



CITY OF PHILADELPHIA  
 DEPARTMENT OF LICENSES & INSPECTIONS  
 Construction Services Division  
 Municipal Services Building - Concourse Level  
 1401 John F. Kennedy Boulevard  
 Philadelphia, Pennsylvania 19102

**EZ PERMIT**  
**SPRINKLER RELOCATION (RESIDENTIAL)**  
 For the Relocation of Residential Sprinkler Heads

## **EZ Residential Sprinkler Head Relocation Permit**

[EZ Permit Standard **shall not** relieve FSS Contractor from complying with **all** applicable provisions of NFPA 2007, Standard 13R.]

**Obtain permits for the relocation of residential sprinkler heads in accordance with the provisions of NFPA 2007, Standard 13R without submitting plans by meeting the Conditions and Design Limitations below. Any deviations from this permit standard will result in permit revocation.**

### **Conditions**

- Permit is limited to structures **less than four (4) stories in height**.
- Heads may be relocated for accommodation of new partition layouts and reconfirmation of rooms for smooth, flat ceiling surfaces (**not applicable** to sloped surfaces).
- Work shall be done by licensed fire suppression contractor.
- Installation of new feed main, new cross mains, new sprinkler heads **not applicable** to EZ permit process.
- EZ permit process **shall not** permit the conversion of existing light hazard systems to quick response or residential sprinklers unless already in place.

### **Construction & Relocation Requirements**

- Minimum spacing between sprinklers: 8-ft O.C.
- Sprinklers permitted to be installed in accordance to manufacturer’s listing.
- Distance of heads from continuous obstructions **shall not** exceed limits of [2007 NFPA 13R, Figure/Table 6.8.1.5.3.4(b)] for pendent and upright sprinklers, and [2007 NFPA 13R, Figure/Table 6.8.1.5.3.5(b)(a)] for sidewall sprinklers.

#### Pendent/Upright Deflectors

- Permitted offset from ceiling between 1-in to 4-in.
- To be located 3-ft minimum from ceiling obstructions, i.e. ceiling fans, light fixtures, etc.

#### Sidewall Sprinkler Deflectors

- Permitted offset from ceiling between 4-in to 6-in.
- To be located 5-ft minimum from ceiling obstructions, i.e. ceiling fans, light fixtures, etc.

#### Piping Support Hangers [Hangers to be installed as per 2007 NFPA 13 standards]

- Sprinkler piping to be supported independently of ceiling sheathing
- Attachment of branch line hangers to metal deck limited to support of max. pipe diameter of 1 in.
- Clearance distance between a hanger and the centerline of an upright sprinkler shall be no less than 3 in.
- Min. Number of hangers: One (1) per section of pipe
- Hanger maximum spacing: 12 ft, for sprinkler spacing < 6 ft. [Not to exceed limits of [2007 NFPA 13, Table 9.2.2.1(a)]]
- Non-metallic pipe to comply with individual product listing for hanger distances, including, but not limited to CPVC.
- Sprigs 4 ft or longer shall be restrained against lateral movement.

#### Unsupported Lengths (From End-Sprinkler To Last Hanger On Line)

- 1-in diameter: 36” [18” for copper tube]
- 1.25-in diameter: 48” [24” for copper tube]
- 1.5-in diameter or greater: 60” [30” for copper tube]
- For maximum pressures exceeding 100 psi: 12” for steel pipe, 6” for copper pipe
- Exceeded limits of unsupported lengths shall have pipe ends extended and supported with additional hangers.

#### Unsupported Armover Lengths (Maximum Cumulative Horizontal Length To Sprinkler)

- 24” for steel, 12” for copper
- For maximum pressures exceeding 100 psi: 12” for steel pipe, 6” for copper pipe



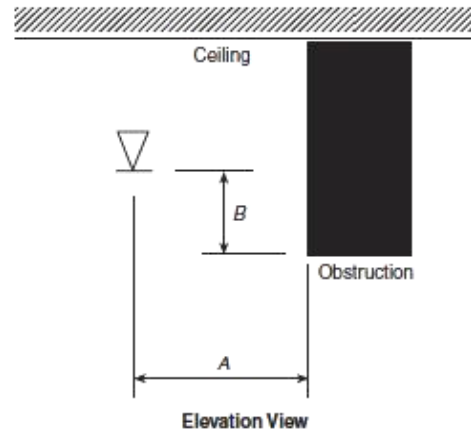
**EZ PERMIT  
 SPRINKLER RELOCATION (RESIDENTIAL)**

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**Table 6.8.1.5.3.4(B) Position of Sprinklers to Avoid Obstructions to Discharge (Residential Upright and Pendent Spray Sprinklers)**

Distance from Sprinklers to Side of Obstruction (A)	Maximum Allowable Distance of Deflector Above Bottom of Obstruction (in.) (B)
Less than 1 ft	0
1 ft to less than 1 ft 6 in.	0
1 ft 6 in. to less than 2 ft	1
2 ft to less than 2 ft 6 in.	1
2 ft 6 in. to less than 3 ft	1
3 ft to less than 3 ft 6 in.	3
3 ft 6 in. to less than 4 ft	3
4 ft to less than 4 ft 6 in.	5
4 ft 6 in. to less than 5 ft	7
5 ft to less than 5 ft 6 in.	7
5 ft 6 in. to less than 6 ft	7
6 ft to less than 6 ft 6 in.	9
6 ft 6 in. to less than 7 ft	11
7 ft and greater	14

For SI units, 1 in. = 25.4 mm; 1 ft = 0.3048 m.  
 Note: For (A) and (B), refer to Figure 6.8.1.5.3.4(B).

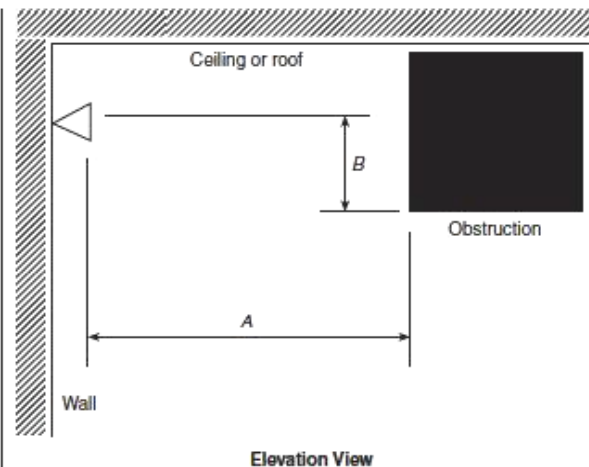


**FIGURE 6.8.1.5.3.4(B) Position of Sprinklers to Avoid Obstructions to Discharge (Residential Upright and Pendent Spray Sprinklers).**

**Table 6.8.1.5.3.5(B)(a) Positioning of Sprinklers to Avoid Obstructions (Residential Sidewall Sprinklers)**

Distance from Sidewall Sprinkler to Side of Obstruction (A)	Maximum Allowable Distance of Deflector Above Bottom of Obstruction (in.) (B)
Less than 8 ft	Not Allowed
8 ft to less than 10 ft	1
10 ft to less than 11 ft	2
11 ft to less than 12 ft	3
12 ft to less than 13 ft	4
13 ft to less than 14 ft	6
14 ft to less than 15 ft	7
15 ft to less than 16 ft	9
16 ft to less than 17 ft	11
17 ft or greater	14

For SI units, 1 in. = 25.4 mm; 1 ft = 0.3048 m.  
 Note: For (A) and (B), refer to Figure 6.8.1.5.3.5(B)(a).



**FIGURE 6.8.1.5.3.5(B)(a) Positioning of Sprinklers to Avoid Obstructions (Residential Sidewall Sprinklers).**

**Table 9.2.2.1(a) Maximum Distance Between Hangers (ft.-in.)**

	Nominal Pipe Size (in.)											
	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8
Steel pipe except threaded lightwall	N/A	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0
Threaded lightwall steel pipe	N/A	12-0	12-0	12-0	12-0	12-0	12-0	N/A	N/A	N/A	N/A	N/A
Copper tube	8-0	8-0	10-0	10-0	12-0	12-0	12-0	15-0	15-0	15-0	15-0	15-0
CPVC	5-6	6-0	6-6	7-0	8-0	9-0	10-0	N/A	N/A	N/A	N/A	N/A
Polybutylene (IPS)	N/A	3-9	4-7	5-0	5-11	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Polybutylene (CTS)	2-11	3-4	3-11	4-5	5-5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ductile iron pipe	N/A	N/A	N/A	N/A	N/A	N/A	15-0	N/A	15-0	N/A	15-0	15-0

Note: IPS iron — pipe size; CTS — copper tube size.