



# It Takes The Villages

Florida curb and gutter firm ramps up production with stringless solution



Lenard Powell has been building curb and gutter for better than a quarter century. In that time, he has poured more than 1,000 miles of curb – enough to stretch from his offices in central Florida to New York City. Until several years ago, the overwhelming majority of that work – performed in The Villages, a massive, central Florida master-planned community – had been done using a stringline-based system.

Accepting that all things change, however, Powell and his company, Lenard Powell Inc. (LPI), made the move to a stringless, millimeter-grade GNSS solution. That move, he said, has resulted in a better product, less reliance on a survey crew, improved production rates and a smaller workforce.

When Powell first saw Topcon's Millimeter GPS solution at World of Concrete, he was skeptical of its ability to provide the accuracies his curb and gutter business – and his clients – demanded. "I thought there was

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## Company

Lenard Powell, Inc. (LPI)  
Oxford, Florida

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## Project

Paving in one of the country's largest master-planned communities  
The Villages, Florida

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## Topcon Products

Millimeter GPS on a Power Curber 5700C

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## Topcon Dealer

Lengemann of Florida  
Altoona, Fla.

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Lenard Powell



no way it could do that using just GPS," he said. When he was shown how Topcon had combined it with laser technology to bring it to millimeter grade, he decided it was time to give it a serious look. "We added it on a Power Curber 5700C and were immediately impressed with what we were able to do."

The catalyst for turning LPI's Power Curber unit into a stringless curbing solution is a Millimeter GPS Paving System from Topcon. Millimeter GPS provides Powell's crew with the benefits of GPS positioning technology, bolstered by a zone laser reference to improve the accuracy of the curb machine to the levels needed.

"When we pour curb, our design calls for a .5% slope – it cannot have any dips, it has to run," he said. "That's attainable with string, but you need to have stakes every 25 feet with the offset and the grade on each, then literally get down on your hands and knees to eyeball it. Running the stringless system, we only have an occasional reference stake – the rest is all automatic. Putting all our faith in that system took some getting used to, but it's proven itself on every job we've done, and the benefits are substantial."

"Benefits" can be a relative term. When pressed for an estimated return on investment for the stringless solution, Powell chooses instead to offer an alternative way to frame his savings.

"As everyone knows, it's getting hard to find good workers," he said. "Pouring curb and gutter is hot, nasty work, particularly here in Florida. Very few people – let alone new, younger workers – want to work outside in those conditions. So, for us, reducing the size of our labor force through the use of the Topcon stringless solution is a much bigger benefit than any straight financial savings."

Using Millimeter GPS, Powell has eliminated the stringline crew entirely and cut his survey needs by about two-thirds. "If we weren't so adamant about checks and balances, we could probably cut our dependence on survey even more. But we are picky, and it's served us well. So reducing crew size on certain projects by as many as four men is our payback."

Millimeter GPS has definitely made its mark with LPI. Since making the move, more than 75% of the company's curb work is now done without string, many of his eight curbing units have been reconfigured for other work, and production rates have been averaging about 4,000 feet per day. While that number is attainable with stringline, getting there would take all the additional manpower described earlier. The process now is so streamlined and efficient, in fact, that working on projects outside of The Villages, draws some strange comments.

"When we pour elsewhere, I'll tell them we want to pour curb and gutter at 9:00, we need 200+ yards of concrete, and we need trucks delivering mud at 20-minute

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intervals – they literally laugh,” he said. “They think we can’t possibly need it that quickly, but we do. The new stringless system has us just humming along. On most projects here in The Villages, the contractor has eight or ten pipe crews working and they still can’t outrun us. We made the right move.”

“With the Topcon system on the Power Curber unit, we’ve eliminated the stringline crew entirely and cut the survey crew by about two-thirds.”

Lenard Powell



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



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