



An "Eye" on the Future

For this Florida scanning specialist,
technology smooths out even the roughest issues



Company

Eagle Eye Scanning
Cape Coral, Fla.

Project

Scan, then create a design to smooth
out troublesome bridge approach
Ft. Myers Beach, Fla.

Topcon Solutions

RD-M Road Scanner, SmoothRide

Topcon Dealer

Lengemann, Corp.
Altoona, Fla.

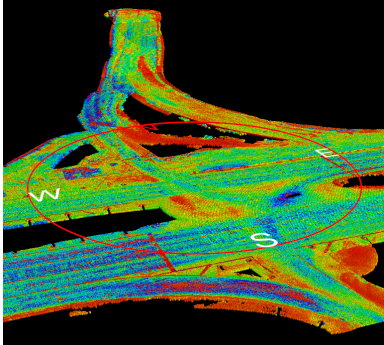
In 2023, despite being a fairly new company, Eagle Eye Scanning had a unique vision for where it wanted to be. Armed with a Topcon RD-M road scanner, which is part of the Topcon SmoothRide intelligent paving system, it saw the possibility of the company's capabilities being dramatically enhanced, well beyond traditional road scanning applications.

They felt strongly that the scanner could be a valuable tool for things like creating as-builts, working with engineers, etc. They also felt that the RD-M could excel in road construction and resurfacing work, projects that involved milling and paving. After testing – and proving the viability of their vision by mounting a full Topcon GPS paving solution on a flatbed trailer – they were amazed with how accurate the results were – and knew they were onto something big.

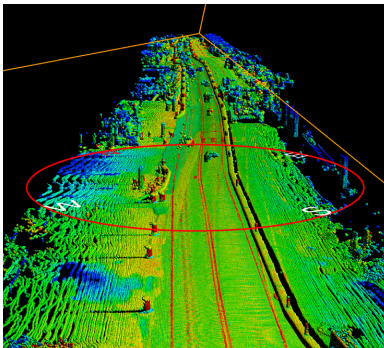
Eagle Eye did not have to wait long to see their vision come to life. Shortly after their successful mock runs, they were contracted by one of Florida's

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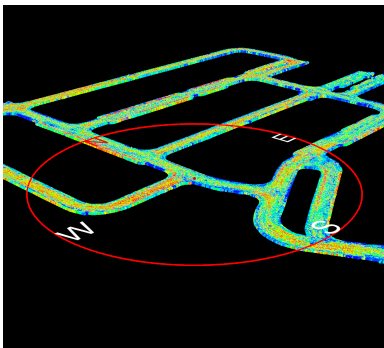


leading paving specialists to address work on a bridge approach. On that structure, according to Brian Juenger, Eagle Eye's president, wear issues developed over time, resulting in a low spot so serious that it often caused trailers to become detached from the vehicles towing them. "The contractor hired for the job met with us and, using the RD-M solution, we scanned the roadway and problematic area," he said. We presented a design we said could meet the required 45% improvement in rideability. When complete, the eventual project easily beat those numbers."



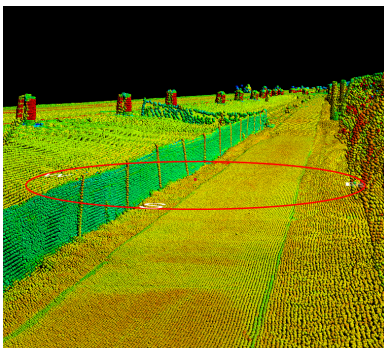
Mounted on a Jeep Cherokee, Eagle Eye's RD-M scanner can scan at rates up to 100 times per second, delivering a detailed 3D point cloud depiction of existing surface conditions before a project begins. It also allows them to know, with confidence, the amount of material to be removed or placed for any given section of road – important for the canal bridge repair, according to Matt Fewox the company's operations manager.

While results from the bridge project were immediately impressive, available data from MAGNET Office – depicting both pre- and post-paving – allowed Eagle Eye to quantify just how successful they were in their efforts.



"We had MAGNET Office run a report for us, giving us something akin to an IRI (International Rideability Index) number, said Fewox. "We first ran the rideability report on the existing surface, then did so again after it was paved and compared the two numbers. Just based on that raw data, the improvement was in the 60% range – well above the 45% they required. For us, that was huge, especially with a product we hadn't implemented in that way before."

He added that they were particularly thrilled at proving a full-range concept: being able to scan, build a design, implement that design, scan post-project and then prove their ability to meet a predetermined goal. "We were definitely pleased, but even more excited for the possibilities we saw."



Since then, Eagle Eye has moved into other areas which are also traditionally labor intensive or limited in scope, and even proved itself something of a hero in one case. A local contractor, facing the possibility of a massive paving re-do, knew of Eagle Eye's scanning strengths and turned to them for help.

"We saw that he was in a tough spot, so we went out and scanned that project," said Fewox. "Fortunately, after scanning, we were able to prove to county engineers that what this contractor built matched the original design intent of the overall drainage plan. So, instead of having to replace a huge part of what was already done – which would have meant ripping out all the curb and most of the asphalt – he only had to replace 120 feet of curb. That saved him a ton of money and time and got Eagle Eye another satisfied customer."

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"In this business, you're only as good as the tools that you use," he added "With the RD-M, we are getting the speed and accuracies that our customers — in a range of different applications — deserve. It's a big part of our business today and it will only get bigger."

"The penalties are based on the cost of impact on the airport's operation, which is fairly standard on any job of this type," he said. "In this case, it is \$50,000 per day. But we were right on track and that's due to the excellent work of our subcontractors, the technology we were able to call upon, and the Rifenburg team that comes out here every day to bring it all together. It's why we win bids to do airport work and why we will no doubt continue to do so."

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