

DESPITE SNAGS, MODULAR IS 'THE WAY TO GO'

It's not easy to be first. The team that built the seven-story Stack in Upper Manhattan, New York City's first steel-framed modular mid-rise building, knows that from experience. The developer of the 28-unit residential building — at 90.5 ft tall, the tallest completed modular building in the U.S. — bought the land in 2007, yet the first tenants moved in just this past May.

"There were a lot of pitfalls," says Peter Gluck, who wears several hats on the Stack. Gluck+ is the architect and design-builder, and Gluck is a minority partner in the development.

Some of the long development time is attributed to the real-estate market crash in 2008. But there were other challenges associated with the project. For starters, it took three years to lease the adjacent lot to stage the construction of the building.

It also took "a few years to figure out the best design" for the 150-ft-deep, 50-ft-wide lot, which is not an ideal dimension for an apartment building, says Jeffrey M. Brown, the building's co-developer, with Kim Frank, and general contractor, under the firm that bears his name.

The solution was a U-in-plan shape that provides a 30-ft-sq courtyard, which offers more exposures. "The building is really two buildings connected by a corridor," says Brown.

The biggest snag was related to the renewal of the building permit after all the modules were finished by Deluxe Building Systems Inc., Berwick, Pa., and ready to be shipped to the site. The New York City Dept. of Buildings would not renew the permit until Gluck+ made some modifications to the fire-proofing.

The changes were required by the fire department, which was concerned about fire spread between the modules, according to Alexander Schnell, a spokesman for the buildings department.

When the plans were filed for the first permit, there was no



INFILL SITE The seven-story Stack's 56 modules went up in four weeks. The speed could have been increased were it not for transportation restrictions across the George Washington Bridge.

mechanism on the online application to indicate the modular nature of the apartment units. The issue came up only during the renewal process, says Schnell.

The city has since added a check box on its online application so filers can indicate modular construction, he adds.

The basement and first floor of the Stack were built conventionally. Transportation restrictions, including crossing the George Washington Bridge only at night, limited deliveries to four modules a night. "We could have erected more than four a day, but we couldn't get more to the site," says Brown. It was too bad, he adds, because "we were paying for the crane anyway." Still, it took only four weeks to top out the 56 steel-and-concrete modules.

Discounting the three-month delay caused by the permit-renewal snag, the factory-built modular system shortened the construction period by a third, compared to a conventional approach. "We saved 15% to 20% on hard costs, [which] we then spent in delays," says Brown. Despite the headaches, he thinks modular residential is "the way to go." ■