TECHNICAL REPORT WRITING

ON

STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME

(SIWES)

HELD AT

HARBSON PLANNING AND CONSTRUCTION,

KILANKO ROAD OFFAARAGE, ILORIN KWARA STATE.

PRESENTED BY

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ND/22/ARC/PT/0049

SUBMITTED TO:

THE DEPARTMENT OF ARCHITECTURE TECHNOLOGY

INSTITUTE OF ENVIRONMENTAL STUDY

KWARA STATE POLYTECHNIC, ILORIN

IN PARTIAL FULFILMENT OF AWARD ON NATIONAL DIPOLMA.

DECLARATION

I **ABUBAKAR MUSTAPHA AGORO** with matric number ND/22/ARC/FT/0049 hereby declared that this project is authentic and a documentation of my research on my **student industrial work experience scheme**

Date ……..... Signature …….

DEDICATION

I declare this project firstly to Almighty God, the maker of heaven and earth, who has enabled me to be alive to study in this Institution and to write this project.

I also dedicate this project to my lovely parent who has been always helpful and caring for me since my childhood till this present moment. I pray that the Almighty God will bless them and eat the fruit of their labor.

ACKNOWLEDGEMENT

First and first most, I thank God Almighty for making this report a reality. I also thank my H.O.D of ARCHITECTURE TECHNOLOGY Department.

My appreciation also goes to all my lectures and non teaching staff in my department, who took me throughout my stay in school I say thanks to you all God bless you

One again I will like to appreciate my parent in person Mr& Mrs **AGORO** and all HARBSON staff thanks you all.

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CHAPTER ONE

1.0 INTRODUCTION TO SIWES

The student industrial work experience scheme (SIWES) is the accepted training skill which forms part of the approval for minimum academic standard in various diploma programmes for all Nigeria polytechnis.

It is an effort to bridged the gap between theoretical and the practical aspect all engineering, technology, seience and other professional courses of educational fields of study.

1.1 DEFINITION

Student industrial work experience scheme (SIWES) can be define as practical experience of student in order to have quality and satisfactiory performance, when in field.

1.2,AIM AND OBJECTIVES OF SIWES

The industrial training funds policy document bno 1 of 1973 which established Siwes outlined the objectives of the scheme, the objectives are

1. It exposes student to industrial challenges.

2. It exposes student to practical work.

3. It exposes student to their requirement on labour market

4. It help increases the technical ability of the student that undergoes the program.

5. It is helps to transform student theoretical knowledge to practical knowledge

1.3 THE SCOPE AND IMPORTANCE OF SIWES

The scope covers the all scheme band technological base students in monotechnics, polytechnis and universities in Nigeria resulting in high population of student which is easily managed because of the public and private industrial the partake in the scheme.

Siwes enable student acquire industrial know how in their field of study particularly of theoretical knowledge in solving real life problem.

SIWES UNIT (ITF) ILORIN

CHAPTER TWO

2.0 SECTION/ UNITS OF THE ORGANIZATION AND SPECIFICATION (HARBSON CONSUILT)

Presently the ministry has the following department unit or sections headed by respective directors and these are;

1. Administrative department

2. Architectural and building department

3. Estate management department

2.3 HISTORICAL BACKGROUND OF JHIO CONSULTANT

HARBSON CONSRUCTION was established for the design, coasting and supervision of all building projects, maintenance and general consultancy services are also performed in the organization.

It is private firm located at KILANKO ROAD OFFA-GARAGE, Ilorin kwara state. The company main responsibilities include; Architectural design,building construction and supervision, building valuation and land surveying.

Many construction projects have been executed by the company in date and other state ls around the country, the management efficiency and attract lots of clients to the company. The company is committed to maintaining it's personality and reputation by rendering services with absolute integrity and trustworthiness.

2.1 ORGANIZATION CHART

STUDIO

OFFICE. OFFICE

CHAIRMAN OFFICE. RECEPTIONIST. DIRECTOR OFFICe

CHAPTER THREE

3.0 STUDENTS SPECIAL INVOIVEMENT AT VARIOUS SECTION ARCHITECTURAL INSTRUMENTS AND THIRD FUNCTIONS

Explaining the various architectural instruments to me and my colleagues and their various functions E.G. T-square for horizontal lines.

Adjustable set square for vertical lines and for angled, circles template for arc and circle, furniture arrangement, stenil for writing Alphabets and numbers and scale rule for measuring e.t.c.

Lettering, Conversion And Accuracy

This is the act of written an alphabet and number in architecture.

Lettering is important on architecture because is the act that will teach how to write in an architecture.

Conversion

This is the process of changing measurement from one unit to another e.g changing of feet to meter, minimize to feet e.t.c

Table1.0

Minimize for (mm)	Metre (m)	Inches (")	Feet(')
25	0.025	1	0

50	0.050	2	0
300	0.3	12	1

Example

1. 300mm=0.4m12"=1ft

2.1200mm=1.2m=48"=14ft

3. 4200mm=4.2m 168"=14ft

Accuracy

This is an attempt to establish the difference between the measured value and the true value.Although absolute accuracy is not possible.

(a) DIMENSIONING; THIS IS the act of measuring the drawing so as to know the size of the drawing i.e to know the length and breath of a project and also percespace covered.

(b) DRAWING

Various types of drawing involved to make up vis plan of a building are:

1. Architecture drawing

2. Structural drawing

3. Electrical and mechanical drawing

1. ARCHITECTURAL DRAWING

There are two classes of drawing in Architecture namely;

- Working drawing

- presentation drawing

Working drawing

This is the type of drawing that is used for the construction of a project and is also the drawing that others draw i.e structural, electrical and mechanical drawing will follow for the production of their own drawing, an architect must sure that drawing is well discussed .

Presentation Drawing

This is the type that is presented to the client so as to know that his/her project will look like.

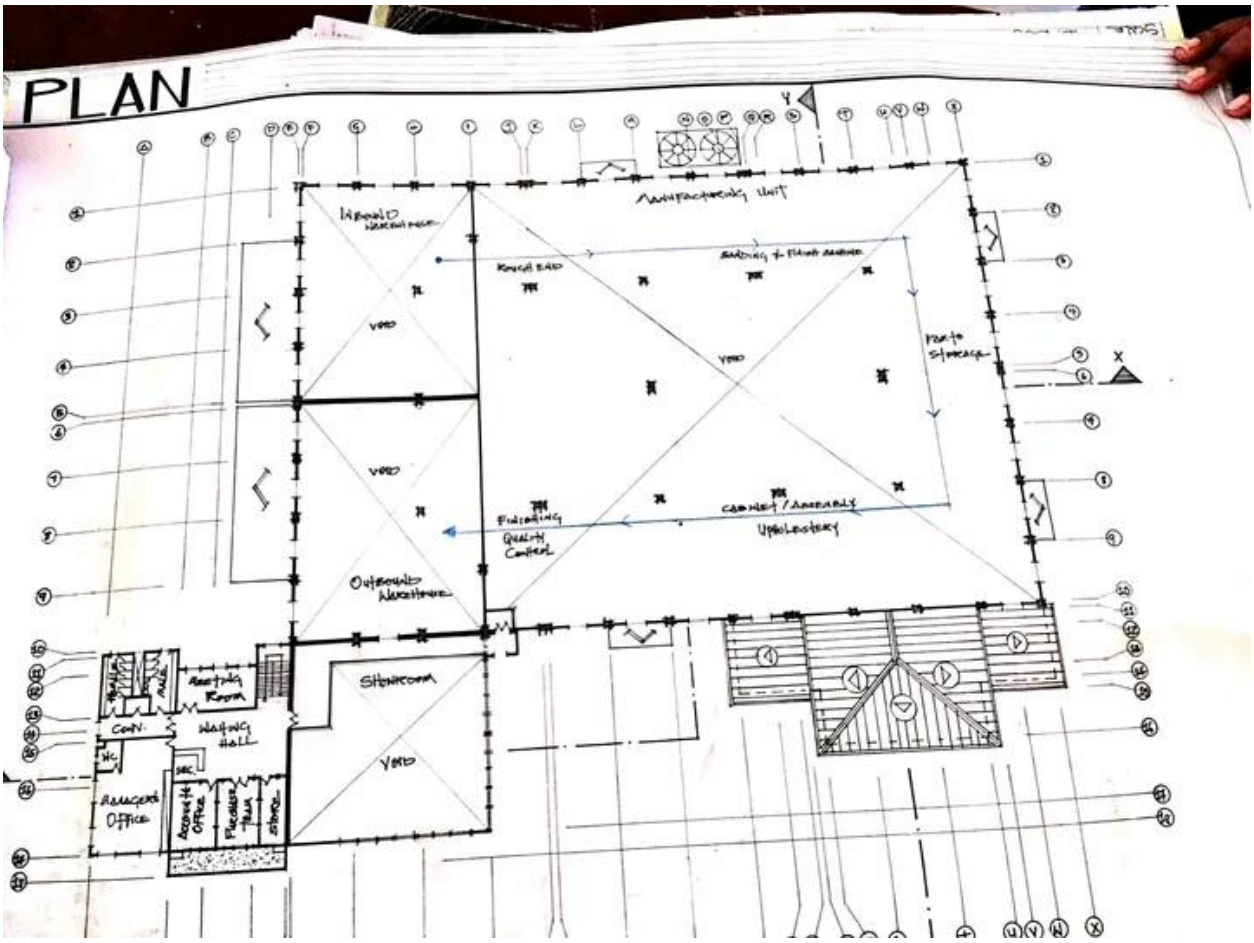
FLOOR PLAN

This is plan that shows the arrangement of different rooms (spaces) and passage. Each floor must be provided with a floor plan.

A floor plan is usually a sectional plan at about the edge level of the observer and must give that details of the following.

- direction of North

- The size and spacing of all supporting members and the thickness of all walls.- the exact location of doors, windows, wardrobes,water closet, sinks, baths or any other features that can be changed seen.(There objects must be indicated by the appropriate standard symbols.)The overall dimensions and sizes of individual's part



ROOF PLAN

This is the plan that shows the roof of a building when it's viewed i.e the view is above the plan. Roof plan must at least be 600mm projected away from the normal building this is because it will prevent the building from direct rays of the sun and rain. The projection is called roof overhang.

SECTION

This is the plan that show the skeleton of the building so as to detail some feature that can be seen in the elevations.

We have to two types of section namely:

1. Cross section

2 longitudinal section

(5a) CROSS SECTION

There are vertical sectional elevation through the building.

(5b). LONGITUDINAL SECTION

Longitudinal section Al elevation cut through the building section must be chosen so that they cut (and show) as many detail as possible. The following details must be given.

- Detail of construction materials (which may beshown symbolically), together with the thickness of each.

- The height of doors, windows, wardrobes, and ceilings.

- The depth and width of foundations, beams walls and floors.

- The arrangement for and the slope of the roofs.

- The street and ground elevation

- Details of stair cases

ELEVATION

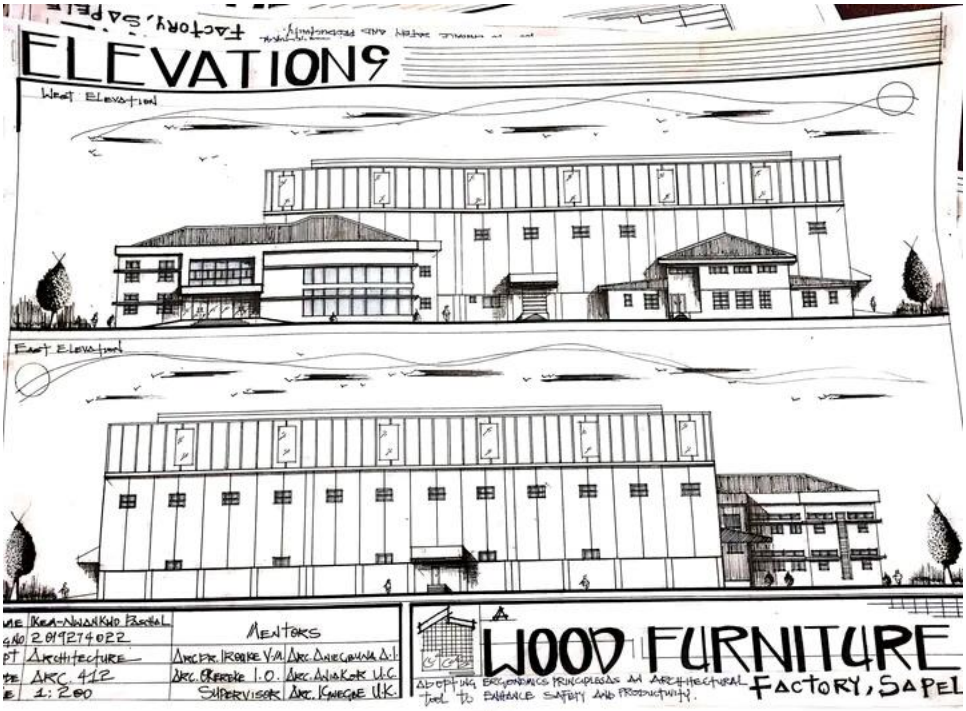
This is the plan that shows the external face of a building which will have four type of elevation.

1. front elevation

2 Right. elevation

3. Left elevation

4.Back elevation



During the period of my attachment, my experiences constituted of the following

1. Office activities.

2. Site and technical meetings.

3. Construction and site activities.

Which are on detail below

Site activities

3.1 OFFICE ACTIVITIES

I was exposed to some office and Secretariat works and computer works during the course of my attachment. Die to the development and scientific advancements in our t which has also affected Architecture in a large way.

One of such area is in the creation of Architectural design software such as autocad

I was privileged to draw with Autocad such as floor plan, roof plan, sections and elevations.

Construction and site activities 1

Construction and site activities 2

Office activities on software program

CHAPTER FOUR

4.0 SITE OUT OF BUILDING

This is the transfer of information on the building drawing to the ground with high degree of accuracy. The first tasked in setting out a building is to establish a base line from which the whole of the building can be set out. After the base line has been established, marked and checked the main lines of the building can be set out.

4.1 Setting out equipment

1 measuring tape

2 Profile

3 pegs

4 hammer

5 white chalk or pencil

6 builder square

4.2 Method of setting out a building

1 using 3,4,5

2 using the builder's method

3 using the theodolite

4.3 Process of setting out

The first thing we need to a parallel/reference/ base line, to which all other lines can be related. This can be taken along an existing close to the proposed new structure/boundary wall if existing/keebs line. e.t.c

Process of setting out