

AYERS SAINT GROSS

*Automating the Coordination Process to
Get More Value from BIM*

CHALLENGE:

Ayers Saint Gross' design coordination process was manual, time-intensive and costly.

SOLUTION:

Leverage the Revit model data to automate the coordination process.

RESULTS:

Change orders were reduced by more than 40%, improving the quality of the overall deliverable.

CADD Microsystems has been partnering with Ayers Saint Gross for more than 10 years to assist them with leveraging design technology and BIM processes to improve the design process, and grow the firm.

CHALLENGE:

The design coordination process was time-intensive and costly

As their projects were becoming more complex and data-driven, principals at Ayers Saint Gross realized that the firm's traditional method of manually coordinating projects was leading to clashes that weren't detected until in the field, during construction. In-the-field change orders to address these coordination issues and clashes delayed project delivery, required additional time by senior technical designers, and were expensive.

The coordination process at the time involved manual QA/QC and sheet-by-sheet reviews. If the responsibility of discovering and correcting clashes could be shifted to earlier in the design process rather than in the field, efficiencies could be gained across multiple departments. Ayers Saint Gross decided they needed to automate the coordination process to increase efficiency, profitability and technology spend ROI, while ultimately delivering better buildings to their customers.

SOLUTION:

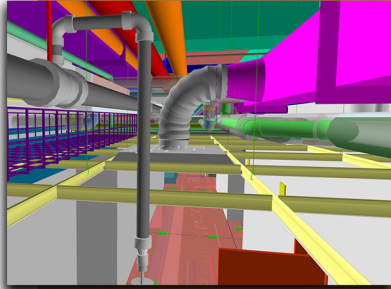
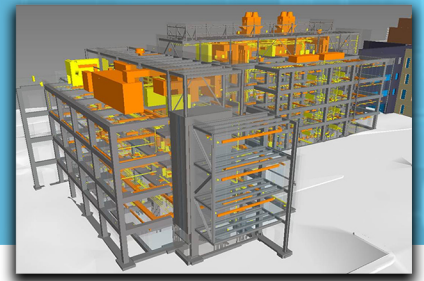
Leverage the Revit model data to automate the coordination process

Ayers Saint Gross decided to take advantage of the data provided through its BIM processes to automate their coordination process. They invested in a combination of consulting, software and training to achieve their goals.

Andrew Watkins, associate principal at Ayers Saint Gross:

"We talk about these new BIM processes during customer interviews to point to the higher expectations we have for ourselves. We expect to deliver the best project our customers have ever had. And the tools and processes that we now have in place allow us to do just that."

Process Consulting: CADD Microsystems held strategic business planning meetings with Ayers Saint Gross to help determine how to implement a new coordination process from the top down. Technology Directors implemented the program, identified key stakeholders involved, and built the process as standard operating procedure for project managers. A new Model Manager position was also created to manage the process for all projects.



Software: Ayers Saint Gross turned to the Autodesk Building Design Ultimate Suite, coupled with Bluebeam Revu, to accomplish their goals. They used collaboration tools like Revit, Navisworks Manage and Bluebeam Revu to perform clash detection analyses and coordination review throughout design and documentation process. Leveraging the advanced features that these tools offer helped them maximize the value of their BIM data and technology.

Training: The Building Design Suite Ultimate package is the engine Ayers Saint Gross uses to drive their new process, and they needed to tune that engine by ensuring their designers had the necessary technical skills. The solution that CADD Microsystems designed included ongoing training, both in the classroom and on an as-needed basis through the CADD Community and Global eTraining's on-demand courses.

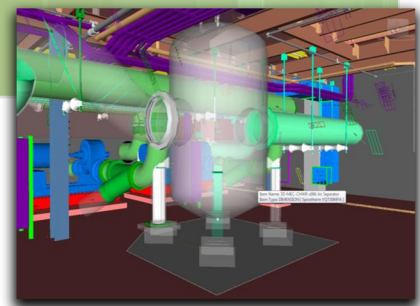
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Once Ayers Saint Gross implemented the new automated coordination process, they experienced a greater than 40% reduction in change orders created in the field. And now, less than 4% of all change orders are attributed to geometric clashes.

The solution CADD Microsystems & Ayers Saint Gross developed helped accomplish their primary objectives using automation tools, but it also provided other benefits. Relationships with construction managers and BIM groups have improved, as there is now more clarity and transparency about how and why decisions are made. Fabricators and installers are also able to be more efficient since there is less re-work being done.

Although they achieved their automation goals and drastically increased their profitability, Ayers Saint Gross and CADD Microsystems continue to hold strategic business planning meetings to share industry best practices and facilitate creative brainstorming, helping to discover the next step in Ayers Saint Gross's BIM journey.



About Ayers Saint Gross:

Ayers Saint Gross engages people and places to create designs that enrich the world. With more than 130 professionals, the firm is organized into cross-disciplinary studios specializing in the design of academic and student life buildings, cultural facilities, mixed use developments, planning, landscape architecture, environmental signage and graphic design.