

Quality Assurance Article 2

Build it Right the First Time

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Ten years ago zero defect homes were unheard of. 90 percent customer satisfaction ratings for home quality were thought to be unobtainable. Today these are daily realities for a growing number of builders. The bottom line is the level of consumer expectation for quality construction is increasing. But so are costs for builders who try to buy quality by adding layers of inspections to their construction process. There is a better way – build it right the first time.

When trades build it right the first time, inspections serve only as a verification of quality results. Defect levels are so low that inspections are no longer necessary as a sorting mechanism to separate good workmanship from bad. Multiple inspections become a waste of time. Code inspectors can be made to feel like the bored Maytag repair man, leading to more flexible working relationships.

With the end in mind, only trade contractors – the ones doing the building – are in a position to build it right the first time. This places the emphasis on controlling the activities of the trade contractors to assure a reliable building process. Controlling the right activities and efficient methods for controlling them is critical for making it operational on the jobsite. We call this a quality plan.

In a PATH Partnership for Advancing Technology in Housing (PATH) funded project, the NAHB Research Center developed a model quality plan for trade contractors based upon internationally recognized standards for quality assurance systems. We found that trade contractor quality plans should have five key control points:

- **Defined Results.** Specifications are needed to clearly define expected results and avoid errors of omission. A compilation of codes and other regulations, workmanship tolerances, and construction details define the scope of builder expectations.
- **Qualified Craftsmen.** Qualified Craftsmen avoid errors of ignorance or inexperience. Training, demonstrated skills, knowledge, experience, or certification are verified before the craftsman is entrusted with quality responsibilities.
- **Approved Materials.** Materials specifications prevent inferior substitutions. Only code-approved materials with proven performance are listed for approved use.
- **Proper Tools and Equipment.** Tools and equipment are available to properly carry out the work. Work can not start without them.
- **Documented Processes.** Documented work procedures prevent problems caused by use of poor construction methods. Product manufacturer installation instructions and production manuals prescribe the best practices.

In the study project, we developed a *Quality Assurance Plan for Framing Contractors* that provides details for each control point that applied specifically to the trade. You can use it as a model quality plan for your network of trade contractors. For a free copy, contact the NAHB Research Center's ToolBase Hotline at toolbase@nahbrc.org.

By focusing on changing your quality effort from inspection to first-time quality, you can better fulfill your customers' expectations and gain a competitive edge. Utilize the tools from PATH and the NAHB Research Center to implement changes in the way that you view quality control. Use the quality plan as an agenda for discussions with your network of trade contractors and product suppliers. Implement changes needed to comply with the plan and amend contract scopes of work to reflect your agreement. For a better business, commit to building it right the first time.