

How P. Agnes Uses Assemble to Expand the Use of BIM, Empowering Multiple Stakeholders to Save Time and Reduce Project Risk

When BIM data is siloed across functions and systems its power to drive action is hindered. With an increased pressure resulting from opportunities to reduce cost and improve efficiency, the construction industry needs to unite disparate data sources to enable business intelligence as projects become more complex.

P. Agnes, Inc., a family-owned Philadelphia Metro-area-based firm with expertise in preconstruction, design/build, construction management and general contracting for the healthcare and higher education sectors, is using Assemble to establish BIM processes to use model data throughout the entire construction lifecycle. With access to key data in usable views and formats, stakeholders - regardless of BIM expertise - have actionable information at every project phase, saving time, lowering project risk and improving decision making.



Since our beginning in 1918, P. Agnes, Inc. has successfully completed a wide range of unique projects. Initially forced to work on difficult projects with very restricting conditions, we have since built our reputation on handling tough complex projects where quality work, technical skill, and construction expertise are totally demanded.

Introduction

The firm's projects can range from smaller \$100,000 renovations up to \$250-300 million, for multi-year/multi-phase healthcare master plans and 2018 marked P. Agnes' 100-year anniversary. The company's culture is based on its long history of being a family-owned and -oriented business, and its success is rooted in its willingness to adopt new technologies and best practices that support its teams and customers' needs.

In evaluating tools, P. Agnes started with a targeted approach, identifying how to expand BIM tools to more departments and on different types of projects. As an estimator for P. Agnes, Matt DeBasio finds Assemble to be a valuable tool for preconstruction, as it creates valuable information for other project stakeholders.

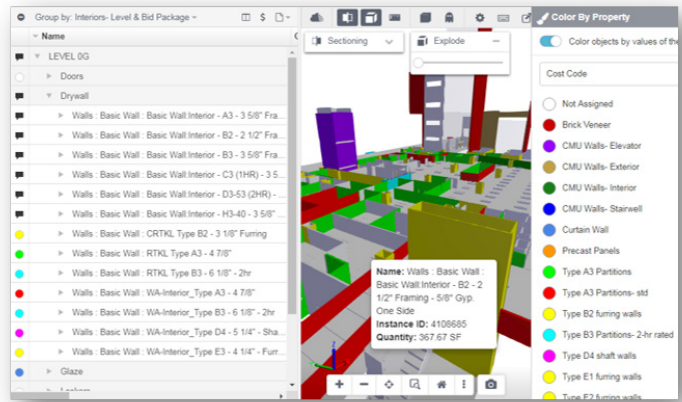
The data generated during preconstruction is valuable, and when conditioned, it can be leveraged downstream across the project lifecycle to save time. With the implementation of Assemble as a single source platform, P. Agnes identified and addressed five key challenges:

1. Expanding the use and benefits of BIM data
2. Addressing challenges during preconstruction
3. Using BIM for different workflows
4. Conditioning BIM data for downstream users
5. Empowering all stakeholders regardless of BIM experience

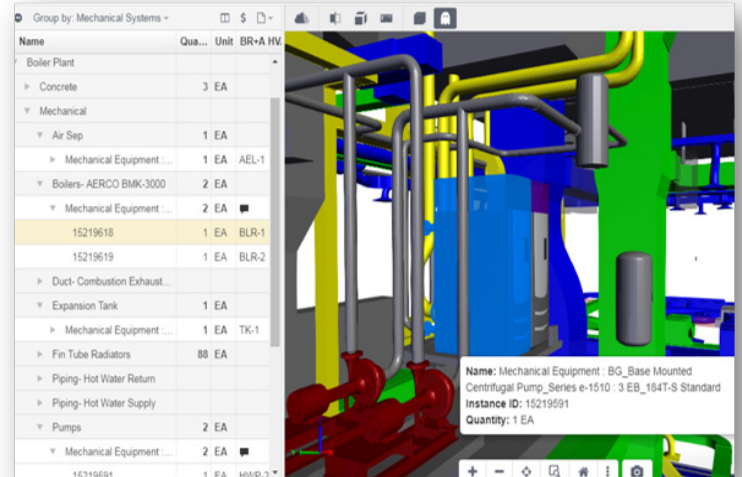
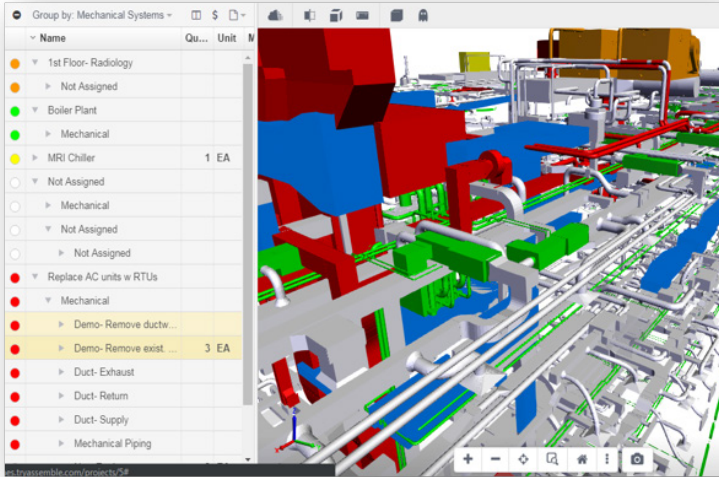
Expanding BIM Use & Addressing Challenges in Preconstruction

The preconstruction phase is a vital component for overall project success. With Assemble, P. Agnes can set the stage for project success by conditioning the BIM model to prepare cost, schedule and coordination between stakeholders.

By isolating data, and creating customizable views during the preconstruction phase on a major hospital build, P. Agnes leveraged Assemble to gain estimates on steel tonnage, glazing and sanitary tree piping saving time and money:



- Isolating steel framing in the 3D model views, saving estimators 6 to 8 hours in initial calculations
- Comparing 2D to 3D designs to identify missing information and validate estimates with designers
- Visually slicing into the 3D model to visualize cross-sections and retrieve framing sizes for multiple storefront window types
- Displaying modeled mullions in the 3D view, to validate and condition glazing estimates
- Grouping glazing types and creating visual 3D outputs for glazing subcontractors for BID packaging purposes
- 'Ghosting-out' details in the 3D model to show individual systems, like the sanitary piping tree, providing visually calculated measurements and alleviate hours previously spent sorting through 2D designs



This ability to slice through data and isolate the valuable information within Assemble has saved significant time and improved quality during preconstruction. It also has improved collaboration and allowed for continuous improvement in data use across the entire project lifecycle.

Using BIM for Different Workflows to Reduce Project Management Risk

Assemble for Project Management and MEP Coordination

Assemble’s ability to customize views and isolate data provides project management and downstream stakeholders with a single source of truth.

“We use Assemble for multiple stakeholders from subcontractors to bidders or project managers, says DeBasio. “By customizing the data for each stakeholder, we are only sharing information that’s pertinent to what they’re working on. Which is key.”

Citing the hospital build, he gives an example in which multiple types of exterior skin materials are being quantified and procured by project management. Assemble empowers project managers to sort and condition data by:

- Enabling project managers to create procurement groups for exterior skin materials by the installation timing, determined by elevation rather than material type
- Grouping multiple system types by elevation into color-coded and visual outputs for procuring and tracking



By customizing the data for each stakeholder, we are only sharing information that’s pertinent to what they’re working on. Which is key.”

— Matt DeBasio,
Estimator for P. Agnes

Conditioning Data for Downstream Users and Empowering All Stakeholders

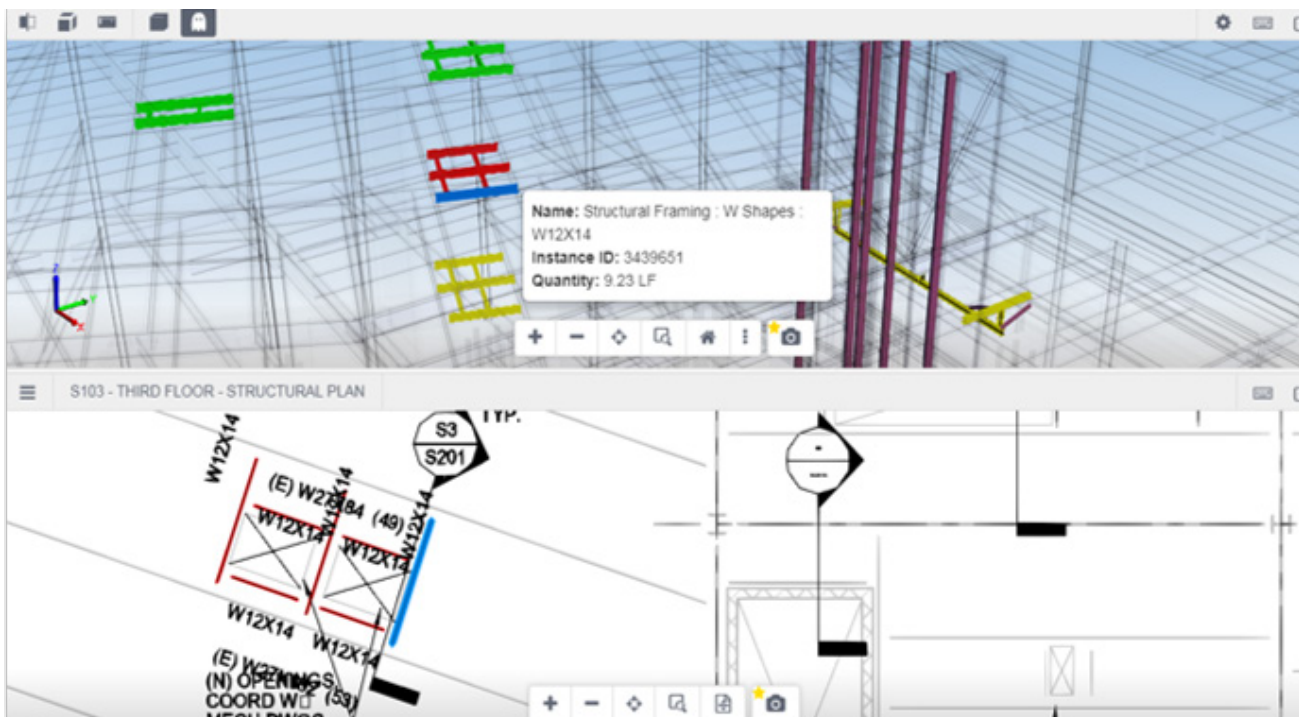
Assemble for Field Supers

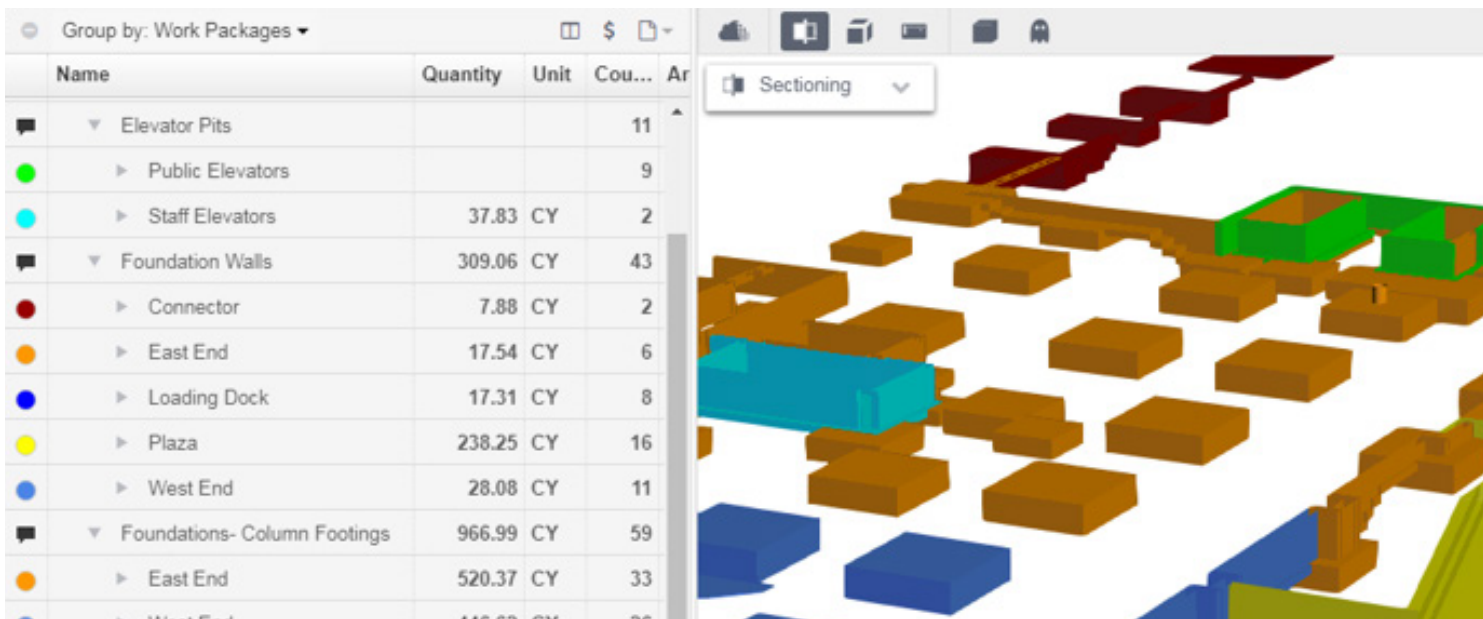
Knowing the use cases for the field could be broad, P. Agnes kept implementation simple by first asking their supers how current Assemble outputs could be leveraged.

Through Assemble's Web and App access, P. Agnes gave its supers access to 3D model views to use in problem-solving on site. Immediately they found value in both consuming the information and contributing information:

- Marrying 3D views to the 2D sheets, field supers more effectively communicated with teams onsite and used the information for on-the-fly problem solving
- Simplifying project handoff and management, supers used Assemble to provide real time status updates

P. Agnes continues to use field feedback to enhance modeling upstream in a way that supports these downstream users in saving time and improving communication.





Assemble for Owners

A picture is worth 1000 words...and a 3D model is worth 1000 pictures.

Using the modeling views from Assemble, P. Agnes builds transparency and trust between its team and owners in two primary ways:

- Exploring design options and visually illustrating for owners the challenges and opportunities of 'what if' scenarios
- Communicating with owners about any changes that arise during project delivery

Most owners are not construction professionals, and therefore are not used to reading plans and 2D drawings. Using a 3D model to visualize what's happening on the project provides the most value as you're able to group, sort and filter data.

Using Assemble's capabilities for this exact challenge, P. Agnes has expertly unlocked the value of data for all its stakeholders. With a constant eye towards expanding value and improving collaboration, P. Agnes has saved countless hours across the construction lifecycle, added quality control checks, reduced complexity and risk within stakeholder tasks, and allowed downstream users to gain access to key data distilled into meaningful views that support their particular needs.



520 Post Oak Blvd, Suite 420
Houston, TX 77027
United States

855-646-4868
www.assemble.com