



Upper left: Location map showing the 4 buildings for which MRCE performed geotechnical investigation. Center top: Artist rendering of completed Times Square Tower building. Above: lifting and setting the caisson core. Center bottom: installing column sections. Lower left: MRCE inspector on site.

Times Square Tower (7 Times Square)

New York, NY

Foundation Engineering Project Highlights

- Geotechnical site investigation in Times Square for four highrise towers & subway improvements
- Design of protection and support for NYCT subways and stations, historic and adjacent structures, sidewalk vaults and utility lines
- Design of innovative tower foundations and 2-3 level deep basements.
- Seamless construction kept busy subway station and streets open during construction

In the mid 1980s, Mueser Rutledge Consulting Engineers (MRCE) performed a preliminary geotechnical investigation for four new high rises and a subway enhancement program in the Times Square area; the buildings are labelled in blue on the site map above. All buildings are two to three basement levels extending flush to property lines. Special attention was given to the support of adjacent structures including historic buildings, New York City Transit Authority (NYCT) subway tunnels, stations and passageways, sidewalk vaults and major utility lines for water, sewers, gas and steam. MRCE prepared a Historic Preservation Plan for the New Amsterdam Theatre, which is immediately adjacent to 5 Times Square. Times Square Tower, located in the center of the site and surrounded by NYCT subways on all four sides, and the Times Square station immediately adjacent to the north. MRCE planned and implemented the geotechnical investigation for the site with a summary report containing foundation recommendations. MRCE also provided review of subway excavation support schemes for submittal to NYCTA, and provided design schemes for foundations adjacent to subways. MRCE was involved in obtaining preliminary approvals of excavation support schemes used for bracing the subway structures. MRCE was also involved in selecting construction methods to limit vibrations transmitted to the subway structures. Construction support services included providing a Resident Engineer and inspection services for caissons and rock subgrades.