



to lift girders, beams and concrete road panels from barges below. Enormous concrete panels are positioned side by side on the steel girders and are tied together with reinforced steel. Concrete is then poured over the steel ties to create a seam between the panels. As the span increases, Messervy and his workers move the Derrick crane forward.

Taking a break, Messervy points out the progress on the Charleston high-level approach.

"You can see the various levels of progress," he says. "The major stages of construction for the high-level approaches can be broken into substructure concrete work (foundations, columns and pier caps), structural steel installation and deck placement (stay-in-place forms, reinforcing steel and the concrete deck which is the actual road surface)."

The construction project is similar to a Citadel education. "At The Citadel you start from the bottom, and you build up," says Touchberry.

"The Citadel lays a foundation that makes learning new skills in the field that much easier. No school can prepare you for every problem in the field. The Citadel teaches you the method to solve problems and overcome challenges," adds Messervy.

Years from now after the Arthur Ravenel Jr. Bridge has become a Charleston icon and Touchberry and Messervy have built more bridges, young Citadel engineering cadets will look to the bridge for inspiration to continue the tradition of these graduates. A Citadel education, like this construction site, generates a very visible, well-respected product that will weather the storms of time and will have an impact on society for years to come.

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Cable casings—white polyethylene pipes 223 to 807 feet long, 8 to 12 inches in diameter—rest on small trolleys fashioned out of halved one-foot lengths of sewer pipe with lawn mower wheels attached by threaded rods. The trolleys, an inspiration of one of the site foremen, are placed about every 15 feet and make maneuvering the unwieldy casings much easier. The pipes will be threaded with 37 to 91 steel strands one inch in diameter to form cables and will be anchored from the roadbed to the tower legs. The cables will vary in size depending on their distance from the towers.