

K-12 EDUCATION BEST-PRACTICE CONSTRUCTION SAFETY STRATEGIES



Plan Carefully, Communicate Effectively, Adjust when Necessary

When schools undergo renovations or expansions, meticulous planning and follow-through are necessary to ensure the safety of students and staff. In addition, work must be completed in a way that does not disrupt classes and other school activities. This white paper provides details and examples of how safety is successfully delivered.

UNDERSTANDING THE NEED

Many U.S. schools built in the 1950s, 60s and 70s are realizing the critical need for renovation and expansion to meet today's demands on the learning environment and to maintain the highest educational standards. In addition, a portion of the current construction need in the Kindergarten through 12th grade arena is being undertaken to make schools safer for students, teachers, staff and guests.

This type of specialized construction work requires meticulous planning and follow-through to ensure the safety of students and staff and to prevent any disruption of the learning environment during the construction process. Some of the required steps are obvious, such as providing appropriate physical barriers between construction activity and learning spaces. But achieving success on K-12 projects requires dedication, a safety-focused attitude, proactive communication and thought processes that align with best practices.

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PLANNING FOR SAFETY SUCCESS

Safety in construction begins with a well-thought-out safety and logistics plan focused on protecting students and staff. This plan should consider risk management throughout the entire construction phase starting at mobilization on the job site through closeout and commissioning at the end of the project. Crucial components of the safety and logistics plan include:

SAFETY TRAINING

All workers on the job site should be made aware of the plan and educated on how it impacts their

responsibilities to maintain a safe job site. This is often accomplished with an online safety training or a safety briefing conducted on the job site by Occupational Safety and Health Administration (OSHA) certified safety experts.

Construction workers on site also should be trained in what they should do if there is an emergency incident that threatens safety, such as a report of an active shooter and resulting lockdown.



Once workers complete the safety program, each should receive a customized sticker to wear on their hard hats to make it apparent who has received the training.

Another aspect of safety training is to ensure all workers associated with the construction project wear proper identification. Every construction employee on the school site should be issued a badge with photo identification, and the vehicles of construction employees should clearly display decals that indicate they're supposed to be there. The activity and associated challenges of an active construction site are unavoidable however, proper precaution, i.e. security badging, will go a long way toward ensuring only approved personnel have access to the job site, as well as the school campus.

LOGISTICS PLAN

A key aspect of safety on a construction site is the careful routing of construction-related traffic. Determining where trucks and equipment will enter or leave a job site, as well as the time of day traffic moves in and out of the construction zone should be determined prior to mobilization on the site. Ideally, construction traffic should not occur when students, families and staff members are going to and from school.

Finally, an effective safety and logistics plan should be used as a living document that is adjusted whenever necessary in order to better serve the school, students and staff.

According to Brad Oliver, who has served as an owner's representative for more than 10 projects for Kansas City Kansas Public Schools, "A detailed safety plan that encompasses all of a school's needs is an essential document to have at the start of a project. However, it is also critical that a safety plan is reviewed regularly—even daily if needed to ensure proper safety. When circumstances arise that require the safety plan to be modified, it should always be completed in conjunction with school personnel."



RAPID MODIFICATION

At the jobsite of Hazel Grove Elementary in Kansas City, Kansas, the McCownGordon team noticed students were coming and going from school using a path that had not been previously noted by school personnel. The team immediately notified the school staff and helped to redirect the students while a new, safe walking path was created. A new path was in place and clearly communicated to staff, students and parents in less than 48 hours.

The site-specific logistics plan should always ensure distinct separation between all construction activity and the public in all circumstances.





THE ROLE OF TRADE PARTNERS

Most projects involve a host of trade partners. An effective construction manager works diligently with each trade partner to deliver the best possible results; the practice of safety is no exception. The construction manager must hold trade partners accountable and make sure they adhere to all plans and specified procedures on a day-to-day basis. For example, if an added safety precaution is needed for a specialized install, it is the construction manager's job to ensure the subcontractor is first educated, and then performs under those expectations.

When a trade partner agrees to perform work, he assumes responsibility for complying with the safety standards. The prime contractor or construction manager should have joint responsibility to ensure he is held accountable.



EDUCATION + ACCOUNTABILITY



COMMUNICATING WITH STUDENTS, STAFF AND PARENTS

Any successful construction project requires excellent communication; this is especially true in K-12 projects when the population impacted includes some of the most vulnerable of constituents—children. This includes communicating with students and staff to tell them how the project will impact them. For example, students must be told if they will need to walk a different route to school or a different route to the playground, and which door to use in case of an emergency. When working on K-12 projects, construction managers must go the extra mile in communication through every phase of the work.

TOOLS OF THE TRADE

When it comes to communication with families, students and staff, social media has helped enhance the process significantly. Social media channels such as Twitter and Facebook are a nimble, flexible way to send pertinent safety information to students, families and staff.

While social media has proven to be effective, time-tested communication methods should also be used to augment communication.

Direction and safety signage should be used to direct parents to new drop-off and pick-up areas and to warn students and staff of potentially dangerous activity in an area. Bilingual signs should be considered for districts that have staff, students and families where English is not their first language.

Often, the school district will request that the construction management team meet with parents and the larger community to provide safety briefings and updates. Those opportunities to communicate directly with students and families should be optimized with drawings, flyers and pamphlets that explain and illustrate the project, the safety and logistics plan and other elements that ensure everyone is aware of any potential hazards and are clear on the actions needed to avoid them and stay safe.



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FOCUS ON SCHOOL CALENDAR & ADJUST IF NECESSARY



It is important to note that communication with the construction manager should be a two-way channel. The construction manager needs to pay careful attention to the school and the district's calendar of events and incorporate those activities into the construction schedule. This approach ensures that normal activities of the school and district may proceed safely and without excessive inconvenience is essential.

Sean Smith, former superintendent of the Carthage R-9 School District in Carthage, Mo., has experienced active construction at a school where learning was taking place. According to Smith, "A well-thought through logistics plan is essential when there is construction on an active K-12 campus. Work needs to be planned to ensure that the most disruptive activities are happening during times that are least disruptive to learning."

This includes actions such as adjusting a construction schedule to maintain a quiet atmosphere when state tests are administered to students. Construction should cease to accommodate events such as fund raisers that occur during school hours.

SPECIAL ISSUES FOR CONSIDERATION

There are some special safety issues that may apply that are also a part of the overall safety and logistics plan including:

Security Systems

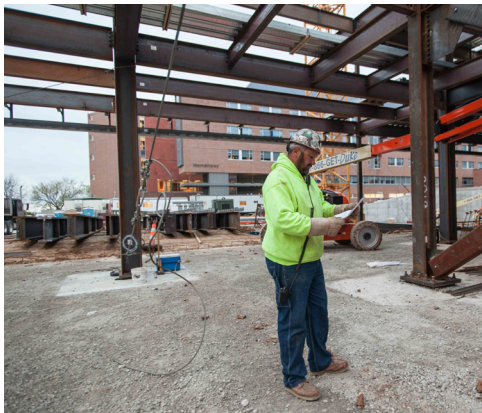
When a building is not occupied during construction, the construction manager may install security systems in school buildings impacted by construction, especially during a total remodeling project. On certain jobs, video cameras may be installed outside the building as well.

Proper Handling of Lead and Asbestos

One of the most crucial aspects of K-12 projects is the proper handling of lead and asbestos. This requires a thorough understanding of lead and asbestos issues and a commitment to educate clients about those issues. All contractors should be expected to obtain the necessary training related to lead and asbestos and follow all regulations.

Provide Counseling on Safety Issues

Top-notch construction management firms are called upon to counsel school districts on safety issues, even when they are not the construction manager on a given project. School districts turn to companies that have a strong reputation for expertise in safety.





ADDING VALUE FOR STUDENTS

When working on high school projects, there is an opportunity to expose students to the construction industry as a vocational choice, as well as demonstrate the construction manager's commitment to safety.

OSHA has created a 10-hour outreach training program to teach a construction safety class to students. This may be done in conjunction with the school's vocational-technical program. There usually is a charge for this type of class, but construction managers that offer the class for free will be able to get more students to sign up. Besides raising safety awareness during the construction project, offering this class exposes students to construction careers as an option.

SIZE DOESN'T MATTER WHEN IT COMES TO SAFETY

No matter the size of the project, the size of the school or the size of the school district, when construction occurs around children and families, safety is paramount. Collaboration with the appropriate owner representative is key.

When work involves a small school district, the construction manager may work directly with a school superintendent. When work involves a large school district, the construction manager may coordinate with a school district maintenance director or an owner's representative. But the same dedication to safety planning and follow-through should apply in all cases, whether the school district is big or small.

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CONCLUSION: DO WHAT IS IN THE SCHOOL'S BEST INTEREST



The construction management firm's guiding principle on a K-12 project should be to do whatever is in the school's best interest. Every school site, even within the same district, is different. The construction manager should make whatever adjustments are possible to meet the needs of the school administration, students, parents and staff.



ABOUT THE AUTHOR

Luke Deets is a principal in charge for McCownGordon with more than 15 years of experience working in K-12 facilities. He understands the critical nature of this type of construction and has the knowledge and expertise to ensure safety and security of students and staff. Luke's leadership provides student-focused solutions specific to preconstruction and construction services that achieve high-quality learning environments. He has a master of science degree and a bachelor of science degree in architectural engineering from Kansas State University.



LEARN MORE

McCownGordon is dedicated to helping customers realize their plans for growth and expansion and continuous improvement in the learning environment for elementary, middle and high school facilities. Our expertise and knowledge draws from years of experience solving construction problems. We invite you to learn more by calling Luke Deets at 816.960.1111, emailing ldiets@mccowngordon.com or visiting mccowngordon.com.

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