



Model-Based Constructability Review During Design

Russ Tamblyn – Kiewit Corporation

Matthew Kuhn – HDR Architecture

CO6037

The design process is very different from the construction process. The design model is in a constant state of change. To date, contractors have had issues providing relevant constructability reviews because they are always a step behind. Constructability reviews are usually a reaction to a released set of documents. Design, trending, and analysis through the model enable contractors to interact with the Design Team in a more meaningful way. This process provides a regular feedback loop from contractor to designer on constructability issues. As a result, the contractor is able to deliver meaningful information at a time when the designer is still able to respond to it. This process takes little to no time on the part of the contractor or designer and provides a path toward a proactive constructability review. This class will review the process used by Kiewit Corporation and HDR, Inc., to create this unique model-based working environment.

Learning Objectives

At the end of this class, you will be able to:

- Discover the design trending process
- Recognize possible issues that may be encountered with this process
- Discover the benefits for the contractor and the designer
- Identify advantages of design trending over clash detection during the design phase

About the Speakers

Russ Tamblyn is currently Virtual Construction Manager at Kiewit Corporation. He has over 25 years of experience in utilizing 3D CAD based applications. During his career, he has been involved in engineering, design, surveying, 3D Laser Scanning and construction. He has worked in a variety of market segments, including heavy civil and infrastructure, industrial power and O.G.C., commercial building, hospital, survey, as well as machine fabrication and design. Since joining Kiewit in April of 2006, he has played a vital role in a variety of high profile Kiewit projects. Utilizing a variety of CAD and 3D model platforms, he has helped projects define, design and implement solutions to resolve constructability issues, visualize operations, and mitigate project risk.

Matt Kuhn is currently a Senior Project Architect for HDR where he has played a leading role in pushing forward the implementation of BIM. He has over 20 years in the design industry utilizing technology and BIM to advance the design process. Over that time he has worked on a variety of projects ranging in size and complexity including small remodels, office buildings; healthcare, division I college sports facilities, and large USACE/DoD projects. His roles have included Project Architect, Project Manager, BIM Manager, Designer, and Contract Administration. His responsibilities have included all phases of architectural design, preparation and supervision of construction documents, programming, engineering coordination, preparation of presentation drawings, client contact, and cost control/estimating.