



Hunter's Point HISTORIC Townhouse Retrofit

Queens, New York

The Hunters Point historic district in Long Island City contains a small cluster of townhouses originally built in the late nineteenth century. The area has gone through several economic cycles, and many of these homes were converted along the way to two- and three-family residences. The owners of one of these townhouses contacted architect Scott Henson to renovate their Greek revival-style brick building, resurrecting its single-family status while adding square footage to the rear and setting Passive House as an overall project goal. Henson's firm specializes in historic preservation.

Team

Architect and Passive House Designer

[Scott Henson Architect](#)

Certified Passive House Consultant

[Baukraft Engineering PLLC](#)

The house had been divided into three apartments, with small rooms and not much of the original detailing. Striving to find a balance between old and new, this gut renovation will open up rooms to allow daylight to reach further into the interior, while salvaging historic details. Henson and his team will be researching and replicating some of the missing decorative trims and bases, ceiling medallions, and architectural detailing on doors, windows, and stairs.



The front façade will be restored, with triple-pane simulated double-hung windows replacing the current vinyl-clad units. There are no Passive House-quality entrance doors that resemble the original, so the airtightness layer will wrap around the inner vestibule door, allowing a replica of the exterior door to grace the front.

Because the back of the building is not subject to historic district restrictions, an artist's studio will be added at the garden level. A lift-and-slide door will bring light into the south-facing studio, which will be

partially shaded by an overhang to reduce summertime heat. A new bulkhead and terrace area on the roof will be set back so that they aren't visible from the street. The sidewalls toward the back of the townhouse will be wrapped in an exterior insulation and finish system and a stucco finish. Meanwhile, the rear-facing garden, parlor, and bulkhead level façades will feature a rain screen underneath the shou sugi ban siding. On the second story the original brick wall with its bluestone sills and lintel will be preserved.

"Our work in preservation is the most sustainable thing you can do with an old building," says Henson, "and adding Passive House certification to the project goals can only increase the value of the building." He is looking forward to bringing the Passive House approach to much more of his firm's historic preservation work, from townhouses to skyscrapers.

Products

Windows

[Zola](#)

Doors

[Bildau & Bussmann](#)
by [Eco Supply](#)

Insulation

[InSoFast](#)

Rendering and photo by Scott Henson Architect

Passive House Metrics

Specific space heating demand	5.4 kBtu/ft ² /yr	17 kWh/m ² /yr
Specific space cooling demand	3.8 kBtu/ft ² /yr	12 kWh/m ² /yr
Source energy use intensity (EUI)	27.7 kBtu/ft ² /yr	87.4 kWh/m ² /yr
Source energy use intensity (EUI) (renewable)	13.4 kBtu/ft ² /yr	42.3 kWh/m ² /yr
Air changes per hour	1.0 ACH ₅₀ (design)	