

## Vulnerability Analysis: Common Building Security Vulnerabilities

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### KNOW YOUR VULNERABILITIES

Vulnerabilities are physical or operational weaknesses in building facilities that adversaries could exploit to carry out malevolent acts. The main purpose of vulnerability analysis is to identify the exposure of assets to potential threats. Asset vulnerability information is also used to determine the adequacy of existing protective measures and to assess the extent to which additional protective measures may be necessary.

Vulnerabilities are identified through surveys and plan reviews of existing buildings or proposed architectural designs for new buildings. The following statements of vulnerability, quoted from a security assessment prepared for a pharmaceutical manufacturing plant, illustrate vulnerabilities that many buildings have in common:

- Insufficient control and accountability of materials and finished products
- Insufficient control of company visitors and vendors
- Lack of protection for company's proprietary production edge
- Insufficient access control for critical areas
- Insufficient screening of employees for critical positions
- Lack of segregation of public and private space
- Insufficient procedures for guard force response to security or safety events
- Inadequate delineation and control of parking perimeter
- Insufficient access control and intrusion detection at main entry
- Lack of integration of systems technologies, personnel, and procedures

- Insufficient security operations and response procedures
- Insufficient employee background screening
- Insufficient screening of material or packages entering the building
- Insufficient segregation of interior operations
- Insufficient control and surveillance of parking lots
- Insufficient lighting of facility perimeter and parking lots
- Lack of control over vehicles approaching the building.

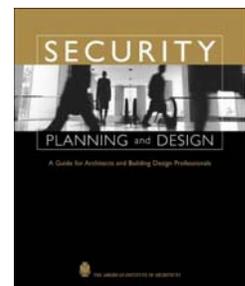
### ABOUT OUR CONTRIBUTOR

**Richard P. Grassie, CPP**, is president of TECHMARK Security Integration Inc., a Boston-based firm providing security design and technology integration services. Grassie has served as a consultant to Fortune 500, institutional, and government clients in the United States and abroad. He is a board member of the International Association of Security Consultants and is past chair of the American Society of Industrial Security (ASIS) Security Architecture and Engineering Council. He has written numerous articles and conducts workshops and training seminars on security for public agencies and private industry.

### FOR MORE INFORMATION

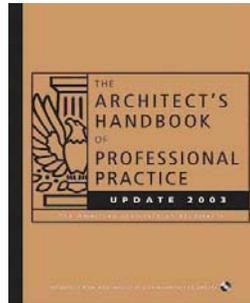
This article is excerpted and adapted from *Security Planning and Design: A Guide for Architects and Building Design Professionals*, by the American Institute of Architects.

See also "Security Evaluation and Planning," by Marco A. Monsalve and James R. Sutton,



*The Architect's Handbook of Professional Practice Update 2003.*

Both books can be ordered from the AIA Bookstore by calling 800-242-3837 (option 4) or by sending e-mail to [bookstore@aia.org](mailto:bookstore@aia.org).



19.04.04 Facility Management: Building Security Access Control Measures

## MORE BEST PRACTICES

The following AIA Best Practices may provide additional information related to this topic:

- 09.03.01 Becoming a Certified Protection Professional
- 17.07.01 Understanding Human Behavior Leads to Safer Environments
- 17.07.02 Building Security Resources
- 17.07.03 The National Capital Urban Design and Security Plan
- 17.07.04 Cost Estimating Tools for Security Design
- 17.07.05 Blast Loads: Window Glazing Analysis and Design Tools
- 17.07.06 Specifying Building Products for Building Security
- 17.07.07 Building Security from a Client Point of View
- 17.07.08 Building Security: Basic Design Elements
- 17.07.09 Building Security Consultants
- 17.07.11 Conducting Security Assessments: A Typical Scope of Work
- 17.07.12 Conducting Security Assessments: The Basic Elements
- 17.07.13 Building Security Design Considerations: The Effects of Bomb Blasts
- 17.07.14 Building Security: Basic Design Strategies
- 19.04.02 Facility Management: Fundamental Elements of Security Operations
- 19.04.03 Facility Management: Developing Operational Security Factors