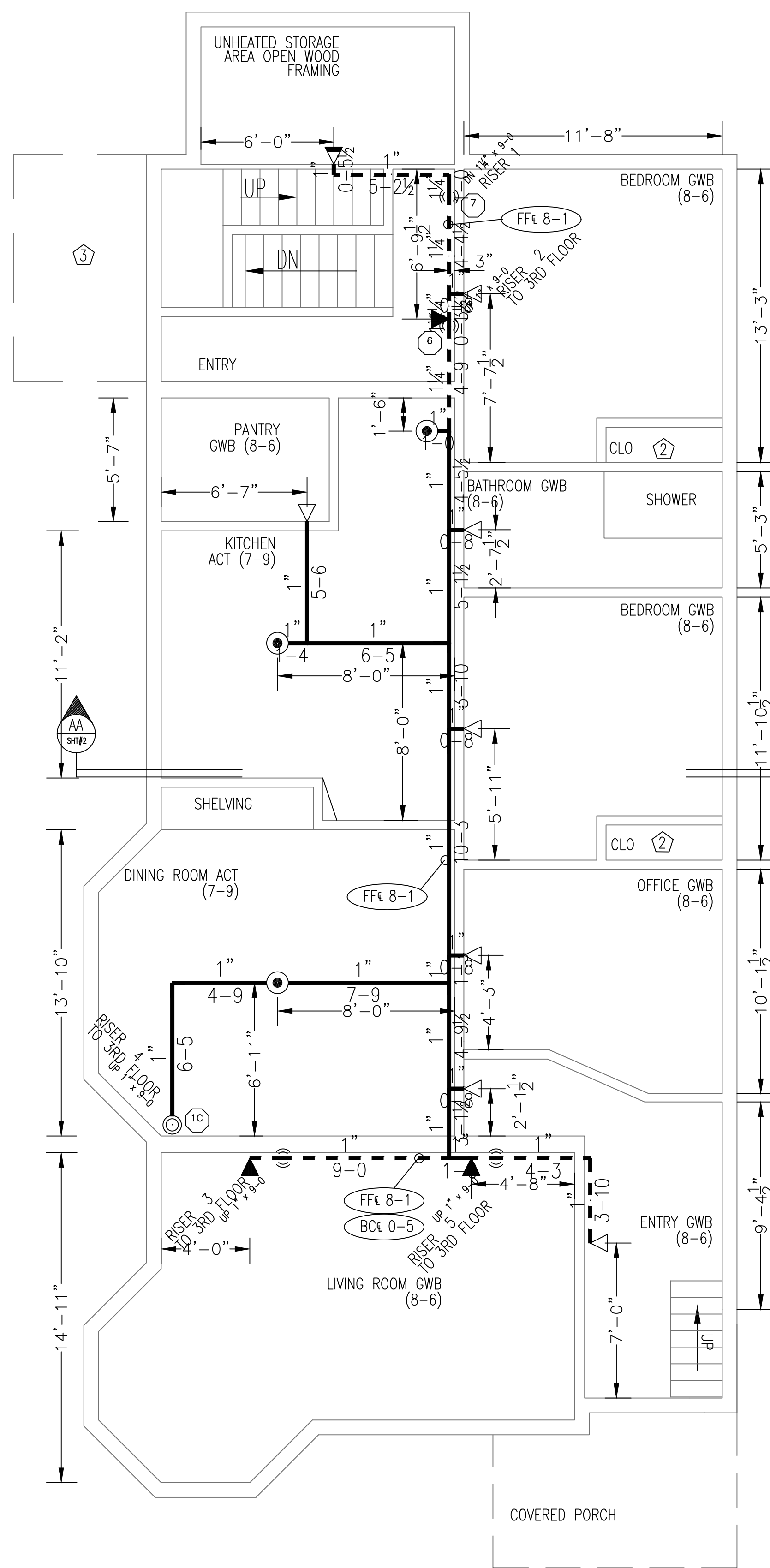


HYDRAULIC-SYSTEM
 THIS BUILDING IS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM.
 LOCATION: 3RD FLOOR
 NFPA # 13R
 BASIS OF DESIGN:
 1. GPM PER HEAD .05
 2. NUMBER OF HEADS (CALCULATED) 4
 SYSTEM DEMAND:
 1. WATER FLOW RATE (GPM) 64.701
 2. RESIDUAL PRESSURE AT THE BASE OF THE RISER (PSI) 76.988

HYDRAULIC DATA NAMEPLATE
 TO BE MOUNTED AT SYSTEM RISER

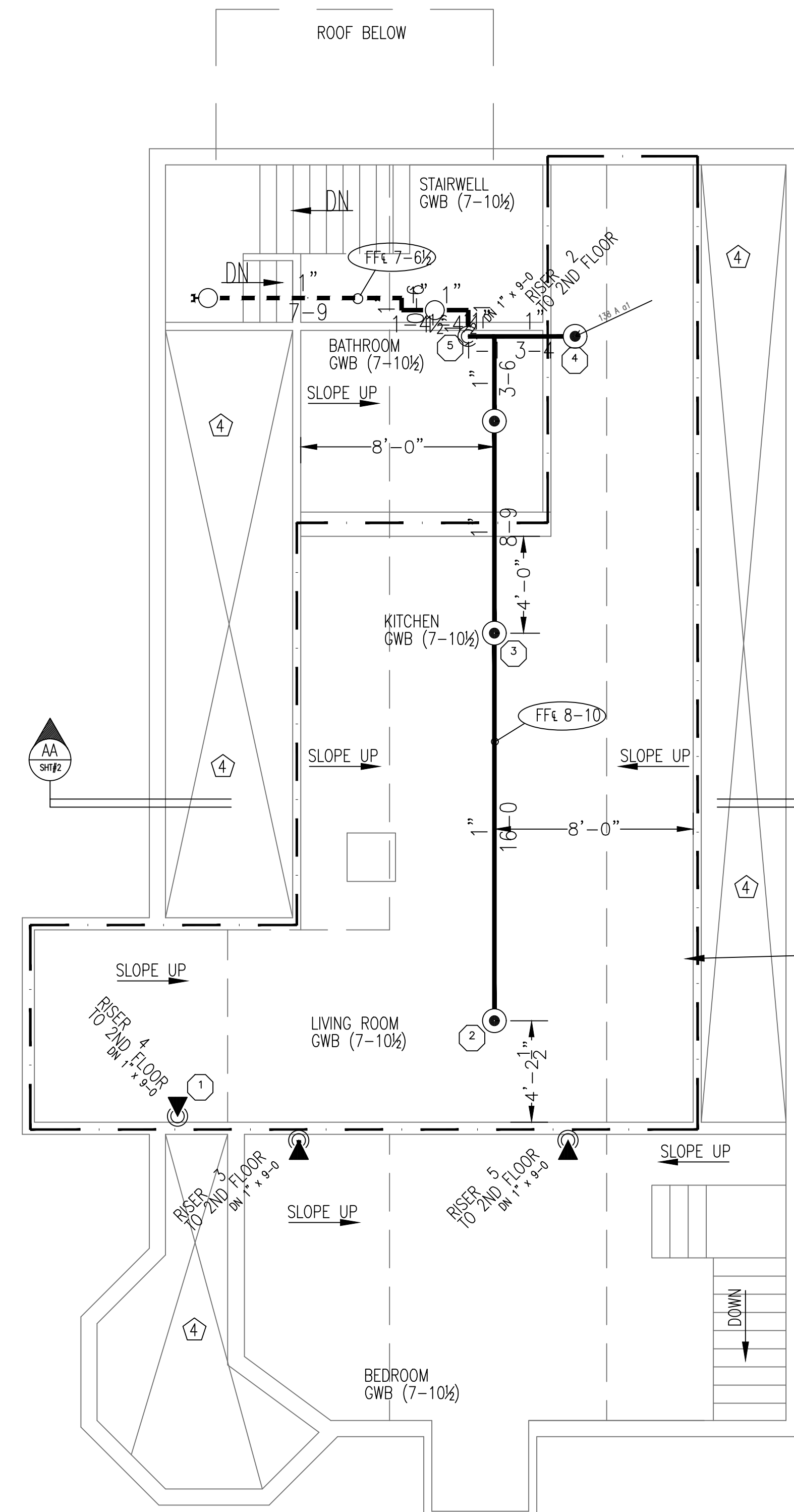


FIRE SPRINKLER PLAN - SECOND FLOOR
 SCALE: 1/4"=1'-0"
 AREA PROTECTED: 1485 SQ.FT.
 FINISH FLOOR ELEVATION : 92'-0"
 COLOR CODE: WHITE

2ND FLOOR Sprinkler Head Schedule

Symbol	Count	Thread	K-Factor	Description	Note
●	3	1/2"	5.6	RELIABLE F1RES49 WHI QR RECESS SIN#R3516 200'	on Drop
◀	3	1/2"	4.4	RELIABLE F1RES44 WHI HSW QR SIN# R3531 175'	on Drop
△	7	1/2"	4.4	RELIABLE F1RES44 QR RECESS WHI HSW SIN# R3531 175'	on Line
◀	1	1"	5.6	RELIABLE F3QR DRY QR HSW WHI SIN#R5734 200'	on Line

14 = Total Number of Heads This Floor

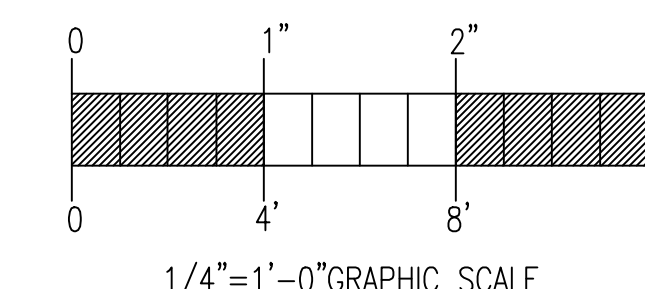


FIRE SPRINKLER PLAN - THIRD FLOOR
 SCALE: 1/4"=1'-0"
 AREA PROTECTED: 1485 SQ.FT.
 FINISH FLOOR ELEVATION : 118'-0"
 COLOR CODE: WHITE

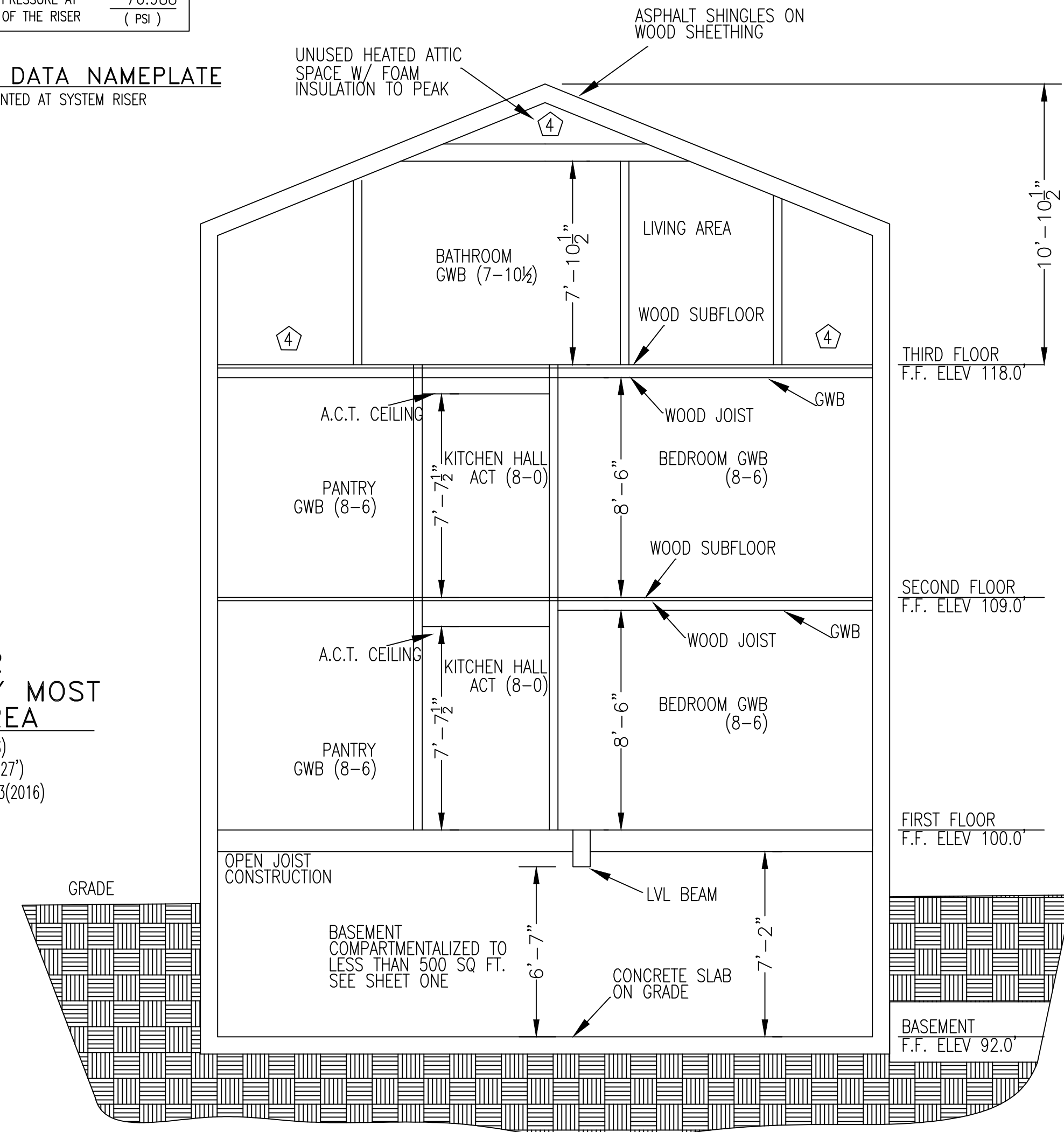
3RD FLOOR Sprinkler Head Schedule

Symbol	Count	Thread	K-Factor	Description	Note
●	4	1/2"	5.6	RELIABLE F1RES49 WHI QR RECESS SIN#R3516 200'	on Drop
◀	3	1/2"	4.4	RELIABLE F1RES44 WHI HSW QR SIN# R3531 175'	on Line
○	2	1"	5.6	RELIABLE F1FR56 QR BRASS UPRIG SIN#R1425 200'	on Line

9 = Total Number of Heads This Floor



3RD FLOOR HYDRAULICALLY MOST REMOTE AREA
 (10 GPM/SQ.FT. / 4 HEADS)
 (ELEV. @ HIGHEST HEAD = 127')
 REMOTE AREA PER NFPA 13(2016)



BUILDING SECTION "AA"
 SCALE: N.T.S.

RELIABLE F1Res 44 HSW
 RES 44 RESIDENTIAL HORIZONTAL SIDEWALL SPRINKLER DESIGN REQUIREMENTS

MODEL	COVERAGE AREA WIDTH x LENGTH FT. x FT.	MAXIMUM SPACING FT. (M)	MINIMUM DESIGN FLOW AND RESIDUAL PRESSURE	
			TOP OF DEFLECTOR TO CEILING: 4 TO 6 INCHES	TOP OF DEFLECTOR TO CEILING: 6 TO 12 INCHES
F1 RES 44 HORIZONTAL SIDEWALL	12 x 12	12'	155F/68C 175F/79C	14GPM(10.2psi)
	14 x 14	14'	155F/68C 175F/79C	16GPM(13.3psi)
	16 x 16	16'	155F/68C 175F/79C	17GPM(15.0psi)
	18 x 18	16'	155F/68C 175F/79C	20GPM(20.7psi)

FOR HORIZONTAL CEILING (MAXIMUM 2 INCH RISE FOR 12 INCH RUN)
 K-FACTOR = 4.4, 1/2" N.P.T. SIN#R3531
 MAXIMUM HEAD SPACING 8'-0" FROM OPPOSITE WALL; 16'-0" BETWEEN HEADS
 MINIMUM SPACING 8'-0" BETWEEN HEADS

RELIABLE F1Res 49
 F1Res RESIDENTIAL CONCEALED PENDENT SPRINKLER DESIGN REQUIREMENTS

MODEL	MAX. SPACE BETWEEN SPRINKLERS	MAXIMUM LOCATION FROM WALL	MINIMUM DESIGN FLOW (PRESSURE)	MINIMUM FLOW & PRESSURE FOR HORIZONTAL CEILING (MAX. 2' RISE FOR 12" RUN)
F1 Res CONCEALED PENDENT	12 x 12	6"(OR LESS)	155F/175F/68C	13GPM(7.0psi)
	14 x 14	7'	155F/175F/68C	13GPM(7.0psi)
	16 x 16	8'	155F/175F/68C	14GPM(8.2psi)
	18 x 18	9'	155F/175F/68C	18GPM(13.5psi)

K-FACTOR = 4.8, 1/2" N.P.T.
 MINIMUM SPACING 8'-0"

GENERAL NFPA #13R NOTES

- SPRINKLER SYSTEM INSTALLATION TO COMPLY WITH NFPA PAMPHLET # 13R-2016
- PIPING IN THROUGHOUT TO BE BLACK SCHEDULE 40, JOINED WITH THREADED DUCTILE IRON FITTINGS. (C = 120) SECOND FLOOR PIPING TO BE CPVC (C = 150)
- OWNER TO PROVIDE SUFFICIENT HEAT THROUGHOUT BUILDING TO PREVENT FREEZING OF WATER FILLED SPRINKLER PIPING AND EQUIPMENT (40°F MIN.).
- ALL WIRING TO BE DONE BY OTHERS
- SPRINKLERS ARE NOT REQUIRED IN THE FOLLOWING AREAS AS PER NFPA 13R: 2016
 - BATHROOMS NOT EXCEEDING 55 SQ. FT. WITH NON-COMBUSTIBLE CONSTRUCTION & FIXTURES
 - CLOTHES CLOSETS, LINEN CLOSETS, AND PANTRIES WITHIN THE DWELLING UNITS WHERE THE AREA OF THE SPACE DOES NOT EXCEED 24 SQ. FT. WITH THE WALLS AND CEILING SURFACED WITH NON-COMBUSTIBLE OR LIMITED-COMBUSTIBLE MATERIALS AS DEFINED BY NFPA 220.
- ANY PORCHES, BALCONIES, CORRIDORS, AND STAIRS THAT ARE OPEN AND ATTACHED.
- ATTICS, PENTHOUSES, EQUIPMENT ROOMS, CRAWL SPACES, FLOOR/CEILING SPACES, ELEVATOR SHAFTS, AND ANY OTHER CONCEALED SPACES THAT ARE NOT USED OR INTENDED FOR FOR LIVING PURPOSES OR STORAGE.
- CLOSETS ON EXTERIOR BALCONIES REGARDLESS OF SIZE AS LONG AS THERE ARE NO DOORS OR UNPROTECTED PENETRATIONS FROM THE CLOSET DIRECTLY INTO THE DWELLING.

REQUIRED APPROVALS	OWNER / ARCHITECT	STATE FIRE MARSHAL	PORTLAND FIRE DEPARTMENT
DRAWN BY	SEC	141357	
CHECKED BY	GRD	090388	
CONTRACTOR LICENSE #	101		
CONTRACTOR RMS #	291		

593 WASHINGTON AVE
 PORTLAND, ME
 CONTRACT WITH: OWNER

EASTERN FIRE PROTECTION
 AUBURN/LEWISTON INDUSTRIAL AIRPARK, AUBURN, MAINE 04210

FIRE SPRINKLER PLANS & DETAILS
 DWG. NO. 2 OF 2
 JOB NUMBER 1-05652-SPN-17
 SCALE AS NOTED
 DATE 8/28/2017