

Security takes on new importance in building design

The growing threat of terrorism—both foreign and domestic—has alerted building owners to be much more concerned about security these days in the design of new and remodeled buildings. The recent murderous university rampages at Virginia Tech and Northern Illinois, for



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example, have become troubling reminders that developers and other building managers must carefully examine whether their structures make it easy or hard for would-be killers.

It's impossible to design a building that is completely safe under any and all circumstances—especially if it has a public purpose that encourages many visitors. However, several features can be incorporated in the layout that will minimize the risks. Following are a few examples:

■ **Limit the number of access points:** A compromise between security and accessibility and aesthetics should always be considered, which means that entrances and exits of the building should number no more than is absolutely necessary.

If someone wishing to do harm has a wide range of entries to choose from, it simply makes his or her job easier—and more difficult for those responsible for security.

■ **High visual surveillance at all entries:** The structure should have a prominent front door that provides high visibility in all directions. It should be easy to see the building's exterior from many vantage points and to see down many corridors with relative ease. Any other entries, especially at service docks, also should be seen from several perspectives.

■ **High-tech surveillance:** All entry points should incorporate as many high-tech surveillance and entry tools as possible. This includes surveillance cameras, buzzer systems, card access and metal detectors. Adequate personnel need to be deployed to make certain these systems are not violated.

Special emphasis should be given to incorporating new digital video recording technology. These new cameras can offer such high-tech options as infrared recording with night and day capabilities. In addition, digital recording can be executed on computer disc drives capable of long-term storage of data.

■ **Good visibility of key outside locations:** The design of parking lots, access dropoffs and service entries must be highly visible from several interior vantage points. It also helps if all of them are well lighted and patrolled on an irregular schedule.

■ **Comprehensive communications:** Incorporating wide-ranging high-tech communications systems is an essential ingredient for appropriate security. The easily accessible system must permit quick contact with security forces and others who need to be informed about unusual and suspicious circumstances.

■ **Front-load offices for high visibility:** Offices close to the front entrance and near the main service entrance should be

designed to accommodate sufficient personnel so that many eyes are focused on potential danger spots.

Early detection can often prevent a situation from getting out of hand while safeguarding as many as possible.

■ **Security call stations on site:** A sufficient number of well-spaced call stations should be located on such high-profile sites as school campuses, museum grounds, mall parking lots, among others. These stations should be well lit and easily identifiable.

■ **Training must accompany technolo-**

gy: Incorporating the latest surveillance technology in the building design can prove fruitless if security personnel and other responsible employees are not adequately trained in the use of such equipment.

In addition, all workers must be reminded frequently about the importance of continuous vigilance to detect potential danger. It helps to run occasional field tests and/or exercises to assess if security plans are being followed and equipment is in working order.

It probably goes without saying, but

architecture alone cannot prevent a building and its contents from being violated by someone intent on doing harm. But good design that provides abundant visibility of all public spaces from varied locations can go a long way in reducing the threat. In these troubling times, a building may never be completely safe. But why take chances with a design in which security is only a secondary consideration?•

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