



Proactive Design Strategies for Safer Schools

by Brian Buckner, AIA, ALEP, LEED AP, RossTarrant Architects, a MOREgroup Company

Balancing Safety and Learning in School Design

As school designers, planning for safety and overall occupant wellbeing presents a unique challenge: How do we protect students without compromising the core mission of education? While it may seem contradictory to integrate welcoming, warm and engaging environments with hardened security strategies, both priorities can be successfully achieved through a holistic design approach.

Historically, school safety efforts have focused on reactive design strategies — measures that help schools respond to crises *after* they occur. These include secure entry processes, access control systems, shelter-in-place protocols and emergency communication networks. Kentucky schools have made great progress in this area. According to the Office of the State School Security Marshal's (OSSSM) 2023–2024 Annual Report, 99.1 percent of schools in Kentucky now meet statutory safety requirements.

With this foundation of compliance in place, the question becomes: How can school facilities be designed to prevent problems before they arise?

Designing for Prevention: The Value of Proactive Strategies

Proactive design strategies prioritize the prevention of conflict, crisis and unsafe conditions by improving visibility, fostering positive social interactions and deterring harmful behavior. These solutions emerge

from close collaboration between designers, school districts and safety officials such as the Kentucky Center for School Safety (KCSS) and OSSSM.

Through open dialogue during the design process, teams can align priorities and understand how spatial decisions impact both safety and educational outcomes. One message has been made clear: Proactive design leads to healthier, safer learning environments.

Three Primary Proactive Design Strategies:

1. Crime Prevention Through Environmental Design (CPTED)

CPTED provides a framework of physical design principles proven to reduce crime and undesirable behavior. In schools, it's applied in the following ways:

Natural Surveillance

Spaces with clear sight lines allow students, staff and visitors to be easily observed — inside and outside. This includes open stairwells, intentional corridor design and strategic window placement. Visibility deters misbehavior and enables quick intervention.

Access Control

While exterior door control is now standard, layered interior control is emerging as a next step. This might include additional corridor doors before classroom wings or learning neighborhoods. Kitchens, often overlooked, are a common point of unauthorized entry. Automated door position switches can alert staff if a door is propped open.

Circulation Design

According to KDE's Safe Schools Report, hallways and stairwells are the most common sites of behavioral issues outside of the classroom. Designing wider, well-lit hallways with good visibility and reducing bottlenecks in circulation routes can reduce conflict and improve supervision.

2. Fostering a Positive School Climate Through Design

A school's environment has a direct impact on student mental and emotional safety. When spaces support belonging, inclusivity and calm, students are more engaged and safer.

Smaller Learning Communities

Reducing the size of classroom areas into groups of around 150 students (six classrooms) allows for smaller, better-connected communities of students within the school.

Collaborative and Flexible Spaces

Providing areas for group work, quiet study or informal gatherings encourages student interaction and inclusion.

Warm, Welcoming Aesthetics

Access to natural light, soft materials and a warm color palette creates spaces that feel safe and inviting. According to KCSS, bullying and harassment remain the most common behavioral

violations in Kentucky schools. Design that reduces stress can help combat this trend.

Environmental Branding

Incorporating school logos, mottos and mission statements into interior design reinforces identity and pride. These low-cost elements can have a significant impact on culture.

Celebrating Student Work

Showcasing art, academic projects and research helps students feel seen — especially those not engaged in athletics or traditional extracurriculars.

Distributed Access to Staff

Strategically locating counselors, administrators and support staff throughout the building makes adult presence visible and accessible, which is key to early intervention and connection.

Inclusive Design

Facilities must reflect the needs and identities of all students through physical accessibility, cultural representation and opportunities to participate and succeed.

3. Integrating Technology to Enhance Safety

While design can shape behavior, technology helps monitor, communicate and respond when threats

arise. The latest tools extend both proactive and reactive safety capabilities.

Surveillance and Detection

Modern video surveillance covers entrances, corridors, stairwells and parking lots — both deterring behavior and aiding investigations.

Emerging tools include:

- Weapon detection AI: Omnileet AI, ZeroEyes AI
- Walk-through threat detection: Evolv, Xonar AI
- Facial recognition and license plate readers: Used to monitor campus access

Wearable Alert Systems

Platforms like Centegix equip staff with panic buttons that provide location-specific alerts and trigger lockdowns if needed, reducing response time.

Automated Access Control

Districts are now implementing electronic lockdown panels, often located at reception and/or in the SRO office. These can initiate custom lockdown sequences, secure exterior entries and create interior barriers.

Conclusion: Safer Schools Through Smart Design

Safe schools are about more than hardened entries and emergency plans. They're about belonging, trust and prevention.

A well-designed school doesn't just protect — it nurtures. It offers places to gather, decompress, collaborate and thrive. It fosters connection between students and adults. It helps students feel seen.

The safest schools are those where students want to be.

By blending proactive strategies with a commitment to learning-focused environments, we can create schools that are not only secure, but inspiring. 🌐

About the Author



Brian Buckner is an associate and senior project architect with a passion for designing future-focused educational environments that inspire excellence. As an Accredited Learning

Environment Planner (ALEP), Brian is committed to helping Kentucky school districts design facilities that support students and educators and offer the flexibility to evolve to meet changing educational needs. Brian is a member of the Kentucky Chapter of A4LE and currently serves on the KASA School Safety Council, to which he lends a unique perspective and insights into how buildings can be designed to support strong school cultures and keep students safe.

VAPE DETECTION

RADIO COMMUNICATIONS

VIDEO SECURITY & ACCESS CONTROL

MASS NOTIFICATION

ERS WIRELESS SCHOOL SAFETY & SECURITY SOLUTIONS

MOTOROLA SOLUTIONS
PLATINUM CHANNEL PARTNER

QVIGILON PARTNER ELITE

ALLEGION

evolv

www.erswireless.com