A Case Study On Achieving 100% Customer Satisfactory Homes in Production Home Building

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Home owner satisfaction is a huge driving force for production home builders. Having satisfied customers can give a company a competitive advantage and can lead to company growth. This case studies examines how a production home builder located on the central coast of California refined their quality and management processes in order to gain 100% customer satisfaction for over a hundred new homes consecutively. The six improvements that were made in order to achieve that goal are highlighted in this paper. The focus for the refinement was on the quality of the home. Satisfying customers in production building is a tough feat to accomplish and ensuring the highest of quality products is crucial in that satisfaction. This branch of Shea homes was able to successfully refine their Quality Performance Review process along with other management processes in order to meet their goal of completely satisfying their home buyers. The six steps implemented were so successful that they are now becoming a standard at a companywide level.

Key Words: Quality Performance Review, production building, customer satisfaction, companywide

Introduction

Customer satisfaction is a major driving force in residential construction. Improving customer satisfaction is a critical goal for home builders as it helps them stand out from competitors, grow their company faster, and lower the pressure of having to build cheaply. Customer satisfaction is considered the backbone of the home building industry (Torbica and Stroh 2001). Unfortunately, customer satisfaction can be hard to achieve in home building. Production home building in particular is difficult as you cannot give a customer everything that they may want. A custom home builder has more freedom to make a change in a home while a production builder must set the expectation that after certain deadline passes a home cannot be changed as it will affect other homes in production. This tends to lead to unsatisfactory home buyers that feel that their needs are not being satisfied.

One way to help ensure customer satisfaction is through quality work. Quality can be defined as meeting the legal, aesthetic and functional requirements of a project. Requirements may be simple or complex, or they may be stated in terms of the end result required or as a detailed description of what is to be done (Arditi and Gunaydin 1997). If a home buyer feels that they are receiving a high quality home, then they will not mind making certain sacrifices in terms of material or feature they may want in a home. If a production home builder is costlier than other home builders but delivers a consistent quality product, then home buyers will choose them over their competition to build their home. Not only are the home buyers satisfied if they receive a high quality home but they will also recommend that builder to their friends resulting in more work and a greater name recognition for that company.

Quality Management in Home Building

Quality management is something that every home builder takes very seriously. Companies will go to great lengths in order to ensure that what they are building is of good quality. This includes hiring staff to ensure the quality of a project. This can be done through hiring a quality assurance/control employee that focuses solely on the quality of

the home being built. More than likely the task of ensuring quality will fall on a field manager or superintendent. Their job will entail making sure subcontractors work are up to company standards and making sure that no steps are being missed during construction. They are most commonly in charge of quality assurance as well as quality control. Ensuring quality provides protection against quality problems through early warnings of trouble ahead. Such early warnings play an important role in the prevention of both internal and external problems. While Quality Control is the specific implementation of the QA program and related activities. Effective QC reduces the possibility of changes, mistakes and omissions, which in turn result in fewer conflicts and disputes (Arditi and Gunaydin 1997).

Methodology

The objectives of this case study are as follows:

- To report the results of implementing a strong quality review process
- To highlight the benefits of subcontractor, buy-in to quality control
- To highlight the benefits of entire project team working towards a common quality goal
- To discuss the changes made to the quality performance review process
- To provide recommendations to contractors on how to implement these processes to their benefit

The methodology for this paper was a qualitative case study. The information gathered for this case study was mostly done through interviews with the project team, trade foreman, and mid-level management. Korey Karoll is the operations manager that spearheaded the changes to the quality review processes and management processes resulting in a record number of homes getting delivered at a hundred percent customer satisfactory. His interview was critical for the formation of this paper and understanding all that contributed to the changed processes. Trade Forman were also interviewed in order to understand the effect the changes had on them and if they were beneficial changes or not. Lastly I interviewed a field manager to see the effects of the changes on his job and how much easier it made it for him.

Case Study

The Central Coast division of Shea took it upon themselves to try and produce a hundred percent customer satisfactory homes and gain the reputation of having some of the highest quality homes in the nation. This was achieved through fine tuning processes that had been in place and putting a higher emphasis on quality for all parties involved in building the homes.

Project Background

Shea Homes Trilogy at Monarch Dunes has been serving the central coast for over 10 years now. Located in the heart of wine country it has been ranked by CNN as one of the “25 Best Places to Retire” (Trilogy at Monarch Dunes, 2016). They started building homes in Nipomo in 2006 and are now finishing the last of the 700 homes of phase 1. Shea homes trilogy division focuses on the baby boomer market which are people that are either empty nesters or recent retires. Shea’s main goal is to build a community centered around the active adult lifestyle so that baby boomers from all around the country will want to come and retire at their communities. What drives this as being one of the best place to retire is not only the location of it being on the central coast but also the quality of home being built. The quality of home that Shea builds spreads by word of mouth from the home owners to their friends. This leads to better business for Shea as more and more people want to live at these communities that they have been hearing such positive things about.

Quality Review Processes

Shea Homes implements multiple processes in order to ensure the highest level of quality for each home. There are 7 Quality Review processes (QPR's) throughout the course of a home followed by an internal acceptance (IA) from the management team, a customer walk-through (CWT) and finally the home delivery (HD).

The first four steps or QPR 1-4 are done by the field manager in charge of that particular house starting from trench work to framing of the house. These first four process mainly entail ensuring that the house is being built to the plans and specs and that nothing has been accidently skipped over. Which also includes making sure all the different options for that house are accounted for. QPR 5 is done with the entire Shea team, including other field managers, customer service representatives, the operations manager, customer service manager, and the production manager. This occurs prior to insulation as everyone walks the house with various colors of spray paint, one for each major trade, looking for any problems with MEP or the structure before the walls are covered up with drywall. Once the Shea team is done, the tradesmen are called back into the house and they have two days to fix any issues that may have been marked. QPR 6 is done by the field manger as he asses the quality of the finish work and makes sure the house is ready for the second team walk. For QPR 7 everyone on the Shea team is given different colors of tape which represent different major trades. Then the team goes around marking any issues with the home which are mostly only minor cosmetic issues at this stage. The field manager then has 5 days to make sure the tradesmen complete all QPR 7 items before the home is walked by the management team for internal acceptance.

After the IA the field manager has 2 days to complete the items that the management team found before the customer walks the house. An orientation rep walks the home owner through the house. The orientation rep shows the home owner how the different systems in their home are run and how to maintain those systems. They also look for any concerns or quality items that the home owner might see and mark them with tape. If the customer finds something at the CWT, then the field manager has one day to fix that item before home delivery. If a home is delivered and there is an outstanding item, then that home is not considered 100% percent complete.

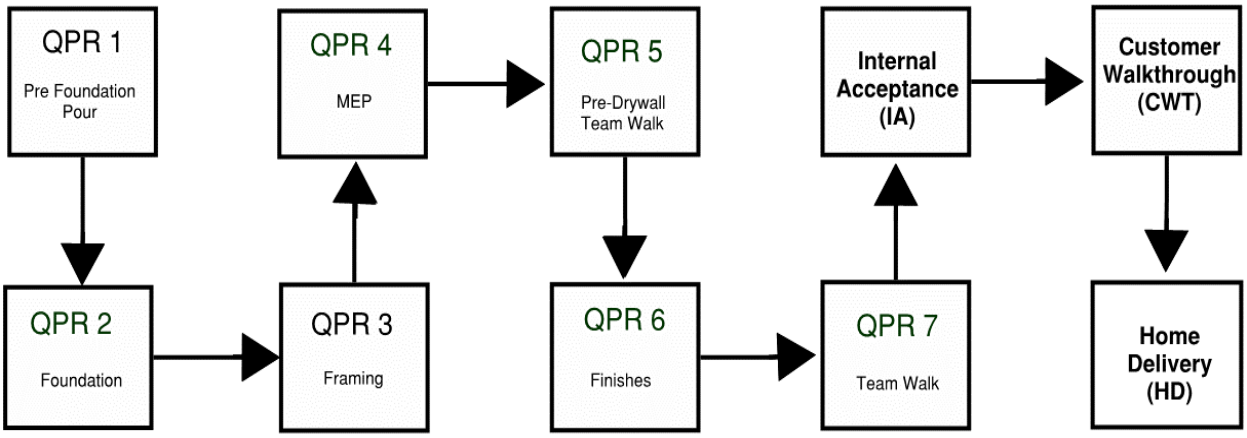

Figure 1: illustrates a typical quality performance review process

Prior Issues with The Quality Review Processes

There were multiple areas in which the QPR process could be improved. One of the biggest issues was not having enough time in the schedule to properly complete all of the necessary quality checks a field manager was required to do. This led to mistakes being made and not getting caught early on during home building. A typical field manager had twelve homes that they were responsible for overseeing at time. Each home would be at a different stage of the construction process making it extremely hard for a field manger to do all the necessary quality checks on his or her own. Subcontractor's also had a difficult time with certain material's and options. Some materials were more prone to damage resulting in a lot of rework and headache. Some home options were also more difficult to complete within the allotted time frame as they were more complex than the standard.

Discussion

Being that customer satisfaction is a huge driving force in production home building the Central Coast Shea team decided to make changes to their quality processes, home building schedule, trade partner quality control, options for the homes offered, and field management strategies. A lot of trial and error went into the refinement of these processes but they were able to achieve their goal of building a hundred percent customer satisfactory homes. The changes that were implemented took multiple months to fully come into effect. It required multiple parties to buy in to the changes and change some of their own processes in order to achieve the common goal of a hundred percent customer satisfactory home.

Changes to the processes

The central coast Shea team headed by the operations manager implemented the following changes to the quality review processes:

1. Accurate Schedules: One of the ways to reach the goal of a more complete home was through revising the schedule of building a house. This was achieved by identifying the pinch points in the schedule where subcontractors were constantly being pushed and rushed to complete their tasks. If a subcontractor was having trouble completing their work on time, then they do not have enough time to thoroughly go through their QC checklist. In order to combat this 10 day were added to the schedule increasing the overall schedule from 90 to 100 days. Trades that were having trouble completing their QPR items on time were given an extra day or two. This incentivized them to do a thorough and complete job.

2. Trade Partner QC & Buy in: The Shea team spent too much time doing quality control on their own. Trade partners were asked to strengthen their quality control process in order to ease the burden on the Shea team and increase overall quality of their work. This was done by sitting down with the owners and explaining the potential value of having a better QC process including less rework, and less items that will be warrantable after home delivery. At the monthly owner council meeting every owner was asked to provide a QC sheet until finally every trade had one that met Shea's expectations. Once an acceptable QC checklist from each trade was established subcontractors were required to turn one in to the field manager in charge of that particular house prior to QPR 5,6, or 7 depending on when the work was to be finished. This not only eased the burden on the field managers but also held the subcontractors responsible for their work.

3. Options: Home options and materials that were causing Home Delivery items were either deleted or improved upon through coordination with the trade partners. Materials such as a particular type of wood flooring that would scratch easily causing an extensive amount of rework for the subcontractor would be taken out altogether and no longer offered to the home buyer. This refinement process was viewed as goodwill by the subcontractors as the options and materials that were giving them grief were eliminated making their job easier. It also helped Shea as items that were continually coming up as unsatisfactory items were no longer an issue and better materials or options were substituted in their place.

4. Pre-IA Process: The operations manager, production manager, and customer service manager walk each home five days after QPR 7 and 2 days before internal acceptance. This allows the field manager more time to fix items that will come up during IA and customer walkthrough. This also speeds up the IA process for the managers as they can just check to make sure Pre-IA items have been completed. This also resulted in having the home more complete earlier on in the building process so by the time the customer walked the home it was near perfect.

5. Realigned CWT/HD Processes: Every year Shea homes has on Operations Refresher in order to make sure that processes are aligned throughout the company and all Trilogy branches are on the same page. After the refresher in 2015 the central coast Trilogy teams realigned their CWT/HD process to match what other

Trilogy's were required to do. Before tape was given to the home owner's giving them the expectation to find items in their home. Which led to home owners over analyzing their homes and picking out minuscule or outrageous items. Rolls of tape were carried around during CWT, suggesting that they needed to be on the lookout. Now, at CWT, Orientation Rep only reviews the quality of the home by reassuring them that the house has been walked multiple times by numerous professionals. The Orientation Rep holds on to the tape and if something were to catch the home owners eye then they would mark it with tape and notify the field manager if they feel it is necessary.

6. Field Management: Emphasis was put on field management team to warn the production manager and the operation manager earlier on if issues may delay a 100% home delivery. The field team was trained to stay on the lookout for long lead items that might arise and given pointers on what kind of quality items to look for on a day to day basis. Field management also implemented incentives in order to drive success. Rewards such as team dinners and breakfast for trade foreman were set to in order to incentives everyone to achieve a common goal.

Results

The implementation of this process took 10 months to fully come into effect. These new processes took a while for everyone involved to be fully committed but over time the results were realized by everyone on the project. The result was a thirty percent increase in the homes having zero walkthrough items at the customer walkthrough. A record was also set for Shea homes with one hundred and seventeen homes being delivered without a home delivery item. Most subcontractors cut their rework in half and their quality of work improved. Field mangers time spent doing quality assurance on a single home was also significantly decreased as their responsibilities are now being shared with the subcontractors.

These processes were so successfully that upper management looked to the central coast division to see how they could make their other branches just as successful. A companywide refinement is now taking place in order to implement the changes that were made successfully at Monarch Dunes.

Conclusions

One hundred percent customer satisfaction is an achievable goal for production home builders. Home buyers can be extremely non-cooperative if you don't give them a home that is perfect in their eyes. After seeing the implementation of these processes it is not as farfetched as one might think. When you understand what kind of standards a home buyer will have then you can pass the standards down to the field team and project team. Once everyone is on the same page as far as quality goes then a hundred percent customer satisfactory home can be achieved.

Holding subcontractors and field managers accountable for the quality of the home is a great tool for achieving high quality. Subcontractors are the ones actually building the home so giving them the necessary time and motivation is key to the success of the home. Production home building is a major team effort that requires everyone involved to be on the same page in terms of quality.

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