



PROJECT PROFILE

BMO Plaza

Facade Access Anchorage Load Testing and Certification | Indianapolis, IN



CLIENT

Redico Management, Inc. (Redico)

BACKGROUND

The BMO Plaza was constructed in 1988 by Duke Construction Management for Phillip R. Duke & Associates. The office building consists of a twenty-nine-story office tower with six levels of parking from the basement through the sixth floor. Facade access on the building is provided by swing stages, rope descent systems, or industrial rope access. Dedicated facade access anchorages consist of 156 eyebolt-type anchors distributed in the lower and upper thirds of the building height.

At the request of Redico, WJE completed an evaluation of the existing permanent facade access equipment at the BMO Plaza in Indianapolis, Indiana. The evaluation consisted of a combination of visual review as well as in situ load testing of the anchorages located at the 25th, 27th, and 29th levels of the building. The purpose of the review was to verify that the equipment used for facade access at the building was in compliance with the current applicable Occupational Safety and Health Administration (OSHA) regulations.



SOLUTION

WJE performed a limited evaluation of the 112 existing facade anchorages located on the 25th, 27th, and 29th levels to determine their viability and compliance with the governing laws for facade access equipment as mandated by the OSHA. To verify that the equipment could support the required loads when used for maintenance or construction activities, WJE tested all of the eyebolt anchorages with loads equivalent to a maximum factored load of 5,000 pounds. Three different testing procedures were implemented in order to evaluate the capacity of each eyebolt anchorage. Testing included a straight-pulling test, lateral-pulling test, and lateral-pushing test. WJE designed and fabricated custom testing rigs to perform the straight-pulling test and lateral-pushing test.

The objective of each test was to impose the the OSHA-required demands in each direction of use. All anchorages successfully passed the load testing and were marked with a WJE certification tag attached to the eyebolt.