



## Safe Escape Summary

### Escape Room Doors - Egress, Fire Protection, and Accessibility

Lori Greene, DAHC/CDC, CCPR, FDAI, FDHI  
Manager – Codes and Resources, Allegion  
iDigHardware.com

When planning for doors serving escape rooms, it's crucial to ensure that the applicable code requirements are met. This checklist is based on the International Building Code (IBC) and International Fire Code (IFC), however, a jurisdiction may have other adopted codes, standards, or ordinances in place with differing requirements. The Authority Having Jurisdiction (AHJ) may require additional measures to ensure the safety of building occupants.

<p>▣ <b>Number of Exits</b></p> <p>Which doors are serving as part of the means of egress?</p> <p>How many exits are required?</p>	<p>The first step is to identify the doors serving as part of the means of egress – a path from any occupied point in a building to the public way. If a particular door is required for egress, or is provided for egress purposes, it must comply with the adopted codes and referenced standards.</p> <p>There are multiple factors that may impact the required number of exits. When an individual escape room has a calculated occupant load of less than 50 people, one exit from the room may be permitted by the adopted code. It is common for the building or tenant space housing escape rooms to require two exits.</p>
<p>▣ <b>Door Swing</b></p> <p>Based on the calculated occupant load, are doors required to be inswinging or outswinging?</p>	<p>A door serving an escape room with a calculated occupant load of less than 50 people is not required by the model codes to swing in the direction of egress. Doors serving multiple rooms, such as the building's entrance and exit will typically swing out to accommodate the cumulative occupant load. Manual sliding doors are acceptable when serving a calculated occupant load of 10 people or less.</p>
<p>▣ <b>Panic Hardware</b></p> <p>Based on the occupancy type and the occupant load, do any doors require panic hardware?</p>	<p>When an escape room is considered an assembly occupancy and the calculated occupant load is 50 people or more, egress doors that lock or latch must be equipped with panic hardware. This is not common, as most escape rooms are considered business occupancies, however, an AHJ may require panic hardware if they believe that a hazard exists.</p>

<p>▣ <b>Readily Distinguishable Exits</b></p> <p>Are all doors in the means of egress visible, with no mirrors, curtains, or others means of concealment?</p>	<p>The model codes require egress doors to be readily distinguishable as doors, and these doors must not be concealed. Mirrors, curtains, and other means must not be used to hide the egress side of the door. During an emergency, building occupants often seek to escape through the door they used to enter.</p>
<p>▣ <b>Clear Opening</b></p> <p>Do all doors in the means of egress provided the required clear opening width and height?</p>	<p>The minimum clear opening width for a door serving as part of the means of egress is 32 inches. This measurement is taken between the face of the door and the stop on the frame, with the door open to 90 degrees.</p> <p>The minimum allowable clear height of a door opening is 80 inches. Door closers and other hardware may project down into the clear opening height, as long as a minimum clearance of 78 inches above the floor is maintained.</p>
<p>▣ <b>Operable Hardware</b></p> <p>Do doors unlatch (all latches simultaneously) with one releasing motion?</p> <p>Is hardware operable without a key, tool, special knowledge or effort, and without tight grasping, pinching, or twisting of the wrist?</p> <p>Do doors equipped with electrified hardware meet the applicable code requirements for special locking arrangements?</p>	<p>Latching and locking hardware on doors in a means of egress must unlatch with one releasing motion. Lever handles and panic hardware are examples of hardware that will meet this requirement. A deadbolt installed on a door with other locking or latching hardware, requiring a second releasing motion, is not permitted by the model codes.</p> <p>Hardware must not require a key, tool, special knowledge, or effort for egress, and must require no tight grasping, pinching, or twisting of the wrist to operate. Electrified hardware, such as an electromagnetic lock, must have the release devices required by the adopted code.</p>
<p>▣ <b>Mounting Height</b></p> <p>Is releasing hardware installed at the mounting height required by the adopted code or standard?</p>	<p>Releasing hardware must be mounted between 34 inches and 48 inches above the floor, or as otherwise restricted by state or local code requirements.</p>
<p>▣ <b>Fire Door Assemblies</b></p> <p>Do fire door assemblies close and latch properly?</p>	<p>Some escape room buildings may include fire door assemblies; common locations include stairwells and electrical rooms. These doors should not be modified and must close and latch to act as an opening protective if a fire occurs.</p> <p>Fire doors must never be blocked or wedged open. Automatic-closing devices which hold the door open until fire alarm activation are permitted in most locations.</p>

<p>▣ <b>Operable Force and Opening Force</b></p> <p>Can interior, non-fire-rated doors be opened with 5 pounds of force or less?</p> <p>Are exterior doors and fire doors openable with no more than 30 pounds to set the door in motion and 15 pounds to open the door to the fully-open position, or as limited by state or local requirements?</p> <p>Is hardware operable with the amount of force mandated by the applicable codes and standards?</p>	<p>Doors must be operable and openable within the force limits stated in the adopted code. There are some variations for these allowable forces. For example, interior, non-fire-rated doors must be openable with 5 pounds of force or less, while exterior doors and fire doors are permitted by the adopted codes to be opened with up to 30 pounds to set the door in motion, and 15 pounds to open the door to the fully open position.</p> <p>The Americans with Disabilities Act limits the force for operable hardware to 5 pounds, while the IBC and IFC limit these forces to 15 pounds of pushing or pulling motion or 28 inch-pounds of rotational motion.</p>
<p>▣ <b>Maneuvering Clearance</b></p> <p>Is the required maneuvering clearance provided, to ensure that a person using a wheelchair may maneuver to open the door?</p>	<p>The accessibility standards require certain clearances around a manually operated (not automatic) door opening for a person using a wheelchair to maneuver while opening the door. For more information about these requirements, visit the <a href="#">U.S. Access Board website</a>.</p>

For more information about the requirements for doors serving escape rooms, visit [iDigHardware.com/escape](http://iDigHardware.com/escape).