# Caterpillar's main Arkansas outpost puts all its steel on display in a nod to the equipment it manufactures.

# Matching METAL BY REESE ROWLAND, FAIA

**SINCE ITS FOUNDING IN 1927,** Riggs CAT has been a continuous part of the construction landscape in Arkansas, spanning four generations of the Riggs family.

> Today, Riggs CAT employs over 400 people and operates eight different facilities throughout the state—and in fact is the state's only Caterpillar dealer. In recent years, the company had outgrown its flagship location in Little Rock, causing leadership to assess future space and location needs and ultimately deciding to consolidate office groups from around the campus into one centralized headquarters location. The new facility replaces a 50-year-old building with a light-filled structure overlooking the company's operations and reflects the branding, quality and technical prowess of this world-renowned manufacturer of heavy equipment.



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#### **Open and Honest Expression**

The challenge was to create a highly personal structure that represented the company's core values of family, integrity, teamwork and excellence. Riggs' leadership developed an extensive master plan that confirmed the viability of having the offices remaining on-site by removing older structures to expand both service operations and the equipment yard, while also creating a headquarters that would make both technicians and corporate visitors feel welcome.

Existing warehouses and shops were first demolished, and their empty footprints became the laydown space for construction so as not to impede any existing operations in the service areas and equipment yard. The new headquarters building's most defining feature is a large western-facing porch that reaches out to welcome visitors while shielding occupants from the afternoon sun. Its cantilevered tapered ends are capped with a standard galvanized steel grating cornice that lightens the edge, filters sunlight and emulates a shovel blade lifted into the air.

The new steel structure (using approximately 163 tons) reflects the Miesian sensibility of the adjacent 1950s warehouse, which was renovated into a training center, and acts as a large open shed, sheltering key programmatic elements while creating two distinct display and activity lawns, one public and the other private. Subtle inspiration was drawn from CAT equipment, from abstract arm booms and haul truck box beds to grader blades and wheel tracks dug into the earth. The southern roof overhang and galvanized grating balcony block direct sunlight but allow indirect light, a key sustainable strategy, and there is a



The building's form gives a sense of machine-like movement through the trees from the Interstate view, digging into the earth and lifting to the sky.

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Lower-level layout: **1** lobby **2** conference **3** office **4** open office **5** private suite **6** break room **7** work room **8** mechanical court **9** restroom **10** equipment training bay **11** large classroom **12** small classroom **13** existing parking









A The southern roof overhang and balcony overlooking the equipment yard shield the building from direct sunlight while letting in indirect light, a key sustainable strategy.



The building's key design move, the expression of structural steel, offered an elegant, yet industrial and open work environment that highlights key spaces.

clear, ordered definition of use for constituent elements under the steel shed. In addition, strategic building placement allowed the structures to act as a visual barrier to the yard from Interstate 30 while also achieving a physical separation from the local street in an industrial part of the city.

The roof lifts to the west, facing the existing site entrance, new display court and repurposed training center. A large steel porch ties the roof down to the earth, separated always by glass, to create a light airy atmosphere that connects people to nature. HSS5×5 was used to support the extensive glazing system.

The building's form gives a sense of machine-like movement through the trees, digging into the earth and lifting to the sky. With the idea of adding a unique identifying element, the design team created a glowing red glass box, cantilevered with steel under the main porch to mark the entrance, to house the primary stair landing. The stair, along with the evening glow of the exposed structural roof deck above, creates a beacon of sorts from the I-30 viewpoint. Service elements, such as the elevator, stair and restroom enclosures that anchor the building at the main entrance, are all exposed, all working together to further contribute to the machine-like character of the building.

 Visitors are greeted under a floating roof designed to emulate a CAT excavator blade lifted high into the air.

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An open stair leads to "catwalks" outside of offices, expressing the open-door philosophy of the company's executives.

The long roof and narrow building footprint allows clerestories at second-floor executive offices that flood the central spaces with natural light, and the lobby is 100% naturally lit during the day. Open stairs lead to expressive steel "catwalks" outside of the leadership offices, expressing the open-door philosophy of the company's executives. The lobby is both a showroom and a reception space to host clients, allowing a glimpse into critical operations, and is crowned by a large meeting room, which also serves as the boardroom, floating above as a viewing window into leadership. The space cantilevers over the reception desk thanks to simple welded steel connections to crossing beams. The two-story lobby was envisioned specifically so that leaders could step out of their offices to the catwalk rails and welcome guests to come up for a visit.

## **From Obstacles to Opportunities**

The key decision that set the headquarters building's design on the path to exposing the structure and incorporating expressive connections revolved around the existing 1950s-era warehouse. The

The stair landing's glowing red box is cantilevered to mark the entrance. The stair, along with the glow from the exposed structural shed roof deck, creates an instantly identifiable beacon.

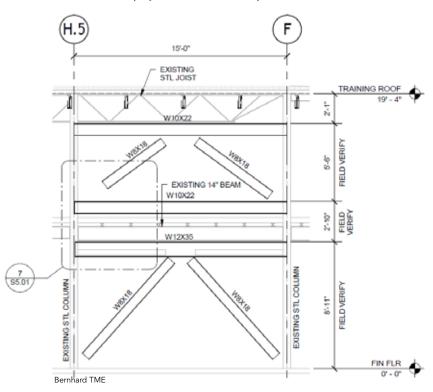








Needed structural bracing was carefully inserted into the Training Center's Miesian expression of steel columns and beams that framed brick infill panels. The new brace now marks the employee entrance from the yard.



A The simplicity of the broader idea of a steel shed allowed a complex structural solution to be displayed as a design feature.

warehouse, which was repurposed into a companywide training center, incorporated exposed steel with masonry infill panels that inspired the design of the new building. While visually appealing, the building was not properly braced—no moment frames or diagonal bracing were discovered and no existing drawings were available—and the design team responded with an exposed steel bracing system that also serves as the workers' entrance from the equipment yard as well as another instantly identifiable marker.

The primary aesthetic of both the renovated building and the new headquarters structure is found in the machine-like connections that are normally covered up. The finish on all steel exposed to the elements was created with appropriate primers and a Sher-Cryl high-performance acrylic coating from Sherwin-Williams, whose black color blended with other corporate CAT colors of yellow and red in glass and accent panels.

▼ Open stairs, collaborative spaces and floor openings with views to the below level accentuate the core belief of community.



The buildings' geometric power, detailing and transparency speak to the company's core values, and the exposed steel design speaks to the technical nature of construction, expressing all connections and framing, much like CAT equipment itself. Steel was the only material capable of delivering this design philosophy.

## Owner

J. A. Riggs Tractor Company, Little Rock, Ark.

# **General Contractor**

Baldwin and Shell Construction Company, Little Rock

Architect Polk Stanley Wilcox Architects, Little Rock

**Structural Engineer** Bernhard TME, Little Rock

**Steel Detailer** Prodraft, Inc., Chesapeake, Va.



A The boardroom floats above the lobby. The narrow building footprint allows clerestories at executive offices that flood the central spaces with natural light.