



THE EXIT SIGN OF THE FUTURE

Saving lives in emergency situations through integrated threat detection, first-responder network notification, and dynamic emergency evacuation laser guidance.

EMERGENCY

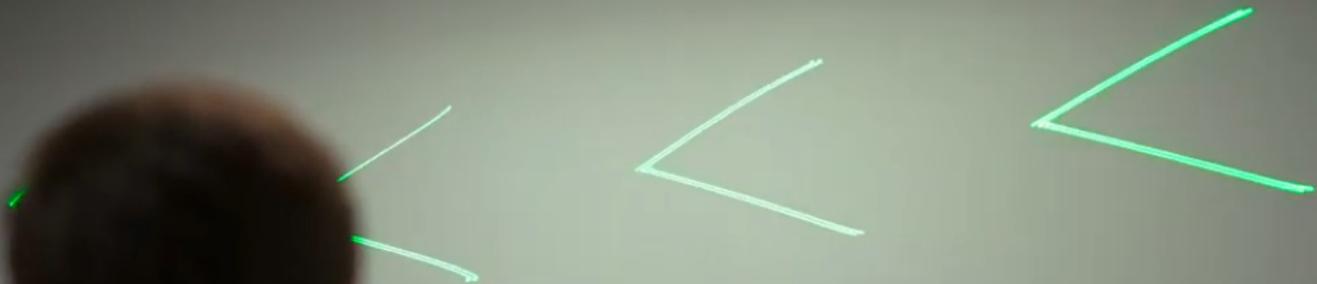
WHICH WAY TO SAFETY?



Life threatening emergencies happen quickly and usually without warning. Survival depends largely upon one's ability to act swiftly and decisively.

John Leach, a qualified military survival instructor, says that to survive such situations, quite simply, "You just need to know what to do." ¹ He portends that 75% of people are so overcome by fear that their brain cannot process information fast enough to know what to do or where to go.

Safepro Technologies is addressing this urgent problem. We have developed the Soteria System, a U.S. patented integrated threat indicator and guidance system that uses laser technology to immediately guide people away from danger. The system will detect the precise location of a dangerous event -- be it fire, chemical, weather or an active shooter -- and take actions to shorten emergency response time and aid in separating potential victims from the nearby threats.



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Introduction

An unmet need exists on a global scale. Large gathering places, such as schools, warehouses, government buildings, movie theaters, shopping malls, office buildings, grocery stores, and more, are not fully equipped to guide individuals to safety in the event of an emergency situation such as a fire or active shooter.

Ikram Arshad, a Mayfair Mall shooting survivor, said the shooting took no more than one or two minutes and it was chaos, "everybody was running." ²

The Soteria System was developed by Paul Eckert, a retired police officer who has been a part of several specialty units, including search and recovery, and provided certified instruction in the areas of defense, arrest tactics and civil disturbance. It was while conducting active shooter training to other officers and that he first saw the gaps in existing safety systems. Paul recognized that officers entering facilities without any indication of the location of a threat were at a serious disadvantage. Moreover, he knew that in dangerous events, the public at large was not thinking or acting clearly. They needed simple and fast information to help them protect themselves. Paul founded Safepro Technologies with the purpose of pursuing and implementing new safety technology in all fields of public and private safety.

Safepro's U.S. patented system and methodology utilizes laser light projection to provide visual safety instructions for building occupants to follow, directing them away from dangerous situations with simple-to-understand graphics that illuminate on walls and floors. The system's display routes occupants away from dangerous situations with green motion arrows to indicate safety, and with red X's to indicate a physically unsafe location, violence, or a barricade. Thanks to the Soteria System, facilities can now reduce human casualties via notifications and the provision of directional safety guidance.



Schools



Warehouses



Government Buildings



Movie Theaters



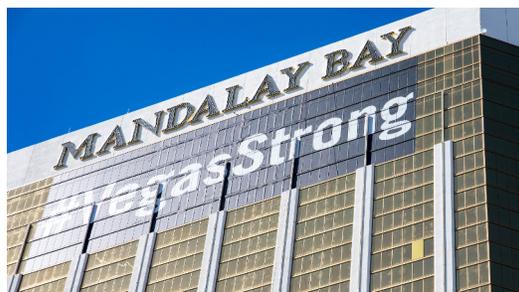
Shopping Malls



Office Buildings



Grocery Stores

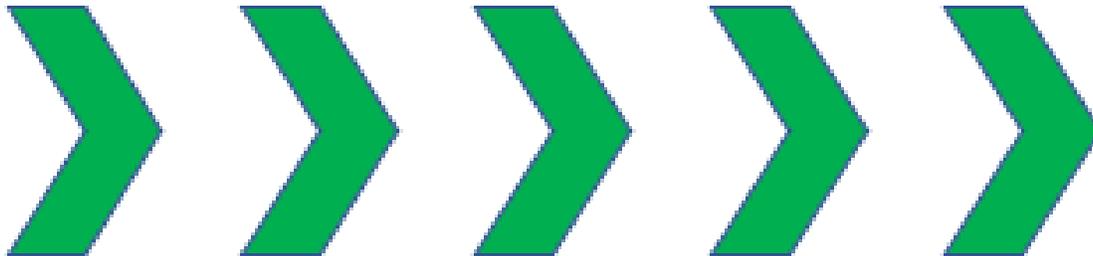


Hotels



Casinos

The case for a new EXIT sign



The need for the American exit sign is traced back to 1911 when a fire claimed the lives of 146 factory workers in Manhattan. The loss of life generated the development of "life safety" measures by the National Fire Protection Association.⁴ The iconic EXIT sign, strategically placed above doors and throughout buildings provides notice of where an exit is located but in an emergency situation, the closest exit may not be the safest option.

When tragic events like the fire in 1911 occur, the need for solutions to mitigate the harm and risk rise. The increasing epidemic of active shooter events, highlights the need for additional "life safety" measures to minimize loss of life and harm. Safepro's patented system and methodology, utilizes existing required emergency evacuation procedures, routes, and signs, and adds additional "life safety" features that not only detects a threat but also guides people to safety and away from any emergency or threat.

In fight or flight emergency situations, individuals are not tactically trained on how to respond. Human physiology tells us that fight or flight situations can cause: tunnel vision, where your field of focus narrows and you begin to lose peripheral vision; auditory exclusion, when you stop hearing what is happening around you; time dilation, where things seem to move in slow motion; and even out-of-body experiences, when you feel you are watching events from outside of your body. These physiological effects hamper the ability to think clearly and make good decisions. This results in confusion, chaos, and casualties.



Confusion

Civilians are not properly trained on how to immediately respond to a life-threatening event such as an active shooter leading to confusion on immediate actions.



Chaos

In an emergency it is difficult to find the safest route leading to uncontrolled chaos and fear.

"...people were running in every direction"

USA Today El Paso Shooting ⁵



Casualties

The inability to find safest location in an emergency leads to injury and casualties.

- 100 die in Station club fire ⁶
- 36 die in warehouse maze ⁷
- 21 die in panic to exit ⁸
- Volunteer fire fighter gets disoriented and dies in strip mall fire ⁹

Confusion and Chaos

Countless hours are spent training and preparing first responders, teachers, employers and others for emergency situations. The OSHA Emergency Exit Routes Fact Sheet¹⁰ provides guidelines on how to stay safe during an emergency. Knowing where exits are located is crucial.

However, those untrained in emergency response will not necessarily know where the safest exits are located. And in the case of fire, it may be difficult to locate the safest exit due to smoke and air particles.

To add further complication, people respond differently to intense stress. The CDC identified four ways people process information

- 1) They simplify messages, potentially missing important details.
- 2) They hold onto current beliefs, and can be resistant to crisis communicators when asked to do something outside their beliefs.
- 3) They seek opinions and confirmation before acting.
- 4) They believe the first message, sometimes at the expense of more accurate updates that follow.

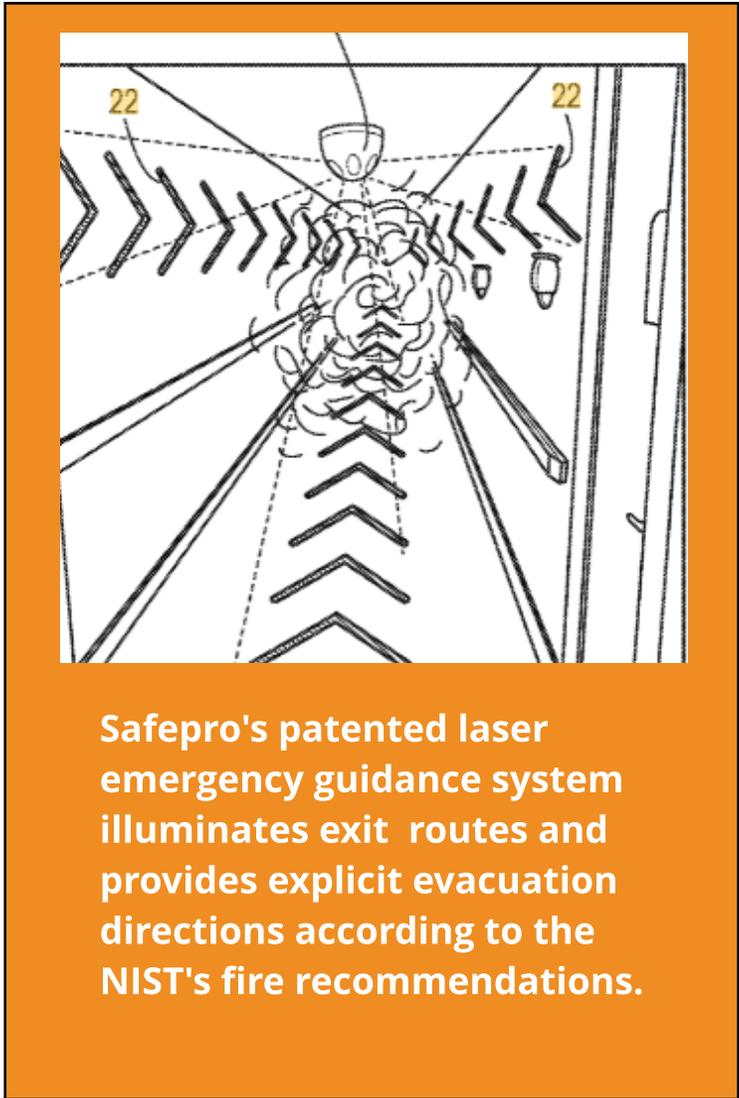
In recognition of this, the CDC recommends that emergency communications be simple and clear. The combination of trained individuals, an immediate threat detection system, and an easy-to-understand guidance system is best to successfully protect the safety of individuals.

In a the mass shooting in El Paso, Texas at Wal-Mart killing 20 people, witnesses said, "people were running in every direction" just trying to find safety.⁵

In incident after incident, witnesses and survivors of life-threatening events all note the magnitude of chaos. Finding the right exits through the isles or workplace halls is difficult.

Casualties

Unfortunately, building fires can also lead to mass casualties. In the Station nightclub fire that occurred in West Warwick, Rhode Island in 2003, 100 people died and another 230 were injured. The National Institute of Standards and Technology investigated the event to determine the cause and provide recommendations for improvements. The report was completed in 2005 noting, "The rationale for changes in egress provisions includes the realization that the impact of smoke, heat, and gases on human behavior during evacuation is not known; that mobility challenged persons take longer to evacuate; that other fire safety systems may be non-functional; and that threats other than fire can require rapid evacuation. Given the uncertainty in human behavior,



Safepro's patented laser emergency guidance system illuminates exit routes and provides explicit evacuation directions according to the NIST's fire recommendations.

and uncertainties in fire hazard calculations and egress analysis during an emergency, the code should ensure that the margin of safety on the time required to evacuate a nightclub accounts for the maximum reasonable uncertainty in these predictions." The report recommended to, "provide improved means for occupants to locate emergency routes -- such as explicit evacuation directions...exit signs near the floor and floor lighting -- for when standard exit signs become obscured by smoke."¹²

Foreseeability

As active shooter events continue to occur, the foreseeability of occurrence increases. "Of the 220 incidents that occurred from 2000 to 2016, nearly half (107) took place in an education, retail, or government/military setting."¹³

Stephen Wattles, Transportation Supervisor at Kroger, who was at work when an active shooter shot and killed two people on March 16, 2021, said, "It's no surprise this happened, it was just a matter of time before our facility was hit." Wattles went on to say with a 1.1 million square foot facility like the Kroger warehouse, "a gunshot will sound just like a pallet dropping so there is no warning. Had the victims not been targeted like they were, we were fish in a barrel and the casualties would have been astronomical."

Additionally, the insurance industry has seen an increase in active shooter policies, with Marsh, a global leader in insurance brokerage, noting a 50% increase for active shooter policies. The economic impact of such events costs millions of dollars in expenses ranging from health care to safety renovations, survivor support and litigation.¹⁴

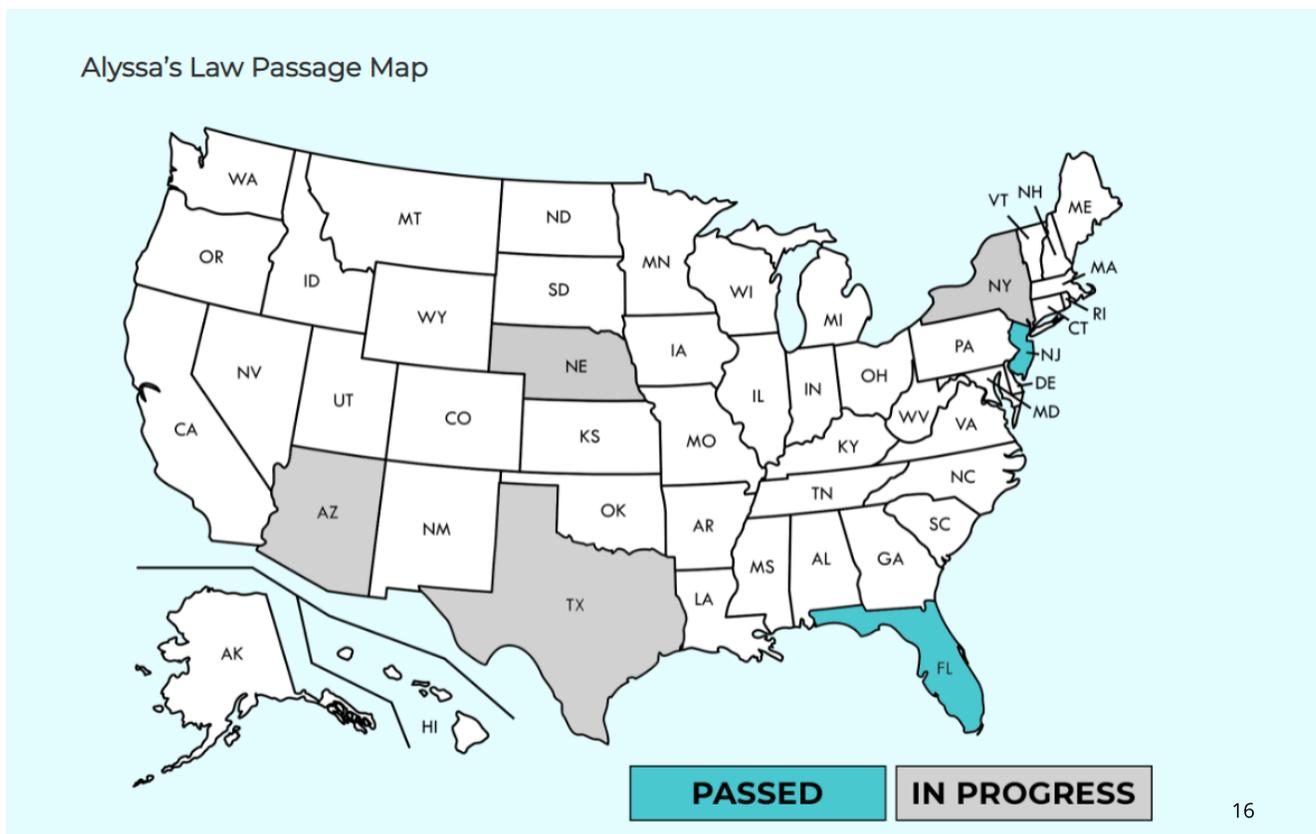
"Client inquiries for what the industry calls active shooter policies have risen 50% year on year in the past six weeks, said Tarique Nageer, Terrorism Placement Advisory Leader at Marsh, the world's biggest insurance broker." ³



State Legislation

As insurance companies are increasingly underwriting active shooter policies, state legislatures are taking notice. As of June 23, 2021, Texas is the most recent state to enact active shooter notification legislation with their Leilah Hernandez Act, which follows Florida's Alyssa's law. These laws require that alert notifications be sent to first responders in active shooter situations. Florida and Texas represent the first in a wave of legislations responding to the increase of such events.

The Soteria System does indeed alert first responders to detected threats, taking the additional step forward to provide shelter-in-place notifications and when necessary, guide individuals to safety.



Proof of Concept

Watch the patented Soteria System in Action in a school setting.



The Soteria System Solution



1. Detects an Event:

The Soteria System's sensors, when strategically placed throughout a building, can detect emergencies such as fire, chemical, carbon monoxide, hazmat, tornado, flood, bomb threat and active shooter. An application (App) is also available to download that uses GPS to locate the approximate scene of a localized event and alerts local law enforcement authorities.

2. Determines the Event Threat Type and Severity Level:

Once a threat has been detected, the Soteria System will determine severity level and initiate an appropriate response. For example, the system can detect the difference between a gunshot and a fire within a building, and will notify the proper emergency responders, be they fire, police and/or EMT's.

3. Indicated Threat to Occupants in Individual Rooms:

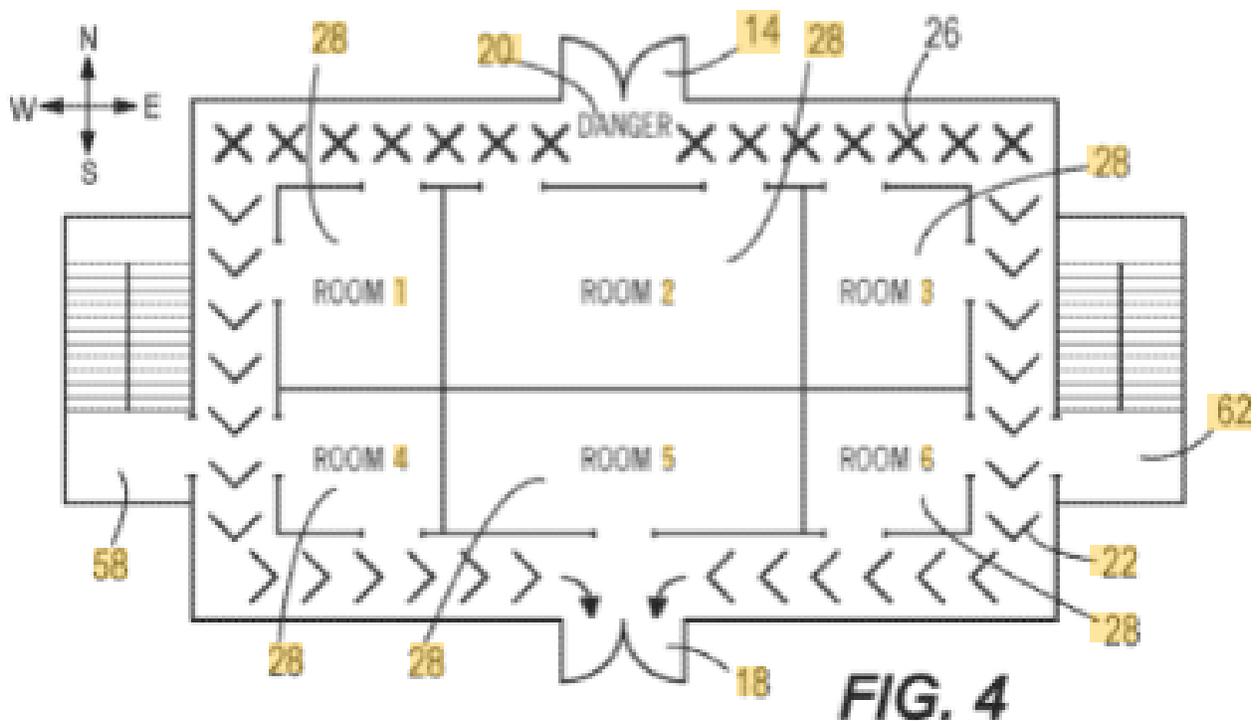
In response to a type of threat, the system will generate either a lockdown indication or an exit indication with a guidance system of corresponding lights, noises and/or messages. The system will also communicate whether a threat continues or is over.

4. Notifies Emergency Responders:

Once the appropriate agency has been notified, the Soteria System will continue to send real-time updates to central dispatch personnel and to emergency responders wherever they may be located.

5. Communicates Location of The Threat and Direction To Safety:

The laser light emitting components of the system can project images onto surrounding surfaces like the floor, walls, surrounding objects or onto particles in the air. The intent of the graphic is to communicate important information to all participants (building occupants, general public, emergency responders and in some cases, the perpetrator) to empower actions that will eliminate or reduce casualty numbers.

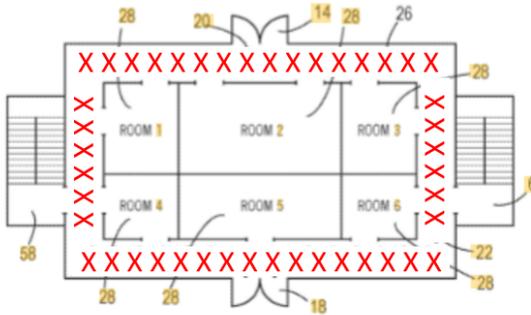


Shelter-In-Place

Room Notification

Depending upon the type of threat detected and its location, the safest option may be to shelter-in-place.

Safepro's notification system is placed in offices, conference rooms, retail shops and other areas that allow people to safely shelter-in-place. When an emergency event has been detected, the indicator light placed in each room will give real-time information that a dangerous event is occurring. The light will glow red or green, informing the occupants of safety or the need to shelter-in-place. The system will also inform first responders whether areas are safely secured or not.



"Implement a means of alerting workers to shelter-in-place that is easily distinguishable from that used to signal an evacuation." 15



Progress



January 2020

Soteria system prototype installed at the Whitewater University Innovation Center



August 2020

Safepro Technologies awarded U.S. patent



September 2020

Accepted into Gener8tor Accelerator



May 2021

Began development of software and API



June 2021

Began collaboration with Fortune 100 company seeking advanced public safety technology in facilities.



Conclusion

The need for an effective emergency evacuation system to reduce harm and loss of life is universal. The iconic EXIT sign, strategically placed above doors throughout buildings, may not be the safest option in an emergency situation. Furthermore, most individuals are not tactically trained on how to respond in emergency situations, and the physiological effects that fight or flight situations have on the human brain hamper their ability to think clearly and make good decisions. This can result in confusion, chaos and casualties.

The Safepro Technology Soteria system is the exit sign of the future. Our patented detection, shelter-in-place, and laser safety guidance system is the all in one solution to protecting and saving lives in dangerous events. The Soteria system focuses on the immediate need for helping innocent bystanders during any dangerous event, elevating the sign and security system industries. The market for this product is nearly limitless. Any and every large facility, arena, church, school, warehouse, military installation, government building, hospital, and hotel will benefit from an integrated threat detection and evacuation system. Safepro Technology is positioned as the first of its kind to provide real-time laser evacuation guidance and instruction. Our brand is focused on saving lives through immediate action, safe separation, and response.



Safepro Technologies Press

<https://www.wisbusiness.com/2021/wisconsin-innovation-awards-finalists-announced-for-2021/>

[Whitewater startup launches evacuation system geared for mass shootings | Local News | gazettextra.com](#)

[Safety for schools - Royal Purple \(royalpurplenews.com\)](#)

[Disaster response tech seeks funding to reach potential | WisBusiness](#)

Endorsements

"It is without reservation that I write this in support of Safepro Technologies; its mission, its product, and its execution. With more than 14 years in local and state law enforcement, I have trained multiple police agencies in active shooter response. Safepro Technologies' system would, without question, greatly assist law enforcement in more quickly locating and stopping an armed suspect in an active critical incident I have also participated in numerous investigations of mass casualty incidents. Several such investigations left no doubt in my mind that the implementation of Safepro Technologies' Soteria System likely would have saved the lives of numerous victims. If even one life was saved, this system would be worth it.

With mass casualty incidents seemingly becoming more and more common, it's time for a serious discussion about the installation of infrastructure to help keep people from becoming victims. I believe Safepro Technologies' Soteria System is exactly that infrastructure."

Luke H.
Special Agent

"As the Director of Facilities, Grounds, & Safety for this school district, I can't begin to tell you how exciting it is for me to potentially have this system in place. In the heat of the moment, a system such as this would be incredible to utilize and knowing we have it would definitely give me a feeling of safety."

Brandon Loomer
Director of Facilities, Grounds, and Safety

"As a former elementary principal, secondary director of teaching and learning, and the director of an educational asset, I would have felt safer and better equipped to protect my educational communities' with SafePro installed. I believe that my fellow school administrators along with the other stakeholders would be in full support of the SafePro Technologies system if they were able to interact and understand its capabilities. Also, as a parent, I believe my children would be safe and more equipped to evacuate under the stress of a threatening situation with Safepro Technologies installed."

Brenda Vogds
Director of the Institute for Personalized Learning

Endorsements

"The Safepro Technologies System, to my knowledge, is the only system being developed for the purpose of actively directing potential victims, in the moment, away from the threat and directing law enforcement toward the active shooter in an effort to minimize casualties to the greatest extent possible. Personally, I would feel a greater degree of comfort knowing that when my family goes to work or school each day that there is a better chance of them returning home safely because the Safepro Technologies System is installed."

Mark Johnson
Executive Director, Whitewater University Technology Park

"Safepro Technologies', laser evacuation guidance and threat detection system, the Soteria System, will be a critical layer of added safety. Given the many risks students, employees, and the general public face when entering public and private facilities, the public is demanding a higher level of care in safety and security. The Soteria System adds the necessary and additional life-saving measures to protect and save lives."

Daniel Doucette
President, Doucette and Associates,
Former Chairman Mutual Insurers Holding Company

Endnotes

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