

180 Grand Avenue
Pre-Purchase Survey and Cladding Investigation
Oakland, California



CLIENT

Simeon Commercial Properties

STRUCTURE

180 Grand Avenue is an office building clad with an aluminum and glass curtain wall system. It has glass fiber reinforced concrete (GFRC) panels at the top and bottom of the building and at the exterior columns.

CHALLENGE

A previous investigation by WJE had identified a significant amount of cracking in some of the GFRC panels. WJE was retained to perform a more detailed investigation into the cladding distress so that the client could develop a budget for future cladding maintenance costs.

SCOPE OF SERVICE

- Performed swingstage "drops" on the exterior of the building (lower photo), identified locations of cracking, and surveyed typical crack patterns
- Observed panel interior surfaces and panel structural supports to ascertain the cause of the cracking and to assess the current condition of the panel supports

SOLUTION

- Concluded the GFRC panels were cracking due to a lack of flexibility in the structural supports, which were constructed in a manner that precludes the panels from relieving thermal stresses during daily heating and cooling (expansion and contraction) cycles
- Observed that the existing structural supports were relatively free of corrosion and appeared adequate to continue supporting the panels
- Recommended initiation of a regular maintenance program to help limit water intrusion and to monitor the cracking in the panels
- Provided recommendations for routing and sealing the cracks in the GFRC panels