

ALL WIRED FOR LUMBER



WINDEMULLER

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CUSTOMER

Biewer Sawmill

VALUE

\$2.65 million

LOCATION

McBain, MI

START DATE

October 2018

COMPLETE DATE

January 2019

PARTNERS

BID Group (General Contractor)



OVERVIEW

In 2018, Michigan's Biewer Lumber plotted an ambitious update for its McBain, Michigan sawmill: a \$30 million turnkey project that would drastically elevate the mill's efficiency and production bandwidth. The project went to BID Group, a company experienced in providing equipment installations and other solutions for forestry clients. BID Group hired Windemuller as a subcontractor to handle the electrical work for the project.

Central to the sawmill upgrade was a state-of-the-art saw line equipped with laser optimization technology. Biewer is a company that produces lumber cuts in a variety of different sizes, such as 2x4s, 4x4s, and so on. When a log comes in to be turned into lumber, the laser optimizers on the new saw line will analyze the log and optimize how it is cut, so that Biewer can get every possible square inch of lumber out of the log. The new facility is also designed to streamline the collection of "residuals"—or unused sawdust or scraps of wood—so that the materials can be sold to and used by other companies. The new sawmill design completely eliminates scrap and waste from Biewer's McBain operations.

Windemuller was tasked with wiring everything so that the new installations could be implemented successfully. From office spaces to the new saw line, we ran wiring for every motor and piece of equipment in the facility. All told, our team installed dozens of PLCs, several MCCs, several dozen motors, hundreds of motor terminations, and miles of cable in cable tray.



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CHALLENGES

The biggest challenge on this project was the timeline. In another situation, this job could have been year-long. However, Biewer needed the work done in three months. To meet the client's expectations, BID Group worked 24-hour days throughout the project, scheduling teams on multiple shifts to keep work going day and night.

The other complicating element was the weather. A cold and wet autumn in McBain meant our teams were dealing with less-than-ideal work conditions for most of the project timeline. For a time, the building also didn't have a roof, as it was removed so that large pieces of equipment could be crane-lifted into the facility. This factor made the rain and frigid temperatures more of a factor than they would have been otherwise.

SOLUTIONS

Windemuller relied on manpower and long hours to get the job done. We had a team of 25 people working on this project, all of whom worked at least 60 hours a week for the duration of the three-month timeline. During the last month, as deadline approached, Biewer shut down the sawmill temporarily to give us and BID Group more time to work. Our crews transitioned to 84 hours a week, working from 7am to 7pm Monday through Sunday. We also added a second shift, from 1pm to 1am, crewed by four workers to support BID Group's around-the-clock schedule with more electrician coverage.

As for the weather, the solution was mostly to gut it out through the poor conditions and do our best regardless. It helped, at the end of the project, for our teams to see the fruits of their labor so clearly. The new saw line is a thing to behold, turning logs into usable lumber with astounding speed and precision. Before this project, Biewer's best production day ever at the McBain sawmill had yielded 350,000 board feet of lumber. On one of the very first days using the new saw line, Biewer hit 350,000 board feet by noon, with more efficiencies expected to come.

Thanks to the work of BID Group and Windemuller, Biewer Sawmill in McBain will now be able to hit its old production goals in roughly half the time it used to take. The efficiency gains will allow Biewer to increase the plant's bandwidth, eliminate extra shifts, and reduce work hours for employees.



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