

# TenStep Project Management Process

## Project Example – A New House

### Background

Meg and Harry Stone decided to buy a vacation home as a place for family gatherings. Meg and Harry met with the subdivision Builder, Peter Franks, who reviewed four different floor plans with them. The Harrington model had five bedrooms and a separate office/bedroom. Meg and Harry liked this model so their whole family could comfortably visit at the same time, while Harry would still have an office.

Meg wanted the first family gathering in the vacation home to celebrate her and Harry's fiftieth wedding anniversary. Harry confided in his best friend Tom Reynolds, a project management consultant in the construction field, that he did not want to miss the date or go over budget. He experienced these problems when building his last home.

As an anniversary gift, Tom offered his services to manage the completion of their home. He knew that he could help them achieve their desired home by their November anniversary and within Harry's budget. Harry was elated with Tom's offer and accepted.

Although the Stones were ready to purchase the home, Tom suggested they first review their needs as well as their budget. In the initial discussion the Builder mentioned that a Harrington model could be fully completed by October 1st, but Tom was uncertain whether this date included all of the upgrades that he knew the Stones would want in the house.

Tom set up a meeting with the Stones and the Builder. They agreed the basic requirements of the home were as follows:

- The standard Harrington model - including standard trim and paint colors.
- Three and one-half bathrooms with upgraded tiles and countertops.
- An office with custom built-in bookshelves.
- A kitchen with the same tile and countertop arrangement as in the bathrooms. They also wanted a double oven and six burner cooktop installed instead of the one standard oven and cooktop that was included in the base house.

This was a good meeting since the Builder was not yet aware of the upgrades. This may have resulted in missed expectations. Everything would have all been worked out eventually after some conflicts and surprises. But gaining agreement up-front ensured everyone's expectations were consistent.

The Builder described the overall approach for completing the home.

- The foundation would be completed in February.
- The exterior walls, interior walls, electrical and plumbing would be completed by June.
- All flooring and carpeting would be completed in July.
- Painting would be completed by mid-August. (To keep the house on schedule, the downstairs painting would begin once the hardwood floors were completed, and while the upstairs carpeting was being installed. There was also a dependency that the upstairs carpeting could not begin until the hardwood floors were installed,

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because the same individuals did both. The Builder noted these dependencies in the schedule).

- The bathrooms and kitchen were the last parts completed. The Builder noted completion of these by October 15th.

With this information, the Stones and the Builder agreed to an end date of October 31<sup>st</sup>, allowing an additional two weeks for a walk-through and the completion of a “punch list” of things that are needed fixing prior to moving in.

The base house price was \$500,000. The upgrades for the built-in bookcases and kitchen appliances were an additional \$50,000. The tile would cost an additional \$75,000, bringing the total costs to \$625,000. Based on his experience with his prior home Harry also budgeted \$90,000 as contingency since he learned that things don't always go as planned.

Harry suggested to Meg that they have the family gathering during the week of December 1<sup>st</sup>. This way he had some room in the schedule based on the October 31<sup>st</sup> date that The Builder provided. Meg agreed. The Stones signed the contract based on these understandings.

As construction began, Tom communicated with the Builder on an ongoing basis. He provided informal updates to Meg and Harry every other week, and met in-person with them on a monthly basis.

### **February status**

- On budget
- On schedule. The foundation was completed as planned

### **March status**

- On budget
- Work in progress

### **April status**

- On budget
- Some work is behind because of rainy weather. The builder thinks he can make up the time in May.

### **May status**

- On budget
- The weather is better and the builder believes he is on schedule.

### **June status**

- On budget
- The exterior walls, interior walls, electrical, plumbing were completed. The house is still on schedule.

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### July events

Tom noticed that Meg and Harry were upset. The beautiful hardwood floors were completed downstairs but there was no carpet upstairs. There was a flood in the manufacturer's warehouse and the carpet was wet. The manufacturer needed to ship new carpet to its warehouse for pickup by the Builder's team.

The Stones realized that the delay in carpeting would delay painting, which would delay the upstairs bathrooms. They were afraid the house may not be completed on time.

Tom stated that all options should be analyzed before an agreement should be reached on how to proceed. Tom explored other options with Meg and Harry:

1. Paint before laying the carpet, and then touch up after the carpet was installed.
2. Ask the manufacturer to drop ship the carpet directly to the house. This would save a week but there could be an extra cost to this option.
3. As they previously discussed, delay proceeding until the carpet was installed.

The Stones met with the Builder to discuss the options. They agreed to proceed with 1 and 2. The manufacturer agreed to drop ship and indicated that the carpet would arrive by the end of the first week in August. The Builder reviewed his schedule and determined that he could start the painting on August 1<sup>st</sup> and would be able to reorder the schedule to paint, install the carpet, and then complete any paint touch-up needed after the carpet was installed, all by mid-August.

### July status

- On budget – After some negotiation the manufacturer agreed to absorb the additional shipping costs.
- On schedule with the reordering of activities

### August events

The Stones thought the upstairs bedrooms and hallways looked too bland. They would like to brighten up the paint color in two of the bedrooms. Since this was not part of the original agreement the Builder issued a change order indicating that the repainting would cost an additional \$3,000. The Builder could schedule his team to come in and repaint the two bedrooms. However since the painters are the same team completing the kitchen and bathroom work, this impacted other work and therefore the overall schedule for the house. The Builder presented two options for repainting the bedrooms:

- Paint immediately and push back the schedule for the kitchen and bathroom work, and therefore the overall completion of the house
- Complete the house as originally planned, and schedule another time to repaint the bedrooms.

Meg and Harry agreed to the additional \$3,000 and to wait until after the anniversary celebration to schedule the repainting. They did not want to jeopardize the completion date and their family gathering on December 1<sup>st</sup>.

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### August status

- On budget. The painting was to take place after the home was completed so the original estimate and spending was still on target.
- On schedule

### September status

- On budget
- On schedule

### October - end of project

The Stones inspected all work and created a “punch list” of items that the Builder needed to fix. The house and punch list were completed on October 30<sup>th</sup>. Meg and Harry approved all work on October 31<sup>st</sup>, and took ownership on November 1<sup>st</sup>.

### Recap

During a celebratory dinner Meg and Harry thanked Tom for his assistance. With Tom’s passion in project management, he felt this was a good opportunity to show Meg and Harry how he used project management to help them build for their new home:

The Stones did not realize it but they were filling the general role of the customer, and the specific role of the Project Sponsor.

- **Define the Work.** The Stones and the Builder agreed on the scope of work including the base model and new requirements. This set correct expectations and allowed the schedule and budget estimates to be more accurate.
- **Build the Schedule.** The Builder created a schedule to complete the work.
- **Build the Budget.** The Builder estimated the base cost of the home and upgrades.
- **Manage the Schedule and Budget.** The project manager, Tom worked with the Builder to monitor the state of the schedule and actual costs versus the budget.
- **Manage Issues.** Tom helped identify, assess and resolve major problems such as the carpet delay due to the warehouse flood.
- **Manage Scope Change.** The request to repaint two bedrooms was new. The Builder determined the impact of this new work on the construction project. The Stones compared the impact and value and made a decision accordingly.
- **Manage Communication.** The Builder provided ongoing status updates on the progress of the work.
- **Manage Risk.** The Stones planned the celebration a month after the scheduled October 31<sup>st</sup> completion date to allow for any schedule mishaps. They also allocated additional budget in case of unexpected costs.
- **Manage Quality.** The Stones held a walkthrough and created a subsequent punch list to validate the quality of the home before acceptance.
- **Manage Procurement.** Tom’s proactive management of the third-party Builder.