

## Convention Center Blast Film Design

Blast Investigation and Retrofit Design  
Undisclosed Location



### CLIENT

Toyon Research Corporation

### CHALLENGE

An extensive glass curtain wall at a convention center represented a source of potentially dangerous flying debris in the event of a nearby blast. Through a relationship with Toyon Research Corporation, the U.S. Department of Homeland Security's Regional Technology Integration Initiative Program wanted to assess a number of explosive threat scenarios and establish cost estimates for various upgrade options.

### STRUCTURE

The convention center features a large, multistory glass curtain wall that separates the exterior from interior areas where many people often assemble.

### SOLUTION

WJE first evaluated the performance characteristics of the original curtain wall system under various blast scenarios. We then investigated the effect of adding blast film, including different methods for attaching the film to the framing. These studies indicated that, if properly done, adding blast film could significantly reduce the hazards associated with certain threats. After assisting the owner with cost/benefit considerations, we developed construction documents for the selected blast film retrofit approach.

