

Anti-Terrorism/Force Protection

Lindbergh & Associates (L&A) is a leading structural engineering firm specializing in Anti-terrorism/Force Protection (AT/FP), and general and multi-hazard structural design. The firm also provides consulting engineering services throughout the United States based on proven structural technology and innovative conceptual developments.

Areas of expertise include:

- AT/FP Application
- Multi-Hazard Engineering
- Structural Design

As a result of terrorist threats to homeland security, critical changes in the design of the nation's infrastructure have been initiated. When dealing with at-risk and other important structures, L&A considers anti-terrorism in new design and renovation projects. L&A is prepared to develop an integrated design addressing AT/FP and multi-hazard risks (including earthquakes, high winds, and floods).

The already challenging new generation of building codes should be applied in conjunction with AT/FP mitigation. L&A is a leader in the development and application of multi-hazard building code evaluation and design, and is positioned and ready to help.

AT/FP APPLICATION

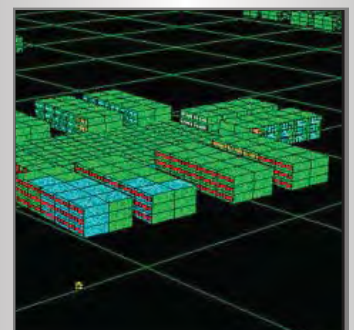
L&A was involved in developing and conducting the National Symposium on Comprehensive Force Protection — the first national engineering event focused on addressing terrorism and natural hazards. L&A has presented short courses on AT/FP throughout the country. L&A has become a nationally recognized leader in the area of anti-terrorism design technology.

Services include:

- Department of Defense (DoD) anti-terrorism standards for new construction,
- Protection against chemical, biological, and radiological weapons
- Mitigation of explosive effects on new and existing structures
- Site layout and improvements
- Barrier design
- Water vulnerability assessment and protection
- Post-disaster building evaluation and recovery renovation, and modification

MULTI-HAZARD ENGINEERING

L&A is a recognized leader in assessing structures for earthquake and wind mitigation, and applies state-of-the-art technology to ensure compliance with established wind and seismic requirements. L&A was instrumental in the development of the new generation of building codes. The new codes enhance the abilities of new and renovated buildings, bridges, and infrastructure systems to survive earthquakes, and withstand severe winds and floods with as minimal damage as possible.



Anti-Terrorism/Force Protection

Client types have included:

- Military/federal/government
- Municipal
- Residential
- Industrial
- Commercial

In the event of natural disasters (flood, wind, earthquake, or fire), some structural damage is inevitable. However, the extent of damage varies based on a broad range of factors. L&A assists clients to determine and mitigate structural damage. L&A assesses all types of structures, from buildings to bridges, to determine the structural damage.

Projects have included:

- Marina complexes
- Apartment complexes
- Storage tank facilities
- Commercial buildings

STRUCTURAL DESIGN

The Structural Group at L&A provides design services to ensure compliance with established design codes and technical guidelines. Historically, L&A has been a leader in AT/FP design technology. Recently, the structural design focus has shifted towards more conventional building design projects. Utilizing AT/FP knowledge and experience, L&A provides innovative and cost-effective design solutions for new structures and the retrofit of existing structures.

Structural services include:

- Deep and shallow building foundations
- Superstructures for low-rise and/or multi-story buildings
- Coastal environment
- Water and wastewater infrastructure
- Building evaluations
- Equipment/non-building structural designs/evaluations
- Construction management

L&A designs incorporate:

- Structural and cold formed steel
- Reinforced concrete
- Masonry, wood, and aluminum
- Structural Insulated Panels (SIPs)
- Fiber Reinforced Polymer (FRP)

ADDITIONAL SERVICES

L&A provides services through each project phase, from concept and engineering through construction, including construction management, start-up, and operation and maintenance (O&M). L&A has resources throughout the US and internationally, and offers solutions for facilities and utilities, site development and redevelopment, wastewater management and water resources, and overall project management. L&A is a multi-discipline engineering firm with additional niche capabilities in building code guidelines, natural hazard mitigation, AT/FP design technology, and structural failure analysis.

CONTACT US

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