



American Trucking Association Washington, DC

The renovation of historical structures often presents the architect with an array of unusual problems; height limitations, footprint limitations, the need for additional parking, and need to maximize below grade development. Add to this the need to undermine and support buildings constructed in 1893, 1910 and 1972 and you now have an idea of challenges RTKL faced in adding 25,000sf of office and parking space to the American Trucking Association building in Washington, DC.

Forrester Construction Company selected Schnabel Foundation Company to design and build an excavation and structural support system to extend the foundations of the existing structures to a deeper elevation, and allow the excavation of the site from property line to property line. Schnabel used Micropiles to penetrate the footings and support the loads to the columns and walls above the footings, enabling the construction of foundations under the existing footers.

To minimize movement of the structures and to control risk, Schnabel designed a construction sequence that would allow the new shear walls to sequentially pick up loads, as each building was undermined. The site is continuously monitored with real-time readings that give an alert in minutes of any settlement. The system was so sensitive that Schnabel would get alerts whenever an excavator's bucket scraped a structure's foundation. Even with this level of sensitivity and precision, measurements of the movements to date have been within the system's accuracy; no measurable movement.

Owner: American Trucking Association

Architect: RTKL

Structural Engineer: Tadjer-Cohen-Edlelson Association

General Contractor: Forrester Construction Company

Excavation Support Contractor: Schnabel Foundation Company

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