

**DESIGN PROPOSAL FOR CALABAR MODERN PRISON
WITH EMPHASIS ON SECURITY**

BY

OSOR, BENJAMIN GODFRIED

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**A THESIS SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE,
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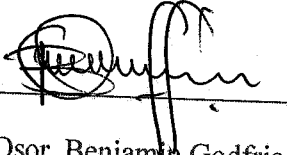
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AWARD OF M.TECH DEGREE IN ARCHITECTURE.**

SEPTEMBER, 2004

DECLARATION

I, OSOR BENJAMIN GODFRIED hereby declare that this dissertation report is the original work of mine undertaken and executed under the supervision of my mentor, Arc Bello Mohammed and that all quotations and information used and their sources have been duly acknowledged by means of references.



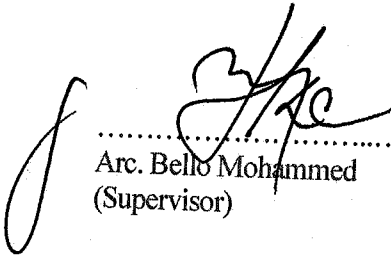
Osor, Benjamin Godfried

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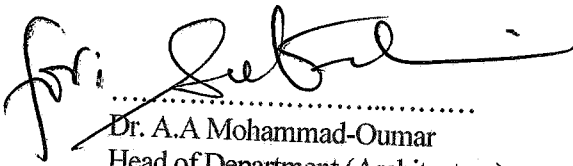
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CERTIFICATION


This dissertation entitled Calabar Modern Prison, meets the regulations governing the Award of the Masters in Technology (M.Tech) in Architecture Degree of the Federal University of Technology, Minna and is approved for its contribution to knowledge and literary presentations.


.....
Arc. Bello Mohammed
(Supervisor)


18/7/11
.....
Date


.....
Dr. A.A Mohammad-Oumar
Head of Department (Architecture)

18.07.2011
.....
Date


.....
Prof. O.O Morenikeji
Dean School of Environmental Technology

18-07-2011
.....
Date


.....
Prof. S.L Lamai
Dean, Post Graduate School

18/7/2011
.....
Date

DEDICATION

This thesis is purely and specially dedicated to Almighty God with devotion love and thanksgiving.

My dedication also goes to my parents:

Mr. and Mrs. Francis Godfried Osor.

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My heart felt appreciations are due to several persons for the successful completion of this dissertation.

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ABSTRACT

This dissertation report is aimed at the documentation of the design and construction of - institution namely Calabar Modern Prison. The need for prison reforms in Nigeria have been a major area of concern to the public, owing to the degree of inhuman state of prison buildings with inadequate or non functional facilities, congestion, inadequate supply of materials and tools for prison industries and farms, where they exits, and lack of medical facilities coupled with poor feeding system, have been noted responsible. A prison is meant to accommodate crime suspects and convicted persons while serving their jail terms, this fact makes a prison a highly security focused institution. Provision of adequate security network in and around prison environment to detect escapes and other vices such as prison violence, brutality and suicides by inmates while enhancing proper reformation of prisoners is one of the major objectives of this thesis. The architectural design and performances report of the author's expectations of the Calabar Modern Prison forms the conclusive part of this thesis.

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CHAPTER ONE

1.0 INTRODUCTION

The Nigerian society like any other is made up of people of different character, most of who are beneficial and some destructive to human lives and positive development. For the good of the society, law enforcement agencies are set up in every society either at the local level by traditional rulers or at the national level by the government to curb its ills. Various means of dealing with law breakers are also devised, one of which is imprisonment.

A prison is defined as a building or place where persons convicted for crime are confined against their will as a means of discipline with the ultimate intention to make them better citizens. The design of prison, should therefore take into cognizance that prisons are supposed to serve as reformation centres not destructive centres as it is today.

It is unfortunate that till date Nigerian prisons still serve as horror chambers, medieval dungeons, torture camps and human gallows. Several problems have been noted to be responsible and these include overcrowding caused by delays in court cases, outbreak of diseases among inmates as proper provisions are not made for medical care and waste disposal, poor feeding systems, etc.

Kirikiri prisons for example, "originally built to house 956 inmates is now housing 1,645. Other cells which were originally designed for two inmates are now occupied by as many as six. As a result of the overcrowding, prisoners have had to draw on their ingenuity to share available spaces."

In a situation as above, one would ask why should there not be outbreak of scabies, tuberculosis, malaria and typhoid fever, more so in the face of the high level of poor medical attention given to inmates and malnutrition.

Karimu Lawal, 32 year old detainee in Ilorin had thought he could survive the brutal and horrible conditions of the prison, He did not. Four hours before his death, a judge on tour of the prison had taken pity on the sorry state of his health and ordered that his case be taken to court the next day. But, Lawal, who had survived three years in detention without trial, could not survive another day to prove his innocence. When an Ilorin Magistrate Court called his case the next morning, Jimoh Ishola, a warder, stood up instead, "My lord", he said, "Lawal died last night and his body had been taken to the mortuary."

With the high rate at which people are sent to the prison irrespective of the nature and degree of offences committed and having to stay for three years awaiting trial, one would also ask why there should not be overcrowding in the archaic cells.

1.1 BACKGROUND TO THE STUDY

For the good and prospect of any society, there is the need to remove from its midst, people who it seems as threats and pose security risks. On the other hand, there is a general feeling on the society that the treatment be made "humane" even for those who have performed the most inhuman acts.

There is the wrong conception that making the conditions of prisons inhuman to prisoners will make prisoners and the free members of the society dread committing offences that would send them into prison. Unfortunately, this has proved itself negative, as many as the people who come out of the prisons and survive

become hardened criminals, due to the inappropriate classifications and the nature of treatment meted to them.

In time past, a prisoner is termed and looked upon as an outcast by the society such that people dreaded going into the prison; not that prisoners were inhumanely treated in the prison as it is today, but that the members of the free society (individuals or groups such as the so called law enforcement agencies of Nigeria today) do not give supportive encouragement to criminal acts.

Secondly, it is generally believed that prisons serve as places for punishment. It will be proper to point out that punishment could be of two types: those that have positive results - such as when it brings about the penalization of a personal offender, cause him dread committing offences that could send him back and discourage others from breaking the law; and those that bring negative results - such as when it does not cause the person to realise the wrong he/she has done and the reason why one should not do it and when it results in illness and/or death of an uncondemned convicts as a result of inhuman treatment meted to him. As a characteristic of today's Nigerian prisons, convicts who survived the ordeal of the prison come out usually worse mentally and physically wrecked or hardened. In as much as prison is a place of punishment, a degree of humanity should go with it. It should be borne in mind that majority of the prisoners are mere victims of social environment.

Rather than make prisoners suffer inhumanely, effort should be geared towards making them better citizens. One of such efforts is to adopt the architectural design approach to bring about positive changes in the lives of Nigeria prisons.

1.2 STATEMENT OF THE PROBLEM

In its pursuits of modernization and quest for high standards of professional competence, the Nigeria prisons system, with special reference to the existing Calabar prisons, still faces numerous material and operational problems. They include:

- Archaic prison Buildings with inadequate or non-functioning facilities Overcrowding
- Absence of reformative facilities and malfunctioning of the available ones.
- Inadequate supply of materials and tools for prison industries and farms where they do exist
- Shortage of office accommodation
- Unequipped classificational system
- Under staff welfare units
- Poor feeding system.

The combination of the above problems have resulted in Nigerian prisons becoming horror chambers, torture camps, dungeons and human execution caves, they come out usually worse off, physically and mentally wrecked or become hardened criminals for life.

1.3 AIM AND OBJECTIVES

The aim and objectives of this project includes:

1. Ensuring that prisoners are detained in a constitutionally appropriate Environment
2. Expediting the preparation of inmates for return to the society
3. Facilitating the administration of court ordered sentences

In short, facilitating the care of inmates is the prime aim of correctional Facilities are provided for basic human needs offer self improvement opportunities and

expedite the applications of justice, to avoid continuous overcrowding in the prison system.

Nigerian prisons are generally composed of under-utilized and wasting high concentration of able-bodied manpower. The author very much believes that prisoners, if provided with good security network and appropriate environment free of brutalization, incapacitation and oppression and equipped with necessary facilities for vocational trades and farms; will not only produce what is enough for the general upkeep of the entire prison-including (he prisoners and staff, but could also contribute eminently to the economic growth of the country.

The project on completion and with provision of good managerial system, especially in the vocational and farm unit, is expected to produce a self reliant prison system that will no more look up to the government for its up-keep and general welfare.

It is also expected to improve the stale of Nigerian prisons architecturally as to make them serve their functional purposes and to serve as a model for all Nigerian prisons.

With the provision of well equipped vocational training/institutional amenities for inmates, it is expected that those who pass through will find their sojourn worthwhile as they become better and productive citizens. This is by way of correcting offenders by-offering them opportunities to abandon criminal motivations and to acquire skills. At this stage, it is necessary to point out the limit of accomplishments in the hope of striving for something truly significant. As slated by a leading architect, Louis G. Redstone, "we must acknowledge that true and full normativeness may not be possible in an environment for incarceration, and that the best we can hope for is the reduction of stress that comes with loss of freedom" and thus "create" and environment that could groom reformation."

1.4 SCOPE AND LIMITATION

Prisons are generally places with high security tensions. However, to the best of my ability, I used the under-listed methods in collecting my data with the hope of satisfactorily obtaining all necessary information required.

1. Case studies (appraisals of existing similar prisons):

This involves personal visitation to existing prisons. For improvement on design solutions, the problems facing the existing prisons were identified, their areas of performance were also noted. This will serve as a guide in finding effective and lasting solution to the design and functioning of prisons.

2. Literature review:

These are the information gathered on the project through consultations of books, magazines, journals, newspapers, browsing on internet, etc. in order to get required information about prisons and its design.

3. Data collection:

The collection of data was done through person to person, interviews of prisons officials and inmates, legal practitioners, etc.

1.5 JUSTIFICATION

In this project, a general outline of the proposed Calabar modern prison is given. However, more detailed attention will be paid to cell units. Other areas to be considered includes:

1. Administrative Unit
2. Welfare Unit
3. Health Unit

4. Study Centre
5. Kitchen
6. Refectory
7. Chapel/Mosque
8. Workshops
9. Security Tower

1.6 IMPORTANCE OF THE STUDY

From the research conducted and from reports obtained from different quarters, the Nigerian Prison Service system today has not really performed its function to the fullest.

It was also discovered from the findings that some of the associated problems have been identified for some time past. Till recently, Negligence on the part of the Government has been one of the main approaches to the problems. Where some attentions are drawn to them by members of the concerned public, lack of fund became the excuse.

In addition, it is also clear that the Nigerian judicial system and law enforcement agency (the Police) have been the major contributors to the problems facing the Nigerian Prisons Service today. This is fully revealed by the greatest number of prisoners belonging to the unconvinced/awaiting trial group for as long as 3 years and above.

In the light of the above highlights, it therefore becomes imperative to carry out a study of the Nigerian prisons system so as to proffer some solutions to the existing problems by proposing a well functional modern prison which will not only create

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 BRIEF HISTORY OF NIGERIAN PRISONS

From time, society has sanctioned imprisonment as a form of state policy for re-adjusting the offender. The development of prisons in pre-colonial Nigeria was under the control of traditional rulers in societies with all developed social hierarchies which demarcated the ruling group from the subordinates groups. Ningi prison in Bauchi State for instance, was in use in 1820 while Bauchi prison was established in 1827; whereas organized prison system started in what is today Nigeria, with the establishment of Broad Street prison in 1872. By 1900, there were prisons in Ibadan, old Calabar, Onilsha, Benin. Sapele. Degene, Lokoja and Jebba.

Nigeria's present prison system is a legacy of British colonialism, the original objectives of which could be summarized as those of intimidation, brutalization, incapacitation and incarceration. Generally, colonial prisons were militarized with ex-army officers serving as colonial directors of prisons who brought to the job military disposition towards regimentation and authoritarianism but which obviously delayed the emergence of a prison tradition geared towards re-socialization and reformation.

Other problems associated with colonial prisons were the crude penal philosophy of custody and containment, lack of trained staff, deplorable food and sanitary conditions giving rise to high mortality rates and poor infrastructural facilities which prevented meaningful classification of offenders.

Since independence, however, there have been several attempts to rid the prisons of the image of "detention centres" concerned with the punishment and deprivation of inmates, to change from the penal philosophy of custody and retribution to that of

reformation and rehabilitation. But regrettably, the Haltering articulation of the reformation philosophy hardly went beyond official pronouncements.

2.2 LITERATURE REVIEW

No sooner God finished his own work of creation than man began to "create" some other things. He devised the means of imposing his "dominion" over all other living creatures. First, he invaded the sky, captured the bird and threw it into a cage. Then he dived into the sea and brought out the fish and imprisoned it in a water filled glass compartment he calls aquarium. He laid ambush in the jungle, captured the monkey and brought it home to be chained to his veranda post to curtail its freedom of movement. He waylaid the dog, too, and imprisoned it in a kennel.

Not satisfied with these, man in his quest for total conquest of the animal kingdom has, over the years, enlarged the confinement of the lower creatures, putting them in a zoo. In the zoo movement is curtailed. Subjugation to man's desire and needs is almost total. The creatures live a new life, a life of bandage without knowing it, man had invented a penitentiary in the animal kingdom.

It is important to note that man did not invent bondage for the simplistic purpose of asserting his dominion over the lesser creatures. Bondage has become a learning experience for man and he now knows that without it, what he knows of the lower creatures would never be known. By putting animals in captivity man has been able to advance the frontiers of science and technology. Perhaps, without a close study of the imprisoned bird, the Wright brothers may not have imitated its flight and we may never had the aeroplane. The animals and birds may protest their privations in the unnatural habitats of captivity, but surely without their loss of freedom science and technology would be the losers.

Man's assertion of his dominion does not end with (he lesser creatures. His fellow man has often been forced to have a taste of his superiority. The prison was invented to serve this purpose. Today, it serves a dual one as a symbol of power and as a means of protecting society from criminals.

Like in the case of the lesser creatures, an incarcerated man may turn out to be a useful citizen. Confinement and freedom are two contraries that may bring out the best in man. Not in all cases, surely, but it all depends on the treatment meted to the prisoner during the period of incarceration. Consider the following illustrations of what prison has done to some people. Wole Soyinka's "The Man Died" was the product of prison notes as a political prisoner during the Nigerian civil war.

Many of late Obafemi Awolowo's books were conceived and written in prison. Ho Chi Hi nil came out of the Chinese jail to become an adored leader of his Vietnamese people. While in prison, he became a poet, using his own blood as ink to write poems on the walls of the prison. Robert Mugabe collected a bagful of degrees while in prison, later to emerge as the leader of an independent Zimbabwe.

Of much importance and to be emphasized is the fact that the above persons during the period of their incarceration were given special treatment that gave them the opportunity to achieve what they did achieve then and which later made them what they came to be in the society. They were neither incapacitated, brutalized nor treated with hunger and exposed to extreme poor healthcare conditions as most today's Nigerian prisoners are. Such heroes made by the penal system are the lucky ones. In most cases, they were provided with a fairly conducive accommodation where it was possible for them to achieve what they did. Perhaps it should be pointed out also that these persons were kept in maximum security cells. This, unlike in most today's

Nigerian prison system where the term "maximum security" implies a condition of higher degree of suffering.

It is not needless to say the fact that due to the horrible environmental conditions prisoners are exposed to in most Nigerian prisons today, convicts who survive the ordeals come out either like relics of war-dilapidated, weather-beaten and mentally brutalized persons, being mere shadows of their old selves broken in body or as hardened criminals broken in spirit. They are generally the other side of the penal coin and it is the side where the majority of those serving time are found.

On the prison that confines most inmates today, architect Sid Folsie has written "The antiquated cell blocks in almost all States runs to a general pattern, and at their worst, they are grim, forbidden places. Tiers of inmates are stacked like crates in warehouses.....There are harsh shadows, ominous vistas down long corridors, few overhanging light bulbs, windows are few or absent.....The clang of locks and doors, of steel striking steel, has been one of the accepted horrors of incarceration since ancient timesAt the base of toilets and urinals, in some institution uric acid acting over many decades has eaten inches deep into cements, has corroded metal and left a permanent reek."

When these conditions are aggravated by serious overcrowding, it is not surprising that strange prison substructures develop or that the reflex to violence is automatic. It is not also surprising that warders and overworked staff concentrate almost exclusively on maintaining order and control. As such, it is not possible, in prisons like these to talk of reformation.

It is interesting to note that attempts by other countries, such as in the United States to make prisons "humane" has produced smaller correctional facilities, as opposed to the foreboding gray prisons of the past.

The poor state of Nigerian prisons and how inmates are inhumanly treated have for years past posed some worries to concerned citizens. This has subsequently led to the formation of some non-governmental organizations working towards improving life of prisoners. One of such leading organization has its details given below.

2.3 PRAWA: PRISONERS REHABILITATION AND WELFARE ACTION

PRAWA is a non-governmental charitable organization, which promotes human rights for people in prison while working to help those who have survived their prison term to successfully integrate into the community. It has observer status with the African Commission on Human and Peoples' Rights. Established in December 1994, PRAWA exists to provide practical support services to prisoners, ex-prisoners, survivors of torture, youth-at-risk, and their families. PRAWA's main focus is on promoting transformative justice models that recognizes healing and accessible justice for victims, offenders and the community. PRAWA carries out its programmes through the following activities: training of prison officers and other criminal justice agents on human rights and good practice, policy advocacy, research, public awareness, and provision of prison/community based support services for target groups. PRAWA is a member of the National NGO Coalition on penal Reform (a network of over 85 NGOs and religious bodies working on prisons and penal reform in Nigeria) and serves as its National Secretariat. It is the coordinating Centres for the Network of Specialized Rehabilitation Centres for the Treatment of Torture Survivors in Nigeria, and a member of the Sub Saharan Network Against Torture and Organized Violence (SANTOV)

2.4 RIGHT OF PRISONERS TO A REDUCTION ON THEIR PRISON YEARS: A LEGAL REALITY

Prisoners in Nigeria who are serving different jail sentences are entitled to a reduction on their jail sentences. In other words, they are entitled to remission on their prison years. According to Longman Dictionary of Contemporary English (3rd Edition), "Remission" means a reduction of the time a prisoner has to spend in prison. Regulation 54 made pursuant to Section 15 of (the Prisons Act Cap 366 Laws of the Federation 1990 (the Act) provides that:

"Every convicted person undergoing a sentence of imprisonment for a period exceeding one calendar month may earn remission of sentence as the reward for industry accompanied by good conduct".

Regulation 55 of the Act further provides that the maximum remission which a prisoner may earn shall be one-third of the sentence. That means that for the purpose of remission, 8 months make one calendar year. This is what called prison year is.

There could be confusion as regards whether remission is at the discretion or whims and caprices of the prison officials because of the use of the word 'may' in Regulation 54. Regulation 57 of the Act qualifies the word 'may' in regulation 54 by providing the conditions that regulate remission. It provides that:

The amount of remission of sentence which a prisoner may earn shall be determined as follows:

- a) A prisoner shall be granted the maximum remission appropriate to the sentence unless he is convicted on any charge under Regulation 48 of these Regulations;

- b) If it is considered that a prisoner has not earned the right to the maximum remission of the sentence on any particular day he shall be charged before the Superintendent or Assistant superintendent in charge of the Prison under Regulation 48 of these Regulations;
- c) Every forfeiture of the right to remission of the sentence by a prisoner shall be supported by an entry in the prisoner's punishment book.

Offences under Regulation 48 are offences against prison discipline which some categories of prison officials are by law allowed to hear and determine.

From the fore-going, it is clear (hat (he right of remission is not a discretionary power. It is a legal right of a prisoner on his or her jail sentence insofar as (he prisoner is serving a sentence exceeding one calendar month and he or she is not found wanting for any offence(s) against prison discipline under Regulation 48.

It is important to note that by virtue of Regulation 57 (c), every forfeiture of the right of remission by a prisoner because of conviction for an offence(s) against prison discipline shall be entered in the prisoner's punishment book. In other words, if there is no entry to that effect in the prisoner's punishment book, not minding a conviction under Regulation 48. the prisoner is still entitled to remission.

There is the problem of the proper definition of a Prisoner. Regulation 2 states that:

"No person may be admitted into a prison unless accompanied by a warrant of arrest, a warrant or order of detention, or a warrant of conviction or commitment; and the Superintendent shall verify that the prisoner is the person named in the warrant or order, that the crime, sentence and date of conviction are recorded therein and that the warrant or order bears the signature of the proper authority:

Provided always that the child of a female prisoner may be admitted into a prison with its mother if it is at the breast and less than eighteen months old."

Also, Section 19 of the Prisons Act defines a Prisoner to mean any person lawfully committed to custody. That means that if one is lawfully committed to prison custody, he or she is a prisoner. This issue came up at the Federal High Court, Enugu in the case of Edmund Okoro & Ors v Minister of Internal Affairs & Ors (Unreported) Suit No FHC/EN/CP/102/2000, a case argued by the writer for (he Human Rights Law Service (HURILAWS). The Court affirmed the view (hat a person becomes a prisoner from the date of his or her first admission into prison custody. In effect, this means (hat Awaiting

Trial Inmates (ATM) are prisoners because they are normally admitted pursuant to a Court order and steps in Regulation 2 of the Prisons Act are taken before they are taken into prison custody.

Prisoners' rights have not been taken seriously by Nigerian Prison Services. Personal experience of the writer corroborates this. In the course of working on IKJRILAW'S prison-project, I have visited many prisons across the country. Prisoners live under the most deplorable condition of human existence. The law has set the minimum standard of prison conditions in Nigeria, but this is hardly ever adhered to.

Prisons Regulations made pursuant to Section 15 of the Prison Act stated the type of, and quantity of food prisoners are entitled to, their health condition, their bedding, clothing and so on.

The general apathy on the plight and rights of the prisoners could stem from the belief that they are criminals and as such should be punished accordingly. But

experience has shown that not all prisoners did commit the offences for which they are convicted of.

HURILAWS handled the case of one prisoner who had spent about 16 years in prison custody only to be discharged and acquitted by the Court of Appeal recently.- The legal implication of this is that he did not commit the offence ab initio. But the young man had spent 16 good calendar years in prison.

Even if prisoners committed the offences they were convicted of, they constitute a small percentage of people that commit such offences. It only happened that they were unfortunate to be caught and found guilty by the Court and consequently convicted.

The Court of Appeal per Justice Uwaifo J.C.A. (as he then was) in the case of Peter Nemi v Attorney-General of Lagos State & Ors (1996) 6 NWLR (Pt. 452) 42, stated that prisoners still have their rights in (act, except those deprived them by law. Even a condemned prisoner awaiting execution still has his rights until properly executed by the due process of law.

In conclusion, it is my submission that prisoners¹ rights should be respected. Their right to remission on their prison years should be carried out as at when due. Experience has shown that prison officials are reluctant to implement this right. HURILAWS had to resort to a fierce legal battle to get the prison officials to release one of their clients who had completed his sentence, courtesy of remission. The case is Arthur Onyejekwe V. Controller of Prisons (Unreported) Suit No FHC/E/M55/98. As HURILAWS and other concerned NGOs continue (heir work on prison reforms, it is my prayer that Nigerian Prisons Service should partner with them in the reform process.

2.5 PRISON AND PENAL REFORM IN AFRICA

The Ouagadougou Conference on Penal and Prison Reform in Africa Between 18-20 September 2002, 123 delegates from 38 countries including 33 African countries met in Ouagadougou under the high patronage of the President of Burkina Faso. The President of the African Commission on Human and Peoples' Rights, Ministers of State, Prison Commissioners, Judges and international, regional and national non-governmental organizations all worked together to find ways of accelerating penal reform in Africa. The three days of intensive deliberation produced the Ouagadougou Declaration on Accelerating Penal and Prison Reform in Africa which was adopted by consensus at the closure of the conference with the request that it be forwarded to national governments, the African Union and the 12th Session of the United Nations Commission on Crime Prevention and Criminal Justice. The conference hosted by the Government of Burkina Faso, held under the auspices of the African Commission of Human and People's Rights was co-organized by Penal Reform International, Association Penitentiaire Africaine and Burkina Faso Ministry of Justice. The conference was opened by the Prime Minister Mr. Paramanga Ernest Yonli. The conference was a follow up from the 1st Pan African conference on prison and penal reform in Africa held in Kampala, Uganda 1996. The Kampala Declaration on Prison Conditions in Africa and Plan Action has been the benchmark and guiding document for prison and penal reform in Africa, and had called for a further such gathering to revisit prison and penal reform in Africa.

During the conference, there were interventions from leading African experts of criminal justice systems across Africa, from trans-national organizations and other international representatives.

Critical themes covered included: Prison conditions in Africa since the Kampala Declaration 1996; reducing the use of imprisonment; the role of civil society; prison conditions and treatment of prisoners, good prison management and self sustainability of the prison services, alternatives sanctions to imprisonment, including the successful and internationally replicated African model of community service; reducing remand prison population; juvenile justice; an integrated approach to criminal justice and penal reform and an African Charter on Prisoners Rights.

Delegates presented models of good practice in penal and prison reform that have been developing and implemented since the Kampala Declaration in 1996. One of the key examples being the work of Dr Vera Chirwa, the Special Rapporteur on Prisons and Conditions of Detention in Africa, (ACHPR). Other models included good management of prison resources from Rwanda (biogas - see p. 2) and Malawi (prison farms); an integrated approach to criminal justice from Uganda; community service from Zimbabwe, Kenya and Burkina Faso; monitoring prison conditions, Burundi; prisoners rights, Morocco.

Following the presentation and acclaim and adoption of the Ouagadougou Declaration: Accelerating Prison and Penal Reform in Africa the conference was closed by the Minister of Justice, Boureima Badini.

Nigeria

PRI entered into Phase II of the EU - funded Contributions to Accessible Justice in Nigeria Programme. The programme consists of two component parts, namely the juvenile justice project with Constitutional Rights Project (CRP) and the continuation of the training of prison staff project with PRAWA.

Juvenile Justice

Constitutional Rights Project (CRP) completed production of the Juvenile Justice Administration in Nigeria Research Report in June 2002, with research based on clearly defined criteria, which included: 1) to review the current legislation, policy and practice for all children in all parts of the jurisdiction, to assess compatibility with article 37 and 40 of the UNCRC; 2) to identify active and legitimate stakeholders in this sector in Nigeria; 3) to identify departments responsibility for the administration of juvenile justice at all levels of government; 4) to assess the extent to which the justice system includes distinct laws, procedures, authorities and institutions specially for children; 5; to examine problems of juveniles and families within the/or as a result of the criminal justice system; 6) to assess arrest rates, types of offences and methods of detention/sanction for juveniles.

This report was presented at the National Conference-oil Juvenile Justice Administration held in Abuja, Nigeria from 2-3 July. A total of 143 participants representing the relevant stakeholders attended the conference which was organized by the Constitutional Rights Project (CRP), under the auspices of the National Human Rights Commission (NHRC). with support from PRI and UNICEF.

The conference concluded with the adoption of a concept paper, reflecting the key recommendations that came out of the earlier discussions. The concept paper is designed to contribute to the overall objective of the Government of Nigeria in establishing an effective system of justice for children in conflict with the law, which applies the relevant international standards. The concept paper covers many aspects of juvenile justice administration, and incorporates recommendations relating to the areas of prevention, arrest and pre-trial detention, diversion, juvenile courts, alternative sentencing, institutions and reintegration.

Following on from the National Conference, a National Working Group has been established with representation from the relevant stakeholders, with a mandate to coordinate the effective implementation of the conference recommendations, and to draft a strategic plan leading to a national policy on juvenile justice. The 1st Working Group convened in Jos, from 14-18 Aug. Aiming to broaden involvement in the juvenile justice programme, a 2-day zonal (sub-national) conference was convened in Jos from 16-18 Sep, presenting the juvenile justice concept paper/strategic plan, and receiving feedback from the states. This was hosted by UNICEF.

Training of Prison Staff

PRI continues to work closely with Prisoners Rehabilitation and Welfare Action (PRAWA) in the implementation of the Training Prison Staff programme in Nigeria, with the prison and prison training-institute workshops in training prison officers in human rights standards.

During this period the Training Liaison Officer carried out a careful monitoring and evaluation exercise of the programme in a number of states, including Lagos, Enugu, Abia, Cross River and Kaduna States. Utilizing observations, interviews, and the collation of results from a post workshop questionnaire, the Training Liaison Officer is seeking to determine the value of the project at the prison level by measuring factors such as the establishment of follow-up training in prisons, recognizable improvements in the skills of prison officers, (he improved treatment of prisoners, and better relations between prisoners and staff. Utilizing this information, the Training Liaison Officer is also seeking to review the training practice and strengthen the prison staff core-training curriculum in conjunction with the National Prison Services.

2.6 PRISONS IN THE CRIMINAL JUSTICE SYSTEM

In the domain of criminal justice, prisons are used to incarcerate convicted criminals, but also to house those charged with or likely to be charged with offences. Custodial sentences are sanctions authorized by law for a range of offences. A court may order the incarceration of an individual found guilty of such offences. Individuals may also be committed to prison by a court before a trial, verdict or sentence, generally because the court determines that there is a risk to society or a risk of absconding prior to a trial. The nature of prisons and of prison systems varies from country to country. Common though by no means universal attributes are segregation by sex, and by category of risk.

The availability of incarceration as a sanction is designed to mitigate against the likelihood of individuals committing offences: thus prisons are in part about the punishment of individuals who transgress statutory boundaries. Prisons also can serve to protect by removing from society individuals likely to pose a risk to others. Prisons also can have a rehabilitative role in seeking to change the nature of individuals so as to reduce the probability that they will re-offend upon release.

Crime and punishment is a wide, very controversial and deeply politicised area, and so too are discussions of prisons, prison systems, the concepts and practices of imprisonment; and the sanction of custody set against other non-custodial sanctions and against the capital sanction, a death sentence. Some of these issues are discussed in the by country descriptions, below.

2.7 MILITARY PRISONS

Prisons form part of military systems, and are used variously to house prisoners of war, enemy combatants, and those whose freedom is deemed a risk by military authorities. The Geneva Convention provides an international protocol defining minimum requirements and safeguards for prisoners of war. Again, particularly after the US led invasions of Afghanistan and Iraq, military prisons and prison systems are highly controversial.

2.8 POLITICAL PRISONS

Certain countries maintain or have in the past had a system of political prisons; arguably the gulags associated with Stalinism are best known. The definition of what is and is not a political crime and a political prison is, of course, highly controversial, and critics can be found to rebut the suggestion that any of the following are political prisons:

- The United Kingdom's HM Maze Prison at Long Kesh was used during the internment period in Northern Ireland to imprison suspected paramilitaries.
- Guantanamo Bay, established by US military authorities in Cuba in order to avoid being subject to US law, to house so called illegal combatants - alleged Taliban and al-Qaeda personnel captured in Afghanistan, Iraq and elsewhere. More recently, abuse of detainees by US personnel at prisons in Iraq have cast doubts on the role of prisons in US operations.

2.9 WORLD PRISON POPULATIONS

Over nine million people are imprisoned worldwide.

By country, the United States prison population is the world's largest in absolute terms, at more than 2 million. It is second largest in relative numbers with 701 people per 100,000 incarcerated; only in Rwanda, where as of 2002, over 100,000 people were held on suspicion of participation in the 1994 genocide, is the relative figure larger. Both Russia and China also had prison populations of 1 million or more in 2002. No data is available for North Korea.

2.10 SECURITY IN PRISONS

According to the Oxford Advanced Learners Dictionary; Security is defined as freedom or protection from danger or worry, measures taken to prevent spying, attacks, escape, theft etc.

A prison in other words is defined as a building or place where persons convicted or suspected for crime are confined against (their will as a means of discipline with the ultimate intention to make them better citizens. A prison therefore- is a security focussed building or place. Several steps are taken to ensure the security and the safety of inmates in the proposed Calabar Modern Prison.

2.11 PREVENTING VIOLENCE IN INSTITUTIONAL SETTINGS-PRISONS

Factors that Influence Prison Violence

- Prison management and accountability
- Crowding and size of prisons
- Architectural design
- Staff inexperience and training

- Vulnerability to violence
- Programs and Approaches to Reduce Prison Violence
- Methodologies for predicting violence
- Situational prevention strategies
- Programs for inmates
- Educational programs - academic and vocational
- Violence alternative programs - conflict resolution and anger management programs
- Social prevention approaches
- Boot camps (for existing inmates)
- Substance abuse programs
- Programs for staff recruitment and training
- Anti-bullying strategies and a whole-of-institution approach

The majority of research studies on prison violence emanate from North America and the United Kingdom, and focus on individual and collective violence in adult male prisons. Primarily this includes inmate-to-inmate and inmate-to-staff violence and riots, with far less emphasis paid to both staff-to-inmates and inmates-to-staff security.

Inmate violence/victimization and self-inflicted violence (suicide and self-harm). Some relevant studies on violence in juvenile institutions have also been included in this review. Overall, there is still a paucity of Australian research studies and program evaluations in relation to prison violence, despite major problems with institutionalized prison violence being identified in Royal Commissions (Nagle, 1978; RCIADIC, 1992) and Reports of the National Committee on Violence (1990; 1994).

An overview of the literature suggests multi-factorial contributors to prison violence. A range of often interrelated factors, including pre-existing inmate characteristics, structural or situational factors associated with the prison environment, and management practices (e.g., prison architecture and design, staffing models, staff skills and training, prison culture and management style) as well as outside environmental influences (e.g., unemployment, racial tensions) are all supported by empirical research as contributing in various ways to prison violence (The American Correctional Association cited in Labecki, 1994; McCorkle et al., 1995). Poor prison management resulting in dysfunctional forms of control are suggested as major causes of interpersonal violence (Ekland-Olson, 1986; McCorkle et al., 1995).

We begin with an examination of the factors that influence prison violence, considering aspects of both the physical and social environments and their interactions with staff and inmate characteristics. We then review the evidence on the effectiveness of prevention programs, including situational approaches, educational programs for inmates, violence alternative programs, social prevention approaches, and a range of more specific strategies such as boot camps and anti-bullying programs.

2.12 FACTORS THAT INFLUENCE PRISON VIOLENCE

Prison management accountability

The literature on prison violence has historically examined two competing explanatory models. The importation model (Cao et al., 1997; Harer et al., 1996) views inmate characteristics that predate confinement (such as race, age, education level, prior crimes and history of violence) as the primary contributor to prison violence. The deprivation model (Farrington and Nuttal, 1980; Gaes, 1994) considers the institutional

conditions or changes in conditions (relative deprivation) that contribute to prison violence (e.g., overcrowding, privilege levels).

While both models find some support in the literature, there is increasing empirical evidence to suggest that poor prison management and control is the most significant factor in contributing to and even promoting both individual and collective prison violence (Eklaid-Olson, 1986; various studies cited in McCorkle et al., 1995; Silberman, 1992). A range of factors is cited including: security lapses, lack of prison officer discipline and morale, officers' inability or unwillingness to intervene in instances of victimisation and violence, poor grievance and dispute resolution mechanisms, the formation of gangs and cliques, inmates relying on self-protection, staff violence for control of inmates, deterrence and payback (especially where officers feel justified in taking matters into their own hands because the administration provides limited protection from attack). Silberman (1992; 1994) particularly stresses the importance of appropriate accountability and dispute resolution mechanisms, including mediation and ombudsmen, for defusing violence.

Drug use and trafficking in illegal and prescription drugs by inmates also relates to prison violence (Inciardi et al., 1993; Incorvaia and Kirby, 1997).

Crowding and Size of Prison

Various studies have considered whether violence is produced by the cognitive confusion and tension induced by density factors and crowded conditions in prisons. The latest research, comprehensively reviewed in Gaes (1994), highlights the inconsistency of existing data on crowding and therefore the difficulty of generalization. The most likely conclusion is that over-crowding is not a causal factor in violence, but may possibly be considered a contributing factor, when correlated

with other institutional variables, such as the managerial methods used to control or limit violence (Gaes, 1994; Ruback and Carr, 1993).

In his seminal research on the Texas prison system Ekland-Olson (1986) concluded that the crowding model is of limited use when explaining patterns of homicide and serious assaultive behaviour. Rather, his research points to violence 'as one among several important control mechanisms deeply rooted in the social order of prison life' (p. 389). Changes in the control structure within the prison (e.g., staff unable or unwilling to control violence, gangs, informal cliques, reliance on self-protection, court mandated orders, poor dispute-resolution mechanisms) better accounted for the levels of violence within the prison.

Prison size alone is also not a reliable indicator of violence within the institution, suggesting that other factors (e.g., staff experience [Kratcoski, 1988]) are more significantly correlated with prison violence. Farrington and Nuttal (1980:221) found no empirical evidence in the literature or from their own study of British prisons to support the view that prison size influences behaviour inside or after leaving prison.

Architectural Design

Several studies indicate that group cell housing of inmates contributes to interpersonal violence, especially where there are poor selection procedures and safeguards in place (O'Donnell and Edgar, 1996). Individual cells greatly reduce the opportunities for inmate-inmate victimisation and violence, the only exception to this being self inflicted violence (self-mutilation and suicide) which is more likely when prisoners are in single cells or segregation. The linear architectural design of most prisons is indicated by several authors as a factor that contributes to violence. The inherent design features of this architecture, in conjunction with the indirect staff supervision

model that necessarily accompanies this kind of design, creates opportunities for both inmate-inmate and inmate-staff violence (various studies cited in Jay Farbstien et al., 1991; Wright and Goodstein; Zupan and Menke, 1991).

'New generation philosophy' which espouses a popular design (that reduces unprotected spaces) and direct supervision of inmates is increasingly being implemented in the U.S. and the U.K. Although there are fewer empirical studies and some mixed findings on the effectiveness of this new prison concept, the literature generally indicates promising results for a reduction in prison violence and vandalism where new generation architectural design and staffing models have been implemented. Researchers warn, however, that successful implementation of this approach is heavily predicated on a commitment from management and the recruitment, selection, training and retention of appropriate prison personnel' (Jay Farbstien et al., 1991; Zupan and Menke, 1991).

Staff Inexperience and Training

Surprisingly this area has received scant attention in the literature, but all relevant studies reviewed concluded that staff inexperience was a factor influencing prison violence. Kratcoski (1988) found that work experience of officers, with trainees receiving disproportionate number of assaults, was one of the four most important factors related to inmate-staff assault. The age of the officer, unless also related to amount of experience, the sex of the officer, the presence of other staff members, and threats as a precursor to assault was not found to be significant in this study. Munroe's study of aggressive and non-aggressive offender responses to an unknown prison officer suggests that 'inexperienced prison officer are more likely to become

involved in violent incidents, because they are perceived by aggressive prisoners as 'ambiguous' (Munroe. 1995:245).

Vulnerability to Violence

Research evidence suggests vulnerability to victimisation and violence in prison is associated with a number of factors (younger age, race, homosexuality, transexuality, status of offence) and that certain prisoners both feel, and in fact, are more vulnerable to victimisation and violence (Cooley. 1993; Nacci and Kane, 1984; O'Donnell and Edgar. 1996). Racial institutional violence is also well documented as influencing the extent of violence against aborigines in the prison system (Aboriginal Deaths in Custody Royal Commission). However, O'Donnell and Edgar (1996) also found that while victimisation is pervasive in British prisons, there are many misconceptions about the nature of victimisation and that these are often counter-intuitive. For example, victims and victimiser are not discrete groups, with those who victimised others often likely to be victims themselves. Previous custodial experience did not reduce the risk of being victimised, although it did increase the likelihood of being a victimiser. Many victims were victimised in several ways (assault, robbery, threats), with exclusion or isolation by other prisoners and cell theft often an indicator of other forms of victimisation occurring. Prisoners rarely reported their victimisation to staff.

With respect to self-inflicted violence, several factors emerge from the literature. Inmates from more severely disadvantaged backgrounds, including violence and family problems, and those with more frequent contact with social services and criminal justice agencies were more likely to attempt suicide (Leibling, 1995). Vulnerability to suicide also appears to be linked to the shock of incarceration. Suicide is more common during the first 24 hours of imprisonment and for those awaiting trial as

opposed to serving a sentence (Anno, Harrison, and Rowan, 1983; Hankoff, 1980; both cited in Paulus and Dzindolt, 1992). Howlett's (1995) case-study analysis of juvenile offender suicide victims addressed the institutional or structural antecedents of suicide and concluded that institutional punishments, isolation and segregation, infrequency of cell checks and failure to adhere to institutional procedures also contribute to suicide. Self-harm by an inmate may send a signal of vulnerability to fellow prisoners and consequently attract victimisation from other prisoners (O'Donnell and Edgar, 1996).

Punishment routines to recondition behaviour. Drugs like anectine, (a curare derivative), which produce either fear or pain, are used in aversion therapy. In prisons, the possibilities of testing new social control drugs are extensive, whilst actual controls are few. Houses of correction form (the new laboratories for developing the next generation of drugs for social re-programming, whilst (the pharmacology laboratories of both the universities and the military provide scores of new psychoactive drugs each year.

Way back in the 1970's, J.A. Meyer of the US Defence Department suggested a countrywide network of transceivers for monitoring all prisoners on parole, via an irremovable transponder. The idea was that parolees movements could be continuously checked and the system would facilitate certain areas or hours to be out of bounds, whilst having the economic advantage of cutting down on the costs of clothing and feeding the prisoner. If prisoners go missing, the police can automatically home in on their last position. The system came into operation use in America in the mid 1980's when some private prisons started to operate a transponder based parole system. The system has now spread into Canada and Europe where it is known as electronic tagging. Whilst the logic of tagging is difficult to resist, critics have argued that whilst tagging carries the

promise of being an effective alternative to prison, a look at the criminological literature, this assertion is questionable. (MacMahon, 1996). The clientele appears not to be offenders who would have been imprisoned but rather low risk offenders who are most likely to be released into the community anyway. Because of this, the system is not cheaper since the authorities gain the added expense of supplying monitoring devices to offenders who would have been released anyway. Electronic tagging is however beneficial to the companies who sell such systems. Tagging also has a profitable role inside prisons in the U.S. and in some prisons, notably, DeKalb County Jail near Atlanta, all prisoners are bar coded. (Christie, 1993, p. 96)

2.13 HIGH-SECURITY INSTITUTIONS

Prisoners who are confined to high security prisons live in restrictive environments. Below is an abbreviated version of what life is like in maximum security environment

Population Composition:

Generally, life in maximum-security is extremely regulated. Prisoners who have long histories of violence, were charged with particularly violent crimes, or have sentences that require them to remain in prison for more than 30 years can expect to serve their time in maximum-security penitentiaries. Super-maximum security prisons (which hold a rather small percentage of any system's overall population) are the most restrictive of course, often depriving the prisoners of any human contact. Prisoners in those facilities are completely contained within a cell and constantly are monitored by surveillance cameras. They do not interact with others and have extremely limited access to any type of privilege. Prisoners designated to serve their sentences in super-max facilities usually meet at least one of two criteria:

- They either have an extremely high-profile as notorious criminals - like the Unabomber, or Timothy McVeigh - or.
- They are suspected of causing such disruption in other facilities that administrators refuse to hold them in anything lower than a super-max prison.

Penitentiaries, or high-security prisons, on the other hand, like USP Lewisburg, USP Atlanta, USP Allenwood, or USP Leavenworth, allow the prisoners to mix with more freedom. Prisoners confined in these institutions generally have long sentences and long criminal histories. Many of the men are militant and stubbornly resistant to authority. Prisoners who constitute the society inside the penitentiary walls tend to live by a different code of values that exists in the broader society. According to the code of the penitentiary, it is forbidden to rely upon law enforcement to handle problems. Rather problems are to be handled "like men," by demanding respect through the willingness to use lethal force at the slightest provocation.

Prisoners in the penitentiary spend a considerable amount of their time in "lockdown" status. This means they are locked in their cells for 23-hour days. Lockdowns may occur at any time, but those in maximum security should expect to be locked down at least a few times each year, and sometimes they may be locked down for weeks at a time. Frequently, when violence erupts inside the penitentiary walls, administrators will call a lockdown to quell the volatility. Lockdowns also are an administrative response to food strikes, work strikes, or any type of prison disturbance. Those disturbances are more likely to occur in maximum-security prisons than in super-max prisons because the prisoners have more freedom to congregate. Since the prisoners have significant amounts of time to serve, many welcome the excitement of conflict or some type of break to the monotony they live day after day, year after year, decade after decade.

Quarters:

Prisoners in high-security penitentiaries usually share a closet-sized room with at least one other prisoner. The rooms are generally small enough that a man with outstretched arms can touch both walls. The room contains a bunk bed, a toilet, and a sink. The door is usually made of steel and has a heavy dead-bolt lock. If the room has a window, it is generally covered with bars and an opaque glass that precludes the prisoner from looking outside. The window likely would not open.

The rooms also may have a small locker in which the prisoner is required to keep all of his possessions. He may purchase a small combination lock to secure his lockers, but prison bandits have no problem breaking those bicycle-type locks. It's best for prisoners to learn the art of austerity.

Structure of the Day:

Generally, the penitentiary compound opens at 6:00 a.m., when the cell doors are unlocked and prisoners are allowed to go to the chow hall for breakfast. Some penitentiaries allow the prisoners to access the recreational areas of the prison when the compound opens. Others do not open the compound until "Work call" at 7:30.

All prisoners who are medically able are required to work. They may work in any number of positions depending on their level of skills and the institutional need. Some jobs require a full day of labor, others are featherbed-type jobs requiring little more than a few minutes each day.

Leisure Time:

Prisoners in the penitentiary who are not assigned to be working at a given time may access the recreational facilities, library, watch television, or spend time in their assigned quarters. They are not allowed to enter housing units to which they are not assigned. Many prisoners play table games or visit with others during their leisure time. Think of a small, self-contained community of 2,000 men. Everyone does his own thing. Each prison operates a chapel, where individuals can practice and observe their religious beliefs - as long as those beliefs don't interfere with the security of the institution. Some prisoners, of course, choose to spend their leisure time in ways that are less acceptable to prison administrators. They may initiate hustles to generate an income, or participate in disruptive activities like extortion, gambling, or the alcohol and drug rackets.

Violence:

Prisoners in the penitentiary should not be surprised to see high levels of violence. A prisoner can expect to hear of blood shed as a result of a stab wound or a pipe beating at least once each month, and murders are not unheard of in the penitentiary. The penitentiary is a high-strung environment. Many of the people inside have lost everything, all hope, and they never expect release to come. They do not hesitate to use violence when they feel as though someone is invading their space. The best way to avoid violence is to associate with few people and to avoid interference in the activities of others. Prisoners will find that the spreading of gossip, or poking into the business of others can have perilous, and sometimes fatal, consequences. Those confined to penitentiaries ought to

respect the choices that others make and remain nonjudgmental. Failing to abide by such tacit rules of penitentiary living can bring immediate and violent results.

2.14 REDUCING THE OPPORTUNITY FOR INMATE SUICIDE: A DESIGN GUIDE

Special Issue on Jail Suicide:

INTRODUCTION

Suicide is a legal and social problem that plagues the criminal justice system. Jails and police lockups were never historically built to provide the sophisticated components of classification, treatment, and observation that are now expected of them. Protecting inmates from themselves and others requires constant attention and observation as well as a thorough and professional classification system. Jails were constructed for the single purpose of detaining persons for short periods of time as they awaited their trials. Now jails must be built and staffed to provide for the health, safety, and welfare of pretrial detainment and sentenced misdemeanants. Jails must also have the ability to isolate and identify the suicidal inmate.

During the last 30 years, the problem of jail suicide has become the subject of intensive research. Many social scientists have advanced theories about the causes of the problem and how it may be prevented. While progress has been made in understanding the complex nature of suicidal and in developing methods to identify and manage the suicidal inmate the importance of architectural design in preventing jail suicides has not been given adequate attention. In briefly conceptualizing the value of architectural considerations, we need to remember that suicide requires a means, and it usually requires solitude, or at least the absence of intervention for several minutes. It is theoretically possible to remove all possible

means of suicide from within a cell, and to ensure the constant supervision by personnel should an attempt be made to commit suicide.

The only method of supervision which will ensure the safety of detainees is constant monitoring by someone who is physically present in the cell area. Not only would this guarantee the observation and prevention of suicide attempts, but could lessen the shock of being jailed by providing detainees with constant human contact. However, poor correctional design and layout have contributed to many jail and police lockup suicides. The ability to adequately supervise and monitor jail inmates is greatly influenced by the design and circulation patterns of staff and inmates. Thus, the importance of architectural design is highlighted.

Obstacles to Sound Architectural Design in Jails

The search for more prison space has made local jails more dangerous places. Because prisons are packed, nearly half of the nation's jail inmates are convicted felons (as compared to pre-trial and misdemeanants). Jails, like prisons, have become places of growing violence and despair.

With prison and jail construction falling further behind, the correctional facilities are getting older and older. As of 1980, 890 jails being operated were built before 1924, another 768 jails were built from 1925-1949 are still operating, and 1,182 jails operating were built from 1950-1969. Only 655 jails were built from 1970-1978. Thus 81% of the jails operating in 1980 were built before 1969 in state.

The age of the facility has an impact on many safety issues. Since a majority of the facilities are over 30 years old, there are not provisions inherent in the design to accommodate change and improvements in systems and technology. The basic designs of older jails are linear in nature. This linear style makes it more

difficult to reduce environmental factors that unfortunately encourage suicidal actions. The impact of this linear style is:

The difficulty in officer supervision. The limitations of a long rectangular housing unit limit the visibility by one officer to see into the cells. The officer is basically perpendicular to the cell fronts and only has a clear view of corridors and hallways. Thus, in many linear housing units which are double bunked or multiple man-cells or dorms, the patrolling officer must walk continuously down the halls and look directly into the cell front to be effective in watching and controlling inmate behavior.

The promotion of isolation. Linear design allows inmates to be unsupervised by staff for long periods of time. Most facilities are understaffed to begin with, so an officer making patrol rounds along with their other responsibilities may leave inmates to their own devices for long periods of time. The inmates behave differently when they are under constant visual surveillance and directly accessible to an officer for assistance.

Safety concerns. Inmates left unsupervised will usually create a safety concern issue. It may be fire, assault, gambling, sexual assault, medical emergency, or suicide. Linear facilities prevent ready detection and prevention of such safety issues due to the blocked visibility, the length of the corridors and use of effective detection technology (i.e. smoke detectors, CCTV). The time required for an officer to make rounds again to the starting point would take sufficient time to commit an assault, suicide, or start a fire.

Many older facilities do not have the benefit of operating a direct supervision jail because of the small number of cells, classifications requirements, or existing

physical structure. The design of the correctional facility impacts the staffing and supervision capabilities. A linear designed jail with remote or intermittent surveillance cannot provide design direct supervision of inmates that a popular design direct supervision housing unit can with the same number of staff or less. The linear designed cell house does not provide adequate visibility for an officer to monitor the inmate movements within the cell house, nor offer protection against inmate assaults, sexual misconduct, weapons manufacture, contraband smuggling, medical emergencies, and suicide.

The age of the facility has an impact on many life safety issues. Since a majority of the facilities are over 30 years old, there are not provisions inherent in the design to accommodate changes and improvements in systems and technology. The designs of the housing units and the setting of the buildings have undergone many changes from the old linear style of design. The older the facility, the less likely that fire safety, smoke detection, and evacuation equipment is available. Many suicides start off a fire to self-destruct or get attention. The fire can often turn into a major institutional tragedy with great loss of life and property. Older facilities often are not as efficient in the delivery of services and information. Thus, medical and psychological services (that might detect abnormalities in inmates) are not as accessible due to understaffing and poor design.

Older jails are traditionally built with open bar cell fronts that allowed natural ventilation before the days of air conditioning. These exposed bars are the means and opportunity to tie a knot unsupervised to commit a suicide. Many older cells have heating for the cells with hot water pipes and forced air. Grills for air ventilation and air return are often accessible to inmates by standing on the toilet or bed. If the openings are large enough to tie a shoe string around another

unsupervised opportunity for suicide has occurred. Older cells typically have older stall toilets and sink fixtures and maximum security furnishings and finishes. The hardness of all the surfaces adds to the depersonalization and isolation experienced inside the jail or prison. Response time by staff to an emergency is often slowed down by the configuration of the layout and the number of older style turn-key door barriers.

The American Correctional Association (ACA) Standard 2-5173 requires officers to be stationed inside or immediately adjacent to housing areas, so that they can respond immediately to any emergency. The ACA Standard 2-5271 requires that officers be able to respond within four minutes to any health related emergency. If the design of the correctional facility does not permit clear visibility and easy access for officer rescue, the facility increases the risk for potential suicide. An officer who supervises 30 to 50 cells which are positioned off a long hallway cannot possibly supervise those inmates as closely as an officer who is centrally located in a housing unit and has a clear and unobstructed view of all cells, showers, closets, etc.

Officers working inside the housing unit of direct supervision jails or prisons are more likely to know their inmates better than officers supervising inmates in a remote supervision linear design style facility. The officer in a direct supervision popular design jail will be more cognizant of behavior changes in inmates, an important factor in detecting potential suicide. A direct supervision unit officer will more likely have a closer, more concerned, mutual respectful relationship with inmates, considered to be an important factor in jail suicide prevention.

Years of experience and countless suicides and attempts have demonstrated that jails, prisons, and lockups seldom have adequate staff to provide the constant

supervision needed for potentially suicidal inmates. It is critical, as new construction ensures that the most effective design and management style be used. Only by proper jail construction and good training and supervision will the incidence of suicides be lessened and costly lawsuits avoided.

The architect owes a duty to those who would be likely to use the structure to exercise care that the design is safe for building's intended users. Suicides in prisons, jails, and lockups are not so unforeseeable as to preclude the existence of a duty to protect against them. Architects should have a duty to design jail cells without fixtures, grilles and otherwise avoid providing anchor points from which an inmate might hang himself. The architect can also be sensitive in designing observability in the facility in the selection and design of stairs, glazing, doors and windows and housing layout design.

Suggested Strategies for Redesigning Jails

In the sections which follow, a number of suggestions for the design of jail environments are provided.

Recommendations for Retrofit of Existing Cells

- Replace existing holding cell metal bar doors with 1/4 inch scratch resistant polycarbonate glazing on the inside of door panel.
- Modify existing light fixtures, ventilation covers and all protrusions in all holding cells with security screening with tamperproof screens. Tamperproof screens are considered grilling that cover vents and ducts with a 16 mesh per square inch welded interwoven wire, which has no openings greater than 3/16 of an inch.
- A suicide room should have no electrical outlets.

- All exposed pipes, hooks, hinges, and catches from the cells should be eliminated.

Recommendations for New and Existed Cells

- New correctional facilities, and facilities with lockup cells should meet American Correctional Association Standards for Accreditation.
- The size of the cell should be the ACA minimum standard of 70 square feet.
- Ceiling height should be 10 feet to minimize the accessibility of the individual to the light fixture or smoke or fire detection equipment.
- It is preferred for suicide cells to have security windows with an outside view.
- The ability to identify time of day via sunlight helps reestablish perception and natural thinking, and minimize distortion. While it might appear this is coddling the inmate seeking attention, the glazing may be sand etched in order to prevent transparent observation of the neighborhood but still allowing natural light in.
- Cells should have the necessary artificial and natural lighting to meet ACA requirements. Fixtures should provide 20 foot candle of light 30 inches above the floor.
- Light fixtures should be recessed in the ceiling to provide ample light for reading, in addition to a low wattage bulb to be used as a night light. The lens cover must be polycarbonate. The fixture may be secured in a corner of the ceiling if properly anchored. No electrical outlet should be provided. If electric razors are permitted, the outlets should be outside the cells, beyond the reach of inmates. Officers should have to plug in the razors into the sockets.
- Rooms should be painted pastel colors not institutional green or stark white. Lead based paint should not be used.

- A suicide watch cell or suicidal housing unit in a lockup should be located as near as possible to a control room or nursing station to allow for good audio and visual monitoring.
- A suicide watch cell should have tamperproof electrical fixtures with control outside the cell.
- Padding of walls, while being a great idea, is not allowed in many states. If your state permits you to use padded walls, they must be of fire retardant materials that are not combustible and do not produce toxic gases.
- All exposed pipes, hooks, hinges, and door knobs from the cells should be eliminated.
- Corners of walls, ceiling, and floor of cells should have rounded edges for sanitary and safety reasons.
- Joints at the ceiling should be sealed with neoprene rubber to prevent gouging plaster between walls for the purpose of anchoring a hook through the wall and committing a hanging.
- A secure floor drain should be placed at a low slope in the floor to facilitate regular cleaning and hosing of the cell.
- The floor surface should be non-slip, treated concrete, tile, carpet, or other surface that can't be removed should be used.
- Doors for suicide watch cells should be a metal sliding type, and used with a polycarbonate viewing panel that provides a clear, unobstructed view of the room or cell. An alternative is to use detention screening which allows air circulation and allows other officers to hear "in-cell" noises.

- Doors should be electronically monitored for open/closed position and should be a sliding type (to reduce the opportunity of barricading the door or slamming it into the officer).
- Cell fronts could be concrete block and contain large poly-carbonate vision panels. One of the prime reasons for the continued use of metal cell bars was that it allowed audio monitoring and ventilation. However, this type of structure-provides the opportunity for hanging. Cell bars can be covered with polycarbonate low abrasion panels on the interior of the bar structure. Rooms should have a smoke detector Hush mounted in the ceiling, with an audible alarm at the control desk. Water sprinklers in jail cells should not be exposed. Some sprinklers have protective cones, others are flush with the ceiling and drop down when set tiff. The use of dry standpipes permits verification of fire emergency before water is released.
- Suicide watch cells should have an audio monitoring intercom for listening-to calls of distress.
- Beds should be a solid concrete slab with rounded edges so that nothing can be tied to it. In a suicide cell, (he bed should not have any exposed space under the bed, but filled to the floor. The bed should not have any slats, springs, ropes, or coils. A heavily constructed all plastic bed similar to the concrete slab bed type is satisfactory. The mattress should be fire retardant and not produce toxic smoke. The scam should not be able to be torn away and used as a cord for hanging.
- Toilets and sinks could be porcelain for general population inmates, with concealed piping. Suicide cells should have stainless steel combo toilet sinks, and outside control over water valves with concealed piping.
- Vents and ducts should be grilled with a 16 mesh per square inch interwoven welded wire mesh, which has no openings greater than 3/16 of an inch.

- Any shelf in the cell should have a solid, triangular end-plate, which prevent a noose from being applied.
- In general, housing unit and cells have clothing hooks. General population hooks should be a ball and socket type latch. Collapsible ratchet type hooks can be jammed to be rigid enough to support a hanging. The ball and socket type hooks cannot be jammed. There should be no use of "U" shaped towel racks from which a noose can be tied. Suicide cells should contain no clothing hooks at all.
- Mirrors should be brushed metal attached with tamperproof screws, not glass or plastic, which can be broken or melted down by inmates to make weapons to cut themselves or others.
- A computer logging system should be implemented in the suicide cells that records, for example with a plastic key, the location and time each cell was visited. The result is a paper printout of time and location of the supervision which will be critical documentation necessary for a successful defense against a lawsuit should there be a suicide attempt or suicide completion.

CONCLUSIONS

General conditions in most jails promote isolation and dehumanization through loss of control over one's environment. A rigid authoritarian structure can increase feelings of anomie, hopelessness, and depression, which are ingredients in consideration of committing suicide.

While the National Centre for Institution Alternatives (NCIA) states that no jail can be made suicide proof, the Massachusetts Study disagrees. Under total surveillance, there is no way to complete suicides. Jails complain that physical and training improvements are too expensive.

The best assurance against suicide is screening individuals to determine the suicide risk they present and then continually monitoring individuals at risk throughout the first hours of incarceration. Prevention can be accomplished by attempting to change the suicidal motivation or reducing the opportunity to commit suicide. Changing peoples motivations is not very practical or realistic; changing the opportunity to commit suicide is more likely.

Reducing the opportunity does not imply the abuse of the use of isolation segregation cells, CCTV monitors, and intercoms. Often this technology is designed more for the convenience of jail personnel and not for the benefit of the inmate. These strategies may heighten the depersonalizing effects of confinement and increase feelings of aloneness and desperation.

Careful consideration of safety features in the architectural design can play a role in reducing the opportunities for jail suicide. The vast majority of suicides, 95%, are hangings (Massachusetts Study, 1984; NCI A, 1981). The recommendations in this report provide field tested techniques to reduce the opportunity the inmate has for hanging himself. Architectural design is an important and necessary part of a suicide prevention program. Until the standards for construction of lockups, jails, and prisons require suicide resistant design features, judges and court decisions will continue to set the pace for what is required. It is hoped for that future American Correctional Association Accreditation standards and state standards will have clear physical and managerial strategies as part of the accreditation and licensing process.

Many factors contribute to a prisoner suicide: sociological, environmental, managerial, and personality. The courts have not accepted excuses to reduce

liability and accountability, issues. The best way to protect the inmate from suicide, and the corrections system and staff from liability lawsuits, is by proper design, good training, and thorough suicide assessment. An ounce of prevention is worth a (legal) pound of cure.

2.15 CHANGES IN PRISON DESIGN

Historically, there have been three basic stages in the evolution of correctional design. These stages are referred to as first-, second-, and third-generation correctional designs and management styles. Since the first generation includes designs and management styles mostly in effect before the last twenty years (that is, the Auburn and Pennsylvania systems), the focus of this section will be the second- and third-generation designs and management styles. These two designs have dominated prison architecture during the past two decades.

Second-Generation Facilities (Popular Design with Remote/Indirect Surveillance)

During the early 1970s the National Clearinghouse for Criminal Justice Planning and Architecture, a federal funded organization, was responsible for creating guidelines (NCCJPA, 1971) that incorporated popular housing unit design and remote surveillance in a secure control room. The primary design principle was based on providing centralized services to inmates who required movement and escort. Improvements in classification and technology were reflected in the smaller sized housing units. Program services were brought to dayroom spaces and security glazing was used rather than steel bar fronts, thereby improving visibility for staff. The staff used the improved technology to watch the inmates in the housing pods, but were able to remain safe from assaults. Fixtures, finishes, and furnishings were

all designed for maximum security, resulting in a second-generation facility that was austere and designed to resist expected abusive behavior.

The basic operational assumption of second-generation facilities was that inmates would exhibit negative behavior simply because they were inmates. Subsequently, design was based on a premise that barriers should be placed between inmates and correctional staff. Daily activities, such as visitation, counseling, attorney consultation, dining, exercise, and recreation occurred in locations removed from the inmate's living module. This separation of daily activities from the living module necessitated the supervised movement of inmates to a variety of locations within the facility.

According to the second-generation approach, popular housing areas were divided into manageable-sized units of 12 to 24 people. In typical units, single occupancy cells were clustered around a common dayroom area and a secure control booth from which an officer observed inmate activity. The popular design was based on a restrictive management style, organized to respond to inmate problems rather than to prevent them. Staff had minimal contact with inmates and was only in a position to observe or summon help. Anticipated negative behaviour was controlled through security hardware and fixtures. The control of inmates was achieved by surveillance and technological constraints.

The second-generation popular design and remote surveillance model was a significant improvement over the first-generation linear design, intermittent surveillance model. The primary reason for its wide appeal to staff was improved classification potential, with single cell units and the lack of direct contact between employees and inmates. However, the construction costs were high, due to the

Buzinee, 1983). The reduction of manpower in escorting inmates may also reduce staff costs.

In summary, third-generation facility design and operation is based on the premise that if inmates are housed in a normal manner and are treated humanely, they will respond in kind and maintain this atmosphere. Officers are not separated from the inmates, and the furniture and hardware in the facility are commercial grade rather than institutional grade. Operating costs can be less than for first or second-generation facilities.

There have been numerous changes taking place as prison design has evolved from second to third generation. However, this evolution can take place only as rapidly as new construction is financed. While significant new prison construction took place in the 1950s and early 1960s, new and more humane prison designs were not implemented until the 1970s. Construction programs have accelerated during the 1980s, in response to escalating jail and prison populations and overcrowding.

Because of the profound effect of legal decisions on the design and management of prisons during the 1980s, this decade has been referred to as the "legal era" of prison design. During this period of the prisoner's rights movement and positive changes in prison standards and codes, court decisions and federal and state controls have had the most dramatic effect on jails and prisons since their inception. The most profound changes in operations and architecture have taken place as a result of the development of themes such as "civil death," "innocent until proven guilty," and basic human and prisoner's rights in addition to their implications for conditions of confinement.

Physical Design and Inmate Management Regimes

William Nagle (reported in Hill, 1988, pages 2-3) described two conditions reflected in old style prison designs (main' of which are still in use today) which destroy the potential for an inmate to perceive themselves as a human being. The first was 'over-determination' whereby all activities are scheduled, pre-determined, and the physical setting limited and monotonous. The second was the removal of a frame of reference, whereby temporal, spatial, social and psychological cues are removed, altered or suppressed by physical design and management. The most damaging effect of both conditions is that it severely reduces the ability for inmates to cope when released into the community and consequently increases the likelihood of re-offending.

Older style facilities were not designed with rehabilitation in mind and do not lend themselves to modern styles of inmate management. Therefore, it is essential that the style of inmate management expected in any A.C.T. correctional facility be decided before design aspects are considered because:

The design of places of confinement is fundamental to the nature and form of that confinement. Together with the human arrangements of inmate management, prison architecture constitutes confinement. In fact, there are those who believe that architectural design is more fundamental than human arrangements. I have some sympathy with that view (Grant, 1992, page 58).

In 1973, Nagle advocated for the normalization of the prison environment and for such concepts as unit management. Grant (1992) argues that successful modern correctional facilities are those which encompass (own planning principles. They are built in such a way as to recognize the inmate as a citizen, and enable and

encourage inmates to model behaviours that are considered pro-social and not alien to the outside world.

Grant states that good facilities are designed to motivate inmate compliance and reform through incentive rather than the avoidance of sanctions and facilitate a degree of normality of human interaction between staff and inmates. Accordingly, the full range of developmental opportunities that are available to those outside the correctional facility should be available within the correctional facility.

Accommodation Standards

Accommodation for inmates should be of a standard that would reflect the minimum standards acceptable to the mainstream community. The suggestion that inmate accommodation is extremely comfortable, and exceeds the standards of average Australian families (reported in McDougal, 1995b) can only be described as misinformation, as anyone who has visited an average Australian correctional facility will attest.

Hampton Stated:

Those who describe the physical conditions of the most modern jails as motels have either never seen a cell or never seen a motel. Having seen both I can verify they don't have a lot in common. Cells are more expensive and represent far less value for money (Hampton, 1994, page 11).

Design must also take into account the need for the separation of different categories of inmates as set out in United Nation Rules.

General Security

Increasingly electronic systems are replacing static guard roles in both new and refurbished correctional facilities.

Effective perimeter security systems are essential to:

- prevent escapes;
- protect against outside assault; and
- prevent contraband getting into the centre (McManus and Conner, 1994, page 142)

Modern security systems have alleviated the need for high stone walls with armed guards patrolling walkways.

New technologies are being used to increase the security of institutions, and to enable a change in the way such institutions can be managed. As McManus and Conner (1994, page 144) explain:

Hardened perimeters save money by obviating the need to build more secure housing, and that frees up security personnel to focus on other areas of the facility. No tool can replace well trained and motivated personnel as the core of the security effort, but a well designed security system can play a key role in making each security officer more effective.

Jinks (1991), a former N.S.W. deputy Ombudsman, argued that (here is no longer any genuine security need for high walls, when movement of people can be detected instantaneously by sound and movement sensors and infra-red cells cameras, He stated that it is essential (o avoid a situation where an operator is required lo sit and watch a screen for more than a few minutes at a time. Observations should only be required when movement sensors or other alarms alert the operator to a particular /one of activity.

The actual security system chosen, incorporating any number of combinations of single to multiple line fences, barbed tape, razor wire, fence mounted cameras, underground seismic systems, infra-red detection systems and physical patrols depends on such factors as:

- the threat from outside the facility;
- the classification of inmates;
- staff experience and training;
- terrain;
- location; and
- aesthetics (McManus and Conner, 1994, page 142)

The systems should provide a psychological and physical barrier to escape. If an escape attempt is made, sensors and barriers should progressively delay the inmate to allow officers to easily apprehend the person. Good security, which slows an escapee down, also minimizes the need to take extreme actions, such as the shooting of an escaping inmate.

There is also no reason why inmates could not also be required to carry electronic sensors or devices that enable their movement between set zones to be monitored. In the new remand and reception correctional facility in Sydney, 'Smart Cards' (like credit cards) will be used by both officers and inmates to ensure they can be located at any time and for a variety of other purposes. Similar technologies should be considered for use in any A.C.T. facility with movement through and into zones allowed for (prevented) by a central controller, according to daily inmate schedules.

General Design Principles

Consistent with local and national guidelines, the following principles should form the basis of any facility in the A.C.T.:

- Subject to security considerations, the physical environment should be increasingly 'normal' as inmates move from high security classifications to low classifications;
- The design should allow inmate management practices to be less restrictive as inmates progress from higher to lower classification areas. It should allow inmates to demonstrate increasing self determination consistent with type of behaviours expected when they return to the community upon release; and
- use a campus design, generally accepted as a contemporary model for appropriate inmates.

Functional Requirements Background

The information presented below is intended to provide a general understanding of the functional requirements that would be required in the design of a correctional facility. Some functions listed will require more or less emphasis, or may not be required at all, depending on whether the A.C.T. decides to establish a 'full classification' facility that meets all of the A.C.T.'s custodial requirements, or a facility accommodating only low security inmates and those on remand who are currently held in the Balcones Remand Centre.

Perimeter Security

The successful operation of any proposed facility requires a perimeter fence appropriate to the security classification of the inmates it contains. If an A.C.T. correctional facility is intended to accommodate all inmate classifications, perimeter security must be built to a maximum security level.

If it is to accommodate only low security sentenced inmates and remandees, then the area accommodating the former group need only be low security, whilst the remand area must be built to maximum security standards.

Medium to High Security Accommodation

About half of the A.C.T. inmates currently held in N.S.W. require medium to maximum security cells. Under a full classification model separate accommodation areas will be required for the following categories of inmates:

- male remandees;
- female remandees;
- medium security males;
- high security males;
- high observation males;
- high observation females; and
- medium to high security females.

All common areas in this zone should be directly visible from a central control post at all times and accessible to an officer's physical inspection. High observation cells

should include visual surveillance equipment allowing continual monitoring from a central control room.

Segregation/Protection Accommodation

There is a need in any facility for segregation of inmates requiring protection from the mainstream inmate population, although the need will be less prominent in a facility only accommodating low security sentenced inmates.

In a 'full classification' facility, separate segregation of protected inmates will be required for the following categories:

- medium to high security males; and
- medium to high security females.

Despite United Nations Rules which recommend that remand and sentenced inmates should usually be separated, given the small numbers that would be involved, on a case by case basis it may be better to allow some mixing between these inmates, with their consent. This currently occurs in the N.S.W. Correctional system. It would itself constitute a form of cruel and unusual punishment to completely isolate an inmate because he or she is the only one falling into a particular category.

All common areas in this /one should be directly visible from a central control post at all times and cells should include visual surveillance equipment monitored from a central control room.

Intractable' Area

An additional zone is required for 6 to 8 persons who prove they can not be managed in the mainstream inmate security areas ('intractable'). This one must be under full visual observation from the central control room. Inmates in this area should be provided with access to separate exercise facilities of an acceptable minimum standard. Such inmates may be more appropriately dealt with by sending them to the N.S.W. correctional system on a fee for service basis.

Low Security Accommodation

The United Nations established a consultative committee to consider issues of correctional facility design in recognition of the fact that the success of programs depends to a great extent on the characteristics and ambience of the institution in which it is applied. In its report, the committee they made the following comments:

- too often institutions were designed having in mind the most difficult of inmate, the preoccupation with security is often not only wasteful but detrimental for inmates, for (he bulk of whom security institutions are unjustified;
- mass treatment should be avoided and institutions should be designed to maximize certain services and minimize others;
- the surrounds and inside of (he correctional facility should make (he passing of time as bearable as possible; and
- the type of building should reflect some social ideals and represent a balance between security, re-education and the needs of treatment (Lopez-Rey. 1985, page 66).

These notions should be reflected in (he low security area of any A.C'.T. facility.

Accommodation for (his group of inmates should be in self contained 6 to 8 bed units within additional discrete secure fenced areas to provide for the separation of some inmate categories. This design allows unit management to be practiced in these zones.

Security in this zone should be principally by way of electronic surveillance equipment, backed up by periodic officer rounds. Although security breaches in this zone are likely to be infrequent, should they occur, security systems should provide an ample deterrent so that officers can respond from central areas within reasonable periods of time.

Industries and Maintenance Functions

Viable correctional industries are essential to the successful operation of a modern facility. Careful consideration of relevant industries is required well before designs briefs are developed. Industries may take many forms and may require large workshops, training areas, a laundry, grounds/building maintenance workshops, offices and support facilities.

Industry research and subsequent partnerships will help determine viable activities to pursue.

Although the overall facility may be built by the Government, 'fit outs' should be paid for by the industry in partnership for an agreed period of time.

Medical

Medical facilities should be comprehensive and minimize the necessity to remove or transport inmates from the facility. A facility will require secure and discrete wards, a dental surgery, a dispensary, methadone treatment areas, treatment/consulting rooms, nursing stations and other support facilities.

Separate research should occur to determine the size and function of this zone and will depend on whether any facility will accommodate all classifications of inmates or just low security and remand inmates. The treatment needs of inmates with mental health problems also need to be considered.

Induction Area

The induction area would require several ensuite cells, 1 special (dry) cell, processing facilities (photo, search, medical, interview), inmate storage, and an officer station.

Electrical Facility

There is a need to ensure that backup electricity is available in event of a power failure through natural causes or sabotage.

Canteen/Shop

It is likely that a smart card system would be used to purchase items from the canteen and shop.

Visits

The visit facility must include areas for indoor contact visits, outdoor contact visits, non-contact visits, officer posts, dressing and undressing areas, children's play areas, toilet facilities, baby change, parenting facilities, and possibly a court video link.

Administration

A facility is necessary to accommodate management and support staff.

Central Control

The purpose of the central control room has been defined as follows:

- to monitor the access point(s) into and out of the prison;
- to monitor the movement of people and materials into and out of the various zones of the prison where applicable;
- to monitor the mechanical and electrical devices used inside and outside the prison; and
- to act as the command centre during any unusual threat to security (M581 Project Team. 1979, page 14).

The central control area must allow for excellent line of sight observation of the entire facility and its surrounds.

Inmate Movement Controller

During the day a post that allows for visual observation and electronic monitoring of inmate movement should be provided. Smart cards will assist in this process combined with a computer monitoring system which allows inmate access

to certain program areas according to activities scheduled on the inmate's 'Structured Day Program'. This post also monitors and controls functions relating to the movement of inmates into and out of the facility.

Activities Area

Appropriately sized activities areas are essential to reduce boredom, promote pro-social interaction, to reduce tensions in the centre and to ensure appropriate levels of fitness are maintained. Such areas are likely to include an auditorium, gymnasium, classroom, library, craft area and appropriate staffing areas. Several discrete zones should be made accessible to each category of inmate.

Gate House

The gate house provides first point of entry into the institution, and would include the vehicle bay, armory, stores area, parade areas and visitor reception areas.

Stores

This area requires vehicle access, cold storage, dry storage, industries store, general stores and dangerous goods store.

Staff Amenities

An area for staff training and amenities is required.

Special Response Unit

Consideration needs to be given to the inclusion of such a facility, where riot gas, batons, shields protective clothing is stored.

Other issues that need to be considered in design

- aesthetics;

- how design will encourage the employment of local sub-contractors;
- the use of local materials;
- maximum visual observation of all areas;
- adequate ventilation;
- emergency communication systems from all cells;
- good lighting;
- energy conservation;
- ensuring that the design allows staffing resources to be focused on inmate rehabilitation and activity, rather than on static security duties.
- the use of modern technology in security systems (eg finger scan, iris scan, smart cards);
- the ability of officers to manage riots;
- fire prevention and escape systems;
- protection for inmates from other inmates;
- protection for staff; secondary water supplies;
- maximum involvement of all inmates in daily activities (rehabilitation/ educational/vocational/recreational) subject to security considerations; and
- ensuring that all prison services, e.g, kitchen, laundry, cleaning, building maintenance, grounds maintenance are designed in such a way as to allow maximum inmate involvement (under supervision appropriate to classification).

2.17 SECURITY

Required Outcomes Policies and Procedures

The Prison Service develops reviews, delivers and supports policies and procedures which together seek to prevent escapes from establishments, escorts and courts. Policies and procedures, as fully as possible, respect the rights of prisoners to a fair trial and the rights of prisoners, and where appropriate their families, and visitors and staff, to privacy, family life, humanity and equality of treatment.

Management

Security is managed effectively in HQ and establishments to ensure that agreed policies and procedures are followed and carried out properly, and that awareness of security is maintained.

Training

Cancelled by PSI 09/2003 STANDARD: Prisoners are subject to such security restrictions as are necessary to keep them in custody and to protect the public.

Performance Indicators:

- Audit compliance
- Escape rates as a percentage of average prison population and, for escapes from escort and court, as a percentage of external prisoner movements

Activities and Education

Prisoners are allocated to activities and to outside working parties on the basis of a security risk assessment. Prisoners are properly supervised whilst participating in regime-activities.

Intelligence

Designated establishments have in place and make use of arrangements for gathering, collating, analysing, evaluating and using intelligence to prevent escape and other incidents, and to support other criminal justice agencies.

There are arrangements in place for the handling of human intelligence sources, which protect sources, handlers and other staff. There are arrangements in place for managing covert operations.

Prisoners' Communications and Visits

Prisoners' communications by letter or telephone are subject to security restrictions to ensure that security is not compromised and to protect the public and vulnerable groups, especially children. Visits are controlled and monitored to ensure security is not compromised or breached.

Internal Movement and Accounting for Prisoners

All prisoner movements are controlled. The location of prisoners within the establishments is checked regularly. Prisoners who are an escape risk are closely monitored and subject to special security arrangements. The discharge of prisoners is controlled to ensure a prisoner is not released in error.

External Movement

Prisoners taken outside the secure perimeter on external movement to court or hospital etc are kept secure on the journey and at the destination through the use of appropriate vehicles, staffing levels and restraints, with arrangements reflecting the security category of the prisoner and an individual risk assessment. Other

agencies involved in the movement of prisoner are provided with significant security (and other) information about the prisoner.

Physical Checks and Maintenance

The physical condition of prisoner

Accommodation and the perimeter is checked daily.

All security systems and physical arrangements are properly maintained to ensure effective operation. Arrangements are made to mitigate security risks arising from construction or other work on site.

Plans, Keys, Tools, Stores, Materials, Equipment and Vehicles

Plans, keys, tools, stores, materials, equipment and vehicles are controlled and kept secure to ensure that items which may aid in escape or which are otherwise inappropriate for prisoners to have do not fall into the hands of prisoners or go missing. If items go missing appropriate measures are taken to ensure that any risk to security is mitigated.

Searching

Prisoners and visitors are not permitted to bring into the establishment items considered a threat to security or to good order and discipline. All establishments have in place and deliver a searching plan agreed by the Area Manager which seeks to find and secure items which prisoners should not have. Service-wide resources are provided to carry out searches for arms and explosives, and to deliver additional searching capacity when required by individual establishments. New or newly refurbished buildings are searched before occupation by prisoners.

Dogs

Dogs for deployment in support of searching or patrols are selected and they and their handlers are appropriately trained. Trained dogs are appropriately deployed bearing in mind their competencies and health and safety considerations. Dogs are treated and trained humanely and cared for in accordance with Animal Welfare Regulations.

CHAPTER THREE

3.0 MATERIALS AND METHOD

3.1 APPRAISAL CASES STUDIES

In any research work, case studies enables the researcher establish the validity or authenticity of the set hypothesis. Case studies may also help the researcher to verify whether some key aspects covered in the literature have been incorporated in real life situation and if not the reason for omission. Case studies could also help the researcher to discover new area of ideas, which have not existed before.

The importance of building of new prisons or rehabilitating the existing ones in the country cannot be over emphasised, owing to the fact that, most if not all the existing prisons are mere punitive in nature. One of the objectives of this project is to reduce the level of punishment in our prison system and to maximise the degree of reformation of prisoners so that, they come out of prison being very useful to themselves and the society as a whole. Besides, the security network being emphasised to prevent escape and violence by prisoners within the prison yard, emphasis is also paid to those function that are meant for reformation.

In this chapter, the appraisals of some existing prisons will be studied and evaluated for their functional performance as regard the objectives of this project. The proposed CALABAR MODERN PRISON is designed to improve the lives of prisoners within and outside prison environments. The following existing prisons will composed the researched ease studies.

3.2 AFORKANG PRISON, CALABAR,

Location

This prison is located in Iman Street near Calabar River, with an initial capacity of 250 inmates and present capacity of 500 inmates. Design and Planning The prisons comprises of:

- Administrative Block
- Cell: Convicts cells. Awaiting trial cells. Condemned criminals cells. Female cells. Isolated cases cells.
- Kitchen
- Chapel
- Mini workshop
- Clinic
- Soap Industry: Located Outside the prison yard.
- Prison store

The arrangement of these units are scattered all over the prison yard which is enclosed by a high level perimeter fence. The administrative block which has the soap industry located besides it has limited number of offices accommodating warders. Behind the administrative block is an open field which has the awaiting trial cell located beside it and the kitchen located behind it. Behind the kitchen is the chapel; beside the kitchen and the chapel is an abandoned awaiting trial cell under construction. Farther behind the chapel is another admin block housing the prison store. By the left sides of the kitchen and chapel is situated the convicts cells and isolated cases cells, these two cells blocks are independent of each other. At right side of (he isolated cases cell is the female cell enclosed by an average height perimeter fence. Directly in front of the entrance to the female cell is located the condemned

criminals cells. At the right side of the female section is a small workshop housing only carpentry and tailoring areas. At the right side of the workshop is the clinic which is also directly behind the convicts cells and isolated cases cells. Toilets and shower meant for inmates working within the prison yard is situated at the left side of convicts cells. Beside (he entrance into the prison yard from the administrative block is an abandoned female cell under construction enclosed by a perimeter fence

Material and Finishes

The administrative block and cell blocks both functional and abandoned are constructed of 225mm sandereed blocks. Other units are constructed of 150mm sandereed blocks. All functional units are plastered with cement/sand finish. The cells are made of iron doors and wooden windows protected with iron burglary proofs. The entrance door in the admin is constructed of iron, all other doors are wooden. The windows are of louvers blades with iron rod rods as protectors. The clinic is made of wooden doors and louvers blades incorporated in windows. The chapel and the kitchen are constructed of wooden doors and windows. All the units are roofed with wooden trusses and corrugate x.inc sheets.

Merits

- Provision of isolated cases cells
- Provision of condemned criminal cells
- Prison yard fairly landscaped
- Provision of tailoring and carpentry workshop
- Presence of soap industry

Demerit

- Overcrowding in cells

- Soap industry located outside prison yard
- Admin block too small to accommodate the number of staff
- Size of workshop too small
- Poor sanitary condition of cooking area
- No provision of Dining Hall
- Malfunctioning of workshops
- Female cells too small
- Lack of study centre

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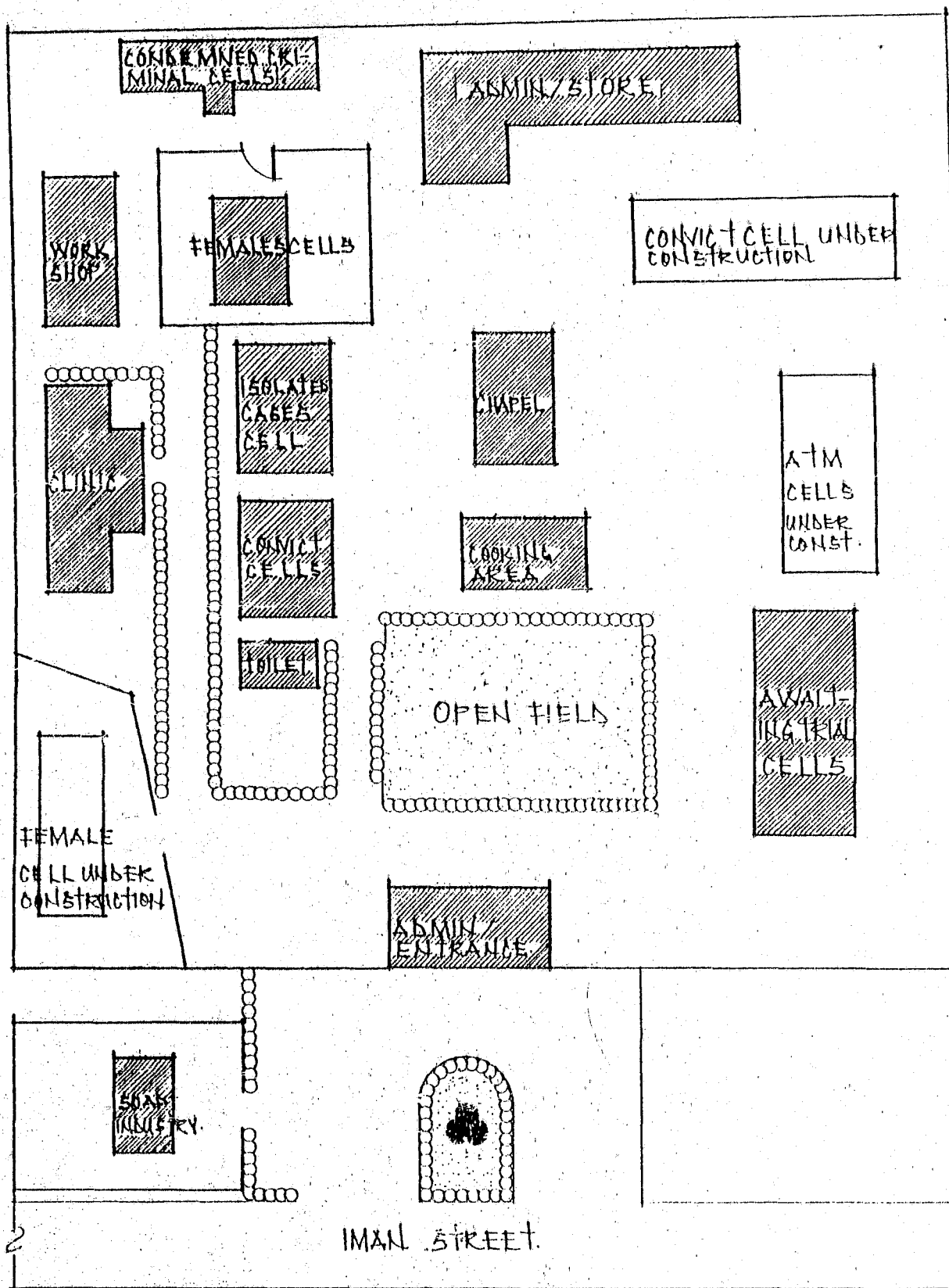


FIG B.1

SITE LAYOUT.

NAME OSOR, BENJAMIN

REG NO M-TECH/SET/1036/03/04

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CAI ABAR

3.3 OGOJA PRISON: CROSS RIVER STATE

Location

The prison is located in Abakpa, Ogoja Local Government Area, was formally serving the population of then Ogoja province with an initial capacity of 400 inmates and present capacity of 230 inmates. This prison has its Staff Quarters located beside the prison yard. Currently the largest in the state.

Design and Planning

This prison comprises of:

- Administrative block
- Cells: Convicts cells, Awaiting trials cells, simple cells, female cells
- Kitchen
- Clinic
- Study centre/Chapel
- Workshop
- Contractor store
- General store

The planning of this prison is such that a football field which is centrally located within the prison yard separate the various units provided. To the right of the football field is a small open block of building which serves a dual purpose as the chapel and study centre. Behind this block is the contractor store that accommodates all the food items. Directly behind the contractor store is the kitchen. Also at the back of this unit are two blocks of cells for convicted inmates located opposite each other. A clinic comes in between these cell blocks and another convicted inmates cell block. A workshop is located behind the third convicted inmates cell blocks.

To the left of the football field lies the female section cells enclosed by an average height perimeter fence. Inside the female ward are two small cells blocks standing independent and opposite each other, one of the cells blocks houses a small workshop for tailoring and besides these two blocks, stands another small building serving as a lavatory. Attached to the outside of the female wall perimeter fence, is a single cell block. Behind this block is another block meant to house awaiting trial inmates. To the side of this structure is another cell block for convicted inmates. In between this cell block for convicted inmates and another cell block for same purpose lies a row of showers and a toilet meant to serve inmates who are periodically release to clean the prison yard. At the back of this cell block is an abandoned structure which was serving the purpose of a kitchenette, behind it are two small structures standing separately serving the function of storage.

The administrative building is located such that its serves as the only entrance into the prison yard which is wholly enclosed by a high perimeter fence.

Materials and Finishes

The administrative block, clinic and some of the cell blocks are constructed of sand screed blocks while the rest of the units are made of mud blocks. All the units are finished with cement/sand plaster. The entrance gate at the admin block is of steel and other doors are made of wooden panels fixed to wooden frames. The windows are casement with glass panels while the high level windows are basically fixed light. Other units are made of wooden doors and windows and iron protectors fixed to windows. The perimeter fence housing the female section is constructed of mud blocks and finished with cement/sand plaster, while the overall high perimeter fence is

constructed of 225mm sand screed blocks with a very high ration mix. Every unit is roofed with timber trusses and corrugated zinc sheets.

Merits

- Adequate number of cells for convicted inmates
- Provision of single cells for security and disciplinary measures.
- Provision of study centre
- Provision of carpentry and tailoring workshops

Demerits

- Small size of cell for awaiting trial inmates
- Some cells for convicted inmates are completely dilapidated
- Malfunctioning of workshops
- Poor sanitary condition of cooking area
- Absence of dining hall
- Prison yard not landscaped
- No defined parking space for staff and visitors
- A single block used for both study centre and chapel
- Absence of mosque

UGUJA INJURY

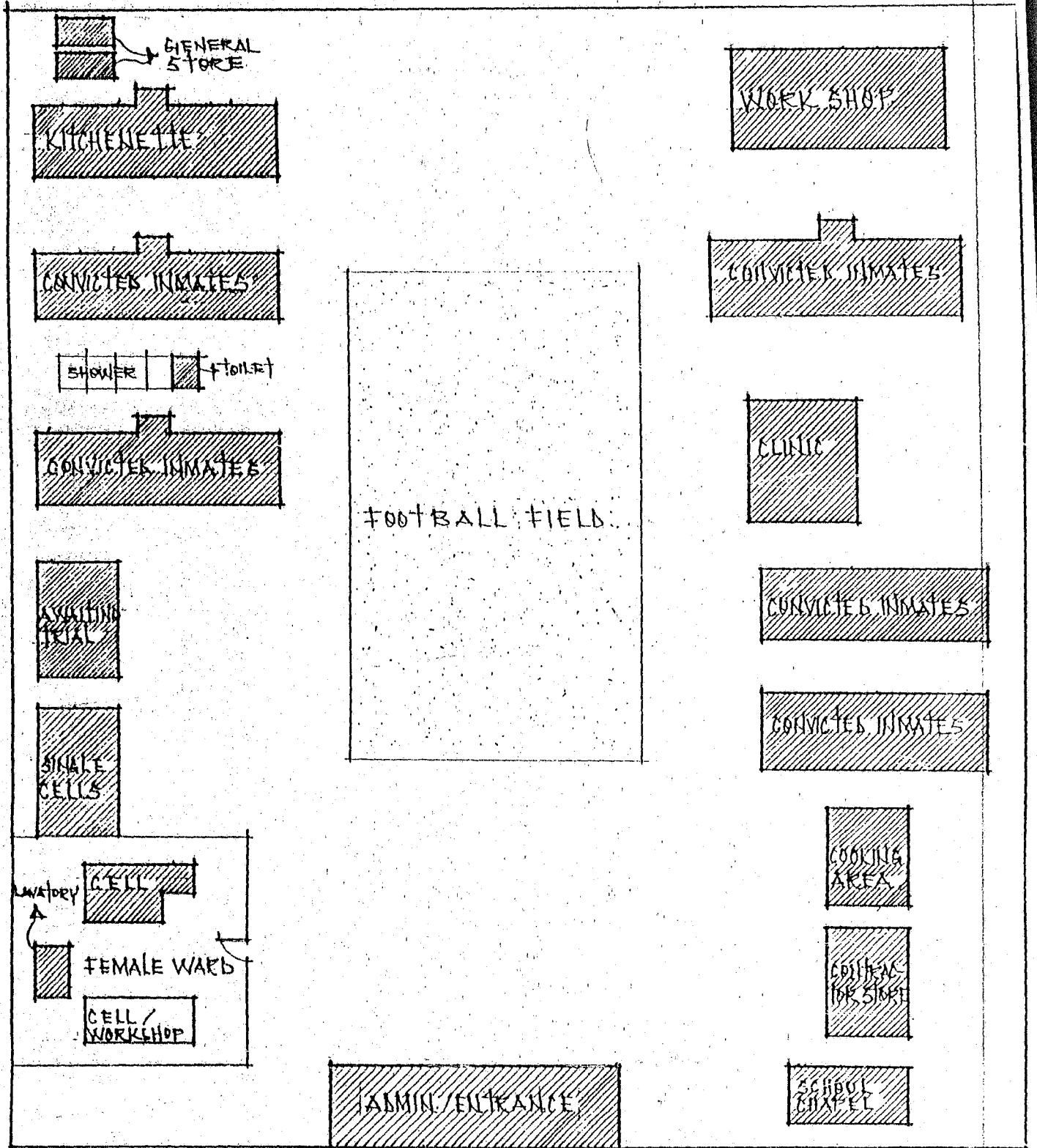


FIG 3.2

| | |
|--------|-----------------------|
| NAME | OSOK, BENJAMIN |
| REG NO | M-TECH/SET/1036/03/04 |
| COURSE | ARC 621 |

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CALABAR

3.4 MEDIUM SECURITY PRISON: MINNA

Location

This prison is located in Tunga in Minna metropolis. Commissioned on the 26th November 2001 with initial designed capacity of 160 inmates and current capacity of 265 inmates. The most modern and recent in the state.

Design and Planning

This prison comprises of the following units:

- Administrative block
- Clinic
- Chapel
- Cells: Convicts cells, Awaiting trial cells
- Workshop Kitchen/Dining
- Mosque (unroofed)

The administrative block which also houses the clinic comprises of offices for prison staff. From the administrative block, other units can be accessed directly by a covered walkway which equally links all the units together. At some points through the walkways, security posts are introduced to check un-allowed movement of prisoners. There are altogether six identical cells structures which four of these structures house the convicted inmates, one for awaiting trial and the other serves as the female cell. Some point away from the administrative block is chapel. Behind the administrative block an open fence area meant for inmates playground. Behind this playground are three cell structures designed sides by sides to each other, two of these cell blocks houses convicted males inmates and other one accommodate the convicted females. Some point away from the chapel which are also farther away from the administrative block stand the rest of the other cell blocks that are arranged

sides by sides to each other and besides the workshop. Two of these cells structures accommodate convicted males inmates and the other houses male awaiting trial inmates. The workshop which has two sections, carpentry and laundry, a store inclusive is located near the kitchen. The kitchen has an inbuilt dining and an outdoor cooking area.

The entire prison yard is enclosed by a high perimeter fence. Closer to the administrative block is another entrance gate at the perimeter fence which serves the function of letting in vehicles bringing in food stuff. Behind the chapel inside the prison yard is an uncovered mosque.

Materials and Finishes

All the respective units are constructed with 225mm sand screed blocks. The walkways are supported by columns at intermediate positions. The administrative block is made of iron doors all through and louvers blades fixed to windows, incorporated to the window frames are iron protectors. All the cells are made of iron gates and high level windows which are basically fixed light. The workshop is made of wooden doors and frames and screen walls serving as low level windows and fixed light for high level windows. The kitchen is also made of wooden doors and louvers blades fixed to window frames protected by iron rods.

All the units are finished with cement/sand plaster. Reinforced concrete roof deck is adopted in all the respective units that are all pitches roofed laid with 3 layers of asphalt.

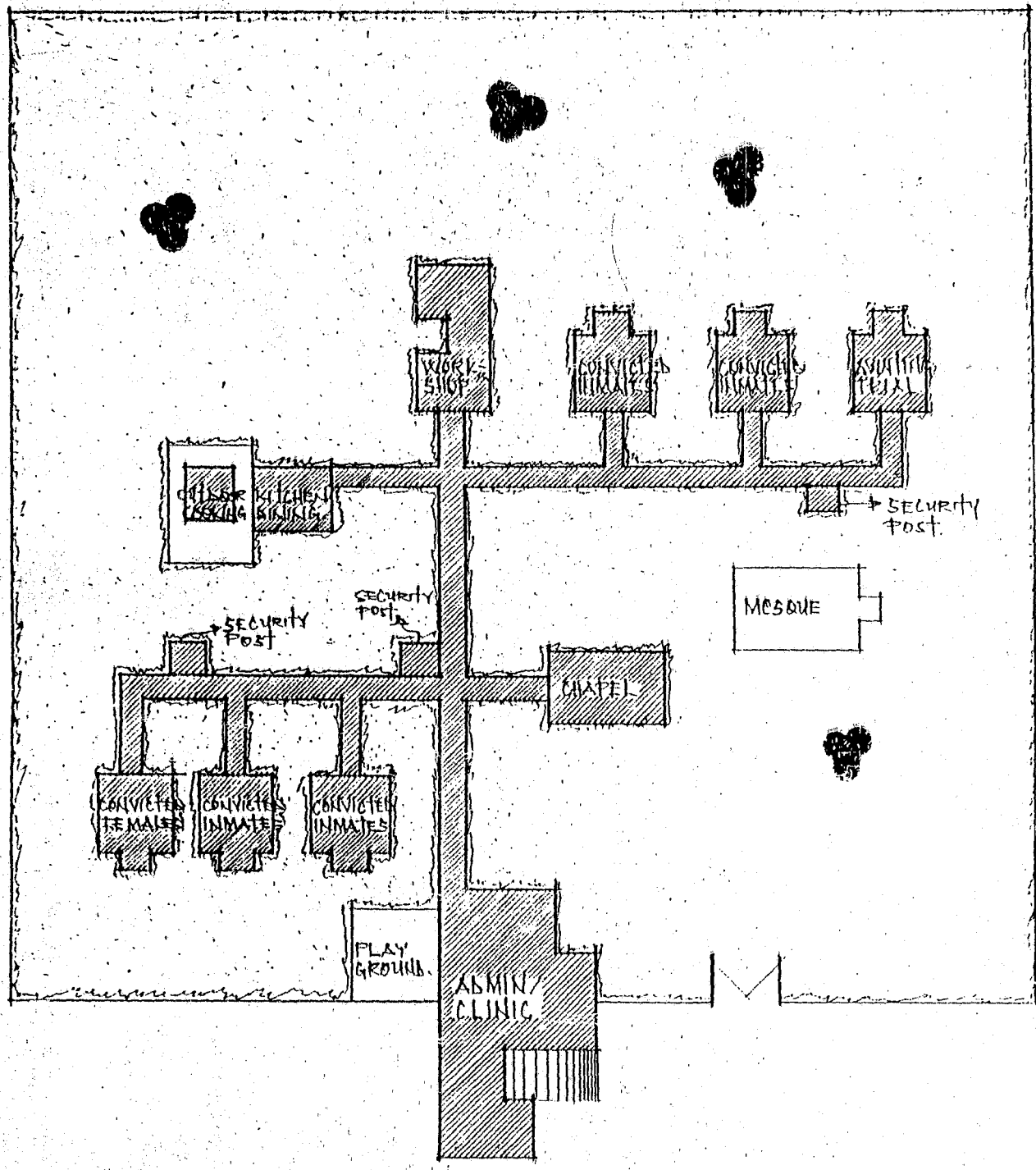
Merits

- Adequate number of cells for convicted male inmates
- Provision of dining hall
- Provision of carpentry workshop and laundry services
- All units are linked by covered walkways
- Provision of security posts

Demerits

- Dining hall not large enough to accommodate considerable number of inmates during meal time
- Females convicts cell too close to male convicts cell
- Absence of tailoring workshops
- All cells sizes the same, their functions not considered.
- Lack of single and isolated eases cells
- No provision of cells for condemned inmates
- No provision for study centre.
- No define parking space for staff and visitors
- Uncovered mosque

MEDIUM SECURITY



SITE LAYOUT

FIG B.3

NAME OSOR, BENJAMIN.
 REG NO M-TECH/SET/1036/03/04

^ X I X D X D

3.5 MINNA OLD PRISON, MINNA

Location

This prison is located along the stadium road directly opposite the stadium with an initial design capacity of 149 inmates and present capacity of 232 inmates.

Design and Planning

This prison constitutes the following units:

- Administrative block
- Clinic
- Cells: Convicts cells, Awaiting trial cells. Isolated cases cells, Female cells
- Workshops
- Kitchen
- Under ground water reservoir
- Toilets

The entire prison yard is fenced by a high perimeter wall of 225mm block joining the administrative unit at the sides in front of the prison yard. The administrative block which constitute the entrance into the prison yard also contain offices for staff accommodation. Directly behind the administrative block on entrance into the prison yard are two rectangular blocks of cells place in parallel to each other and fenced by gateless average height perimeter wall, in between these two blocks is an uncovered mosque, one of the cell block serves as awaiting trial cell while the other is used as convicts cell.

To the left side of the administrative block on entrance into the prison yard lies the clinic unit and to the right side of the administrative block lies another cell blocks also arranged in parallel to each other, one cell block houses isolated cases inmates while the other accommodates awaiting trial inmates. In between these

two cells blocks is a small structure serving the purpose of a toilet. By the sides of these two cell block is the old workshop, directly at the back of the old workshop is the new workshop. Beside the new workshop lies another awaiting trial cell blocks and behind the new workshop is the kitchen with an outdoor cooking area by the side. At the back of the outdoor cooking area of the kitchen comes the female ward fenced with a perimeter wall. The female section which has just a single cell block have a security post at its entrance. At the side of the fenced female units lies the prison store which has staff toilets besides it. Adjacent to the staff toilets is a semi-opened shower structure for prisoners. At a point farther from the prison store is an undergrounds water reservoir serving the prison yard.

Material and Design

Only the clinic and the new workshop are constructed of 150mm sand screed blocks, plaster finished with cement/sand plaster. The administrative building and other units are constructed of mud block and finished with cement/sand plaster. The prison store is covered with zinc as sheets as walls. The clinic entrance door is of casement with glass panels and louvers blades fixed to the windows frames, all internal doors are made of wooden panels and frames. The entrance gate in the administrative block is made of steel whereas other doors are constructed of wood panels and frames. Parts of the windows are made of louvers blades while others are made of wooden panels. The cells doors and windows are constructed of wooden panels with iron rods fixed to window as security measures. The various units are roofed using timber members as roof trusses covered with corrugated zinc sheets.

Merits

- Provision of isolated eases cells
- Provision of workshops

- Adequate number of awaiting trial cells

Demerits

- Limited number of cells for convicted inmates
- Absences of dining hall
- No provision for study centre
- Lack of chapel
- Poor sanitary condition of cooking area
- Prison yard not landscaped
- No condemned prisoners cells
- Lack of single cells
- Small sizes of workshops.

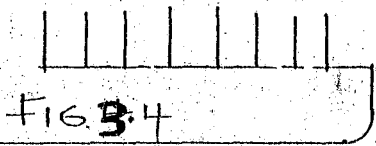
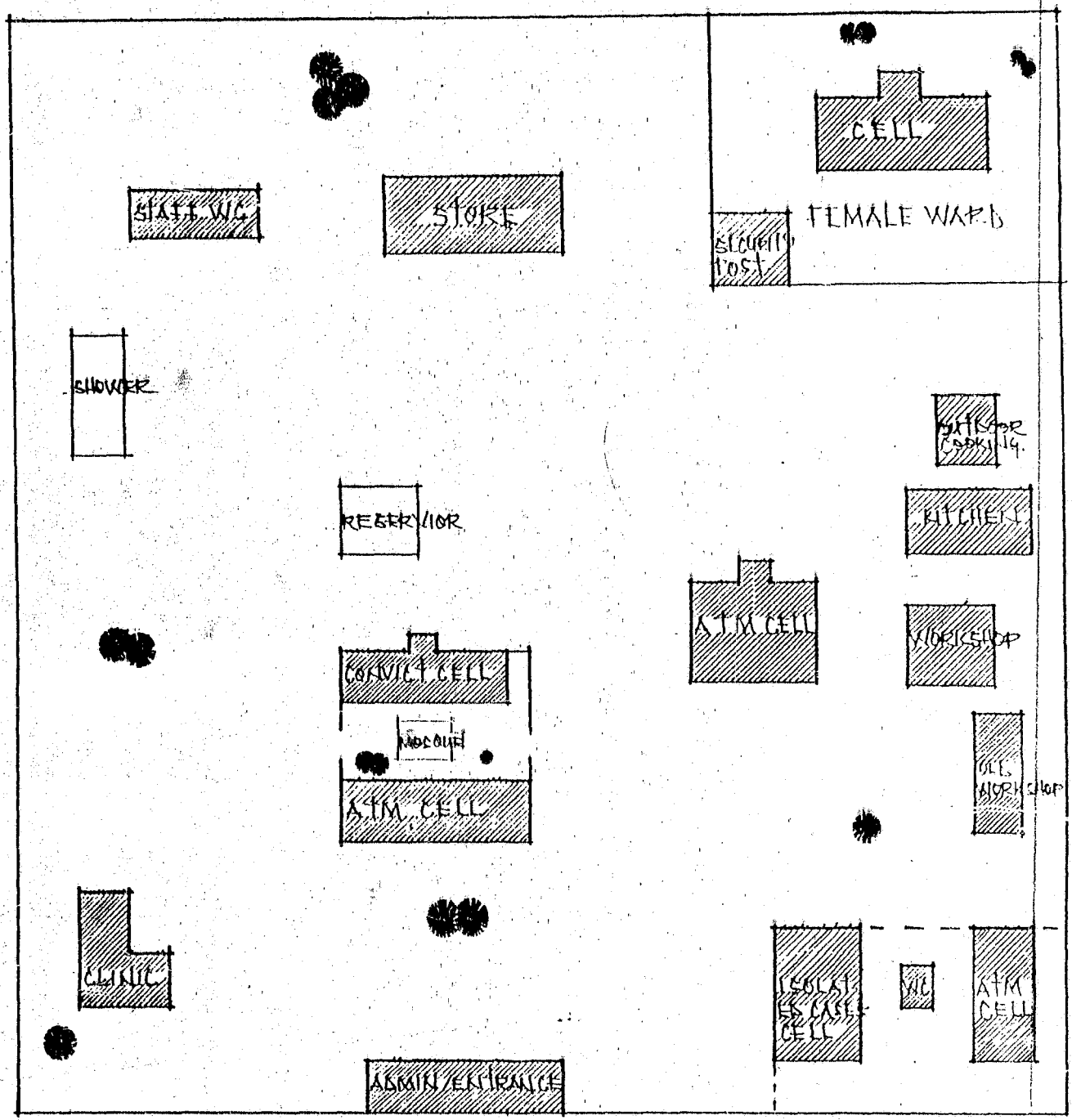


FIG 3.4

STADIUM ROAD.

SITE LAYOUT.

NAME OSOR, BENJAMIN
 REG NO M-TECH/SET/1036/03/04
 COURSE ARC 621

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CALABAR

3.6 DATA COLLECTION

3.7 CLIMATIC CONDITION

Two main factors affect the climate of Calabar, the latitudinal position and its interior location towards the sea. The climate is humid but cool most of the year. The maximum temperature being 37⁰C and minimum of 26⁰C. The dominant wind directions affect the site causing harmattan and rainfall. There is usually a lot of rainfall in Calabar. The August break last just two weeks.

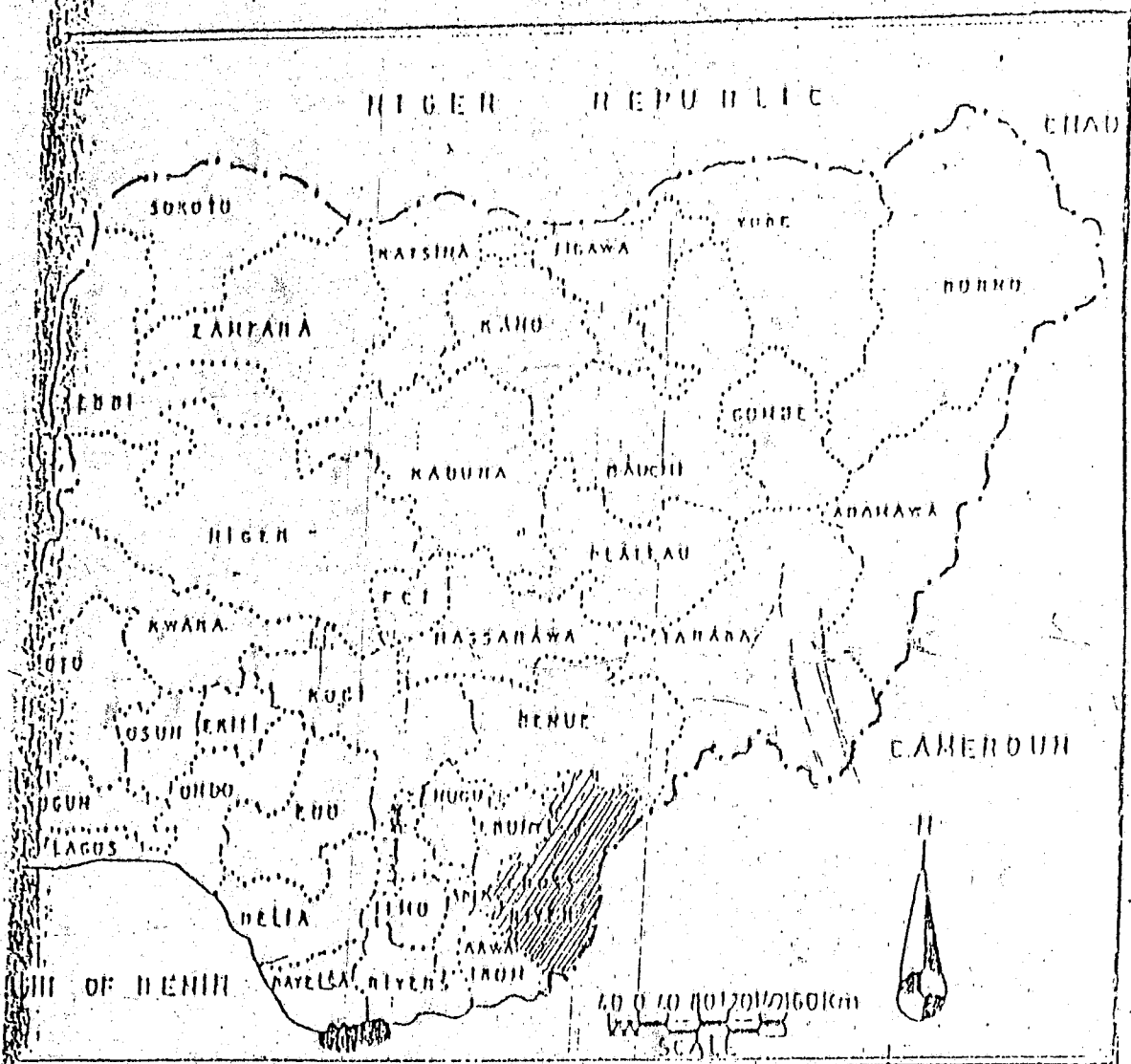
Calabar lies near the sub-equatorial south, this extends just over 150miles in-land. It has over 60 inches of rainfall per annum. No month has less than 1.2 - 1.5 inches of rainfall. The total amount of rainfall moves from 60 inches of rainfall to 120 inches as you move towards the Niger Delta area. Relatively humidity is over 90 percent in the morning but falls within 60 percent - 70 percent in the afternoon.

3.8 SOIL, GEOGRAPHY AND TOPOGRAPHY

The soil has covering of sandy loam to a depth of about 4m. The soil stratification shows that the soil consists of several meters of deposited sally sand overlying the sedimentary decomposed rocks. The soil is generally rich in nutrient and allows food moisture retention because of the high content of sand. There exhibits spare vegetation with more of groundcover and shrubs.

3.9 SOCIO-CULTURAL LIFE, ECONOMY AND COMMERCE

The people of Calabar are very social and very hospitable and also believe a lot in their cultural background. This is exhibited in their daily lives. Their economy and commerce is based on the water that is prevalent in that area, fishes are sold by the local people, straw and raffia are also woven by the local people in making different ranges of things such as basket, chairs, tables etc. which are equally being sold out. Recently, the economy of the town has improved tremendously with the influx



#1035 CROSS-RIVER STATE

of about 10 new banks and commissioning of the Calabar export processing zone encouraging business and trading.

3.10 HUMAN SETTLEMENT, TRANSPORT AND TRAFFIC FLOW

Human settlement, in Calabar is concentrated around linear bodies such as the rivers and streams and the major roads. However, Calabar is not densely populated in relative to towns like Lagos, Abuja and Ibadan. Transportation is quite easy as the whole town virtually radiates from a central linear highway, the Murtala Mohammed highway. Almost every other route in the town is linked to this major highway directly or indirectly. Traffic flow radiates from the highway to most of the town.

3.11 EXISTING LAND USE PATTERN AND STRUCTURE TREND

The land use pattern shows various layouts for various facilities such as residential, institutional, public, worship, health, commercial, educational and industrial. These various land users have their designated areas in the neighbourhood and the general town. The future development of the town is expected to be expansive and space might not really be a problem though the spaces allocated for some land users seem to be small such as the educational sector.

3.12 CALABAR IN RELATION TO OTHER ZONES

Calabar is located in the swampy area of the country; it is the capital of Cross River State. The state is bounded in the North by Benue State, in the North-west by Ebonyi State, in the West by Abia State and in the South-west by Akwa Ibom State. The state also has a national boundary with Cameroun in the South-East.

3.13 SUNSHINE

Calabar being only 4°58' North from the equator, the sun shines from the north from March to September and from the South for the rest of the months. Night and day are almost equal throughout the year. Since the atmosphere contains water, the sky generally is cloudy, direct solar radiation is relatively rare. Only 35% of day - light time has direct sun rays not shield by cloud. So it is the reflection of the sky, and not directly the sun. that is the main source of heat and glare.

3.14 SITE ANALYSIS

3.15 CRITERIA FOR SITE SELECTION

Some factors were taken into consideration in the particular choice of the site. The first influences is that, prisons conventionally are institution authorised by government and forming part of a country criminal justice system and Calabar being part of the country's major cities, in fact, the first Capital of Nigeria would not be an exception to having a modern prison. Again, the supposed Calabar prison which is actually prisoners transit camp is overcrowded, lacking the major reformative and rehabilitating facilities, need a modern prison that constitutes all the required facilities to serve as a model not only to the present Calabar prison but to all the prisons in the state and the country as a whole. Further more, the proposed Calabar Modern prison will assist in decongesting the already overcrowded existing prison. The proposed Calabar Modern Prison will go along way checking the society ills of individuals so that even when incarcerated, they come out useful persons.

RELATIVE HUMIDITY:

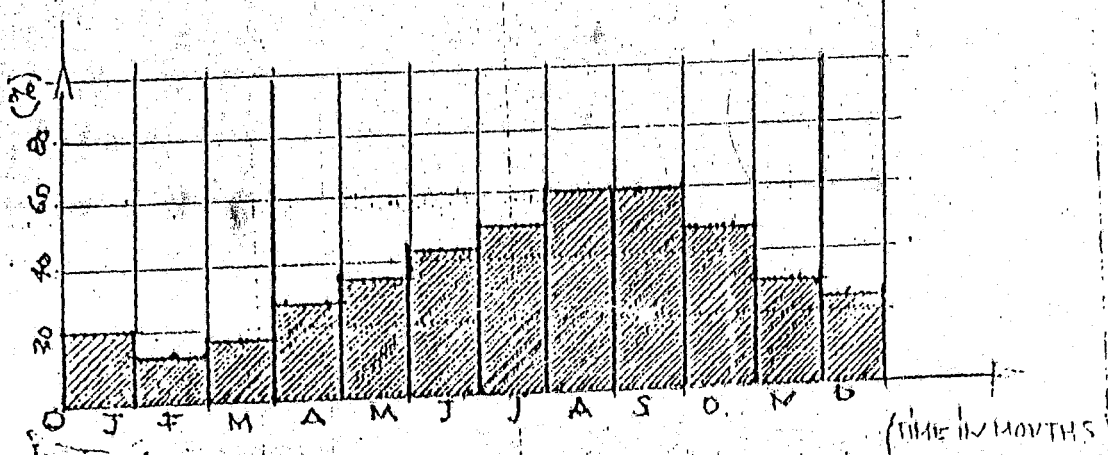


FIG 3.3A

RAINFALL: Total rainfall: 88.5cm.

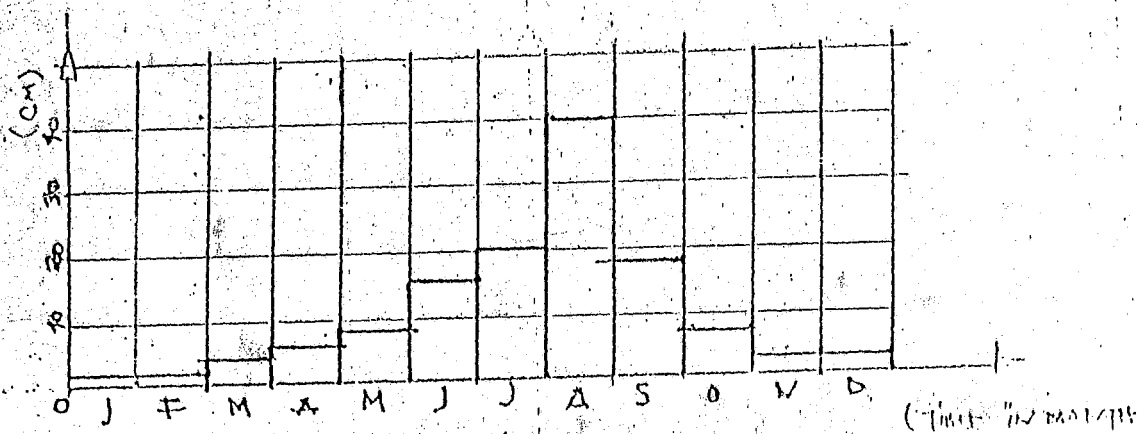


FIG 3.3B

AIR TEMPERATURE, Average: 27°C

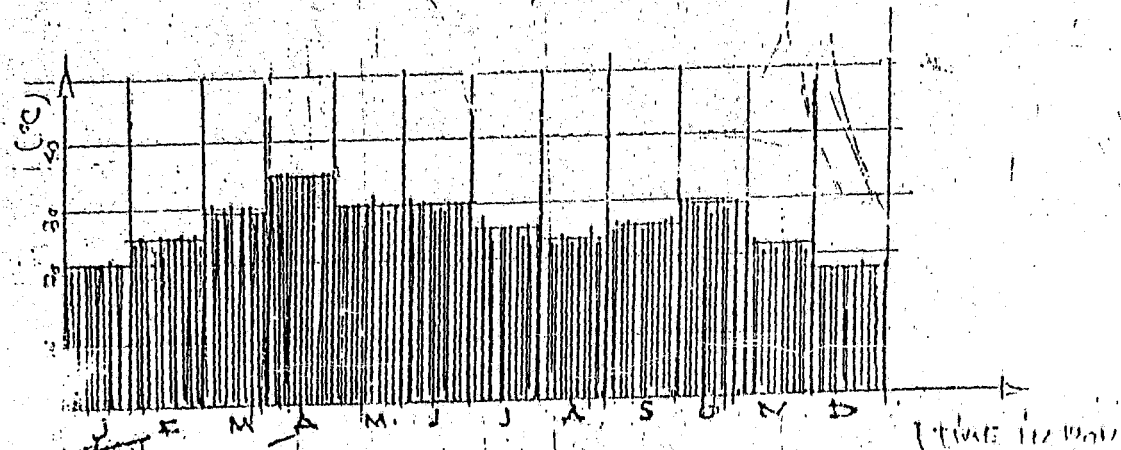
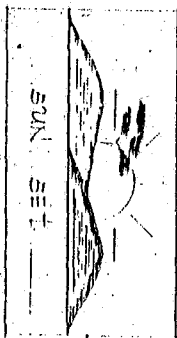


FIG 3.3C

Source: National Meteorological Office, Mumbai

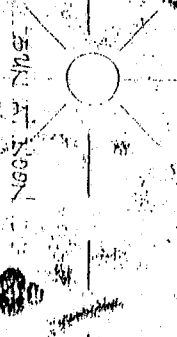
SITE ANALYSIS

VEGETATION
 THE SITE HAS A SCATTERED
 VEGETATION WITH A FEW
 TREES, BUSHES AND GRASSES
 SCATTERED TREES

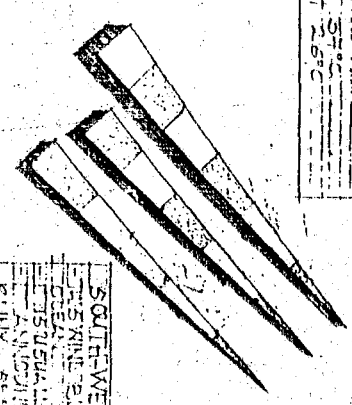


TEMPERATURE
 TEMPERATURE RECORD DURING
 AVERAGE
 HIGHEST IS 43.0°F 37°C
 LOWEST IS 43.0°F 26°C

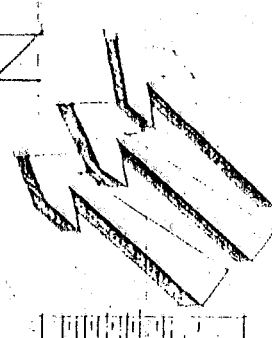
SOIL
 SOIL COMPOSITION IS MAINLY
 SANDY LOAM
 HAS GOOD LOAD BEARING CAPACITY
 GENERALLY FOUND IN AGRICULTURE
 IT IS USED FOR FARMING



NOISE
 NOISE LEVELS ON THE
 SITE ARE LOW
 THE SOURCE
 OF NOISE
 IS NOT
 PRESENT
 NOISE FENCE
 IS NOT
 NECESSARY



SOUTH-WEST TRADE WINDS
 THESE WINDS FROM THE ATLANTIC
 OCEAN
 BRING RELATIVELY WARM & WET
 AIR MASS AND RETAIN THE
 RAIN - SEA SON
 IT IS RELATIVELY CLOUDY MORNING
 IT IS RELATIVELY CLOUDY MORNING



NOISE
 NOISE LEVELS ON THE
 SITE ARE LOW
 THE SOURCE
 OF NOISE
 IS NOT
 PRESENT
 NOISE FENCE
 IS NOT
 NECESSARY

TOPOGRAPHY
 THE SITE IS A VERY GENTLE
 SLOPE OF ABOUT 2%
 THIS MEANS RELATIVELY
 FLAT
 THE WELL DRAINAGE

SOIL
 SOIL COMPOSITION IS MAINLY
 SANDY LOAM
 HAS GOOD LOAD BEARING CAPACITY
 GENERALLY FOUND IN AGRICULTURE
 IT IS USED FOR FARMING

HUMIDITY
 RELATIVE HUMIDITY IS OVER 90%
 IN THE MORNING BUT FALLS
 WITHIN 60% - 70% IN THE
 AFTERNOON

Fig 3.7

MONTHS WITHOUT RAIN

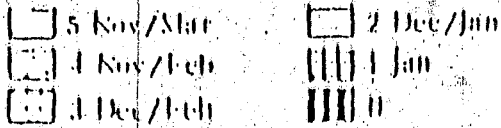
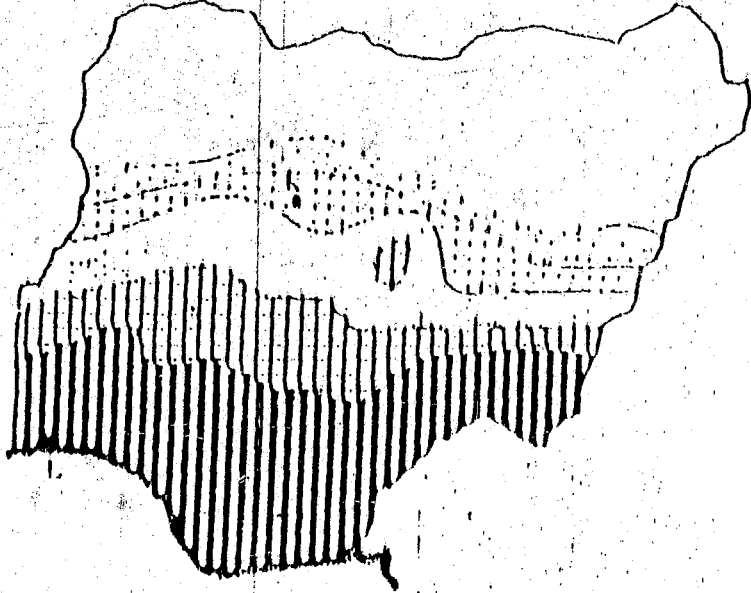


Fig 38^A

TOTAL ANNUAL RAINFALL

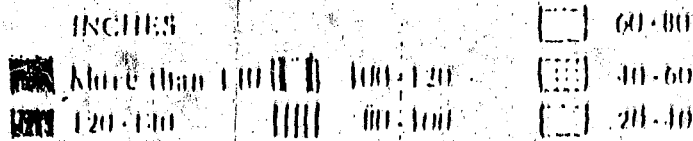
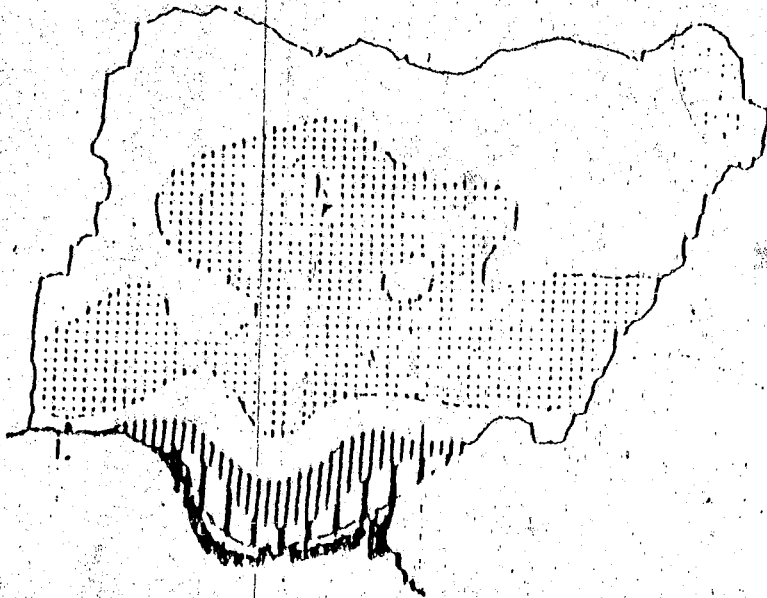


Fig 38^B

Note

GEOLOGY

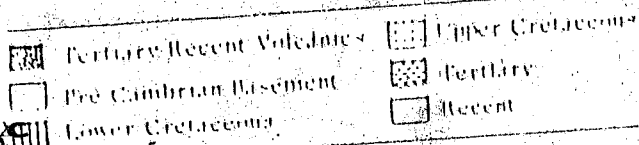
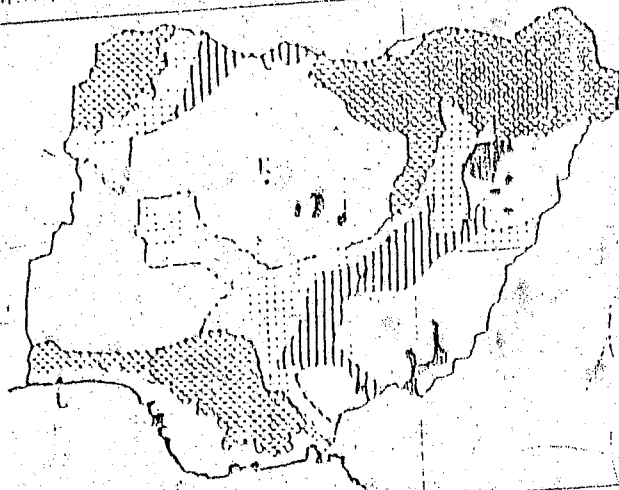


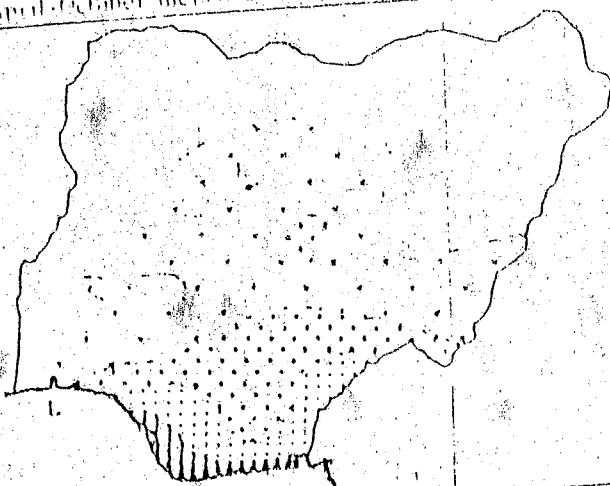
FIG 3.8

TOPOGRAPHY AND GEOLOGY

FIG 3.8A

The Capital's Regional Background

WET SEASON RAINFALL
April-October inclusive



INCHES

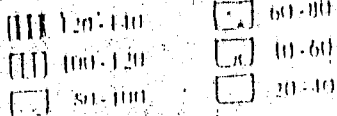


FIG 3.8B

FIG 3.8C

3.16 LOCATION OF SITE

The site is located along I man Street joining Afokang Street and Ibesikpo street. Heading towards the Calabar River. The site is within Calabar South Local Government. Other land users are mainly residential occupants.

3.17 SITE INVENTORY

The site has sparse vegetation mostly covered by ground cover and shrubs; the site is relatively flat, and is predominantly sandy soil with patches of sandy loam and silly-sandy soil. The south-west wind enters the site from west of the site and the North-East wind enters the site from the east of the site. There is also the presence of service wire for electricity and telephone near the site.

3.18 ACCESS ROUTES AND CIRCULATION

The site is bounded by three major streets; the Iman street, Ibesikpo street and Afokang street. Circulation wouldn't be a problem in as much as it is properly handled and utilize.

3.19 UTILITIES ON SITE

There are no definite utilities on site, such as drainage, service pipes for water and sewage disposal and service wires, though provision has been made for all the utilities.

During construction all these will be taken care of.

3.20 SCENERY AND MAN MADE FEATURES

There is fantastic scenery in the area owing to the well designed residential buildings around, however, the area is still undergoing development, with a nice natural scenery.

3.21 ENVIRONMENTAL PROBLEMS.

The site has no serious environmental problem. The only environmental problem would have been erosion, though; the access roads are properly constructed with draining channels on both sides of all roads. All drains are channel to Calabar River.

CHAPTER FOUR

4.0 RESULTS

4.1 CONCEPT

Concept is conceived generally to express the architectural style and composition of the structure.

There are four known design concept: Iconic design concept, pragmatic design concept, analogical design concept and canonic design concept.

Pragmatic design concept does not fall within the realm of architectural practice.

Iconic and analogical design concepts are classified into "form before function".

It is only the canonic design concept that belongs to the class of "form follows functions".

4.2 CANONIC DESIGN CONCEPT

For the purpose of this project, I decided to adopt the canonic design concept which falls under "form follows functions". This concept is reflected in the plan of the proposed Calabar Modern Prison. This concept is also referred to as functional flow concept; it is basically the interrelationship between the functions of each unit, their strong and weak relationship with each other, and traffic flow to various functional units.

4.3 THE BRIEF

From the scope of this project, the basic functions provided include;

1. The Administrative Unit: -

The administrative block is made of offices for staff accommodation. The administrative unit is seen as the control centre of the prison, for all the various activities in the prison yard are co-ordinate from the administrative block.

2. Clinic: -

The clinic is to ensure good health statues of prisoners and staff. Incoming inmates into the prison yard are first of all medically examined in the clinic to ascertain their health condition before they are sent into prison yard, and prisoners undergoing the course of their prison term, if ill, goes to the clinic for treatment.

3. Study Centre: -

Considering that the, proposed Calabar Modern Prison will be more of rehabilitation than punitive, a study centre which comprises of; Lecture hall, Library and Computer room is introduced to give inmates opportunity of learning those things they never knew before going to prison so that they come out useful to themselves and the society.

4. Workshop: -

The workshop constitutes; Carpentry, Plumbing, Music room, Photography. Tailoring and Laundry units. Just like mentioned in (3) above the workshop also gives the inmates skills in the various trades available so that after leaving the prison environment, they can set up anything based upon what was learnt in the prison environment and become very busy never to go back to crime, for it is said that "an idle mind is the devil's workshop".

5. Cells: -

Different types of cells are provided following their functions, these includes;

- i. Normal Cells for accommodation of inmates above 30 in number. The awaiting trial and convicted inmates are separated from each other,
- ii. Isolated Cases Cells, these cells also accommodates high number of inmates that are not medically lit to mingle with medically sound inmates,

- iii. Single Cells are also provided strictly for disciplinary measures. A stubborn inmate is temporarily kept alone to get him/herself reformed before allowed to associate with others again. Single cells are good measures for reformation.
- iv. Condemned Inmates Cells are meant for hardened inmates who have been condemned to death and are awaiting execution. These cells take a maximum of five inmates.

6. Kitchen: -

The kitchen is where inmates' foods are cooked. The kitchen contained two stores: the dry and cold store

7. Dining Hall:-

As the name implies, the dining hall is where inmates take their meal. The size of the dining hall is such that cannot take all the inmates at once this is so for security reasons, the inmates are released set after set for meal.

8. Chapel: -

The Chapel is provided for Christian inmates. The inmates go there on scheduled prayers days to pray, and as usual, they are to be released set after set.

9. Mosque: -

The mosque is provided for Muslim inmates. The inmates go there on scheduled time of prayers to pray and also set after set.

10. Security Post: -

This project focuses on security, this reason made it necessary to provide security posts at strategic positions within the prison yard so prisoners movement around and even inside their cells can be sufficiently monitored. Provision of security post is one of the security measures adopted in this project.

11. Security Tower: -

As mentioned in (10) above that this project emphasizes security, it was also pertinent to design a tower that will always be mounted by armed guards to oversee the general movement of prisoners. Any inmates attempting escape will be quickly detected.

12. Recreational Facilities: -

Recreational facilities such as lawn tennis court, basketball, volleyball, etc. are provided as outdoor games. These games are provided to enable the inmates get their body systems relaxed and also feel some senses of belonging.

13. Gate House: -

The gate house is to check the visitors coming to the prison. The gate house control vehicular and human traffic in and out of the prison environment.

4.4 MATERIALS AND CONSTRUCTION

Material Selection

The use of local architectural and components in construction works shall be encouraged not only to depict the aesthetics nature of the environment but also to give costs consideration.

The following are considered in choosing materials to be used in the project construction.

- 1. Cost:** - The final cost of materials should not surpass the initial cost
- 2. Safety:** - The material chosen should be such that, after construction, safety of the buildings and occupants should be guaranteed. Should not be liable to collapse, fire retardant etc.
- 3. Durability:** - All materials chosen should be able to stand the test of time without fading, wearing or being damaged by environmental factors.

4. **Maintenance:** - Materials chosen should be easy to maintain both in repairs and replacement with less cost. The materials should be such that local craft men can be employed for the maintenance.
5. **Appearance:** - The materials should be appealing to the eyes, should have high aesthetics considerations.
6. **Comforts:** - Comforts of staff and inmates should be considered in the choice of materials.

Concrete

Concrete is a mixture of cement, fine aggregate, coarse aggregate and water which sets to form a hard stone like material. It is strong in compression but weak in tension, It can be pressurized in-situ and reinforced, pre-casted or pre-stressed. Concrete is used in the construction of foundations footings, floor slabs and roof decks. Its plastic nature and workability allows it to be used for almost any form of construction.

Metals

Metals are heterogeneous materials formed under intense temperature. They have good tensile strength. They could be classified into ferrous and non-ferrous metals.

Ferrous metals include steel, which is heavy and have good tensile and compressive strength. They are used as structural framings as windows, doors, fastenings etc.

Non-ferrous metals include aluminum, copper and lead to mention but few. They are relatively soft yet strong, light weight and also workable. They are utilized as extrude forms in aluminum, windows, doors and roof. Copper could be similarly be used as electric wires and flashing as sheet forms while lead is used as plumbing materials.

Glass

Glass is an amorphous material that undergoes great pressure and is cooled. It is characterized by its transparency, brittleness, hardness and chemical composition. They could come in sheet, block form which is structurally suitable or as a facing glass. Its utilization depends on its purpose. It could be for doors and windows panel and even for walls as curtain walling. Glass can also be used as a roofing material due to its ability to admit light and exclude wind.

Constructions

The construction specification of the project is in the selection of the process of construction right from the ground to the top of the structure and it involves the following processes:

a. Site Clearing: -

This is the preliminary stage of the construction and it involves the removal of the grass, shrubs, trees that are not wanted depending on the design being carried out.

b. Foundation : -

Foundation is the base on which the building rests. Its purpose is to transfer the load of the building to suitable sub soil level. Factors that determine the choice of foundation are soil type, type of structural and loading, cost limitation and storey height.

The need for expansion joints is considered and the foundation depth and width is subjected to the structural engineers' details.

c. Walls: -

Walls are vertical elements acting as barriers. They could be load bearing or non-load bearing (party walls). They are erected by laying sandcrete blocks with the help of

cement mortar to facilitate bonding and to hold them in position. The surface of the blocks are plastered and pointed to give it a better appearance.

d. Doors and Windows: -

All external doors will be weather resistant and damp proof and should have good security characteristics. Steel, glass and wooden doors are used. Their locations and sizes depend on the area on which they are used.

Windows are introduced to give visual, physical, light and wind penetration into the building interior. The type and size depends on its functions and locations.

Floor

The following list give floor characteristic desired:

- i. Strong enough to withstand human traffic.
- ii. Made from inexpensive materials
- iii. Immediately ready for use.

Roofs

The roofs are generally made of trusses (timber and steel) and long span aluminum roofing sheets. The timber trusses are basically of the hard wood sprayed with insecticides to prevent termite's attacks. The steel trusses used in the dining hall are also coated with gloss paint to prevent rusting. Pitch roofs are adopted to facilitate easy runoff of rain water off roof top, where concrete roof deck are employed, they are laid with three layers of bituminous felt, to prevent leakages.

Ceilings

The ceiling finishes used in the various units differs and depends on the functions of each unit. For cells, 225mm x 25mm polished hardwood are used. This is a stronger form of ceiling finishes to prevent escapes in cells. Ceiling finishes such as asbestos, celotex are used in other units.

4.5 DESIGN SERVICES

Architecture and building services engineering together can constitute man's attempts at environmental control. Together they seek to provide the most suitable environment for the people to work, play and have their being. They seek to minimize the physiological and psychological stresses imposed by the natural ambience. This chapter will postulate the main services for the proposed Modern Prison.

4.6 LIGHTING AND ELECTRICITY

Light is the electromagnetic radiation with wave lengths capable of causing the sensation of vision. In other words, it is the radiant energy sensed by the optical nerves. The sun is the highest producer of radiant energy.

The major objectives of the lighting design are to provide a specified luminance on a task (flat working plane). The natural daylight furnishes adequate illumination for only 10 to 25 percent of the total work time. Artificial illumination installed primarily for seeing, but it could also serve architectural purposes. For this project, natural and artificial lighting have been used and properly blended to achieve both functional and aesthetics effect. However, artificial lightning cannot be functional without electricity. Electricity is important for a building to function particularly for a modern prison project of this nature. For this project, the electricity is going to be supplied to all the buildings on the site by connecting to the national grid of the National Electric Power Authority (NEPA). The electricity power would be supplied to a substation, located on site, which would convert the direct current (DC) to alternating current (AC) and step down the current before distribution to the various units on the site. In the event of a power outage from NEPA, a standby generator is also installed on site to supply power to the whole site.

4.7 VENTILATIONS

In the designing of the structures, ventilation was considered by the use of courtyards where necessary and orientation of the buildings to have maximum benefit of the winds and the use of cross ventilation within buildings spaces. Air conditioners are used in offices as well as other spaces in the buildings. Centrifugal fans are also specified in all the various spaces needed.

4.8 WATER SUPPLY

Water is to be supplied to site from the mains of the water board. Cross River State Water Board (CRSWB), which already has their pipes running through the area, will be supplying water to site. Water supply to the various units is going to be from the water reservoir on site that will have its water treated before supply is done or carried out. The site will also have a borehole drill on it so that in the event of water supply failure from water board, water will also be supplied from the bore hole.

All service pipes are laid at the depth of 762mm. The pipe enters the buildings at this depth. The service pipe is run to a stop valve near any of the site boundary of the proposed prison and tariff meter is also installed here.

4.9 DRAINAGE AND SEWAGE DISPOSAL

This involves the use of sanitary system. Sanitary systems consist of all fixed sanitary appliances or fittings in which water is used either for flushing foul matter or for cleaning, drinking etc.

The fittings used for discharging foul matter (soil water) include water closet (WC) and urinals are called soil appliances while the fittings used for flushing other water wastages include wash hand basins, baths, showers, sinks, and bidets.

The soil waters are discharged from WC pan through the underground systems of the inspection chambers, via the septic tanks to the soak away-tanks. In the administrative area and cell blocks discharge from the soil and waste pipes are transported to the stacks. The vertical stack delivers the waste from the first floor to the underground septic tanks. Rain water running off the pitched roofs is collected by the eaves, valley and or parapet gutters and discharged by rain water pipes to the main drains.

The surface and storm water are drained on paved areas which are laid to gradients or gullies that collect surface water and discharge through drains to soak away.

4.10 REFUSE DISPOSAL

The refuse generated on site would be disposed of by periodic picking up of the refuse by refuse trucks from the refuse dump to be located on the site. The use of incinerator is not advisable because it is not environment friendly and does not aid recycling.

4.11 ACOUSTICS AND NOISE CONTROLS

The acoustical control of noise and vibration in a prison environment is not too vital. However, acoustic design controls intrusive noise system, sound insulation materials and orientation is adopted.

4.12 FIRE SAFETY

Fuel, heat and oxygen are required to start and maintain a fire. Fire can be eliminated by removing all combustible materials.

According to Ayers (1984), fire can be controlled by:

- a. Pouring water on fire which cools the fuel below combustible temperature.
- b. Pouring foams prevent oxygen from reaching the fuel and smother the fire.

The building is constructed to provide sufficient resistance to fire for a period adequate for the escape of the occupants. This concept actualise measures to limit the spread of fire within and outside the building by the extinguishers, detection devices, fire alarm system, sprinklers and the choice of materials for the structure.

Readily accessible and identifiable escape routes are provided at strategic points in the structure. Further more, in the kitchen area roof vents are proposed to reduce heat and smoke built up to prevent the spread of fire. At the entrance and exit for fire escape, smoke-free materials are used. It has also been ensure that the materials used for this construction will be treated to meet or fall within the minimum regulations/ requirements of half (½) to six (6) hours rating. Fire insurance covers are vital and cost effective.

4.13 SECURITY PLANNING

The safety of staff, structures and inmates is vested in the strategic security design. Proper execution deters both internal and external Vandals, thieves, escapes attempts and violence by inmates.

It is proposed that the whole prison complex be fences by a high level perimeter fence to enhance security and deters trespassers into the complex. The entire prison is designed in such a manner that all the units are linked by covered walkways. These covered walkways are protected by iron railings so that an inmate can circulate freely within the prison environment and at the same time cannot leave the environment unauthorized. Two identical securities lowers arc also proposed on site to be mounted at all times by warders' armed guard. The cells are provided with high level windows duly protected with iron burglary proofs; the doors are made of iron and high quality mortise locks. The games area is equally fenced by perimeter walls with an iron gate. One of the security towers is located inside the games area so that even when inmates are on recreation; they can be adequately monitored as well. Security cameras are located in all the units connected to a control room in the administrative

block so that inmates are constantly being monitored. Details about security have been highlighted in chapter three of this project.

4.14 COMMUNITY RELATION

This project is designed to relate positively with the community. Positive relationship so to say in the sense that, those who by circumstance are made to go through it will be positively reformed, and families and relatives of those serving are given opportunities to visit and interact with their loved ones while in prison. The public can also relate with the prison for services like laundry, carpentry etc. this will assist the prison in generating revenue.

4.15 MAINTENANCE

Maintenance is very important to sustain and prolong the lives of the buildings. This part of the world lacks maintenance culture, so the prison is designed in such a way that minimum maintenance will be required over a period time. Materials that requires less maintenance has been adopted, though from time to time (a reasonable period; maintenance has to be carried out.

4.16 SOLAR CONTROL

Excessive heat, which has always been serious environmental hazard mostly come through direct sun radiation. Much more has been done to take care of this hazard. Orientation of the units was highly considered still on the grounds of solar control. This was done to avoid direct solar radiation. Where this is unavoidable, the use of solar control glasses were employed, where harmful radiations have to be screen out. Plantings were equally specified to absorb this solar radiation where it is equally unavoidable.

CHAPTER FIVE

5.0 DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 DISCUSSION

As we have just seen, institutions for something more than temporary detention of criminals sprang up here and there in Western Europe and the United States during the eighteenth century. Some students of the historical background of this new trend feel that the guiding thought in the erection of such places was the confinement of occupants in single cells. This practice was due in part to the idea that solitary cellular confinement would lead to reflection and penitence, hence the name "penitentiary" for the earliest prisons. Important also was the thought that such confinement would prevent convicts from corrupting each other, with each one contributing to the general cesspool of viciousness his own special knowledge of crime.

It also seems certain, from the massive walls and barred cells within which the early prison establishments secluded their inmates, that the fear lest even one prisoner escape played a large role in early prison construction. In some American prisons, in particular, this solicitude about absolutely secure custody was carried to ludicrous extremes.

The motive of stark punishment, as cruel and overawing as it could possibly be made, also exerted a strong influence on the original pattern of prison architecture. Prisons were built to look far grimmer, in both their external and internal architecture, than any-possible security needs could have dictated. "All hope abandon, ye who enter here!" was written in every course of massive masonry and every clanging bar of steel built – and still being built into many an American prison which confines men serving terms as short as 18 months.

5.2 CONCLUSION

The present system in Nigeria was perfected in promulgation of prison ordinance No. 21 of 1916. This ordinance was subsequently repeated by the prison act No. 41 of 1960. Hitherto, prisons were run on a regional and local government basis but in 1966 by-decree No. 9, the federal government abolished all these and gave the federal director of prisons the operational control over all prison in Nigeria.

This enactment were again subsequently repeated by decree No.9 of 1972 which is, till today, the principal statutory enactment for prisons in the country.

As one of the security arms of government, the Nigerian prisons service is charged with the responsibility of ensuring the safe custody of offenders, their reformation and rehabilitation. This function are carried out through carefully designed and well articulated administrative, reformatory and rehabilitative programmes aimed at inculcating discipline, respect for law and order and the dignity of honest labour.

The offender is thus assisted to become not only law-abiding but also useful to both him and the society at the expiration of his/her sentence.

Unfortunately, most of Nigerian prisons today serve as slaughter houses or concentration camps or, still a breeding ground for better trained criminals. For instance in the federal prisons at Ilesha. Oyo State, Adekunle Aromolarara author and Oba of Ilesha commented by saying "As the only federal institution, the prisons have not serve any useful purpose." He therefore suggested that "the (graveyard) be clone away with so that community could use the land occupied by the prisons for beneficial projects relevant to the economic survival of the town."

The government is therefore urged to upgrade prison standard even in their own interest, because every Nigerian is a "potential prisoner or could find himself in the prison any day as some of our past leaders have."

5.3 RECOMMENDATIONS

In the domain of criminal justice, prisons are used to incarcerate convicted criminals, but also to house those charged with or likely to be charged with offences. Custodial sentences are sanctions authorized by law for a range of offences. A court may order the incarceration of an individual found guilty of such offences. Individuals may also be committed to prison by a court before a trial, verdict or sentence, generally because the court determines that there is a risk to society or a risk of absconding prior to a trial. The nature of prisons and of prison systems varies from country to country. Common though by no means universal attributes are segregation by sex, and by category of risk.

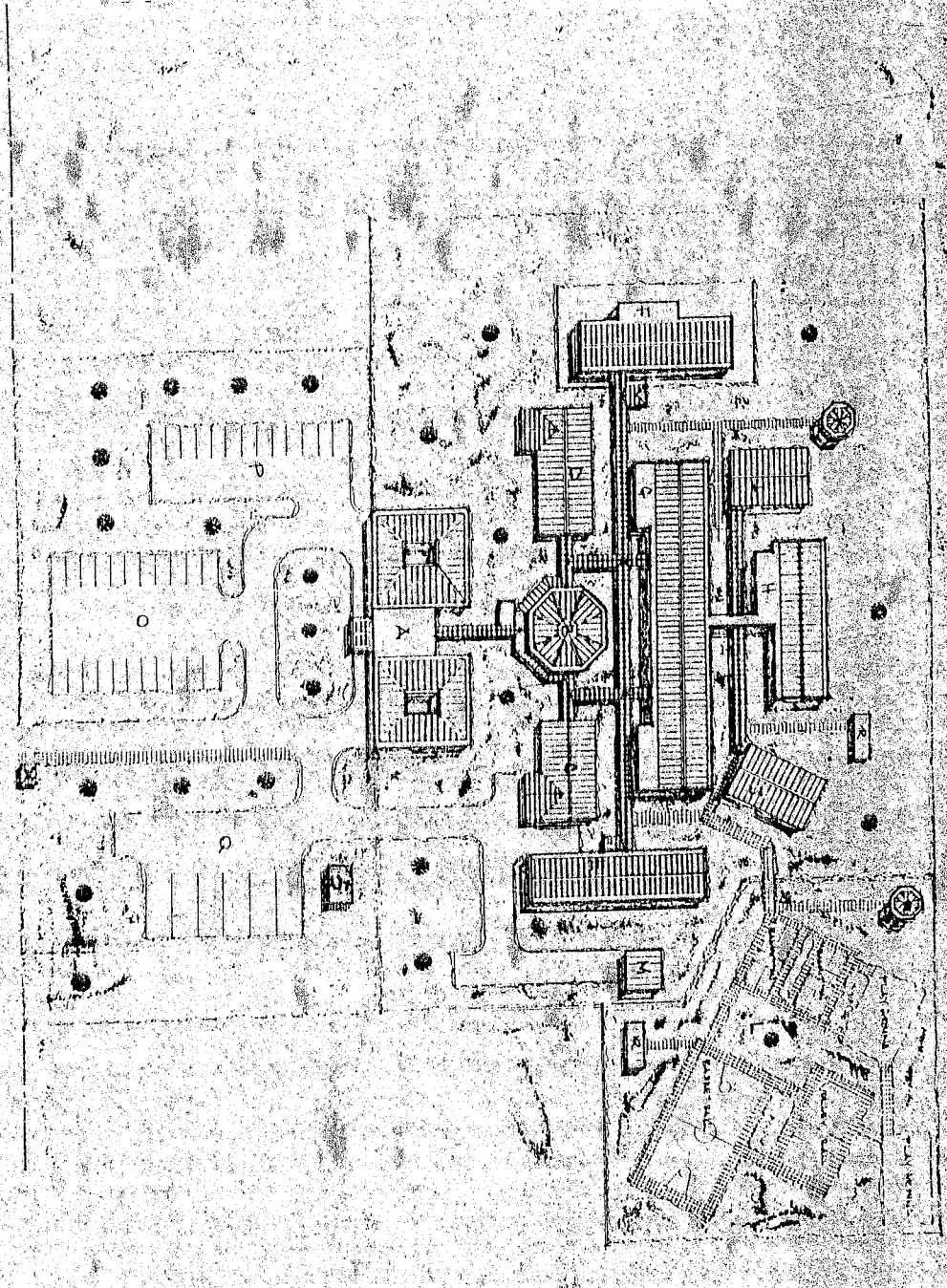
The availability of incarceration as a sanction is designed to mitigate against the likelihood of individuals committing offences: thus prisons are in part about the punishment of individuals who transgress statutory boundaries. Prisons also can serve to protect by removing from society individuals likely to pose a risk to others. Prisons also can have a rehabilitative role in seeking to change the nature of individuals so as to reduce the probability that they will re-offend upon release.

Crime and punishment is a wide, very controversial and deeply politicised area, and so too are discussions of prisons, prison systems, the concepts and practices of imprisonment; and the sanction of custody set against other non-custodial sanctions and against the capital sanction, a death sentence. Some of these issues are discussed in the by country descriptions, below.

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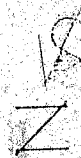
SITE PLAN



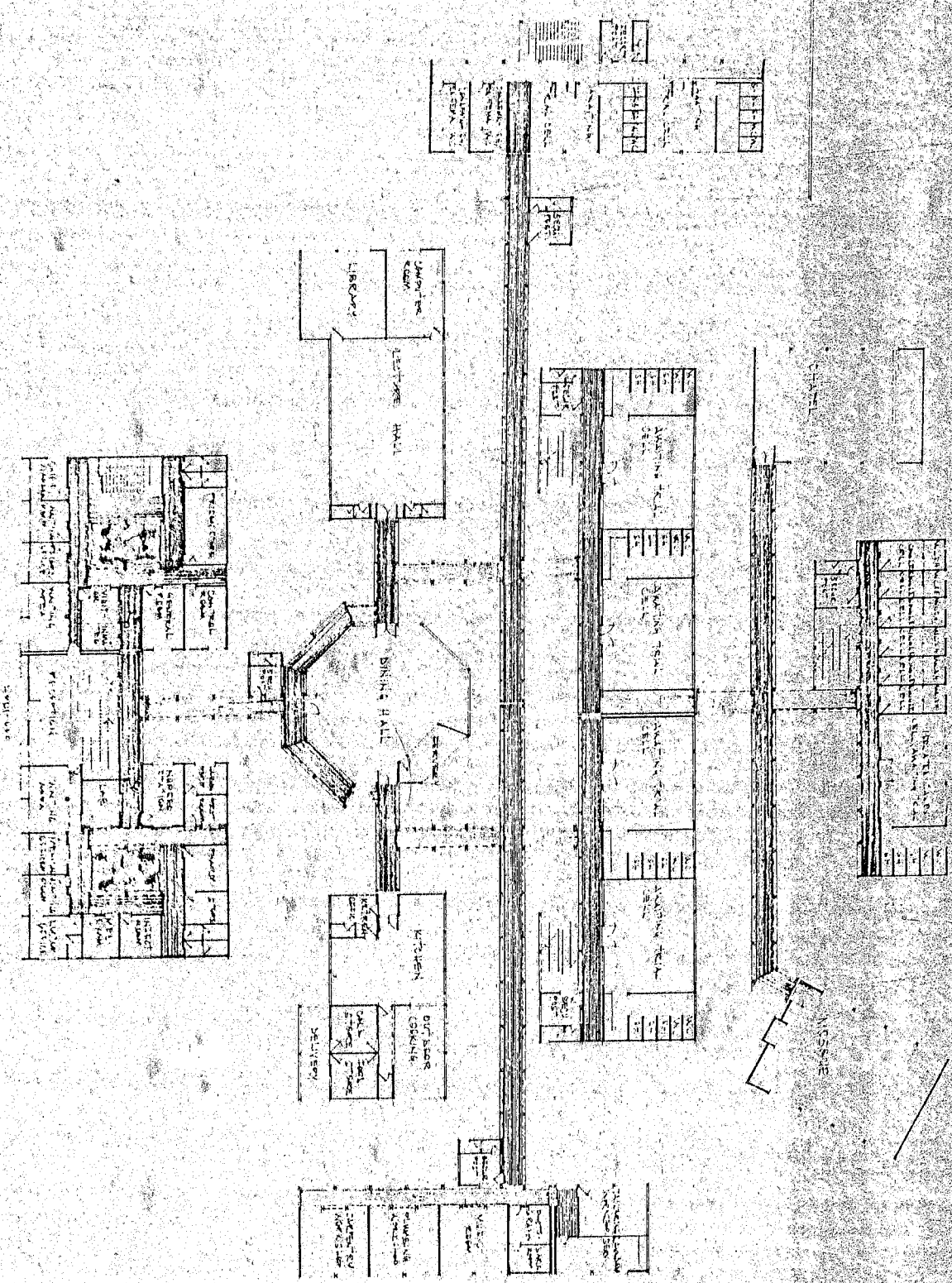
LEGEND

- A ADMIN/CLINIC
- B DINING HALL
- C KITCHEN
- D STUDY CENTER
- E WORK SHOP
- F FEMALE CELL
- G MALE CELL (1000/1000)
- H ISOLATED SINGLE CELL
- I WAREHOUSE
- J MOSQUE
- K SECURITY CENTER
- L SAVED AREA
- M GENERAL HOUSE
- N CAFE HOUSE
- O VISITORS PARKING
- P STATE PARKING
- Q TEAMS PARKING
- R TOILETS
- S WATER RESERVOIR

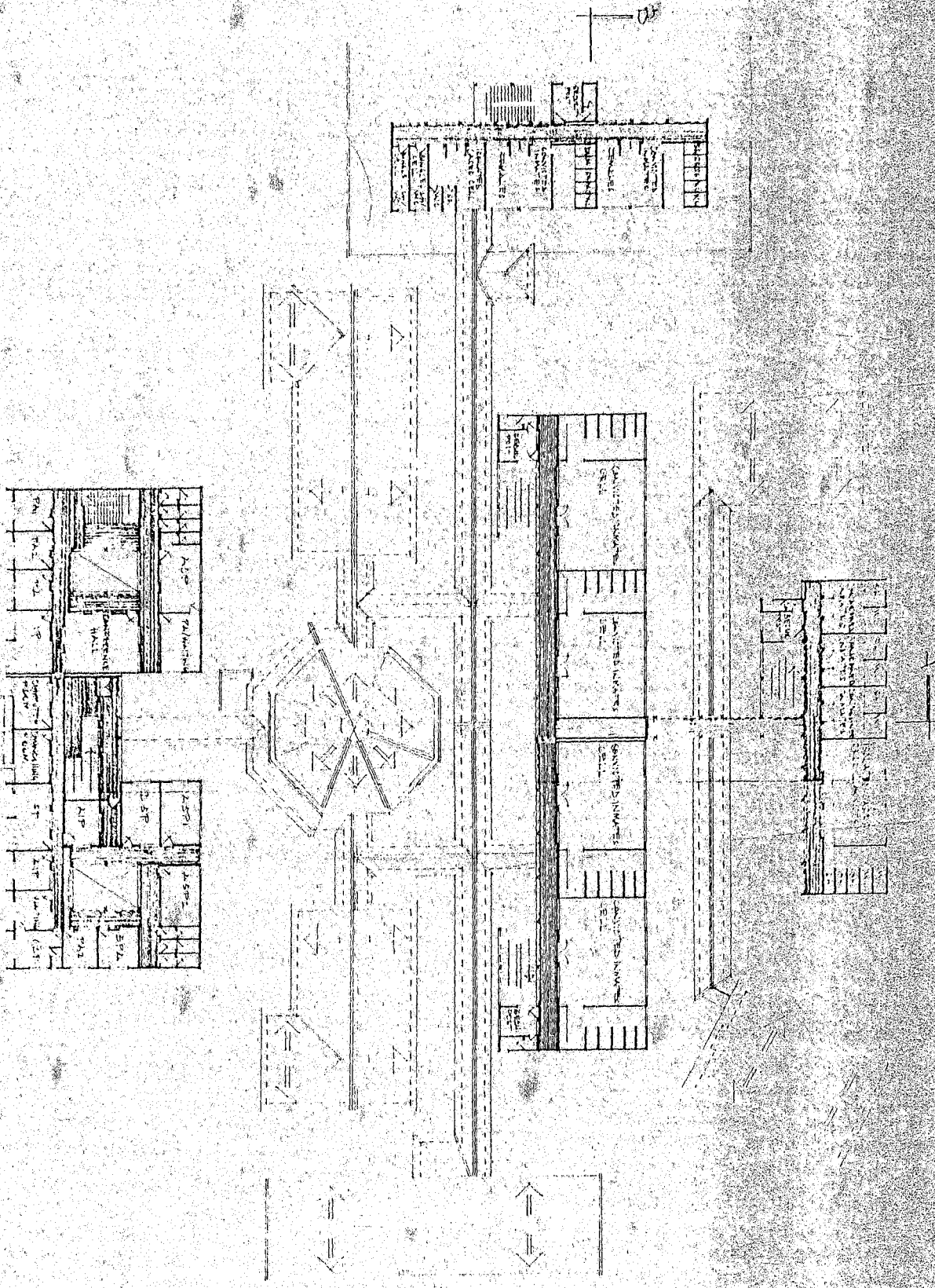
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15th FLOOR PLAN



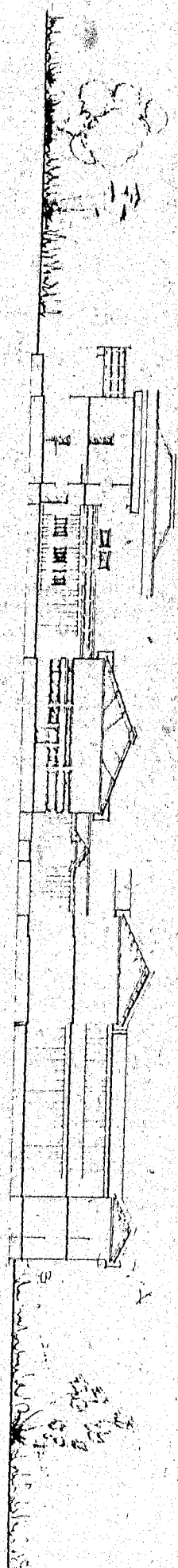
DEON BENJAMIN

MARCH 30, 1956

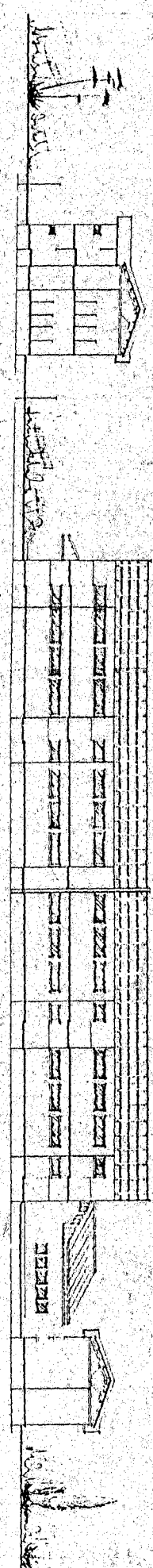
ARCHITECT

CALABAR MODERN PRISON WITH EMPHASIS ON SECURITY

SECTION A-A



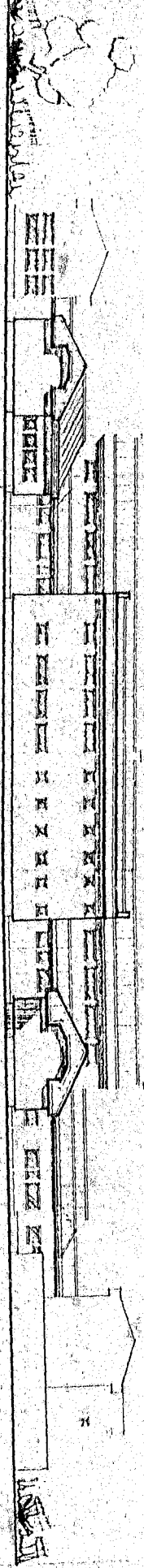
SECTION B-B



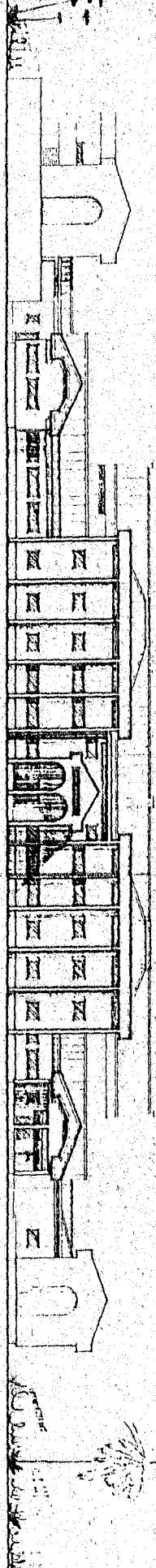
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ARCHITECT



REAR VIEW



APPROACH VIEW

OSOR BENJAMIN

M. TELAV/ET/1036/03/04

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APRIL 1941

CALLABAR MODERN PRISON
WITH EMPHASIS ON SECURITY

ELEVATIONS

SCALE 1:200

APRIL BUILD NO. 15

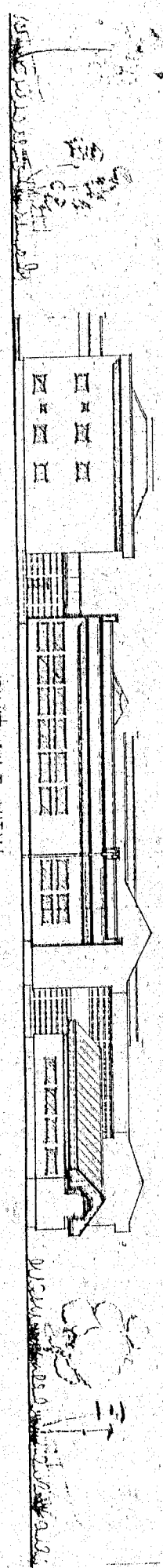
NOV. 2004

DEOR. BENJAMIN
M. WESTINGHOUSE
APR 6 21
ARCHITECTURE

CALABAR MODERN PRISON
WITH EMPHASIS ON SECURITY

ELEVATIONS
1:250
ART. GILLO WARD

RIGHT SIDE VIEW



LEFT SIDE VIEW

