In this project, you will analyse the situation and the effect of the change request on the schedule, cost, and features. The final project will be based on your answers for Week 4 (Project Proposal) and Week 6 (Project Outline). Your project deliverables will include:

* A formal change request
* An evaluation of the impact of the change (as submitted to the Change Control Board)—time and labour only

**Note**: It will be necessary to create the original project schedule and budget to analyse the impact of the change request. Consider that the additional wing will be built concurrently.
* A list of all the assumptions made
* An analysis of the risk factors due to the change request
* A new project schedule that shows:
	+ The additional time required for constructing the extra wing
	+ The additional labour cost for constructing the extra wing
	+ The new completion date
* A statement of work for one contractor
* A contract closure process description for one contractor
* A project closure process description

The project details are as follows:

The Smiths purchase a piece of land and decide to build a house on it. They consult an architect and have blueprints created. You are a general contractor and agree to build the house for them.

You estimate it will take 12 weeks to complete the house. However, you need contingency time to accommodate the uncertain weather conditions, so you tell the Smiths you need 14 weeks. The Smiths are really anxious to move into their new house. So, although they agree for 14 weeks, they want to put in a late-completion penalty in the agreement. You agree, provided they also put in a bonus for early completion. You all sign the contract.

You estimate the project duration and effort as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **Duration (days)** | **Effort (staff days)** | **Comments** |
| Get a building permit. | 5 | 1 |  |
| Clear the site. | 5 | 20 |  |
| Dig the foundation and footings. | 3 | 9 |  |
| Install forms. | 3 | 9 |  |
| Pour concrete. | 1 | 5 |  |
| Wait for the concrete to harden. | 5 | 0 | This is referred to as lag time. |
| Remove forms. | 1 | 3 |  |
| Build the floor. | 1 | 5 |  |
| Frame the first floor. | 2 | 10 |  |
| Build the second floor. | 2 | 10 |  |
| Frame the second floor. | 3 | 15 |  |
| Sheath the house. | 3 | 12 |  |
| Install windows and doors. | 4 | 8 |  |
| Install siding. | 2 | 6 |  |
| Put up roof framing. | 2 | 8 | Can start as soon as the second floor is framed |
| Shingle the roof. | 1 | 4 |  |
| Install plumbing. | 4 | 8 | Can start as soon as the roof is shingled |
| Inspect the plumbing. | 1 | 0 |  |
| Install wiring. | 6 | 12 | Can start as soon as the roof is shingled |
| Inspect the wiring. | 1 | 0 |  |
| Hang and finish sheetrock. | 4 | 12 | Can start only after the plumbing and electrical work are inspected |
| Paint the interior. | 3 | 9 |  |
| Lay the carpet. | 2 | 6 |  |
| Install the hardwood flooring. | 3 | 6 |  |
| Install trim. | 3 | 6 |  |
| Procure the certificate of occupancy. | 5 | 0 |  |
| Total | 75 | 184 |  |

Just as your crew starts framing the second floor, the Smiths tell you that they want an additional wing in the house. They give you a new set of blueprints containing the new wing and ask for a projected difference in price and time for the addition.

You determine that to add an extra wing, you would require the following in terms of duration and effort:

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **Duration (days)** | **Effort (staff days)** | **Comments** |
| Dig the foundation and footings. | 2 | 6 |  |
| Install forms. | 2 | 6 |  |
| Pour concrete. | 1 | 3 |  |
| Wait for the concrete to harden. | 5 | 0 | This is referred to as lag time. |
| Remove forms. | 1 | 2 |  |
| Build the floor. | 1 | 4 |  |
| Frame the first floor. | 1 | 4 |  |
| Build the second floor. | 1 | 4 |  |
| Frame the second floor. | 2 | 8 |  |
| Sheath the house. | 2 | 6 |  |
| Install windows and doors. | 2 | 4 |  |
| Install siding. | 1 | 3 |  |
| Put up roof framing. | 2 | 6 |  |
| Shingle the roof. | 1 | 3 |  |
| Install plumbing. | 2 | 4 |  |
| Inspect the plumbing. |  |  |  |
| Install wiring. | 2 | 4 |  |
| Inspect the wiring. |  |  |  |
| Hang and finish sheetrock. | 2 | 6 |  |
| Paint the interior. | 1 | 3 |  |
| Lay the carpet. | 2 | 4 |  |
| Install the hardwood flooring. |  |  |  |
| Install trim. | 1 | 3 |  |
|  |  |  |  |
| Total | 34 | 83 |  |

This new estimate assumes the sheathing will go on the base house and then work will stop until the extra wing is sheathed. You believe this to be the most economical way to add the additional wing. Another option is to continue the project as originally planned and then to add the wing after the Smiths move in. After considering both options, the Smiths decide to follow your recommendation—to add the new wing before they move in. The additional work required is as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **Duration (days)** | **Effort (staff days)** | **Comments** |
| Procure the building permit. | 5 | 1 |  |
| Dig the foundation and footings. | 2 | 6 |  |
| Install forms. | 2 | 6 |  |
| Pour concrete. | 1 | 3 |  |
| Wait for the concrete to harden. | 5 | 0 |  |
| Remove forms. | 1 | 2 |  |
| Build the floor. | 1.5 | 6 |  |
| Frame the first floor. | 1.5 | 6 |  |
| Build the second floor. | 1.5 | 6 |  |
| Frame the second floor. | 2 | 8 |  |
| Add the sheath. | 2 | 6 |  |
| Install windows and doors. | 2 | 4 |  |
| Install the siding. | 1 | 3 |  |
| Put up roof framing. | 2.5 | 7 |  |
| Shingle the roof. | 1 | 3 |  |
| Install plumbing. | 2 | 4 |  |
| Inspect the plumbing. | 1 | 0 |  |
| Install wiring. | 2 | 4 |  |
| Inspect the wiring. | 1 | 0 |  |
| Hang and finish sheetrock. | 2 | 6 |  |
| Paint the interior. | 1 | 3 |  |
| Lay the carpet. | 2 | 4 |  |
| Install trim. | 1 | 3 |  |
|  |  |  |  |
| Total | 38 | 90 |  |

The rates for the various trades (in $/hour) are as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Description** | **Rate** | **Comments** |
| GC | General contractor | 40.00 |  |
| HE | Heavy-equipment operator | 50.00 | Includes equipment |
| C | Concrete worker | 30.00 |  |
| F | Framer | 20.00 |  |
| F | Siding installer | 20.00 |  |
| W | Window/door installer | 30.00 |  |
| R | Roofer | 20.00 |  |
| P | Painter | 20.00 |  |
| E | Electrician | 35.00 |  |
| FL | Flooring installer | 20.00 |  |
| T | Trim carpenter | 35.00 |  |
| PL | Plumber | 35.00 |  |

Notes :

2500 words

Original work tested through turnitin

Graphs and tables using Microsoft project or open-project

3 references and more

Use citing and citation with Harvard system

If you need the project proposal and project outline from week 6 & 8 work let me know