



Village on the Lake Condominiums consists of several large 5-story buildings which form a residential community. Each building is constructed on perimeter concrete footings and foundation walls. The exterior walls are primarily constructed of load-bearing masonry. The floors consist of concrete on metal deck, supported by steel joints and beams.

BTC's services were requested to evaluate ongoing cracking and distress on the exterior walls of one of the buildings. At that building, a tier of corner units had been affected along the entire height of the building. Attempts at addressing the cracking issues previously had not been successful.

BTC's investigation consisted of a visual review of the existing conditions, a review of prior repair records, and review of the original design drawings. The investigation revealed that many window sills along the affected tier were not level. Significantly wide cracks at the corners of these windows were observed on the exterior and interior faces of the exterior walls. BTC's review also indicated the presence of a large tree adjacent to the affected corner of the building.

Based on the investigation, BTC concluded that the building foundation had undergone significant settlement at the corner of the building that exhibited distress. The settlement was attributed to soil desiccation resulting from the presence of the large tree near the building footprint, and dry conditions during prior summers. BTC recommended that the tree be removed and the building be monitored for a period of time to ensure additional settlement did not occur. BTC installed crack monitors and performed periodic precision level measurements to evaluate if additional settlement had occurred. The monitoring revealed no further settlement after removal of the tree. At that time, BTC recommended repairing the cracks. No further structural repairs were deemed necessary.

Project Name:

Evaluation of Exterior Wall Cracking at Village on the Lake Condominiums

Project Location:

*720 Wellington Avenue
Elk Grove Village, Illinois*

Client:

*Village on the Lake Condominiums
720 Wellington Avenue
Elk Grove Village, Illinois 60007*

Approximate Construction Cost:

Not Available

Year Completed:

2007

Nature of Services:

Evaluation of Exterior Wall Cracking, and Building Foundation Settlement, Structural Monitoring

