



AGL Resources/Nicor Gas Headquarters Building is an 8-story structure with a mechanical penthouse on the top floor. The building was built in approximately 1990. The building facade on the south, east and west elevations primarily consist of an aluminum and glass curtain wall system. The curtain wall system incorporated several barrier-type metal cladding accents including buttresses along the top floor, and louvers on the east and west elevations of the building. The north elevation of the building is clad with a combination of a similar curtain wall system and precast concrete panels.

The building reportedly suffered from facade related leaks since its original construction. BTC was retained to perform an evaluation on the building facade, and subsequently developed several repair alternatives for the owner's consideration. These alternatives include an innovative retrofit of the existing curtain wall system and barrier cladding using custom-extruded aluminum profiles. Based on discussions with BTC, the owner selected this innovative repair approach to save significant costs as compared to complete replacement of the system.

Working as a subconsultant to the owner's architect, BTC designed the repairs which included removal of the existing mullion caps, installation of new aluminum pressure bars and mullion caps over the existing curtain wall mullions, and installation of new liquid sealant around perimeter of all glass. An air barrier was applied over existing barrier cladding and coping components. New pre-finished aluminum cladding components with provisions for drainage were designed to be installed over the air barrier. BTC utilized 3-D modeling to configure complex extrusion profiles for the retrofit.

BTC also provided bidding assistance and construction phase services during the construction phase of the project.

Project Name:
Facade and Roof Evaluation, Nicor Headquarters Building

Project Location:
Naperville, Illinois

Client:
*Partners in Design Architects, Inc.
2610 Lake Cook Road
Riverwoods, Illinois 60015*

Approximate Construction Cost:
\$2,800,000

Year Completed:
2015

Nature of Services:
Water Leakage Investigation, Repair Design, Bidding Assistance, and Construction Phase Services



2016 RCI Document Competition Award