

1901 Van Ness Avenue

Evaluation of Blast and Fire Damage
San Francisco, California



CLIENT

Lexington Insurance Company

CHALLENGE

During construction of two residential towers, an explosion occurred in the top floor of the south tower. The blast and subsequent fire caused extensive damage to the stucco cladding, nonstructural partitions, ceilings, and windows. While much of the damage was easily identified, the insurance company was concerned about the presence of less obvious damage to both structural and nonstructural elements.

STRUCTURE

The two nine-story residential towers are constructed of concrete moment-resisting frames with post-tensioned concrete floor slabs. The buildings are clad with stucco, and the interior partitions consist of metal studs and gypsum board.

SOLUTION

Through simple visual examination and limited nondestructive sounding, we quickly determined that damage to the buildings' structural systems was limited to minor spalls that had no impact on structural integrity. WJE's findings were later confirmed through additional testing by an independent laboratory. We also identified the limits of blast and fire damage to the exterior cladding and helped develop evaluation criteria for interior partitions and windows.