



# CASE HISTORY

*SAFEBASE™ PUSH PIERS*

## PALO ALTO GRADE BEAM STABILIZATION



A two-story commercial structure in Palo Alto, CA was experiencing settlement along its northeastern face. The building's overhanging second level was supported by support columns that sat upon a reinforced concrete grade beam that ran the entire length of the building. Due to vertical loads and poor surface soil conditions, consisting of bay mud that was below a layer of artificial fill, the grade beam experienced a settlement of more than 3 inches. Due to the settlement, the grade had reversed and was causing water to pool near the building.



To address the settlement, EagleLIFT proposed to stabilize and lift the beam using 4 SafeBase™ Light Duty galvanized steel push piers with Light Duty SaberTooth™ Brackets at each support column, equaling 52 push piers for 13 columns. The piers were installed in an offsetting pattern at a 4' separation on either side. This design was used to limit direct pressure at a specific point in the grade beam to alleviate potential stress and damage. Each push pier was installed at 80' depths to reach competent strata. Initial estimates, per the geotechnical investigation, were that Alluvial materials would be encountered at 14 – 20ft below the bay muds. To reach the minimum 9 kips and 1900 psi, we had to drive the tubes to 80'.



The project took place over 15 days. Light excavation equipment was used in low traffic hours to minimize impacts on the building residents. During the project, a full-time site inspector was onsite to monitor pier logs, psi, bracket installation, and pier installation. The grade beam, support columns, and the overhang of the second floor were fully stabilized. The project was completed in November of 2022.



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