Project Profile

Glenside Public library is a 2-story structure originally constructed in 1982. The library underwent major renovations in 2002, which included a 12,000 square-foot addition. Exterior walls consist of a combination of single-wythe concrete masonry unit (CMU) walls, cavity wall assemblies clad with brick veneer, and curtain wall systems.

BTC was initially retained in 2012 to evaluate condensation and moisture related issues. Our evaluation included infrared thermography, analysis of interior temperature and humidity data over a 2-week period, and hygrothermal analysis. Analysis of the data indicated high interior relative humidity, and confirmed surface temperatures were often below the dew point temperature. It was concluded that moisture issues were primarily related to condensation. BTC recommended modifying the HVAC controls to lower relative humidity levels, and to add interior insulation to reduce thermal bridging. Both were reportedly completed shortly thereafter.

BTC was retained again in 2022 to evaluate potential sources for leaks at and adjacent to some of the curtain wall sections that were part of the 2002 addition. We performed systematic water testing by isolating different components to identify potential pathways for water infiltration. With this approach, we confirmed that several different deficiencies were contributing to interior leaks. Based on the findings of our investigation, we provided recommendations for repairs.

BTC was retained to develop bid documents based on the recommended repairs. Repairs included sealant application over some of the curtain wall components, installation of a pan flashing system below the curtain wall sections, and repairing masonry through-wall flashing at a steel lintel.

BTC also provided bidding assistance and construction contract administration services during the construction phase of the 2023 project.

Project Name:
Curtain Wall and Masonry Repairs
Glenside Public Library

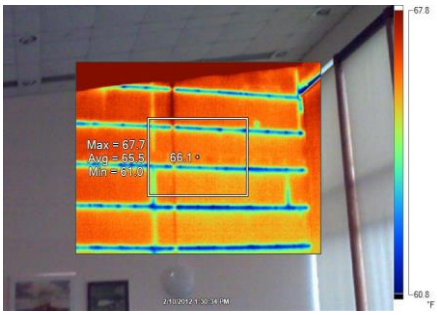
Project Location:
Glendale Heights, Illinois

Client:
Glendale Public Library District

Approximate Construction Cost:
2012 Repairs: Cost Unknown
2023 Repairs: $270,000

Year Completed:
2012 / 2023

Nature of Services:
Evaluation, Design, Bidding Assistance, and Construction Phase Services



Building Technology Consultants, Inc.
1845 East Rand Road, Suite L-100
Arlington Heights, Illinois 60004
Main: (847) 454-8800 | www.btc.expert