Opposing Direction

WHAT'S AN ARCHITECT TO DO WHEN THE CLIENT STEERS A PROJECT IN ONE DIRECTION, THE LOCAL AUTHORITIES IN ANOTHER AND NEITHER FEELS RIGHT?

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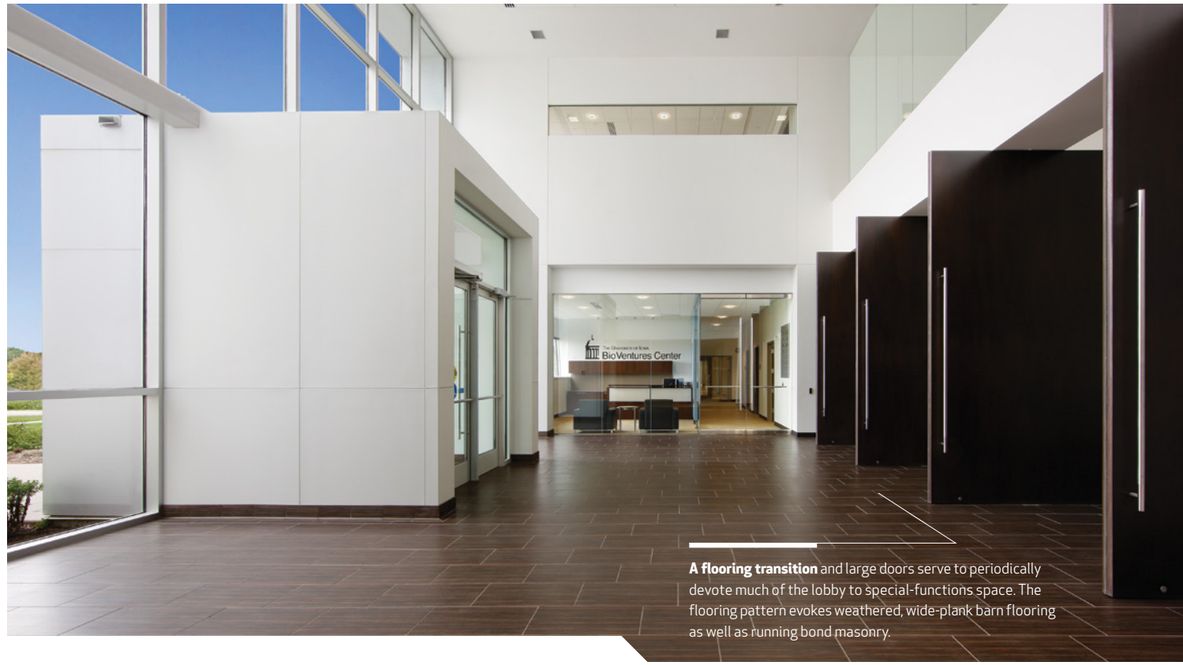

A flooring transition and large doors serve to periodically devote much of the lobby to special-functions space. The flooring pattern evokes weathered, wide-plank barn flooring as well as running bond masonry.

> We didn't think that simply reusing shapes and forms from barns and silos for a lab building made much sense. —*David Sorg*

That's exactly the spot OPN Architects of Cedar Rapids fell into when selected to design the new BioVentures Center at the University of Iowa's Oakdale Research Park, a building that progressively reinterprets the Midwestern vernacular through materials, rhythm and scale.

Located at the entryway of the research park, just off Interstate 80 in the northwest quadrant of Coralville, the BioVentures Center was created out of a public/private partnership between the University and Minneapolis-based developer/contractor, Ryan Companies. The two-wing, 80,000-square-foot facility houses wet lab and dry lab modules, is available for lease by biotechnology startups and has a large speculative space for more established organizations. The building is intended to provide a collaborative environment for budding biotech firms, with the hope that they will grow and "graduate" into new facilities in the Oakdale Research Park.

Very little of the BioVentures Center's aesthetic appears directly translated from the farms and agricultural structures that dot Iowa's landscape. But the end result could've been much different, had it not been for OPN Architects' unique approach to tackling the building program, and the willing flexibility of both the University of Iowa and the City of Coralville.

"The client originally wanted an almost literal interpretation of agrarian architecture," explains David Sorg, principal at OPN,

Reminiscent of a barn with its doors open at both ends, the lobby pierces the building.

The BioVentures Center *(pg 38–39)* carries subtle, carefully planned references to agrarian vernacular.

describing a master plan that was developed prior to OPN's role in the project. "But we didn't think that simply reusing shapes and forms from barns and silos for a lab building made much sense." Sorg, who served as project manager, and his team began their work with a road trip through rural east-central Iowa, snapping photos of the expected and unexpected. They walked to farmsteads and knocked on doors, asking to look around and explore the property.

Farming structures are purely utilitarian, through economy and function, and what Sorg's team repeatedly heard from locals was "don't make it more than it needs to be." The designers were inspired by the less obvious elements of farmscapes: weathered wood, light penetrating through a corn crib, stone foundations and the dramatic vignette created when a set of barn doors is fully opened.

At the same time, OPN was grappling with the City of Coralville's code of ordinance design standards, which required that 100 percent of the lab building's street-facing wall "be constructed of full natural brick, exterior finish insulation system (EFIS), wood siding, stucco or open-face block." No exterior metal is allowed. Furthermore, the standards recommend a minimum 5/12 roof slope (in an earth-tone color, if possible). Not only were the city's ordinances in direct opposition to the literal use of agricultural forms and materials requested by the client, "they were precluding a lot of viable architectural solutions we came up with during our research," says Sorg. He's quick to point out that the city's intentions are good, and that this provided an opportunity to engage with the local authorities more closely.

The completed laboratory building doesn't have a blatant farm-like look to it, nor does it subscribe word-for-word to Coralville's design standards. "It's not what our client was expecting," explains Sorg about the early design phase. "But when we showed them what inspired us, and what we recommended should drive the project, they bought into it."

Working closely together, OPN and the city collaboratively re-interpreted the design standards, each making some compromises along the way. To accommodate the city's desire for more masonry, the amount of limestone on the façade was increased. OPN illustrated how they were planning to use metal in a progressive, artistic way that fit the building program.

The BioVentures Center's use of form and materials remains true to the high-tech function of the facility, with only subtle connections to the rural Midwestern vernacular. The main roof plane is a single form that seems to fold over the building, gently wrapping it in a continuous steel blanket, like that of a barn's multi-planed roofline.

From north to south, directly facing the roadway and pedestrian access, a large portal pierces through the facility, creating the lobby. Each end of the portal incorporates wall-to-wall and floor-to-ceiling clear low-E glass, allowing the space to be transparent day or night, "slightly reminiscent of a barn with its doors wide open on both ends," says Sorg. Corten steel shingles clad the portal, providing a natural weathering that gives hints to the textures and colors the OPN team observed on wooden siding and oxidized farm equipment. The use of local Anamosa limestone to surround the base of the center is probably the most closely literal design interpretation, being that it is used as foundation material at farmsteads throughout Iowa.

The center's interior includes twenty 700-square-foot wet labs and sixteen 300-square-foot dry labs stretched along the two-story east wing, serving as the biotech startup incubator space. Although the arrangement of these 36 modules is a response for maximizing efficiency and daylighting, Sorg suggests they're somewhat evocative of the no-frills individual pods used in chicken coops, which are extruded out as necessary.

The building's success is, in great part, attributed to the willingness of OPN's University of Iowa clients to depart from their original plan and consider a non-literal approach to mimicking agrarian architecture. Hats also go off to the City of Coralville for its readiness to work with OPN in a re-interpretation of local design standards and a balancing of subjective aesthetic preferences. OPN took opposing direction and, rather than blindly following orders, stretched its thinking and that of everyone involved in the project, creating an elegant research facility that appropriately interprets and utilizes Midwestern vernacular. Sorg reflects positively on the process of cooperating and sharing ideas with the city and with the university. "Everyone had the same goal," Sorg says, "to create a great project." ia

The corten-clad lobby "portal" *(opposite)* extends through the steel roof plane and the local Anamosa limestone.

Saturated in vertical lines, the roof is a single form, folded over the building like a barn's multi-planed roofline.