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Brief

Senior Professional Structural Design Engineer with 10 years of Extensive experience in the design of medium and mega-scale projects, including Bridges, underpasses, and Buildings. Areas of Proficiency include the preparation of the Design Book, structural analysis, and Conceptual, preliminary, and final design in addition to the preparation of Method Statements, and workshop drawings for various systems bridges (Concrete Box Bridges, Prestressed cast in situ, and precast bridges, Balanced cantilever bridges, steel bridges, cable Stayed bridges and Extradosed bridges) in addition to preparation of Project Specifications BOQ. Valuable knowledge of international design Codes and standards such as Euro Codes, ACI Codes, AASHTO LRFD, UIC Codes, Saudi Budling codes, MOMRA Bridges Design Specifications, Highway Design Manual- MOC, and Egyptian Codes for Bridges and Budlings. Extensive experience in the use of different modeling and analysis Software such as CSI Bridge, SAP 2000, SAFE, ETABS, SOFiSTiK, ADAPT, CSI Column, Idea Statica, MIDAS Civil, and SP Column.

After gaining extensive experience in a diverse business environment and collaborating with individuals from various cultural and professional backgrounds, I realized the critical need to develop strong project management skills. Recognizing the importance of effective project oversight, I decided to pursue formal training in the field. As a result, I successfully completed the Project Management Professional (PMP) certification from the Project Management Institute (PMI), equipping myself with the knowledge and tools necessary to manage complex projects efficiently.

Memberships

Egyptian Syndicate of Engineering (EES), Egypt
Roads and Transport Authority (RTA), United Arab Emirates
Saudi Council of Engineers (SCE), Saudi Arabia.
Project Management Institute (PMI).

Education

BSc in Engineering "2015", Ain Shams University, Civil Engineering Department
Graduation Project: Design of Structural Concrete.

Experienced

2015-2020	Saad International Consultant Engineering, Egypt-Full Time	Structural Design Engineer
2020-2023	Saad International Consultant Engineering, Egypt-Full Time	Senior Structural Design Engineer
2023-2024	Khatib and Alami, Egypt-Full Time	Senior Structural Design Engineer
2023-2024	Ital consult, Dubai-Part Time	Structural Design Engineer
2024-Date	Advanced Construction Company Design Center, KSA-Full Time	Senior Structural Design Engineer



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Bridges and Tunnels projects

- **Execution of Aljesr Aljanobi for King Faisal Road-Safia Bridge, Madinah, KSA**

Finite Element Models for analysis of bridge.

Design concept, Detailed Design for Prestressed and reinforced concrete Box girder.

- **Demolishing and reconstruction of Qebaa Underpass, Madinah, KSA**

Finite Element Models for analysis of bridge.

Method Statement for Demolishing and reconstruction, Detailed Design for underpass at Qebaa Mosque.

- **Bridge at the intersection of King Abdelaziz Road with Wadi Almabouth Madinah, KSA**

Finite Element Models for analysis of bridge.

Design drawings and Design Book for all elements of the bridge.

- **Baghdad untie traffic conjunctions projects, Baghdad, Iraq**

Design concept, Detailed Design for 16 projects consists of bridges and tunnels for river overpasses and street intersections of Bagdad city.

- **Balanced Cantilever Bridge, Luxor, Egypt**

Luxor Nile Bridge at the intersection of North Luxor Corridor with the Nile River.

Bridge execution using Traveler Form Method (Cantilever Carriage).

preparing of Finite Element Models for analysis of bridges.

preparing the Construction Stages of the Bridge using the Traveler Form Method.

preparing Structural Design drawings and Design books for all elements of the bridge.

•**Mokkatam Corridor with AL-Haddarat Bridge**, Cairo,

Egypt Bridge execution using Launching Girder over the Deck.

preparing Finite Element Models for analysis of bridge.

preparing the Construction Stages of the Bridge using Launching Girder. preparing Structural Design drawings and Design books for all elements of the bridge.

•**Balanced Cantilever Bridge**, Sohag, Egypt

Nile Bridge at the intersection of Dar AL Salam Corridor with the Nile River. Bridge execution using Traveler Form Method (Cantilever Carriage). preparing of Finite Element Models for analysis of bridges.

preparing the Construction Stages of the Bridge using the Traveler Form Method.

Preparing design Book for Design Check of all elements of the bridge.

•**Bridge intersection of Bollyfard Road with High-Speed Rail**,6 October Bridge. Giza,

Egypt Prestressed Cast in Situ Concrete Boxes

preparing of Finite Element Models for analysis of bridge.

preparing Structural Design drawings and Design books for all elements of the bridge.

•**Rosso River Bridge**, Rosso. Mauritania,

Bridge Design Review

Study and preparation of Different Method Statements for Bridge Execution.

The cable-stayed bridge at the intersection of the ROD-EL-FARAG corridor with the NILE River. Cairo, Egypt

Method of statement for bridge execution.

Analysis and design for bridge shuttering.

Workshop drawings for Pylons.

Workshop drawings for Deck.

Workshop drawings for Piles and Pile caps.

Details for cable anchorage.

Design and Workshop drawings of Bridge Widening

Preparation of monitoring drawings.

• **ELECTRIC EXPRESS TRAIN (PASSENGERS AND CARGO) FROM EL AIN EL SOKHNA CITY ON THE RED SEA COAST TO NEW EL ALAMEIN CITY ON THE MEDITERRANEAN COAST (ABOUT 460KM IN LENGTH)**

Review of Project specifications.

Review of Loading Criteria for the Railway Bridges.

Design review for the Railway Bridges

Preparing Loading Criteria according to Euro Code, UIC code, and Egyptian codes.

Preparing alternative structural systems for the railway bridges.

• **Mokkatom Corridor with AL-Haddarat Bridge, Cairo, Egypt**

Bridge execution using Launching Girder over the Deck.

preparing Finite Element Models for analysis of bridge.

preparing the Construction Stages of the Bridge using Launching Girder.

preparing Structural Design drawings and Design books for all elements of the bridge.

• **Ring Road Extension from Marg to Agriculture Road, Cairo, Egypt**

The project was divided into six main sectors consisting of main and secondary Bridges. A system of Retaining walls on Piles was used to connect these Bridges, sectors' contents as shown below

- Sector (0) Marj Bridges (693m)
- Sector (1) Khosos Bridges and Ezba AlBidaa Tunnels (1850m)
- Sector (2) Amir Tunnel, Orabi Tunnel and Ibrahim Dessoqui Tunnels (2540m)
- Sector (3) Mostorod Bridges (350m)
- Sector (4) Shaboury Bridges, Taqa Bridges, Bahteem Tunnels and Bahteem Bridges (2150m)
- Sector (5) Isco Bridges, Amr ibn Alas Bridges, Imam Aldaery Bridges and Om AlFearan Bridges (3360m).
- Sector (6) Mait Namaa Bridges, Mintay Bridges, Om Bayoumi Bridges and U-Turn Bridges (4850m).
- Sector (7) Abo Almonaga Bridges (900m).

For all Sectors, the following has been done

- preparing Finite Element Models for analysis of bridges.
- preparing Drawings of Construction Stages of Bridges.
- preparing Structural Design drawings and Design books for all elements of the bridge.

•**26 July Corridor-Al-Abyad Bridge.** Giza, Egypt

Pre-cast Beams and Pre-stressing beams bridge

Finite Element Models for analysis of bridge.

Design drawings and Design Book for all elements of the bridge.

•**Ring Road Extension from Autostrada to Maryoutia,** Giza, Egypt

Precast Beams, slab on piles, Retaining Wall on piles, and Steel Girders

Design Check for all elements of Bridges

Finite Element Models for analysis of bridges.

Workshop drawings of all elements of bridges.

•**Mousheer Corridor above Monorail Bridge.** Cairo, Egypt

Precast Beams, slab on piles, and Steel Girders

Design Check for all elements of the Bridge

Finite Element Models for analysis of bridge.

Workshop drawings of all elements of the bridge.

•**Zahraa above Ring Road Bridge.** Cairo, Egypt

Pre-cast Beams and Steel Girders.

Finite Element Models for analysis of bridge.

Design drawings and Design Book for all elements of the bridge.

•**Eamaar above Ring Road Bridge.** Cairo, Egypt

Pre-cast Beams and Steel Girders.

Finite Element Models for analysis of bridge.

Design drawings and Design Book for all elements of the bridge.

•**Maadi Corridor above Ring Road Bridge.** Cairo, Egypt

Pre-cast Beams and Steel Girders.

Finite Element Models for analysis of bridge.

Design drawings and Design Book for all elements of the bridge.

•**Carrefour above Ring Road Bridge.** Cairo, Egypt

Pre-cast Beams and Steel Girders.

Finite Element Models for analysis of bridge.

Design drawings and Design Book for all elements of the bridge.

•**Sadat Corridor-Mohamed Naguib Bridge.** Cairo, Egypt

Pre-cast Beams and Pre-stressing beams bridge

Finite Element Models for analysis of bridge.

Design drawings and Design Book for all elements of the bridge.

•**Alkhatatba Bridge.** Menofia, Egypt

Concrete Boxes, slab on piles, and Steel Girders

Design Check for all elements of the Bridge

Finite Element Models for analysis of bridge.

Workshop drawings of all elements of the bridge.

•**Ain Shams Bridge.** Cairo, Egypt

Concrete Boxes, slab on piles, and Steel Girders

Design Check for all elements of the Bridge

Finite Element Models for analysis of bridge.

Workshop drawings of all elements of the bridge.

•**Al Badrasheen Bridge.** Giza, Egypt

Concrete Boxes, slab on piles, and Steel Girders

Design Check for all elements of the Bridge

Finite Element Models for analysis of bridge.

Workshop drawings of all elements of the bridge.

•**Al Batrawy Bridge.** Cairo, Egypt

Precast Beams, slab on piles, and Steel Girders

Design Check for all elements of the Bridge

Finite Element Models for analysis of bridge.

Design Book for all elements of the bridge

Workshop drawings of all elements of the bridge.

•**Al Tayran Bridge.** Cairo, Egypt

Precast Beams, slab on piles, and Steel Girders

Design Check for all elements of the Bridge

Finite Element Models for analysis of bridge.

Design Book for all elements of the bridge

Workshop drawings of all elements of the bridge.

•**Ahmed El Zomor with Hassan El Maamon (Masged El Salam)**. Cairo, Egypt

Precast Beams, slab on piles, and Steel Girders

Finite Element Models for analysis of bridge.

Design Book for all elements of the bridge

•**Parlaman Ramp**, New Administrative Capital, Cairo, Egypt

Solid Slab Supported by Shallow Foundation System

Finite Element Models for analysis of bridge.

Design Book for all elements of the bridge

•**Ghazali Bridge.**, Jahra Road, Kuwait

Prestressed Cast in Situ Concrete Boxes

Design Check for all elements of the Bridge

Finite Element Models for analysis of bridge.

Design Drawings for Redesign of Concrete Box.

•**Al Hadarat Corridor**. Cairo, Egypt

Concrete Boxes, slab on piles Prestressed Beams, and Precast beams

Design Check for all elements of the Bridge

Finite Element Models for analysis of bridge.

Workshop drawings of all elements of the bridge.

•**Aswan Low Dam Bridges**. Aswan, Egypt

Proposals for Extradosed Bridge at the intersection of Nile River with low Dam corridor.

Proposals for a Balanced Cantilever Bridge at the intersection of the Nile River with a low Dam corridor.

Proposals for Cable Stayed Bridge at the intersection of Nile River with low Dam corridor.

BOQ Comparison of three Proposals.

Design check of Balanced Cantilever Bridge at the intersection of the Nile River with the low Dam corridor.

•**Bridge 10**. Asyut, Egypt

Proposals for Concrete Box Bridge Executed by Launching Girder system under the deck.

BOQ for the system mentioned above.

Design and Design Drawings of concrete box and launching steel truss.

•**Al Maraziq Bridge.** Giza, Egypt

Concrete Boxes, slab on piles, and Steel Girders

Design Check for all elements of the Bridge

Finite Element Models for analysis of bridge.

Workshop drawings of all elements of the bridge.

•**R5 Bridge at Mostakbl City.** Cairo, Egypt

Precast Beams Bridge

Design Check for all elements of the Bridge

Finite Element Models for analysis of bridge.

•**Bridge (3) Mostorod Corridor.** Cairo, Egypt

Precast Beams and Steel Girders

Design Check for all elements of the Bridge

Finite Element Models for analysis of bridge.

•**Bridge Execution at the Interchange of Merghani street with Orouba road.**Cairo, Egypt

Orouba Bridge (Pre-cast Beams and Pre-stressing beams bridge)

Finite Element Models for analysis of bridges.

Design drawings and Design Book for all elements of the bridge.

•**Bridge Execution at the Interchange of Merghani street with Al-Thawra road.** Cairo, Egypt

Merghani Bridge (Pre-cast Beams and slab on piles bridge)

Finite Element Models for analysis of bridges.

Design drawings and Design Book for all elements of the bridge.

•**Bridge Execution at the Interchange of Mahkama street with Al-Nozha street.** Cairo, Egypt

Mahkama Bridge (Pre-cast Beams and slab on piles bridge)

Finite Element Models for analysis of bridges.

Design drawings and Design Book for all elements of the bridge.

-Ring Road Bridge at Shoubra-Banha freeway

Concrete Box and Pre-cast beams bridge

Finite Element Models for analysis of bridges.

Design drawings and Design Book for all elements of the bridge.

• **10th of Ramadan city Bridge.** Cairo, Egypt

Box concrete and Pre-cast bridge of Bridge.

Finite Element Models for analysis of bridges.

Design drawings and Design Book.

• **Abo Hommos Bridge** EL-Beheira, Egypt

Box concrete, slab on piles, and Pre-cast beams Bridge.

Finite Element Models for analysis of bridges.

Design drawings and Design Book for all elements of the bridge.

• **Thaqafa Bridge.** Sohag, Egypt

Pre-cast beam, concrete box, Steel Girders, and Slab on Piles.

Finite Element Models for analysis of bridge.

Design drawings and Design Book for all elements of the bridge.

Workshop drawings and Construction Stage for all elements of the bridge.

• **Ballina Pedestrian Bridge** Sohag, Egypt

composite Deck-steel girders with a concrete slab.

Finite Element Models for analysis of bridge.

Design drawings and Design Book.

• **Mashaa Pedestrian Bridge** Sohag, Egypt

Composite Deck-Steel pipes with concrete Slab.

Finite Element Models for analysis of bridge.

Design drawings and Design Book.

• **Around ROD-ELFARAG corridor** with EL-NILE River. Cairo, Egypt

Box concrete bridge

Finite Element Models for analysis of bridge.

Design drawings and Design Book.

• **Around ROD-ELFARAG corridor** with EL-NILE River. Cairo, Egypt

Box concrete bridge.

Workshop drawings for Deck.

Workshop drawings for columns and Cap beam.

• **Around ROD-ELFARAG corridor** with EL-NILE River. Cairo, Egypt

Pre-cast and Pre-stressing beam bridge.

Workshop drawings for Pre-stressing beams.

- **Alalamin Bridge**-New Alalamin City, Alex, Egypt

Pre-cast and Pre-stressing beam

Finite Element Models for analysis of bridge.

Design drawings and Design Book.

- **Ismailia main bridge above Port Said Canal**, Ismailia Egypt

Prestressing Concrete boxes, Pre-cast and Pre-stressing beam bridge, Steel Girders

Finite Element Models for analysis of bridge.

Design drawings and Design Book.

- **Nafisha Bridge (1)**, Ismailia Egypt

Pre-cast beam bridge.

Finite Element Models for analysis of bridge.

Design drawings and Design Book.

- **Nafisha Bridge (2)**, Ismailia Egypt

Box concrete bridge

Finite Element Models for analysis of bridge.

Design drawings and Design Book.

Building Projects

- **King Salman Park**, Madinah, KSA

Design Concept and Detailed Design for All Structural works of the park such as pedestrian bridges, Underground water tanks, Water Culverts, structural works of theatre, fountains, water lake, and all buildings inside the park.

- **LRT Project**, Egypt

3D and 2D Finite Element Models for three Station (Al Robaikey, Badr and New Heliopolis Stations)

Design Review for the three stations and their attached buildings.

WSD for the three stations and their attached buildings.

Design of Retaining System for LRT Embankment.

- **HOLP Building**, Germany

3D-SSD SOFiSTiK Finite Element Model.

Design Review.

•**Weida Steel Hall**, Germany

3D-SSD SOFiSTiK Finite Element Model.

Design Review.

•**Commerzbank Building**, Germany

3D-SSD SOFiSTiK Finite Element Model.

Design Review.

•**Haller Building**, Germany

3D-ETABS Finite Element Model.

3D-SSD SOFiSTiK Finite Element Model.

Design Review.

•**Merket Building**, Germany

3D-SAP Finite Element Model.

3D-SSD SOFiSTiK Finite Element Model.

Design Review.

•**Wurth Building**, Germany

3D-SAP Finite Element Model.

3D-SSD SOFiSTiK Finite Element Model.

Design Review.

•**Water Tank**, Germany

3D-SAP Finite Element Model.

Design Review.

•**Multi Sports Hall**, Cairo Stadium, Egypt

3D-SSD SOFiSTiK Finite Element Model.

Design Review for Strengthening Works

•**Building of CIB Bank**, New Administrative Capital, Egypt

2D ADAPT Post Tension slab Finite Element Model.

Design, Design Book, and Design Drawings for all Post tension floor

•**Cluster 07 Building**, New Administrative Capital, Egypt

2D ADAPT Post Tension slab Finite Element Model.

Design, Design Book, and Design Drawings for all Post tension floor

• **Villas Building**, 5th Settlement, New Cairo., Egypt

2D and 3D SAP, Safe, and ETABS Finite Element Model.

Design, Design Book, and Design Drawings for all Elements of the Building.

• **Baraka Store**, Mall of Egypt (Steel Works Design), Egypt

2D and 3D SAP, Safe, and ETABS Finite Element Model.

Design, Design Book, and Design Drawings for all Elements of Building.

• **Factory Building** of the Egyptian Company for Steel Products (Sayed Abdel-Hafiz Sons), 6 October, Egypt

2D and 3D SAP, Safe, and ETABS Finite Element Model.

Design, Design Book, and Design Drawings for all Elements of Building.

• **Ball Room Hall** (Teba Rose Hotel), 6 October, Egypt

2D and 3D SAP, Safe, and ETABS Finite Element Model.

Design, Design Book, and Design Drawings for all Elements of Building.

• **Faculty of commerce**, Ain Shams University, Obour city, Cairo, Egypt

2D SAFE Finite Element Model.

Design, Design Book, and Design Drawings for all Elements of Building and two-way Hollow Block slabs.

WSD

El-Zagazig military Hospital, Al Sharqia, Egypt

2D SAFE Finite Element Model.

Design, Design Book, and Design Drawings for all Elements of Building and Post Tension slabs

WSD

• **Al-Khamis mall**, Abha, KSA

2D and 3D SAFE, ETABS Finite Element Models.

Design, Design Book, and Design Drawings for all Elements of Building and Post Tension slabs, RC slabs, and Pre-stressing beams.

WSD

Road projects (with the Engineering Authority of the Armed Forces)

• Execution and supervision of the project of construction and paving of **(military crossings roads)** at the new Suez Canal

• Execution and supervision of the project of construction and paving of **ARDI 1 road**

(Suez –Ismailia, 59 KM)

- Execution and supervision of the project of construction and paving of **Al-Awsat road**
(Ismailia-AL-Oga, 120 KM)

Presentations preparation

- Presentation for Solar Energy in the Middle East (SBP and Dr. Fathy Saad)
- Mega Projects towards Egyptian Construction Renaissance-IABSE symposium (Eng. Ibrahim Mahlab &Dr. Fathy Saad)
- Presentation for Qebaa Tunnel project
- Presentation for the Mokkatam Bridge project
- Presentation for the Sphinx Bridge project on the Nile River

Software skills

AutoCAD, SOFiSTiK (Teddy and SSD), CSI Bridge, CSI Column, SP Column,
ADAPT PT, SAP 2000, Autodesk Structural bridge design, SAFE, Auto Rebar,
Midas Civil, LPILE, Microsoft Office programs (Excel, Word, PowerPoint), PTC
Mathcad, ASDIP Retain, Created many in-house Excel sheets as design and
analysis aids.

Languages

Arabic: Mother Tongue

English: Very good (written &Reading &listening)