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The atrium, located just off the kitchen, features a three-layer, daylighting skylight and indoor planters. Two bedrooms open onto this central area, and 68" diameter fans help to circulate air in the airtight SIP home.



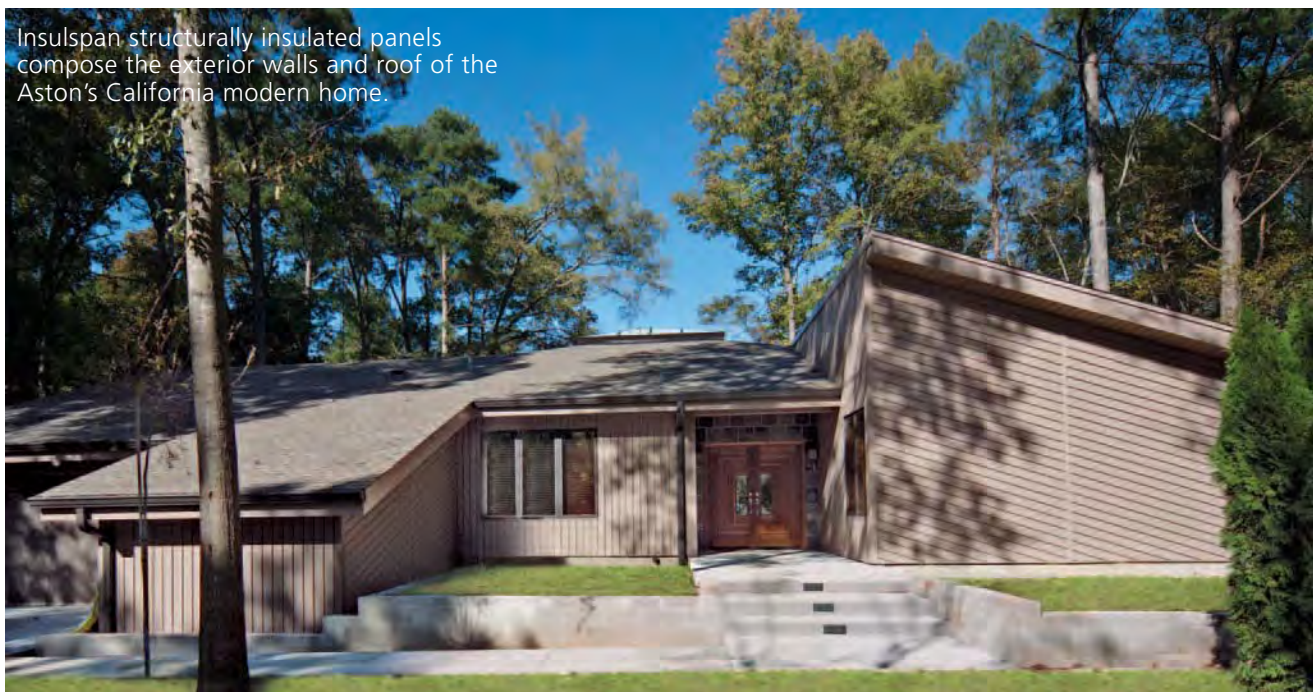


A Labor of Love

Three years ago, Don and Jennifer Aston of Florence, Alabama, decided to build a sustainable home with an emphasis on natural materials and an earthy color scheme. Arming themselves with research and an experienced team—including Nashville's MM&I Construction and Design—the Astons finally moved into the house of their dreams.

TEXT Lindsey Phillips | PHOTOGRAPHY Mike Boatman

Insulspan structurally insulated panels compose the exterior walls and roof of the Aston's California modern home.



When Don and Jennifer Aston grew weary of the Florence, Alabama, home they had occupied for 35 years, they first considered embarking on a home improvement project. But the 1960s-era, two-story house had never quite seemed like home to Jennifer, and now that their daughters were grown, once-positive features like the backyard swimming pool didn't seem worth the upkeep. "We thought about filling in the pool and then we thought, 'Wait a minute. Do we really want to be in this house the rest of our lives?'" says Jennifer, a Florence native and vice president of operations for Dallas-based Nouveau Cosmeceuticals. "We just decided that to get what we really wanted, we would have to build."

So the couple made a list of their ideal home's requirements—a separate shower and bathtub, endless hot water, bamboo kitchen cabinets—sifted through more than 2,000 house plans and purchased "the perfect lot," a quiet, one-and-a-quarter acre plot on a cul-de-sac in Florence's Heritage Village neighborhood. Then the self-proclaimed "information junkies" set to work researching the house of their dreams, a three-year journey that led them twice to Nashville's Kelly Costanza of MM&I Construction and Design, first for expert advice and finally for her company's unparalleled service. "When you start getting that kind of service, people who are going to be there with you and who

help you make the big decisions so your home gets done properly, that's what you're looking for," says Don, a metallurgical engineer who grew up in Brooklyn. "That's why we went with MM&I, right there. We never regretted it."

Costanza, a general contractor, interior designer, certified green professional and certified aging-in-place specialist is also an authorized dealer of Insulspan™ Structural Insulated Panels (SIPs), an energy-efficient building alternative that Don and Jennifer came across during their research.

"The energy conservation and green building were always really appealing to us," Jennifer says. "We have children and hopefully we'll have grandchildren and we don't want to take away so much from Earth that they don't have anything else. If you can do something where you reduce your carbon footprint and you can also save money doing it, why not?"

A SIP panel is a pre-fabricated building panel that incorporates the exterior framing, insulation and sheathing all combined to reduce the labor and number of steps in a building envelope. The Insulspan™ SIP system consists of solid, one-piece, pre-cut SIP units that are ready to install as wall and roof components. Overall the SIP system creates a strong air-tight envelope that is much more energy efficient than a traditional stick frame and requires a smaller HVAC unit. This method of building is also affordable and pays

off in the long run, Kelly says. "The design of the home dictates how the panels are utilized and the amount of structural lumber used to complete the SIP package," Kelly explains. "We work with our clients to ensure the most cost effective SIP package for their home. When the homeowner adds the energy efficient windows and the appropriate size and appropriate ductwork design of the heating and cooling system they will meet most of the key requirements of energy performance standards. Not only can SIP homes be affordable and energy efficient, but they are also worth more at resale, healthier, environmentally friendly, stronger, safer and quality assured with the Insulspan™ ISO 9001 Quality Control Program. Building with SIPs just makes sense."

After briefly seeking a SIP company closer to home the Asters, dissatisfied with that service, returned to Costanza for good; she then helped redesign their chosen floor plan to fit SIP requirements, as well as the Asters' personal tastes. "Kelly and [MM&I] were great about doing redesigns and looking at some of the difficult things we were asking for," Don says. "They got everything done right."

Because the SIP panels are manufactured, all the rough openings for windows and exterior doors are created in the factory; even the pet door for the Asters' Yorkshire Terrier—was planned beforehand.

The team broke ground on January



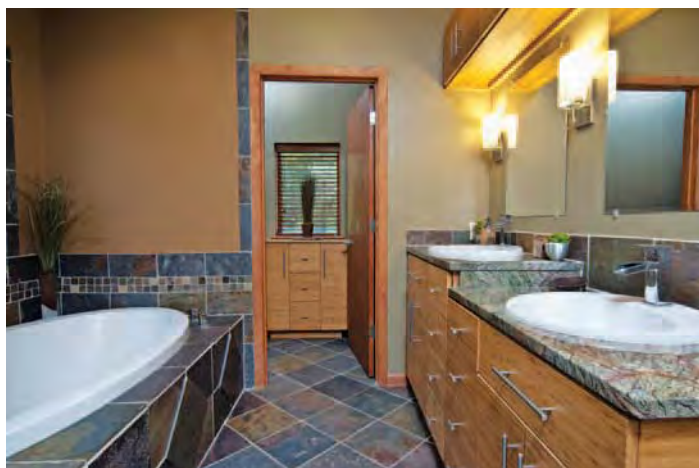
The Astons' chose an open floor plan for their home, incorporating soft, modern furnishings with natural design elements like Indian multi-colored slate floors to achieve a tranquil atmosphere.



The conversation pit features cork floors and a comfortable seating area perfect for entertaining guests. Because the original plan did not include windows, Jennifer and Kelly incorporated six acrylic block windows into the wall to let in light.

Bamboo plywood composes the cabinetry of this kitchen, which Jennifer designed. A large support beam was placed in the ceiling so the cabinets could be hung above the counter.





Indian multicolored slate and bamboo cabinetry continue throughout the home. Kelly redesigned the floor plan of this bathroom to fit the Astons' requests.

30, 2009, and the SIP panels, which compose the exterior walls and roof of the Aston home, were delivered at 8 a.m. on a rainy Monday in late March—Don's birthday. "When the panels were delivered, we worked through the rain off-loading, checking in accessories and staging the panels for installation," Kelly says. "Once the SIP walls were installed, the framing crew completed the interior stick framed walls. Then it was time to put the SIP roof package on. Installing the entire SIP package for the Aston's took about five days."

Finally, on October 31, Don and Jennifer moved into their new home, a 3,000-square-foot structure Jennifer describes as "California modern," with an open floor plan and an emphasis on natural materials and color schemes. Earthy taupe and green paint tones flow throughout the home, with reddish-brown accent walls in the dining room, living room and master bedroom. The flooring alternates between cork and Indian multicolored slate, with slate used heavily in the interior design. "Basically the interior came to fruition because we knew the materials we liked," Jennifer says. "We knew we loved slate, we knew we wanted to use cork flooring, I was adamant that I wanted bamboo cabinetry. The rest of it just came from searching in books and through the Internet."

To ensure that the house was exactly how the couple envisioned it, Jennifer even sketched many of its features on graph paper like the large display case in the atrium and the cabinetry in the kitchen, bathrooms and study.

The home's many innovative features include a conversation pit located just off the dining room with cork floors and comfortable seating for an intimate visiting atmosphere. Six acrylic box windows, half running vertically and half arranged horizontally, mimic the three

windows on either side of the front door and the windows in the master closet. A double-sided gas fireplace, wrapped in stainless steel, is accessible in the pit and the living room; the stainless steel theme also carries throughout the house, in the display case and in the kitchen, where bamboo cabinets over the counter are suspended from a ceiling beam by stainless steel-covered rods. "I adore my kitchen," says Jennifer. "I designed it, it's exactly what I wanted. I wanted functional with lots and lots of cabinetry and storage and just something beautiful to look at too. I think we got what I was after."

The home also includes a central atrium with a daylighting, three-layer fiberglass skylight inside an aluminum frame to help with energy efficiency. The atrium is lined with a 14-foot indoor planter filled with peace lilies, palms, ferns and other plants that don't require full sunlight. Two of the home's four bedrooms open through sliding glass doors into the atrium, with one even exiting onto the indoor garden, where Don and Jennifer placed slate stepping stones.

The house is equipped with Energy Star appliances, dual-flush toilets, a tankless water heater, zoned heating and cooling and a two-stage heating and ventilating system. "Our goal was to build an energy efficient, comfortable and peaceful home," Jennifer explains. "We wanted a place where people would enjoy coming to relax, to feel calm or serene, and that's kind of what we've done."

On their quest for sustainable living, however, the Astons ran into obstacles from the ground up. Because of the 43 windows included in their first-choice floor plan, which is not energy efficient, the house is actually based on their second choice with plenty of alterations

at Jennifer's request and Kelly's recommendation. Even the concrete slab on which the home sits, lined with two inches of foam insulation, evoked head scratching. "That was something that was really questioned by our concrete people, saying 'Well, we never do that,'" says Don. "I said, 'No, I've been doing a lot of research, particularly on the Department of Energy site and one thing they constantly say is insulate your concrete slab from the ground. That keeps your slab warmer than the ground and moisture tends to go from warm to cold. That way you won't have moisture coming into your house through the slab.'"

Even Jennifer's kitchen presented some setbacks. First, the bamboo she wanted for the cabinets was nowhere to be found—except in China. And in order to place cabinets in the opening between the kitchen and the dining room, the cabinetry would have to hang from the ceiling. "Of course everybody first said, 'You can't hang cabinets from the ceiling,'" says Jennifer. "I just looked at the people and said, 'Don't tell me I can't, because I know I can.'"

Through research, the Astons tracked down bamboo plywood in Indiana and a cabinet maker in Tennessee willing to take on the project, seamlessly fusing the four-foot bamboo plywood into eight-foot cabinets. Their framer installed a heavy-duty beam from which to hang the finished product.

"The cabinets are exactly what I dreamed," says Jennifer, repeating what seems to be the Aston's mantra. And as for that list the couple made three years ago, Jennifer and Don say the home has practically every item they jotted down. "This is definitely a labor of love," Jennifer says. "It's our house, it's us. It has been quite a project, and it has been amazing."

See Sources for Details



The indoor planters are filled with plants that require very little light, since the skylight only filters in a small percentage. One bedroom exits onto the stepping stones in the planter, and the acrylic box windows on either side of the door are identical to those in the conversation pit.