



PROJECT PROFILE

Old Civil Engineering Building

Condition Assessment and Repair Design | Atlanta, GA



CLIENT

Georgia Institute of Technology

BACKGROUND

The concrete-framed Old Civil Engineering Building, constructed in 1939, has exterior walls consisting of brick veneer and limestone trim. Roof elements consist of slate-shingled steep-sloped roof areas and built-up low-sloped roof areas. A stone paver-covered terrace is provided at the building entrance and overlays an occupied space below.

Georgia Institute of Technology staff sought to complete a comprehensive renovation of the Old Civil Engineering Building. Prior to beginning work, the university required that a feasibility study be completed to assess the building's structural systems and the exterior envelope, which had experienced masonry distress and water leakage problems. Following determination of the project's feasibility, the university required an expert to develop repairs for the building envelope, including roofs, exterior masonry, windows, and terraces.

SOLUTION

WJE structural engineers and architects performed a condition survey of the structural systems and exterior envelope; identified needed repairs; and provided opinions of probable repair cost in order to determine that the Old Civil Engineering Building could be feasibly renovated. WJE also performed water testing to identify sources of leakage and made inspection openings in masonry walls to investigate distress conditions.

WJE recommended and designed new through-wall flashing to address water leakage problems; anchorage and patching solutions to stabilize and repair distress in masonry and limestone; and waterproofing details to address leakage at the terrace. WJE also developed solutions to rehabilitate the original steel windows on the front of the building, thereby preserving the building's historic appearance. Replacement windows were specified for the other building elevations. WJE architects developed construction documents for the replacement of slate and built-up roofing systems. The renovation of the Old Civil Engineering Building earned a LEED Gold certification.

WJE's contribution helped the university determine the project's feasibility, while its design and construction administration expertise assured the project's success.

