

Prove It!

Productivity: Collaborative 3D Planning



When the largest steel manufacturer in the United States was faced with shutting down one of their production lines to make a capital improvement during very competitive times, the last thing it wanted to hear was "it took this long last time". Nucor's business would not allow for a traditional length shutdown nor could it indefinitely postpone the benefits of the upgrade.

The Interstates project team, already engaged in planning the project, accepted the challenge to reduce the original 42-day shutdown to a 21-day shutdown. To facilitate this change, the project utilized a longer pre-shutdown period for pull-ahead work and planning. This allowed the plant to remain in production the maximum amount of time. To execute this aggressive plan, the whole team needed to think differently about how to accomplish the project. The team understood that compressing the schedule would add schedule risk, productivity risk, and safety risk to the job. All of the issues needed to be addressed in the new plan.

During the planning phase, Interstates presented an important tool for the whole team to consider... Three-Dimensional Computer Aided Design (3D CAD). It was useful for planning and coordinating the shutdown work near the production line. Interstates had previously planned to use this tool

for their own work coordination and prefabrication, but now the entire team could leverage it. Over the pre-shutdown time, the 3D coordination with the rest of the trades on the project helped resolve conflicts efficiently. This allowed an overall plan to emerge that everyone could visualize and agree to.

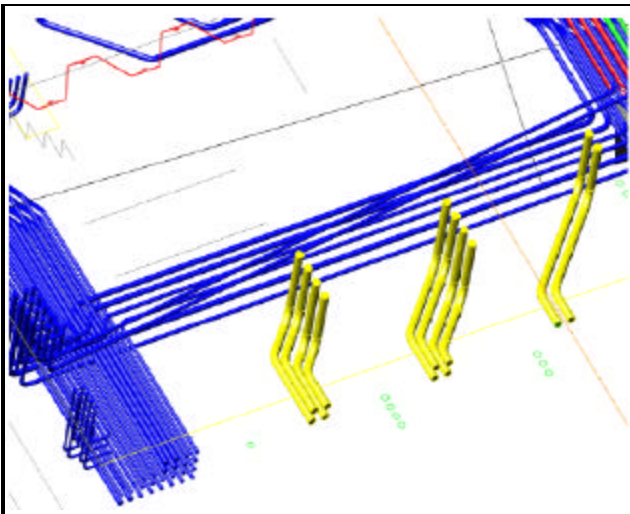
Plant shutdown time was reduced 50%!

As coordination continued, Nucor saw the added value in this new tool. Nucor provided additional resources, ensuring the coordination effort would be done well across all trades. Interstates provided this service through Interstates Engineering by performing site visits and leading

coordination events with the other trades.

In the end, plant down time was reduced 50%. The new capital improvement came online on time. The shutdown was executed with reduced stress and less schedule variability. Total installation time during the shutdown for Interstates' 2000 feet of underground rigid conduit was only 5 hours and required 50% fewer people in the 40 by 40 foot excavation, improving safety for all trades.

By attacking challenges collaboratively, with different tools and a mindset that questions the conventional, Interstates can provide the ingenuity to make your project a success. Let us bring our ideas to your next challenge.



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