Case Study: Phase 3

by Sophia

This tutorial will focus on Phase Three of the project life cycle, managing the project, through a case study on building an energy efficient house, specifically demonstrating:

1. Phase Three: Managing a Project

The case study used for this tutorial is the development and construction of an energy efficient house for a couple.

Once the planning phase is complete, it's time to put the plans into effect and begin the work of creating the project deliverables.

1a. Kick-Off Meeting

To make sure everyone understands the work involved in the home construction, the project manager organizes a kick-off meeting at the building site. The architect, the homeowners, and the leads for the construction crews attend.

At the meeting, the project manager leads the group through the plans created during the planning phase, presenting the crew leaders with an accountability statement outlining the expectations for their work.

The communication plan is also reviewed during the meeting.

1b. Communication

Throughout the house construction, the project manager will communicate often with all levels of the construction crews, the homeowners, and the architect. All available methods of communication should be used.

Methods of Communication	
Email	Email updates are sent every day to the stakeholders, detailing the progress made on the home and alerting the stakeholders of any issues that were encountered.
Website	The project manager may create a website where the schedule can be viewed and where the homeowners can provide feedback on the work.
	Phone calls, in-person meetings, and video conferencing from the building site are used to

Meetings	communicate about the project with the architect.

It's the project manager's responsibility to make sure every team member is aware of the communications that should be used. The project manager should also use these communication methods to set a strong example.

The project manager will also formally communicate project progress with the homeowners and the architect through weekly status updates.

These weekly status reports contain updates on:

- Schedule
- Budget
- Deliverable

Any issues with these items are highlighted in red, as shown below.

Weekly Status Report		
Schedule	**Planned**	**Actual**
On Target	70% Complete	70% Complete
Budget	**Planned**	**Actual**
On Target	70% Spent	68% Spent
Activity/Task Last Period		**Status**
Install Kitchen Cabinets		100%
Install Tile Floor		85%
Risk Issue		
Overheating experienced in dining room		
Contingency		
Installing tile instead of wood floor		

1c. Monitoring Time and Effort

To provide detail for the status report, the project manager closely monitors the project's schedule and budget.

For each task and individual working on the task, it's important for the project manager to track the percent of the work complete and the actual time and effort already put into the task. The schedule and the budget are updated based on this information.

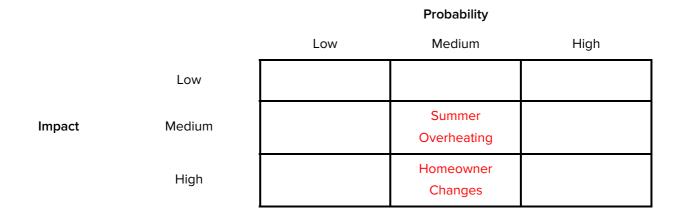| **Monitoring Time and Effort on a Task**	
Task	Rough In Electrical
Percent Complete	80%
Actual Time and Effort	2 of 3 days complete

The project manager also oversees the quality of the work. In our project, it is noted that the wrong type of

shower head was installed, which would result in the homeowners using more water. The project manager would discuss with the crew, and the shower head would be changed. Without this quality review, the homeowners might have been the ones to discover the problem, leading to frustration with the team.

1d. Risk and Change Management

In addition to monitoring the schedule and budget, the project manager actively manages risks during this phase.

All risks are categorized using the risk matrix and are evaluated based on the likelihood they would occur and the impact on the project if they did occur.

		Probability		
		Low	Medium	High
Impact	Low			
	Medium		Summer Overheating	
	High		Homeowner Changes	

One possible risk we mentioned in this project was the danger of the house becoming too hot in summer due to the number of windows used to gather solar heat.

After the installation of the windows, this risk is triggered as the crew finds the house becoming too warm. The architects adjust contingency for this risk. Tile should be installed in some areas to absorb the heat and release it more slowly. However, any change this large to the project scope needs approval from the homeowners.

Change management is the project manager's responsibility, so a change request is prepared and submitted to the homeowners and architect for approval. The change request should describe:

- The issue
- The recommendation for addressing the issue
- The impacts to the schedule and budget

When the homeowners review the material and agree to make the change, the project manager then schedules the tasks.

Change Request
Issue
Overheating experienced in dining room
Change
Install tile instead of wood floor.
Schedule

1 day delay
Budget
Additional $500

1e. Individual/Team Management

While overseeing the work, the project manager continues to communicate with all individuals in the project.

When team members suggest ways to save money for the homeowners or provide more energy efficiency, the project manager praises their efforts and recognizes their work during the daily progress meetings.

Feedback is also shared from the homeowners and the architect with the project team. This motivates the team since they understand that their efforts are appreciated.

As a result, the house is finished within the budget and schedule, approved by the homeowners, and ready to move on to Phase Four, closing the project.

⭐ BIG IDEA

In Phase 3: Managing a Project, the project manager will manage the project through:
- Kick Off Meeting
- Communication
- Monitoring Time and Effort
- Risk and Change Management
- Individual and Team Performance

📋 SUMMARY

This tutorial demonstrated a **case study phase three: managing the project**, which includes the communication process and risk management.

Source: this work is adapted from sophia author jeff carroll.