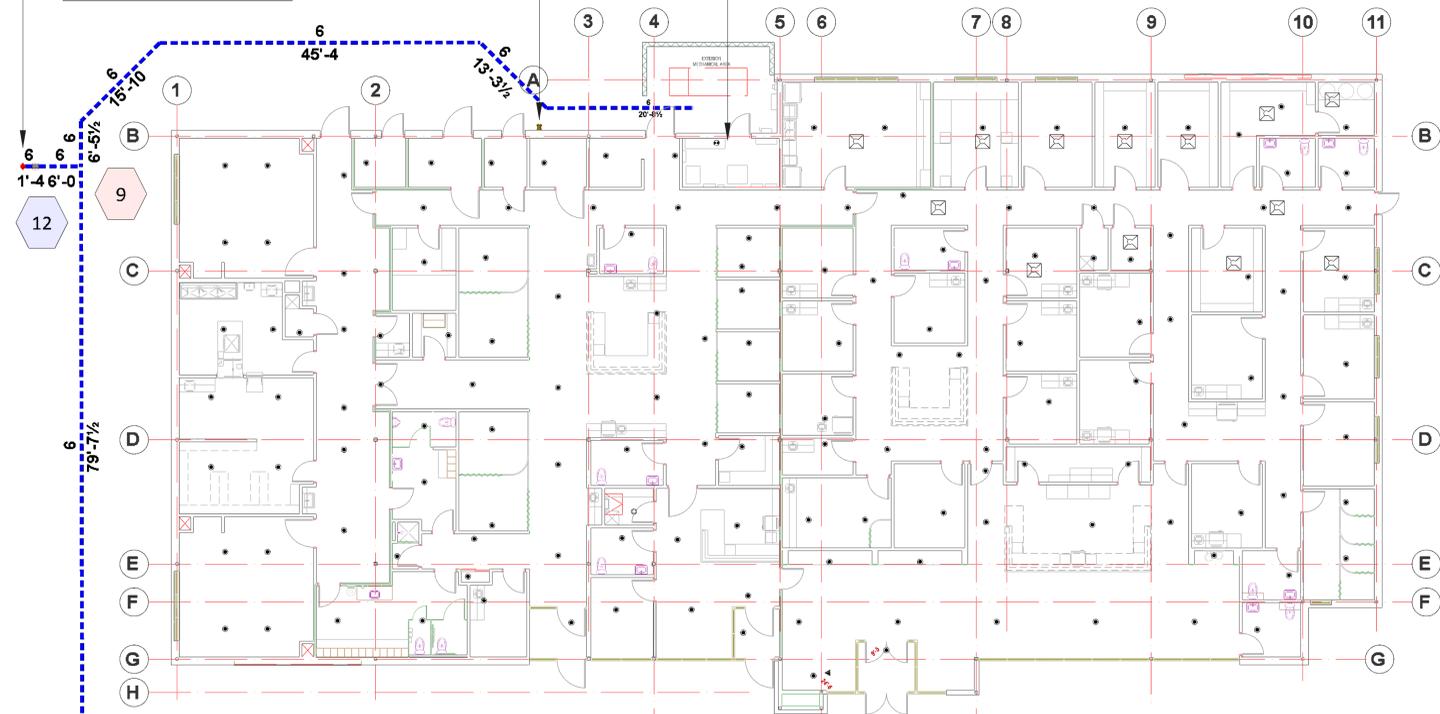


NEW PRIVATE FIRE HYDRANT, ALL WORK BY OTHERS. HYDRANT SHALL BE WITHIN 100' OF REMOTELY LOCATED FIRE DEPARTMENT CONNECTION.

REMOTELY LOCATED FIRE DEPARTMENT CONNECTION

FIRE RISER ROOM



FFE = 997.00

Supply Flow Test Data	
Test Conducted By	LEE'S SUMMIT WATER
Date of Test	1/15/26
Time of Test	10:30AM
Location	2701 NE McBaine Dr
Hydrant Numbers	014-184 & 014-051
Hydrant Elevation	987'
Static Pressure	92.000
Residual Pressure:	71.000
Flow	2025.00

DOUBLE DETECTOR CHECK BACKFLOW PREVENTER IN VAULT BY OTHERS, NO ALARM OR OTHER WORK BY ALLIANCE FIRE PROTECTION IN VAULT.



Sprinkler Legend											
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
●	Viking	VK3021	QR SC	144	5.6	Pendent	1/2"	Quick	Chrome	175°F	w/2pc. Escutcheon
●	Viking	VK630	EC-H.S.W.	1	8	Horizontal Sidewall	1/2"	Quick	White	175°F	HIGH VEST.
●	Viking	VK3001	QR BU	1	5.6	Upright	1/2"	Quick	Brass	175°F	w/2pc. Escutcheon
●	Viking	VK532	EC PEND.	4	11.2	Pendent	1/2"	Quick	Chrome	175°F	w/2pc. Escutcheon
				Total = 147							

* CENTER OF TILE INSTALLATION NOT REQUIRED *

- FIRE SPRINKLER DESIGN PER NFPA 13 2016 EDITION.
- OWNER SHALL MAINTAIN SYSTEM PER NFPA 25.
- ALL MATERIALS USED SHALL COMPLY WITH SPECIFIED REQUIREMENTS.
- CONTINUOUS CENTRAL MONITORING OF ALARM COMPONENTS PER NFPA 72 SHALL BE BY OTHERS.
- ALL ALARM AND ELECTRICAL WORK ASSOCIATED WITH INSTALLED COMPONENTS SHALL BE BY OTHERS.
- ALL UNDERGROUND WORK BY OTHERS. FIRE LINE SHALL BE FINISHED PER NFPA 24 REQUIREMENTS OVER AND ABOVE LOCAL WATER JURISDICTION REQUIREMENTS. NFPA TEST PAPERS FILLED OUT AND SIGNED BY INSTALLER SHALL BE SUBMITTED TO GENERAL CONTRACTOR PRIOR TO THE ABOVEGROUND SYSTEM BEING PUT INTO SERVICE.
- ANY PAINTING OF PIPE BY OTHERS.
- CONDITIONING OF BUILDING ENVELOPE TO PREVENT WATER FREEZING IN PIPES SHALL BE BY OTHERS BEFORE AND AFTER OCCUPANCY.
- ANY LABELING OF PIPE BY OTHERS.
- 10 6" & 8" 7 1/4" PIPE WITH GROOVED ENDS SHOULD BE SCHEDULE 10, 4" 1 1/2" SHOULD BE SCHEDULE 7 EDDY FLOW.
- PIPE WITH THREADED ENDS SHALL BE SCHEDULE 40.

UNBRAIDED FLEXIBLE HOSE

SPECIFICATIONS

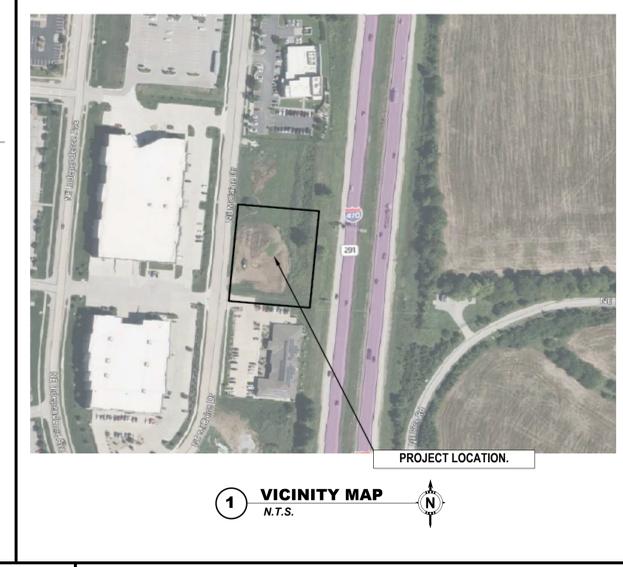
Nominal ID	1"	Max. Ambient Temperature Rating	225°F
Hose Type	Unbraided	Max. Working Pressure Rating	175 psig
Lengths Available	25', 30', 35', 40', 45', 50'	Hose	Stainless Steel 304
Connection	Inlet: 1" NPT Outlet: 1/2" or 3/4" NPT	Nut & Nipple	Zinc-Plated Steel
Minimum Bend Radius	4"	Sealing Gasket	Silicon
Maximum K-Factor	1/2" = K5.6 3/4" = K8.0	Isolation Ring	Nylon 66 - GF 30%

FRICITION LOSS DATA EPU Series Unbraided Hose TBS-PA Bracket Systems.

Length (in.)	Outlet Connection	Max. Number of 90° Bends	Equivalent Length of 1 in. Schedule 40 Pipe, ft.
25'	1/2"	2	29
30'	1/2"	3	35
35'	1/2"	4	41
40'	1/2"	5	47
45'	1/2"	6	53
50'	1/2"	7	59

* CENTER OF TILE INSTALLATION NOT REQUIRED *

3 FLEX DROP PRODUCT
N.T.S.



6 RISER ELEVATION/DIAGRAM
3/8" = 1'-0"

- NEW 6" FIRE LINE BY OTHERS. ALL INSPECTIONS AND TESTING SHALL BE PERFORMED BY NFPA 24 AND INSTALLING CONTRACTOR SHALL COMPLETE ALL CODE REQUIRED PAPERWORK.
- 6" GROOVE SPLIT FLANGE AND NEW FLANGE PACK.
- 6" x 4" GROOVED CONCENTRIC REDUCER.
- 4" GROOVED CHECK VALVE DUE TO FIRE HYDRANT AFTER B.F.P.
- 4" GROOVED BUTTERFLY VALVE WITH TAMPER SWITCH. ALARM WORK BY OTHERS.
- 4" FLOW SWITCH, ALARM WORK BY OTHERS.
- WATER PRESSURE GAUGE ASSEMBLY ON 1/4" 3-WAY VALVE.
- 2" ARGCO T-T TEST AND DRAIN VALVE WITH 1/2" PRESSURE RELIEF VALVE & K5.6 ORIFICE.
- SPARE SPRINKLER HEAD CABINET WITH HEAD WRENCH.
- 2" MAIN DRAIN AND INSPECTOR'S TEST DISCHARGE PIPED TO EXTERIOR. NO EROSION CONTROL MEASURES PROVIDED BY ALLIANCE FIRE. SEALED EXTERIOR PENETRATION, 2" GALVANIZED 45 DEGREE ELBOW ON EXTERIOR.
- PROVIDE AND INSTALL ALL RELEVANT SPRINKLER VALVE IDENTIFICATION SIGNS.
- PROVIDE AND INSTALL GENERAL INFORMATION SIGN.
- GROOVED CHECK VALVE, FIRE DEPARTMENT CONNECTION CHECK VALVE.
- SCH.40 GALVANIZED OUT WALL TO FIRE DEPARTMENT CONNECTION. INSTALL WALL PLATE IDENTIFYING USE OF F.D.C. FOR "AUTO SPRKR".
- GROOVED DRAIN ELBOW WITH 1/2" BALL DRIP PIPED HORIZONTALLY. PIPE BALL DRIP DISCHARGE TO EXTERIOR.

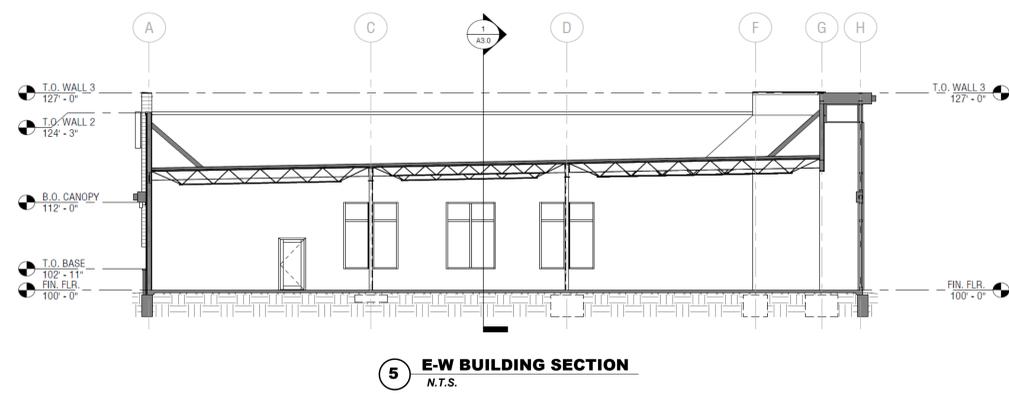
4 HANGER DIAGRAMS
N.T.S.

HANGER FOR 1" ARM OVERS AS NEEDED (PREFIX LABEL = 20S)

HANGER FOR 1" - 4" PIPE (NO PREFIX LABEL)

HANGER SPACING:

- 1 1/4" PIPE MAX SPACING AT 12'-0" O.C.
- 1 1/2" PIPE MAX SPACING AT 15'-0" O.C.
- 4" & 3" PIPE MAX SPACING AT 15'-0" O.C.
- 1" PIPE MAX SPACING AT 12'-0" O.C.
- 1" ARM OVERS EXCEEDING 2'-0" TOTAL LENGTH REQUIRES HANGER SUPPORT.
- NO HANGERS WITHIN 3" OF UPRIGHT SPRINKLER HEAD.
- MAX UNSUPPORTED LENGTH BETWEEN END SPRINKLER AND THE LAST HANGER ON THE LINE SHALL NOT BE GREATER THAN 36" FOR 1" PIPE, 48" FOR 1 1/4", AND 60" FOR 1 1/2" AND LARGER PIPE.



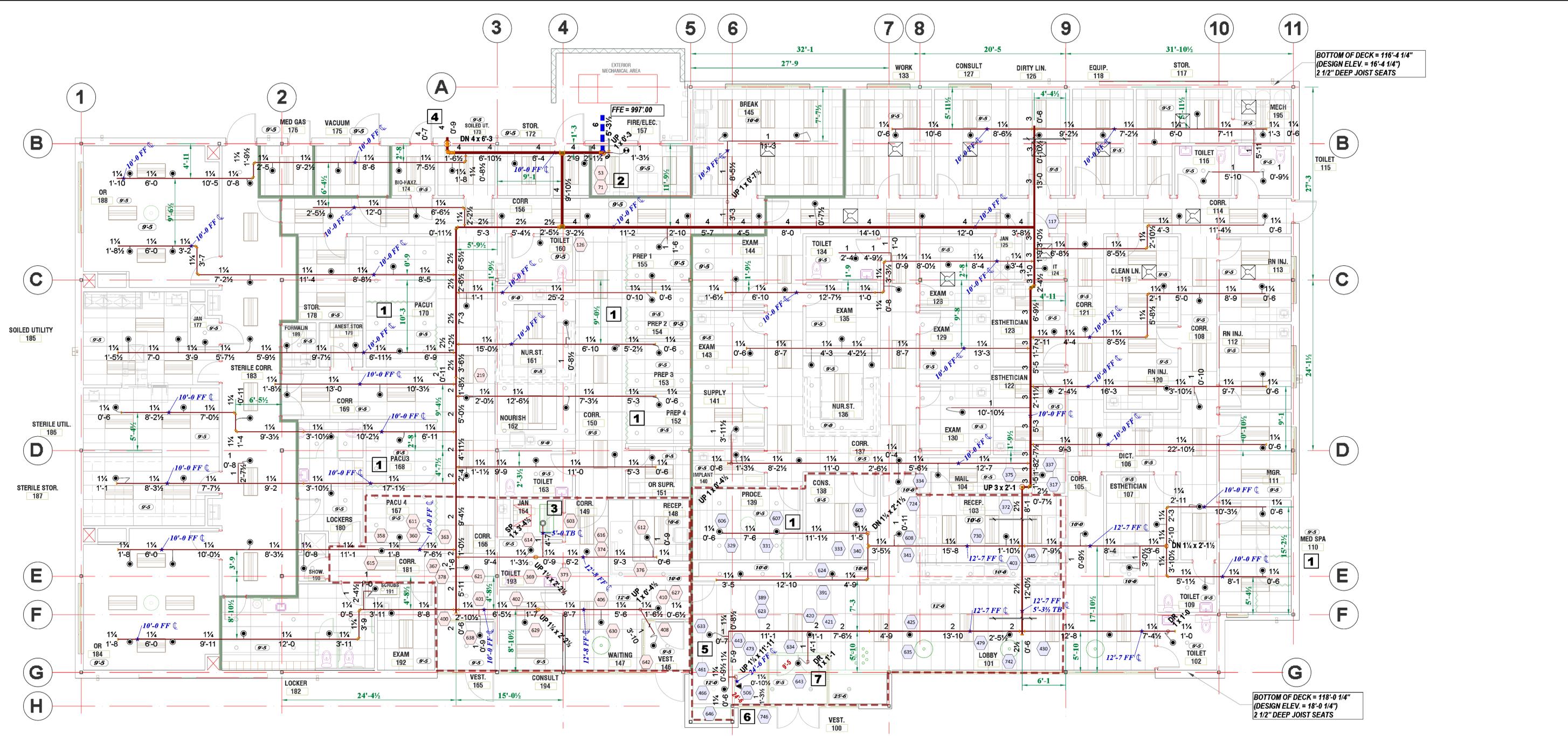
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REVISIONS:

SCALE: 1/8" = 1'-0"

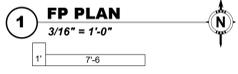
JOB NAME: ASSOCIATED PLASTIC SURGEONS
2701 NE MCBAIN DR, LEE'S SUMMIT, MO 64064

DRAWN BY: BG
DATE: 3-12-2026
JOB #: NC 1514
SHEET NO: 1 OF 2
SHEET NAME: COVER PAGE



Hydraulic Information	
Remote Area WEST SIDE_V2	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft ²)	0.10 for 1500ft ² (Actual 1015ft ²)
TOTAL HOSE STREAMS	100.00
TOTAL HEADS FLOWING	12
K-FACTOR	5.6
TOTAL WATER REQUIRED	406.93
TOTAL PRESSURE REQUIRED	81.831
BASE OF RISER (gpm)	306.93
BASE OF RISER (psi)	67.470
SAFETY MARGIN (psi)	+9.275 (10.2%)

Hydraulic Information	
Remote Area EAST SIDE_V1	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft ²)	0.10 for 1500ft ² (Actual 1500ft ²)
TOTAL HOSE STREAMS	100.00
TOTAL HEADS FLOWING	15
K-FACTOR	8
TOTAL WATER REQUIRED	471.79
TOTAL PRESSURE REQUIRED	81.338
BASE OF RISER (gpm)	371.79
BASE OF RISER (psi)	66.950
SAFETY MARGIN (psi)	+8.243 (10.2%)



APPLICABLE BUILDING CODES

- 2018 INTERNATIONAL BUILDING CODE
- 2018 INTERNATIONAL PLUMBING CODE
- 2018 INTERNATIONAL MECHANICAL CODE
- 2018 INTERNATIONAL FUEL GAS CODE
- 2018 INTERNATIONAL FIRE CODE
- 2017 NATIONAL ELECTRICAL CODE
- ANSI A117.1-2009 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

DESIGN CRITERIA:

MOST AREAS ARE DESIGNED TO LIGHT HAZARD OCCUPANCY WITH 1.0 GPM PER SQUARE FOOT, QUICK RESPONSE AREA REDUCTION USED TO LOWER REMOTE AREA SIZE PER NFPA 13 11.2.3.2.3.1.

ROOMS USED FOR STORAGE OR MECHANICAL COMPONENTS DESIGNED TO ORDINARY HAZARD GROUP 1 WITH 15 GPM PER SQUARE FOOT. NO HYDRAULIC CALCULATION DONE TO OHT.

1 HOUR RATED WALLS MUST BE PROPERLY SEALED IF PENETRATED. THE LAYOUT OF (2) DIFFERENT CENTER FED TREES ATTEMPTS TO LIMIT THESE OCCURRENCES.

NO CONCEALED SPACES REQUIRING PROTECTION SEEN.

NO SMALL ENCLOSURES IN WHICH NO SPRINKLERS ARE TO BE INSTALLED SEEN.

ONLY THE SINGLE CITY WATER SUPPLY PROVIDED.

ONE SYSTEM COVERING THE ENTIRE BUILDING, 13,732 S.F., PROVIDED.

ALARM BELLS OR OTHER TYPE ARE NOT IN THIS SCOPE OF WORK, SEE ALARM SHOPS.

4" 30 DEGREE STORZ TYPE FIRE DEPARTMENT CONNECTION TO BE INSTALLED REMOTELY FROM THE MAIN RISER ASSEMBLY.

BUILDING IS NON-COMBUSTIBLE AND LIMITED COMBUSTIBLE CONSTRUCTION OF SOLID STEEL I-BEAMS AND OPEN WEB STEEL BAR JOISTS WITH METAL DECKING.

SYMBOLS & NOTES:

- * 15'-10" TB ⌋ = PIPE ⌋ DOWN FROM TOP OF BEAM
- * 15'-10" TS ⌋ = PIPE ⌋ DOWN FROM TOP OF STEEL
- * 15'-10" FF ⌋ = PIPE ⌋ UP FROM FINISH FLOOR
- * 15'-10" BD ⌋ = PIPE ⌋ UP FROM BOTTOM OF DECK
- 02C*1'-8" = HANGER USING SAMMY XP-20
- 1'-0" = HANGER USING TOP BEAM CLAMP
- 18S*2'-6" = HANGER USING SWDR-1 SIDE METAL SAMMY
- RN = RISER NIPPLE
- SP = SPRIG PIPE
- UP = PIPE ROUTING FROM LOW TO HIGH
- DN = PIPE ROUTING FROM HIGH TO LOW
- B-2-B ELLS = 90 DEGREE ELBOWS BACK TO BACK.
- 287 = HYDRAULIC CALCULATION NODE POINT
- = HYDRAULIC REMOTE AREA
- 10'-0" = CEILING HEIGHT (EXP = EXPOSED)
- 1" = 1 HOUR RATED PARTITION

FIRE SPRINKLER KEY NOTES

1. PRIVACY CURTAINS SHALL CONFORM TO NFPA 13 8.5.5.2.2.1 TO AVOID OBSTRUCTIONS.
2. DO NOT PIPE OVER ELECTRICAL PANELS. MAINTAIN 36" CLEARANCE HORIZONTALLY FROM FACE OF PANEL.
3. ROOM IS EXPOSED TO STRUCTURE. STRUCTURE IS NON-COMBUSTIBLE OBSTRUCTED CONSTRUCTION. SPRINKLER HEAD DEFLECTOR DESIGNED TO BE 1" TO 6" BELOW BOTTOM OF BEAM.
4. REMOTELY LOCATED FIRE DEPARTMENT CONNECTION. 4" STORZ WITH 30 DEGREE TURN INSTALLED AT 18" - 40" ABOVE EXTERIOR GRADE. LOCAL ALARM HORN/STROBE ABOVE F.D.C. BY OTHERS.
5. AIR VENT PER NFPA 13 8.16.6.1" MANUAL BALL VALVE VENT.
6. NEW FRAMING REQUIRED IF PIPE IS TO BE CONCEALED RUNNING UP TO THE HIGH CEILING AREA OF THE ENTRY VESTIBULE.
7. DROP PIPE/MATERIAL WILL BE EXPOSED GOING FROM ABOVE 12'-0" CEILING DOWN INTO LOW ENCLOSED VESTIBULE.

DEV
8807 MONROVIA STREET
LENEXA, KS 66215

SEAL:

Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note	
●	Viking	VK3021	QR SC	144	5.6	Pendant	1/2"	Quick	Chrome	175°F	w/ 2pc. Escutcheon	
●	Viking	VK3030	EC-H.S.W.	1	8	Horizontal Sidewall	1/2"	Quick	White	175°F	HIGH VEST.	
●	Viking	VK3001	QR BU	1	5.6	Upright	1/2"	Quick	Brass	175°F	w/ 2pc. Escutcheon	
●	Viking	VK332	EC PEND.	1	11.2	Pendant	3/4"	Quick	Chrome	175°F	w/ 2pc. Escutcheon	
				Total = 147								

*** CENTER OF TILE INSTALLATION NOT REQUIRED ***

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 11. PIPE WITH THREADED ENDS SHALL BE SCHEDULE 40.
- REVISIONS:
- SCALE: 3/16" = 1'-0"

Alliance
FIRE PROTECTION
130 W 9th Ave, Suite 101
North Kansas City, MO 64116
PH: 913-988-0647 FAX: 913-988-0618
WWW.AFFSPRINK.COM

JOB NAME:
ASSOCIATED PLASTIC SURGEONS
2701 NE MCBAIN DR.
LEE'S SUMMIT, MO 64064

DRAWN BY: **BG**
DATE: **3-12-2026**
JOB NO: **NC 1514**
SHEET NO: **2 OF 2**

SHEET NAME:
FIRE SPRINKLER PLAN