

2024 SCAC Awards Application

This applicaton is for:	J. Mitchell Graham Memorial Award
Project Title	Enhancing Emergency Response: Leveraging Technology for Coordinated Efforts to Protect Our Schools
County or Counties	Chester County
Application Contact	Ed Darby
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Presenter(s) Name and Title	Laura Kunzie, Deputy Director, Chester County Emergency Management
Main Presenter's Email Address	lkunzie@chestercountysc.gov

Project Written Submission

Project Summary

Coordinating responses to incidents across multiple agencies is challenging, especially in critical situations like a school shooting. The response effort can escalate from involving a few law enforcement officers to requiring well over a hundred responders from various agencies. Without proper coordination, the response can become chaotic, impeding the delivery of essential resources.

We established a Chester County planning group of 10 agencies and over 50 members to address this. This historic assembly of county leadership is dedicated to protecting our children. The group's meetings focus on leveraging innovative technology to create an operational planning area for response coordination to school incidents.

To help facilitate the coordination, Chester County Emergency Management created an online and mobile app that integrates multiple data sources into a unified platform, facilitating response coordination, streamlining operations, and enhancing decision-making to ensure a safer community. This Geological Information Systems (GIS) based solution transforms static written plans into a dynamic operational planning area, displayed on an evolving map that adapts to changing response needs. The app hosts the county's most extensive intelligence collection, supports over 30 incident types, and is used by Law Enforcement, Fire, EMS, and Emergency Management.

The app provides instant shared situational awareness for both field responders and command, ensuring everyone has the same operational picture. This enables strategic resource allocation, effective planning, and a unified response.

An uncoordinated response to a school shooting can lead to a situation where multiple agencies converge, with emergency vehicles quickly clogging critical routes needed for buses and ambulances, creating bottlenecks. Meanwhile, frantic parents arrive from all directions, adding to the chaos and complicating response efforts. This disorganized influx can obstruct access for emergency personnel and delay critical interventions, putting more lives at risk.

Every second counts in such a high-stress environment and the lack of coordination can lead to tragic consequences. The confusion can escalate the danger, making it harder to manage the scene, neutralize the threat, secure the perimeter, and provide medical assistance.

Our applications address these challenges by providing a detailed plan that outlines exactly where first responders should report, including staging areas, barricade positions, critical school information, a reunification site plan, and media locations. The comprehensive plan identifies the need for mutual aid due to the county's manpower shortfall for an incident of this scale. Consequently, we have secured commitments from neighboring counties to fulfill these requirements.

By leveraging this technology, we ensure a coordinated, efficient response that minimizes chaos and maximizes community safety. Our commitment to preparedness and collaboration with neighboring counties underscores our dedication to protecting our most valuable assets: our children.

Project Effort/Difficulty

Building the app and companion online tool has been three years in the making and we're not done yet. Although there was unprecedented acceptance and engagement of first responders and county leadership, the tool was a blank slate. It had to be developed from scratch. The growth of the tool was exponential; during planning meetings, the team would create the tool to capture the necessary data points, and at the same time, we were learning about new ways we utilize the tool. At the time and still currently, the county does not have a GIS specialist, so Laura Kunzie, the Deputy Director of Emergency Management, developed the majority of the work. She created comprehensive process documents to ensure the knowledge did not rest with just one individual and to facilitate training for field administrators. It was important that a larger team could support the tool and that it would not require expert-level knowledge to administer it.

The school incident response map was developed by 50 members from 10 agencies, including the School District, Transportation, Sheriff, City Police, City Fire, County Fire, Emergency Management (EMA), EMS, Coroner, and MUSC Chester Hospital. Together, we held meetings to meticulously plan responses to a school shooter incident. GIS field administrators from the sheriff's office, EMA, and other county staff captured and integrated the technical details into the map. This collaboration fostered discussions that would not have occurred if planning had been done in isolation. The value of these collaborative efforts in planning is immeasurable.

Extensive effort was dedicated to training first responders on using the app. Laura Kunzie led this training initiative. Her leadership and dedication resulted in over 300 first responders from Chester County's law enforcement, fire, EMS, and emergency management teams being thoroughly trained on the app. This comprehensive training ensured that all responders could utilize the app effectively in various emergencies, enhancing their preparedness and response capabilities. The app is now used daily to respond to over 30 different incident types, including lost persons and fugitive apprehension, where it has proven to be highly effective.

The community was a significant consideration in planning, with extensive discussions centered on managing the immediate influx of parents, securing critical areas, and coordinating the reunification of students and parents. The plan thoroughly addresses these critical challenges. When we approached our county council for funding, all departments using Geographic Information System (GIS) stood united to demonstrate its critical importance and practical application. This unified effort led to the approval of our funding request for additional Esri resources.

You need a team to support the vision, so one ongoing goal was to build an administration team. Currently, we have no dedicated GIS staff. To address this, we've formed an administrator team from various disciplines who share our vision and are eager to support the program. We now have 11 administrators and 5 more in training, none of whom are GIS professionals. This challenge has been addressed through comprehensive process documentation. Each task is accompanied by a simple process document, requiring minimal skill.

Another ongoing goal is to update all our school floorplans; some have not been revised for over 50 years, resulting in significant changes. Without these updates, emergency response could have been severely hampered. So far, we have completed half of the schools in the district, with an ongoing effort to complete the remainder of the buildings by early 2025. Updating these floorplans involves detailed walkthroughs

with law enforcement, school resource officers, school district security, EMS, fire, and emergency management personnel. During these walkthroughs, significant effort is dedicated to incident response details, including door labeling, door swings, fire infrastructure, utility shutoff locations, communications, roof access, attic access, and other critical information. The updated floorplans are then converted into GIS data, with the conversion process funded by the Chester County School District. These digital floorplans are now accessible through the online and mobile app for first responders and command staff.

Benefit/Importance of Project

The safety of our children is paramount. Following the Uvalde school shooting, Chester County Emergency Management Director Ed Darby and Sheriff Max Dorsey recognized the need for a comprehensive response plan for school threats in Chester County beyond mitigating the threat. Emergency Management initiated a historic meeting, bringing together over 50 attendees from various groups, agencies, and school officials responsible for managing school emergencies and student reunification. This gathering fostered open and honest discussions on concerns and solutions. The key benefit was the close collaboration between community leaders and first responders, all working towards the common goal of ensuring the safety of our children.

The significance of this project to our community lies in its comprehensive and collaborative approach to school safety. This initiative fosters open communication, addresses concerns, and develops practical solutions, ultimately enhancing the protection of our children. The project exemplifies the community's commitment to protecting its most vulnerable members. It showcases the power of teamwork among local leaders and first responders in achieving a common goal impacting the whole community.

The entire community benefits from this project, particularly students and parents, who experience enhanced safety measures and coordinated emergency response, ensuring a safer school environment and peace of mind for families. School staff and administrators benefit from clear protocols and collaboration with emergency services, improving their preparedness and response capabilities during crises. First responders, including law enforcement, fire, EMS, and emergency management personnel, gain from improved communication, shared situational awareness, and a unified response plan. Local agencies and government benefit from streamlined operations and resource allocation, enhancing overall emergency management effectiveness. The community at large benefits from a safer school environment and effective emergency response, contributing to the overall well-being and resilience of the community and fostering trust and cooperation among residents and local authorities.

The project attained a high degree of success, demonstrated by several key achievements. It successfully brought together over 50 representatives from various agencies, groups, and school officials, fostering a collaborative environment for open discussions and solution development. A detailed and integrated response plan was developed, encompassing all critical aspects of school safety and emergency response, including student reunification and resource allocation. The preparedness and response capabilities of first responders and school staff were significantly enhanced through clear protocols and shared situational awareness. Emergency operations and resource management were streamlined, providing a more effective and coordinated response during school emergencies. Additionally, the plan highlighted that the response would exceed the county's manpower capacity, leading to meetings with neighboring counties and establishing mutual aid agreements. This ensures that additional support and resources are automatically deployed to specific locations.

The project offers several key benefits and holds significant importance. The app enhances coordination by integrating multiple data sources into a unified platform, facilitating response coordination among various agencies. It improves decision-making by providing real-time situational awareness, ensuring that field responders and command have the same operational picture. Resource management is optimized, as the app helps in strategic resource allocation, ensuring necessary resources are available where most needed. Overall, the app provides a coordinated and efficient response, maximizing community safety and minimizing harm. Proper planning and coordination prevent emergency vehicles and responders from clogging critical routes, vital for timely assistance.

The app developed through this project is now used in everyday response scenarios, enhancing real-time decision-making and operational efficiency across 30 incident types. Over 300 first responders were

trained, ensuring they are well-equipped to handle various emergency scenarios effectively.

Overall, the project is vital for ensuring a coordinated, efficient, and effective response to critical incidents, thereby enhancing the community's safety and security.

Project Originality/Innovation

The technology used in Chester County is unique in South Carolina and has received international recognition from Esri, the leading GIS software company.

Despite its modest size, Chester County is making significant waves on the global stage. Laura Kunzie, the Deputy Director of Chester County's Emergency Management, was a speaker at the 2024 Esri User's Conference. This annual conference, a gathering of over 30,000 professionals from more than 140 countries, is renowned for showcasing cutting-edge developments and innovations in geographic information system (GIS) technology.

The Esri User's Conference in San Diego, California, is the world's largest event dedicated to geographic information systems. It brings together professionals from various industries to explore and share advancements in GIS technology, fostering collaboration and innovation worldwide.

Laura's selection as a speaker highlights Chester County's commitment to excellence in innovation and protecting our residents. Her expertise in utilizing Esri's GIS tools to enhance community safety and emergency response earned her this prestigious opportunity.

The entire program was created from scratch. Nothing existed. Our online and mobile applications are the largest collection of intelligence in the county, with over 70 unique data layers. Every layer is specifically tailored to Chester County, from the data to the map symbols. Every aspect was developed locally. After every incident, we learn and enhance the technology, making it more effective and responsive for the next deployment.

Concluding Remarks

Chester County faced the challenge of coordinating responses to critical incidents like school shootings involving numerous agencies and responders. To tackle this, a planning group of 10 agencies and over 50 members was formed, focused on protecting children and leveraging advanced technology.

The county developed an online and mobile app that integrates over 70 unique data layers into a single platform. This tool provides comprehensive situational awareness and facilitates seamless coordination among Law Enforcement, Fire, EMS, and Emergency Management. Providing real-time information to both field responders and command staff enhances decision-making, streamlines operations, and ensures a unified response.

With detailed operational planning, including staging locations, barricade positions, and bus routes, the app helps minimize chaos and ensures efficient resource allocation. The system also calculates mutual aid requirements, securing commitments from neighboring counties to provide additional support when needed.

Through this innovative approach, Chester County has created a robust, technology-driven solution to enhance emergency response, demonstrating a solid commitment to community safety and preparedness.



Chester County Government
Office of The County Attorney
Post Office Box 580
Chester, SC 29706

July 30, 2024

Dear Members of the Award Committee,

I am writing to offer my strong support for Chester County Emergency Management in their candidacy for the SCAC J. Mitchell Graham Memorial Award. I have had the pleasure of knowing and working with Emergency Management over the last year in my capacity as County Administrator at Chester County Government, and I can confidently attest to their exceptional qualifications for this prestigious honor.

Throughout our professional relationship, Chester County Emergency Management has consistently demonstrated remarkable dedication. Their contributions have been instrumental in Enhancing Emergency Response: Leveraging Technology for Coordinated Efforts to Protect Our Schools, and their unwavering commitment to excellence has significantly advanced our collective goals.

In addition to their professional achievements, Chester County Emergency Management is deeply committed to serving our community. Their efforts in to be prepared always have made a meaningful difference and reflect their dedication to making a positive impact beyond their professional responsibilities.

In summary, Chester County Emergency Management embodies the highest standards of Emergency Management, and their contributions have left an indelible mark on our community. I wholeheartedly support their nomination for the 2024 SCAC J. Mitchell Graham Memorial Award and believe they would be a most deserving recipient.

Thank you for considering this letter of support. Please do not hesitate to contact me if you require any further information.

Sincerely,

Brian W. Hester
Chester County Administrator