



Above: Artist's rendering of the building. Top left: MRCE designed excavation support along shallow 42nd Street subway. Lower left: Overview of the site fully excavated. Foundation construction in progress.

300 Madison Avenue

New York, NY

Mueser Rutledge Consulting Engineers (MRCE) was the geotechnical and foundation engineering consultant for the 1.2 million-sf office tower development at 42nd Street and Madison Avenue in New York City. The building, developed by Brookfield Financial Properties, is the international headquarters of Canadian Imperial Bank of Commerce, a major financial institution.

The 8-month demolition of existing buildings on the site was completed in May 2001 and included the demolition of a 21-story building. The 35-story tower was completed in early 2004.

MRCE's services included borings and a geotechnical report, design of excavation support alongside the adjacent shallow 42nd Street shuttle subway, design of an underdrainage and wall drainage system, foundation specifications, vibration monitoring, and construction inspection services. Underpinning was required for three buildings on the west side of the site. The foundation system includes footings on rock—typically at a bearing intensity of 40 tons per square foot—and deep drilled foundations along the 42nd Street frontage to carry loads below the influence of a deep tunnelled subway line.

This project won the ACEC 2005 Diamond Award for Structural Systems.