

Litigation Case Study

Helfrich-Associates engineering expertise was needed for a 2008 litigation case between a Coachella Valley city and a contractor of a senior citizen development. Ground settlement was at the heart of this case. More than 12 inches of street settlement with continuing 0.2 inches per year of settlement and more than seven inches of building tilt with continuing tilt of 0.7 inches were occurring since project completion in June 2006. Other issues surrounding this case were also occurring at the site. These issues were:

1. Leaks in sewer lines.
2. Surface drainage deficiencies around buildings.
3. Stucco, drywall, and concrete damage.

Our scope of investigation required in-depth observations and monitoring in order to successfully address the issues troubling this site. Our investigation scope consisted of the following:

1. On-going ground surface settlement monitoring.
2. Floor level surveys of 28 buildings.
3. Exterior and interior observations of 39 units.
4. Video surveys of 8-inch sewer lines.
5. Storm drain and catch basin tests.
6. 18-inch sewer main surveys and tests.
7. Interior and exterior observations of 28 buildings.
8. Landscaping and drainage observations around 28 buildings.

With damage occurring in 39 units throughout 28 buildings, conditions were varied. The challenge was to develop a scope of repair that would address different conditions for each of the buildings. For example, in one of the buildings the following scope of repair was required:

1. 36 hydraulically installed piers from 12 feet to 50 feet depth.
2. Structural foam injected at six feet spacing with depths of six feet to 24 feet.
3. The structure was lifted between 5.5 inches and six inches.

This project was successfully completed in three years and Helfrich-Associates was also part of the mediation between the two parties.