



Wall Panel Case Study: Ash Street + Studio 804

:: Fundermax
More than a panel

At the University of Kansas, the world’s next professional architects have the opportunity to take part in a program called Studio 804.

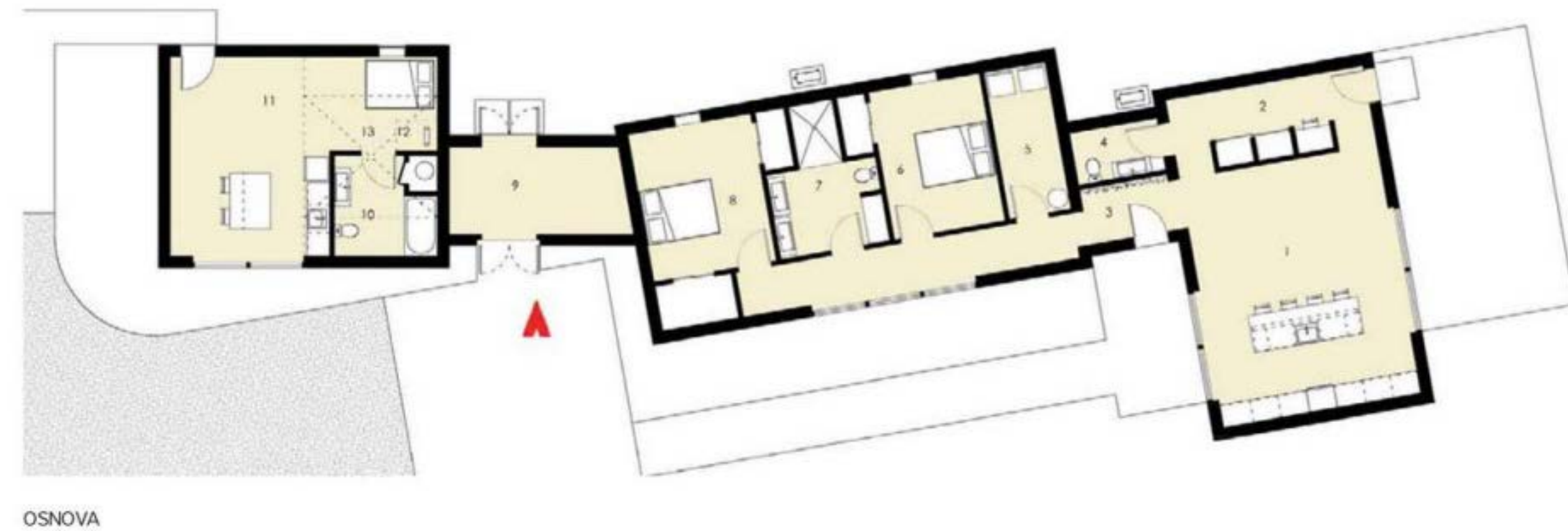
Led by program founder Dan Rockhill, Studio 804 is a year-long, comprehensive educational opportunity for graduate students who are entering the final year of the Masters of Architecture program at the University of Kansas School of Architecture and Design.

During each academic year, students enrolled in the full-time class design and construct a building of great technical sophistication. The program has completed sixteen LEED

Platinum projects and, according to Rockhill, “My students, when they go on to work in private practice, end up leading the sustainability effort in their respective offices. It is important to impart to my students that we don’t have to give up good design in order to be sustainable. We can find creative ways to maintain both together.”

The group’s 2020 build included an exterior Fundermax project resulting in an exciting phenolic panel project.

Situation



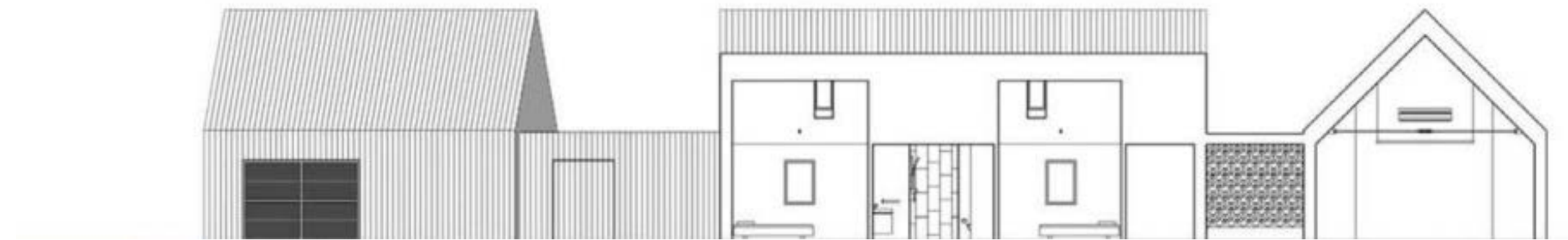
Situation



Studio 804 is a learning opportunity for architecture students approaching graduation to experience the process of a build, from brainstorming to creation.

The build, in this case a single-family home, primarily teaches students the skills required to be a successful architect. But, this house was more than simply a teaching opportunity; it also needed to fit into the environment and serve the local demographic in a way that gave the home a purpose and could be purchased by actual homebuyers.

Located in the northeast part of the state, Lawrence, Kansas, has become a popular destination for retirees and empty nesters, and property has become scarcely available.



“It’s very hard to find locations here in Lawrence,” says Rockhill.

“Being a university community with a vibrant downtown, neighborhoods, etc., we have found that our demographic [of homebuyers] would be people who kind of looked at themselves as a couple and said, ‘Well, the kids are all grown, do we still need this three or four-bedroom big house?’”

Regarding the surrounding environment, the build site is located in North Lawrence, on the north side of the Kansas River. Historically a working class community with big gardens, large trucks, and grain elevators, there is an eclectic quality to the environment that Rockhill wanted to work with.

Since its inception, the work of Studio 804 has aimed for sustainable, energy efficient design. Beginning with their 2008 build, each project has been LEED Platinum Certified and several have been Passive House Institute US (PHIUS) Certified.

With sustainability at the core of Studio 804's mission and purpose, this was a highly significant factor students considered when choosing products and materials for their project.

Students spent hours researching various products and materials and presented options to their class. Jack, the student responsible for researching exterior materials, discovered Fundermax exterior phenolic wall panels online.

Rockhill says he was initially hesitant about Jack's suggestion of phenolic panels because he had seen them used primarily on projects of a much larger scale, like large European apartment buildings, which did not fit the vernacular of the area.

"I was a little reticent until I read that we could go ahead and work [the phenolic panels] with conventional woodworking tools. A table saw would be sufficient to reduce the scale to the kind of vernacular we needed."

Phenolic cladding panels proceeded to make the short list of final options.

Solution

Solution



Exterior phenolic panels, specifically those made by Fundermax, were ultimately chosen for three key reasons:

SUSTAINABILITY

Fundermax places a high priority on sustainability. Our commitment to sustainability aligned with Studio 804's passion and goals.

“We have a lot of interest from the public,” reflects Rockhill. “People come and see what we do, how we’ve done it, and in a sense, we are speaking about sustainability. That, to me, is important and another dimension to what we do.”

Rockhill admits, “I was leery of high pressure laminates being sustainable.” But after further review, he discovered that HPL panels are in fact “a highly sustainable product. That put my fears to bed, and I was no longer concerned about it.”



Using Fundermax phenolic panels contributed to the Innovative Materials section conveyed to the USGBC when the project was submitted for LEED certification. (The project is LEED Platinum certified.)

VERSATILITY

In addition to being able to work with and scale the panels down to the appropriate sizes, as mentioned above, students also valued the wide range of installation applications with our panels. Fundermax panels are one of the few options that can be used as a vertical wall panel system as well as a roof application.

Additionally, the material's versatility extends beyond function to aesthetic. In order to complement the environment and fit the farm community vernacular, students chose the Amazon wood grain color.

Rockhill recalls his initial hesitation: "Initially I thought, 'I don't know about high pressure laminates.' You know, kind of 'make-believe wood' and stuff like that. I'm sort of a purist in that world. But once I saw what we could do with it, it worked out beautifully for us."

ACCESSIBILITY

Our team was willing to work with the students to make sure the specs were right. Fundermax donated the phenolic materials as well as the time invested toward the project's success.

Rockhill recalls a point late in installation when students realized a change in roof design meant they were going to need more phenolic panel material.

"I was pretty sure it was in stock because Larry had told me how much would be available, and sure enough, we needed it. I don't remember how much, but it came on the flatbed truck, and we were off to the races with it. We never skipped a beat."

Solution

Results



This charming residence consists of a 1500 ft² primary house with a contiguous 500 ft² accessory dwelling. According to program leader Dan, the house will cause traffic at times because so many people want to see it. **“We like that [the buildings] kind of look like Monopoly houses since the siding goes up and over the roof and comes back down the other side.”**

Due to COVID limitations, the group had to halt installation for two months, delaying production on the house. However, many dedicated students came back to help make sure the project was completed.

The finished house blends with and complements the environment and meets the needs of the local demographic of homeowners. The house has been recognized repeatedly by magazines and companies worldwide.















The Fundermax Difference



This example of Fundermax panels is an exciting and unique application of a phenolic panel system. The use of Fundermax's phenolic HPL panels as a roof material, exposed to weather and UV rays, and as an extension of the vertical wall panels, is a creative application of this durable material.

The fact that Fundermax panels can handle the additional exposure without limiting the product's warranty is an added benefit for any architect. Not many phenolic panel manufacturers will let an architect use their panels as an exterior wall and roof – but Fundermax does.

Regarding additional standout characteristics of the Fundermax panels, Rockhill responded, “The [phenolic panels] were consistent. I’ve used many manufactured products that are not. I was thankful to see that the [Fundermax] product was so refined in all of its dimensional characteristics.

That was a big relief because it is not an easy thing in the manufacturing process, to take something that you’re using heat and pressure to produce at a very, very consistent thickness and size.”

As mentioned above, many members of the Fundermax team helped Rockhill and his students with the project to ensure it followed regulations and was done correctly.

Rockhill described his experience working with the Fundermax team:

“They’re good people to work with, and I always felt they cared about our needs and our time frame and made an effort to really understand it...

It was just nothing but cooperation. That makes a big difference -- a huge difference -- when you’re out there with your feet in the fire, wondering how you’re going to get a project done... It’s nice to not get pushback on it, especially when it’s a donation!

It was refreshing to see the way in which the people [at Fundermax] cooperated, and it sounds like just an everyday thing [at Fundermax]. I’m sure it is.”



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