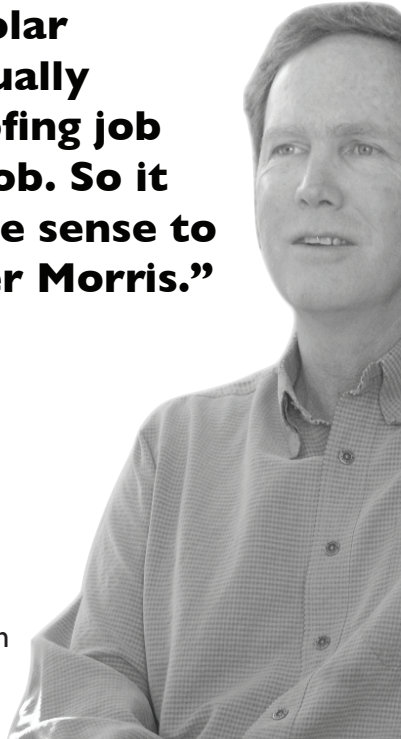


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Property Management

Security and the built environment

Security is a vague term and means something different to everyone. It can be as simple as deadbolt locks on a door at home or as complex as a configuration protecting the assets of a bank with a multitude of detection and monitoring systems operating as a single integrated entity.

Security for the built environment starts from the inception of a building design and continues throughout the design, implementation and training of the employees. Thousands of dollars can be spent for a security system, but if it's not implemented properly, commissioned properly and tested regularly – and if employees are not trained in the proper care and response procedures – the system will not function effectively.

Consideration of a security system should begin with a security assessment, whether a new building or a systems addition to an existing facility.

1. What are the assets to be protected? This can mean things of value, trade secrets or processes, persons, or in the case of prisons and jails, confinement of persons.

2. What is the potential for crime at the site area? Demographics of the area and review of the local police crime statistics and incident reports can help define this.

3. Where are assets located and how would a criminal access these assets?

4. What systems can be designed to deter, detect and delay (the 3D's)?

■ **Deter:** Implement a combination of technologies such as cameras, perimeter fences and lighting with presence detection; things as simple as signage can be a deterrent. These high-vis-



Jeff Geiger
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ibility instruments often cause the perpetrator to go elsewhere to a simpler, less defensive location.

■ **Detect:** Catch a perpetrator in the act. Recording cameras, fence detection systems, motion sensing lights, and door/gate

controls and monitoring alert the facility to an intrusion and potential threat.

■ **Delay:** Use equipment and systems that delay a perpetrator long enough for security personnel or local police to respond.

The 3D's philosophy includes a component called "concentric rings of security" and can be measured, in some cases, in high-security applications. For example, at a pharmaceutical plant, the first (outer) ring is fencing and a fence detection system, the second ring is motion sensors with lighting, the third is cameras that respond to the fence location in alarm, the fourth is exterior door alarms and, once inside the building, there are other card-access controlled doors, cameras and motion-sensing devices. The time it takes for a perpetrator to penetrate all these zones of security can be measured on the floor plan. The setback of the fence to the building can be measured in time; attacking the first door can be measured; and once in the building, the other barriers can be measured for how long it takes to overcome them.

However, electronic technol-

ogy is not the only consideration. Door construction, along with windows and their proximity to grade, need to be considered. Landscaping impacts security if large shrubbery is planted close to the building exterior, allowing persons to hide. Keeping the exterior of the building clear for visual surveillance provides a deterrent.

There also are the principles of Crime Prevention through Environmental Design (www.cpted.net). This organization teaches the psychological effects the building design may have on reducing crime. The principles also are used for the planning of entire city complexes, properly utilizing proposed building sites and properly positioning building(s) to take advantage of any natural security present at the site. For example, locating the main entry and façade of the building to be viewable from a major vehicle thoroughfare can lessen the potential for crime as a perpetrator is less likely to attack this building if he is too visible.

Numerous other considerations exist, and the application of security techniques varies from building to building. There are few particular building codes governing the requirements for security in buildings, other than those mandated for government facilities. For the average building owner, it's a matter of risk similar to deciding on insurance. It is difficult to define the return on investment for an owner and many times it does not show significant return until something goes terribly wrong. Building owners must consider the cost of implementing security at the design stage rather than, after the structure is complete, when it will prove far more expensive.▲

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