Interstate Firsts in North Carolina

- The I-40/I-26 interchange near Asheville was the first three-level interchange on the North Carolina highway system. Total construction time was four years and the cost was $7 million. (*Roadways*, Sept.–Oct. 1968)
- The Green River bridges on I-26 in Henderson County were built around 1968. Each bridge carried two lanes of traffic at an elevation of 220 feet above the small streambed of the Green River in the heart of the Blue Ridge Mountains near Saluda. These bridges are unique because corrosion-resistant steel was selected for use in the superstructure as well as the encasement of piers. This material was chosen because of maintenance problems that would be associated in painting a structure that tall. This corrosion-resistant steel does not require painting. (*Roadways*, Sept.–Oct. 1968)
- The 22-mile section of I-40 through the Pigeon River Gorge begins at Cove Creek and extends to the Tennessee line. This project, the largest ever undertaken by the North Carolina Highway Commission at the time, cost $33 million and included three tunnels. One of the tunnels had a unique engineering feature allowing westbound traffic to use an open cut while eastbound traffic would use a tunnel. (*Roadways*, Sept –Oct. 1968).
- The first runaway truck ramp on an interstate in North Carolina was on I-40 near Old Fort. Built in 1974, the huge sandpile halfway down the mountain provides an escape ramp of sand for trucks with overheated brakes. (*Byways,* 1974)
- In 1974, an electronic detection and indicating device was installed along four miles of I-40 near Canton. This device, the first of its kind to be used on North Carolina's highways, was installed to forewarn motorists of the acceptable safe driving speeds during fog conditions. The sensing light beam detects fog density. This information is fed to 19 different highway signs, which then displayed speed limits of 45, 35 and 25 miles per hour – depending upon the visibility – as well as the word "fog." At the same time, warning lights flashed to indicate the density of the fog. (*Byways,* 1974 – Fall)
- The N.C. General Assembly in 1967 appropriated $167,000 to build the first welcome centers on I-85 and I-95 in North Carolina near the Virginia border.
- The first time "grooving" was incorporated on a North Carolina interstate highway was in 1967. This simple operation, which requires cutting grooves in a segment of concrete pavement, was performed on a section of I-85 in Davidson County, north of the Yadkin River. This would significantly add to the safety and skid resistance of this portion of interstate. (*Roadways,* Sept.-Oct. 1967).
- The first section of completed interstate in North Carolina opened in early 1958. This was a three-mile section of the East-West Expressway in Winston-Salem, originally designated I-40.
- The 15-mile section of I-95 opened around Gold Rock in 1967. This section of highway included eight experimental concrete pavement areas – six to nine inches thick and two specially reinforced sections eight inches thick. The results from these tests would help engineers determine the best concrete paving practices in the future. (*Roadways,* Nov.-Dec. 1967)
- The state's first high occupancy vehicle or HOV lanes opened in December 2004 along I-77 in Mecklenburg County.
- The 660-foot pedestrian bridge spanning I-440 in Wake County is the longest pedestrian bridge in North Carolina.
- The use of the design-build method has played a tremendous role in helping the department reduce overall project delivery time by awarding the design and construction of a project as part of a single contract. The state's first three design-build projects were on interstate highways, I-85/Ruin Creek interchange in Vance County and widening I-77 and I-85 in Charlotte. Each project was completed at least a year sooner than by traditional design and construction methods.
- On June 29, 2001 NCDOT completed the 4.3-mile section of I-540 from Creedmoor Road (NC 50) to Falls of Neuse Road. This road featured a new design at Six Forks Road called a single point urban interchange, which uses one traffic signal to direct all left turns that are brought together at a single point on top of the bridge. This design, which is the first of its kind

in Raleigh, is a technique used in urban areas to help move traffic quickly and safely and conserve right-of-way.

- In 2003, the state's tallest interstate bridges (220 feet) opened over the Laurel River in Madison County as part of the I-26 project. These bridges also included the state's first automatic bridge deicing system.