GAI Consultants Achieves Unprecedented Productivity and Collaboration by Implementing ProjectWise®

Increased data accessibility results in substantial efficiency optimization to meet infrastructure project demand.

OVERVIEW

In 2022, the Florida Transportation group at GAI Consultants explored strategies to optimize productivity and design delivery. The number of employees and clients using Bentley’s “Open” technologies (OpenRoads™ Designer, OpenBridge Modeler®, and OpenBridge® Designer) to develop and deliver projects was increasing. Because they were now working on federated workflows and models, work sharing between offices and subconsultants became a key but complicated part of the design process.

CHALLENGE

GAI’s Orlando office used OpenRoads Designer on projects for several clients, with about 20 Bentley technology users in GAI’s Orlando office and 50 more users across...
the firm’s three other Florida offices. In some cases, the time required to share large design files among teammates and clients could affect the speed of product delivery. Design files that included topographic maps, corridors, and other items that required references with multiple resources were taking too long to open, with some taking anywhere from 10 to 30 minutes. Kevin Deckers, GAI Transportation Engineering Manager in Orlando, stated, “We used an on-premises local server. As files became larger, working remotely off a VPN or on a server in a satellite office required a change in how we managed and accessed our data. Another challenge was giving subconsultants timely access to our latest files (and vice versa) throughout the design and plan production process. If we weren’t constantly transmitting files, we were chasing the latest and greatest. We needed something to avoid this back-and-forth, manual file sharing and the delays involved.”

**SOLUTION**

By the end of summer 2022, Deckers and GAI’s Florida Transportation leaders agreed to pursue the adoption and implementation of ProjectWise as a common data environment for OpenRoads and OpenBridge projects. After setting up the data source and testing configuration within ProjectWise for their client Florida Department of Transportation, GAI was ready to move a few existing and one new project from the Orlando-based server to ProjectWise. These transitions were completed by the beginning of 2023 and included about a dozen new ProjectWise users in Florida, with more projects and users prepared to make the transition as well.

Around this same time, GAI was brought on as a subcontractor for a project in West Virginia. The client mandated that design collaboration be conducted through ProjectWise Explorer.

“They were using ProjectWise, so I started opening up some files with it and realized that things were happening much faster than they were on our server,” said GAI Senior Engineer Michael Holbert.

In need of an optimized data connection and working environment for GAI’s West Virginia staff, Holbert and GAI decided to pilot their own instance of ProjectWise with a project that was already about 90% complete. GAI was working on the US 340 project in West Virginia for about two years using OpenRoads Designer. Holbert copied the entire data set and put it up on ProjectWise to test performance.
SUCCESS

Improvements were immediately apparent for West Virginia. Testing demonstrated that the typical time required to open files was reduced by more than 75% when working from home or in the office, and by more than 25% when working on a mobile phone or tablet. In one case, a task that previously took nearly four hours from home was completed in only four minutes using ProjectWise.

GAI soon found that the benefits of ProjectWise extended well beyond saving time on internal workflows. Deckers recalled an instance when a client was coming into the office to review a large set of roll plots, but there were a few simple, last-minute changes needed before presenting to the client. However, the required changes existed in files produced by a subcontractor.

Because GAI was already collaborating with the subcontractor through ProjectWise, the requests could be addressed right away. The built-in data governance capabilities ensured the right people had access to the right files at the right time, and that everything was handled securely. “We didn’t have to share files. They had our files, and we had their files,” said Deckers. “There was no back-and-forth emailing to exchange files. We were able to turn that around by lunchtime when the client was coming in.”

As of September 2023, GAI has about 10 OpenRoads Designer projects each in Florida and West Virginia, one in Ohio, and is looking to expand the solution to other states and even other business units. With around 60 users and counting in ProjectWise, GAI can more successfully leverage staff expertise to improve schedule management, quality control, and cost-effective deliverables.

With the ability to explore technologies without large capital investments, this initiative became essential to GAI’s future growth and success.

“ProjectWise supports our cloud-first strategy, enabling teams to focus on what they do best: delivering high quality engineering solutions to our clients. Cloud services like ProjectWise enable GAI to be more agile and explore emerging technologies without large capital investments” - Don Bender, CTO, GAI