PM & Consulting Engineers

Rizkallah Center, 1st Floor, Saint Rock Street, Hazmieh, Lebanon – Tel/Fax: 961 5 951 541 Mob: 961 3 30 88 44 – www.CCE-Lebanon.com/

FOREWORD

"CCE-PM & Consulting Engineers" was founded in 2001 by the Engineer Chucri CHEHADE (B.Eng Civil Engineering-M.Eng Public Works) after a long experience in the field of Design, Works Supervision and Construction Management.

CCE-PM & Consulting Engineers" in one of its principal sections (Owner Rep. & PM) leads the development of projects by providing services as Client Representatives and Projects Manager.

"CCE-PM & Consulting Engineers" is particularly specialized in the design of structures (reinforced concrete, pre stressed concrete and steel structures), bridges, roads, highways, hydraulic structures, drainage and sewer networks in Lebanon as well as abroad, and in the supervision of miscellaneous works.

"CCE-PM & Consulting Engineers" is specialized in the restoration and upgrading old houses, strengthening of existing damaged structures, producing adequate method statements for concrete repairs and temporary shoring, adding elements under and above existing structures

"CCE-PM & Consulting Engineers" groups associates and engineers who have a large professional experience in design and supervision.

The strategic objective of "**CCE-PM & Consulting Engineers**" is to build up an experienced high caliber professional team, in order to assist in many studies and tasks of design, construction, and improvement of roads, highways, and bridges and to insure best site management.

"CCE-PM & Consulting Engineers" has a wide experience in collaboration with International Firms and Multinational Organizations, for documenting large scale projects according to international standards and codes.

Computer data processing strongly supports the Office departments, and each department has both the appropriate infrastructure and its specialized programs to assist in its functions.

OWNERS REPRESENTATIVE & PROJECTS MANAGEMENT REFERENCES

Perimetre Avenue du Parc Beirut Central District - Lebanon

Time 2016-till date

Status • On going •

Location Beirut Central District-Mina El Hosn -Lebanon

Estimated construction Value 18 Million USD

Client Perimetre Avenue du Parc



KASLIK RESORT- Lebanon

Time 2016-till Present

Status
Under Design

Location Kaslik -Lebanon

Estimated construction Value 15 Million USD

Consultant ERGA

Client • ADEMCO •



BH 1920- Bourj Hammoud - Lebanon

Time 2013-2016 Status Completed Location Bourj Hammoud-Meten-Lebanon Estimated construction Value 10 Million USD Client Mr. R. Sabbagha & ADEMCO



OMNIA Building- Beirut Central District -Lebanon

Time 2012-2016

Status Completed

Location Beirut Central District-Mina El Hosn -Lebanon

Estimated construction Value 10 Million USD

Client

CEC





CONSULTING ENGINEERING PROJECTS

LARGE SCALE PROJECTS

KAUST-Town Center-Jeddah-KSA حامعة الملك عبدالله للعلوم والتقنية King Abdullah University of Science and Technology **Desalination** Plant Wind Turbines Golf Course Golf Course Neighborhood Island Neighborhood Commercial Center





KAUST is one of the largest university campus in the middle East. Situated in Thuwal-Jeddah-KSA

CCE is assigned as Consultant ,and PM mainly for

- concrete repair for NESMA (main Contractor for refurbishing 85 buildings in town center)
- The contractor contract is to strip and demolish all finishing, to repair the concrete and to execute new finishing with higher specs.

Project estimated cost: 700 Million USD

Owner: ARAMCO Date: 2014... end 2016

University Campus

Beach Club

Research Park Waste Water Treatment Plant

Future Residential

KAUST-Town center-Jeddah-KSA









Tripoli South Stadium-Lebanon

(Hosting the Asian Cup 2000)

SUMMARY:

Stadium foreseen for 22000 spectators, comprising around 14000m of pre-cast grandstands laying on pre-stressed 13m cantilever frames (East Zone), and around 7000 m2 of pre-cast hollow core slabs, including a steel cover of 4000 m2 with a length of 32m in cantilever on the West Tribune.

Project Cost: 18 million U.S.D

TASKS PERFORMED:

execution design Quantity and cost Control during Construction

DATE: 1999-2000

<u>N.B:</u>

- The Engineer Chucri CHEHADE has performed these tasks as a Senior

Design Engineer (PM) at (BEA)



Tripoli South Stadium-Lebanon



Michel el Murr Sports Center-Jdeideh-Lebanon

SUMMARY:

Covered hall (pre-cast pre-stressed archived girders) including: a multi-purpose field (volley ball, basket ball, tennis, etc) foreseen for 1500 spectators and parking for 70 cars

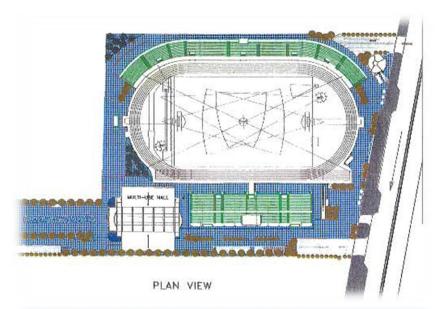
Approximate Cost of Project: 10 Million U.S.D

TASKS PERFORMED:

Tender documents Execution design

DATE: 1998-1999

N.B: - The Engineer Chucri CHEHADE has participated in performing these tasks as a Design Engineer at (BEA)



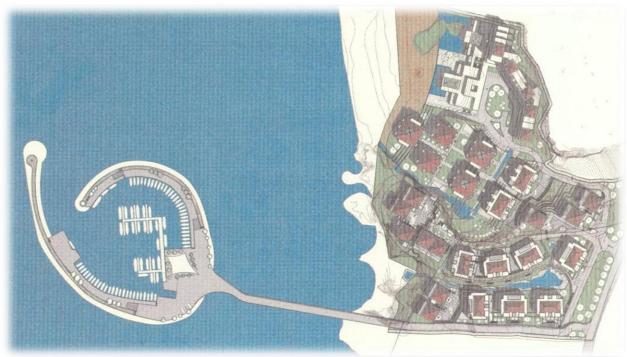


Byblos Sud-Lebanon

SUMMARY:

The Project is a tourist compound in Byblos including: a marina, swimming - pools, a club, a hotel, villas, apartments, an underground parking, access roads and interior roads. The main features of the project are the following: Site located in Byblos having an area of 60,000m2 Villas, duplex, apartments, and suites: 2 to 3 floors with a basement: total built-up area 30,000m2. Hotel: 6 floors and 2 basements: total built-up area 12,000m2. Club: 3 basements and a ground floor: total built-up area 2,500m2 Residential car parks: total builtup area 11,000m2. Car park for the hotel : total built-up area 9,500m2 Lower passages: total built up area 3,000m2 Therefore the total built-up area is around 68,000m2. A bridge relates the compound to the marina: total length 175m.

Estimated cost of works:70 million US Dollars.



TASKS PERFORMED:

Design of the infrastructure (Tender and execution phases), the building structures(Tender phase), the bridge linking the compound to the Marina (Tender Phase).

DATE:

1998 -1999

<u>N.B:</u>

- The Engineer Chucri CHEHADE has performed these tasks as a Senior Design Engineer (PM)at (BECT)

- The Architect of the project is Mr. Pierre EL-Khoury.

Resurrection Cathedral-Koura-Lebanon

SUMMARY:

A Cathedral (45x35m), including an underground basement Central dome: 12 m diameter and 30 m height. total built up area 2300m2. Approximate Cost of Project:5 Million U.S.D

TASKS PERFORMED by CCE:

conceptual design, tender documents execution drawings supervision of the civil works.

DATE: 2004-2005 design







Lebanese University Campus-Hadath-Lebanon

SUMMARY:

A campus of total built up area: 300 000 m2 (most of built up slabs are pre-cast like hollow core slabs and composite slabs and pre-cast ribbed slabs...) including school buildings, water tower (275m3, 90 m high with steel bracings system), a sport complex (stadium, swimming pool, diving pool), parking, technical buildings (cooling tower, fuel tanks) roads, infrastructure utilities, external works...

Approximate Cost of Project: 350 Millions of U.S.D

TASKS PERFORMED by CCE:

-Consultancy services for the Main Contractor" ZUBLIN" in performing the execution design of many structure such as : water tower, pre-cast fence, cooling tower, roads and infrastructures

stadium... -Execution design of the steel

structure suspended Owen at the main entrance.

-Seismic design and checking of the structure of the building of the faulty of fine arts and the technical building T20

DATE: 2001-2004

N.B: Consultant : LACECO Contractor : ZUBLIN



Lebanese University Campus-Hadath-Lebanon









OLYMPIC CITY OF THE SOUTH-ANSAR BASKET BALL COVERED STADIUM





SUMMARY:

Covered hall including: a multi-purpose field (volley ball, basket ball, tennis, etc) foreseen for 3000 spectators.

Approximate Cost of Project: 12 Million U.S.D

TASKS PERFORMED BY CCE-Consulting Engineers:

Execution design and drawings for the contractor: SHOURA-QATAR

OLYMPIC CITY OF THE SOUTH-ANSAR SWIMMING POOL COVERED STADIUM



Covered hall including: an Olympic swimming pool foreseen for 3000 spectators.

Approximate Cost of Project: 15 Million U.S.D

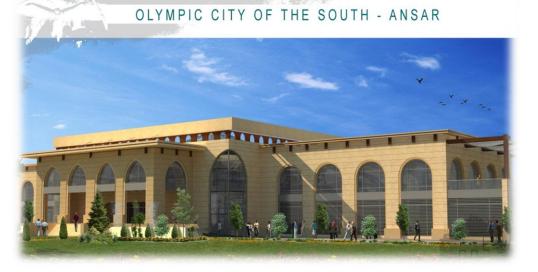
TASKS PERFORMED BY CCE-Consulting Engineers:

Execution design and drawings for the contractor: SHOURA-QATAR





OLYMPIC CITY OF THE SOUTH-ANSAR SOCIAL CLUB-COVERED THEATER







A social club including a theater with multipurpose and conferences room

Approximate Cost of Project: 10 Million U.S.D

TASKS PERFORMED BY CCE-Consulting Engineers:

Execution design and drawings for the contractor: SHOURA-QATAR



Pine Village is located in Ain Saade, Metn over a Land Area of approx. 31,600 m², plot number 2105, the Project consists of Eighteen (18) residential buildings of approx. 38,400 m² of sellable area and One (1) club facility (around 50,000 m2 of built area):

The project also includes around 900 m of new internal roads with all the needed Transportation and infrastructures amenities (drainage-sewage-street lighting-low and high voltage-local telephone network-Retaining walls- sidewalks-signing-marking.....)

CCE-PM&Consultant Engineers (The Engineer, Responsible Engineer as per OEA, Project Manager, Project Coordinator, Road, Infrastructure and Structure Consultant)

Date: On Hold project at permit phase

Baouchriyeh 322-Metn-Lebanon

The Project is located in Baouchriyeh, Metn over a Land Area of approx. 15,000 m², the Project consists of a gated full amenities community including high rises residential buildings of approx. 40,000 m² of sellable

CCE-PM & Consultant Engineers (The Engineer, Responsible Engineer as per OEA, Project Manager, Project Coordinator, Road, Infrastructure and Structure Consultant)

Date: concept design in 2015-On Hold



Haykel Hospital-Koura-Lebanon

TASKS PERFORMED by CCE:

Design of an expansion Master plan/execution package for adding new building for the external clinics, main gate, circulation roads, parking, walk ways, drop offs, ETC... DATE: 2013-2017



BUILDINGS AND HIGH RISES

BH-1920- Mall and Offices Tower Building

SUMMARY:

- The project Consist of a mall and offices tower building having 2 basements, 2 GF with their mezzanines for retail areas, a technical floor and 10 stories offices areas.
- Total built up area 10,000m2

Approximate cost of project: \ge 10 millions of U.S.D.

TASKS PERFORMED:

execution drawings supervision of the civil works Shoring and structure consultant, Construction management

DATE: 2013 till date-Ongoing



Perimetre Avenue du Parc Beirut Central District - Lebanon



A very luxurious 3 blocks with high end finishing residential building in Solidere – BCD- Beirut-Lebanon 4 basements(technical and parking) Foundation are 6 meters below sea level – permanent D-Wall, Retails at GF, 3 blocks of 5 stories each for residential use Total built up area: 15,000 sqm Project cost estimate: 30 million USD

CCE-Consulting engineers, is the shoring and structure consultant as well as supervision duties during the construction phase.

OMNIA Building- Beirut Central District - Lebanon

A very luxurious with high end finishing residential building in Solidere – BCD- Beirut-Lebanon 4 basements(technical and parking) Foundation are 6 meters below sea level , Retails at GF, 10 stories for residential use and a pool on top of roof.

Total built up area: 8000 sqm Project cost estimate: 15 million USD

CCE-Consulting engineers, is the shoring and structure consultant as well as construction Management duties during the construction phase.

2012 till date -Ongoing project.





JOUNIEH 541 Jounieh-Lebanon



2 adjacent residential buildings: 7 stories and 4 basements . CCE mission was to make the structure design(static and seismic) produce the execution drawings Specs and BOQ. Supervision of works.

Total Built up area: 15,000 sqm Approximate cost estimate: 15 Million USD 2011-2013



J-Towers -Achrafieh-Lebanon





4 adjacent residential Towers: 21,18,16 and 14 stories and 3 basements .

Total built up area : 30,000 sqm Approximate project cost: 30 million USD

CCE mission was to make the structure design(static and seismic2010-2014.

Blue Pearl Tower-Bahrain



SUMMARY:

A luxury multi use landmark in Bahrain including 43 levels of around 170m height composed of parking, offices, hotel, residential apartment, helipad

TASKS PERFORMED :

The mission of CCE-Consulting Engineers, was to make the Seismic and wind modeling of the structure.



Extension of BLOM Bank Headquarter-Beirut-Lebanon

SUMMARY:

The project includes an existing building formed of 7 basements and a ground floor. It shall be transformed to be adapted to its new function which is extension to BLOM building. A second ground floor and 9 floors shall be added to the existing building which shall be for commerce and offices. Total built up new area 30,000m2

Approximate cost of project: ≥ 10 millions of U.S.D.

TASKS PERFORMED:

Strengthening of the foundations of the existing structure
 Design of the new structure

DATE: 1998- 2000

<u>N.B:</u>

- The Engineer Chucri CHEHADE has participated in these tasks as a Design Engineer at (BECT)

- The Architect of the project is Mr. Pierre EL-Khoury.





Verdun 732-Beirut-Lebanon

SUMMARY:

The project Consist of a Building for commerce and offices having 5 basements, a ground floor and 18 floors -The first four basements are foreseen for Parking. -The first basement till the fourth floor are for retail use. -From the 5th Till the 15th floor: for Offices. -From the 16th till the 18th floor: for reception halls and swimming-pool. Total built up area 30,000m2

Approximate cost of project: \ge 13 millions of U.S.D.

TASKS PERFORMED:

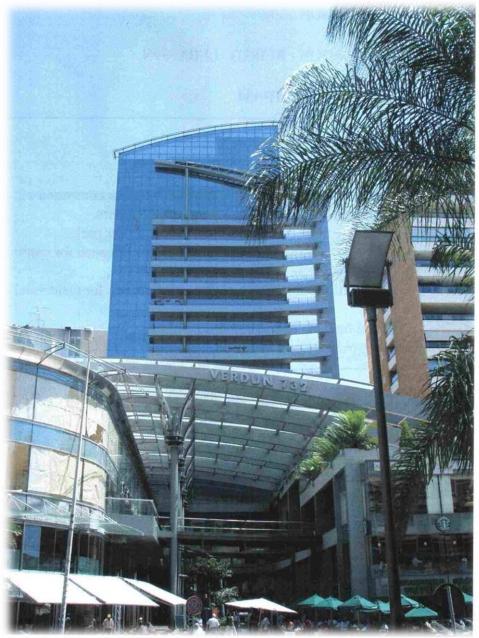
-Design of the new structure

DATE: 1997- 1999

<u>N.B:</u>

- The Engineer Chucri CHEHADE has participated in these tasks as a Design Engineer at (BECT)

- The Architect of the project is A-Consult Office(Architect Dolly Debs).



Abdallah building-Clemenceau-Beirut-Lebanon

SUMMARY:

- The project Consist of a residential Building having 3basements, a ground floor and 12 floors
- -The basements are foreseen for Parking and technical areas
- -The ground floor is for the main entrance and the guardian house.
- -10 floors are 375m2 apartments
- -11 and 12 floors forms one duplex
- Total built up area 6,000m2

Approximate cost of project: $\underline{\ }3$ millions of U.S.D.

TASKS PERFORMED by CCE-Consulting Engineers:

conceptual design, tender documents execution drawings supervision of the civil works_

DATE: 2004-2005



Batroun 386- Batroun-Lebanon



The project Consist of a multi use Building having 2basements, retails and shops at ground floor and 5 floors for residential and offices (many blocs)

DATE: 20015-On hold at Concept design

RESTORATION & UPGRADING OF EXISTING OLD HOUSES

Chehade Residence-Mishmish-Lebanon





Restoration and rehabilitation of an existing old house(1840)

Producing method statements for reinforcement of the existing stone wall facades and making new concept design and execution documents.



2016-2017

AL RAYAN PALACE-Aley-Lebanon





Restoration and rehabilitation of an existing old palace bombed during the civil war in lebanon . Total built up area: 4500 sqm

Producing method statements for reinforcement of the existing stone wall facades and making new concept design and execution documents.



2011-2013

AL RAYAN PALACE-Aley-Lebanon







AL RAYAN PALACE-Aley-Lebanon







Ferzli Residence-Araoun-Lebanon





Perzii Residence - Araou

Restoration and rehabilitation of an existing old house (1818) and adding a new extension structure to it.

Producing method statements for reinforcement of the existing stone wall facades and making new concept design and execution documents.



2016-2017

VILLAS AND PRIVATE HOUSES

Comair Villa-Laklouk-Lebanon



A private Villa in Laklouk - Lebanon CCE mission was to make the structure design(static and seismic) produce the execution drawings Specs and BOQ. Supervision of works.

Total Built up area: 1,500 sqm

Date: 2014- On going

Karam Villa-Mishmish-Lebanon



A private Villa in Mishmish - Lebanon

CCE mission was to make the structure design(static and seismic) produce the execution drawings Specs and BOQ.

Supervision of works.

Total Built up area: 1,000 sqm

Date: 2016- On going

Bunniya Villa-Beit Merry-Lebanon



A 5 stories private Villa in Beit Merry – Lebanon.

2 basements, and 3 upper floors, Including indoor elliptic shape swimming pool.

CCE mission was to make the structure design(static and seismic) produce the execution drawings Specs and BOQ. Supervision of works.

Total Built up area: 3,500 sqm

Date: 2014- On going

Abou Jawdeh Villa-Broumana-Lebanon



A 5 stories private Villa in Broumana – Lebanon.

2 basements, and 3 upper floors, Including outdoor swimming pool.

CCE mission was to make the structure design(static and seismic) produce the execution drawings Specs and BOQ. Supervision of works.

Total Built up area: 3,500 sqm



Bassil Residence-Byblos-Lebanon



A lebanese architecture Villa CCE mission was to make the structure design(static and seismic) produce the execution drawings Specs and BOQ. Supervision of works.

Total Built up area: 1,500 sqm



Chalets & Club-Faraya Mzaar-Lebanon

Chalets and Club in the Lebanese Mountains at 1800 m of altitude bove sea level.

CCE mission was to make the structure design(static and seismic) produce the execution drawings Specs and BOQ. Supervision of works.

Total Built up area: 4,000 sqm

Approx. cost estimate: 2 Million USD



Villa Darwish-Ain Saade-Lebanon

A luxurious Villa including a swimming pool.

CCE mission was to make the structure design(static and seismic) produce the execution drawings Specs and BOQ.

Supervision of works.

Total Built up area: 7,000 sqm Approx. cost estimate: 10 Million USD

Date: 2008-2009



RESERVOIRS & SPECIAL TOPICS

Nesma Embroidery-Jeddah-KSA



A 2 stories building with external works and fence dedicated to be an Embroidery located in KAUST who is one of the largest university campus in the middle East.

Situated in Thuwal-Jeddah-KSA

CCE mission was to make the structure design(static and seismic) produce the execution drawings Specs and BOQ using a fast cast in place system (coffor) for a Total Built up area: 3,000 sqm

Project estimated cost: 7 Million USD Owner: NESMA HOLDING-KSA Date: 2016... ongoing



Jbeil 2500m3 Water Tank and valve room



On grade potable water tank of 2500 m3 capacity and valve room for the city of Jbeil.Lebanon

CCE mission was to make the structure and Electro mechanical design and produce the execution drawings Specs and BOQ. Supervision of works.

Designed and executed in 2009





Electrical Substation 225 KV-Mkalless-Lebanon

SUMMARY:

The project Consist of an electric substation located in Mkalles it includes a building for GIS 220KV, a control building and a building for transformers 220/20 KV.

TASKS PERFORMED:

-Design of the reinforced concrete structure

DATE: 1997-1999

<u>N.B:</u>

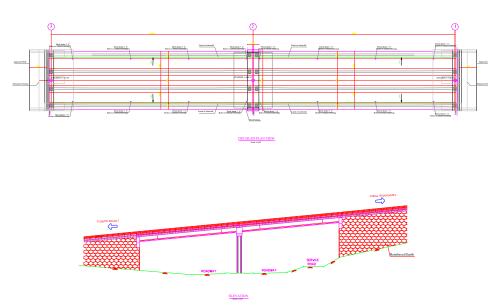
- The Engineer Chucri CHEHADE has participated in these tasks as a Design Engineer at (BECT)

- The Client was MATELEC-SCHNEIDER



BRIDGES AND AQUEDUCTS

Ring Road 1 Overpass-Khandama-Makkah-KSA





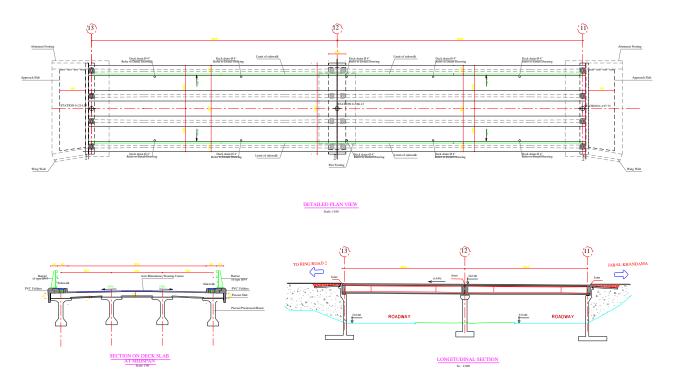
An overpass bridge on Makkah Ring Road 1 formed of 2 spans (2x34.8m), width of deck slab: 10m.

The deck slab is supported by 4 main pre-stressed precast I girders and the abutments are Piles-abutments with reinforced earth walls.

CCE-Consulting engineers carried out the design and the preparation of tender documents.

NB: The main and architect of the Project was "ERGA Group"

Ring Road 2 Overpass-Khandama-Makkah-KSA

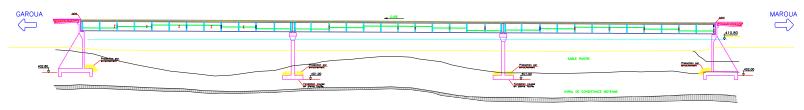


An overpass bridge on Makkah Ring Road 2 formed of 2 spans (2x28.4m), width of deck slab: 10m. The deck slab is supported by 4 main pre-stressed precast I girders.

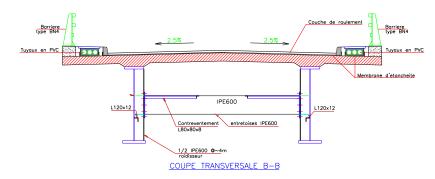
CCE-Consulting engineers carried out the design and the preparation of tender documents(execution Drawings, Specs and BOQ).

NB: The main and architect of the Project was "ERGA Group"

Bridge over Mayo-Tzanaga River-Cameroon



COUPE LONGITUDINALE



Composite bridge of 155m between Maroua and Garoua in Cameroun, formed of three simply supported spans each of 51.66m Width of deck slab: 10.8m

The deck slab is supported on two longitudinal I beams of height 2.35m

<u>N.B:</u>

- The Engineer Chucri CHEHADE has participated in these tasks as a Senior Design Engineer (PM) at (BECT) -This design is perfomed for Thorburn Colquhoum International (T.C.I) in U.K

Abrouyan Overpass-Aley-Lebanon



Curved reinforced concrete slab bridge formed of 10 spans (6x15m-20m-3x15m), width of deck slab: 10m.

<u>N.B:</u>

- The Engineer Chucri CHEHADE has participated in these tasks as a Senior Design Engineer (PM) at (BECT)

El Piscine Overpass-Aley-Lebanon







Continuous curved reinforced ribbed slab bridge formed of 3 spans (22.5m- 27m - 22.5m), width of deck slab: 8m.

N.B:

- The Engineer Chucri CHEHADE has participated in these tasks as a Senior Design Engineer (PM) at (BECT)

Traffic Improvement at Otigba Roundabout Enugu-NIGERIA



Underpass under the Roundabout: 90 m long- dual carriage way Underpass under the T intersection: 70 m long – single carriage way. Including the design of all access roads with their infrastructures and street lightings networks.

CCE mission was to do the design of all related trades, produce execution and tender documents.

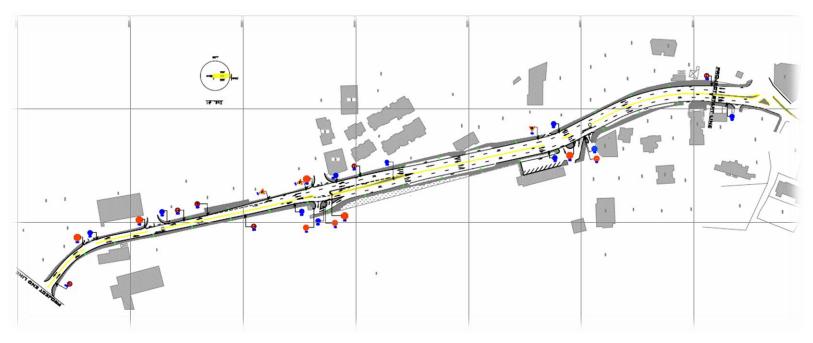
The project is estimated at 20 Million USD. Design was performed during fall 2013.

ROADS, HIGHWAYS AND INFRASTRUCTURES

CCE-Consulting Engineers has a wide experience in the transportation and infrastructures design :

Traffic studies, roads and highways designs, including the infrastructures (drainage networks, swage networks, street lightings, ...) as well as (sidewalks, green areas, interchanges and road intersections, signing and marking...)

Preparation of tender documents and execution packages including the structure designs all concrete structures related (retaining walls, bridges, overpasses, underpasses, hydraulic structures...)



Ex:Urban road in Beirut-Lebanon Ongoing project

CONSULTANCY SERVICES

First Municipal Infrastructure Project



Project: First Municipal Infrastructure Project (FMIP / PCU)

Project Coordination Unit (PCU) is in charge of the management of the First Municipal Infrastructure Project (FMIP) which is a loan agreement between the government of Lebanon and the International Bank for Reconstruction and Development – World Bank.

Project amount: **100 million US\$** allocated for 707 Municipalities.

Consultancy Services:

Field Appraisal and preparation of reports for the infrastructure projects selected by the municipalities (roads, drainage, sewerage, water supply, retaining walls, road lighting...)

As part of the assignments in the FMIP, Our mission was to check the selected projects to meet with the "Environmental guidelines" and the Safety mitigations as per the World Bank policies.

Starting 2006 our scope of services consists of carrying out the supervision of the works for the municipalities and preparation of monthly progress reports.

Date: 2000 till end 2006

City Stars-Cairo-Egypt



A Huge Complex in Heliopolis, Cairo Comprising 3 Five Stars Hotels, A commercial Center, 7 Residential Blocks, and Infrastructure to serve the whole complex.

Total land area 155,000 m2. Total built up area 784,470 m2

CCE was in JV with other consultants and bureau de controle where the task was to Quantify and cost estimate by preparing method statements for the repair of the snags listed in punch lists (all trades mainly Architecture finishing and MEP)prepared by the original consultant (cassia and associates)

