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Cooper River Bridge, Charleston, South Carolina



Massive drilled shafts were installed for SCDOT’s Cooper River Bridge Replacement Project. Working in a diverse environment, including land, water, barges and trestle, Case Atlantic installed the foundation shafts for the largest cable-stayed span in North America, stretching 1,546 ft between the Charleston peninsula and the town of Mt. Pleasant. This operation required extraordinary coordination and careful handling of the surrounding environment.

- Client** Palmetto Bridge Constructors, SCDOT
- Challenge** Difficult access, environmental considerations
- Scope** Largest ever drilled shafts in the Charleston area, featuring up to 12-ft dia shafts with depths up to 240 ft requiring up to 745 cy of concrete. Permanent casing weights up to 100,000 lbs and reinforcement steel cages nearing 200,000 lbs. Total of 414 drilled shafts: 90 in water, 30 on trestle, and 294 on land.
- Access** Barge-mounted, trestle, and land
- Schedule** 2-year schedule completed in 18 months
- Method** Permanent and temporary casings, wet and dry methods
- Testing** O-Cell, CSL, sonic caliper, vibration monitoring