PROJECT DESCRIPTION

The current Bonner Bridge is past its design life and will be replaced with a new bridge that can better handle the taxing coastal environment. The new bridge is to have a 100 year life span and will cross the Oregon Inlet between North Carolina’s Hatteras and Bodie Islands on the Eastern Seaboard.
SDI’S SCOPE OF WORK

SDI will furnish all post-tensioning materials and hardware for the precast column and precast roadway segments. The columns include SDI’s 1.75” High Strength Bar and 2.5” High Strength Bar Systems. The columns also incorporate stainless steel anchorages and high strength bars for corrosion control. The precast roadway segments incorporate SDI’s 4.6A, 12.6-PC, and 22.6-PC Anchorage Systems, requiring roughly 6,000 of SDI’s Segmental Duct Couplers for the complete project.

PROJECT HIGHLIGHTS AND FACTS

Due to the highly corrosive environment of Coastal North Carolina, SDI is utilizing an uncommon post-tension material—stainless steel high strength bars—to increase the life span of the structure. SDI developed and executed a tailored testing program to prove that the stainless steel bars and anchorage systems were equivalent, if not better, than standard high strength bars systems from the day of installation. The test included AASHTO, tensile, ductility, and pull-out tests.