

HANGER SPACING TABLE												
NOMINAL PIPE SIZE (IN.)	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"	8"
STEEL PIPE EXCEPT THREADED LIGHTWALL	N/A	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0
THREADED LIGHTWALL STEEL PIPE	N/A	12-0	12-0	12-0	12-0	12-0	12-0	N/A	N/A	N/A	N/A	N/A
CPVC	5-6	6-0	6-6	7-0	8-0	9-0	10-0	N/A	N/A	N/A	N/A	N/A

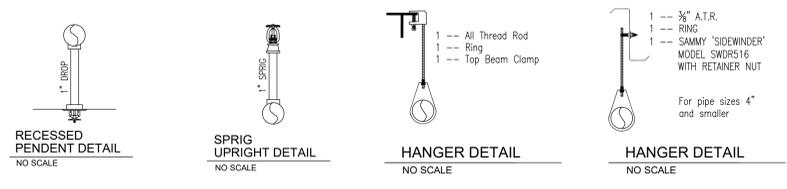
**CODE INFORMATION**

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 BUILDING CODE: INTERNATIONAL BUILDING CODE (2018 ED.)  
 INTERNATIONAL FIRE CODE (2018 ED.)  
 SPRINKLERS: NFPA-13 (2016 ED.)

**OCCUPANCY CLASSIFICATIONS**  
 B - BUSINESS GROUP  
 S1 - STORAGE

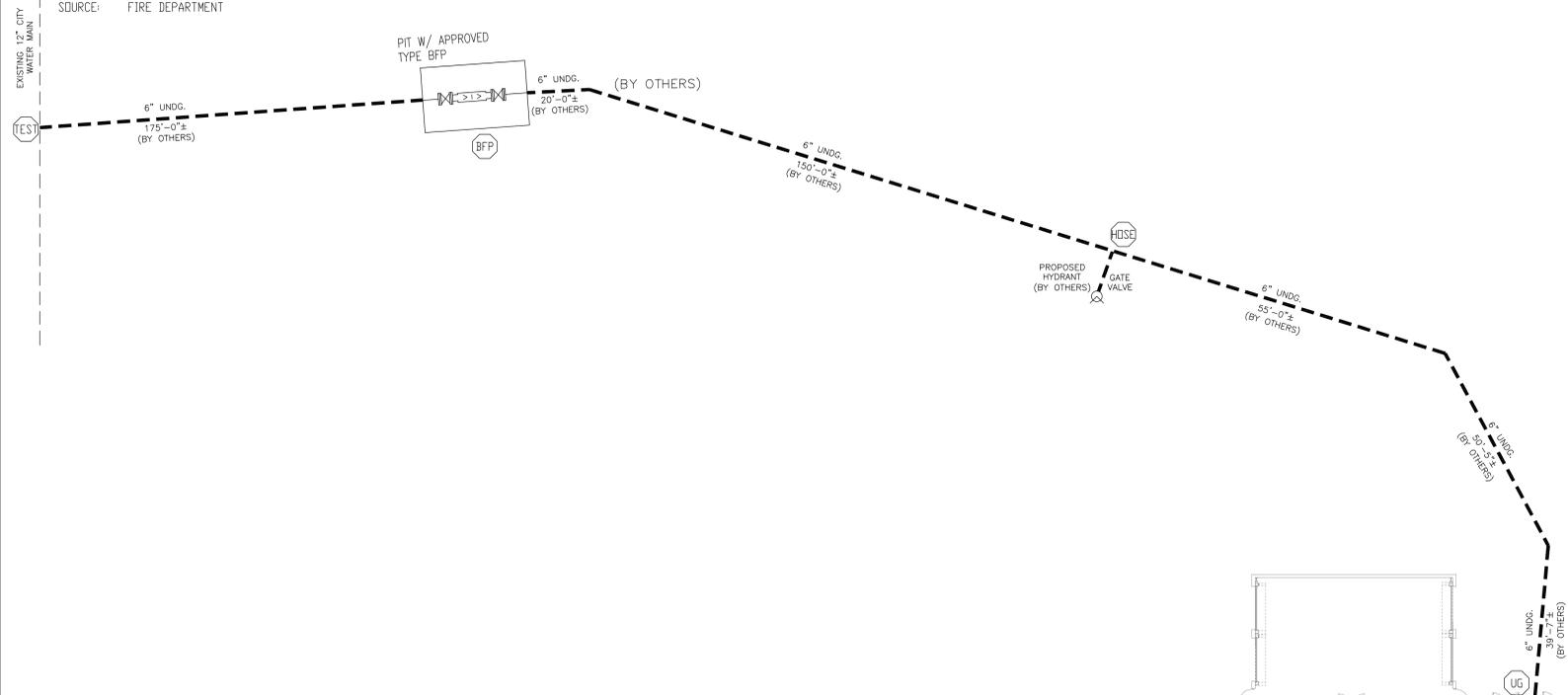
**CONSTRUCTION TYPES**  
 TYPE II-B (SPRINKLED)

**2**  
**FP1**  
**BUILDING SECTION**  
 3/16" = 1'-0"  
 LOOKING WEST



**FLOW TEST**

STATIC: 98 PSI  
 RESIDUAL: 70 PSI  
 FLOW: 2250 GPM  
 DATE: 08/27/2024  
 LOCATION: 1231 NW WARD ROAD LEE'S SUMMIT  
 SOURCE: FIRE DEPARTMENT



**GENERAL NOTES**

THIS SPRINKLER INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NFPA STANDARDS, LOCAL JURISDICTION STANDARDS AND/OR INSURANCE REQUIREMENTS.

THE DESIGNER SHALL NOT BE LIABLE FOR THE USE OF ANY UNLISTED MATERIALS AND/OR ANY ALTERATIONS MADE TO THIS DESIGN PRIOR TO OR DURING INSTALLATION.

ALL HANGERS ARE TO BE SPACED IN ACCORDANCE TO NFPA 13 AND COMPRISED OF APPROVED MATERIALS SPECIFICALLY LISTED FOR FIRE SPRINKLER USE.

THESE SHOP DRAWINGS ARE BASED ON THE OWNER'S ACCEPTANCE OF NFPA 25 AS THE OWNER'S STANDARD FOR THE INSPECTION, TESTING AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS.

OWNER TO PROVIDE ADEQUATELY HEATED ROOM TO CONTAIN ALL RISER MATERIAL AND VALVES.

OWNER TO PROVIDE ADEQUATELY HEATED BUILDING TO PREVENT ALL WET PIPE SPRINKLER SYSTEM FROM FREEZING.

REMOTE MONITORING OF SPRINKLER SYSTEM TO BE BY OTHERS.

ALL ELECTRICAL WIRING TO BE BY OTHERS.

ALL UNDERGROUND WORK TO BE BY OTHERS.

**PIPE TYPE**

ALL THREADED PIPING TO BE SCHEDULE 40  
 ALL GROOVED PIPING TO BE SCHEDULE 10

**CONSTRUCTION**

METAL ROOF, PURLINS AND STEEL BEAMS  
 SUPPORTED ON STEEL COLUMNS

**LEGEND**

- DN - VERTICAL PIPE DOWN OR DROP NIPPLE
- RN - VERTICAL PIPE UP OR RISER NIPPLE
- UP - VERTICAL PIPE UP
- T.O.S. - TOP OF STEEL ELEVATION ABOVE FIN. FLR.
- P.O.L. - PIPE-O-LET
- G.S.N. - GROOVED SHAPE NIPPLE
- UNO. - UNLESS NOTED OTHERWISE
- A.F.F. - ABOVE FINISHED FLOOR
- N.T.S. - NOT TO SCALE
- H.L.F. - HANGER TO BE DETERMINED DURING INSTALLATION
- C.O.J. - PIPING TO BE CUT ON JOB DURING INSTALLATION
- EL. X-X - ELEVATION OF PIPE CENTER-LINE ABOVE FIN. FLR.
- - DISTANCE FROM PIPE CENTER-LINE TO STRUCTURE ATTACHMENT
- - EXISTING PIPING
- - NEW PIPING
- - PIPE HANGER
- - GROOVED COUPLING
- ⊕ - HYDRAULIC REFERENCE POINT
- ⊕ - FINISHED CEILING HEIGHT ABOVE THE FIN. FLR.

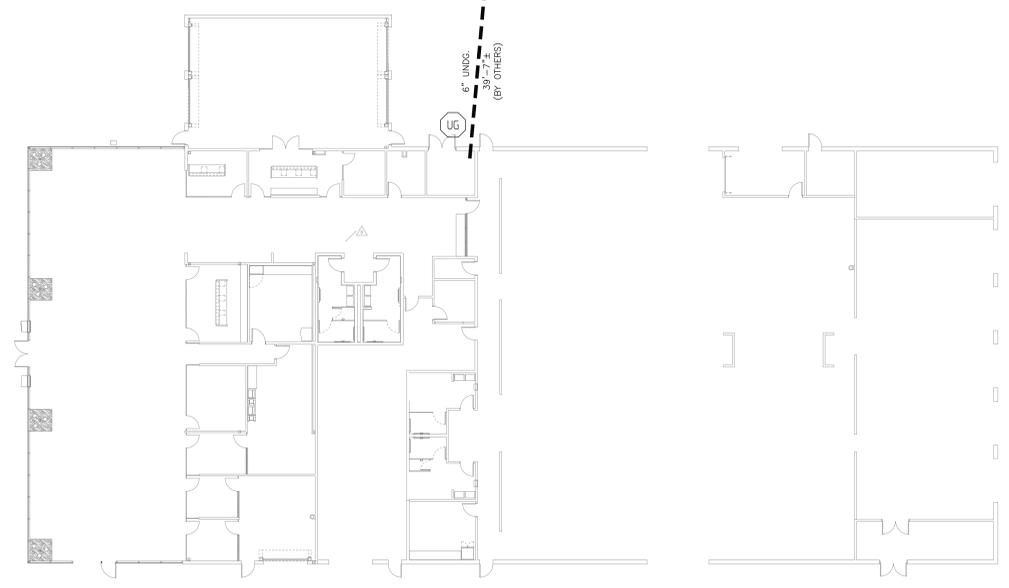
**SCOPE OF WORK / DESIGN CRITERIA**

THIS SCOPE IS TO INSTALL NEW SPRINKLER SYSTEM THROUGHOUT THE ENTIRE BUILDING TO COMPLETE PROPER COVERAGE PER NFPA-13.

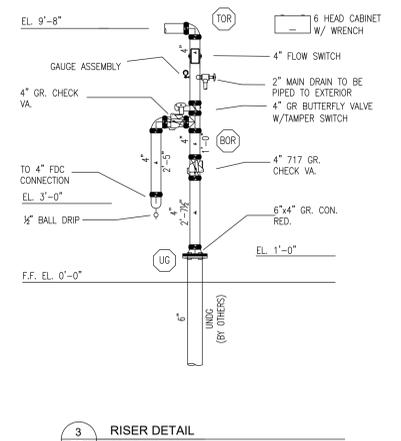
CORRIDORS, OFFICE AREAS - STANDARD COVERAGE SPRINKLERS  
 DESIGN IS IN ACCORDANCE WITH THE DENSITY/AREA HYDRAULIC CALCULATION METHOD OF NFPA-13 (2016 ED.) SECTION 11.2.3.2 FOR LIGHT HAZARD OCCUPANCY. SPRINKLERS TO BE SPACED MAXIMUM 225-sqft. THE DESIGN DENSITY IS 0.10 gpm/sqft, AND THE AREA OF SPRINKLER OPERATION IS 1500 sqft. TOTAL ALLOWANCE FOR HOSES IS 100-gpm IN ACCORDANCE WITH NFPA-13. EXTENDED COVERAGE SPRINKLERS MAXIMUM 400-sqft. THE DESIGN DENSITY IS 0.15 gpm/sqft, AND THE AREA OF SPRINKLER OPERATION IS 1500 sqft. TOTAL ALLOWANCE FOR HOSES IS 250-gpm IN ACCORDANCE WITH NFPA-13.

MECHANICAL ROOMS, SHOWROOM - STANDARD COVERAGE SPRINKLERS  
 DESIGN IS IN ACCORDANCE WITH THE DENSITY/AREA HYDRAULIC CALCULATION METHOD OF NFPA-13 (2016 ED.) SECTION 11.2.3.2 FOR ORDINARY HAZARD GROUP 1 OCCUPANCY. STANDARD COVERAGE SPRINKLERS TO BE SPACED MAXIMUM 130-sqft. EXTENDED COVERAGE SPRINKLERS MAXIMUM 400-sqft. THE DESIGN DENSITY IS 0.15 gpm/sqft, AND THE AREA OF SPRINKLER OPERATION IS 1500 sqft. TOTAL ALLOWANCE FOR HOSES IS 250-gpm IN ACCORDANCE WITH NFPA-13.

STORAGE, SERVICE, PARTS - STANDARD COVERAGE SPRINKLERS  
 DESIGN IS IN ACCORDANCE WITH THE DENSITY/AREA HYDRAULIC CALCULATION METHOD OF NFPA-13 (2016 ED.) SECTION 11.2.3.2 FOR ORDINARY HAZARD GROUP 2 OCCUPANCY. SPRINKLERS TO BE SPACED MAXIMUM 130-sqft. THE DESIGN DENSITY IS 0.20 gpm/sqft, AND THE AREA OF SPRINKLER OPERATION IS 1500 sqft. TOTAL ALLOWANCE FOR HOSES IS 250-gpm IN ACCORDANCE WITH NFPA-13.



**1**  
**FP1**  
**OVERALL SITE PLAN**  
 1/16" = 1'-0"



**3**  
**FP1**  
**RISER DETAIL**  
 SCALE: 3/8" = 1'-0"

REV.	DATE	DESCRIPTION



**PHOENIX FIRE, LLC**  
 1849 S. 14TH STREET  
 KANSAS CITY, KS 66103  
 816-500-5477  
 INFO@PHOENIXFIRELLC.COM

CONTRACT NUMBER  
**25-3392**

**LEE'S SUMMIT HYUNDAI  
 PREMIER AUTO OUTLET**  
 ADDRESS: 1231 NW WARD RD. LEE'S SUMMIT,  
 MO 64086  
 CONTRACT WITH: MCP GROUP

DRAWN BY  
 H. W. E.

SCALE  
 1/8" = 1'-0"

DATE  
 09-16-2025

SHEET NUMBER  
**FP1 OF 2**

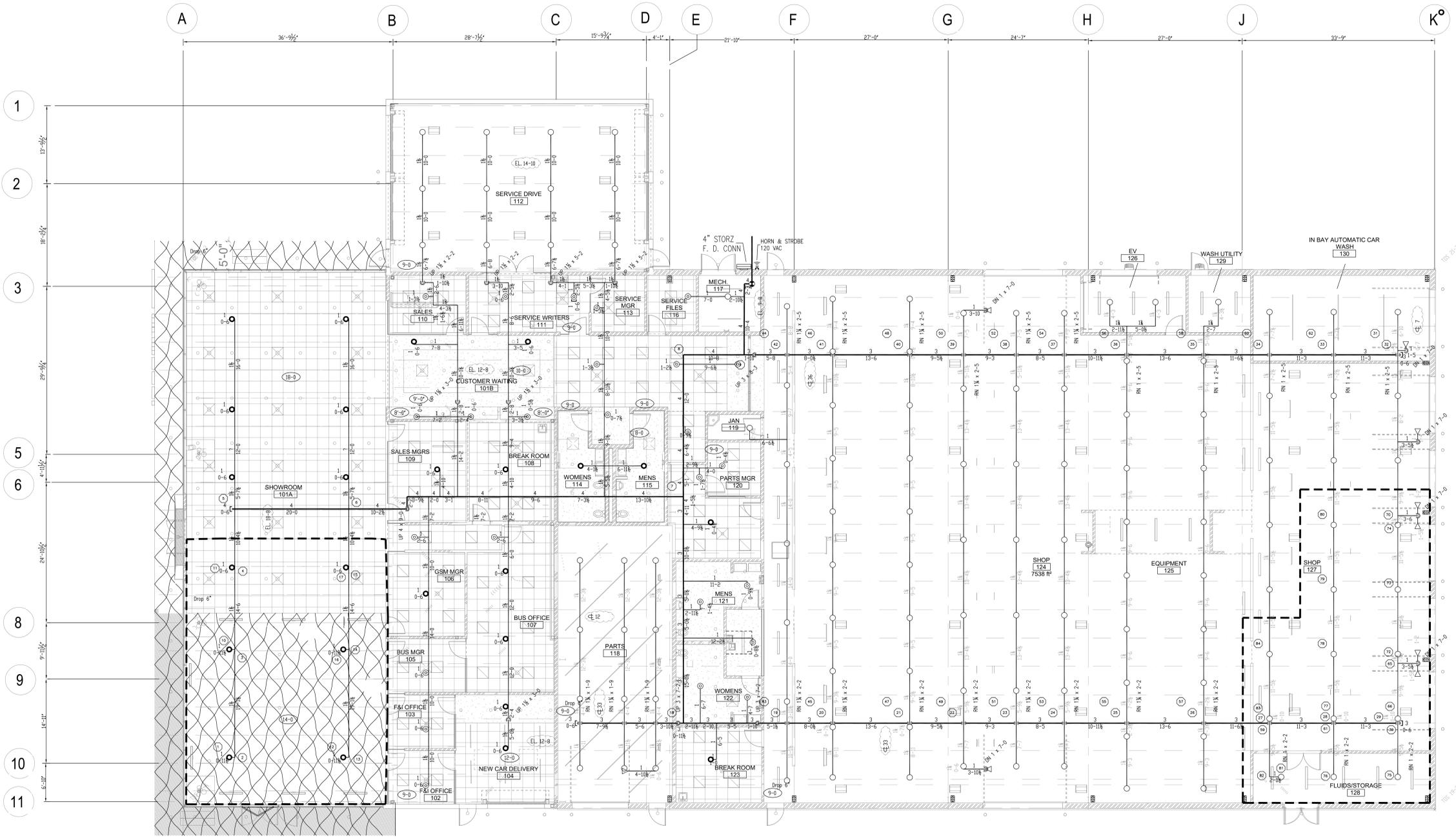


### Sprinkler Head Schedule

Symbol	Count	Thread	K-Factor	Description	Note
○	119	1/2"	5.6	VIKING VK300 QR BRASS UPRIGHT	200°F
⊙	25	1/2"	5.6	VIKING VK302 QR RECESSED PENDENT (WHITE)	175°F
●	26	3/4"	11.2	VIKING VK534 EC PENDENT SPRINKLER	200°F
△	9	1/2"	5.6	VIKING VK305 QR BRASS HORIZONTAL SIDEWALL	200°F
179 = Total Number of Heads This Floor					

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THREADED LIGHTWALL STEEL PIPE	N/A	12-0	12-0	12-0	12-0	12-0	N/A	N/A	N/A	N/A	N/A	N/A
CPVC	5-6	6-0	6-6	7-0	8-0	9-0	10-0	N/A	N/A	N/A	N/A	N/A



#### AREA #1

AREA CALCULATED	SHOW ROOM	AREA	
BASIS OF DESIGN	DENSITY	AREA	
0.15 gpm/sqft	1500 sqft		
NUMBER OF SPRINKLERS IN CALCULATED AREA	6		
SYSTEM DEMAND	SPRINKLER FLOW	PRESSURE	
623.498 gpm	87.908 psi		
DEMAND LOCATION	HOSE ALLOW		
CITY CONNECTION	250 gpm		

1 PLAN VIEW  
1/8" = 1'-0"  
FINISHED FLOOR EL. 0'-0"  
CEILING HEIGHTS TO BE 9'-1" U.O.

#### AREA #2

AREA CALCULATED	SHOP	AREA	
BASIS OF DESIGN	DENSITY	AREA	
0.20 gpm/sqft	1500 sqft		
NUMBER OF SPRINKLERS IN CALCULATED AREA	13		
SYSTEM DEMAND	SPRINKLER FLOW	PRESSURE	
597.000 gpm	53.100 psi		
DEMAND LOCATION	HOSE ALLOW		
CITY CONNECTION	250 gpm		

REV.	DATE	DESCRIPTION



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KANSAS CITY, MO 64103  
INFO@PHOENIXFIRELLC.COM

CONTRACT NUMBER  
**25-3392**

**LEE'S SUMMIT HYUNDAI  
PREMIER AUTO OUTLET**  
ADDRESS  
1231 NW WARD RD. LEES SUMMIT,  
MO 64086

CONTRACT WITH  
MCP GROUP

DRAWN BY  
H. W. E.

SCALE  
1/8" = 1'-0"

DATE  
09-16-2025

SHEET NUMBER  
**FP2 OF 2**



FIRE PROTECTION PIPING PLAN