



Above left: Rendering of 330 Jay Street. Above center: The construction site of the 12 Metrotech Center in July of 2001. Behind the site is the Joseph J. Jacobs building of Polytechnic University.

Upper and lower right: The construction site in January of 2002. MRCE assisted in the foundation design and designed the support of excavation along the east side which supports the subway in the street.

12 Metrotech (330 Jay Street)

Brooklyn, NY

330 Jay Street has been designed to be an integral part of the MetroTech Center complex and responds to the context of downtown Brooklyn. Rising 473 feet high, 330 Jay Street consists of 32 stories (including two stories that will house the building's mechanical equipment). The below grade parking and floors 1 through 25 will be occupied by the New York State Supreme Court and Kings County Family Court. The remaining floors (26 through 30) are being developed as commercial office space. The ground floor of 330 Jay Street will have three separate entrance lobbies, one each for Family Court and Supreme Court, and a third lobby serving the commercial office space. This site will also include two levels of underground parking.

Mueser Rutledge Consulting Engineers (MRCE) performed the subsurface investigation for 330 Jay Street and assisted with foundation design. MRCE also designed the initial temporary support of excavation (SOE) along the east side of the site. That SOE design was needed to get New York City Transit approval because of the adjacent subway in Jay Street.

The foundation includes high capacity drilled piles, individual footings and a long strip footing. The drilled piles typically had a short upper unbonded length followed by a 40 foot long pressure grouted (bonded) length. The piles were load tested to 315 tons working load. Footings rest on the local outwash sands at a bearing intensity of 4.5 tsf. The allowable bearing intensity of the strip footing was restricted to 3 tsf to limit effects on the subway. Controlled inspection of all foundation elements was performed by MRCE.