

CELEBRATING

**50** **LM**

YEARS OF SUCCESS



# BUILDING INFORMATION MODELING SAVES MONEY AND AVOIDS PROBLEMS IN CONSTRUCTION

## The Challenge

For years, school board members and facilities personnel have had to wade through pages and pages of project documents and limited artists' renderings, trying to visualize what a much-needed school facility might look like when finished.

Imagine being able to put those 300-page reports aside and take a 3D virtual tour of the building. Imagine "touring" a completed performing arts center and seeing what the view looks like from the stage. Imagine a set of plans that helps solve 80 to 90 percent of construction-related problems before even a shovelful of dirt is moved.

With Building Information Modeling (BIM), those possibilities can be the reality for your next project.

## The Solution

Much like AutoCAD is now the standard for project design and drafting, BIM is well on its way to becoming the new standard for project design. Lundgren

Management began incorporating BIM into its projects about two years ago, putting us on par with much larger, nationally-known construction management firms.

Using Autodesk's Revit and Navisworks BIM software solutions, Lundgren Management creates seamless, detail-rich plans. The BIM process uses what's called clash detection, to search for any potential conflicts that could arise in construction. For example, will heating and air conditioning ducts run into structural columns and beams? Will the plumbing infrastructure layout conflict with other systems? Incorporating BIM allows us to solve problems well before they arise.

Overall, the implementation of BIM can result in roughly a 50 percent reduction in time spent on design and construction, and a roughly 50 percent reduction in change orders.

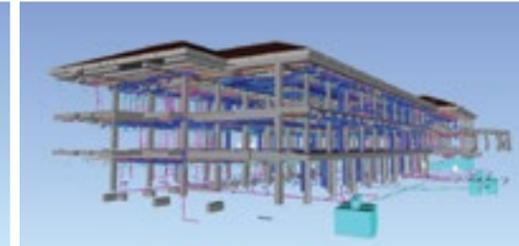
Additionally, the project plans will outlive their use in the construction phase.

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**- Shawn Fonder,  
Lundgren Management**



## What it Offers

A finalized set of BIM plans provide the opportunity for an indispensable maintenance resource. Imagine being able to, in video-game style, "walk through" a set of building plans, being able to keep track of changes and updating the plans with specific details about components such as types of light bulbs and air filters.

Equipment numbers, electrical capacities, hyperlinks to warranties and operation manuals – imagine having all of that information at your fingertips.

This is becoming the industry standard, and with the increased use of tablet computers and cloud computing, it represents a vast improvement in project management.

"It's difficult to overstate the benefit of BIM. It streamlines the process without sacrificing crucial details, which ensures a smooth construction phase and provides quality resources," Fonder said. "We had one school board member comment that in their 12 years on the board, our BIM presentation was the best they'd seen."

Using BIM helps us save time and money related to potential problems and construction delays. If problems are identified early, they can be rectified before a construction contract is even awarded.

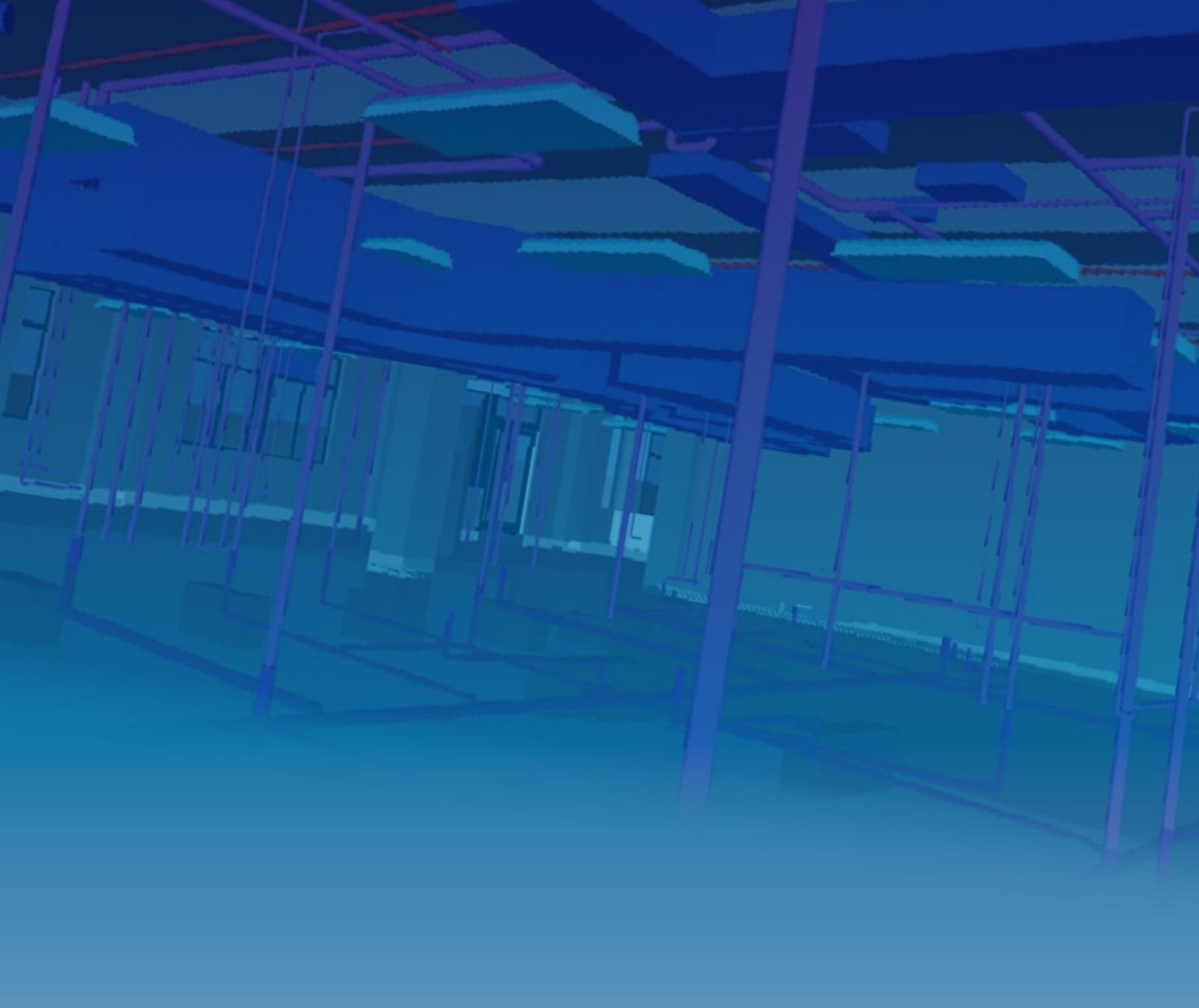
A building typically has a useful lifespan of about 50 to 75 years. We believe a project's BIM model should have a similar useful lifespan.

Incorporating BIM into your projects means solving any problems early in the process, as well as providing a set of plans that make building maintenance much easier.

Don't just take our word for it. Officials from the William S. Hart Union High School District, the Los Angeles Unified School District, College of the Canyons and Glendale Community College will all tell you the same thing: BIM revolutionizes and streamlines the planning and preconstruction phase.

## Learn More

For more information about the Autodesk BIM software, visit [usa.autodesk.com/building-information-modeling/](http://usa.autodesk.com/building-information-modeling/)



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