



How Digital Construction Software is Benefitting Heavy Civil Construction

SYNCHRO™ Control & SYNCHRO™ Field

Hear from an Expert About the Benefits of a Single Source of Truth Using Smart Applications

For 130 years, The Lane Construction Corporation (Lane) has specialized in large, complex civil infrastructure, contributing to the development of the country's vast network of roads, highways, and bridges, including the Interstate Highway System. A pioneer in the use of design-build and public-private partnership methods of project delivery, Lane is ranked as the number three highway contractor by ENR. The organization has built over 17,000 miles of highways and 150 bridges, with its iconic projects spanning across the United States. Lane also builds tunnels and metro and railway systems, as well as airports and water and wastewater treatment plants.

Now, in keeping with its mission to be an innovative leader of transportation and heavy civil construction, Lane has begun using SYNCHRO Control and SYNCHRO Field on its projects. We sat down with Matt Blake, director of virtual design and construction and BIM at Lane, to talk about how they have been using SYNCHRO Control and SYNCHRO Field, as well as the benefits that they have seen from them so far.

What projects are you using SYNCHRO Control and SYNCHRO Field?

Right now, we're using SYNCHRO on two projects at Lane. One project is a reservoir project in Hendry County, which is near LaBelle, Florida. We are building the Caloosahatchee River West Basin Storage Reservoir Project (C-43 WBSR) for the South Florida Water Management District. The over USD 500 million construction project includes a two-celled, aboveground reservoir, a perimeter canal, and multiple water control structures.

The other project is the Florida Department of Transportation's Wekiva Parkway in Seminole County, which is near Sanford, Florida. The over USD 250 million design-build project will include the new Wekiva Parkway Interchange at I-4 that will connect with State Road 417, completing the beltway around Central Florida. Work will include roadway, structures, drainage, lighting, sign and pavement markings, utilities, and other roadway features.

What are some of the unique challenges facing this project?

For the C-43 project, we are dealing with a large geographic area of over 10,000 acres. We also had to excavate reservoirs below the water table.

For the Wekiva Parkway, we were working in a heavily traveled corridor while needing to construct new bridge structures, relocate utilities, manage stormwater levels, and construct new drainage facilities.

What attracted you to SYNCHRO Control and SYNCHRO Field?

We first heard about SYNCHRO about two years ago through our survey department in North Carolina. The department uses Bentley applications for all its modeling and machine control. We were invited to meet with Bentley colleagues and were impressed at how these applications could contribute to Lane's overall approach as we move forward.

SYNCHRO Control and SYNCHRO Field allow all our project data and information to be accessed and controlled through one platform, which provides a single source of truth for all the project information and data. SYNCHRO Control provides an interactive, simplified platform to facilitate document control and management while also providing one location for everyone to access the same, updated data. With SYNCHRO Field, we have a simple platform for field personnel to easily update project data and developments. The platform facilitates the use of web-based dashboards and provides our field crews the ability to evaluate and analyze the most current data, allowing us to better manage the project.



Before SYNCHRO, what software did you use? What made you decide to seek out a different solution?

Before using SYNCHRO, Lane used multiple interfaces and software to manage project data, including SharePoint, Excel, Timberline, JDE, Procore, ACONEX, Vision, and various CAD software. We were looking for a platform where we could combine all these interfaces into a single location, making it easier to manage the information.

How has SYNCHRO Control helped improve project management?

Using SYNCHRO Control gives all our team members the ability to access “live” and current information so project management decisions can be made efficiently, accurately, and timely. Now, our team can manage a project with this “real-time” information, which is best for all involved stakeholders and helps provide the client with better quality, improved safety, a lower cost, and a shorter schedule. By accessing project data and updates as they happen, we now have the best platform for management staff, owners, and design team members to make accurate, timely decisions to help ensure the project’s success.

How has SYNCHRO Field changed the way that your field crews operate?

SYNCHRO Field provides our crews with an immediate link to current plans and specifications to ensure that they are building based off the proper, approved design. By having the ability to immediately address issues and RFIs as they arise, our project team can quickly make intelligent decisions for the project. Crew members that are less technological are embracing SYNCHRO Field, moving away from the older methods of managing the project site and their crews. Our field crews have an opportunity to operate more efficiently and can spend more time building the project rather than spending that time remembering and entering issues, RFIs, notes, logs, and timecards, as well as uploading photos. Using SYNCHRO Field expedites the entry of the information and helps ensure accuracy.

What has been the biggest benefit of using SYNCHRO Control and SYNCHRO Field?

The biggest benefit that we’ve seen is the instant access to and viewing of accurate, real-time project information: the single source of project truth. It’s huge for us to have the ability to see the current plan set at any time while out on the project. The ability to document project issues immediately while conducting a site walk helps expedite correcting of issues and problems before they become more impactful to the overall project. It benefits us further by positively impacting cost, schedule, safety, and quality.

Does Lane Construction plan to use SYNCHRO construction applications on more projects in the future?

Yes. Our end goal is to utilize the entire SYNCHRO platform throughout the lifecycle of a project—from shortlist through to final completion.

For more information visit: www.bentley.com/synchro



SYNCHRO™ Control



SYNCHRO™ Field

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