



OLD EXPERIENCE, MODERN SOLUTIONS.

**COMPANY PROFILE
2022.**



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OUR HISTORY



ACT “**Advanced Construction Technology**” was founded as one of the few specialized companies that offers special Engineering solution in the field of construction and repair.

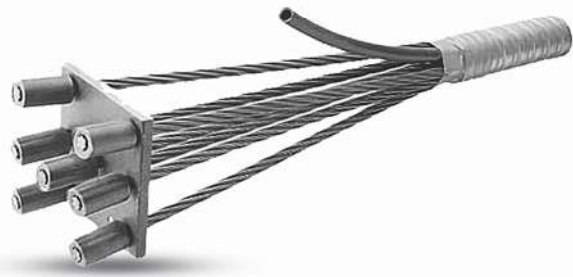
● 2004

● 2005

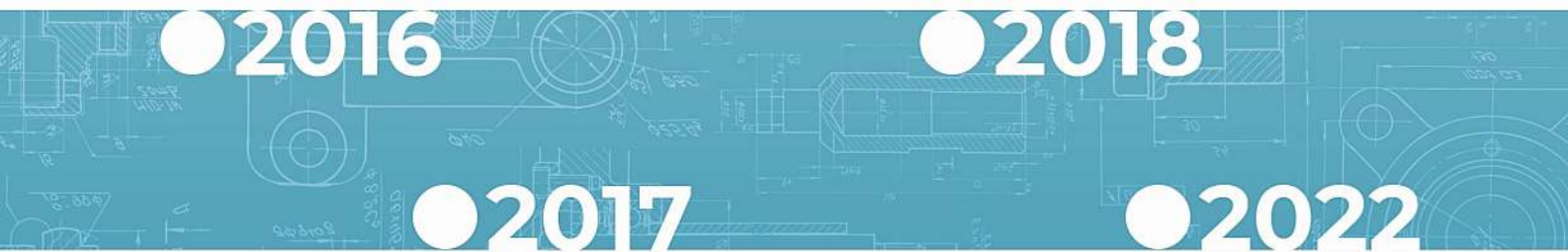


Tetra Engineering Solution was founded. In 2008 “**ACT**” stopped all its activities.

Tetra again started alone its activities as specialized supplier for the post tension activities and special construction techniques.



Rowad Modern Engineering acquired the majority of **Tetra's** shares.



Tetra deemed to be the 1st company in the middle east to develop our own post tensioning system "**Solo System**" which successfully passed 3 tests at **Housing and Building National Research Center**.



Tetra became one of the pioneering companies in the field of post - tensioning in Egypt. During the past 2 years we have achieved **5000** ton and **+4000** ton in progress.



ABOUT US.

Tetra is multidisciplinary value engineering and construction company, we provide a full design and built solutions, our services improves the constructability, reduce time and cost, and thus improves the overall performance of the project we adopt several innovative design principles and techniques such as:

- Post Tension Concrete
- Precast Concrete
- Voided Slab Systems
- Automated Parking System

We are a multi-disciplinary engineering design firm with specialized value engineering and design services. Our value engineering services improve construction cost and schedule savings by adopting innovative design solutions and techniques, while evolving the existing design principles to improve the overall performance and value of the project.

Value Engineering for us means time saving, operational saving, material saving through an alternative design solutions and Our multi-disciplinary team utilizes computational engineering methods to unlock optimized design solutions. Our work is driven by our experienced engineers working on generative design principles that identify and achieve value savings by producing high performing structural systems.



Subsidiary of **ROWAD**
MODERN ENGINEERING

Subsidiary of **ELSEWEDY**
GROUP



Owner of the steel united
wires
(1st PC strand factory in
Egypt)



BUSINESS PARTNERS



مجموعة المهندسين العرب للاستشارات
ECG
ENGINEERING CONSULTANTS GROUP S.A.



rmc
raafat miller consulting



ADEC
DR. ENG. AYMAN
HUSSEIN HOSNY



هيئة المجتمعات العمرانية الجديدة
New Urban Communities Authority

الهيئة العامة
للطرق والكبارى و النقل البرى
(GARBLT) وزارة النقل

OVM®
Middle East & North Africa



United
Steel Wires



STRATA

POWER TEAM

FACTS ABOUT US.



Tetra has extensive engineering capabilities, through our “In-house” design team with staff members of 10 years design experience in Post Tensioning.



Tetra works alongside the clients to analyze their objectives and proposing together alternative optimum solutions.



Tetra manufactures its own galvanized steel ducts, Grouting Machines, Stressing Jacks and flower jacks and additional developing (Solo PT System).



Tetra is a subsidiary from RME & EI SEWEDY ELECTIC group (The owner of **1st PC strands factory in Egypt**).



Tetra is an approved applicator for **MK4 & OVM** and maintain a stock of 15,000 Anchorages for each system.



Tetra is an approved Post Tension Subcontractor by **ECG, AACE, ADEC**.



Tetra is owns 12 sets of Stressing units, we are approved distributor for **Power Team USA** and **IHS-Australia** .



**ENGINEERING
CONSTRUCTION
SERVICES**



**ARCHITECTURE
DESIGN**



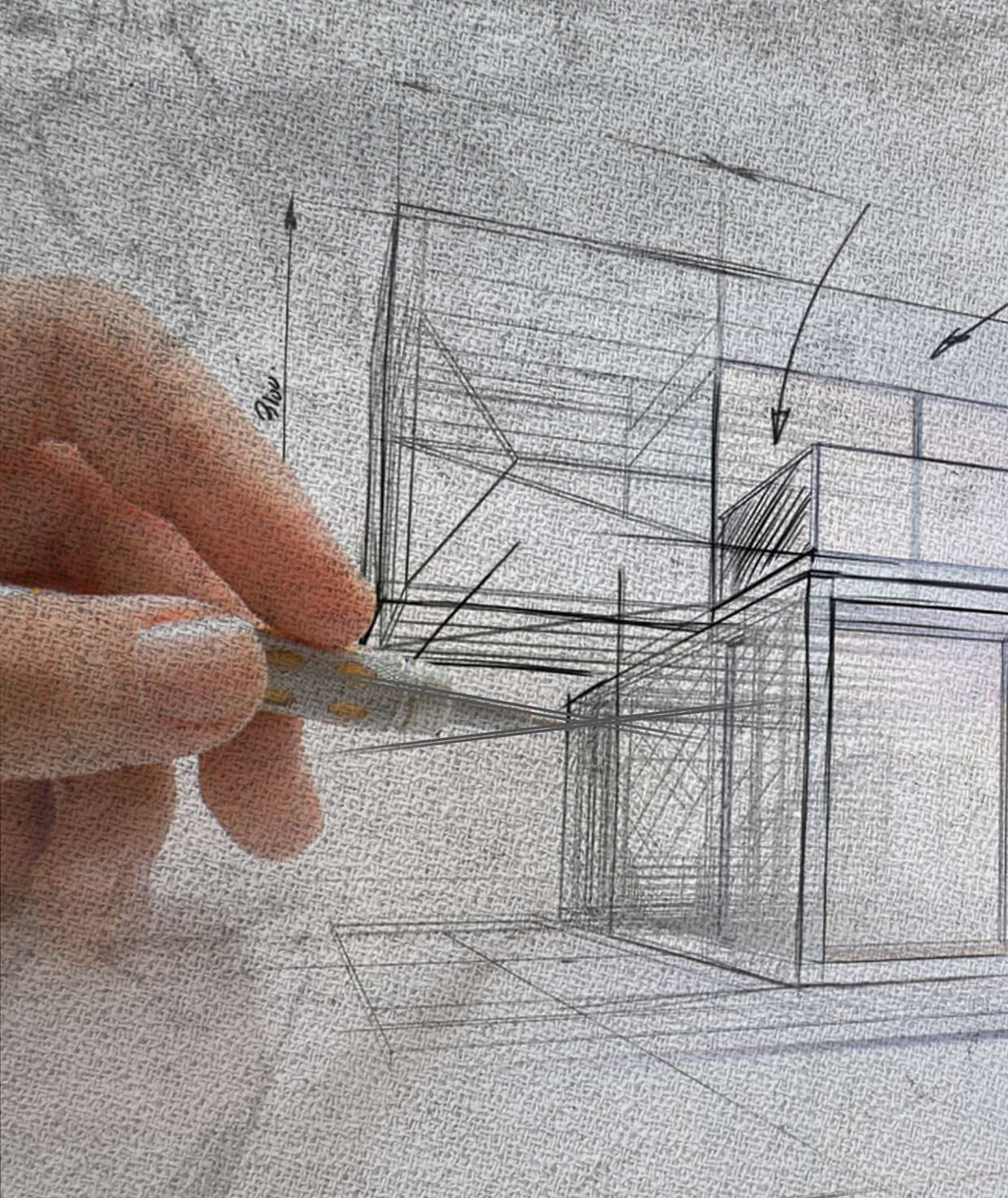
**CONSTRUCTION
SUPERVISION**



**PROJECT
MANAGEMENT**







**OLD EXPERIENCE,
MODERN SOLUTIONS**



BUSINESS LINES



**OLD EXPERIENCE,
MODERN SOLUTIONS.**



Tetra is distinguished by its complexity and its ability to provide many engineering solutions and the ability to apply them with high efficiency due to the presence of great expertise in it.



Pre-stressed Concrete

Post Tension (Slabs, SOG & Bridges)
Supply of PC strands & Anchorages
Pre- Tension Concrete Ducts
Manufacturing



Special Structural Repair

Hydro demolition. Form and Pump
Technique. External Pre-stressing
Prestressed Carbon Fiber.

Heavy Lifting

Lifting floor slabs for building
Heavy lifting of decks & water tanks
Tailor Made platform (lifting and
lowering). Steel Tanks Construction.



Movable Scaffolding System

special-purpose self-launching form used in bridge construction, specifically prestressed concrete bridges with segments or spans that are cast in place.



Left Gantry

Gantry cranes have a bridge that is supported by two a-frame rigid steel legs that rest on the floor. The legs are commonly equipped with casters so crane can be moved to different parts of a building.



Bearing&Expansion Joints

Elastomeric Bearings, Joints
Pot Bearings, Seismic Bearings,
modular Expansion Joints and
Hydraulic Dampers



Box Pushing

Box Pushing Technique was adopted to form abutments and construction of RCC road slab in between the abutments to construct the Underpass below running



Special Work Form

Slip form system and Climbing form Bridge Supporting Towers Incremental launching (Deckpushing).



Voided Slap System

Biaxial slabs, are a type of reinforced concrete slab which incorporates air-filled voids to reduce the volume of concrete required.



Bridges Construction Equipment

Segment Molds for precast bridge Launching Gantries for full span precast Bridges. Gantries for Precast. Segmental bridges. Balanced Cantilever.



Ground Engineering

Geotextile & Geogrid walls. Precast Panel & blocks walls Asphalt & Soil Reinforcement. Slopes protection & Erosion control Ground Anchorages & Marine tie.

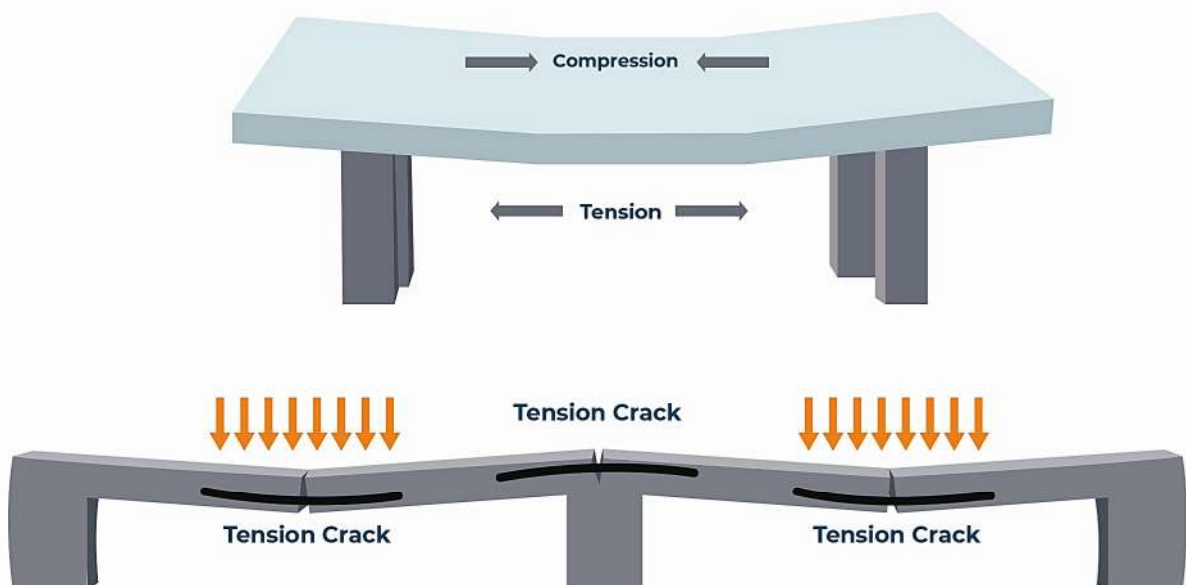


Post Tension Slabs

principle of prestressing

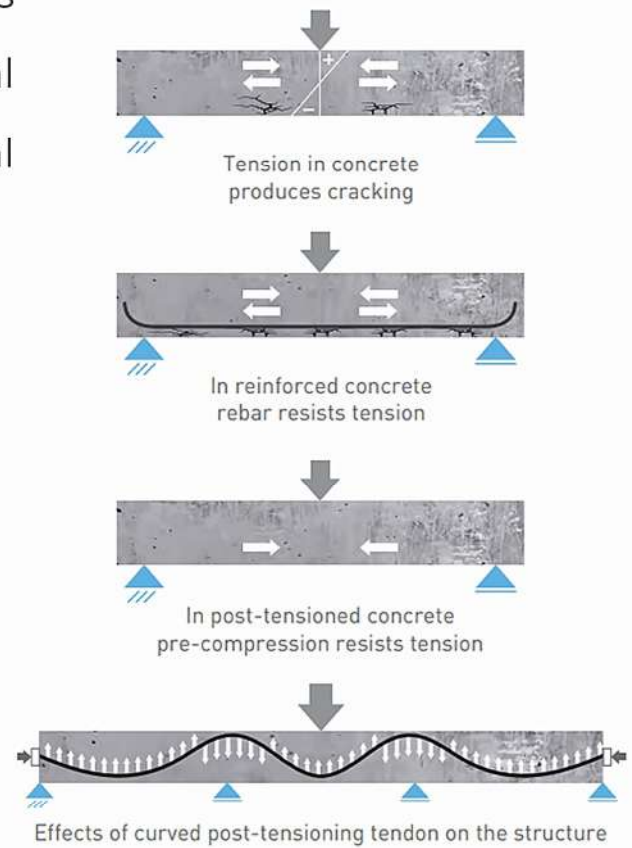
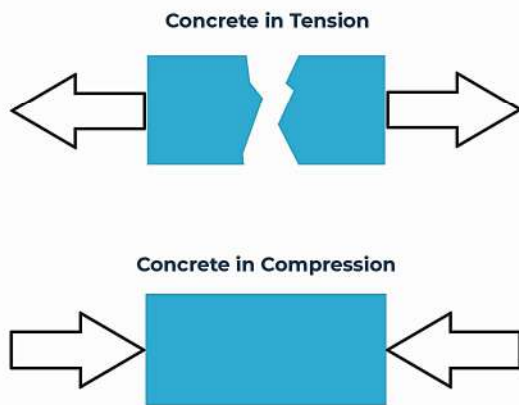
concrete by nature is too weak to resist tension stresses while it has a quite strong compressive strength, the tensile strength of concrete is only about 10% of its compressive strength. This is where the idea of prestressing comes in:

“How to make use of concrete high compressive strength to overcome its natural weakness in tension”



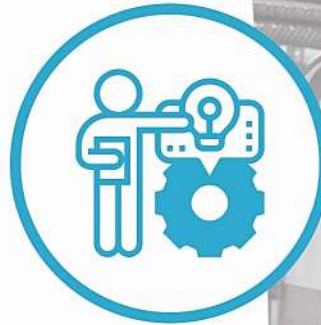
What is the **Post Tension** ?

“It is a clever technique to reinforce the concrete, by applying, External stresses opposite in direction and equal in magnitude to the original stresses of the concrete”



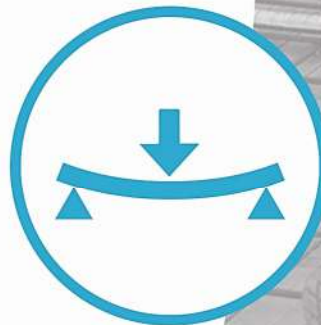
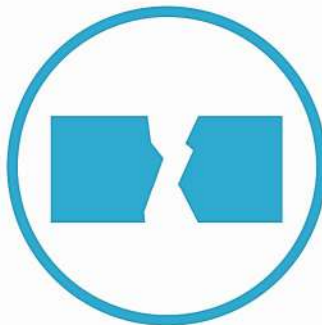
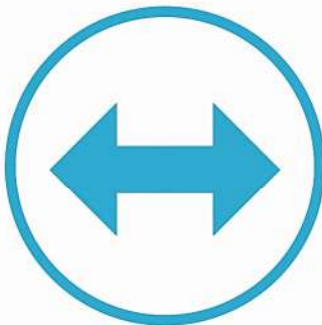
CONSTRUCTION ADVANTAGES OF PT

- Less reinforcement - less congestion.
- Less labour.
- Quicker turn-around of formwork.
- Little or no back- propping.
- Faster construction.
- Material, time and cost savings.



DESIGN ADVANTAGES OF PT

- Shallow structural depth.
- Bigger column-free spans.
- Less concrete.
- Reduction in foundation loads.
- Better deflection control.
- Better crack control.



CASE STUDY 1 - INDUSTRIAL PROJECT

Medical Factory (**B+G+2 Typical**).

Design Codes : **"ECP-203-2018"**

Built up area : **13,000 m²**

Average Spans = **8.5 m**

Design loads : **DL= 3 KN/m²**

LL = 15 KN/ m²

COMPARISON BETWEEN RC SOLUTION AND PT SOLUTION

	Concrete	RC Solution	PT Solution
1.1	Concrete Grade	30 Mpa	40 Mpa
1.2	Slab Thickness	340 mm	320 mm
1.3	Concrete Cost	820 EGP/m ³	900 EGP/m ³
1.4	Formwork Cost	500 EGP/m ³	500 EGP/m ³

	Steel	RC Solution	PT Solution
2.1	Steel Cost	11,500 EGP/ ton	11,500 EGP/ ton
2.2	Steel Rate	160 Kg/m ³	60 Kg/m ³

	Cost Summary	RC Solution	PT Solution
3.1	Concrete Cost	449 EGP/m ²	448 EGP/m ²
3.2	Steel Cost	626 EGP/m ²	221 EGP/m ²
3.3	Post tension Cost	EGP/m ²	245 EGP/m ²
3.4	Total Cost / m ²	1074 EGP/m ²	914 EGP/m ²
	Total Slab Cost	13,997,283 EGP	11,905,410 EGP

Saving

161 EGP / m²

15% from Cost of Slabs

CASE STUDY 2 - COMMERCIAL PROJECT

Medical Factory (B+G+8 Typical).

Design Codes : "ECP-203-2018"

Built up area : 51,500 m²

Average Spans = 6.5 m

Design loads : DL= 5 KN/ m²

LL = 2 KN/ m²

COMPARISON BETWEEN RC SOLUTION AND PT SOLUTION

	Concrete	RC Solution	PT Solution
1.1	Concrete Grade	35 Mpa	35 Mpa
1.2	Slab Thickness	250 mm	220 mm
1.3	Concrete Cost	850 EGP/m ³	850 EGP/m ³
1.4	Formwork Cost	500 EGP/m ³	500 EGP/m ³

	Steel	RC Solution	PT Solution
2.1	Steel Cost	11,500 EGP/ ton	11,500 EGP/ ton
2.2	Steel Rate	150 Kg/m ³	55 Kg/m ³

	Cost Summary	RC Solution	PT Solution
3.1	Concrete Cost	338 EGP/m ²	297 EGP/m ²
3.2	Steel Cost	431 EGP/m ²	139 EGP/m ²
3.3	Post tension Cost	EGP/m ²	190 EGP/m ²
3.4	Total Cost / m ²	769 EGP/m ²	626 EGP/m ²
	Total Slab Cost	39,590,625 EGP	32,238,743 EGP

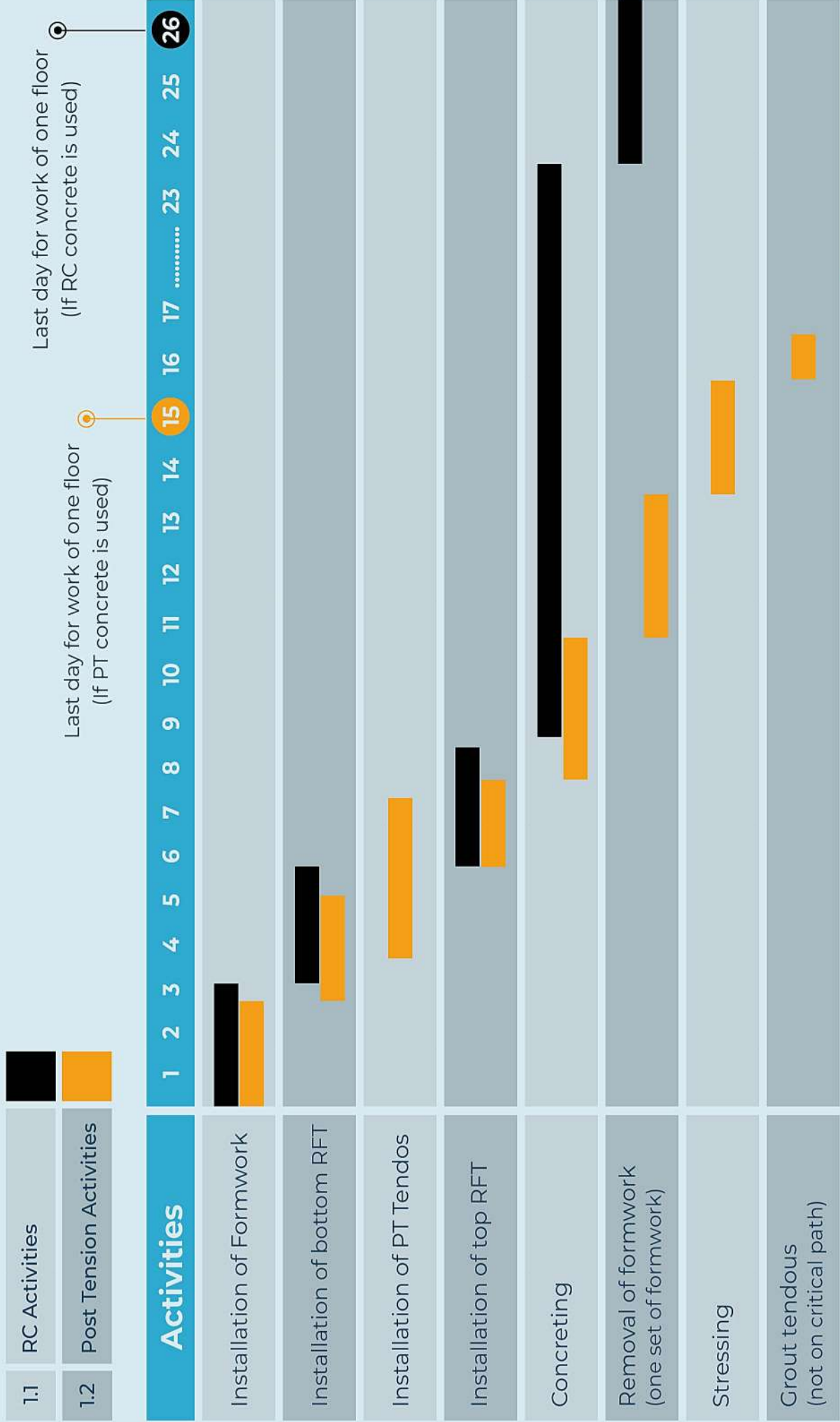
Saving

143 EGP / m²

18.6 % from Cost of Slabs



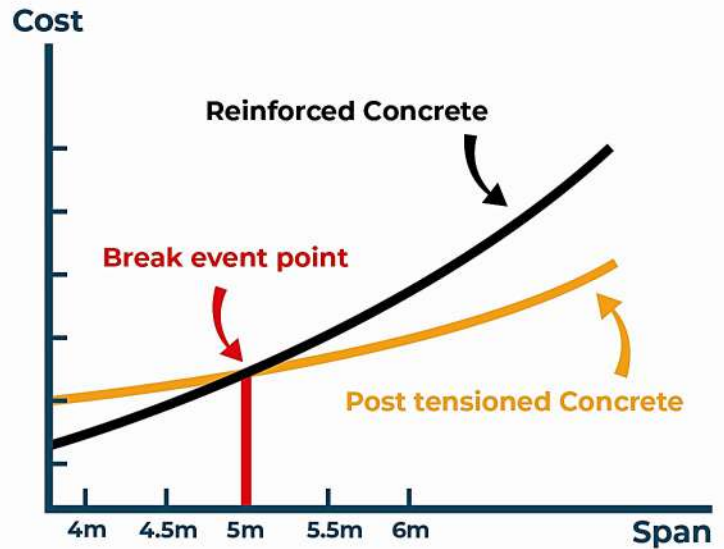
(TIME- ACTIVITIES GRAPH) FOR RC & PT SLABS



Reduced time (40%)

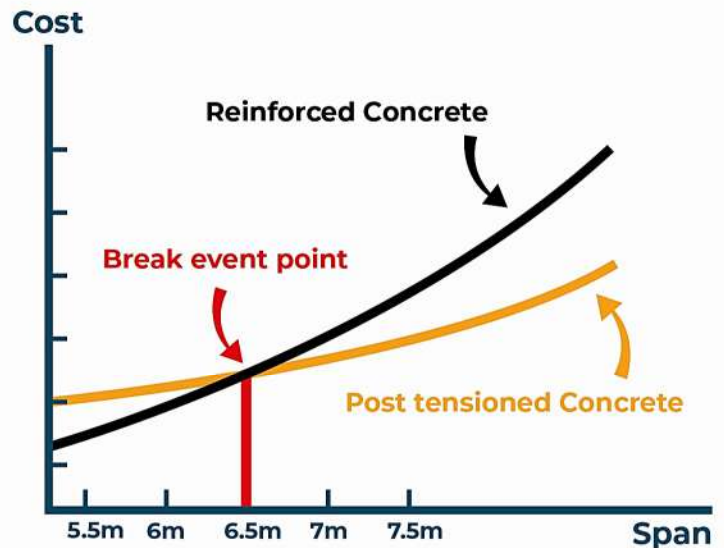
(SPAN - COST GRAPH) FOR RC & PT SLABS

The relative economics of post-tensioning versus other forms of construction vary according to the individual requirements of each case. In any basic comparison between post-tensioned and reinforced concrete one must consider the relative quantities of materials including formwork, concrete, reinforcement and post-tensioning. Other factors such as speed of construction, foundation costs, etc., must also be given consideration.



Mono anchor
Exponential saving for spans > 5m

There is not always sufficient time or budget to carry out comparative feasibility studies for all structural solutions. There are however, some useful guidelines which can be employed when considering post-tensioned alternatives. As can be seen from figures below, post tensioned should be considered as a possible economic alternative for most structures when spans exceed 7.0 meters.



Flat anchor
Exponential saving for spans > 6.5m

Some benefits of using PT system instead of RC system:

- 1- Longer spans with lower cost.
- 2 Gain height/Gain more floors, (as our example you can reach the same 10 floors with lower height).
- 3- Saving in earthwork.



Reinforced concrete building

Post-tensioned concrete building

PROJECTS

The background of the page is a photograph of a construction site. Several tower cranes are visible against a light, overcast sky. In the center, a tall building is under construction, showing its skeletal frame and some completed upper floors. The entire scene is partially obscured by a large, semi-transparent blue shape that curves from the top left towards the bottom right. The overall aesthetic is professional and industrial.

**OLD EXPERIENCE,
MODERN SOLUTIONS.**



Latin District - Z03 - New Alamin City (2018-2021) / Total PT Area 90.000 m²

Consultant: ECG.

PT Consultant: CIVIL ARCH.

Main Contractor: Samcrete Engineers & Contractors.

Consists of: Clusters 3, 5 and 10.

PT Quantity: 500 ton.

Scope of work: Full Sub Contract Work.



Latin District - Z01 - New Alamin City (2018-2021) / Total PT Area 90.000 m²

Consultant: ECG.

PT Consultant: ADEC.

Main Contractor: GAMA Construction.

Consists of: Clusters 3 and Cluster 5.

PT Quantity: 500 ton.

Scope of work: Full Sub Contract Work.





New Garden City - Z04 - R05 - New Administrative Capital (2018-2020)
Total PT Area 102.000 m²

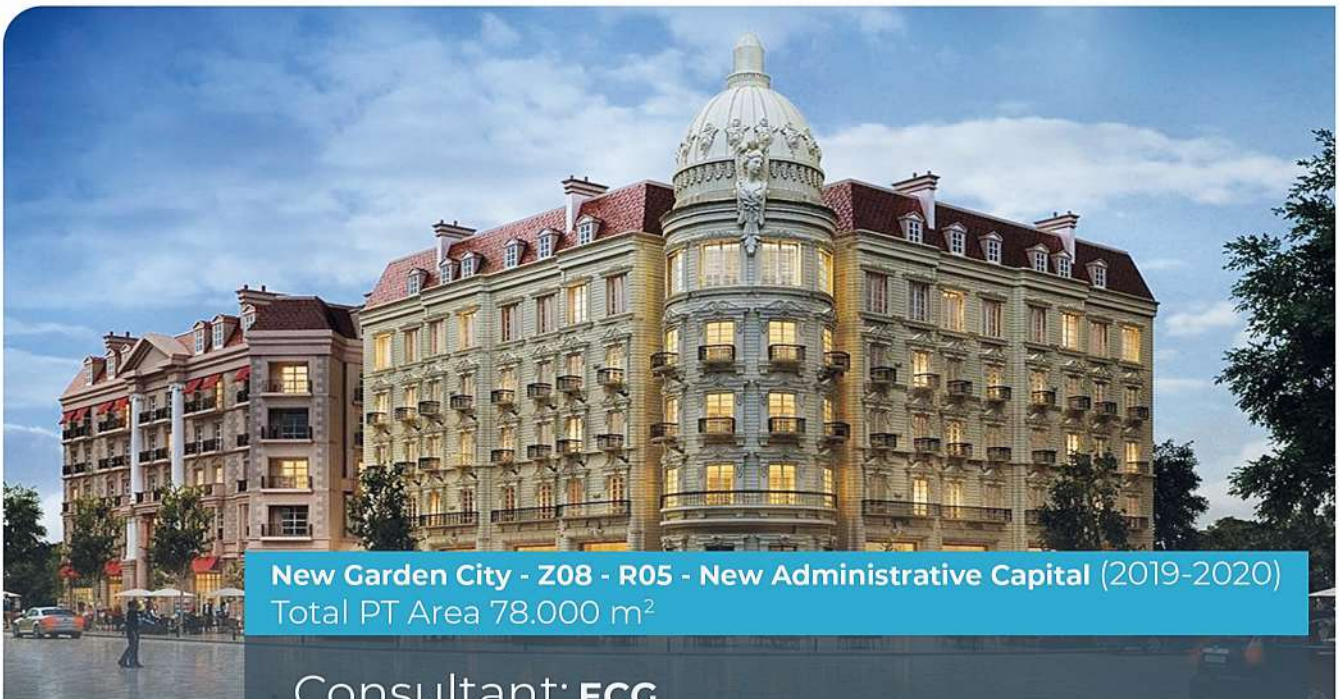
Consultant: **ECG.**

Main Contractor: **Rowad Modern Engineering.**

Consists of: **Cluster 5 and Cluster 9.**

PT Quantity: **780 ton.**

Scope of work: **Full Sub Contract Work.**



New Garden City - Z08 - R05 - New Administrative Capital (2019-2020)
Total PT Area 78.000 m²

Consultant: **ECG.**

Main Contractor: **Samcrete Engineers & Contractors.**

Consists of: **Cluster 5.**

PT Quantity: **220 ton.**

Scope of work: **Full Sub Contract Work.**





Kattamya Mall - Cairo, Egypt (2019-2020) / Total PT Area 50.000 m²

Consultant: **ECG.**

PT Consultant: **ADEC.**

Main Contractor: **FAS.**

Sub- Contractor: **GAMA Construction.**

Consists of: **1 floor**

PT Quantity: **237 ton.**

Scope of work: **Full Sub Contract Work.**



Golden Tex Factory - 1st Industrial zone - Ismaalia city (2020)

Consultant: **ADEC.**

PT Consultant: **Super Structure.**

spans: **Up to 11 meters.**

Bonded System.

Scope of work: **Supply of Solo System.**





The Knowledge Hub University (2020) Total PT Area 25.000 m²

Consultant: **RMC.**

Main Contractor: **Rowad Modern Engineering.**

Consists of: **6 Floors - Buildings** (1c - 1D - 2C - 2D).

PT Quantity: **103 ton.**

Scope of work: **Full Sub Contract Work.**

MK4



Azab Tex Factory 10th Ramadan City (2020) Total PT Area 6900 m²

Consultant: **Dar El Arab Consulting.**

Consists of: **2 Floors** (4 Parts).

PT Quantity: **30 ton.**

Scope of work: **Full Sub Contract Work.**





Oasis Project - R03 - New Administrative Capital (2020)
Total PT Area 50.000 m²

Consultant: **5+ UDC**

Main Contractor: **Concrete Plus Engineering Construction.**

Consists of: **5 Buildings** (OA-02 - OB-05 - OB-06 - OB-07 & OC-09)

PT Quantity: **270 ton.**

Scope of work: **Full Sub Contract Work.**

MK4



Obour Factory - Obour City (2019)

Client: **Harmony company.**

Consists of: **Super Structure.**

Scope of work: **Full Sub Contract Work.**

SOLO
Systems



Al-Ola City Towers (2021) Total PT Area 70.000 m²

Owner: SAK Development.

Main Contractor: SAK Development.

Consists of: 4 Towers (Basement, Ground & 11 Typ.)

PT Quantity: 340 ton.

Scope of work: Full Sub Contract Work.



Trio Gardens 5th Settlement - New Cairo City (2020)

Owner: M-Square Development.

Main Contractor: Hills Integrated Construction.

Consists of: 2 Blocks (7 Mirrors , 6 Grounds And 6 Typical).

Scope of work: Supply of Solo System Anchorage.





Trio Gardens 5th Settlement - New Cairo City (2020)

Owner: **M-Square Development.**
Main Contractor: **United Brothers for Trading Company.**
Consists of: **2 Blocks** (7 & 6 Grounds And 6 Typical).
Scope of work: **Supply of Solo System Anchorage.**



Admin. Building Egyptian Water Company

Consultant: **Dr.Hamad (Scientific Centre.**
PT Designer: **ECA.**
Consists of: **Basement , Ground and 9 floors.**
Scope of work: **Full Sub Contract Work.**





Massa Royal Hotel - Bani Suef City (2020)

Client: **El Masa for Real Estate Development.**

Main Contractor: **Union Force.**

PT Contractor: **Union Force.**

Consists of: **4 Floors.**

Scope of work: **Supply of Solo System Anchorage.**



El Kekhia Factory Free Zone - Nasr City (2020)

PT Consultant: **AACE.**

Consists of: **5 Floors.**

Scope of work: **Full Sub Contract Work.**



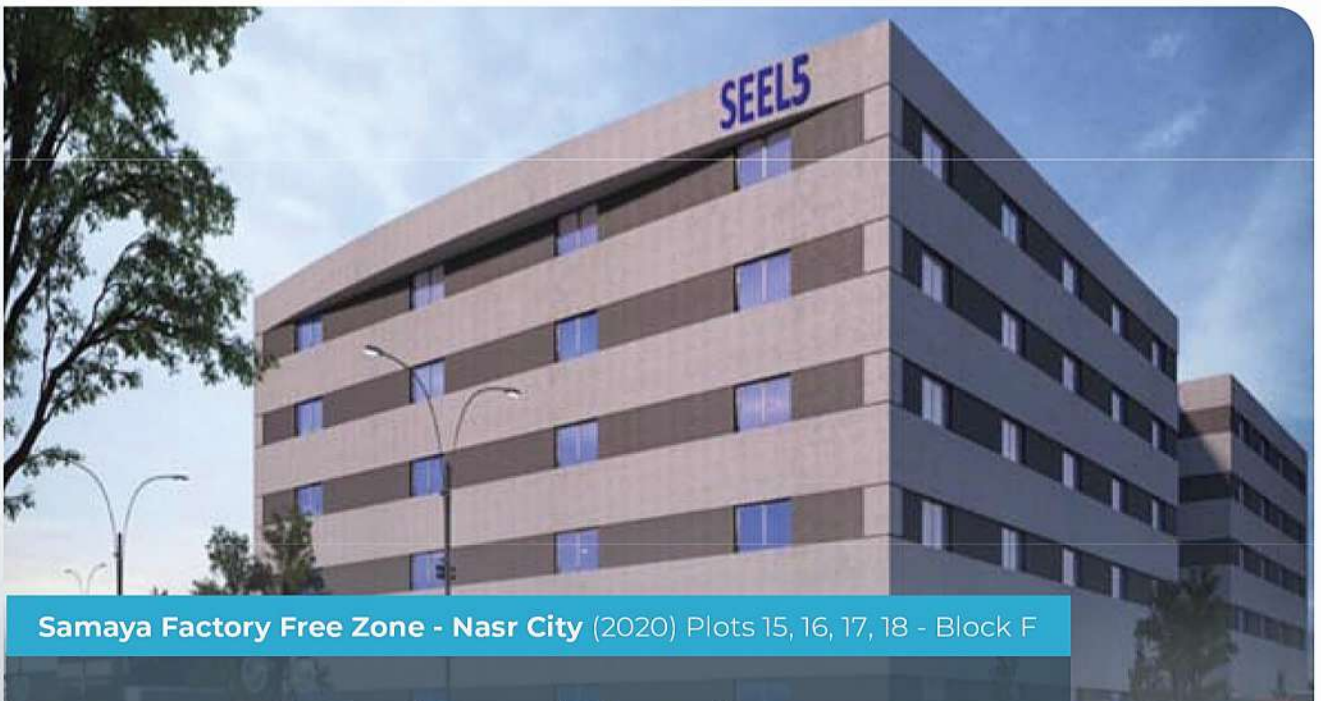


Abbas El Akad Bridge - post Tension Girders (2020)

Consultant: **ACE Consulting Engineers - Moharram. Bakhoum.**

Main Contractor: **Rowad Modern Engineering.**

Scope of work: **Full Sub Contract Work.**



Samaya Factory Free Zone - Nasr City (2020) Plots 15, 16, 17, 18 - Block F

PT Consultant: **Prof. Jamal Hussein.**

Main Contractor: **Montania Contracting & Commercial Investment Company.**

Scope of work: **Full Sub Contract Work.**





Hayat Mall - Hayat Town Compound - About City (2020)

Client: **AFFAQ for Construction.**

PT Contractor: **Union Force.**

PT Designer: **Union Force.**

Consists of: **4 Floors.**

Scope of work: **Supply of Solo System Anchorage.**



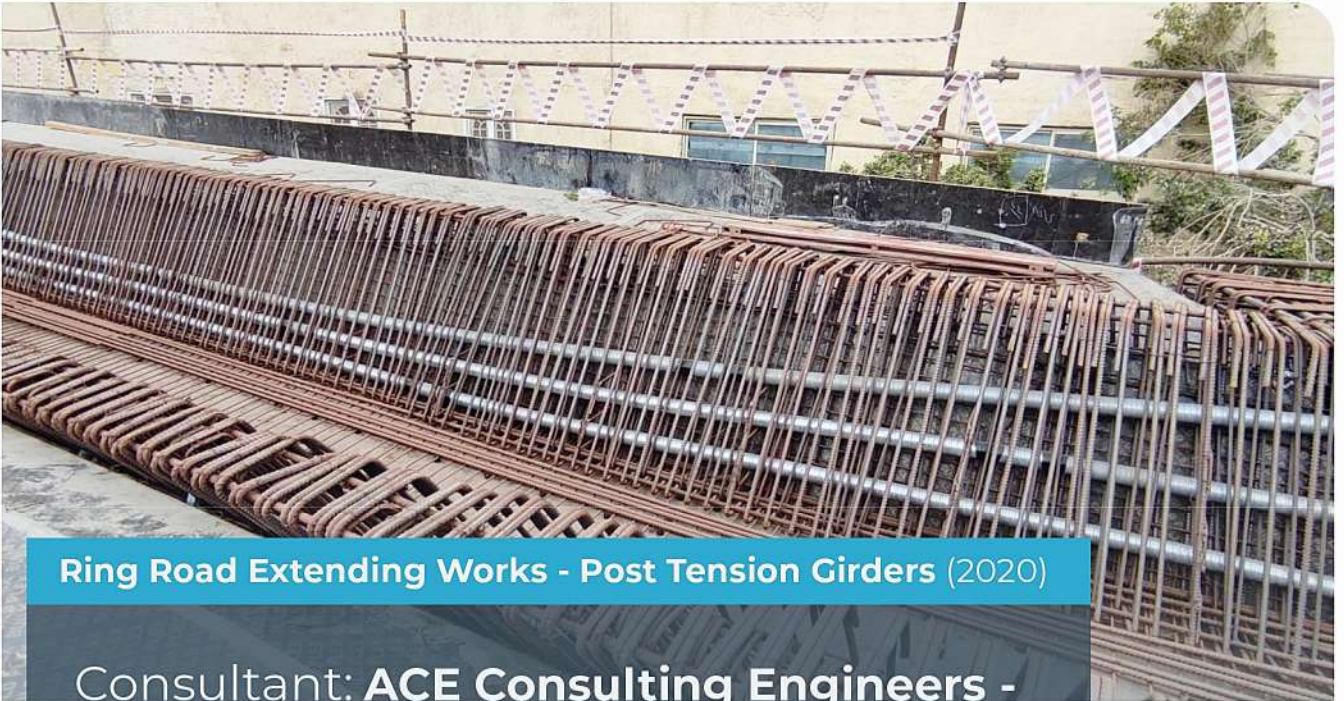
Mehrez and Krema Store - Badr City, Cairo, Egypt (2020)

Client: **Mehrez and Krema.**

Main Contractor: **Allied Engineers.**

Scope of work: **Supply of Solo System Anchorage.**





Ring Road Extending Works - Post Tension Girders (2020)

Consultant: **ACE Consulting Engineers - Moharram. Bakhoum.**

Main Contractor: **Rowad Modern Engineering.**

Scope of work: **Full Sub Contract Work.**



Yard a Mixed-use Building, Rehab City

Main Contractor: **Al Rebat for Development.**

PT Contractor: **ECA.**

Scope of work: **Full Sub Contract Work.**





SAMA Zohour - Bani Suef City (2020)

Client: **El Hamd for Real Estate Investment.**

Main Contractor: **Union Force.**

PT Contractor: **Union Force.**

Consists of: **12 Floors.**

Scope of work: **Supply of Solo System Anchorage.**



Al Koraba Heights - Project E - New Heliopolis

Client: **HDG.**

Main Contractor: **Egyptian Builder.**

PT Contractor: **ECA.**

Scope of work: **Full Sub Contract Work.**





Block 162 South - 5th Settlement - New Cairo City

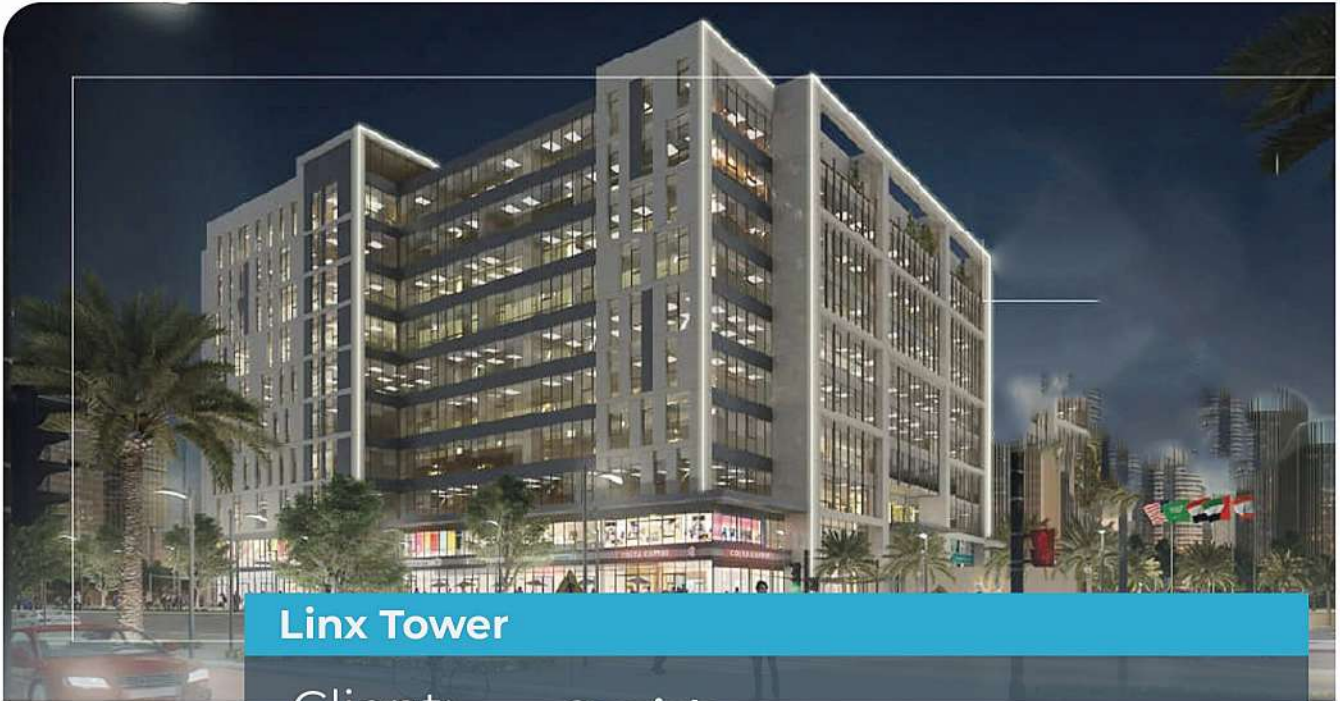
Client: **New Contracting Vision.**
Consultant: **New Contracting Vision.**
PT Consultant: **Dr.Ahmad Abdul Hafeez.**
PT Contractor: **Super Structure.**
Consists of: **Ground and 4 Typical.**
Scope of work: **Supply of Solo System Anchorage.**



Yard a Mixed-use Building, Rehab City

Main Contractor: **Al Rebat for Development.**
PT Contractor: **ECA.**
Scope of work: **Full Sub Contract Work.**





Linx Tower

Client: **Capriole.**
Main Consultant: **APG International.**
PT quantity: **100 ton.**
Scope of work: **Full Sub Contract Work.**



Nazly Hotel (Alexandria)

Client: **El montazah company.**
Consultant: **D&C House.**
Main Contractor: **Bafi Contracting and Trading.**
PT quantity : **345 ton.**





Transportation Hub

Client: **Military Engineering authority.**

Consultant: **ACE - Moharam Bakhom**

PT quantity: **500 ton.**

Scope of work: **Full Sub Contract Work.**



Hyde Park Business District - New Cairo

Client: **Hyde Park Development.**

Main Cotractor: **Mimar Egypt Engineering Consultants**

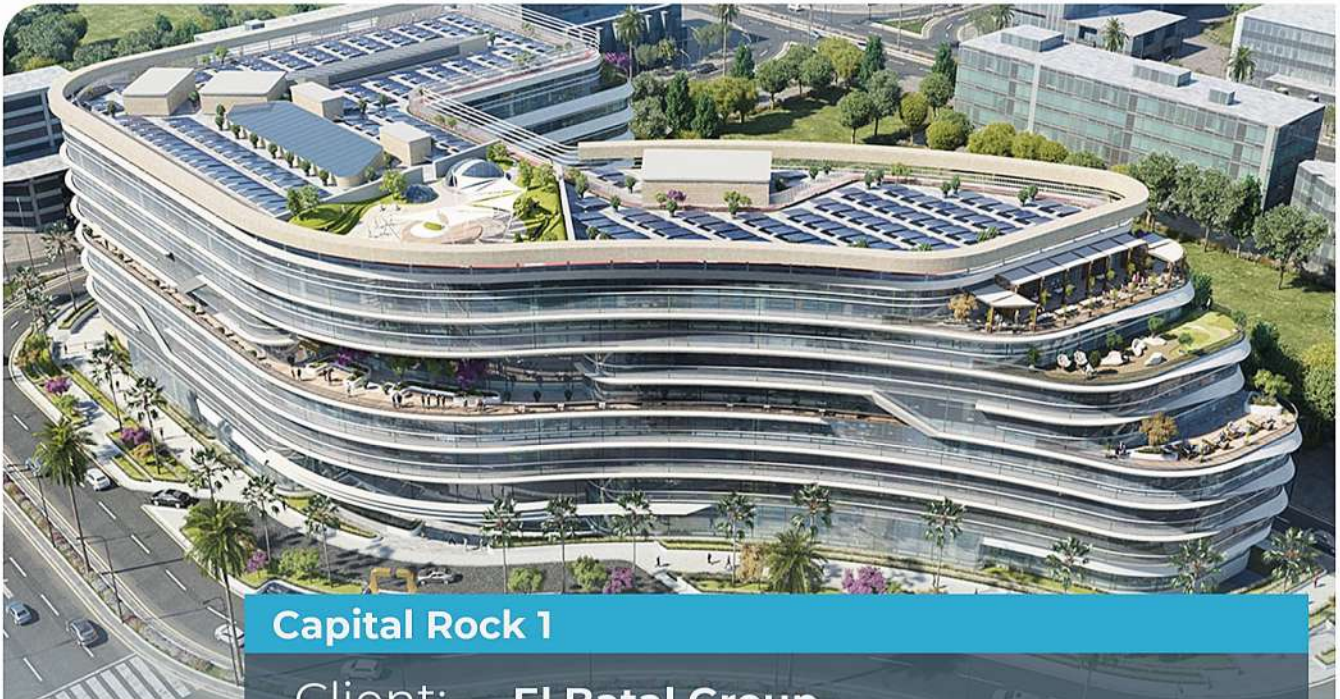
PT Consultant: **CDEC.**

Area: **26.000 m².**



kemet tower

Client: **State Development.**
Consultant: **Chrome.**
Main Consultant: **Rowad Modern Engineering.**
PT quantity: **105 ton.**
Scope of work: **Full Sub Contract Work.**



Capital Rock 1

Client: **El Batal Group.**
Consultant: **EL Zanaty.**
Main Contractor: **El Batal.**
Pt quantity: **360 ton.**
Scope of work: **Full Sub Contract Work.**





Get Business Complex

owner : **Get Group .**

Main Contractor: **Concrete Abdeen**

Structure consultant: **Infinity Consulting Office**

Tonnage : **285 ton.**

OVM
Middle East & North Africa



French District

Client: **Bena.**

Main Contractor: **Bena.**

PT quantity: **30 ton.**

Scope of work: **Full Sub Contract Work.**

SOLO
Systems



EL Ferdous Bridge stage 3

Client: **Military Engineering Authority.**
Contractor: **Talaat Moustafa.**
Main Consultant: **Dr.Fathy Saad.**
PT quantity: **350 ton/ 110 Beam.**
Scope of work: **Full Sub Contract Work.**



Berti Badr Bridge

Client: **Military Engineering Authority.**
Main Contractor: **Gama.**
Pt quantity: **50 ton.**
Scope of work: **Full Sub Contract Work.**



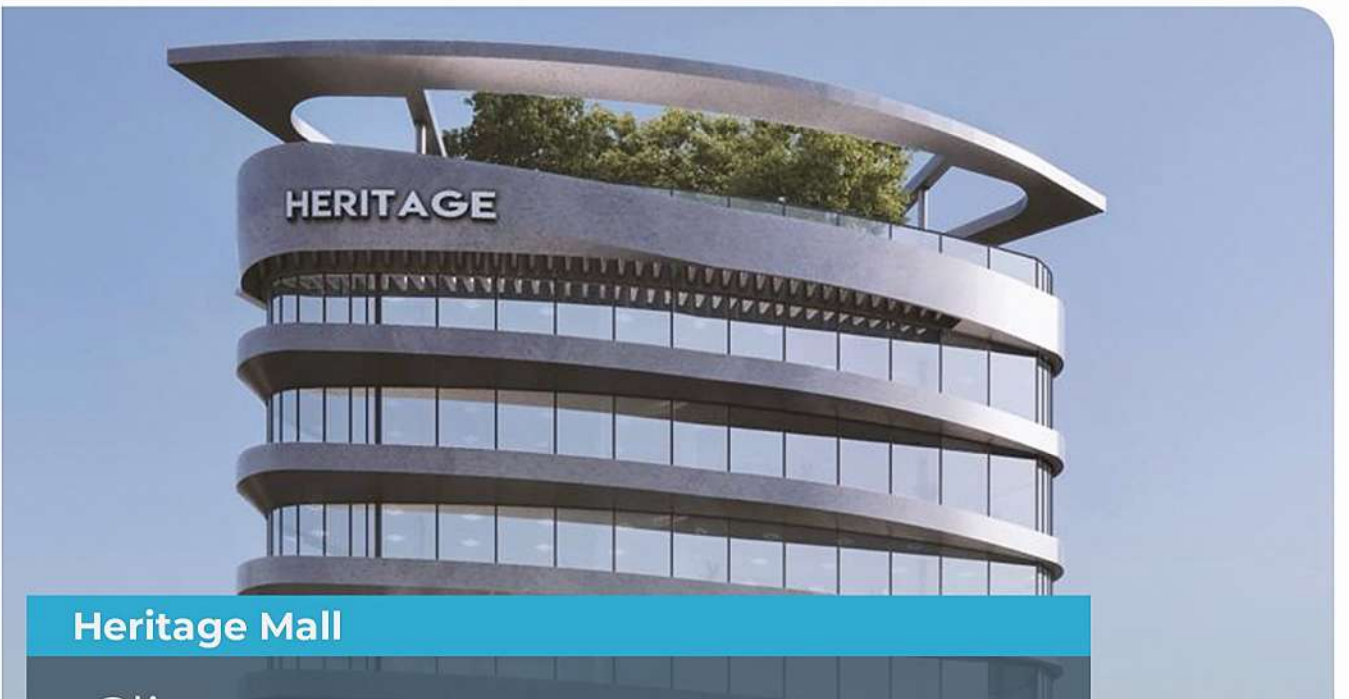
Senator Mall

Client: **Babylon Urban Development.**

Main contractor: **Babylon Urban Development.**

Structural consultant: **Design Masters.**

area : **9035 m².**



Heritage Mall

Client: **Babylon Urban Development.**

Main contractor: **Babylon Urban Development.**

Structural consultant : **Design Masters.**

area: **4422 m².**





Ring Road Extending Works

Consultant: **ACE Consulting Engineers - Moharram. Bakhoum.**

Main Contractor: **Concrete abdeen**

tonnage : **25 ton.**



Hyper One

Client: **Hyper One For Trading.**

Str.Consultant **CEDC Center Of Design And Engineering Consultancy.**

Arch.Consultant **BIC For contracting and construction**

Pt quantity: **130 ton.**





Al parco

Client: **El Shoura Development.**
consultant: **Design & Consulting House.**
tonnage : **800 ton.**

MK4



**Your Project
Will Be Next...**

APPROVALS

**OLD EXPERIENCE,
MODERN SOLUTIONS.**



TETRA
Engineering & Construction



TETRA has Approvals from major consulting companies:

- Engineering Consultants Group **ECG**.
- Saad International Consultant Engineers **SICE**.
- Raafat Miller Consulting **RMC**.
- Amr Abdelrahman Consulting Engineers **AACE**.
- Arabia for Design and Engineering Consulting **ADEC**.
- ACE Moharram Bakhom.
- Urban Development Consortium **5+UDC**.

TETRA is an authorized applicator for major post-tension system companies

- **OVM** post-tension Systems™.
- **MK4** post-tension Systems™.
- **STRONG FORCE** pot-tension Systems™.

طلب اعتماد مستندات

رقم الملف: DS/R5/Z04ST/0021	رقم الطلب: Rev.01	المالك: هيئة المجتمعات العمرانية الجديدة (Zone 04) - R05	المشرف الفني: EGC
التاريخ: 17/12/2018	التاريخ: 17/12/2018	اسم المشروع: شقة رواد الهندسة الحديثة	اسم العميل: EGC
1. اسم العميل: []	2. اسم العميل: []	3. اسم العميل: []	4. اسم العميل: []
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ملحوظات المراقب:

1. تم التأكد من صحة المستندات المقدمة.

2. تم التأكد من صحة الحسابات.

3. تم التأكد من صحة الملاحظات.

4. تم التأكد من صحة الملاحظات.

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13. تم التأكد من صحة الملاحظات.

14. تم التأكد من صحة الملاحظات.

15. تم التأكد من صحة الملاحظات.

16. تم التأكد من صحة الملاحظات.

17. تم التأكد من صحة الملاحظات.

18. تم التأكد من صحة الملاحظات.

19. تم التأكد من صحة الملاحظات.

20. تم التأكد من صحة الملاحظات.

Document Submittal (D.S)

رقم المشروع: P1803

رقم المستند: RME-P1803-DS-048

التاريخ: 11-09-2020

مراجعة رقم: 00

نوع المستند المقدم:

- جدول زمني
- خطة المشتريات
- بيان طريقة تنفيذ أو تركيب أعمال (Method statement)
- تقرير اختبار

نوع التقديم ووسيلة:

- من: []
- إلى: []
- بواسطة: []
- في: []
- م: []

Prequalification For Tetra Package (Post Tensioning System)

مرجع في قائمة الشركات BOQ

موقع الإشتاد: توسعة الطريق الدائري الجديد - مريوطية

امضاء المقاول: [] التاريخ: []

امضاء الاستشاري: [] التاريخ: []

Material Submittal (MT)

Ref: MT /SEDU/SEL/1758/2019/RME/RMC/0035

Rev: 00

Date: 15 / 12 / 2019

Project: The Knowledge Hub

Owner: El Sewedy Education

Contractor: Rowad Modern Engineering

Consultant: raafat.miller consulting

Site: []

Arch: []

Steel: []

Material Description:

Material Name: Post Tension

1. Post tension Accessories (Anchorage)

2. Ducts

3. Grout Additives

4. Equipment

Model No: []

Usage: post tension system

Location: Buildings 1C&2C2D from Ground floor slab till 8th floor slab

Specs Ref: DIV.03

Serial No: []

Submit Items: Sample [] Document []

Attachments: Documents

Manufacturer's Details

Manufacturer's Name:

1. Strongforce system

2. Karna for manufacturing

3. Novo pt (Novochem), Intraplast (Sika) and masterlife SRA 50 (Bostl)

4. BHS, OVM&Powerteam

Address:

Supplier:

The Contractor: []

Name: Ohana elshafy

Signature: [] Date: 16 / 12 / 2019

الملاحظات:

1. تم التأكد من صحة المستندات.

2. تم التأكد من صحة الحسابات.

3. تم التأكد من صحة الملاحظات.

4. تم التأكد من صحة الملاحظات.

5. تم التأكد من صحة الملاحظات.

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19. تم التأكد من صحة الملاحظات.

20. تم التأكد من صحة الملاحظات.

Request for Information (RFI)

رقم الطلب: []

التاريخ: []

اسم العميل: []

اسم المشروع: []

نوع المستند: []

ملاحظات: []

الملاحظات:

1. تم التأكد من صحة المستندات.

2. تم التأكد من صحة الحسابات.

3. تم التأكد من صحة الملاحظات.

4. تم التأكد من صحة الملاحظات.

5. تم التأكد من صحة الملاحظات.

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18. تم التأكد من صحة الملاحظات.

19. تم التأكد من صحة الملاحظات.

20. تم التأكد من صحة الملاحظات.

ADEC

Arabia for Design and Engineering Consulting
Dr. Eng. Ayman Hussein Hosny Khalil

العربية

للتنسيقات والإشارات الهندسية
إ.د. أيمن حسين حسني خليل

2-1-2019

RE: Recommendation Letter Tetra Engineering
ADEC's File No: P1901-Tetra

To whom it may concern:

Upon reviewing the company profile of Tetra Engineering solution which includes project references recommendation letters, Organization Chart & CVs of team members, Arabia for Design and Engineering Consulting recommends Tetra as an approved subcontractor to execute post-tensioning activities for civil and building structures.

Very truly yours,
Arabia for Design and Engineering Consulting, P.C.

Ayman Hussein Hosny Khalil
Principal & CEO

١ شارع علي عبد الرازق - ميدان العجاز - مصر الجديدة - القاهرة - تاليفات: (+٩٠) ١٥٥٢١١٧٧ - (+٩٠) ١٥٥٢١١٧٧
1/ Aly Abdel Kamil St. El-Nasr Square, Heliopolis, Cairo, Egypt. Tel: fax: (002)024231177 - (002)024231186
E-mail: info@adec-arabia.com adec@ymail.com

ELSEWEDY EDUCATION

ELMCM safat.miller consulting
engineers & engineers

REPMEE

Material Submittal (MT)

Ref:MT /SEDU/SELA/1758/2019/RME/RMC/0035

Rev : 00

Date: 15 / 12 /2019

Project: The Knowledge Hub Owner: El Sewedy Education
Contractor: Rowad Modern Engineering Consultant: safat.miller consulting

Struct Surv Landscape
Arch Elec Infra
Steel Mech Other

Material Description:

Material Name: Post Tension.

1- Post tension Accessories (Anchorages)

2- Ducts.

3- Grout Additive.

4- Equipment.

Serial No:

Usage: post tension system.

Location: Buildings 1C&2C2D from Ground floor slab till 8th floor slab.

Specs Ref: DIV.03 B.O.Q Ref. DIV.03

Submittal Items: Sample Document

Attachments: Documents:

Manufacturer's Details:

Manufacturer's Name:

1- Strongforce system.

2- Kama for manufacturing.

3- Novo pt (Novochem), Intraplast(Sika), and masterlife SRA 50 (Bast)

4- BIS.OVM&Powerteam.

Address:

The Contractor:

Name: Osama elshafy Signature: *[Signature]* Date: 16 /12 /2019.

Compliance sheet have to be attached

The consultant comments:

1- String force system is # option (4) For use.

2- Final approval after submitting method of statement and samples of Post-tension Concrements

3- Final approval after submitting calibration for jets and pumps will be used.

4- Contractor To submit grouting TBMIX and grouting mixer submittal.

(A) Approved (B) approved as noted (C) Review and Resubmit (D) Rejected

The consultant:

Name: Mohamed Hassan Signature: *[Signature]* Date: 22 / 12 / 2019

(A) Approved (B) Approved as noted (C) Review and Resubmit (D) Rejected

Contractor must submit to B.O.Q and Specs Div.03 (3000300) and IFC drawings 50.00, 015.00 modified and Refer comments attached.

the approval sheet is still cut at the time.

AACE

DR. AMR A. ABDELRAHMAN
PROFESSOR OF CONCRETE STRUCTURES,
STRUCTURAL ENG. DEPT., AIN SHAMS UNIVERSITY

17 November 2018

Attention: Eng. Mohammad Yusef Shalaby
Project Manager, TETRA
Re: Certificate of approval

Dear Eng. Mohamed:

This is to certify that the following personnel has been working in projects where AACE was involved and they are qualified to work as post-tensioned concrete contractors:

- 1. Eng. Mohammad Yusef Shalaby
- 2. Eng. Ayman Ibrahim Mohamed Elrastray
- 3. Eng. Karim Ahmed Hisham Al-Sharqany

AACE also approves "Tetra" as an applicant for "OVM Post-tensioning system". Please do not hesitate to contact us if you require any information. Best Regards.

Sincerely,

[Signature]
Amr Abdelrahman, PhD
Structural Consultant

مراجعة الحسابات
(من الممثل - المراجع)

مراجعة إلى	مراجعة من	ملاحظات
00	28	مراجعة الحسابات (GA 2 & 08 & 08-7 & 08-8 & 08-9 & 08-10 & 08-11 & 08-12 & 08-13 & 08-14 & 08-15 & 08-16 & 08-17 & 08-18 & 08-19 & 08-20 & 08-21 & 08-22 & 08-23 & 08-24 & 08-25 & 08-26 & 08-27 & 08-28 & 08-29 & 08-30 & 08-31 & 08-32 & 08-33 & 08-34 & 08-35 & 08-36 & 08-37 & 08-38 & 08-39 & 08-40 & 08-41 & 08-42 & 08-43 & 08-44 & 08-45 & 08-46 & 08-47 & 08-48 & 08-49 & 08-50 & 08-51 & 08-52 & 08-53 & 08-54 & 08-55 & 08-56 & 08-57 & 08-58 & 08-59 & 08-60 & 08-61 & 08-62 & 08-63 & 08-64 & 08-65 & 08-66 & 08-67 & 08-68 & 08-69 & 08-70 & 08-71 & 08-72 & 08-73 & 08-74 & 08-75 & 08-76 & 08-77 & 08-78 & 08-79 & 08-80 & 08-81 & 08-82 & 08-83 & 08-84 & 08-85 & 08-86 & 08-87 & 08-88 & 08-89 & 08-90 & 08-91 & 08-92 & 08-93 & 08-94 & 08-95 & 08-96 & 08-97 & 08-98 & 08-99 & 08-100)

مراجعة الحسابات

رقم	ملاحظات
1	المراجعة
2	المراجعة
3	المراجعة

رقم	نوع المراجعة	التاريخ	الملاحظات
1	Document Submittal	2	مستندات تأهيل شركة Tetra لتصميم وتنفيذ أعمال ال Post Tension

تمت المراجعة
موقع المراجعة: 15/11/2018
موقع المراجعة: 15/11/2018

موقع المراجعة: 15/11/2018

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موقع المراجعة: 15/11/2018

موقع المراجعة: 15/11/2018

11 OMAR IBN ELKHATAR ST., SEPARAT DISTRICT, NASR CITY, CAIRO, EGYPT
PHONE: (202) 247 184 73 • FAX: (202) 247 184 73 • E-MAIL: AMR@AACE-EG.COM

Subject: MATERIAL INSPECTION (OVM POST-TENSIONING SYSTEM™)
Project: LATIN DISTRICT, NEW ALAMEIN, EGYPT
Client: NEW URBAN COMMUNITIES AUTHORITY (NEW ALAMEIN CITY AUTHORITY)
Consultant: ENGINEERING CONSULTANTS GROUP (ECG)
Contractor: GAMA CONSTRUCTION
Subcontractor: TETRA ENGINEERING & CONSTRUCTION
Attention: ENCL. AHMED MORSI / ENCL. MAGED SAID AHMED

Dear Sirs,

This is to confirm that we have inspected the materials delivered to the project site by our post-tensioning applicator, TETRA Engineering & Construction, and have taken record of the following items:

- 1,000 sets of OVM.BM15-2 Live Anchorages (each set inclusive of 1x Bearing Plate, 1x Anchor Head, 2x Wedges for use with 15.24mm strands)
- 1,000 sets of OVM.BM15-4 Live Anchorages (each set inclusive of 1x Bearing Plate, 1x Anchor Head, 4x Wedges for use with 15.24mm strands)

Accordingly, we can confirm that the above items are indeed part of materials that were dispatched from OVM Middle East & North Africa, Shipped on Board: FEB-19-2019 bound to Alexandria Seaport, Egypt, to the consignee: Rosad Modern Engineering - RME as per Commercial Invoice No. 253-2019 (TR No. 100245190500003). We also hereby confirm that the aforementioned items supplied are in compliance with OVM's European Technical Assessment (ETA Assessment No. 10/0307), attached herein for reference, that is awarded to Luzhou OVM Machinery Co., Ltd. by the European Organization for Technical Approvals (EOTA) for OVM POST-TENSIONING SYSTEM™ - comprising the bearing plate, anchor head and wedges, manufactured by Luzhou OVM Machinery Co., Ltd., complying to the ETAG 013 Guideline for European Technical Approval.

This letter has been issued upon the request of TETRA Engineering & Construction.
Best regards,

Zaki El-Din Tohamy
Deputy General Manager

Date: Tuesday, October 1, 19

Attachments:

- Shipping Documents for Order CJ #253-2019
- ETA Assessment No. 10/0307

OVM Middle East & North Africa
303 Design, Containers Near Doha Design District Bldg 5, Doha, United Arab Emirates
Tel: +971 52 5440268 & enquiry@ovm-mena.com & www.ovm-mena.com



السادة / مجموعة طلعت مصطفي
مدير المشروع
المهندس/ أحمد الوزير

بخصوص: اعتماد شركة سبق الإجهاد Tetra Engineering & construction لكوبري محاور الفردوس - المرحلة الثانية - القطاع الثاني.

تحية طيبة و بعد...
عناية المهندس/ أحمد الوزير

بخصوص الموضوع عاليه وبالإشارة إلى ما تم إرساله البنا من مستندات خلصته شركة سبق الإجهاد Tetra Engineering & construction حيث أن الشركة قد همت ما يفيد نحو الشهادات والاختبارات المؤكدة للتطام وخصوصاً الشهادات التالية:

1. ETA (European Technical Assessment) for trade name of the construction product: MeKano4 PT System TK, internal bonded post tensioning system with 4 to 37 strands.
2. ETA (European Technical Assessment) for trade name of the construction product: Post Tensioning System - OVM.M15A.
3. CARS Certification: UK Certification Authority for Reinforcing Steels

وبناء على ما تقدم نود أن نفيد سيادتكم علماً باعتماد نظام سبق الإجهاد لأعمال كوبري محاور الفردوس - المرحلة الثانية - القطاع الثاني.

وتفضلوا بقبول فائق الإحترام ...

مسعد الدولية للاستشارات الهندسية



ATTESTATION

for R-05 Project at the New Administrative Capital, Egypt

"TETRA - RME"

To Whom It May Concern:

This is to certify that the post-tensioning activities pertaining to installation, stressing and grouting using OVM® prestressing technology, for the project R-05 at the New Administrative Capital in Egypt, undertaken by TETRA - RME, shall be subject to supervision from OVM Quality Assurance & Control Team, to ensure that all activities ongoing are well within company standards & guidelines, as well as within measures of best practice for the awarded scope of works in the project

This letter has been issued upon the request of the applicator and is valid until December 31, 2019.

Best regards,

Zaki El-Din Tohamy
Deputy General Manager

Date: Wednesday, November 14, 2018

OVM Middle East & North Africa
P.O. Box 43234, Sharjah, United Arab Emirates
Tel: +971 5 2540795 & enquiry@ovm-mena.com & www.ovm-mena.com



APPLICATOR AUTHORIZATION

"TETRA - RME"



To Whom It May Concern:

Regarding the authorization from OVM Middle East & North Africa for the official supply and application of OVM Prestressing Systems™ by TETRA - RME, and upon reviewing the quality certificates, recommendation letters, Organization Chart & CVs of team members (some of whom are previous OVM Engineering/Operations team members), list of equipment and materials sourced from acceptable local and international suppliers of prestressing materials (strands, ducts, grout additive, etc.).

We hereby confirm that TETRA - RME retains sufficient knowledge and professional experience in performing, overseeing and fully subcontracting post-tensioning works for slabs. We are confident in TETRA - RME's capability to organize, supervise and lead the various phases pertaining to post-tensioning activities - including: installation, stressing and grouting.

Accordingly, we encourage and recognize TETRA - RME as an authorized applicator for OVM Post-Tensioning System™ (ETA No. 10/0307) in R-05 Project at the New Administrative Capital in Egypt, amongst other projects. We also trust that TETRA - RME will be an asset and added value to the project and shall significantly contribute to its overall success.

This letter has been issued upon the request of the applicator and is valid until December 31, 2019.

Best regards,

Zaki El-Din Tohamy
Deputy General Manager

Date: Wednesday, November 14, 2018

OVM Middle East & North Africa
P.O. Box 43234, Sharjah, United Arab Emirates
Tel: +971 5 2540795 & enquiry@ovm-mena.com & www.ovm-mena.com



To whom it may concern

MK4 WORLD WIDE (MK4) is a leading European post-tensioning Specialist Company with more than 27 years in the market and located in Barcelona (SPAIN). MK4 is well established in 35 countries and spread out in four different continents.

With more than 20 years of presence in the MENA area, MK4 has its own strategic partner in Egypt and the sole representative EUROPT as a supplier, quality control and technical support for Post-tensioning of buildings, bridges, expansion Joints and bridge bearings Systems (PT-POT-EPF).

We, hereby, certify that Tetra Engineering Solutions has the required experience as an applicator to use MK4 post tensioning system for buildings limited for the New Capital - R05 project.

Accordingly, we recommend Tetra Engineering Solutions to work as an applicator as New Capital - R05 project with full support from MK4 and its representative in Egypt EUROPT.

Sincerely,

Javier Puiguet

MK4 COO

MK4 World Wide, S.L.
Pol. Ind. Can Nadal
C/ Can Nadal, nave 1* - 2
08193 LLUÇA DE VALL (Spain)
9-9392940

Five Phase

Egypt

Project: R3 Oasis

Subject: PROJECT SPECIFIC STRONGFORCE POST TENSION SYSTEM

Dear Sir(s),

S.F Post Tensioning LLC ("StrongForce, We") are writing to certify that Tetra Engineering Solutions is certified to use and work with the Strong force post tension system. The products supplied by Tetra Engineering Solutions on this project shall bear a SF logo on the anchor casting to demonstrate the materials authenticity. The system is being provided specifically for this project and Strongforce confirm all technical and material data shall be supplied to Tetra Engineering Solutions to ensure compliance with the project requirements.

Eng. Yusef RAMEK is the appointed project manager for Tetra Engineering Solutions on this project who will oversee the post tension works.

For and on behalf of,
S.F Post Tensioning LLC

Daniel Chisholm
Managing Director



American Systems Registrar, LLC, a provider of third-party system registration and accredited by the ANSI-ASQ National Accreditation Board attests that:

ROWAD MODERN ENGINEERING
61 INTERSECTION OF EL NAHDA STREET WITH STREET 10,
MAADI EL SARAYAT-CAIRO-EGYPT

with a scope of:

**PROVISION OF GENERAL CONSTRUCTION SERVICES
AND OTHER RELATED SPECIALIZED ACTIVITIES**

has established a quality management system that is in conformance with the International Quality System Standard

ISO 9001:2015

ASR Certificate Number: 4426
Date of Certification: March 28, 2017
Date of Certification Expiration: March 27, 2020
Revision:
Re-Issue Date:

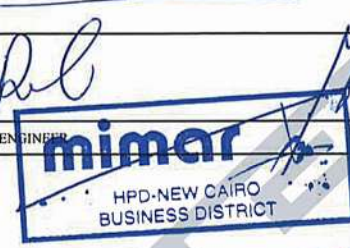


Richelle Kuzni
President

CERTIFICATE OF REGISTRATION

HYDE PARK PROJECT- NEW CAIRO

SUBMITTAL TRANSMITTAL					Submittal Transmittal No.	Rev.		
					DOC-STR			
DOC-STR					BDPLCPC-131-DOC/Str-020	1		
BDPLCPC-131-DOC/Str-020					Date:	28/02/2022		
TRANSMISSION OF DRAWINGS, DOCUMENTS, MATERIALS, ETC.					SUBMITTED FOR	CODE		
					APPROVAL			
Contract Name :					Contract No.: CP#131			
From: Concrete Plus					Business District Phase 1 - Package C			
To : Mimar								
WE ARE SENDING HERewith / UNDER SEPARATE COVER, THE DRAWINGS/ DOCUMENTS / SAMPLES LISTED BELOW. (DELETE AS NECESSARY)					APPROVED	A		
					APPROVED AS NOTED	B		
					REVISE AND RESUBMIT	C		
					REJECTED	D		
					FOR INFORMATION	E		
TY	Item Ref.	REV	Document Type	COPIES	DESCRIPTION	+ TYPE	CODE	
							Submittal ¹	Action ²
1	Tetra Post tension	1	DOC-STR	1	Tetra Engineering & Construction Post tension (Pre-qualifications)	MD	v	B
					Attached : 409 Paper size A4			
					FOR CONTRACTOR Technical Office Manager Eng : Ahmed Mamdouh			
<p>Engineer to enter Action Codes and Remarks, and return to Contractor</p> <p>REMARKS:</p> <p>ENGINEER'S COMMENTS</p> <p><i>* Refer to Comments on the attached A4.</i></p> <p style="text-align: right;"><i>Amr 6/3/2022</i></p>								
COPIES TO					FOR ENGINEER			
					DATE: 6/3/2022			
EMPLOYER'S COMMENTS (IF REQUIRED)								
COPIES TO					FOR EMPLOYER			
					DATE: 07 MAR 2022			
<p>Corrections or comments made relative to submittals during this review do not relieve the contractor from compliance with the requirements of the drawings and specifications.</p> <p>This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents.</p> <p>The contractor is responsible for confirming and correlating all quantities and dimensions selecting fabrication processes and techniques of construction; coordinating his work with that of other trades, and performing his work in a safe and satisfactory manner.</p>								
<p>TYPE : SD:Shop Drawing CA:Calculation SM:Sample MS:Method Statement GT:Guarantee TF:Temporary Facilities</p> <p>OT:Other CT:Certificates TT:Test Results MK:Mock-up MD:Manufacturer's Data</p>								



Notes


A series of horizontal dotted lines for writing notes.






CONTACT US

 1 Maadi Station Square, Maadi, Cairo, Egypt.

 +202 235 815 18
+202 235 880 37

 +20 127 677 7737

 info@tetraes.com

 www.tetraes.com

