

Client: City of Cambridge

Cambridge Fire Department

Training Facility



The City of Cambridge Fire Department, in partnership with WHP Manufacturing and Triumph Modular, completed the construction of a custom fire training facility adjacent to Fire Station Engine #3. This three-story, 960-square-foot auxiliary building, fabricated from galvanized steel, was designed for realistic fire simulations, with replaceable components to withstand heavy use. To match the aesthetics of the existing firehouse, the structure was finished with brick veneer siding.

A key feature of the new facility is the open floor plan. This non-static layout eliminates the need for interior walls and allows the fire department to reconfigure the space for a variety of training exercises, maximizing flexibility and realism. Additionally, the building is equipped with repel lines, enabling trainees to practice repelling up or down the structure during drills.

The urban site presented significant challenges, including limited space, low-hanging wires, and an active fire station nearby. Triumph Modular overcame these obstacles by carefully planning four phased deliveries after 8 AM and using a tele-handler instead of a crane to position the modules. The concrete slab foundation was engineered to support the dynamic loads of fire training exercises, ensuring long-term durability.

Assembly required precision and attention to detail, as this was Triumph Modular's first project of this kind. On-site installations included stairs, roof members, and water pipes for firefighting simulations. The Cambridge Fire Department worked closely with the team throughout inspections and design approvals to ensure the facility met their needs.

Despite the challenges, the project met the client's expectations. The new facility provides firefighters with a durable and realistic training environment while showcasing how modular construction can deliver innovative solutions in urban settings.

Project Details

Location
Cambridge, MA

Square Feet
960

Modular Units
8

Factory Partner
WHP Manufacturing