Commissioning

A Tale of Two Districts: Third-Party vs. In-House Commissioning

Georgina Blach Intermediate School,
Los Altos, CA

In 2002, Los Altos Unified School District finished construction on the Georgina Blach modernization. Receiving grants from Saving By Design and PG&E, Georgina Blach has achieved an expected energy savings of 38% over Title 24 standards.

With PG&E funding for commissioning, the district hired a third-party commissioning agent to ensure that the project was completed as intended and designed. The commissioning agent, Keithly Welsh Associates, completed the following tasks:

• Created a commissioning plan.
• Reviewed designs and specifications.
• Documented the district’s design intent.
• Worked with designers and the construction team to make sure that the building followed the design intent.
• Trained the occupants to use the systems efficiently.

A commissioning report at the end of the process provided results of system testing, and documented the verification of energy efficiency measures.

Of the 142 issues identified by the commissioning agent throughout the process, 87% were successfully resolved before the warranty period had expired. Pleased with the results of the commissioning process, the district is using the same process in five other new facilities currently under design and paying for these services with their own funds.

South Pasadena Unified School District, CA

Since 1999, South Pasadena USD has completed work on three elementary schools and a high school, and it is currently designing a middle school. Initially, District Director of Facilities Bob Vanderwall tried to secure funding for commissioning for the projects, but it was cut from the budget.

In response, like many districts, South Pasadena USD came up with its own internal commissioning process including district-wide specifications for commissioning that accept no substitutions from contractors.

Vanderwall, who has a background in construction, acts as the commissioning agent – doing his own constructability reviews to ensure that architects understand the district’s requirements and appropriately address user groups.

During construction, Vanderwall is on the job site every day to try to anticipate problems as or before they occur and work as an advocate for the district with both designers and contractors.

Vanderwall particularly keeps an eye on low voltage systems such as EMS, lighting, and fire alarm systems, which he says cause about 90% of the commissioning issues in his schools.

Lessons learned through the process, he says, include the following:

• Involve M&O staff before the project goes out to bid.
• Hire or involve a good HVAC technician. Make sure that architect understand what the district wants and how the building will be used.
• Have the construction manager prepare a complete list of warranties and submittals including O&M manuals and training manuals.
• Use the Inspector of Record, either hired by the Division of the State Architect or privately by the district, to do as much commissioning as possible.
• Document, document, document—when you think something will be easy to remember, it never is!