

INTERNATIONAL BUILDING CODE (2009)

1. OCCUPANCY R-2, S-2, B-2

2. TYPE OF CONSTRUCTION: I-A

3. SPRINKLERED AREAS (APPROXIMATE - SEE ARCHITECTURAL PLANS FOR ACTUAL)

LOWER LEVEL (R-2) = 33,972 S.F. (ZONE 1)

FIRST FLOOR (R) = 10,502 S.F. (ZONE 2)

FIRST FLOOR (S-2) = 11,625 S.F. (ZONE 2)

FIRST FLOOR (R-2) = 10,160 S.F. (ZONE 2)

SECOND FLOOR (R-2) = 25,870 S.F. (ZONE 3)

THIRD FLOOR (R-2) = 25,870 S.F. (ZONE 4)

FOURTH FLOOR (R-2) = 25,870 S.F. (ZONE 5)

FIFTH FLOOR (R-2) = 24,490 S.F. (ZONE 5)

TOTAL: = 168,359 S.F.

4. INSTALLATION STANDARDS:
SPRINKLER SYSTEM DESIGNED AND INSTALLED PER NFPA-13, NFPA-14, NFPA-20 (2016)

2. SPRINKLER PIPE TYPES:

WET:

2.1. 1"-1 1/2" PIPING TO BE BLAZEMASTER CPVC PIPING WITH CEMENTED FITTINGS

2.1.1 BRANCH LINES TO BE BLK THREADED LIGHTWALL PIPING WITH THREADED FITTINGS

2.1.1-1/4" THROUGH 6" MAIN & BRANCH LINES TO BE BLK LIGHTWALL PIPING WITH GROOVED FITTINGS

3. DESIGN CRITERIA

1. ROOMS, CORRIDORS, LOBBIES, AND SIMILAR AREAS CLASSIFIED LIGHT HAZARD AREAS.

2. DESIGNED TO DELIVER 0.10 GPM/S.F. OVER THE MOST DEMANDING 1500 S.F.

3. PARKING GARAGE, STORAGE UNITS AND MECHANICAL ROOMS CLASSIFIED ORDINARY HAZARD 1 AREAS

DESIGNED TO DELIVER 0.15 GPM/S.F. OVER THE MOST DEMANDING 1500 S.F.

4. FUTURE TENANT AREAS CLASSIFIED ORDINARY HAZARD GROUP 2 AREAS

DESIGNED TO DELIVER 0.20 GPM/S.F. OVER THE MOST DEMANDING 1500 S.F.

5. REMOTE AREA REDUCTIONS HAVE BEEN TAKEN WHERE APPLICABLE PER NFPA 13 SEC. 11.2.3.2.3

4. NOTES:

4.1. ALL MATERIALS TO BE NEW AND MEET U.L. STANDARDS

4.2. HANGERS TO BE INSTALLED IN ACCORDANCE WITH NFPA 13 (2016) - SEE PLAN FOR HANGING REQUIREMENTS

5. SYMBOLS USED ON DRAWINGS:

 PIPE ELEVATION A.F.F

 PIPE ELEVATION BELOW B.O.D

 ROOM HAZARD CLASSIFICATION (ALL ROOMS ARE CONSIDERED LIGHT HAZARD UNLESS NOTED)

 HYDRAULIC CALCULATION JUNCTION POINT

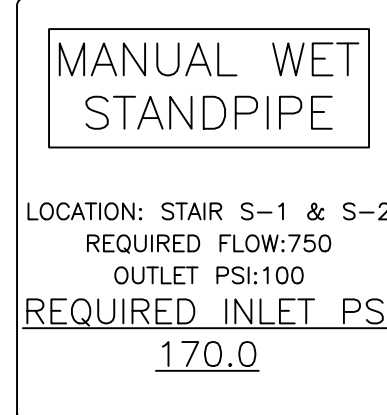
 8'-0" CEILING HEIGHT

6. CALL-OUTS (SEE PLAN)

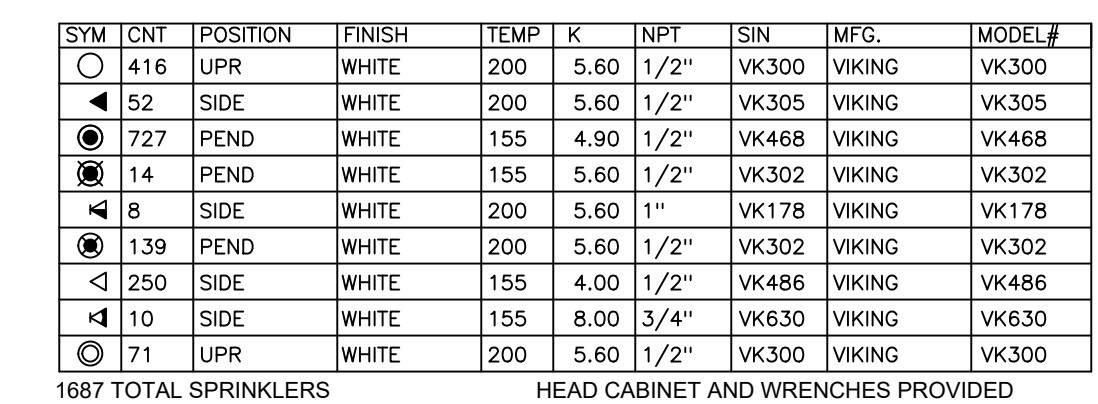
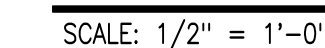
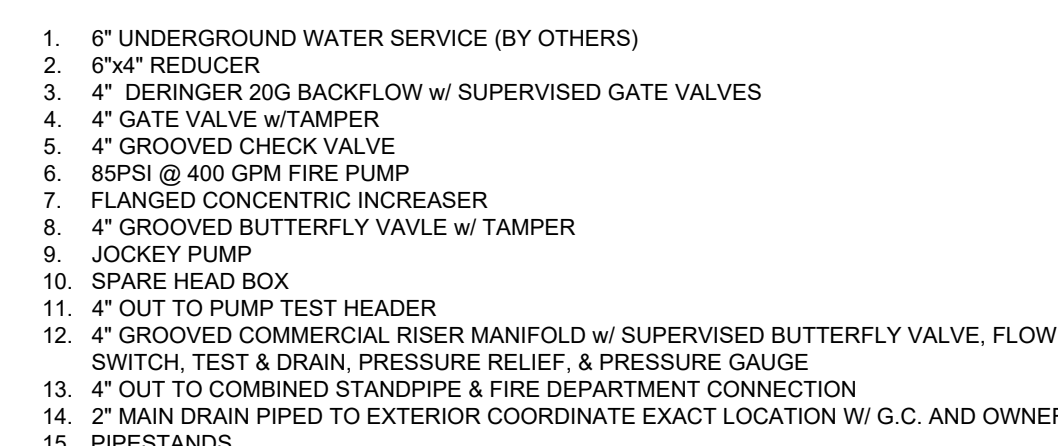
7. SCOPE OF WORK:

7.1. NEW APARTMENT BUILDING INSTALLED BY _____ I PER THE 2018 IRC, 2018 N.D STATE BUILDING CODE AND 2016 NFPA 13, TO BE ZONED BY FLOOR, FLOOR 4 AND FLOOR 5 ARE COMBINED TO ONE ZONE. PARKING GARAGE AND MECHANICAL ARE ZONED BY FLOOR. ORDINARY HAZARD GROUP 1 RESIDENTIAL AREAS ARE PROTECTED TO LIGHT HAZARD AND RESIDENTIAL CRITERIA PER NFPA 13. COMMERCIAL AREAS ARE PROTECTED TO ORDINARY HAZARD GROUP 2.

7.2. THE ENTIRE PROJECT TO BE INSTALLED AND COVERED IN ACCORDANCE WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PER NFPA 13 (2016)

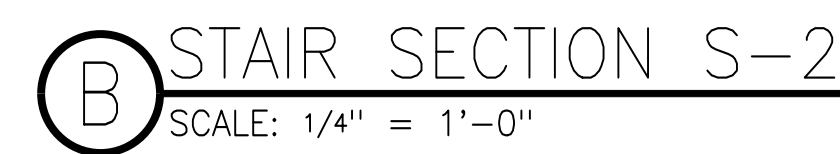
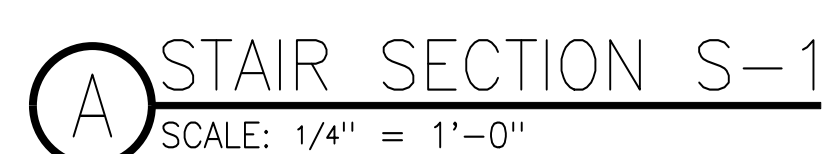


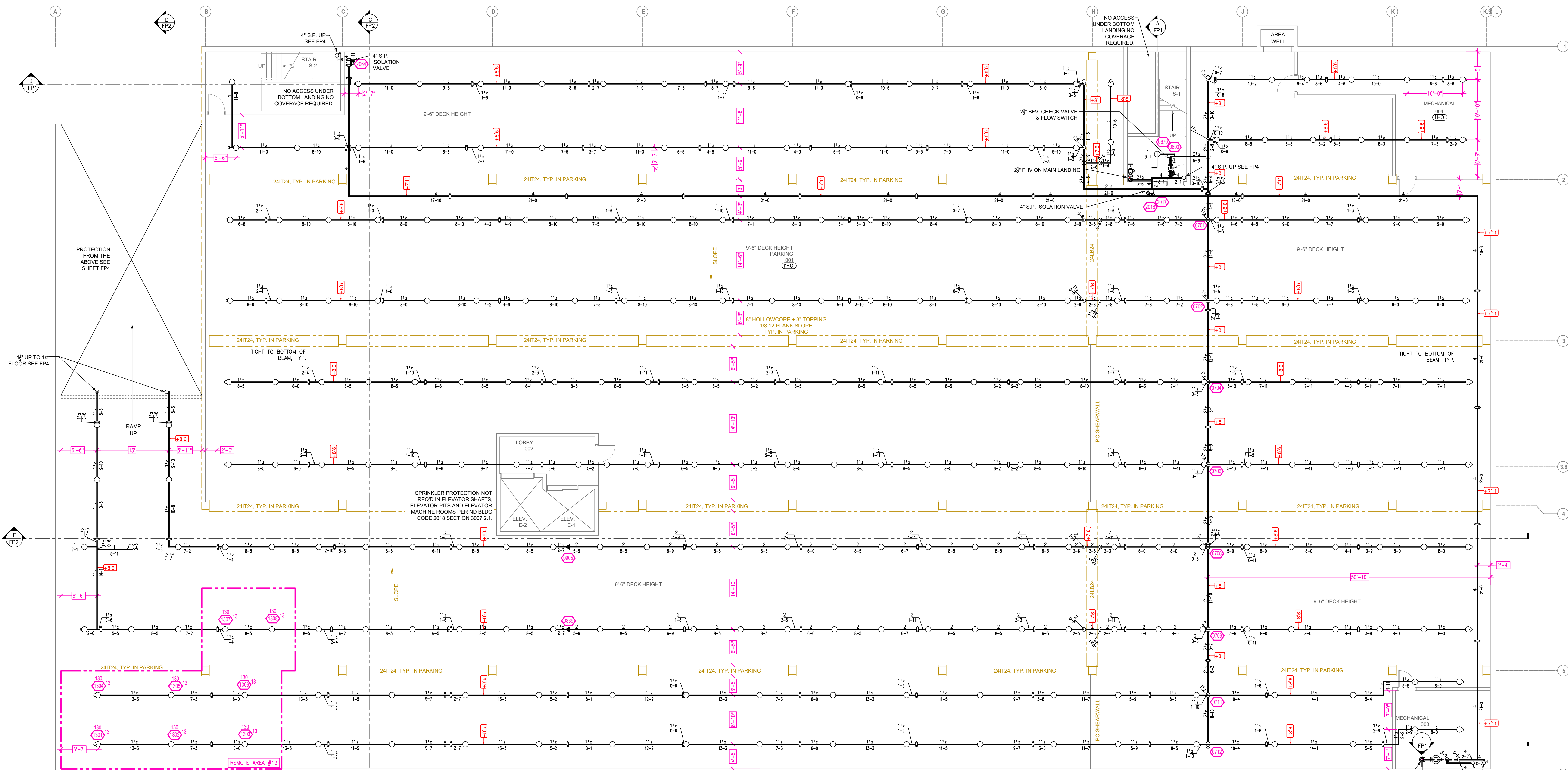
N.T.S.



————— WET SYSTEM FIRE SPRINKLER PIPING
 — — — — — CPVC BLAZEMASTER SPRINKLER PIPING
 - - - - - UNDERGROUND PIPING

1687 TOTAL SPRINKLERS HEAD CABINET AND WRENCHES PROVIDED

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Design Area #13 HAZARD: OH2
Zone: 1 System Type: WET
Location: LOWER LEVEL PARKING
Flowing Outlets: 8
Density: 0.15 Remote Area: 952
Flow 421.4 gpm @ 48.5 psi
Calculation Safety: 96.7 psi
Includes 250 gpm hose allowance

NOTES:
WITH A CEILING HEIGHT LESS THAN 9'-6"
AND THE USE OF QUICK RESPONSE
SPRINKLERS A MINIMUM REMOTE AREA OF
900 S.F. USED PER NFPA 13 FIG 11.2.3.2.3.1

PARKING GARAGE FLOOR PLAN

SCALE: $\frac{1}{8}" = 1'-0"$ TOS = 0'-0"

PIPE LEGEND

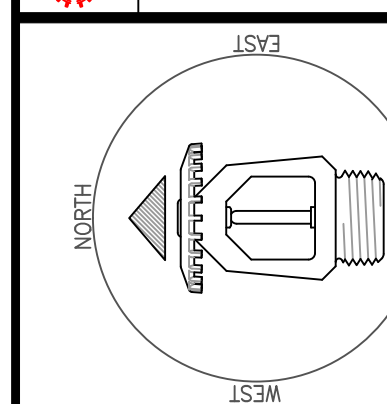
WET SYSTEM FIRE SPRINKLER PIPING
CPVC BLAZEMASTER SPRINKLER PIPING
UNDERGROUND PIPING

SYM	ICNT	POSITION	FINISH	TEMP	K	NPT	SIN	MPG.	MODEL#
○	416	UPR	WHITE	200	5.60	1/2"	VK300	Viking	VK300
◄	52	SIDE	WHITE	200	5.60	1/2"	VK305	Viking	VK305
●	727	PEND	WHITE	155	4.50	1/2"	VK468	Viking	VK468
●	114	PEND	WHITE	155	5.60	1/2"	VK302	Viking	VK302
◄	8	SIDE	WHITE	200	5.60	1"	VK178	Viking	VK178
●	139	PEND	WHITE	200	5.60	1/2"	VK302	Viking	VK302
◄	250	SIDE	WHITE	155	4.00	1/2"	VK486	Viking	VK486
◄	10	SIDE	WHITE	155	8.00	3/4"	VK630	Viking	VK630
○	71	UPR	WHITE	200	5.60	1/2"	VK300	Viking	VK300

1697 TOTAL SPRINKLERS HEAD CABINET AND WRENCHES PROVIDED

SPRINKLER HEAD LEGEND

Symbol	Description
○	Ceiling Height
○	Elev. Below Top of Steel
○	Elev. Above Finished Floor
○	Hydraulic Reference Point
○	Common Connection Point
○	Denotes Hanger Location
○	Rise up or down
○	Electrical Light
○	Room Hazards Classification
○	Sprinkler Head Code



REVISIONS

No.	Description

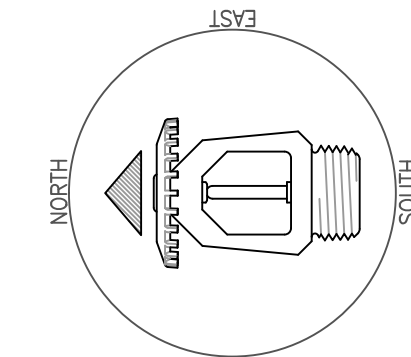
Drawing Title
FIRE PROTECTION PLAN
Project No.
Drawn By JVG
Scale 1/8" = 1'
Date 05-12-22
DWG Type SUBMITTAL DWG

Design Area #11 HAZARD: OH1
Zone: 1 System Type: WET
Location: PARKING RAMP
Flowing Outlets: 14
Density: 0.15 Remote Area: 1571
Flow 512.9 gpm @ 39.9 psi
Calculation Safety: 8.0 psi
Includes 250 gpm Hose allowance
NOTES:
WITH A CEILING HEIGHT OVER 20' A
MINIMUM REMOTE AREA OF 1500 S.F. USED
PER NFPA 13 FIG 11.2.3.2.1

Design Area #9 HAZARD: OH1
Zone: 2 System Type: WET
Location: GROUND LEVEL PARKING #1
AREA A
Flowing Outlets: 8
Density: 0.15 Remote Area: 1046
Flow 447.4 gpm @ 15.7 psi
Calculation Safety: 63.8 psi
Includes 250 gpm Hose allowance
NOTES:
WITH A CEILING HEIGHT LESS THAN 13'-4"
AND THE USE OF QUICK RESPONSE
SPRINKLERS A MINIMUM REMOTE AREA OF
975 S.F. USED PER NFPA 13 FIG 11.2.3.2.1

Design Area #10 HAZARD: OH2
Zone: 2 System Type: WET
Location: GROUND LEVEL RETAIL
Flowing Outlets: 9
Density: 0.20 Remote Area: 1004
Flow 464.7 gpm @ 34.0 psi
Calculation Safety: 81.9 psi
Includes 250 gpm Hose allowance
NOTES:
WITH A CEILING HEIGHT LESS THAN 13'-4"
AND THE USE OF QUICK RESPONSE
SPRINKLERS A MINIMUM REMOTE AREA OF
975 S.F. USED PER NFPA 13 FIG 11.2.3.2.1

Symbol	Description
○	Ceiling Height
○	Elev. Below Top of Steel
○	Elev. Above Finished Floor
○	Hydraulic Reference Point
○	Common Connection Point
○	Denotes Hanger Location
○	Rise up or down
○	Electrical Light
○	Room Hazard Classification
○	Sprinkler Head Code



REVISIONS

Drawing Title
FIRE PROTECTION PLAN

Project No.

Drawn By JVG

Scale 1/8" = 1'

Date 05-12-22

DWG Type SUBMITTAL DWG

FIRST FLOOR PLAN
SCALE: 3/8" = 1'-0"

PIPE LEGEND

NET SYSTEM FIRE SPRINKLER PIPING
CPVC BLAZEMASTER SPRINKLER PIPING
UNDERGROUND PIPING

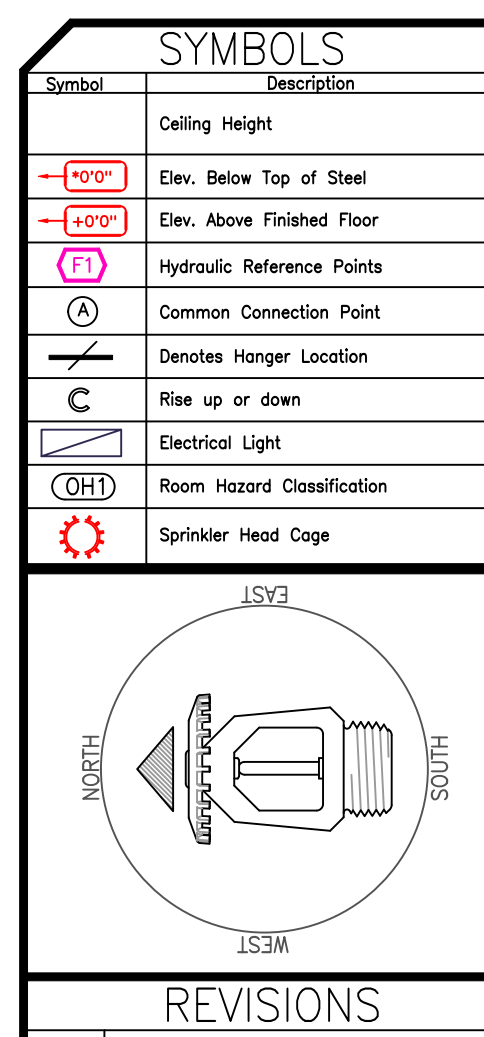
SYM	QTY	POSITION	FINISH	TEMP	K	INPT	SN	MFG.	MODEL#
○	116	UPR	WHITE	200	5.60	1/2"	VK300	VIKING	VK300
○	52	SIDE	WHITE	200	5.60	1/2"	VK305	VIKING	VK305
○	727	PEND	WHITE	155	4.90	1/2"	VK468	VIKING	VK468
○	14	PEND	WHITE	155	5.60	1/2"	VK302	VIKING	VK302
○	8	SIDE	WHITE	200	5.60	1"	VK178	VIKING	VK178
○	139	PEND	WHITE	200	5.60	1/2"	VK302	VIKING	VK302
○	250	SIDE	WHITE	155	4.90	1/2"	VK486	VIKING	VK486
○	10	SIDE	WHITE	155	8.00	3/4"	VK630	VIKING	VK630
○	71	UPR	WHITE	200	5.60	1/2"	VK300	VIKING	VK300

1687 TOTAL SPRINKLERS

HEAD CABINET AND WRENCHES PROVIDED

SPRINKLER HEAD LEGEND

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PIPE LEGEND									
WET SYSTEM FIRE SPRINKLER PIPING									
CPVC BLAZEMASTER SPRINKLER PIPING									
UNDERGROUND PIPING									
SYM	CHT	POSITION	FINISH	TEMP	K	NPT	SIZE	MPG.	MODEL#
①	416	UPR	WHITE	200	5.60	1/2"	VK300	VIKING	VK300
②	5IDE	WHITE	200	5.60	1/2"	VK305	VIKING	VK305	
727	PEND	WHITE	155	4.90	1/2"	VK486	VIKING	VK486	
14	PEND	WHITE	155	4.90	1/2"	VK302	VIKING	VK302	
8	PEND	WHITE	200	5.60	1/2"	VK178	VIKING	VK178	
③	159	PEND	WHITE	200	5.60	1/2"	VK302	VIKING	VK302
④	230	PEND	WHITE	155	4.90	1/2"	VK486	VIKING	VK486
④	10	SIDE	WHITE	155	8.00	3/4"	VK630	VIKING	VK630
⑤	17	UPR	WHITE	155	8.00	3/4"	VK300	VIKING	VK300

SYM	CONT	POSITION	FINISH	TEMP	K	1/P2	SN	MFG.	MODEL
④	416	UPR	WHITE	200	5.60	1/2"	VX300	VKING	VX300
⑤	52	SIDE	WHITE	200	5.60	1/2"	VX305	VKING	VX305
⑦	727	PEND	WHITE	155	4.90	1/2"	VK468	VKING	VK468
⑧	14	PEND	WHITE	155	5.60	1/2"	VX302	VKING	VX302
⑧	8	SIDE	WHITE	200	5.60	1"	VK178	VKING	VK178
⑨	139	PEND	WHITE	200	5.60	1/2"	VX302	VKING	VX302
⑩	250	SIDE	WHITE	155	4.90	1/2"	VK486	VKING	VK486
⑪	71	PEND	WHITE	155	8.00	3/4"	VK630	VKING	VK630
⑪	71	UPR	WHITE	200	5.60	1/2"	VX300	VKING	VX300

1687 TOTAL SPRINKLERS

HEAD CABINET AND WRENCHES PROVIDED