

APPENDIX R

Residential Occupancies

R.1 HOW TO USE THIS APPENDIX

This appendix contains information related to residential occupancies.

In addition to the generic information listed in the “Requirements” section in Guideline E-01, the information in the “Plan Requirements” section of this appendix must be provided on your plan.

R.2 SCOPE

R.2.1 OCFA REVIEW – The OCFA reviews and inspects the following types of residential structures, with some exceptions for R-1 and R-2 occupancies based on number of stories and specific design features.

R.2.1.1 R-1 Occupancies – R-1 occupancies, which include hotels, motels, short-term boarding houses, and other residential facilities with relatively temporary occupants.

Exception: OCFA architectural review is not required for R-1 occupancies of one or two stories.

Exception: Architectural *inspections* are generally not required on R-1 occupancies with less than 51 units, unless there are special construction features required by an alternate method or material.

R.2.1.2 R-2 Occupancies – R-2 occupancies, which consist primarily of apartments, condominiums, vacation timeshare properties, and other multi-family residential facilities with relatively permanent occupants. Congregate living facilities such as dorms, monasteries, and fraternity/sorority houses with more than 16 occupants are also classified as R-2 occupancies.

Exception: R-2 occupancies of three stories or less are typically exempt from OCFA architectural review and inspection unless they meet one or more of the criteria listed below:

- i. Firewalls are used to subdivide the structure into two or more buildings
- ii. Sprinklers are used for a story increase, allowable area increase, or allowable opening increase
- iii. 3 story buildings with shared egress (i.e., common corridors, exit balconies, stairs)
- iv. podium or wrap style construction

- v. A provision of an alternate method or material request impacts an architectural design component or building feature normally reviewed by OCFA (i.e., CBC Chapters 3-10, 30, or 31)
- vi. The project involves a licensed large family daycare home or home-based care facilities. These facilities shall be reviewed and inspected by OCFA Prevention Field Services; please see the “Licensing Inspections” section of the Prevention Field Services webpage and Guidelines F-03, F-07, and F-08 for requirements. Facilities with more than 6 clients, other than large family daycare homes, are classified as R-2.1 or R-4 occupancies and shall be reviewed and inspected by OCFA Planning & Development Services.

Exception: Architectural *inspections* are generally not required on R-2 occupancies with fewer than 51 units, unless there are special construction features required by an alternate method or material.

R.2.1.3 R-2.1 Occupancies – R-2.1 occupancies, which consist of facilities that house clients on a 24 hour basis who live in a supervised environment due to age, mental disability, social rehabilitation, or similar reason. Facilities with this occupancy classification house 7 or more clients; unlike R-4 occupancies, R-2.1 occupancies may house more than 6 occupants who are non-ambulatory and/or bedridden.

R.2.1.4 R-3 Occupancies – The OCFA does not perform architectural review of R-3 single family residences or duplexes, or R-3 townhouses constructed in accordance with the California Residential Code, that are not used for care or rehabilitation purposes.

R.2.1.4.1 R-3/R-3.1 Occupancy Licensed Care Facilities – Licensed care in R-3 (e.g., Large Family Daycare, Group Home that does not provide medical care) or R-3.1 facilities (e.g., RCFE; drug and alcohol detox and rehabilitation homes providing treatment services; community care homes) shall be reviewed and inspected by OCFA Prevention Field Services. Please see the “Licensing Inspections” section of the OCFA Prevention Field Services webpage and Guidelines F-01, F-02, and F-03 for requirements. Facilities providing care with more than 6 clients, other than large family daycare homes, are classified as I-2, R-2.1, or R-4 occupancies and shall be reviewed and inspected by OCFA Planning & Development Services.

R.2.1.5 R-4 Occupancies – R-4 occupancies, which include assisted living, residential care, or social rehabilitation facilities with 7 to 16 clients, no more than 6 of these being bedridden or non-ambulatory.

R.3 PLAN REQUIREMENTS

R.3.1 SPRINKLERS – All new R-1, R-2, R-2.1, and R-4 occupancies shall be equipped with an automatic fire sprinkler system conforming to NFPA 13 or 13-R. All new attached

multi-family R-3 row houses and townhouses shall be equipped with a sprinkler system complying with NFPA 13-R; a 13-D system may be installed in each dwelling when each dwelling unit has its own separate domestic water supply. All new detached R-3 homes and duplexes shall be equipped with an NFPA 13-D system. For sprinkler requirements for R-3.1 facilities please refer to CBC 903.2.8. Where certain exceptions or bonuses are allowed by the code for a sprinklered structure, such as an increase in allowable stories or area, an NFPA 13 sprinkler system shall be provided when required by the code section applied.

R.3.1.1 Sprinkler Retrofit – An existing non-sprinklered structure may be required to be retrofit with sprinklers when the size of the structure and scope of work exceeds the sprinkler threshold for the jurisdiction it is located in (see the local ordinance posted at www.ocfa.org), when the use changes the building to an occupancy classification that would require sprinklers if it were treated as new construction (e.g., a third dwelling unit added to an existing duplex), or if site conditions or deficiencies such as poor fire flow, lack of hydrants, or excessive hose pull distance require such mitigation.

R.3.2 GARAGE/DWELLING UNIT SEPARATION, CBC 406.3.2 – Where doors are provided between an individual dwelling unit and a private garage serving that dwelling unit, provide a door schedule or note indicating that the doors from the garages to the residential portions of the units will be either 1) 20-minute rated, or 2) solid wood not less than 1-3/8 inches thick, or 3) solid- or honeycomb-core steel doors not less than 1-3/8 inches thick. In multi-family residential structures where the garages may be classified as an S-2 occupancy due to aggregate size exceeding the 3,000 square feet limit, a 45 minute rated door assembly shall be provided. Doors shall be self-closing and latching.

R.3.3 AMENITY DECKS – Elevated amenity decks shall meet the requirements below.

R.3.3.1 Rooftop Amenity Decks – Occupied rooftops, including elevated amenity decks, rooftop gardens, and similar areas, shall comply with the following:

- A. A roof level or portion thereof shall be permitted to be used as an occupied roof provided the occupancy of the roof is an occupancy that is permitted by Table 504.4 for the story immediately below the roof. The area of the occupied roofs shall not be included in the building area as regulated by Section 506.
- B. The occupancy located on an occupied roof shall not be limited to the occupancies allowed on the story immediately below the roof where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and occupant notification in accordance with Section 907.5 is provided in the area of the occupied roof.
- C. Assembly occupancies shall be permitted on roofs of open parking structures of Type I or Type II construction, in accordance with the exception to Section 903.2.1.6.
- D. These spaces shall be considered assembly occupancies if the area exceeds 750 square feet or the occupant load is 50 or more. If the occupants of one amenity deck share any component of the egress system with another amenity deck or similar space used for assembly purposes, or the amenity spaces are sufficiently visually or functionally interconnected to be considered a single

space by the fire code official, the aggregate area and occupant load shall be considered for determination of occupancy classification (i.e., two or more deck areas are substantially separated but utilize a common corridor to access the exit stairs).

- E. The egress system shall comply with CBC Chapter 10.
 - a. An amenity deck on top of a parking structure may share the exit stairs required for egress from the garage provided the stairs and path(s) of travel to the stairs meet all the requirements for egress from the amenity deck. Egress width shall be calculated based on the highest aggregate number of garage and amenity area occupants entering the stairway at any individual tier.
- F. Pool chemicals located above the first floor shall be limited to the reduced maximum allowable quantities specified in CBC Table 414.2.2 (5% above the 6th floor, 12.5% on floors 4 through 6, 50% on floor 3, and 75% on floor 2).

R.3.3.2 Highrise Amenity Decks – Buildings with amenity decks located more than 75 feet above the lowest floor level where firefighters enter the building shall be considered high-rise structures and fully comply with the requirements in CBC 403.

R.3.4 EGRESS

R.3.4.1 Floor-level exit signs, 1013.7 – In addition to overhead visual exit signs, floor level exit signs shall be provided:

- In all areas serving guest rooms in R-1 occupancies.
- In interior corridors of R-2.1 occupancies, unless smoke barriers are provided

R.3.4.2 Rescue openings, CBC 1031 – Rescue openings shall be provided for all basements and for sleeping rooms on the first 3 stories above grade unless the building meets the exceptions in CBC 1031.2, such as for R-1 and R-2 occupancies in Type I, IIA, IIIA, or IV buildings protected with an NFPA 13 sprinkler system. Identify each rescue window on the floor plan and elevation and specify the clear opening dimensions provided on the window schedule.



R.3.4.2.1 Accessing Rescue Openings – An approved access walkway must be provided to enable firefighters to easily and safely reach a clear, flat space beneath each rescue opening from the fire lane. Obstructions including but not limited to shrubs, trees, trellises, carports, raised planters, walls, fences, pools, steeply sloped roofs, overhangs, vegetation, and similar building and site elements shall not impede the use of or access to the walkway or rescue opening.

Walkways may consist of hardscape, decomposed granite, grass, or other similar walkable material that does not inhibit access to or use of the area. Trees that encroach on walkways shall provide a minimum 7-foot clearance underneath to allow unhindered passage by firefighters, however, trees and shrubs shall not encroach on areas outside the rescue opening.

R.3.4.2.2 Laddering Pad and Setback at Rescue Openings of Group R-1, R-2, and R-2.1 Occupancies - A clear, flat space for laddering rescue openings shall be provided beneath each rescue opening. The distance between the nearest edge of this laddering pad and the structure is based on standardized operational procedures and safe practice to achieve a proper laddering angle.

The plan provided must demonstrate that the vegetation (at fully-grown sizes), buildings, and site features will not obstruct the access walkways or laddering operations. It is incumbent upon the developer, architect, landscape architect, and facility maintenance personnel to collaborate on a design and plant palette that complies with these requirements through the life of the building.

The equation used to determine placement of the foot of the ladder is:

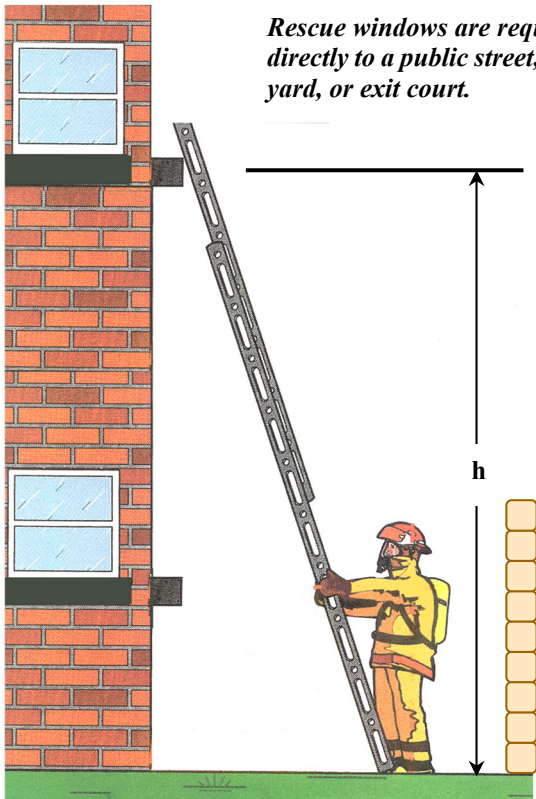
$$d = (h/5)+2$$

Where **h** = the height of the window sill or balcony railing

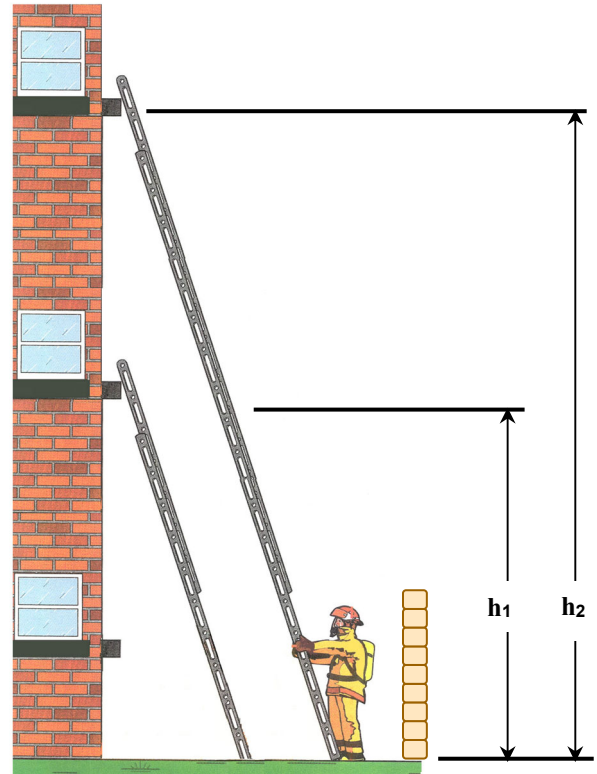
d = the distance in feet from the edge of the pad nearest the building to a point on the ground directly beneath the rescue window sill or balcony edge

Refer to the diagram on the next page for a graphic representation of this formula and a table of approximate distances for given windowsill or balcony railing heights.

Rescue windows are required to open directly to a public street, public alley, yard, or exit court.



$$d = \frac{h}{5} + 2$$
 Laddering Pad



$$D_1 \quad D_2 \quad D_2 + 3'$$
 Overall width of pad is from D_1 to a point 3' behind D_2

Placement of Ladders

Sill Height (h)	Distance (d)
35'	9'-0"
34'	8'-10"
33'	8'-7"
32'	8'-5"
31'	8'-2"
30'	8'-0"
29'	7'-10"
28'	7'-7"
27'	7'-5"
26'	7'-2"

Sill Height (h)	Distance (d)
25'	7'-0"
24'	6'-10"
23'	6'-7"
22'	6'-5"
21'	6'-2"
20'	6'-0"
19'	5'-10"
18'	5'-7"
17'	5'-5"
16'	5'-2"

Sill Height (h)	Distance (d)
15'	5'-0"
14'	4' to 5'
13'	4' to 5'
12'	3' to 5'
11'	3' to 4'
10'	2' to 4'
9'	2' to 4'
8'	2' to 3'
7'	1' to 3'
<7'	1' to 2'

R.3.5 PHASED OCCUPANCY OF APARTMENT BUILDINGS – If occupancy of a portion of the structure will be requested before occupancy of the entire structure is approved, it is incumbent upon the developer, architect, general contractor, and fire and life-safety systems subcontractors to collaborate early with OCFA in the design process to develop a plan that will facilitate this consideration. A phased occupancy plan must be submitted to and reviewed by OCFA as part of the architectural plan submittal. *Requests for permission to phase occupancy will not be accepted after the start of construction unless the plan includes successful completion of the fire sprinkler final inspection for the entire structure prior to occupying any portion of the structure.*

At a minimum, considerations that require OCFA approval on the phasing plan shall include, but are not limited to:

- Clearly identify areas which are proposed to be occupied zones, areas to be unoccupied buffer zones, and areas to be unoccupied construction zones. The zones must be separated by fire walls and/or physical separation.
- A buffer zone must be provided between the occupied zones and the construction zones.
- An occupied zone is an area of the structure where the Building Department has approved occupancy for the general public. These areas may include the leasing office, dwelling units, parking garages, and other common areas. All fire and life safety requirements, including egress, standpipes, fire extinguishers, etc., in occupied zones shall meet all Fire Code and Building Code requirements independently of the unoccupied zones.
- A buffer zone is an unoccupied area surrounded by fire walls and exterior walls where all construction has been completed and all Building Department and Fire Authority final inspections have passed.
- A construction zone is an area not occupied by the general public where some construction may be incomplete and ongoing, and all Building Department and Fire Authority final inspections have not passed. These areas have a functioning fire sprinkler system, but in some cases the fire sprinkler final inspection may not have passed. Exposed raw lumber is prohibited, except heavy timber.
- Fire alarm systems in occupied portions shall be zoned to ensure they will not be interrupted or impacted by construction, installation and testing in other phases.
- All fire suppression systems including fire pumps, standpipes, and fire sprinkler systems shall be functional throughout every phase prior to occupying the first phase of the project. These systems may not be disrupted during future construction.
- An approved written plan to ensure that on-site fire department access roads and fire hydrants are not compromised during construction. This plan is usually approved as part of the fire master plan and is maintained on-site until final occupancy.