

**A PROJECT REPORT
ON
PROPOSED CORRECTIONAL CENTER (PRISON)
FOR
OYO STATE GOVERNMENT**

BY

**AJADI FARUQ OLAREWAJU
HND/23/ARC/FT/042**

SUBMITTED TO

**THE DEPARTMENT OF ARCHITECTURAL TECHNOLOGY
INSTITUTE OF ENVIRONMENTAL STUDIES
KWARA STATE POLYTECHNIC, ILORIN**

**IN PARTIAL FULFILMENT AS PART OF THE REQUIREMENTS
FOR THE AWARD OF HIGHER NATIONAL DIPLOMA (HND) IN
ARCHITECTURAL TECHNOLOGY**

JULY, 2025

CERTIFICATION

This project report has been duly authenticated and endorsed as having satisfied the requirements for the award of Higher National Diploma (HND) in Architectural Technology of the Department of Architectural Technology, Institute of Environmental Studies, Kwara State Polytechnic, Ilorin.

ARC. B.Y.F. ABDULAZEEZ
(PROJECT SUPERVISOR)

DATE

ARC. ADEYEMI F.O
(PROJECT COORDINATOR)

DATE

ARC. J.M TOMORI
(HEAD OF DEPARTMENT)

DATE

EXTERNAL EXAMINER

DATE

DEDICATION

This project is dedicated to Almighty Allah, the creator of the universe and protector of my life. This report is also dedicated to my parents and siblings.

ACKNOWLEDGEMENT

All praises is due to Almighty Allah who endows wisdom to whoever he wishes, may his blessings be on our leader Muhammed the opener of what has closed, the seal of what has passed, the helper of the truth with truth and the guide to your most straight path.

My sincere appreciation goes to all who contributed to the success of this project.

First and Foremost, my sincere gratitude goes to my project supervisor ARC. B.Y.F ABDUAZEEZ Director of the institute of environmental studies, and to my H.O.D ARC. J.M TOMORI and to other lecturers at the department of Architectural Technology, who had taken their time to contribute to every stage of my decision in this project.

I extend my sincere gratitude and appreciation to my parents Mr. & Mrs. AJADI, my brothers ENGR. IBRAHIM AJADI, ABDULAZEEZ AJADI, HABEEBULAH AJADI and my lovely sister NURSE RAFIAT ABDULRAFIU for their guardians and support throughout my educational programs.

I am also indebted to my friends especially the KINSMEN and my other course mates for their advice and courage seal established during course of our study.

ABSTRACT

Correctional center (prison) are institutions design to house individuals who have been convicted to crimes or are awaiting trial.

This project presents the architectural design and planning of a modern correctional center proposed for ibadan, oyo state. The facility aims to strike a balance between security, rehabilitation, and reintegration of inmates into society.

Emphasizing humane treatment, the design incorporates administrative units, inmate housing blocks healthcare facilities, educational and vocational training units, and recreational areas, all planned with functionality, safety, and aesthetic in mind. Guided by international correctional standard and Nigeria's Correctional Service Act of 2019, the project integrates sustainable site planning, effective zoning principles, and a rehabilitative architectural approach.

Through case studies, field observations (site analysis inventory), and interviews, the project identifies key infrastructural gaps in existing facilities and addresses them with innovative, context-sensitive solutions, ultimately, the proposed correctional center reflects a shift from punitive isolation to restorative justice, contributing to societal safety and inmate reformation.

The project demonstrates how thoughtful design can play a crucial role in prison reform by providing a secure yet rehabilitative environment, one that protects public safety while supporting long-term behavioral change.

TABLE OF CONTENTS

TITLE PAGE.....	i
CERTIFICATION.....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
ABSTRACT.....	v
TABLE OF CONTENT.....	vi

CHAPTER ONE

1.0 Introduction.....	1
1.1 Historical Background.....	2
1.2 Definition.....	2-3
1.3 Purpose of the project.....	3
1.4 Aim & Objective.....	3-4
1.5 Project Justification.....	4
1.6 Project Limitation & Constraints.....	4-5
1.7 Research Methodology.....	5

CHAPTER TWO

2.0 Literature Review.....	6-7
2.1 Case Study.....	8
2.2 Case Study One.....	8-11
2.3 Case Study Two.....	12-14
2.4 Case Study Three.....	15-17

CHAPTER THREE

3.0 History of the project town.....	18-20
3.1 Introduction to the proposed site	20-21
❖ Facts about the location	
❖ Site location description	
❖ Site location criteria	
❖ Population	
3.2 Site analysis/inventory.....	22
3.3 Site sustainability analysis.....	22-23
3.4 Climatic condition.....	23-24
❖ Rain fall	
❖ Temperature	
❖ Wind	

CHAPTER FOUR

4.0 Design brief.....	25
4.1 Design analysis.....	23-26
❖ Design scope	
❖ Space allocation standard	
❖ Space schedule	
4.2 Site planning.....	26
4.3 Project Scope.....	26-27
4.4 Design concept.....	27
4.5 Planning principle.....	29
4.6 Perimeter fencing.....	29-30
4.7 Fire protection devices.....	30
4.8 General requirement for lighting.....	30

CHAPTER FIVE

5.0 Design appraisal.....	31
5.1 Construction methodology and materials.....	31-33
5.2 Design characteristics (Landscape).....	33-34
5.3 Building structure.....	34
5.4 Service.....	35
5.5 General maintenance.....	35-36
5.6 Summary & Conclusion.....	36
Appendix.....	37-51
Reference.....	52

CHAPTER ONE

1.0 INTRODUCTION

Correctional center (prison) are institutions design to house individuals who have been convicted to crimes or are awaiting trial.

These facilities serve as an essential part of the criminal justice system, ensuring that offenders are held accountable for their actions while promoting rehabilitation and reintegration.

TYPE OF PRISON INCLUDE:

MAXIMUM-SECURITY PRISON:

This is a high security facility for dangerous and long-term offenders.

MEDIUM-SECURITY PRISON:

This is a facility for less dangerous offenders, focusing on both confinement and rehabilitation.

JUVENILE PRISON:

This is a specialized facility for offenders under the age of 18.

SPECIALIZED PRISON:

This is a facility for inmates with specific needs, including women prison and mental health.

1.1 HISTORICAL BACKGROUND

The history of correctional center reflects the evolution of punishment and justice. In ancient times (c.200bce), prison serve temporary holding facilities for those awaiting trial or punishment with penalty like execution, exile, or slavery being more common than long term confinement. During the medieval period imprisonment was use for debtors and political prisoners with the church introducing ideas of moral refund through penitential cell.

In the early modern period (16th to 18th century), work houses and institutions like London bridewell palace emphasized force labor and discipline influenced by enlightenment thinkers who advocated human treatment and rehabilitation. The industrial revolution saw the rise of modern penitentiaries, such as the Pennsylvania (solitary confinement) and auburn (congregate labor) systems along side practice like panel transportation to colonials.

By the 20th century, the focus shifted toward rehabilitation, introducing education, vocational training, and alternatives like probation and parole. However, the late 20th and early 21st centuries such challenges like mass incarceration, particularly in the USA, prompting debate on systemic inequities and privatized prisons. Modern system increasingly emphasizes instigative justice, mental healthcare, and reducing recidivism reflecting and evolving balance between punishment and rehabilitation.

1.2 DEFINITION

A correctional center is a facility where individuals who have been convicted of crimes are confined and rehabilitated.

It is also commonly referred to as a prison, jail or penal institution, depending on the legal system and the nature of the facility.

1.3 Key element of a correctional center:

Confinement: people who break the law maybe held in this facility as a form of punishment.

Rehabilitation: Many correctional centers aim to reform offenders through educational, vocational training, counseling and behavior modification program

Security: These centers often have varied levels of security (Minimum, Medium or Maximum) depending on the risk level of inmates.

Legal Oversight: They are operated by government agency, typically under a department of correction or justice.

Correctional center is design not only to punish but also to help offenders reintegrate into society as law abiding citizens.

1.4 AIM AND OBJECTIVES

Aim:

To design a modern, suitable, and human prison structure that prioritize security, rehabilitation, and reintegration, ensuring the safety of society while fostering positive behavioral change in inmate.

Objectives:

1. To create a facility or design a space and programs like vocational training, educational program and therapy to reduce reoffending after being released from the prison (recidivism).
2. To implement effective layout and modern systems to protect inmates, staffs and the public.
3. To create environment that meets international standards, health and wellbeing.

4. Provide facilities and programs to prepare inmate and reduce post-release challenges.
5. Design space that reduce stress and promote dignity, such as access to green areas or meditation zones.

1.5 JUSTIFICATION

Correctional center is an essential component of criminal justice system, playing a critical role in maintaining law, order and public safety and also to balance justice, societal protection and offender rehabilitation.

I therefore consider to propose a befitting structure of a correctional center to isolate offenders who post threat to public safety, create opportunities for offenders to make amends for their crimes as well as preparing inmate for reintegration into the society as law abiding citizen.

1.6 LIMITATIONS AND CONSTRIANTS

During the process of carrying out my case study in each of the correctional centers, because of high standard of security, a lot of restriction protocol where follow.

Due to it high security, I have to get a pass from the Nigerian correctional service office around each location which takes two to three weeks for approval.

Some of the limitations during my visit are as follow;

1. No entry into the facility with any form of electronic devices or digital devices including bags.
2. Limited access to some part of the facility
3. Limited access to some vital information of the prison
4. Prohibition from taking pictures yourself

5. Only have access to the picture or knowledge given by the parole warder

As a student of architecture, and the knowledge given by my coordinator, and with the help of the parole warder, I was able to carry out my case study.

1.7 RESEARCH METHODOLOGY

This project required the collection of relevant data and information on correctional center in Nigeria with special attention and regards to different correctional facilities already in use.

This was done through the help of the following;

1. Case study:

By visiting similar structure already in existence by taking their photographs and also study how they operate

2. Oral interview:

An oral interview was conducted with the patrol warder at the facility to get data and gather information's.

3. Observation:

I was able to observe some of the activities going on among the staff and also within the inmates.

4. I also carried out an online case study to get more knowledge on the policies and how prisons work in other countries.

CHAPTER TWO

2.0 LITERATURE REVIEW

Review on relevant literature

Correctional centers, commonly refers to as prison, play a center role in criminal justice systems by detaining individuals convicted of crimes. The literature on correctional facilities span multiple disciplines including criminology, sociology, psychology and public policy.

The evolution of correctional facilities date back to early punitive methods in ancient civilizations, where imprisonment was use more as a means of holding individuals until punishment rather than a form of punishment itself (Rotman, 1990). The modern prison system began to take shape in the 18th and 19th century with the rise of the penitentiary system, especially in western society. These institutions were initially envisioned as places for moral reform through isolation and religious reflection (Foucaulty, 1977).

Scholars often interpret the existence and operation of correctional center through various theoretical lenses

Retributive Theory: Emphasizes punishment as deserved consequences of crime.

Deterrence Theory: Suggest that imprisonment discourage criminal behavior.

Rehabilitation Theory: Argues that prisons should reform offenders through education, therapy and training.

Restorative Justice: Critiques the punitive model and advocate for reconciliation between offenders and victims (ZEHR, 1990).

This perspectives shape policy and practice differently depending on cultural, legal and political context.

Numerous studies have highlighted concerns about the condition within correctional facilities, especially in developing nations. Issues include overcrowding, inadequate healthcare, poor sanitation, violence among inmates, and limited access to educational or vocational programs (UNODC, 2013). Researchers such as HANEY (2006) have drawn attention to the psychological effects of imprisonment, including depression, anxiety and institutionalization.

In Nigeria, for instance, many correctional centers face severe infrastructure decay, congestion, and prolong pre-trial detention (Ajomo & Okagbue, 1991). These challenges raise human rights concerns and limit the rehabilitative capacity of the prison.

Many countries are undertaking prison reforms aimed at improving conditions, ensuring human rights, and making incarceration more rehabilitative. However systemic issues such as underfunding, corruption, political resistance, and lack of public support often hinder meaningful change. International bodies like the United Nations Standard Minimum Rules for the Treatment of Prisoners (The Mandela Rules) set out guidelines for humane treatment but compliance remains inconsistent worldwide.

CONCLUSION

The literature on correctional centers reveals a complex and often contradictory system. Why prisons aim to serve justice and protect society, they frequently fall short of their rehabilitative and humanitarian goals. There is growing recognition that systemic reform, alternative sanction, and investment in rehabilitation are essential for a more effective and just penal system.

2.1 CASESTUDY

Introduction:

The case study explores the effectiveness of rehabilitation programs in correctional centers, focusing on promoting behavioral change and social order, the research aim to investigate the impacts of these programs on inmate behavior and recidivism rate providing insight into the challenges and opportunities for improvement in correctional center.

2.2 CASE STUDY 1

MAXIMUM KIRIKIRI PRISON

HISTORICAL BACKGROUND

The maximum-security prison, kirikiri is located in apapa, lagos, Nigeria.

The prison was established in 1955 during the British colonial rule as part of effort to formalize the penal system in Nigeria. After Nigeria gain independent in 1960 the facility continues to operate under the Nigerian prison service (Now the Nigerian correctional service).

The prison was original designed for high security inmates and those awaiting execution, it became notorious for overcrowding, harsh condition and housing political prisoners, especially during military rule. It has a capacity of 1056, and it has struggled with civil congestion and inadequate facilities.

In recent years, there have been effort to reform the Nigerian correction system which include the maximum kirikiri, focusing on improving conditions and introducing rehabilitation programs, such as the 2019 Nigerian correctional service act.

The significance of maximum kirikiri prison today, remains a symbol of Nigerian's challenges with criminal justice, reflecting issues of overcrowding, justice delays, and the

need for systemic reform. It also serves as a sight for examining the interception of colonial legacies and contemporary governance in Nigeria.

LOCATION:

Maximum kirikiri prison Lagos State.

DISCRIPTIONS:

1. The kirikiri maximum prison is a colonial era facility meant for 1056 inmates but often houses double that number.
2. Conditions are poor, with overcrowding, limited food, and inadequate health care.
3. A VIP tier for those who can pay for better living.
4. Oat notable political and criminal figures, including many on death role.
5. The complex include rehabilitation facilities like vocational workshop, and a bio gal system.

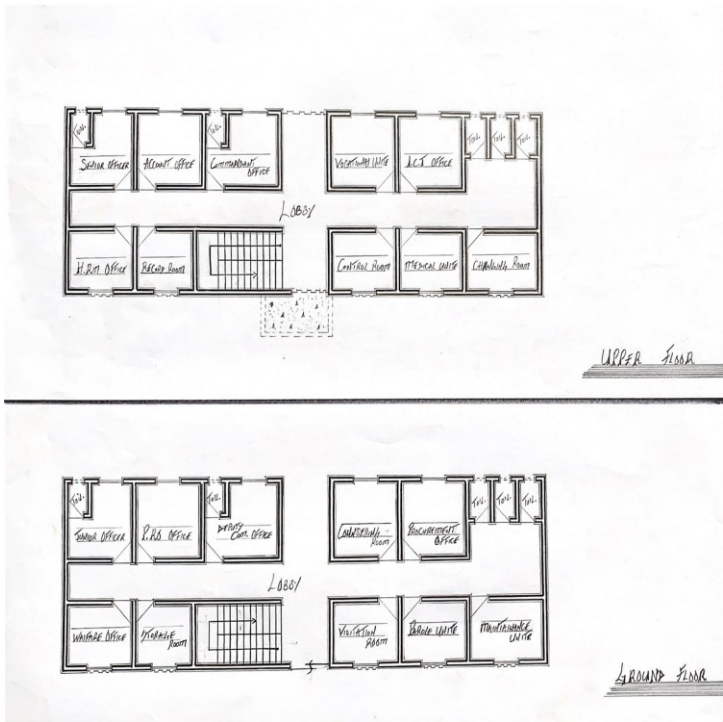
MERITS AND DEMERITS

Merits:

1. High security measures, the facility is equid with security system to prevent escape.
2. Separations of inmate's base on their crimes and threat level.
3. They offer vocational training, educational programs, and religious activities aimed at reforming inmates.
4. Special attention is given to inmate with critical health need such as pregnant women in the women section
5. Kirikiri maximum prison collaborate with non-governmental organizations (N.G.Os) and religious bodies to improve inmates welfare.

Demerits:

1. Inadequate resources, due to insufficient funding.
2. The prison often houses more inmate than it intended capacity.
3. Inmates release from kirikiri maximum prison often face societal stigma.
4. So many abandon cell blocks without renovation.
5. Overcrowding, causes health risks and spread of infections and diseases.



KIRIKIRI MAXIMUM SECURITY PRISON

CASE STUDY 1



KIRIKIRI MAXIMUM SECURITY PRISON LOCATION - LAGOS

CASE STUDY ONE (1)

FIGURE 1.0

2.3 CASE STUDY 2

THE FEMALE KIRIKIRI PRISON

HISTORICAL BACKGROUND

The female kirikiri prison was established in 1963 in Lagos Nigeria. It was created to house female inmates separately from the male center part at the nearby kirikiri maximum and minimum prison

Its establishment reflected effort to address gender specific incarceration needs within the broadly penal system inherited from British colonial rule. Over the years, it has served as a facility for women convicted of crimes, those awaiting trial and vulnerable groups such as pregnant women and nursing mothers.

Despite its purpose, the prison has faced issues like overcrowding, inadequate healthcare, which mirror systemic challenges in Nigerian correctional facilities.

LOCATION:

Kirikiri Women's prison Lagos state.

DESCRIPTIONS:

1. Built in 1963, originally for 211 women, current population fluctuates between 200 to 300 inmates, including children accompanying their mothers.
2. It operates in a humane atmosphere than typical prisons featuring normal attire, vocational training, and N.G.O back welfare.
3. Systemic issues: overcrowding of awaiting trial inmates, under-resourced health care and hygiene challenges persist.
4. The companionate leadership under DCP EKPENDU and active N.G.O partnerships provide hope by fostering rehabilitation, dignity, and access to justice in an environment that combines custody with care.

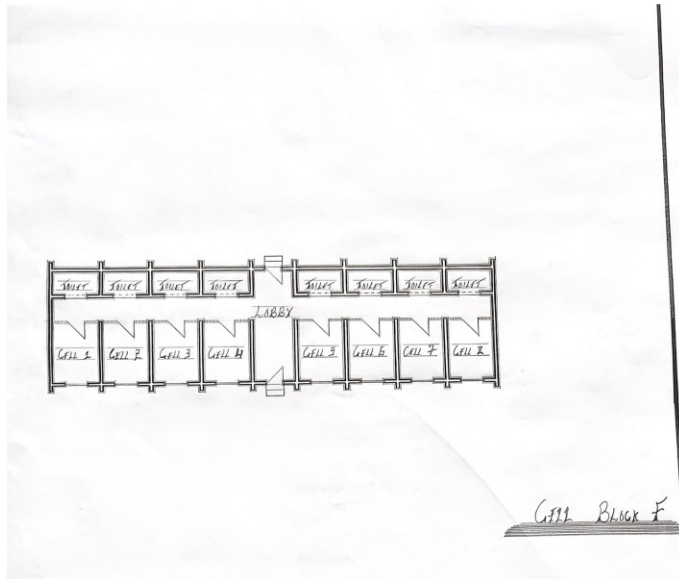
MERITS AND DEMERITS

Merits:

1. Offers skills acquisition programs like tailoring, hairdressing, and craft to help inmate
2. Offers child care for inmate with infants.
3. It is well landscape.
4. Allow child supporting program from N.G.O
5. Inmate has good relation with the patrol warders

Demerits:

1. Insufficient government funding
2. Many inmates are held as an awaiting trial
3. Inadequate feeding which causes poor living condition.
4. Inadequate mental health support system.
5. Inadequate sanitary appliances, which result to unhygienic environment



KIRIKIRI

FEMALE

SECURITY

PRISON

CASE STUDY 2



KIRIKIRI

FEMALE

SECURITY

PRISON

LOCATION - LAGOS

CASE STUDY TWO (2)

FIGURE 2.0

2.4 CASE STUDY 3

NIGERIAN CORRECTIONAL CENTER IJEBU-ODE

HISTORICAL BACKGROUND

The Nigerian correctional center Ijebu-Ode, is located in Ogun State and was established in 1925. It is established during the colonial era to manage crime and enforce British legal system with many facilities constructed in the early to mid 20th century to support the administration of justice.

In recent year, effort have been made to improve conditions and a line with the Nigerian correctional service act of 2019, which emphasizes rehabilitation and reintegration. This center serves the Ijebu-Ode area in Ogun State providing services typical of correctional facilities in Nigeria, including the tension and limited rehabilitation programs.

LOCATION:

Nigerian correctional center Ijebu-Ode, Ogun state.

DICRIPTIONS:

1. Located in Ijebu-Ode, Ogun state, the federal correctional center blends traditional custody with progressive welfare programs. Despite facing security challenges, evidence by a December 2023 jail break, it has made strides in Covid-19 responds, inmates education and vocational training.
2. Limited rehabilitation infrastructure only a few working workshops.
3. The center remains a periodontal institution for custody, reform and education under Nigerian's correctional system.

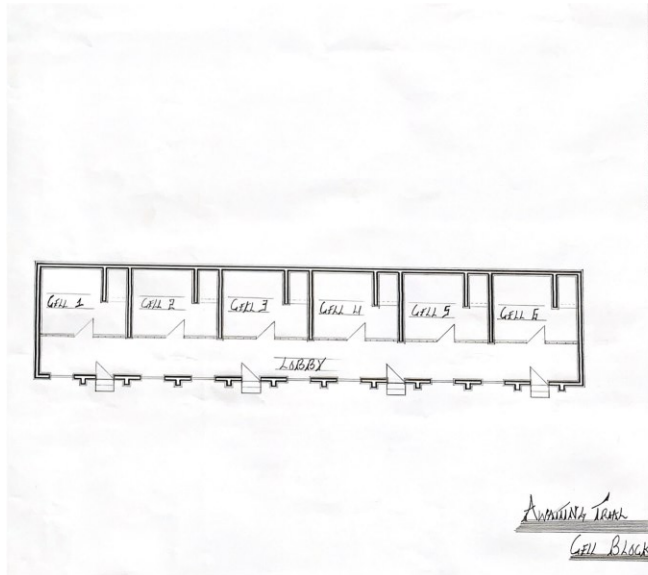
MERITS AND DEMERITS

Merits:

1. The center provides job opportunities for local, including officers and support staffs
2. They offer vocational training programs and skills development initiatives to help reintegrate into society.
3. Well secured environment
4. Provide proximity for family to visit, supporting inmate mental health and maintain social connections.
5. Well manage detainees awaiting trial.

Demerits:

1. Like many Nigeria correctional center, it suffers from overcrowding
2. The facility has outdated structures.
3. Inadequate infrastructure.
4. Inadequate health care system.
5. Poor living condition on part of the inmate.
6. Shortage in prison staffs.



NIGERIA

CORRECTIONAL

CENTER

IJEBU-ODE

CASE STUDY 3



NIGERIA

CORRECTIONAL

CENTER

LOCATION - IJEBU-ODE

CASE STUDY THREE (3)

FIGURE 3.0

CHAPTER THREE

3.0 HISTORY OF THE TOWN

LOCATION:

Ibadan, Oyo State.

FOUNDING AND EARLY HISTORY:

Ibadan was founded around 1829 by group of Yoruba warriors, mainly from Ife, Oyo, and Ijebu.

It began as a war camp for warriors from various Yoruba kingdom during a period of intense civil war after the fall of the old Oyo empire. The name IBADAN is derived from “EBA ODAN” meaning “BY THE EDGE OF THE SAVANNA”.

MILITARY AND POLITICAL RISE:

Ibadan grew quickly into a military strong hold and became the headquarters of Yoruba military power in the 19th century. The city establishes a political system (unusual for Yoruba land) govern by a council of war chiefs (Baales), not kings.

ROLE IN YORUBA WARS:

Played a central role in several inter-tribal Yoruba wars, including the kiriji war (1877-1893) a major civil war among Yoruba subgroups.

MODERN ERA:

Today Ibadan is the capital of Oyo state and one of the largest city in west Africa by land area.

It remains an important center for education, commerce, and Yoruba culture known for its historic sight, market (like **OJA'BA**) and traditional institutions.

HISTORY OF PROJECT TOWN

LOCATION:

Agodi, Ibadan, Oyo State.

HISTORY:

Colonial Origins (1900's):

Agodi became prominent during the British colonial era. When the colonial government sought to establish administrative control over the Yoruba region, Ibadan was chosen as a central hub. Agodi, being near the city center, housed key colonial administrative buildings.

The government secretariat at Agodi was built to serve as the administrative center for the then western region. It also became the location for the governor's office, various ministries, and public offices under colonial and later post-independence governments.

Post-Independence Period:

After Nigeria gained independence in 1960, Ibadan remains the capital of western region, and Agodi maintained its status as the administrative heart of the region.

It was the seat of the western Nigerian government, led by political leaders such as OBAFEMI AWOLOWO. Agodi became a symbol of political and bureaucratic power in the southwest, especially with its proximity to the premier's office and other regional power centers.

The term "AGODI" is sometimes used metonymically to refer to the oyo state government, because the oyo state government secretariat is located there. Decision taken at agodi often refer to governmental actions. It is where the governor of oyo state has his official office.

Modern Development:

Today agodi is the center of government in oyo state, home to key state ministries and agencies.

It's also a zone of historical architecture and modern redevelopment with a latitude of 7,400°N and longitude of 3,9166°E.

3.1 INTRODUCTION OF THE SITE

Facts about the proposed location:

The site is located in ibadan north local government area in agodi town ibadan, oyo, state. Ibadan north L.G.A was created in 1991, specifically on august 27, 1991 by the administration of General Ibrahim Badamosi Babagida, AS Part of the military government effort to expand local government areas in Nigeria. It was carved out of the defunct ibadan municipal government.

SITE LOCATION/DESCRIPTION

Agodi town at ibadan north local government area, ibadan, oyo state is located on a latitude of 7°24'33" north and longitude 3°53'24" east of the equator, ibadan north L.G.A occupies an area of 22-27 square meters, which makes it part of the lager ibadan metropolitan area, which spans around 3,850 square meters.

SITE LOCATION CRITERIA

Site selection is the consideration of certain factors which influence the development of the site and spatial activities. Site selection criteria are based on screening and factors affecting site selection include;

1. Comfort
2. Ventilation
3. Solar control
4. Thermal control E.T.C

The activities taking place on the site due to the nature of the project, the site selection should meet the requirement for the efficient functioning of the proposed design.

Furthermore, the size of land available for development should be adequately reasonable to accommodate such functions.

However, the proposed site for the construction of the proposed design (correctional center “prison”) has enough land facilities that will facilitate the reintegration of inmate into the society.

3.2 SITE INVENTORY/ANALYSIS

This is done on the basis of the purpose for which the site is to serve, certain precautions are considered to acquire vital information of the site, vegetation and geology, E.T.C. It also involves carrying out a preliminaries survey of the site.

1. **Soil Condition:** The type of soil is sandy-loamy soil. Hence and good vegetation of trees, shrubs and grasses.
2. **Geology:** This soil has a poor load bearing capacity and hence raft foundation will be used for the structure to be erected on the site.
3. **Vegetation:** The site is covered with shrubs, palms and trees, most of it would be retained for shading devices and landscaping.
4. The sunrise and sunset will be considered for building orientation, which will give effective consideration for ventilation and solar radiation control for total comfort of the staff and inmates.

3.3 SITE SUITABILITY ANALYSIS

For a complete project like the prison, its success does not only depend on the functionality and security of the design but also on a careful choice of the site. For this project, the site has already been selected, although the criteria for selecting a site. This must and shall be used to analyze the selected site.

These criteria include;

1. **Location:** The most important factors in choosing the site for a correctional center setting is the location of the site in relation to other facilities in the location of the site in relation to other facilities in the proposed project.
2. **Accessibility:** The next important criteria after site location is a function of accessibility, for site to be adequately accessible, it must be suitably located within the area from which access it's required, traffic routes either vehicular or pedestrian is an important function on site.

3. **Size:** An important factor that ought to be considered is the size of the site. The site must be large enough to permit the distributions of functions on the same level, this increases efficiency of workers and inmate in continuity of the reintegration of the inmates.
4. **Service:** Availability of services like electricity, sewage, and water on site cannot be over emphasized. The site for any project therefore, has these services already laid out.

3.4 CLIMATE CONDITION

Climate condition of an area is the average weather condition of such area after a long period of time.

Certain factors that affect the element of climate such as temperature, wind, and humidity include latitude, altitude, relief, proximity to sea, ocean position of places in relation to the direction of the sun rays.

1. Rain Fall:

This shows that rain fall in month of February to November with June & September having the peak fall January is the driest month.

2. Temperature:

The average annual temperature in Ibadan is 25.9°C/ 78.5°F. There is about 48 inch rain annually over 123 days.

3. Wind:

The wind is mostly from the north-east, which is cold, dry, and density. While from the south-west, which usually carry warm, humid air from the ocean toward land. It brings significant rainfall and moisture.

CONCLUSION

A proper and well care precaution must be taking into consideration, when it comes to selecting a particular project and all these above discussed must be put in place in designing a large or any project

CHAPTER FOUR

4.0 DESIGN GENERAL REQUIREMENT

DESIGN BRIEF:

After researching and making proper planning for the design or project involve, to archive functional and well-established design or project, there must be a brief to work on.

The project brief depends generally on the scope of individual design. The brief of this project is therefore based on various activities and design that takes place in the correctional center (prison).

To have enough insight or brief for the proposed project, research was carried out on the existing correctional centers. The correctional center consists of the administrative block, custody blocks, and specialize blocks E.T.C.

4.1 DESIGN ANALYSIS

This is the process of itemizing units within the component of the center design with a view to establish a solid, appropriate and functional flow. The units of the design are as follows;

Units Under Administrative Block:

1. Entrance
2. Senior Officer Office
3. Junior Officers Office
4. Parole Unit

5. Secretary Office
6. Account Office
7. Control Room
8. Procurement Room
9. Record Room
10. I.C.T Office
11. Welfare Office
12. Changing Room
13. Conference Room
14. P.R.O Office

4.2 SITE PLANNING

The site is plan in order to give it a define shape and also to reflect the activities taking place. The location of the correctional center and facilities, within the site follows this main principle;

1. The zoning principle (private, semi private and public zone) is respected which enhance placement of each structure in respect to the level of egress and ingress.
2. Structures are place in accordance to their usage and function.

4.3 BRIEF ANALYSIS

The Design Scope

The following;

- ❖ Administrative Block
- ❖ Inmate Cell Block
- ❖ Security Unit

- ❖ Rehabilitation & Educational Unit
- ❖ Healthcare Unit
- ❖ Recreation Unit
- ❖ Supporting service Units
- ❖ Specialized Unit

The above is some of the specific component that constitutes the foundation and framework of the project.

4.4 DESIGN CONCEPT

First, the process of analyzing the design into necessary unit required for the design is based on the data collected through research methodologies.

The grouping of the various units together according to their relationship with one and other is also based on the data and information gathered.

The concept of the design was derived from the functional relationship and bubble diagram prepared out of the design brief within the correctional center.

Units Under Solitary Confinement Block

1. Admin
2. Control Room
3. Visitation Room
4. Guard Station
5. Cell Rooms
6. Medical Room
7. Processing Room
8. Storage Room
9. Convenience

SCHEDULE SPACE ALLOCATION STANDARD

S/N	UNITS	LENGHT	WIDTH	TOTAL
1.	Entry Office	3m	3m	9m ²
2.	Commandant Office	3m	4.3m	12.9m ²
3.	Senior Officer Office	3m	4.3m	12.9m ²
4.	Junior Officers Office	3m	3.3m	9.9m ²
5.	Conference Room	3m	6m	18m ²
6.	Secretary Office	3m	3m	9m ²
7.	Account Office	3m	3m	9m ²
8.	P.R.O Office	3m	3m	9m ²
9.	Parole Unit	3m	3m	9m ²
10.	Control Room	3m	3m	9m ²
11.	Welfare Office	3m	3m	9m ²
12.	Record Room	3m	3m	9m ²
13.	I.C.T Room	3m	3m	9m ²
14.	Procurement Room	3m	3m	9m ²
15.	Convenience	1.5m	1.2m	1.8m ²
16.	Admin	3m	3m	9m ²
17.	Guard Station	3m	3m	9m ²
18.	Visitation Room	3.2m	3m	9.6m ²

19.	Medical Room	2.8m	3m	8.4m ²
20.	Storage Room	2m	3m	6m ²
21.	Processing Room	2.4m	3m	7.2m ²
22.	Inmates Cell Rooms	2.4	2.4	5.8m ²
23.	Convenience	1.2m	1.4m	1.7m ²

4.5 PLANNING PRINCIPLE

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

4.6 PERIMETER FENCING

The installation of a barrier or fence around the outer boundary of the property. The purpose of perimeter fencing can vary depending on the context but common reasons include;

1. Security

- ❖ **Access control:** Regulating who can enter or exit the facilities.
- ❖ **Protections:** Preventing unauthorized access, trespassing or intrusions.

2. Safety

- ❖ **Boundary:** Clearly marking out the facilities lines

- ❖ **Hazard Prevention:** Preventing Accidents or injuries by defining the perimeter.

4.7 FIRE PROTECTION DEVICES

This should be a carefully observed and periodically reviewed to ensure that the fullest use can be secured, protection of facilities in an emergency fire.

The assembly point are to be located at strategic position in case of any fire outbreak. Fire resistance material like alarm system is to be installed so that everyone could be alerted in case of hazard. Fire retarded floor and wall finishes are to be used.

4.8 GENERAL REQUIREMENT LIGHTING

For the purpose of this project effort will be made as much as possible to light up the entire facilities naturally before the use of artificial lighting to improve surveillance of the inmate activities.

CHAPTER FIVE

5.0 DESIGN APPRAISAL OF PROPOSED SCHEME

In any project design, there are two basic factors that should be considered. These factors are functionality and aesthetic of the design, although to some designers, aesthetic and functionality of any building are incompatible but in the case of this project, both aesthetic and functionality of the design will be considered to satisfy the highly demanding functional requirement and to create aesthetically and proportionally balanced design.

The functional efficiency of correctional center 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.

5.1 CONSTRUCTION METHODOLOGY AND MATERIALS

To easy planning, construction and servicing of the administrative custody block, grid system is introduced in the design. The grids are of two kinds;

- ❖ The layout planning
- ❖ Elements with which the building is constructed for clarity, this subject is discussed under 4 heading which are;

The Structural Grid: This relates to the major zones in the building like the biggest and most permanent parts of the building shell. The determinant of an internal structure grid depends on;

- ❖ Span of structural system adopted
- ❖ The nature of floor loading adopted as different parts of the building experience varied loading.

- ❖ Spaces and dimension required in the building.

Construction Grid: Considers the sizes of building products and materials available in the market, this reduces unnecessary wastage to fit the designed space.

Service Grid: They exist to alleviate the problem of disturbing service points throughout the building. These points include power points and telephone outlets.

Planning Grid: They guide the location work group and their work places. In addition, they impose an overall order and maintain individual and group space standards.

- Building Orientation:

Orientation of the building will be chosen according to the form of the site and at the same time given credence to traffic.

This traffic is categorized into;

- ❖ Vehicular
- ❖ Pedestrian

Pedestrian movement will be given adequate consideration and proper separations from the correctional perimeter.

- Landscape:

Landscaping is necessary to improve the aesthetics of the environment, barrier against solar radiation and absorption of noise from the environment. Hence, use of trees, shrubs, and grasses will dominate in this design than concrete surface of landscape.

- Construction materials:

The construction materials that will be used for this project will be limited to Nigeria labor market having in mind that the market is made up of indigenous workers. Therefore, the building materials and techniques be locally available in Nigeria.

- Foundations:

Simple concrete strip/pad foundation shall be used.

- Floor finishes:

Hard wearing and resistant flooring materials shall be used for this design for easy maintenance and durability. Ceramic floor tiles for the administrative block and terrazzo floor finishes shall be used for all public spaces and custody block.

- Wall and internal partitions:

The external walls shall be of sand-Crete hollow block materials while some internal partitions may be of concrete, which will be treated against fire accident.

- Doors and windows:

In this design, the doors of the major entrance into the site will be steel/metal made gate while other doors and windows will be four panel door and casement metal window.

- Roof materials:

The roof materials shall be of an aluminum long span.

5.2 DESIGN CHARACTERISTIC (LANDSCAPE)

The idea of planning a good surrounding evolves 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, a clean and well-planned site. In view of these the following had been adopted in planning the site layout.

LANDSCAPE

The 2 type of landscape that will be apply includes;

- ❖ Soft landscape
- ❖ Hard landscape

Soft landscape elements

- ❖ Tree (Vegetation): Trees also has been strategically planned to be plant at turning point, addition to the existing one by the road and closer to some structures to perform the function of shading device.
- ❖ Grasses/lawn: Bahamas grasses have been suggested as type of soft landscape in some area liable to be influenced negatively by erosion. It gives a good aesthetical view on the ground surface which makes it look more appealing to the eyes.

Hard landscape elements

- ❖ Asphalt: This will be used for drive ways and parking lots. It is economical and durable both for staff and visitors
- ❖ Interlocking paving: Used for walk ways and outdoor paving to blend with the natural texture of the environment.
- ❖ Concrete Krebs: Used to separate tarred surface from the lawn covered areas.

5.3 BUILDING STRUCTURE

The custody block is a story building with courtyard, supported by beams and column at appropriate intervals. Most modern buildings are usually constructed by introducing grid into the design.

For this project, structural grid system was employed in filled sand Crete blocks were used for all retaining walls of the building. The roofing system used for the building is well seasoned timber roofing and metal roof trusses.

5.4 SERVICES

These include;

1. Electrical Services: The electrical services will be of high quality and cables in concealed and conduit wiring system will be used. There is power house to generate constant electricity supply in case of power break out.
2. Sewage Disposal: For effective drainage of both surface and soil waste appropriate sizes of pipes are used. All pipes used are run into duct system with leaf net provided on drainage pipe to prevent blockage from soil waste.
3. Drainage
4. Waste Disposal e.t.c.

5.5 GENERAL MAINTENANCE

Maintenance cannot be isolated from the initial planning and design of any architectural project, especially a project of this caliber which involves reinstating and promoting human behavior as well as social aspect, timely maintenance of the structure and facilities to put them in proper working condition to enhance work ability and habitability of both structure and facilities for maximum satisfaction.

Maintenance work in real technology is defined as work undertaken to keep or restore every facility of a building or site to an acceptable standard. The work may be carried out with fore thought, control and records i.e planned maintenance or carried out on an emergency basic when the need arises.

The maintenance of building and facilities will be duly attended to with regular servicing or equipment and other facilities.

The internal work consists of the inmate cell blocks, administrative block, specialization block e.t.c.

The external works consists of so many factors that are of greater significance and these factors are as follow;

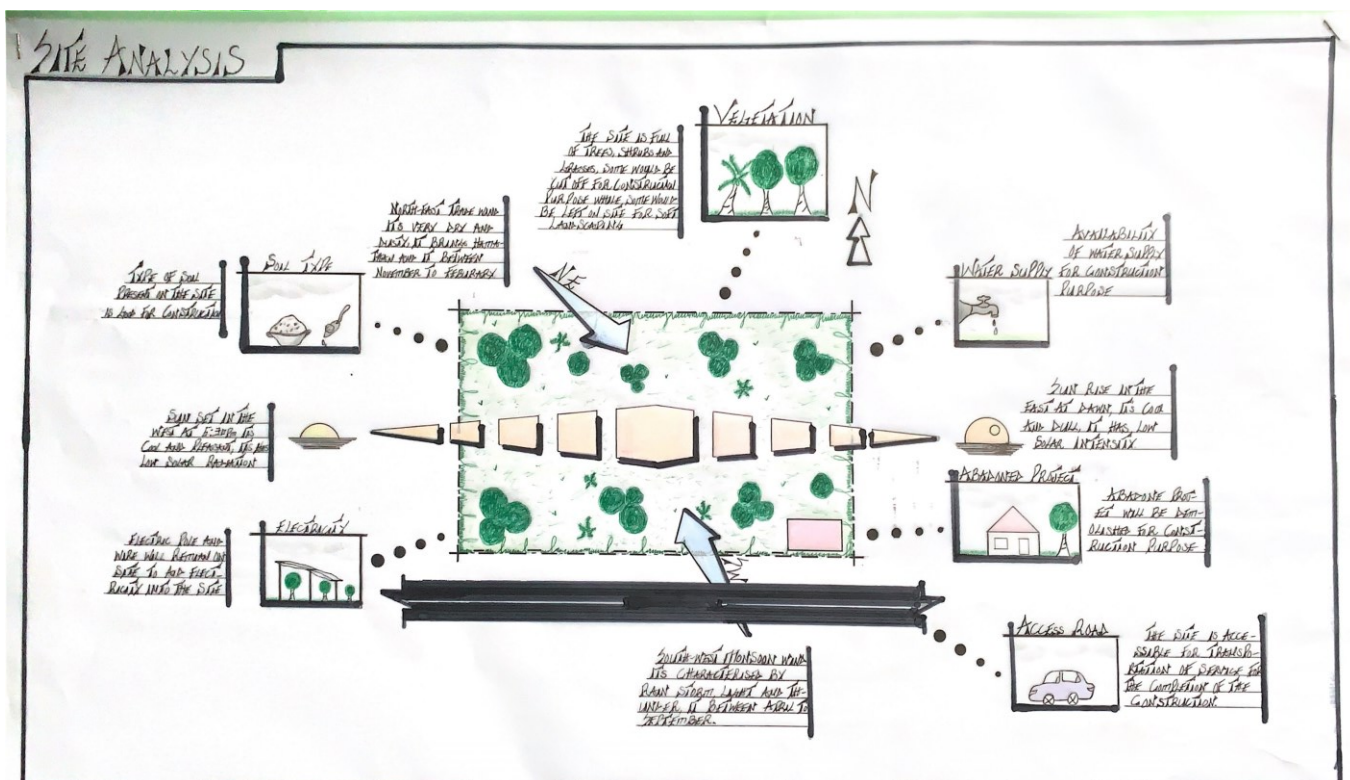
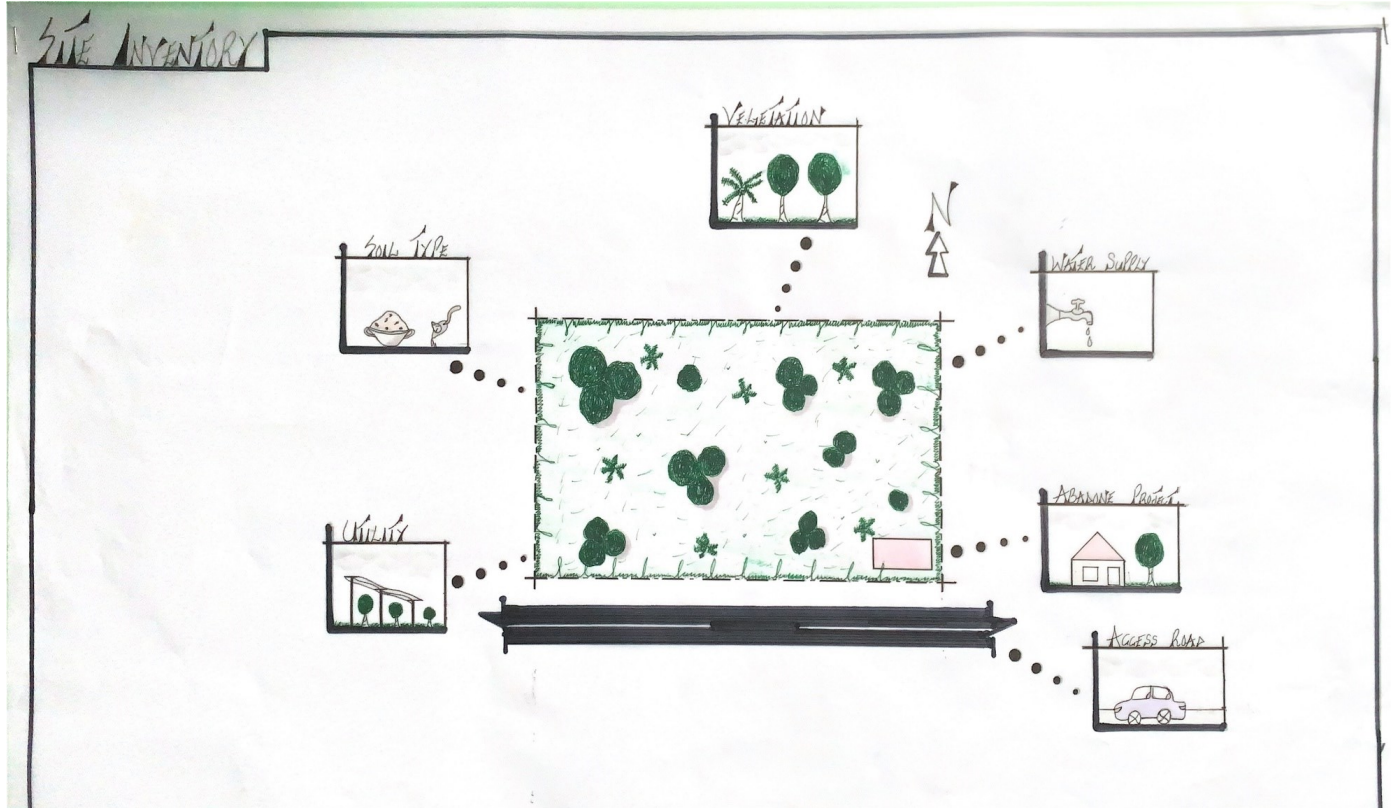
- ❖ Parking space
- ❖ Access road e.t.c

5.6 SUMMARY & CONCLUSION

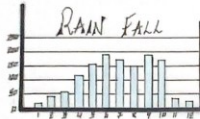
The complexities of correctional centers focusing on rehabilitation programs, challenges and opportunities for improvement. It highlights the importance of effective rehabilitation in reducing recidivism rates and promoting social reiteration.

In conclusion correctional centers plays a critical role in the criminal justice system and their effectiveness depends on well-designed rehabilitation programs adequate resources and a commitment to rehabilitation by prioritizing evidence-based practices, improving conditions and addressing the unique needs of inmates. Further research and investment in correctional center reform are essential to creating safer, more effective and more humane correctional systems.

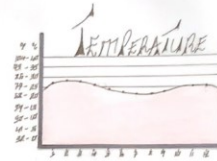
APPENDIX



CLIMATIC DATA



THE NORTH EAST TRADE
WIND, HAS COOL, DRY AND
DENSELY. WIND SHOULD BE
STIMULATED ON THE ADRIAN LINES
SHOULD BE USE TO FLARE WIND.



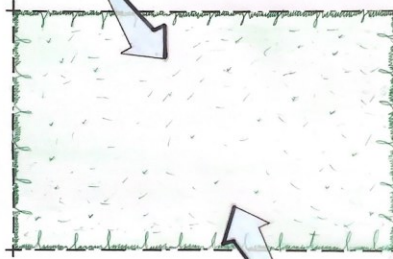
THE GREAT FALL MOUNTAINS
FROM GREAT FALLS INTIMATE OF
FEBRUARY TO NOVEMBER WITH JUNE
SEPTEMBER AND THE GREAT FALL
SHOULDER IN THE GREAT MOUNTAIN



IT'S OCCUR IN THE HATE
HOURS OF THE DAY. SUNDAY
RAIN THEY CHANGE HARD AND
HEAVY RAIN FOR USERS. THIS SAME
GROUND BE WELL SHARED

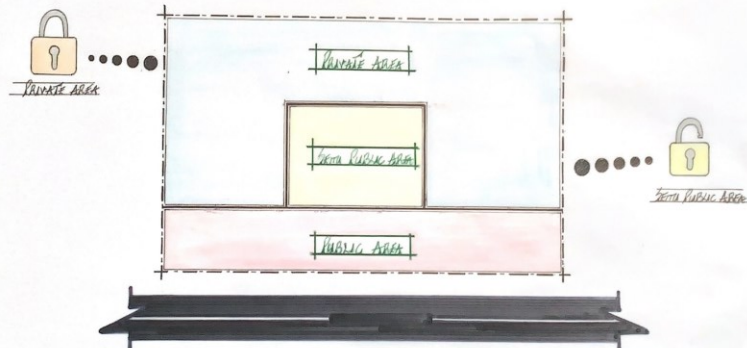


SUN RASE
IT OCCUR AROUND 5:30AM
TO 7:30AM THE EARLY SUN IS
PREVENTS AND BRISTLES GOOD FOR
WINDING BUT WILL BE USED TO
PREVENT WIND PROBLEMS AND
THE BANANA.

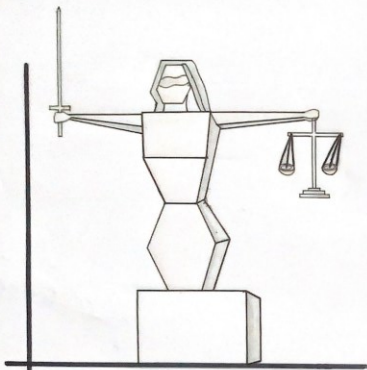


THE THOMPSON WIND IS
A SEASONAL WIND BLOWING
FROM THE SOUTHWEST
BRINGING SIGNIFICANT
RAINFALL AND HUMIDITY TO THE
REGION. IT IS CALLED
THE THOMPSON WIND BECAUSE
IT BLOWS FROM THE
THOMPSON MOUNTAINS.

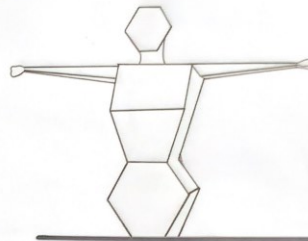
SUE ZONNICK



DESIGN CONCEPT



SYMBOL OF JUSTICE
STAGE ONE



STAGE TWO



FINAL STAGE

SPACE CALCULATION

CELL ROOM



ARRANGEMENT OF FURNITURE FOR LITMUE

SPACE CALCULATION

$$= 1.3 \times 2.3$$

$$= 2.99 \text{ m}^2$$

CIRCULATION: 20% OF CIRCUMFERENCE

$$= 2.0 \times 2.3$$

$$= 4.6 \text{ m}^2$$

TOTAL SPACE:

$$4.6 + 2.99$$

$$= 7.59 \text{ m}^2$$

II. COMMANDANT'S OFFICE



FURNITURE ARRANGEMENT

SPACE CALCULATION

$$= 1.2 \times 2.4$$

$$= 2.88 \text{ m}^2$$

CIRCULATION: 50% OF CIRCUMFERENCE

$$= 0.9 \times 2.4$$

$$= 1.14 \text{ m}^2$$

TOTAL SPACE:

$$= 1.14 + 2.88$$

$$= 4.02 \text{ m}^2$$

III. VISITATION ROOM



SPACE CALCULATION

$$= 1.8 \times 1.2$$

$$= 2.16 \text{ m}^2$$

CIRCULATION: 10% OF CIRCUMFERENCE

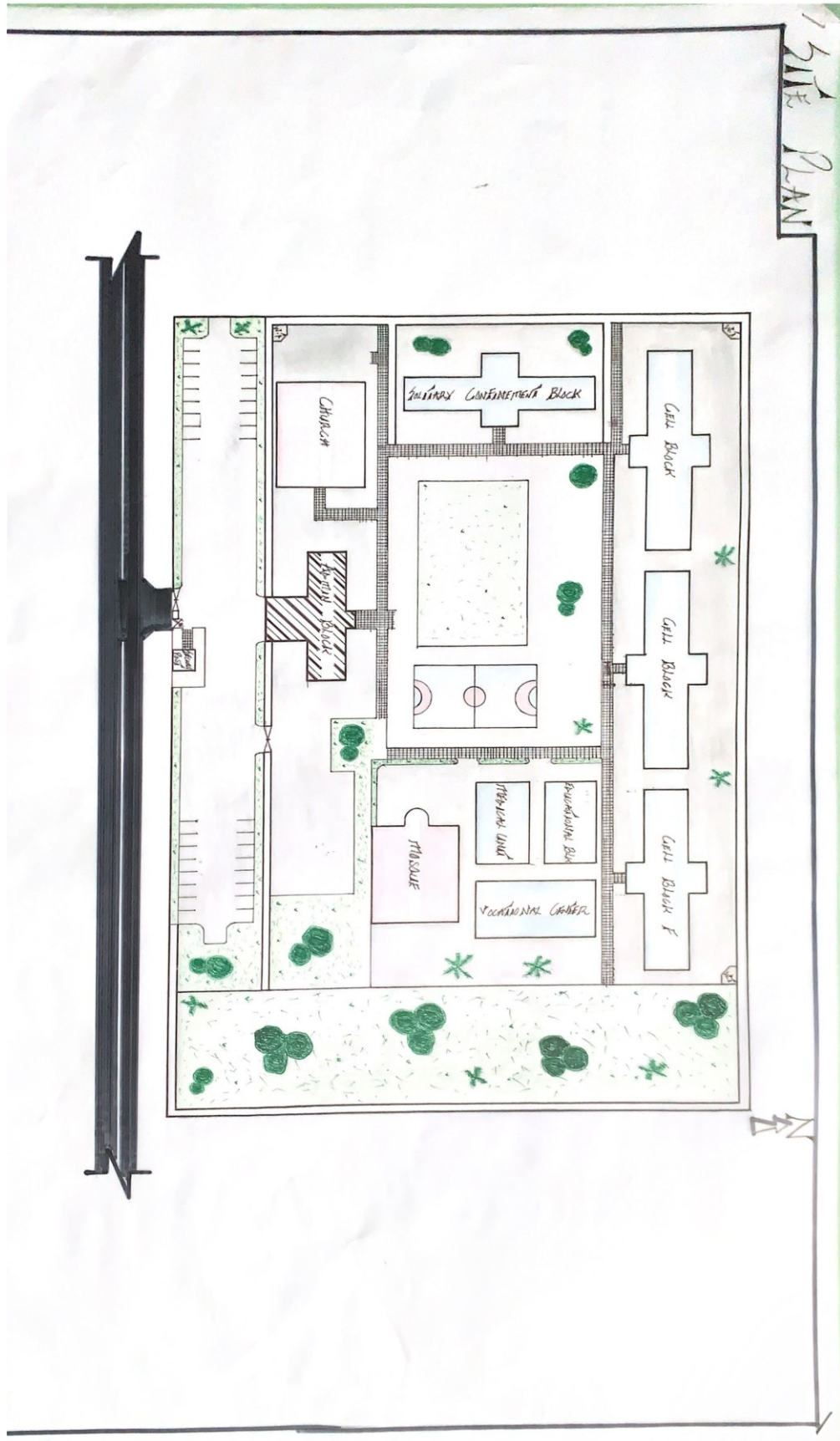
$$= 0.18 \times 1.2$$

$$= 0.216 \text{ m}^2$$

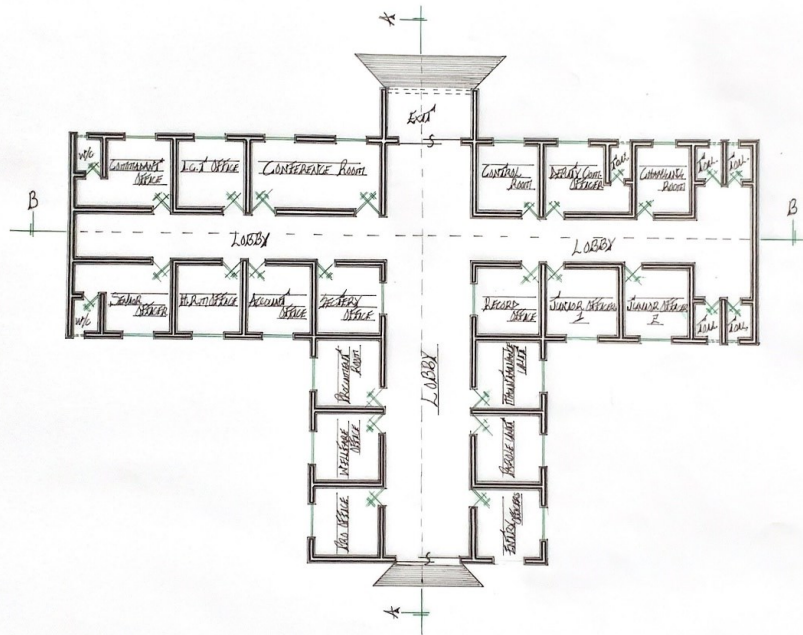
TOTAL SPACE:

$$= 2.16 + 0.216$$

$$= 2.376 \text{ m}^2$$

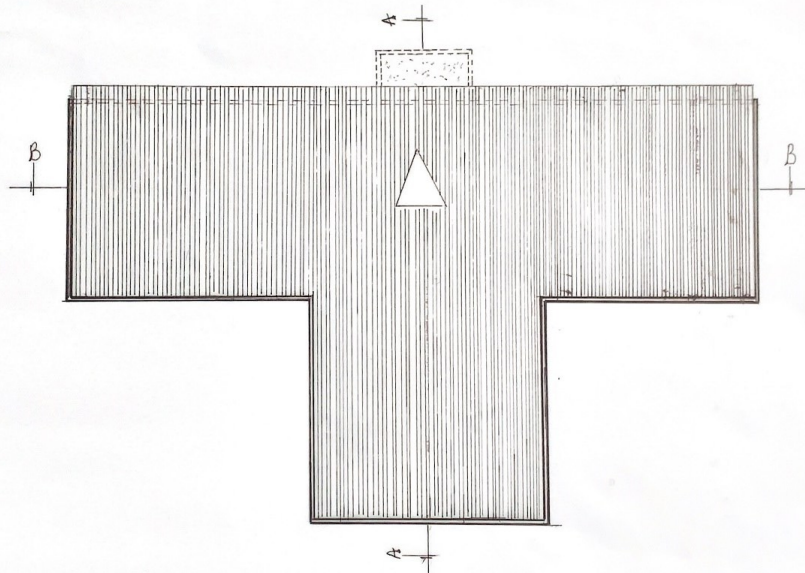


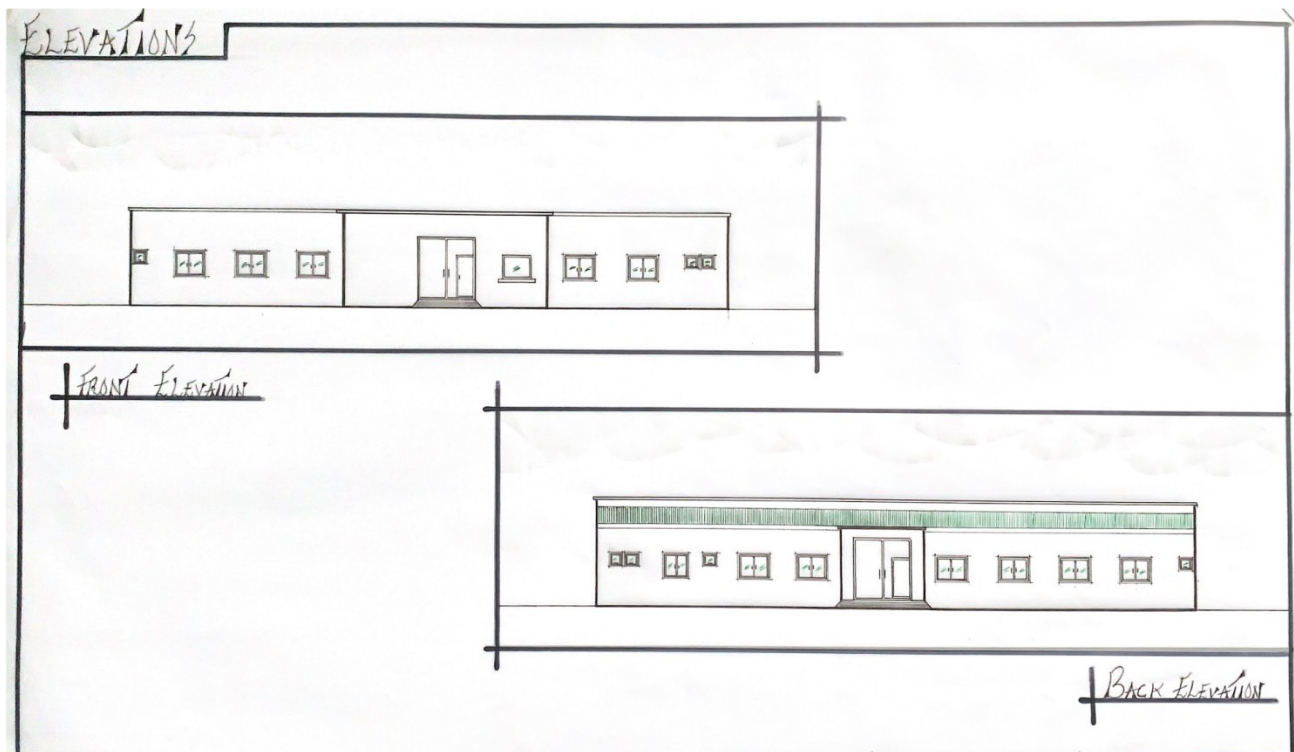
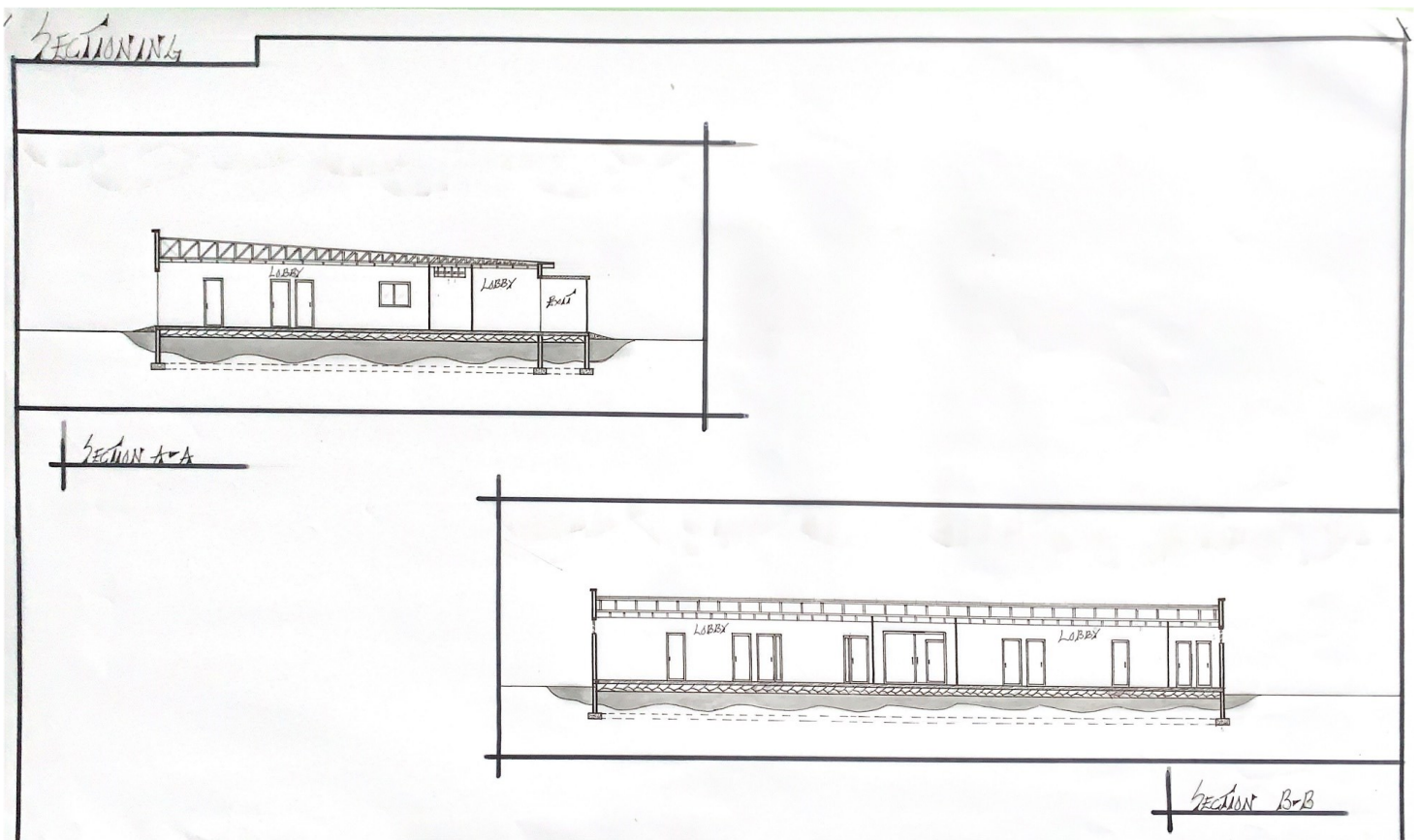
FLOOR PLAN



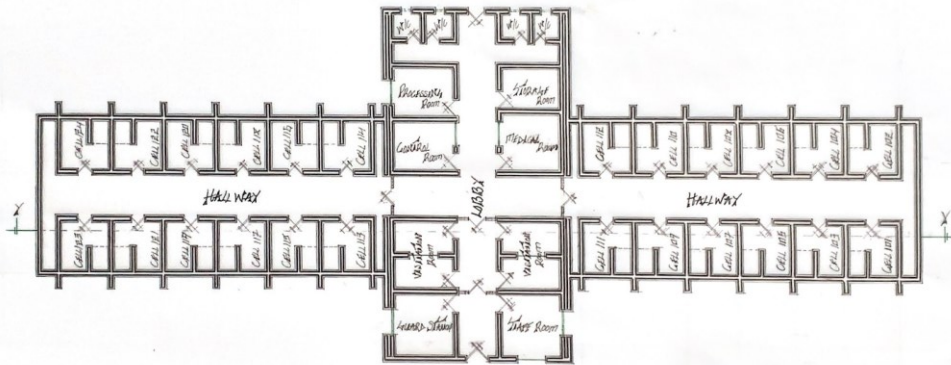
ADMINISTRATIVE BLOCK

ROOF PLAN



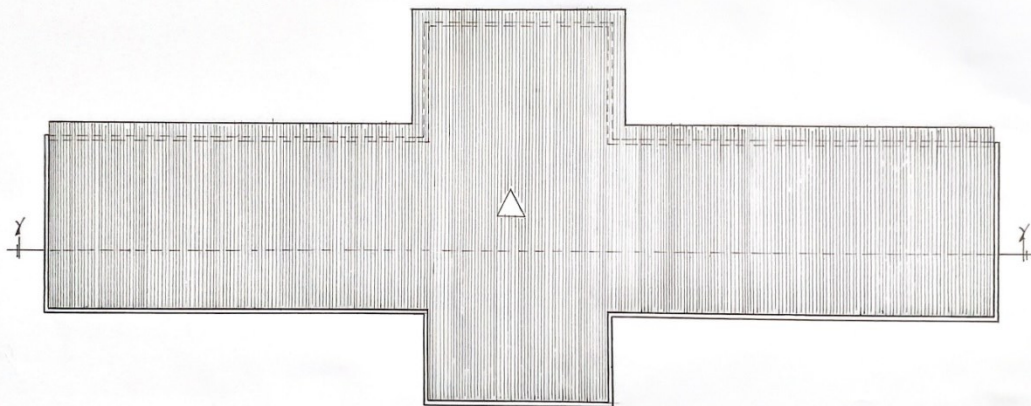


FLOOR PLAN



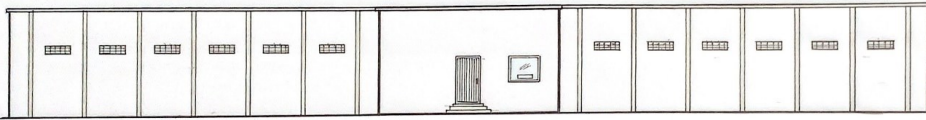
SOLARY CONFINEMENT
CELL BLOCK

ROOF PLAN

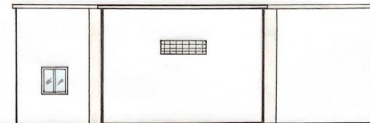


SOLARY CONFINEMENT BLOCK

1 CELL BLOCK

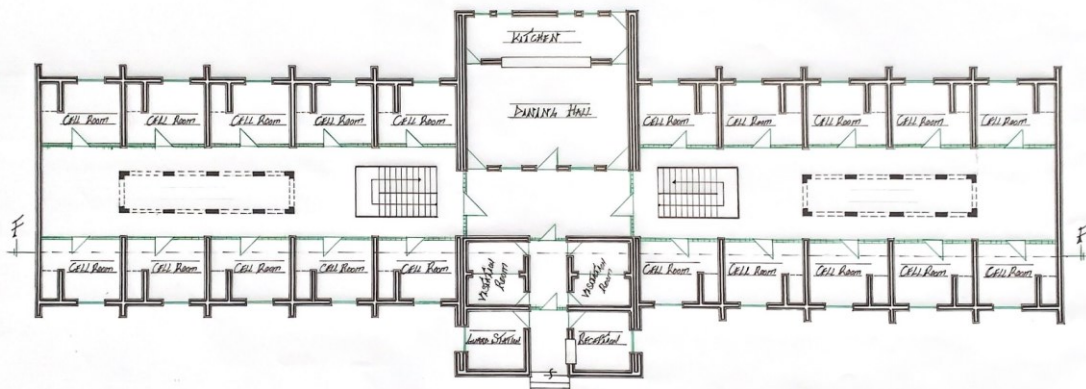


APPROACH VIEW



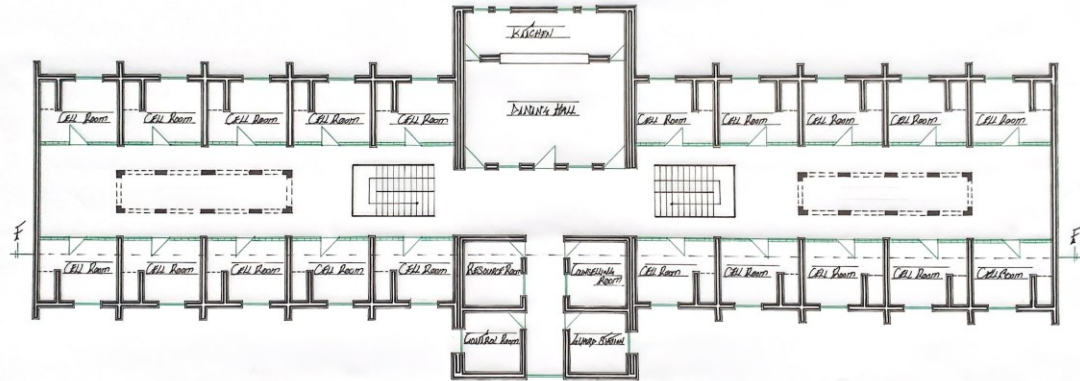
SIDE VIEW

1. GROUND Floor Plan



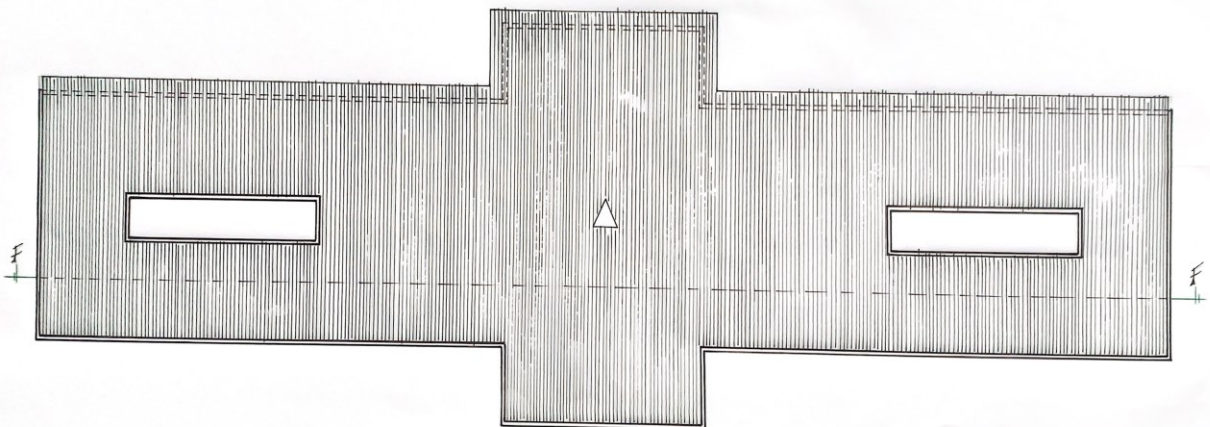
CELL BLOCK

1 UPPER FLOOR PLAN



CELL BLOCK

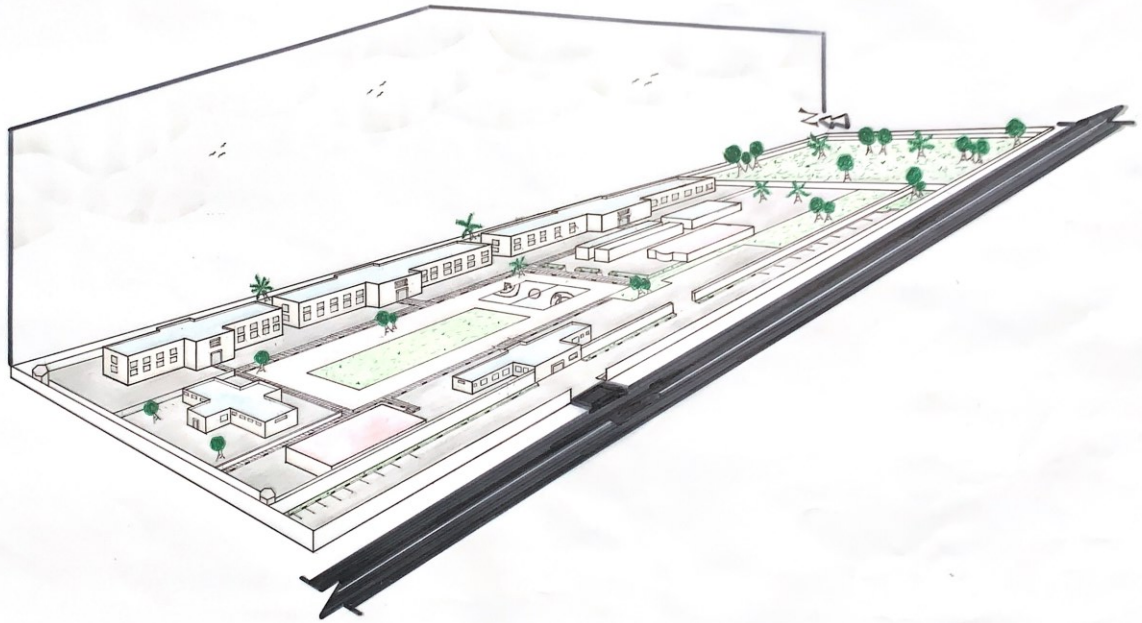
1 ROOF PLAN



CELL BLOCK



PERSPECTIVE



SCHEDULE

LABEL	DOOR SCHEDULE				WINDOW SCHEDULE		
	D1	D2	D3	D4	W1	W2	W3
Diagram							
QUANTITY	2	12	5	2	17	1	5
DESCRIPTION	STEEL DOOR FLOOR TO CEILING	ALUMINUM DOOR FLOOR TO CEILING	STEEL DOOR FLOOR TO CEILING	STEEL DOOR FLOOR TO CEILING	CASSETT ALUMINUM WINDOW FLOOR TO CEILING	ALUMINUM WINDOW FLOOR TO CEILING	ALUMINUM WINDOW FLOOR TO CEILING

ADMINISTRATIVE BLOCK

LABEL	DOOR SCHEDULE					WINDOW SCHEDULE				
	D1	D2	D3	D4	D5	W1	W2	W3	W4	W5
Diagram										
QUANTITY	5	17	4	24	12	1	7	4	8	110
DESCRIPTION	STEEL DOOR FLOOR TO CEILING	ALUMINUM DOOR FLOOR TO CEILING	ALUMINUM DOOR FLOOR TO CEILING	STEEL DOOR FLOOR TO CEILING	STEEL DOOR FLOOR TO CEILING	CASSETT ALUMINUM WINDOW FLOOR TO CEILING	ALUMINUM WINDOW FLOOR TO CEILING	ALUMINUM WINDOW FLOOR TO CEILING	ALUMINUM WINDOW FLOOR TO CEILING	ALUMINUM WINDOW FLOOR TO CEILING

CUSTOMER BLOCKS

REFERENCE

ADETULA, G.A, ADETILO, L.O & FATUSIN, A.F. (2010) The prison conditions in Nigeria and the effect on inmates.

(Explores Nigerian prison conditions and their impact on inmate behavior and rehabilitation).

AJAYI, A.O & OGUNDEJI, M.O (2020) Rehabilitation and reintegration of prison inmate in Nigeria: Challenges and prospects.

(Focuses on post-incarceration challenges and policy recommendations).

ALEMIKA, E.E.O, & CHUKWUMA, I.C. (2000) Prisons and penal reform in Lagos Nigeria: Centre for law enforcement education (Clean foundation).

(A foundational Nigerian study on the need for prison reform).

INTERNATIONAL COMMITTEE OF THE RED CROSS (ICRC). (2020) Prison conditions in Africa: Report and guidelines.

(Provides global humanitarian insights into prison health and safety).

LIPSEY, M.W, & CULLEN, F.T. (2007) The effectiveness of correctional rehabilitation: A review of systematic reviews.

(Provides evidence-based evaluation of rehabilitation programs globally).

OBIOHA, E.E. (2011) Challenges and reforms in the Nigerian prisons system.

(Assesses the institutional and operational weakness in Nigerian correctional centers).

UNDP (UNITED NATIONS DEVELOPMENT PROGRAMME). (2017) Nigeria's prison service and justice sector reform: Challenges and opportunities.

(Outlines systemic issues and reform strategies).