

AIA Ohio - Codes and Standards – 10/28/15

Introduction

Based on legislative activity earlier this year, AIA Ohio sought information and guidance from the broader AIA community, including SGN (State Government Network) and national staff on the issue of classroom barricades. Based on the data received during this process, the information has been compiled into this Issue Brief that reviews the use and appropriateness of ancillary barricades. This Issue Brief is specific to the needs of Ohio, but points to a much larger need for a coordinated, national effort to define, as it relates to building code standards, appropriate responses to security issues during “active shooter” or similar lockdown or emergency situations.

Issue / Question:

Changes to the Ohio Building Code requiring an exception to include the use of ancillary barricades in school classrooms for “active shooter” scenarios

Overview of Proposed Rule Changes in Ohio:

Proposed Ohio Building Code Rule Changes

The Board proposes to amend the Ohio Administrative Code in response to adoption of new Ohio Revised Code § 3781.106 included in HB 64 requiring the Board to develop rules for the use of a device by a staff member of a public or private school or institution of higher education that prevents both ingress and egress through a door in a school building, for a finite period of time, in an emergency situation, and during active shooter drills as follows: **4101:1-2-01** to add definitions for Active Shooter Drill, Administrative Authority of a School Building, Emergency Situation, Institution of Higher Education, Private School, Public School, School Building, and Temporary Door Locking Device; and **4101:1-10-01** to add exceptions to Sections 1008.1.9.1, 1008.1.9.3, 1008.1.9.5 for Temporary Door Locking Devices, and to add a new Section 1008.1.9.11 which establishes conditions for the use of Temporary Door Locking Devices.

These proposed rules can be viewed [here](#).

Initial Evaluation by Industry Groups Inconclusive. Regarding school classroom barricades, there has been significant work performed by various groups, including the Ohio BBS, NFPA, NASFM, Sandy Hook Advisory Commission, PASS, and the ICC to put the subject in perspective and to make recommendations (see resources below). What has not happened on a national scale is a consolidation of those resources into a comprehensive compendium on the subject that organizations who advocate for the development and adoption of building codes, such as AIA, can rely upon in seeking a technologically feasible solution to the problem at hand.

Concerns regarding the use of Barricades in General:

Industry reports and groups tend to show that the technologies are varied and unproven: they represent a technological change in the manipulation of existing door hardware requirements that has not been tested and vetted by the leading independent technical testing organizations, and are so varied in operation, that there is no clear standard.

The leading fire and safety organizations do not think barricades are a good idea, insomuch as they would require changes to the codes.

There are potential dangerous conflicts with ADA when the devices are put to use, and installations may make it impossible for children or disabled persons to escape from fire or other emergency when the devices are deployed.

In addition, door barricades are not within the normal hardware family of devices used by designers nor within the model building codes today:

- IBC, IFC, NFPA 101 all prohibit their use.
- Lack of standards for performance, material quality control, etc.
- Lack of testing based on standards and measurement of performance.
- Creation of unintended consequences – create a secure environment for molestation, etc.

Further, none of the national code organizations have finalized any decisions on how best to address the issue. The building codes produced by the International Code Council (ICC) are the farthest along in finalizing proposals for incorporation in its 2018 codes. A final vote on these changes should occur prior to the end of this year. The ICC code development process is ideally positioned to provide the debate and testing of change proposals to the model codes regarding barricade devices. Similarly, NFPA is taking up the issue of classroom security. In particular:

- ICC Code Changes are pending to address how best to address classroom security issues.
- NFPA 101 is evaluating changes to incorporate answers to the question of classroom security.
- NFPA 730 has begun to incorporate elements into standard for security and classrooms.

AIA's Applicable Policies and Position Statements

The AIA maintains a public policy on the adoption and enforcement of building codes, which states:

The AIA supports regulation by a single set of comprehensive, coordinated, and contemporary codes and standards, which establish sound threshold values of health, safety, and the protection of the public welfare throughout the United States. To that end, the AIA espouses the development and adoption of model building codes that:

- *Include participation by architects and the public in a consensus process;*
- *Are the product of informed education and research;*
- *Are without favoritism or bias to any special interest;*
- *Include provisions for a prompt appeals procedure for all that might be aggrieved;*
- *Are cost-effective in relation to the public benefit; and*
- *Promote building code provisions that set performance rather than prescriptive criteria.*

(approved through December 31, 2016)

Not in a consensus-based model code. Based on this policy, a concern for the AIA organizationally with regard to the proposed [change to the Ohio Building Code](#) centers around the addition of devices that are not included in the scope of the national model building code, and mandated for use outside the purview of the debate and vetting that occurs within the code development process.

Unknown Code Conflicts. Although changes to the codes are made by states and local jurisdictions, the proposed changes raise the potential for fundamental conflicts between the current building code and ADA, egress and life safety concerns. For this reason alone it makes the most sense to allow the consideration of these devices to happen at the national model code development processes already taking up the issue, and allow for that process to determine a way forward for the inclusion of new technologies. The proposed devices do not necessarily respond to or comply with any prescriptive requirements for performance, and the proposed rules do not address other safety concerns or potential liability related to improper use, storage or deployment.

Current Codes Protect HSW. Speaking from a perspective of professionals licensed to protect the health, safety, and welfare of the public, enforcement of current codes will make occupants safer; when effectively enforced, the codes do protect the health, safety and welfare of building occupants.

Informed Research. Allowing untested devices, and mandating the allowing of their use “by code” goes against AIA’s established policy that codes be the “product of informed education and research.” Though manufacturers have and will likely continue to offer unique solutions to the active shooter scenario and invent new ways to barricade openings, it is not clear what building science literature and testing has to say about their

function and use. The key to informed research in the building industry is third party evaluation and the application of established standards.

Bias. The AIA promotes codes that are created without bias to commercial interests. There has been no determination on whether the proposed code change would favor one manufacturer over the other, or a certain device over another. Much like other new technologies introduced into the codes, a full development process is needed to determine what the standards for technology, irrespective of the manufacturer, should be in the model code and in Ohio.

Current Status of Barricades in State Codes:

California, 2010

“On and after July 1, 2011, all new construction projects submitted to the Division of the State Architect pursuant to this chapter shall include locks that allow doors to classrooms and any room with an occupancy of five or more persons to be locked from the inside.”

New Jersey, 2013

“Classroom doors can be locked to prevent entry from the outside of the classroom if in compliance with Section 1008.1.8 which requires the door to be openable from the side of egress without the use of a key or special knowledge or effort.

A device that slides under the door to prevent entry can be acceptable if staff is trained in its use and is constantly positioned inside to remove it if necessary. The installation or use of a hasp lock mechanism, a slide bolt or a door wedge is absolutely prohibited.

Another device that is being used on classroom door frames is magnetic strips that cover the latch opening. This strip prevents the door latch from latching or locking and is removed in an emergency allowing the door to latch and lock. This is permitted as long as egress can be made from the occupied side and the door is not part of an opening protective in a fire rated assembly.

In any case where the actual door hardware is being altered or changed, a construction permit is required.”

Arkansas, 2015

“A person may install and use a temporary door barricade device or security lockdown device for security purposes to protect individuals during active shooter events or other similar situations.”

Colorado, 2015

“In classrooms within group E occupancies, hardware shall include a means to manually lock egress doors from inside the classroom. Such means shall not prevent these doors from being readily openable from the egress side without key or special knowledge or effort.”

Minnesota, May 2015

“Classroom security concerns during a lockdown emergency are well understood, and fortunately this problem is easily addressed via the use of code-compliant egress/security hardware. Proper door hardware eliminates the need for security and barricade devices while maintaining free egress. Commonly known as a classroom security lockset, this type of hardware allows exit doors to be quickly and securely locked from the classroom side, and may even include a deadbolt feature for added security. Activation of the locking hardware is quick and simple by operation of a thumb-turn device or key from the classroom side (these locks are available in either configuration). Such hardware fully complies with both the state fire and building codes because normal operation of the handle on the classroom side automatically releases the latch and deadbolt, allowing for free egress.”

Ohio, pending 2016

“Temporary Door Locking Device to prevent ingress and egress. A temporary door locking device shall be permitted when approved by the building official only in school buildings where:

The device is engaged only by a staff member of the school building; and

The temporary door locking device shall only be engaged for a finite period of time and

The temporary door locking device shall only be used in an emergency situation and
.... the administrative authority of a school building has notified the police and fire officials prior to the use of the temporary door locking device; and
.... training on the use of the temporary door locking device is provided

Operational requirements:

The temporary door locking device shall not be permanently mounted to the door (see exceptions).

The removal shall not require more than one operation. Two operations may be permitted if the school building is equipped throughout with an automatic sprinkler system

Additional Resources:

- NFPA, Research Report, *Workshop on School Safety, Codes and Security, Final Report* – December 3-4, 2014
- Ohio BBS, *Classroom Barricade Forum Report - July 24, 2015*
- NASFM resolution, July 2015
- Sandy Hook Advisory Commission, *Report of the school Safety Infrastructure Council, June 27, 2014*
- PASS, *Safety and Security Guidelines for K-12 Schools* – April 2015
- ICC Code Changes – *MOE E57-15 & IEBC EB25-15*

For coverage of the Ohio BBS action July 24, 2015 see also Andrew Welsh Huggins, “Should Active Shooter Barricades be in Ohio Schools?” July 24, 2015

<http://www.cincinnati.com/story/news/politics/2015/07/24/active-shooter-barricades-ohio-schools/30615269/>