

Building Faster, Building Better

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By getting input from their trade contractors, Technical Olympic USA (TOUSA) was able to improve internal processes that enabled them to reduce cycle time, reduce rework, and eliminate wasted materials.

Decreasing cycle time and increasing employee productivity is key to boosting profits. The challenge is accomplishing this while maintaining consistent quality. When quality is compromised in the rush to build faster, unhappy customers are the inevitable result: a sure-fire way to drive down profits, as well as the builder's reputation, over the long run.

Increased productivity and consistent (or even improved) quality don't have to be at odds. Technical Olympic USA (TOUSA), a Giant operating throughout Florida, Texas, the Mid-Atlantic, Phoenix, Colorado, and Las Vegas, learned that improving its internal processes by involving its trade contractors helped boost productivity, the quality of the product, and customer and employee satisfaction.

Think Process Before Schedules

When it comes to improving productivity, many builders think first of scheduling. But TOUSA took a different path. In 2002, when Engle Homes and Newmark Homes merged to become TOUSA, some divisions were experimenting with a comprehensive process-improvement program from Unify International. Called Job Ready/Job Complete, it captures the builder's internal process performance as well as each trade's performance, as reported by the trades themselves. Because this system has now proven itself, TOUSA has rolled the program out to all of its divisions nationwide.

TOUSA wanted more than scheduling software; they wanted a tool that provides the facts to identify root causes for process problems. While the effects of scheduling changes come through in the data, many more issues surface and get communicated among the trades and between the builder and the trades. The alignment of process information and an improvement goal procedure was the starting platform for reducing cycle time, reducing rework, and eliminating wasted materials.

Since 2002, TOUSA has been systematically identifying and fixing inefficient processes between its internal departments and the trades. The numbers show it's working, according to Mike Beckett, vice president of building technologies for TOUSA Homes.

"In just over two years, cycle time has been reduced in almost all of our 14 divisions by as much as 15 percent to 20 percent," he comments. "We have significantly cut the number of days it takes our superintendents to build a house, and we are using the same labor."

Manufacturer Mentality

Much like a manufacturer thinks in terms of the supply chain, TOUSA began thinking of the chain of tradeoffs and tasks involved in building a house. To reduce cycle time and achieve a greater return on (people) assets, management had to reduce waste in the construction process. Where to start? They needed to attack inefficiencies as they are born, not later on when they showed up as troublesome performance issues.

"Think of drywall installers," says Beckett. "Their task may seem simple: they come to the jobsite, gather the drywall and install it. All trade-contractor activities may seem equally simple when you think about them individually. But when

you think of all of these activities interacting within the overall process of building a house, it becomes a much more complex 'supply chain.' Before the installer can hang the drywall, many other trades must execute their tasks properly. The framer has to install framing, the plumber the water lines, and the electrician the wiring."

By looking at the interactions among these tasks, TOUSA began seeing a trail of errors resulting from earlier inefficiencies in the construction process.

Process Improvements: A Win-Win In simple terms, increasing productivity means doing more with the same or less investment. Focusing on process improvements throughout a production builder's organization not only increases employee and cycle time productivity, but also maintains consistent quality and ensures employee satisfaction.



Take a Look in the Mirror

TOUSA didn't stop there. It's easy to explain that the tile on the shower seat wasn't installed properly because the seat wasn't framed at the right angle, and leave it at that. The challenge TOUSA embraced was taking a hard look at its internal processes. Management soon realized that some of these processes were actually creating the inefficiencies that showed up during inspections.

TOUSA asked its trade partners to help identify these inefficiencies. Trades in all 14 divisions attended a symposium to vent their concerns anonymously. Issues with internal documentation, like scopes of work and change-orders that the trades relied on to do a quality job, bubbled to the surface. The trades didn't always understand these documents. Sometimes, the documents weren't as complete as they could be. As a result, the trades couldn't do their jobs effectively.

For example, it may be true that the tile on the shower seat wasn't laid properly because of a framing error. But the root cause may be the lack of clear graphics showing how to frame the shower seat. Or perhaps the Spanish-speaking framer was struggling to understand the scopes of work written only in English.

TOUSA began looking at all these interactions and handoffs in the supply chain; specifically, the internal communication materials like scopes of work, plans, and work orders. Instead of finger-pointing, something detrimental to worker motivation (and usually productivity), TOUSA based the trail on facts. Data on all the interactions and handoffs - between internal departments, between external (trades and supplier) and internal departments, and between all external contractors - is now systematically collected in a database. This enables TOUSA to look at the data and pinpoint the wasted activity and how much it costs in time and energy. By going through this process consistently, patterns emerge, allowing TOUSA to fix problems at their sources.

TOUSA is systematically making the process changes to their internal systems to eliminate waste. The goal is for the trades to have all the communication and documentation tools they need to do their jobs right. That, in turn, will reduce waste and improve cycle time productivity by making the supply chain more efficient. For example, TOUSA has clarified the change-order and work-order language, translating it into Spanish when appropriate, and simplifying and reducing options.

Communication is Critical

TOUSA also recognized that a strong communication tool should be a fundamental part of their internal processes. By looking at the data they collected on interactions throughout the construction process, they realized that paper-based communication materials - customer affidavits, color sheets, and change orders - contributed to inefficiencies.

Enter the TOUSA Xchange, an intranet repository of best-practice communications. Everyone in all phases of the home now has instant access to updated documents. There's no wasted activity (like waiting for a fax to come through) in getting the right communication tools to the right people.

TOUSA Xchange also allows divisions to share best practices - a recognition that having a team properly equipped with consistent knowledge on how to perform each job is critically important to ensuring consistent quality results in the field.

Customer Satisfaction

Making process improvements within its organization also enabled TOUSA to increase customer satisfaction. Survey findings showed that satisfaction was strongly tied to the components of the finished home that buyers could see and feel, like paint quality and carpet installation.

To improve these areas, TOUSA focused on the trades involved with the finish work, such as tile layers, painters and carpet layers. Using the same process of reviewing all the interactions that impacted the work of these trades, TOUSA identified and improved internal root causes. This has helped to ensure quality in the final finish stages, and increase satisfaction in the areas that matter most to the customer.

People: The Key to Productivity

Ultimately, good schedules and streamlined processes won't get the work done: People build houses.

When TOUSA Homes' executive vice president Cora Wiltshire took over the Mid-Atlantic region last fall, she armed her team with the knowledge they needed to understand why and how they had to work differently. With the support of corporate and an outside consultant, Wiltshire facilitated training sessions with both workers and owners of TOUSA's trade partners. She made sure the trades understood their importance by explaining the goals of the process improvements and by linking TOUSA's success to that of its partners. Her presence and support sent a strong message to the trades about the significance of these process improvements and the need for true partnership. Once everyone was on the same page, Wiltshire's entire team was trained on how to conduct its daily tasks differently.

"In our Virginia division, we started a focused process-improvement effort in February of this year. We are scheduled to be completely self sufficient in October, which is huge. Focusing on process improvement is now culturally ingrained in this division. Our cycle time has dramatically decreased by approximately 17 percent."

Another accomplishment for her division was in customer and associate satisfaction. When Wiltshire started, customer satisfaction ratings within the Mid-Atlantic region were low. As a result of the process improvements her team implemented, pre-settlement surveys scores, which focus on those critical finish areas, have shown marked gains. Customer satisfaction with the quality of the home, in turn, increases the associate's pride in his or her work, fueling motivation and employee satisfaction.