

Resilient Asphalt Roads:

STANDING UP TO NATURE AND DELIVERING VALUE

When natural disasters strike, state and local agencies need resilient pavements that offer both a quick fix and a long-term solution. Resilience is the ability to anticipate, prepare for, and adapt to changing conditions. Withstanding, responding to, and recovering rapidly from disruptions are critical to reopening affected communities. In the wake of natural disasters, emergency vehicles need to deliver services, construction equipment must arrive to make repairs, and other vehicles need to haul off debris. Roads are essential lifelines for construction crews, local businesses, and residents who are eager to return home quickly and resume their normal activities.

Asphalt Key to Florida's Recovery from Hurricane Michael

In 2018, residents in the Florida panhandle experienced a major disruption when Hurricane Michael, a Category 5 storm, roared ashore with winds of 155 mph and caused \$25.1 billion dollars in damage. Homes and businesses were destroyed and US 98, a vital artery for the area, was



washed away due to its proximity to the nearby coastline. The storm weakened the pavement's structure, creating holes that Hurricane Michael filled with sand, building debris, and even shredded guard rail.

Anderson Columbia Co. Inc. (ACCI), a large road-building operation

in Florida and the Carolinas, was awarded the job to repair and reconstruct the roadway. "Some of the required patches were 1,400-foot long," recalls Brad Herring, general superintendent for ACCI's West Florida Division.

Herring's team cleaned up the site debris and prepared the pavement structure before paving operations began. The work included replacing the pavement's damaged subgrade, surface preparation, and grade corrections.

To reopen the two-lane highway as quickly as possible, the team rebuilt sections and returned completed sections to traffic the next day.

Even in the beginning stages, quickly building a smooth pavement was a goal. "We had to achieve smoothness requirements even on the patches," said Herring. Not only do drivers prefer riding on smooth pavements, but there are safety considerations as well. "If a roadway is not smooth then water can collect, and drivers might hydroplane during wet weather. Smooth pavement helps drivers avoid those kinds of accidents."

Herring says ACCI was able to achieve its smoothness goals because of high-quality asphalt mixtures and utilization of innovative technology. "Anderson Columbia has many new mixes with high polymer content that extend pavement life and performance. We are able to leverage new technology to produce a high-quality pavement in two lifts rather than what required three lifts in the past. By using industry best practices, modern materials, and new technology, we can produce a more flexible, smoother product than was possible a decade ago."

Asphalt is the pavement of choice for repair in the wake of a hurricane, when a community's economic future depends on rapid recovery and smooth roads to restore daily operations.