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**MATRIC NUMBER: 18/ENG01/002**

**DEPARTMENT: CHEMICAL ENGINEERING**

**PROJECT NAME: ALFA BELGORE REVAMPING**

**SCOPE OF WORK**

Project Name: Revamping of alfa belgore hall

Project Manager: Consultant Engineer

Prepared by: Aka peace Otaoghene

Date: 3rd April 2020

**GLOSSARY**

BILL OF QUANTITY**:** This is a document used in tendering in the construction industry in which materials, parts, and labour are itemized.

DE- ENERGIZE: This simply means to cut off power that is to disconnect from its source.

MANSONARY: The act to build with stone or bricks.

COMMISSION: This simply means payment of workers.

**DESCRIPTION STATEMENT**

The goal of this project is to build a bigger hall to accommodate more people. Its past condition was unacceptable for the ever growing population of the school.

**PROBLEM STATEMENT**

The Alfa Belgore Hall is unable to accommodate the growing population of the school

**TASKS**

* **SITE VISITATION:** with the client, consultant engineer and the architect
* **DRAWING OF A NEW BUILDING PLAN:** done by the architect
* **A BILL OF QUANTITY**

Table 1 : Bill of Quantity

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No of items | Description | Unit | Quantity  (Qty) | Material  Rate | Labour  Rate | Total  Cost |
| 1 | Cement | Bags | 88 | 2650 |  | 233 200 |
| 2 | wood | board foot | 2000 | 375 |  | 750000 |
| 3 | Roofing sheets (zinc) | M^3 | 76.2 | 32200 |  | 2453640 |
| 4 | Flooring materials | box | 50 | 4500 |  | 225000 |
| 5 | Wiring materials |  |  |  |  | 50000 |
| 6 | Lighting fixtures | Number | 45 | 2500 |  | 112500 |
| 7 | Furniture  Windows, doors | Set, pc | 90 | 9000 |  | 810000 |
| 8 | Ventilation/cooling  System | pc | 6 | 800000 |  | 4800000 |
| 9 | Paints | Gallons | 60 | 10000 |  | 60000 |
| 10 | Piping | pc | 15 | 1500 |  | 22500 |
|  |  |  |  |  | TOTAL | 9 516 840 |

* **EVACUATION/ DE-ENERGIZE:** of the hall
* **FENCING OR SECURING OF SITE**
* **DISROOF/ TAKEN OUT OF WOOD NOT NEEDED**
* **BREAKING OF EXISTING PARTITION:** That is by following the new building plan, the existing partitions not needed are taken down.
* **SETTING/BEGINNING OF THE NEW PLAN (MASONRY)**
* **BUILDING COMMENCE**
* **COMPLETION OF ALL BLOCK WORKS**
* **ROOFING BEGINS**
* **MARKING OR DRAWING OF ELECTRIC LINES/PLUMBING WORK/LIGHTENING**
* **FLOORING WORKS COMMENCES (TARAZONE/TILES)**
* **PAINTING**
* **TRIM/ FINISH WORK**
* **FURNITURING**
* **COMMISSION**

**PROJECT GANTT CHART**

Project gantt chart this is a construction Gantt chart that shows a clear visual coloured-bar based presentation of a number of breakdown individual tasks within a time period.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Week 1-2** | **Week 3-4** | **Week 5-6** | **Week 7-8** | **Week 9-10** | **Week 11-12** |
| Design **/**planning |  |  |  |  |  |  |
| Evacuation**/**de **–**energising |  |  |  |  |  |  |
| Structural Repairs/Framing |  |  |  |  |  |  |
| MEP Service  [Mechanical, Electrical, Plumbing] |  |  |  |  |  |  |
| Lighting services |  |  |  |  |  |  |
| Flooring work |  |  |  |  |  |  |
| paint |  |  |  |  |  |  |
| Trim/finish work |  |  |  |  |  |  |
| Furnituring |  |  |  |  |  |  |
| Final Inspection |  |  |  |  |  |  |

**LIST OF HUMAN RESOURCES/ PROJECT TEAM**

The human resources and project team in show in the figure below

The site was secured for safety purpose. The site was secured to prevent student and staff from harm (which could be falling object, or broken glass or rusted nails) due to the school still being in section during revamping

**TOTAL ESTMATED COST (tec) =COST OF CONSTRUCTION + ESTIMATED LABOUR COST**

**TEC = 9516840 + 1 500 000= 11016840**

**BEME [ BILL OF ENGINEERING MEASUREMENT AND EVALUATION ]**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/N** | **Description** | **TEC** | **percentage** | **BEME** |
| 1 | Miscellaneous | 11016840 | 10 | 1101684 |
| 2 | Consultancy Fee | 11016840 | 15 | 1652526 |
| 3 | Site Preparations and clearing after completion | 11016840 | 5 | 550842 |
| 4 | Transport Cost | 11016840 | 12 | 1322020.8 |
| 5 | Profit | 11016840 | 20 | 2203368 |

**PAYMENT SCHEDULE**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S/N | Description | TEC | percentage | Payment Schedule |
| 1 | Mobilisation | 11016840 | 30 | 3305052 |
| 2 | 50% Completion | 11016840 | 30 | 3305052 |
| 3 | Final payment at completion and handover | 11016840 | 40 | 4406736 |
| 4 | Retainment for a six month Defect Liability Period | 11016840 | 10 | 1101684 |

• BEME is an acronym in engineering which stands for Bill of Engineering Measurement Evaluation also refer to as a ‘BILL’ is a tool used before, during, and post-construction to assess and value the cost of construction works.

• Defect Liability Period is the time period specified in the contract during which a contractor is legally required to return to a construction site or build to repair any defects which have appeared in the contractor’s work since the date of construction.

• 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, expect for on significant design issues where the lead designer may become the main point of contact.

• project Life Cycle is the sequence of phases that a project goes through from its initiation to its closure. It has five phases: Initiation, Planning, Execution, Monitoring & Control and Closure.

•Environmental Impact Assessment [EIA] is a tool used to identify the environmental, social and economic impacts of a project prior to decision making.