

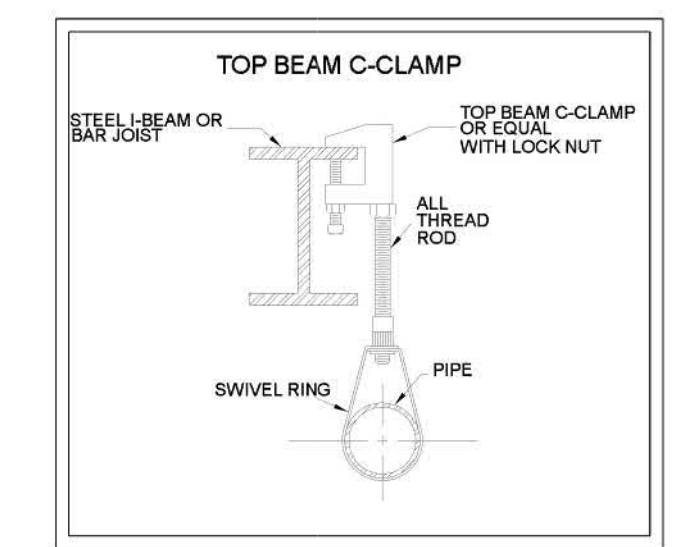
**FIRST FLOOR FIRE SPRINKLER PLAN**  
SCALE: 1/8" = 1'-0"

**1st Floor Sprinkler Legend**

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Max Spacing	Escutcheon
⊙	Victaulic	V2704	FL-QR	22	5.6	Sprig	1/2"	Quick	Brass	200 °F	15 x 15	Head Cage
⊙	Victaulic	V2704	FL-QR	1	5.6	Sprig	1/2"	Quick	Brass	200 °F	15 x 15	NA
⊙	Victaulic	V5606	FL-QR/C	21	5.6	Pendent	1/2"	Quick	White	200 °F	15 x 15	Concealed
⊙	Victaulic	V2704	FL-QR	3	5.6	Upright	1/2"	Quick	Brass	200 °F	15 x 15	Head Cage
⊙	Viking	VK188	VK188	1	5.6	Sidewall	1"	Standard	White	175 °F	16 x 20	Recessed
				<b>Total = 48</b>								

**GENERAL INFORMATION**

- INTERNATIONAL BUILDING CODE (2021)
  - OCCUPANCY: TYPE A-3 & B
  - TYPE OF CONSTRUCTION: II-B (NON-COMBUSTIBLE CONSTRUCTION)
  - SPRINKLERED AREAS (APPROXIMATE - SEE ARCHITECTURAL PLANS FOR ACTUAL)
    - 1ST FLOOR = 8,839 S.F.
    - 2ND FLOOR = 6,334 S.F.
    - TOTAL NEW AREA = 15,173 S.F.
    - EXISTING BUILDING = 14,494 S.F.
    - TOTAL SYSTEM AREA = 29,667 S.F.
- DESIGN & INSTALLATION STANDARDS: NFPA-13 (2019)
- SPRINKLER PIPE TYPES:
  - 1" PIPE TO BE SCHEDULE 40 BLACK STEEL W/ THREADED FITTINGS
  - 2" PIPE TO BE SCHEDULE 40 BLACK STEEL W/ THREADED FITTINGS
  - 2.5" THROUGH 3" THROUGH 2-1/2" MAINS & BRANCH LINES TO BE BLK SCHEDULE 10 W/ GROOVED FITTINGS
  - 4" MAINS & BRANCH LINES TO BE ROLL-GROOVED BLK SCHEDULE 10
  - 6" AND LARGER PIPE TO USE GROOVED SHORT RADIUS FITTINGS
- DESIGN CRITERIA:
  - LIGHT HAZARD AREAS INCLUDE RESTROOMS, THE BREAK ROOM, PANTRY AND THE GYMNASIUM
  - ORDINARY HAZARD GROUP I AREAS INCLUDE MECHANICAL, ELECTRICAL AND IT ROOMS, AND THE STORAGE ROOMS
  - REMOTE AREA REDUCTIONS HAVE BEEN TAKEN WHERE APPLICABLE PER NFPA 13 SEC. 19.3.3.2.3
- NOTES:
  - ALL MATERIAL TO BE NEW AND MEET U.L. STANDARDS
  - HANGERS TO BE INSTALLED IN ACCORDANCE WITH NFPA 13
- SYMBOLS USED ON DRAWINGS:
  - ⊙ PIPE ELEVATION ABOVE FINISH FLOOR
  - ⊙ PIPE ELEVATION BELOW TOP OF STEEL
  - OH1 ROOM HAZARD CLASSIFICATION (ALL ROOMS ARE CONSIDERED LIGHT HAZARD U.N.O.)
  - ⊙ HYDRAULIC CALCULATION JUNCTION POINT
  - 9'-0" CEILING HEIGHT
  - WET BLACK STEEL PIPE
  - - - EXISTING STEEL PIPE
  - - - I-BEAMS LARGER THAN 12" IN DEPTH
  - - - I-BEAMS 12" & SMALLER / BAR JOISTS
- SCOPE OF WORK:
  - EXTEND A SINGLE ZONE WET FIRE SPRINKLER SYSTEM TO COVER THE ADDITION TO THE EXISTING BUILDING
  - ALL AREAS OF THE NEW BUILDING ADDITION TO BE INSTALLED AND COVERED IN ACCORDANCE WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PER NFPA 13



**HANGER DETAILS**

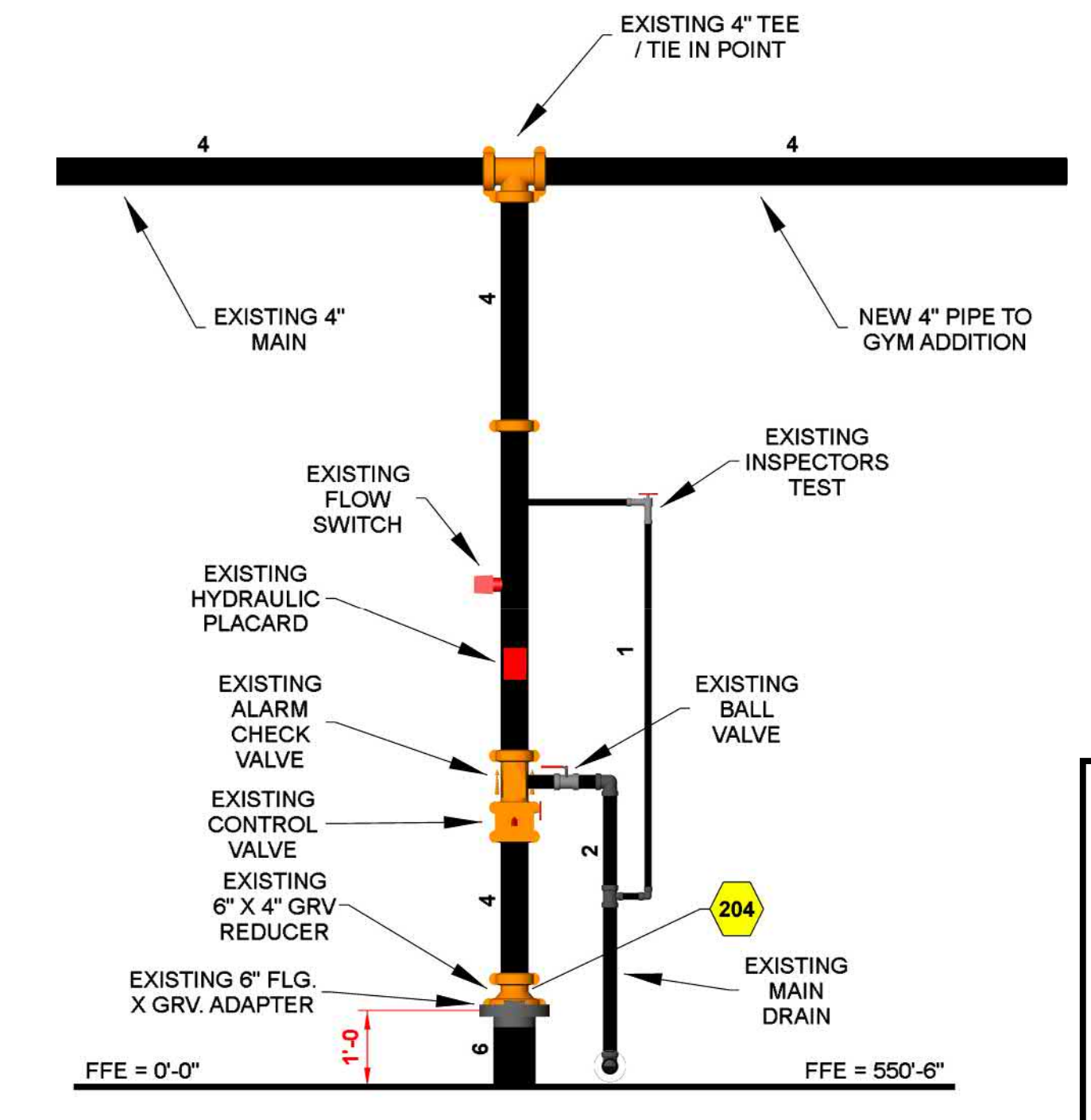
**MAXIMUM DISTANCE BETWEEN HANGERS (FT.-IN.)**

	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
STEEL PIPE EXCEPT THREADED LIGHTWALL	NA	12-0	12-0	12-0	12-0	15-0	15-0	15-0	15-0	15-0
THREADED LIGHTWALL STEEL PIPE	NA	12-0	12-0	12-0	12-0	NA	NA	NA	NA	NA

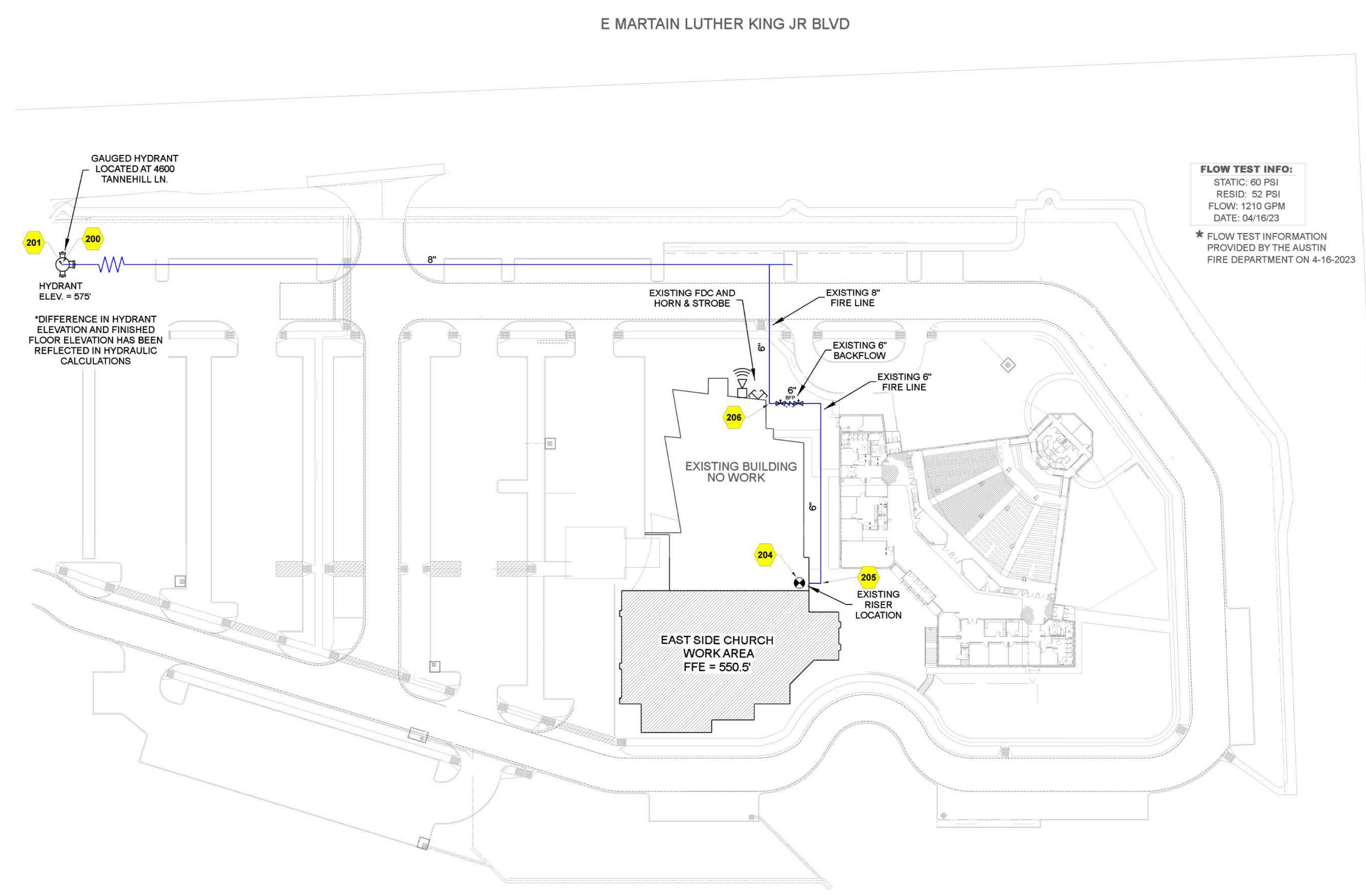
**Hydraulic Information**

Remote Area 1	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft <sup>2</sup> )	0.10 for 1500 ft <sup>2</sup> (Actual 1121 ft <sup>2</sup> )
TOTAL HOSE STREAMS	100.0
TOTAL HEADS FLOWING	7
K-FACTOR	5.6
TOTAL WATER REQUIRED	282.8
TOTAL PRESSURE REQUIRED	41.4
BASE OF RISER (gpm)	282.8
BASE OF RISER (psi)	41.4
SAFETY MARGIN (psi)	+18.1 (20.5%)

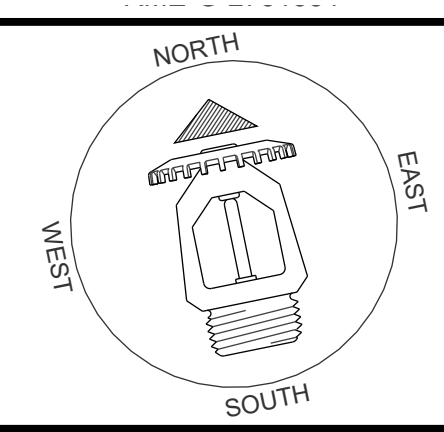
REMOTE AREA #1 WAS CALCULATED USING THE SPECIAL DESIGN AREA METHOD. SEVEN HEADS ON A SINGLE LINE WERE CALCULATED IN ACCORDANCE WITH NFPA 13, SECTION 19.3.4.2



**EXISTING RISER DETAIL**  
SCALE: 1/2" = 1'-0"



**SITE PLAN**  
SCALE: 1" = 50'-0"

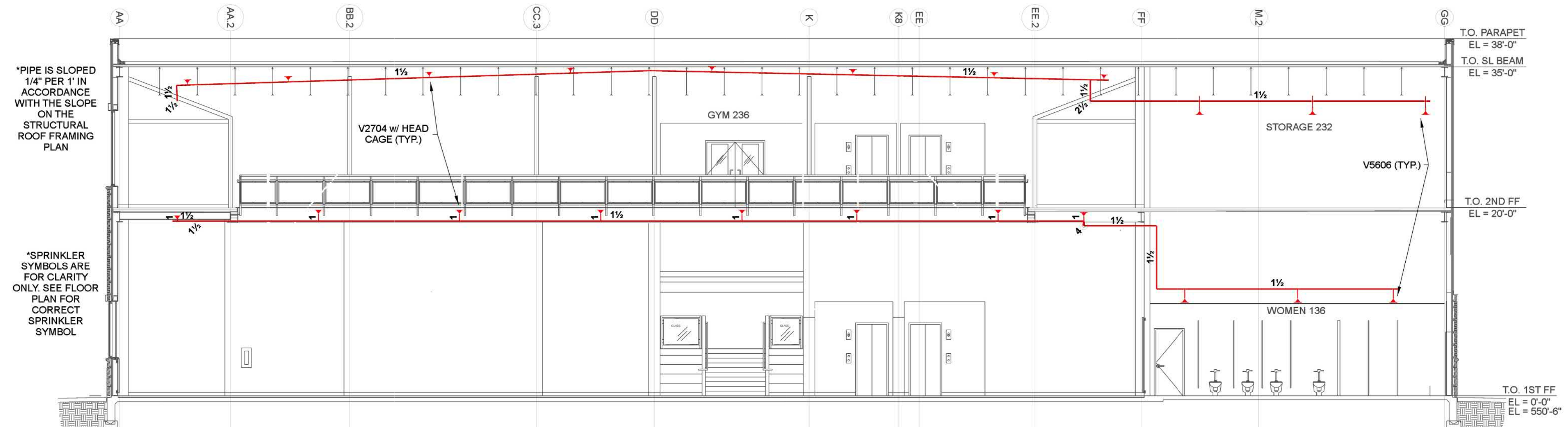


**REVISIONS**

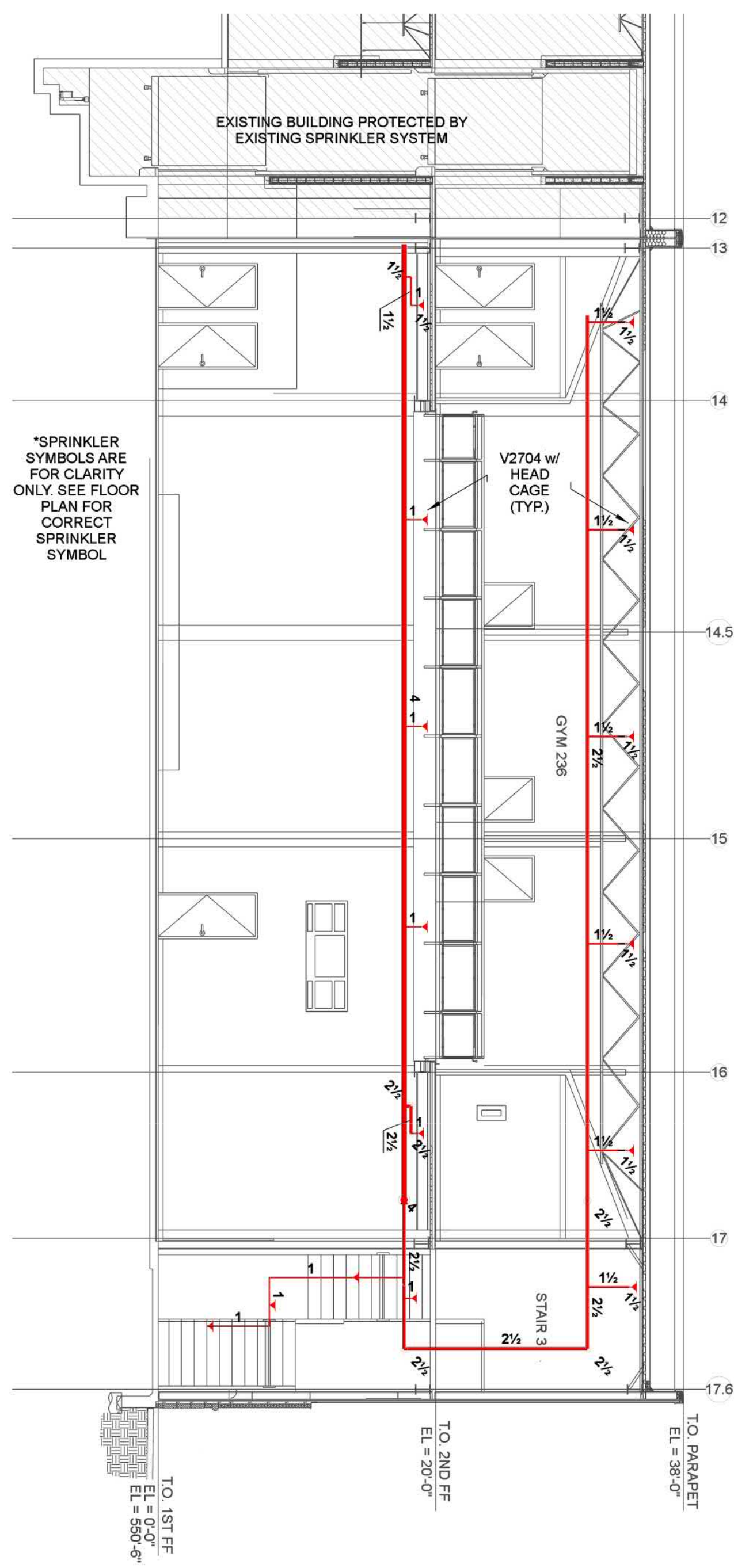
No.	Description

Drawing Title	<b>1ST FLOOR / DETAILS</b>
Project No.	P-39
Drawn By	SRM
Scale	AS NOTED
Date	07/19/23
DWG Type	SUBMITTAL
Parcel No.	0213260401

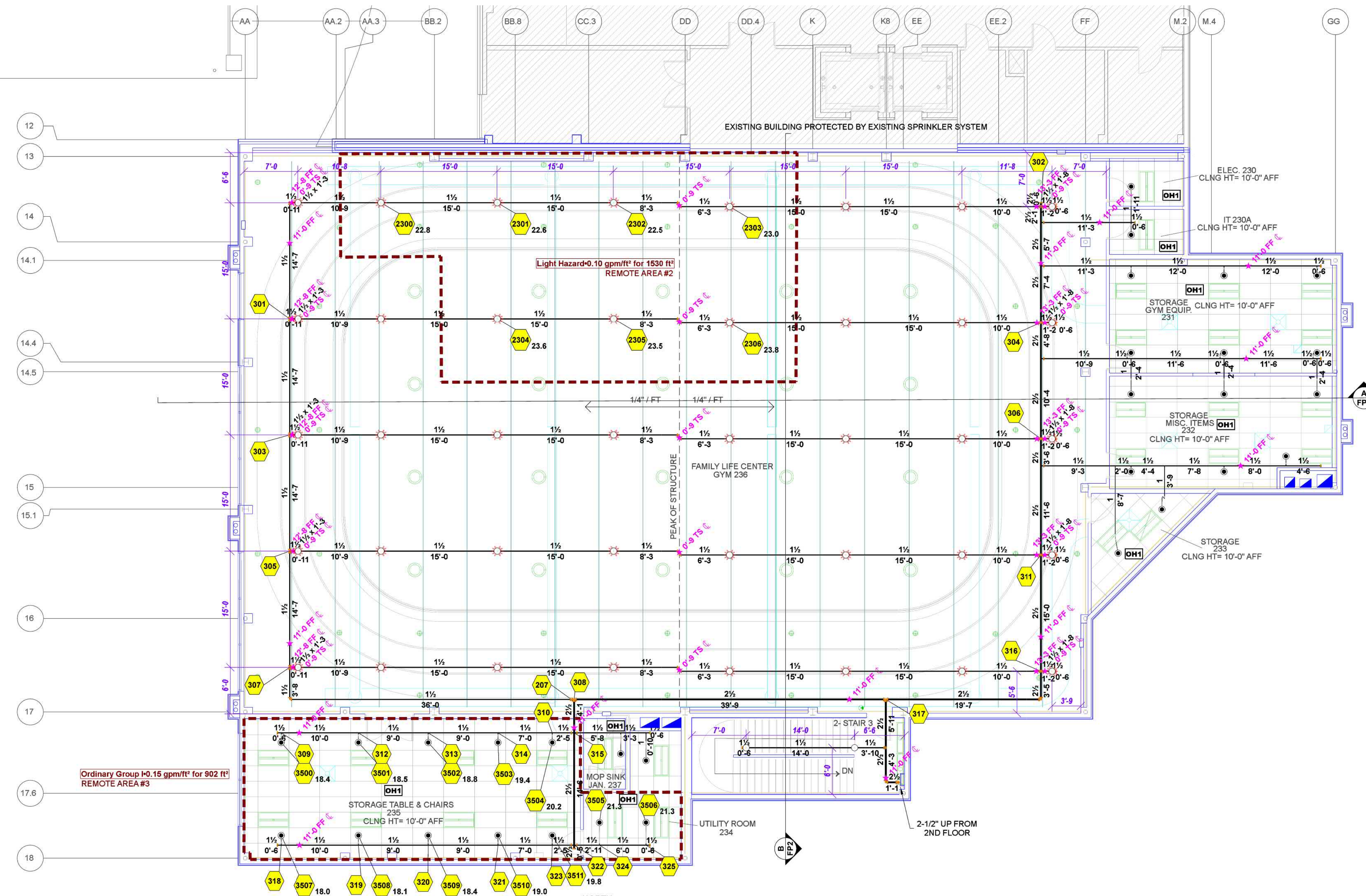
**LEARNING AND FAMILY LIFE CENTER CHURCH OF CHRIST AT EAST SIDE**  
5701 E. MARTIN LUTHER KING JR. BLVD. AUSTIN, TEXAS 75712



**A BUILDING SECTION**  
SCALE: 1/8" = 1'-0"



**B BUILDING SECTION**  
SCALE: 1/8" = 1'-0"



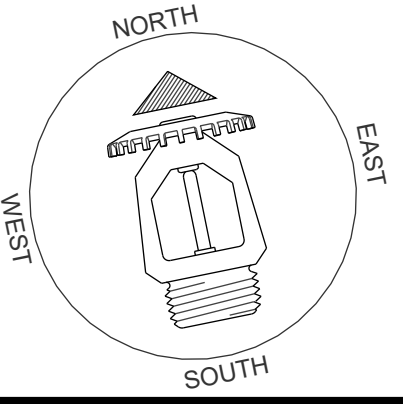
**SECOND FLOOR FIRE SPRINKLER PLAN**  
SCALE: 1/8" = 1'-0"

2nd Floor Sprinkler Legend												
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Max Spacing	Escutcheon
●	Victaulic	V5606	FL-QR/C	30	5.6	Pendent	1/2"	Quick	White	200 °F	15 x 15	Concealed
○	Victaulic	V2704	FL-QR	2	5.6	Upright	1/2"	Quick	Brass	200 °F	15 x 15	NA
⊗	Victaulic	V2704	FL-QR	40	5.6	Upright	1/2"	Quick	Brass	200 °F	15 x 15	Head Cage
				Total = 72								

Hydraulic Information	
Remote Area 2	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft <sup>2</sup> )	0.10 for 1500 ft <sup>2</sup> (Actual 1530 ft <sup>2</sup> )
TOTAL HOSE STREAMS	100.0
TOTAL HEADS FLOWING	7
K-FACTOR	5.6
TOTAL WATER REQUIRED	281.7
TOTAL PRESSURE REQUIRED	43.2
BASE OF RISER (psi)	281.7
SAFETY MARGIN (psi)	+16.4 (27.6%)

Hydraulic Information	
Remote Area 3	
OCCUPANCY CLASSIFICATION	Ordinary Group I
DENSITY (gpm/ft <sup>2</sup> )	0.15 for 1500 ft <sup>2</sup> (Actual 903 ft <sup>2</sup> )
QUICK RESPONSE REDUCTION	10'-0" Ceiling (40.0%) 900 ft <sup>2</sup>
TOTAL HOSE STREAMS	250.0
TOTAL HEADS FLOWING	12
K-FACTOR	5.6
TOTAL WATER REQUIRED	481.2
TOTAL PRESSURE REQUIRED	45.9
BASE OF RISER (psi)	481.2
SAFETY MARGIN (psi)	+12.6 (21.6%)

REMOTE AREA #3 WAS CALCULATED USING THE ROOM DESIGN METHOD. QR REDUCTION WAS USED IN ACCORDANCE WITH NFPA 13, SECTION 19.3.3.2.3.1.



**REVISIONS**

No.	Description

Drawing Title: **2ND FLOOR / SECTION VIEWS**  
 Project No.: P-39  
 Drawn By: SRM  
 Scale: AS NOTED  
 Date: 07/19/23  
 DWG Type: SUBMITTAL  
 Parcel No.: 0213260401

**LEARNING AND FAMILY LIFE CENTER CHURCH OF CHRIST AT EAST SIDE**  
 5701 E. MARTIN LUTHER KING JR. BLVD. AUSTIN, TEXAS 75721