

573 feet when it is completed. The legs are hollow and will hold service elevators that will be used to conduct safety inspections and perform maintenance.

In a corner a jumbled stack of coolers holds workers' lunches. A microwave oven is balanced on a plywood bench and a green portable toilet booth stands in another corner. A crane with a new load of rebar carefully rests the steel rods on the platform. The view of Charleston with its grand port and church steeples that dot skyline is staggering, and even The Citadel, nestled on the opposite side of the peninsula is visible.

Talking with workers, Touchberry checks on their progress.

"I am the eyes and ears for the project," he says. "My job is to verify that the contractor follows the plans and specifications while building the greatest bridge in the world."

The new bridge project is a consortium of some of the greatest engineering expertise in the world. Parsons Brinkerhoff Quade and Douglas, a firm out of New York, is the lead design firm. Freyssinet, a French company with offices worldwide, designed a cable system that will be able to survive hurricane-force winds. And Palmetto Bridge Constructors (PBC) is using supervisors from Argentina, England, Sweden and Canada, to name a few. PBC, which is responsible for the construction, is a joint venture between Flatiron Construction Corporation of Colorado and Virginia-based Tidewater Skanska, the managing partner.

MORE CITADEL INFLUENCE

From outside his modular office on Morrison Drive where he begins his day at 6:30 a.m., Tom Messervy has a view of the emerging Ravenel Bridge as it begins its climb over the Cooper River. The first honor graduate from the class of 2000 has been working for PBC for more than two years now. A Citadel Scholar, he was awarded a scholarship after graduation to Massachusetts Institute of Technology where he earned a master's degree in civil engineering with a specialization in construction engineering and management.

As a field engineer, Messervy is working on the Charleston high-level approach and the main span. The project, he says, is a design build project. "Although we know what it's going to look like, where the piers and the towers are going to be, there are some things—like drainage and electrical specs—that are being figured out along the way. It saves a lot of time to finish the design as you go."

Messervy is supervising the installation of the post-tensioning cables on the Charleston high-level approach. The post-tensioning system gives the pier caps topping the columns the capacity to hold the structural steel, road

deck and traffic. A typical cap has four sets of cables stressed to approximately 1.5 million pounds each. After being fitted, the cables are stressed with a jack. One of the jacks being used in this process weighs almost 6,000 pounds.

Working with Messervy as field engineers are Al Hughes, '99, who was the first Citadel graduate to sign on with PBC, and James Warmoth, '00, whom Messervy helped recruit.

"The size of the project is the most exciting aspect of the job," says Warmoth, who has a master's degree in structural engineering from Virginia Tech. "On other projects, there's a formula. Everything has been done before, but here everything is custom made—everything is unique to this project."

Messervy also helped recruit Joel Wells, '00. Wells, who earned a master's degree in international business from the University of South Carolina, is PBC's cost engineer. Field engineers report to him, and he tracks their work and puts together a labor cost report that helps with quantity reporting and scheduling production crews. Moses Gamez, '03, also with PBC, is a quality control inspector.

THE MAIN SPAN FIVE MONTHS LATER

David Kinard, '04, has joined the project for a short time as an intern with the transportation department. Temperatures in Charleston have soared into the 90s. Jeff Mosher, '02, a field inspector for HDR, a subcontractor for the transportation department, has been working on the interchange to the bridge from Charleston.

"My responsibility," Mosher says, "is to make sure that the DOT is getting what they paid for."

In the months since March, the DOT has been getting a lot for its money. A small slab of concrete at the very top of the west diamond tower signed by Touchberry and his co-workers signals its completion. The east tower, too, has been completed. The road decks on both towers are now reaching out toward one another and will soon form the main span. As the span increases, so do the cables holding it up.

On the west tower road deck, Messervy is helping workers move one of the two Derrick cranes, a stationary crane used

