



## **Portal Allows Construction Firm to Play A Solid Offense by Michael Anello, Contributing Writer**

Can a communications Website help bring the NBA championship to your arena? Probably not. However, when PCL Construction Inc., Edmonton, Alberta, chose e-Builder, Boca Raton, Fla., for the fast-track completion of the Staples Center Arena, it was a tremendous boost to the NBA Champion Los Angeles Lakers.

The L.A. Lakers, who in June claimed the NBA championship, were able to move into the completed arena almost two weeks earlier than scheduled.

The new Web portal not only helped bring the project to completion ahead of the designated schedule, it also helped complete the fast-track project on budget.

The advantages of using the e-Builder Web portal have proven to be critical to the arena completion. Prior to using a portal, the average turnaround time for an RFI (request for information) at the Staples Center Arena was approximately 28 days. After implementation of e-Builder, RFI turnaround time was reduced to an average of a mere nine days.

The timesaving is especially compelling, given the enormity of the Staples Center project. Before implementing the Web portal, PCL Construction had already processed more than 800 RFIs. By the time the Staples Center Arena had opened its doors, almost 3,600 RFIs had been logged. The bulk of these RFIs took place during a 14-month period following implementation of e-Builder.

One aspect of the Staples Center Arena project that differed from similar projects was the decision to implement the portal nearly five months after work had begun on the spectacular \$320 million, 1 million sq.ft. sports arena.

With the growing need for daily communication between 150 contractors, architects, and consultants, the process of decision-making became increasingly difficult. Progress on the project became seriously jeopardized, remarks Bob Hayes, former CEO of PCL Construction.

At one point, liquidated damages had been projected at a whopping \$50,000 for each day that the project fell behind schedule. With tremendous monetary damages looming, Hayes was directed to implement a system to vastly improve the communications process. He chose e-Builder.

“The ownership group changed management early on and the new management team didn’t see things moving along,” says Wayne Melnyk, PCL Construction’s general superintendent for the Staples Center project.

The challenge was to improve the communications process without purchasing additional hardware and without investing time and resources into implementation and training, Hayes explains. With five months already elapsed, further delays were out of the question.

PCL Construction also needed to retain the ongoing use of its internal project-management processes.

Fortunately for Hayes, features of the portal were designed with these very considerations in mind.

e-Builder requires no additional hardware or software; only a Web browser to access the e-Builder Website. Hayes was able to implement the new portal within 24 hours.

Communication was greatly enhanced. The real key to e-Builder’s success is the advantage of realtime communications over the traditional method of linear communications.

For instance, subcontractors typically have questions that are generated in the field, which are written up and sent to the general contractor. If the answer is in the documents, the

general contractor answers the question. If the answer isn't there, the question is passed on to the architect of record. Finally, if it's a structural question, the architect will forward it to a structural consultant, and so on.

The problem with large construction projects like the Staples Center Arena is that the shuffling of a single question throughout the growing line of consultants and experts can eventually eat up a lot of valuable time resulting in much downtime. With e-Builder, PCL Construction was able to simultaneously send RFIs to the entire team, enhancing communication and effectiveness.

The e-Builder design allowed an RFI to be sent directly to the architect, because legally, questions of this type always require the architect's approval. At the same time, e-Builder routes the question to the consultants that will provide the response. For tracking purposes, the process is still linear. However, the question is routed to the appropriate decision-makers and experts for realtime communications and collaboration.

Thus, if the architect doesn't get an opportunity to answer an RFI until hours after it was received, there's a good chance that the consultant has already provided the answer. At the same time, the owner, who is needed to approve any changes in cost and materials, already has access to the question and can provide the necessary answer.

Melnyk, PCL Construction's field operations manager, agrees that e-Builder greatly enhanced communications.

"The biggest thing we used it for was the flow of information," says Melnyk, who adds that e-Builder distributes information speedily and to all the members of a project team at once. "It satisfied our need to get paperwork processed faster."

Another major benefit of e-Builder was that it kept project members accountable because it maintains detailed records of communications and has a document log.

"It keeps people honest. It doesn't lie," Melnyk says.

Despite the benefits, PLC Construction faced some hurdles when it implemented e-Builder.

“There were some challenges. You really should try to implement the system right from the beginning of a job,” Melnyk advises.

In addition, some of the subcontractors on the job were hesitant to use e-Builder, preferring to process paperwork manually.

“It took a good couple of months to get used to it and trust it,” Melnyk recalls. “Change is a little disruptive to people.”

For PCL Construction, implementation was a breeze. The Website for the Staples Center Arena was up and running within one week of the decision to use e-Builder. It took a little time to get the team together, but as soon as all the major stakeholders were available for a meeting, the team began shaping the Website, taking only four hours to make decisions on folders, document content, time frames, posting responsibility, and user access.

Meeting participants also included the architect, contractor, project managers, engineer, and mechanical and electrical consultants.

At this meeting, Hayes was given the title of “communications champion,” recalls Jon Antevy, CEO of e-Builder. The communications champion acts as the owner’s representative and is in charge of championing the idea and reinforcing the decisions made at the meeting.

e-Builder was designed to be a simple and flexible tool. It works with the company, not against the company’s existing systems. e-Builder allows companies to use their own project-management tools, which, for many firms, are indispensable.

Many companies have a lot of time and capital investments in these types of programs. It also allows documentation flexibility, since it works in conjunction with a company’s existing document software. As a result, specific document software is not required.

Similarly, any CAD (computer-aided design) drawing will be automatically changed to a JPEG (joint photographic experts group) graphic file, so a team member does not need specific CAD software to view it. The new Website also has the ability

to create client-customized forms.

Several well-designed features of e-Builder resulted from an unusual collaboration between PCL Construction and e-Builder. Antevy recalls that Hayes helped e-Builder refine its processes in the communications Website. Hayes came in at a time when e-Builder was growing slowly enough to take advantage of his expertise.

“What Hayes defined in processes has worked with literally every project since the Staples Center Arena,” says Antevy, who adds that he has continued to bring expert clients in to help shape the design of the Website.

“Buildings aren’t built in computers,” Hayes, “A lot of these [Internet and network] providers envision everyone having a computer with them in the field, when the reality is that everything happens out there in the dirt.”

#### Punchlist

**Problem:** The traditional RFI (request for information) process was inadequate to complete a fast-track project requiring communication among a 150-member team of contractors, subcontractors, and consultants.

**Solution:** Implementation of a flexible communications Website that provided realtime virtual meetings, collaboration, and redlining markup.

**Payoff:** Turnaround time for an RFI at the Staples Center Arena was reduced from an average of 28 days to an average of 9 days, helping the project come in ahead of schedule and on budget.

**Technology:** e-Builder provides a client-customized Website requiring no additional hardware, and uses any browser including Microsoft Internet Explorer for Internet access.