



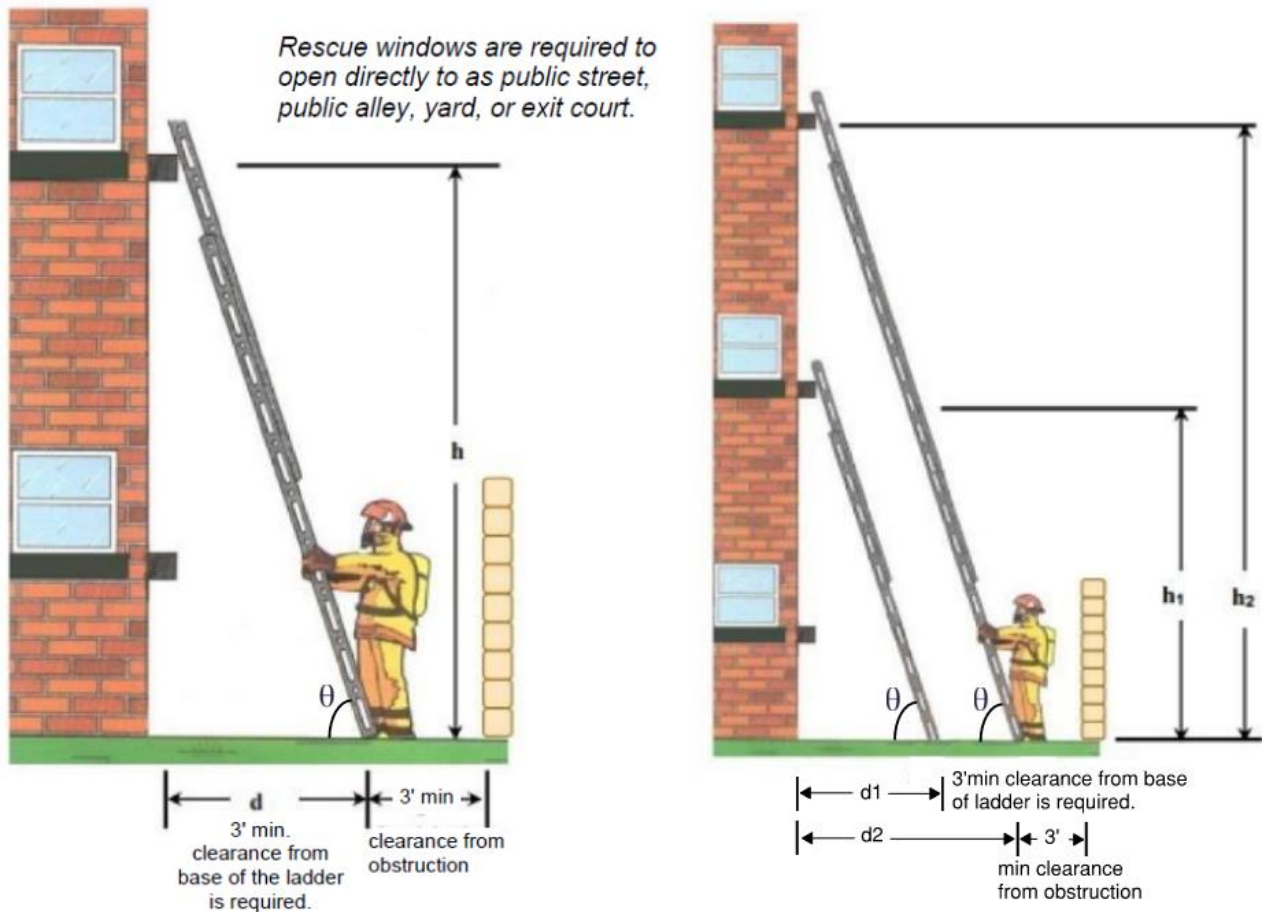
Emergency Escape and Rescue Opening Access

Section 1031 of the 2022 CFC/CBC requires emergency escape and rescue openings in residential buildings where occupants may be sleeping during fire within buildings of Type IIB, Type IIIB, Type VA, and Type VB construction.

Ladder surface shall be provided for ground ladder access meeting all of the following requirements:

1. Ladder surface shall be located at rescue windows.
2. A ladder surface shall not be less than 6'-0" wide and not less than 7'-0" deep. The ladder surface shall be located under the rescue windows.
3. Ladder surface shall be designed so that the extended ladder angle of inclination is at least 70 degrees and no greater than 76 degrees from horizontal. An easy way to determine the proper distance from the building to the ladder base is to divide the required length of the ladder by four.
4. Ladder setup shall not be obstructed by architectural features, trees, or landscaping.
5. A minimum 3'-0" clearance is required from any obstructions and from the base of the ladder.
6. Ladder surface shall be level, slip-resistant, and capable of supporting the weight of the ladder, firefighters in gear, equipment, and persons to be rescued. Ladder surface shall be designed to support a minimum 1000- pound load. Hard compact earth or other approved engineered surface will be acceptable and will be reviewed on a case-by-case basis.

Ladder Surface Setback at Rescue Openings



Placement of Ladders

	$\theta = 70^\circ$	$\theta = 75.6^\circ$ [[h/5]+2 = d]	$\theta = 76^\circ$
Still Height (h)	Distance (d)	Distance (d)	Distance (d)
35'	12.8'	9'	8.8'
34'	12.4'	8.8'	8.5'
33'	12.1'	8.5'	8.3'
32'	11.7'	8.3'	8'
31'	11.3'	8'	7.8'
30'	11'	7.8'	7.5'
29'	10.6'	7.5'	7.3'
28'	10.2'	7.2'	7'
27'	9.9'	7'	6.8'
26'	9.5'	6.7'	6.5'
25'	9.1'	6.5'	6.3'
24'	8.8'	6.2'	6'
23'	8.4'	6'	5.8'
22'	8.1'	5.7'	5.5'
21'	7.7'	5.4'	5.3'
20'	7.3'	5.2'	5'
19'	7'	4.9'	4.8'
18'	6.6'	4.7'	4.5'
17'	6.2'	4.4'	4.3'
16'	5.9'	4.2'	4'
15'	5.5'	3.9'	3.8'
14'	5.1'	3.6'	3.5'
13'	4.8'	3.4'	3.3'
12'	4.4'	3.1'	3'