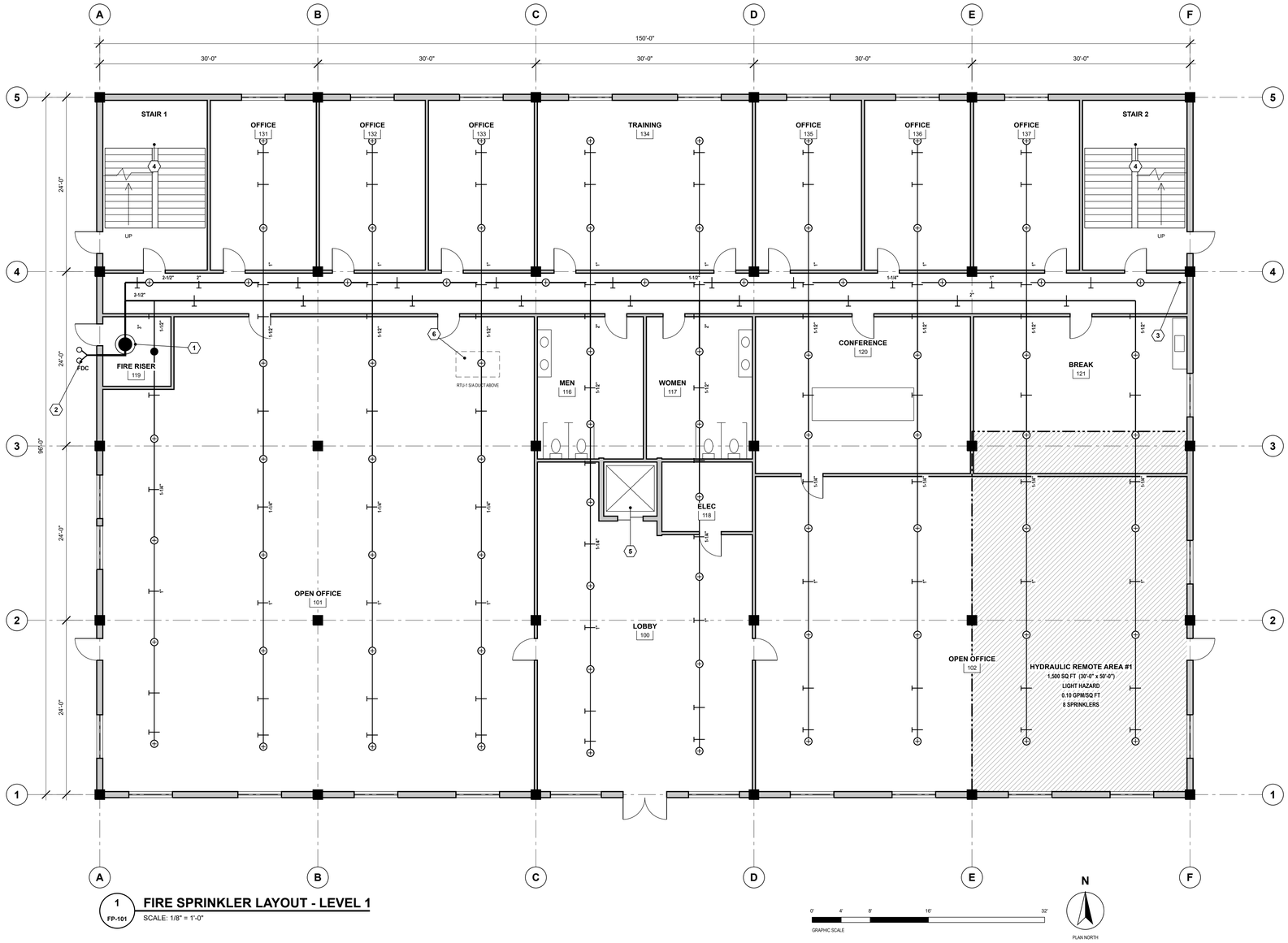


1 FP-101 **FIRE SPRINKLER LAYOUT - LEVEL 1**

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

0' 4' 8' 16' 32'

GRAPHIC SCALE

N

PLAN NORTH

SPRINKLER LEGEND

SYMBOL	DESCRIPTION	QTY
⊕	PENDENT SPRINKLER, QUICK RESPONSE, K5.6, 155°F, CHROME, RECESSED	78
●	UPRIGHT SPRINKLER, QUICK RESPONSE, K5.6, 155°F, BRASS (NO CEILING)	1
⊢	HANGER (ADJUSTABLE BAND HANGER, 3/8" ROD)	106
———	BRANCH LINE, SIZE AS NOTED	-
═══	CROSS MAIN / FEED MAIN, SIZE AS NOTED	-
◉	4" SYSTEM RISER: CONTROL VALVE, ALARM CHECK, FLOW + TAMPER SWITCHES	1
⊸	FIRE DEPARTMENT CONNECTION	1
▨	HYDRAULIC REMOTE AREA	1
(#)	KEYNOTE, SEE KEYNOTES	-

PIPE SCHEDULE

SIZE	MATERIAL / JOINING	LH SCHEDULE MAX HEADS	LENGTH
1"	SCH 40 BLACK STEEL, THREADED	2	481'
1-1/4"	SCH 40 BLACK STEEL, THREADED	3	141'
1-1/2"	SCH 40 BLACK STEEL, THREADED	5	226'
2"	SCH 10 BLACK STEEL, ROLL GROOVED	10	112'
2-1/2"	SCH 10 BLACK STEEL, ROLL GROOVED	30	115'
3"	SCH 10 BLACK STEEL, ROLL GROOVED	60	6'
4"	SCH 10 BLACK STEEL, ROLL GROOVED	-	5'
	TOTAL PIPE THIS SHEET		1,087'

LENGTHS MEASURED FROM THIS DRAWING ALONG CENTERLINE, EXCLUDING DROPS AND FITTINGS.

DESIGN CRITERIA

1. STANDARD: NFPA 13 (2022 EDITION), WET PIPE SYSTEM, HYDRAULICALLY CALCULATED.
2. OCCUPANCY: BUSINESS (OFFICE). HAZARD CLASSIFICATION: LIGHT HAZARD THROUGHOUT.
3. DESIGN DENSITY: 0.10 GPM/SQ FT OVER THE MOST REMOTE 1,500 SQ FT (REMOTE AREA #1).
4. HOSE STREAM ALLOWANCE: 100 GPM (INSIDE + OUTSIDE). WATER SUPPLY DURATION: 30 MINUTES.
5. SPRINKLERS: K5.6 QUICK-RESPONSE PENDENTS, 155°F ORDINARY TEMPERATURE, IN ACOUSTICAL CEILING AT 9'-0" AFF. UPRIGHT QR IN ROOMS WITHOUT A CEILING.
6. COVERAGE: 225 SQ FT MAX PER SPRINKLER, 15'-0" MAX BETWEEN SPRINKLERS, 7'-6" MAX AND 4" MIN FROM WALLS, 6'-0" MIN BETWEEN SPRINKLERS.
7. WATER SUPPLY: FLOW TEST DATA TO BE PROVIDED BY CLIENT. SAMPLE CALCULATION ASSUMES 65 PSI STATIC, 50 PSI RESIDUAL AT 1,000 GPM.

KEYNOTES

1. 4" SYSTEM RISER IN FIRE RISER 119: CONTROL VALVE WITH TAMPER SWITCH, ALARM CHECK, WATERFLOW SWITCH, GAUGES, 2" MAIN DRAIN TO EXTERIOR. SEE DETAIL 1/FP-501.
2. 4" FDC (2-1/2" x 2-1/2" SIAMESE) ON EXTERIOR WALL, 18" TO 48" ABOVE GRADE, WITH CHECK VALVE AND BALL DRIP. CONFIRM LOCATION WITH AHJ.
3. 1" INSPECTOR'S TEST CONNECTION WITH SIGHT GLASS AND K5.6 ORIFICE, DISCHARGE TO EXTERIOR.
4. STAIR SPRINKLERS FED FROM STAIR STANDPIPE. SEE FP-102.
5. ELEVATOR HOISTWAY: NO SPRINKLERS WHERE PERMITTED (NONCOMBUSTIBLE). COORDINATE WITH ELEVATOR CONTRACTOR AND AHJ.
6. RTU-1 SUPPLY DUCT ABOVE CEILING: ADD SPRINKLER BELOW ANY DUCT OVER 4'-0" WIDE.

GENERAL NOTES

1. INSTALL PER NFPA 13 (2022), THE ADOPTED BUILDING AND FIRE CODES AND THE AUTHORITY HAVING JURISDICTION.
2. HANGERS AND BRACING PER NFPA 13. BRANCH LINE HANGERS AT 12'-0" MAX FOR 1" STEEL AND 15'-0" MAX FOR 1-1/4" AND LARGER; LAST HANGER WITHIN 36" OF THE END SPRINKLER.
3. CENTER SPRINKLERS IN CEILING TILES WHERE POSSIBLE. COORDINATE WITH LIGHTS, DIFFUSERS AND DUCTS BEFORE FABRICATION.
4. BRANCH LINE SIZES DO NOT EXCEED THE NFPA 13 LIGHT HAZARD PIPE SCHEDULE; MAINS ARE SIZED BY HYDRAULIC CALCULATION (SEE HC-1).
5. **SAMPLE SHEET - TEST BUILDING - NOT FOR CONSTRUCTION. DRAWN BY SIYA HABITATS AS A PORTFOLIO SAMPLE. THE CLIENT'S LICENSED DESIGNER REVIEWS, SIGNS AND REMAINS RESPONSIBLE FOR THE DESIGN.**

SPRINKLER COUNT BY ROOM

ROOM	AREA (SF)	SPRINKLERS	SF / SPRINKLER
119 FIRE RISER	100	1	100
118 ELEC	130	1	130
116 MEN	300	2	150
117 WOMEN	300	2	150
100 LOBBY	1,186	7	169
101 OPEN OFFICE	3,860	19	203
102 OPEN OFFICE	2,640	12	220
120 CONFERENCE	660	4	165
121 BREAK	660	4	165
130 CORRIDOR	900	11	82
131-133 OFFICES	1,080	6	180
134 TRAINING	720	4	180
135-137 OFFICES	1,080	6	180
TOTAL	13,616	79	

HYDRAULIC DESIGN SUMMARY - REMOTE AREA #1

ITEM	VALUE
HAZARD CLASSIFICATION	LIGHT HAZARD
DESIGN DENSITY	0.10 GPM/SQ FT
DESIGN AREA	1,500 SQ FT
SPRINKLERS IN REMOTE AREA	8
AREA PER SPRINKLER (AVERAGE)	187.5 SQ FT
MIN. FLOW AT END SPRINKLER	18.8 GPM
MIN. PRESSURE AT END SPRINKLER (K5.6)	11.2 PSI
SPRINKLER DEMAND (DENSITY x AREA)	150 GPM MIN.
HOSE ALLOWANCE	100 GPM
SYSTEM DEMAND AT BASE OF RISER	PER HYDRAULIC CALC HC-1

SIYA HABITATS
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FIRE PROTECTION DRAFTING
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PROJECT
SAMPLE OFFICE BUILDING
LEVEL 1 - TEST BUILDING
150'-0" x 96'-0" | 14,400 SF

OWNER / CLIENT
NONE - PORTFOLIO SAMPLE
NOT A CLIENT PROJECT

SAMPLE SHEET
TEST BUILDING
NOT FOR CONSTRUCTION

REVISIONS

REV	DATE	DESCRIPTION	BY
0	10/16/26	ISSUED AS SAMPLE	SH

REVIEWED BY LICENSED DESIGNER (BY CLIENT)

STAMP / SEAL AREA

NICET / PE OF RECORD SIGNS. SIYA HABITATS DRAFTS ONLY AND DOES NOT STAMP.

PROJECT NO. **SH-SMPL-01**
DATE **10/16/2026**
SCALE **1/8" = 1'-0"**
DRAWN BY **SH**
CHECKED BY **AS**
CAD FILE **FP-101_sample.dxf**
CODE BASIS **NFPA 13-2022**
SHEET TITLE
FIRE SPRINKLER LAYOUT LEVEL 1
SHEET NUMBER
FP-101