**NAME: NWACHUKWU MARSHALL**

**DEPARTMENT: MECHATRONICS**

**MATRIC NO: 18/ENG05/036**

**COURSE TITLE: THE ENGINEER IN SOCIETY COURSE CODE: ENG 284**

QUESTION 1

**Name of the Company: Marshall’s Constructions**

**Project Identification: Renovation Of Alfa Belgore Hall**

**Location of the Project: Afe Babalola University, Opposite The College Of Engineering, AdoEkiti, Ekiti, Nigeria.**

**Scope of Work Statement**

Afe Babalola University needs assistance in restructuring of the already existing hall that will extend to the previous ICT and Bookshop. The client (Afe Babalola University) envisions a design that would be used in the rebranding of the hall. Afe Babalola University envisions a large hall capable seating capacity.

**Deliverables**

A 4,200 square-feet hall.

2 Baths containing 4 toilet cubicles each.

**Exclusions**

Owner is responsible for landscaping.

Air conditioning is not included but pre-wiring is included.

Contractor responsible for subcontracted work.

The hall will be rebuilt to the specifications and design of the original blueprints provided by the client.

**Milestones**

Permits approved - March 5

Roofing cleared - March 12

Dry in, Framing, Electrical, plumbing and mechanical inspections passed - May 25. Final Inspection - June 14

**Estimate Cost of Project**

|  |  |  |
| --- | --- | --- |
| **Type**  | **Description**  | **Cost**  |
| Internal Labor  | General Interior work  | 20 Million Naira  |
| External Labor  | Finishing, Final roofing etc  | 10 Million Naira  |
| Materials  | Plumbing materials, electrical materials, bricks and blocks, others etc  | 10 Million Naira  |
| Services  | Architectural Consultation, Engineering Services, Environmental Services and others  | 30 Million Naira  |

70 Million Naira

**Approvals**

|  |
| --- |
| **Total**  |

Marshall Nwachukwu Nwabugo(Project Manager) Date

 Afe Babalola (Client) Date

Mr. James (Contractor) Date

QUESTION 2

|  |  |  |  |
| --- | --- | --- | --- |
| PROJECT MILESTONES  | START DATE  | END DATE  | DURATION (IN WEEKS)  |
| PERMITS APPROVED  | 5/3/2020  | 11/3/2020  | 1  |
| ROOFING CLEARED  | 12/3/2020  | 18/3/2020  | 1  |
| BUILDING BEGINS  | 19/3/2020  | 24/5/2020  | 9.4  |
| FINISHING  | 25/5/2020  | 13/6/2020  | 2.7  |
| FINAL INSPECTION  | 14/6/2020  | 21/6/2020  | 1  |

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END DATE

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QUESTION 3

PROJECT TEAM

Project Manager

Lead consultant

Other consultants (Architectural consultant, civil engineering consultant, electrical engineering consultant, mechanical engineering consultant)

Contractors

Subcontractors

Structural Engineer

The lead consultant is the consultant in charge of the consulting team i.e. the lead consultant directs the work of the other consultants. The lead consultant is the link between the consulting team and the client.

QUESTION 4

The site was secured in order to prevent vandalism of some expensive building materials. It was also secured to prevent accidents to individuals who will like to just stroll or trespass into the construction site.

. The site was secured in order to prevent unauthorized entry .It was also secured in order to maximize safety and prevent injury, damage and casualties to passersby, which may occur due to flying debris during the construction process. Another reason for securing the site is to prevent vandalism and theft of useful materials.

QUESTION 5

BEME

TEC= #70,000,000

15% for consultancy fee= #10,500,000

5% for site preparation and clearing= #3,500,00

12% for transport= #8,400,000

20% for Profit= 14,000,000

10% Miscellaneous (electrical works, door sand windows, internal and external finishes ) = #7,000,000

QUESTION 6

PAYMENTSCHEDULE

TEC= #70,000,000

30% for mobilization= #21,000,000

30% at 50% completion= #21,000,000

40% Final payment= #28,000,000

10% Retention= #7,000,000

QUESTION 7

BEME: This is a tool used to use before, during and after construction to assess and value the cost of construction works.

DEFECT LIABILITY PERIOD: This is a set period of time after a construction has been completed during which a contractor has the right to return to the site to remedy defects.

LEAD CONSULTANT: The lead consultant is the consultant in charge of the consulting team i.e. the lead consultant directs the work of the other consultants. The lead consultant is the link between the consulting team and the client.

PROJECT LIFE CYCLE: This represents the path or flow a project takes from its beginning till the end.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA): Environmental Impact Assessment (EIA) is a process of evaluating the likely environmental impacts of a proposed project or development, taking into account inter-related socio-economic, cultural and human-health impacts, both beneficial and adverse.