# ACCRA MINIMUM - SECURITY PRISON

## by

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KNUST

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# DECLARATION

I hereby declare that this submission is my own work towards the PGD and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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Head of Dept Name ......................................... Signature ......................................... Aug 2009 Date

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# DEDICATION

This Architectural Design Thesis report is dedicated to:

*My Heavenly Father in heaven and His Son Jesus Christ.*

*Secondly my Parents (Mr. Andrews K. Opoku and Mrs Akua Gyamfua Ampratuwm Opoku) and*

*finally to my niece Ama Takyiwaa Ghartey.*

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# ACKNOWLEDGEMENTS

# ABSTRACT:

Prison have being in existence from the beginning of times. Society uses it as a result of retribution, punishment to separate and isolate persons who have come in contact or against the law. The 21$^{st}$ century concepts of prisons have being to punish, deter, isolate, reform and reintegrates persons with the walls of prison. The thesis design addresses the problems faced in prisons currently in the country and the world at large. Overcrowding, lack or rehabilitation and reformation have being one of the major problems faced in our prisons today. The thesis seeks to address such issues and problems by providing a humane, secure and sustainable housing and work units for inmates to be reformed and reintegrated back into society when released. The design report is categorized into five main chapters to make effective proposals for the 21$^{st}$ century.

Chapter one being the introduction, elaborates reasons why prison are in existence, their purpose, their need identification, justification of topic, scope, methodology, target group etc.

The chapter two being the literature review elaborates on crime, the definition, types of prisons, facilities needed, regional distribution of prison and their population in Ghana. It also throws light on the design considerations, analysis need and all other literature needed for effective knowledge of prisons.

The chapter three explains and describe the methodology employed for the thesis design.

Findings for the design are being discussed in chapter four. This chapter describes the observations made and interprets the findings into design for the sustainability of the proposal.

The final chapter five draws conclusion of the analysed data in chapter four for appropriate design.

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KNUST

# CHAPTER ONE

# INTRODUCTION

## 1.0 WHY DO WE HAVE PRISONS?

The basic reason for the existence of prisons is that society, which expresses its wishes through the means of courts, finds it necessary to separate and isolate some people, who have broken the law. The concept of this segregation is as old as society itself. Conventionally, prisons have been used for punitive purposes only and it is only recently that public opinion has come round to accept the notion of using imprisonment to reform and rehabilitate the inmates.

The word "prison" immediately evokes a stream of images: stark, forbidding walls spiked with watchtowers; inmates banging on the bars of their cells; the suspicious eyes of armed, uniformed guards. It seems to be the natural end for a convicted criminal, a permanent institution stretching from the pits of the medieval dungeon to the curre`nt era of motion detectors and surveillance cameras. But centuries of development and debate lie behind the prison as we now know it - a rich history that reveals how our ideas of crime and punishment have changed over time. Penalties other than incarceration were once much more common, from such bizarre death sentences as the Romans (sealing a convict in a sack with an ape, a dog, and a snake, and throwing the lot in the sea) to fines, various corporal punishments, and forms of public ridicule. The idea of prison reform and full blown of prison system came into being in the nineteenth century.

There has always been a constant tension between the desire to punish and the hope for rehabilitation, and the prisons have evolved from a rough , noisy, disorderly,

neglected and dirty environments of the 1700s, in which prisoners and visitors intermingled, to the sober and harsh nineteenth-century penitentiaries, whose inmates were forbidden to speak or even to see one another, and finally to the "big houses" of the current American prison system, in which prisoners are as overwhelmed by intense boredom as by the threat of violence.

On looking back in history, certain evolutionary tendencies are noticed in the pattern of change. There has been subdivision of the institution into a series of functionally organized sub-units, each with a certain degree of autonomy. This may have been done to facilitate tighter security, but it was also to provide spaces in which to try techniques of treatment based on human interaction. The external similarity of prisons with other buildings has also been increasing. This can be interpreted in two ways. These are negatively, as an attempt to hide the fact that the inside was unchanged, and positively, as an attempt to integrate the prison into the urban fabric.

A study of the existing prison population in Ghana and probable future trends shows that the overwhelming majority of the prison population is not even convicted. The inmates are mostly under trial or even uncommitted to trial, with only a few criminals in their early criminal careers.

Men and women do not cease to be human beings when imprisoned. Therefore the material and moral standards by which society lives must apply to them as far as possible. As a consequence to this fact, it follows that what happens to people in custody must always have regard to their likely conditions during as well as after release. Apart from the humane and secure containment of inmates, the prison environment should provide controlled conditions in which they can move towards a better understanding of

themselves and learn to accept and deal responsibly with the consequences of their own behaviour.

The design and architecture of the prison can certainly play a pivotal role in this respect. Needless to say, if prisoners are held in drab surroundings for extended periods of time, their mental and physical condition degrades. This certainly does not mean that they be given luxurious settings, but this is where the architect comes in. The architecture can attempt to strike a good balance which satisfies not only the primary requirement of security but also the secondary requirements in such a way that all inmates can have a sense of dignity even in their incarceration.

Since the inmates are to be reformed and rehabilitated, it becomes essential to provide inmates with a built environment that gives them a chance to self-examine their feelings, and not an environment that leads to a loss of self control, self confidence and self esteem. A traditional prison environment cultivates a fear hate syndrome, which means that the inmates and the staff hate each other and at the same time are afraid of each other. This happens because of the fact that in the traditional prison setting, the basic inequality between the prisoners and the staff is emphasized, and there is undue degradation of the personality of the inmates.

## 1.1 PURPOSE OF PRISONS

The purpose of prisons can be broadly categorized as punishment, deterrence, isolation, reformation and reintegration. Though society has become kind, rational and more concerned with the rehabilitation of the offender, prisons still act as agents of punishment on behalf of the society. Statistics have shown that, out of a hundred

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prisoners released, seventy do not come back for the second time. The idea behind isolation of the criminal is to prevent contamination of law-abiding members of society and also to protect them from potential danger to their lives or property.

Reformation has received a major emphasis in the recent years with advances in penology. The concept of reformation begins with the fact that deviant human behaviour has specific physical, moral, mental, social, vocational or academic causes. Therefore, if the cause for the errant behaviour can be ascertained, the offender can be treated by suitable psychological therapy and counselling.

Reintegration of the offender is only a more practical and realistic extension of the reformation philosophy. Like the reformative model, it views the offender as needing help and at the same time realizes that errant behaviour is often a result of disjunction between the offender and society. Reintegration thus attempts to bring the offender close to the society by exposing him to the positive elements of a free environment.

In the past, the prison architect was limited by relatively simple criteria, within which he or she was left wide discretion to select the specific architectural solution to a general demand that undesirable offenders be segregated from other members of the society. Today, the task placed on prison architecture has been made much more specific. The architect has to design suitable structures for the function of integrating treatment offered in the outside community areas such as housing, recreation facilities, clinics, educational facilities etc
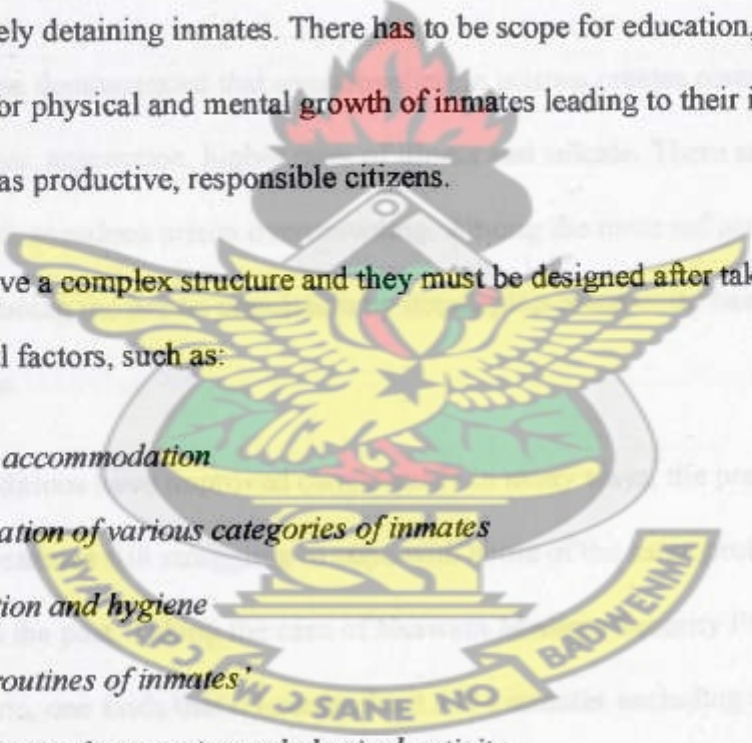
The design must cater to offenders subject to limited temporary control. The design must also cater to categories of offenders who have to be kept under constant control so

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as to avoid their escape or unwanted contact with members of the community. Architecture can thus affect the development, efficiency and usefulness of community-prison interaction. On the surface at least the prison architect is faced with contradictory demands, that of physical control, and that of creating opportunities for community interaction.

Prisons are expensive buildings. Security considerations make them so. It is worthwhile to make imaginative efforts to ensure that capital costs and recurring expenditure required for construction and operation of prisons be utilized for objectives other than merely detaining inmates. There has to be scope for education, training, and opportunities for physical and mental growth of inmates leading to their integration within society as productive, responsible citizens.

Prisons have a complex structure and they must be designed after taking into account several factors, such as:

1. *Secure accommodation*
2. *Segregation of various categories of inmates*
3. *Sanitation and hygiene*
4. *Daily routines of inmates*
5. *Opportunity for exercise and physical activity*
6. *Medical services*
7. *Education and religion*
8. *Social behaviour and factors influencing it*

Architects need to become aware of the problems associated with correctional facilities. With a better understanding of inmates, staff and user needs, they can develop a model prison that runs efficiently and for the welfare of the users.

However, in spite of all correctional facility forms, one major factor which hinders their smooth functioning is overcrowding. An increasing inmate population coupled with declines in correctional spending, have resulted in prison overcrowding which often exceeds the facility's maximum capacity. Prison overcrowding has many negative effects upon inmates and staff.

Research has demonstrated that overcrowding in prisons creates competition for limited resources, aggression, higher rates of illness and suicide. There are, however, various methods to reduce prison overcrowding. Among the more influential are prison design and reducing the prison population by developing community based alternatives to incarceration.

Prison conditions have improved considerably in many ways, the present correctional system is still struggling to cope with some of the same problems experienced in the past. Taking the case of Nsawam Medium Security Prison in Nsawam, Ghana, one finds that it houses about 3354 inmates excluding the alien population whereas it was designed for only about 1051 for both male and females.

Even in developed nations like the United States, Canada, China not only are institutions operating at maximum capacity, but some even exceed capacity. Increasingly, four to six inmates are forced into single cells or living in open dormitories. A recent study in Canada indicated that 12% of those inmates sharing a

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single cell felt threatened by their cell-mate. Many critics, including corrections officials have viewed such conditions as degrading and dehumanizing for inmates and contradictory to the current correctional reforms which emphasize maximizing the opportunities available to inmates.

## 1.2 NEED IDENTIFICATION

The obvious solution to overcrowding in prisons is the construction of more of them. In India, the majority of prisons are still built only on one level. This causes two problems. One, precious land resources are used up at a rapid pace, and two, even though the maximum permissible ground coverage is utilized, only a fraction of the permitted floor area ratio (FAR) is used.

The key to using the FAR optimally naturally lies in building vertically, rather than horizontally. There are also other advantages of such high rise prisons. They are necessarily secure because of their height. They afford ease of classification and segregation with no loss of centralized administration and supervision.

Finally, where space is restricted in a city, which phenomenon is now apparent throughout the country, such a prison can fit on a small site, which can be guarded efficiently. However, at the same time, apart from thinking in terms of high rise prisons, one must not neglect the other issues which are crucial while designing prisons.

## 1.3 JUSTIFICATION OF TOPIC

The goal of this project is to provide a segregated modular housing and long term care units and to relieve overcrowding and to secure bed space and to provide long term care for the states' increasing inmate population.

## 1.4 OBJECTIVES

1. Design and provide a humane and friendly environment for the staff and inmates.

2. Design a self sustainable facility and an icon for upcoming correctional facility for the

21$^{st}$ century.

3. To reduce the overcrowding in Ghanaian prisons.

4. For inmates to be skilful when out of prisons.

## 1.5 SCOPE OF THESIS

Since this is a design thesis for post graduate architecture, the scope design is

restricted to

1. *Inmate's accommodation*

2. *Educational and religious facilities,*

3. *Medical services,*

4. *Recreational facilities,*

5. *Staff working areas*

6. *Environmental character*

## 1.6 TARGET GROUP

The target group of the project are:

1. *Adult male first time offenders*

2. *Officers of the Ghana prison service*

3. *Visitors and relations of inmates*

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## 1.7 CLIENT

   1.  *The Ministry of the Interior, Republic of Ghana.*

   2.  *Ghana Prison Service.*

## 1.8 CLIENT'S BRIEF

   1.  *Recreational facilities*

   2.  *Administrative offices*

   3.  *Inmates housing units*

   4.  *Skills and educational facilities*

## 1.9 FUNDING

   The Ghana Prison Service is the major financiers of the project. By virtue of the
fact that Ghana Prison Service owns the land for the project and will be contributing
more than 20% of the total project cost, they will be referred to as the main developers
of the project. The remaining 80% will be invested by the Ministry of the Interior
through government budget allocation for building up new and humane prisons.

## 1.10 RESEARCH METHODOLOGY

   The information and knowledge used to write this thesis was acquired through
the adoption of a number of tried and tested research methodologies. These research
methods made the acquisition of information competitive and they are listed and
explained below. The information gathered was carefully evaluated to ensure that only
the one that would aid the execution of the task was collected. Literature review,

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interviews, personal observations internet research and case studies were the research methods employed.

### 1.10.1. Literature Reviews

Published and unpublished literature on the topic was reviewed. This involved the examination of written material such as books, journals, guidelines, articles, reports, etc. A lot of literature was also gathered from various web sites associated with retail history and design.

### 1.10.2 Interviews

Interviews of prison officers and ministry of the interior were held to know their policy direction with respect to the project and brief development.

### 1.10.3 Personal Observations

Some of the information used came about through careful personal observations when visitations were made to other prison facilities by the author. The current situations of prison facilities do not have the appropriate systems to reform and rehabilitate inmates. It also helped in knowing how inmates, staff and visitors interact and access facilities for effective day to day running of the facility. This was important because the taking of photographs was not allowed.

### 1.10.4 Internet research

The World Wide Web, is a giant library with extensive information, was greatly used in the research. Journals and other material for designing correctional facilities

were obtained to give appropriate solutions to basic to questions, and clues to some

problems encountered whilst undertaking the project.

### 1.10.5 Case Study

Local and foreign correctional facilities were studied to enable the author draw

conclusions on design decisions to be taken in tackling the scheme

### 1.10.6 Limitations

It was not possible to conduct interviews with inmates and ex-convicts. Accurate

records are not available no how the prison staff conducts community surveys on those

released. Time limitation made it impossible for the student to visit communities of ex-

convicts. Records that could provide evidence of community oversight from prison

officials are not easy to come by.

### References:

- Native American and Alaskan Technical Assistance Project. Juvenile Facility
  Design Micahel McMillen and Justice Planners International LLC (JPI) JPI
  Project Staff. Shelley Zavlek and Mark Goldman, Principals;
  Anthony H. J. and Joshua LeFrancois, Associates

- http://en.wikipedia.org/wiki/prison

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# CHAPTER TWO

## LITERATURE REVIEW

## 2.0 CRIME

Crime is a breach of one or more rules or laws for which governing authority may ultimately prescribe a punishment for.

## 2.1 TYPES OF CRIME

### 2.1.1 International crime

Defined by agreement between states as crimes against international law include:

1. Crimes against peace
2. Waging a war of aggression
3. Crimes of apartheid
4. Piracy
5. Genocide
6. War crimes
7. The slave trade

### 2.3.2 Other crimes

1. Treason
2. Felony
3. White-collar crime
4. Rape

5.  *Theft*

6.  *Assault*

7.  *Causing financial loss to the state*

8.  *Traffic offenses*

9.  *Causing harm to persons and property etc*

## 2.2 WHAT IS A PRISON?

Prison is a place of confinement for the punishment and rehabilitation of criminals. By the end of the 18th century, imprisonment was the chief mode of punishment for all but capital crimes. The earliest North American reform centred in Philadelphia (1790) and in Auburn, N.Y., where systems of solitary confinement and congregate labour were introduced.

Prisons required the inmates to maintain absolute silence. Reform efforts continued through the 19th century with two notable women (Elizabeth Fry and Dorothea Dix) among the reformers. British and Irish influences led to the practice of parole.

Firstly, one should note that incarceration has not always been a common form of punishment. Corporal punishment, forced labour, and social ostracism, banishment were far more common forms of punishment than incarceration in the ancient world, medieval Europe, and even in England, colonial America and Ghana. This changed with the 18th Century enlightenment in France and England, which gave rise to new views on liberty, human nature and time.

The birth of incarceration as punishment rather than as detention or for security was the concept that restricting a person's liberty would itself be significant retribution

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for crime, and that a measured amount of time served could be assigned in proportion to the severity of the crime

By the late 19th Century, outrage over prison conditions led to the "reformatory" movement, which attempted to redefine prison's role as that of "reforming" inmates into model citizens, by providing education, work, and counselling. Innovative flexible-time sentences (e.g. "four to seven years") indicated that reform was a variable process, and could be completed sooner or later depending on the individual prisoner.

Children were separated out from adult prisoners for the first time, although so little accountability was built into early juvenile-justice systems that conditions rapidly became far worse than those for adults. And again, despite the curricula and activities of the reformatory movement, prison conditions deteriorated to a struggle for control in inhumane and hostile conditions

Architecture was a major component of these "better" prisons, especially with attempts to provide more daylight and a less oppressive atmosphere, but in operation these warehouses for thousand of prisoners at a time failed to adequately meet basic needs of hygiene and safety. In the 1950s, modern social scientists took up the treatment of inmates, bringing in sociologists, counsellors, and more new buildings to make more humane environments. Switching to the word "Corrections" to describe the bureaucracies now administering prisons symbolized the advent of modernism and its faith in supposedly impartial

## 2.3 TYPES OF PRISONS

### 2.3.1 Minimum-security

Minimum-security prisons are designed to house low-risk, first-time offenders convicted of nonviolent crimes. Minimum-security prisons sometimes function as transitional housing for prisoners from maximum- or medium-security prisons who will soon be paroled.

Housing in minimum-security facilities is often dormitory-like, and the grounds and buildings of a minimum-security facility resemble a university campus. Inmates assigned to such facilities are trusted to comply with prison rules.

### 2.3.2 Medium-security

These facilities are a catchall, because often both extremely violent and nonviolent offenders are placed in common living areas. Inmates in medium-security facilities typically occupy cells that accommodate more than one prisoner. In medium-security facilities, freedom of movement, privileges (such as participation in sporting events), and access to various educational, vocational, or therapeutic programs are greatly restricted. Prison officials limit visitation and carefully monitor communication between inmates and visitors.

The visiting parties face one another through a glass partition and speak on a telephone. Although medium-security facilities sometimes offer inmates opportunities for work release, furloughs, and other types of transitional programs, only a small percentage of prisoners are allowed to participate in these programs.

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### 2.3.3 Maximum-security

People sentenced to serve time in maximum-security facilities are usually the most dangerous, high-risk offenders. Maximum-security prisons have many stringent rules and restrictions. Inmates are isolated from one another in solitary cells for long periods.

Maximum-security facilities have few amenities, and the cells are sparsely furnished. Closed-circuit video cameras enable correctional officers to observe prisoners in their cells or in work areas. Many maximum-security institutions confine prisoners to their cells for 23 hours a day, allowing them out for only a short period to shower and exercise

### 2.3.4 Super-max or maxi-maxi

These facilities are also called "control units," these prisons or areas within prisons have extraordinarily severe restrictions. Human contact is minimal. Inmates are kept in solitary confinement in small (typically six feet by eight feet) cells for long periods each day. They eat alone in their cells. No opportunities for work or socialization exist. Outdoor recreation is permitted only once a week. Restraints such as leg irons are used whenever inmates leave their cells

### 2.3.5 Juvenile correctional institution

Juveniles are individuals between the ages of 12 to 18years who have come in contact or against the law. Individuals are not sent to prisons with adults; instead, they are housed in facilities known as juvenile correctional institutions. Most individuals

incarcerated in such facilities are minors who have committed acts that would also be crimes if adults committed them—for example, theft, robbery, rape, causing damage to properties, unlawful entry, drug trafficking and murder.

### 2.3.6 Boot camps

Boot camps are short-term correctional programs resembling some aspects of military basic training. Typically, boot camps target younger offenders who resist authority and refuse to listen or learn in traditional classroom or treatment environments. Boot camps, offenders are subjected to strict discipline, physical training, and hard labour. They exclude offenders with violent crime convictions or who have previously been incarcerated.

Offenders typically volunteer to participate in boot camps to avoid other types of incarceration. The usual length of incarceration in boot camps ranges from three to six months.

### 2.4 FACILITIES IN A PRISON

Male and female prisoners are typically kept in separate locations or separate prisons altogether. Prison accommodation especially modern prisons in the developed world, are often divided into wings. A building holding more than one wing is known as a "hall".

Amongst the facilities that prisons may have are:

1. A main entrance, which may be known as the 'gatelodge' or 'sally port'

2. A chapel, mosque or other religious facility, which will often house chaplaincy offices and facilities for counselling of individuals or groups

3. An 'education facility', often including a library, providing adult education or continuing education opportunities

4. A gym or exercise yard or recreational area, a fenced, usually open-air-area which prisoners may use for recreational and exercise purposes

5. A healthcare facility or hospital

6. A segregation unit (also called a 'block' or 'isolation cell'), used to separate unruly, dangerous, or vulnerable prisoners from the general population, also sometimes used as punishment (see solitary confinement)

7. A section of vulnerable prisoners (VPs), or protective Custody (PC) units, used to accommodate prisoners classified as vulnerable, such as sex offenders, former police officers, informants, and those that have gotten into debt or trouble with other prisoners

8. A section of safe cells, used to keep prisoners under constant visual observation, for example when considered at risk of suicide

9. A visiting area, where prisoners may be allowed restricted contact with relatives, friends, lawyers, or other people

10. A death row in some prisons, a section for criminals awaiting execution (Ghana has not the capital punishment therefore this facility has none)

11. A staff accommodation area, where staff and guards live in the prison, typical of historical prisons

12. A service/facilities area housing support facilities like kitchens

13. Industrial or agricultural plants operated with convict labour

14. A recreational area / dayroom containing a TV and reading materials.

15. The intake-release area of a prison often referred to as booking, admissions, or receiving is an active, vital component. It performs three key roles:

  i.  Conducting all intake activities involved in initially receiving arrestees or inmates from court or other facilities:

  ii.  Conducting all intake activities involved in admitting arrestees or inmates into residency in a housing unit:

  iii.  Conducting all activities involved in releasing arrestees or inmates from either the receiving area or a housing unit:

Prisons are normally surrounded by fencing, walls, earthworks, geographical features, or other barriers to prevent escape. Multiple barriers, concertina wire, electrified fencing, secured and defensible main gates, armed guard towers, lighting, motion sensors, dogs, and roving patrols may all also be present depending on the level of security. Remotely controlled doors, CCTV monitoring, alarms, cages, restraints, nonlethal and lethal weapons, riot-control gear and physical segregation of units and prisoners may all also be present within a prison to monitor and control the movement and activity of prisoners within the facility.

Modern prison designs, particularly those of high-security prisons, have sought to increasingly restrict and control the movement of prisoners throughout the facility while minimizing the corrections staffing needed to monitor and control the population. As compared to the traditional landing cellblock hall designs, many newer prisons are

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designed in a decentralized "modular" layout with individual self-contained housing units, known as "pods" or "modules", arranged around centralized outdoor yards in a "campus".

The pods contain tiers of cells laid out in an open pattern arranged around a central control station from which a single corrections officer can monitor all of the cells and the entire pod. Control of cell doors, communications and CCTV monitoring is conducted from the control station as well. Movement out of the pod to the exercise yard or work assignments can be restricted to individual pods at designated times, or else prisoners may be kept almost always within their pod or even their individual cells depending upon the level of security.

Goods and services, such as meals, laundry, cafeteria, educational materials, religious services and medical care can increasingly be brought to individual pods or cells as well.

Lower-security prisons are often designed with less restrictive features, confining prisoners at night in smaller locked dormitories or even cottage or cabin-like housing while permitting them freer movement around the grounds to work or activities during the day.

## 2.5 HISTORY OF PRISONS IN GHANA

The first purpose built slave prison was developed in the second fort at Amomabo in 1770 and many more forts and castles were converted to prison facilities. A few prisons were built in addition but after independence all the facilities began to deteriorate. It is important that after the overthrow of Kwame Nkrumah, the national liberation council

authorized a civilian commission to investigate the prison system and make recommendations for improvement. The commission report issued in 1968 revealed numerous problems. Of the country's 29 prisons, 9 were judged unfit for human habitation, 20 were suitable only for police lock ups and 13 were appropriate for short term detainment. It is amazing to note that Nsawam Medium security prison become operational in 1962 yet by 1968 it had been run down. Since then there has been no remarkable improvement in the prison in the country.

## 2.6 THE GHANA PRISON ESTABILISHMENT

1. Ghana prison service headquarters
2. Ghana prison training school
3. 1 medium-security prison
4. 7 central prisons
5. 7 female prisons
6. 15 local prisons
7. 2 open camp prisons
8. 10 agricultural settlements
9. 1 senior correctional centre
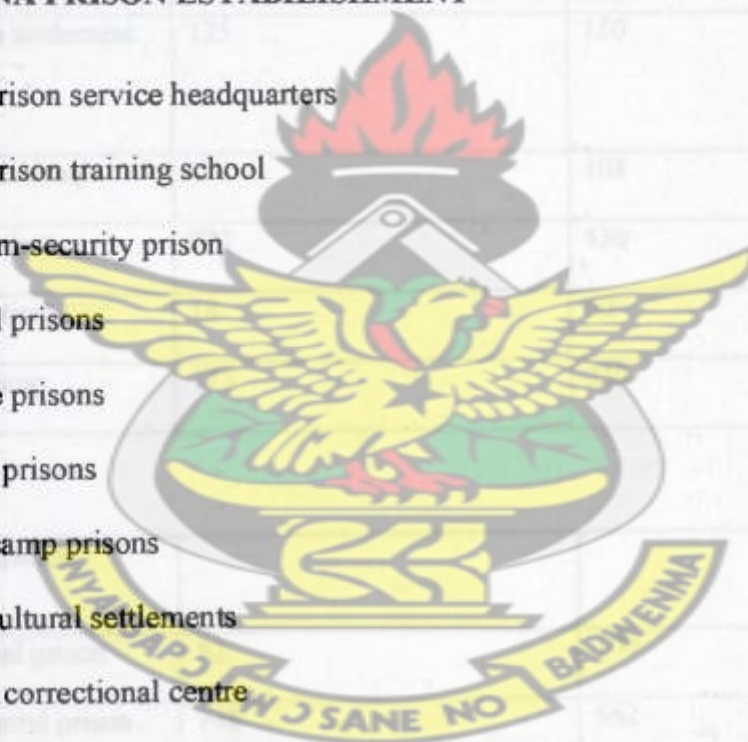
## 2.7 REGIONAL DISTRIBUTION OF GHANA PRISON AND POPULATION OF INMATES

| ASHANTI REGION | PRSENT INMATES POPULATION | AUTHORISED INMATES POPULATION |
|---|---|---|
| Ahinsan local prison | 124 | 80 |

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| | | |
|---|---|---|
| Amanfrom settlement camp | 161 | 140 |
| Kumasi central prison | 1753 | 416 |
| Kumasi female prison | 44 | 30 |
| Manhyia local prison | 181 | 120 |
| Obuasi local prison | 258 | 100 |

| BRONG AHAFO REGION | | |
|---|---|---|
| Duayaw Nkwanta settlement camp | 125 | 150 |
| Kenyasi settlement camp | 194 | 108 |
| Sunyani central prison | 772 | 430 |
| Sunyani female prison | 18 | 60 |
| Yeji settlement camp | 173 | 250 |

| CENTRAL REGION | | |
|---|---|---|
| Ankaful CDP local prison | 52 | 100 |
| Ankaful main central prison | 748 | 562 |
| Ankaful annex local prison | 580 | 500 |
| Awutu settlement camp | 161 | 250 |
| Osamkrom settlement camp | 102 | 70 |
| Winneba local prison | 276 | 59 |
| | | |

| EASTERN REGION | | |
|---|---|---|
| Akuse female prison | 12 | 12 |
| Akuse local prison | 281 | 60 |
| Forifori settlement camp | 147 | 300 |
| Nsawam female prison | 138 | 200 |
| Nsawam medium-security prison | 3031 | 851 |
| Koforidua local prison | 477 | 300 |

| GREATER ACCRA REGION | | |
|---|---|---|
| Senior correctional centre | 128 | 340 |
| James camp prison | 52 | 560 |

| NORTHERN REGION | | |
|---|---|---|
| Gambaga local prison | 34 | 46 |
| Salaga local prison | 160 | 120 |
| Tamale central prison | 255 | 78 |
| Tamale female prison | 11 | 6 |
| Yendi local prison | 160 | 30 |

| UPPER WEST REGION | | |
|---|---|---|
| Wa central prison | 205 | 50 |

| UPPER EAST REGION | | |
|---|---|---|
| Bawku local prison | 64 | 40 |
| Navrongo central prison | 194 | 108 |

| VOLTA REGION | | |
|---|---|---|
| Ho central prison | 507 | 170 |
| Ho female prison | 17 | 18 |
| Ketekrachi local prison | 190 | 250 |
| Kpando local prison | 224 | 150 |

| WESTERN REGION | | |
|---|---|---|
| Ekuasi settlement camp | 164 | 144 |
| Hiawa settlement camp | 131 | 75 |
| Sekondi central prison | 902 | 412 |
| Sekondi female prison | 32 | 30 |
| Tarkwa local prison | 353 | 100 |

From the table above it shows that spaces were not adequate and therefore the

need for building more or expanding facilities. It's also show that because of

overcrowding and dysfunctional use of spaces the need for expanding facilities.

## 2.8 DESIGN CONSIDERATIONS

This thesis design presents an annotated bibliography of resources that is helpful

in planning and designing adult detention and correctional facilities. Indeed this

documents, contains literature pertaining to the planning and designing of correctional

facilities and the selected area of topic; minimum-security in the Greater Accra Region

(which is to be a prototype design across nationwide).

It is however, intended to cover a broad range of issues pertaining to the planning

and design. While the main issues rose for this particular thesis are geared mostly toward

planning design of minimum-security prisons. This is to increase familiarity with "state

of the art "prison architecture and with design issues and options. It's also to inspire

concepts and encourage creative problem solving.

The document explores design solutions to ensuring staff safety. This thesis

design address the problem of reasonable accommodations and accessibilities as they

enter, exits and use is facility. Specifics include entrances, visiting areas, toilets, medical

isolation cells, locations of accessible cells, educational and recreational facilities etc.

This also addresses the issue of "soft environment" as a means of reducing prison

violence and improving behaviour.

A good correctional facility design derives largely from understanding the needs of

those who will use the facility; the inmates who reside there and agencies responsible for

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them (Ghana Prisons Services). It is not simply a matter of creating a given amount of space or wonderful magnificent facade. Rather, good design depends on developing space that is responsive to resident and staff perceptions and behaviour, to the demands of daily programming, and to the need for safety, security, and positive management at all times

This document provides information on operational and design issues that significantly influence the quality of residential services to inmates and staff. These include;

1. *Analysis of need*

2. *Safety, security and management priorities*

3. *Environmental character*

4. *Daily programming activities and*

5. *Staffing efficiency*

## 2.8.1 ANALYSIS OF NEED.

Time was, wrongdoers of every stripe landed behind bars that were designed to protect the public but did little to change criminal behaviour. Prisons and jails needed to be no more than impenetrable buildings, secure and inescapable.

The essence of any prison today is the housing unit," says Witke, who spent 20 years as director of facilities management and staff architect for the Wisconsin Department of Corrections. He says with the dawn of direct supervision—and the expectation that inmates would spend more time in controlled environments—housing

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and program areas needed to be physically linked, making activities from dining to dayroom use more manageable.

The architect role in analysis of need is very important to be able to achieve the importance of the facility hence the architect role;

Walicki, Carter, Witke and Jim Kessler, who is principal designer for many major correctional facilities, all describe the pre-design analysis as essential to establishing clear objectives and unearthing new ideas. They say the planning behind correctional facilities, more than other building types, demands a deep understanding of issues with consequences that are as likely to be life-enhancing as they are life-threatening. While not exhaustive, this list illustrates the range of topics a pre-design analysis might cover:

Facility mission and operational philosophy

1.  *Inmate and staff safety*
2.  *Degree of necessary surveillance*
3.  *Ability to serve at-risk populations*
4.  *Level of staff skills and training*
5.  *Type and quality of support facilities*
6.  *Proximity to outside services*
7.  *Community concerns and involvement*
8.  *Presence of alternatives to incarceration*
9.  *Many of those answers already exist in technological and program innovations found in current correctional facility operations* and designs.

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## 2.8.2 SAFETY, SECURITY AND MANAGEMENT PRIORIES

The "campus" philosophy used in most correctional security facilities brought with it a walls-no-longer strategy, says Witke, calling for new perimeter security concepts. High, impenetrable masonry walls are being replaced with less-obtrusive wire fences and more dependable electronic-detection systems.

Institutions are eliminating guard towers and putting valuable staff back in circulation to, among other things, oversee programs serving special-needs groups.

## 2.8.3 DRUG TESTING

Caring for and managing at-risk prison population's calls for more sophisticated, efficient tools to test for periodic drug use. The newest devices are compact, portable and able to detect trace drugs effectively.

## 2.8.4 MATERIALS

In any facility with the mission to rehabilitate, behavioural studies advise the use of softer interior materials—like carpeting, wood doors, tiles and the addition of more colour, better acoustics and more natural light. Designers are creating more humane environments for medium- and minimum-security facilities with these elements, but softer materials also serve as incentives for prisoners to be responsible for their surroundings. "Suddenly, prison is an environment where they can learn, socialize and be productive," Witke notes. Equally important, such interior touches make the facility a kinder place for the people who work there.

## 2.8.5 SUSTAINABLE ARCHITECTURE

Daylighting is the first area where correctional facility planning has embraced the precepts of sustainability. Witke explains that proponents of natural lighting make the argument that it helps contain costs by reducing energy consumption and—like softer materials—has positive benefits for the people who live and work in a building.

## 2.8.6 STAFF AMENITIES

Many long-serving corrections staff members will do more time "inside" than most prisoners before they retire. Carter says fresh attention is being paid to the needs of correctional officers and others who toil daily in correctional facilities. Well-appointed exercise areas, changing rooms and other details are becoming more common as a way to create a less stressful working environment.

## 2.8.7 TRANSITIONAL FACILITIES AND AFTERCARE

"We must recognize that a person's time in prison is only part of our responsibility," says Carter. Despite rehabilitation on the inside, many people are left adrift on the outside. He suggests that day reporting centres and other transitional facilities for parolees are needed and can benefit from the same sensibilities that go into the planning and design of prisons and jails.

Stephen Carter observes that architecture has a lot to do with making people feel safe and getting their basic needs met. Applied to the correctional facilities of today and tomorrow, that notion is especially relevant. The art and science of designing and erecting buildings is and has been a powerful force in creating a sense of security,

providing a forum for behavioural change, and meeting the expectations of a vast community of people affected by the realities of incarceration.

Practitioners in this growing specialty also understand that steel and concrete alone do not ensure successful outcomes. They know a link must be forged between the built environment and what goes on inside that environment.

## 2.9 DESIGN AND CONTROL

Prisons are not simply about detaining those who break the law; they also function to inculcate social rules into those who have not been successfully disciplined in other institutions (such as the family, school, and workplace). In "Discipline and Punish: the Birth of the Prison", French philosopher Michel Foucault analyzed the famous model prison proposed by the 19th Century British philosopher Jeremy Bentham.

Bentham's "Panopticon" is a circular building with a central guard tower that can look into all the cells lining the perimeter. The cells are kept illuminated but the observation tower is dark, so that prisoners can be observed at all times but cannot tell when they are being watched. The goal is for them to learn to act as if they are constantly under surveillance.

Once this self-discipline is instilled, prisoners can be released into society with the capacity to regulate their own behaviour through a socially beneficial form of paranoia. As Foucault puts it, "as opposed to the ruined prisons, littered with mechanisms of torture...the Panopticon presents a cruel, ingenious cage...it is the diagram of a mechanism of power reduced to its ideal form."

As observed in prison history, the central goal of prisons is always to maintain control - that is what remains when other functions are lost through neglect, budget cuts, or intentional harshness. The best-intentioned reformist designs have believed that more complete control of prisoners through design would be used only to further higher goals such as religious reawakening and inner reflection. But in fact control is an end in itself, and prisons just recreate the powerlessness of the member of poor and oppressed groups under even stricter rules than they face on the outside.

## 2.10 PRISON CRISIS

Why are so many people in prison? In an atmosphere of fear, economic difficulties, and persistent unemployment, prisons have become a popular "solution" to social ills. "Tough on crime" posturing by politicians has lowered the bar on what gets people into prison and how long they stay there, and has included vast expansions of prison space and law enforcement capacity. Meanwhile, social services, drug treatment, and good job opportunities have been downsized or lost, even though these approaches have consistently been shown to be the best way to reduce criminal activity, prevent repeat offenses, and improve people's chances for economic success.

## 2.11 HUMAN RIGHTS

Health care is another fundamental human right, but prisoners all over the country are regularly denied basic medical care. While in prison, it is the responsibility of state, and local governments to provide health care for prisoners. Many times, the individual decisions by guards, doctors, and nurses obstruct prisoners' access to decent health care.

Many prisoners contract diseases, fail to receive treatment or die of preventable causes while in prison. The national health insurance has being introduced for prisoners to get access to free and basic health care.

## 2.12 LACK OF REHABILITATION

Numerous studies showing that education is the most effective way to reduce recidivism, most prison extension classes have been abolished. Other forms of job training have shrunk, and while an estimated 70% of prisoners are illiterate, access to reading materials and even exercise equipment are increasingly restricted.

Upon release, prisoners are often poorly prepared for adjusting to life in society, and discrimination against ex-prisoners is common, making it even harder for them to get back on their feet. For example, most prisoners have to find housing and figure out how they are going to support themselves and their families, but discrimination against applicants with criminal records is still legal.

Prisoners are often released with little or no money and few resources or contacts except those gained while in prison, leading to frequent returns to prison shortly after release. Prisons are now intended not for the protection of society and the reintegration of troubled law-breakers, but as simple retribution -- punishment for transgression.

The routine use of violence in prisons to punish prisoners -- or to get prisoners to fight each other rather than fighting guards --prepares prisoners poorly for reintegration to society. The vast majority of all prisoners will be released to society, so it is in the interests of those outside, in addition to the rights of the prisoners themselves, to help develop opportunities for released prisoners to lead productive lives after prison.

Society believes that the retributive approach violates all basic principles of justice other than "an eye for an eye." The brutality of our prisons, and their role in perpetuating harsh and hopeless lives, flies in the face of the Ghanaian dream and the high ideals of our civilization itself.

Additionally, little account is made of the impact that incarceration has on families. Most Ghana prisons have few facilities for family visits, especially for young children. All these burdens fall onto already cash-strapped state agencies that often fail to provide any meaningful childcare, nurturing, or possibility for a hopeful future for these children.

## 2.13 FACILITY COMPONENT RELATIONSHIPS AND BUILDING DESIGNS

The factors of site location (rural to urban), site size, neighbourhood context, user operational preferences, and construction costs are all influences on program component selection and facility layout design. However, the choices can be narrowed to several basic facility configurations, which can be described as follows:

1. *Campus*

2. *Campus modified*

3. *Interconnected*

4. *Contained*

5. *Contained and linear*

6. *Contained and stacked*

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### 2.13.1 CAMPUS

This system has separate buildings for administration, program, services and housing. It has mainly single-storey building heights, single floor for dorms or single floor plus mezzanine option for dormitories and cells. Exterior circulation to all buildings functions. This system has outdoor recreation between or behind buildings, perimeter security fence(s) with detection, depending on inmate population classification.

### 2.13.2 CAMPUS MODIFIED

This facility has combined buildings for administration, program, and services-one or several buildings, has separate housing buildings. The facility has single or two-storey building height for administration building. It's also has single or two story building height for support building. It has one-storey or two-storey housing building.

The campus modified has exterior circulation from housing to all other building functions. The outdoor recreation is between or behind buildings it perimeter security fence(s) with detection, depending on inmates population classification.

### 2.13.3 INTERCONNECTED

The interconnected facility has combined buildings for administration, program and services – one or several buildings. It has connected housing buildings with multiple-storey administration building. It has two-storey building height for support buildings interconnected facility has one-storey or two-storey housing buildings.

It's interior circulation from housing to all other building functions and exterior access too. The outdoor recreation location internalized between or behind buildings. And housing buildings form the first line of security perimeter the perimeter security fence(s) with detection, depending on inmate population classification.

## 2.13.4 CONTAINED

It has combined and centralized administration, program, and services functions into one building. it has connected housing buildings with multiple-storey administration building, two-storey building height for support buildings. It has one-storey or two-storey housing buildings with interior circulation from housing to all other building functions the outdoor recreation is located internalized and localized between building functions.

The outdoor recreation location internalized and localized between building components. The support and housing buildings form the security perimeter. Optional perimeter security fence(s) with detection. Compact footprint for limited site-area conditions inmates has limited movement, maximizes staff observation, supervision, and control.

## 2.13.5 CONTAINED AND LINEAR

All building functions are connected with combined and centralized administration, program and services functions. It has single or multiple building heights for administration, program, and services functions. Has single or multiple building heights for administration, program, and services functions. It has one or multi-storey

housing buildings. All circulation is internalized between housing and all other building functions.

Its interior recreation location is internalized between housing and all other building functions and outdoor recreation location internalized and located adjacent to housing units. It's supporting and housing buildings form its optimum compact footprint for limited site area conditions with inmates' movement, maximizes staff observation supervision and control.

## 2.13.6 CONTAINED AND STACKED

The building functions are connected and megastructure with combined and centralized administration, program and services functions. Buildings are mid-rise or high-rise building with multiple-storey housing buildings which are stacked over administrative, programs, and services functions. All circulation is internalized between housing and all other building functions and vertical circulation and limited inmate's movement.

Interior recreation centralized and shared between housing units with outdoor recreation location internalized and located adjacent to housing units. Their supporting and housing buildings form the security perimeter with detection optional with optimum compact footprint for limited site area conditions and urban locations.

**References:** Microsoft Student Encarta 2008

Ghana Prison Services Annual report 2007 / 2009

Krasnow, P.(1998) Correctional Facility Design and Detailing, USA,McGraw-Hill

# CHAPTER THREE

## METHODOLOGY

### 3.0 INTRODUCTION

The purpose of Case Studies is to identify both positive and negative effect on the design of minimum – security prison. Their design on prison care, resulting from the environmental variables in the development of minimum – security prison quality and location aspects and communication with the objective to reach an environment that stimulates the senses, skill training and teaching and optimization of operational aspects and well – being of inmates and staff.

1. Adequacy and quality of functional spaces.

2. Ventilation of functional spaces, inmates' accommodation, training space etc, In compliance with standards and safety of users – inmates, staff and social workers.

The positive result of the case studies will be incorporated into the process of programming and design of the proposed minimum – security prison.

### 3.1 CASE STUDY 1

These are some of the few prisons selected and studied for this thesis design.

Nsawam medium-security prison

Location: Eastern Region, Ghana

### 3.1.1HISTORY

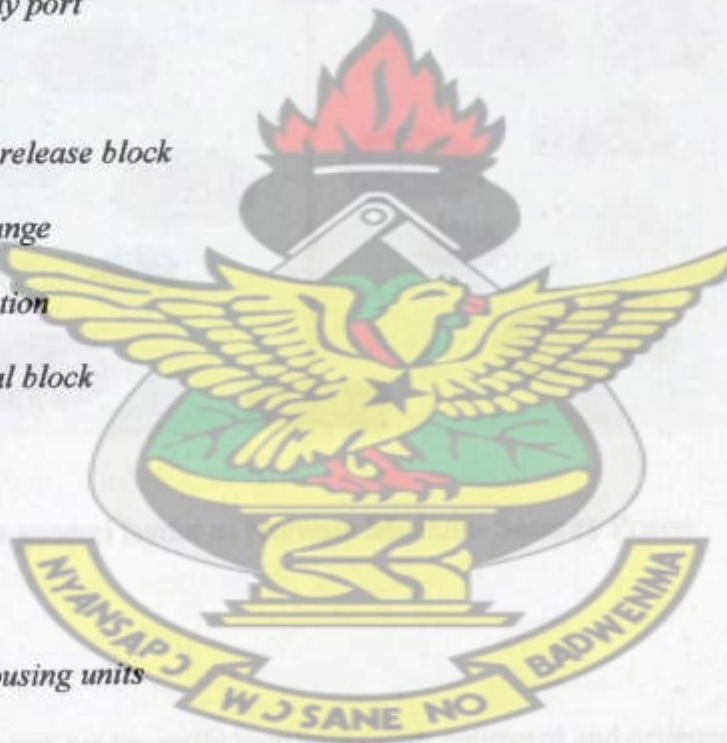Commenced in 1950's and was completed in 1962

Inmate's capacity 851

Current population 3031

Main features:

1. *Vehicle sally port*

2. *Reception*

3. *Intake and release block*

4. *Visitors lounge*

5. *Administration*

6. *Educational block*

7. *Infirmary*

8. *Chapel*

9. *Mosque*

10. *Inmates housing units*

11. *Kitchen*

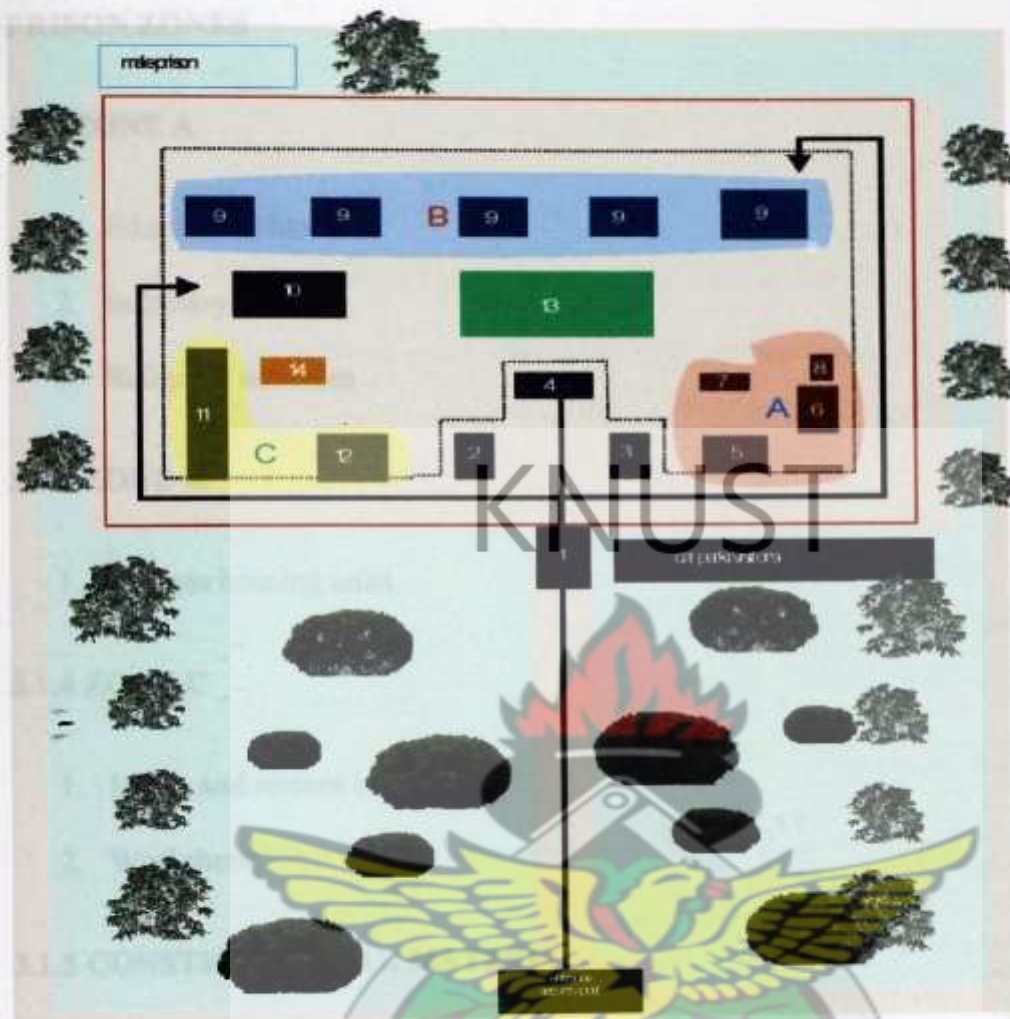12. *Workshop*

13. *General stores*

14. *Playing field*

Fig3.1 showing the general layout of Nsawam Medium- Security Prison

Spatial planning:

Building forms are basically rectilinear with courtyard and oriented north –south.

Building heights one form one to three-storey. The first point of call is the gate lodge.

The administration sit in the middle to over look the public and private spaces of the

facility.

**PRISON ZONES**

### 3.1.2 ZONE A

1. Educational block

2. Infirmary

3. Religious activities

### 3.1.3 ZONE B

1. Inmates housing units

### 3.1.4 ZONE C

1. Intake and release block

2. Workshops

### 3.1.5 CONSTRUCTIONAL MATERIAL

Main building material; concrete, metal and glass blocks

Concrete form 90% of building envelope

Metals are used to fabrication of cell blocks

Glass blocks to admit light into spaces

### 3.1.6 SECURITY

The facility has high walls (higher than all the recent blocks within). There are

also perimeters fencing around inmates housing.
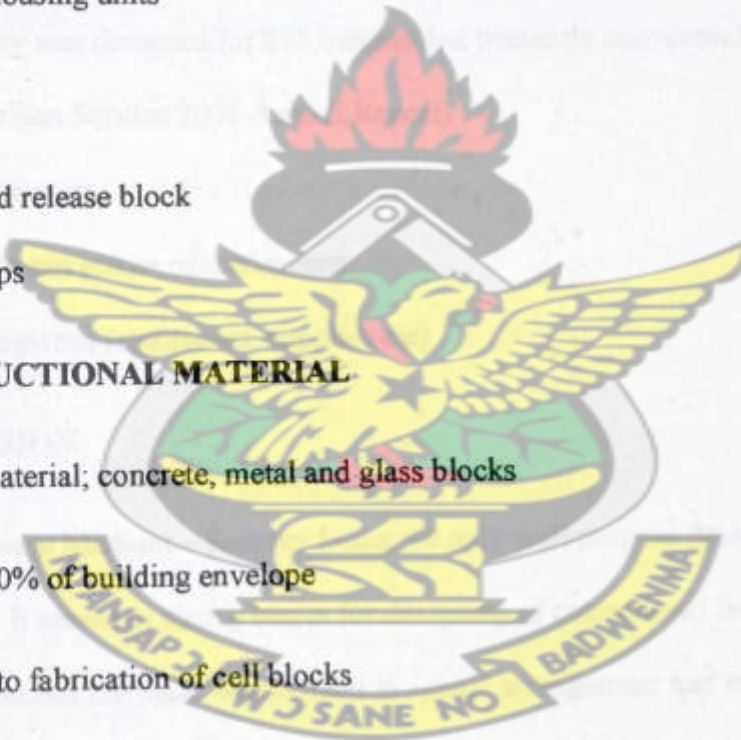
### 3.1.7 MERITS

1. The facility has a single secured gatelodge

2. The buildings are oriented north-south on site

3. Courtyards within buildings serve as circulation and gathering place for inmates

4. The administration sit in the middle and over look all the facility serving as a major security

### 3.1.8 DEMERITS

1. The facility was designed for 851 inmates but presently accommodate 3031 (Ghana Prison Service 2008 Annual Report)

2. Lack of greenery

3. Lack of decent places of convenient

4. Lack of logistics (equipment, supplies etc)

### 3.1.9 CONCLUSION

The Nsawam Medium – Security being the only well purpose designed and built prison presently. It serves as strong basics for designing of correctional facility in Ghana. It also satisfies the basic requirement in spatial arrangement and material components.

### 3.2 CASE STUDY 2

Mt. Eden prison

Location: Auckland, New Zealand.

Fig 3.2 an overview of the Mt Eden prison site showing the completed redevelopment

1. A new accommodation building with 300beds.

2. A new accommodation building 150beds.

3. Buildings 1 and 2 replace the old Mt Eden prison

4. A new secure gatehouse single entrance to the site

5. Multi-level car park providing on-site parking for staff and visitors.

6. A new prisoner services building with a central visitor centre.

7. Renovation of the old Mt Eden Prison for administration and staff use, and to

    strengthen and protect a nationally significant historic building.

8. The existing Auckland Central Remand prison.

Fig 3.3 an isometric view of the Mt Eden Prison, Auckland, New Zealand.

### 3.2.1 MERITS

1. A single secured gatelodge serve as the only entrance to the site.

2. Multi – storey structures are found on site.

3. Building forms are basically rectilinear

4. The facility has courtyards and greenery.

### 3.3 CASE STUDY 3

Columbus Correctional Institution

Location: Brunswick, North Carolina, USA

County: Columbus

Inmate capacity: 698

**Inmate gender: Male**

**Custody level: Medium**

**Staff size: 270**



Fig 3.4 Columbus Correctional Institution, near Brunswick, is a medium security prison for adult males.

The prison's original dormitory built in the late 1930s is still in use. In the 1970s, inmates under the supervision of correction engineers built a recreation building and a 28-cell unit to house inmates placed in administrative or disciplinary segregation. The General Assembly provided for dormitories with 312 beds for Columbus as part of the $75 million prison construction program authorized in 1990.

Another 208-bed dormitory was provided as part of the $62.1 million prison construction program authorized in April 1994.Southeastern Community College works with the prison to provide vocational classes in brick masonry, heating and air conditioning and plumbing. Classes for adult education and preparation for the GED tests are available. Inmates may take a course on substance abuse.

Inmates work in a number of jobs. They may work on Department of Transportation road crews or as maintenance or kitchen help at the prison. Correction Enterprises has a sewing/tailoring plant under construction that would provide additional job assignments for inmates. Visitation is by appointment only for all Inmates. Regular population Inmate's visitation including special visits is by appointment

Appointments must be made at least three days in advance and no more than 14 days. The visitor must call, Monday through Thursday between the hours of 9 to 10:30 a.m. or noon to 4:30 p.m. to schedule an appointment. Each inmate will be allowed only one visit per week. A maximum of three visitors (adults and children) will be permitted to visit an inmate per weekly visitation session.

Visitation on Sundays will be for one hour blocks and Monday – Thursday sessions are two hour blocks. Legal Visits will be by appointment only Monday through Friday. The legal visitor must call, Monday through Thursday between the hours of 9 to 10:30 a.m. or noon to 4:30 p.m to schedule an appointment. In addition, the legal visitor must provided a letterhead document 48 hours before the scheduled visit, indicating the name of the attorney/agency, the inmate requesting to visit, and the date of time of the visit.

Segregated Inmates / Non –Contact Visits:

Inmates who are in segregation or have been restricted to non contact visitation can visit Monday through Friday also by appointment only. The visitor must call at least two days in advance to schedule an appointment. Only two adults, or one adult and one child will be allowed to visit during a one hour visiting session. Schedule - is daily from 9 to 10

a.m., 1 to 2:00 p.m., and 3 to 4 p.m.

## 3.4 CASE STUDY 4

**Albemarle Correctional Institution**

Location: Badin, North Carolina

County: Stanly

Inmate capacity: 856

Inmate gender: Male

Custody level: Medium

Staff size: 324

Occupancy: November 1999



Fig 3.5 Albemarle Correctional Institution is located on 100 acres of land near Albemarle in Stanly County.

Inmates are housed in three units and there is a segregation area with cells for 40 men.

Some inmates from Albemarle are assigned to road squads and work picking up trash and clearing debris, while hundreds of others work inside the prison cleaning dorms, maintaining grounds and preparing and cooking food.

Albemarle also offers educational opportunities such as GED instruction, courses in computer applications, carpentry and electronics technology taught by instructors from Stanly Community College.

Albemarle Correctional Institution has a staff of 324 people and an annual operating budget of more than $13 million.

**References:**

- http://www.nicic.org/pubs/1996/
- http://en.wikipedia.org/wiki/prison
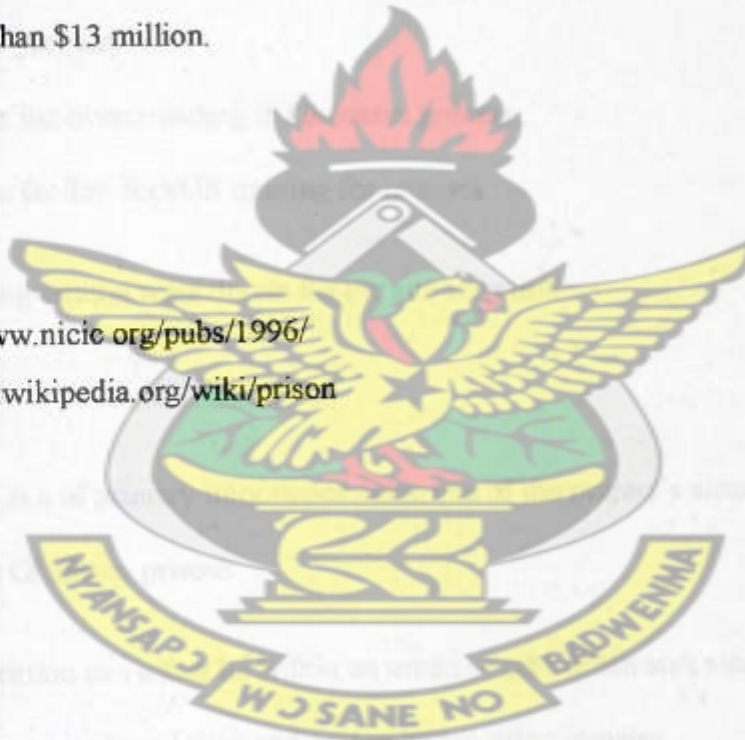
# CHAPTER FOUR

# FINDINGS AND DISCUSSIONS

This chapter brings to light all the deductions, findings and consideration to be taken in the assessment of the site selection.

## 4.0 SITE SELECTION CRITERIA

The main objectives for the scheme are;

1. Design and provide a humane and friendly environment for the staff and inmates.

2. Design a self sustainable facility and an icon for upcoming correctional facility for the 21<sup>st</sup> century.

3. To reduce the overcrowding in Ghanaian prisons.

4. Create the facility for skill training for inmates.

Thus the following criteria were drawn for the site selection.

## 4.1 LOCATION

Location is a of primary importance since one of the project's aims is to reduce overcrowding in Ghanaian prisons

Therefore the location can either be within an urban or peri-urban area since the intention is to minimize travel time and cost in transporting inmates

## 4.2 SITE SELECTION AND JUSTIFICATION

Some of the issues relating to site selection of a correctional facility are traffic flow, distances to courthouse, water usage in detention settings, proximity to population centres and medical assistance and utility availability. From the above listed criteria, several sites were selected within Accra. These are borstal institute, roman ridge and Accra hearts of oak training grounds



Fig 4.2.1The map of Central Accra

## 4.3 BORSTAL INSTITUTE

Location: the site is located between Roman Ridge and Airport Residential Area.

## 4.3.1 SITE CHARACTERISTICS:

The site currently belongs to Ghana prison and is occupied by the Borstal institute (senior correctional centre), the James camp, prison service training school and officers quarters. The site was originally developed in 1800's as a communication centre during the world II. By that time, Accra occupied just a few mile radii. Roman Ridge was then an outskirt of town.

## 4.3.2 SITE STRENGTH:

1. The site is located within a secure zone and has all the amenities a correctional facility requires.

2. It has functioned as correctional facility for minors for many years.

3. It has an important role in the prison services of Ghana.

## 4.3.3 SITE INVENTORY AND PERIPHERAL STUDY

The site has certain building and facilities within a few meters away from it. These buildings will have an indirect effect on the proposed correctional facility. Some of these buildings include;



Fig 4.3.1 Prison Officers Quarters              Fig 4.3.2 Jack and Jill School

**Fig 4.3.3 Borst Oil Company Head Office**    **Fig 4.3.4 The Indian High Commission**



Fig 4.3.3 Borstal institute main entrance

## 4.4 SITE TOPOGRAPHY

The site slopes gently toward the north. Below is a site map showing the contour lines, spot heights and sections to indicate the slope of the site.
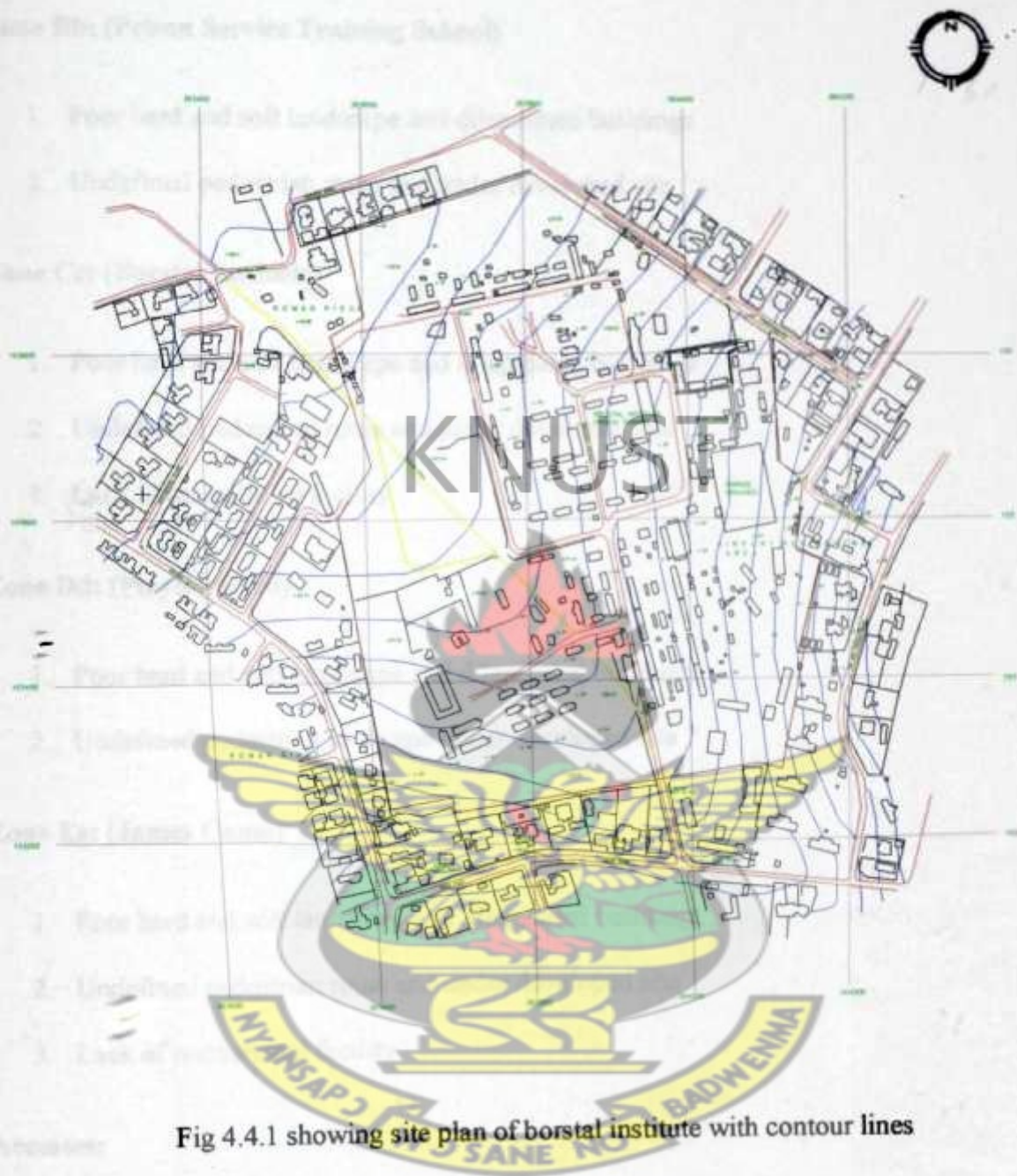
Fig 4.4.1 showing site plan of borstal institute with contour lines

## 4.5 SITE CONDITION

### Zone Aa: (Prison Officers Quarters)

1. Poor hard and soft landscape and dilapidated buildings

2. Undefined pedestrian route and under developed site

## Zone Bb: (Prison Service Training School)

1. Poor hard and soft landscape and dilapidated buildings

2. Undefined pedestrian route and under developed site

## Zone Cc: (Borstal Institute)

1. Poor hard and soft landscape and dilapidated buildings

2. Undefined pedestrian route and under developed site

3. Lack of recreational facility

## Zone Dd: (Playing Field)

1. Poor hard and soft landscape and dilapidated buildings

2. Undefined pedestrian route and under developed site

## Zone Ee: (James Camp)

1. Poor hard and soft landscape and dilapidated buildings

2. Undefined pedestrian route and under developed site

3. Lack of recreational facility

## Accesses:

The accesses to the site are one through the James Camp and Borstal Institute.

## Services:

The site is well serviced with electricity, water, and telecommunication.

Fig5.1 showing conditions on borstal institute site



Fig5.2 showing the aerial photograph of the site and its environs

## 4.6 SITE NO 2

The site is located between Arts Centre and the Juvenile Courts.

## 4.7 HISTORY

The site is owned by the Ghana Tourist Board. The Accra Hearts of Oak occupies a portion as their training pitch. Some parts is occupied by uncompleted buildings with huge rubbish dump. A stream also runs through the site.

## 4.8 SITE CONDITION



Fig 4.8.1 Aerial view showing site condition

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Fig 4.8.2 showing uncompleted buildings    Fig 4.8.3 showing the Accra Hearts of

Oak training pitch

The Borstal Institute site was chosen over the Ghana Tourist Board site because;

1.  The site already belongs to the Ghana Prison Service therefore there will not be difficulty acquiring the site.

2.  The reclaiming of the Ghana Tourist Board will cost so much that making the projects not feasible.

3.  The Borstal Institute site has all the conditions require for a correctional facility.

4.  The site sits in a security zone hence maximum security to ensure inmates are kept safe.

## 4.9 DESIGNING A MINIMUM – SECURITY PRISON

### 4 9.1 CLIENTS' BRIEF

1.  *Recreational facilities*

2.  *Administrative offices*

3.  *Inmates housing units*

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4. *Skills and educational facilities*

## 4.10 DESIGN REQUIREMENTS, USER NEEDS AND FUNCTIONS.

A critical look and detail consideration of the clients brief required the

implementation of some design consideration to prevent the following outcomes:

1. *Over provision of facilities*

2. *Under provision of facilities*

3. *Less consideration to security details*

4. *Facilities that do not conform to standards.*

To be able to address the design issues and requirements and satisfy user needs and

functions, the design of the Adult correctional facility (Accra Minimum-Security

Prison) need to be handled in smaller details for a bigger overview for a successful

design to be achieved.

## 4 11 DESIGN BRIEF

**Operational facilities**

1. *Administration block*

2. *Inmates cell blocks*

3. *Gate lodge*

4. *Reception block*

5. *General stores*

6. *Infirmary*

7. *Sentry posts*

8. *Kitchen and dining halls*

9. *Chapel / mosque*

10. *Canteen*

11. *Visitors lounge*

12. *Social amenities*

13. *Officers' mess*

14. *Recreational facilities*

15. *Shopping area*

16. *Car park (for visitors and offices).*
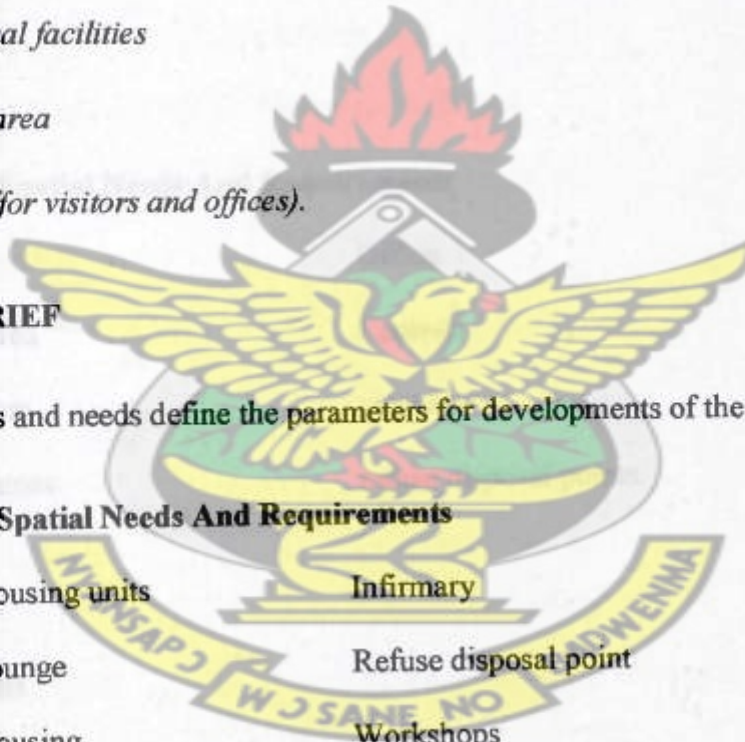
## 4.12 REFINE BRIEF

User requirements and needs define the parameters for developments of the design brief.

1. **Inmates' Spatial Needs And Requirements**

   General housing units        Infirmary

   Visitors lounge              Refuse disposal point

   Solitary housing             Workshops

   Recreational area            Fire exit areas

   Dining area                  Classrooms

   Library                      Religion

   Sanitary area                utility/laundry area

   Circulation

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## 2. Staff Spatial Needs And Requirements

| | |
|---|---|
| Office space | Armory (non-lethal weaponry) |
| Sentry post | Sanitary areas |
| General storage areas | Central control |
| Officers mess | Changing areas |
| Car parking | First aid |
| Recreation | Fire exits |
| Canteen | |

## 3. Visitors' Spatial Needs And Requirements

| | |
|---|---|
| Car park | Office |
| Waiting area | Canteen |
| Check room | visitation |
| Sanitary areas | refuse disposal points. |

## 4. Final Brief

After careful analysis of Adult Correctional facilities and looking at the requirement involved in user spatial needs the final brief was drawn.

## 5. Visitors lounge

| | |
|---|---|
| Waiting areas | Contact/Non-Contact visiting area |
| Sanitary areas | sentry post |

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6. **Gate lodge**

Waiting area                    Entry point

Reception                       Sanitary area

7. **Administration**

Superintendent's Office

Deputy Superintendent (Direct Operations) office.

Deputy Superintendent (Indirect Operations) office.

Accounts and bursary office   Senior staff office

General office                  Staff common room

Waiting lounge                  Sanitary

Storage.

8. **Intake**

Booking                         General recruiting

Examination room                Fingerprinting and Photography

Inmate property stack room      Holding area

9. **Inmates housing Unit**

Cells                           Day rooms

Sanitary                        Indoor recreational area

Reflection gardens              sentry post

Dining area.                    Solitary cells

## 10. Educational and Vocational

Formal class rooms              Informal class rooms

Library                         ICT centre

Workshops                       Sanitary

Sentry Post                     Workshop storage area

Offices

## 11. Infirmary

Waiting area                    Consulting rooms        Storage

General wards                   Isolation wards

Sanitary                        Changing room

Treatment room                  Sentry post

Laboratory                      X-ray

Dining area                     Reflections gardens

Medical officers' restroom      Nurse Restroom

## 12. Dining and kitchen

Pantry                          Servery

Matron's office                 Indoor cooking

Outdoor cooking                 Sanitary

Changing room                   Refrigeration

Storage                         Preparation area

## 13. Recreation

| | |
|---|---|
| Football | Tennis court |
| Basketball court | Games room |
| Badminton | |

## 14. Visitors

| | |
|---|---|
| Contact visiting area | Waiting area |
| Sanitary | Non-contact visiting area |
| Wardens post | Conjugal rooms |

## 15. Car parking space

| | |
|---|---|
| Staff parking | Visitors parking |
| Super indent's parking | Emergency parking |
| Vehicle sally post | Services and delivery parking. |

## 16. Services

| | |
|---|---|
| Power house | Biogas plant |
| Underground water storage | Overhead tanks |

## 17. Future Development

## 4.13 PLANNING AND DESIGN

The planning of the facility is based on general requirements of correctional facility, the type of facility component relationships and building designs, program operation and security systems based on the UN and Ghana Prison Services standards.

1. The campus modified system was use based on the chosen site and the requirements needed to achieve.

2. The public, private areas are clearly defined.

3. The planning and design promote community safety.

4. Provide safe and humane treatment for inmates until their legal release, to affirm the dignities and rights of individuals.

5. The planning and design meet the constitutional requirements.

6. Aid healthy interaction among staff and inmates.

7. Have the appropriate level of security based on the specific inmate population.

## 4.14 DESIGN PHILOSOPHY AND CONCEPTS

**Philosophy:**

*Personality through reformation, rehabilitation and reintegration:*

Creating a humane, secure, friendly environment for the secluded (prisoner and the warden).

**Concept:**

*Humane:*     - Comply with UN and Ghana Prison Services standards

- Open spaces

- Colours are not intimidating

- Rehabilitation, learning

- Materials

*Secure:*    - Using violent free materials

- Using of CCTV cameras, surveillance, sensors etc

- Visibility of cells blocks from fixed point

*Friendly:*    - Environment    -creating a soft environment to reduce prison

violence and staff fatigue

- Creating a given amount of space and wonderful façade

- Provision of a decent environment i.e. space, temperature, light,

ventilation, colour humidity etc for both inmates, visitors and staff

Orientation    - north- south
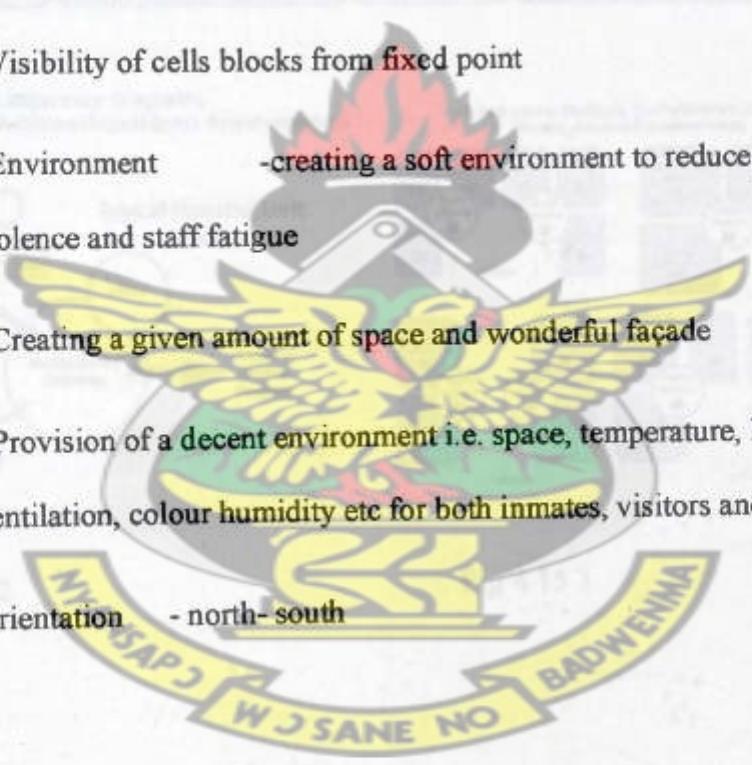
64

## 4.15 FUNCTIONAL RELATIONSHIPS OF SEVERAL SPACES
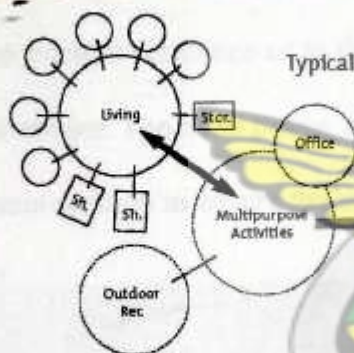
### Primary Functional Components
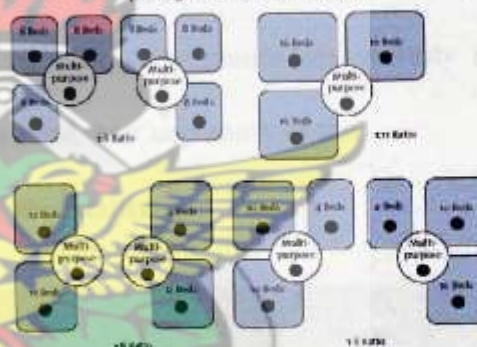


Fig 4 15 1



Fig 4 15 2

Fig 4 15 3

**References:**

- Native American and Alaskan Technical Assistance Project Adult CorrectionalFacility Design ResourcesJustice Planners International LLC (JPI)

  JPI Project    Staff: Shelley Zavlek and Mark Goldman, Principals; Anthony H.

  J. and Joshua   LeFrancois, Associates

## 4.16 CONCEPTUAL SITE PLANING

The site was conceptually planned taking into consideration, the topography, security of inmates, staff and visitors. The chosen site sits in an urban setting. The site is bounded on the south by the James Camp Prison, on the east by the Prison Service Training School, on the north – east the Borstal Institute and lastly on the north by scattered Prison Officers residence.

The chosen area of the Accra Minimum – Security prison sits on the west of the entire site. The other facilities serve as a strong security buffer which is one of the primary considerations for correctional facility design.

The administration sit in the middle of the site to over look all the other facilities. The inmates residence sit to the north of the administration to ensure total security and movement. The other public facilities sit on the west, east and south of the administration to ensure the smooth running of the facility.
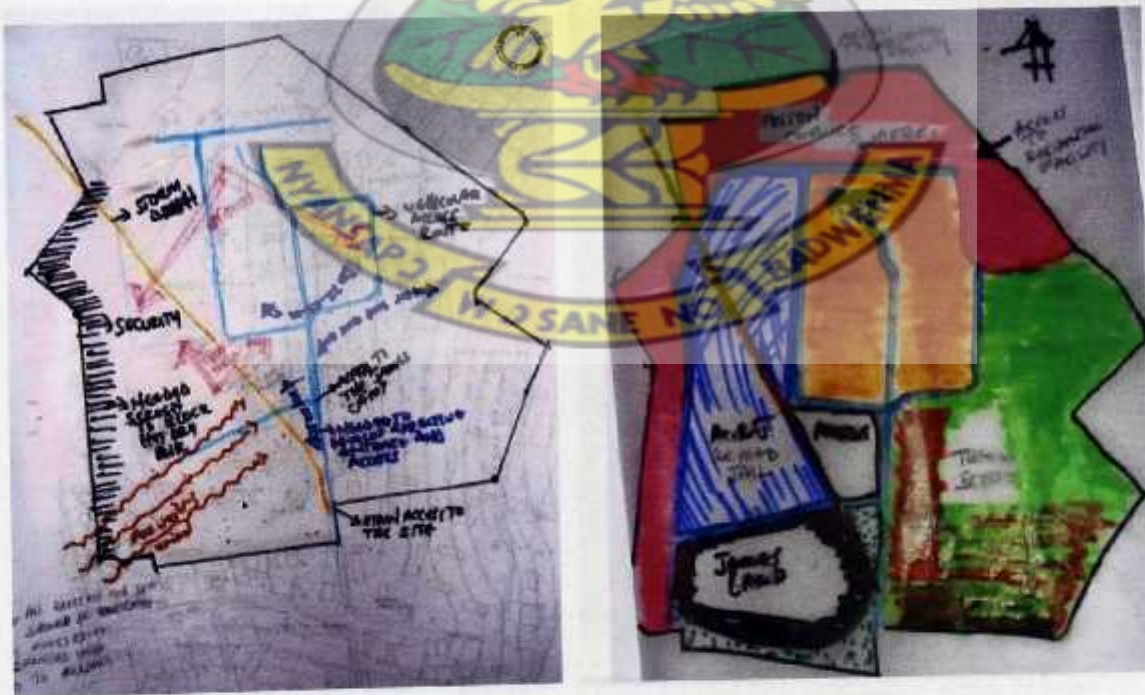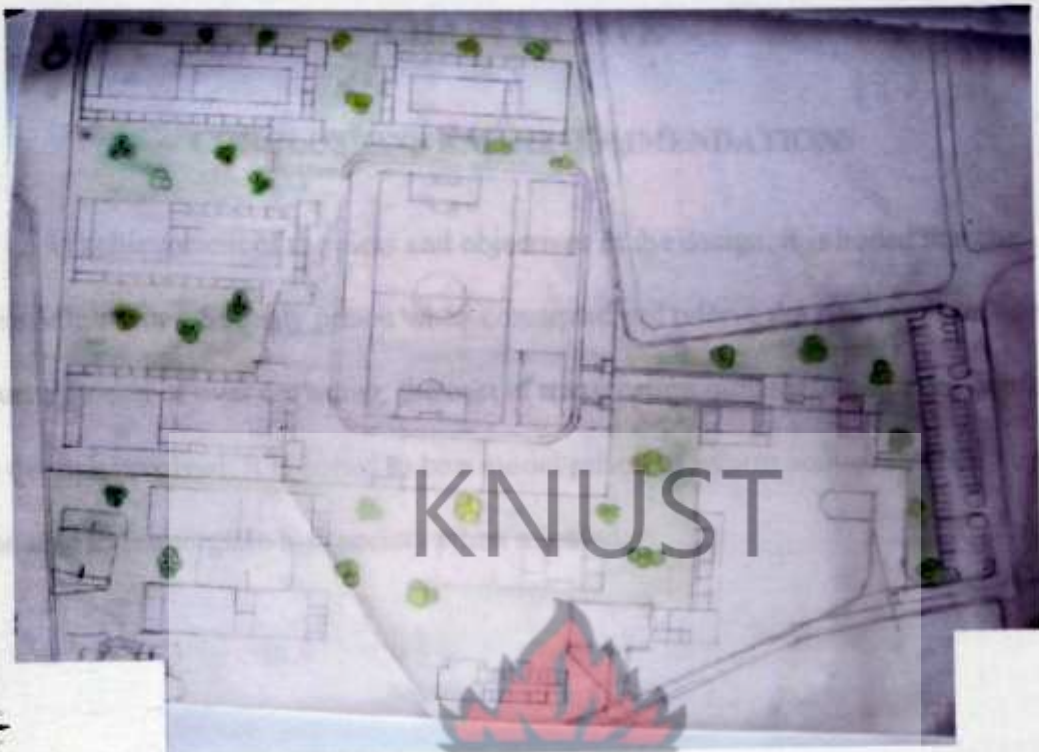
# CHAPTER FIVE

## CONCLUSIONS AND RECOMMENDATIONS

In achievement of the aims and objectives of the design, it is hoped that the
Accra Minimum – Security prison when construted wil relieve the Nsawam Meduim –
Security Prison of over crowding, the cost of transporting inmates to and from courts
and the risk involved. It is hoped to be a model prison to reform and rehabilitate inmates
to be able to reintergrate into society when released.

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# APPENDIX

KNUST

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BORSTAL INSTITUTE
PRISON SERVICE

JAMES CAMP

LEGEND

# ACCRA-MINIMUM-SECURITY-PRISON

NAME: STELLA N. O. OPOKU
COURSE: THESIS DESIGN
YEAR: PGD ARCHITECTURE 2
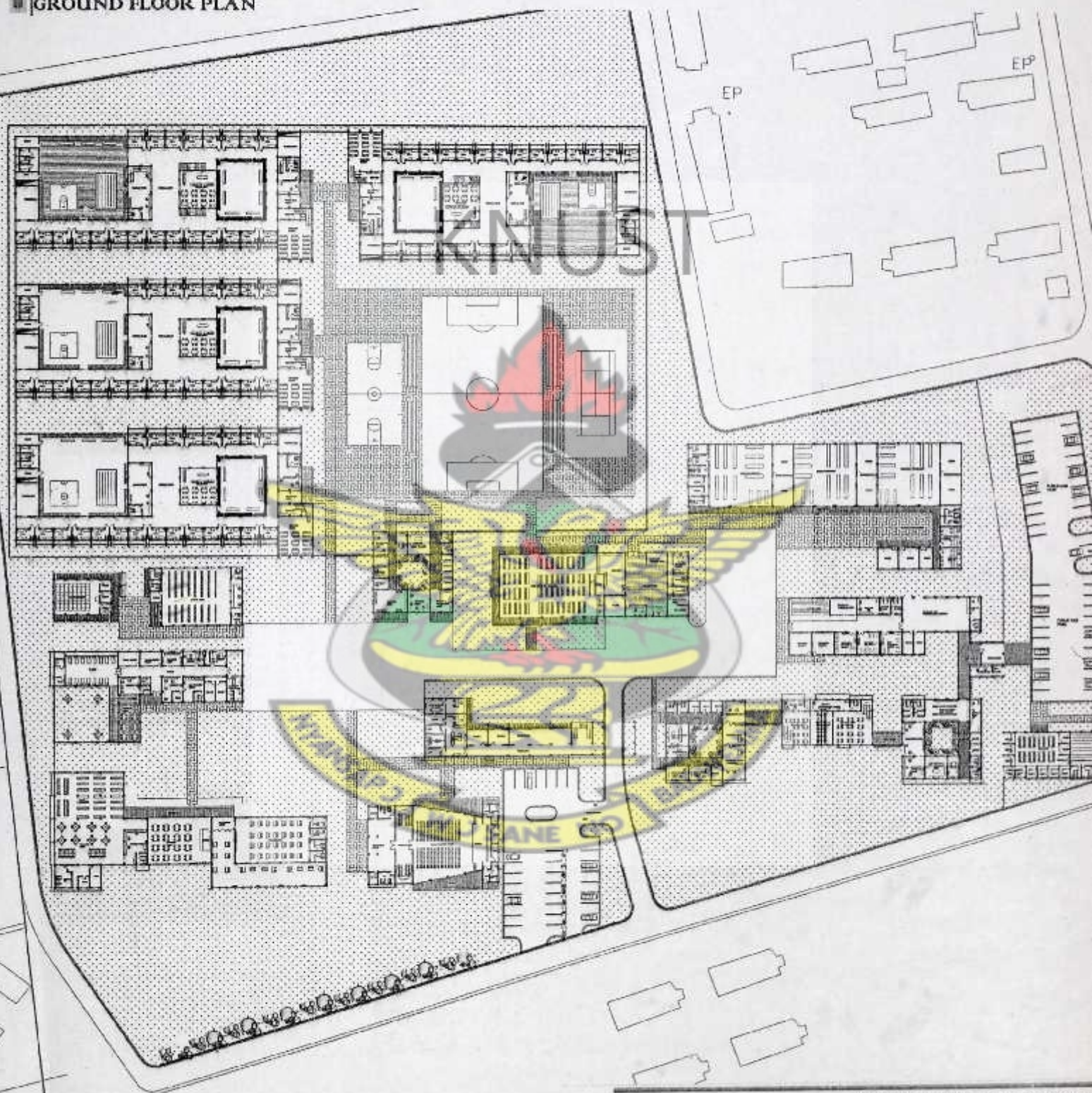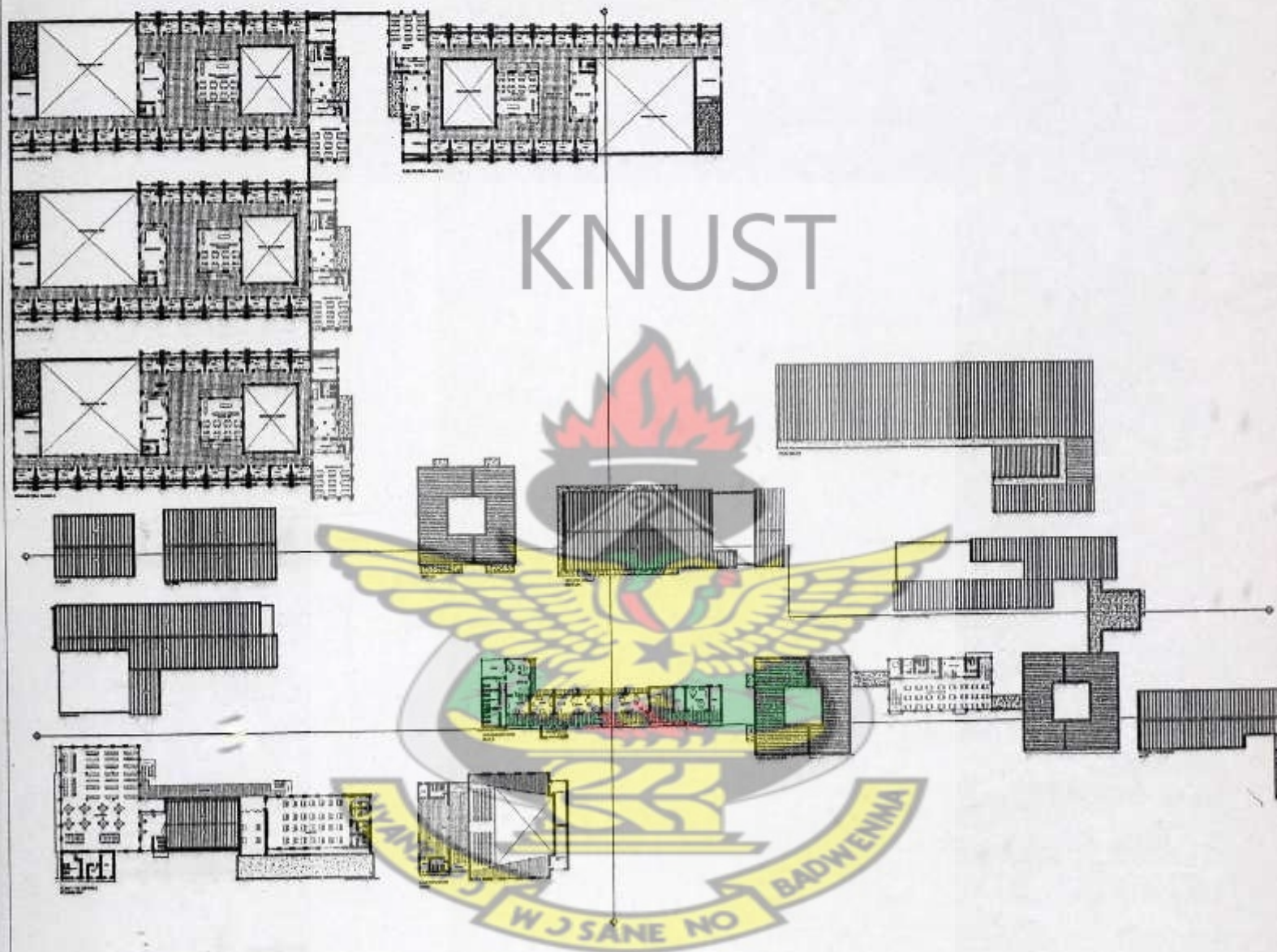DATE: MAY, 2009

# PLANS

## ■ SITE PLAN

### LEGEND

ACCRA MINIMUM-SECURITY PRISON

NAME: STELLA N. O. OPOKU
COURSE: THESIS DESIGN
YEAR: PGD ARCHITECTURE 2
DATE: MAY, 2009

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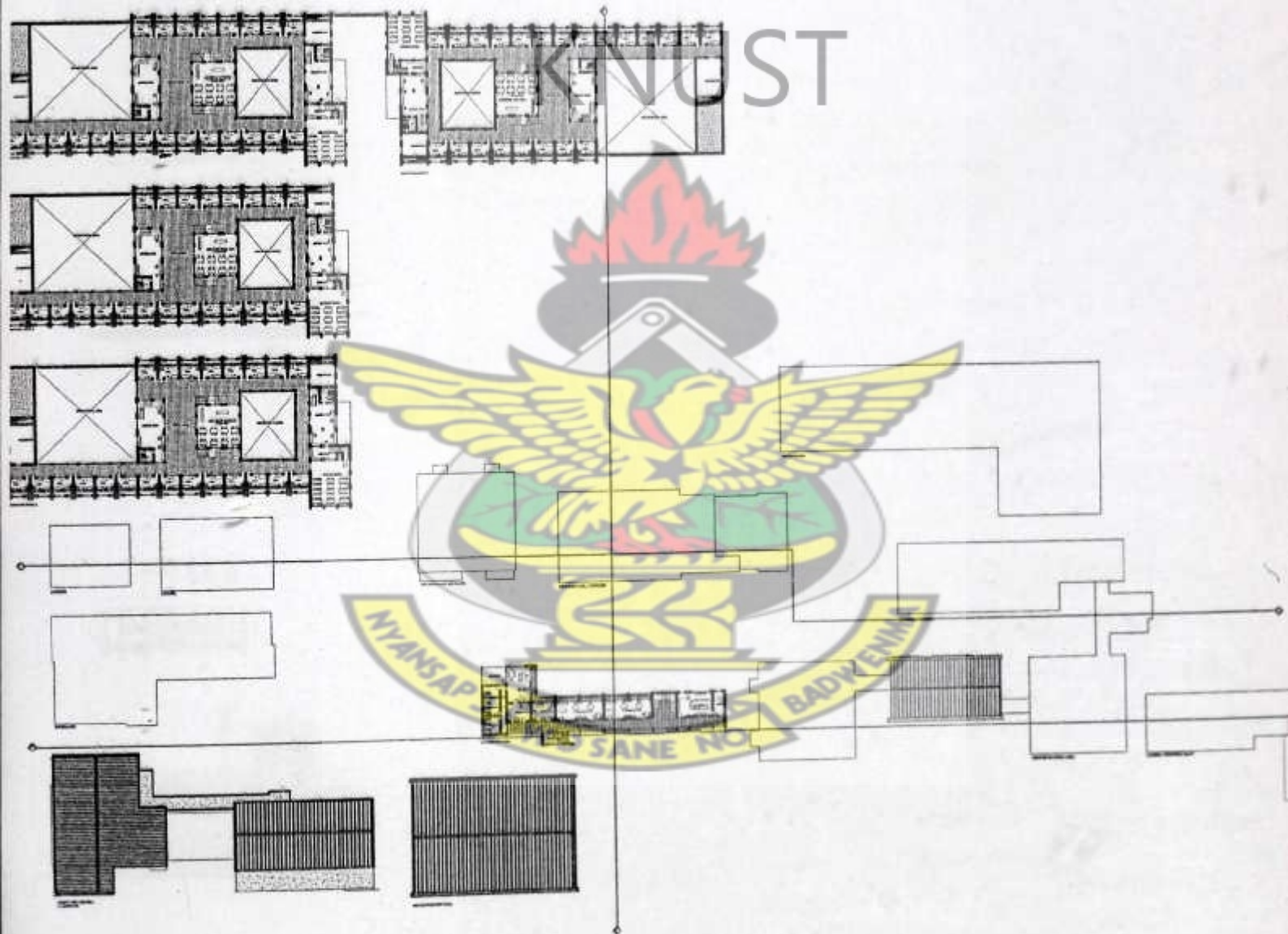# ACCRA MINIMUM-SECURITY PRISON

NAME: STELLA N. O. OPOKU
COURSE: THESIS DESIGN
YEAR: PGD ARCHITECTURE
DATE: MAY, 2009

DEPARTMENT OF ARCHITECTURE
KWAME NKRUMAH UNIVERSITY OF SCIENCE
AND TECHNOLOGY
KUMASI, GHANA

KNUST



NAME: STELLA N. O. OPOKU
COURSE: THESIS DESIGN
YEAR: PGD ARCHITECTURE 2
DATE: MAY, 2009

## ACCRA MINIMUM-SECURITY PRISON

# PLANS

## SECOND FLOOR PLAN

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AND TECHNOLOGY
KUMASI, GHANA

SECTIONS

NAME: STELLA N. Q. OPOKU
COURSE: THESIS DESIGN
YEAR: B.ED ARCHITECTURE 7
DATE: MAY, 2009

SCALE

ACCRA MINIMUM-SECURITY PRISON

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AND TECHNOLOGY
KUMASI, GHANA

ELEVATIONS

SOUTHERN ELEVATION

EASTERN ELEVATION

KNUST

# ACCRA MINIMUM-SECURITY PRISON

NAME: STELLA N.O OFO...
COURSE: THESIS DESIGN
YEAR: PGD ARCHITECTURE
DATE: MAY, 2009

# 3D IMPRESSIONS

## SOUTH-EAST ISOMETRIC VIEW

NORTH-EAST ISOMETRIC VIEW

KNUST

## ACCRA MINIMUM-SECURITY PRISON

# NORTH-EAST ISOMETRIC VIEW

## 3D IMPRESSIONS

NAME: STELLA N. O. OPOKU

COURSE: THESIS DESIGN

YEAR: PGD ARCHITECTURE 2

DATE: MAY, 2009

## ACCRA MINIMUM-SECURITY PRISON

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