

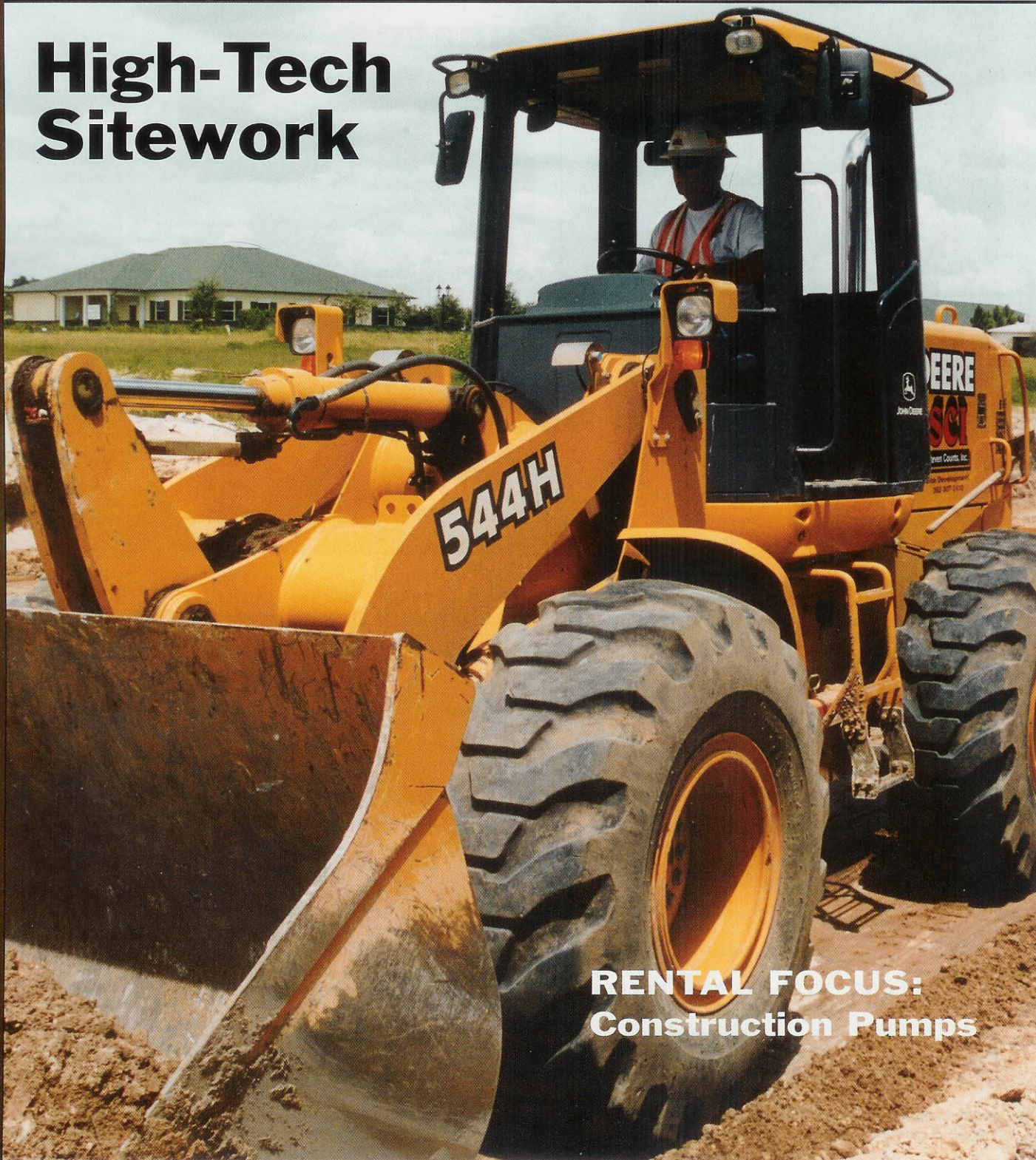
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High-Tech Sitework



**RENTAL FOCUS:
Construction Pumps**

Challenging Mat Pour In Tampa



Thanks to careful planning, challenging site conditions didn't slow down a recent mat pour in Tampa.

BY SARA MCGRAY

Steve and Eric Swauger of ESI Concrete Pumping, Odessa, Fla., were recently awarded the contract to complete a 2,900-yard mat pour just outside of Tampa. When contractors met six weeks before the scheduled pour for a new Walmart Super Center, everyone involved discovered the job would require some serious preparation.

ESI provides pumping services to most of West Central Florida, branching from the Tampa area. The contractor also rents out its extensive pumping and construction equipment fleet including 11 boom pumps, nine trailer pumps and two laser screeds.

On this nearly acre-sized mat pour, ESI worked closely with general contractor Case Construction, Plant City, Fla., concrete contractor MRK Concrete, Miami, and representatives from ready mix supplier Cemex, pulling out all the stops. In fact, with pre-construction complete, the parties involved took time six months before the pour to negotiate equipment selection and setup strategies to place concrete in the 12-foot-deep excavation.

Top: ESI's 39-meter, 52-meter and two 42-meter Schwing boom pumps pumped 160 yards per hour to complete a 4,000-yard pour in five hours outside of Tampa, Fla., recently.

Upper Right and Right: Placement began on a Saturday night at midnight and wrapped up by 8 a.m. Sunday morning.



To execute the 45,000-square-foot, 26-inch-deep pour, ESI project superintendents elected to use five concrete pumps with long booms.

Among the challenges facing the concrete placement team were soft, wet jobsite conditions from a two-week stint of rain, making pump setup awkward. A water run-off vault,

directly adjacent to the site, also made for tight access and setup on an otherwise vacant lot. In addition, ready-mix supplier Cemex needed to tackle the issue of truck access, taking into consideration both the soft job site and site entrance from a nearby road.

To ensure the smooth, monolithic completion of the mat, contractors met at the job site a few days before the scheduled pour to implement the decisions made six weeks prior.

Eric Swauger, ESI president, described the extensive precautions made prior to the pour.

"We used a tape measure to stake off pump setup," Swauger said. "We ensured there was a safe path for the ready mix trucks and even figured in the relocation of a couple of the pumps."

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Soft, wet ground and an adjacent water run-off vault caused some tough site considerations. Pre-pour management meetings helped contractors to measure off and mark where pump setup and ready-mix truck access was safe.



Swauger added that there were "some major site constrictions" to deal with.

"If it hadn't been for cooperation among all the contractors involved," he said, "it would have been much more difficult."

To avoid traffic congestion and make truck turnaround more efficient, contractors closed down several lanes of traffic adjacent to the site. The pour was scheduled to begin at midnight on a Saturday to further minimize traffic problems.

Five ESI concrete pumps rolled on to the job site just after 11:00 p.m. on Saturday night. A KVM 39 X was set up at the excavation's southwest corner. Superintendents set up ESI's two 42-meter Schwing pumps along the west side of the excavation. The pumper's KVM 52, with a 170-foot-6-inch reach, was placed directly in the center of the excavations' east side. The pump remained on the spot throughout.

"It has the biggest pump kit," said Swauger, "We just set it up and kept feeding it. No breakdowns, no overheating, no hassles throughout the entire job."

The 39-meter pump was relocated twice along one side of the hole during the pour, while the two 42-meter pumps were relocated once each, leap-frogging each other along the west side of the excavation.

Ready-mix trucks from Cemex's four local plants supplied 5,000-psi concrete for the nearly acre-sized pour.

The pour went very smoothly. In fact, ESI had completed 2,500 yards of the pour only four hours into the project, and when the final pump pulled away from the site at 8:00 am Sunday morning, a total of 2,900 yards had been pumped into the excavation.

Swauger estimates that each pump output 160 yards and more per hour.

"This project wouldn't have been so interesting if it weren't for the conditions and our production numbers," he said. "I had two 42-meters, side-by-side on the east end of the pour. One was an older model, probably a '94 or '95. Up against the 2002 model, you couldn't measure a difference in performance. They had almost identical production numbers."

Besides pump performance, Swauger credits excellent cooperation among the contractors – and excellent operators too.

"There wasn't one slipup or one problem," he said. "We'd planned everything to a tee, and everyone was on."

Swauger also commented on another unique aspect of the project, adding that some weeks after the initial mat pour for the store foundation, ESI's 52-meter and 42-meter boom pumps were brought back in to finish off the retailer's parking lot. Concrete contractor MRK Concrete completed the skeleton structure of the new lot, installing block walls and placing hollow-core slabs on top. ESI pumps were brought in to place 1,000 yards of concrete on top of the slabs. ESI used its own laser screed to finish the pour. ■