

443 Greenwich Street

New York, New York

Owner/Client

Shahab Karmely
KAR Properties

Architect

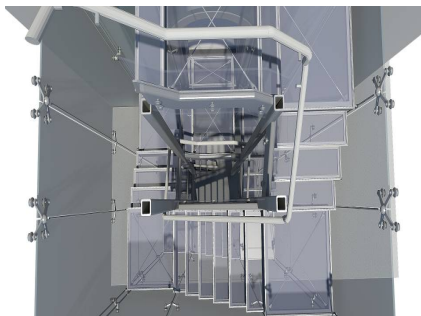
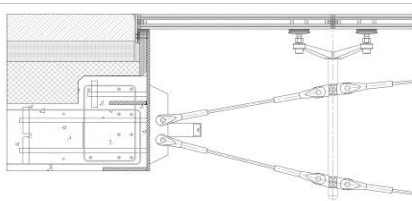
Costas Kondylis and Partners LLP

Completion Date

2010

Total Area

215,000 sf



Thornton Tomasetti's unique services for this project combine façade engineering, design coordination and documents for the glass and steel structures. This eight-story, historic landmark building, located in the Tribeca district, is being converted to a 42-unit, luxury residential condominium and a 120-key boutique hotel with health spa, restaurants and retail. The careful restoration of the traditional masonry façade contrasted with state-of-the-art engineering of modern glass technologies provides visual transparency and dramatic views of the building.

The 4,000-square-foot landscaped interior courtyard is highlighted by a large elliptical walkable glass skylight over the swimming pool. The 15-foot by 25-foot clear insulating laminated glass skylight is supported by an efficient, light-weight, two-way tensegrity structure, which consists of thin stainless steel rods spanning across an outer elliptical compression ring. Two elegant 107-foot-high all-glass enclosed exterior staircases provide vertical egress to the courtyard level. Slip resistant laminated glass treads and landings are supported by thin steel tube framing set back from the outer walls. Interior stairs in the townhouse and penthouse apartments are supported by load bearing laminated glass walls, carefully engineered to localize glass failure and prevent progressive collapse.

The 9,500-square-foot penthouse is enclosed in a four-sided structurally glazed curtain wall with thin mullions with zero sightline windows and high performing low-E coated insulated glass. The main roof setback features all glass balustrade and walkable glass skylights. The project, seeking LEED certification, features adaptive reuse of the existing urban building, consolidation of existing mechanical systems, energy efficient exterior wall, and mechanical and lighting designs.

