IMPROVING CHILDREN'S PARKS IN KUMASI

by

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DECLARATION

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

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ABSTRACT

Parks form a very valuable part of community space. Literature suggests that well-maintained parks contribute greatly to the value of a neighbourhood and that restoration of poorly maintained parks can provide a focus for urban regeneration. Despite the growing importance of parks as vital components of urban environments, very little value is placed on parks in Ghana. This lack of value placed on parks is manifested in wastelands of gravel, mud and hard surfaces often void of greenery with no interesting places for children to play and socialize. There is therefore the need to focus attention on the declining quality of parks in Ghana. This research was carried out in Kumasi and focuses solely on parks that have been specially designated as play areas for children. The principal research objective was to investigate the development of children's parks in Ghana, identifying the barriers to their development and develop new approaches to the design of such parks in Kumasi. By way of a case study, an appraisal of the Kumasi Children's Park was conducted and the results showed that considering the current trends in children's play areas today, the facility is woefully inadequate. These findings contributed to the development of a design proposal for a children's park for the city of Kumasi to provide a safe environment for children's play. This thesis advocates that parks are an extremely important part of urban environments and its main contribution is the development of a design proposal to solve the problem identified.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 INTRODUCTION

Every child has the right to play. The right of every child to play in a safe environment is captured in the 1989 Convention on the Rights of the Child. Article 31 of the Convention pays tribute to the importance of play in child development and provides an important tool for play advocates around the world. It states that:

1. Every child has the right to rest and leisure, to engage in play and recreation activities appropriate to the age of the child and to participate freely in cultural life and the arts.
2. Member governments shall respect and promote the right of the child to participate fully in cultural and artistic life and shall encourage the provision of appropriate and equal opportunities for cultural, artistic, recreational and leisure activity.

The significance of the inclusion of children's play in this document is not only an acknowledgement of the importance of play in the fabric of children's lives, but represents a shift from seeing play as a need to accepting it as a right.

The need to promote the child's right to play, is arguably more important today than it was in the mid-twentieth century. Barriers to free play still include the quantity and quality of play space and play workers but now include a wide variety of other issues such as over-emphasis on formal learning, children's isolation, lack of access to play

opportunities by children with disabilities, competition of entertainment pastimes and consequent shrinking of time for play, as well as a range of safety issues.

The International Play Association (IPA) maintains that play is not only about providing safe playgrounds for children. It is fundamentally about protecting their right to be free to explore and discover the physical and social world around them. This spontaneous behavior of children is fundamental to all aspects of child development and is a key component of preserving community and culture in the broadest sense.

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The Ghana NGO Report To The UN Committee On The Rights Of The Child On Implementation Of The Convention Of The Rights Of The Child by the Republic of Ghana prepared by the Ghana NGO Coalition on the Rights of the Child (NGCRC) in May 2005 states:

i. The Child Rights NGO Community is concerned about the lack of recreational grounds and parks for children in many communities across the country. Many of the lands earmarked for such recreational facilities have been taken over by property developers. The Efua Sutherland Park which is mentioned in the State Report is currently not in use due to its inappropriate condition.

ii. The Cultural Policy is still in draft and does not appear to be working. The concept of theme parks, etc has not been implemented.

iii. It is also of concern that the children who are engaged in work, such as domestic help, children trading on the streets etc have no proper rest or leisure. Many of such children also fall prey to unregulated and unmonitored video and internet centres where

pornographic materials are made available to them, and illicit sex activities involving such children go on unchecked.

iv. The State report does not give any indication of what budgetary arrangements have been made for leisure and recreation.

But while the right to play may seem natural, millions of children are deprived of this vital element of human development due to conflict, disease, and exploitation. Unfortunately, in Ghana, children's parks have not been given much attention in the planning of cities. Areas designated as such are either not equipped with the right structures or are poorly maintained. Against this background, this thesis seeks to provide insight into how children's parks can be improved with a focus on the city of Kumasi.

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1.2 PROBLEM STATEMENT

Kumasi, the second largest city in Ghana, is characterized by dense residential neighbourhoods without the provision of the necessary infrastructure for recreation. The Kumasi Children's Park, which is the only one of its kind in the city, is currently in a deplorable state. There is an unavailability of the necessary equipment and staff and little or no provision has been made for security. There is therefore an urgent need for a well-planned children's park for the city. The development of such a facility will provide a safe environment for play and reduce the danger that children are exposed to as a result of playing in unsafe places. Another appalling feature in the city of Kumasi is the rampant and indiscriminate construction of residential buildings on waterways. The stretch of land

lying between the T.U.C. junction and the Department of National Lotteries at Dakodjom in Kumasi through which the Tuatem River meanders is one of the sites that is prone to such abuses. There is therefore the need to reshape the area into its intended purpose -a children's park- to augment the existence of such facilities in the metropolis.

1.3 OBJECTIVES OF STUDY

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The main objectives for this thesis are to:

- Investigate the history of parks and the development of children's parks in Ghana.
- Identify the barriers to the development of children's parks in Kumasi and identify the factors that would encourage their development.
- Develop a design proposal for a children's park in Kumasi that will challenge the creativity of children while remaining relatively safe.
- Make recommendations for the future design of children's parks that will provide policy makers, non-governmental organizations and other institutions and individuals who are interested in seeing to the welfare of children with a useful material for future developments in this area.

1.4 SCOPE OF STUDY

This study involves a detailed theoretical and practical research into the development of a design proposal for a well-planned children's park for the city of Kumasi.

1.5 JUSTIFICATION OF STUDY

The decision to undertake this thesis is based on the social, environmental and economic benefits of children's parks. Children's parks provide neutral ground available to all sectors of society and can become the focus of community spirit through the varied opportunities provided for social interaction. It also contributes to child development through outdoor energetic and imaginative play and may positively influence the behaviour of children. It also offers numerous educational opportunities.

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In addition, the health benefits of children's parks are enormous. They provide the opportunity to engage in healthy outdoor exercise and also have psychological effects arising from the way that they allow escape to a less stressful and more relaxing environment. The main environmental benefits of children's parks are contributions to landscape and cultural heritage. Economic benefits include both on-site benefits such as direct employment and revenue generation. Less tangible off-site benefits include effects on nearby property prices, contributions to attracting and retaining businesses in an area and an important role in attracting tourists.

Since the ultimate beneficiaries of the park are human beings, the population dynamics of the Kumasi metropolis were considered. The metropolis presents certain demographic characteristics that further justify the decision to carry out this thesis. The Ashanti Region is currently the second most urbanized in the country. Kumasi is the most populous district in the Ashanti Region. It recorded a population of 1,170,270 during the 2000 Population Census. The large population in Kumasi is mainly due to the fact that it is the

regional capital. Another reason is the centrality of Kumasi as a nodal city with major arterial routes linking it to other parts of the country.

The age structure of the population in the Kumasi metropolis is skewed towards the youth (2000 Population Census). The highest proportions of the population are in the age cohorts 0-4 years (13.2%) and 5-9 years (12.4%). Cumulatively, 39.9% of the population is below 15 years. The average household size in Kumasi is 5.1. Children, who are the major target group considered in this thesis, constitute 34.0%, the highest proportion of household members in the metropolis.

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Also, there is currently a proposal by the Friends of Rivers and Water Bodies (FRWB), an environmental non-governmental organization in Kumasi, to develop a children's park to be sited at Dakodjom in Kumasi, and which will be named after the Asantehene, Otumfour Osei Tutu II. This research when carried out will serve as a basis for the development of children's parks in the future. It will also serve as a useful resource for policy makers and non-governmental organizations. The development of the park would further enhance the national curriculum and also encourage research into the development of other tools for informal education.

1.6 DEFINITION OF TERMS

The following definition shall be used for the purpose of this thesis.

Children's Park: a green space designed specifically for children's play, with various levels of provision of equipment and facilities.

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CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

This literature review was conducted to provide the necessary background information on the history of parks as well as the development of children's parks in Ghana. It also seeks to develop a clear understanding and appreciation of environmental scenarios prevailing in the development of children's parks in Ghana. It also includes research on the design of existing local and foreign case studies such as the Kumasi Children's Park in Ghana, Dream Park in Egypt and Disney's California Adventure in the United States of America.

In the last decade two key documents have been instrumental in bringing recognition of the importance of urban parks and green spaces as vital components of urban environments. *'Park Life'*, the seminal report on urban parks and their role in social renewal, produced in 1953, and the detailed examination of good practice in management in *People, Parks and Cities*, published in 1964, both had a profound effect in focusing attention on the declining quality of parks and their low priority in the political agenda at both national and local levels. At about the same time as the publication of these reports the Heritage Lottery Fund launched its Urban Parks Programme, providing substantial new funds for the restoration of historic parks. Together these were key events in the recent history of parks and green spaces, and marked the beginning of a turnaround in

attitudes as well as contributing to new policy initiatives. They paved the way for the House of Commons Select Committee Report on Town and Country Parks, the coverage of the issue in the Urban Taskforce Report and, ultimately, the Urban White Paper. Both the *'Park Life'* and *'People, Parks and Cities'* reports placed emphasis on the value of green spaces to society. 'Park Life' in particular wrote eloquently of the challenge that now faces green space providers and managers in seeking to provide a legacy of rich, diverse and sustainable places where *"people will find a sense of continuity, of relief from the pressure of urban living, places to be in touch with the natural cycle of the seasons and of wildlife and also places to meet and celebrate with others"*.

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Walker (2004) wrote:

> The "new view" of urban parks calls attention to the broader contributions they can make to the vitality of communities and their residents. These contributions include helping youth choose rewarding paths to adulthood by providing programs and opportunities to build physical, intellectual, emotional, and social strength; helping new entrants to the workforce find productive jobs by offering decent, entry-level employment opportunities in the community; helping community residents improve their health by providing a place to enjoy fresh air and exercise; and helping citizens join together to make their communities better, by encouraging them to participate in park planning and management.

Well-maintained parks contribute greatly to the value of a neighbourhood. Restoration of poorly maintained parks can therefore provide a focus for urban regeneration. (Jordan,

2002) The 'People's Panel' Wave 5 research undertaken by MORI in 2000, for the 'Modernising Public Services Group' in the Cabinet Office, showed that 25 per cent of the respondents were very satisfied with their parks and open spaces while 53 per cent were only fairly satisfied. Key expectations of park users were that they should be safe and clean, with cleanliness, tidiness, safety for young children and visitors and the provision of separate dog areas all identified as being important.

Previous studies of the Royal Parks in London have also indicated a long list of elements in, and characteristics of, these prestigious parks that are considered to be particularly important. They include the presence of trees and greenery, flowers and gardens, appearing clean and well kept, fresh air, open spaces, peace and quiet, lakes and ponds, feeling safe, being away from noise and dirt, wildlife, good toilets, somewhere to watch the world go by, being well signposted, the historic setting and pageantry and good catering facilities. In the same survey responses to several proposed changes were well received, including: suggestions for more children's playgrounds; signposting and route marking; improved habitats for wildlife; provision of a visitor centre; the reduction of traffic on main roads adjoining the parks and more public toilets. Additional suggestions for improvements made by those interviewed included more litter bins, more and better catering and seating, more vegetation, drinking fountains, more wildlife and bar facilities. Outside the Royal Parks, visitors to Islington's Parks, expressed general satisfaction with the environment and maintenance of the parks, but were concerned about safety and about facilities such as toilets, shelter, lighting and information and signing. The main suggested improvements included more shelter, more staff in uniform, more

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staff/wardens, more lighting, more toilets and solutions to problems relating to dogs. In this research surveys of user satisfaction carried out provide further insight into how children's play areas can be improved.

All the above pieces of research were similar in their aims and objectives to this research. Previous research has also focused on parks in general. It is therefore important to recognize that this research focuses solely on parks that have been specially designated as play areas for children and further investigates new approaches to the design of children's parks in Ghana.

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2.2 HISTORY OF PARKS

The Merriam-Webster Dictionary defines a park as "a piece of ground in or near a city or town kept for ornament and recreation." In the past, parks were mainly pieces of land set aside for public uses such as hunting, social meetings, athletics and nature reserves. The earliest parks were hunting grounds of the Persian kings. Such reserves became shaped by riding paths and shelters. A second type of park derived from the open-air meeting places of Greece, where the functions of an area for exercise, social concourse, and athletes' training ground were combined with elements of a sculpture gallery and religious centre. Parks of post-Renaissance times featured extensive woods, raised galleries, and often elaborate aviaries and cages for wild animals. What often differentiates present-day parks from parks of the past is their accommodation for active recreation; facilities may include outdoor theatres, zoos, concert shells, and concessions for dining and dancing, amusement areas, boating areas, and areas for sports.

Today, the primary meaning, based on the original meaning, is an area of open space provided for recreational uses. Parks in this sense are usually owned and provided by the government. Park uses are often divided into two categories: active and passive recreation. Passive recreation is that which emphasizes the open-space aspect of a park and which involves a low level of development, including picnic areas and trails. Active recreation is that which requires intensive development and often involves cooperative or team activity, including playgrounds, ball fields and themed attractions.

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A themed attraction can be any type of visitor attraction from small exhibitions within museums, to large budget special effect attractions within theme parks. In the study of themed attractions and designs the term dark rides are usually used. Typically, these small rides are composed of a ride vehicle of 2-6 riders, a track that winds through a series of theater flats and painted sets, separated by "bump" doors. Most of the early Fantasyland rides at Disneyland are dark rides. Examples of this are: *Mr. Toad's Wild Ride, Peter Pan's Flight, Snow White's Scary Adventures,* and Pinocchio's Daring Journey. Newer dark rides include Roger Rabbit's Cartoon Spin (Disneyland) and *Winnie the Pooh* (Magic Kingdom, WDW). Dark rides are the staple of a theme park because they are story-oriented rides and generally focus on a storytelling experience. The first dark rides were the tunnels of love at classic amusement parks. They are called dark rides because they are generally inside a building or within a themed attraction, e.g. Judgement Day in the London Dungeon and Pirates of the Caribbean in Disney. Dark rides are the basis of a theme park because they are story-orientated and have a single theme that runs throughout.

Created themed environments immerse an audience in the atmosphere of an attraction and although you will walk round some, others will have a ride within them to transport you in a sequential manner. An example of this is Madame Tussauds. It began as and still is a waxwork museum with themed rooms like the Garden Party and Grand Hall. Now they have installed the "Spirit of London" ride and various other themed sets, it has become one of Britain's most popular *themed* visitor attractions, totaling 2 million visitors a year. Themes for attractions will range from natural disasters to historical facts like that of the London Dungeon. All of the Dungeons created in Britain have their themes, which are usually based on horror and facts surrounding the town or city in which they are placed. Themes are chosen initially through market research and subsequently what the public demand through targeted survey groups. This process has resulted in staggering attendance figures of 750,000 visitors a year for the London Dungeon. The attraction's theme will also depend on its location.

The concept of themed attractions has given rise to a new trend of parks called theme parks. By definition, a theme park is a park in which landscaping, buildings, and attractions are based on one or more specific themes, such as the world of the future. Before theme parks were invented the roots of the industry go back to amusement parks in medieval Europe, featuring live entertainment, fireworks, dancing, games and even primitive rides. The world's oldest operating amusement park, Bakken, north of Copenhagen opened in 1583 and is still operating today. In the late 1800s, the growth of the industry shifted to America; initially they were simple operations consisting of picnic facilities, dance halls, restaurants, games and a few amusement rides. The amusement

park entered its golden era in 1893 with the introduction of the Ferris Wheel and a wide array of rides. This was a huge success and dictated amusement park design for the next sixty years. The amusement park industry grew tremendously over the next three decades and by 1919 over 1,500 amusement parks were in operation; new innovations provided greater and more intense thrills. Unfortunately this did not last as America entered the Depression and by 1935 only 400 amusements parks still remained.With the end of the World War II, attendances and revenues grew to new records. A new concept, the Kiddieland, took advantage of the post-war baby boom, introducing a new generation to the joys of the amusement park.The industry was again in distress in the 1950s as the public turned to entertainment elsewhere like television. What the industry needed was a new concept and that new concept was Disneyland. When Disneyland opened in 1955 many people were skeptical that an amusement park without the traditional attractions would succeed, but they offered five distinctive *themed* areas, providing guests with the fantasy of travel to different lands and times with different stories.Disneyland was an immediate success, and as a result, the *theme park* era was born. Throughout the 1960s and 1970s, theme parks were built in many major cities across America; many of the old traditional amusement parks could not keep up with competition and faced closure. In addition they also borrowed ideas from theme parks and introduced new rides and attractions to their existing parks. Alton Towers became a theme park in 1980 with the Corkscrew ride. In 1990 the Park became part of The Tussauds Group who have opened many of London's tourist attractions like Madame Tussauds and The Rock Circus. Although other parks have been around a lot longer than Alton Towers, Drayton Manor

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Family Theme Park is one of the oldest parks in the country. It began in 1949, as an 'Inland Pleasure Resort' and is still there to this day introducing themed areas.

Theme parks continued to develop into the 1990s and on average visitors can stay up to 3-4 days. The average time spent in amusement parks was only two hours. Today, theme park designers and creators are taking a more theatrical approach, requiring the audience to willingly enter the story, with more emphasis on light, sound, illusion, sets and artistry. The industry has ever-increasing technology at our disposal to satisfy the ever-increasing sophisticated demands of the industry. There are high tech developments and technological advancements being created now, like the new ride at Islands of Adventure, Spider-Man, which integrates a whole range of new high technology.

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2.3 THE DEVELOPMENT OF SOME CHILDREN'S PARKS IN GHANA

The development of children's parks in Ghana began in the 1970s with the establishment of the then Ridge Park, now Efua Sutherland Park. It was named after Efua Sutherland. Efua Sutherland (June 27, 1924--January 2, 1996) was a Ghanaian playwright, children's author, and dramatist. The Efua Sutherland Park is the major children's park in Accra, the capital city of Ghana. Efua Sutherland Park, popularly known as "Children's Park" is a recreational centre at West Ridge opposite the Ridge Church in Accra. The park has since its establishment in 1979 seen no major rehabilitation and is currently in a poor state. The park lacks modern play equipment and decent sanitary facilities. One of the major landmarks in the development of the park is the Golden Jubilee Commemorative Project. The Ministry of Women and Children's Affairs in collaboration with Integrated Broad-

base System launched the second phase of the Golden Jubilee Commemorative Landmark Project at the Efua Sutherland Park on Monday, July 2nd 2007. It was under the theme “Celebrating Our Golden Generation”. This was to raise funds to facilitate a facelift of the Efua Sutherland Park and other children’s parks nationwide. The Project seeks to solicit funds from corporate entities, NGO’s and the general public. The donors will then be accorded a unique recognition of their contributions by engraving the names of the children, parents, organizations or individuals on slabs of granite, marble or fine brick depending on the level of donations. It is anticipated that funds raised by this project will be used to develop the Efua Sutherland Park into a safe, beautiful area of relaxation and fun for children and their parents or guardians who accompany them there.

Similar to the Efua Sutherland Park is the Kumasi Children’s Park, which is the only children’s park in Kumasi, the second largest city in Ghana. The Kumasi Children’s Park was developed in 1989 to serve as a recreational and learning centre for children in the Kumasi metropolis and beyond. It was popularly known as “Playground” and included a library, pavilion and a playing field. Unfortunately, the once famous “Playground” has since the year 2000 been completely abandoned, leaving the park in a very deplorable state. As a result, the Kumasi Children’s Park, which is the only reserved place for children’s recreational activities, is virtually dead. Kumasi currently has no functional children’s park that befits its status as Ghana’s second largest city.

Another revolutionary idea is the installation of the playground pump, a water pump that doubles as a merry-go-round, in thirty schools in Ghana, providing clean water for six thousand children, and contributing to the eradication of Guinea Worm. As children turn

the roundabout they drive a water pump that pumps clean drinking water into storage tanks. By harnessing the boundless energy of children, the playground pump can produce 1,400 litres of water an hour. It keeps costs and maintenance to an absolute minimum, is eco-friendly, and ends the time- consuming chore of collecting water - instead encouraging children to play! While the health benefits of a clean water supply are critical, other benefits flow from the playground pump system as well. Children are playing and staying in school instead of hauling water. While they are having fun, children are learning self-confidence and interpersonal skills. As efforts are being made by the State to improve infrastructure in Ghana, it is worth noting that children's parks form a very valuable part of community space.

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2.4 BARRIERS TO THE DEVELOPMENT OF CHILDREN'S PARKS IN GHANA

The major barriers to the development of children's parks in Ghana are neglect and lack of maintenance. Attitudes toward children's play and lack of public awareness of the value of play, are arguably the underlying cause of these barriers. This lack of awareness of the significance of play results in the control of children's time. The current perception is that school work and the learning of specific skills is the best path to "success" in this increasingly competitive world economy. The lack of value placed on children's parks is therefore manifested in wastelands of gravel, mud and hard surfaces often void of trees, grass and interesting places for children to play and socialize. There is the need for children's parks to be seen as valuable community space.

Also, decision-makers and planners, have in the past, failed to apply a child friendly lens to policy affecting young people in public space and have also failed to involve children themselves as much as possible. As a result, preservation of undeveloped land, parks that are close to schools, community gardens, and parks and open space that offer children and youth opportunities for climbing, challenge and adventure have not been considered.

Housing and local streets also present a major obstacle to the development of these parks. Multi-family housing complexes do not always accommodate children's playgrounds and traffic is a serious and increasing hazard in many communities. Fear of abuse has become a real threat to children's free play particularly outdoor play and hence patronage of children's parks is on the decline. Examination of the reasons why people do not use children's parks or use them infrequently can provide a valuable insight into the types of improvement to be made to maximize their use. It is worth noting that design is key to what makes successful children's parks. Design is also at the heart of tackling the barriers to use of children's parks.

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2.5 CASE STUDIES

The first case under consideration is the Disney's California Adventure Park in Anaheim, California, United States of America. The park is owned and operated by The Walt Disney Company, the largest media and entertainment conglomerate in the world and an innovator in animation and theme park design. Cairo's Dream Park, the second case under consideration, is the Middle East's largest theme park. It is located within Dreamland, one of the largest, privately-owned, integrated urban development projects in

Egypt. Established in 1999, Dream Park sprawls over a hundred and fifty acres and averages two million visitors annually. It presents several opportunities for children's play including games, water rides and a children's theatre. Disney's California Adventure Park and Dream Park both offer classic examples of parks that have a variety of themed attractions with child-friendly facilities, which will serve as a good precedence for this research.

2.5.1 DISNEY'S CALIFORNIA ADVENTURE PARK

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Disney's California Adventure Park is a theme park in Anaheim, California, adjacent to Disneyland Park and part of the larger Disneyland Resort. It opened in 2001 is owned and operated by The Walt Disney Company. This 55-acre theme park was constructed as part of a major expansion that transformed the Disneyland area and its hotels into the Disneyland Resort and consists of five areas: Sunshine Plaza, Hollywood Pictures Backlot, The Golden State, A Bug's Land and Paradise Pier. Each area is meant to resemble various aspects of California, its culture, landmarks and history.

The theme of "Pacific Wharf" in Disney's California Adventure Park pays tribute to the longstanding California fishing industry. Daily, fresh hauls of fine seafood are brought to both the markets of California, and also to vendors in far-flung places thanks to this army of workers. There are but two attractions here - both of them factory tours. First, visitors enter a picturesque building where they watch a short film about the history of corn-growing and tortilla making from ancient times until the present day.

Fig. 2-1 *Entry to the factory tour* **Fig. 2-2** *The Mission Tortilla Factory Tour*
(Source: http://www.family-vacation-getaways-at-los-angeles-theme-parks.com/Disneys-California-Adventure.html)

Next, they enter into the tortilla-making room where they may watch the tortilla-making machines "do their thing", get to ask the employees questions, find recipes for making Mexican dishes at home, and of course get to sample the fresh, warm tortillas hot out of the oven! Other popular activities at Pacific Wharf are the Boudin Sourdough Bread Bakery Tour, the Pacific Wharf Cafe, and the Lucky Fortune Cookery, featuring Chinese cuisine.

Fig. 2-3 *The Pacific Wharf Café* **Fig. 2-4** *A scenic view of the wharf*
(Source: http://www.family-vacation-getaways-at-los-angeles-theme-parks.com/Disneys-California-Adventure.html)

A Bug's Land is a delightful children's area within Disneys California Adventure. Here, children can enjoy "A Bug's Life" themed rides and parents will be able to ride along with the kids. "Heimlich's Chew Chew Train." A surprising touch to this little children's

train is that you'll pass various smells as you ride along, in addition to the clever sights you'll see. As children ride along, they see how the world looks from a caterpillar's eye-level. Hence the plants are so tall, and the train goes through a tunnel that is shaped like the rind of a watermelon.

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Fig. 2-5 *A tunnel shaped like the rind of a watermelon.*
(*Source: http://www.family-vacation-getaways-at-los-angeles-theme-parks.com/Disneys-California-Adventure.html)*

One other attraction in A Bugs Land at Disneys California Adventure is The Bug's Life Theater. In this theater, you'll see a 3D movie that's very clever and inventive...and coinciding perfectly with the "bug" theme of this "land." Aside from being an interesting and adorable attraction, The Bug's Life Theater is convenient, as well. The theater itself is large and the visitor walks down, down, down "into the earth," just as a bug entering his subterranean nest would do.

Fig. 2-6*The entrance to the Bug's Life Theatre*
(Source: http://www.family-vacation-getaways-at-los-angeles-theme-parks.com/Disneys-California-Adventure.html)

There are interesting themed touches to look at---for example, you'll see roots from the plants growing above ground poking through the ceiling...to further emphasize the fact that you're underground! Both the theater and underground waiting room are air conditioned to add to the comfort on a warm summer day.

2.5.2 DREAM PARK, EGYPT

Dream Park is a theme park located near Sixth of October City, Egypt. The first area a visitor encounters in Dream Park is the "Movie Adventure Land", where there is enough decoration to represent movies. Next is the wet area, where visitors can enjoy water rides. In the children's area there is a nursery and a lot of rides for the kids, from the "carousal" to a miniature shooting tower. A rail track encircles the entire park, by which visitors ride to have an overview of the park. Adjacent to dream park is Dream Mall, which has a hypermarket, as well as a vast array of stores, so parents can easily drop the kids off at the amusement park and get in a little shopping.

Fig. 2-7 *View of the children's area* **Fig. 2-8** *View of the shopping mall*
(Source: http://www.touregypt.net/featurestories/themeparks.htm)

Dream Park has a grand entrance which is well-celebrated. There is also a concourse where visitors gather on arrival.

Fig. 2-9 *Entrance to the park* **Fig. 2-10** *The main promenade*
(Source: http://www.touregypt.net/featurestories/themeparks.htm)

There is a wide promenade leading to the various attractions.The park has a unique architecture which reflects that of the Egyptian culture. There are a lot of green areas in the park. Dream Park, which is three years old, is in very good condition.

The park has the following merits:

1. The park is easily accessible via the 26th of July Highway or the Cairo-Fayoum road.
2. The park reflects the vernacular architecture of the region and also has a lot of green areas.
3. The main entrance to the park is well-celebrated as well as entrances to the various attractions.

The major demerit is that the mall has the tendency to draw attention away from the main facility.

2.5.3 THE KUMASI CHILDREN'S PARK

The Kumasi Children's Park is located along the Kumasi-Accra road, adjacent to the Justice Hotel and opposite the Golden Gate Hotel at Amakom in Kumasi. The main entrance to the park is via the Accra-Kumasi road. Upon entry, the visitor is first

introduced to the children's playground. The once famous Afia Kobi Children's Library is to the left-hand side of the entrance in a secluded corner of the site. A pavilion sits to the eastern end of the site. The entrance, though easily identifiable, is not well-defined and lacks any safety or aesthetic features. This therefore poses a great danger as entry into and exit from the park are not controlled. No provision has been made here for parking.

Fig. 2-11 *Park entrance*
(Source: Researcher's field survey)

Fig. 2-12 *View of playground from entrance*
(Source: Researcher's field survey)

Buttresses are a prominent feature on all the buildings in the park as well as the fence wall, giving the park a peculiar character. These give the buildings a "ground-hugging" feeling and help to keep the building profile low and sympathetic to the scale of children.

Fig. 2-13 *Buttresses used as a feature on pavilion, library and fence wall*
(Source: Researcher's field survey)

All the buildings on the site share a vocabulary of red brick walls and this gives a natural "feel" to the park. It also brings about a sense of uniformity to the entire park. Other materials employed are terrazzo which is used for the balustrades and the staircases.

Fig. 2-14 *Terrazzo finishing*
(Source: Researcher's field survey)

Fig. 2-15 *Brick used extensively for library*
(*Source: Researcher's field survey*)

The park's landscaping includes shade trees, potted plants and grass with sand patches especially on the playground. Walkways are concrete-paved and street furniture includes wooden benches placed under shade trees for relaxation. In front of the library is a landscaped court with its focal point being a sculptural piece depicting the bond of love between a mother and child.

Fig. 2-16 *Grassed playground with sand patches*
(Source: Researcher's field survey)

Fig. 2-17 *Concrete-paved walkways*
(Source: Researcher's field survey)

Fig. 2-18 *Shade trees and benches for relaxation (Source: Researcher's field survey)*

Fig. 2-19 *Sculptural piece (Source: Researcher's field survey)*

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Currently, one of the major problems facing the park is poor maintenance. Buildings are gradually deteriorating, lawns are not well kept, play equipment are rusty and security in the park is very low and as such, the park has now become a haven for the mentally ill.Based on the survey conducted, the following were derived as the merits and demerits of the park:

Table 2-1 *Merits and demerits of the Kumasi Children's Park*

MERITS	DEMERITS
1. The park is sited in a good location – it is sited along a major road, which makes it easily accessible.	1. There is no provision for parking.
2. It has a human scale and a natural environment which has further been enhanced by the extensive use of brick and various plant materials.	2. There is no properly defined concourse or place for gathering on entry.
3. The site has been well zoned into noisy and quiet areas such as the play areas and learning areas respectively.	3. The facility lacks a well-celebrated entry.

4. The pavilion, which is open to the public, has been well-placed at the entrance to give the park a yet broader community attraction. 5. A good choice of materials was made – bricks, wood, concrete, terrazzo – as these are able to withstand rigorous use.	4. There is no provision for first aid.

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These studies reveal that the Kumasi Children's Park, serving as the only children's park in Kumasi, is woefully inadequate.

2.5.4 EFUA SUTHERLAND CHILDREN'S PARK

The Efua Sutherland Children's Park is the major children's park in Accra, the capital city of Ghana. Located at West Legon, the park is directly opposite the Accra Ridge Church. The park is bounded to the north-west by the Independence Avenue, to the south-west by the National Theatre, to the south-east by the Accra Ridge Church and to the north by the Barclays Bank building. Peripheral studies also show that some facilities within the vicinity serve as pull factors, attracting a large number of people to the area. These include the National Theatre, the Ridge Church, the International Conference Centre, Barclays Bank and the Accra Race Course.

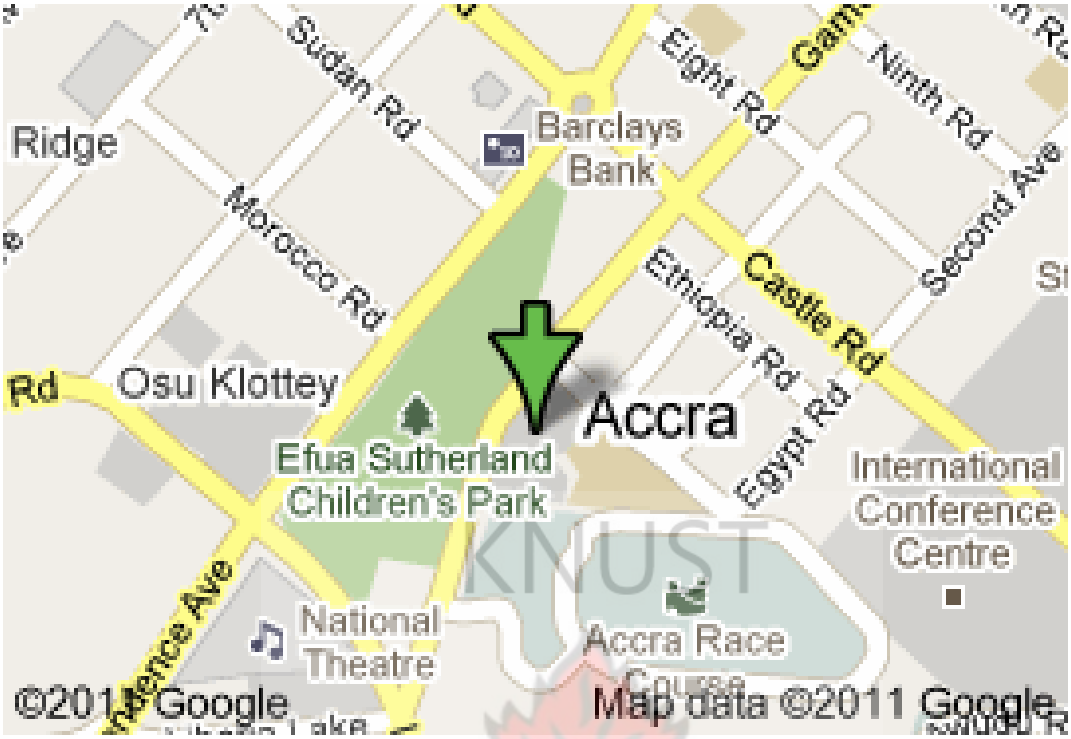

Fig. 2-20 *Park Location*
(Source: maps.google.co.uk)

The park is easily accessible. Its entrance is well-defined with an easily identifiable and branded billboard.

Fig. 2-21 *Park entrance*
(Source: Researcher's field survey)

Fig. 2-22 *Easily identifiable billboard*
(Source: Researcher's field survey)

The park's landscaping includes shade trees and grass with sand patches on the playground. Also the park is walled, thus providing security for the park users especially along the major road.

Fig. 2-23 *Grassed playground with sand patches*
(Source: Researcher's field survey)

Fig. 2-24 *Grassed playground with shade trees*
(Source: Researcher's field survey)

The park is currently in a poor state mainly because it has since its establishment in 1979 seen no major rehabilitation. The park also lacks modern play equipment and decent sanitary facilities. Based on the survey conducted, the following were derived as the merits and demerits of the park:

Table 2-2 Merits *and demerits of the Efua Sutherland Children's Park*

MERITS	DEMERITS
1. The park has locational advantages such as accessibility and availability of utilities.	1. There is no properly defined concourse or place for gathering on entry and pathways are not clearly marked out.
2. The entrance to the park is well-defined and gated. Also security is enhanced by the provision of a fence wall.	2. The park lacks built facilities.

3. The park has rich natural landscaping which gives room for more creative landscape design.	3. There is no provision for first aid.
	4. The park lacks modern play equipment and decent sanitary facilities.

2.6 CONCLUSIONS FROM CASE STUDIES

The following deductions can be made from the above case studies:

- A children's park should have a good location. In other words, its location should not be too far from the target group. Secondly, it should be easy to locate in the road network and should be equally easy to access both by motorists and pedestrians.
- The park should have a human scale and landscaping, both natural and artificial, should be used to enhance this.
- The site should be well-zoned to enhance proper facilitation of activities. Pathways should be clearly marked out.
- Materials used should be "safe" for children's use and also be able to withstand rigorous use.
- Entranceways should be attractive and well-celebrated.
- There should be a gathering place or concourse on entry where visitors gather before beginning their tour of the park.
- A children's park may also include shopping malls.
- A children's park area can be used to portray the vernacular architecture of the region in which it is cited and can in a sense be made a tourist attraction.

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CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter explores the methodology and methods used in approaching the research and also explains the reasons for choosing them. It also provides an overview of how the research methodology worked out in the field and further discusses the difficulties encountered. The research was primarily qualitative. The literature review discussed published information on the subject of parks in general to provide a solid background for the research as well as the development of some children's parks in Ghana.

3.2 CASE STUDY

A case study is an intensive study of a single group, incident, or community. Research case studies were conducted on the design of existing parks namely, Disney's California Adventure Park in the United States of America, Dream Park in Egypt and the Kumasi Children's Park in Ghana. Purposeful sampling was used in the selection of cases. In each of the cases, a detailed account was provided and conclusions drawn. Data was drawn from multiple sources, bringing together (triangulating) multiple perspectives, methods, and sources of information, from interviews, direct observations, field notes and other

documents, to add texture, depth, and multiple insights to the analysis and to enhance the validity and credibility of the results.

3.3 DATA COLLECTION METHODS

The data collection methods employed in this study involved in-depth interviews, direct observation and documentary sources.

3.3.1 INTERVIEWS

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Informal interviews were conducted with some users of the Kumasi Children's Park during which notes were taken. In this survey a total of one hundred people were interviewed. Open-ended questions were used as an approach to facilitate faster interviews that can be more easily analysed and compared. Interviews often followed observations. The aim of the interviews was to ask users about what they want from children's parks and the extent to which these expectations are met, the barriers that discourage users from actively using children's parks and the factors that would encourage greater use. Appendix 1 shows the initial generic interview guide, which was adapted according to each user.

Interviews were also conducted with residents of Amakom to gain access to information regarding the impact of the park on their lives. (See Appendix 2 for interview guide). All interviews with the residents were conducted in Twi, the native language of the residents. Interviews with the client and major stakeholders were also used to gather information regarding the client's brief.

3.3.2 DIRECT OBSERVATION

This was a chosen as a good approach to gathering qualitative data. The essential idea was for the researcher to observe the phenomenon in its natural state and take extensive field notes. This approach was used to gather data such as the current state of the area under study, its accessibility and the opportunities and threats the site presents. Notes and photographic records were also taken.

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3.3.3 DOCUMENTARY SOURCES

Other means employed were gathering of information from published books, unpublished reports and articles, journals and the internet to investigate the background and context of the situation. This was a supplementary method employed for collecting background information and for triangulating with the main methods used.

3.4 LIMITATIONS

This exploratory study was conducted using one hundred participants in the Kumasi metropolis. The conclusions drawn from the findings therefore cannot be generalized. However, the findings do suggest some directions for improving children's parks in Kumasi and the views expressed by the participants provide useful information for further research.

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CHAPTER FOUR

4.0 RESEARCH FINDINGS AND DISCUSSION

4.1 USER SURVEY

The main source of information on users of the Kumasi Children's Park in this study is a survey of people in the area covered. In this survey a total of one hundred people were interviewed. To create a categorization of users, age was used – children, below 18 years and adults, 18 years and over. Out of the number that was interviewed, 65 were children while the remaining 35 were adults. Under Article 28(5) of the 1992 Constitution a child is defined as a person under the age of 18.

The survey confirmed that passive activities are the main reasons that people visit the park. The reasons were categorized as follows: enjoying the environment, social activities, active enjoyment, including sports, and taking children to play. The elements of the environment which people go to enjoy include the trees and grass. The experience of enjoying 'fresh air' was also mentioned by some adults. The absence of educational play opportunities were identified as being a major setback. 9 per cent of users mentioned that the dominant social reason for visiting the park was that of taking children to play. Among these, 3 per cent were children while 6 percent were adults. 50 per cent of the people said they enjoy the park passively – sitting either on grass or seats and watching life go by, as well as reading or smoking. The survey also identified that 16 per cent of

users go for active enjoyment and sport. Football was the most mentioned type of sport. Attending events such as children's parties is also one reason for people to use the park. 25 per cent stated that this was why they visit these places.

Table 4-1 Main reasons that users visit the Kumasi Children's Park

Reason	**Percentage (Children)**	**Percentage (Adults)**
Social activities	18	7
Active enjoyment	13	3
Passive activities	31	19
Taking children to play	3	6

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The perception that someone has of a play area can significantly affect whether they use that space. From the survey, four main barriers that discourage people from using this park were identified and these are:

- Wrong attitudes towards children's play
- Unavailability, or the poor condition of, facilities
- Perception of an unsafe environment
- Access issues

Table 4-2 Barriers to use for users of the Kumasi Children's Park

Reason	Percentage (Children)	Percentage (Adults)
Poor maintenance	4	5
Safety fears	21	9
Lack of/poor facilities	34	17
Not enough to do	3	2
Poor access	3	2

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Attitudes toward children's play, and/or lack of public awareness of the value of play, are arguably the underlying cause of most of these barriers. This lack of awareness of the significance of play results in the control of children's time. The current perception is that school work and the learning of specific skills is the best path to "success" in this increasingly competitive world economy. The lack of value placed on children's parks is therefore manifested in wastelands of gravel, mud and hard surfaces often void of trees, grass and interesting places for children to play and socialize. There is the need for children's parks to be seen as valuable community space.

Also, decision-makers and planners, have in the past, failed to apply a child friendly lens to policy affecting young people in public space and have also failed to involve children themselves as much as possible. As a result, preservation of undeveloped land, parks that are close to schools, community gardens, and parks and open space that offer children and youth opportunities for climbing, challenge and adventure have not been considered.

Housing and local streets also present a major obstacle to the development of these parks. Multi-family housing complexes do not always accommodate children's playgrounds and traffic is a serious and increasing hazard in many communities.

Fear of abuse and abduction has become a real threat to children's free play particularly outdoor play and hence patronage of children's parks is on the decline.

Access issues were also of concern. They relate to concerns about proximity to and ease of access to children's play areas, access into these places and ease of moving around safely in them. Slopes and inappropriate surfacing on paths create problems for people in wheelchairs.

When asked what would encourage greater use of the park, the users selected more facilities, more lighting, more staff and greater security. They also considered what would be in their ideal children's park. The most frequently mentioned elements in order of importance were themed attractions, water and vegetation, good access, safety, places and activities for adults, comforts such as seating and shelters. Food and drinks of a good quality and affordable price, environmental quality issues such as litter bins and lighting, and specific features such as sculptures were also mentioned. The presence of identifiable and approachable staff was also a feature of the ideal children's park.

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Table 4-3 Factors that would encourage greater use of the park

Factors	Percentage (Children)	Percentage (Adults)
Improved safety	6	2
Better maintenance	2	1
Better facilities	18	10
More activities/events	15	12
More staff	10	3
More lighting	14	7

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Table 4-4 Facilities that users want in their ideal children's park

Reason	Percentage (Children)	Percentage (Adults)
Cafeteria	3	2
Seating and shelters	2	1
Water and vegetation	10	4
Safety	4	5
Places/ activities for adults to enjoy	5	3
Good access	7	3
Themed attractions	34	17

Examination of the reasons why people do not use children's play areas or use them infrequently can provide a valuable insight into the types of improvement to be made to maximize their use. These findings suggest that in terms of design a better approach is needed. Ordinary people as well as designers acknowledge that design is key to what

makes successful children's play areas. Design is also at the heart of tackling the barriers to use of children's play areas. This research therefore proposes themed attractions as a new approach to the design of children's play areas in Kumasi and presents a design proposal for a children's theme park which will foster effective learning through play. This design proposal seeks to develop a park that will challenge the creativity of children while remaining relatively safe.

Overall it is evident that the improvements that people want to see in children's play areas are related to good design and management, focused on meeting people's needs, overcoming barriers to use.

Interviews with some residents of Amakom also showed that most of them were concerned about the current state of the Kumasi Children's Park, which was now serving as a hideout for robbers, drug addicts and the mentally ill. This tends to discourage rather than attract children to the park. Residents stated that the major benefit they derived from the park was using it for funeral celebrations. A pavilion in the park also served as a place for conducting church services and other social meetings. Residents of surrounding areas such as Oforikrom and Afful Nkwanta also use the park to access other areas. However, the entire park is totally dark at night, making it a dangerous place to tread after 7pm. They also stated that the toilet facility served as a public one, serving them as well as residents of surrounding communities. They therefore stressed the need for a well-planned children's park in the Kumasi metropolis.

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The Kumasi Children's Park, which is the only children's park in Kumasi, is virtually dead and Kumasi currently has no functional children's park. A major objective of this thesis, therefore, is to develop a design proposal for the development of a new children's park for the city.

4.2 SITE SURVEY

4.2.1 SITE SELECTION AND JUSTIFICATION

The proposed site for this design is the stretch of land lying between the T.U.C. junction and the Department of National Lotteries at Dakodjom in Kumasi. The site is bounded to the north by the Southern by-pass, to the north-west by the road leading to the TUC estates, to the south-west by some residential buildings and to the north-east by a clinic and some residential buildings.

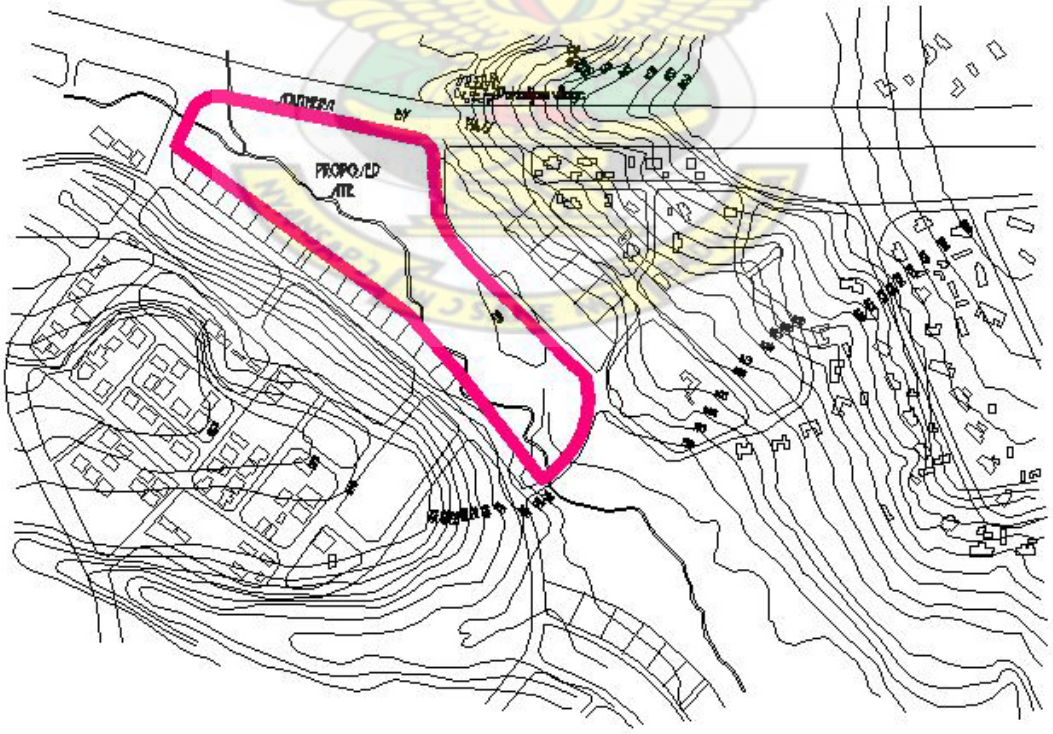

Fig. 4-1 *The proposed site*

Situated in a predominantly residential area, the site has been earmarked for the Otumfour's Children's Park project. The Southern by-pass, which forms part of the ring road network in Kumasi, makes the site easily accessible from various parts of the city. The site maintains its natural vegetation cover, even though portions of the river have been polluted with solid non-biodegradable wastes.

Fig. 4-2 *Sign post erected to ward off intruders*

Fig. 4-3 *Southern by-pass*

Fig. 4-4 *The TUC junction;access to the site can be tapped from here*

Fig. 4-5 *Natural vegetation cover*

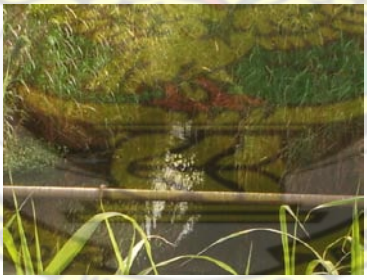

Fig. 4-6 *Mid portion of river*

Fig. 4-7 *Portions of the river with solid wastes*

4.2.2 PERIPHERAL STUDY

A peripheral study conducted revealed that there are a number of facilities in the vicinity that influence the site in several ways and these include the following:

(i) Nagie's Angels Educational Centre

This facility tends to attract a large number of children as well as their parents to the area, and these form a large percentage of the target group.

(ii) Ernest Chemists Limited

A commercial complex comprising pharmaceutical and grocery shops attracts lots of shoppers to the area, especially those of the middle class.

(iii) K.D.B. Ventures

A bar and car washing bay attracts a large number of motorists, mostly adults, to the area. The park could serve as an attraction for them while waiting for their vehicles to be washed. Dirty water from the washing bay, if not properly piped, may end up polluting the river.

Fig. 4-8 *Nagie's Angels Educational Centre*

Fig. 4-9 *Ernest Chemists Limited*

Fig.4-10 *K.D.B. Ventures*

(iv) Residential neighbourhoods

The site is situated in a predominantly residential area. The park, when completed, will serve the recreational needs of these neighbourhoods. The major catchment areas are TUC, Ahodwo, Daban, Santasi, Patasi, Danyame, Fanchinebra and its environs. Dakodjom, a small commercial village, also attracts buyers to the area.

Fig. 4-11 *Residential building*

Fig. 4-12 *Single-storey residential building*

Fig.4-13 *Dakodjom village*

(v) Car market

These have formed a significant feature of the streetscape and attract buyers, mostly those of the middle class, to the area.

(vi)New developments

New developments, mostly residential, when completed, will increase the population of residents in the area and hence the target group.

Fig. 4-14 *Car market*

Fig. 4-15 *New developments*

4.2.3 SITE INVENTORY AND ANALYSIS

The Tuatem River meanders through the site along the north-south axis. The site is characterized by wet marshy soil around the fringes of the river, but gets drier as one

moves further away from the river. The land is covered with grass and currently trees have been planted to help preserve the river. The land is fairly flat with a rather gentle 10 degree slope, which makes it a potential area for flooding. Service lines such as electricity, water and telephone lines are readily available on the site. Currently there are a number of maintenance problems confronting the site including damping of refuse into the river. The site is enveloped by areas of higher altitude which are mostly residential neighborhoods.

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The survey described above is represented graphically in the figure below:

Fig. 4-16 *Site Inventory*

Being fairly flat, the site offers little opportunity for exciting level changes in the design hence the need to create artificial cliffs to enhance the design. Since the site is located in a residential area, the scale of the design should tie in with that of a residential scale.

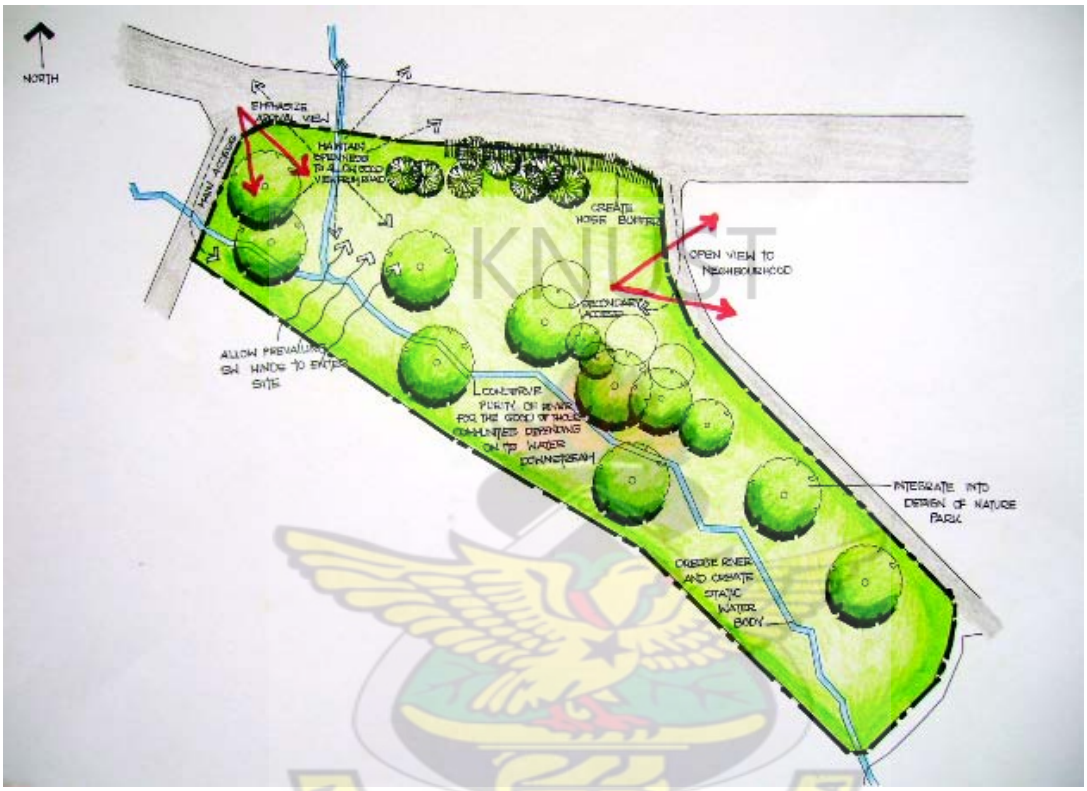

Fig. 4-17 *Site Analysis*

The entire site can be viewed from various locations in the residential areas hence the need to create aesthetically pleasing building facades and roofscapes and treat all facades with equal importance.

One other disadvantage, and perhaps the most threatening, is the fact that the site acts as a basin, collecting surface water from areas of higher altitude. There is therefore the danger of flooding during heavy downpour.

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Fig. 4-18 *Section through the site and its surrounding areas*

Taking advantage of the presence of the river, an artificial lake could be created in the design where children could enjoy leisure rides in fibre glass canoes.

Inasmuch as the Tuatem River could enhance the design, precautions must be taken in the design to avoid any major damages during flooding, and these may include the use of pier foundations and providing sufficient damp proofing beneath floor slabs to protect them from too much moisture.

4.3 DESIGN PHILOSOPHY AND CONCEPTS

In an interview with a representative of the Friends of Rivers and Water Bodies, a non-governmental organization and major stakeholder, it was revealed that the client's brief called for reshaping the area into a park that would serve as both a recreational and learning centre for children. Emphasis was laid on the fact that the purity of the water body needed to be conserved for the good of those communities depending on its water downstream. This is in an attempt to hold rampant destruction of water bodies, encroachment and other abuses in check, to help bring Kumasi back to its old prestige- the Garden City of West Africa, a feat which the honourable Ashanti Regional Minister is seriously pursuing.

Aside conservation, the design should accommodate meditation and relaxation places, a fruit tree park and most importantly, a children's park, to augment the existence of such facilities in the metropolis. The main target groups are children in the Kumasi metropolis particularly those between the ages of four and twelve years, the adult population, which may constitute their parents and guardians, and the general public. This brief was further developed and the development process is illustrated as follows:

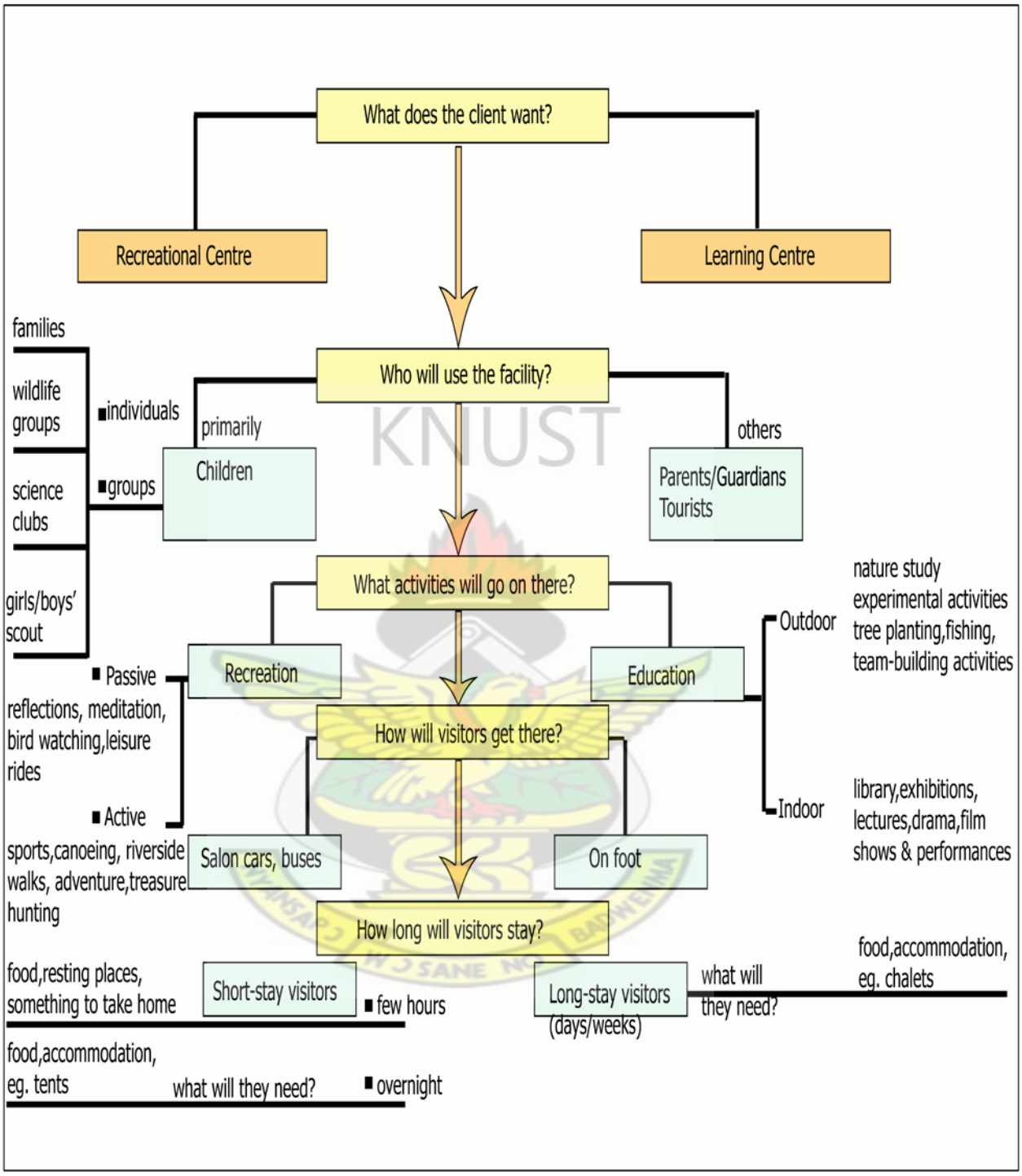

Fig. 4-19 *Brief Development*

In summary, the developed brief would encompass play areas, indoor and outdoor learning facilities, eating places, nature reserves, shopping and accommodation facilities.

The major challenge of this design can be summed up in three key statements:

1. the park should be a place where children want to go;
2. the park should make children want to stay;
3. the park should be a place that children would always want to come back to.

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In order for children to desire to go to this place, there needs to be something to attract them to the place. Once there, there should be something else to engage or keep them there. Furthermore, a captivating experience would make children always want to come back to the park. This led to the development of a philosophy of designing a park that would attract, engage and captivate its users.

The main design concept employed here is the creation of an icon in the park. An icon is a big visual landmark that pulls the visitor through the park. The icon will be made visible from various corners of the site by virtue of say, its height. This will serve as the main attraction of the park and visitors will not stop till they end up at this "great destination". This is the Disney approach, seen in the Magic Kingdom and Disneyland, is what could be called the Icon Design Philosophy. The big Icon for Disney is the Castle at the end of Main Street, and that is also the one "visual contradiction" in that park-as there are not a lot of fairytale castles at the end of most American Main Streets. That visual contradiction is designed to "pull" you down Main Street, and that is basically what the Icon Design Philosophy does-it provides you with big, visual landmarks that pull you

through the park. Once you enter Tomorrowland, for example, you will see Space Mountain, which is located at the back of that "land" and pulls you to that point.

In an attempt to engage children while on their visit to the park, the following concepts were developed, which more or less engage the individual in totality- by engaging all five senses.

(i) Visual imagery: creating an environment which must be perceived by the visitor as real. With the use of architecture, landscape and lighting, the visitor must be completely engulfed in a “new world”.

(ii)Sound as a mood setter: sound could be used to set the mood or tone for any particular attraction. For example, music from a particular era sets the tone for creating a themed environment that depicts that era.

(iii) Tactile tactics: A sense of touch from say, a spray of water, can also enhance the visitor experience.

(iv) A taste sensation: Smell is directly linked with taste; hence one way to create a taste sensation in the park is by employing artificial smells. For example, by artificially inducing a pop-corn smell, more children will be drawn to the pop-corn stand.

4.4 CONCEPTUAL SITE PLANNING

The following figure shows the functional relationships between the various items in the brief:

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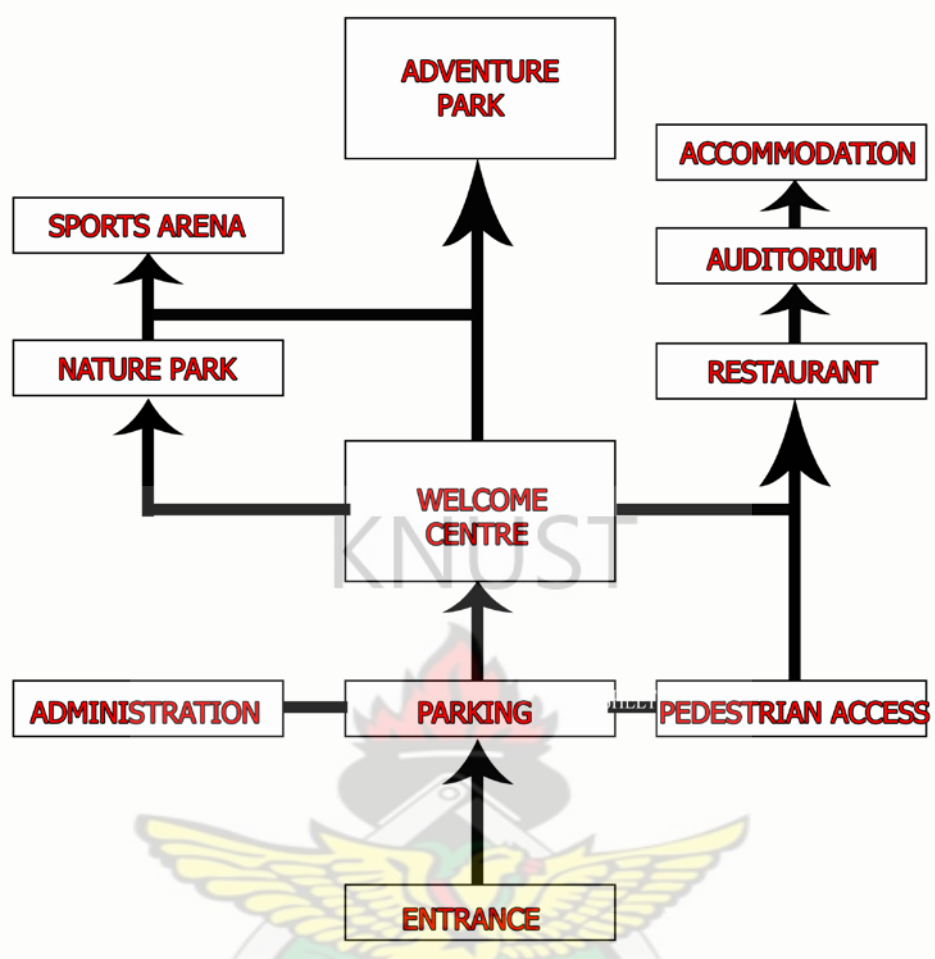

Fig. 4-20 *Functional relationship diagram*

Translating these relationships to the site, two alternative site planning arrangements were created. These are illustrated in the following figure:

OPTION 1:

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Fig. 4-21 *Conceptual site planning (a)*

LEGEND:

A – Nature park

B – Administration

C – Parking lot

D – Theatre

E – Restaurant

F – Accommodation

G – Sports arena

H – Adventure park

I – Welcome centre

J – Dark rides

OPTION 2 (ALTERNATIVE A):

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Fig. 4-22 *Conceptual site planning (b)*

OPTION 2 (ALTERNATIVE B):

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Fig. 4-23 *Conceptual site planning (c)*

In both options, a diagonal grid was chosen for the following reasons:

- To tie in with the existing situation in the neighbourhood;
- To alleviate the perceived narrow dimensions of the site;
- To give the site a more spacious feeling;
- For good exposure to prevailing winds.

Table 4-5 *Comparison of Alternatives A and B*

ALTERNATIVE A	ALTERNATIVE B
1. The design is along the major axis of the site and hence along the river	1. The design in a radial pattern, following the shape of the site
2. Emphasis is placed on the river; facilities are arranged parallel to the river; river is used to enhance the visitor experience	2. Emphasis is placed on the centre of the site where the main attraction is located
3. The main attraction is at the tail end of the site; increases suspense	3. Encourages visitors to explore the site more as travel paths are longer

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This comparison reveals that Alternative A has two major advantages over B and these are the integration of the river into the design and the creation of more suspense. Alternative A was therefore chosen and developed further into what is illustrated in the figures below:

Fig. 4-24 *Design development*

The final option is illustrated below:

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Fig. 4-25 *Conceptual site planning (d)*

4.5 DESIGN PROPOSAL

4.5.1 THE DESIGN THEME

The unifying theme of the park is adventure and this will be expressed in the design of all the facilities in the park, characterized by level changes, partial vision to tease the observer and a variety of activities such as water adventure, jungle adventure, camping adventure, science adventure as well as river adventure. The design theme will be composed of two fundamental geometric shapes – the circle and the square. The theatre,

water park, story-telling dark rides, as well as the entrance foyer and nature park will have circular themes, with only the adventure park standing out as being unique with a square theme. One of the first considerations in designing with the circle was the realization that the centre of the circle is a point which naturally attracts attention. Therefore it was necessary to take advantage of this fact and locate points of attraction such as the food court, the water park in the centre so that the eye of the visitor can be led quickly to it.

The circular theme was chosen for the following reasons:

- to create a composition with relatively "soft" edges with no harsh angles which resemble lines seen in nature;
- to be able to focus attention at the centre of the design;
- to help suggest a broad panoramic view of the surrounding landscape;
- to give a passive, relaxing and contemplative character;
- to create edges which are able to captivate the eye and lead it to another portion of the design in a smooth fashion.

The vernacular architecture of the region was also a reference point in the design, with its courtyards and terraces. The park will combine these themes in a modern way.

4.5.2 THE PARK LAYOUT

The main entrance to the site will be via the TUC Road -a combined entry and exit point and a pedestrian access. On entry, the car park will lie to the right hand side of the main entrance. A foot bridge will link the car park to the park. The park will be sub-divided

into five main attractions or “worlds” – the giant sphere, the dark rides, the water park, the nature park and the adventure park which serve as hubs to a welcoming streetscape design. The main entrance of the park introduces children to a fun environment. As children walk into the entrance foyer, they will first see the giant steel sphere- the focal point of the entranceway- acting as a mirror and reflecting the surrounding landscape. This will act as the architectural hallmark of the park. The administrative area and visitor centre will lie to the left and right respectively of the entrance foyer. The visitor centre, which will be the first point of call for visitors, will include a reception, orientation hall, information centre, a restaurant, a library with sections for children and adults, office spaces and restrooms. Next will be the theatre, which will be positioned close to the entrance because of the fact that it will be opened for public use.

Opposite to the visitor centre will be the sailing centre and the train station where the visitor can enjoy either a canoe ride or a train ride around the site. Train tracks will be designed to run across the entire site and through scenic tunnels to enhance the ‘travel’ experience while imparting knowledge to the rider. A series of dark rides and a food court will be easily accessible from the entrance foyer. An open market for a variety of items and souvenirs unique to the facility will be developed to blend with the total flow of activities as the visitor moves through the space. Thus, the visitor could literally collect items on every expedition. This facility will also help raise some money to support the running of the park.

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The theme of the design is adventure and one way that this design seeks to fulfill this theme is the creation of an adventure park, which will be the main attraction in the park. Here children could discover 'new ways' and have fun getting lost and finding their way in and out of a maze. Leading to the nature park will be a 150 metre long promenade. Once in the nature park the visitor could either enjoy the quietness of the meditation garden or more adventure through cliff climbing and yet still could enjoy a panorama of the entire park. To further enhance the theme, a canopy walkway will also be developed, where the visitor will enjoy a bird's eye view of the entire park. Twelve self-contained holiday chalets located along the banks of the river and 'mountain-top' campsites will be among a host of attractions in the nature park. (See Appendix 3)

The theatre will house a 500-seater auditorium, a generous foyer, a rehearsal hall, changing rooms and storage facilities. The auditorium will cater for folk and jazz music with an informal and flexible seating arrangement for up to 500 people. The next space will be a large rehearsal hall. The theatre will be accessible to children, schools, and people of all ages and will raise the profile of the region as an innovative provider of cultural education. (See Appendix 4)

The dark rides will have circular plan forms and will be arranged so that their entrances open up unto the food court. In each of the three buildings, arrival will be into an introductory gallery from where a ramp will lead all the way up to the top. The very first of the dark rides will dramatize activities 'Back In Time' to depict remarkable times in the history of the sciences. This attraction will have a distinctly 1800s feel. Another of

the dark rides will have a galaxy theme where children will have the experience of learning about the stars. The last will be a “Scientist Hall of Fame”, which will animate the “Superstars of Science” such as Albert Einstein, Louis Pasteur, Galileo and Charles Darwin among others.

The adventure park will have an adventure games room with a series of captivating activities all housed under one roof. It will be designed as a labyrinth with numerous islands at different levels and connected by ramps and staircases. With mirrors doubling the spaces, interiors will be painted in stunning, vibrant colours. The first phase will be the rhymes and poetry neighbourhood. Music will be the main theme of this area. The second phase will be Toyland, making children feel as though they were walking through a child’s playroom, surrounded by toys and overflowing with imagination. This will dramatically lead to the next phase, Toon World, which will have a host of animations and interactive cartoon shows. Another of the phases will have a sporting theme, where children can, for example, put on a mask and gloves and play virtual boxing against Ghanaian boxing stars. (See Appendix 5)

Access into the nature park will be via a promenade and arrival is into a nature reserve. Taking a left turn will lead the visitor to the picnic area. Within the nature reserve, artificial cliffs will be created, meant to give children the feel of climbing a steep mountain trail, coming to a ridge and looking down on a clear, blue mountain lake, pitching tents, cooking and watching the stars come out.

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The water park will have its focal point being the spray park, featuring bright colours and crazy geometric shapes, and turning flat concrete slabs into three-dimensional water worlds – an exciting world of shapes and showers. A shallow 750mm depth pool will surround the spray park while provision will be made for seating on terraces along the circumference of the pool.

4.5.3 FORM AND STRUCTURE

The form and structure of the entire park depended largely on two main factors. Firstly, they had to depict the theme of the park-adventure, and this led to the creation of a blend of both curvilinear and linear forms, steeply-pitched roofs and various level changes. Secondly, the design was meant to suit a particular target group who are children, and hence, the ground-hugging nature of some of the buildings such as the theatre.

Keeping the community in mind was important to the designer and the result was a "village" façade of varied rooflines that reflect the dimensions of the neighbourhood homes. (See Appendix 6) The park's landscaping of flowers, trees and grasses provide the capstone to that "at-home" feeling while generating visible and open space for security. The giant sphere at the entrance will be a significant feature in the facility's front façade. The adventure park will have flamboyant façades, with giant banners of striking colours and a curvy roof like that of a circus tent.

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4.5.4 MATERIALS AND LANDSCAPING

Materials were selected based on four key factors:

- Function
- Form
- Style/ character
- Budget ;

Concrete will be used extensively because it is well-suited for curvilinear and irregular shapes. The roof of the theatre, for example, will be a self-supporting light concrete shell. River stones will be used along the banks of the river and also along the periphery of the buildings. This choice was made because loose materials have the advantage of allowing surface water to drain through them to the sub grade below and so help the process of natural drainage. It also has “safe” rounded edges for safety, decoration and not for practical use of walking on. It will also be used because it has the tendency to slow down the rate of movement and at other places, to suggest a non-walking surface. Precast concrete units will be used along the main pedestrian access. Asphalt will also be used but restricted to areas of vehicular circulation. Concrete will be employed because it is well-suited for curvilinear and irregular shapes such as the food court. Shade trees will be planted along the promenade with resting places along the whole length. Species of tropical trees will be planted as specimens in the nature park for children to learn about them. Turf grass will be planted to soften the landscape while potted plants and sculptural pieces will be interspersed for visual effect. (See Appendix 7)

4.5.5 SERVICES

Power supply to the park will be via an 11kV cable whereas a 150mm diameter water pipe will supply water to the park. The service yard will be located to the western side of the site and this is where the transformer and ac generator will be housed. The service yard will also house the fire hydrant as well as the septic tank. The construction of U-drains at vantage points on the site will ensure that surface water is drained off to prevent flooding. Due to the nature of the activities in the park, most of the buildings require air-conditioning and will be fitted with air-conditioning wall units with varying capacities to suit their individual functions. Lighting will range from long recessed fluorescent luminaries with louvered diffusers to surface mounted ceiling lights and spot lighting, particularly in the theatre and the dark rides. Fire extinguishers, alarms and sprinkler systems will also be provided for fire prevention and detection. (See Appendix 8)

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4.6 CONCLUSION

The children's theme park will be a landmark in Kumasi, forming the focus of an exciting project to regenerate the city's river frontage. It will be a recreational centre of international standing with a high expectancy of visitors each year. Geographically, it will fill the "gap on the map" for recreational venues, the nearest alternative being the Kumasi Children's Park. It will further complement the redevelopment of the city of Kumasi as the 'Garden City of West Africa'.

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CHAPTER FIVE

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 CONCLUSION

This research highlights the outstanding importance of children's play areas to the future of cities in Ghana. It confirms the findings of previous research on the role that children's play areas play in the day-to-day life of urban dwellers. The research however revealed that the current level of estimated use of children's play areas in Kumasi is quite unsatisfactory.

The numerous benefits of children's play areas envelopes the spectrum of social, health, educational, environmental and economic benefits. The spectrum is well recognized and generally suitably supported by the presented evidence, but deserves to be much more widely publicised and upheld. These benefits of children's play areas have however been unfortunately ignored in Ghana. Most significantly, the research proposes that many policy makers have underestimated the role that children's play areas can play in urban regeneration. Many still think of children's play areas as just 'greenery' or 'landscaping'.

The research proves that low levels of use sometimes result from personal circumstances, which the planners and designers of children's play areas can do nothing to change. But it is clear that many people are deterred from visiting these spaces because of the image

that they have of them and design is key to tackling these barriers. They are put off by what they recognize as lack of facilities, including play facilities for children; safety and other psychological concerns; and concerns about environmental quality including litter and vandalism. Tackling these issues and, equally importantly, letting people know that they are being tackled and publicising the resulting improvements, will do much to increase the willingness of people to use these spaces which they may currently turn away from. The research suggests that ordinary people, as well as many designers, acknowledge that design often lies at the heart of what makes successful children's play areas. Design is also a key part of tackling many of the barriers to use of children's play areas.

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5.2 RECOMMENDATIONS

In conclusion, the following recommendations have been made to assist the government, non-governmental organizations, designers and all individuals and bodies who are interested in seeing to the welfare of children:

- A children's play area should have a good location. In other words, its location should not be too far from the target group. Secondly, it should be easy to locate in the road network and should be equally easy to access both by motorists and pedestrians.
- The park should have a human scale, and landscaping, both natural and artificial, could be used to enhance this.
- The site may be well-zoned to enhance proper facilitation of activities. Pathways should be clearly marked out.

- Materials used should be “safe” for children’s use and also be able to withstand rigorous use.
- Entranceways should be attractive and well-celebrated.
- A children’s play area can be used to portray the vernacular architecture of Ghana and can be made a tourist attraction.

It is also recommended that this project is developed in phases, in view of its magnitude and the nature of each of its attractions. The first phase will be the construction of the water park, administration and visitor facilities, the theatre and the dark rides. The second phase will see the construction of the adventure park. The final phase, the development of the nature park will take a much longer time, as some plant species may take a longer time to grow. (See Appendix 9)

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APPENDICES

Appendix 1 – Interview Guide for users of the Kumasi Children's Park

1. How old are you?
2. Where do you live?
3. Why did you decide to visit the park?
4. How often do you visit the park?
5. What are your perceptions about the park?
6. In your opinion, what should constitute the 'ideal' children's park?
7. In your opinion, what are the factors that would encourage greater use of the park?

Appendix 2 – Interview Guide for residents of Amakom, Kumasi

1. What are your perceptions about the park?
2. Are you satisfied with the current state of the park?
3. What are the major benefits you derive from the park?
4. Does the park present any threats to you ?
5. In your opinion, what should constitute the 'ideal' children's park?
6. In your opinion, what are the factors that would encourage greater use of the park?

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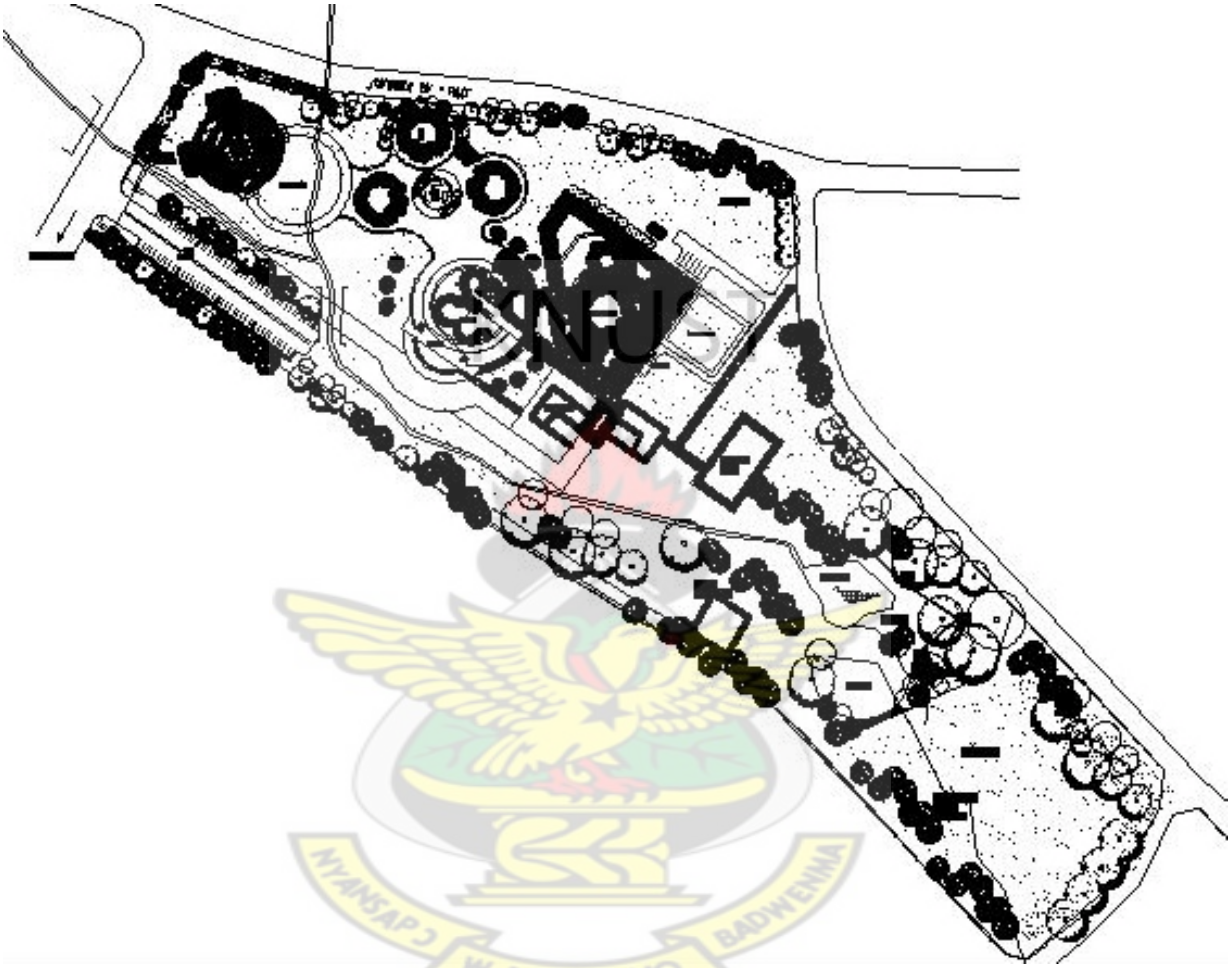
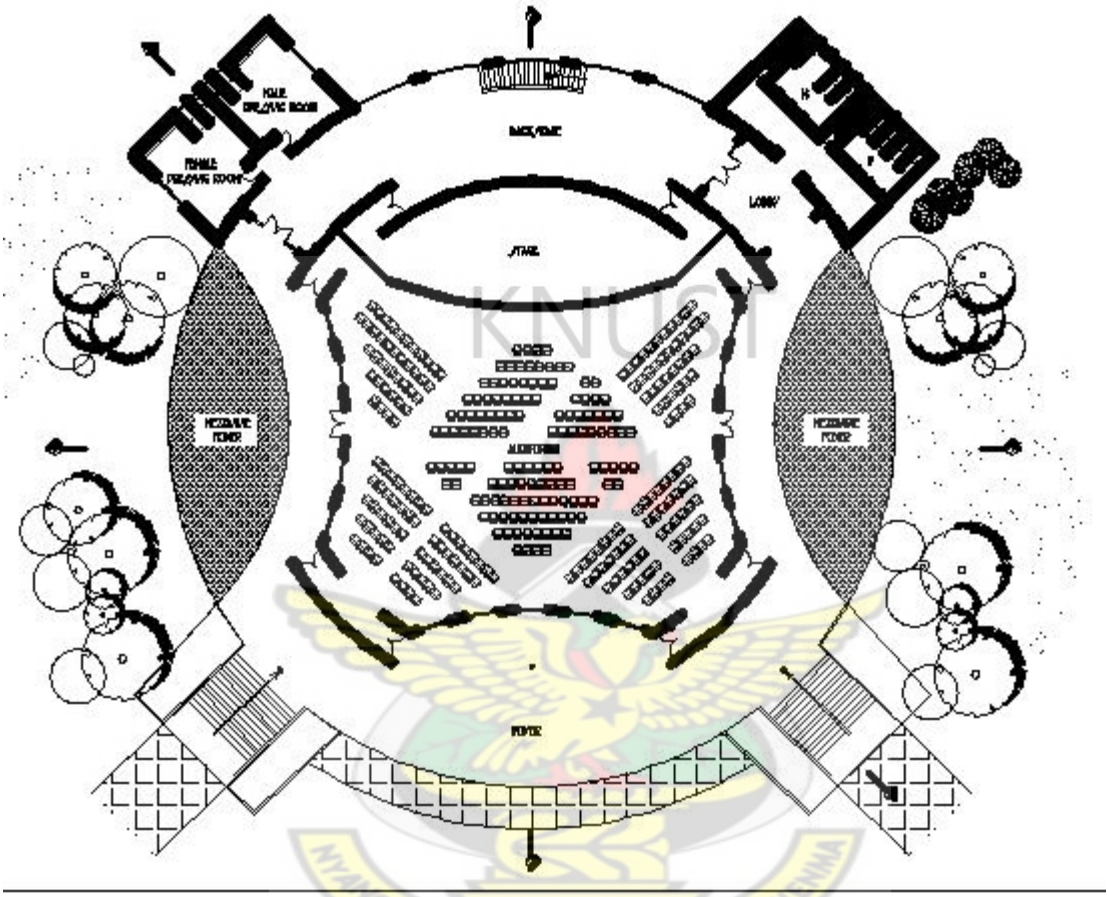
Appendix 3

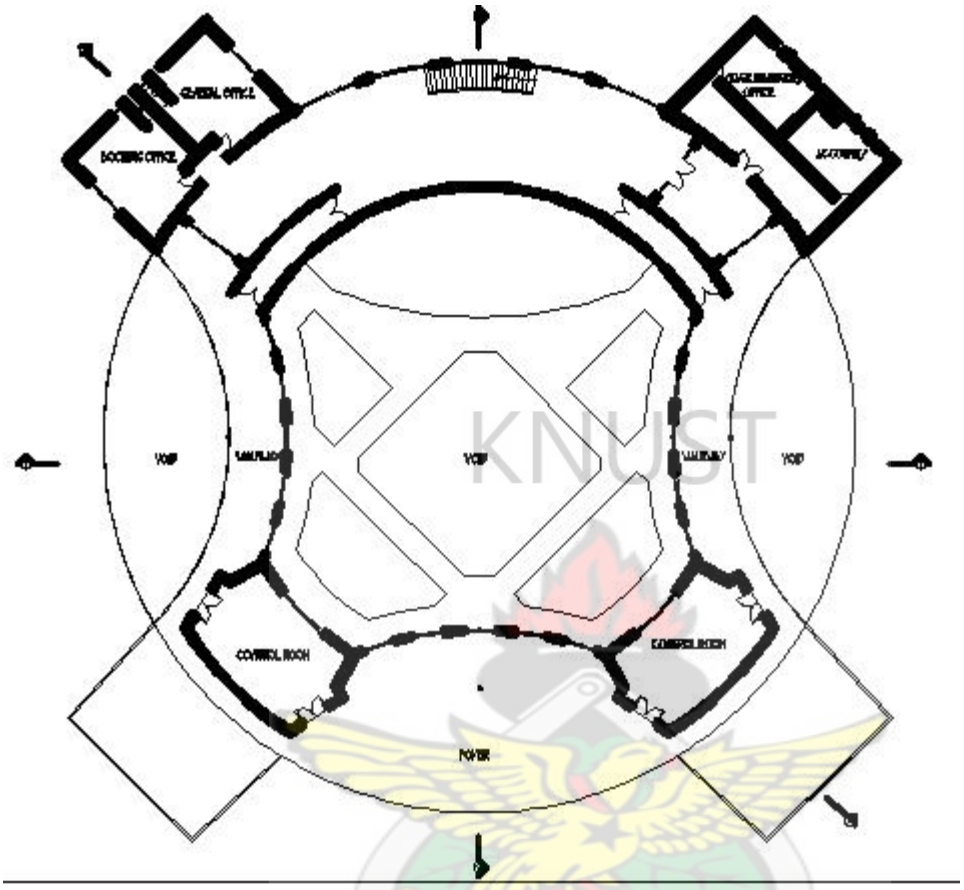


3.1 Park Layout

Appendix 4



4.1 Theatre – Ground floor plan



4.2 Theatre – First floor plan

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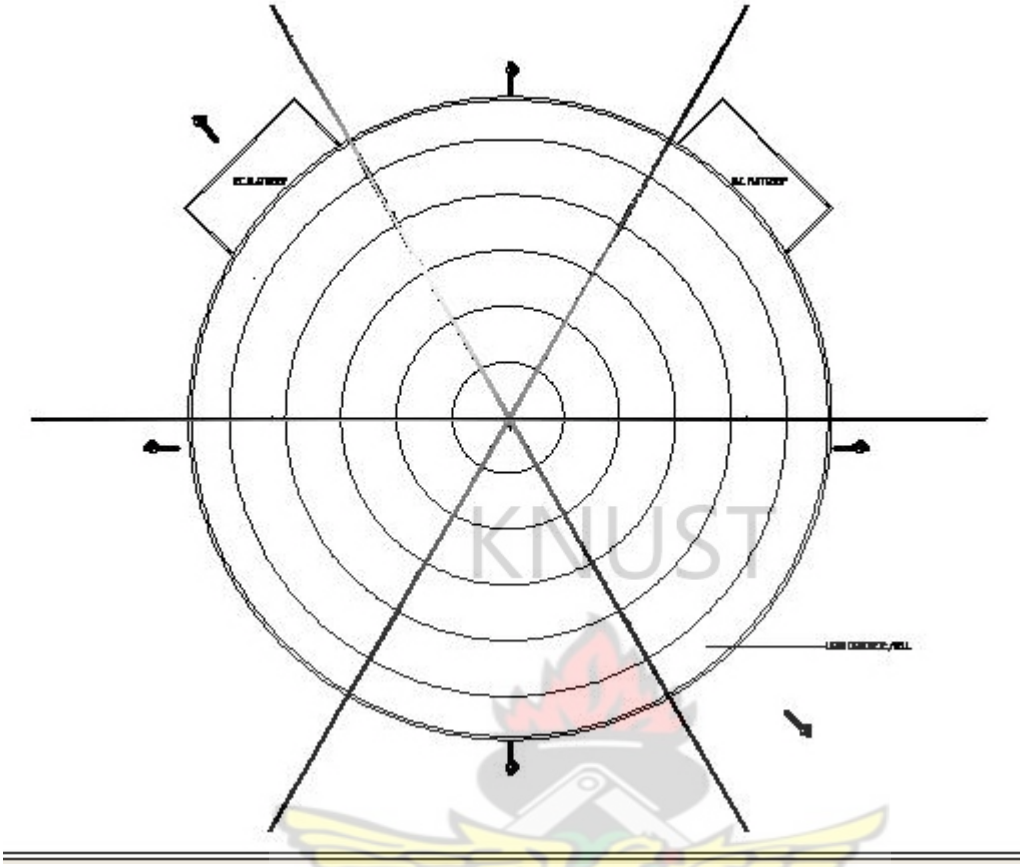
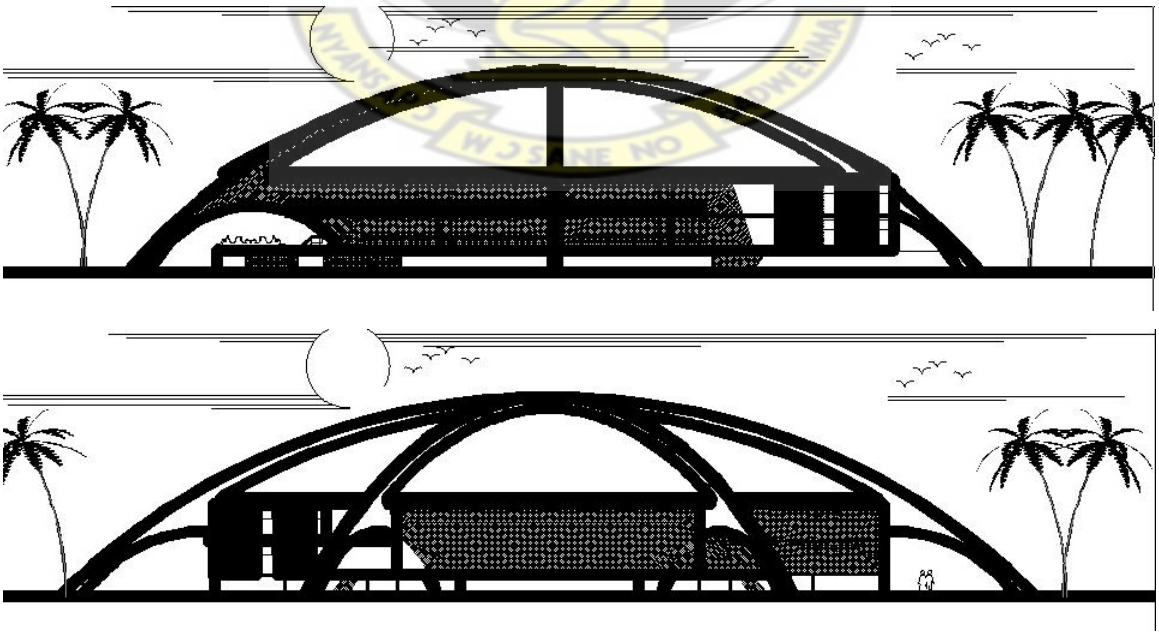
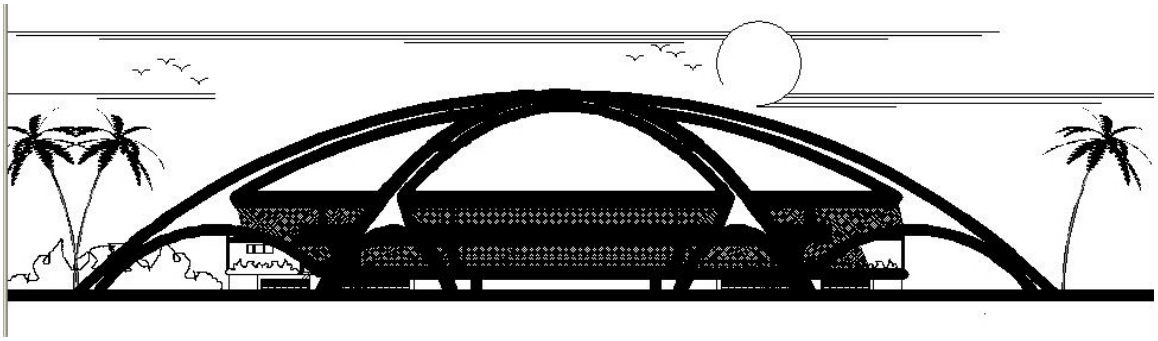


4.3 Theatre – Roof plan





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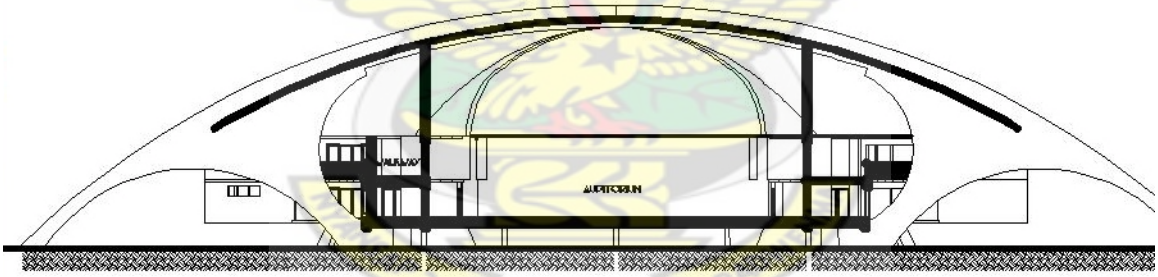
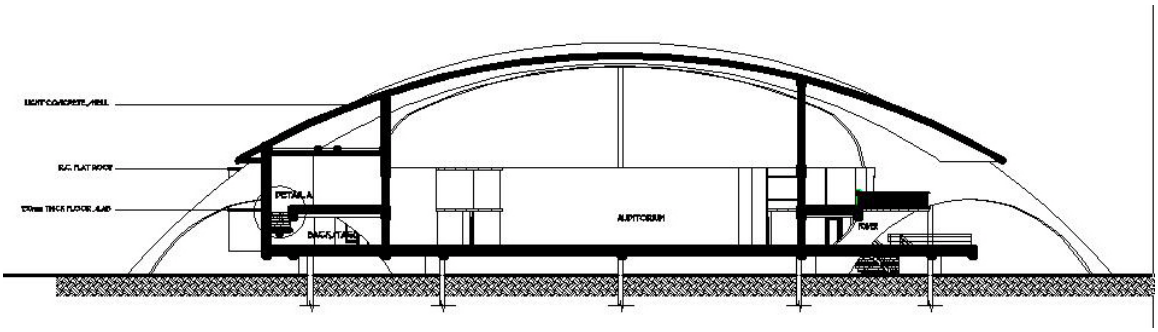
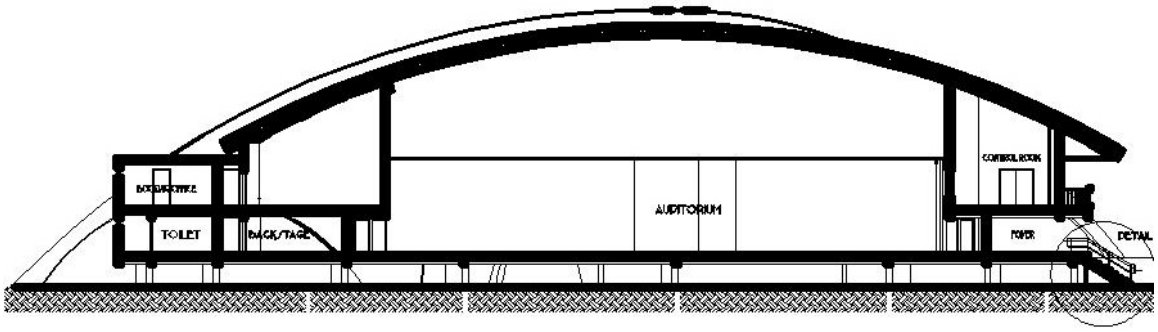
4.4 Theatre – Elevations







4.5 Theatre – Sections

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4.6 Theatre – Front view

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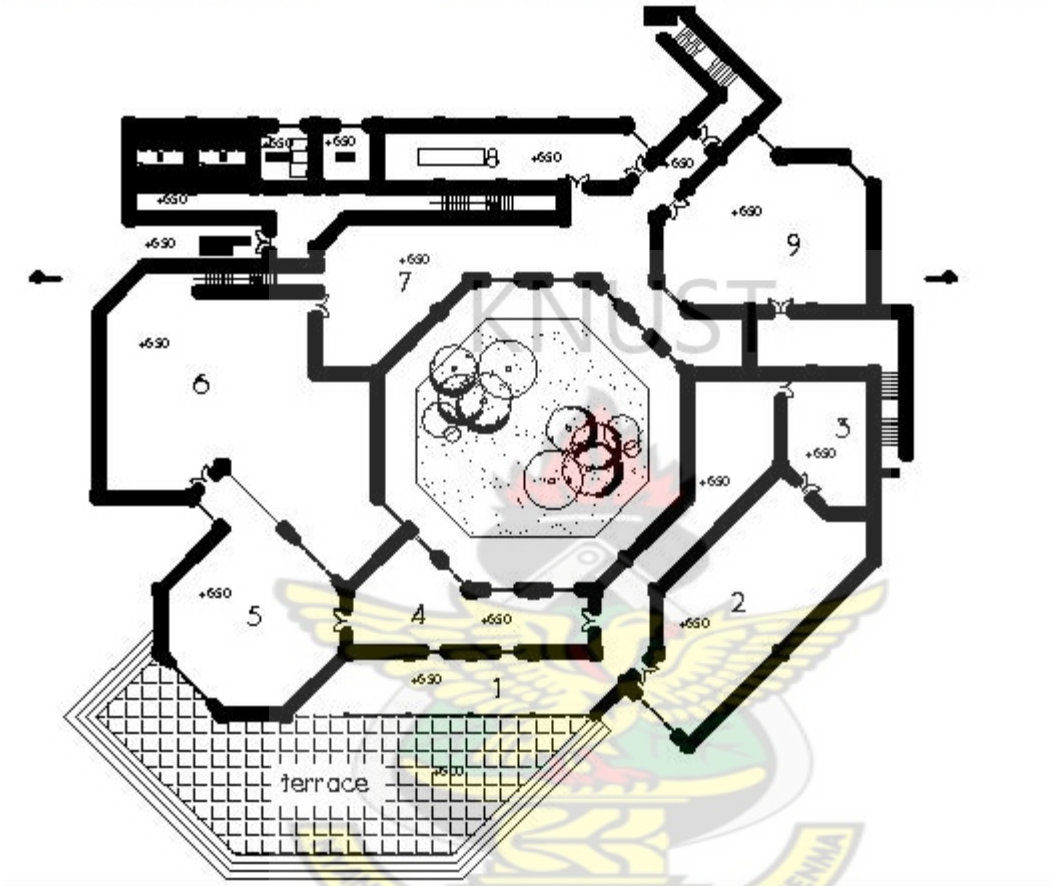
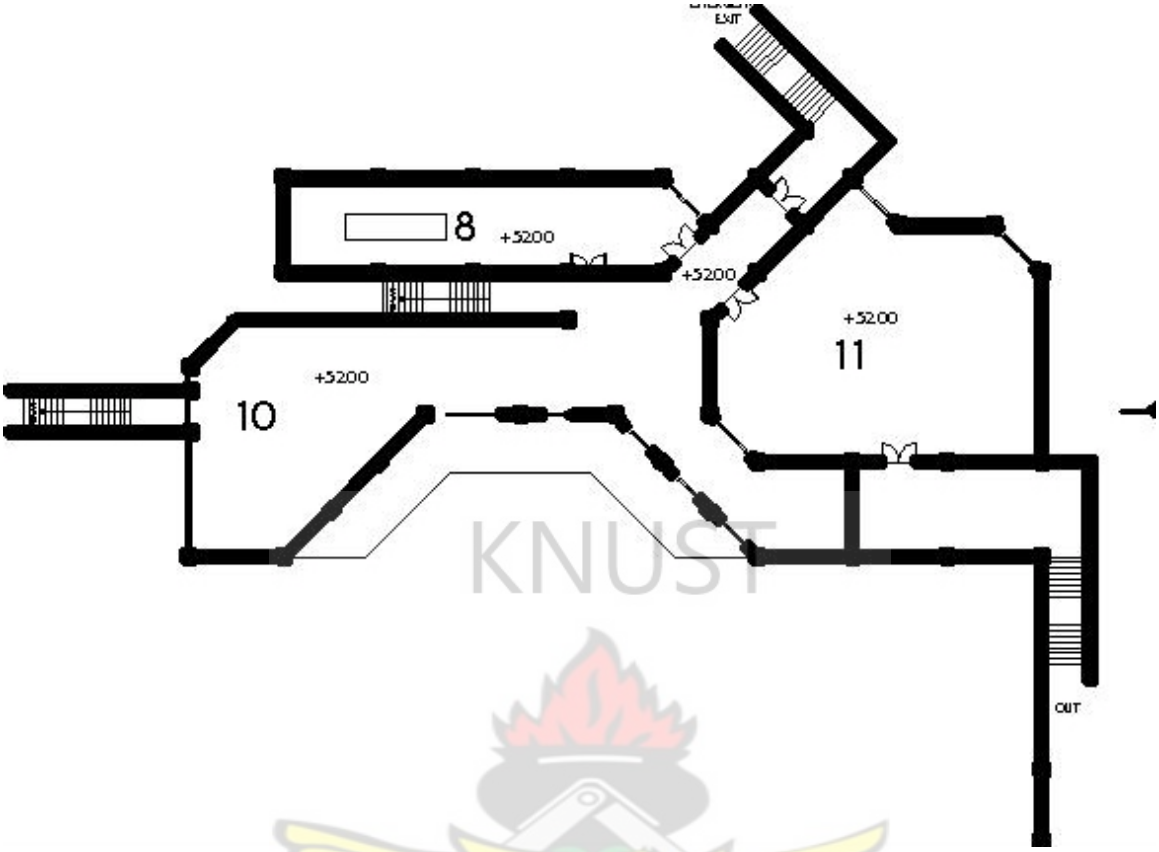
4.7 Theatre – Aerial view as seen at night

Appendix 5



5.1 Adventure games room – Ground floor plan



5.2 Adventure games room – First floor plan

5.3 Adventure games room – Elevation

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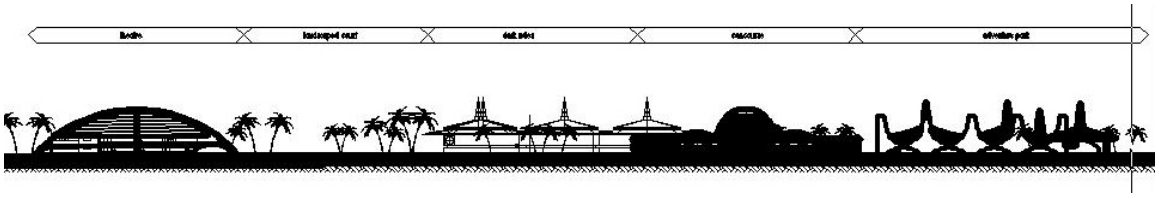
Appendix 6



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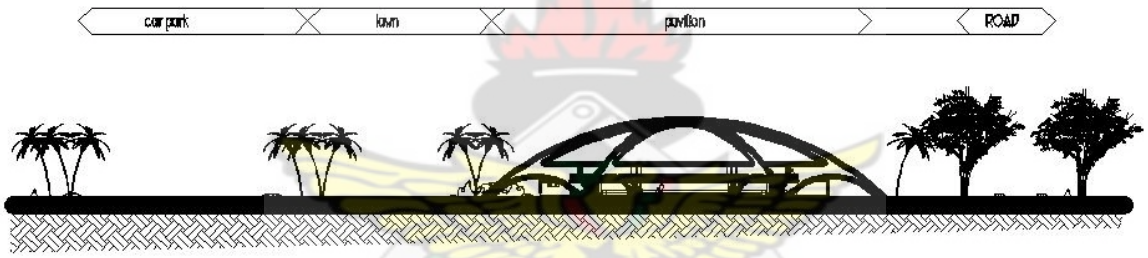
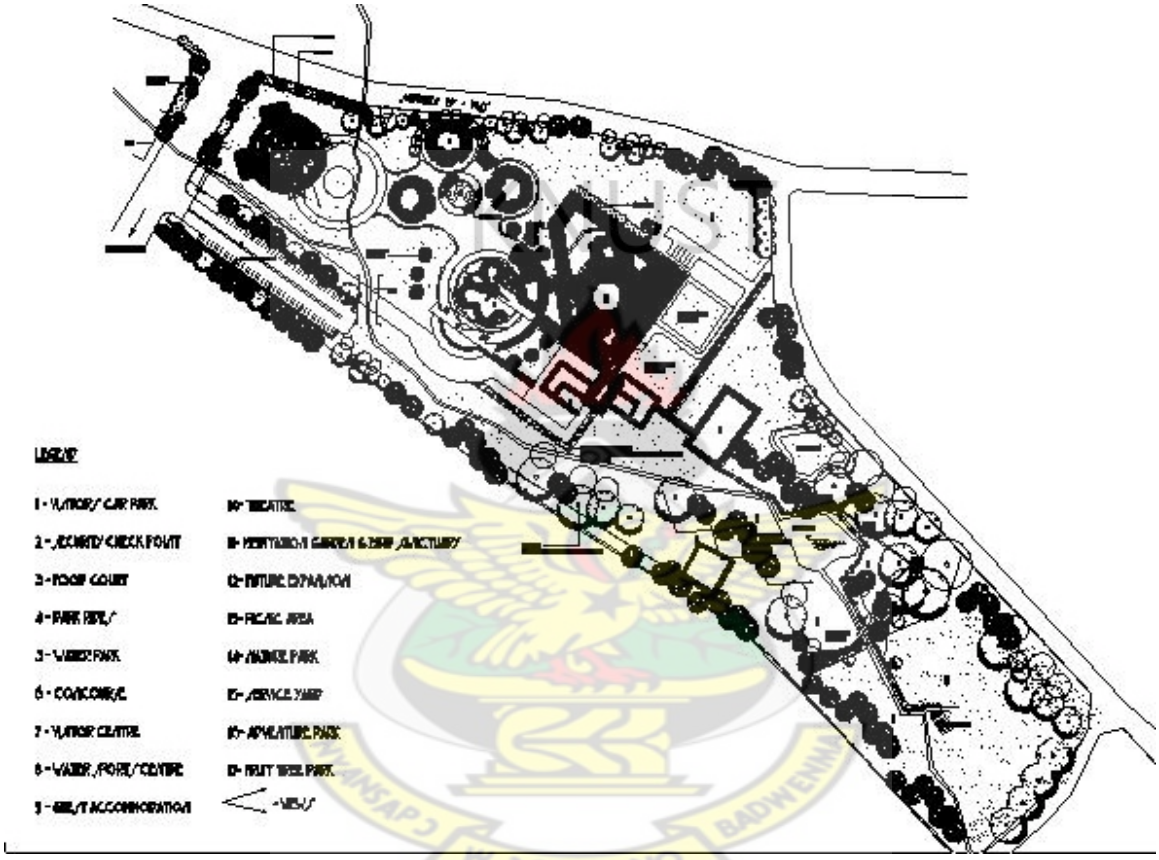


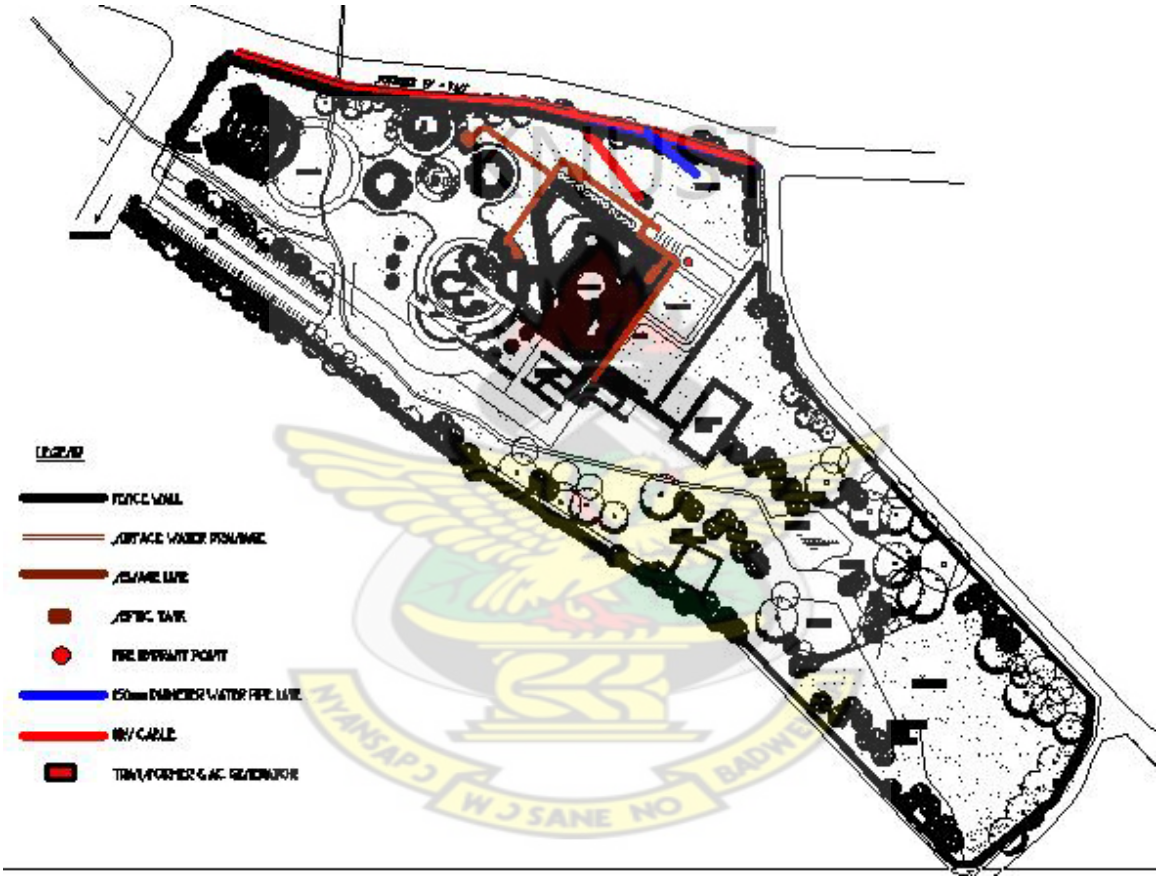
6.1 Site Sections

Appendix 7



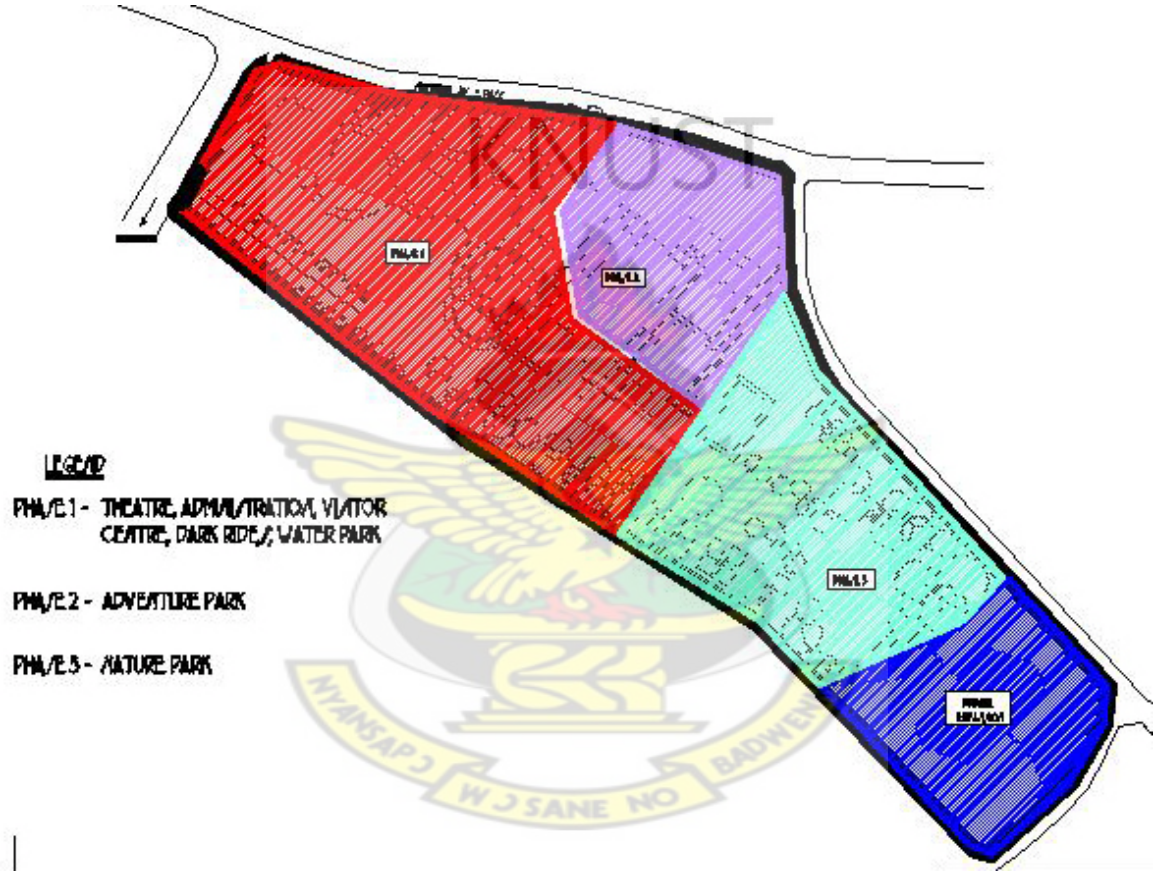
7.1 Landscaping

Appendix 8



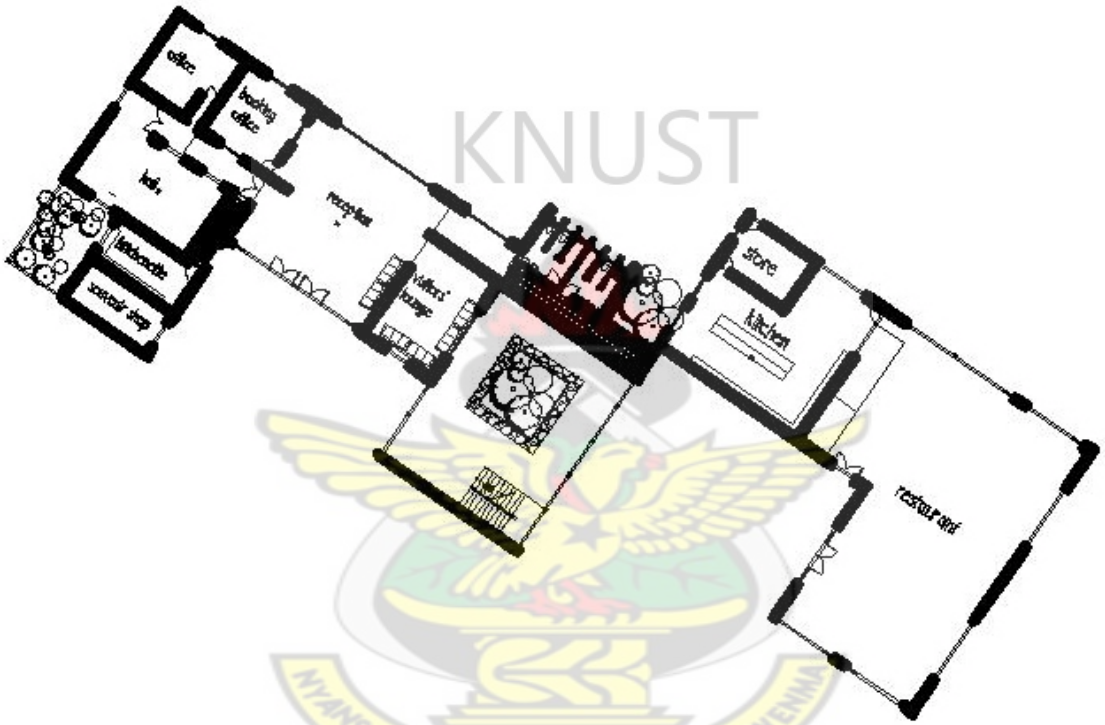
8.1 Services

Appendix 9



9.1 Phasing

Appendix 10



10.1 Visitor Centre – Ground floor plan

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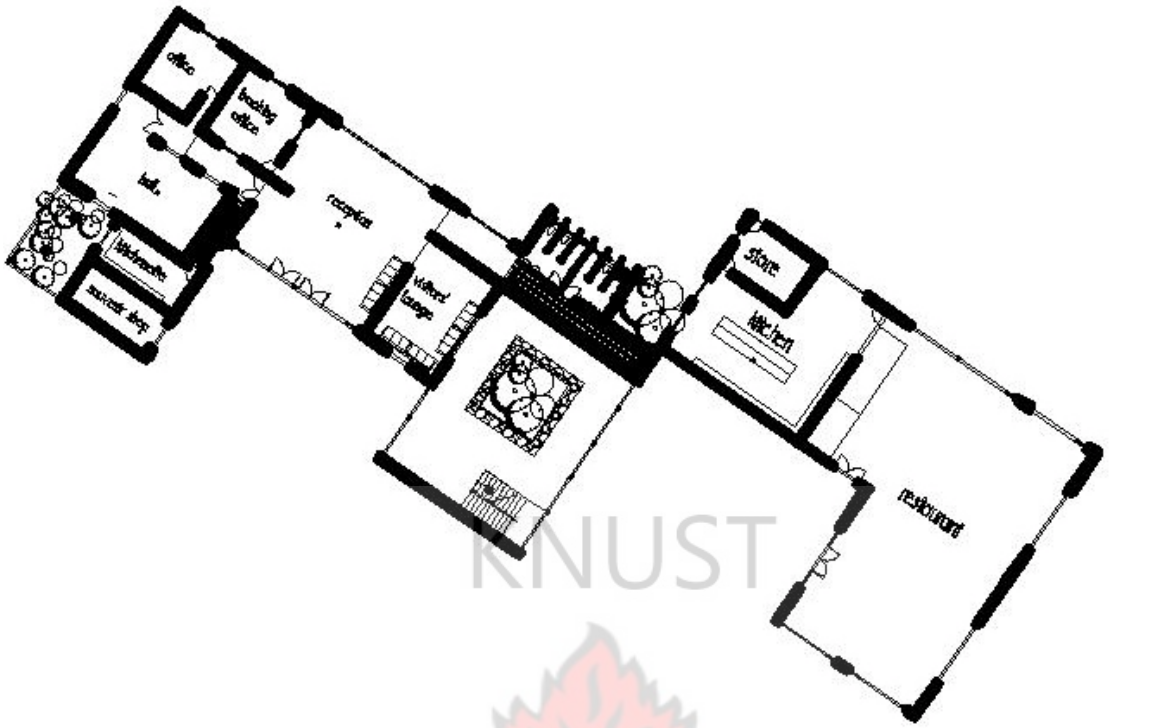
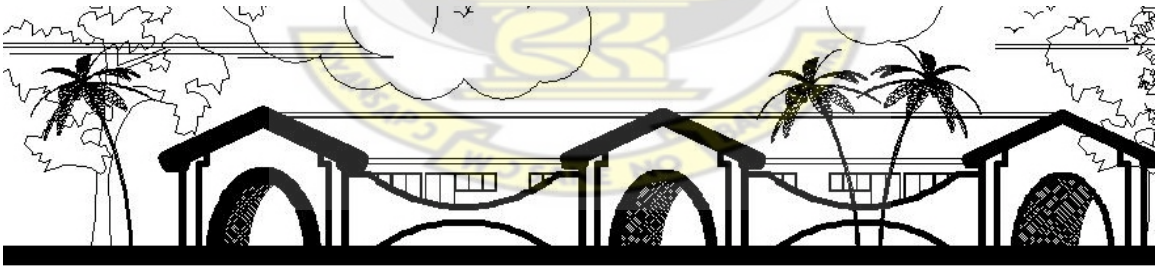


10.2 Visitor Centre – First floor plan



10.3 Visitor Centre – Elevation