A PROJECT REPORT

ON

PROPOSED VOCATIONAL CENTER

FOR

OGUN STATE.

BY

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HND/23/ARC/FT/0022

SUBMITTED TO:

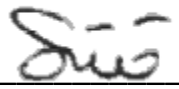
THE DEPARTMENT OF ARCHITECTURAL TECHNOLOGY
INSTITUTE OF ENVIRONMENTAL STUDIES (I.E.S)
KWARA STATE POLYTECHNIC, ILORIN.

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF HIGHER NATIONAL DEPLOMA (HND) IN ARCHITECTURAL TECHNOLOGY

JULY, 2025.

DECLARATION

I, HUNNU PHILIP SUNDAY, under the supervision of ARC. OLANREWAJU F. A of the department of Architectural Technology, Kwara State Polytechnic, Ilorin, declared that this project has been completed by me and it is record of my research work. All citations and sources of informations are clearly acknowledged by means of reference.



SIGNATURE

04/08/2025

DATE

CERTIFICATION

This project on the Propose Vocational Centre located at Ogun State by HUNNU PHILIP SUNDAY has been duly certified as meeting the requirement of the award of Higher National Diploma (HND) in Architectural Technology, Institute of Environmental Studies, Kwara State Polytechnic, under the supervision of Arc. Olarewaju F.A

ARC. OLAREWAJU F.A
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(Head of department) **SIGNATURE/DATE**

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DEDICATION

This project is primarily dedicated to Almighty God, the Giver of Knowledge, Wisdom, and Understanding, for His Grace and to my lovely parent: my mum MRS HUNNU MARIA and my late father MR HUNNU JAMES for the love and support given to me Throughout the Course of My Higher National Diploma.

ACKNOWLEDGEMENT

Many thanks and praise to almighty God for his mercy and blessings. I glorify his name for guiding and protecting me from the beginning of this HND program to this end.

My profound gratitude goes to my supervisor ARC. OLANREWAJU F.A for his love and care throughout the write-up of my project and my stay in school. Also to all the lecturers in my department, I pray may almighty God continue to be with each and everyone of you in JESUS NAME.

I also say a big thank you to my colleagues in the department of Architectural Technology and Management and some other numerous people to mention. I pray God almighty continue to bless, guide and protect us all.

My appreciation goes to my late father MR. HUNNU JAMES my beloved mother MRS. HUNNU MARIA who brought me to this world. I am pained for the death of my late father because you are no more. The space you left is still uncovered. May your soul continue to rest in peace (Amen).

I sincerely appreciate and thank everyone mentioned and those I cannot remember to mention. I am grateful to you all. God almighty will continue to be with you and your entire family. May God blessings, mercy, protection and guidance never cease in life (Amen).

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ABSTRACT

A vocational school for all student experiences of special needs support in vocational education. The aim of this center is to make visible and heard students in special educational needs (SEN) own perspectives on and experiences of various forms of support in vocational education and training (VET) research has shown that students studying in vocational programmes were in high need of accommodation and require increased attention, especially in activities and subjects with academic focus (Yngve et al.-2019). Students are rarely informative even when they are the subject being studied (Keles et al.. 2022). However when asked various experience of inclusion and exclusion emerges from their narratives (Ohman, 2026). Recent research reviews focusing on special education show that more inclusive assessment practices are needed (Ohman 20229) as well as more research in the area of special needs education (SNE) in vocational education (Bjork Aman & Holangreen, 2021). Overall the results show that the informants in the interview study express satisfaction with the vocational programme they have chosen as it gave possibilities to inclusive support in the practical activities, whereas activities related to more academic achievement required special support and individual accommodation such as special support classes (SS). A common reason for this exclusive support was failed grades in academic core subjects such as mathematic, Swedish or English. The student's experience of being in need of special support are ambivalent. They blame themselves of being disable while grateful for the support they get even when excluded

CHAPTER ONE

1.0. INTRODUCTION

Vocational education has been an integral part of the Nigerian society long before the advent of formal Western education. In the pre-colonial era, traditional Nigerian communities thrived on the acquisition of practical skills passed from one generation to another through apprenticeship and observation. During this period, education was not defined by classrooms or written syllabi, but by the ability to engage in productive work for the benefit of the individual and the community. Early Nigerians engaged in activities such as farming, hunting, fishing, blacksmithing, cloth weaving, pottery, leatherwork, wood carving, and traditional medicine. These vocations were often family-based and structured around a master-apprentice relationship, where knowledge and skills were passed from fathers to sons and from experienced artisans to younger members of the community.

According to Fafunwa (1982), the blacksmith in the pre-colonial era was not only an artisan but also an innovator, crafting tools such as cutlasses for farming and arrows for hunting from raw materials in the environment. These tools were crucial for survival and communal development. Vocational education, at this stage, was deeply embedded in the cultural, economic, and spiritual life of the people. Learning was informal but effective, and the society respected skilled artisans and craftsmen for their contributions to community life.

With the advent of colonial rule in the 19th century, the nature and status of vocational education began to shift. The British colonial government prioritized literacy-based education, which focused on reading, writing, and arithmetic. This form of education was designed to produce clerks, interpreters, and junior officers who could serve in the colonial administration. As a result, indigenous vocational

education systems were marginalized and undervalued. The colonial ideology regarded manual labor and technical skills as inferior to white-collar employment, and this perception had long-term negative impacts on how Nigerians viewed vocational education.

However, there were some efforts by the missionaries and the colonial government to provide structured vocational training. One of the earliest institutions in this regard was the Hope Waddell Training Institute in Calabar, established in 1895 by Scottish missionaries. This institute combined literary education with training in various trades such as carpentry, tailoring, agriculture, blacksmithing, and printing. Another notable institution was the Blaize Memorial Industrial School, which was jointly established by Nigerian and West Indian educators. These institutions played a pioneering role in formalizing vocational education in Nigeria, although their reach was limited and their curriculum largely served colonial economic interests.

The colonial government also established vocational departments within agencies such as the Nigerian Railways, Public Works Department (PWD), and agricultural extension services, where Nigerians were trained to perform skilled technical jobs. However, these opportunities were often restricted and did not constitute a nationwide educational policy.

Post-independence, the Federal Government of Nigeria began to recognize the importance of vocational and technical education in nation-building and economic development. This recognition culminated in the formulation of the National Policy on Education (NPE) in 1981, which formally acknowledged the role of vocational and technical training in equipping students with practical and scientific skills necessary for industrial, agricultural, commercial, and economic growth. According

to the policy, technical education includes a wide range of specialized training in both theoretical knowledge and practical applications, and encompasses vocational training as well. The policy advocated the integration of vocational education into the mainstream school system, promoting the establishment of technical colleges, polytechnics, vocational training centers, and industrial training schemes.

In the NPE, vocational education is defined as that form of education designed to prepare individuals for gainful employment or self-reliance in recognized occupations. The policy emphasizes the development of skills in areas such as agriculture, home economics, mechanical and electrical trades, ICT, and other practical fields. For the purpose of this discussion, the terms vocational and technical education will be used interchangeably, as they are both considered essential to the economic diversification, poverty reduction, and youth empowerment strategies of Nigeria.

Despite the government's policy interventions, vocational education in Nigeria continues to face challenges including inadequate funding, outdated infrastructure, poor societal perception, lack of qualified instructors, and mismatch between training and industry needs. Many young Nigerians still view vocational training as a last resort rather than a viable career path, primarily due to the deep-seated bias that favors university education over skills acquisition.

In recent times, however, there has been a renewed focus on vocational and technical education due to Nigeria's growing unemployment crisis, youth population explosion, and the need for economic diversification. Initiatives such as the National Directorate of Employment (NDE), Industrial Training Fund (ITF), and the establishment of skill acquisition and vocational centers across the country are

geared towards reversing the negative trend and making vocational education more accessible and attractive.

It is now widely accepted that for Nigeria to achieve sustainable development, there must be a robust investment in vocational and technical education. This includes not only building physical infrastructure and training facilities, but also rebranding the perception of vocational skills as honorable, innovative, and economically empowering. The design and development of modern vocational training centers across the nation are thus a critical step in bridging the skills gap and ensuring that Nigeria's youth are equipped to meet the demands of a dynamic and competitive global economy

1.1 HISTORICAL BACKGROUND OF THE STUDY

Throughout history, vocational education has served as a powerful tool for equipping individuals with practical skills and hands-on experience needed to prepare them for gainful employment and self-reliance. While its precise origins remain debated, vocational education can be traced back to ancient civilizations, where apprenticeship systems flourished. Some accounts suggest that as early as 62 BC during the Neo-Babylonian Empire, structured systems of skill transfer existed, where trades were passed from master to apprentice in crafts such as carpentry, blacksmithing, weaving, and construction.

In classical antiquity, civilizations such as Egypt, Greece, and Rome incorporated vocational training into their societal structures. Young men learned trades through family businesses or were attached to guilds. These guilds formed the bedrock of structured vocational learning during the Middle Ages in Europe. This model continued to evolve over centuries,

culminating in the apprenticeship system during the Industrial Revolution when demand for skilled laborers surged.

In the United States, the most significant developments in vocational education occurred in the early 20th century. Prior to the Great Depression, society was rapidly industrializing, and the shift from agrarian economies to manufacturing required a new kind of workforce. The influx of rural students into urban areas, combined with rising immigration rates, placed pressure on an already overwhelmed educational system. In response, the U.S. government began to formally establish vocational education programs. These initiatives, backed by legislation such as the Smith-Hughes Act of 1917, aimed to provide students with career-focused training, alleviate classroom overcrowding, and meet the increasing demand for skilled workers. However, while these programs solved practical issues on paper, they often reflected underlying social inequalities. Immigrant children and poor students from rural areas were frequently assigned to vocational tracks, which limited their access to broader academic opportunities. Vocational education was sometimes viewed as a second-tier alternative to academic education, reinforcing class divisions rather than bridging them.

Despite these challenges, vocational education continued to expand globally. Countries like Germany developed the renowned dual education system, which effectively integrated classroom instruction with hands-on training in the workplace. This model gained international acclaim for producing highly skilled, employment-ready graduates.

Vocational Education in Nigeria

In the Nigerian context, vocational education has deep roots in traditional apprenticeship systems, where skills were transferred from one generation to the

next. In the pre-colonial era trades such as blacksmithing, weaving, pottery, leatherwork, farming, and hunting were learned through observation and practical involvement, usually within family or community structures. These indigenous systems emphasized not only technical skills but also values such as discipline, hard work, and communal responsibility. With the advent of colonialism, Western-style education began to take root, often prioritizing academic learning over practical skills. However, efforts were made to incorporate vocational training, especially in mission and government schools. Post-independence Nigeria saw renewed interest in vocational education as a pathway to national development. The Ashby Commission Report of 1960 and the National Policy on Education emphasized the need for technical and vocational education to support industrialization and reduce unemployment.

In recent decades, the importance of vocational and technical education has been increasingly recognized in Nigeria's bid to diversify its economy and reduce youth unemployment. Vocational institutions, including technical colleges, polytechnics, and skill acquisition centers, have been established to train students in a wide range of fields such as agriculture, engineering, hospitality, computer technology, tailoring, and carpentry.

Despite this progress, vocational education in Nigeria still faces several challenges, including underfunding, outdated equipment, low societal perception, and a mismatch between training and labor market demands. Nevertheless, ongoing reforms, partnerships with private sector stakeholders, and the incorporation of entrepreneurship education aim to reposition vocational training as a viable and attractive path for Nigerian youths.

1.2. DEFINITION OF VOCATIONAL CENTRE

Definition of Term Vocational center means a facility for the institution of specific skills, which meet the state and/or federal requirement to be accredited as such. Vocational center means a facility for the institution of specific skills, which may include green technology education and training and meets the state and federal requirements to be accredited as such

1.3. STATEMENT OF PROBLEM

1.3.1. INADEQUATE FUNDING OF TECHNICAL AND VOCATIONAL EDUCATION

The persistent underfunding of technical and vocational education in Nigeria has led to the production of poorly trained graduates. The lack of adequate financial resources makes it difficult to build and maintain functional workshops and laboratories, or to procure modern equipment essential for practical learning. Furthermore, funding constraints have resulted in inadequate staffing, as skilled professionals are often not employed. Those who are employed tend to leave the teaching profession due to poor remuneration, opting instead for better-paying jobs in the private sector or abroad**.**

1.3.2. INADEQUATE FACILITIES

Many vocational education departments across Nigerian universities lack properly equipped laboratories and workshops. In cases where such facilities exist, they are often outdated or non-functional, having been installed at the inception of the departments. These obsolete tools and machines are no longer suitable for training students in line with current industrial standards, further contributing to the decline in the quality of vocational education..

1.4. AIM AND OBJECTIVES

1.4.1. AIM

The aim of this project is to design a well functioning and aesthetically balance vocational training center which will enable any gender to have knowledge about work of their interest so as to increase their scope of knowledge.

1.4.2. OBJECTIVES

The objective of the study are as follows:

- To improve the economic growth of the society.
- To provide comfortable environment for learning.
- To reduce unemployment.

1.5. JUSTIFICATION

Ogun State has a large youth population and growing industries but faces high unemployment and a lack of skilled workers. A vocational centre will equip people with practical skills, reduce joblessness, support local businesses, and boost the state's economy. It will also help preserve traditional crafts and promote self-reliance..

1.6. CLIENTS BACKGROUND

Ogun State, located in the South-Western region of Nigeria, is one of the country’s most industrially developed states and a key hub for education, agriculture, and manufacturing. It is predominantly Yoruba-speaking and culturally rich, with strong historical ties to the ancient Oyo Empire. Ogun shares boundaries with Lagos State, Oyo State, Osun State, and the Republic of Benin, making it a strategically positioned state for economic and vocational growth.

Historically, the people of Ogun State have been known for their enterprise and craftsmanship, excelling in traditional trades such as textile weaving, blacksmithing, carpentry, and pottery. Over time, these skills have evolved into modern vocational sectors including tailoring, welding, mechanics, electrical installation, and agro-processing.

The state is home to many notable institutions and industries, including the Olabisi Onabanjo University, Moshood Abiola Polytechnic, and several tertiary and technical colleges. This academic environment, coupled with the presence of industrial estates like those in Ota, Abeokuta, and Sagamu, creates a strong demand for skilled labor and technical expertise.

Culturally, Ogun State celebrates a wide range of traditional festivals and maintains a respected chieftaincy and community leadership structure. It has produced many prominent figures in governance, business, and the arts.

In recent years, Ogun State has invested in infrastructure, education, and youth empowerment, creating a growing need for well-structured vocational training centers. These centers are essential to equip the youth with relevant skills, reduce unemployment, and support the state's economic diversification.

1.6.1. PHILOSOPHICAL REVIEW ON CLIENT

The client's philosophy in commissioning the design and development of a vocational centre in Ogun State is rooted in the conviction that education and hands-on skill acquisition are essential drivers of economic growth and social transformation. The client strongly believes that equipping individuals with practical, market-relevant skills is key to reducing unemployment, fostering entrepreneurship, and uplifting underserved communities.

Whether represented by a governmental agency, a non-governmental organization, or a community-based initiative, the client envisions a vocational centre that serves as a bridge between formal education and real-world application, addressing the skill gap that limits many young Nigerians from meaningful employment or self-employment.

The philosophy guiding this project emphasizes inclusive development, with a strong focus on empowering youths, women, artisans, school dropouts, and economically marginalized groups. The client aims to create an environment where learners can thrive—developing skills in trades such as agro-processing, construction, ICT, fashion design, and technical maintenance—thereby becoming self-reliant and productive contributors to the local and state economy.

Ultimately, the client believes that infrastructure, when combined with purpose-driven training, becomes a powerful catalyst for sustainable community development and long-term economic resilience in Ogun State.

1.7. SCOPE OF THE STUDY

- Administrative block
- Security house
- Workshop building
- Staff quarters
- Mini clinic
- Cafeteria
- Generator house
- Sport activities arenas

1.7.1. BRIEF DEVELOPMENT OF THE PROJECT

ADMINISTRATIVE BLOCK

- Entrance
- Reception
- Stair hall
- Admission office
- Secretary office
- Accountant office
- Conveniences
- Show room
- Control room

FIRST FLOOR

- Dean office
- Secretary to dean office
- Registrar's office
- Conference hall
- Stair hall
- Conveniences

WORKSHOP BLOCK 1

- Reception
- General store
- Conveniences
- Fashion designing

- Instructor office
- Store
- Photography Studio
- Instructor office
- Store
- Hairstyling Workspace
- Instructor office
- Store
- Catering
- Instructor office
- Store
- Clothing and Textile workspace
- Instructor office
- Store
- Arts and crafts studio
- Instructor office
- Store
- Printing Press Workshop
- Instructor’s Office
- Store
- Computer Studies
- Instructor’s Office
- Store

WORKSHOP BLOCK 2

- Entrance
- Reception
- Conveniences
- Plumbing workshop
- Instructor office
- Store
- Carpentry workshop
- Instructor office
- Store
- Automobile workshop
- Instructor office
- Store
- Aluminum Workshop
- Instructor's Office
- Store

1.8. LIMITATION OF THE STUDY

Limitation of the Study This project has potential limitation like completion. This is one of the major limitations of the study because since it take two years or less to complete many vocational programs, the schools can graduate a lot of student in short span. This can saturate the job market with people who all have the same skills and training if the school does not provide or require internships or hand on experience, this can be another obstacle for graduate..

1.9. RESEARCH METHODOLOGY

Various avenues were explored as regard the method of research in order to arrive at a functional and appealing design concept. The following research methods were employed.

- ***Literature review:*** reference to tolerance for ideas of various writer were consulted in order to attain useful and important past thesis work on similar project.
- ***Oral interview:*** practicing architects, engineers, allied professional as well as students of various schools were interviewed and better deduction from their information sources also influence the end design.
- ***Personal observation:*** personal initiations coupled with inquisitive measure, interviewed and visitation was made in order to actually visualize the daily activities that take place within the required motive.
- ***Case study:*** This involves the thorough synthesis and analysis of similar existing structure building based on the data collected and better seduction was made for realization of the design best.

DEDUCTION

Based on the analysis of the proposed design and operations adapted for a vocational center, the following deductions can be made:

Efficient Workflow: The layout, with sequential task placement, promotes a smooth workflow and reduces completion time, ideal for training purposes.

Product Quality Assurance: Quality control measures and appropriate tools ensure that final outputs meet relevant standards, providing hands-on learning

opportunities.

Safety and Hygiene: The use of suitable materials and proper systems minimizes contamination risks, ensuring safe conditions for student practice.

Environmental Sustainability: Implementing waste management systems and reusing materials (e.g., for alternative uses) supports eco-friendly and sustainable operations, teaching green practices.

Economic Viability: The structured approach increases productivity and reduces manual effort, making the vocational center economically viable and scalable for training and small-scale projects.

CHAPTER TWO

2.0 REVIEW OF RELEVANT LITERATURE

(a) Review of Literature on Vocational Centre Building Type

Vocational centres are specialized institutions designed to impart practical and technical skills in various trades, industries, and crafts. In Nigeria, they have become critical in addressing unemployment, supporting youth development, and boosting productivity in agriculture, construction, technology, and other sectors.

Architecturally, vocational centres are characterized by their dual-function layout, accommodating both learning spaces and workshops or production areas. This integration demands thoughtful spatial planning to balance instruction, practice, safety, and flexibility. In regions like Ogun State, where agriculture and small-scale industries are prevalent, vocational centres are increasingly being developed to reflect local economic needs and climatic realities.

These centres serve not only as educational institutions but also as community development platforms, fostering entrepreneurship, skill acquisition, and local innovation. Their design must align with principles of sustainability, accessibility, and scalability.

2.1. EVOLUTION OF VOCATIONAL ARCHITECTURE

The evolution of vocational education in Nigeria mirrors the country's socio-economic development. In the past, skill acquisition took place through informal apprenticeship systems, often within family compounds or traditional workshops. These early models, while effective in cultural transmission, lacked structure, tools, and scalability.

With the establishment of technical colleges and trade centres in the 20th century, vocational training became more institutionalized. The involvement of the National Board for Technical Education (NBTE) and Industrial Training Fund (ITF) formalized curriculum design, certification standards, and training methodologies.

This evolution also prompted a shift in architectural form—from simple classrooms to multi-functional training environments that support ICT learning, engineering practice, craft work, and business incubation. In modern times, vocational buildings are designed to be inclusive, adaptable, and responsive to local economic realities.

2.2. CLASSIFICATION OF VOCATIONAL BUILDING TYPOLOGIES

Vocational training centres are classified according to function, scale, ownership, and structural design:

Function-Based Typologies

- Agricultural training centres
- Technical and mechanical training institutes
- Hybrid centres that blend learning with small-scale production

Capacity-Based Typologies

- Small, community-based centres
- Medium-scale institutions serving local governments
- Large regional hubs supported by state or federal authorities

Ownership-Based Typologies

- Public centres owned by state or federal governments
- Private centres managed by religious or non-governmental bodies
- Public-private partnership (PPP) models that promote investment and skill development

Structural Typologies

- Cluster layouts (with separate zones for training, administration, and workshops)
- Modular systems allowing flexible expansion
- Vertical mixed-use structures in urban locations

Each typology influences the planning, cost, and long-term adaptability of vocational buildings.

2.3. FUNCTIONAL SPACE RELATIONSHIPS IN VOCATIONAL CENTRES

Effective vocational centres require functional arrangements that support both learning and practice. Space planning should prioritize:

- Training Halls and Classrooms – for theory, seminars, and simulations
- Workshops and Practice Bays – for plumbing, electrical, carpentry, food processing, ICT, and fabrication
- Storage Rooms – for raw materials and finished student projects
- Administrative Offices – for coordinators and program supervisors
- Health and Safety Units – first aid rooms, sanitation units, fire equipment
- Support Facilities – cafeterias, toilets, and convenience kiosks
- Incubation Spaces – where trainees can develop and test business ideas

Spatial flow should ensure separation of quiet and noisy zones, accessibility, and safety. Circulation areas must accommodate both learners and goods in training-related movement.

2.4. CONTEXTUAL DESIGN STRATEGIES FOR VOCATIONAL CENTRES IN OGUN STATE

Vocational buildings in Ogun State must be tailored to the region's terrain, weather, and community needs. Context-specific strategies include:

- Elevated floor structures to protect against flooding during the rainy season
- Use of laterite, bamboo, and stabilized earth blocks for affordability and environmental harmony
- Natural cross-ventilation and lighting to minimize energy use
- Solar panels and rainwater harvesting for sustainable operations
- Shade trees and green spaces to enhance comfort
- Adaptable partitions to reconfigure training rooms for evolving programs

These design principles ensure that vocational centers are not only functional but also durable, inclusive, and locally appropriate.

2.5. INTEGRATION OF TECHNOLOGY IN VOCATIONAL CENTRES

Technological integration is vital for modern vocational training. Essential features include:

- Computer labs for digital skills development
- E-learning infrastructure for remote and flexible training delivery
- Smart boards and projectors in classrooms
- Simulators and virtual tools in engineering and technical workshops
- Solar-powered systems to stabilize energy supply
- Security and access control systems for safety and equipment protection
- Technology enhances teaching quality, operational efficiency, and student engagement.

2.6. CASE STUDIES OF VOCATIONAL TRAINING CENTRES

Centre Location Highlights

- Kwara Vocational Institute Kwara State ICT labs, entrepreneurship units, modular workshops

- Lagos State Technical Colleges Lagos Competency-based training, public-private funding
- Ogun State TECH Hubs Ogun State Youth training in innovation, digital skills, and trades
- Nigerian German Centre for Jobs Abuja Vocational guidance, training, and placement support

These examples demonstrate effective integration of training spaces, local context, and scalable design.

2.7. CHALLENGES IN VOCATIONAL INFRASTRUCTURE IMPLEMENTATION

Despite progress, vocational education infrastructure in Nigeria faces several challenges:

- Inadequate funding for construction and maintenance
- Design templates that ignore local climatic or cultural context
- Poor rural infrastructure (roads, electricity, internet)
- Underrepresentation of women and persons with disabilities
- Bureaucratic delays in project approvals and execution

Addressing these challenges requires policy support, inclusive planning, and community involvement.

2.8 GENDER AND YOUTH-INCLUSIVE DESIGN

Vocational centres should promote inclusivity through thoughtful design. Recommendations include:

- Ergonomic workspaces designed for both genders
- Ramps, wide doorways, and accessible restrooms
- Childcare facilities for young parents undergoing training

- Flexible training schedules and seating layouts
- Youth co-working hubs and start-up incubation spaces

Such features promote equal participation, safety, and long-term engagement.

2.9. ENVIRONMENTAL MANAGEMENT STRATEGIES

- Sustainable design for vocational buildings should include:
- Composting and recycling facilities for workshop and cafeteria waste
- Tree planting and landscape buffers for shade and soil protection
- Greywater reuse for sanitation
- Solar-powered lighting and fans
- Low-emission building materials to reduce carbon footprint
- These strategies reduce operational costs and environmental impact.

EMERGING TRENDS IN VOCATIONAL CENTRE DESIGN

Future-ready vocational buildings in Nigeria are evolving with the following trends:

- Mobile training units to reach underserved rural communities
- Modular buildings that can be expanded or repurposed easily
- Digital learning platforms integrated with physical classrooms
- Energy-efficient buildings using passive cooling and solar energy
- Incubation labs that bridge training with entrepreneurship

These innovations enhance relevance, scalability, and sustainability.

LITERATURE GAPS

- Limited architectural case studies of vocational centres in rural Ogun State
- Lack of localized building guidelines for skill acquisition institutions
- Minimal documentation of inclusive spatial planning practices

Insufficient integration of environmental sustainability into vocational centre designs

CONCLUSION

The literature supports a growing need for purpose-built vocational centres in Ogun State that support skills training, youth employment, and community development. Effective architectural design must integrate:

- Context-sensitive materials and layouts
- Inclusive and flexible learning spaces
- Technology and environmental sustainability

Future research and implementation should explore replicable design models that reflect local needs, support entrepreneurship, and promote lifelong learning.

CHAPTER THREE

3.0. CASE STUDIES .

3.0.1. CASE STUDY ONE

ALHAJI SHAKIRU AKANNI SERIKI SKILL AND VOCATIONAL CENTRE.

LOCATION: OSHINOWO STREET, EPE, LAGOS STATE**.**

BRIEF INTRODUCTION

Lagos State officially began building and recognizing vocational centres in areas like Epe in the late 1980s and early 1990s. These were often linked to initiatives like the Government Technical College in Odomola (later in Epe), created under the Seriki-led technical education review committee in 1984–85 .

While specific founding dates for the Alhaji Shakiru Akanni Seriki Centre are not publicly documented, it likely emerged within the broader expansion of vocational education in Epe during that period or later under state empowerment programs.

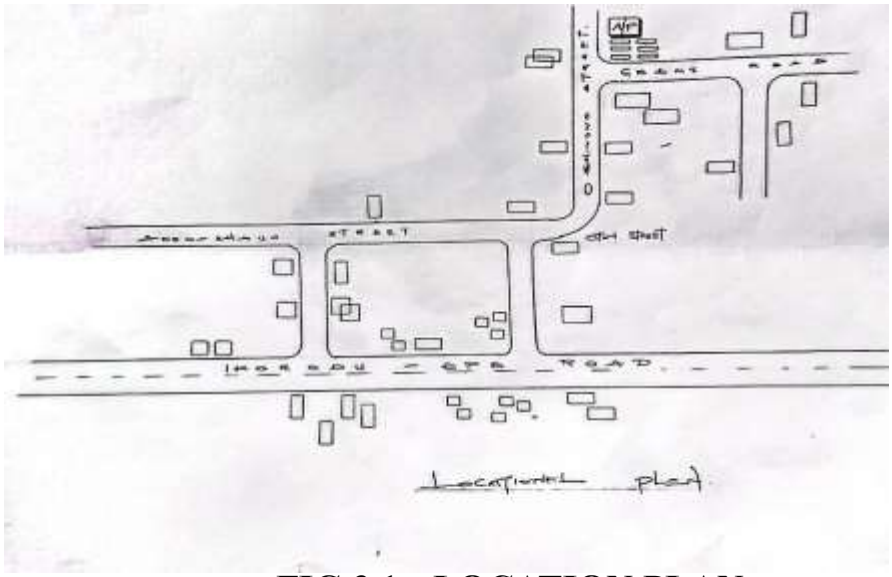

FIG 3.1:- LOCATION PLAN

SOURCE:- Researcher Field Work

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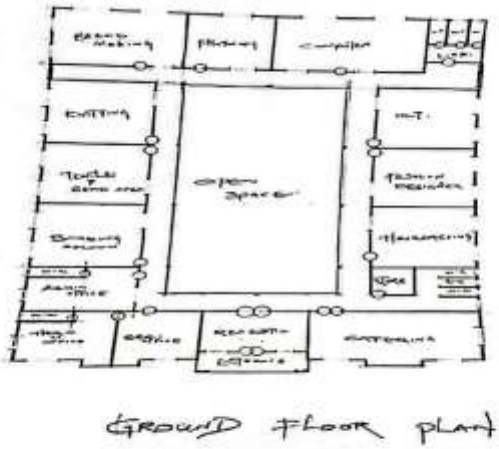


FIG 3.2:- FLOOR PLAN

SOURCE:- Researcher Field Work

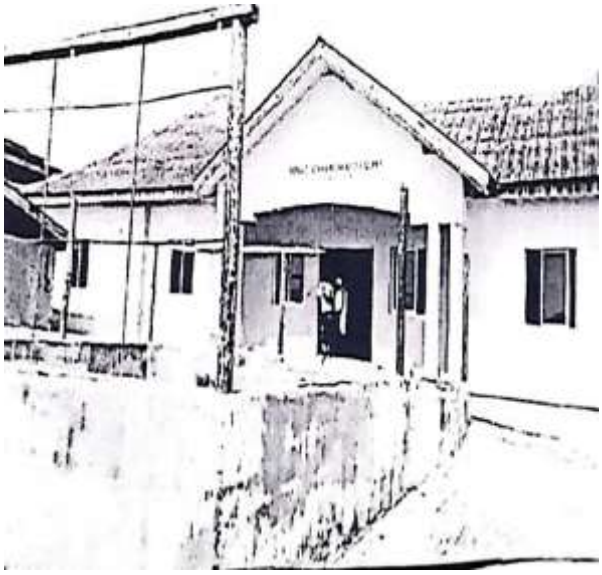


PLATE 2.1:- LEVATIONS

SOURCE:- Researcher Field Work,

MERITS

- It is well ventilated.
- It has equipment.
- Very secure environment.
- Adequate of light.

DEMERITS

- Not enough parking space.
- No future expansion.

3.1. CASE STUDY TWO

GRACE SPRINGS BUSINESS VOCATION SCHOOL**.**

LOCATION: AT SURA MOGAJI STREET LAGOS STATION.

Founded in 2009 by the Fountain of Life Church in Ilupeju (now part of Ikeja), the school was launched to empower church members through vocational training. Initially focused on skills for the underprivileged, GSBVS expanded in 2016 into a broader business-oriented institution offering both vocational and entrepreneurial training .

In July 2018, the school underwent a rebranding exercise, introducing a fresh logo and reaffirming its mission to deliver high-quality vocational education with strong business acumen .

COURSES OFFERED

- Fashion design
- Shoe- and bag-making
- Leatherwork
- Beauty and cosmetology
- Culinary arts
- Photography
- Event planning and management
- Business & Entrepreneurship (19+ courses)
- Ideation and innovation
- Business management and leadership
- Psychology of business and related soft skills

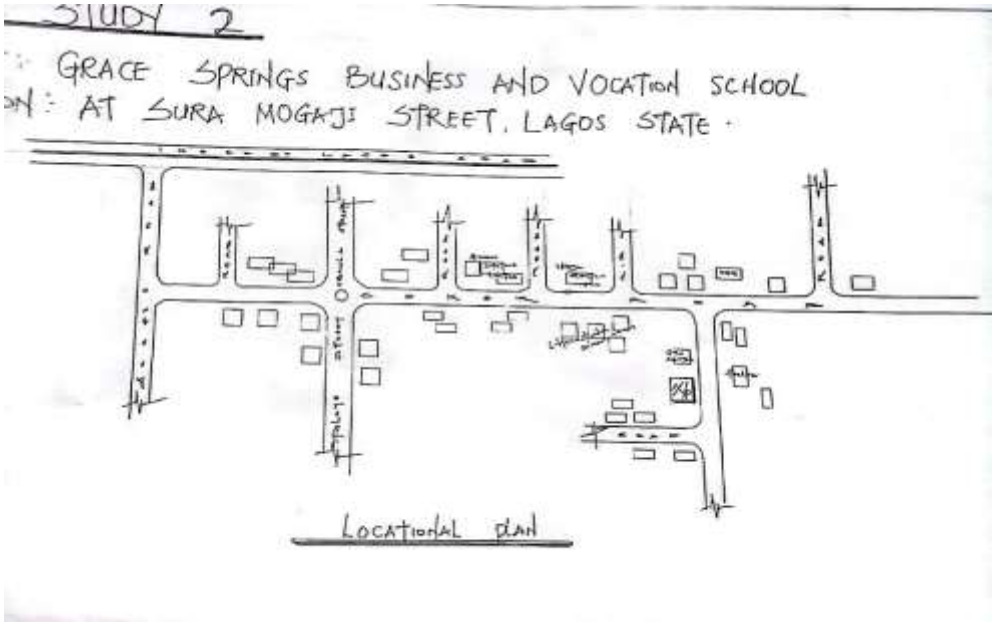


FIG 3.3:- LOCATION PLAN

SOURCE:- Researcher Field Work

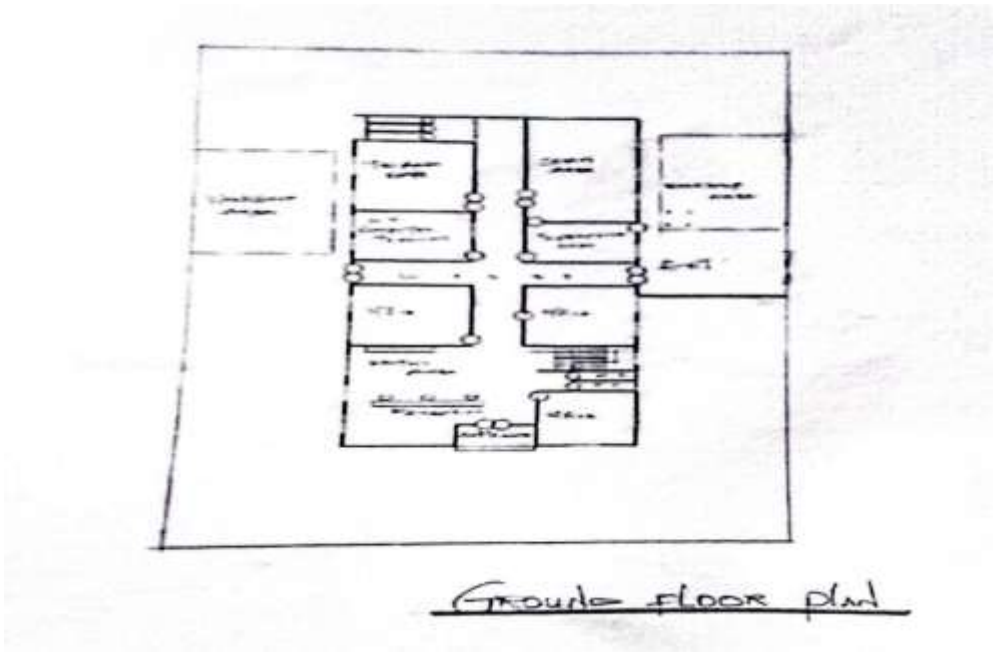


FIG 3.4:- GROUND FLOOR PLAN

SOURCE:- Researcher Field Work

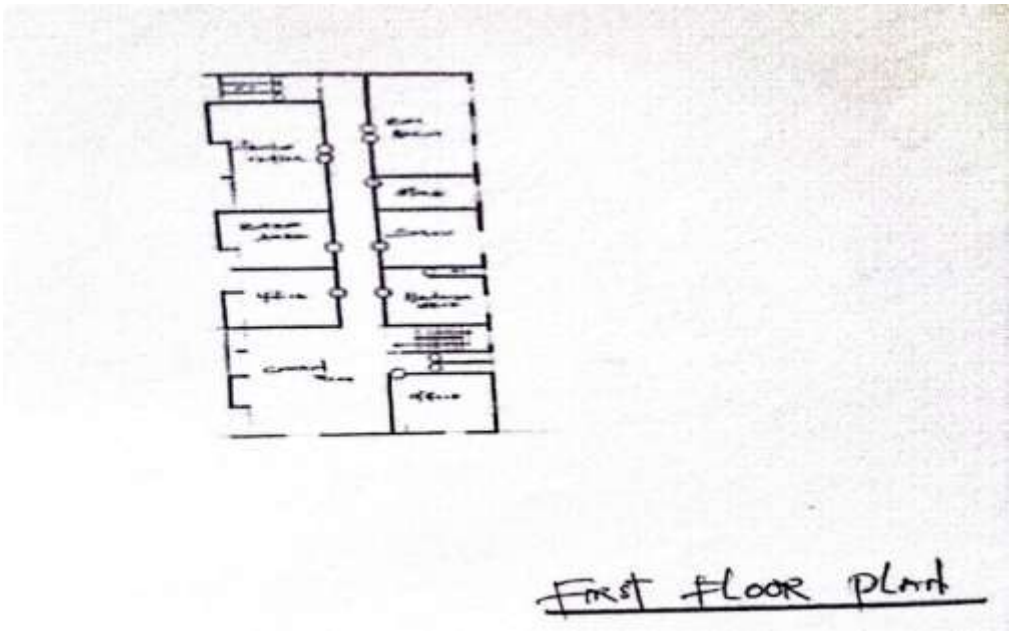
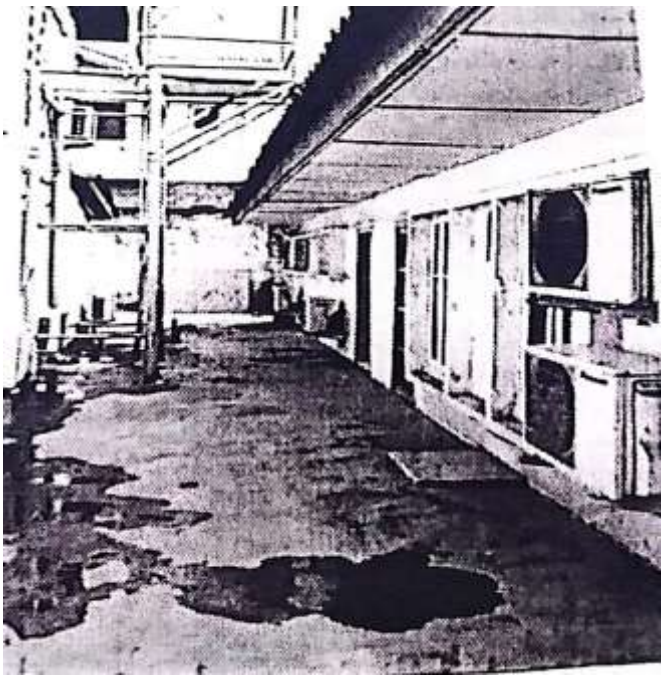
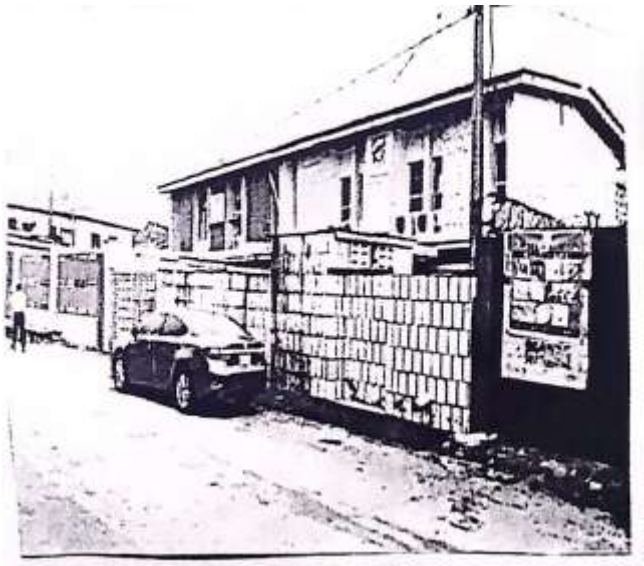


FIG 3.5:- FIRST FLOOR PLAN

SOURCE:- Researcher Field Work, 2024





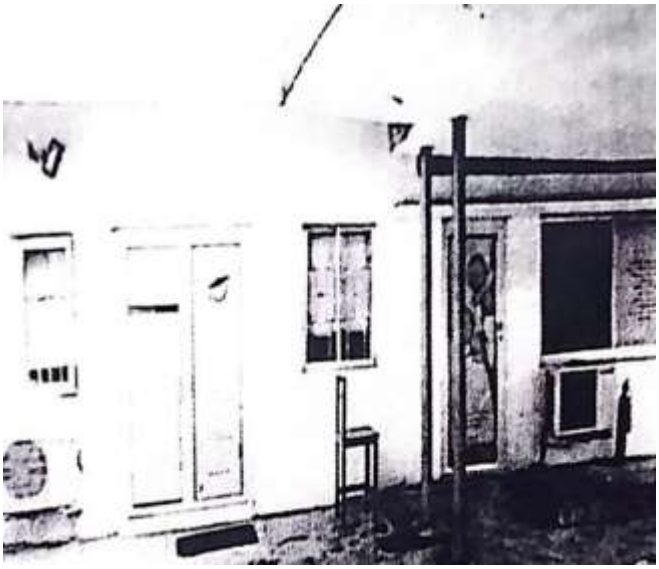


PLATE 2.2:- LEVATIONS

SOURCE:- Researcher Field Work,

MERITS

- Adequate ventilation.
- Easily accessible
- good security arrangement

DEMERITS

- Parking space not divine.
- No landscape.
- Drainage system not provided.

3.2. **CASE STUDY THREE**

VOCATIONAL TRAINNING CENTRE..

LOCATION: AT ISHERI BORDER LINE, BERGER LAGOS STATE.

BRIEF INTRODUCTION

The Vocational Training Centre at Isheri Border Line, Berger, Lagos State, was established to address youth unemployment and promote self-reliance through skill acquisition. Founded in the early 2010s, the centre was developed as part of community and government efforts to empower residents with practical vocational skills in a rapidly growing urban area.

COURSES OFFERED

- Tailoring
- Electrical and Electronic
- Event decoration
- Hat and bead making
- Toiletry

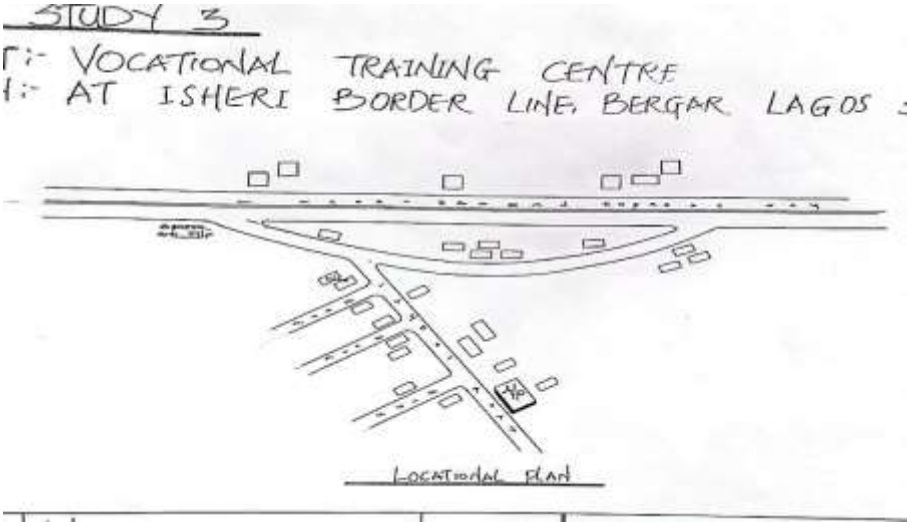


FIG 3.6:- LOCATION PLAN

SOURCE:- Researcher Field Work, 2024

FIG 3.7:- GROUND FLOOR PLAN

SOURCE:- Researcher Field Work, 2024

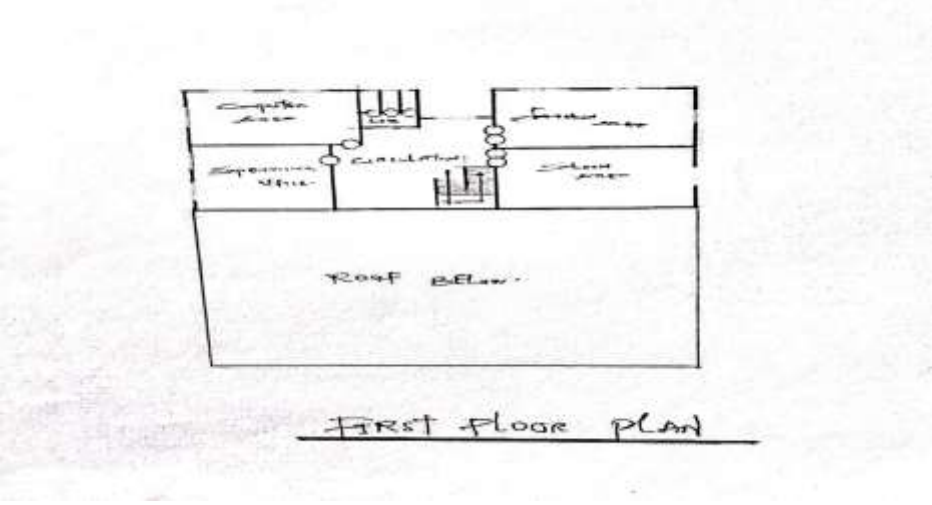


FIG 3.8:- FIRST FLOOR PLAN

SOURCE:- Researcher Field Work, 2024

PLATE 2.3:- LEVATIONS

SOURCE:- Researcher Field Work

MERITS

- Easily accessible from the gate
- Good security
- Adequate ventilation
- Lecture rooms are properly linked.

DEMERITs

- Poor landscaping of the site
- Poor drainage system

3.3. CASE STUDY FOUR [ONLINE CASE STUDY

TOULON VOCATIONAL CENTER LOCATED IN TORONTO, CANADA

BRIEF INTRODUCTION

Toulon Vocational center is a standard vocational center located in Toronto, Canada where serval courses are been offered to student interested in learning vocational studies, being an entrepreneur or being self-employed personnel.

These are the courses been offered in the centre below:

- Electrical and Electronics Engineering work
- Automobile Work
- Carpentry work
- A.C workshop
- Welding and fabrication work.

PLATE 2.4:- LOCATION PLAN

SOURCE:- GOOGLE

PLATE 2.5:- FRONT VIEW

SOURCE:- GOOGLE

PLATE 2.6:- EXTERNAL VIEW

SOURCE:- GOOGLE

3.4. CASE STUDY FIVE [ONLINE CASE STUDY 2]

VOCATION & TECHNICAL TRAINING COMMISSION.

LOCATION; PLOT 3, ISLAMABAD, CAPITAL TERRITORY PAKISTAN.

BRIEF INTRODUCTION:

The Vocation & Technical Training Commission (VTTC) was established by the Government of Pakistan as part of its national strategy to develop a skilled workforce capable of meeting the demands of a modern economy. Recognizing the urgent need for technical education and vocational training across various sectors, the Commission was formed in the early 2000s to streamline and standardize vocational initiatives at the national level.

Located at Plot 3, Islamabad, Capital Territory, the Commission has since evolved into a central coordinating and policy-making body for technical and vocational education. It was tasked with improving training quality, promoting industry-relevant skills, and expanding access to vocational education, especially among youth, women, and underserved populations.

Over the years, the VTTC has collaborated with both local and international organizations—including UN agencies, TVET reform programs, and regional governments—to modernize Pakistan's training infrastructure and develop a more competent, employable workforce. Its efforts continue to play a crucial role in supporting economic growth, reducing unemployment, and enhancing national productivity.

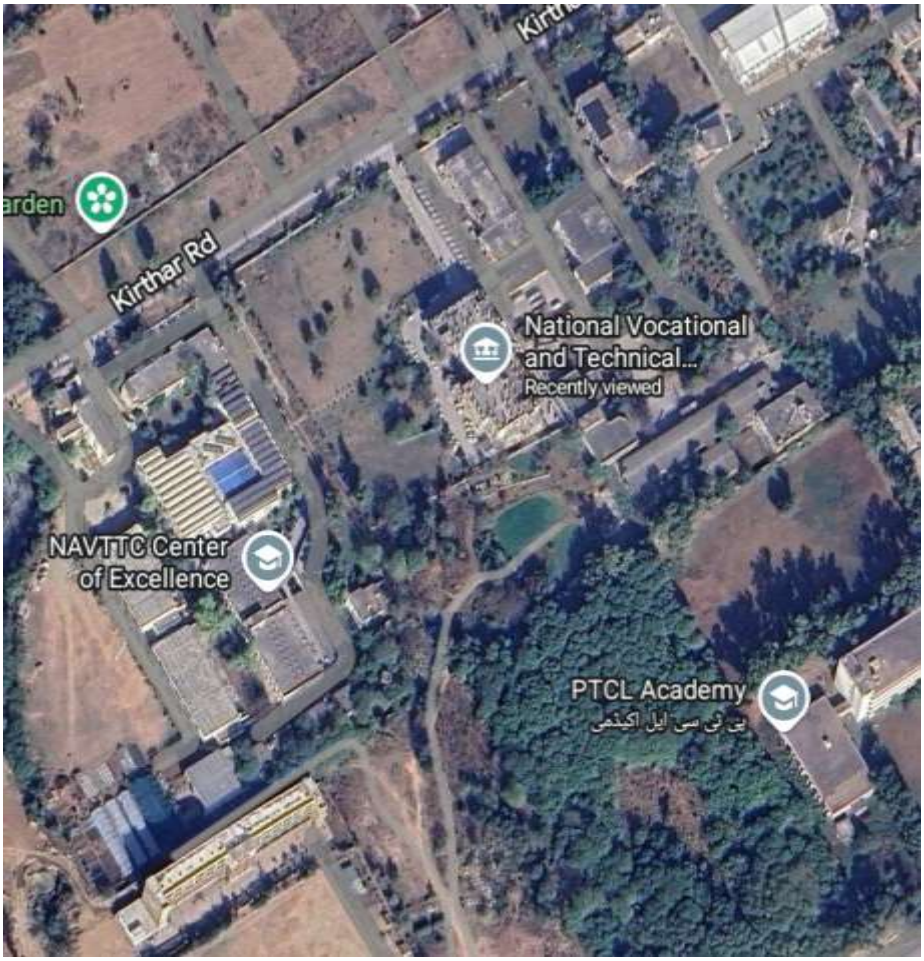
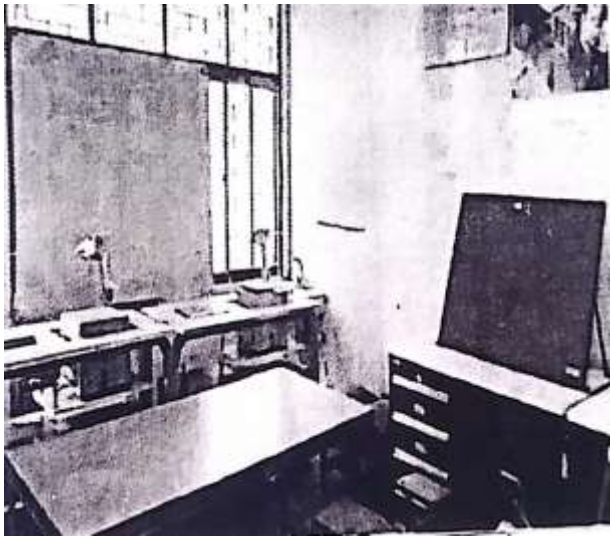


PLATE 2.7:-LOCATION PLAN

SOURCE:- Google



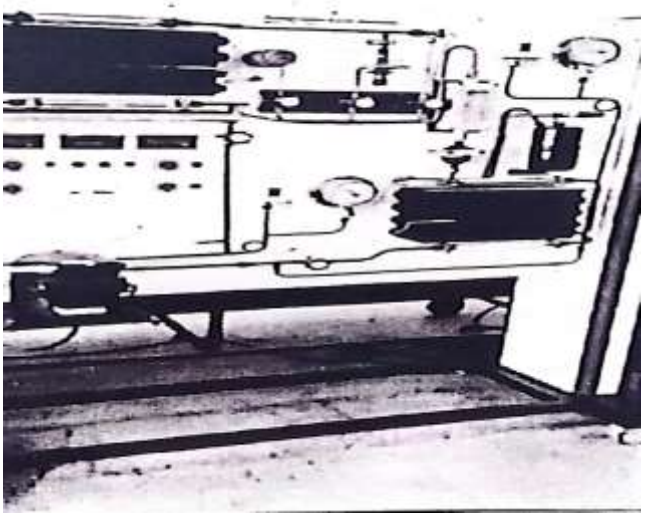


PLATE 2.8:- VIEWS

SOURCE:- Google

3.5. DEDUCTION FROM CASE STUDIES:

These are the common similar knowledge or information derived from the aforementioned case studies. Some of which are:

- Choice of location should be in a developing or already developed area for easy access to the trainings offered.
- Segregation of each department form one another
- Well designed and well positioned landscapes
- Separation of noisy departments from departments with less noise
- Provision of required ventilation and fenestration into each units to serve the spaces well

CHAPTER FOUR

4.0. ANALYSIS OF THE ENVIRONMENTAL AND TOPOGRAPHICAL CONDITIONS OF THE SITE

4.0.1 INTRODUCTION TO STUDY AREA

The selected site for the Vocational and Technical Education (VTE) Centre lies within Ogun State, Nigeria — a region that bridges both urban and rural characteristics, with a steadily growing population and increasing demand for skilled manpower. Ogun State is particularly strategic due to its proximity to Lagos, the commercial capital of Nigeria, making it an attractive location for educational and industrial development projects. This analysis provides a comprehensive overview of the environmental, physical, climatic, and socio-infrastructural conditions of the proposed site.

4.1 HISTORICAL BACKGROUND OF OGUN STATE

Ogun State, created in 1976, is located in the South-West geopolitical zone of Nigeria, with Abeokuta as its capital. The state comprises several ethnic subgroups of the Yoruba people, notably the Egba, Egbado (Yewa), Awori, and Ijebu.

Pre-Colonial Era:

Ogun was historically occupied by organized Yoruba kingdoms like the Egba and Ijebu, known for their advanced socio-political systems and economic activities, especially in agriculture, blacksmithing, and long-distance trade.

Colonial Era (1900–1960):

During British rule, Ogun State witnessed the introduction of Western education, missionary work, and basic infrastructure such as roads and railways. Towns such as Abeokuta and Ijebu-Ode played pivotal roles in the colonial economy and cultural exchanges.

Post-Colonial Era (1960–Present):

Ogun has evolved into an industrial and educational hub, hosting major institutions such as Covenant University, Babcock University, Moshood Abiola Polytechnic, and the Federal University of Agriculture, Abeokuta (FUNAAB). Its proximity to Lagos has also spurred urban sprawl into LGAs like Ado-Odo/Ota and Ifo.

4.2 PHYSICAL FEATURES OF THE LOCATION

The proposed site is situated in a semi-urban area within Ogun State, featuring gently undulating topography with moderate slopes and fertile lateritic soil. These physical attributes make it highly suitable for construction activities as well as landscaping and green infrastructure. The site is accessible via major roads and is located close to industrial layouts and residential neighborhoods, which enhances its relevance as a vocational training center.

4.3 POPULATION OF OGUN STATE (AND STUDY AREA)

As of 2022, Ogun State had an estimated population of over 6 million. The study area, likely in a fast-developing Local Government Area such as Ifo, Obafemi-Owode, or Ado-Odo/Ota, reflects high population density due to its closeness to Lagos. The demographic profile includes artisans, skilled and unskilled laborers, students, and civil servants — indicating a high demand for vocational training and skill acquisition programs.

4.3.1 SOCIAL SERVICES

Healthcare:

- Presence of General Hospitals (e.g., Ifo, Ota, Ilaro)
- Multiple private clinics and maternity homes
- Community-based Primary Healthcare Centres (PHCs)

Education:

- Public primary and secondary schools
- Tertiary institutions within reach include:
- Covenant University, Ota
- Federal Polytechnic, Ilaro
- Babcock University, Ilisan-Remo
- Tai Solarin University of Education, Ijebu-Ode

Transportation:

- Access via Lagos-Abeokuta Expressway, Sagamu–Benin Expressway, and township roads
- Proximity to inter-state transport services and motor parks.

Housing and Utilities:

- Growing number of housing estates (e.g., OPIC, Adron, Pelican)
- Electricity supply managed by IBEDC and IKEDC, with increasing mini-grid installations
- Community boreholes and rainwater harvesting systems are commonly used for water.

4.3.2 ROAD NETWORK

The site is connected through both feeder and trunk roads, including:

- Lagos–Abeokuta Expressway
- Sagamu–Ijebu Ode Expressway
- Ijebu Igbo–Ibadan Road
- Ota–Owode Road

These roads enhance inter-town and inter-state mobility, crucial for access to the VTE center.

4.3.3 HEALTH SERVICES

Accessible healthcare facilities include:

- General Hospitals: Ifo General Hospital, Ota General Hospital, Ilaro General Hospital
- Primary Healthcare Centres (PHCs): Located within wards and communities
- Private Clinics: Widespread, providing maternal and child care, diagnostics, and outpatient services

4.3.4 WATER AND ELECTRICITY

Water Supply: Predominantly through boreholes, wells, and rainwater systems

Electricity: Supplied by IBEDC (Ibadan Electricity Distribution Company) and IKEDC (Ikeja Electricity Distribution Company), with solar alternatives becoming common in rural areas

4.3.5 GENERAL CLIMATIC CONDITIONS

Ogun State experiences a tropical climate with distinct wet and dry seasons.

1. Wet Season (March – October):

Rainfall: 1,200 – 1,800 mm

Humidity: 70–90%

Temperature Range: 24°C – 31°C

2. Dry Season (November – February):

Temperature Range: 22°C – 35°C

Humidity: 40–60%

Harmattan conditions often present during December–February

Additional Features:

Annual Sunshine Hours: ~2,500

Average Temperature: ~27°C

Elevation: 100–350 meters above sea level

Relative Humidity: ~75% average; highest in June–September

Wind Conditions: Mild, dry harmattan winds during the dry season

4.3.6 VEGETATION

The site features a blend of tropical rainforest and derived savannah vegetation. The existing land is covered with shrubs, scattered trees, and tall grasses. Minimal clearing will be required for construction, and some mature trees will be preserved for landscaping and natural shading.

4.4. SITE ANALYSIS

Site Selection / Justification

The selected location is highly strategic due to its semi-urban nature, access to transport corridors, and closeness to both industrial zones and residential communities. The terrain is flat to moderately sloped, ensuring ease of construction. Utilities like water, electricity, and roads are already in place or can be extended at minimal cost.

Factors Influencing Site Selection:

- Accessibility: Well-connected by road to Lagos, Abeokuta, and major towns
- Location: Positioned in a growing economic corridor suitable for skills development
- Infrastructure: Existing water, power, and road infrastructure
- Topography: Gently sloping land with minimal grading required
- Soil Structure: Rich in laterite, ideal for foundations and roadworks

4.5. DESIGN CONCEPT/PLANNING PRINCIPLE

4.5.1. DESIGN PLANNING

Firstly, the process of analysis in the design into the necessary units required for the design is based on the data collected through research methodologies.

Secondly, the grouping of the various unit together according to their relationship with one another also based on the data and information gathered.

The concept of the design was arrived at from the functional relationship and bubble diagrams prepared out of the design brief which is based on the activities performed within the institute/school. The relationship of these various activities with one another within different units that makes up the design and also based on the zoning in accordance with the level of noise produce by each unit.

4.5.2 PLANNING PRINCIPLE

The planning principle is one of the most important aspect of any design. The planning of various units taking into consideration the activities performed in each unit, how they are related to one another and the users of the various units in the design.

In respect to the design above factors, the building is divided into two blocks. The first block is the administrative building; while the second block is the workshop building which is well positioned on the site taking cognizance and into consideration the works going on in the workshops and possible noises that might be produce.

In respect to the sit zoning, the safe zoning is divided into three parts. The first division as semi quite area while third division C is quite and noisy area.

CHAPTER FIVE

5.0 DESIGN REPORT

5.1. DESIGN BRIEF

After research and planning, the next step in the series of the project programme is design itself. To achieve functional and well aesthetic design the1¢ must be a brief to work on. This brief depends generally on the scope of individual design. The brief of this project is therefore based on the various activities that take place in the institute of vocational studies.

To have enough brief for the proposed institute case studies were carried out ‘on the existing schools both in the Nigeria universities and polytechnics. The studies also give me the opportunity to know the nature of the courses offered in the schools and how related to each other.

The institute of vocational studies train six different department, they are computer studio, tie and dye, electrical engineering, plumbing, fashion, design and carpentry.

5.3. DESIGN ANALYSIS

This is the process of itemizing units within the components of the entire design with a view to establish a solid understanding and appreciation of the space relationships.

SNO	WORKSHOP BLOCKS UNIT	DIMENSIONS	M^2
1	ENTRANCE	6.3 X 3.9	24.6m^2
2	RECEPTION	6.3 X 3.6	22.7m^2
3	Hairstyling Workspace	12.0 X9.0	108m^2
4	Instructor Office	3.6 X3.0	11.7m^2
5	Store	3.6 X 2.4	9.4m^2

6	Fashion Designing	12.0 X9.0	108m^2
7	Instructor Office	3.6 X 3.0	11.7m^2
8	Store	3.6 X 2.4	9.4m^2
9	Aluminum Workshop	12.0 X 9.0	108m^2
10	Instructor Office	3.0 X 3.0	9m^2
11	Store	3.0 X 2.7	8.1m^2
12	Electrical and electronic workshop	12.0 X 9.0	108m^2
13	Instructor Office	3.0 X 3.0	9m^2
14	Store	3.0 X 2.7	8.1m^2
15	Welding and Fabrication Workshop	9.0 X 8.0 (X2)	147.6m^2
16	Instructor Office	3.3 X 3.6	11.9m^2
17	Store	3.0 X3.6	10.8m^2
18	Art & Craft Studio	13.2 X7.4	97.68m^2
19	Instructor Office	3.0 X 3.6	11.9m^2
20	Store	3.0 X 3.6	10.8m^2
21	Conveniences	2.1 X 1.2 (X4)	12.9m^2
	TOTAL		**839.58m^2**
S/N	UNITS	DIMENSION	M2^2
1	Entrance	3.3 X 2.4	7.9m^2
2	Wood Workshop	12.0 X 8.2	98.4m^2
3	Instructor Office	3.0 X3.0	9m^2
4	Store	3.0 X 3.0	9m^2
5	Plumbing Workshop	12.0 X 8.2	98.4m^2
6	Instructor Office	3.0 X 3.0	9m^2
7	Store	3.0 X 3.0	9m^2
8	Automobile Workshop	11.6 X 10.6(X2)	245.92^2
9	Instructor office	3.0 X 3.0	9m^2
10	Store	3.0 X3.0	9m^2
11	Conveniences	1.8 X 1.5 (X2)	5.4m^2
	TOTAL		**510.02**

5.4. DESIGN APPRAISAL

In any project design, there are two basic factors that should be taken into consideration. These factors are functionality and aesthetics and functionality of any building are incompatible but in the case of this project, both aesthetic and functionality of the design were taken care of to satisfy the highly demanded functional requirement and to create aesthetically and proportionally balanced design.

The functional efficiency of institute of Vocational studies depends largely on the enclosures of the immediate section that are strongly related in function all these are being taken up as seen on the site and floor plans respectively.

5.5. DESIGN CHARACTERISTICS

The idea of planning a good surrounding involves from the primary function. It gives a good aesthetic view to the structure; it enhances the psychological feeling of the public, making use of the area: it makes the entire environment healthy, as an adage says "cleanliness is next to godliness". A clean and well-planned site is a healthy environment in view of these following had been adopted in planning the site.

1.**LANDFORM:** As earlier discussed under the topography the land is gentle slope hence it will affect good planning.

2.**TREES:** Trees are planted within the institute building to effect natural Ventilation. Trees which will not be more than 2.5m high when grown are to be planted at reasonable spacing to provide shade for the car park. Shrubs and trees such as Amelina, Aborea, Flamboyant, Alternance etc. with good foliage are to be planted along with the fence and some strategic places within the site to provide

shade and serve as sun's and wig breakers. ‘The trees also reduce the atmospheric temperature and release of oxygen during photosynthesis makes the atmosphere cold.

3.**GRASSES:** Grasses give good impression of an environment and also protect. the land surface from erosion for this project, Bahama grass is recommended for all the lawn area. Some courtyard that are busy are covered with lawns, fines grasses like Kikuyu grass planted in the courtyard and some parts are paved for relaxation purpose.

4**.FLOWER BEDS:** A well planned flower arrangement gives aesthetic to environment. Flower is grown along the walkways around the main building generally except where it can obstruct vehicular pedestrian movement. Flower such as slender, Bryphallion roses, lady on boat, ice plant etc. are planted.

5.**HEDGES:** Hedges are also planted along some part of the walkway. In the courtyard while shrubs are also used along vehicular ways. The following shrubs are used for the hedge. Dodoneaviscosal (Josorevet). The vital (bush mil) casavatinalequstifolic (Whistling pic). Shrub such as spotted croton. Euphobiasplender (desert rose) are planted for their beautiful leaves and good scents also for ornamentation.

6.**PARKING SPACE:** Parking lots are located in front of administrative offices to service the administrative. Loading send concrete block should be Portland cement delivered in good condition to the construction site all the instruction given in civil engineering drawing will be thoroughly and strictly adhered to in order to avoid failure. The walkways should be constructed of concrete roof laid to fall with 2 layer of bitumen fact. The roof member should be firmly secured. The mortar bed should at least 25mm thick bond of block should be stretcher bond.

5.6. BUILDING STRUCTURE

The whole institute building has administrative building complex and workshop building which makes the environment more comfortable for both the student and the staff in that environment. The story building supported by beans and column at appropriate intervals. Most modern school buildings are usually constructed by introducing grid into the design. This make for easy and accurate consideration of frame structure used in school buildings. ‘There are two types of grid system:

- Modular grid
- Structure grid

For this project, structure grid system was employed in filled sand Crete blocks were used for all the retaining walls of the institute. The roofing system used for the lecture theatre is steel truss roofing.

Some part concrete roof where also used along with timber the prevalent damage usually caused by termites is prevented by the application termitarium treatment like Gamalin 20 solignum etc.

SERVICE

Electricity is tapped from the nearest pole of the institute building. The main water pipeline is closely located to the site where drinking water can be tapped telephone line is within the polytechnic which makes connection easy.

The entire roof drains runs to the surrounding gutter which finally drains to the main gutter along the public drainage all the solid and liquid wastes are effectively disposed of by the soak away pits and septic tanks, a central AC system shall be fixed where appropriate.

GENERAL REQUIREMENT

LIGHTING

This is a means of providing brightness naturally by sun or moon or artificially by lamps. Good natural and artificial lighting is important in the lecture rooms, students and library. It is always easy to make mistake and the eye in a situation poor lightning floor. For the purpose of this project, effort is made as much as possible to light up the entire building naturally before the use of artificial lighting.

In this project, to obtain maximum lighting more openings are provided for the lecture rooms, studios, seminar hall and library. Artificial source of light will still be provided for in case where there is call for the use of it at night or in a situation where the weather condition warrants it.

ORIENTATION

The orientation of a building involves the arrangement of the building forward or away from the sunrays, across or along the trade winds normally determines the thermal comfort in the building. In view of these, the building is oriented in the safe plan in such a way that be short facts is facing the east with no opening at all and the fact away from the sunrays and forward the north east trade wind and south west monsoon wind to produce thermal comfort since the facet towards the sun always tap temperature the sun and the long facet away from the sun but long the trade winds will always tap the advantage of other winds while the harsh effect of the north east trade wind will be reduced by planting trees along the side facing it. This will enhance Permeable screening order words serving as wind breaker.

RAIN PROTECTION DEVICES

The rainfall of a place generally determines the living condition and all comfort associated with that environment hence provision should be made for fast dispersal

of the rain as well as associated condition with rainfall. This calls for the need to study the nature of rainfall of the area. To control the heavy rainfall during the wet season (April-October). The use of simply sloppy system roofing has been adapted.

Damp proof draught proof materials are used by various joint of the roof to withstand the passage of rain water.

25mm thickness is used for rendering so that water absorbed from the external wall will not reflect on the internal side of the wall.

NOISE CONTROL DEVICE

This is an unpleasant sound of ten lauded harsh. Excessive noise and vibration can cause fatigue, leading to errors and general dissatisfaction in the classrooms, studio, seminar hall. External noise could be easily controlled with the aid of landscape materials and rough setbacks.

The workshop departments is separated from the administrative building with the use of comfier in the workshop building and landscape clement such as tree, shrubs, are introduced as buffer zones that is noisy semi-noisy and quiet zone.

Acoustic ceiling tiles offer much help reducing overall noise level thus it is recommended for the school offices, lecture rooms, departmental studios, library and other units where conversation are confidential in nature e.g. the board room.

MATERIAL AND FINISHES

The influence of building material on construction works in Abeokuta and its environs is similar to what prevail in the middle belt of the country. In the south the rainfall encourages the use of parapet wall to reduce falling out of the roof by heavy wind (either North-East or South-West trade wind). Concrete/Sand Crete blocks in regular molds are often used for wall construction with a standard of 100mm, 150mm and thickness.

The material choice and finishes are influence by a number of factors such as follows:

- The durability and suitability of materials
- Geology and topography of the site
- Availability of material
- The climate conditions
- Properties of materials
- The coast of the materials

ROOF

In areas experiencing tropical climate condition such as Lagos where there is rainfall, roof should preferably not be of light weight construction. A corrugated iron sheet with parapet covering it and the external surface should absorb as little solar energy as possible. For these reasons, long span galvanized aluminum roofing sheets is recommended for all parts of the complex in addition to the reinforced concrete roof gutter and concrete roof slab. Steel is recommended as roofing strimhire of the lecture theater and other unit's timber are to be used.

CEILING

Suspended ceiling is used in some lecture roof with metal hangers with fanny ceiling at suitable center to center. The ceiling material is prepared to be attractive and easily cleaned. It should be of moderate cost for the above reasons the recommendation furnishing of all the offices is Celotex expect the lecture theatre that acoustic material is used to reduce the effect of the noise.

WALL

The structural walls of the building are to be constructed with 225mm engine molded sand/cement hollow blocks. The column and beans are properly reinforcing with wall the wall whole applicable column and beans are furnished with 25mm

gauged smooth. Also, most if the unit are of framed structured which carried most of the loads. Load bearing masonry wall are also used and furnished with 25mm thick wall rendering and finally painted according to color specification schedule in the toilet/lavatories, the wall is to be furnished with ceramic tile to height of about 2100mm.

DOORS

The door type and size depend on the door location, but generally range from paneled door to panel folding doors of sizes from 750mm for toilets to 2700mm for the lecture theatre, library and main entrances to departments. Some doors are purposely made swinging doors for durability, fire resistance and noise control.

WINDOWS

The windows that are to be used range from pivoted windows, projected and Naco louvers blade with metal and aluminum frame.

COVERED WALKWAYS

The roofing to all covered walkways with the institute should be made of reinforced concrete slab finish laid to fall two layers of bitumen felt, the walking paying should be made of present concrete slab finished roughly to prevent slippery when wet.

5.7. RECOMMENDATIONS

Based on the findings, analysis, and design appraisal of this vocational centre project, the following recommendations are made to ensure the successful implementation, sustainability, and impact of vocational education in Ogun State:

1. Government Support and Policy Implementation:

The government should allocate consistent funding for the establishment and maintenance of vocational centers. Policies that support vocational education must be effectively implemented, monitored, and reviewed regularly to align with technological and industrial trends.

2. Public-Private Partnerships (PPP):

The state should encourage collaboration between public institutions and private organizations to enhance training, provide modern equipment, and increase employment opportunities for graduates.

3. Curriculum Modernization:

The curriculum for vocational training should be continuously updated to match current industry needs, emphasizing hands-on training, innovation, and digital literacy.

4. Instructor Training and Welfare:

Professional development programs should be provided for instructors to stay updated with modern teaching methods and technologies.

Adequate remuneration and incentives should be offered to attract and retain qualified personnel.

5. Promotion of Vocational Education:

- Awareness campaigns should be conducted to change societal perception of vocational education and promote it as a viable and respectable career path for youths.

6. Provision of Modern Facilities and Infrastructure:

- Vocational centers must be well-equipped with modern tools, machines, and digital resources.
- Workshops should reflect real-world work environments to bridge the gap between training and actual job performance.

7. Internship and Apprenticeship Programs:

- Structured internship and apprenticeship opportunities should be integrated into the training programs to enhance employability and practical experience.

8. Monitoring and Evaluation Mechanisms:

- Regular evaluation of facilities, curriculum, and graduate outcomes should be instituted to assess effectiveness and guide future improvements.

9. Entrepreneurship Training and Start-up Support:

- In addition to technical skills, entrepreneurship training should be included to empower graduates to start their own businesses.
- Access to microcredit and start-up grants should be made available for promising business ideas from graduates.

10. Sustainability Measures:

- Incorporate sustainable practices such as renewable energy (e.g., solar panels), rainwater harvesting, and waste recycling in vocational centre operations and training

5.8. SUMMARY AND CONCLUSION

5.9. SUMMARY

Throughout the design process (from inception to the final detailed drawing). Consideration has been given to a simple hut functional design, which take care of all problem in the existing institute of business and vocational studies. However, this project is part of the pace to a conventional institute of business and vocational studies in any higher institution of learning.

Since design generally are affected by various factors ranging from finance, nature of site, material choice and availability as well as various other factors, the design could vary but the approach and concept are basically within a range everywhere.

5.9.1CONCLUSION

In conclusion, the deduction and experience learnt and gained from the essential research which was carried out on the school of business and vocational studies in some Nigerian Polytechnic and Universities have extremely exposed me and of course the reader of the project report to what is obtainable in school of business and vocational studies in Nigeria.

Institution design, especially as I have realized from the research has follow functions that follow one another. It also enables me to know what is needed in school design, with particular reference of business discipline. In my design, I have made sure that all the functional aspect of the project was located at a particular point.

Finally, this project fulfills my ambition to contribute my own quota to the enhancement of educational development of the school generally in Nigeria.

REFERENCES

Bjork Aman, L., & Holangreen, P. (2021). Special needs education in vocational programmes: A review of inclusion practices. Journal of Vocational Education Research, 34(2), 45–62.

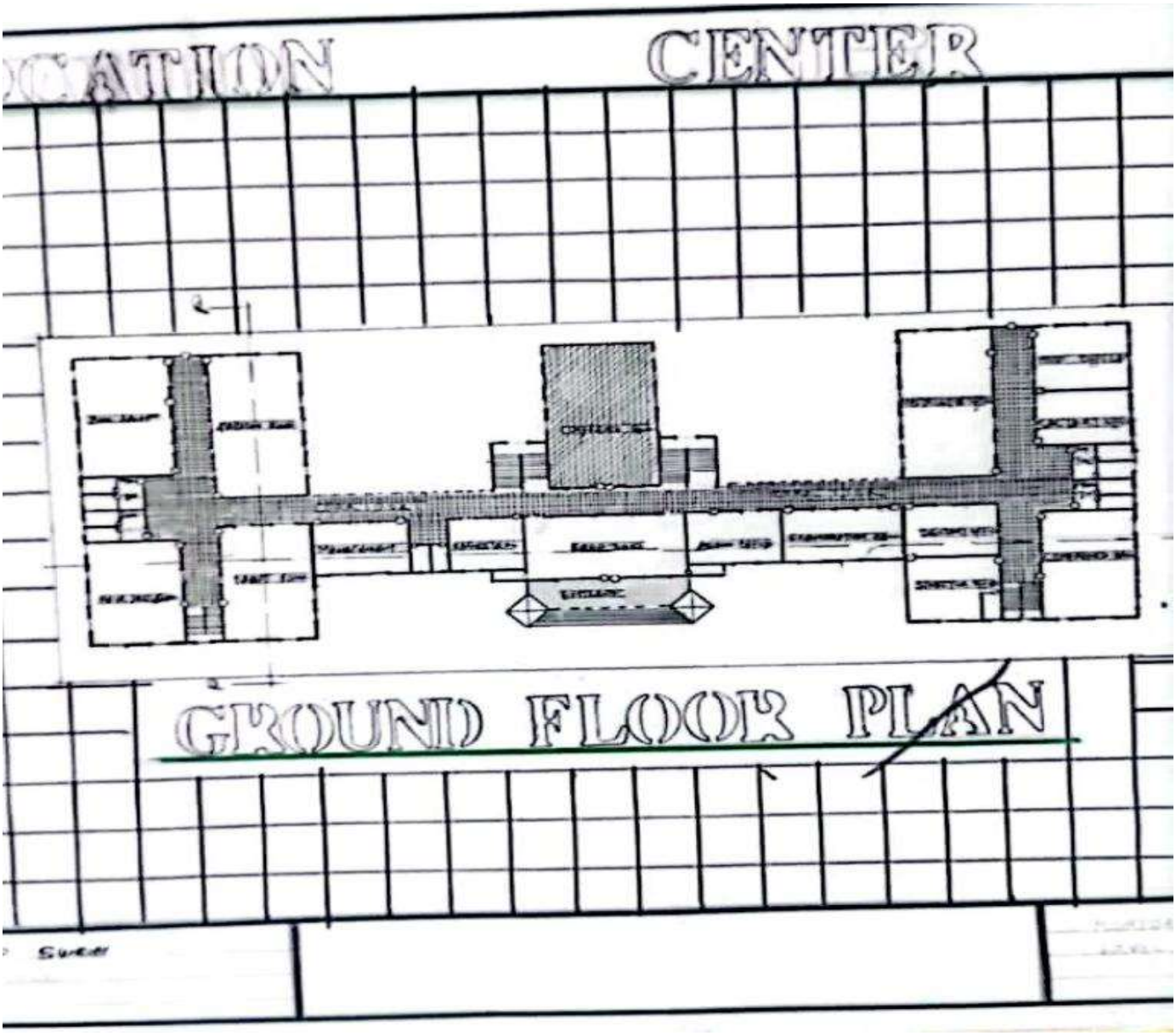
Keles, R., Johansson, M., & Andersson, T. (2022). Student narratives and participation in vocational education research: Insights from inclusive studies. International Journal of Special Education, 37(4), 120–138.

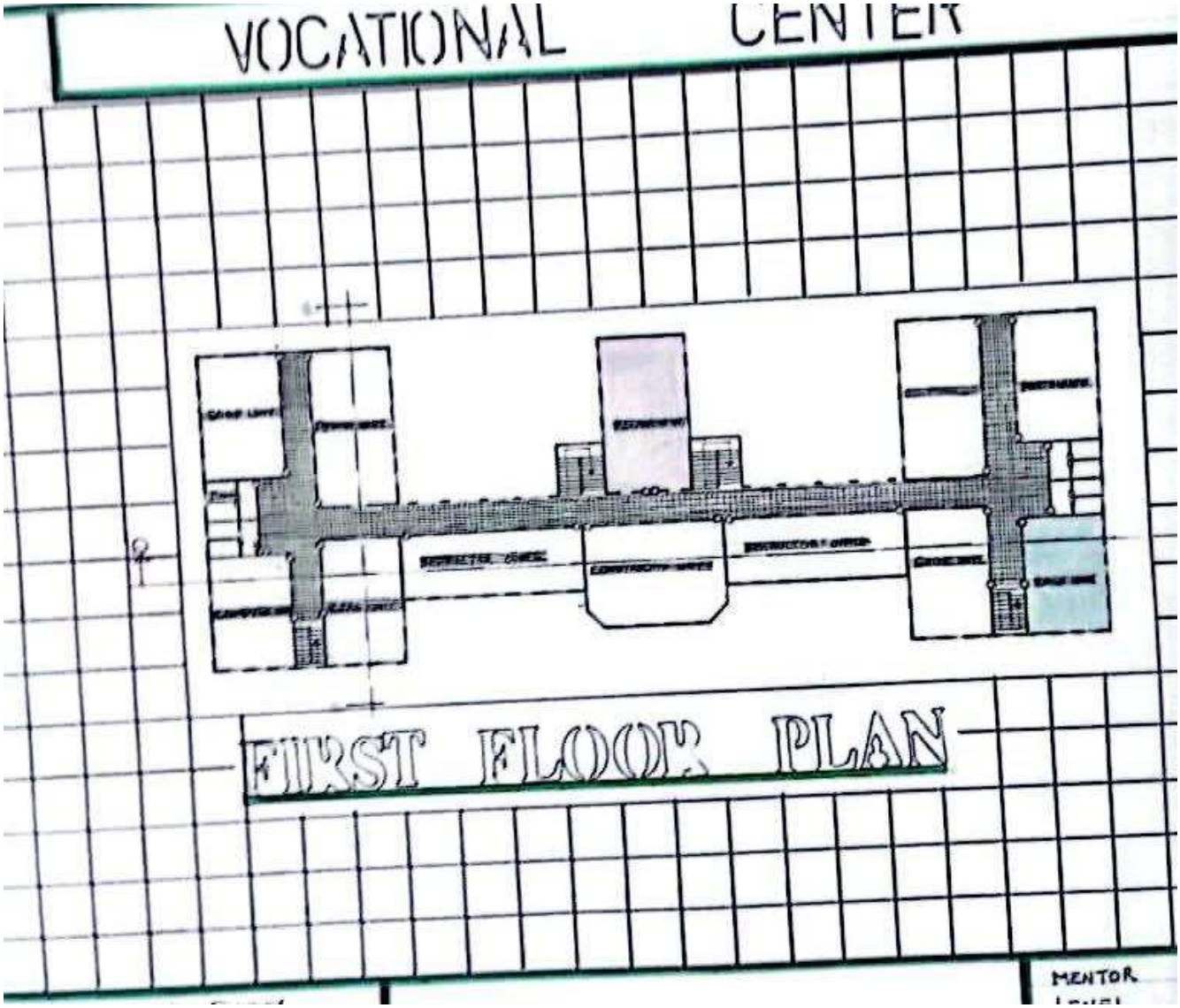
Ohman, M. (2026). Experiences of inclusion and exclusion in vocational training: Perspectives of students with special educational needs. Scandinavian Journal of Vocational Education, 41(1), 55–74.

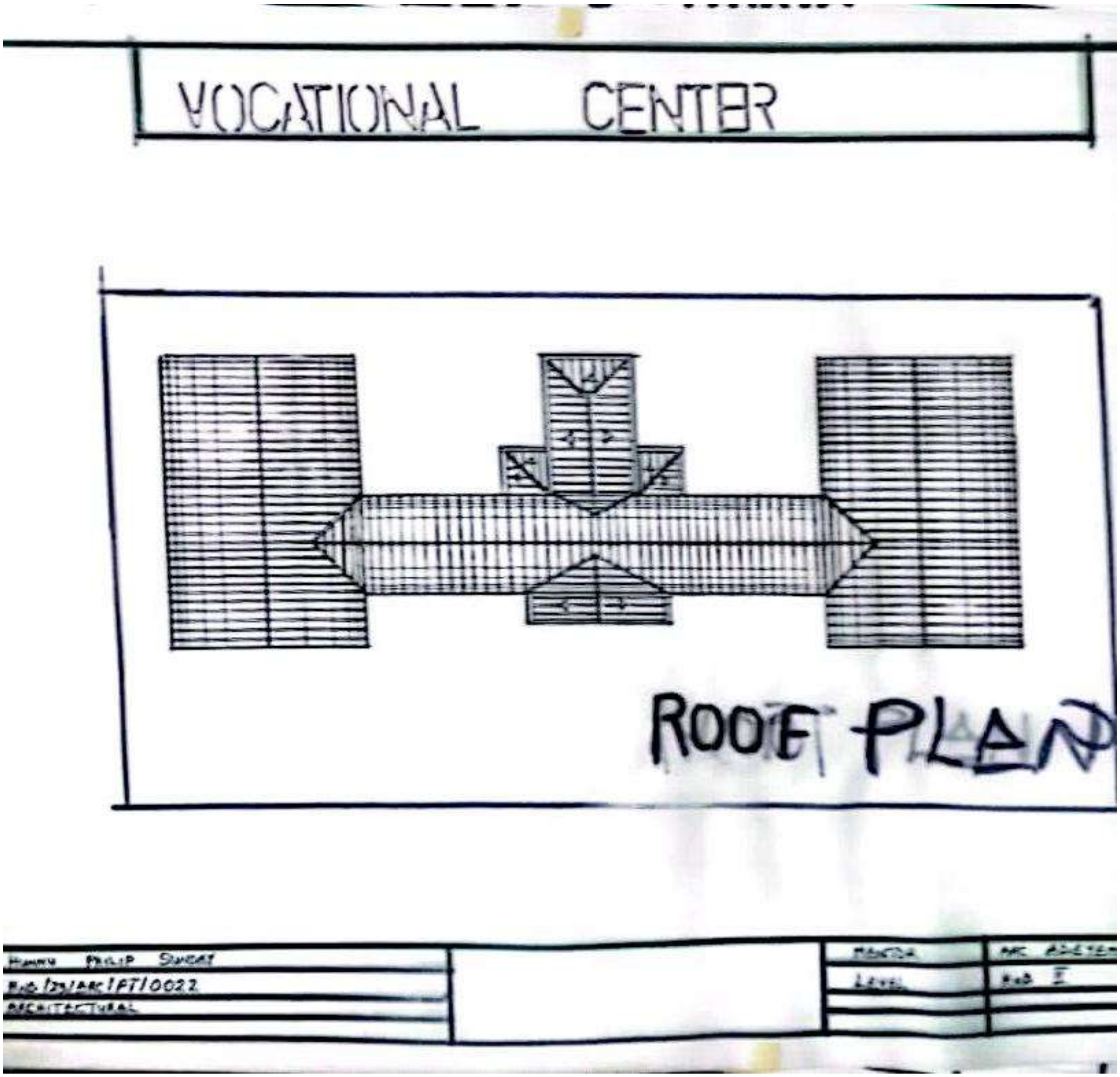
Ohman, M. (2022). Inclusive assessment practices in vocational education: A systematic review. European Journal of Special Needs Education, 37(3), 210–229.

Yngve, A., Nilsson, H., & Larsson, S. (2019). Support and accommodations for SEN students in vocational programmes: Challenges and opportunities. Vocational Education & Training Journal, 29(1), 33–50.

APPENDIX

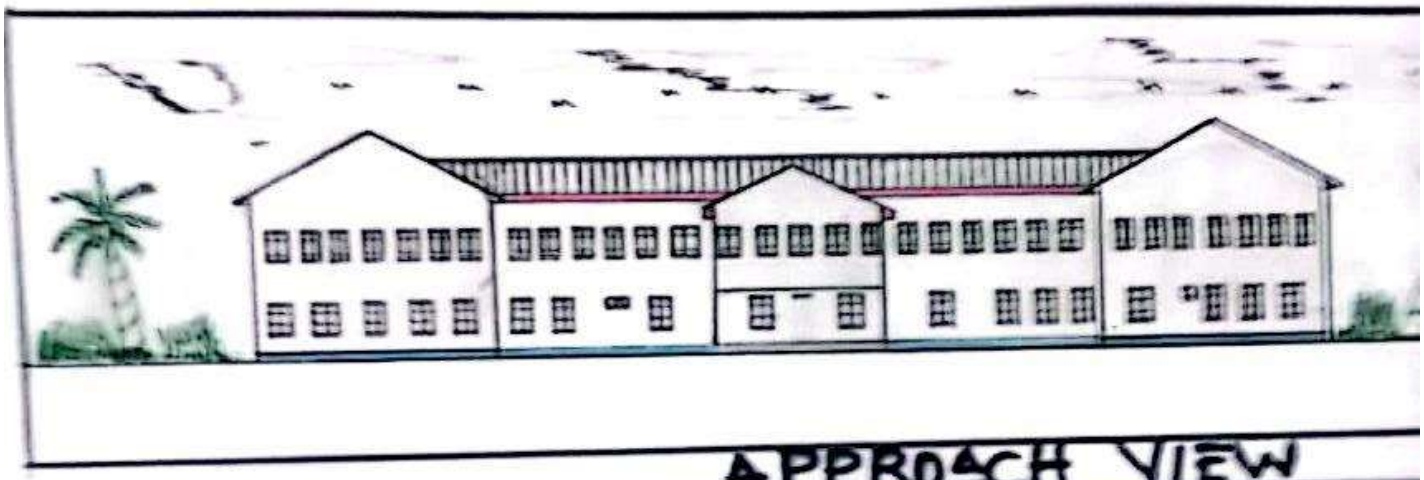



VOCATIONAL CENTER
FIRST FLOOR PLAN
MENTOR

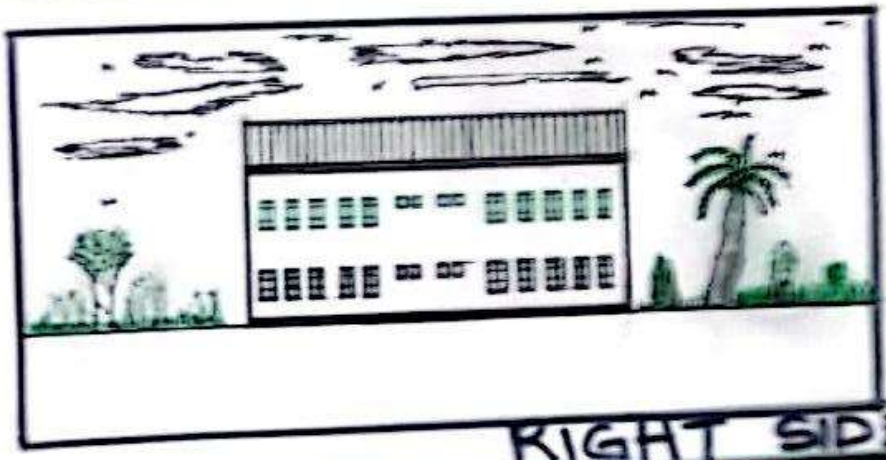

VOCATIONAL CENTER
ROOF PLAN


SECTION
NAME
DEPARTMENT
PHILIP SUNDAY
ARCHITECTURAL
MENTOR
LEVEL

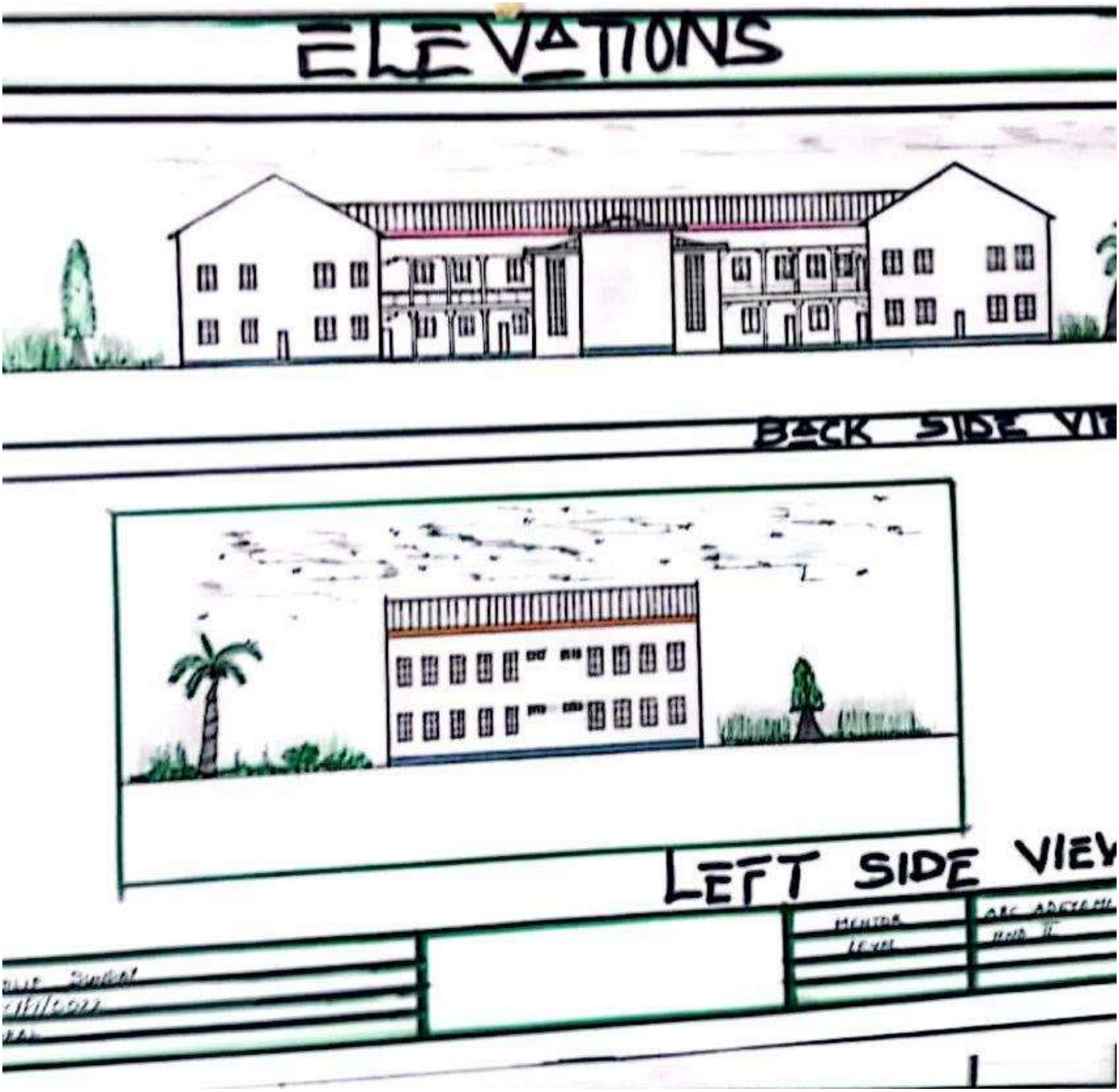
ELEVATIONS



APPROACH VIEW



RIGHT SIDE VIE


ELEVATIONS
BACK SIDE VI
LEFT SIDE VIEW