

Fatal accident prompts new regulations for gate installations

“We can stop these deaths”

By Vicki Jones, Editor

After hearing Eric Quanbeck’s poignant presentation at AFA Fencetech, Door + Access Systems wanted to do our part to increase awareness and foster change for a worthy cause. The following article is designed to educate access control professionals about the new regulations that recently went into effect and the gate accidents in the industry while offering concrete solutions to prevent future injuries and deaths.

The story of how seven-year-old Alex Quanbeck was killed by a manual gate would pull at the heartstrings of anyone, especially the AFA Fencetech audience of roughly 800 fence, gate, and access control professionals. Alex’s father, Eric Quanbeck, shared the horrific details of his son’s tragic death after the Fencetech keynote address.

It was an ideal group to speak to, because, as members of the industry, they can help make sure this never happens to another child again. One attendee told Quanbeck, “After hearing your speech, I’ll never look at a gate the same way.” Another man in the audience was seen weeping while listening to Quanbeck speak.

The heartbreaking story

On December 19, 2019, Alex was playing football with friends during recess when he noticed that the large entry vehicular gate to his private elementary school was open. When he attempted to close the 300 lb., 30’ x 8’ gate, it came off its track and fell directly on

top of him and crushed him to death.

“There was no chance of survival with such terrible odds; Alex entered into cardiac arrest and died shortly after,” reported the Fencepost winter 2022 article, “That’s a killer gate ... no joke,” which summarizes the accident in detail.

The story is heartbreaking, not only because a young child lost his life, but also because the accident could have been prevented.

“No child should die during recess.”

Eric and his wife, Dayna, are on a mission to increase awareness, educate the industry, and ultimately change building codes at a national level to help prevent future injuries and fatalities caused by gates.

The two have found a way to transform the inconceivable loss of their child into a conduit for positive change. In a short amount of time, they made successful strides. Now, they are asking members of the industry to help keep the momentum going.



The “unregulated” installation

The detectives investigating Alex’s death asked President and CEO of Electronic Innovations Eric Bledsoe to consult and provide expertise on the case. Bledsoe has over 45 years of experience installing gates and extensive background researching gate accidents. He voluntarily agreed to examine the manual gate installation to learn how this terrible accident happened. The issues he discovered during the investigation were disturbing.

“Someone had modified the roller wheel hardware and the rear retaining J-hooks had been cut,” said Bledsoe. “The installation was a recipe for disaster. It was very clear that the lack of proper gate stops and the absence of a fall-over post were the cause of Alex’s accident and death.”

A lifesaving safety solution

Installing a \$50 fall-over post is an easy and inexpensive solution to reduce the likelihood of manual gate injuries. As the name implies, a gate will not fall to the ground (or on a person) if a properly installed fall-over post is added. In the Quanbeck case, this one safety component could have saved Alex’s life.

“Installers are already digging a post hole during a new installation, so adding a fall-over post is so simple, and more importantly, it’s the right thing to do,” said Bledsoe.

The number of manual gates installed without a fall-over post is shockingly higher than you may think. During their legal settlement, the Quanbeck family asked the original fence installer to notify prior customers



of the fatality from the gate failure. Over 100 previous customers were notified, and 35 needed repairs performed on their existing gates.

That illustrates the potential number of manual gates installed without fall-over posts industry-wide. More concerning, it reflects the potential for more gate accident-related injuries or deaths.

"It's a struggle as a parent," said Quanbeck, "knowing that a \$50 fall-over post would have saved my son's life."

Manual gates fail too

Another struggle has been eradicating the industry-wide misconceptions surrounding manual gates. AFA Executive Director Michael Reed said, "There is an inaccurate perception that manual gates don't have the same kind of entrapment and danger risks as automated gates. That's simply not true. Manual gates can malfunction."

Like automated gate installations, if a manual gate installation is done correctly and includes key safety components, there is less likelihood that an injury or death will occur in the case of a malfunction.

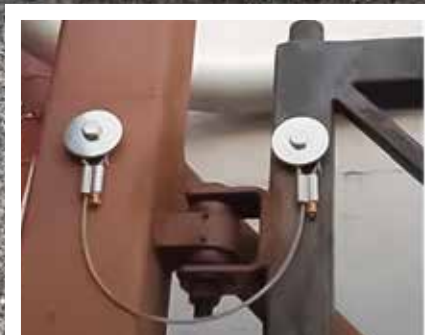
"People tend to believe that if a machine isn't moving the gate, accidents won't happen," said Bledsoe. "Almost like a manual gate accident is an anomaly, but manual gates can and do hurt people too." Alex's accident is a tragic example of this reality.

Prevalence of manual gate accidents

The D+AS article "Gate installer jailed for manslaughter," featured in the winter 2017 issue, detailed another tragic gate accident. On April 17, 2013, Jill Lunn's remote failed. When she tried to manually shut her residential gate. It fell directly on top of her and crushed her to death.

The prosecuting attorney of the case said the tragedy could have easily been prevented by a stopping device attached to either the gate or to the track upon which the gate ran. That

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Adding a fall-over post and a cable or chain, to collar the top of the gate, can prevent the gate from falling over.

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accident happened over a decade ago, yet, unfortunately, there have been more fatal gate accidents since.

Quanbeck's AFA presentation highlighted ten gate accidents that occurred from September 2007 to June 2020, spanning across varying states in the U.S. As they conduct more research, they continue to learn of more accidents.

Manual gates fly under the radar

Bledsoe was shocked when he reviewed the F2200-14 Standard Specification for Automated Vehicular Gate Construction. He discovered that the content in section 5.2, under Specific Applications, specifically

safety standards and regulations and adapt them for manual gate installations.

"The industry and members of DASMA have been instrumental in establishing critical safety regulations for installations involving automated gates," Johnson said. "The time, work, and effort the industry has devoted to UL 325 and ASTM F2200 offers a successful blueprint for incorporating safety regulations for manual gate installations."

"The door and gate industries have forged the path for improving safety and saving lives with the establishment of the UL 325 Standard," said Reed. "We hope to piggyback off existing regulations to further improve safety for manual gate installations."

"If everything had been done according to

happen, but that attitude is no longer acceptable. Let's take the information we have now and do better," said Bledsoe.

Quanbeck said, "Our goal is to educate people about the problem and ask for their help in preventing future tragedies. By sharing Alex's story, we can help inspire positive change and show the power any individual can make in someone's life."

Bledsoe believes that installers should add the recommended safety accessories because it's the right thing to do, not because the regulations mandate it. "If you think with your head and deliver from your heart, you're going to make a difference."

Increasing industry awareness

Reed continues to provide Quanbeck a platform to spread his message to key audiences. In addition to Fencetech, Quanbeck spoke at the AFA University Gate and Fence Schools in April. "This was an ideal venue. It's important to educate young professionals, early in their careers, about how to properly design a gate installation," Reed said. Quanbeck will also present at virtual conferences for building code officials and specifiers in the coming months.

Reed is also working to develop custom "tool kits" to help educate various target groups. Each kit will be customized for a specific audience, such as building code officials, Fire Marshall groups, AHJs, inspectors, business owners, entrepreneurs, and more.

He wants to spread a consistent message to as many people as possible, and the tool kits are a great strategy. "The kits will include educational information, such as sample legislation, recommended safety components, DASMA Technical Data Sheets, relevant articles, etc."

City regulations are approved for slide gates

In November 2022, Bledsoe, Quanbeck, Reed, and San Rafael City Attorney Robert Epstein presented the first proposal to amend the existing the ASTM-1184 Standard to include large manual gates. The group was successful, and it marked the first of many steps toward industry-wide change that they have already achieved.

In March 2023, the ASTM-1184-23 amendment was added. Key changes, outlined in sections 4.1 to 4.6, were made to the General Requirements section. They specify how manual gates should be designed, where positive stops should be installed, and what

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Since 2007, numerous fatalities and serious injuries have occurred across the country.

excluded manual gate applications. It stated, "This specification shall not apply to gates generally used for pedestrian access and to vehicular gates not to be automated."

San Rafael Chief Building Official Don Jeppson said that the building codes are behind in regulating manual gates. Reed believes that if manual gates were in accordance with the ASTM 2200 standards, accidents could be prevented.

"The original ASTM-F2200 did not pertain to manual gates because, I believe, most people did not understand how widespread manual gate accidents are. If they were aware, they would have included manual gates in the original standard."

Follow the blueprint

DASMA Executive Director Chris Johnson and Reed made the same observation — all gates should be included in the standards because "any gate could eventually be automated." It makes sense to use existing automated gate

the existing automated gate standards, injuries and deaths could have been prevented," added Johnson. Reed hopes to continue to collaborate with associations like DASMA to create positive industry-wide changes.

Embracing regulations

"With the standard being developed, it should be easier for the building codes to adopt; but a strong lobby from the community is needed to ensure the codes are updated," Jeppson said.

Getting building code officials on board may be easier than getting installers to buy into the idea of more regulations. "If installers are pushing back against additional safety components or regulations for manual gate installations, they are being ignorant," said Bledsoe.

If research shows that these accidents happen and that adding key safety components saves lives, why wouldn't people get on board? "Some people want to put their heads in the sand and ignore that dangerous gate accidents

FIVE THINGS GATE INSTALLERS CAN DO TO HELP PREVENT INJURIES AND DEATHS

1. Install fall-over posts and adequate gate stops on every gate installation.
2. Educate yourself on the new manual gate regulations (refer to the F1184-23 Standard for Industry and Commercial Horizontal Slide Gates section 4.1 to 4.6).
3. Consider the application for added momentum/gravity variables.
4. Contact AFA for your customized educational tool kit.
5. Spread the word: Educate building inspectors, homeowners, etc. in your area about increased gate safety components.

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additional factors should be considered during the design phase (including movement initiated by gravity, among other items).

Refer to the F1184-23 Standard for Industry and Commercial Horizontal Slide Gates section 4.1 to 4.6 for the complete content. Keep in mind that the approved regulations are only for slide gates. The next phase is to focus on swing gate installations.

Statewide regulations in the works

San Rafael became the first city in Marin County (and potentially the entire nation) to approve the ASTM building code amendment. In December 2022, the city of Larkspur followed suit. Over the past four months, the cities of Belvedere, Ross, San Anselmo, and Tiburon have also followed suit and adopted their own local building code amendments.

"In honor of Alex, we hope every city in Marin County approves and adopts the new building code regulations; we are close to achieving this goal." Quanbeck said that he expects every city in Marin County to adopt the amendment by summer 2023. Discussions are underway for ordinances in Fairfax, Mill Valley, and Novato.

Quanbeck said, "Ideally, we would like to amend the building code at a state level. If approved, this will help expedite the process of amending regulations statewide and help get us closer to our ultimate goal: regulations nationwide."

Make new and existing installations safer

While it's important to incorporate key safety components on new installations, it is equally important for existing installations to be updated with the recommended life-saving accessories.

The amendment approved for the city of San Rafael mandates that all existing gates be retrofitted by July 1, 2025. In addition, all gates

will be subject to inspection once every five years by a gate inspector.

Jeppson said, "The ordinance describes what information is required for the record and that record to be kept by the owner and made available to the building official upon request. Ideally, having a system that the information could be uploaded to and kept as part of a local, state, or national database would be ideal."

Be a hero

As soon as Epstein and Jeppson heard about Alex's case, they wanted to get involved and they weren't the only ones. "From the initial officers on the scene to the detectives and attorneys on the case, everyone has contributed to the positive changes made thus far," said Bledsoe. "They have worked tirelessly to make sure that this doesn't happen again in San Rafael."

The road toward life-saving regulations has gained momentum one person at a time. Now, it's time to get access control professionals involved. "I know that many installers have no

clue that there's a problem," Bledsoe said. "I had no clue either."

Now that he has investigated the cases, spoken to family members who have lost loved ones, and seen death photos (many of which displaying blunt force trauma to the head), he has discovered his calling.

"It's all about saving lives one gate at a time. I don't want this to happen to anyone else ever again. It shouldn't take for us to know someone who was injured by a gate to care," said Bledsoe. "Be a hero and do the right thing."

Keep the momentum going

As with most code changes, getting the information and requirements out to the public and contractors is most important. Jeppson said, "The fence [and gate] contractors and installers need to be able to explain the requirements and sell the solution."

Many of the repairs or additions outlined in the guidelines are simple and do not require a building permit, so costs are reduced. "New construction of gates would also be reviewed and inspected by the local jurisdiction," added Jeppson.

Educating professionals within the industry about the new regulations and convincing them of the importance of complying is the best way to save lives. "If you know about a regulation and choose not to comply, you could be putting a life at risk," said Bledsoe.

Empowered with knowledge and the desire to do the right thing, together, we can stop these deaths. By doing the right thing and protecting others, in return, you're going to protect yourself. ■

ABOUT THE HUMMINGBIRD ALLIANCE

The Hummingbird Alliance was started by the Quanbecks in memory of Alex. The organization is dedicated to making positive change by leading conversations and focusing education on school safety.

As more campuses increase security and potentially add gates or fences to school perimeters, it is critical that industry-wide standards/regulations focused on gate safety exist and that professionals comply.

To learn more about the organization, visit www.thehummingbirdalliance.com.

