

Drilling System to Assist in the Cleanup of the World Trade Center Collapse

The collapse of the World Trade Center Towers was devastating to all Americans. It created a specific problem for those working at the site. The problem was keeping the slurry walls comprising the below ground parking structures from falling in as debris was being removed. A quick and efficient solution was needed to allow the continuation of debris removal and to maintain the position and structural integrity of the slurry walls. The collapse of the towers removed all means of holding the walls in place. The original tie back cables were cut and the headers removed after the tower structure had been constructed. Cleveland Bridge USA proposed over drilling the old tie back cables utilizing the original casings. The plan was to drill past the original cable anchor plug and remove the cable and old anchor plug in one operation. A new tie back cable could then be reinstalled and tensioned. The new tie back cables would hold the slurry wall in place.

Construction Solutions was contracted to complete the design-build of a drilling system that would allow Cleveland Bridge USA to install new tie back cables as proposed. Over a four-day period Construction Solutions designed, built a drilling system for over boring the original tie back cables, and constructed a mockup of the tie back cable and casing in order to prove the concept. Five days after work began, officials from Cleveland Bridge USA and AMEC witnessed a successful trial operation of the drilling system. The drilling system was crated and overnight freighted to the site. Construction Solutions personnel were on site to provide operational support and training to local Dock Workers.



