School Facility Design Safety Guidance

Introduction

This information is designed to help school districts and architects design safer schools to address active shooter situations. School districts undertaking construction or remodeling projects that are greater than 40 percent of the existing building (by either square footage or value) are required to consider school safety in plans and designs (RCW 28A.335.010(2)). By considering safety in design, school districts are better able to protect students and staff.

The law state that every board of directors, unless otherwise specifically provided by law, shall:

- Consider installing a perimeter security control mechanism or system on all school campuses, as appropriate to the design of the campus, and
- For new school construction projects or remodeling projects of more that forty percent of an existing school building that are initiated after July 28, 2013, consider school building plans and designs that promote:

    1. An optimal level of security for the specific school site that incorporates evolving technology and best practices to protect students and staff in the event of a threat during school hours;
    2. Direct control and observation of the public entering school grounds; and
    3. The public entering the school grounds through as few entrances as possible, such as through the main entrance of a school's administrative offices.

The requirements to consider school districts buildings safety in design does not create any civil liability or cause of action against a school district board of directors, a school district, or the state (RCW 28A.335.010(3)).

Community Coordination

Input and discussion are required by architects to design an effective and safe school that meets the needs of a local school community. It is important to know that community expectations are regarding access to the school, privacy of the students, and use of the school for civic activities. It is also important to coordinate with local law enforcement and other first responders to capture their expertise and provide them with familiarity of the building. To act effectively and timely in an emergency response situation, first responder familiarity with a school building is key.

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Community coordination should include but not be limited to:

1. School staff
2. Parents, including Parents Teachers Association members.
3. Local first responders (e.g. police, fire fighters, emergency medical technicians).
4. Other safety and law enforcement organization, such as Washington Association of Sheriffs and Police Chiefs Policy and/or Washington State Criminal Justice Training Commission.
5. School Security with experience in Crime Prevention Through Environment Design (CPTED).

Elements of Safe School Design

Site Design (site parameters, site access, point of entry)

Use of fences, signs, and good maintenance makes if easier for pedestrians to understand what to do. It also communicates a sense of active ownership that discourages a belief that illegal acts may be committed in the area without concern or consequence.

Fencing: Fences should allow people to see in. Even if built for privacy, fences shouldn't be too tall and should have some visibility. Also, fencing can be instrumental with access control measures. Fencing should encompass and surround as much of the campus as possible to help force foot traffic into a desired access point. Fences should be installed to help egress and they should have gates that can be secured.

Lighting: Lights should be well spaced and working. Alleys and parking areas should also be lit. Lighting should reflect the intended hours of operation (lighting of playfields or structures may encourage after hour criminal activity). Motion-sensing lights provide light when needed and lets trespassers know that they have been seen.

Windows: Windows that look on to streets and alleys provide natural surveillance. These windows should not be blocked. Windows in school front offices should provide visual access of the main entrance, visitor parking lot, and front of building.

Building Design

Design considerations:

1. Perimeter security control mechanism or system on all campuses.
2. Front office designs should be configured in a way that allows for direct control and observation.
3. Limit the number of entrances to as few as possible. Example: Through the main entrance of a school's administrative offices.

General Design

Positive and legitimate activities are encouraged in public spaces, thereby discouraging criminal activity. While this includes removing graffiti and keeping buildings and landscaping maintained, it also refers to small personal touches. More complex design efforts can also make more dramatic changes.

When planning for future growth, consider:

1. Traffic plans that consider the size of the neighborhood. Traffic circles or increasing the size of curbs can help calm traffic.
2. Institutional architecture that respects the neighborhood identity and does not dwarf the current scale of the neighborhood.
3. Clear transitions between private, semi-private, and public areas.
4. Signs that clearly display your address or school name on mailboxes and buildings, in parking areas, or along sidewalks.
5. Parking lot designs that provide visitor lots in the front of the building for easy access for the visiting public and to provide a way to maintain visual contact by front office personnel.
6. Parking lots for visitors, students, and staff in separate areas.
7. Parking lot designs that designate areas for parents dropping off and picking up children that are separate from bus drop off and pick up zones.

Natural surveillance: Purposeful placement of physical features and activities allow people to maximize their ability to see what is happening around then whether inside or outside the building.

Landscaping: Generally, uniformly shaped sites are safer than irregularly shaped sites because there are fewer hiding places. Plants should follow the 3-8 rule; hedges no higher than three feet and tree limbs no lower than eight feet. This is especially important around entryways and windows.

Access control: Access control is a concept directed primarily at decreasing criminal accessibility, especially into areas where a person with criminal intent would not easily be observed. Passive examples of access control include a highly visible gate or entryway which all users of a property must enter. Active examples include appropriate use of door and window locks, security fencing, or similar security barriers. This discourages unwanted access into private spaces, dark, or unmonitored areas. Access control is necessary to keep intruders out, and it directs the flow of people, and decreases the opportunity for crime.

Important elements of access control include, but are not limited to:

1. Door locks
2. Vestiges
3. Fences

4. Technological Access System

Maintenance: The "broken window" theory suggests that one" broken window" or nuisance, if allowed to exist, will lead to others and ultimately to the decline of the entire school. Neglected and poorly maintained properties are breeding grounds for criminal activity.

Emergency response preparedness training: Schools are required to conduct no less than one safety related drill each month when school is in session (RCW 28A.320.125). Schools shall complete no less than one drill using the school mapping information system, three drills for lockdowns, one drill for shelter-in-place, three drills for fire evacuation (in accordance with state fire code), and one other safety related drill to be determined by the school. The occurrence of school shootings across the country has led to increased drills and the development of many emergency response systems.

Emergency response systems: RCW 28A.320.126 states that school districts must work collaboratively with local law enforcement agencies and school security personnel to develop an emergency response system, using evolving technology, to expedite the response and arrival of law enforcement in the event of a threat or emergency at a school.

Types of emergency response systems:

1. Panic or alert buttons – tied to school administration, district personnel, and/or emergency response providers.
2. Live video feed – law enforcement access with direct and school access.
3. Live audio feed – law enforcement access with district and school access.
4. Remote control access to doors.
5. Live interactive two-way communications.
6. Interconnection with Washington State Association of Sheriff's and Police Chiefs (WASPC) rapid responder system.

Resources and Reference Materials

University of Florida School of Architecture, Florida Safe School Design Guidelines: Strategies to Enhance Security and Reduce Vandalism, Florida Department of Education, 2003.
http://www.fldoe.org/edfacil/pdf/fl_ssg.pdf

National Crime Prevention Council, Best Practices for Crime Prevention Through Environmental Design in Weed and Seed Sites, 2009.
http://www.ncpc.org/resources/files/pdf/training/best%20practices%20in%20CPTED%20-2.pdf

Zahm, Diane. Using Crime Prevention Through Environmental Design in Problem-Solving, U.S. Department of Justice: Community Oriented Policing Services, 2007.
http://www.cops.usdoj.gov/publicaitons/e807391.pdf

The OSPI Safety Manual (checklist begins on page 55)
http://www.k12.wa.us/safetycenter/planning/[pubdocs/schoolsafetyplanning manual.pdf

FEMA – School Checklists
http://www.training.fema.gov/EMIWeb/emischool/EL361Toolkit/siteindex.htm#item10

NCEF – School Checklists
http://www.ncef.org/pubs/pubs_html.cfm?abstract=mitigating2

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