CYBERSECURITY AND INFRASTRUCTURE SECURITY AGENCY

K-12 SCHOOL SECURITY GUIDE

COMPANION PRODUCT FOR SCHOOL BUSINESS OFFICIALS

SEPTEMBER 2024

The Cybersecurity and Infrastructure Security Agency (CISA) created this **K-12 School Security Guide Companion Product** to provide School Business Officials (SBOs) with an overview of how they can support school physical security planning and implementation initiatives through the key concepts and principles of the K-12 School Security Guide 3rd Ed. (Guide). It includes information to help SBOs participate in the school security planning process, address core elements of a school's security system and make strategic decisions about security investments and improvements.

By becoming familiar with the Guide's approach to physical security, SBOs can help fulfill an array of duties, including budgeting and allocating sufficient resources for appropriate security technology and tools, measures and personnel; understanding and complying with legal requirements; and communicating effectively about physical security plans with school staff, local law enforcement and emergency services. The concepts of the Guide can help SBOs determine prioritization or appropriateness of investments in security measures and provide risk-based justifications for security improvements, especially when it comes to working within limited budgets and properly advising school and district leadership.

A SYSTEMS-BASED, LAYERED APPROACH TO PHYSICAL SECURITY AND PLANNING

The Guide provides information and guidance on how schools can address targeted violence and crime-related threats by planning for and implementing a systems-based approach to layered physical security. It includes the following key concepts that can help SBOs better understand and participate in their school's physical security planning and implementation efforts:

1. Every school is unique and there is no one-size-fits-all approach to physical security.

2. A systems-based approach to physical security addresses a school's specific circumstances, ensuring protection and mitigation measures complement those that prevent violence and respond to and recover from violent incidents.

3. Taking a layered approach to physical security helps the system work in an integrated way to detect, delay and respond to threats.

4. A layered, systems-based approach to physical security ensures that physical security equipment and technology, site and building design features, personnel and staff, policies and procedures, and training programs work cohesively.

5. Schools should build a multi-disciplinary team that leads the physical security planning process, incorporates the needs of diverse stakeholders and enhances response capabilities.

KEY CONCEPTS IN SCHOOL PHYSICAL SECURITY

A **systems-based approach** means ensuring that various security measures across a campus work together in an integrated way, and that planning incorporates the relevant policies and training programs that must be in place for the entire system to function effectively.

A **layered approach to school physical security** prevents single points of failure within the system. There are four layers of physical security to consider when planning for a school's security system.
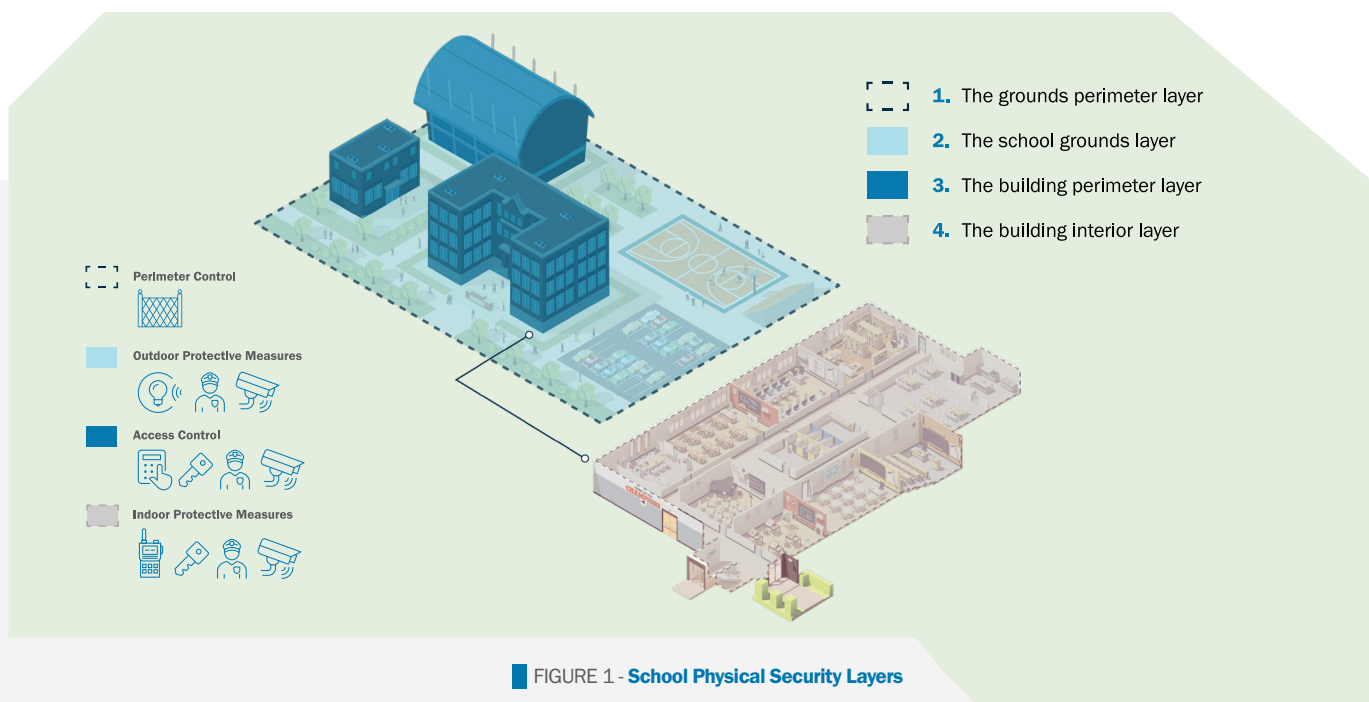
The **physical security planning process** is a six-step process that begins with the formation of a planning team, followed by gathering relevant local data and conducting threat and vulnerability analyses. The last two steps involve conducting a risk analysis, which draws on results of the threat and vulnerability analyses, and the development of a comprehensive security plan that is unique to a particular school.

LAYERED APPROACH TO IMPROVING SCHOOL PHYSICAL SECURITY SYSTEMS

As part of the systems-based approach, SBOs can work with a school security planning team to evaluate how well their physical security system is designed and performs across the various layers of a campus:

1. **Grounds Perimeter Layer**: Outer boundaries of a school, such as perimeter fencing or hedges. Examples of security measures at this layer include perimeter fencing, bollards and perimeter patrolling.

2. **School Grounds Layer**: Athletic fields, parking lots, playgrounds and other outdoor spaces. Examples of security measures at this layer include lighting and surveillance.

3. **Building Perimeter Layer**: Walls, entrances or materials that enclose the inside of school buildings. An example of a security measure at this layer includes notification and public announcement (PA) systems or access control systems.

4. **Building Interior Layer**: Spaces inside school buildings, such as classrooms, offices, cafeterias and hallways. Examples of security measures at this layer include closed-circuit television (CCTV) cameras and other surveillance technologies.

Perimeter Control

Outdoor Protective Measures

Access Control

Indoor Protective Measures

1. The grounds perimeter layer
2. The school grounds layer
3. The building perimeter layer
4. The building interior layer

FIGURE 1 - **School Physical Security Layers**

SBO ROLES IN THE FIVE CORE ELEMENTS OF SCHOOL PHYSICAL SECURITY

SBOs can play multiple roles to build and maintain holistic physical security systems in schools. They are key actors in school safety resource allocation efforts and fundamental in the planning of financial, operational and technical upgrades that may take place in K-12 schools or school districts. SBOs can also determine long-term maintenance and funding requirements, as well as identify other **associated dependencies** (i.e., additional costs or resources required to maintain use of a security measure beyond the initial purchase or installation) that will occur over a lifetime of school safety investments. On the following page are the five core elements that comprise a school's physical security system and examples of how SBOs can play an active role in supporting each area.

1. **Physical Security Equipment and Technology**: Physical or technological measures to improve security such as door-locking features, CCTV and electronic alarm systems in K-12 schools. SBOs can help select, or determine necessity of, integrated and appropriate security technology for their institution by developing a layer-by-layer trade off analysis and comparing the life cycle maintenance, costs and impact of each piece of equipment. SBOs can also advise school leaders on whether funding is necessary and if so, how to best fund the use of appropriate security technology and equipment as one component of a holistic approach to maintaining a safe school environment.

FIGURE 2 - **Core Elements within the School Physical Security System**

2. **School Security Personnel**: Human elements and efforts to secure schools, including school security planning teams, patrols and visitor access management. SBOs can advise on hiring personnel or school staff to patrol the school perimeter. SBOs can also oversee the human resources required to operate a school's physical security system and convene teams across functional operations of the school to promote a community-based approach to school security.

3. **Security Policies and Procedures**: Plans that determine how personnel, equipment or technology integrate and operate within a school's physical security system, such as policies on how to monitor entry areas and CCTV video feeds. SBOs may advise on the development and implementation of security policies and procedures, using their knowledge of school operations, legal requirements and other administrative considerations. SBOs must verify that their institution adheres to legal, privacy and civil rights standards, as well as complies with applicable school and occupational safety standards.

4. **Site and Building Design**: Building designs and campus features that incorporate school safety measures, such as access controlled entrances, open sight design to enable surveillance or rapid emergency egress points. SBOs can oversee the budgeting, implementation, purchase or design of infrastructure and building improvements. SBOs also advise on procurement decisions, such as incorporating landscaping (such as hedges) to direct foot-traffic into controlled areas and determine the affiliated capital, planning, operational and management costs.

5. **Training, Exercises and Drills**: Tabletop exercises, staff trainings and developmentally appropriate drills help schools review and update their emergency response procedures. SBOs can determine training costs for staff who are asked to patrol the grounds perimeter, perform door checks around campus, monitor implemented technology systems or assist with access control procedures. If those managing the systems do not have required knowledge and skills, the successful implementation and sustainment of those systems may be dramatically reduced.
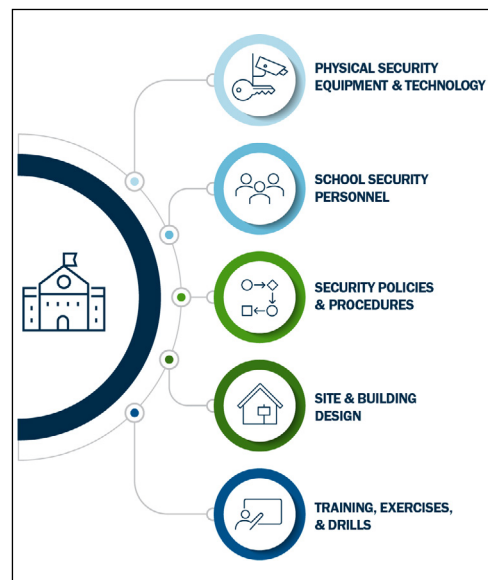
CISA Regions

Across the nation, CISA offers a range of cyber and physical services to support the security and resilience of critical infrastructure owners and operators and state, local, tribal and territorial partners, including K-12 communities. Within each CISA Region are local and regional **Protective Security Advisors (PSAs)** and other CISA resources that can assess, advise and assist, and provide a variety of risk management, response services and technical assistance.

To reach out to a regional office, find contact information on CISA.gov: cisa.gov/about/regions.

THE SCHOOL PHYSICAL SECURITY PLANNING PROCESS

The physical security planning process is a six-step process (see Figure 3) that school officials can follow to plan for school security-related improvements on a regular basis. Planning is a whole-community effort that benefits from inputs from a school's operational and functional departments. SBOs can engage in this six-step process to aid K-12 administrators in developing and implementing holistic school security systems.

STEP 1.

FORM A PHYSICAL SECURITY PLANNING TEAM

Identify and include relevant school staff and stakeholders, such as community organizations, local law enforcement, and families.

STEP 2.

GATHER RELEVANT LOCAL DATA

Gather local data about safety incidents at schools and the consequences of such events.

STEP 3.

THREAT ANALYSIS

What types of safety incidents are a concern for a school, and how likely are they to occur?

STEP 4.

VULNERABILITY ANALYSIS

What safety and security measures are already in place at the school?

STEP 5.

RISK ANALYSIS

What are the potential consequences of each of the identified safety incidents based on the security measures in place at the school? How do security measures reduce risk? What risk remains?

STEP 6.

CREATE A SECURITY PLAN

Which of those remaining risks are a concern, and what are the most practical and effective additional safety and security measures to address them?

SOURCE: Adapted from **Steiner et al., 2021.**

FIGURE 3 - **Physical Security Planning Process**

EXAMPLES OF SBO ACTIVITIES WITHIN THE PHYSICAL SECURITY PLANNING PROCESS

While SBOs' roles may vary by school district, SBOs can support physical security system planning through activities such as:

Physical Security Planning Step	Examples of SBO Support
Step 1: Form a Physical Security Planning Team	SBOs may help identify personnel who can speak to multidisciplinary topics on school safety, clarify the relevance of assessment results to financial planning, and provide recommendations for new investments in trainings and security details. By leading resource planning efforts for financial, operational and technical considerations needed to improve safety within their district, SBOs contribute to the formation of physical security planning teams in schools.
Step 2: Gather Relevant Local Data	By leading, gathering and preparing relevant financial and operational data, such as administrative, maintenance and division-level budget records to help inform the threat analysis process, SBOs can serve as advisors to other school administrators and leaders. This can include recommendations for physical security investments and the formation of school security plans, as well as how those improvements can be funded.
Step 3: Threat Analysis	SBOs may assist in a threat analysis process by providing historical data to ensure that security planning is considering realistic and likely events that may impact K-12 schools. Using the assessment results, SBOs help make decisions on where security upgrades should be made in the school to maintain long-term operationality. SBOs should seek the guidance and counsel of local first responders and emergency management officials when conducting the assessment.
Step 4: Vulnerability Analysis	SBOs can support the examination of existing security measures in place by determining long-term maintenance and funding requirements and identifying other associated dependencies that will occur over the lifetime of a school safety investment. SBOs can further enhance this process by identifying personnel or financial resource gaps, and assessing possible improvements based on planning team recommendations.
Step 5: Risk Analysis	SBOs can engage superintendents and school board members in discussions about risk management, policy implementation and personnel trainings for school security policies. In turn, SBOs can offer insights into risk analysis by contextualizing security impacts in terms of financial or legal impact, as well as recommend how to monitor risk and provide updates on a regular basis.
Step 6: Create a Security Plan	SBOs can serve as advisors on financial, legal and operational elements of a school's security plan and help determine how each division of the school will review, exercise or update their portion of the plan, as well as oversee the financial metrics associated with plan implementation. They may also recommend investments based on feedback from security experts—such as CISA's PSAs and other security advisors, as well as Sector Risk Management Agency resources—to support improvements where gaps are found in the holistic school physical security plan.

TABLE 1 - **Examples of SBO Support to the Physical Security Planning Process**

Evaluating their own role in school physical security planning can help SBOs assist and lead other education stakeholders in implementing holistic school security system plans to prevent physical security threats from causing harm.

DETECT, DELAY AND RESPOND: STRATEGIES TO SUPPORT PLANNING PROCESS

In addition to taking a systems-based approach to physical security (as shown before in Figure 3), the Guide recommends that holistic school safety plans incorporate **detection, delay and response strategies** to better address threats at specific layers of a school campus (see Table 2).

» **Detect:** Measures that communicate that a safety-related incident is occurring or about to occur. Examples include monitored CCTV, security guard patrols and open-sight designs that allow for natural surveillance.

» **Delay:** Measures that increase the level of effort, resources and time necessary for a safety-related incident to occur. Examples include fencing, reinforced windows or doors, staff patrols and automatic lock mechanisms at facility entrances.

» **Respond:** Measures that seek to overcome a threat or limit the damage caused by a threat. Examples include security guards, communication and notification equipment, and first aid kits.

Each measure may come with potential tradeoffs or associated dependencies. For example, some measures might be expensive to purchase and install, while others might require additional investments by school staff who may have limited time or resources. SBOs can consider tradeoff strategies to mitigate these risks by evaluating vulnerabilities in the risk assessment, drills and trainings, as well as potential noncompliance hazards regarding school security policy. Below are examples of some tradeoffs SBOs might encounter when considering various security improvements.

	Security Layer	Example Measure	Associated Dependencies	Potential Tradeoffs	Mitigating Tradeoffs
Detect	» Ground Perimeter	» Staff or security personnel patrolling school perimeter	» Policies requiring patrols at specific times of day	» Additional demands placed on school staff	» Implement rotating shifts to spread out responsibilities
	» School Grounds	» Grounds Lighting	» Staff or CCTV monitoring lighted areas	» Additional costs or maintenance associated with lighting	» Consider more efficient LED lighting
Delay	» School Grounds	» Staff or security personnel patrol school perimeter	» Policies on appropriate delay procedures » Training on policies	» Additional demands placed on school staff	» Implement rotating shifts to spread out staff responsibilities
	» Building Perimeter	» Automatic locks on exterior doors	» Policies mandating doors be kept closed	» Could delay entry of emergency personnel during emergencies	» Issue master key to local law enforcement & fire department
Respond	» Building Perimeter	» School-wide PA system or intercom	» Policies outlining appropriate response protocols » Training on policies	» School-wide intercom may be impractical for schools with many buildings	» Consider long-range radios for staff to ensure reception of community-wide announcements
	» Building Interior	» Signage	» Policies specifying response protocols » Training in response protocols	» Not readable by younger students and/or students not proficient in English	» Include bilingual signs » Conduct age-appropriate response training with younger students

TABLE 2 - **Tradeoff Analysis: Measures to Detect, Delay, Respond to Physical Security Threats**

To mitigate potential tradeoffs, as shown in Table 2, SBOs can take into account these types of considerations and their expertise in impact analysis to make an informed, appropriate decision for an individual school's circumstances.

TOOLS TO SUPPORT SCHOOL PHYSICAL SECURITY PLANNING

The following section highlights two tools available to SBOs to help them support efforts to improve school physical security and safety.

ASSESSING YOUR K-12 ENVIRONMENT: THE K-12 SCHOOL SECURITY ASSESSMENT TOOL

SBOs can use this companion product and the Guide in conjunction with the School Security Assessment Tool (SSAT), a web-based vulnerability assessment tool that provides further guidance on school physical security planning and implementation. This tool enables schools to take stock of current security measures in place across their campus and offers suggestions about where to make improvements in their school physical security system. The SSAT is portable and works on mobile devices, so SBOs, planning teams and other school administrators can navigate the assessment together during walkthroughs of the school grounds to guide planning discussions and record current security measures.
The SSAT provides recommendations based on five steps:

1. Detailing the physical layout and features of the school campus.

2. Choosing a scenario to help detect gaps in the school's security system relating to that specific incident.

3. Providing information about existing safety and security measures.

4. Answering questions about school policies and confidence levels of security measure performance.

5. Receiving results with specific physical security recommendations about a set of vulnerabilities that could be considered for implementation.
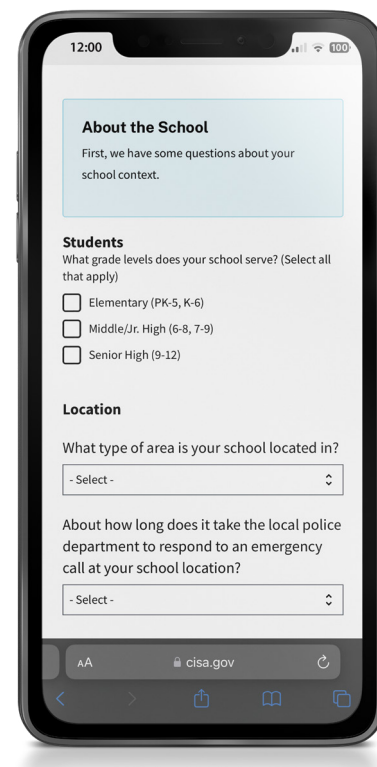

FIGURE 4 - **SSAT Mobile Interface**

SSAT Benefits for SBOs

Because each school campus is unique, SBOs can use the SSAT to customize the layered, systems-based approach to support the individual needs of a school, regardless of geographical context or level of maturity when it comes to the school security planning process. In addition to providing physical security improvement options, the SSAT results also include an estimate of how costly the recommended improvements would be to implement and trade-off considerations for the impact these measures might have on school climate. The results of the SSAT can help SBOs:

» Evaluate gaps in the school security system and determine prioritization or appropriateness of funding for security improvements;

» Identify and analyze short and long-term strategies for enhancing safety and security; and

» Prioritize and oversee the planning and implementation of a preventive maintenance program for security equipment and building operational systems.

SBOs can also work with their school's security planning team to evaluate the results of the SSAT on an annual basis and discuss potential improvements with the broader school community.

FINDING FUNDING FOR SCHOOL SECURITY IMPROVEMENTS: THE SCHOOLSAFETY.GOV GRANTS FINDER TOOL

The SchoolSafety.gov Grants Finder Tool is web-based tool that can assist schools and districts in finding school safety and security funding opportunities. The tool serves as a comprehensive repository of existing federal grants and funding opportunities available to the K-12 community. It is also a decision-making support tool to help schools determine the eligibility and applicability of grant programs for their specific needs, challenges and characteristics. Through the tool, users can also choose to be notified when a new funding opportunity is added to the tool or a grant program's application period opens.
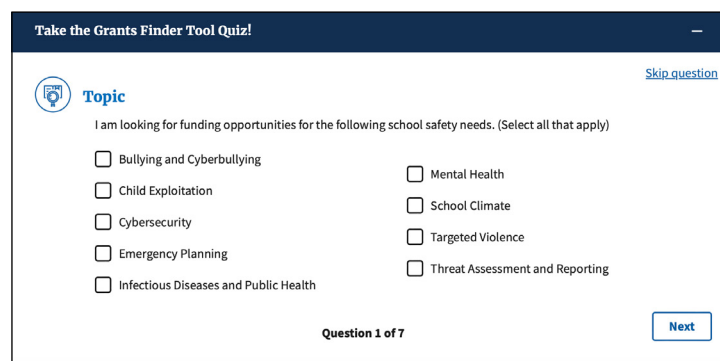

FIGURE 5 - **Filtering the SchoolSafety.gov Grants Finder Tool by Topic Area**

Grants Finder Tool Benefits for SBOs

SBOs are tasked with leading efforts to find funding for school safety improvements and new measures to secure their schools and districts. Once those vulnerabilities are identified through tools such as the SSAT, SBOs can identify appropriate sources of funding for those security measures. The Grants Finder Tool empowers SBOs to identify potential federal grant opportunities and easily access funding based on school safety topic, type of grant program, funding agency and other criteria.

ADDITIONAL INFORMATION AND CALL-TO-ACTION

CISA provides additional trainings and resources within the K-12 School Security Guide Product Suite that can help support school physical security planning and implementation efforts.

» K-12 School Security Guide: Provides a comprehensive doctrine and systems-based methodology for vulnerability assessment, planning and implementation of layered physical security elements.

» Guide Training Companion Course: Helps end users understand what physical security looks like in K-12 schools.

» Train the Trainer Companion Course: Provides those advising school security personnel with an overview of the K-12 School Security Guide Product Suite.

» SSAT: Walks users through a tailorable, web-based vulnerability analysis and provides results and recommendations that can be integrated into a school's existing safety and security plans.

» SSAT How-To Video and User Guide: Describes key features of the SSAT and tips about how to easily navigate through the tool.

FIGURE 6 - **CISA K-12 School Security Guide Product Suite**

OTHER HELPFUL RESOURCES

CISA and its partners offer the following resources, programs and tools to help SBOs and other school personnel develop individualized school safety plans that prevent, protect against and mitigate security threats, risks and emergency situations.

» CISA School Safety: A collection of CISA's programs and capacity-building products, training and tools specific to strengthening protection and mitigation measures and capabilities in K-12 schools.
» CISA Security Advisors: A cadre of local and regional personnel who can provide a variety of risk management and responsive services.
» SchoolSafety.gov: A collaborative, interagency website created by the federal government to provide schools and districts with actionable recommendations to create safe and supportive environments for students and educators.
» SchoolSafety.gov Grants Finder Tool: A repository of school safety-related federal grants that provides members of the K-12 school community with a variety of ways to search for and access funding opportunities.
» SchoolSafety.gov State Search Tool: A tool that enables schools to locate and access state-specific school safety resources, programs, contacts and opportunities.

WHAT YOU CAN DO NEXT

» Download the Guide to further explore concepts in this companion and access additional action-oriented physical security practices.
» Utilize the SSAT to identify ways to improve physical security and prioritize future enhancements.
» Work with other school administrators, leaders and staff to build upon school safety plans.
» Coordinate with regional experts, like CISA Protective Security Advisors, who can assist with security assessments.
» Access the SchoolSafety.gov Grants Finder Tool to locate funding opportunities that can support physical security initiatives and enhancements.
» Explore additional trainings including the K-12 School Security Guide Companion Courses.
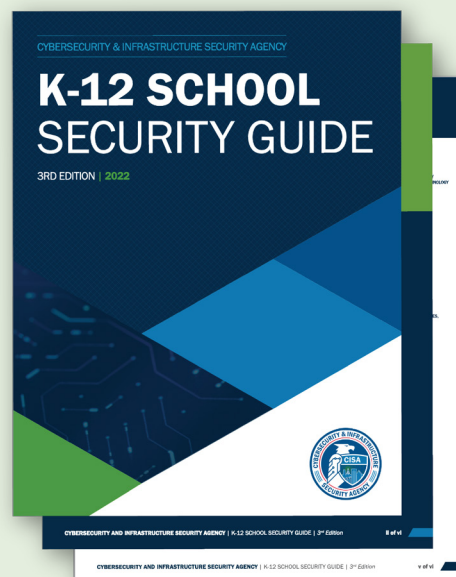» Leverage additional school security resources that expand on physical security best practices.

FIGURE 7- **K-12 School Security Guide, 3rd Edition, 2022**

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