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FEATURE

Interview with Robert Whitlock of Kohn Pedersen Fox, Principal Designer of 111 Murray Street

VITALI OGORODNIKOV – 1 HOUR AGO

The 59-story 111 Murray Street has nearly reached its 792-foot-high pinnacle, with a dramatic, flaring crown standing in contrast to the extruded boxes and set back forms populating the Lower Manhattan skyline. The rounded form maximizes floor space on the desirable upper floors, and allows for extra light, air, and public space at the ground level. New York YIMBY sat down with the building's chief architect, Robert Whitlock of Kohn Pedersen Fox (KPF), to discuss the inspiration and design process behind the project.

"The form of the building dominanted our conversation with the client from the very beginning," Whitlock explains. "Winston Fisher of Fisher Brothers wanted to ensure that the tower stood out from the dynamic skyline emerging in lower Manhattan."

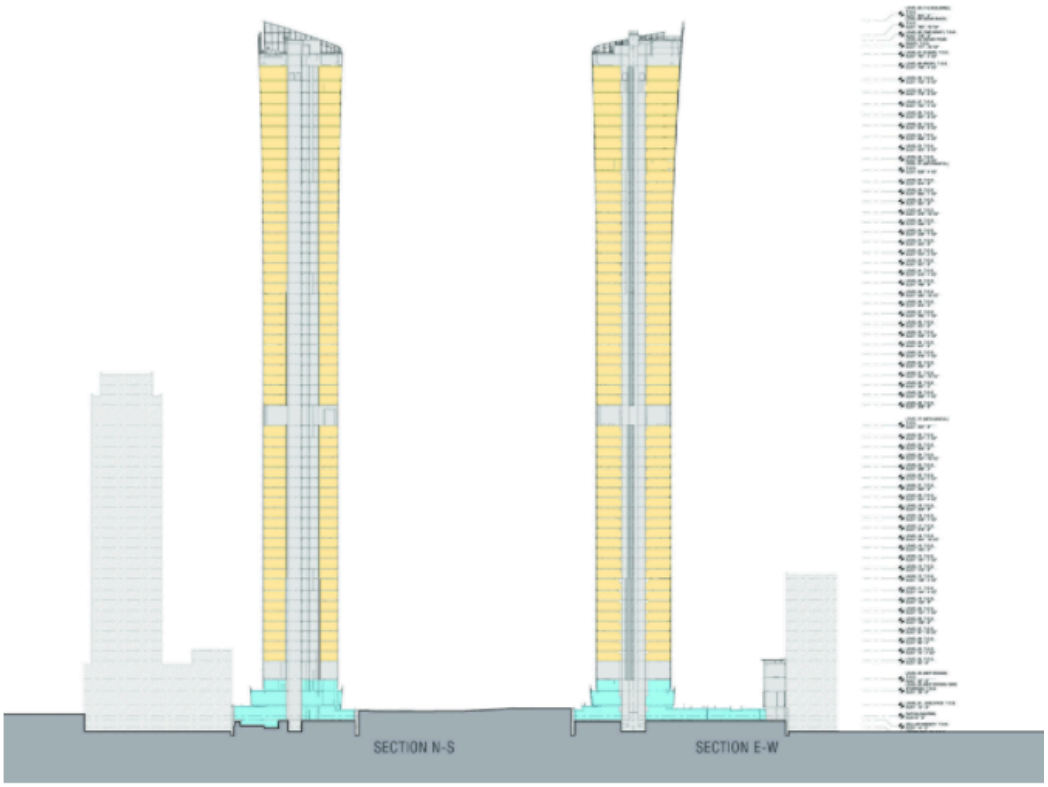
In 2014, Coop Himmelb(l)au generated a design concept consisting of a sheer, reflective elliptical form capped by a pair of horizontally-stacked, cantilevered penthouses. The design team at KPF, however, pursued a more delicate approach.

“The goal was to generate something unique, elegant and sophisticated,” Whitlock continues. The architect, inspired by sweeping curves of 1950s Dior fashion, conceived a gently flared form encased in two planes, which peel away at the slanted pinnacle. “It was intended to contrast with the extruded volumes that have grown up around One World Trade Center,” Whitlock explains. In contrast to the 1,776-foot-tall tower two blocks south, 111 Murray is a deliberate inversion of the tapering supertall.

Whitlock describes the building shape as “intentionally simple,” in juxtaposition with the “highly frenetic” facades of the nearby 8 Spruce Street, designed by Frank Gehry, and Herzog and de Meuron’s 56 Leonard Street.

Left to right: Independence Plaza (background), 200 Chambers Street, 56 Leonard Street (background), 101 Warren Street, 111 Murray Street, 101 Barclay Street.

Internal planning drives the form as much as aesthetics. The typical, roughly 6,900-square-foot floor plate is extruded around three-fifths of the way up, as the floors start to gradually grow in size. The penthouse levels measure around 8,600 square feet. “In most residential buildings around the city, somebody comes up with one floor plan and it gets simply extruded. The unit mix is based on what you are able to do on one floor, and maybe you split a high zone and a low zone and you get some variety that way,” Whitlock notes. “We were able to customize the unit mix and put units of varying sizes at specific heights of the building in different combinations.”



Credit: Kohn Pedersen Fox.

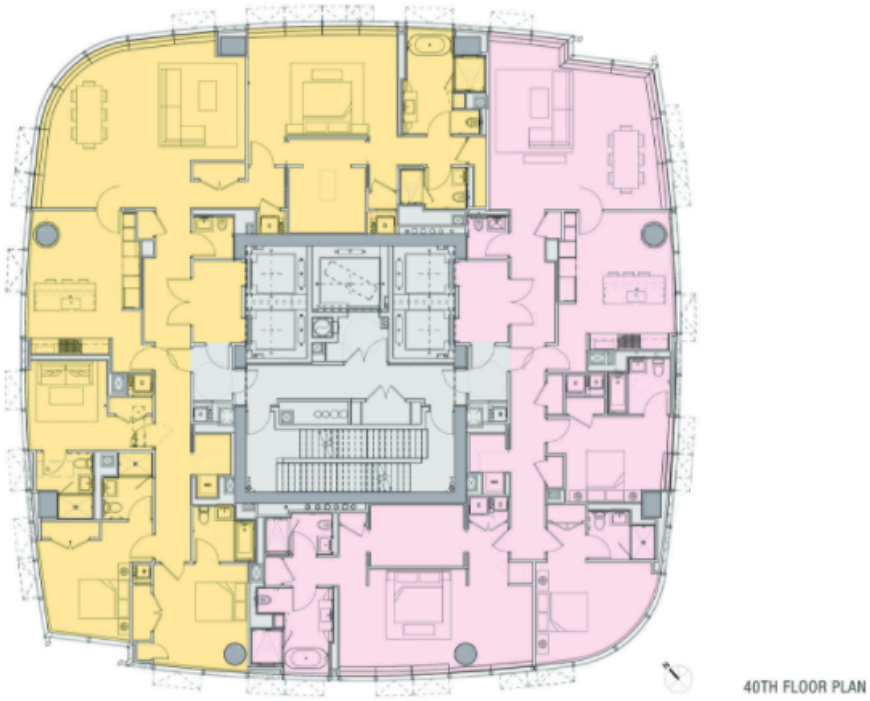
The project is developed by Fisher Brothers, Witkoff, and New Valley, with Douglas Elliman Development Marketing overseeing sales and marketing. In addition to KPF, the design team includes MR Architecture + Décor, Rockwell Group, Edmund Hollander Landscape Architects, and Hill West Architects as the architect of record.

The building includes a resident lounge, enclosed garden, 75-foot lap pool with a children's splash pool, fitness center, spa, and recreation room.

The architect acknowledges the high-end luxury market is increasingly competitive, with developers engaging in an amenities "arms race." In this environment, the trade-off between common and private space becomes critical. "An enormous amount of effort was given to understanding the right balance, and the most efficient layout is not always optimal," Whitlock said.

To illustrate an example, Whitlock describes a standard arrangement where a common lobby with three elevators would service each four-unit floor. Instead, the design team added a fourth elevator, allowing for elevators to open directly into every unit except for the east-facing ones in the building's lower third (there, two units would share common vestibules). This inefficient arrangement, enabled by a secure vestibule, sacrifices saleable space to create an exclusive amenity that few other buildings can match. "In an environment with multiple developers, it takes a long time to build consensus where having less area to sell

would actually derive greater value," Whitlock said. "Fortunately, this was a group that was able to do that."



Credit: Kohn Pedersen Fox.

With careful planning, common areas may augment the private residential experience. The architect notes that "if you have a small apartment, you can reserve the common dining room and have friends over and entertain that way."

Equally significant trade-offs revolved around the tower's unorthodox form, which presents unique advantages and challenges in comparison to the traditional rectangle. Whitlock says that, for wind resistance, "a square building is the worst form you can have," with turbulent vortices forming near the corners. Harmonic resonance presents an added challenge to symmetrical shapes. "You can do two things: you can smooth the form, which minimizes the drag as it comes around, or you carve the corners, which confuses and scatters the wind," he said. The twin, full-height notches that run along the building height serve the latter purpose, while the overall shape allows for smoother wind flow.

Irregular floor plans complicate interior design. “The client liked the curve and didn’t want a square building, but the ellipse was impossible to plan,” Whitlock notes in reference to early concept studies, “so they knew that in order to generate a workable, saleable floor plan, you need to be more flexible. The square with the rounded corners was the silver bullet.”

Just as importantly, curved buildings tend to be expensive to design, fabricate, and construct. The potential price tag, exacerbated by the custom-shaped upper floors, almost convinced the client to scrap the idea altogether. For Steven Witkoff, the integrity and efficiency of the unit layouts was paramount. In response, the design team demonstrated that the rounded floor plan generates less surface area, and thus less curtain wall expenditures, than the conventional rectangular plan of similar internal area, while optimizing layout efficiency.

The array of custom curved panels at the corners were also designed to be all of the same size, with the variation occurring in the subdivision flat wall, further minimizing costs.

“We’ve been working with similar methodologies for over 10 years,” Whitlock said. “These are the strategies you have to anticipate going into the process. If you can’t defend it, it’s going to go away.”

The distinctive corner design also improved views from the apartments. “Most square residential floor plans place a column at the outside corner, so you’ve got this wonderful corner living room with the view partially blocked,” Whitlock said. 111 Murray’s curved floor plates eliminate the corner column and open toward vistas of the Financial District, Battery Park City, the Hudson River, and Tribeca, with the spires of Midtown looming in the distance.

The 10-story, ziggurat-like St. John’s University facility, built at the site in 1983, took up most of the 39,401-square-foot site, which the architect describes as an “odd polygon.” The building’s short tenure, just 32 years, was the latest chapter in the site’s turbulent history, which we covered in an earlier feature.

Left: 101 Murray before demolition, looking west. Right: same angle in April.

The new tower soars seven times higher than its predecessor, yet occupies only 40 percent of the site. “We had the ability to put the tower anywhere on the site and orient it in any way possible, so we spent a lot of time maximizing views and minimizing interference with other tall towers,” Whitlock notes. The low-rise, curvilinear podium leaves plenty of room for public space. According to the architect, the principal design challenge was creating public space that meets city requirements and “feels like it is related to the tower, but also has some distinction so that the public is not right up against the lobby.”

111 Murray Street will stand as the 11th tallest building in Lower Manhattan when it tops out in the coming weeks. Any building of this magnitude not only affects the immediate neighborhood, but also leaves an imprint on the rest of the city through its skyline presence.

The design team at KPF is keenly aware of the way their buildings impact the city at all scales. “From the very outset, we’ve always talked about the way the building relates to its context,”

Whitlock concludes, as he reflects upon the civic duty of his profession. “You really have the opportunity to shape cities and to create vibrant places for people to be happy and to thrive.”