



Construction Project Development

Defining Your Building Project from Start to Finish

by Dale Reiser

One of the more frequent questions that we are asked by churches at Professional Building Services (PBS) is how does a building project come together from start to finish?

This is a very fair question to ask.

There are many different kinds of church projects, and whether one is developing a new project, renovating an existing building, or adding on to an existing facility, it can be somewhat intimidating to those that have not done it before. Or even worse, for someone who has been through the process but has had a bad experience with the process. So asking the question, how does a building project come together is exactly what we like to hear. The reason is, with PBS's design/build methodology, we have an answer that makes sense and provides a starting point for the project.

Project Delivery Process

A building project is a complex set of seemingly unconnected tasks all overlapping each other. Over the last 15 years after every project we have completed at PBS, we ask ourselves this question: What could we have done differently that would have made the project even more streamlined for us and for our customer? The answer always falls into an area called "construction project development." At PBS we use a Five Step PBS Delivery Process™ to manage our design/build projects. This serves as a foundation for developing a dialogue with the owner about their building and what they are trying to achieve. PBS uses technology in all phases of the project to help communicate the look and feel of the project, to assist with pricing and to track progress once construction starts.

The PBS Design/Build Five Step Delivery Process™

1. **SCOPE**
Early on clarification of our customers needs through Scope Development
2. **DESIGN DEVELOPMENT**
Preliminary Design Development providing construction and cost feasibility through concept space planning, elevation and site views
3. **CONSTRUCTION DOCUMENTS**
Careful in-house oversight development of Construction Documents
4. **CONSTRUCTION**
Professional construction management
5. **OCCUPANCY**
Occupancy facilitation

The Five Step PBS Delivery Process™ has been instrumental in guiding the decision-making process necessary in church facilities, in a clear, understandable manner. At the same time, all of the unknowns, such as price and scope and size are addressed upfront, and everyone is kept up to date through technology innovations as the project moves forward. The Five Step PBS Delivery Process has kept the church leaders, church committee members, and the congregation up to date on exactly what is happening throughout the entire building process. It also provides a framework for unity, excitement and celebration upon completion of a new building addition or renovation.

In this article we are not going to discuss the Five Step PBS Delivery Process. We want to look deeper into the construction project delivery system that we use to examine what we refer to as “construction project development.” This is an important thread of information that is often overlooked by even the most experienced builders. This thread of information is what ties the project together so that the right information is communicated at the right time. This is where technology plays an important role at PBS. PBS relies on technology through the entire project, more so than probably any other design/builder of a comparable size.

The construction project development thread is identified as the following:

- ▶ Needs determination
- ▶ Feasibility analysis
- ▶ Determination of individual ministry uses of present and future use of proposed space
- ▶ Preliminary financial overview (determination of overall budget)
- ▶ Design discussion
- ▶ Preliminary design (site, space planning, elevations)
- ▶ Financial feasibility (budget to actual estimated costs)
- ▶ Design/build contractual relationship
- ▶ Design phase (scheduling of key ministry leaders in process)
- ▶ Scheduling (keep end in mind)
- ▶ Construction
- ▶ Occupancy projections



Needs Determination

This is where PBS starts to collect information as to what the customer is trying to accomplish with the proposed project. Numerous questions are asked, some of which are intended to get the members of the church responsible for the new project to think differently about it. Often we can come up with ideas at the very first meeting that solves their problem such as a phased building approach. The information is obtained through one-on-one meetings, surveys and on-site inspections as well as research as to any particular building requirement.

Feasibility Analysis

Based upon the needs, is the project feasible relative to the church’s site, budget and timetable? Basically, can we get it done within the owner’s parameters and on the site he has chosen? If not, what are the options? What is the cost? How does it affect the timetable?

Determination of Individual Ministry Uses of Present and Future Use of Proposed Space

One of the biggest advantages in planning a religious facility is the multiple use of spaces. Using CAD 3-D graphic packages we demonstrate how spaces can be changed and used for different purposes at different times. This visualization of “what if” scenarios provides valuable input to our customer with even more valuable information coming back to us so we can make some preliminary design decisions that impact the budget. We may also take the church member to see other projects that we have done so they can see how others have solved certain problems.

Preliminary Financial Overview (Determination of Overall Budget)

The budgets can be set up to reflect numerous options as well as timeline. This financial forecast of costs helps the owner determine what they can do now, and what should be done later.

Design Discussion

In the ideal world of the designer, there is no such thing as a preconceived idea of what the building should look like. But, there needs to be questions asked as to the look and feel of the project from the customer’s point of view so this “vision” can be matched with the budget which in turn suggests building materials. This design discussion reflects possibilities, and when possibilities are determined it can be developed in a computer modeling approach to start to give “life” to the project.

Preliminary Design (Site, Space Planning, Elevations)

Once these surveys and questions have been answered preliminary design can start. It is here where all of the information that has been recorded and discussed is turned into a project. It is here where for the first time the church members will start to see their project come to life.

Financial Feasibility (Budget to Actual Estimated Costs)

At the same time the preliminary designs are being created, financial feasibility of the building is projected using a variety of data and cost estimating programs. The responsibility of the design is to also meet the budget that has been outlined. With this information and the preliminary design, now a lot of questions can be asked to even further adjust the scope of the project to meet the needs of the church.

Design/Build Contractual Relationship

The financial projection and feasibility study is the part that separates design/builders from general contractors. The design/builder determines the actual cost as it is being designed, whereas, a general contractor takes a set of plans and provides a price regardless of the consequences. Because this is a computer-generated model of the building and because the budgets are tied to spreadsheets, quick “what-if” scenarios can be tried out to develop the best possible and practical building solution for the church.

Design Phase

Now that the preliminary design is set, the detailed design phase can start. During this step all the senses are brought into play in terms of color, texture, space, etc. as to what the building is going to be like. Key ministry leaders are brought into the process so that everything from what

one sees and feels as they walk into the church to what the Bible School classrooms are like can be detailed.

Scheduling

At the same time, the schedule is being formulated based upon the availability of materials. For example, if the structure is going to be using pre-engineered steel, or concrete pre-cast wall panels, there needs to be lead time for the materials to arrive at the building site. This is all determined as the building is designed to ensure that there are no surprises to the schedule and the budget.

Construction

Construction starts and now the communication of information accelerates. Material and subcontractors must be coordinated to ensure a smooth and uninterrupted project schedule.

Occupancy Projections

When can the new church actually start using the facility? Many times the occupancy is critical if they are relocating or trying to occupy by a certain date. The occupancy date is tracked throughout the project through the master schedule that is updated on a weekly basis.

The above are the key components of the construction project development. While they are a part of the PBS’s Five Step Process, they are such an important part of the entire communication of the project that they become a subset that ties everything together. Computers play an important and integral role in this process. Without the ability to create 3-D images, schedules and budgets, it would be very difficult to communicate this information effectively and timely. Design/build at PBS is a technology-driven discipline where we use the information to communicate to the church members what their options are, as well as “what if” scenarios. With this approach, the needs and wants of the parishioners are more easily identified and provided for within the context of the design/build approach. ❖



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Dale Reiser is president of Professional Building Services (PBS). PBS is a design/build general contractor providing a customer-centered approach in the Illinois and Indiana commercial, industrial and institutional markets. Experts in pre-engineered design/build structures, the company specializes in church facilities. Generating 3-D models and walk-around computer animations, the technology PBS uses allows everyone to visualize what they are seeing in the two-dimensional plans. For more information, visit www.pbsdesignbuild.com or call 708.672.4010.

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