

# BUILDINGS DESIGN CAPABILITIES

Healthcare

Hospitality

Mixed-Use

Commercial

Retail

Education

Mosaue

Recreationa

Residential

Banks







# Introduction

In the early 90th, IHCG has accomplished astounding feats. Through our fortitude and innovative spirit, and provided unparalleled value to clients in Egypt and the region. We take pride in our commitment to shape a better world. Each year, IHCG sets strategic plan and wide range of developments to ensure the continued success of this mission.

We interviewed internal subject matter experts and external stakeholders involved at every stage of the design process to identify the biggest trends in the design and to develop an understanding of how these trends will impact IHCG's daily practice.

In the following pages, you will find a distillation of the insights that emerged from this development. These findings around the future of design indicate areas of particular interest to IHCG, as well as highlighting some of the most exciting new ideas from our investigation. We hope that this report will serve as a starting point for deep, regionally-specific conversations on how to best leverage trends relevant to the future of design in order to improve our work, deliver more value for our clients, and remain a leading provider of cutting-edge solutions.

# MISSION

We integrate most of engineering and architecture disciplines at one place to deliver exceptional design ideas and solutions with competitive prices, and to help make any project pass with ease, for our Clients in the public and private sectors. The science of engineering and sustainable design, together with construction management and supervision services gives our Clients better future for their projects.



# CONTENTS

- Al Amaan City Centre, Khartoum, Sudan
- The Egyptian German hospital (EGH), Giza, Egypt
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- Al Qods Building, Alger, Algeria
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- Um Dorman Hospital, Um Dorman, Sudan
- Sudan Cotton Office Building, Khartoum, Sudan
- Wahat Al Khartoum, Khartoum, Sudan
- Medical Tower, Khartoum, Sudan
- Wahran Complex, Wahran, Algeria
- Al Farouk Omar Mosque, Gunzoor East, Tripoli, Libya
- National Gene Bank, Giza, Egypt
- Niyala Hotel, 4 Stars, 120 Room, Niyala, Sudan
- Anda Complex, Khartoum, Sudan
- Khartoum World Trade Centre (KWTC), Khartoum, Sudan
- El Wakeel Tower Mixed-Use, Khartoum, Sudan
- Diesel Tower Residential Apartments, Khartoum, Sudan
- Police Tower Residential Apartments, Khartoum, Sudan



# AL AMAAN CITY CENTRE

Khartoum, Sudan



### Client

Social Security Investment Authority (SSIA)

### Services

Architectural Structural MEP Interior Design

### Stages

Studies and
Programming
Conceptual Design
Preliminary Design
Detailed Design
Tender Documents

Al Amaan City Centre is a high rise building of 40 floors, located in the heart of Khartoum, the capital of Sudan. Has a plot area of 8,875 sq.m, and foot print of 6,175 sq.m, and built-up are of 162,470 sq.m.

The mixed-use centre has spaces for retail and cinema, office building, and hotel apartments.

# Planning & Studying





# Typical Floor



Office Tower

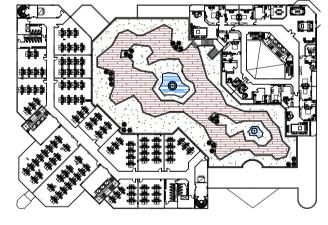


Residential Tower



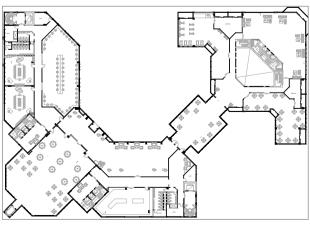
Circulation

Services



Podium Roof Top



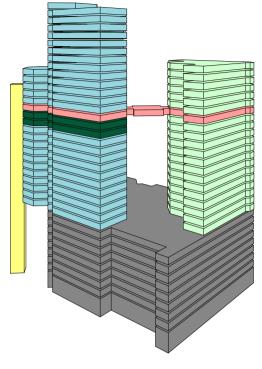


**Business Center** 



# AL AMAAN CITY CENTRE

Khartoum, Sudan



# Architectural Mass Model

Offices

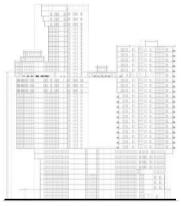
Business Center

Conference Halls

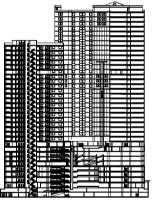
Apartments

Retail

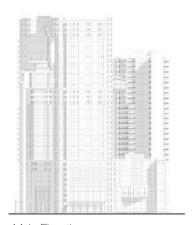
Skylight Elevator



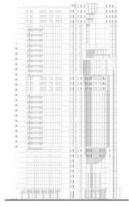
Section C-C



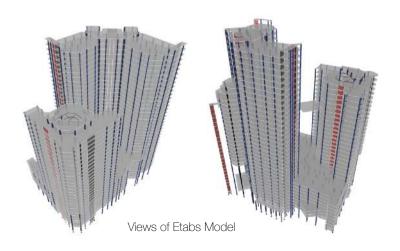
Section B-B



Main Elevation

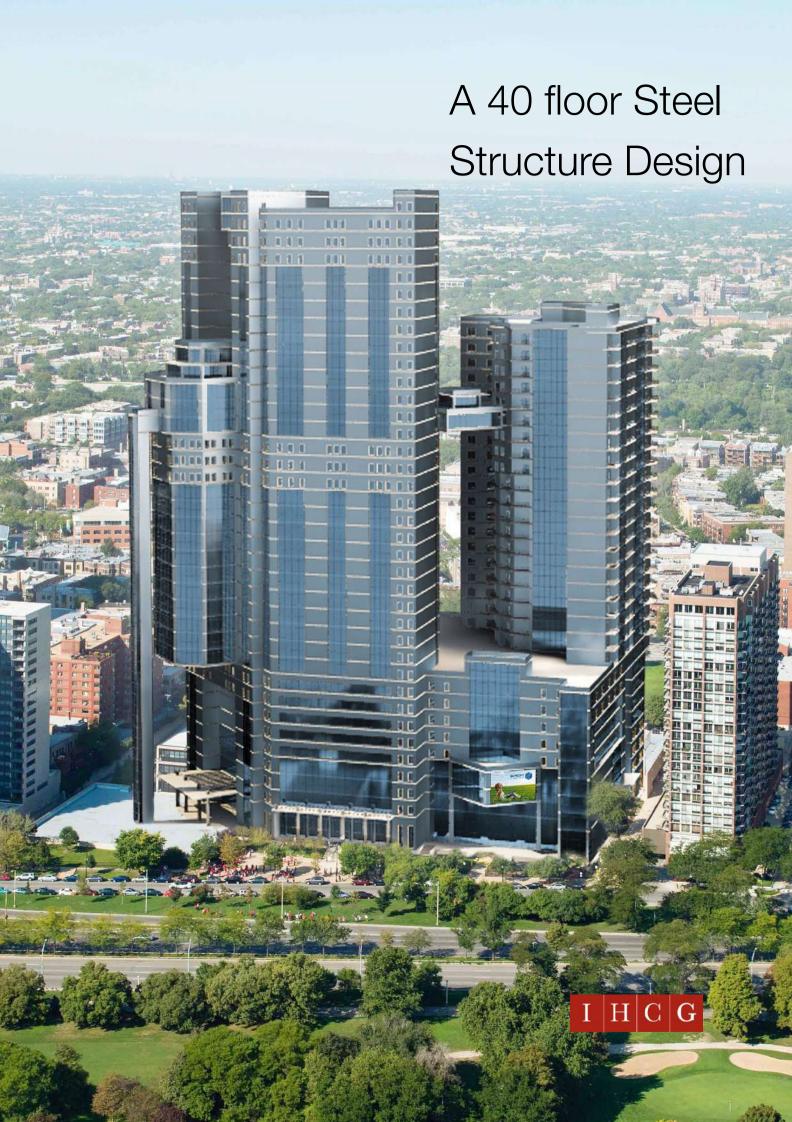


Side Elevation



# Structural Design

IHCG engineers usually conduct a comparison between various structural systems in coordination with our architectural team to assess differences in building performance to reach the optimum economical structural solution, in conjunction with building function and space requirements.





# THE EGYPTIAN GERMAN HOSPITAL (EGH)

Giza, Egypt



### Client

Al-Hammd Company for Medical & Environmental Services

### Services

Geotechnical Investigation
Topographic Surveys
Medical Planning
Medical Equipment Planning
Architectural
Interior Design
Structural
MEP
Construction Supervision

### Stages

Planning and Studies Conceptual Design Schematic Design Design Development Detailed Design Tender Documents Tender Action



The Egyptian German Hospital accommodate 120 Bed is a General Hospital located in Abo Rawash City, Gize, Egypt near the Smart Village, in a plot area of 7,300 sq.m, and foot print of 3,650 sq.m, and built-up area of 22,000 sq.m, in 5 floors.

The Client intends to develop a landmark and 5-stars hospital in the area.



### Second Floor

- 1 Inpatient Ward
- 2 ICU
- 3 Surgical Department
- 4 Waiting Area

### First Floor

- 1 Inpatient Ward
- 4 Waiting Area
- 5 Cathlab
- 6 Administration
- 7 Endoscope

### **Ground Floor**

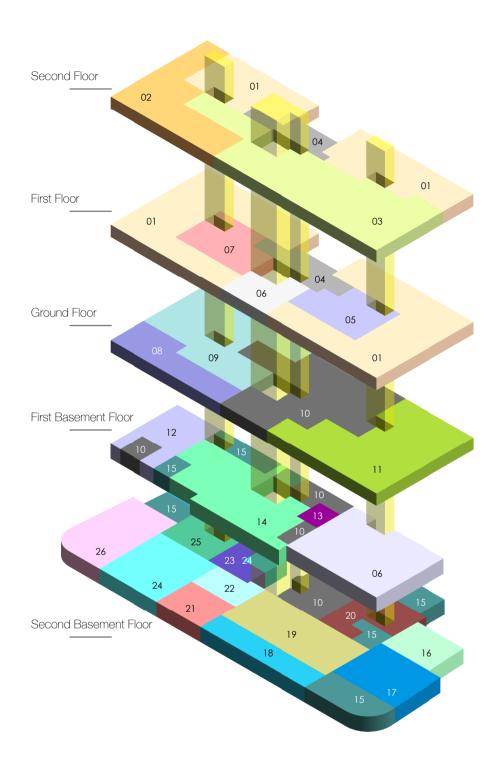
- 8 Physical Therapy
- 9 Dialysis
- 10 Reception
- 11 Outpatient Department

### First Basement Floor

- 6 Administration
- 10 Reception
- 12 Radiology
- 13 Cafeteria
- 14 Emergency
- 15 MEP

### **Second Basement Floor**

- 10 Reception
- 15 MEP
- 16 Waste
- 17 Laundry
- 18 Storage
- 19 CSSD
- 20 Morgue
- 21 Medical Records
- 22 Services
- 23 Workshop
- 24 Kitchen
- 25 Dining Hall
- 26 Pharmacy

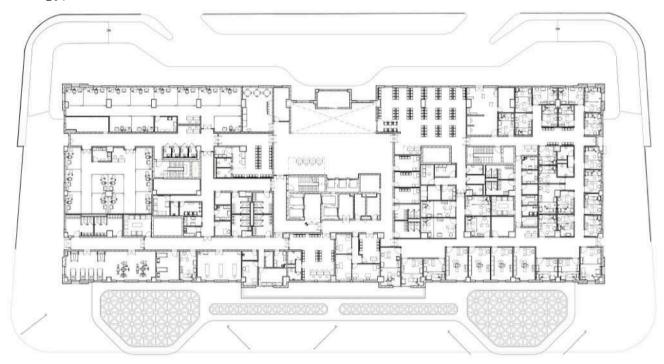


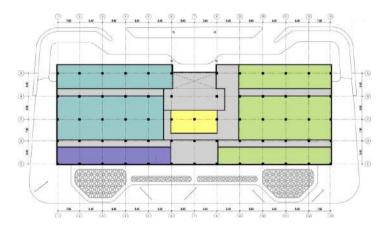
Architectural Mass Model



# THE EGYPTIAN GERMAN HOSPITAL 5....

Giza, Egypt



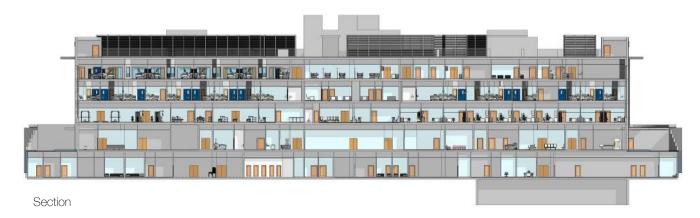


### **Ground Floor**

Reception
Dialysis
Main Core
Outpatient
Department

Physical Planning

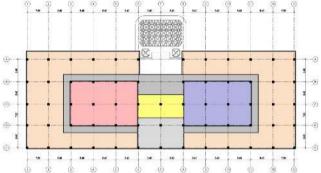
Medical and Equipment Planning





## **First Floor**





Inpatient Ward

Main Core

Waiting Area

Cathlab

Endoscopy

Administration

# **HEALTH FACILITIES**

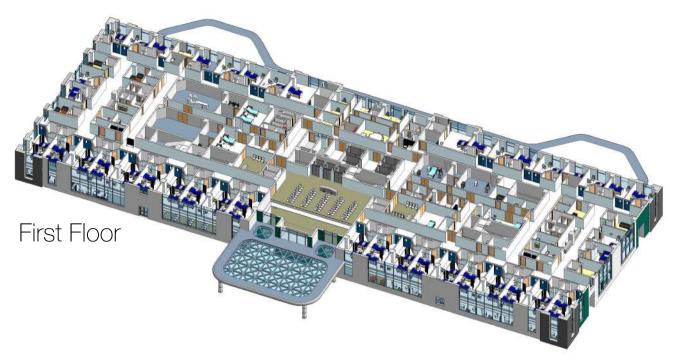
**IHCG** provide full engineering design consultancy services for healthcare facilities...

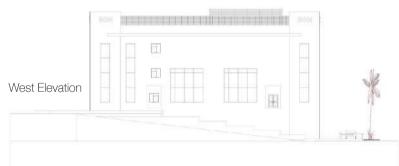




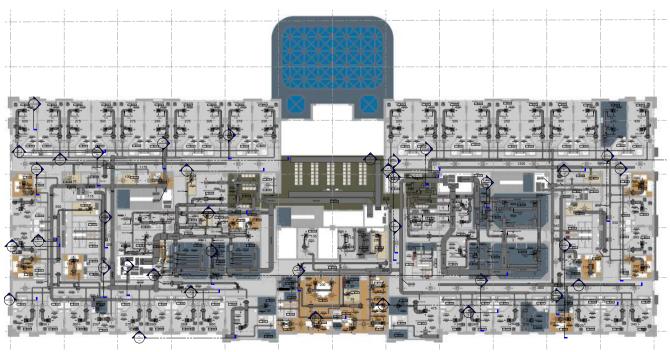
# THE EGYPTIAN GERMAN HOSPITAL ....

Giza, Egypt









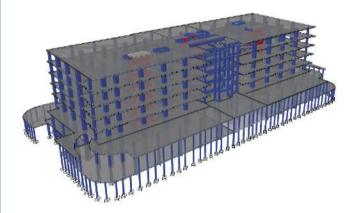
First Floor HVAC Plan



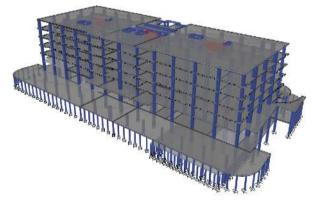


# Structural Engineering

We stretch the design boundaries daily, but always with a practical guide. Our highly experienced in-house team of structural engineers regularly communicates and coordinates with the architectural team to ensure structural considerations are incorporated into designs from day one. This close cooperation results into a successful design and translates into buildings that simply work...



Views of Etabs Model









# UM DORMAN HOSPITAL

Um Dorman, Sudan



### Client

Social Security Investment Authority (SSIA)

### Services

Medical Planning Medical Equipment Planning

### Stages

Planning and Studies Conceptual Design Schematic Design

Um Dorman 200 Bed Hospital is a General Hospital located in Um Dorman City of Sudan, in a plot area of 10,365 sq.m, and foot print of 6,400 sq.m, and built-up area of 27,800 sq.m, in 5 floors. The Client intends to develop 3 general hospitals in different cities around Sudan and Um Dorman Hospital is a Concept of one of them.



# Designing Healthcare Facilities





### First Basement Floor Architectural 0 Parking Mass Model 1 Public Areas 2 Maintenance and Engineering 3 Mechanical Services 4 Laundry Third Floor Sterilization Unit 6 Staff Facilities 7 Morgue Second Floor **Ground Floor** 20 Public Areas 8 Emergency 9 Admission and Administration 10 Restaurant and Kitchen 11 X-Ray

Ground Floor

Basement Floor

### First Floor

1 Public Areas

12 Laboratories

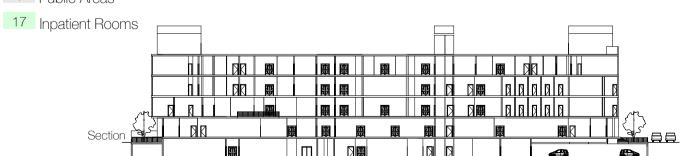
- 13 External Clinics
- 14 Physical Therapy
- 15 One Day Surgery
- 16 Urology & Nephrology

### **Second Floor**

- 1 Public Areas
- 17 Inpatient Rooms
- 18 Intensive Care
- 19 Surgery Unit
- 20 Obstetrics & Gynaecology

### **Third Floor**

1 Public Areas







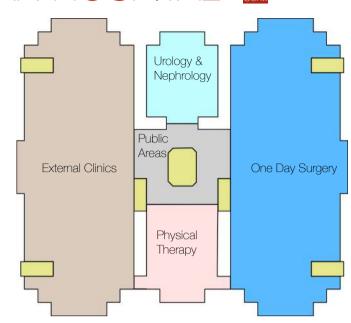
# UM DORMAN HOSPITAL ...

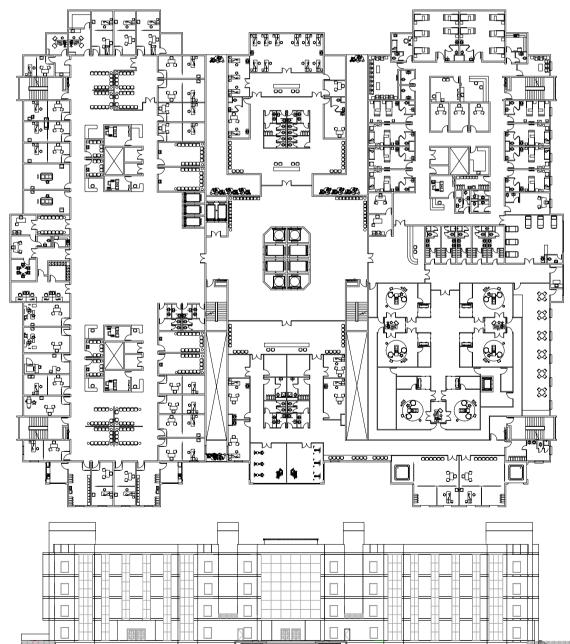
## First Floor

Physical Planning

Main Elevation

Medical and Equipment Planning





We're experts in designing and delivering complete healthcare facilities.





# KEMPINSKI ROYAL MAXIM HOTEL, 5 STARS

New Cairo, Egypt



### Client

Karrar Group

### Services

MEP

### Stages

Conceptual Design Preliminary Design Detailed Design Tender Documents

Kempinski Royal Maxim 5-Stars Hotel located in the Ring Road of Cairo, has a plot area of 24,000 sq.m, and foot print of 6,600 sq.m, and built-up of 38,700 sq.m in 6 floors.

The hotel comprise 250 room, the biggest ball room in Egypt, Swimming pool, and Health Club.

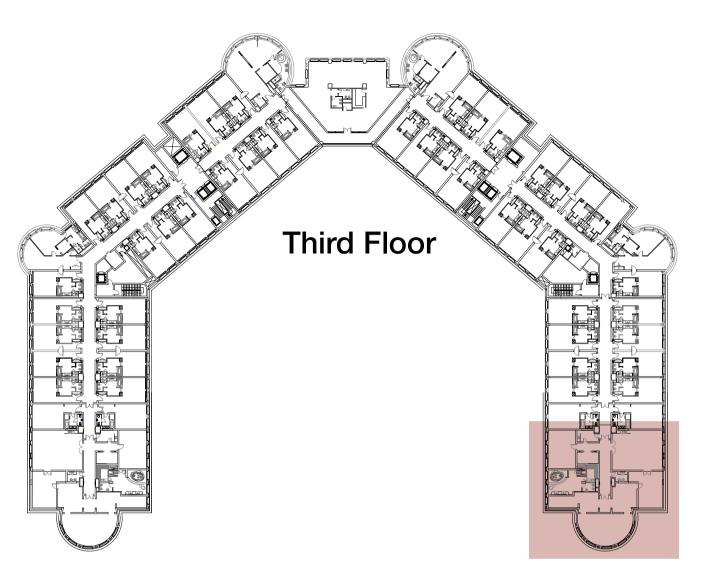


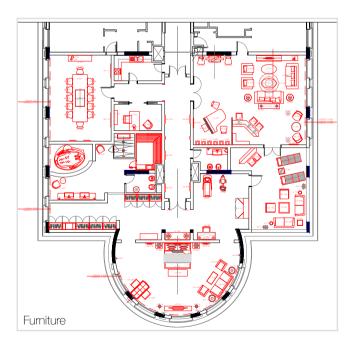


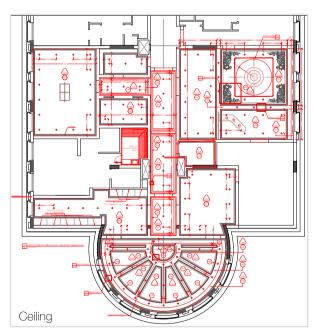
# MEP Engineering

Sustainable and energy-efficient buildings require intelligent mechanical, electrical and plumbing solutions. Our MEP engineers are committed to creating high-performance systems, offering clients efficient operations and technological innovation.





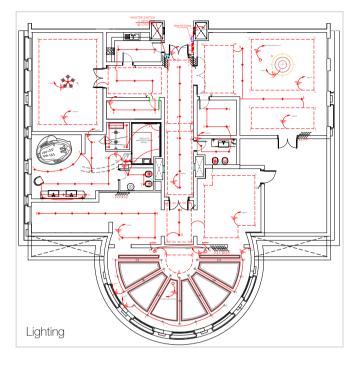


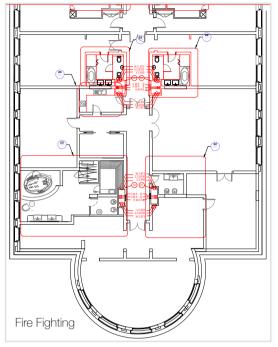


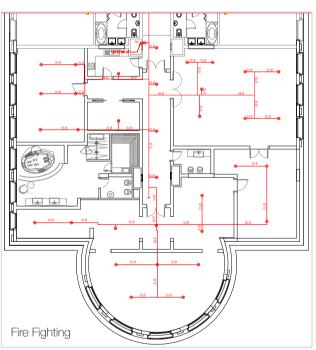


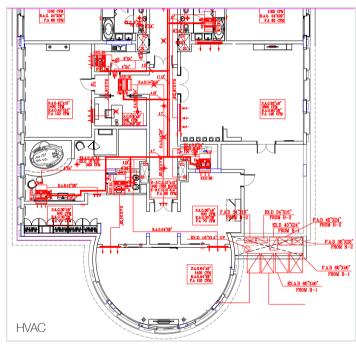
# KEMPINSKI ROYAL MAXIM HOTEL, 5 STARS















IHCG experts provide professional value engineering services. We review every part of the project to reach an optimized design, economic, functional and without affecting its efficiencies.





# AL QODS BUILDING

Alger, Algeria



# Studying & Renovation



### Client

Sidar Co.

### Services

MEP Interior Design

### Stages

Conceptual Design Preliminary Design Detailed Design Tender Documents Construction Supervision Al Kods mixed use located in Alger City. The mixed-use building has a plot area of 13,528 sq.m, and foot print of 10,860 sq.m, and built-up of 120,414 sq.m in 23 floors.

The mixed-use building has spaces for retail, office building, and residential.

# Collaboration

We believe that the most successful, full-bodied design solutions arise from a collaborative process that begins with a holistic approach to problem-seeking.









Back Elevation



Front Elevation



Side Elevation

# **Problem-Solving**

Before we can solve a problem, we have to identify the core essence of what we are trying to solve. We work intimately with our clients to understand vision first. Problem-seeking and -solving is a dialogue of discovery through respectful interaction with the industry's most inventive multi-disciplinary minds...



# NILE GRAND PLAZA

Khartoum, Sudan



### Client

Ministry Of Interior

### Services

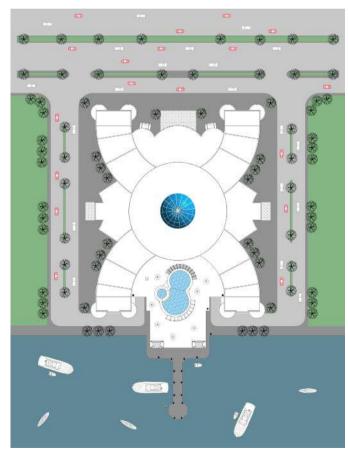
Architectural Structural MEP Interior Design

### Stages

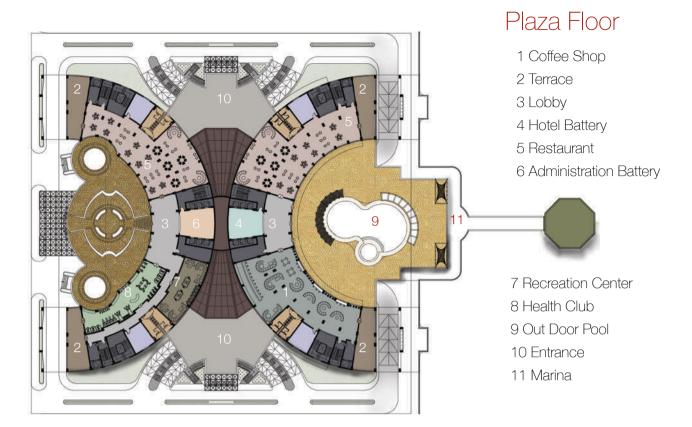
Conceptual Design Preliminary Design Detailed Design Tender Documents

# Designing A Remarkable Touch

Nile Grand Plaza is a mixed-use building, located in Khartoum City. The mixed-use building has a plot area of 8,900 sq.m, and foot print of 4,585 sq.m, and built-up of 113,980 sq.m in 31 floors. The mixed-use building comprises 5-stars hotel, retail spaces, and office building, and in-river restaurant.









# **Interior Design**

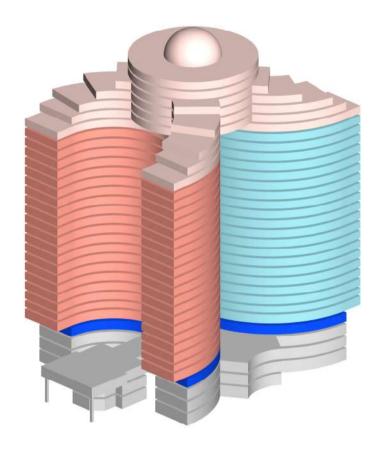
We provide Interior Design that offers creative and intelligent responses to to achieve our clients goals and requirements.





# NILE GRAND PLAZA ....

Khartoum, Sudan



# Architectural Mass Model

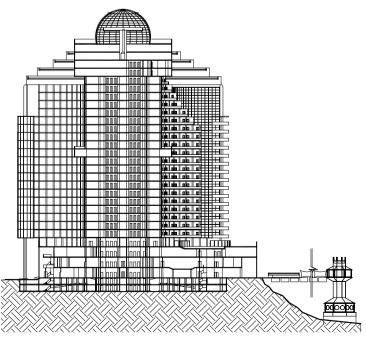


Hotel

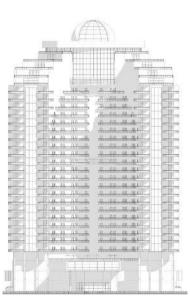


Plaza Floor

Retail



Section A-A



Elevation





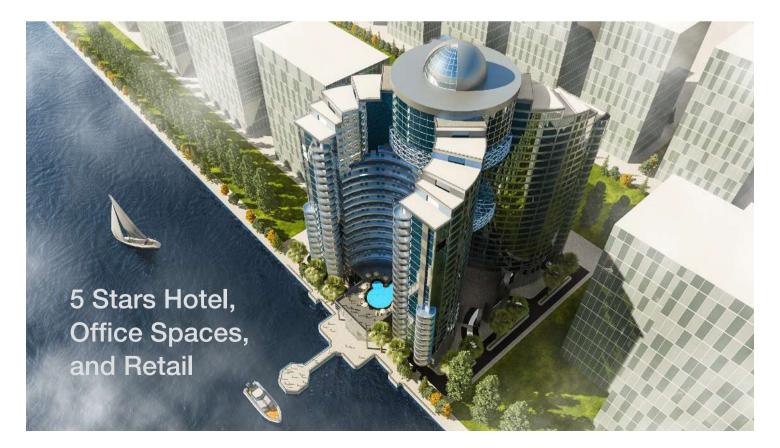


Views of Etabs Model

# Structural Design

The aspiration of contemporary architecture for Complex Building and gallery buildings presents specific structural engineering challenges. The complex geometry of large open display areas, frequently favoured by gallery designers and curators, is possible by implementing long-span structures. The depth, weight and construction cost of such ambitious structures are often confined and require the appropriate load capacity.

Spaces of Complex Buildings often require a high degree of integration of structure, architecture and building services. We apply multidisciplinary approach to building design to deliver stable, durable and elegant buildings.





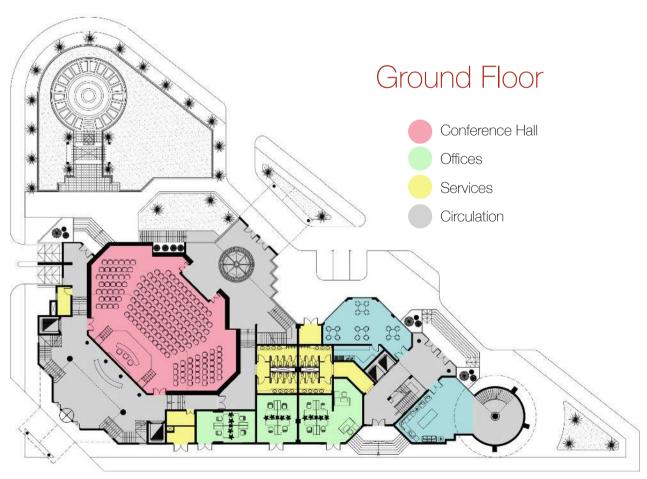




# SUDAN COTTON OFFICE BUILDING

Khartoum, Sudan







Client Stages

Sudan Planning and Cotton Co. Programming

Conceptual

Design

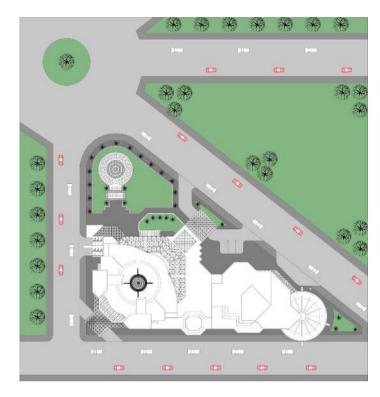
Services

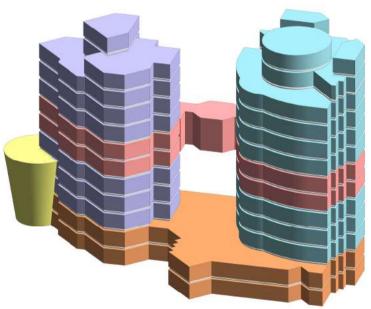
Architectural Preliminary
Structural Design

MEP Detailed Design

Interior Design

Sudan Cotton Office Building located in Khartoum City, in a plot area of 3,295 sq.m, and foot print of 1,308 sq.m, and built-up of 11,532 sq.m in 14 floors.





## Architectural Mass Model

Cotton Co. HQ

Business Center

Office Spaces

Convention Center

Circulation

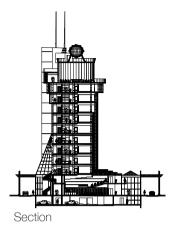


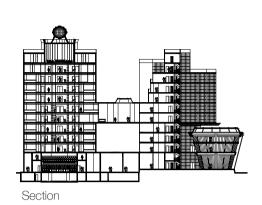


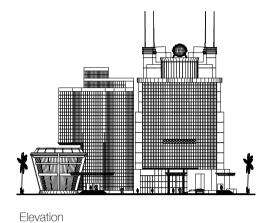


## SUDAN COTTON OFFICE BUILDING ...

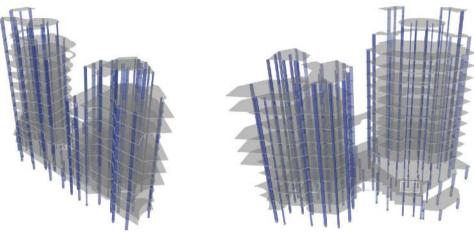
Khartoum, Sudan







Structural Design







Our beliefs based on creating and inspiring the teamwork environment.



Combining our knowledge, talent, and experience, will definitely value our work.



## WAHAT AL KHARTOUM

Khartoum, Sudan



#### Client

Wahat AL Khartoum Co.

#### Services

### Design Review

Architectural Structural

#### Design

MEP

#### Stages

Conceptual Design Preliminary Design Detailed Design Tender Documents Construction Supervision Wahat Al Khartoum is 4 towers mixed-use, located in Khartoum City, the capital of Sudan. Has a plot area of 15,550 sq.m, and foot print of 12,554 sq.m, and built-up of 112,005 sq.m in 18 floors.

The four towers mixed-use made to serve the retail development and offer business spaces for small, medium, and large firms.

## Value Engineering

IHCG provides value engineering and MEP Design services.

Providing sustainable and energy-efficient buildings require intelligent mechanical, electrical and plumbing solutions. Our MEP engineers are committed to creating high-performance systems, offering clients efficient operations and technological innovation.



## Typical Floor

Office Spaces

Guest Room Type A

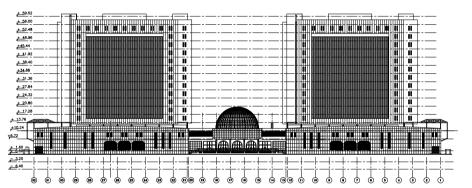
Guest Room Type B

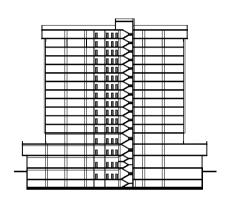
Services

Circulation









Elevation





### MEDICAL TOWER

Khartoum, Sudan



#### Client

Social Security Investment Authority (SSIA)

#### Services

Medical Planning
Medical
Equipment
Architecture
Structure
MEP
Interior Design

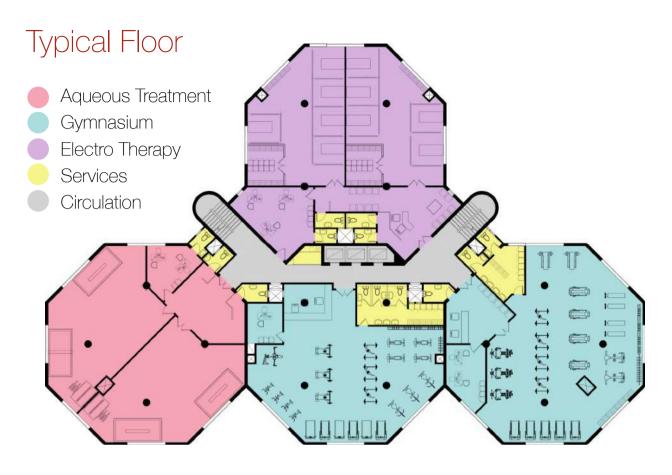
#### Stages

Planning and Studies
Conceptual Design
Schematic Design
Design Development
Detailed Design
Tender Documents
Construction Supervision

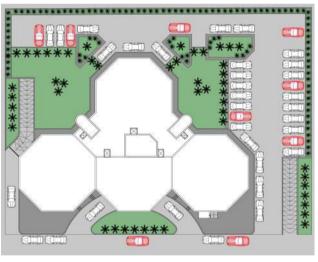
Medical Tower located in Khartoum, in a plot area of 3,300 sq.m, and foot print of 970 sq.m, and built-up of 17,630 sq.m in 15 floors. The Medical Complex comprise Clinics Centre, and other medical services.









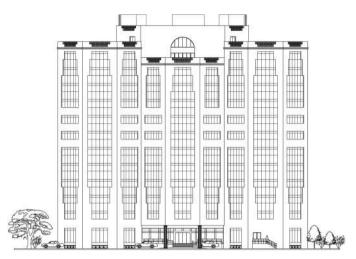






## MEDICAL TOWER Cont.

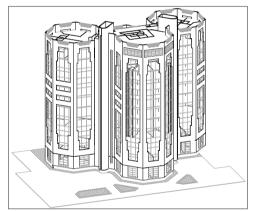
Khartoum, Sudan

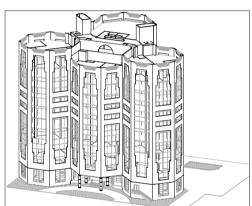


Elevation

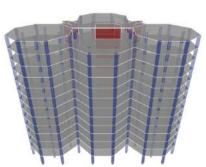












Views of Etabs Model



IHCG is committed to the quality of every step of the way, driving innovation to achieve the timely, efficient, and cost-effective delivery of programs. IHCG is considered an expert in providing full engineering consultancy services for healthcare facilities.





## WAHRAN COMPLEX

Wahran, Algeria

#### Client

Sidar, Co.

#### Services

Architectural Structural MEP Interior Design

#### Stages

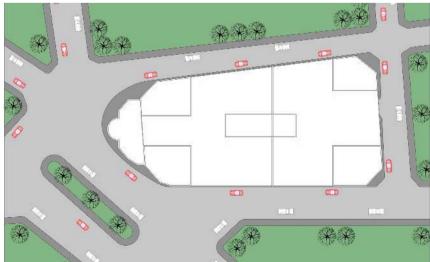
Conceptual Design Preliminary Design Detailed Design Tender Documents Construction Supervision

Wahran Complex located in Wahran City. The mixed-use building has a plot area of 2,930 sq.m, and foot print of 2,110 sq.m, and built-up of 50,700 sq.m in 24 floors.

The mixed-use building has spaces for retail, office building, and residential.



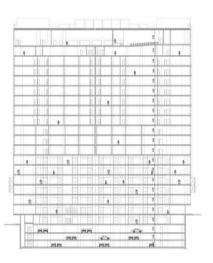


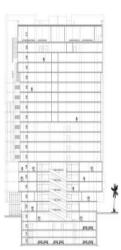


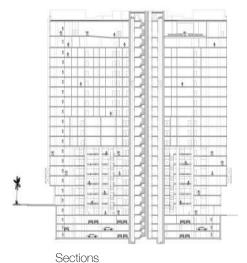


### Ground Floor





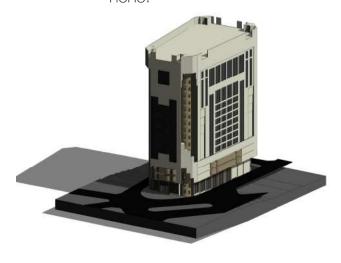






## **Programming**

We begin each relationship using listening as our most powerful tool. Using your goals, objectives and space requirements, we develop innovative, imaginative, highly functional and operationally efficient solutions. Our ability to understand your unique needs and apply our expertise to enhance your vision is second to none.



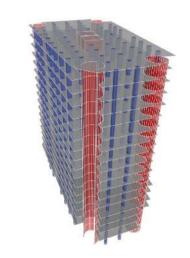


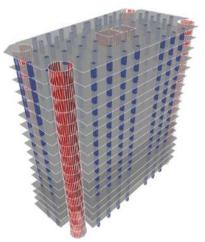
## WAHRAN COMPLEX

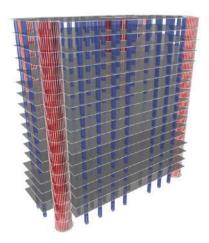
Wahran, Algeria

## Architectural Mass Model

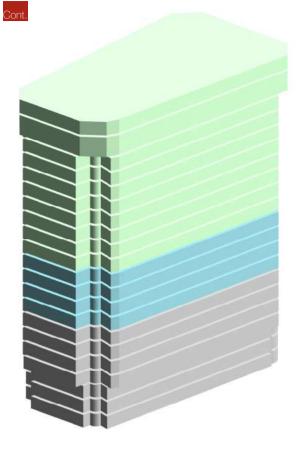


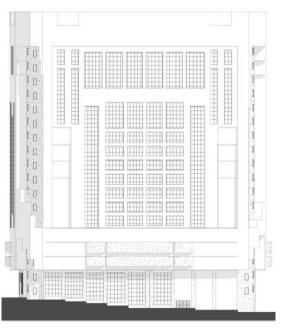






Views of Etabs Model





Elevation





## AL FAROUK OMAR MOSQUE

Gunzoor East, Tripoli, Libya



#### Client Confidential

#### Services

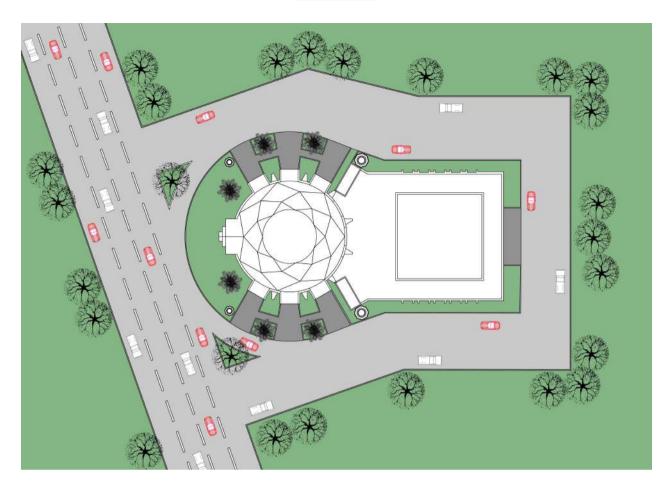
Architectural, Structural, MEP, Interior Design

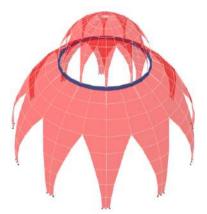
#### Stages

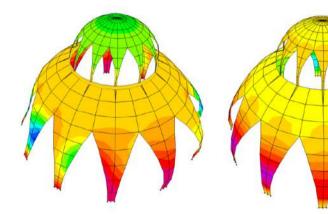
Conceptual
Design
Preliminary Design
Detailed Design
Tender
Documents



Al Farouk Omar Mosque located in Gunzoor East of Tripoli, in a plot area of 2,120 sq.m, and foot print of 1,100 sq.m, in 1 floors. The mosque includes Event Hall, with supplement small halls.







ETABs Model and results under applied vertical and lateral loads





## NATIONAL GENE BANK

Giza, Egypt



#### Client

Agriculture Research Centre

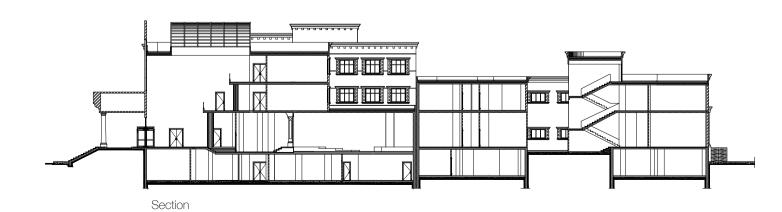
#### Services

Architectural Interior Design Structural MEP

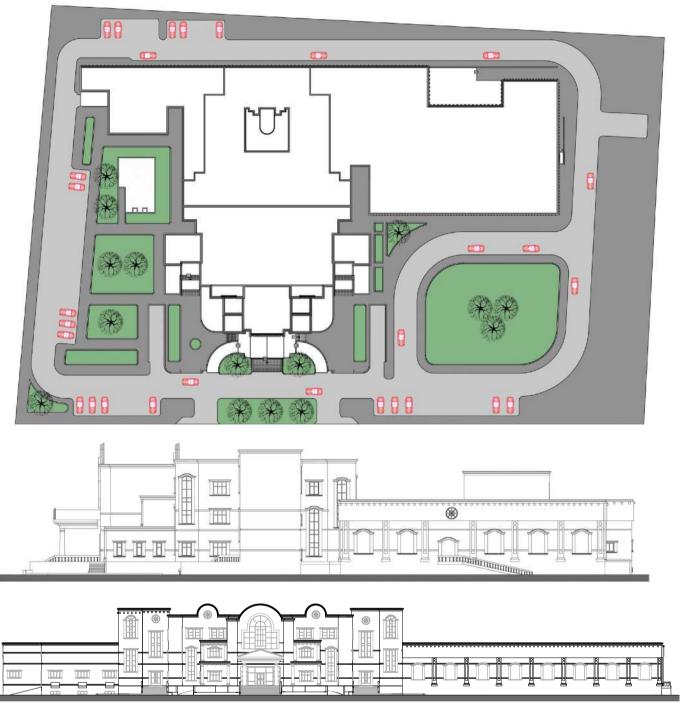
#### Stages

Conceptual Design Preliminary Design Detailed Design National Gene Bank located in Giza, in a plot area of 486 sq.m, and foot print of 4,810 sq.m, and built-up of 13,900 sq.min 4 floors. The bank comprise labs, refrigerators for conservation of genetic genes, and lecture halls and administrative offices.

In Association with Philip C. Stanwood, USA.







Elevations

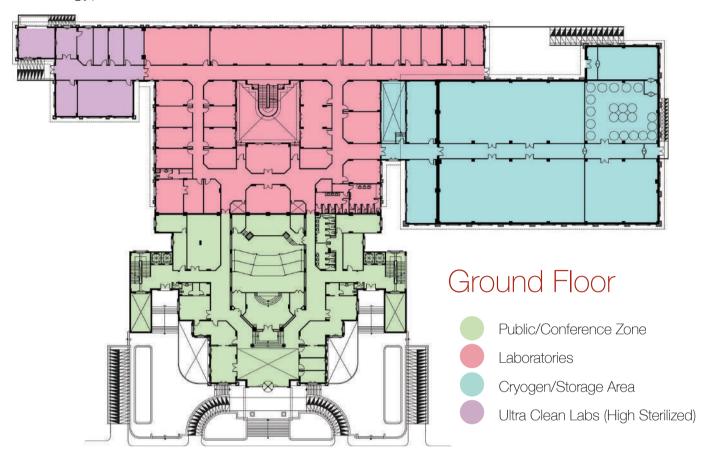


Architecture embodies all we touch



### NATIONAL GENE BANK

Giza, Egypt







# Planning & Development

The planning and development is the service that require a global experience with a tremendous local touch.

We always look for the entire picture so we can handle issues of site analysis, access, circulation, parking, urban design, local development guidelines and placemaking





## NIYALA HOTEL, 4 STARS, 120 ROOM

Niyala, Sudan



#### Client

Ministry of Interior

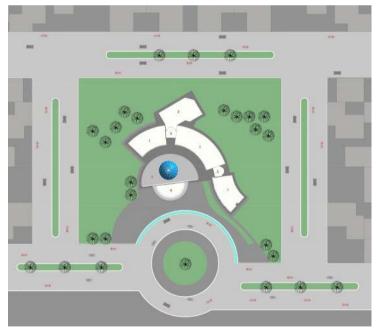
#### Services

Architectural Structural MEP Interior Design

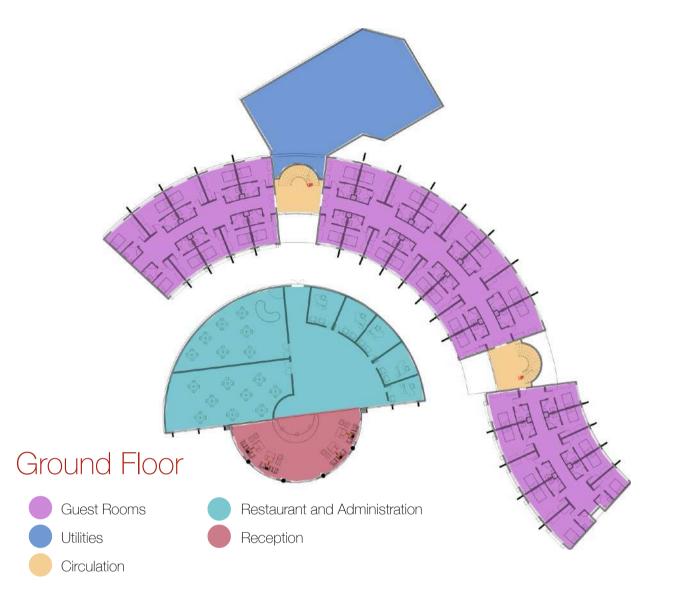
#### Stages

Conceptual Design Preliminary Design Detailed Design

Niyala 4-Stars Hotel located in Niyala City, has a plot area of 4,466 sq.m, and foot print of 2,075 sq.m, and built-up of 10,375 sq.m in 5 floors. The hotel comprise 120 room, Swimming pool, and Health Club.

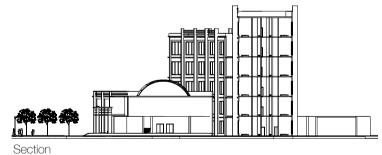


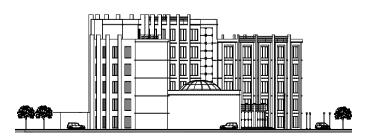




### Creation

Our teams are well organized, led by experienced design principals and designers who are responsible for the project from initial conception through the construction phase.





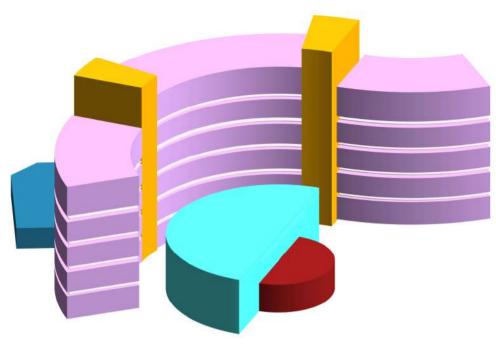


Elevations



## NIYALA HOTEL, 4 STARS, 120 ROOM 601

Niyala, Sudan



### Architectural Mass Model

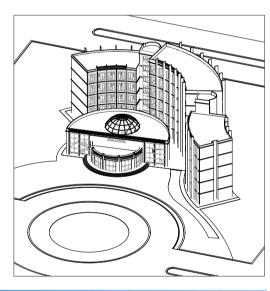


Utilities

Circulation

Restaurant and Administration

Reception





We are using BIM software designing our projects. Each project at IHCG will have a better definition of all project elements in 3D model which provides a virtual model of all building systems that can effectively reduce interferences, RFIs, and change orders, and save time and reduce cost.



Our team leaders understand how to proactively work with the entire project team through the development of a Project to ensure the project is within budget, and the project schedule are achieved.



## ANDA COMPLEX

Khartoum, Sudan



#### Client

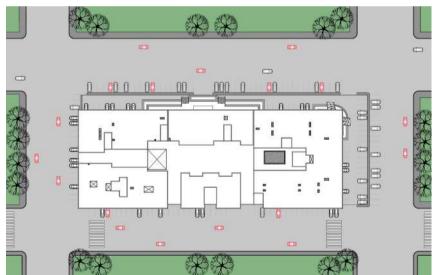
Al Rowad Co.

#### Services

Architectural
Structural
MEP
Interior Design

#### Stages

Conceptual Design Preliminary Design Detailed Design Tender Documents



The Anda Complex located in Khartoum, the capital of Sudan. Has a plot area of 6,500 sq.m, and foot print of 4,880 sq.m, and built-up of 53,250 sq.m in 15 floors.

The mixed-use building comprise 4-stars hotel, retail spaces, office building, luxury residential apartments.





Typical Floor

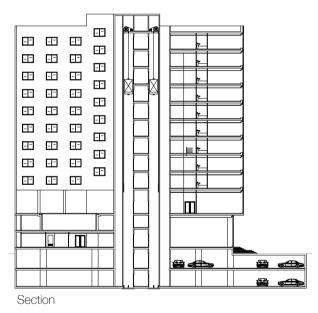
Office Spaces

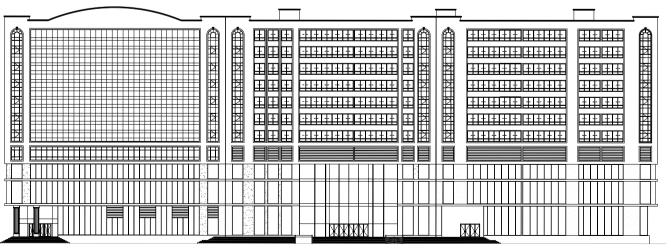
Luxury Residential

Hotel Guest Rooms

Circulation









## KHARTOUM WORLD TRADE CENTRE (KWTC)

Khartoum, Sudan

#### Client

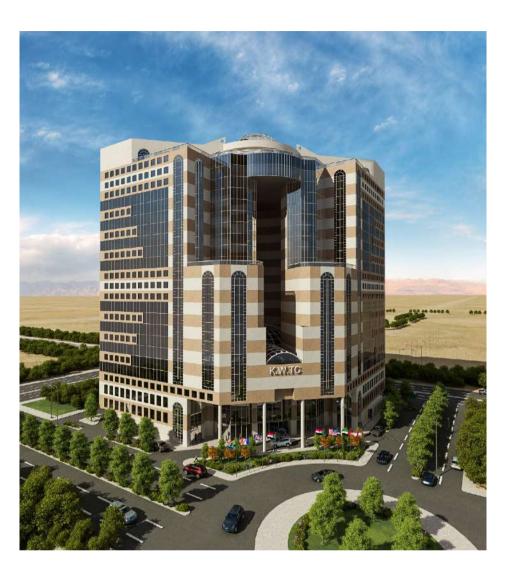
Ministry Of Interior

#### Services

Architectural
Structural
MEP
Interior Design

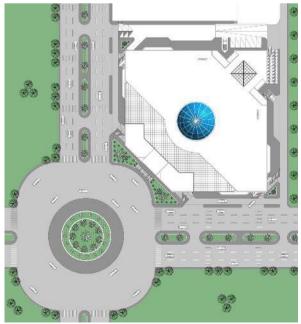
#### Stages

Conceptual Design Preliminary Design Detailed Design Tender Documents

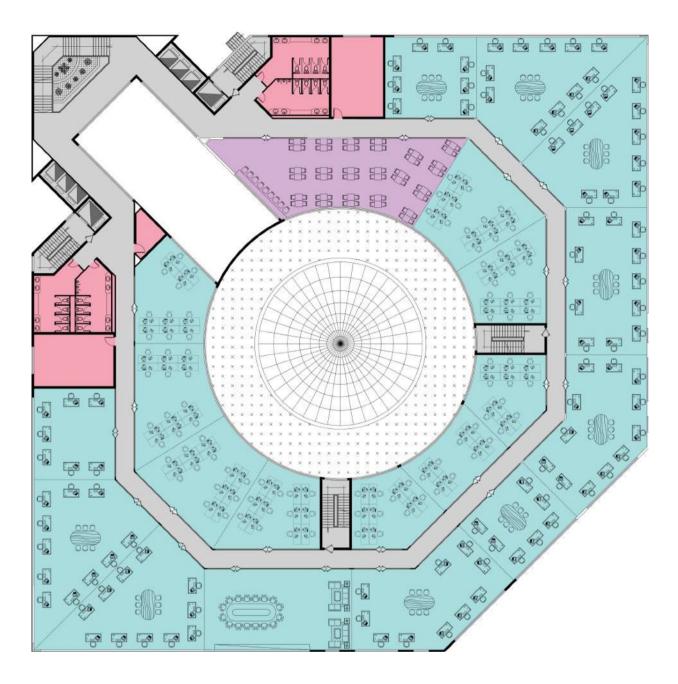


Khartoum World Trade Centre is a mixed-use building, located in Khartoum City. The mixed-use building has a plot area of 6,680 sq.m, and foot print of 3,853 sq.m, and built-up of 112,950 sq.m in 28 floors.

The mixed-use building made to serve the retail development and offer business spaces for medium and large firms.







### Typical Floor

- Office Spaces
- Lounge/ Break Area
- Services
- Circulation

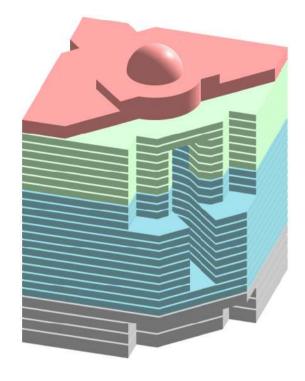
## **Architecture**

embodies all we touch. We are a combination of designers, experts, consultants, and coordinators that works together for creating remarkable places..



## KHARTOUM WORLD TRADE CENTRE (KWTC)

Khartoum, Sudan



### Architectural Mass Model



Offices



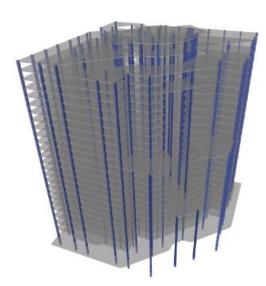
Hotel Apartments



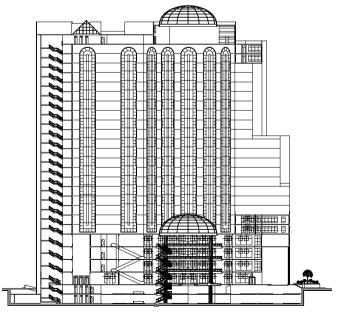
Business Center & Health Club



Retail

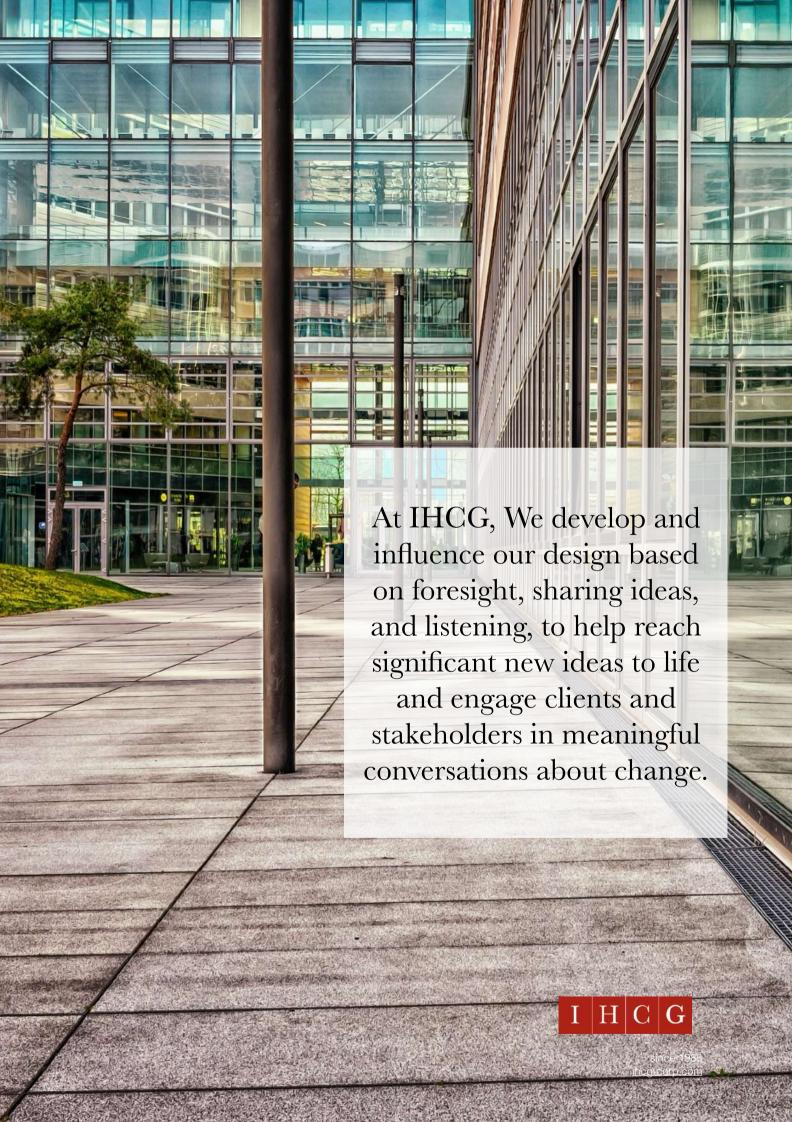


Views of Etabs Model



Elevation

Section





### EL WAKEEL TOWER MIXED-USE

Khartoum, Sudan

#### Client

Ministry of Interior

#### Services

Architectural, Structural, MEP, Interior Design

#### Stages

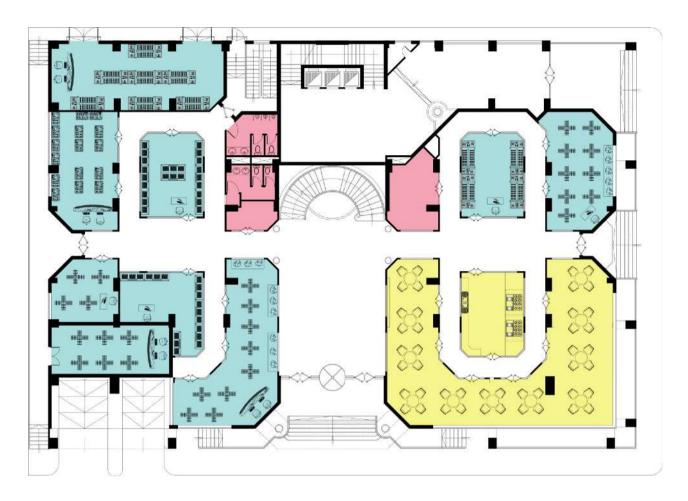
Conceptual Design Preliminary Design Detailed Design Tender Documents



El Wakeel Tower Mixed-Use located in Khartoum, in a plot area of 1,600 sq.m, and foot print of 1,160 sq.m, and built-up area of 17,570 sq.m, in 14 floors. The building comprise Retail Spaces in the 1st 2 Floors, and office spaces.







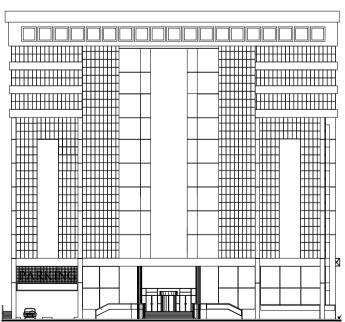
### Ground Floor



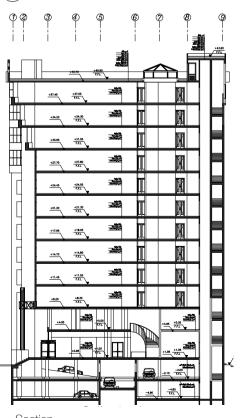
Restaurant



Circulation







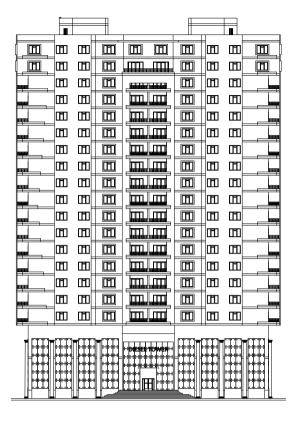
Section



### DIESEL TOWER RESIDENTIAL APARTMENTS

Khartoum, Sudan





#### Client

Diesel Co.

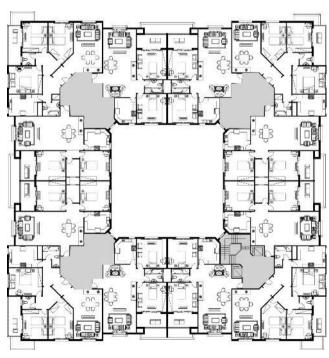
#### Services

Architectural Structural, MEP Interior Design

#### Stages

Conceptual Design Preliminary Design Detailed Design

Diesel Tower Residential Apartments, located in Khartoum, Sudan, in a plot area of 2,500 sq.m, foot print of 1,860 sq.m, and built-up area of 39,600 sq.m, in 20 floors. The building comprise, 3 basements parking floors, and 17 residential floors contains 114 residential apartments, and 2 penthouses.





### POLICE TOWER RESIDENTIAL APARTMENTS

Khartoum, Sudan



#### Client

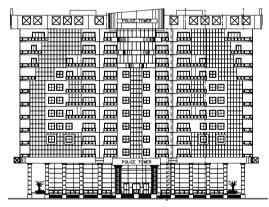
Ministry of Interior

#### Services

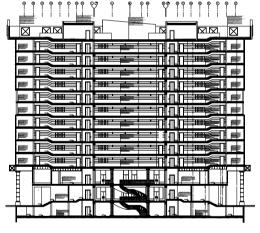
Architectural Structural, MEP Interior Design

#### Stages

Conceptual
Design
Preliminary
Design
Detailed Design

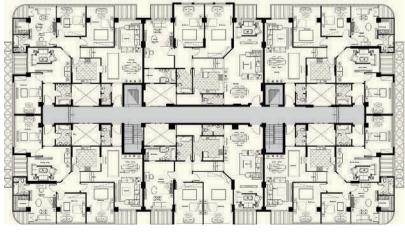


Elevation



Section

Police Tower Residential Apartments, located in Khartoum, in a plot area of 2,020 sq.m, and foot print of 1,220 sq.m, and built-up area of 16,660 sq.m, in 13 floors. The building comprises Basement parking floor, Ground floor, Mezzanine, and 10 residential floors, accommodates 50 residential apartments.



Typical Floor





"Is committed to the quality of every step of the way, driving innovation to achieve the timely, efficient, and costeffective delivery of programs."

