GATORBAR®

CASE STUDY:
TRANSPORTATION HUB

ICC AC454 CERTIFIED (ESR-4526)
GatorBar #3 only (#4 pending)

An ACI Center of Excellence for Nonmetallic Building Materials
MEMBERSHIP

100% MADE IN THE USA

PATENT #9688030B2

ZERO POLYESTER

DELIVERING MORE WITH LESS

How GatorBar is Faster, Safer, and Cost Effective

PROJECTS & ACRES

3 LOCATIONS

FOR R+L CARRIERS IN KENTUCKY AND GEORGIA

2.8 MILLION SF

A COMBINED 2.8 M SF OF CONCRETE PAVING

THE CHALLENGE

When the R+L team began planning their KY and GA projects, certain sites called for asphalt and others called for concrete. During the planning process, the decision was made to work toward a consistent design and upgrade the concrete for improved long-term durability. While the switch offered better performance, it came with a cost increase. The general contractors and R+L's stakeholders—developers, site engineers, and a veteran foreman—were faced with a critical question:

HOW TO MAINTAIN SCHEDULE AND BUDGET WITHOUT COMPROMISING QUALITY.

Traditional steel rebar, with its high material costs, heavy handling requirements, and labor-intensive installation, posed a major challenge. They needed an alternative to

offset the added costs of concrete and meet or exceed structural requirements.

THE SOLUTION

Our team introduced #3 GatorBar, the leading glass fiber reinforced polymer (GFRP) rebar, as a replacement for traditional steel. After reviewing cost models, labor studies, and material logistics, R+L approved a redesign using GatorBar installed on 18-inch centers within 7-inch-thick concrete, supplemented by 4 lbs of macro fibers. Saw-cut joints were laid out at 12-foot intervals to control cracking.

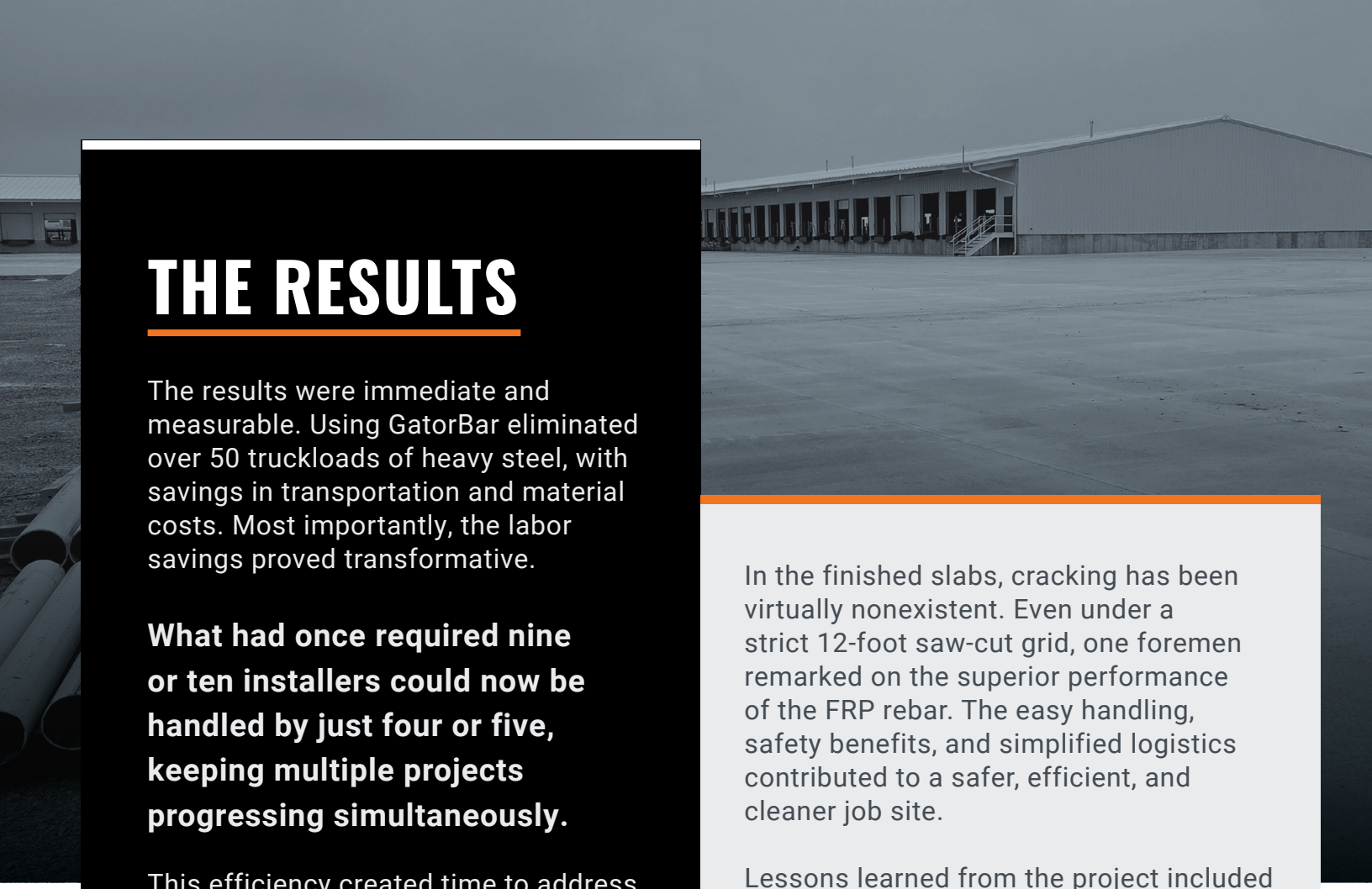
Implementation began with a focus on efficiency. Because of GatorBar's low weight, truckload deliveries could be cut by 80%—reducing freight costs and eliminating job site issues like congestion. Rebar bundles are carried by hand, removing the need for cranes or heavy equipment. Installation speed increased three to four times compared to steel rebar, keeping the project on schedule.

02 FLATBEDS INSTEAD OF 10	**HALF** THE CREW NEEDED

This efficiency allowed concrete subs to cut rebar crews nearly in half, freeing up manpower for other priorities. Safety improved as well: in 90-degree summer heat, there was no need for gloves to handle hot steel, heavy lifting was minimized, and there were no splinter or sliver injuries.

GATORBAR®

FOCUS ON PRODUCTIVITY



THE RESULTS

The results were immediate and measurable. Using GatorBar eliminated over 50 truckloads of heavy steel, with savings in transportation and material costs. Most importantly, the labor savings proved transformative.

What had once required nine or ten installers could now be handled by just four or five, keeping multiple projects progressing simultaneously.

This efficiency created time to address unexpected issues like site grading while staying on schedule.

In the finished slabs, cracking has been virtually nonexistent. Even under a strict 12-foot saw-cut grid, one foremen remarked on the superior performance of the FRP rebar. The easy handling, safety benefits, and simplified logistics contributed to a safer, efficient, and cleaner job site.

Lessons learned from the project included the need for additional dobie bricks for chairing and awareness that GFRP bars will shear if exposed beyond slab edges. However, these minor adjustments were far outweighed by the overall benefits. The projects stand as models for how rethinking reinforcement can change project economics.

With GatorBar, the contractors received an amazing product with low weight, high strength, and immediate delivery. This enabled all stakeholders to achieve a durable concrete solution that would have otherwise been cost prohibitive, proving that innovation in materials can deliver both performance and value.