

UNDERSTANDING SCHOOL SHOOTINGS TO PLAN A SUPPRESSION SYSTEM

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OBJECTIVE

This document provides accurate information on when and where shootings occur inside of school buildings. This information can be used, along with in-house information, to make informed decisions on where to locate interior Assailant Suppression zones.

DATA SOURCES

The data gathered for this white paper comes from a collection of news reports, research for the author's book and witnesses to some of the events. The internet is a rich source of information, but the author is aware that much of what is initially reported comes through the "fog" of a traumatic event. For the purposes of this paper, the author sought multiple reports to confirm the data.

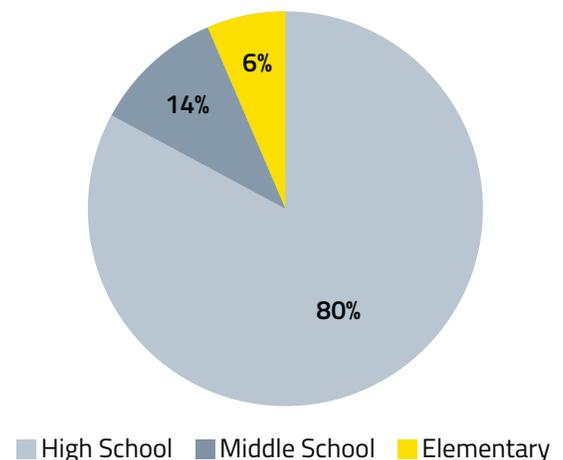
DATA AND ANALYSIS

This paper looks at K-12 school shootings that occur inside of schools or begin outside the front entrances of schools. Shootings occurring in parking lots or playgrounds, suicides, gang-related and drive-by shootings, and those occurring at outside school-related events, while identified as school shootings in some reports, are not included in this paper.

SCHOOL TYPE

- 80% of school shootings occur in high schools, 14% occur in middle schools, and 6% occur in elementary/primary/early childhood schools.
- Elementary school shootings are rare, but extremely tragic and traumatic to the surviving children, community and nation. The shooters are typically adults with mental illness breaching the security measures in place. In the two major incidents at primary schools since 2000, Sandy Hook and Rancho Tehama Reserve, both adult perpetrators started their attack outside of the elementary school, breached the entrances, and continued the attack inside of the facility. In some cases, the shooting is a domestic violence incident with the adult breaching security to attack their victim inside the building.

SHOOTINGS BY SCHOOL TYPE



Assailant Identification and First-Shot Fatalities

- In 18% of the shootings, the first shot was fatal. In 50% of these, the first and fatal shot was the only shot causing a casualty. This information shows the importance of identifying and confronting before or upon determination of the first shot, because in many of the researched cases, casualties after the first shot could conceivably have been minimized with immediate confrontation.
- In the 30% of shootings in the classrooms, over 33% were in the fatal-first-shot category, where the shooter was concealing the weapon until firing on the one and only targeted victim.
- In many of the classroom shootings, the shooter was seen with a weapon before, or as the shooter became active in the hallways before entering the classroom where the victims were trapped. Several, including Red Lake, Sandy Hook and Stoneman Douglas, the shooter remained in the hallway shooting into the hallways and classrooms before entering any classroom. The Santa Fe sequence of events started with the gunman entering a classroom before beginning the rampage. It is unclear if any adult in the Santa Fe school saw the weapon before the shooter became active.

Building Entrances

- Entrances are particularly vulnerable. In all cited cases, the existing access controls were breached by the shooter. In several cases, the shooter began shooting outside of an entrance into the school, including Columbine (shooters avoided front locked front entrances, first casualties outside, shot outside entrance by library), Red Lake (shooter killed two before stealing car and crashing it into the front entrance, then killing the unarmed guard with a shotgun blast), and Sandy Hook (shooter killed his mother, then went to the school, shot outside windows of locked front entrance).
- Shootings starting outdoors did not always continue to the interior of the building. But in some school shootings, including Columbine, Red Lake and Sandy Hook, the shooters made their way into the building, breaching the access controls and continuing their rampage.

Common Areas

- Over 60% of high school shootings occur in the common areas of the school: the entrances, lobby areas, hallways, cafeterias, commons, etc.
- Lobby areas, hallways, and common areas are vulnerabilities in mass shooting incidents. The Stoneman Douglas shooter was seen coming into the building by a security guard and was seen by a student as he took his weapon out of his backpack. He did not start shooting until he was inside the building. He continued to shoot from the hallways into the classrooms.
- After breaching the library entrance, the Columbine shooters roamed the hallways for several minutes before entering the library where most of the casualties occurred.
- The Sandy Hook shooter entered the front office looking for victims and walked up and down the hallway in front of the office, shooting the principal and counselor, before finding an open door to a classroom.

INCIDENT ANALYSIS WITH CROTEGA ASSAILANT SUPPRESSION IN MIND

Using the information compiled on five major school shootings, this section looks at the efficacy of an Interior Assailant Suppression system as a building infrastructure deterrent to the active shooter. This analysis assumes a different outcome if the same event were to occur in the present and the Assailant Suppression system were installed in the entrances and hallways of each facility.

Columbine High School (April 20, 1999, Columbine, Colorado)

The shooters began shooting outside the building. An adult in the hallway by the library saw the shooter before they entered the building. With gunshot detection and trained staff, the Suppression System could have been alarmed and deployed as soon as the shooters entered the side entrance.

Red Lake Senior High School (March 21, 2005, Red Lake, Minnesota)

The shooter rammed a vehicle into the front doors of the school. A security guard was in the vicinity. The system could have been alerted and deployed as the shooter entered through the broken doors. The US Attorney has stated the shooter would not have been able to enter the building if an Interior Shooter Suppression system were in place.

Sandy Hook Elementary School (December 14, 2012, Newtown, Connecticut)

The shooter began outside the locked front entrance by shooting out the windows beside the doors. Upon hearing the shooting, the secretary ducked under her desk and, while the shooter walked in the office and in the hallway killing the principal and counselor, she used the telephone three times from under her desk. If a Suppression System were in place, the system could have been alerted by the gunshots and deployed by the secretary or someone else as soon as the shooter was seen on the touchscreen monitor.

Marjory Stoneman Douglas High School (February 14, 2018, Parkland, Florida)

The shooter was observed by an unarmed security guard entering the school. A student observed the shooter opening his backpack in the hallway and assembling his weapon, telling the student to run. It is undetermined if his first shot was fatal. If a Suppression System were in place, the first shot would have alerted the touchscreen, and, within seconds, upon visual recognition of the shooter, the hallway zones would have been deployed. The shooter would not have been able to continue unimpeded moving throughout the hallways seeking targets as he did.

Santa Fe High School (May 18, 2018, Santa Fe, Texas)

The Santa Fe sequence of events supports having Shooter Suppression in classrooms as well as hallways. In this case, the shooter became active upon entering the art classroom. The first gunshot would have alerted the touchscreen, which would have given school officials visual recognition of what was occurring. Without a method of confronting the shooter inside the classroom, the event continued for more than 25 minutes with many casualties occurring after the first shots.

SUMMARY

Fire sprinklers are code throughout entire structures. You can't predict where a fire may occur. Shootings may occur anywhere in a building, but is it reasonable to put Assailant Suppression throughout the entire building?

This document provides historical information on tragic school shootings as a guide to school officials and installers who are designing protective Interior Assailant Suppression systems. Once size does not fit all, and each school building is unique in its physical and demographic vulnerabilities.

However, using historical evidence of vulnerabilities in the buildings that experienced the worst active shooter incidents, this analysis recommends focusing on entrances and intersecting hallways as a first line of Interior Assailant Suppression in all K-12 buildings. Additional zones of protection can be added as the budget allows.

ABOUT CROTEGA

Crotega employs technology to bring about a safer world. We empower law enforcement, individuals, and building owners to take control with advanced solutions that neutralize active threats while reducing the risks to the user. We aim to make public safety more humane, offer peace of mind, and ultimately, save lives. Learn more at crotega.com.

ABOUT THE AUTHOR

educator who worked in high-risk schools and the author of "The Fatal Link," a book on school shooters.