

SUNY Stony Brook University Hospital Curtain Wall Investigation & Pre-Design Study

Stony Brook, New York

Client

SUNY Stony Brook Medical Center

Cost

N/A

Completion Date

December 2007



Bowed spandrel glass before repair



Repaired mullion connection



Curtain wall concept design option



Thornton Tomasetti was retained by Stony Brook University Hospital (SBUH) in 2007 to provide a pre-design investigation and report regarding the condition of the metal and glass curtain wall system and the exposed concrete masonry elevator shafts for the 19-story Hospital Towers built in 1973. Thornton Tomasetti's scope of work included visual observations from ground and roof levels, scaffold inspections, curtain wall probes and a comprehensive report to identify repair and/or replacement options and a scope of work for design and construction documents. Energy conservation analyses were performed to identify potential heating, cooling and day lighting benefits and cost savings associated with a new curtain wall. Several conceptual designs were also prepared to illustrate aesthetic improvements associated with a replacement curtain wall option.

During our investigations, bowed curtain wall spandrel panels were observed, immediately investigated and ultimately repaired in-place within one week. We assembled and coordinated a team consisting of contractor/rigger, curtain wall installer and glazing installer and, together with SBUH personnel, developed and implemented a repair protocol and schedule. The in-place repair involved modifications from the interior side to a failed structural anchor attaching the curtain wall mullions to the building structural steel frame while the bowed glazing was slowly "moved" back into its proper position from an exterior suspended scaffold and secured.