
CONCLUSION

The purpose of *Engineering Security* is to provide a forward-looking, informative reference for building owners, developers, architects, and engineers seeking to manage the terrorist threat to buildings. With the incredible diversity and complexity of modern construction projects, security is only one concern among a range of important considerations facing the building community. The recommendations set forth in this document are not mandatory; they are voluntary and apply only to a small subset of buildings facing the greatest risk of terrorism.

Each building faces a unique set of security concerns that requires owners and designers to devise specifically tailored security plans. Chapter One provided an overview of the threat to buildings from explosive devices. Most of the recommendations presented in *Engineering Security* focused on measures to counter threats from vehicle-borne and man-portable improvised explosive devices.

No single strategy or approach is suitable for protecting all buildings from all potential threats. Thus, the first step in devising an effective strategy for protective security design involves calculating the risk of terrorism facing a particular building. Accordingly, Chapter Two presented a risk assessment system and provided a methodology for determining whether a building falls into a Low, Medium, or High Tier. The subsequent chapters presented a series of recommendations corresponding to risk tier.

Chapter Three covered the use of a vehicle threat vector analysis to determine whether a building should design for a hard or soft perimeter, emphasizing the importance of standoff for securing buildings. Chapter Four focused on site layout and orientation as well as design methods to minimize the hazards from debris and prevent collapse. Chapter Five discussed access control, screening, and monitoring systems and procedures. Chapter Six covered emergency preparedness, with recommendations related to fire resistance, emergency egress, and communication systems.

Engineering Security also reflects a desire to identify emerging threats and preempt future attack scenarios. Because terrorist organizations have shown an increasing interest in using chemical, biological, and radiological agents, Chapter Seven focused on CBR detection and mitigation techniques with the acknowledgement that unconventional weapons technology is rapidly evolving.

Overall, the protective security design approach offered by the NYPD seeks to minimize the maximum potential casualties, damage, and economic loss caused by a terrorist attack. The recommendations are meant to serve as a general framework, not an exhaustive security plan, and will evolve as terrorist tactics and associated countermeasures emerge. Building owners may also choose to implement additional security measures not covered in the document. An effective plan is best achieved through a public-private partnership between security experts and the design community.



