BARBER & HOFFMAN, INC.
Consulting Engineers

PROJECT

University of Pittsburgh Darragh Street Housing

YEAR COMPLETED 2007

Pittsburgh, PA
$22.0M

The project included four, four- to five-story wood-framed structures built into an extensive hillside. The buildings (two sets of paired structures constructed adjacent to each other) totaled over 110,000 square-feet and houses approximately 150 medical students.

The structural framing is primarily wood bearing and shear walls with prefabricated wood floor and roof trusses. The elevator and stair shaft wall are constructed of reinforced concrete masonry units. The sub-structure includes concrete drilled piers and reinforced concrete grade beams with reinforced masonry bearing walls constructed up to the underside of the first floor framing.

The majority of the building's lowest levels are framed floors, to accommodate sub-surface shallow mines, which were not grouted solid. The mechanical rooms utilized reinforced concrete slabs-on-grade to accommodate the shallow mines while still meeting the larger live load and vibration requirements.

PROJECT DESCRIPTION:

The housing was constructed to upgrade the aging dormitories for the University's medical students performing residencies and internship services for University of Pittsburgh Medical Center. Each efficiency style unit includes a small kitchen and washer/dryer for one to two students.

ADDITIONAL PROJECT FACTS:

- Four structures built within a single complex on a 40-foot slope differential.
- Deep foundations with concrete grade beams and framed lower levels were required since abandoned mines were located directly below the site.
- Superstructure primarily consisted of wood-framed walls and prefabricated wood truss floor framing.
- Multiple design revisions were required to maintain the project schedule and budget.