



Century Village at Cabrillo

Long Beach, California

Over 1,500 Rampact® elements were installed in 31 days to reduce seismic settlement.

Description: This project included the construction of a four-story, 60,000 square foot apartment complex and parking structure to provide veterans with affordable housing. The foundations were designed for bearing pressures up to 1,500 psf.

Subsurface Conditions: Soil conditions consisted of 5 feet of loose to firm silty sand/silt fill overlying a layer of soft to very soft silt and clay to a depth of 35 feet, underlain by interbedded medium dense to stiff silty sands and silts to 50 to 60 feet. Groundwater was encountered at 7 feet below grade.

Geopier Solution: Rammed Aggregate Pier® (RAP) elements were proposed because of the very soft and compressible soils combined with potential seismic deflections of up to 6 inches. The Rampact® system was selected to overcome installation challenges such as maintaining stable excavations with soft soils, high groundwater, and limiting noise and vibration to reduce residential disturbance.



PROJECT TEAM

Owner:

Century Villages at Cabrillo

Geotechnical Engineer:

Geotechnologies, Inc.

Structural Engineer:

Castillo Engineers

General Contractor:

Walton Construction

Geopier Installer:

Foundation Services Corp.

Geopier Designer:

Western Ground Improvement