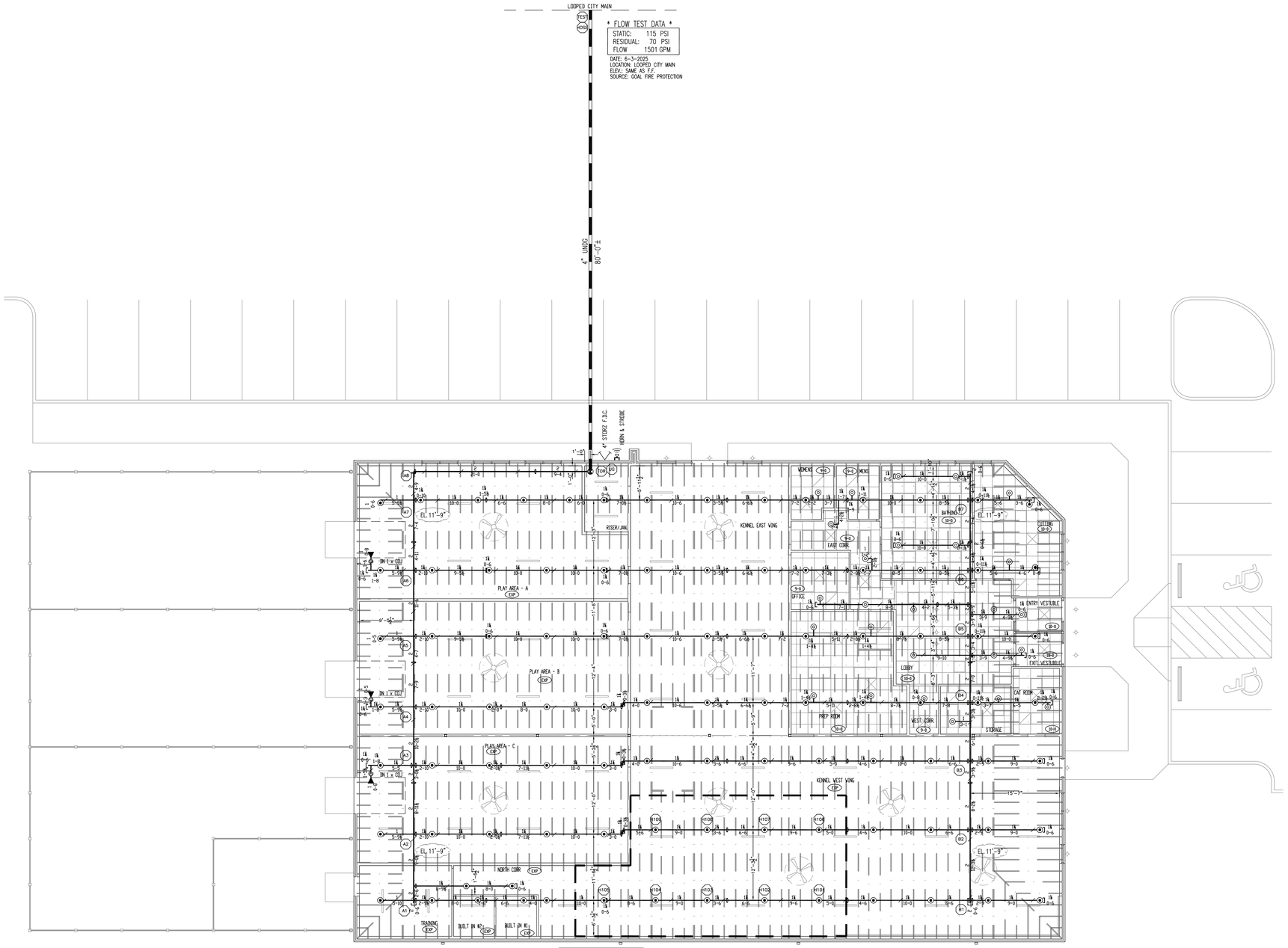
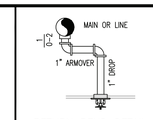



| OPERATING AREA | |
|---|---|
| 0.10 GPM/SQ FT OVER 1040 SQ FT | |
| DEMAND @ BASE OF RISER: | |
| 137.32 GPM @ 37.40 PSI | |
| DEMAND @ CITY MAIN: | |
| 237.32 GPM @ 38.28 PSI | |
| SAFETY: 75.2 PSI | 66 % |

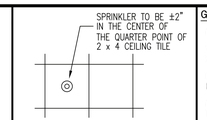
## NOTES

F.F. EL. 0'-0"
BOTTOM OF OPEN WEB WOOD TRUSS = 12'-0"
BOTTOM OF W12 STEEL BEAM = 12'-0"
ALL HANGERS TO BE SPACED PER NFPA - 13 (SEE CHART)
ALL HANGERS TO BE COJ
PENDENT HEADS TO BE ON 40" ARGCO FLEX DROPS

* SYSTEM PIPING TO BE @ EL. 11'-9" U.N.O. *




RETURN BEND DETAIL
NO SCALE




CENTER OF TILE
NO SCALE

## GENERAL NOTES:

ALL FITTINGS CONFORM TO SECTION 2-4 OF NFPA PAMPHLET 13.

VALVES ON CONNECTIONS TO WATER SUPPLIES, SECTIONAL CONTROL VALVES AND OTHER VALVES IN SUPPLY PIPES TO SPRINKLERS SHALL BE SUPERVISED OPEN BY AN APPROVED METHOD.

IT IS THE OWNERS RESPONSIBILITY TO PROVIDE ADEQUATE HEAT TO KEEP THE SPRINKLER SYSTEM FROM FREEZING.

ALL ELECTRICAL WIRING OF ALARM BELLS, FLOW SWITCHES AND TAMPER SWITCHES (IF REQUIRED) TO BE DONE BY OTHERS.

THE SPRINKLER SYSTEM TO BE INSTALLED IN ACCORDANCE WITH NFPA 13.

HANGERS TO BE SPACED TO MEET NFPA REQUIREMENTS

℄ = CENTER LINE OF PIPE BELOW TOP OF STEEL

EL = CENTER LINE OF PIPE ABOVE FINISHED FLOOR

## CONSTRUCTION:

OPEN WEB WOOD JOISTS

## PIPE TYPE:

ALL WELDED/GROOVED PIPING TO BE SCHED. 10
ALL THREADED PIPING TO BE SCHED 40

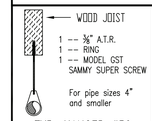
## DESIGN CRITERIA:

STORAGE/MECH AREAS:
PER NFPA-13, 2016 EDITION, ORDINARY HAZARD GR. I:
0.15 GPM/SQ. FT. FOR 900 SQ. FT.
OUTSIDE HOSE ALLOWANCE = 250 GPM.

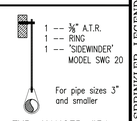
ALL OTHER AREAS:
PER NFPA-13, 2016 EDITION, LIGHT HAZARD:
0.10 GPM/SQ. FT. FOR 1040 SQ. FT.
OUTSIDE HOSE ALLOWANCE = 100 GPM.

**Maximum Distance between Hangers (ft-in.) Per NFPA-13**

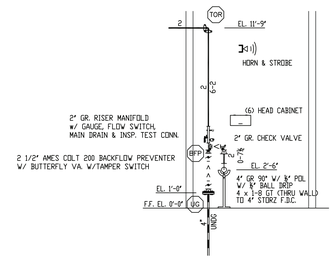
| NOMINAL PIPE SIZE | 1" | 1¼" | 1½" | 2" | 2½" | 3" | 4" | 6" | 8" |
|---|---|---|---|---|---|---|---|---|---|
| STEEL PIPE EXCEPT THREADED LIGHTWALL | 12-0 | 12-0 | 15-0 | 15-0 | 15-0 | 15-0 | 15-0 | 15-0 | 15-0 |
| THREADED LIGHTWALL STEEL PIPE | 12-0 | 12-0 | 12-0 | 12-0 | 12-0 | 12-0 | N/A | N/A | N/A |
| CPVC | 6-0 | 6-6 | 7-0 | 8-0 | 9-0 | 10-0 | N/A | N/A | N/A |




TYP. HANGER #50
NO SCALE




TYP. HANGER #51
NO SCALE




RISER DETAIL
SCALE: ¼" = 1'-0"

| Symbol | Description | Elev. |
|---|---|---|
| | Hydraulic Reference Points | |
| [ 18 deg ] | Elev. Below Top of Steel | |
| [ 8-4-3 ] | Elev. Above Finished Floor | |
| + (TOS 20-0) | Elev. of Top of Steel | |
| | Ceiling Height | |
| | Denotes Hanger Location | |
| | Rise up or down | |

| Symbol | Description | SIN # | FINISH | TEMP | ORIFICE | K-FACTOR | COUNT |
|---|---|---|---|---|---|---|---|
| | RELIABLE TYPE 54" QR, UPRIGHT (ON SPRIG) | RA1425 | BRASS | 200° | 1/2" | 5.6 | 95 |
| | RELIABLE TYPE 54" QR, RECESSED PENDANT | RA1414 | CHROME | 200° | 1/2" | 5.6 | 28 |
| | RELIABLE TYPE 54" BRASS HOR. SIDEWALL | RA1435 | BRASS | 200° | 1/2" | 5.6 | 3 |
| | | | | | | TOTAL THIS SHEET | 124 |

Drawing Title

Contract No.:

Drawn By: B & K

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

4' 2' 0 4' 8'

Date: 6-26-2025

Revisions:

Date:

## Plan Notes

1. All Pipe Locations are to be Field Measured Prior to Fabrication and Installation by Sprinkler Contractor.
2. All Pipe Dimensions Shown are Center to Center.
3. High Temperature Heads are to be Field Located Where Required.
4. All Pipes and Hangers are to be Installed per NFPA #13.
5. Hangers are to be U.L. Listed and F.M. Approved.

Job: DISCOVERY PET SPA

1921 NE TRAILS EDGE BLVD.
LEE'S SUMMINT, MO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Basehor, KS. 66007
(913) 441-3390


7-2-2025
STATE OF MISSOURI
CHRISTOPHER T. GROSS
NUMBER
PE-2015038448
PROFESSIONAL ENGINEER


MISSOURI PE COA #2016025677
CG Engineering, LLC
1624 N Glen Ellyn
Independence, MO 64056
816-516-9540


NORTH

SHEET 1 OF 1