



**Building Envelope
Systems Specialist:**
Klepper, Hahn & Hyatt

Owner:
Colgate University

Location:
Hamilton, NY

Completed:
Fall 2007

Awards:
2007 ACI CNY Chapter:
Excellence in Masonry
Design & Installation,
Bronze Award



Alumni Hall Masonry Facade Repair

Alumni Hall is a three-story, stone masonry bearing wall building constructed in 1859. This restoration project focused on investigating the cause of problems which had become evident in the façade, and finding the best way to correct those issues to preserve the building and ensure its longevity.

Upon casual review the façade appeared to be in good condition. The building had been repointed in the 1960s with a very hard Portland mortar that appeared to be intact. Upon closer inspection, the façade exhibited numerous bulges, wall cracks, and broken stone sills. Once the pointing mortar was removed, it became apparent that the original lime mortar was deteriorated eight to twelve inches deep within the 24-inch thick walls in many areas of the building. The deterioration was caused by freeze/thaw damage to the interior mortar facilitated by moisture trapped behind the dense Portland mortar. Removal of all Portland pointing mortar was recommended. It was replaced with a mortar that matched the strength and appearance of the original lime putty mortar. This greatly lightened the color of the walls and restored the building to its original appearance.

The bulges in the wall had been caused by deep mortar deterioration and the loss of compressive strength, resulting in a buckling façade. KHH removed the deteriorated mortar and injected the walls with a flowable lime mortar that filled the voids and solidified the walls with minimal reconstruction.