



The Malibu East Condominium Building is a 45-story concrete frame structure completed in 1972. The lower 4 floors primarily consist of common building areas, a parking garage, and a few residential units. The east side of the development abuts Lake Michigan. There is a driven steel sheet piling wall with a cast-in-place concrete cap (sea wall) that forms a parapet separating the elevated access drive from Lake Michigan. This area is referred to as the boat dock.

The garage is primarily constructed of cast-in-place concrete and extends beyond the footprint of the tower. Expansion joints separate the extended garage structure from the tower building at each garage level.

Several different types of repairs were performed during this project. Repairs in the garage included application of traffic bearing membrane, replacement of deficient expansion joints, and concrete repairs. Concrete repairs included replacing portions of floor slabs which were severely deteriorated adjacent to expansion joints. Additionally, repairs were made to concrete columns which exhibited distress due to improper construction of the expansion joints at complicated interfaces.

Repairs to the boat dock were necessitated by ongoing outward movement of the steel sheet piling along Lake Michigan. BTC developed an innovative approach to provide lateral bracing of the sheet piling using a structural slab that connected the top of the lake retaining wall to the building structure. As part of the boat dock project, a new egress path was provided from the lower level of the building to the boat dock with an exterior concrete stairwell. This modification resulted in minimal disruption to the building.

The repairs required close coordination between the building management team and residents to ensure their safety and minimize inconvenience to them. These coordination efforts were further complicated due to onset of COVID-19 issues.

Project Name:
New Stairwell, and Boat Dock and Garage Repairs

Project Location:
6033 North Sheridan Road
Chicago, Illinois

Client:
Malibu East Condominium
6033 North Sheridan Road

Approximate Construction Cost:
\$1,450,000

Year Completed:
2020

Nature of Services:
Design of New Exterior Stairwell, and Repairs of Boat Dock Slab and Parking Garage, Bidding Assistance, and Construction Contract Administration

