

EDWARD JONES SEISMIC STRENGTHENING PROJECT

Recognized for Excellence in the Repair of Structural Strengthening – December 7, 2012 International Concrete Repair Institute – Great Plains Chapter



Structure characteristics:

The Edward Jones headquarters building is a nine-story concrete framed building and was constructed in 1975. Existing plans were available at the time of the project to determine the existing structural framing in the areas of concern. The seismic load carrying capacity of the concrete beam to column connections did not meet current code requirements.

Problems that prompted repair:

The Owners were concerned about the seismic capacity of the building to meet current code requirements.

Causes of deterioration:

The original construction used a connection at the locations where the concrete beams integrated with the concrete columns that did not develop adequate seismic moment capacity to meet current design loads.

Repair system selected:

A carbon fiber reinforced polymer (CFRP) and glass fiber reinforced polymer (GFRP) strengthening system was selected due to the ease of installation and properties of the materials.



Special features of the Project:

The project was a comprehensive restoration project that included structural strengthening of an existing multi-story office building that was fully occupied and functional while the work was completed. It was successfully restored with cutting edge technology available to the industry for providing seismic upgrades to existing buildings.