

A Luxury Residence in Middle Village is the First Completed Pre-Certified Passive House Design in Queens, NYC

This 6,300 SF home combines luxury with Passive House principles - the first of its kind in New York City's Queens borough.

NEW YORK CITY, NEW YORK, UNITED STATES, December 15, 2020 /EINPresswire.com/ -- A newly completed luxury [residence](#) in Queens, is the first Pre-Certified [Passive House](#) in New York City's Queens borough.

This 6,300 square foot home had a challenging project site—an unusual irregular triangle shape—which added limitations to zoning and building height requirements. The design team addressed the challenge by using a mansard type faux roof to cap the building instead of a straight parapet. The mansard roof is a four-sided gambrel-style hip roof with two slopes on each side with the lower slope, punctured by dormer windows, at a steeper angle than the upper.



With two separate entrances, this residence can be divided as each floor has a full kitchen, living room, bedrooms, and bathrooms.

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Jakov Saric

The home was constructed using insulated concrete forms (ICF) construction. The exterior features insulated concrete forms with 6-inch energy insets providing an overall thickness of 8.5 inches of continuous insulation. One foot of insulation was placed below the roof to improve additional thermal properties within the home, adding to the building envelope's super insulation. The residence also has a large opening lift and slide glass patio doors with triple insulated glazing. Triple insulated air-tight high-performance windows and doors are positioned

strategically to use the sun's southern exposure from the balconies while providing shade from

the roof overhang. Additionally, a rooftop solar panel placed south to provide clean energy for the entire home.

The team specified a Zehnder energy recovery ventilation system for use throughout the entire home. Zehnder energy recovery ventilators are balanced ventilation systems that supply and exhaust equal quantities of air. The two air streams never mix, preventing cross-contamination and ensuring optimal indoor air quality.

Separated into two units, the first floor includes a living room, dining room, kitchen, and master bedroom with bathroom. The second floor consists of a living room, kitchen, and three bedrooms and bathrooms. With two separate entrances the home can be divided into two residences or can be used for a single, extended family. Other features include multi-functional cellar with bathroom, home office, laundry room, gym, and yoga room.



To capture maximum sun exposure, the home's southern-most point features large opening lift and slide glass patio doors with krypton-filled, triple insulated glazing.

[Node](#) AEC's CoFounder and Principal Architect Jakov Saric says, "It doesn't matter what the structural system or building envelope assembly is, if you are building to high performance standards like passive house, you know your structure will be air-tight, take advantage of solar power, and provide superior air quality. This execution will increase the longevity of your structure, defer maintenance, and save both cost and energy. Passive house principles are simply good design guidelines everyone should follow."

Using all Passive House principles, The NODE team achieved the client's goals for high-end luxury coupled with sustainable living. Middle Village is centrally located between Brooklyn, Williamsburg and Jamaica. This project is an excellent example of how sustainable construction can be brought into suburban neighborhoods. To learn more about the project, visit NODE's website. Contact the team directly at 212-380-6114.

About NODE AEC

NODE is a multi-disciplinary innovative architecture, engineering, and consulting firm with a diverse portfolio of small and large scale works with a commitment to sustainability and Passive House design. Visit us at www.nodeaec.com or find us on social media.

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