



# Certificate

THE PASSIVE HOUSE INSTITUTE US certifies

**Hudson Passive Project, 349 Millbrook Road, Claverack, NY 12534**

Owner : Bill Stratton, 630 Highland Road, Old Chatham, NY 12136

Architect/Designer : Dennis Wedlick Architect LLC, 85 Worth Street, 4th Floor, New York, NY 10013

Mechanical Systems: The Levy Partnership, Inc., 1776 Broadway, Suite 2205, New York, NY 10019

Builder: Bill Stratton Building Company, 630 Highland Road, Old Chatham, NY 12136

as a

## Quality Approved Passive House

The planning of this building meets the criteria for Passive Houses established by the Passive House Institute.

If built as specified, the building will meet the following performance standards:

- The building features excellent insulation all around and best-practice detailing of component connection with regard to building physics. Appropriate summer shading has been considered. Heating and cooling demands each are limited to

**15 kWh per m<sup>2</sup> living area and year [4.75 kBTU/ft<sup>2</sup>yr] or 10 W/m<sup>2</sup> [3.17 BTU/ft<sup>2</sup>] peak load**

- The building envelope features excellent air tightness in accordance with ISO 9972, thereby guaranteeing the minimization of ventilation losses and an interior free of drafts. The air change rate of the building envelope at 50 Pascal pressure differential is limited to

**0.6 ACH, in reference to the building's volume**

- The building features a balanced ventilation system with high-rate filters, highly efficient heat recovery and low electric power consumption. The result is excellent indoor air quality as well as an exceptionally low energy consumption overall.
- The primary energy demand for space conditioning, domestic hot water, ventilation and household electricity, under normal conditions, is below

**120 kWh per m<sup>2</sup> living area and year [38 kBTU/ft<sup>2</sup>yr]**

This certificate is valid only in conjunction with the requisite supporting documents containing the exact specifications and values upon which certification is based. Passive Houses are highly comfortable in summer as well as in winter and can be conditioned with very little energy input, e.g. by fresh air heating and cooling. The building shell of a Passive House has uniformly warm interior surfaces: interior surface temperatures of exterior shell components differ insignificantly from the indoor air temperatures. Under normal conditions, the occurrence of drafts has been eliminated completely by means of the superior air tightness. The ventilation system steadily assures excellent indoor air quality. Space conditioning costs in a Passive House are very low. Due to the extremely low energy consumption, Passive Houses offer a security against future rise in energy prices and energy scarcity. Moreover the environment is ideally protected as energy resources are spent very economically and only small amounts of carbon dioxide (CO<sub>2</sub>) and other pollutants are emitted.

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Katrin Klingenberg, Executive Director, PHIUS