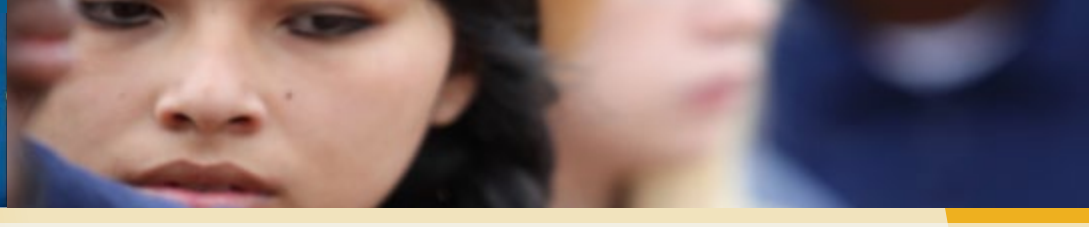


School Safety Monthly

September 2017

Is Your Campus Prepared for a Vehicle-Based Attack?

Photos: Rachel Wilson

Is your campus prepared for vehicle attacks?

by Chris Dorn

This article is based on research for the author's upcoming university textbook "Extreme Violence – Preventing and Preparing for Active Shooter, Active Killer, Hate Crime and Terrorism Events"

One violent trend that appears to be increasing is the use of vehicles as weapons in ramming attacks. While the concept has been around for some time and has been used extensively not only in the Middle East, but periodically in the United States as well, the threat of these types of attack appears to have increased in the United States. Increased security measures and counter-terrorism efforts mean that vehicles are now one of the more available mass casualty weapons for a person with violent intentions. Their innocuous nature also allows closer access to many targets that would be difficult to attack using other types of weapons.

Any location that has pedestrians and does not have heavily restricted vehicle access provides the potential for mass casualties. Likewise, any facility that does not have physical barriers to vehicle access are at risk. In some cases, vehicles could even forcibly enter a school building with minimal effort, where they could then have access to tightly clustered groups of potential targets. The same types of protection measures that can prevent or reduce the effectiveness of a ramming attack can also protect against other risks.

As we have found in previous research, transportation related deaths are statistically more common than any other type of school related death. Between 1998 and 2012, transportation accidents killed more than eight times as many people on K12 campuses as active shooter incidents. These far more statistically common dangers mean that considering vehicle access and pedestrian protection should be already be part of school safety plans. Measures that reduce vehicle accidents or make it less likely that pedestrians will be struck will also reduce the chances or effectiveness of an attack involving vehicles. Examples include vehicle bombs, attacks using a vehicle as a weapon, or attacks using large amounts of people and/or weapons that must be transported to the target.

Unique Risks Posed by School Buses

In addition to the potential for vehicle-based attacks, schools do have additional risks. School buses are relatively easy to access and have the potential to cause great harm if used by the wrong person. In general, school buses are not always as well secured as other large vehicles. Some drivers keep their buses at home and security at many bus garages leaves room for improvement. A school bus being used as a weapon, or used as a vehicle to transport attackers and/or weapons to a school, would likely be able to gain closer access to a target or restricted areas without raising alarm.

All-Hazards Protection Measures

While the variety of attack methods and scenarios described above require a complex approach, there are a few techniques that can reduce the likelihood or effectiveness of a vehicle being used in an attack while also protecting your campus against day to day hazards.

Bollards, high curbs or other physical barriers are some of the more popular ways to protect pedestrian areas as well as school buildings from vehicle-based attacks. Standoff and setback distance are concepts that can be implemented during the design phase of a building or site to protect a facility as well as it's pedestrians.

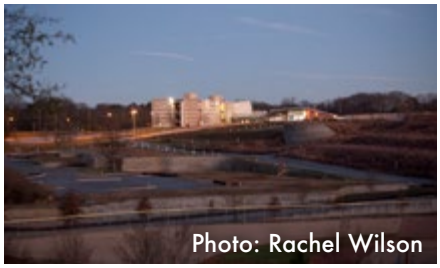


Photo: Rachel Wilson

Standoff distance: The distance between a structure and a physical barrier designed to protect it. Setback distance: The distance between a structure requiring protection and another building, the curb, a vehicle, or another object, but not necessarily a hardened perimeter.

There are also different types of standoff distance: secured and unsecured. Secured standoff usually takes the

form of guard booths, vehicle barriers or other design features that are intended to prevent a vehicle of a certain size and speed from reaching the facility. Unsecured standoff barriers do not fully restrict access but instead use design features to create physical barriers and calm traffic, creating an impression of increased security. These can take the form of landscaping, physical features and other elements that can deter attackers or make it more difficult to carry out a vehicle-based attack simply because access to targets is limited. When used effectively, they also have the potential to prevent or reduce the effectiveness of attacks requiring close access by vehicles. While not a deciding factor, the attacks at Sandy Hook Elementary School in Connecticut and Arapahoe High School in Colorado were each aided by the fact that the attackers were able to park relatively close to the school building, giving occupants less time to detect the danger and react.

While many campuses, such as the two schools mentioned above, do not allow for large standoff spaces, school officials should consider the increased security provided by a large campus that allows security staff to monitor visitors as they park and cross a large open space to access the main entrance when designing new schools. While practical considerations may prevent the application of this concept in full, design elements that draw visitors to a specific parking area can be one way of achieving the same effect.

Photo: Chris Dorn

This high school campus has been cleverly designed so that vehicles cannot access the main entrance without first passing several subtle design features designed to stop or slow a vehicle, including curbs, light posts, plants and columns at the front entryway (not visible in photo). Pedestrians coming from marked Visitor Parking areas must proceed down a large open plaza where they can be observed by office staff as well as occupants of two wings of the building (visible on the right and left sides of the photo). This security measure requires that building occupants be aware of this benefit and practice situational awareness at all times.

If visitors are directed to park in a specific area by signage and design features, and occupants of the facility are positioned so that they can easily observe visitors as they approach the front entry, this makes it easier to detect danger at the front entry. A colonnade, an entry plaza, landscaping or other design features that funnel visitors to the front entryway can be used to enhance this practice if staff or building occupants are positioned so that they can actively and/or passively supervise individuals as they arrive.

These types of design features and practices allow for open access to authorized users and make it more obvious when someone tries to park in unauthorized areas. In the shooting at Arapahoe High School, the school custodian made an emergency call over his radio because it was abnormal for a student to park in the fire lane and spring towards the rear door of the school, which drew his attention to the fact that the student also had a weapon. While this was still not enough warning to allow for all students to make it to safety, the radio call did allow the school to respond and lock down more quickly. While one student was still tragically killed in the attack, the killer's diary

indicated that he planned what was intended to be a mass casualty attack using a shotgun and a backpack filled with home-made incendiary devices. While the basic traffic control concepts discussed above are generally applied to protecting buildings, they can easily be applied to pedestrian areas. By providing limited access on an as-needed basis through the use of gates and removable bollards, large spaces are created where pedestrians can walk without worrying about being struck by a vehicle. These practices can greatly enhance physical security and natural surveillance when applied to entryways, playgrounds and recreational spaces and other sensitive areas where people or buildings must be protected from vehicle-based attacks.

This article contains quotations and research from the Government Services Administration (GSA) publication "Site Security Design Guide" accessible online at:

https://www.wbdg.org/FFC/GSA/site_security_dg.pdf

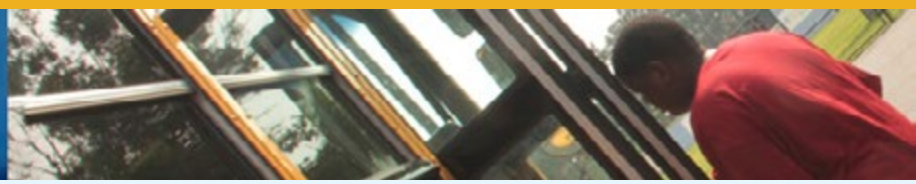
and also as a free download in the free members area of our Safe Havens Document Database.

To access this and other documents and resources, register for a free account at www.safehavenstraining.org.

Chris Dorn is a Senior Analyst with Safe Havens International and co-author of "Innocent Targets: When Terrorism Comes to School".

Whether or not you realize it, you have probably seen Chris Dorn before. With hundreds of thousands of views on the Internet and countless news, talk show and even motion picture appearances, Chris' concealed weapons demonstrations have raised awareness about the problem of weapons in our schools for the past 15 years. His concealed weapons demonstration became a viral video before the term even existed.

With 17 years of experience in school safety research and training, Chris' school safety work has taken him to Vietnam, Canada, Mexico, Holland, France, Bolivia, South Africa and England and he has presented in nearly forty states. Chris has authored and co-authored numerous articles for trade magazines and journals as well as five books on school safety. He recently released his 6th book in print, Staying Alive: How to Act Fast and Survive Deadly Encounters. His 3rd book, Innocent Targets: When Terrorism Comes to School is the foremost text on school terrorism and is in use by countless organizations including FEMA and Department of Homeland Security personnel in all 50 states. He is a frequent guest author and presenter at national conferences and school safety training academies, and he was selected as part of a team to author course content for the Department of Homeland Security as part of the White House 2013 school safety initiative.



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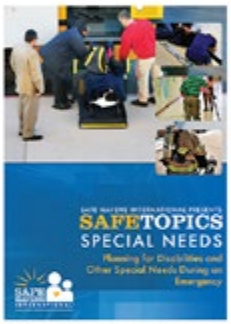

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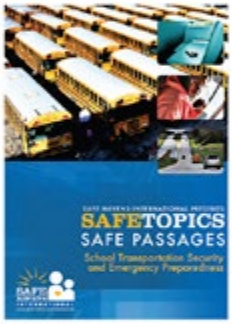

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