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MATRIC NUMBER: 18/ENG01/010

DEPARTMENT: CHEMICAL ENGINEERING

COURSE CODE: ENG 284

COURSE TITLE: ENGINEER IN THE SOCIETY

Assignment

1. Scope Of Work

Step #1 Property Walkthrough

In order to create a detailed Scope of Work on the project you will need to walkthrough the property and make a list of all of the repairs needed on the project.

Step #2 Take Photos Or Video

One of the best ways to document the repairs is to take pictures or record a video as you walk through the property.

Taking photos & video will help you remember the condition of the property and help you create a more accurate Scope of Work once you get back to the office.

Step #3 Take Measurements

As you walk-through the property you will also want to take measurements of the room sizes and materials that you are going to be replacing.

Make a sketch of the existing floor plan and take measurements of the different rooms to help you develop plans and drawings of the property.

Writing The Scope Of Work

Once you walk through the property and have compiled a detailed list of repairs, you need to put this information into a written Scope of Work document that can

be given to your Contractors so they can provide an accurate Bid Proposal for the project.

Here are the 4 elements you should include in the Scope of Work Document:

4 Components Of A Strong Scope Of Work Document

Detailed List of Repairs by Category

Materials (designating who's responsible for purchasing)

Property Photos

Plans/Drawings

#1 Detailed List Of Repairs By Category

Your Detailed List of Repairs should be organized by each Trade Category (ex. Demolition, Framing, Rough Electrical, Rough Plumbing, Drywall, etc.) so that your Contractor can provide a price breakdown for each Category.

#2 Materials List

Your list of repairs for each Category should also designate who is responsible for purchasing the materials.

There are 2 different classes of materials that your Contractor will install on your project:

Rough Materials

Finish Materials

Rough Materials

Rough Materials are generally materials that are 'rough on the eyes' that are typically hidden behind the walls or used to install the finish materials.

MEP Rough-In Materials (wiring, conduit, piping, ductwork, etc.)

Rough Framing (studs & drywall)

Installation Materials used to Install Finish Materials (mortar, screws/nails, etc.)

Finish Materials

Finish Materials are the wall finishes, floor finishes and fixtures that you can see:

Floor Finishes (carpet, floor tile, wood flooring)

Wall Finishes (paint, wall tile, woodwork/trim)

Fixtures (light fixtures, plumbing fixtures, etc.)

3 Photos

Some things are just hard to explain, so sometimes it's best to provide a picture to help the Contractor visualize the repair and provide an accurate Bid proposal.

Pictures are especially helpful when you plan on repairing items instead of fulling replacing them.

For example if there was a missing roof shingle, you could take a picture of the repair to show the Contractor the condition & scale of the repair.

4 Floor Plans & Drawings

If your rehab project is a complete gut that involves re-configuring the existing floor plan you need to create drawings to show the changes you are making to the property.

Your Contractor will need 3 Different Plans:

Existing Floor Plan/Demolition Plan

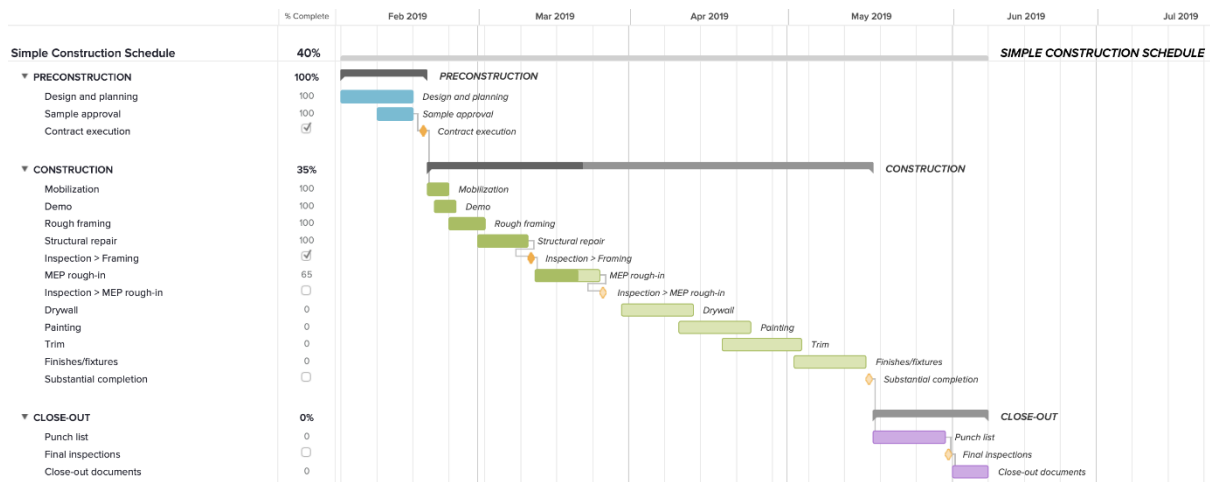
Architectural Plan

MEP Plans (Mechanical, Electrical & Plumbing Plan)

Existing Floor Plan & Demolition Floor Plan

It's generally a good idea to create an existing floor plan that shows the current property layout and configuration.

2.



3.

- Electrical engineers:
- Civil engineers
- Chemical engineers
- Architectural engineers
- Cleaners
- Building contractors

The lead consultant should be the architectural engineers

4. The site was secured so as to prevent the materials used in constructing the building to fall on people passing by that area

5.

Projections	Cost
At 10%	5 million naira
At 15%	11 million naira
At 5%	1 million naira
At 12%	10 million naira
At 20%	20 million naira

6.

Mobilisation	20 million naira
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Completion	10 million naira
Completion and handover	5 million naira
Defect liability period	12 million naira

7.

- Bill of Engineering Measurement and Evaluation (BEME) also referred to as Bill is a tool used before, during and post-construction to assess and value the cost of construction works. This includes the cost of materials, labour, equipment, and all/other resources required for the success of any construction endeavour based on a pre-determined scope and specification.
- A defect liability period is a period of time following practical completion during which a contractor remains liable under the building contract for dealing with any defects which become apparent. Depending on the form of contract you are reading, it may also be referred to as a rectification period or defects correction period.

A defects liability period is usually a period of around six or 12 months but it can vary depending on the contract used. Any defects or faults which arise during this period (for example - due to defective materials or workmanship) must be put right by the contractor at its own expense.

- The lead consultant is the consultant that directs the work of the consultant team and is the main point of contact for communication between the client and the consultant team, except for on significant design issues where the lead designer may become the main point of contact.
- A project life cycle is the sequence of phases that a project goes through from its initial to its closure. The number and sequence of the cycle are determined by the management and various other factors like needs involved in the project, nature of the project, and its area of application.
- Environmental impact assessment is the assessment of the environmental consequences (positive negative) of a plan, policy, program, or actual projects prior to the decision to move forward with the proposed action. In this context, the term "environmental

impact assessment" (EIA) is usually used when applied to actual projects by individuals or companies and the term "strategic environmental assessment" (SEA) applies to policies, plans and programmes most often proposed by organs of state. It is a tool of environmental management forming a part of project approval and decision-making. Environmental assessments may be governed by rules of administrative procedure regarding public participation and documentation of decision making, and may be subject to judicial review.