



School Safety: Keeping a Balanced and Integrated Approach

“On December 14, 2012, Adam Lanza, 20, fatally shot twenty children and six adult staff members in a mass murder at Sandy Hook Elementary School in the village of Sandy Hook in Newtown, Connecticut. Before driving to the school, Lanza had shot and killed his mother Nancy at their Newtown home. As first responders arrived, he committed suicide by shooting himself in the head.

The incident is the second deadliest mass shooting by a single person in American history, after the 2007 Virginia Tech massacre. It is the second deadliest mass murder at an American elementary school, after the 1927 Bath School bombings in Michigan. However, it is the most deadly school shooting in any public school in the United States.”

“The Beverly Hills Supper Club fire in Southgate, Kentucky is the third deadliest nightclub fire in U.S. history. It occurred on the night of May 28, 1977, during the Memorial Day weekend. A total of 165 persons died and over 200 were injured as a result of the blaze. It was the deadliest fire in the United States since 1942 when 491 people were killed in the Coconut Grove fire in Boston.”

The aforementioned events are just two of many in our history that cause schools, communities, and leaders in government to reconsider the many aspects of safety in our nation. We could have picked Hurricane Katrina, the World Trade Center bombings, the Morgan County tornados, or a deadly outbreak of meningitis or flu. We might consider everything from workman’s compensation claims to school children falling down stairs, being injured on the playground, or being injured playing sports.

While outcomes of the horrific shootings at Sandy Hook Elementary remain uncertain, the 1977 Southgate fire caused a complete overhaul of Building codes and enforcement by the Kentucky General Assembly. It might be argued to be the foremost catalyst to improve safety in our Kentucky buildings, especially schools.

Since 1978, with the enactment of the Kentucky Building Code, numerous life safety standards have been required for all public schools and educational facilities including noncombustible construction, appropriate egress, fire alarm and sprinkler systems, emergency procedures and many other national life safety measures, all cited as causes for the loss of life at the Southgate fire. Given the huge rebuilding of the PK-12 education infrastructure set in motion by the Kentucky Education Reform Act, since 1978 over 80% of Kentucky’s PK-12 public education

facilities have been completely renovated or replaced incorporating these safety measures. The implementation of the Kentucky State Fire Marshal's Code in 1993 retroactively caused 100% of all Kentucky Schools to have appropriate life safety upgrades, including modern fire alarm systems, appropriate and accessible emergency egress, and periodic emergency drills. The Building Code authorities and Health Agencies also covered earthquake design, water supplies, sewage disposal, and preventative measures for disease control.

From 1993 to the present there were only two major fires in Kentucky public schools, both of which occurred in facilities built before 1978. Fortunately, no children were injured. In the same period despite numerous tornados, a few earthquakes, severe floods, and other disasters, no children were injured as a result of inadequate life safety school design.

In education, school safety is the number one priority, affecting everything, from policies, training, building design, facilities operations, procedures, liability, and insurance. It is such a broad topic; it requires a balanced and integrated approach, utilizing expertise from many disciplines from architects, attorneys, principals and teachers, and insurance agents to first responders.

Getting a perspective: How Safe are Schools Really?

On Thursday, May 17, 2007, Kenneth Trump (CEO of National School Safety and Security Services, Inc.) testified before the United States House of Representatives, Homeland Security Committee, at a full committee hearing on school readiness and emergency preparedness. (At the time) Trump was the only witness called to testify who had frontline K-12 school security experience.

Trump stated "We need only look at the following quote from the National Commission on Children and Terrorism's report of June 12, 2003: "Every day 53 million young people attend more than 119,000 public and private schools where 6 million adults work as teachers or staff. Counting students and staff, on any given weekday more than one-fifth of the U.S. population can be found in schools."

"Schools and school buses have the same number of children at the same locations every day of the week in facilities and buses that are unquestionably soft targets." (Today the number of Americans in public schools daily would be about 62 million.)

In the shadow of the recent shootings at Sandy Hook Elementary, our country is emotionally reeling to find reason, prevention, and some sort of appropriate action to give peace to survivors and perhaps guarantee that this horrific act will not be repeated, indeed prevented. Lawmakers and leaders have proposed all sorts of legislation and new resources to make schools safer: school safety officers, better security equipment, new school designs, background checks for firearm purchases, mental health care, and so on. This is in light of the recent and ongoing economic recession, where federal and state lawmakers have significantly cut safe school spending. Now, those actions are being reconsidered, and just about all school safety issues are back on the budget table. This should be expected and is a normal response.

In light of this abyss, however, it would be unfair not to realize that schools remain one of the safest places in America evidenced by the following probabilities:

- The odds of being murdered each day in a public school are less than 1 in 1.8 million. (There are typically about 33 deaths a year in schools as a result of violent acts and about one-fourth of those are suicide.)
- The odds of an American being murdered on average are about 1 in 313.
- The odds of being struck by lightning are about 1 in 700,000
- The odds of a student being injured at school are about 1 in 13 with about 30% of those resulting from sports injuries.
- The odds of a student being killed on a school bus are about one in 1.35 million. 5 times as many children (about 30) are killed each year walking to school versus riding buses.

None of the above probabilities is cause to make any conclusion about anything. What the statistics should tell us however is we are doing many things well. And, in the current environment, a caution is to not implement security measures that unnecessarily compromise other school safety issues. An example is a recent article published, circulated, and celebrated by the American Institute of Architects where a firm has designed a new elementary school on three levels with no classrooms on the ground floor, intentionally as a response to Newtown.

Many states are prohibited from such solutions because of the International Building Code and the proven concern that moving large groups of small children from floor to floor in an emergency or panic situation is very hazardous. In Kentucky, it is required that preschool children be served on the ground floor. One-level schools often work better as education institutions, are more accessible to the ambulatory handicapped, and are safer when all things are considered.

School safety is a broad issue with many components, some of which may conflict with one another.

Major Components of School Safety:

School safety includes what design and building professionals refer to as Life Safety, dealing with fire safety, and natural emergency disasters involving construction classification, height and area limitations, emergency egress, stairs, equipment, sprinkler systems, fire alarm systems and annunciators, and many other building systems and code issues. It causes schools to operationally have effective life safety drills and procedures for first responders, appropriate policies, and interface with building code officials and first responders, as well as quality maintenance.

School safety also includes health safety, covering everything from hazardous materials to blood-borne pathogens, and disease control. It operationally causes schools to have clean and healthy schools, health inspections, and again appropriate policies and procedures.

School Safety includes behavior, controlling bullying, internet safety, and the appropriate behavior of school staff, adults, and students alike. Unfortunately, School safety includes criminal events; everything from property loss, assault, kidnapping, inappropriate and unlawful

sexual behavior to unwanted visitors, and unfortunately the unthinkable, the possible killing of students, staff, and members of the community.

Kentucky Department of Education (KDE) Letter to School Architects:

In a recent communication (2 04 13) regarding School Safety and Security to Kentucky school architects, KDE's Facility branch noted the following, "In his recent email communication to the state's superintendents, Commissioner Holiday noted, "Many tragedies create an instinctive reaction to find immediate "after the fact" solutions. With the tragedy at Sandy Hook in Connecticut, school safety and security have come under the microscope."

Fortunately, many of Kentucky's school districts have been addressing this issue for quite some time. However, some other districts are now scrambling to implement security measures at their schools. Although we feel this is a prudent response, required safety issues should not be compromised in the process.

Within the last few weeks, we have received requests for "security" projects that have been initiated and designed by school principals, maintenance directors, and others within the district. Some of these projects have not addressed school security in the context of life safety. 815 KAR 10:060 Kentucky Standards of Safety defines the compliance requirements regarding life safety. This regulation includes the Kentucky Building Code, NFPA 1-Uniform Fire Code (2006), and NFPA 101-Life Safety Code (2006). Security design is not specifically addressed in these codes nor is it currently included in KDE regulation.

The design of safe and secure schools is a complicated issue that requires the thoughtful efforts of the district and its consultants to achieve a holistic approach. The effects of proposed changes to means of egress and related components (doors, hardware, etc.), building systems (HVAC and controls, lighting (general, emergency, and exit), fire alarm, communications, electrical, and security) should be addressed. The effectiveness of proposed materials should be evaluated relative to the level of security desired. How these changes are integrated with existing materials and finishes should be considered.

By statute (KRS 323.033), alterations or new construction involving educational use groups regardless of capacity require the services of a licensed architect. If the work involves the practice of engineering, this statute and KRS 322.360 also require the services of a professional engineer.

For the above reasons, this memo is intended to serve as a reminder of the requirements that must be met to address these issues for our districts and their consultants.

Security projects shall follow the same guidelines as other KDE renovation projects and shall be initiated with the submission of a BG-1 Project Application Form. Upon approval, a BG-1 Checklist will be sent to the district outlining the steps that must be followed to complete the work.

Funding: In the 2008 revision to 4:180, the definition of “Major Renovation” added four (4) exceptions to the three (3) systems, thirty (30) year rules. One of these was allowing Safety and Security as a single system, “or if required by a change in regulation or code”.

We have allowed this work to be done with restricted funds if it is noted on the District Facility Plan (DFP) or if not on the DFP using restricted cash with the Capital Funds Request Process. You may want to review this option with the district when developing the BG-1.”

Kentucky Legislation: (HB 380 and new HB 354/SB-8):

“Student safety is the most important element of any school process. It must be embedded in the daily practice of the school. It is everything from plans, policies, and administration, to school staff and students knowing what is occurring in (and sometimes out of) school. It requires students and staff to build and maintain a system of trust and quality communication.”

In 1998 The Kentucky General Assembly enacted KRS 158.440, which found that “Every student should have access to a safe and secure, and orderly school that is conducive to learning”, and requires “that all schools and school districts must have” (appropriate) “plans, policies and procedures” to ensure student safety. KRS 158.442 established the Center for School Safety to provide an agency resource for local schools and districts.”

Summary of major provisions of HB 330 from the Kentucky Center for School Safety website:

- Establishes Center for School Safety
- Requires districts to report school violence/discipline data
- Disseminates grants for alternative education and other safety strategies
- Mandates need assessments (‘98-’99) and district plans (‘99-2000)
- Clarifies district discipline codes
- Requires districts to continue education services to expelled students in inappropriate settings (except in specific cases)
- Allows administrators, teachers, and staff to immediately remove threatening or violent students from classrooms or district transportation
- Obligates courts to notify principals within five (5) days when students are convicted of specific offenses (assault, sexual offenses, firearms/ weapons, and drugs)
- Requires principals to share court information with student’s classroom teachers and bus driver(s)
- Allows local boards to use at-risk student funds to pay a hazardous duty pay supplement to teachers who work in alternative programs serving violent or assaultive students.

In 2013 The Kentucky General Assembly modified Chapter 158 via HB 354 and SB-8. Some of the major provisions are as follows:

- Defines Emergency plans and First Responders
- Requires school principals to adopt Emergency Plans for various causes and furnish appropriate facility diagrams to First Responders. Plans shall be reviewed each year with School Councils First Responders, and staff at the beginning of each school year.

- Requires Principals and staff, School Councils, and First Responders to be responsible for identifying safe zones, emergency egress, and earthquake practices, controlling building access and visitors, and conducting drills for severe weather, earthquakes, and lockdowns as well as currently required for fire.
- Requires Superintendents to report to KDE annually, in compliance with Chapter 158.
- Requires KDE to have local boards review Crime Prevention Through Environmental Design (CEPTED) when constructing new schools or renovating existing schools.
- Requires KDE to develop protocols in the student information system to track student offenses.
- Encourages Chiefs of police and Sheriffs to receive school safety training. “I’ve always advocated Crime Prevention Through Environmental Design (CPTED) as the foundation for school security. This program provides a range of strategies, many of them zero to low cost for securing schools. The core issues are natural surveillance, access control, and territoriality. No amount of engineering, design, or technology is going to prevent a Sandy Hook but CPTED can mitigate the amount of damage. KY schools have worked very diligently on securing facilities and access control as they have incorporated CPTED and training:
 - Can office staff observe approaching visitors before they reach the school entry?
 - Do staff members have the physical ability to stop visitors from entering?
 - How well can people see what’s going on inside the school?
 - Do staff members have immediate lockdown capability in classrooms and other locations?

In response to the tragedy at Sandyhook Elementary School, The American Institute of Architect’s Committee on Architecture for Education has made available on its website a list of resources and reference tools to help architects talk with clients who are asking about what design can do to improve school safety in light of this tragedy. www.aia.org/cae

School Safety and Learning:

In the words of Ken Trump, “Parents will forgive educators, legislators, and others they have entrusted their children’s educational direction to if their children’s test scores go down for a year. They are much less forgiving if something happens to their children that could have been prevented or better managed when it could not be avoided. Children cannot learn and teachers cannot teach to their maximum capability if they are worried about their safety. Education will cease as school communities struggle to manage and recover from a critical incident, and the impact can be both severe and long-term.”

The inference is that good schools; have a positive climate, quality leadership, and inclusive atmosphere with strong community involvement, where communication is open, bullying is not tolerated, and there is a general caring for all students and stakeholders, where staff are intentionally aware of risks at all times, tend to be safer schools. A sense of safety is necessary to create an environment that is conducive to learning and high performance. This is accomplished through careful planning, daily practice, and a total commitment to the safety of our students and all who come and go in the daily routine of education in our public schools.