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The DIY Approach to Housing

Building faster, cheaper, and with greater satisfaction: the advantages of being an architect-developer

BY LISA DELGADO

Patience might be a virtue, but impatience has a power of its own. Too often, architects "sit in their office waiting for somebody to call them to do a development – and they wait a long time," says Peter Gluck, RA, principal and founder of Manhattan-based GLUCK+. Instead, he and a small but ever-rising number of other local architects have been taking a DIY approach with residential projects, developing their own designs. In doing so, they have gained greater control and efficiency in their work process, shed frustrating developer-client constraints, and created noteworthy new living spaces in New York City.

One example is TroutHouse, an ultra-sustainable three-unit residential-and-office space on Troutman Street in Brooklyn's Bushwick neighborhood. It was designed and developed by the three principals of thread collective, an architecture and landscape design firm. Though the principals – Elliott Maltby, Mark Mancuso, RA, and Gita Nandan, RA, LEED AP – had never developed a proj-

ect before, they decided to give it a try because they needed a new studio space to showcase their firm's ideas about green design. Mancuso and Maltby needed a new residential space for themselves, too. The project also includes two rental apartments, which helped make the project financially viable.

Completed in 2012, the four-story, 6,000-square-foot TroutHouse is an airy, light-filled space, thanks to expansive windows and a mostly open-plan design. A lush backyard with an abundance of trees, grasses, and other plants gives the building an inviting tree-house feel in the midst of the city. Exposed-concrete floors emit radiant heat, and reclaimed ipe (from the Coney Island boardwalk) used in the façade, interior, and roof deck is a sustainable and wallet-friendly flourish. Atop the building are a green roof and a 5.5-kilowatt solar array, which powers the duplex that contains the office space and Maltby and Mancuso's residence; last year, the solar canopy produced more energy than was consumed. The project's many green features garnered it LEED Gold and Energy Star certification.

The principals had picked up general knowledge about development from previous work with developers, and learned more by reading books and asking attorney friends and bankers. They found that assuming the roles of both architect and developer was a huge time-saver because it streamlined the design process. "Being both developer and architect makes the project go *so* much easier, *so* much faster," Mancuso remarks. Normally, "we design something and then go to the developer-client, and then the design changes because we have to tailor it to what they want. But since we were our own client, we designed this thing so fast."

Avoiding the costs of a separate developer is another plus. "You cut out the middleman -- you 'buy wholesale,' in a way," says Sam Bargetz, a partner at Brooklyn-based architecture firm Loadingdock5. "It makes the project much more affordable." Bargetz banded together with a group of friends to collectively develop 152 Freeman Street (dubbed "Haus"), a four-story, seven-unit Passive House in

Greenpoint, Brooklyn, for themselves to live in. Currently under construction, the 6,625-square-foot condo building is slated for completion around March 2016.

Like TroutHouse, it features a green roof, as well as a backyard garden and balconies. Each unit's floor plan is simple: "a modern version of a good old railroad apartment," Bargetz says. Using exposed ICFs (insulated concrete forms) for structural walls and corrugated-steel roof decking for the ceilings lowered costs. By serving as developers and choosing a thrifty design, the eventual residents could finance the project themselves without taking out a bank loan.

Doing development might not appeal to everyone, however. "You have to have a stomach for risk," Maltby notes. Stepping into the role of developer also requires some self-education and a willingness to defy traditional notions about the role of an architect. "You need to be a businessman," says Jorge Mastropietro, AIA, principal of his eponymous Manhattan-based architecture firm. "They don't teach us that at school."

Mastropietro's firm takes an unusually holistic approach – embracing not only development and architecture, but also construction – as do a few other local firms, such as GLUCK+ and Alloy Development, whose president is Jared Della Valle, AIA, RA, LEED AP. They've found the combination to be a winning formula for smooth communication, tight quality control, and overall efficiency throughout the building-creation process. "Operational silos don't make any sense to us," Gluck says. Having the same people involved throughout development, design, and construction streamlines the process and raises red flags earlier, he explains, so that budget overruns, for example, can be avoided.

(opoosite page, left) thread collective: The TroutHouse includes extensive use of reclaimed ipe (from the Coney Island boardwalk) in the façade, interior, and roof deck.

(opoosite page, right) thread collective's first-floor studio space opens to a landscaped backyard.

TroutHouse, Bushwick, Brooklyn
DEVELOPER: thread 05
ARCHITECTURAL + INTERIOR DESIGN, LANDSCAPE & GREEN ROOF DESIGN, STRUCTURAL, MEP: thread collective
Design Team: Elliott Maltby, Mark Mancuso, RA, Gita Nandan, RA, LEED AP
LEED CONSULTANT: Steven Winter Associates

152 Freeman Street/Haus, Greenpoint, Brooklyn
DEVELOPER: Haus, LLC
ARCHITECT: Loadingdock5 Architecture
DESIGN TEAM: Werner Morath, RA, Sam Bargetz, Passive House Consultant
STRUCTURAL DESIGN: Murray Engineering
MECHANICAL DESIGN: M.E.P. Designs
VENTILATION AND AIRTIGHT PRODUCTS: 475 High Performance Building Supply

(below) Loadingdock5: 152 Freeman Street, or "Haus," a four-story Passive House in Greenpoint, Brooklyn, is "a modern version of a good old railroad apartment," says Sam Bargetz.

The architect as developer can also avoid sacrificing architectural quality for cost. Budget constraints can be a spur to heighten creative thinking, instead of stifling it, says GLUCK+ Principal Charlie Kaplan, RA, LEED AP. One well-known example is The Stack, an apartment building that has won acclaim for its innovative use of off-site modular construction (see *Oculus*, Fall 2013, p. 34). Built at a cost of about $220 per square foot, the project "cost less than what a typical developer would've spent on a crappy building," Kaplan says, "and yet architecturally, it's a really interesting building."

GLUCK+ served as co-developer, architect, and construction manager for the project, which was conceived as an experiment in how to cost-effectively create housing on small infill sites, which are typically difficult to develop. The use of modular units also meant "much less mess in the city, much less congestion," because of the uncommonly speedy on-site construction time, Gluck says. Completed in 2014 in Manhattan's Inwood neighborhood, the 37,710-square-foot building includes a mix of middle-income and affordable apartments.

Having a hand in development helps the firm create projects geared to addressing urban issues and housing needs, such as sustainable, affordable housing. "We're not waiting for somebody to ask us to solve problems" in cities, Gluck says. "We see the problems, and we try to solve them." He has a kindred spirit in Della Valle, an architect-developer whose firm recently launched a new entity, Alloy Community Development, devoted to researching and creating more affordable housing in NYC while minimizing the need for subsidies. Tackling the challenge is "incredibly appealing, and we feel it's part of our social responsibility as architects," Della Valle says.

Though learning to do development initially might seem intimidating, Mastropietro's advice for architects is "just try it. If architects were to get more involved in development, we would have a much better business – and better cities." Perhaps the real measure of success will be when greater numbers of developers see architect-developer successes, and start to embrace the skills and sensibilities of architects. "It's obvious that more architects will want to do development over time," Della Valle says. "Are developers going to realize that we can do it better than they can?" ∎

Lisa Delgado is a freelance journalist who has written for e-Oculus, *The Architect's Newspaper*, *Architectural Record*, *Blueprint*, and *Wired*, among other publications.