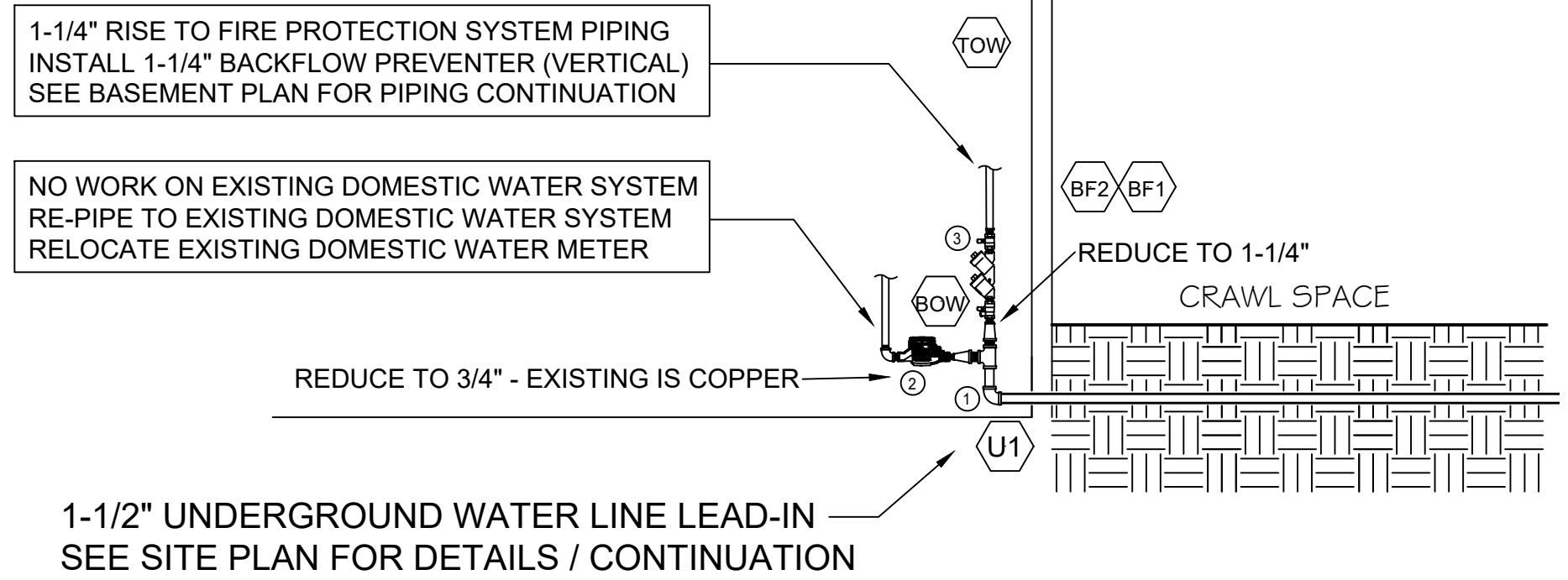


BASEMENT FLOOR PLAN

SCALE: 3/16"=1'-0"

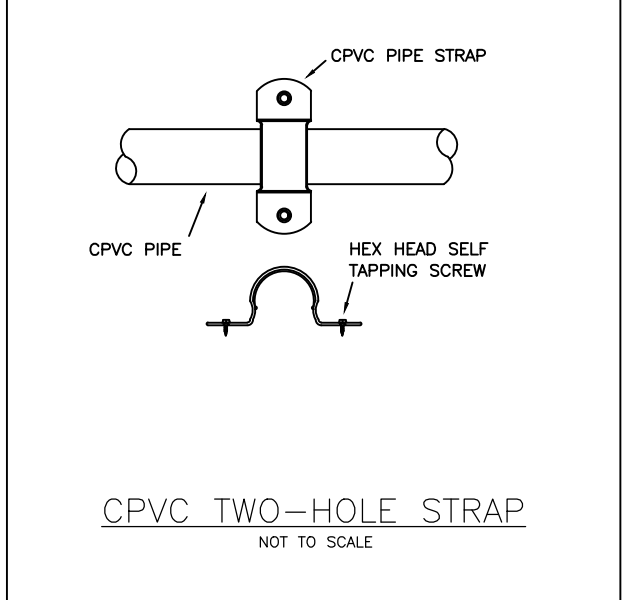
BASEMENT AREA = 600 SQ. FT.
(4) SPRINKLERS - INSTALL 6" DN. FROM CLG.

RISER MATERIAL LEGEND
 1. NEW 1-1/2" WATER SUPPLY
 2. EXISTING 3/4" DOMESTIC WATER METER
 3. 1-1/4" FIRE PROTECTION BACKFLOW PREVENTER



RISER ROOM WATER CONNECTION DETAIL

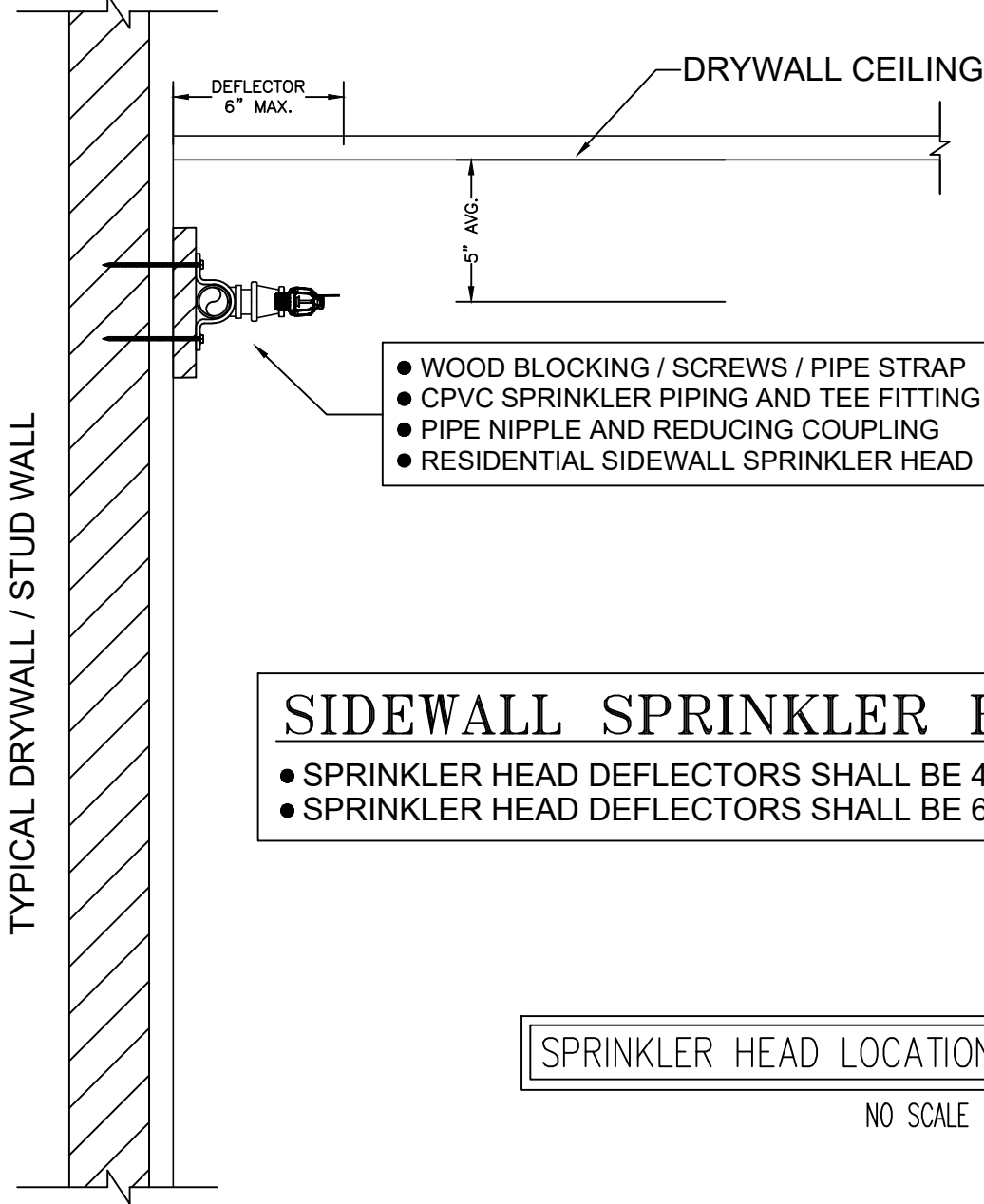
NO SCALE



CPVC TWO-HOLE STRAP

CPVC PIPE HANGER LOCATION DETAIL

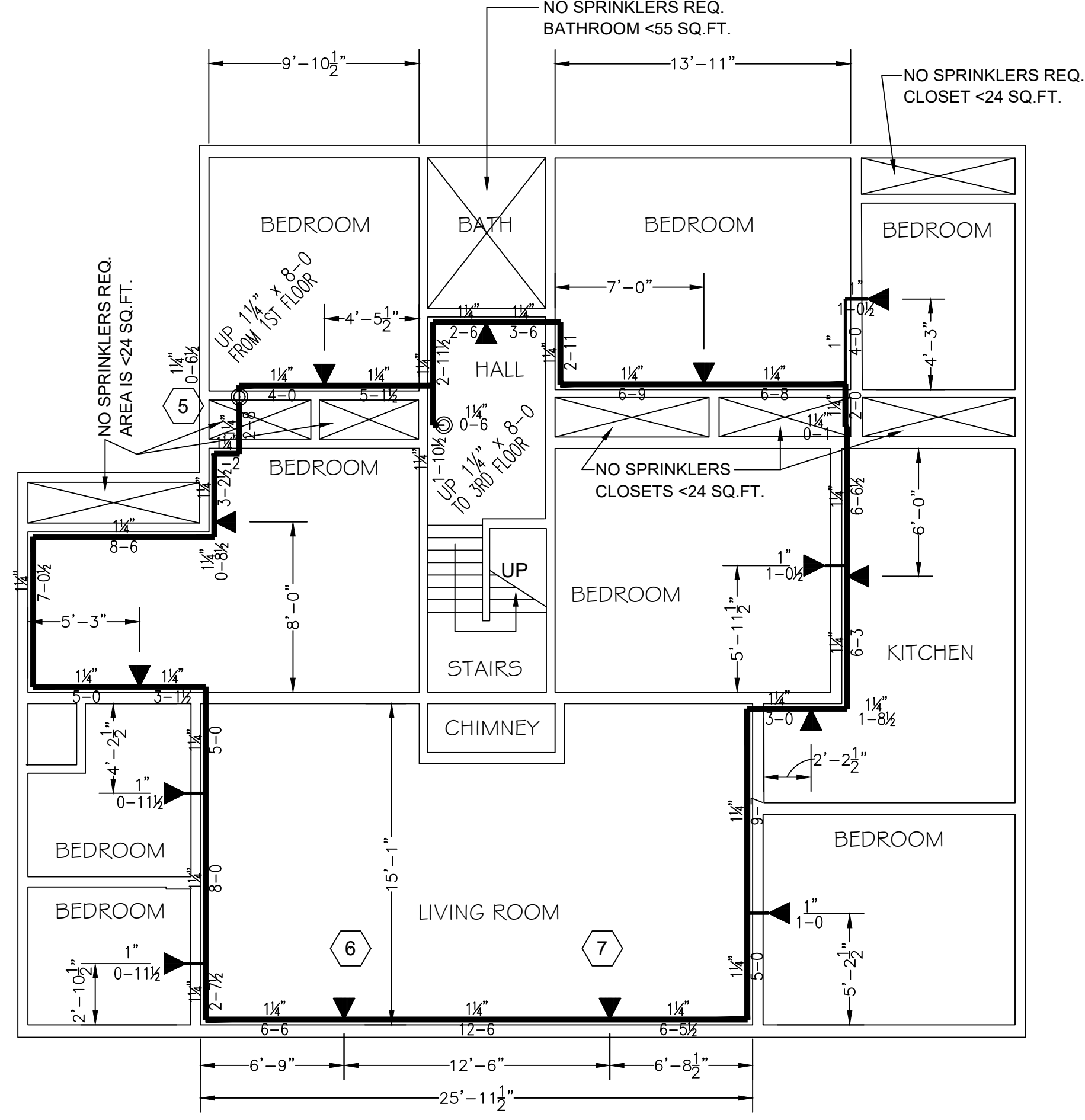
PIPE SIZE	TABLE 1		TABLE 2		TABLE 3	
	LESS THAN 100 psi	MORE THAN 100 psi	LESS THAN 100 psi	MORE THAN 100 psi	LESS THAN 100 psi	MORE THAN 100 psi
3/4"	6"	6"	4'-0"	3'-0"	5'-6"	5'-6"
1"	12"	9"	5'-0"	4'-0"	6'-0"	6'-0"
1-1/4"	18"	12"	6'-0"	5'-0"	6'-6"	6'-6"
1-1/2"	24"	12"	7'-0"	7'-0"	7'-0"	7'-0"
2"	24"	12"	7'-0"	7'-0"	8'-0"	8'-0"
2-1/2"	24"	12"	7'-0"	7'-0"	9'-0"	9'-0"
3"	24"	12"	7'-0"	7'-0"	10'-0"	10'-0"



SIDEWALL SPRINKLER HEAD POSITIONING

SPRINKLER HEAD LOCATION / HANGER DETAIL

NO SCALE



SECOND FLOOR PLAN

SCALE: 3/16"=1'-0"

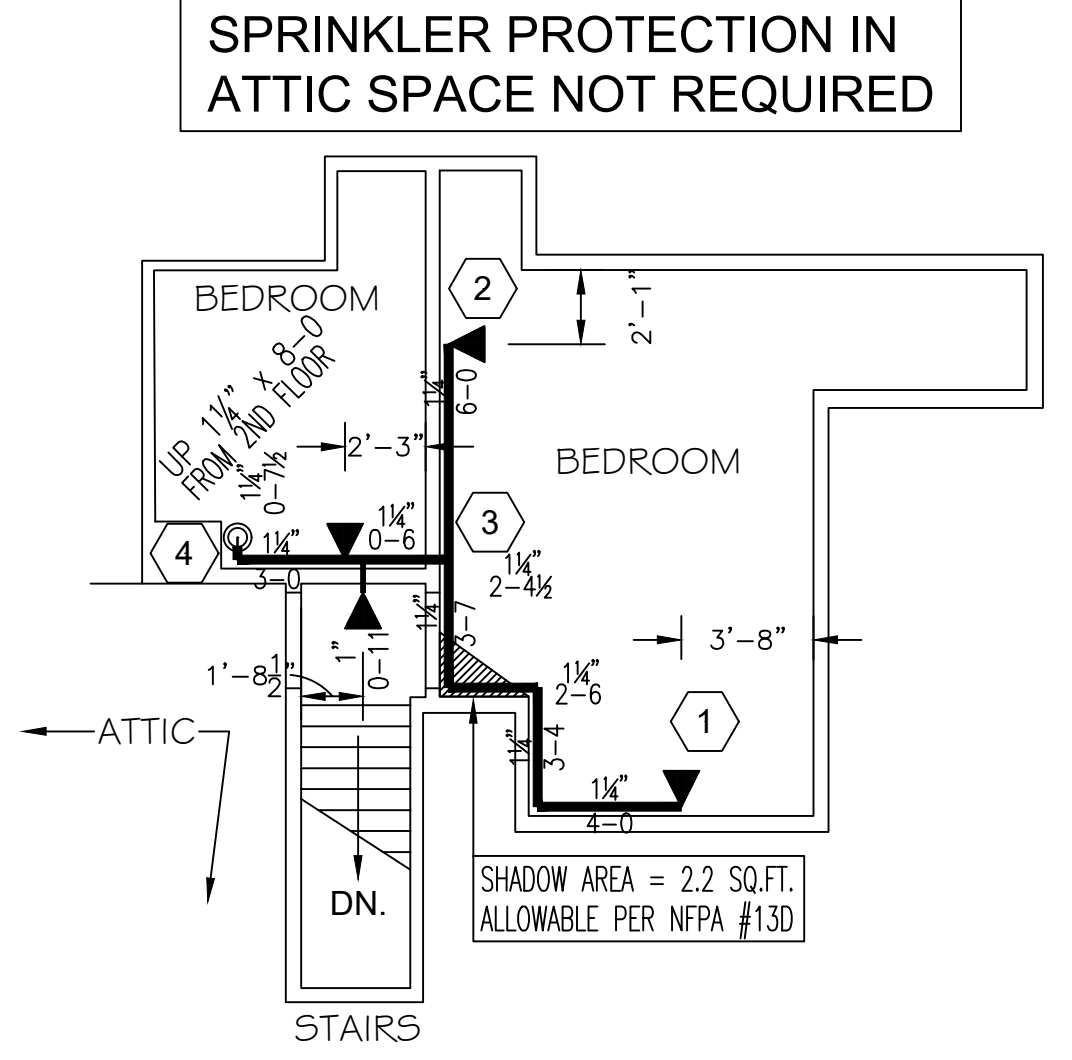
SECOND FLOOR AREA = 1,800 SQ. FT.
(14) SPRINKLERS - INSTALL 6" DN. FROM CLG.

REMOTE AREA - SECOND FLOOR

HAZARD CLASSIFICATION		RESIDENTIAL - 2ND FLOOR LIVING ROOM	
SYSTEM TYPE	WET PIPE		
WATER SUPPLY	STATIC: 60 PSI		
	RESIDUAL: 54 PSI		
	GPM FLOW: 1,035 GPM		
DENSITY / REMOTE AREA:	0.05 GPM/SQ.FT. OVER (2) SPKRS		
# SPRINKLERS FLOWING:	2 MOST DEMANDING SPRINKLER HEADS		
COVERAGE PER SPRINKLER:	186.25 SQ.FT. AVG. OVER 372 TOTAL SQ.FT.		
SYSTEM DEMAND:	42.1 GPM @ 43.58 PSI		
DOMESTIC ALLOWANCE:	10.4 GPM - INCLUDED		
PSI CUSHION:	16.27 PSI		

REMOTE AREA - THIRD FLOOR

HAZARD CLASSIFICATION		RESIDENTIAL - BEDROOM	
SYSTEM TYPE	WET PIPE		
WATER SUPPLY	STATIC: 60 PSI		
	RESIDUAL: 54 PSI		
	GPM FLOW: 1,035 GPM		
DENSITY / REMOTE AREA:	0.05 GPM/SQ.FT. OVER (2) SPKRS		
# SPRINKLERS FLOWING:	2 MOST DEMANDING SPRINKLER HEADS		
COVERAGE PER SPRINKLER:	88 SQ.FT. AVG. OVER 176 TOTAL SQ.FT.		
SYSTEM DEMAND:	42.5 GPM @ 49.82 PSI		
DOMESTIC + HOSE ALLOWANCE:	10.3 GPM - INCLUDED		
PSI CUSHION:	10.03 PSI		



THIRD FLOOR PLAN

SCALE: 3/16"=1'-0"

THIRD FLOOR AREA = 300 SQ. FT.
(4) SPRINKLERS - INSTALL 6" DN. FROM CLG.

SCOPE OF WORK

- EXISTING 3-STORY GROUP HOME PROTECTED WITH FIRE PROTECTION AS FOLLOWS:
 - TOTAL SQ.FT. = 4,750
 - BASEMENT FLOOR = 600 SQ.FT.
 - 1ST FLOOR AREA = 2,050 SQ.FT.
 - 2ND FLOOR = 1,800 SQ.FT.
 - 3RD FLOOR = 300 SQ.FT.
- WET SYSTEM TO BE INSTALLED FOR ALL LEVELS - RESIDENTIAL SYSTEM DESIGN
- DESIGN PER NFPA #13D 2016 EDITION - SPRINKLER HEADS TO BE LOCATED THROUGHOUT EXCEPT AS FOLLOWS:
 - SPRINKLER HEADS NOT REQUIRED IN BATHROOMS <55 SQ.FT.
 - SPRINKLER HEADS NOT REQUIRED FOR CLOTHES CLOSETS <24 SQ.FT.
 - SPRINKLER HEADS NOT REQUIRED IN ATTIC SPACES AND CRAWL SPACES
 - SPRINKLER HEADS NOT REQUIRED IN COVERED, UNHEATED ENTRY PROJECTIONS (REAR OF FACILITY)
- SPRINKLER HEADS TO BE LOCATED ALONG ROOM WALLS 4'-6" MAX. DOWN FROM THE CEILING AND MAX. 6" OFF WALLS
- HANGER MATERIALS / SPACING MEETING NFPA #13
- SEISMIC BRACE HANGERS - NOT REQUIRED
- WATER FLOW SWITCH / TAMPER SWITCH / PRESSURE SWITCHES / ELECTRIC BELLS - NOT REQUIRED
- UNDERGROUND WATER SUPPLY MAIN SIZE - TO BE INCREASED TO 1-1/2" COMBINATION DOMESTIC WATER / FIRE PROTECTION

OCCUPANCY / DESIGN CRITERIA AND SPECIAL COMPONENTS

- OCCUPANCIES: LIGHT HAZARD / ORDINARY HAZARD GROUP I & II / STORAGE
- RESIDENTIAL DESIGN - 0.05 GPM/SQ.FT. OVER THE (2) MOST DEMANDING SPRINKLER HEADS
- SPRINKLER HEADS TO BE USED:
 - WHITE - 4.4K QUICK RESPONSE (OR) RESIDENTIAL SIDEWALL
- SPRINKLER HEAD SPACING:
 - COVERAGE PER SPRINKLER HEAD LISTING AND 14-FOOT MAX. SPACING BETWEEN SPRINKLER HEADS

INSTALLATION METHODS:

- ALL MATERIALS / INSTALLATION METHODS WILL COMPLY WITH NFPA #13, 2013 EDITION AND MANUFACTURED FOR 175-PSI WORKING PRESSURE - SYSTEM PIPING TO BE TESTED @ 200-PSI FOR 2-HOURS
- WET SYSTEM PIPING - CPVC PIPE AND FITTINGS INSTALLED EXPOSED
- BACKFLOW PREVENTER - DOUBLE CHECK VALVE
- ALARM DEVICES / SYSTEM MONITORING / FIRE DEPARTMENT CONNECTION - NOT REQUIRED

SIDEWALL SPRINKLER HEAD POSITIONING

- SPRINKLER HEAD DEFLECTORS SHALL BE 4'-6" MAX. DOWN FROM THE CEILING
- SPRINKLER HEAD DEFLECTORS SHALL BE 6" MAX. FROM THE FACE OF WALLS

MATERIALS:

- PIPE & FITTINGS: CPVC - BLAZEMASTER
- SPRINKLER HEADS: WHITE - 4.4K QUICK RESPONSE (OR) RESIDENTIAL SIDEWALL
- HANGERS: WOOD BLOCK, 2-HOLE PIPE STRAP - SPACING PER NFPA #13 (SEE HANGER SPACING CHART DETAIL)
- BACKFLOW PREVENTER: DOUBLE CHECK DETECTOR BACKFLOW PREVENTER (LOCATED AT RISERS)
- CONTROL VALVES: BUTTERFLY VALVES OR OS&Y GATE VALVES W/ TAMPER SWITCHES
- WET RISER: SHOT-GUN TYPE W/ BACKFLOW PREVENTER

WATER SUPPLY:

8" CITY MAIN IN N. PARK AVE. AND NORTH STREET NW

SITE PLAN / 1ST FLOOR / GENERAL NOTES

Date: _____

Revisions: _____

Contract No. CONT

Drawn By RPK

Scale AS NOTED

Date 2/14/19

Approval: WARREN BLDG. DEPT.

SYMBOLS

Symbol	Description
○	Hydraulic Reference Points
○	Elev. Below Top of Steel
○	Elev. Above Finished Floor
○	Elev. of Top of Steel
○	Ceiling Height
○	Denotes Hanger Location
○	Rise up or down

PLAN NOTES

- All Pipe Locations are to be Field Measured Prior to Fabrication and Installation by Sprinkler Contractor.
- All Pipe Dimensions shown are Center to Center.
- High Temperature Heads are to be Field Located Where Required.
- All Pipes and Hangers are to be Installed per NFPA #13.
- Hangers are to be U.L. Listed and F.M. Approved.

GENERAL NOTES

1307 N. PARK PROJECT
 1307 N. PARK AVE. WARREN, OH 44481

Contractor: **ESU** Electronic Systems Consultants

Job: FP-2