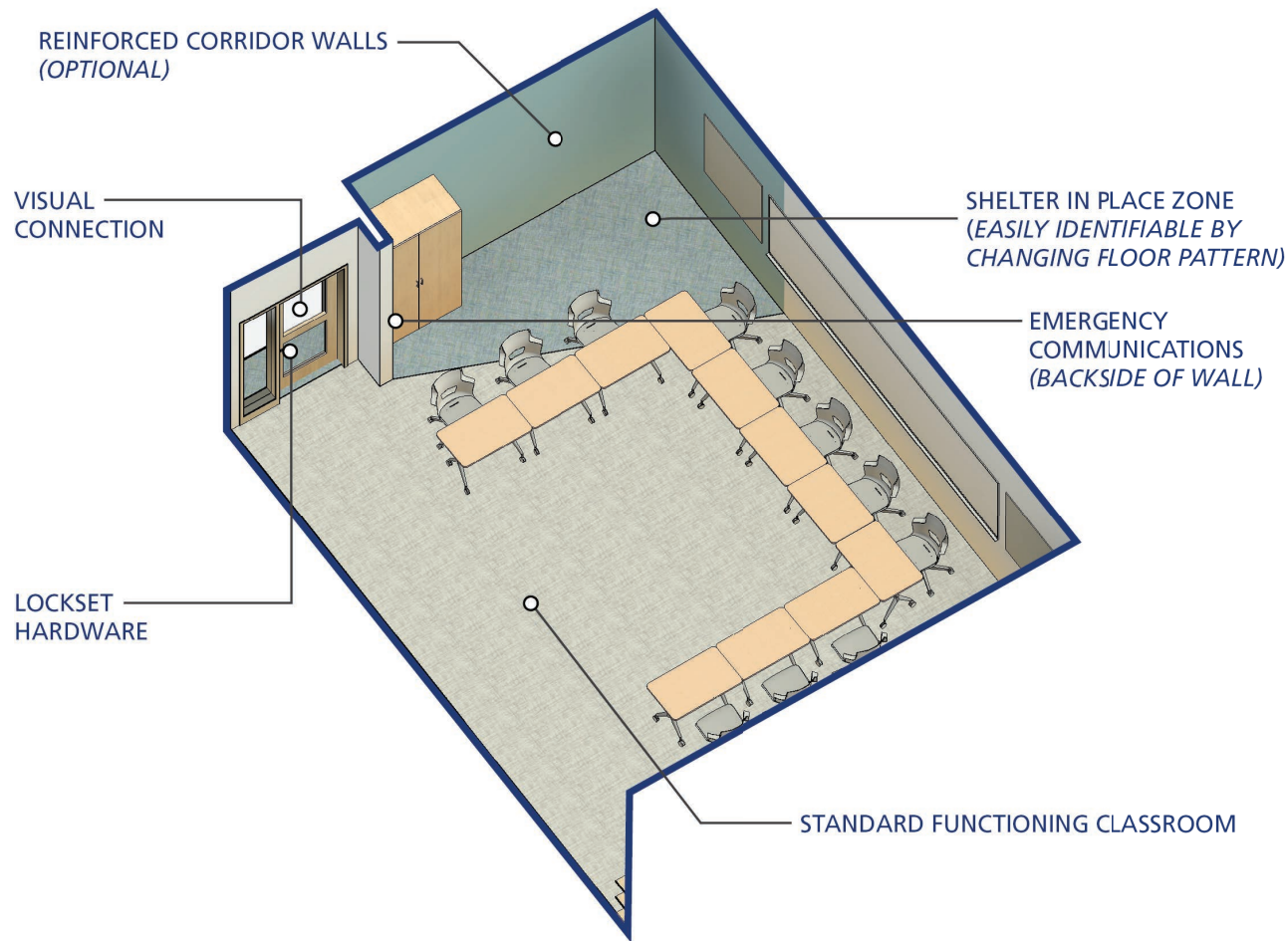# SAFETY AND SECURITY

A guide to creating safe and secure school environments

LAVALLEE|BRENSINGER ARCHITECTS

SECURE AND WELCOMING

We all want to create safe and secure environments where students and faculty can thrive and grow. The following are measures that can be implemented to both promote safety and reduce opportunities for crime on a school campus. A lot of these measures can be implemented into existing facilities at low or reasonable cost. When done correctly, a school can function safely and securely while at the same time allowing the students and staff to feel welcome and comfortable. We believe a school should be an inviting, engaging, community space where the security measures are well thought out, but less visually obvious.
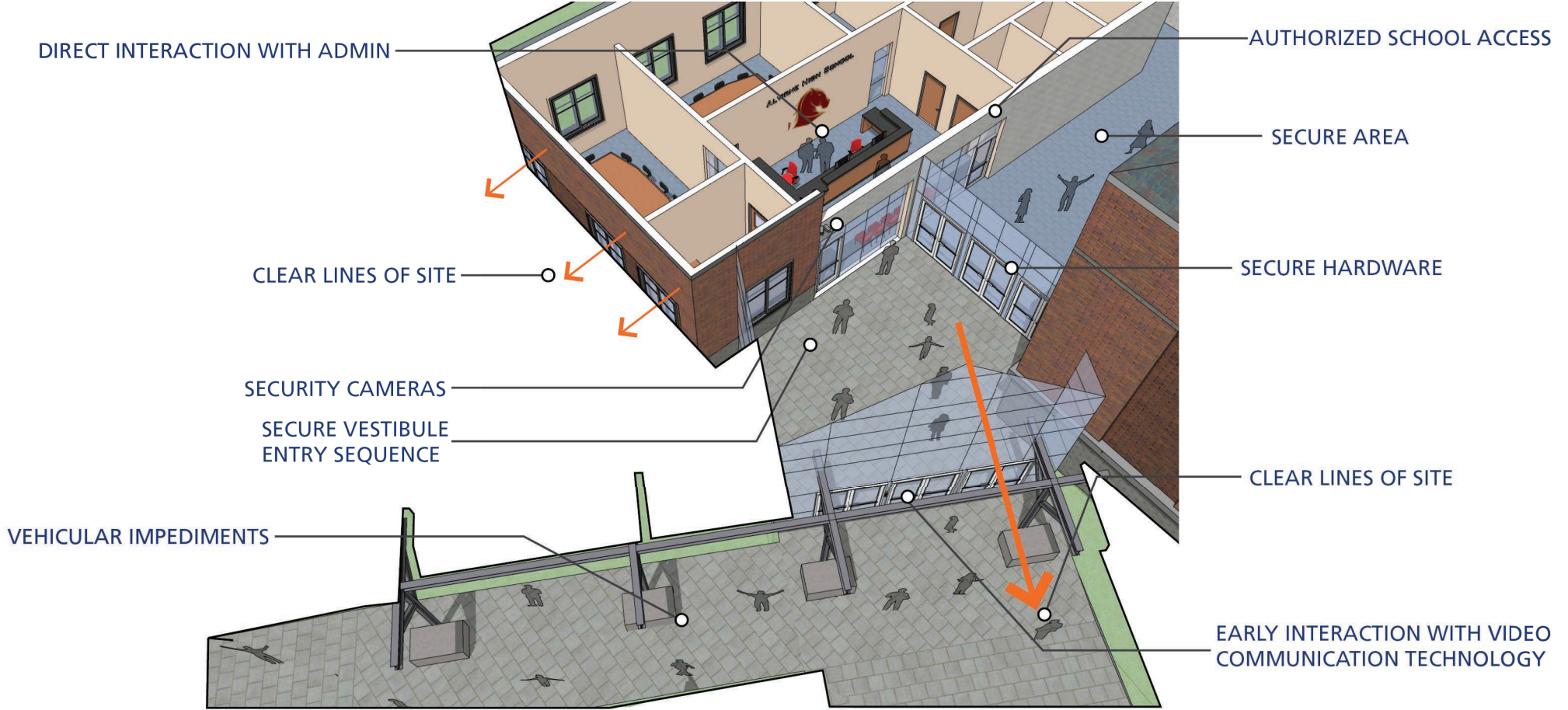
REINFORCED CORRIDOR WALLS (OPTIONAL)

VISUAL CONNECTION

LOCKSET HARDWARE

SHELTER IN PLACE ZONE (EASILY IDENTIFIABLE BY CHANGING FLOOR PATTERN)

EMERGENCY COMMUNICATIONS (BACKSIDE OF WALL)

STANDARD FUNCTIONING CLASSROOM

SHELTER IN PLACE ZONES

Shelter in place is iniated in situations that may require staff and students to shelter in classrooms or work areas[4]. Shelter in place zones should be located in areas outside lines of site from corridors. The **strategic use of interior finishes** and spatial design can create **concealed out of site zones** within student occupied areas so occupants can shelter in place without being seen.

» Student safety and comfort can be achieved by utilizing changes in floor finishes and or accent wall paint to identify areas within the classroom that can be used as shelter in place zones.

» This approach can be implemented into the design of the space, so it doesn't appear to be driven specifically for safety or associated only with safety drills.

» Door vision panels, wall construction type, door lockset hardware, and in-building emergency communication systems are all important aspects in creating an effective shelter in place zone [4].

» Visual connection between spaces enhances supervision of a school, connection between occupants, and promotes safe behavior within a day-to-day setting.

» Creating shelter in place zones with the use of interior finishes can be implemented in new construction or easily applied to existing spaces.

» This is a low-cost solution that improves student and teacher safety.

DIRECT INTERACTION WITH ADMIN

AUTHORIZED SCHOOL ACCESS

SECURE AREA

CLEAR LINES OF SITE

SECURE HARDWARE

SECURITY CAMERAS

SECURE VESTIBULE ENTRY SEQUENCE

CLEAR LINES OF SITE

VEHICULAR IMPEDIMENTS

EARLY INTERACTION WITH VIDEO COMMUNICATION TECHNOLOGY
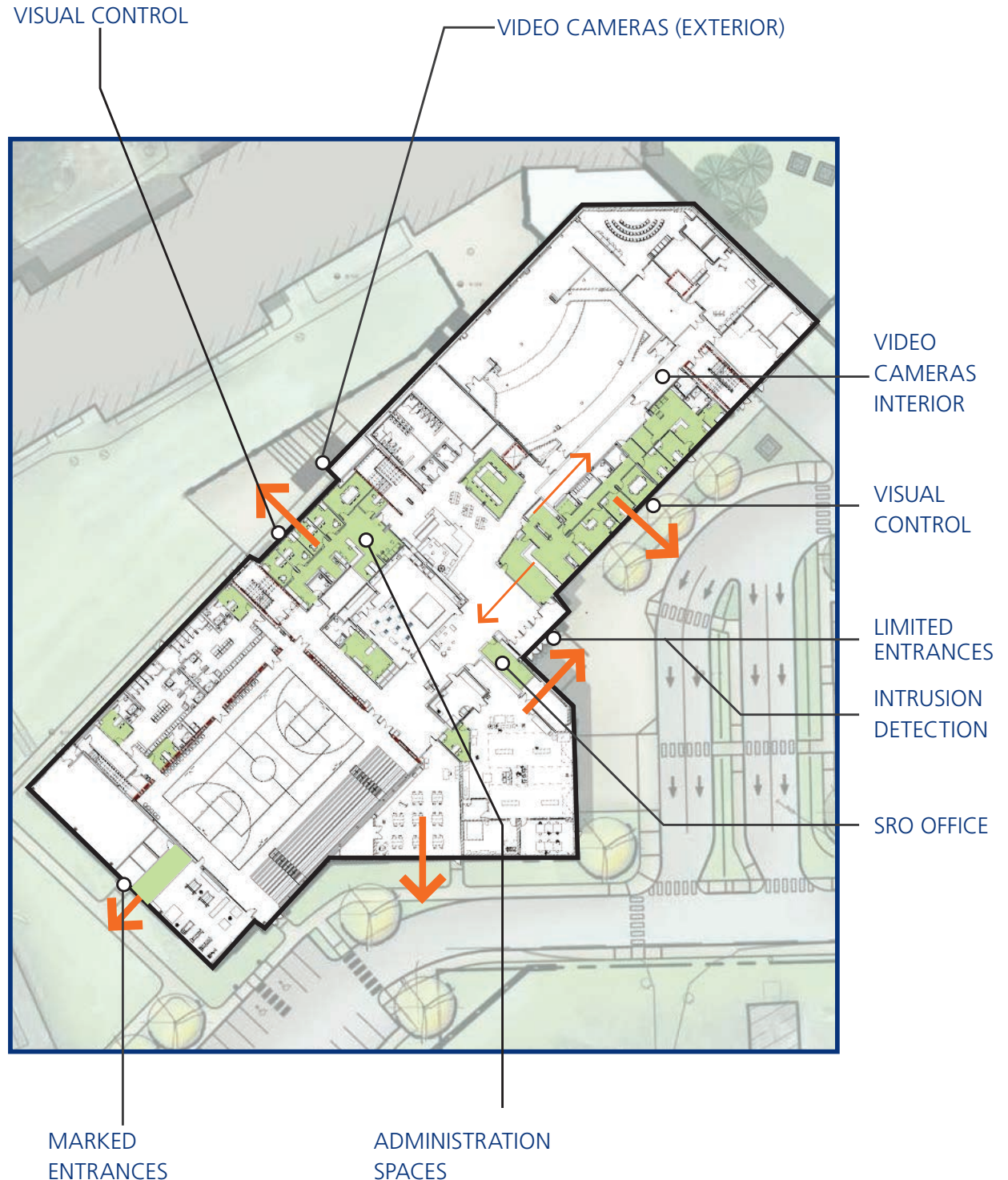
SECURE ENTRY SEQUENCES

A school's **safety and security** can be greatly increased by creating a proper spatial sequence to the main entrance or entrances that **control the flow, path, and engagement** with all visitors.

» When a secure entry vestibule is implemented, a visitor entering the building will be engaged multiple times by administrative staff prior to entering the secure student side of the entrance. First, the visitor will be engaged digitally via video phone before they enter the building. Then, once allowed into the school, they would have access into the reception area only where they will engage with the administrative staff directly.

» This allows staff to assess each visitor individually and actively prevent unwanted visitors from having easy access to the interior of the school.

» Secure entry vestibules should be located directly adjacent to administrative areas so the admin team can provide visual security from the parking area to the front door.

» Large blocks provide vehicular impediments around the entrance and also provide seating for students.

» The main entrance door locks should be set up to automatically unlock during the bell schedule in order to allow students free ingress into the building at the beginning and end of the day.

VISUAL CONTROL / ACCESS MANAGEMENT

Controlling access to school property, buildings, and classrooms is a basic security function for any school. Using signs, well-marked entrances and exits, and utilizing landscaping are ways to improve or limit access to certain areas[2]. Locating administration areas directly adjacent to entrances provides a passive solution to visual security throughout the building and the exterior.

» Strategically located windows can provide visual security to entrances, parking areas, critical infrastructure, and student gathering areas. Allows students to see into the school and also lets them know that others can see them [2].

» Eliminate unsupervised entrances.

» All entrances should be marked with first responder numbering system.

» Video surveillance, intrusion detection systems, and door monitoring devices are all proven methods to increase security.

» Administrative areas are strategically located throughout the school in order to provide visual lines of site to student areas, corridors, and gathering locations both inside and outside of the building.

» Low cost solution that improves student and teacher safety.

VISUAL CONTROL

VIDEO CAMERAS (EXTERIOR)

VIDEO CAMERAS INTERIOR

VISUAL CONTROL

LIMITED ENTRANCES

INTRUSION DETECTION

SRO OFFICE

MARKED ENTRANCES

ADMINISTRATION SPACES

CLASSROOM DOOR LOCK SETS

School safety experts and various government agencies agree that it is essential that all classroom doors can be locked from the inside as a basic protection for occupants in the event of an emergency. Appropriate classroom door lock sets should be considered and implemented instead of secondary locking devices or door barricade devices [3].

Door barricade devices, door blockers, or secondary locking devices should often be avoided for the following critical reasons.

X   These devices can be willfully misused to prevent escape from inside the room and emergency response from the outside [3].

X   Most door barricade devices violate life safety code requirements and violate accessibility requirements under the Americans with Disabilities Act [3].

X   Existing locks or other door hardware can be upgraded at similar costs to most barricade devices and will provide the ability to lock the door from inside the classroom in an effective and code compliant manner [3].

Appropriate classroom mechanical lock sets provide effective lockdown capability in a safe manner. There has been no instance shown in documented active shooter events where the attacker has breached a properly locked classroom [3].
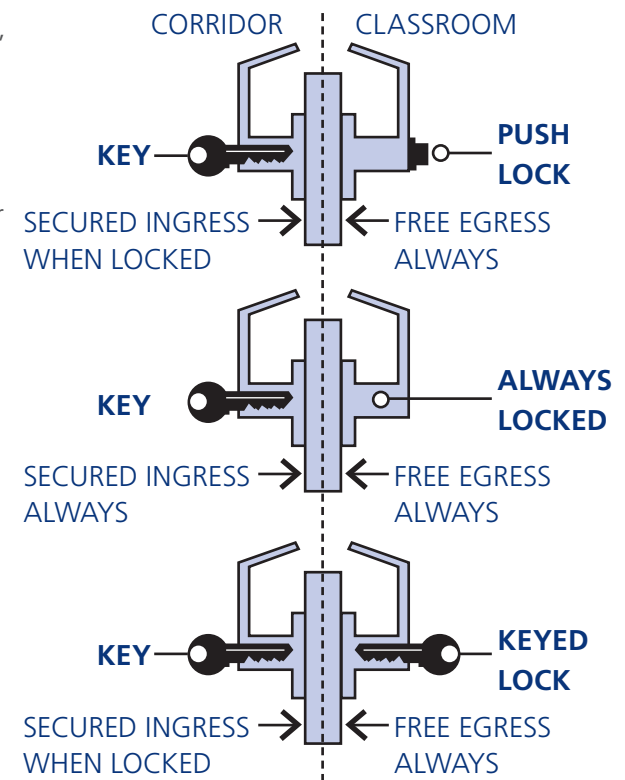
There are several appropriate mechanical lock sets for school settings. The choice among each type should be consider the room's normal occupants, it's intended use, a facilities assessment, and relevant state or local laws[3].

OFFICE FUNCTION LOCK SETS will allow the user to lock or unlock the outside lever by a push button feature located on the inside lever. This is the most common choice and easy to use [3].

STOREROOM FUNCTION LOCK SET has the outside lever locked at all times as a default position. When these doors are closed, they are always locked and do not require further action to secure the door but will always require authorized personnel to open the door from the outside with a key [3].

CLASSROOM FUNCTION LOCK SETS act the same as an office function lock set where the outside lever can be locked or unlocked from the inside lever. The difference is that a key is required to activate the lock function which limits the locking of the door to personnel who have keys [3]

Classroom locks should have the ability to lock the outside lever from the inside of the room, keyed or electronic access from the outside of the room by authorized personnel, free egress from inside the room with a single releasing motion, and a visual indicator to occupants of a locked or unlocked condition [3]..

CORRIDOR   CLASSROOM

KEY   **PUSH LOCK**

SECURED INGRESS →   ← FREE EGRESS
WHEN LOCKED   ALWAYS

KEY   **ALWAYS LOCKED**

SECURED INGRESS →   ← FREE EGRESS
ALWAYS   ALWAYS

KEY   **KEYED LOCK**

SECURED INGRESS →   ← FREE EGRESS
WHEN LOCKED   ALWAYS

*Lighting by itself does not prevent crime but can be used strategically alongside natural surveillance to **control and reduce fear** and reduce or **eliminate the opportunity for criminal activity**[1].*

SITE LIGHTING

» Exterior waiting areas, pathways, parking, exits and entrances, and the entire perimeter of the building are all well lit in order to increase security, confidence, and surveillance[1].

» Properly placed exterior lighting can make the building feel warm and welcoming while eliminating shadows and blind spots for unwanted occupants to utilize[1].

ACTIVITY SUPPORT

Placing high use spaces, or critical infrastructure, in part of the designed surroundings and within areas covered under visual control[1].

» Passive support: Design and locate areas such as common spaces, outdoor classrooms, dining commons, and before / after school gathering areas, so they are appealing and comfortable to use but are located within areas covered by administrative visual control[1].

» Active Support: Schedule events to attract users to these areas. An active place that is enjoyed safely will add value and interest to the space and discourage actions of non-legitimate users[1].

*Applying glazing film to on-grade windows (accessible from the exterior) to **enhance student safety and security.***

GLAZING FILM

» Different films are available to achieve different results. Glazing film can be applied that will slow down forced entry scenarios, while other glazing film can reduce or eliminate visibility into the classroom

» One-way glazing film should be installed on lower level windows and will prevent visual access from the outside while allowing occupants clear visibility from the inside . This will help reduce identifying or targeting scenarios.

» Security glazing film will help deter or delay the ability of an attacker to breach an entrance . The film is transparent and will not negatively impact the visibility properties of the window.

» Glazing film can be applied to new windows during construction or can be applied to existing windows.

» Low cost solution that improves student and teacher safety.

SOURCES

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