



A Ranch in the Works

Automation helps construction specialist meet challenges in innovative South Florida development project



Just outside of Ft. Myers, Florida, at one of the nation's most innovative, state-of-the-art, ecologically compliant master planned communities, Mitchell & Stark Construction (MSC) is transforming previously undeveloped acreage into further growth for this community of tomorrow. And it is doing so using a smaller – yet far more efficient – workforce than ever. It's only fitting that the contractor tasked with creating the lakes and preparing the site for such a cutting-edge development should, itself, be drawing upon a wealth of the latest GNSS-based solutions to make it happen.

Company

Mitchell & Stark Construction
Naples, Florida

Project

Earthmoving/lake creation
for Babcock Ranch expansion
Babcock Ranch, Florida

Topcon Products

MC-Max solution on a range of dozers,
excavators and motor graders

Topcon Dealer

Dobbs Equipment
Ft. Myers, Florida branch

"We have a range of machine control solutions at work throughout the site – everything from indicate-only units to the latest, fully automatic

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systems," said Chris Anderson, MSC's project manager. "While we've embraced the speed, efficiency, and accuracy of GPS machine control for years, in Topcon MC-Max, the latest automated excavator and dozer solution, we are quickly discovering what could be its most valuable trait: the ability to essentially stretch our workforce. And it could not be more timely."

The combination of operators retiring and a lower influx of people coming into the construction industry has forced companies like MSC to get creative. To counter that loss of expertise, the company saw the benefit GNSS technology could provide to a new, different-thinking workforce.

"This new generation of operators grasps new technology and embraces it quickly," said Anderson. "As a result, the Topcon MC-Max solution is taking a person who has a couple years' experience and quickly making it possible for them to perform complex tasks. For us it is a force multiplier: instead of having two or three operators at Babcock Ranch who can finish slopes, we now have five, so we are able to increase throughput with the same size workforce. That's been huge for us."



For MSC, the benefits provided by the equipment running under the MC-X platform also extend to the logistics and planning facets of the job. A good example is an ability to use their newfound talent pool to maximize efficiency and productivity.

"Within our operator ranks, we have some who are experts at quickly moving a lot of dirt," said Anderson. "Yet there are also instances when we need specialized work done – making key cuts in a pond, for example. In the past, we would have been forced to use that better, high-volume operator to do the specialty work. Now, thanks to the automated capabilities, we can allocate those jobs to other operators and keep our most expensive people productive."

The MC-Max solution proved itself in one of the most challenging facets of the Babcock Ranch project: constructing a lake slope to pre-defined specs.



"When excavating a lake in a dry condition, you need an experienced operator and ultimately a bulldozer to finalize the slope," said Anderson. "Here, using an automatic excavator, we can accomplish the same task utilizing a less experienced operator. Similarly, when we are unable to de-water a lake, the system allows the operator to understand where the bucket is in relation to the prescribed slope. Again, the automated solution enables a less-experienced operator to function as a far more experienced one. That's been invaluable."

Anderson sees the new automated solution as a way to ensure that the overall system for building homes is maintained, even amidst all the changes. "With

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MC-Max and the full complement of Topcon solutions we employ, we've been able to keep production levels up to where they were when we had far more people – with much more experience – on staff than we do now. When it's complete, this is going to be an amazing community – the first of its kind and probably a model for others to follow. How appropriate that we drew upon the latest technology to help make it happen."

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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 MC-Max technology featured in this TAW.

