



The Itasca Community Library originally consisted of a 1-story steel-framed structure with a low-slope roof and masonry exterior walls. In 1996, the library was renovated and expanded. The addition consisted of a 2-story steel-framed structure along the east, south, and west sides of the original building. A comprehensive facade rehabilitation project was completed in 2009 to address significant water leakage issues associated with the exterior walls and roof of the addition.

The low-slope roofing system of the original building had reportedly never been replaced. Due to the age of the building and the presence of minor leaks, the low-slope roofing system was due for replacement. Budget restraints allowed for only minor repairs to the low-slope roofing system during the facade rehabilitation project.

BTC was retained to design the new low-slope roofing system. Considering life cycle costs involved with roof maintenance, a fully adhered reinforced PVC roofing system was selected as the optimum assembly to meet the Library's needs. The design incorporated an increase in insulation thickness to improve thermal performance and to meet the State of Illinois Energy Code requirements to the fullest extent possible. Although the metal deck roof structure was sloped, a detailed tapered insulation plan was developed to improve drainage characteristics and minimize potential for ponding water.

Other design challenges included mechanical equipment curbs with low flashing heights, an expansion joint that separated the 1996 addition from the original building, and the removal of existing skylights and construction of a properly flashed enclosure.

BTC also assisted the Library during the bidding phase and provided construction contract administration during the construction phase.

Project Name:
*Low-Slope Roof Replacement
 Itasca Community Library*

Project Location:
Itasca, Illinois

Client:
Itasca Community Library

Approximate Construction Cost:
\$225,000

Year Completed:
2013

Nature of Services:
*Design of New Roof, Bidding Assistance,
 and Construction Contract
 Administration*

