



Jerry S. Heppes, CAE, Chief Executive Officer • 2001 K Street NW, 3rd Floor North, Washington, D.C. 20006 • T: 202.367.1134

September 1, 2020

Douglas J. Boyle
Director – Fire Prevention and Building Safety Commission
Indiana Department of Homeland Security
Indiana Government Center – South, Room E208
302 W. Washington Street
Indianapolis, IN 46204

Re: School Safety and Security

Dear Mr. Boyle,

DHI is an association proudly serving door security and safety professionals, and the dynamic companies they represent, in the non-residential construction industry. We provide members the technical knowledge and skills needed to balance life safety and security for building occupants. Our members' expertise includes knowing what products are tested and proven to be reliable and code-compliant, and how to properly apply and install these products, which not only reduces risk but also helps all stakeholders and occupants avoid unintended consequences.

DHI and our foundation, Door Security & Safety Foundation, appreciate the opportunity to speak before the Commission and share our concerns for the potential risk that the recent variance creates by allowing door barricade devices in schools. We hope to begin a dialogue and become a resource to the Commission moving forward, providing awareness and information important to life safety and security for Indiana schools.

The following resources are supplemental to our presentation to assist you in future deliberations.

- Letter from Michele Gay, Executive Director, Safe and Sound Schools (DHI Page 3)
- [Indicators of School Crime and Safety: 2019](#) -National Center for Education Statistics- Institute of Education Sciences (NCES Page 140)(DHI Page 6)
- [Final Report of the Sandy Hook Advisory Commission, March 6, 2015](#) (SHAC Page 32)(DHI Page 7)
- [Classroom Door Security & Locking Hardware](#) - National Association of State Fire Marshals (DHI Page 8)
- [Priority One: Keeping Students Safe](#) - Builders Hardware Manufacturers Association (DHI Page 15)
- [Classroom Barricade Devices Whitepaper](#) - Partner Alliance for Safer Schools (DHI Page 17)



Jerry S. Heppes, CAE, Chief Executive Officer • 2001 K Street NW, 3rd Floor North, Washington, D.C. 20006 • T: 202.367.1134

- [Decoded Classroom Security Considerations](#) - Lori Greene, DAHC/CDC, FDAI, FDHI, CCPR (Door Security and Safety Magazine Page 46)(DHI Page 30)
- [Decoded NFPA 3000](#) - Lori Greene, DAHC/CDC, FDAI, FDHI, CCPR (Door Security and Safety Magazine Page 49)(DHI Page 33)

We look forward to future discussions and providing our continued assistance to the Commission.

Sincerely,

A handwritten signature in blue ink that reads "Jerry S. Heppes, CAE". The signature is written in a cursive, flowing style.

Jerry Heppes, Sr., CAE
CEO, DHI – Door Security + Safety Professionals
CEO, Door Security & Safety Foundation



SAFE AND SOUND SCHOOLS
P.O. BOX 173
NEWTOWN, CT 04670

August 27, 2020

Mr. Douglas J. Boyle
Director – Fire Prevention and Building Safety Commission
Indiana Department of Homeland Security
Indiana Government Center – South, Room E208
302 W. Washington Street
Indianapolis, IN 46204

Dear Mr. Boyle,

My name is Michele Gay. I am a mom, a former public school teacher, and now a national school safety advocate. I am also co-founder of Safe and Sound Schools, a national non-profit organization comprised of Sandy Hook parents, educators, and community members and backed by school safety experts from all facets of the field. We founded Safe and Sound to honor our children and remember the classmates and educators who perished with them on December 14, 2012.

We chose to raise our families in Newtown, CT, a small town where crime is low and values are strong. We chose Sandy Hook Elementary School, a place of love, learning, and acceptance. When our children boarded their school buses and their teachers left for work on December 14th, we never imagined that it might be for the last time.

We all felt safe in our peaceful town and in our high-ranking schools. We learned, too painfully, that we were not. Gaining entry to our locked school—and access to our beloved children and teachers—was as simple as breaking a glass window.

Now I travel the country, to help school communities improve school safety in honor of my daughter, Josephine, and in memory of the other 19 children and 6 educators lost during the Sandy Hook School tragedy. I have learned a lot about life safety on this journey and I share this knowledge and my personal experience with school systems and professional groups across the country.

The most visible tools we have to protect our schools are doors. While doors may have originally served as a way to allow people to come and go, or help cut down on distractions outside the classroom, doors now play a key role in helping to keep our schools safe and secure. I see this visible and symbolic tool frequently



misused. Yes, doors are important in securing our buildings and classrooms, but too often, we see schools use devices and add-ons that actually put students and teachers at risk, rather than protecting them.

We need door locks to be easy to use for everybody, regardless of age, developmental level, ability, or disability. This means having locks at the right height and easy to operate with one smooth motion. To put it simply, if people have to practice or be trained to secure the door, it's just not simple enough. History has taught us that people trying to evacuate quickly under duress, especially in groups, can panic and quickly become trapped.

It is especially difficult for many of us looking for inexpensive, quick door security solutions to resist the temptation to install door barricade devices in public places, like our schools. While the intention of these additional devices is to give an added layer of security, they have the potential to introduce a host of unintended, negative consequences, such as enabling bullying, harassment, or much worse when added to public spaces.

At a school meeting I recently attended, a parent was excited to share a revelation with me: perhaps those door-jamming mechanisms in hotels – the ones that swing into place – could be an easy, affordable way to secure doors at schools.

While I love hearing from engaged parents and community members, as a school safety advocate, I had to explain why this type of solution actually puts students in danger, rather than protecting them. It broke my heart to dampen her enthusiasm, but I had to educate her about the importance of building and fire safety codes, Americans with Disabilities compliance, and unintended usage of barricade devices.

As a parent of a child with autism and apraxia and a parent who lost her daughter in an armed attack on her classroom, I understand on a deeply personal level the balance of providing for safety in times of extreme crisis as well as throughout the typical school day. It is our duty and obligation to recognize the needs of typical students and staff as well as disabled students and staff learning and working in our schools every day. For their safety, every day, our school buildings must comply with the ADA.

When secured properly, doors can be an effective barrier against a safety threat outside the school or classroom AND still allow individuals and groups of people to exit safely should their situation change like in a lockdown turned emergency evacuation. It is critically important that door safety design and practice support an all-hazards approach in order to keep student and staff safe under a variety of emergency scenarios.

I urge you – for the sake of our students and educators – to become informed about proper and safe door security. We have so much more work to do to educate parents, teachers, and the entire school community about door safety. Let's eliminate confusion and hone in on safety solutions that are legal, time-tested, and consider the all hazards approach recommended by Safe and Sound Schools, our federal partners, and many other school safety advocacy groups. It would be a mistake to focus on this one course of action as



there are many safer, proven, all hazards solutions available today. My organization, Safe and Sound Schools, was started to do just that!

I understand that the commission was developed to study and recommend school safety solutions. I wholeheartedly support this mission; yet, it appears that the commission has focused on barricade devices as the only solution. It would be a mistake to focus on this one course of action as there are many safer, proven, all hazards solutions available today. My organization, Safe and Sound Schools, was started to do just that!

Together we can make a difference. Together we can make our schools Safe and Sound. Please do not change the codes to allow these devices. Let's return to the work of finding solutions that are safe for all, all day, and every day.

Sincerely,

Michele Gay
Co-founder/Executive Director Safe and Sound Schools

Table 6.1. Percentage of public schools recording incidents of crime at school, percentage reporting incidents of crime at school to police, and number of incidents recorded or reported, by type of crime: Selected years, 1999–2000 through 2017–18

[Standard errors appear in parentheses]

| Type of crime recorded or reported to police | Percent of schools | | | | | | 2015–16 | | 2017–18 | |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|----------------------|--------------------|---------------------------|--------------------|---------------------------|
| | 1999–2000 | 2003–04 | 2005–06 | 2007–08 | 2009–10 | 2013–14 ¹ | Percent of schools | Number of incidents | Percent of schools | Number of incidents |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Recorded incidents | | | | | | | | | | |
| Total | 86.4 (1.23) | 88.5 (0.85) | 85.7 (1.07) | 85.5 (0.87) | 85.0 (1.07) | — (†) | 78.9 (1.28) | 1,381,200 (42,660) | 79.8 (1.23) | 1,438,500 (54,530) |
| Violent incidents | 71.4 (1.37) | 81.4 (1.05) | 77.7 (1.11) | 75.5 (1.09) | 73.8 (1.07) | 65.0 (1.46) | 68.9 (1.30) | 864,900 (42,950) | 70.7 (1.38) | 962,300 (45,850) |
| Serious violent incidents | 19.7 (0.98) | 18.3 (0.99) | 17.1 (0.91) | 17.2 (1.06) | 16.4 (0.94) | 13.1 (1.00) | 15.5 (0.93) | 40,800 (3,460) | 21.3 (0.98) | 54,400 (7,770) |
| Rape or attempted rape | 0.7 (0.10) | 0.8 (0.17) | 0.3 (0.07) | 0.8 (0.17) | 0.5 (0.10) | 0.2! (0.10) | 0.9 (0.19) | 1,100 (190) | 0.9 (0.16) | 1,100 (200) |
| Sexual assault other than rape ² | 2.5 (0.33) | 3.0 (0.32) | 2.8 (0.24) | 2.5 (0.33) | 2.3 (0.34) | 1.7 (0.37) | 3.4 (0.38) | 6,100 (1,360) | 5.2 (0.46) | 7,100 (590) |
| Physical attack or fight with a weapon | 5.2 (0.60) | 4.0 (0.46) | 3.0 (0.38) | 3.0 (0.33) | 3.9 (0.48) | 1.8 (0.34) | 2.6 (0.38) | 5,300 (1,280) | 3.0 (0.42) | 10,500 (2,850) |
| Threat of physical attack with a weapon | 11.1 (0.70) | 8.6 (0.71) | 8.8 (0.66) | 9.3 (0.77) | 7.7 (0.72) | 8.7 (0.78) | 8.5 (0.79) | 18,300 (2,420) | 13.2 (0.86) | 26,700 (4,460) |
| Robbery with a weapon | 0.5! (0.15) | 0.6 (0.15) | 0.4 (0.12) | 0.4! (0.14) | 0.2 (0.05) | † (†) | 0.5! (0.16) | 600 (160) | 0.4 (0.10) | 500 (140) |
| Robbery without a weapon | 5.3 (0.56) | 6.3 (0.60) | 6.4 (0.59) | 5.2 (0.56) | 4.4 (0.49) | 2.5 (0.42) | 2.7 (0.36) | 9,500 (1,440) | 3.5 (0.39) | 8,500 (1,050) |
| Physical attack or fight without a weapon | 63.7 (1.52) | 76.7 (1.21) | 74.3 (1.20) | 72.7 (1.07) | 70.5 (1.11) | 57.5 (1.43) | 64.9 (1.28) | 567,000 (36,780) | 65.7 (1.39) | 597,300 (34,030) |
| Threat of physical attack without a weapon | 52.2 (1.47) | 53.0 (1.34) | 52.2 (1.27) | 47.8 (1.19) | 46.4 (1.33) | 47.1 (1.50) | 39.4 (1.48) | 257,000 (15,630) | 41.4 (1.38) | 310,700 (18,050) |
| Theft/larceny³ | 45.6 (1.37) | 46.0 (1.29) | 46.0 (1.07) | 47.3 (1.29) | 44.1 (1.31) | — (†) | 38.7 (1.29) | 166,000 (5,190) | 33.4 (1.31) | 132,500 (6,130) |
| Other incidents⁴ | 72.7 (1.30) | 64.0 (1.27) | 68.2 (1.07) | 67.4 (1.13) | 68.1 (1.12) | — (†) | 58.5 (1.68) | 350,400 (10,710) | 59.8 (1.18) | 343,700 (9,270) |
| Possession of a firearm/explosive device | 5.5 (0.44) | 6.1 (0.49) | 7.2 (0.60) | 4.7 (0.38) | 4.7 (0.52) | — (†) | 4.0 (0.50) | 10,500! (3,220) | 3.3 (0.37) | 3,600 (390) |
| Possession of a knife or sharp object | 42.6 (1.28) | — (†) | 42.8 (1.23) | 40.6 (1.10) | 39.7 (1.06) | — (†) | 38.4 (1.26) | 70,600 (3,210) | 38.2 (1.12) | 69,100 (2,220) |
| Distribution of illegal drugs ⁵ | 12.3 (0.50) | 12.9 (0.55) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) |
| Possession or use of alcohol or illegal drugs ⁶ | 26.6 (0.72) | 29.3 (0.87) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) |
| Distribution, possession, or use of illegal drugs ⁵ | — (†) | — (†) | 25.9 (0.68) | 23.2 (0.68) | 24.6 (0.57) | — (†) | 24.9 (0.85) | 112,100 (4,250) | 24.9 (0.69) | 120,300 (4,480) |
| Inappropriate distribution, possession, or use of prescription drugs ⁷ | — (†) | — (†) | — (†) | — (†) | 12.1 (0.47) | — (†) | 9.5 (0.55) | 20,100 (1,580) | 9.7 (0.46) | 21,100 (1,350) |
| Distribution, possession, or use of alcohol ⁶ | — (†) | — (†) | 16.2 (0.68) | 14.9 (0.57) | 14.1 (0.50) | — (†) | 13.3 (0.50) | 29,900 (1,620) | 13.4 (0.45) | 29,000 (1,420) |
| Sexual harassment | 36.3 (1.26) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) |
| Vandalism | 51.4 (1.61) | 51.4 (1.17) | 50.5 (1.17) | 49.3 (1.16) | 45.8 (1.12) | — (†) | 33.4 (1.25) | 107,200 (7,040) | 33.1 (1.10) | 100,600 (5,720) |
| Reported incidents to police | | | | | | | | | | |
| Total | 62.5 (1.37) | 65.2 (1.35) | 60.9 (1.15) | 62.0 (1.24) | 60.0 (1.58) | — (†) | 47.4 (1.54) | 448,900 (13,330) | 46.9 (1.04) | 422,800 (12,650) |
| Violent incidents | 36.0 (0.82) | 43.6 (1.15) | 37.7 (1.09) | 37.8 (1.16) | 39.9 (1.13) | — (†) | 32.7 (1.13) | 195,600 (9,620) | 32.5 (1.08) | 192,100 (8,050) |
| Serious violent incidents | 14.8 (0.10) | 13.3 (0.88) | 12.6 (0.70) | 12.6 (0.86) | 10.4 (0.62) | — (†) | 10.0 (0.68) | 20,000 (1,700) | 14.9 (0.86) | 26,100 (1,680) |
| Rape or attempted rape | 0.6 (0.34) | 0.8 (0.17) | 0.3 (0.07) | 0.8 (0.17) | 0.5 (0.10) | — (†) | 0.7 (0.14) | 900 (160) | 0.8 (0.16) | 1,000 (190) |
| Sexual assault other than rape ² | 2.3 (0.50) | 2.6 (0.28) | 2.6 (0.26) | 2.1 (0.29) | 1.4 (0.20) | — (†) | 2.7 (0.28) | 3,600 (490) | 4.3 (0.42) | 5,600 (440) |
| Physical attack or fight with a weapon | 3.9 (0.59) | 2.8 (0.38) | 2.2 (0.27) | 2.1 (0.27) | 2.2 (0.32) | — (†) | 1.3 (0.24) | 2,500! (830) | 1.5 (0.23) | 2,400 (390) |
| Threat of physical attack with a weapon | 8.5 (0.09) | 6.0 (0.55) | 5.9 (0.49) | 5.7 (0.59) | 4.5 (0.43) | — (†) | 5.3 (0.53) | 7,500 (770) | 9.0 (0.67) | 12,400 (1,290) |
| Robbery with a weapon | 0.3! (0.41) | 0.6 (0.15) | 0.4 (0.12) | 0.4! (0.14) | 0.2 (0.05) | — (†) | 0.3! (0.13) | 400! (140) | 0.3 (0.08) | 400 (90) |
| Robbery without a weapon | 3.4 (0.91) | 4.2 (0.51) | 4.9 (0.48) | 4.1 (0.42) | 3.5 (0.40) | — (†) | 1.9 (0.28) | 5,000 (690) | 2.4 (0.33) | 4,300 (560) |
| Physical attack or fight without a weapon | 25.8 (0.94) | 35.6 (0.98) | 29.2 (1.00) | 28.2 (0.90) | 34.3 (0.90) | — (†) | 25.1 (1.03) | 121,500 (8,560) | 21.7 (0.70) | 107,600 (5,570) |
| Threat of physical attack without a weapon | 18.9 (0.94) | 21.0 (0.82) | 19.7 (0.69) | 19.5 (0.76) | 15.2 (0.79) | — (†) | 12.9 (0.65) | 54,200 (3,680) | 14.3 (0.63) | 58,400 (4,090) |
| Theft/larceny³ | 28.5 (1.04) | 30.5 (1.17) | 27.9 (0.97) | 31.0 (1.12) | 25.4 (1.01) | — (†) | 18.1 (0.80) | 71,600 (3,280) | 14.9 (0.75) | 53,900 (2,780) |
| Other incidents⁴ | 52.0 (1.14) | 50.0 (1.18) | 50.6 (1.00) | 48.7 (1.17) | 46.3 (1.23) | — (†) | 33.5 (1.15) | 181,700 (5,500) | 35.1 (0.86) | 176,900 (5,210) |
| Possession of a firearm/explosive device | 4.5 (0.41) | 4.9 (0.44) | 5.5 (0.51) | 3.6 (0.32) | 3.1 (0.39) | — (†) | 1.9 (0.29) | 7,500! (2,760) | 2.1 (0.30) | 2,300 (320) |
| Possession of a knife or sharp object | 23.0 (0.84) | — (†) | 25.0 (1.00) | 23.3 (0.69) | 20.0 (0.88) | — (†) | 15.8 (0.66) | 27,700 (1,330) | 18.0 (0.68) | 30,500 (1,260) |
| Distribution of illegal drugs ⁵ | 11.4 (0.48) | 12.4 (0.57) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) |
| Possession or use of alcohol or illegal drugs ⁶ | 22.2 (0.67) | 26.0 (0.76) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) |
| Distribution, possession, or use of illegal drugs ⁵ | — (†) | — (†) | 22.8 (0.62) | 20.7 (0.60) | 21.4 (0.57) | — (†) | 19.9 (0.71) | 82,200 (3,300) | 19.9 (0.52) | 84,800 (3,380) |
| Inappropriate distribution, possession, or use of prescription drugs ⁷ | — (†) | — (†) | — (†) | — (†) | 9.6 (0.42) | — (†) | 7.4 (0.56) | 15,100 (1,270) | 7.1 (0.36) | 15,100 (960) |
| Distribution, possession, or use of alcohol ⁶ | — (†) | — (†) | 11.6 (0.61) | 10.6 (0.55) | 10.0 (0.41) | — (†) | 8.6 (0.41) | 17,800 (1,330) | 8.0 (0.39) | 16,900 (950) |
| Sexual harassment | 14.7 (0.78) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) | — (†) |
| Vandalism | 32.7 (1.10) | 34.3 (1.06) | 31.9 (1.02) | 30.8 (1.18) | 26.8 (1.09) | — (†) | 12.9 (0.86) | 31,600 (2,370) | 12.0 (0.66) | 27,300 (2,220) |

See notes at end of table.

to successful implementation. Each community or school district should have a small standing committee or commission, comprised of individuals representing the school community, law enforcement, fire, EMS and public health, whose responsibility is to ensure that the SSDO standards and strategies are actually implemented in their community. This committee or commission may be stand-alone, or it may consist of members of the proposed School Safety Design Committee and the School Security and Safety Committee, based on whether there is a school construction project or an existing school without plans for renovation, expansion or new construction.

III. RECOMMENDATIONS

The Commission's [Interim Report](#) included twenty-two (22) recommendations addressing safe school design and human resource emergency preparedness. As previously noted, virtually all of those recommendations were acknowledged and adopted in P.A. 13-3, the Report of the School Safety Infrastructure Council and/or the School Security and Safety Plan Standards.

The Commission's work did not end, however, with the issuance of the Interim Report. The Commission continued to hear testimony on all issues within the scope of its mission, including SSDO. In light of that testimony, and having considered [P.A. 13-3](#) and the work of the commissions and task forces that it established, the Commission makes the following additional recommendations:

RECOMMENDATION NO. 1: The SSIC Report includes a standard requiring classroom and other safe-haven areas to have doors that can be locked from the inside. The Commission cannot emphasize enough the importance of this recommendation. *The testimony and other evidence presented to the Commission reveals that there has never been an event in which an active shooter breached a locked classroom door.* Accordingly, the Commission reiterates its recommendation that all classrooms in K-12 schools should be

NATIONAL ASSOCIATION OF STATE FIRE MARSHALS

Resolution on Classroom Door Security & Locking Hardware

WHEREAS, the ability to protect students and teachers while in the classroom is a high priority in all educational institutions. Many schools and school districts have taken measures to address this pressing concern of safety of occupants in classrooms in the event of a threatening situation. Some of the proposed or implemented solutions specifically affecting classroom doors, while well intended, may compromise aspects of life safety while attempting to address security.

WHEREAS, in addition to the demand to protect students and teachers from outside-the-classroom threats, building codes or fire codes may require classroom doors to function as fire-rated doors or smoke and draft control doors. Fire-rated doors and smoke and draft control doors are required to be self-latching when closed to ensure the doors perform their intended protective function in the event of a fire.

WHEREAS, building codes, fire codes, and life safety requirements include the ability to readily unlatch the door from inside the classroom with one motion without the use of a key, a tool, or special knowledge, or effort to facilitate immediate egress from the classroom.


Classroom doors are required to meet Federal accessibility laws and building and fire code requirements which include the ability to operate door hardware with no tight grasping, tight pinching, or twisting of the wrist; door operating hardware must be located between 34" and 48" above the floor. Federal accessibility laws and building codes require the bottom 10" of the push side of the door to be a smooth surface.

WHEREAS, when selecting hardware which allows classroom doors to be lockable from inside the classroom, consideration should be given to the risks and potential consequences of utilizing a device which blocks the classroom door from the inside. For example, devices which prevent classroom doors from being unlocked and openable from outside the classroom may place the inhabitants of the room in peril. In addition to the requirement that classroom doors must be unlatchable in a single motion from inside the classroom, these doors should always be unlockable and openable from outside the classroom by authorized persons.

RESOLVED, by the National Association of State Fire Marshals this 27th day of July 2015, that the attached NASFM Position Statement on Classroom Door Security & Locking Hardware – which includes a School Security – Suggested Classroom Door Checklist – is hereby adopted and approved;

FURTHER RESOLVED, that the Position Statement be distributed broadly to all interested parties with the goal of achieving awareness of the fire safety issues involved in classroom door security, and the mandatory legal requirements in federal, state local laws and regulations applicable to classroom door security and locking hardware.

NATIONAL ASSOCIATION OF STATE FIRE MARSHALS

By: 
James Narva, Executive Director

APPROVED-July 27, 2015



NATIONAL ASSOCIATION OF STATE FIRE MARSHALS

Classroom Door Security & Locking Hardware

The ability to protect students, teachers, and administrators from threatening situations is a high priority in all educational institutions. Many schools, school districts, colleges, and universities have taken measures to address this pressing concern of safety of occupants in schools, and especially classrooms. While protection against active shooters and violent events is a main concern, bullying and other affronts to personal safety also occur. Occupants of schools, including after-hours occupants, should be provided with a safe and secure educational environment.

Some of the proposed or implemented solutions specifically affecting classroom doors, while well intended, may compromise aspects of life safety while attempting to address security. In addition to the demand to protect students and teachers from outside-the-classroom threats, classroom doors are required to comply with other life safety and accessibility provisions.

To help prevent fire spread in a school building, building codes, fire codes, and life safety codes may require classroom doors to be fire-rated doors. Fire-rated doors are required to be self-latching when closed to ensure they perform their intended protective function in the event of a fire.

To facilitate immediate egress from the classroom, building codes, fire codes, and life safety codes require doors from inside the room (the egress side) to unlock and unlatch with one motion without the use of a key, tool, special knowledge, or effort.

To ensure access to and from classrooms by all occupants regardless of physical ability, classroom doors are required to meet federal accessibility laws, and building and fire code requirements, which include the ability to operate door hardware with no tight grasping, tight pinching, or twisting of the wrist; and the door operating hardware must be located between 34" and 48" above the floor. Federal accessibility laws and building codes require the bottom 10" of the push side of the door to be a smooth surface.

When selecting hardware which allows classroom doors to be lockable from inside the room, consideration must be given to the risks and potential consequences of utilizing a device which blocks the door from the inside potentially impeding or preventing immediate egress by occupants, at any time, and under any conditions.

Devices which prevent classroom doors from being unlocked and opened from outside the classroom may place the inhabitants of the room in peril. In addition to the requirement that classroom doors must be unlockable and unlatchable in a single motion from inside the classroom (discussed above), these doors should always be unlockable and openable from outside the classroom by authorized persons.

The "School Security – Classroom Door Checklist" on the next page identifies many parameters which should be satisfied when selecting and installing hardware on classroom doors intended to increase security in the classroom.

School Security – Classroom Door Checklist

- ☐ 1. The door should be lockable from inside the classroom without requiring the door to be opened¹
- ☐ 2. Egress from the classroom through the classroom door should be without the use of a key, a tool, special knowledge, or effort²
- ☐ 3. For egress, unlatching the classroom door from inside the classroom should be accomplished with one operation³
- ☐ 4. The classroom door should be lockable and unlockable from outside the classroom⁴
- ☐ 5. Door operating hardware should be operable without tight grasping, tight pinching, or twisting of the wrist⁵
- ☐ 6. Door hardware operable parts should be located between 34 and 48 inches above the floor⁶
- ☐ 7. The bottom 10 inches of the “push” side of the door surface should be smooth⁷
- ☐ 8. If the school building does not have an automatic fire sprinkler system, the classroom door and door hardware may be required to be fire-rated and the door should be self-closing and self-latching⁸
- ☐ 9. If the door is required to be fire-rated, the door should not be modified in any way that invalidates the required fire-rating of the door and / or door hardware⁹

In the Classroom Door Checklist, “should” is used throughout. However, based upon building codes, life safety codes, fire codes, and federal, state, and / or local laws and regulations that are applicable to a particular school, these requirements may be MANDATORY. Always check, and comply with, all applicable building and fire codes, life safety codes, and laws, regulations and other requirements.

¹ To help protect teachers and students in the classroom, the classroom door should be lockable from inside the classroom without requiring the door to be opened.

² Building codes, life safety codes, and fire codes require doors in the means of egress to be openable without the use of a key, a tool, special knowledge, or effort to ensure all occupants have the ability to evacuate the building quickly and easily in an emergency situation

³ Building codes and fire codes require doors in the means of egress to be unlatched with only one operation. Door hardware which requires more than one operation to unlock / unlatch the door is not allowed.

⁴ To allow securing the classroom during times the classroom is not occupied; and to allow access to the classroom at all times by authorized personnel.

⁵ Building codes, fire codes, and Federal accessibility laws require door hardware to be operable without tight grasping, pinching, or twisting of wrist to ensure all occupants have the ability to operate and open the door.

⁶ Building codes, fire codes, and Federal accessibility laws require the operable components of door hardware, such as lockset lever handles, to be located within a relatively small range of height (34” to 48” above the floor). Door hardware which requires reaching above 48” to operate or requires reaching below 34” to operate is not allowed.

⁷ Building codes and Federal accessibility laws require the bottom 10” of the push side of the door to be a smooth surface.

⁸ If the school building is not protected by a fire sprinkler system installed and maintained in accordance with building and fire code requirements, most building codes and fire codes require classroom doors which open to an interior corridor to be fire-rated. Doors required to be fire-rated are also required to be self-closing and self-latching to ensure the fire-rated door is closed and latched in the event of a fire. Classroom doors that open directly to the outside are usually not be required to be fire-rated. Classroom doors in a school building protected by a code-compliant fire sprinkler system may not be required to be fire-rated and may not be required to be self-closing and self-latching.

⁹ To ensure the fire rating of a door is maintained, modifications or alterations to doors required to be fire-rated are required to be done under the supervision of the door manufacturer or by a company specifically authorized by the door manufacturer.

References for Classroom Door Checklist

Updated to Include 2018 IBC, 2018 IFC, and 2018 NFPA 101

Note: The 2018 NFPA 101 Life Safety Code includes new sections addressing locking of classroom doors with requirements consistent with the Classroom Door Checklist of this document. 2018 NFPA 101 Sections 14.2.2.2.4 and 15.2.2.2.4 address new and existing K-12 educational occupancies respectively. Sections 16.2.2.2.6 and 17.2.2.2.6 address new and existing day care occupancies. Sections 38.2.2.2.2 and 39.2.2.2.2 address new and existing business occupancies, which includes colleges and universities. For brevity, the text of these six new sections is not included in this document.

1st Item in Checklist

Assumes increasing the security of classroom doors by adding hardware that is lockable from the inside is under consideration; and assumes if this is not the situation, then this document is irrelevant.

Is consistent with Recommendation No. 1 of the “Final Report of the Sandy Hook Advisory Commission”, March 6, 2015, available [here](#), and copied below.

RECOMMENDATION NO. 1: The SSIC Report includes a standard requiring classroom and other safe-haven areas to have doors that can be locked from the inside. The Commission cannot emphasize enough the importance of this recommendation. *The testimony and other evidence presented to the Commission reveals that there has never been an event in which an active shooter breached a locked classroom door.* Accordingly, the Commission reiterates its recommendation that all classrooms in K-12 schools should be equipped with locked doors that can be locked from the inside by the classroom teacher or substitute.

The “SSIC report” (Connecticut School Safety Infrastructure Council report) is available [here](#).

2nd Item in Checklist

Requirements of these editions of the International Building Code (IBC) and International Fire Code (IFC) codes are below.

- 2006 IBC Section 1008.1.8
- 2006 IFC Section 1008.1.8
- 2009 IBC Section 1008.1.9
- 2009 IFC Section 1008.1.9
- 2012 IBC Section 1008.1.9
- 2012 IFC Section 1008.1.9
- 2015 IBC Section 1010.1.9
- 2015 IFC Section 1010.1.9
- 2018 IBC Section 1010.1.9
- 2018 IFC Section 1010.1.9

Door operations. Except as specifically permitted by this section egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort.

Requirements of these editions of the NFPA 101 Life Safety Code are below.

- 2012 NFPA 101 Section 7.2.1.5.3
- 2015 NFPA 101 Section 7.2.1.5.3
- 2018 NFPA 101 Section 7.2.1.5.3

7.2.1.5.3 Locks, if provided, shall not require the use of a key, a tool, or special knowledge or effort for operation from the egress side.

The 2018 NFPA 101 Life Safety Code in sections 14.2.2.2.4, 15.2.2.2.4, 16.2.2.2.6, 17.2.2.2.6, 38.2.2.2.2, and 39.2.2.2.2 include this same requirement.

3rd Item in Checklist

Requirements of these editions of the International Building Code (IBC) and International Fire Code (IFC) codes are below.

- 2006 IBC Section 1008.1.8.5
- 2006 IFC Section 1008.1.8.5
- 2009 IBC Section 1008.1.9.5
- 2009 IFC Section 1008.1.9.5
- 2012 IBC Section 1008.1.9.5
- 2012 IFC Section 1008.1.9.5
- 2015 IBC Section 1010.1.9.5
- 2015 IFC Section 1010.1.9.5
- 2018 IBC Section 1010.1.9.5
- 2018 IFC Section 1010.1.9.5

Unlatching. The unlatching of any door or leaf shall not require more than one operation.

Requirements of these editions of the NFPA 101 Life Safety Code are below.

- 2012 NFPA 101 Section 7.2.1.5.10 and 7.2.1.5.10.2
- 2015 NFPA 101 Section 7.2.1.5.10 and 7.2.1.5.10.2
- 2018 NFPA 101 Section 7.2.1.5.10 and 7.2.1.5.10.2

7.2.1.5.10* A latch or other fastening device on a door leaf shall be provided with a releasing device that has an obvious method of operation and that is readily operated under all lighting conditions.

7.2.1.5.10.2 The releasing mechanism shall open the door leaf with not more than one releasing operation...

The 2018 NFPA 101 Life Safety Code in sections 14.2.2.2.4, 16.2.2.2.6, and 38.2.2.2.2 include this same requirement. While not explicit in 2018 NFPA 101 sections 15.2.2.2.4, 17.2.2.2.6, and 39.2.2.2.2, the requirements in 7.2.1.5.10 and 7.2.1.5.10.2 apply.

4th Item in Checklist

Criteria 6.15 of the SSIC standards provided in the “Final Report of the Sandy Hook Advisory Commission” require classroom doors to “allow for quick release in the event of an emergency”:

6.15. Classroom door locks shall be easy to lock and allow for quick release in the event of an emergency.

The 2018 editions of the International Building Code (IBC) and International Fire Code (IFC), in Section 1010.1.4.4 state:

1010.1.4.4 Locking arrangements in educational occupancies. In Group E and Group B educational occupancies, egress doors from classrooms, offices and other occupied rooms shall be permitted to be provided with locking arrangements designed to keep intruders from entering the room where all of the following conditions are met:

1. The door shall be capable of being unlocked from outside the room with a key or other approved means.
2. The door shall be operable from within the room in accordance with Section 1010.1.9.
3. Modifications shall not be made to listed panic hardware, fire door hardware or door closers.

The 2018 NFPA 101 Life Safety Code in sections 14.2.2.2.4, 15.2.2.2.4, 16.2.2.2.6, 17.2.2.2.6, 38.2.2.2.2, and 39.2.2.2.2 state: “The door shall be capable of being unlocked and opened from outside the room with the necessary key or other credential.”

5th Item in Checklist

Requirements of these International Building Code (IBC) and International Fire Code (IFC) codes are below.

- 2006 IBC Section 1008.1.8.1
- 2006 IFC Section 1008.1.8.1
- 2009 IBC Section 1008.1.9.1
- 2009 IFC Section 1008.1.9.1
- 2012 IBC Section 1008.1.9.1
- 2012 IFC Section 1008.1.9.1
- 2015 IBC Section 1010.1.9.1
- 2018 IBC Section 1010.1.9.1
- 2018 IFC Section 1010.1.9.1

Hardware. Door handles, pulls, latches, locks and other operating devices on doors required to be accessible by Chapter 11 (of the IBC) shall not require tight grasping, tight pinching or twisting of the wrist to operate.

The U.S. Department of Justice 2010 ADA Standards for Accessible Design are applicable to classroom doors.

404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other *operable parts* on doors and gates shall comply with 309.4.

309.4 Operation. *Operable parts* shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.

6th Item in Checklist

Requirements of these International Building Code (IBC) and International Fire Code (IFC) codes are below.

- 2006 IBC Section 1008.1.8.2
- 2006 IFC Section 1008.1.8.2
- 2009 IBC Section 1008.1.9.2
- 2009 IFC Section 1008.1.9.2
- 2012 IBC Section 1008.1.9.2
- 2012 IFC Section 1008.1.9.2
- 2015 IBC Section 1010.1.9.2
- 2015 IFC Section 1010.1.9.2
- 2018 IBC Section 1010.1.9.2
- 2018 IFC Section 1010.1.9.2

Hardware height. Door handles, pulls, latches, locks and other operating devices shall be installed 34 inches (864 mm) minimum and 48 inches (1219 mm) maximum above the finished floor.

Requirements of these editions of the NFPA 101 Life Safety Code are below.

- 2012 NFPA 101 Section 7.2.1.5.10.1
- 2015 NFPA 101 Section 7.2.1.5.10.1
- 2018 NFPA 101 Section 7.2.1.5.10.1

7.2.1.5.10.1 The releasing mechanism for any latch shall be located as follows:

- (1) Not less than 34 in. (865 mm) above the finished floor for other than existing installations
- (2) Not more than 48 in. (1220 mm) above the finished floor.

The 2018 NFPA 101 Life Safety Code in sections 14.2.2.2.4, 15.2.2.2.4, 16.2.2.2.6, 17.2.2.2.6, 38.2.2.2.2, and 39.2.2.2.2 include the same requirements.

The U.S. Department of Justice 2010 ADA Standards for Accessible Design are applicable to classroom doors.

404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other *operable parts* on doors and gates shall comply with 309.4. *Operable parts* of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground.

7th Item in Checklist

Requirements of these International Building Code (IBC) codes are pasted below.

- 2006 IBC Section 1008.1.8.5
- 2009 IBC Section 1008.1.9.5
- 2012 IBC Section 1008.1.9.5
- 2015 IBC Section 1010.1.9.5
- 2018 IBC Section 1010.1.9.5

1101.2 Design. Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC A117.1.

The 2006 and 2009 editions of the IBC reference the 2003 ICC A117.1; the 2012, 2015, and 2018 editions of the IBC reference the 2009 ICC A117.1. Both these editions of ICC A117.1 require:

404.2.9 Door Surface. Door surfaces within 10 inches (255 mm) of the floor, measured vertically, shall be a smooth surface on the push side extending the full width of the door.

The U.S. Department of Justice 2010 ADA Standards for Accessible Design are applicable to classroom doors.

404.2.10 Door and Gate Surfaces. Swinging door and gate surfaces within 10 inches (255 mm) of the finish floor or ground measured vertically shall have a smooth surface on the push side extending the full width of the door or gate.

8th and 9th Items in Checklist

The 2006 IBC in Chapter 10 requires corridors in Occupancy Group E to have a fire resistance rating of 1 hour (if the occupant load served by the corridor is greater than 30) if the building does not have an approved fire sprinkler system. This section of the 2006 IBC requires these corridor walls to comply with the requirements for fire partitions of Section 708.

- 2006 IBC Section 708 requires openings in corridors to be protected by opening protectives complying with IBC Section 715.
- 2006 IBC Section 715 requires fire doors to be self-closing, and to have an active latch which will secure the door when closed.
- 2006 IBC Section 715 requires minimum 20-minute rated fire doors in corridor walls serving as fire partitions. Section 715 requires these fire rated doors to comply with NFPA 252 or UL 10C, and requires fire door assemblies to be labeled by an approved agency. The labels are required to comply with NFPA 80.
- Summarizing: If the classroom doors to the corridor are required to be fire rated, then the classroom doors – assembled of only labeled components such as frame, door panel, and door hardware with minimum 20 minute fire rating – are required to be self-closing and self-latching, and are to be modified only when following the procedures and requirements of the door manufacturer and / or hardware manufacturer to ensure the required fire rating is maintained.

The 2006 IFC in Section 703 requires the required fire-resistance rating to be maintained. Subsequent editions of the IBC and IFC retain these requirements but the specific sections are revised.



PRIORITY ONE: Keeping Students Safe



The Problem: Safely Securing Classrooms

As school shootings continue to occur, determining the best way to keep our nation's schoolchildren safe has become a topic of national debate. The search for solutions has led to the placement of unsafe barricade devices in classrooms, which can lead to potentially dangerous situations like entrapment.

The Solution: Lock the Door

School security experts know that locking the classroom door is the best way for a teacher to secure the room against an intruder. Classroom doors should have the ability to be locked quickly, without opening the door. Most classroom doors have existing locksets which can prevent unauthorized access to the room.

A lock that was once common and is still present on many existing classroom doors requires the teacher to open the door to lock it with a key from the outside. To mitigate the need for the teacher to open the door and potentially be exposed to danger, these locks can always be kept in the locked position. By closing the door, the room is secure, providing a high level of security at no additional cost. If school administrators would like the ability to lock the door from inside the room, this can often be done with a conversion kit or retrofit which does not require replacement of the lock.

The National Fire Protection Association (NFPA) reports:

Proponents of barricade devices argue that school fires are no longer a threat, and the primary concern is an active-shooter incident. Between 2013 and 2017, US fire departments responded to an estimated average of 3,320 fires in schools each year⁵.

Of the school fires that occurred between 2010 and 2014, automatic extinguishing systems (including sprinklers) were present in 39% of the buildings⁶.

Barricading Doors vs. Barricade Devices

- A locked classroom door has never been breached through the lock and is the best security plan⁴.
- With a door that does not lock, exiting or barricading the door with furniture is recommended. However,
 - It takes time and strength;
 - It places students and teachers in the line of fire;
 - It inhibits or delays emergency-responder rescues.

The Damages of Barricade Devices

Barricade devices could be used by an unauthorized person, preventing access to the room by school staff and emergency responders. Dozens of incidents of barricading and hostage situations have occurred in schools. According to the National Center for Education Statistics, in 2017, among students ages 12–18, there were about 827,000 total assaults, rapes and robberies. Barricade devices readily allow an unauthorized person to secure a classroom which can delay or even prevent emergency response while a crime is occurring.

Safe Evacuations for All Emergencies

Security decisions are often influenced by fear and emotion. While every school shooting is tragic, all potential hazards must be considered when evaluating school security including fires, bomb threats, chemical spills, and extreme weather events. Even during school shooting incidents, fires and explosives are potential threats. At Columbine High School, the assailants planned to use explosives to kill or injure hundreds, but the bombs failed to detonate.³

These locks allow quick exits, are tested and listed to ensure that they will perform as required during a fire, and can be operated by all building occupants including school staff, substitute teachers, students, visitors and groups who use the facilities outside of school hours. Conversely, barricade devices require special knowledge and may be unfamiliar to those who need to secure a room. Without a quick, obvious and standardized way to exit a secured room, evacuation proves difficult and first responders will be delayed putting occupants at risk.

Classroom Locks are the Safety Standard and the Solution

After a school shooting occurs, security and safety protocols are dissected; in some cases, changes are made. However, school administrators who have experienced a shooting continue to choose locksets rather than purchasing classroom barricade devices. Door hardware commonly installed in schools is cost-effective, code-compliant and designed with the safety of students and teachers in mind. There has never been an event in which an active shooter breached the lock of a classroom door. Locking and unlocking a door with standard door hardware is intuitive for most building occupants, and the speed of securing a door or using the hardware to exit can save lives.

Classroom Locks

Lock *n.* A key or systematic hardware-operated mechanism used to secure a door.

☒ Allow safe egress

An essential facet of any school security plan is to have a direct way to exit the building to facilitate evacuation. The means to exit through a door must be simple and obvious

☒ Allow for faster and safer rescues

A simple key will allow emergency responders to streamline the evacuation of school buildings during a shooting or other types of emergencies.

☒ Consider ALL types of emergencies

School districts need to be prepared for all types of emergencies. Statistically, other forms of victimizations are thousands of times more prevalent than school shootings. Students, teachers and administrators need to be protected from assaults, bomb threats, bullying, harassment, fires and severe-weather incidents.

☒ Are code approved

Conventional locksets meet the fire, life safety, and accessibility code requirements which allow occupants to exit without obstruction. The codes mandate the hardware operation, mounting height, and means of authorized access, to maximize safety.

☒ Are specially developed, tested and certified for classroom installations

The hardware industry has design and performance standards, certification programs, and testing protocols to help assure that the hardware will work properly for years to come.

Barricade Devices

bar-ri-cade *n.* A makeshift barrier or fortification set up across a route of access.

☒ Prevent safe, fast and efficient egress

Using a barricade device that blocks the door from the inside can potentially impede or prevent children from successfully leaving the classroom.

☒ Impede rescue efforts

Another dangerous threat imposed by barricade devices is that they may prevent access from the outside, so even a staff member or emergency responder with a key would not be able to enter.

☒ Allow opportunities for perpetrators to create impenetrable blockades

Unauthorized lockdown of a classroom could help to create a haven for someone attempting to commit a crime: it can create a hostage or captive situation where children are barricaded in a classroom with a perpetrator.

☒ May not be code compliant

Most states adopt codes and standards to help ensure the safety of building occupants, and the Americans With Disabilities Act federally protects the rights of people with disabilities. The majority of barricade devices do not comply with the requirements of these codes.

☒ Are not independently tested or certified

Standards and testing have not been established for door barricades, so their strength and durability are unknown. Performance issues could lead to serious delays in evacuation.

Additional School Safety & Security Resources

Locks:

[Secure Schools Alliance Fact Sheet](#)

[PASS Position on Barricade Devices](#)

[PASS Schools Safety & Security Guidelines](#)

[Classroom Security Considerations Article](#)

[National Association of State Fire Marshals Guidelines](#)

[NASFM 2018 Resolution on Classroom Door Security](#)

[NASFM School Safety Survey Review](#)

[School Liability and the Law of Unintended Consequences](#)

[IBC and IFC Locking Arrangements in educational occupancies](#)

[NFPA 3000 Fact Sheet](#)

[Door Security & Safety Foundation Resources](#)

Statistics:

[Final Report of the Federal Commission on School Safety](#)

[FBI Active Shooter Incidents in the U.S.](#)

[NCES Indicators of School Crime and Safety](#)

¹https://www.researchgate.net/publication/226050904_Barricaded_Captive_Situations_in_Schools_Mitigation_and_Response

²https://nces.ed.gov/programs/crimeindicators/ind_02.asp

³<https://www.history.com/topics/1990s/columbine-high-school-shootings>

⁴http://www.shac.ct.gov/SHAC_Final_Report_3-6-2015.pdf

⁵<https://www.nfpa.org/News-and-Research/Data-research-and-tools/Building-and-Life-Safety/Structure-fires-in-schools>

⁶<https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Suppression/ossprinklers.pdf>



PASS

Partner Alliance
for Safer Schools

WHITEPAPER

Classroom Barricade Devices



CONTENTS...

| | |
|----|-----------------------------------|
| 2 | Position Statement |
| 4 | Code Considerations |
| 5 | Local Jurisdictions |
| 7 | Other Potential Consequences |
| 9 | References from Safety Guidelines |
| 11 | Conclusion |
| 12 | About PASS |

Position Statement:

Classroom Barricade Devices

There is a question currently under debate in several jurisdictions across the country: Should barricade devices be used to secure classroom doors during an active-shooter incident? These devices have emerged in the last few years in response to fears that inadequate security may leave classrooms vulnerable. The devices are typically designed to be installed on classroom doors during a lockdown in addition to the existing hardware.

Barricade devices are perceived to be generally less expensive to purchase, and easier to procure and install than traditional security devices such as locksets or access control products. While securing the door with a classroom barricade device may seem to address the immediate need for security, one should consider the safety concerns associated with this practice.



Fig. 1: Exit doors in a school, chained to provide security. This locking method does not meet IBC, IFC, or NFPA 101 requirements for free egress. (Photo: Wayne Ficklin, Architect)

Conventional locksets meet code requirements for free egress (allowing occupants to exit without obstruction), fire protection (compartmentalizing the building to deter the spread of smoke and flames), and accessibility (ensuring access for all, including people with disabilities). These locksets effectively secure classrooms against active shooters; in fact, testimony presented to the Sandy Hook Advisory Commission indicated that an active shooter has never breached a locked classroom door by defeating the lock.¹ More recently, the Marjory Stoneman Douglas High School Public Safety Commission report noted that while the active shooter in that case fired shots into classrooms through doors or windows in the doors, he never entered a entered a single classroom.²

By definition, “barricade” means “to block (something) so people or things cannot enter or leave.”³ Most codes require doors in a means of egress to provide free egress at all times, which allows building occupants to evacuate quickly if necessary. Some proponents of barricade devices suggest that, because the device is intended for use only when an active shooter is in the building, securing the door takes priority over allowing safe evacuation.

Those on the other side of the debate believe that, because there is no guarantee the device will only be installed under these limited circumstances, the devices could be misused, preventing authorized access by staff and emergency responders, as well as delaying or preventing egress.

Some advocates of barricade devices have stated that, if the product is not permanently attached to the door, it is not under the jurisdiction of the code official and is not subject to the same requirements that door locks and security hardware must comply with.

Following this premise, panic hardware secured with padlocks and chains would not be under the code officials’ jurisdiction either. In reality, code officials address these unsafe temporary locking methods frequently; most codes do not differentiate between a device used temporarily and a permanently installed device. Fire doors blocked open with wood wedges or other creative (but

¹ Sandy Hook Advisory Commission, Final Report. (2015): n. pag. 32 Mar. 2015. Web

² Marjory Stoneman Douglas High School Public Safety Commission Initial Report. (2018): 25 Web 22 Feb. 2019

³ Merriam-Webster. Barricade. Merriam-Webster, n.d. Web. 28 Sept. 2015.

“temporary”) hold- open devices create obvious fire protection problems; again, the code official is responsible for enforcing the code requirements even though the offending devices are not permanently attached.

Comparisons have been drawn between the use of furniture as a barricade, and the installation of a barricade device. Barricading a location with furniture and other environmental items is a secondary response for incidents of active shooter and terrorism, and is recommended if evacuation as a primary response is not possible.

Barricading with environmental objects is recommended by many organizations, including the ALICE Training Institute, U.S. Department of Homeland Security, U.S. Department of Education, Federal Emergency Management Agency (FEMA), U.S. Department of Justice, and Federal Bureau of Investigation (FBI). Barricading uses gross motor skills, is applicable in any location, and does not require a door or special door-locking device.

The ALICE Training Institute has published a document⁴ that includes guidance with regard to a barricade vs. a door-locking device. The first item on this list reads (in part):

“Door-locking devices are subject to approval. According to the fire code, ‘Security devices affecting means of egress shall be subject to approval of the fire code official.’ Ensure that any application of a door-locking device is not in violation of the fire code. A door-locking device accepted by one fire marshal may be rejected by another jurisdiction.”

Because barricade devices are installed during a lockdown, some may consider them safe for this limited period of time. There are currently no widely used standards for school security, and schools frequently call lockdowns for events that do not involve an active shooter. If a lockdown plan includes the use of barricade devices on the classroom doors, the devices could be installed for extended periods of time whether the danger is inside the building or somewhere in the vicinity.

It is not uncommon to find 20 or more lockdown incidents mentioned in national news within a day—with very few involving a direct threat to the school. There are many situations that could require an evacuation while a school is in lockdown, and doors must provide free egress to facilitate evacuation. The school shooting at Columbine High School reportedly involved a firebomb, propane tanks converted to bombs placed in the cafeteria, and dozens of explosive devices.⁵ In case of a scenario like this, maintaining free egress is an important part of a school security plan.

⁴ ALICE Training Institute. Barricade vs. Door-Locking Device There is a Difference. (2015): n. pag. 11 Mar. 2015. Web.

⁵ Columbine Review Commission, The Report of Governor Bill Owens. (2011): n. pag. iii, 12, 23, Web.

Code Considerations

Given the increased focus on school security, the discussion about using a barricade device or alternative method to secure a classroom door has likely taken place with code officials in every state. A set of guidelines⁶ published by the National Association of State Fire Marshals (NASFM) includes a “Suggested Classroom Door Checklist,” which identifies many parameters that should be satisfied when selecting and installing hardware intended to increase classroom security:

- The door should be lockable from inside the classroom without requiring the door to be opened.
- Egress from the classroom through the classroom door should be without the use of a key, tool, special knowledge, or effort.
- For egress, unlatching the classroom door from inside the classroom should be accomplished with one operation.
- The classroom door should be lockable and unlockable from outside the classroom.
- Door-operating hardware shall be operable without tight grasping, pinching, or twisting of the wrist.
- Door hardware operable parts should be located between 34 and 48 inches above the floor.
- The bottom 10 inches of the “push” side of the door surface should be smooth.
- If the school building does not have an automatic fire sprinkler system, the classroom door and door hardware may be required to be fire-rated, and the door should be self-closing and self-latching.
- If the door is required to be fire-rated, the door should not be modified in a way that invalidates the required fire-rating of the door and/or door hardware.

The NASFM guidelines also note that, although the word “should” is used in the checklist, these requirements may be mandatory depending on applicable codes, laws, and regulations. The International Building Code (IBC), International Fire Code (IFC), and/or NFPA 101—Life Safety Code have been adopted in most states, and these three publications include the egress, fire, and accessibility requirements in NASFM’s checklist (*NASFM, 2015*).

These model codes are revised on a three-year cycle to take into account changing environments and new technologies, using a consensus process with careful consideration by technical committees and ample time for public comment. States and local jurisdictions may modify these codes, so it’s very important to be aware of local code requirements, including the jurisdiction’s position on barricade devices.

The NASFM checklist parameters for A) classroom doors to be lockable from inside the classroom without opening the door, and B) classroom doors to be lockable and unlockable from outside the classroom, were not included in the model codes prior to the 2018 code development cycle, but the 2018 editions of the IBC and IFC require classroom doors to be capable of being unlocked from outside of the room with a key or other means approved by the code official. NFPA 101-2018 requires classroom doors to be lockable from the inside without opening the door, and unlockable from the outside with a key or other credential. The prescriptive documentation included in the model codes

⁶ National Association of State Fire Marshals (NASFM). “Classroom Door Security & Locking Hardware.” (2015): 1. 22 Mar. 2015. Web.

ensure that requirements for free egress, fire protection, and accessibility are met in addition to providing adequate security.

At NASFM's 2015 annual conference, members approved a resolution⁷ supporting the NASFM Classroom Door Security & Locking Hardware guidelines. In an excerpt from this resolution, the state fire marshals warn against the use of classroom barricade devices:

"WHEREAS, when selecting hardware that allows classroom doors to be lockable from inside the classroom, consideration should be given to the risks and potential consequences of utilizing a device that blocks the classroom door from the inside. For example, devices that prevent classroom doors from being unlocked and openable from outside the classroom may place the inhabitants of the room in peril. In addition to the requirement that classroom doors must be unlatchable in a single motion from inside the classroom, these doors should always be unlockable and openable from outside the classroom by authorized persons."

Local Jurisdictions

Many code officials have responded to questions about school security by reiterating that egress doors (including classroom doors) must meet the requirements of the adopted codes. The model codes may be modified locally, which could make the local requirements less stringent (for example, allowing one additional operation to unlatch the door) or more stringent.

Some states, such as Florida⁸ and California,⁹ have already adopted requirements or guidelines for classroom doors to be lockable from the inside, with classroom security locks being the preferred lock function. For these states, the local guidelines are more stringent than the current model codes.

Some states have not modified their codes, but have published directives supporting their current code requirements. The New York State Education Department issued a bulletin on "Fire Safety and Proper Classroom Door Locks," which cites the state fire code and the New York State Education Department Manual of Planning Standards code. This document clearly prohibits classroom barricade devices, reinforces the requirements for free egress, and recommends classroom security locksets (*Thurnau*).

The Minnesota State Fire Marshal's office has published an information sheet titled Security and Barricade Devices on Classroom Doors, which also recommends classroom security locks and explains their rationale for code-compliant methods (*Minnesota Department of Public Safety State Fire Marshal Division, May 2015*).

Minnesota's position on classroom security is very compelling, as Minnesota is the location of the 2005 school shooting at Red Lake High School,¹⁰ where a 16-year-old killed seven people and wounded five others.

⁷ National Association of State Fire Marshals (NASFM). "Resolution on Classroom Door Security & Locking Hardware." (n.d.): n. pag. 27 July 2015. Web.

⁸ Mendoza, Tony. "School Facilities: Classroom Security Lock." AB 211 (Mendoza). N.p., 29 Sept. 2010. Web.

⁹ Florida Department of Education. State Requirements for Educational Facilities (2014): n. pag. Nov. 2014. Web.

¹⁰ WW. "Shattered Security—Surviving Red Lake Teacher Calls for Change." N.p., 11 Feb. 2015. Web.

Although the classroom doors were locked, the shooter broke the glass and gained access to the classroom by turning the inside lever, but Minnesota has not responded to this incident by choosing inexpensive security over free egress, fire protection, and accessibility. There are glazing products and films that will delay access to the inside lever, and would be a much more logical solution than installing a barricade device.

In some jurisdictions, there is political pressure to relax the code requirements in favor of approving the use of barricade devices, even when code officials oppose the change. In 2015, Ohio lawmakers passed a law requiring the Ohio Board of Building Standards to adopt rules for the use of classroom barricade devices. The board conducted an examination of the state's current codes to decide whether changes should be made due to emerging threats to public safety. After extensive review, including two hearings where parties on both sides of the issue presented information, the board determined that no changes needed to be made to the current building and fire codes. Despite of the board's conclusion, the state law mandated the creation of rules for the use of barricade devices, and the Ohio Building Code was revised to allow temporary locking devices which meet certain criteria.¹¹

In Arkansas, the state fire marshal voiced strong objections to a senate bill that would amend the fire code requirements and allow the use of barricade devices in schools, noting potential issues with emergency egress and removal of the device. The Arkansas State Senate voted unanimously to approve the fire code change, despite the fire marshal's objections, as well as the financial interest of an Arkansas state legislator in a company that manufactures barricade devices.

A 2018 bill in Utah proposed modifications to the state building code and fire code which would have removed or changed the code requirements related to egress and accessibility, in order to allow classroom barricade devices. With the help of the Utah State Fire Marshal, the bill was modified to add some limitations and to only allow secondary locking devices that are approved by the code official. The state fire marshal has developed a set of criteria to be used when evaluating potential security devices for classrooms.

Other states have independently issued directives or adopted code changes that vary from state to state. For example, Colorado¹² adopted a code change that allowed temporary security measures, but only until January 1, 2018, when classroom locks were required to meet the adopted codes (Colorado Department of Public Safety Division of Fire Prevention and Control).

The state fire marshal in Kansas issued a memo allowing temporary security devices to be used (*Jorgenson, 2014*), Louisiana allows a deadbolt that requires one additional operation to unlatch the door (*Browning, 2013*), and New Jersey permits some types of devices but not others (*New Jersey Department of Community Affairs, 2013*).

These policies lack consistency from one state to the next. A more efficient and effective approach would be to incorporate school security requirements into the model codes used across the country, utilizing the expertise and experience of code officials and others who are knowledgeable about all aspects of the issue.

¹¹ "Ohio school safety policy should be barricaded from politics," SchoolSecurity.org. (March 7, 2015)

¹² Colorado Department of Public Safety Division of Fire Prevention and Control. "Code Enforcement and Certification of Inspectors for Public Schools, Charter Schools, and Junior Colleges." N.p., n.d. Web.



Fig. 2: Examples of various classroom barricade devices.

Other Potential Consequences

In addition to code considerations, another concern is that barricade devices can be used by anyone who has access to them, including someone who wants to barricade himself along with others in a room to commit harm or take hostages.

Addressing this possibility by storing the device in a locked drawer or location known only to the teacher could result in a delay in installing the device at a critical time. A substitute teacher may not have the means or knowledge to secure the door.

Additionally students or staff with disabilities may have difficulty or be unable to remove a barricade device in the event that evacuation of the space becomes necessary. In many cases, such devices do not comply with standards required by the Americans With Disabilities Act (ADA), making their use a violation of federal law.¹³

Although every school shooting is tragic, and we must do all we can to prevent them, these events are rare; nonfatal victimizations at school are thousands of times more likely to occur, and unauthorized lockdown of a classroom could help to create a haven for someone attempting to commit a crime. According to the National Center for Education Statistics (NCES) (*NCES, 2018*):

- “In 2016, among students ages 12–18, there were about 749,400 victimizations (theft and nonfatal violent victimization) at school.”
- “During the 2015–16 school year, 79 percent of public schools recorded that one or more incidents of violence, theft, or other crimes had taken place, amounting to 1.4 million crimes, or a rate of 28 crimes per 1,000 students enrolled.”
- “During the 2015–16 school year, 10 percent of public school teachers reported being threatened with injury by a student from their school and 6 percent reported being physically attacked by a student from their school.”

In addition to the negative impact on egress, many barricade devices prevent access from the outside, so even a staff member or emergency responder with a key would not be able to enter. While there is debate on whether or not barricade devices should be allowed for use, schools should also consider their liability in using such devices. What if a barricade device was used by an unauthorized person to secure a classroom and commit an assault or other crime, leaving staff and/or law enforcement unable to access the room because of the device?

As every school administrator knows, and as documented by the Centers for Disease Control and Prevention (CDC) and by the FBI, the people most likely to commit violence on school grounds are students themselves.

A person injured in a barricaded classroom might have a strong argument that the school district should have recognized that a student, or someone else lawfully on the premises, could use a barricade to lock others into a classroom and prevent safety officers from entering. More generally,

¹³ 2010 ADA Standards for Accessible Design, 205.1, 309.4, 404.1, 404.2.7, https://www.ada.gov/2010ADASTandards_index.htm

obstacles to egress can be fatal for both children and adults during an emergency. Modern codes exist because of hard lessons learned from school fires and other tragedies. A district considering whether to install classroom barricades should take into account the possibility of an exit being accidentally or maliciously blocked during an emergency (*School Liability and the Law of Unintended Consequences*, 2015).

There have already been school shootings where the intruder brought materials with them to barricade the doors, including the incidents at Virginia Tech, the West Nickel Mines School, and Platte Canyon High School.¹⁴ At Platte Canyon High School, explosives were used by emergency responders to gain access to the classroom, and a student hostage was killed by the shooter during the chaos. After the West Nickel Mines School shooting at an Amish schoolhouse, several news reports discussed law enforcement officers' concerns that they are not equipped to overcome classroom barricades.

A shooting at Chardon High School in Chardon, OH, has been cited in support of the state legislation to allow barricade devices; however, when the former superintendent of the Chardon School District, Joseph Bergant, was asked whether he would be in favor of using classroom security devices, he told members of the Ohio Board of Building Standards that barricades have the potential to backfire and make active shooter situations more dangerous.

"There was a situation in Colorado ... where a gentleman came into the school, went up the hallway, went into a classroom, and he barricaded himself in that particular room and ended up killing one child," he said. "The police had a difficult time getting into that room because the door opened in the opposite way, and they actually had to blow the door off with some kind of explosive." He said that barricades could be dangerous if a bomb started a fire in the school or if a teacher left a room unattended with a barricade available. "In a lot of situations, people need to get out of the building in some capacity," he said. "There have been situations where kids have locked other kids in classrooms. I have huge anxiety with that. If the teacher is not in the room, what do you do? Somebody could barricade themselves in a room and kill everybody." (*Bergant*).

In the words of former police lieutenant Joseph Hendry, "The fact is, these devices can easily be used against us. From a tactical standpoint, hanging the device next to the door is an invitation to disaster. It gives any threat the ability to secure a room with potential victims inside with little recourse for staff or law enforcement except to breach using physical force. The fact that vendors are touting the devices by posting videos of law enforcement using current assigned tools that cannot breach the door gives threats a tactical advantage in planning and use in a facility that is already a soft target."

¹⁴ Platte Canyon High School Shooting, After Action Report. (2006): n. pag. 6 Dec. 31, 2006. Web.

References from Safety Guidelines

There are many publications that address recommended locking methods for classroom doors, the need for code compliance, and support for incorporating school security requirements into the model codes.

None of the following include recommendations for installing secondary locking devices:

- The final report of the Sandy Hook Advisory Commission includes many recommendations for school safety, including Recommendation No. 1: Classroom doors should be lockable from inside the classroom. The report states: “The testimony and other evidence presented to the commission reveals that there has never been an event in which an active shooter breached a locked classroom door.” There are other factors to consider, such as impact resistance of glass adjacent to door hardware, distribution of keys to all staff (including substitute teachers), methods of securing exterior doors, visitor protocols, and procedures, communication, training, and drills. Barricading of doors is not mentioned in the commission’s report (*Sandy Hook Advisory Commission, 2015*)
- FEMA-428—Buildings and Infrastructure Protection Series Primer to Design Safe School Projects in Case of Terrorist Attacks and School Shootings (2012) states that all locks on egress doors in schools must comply with the requirements of NFPA 101—Life Safety Code. The FEMA publication also discusses the importance of lockable classroom doors: “While the interior locks on classroom doors saved many lives at Columbine High School, they were not available in classrooms in Norris Hall at the Virginia Tech campus. Although attempts were made to barricade the doors with furniture or live bodies, they were not successful and the death toll was much greater.” (*FEMA, 2012*)
- The International Fire Code Commentary is a companion publication to the IFC, and includes a section addressing lockdown requirements. The 2015 IFC Commentary for section 404.3.3 Lockdown Plans, reads (in part): “Note that the code does not require a lockdown plan; however, if a lockdown plan is developed, it must be strictly supervised in order to maintain occupant safety at an acceptable level. Many facilities are adopting procedures that can significantly affect fire and life safety, such as using the fire alarm system to signal a security emergency, locking doors with devices that prevent egress in violation of the provisions of Chapter 10 of the code, and chaining exit discharge doors from the inside to prevent occupants from leaving the building. It is important that plans for security threats do not include procedures that result in violations of life safety and actually increase the hazard to the occupants.” (*IFC, 2015*)
- The Occupational Safety and Health Administration (OSHA) regulation 1926.34 prohibits devices that impede egress: “No lock or fastening to prevent free escape from the inside of any building shall be installed except in mental, penal, or corrective institutions where supervisory personnel is continually on duty and effective provisions are made to remove occupants in case of fire or other emergency.” In some states, OSHA regulations do not cover state and local government employees (including school staff), but many states adopt the OSHA regulations as part of their workplace safety requirements. In those states, OSHA requirements for free egress may apply to schools (*OSHA*).

- Some proponents of barricade devices have suggested that it is safe to relax the code requirements addressing fire protection because fatal school fires are no longer common. The NFPA reports that, “U.S. fire departments responded to an estimated average of 4,980 structure fires in educational properties in 2011-2015 annually. These fires caused annual averages of 85 civilian fire injuries and \$92 million in direct property damage. These fires caused annual averages of one civilian death, 70 civilian injuries, and \$70 million in direct property damage.” (*NFPA Structure Fires in Educational Properties Fact Sheet*) (Campbell, 2017). Any one of these fires could have been tragic, as fatalities in school fires were not uncommon before the codes were put in place and enforced. Although it has been more than 60 years since 95 lives were lost in the fire at Our Lady of the Angels School in Chicago, it seems likely that the strength of current codes and enforcement have played a role in the improved safety of our schools (Steffen, 2009).
- In 2018, NFPA released a new standard: NFPA 3000™ (PS), Standard for an Active Shooter/ Hostile Event Response (ASHER) Program. The purpose of this standard is to identify the minimum program elements needed to organize, manage, and sustain an active shooter and/or hostile event response program and to reduce or eliminate the risks, effect, and impact on an organization or community affected by these events. NFPA 3000 requires doors in the means of egress to meet all of the requirements of NFPA 101 – The Life Safety Code.

Conclusion

The instinctive reaction to the fear surrounding school shootings is to do everything possible to protect students and teachers from being in the line of fire. The desire to react quickly and within budgetary restrictions sometimes leads to choices that may solve one problem but inadvertently create others. The requirements for free egress, fire protection, and accessibility must be considered in conjunction with the need for security. Unauthorized lockdown and emergency responder access are important considerations, which have been addressed by the 2018 model codes.

Changes made to codes or laws at a national level establish more consistent requirements than addressing this issue individually. When a jurisdiction chooses to modify the model codes, requirements should be prescriptive, and an all-hazards approach should be taken, considering not just active shooters and terrorism, but also fire, severe weather, natural disasters, and other types of emergencies.

The reasoning behind proposed changes is often based on the misconception that barricading the door is the only way to protect students and teachers in the classroom. There are code-compliant locks readily available from many lock manufacturers that provide the needed security without compromising safety in favor of lower cost. While locks address one aspect of classroom security requirements, there are other factors to consider, such as the door, frame, glass, key distribution, communication, and lockdown procedures.

The PASS Safety and Security Guidelines for K-12 Schools Tier 1 (basic)¹⁵ recommendations for securing classrooms consist of establishing a policy that classroom doors should remain closed and locked when occupied, and ensuring classroom locks meet a set of basic criteria appropriate for the K-12 setting: (1) the ability to lock the outside lever from the inside of the room, (2) keyed or electronic access from the corridor side for access by authorized personnel, (3) free egress from the inside of the room, and (4) a visual indicator to occupants of locked or unlocked condition. Classroom and other shelter in place room doors should be locked by means of either an office, storeroom or security classroom function lockset or exit device as required by local codes.

- Office function lockset: The outside lever can be set in a locked or unlocked position by a push button lock feature on the inside lever, allowing the door to be easily secured from inside the room. Allows free egress from the inside of the room.
- Storeroom function lockset: The outside lever is always locked as a default position—so when the door is closed it is also locked. Allows free egress from the inside of the room.
- Security classroom function lockset: The outside lever can be set in a locked or unlocked position by a key in the inside lever, allowing a teacher to secure the door from inside the room. Allows free egress from the inside of the room.

The choice of which type of lock to use should consider the room's normal occupants and intended use, a facility assessment and any relevant state laws or local requirements. As noted above, locks should always be keyed on the corridor side for access by authorized personnel.

¹⁵ Safety and Security Guidelines for K-12 Schools. (2018): 85 Web. 22 Feb. 2019

Additionally, several industry organizations have stated their position regarding classroom barricade devices:

- Associated Locksmiths of America—Institutional Locksmiths
<https://www.aloa.org/index.html>
- Builders Hardware Manufacturers Association—BHMA has put forth code amendment proposals around the use of barricade devices
<https://idighardware.com/wp-content/uploads/2019/02/BHMA-Code-Change-Article-When-Simple-Is-Safer.pdf>.
- Door Security and Safety Foundation
<https://www.doorsecuritysafety.org/>
- National Association of State Fire Marshals
<https://www.firemarshals.org/resources/Documents/Members%20Only/Documents/NASFM%20Classroom%20Door%20Security%20Update%209-2018%20FINAL.pdf>
- Security Industry Association (SIA)
<https://www.securityindustry.org/2017/01/09/sia-opposes-use-of-classroom-barricade-devices/>
- Secure Schools Alliance
<http://secureschoolresources.org/2018/10/15/classroom-barricade-devices-a-dangerous-violation-of-federal-laws/>

About PASS

The Partner Alliance for Safer Schools (PASS) has a singular focus: To provide school administrators, school boards and public safety and security professionals with guidelines for implementing a layered and tiered approach to securing and enhancing the safety of school environments.

Established in 2014, PASS brings together expertise from the education community, law enforcement and the security industry to develop and support a coordinated approach that can assist school administrators in making effective use of proven security practices specific to K-12 environments and informed decisions on security investments.

In 2015, PASS first released the Safety and Security Guidelines for K-12 Schools (the “Guidelines”), which remains the most comprehensive information available on best practices specifically for securing school facilities available. The fourth edition (2018) is greatly expanded to address the growing range of complex security challenges facing today’s K-12 schools, providing a resource for school officials—and their solutions providers—to help achieve the most appropriate and cost-effective deployment of security solutions. For more information, visit passk12.org.



PASS

Partner Alliance
for Safer Schools

DISCLAIMER: *The Safety and Security Guidelines for K-12 Schools* (the "Guidelines") and other materials produced by the Partner Alliance for Safer Schools (PASS) are provided for informational purposes only. The individual contributors, their employers, the organizations participating in PASS and PASS itself make no warranties or guarantees regarding the information contained in these materials, and expressly disclaim all liability for damages of any kind arising out of the use, reference to or reliance on the information they contain. PASS materials are not a substitute for expert professional advice that may be required to address the specific facts and circumstances related to the implementation of a particular school safety security measure or program.



WHY BARRICADE DEVICES?



LORI GREENE, DAHC/CDC, FDAI, FDHI, CCPR, is the Manager of Codes and Resources for Allegion. She can be reached at Lori.Greene@allegion.com or iDigHardware.com.

AFTER WORKING WITH DOOR OPENINGS AND THE RELATED LIFE SAFETY CODE REQUIREMENTS FOR OVER 30 YEARS, AND SPENDING THE LAST FIVE YEARS EVEN MORE FOCUSED ON ADVISING SCHOOL DISTRICTS AND OTHER STAKEHOLDERS ON HOW TO KEEP SCHOOL SECURITY SAFE, I HAD TO STEP BACK AND ASK MYSELF SOME QUESTIONS:

- Why would a school district consider using security devices that are not compliant with the model codes or accessibility standards, given the associated risks and liabilities?
- Why is the potential for unauthorized lockdown being ignored, when non-fatal victimizations and other crimes in school classrooms are hundreds of thousands of times more likely to occur than a school shooting?
- Why has the perceived need to lock building occupants inside of a room replaced the established need for safe egress and evacuation, especially when barricading has been used to delay emergency responders during past school shootings?
- Why has this become a battle of law enforcement versus fire marshals, state legislators versus code officials and code-compliant security products versus unregulated barricade devices, when traditional locksets provide the needed level of security?

You might think the answer to these questions has to do with cost. In my opinion, the answer is related to complexity.

Traditional security products – locksets and panic hardware – are complicated. To most architects, a door hardware schedule looks like hieroglyphics. When I meet with a security consultant or integrator, everyone else in the room thinks we're speaking another language. There are dozens of lock

functions, various types of locksets and panic hardware options, not to mention electrified hardware. When faced with the task of puzzling through the existing hardware on classroom doors to determine how to improve security, it may seem easier to order a retrofit security product online or have bent bars fabricated in a high school metal shop class and placed in each classroom for the teachers to use when necessary.

This is not unlike the workarounds that have become so common because of the widespread use of technology in other areas of our lives. When the left mouse button on my computer stopped working, I bought an inexpensive wireless mouse, plugged the receiver into my USB port and was back in business in minutes. When a setting on my smart phone affected the headphone jack, I bought some cheap Bluetooth headphones. When I couldn't figure out how to use our fancy new video conferencing system, I called into meetings the old-fashioned way. We are conditioned to find a workaround, especially when time is of the essence and money is tight.

I do understand the motivation to employ the unregulated security products or bent bars made in metal shop class, but I was initially unprepared for the legislative workaround that has occurred in several states. The model codes used across the United States are created by a consensus process involving hundreds of stakeholders and based on more than 100 years of experience – often tragic events

Deadbolts installed in addition to existing hardware can lead to delayed evacuation and unauthorized lockdown and may also be more costly than upgrading existing locks, addressing adjacent glazing and/or distributing keys.

and hard-earned lessons. I've been surprised by the bills I've seen in several state legislatures that remove all of those safeguards, and even more bewildered when a fire marshal considers overriding the adopted model codes – just so a school district can purchase classroom barricade devices or have the shop class start bending bar stock.

Which brings me back to the original question: "Why would a school district consider using classroom barricade devices?"

I have seen many comparisons, from manufacturers of barricade devices, between a traditional lockset at \$500 versus a barricade device at \$150, for example. Given the pressure to "do something – anything – and do it now!" this seems like an easy decision. A few PTA fundraisers and some classroom doors sponsored by parents, grandparents and community members, and the problem appears to be solved. In theory, a school district could spend \$150 per classroom on a classroom barricade device (or much less on the shop-fabricated version) that can be procured quickly and installed easily, rather than spending a lot of time and money to buy and install a new lock.

The problem with this comparison is that almost every classroom door already has a lockset or panic hardware. In many cases, a new \$500 lock is not needed in order to reliably secure the classroom

door – the lock is already there, and locksets and panic hardware are certified to ensure security and durability.

Maybe school staff members do not have keys to the existing locks – this can be resolved for a minimal cost, even if the locks need to be rekeyed. If the existing lock function is not ideal for today's security threats, some locks can be upgraded with a conversion kit to change the function rather than replacing the entire lock – often at a lower cost than purchasing a classroom barricade device. Where glass in vision lights and sidelights adjacent to the existing hardware cause concern, there are films or replacement glazing products available that increase the impact resistance.

When a school district decides to completely replace their existing locksets, it is often because they are long overdue for an accessibility upgrade, the existing locks are beyond their usable lifespan or because of a desire to add electronic access control and remote lockdown functionality. But a complete lock replacement is not required for most schools and should not be used as the typical comparison.

I have also seen added deadbolts suggested as an alternative, but in addition to requiring more than one releasing operation to unlatch the door (not allowed by the model codes), installing deadbolts can be much more expensive than rekeying or using a conversion kit to upgrade existing locks.



When evaluating a security method to determine whether it is safe and code-compliant, here are six questions to ask:

1. Does the door unlatch with one releasing operation? Current model codes require one operation to release all latches on the door simultaneously.
2. Can the door be opened for egress without a key, tool, special knowledge, or effort, and without tight grasping, pinching, or twisting of the wrist? When it's time to exit, a building occupant must be able to open the door without wasting valuable time trying to find a key or remove a security device that is not intuitive.
3. Is the releasing hardware mounted between 34 inches and 48 inches above the floor, or in the location required by the state or local codes? This requirement ensures that all building occupants – including children as well as people using wheelchairs – can operate the hardware for egress.
4. If the door is a fire door, is the locking/latching hardware compliant with NFPA 80 and listed to UL 10C / NFPA 252? This listing ensures that the product is suitable for use on a fire door assembly and that it will not negatively impact the performance of opening protective.
5. Can the retrofit security device be deployed without attaching to, or modifying, the existing panic hardware, fire door hardware or door closers? Retrofit devices attached to existing hardware may impact the listing and/or performance of the hardware and often rely on the strength of fasteners and connections that have not been tested for this purpose.
6. Is it possible to unlock the door from the outside with a key, credential or other approved means? It is critical for school staff and emergency responders to have access to classrooms from the outside in case an unauthorized person secures the door in an attempt to commit an assault or other crime.



Although it may be tempting to fabricate inexpensive security devices in a high school metal shop class or purchase retrofit devices online, there are multiple safety concerns regarding these methods.

WE CAN HELP

As members of the door and hardware industry, we have relationships where we help to ease the complexity and pain points associated with traditional hardware. We work with architects and specifiers to provide detailed hardware specifications for new projects and renovations. We coordinate with security consultants and security integrators when electronic access control is involved. We are available to facility managers and locksmiths when there are problems with existing openings. What we don't always have is a connection with the school administrators charged with making decisions about their school's security.

It's our responsibility – as experts in both security and the codes that

ensure life safety and free egress, fire protection and accessibility – to offer our expertise to school districts looking for answers.

We can assist school administrators, teachers, parents and students with information about how their locksets function and suggest improvements if needed.

We can reach out to code officials, law enforcement officers, state legislators and state boards of education to help keep their state and local security requirements safe.

We can use lessons learned in past events to guide future decisions and make sure the implemented security methods comply with adopted codes and laws.

Get involved. Share your experience. Keep school security safe. +



NFPA 3000



LORI GREENE, DAHC/CDC, FDAI, FDHI, CCPR, is the Manager of Codes and Resources for Allegion. She can be reached at Lori.Greene@allegion.com or iDigHardware.com.

THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAS RELEASED A NEW STANDARD—NFPA 3000™: STANDARD FOR AN ACTIVE SHOOTER/HOSTILE EVENT RESPONSE (ASHER) PROGRAM. DEVELOPMENT OF THE STANDARD BEGAN AFTER THE MASS SHOOTING AT THE PULSE NIGHTCLUB IN ORLANDO, FLA., WHICH OCCURRED IN JUNE OF 2016. CHIEF OTTO DROZD OF ORANGE COUNTY FIRE IN FLORIDA REQUESTED THAT NFPA DEVELOP A STANDARD TO GUIDE AUTHORITIES IN CREATING A RESPONSE PLAN FOR ACTIVE SHOOTER/HOSTILE EVENTS. PLANNING BEGAN LATE IN 2016 AND THE COMPLETED STANDARD WAS RELEASED LESS THAN A YEAR AND A HALF LATER.

While development of most codes and standards often seems to move slowly, with a cycle of three years or more, NFPA 3000 was created as a provisional standard. Provisional standards address an emergency situation or other special circumstance, and are developed using an expedited process. NFPA 3000 is only the second standard to be issued by NFPA as a provisional standard since the organization was founded in 1896. The first provisional standard, NFPA 56, was created in response to a power plant explosion in 2010, where six people were killed and close to 50 injured.

Because of the increase in hostile events in the United States, NFPA's Standards Council unanimously approved the new standards project, and development of NFPA 3000 was fast-tracked. NFPA solicited comments from the public as well as applications for Technical Committee members at the beginning of 2017; within three months, more than 130 comments and 85 applications were received.

The NFPA Technical Committee on Cross Functional Emergency Preparedness and Response was established in April 2017, consisting of representatives from the Department of Homeland Security, Department of Justice, the Federal Bureau of

Investigation, national police, fire, and EMS organizations, personnel from hospitals and universities, and others, including DHI. Many of the 50 committee members had direct experience with recent mass shootings.

The committee first met on June 14, 2017, with NFPA President Jim Pauley speaking to the group about the many active shooter incidents in recent years—citing events in London, Paris, San Bernardino, Boston, Sandy Hook, Fort Hood, Virginia Tech, and Charleston.

"These tragedies highlight a need for first responders, emergency personnel, facility managers, hospital officials, and community members to have information when terror attacks occur," he said. On the day of the meeting, active shootings occurred in Virginia and San Francisco. All of these events indicated a need for an effective, coordinated response plan that involves the fire service, law enforcement, emergency medical responders, and other public safety agencies.

Committee members met again in September 2017 to continue working on the draft of NFPA 3000. Reviewing various active shooter/hostile events at a high level assisted in determining what was needed to help communities prepare for,



respond to, and recover from these events. Task groups were formed within the committee to develop the standard's twenty chapters which address different components of incident preparedness, response, and recovery using common language to allow emergency responders to communicate clearly. After months of hard work, NFPA 3000 was released on May 1, 2018.

IMPACT ON PHYSICAL SECURITY

According to the NFPA 3000 Fact Sheet: The purpose of NFPA 3000 (PS) is to identify the minimum program elements needed to organize, manage, and sustain an active shooter and/or hostile event response program and to reduce or eliminate the risks, effect, and impact on an organization or community affected by these events.

The document addresses the following areas and others:

- Planning – assessing risks, developing community-wide programs
- Responding – establishing competencies, communicating to all stakeholders
- Recovering – planning recovery efforts, taking into account healthcare and mental health issues

Given that NFPA 3000 is a standard for preparation and response to an active shooting, how does that affect the door and hardware industry? Chapter 9 – Facility Preparedness, addresses requirements for facilities that may be at risk of an ASHER incident. In addition to staff procedures, notification of building occupants, periodic drills, and adequate supplies for first-aid response, the chapter covers emergency action plans for evacuation, relocation, and secure-in-place procedures.

There are several key points in this chapter that relate to physical security and lockdown:

- Emergency action plans must include the location and identification of lockable spaces as well as the exit doors leading to the exterior. Doors in the means

of egress must meet all of the requirements of NFPA 101® – The Life Safety Code.

- Plans must include procedures to lock designated doors from within the spaces, and must meet the requirements of NFPA 101 with regard to locking/unlocking and unlatching. This includes the ability to unlatch the door from the egress side with one releasing operation, and without a key, tool, special knowledge, or effort. The releasing mechanism for unlocking and unlatching the door must be located between 34 inches and 48 inches above the finished floor.
- Where required by NFPA 101 (classrooms, for example), doors must be lockable from the inside without opening the door, and unlockable from the outside with the necessary key or other credential.

These requirements help to ensure that the secured doors provide for unimpeded egress, allow authorized access, and do not create barriers for people with disabilities. All of these considerations are critical when evaluating security devices and methods for schools as well as other facilities. For the standard, helpful tools, online training and relevant content, visit nfpa.org/3000. +