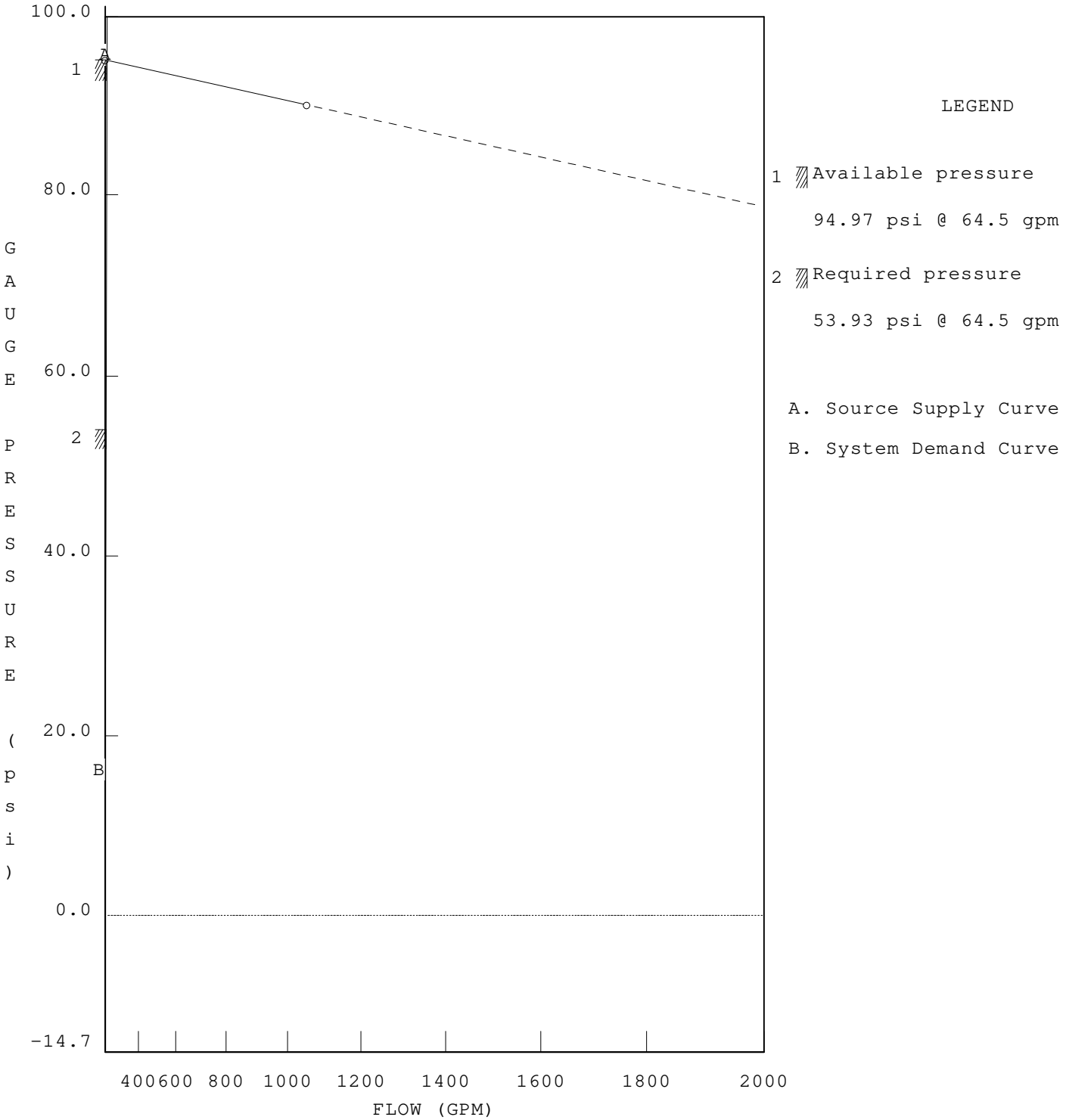
PAGE: Y MATERIAL: SCH7 HWC: 120

Diameter (in)	Equivalent Fitting Lengths in Feet E Ell	T Tee	F 45	C ChkVlv	B BfyVlv	G GatVlv	A AlmChk	D DPVlv	X fleX
2.185	4.60	15.20	2.40	14.40	6.20	1.00	12.40	12.40	0.00

DATE: 11/6/2025ILE\HYDRAULICS\HASS FILES\BUILDING H\H - (4) F3QR 7PSI.SDF
JOB TITLE: H - (4) F3QR 7PSI

WATER SUPPLY ANALYSIS

Static: 95.00 psi Resid: 90.00 psi Flow: 1055.0 gpm



Note: (1) Dashed Lines indicate extrapolated values from Test Results

DATE: 11/6/2025ILE\HYDRAULICS\HASS FILES\BUILDING H\H - (4) F3QR 7PSI.SDF
JOB TITLE: H - (4) F3QR 7PSI

WATER SUPPLY CURVE

```
   96*\\\\\\
     0      \\\\\\\
     |             \\\\\\
     |                  * <-90.0 psi @ 1055 gpm
   88+                      Flow Test Point
     |
     |
     |
   80+
     |
     |
     |
   72+
     |
     |
     |
 P 64+
 R   |
 E   |
 S   |
 S 56+
 U   X
 R   |
 E   |
   48+
 (   |
 P   |
 S   |
 I 40+
 )   |
     |
     |
   32+
     |
     |
     |
   24+
     |
     |
     |==============================
   16+            LEGEND            "
     |                              "
     | X = Required Water Supply    "
     |    53.93 psi @ 64.5 gpm      "
    8+                              "
     | 0 = Available Water Supply   "
     |    94.97 psi @ 64.5 gpm      "
     |                              "
    0++-+---+----+-----+------+--------+--------+---------+-----------+
       400 600  800  1000   1200     1400     1600      1800        2000
                                    FLOW (GPM)
```

SMITH FIRE SYSTEMS, INC.
JOB NO. TC25207
BRADLEY HEIGHTS: BUILDING H

SYSTEM # 1

L3 (2) HEAD COMPARTMENT

AUXILIARY HYDRAULIC CALCULATION

DENSITY: 0.05 GPM OVER 2 HEADS

SYSTEM DEMAND AT BASE OF RISER

34.8 GPM AT 30.7 PSI

DATE: 11/6/2025AULICS\HASS FILES\BUILDING H\H - (2) 18X18 RES49 12PSI.SDF
JOB TITLE: H - (2) 18x18 RES49 12PSI

WATER SUPPLY DATA

SOURCE NODE TAG	STATIC PRESS. (PSI)	RESID. PRESS. (PSI)	@ FLOW (GPM)	AVAIL. PRESS. (PSI)	@ TOTAL DEMAND (GPM)	REQ'D PRESS. (PSI)
SOURCE	95.0	90.0	1055.0	95.0	34.8	44.0

Available pressure is 51.0 psi (54%) greater than required pressure.

AGGREGATE FLOW ANALYSIS:

TOTAL FLOW AT SOURCE	34.8 GPM
TOTAL HOSE STREAM ALLOWANCE AT SOURCE	0.0 GPM
OTHER HOSE STREAM ALLOWANCES	0.0 GPM
TOTAL DISCHARGE FROM ACTIVE SPRINKLERS	34.8 GPM

NODE ANALYSIS DATA

NODE TAG	ELEVATION (FT)	NODE TYPE	PRESSURE (PSI)	DISCHARGE (GPM)
S10	29.3	K= 4.90	12.0	17.0
S11	29.3	K= 4.90	13.3	17.9
B4	29.8	- - - -	13.0	- - -
B5	29.8	- - - -	13.4	- - -
M4	29.8	- - - -	15.4	- - -
M5	29.8	- - - -	15.9	- - -
32	32.3	- - - -	14.8	- - -
02	12.0	- - - -	24.2	- - -
TOR	14.5	- - - -	27.7	- - -
BFP1	7.6	- - - -	30.7	- - -
BFP2	7.6	- - - -	37.7	- - -
UG3	2.5	- - - -	29.5	- - -
UG4	2.5	- - - -	30.0	- - -
UG7	5.0	- - - -	39.6	- - -
UG8	5.0	- - - -	39.6	- - -
UG9	-5.2	- - - -	44.0	- - -
SOURCE	-5.2	SOURCE	44.0	34.8

DATE: 11/6/2025AULICS\HASS FILES\BUILDING H\H - (2) 18X18 RES49 12PSI.SDF
JOB TITLE: H - (2) 18x18 RES49 12PSI

PIPE DATA

PIPE TAG END NODES	ELEV. (FT)	NOZ. (K)	PT (PSI)	DISC. (GPM)	Q(GPM) VEL(FPS)	DIA(IN) HW(C) FL/FT		LENGTH (FT)		PRESS. SUM. (PSI)
Pipe: 1					-17.0	1.101	PL	9.17	PF	1.2
S10	29.3	4.9	12.0	17.0	5.7	150	FTG	3E	PE	-0.2
B4	29.8	0.0	13.0	0.0		0.050	TL	24.17	PV	
Pipe: 2					-17.9	1.101	PL	0.50	PF	0.3
S11	29.3	4.9	13.3	17.9	6.0	150	FTG	T	PE	-0.2
B5	29.8	0.0	13.4	0.0		0.055	TL	5.50	PV	
Pipe: 3					-17.0	1.101	PL	27.00	PF	2.9
B4	29.8	0.0	13.0	0.0	5.7	150	FTG	5ET	PE	0.0
M5	29.8	0.0	15.9	0.0		0.050	TL	57.00	PV	
Pipe: 4					-17.9	1.101	PL	12.42	PF	2.1
B5	29.8	0.0	13.4	0.0	6.0	150	FTG	4ET	PE	0.0
M4	29.8	0.0	15.4	0.0		0.055	TL	37.42	PV	
Pipe: 5					-17.9	1.598	PL	30.92	PF	0.5
M4	29.8	0.0	15.4	0.0	2.9	150	FTG	2ET	PE	-1.1
32	32.3	0.0	14.8	0.0		0.009	TL	52.92	PV	
Pipe: 6					-17.0	2.423	PL	22.50	PF	0.1
M5	29.8	0.0	15.9	0.0	1.2	150	FTG	2ET	PE	-1.1
32	32.3	0.0	14.8	0.0		0.001	TL	58.50	PV	
Pipe: 7					-34.8	1.598	PL	20.25	PF	0.6
32	32.3	0.0	14.8	0.0	5.6	150	FTG	----	PE	8.8
02	12.0	0.0	24.2	0.0		0.031	TL	20.25	PV	
Pipe: 8					-34.8	1.598	PL	15.25	PF	1.2
02	12.0	0.0	24.2	0.0	5.6	150	FTG	2ET	PE	4.1
UG3	2.5	0.0	29.5	0.0		0.031	TL	37.25	PV	
Pipe: 9					-34.8	2.003	PL	30.33	PF	0.5
UG3	2.5	0.0	29.5	0.0	3.5	150	FTG	2E	PE	0.0
UG4	2.5	0.0	30.0	0.0		0.010	TL	48.33	PV	
Pipe: 10					-34.8	1.598	PL	44.00	PF	2.9
UG4	2.5	0.0	30.0	0.0	5.6	150	FTG	7E	PE	-5.2
TOR	14.5	0.0	27.7	0.0		0.031	TL	93.00	PV	
Pipe: 11					-34.8	2.185	PL	6.92	PF	0.0
TOR	14.5	0.0	27.7	0.0	3.0	150	FTG	----	PE	3.0
BFP1	7.6	0.0	30.7	0.0		0.007	TL	6.92	PV	
Pipe: 12					FIXED PRESSURE LOSS DEVICE					
BFP2	7.6	0.0	37.7	0.0	7.0 psi, 34.8 gpm					
BFP1	7.6	0.0	30.7	0.0						
Pipe: 13					-34.8	2.003	PL	50.50	PF	0.8
BFP2	7.6	0.0	37.7	0.0	3.5	150	FTG	ET2G	PE	1.1
UG7	5.0	0.0	39.6	0.0		0.010	TL	73.50	PV	

DATE: 11/6/2025AULICS\HASS FILES\BUILDING H\H - (2) 18X18 RES49 12PSI.SDF
JOB TITLE: H - (2) 18x18 RES49 12PSI

PIPE TAG END NODES	ELEV. (FT)	NOZ. (K)	PT (PSI)	DISC. (GPM)	Q(GPM) VEL(FPS)	DIA(IN) HW(C) FL/FT		LENGTH (FT)		PRESS. SUM. (PSI)	
Pipe: 14					-34.8	8.270	PL	95.00		PF	0.0
UG7	5.0	0.0	39.6	0.0	0.2	140	FTG	TG		PE	0.0
UG8	5.0	0.0	39.6	0.0		0.000	TL	148.00		PV	
Pipe: 15					-34.8	12.340	PL	460.00		PF	0.0
UG8	5.0	0.0	39.6	0.0	0.1	140	FTG	TFG		PE	4.4
UG9	-5.2	0.0	44.0	0.0		0.000	TL	567.00		PV	
Pipe: 16					-34.8	6.160	PL	20.00		PF	0.0
UG9	-5.2	0.0	44.0	0.0	0.4	140	FTG	EG		PE	0.0
SOURCE	-5.2	SRCE	44.0	(N/A)		0.000	TL	36.00		PV	

NOTES (HASS):

(1) Calculations were performed by the HASS 2023 D computer program in accordance with NFPA (2020) under license no. 64621553 granted by
HRS Systems, Inc.
208 Southside Square
Petersburg, TN 37144
(931) 659-9760

(2) The system has been calculated to provide an average imbalance at each node of 0.010 gpm and a maximum imbalance at any node of 0.154 gpm.

(3) Total pressure at each node is used in balancing the system. Maximum water velocity is 6.0 ft/sec at pipe 4.

(4) Items listed in bold print on the cover sheet

are automatically transferred from the calculation report.

(5) Available pressure at source node SOURCE under full flow conditions is 94.97 psi with a flow of 64.57 gpm.

(6) PIPE FITTINGS TABLE

User Pipe Table Name: SMITH

DATE: 11/6/2025AULICS\HASS FILES\BUILDING H\H - (2) 18X18 RES49 12PSI.SDF
JOB TITLE: H - (2) 18x18 RES49 12PSI

PAGE: D MATERIAL: DI HWC: 140

Diameter (in)	Equivalent Fitting Lengths in Feet E Ell	T Tee	F 45	C ChkVlv	B BfyVlv	G GatVlv
6.160	12.00	40.00	10.00	43.00	16.00	4.00
8.270	18.00	47.00	12.00	60.00	20.00	6.00
12.340	24.00	80.00	19.00	87.00	34.00	8.00

PAGE: P MATERIAL: CPVC HWC: 150

Diameter (in)	Equivalent Fitting Lengths in Feet E Ell	T Tee	F 45	R teeRun	C Coup	G Gva	B Bfy
1.101	5.00	5.00	1.00	1.00	1.00	1.00	4.00
1.598	7.00	8.00	2.00	1.00	1.00	1.00	6.00
2.003	9.00	10.00	2.00	1.00	1.00	2.00	7.00
2.423	12.00	12.00	3.00	2.00	2.00	2.00	0.00

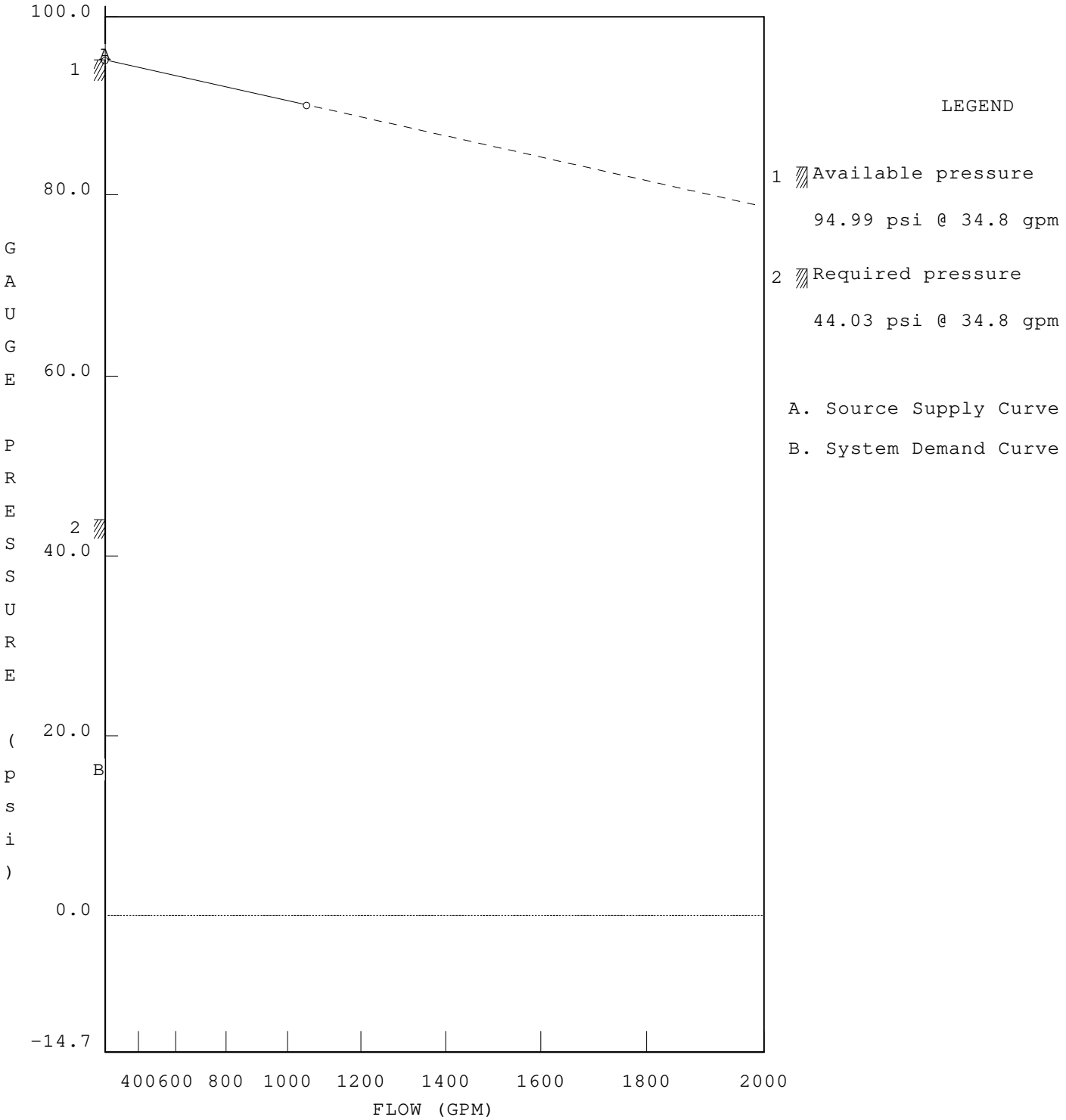
PAGE: Y MATERIAL: SCH7 HWC: 120

Diameter (in)	Equivalent Fitting Lengths in Feet E Ell	T Tee	F 45	C ChkVlv	B BfyVlv	G GatVlv	A AlmChk	D DPVlv	X fleX
2.185	4.60	15.20	2.40	14.40	6.20	1.00	12.40	12.40	0.00

DATE: 11/6/2025AULICS\HASS FILES\BUILDING H\H - (2) 18X18 RES49 12PSI.SDF
JOB TITLE: H - (2) 18x18 RES49 12PSI

WATER SUPPLY ANALYSIS

Static: 95.00 psi Resid: 90.00 psi Flow: 1055.0 gpm



Note: (1) Dashed Lines indicate extrapolated values from Test Results

DATE: 11/6/2025AULICS\HASS FILES\BUILDING H\H - (2) 18X18 RES49 12PSI.SDF
JOB TITLE: H - (2) 18x18 RES49 12PSI

WATER SUPPLY CURVE

```
   96*\\\\\\
     0      \\\\\\\
     |             \\\\\\
     |                  * <-90.0 psi @ 1055 gpm
   88+                      Flow Test Point
     |
     |
     |
   80+
     |
     |
     |
   72+
     |
     |
     |
 P 64+
 R   |
 E   |
 S   |
 S 56+
 U   |
 R   |
 E   |
   48+
 (   |
 P   X
 S   |
 I 40+
 )   |
     |
     |
   32+
     |
     |
     |
   24+
     |
     |
     |==============================
   16+            LEGEND            "
     |                              "
     | X = Required Water Supply    "
     |    44.03 psi @ 34.8 gpm      "
    8+                              "
     | 0 = Available Water Supply   "
     |    94.99 psi @ 34.8 gpm      "
     |                              "
    0++-+---+----+-----+------+--------+--------+---------+-----------+
       400 600  800  1000   1200     1400     1600      1800        2000
                                    FLOW (GPM)
```

SMITH FIRE SYSTEMS, INC.
JOB NO. TC25207
BRADLEY HEIGHTS: BUILDING H

SYSTEM # 1

L3 (1) HEAD COMPARTMENT

AUXILIARY HYDRAULIC CALCULATION

DENSITY: 0.05 GPM OVER 1 HEADS

SYSTEM DEMAND AT BASE OF RISER

20 GPM AT 32.9 PSI

DATE: 11/6/2025LICS\HASS FILES\BUILDING H\H - (1) 20X20 RES49 16.7PSI.SDF
JOB TITLE: H - (1) 20x20 RES49 16.7PSI

WATER SUPPLY DATA

SOURCE NODE TAG	STATIC PRESS. (PSI)	RESID. PRESS. (PSI)	@ FLOW (GPM)	AVAIL. PRESS. (PSI)	@ TOTAL DEMAND (GPM)	REQ'D PRESS. (PSI)
SOURCE	95.0	90.0	1055.0	95.0	20.0	45.5

Available pressure is 49.5 psi (52%) greater than required pressure.

AGGREGATE FLOW ANALYSIS:

TOTAL FLOW AT SOURCE	20.0 GPM
TOTAL HOSE STREAM ALLOWANCE AT SOURCE	0.0 GPM
OTHER HOSE STREAM ALLOWANCES	0.0 GPM
TOTAL DISCHARGE FROM ACTIVE SPRINKLERS	20.0 GPM

NODE ANALYSIS DATA

NODE TAG	ELEVATION (FT)	NODE TYPE	PRESSURE (PSI)	DISCHARGE (GPM)
S1	29.3	K= 4.90	16.7	20.0
M1	29.8	- - - -	19.8	- - -
31	29.8	- - - -	20.1	- - -
01	9.5	- - - -	29.5	- - -
TOR	14.5	- - - -	29.9	- - -
BFP1	7.6	- - - -	32.9	- - -
BFP2	7.6	- - - -	39.9	- - -
UG1	0.0	- - - -	33.9	- - -
UG2	0.0	- - - -	34.1	- - -
UG3	2.5	- - - -	33.8	- - -
UG4	2.5	- - - -	34.0	- - -
UG7	5.0	- - - -	41.0	- - -
UG8	5.0	- - - -	41.0	- - -
UG9	-5.2	- - - -	45.5	- - -
SOURCE	-5.2	SOURCE	45.5	20.0

DATE: 11/6/2025LICS\HASS FILES\BUILDING H\H - (1) 20X20 RES49 16.7PSI.SDF
JOB TITLE: H - (1) 20x20 RES49 16.7PSI

PIPE DATA

PIPE TAG END NODES	ELEV. (FT)	NOZ. (K)	PT (PSI)	DISC. (GPM)	Q(GPM) VEL(FPS)	DIA(IN) HW(C) FL/FT		LENGTH (FT)		PRESS. SUM. (PSI)
Pipe: 1					-20.0	1.101	PL	18.58	PF	3.3
S1	29.3	4.9	16.7	20.0	6.7	150	FTG	5ET	PE	-0.2
M1	29.8	0.0	19.8	0.0		0.068	TL	48.58	PV	
Pipe: 2					-20.0	1.598	PL	20.50	PF	0.3
M1	29.8	0.0	19.8	0.0	3.2	150	FTG	T	PE	0.0
31	29.8	0.0	20.1	0.0		0.011	TL	28.50	PV	
Pipe: 3					-20.0	1.598	PL	20.25	PF	0.6
31	29.8	0.0	20.1	0.0	3.2	150	FTG	4ET	PE	8.8
01	9.5	0.0	29.5	0.0		0.011	TL	56.25	PV	
Pipe: 4					-20.0	1.598	PL	15.00	PF	0.3
01	9.5	0.0	29.5	0.0	3.2	150	FTG	2E	PE	4.1
UG1	0.0	0.0	33.9	0.0		0.011	TL	29.00	PV	
Pipe: 5					-20.0	2.003	PL	25.08	PF	0.2
UG1	0.0	0.0	33.9	0.0	2.0	150	FTG	2E	PE	0.0
UG2	0.0	0.0	34.1	0.0		0.004	TL	43.08	PV	
Pipe: 6					-20.0	1.598	PL	55.00	PF	0.8
UG2	0.0	0.0	34.1	0.0	3.2	150	FTG	2T	PE	-1.1
UG3	2.5	0.0	33.8	0.0		0.011	TL	71.00	PV	
Pipe: 7					-20.0	2.003	PL	30.33	PF	0.2
UG3	2.5	0.0	33.8	0.0	2.0	150	FTG	2E	PE	0.0
UG4	2.5	0.0	34.0	0.0		0.004	TL	48.33	PV	
Pipe: 10					-20.0	1.598	PL	50.00	PF	1.1
UG4	2.5	0.0	34.0	0.0	3.2	150	FTG	7E	PE	-5.2
TOR	14.5	0.0	29.9	0.0		0.011	TL	99.00	PV	
Pipe: 11					-20.0	2.185	PL	6.92	PF	0.0
TOR	14.5	0.0	29.9	0.0	1.7	150	FTG	----	PE	3.0
BFP1	7.6	0.0	32.9	0.0		0.002	TL	6.92	PV	
Pipe: 12					FIXED PRESSURE LOSS DEVICE					
BFP2	7.6	0.0	39.9	0.0	7.0 psi, 20.0 gpm					
BFP1	7.6	0.0	32.9	0.0						
Pipe: 13					-20.0	4.100	PL	50.50	PF	0.0
BFP2	7.6	0.0	39.9	0.0	0.5	140	FTG	ET2G	PE	1.1
UG7	5.0	0.0	41.0	0.0		0.000	TL	91.50	PV	
Pipe: 14					-20.0	8.270	PL	95.00	PF	0.0
UG7	5.0	0.0	41.0	0.0	0.1	140	FTG	TG	PE	0.0
UG8	5.0	0.0	41.0	0.0		0.000	TL	148.00	PV	
Pipe: 15					-20.0	12.340	PL	460.00	PF	0.0
UG8	5.0	0.0	41.0	0.0	0.1	140	FTG	TFG	PE	4.4
UG9	-5.2	0.0	45.5	0.0		0.000	TL	567.00	PV	

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PIPE TAG END NODES	ELEV. (FT)	NOZ. (K)	PT (PSI)	DISC. (GPM)	Q(GPM) VEL(FPS)	DIA(IN) HW(C) FL/FT	LENGTH (FT)	PRESS. SUM. (PSI)
Pipe: 16					-20.0	6.160 PL	20.00	PF 0.0
UG9	-5.2	0.0	45.5	0.0	0.2	140 FTG	EG	PE 0.0
SOURCE	-5.2	SRCE	45.5	(N/A)		0.000 TL	36.00	PV

NOTES (HASS):

(1) Calculations were performed by the HASS 2023 D computer program
in accordance with NFPA (2020)
under license no. 64621553 granted by
HRS Systems, Inc.
208 Southside Square
Petersburg, TN 37144
(931) 659-9760

(2) The system has been calculated to provide an average
imbalance at each node of 0.014 gpm and a maximum
imbalance at any node of 0.189 gpm.

(3) Total pressure at each node is used in balancing the system.
Maximum water velocity is 6.7 ft/sec at pipe 1.

(4) Items listed in bold print on the cover sheet

are automatically transferred from the calculation report.

(5) Available pressure at source node SOURCE under full flow conditions is
94.99 psi with a flow of 35.74 gpm.

(6) PIPE FITTINGS TABLE

User Pipe Table Name: SMITH

PAGE: D MATERIAL: DI HWC: 140

Diameter (in)	Equivalent Fitting Lengths in Feet E Ell	T Tee	F 45	C ChkVlv	B BfyVlv	G GatVlv
4.100	8.00	27.00	6.00	30.00	20.00	3.00
6.160	12.00	40.00	10.00	43.00	16.00	4.00
8.270	18.00	47.00	12.00	60.00	20.00	6.00
12.340	24.00	80.00	19.00	87.00	34.00	8.00

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PAGE: P MATERIAL: CPVC HWC: 150

Diameter (in)	Equivalent Fitting Lengths in Feet						
	E Ell	T Tee	F 45 tee	R Run	C Coup	G Gva	B Bfy
1.101	5.00	5.00	1.00	1.00	1.00	1.00	4.00
1.598	7.00	8.00	2.00	1.00	1.00	1.00	6.00
2.003	9.00	10.00	2.00	1.00	1.00	2.00	7.00

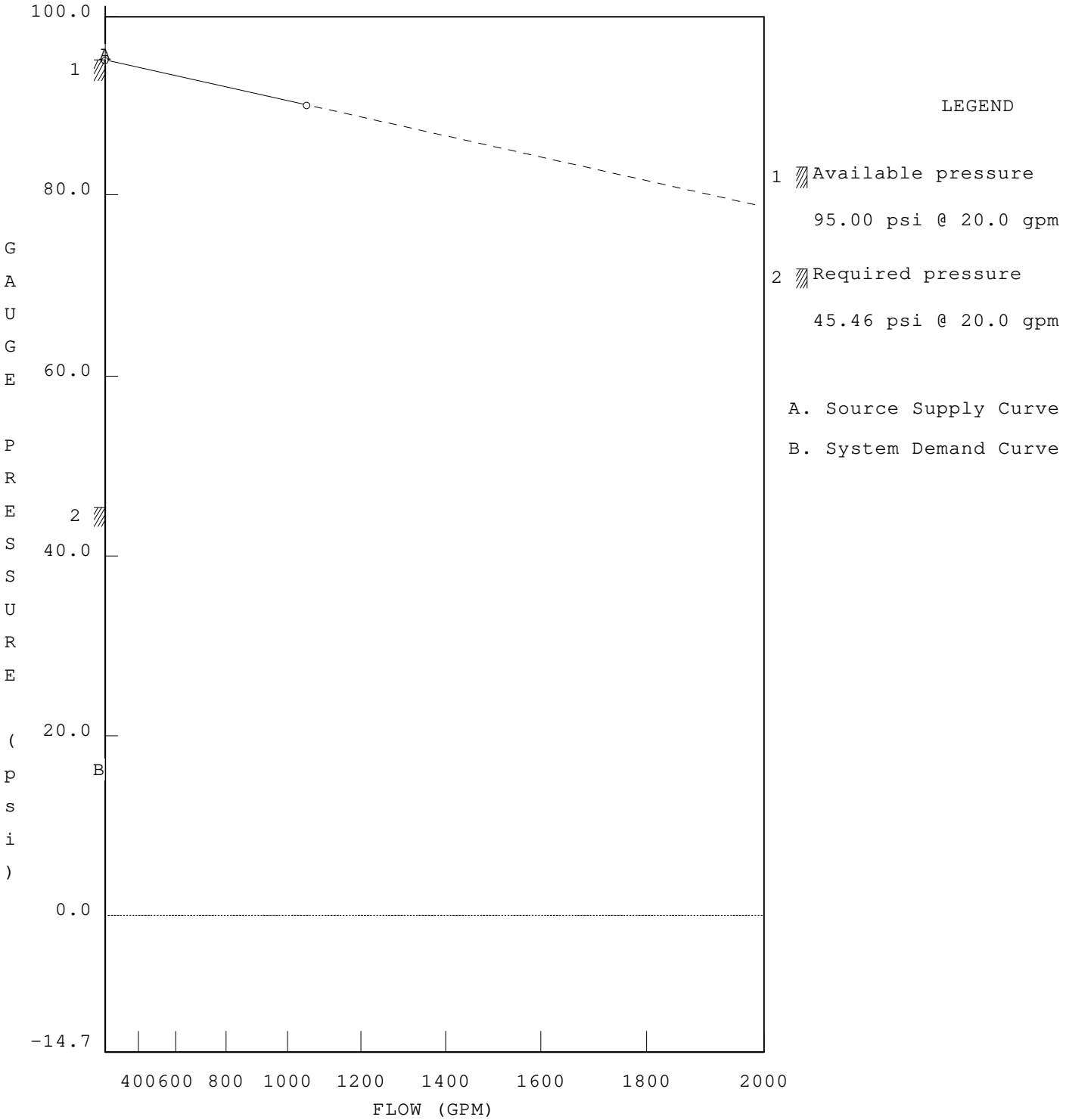
PAGE: Y MATERIAL: SCH7 HWC: 120

Diameter (in)	Equivalent Fitting Lengths in Feet								
	E Ell	T Tee	F 45	C ChkVlv	B BfyVlv	G GatVlv	A AlmChk	D DPVlv	X fleX
2.185	4.60	15.20	2.40	14.40	6.20	1.00	12.40	12.40	0.00

DATE: 11/6/2025LICS\HASS FILES\BUILDING H\H - (1) 20X20 RES49 16.7PSI.SDF
JOB TITLE: H - (1) 20x20 RES49 16.7PSI

WATER SUPPLY ANALYSIS

Static: 95.00 psi Resid: 90.00 psi Flow: 1055.0 gpm



Note: (1) Dashed Lines indicate extrapolated values from Test Results

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JOB TITLE: H - (1) 20x20 RES49 16.7PSI

WATER SUPPLY CURVE

```
   96*\\\\\\
     0      \\\\\\\
     |             \\\\\\
     |                  * <-90.0 psi @ 1055 gpm
   88+                      Flow Test Point
     |
     |
     |
   80+
     |
     |
     |
   72+
     |
     |
     |
 P 64+
 R   |
 E   |
 S   |
 S 56+
 U   |
 R   |
 E   |
   48+
 (   X
 P   |
 S   |
 I 40+
 )   |
     |
     |
   32+
     |
     |
     |
   24+
     |
     |
     |==============================
   16+            LEGEND            "
     |                              "
     | X = Required Water Supply    "
     |    45.46 psi @ 20.0 gpm      "
    8+                              "
     | 0 = Available Water Supply   "
     |    95.00 psi @ 20.0 gpm      "
     |                              "
    0++-+---+----+-----+------+--------+--------+---------+-----------+
       400 600  800  1000   1200     1400     1600      1800        2000
                                    FLOW (GPM)
```