

Revolutionizing 9-1-1 Mapping with LiDAR

Utilizing Handheld Laser Scanning for School Safety & 9-1-1 Response



Handheld laser scanning technology is revolutionizing school safety by providing first responders with accurate, detailed, and real-time digital maps of school campuses. Moving beyond outdated paper floor plans, these advanced 2D and 3D maps equip police, fire, and EMS with critical information needed to respond faster and make better decisions in high-pressure situations, such as an active shooter incident.



Implementation & Workflow:

- 1. Scanning:** A specialist walks through the school's interior and exterior with the handheld scanner to capture comprehensive 3D data.
- 2. Data Processing:** The raw data (point clouds) is processed using software like LP360 or ArcGIS Pro to create clean, detailed floor plans and GIS layers.
- 3. Integration:** The final digital maps are loaded into the 9-1-1 dispatch and first-responder vehicle computer systems, making them instantly accessible during an emergency.

Key Advantages for Emergency Response Teams:

- **Rapid Data Capture:** Handheld LiDAR scanners can map an entire building in a few hours.
- **Highly Accurate, Detailed Maps:** The scanners use LiDAR and SLAM technology to create precise 3D point clouds, which are then processed into accurate 2D floor plans.
- **Enhanced Situational Awareness:** Responders can view digital maps before arriving on scene to plan entry points, evacuation routes, and optimal paths to a problem area.
- **Improved Coordination:** A standardized digital map ensures all responding agencies are working from the same information, improving multi-agency coordination during a crisis.
- **Integration with Security Systems:** The 3D models can be integrated with existing infrastructure providing a unified & comprehensive view of an unfolding incident.
- **Effective Training & Simulation:** The detailed 3D models create virtual environments to simulate various emergency scenarios & practice response strategies in a safe setting.
- **Ongoing Updates:** The digital format makes maps easy to update as building layouts change, ensuring the data remains current at minimal cost.

