



Above: Installing mini-piles under low headroom using reverse rotary drilling rig. The rig requires only 9.5 feet of headroom. At right: 4 foot lengths of drill casing enable drilling under low headroom.



## Mondo Condo

New York, NY

Mueser Rutledge Consulting Engineers (MRCE)'s project at Mondo Condo, located at 16th Street and 11th Avenue in New York City, is a prime example of installing mini-piles under low headroom.

Drilled piles are used to support a fuel tank in the condo's basement. MRCE's scope of services included the design of piles and the inspection of the installation. Some of the highlights of the project are:

- 50-ton mini-piles consisting of 7-inch diameter steel casing, #14 rebar and grout; 5-1/2 inch diameter x 11 foot - 8 inch deep rock socket.
- Piles were drilled through fill, silt and fine sand to rock at a depth of 110 feet, using reverse rotary drilling.
- Reverse Rotary Drill Rig requires only 9-1/2 feet of headroom
- 4 foot long sections of drill casing enable drilling under low headroom in basement
- Tri-cone roller bit was used to drill through soil and rock