

EXCEPTIONS FOR 13R 2016ed. SYSTEM

(13R) - 6.6.2. - SPRINKLERS SHALL NOT BE REQUIRED IN BATHROOMS WHERE THE BATHROOM AREA DOES NOT EXCEED 55 SQUARE FEET.

(13R) - 6.6.3. - EXCEPT WHERE SPECIFIED IN 6.6.4, SPRINKLERS SHALL NOT BE REQUIRED IN CLOTHES CLOSETS, LINEN CLOSETS, AND PANTRIES WITHIN DWELLING UNITS THAT MEET ALL OF THE FOLLOWING CONDITIONS:

- (1) THE AREA OF THE SPACE DOES NOT EXCEED 24 SQUARE FEET.
- (2) THE WALLS AND CEILINGS ARE SURFACED WITH NONCOMBUSTIBLE OR LIMITED COMBUSTIBLE MATERIALS AS DEFINED BY NFPA 220.

(13R) - 6.6.4. - SPRINKLERS SHALL BE INSTALLED IN ANY CLOSET USED FOR HEATING OR AIR-CONDITIONING EQUIPMENT, WASHERS, DRYERS, OR WATER HEATERS EXCEPT AS PERMITTED BY 6.6.7.

(13R) - 6.6.5. - EXCEPT AS PROVIDED FOR IN 6.6.5.1, SPRINKLERS SHALL NOT BE REQUIRED IN ANY PORCHES, BALCONIES, CORRIDORS, CARPORTS, PORTE COCHERES, AND STAIRS THAT ARE OPEN AND ATTACHED.

(13R) - 6.6.6. - SPRINKLERS SHALL NOT BE REQUIRED IN ATTICS, PENTHOUSE EQUIPMENT ROOMS, ELEVATOR MACHINE ROOMS, CONCEALED SPACES DEDICATED EXCLUSIVELY TO AND CONTAINING ONLY DWELLING UNIT VENTILATION EQUIPMENT, CRAWL SPACES, FLOOR / CEILING SPACES, ELEVATOR SHAFTS WHERE THE ELEVATOR INSTALLATION COMPLIES WITH ANSI A17.1 AND OTHER CONCEALED SPACES THAT ARE NOT INTENDED FOR LIVING PURPOSES OR STORAGE AND DO NOT CONTAIN FUEL FIRED EQUIPMENT.

(13R) - 6.6.7. - SPRINKLERS SHALL NOT BE REQUIRED IN CLOSETS ON EXTERIOR BALCONIES AND EXTERIOR BREEZEWAYS / CORRIDORS, REGARDLESS OF SIZE, AS LONG AS THE CLOSET DOES NOT HAVE DOORS OR UNPROTECTED PENETRATIONS DIRECTLY INTO THE DWELLING UNIT.

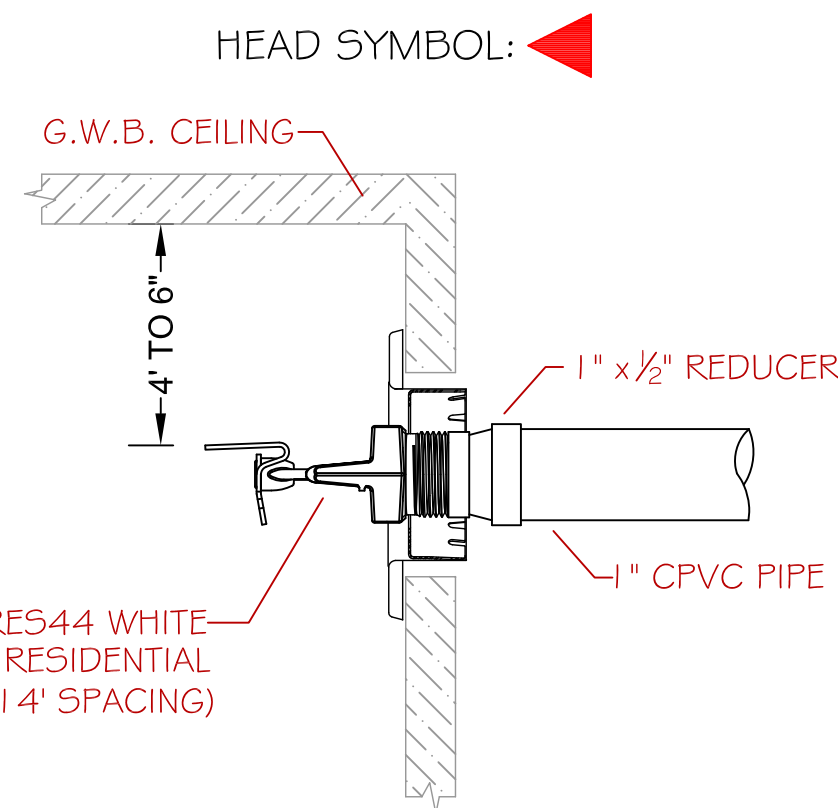
PROJECT DESCRIPTION

BUILDING CONST: THE BUILDING IS OF EXISTING CONSTRUCTION AND IS BEING RENOVATED TO HOUSE APARTMENTS. THE ENTIRE STRUCTURE IS TYPE V COMBUSTIBLE CONSTRUCTION THROUGHOUT. THE ROOF IS CONSTRUCTED OF WOOD RAFTERS AND SHEATHING AND FINISHED WITH ASPHALT SHINGLES. INTERIOR FLOOR STRUCTURES ARE SOLID WOOD FRAMING THROUGHOUT. INTERIOR WALLS AND CEILINGS ARE FRAMED WITH WOOD FRAMING AND FINISHED WITH G.W.B.

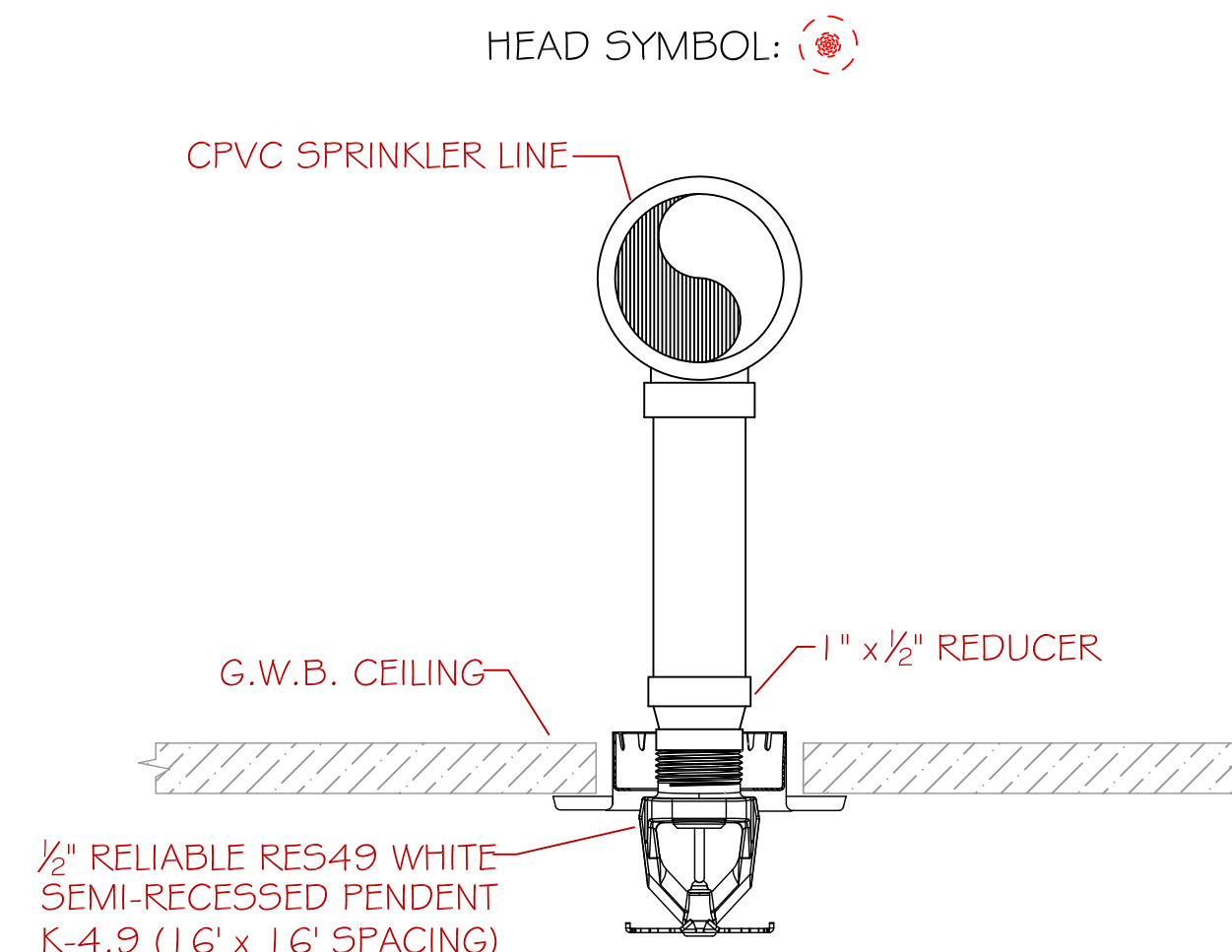
BUILDING OCCUP: THE BUILDING IS A RESIDENTIAL OCCUPANCY DESIGNED TO HOUSE TWO APARTMENT UNITS WITH A FUTURE THIRD UNIT AND UNOCCUPIED BASEMENT.

SPRINKLER DESIGN: THE SPRINKLER SYSTEM CONTAINS ONE WET PIPE SYSTEM THROUGHOUT THAT IS DIVIDED INTO INDIVIDUAL FLOOR ZONES. THE SYSTEM HAS BEEN DESIGNED WITH A LIGHT HAZARD CLASSIFICATION THROUGHOUT.

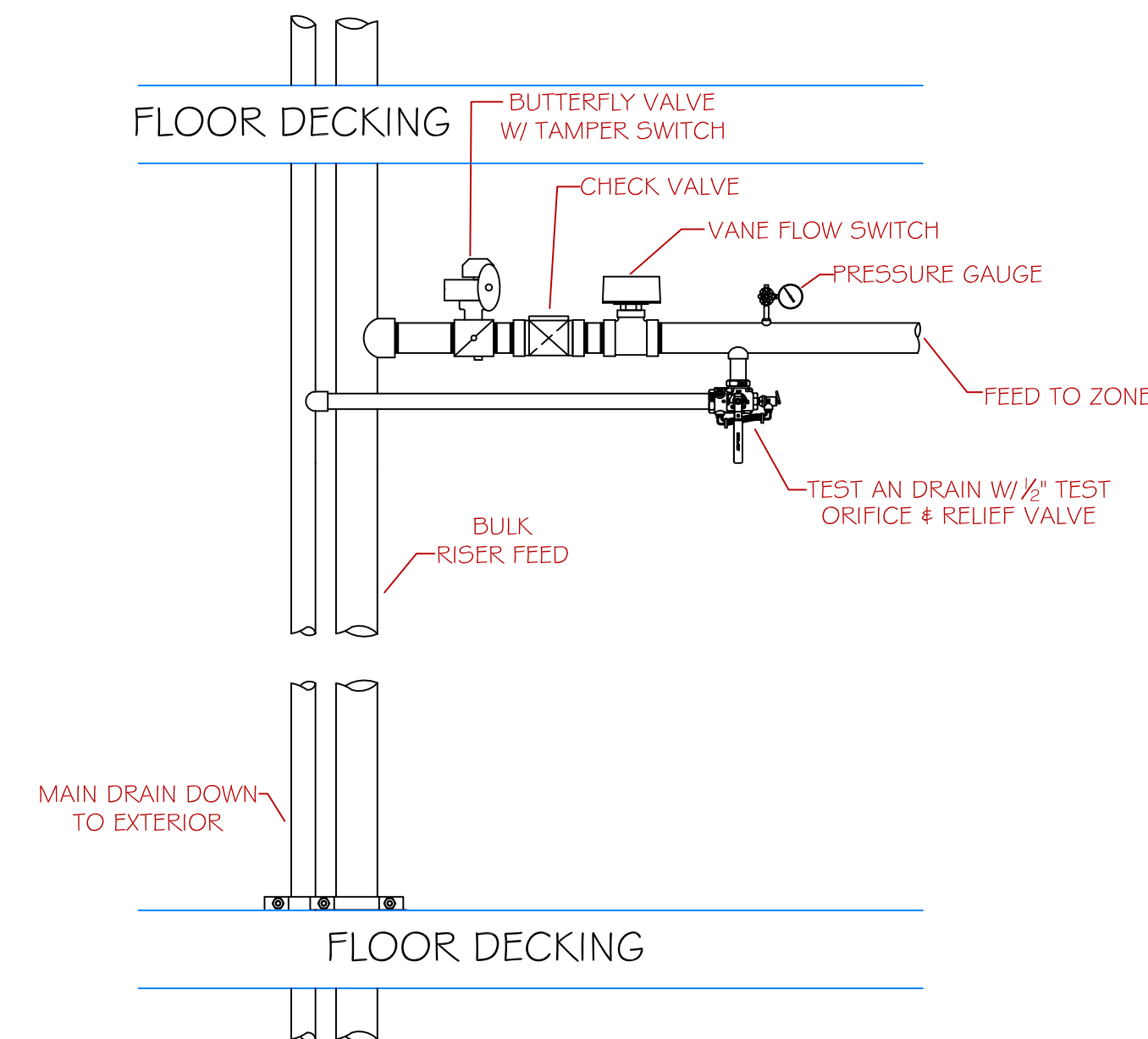
THE SPRINKLER SYSTEM HAS BEEN DESIGNED TO MEET ALL OF THE PROVISIONS OUTLINED BY NFPA 13R 2016 ed. FOR RESIDENTIAL OCCUPANCIES UNDER FOUR STORIES IN HEIGHT.



SIDEWALL HEAD DETAIL
SCALE: N.T.S.



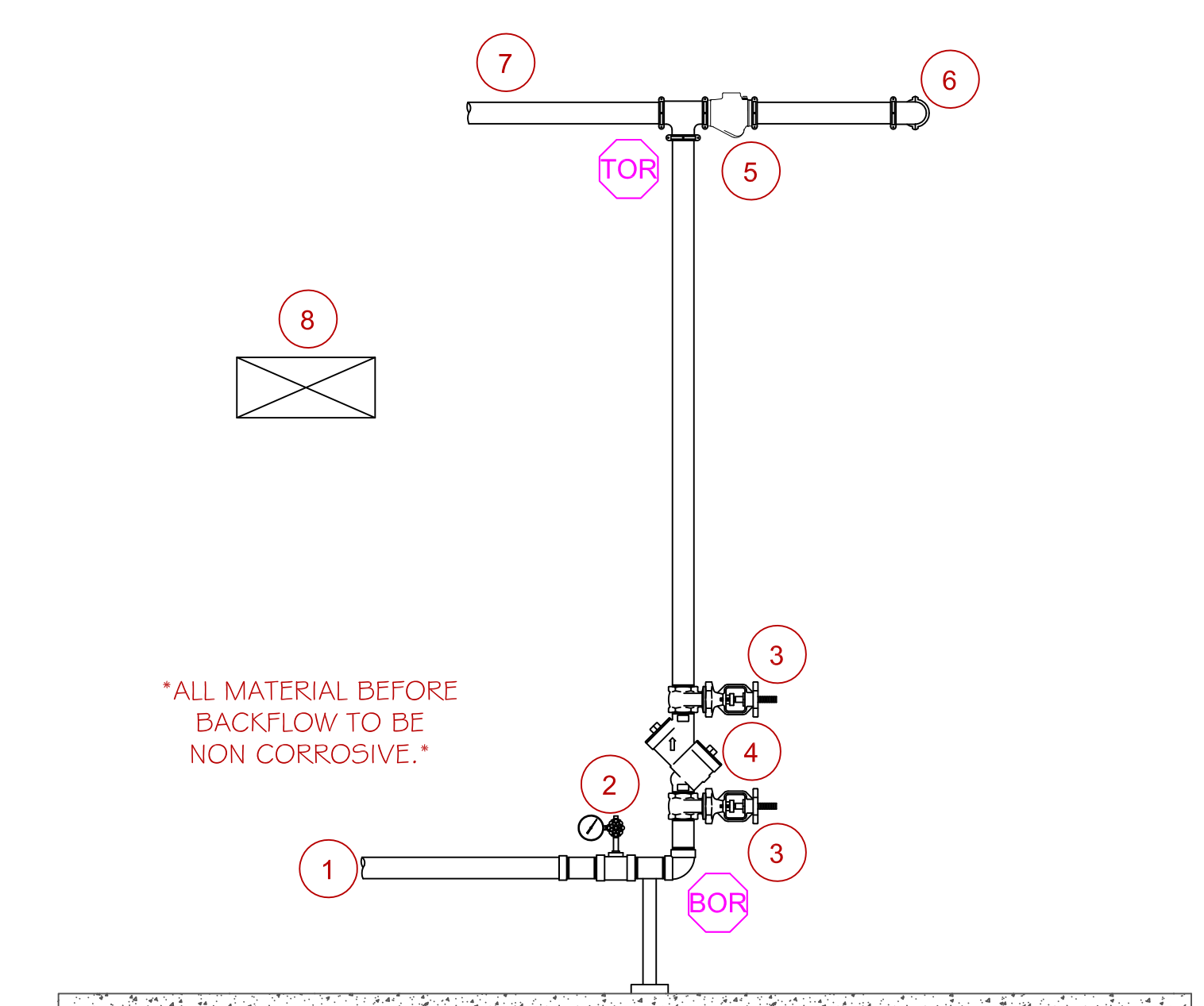
PENDENT HEAD DETAIL
SCALE: N.T.S.



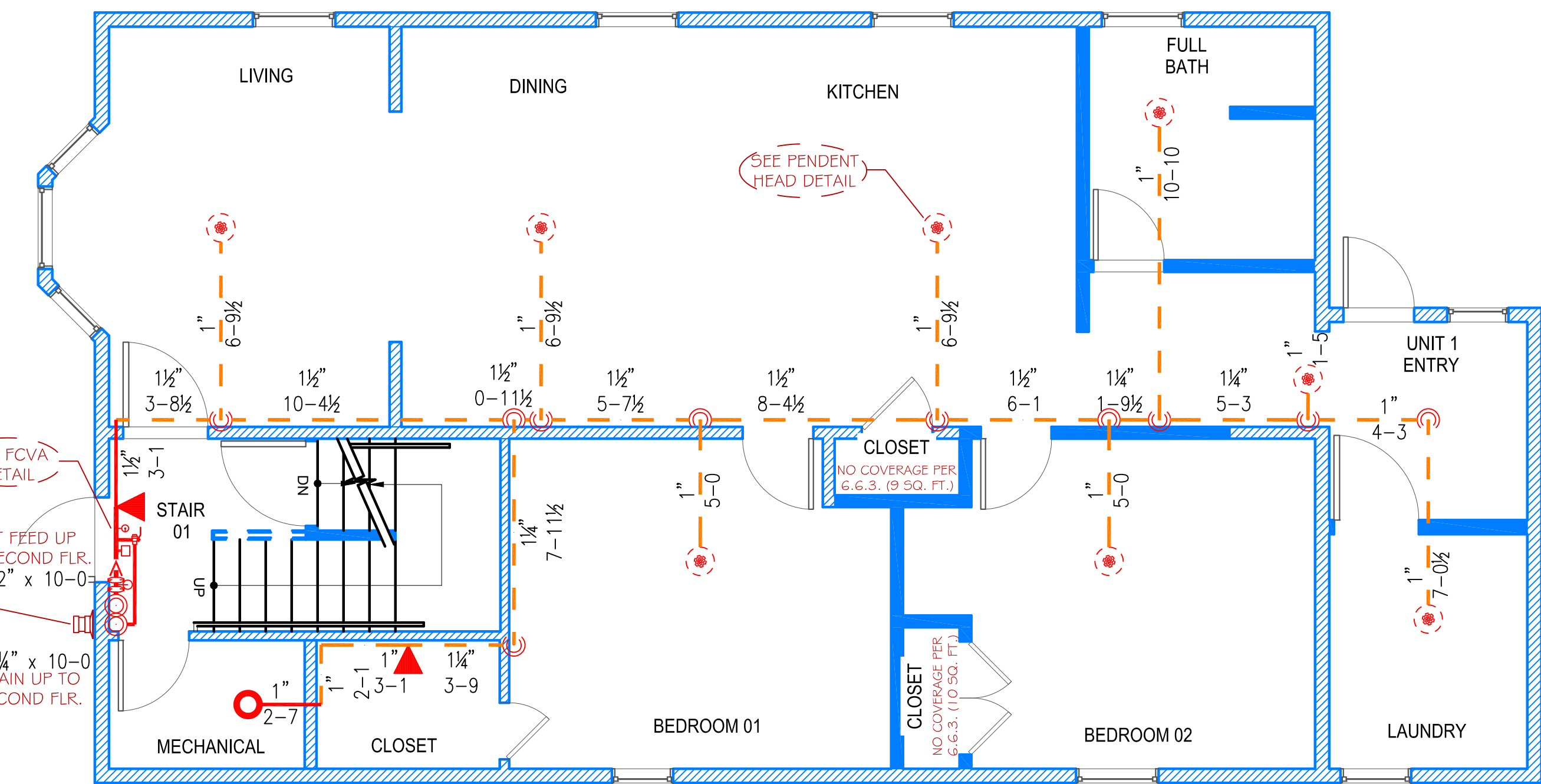
FLOOR CONTROL VALVE ASSEMBLY (FCVA) DETAIL
SCALE: N.T.S.

RISER DETAIL LEGEND

1 2" POLY UNDERGROUND (BY OTHERS)	5 2" CHECK VALVE W/ BALL DRIP
2 1/4" PRESSURE GAUGE (SUPPLY)	6 2" FEED TO F.D.C.
3 2" GATE VALVE W/ TAMPER SWITCH	7 2" FEED TO SYSTEM
4 2" WILKINS 950XL BACKFLOW PREVENTER	8 5PARE SPRINKLER HEAD CABINET

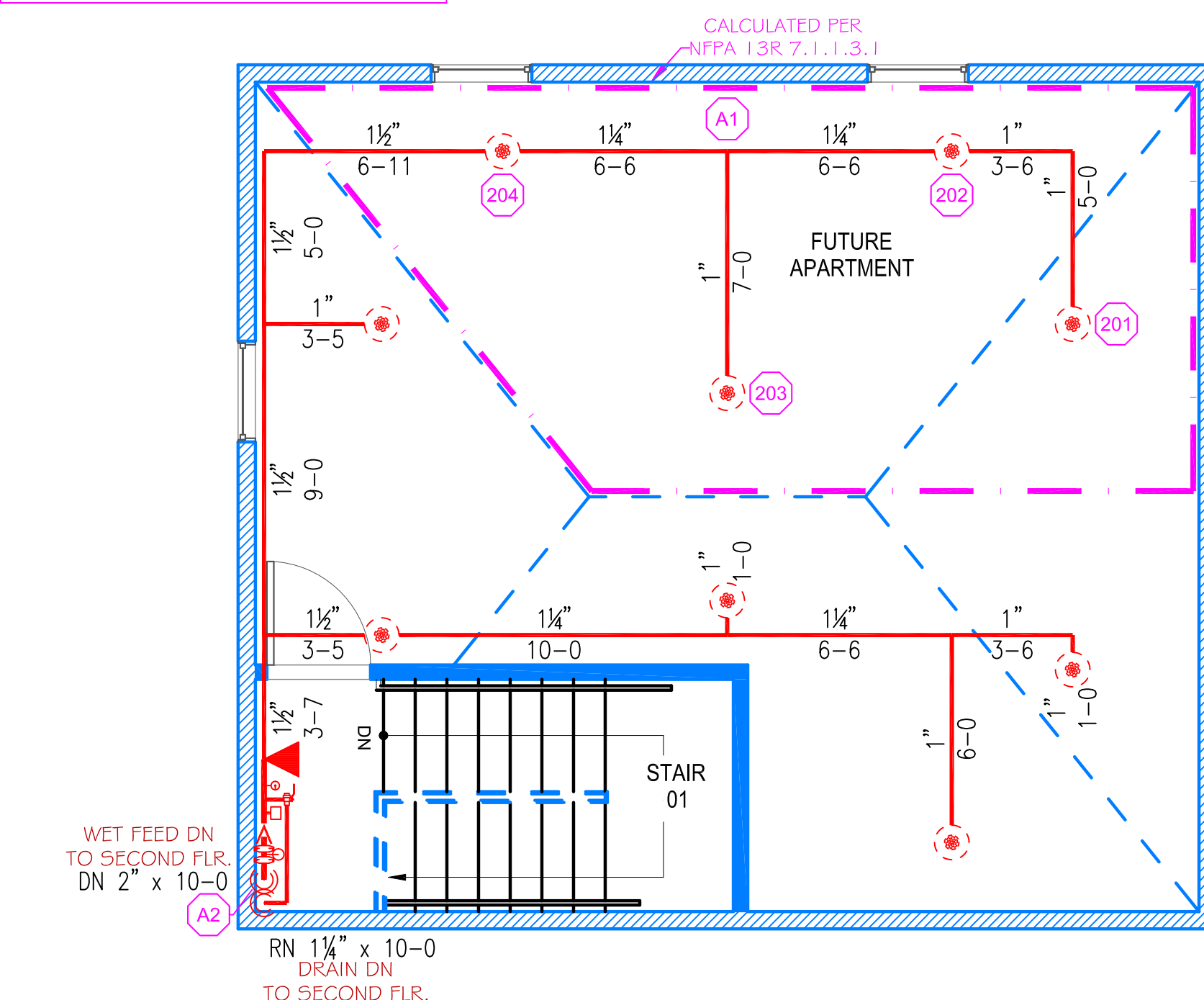


RISER DETAIL
SCALE: N.T.S.

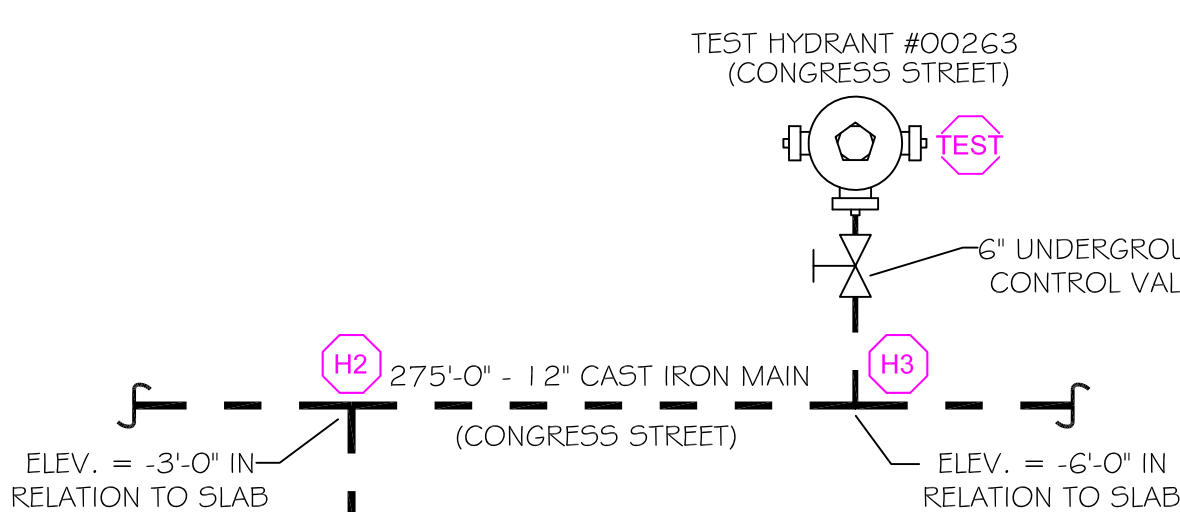


FIRST FLOOR
SCALE: 1/4" = 1'-0"
PROTECTED AREA: 1,248 SQ. FT.

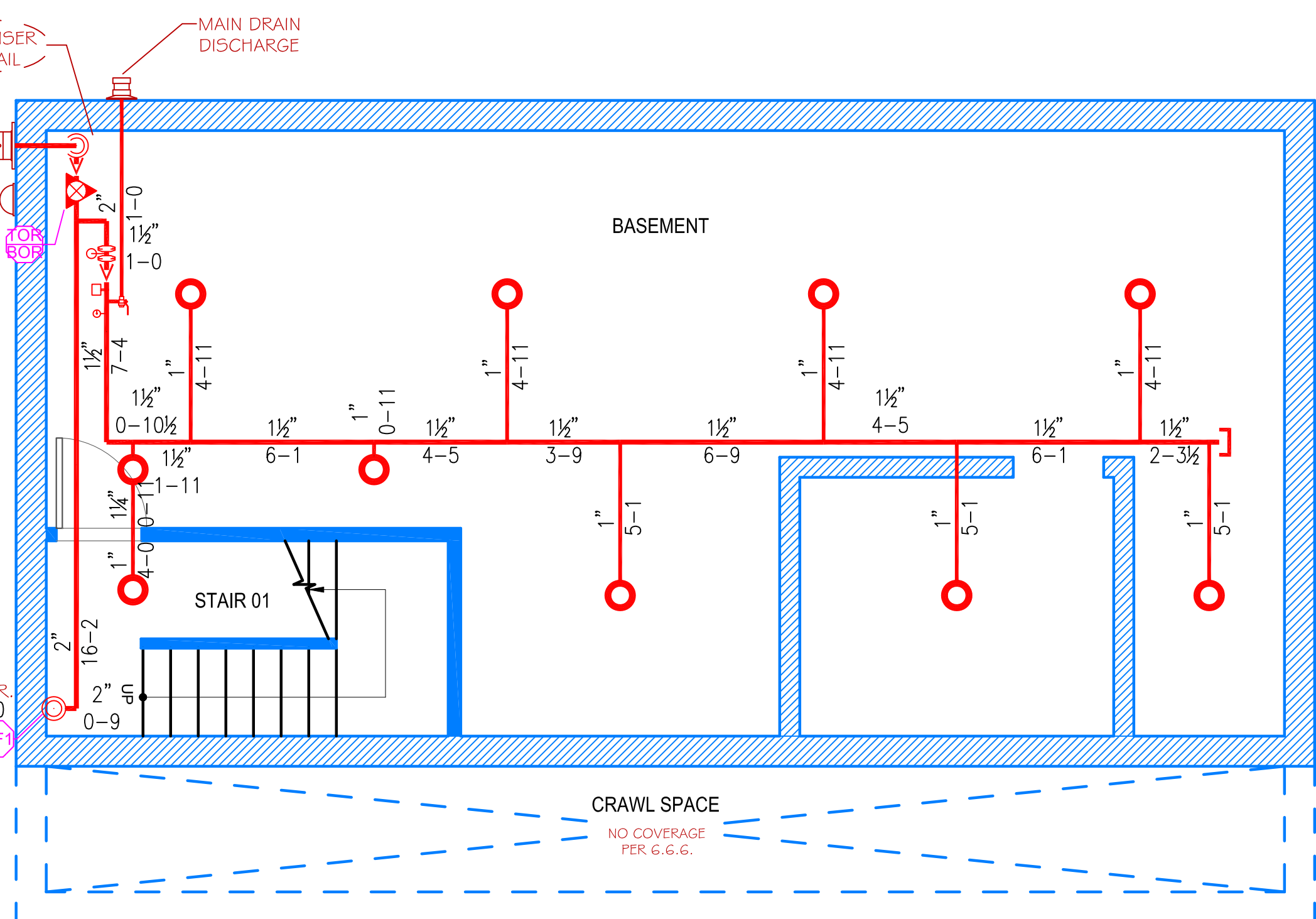
THIRD FLOOR CALC STICKER
HYD. DESIGN CRITERIA
(NFPA 13R 2016 ed. - WET)
LOCATION: FUTURE APARTMENT (THIRD FLOOR)
HAZARD CLASSIFICATION: LIGHT
DENSITY: .05 GPM/SQ.FT.
AREA OF OPERATION: 270 SQ. FT.
HOSE DEMAND: 0 GPM
NO. OF SPRINKLERS: 4 MOST DEMANDING
SYSTEM DEMAND (INCLUDING HOSE) AT BASE OF RISER: 57 GPM @ 44 PSI
SAFETY MARGIN: 6 PSI



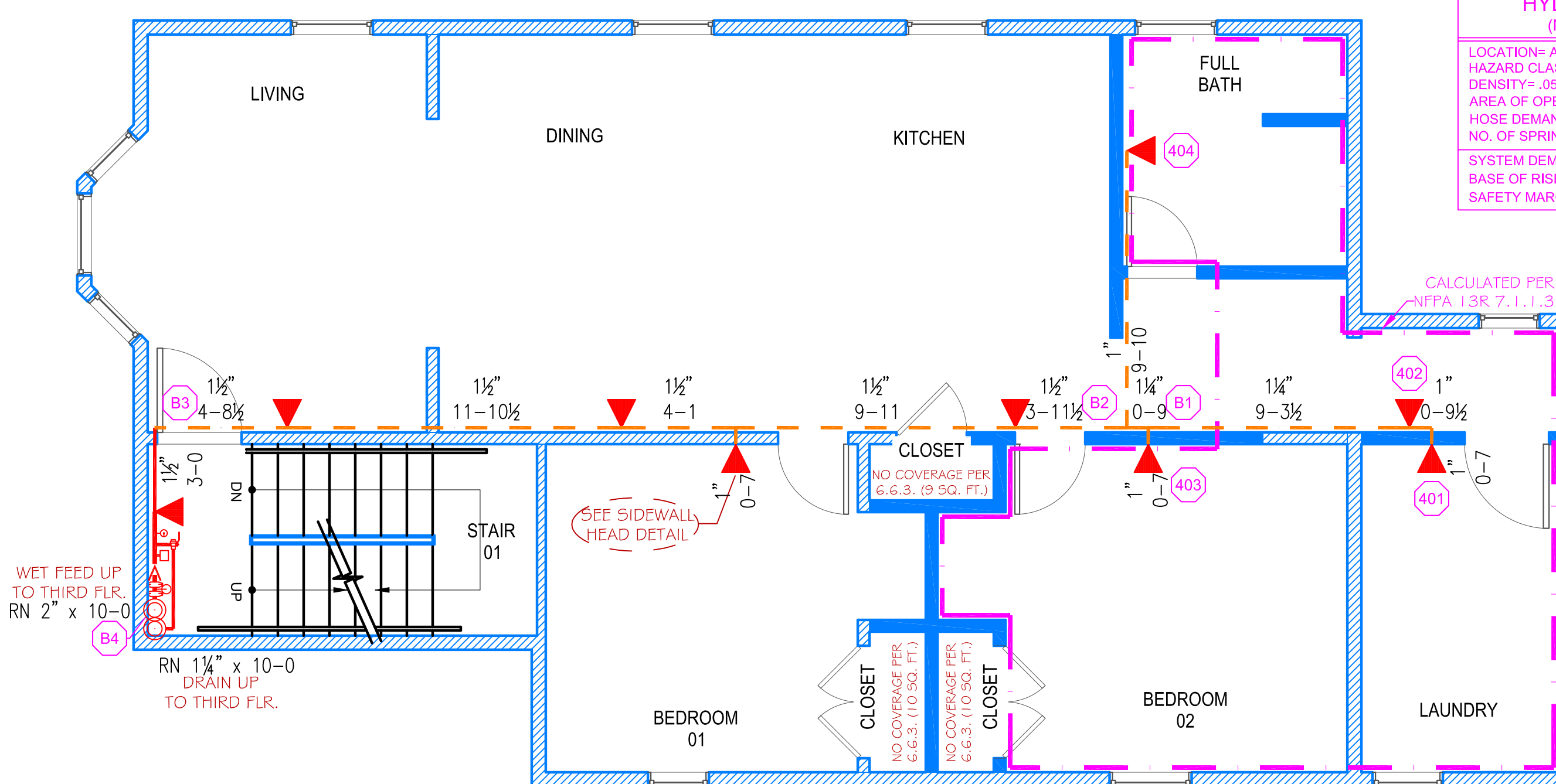
THIRD FLOOR
SCALE: 1/4" = 1'-0"
PROTECTED AREA: 656 SQ. FT.



WATER INFORMATION
DATE: 06/09/2017
STATIC PRESSURE: 51 PSI
RESIDUAL PRESSURE: 48 PSI
RESIDUAL FLOW: 838 GPM
TYPE OF TEST: TWO HYDRANT
SOURCE: PORTLAND WATER



BASEMENT
SCALE: 1/4" = 1'-0"
PROTECTED AREA: 825 SQ. FT.



SECOND FLOOR
SCALE: 1/4" = 1'-0"
PROTECTED AREA: 1,179 SQ. FT.

SECOND FLOOR CALC STICKER
HYD. DESIGN CRITERIA
(NFPA 13R 2016 ed. - WET)
LOCATION: APARTMENT #201 (SECOND FLOOR)
HAZARD CLASSIFICATION: LIGHT HAZARD
DENSITY: .05 GPM/SQ.FT.
AREA OF OPERATION: 366 SQ. FT.
HOSE DEMAND: 0 GPM
NO. OF SPRINKLERS: 4 MOST DEMANDING
SYSTEM DEMAND (INCLUDING HOSE) AT BASE OF RISER: 57 GPM @ 44 PSI
SAFETY MARGIN: 7 PSI

HIGH TECH FIRE PROTECTION
P.O. BOX 156
MINOT, ME. 04258-0258
TEL: (207) 988-2551 FAX: (207) 988-4187

MAINE LICENSE # 102

GENERAL CONTRACTOR:

ARCHITECT OF RECORD:
CUSTOM CONCEPTS ARCHITECTS
SCARBOROUGH, ME

LEGEND:
 (R) PIPE RISER UP
 (DN) PIPE RISER DOWN
 (S) STEEL PIPE (WET)
 (C) CPVC PIPE (WET)
 (W) WET SYSTEM RISER
 (H) HYDRAULIC CALC. POINT
 (E) PIPE ELEVATION A.F.F.

DESIGN NOTES:
 * ALL PIPING 1/2" AND LARGER TO BE SCHEDULE 10 STEEL W/ GROOVED FITTING OR CPVC AS INDICATED.
 * ALL PIPING 1/2" AND SMALLER TO BE SCHEDULE 40 STEEL WITH THREADED FITTING OR CPVC AS INDICATED.
 * POSITION, LOCATION, SPACING, AND USE OF SPRINKLERS AND HANGERS SHALL BE IN ACCORDANCE WITH NFPA 13R 2016 ed.
 * HYDRAULIC CALCULATION PROCEDURES HAVE BEEN DONE IN ACCORDANCE WITH NFPA 13R 2016 ed. (SEE PLANS FOR LOCATION OF REMOTE AREAS, HYDRAULIC REFERENCE POINTS, AND SYSTEM DEMANDS)
 * ALL ELECTRICAL WORK TO BE DONE BY OTHERS.
 * DIMENSIONS AND LOCATIONS GIVEN FOR SPRINKLER HEADS AND PIPE MAY VARY TO ACCOMMODATE ACTUAL FIELD CONDITIONS. OWNER TO PROVIDE SUFFICIENT HEAT TO PREVENT FREEZING IN WATER FILLED SPRINKLER PIPE AND EQUIPMENT.
 * OTHER TRADES TO COORDINATE THEIR WORK WITH SPRINKLER CONTRACTOR.

RELIABLE* MODEL F1 RES 49
(17 / 155)
K=4.9
1/2" RESIDENTIAL WHITE SEMI-RECESSED PENDENT (16" x 16" SPACING)

RELIABLE* MODEL F1 RES 44
(12 / 155)
K=4.4
1/2" RESIDENTIAL WHITE SEMI-RECESSED SIDEWALL (14" x 14" SPACING)

GLOBE* MODEL GL5615
(11 / 200)
K=5.6
1/2" BRASS UPRIGHT (130 SQ. FT. SPACING)

* OR APPROVED EQUAL
TOTAL HEADS ON SHEET: 40
SCALE: 1/4" = 1'-0"

DATE: AUGUST 31, 2017
DRAWN BY: JEREMY A. FOSS
MAINE RMS #808
NICET LEVEL III CERT. #126801
CHECKED BY: E. POULIN (RMS# 515)
NICET LEVEL IV CERT. # 108534

LOCATION:
42 LAFAYETTE ST.
PORTLAND, ME

DRAWING TITLE:
PENSCO APARTMENT
FIRE PROTECTION PLAN
(NFPA 13R 2016 ed.)

DRAWING NO.:
FP-1.1