Proposed Five Star Hotel, Eko Atlantic City, Lagos, Nigeria
(Design Consideration for a Tourist Facility)

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Certification

This is to certify that I, Micheal Ayodeji KUMUYI with matriculation number LCU/PG/002139 carried out this research work titled "Design Consideration for a Tourist Facility" in the Department of Architecture, College of Environmental Sciences and Management, Lead City University, Ibadan, Oyo state, for the award of Master of Science (M. Sc.) degree in Architecture. To the best of my knowledge, it has not been presented in any previous application for any degree of this or any other University. I ensured that there was no conflict of interest and all sources of information quoted have been duly acknowledged by means of references.

……. ……

Arc Babajide Aseyan Sunday Date/ Signature
Supervisor

…….... ……..

Dr. (Arc) Adedire Funmilayo Date/ Signature
HOD

Dedication

To the All-Powerful God, my creator, and to the wonderful family He gave me.

Acknowledgment

I want to express my heartfelt gratitude and admiration to God Almighty, who has never stopped providing for my needs, allowing me to reach this pinnacle of my academic career. I cannot thank my wife, Mrs. Ayo-Kumuyi Folasade Motunrayo, enough for her love, cooperation, and understanding throughout my program. My late father, Mr. Kumuyi Samuel Oladipupo, for the firm foundation he built for my schooling, as well as my mother, Mrs. Kumuyi Alice Ibitayo, for her unwavering emotional support.. I want to thank Mr. Kumuyi Ade Taiwo, Mrs. Olowoyeye Kehinde, and the rest of their family for always being there for me and my other siblings whenever we need them. My children, the twins Victor and Victoria, Eniola, Oluwatimileyin, Precious, and Fadekemi, deserve my undying love and unqualified gratitude for the happiness and affection our family shares. At this time, I would also like to thank the head, Dr. (Arc) Adedire Funmilayo, and the entire staff at Lead City University's Department of Architecture, the administrative staff of post graduate college for making my time there an unforgettable learning experience. But most of all, I want to thank my supervisor, Arc. Babajide Aseyan, for taking the time to read my work. I also want to express my gratitude to the following lecturers for their constant guidance and mentoring during my time in the department: Arc. Ademola A, Arc. Ajijola K, Dr. Ayanleke O, Arc. Motesho O, Arc. Olaniyan M, Arc. Olugbesan A. and Dr Adegoke K. To my brother and friend, Ojo Oluwayomi, and our big mummy, Dr Augutus Oluwakemi, I have to acknowledge your encouragement and unyielding concern for my progress. I'm very thankful to God for bringing each of you into my life. I alone am accountable for any errors found in the

work, if any, even though the aforementioned institution and persons assisted in the research process.

Abstract

Every country on the globe depends on the tourism industry because it has the potential to increase a country's GDP. Lagos has a lot of tourist potential for the economy to grow being characterized by surface water bodies, beaches and the lagoon which makes it a hotspot destination. Unfortunately, there has been poor development of recreational facilities in Lagos state, mainly due to hospitality, maintenance problems and personal safety. This study therefore assesses the current situation of tourist facilities in Lagos city as well as the architectural design considerations which are influential to the design and construction of a sustainable and resilient tourist facility by carrying out different case studies on existing local and foreign Hotels using physical observation method to determine how the design considerations can be integrated in the design of a hotel building. Findings shows that non-toxic materials and thermally responsive materials are to be used in interior building spaces and habitable areas for safety, with the a visually pleasing and adequate circulation flow in building structure. It is recommended that awareness be created about the shifting trends in hospitality of hotel buildings with set up standards and the government should enact laws that will control the expansion of hotels in Nigeria.

Keywords: *Five Star Hotel, Eko Atlantic City, Lagos, Nigeria, Design Consideration, Tourist Facility*

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Chapter One

Introduction

1.1 Back Ground of Study

One of the earliest human-kind endeavors is tourism. Although travel can be traced back to prehistoric times when man traveled in search of food and shelter, over time it evolved into a leisure activity that was primarily done to escape from a life of mundane routine. Today, tourism is a global industry involving hundreds of millions of people in international as well as domestic travel each year (Mason, 2020). According to the World Tourism Organization (UNWTO, 2020), global tourism grew 5% in 2018 to reach the 1.4 billion mark and export earnings generated by tourism have grown to USD 1.7 trillion.

But over time, the idea of mass tourism has been detrimental to the location because of things like pollution (noise, solid waste and littering, release of sewage, architectural/visual pollution) heating and over-crowding (Samarathunga, & Gamage, 2020). Thus, this opened the door for the development of alternative forms of tourism like ecotourism, heritage tourism, sustainable tourism, and green tourism, which not only provide travel opportunities but also cause little to no harm to the destination.(Janowski, Gardiner, & Kwek, 2021) That way, the negative impact of tourism can be addresses and pathways for more sustainable and resilience-built environment can be achieved.

Nevertheless, tourism is multi-dimensional and can be compartmentalized in a number of ways (Mason, 2020). Furthermore, the growth of any sector or activity necessitates a methodical and organized approach. For instance, the concept of tourism as a system includes a variety of components that are intertwined and woven together to form an

interdependent relationship rather than just hotels, restaurants, or cultural attractions. In conceptualizing these elements, Camilleri (2017) noted that the Attraction, Accessibility, Accommodation, Amenities and Activities are the fundamental components of tourism System. It, thus, becomes a priority to give special consideration to these components while showcasing the best of the local traditions and culture. A great deal of this depends on the architecture and design of the facility.

Architecture is the art or science of designing and constructing buildings (Asibazuyo, 2022). A good piece of architecture is one which succeeds in satisfying its intended uses; that it should be technically sound as well as aesthetically appealing. Any building design is invariably influenced by the technologies applied. In fact, the architecture of a hotel depends not only on the way its owner or entrepreneur wants, but also on the creativity and imagination of the architect. The final construction of the building is reflective of the skills and experience of the architect.

Therefore, the objective of this thesis is to assess the architectural design considerations which are influential to the design and construction of a sustainable and resilient tourist facility. This is with the view to design a five-star hotel for CDK Integrated Limited

1.2 Statement of Problem

Lagos city has abundant water resources characterized by surface water bodies, beaches and the lagoon (Badejo et al., 2014). These characteristics makes the coastal city a hotspot tourism destination. However, studies have highlighted poor development of recreational facilities in Lagos state, mainly due to hospitality, maintenance problems and personal safety. Whereas, Architecture as a problem-solving endeavor can be used

effectively to solve these problems as studies have explored the role of architecture as a catalyst for tourism development.

Although, the real value of design and aesthetics, and architecture's contribution to the tourism economy are under-reported and undervalued (Odoh et al., 2021). Reinmuth et al., (2016), thereby ignoring the substantial economic and social contribution made by architecture through a variety of broader services. To bridge the knowledge gap, this study is carried out to explore effective design considerations that a suitable for promoting tourism development in Lagos, Nigeria

1.3 Research Questions

1. What is the current situation of tourist facilities in the study area?
2. What are the design considerations influential in the designing a sustainable and resilient tourist facility?
3. How can these design considerations be effectively integrated in the design of a hotel building?

1.4 Aim and Objectives of the Proposed Project

This study's objective is to design a five Star hotel for CDK Integrated Limited at Eko Atlantic. The specific objectives are to

1. Investigate the current situation of tourist facilities in the study area?
2. Identify the design considerations influential in the designing a sustainable and resilient tourist facility?
3. Examine how can these design considerations be effectively integrated in the design of a hotel building?

1.5 Scope of the Proposed Project

The scope of the study would be focused on identifying the design considerations required in designing a tourist facility with the integration of various components that facilitates a sustainable and resilient tourist facility. Case studies will be drawn from around the world, two Local and three International.

1.6 Expected Benefits to the Society and Built Environment

The proposed project is expected to boost the economic benefit of tourism, development and improvement of the immediate surrounding, and also provides opportunities for employment.

The potential to absorb visitors and increase the economy by generating tax income for the government are further advantages such as solution for social sustainability

Other benefits are to improve the economy through tax revenue for government and solution for social sustainability i. e. ability to absorb visitors.

1.7 Locational Preference

Given that Lagos serves as the primary entry point for foreign investors into Nigeria,

Eko Atlantic, a self-sufficient and sustainable city, is a significant attraction for the tourism development. Considering and studying the sustainability of a hotel establishment, it is viable to invest on a hotel project in Eko Atlantic City. It demands a modern five-star hotel. Therefore, it is essential to have a high-quality tourist facility that can deliver faultless guest services, meet the expectations of stakeholders and investors today, and aid Lagos State in realizing its goal of becoming one of the best cities in the world.

1.8 Definition of Key Terminologies

1. **Tourism**: Traveling outside one's home country or region for leisure, business, or professional purposes is known as tourism and is a social, cultural, and economic phenomenon.
2. **Tourist Facility**: An establishment offering vacation lodging or recreation is referred to as a "tourist facility," which can also refer to a boathouse, boat landing facilities, campground, caravan park, vacation cabins, hotel, houseboat, marina, motel, playground, refreshment area, water sport facilities, or club used in conjunction with any such activities.
3. **Tourist**: A tourist is someone who travels to a destination for fun and interest, especially when they are on vacation.
4. **Attraction**: a location that attracts visitors by offering something interesting or enjoyable.
5. **Hospitality**: the welcoming and entertaining of visitors, guests, or strangers in a friendly and generous manner.
6. **Tourist Destination**: is defined as "a country, state, region, city, or town which is marketed or markets itself as a place to visit for tourists" or "a city, town, or other area which is significantly dependent on revenues from tourism." There could be one or more tourist attractions there, as well as perhaps some "tourist traps".
7. **Recreational Facility**: The term "recreational facilities" refers to spas, saunas, steam rooms, swimming pools, tennis courts, play structures, and other athletic, recreational, or exercise facilities.

8. **Resilience Tourist Facility:** is the capacity to overcome adversity and recover from challenging life experiences. It offers an alternative to sustainable development as a possible remedy for stress brought on by tourism and can improve sustainability after an ecological or environmental disaster.

Chapter Two

Literature Review

2.1 Global Perspectives on Tourism

Ramyar & Halim (2020) defined tourism as "the activity of moving someone from their normal environment to another location for leisure or business." It involves activities such as cycling, camping, and sightseeing. Transportation facilities, such as planes, cruise ships, trains, and taxi cabs, lodging establishments, such as hotels, hostels, apartments, resorts, and room rentals, and entertainment establishments are all part of the tourism industry that generates hospitality (such as theme parks, bars, casinos, shopping centers, music festivals, and theatres). It relates to touristic products, including memories (Võ, Boettcher, & Draschkow, 2019)).

The motivation for visiting tourist facilities is multi-dimensional. In fact, several studies have been carried out in order to conceptualize the various reasons for visiting these facilities. For example, Ryan, (1991) as cited in (Mason, 2003) drew on the work of Cohen (1972), Crompton (1979) and Mathieson and Wall (1982) and highlighted eleven main reasons for tourist travel to include: i) Escape, ii) Relaxation, iii) Play, iv) Strengthening family bonds v) Prestige, vi) Social interaction, vii) Sexual opportunity, viii) Educational opportunity, ix) Self-fulfilment, x) Wish fulfilment, xi) Shopping. Similarly, Chadwick (1987) provided a more simplified categorization of the reasons for tourist related journeys when he summarized the motivations for and purpose of travel under three main headings. These are as follows: Pleasure: leisure, culture, active sports, visiting friends and relatives.? Professional: meetings, missions, business etc.

Other purposes (study, health, transit). Numerous researchers in the field of tourism have been looking into how perceptions of visitors' importance affect various aspects of their behavior in recent years. It has been empirically observed that visitors' individual interests are very important to the tourism sector. It looked into the connection between perceived value and satisfaction, and the findings revealed that perceived value is both a factor in and a major source of tourists' satisfaction (Kanwal et al. 2020). According to how ecotourism is defined, a general evaluation of tourists' satisfaction and expectations with regard to the tourism infrastructures is a cognitive affective evaluation of the understanding of what is obtained and what is used, or perceived value. According to a calculation of the quality and services resulting from the changing conditions, circumstances, and situations in which the evaluation is produced, satisfied is related to the purchase of a good or service (Kim et al., 2015). With four distinct seasons, a wide range of animals and plants, and 26 national parks, Iran (whose name dates back more than two thousand years), a country in Asia's Middle East, is a popular tourist destination. Golestan National Park (GNP) is located on the western border of the Kopet Dag range and in the eastern Alborz (Elburs) Mountains range. The park's elevations range from 1,000 to 1,400 meters (3,300 to 4,600 feet) above sea level, covering 91,890 hectares. There are many different habitats in the GNP, including rocky areas, grasslands, and temperate broadleaf forests. White Eremurus Kopetdaghensis, Iris Acutiloba Subsp. Lineolata, and Iris Kopetdagensis stands can be found among the diverse flora (Iranian Tourism & Touring Online) (ITTO).

The foundation of tourism development and the use of already-existing destination resources is tourism infrastructure. Numerous services are included in the tourism

infrastructure because they are required to satisfy tourist needs and raise satisfaction levels during their stay at the destination (Kršák et al., 2015). The institutions that provide the goods and services that the tourism infrastructures require should be viewed as being a part of the tourism industry (Benur, & Bramwell, 2015). The tourism system frequently involves businesses whose products are marketed primarily to tourists but do not make up a significant portion of tourist consumption. This category includes a number of infrastructure components like power, telecommunication, water supply, and roads as well as some production components like travel accessories, sporting goods, photographic materials, medications, and cosmetics (Bimonte, & Grilli, 2016). The tourism infrastructure includes basic components like roads, waterways, airports, water supply, electricity, drainage, sewerage, solid waste disposal systems, and services. Therefore, facilities like lodging, dining, recreation, and shopping centers are also regarded as tourism infrastructure (Romão, 2015). However, the sustainable growth strategy for tourism infrastructure includes coordinating the construction of essential services and utilities with tourism facilities (González et al., 2019). Tented lodging, Forest lodges, tourist complexes/tourist lodges, hotels, facilities, tourist reception centers, pilgrim sheds/dormitories, and other basic types of criteria are used to develop tourism infrastructures. at places of adoration. Travel for tourists: minivans, jeeps, etc. Cruise ships for viewing the environment, ferry cannons, etc (Lamsfus et al., 2015).

Numerous technical studies emphasize the connection between infrastructure and tourism, emphasizing the unique role that tourism development plays in the modernization of infrastructure and, on the other hand, the reverse path, which produces multiplied effects of infrastructure creation on tourism (Bayati et al., 2016). The

decision-makers and experts from almost all fields are preoccupied with infrastructure development. For the evaluation of detailed plans about infrastructure development, the transportation infrastructure is crucial (Tolia-Kelly, 2016). The management of the connections between local economies, infrastructure, and tourism at all decisional levels determines the potential for multiplier effects. The psychological state of visitors is the source of some regional competition in this sector, and the importance of infrastructure in the development of the tourist phenomenon from a qualitative point of view is considered to be a crucial factor in visitor satisfaction in a number of specialized plays (Vavilova, & Chakina, 2016).

2.2 Types of Tourist Facility

The different types of tourism change over time and are very diverse. The needs of its goals, the level of cultural and social infrastructure, and the availability of transportation options all influence the types of tourism that are offered during a given time period. The type of tourism that results from combining more types of the same territorial unit is called spatial feature tourism. However, combining different types of tourism has regional or local significance as a factor for development in proportion to their number, while also being influenced by the season. Each type of tourism targets regions where the purpose can be achieved through available facilities, the local climate, or particular cultural traditions, depending on its objectives (Mkwizu (2019) Professional tourism is closely related to the productive activity if the first five types of tourism are engaged in on vacation. According to some authors, including Hunziker and Krampf, professional tourism is not considered a type of tourism because it is linked to a for-profit endeavor

and deviates from the definition of traditional leisure activities or health care. When professional and tourism are incorporated into the broad definition of tourism, "Tourism generally speaking" is created, which cannot be excluded from any analysis that is conducted. In terms of selecting a vacation spot,, Previous studies have distinguished: - volunteer tourism - the destination is chosen by free will of the beneficiary of tourist services (tourism, relaxation, visiting tourism, and reduced distance tourism - for leisure); - forced tourism - the destination is chosen from various requirements by others (tourism, relaxation and health care - on the medical recommendation, transit tourism – out of the need of transportation objectives, professional tourism - at the request of the unit where the beneficent of tourism services is working) (Cunha, Kastenholz & Carneiro (2020) Contrary to the types of tourism, the forms of tourism represent the manner in which to conduct tourism in response to external causes and influences. The characteristics of tourism serve to distinguish the various forms of tourism. Several types of tourism exist based on the following standards:1) The initial area's and destination's selection criteria are as follows: 1) Domestic tourism; 2) International tourism 2) The required quantity of participants: A) Traveling alone; B) Traveling with others. Three organizational criteria are listed: organized, unorganized, and semi-organized tourism. 4) The requisite season: a) tourism that is a) continuous and b) discontinuous. 5) Temporal Criteria: a) Very long-term tourism; b) tourism with a long duration; c) tourism with a short duration 6) The standards for vehicles used for transportation A) Travel by train; B) Travel by car; C) Travel by sea; D) Travel by air; E) Other types of travel (cycling, walking, etc.). 7) The social criteria are as follows: (a) Private tourism; (b) Social tourism 8) Tourists' age and profession should be considered: A) Youth tourism; B) adult tourism; C) tourism

tailored to older generations 9) The following criteria apply to destination type: a) Mountain tourism; b) Seasonal tourism; and c) There may be more categories of tourism depending on the travel motivations, which can vary greatly due to the influence of psycho-sociological factors, health, or life. Their estimation is based on the distribution of annual tourist flows and average length of stay (Martínez, Martín, Fernández & Mogorrón-Guerrero, 2019).

2.3 Nigerian tourist facility

Nigeria is a multi - ethnic society with a population of over 140 million and is the most populous country in Africa. It is home to over 250 ethnic groups and over 500 different languages (Dantata, 2011; Jakada and Gambo, 2014). Nigeria is located in West Africa and shares its borders with Benin to the east, Cameroon to the east, and Niger to the north. Nigeria has 36 states and Abuja serves as the country's capital. Esu's list of the Nigerian tourism and hospitality industry's components includes food and beverage, lodging, adventure, travel trade, transportation, events and conferences, attractions, and tourism services (2012, p. 279). Esu and Inyang (2009, p. 31) They also provided examples of what comprised each of the three subsystems, including the destination subsystem, the tourism retailing subsystem, and the transportation subsystem. For example, the tourism retailing subsystem is made up of tour operators and travel agencies. Before a tourist wants to travel to any destination of their choice, The first step is to contact a travel agency or a tour operator to purchase a vacation package, which typically includes booking a flight, a hotel, a safari tour, or any other tours offered by the destination. The transportation subsystem is made up of a bus, a car, an airline, and cruise ships, and the destination subsystem consists of things like restaurants and attractions, conventions, lodging,

retail stores, facilities, food services, leisure pursuits, festivals, and sports (Kalvet, Olesk, Tiits & Raun, 2020).

With regard to the aforementioned subsystem, these are the key characteristics all travel destinations need to offer, aside from the experiences they provide. In the Nigerian hospitality industry, the food and beverage industry are frequently regarded as hospitality; hotels, restaurants, and food service providers to a large extent provide this. Nigeria also has international companies like Sheraton, Radisson (Blu and Park Inn), Transcorp Hilton, Best Western, Intercontinental Hotels, Accor (Ibis), and many more that offer food and beverage services in Nigeria (Obinna, 2014). Other national and international hotel chains in major cities include Eko Hotel and Suites, Rock View, The Wheat Baker Hotel, The Moor House, Novotel, and Chida Hotels (Jakada and Gambo, 2014). According to Jakada and Gambo (2014), expressing their own opinions on the industry, they claimed that despite Nigeria's prominence in the production of oil, the hospitality sector is a robust one in the country's tourism and travel industry (Karatepe and Magaji, 2008; Karatepe and Olugbade, 2009), Because of her wealth and natural resources, corruption has destroyed the business climate in one of the world's most corrupt countries (Erondu et al., 2004; Okpara and Wynn, 2008).

Nigeria is now considered to be among the most dangerous countries in the world, in addition to corruption, because of a lack of security (Nzeako, 2014; Suleiman, 2010) Due to this negative global perception, Nigeria's tourism industry has suffered from a decline in visitors who are staying away out of fear for their safety and economic downturn brought on by terrorism (Karatepe and Aleshinloye, 2009; Karatepe and Magaji, 2008). The tourism and hospitality industries in Nigeria face significant obstacles like low pay, long hours, stress at work, gender discrimination, and rising unemployment (Adeyemi et al., 2006; Karatepe and Magaji, 2008).

Again, a major difficulty or issue confronting the hospitality industry is the issue of overpriced charges by hotels that provide poor service and are rated three stars. Sanni (2009), (Akpabio, 2007) It is also stated that this is due to poor customer satisfaction while (Nwosu, 2008) It has been suggested that those who provide services engage in unethical behavior. Because most of the staffs in the Nigeria hospitality industry are not qualified for the job, most of them have secondary school leaving certificate without any experience, even those with university degree don't have discipline in hospitality, but jobs are granted to them because of man-to-man connections, they will end up delivering bad service to guests.

Despite the spectacular growth of tourism in recent years, Dantata (2011) and Sanni (2009) indicate that another major issue with the Nigeria hospitality industry is a lack of laws and guidelines for long-term operations. In order for Nigeria's tourism sector to grow and compete in the global market, her ethical issues must be addressed in order to achieve sustainable tourism development and Vision 2020 objectives (Dantata, 2011).

2.4 Current Status of Tourist Facility in Nigeria

The provision of services in travel, transportation, lodging, meals and beverages, entertainment, information, guidance, and other services to meet the needs of tourists is referred to as providing tourist services. There are six main components to tourism, each of which has additional parts. These include travel agencies, lodging options, conference and event venues, tourist attractions, and other tourism-related services (Nwokorie, & Adiukwu, 2020).

Since the 1970s and 1980s, tourism has had increasing potential, but until the 1990s, Nigeria's hopes, dreams, and thought were not mature enough to pursue that sector of the

economy. By this point, elements or opportunities that are necessary for the growth of the tourism industry were very present, and they remain so today and, most likely, for quite some years to come, - As an illustrative example, consider the Gurara Water Falls, Ikogosi and Wikki warm springs, Mambilla Plateau, Riyom rock formation, Idanre Hills, Zuma Rock, Olumo Rock, etc -Ibadan Amusement Center, Abuja Parks and Amusement, Lagos Bar Beach, Obudu Cattle Ranch, Nicon and Sheraton Hotels, and Zaranda Hotels are a few of the attractions in Ikeja (Paramati, Alam, & Lau, 2018).

Additionally, the game reserves at Yankari, New Bussa, and Bauchi. Plateau Gardens and Monuments, the zoos in Kano and Ibadan, the fishing and boating competition on the Cross River, the Argungu fishing festival, etc.- Atilogu Dancers, local musicians from Kuntigi and Kalangu, the Yam Festival, the Gale and GboyaNupe Tradition, Eyo Masquerades, the Ekwechi Festival in Ebira Bronze Statues from Benin, regional fans and hats from the North, regional cloth dyers from China, etc. - Langa and Dambe. Chinese circus, traditional from the North, etc. - Different Seminars and Conferences, meetings and workshops held across Nigeria in popular tourist destinations. The potential financial effects of tourism include investment and development (Paramati, Alam, & Lau, 2018).

As a result, investors are ready to make investments as the local economy, including its industries and infrastructure, develops quickly (road, water, etc.). Social impact, on the other hand, in terms of public awareness and information flow. WAI.MAMSER.NOA, for example were launched to raise social awareness as well as the need to welcome

visitors warmly. Another benefit of traveling is meeting people from various backgrounds, which fosters tolerance, harmonious coexistence, the free exchange of ideas, and the promotion of unity (Paul & Joseph (2021). Tourism's positive social effects include the promotion of natural arts and crafts, health therapy, and cultural revival or reawakening. A positive relationship between man and his natural environment, as well as its conservation and protection, are other social effects of tourism. More specifically, social impact might enhance cultural exchange and image globally (Dychkovskyy & Ivanov,2020).

Social-Economic Impact of Tourism

The money and wealth it brings in for the people and the country are the economic effects of tourism. The idea of the tourism income multiplier (TIM), which states that a tourist's demand implies spending money with locals in those areas who then spend in other locations, further emphasizes this. It is encouraging to see that 5 to 7 percent of jobs are directly or indirectly impacted by tourism demand on average. These jobs can be found in tourism-related businesses like hotels, airlines, and travel agencies (Kayumovich, 2019).

In actuality, a thriving labor force was necessary for the growth of tourism. Moreover, the economic effects of Issues and Future of Nigerian Tourism Despite the potential and opportunities for tourism development in Nigeria, these issues continue to plague the country: The primary issue facing the tourism sector is the government's lack of political will, which has led to the industry's wide range of issues. (Kayumovich, 2019).

Once more, there is an urgent need to review the country's tourism policy in order to give it more comprehensive, well-rounded planning, and dynamism. Examples include giving tourism its proper place in the constitution, offering tourism courses in universities, standardizing hotels, funding, zoning, etc. Additionally, the structure, model, technology, and management practices of hotels in Western Europe are not unique to our surroundings. Although they should be monitored, tailored, and adopted to our tradition and cultural inclinations, such ideas shouldn't necessarily be rejected (Kayumovich, 2019).

The funding issue in tourism is another issue. It is not advisable or appropriate where tourism has developed to have excessive government involvement; instead, government should set the rules and then let the private sector and financial institutions handle the industry's development (Hang, Nhung, Huy, Hung & Pham, 2020).

Actually, sectoral cooperation and support from the government are what make tourism possible. Furthermore, let's not lose sight of infrastructure development. In Nigeria, this is a very serious issue. Poorly maintained roads, insufficient or nonexistent portable water, unstable power sources, inadequate communication systems, and the absence of other social amenities necessary to support tourism will all be bad signs for the industry (Kline, Duffy, Fogle & Clark, 2022).

Genuine tourists are often scared away by political instability, conflicts, insecurity, and poor societal changes among Nigerians. The prospects of this viable industry, despite the long list of issues they face, cannot be overstated for the following reasons. From rocks and falls to wildlife parks and gardens to hotels and conference facilities, Nigeria is full

of potential tourist attractions (Sørensen & Grindsted (2021). A certain degree of political stability has also been attained under the young democracy that has been established. Intensified infrastructure development efforts and the establishment of a tourism ministry and corporation all point to the growth of a thriving tourism industry (Kumar & Sharma 2022).

2.5 Architectural Design Considerations in Tourist Facility

2.5.1 Circulation

This describes the use of stairways and elevators in the room or structure to facilitate both vertical and horizontal human movement. A building may have either horizontal or vertical circulation. However, if circulation is described as vertical, it refers to the relationship between the levels, specifically how people move between the various floors. If circulation is described as horizontal, it refers to how people move in and around on a specific floor or level Siikonen (2021). Lifts, stairs, escalators, and ramps are examples of vertical circulation methods, whereas moving walkways and corridors are examples of horizontal circulation methods. Another way to categorize circulation is by direction, use type, use frequency, and use time. The term "circulation within interiors" describes how individuals move through and around a structure over time (Siikonen, 2021).

It is possible for the circulation to move quickly or slowly. Visibility and population density in the area influence movement speed. The terms "private" and "public" designate different spheres of movement. A public zone is one that is easily accessible if a circulation route is thought to be within it; an example of this would be a lobby. On the

other hand, a private circulation path will have staff and back of house circulation corridors (Siikonen, 2021). Depending on the level of use, these two types of circulation zones will be functionally and aesthetically different (how busy it is).

Public circulation routes will be more appealing and aesthetically pleasing, while private circulation routes will be built to maximize productivity and efficiency.

Circulation routes are a key architectural feature that don't need to be ugly or hidden when planning (Siikonen, 2021). One must make sure the path is clear and well-lit when evaluating the various circulation routes. The fastest and safest exit from the building must be used if the circulation route doubles as a fire escape. One of the first factors taken into account in hotel design is the flow of the circulation, which frequently influences the rest of the interior proposal (Siikonen 2021).

Within hotel buildings, it is important to clearly communicate the paths for public and private circulation, as well as fire safety and general use circulation. Different circulation routes frequently convey information through storyboards or maps on floor plans. Exploding the 3D perspective or axonometric of the building and color-coding your routes allow you to highlight the various types of circulation routes (Siikonen, 2021)

Circulation paths are crucial in bars, cafes, and restaurants for both staff and customers. For instance, the relationship between the kitchen and table service is greatly influenced by circulation. When planning this type of circulation route in hotels, it is important to take time and efficiency into account as well as the best route for avoiding incidents.

You should think about how guests will access the restrooms, taking into account flow and access routes that won't impede staff members who are under pressure or lead to private spaces. Use circulation routes to keep interference between the front and back of the house to a minimum.

Clear circulation routes can help communicate different zone locations, how to access the various floors, and where to find amenities like restrooms and food in buildings other than hotels, such as museums and galleries. This is crucial in public buildings of this kind because visitors frequently spend a lot of time there and will need to know where the different break points and amenities are when they arrive (Siikonen, 2021). This will assist the visitor in planning how to move through the interior while they are there.

2.5.2 Security

In every industry, but particularly in ones that are commercialized, like hotels, security is crucial. Due to their high volume of guests and 24-hour operation, hotels are expected to take the necessary security measures to protect all guests, staff members, and locals. Many visitors view the hotel as their temporary home while visiting the nation, so they search for a location that will ensure their comfort and safety. Although a hotel's amenities and other perks may seem very alluring, you should focus on how they prioritize and implement security measures in order to deliver dependable service to their guests and uphold a positive reputation (Cheatham, Javanmardian & Samandari 2019).

Key security precautions that each hotel should take

1. Educated Security Personnel

Figure 2.1: Security operative
Source: Author's field survey

The presence of trained security personnel throughout the hotel will both make guests feel more secure during their stay and discourage crime. No criminal wants to be caught committing a crime, so having security guards on duty prevents them from doing so, which lowers the likelihood of crimes occurring in the hotel (Cheatham, Javanmardian & Samandari 2019)

2. **Monitoring Equipment**

Security cameras are crucial in a big area like a hotel. The installation of security cameras throughout the hotel, especially in the unsupervised areas, will make it much easier for the security to monitor who enters and leaves those locations. The hotel's CCTV system will help in documenting any incidents or crimes there by helping to capture what actually occurred and giving proof (Prange, Shams, Piening, Abdelrahman & Alt, 2021, May).

Figure 2.2: Security camera
Source: Author's field survey

3. Fire Alarms

Almost all of the time, when relaxing in a hotel room or taking advantage of the facilities, one will not be considering any potential fire emergencies, but these things do happen and they do happen suddenly and without warning. Bruck, (2001) To stop the fire from spreading, resulting in more damage, or worse, hurting people, smoke detectors and fire alarms are good security measures.

Figure 2.3: Fire alarm
Source: Google Imagery, 2022

4. **Emergency Manual**

It is essential that guests have access to an emergency manual, which should be posted in the hotel's rooms. This emergency guide is a useful resource that lists the exits in case an emergency occurs while they are staying at the hotel (Haxton, Klise, Laky, Murray, Laird, & Burkhardt, 2021).

Figure 2.4: emergency manual for exit direction
Source: Google Imagery, 2022

5. Safety Emergency Procedures

Everyone in a hotel should follow safety precautions; it doesn't just apply to some individuals. The hotel's management should make sure that each employee is well-informed about the safety precautions that must be taken to ensure the guests' and their own safety (Scientific, 2018).

Figure 2.5: safety procedures briefing
Source: Google Imagery, 2022

6. **Keycard Locks**

Security guidelines and precautions evolve along with technology. The days of using conventional keys to enter hotel rooms are long gone. Keycard locks are now in use as an alternative. Each of these keycards is linked to the computer system. Each keycard is attached to a magnetic strip that has a unique code on it.

(Verma, & Thakur, 2020). For this reason, they are restricted to use in a particular room during a specific period of time. The old code will then be deleted and replaced with the new pattern. Key cardlocks are efficient security measures in hotels because they help limit access to the rooms, thereby enhancing guest safety.

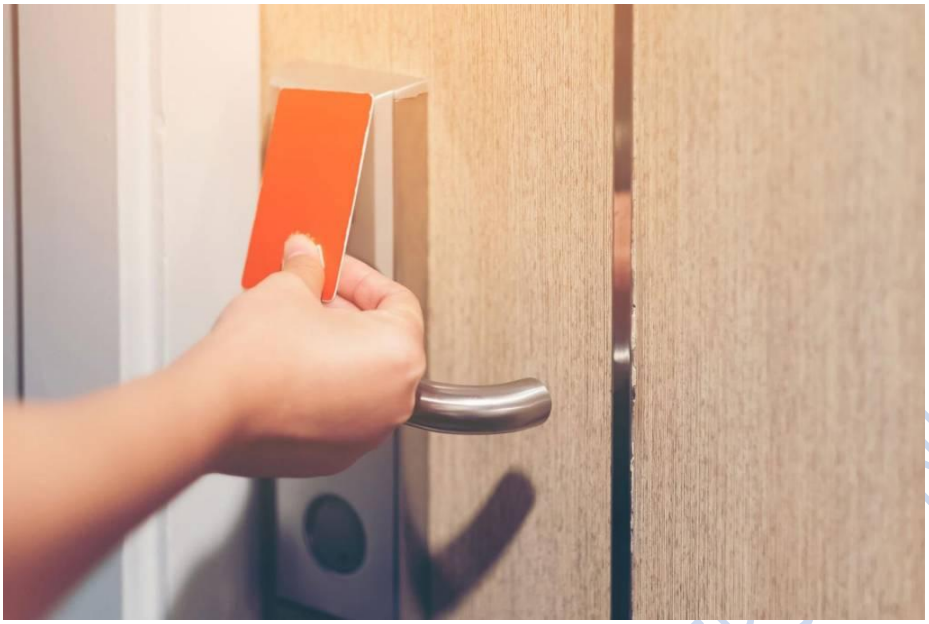


Figure 2.6: Key cardlock
Source: Google Imagery, 2022

7. Safety Vaults

There ought to be a safety vault in every hotel room. The valuables of the visitors are kept in safety vaults. Even when they are not in the room, having them there will help to ensure that their valuables are protected. Always put your safety first, especially in public areas like hotels where lots of people come and go (Naing 2022).

8. Emergency Response Plan

The staff team should be fully briefed about what to do in the case of an emergency. Regular meetings with law enforcement and emergency services should be scheduled in order to have a good communication plan in place and be able to update it as and when required. In doing so, it will ensure adequate preparation of staff so that everyone is calm and knowledgeable in a worst-case scenario (Haxton, Klise, Laky, Murray, Laird, & Burkhardt, 2021).

9. Structural Integrity

The study of previous structural failures in order to avoid issues in future designs is referred to as structural integrity and failure. It focuses on a structure's capacity to withstand a given structural load (weight, force, etc.) without breaking (Leporace-Guimil, Mudadu, Conforti, & Plizzari, 2022).

The structural integrity of an item refers to its ability to withstand a load without breaking, even with its own weight or deforming severely. It can refer to a single structural component or a multi-component structure. When applied responsibly, it ensures that the structure will perform as planned throughout the duration of its intended life cycle. Items are created with structural integrity to avoid catastrophic collapse, which can result in injuries, severe damage, death, and/or financial losses (Leporace-Guimil, Mudadu, Conforti, & Plizzari, 2022).

Building, like humans, may have reached an ageing point where it begins to groan and break. What causes them varies; The structure of a building may occasionally tremble because of an inadequate foundation or poor design, but more often than not, it degrades as a result of adverse environmental conditions, natural disasters like earthquakes and cyclones, soil erosion, and other traumatic incidents like explosions, abrasion, or corrosion. Any concrete structure has a typical lifespan of 75 to 100 years. However, unless basic, minimal maintenance is provided at frequent intervals, the aforementioned factors have the opportunity to decrease the functioning of your facility. You must be aware of what a building's structural integrity entails if you plan to buy,

rent, or live in one. Learning how to increase the lifespan of your structure is also essential (Leporace-Guimil, Mudadu, Conforti, & Plizzari, 2022).

Structural integrity is the most essential component of building engineering. It guarantees that the structure can serve the intended function as well as its structural load (including its own weight) for the duration of its anticipated lifespan without deforming, breaking, brittle fractures, or collapsing due to human abuse and environmental factors. To make sure this, regular maintenance is needed, including painting, waterproofing, and plumbing. avoiding or delaying decisions that could lead to devastating failure and cause financial loss, fatalities, or serious injuries (Leporace-Guimil, Mudadu, Conforti, & Plizzari, 2022).

Figure 2.7: Site construction workers
Source: The Author

Causes of Structural Failures

There are numerous factors that can contribute to structural failure, including the environment, poor design, shoddy construction, and others. The following list of root causes can serve as a summary: One of the main reasons for building failure is a lack of effective communication. lack of coordination between the designers, Participants in different phases of a construction project, such as fabricators and erectors. Using inferior materials, the type of raw materials utilized or acquired should be carefully considered when building a structure. All materials must adhere to a specific standard in order to be used. Poorly made materials can reduce a building's ability to support its own weight. Adam (Parisi, Sagaseta, & Lu, 2018).

Using the incorrect construction materials and production process are examples of manufacturing errors. Weak environmental appreciation: Environmental factors like natural disasters, corrosion, soil erosion, etc. cause many structural failures worldwide. They increase the risk of a building falling in addition to weakening the structure. Environmental considerations of a position should be taken into account to prevent this, and engineers should not ignore these weakening elements. (Adam, Parisi, Sagaseta, & Lu, 2018).

Weak structure: When the structure of a building doesn't qualify to withstand the load for what it was constructed or if it is not used for the intended purpose, structural failures are inevitable. The reason for this is largely because of improper design or material selection (Adam, Parisi, Sagaseta, & Lu, 2018).

Degeneration of the building's overall structure: A building will inevitably experience wear and tear as time goes on. A building's health can be harmed by cracks, leaks, and moisture. Therefore, it is crucial to perform regular maintenance checks (Adam, Parisi, Sagaseta, & Lu, 2018).

2.6 Mechanical, Electrical & Plumbing

MEP Engineering is an important component of every building project that includes the five main service areas: mechanical, electrical, plumbing, HVAC, and fire safety.

2.6.1 Mechanical, Electrical, Plumbing and Fire Protection

Mechanical Engineering:

- Design of Building Control Systems
- Infrastructure Design and Planning for Central Air Conditioning and Heating
- Duct distribution and air handling systems for central infrastructure
- Systems for Integrated Heating, Ventilation, and Air Conditioning
- Modeling the Performance of Fluid Dynamics Computation (CFD) Systems
- Design and planning for mechanical healthcare organisations
- Sources of Renewable Energy
- Examples of special energy systems include energy recovery, controls optimization, high efficiency equipment design, and distribution system design. Clean Rooms, Vivaria, Bio-containment Laboratories, USP 797 and 800 Pharmacies, High Energy Data Centers, and Performing Arts Centers are just a few examples of specialty system designs.
- Pumping and piping systems for condenser water, steam, hot water, and cold water
- Systems Planning, Evaluation and Optimization (Lavikka, Chauhan, Peltokorpi, & Seppänen, 2021).

Electrical Engineering:

- Devices for Clean Power

- Building energy distribution in its entirety
- Planning and Design of Standby Power and Emergency Power Plants
- Design for Building Services Using Medium and High Voltage
- Systems for Special Grounding
- Systems for backup power supply
- Sources of Renewable Energy (Lavikka, Chauhan, Peltokorpi, & Seppänen, 2021).

Plumbing and Sanitary Engineering:

- Domestic water systems for compressed air and vacuum
- Healthcare Plumbing System Design and Planning
- Design and Planning of Laboratory Plumbing Systems
- Utility and Building Systems for Natural Gas
- Medical gas systems among specialty gases
- Process Piping Systems with a Specialty
- Gray water, sanitary sewer, and stormwater collection and detention systems
- Systems for Treating Water Supply
- Systems for Reclaiming Water
- Systems for Recovering Waste Heat (Lavikka, Chauhan, Peltokorpi, & Seppänen, 2021).

Fire Protection/Life Safety Engineering:

- Planning and Design of Building Fire Pump, Standpipe, and Sprinkler Systems
- Systems to Suppress Clean Agents
- Codification Analysis

- Communications systems for emergencies
- Planning and Design of Fire and Smoke Detection and Alarm Systems
- Analysis and design of smoke evacuation and control systems
- Unique Suppression Mechanisms (Levy 2022).

2.6.2 Energy Efficiency

An energy-efficient structure ensures that occupants have a comfortable living environment while using the fewest resources and the least amount of energy possible. The performance measures are created by studying data on various building types in a particular nation. The average performance level of all the buildings in a given category serves as the benchmark, and good practice is the high performing outcome (Jo, Kim, & Park, 2018).

The standard of energy efficiency can be evaluated and priority areas for action can be determined by comparisons with straightforward benchmarks of annual energy use per square meter of floor area or treated floor area (kWh/m2/annum). The use of benchmarks is primarily restricted to the following areas: office or other electrical equipment, heating, cooling, air conditioning, ventilation, lighting, fans, pumps, and controls. The benchmarks used change depending on the nation and type of building. Another term for the measure of heat loss through a material is the U-Value, which is also used to describe how energy-efficient a building is (Jo, Kim, & Park, 2018).

By rating how much heat can pass through a component, the U-value describes how well an element conducts heat from one side to the other. They serve as the benchmark for

defining the minimum energy efficiency standards for windows, doors, walls, and other exterior building components in building codes (Jo, Kim, & Park, 2018). The energy efficiency of the materials used in a building component or section is also rated by U-values. A low U-value denotes effective energy use. The amount of energy needed for cooling or heating can increase due to heat gain or loss through windows, doors, walls, and skylights. Because of this, the majority of building codes have established minimum requirements for these components' energy efficiency (Jo, Kim, & Park, 2018).

The amount of capital investments required on the supply side of the energy system to produce a similar amount of peak capacity or annual energy production can be compared to the cost of energy efficiency investments made in a building. The capital costs of efficiency are typically lower than comparable investments in increased supply, and there are no additional operating costs of efficiency in contrast to significant operating costs for supply-side options (Jo, Kim, & Park, 2018).

Additionally, investments in energy efficiency typically have shorter lead times than investments in energy supply, which is a crucial factor to take into account in nations where the demand for energy services is rising quickly. Governments share the responsibility and expense of ensuring the security of the energy supply with end users by establishing energy efficiency goals for buildings. It is inevitable that generation capacity in developing nations needs to be increased. However, by finding a balance between lowering demand and raising supply, governments can overcome peak demand constraints. Governments in developing nations frequently have to set aside funds to

subsidize new generation capacity or the price of petroleum-based generation in order to increase supply (Jo, Kim, & Park, 2018).

A more sustainable strategy would be to lower demand by establishing a low-interest, simple-payment energy efficiency revolving fund to encourage consumers to adopt energy-saving measures. Repayments could be based on energy savings. Lower energy costs are the main advantage of measures to make buildings more energy efficient, but there are typically other advantages as well. Energy-saving measures are intended to reduce energy consumption while maintaining or raising the standard of the building's services (Jo, Kim, & Park, 2018).

Reducing energy use for space heating and/or cooling and water heating are a few advantages that are likely to result from investments in energy-efficient buildings. reduced use of electricity for domestic appliances, office equipment, and lighting; fewer maintenance obligations; End-user demand for diesel- or renewable energy-based backup/standby power generation is high in developing nations with intermittent electricity and frequent power rationing. Buildings with less energy and power consumption will require less capital investment and have lower operating costs for these stand-by systems (Jo, Kim, & Park, 2018).

2.6.3 Occupant Comfort

One of the most important considerations in a building's design is how well it provides a comfortable environment for its occupants. If properly addressed, many different factors

that affect comfort in the built environment can lead to low levels of comfort, discomfort, or even harm and ill health for residents.

Individual characteristics, health and wellness, thermal comfort, indoor air quality, visual comfort, noise intrusion, ergonomics, and more are examples of comfort-related factors (Day, McIlvennie, Brackley, Tarantini, Piselli, Hahn, & Pisello, 2020).

The following personal variables can have an impact on a building's sense of comfort,

Personal factors

- Age.
- Gender.
- Level of health.
- Clothing worn.
- Type of activity and level of intensity.
- Access to food and drink.
- Acclimatization.
- Psychological state.

For instance, older people frequently experience colder temperatures than younger people.

2.6.3.1 Health and wellbeing

The definition of wellbeing given by Dodge et al. (2012) as "...when individuals have the psychological, social, and physical resources they need to meet a particular psychological, social, and/or physical challenge" is strongly related to comfort.

In addition to physical comfort in a setting, wellbeing takes into account other aspects such as work and marital status. Physical resources they need to meet a particular psychological, social and/or physical challenge'. Wellbeing incorporates other factors such as employment and relationship status, rather than just physical comfort within an environment (Dodge et al. (2012).

2.6.3.2 Thermal comfort

According to BS EN ISO 7730, thermal comfort refers to the state of being when a person is neither too hot nor too cold and instead expresses contentment with the thermal environment. People's capacity to function efficiently, job satisfaction, likelihood of continued business, and other factors are all impacted when they are not content with their thermal environment. This is in addition to the potential health risks that could result. The means of achieving a comfortable indoor climate must therefore be included in the building design (Luo, Wang, Ke, Cao, Zhai, & Zhou, 2018).

The effectiveness of the ventilation in a building can also have an impact on people's comfort. Buildings need air circulation to remove "stale" air and introduce "fresh" air while also preventing overheating. To survive, we all need to breathe air, but if that air is contaminated or contains airborne pathogens, we run the risk of getting sick.

Another crucial element is visual comfort, which includes having access to natural light, having views of the outside, reducing glare, and other things (Luo, Wang, Ke, Cao, Zhai, & Zhou, 2018).

2.6.3.3 Unwanted noise

The level and nature of noise in a facility can also have a negative impact on comfort. The term "noise nuisance" refers to excessive noise or disruption that may be harmful to one's health or quality of life (Slabbekoorn, 2019).

2.6.3.4 Ergonomics

Ergonomics is concerned with the design of workplaces, products, and systems to best suit individuals who use them. The goal of good ergonomics is to use knowledge of human capacities and limitations to improve interaction with the environment and products, as well as to prevent or limit the risk of disease or damage (Afroz, & Haque, 2021).

2.6.4 Aesthetic Appeal

One of the main factors taken into account in architecture is the appearance of a structure. Shape, scale, texture, color, balance, unity, movement, emphasis, contrast, symmetry, proportion, space, alignment, pattern, ornamentation, culture, and context all contribute to a building's aesthetic appeal (Macdonald, 2018). A skilled architect should never neglect the aesthetic considerations because appearance is a significant factor that determines the overall satisfaction of clients. Even though a building or structure is functional, it may not have the desired effect if it lacks aesthetic appeal (Macdonald, 2018).

While others don't, some buildings appear exciting and welcoming? Every structure is unique in both appearance and impact. What, though, separates hateful buildings from beautiful ones is universal. In her book, The Language of Houses: How Buildings Speak

to Us, Alison Lurie explains why beautiful buildings bring joy and happiness and why ugly buildings don't. She says: ***"Architecture can make us happy, but like a vulgar, dishonest speech, it can also make us miserable. Ugly, badly constructed buildings are unpleasant to live or work in, and dirt, disorder and failures of décor can also be deeply depressing."***

2.6.4.1 Beautiful and Ugly Buildings

Alain de Botton asserts that a structure is deemed beautiful if it upholds our principles. "The buildings we admire are ultimately those which . . . refer, whether through their materials, shapes or colors, to such legendarily positive qualities as friendliness, kindness, subtlety, strength and intelligence." The definition of beauty, however, evolves over time. A perfect Renaissance building combined classical Greek or Roman design elements with local climate and landscape considerations. The Gothic style of architecture was popular in the 18th century. Architecture always strikes us as having a certain style. However, there are some structures that will endure forever and remain stunning over time. The Forbidden City, Gaud's Sagrada Famlia, and the Parthenon are just a few examples, though they are not in the same state as they were in their heyday (Chen 2021).

Figure 2.8: Baroque style of architecture showing aesthetics
Source: Google images

Why are aesthetics so important?

People's thoughts and feelings are being influenced by aesthetic design. It has an impact on how much enjoyment we get from the thing. Aesthetic design influences our long-term perceptions of items and even characters. Aesthetic design is important not only for making a good first impression, but also for maintaining a strong bond with the user (Berleant, 2018).

2.6.5 Sustainability

Sustainable design seeks to reduce negative impacts on the environment, and the health and comfort of building occupants, thereby improving building performance. The basic objectives of sustainability are to reduce consumption of non-renewable resources, minimize waste, and create healthy, productive environments (Wijesooriya, & Brambilla, 2021).

The term "sustainable architecture" is a catch-all term for structures created to minimize human impact on the environment. A modern building's planning and construction process must take into account all environmental factors, including the choice of building materials, the design and implementation of heating, cooling, plumbing, waste, and ventilation systems, and the integration of the built environment with the surrounding natural environment (He, Li, Cao & Li, 2020).

Characteristics of Sustainable Architecture

- The ultimate goal is to reduce human effect on the environment.
- Due to the utilization of renewable energy sources, such as solar panels and natural heating, cooling, and ventilation systems, there is a minimum amount of detrimental, wasteful energy use.
- Buildings with a net zero effect, meaning they produce at least as much energy as they use
- Water-saving technologies, such as those that collect rainwater and reuse gray water

- Blending in with the environment where possible and utilizing renewable resources like bamboo, hemp, cork, flax, and soy
- Replacing traditional materials like concrete with environmentally friendly substitutes like hempcrete, which is made from hemp, lime, and water, or switching from traditional plastics to cutting-edge bioplastics made from algae
- Recycling and upcycling of materials
- Flexible, modular buildings made of easily destructible, reusing, or recycling natural materials
- Tiny homes, micro residences, and other compact buildings that use less energy and land mass can help satisfy the demand for more sustainable housing.
- Alternate solution housing options for addressing housing shortages in crowded coastal areas include homes and apartment buildings made from recycled shipping containers as well as floating structures on waterways throughout the world.
- Living walls, residential towers with trees covering them, and green roofs to help cool existing buildings and create livable biophilic environments for people
- Utilizing natural resources to construct structures and systems that can regenerate after being used up and then completely disassemble.
- Sustainable building principles to address environmental issues while easing social issues (Wijesooriya, & Brambilla, 2021).

2.7 Challenges Limiting the Effective Integration of Design Considerations in Hotel Buildings

The tourism industry is gradually running out of tolerance for poor customer service. According to the findings of a 2016 study of internet users in the US and the UK, one negative experience with a hotel brand is enough to turn away customers (Bauer, Glenn, Strejilevich, Conell, Alda, Ardau, & Bauer, 2018).

Due to rising customer demands for excellent hygiene standards, first-rate service, and customized experiences, the hotel industry is facing a variety of challenges (Hole, & Snehal, 2019).

1. **Cleanliness**

First impressions count for a lot, and when using a hotel's restroom for the first time, many visitors can tell right away what to expect from the establishment.

People demand cleanliness, especially in the service industry, so this is not surprising. In fact, cleanliness and hygiene are given top priority when selecting and recommending hotels after a stay. The majority of hotel guests would choose a spotless hotel over one with frills or even more modern amenities like wifi. Building customer loyalty and managing brand reputation still depend on efficient housekeeping teams (Choi, 2019).

2. **Technology**

Technology is absolutely necessary for modern life. While we might use our vacation to unplug from some aspects of our lives, it seems that we never really want to unplug from technology. The fundamental right to connectivity is one that all hotel guests worldwide demand. Technology

is a constant travel companion wherever we go. It's encouraging that the hotel sector is embracing the technological revolution.

Hotel chains can set themselves apart from the competition and attract new customers by utilizing innovative technology that benefits both guests and hotel operations. Consumers are willing to interact with brands that use cutting-edge technology, according to a February 2017 Oracle Hotel 2025 survey, if they stay in control of the interplay.

At first, people wanted free WiFi connections, but now this is a necessity. Since then, in addition to other technological features like smart mini bars and golf simulators, hotels have added voice control and robotic technology. If you're interested in staying in high-tech accommodations, read the Business Insider article on the top 12 high-tech hotels in the world.

Marriott is looking into using Google Home and Amazon Alexa in guest rooms, and Amazon Echo is already in use at the Wynn hotel in Las Vegas. Hoteliers must strike the right balance between automation and the personal touch, even though there are countless opportunities for technological advancement to boost hotel efficiency. Long-term business success requires technology investment, but it cannot come at the expense of individualized service.

3. **Excellent service**

Every hotel visitor expects to receive good customer service, but today's hoteliers must go above and beyond by providing excellent service. The standard of the service provided by a hotel is used to evaluate it. Success depends equally on having a highly competent and attentive staff, a personal touch, respect, and the ability to make a visitor's stay as comfortable and relaxing as possible. If hotels can deliver that extra level of service, they can increase repeat business and brand loyalty. Although the adage "The customer is always right" may have originated in the

retail industry, it is extremely applicable to the hospitality industry. How can hotel owners' profit from their services? By comprehending their clients' identities and expectations (Prabowo, Astuti, & Respati, 2019).

Hotels must gain a thorough understanding of the types of customers they want to draw in order to win repeat business and guarantee long-term growth. They must then offer amenities and services that are tailored to these customers' needs. Employing data scientists is now more in demand in the hospitality industry as they can offer insights into hotel guests' preferences and interests, resulting in unexpected and well-received personalized touches during a guest's stay (Prabowo, Astuti, & Respati 2019).

Design trends, technology, and personalization can all work together in the hotel industry to create a memorable experience and boost customer loyalty. It's no longer sufficient to enjoy a nice meal at a nice restaurant with excellent service. Restaurants are aware of the value of offering a genuine "dining experience." Due to the French restaurant Dans Le Noir, consider the current craze of dining in the dark, where all of your senses, not just your taste buds, are awakened to provide a true "experience."

Think about how cruise ships have changed into liners like the Symphony of the Seas over the past few decades. Experiences ought to be seen as a continuation of first-rate customer service (Prabowo, Astuti, & Respati 2019).

4. **Sustainability**

The agenda for sustainability is rapidly expanding within every organization as a result of people's growing interest in and concern for the environment. Actually, the World Tourism

Organization places a high priority on sustainable tourism. As savvy hoteliers are aware, corporate responsibility programs can help hotels gain clients and trust while also enhancing staff morale, the environment, and revenue. A hotel's operating costs are primarily made up of the cost of its energy and utility bills. Fortunately, thanks to intelligent technologies, there are many ways for hotel operators to go green, review energy usage, and put strategies in place to deliver financial savings.

Hoteliers have numerous opportunities to enhance their brand's reputation with regard to its effects on the environment by focusing on reducing food waste, general waste, water use, and energy (lighting, heating) (Wijesooriya, & Brambilla, 2021).

Chapter Three

Research Methodology

Preambles

Research is simply the process of arriving at dependable solutions to problems through the planned and systematic collection, analysis and interpretation of knowledge, for promoting progress and for enabling man to relate more effectively to his environment, to accomplish his purpose, and to resolve his conflicts. (Ogunsote, 2008).

For the purpose of this research, five case studies are carried out on some existing Five-star hotels in two different Nigerian Hotels and three foreign Five Star Hotels. The case studies carried out are to serve as existing example or as a guide towards achieving a realistic design and also to learn through their analysis, the merits and demerits of their design so that the proposed design can inculcate some of these merits and then improve on the demerits especially in attaining a unique designed form that will provide a high-quality tourist facility that can deliver faultless guest services, meet the expectations of stakeholders and investors. The Case studies are however carried out on the Five Star Hotel listed as follows;

1. W London Leicester Square- Hotel.
2. W Barcelona Hotel Spain.
3. Crowne Plaza Dubai Marina.

4. Oriental Hotel Lagos Nigeria.
5. Transcorp Hilton Hotel Abuja/Lagos

3.1 Case Study 1: W London Leicester Square- Hotel

3.1.1 Description

In London's West End Soho neighborhood, near Leicester Square, is the 192-room luxury Starwood hotel known as W London. It is located in the heart of the city's entertainment district and offers international visitors to London a thrilling new vacation spot. In addition to the hotel, the complex has a ten-story building with 200,000 square feet of retail, leisure, and residential space. This space includes a spa, 11 penthouse apartments, and a new 35,000 square foot retail-leisure experience offered by a well-known international brand. It was created by McAleer & Rushe and designed by the renowned architects Jestico + Whiles. Croitoru and Pamfilie (2018).

Figure 3.1.1: street view of W London
Source: google images

3.1.2 Façade

The building's façade will act as a huge, pixelated screen, the first of its kind in the UK, that can be used to project dynamic light installations as part of an innovative new partnership between modern architecture and art. The optically corrected glass of the building's outer skin is treated with a sophisticated ceramic frit to create this arresting visual effect. This allows the glass to "hold" and project the light without obstructing views out of the guestroom windows. The hotel's exterior has been covered in a second layer of frameless glazing that hangs from the building's face like a floating sheer veil and is etched with an abstract, undulating pattern that evokes the folds in a theater curtain and the region's rich filmic history.

3.1.3 Materials

The strikingly opulent interior of W London is enhanced by materials. Spice Market's two floors are decorated with inviting tons of gold, copper, chrome, and wood, and the windows are subtly screened with gold mesh. The dining areas are surrounded by low-slung black leather banquettes, and diners will be seated at cozy booths. A stunning "birdcage" gold spiral staircase and 600 specially created shimmering wok lamps that cover nearly the entire ceiling and emit a lovely low light are other noteworthy design elements.

With an outer glass veil hanging from the eighth-floor level, wall construction provides the facade to the hotel levels. Solid unitized panels with built-in punched windows cover the inner skin. The glass veil is finished to reflect Portland stone and has ceramic frit artwork with a range of patterns and densities. Two or three double- or triple-height recessed curtain walls surround three sizable feature areas.

Figure 3.1.2. Spice Market
Source: google images

3.1.4 Lighting

Hundreds of energy-efficient Barco lights are packed into light fixtures built into the exterior main wall, allowing for movie quality color mixing and rendering to create an endless variety of combinations and effects. An advanced interface inside the hotel regulates the veil's color saturation and light intensity, changing the building's presence as day gives way to night. While W London is calm, cool, and understated during the day, at night the glass veil transforms into an animation of glowing light and may become the largest electronic work of art in London.

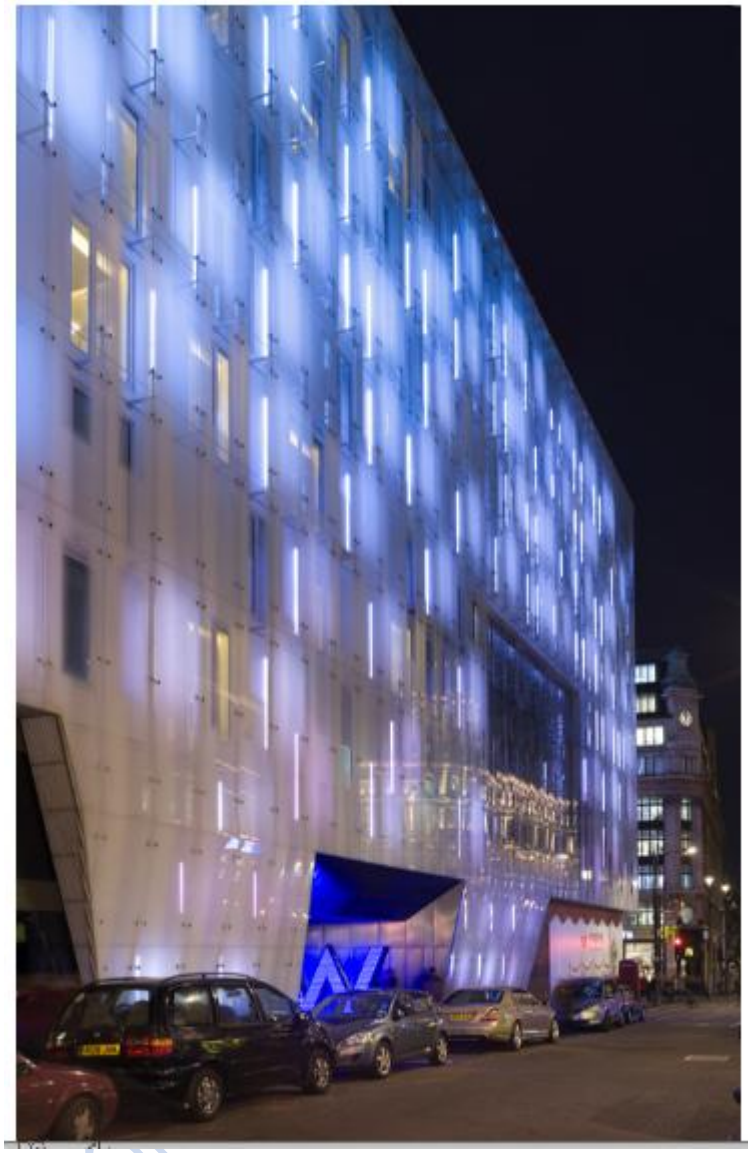


Figure 3.1.3.: street view of W London
Source: google images

3.1.5 Occupant Comfort

The hotel's concept of luxury, through its provocative look paired with innovative in-room technology to give guests full control of their stay. Every room at W London is unique. the hotel is the first in the UK to embrace the full Digi Valet technology – one of the most advanced tablet-based systems in the industry which allows each guest to be in

control of their stay right from check-in. Upon entry, music and lighting greet the guest to offer a truly immersive and memorable stay

3.1.6 Energy Efficiency

An energy-efficient building creates comfortable living conditions inside the dwelling with the least possible amount of energy consumption maximizing efficiency in use of resources.

3.1.7 Aesthetic Appeal

A sophisticated ceramic frit applied to the optically corrected glass of the building's outer skin allows it to 'hold' and project light without obstructing views outwards, making it attractive. This results in beautiful interiors and a striking visual effect.

3.1.8 Merits

1. It has a striking visual effect which is aesthetically pleasing.
2. Effectively planned with good serenity adding to the value of its environment.
3. The landscape has a distinctive character with a positive effect.

3.1.9 Demerits

1. The parking facilities provide limited space for parking.
2. Interior space allocations are not large enough.

3.2 Case Study 2: W Barcelona Hotel Spain

3.2.1 Description

A sail-shaped building of twenty-seven floors with height 98.8m/324ft on 10 hectares land and located at Barcelona Spain. W Barcelona Hotel is a five-star hotel popularly known as the Hotel Vela, with 480 rooms, 67 suites, a roof top bar, large spa, indoor and outdoor pool, several food and beverage concepts and a retail store.

The closest volume to the sea is a thin building 105 meters high perpendicular to the dike (1 underground level, 1 ground floor level and 26 stories) It was designed by Spanish Architect Ricardo Bofill. W Barcelona Hotel, located on the new entrance of Barcelona's Port, a landmark in the basin of the harbor entrance on the west side of Nova Mouth of the Port of Barcelona, resembles a contemporary icon rising above the Mediterranean Sea (Moret 2020).

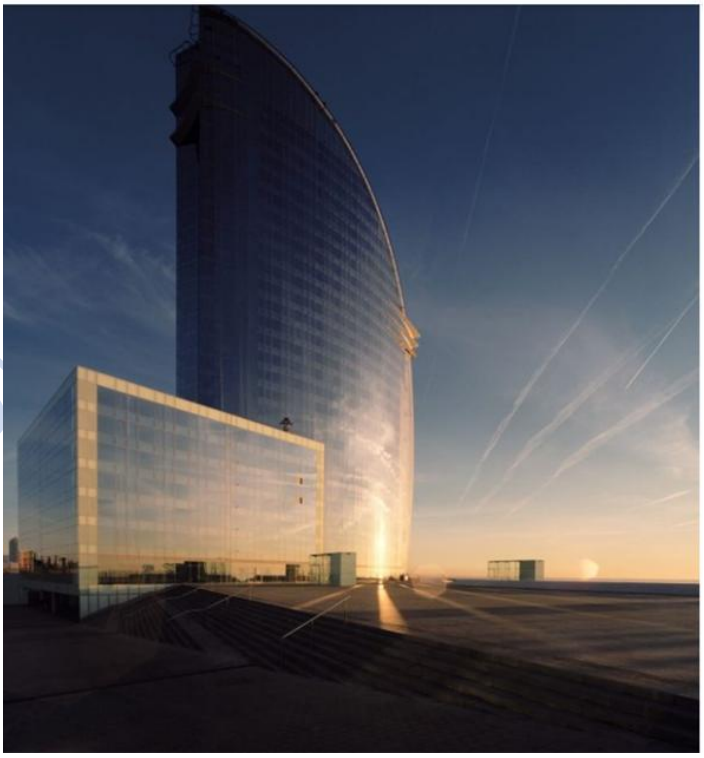


Figure 3.2.1: view of W Barcelona Hotel Spain
Source: google imagery, 2022

Figure 3.2.2: Plan and views of W Barcelona Hotel Spain
Source: google imagery, 2022

3.2.2 Façade

The reflecting façade of silver glass blends with the colors of the sky and the sparkles of the sea. Its allegoric shape is a reference point. The frame type or panel is the continuous glass facade. Without the need for any scaffolding for placement or "in situ" sealing, these panels were completely finished in the shop before being installed on adjustable anchors that had already been fixed to the floors. Structural silicone was used to create the sealing system in workshops, and each module had mechanical fasteners in the shape of a "L" in case the silicone is failing. In general, interior partitions were made with 20 cm thick concrete blocks or 25 cm thick screens of the same material. The continuous glass facade is the frame type or panel. The structural walls used to build elevator cores were 25 cm thick.

3.2.3 Materials

In general, interior partitions were made with 20 cm thick concrete blocks or 25 cm thick screens of the same material. The continuous glass facade is the frame type or panel. The structural walls used to build elevator cores were 25 cm thick.

Plasterboard was used to build the interior walls between the rooms, and double metal support structures and plates were used for insulation and soundproofing.

3.2.4 Lighting

Both artificial and natural lightning exists. A large, high atrium that leads to the reception, the bar, the pool, or the beach, as well as vertical communication cores that are shared by all floors, stairs, and a lift, provides access to the interior. The lobby of this atrium offers views of the sea and is well-lit by large skylights on the roof.

3.2.5 Occupant Comfort

Comfort in HOTEL is characterized by the satisfaction of one's needs, by the person feeling strong, safe, supported and cared for, while providing in spaces that produce well-being. This, undoubtedly, can be a somewhat subjective and personal concept for each individual, but there are several parameters to follow in design and interior finishing.

3.2.6 Energy Efficiency

An energy-efficient building creates comfortable living conditions inside the dwelling with the least possible amount of energy consumption maximizing efficiency in use of resources.

3.2.7 Aesthetic Appeal

W Barcelona is a striking sail-like structure, offering breathtaking design and fantastic views with beautiful interiors, making it aesthetically pleasing.

3.2.8 Merits

1. A sail-shaped building with nice visual effect which is aesthetically pleasing.
2. Parking spaces are vast, effectively planned with good serenity, is the landmark in the basin of the harbor entrance of its environment.
3. The internal spaces are large and spacious landscape

3.2.9 Demerits

1. The hotel was built at merely 20 meters from the sea
2. Unpredictable weather condition because of its proximity to the sea
3. High Maintenance cost.

3.3 Case Study 3: Crowne Plaza Dubai Marina

3.3.1 Description

The 5-star Crowne Plaza Dubai Marina is located in the cosmopolitan Dubai Marina area, next to Dubai Marina Mall and within direct access to the Marina pedestrian promenade, which borders the waterway lined with vibrant cafes and restaurants. The hotel is in close proximity to the city's business hubs such as Dubai Media City, Dubai Internet City, and Knowledge Village. The hotel rooms have a Guest Room Management System (GRMS) that allows guests to control the temperature, lighting, and heating via a touch panel.Rooms also come with a media system connecting to surround sound via Bluetooth. The meeting and conference rooms are all fitted with audio-visual technology. The architect of the project was the National Engineering Bureau (Liu 2020).

Figure 3.3.1: view of Crowne Plaza Dubai Marina
Source: google imagery, 2022

3.3.2 Façade

Glass curtain walls with aluminum-framed facades, facing a beautiful marina, are incredibly clean and provide a wonderful atmosphere.

3.3.3 Materials

In general, internal partitions were created with 20 cm thick concrete blocks or 25 cm thick screens of the same material. The frame type or panel is the continuous glass facade. Elevator cores were constructed using structural walls that were 25 cm thick. Plasterboard was used to build the interior walls between the rooms, and double metal support structures and plates were used for insulation and soundproofing.

3.3.4 Lighting

Both artificial and natural lightning exists. Access to the interior is via a large, high atrium that leads to the bar, the pool, the beach, as well as vertical communication cores that are shared by all floors, stairs, and a lift. The lobby of this atrium offers views of the sea and is well-lit by large skylights on the roof.

3.3.5 Occupant Comfort

When one's needs are met, feels strong, protected, supported, and cared for, and is provided with settings that promote wellbeing, one is said to be comfortable at a HOTEL. Although this is obviously a rather subjective and unique concept for each individual, there are some guidelines for design and interior finishing.

3.3.6 Energy Efficiency

An energy-efficient structure ensures that residents have a comfortable living environment while using the fewest resources and the least amount of energy.

3.3.7 Aesthetic Appeal

The 5-Star Crowne Plaza Dubai Marina has a beautiful interior that adds to its appealing appearance. It features breathtaking views and superb design.

3.3.8 Merits

1. Appealing appearance with stunning dramatic impact that is agreeable to the eye.
2. Large, thoughtfully constructed parking spaces are a prominent feature of the affluent Dubai Marina neighborhood.
3. There is an a plenty of space and a sizable interior.

3.3.9 Demerits

1. High expense of maintenance.

3.4 Case Study 4: Oriental Hotel Lagos Nigeria

3.4.1 Description

A 5-Star luxury hotel called the Lagos Oriental Hotel is located in Lagos between the Lekki and Victoria Island neighborhoods. The Lagos Oriental Hotel, which is situated at 3, Lekki Road, Victoria Island, is close to many commercial and tourist destinations. Ten minutes away is the Nike Art Gallery, a great location for visitors from abroad.

There are several opulent room options at Lagos Oriental Hotel, including the Classic Room, Classic Superior Room, Classic Deluxe Room, Junior Suite, Executive Junior Suite, Business Suite, Diplomatic Suite, Ambassador Suite, and Presidential Suite. The rooms feature captivating original artwork, Asian furnishings, and beautiful views of the Lagos Lagoon in addition to these features (Omotayo 2017).

Figure 3.4.1: view of Oriental Hotel Lagos Nigeria

Source: The Author

3.4.2 Façade

The structure, which looks out over a lovely marina, is mostly built of columns and concrete walling, as well as glass curtain walls with aluminum-framed facades. These details are quite lovely and set a wonderful ambience.These features are wonderfully elegant and create a fantastic mood**.** This hotel brings you close to sights and interesting places because to its convenient location as a prominent tourist building in Lagos' Victoria Island neighborhood.

3.4.3 Materials

The structure of the building is made of steel. Metal beams are riveted together to create giant girder grids, which have vertical columns. To help reinforce and strengthen the construction, horizontal girder beams are joined to the vertical columns at each story. 20 cm thick concrete blocks or 25 cm thick screens of the same material were used to build

internal partitions. The frame type or panel is the continuous glass facade. Elevator cores were constructed using structural walls that were 25 cm thick.

3.4.4 Lighting

There is both artificial and natural lightning.

3.4.5 Occupant Comfort

A HOTEL is considered to be comfortable when one's needs are addressed, one feels pretty good, protected, supported, and cared for, and one is provided with settings that promote wellbeing. Although this is undoubtedly a pretty subjective and individual notion for each individual, there are some design and interior finishing requirements.

3.4.6 Energy Efficiency

A building that is energy-efficient provides its occupants with a comfortable living space while consuming the fewest resources and the least amount of energy.

3.4.7 Aesthetic Appeal

A 5-Star luxury hotel called the Lagos Oriental Hotel is located in Lagos between the Lekki and Victoria Island neighborhoods. The small touches are quite attractive and create a fantastic atmosphere. These details are quite lovely and set a wonderful aesthetic.

3.4.8 Merits

1. It has large and spacious interior
2. The façade is pretty lovely and gives off a great appearance.

3.4.9 Demerits

1. There are few parking spaces.
2. High maintenance costs.
3. There is no dispersion of activities among locations.

3.5 Case Study 5: Transcorp Hilton Hotel Lagos

3.5.1 Description

The Transcorp Hilton-Lagos project site is on a plot of land with a total land area of 5,904.711 m. It is 646,000 square feet in size and was designed by Perkins Eastman. It has a hotel tower and office podium perched atop a three-level podium with a two-level basement. The 19-story landmark tower will be visible from many locations throughout Greater Lagos and will take advantage of the views of the Lagos Lagoon to the north, Victoria Island, and the Atlantic Ocean to the south.

The Transcorp Hilton-Lagos provides the discerning traveler with domestic, interregional, and international accommodations that are comfortable, opulent, and range from standard guest rooms to presidential suites. Each accommodation has been thoughtfully designed to ensure a relaxing and enjoyable stay. Additionally, it provides leisure facilities, fully furnished meeting rooms, and exotic cuisine.

Ikoyi, Nigeria is home to the 300-room Transcorp Hilton, Lagos. the 21-story office building and the 20-story hotel tower, both created by renowned architect Perkins Eastman (Williams 2010).

Figure 3.5.1: view of Transcorp Hilton-Lagos Nigeria
Source: The Author

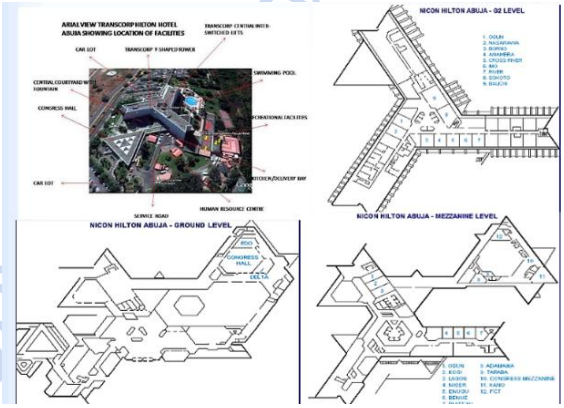


Figure 3.5.2: **Area** view of Transcorp Hilton-Abuja Nigeria
Source: The Author

3.5.2 Façade

A pedestal with three levels and a two-level basement supports the hotel tower, which is perched above it. The 19-story landmark tower will take advantage of the views of the Lagos Lagoon to the north, Victoria Island to the south, and the Atlantic Ocean to the east. It will be visible from various locations throughout Greater Lagos.

3.5.3 Materials

Steel makes up the building's structure. Massive girder grids with vertical columns are made by riveting metal beams together. At each story, horizontal girder beams are connected to the vertical columns to assist reinforce and strengthen the building. Internal partitions were constructed using 25 cm thick screens or 20 cm thick concrete blocks. The frame type or panel is the continuous glass facade. Elevator cores were constructed using structural walls that were 25 cm thick.

3.5.4 Lighting

There is both artificial and natural lightning.

3.5.5 Occupant Comfort

A HOTEL is considered to be comfortable when one's needs are addressed, one feels pretty good, protected, supported, and cared for, and one is provided with settings that promote wellbeing. Although this is undoubtedly a pretty subjective and individual notion for each individual, there are some design and interior finishing requirements.

3.5.6 Energy Efficiency

A building that is energy-efficient provides its occupants with a comfortable living space while consuming the fewest resources and the least amount of energy.

3.5.7 Aesthetic Appeal

Transcorp Hilton-Lagos was thoughtfully created to offer a welcoming and alluring appearance and to produce an amazing atmosphere. The unusual features create a nice aesthetic and are truly lovely.

3.5.8 Merits

1. The site is beautifully landscaped, and there are facilities for guests to relax and have fun as well as plenty of parking.
2. The gleaming interior, which has been generously and tastefully decorated, is definitely warm and elegant.

3.5.9 Demerits

1. The lack of a balcony in the hotel room prevents the visitor from having semi-physical touch with the surroundings.
2. The hotel's dependence on mechanical systems for lighting and ventilation accounts for its subpar green building rating.

Chapter Four

Site Analysis and Design Synthesis

4.1 Study Area/Site Selection

The proposed site is located at Eko Atlantic City in Eti-osa Local government area of Lagos, Nigeria. Lagos is home to a population of about 25 million people (NPC, 2006). Its climate according to the Atkinson system of classification is that of the warm humid zone. Lagos is divided into five (5) administrative divisions which are further divided into twenty local government areas,

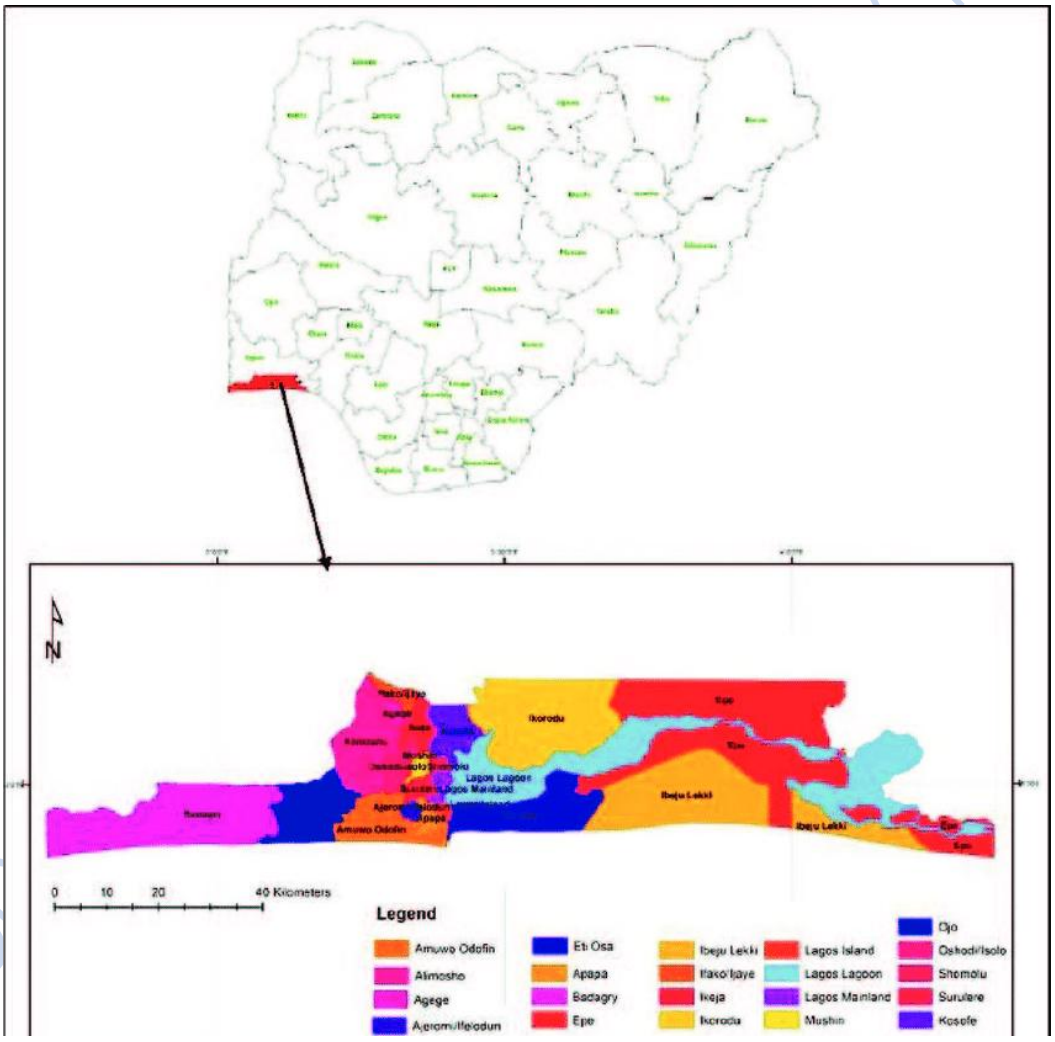


Figure 4.1.1: Map of Lagos State showing all the Local Government in Lagos State. Source: Google Imagery, 2022.

Eti-osa Local government encompasses Ikoyi, Victoria Island, Lekki Phases one and two, all the way down to Ajah, and ends in Sangotedo. It also includes Addo, Langbasa and Badore in the Ajah area. Eti-osa accommodates the most affluent Nigerians and is probably the most prosperous area in Lagos today. An intelligence report on the Eti-osa area of the Lagos colony, carried out in 1949 under colonial rule by a district officer, known as T.F Barker, describes the area as, "a tract of land between the lagoon and the sea."

Figure:4.1.2 Map Nigeria Situation of Lagos and Eko Atlantic
Source: Google Imagery, 2022.

Figure:4.1.3 Map showing Eko Atlantic City Development Master Plan.
Source: Google Imagery, 2022.

4.1.1 Site Location/Description

The proposed site is located within the Eko Atlantic large-scale city development in Lagos state, in the Land Reclamation maritime waters near to Bar Beach on Victoria Island, Lagos, within the Eti-Osa Local Government Area.

Figure:4.1.4 Map showing Eko Atlantic City Development Master Plan.

Source: Google Imagery, 2022.

Figure:4.1.5 Location Map

4.1.2 Site Selection Criteria

Due to the unique nature of Lagos State, the site was chosen to complement and enhance the values of additional, strategically planned urban areas within Lagos, as there is little room for such development in the city's central areas, to satisfy aspirations for greater economic development and accommodate the expanding population. In order to meet the demand for site accessibility, the location offers simple and practical access for both vehicular and foot traffic. The site is accessible via Victoria Island Road. Proximity to public utilities: the site has adequate access to basic infrastructures such as good roads, electricity, water, telecommunications, security, and so on.

Site Analysis/Inventory

The site is a critical component of a design proposal because it is the point at which the tangible percentage of a development emerges or begins to have an impact. The site chosen for any project thus has a significant impact on the final resultant composition of the solution in all aspects. The solution is determined by the site and its surroundings in terms of contextual suitability and appropriateness as measured by geographers, geologists, and geometrics. As a result, the unique feature of the site, or its microclimate, is the result of a complex interaction of many factors, including the site's orientation, size, topography, temperature patterns, humidity, precipitation, vegetation, presence or absence of water, the availability of sunlight throughout the year, especially in urban areas, and the impact of nearby structures. In this case, the "Hotel Building," the selection of the location is crucial to the success of any design.

The geography and physical characteristics of the site (such as water bodies, access, trees, the local climate, and utility lines) will have a significant impact on how the building will be laid out. The nearby structures will have a significant impact on the building's character, including its shapes, aesthetics, and design economy. It is essential to do a thorough investigation of the project site to better understand how well-suited it is for the intended use. The geography and physical characteristics of the site (such as water bodies, access, trees, the local climate, and utility lines) will have a significant impact on how the building will be laid out. The nearby structures will have a significant impact on the building's character, including its shapes, aesthetics, and design economy. It is essential to do a thorough investigation of the project site to better understand how well-

suited it is for the intended use. Fulfilling the design's purpose is the motivation. The relationship between the site and the building can be functionally developed with the use of site analysis. Every design choice needs to aim to serve the location while also being a clear reflection of and adaptation to the surroundings.

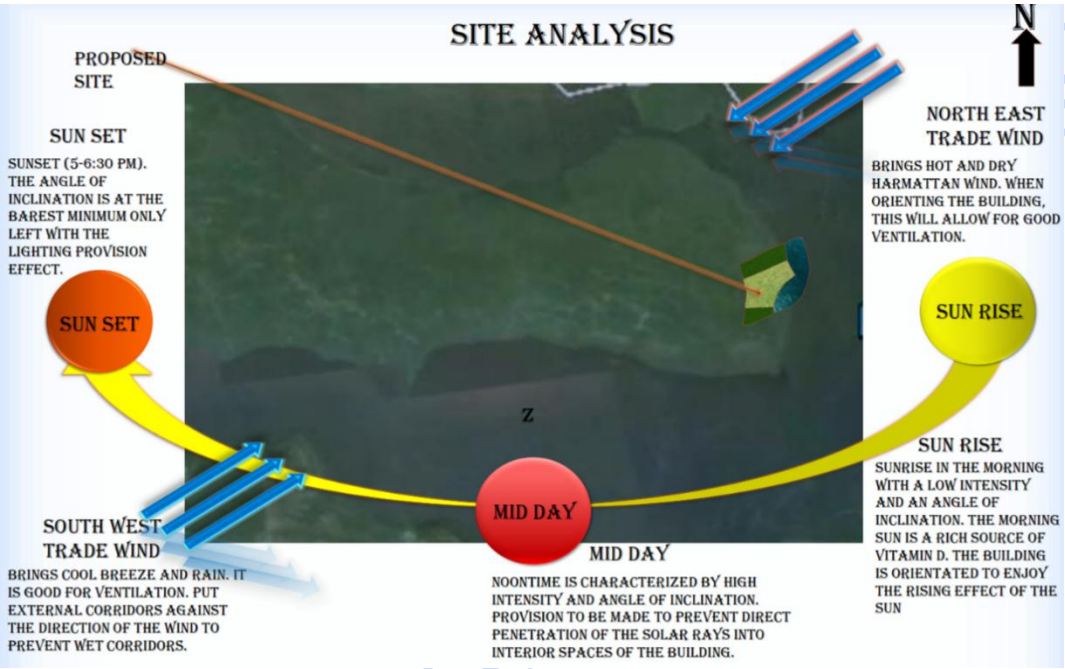


Figure :4.1.6 Site Analysis.
Source: Researcher's field survey, 2022.

Drainage and Topography

The storm water drainage system at Eko Atlantic City was designed and installed using methods and technology that follow international best practices.

It's crucial to remember that Eko Atlantic City's storm water drainage system is entirely below street level. In the entire city, there are no open drains.

By having an underground drainage system, it is impossible to dump rubbish, especially plastic waste, into the drainage system and hence into the canal. It should be emphasized that plastic garbage is notorious for clogging drainage networks and disrupting water

flow. Additionally, an underground drainage system helps prevent mosquito breeding sites.

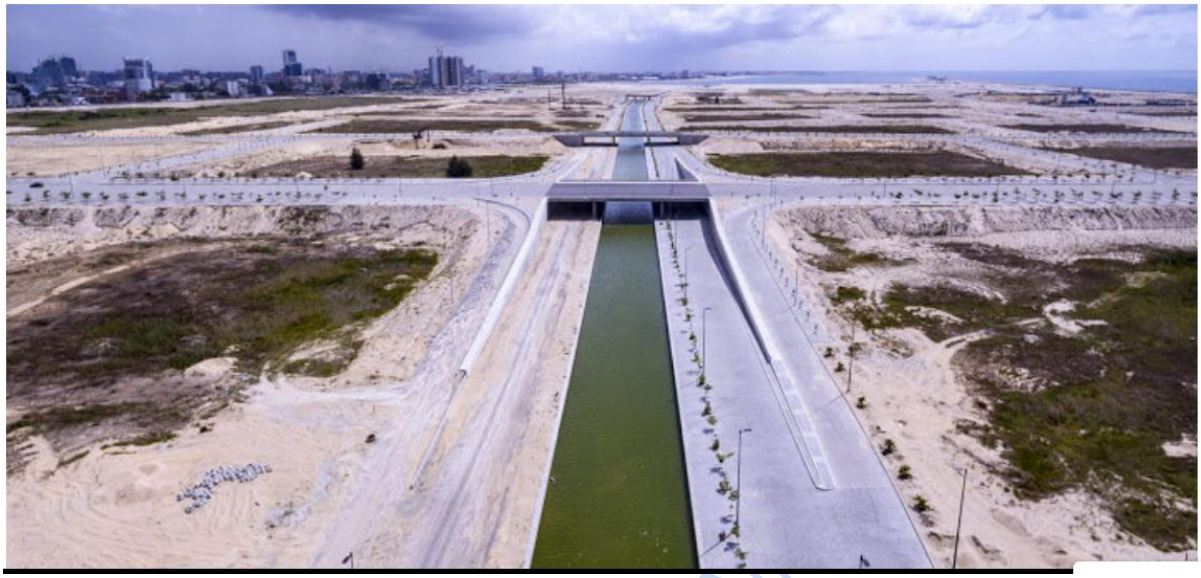


Figure :4.1.7 Drainage and Topography
Source: Researcher's field survey, 2022.

Vegetation

Due to its tropical location, Eko Atlantic City experiences two distinct seasons: the cold season and the dry season. Since the land has been reclaimed from the sea, it lacks a wide variety of vegetation, from dense undergrowth to short grasses to evergreen trees in the area around the site. However, the company's 45,000 sqm nursery in Eko Akete is home to at least 30 different tree and plant varieties, totaling about 200,000. Once they are prepared, they are transferred to Eko Atlantic City. In order to improve the environment and provide better air, the city has lined all of its highways with bushes and trees.

Soil Condition

The reclamation of land from marshes or other bodies of water, as well as the utilization of areas that have been degraded by human activity or harmed by natural events, is what resulted in the sandy soil state in Eko Atlantics

Wind Direction

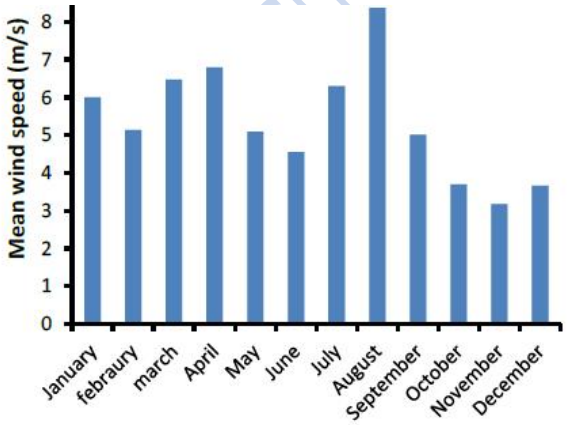
The north-east trade wind brings cold, dust, and harmattan, all of which are unpleasant. The south-west trade wind produces cool dampness, which is pleasant to individuals. Proper ventilation is regarded as an important aspect of building efficiency. There should also be a buffer solution, such as tree planting along the north east trade wind, to prevent direct wind impact on the proposed hotel structure.

4.1.3 Geographic/Climatic Data of Study Area

Lagos falls on the coastal zone in the classification of climatic zones designed for Nigeria (Ogunsote, 1991). The climate is characterized by high humidity and hot discomfort for about 11 months in a year. The climatic features of the proposed project site include Rainfall, temperature, prevailing winds, relative humidity and sunshine. The monthly rainfall exceeds 200mm for three or more months (Ogunsote, 1991). As a result, proper drainage is required. The maximum monthly temperature is never below the comfort levels. There are two rainy seasons, with the largest rain fall occurring from April to July and a weaker rainy season occurring in October and November, with a brief dry spell in August and September and a lengthier dry season occurring from January to March.

Prevailing Wind

The prevailing and secondary winds' directions, as well as the maximum and mean wind speeds, must be known for design purposes. Ventilation uses the wind pressure, which is inversely related to wind velocity. For structural design, the duration of high-speed gusts is also necessary. To prevent such roofs from flying off, wind loads for roof design should represent maximum values. The position is dominated by both Northeast and Southwest trade winds. The Southwest trade winds blow between the months of March and October for roughly 8 months a year, whereas the Northeast trade winds blow between the months of November and February for about 4 months a year.



Figur4.1.8: Wind speed Graph for Lagos.
Source: Google Images, 2022.

Relative Humidity

The relative humidity generally decreases from November to January; from April to October, when it rains, the temperature also reduces while the relative humidity rises.

Precipitation /Rainfall

Averaging over 300mm each month from May to July, rainfall drops to 75mm in August and September and as low as 35mm in January. The primary dry season, which lasts from December to early February, is accompanied by harmattan winds from the Sahara Desert

Temperature

27°C on average for January and 25°C on average for July. The month that is typically the hottest.

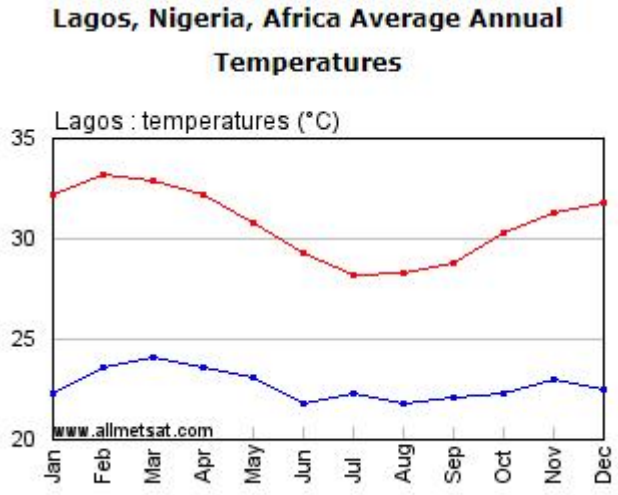


Figure4.1.9: Average and Extreme Temperature Graph for Lagos.
Source: Google Images, 2022.

In summary, the proposed location for the Lagos-based Proposed CDK Integrated Hotel Eko Atlantic complies with the criteria for a prime site choice. The site is open to visitors and unhindered by any restrictions.

4.2 Project Analysis/ Design Synthesis

Certain factors must be considered in the design of a hotel project to guarantee, through organization, use of space, the comfort of the user's population and the functionality of the overall environment in satisfying their tourist physiological, protective, and social demands. The site's design is constrained by the restricting control standards. Buildings that are strategically placed create harmony, improve operational effectiveness, and reduce drainage issues. The degree of comfort can be influenced by the orientation, building's design, materials, plan layout and arrangement.

4.2.1 Design Criteria/ Consideration

Designing a functional and tourist attractive five-star hotel that will create a memorable experience and increase guest comfort requires several design considerations to be considered with respect to their impact on the overall building.

They include

a) Aesthetic Appeal
b) Sustainability
c) Circulation
d) Structural Integrity
e) Energy Efficiency
f) Occupant Comfort
g) Mechanical, Electrical and Plumbing + Fire Protection
h) Site Selection
i) Security

4.2.2 Brief Analysis

One such city already feeling the effects of coastal erosion is Lagos, Nigeria. It is the most populous city on the continent and one of the fastest growing in the world, with a current population of 22 million people. Its primary commercial and financial hub is Victoria Island. As home to the Nigerian Stock Exchange, the Central Bank, and the headquarters of the largest commercial banks, the Lagos Central Business District (CBD) can be considered the state's original financial center. Temporary coastal protection measures, such as several nourishment schemes that had been implemented over time to lessen the erosion threat to Victoria Island, continued to fail as a result of the effects of coastal erosion, and there were frequent coastal flooding incidents in the region.When the protective beach vanished in 2006, the road infrastructure along Amadou Bello Way and Bar Beach suffered flood damage as a result. Erosion and accretion close to Commodore Channel's moles Lagos needs immediate help in response to these events and their negative effects. Without intervention, highly valuable residential and commercial property areas will remain in danger from the intrusion of sea water, posing a threat to property destruction, loss of income, lives, and livelihood. As a result, a sea revetment made of concrete Xbloc armour units protected the coastline after the incident in 2005.

However, it was believed that a more long-lasting and comprehensive solution was required to deal with the ongoing erosion issue, which was anticipated to be made worse by climate change and an increase in the likelihood of storm events. This called for the creation of this project, which includes the "Great Wall of Lagos" and the Eko Atlantic

City, which will be built on reclaimed land. To ensure that the proposed project complies with national laws in Nigeria, the developer - South Energyx Development F.Z.E (SEDFZE) (previously South Energyx Nigeria Ltd (SENL)) will be fully responsible for management and administration.

The Eko Atlantic City Development is a key component of a plan to build a new area of Lagos with ambitious goals for residential, economic, and business growth on the one hand, and for sustainable development on the other. Hence proposal of a multi-national five Star hotel CDK Integrated Hotel in Eko Atlantic City with 35 Presidential suits,96 Standard double rooms,224 Deluxe double rooms,160 Queen Size rooms,64 Executive suites, Pent house, Reception, waiting lounge, Gym, Spa, Minimart, Restaurant, Bar and many more tourist attractive facilities that can accommodate over six hundred guests. Furthermore, the design is to incorporate modern techniques in building construction that will make it to be a smart building.

4.2.3 Brief Development

The proposed Five Star Hotel for CDK Integrated Industries Limited will be a tourist attraction center, it will also provide employment opportunity and improve social economy value of the state. The minimum required standards for a functional, internationally accepted tourist facility will be maintained. Hence in conforming to a set standard, spaces to be provided includes;

a) Security post
b) Entrance porch
c) Reception
d) Waiting

e) Circulation area

f) Minimart

g) Restaurants

h) Bar

i) Gym

j) Presidential suit

k) Pent house

l) Standard double room

m) Deluxe double room

n) Queen size room

o) Executive suite

p) Kitchen

q) Conference room

r) Hotel Staff Area

s) Meeting room

t) Elevators

u) Business Centre

v) Club

w) Casino

x) Toilet

y) Gift shop

The tourism industry's key component is five-star hotels. Additionally, they enhance the whole tourism experience by providing high-quality facilities and services.

The amenities and services on the list below meet the criteria needed for your hotel to be classified as 5 Star Hotel

4.2.4 Space Allocation/ Schedule of Accommodation

The functional requirements of spaces have an impact on the scheduling and allocation of space. In addition, a hierarchical characteristic and its connections to other suggested spaces influence it. As a tourist-building facility, a Five Star Hotel should not have any barriers to free movement. It should be able to accommodate unrestricted access for users, tools, supplies, and services.

Main Entrance: - This area is the most distinctive and is frequently subject to intense security scrutiny. It needs to be clearly defined and have a good interior view that leads directly to the check-in counter. It is essential to have a substantial projecting canopy that is at least 5.5 meters wide and 4 meters high in order to fit buses and two cars parked side by side. This will protect people from the harsh weather conditions such as rain, wind, and sun. A specific lighting design will make it easier for people to find the entrance because a large majority of guests often arrive in the evening. To make the entry clear and to increase security and safety, lighting should be employed. The complex entrance door may take on a number of shapes, including a rotating door, swinging door, single or double leaves automatic or manual operation, sliding automatic operated door with emergency swing door, which may pass the security inspection. Weapon detectors could be installed immediately after the door for security reasons. The doors should be wide enough for a person carrying two bags or a luggage trolley to pass through without difficulty. The entrance should be noticeable and proportionate to the size and design of the building. When necessary, secondary entrances may be built in locations such as banquet halls, conference rooms, and main restaurants in hotels.

. Lobby/Reception Area: First impressions are crucial, as previously stated. A visitor should feel overwhelmed by a sense of calm, enchantment and comfort when they enter the reception hall. When one exits the entrance complex and turns toward the front desk, it ought to be the first thing they see. The advertisements for the bars, restaurants, and other businesses should be prominently displayed in this area. Visitors attending events or using the restaurant congregate in the hotel lobby. It must be visually appealing from the outside because it serves as a promotional tool. The lobby should have a waiting space that is close to the reception desk, away from the major traffic area, and visible from the main entrance and the elevators. There should be a good writing desk and comfortable furniture. Public telephones, news teleprinters, post box stamp machines, shops or display cabinets, barbershops, information desks, tour airlines, and restrooms are a few additional amenities that might be available in the lobby. For environmental control communications, fire and security, as well as other functional requirements of the rooms and spaces below the ceiling or to the void, the ceiling void will need to be deep enough to house air ducts, pipes, wiring, and equipment, including fitting bulbs into the ceiling mostly. Although the ceiling frame-work is made as light as possible, the hangers or structural members must be strong enough to support the weight of the equipment (including vibration), and space must be left open for servicing and component removal.

Greeting/Front desk: Over desks or counters, which may be arranged in series along one long counter, which could be described as the front desk or separated areas, guest registration, cashiers, and information services are offered. Direct access to the offices

providing backup information and services is crucial for the counter staff. In order to prevent secondary congestion in other circulation areas, the cashiers' desk must be designed to accommodate high demand at a specific time of the day. The counter must be functionally designed as part of the reception area, serve as a point of interest and attraction for the neighborhood, and be decorated with care to withstand heavy use.

Areas of Administration: Other than the front desk office, offices are not required to be located behind the reception counters, but it is advisable for them to be easily accessible from the reception for visitors who might have appointments outside of staying at the hotel. They assist with managing the hotel on a daily basis. The offices of the Personnel Manager, the General Manager, his personal secretary, the Assistant General Manager, the accountants, the computer rooms, etc., and other reservation offices are among these areas. This design could use partitions to separate the various offices where necessary while maintaining the open space concept. The location of the managers' office should be close to the reception area to facilitate supervision and attention.

Toilets and Cloak Rooms: Toilets and their accessories give visitors a chance to relax, so they should be placed close to public and practical spaces (such as conference rooms and banquet halls); restaurants; etc. There should be a sufficient number of restrooms, urinals, wash basins, mirrors, good lighting, and separation of these amenities to accommodate both male and female sexes. Men's and women's restroom entrances shouldn't be close to one another. In public areas like banquet halls, conference halls, or multipurpose halls; kitchens; swimming pool areas in the form of cubicles; etc., cloak rooms, which are

spaces for temporarily hanging out coats or bags from a person, are very important. Sometimes cloakrooms double as changing and restrooms at once, requiring a reasonable expansion of the entire area.

Lounge bar, the number of spaces a bar must serve, such as a lounge, restaurant, coffee shop, banqueting rooms, room service, and the extent of waiter employment, will have a significant impact on its design. At least three bars should be present in a five-star hotel. Its size can vary from being small and intimate to being large and functional. There are some crucial considerations for a bar's design, including the following: Lounges and bars must be accessible to people with disabilities The lounge must not appear empty when the bar is closed and being used. The typical space allocation per guest room is 0.7 m2, but this is largely influenced by how much business can be comfortably handled in the waiting area between the hotel lobby and the main restaurant. Hotels' primary beverage service provider is mini bars. This might have an outside entrance to promote business from non-residents. A fairly long bar counter supported by a bar refrigerator with an ice maker should be available. Simple meals can be served in this area as well. Bars should be located on the far side of the lounge extension so that guests can use the bar without having to enter the lounge and customers entering the restaurant do not have to cross directly along the front of the lounge.

dining establishments and restaurants the two main activities of the majority of hotels are food and drink. For visitors and hotel guests, dining facilities are created, and in many hotels, this activity employs a greater percentage of staff than does the provision of lodging. Dining facilities can range from a formal, elegant restaurant to a basic dining

room for breakfast, depending on their category, the amount of business, and the type of business. A reception lounge or foyer should be used as the entryway to a restaurant that is used for formal or entertainment dining. This space will serve as a gathering spot before guests enter the restaurant or leave, as well as a lounge for cocktails and other drinks.

There should be a convenient entrance from outside the hotel in addition to direct access for resident guests, as dining rooms are typically open to nonresidents. The majority of larger hotels have a number of dining areas, some of which may be on various levels. These include regular restaurants, specialty restaurants, and buffet bars. There are countless scale and type variations within each of these. However, in every situation, the dining room must be placed next to the kitchen or servery. If there are multiple kitchens involved, these may be run as a single unit with the majority of the food preparation and pre-cooking occurring at a central location.

Customers have more menu and price options when there are multiple restaurants, but the following factors primarily determine the physical environment and atmosphere of hotel dining areas: The room's dimensions and shape, as well as its style and décor, seating options, lighting arrangements, thermal comfort, noise level, and décor.

Cleanliness and hygiene - Staff appearance and productivity: The interior design of a formal restaurant is elegant and lavish, with a focus on enhancing the cuisine offered. In such a restaurant, formal dining is frequently made possible by the creation of personalized seating. It is left up to the control seating arrangement to accommodate

special arrangements and interesting events. The movement of cooking trolleys is permitted. High-end furnishings, fixtures, carpets, and upholstery are offered, as well as fine linens and cutlery.

Bedroom Unit: The bedroom unit must be comfortable for visitors and easy to clean and make beds in. It ought to have adequate storage for the luggage of the visitors. A large living area is created in the middle of the room by turning and moving the bed, which is frequently convertible into a settee, back to the wall, saving space. Bedroom planning heavily depends on the position of the bed, the size, and the relative position of the bedroom. To accommodate different guest classes, different room types will be offered for this design.

Table 3: Schedule of Accommodation

SPACES	NUMBER	SIZES	SPACES	NUMBER	SIZES
•STANDARD DOUBLE ROOM	96	32SQM	RECEPTION	1	80SQM
•DELUXE DOUBLE ROOM	224	40SQM	•WAITING	1	150SQM
•QUEEN SIZE ROOM	160	54SQM	•ELEVATORS	8	6SQM
•EXECUTIVE SUITE	64	60SQM	•ESCALATORS / STAIRS	-	112SQM
•PRESIDENTIAL SUITE	18	96SQM	•ENTRANCE PORCH	1	120SQM
•PENT HOUSE	25	120SQM	•HEALTH CENTRE	1	450SQM
•M.D AND GM'S CABIN	2	150SQM	•SPA	1	250SQM
•ADMIN OFFICE	1	180SQM	•GYM	1	200SQM
•MEETING ROOM	10	60SQM	•MINI MART	2	150SQM
•OPERATION STORE	-	120SQM	•GIFT SHOP	1	70SQM
•TOILET	60	32SQM	•COMMUNICATION ROOM	1	60SQM
•GROCERY LOADING AREA	1	300SQM	•RESTAURANTS	3	250SQM
•POWER BACKUP AREA	1	180SQM	•BAR	3	130SQM
•EMPLOYEE CHANGING ROOM	2	48SQM	•GARBAGE DISPATCH	1	100SQM
•HOTEL STAFF AREA	1	150SQM	•SALON	3	48SQM
•SECURITY MONITORING ROOM	1	54SQM	•SWIMMING POOL	6	200SQM
•KITCHEN	1	460SQM	•ATM	3	4.2SQM
•STORAGE	-	150SQM	•INTERCOM AND SERVER ROOM	1	80SQM
•BABY SITTING AREA	1	200SQM	•PANTRY	26	36SQM
•CONFERENCE ROOM	3	140,215 & 275SQM	•LAUNDRY ROOM	1	280SQM
•LOBBY	-	20SQM PER COMMUNAL AREA	•TENNIS COURT	2	300SQM
			•VOLLEYBALL	1	250SQM
•HOUSE KEEPING	1	150SQM	•BASKETBALL	1	300SQM
•FURNITURE STORE	1	250SQM	•MINT GOLF	1	350SQM
•DELIVERY SERVICE	1	200SQM	•CAR RENTAL	1	450SQM
•BUSINESS CENTRE	6	150SQM	•CASINO	1	300SQM
•CLUB	1	600SQM			
•MAIL / POSTAGE SERVICE	1	60SQM			

4.2.5 Functional Relationship

The functional relationship chart illustrates the degree of connections between the facility's various spaces. The ability to quickly identify which places are connected to one another is helpful to the designer. This aids the designer in isolating unrelated spaces and locating relevant places conveniently close to one another. Additionally, it helps with the design's practicality and space zoning.

The following fundamentals of functional relationships are taken into account:

1. Separating the different types of traffic, such as the automobile and pedestrian, from one another.
2. Building orientation to maximize thermal comfortability.
3. Orderliness, functionality, and attractiveness.
4. Landscaped places are both soft and hard.
5. There are plenty of parking spaces.

4.2.6 Conceptual Development

This refers to the ideas derived from specific instances, in architecture, five (5) main types of concepts have been identified they are;

i. Analogous i.e., looking at other things
ii. Metaphor i.e., looking at abstraction
iii. Essence; looking beyond the function
iv. Pragmatic; looking at the function
v. Ideal; solving architectural problems.

Site Concept

The site concept deals with the idea behind the initial and overall planning of site activities in relation to the site's existing physical situation. This is influenced by existing buildings and the way they have been organized; physical features such as rock outcrops, roads, and views to be taken advantage of, among others. The site for the proposed Hotel has been planned and designed to take advantage of the nature of the surrounding environment as it relates to the winds, the sun, topography and existing services. Building Concept, A pragmatic approach was taken towards the generation of the building form and arrangement of spaces. Technical requirements such as area of space per person, circulation space requirements for different activities, among others, were considered for the spaces so as to achieve the desired user capacity. Flexibility in the layout of spaces was also an important consideration.

Chapter Five

Conclusion

5.1 Project Appraisal

5.1.1 Construction Method and Material

The choice of material and the construction process will be influenced by the facility's location. Given that hotels house a lot of people and activities, it is expected that they will be constructed with strong, contemporary building materials. A certified structural engineer registered with COREN should handle all structural work and configurations as designs for columns, beams, reinforcements, and other elements will be necessary. A number of analyses will also be necessary to determine the facility's safe bearing capacity for soil and the impact of wind load, among other factors. The primary structural materials in the design shall be reinforced concrete and steel. The choice of finishes will take into account the thermal insulation, acoustic design, and other aspects of finishes. Each interior space's intended use will dictate the finishes that are used.

A. Operations Prior to Construction

Pre-construction activities are those that the contractor and other relevant agencies carry out. The activities include project health and safety evaluation, on-site documentation delivery, facility access provision, and security. To ensure that all parties are aware of the processes for contractor submittals, sampling and testing, construction surveys, inspections by outside agencies, payment requests, claims and disputes, unforeseen job conditions, and change order requests, a preconstruction conference should be set up.

B. Substructure

The foundation makes up the majority of the building's substructure. The site's soil is sandy; it is land that has been reclaimed from the sea. Due to the characteristics of the soil, a typical pile foundation would be used in this situation. The quality of the foundation materials will offer resistance to chemical and pose adequate compressive strength; this will aid in conveying the weight of the building without any form of differential settlement. The following operations are primarily involved in the substructure stage:

i. **Site preparation:** All obstacles on the area where the buildings will be located must be taken out to make way for subsequent operations. On the construction site, all plants must be removed.

ii. **Hoarding on a site:** To increase security and protect materials and equipment, a barrier is being built around the site's perimeter. Corrugated galvanized zinc sheets will be used for the hoarding and will be nailed to timber frames.

iii. Topsoil: Dredged from the sea, the topsoil covers the area of the land where the buildings are located. The area in need will import top soil for use in landscape planting.

iv. **Setting Out**: Setting out is the process of transferring dimensions from building drawings to the actual site. The existing road that serves as the buildings' reference point must be taken into consideration when laying out the buildings. Theodolite use is required for the setting out in order to achieve a higher level of accuracy than with other techniques.

v. **Foundation:** after the consultants have completed and certified the setting out. The structural engineer, taking into account the soil bearing capacity test, must pill using equipment to the specified depth.

vi. **Hard-core filling**: Weathered rock that is 300mm thick should be the hard-core. It should be leveled and firmly compacted.

vii. **Damp proofing:** Over the area of the foundation, three plies of bituminous felt should be used to cover the damp-proofing material. Water capillarity to the floor slab is to be prohibited.

viii. **Casting of the ground floor slab in situ:** The structural engineer will determine the thickness of the ground floor slab. The floor slab needs to be strengthened. Before work can begin, it must be reviewed and approved by the structural engineer. After the head has been prepared, concrete will be piled on top of it, with the difference between it and the natural ground level being calculated by comparing the approach elevation level to it.

C. Superstructure

The structure of the building will be made of concrete. Columns, beams, and slabs will be constructed using reinforcement concrete. For the walls, use light, non-flammable sandcrete partitions. The floors will typically be finished with nonslippery vitrified floor tiles of various materials and textured in various places. The ceiling and doors will be fire rated. There will be finishes that resist fire. However, automated firefighting equipment will supplement the firefighting operations. The superstructure is made up of five fundamental parts: the ceiling, the walls, the doors and windows, the floors, and the roof.

i. Floors:

According to the structural specification, the floor's requirements as a structural member should be met. It ought to be strong enough to withstand pressure and keep moisture out. It should be able to absorb heat and sound, be fire resistant, be simple to maintain, and allow for good looks, comfort, safety, and cleanliness, among other things. The floors are made of reinforced concrete floor slabs, and PVC tiles, marble tiles, vitrified tiles, ceramic tiles, and cement screed are used to finish them.

ii. Walls:

A large portion of the building's image and appearance is created by its walls. Glass curtain walls will be used primarily on the exterior and should be built to be aesthetically pleasing as well as to protect against wind, dust, and animals. The most crucial factors are strength and stability, resistance to dampness, insulation from heat and sound, and

fire resistance. Sandcrete hollow blocks measuring 225mm will be used for both internal and external walls. Some of the walls for the restrooms will be constructed of hollow 150mm sandcrete blocks. To act as fire defenses and make it easier and safer for people to leave the building in the event of a fire, stair walls should be constructed of thick 170 concrete.

iii. Windows and doors:

The height of both internal and external doors will be 2100mm, and the corresponding widths will be 750mm, 900mm, 1200mm, 1500mm, and 1800mm.

iv. Ceiling:

Modern times have seen the development of new ceiling materials, from the dry to the wet. The majority of spaces will use suspended ceilings to help house large light fixtures and for other reasons; all specifications must be installed in accordance with the architect's pattern specifications.

v. Roof:

The following specifications must be met by a roof in order for it to function: strength and stability, durability, fire resistance, and, on occasion, sound insulation, lighting, and ventilation. The construction technique used in each unit will depend on the span and nature. The roof will also be made of flat concrete.

5.1.2 Building Services

In order to use the building as efficiently as possible, utility services must be offered. Circulation, ventilation, lighting, water supply, electricity supply, sewage disposal, and fire protection are among the most important of these.

i. Circulation

This is how people move around the site from one place to another. Vehicle and pedestrian circulation accesses are offered in the proposed project. Movement both vertically and horizontally is unavoidable in a hotel building. Provisions for moving people and equipment between floors were built into this design. Large circulation

spaces are provided in the hotel for easy and free flow movement of staff and guests because circulation is a crucial consideration in hotel design.

ii. Ventilation

In general, ventilation can be either natural or artificial/mechanical. The process of treating the air in an interior environment to establish and maintain the necessary standards of temperature, humidity, and air movement is known as artificial ventilation. Natural ventilation relies on an effective temperature difference or wind action to induce air movement. Both natural and artificial ventilation will be used to cool and ventilate the hotel building. Combining a central air conditioner with extractor fans provides artificial ventilation.

iii. Lighting

In the design of a hotel, lighting is an important factor to consider because of its physiological and psychological effect on people. The sense of wellbeing associated with day lighting and the orientation that comes with being connected with the exterior. The hotel is designed to have access to the natural daylight.

iv. Water Supply

By connecting through the available water mains from the dedicated water reservoirs built to serve the Hotel building as a whole, the direct water supply system will be used. To ensure that the building always has access to water, a borehole and an electricity-operated pump must be provided. For various distributions, storage cisterns must be placed where they are needed.

v. Electrical System

The building will be served by the turbine power lines from the Eko Atlantic power generation. A distribution network must be set up on the property to supply the necessary power to every floor and area. The wiring system must be conduit, carefully planned, and wired in accordance with all electrical engineer and services engineer specifications. There must be high conductivity and good resistance in the wire cable type. Additionally, a backup power source (generator) will be available to meet demand for electricity in the event of a power outage. Whenever there is a power outage, the generator automatically kicks in.

vi. Fire Protection

Hotel buildings needs to be well protected from fire outbreak because of the large number of people it accommodates. The objective of fire protection is to prevent the start and spread of a fire, stem the spread of smoke and facilitate the escape or rescue of persons. Active and passive precautions will be taken to effectively put out fires in the event of an outbreak. Active precautions are systems that are automatically deployed in the event of fire and they include the installation of heat-activated sprinklers which control a fire at its source through the release of discrete volumes of water sufficient to extinguish a blaze. Other important fire safety measures include convenient and well-marked exist, smoke and heat detectors, smoke and fire alarm systems, water spray extinguishers, CO2 extinguishers, etc. Passive precautions are construction solutions in the building and its components that will help in reducing the spread of fire. These include minimum structural sections, casings and coatings, installation of fire doors and windows, construction of supporting floors, etc.

vii. Sewage

Disposal Access is given to facilities for the handling, storing, and collection of trash in order to facilitate frequent collection. The buildings are in a good location, have good ventilation, and adhere to all fire safety and public health regulations. The users must be made aware of the proper way to dispose of waste, and the waste must be disposed of appropriately. Additionally, waste is collected separately on each floor and transferred to a collection point on the ground floor in a big container. Every floor has a garbage chute, and the ground floor serves as the collection point. There are also incinerators available there.

viii. Acoustic

The most critical factor in design is good acoustics. In order to achieve a specific room sound, the basic size, shape, and finish materials of a given space must be determined, as well as the positioning and design of surfaces that reflect and absorb sound. These requirements are based on the room's intended use and occupancy.

ix. External Works

The external works, such as sewage treatment plant, kerbs, soft landscaping, and trend landscaping, will start once the external scaffold and the good hoist have been

completely removed, the tower cranes dismantled, and the floors at crane position have been closed in.

1. Plant

Lawns, trees, shrubs, ground cover, and seasonal planting are all examples of plant designs. In order to improve the environment and aid in the fight to contain and eradicate harmful pathogens and pests, planting should be done as much as possible.

2. Roadways and Sidewalks

In general, the project will include new pavement for the roads, sidewalks, and curbs; the physical design department of the Eko Atlantic project will be consulted on this.

3. Parking

Unless otherwise specified in the specific requirement or task order, all parking lots should be paved. When finances and site conditions permit, porous pavements are preferred.

4. Roadside Tree

There will be new street trees at the location. The right tree pits and grates are necessary.

5. Drainage

All storm water runoff must be gathered on site and drained underground. Drainage away from buildings must be accommodated for in area grading. By reducing paved and other impervious surfaces, runoff can be reduced.

5.2 Conclusion and Recommendation

The thesis sought to investigate the current situation of tourist facilities in Lagos, Nigeria and to identify key design considerations influential in designing a sustainable and resilient tourist facility. It also explored how these considerations could be effectively integrated into the design of the proposed hotel building. In summary, the study identifies

- Spread awareness on sustainable tourism.

- Support legislation that promotes sustainable tourism
- Building designs that support visually pleasing structure, outdoor spaces, decent internal flow and proper orientation are necessary for a respectable environment, efficient service, and comfortable lodgings.
- the use of non-toxic materials for safety in inhabited areas and interior building spaces.
- preserving indoor comfort by using thermally responsive materials, especially on radiation-exposed surfaces like roofs and walls.
- Verandas, balconies, and shady components such as vertical fin walls and horizontal overhangs should be used.
- Build skills and knowledge in hotel company management that considers the environment, people, profit, ethics, and equity.

Each of the aforementioned factors that this study analyzed will increase tourism's sustainable growth if they are put into practice. The report shows that every country on the globe depends on the tourism industry. It involves more than just individuals traveling for vacations. It is significant since it has the potential to increase a country's GDP. If their resources are properly utilized, Lagos has a lot of tourist potential for the economy to grow. Everyone needs to be aware of shifting trends in hospitality. There are a few basic trends in the hospitality industry that marketers should be aware of, such as the growing usage of virtual reality tours to promote hospitality services, a focus on customization, and the integration of brand awareness into hotel design. Both the government and the people of Nigeria should be informed. The government should enact laws that will control the expansion of hotels in Nigeria. It is important to advertise hotels that meet standards that are recognized globally. No one should be allowed to operate with a license that falls below the minimal standards created in accordance with international laws.

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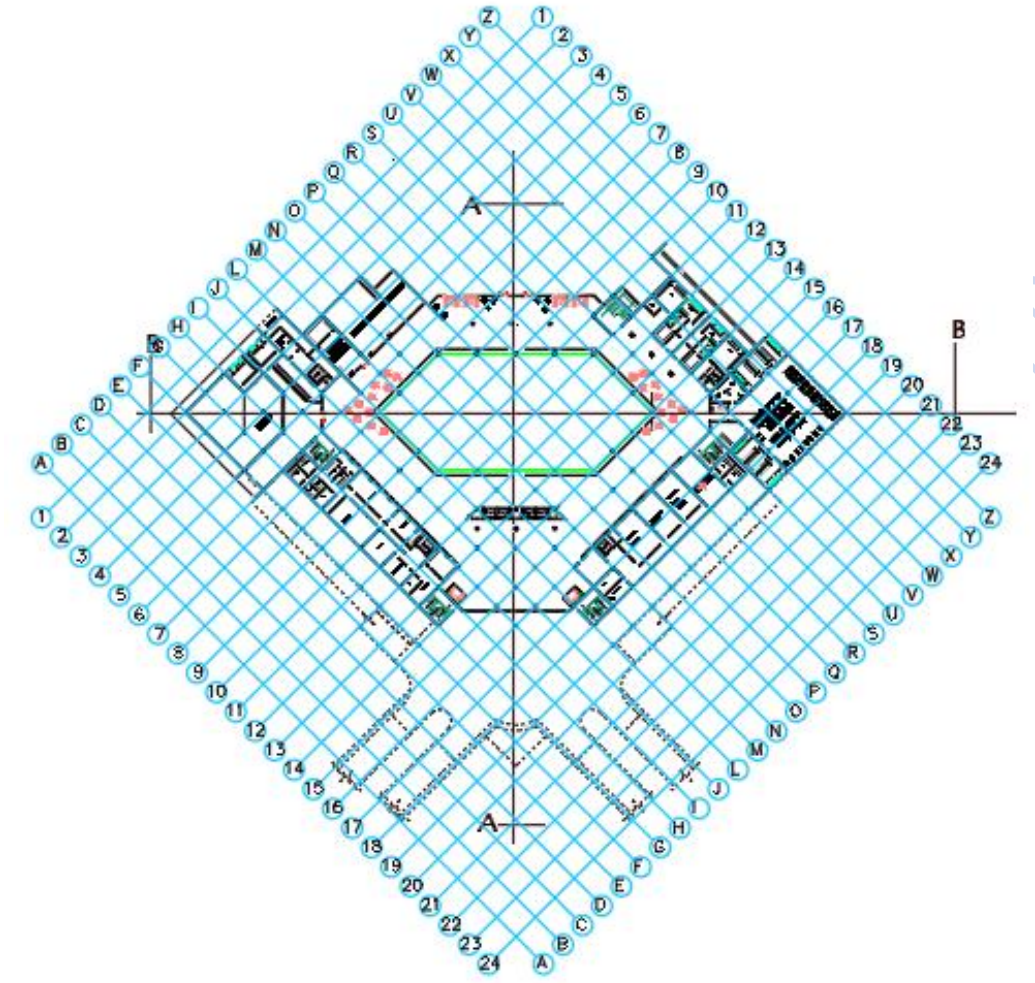
Appendix 1 Presentation Drawing

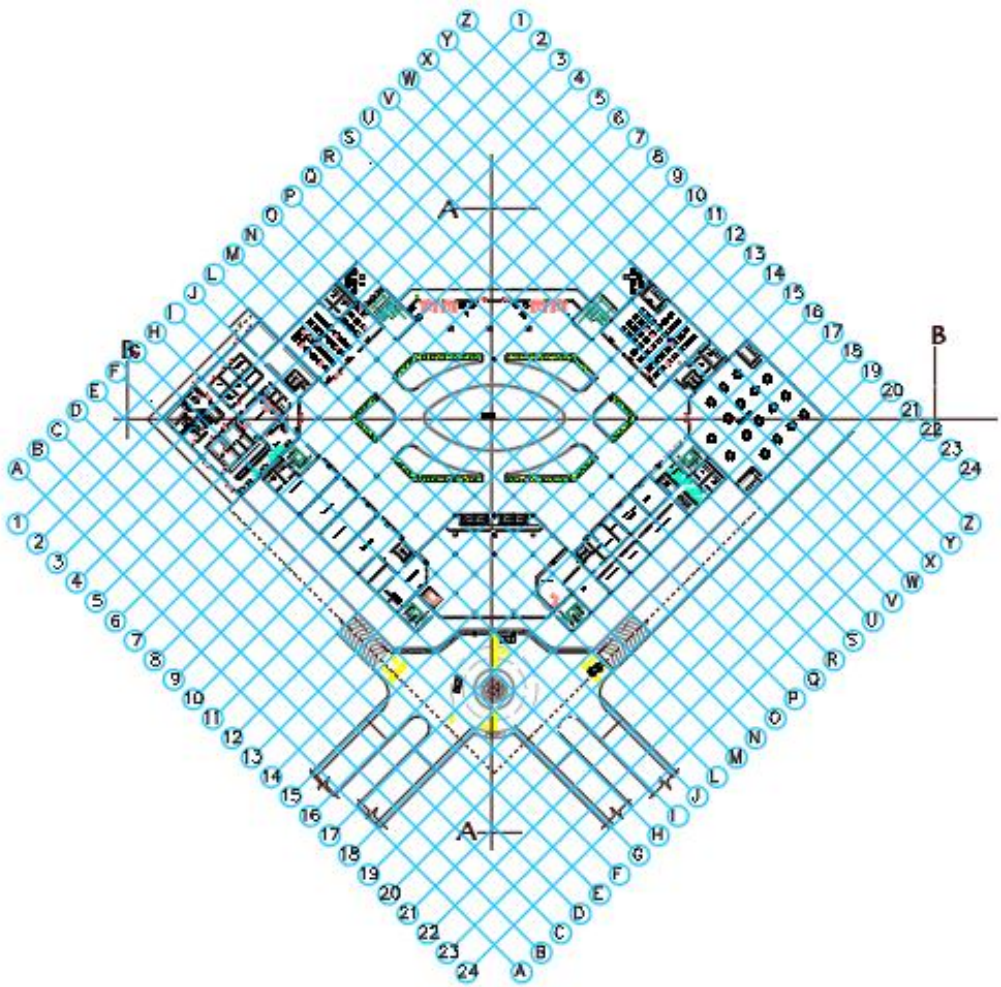
Site Plan

Ground Floor Plan

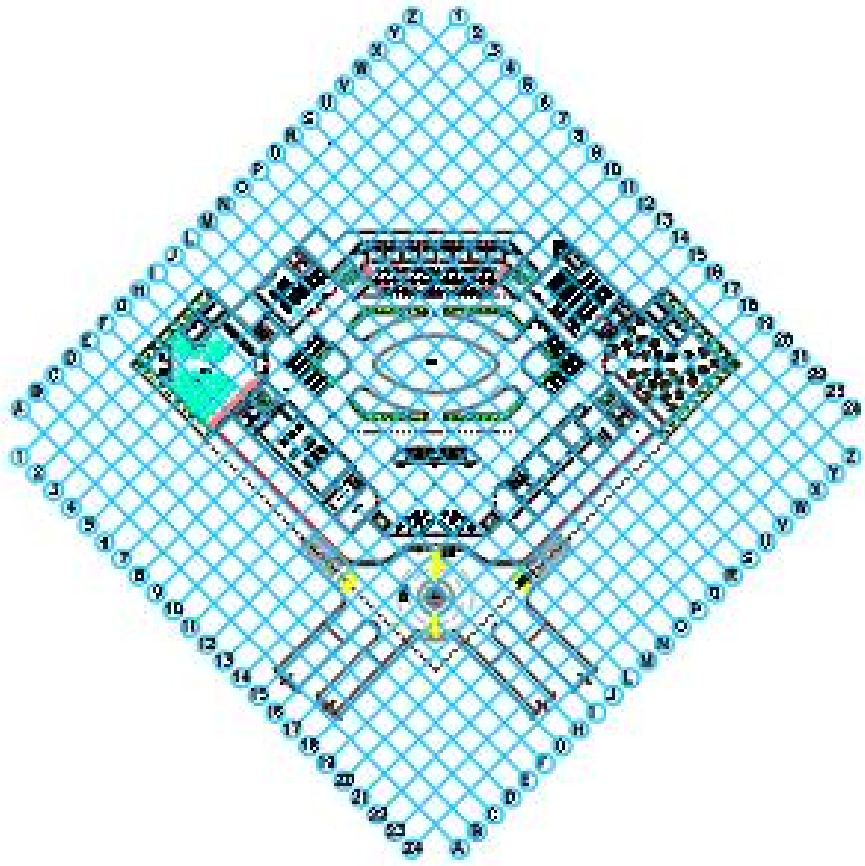


GROUND FLOOR PLAN
(FURNITURE LAYOUT)

First Floor Plan

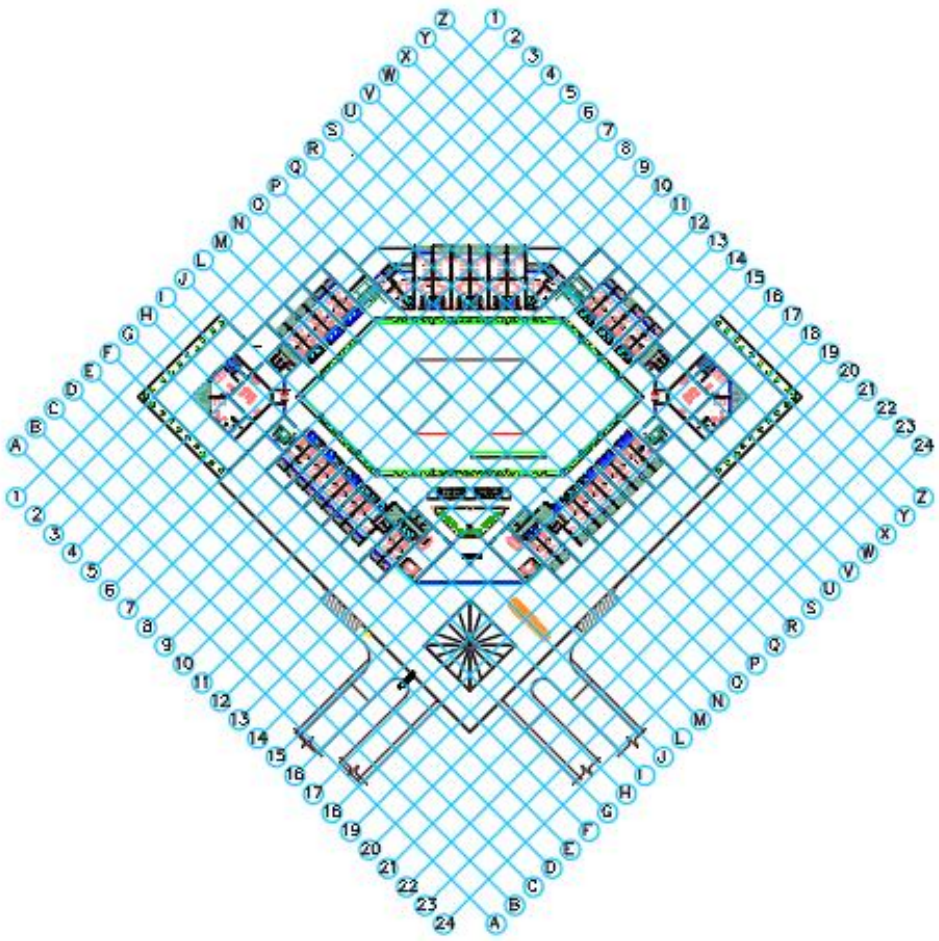


Second Floor Plan



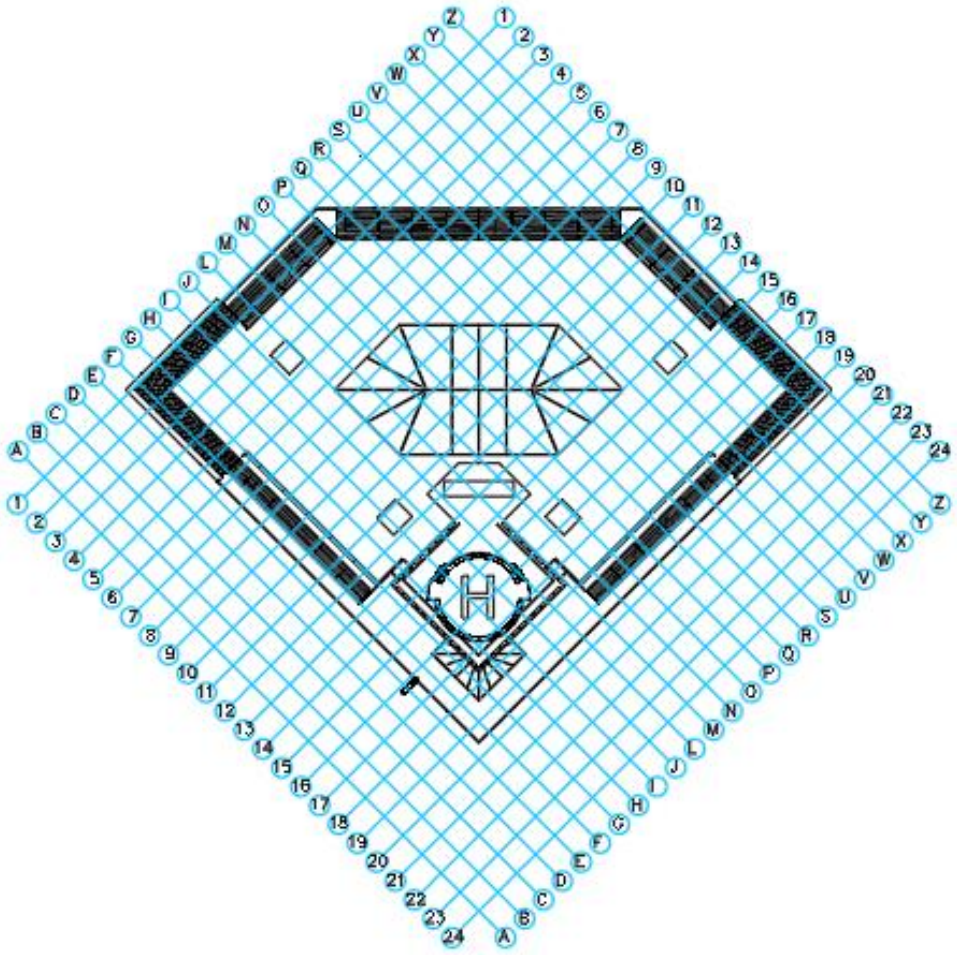
SECOND FLOOR PLAN
(FURNITURE LAYOUT)

Typical Floor Plan

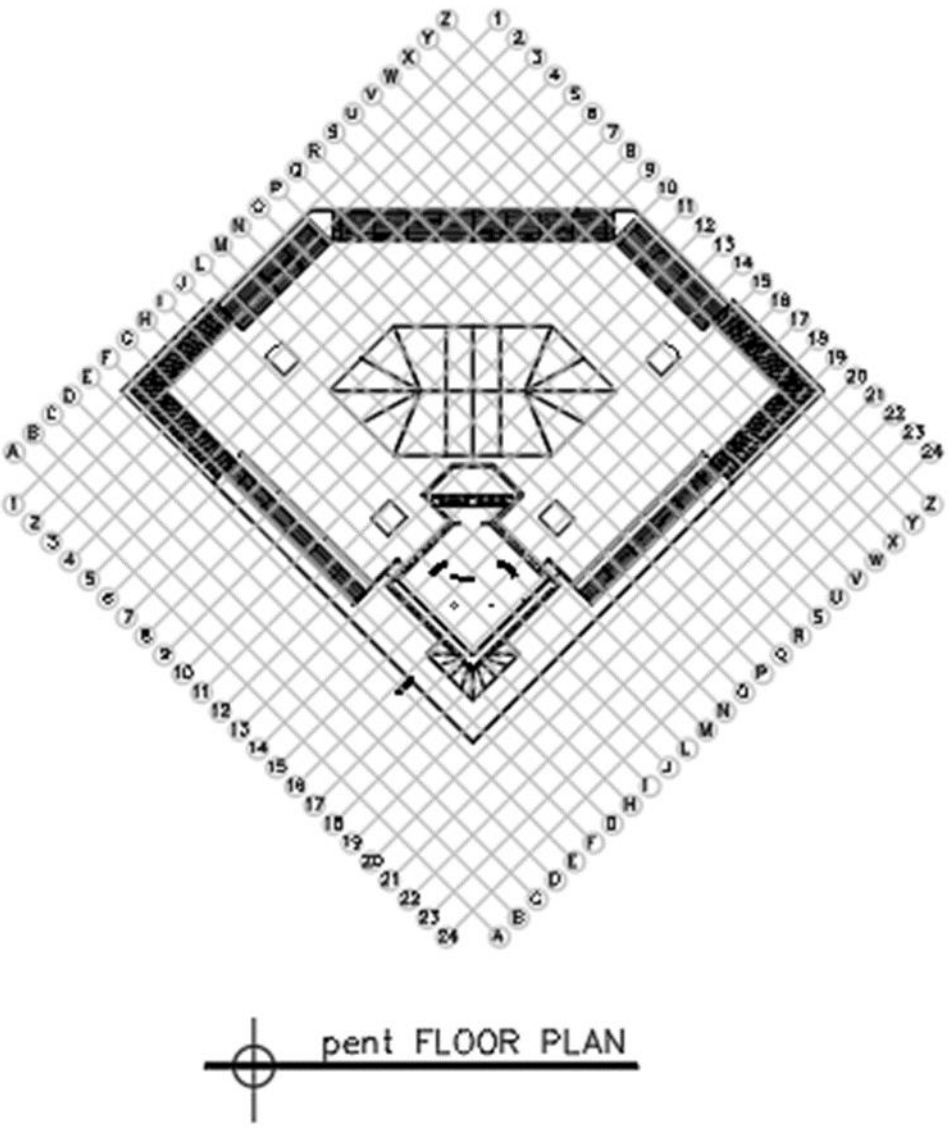


THIRD–FORTEENTH FLOOR PLAN
(FURNITURE LAYOUT)

Roof Plan



Pent Floor Plan



Elevations

presentation drawing

ELEVATIONS

APPROACH VIEW

presentation drawing

ELEVATIONS

RIGHT-SIDE VIEW

LEFT-SIDE VIEW

Presentation drawing

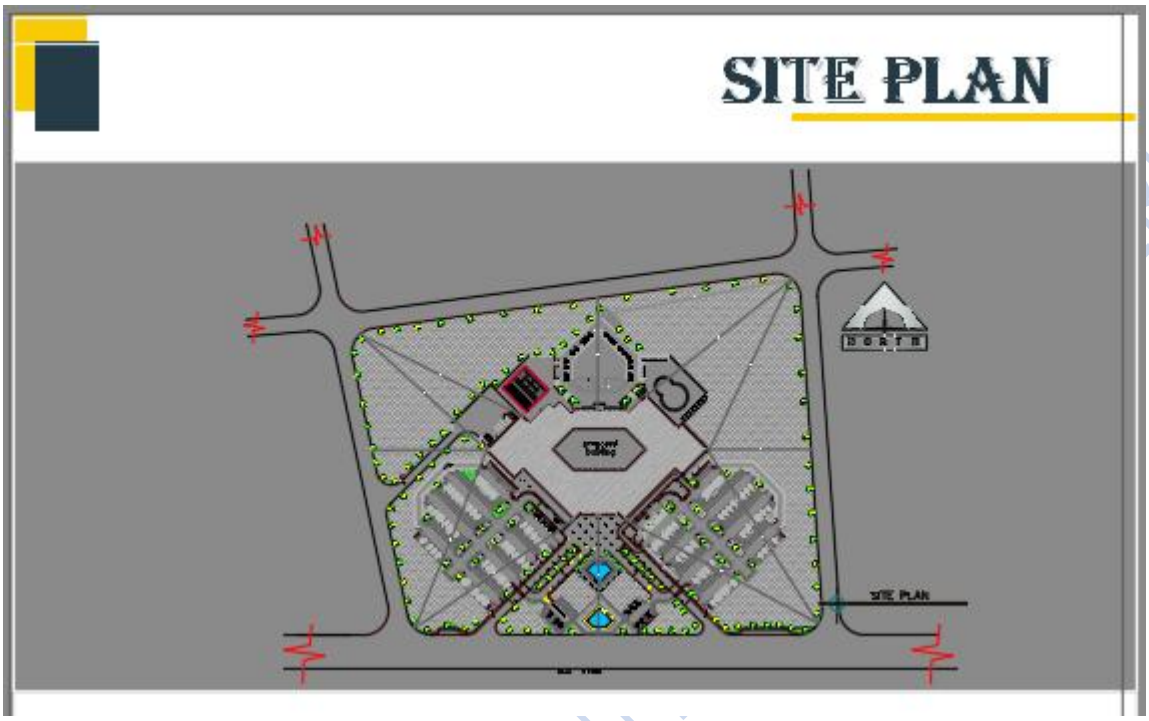
LEFT-SIDE VIEW

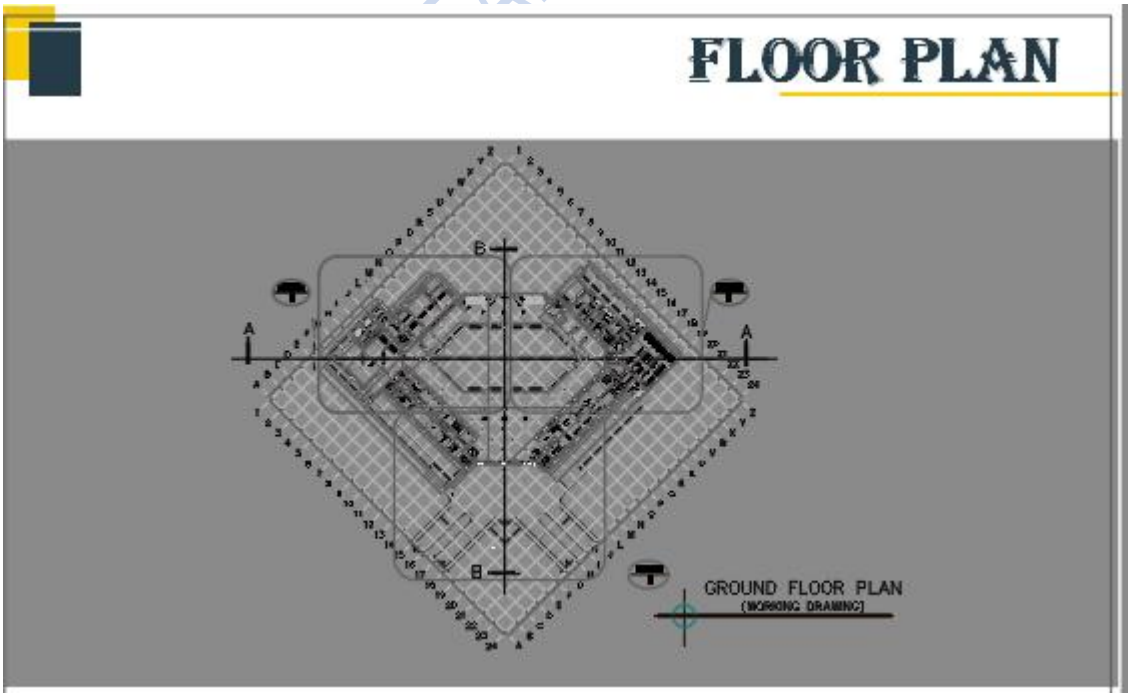
REAR VIEW

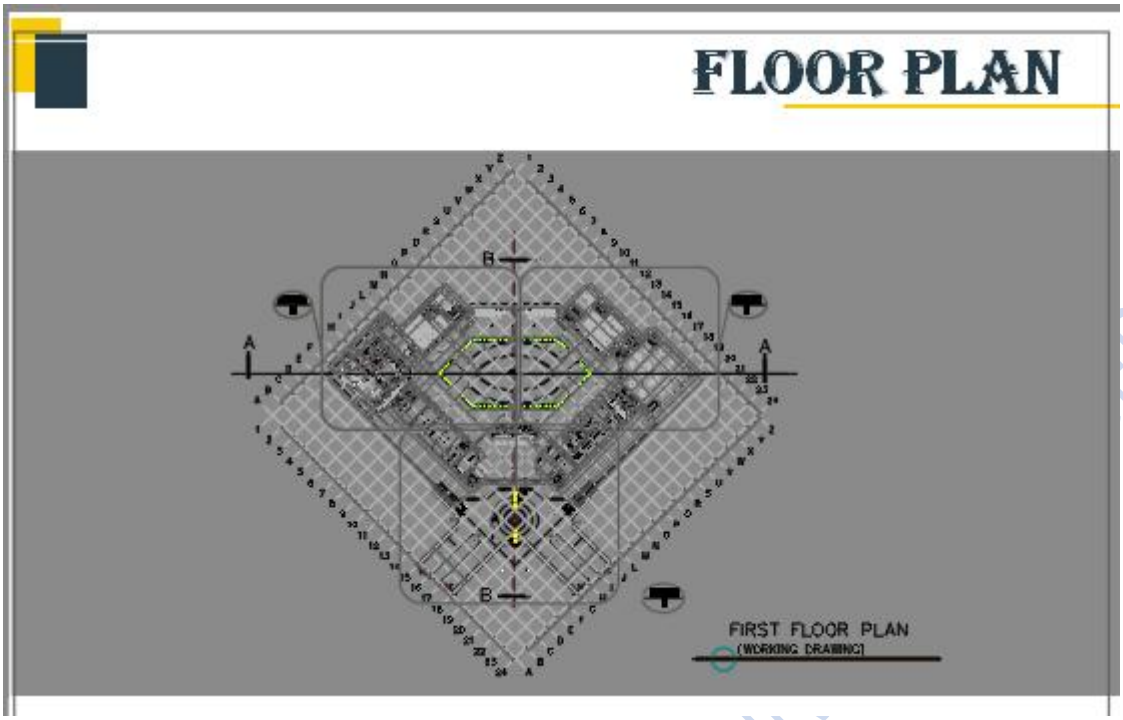
Presentation drawing

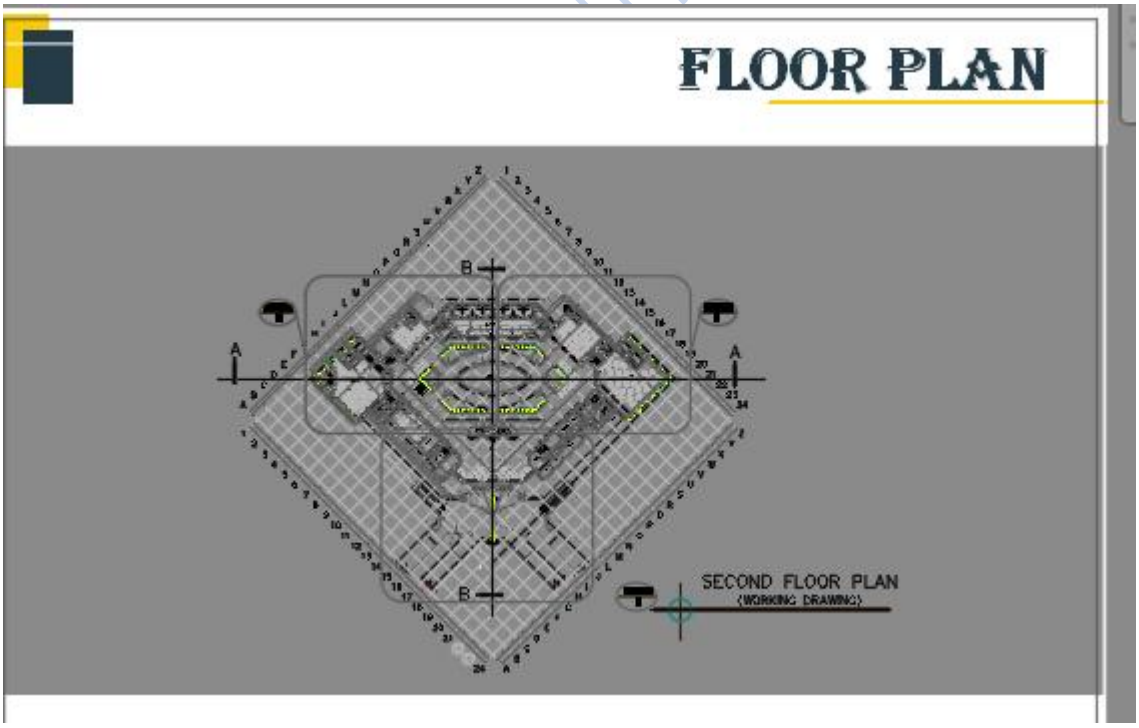
REAR VIEW

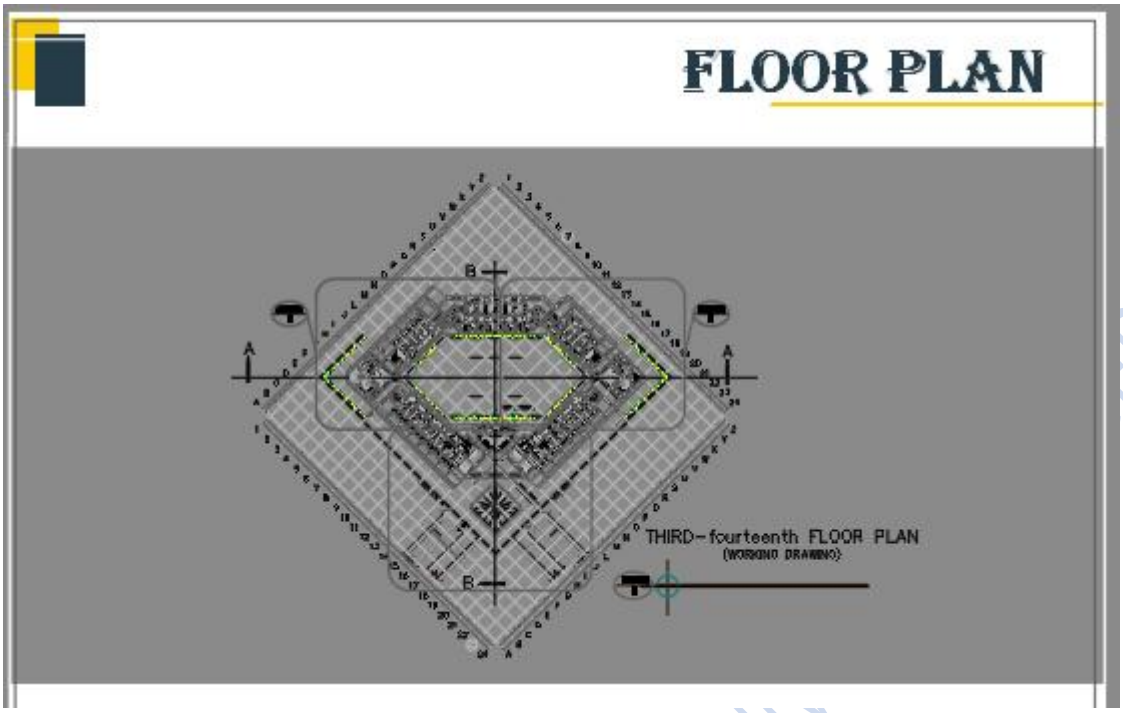
Appendix 2 Working Drawing

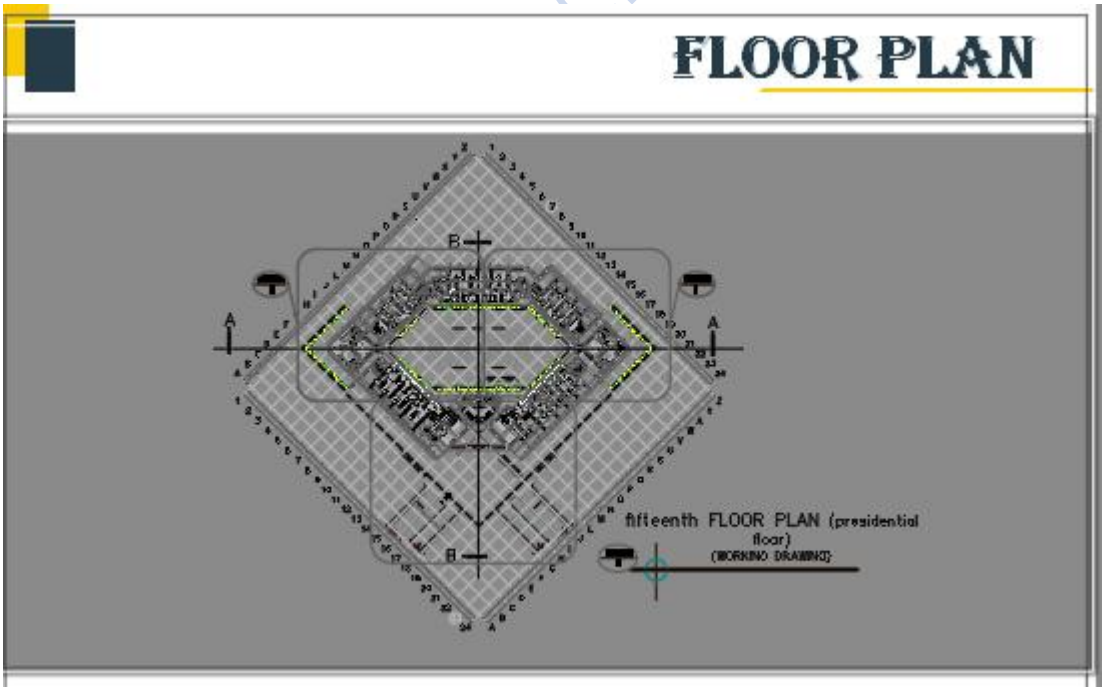


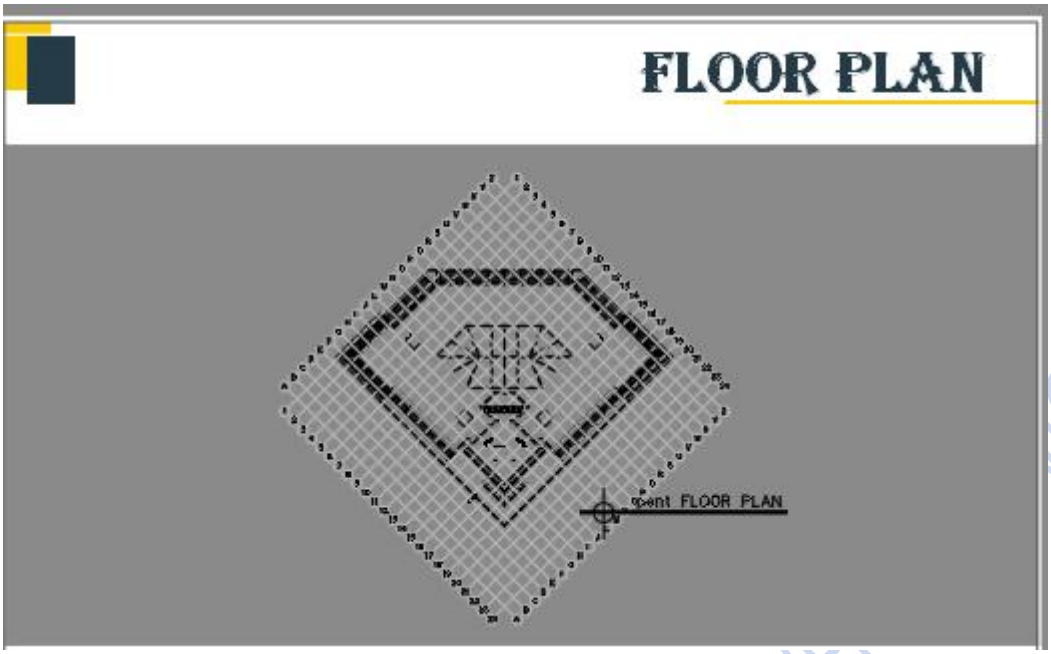


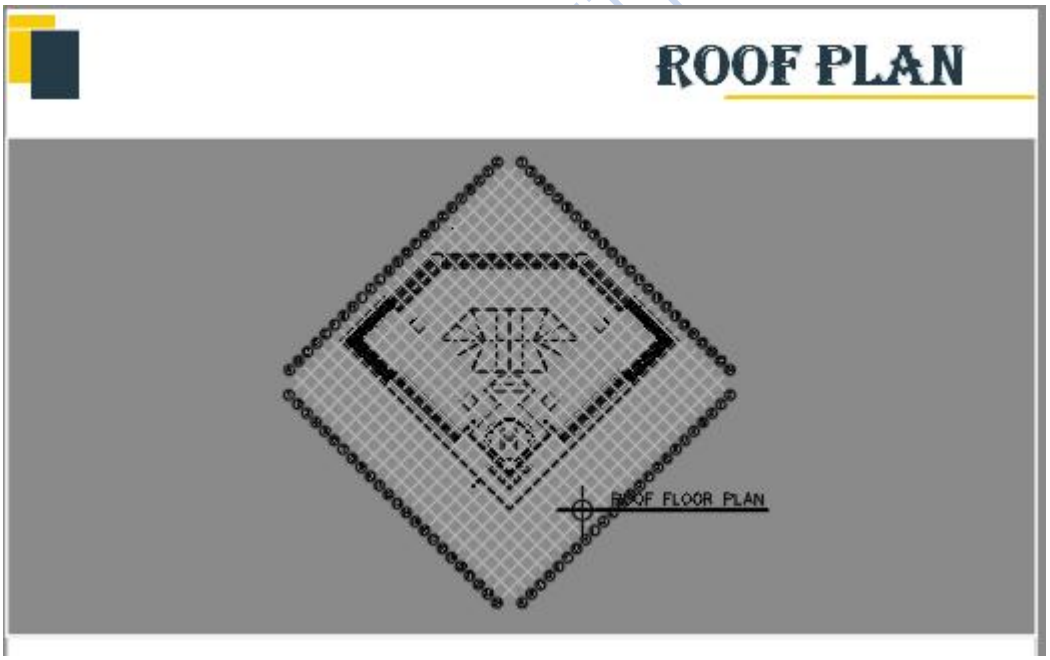

FLOOR PLAN
A
A
B
B
FIRST FLOOR PLAN
(WORKING DRAWING)

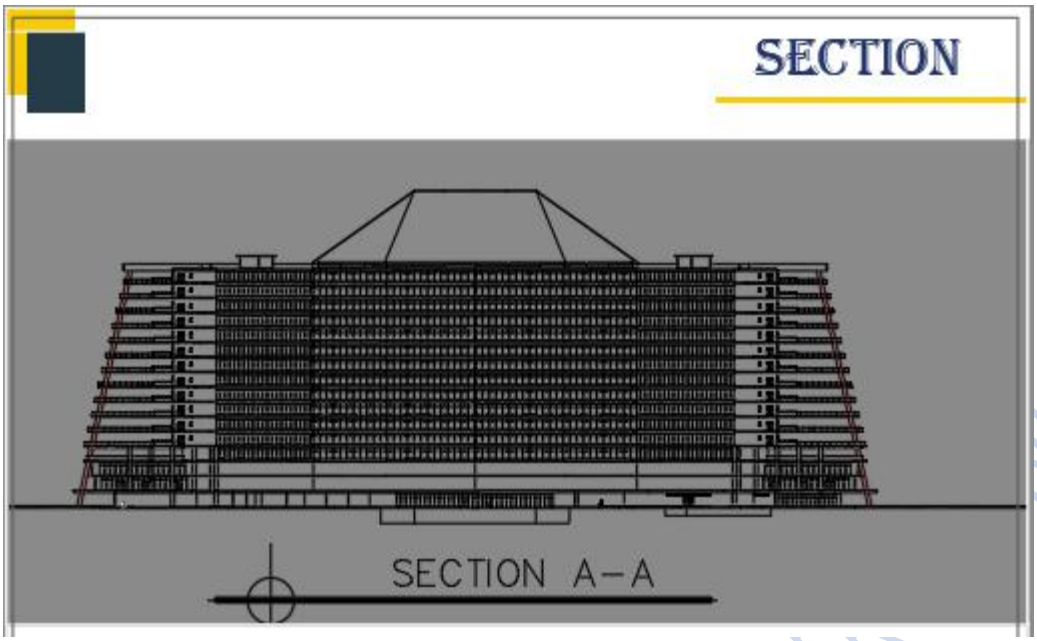

FLOOR PLAN
A
A
B
B
SECOND FLOOR PLAN
(WORKING DRAWING)

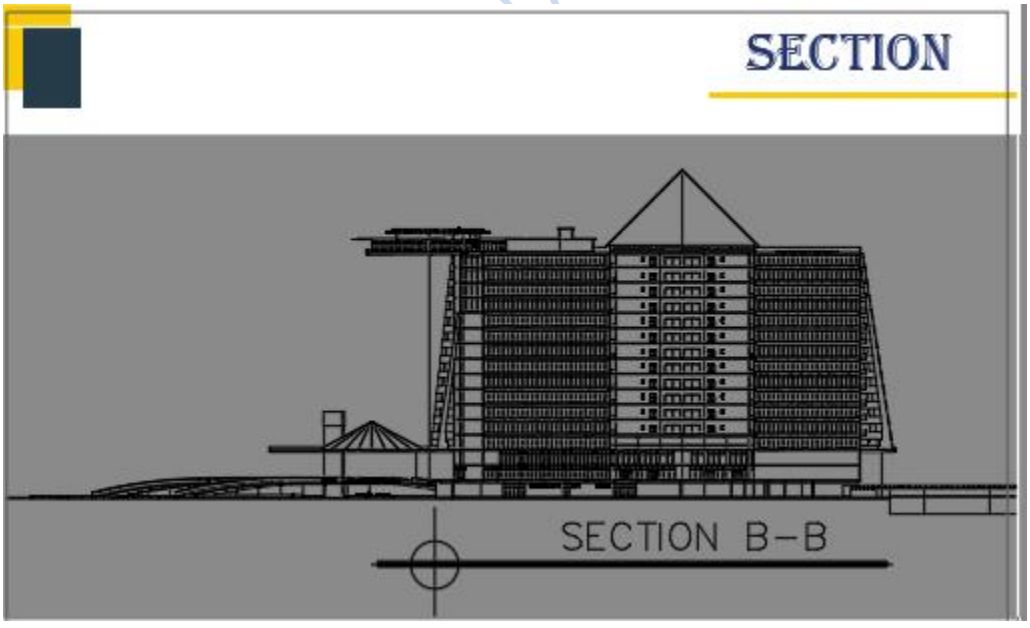

FLOOR PLAN
B
A
A
B
THIRD-fourteenth FLOOR PLAN
(WORKING DRAWING)

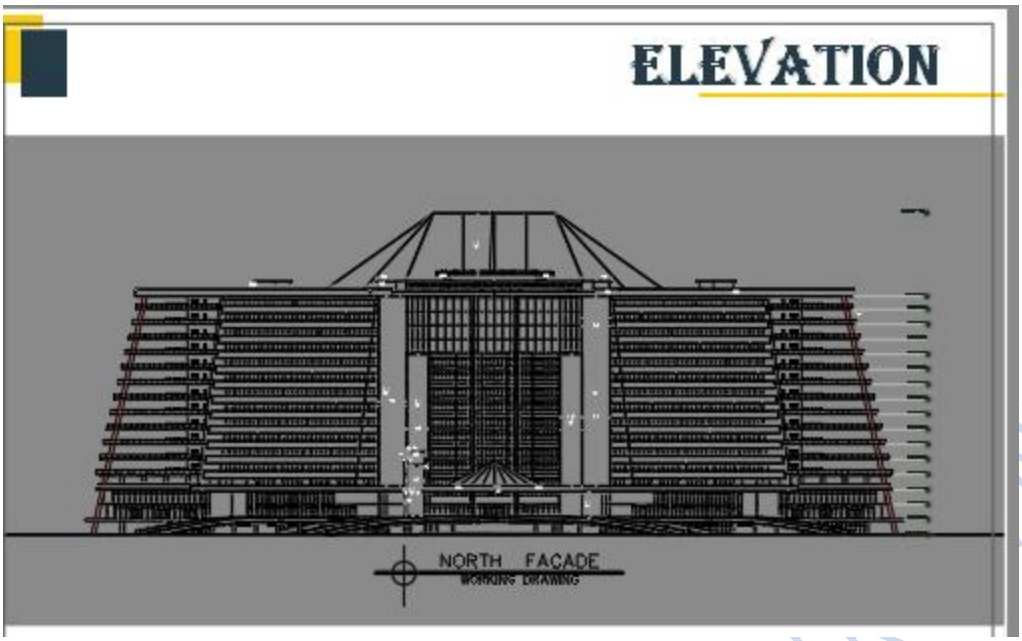

FLOOR PLAN
B
A
A
B
fifteenth FLOOR PLAN (presidential floor)
(WORKING DRAWING)


FLOOR PLAN
FLOOR PLAN

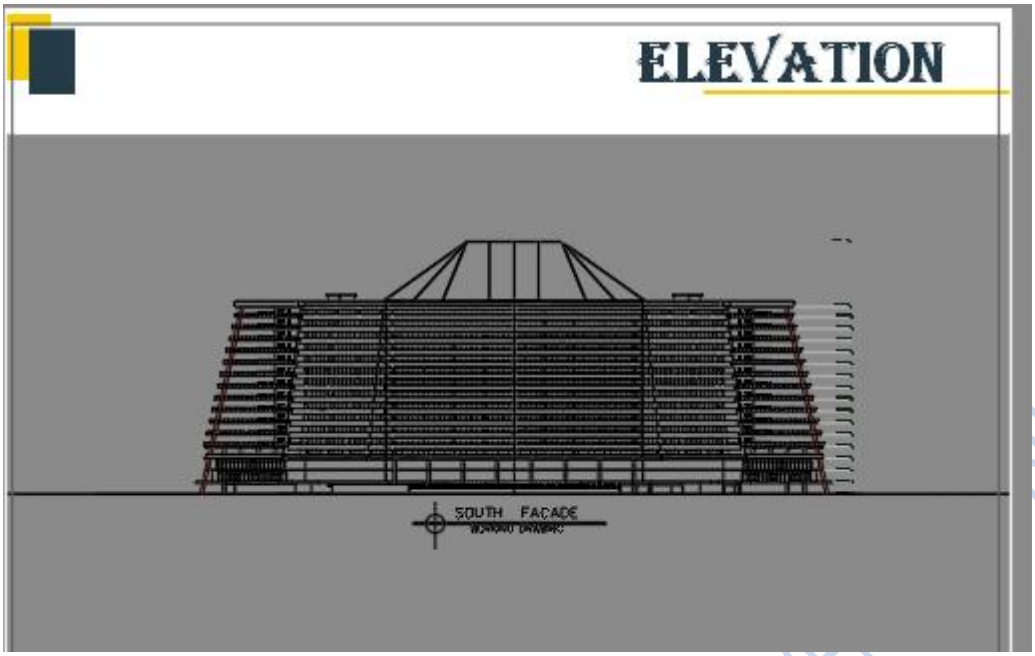

ROOF PLAN
ROOF FLOOR PLAN

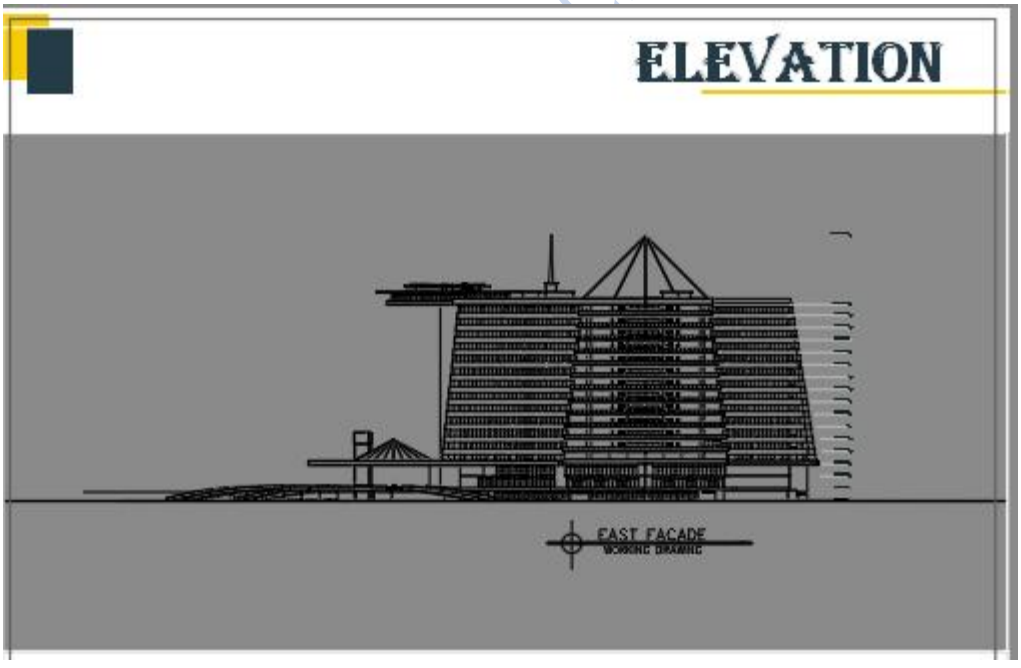




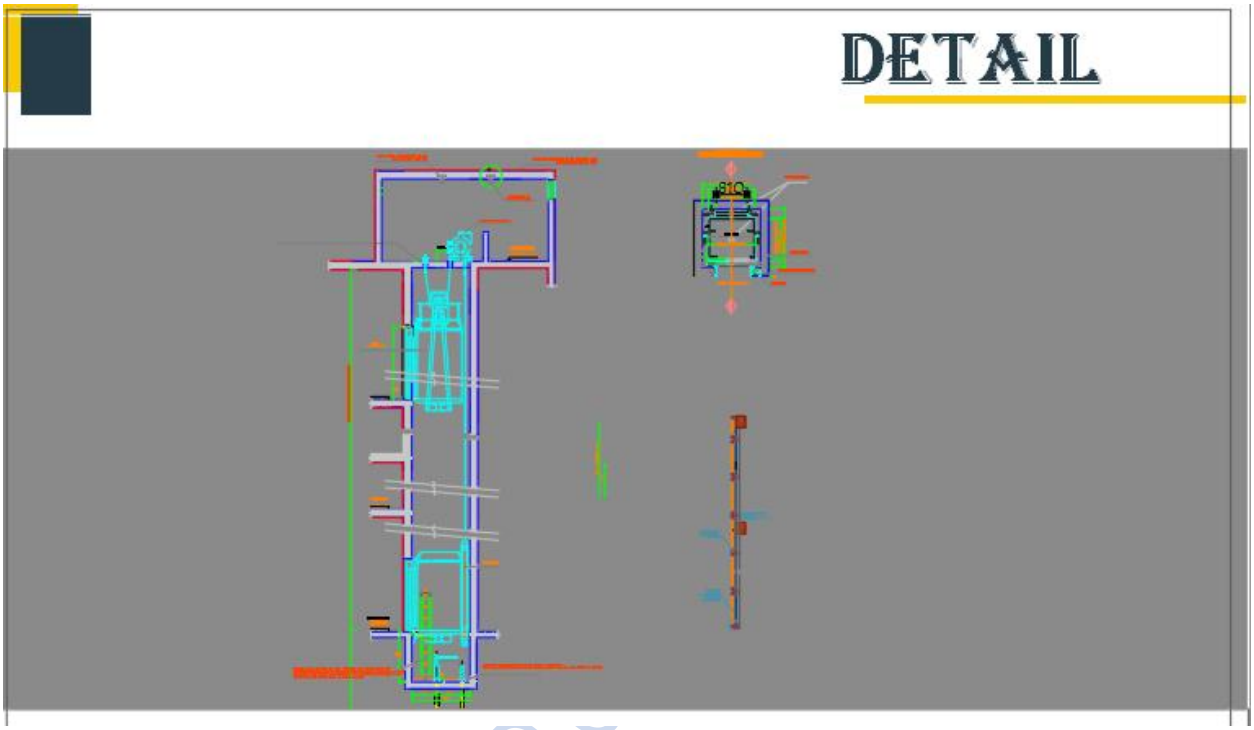

ELEVATION
NORTH FACADE
WORKING DRAWING

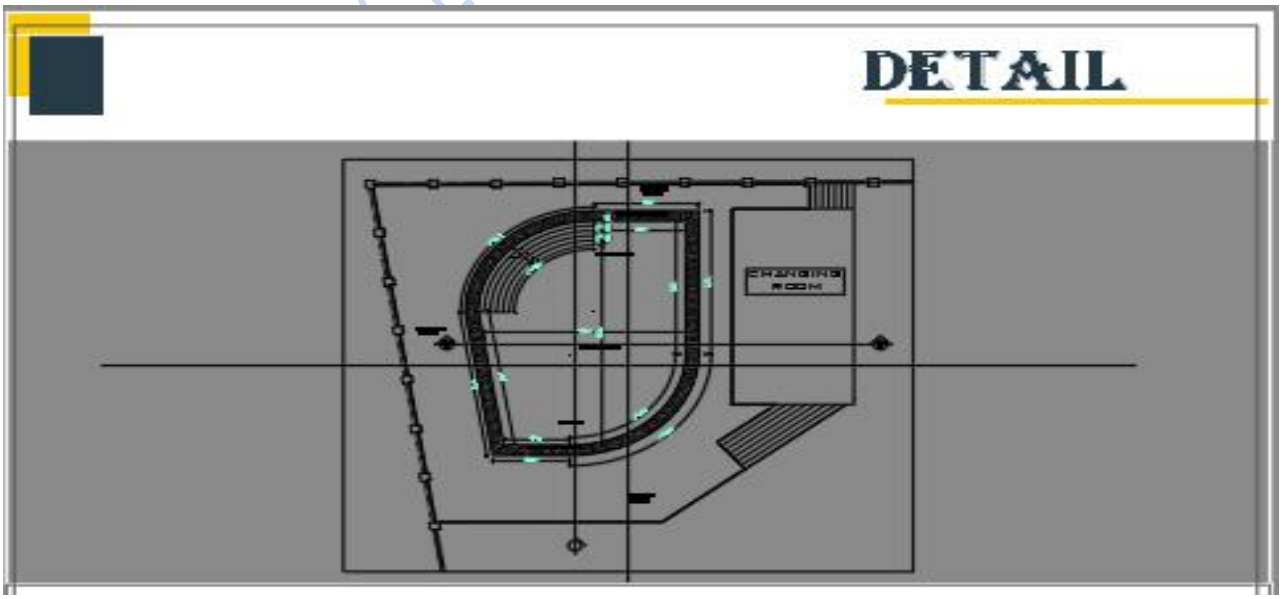

ELEVATION
WEST FACADE
WORKING DRAWING



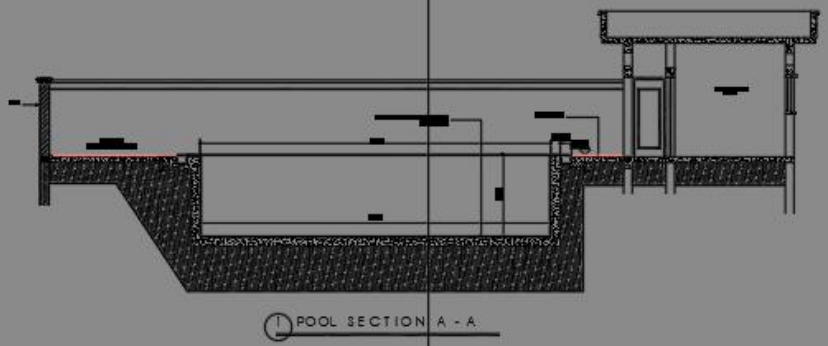


Appendix 3 Details Drawing



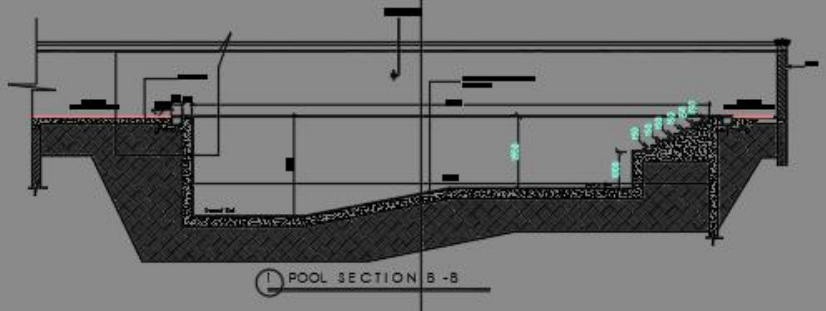


DETAIL



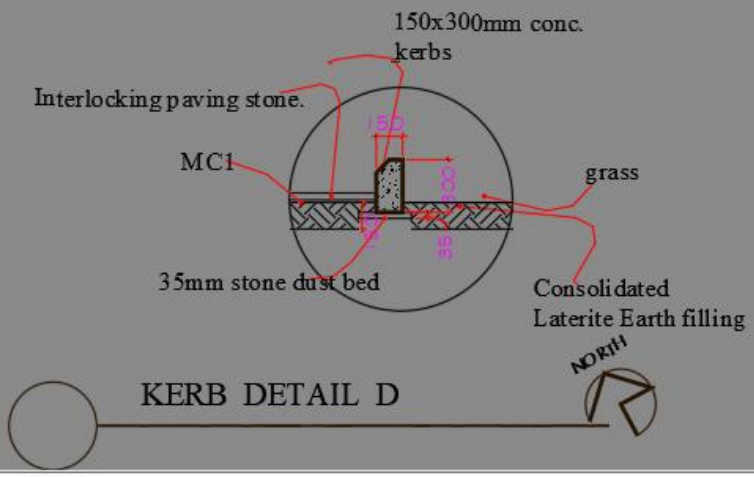
1 POOL SECTION A - A

DETAIL



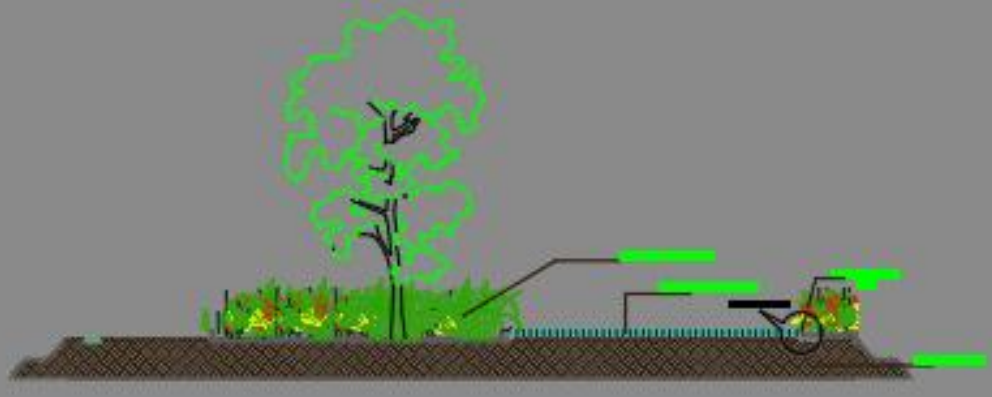
1 POOL SECTION B -B

DETAIL



KERB DETAIL D

DETAIL



SITE DETAIL 2

Curriculum Vitae (CV)

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Permanent Home Address: 15 ICAST Road, Elebu Ibadan, Oyo State, Nigeria

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Date of Birth: 11th April, 1969

Place of Birth: Ijero, Ekiti State

Marital Status: Married

Nationality: Nigerian

Next of Kin: Ayo-Kumuyi Folasade M

Contact Address: Plot 14 Block Lx Oluyole Extension Ibadan

B. Education Background with Date

i. Lead City University Ibadan, Toll gate Oyo State 2020 to 2022

ii. Caleb University Imota, Lagos S 2015 to 2017

iii. The Polytechnic Calabar, Cross River State 2001 to 2003

iv. The Polytechnic Calabar, Cross River State 1998 to 2000

v. Doherty Memorial Grammar School Ijero Ekiti 1981 to 1986

vi. Emmanuel Anglican School B, Ado Ekiti 1975 to 1981

2. Qualification with Dates

i. MSc Architecture:	2022
ii. BSc Architecture:	2017
iii. Higher National Diploma Architecture	2003
iv. Ordinary National Diploma Architecture	2000
v. West Africa Senior School Certificate	2012
vi. West Africa School Certificate Examination	1986
vii. First School Leaving Certificate:	1981

C. Working Experience with Date

Project Director: Maakshade and Associates Ltd Oluyole Ibadan 2015 to till date

Operation Manager: Admoak International Construction Ltd 7 Oluga street Bodija, Ibadan Oyo State 2012 to 2015

Site Supervisor: Advance Engineering Ilupeju Lagos State 2007 to 2012

Clark of Works: Directorate of Army Works, Headquarters Nigeria Army Engineers Bonny Camp Lagos 2003 to 2006

Army Engineer Representative: 146 Amphibious Battalion Nigeria Army Barrack Maintenance Group Calabar 2000-20003

D. Membership of Professional Bodies

Graduate Member of Nigeria Institute of Architect (NIA)

E. Publication

Design Consideration for a Tourist Facility (Unpublished)

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Principal Lecturer

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Provost Federal College of Agric

Moor Plantation Ibadan

Oyo State

08033569630

Arc. Ademola Adeola J.

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Lead City University Ibadan

Architecture Department

Toll gate Ibadan Oyo State.

08151518474

…….. ……

Signature Date

University Compliance Form

This is to certify that this thesis by Micheal Ayodeji KUMUYI with matriculation number LCU/PG/002139 in the Department of Architecture, College of Environmental Sciences and Management, Lead City University, Ibadan, is in full compliance with the approval of the university's format and style.

……. ……

Signature Date