



PROJECT PROFILE

Few Quad

Reroof of University Dormitory with Historic Clay Tile | Durham, NC



CLIENT

Duke University

BACKGROUND

Few Quad is a three- to six-story residential hall located on the West Campus of Duke University, which was completed in the early 1940s. Load bearing exterior masonry walls support steel roof trusses. Gypsum planks formed the nailable deck for the original Ludowici Yale-type clay roof tiles. Flashing, gutters, downspouts, and conductor heads were executed in copper. The highly articulated roof lines are punctuated with several sizes and configurations of dormers and gables.

A majority of the 70-year-old building stock of Duke University's West Campus is roofed in clay tile. The roofing system of Few Quad residential hall was scheduled for replacement in conjunction with an interior renovation project while students were displaced from this 56,000-square-foot housing block. WJE was retained to design a new roofing system integrating a similar 75-year lifespan while blending into the remaining building stock. Duke University considered the work at Few Quad to be the first step in a comprehensive building program.



SOLUTION

The replacement roof utilized the same historic materials and installation techniques of the original roof to maintain the connection with the past and the rich history of the University. WJE collaborated closely with Duke University and Ludowici to reinstate the discontinued Yale tile shape and to provide a three-color blend to match the aged roofs of adjacent buildings. WJE worked closely with the roofing contractor on-site during construction to ensure proper execution of ridge, valley, gutter, and other termination details, while the contractor diligently sorted construction debris for recycling while protecting the mature landscaping around Few Quad.

Copper artisans were employed to recreate highly detailed conductor heads, built-in gutters, and flat dormers. The new roof carries a 75-year manufacturer warranty and blends seamlessly into the remaining campus roofs.

Construction management services provided by WJE during this complex project helped the University maintain the required schedule so that the interruption to student housing was minimized. WJE's presence during construction also streamlined the detailing process when concealed conditions were uncovered in this historic structure.