

Permanent Modular Construction: Commercial Housing Location: Newark, NJ Total Square Feet: 18,000 Time to Complete: 263 days Company: Steel River Building Systems, Inc.

The design challenge was to overcome fragmented, diverse site conditions including a 50 year old existing building, and a detached gym to create a sense of place for the school community. The new addition wraps around the old, creating a central courtyard which becomes the organizing element for the school, and serving multiple functions. The massing of the new school addition is stepped down from two to one story on its southern side, maximizing the light entering the courtyard and blending with the scale of the residential neighbors.

To achieve the required spans of typical classroom space and to complete as much work as possible in the factory to limit on site cost and time, a hybrid steel and wood modular system was invented. Steel moment frames created a rigid solution allowing installation of large storefronts and most of the exterior cladding in the factory, and helped achieve the spans required for classrooms and a cafeteria. The wood infill helped to keep the costs down To minimize costs further, the project uses various off-site trades including: Precast foundations, Off-site built modular construction, and Offsite built site components including outdoor trellised walkway and Turf Playground.

Given the extremely low budget the architect utilized off the shelf products in innovative ways to create a unique building suited to its clients specific needs. For example, the designers translated the schools need for large areas of pin-up and display space by incorporating long runs of aluminum framed homosote, a very inexpensive material, into an architectural element that mediates between the classrooms on one side and the open courtyard on the other.

