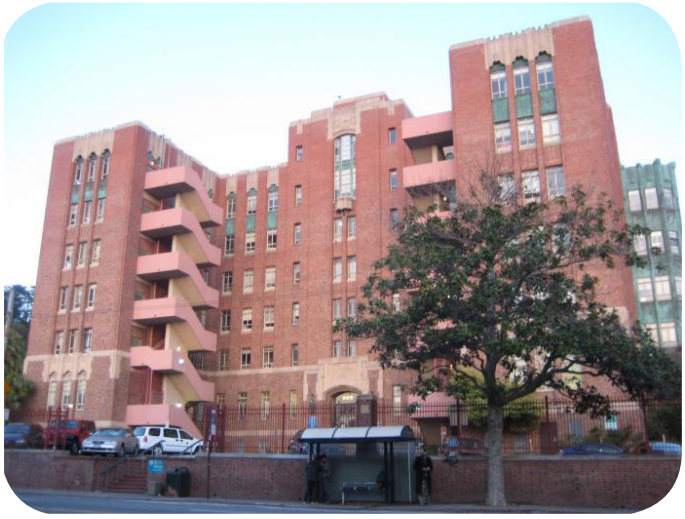
Earthquake Retrofit Strengthens Hospital Against Seismic Peril

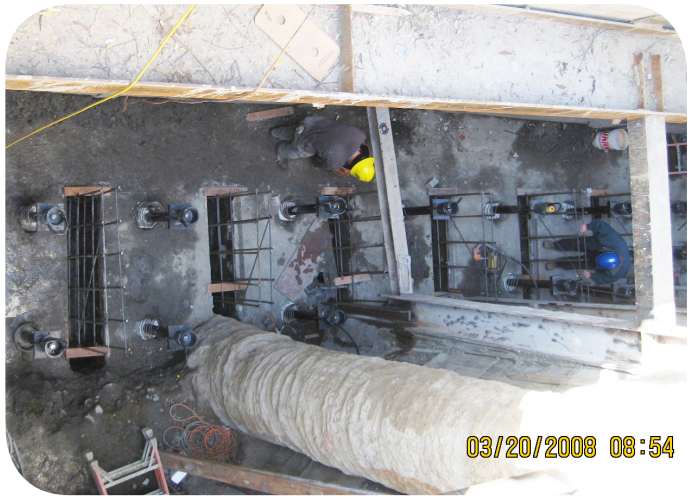
The Challenge

A structural analysis of one of the hospital's buildings indicated that it was vulnerable to severe damage during a significant seismic event.



A San Francisco General Hospital building required seismic retrofit

The retrofit design called for installation of new footings and large diameter piers around the perimeter of the foundation. The new footings as well as the existing interior footings required a series of tiedowns locking them down against uplift.



Shored pit with tops of tiedowns showing

Craning drill rig into shored pit for tiedown drilling

Action:

In order to install the exterior footings and tiedowns, first it was necessary to construct soldier beam and wood lagging shoring to a depth to 30 ft.

Drilling tiedowns through interior foundation footings

An opening was cut into the basement area from the shoring pit. Finally a small track rig was lowered into the pit to perform the exterior and interior tiedown drilling.

The 36" diameter piers needed to be installed 40 ft. deep directly against the existing foundation, while avoiding damaging the building.

RWR Construction Inc. 200 Gary Place, San Rafael, CA 94901 (415) 457-5658 www.RWR-inc.com

San Francisco General Hospital

Case Study

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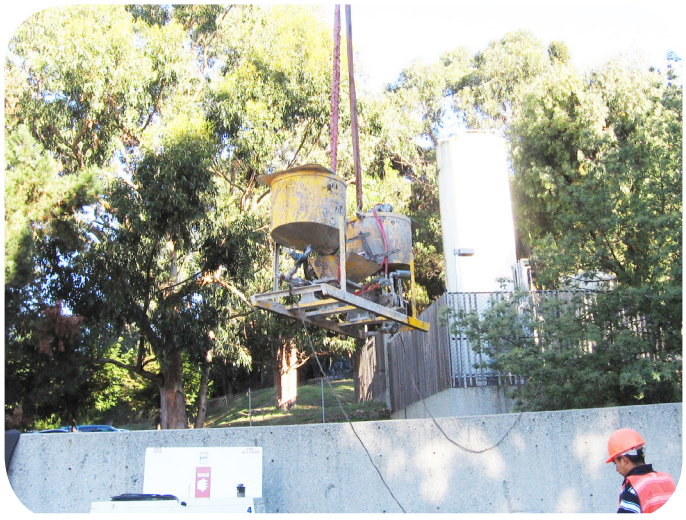
Continuous flight augers used in tiedown drilling

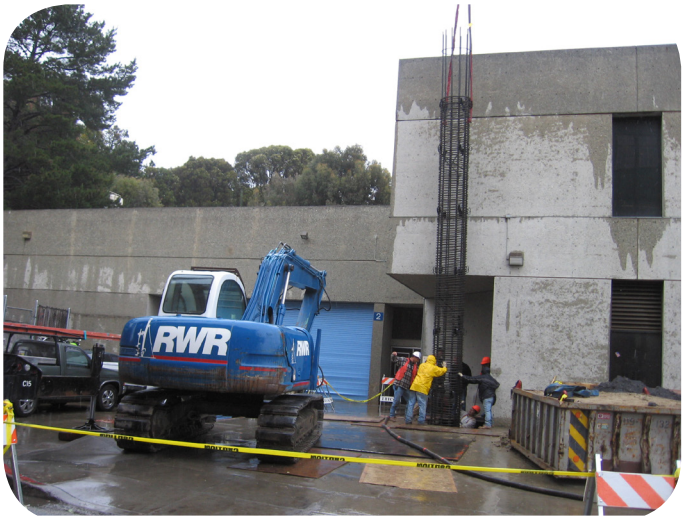


Craning in double hopper grout pump for tiedown grouting

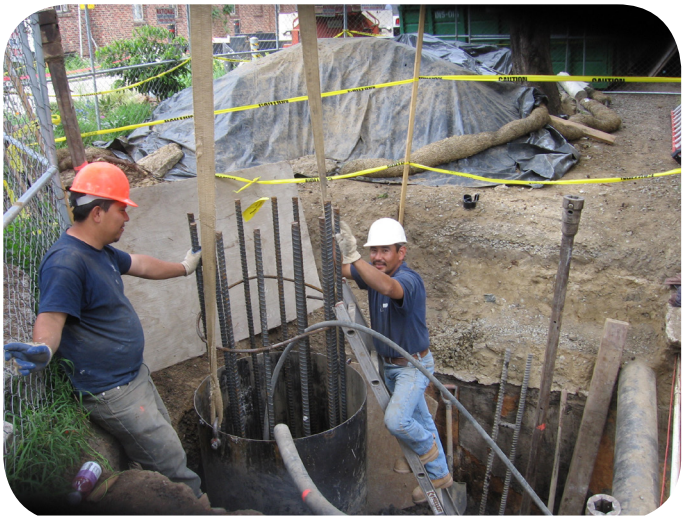
Results:

The work was completed successfully. This San Francisco General Hospital building now stands reinforced against the possibility of a devastating earthquake.

Bringing 35 ft. long pier cage to site



Setting cage for 36” diameter x 40 ft. deep pier



Placement of reinforcing cage in cased 36” pier hole

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