WJE

Capital One Plaza

Facade Access Equipment Load Testing and Annual Inspections | Houston, TX



CLIENT CBRE

BACKGROUND

Capital One Plaza is a twenty-twostory building built in 1983. The facade access support system components consist of thirty-eight davit bases, forty-four fall arrest anchors, and two davits. At each location, the davit assembly can support contractor-provided transportable platform. Prior to WJE involvement, the fall arrest anchors were tested to 2,500 pounds, which is half of what OSHA 1910.66 requires for one lifeline connection. Also, the davits and davit bases were tested to 1,250 pounds, which is just above the 1,000 pound-rated load of the hoists. The davits and davit bases should be tested to four times the rated load of the hoist per 29 CFR OSHA 1910.66 (this applies only to maintenance activities like window washing).

WJE | ENGINEERS ARCHITECTS MATERIALS SCIENTISTS CBRE engaged WJE to perform load testing of the building's facade access equipment to ensure that it would comply with OSHA's minimum requirements. The client later engaged WJE to perform the annual inspection, as required by OSHA, of the facade access equipment in the years following the testing.





SOLUTION

WJE's evaluation included reviewing tests performed by other firms to determine what additional measures would be necessary to ensure that the davit system would comply with OSHA's minimum requirements. Based on reviews, WJE concluded that the testing protocol suggested by the other firms would not be adequate to conform to OSHA's minimum requirements. WJE performed testing of all davits, davit bases, and fall arrest anchors using several testing apparatus and configurations to overcome complicated field conditions and minimize disruption to the office tenants.

Based on the testing performed, the davit bases, davits, and fall arrest anchors meet OSHA load capacity requirements.

WJE has been performing the annual inspection, as required by OSHA, of the facade access equipment support system in the years following the load testing.