

PROVEN ENERGY EFFICIENCY AND LOW ENVIRONMENTAL IMPACT



HIGH PERFORMANCE HIGH STYLE

IN OUR LAST ISSUE, we profiled some of the outstanding kitchen project winners for the 22nd Annual Lehigh Valley Builders' Association Awards. That's when we discovered this entire home project with clean, lean lines, lots of light and an environmentally conscious approach to living in the 21st century.

photos courtesy of studio26 homes

DESIGN CHALLENGE:

Take the environmentally ambitious blueprints from an area architect/homeowner and turn a one-dimensional plan into a three-dimensional modern masterpiece awash in light, replete with convenience and accomplished in green initiatives.

That was the test put to the design team at Studio26 Homes of Orefield in the building of this efficient minimalist home located in Coopersburg.

Recipient of a 22nd Annual Lehigh Valley Builders' Association Award in the category of Single Family Home up to \$600,000, Studio26 had some strict criteria to adhere to. The family wanted their home energy efficient, spatially efficient and they wanted to take advantage of the grand landscape around the property by incorporating inspiring views.



Studio26 accomplished these points by creating their version of a *piano noble* on the home's second floor to include gracious, airy bedrooms and a roof deck, and incorporating spacious loft-style living with minimal obstructions on the first floor.

Once the family's aesthetic needs were addressed, it was time to meld desires with strategies—strategies that provide proven energy efficiency and low environmental impact.

SINGLE FAMILY HOME

UP TO \$600K

STUDIO26





THIS SMART HOME UTILIZES THE FOLLOWING FEATURES:

- A Structural Insulated Panel System, or SIPS, for the walls and roof. These insulated panels are ultra-tight and highly insulated so air infiltration and exfiltration, and thermal bridging is minimized.
- A highly insulated, formaldehyde-free basement
- An advanced and well-sealed HVAC system, featuring geothermal, ground-source heat pumps and an Energy Recovery Ventilator, or ERV
- Energy Star-qualified appliances and exhaust systems
- Use of Zero-VOC paints and coatings throughout
- A solar hot water system that provides approximately 80 percent of the home's hot water needs.

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Along with structural forethought and efficiency, this home used locally harvested hardwood for the flooring, and its tiles and linoleum are made of primarily recycled materials.

Careful use of existing water resources is also a priority as the home has several ways it addresses conservation. Rain runoff is collected on site and then re-used for garden watering. Water usage in the bathrooms is addressed with low-flow faucets and dual-flush toilets, accounting for nearly every drop coming in or going out.

When it comes to light and heat in the home, Studio26 and the homeowners turned to another local company, Lutron, to provide a system of

controls designed to keep costs in check and usage streamlined. Lutron's RadioRA 2 system is wireless and provides the homeowners the ability to adjust the amount of daylight and electric light with a system of controls and automated shades. There is an option to set temperature per room or throughout the entire home. The system is even smart enough to turn off standby power to small appliances if no one is using them.

So from the roof down to the yard and everywhere in between, this home is state of the art when it comes to forward- and conscious-thinking design. Design that will not only save, but will give back throughout the life of the home. **S**