



NICHIHA CASE STUDY

Innovative Home Showcasing Sustainable Living Wears Nichiha Cladding

Architecture students use donated Nichiha cladding on future-focused, cutting-edge design

An architect's high-design creations may sometimes foster an unintentional disconnect between creator and builder. An architect may put forth a design that is unfamiliar or too aggressive for a builder's abilities. Likewise, the builder may face considerations on a project that an architect is not aware of.

In an effort to make such divides a thing of the past, graduate students at the [University of Kansas School of Architecture & Design](#) undertake an annual project where they not only design houses from scratch, but they also build them.

Known as [Studio 804](#), the not-for-profit 501(c)(3) operation is a student-run effort to fully construct a home from concept to creation. The project serves as an academic capstone for aspiring architects and helps them better understand the considerations in place when building a unique, Avant Garde design that holds sustainability as a core tenet.

continued >>



PROJECT DETAILS

PRODUCTS

[Miraia](#) - Onyx

TIMELINE

August 2022 - May 2023

CREW MEMBERS

25 - 30

TYPE

Residential/Academic

CHALLENGE

Challenge budding architects to not only design in a sustainable way, but to also understand the intricacies of the designs they're specifying.

SOLUTION

Transform an overlooked lot in a historic neighborhood into an inspiring design that serves as a model for sustainable construction and mindful living.

RESULTS

Nichiha Miraia in Onyx was installed to deliver an ultra-luxurious aesthetic. Because this AWP is comprised of thick fiber cement, the cutting-edge design will endure against mother nature and assist with the home's sustainability aims.

“The glossy black is incredibly sleek and modern. With our black standing seam roof, the house mimics the look of a polished gem. Miraia Onyx is perfect for that.”

LYDIA JUENGLING, ARCHITECTURE STUDENT

”

It Takes a Village

Building a home from scratch annually is a costly endeavor, even with students facilitating the build themselves. To minimize costs, Studio 804 relies on donations from notable building products companies.

This assistance not only benefits the project, but it also helps elevate student understanding of innovative products available for their creations now and in their professional careers.

For the 2023 project, students sought out Nichiha’s fiber cement cladding for both its elegance and timeless durability. In total, Nichiha donated 2,500 square feet of its elegant [Miraia architectural wall panels \(AWP\)](#) to support the effort.

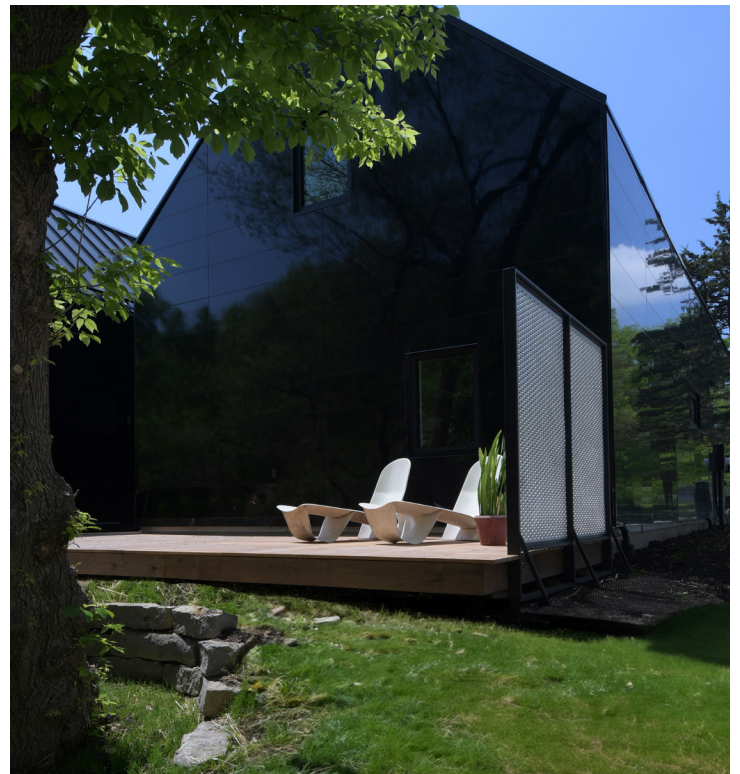
“I contacted Nichiha to ask if they’d be interested in partnering with us, and they were very excited and really responsive,” said Lydia Juengling, a fifth-year architecture student. “I’m really excited about the aesthetic of the panel. The glossy black is incredibly sleek and modern. With our black standing seam roof, the house mimics the look of a polished gem. Miraia Onyx is perfect for that.”

Future-Forward Utility

The project, dubbed [432 Indiana House](#), serves as another deliberate exercise in sustainable living in one of the oldest neighborhoods Lawrence, KS. The aim is for the home to serve as a model for houses that better embrace their locales, are more sustainable in their construction and operation, and offer day-today living habits that minimize environmental impact.

From the outset, 432 Indiana House was designed and built with LEED Platinum standards in mind, Studio 804’s 17th consecutive project with such status. Several other metrics minimize the home’s impact on the environment and embrace the surrounding community. Nichiha, which pairs well with continuous insulation, was a standout choice to help keep the home’s energy usage low.

The home sits on a formerly vacant, overgrown lot. But the location was strategically chosen, being just a short walk to local parks, downtown Lawrence, and the Kansas River. Though the home is equipped with a single-car garage, bus and bike loops are in close proximity to limit the frequency in which a vehicle is needed.



“I think Nichiha has raised the bar of quality, and we aim to meet the quality ourselves and the execution of it. It’s a beautiful product that has been thought through to a great extent.”

DAN ROCKHILL, PRINCIPAL, ROCKHILL AND ASSOCIATES

“

Leading Looks & Leading Quality

The home’s striking appeal relies heavily on clean lines and black details. Nichiha’s high-gloss Miraia was a natural fit in not only the aesthetic, but also in the project’s fit and finish. This was a real asset to Dan Rockhill, principal of the architecture firm [Rockhill and Associates](#) and JL Constant Distinguished Professor of Architecture, who oversees Studio 804.

“I think Nichiha has raised the bar of quality, and we aim to meet the quality ourselves and the execution of it,” said Rockhill. “It’s a beautiful product that has been thought through to a great extent. They are able to anticipate all the conditions that we run into – how to deal with openings, doors, windows, how to turn corners, how to manage expansion and contraction. All of those have been thought about through their engineering.”

And because Miraia is comprised of thick, robust fiber cement, the home’s façade will continue to dazzle well into the future.



1.866.424.4421 | [nichiha.com](#) | 6465 E. Johns Crossing, Johns Creek, GA 30097



Nichiha USA, Inc., a subsidiary of Nichiha Corporation, was established 1998 and is headquartered in Johns Creek, GA. Nichiha Corporation, an international leader in fiber cement technology for more than 35 years, has 13 plants worldwide and markets distinct patterns of fiber cement siding products in the U.S. In 2007, Nichiha opened its first U.S. manufacturing plant in Macon, GA, responding to an increase in demand for fiber cement products in the Southeast market. For more information, call 1.86.NICHIIHA1 or visit [www.nichiha.com](#).

© 2023 Nichiha USA, Inc. All rights reserved.