



# Smooth Sailing in Venice

Using new technology, Ajax Paving enhances critical highway milling effort



When Ajax Paving of Florida was tasked with repaving a four-mile section of highway – an evacuation route – that needed both repair and partial redesign, they chose an innovative technology for the milling facet of the job. By doing so, they were able to lower manpower demands, while raising production levels and project efficiency. The resultant milled surface then served as the ideal platform for subsequent paving.

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#### Company

Ajax Paving  
Tampa, Florida

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#### Project

SR-681 Venice Connector  
Venice, Fla.

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#### Topcon Products

Topcon RD-M1 (SmoothRide)

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#### Topcon Dealer

Dobbs Equipment  
Riverview, Fla.

Officially known as the SR-681 Venice Connector project, the scope of work included a total of eight miles of milling and resurfacing, cross-slope correction for both leveling and rider comfort, as well as guardrail and drainage improvements. To maximize safety, a “Wrong Way Driving” detection system on the I-75 off-ramp to SR 681 was also installed.

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Always open to new technologies to enhance their processes, smooth their workflow, and/or increase their effectiveness, Ajax was receptive when approached about the SmoothRide milling/paving solution by representatives from Dobbs Equipment, their Topcon dealer.

"We'd been considering SmoothRide since its introduction, and the SR 618 project seemed the perfect opportunity to put it to work," said Ben Harlan, Ajax's field technology manager. "We liked the fact that it is designed to simplify the process – be it milling or paving – by combining vertical data from the machine's sonic tracker with GNSS for the horizontal positioning. We felt the combination of the two could give us the 3D-grade accuracies we wanted, without the need for a robot or lasers. And being the first paving company in the state to have it is a feather in our cap."

Harlan started the SmoothRide-based workflow with a scan of the four-mile-long, north and southbound lanes of SR 681. Using a Topcon RD-M1 laser scanner attached to his pickup, he was able to quickly and easily get the scans he needed – without the need for any lane closures on the busy highway. "I actually broke the scanning sessions up into smaller segments in order to make post-processing the data easier; even with that, it was still much faster than shooting a topo. And we got points every six to eight inches compared to a topo, which would have only given us a reading every 25 feet. It was definitely faster and far more productive for us."



Heading up the milling effort was Largo, Florida-based Turtle Infrastructure Partners (TIP), who brought a pair of Wirtgen mills – a W207Fi and the RD-MC-equipped W210 Fi – to the Venice project. According to Brian Truitt, machine monitoring specialist for the Dobbs Positioning Solutions division of Dobbs Equipment, TIP was also an integral player in this debut for SmoothRide in Florida.

"TIP was responsible for putting Wirtgen's Level Pro leveling system into the 210 mill along with the infrastructure – the uprights, the antenna brackets, etc. – to support the new milling technology," he said. "What makes this particularly attractive is that Ajax will not only be able to move the RD-MC solution from mill to mill, they can also have it specified in the bid contract that any milling company needs to have their equipment outfitted in that way in order for Ajax to perform the job for them. It ensures that the work will be done in the best manner possible, so it's really a win for everyone."



The combination of top-flight equipment – TIP's Wirtgen W210 Fi features a 7'-wide mill – and the RD-MC solution, helped Ajax achieve production rates of up to 3,000 ft./day. According to Hunt, using the enhanced milling approach also streamlined the paving effort, which followed on the heels of the milling.



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"Using SmoothRide allowed us to correct the profile and get the surface to the point where all we had to do was pave to mill depth," he said. "That's important because, when paving using grade control with an incorrect grade, you run the risk of laying down more material than needed. Having confidence in that milled surface helps us maintain the correct paving spread rate and virtually eliminate material overages. On this project, we will be removing about 35,500 tons of millings – which will be recycled into new product – and laying down some 31,680 tons of new material."

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A [full-length version](#) of this story is on the Topcon website.



Visit the [Topcon YouTube channel](#) to watch video on the SmoothRide solution featured in this TAW.

