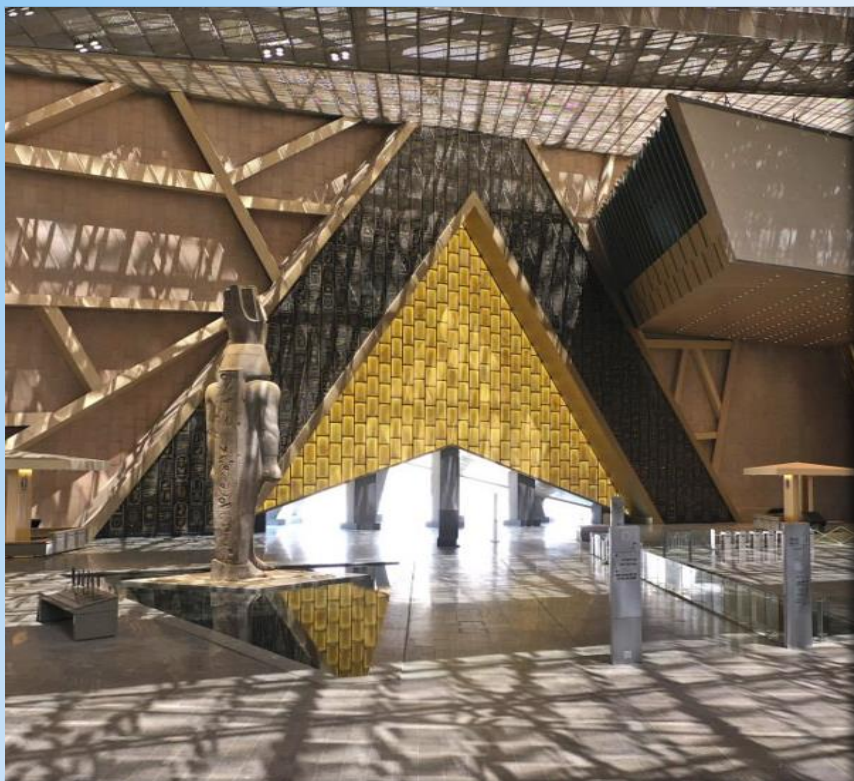




Specialized Engineering Consultants

www.horizon-sw.org





Specialized Engineering Consultants



About Us



For over 25 years of combined academic and practical experience in structural engineering, our mission has been to go beyond traditional design. At Horizon, we don't just engineer structures; we engineer value. Our core philosophy is built on 'Value Engineering'—delivering innovative, optimum solutions that guarantee uncompromised safety and premium quality while maximizing cost-efficiency for our clients.

Transforming complex architectural visions into solid realities is our specialty. Whether dealing with intricate special structures like the Grand Egyptian Museum facades, or traditional reinforced concrete systems, we utilize the latest modeling software and rigorous analysis in strict accordance with international and local codes.

Dr. Morcos Farid Samaan

PHD, PE

Design of Specialized Engineering Work



Our Vision

To be the premier structural engineering consultancy in the region, recognized for transforming the most complex architectural visions into safe, sustainable, and highly efficient realities. We aim to continuously set new industry standards through innovative value engineering and technological advancement.

Our Mission

To deliver high-quality, efficient, and inspiring buildings by providing smart, optimum structural solutions. We are committed to altering traditional structural design through innovative construction methodologies and rigorous value engineering, ensuring our clients receive exceptional safety, unmatched quality, and maximum cost-efficiency in every project.

"Our mission at Horizon is not just a statement; it is a personal pledge I have carried over 25 years of engineering practice. My team and I are deeply committed to ensuring that our client's best interests, innovation, and value engineering dictate every line we draw and every decision we make."





Why Choose Us?

- Led by Dr. Morcos Farid Samaan, PhD, PE, Horizon is built upon more than 25 years of profound academic and practical experience in the field of structural analysis engineering .
- Decades of Specialized Academic and Practical Engineering Expertise
- Pioneering Value Engineering to Guarantee Optimum Cost-Efficiency
- Unmatched Proficiency in Designing and Analyzing Complex Special Structures
- Precision in Structural Analysis and Strict Compliance with Global Codes
- A Proven Track Record of Delivering Mega National and Iconic Projects





Our Scope

Comprehensive Structural Engineering & Consultation

We provide complete end-to-end consultation services encompassing structural analysis, facade design, value engineering, precision detailing, complete documentation, and site supervision. Our engineering scope is systematically categorized into two main divisions:

A. Specialized & Architectural Structures

- **Curtain Wall Systems:** Advanced structural design for freestanding and complex curtain walls.
- **Mechanical Cladding & Fixations:** Specialized engineering for marble, stone, and composite panel mechanical fixations.
- **Glass & Aluminum Structures:** Including sophisticated spider glass systems, structural glass handrails, and architectural aluminum frameworks.
- **Complex Geometries:** Structural analysis and design for Geodesic Domes, steel shell structures, and pyramid skylights.
- **Lightweight & Specialty Steel:** Engineering for light steel structures and monumental signage frameworks.

B. Traditional & Heavy Structures

- **Reinforced Concrete Structures:** Complete structural design and modeling for high-rise buildings, commercial hubs, and residential complexes.
- **Heavy Steel Structures:** Engineering for large-span steel sheds, industrial warehouses, and composite structural systems.





Our Services

Delivering End-to-End Structural Excellence

At Horizon, we provide a full spectrum of structural engineering services tailored to meet the technical and economic demands of modern construction. Our core services are built upon three main pillars:

1. Structural Design & Supervision:

- End-to-end services from advanced 3D computer modeling and rigorous structural analysis to detailed documentation and expert on-site supervision.

2. Value Engineering:

- Optimizing structural systems and material selection to maximize safety and cost-efficiency without compromising the architectural vision.

3. Third-Party Inspection & Solutions:

- Providing independent engineering reviews, precise problem detection, and delivering practical, optimum solutions for complex structural challenges.





Specialized Engineering Consultants



Our Projects

Design of Specialized Engineering Work





Wadi Yemm, Ras Elhekma, North Coast



Design of Specialized Engineering Work

Client	ORASCOM-MODON-ECG-DAR-HILL	Challenges
Type	CONCRETE STRUCTURES	FAST TRACK, TIED TIME SCHEDULE
Scope	BIM MODELLING-SHOP DRAWINGS	

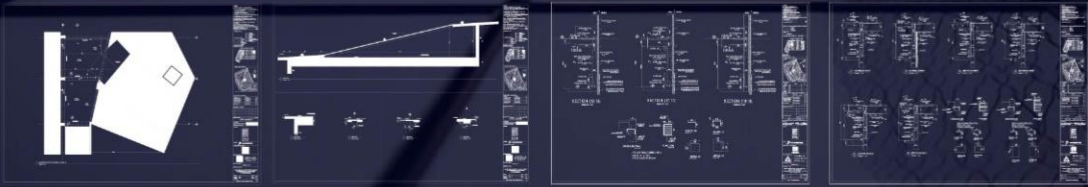


KAFD, A11, KSA

PROPOSAL

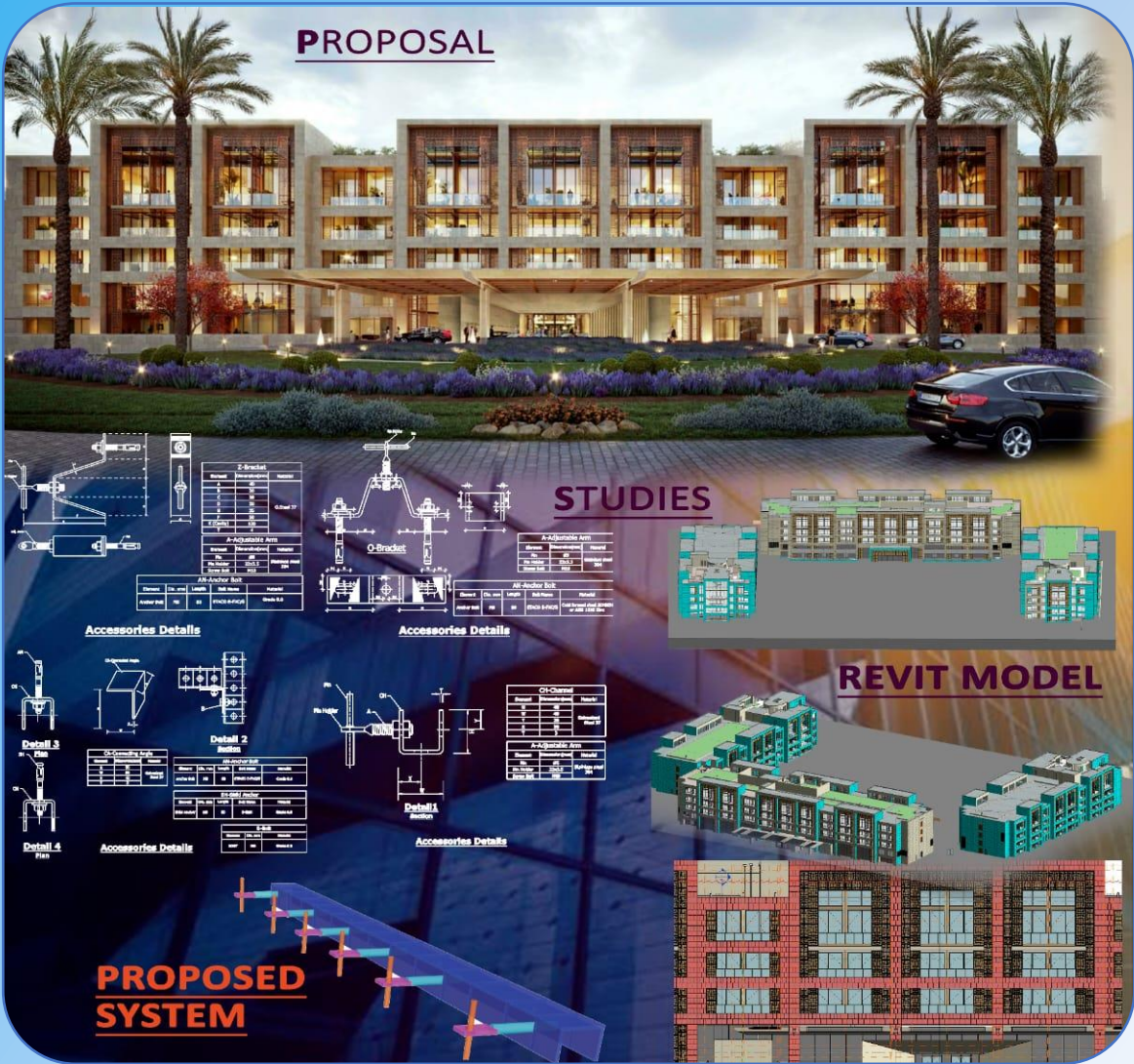


STUDIES



Client	TAJ DUBAI-TROJAN	Challenges
Type	CONCRETE STRUCTURES	HIGH TECH. DEVELOPMENT
Scope	BIM MODELLING - SHOP DRAWINGS	

Four Seasons Hotel at Madinty

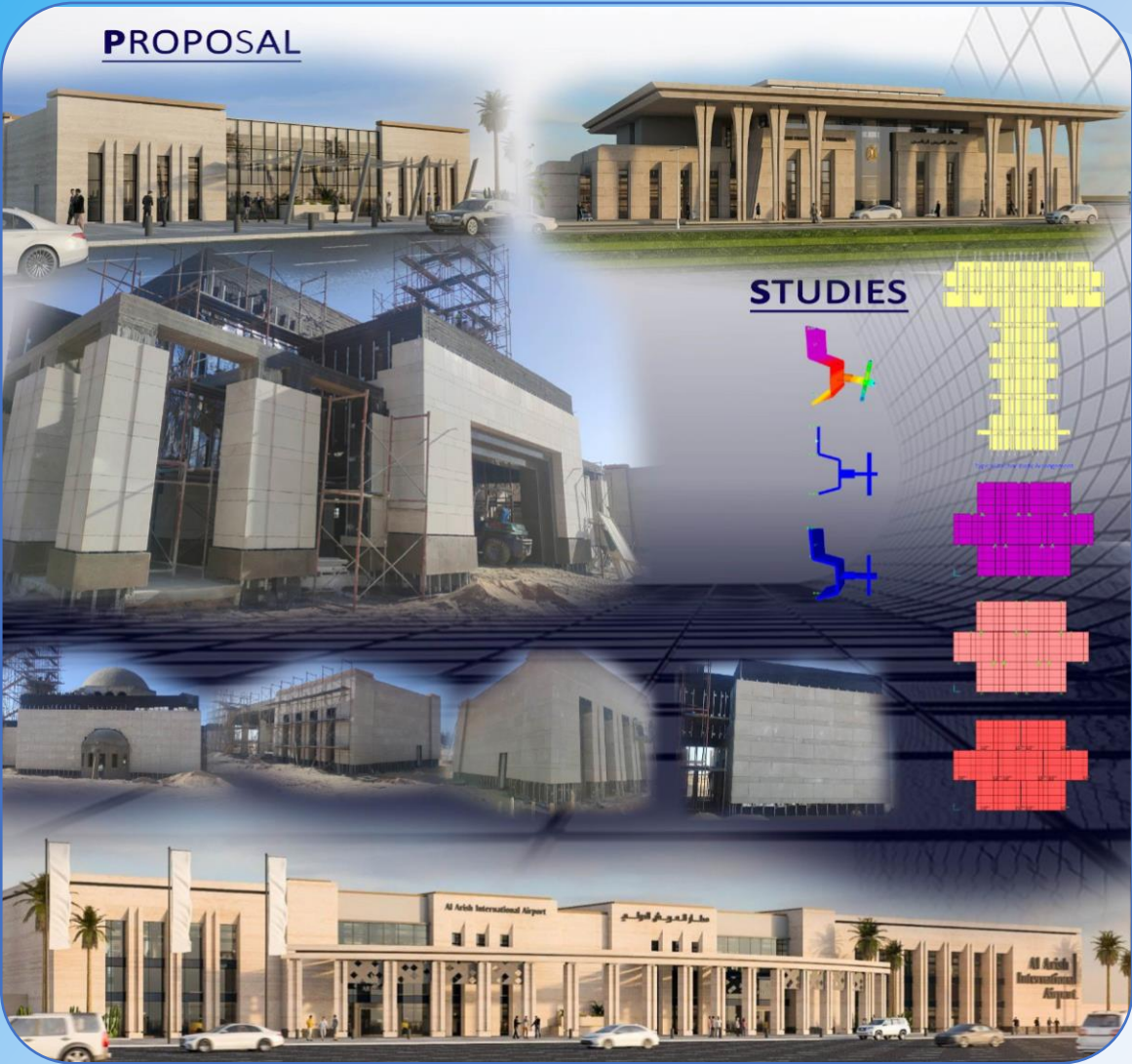


Design of Specialized Engineering Work

Client	MARMONIL – CCC – ATRIUM JV	Challenges
Type	MARBLE MECHANICAL FIXATIONS	SOFISTICATED MODELLING AND STRUCTURAL TECHNIQUES
Scope	BIM SHOP DRAWINGS – STRUCTURAL CLACULA – TIONS - VE	



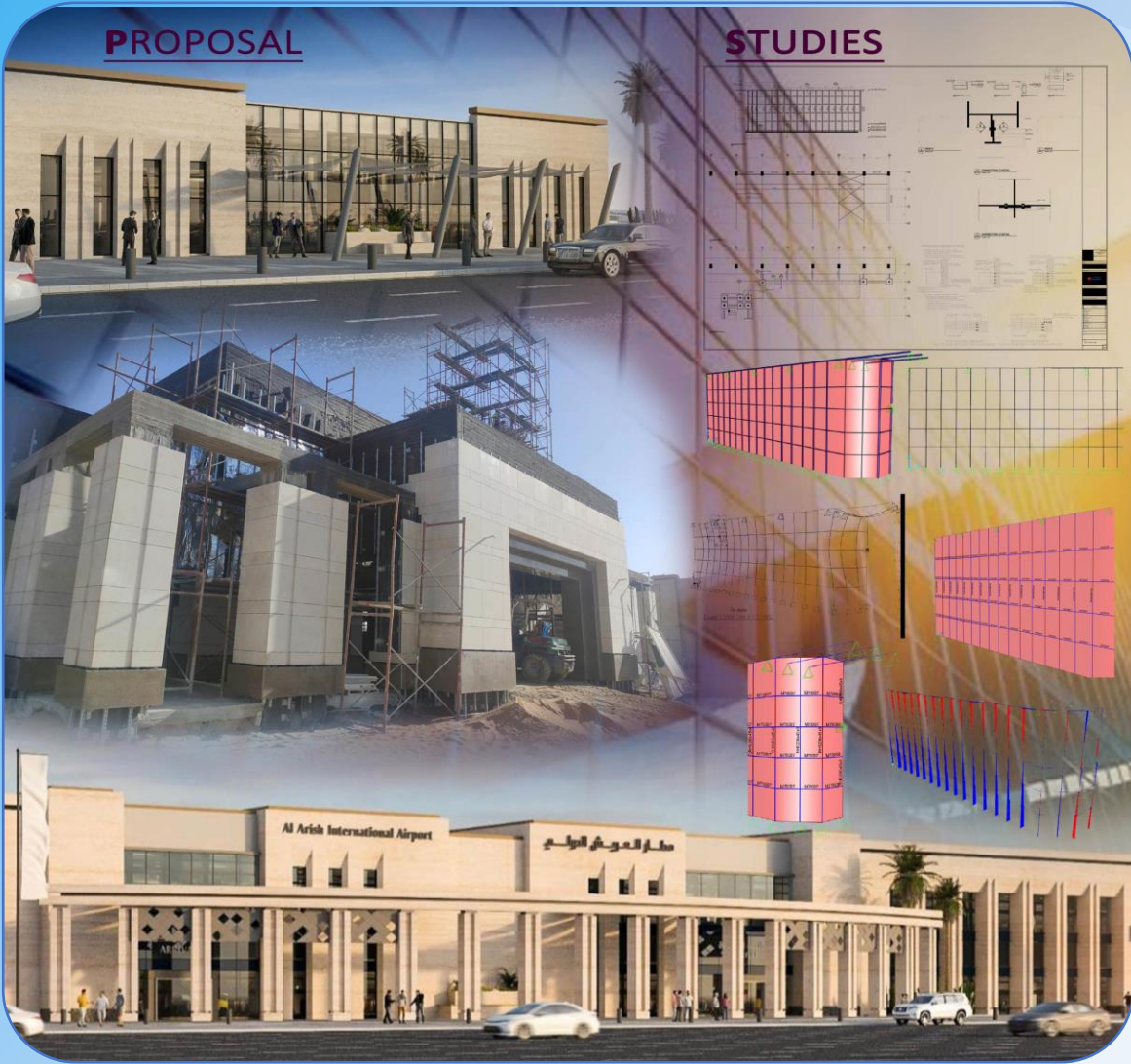
Al-Arish Airport Facades Marble Fixation



Client	ELEGANCE-ELGHARABLI-GIECO	Challenges
Type	MARBLE MECHANICAL FIXATIONS	SMART MINIMIZATION OF ALL STEEL ELEMENTS TO THE MOST ECONOMICAL SELECTION
Scope	DESIGN - STRUCTURAL VE	



Al-Arish Airport Facades Curtain Walls

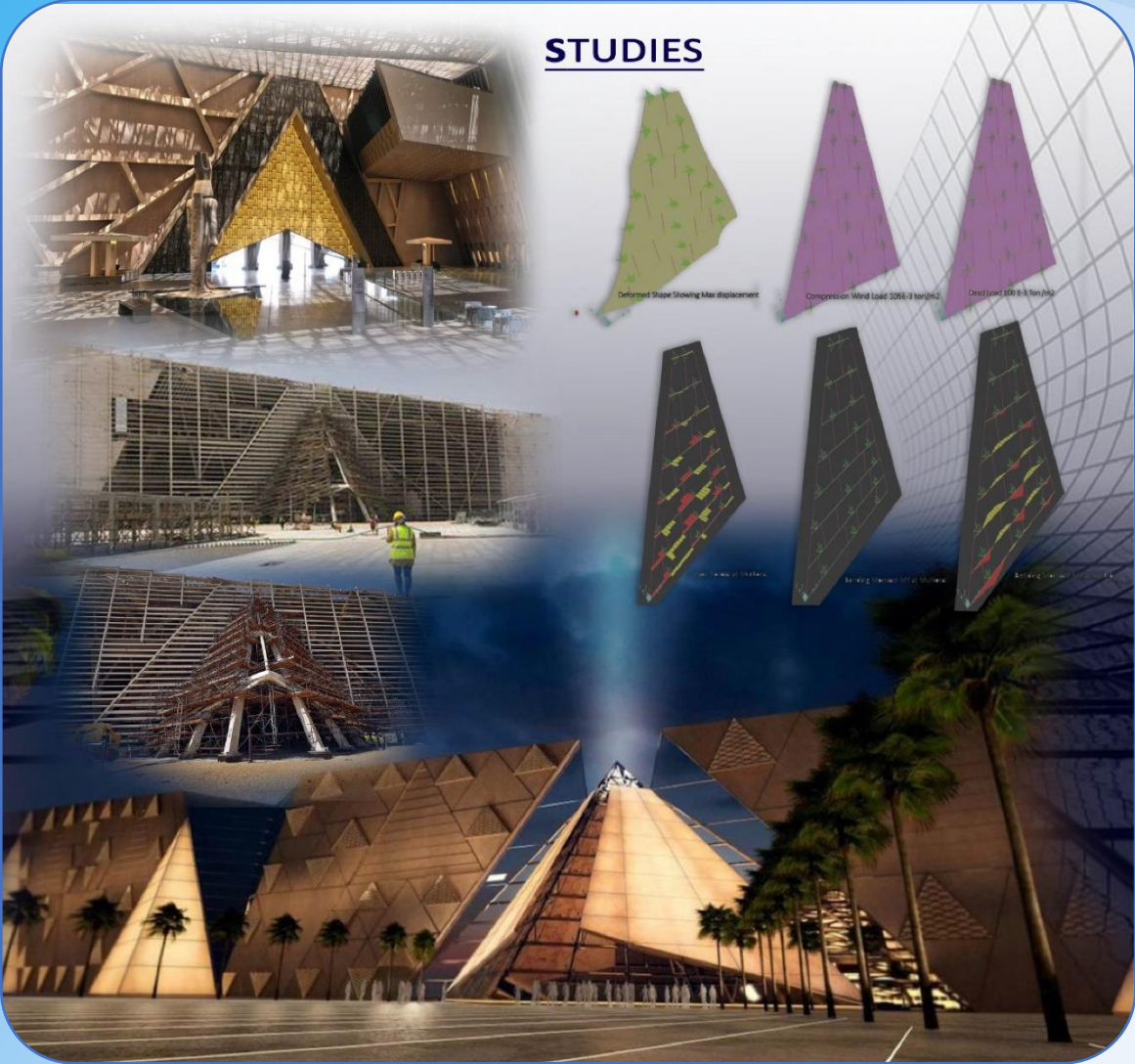


Design of Specialized Engineering Work

Client	ELEGANCE-GIECO	Challenges
Type	MARBLE MECHANICAL FIXATIONS	SMART MINIMIZATION OF ALL STEEL ELEMENTS TO THE MOST ECONOMICAL SELECTION
Scope	DESIGN, SHOPDRAWINGS, STRUCTURAL VALUE ENGINEERING	



Grand Egyptian Museum Front and Internal Facades

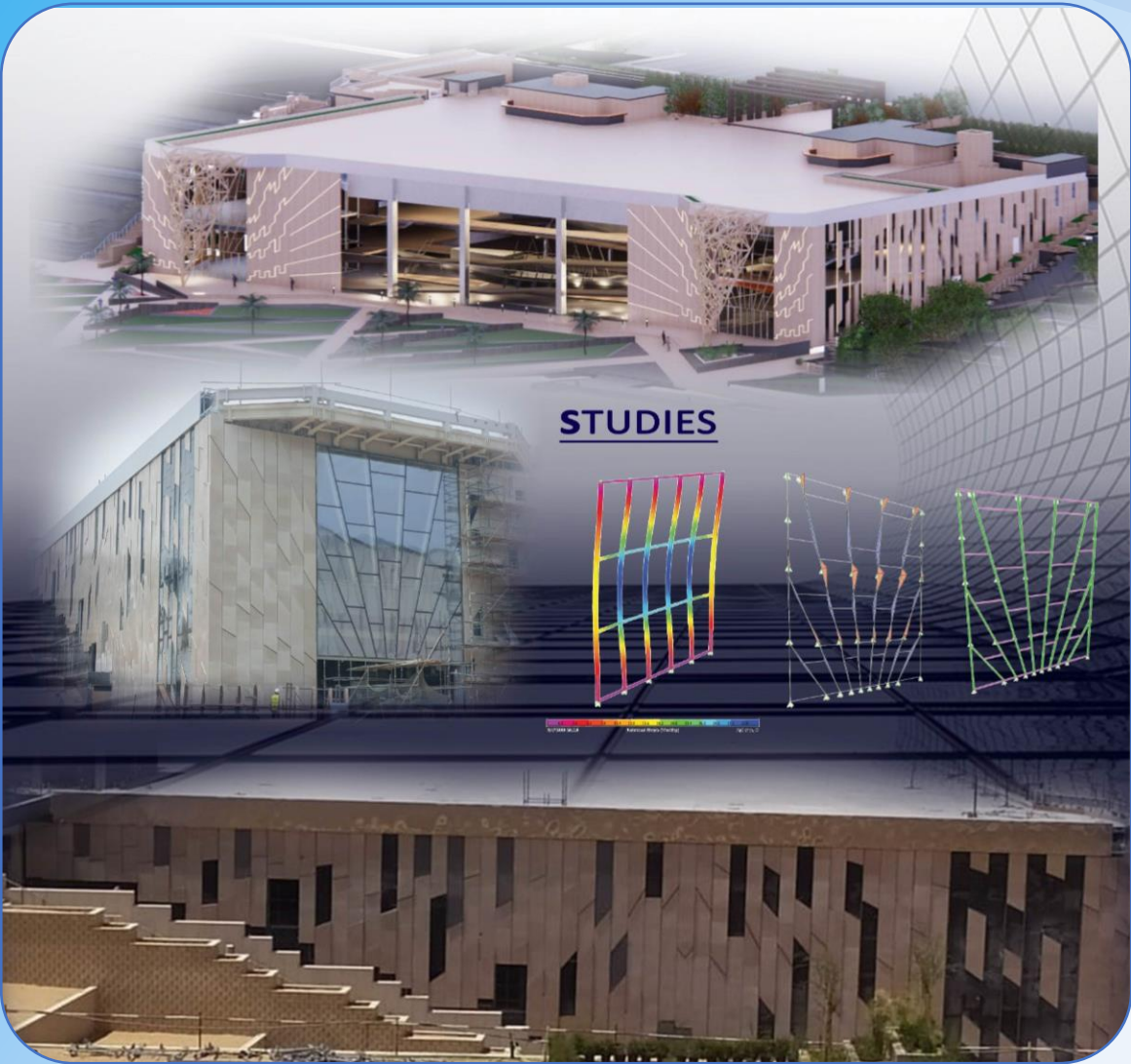


Client	ALURAL-ORASCOM BOJV	Challenges
Type	MARBLE MECHANICAL FIXATIONS, CURTAIN WALLS	HORIZONTAL AND INCLINED SUSPENDED MARBLES, PYRAMEDIC GEOMETRY CURTAIN WALLS
Scope	DESIGN & SUPERVISION	





Grand Egyptian Museum Solar Boat Facades



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Client	ALURAL-ORASCOM BOJV	Challenges
Type	MARBLE MECHANICAL FIXATIONS, CURTAIN WALLS	MIX MARBLE-GLASS MECHANICAL FIXATIONS, 15M FREESTANDING CURTAIN WALLS, RANDOM RAYS CURTAIN WALLS
Scope	DESIGN & SUPERVISION	



Adly Mansour Station Facades



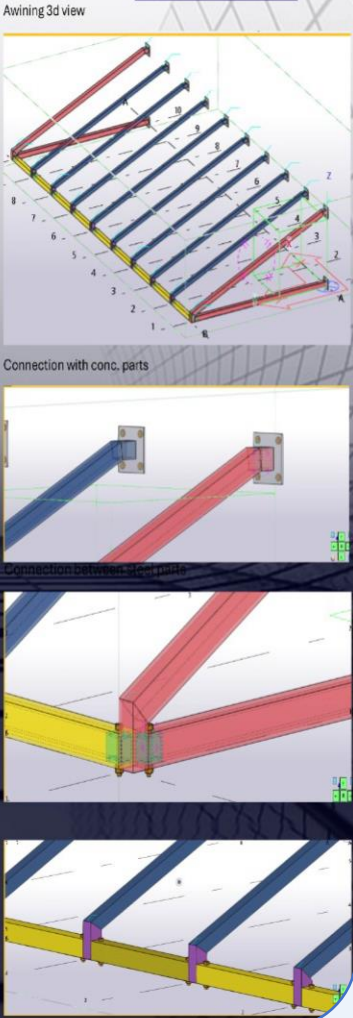
Client	QUALIMETAL-ARAB CONTRACTORS ORASCOM JV	Challenges
Type	CURTAIN WALLS	12M FREESTANDING CURTAIN WALLS, COMPOSITE SECTIONS WITH MEGA STEEL INSERTION, MATERIAL SELECTION VE
Scope	DESIGN	

Soul, North Coast

PROPOSAL



STUDIES



Client	ORASCOM-COSMOS	Challenges
Type	VILLAS STEEL SHED	INTEGRATION WITH CONCRETE ELEMENTS
Scope	DESIGN REVIEW	



Elsadaa HQ Building Façades

PROPOSAL

STUDIES

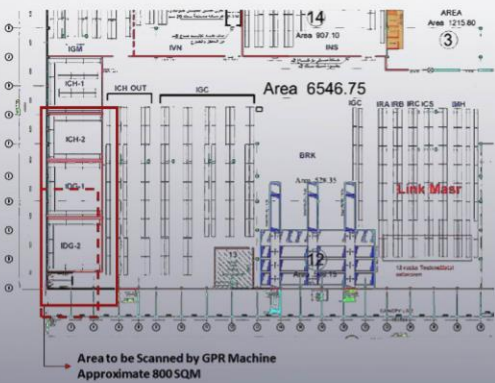


Client	ELSOADAA GROUP- SG	Challenges
Type	MARBLE MECHANICAL FIXATIONS	SOLUTION OF TRANSIT STEEL CHASSIS FOR NEW SLAB EDGES
Scope	DESIGN - SUPERVISION	



Cairo Airport CACC CT1 and CT2 Warehouse Rehabilitation

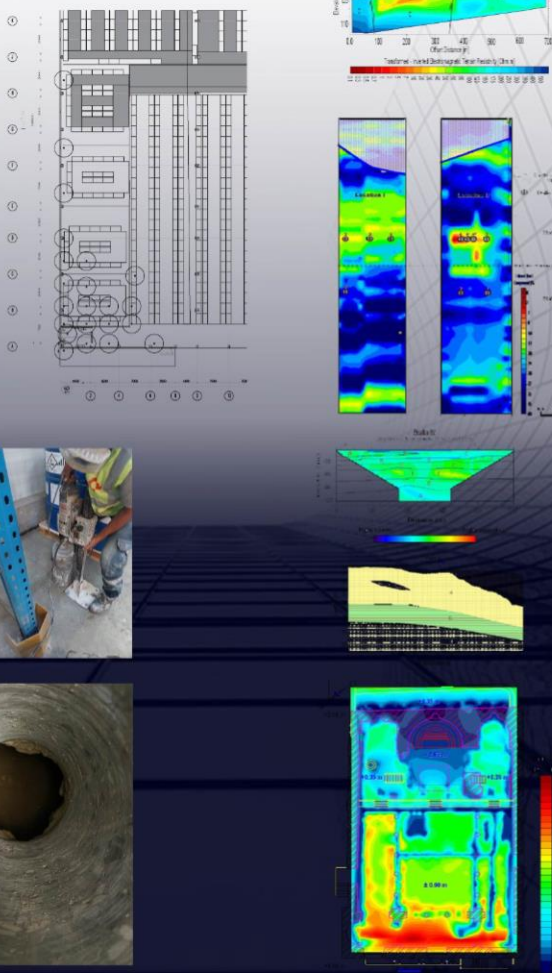
ISSUED



LIVE PHOTOS



STUDIES

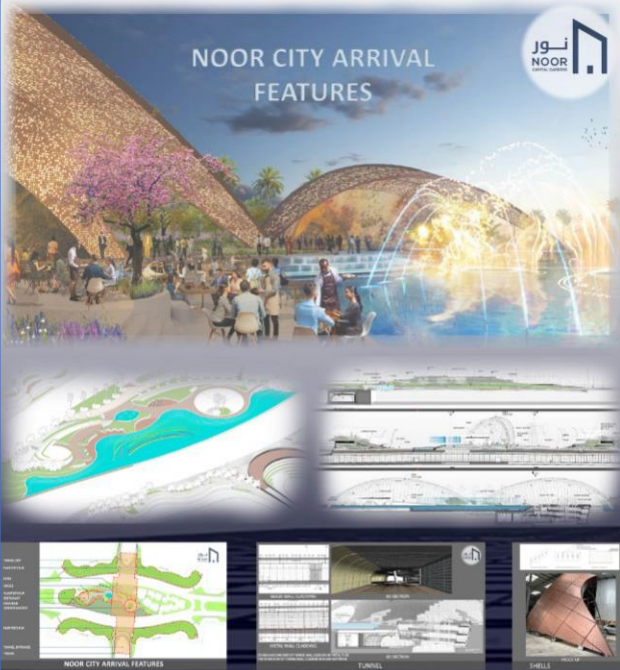


Client	CACC CARGOLINX	Challenges
Type	SOG SUBSTRATE VOID FILLING AND SELF-LEVELLING	HANDLING CRITICAL PROBLEMS & PROVIDING OPTIMUM SOLUTIONS
Scope	DESIGN & SUPERVISION	

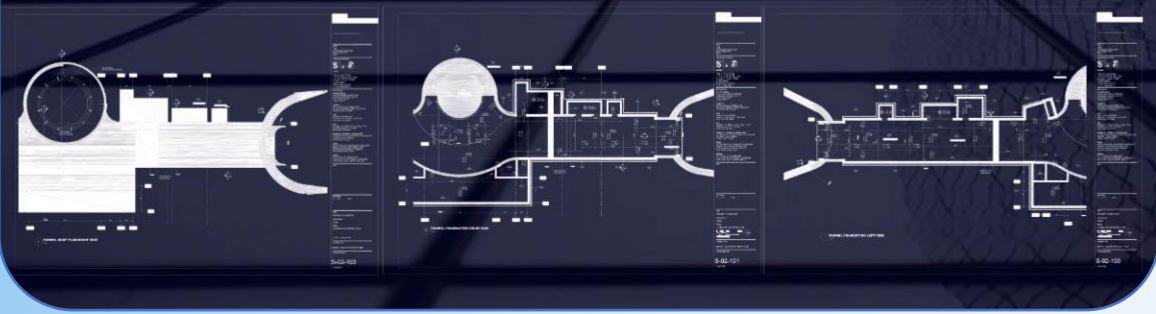
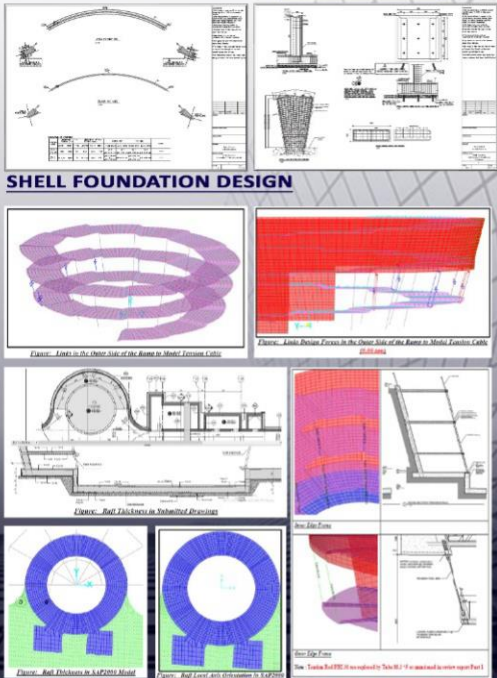


Noor Arrival Features

PROPOSAL



STUDIES



Client	TMG-ATRIUM-SHAKER	Challenges
Type	TUNNEL-STEEL SHELL-WATER FEATURES	SOFISTICATED MODELLING AND STRUCTURAL TECHNIQUES
Scope	DESIGN REVIEW	

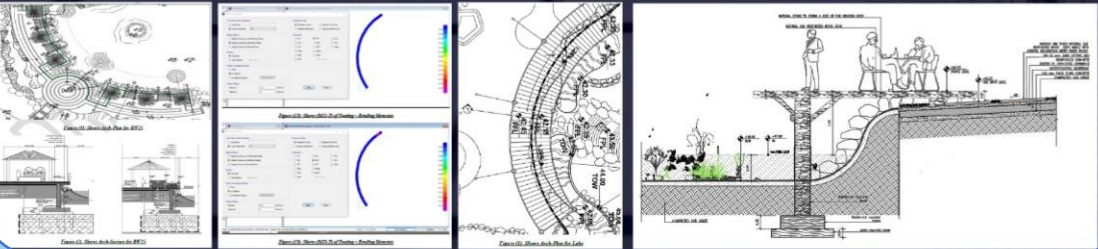


Fostat Gardens

PROPOSAL



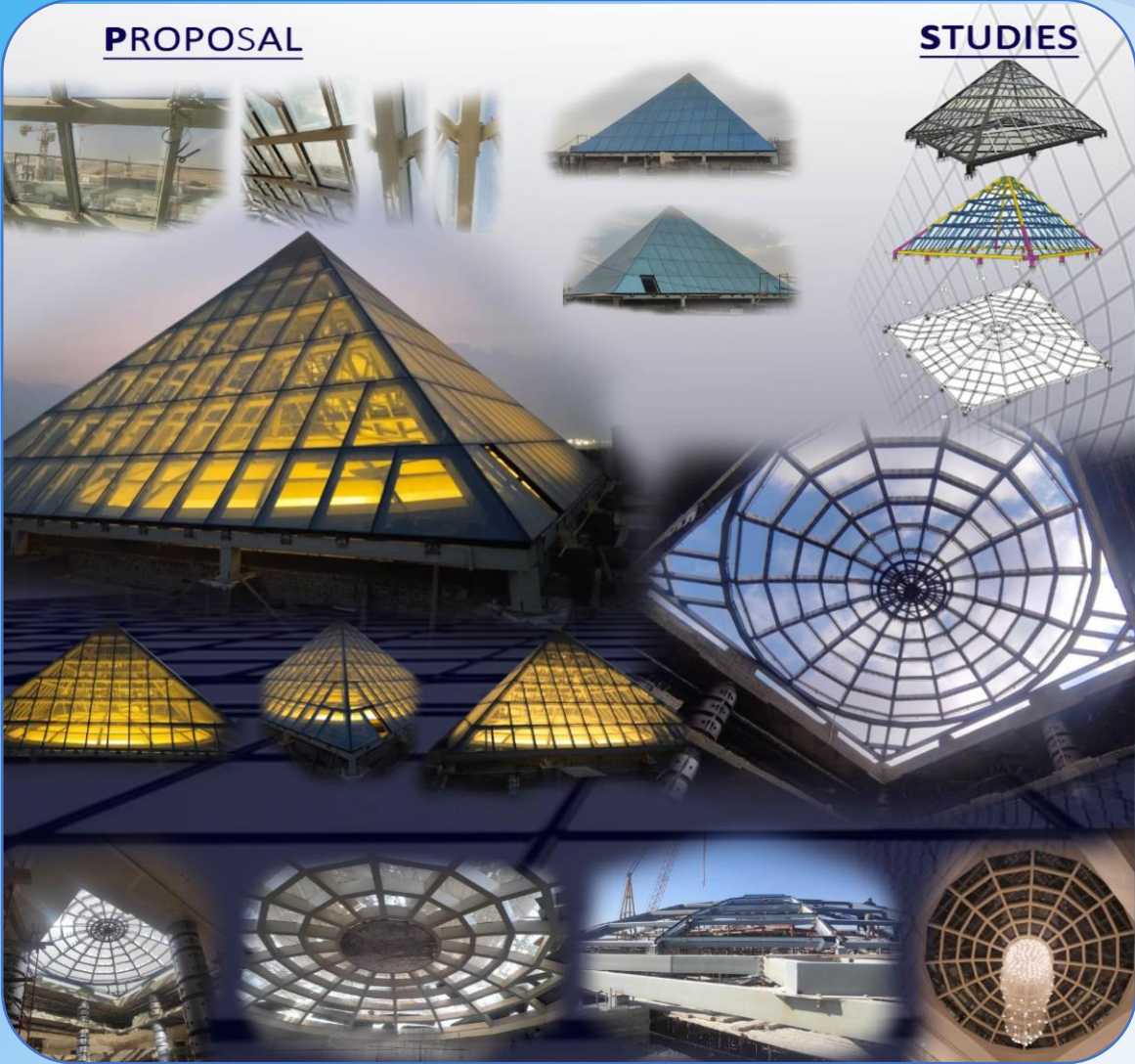
STUDIES



Client	GUINIDI- CENTRAL AUTHORITY FOR DEVELOPMENT	Challenges
Type	ARCHITECTURAL AND STRUCTURAL	LANDSCAPE COMPLEXITY
Scope	DESIGN SHOP DRAWINGS	



Steel Dome and Pyramid Skylight Tiba Rose Hotel, New Admin



Design of Specialized Engineering Work

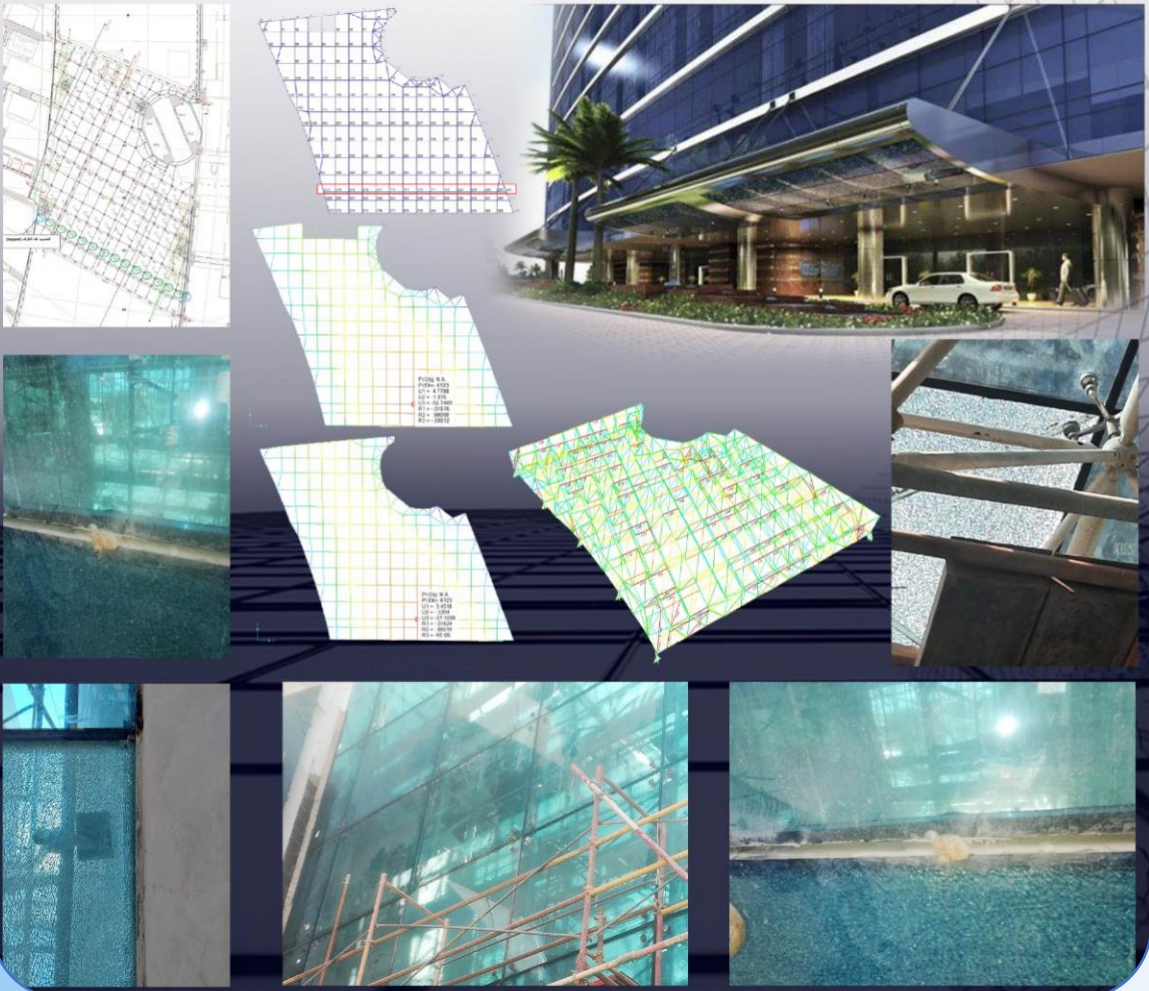
Client	ALURAL-DETAC	Challenges
Type	STEEL DOME AND PYRAMID SKYLIGHT	ARCHITECTURAL CHALLENGES
Scope	DESIGN - SUPERVISION	



Secon Tower, Maadi

STUDIES

PROPOSAL



Design of Specialized Engineering Work

Client	SIAC-ALUNILE	Challenges
Type	SPIDER GLASS SYSTEM	ANALYSIS AND SOLUTION OF GLASS BREAKAGE PROBLEM
Scope	THIRD PARTY INSPECTION	



Saint Mark Hospital, Minia

PROPOSAL



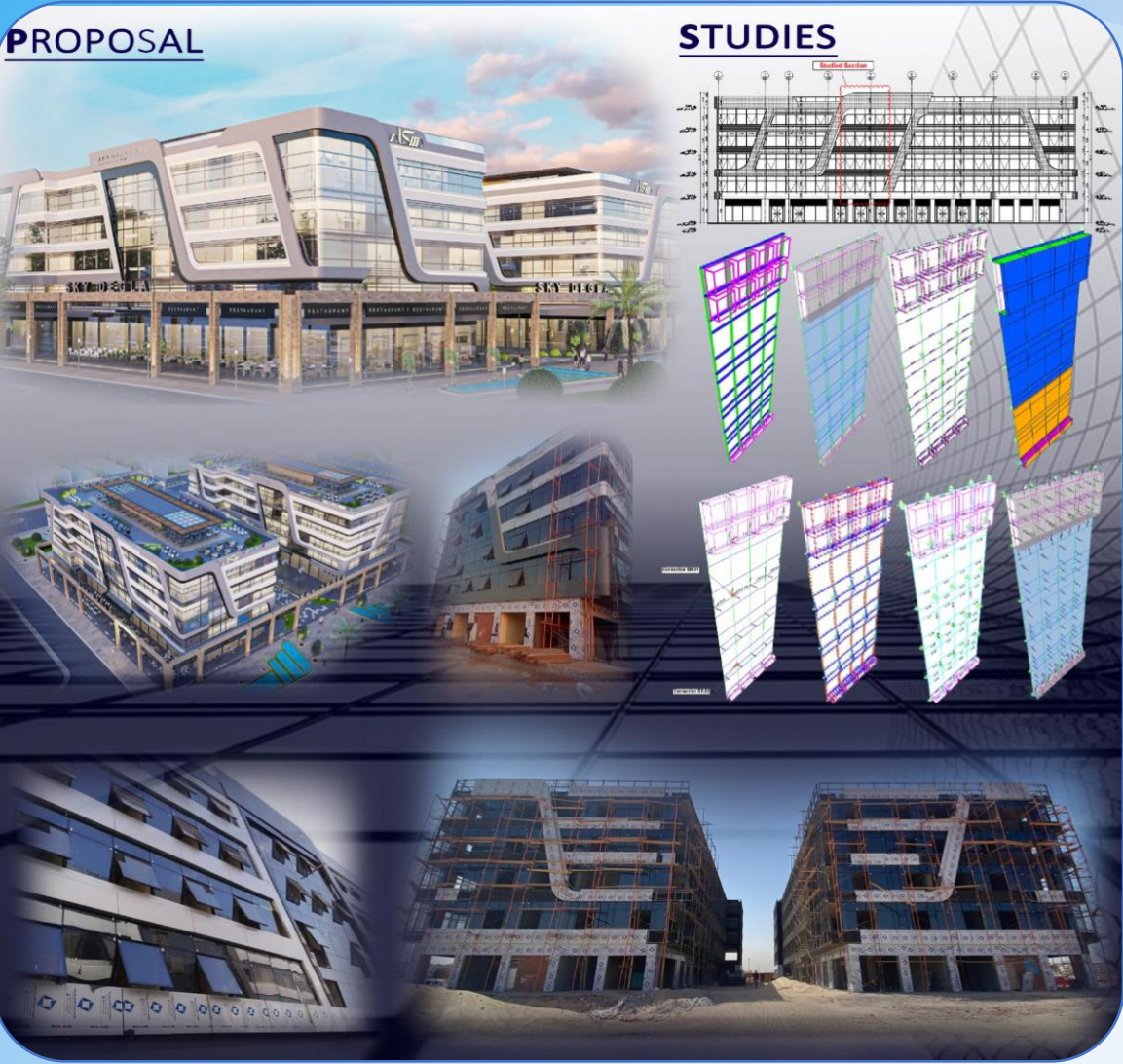
STUDIES

- Wind Load :

Client	MINIA COPTIC DIOCESE	Challenges REDUCTION OF TOTAL COST BY 30% (FROM 60 MIL-LION TO 40 MILLION)
Type	CURTAIN WALLS CLADDING	
Scope	DESIGN & SUPERVISION & ARCHITECTURAL VE	



Sky Degla Mall, Ramadan 10th City



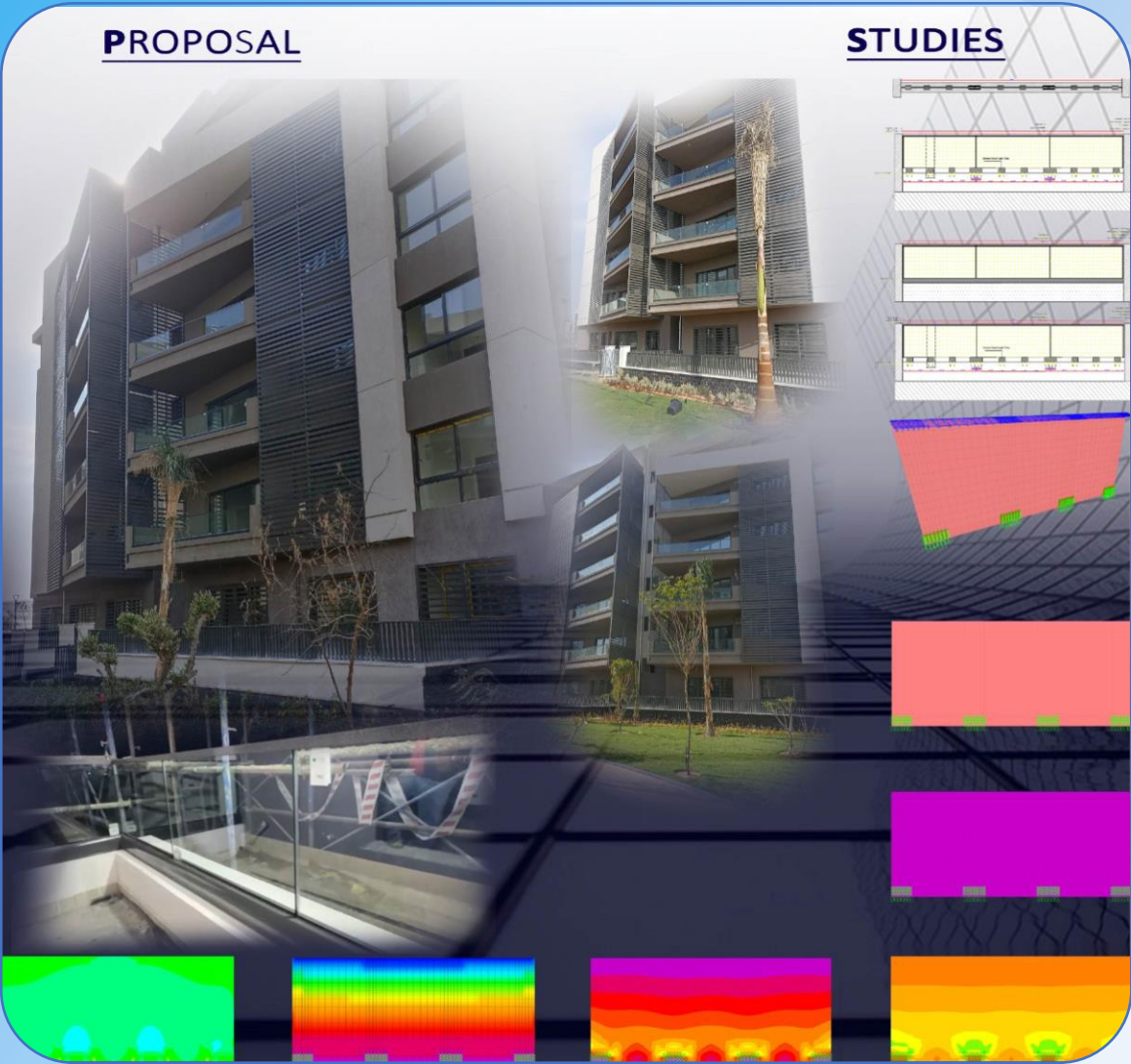
Client	HOC-MEMAR DEGLA	Challenges
Type	CURTAIN WALLS, CLADDING	SHARP CURVED CLADDING, HYBRID STRUCTURAL SYSTEM
Scope	DESIGN, SUPERVISION, ARCHITECTURAL VE	



Privado Madinty

PROPOSAL

STUDIES



Design of Specialized Engineering Work

Client	MOBI-ATRIUM	Challenges
Type	GLASS HANDRAIL	INTERNATIONAL CODES - GLASS DESIGN DIMENSIONS TO RESIST ECP LIVE LOADS
Scope	DESIGN - STRUCTURAL VE	

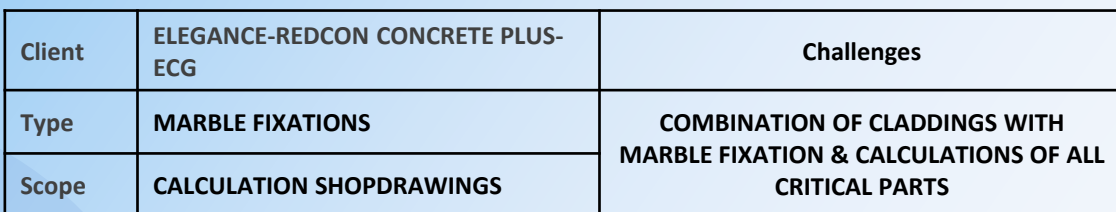
MIDEA SHOWROOMS

LIVE PHOTOS

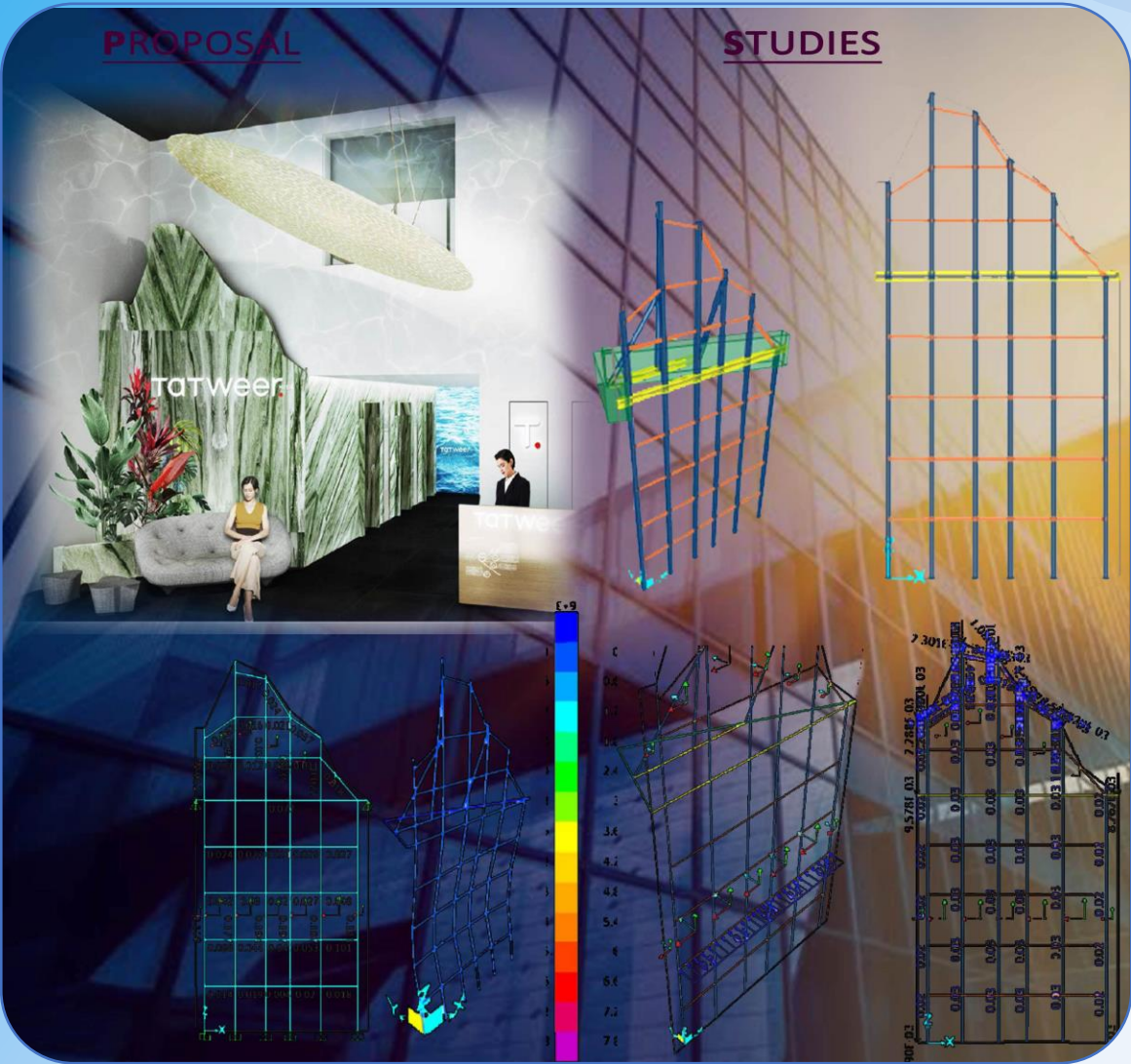


Client	MIDEA	Challenges
Type	INTERIOR FIT-OUT	HIGH STANDARD FINISHINGS AND HARD SITE CONDITIONS
Scope	ARCH AND MEP INSPECTION, PROGRESS FOLLOW-UP	

Design of Specialized Engineering Work



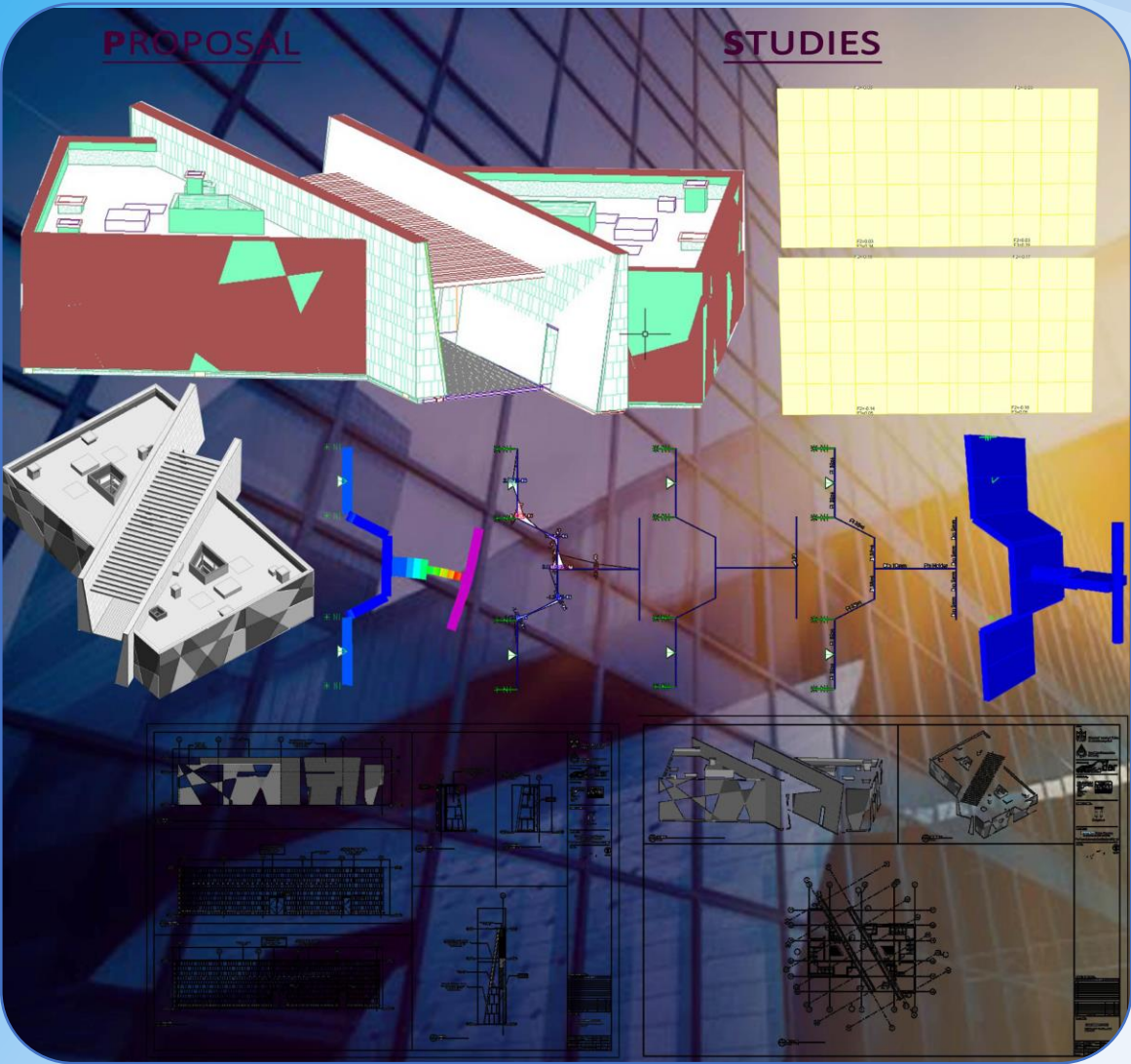
ARKAN PLAZA MARBLE WALL, SHIKH ZAYED



Client	ELEGANCE-TATWEER MISR	Challenges
Type	MARBLE FIXATIONS	COMBINATION OF CLADDINGS WITH MARBLE FIXATION AND CALCULATIONS OF ALL CRITICAL PARTS
Scope	CALCULATION, SHOPDRAWINGS	



CENTRAL PARK THE NEW ADMINISTRATIVE CAPITAL



Design of Specialized Engineering Work

Client	ELEGANCE-REDCON-DAR	Challenges
Type	MARBLE FIXATIONS	COMBINATION OF TYPES OF MARBLE CLADDING
Scope	DESIGN AND ANALYSIS OF MARBLE FIXATION	



Our Partners



Design of Specialized Engineering Work



Specialized Engineering Consultants



Contact Us

We deliver the engineering solutions that secure, optimize, and sustain your investment. We welcome your inquiries at



+2 010 0565 8857



Morcos_farid@horizon-sw.org



82 Thawra Street, Almaza, Cairo, Egypt .

www.horizon-sw.org

