City and County of San Francisco
Department of Building Inspection

London N. Breed, Mayor
Patrick O'Riordan, C.B.O., Director

INFORMATION SHEET

No. EG-02

DATE : January 15, 2024

CATEGORY : Egress

SUBJECT : **Emergency Escape and Rescue Openings (EEROs) to Yard or Court for Existing or New Buildings with Group R-3 Occupancies**

REFERENCE :
- California Building Code (CBC), Current Edition
- San Francisco Building Code (SFBC), Current Edition
- San Francisco Fire Code (SFFC), Current Edition
- CBC Section 1031, Emergency Escape and Rescue
- SFBC Administrative Bulletin AB-005 Procedures for Approval of Local Equivalencies
- SFBC Administrative Bulletin AB-028 Pre-application and Pre-addendum Plan Review Procedures

INTENT : To clarify local equivalency requirements for emergency escape and rescue openings that open to a yard or court without direct access to a public way for Group R-3 occupancies

BACKGROUND :

California Building Code (CBC) Section 1031 requires that emergency escape and rescue openings (EEROs) open directly to a public way or to a yard or court that opens to a public way. On December 3, 2018, the California State Fire Marshal issued a code interpretation that EEROs in Group R-3 occupancies are required to be accessible by emergency rescue personnel using ground ladders. This information sheet addresses the condition where the EEROs in Group R-3 occupancies are open to a yard or court that does not open to a public way and thus inhibits the ability for ground ladder access to the EEROs for rescue. The applicability of EEROs and associated requirements are prescribed in CBC Section 1031. In addition, projects are subjected to review for compliance with CBC Section 1031 where proposed scopes of work further restrict access for emergency rescue personnel to perform rescue operations at EEROs.

DISCUSSION :

The intent of the code is that (1) EEROs be available so that occupants may **escape** from sleeping rooms

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directly through the EEROs to the exterior of the building without necessitating additional travel through the building; and (2) EEROs be available for emergency rescue personnel to access sleeping rooms to **rescue** occupants. Where EEROs are open to a yard or court that does not have access to a public way, then the intent of the code to accomplish both escape and rescue is not met.

Projects may request for the approval of a local design equivalency where both of the following conditions are met:

1. The **escape** criteria for the EERO may be accomplished where the EERO opens into a yard with a minimum of 25 feet in depth. The 25-foot depth shall be measured from the most remote point of the lot to any portion of the building, including any combustible projections.

2. The **rescue** criteria for the EERO at a yard or court that does not open to a public way shall be proposed by the project sponsor and evaluated at the time of submittal on a case-by-case basis by a Department of Building Inspection (DBI) and San Francisco Fire Department (SFFD) plan review supervisor or manager. Acceptable local design equivalency alternatives for the rescue criteria are listed in this information sheet.

Other conditions may be evaluated on a case-by-case basis by a DBI and a SFFD supervisor or manager. A pre-application meeting and/or approval of a local equivalency request per SFBC Administrative Bulletin AB-005 is required.

ACCEPTABLE LOCAL EQUIVALENCIES FOR RESCUE:

In the event that EEROs open to a yard or court that does not open to a public way, the following three local equivalencies for the rescue criteria are acceptable by DBI and SFFD. Request to use the following local equivalencies shall be accompanied by a request for a local design equivalency approval per SFBC Administrative Bulletin AB-005 and will be reviewed and approved on a case-by-case basis. These requirements do not alleviate and shall not diminish any other code requirements established in the SFBC and SFFC.

Rescue Criteria Alternative 1 – Fire Department Ground Ladder Access:

The rescue criteria for the EERO at a yard or court that does not open to a public way may be accomplished by providing a minimum 3-foot wide pathway that can accommodate a 22-foot straight ladder from the public way to the yard or court. A rescue pathway diagram shall be provided on the plans demonstrating the ability for a 22-foot ladder to be carried from the public way to the yard or court where the EERO is located and lifted into place. NOTE: The rescue pathway may travel through garage doors, swing doors and sliding patio doors; but not windows. The rescue pathway may also lead directly to the bedroom door.

> *Commentary for Rescue Criteria Alternative 1:*
> *SF Fire Department uses a 22-foot straight ladder or a 35-foot extension ladder to reach EERO's on the 2nd and 3rd floors. Thus, SF Fire Department needs a minimum 3-foot wide clear pathway to carry the 22-foot straight ladder and 35-foot extension ladder (21 feet unextended) from the street, through a building, to the ground below the EERO. Obstructions, such as fences or detached accessory buildings in the rescue yard or court shall not require that the ladder be raised to navigate around such obstacle. Thus, the entire ladder must be positioned at ground level in the yard/court before it is raised to lean against the building.*

Rescue Criteria Alternative 2 – Roof Access for Rescue:

The rescue criteria may be accomplished by providing vertical access to the EEROs from the roof level.

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The roof slope shall not exceed a 4:12 pitch at any location along the roof access route to the yard or court. The following vertical access components are required between the roof level and the level of each EERO:

1. Stairs shall comply with CBC Section 1011. Spiral stairways and alternating tread devices are not permitted as an alternative.
2. Alternate stair design, such as ship's ladders and ladders, shall have a maximum stair incline of 72 degrees from horizontal.

A balcony, deck, or landing is required directly outside of each EERO:

1. Minimum/maximum 3 feet wide in the direction perpendicular to the EERO.
2. Minimum/maximum length shall be the width of the EERO opening or 3 feet, whichever is longer.
3. Any intermediate landings or platforms shall have the minimum/maximum dimensions of 36-inch deep by 72-inch long.

Rescue Criteria Alternative 3 – Yard Access for Rescue:

The rescue criteria may be accomplished by providing vertical access to the EEROs from the yard level. A vertical access component with the following requirements is required between the ground level and the level of each EERO:

1. Stairs shall comply with CBC Section 1011. Spiral stairways and alternating tread devices are not permitted as alternatives.
2. Alternate stair design, such as ship's ladders and ladders per CBC Section 1011, shall have a maximum stair incline of 72 degrees from horizontal.

A balcony, deck, or landing is required directly outside of each EERO:

1. Minimum/maximum 3 feet wide in the direction perpendicular to the EERO.
2. Minimum/maximum length shall be the width of the EERO opening.
3. Any intermediate landings or platforms shall have the minimum/maximum dimensions of 36-inch deep by 72-inch long.

Commentary for Rescue Criteria Alternatives 2 and 3:
Where access for a 22-foot ladder cannot be provided, stairs may be provided for SF Fire Department to access EEROs and enter sleeping areas to rescue occupants, in place of ladder access. SF Fire Department requires a minimum 3-foot-wide stairway, platform, and pathway to perform rescue operations. These two alternatives deliberately set minimum/maximum dimensions so as not to trigger Planning requirements for non-safety related projections. The working angle of a SF Fire Department ground ladder is 72 degrees from horizontal, and therefore shall be the steepest angle of a proposed stairway.

1/10/24

Ken Cofflin Date
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1/17/24

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