



Michigan Avenue Lofts Condominium Association is a 21-story concrete frame building originally constructed in 1911. In 1998, the building underwent a major rehabilitation, and was converted into loft condominiums.

There are approximately 9 roof sections at various elevations on the building. The main roof over the 21<sup>st</sup> floor consisted of a concrete deck, and a modified bitumen roofing system. On this roof, there are 4 penthouse structures housing stairs, mechanical, electrical, and elevator equipment. Each of these penthouse structures had a roof similar to the main roof covered with a modified bitumen roofing system. Three lower roofs are located on the 6<sup>th</sup>, 10<sup>th</sup> and 20<sup>th</sup> floors. These roofs were used as private outdoor terraces for the unit owners on those floors. Many of the roof sections include numerous penetrations and complex geometries.

BTC was originally retained to design a replacement roofing system for all of the roofs on the building. BTC's scope of work was subsequently expanded to include a study to evaluate feasibility of converting the main roof to a vegetative roof, and structural assessment of the roof deck capacities of some terraces to withstand code-prescribed loads for outdoor terraces.

BTC prepared drawings and specifications for replacement of all the roofing systems at the building. The replacement system included a single-ply roofing membrane installed over a vapor retarder, tapered insulation, and coverboard.

BTC's services also included bidding assistance, construction contract administration, and assistance to the Owners to resolve many unanticipated field conditions including roof related masonry deficiencies, and requirements of the City of Chicago.

**Project Name:**  
Roof Replacement  
Michigan Avenue Lofts Condominiums

**Project Location:**  
910 South Michigan Avenue  
Chicago, Illinois

**Client:**  
Michigan Avenue Lofts Condominium Association  
910 South Michigan Avenue  
Chicago, Illinois

**Approximate Construction Cost:**  
\$1,200,000

**Year Completed:**  
2011

**Nature of Services:**  
Repair Design, Bidding Assistance and Construction Phase Services for Roof Replacement

