

Clash Detection for a 3D model using Navisworks Manage Software

Behind each structural engineering project at Brindley Engineering, you will find an associated 3D parametric model, which will not be only defined by its design and operational conditions, applicable codes, and standards, but also for a proper geometric coordination between the 3D models involved. The risk scenario we need to consider exists when we are working in large-scale projects where contributors across all disciplines work together with different versions of the 3D model, making it a challenge to deliver projects more efficiently and with fewer errors.

Our Challenge

Today at Brindley Engineering in Chicagoland, structural designers use a specific 3D design platform that helps us develop 3D parametric models and detailed design drawings, giving us the ability to complete large units, sections, or platforms in their 3D versions. At the same time, we create views from different perspectives and generate consistent design documentation for fabrication or construction.

For reliable results, we must evaluate in detail how to solve design-related clashes if they exist and create effective submittals for the clients. Navisworks Manage Software and the Clash Detection tool allows us to search through the total project model, identifying interferences (clashes) early in the design process.

Navisworks is an Autodesk software for 3D modelling in the Architectural/Engineering/Construction community. This software helps us perform 4D simulations, measurements, and clash interferences, using it as an IFC viewer, as well as other formats. This software allows us to perform clash analysis accurately, giving great flexibility to customize the elements we want to analyze. The information that we obtain is very useful in solving such collisions. Revit also performs an interference detection function but these are performed at a basic level, analyzing only between categories of the same or different models.

BE the Result

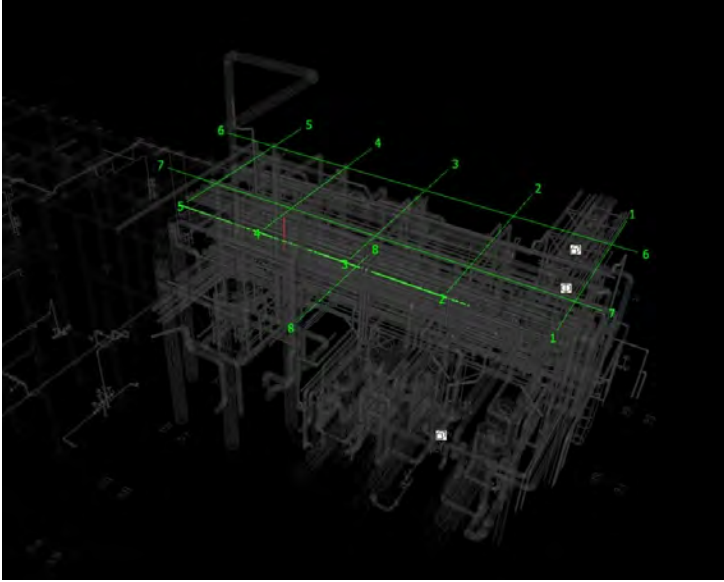
Navisworks software is good for performing clash detection analysis. It also offers flexibility in terms of setting up and creating sets for further analysis. For this reason, design decisions are very close to optimum, since the detection of clashes that can be spotted through the 3D model helps us solve them in the design phase and not unexpectedly discover them during construction, thus saving costs and time. Errors that would normally have been discovered on site can be detected and anticipated from the beginning through the BIM model.

Contact Us

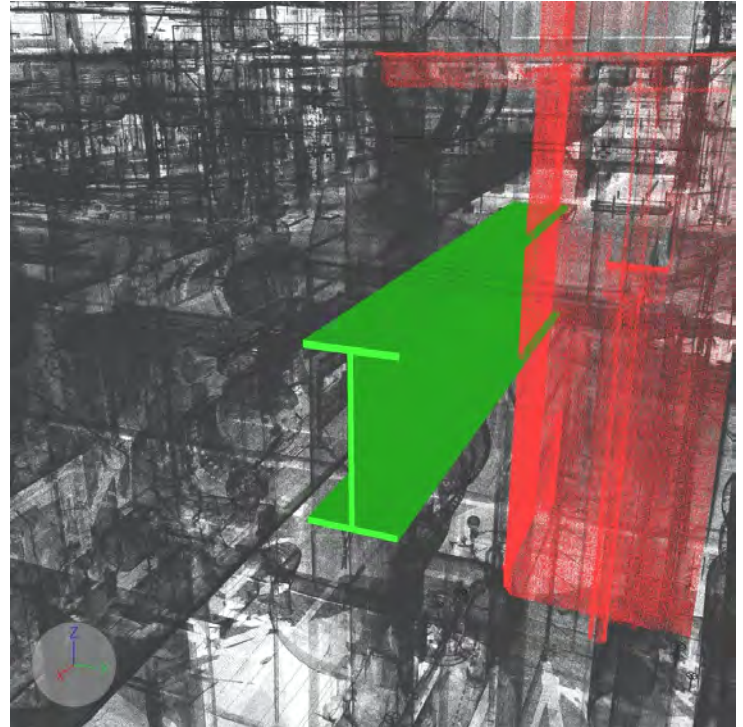
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Clash Detection 3D Model Option 1



Clash Detection 3D Model Option 2