

SUBMISSION OF DOCUMENTS



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			26/3/2023																	
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C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity RESULT OF CROSS HOLE TEST		

NB: Package 1 Only (Package 2 via Aconex)				
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			RESULT OF CROSS HOLE TEST FOOTING P1 PILE P8	
2				
3				
4				
5				
6				
Comments by:			Comments by	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	محمد عبد الحوي			A
Designer				A
GARB *				
ER	Mohammed Gardouh			A
NAT				



إسم العميل : شركة النيل العامة للطرق والكباري
إسم المشروع : كباري مسار الفطار السريع - القطاع الثالث - كوبري ريجوا
الموضوع : اختبارات CHUM
رقم الصادر : E - 188
التاريخ : 2023/03/26

تحية طيبة وبعد ،،،

بالإشارة إلى الموضوع عاليه، مرفق لسيادتكم عدد (2) نسخة من تقرير اختبارات (CHUM) الزيارة التي تمت بتاريخ

2023/03/13 - لعدد (1) خازوق

وتفضلوا سيادتكم بقبول فائق الإحترام ،،،

مكتب النيل الهندسي الاستشاري (مصر)
د. مهندس / أنور فاروق القاضي
العضو المنتدب

المرفقات :

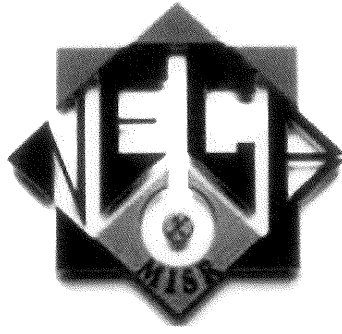
■ عدد (2) نسخة من التقرير.

N.E.C.B	
بيت خبرة هندسي استشاري	
مكتب النيل الهندسي الاستشاري (مصر)	
صادر من رقم : E-188	
رقم المشروع : ٢٠٢٣/٣/٢٦	التاريخ : ٢٠٢٣/٣/٢٦



JAS-ANZ





CROSS-HOLE ULTRASONIC MONITOR (CHUM)

HIGH-SPEED RAIL BRIDGES (3RD SECTOR FROM NILE WEST TO ALAMEIN), REGWA BRIDGE

الهيئة العامة
للطرق والكباري و
النقل الجوي
(GARBLI)



ARAB CONSULTING ENGINEERS
MOHARRAM - BAKHOUM



Report on (1) Concrete Element(S)

Rev	Status	Date	Editor	Checked by
0	Final	13-MAR-2023	SHERIF SALAH, BSc <i>Sherif Salah</i>	DR. ENG. A.P. EL - KADI <i>Dr. Eng. A.P. El-Kadi</i>

This report provides the factual results of the CHUM performed by NECB.

NILE ENGINEERING CONSULTING BUREAU (MISR)

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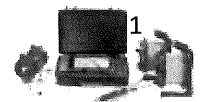
Tel : +2-02-22877600

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E-mail : anwarfelkadi@gmail.com

Internet: www.necb-misr.net

مكتب النيل الهندسي الاستشاري
ش ٢٢ شارع الدكتور الهادي شوقي ٥١٠ مصر
ت: ٢٢٨٢١٨٨٠ - ٢٢٨٢٤٦٥٩
هذا التقرير خاص بمشروع
رقم: _____ تاريخ: _____
مهندس: _____
وهذا التقرير استند على البيانات التي تم جمعها من خلال
القياسات الميدانية التي أجريتها في الموقع



Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM080/0218/023.

Checked by : A. F. El-Kadi, PhD.



Document History

Title	NECB Ref.	Rev.	Status	Date	Remark
CSL Report	CSL080/0218/023	0	Formal/ Final	13-03-2023	-

Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3^d Sector".

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1) Introduction

1.1 Upon the request of "General Nile for Road& Bridges" Cross Hole Ultra Sonic Monitoring (CHUM) following the Project Specifications executed to check the concrete homogeneous for (1) concrete element(s).

1.2 The testing activities can be summarized as follows:

Project /Location	High-Speed Rail Bridges (3rd sector from Nile West to Alamein), Regwa Bridge
Date /Time	13-Mar-2023
Witnessed	Project Engineer; and Client Engineer
NECB Staff	Mohamed Salah, Geotec. Mohamed Ali, Geotec.
No. of tests/Type	1/ Concrete Elements / Bored/ Cast-in situ
CHUM Patern	4 tubes, 6 logs (except if mentioned in item 3 below)
Tested Element (s) Information	As stated in item 3 below and annex 1



Fig. 1 CHUM in Progress



2) The Measuring Technique

2.1 The measuring and the interpretation of the test following ASTM specifications (D6760-17), and AFNOR NF P 94-160-1 (2000) are as shown in the attachments.

2.2 The test equipment (CHUM) manufactured by Piletest UK. The related data are in the attachments.



3) Tested Element(s)

3.1 The tested element (s) data, CHUM input and test output attached in annex 1.

3.2 (6) CHUM logs are available for the tested and reported element(s) arranged as shown in fig.2.

3.3 The tested element(s) have the following dimension:

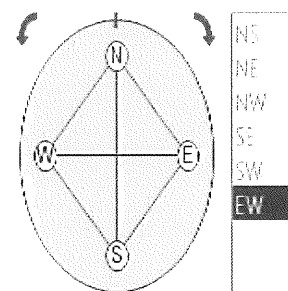


Fig 2 Element with 4 tubes
(6 logs)

S	Pile ID	Type	Dimensions	Available CHUM tubes	Remark
1	P1-P8	Concrete pile	D1.2m / L40.0m	4 /4	-

4) 3-D Tomography output (Optional)

4.1 N/A.

5) Conclusion

Interpretation based on comparing both times interval vs. energy curves, and review wave velocities through test for the tested and reported element. The test results can summarized as follows:



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Checked by : A. F. El-Kadi, PhD.



5.1 Tested and reported pile # (P1-8) is free from any significant defects, has a homogeneous and good quality concrete, and **Integrity Accepted (up to the end of available CHUM pipes)**.

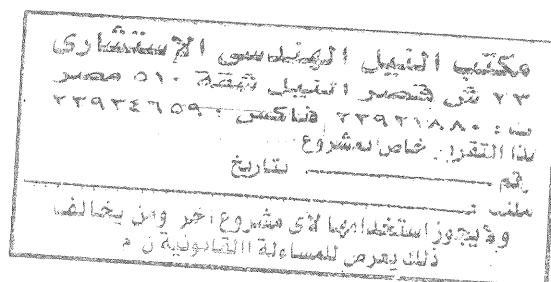
5.2 CHUM results for the tested pile attached in Annex 1.

General Tips

- 1) Low wave velocities near the CHUM tubes zones mean non-uniform tube spacing (green color in 3D Tomography). That will not affect the test results.
- 2) The effective area in 3D Tomography is related to the concrete quality, not the element cross-section.
- 3) Preparing CHUM pipes for test is out of NECB's scope of work.

Cairo, 13 Mar 2023

NILE ENGINEERING CONSULTING BUREAU



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ANNEXES

Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3^d Sector".

To : General Nile for Road& Bridges".

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CHUM TEST RESULTS



Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM080/0218/022.

Checked by : A. F. El-Kadi, PhD.

CHUM Summary

Pile ID	Profile	Measured length of pipes (m)	Apparent Wave Speed [m/s]	Remarks
P1-P8	12	39.74m	4980	Sound concrete without any significant defect. FAT is very good during the test.
	23	39.74m	4620	
	34	39.74m	4610	
	14	39.74m	4940	
	13	39.74m	4570	
	24	39.74m	4680	

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Checked by : A. F. El-Kadi, PhD.

P1-P8

3/13/2023

Diameter: 1.20m

12

39.74m

Distance: 0.60m

Filter: 1

23

39.74m

Distance: 0.60m

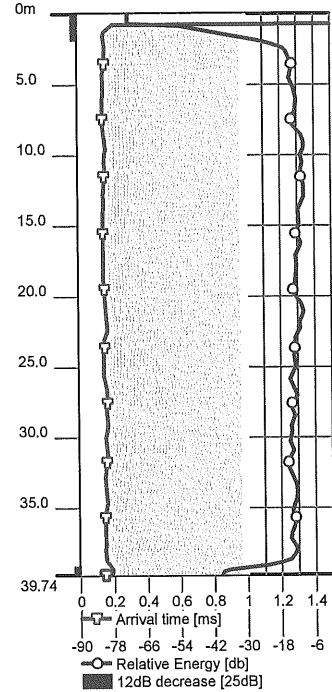
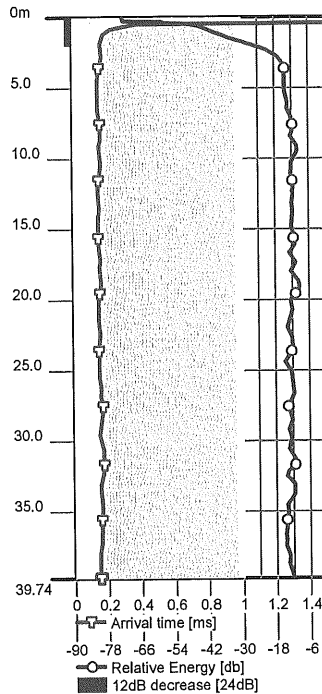
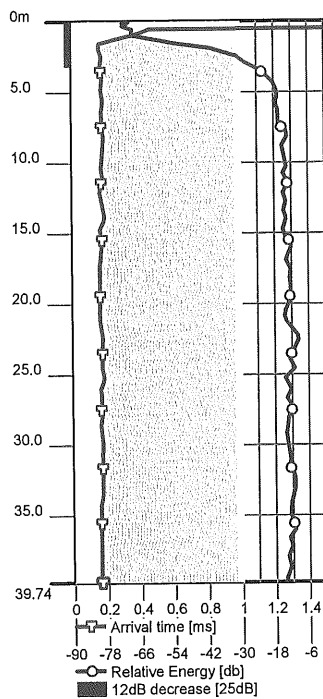
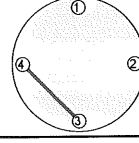
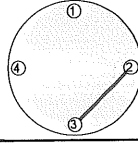
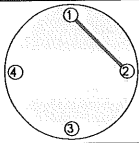
Filter: 1

34

39.74m

Distance: 0.60m

Filter: 1



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P1-P8

3/13/2023

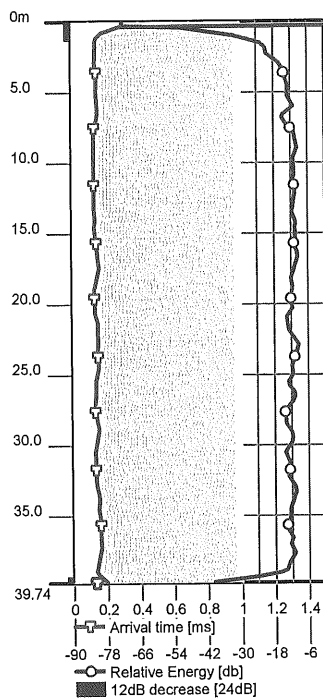
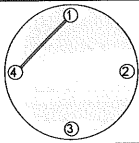
Diameter: 1.20m

14

39.74m

Distance: 0.60m

Filter: 1

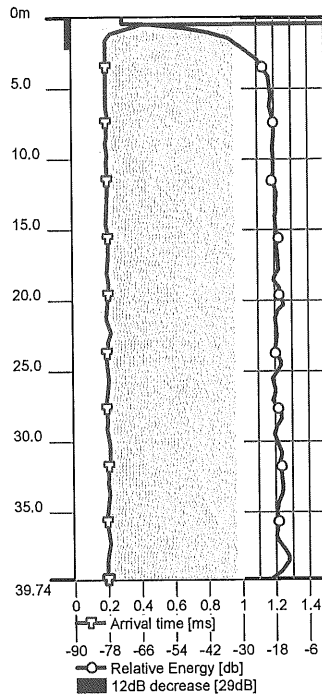
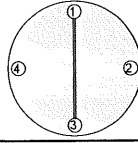


13

39.74m

Distance: 0.85m

Filter: 1

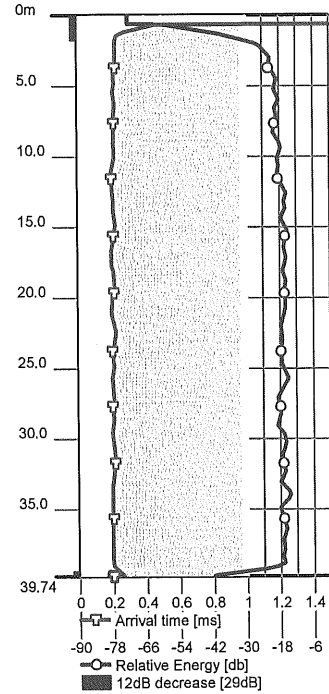
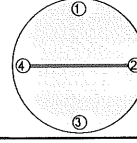


24

39.74m

Distance: 0.85m

Filter: 1



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3D TOMOGRAPHY

N/A

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CHUM Method Statement



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3.	Data Collection	04
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6.	Interpretation of results	05
7.	Equipment calibration	05



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Expert House Of Engineering Consultants

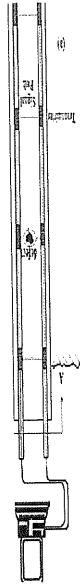
05 Dr. Abdel Hameed Lotfy Street
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1) General

- Cross Hole Ultra Sonic Monitor (CHUM) test is for checking the integrity of newly placed drilled shafts, seal footings, and slurry or diaphragm walls. CHUM test relies on the propagation of ultrasonic waves between two or more access tubes to measure the velocity and signal strength of the propagated waves. The testing can be performed on any concrete foundation provided two or more access tubes or core holes capable of holding water are present in the foundation. CHUM can also be used to check the integrity of underwater concrete piers and foundations by strapping access tubes to the sides. Cross hole Tomography can be performed to image critical anomalies found in CHUM tests.

- CHUM tests are typically performed on concrete, particularly concrete drilled shafts. Other materials, which support the transmission of ultrasonic waves, can be tested, such as slurry, rock, grout, water-saturated media, and cemented radioactive wastes.

Standards for CHUM method include ASTM D6760 for integrity testing of concrete deep foundations and ACI 228.2R for NDE applications, and FLH 521.830 for determining pulse velocity through concrete in drilled shafts.



2) Access

above the top of the shaft to compensate for the water displaced by the source, receiver, and cables and to allow for easy access. Tubes must be bonded to the concrete for good test results. To minimize de-bonding of tubes, water should be added immediately before or after concrete placement and the tubes should not be mechanically disturbed.

- At least two tubes are needed to perform CHUM test. For good coverage of the test shaft, the following number of tubes be installed is recommended:

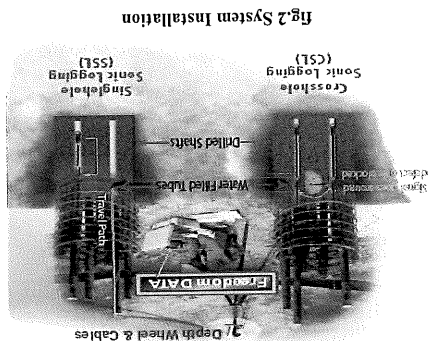


fig.2 System Installation

- Access tubes must be installed before the construction of the drilled shaft for quality assurance purposes unless core holes are to be drilled in a forensic case.
- PVC or black steel tubes (U.S. schedule 40) are typically used. The tubes are 1.5 (steel tubes only) to 2 inches (38 to 50 mm) in diameter and are typically tied to the rebar cage to ensure close to vertical positions of the tubes.
- The typical tube thickness shall be between 2.0 to 3.0 mm.
- The tubes must extend at least 30cm



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Shaft Diameter	Recommended Number Of Tubes	Tube Spacing
D < 2.5 ft (0.75m)	2 minimum	180 Degree
2.5 < D < 3.5 ft (1.0 m)	3 minimum	120 Degrees
3.5 < D < 5.0 ft (1.5 m)	4 minimum	90 Degrees
5.0 < D < 8.0 ft (2.5 m)	6 minimum	60 Degrees
8.0 < D >	8 minimum	45 Degrees

- The concrete in the shaft should normally be allowed at least (5) days to cure hardened concrete before testing. If "PVC" tubes are used, testing should be done within 10 days after the placement of concrete due to possible tube-concrete de-bonding.

It is very important to fill tubes with clean water immediately before or within one hour after concrete placement. This action inhibits the de-bonding of concrete from the tube. Cap or Seal tube tops to keep out debris.

Also, all CHUM tubes should be prepared using pure water and refilled using pure water at least 24 hr before starting the CHUM test.

CHUM pipes should be leveled before start the test activities.

Tube Grouting

- After CHUM testing is completed and the engineer has accepted the shaft, withdraw the water from access tubes and any other drilled holes. Then fill tubes and holes completely with approved grout mix.

3) Data Collection

- In the CHUM test, the source is lowered to the bottom of one of the tubes, and the receiver is lowered to the bottom of another tube. The source and receiver are pulled simultaneously to allow the horizontal ultrasonic pulse velocity to be

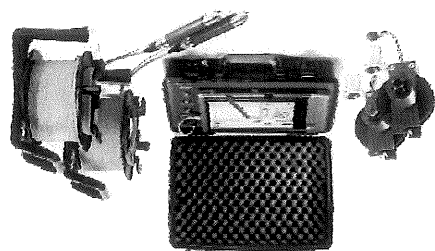


Fig.3 CHUM Equipment

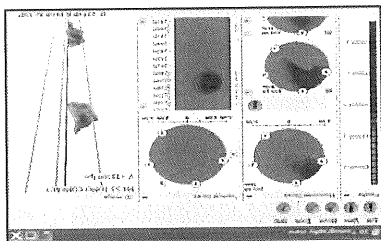
- Testing equipment fig. 3 consists of:
 - o Heavy Duty Computer;
 - o Two Hydro-phones;
 - o Depth Controller wheel; and
 - o Two Cables wheels;

4) Testing Equipment and Tools

A depth wheel controls the measured. A depth wheel controls the resolution of the collected data. Typically, the source is excited every 0.2 ft (6 cm) vertically and a measurement is taken. The source and receiver are pulled to the top of each shaft, thus giving a complete assessment of the concrete quality between the two tubes. CHUM tests are typically performed between all the perimeter tubes to check the perimeter of the shaft. Additional opposing diagonal CHUM tests are also performed to check the integrity of the inner core of the shaft. If there are more than 4 tubes and an anomaly is identified, CHUM tests may be performed of sub diagonal tube pairs to further define an anomaly. A pair of tubes can be logged and the results displayed in less than approximately 5 minutes. The Freedom data PC with the Cross hole Ultrasonic monitor system (CHUM) is used for the collection and analysis of CHUM data.

intrusions. In some severe defects, the signal may be completely lost.
- The variance in the arrival time between CHUM logs is due to the variance in tube spacing.

7) 3D Tomography (optional - fig. 5)



5) Data Processing Techniques
-The collected data from CHUM measurements between two tubes at all depths are saved in one file. The file is scanned to determine first-wave arrival times and energy levels at all depths. A CHUM log shows either the arrival time (or velocity) and signals energy plots vs. depth.
-CHUM system can easily scan any concrete element with enough tubes pairs as mentioned in table 1 above. The quality of the results is affected by the quality bonding between both concrete and steel tubes.

6) Interpretation of results

- In uniform, good quality concrete, the travel time between vertical equidistant tubes will be relatively constant and correspond to reasonable concrete pulse velocity from the bottom to the top of the foundation (see fig. 4).

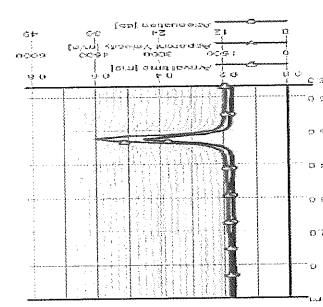


Fig. 4 CHUM Interface (Arrival Time along pile length, and Energy,

- CHUM test will also produce records with good signal amplitude and energy in good quality concrete. Longer travel times and lower amplitude/energy signals indicate the presence of irregularities such as poor quality concrete, void, honeycomb, and soil

- The latest calibration certificate for CHUM will attached in the final report.

8) Equipment calibration

- 3D Tomography used for evaluate the concrete quality using wave velocity variation along pile length as follows:
I. Sound wave velocity over 4200m/s excellent concrete;
II. Sound wave velocity over 3657m/s very good concrete;
III. Sound wave velocity 3048 to 3657m/s accept concrete and;
IV. Sound wave velocity less than 3048 m/s questionable concrete.
-The real concrete low quality or shaft defects be clear when receiving the same defective zone on both travelling time - energy curve and 3D tomography. otherwise maybe tube debonding or local ineffective low material quality.

REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			7/9/2022																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
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Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (25))		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade:	30 kg/cm ²		
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	11:30 pm	Concrete Volume:	51 m3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	

Comments by:	Comments by:

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			7/9/2022	A



BAUER EGYPT



SYSTRA

ACE CONSULTING ENGINEERS
MOHARRAM BAKHOUM

Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	9
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	7/9/2022
Pile No.	P25	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.53m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.09 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	69.435
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.33 m

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585399.934	830504.063
Actual	585399.941	830504.057
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	38
Sand Content %	Less than 4%	N/A	Less than 2%	0.75

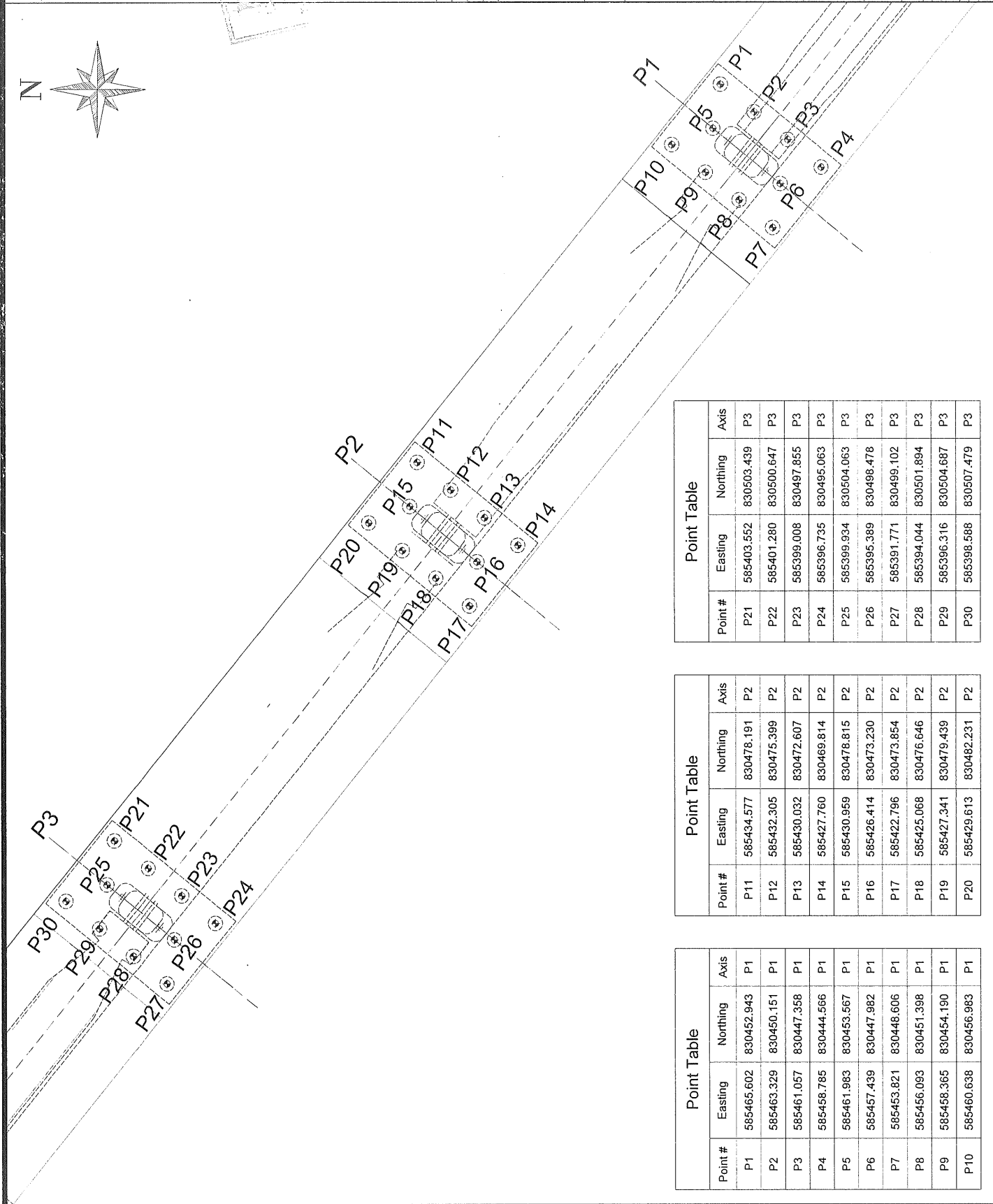
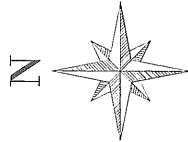
Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	6/9	12:30	15:30	Cleaning	-	-	-	
Install Cages	7/9	10:50	12:00	Pouring	7/9	13:30	14:42	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

NOTES:

-ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
-ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERCATOR) AS PER THE RECEIVED SITE SURVEY.

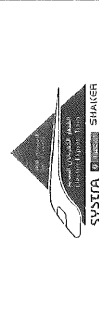


NO.	DATE	BY	REVISION
01	06/2022	K.A.	ISSUED FOR CONSTRUCTION

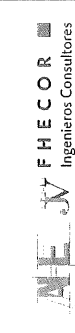
OWNER
 جمهورية مصر العربية
 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للطرق والكباري
 General

NAME OF PROJECT
 ELECTRIC RAIL EXPRESS TRAIN (HIGH SPEED RAIL)
 SECTION THREE (FROM WEST OF FILE TO 4-KHARI)

NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR CONSULTANT



NAME OF CONTRACTOR



BRIDGE TITLE
 REGWA BRIDGE
 PILES COORDINATES FOR APPROVED AXIS
 FROM P1 - P3

BY/NO.	DATE	SCALE	CHECKED BY
PC-000	06/2022	1:100	DESIGNED BY
DESIGNED BY	ENGINEERING TEAM	ENGINEERING DATA	CHECKED BY
SUPERVISOR	DR. Mahmoud Lashin	APPROVED BY	Eng. Javad Taher

Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

Point Table			
Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.006	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى وادى النطرون)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 25
Dimension : 15*15*15 cm
Date of casting : 05/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	05/09/2022	03/10/2022	28	8.661	118800	528	560
2	05/09/2022	03/10/2022	28	8.418	128900	573	
3	05/09/2022	03/10/2022	28	8.731	130400	580	

التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد عربى
مدير المصنع

Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - Tel: 2672572 - 23573307

Planet : New Cairo - Katamia - Pfar 82 - 43

Tel: 29844136 / Fax: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

إيجيت ميدكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت: ٢٩٨٤١١٣٦ / ف: ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

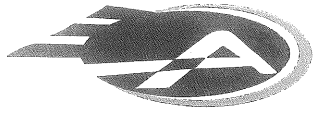
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت: ٠٤٨ / ٢٦٣٠١٤٥ - ف: ٠٤٨ / ٢٦٣٠١٤٥

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

الإدارة

موقع العمل



Al Amal Ready mix

الأمل
للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ٦٠ مليون جنيه
والمصدر ٢٥ مليون جنيه

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

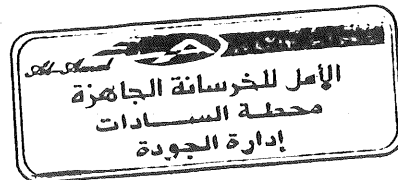
PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B25
Dimension : 15*15*15 cm
Date of casting : 07/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	07/09/2022	14/09/2022	7	8.389	93580	416	454
2	07/09/2022	14/09/2022	7	8.451	104700	465	
3	07/09/2022	14/09/2022	7	8.524	108200	481	

التوقيع:

مهندس / أحمد عرابى
مدير المصنع

مركز هليوبوليس



ناصر الماس

Head Office : 41 Losaka st. - Second Floor - Flat 3 Mohamed El-Maqrief st.
Nasr City - / Telfax: 26772572
Planet : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industriai Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : ٤١ ش لوساكا - الدور الثاني شقة ٣ - متفرع من ش محمد المقريف
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website : www.alamalreadymix.com

[illegible]

ABBREVIATION :

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Natural Ground Level

SRF-V001-CC-010-001-NOT-ED2	REGWA ROAD BRIDGE GENERAL NOTES ABUTMENT 1, DEFINITIVE
SRF-V001-CC-210-002-PHE-ED2	REGWA ROAD BRIDGE SUBSTRUCTURE PIERS #1, P2, P3, REINFORCEMENT

Arab House of Engineering
Tel: 402761472

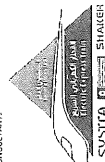
DATE	TIME	REVISION
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ISSUED FOR CONSTRUCTION AS PER REVIEW
INVOICE No. 1069

وزارة النقل
الهيئة العامة للنقل والكباري
وزارة النقل
MINISTRY OF TRANSPORT
جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
OWNER:

ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF MILE TO ALABAMA)

JOURNAL OF CLIMATE

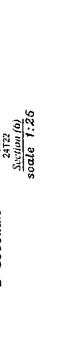
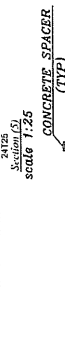
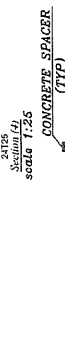
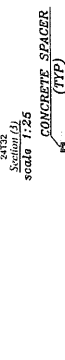
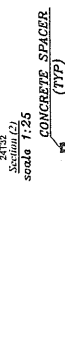
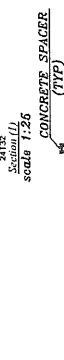
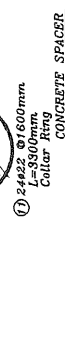
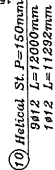
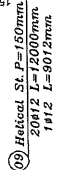
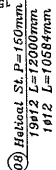
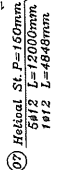
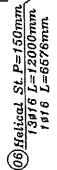
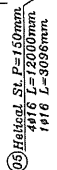


V
FHECOR 
Ingenieros Consultores

PILE REINFORCEMENT BARS SHOP DRAWING

HSR-201-SD-110-001 #1E-EO	06-2022	AS SHOWN
DRAWING BY: ENG. Eslam Fathy	CHECKED BY: ENG. Abdullah Mohamed	REVISED BY: ENG. Mohamed Salah

SUPERVISOR:	OR Maimoud Lashin	APPROVED BY:	Egon Jaster Tucke
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REQUEST to POUR CONCRETE



Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
			5/9/2022								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (26))			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 350 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 12:59 pm	Concrete Volume: 51 m3			
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			5/9/2022	A

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	7
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	5/9/2022
Pile No.	P26	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.37 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.09 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	69.280
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.17m

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585395.389	830498.478
Actual	585395.398	830498.485
BAUER Survivor		

Geotechnical Log

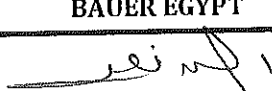
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5.0	
10.0	
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20.0	
25.0	
30.0	

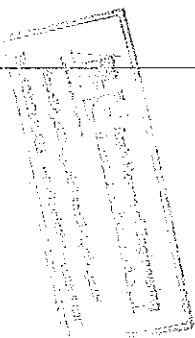
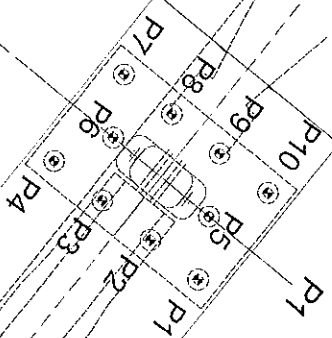
Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	36	≤90 Sec.	38
Sand Content %	Less than 4%	N/A	Less than 2%	1.2

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	4/9	13:30	19:35	Cleaning	-	-	-	
Install Cages	5/9	10:43	12:05	Pouring	5/9	12:59	14:17	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			



OWNER
جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للنقل والكابري
والنقل البحري
القاهرة
EGYPT



DATE, NO.	DATE	SCALE
PCC400	06/2012	1 255

SUPERVISION	APPROVED BY
DR. Mahfouz Lashoun	Eng. Jaber Lashoun

Point Table			
Point #	Easting	Northing	Axis
P21	565402.552	830503.439	P3
P22	565401.280	830500.647	P3
P23	565399.008	830497.665	P3
P24	565398.735	830495.063	P3
P25	565399.934	830504.063	P3
P26	565396.389	830498.478	P3
P27	565391.771	830499.102	P3
P28	565394.044	830501.894	P3
P29	565396.316	830504.687	P3
P30	565398.588	830507.479	P3

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

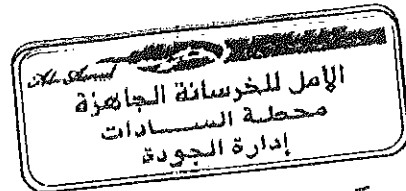
PROJECT : مشروع القطار الكهربائي السريع (كوبرى وادى النطرون)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B26
Dimension : 15*15*15 cm
Date of casting : 05/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	05/09/2022	12/09/2022	7	3.630	104400	464	453
2	05/09/2022	12/09/2022	7	8.560	99360	442	
3	05/09/2022	12/09/2022	7	8.687	101900	453	

التوقيع:

مهندس / أحمد عرابى
مدير المصنع

مركز هليوبوليس



تامر بالماس



Al-Amal Ready mix

الأمل
للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 26
Dimension : 15*15*15 cm
Date of casting : 07/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	05/09/2022	03/10/2022	28	8.557	130900	582	564
2	05/09/2022	03/10/2022	28	8.491	119400	531	
3	05/09/2022	03/10/2022	28	8.661	130400	580	

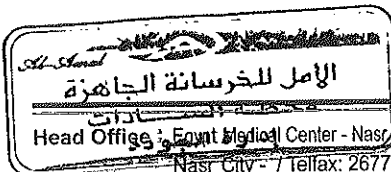
التوقيع:

الأستشارى

جودة المشروع

مهندس / أحمد عرابى

مدير المصنع



Head Office : El Nasr Center - Nasr City - Tenth District - Fifth Floor Unit (407).
Nasr City - / Telfax: 26772572 - 23573307

Planet : New Cairo - Katamia - Pfort 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧).
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٥ - ٧٠٠٣
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

GENERAL NOTES

1. All dimensions are in millimeters.
2. Top surface finish shall be as per IS 10262.
3. The Contractor shall be responsible for the design of the bridge.
4. The bridge shall be constructed in accordance with the design.
5. The bridge shall be constructed in accordance with the design.
6. The bridge shall be constructed in accordance with the design.
7. The bridge shall be constructed in accordance with the design.
8. The bridge shall be constructed in accordance with the design.
9. The bridge shall be constructed in accordance with the design.
10. The bridge shall be constructed in accordance with the design.

All works should be checked before construction in situ.

ABBREVIATION:

1. T.O.A. = Top of Asphalt
2. T.O.C. = Top of Column
3. T.O.P. = Top of Pile Cap/Pile
4. T.O.F. = Top of Frame
5. T.O.L. = Top of Level
6. T.O.L. = Top of Level
7. T.O.L. = Top of Level
8. T.O.L. = Top of Level
9. T.O.L. = Top of Level
10. T.O.L. = Top of Level

DRAWING IN ENGLISH:

REVISION: 001-001-001-001

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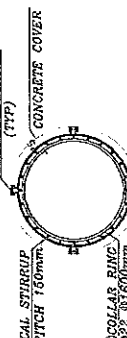
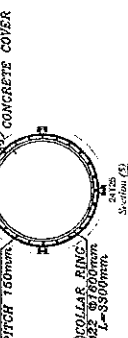
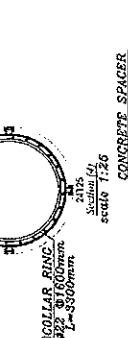
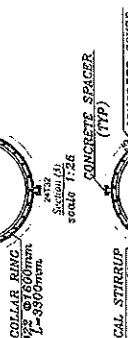
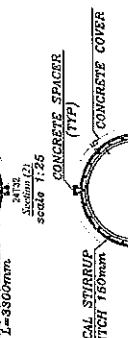
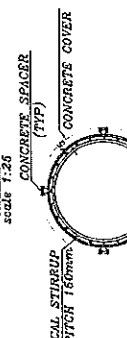
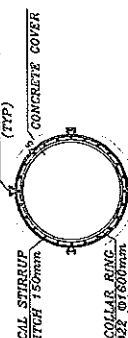
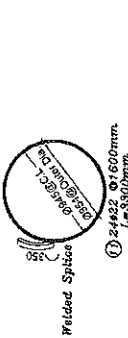
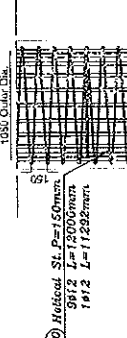
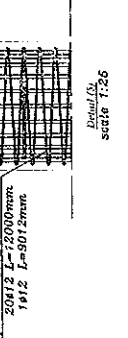
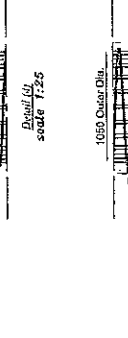
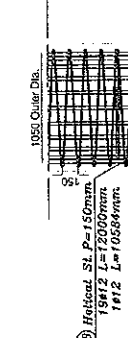
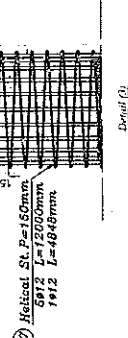
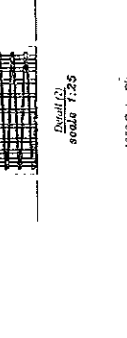
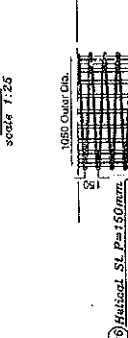
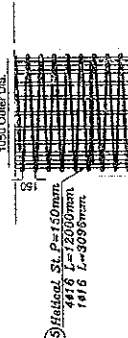
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[illegible]

ABBREVIATION:

- T.O.A. = Top of Asphalt
- T.O.C. = Top of Column
- T.O.P. = Top of Pile Cap/Pile
- T.O.B. = Top of Bearing
- T.O.F. = Top of Frame
- N.G.L. = Normal Ground Level

SOURCE: U.S. DEPT. OF COMMERCE, BUREAU OF ECONOMIC ANALYSIS, "U.S. MERCHANDISE TRADES: ANNUAL DATA," 1997-2002, <http://www.bea.commerce.gov>.

SUBMUCINAE
DEPT. OF AGRICULTURE, U.S. GOVERNMENT PRINTING OFFICE: 1917.

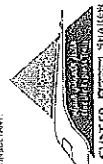
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41.	DATE	ENG.	REVISION	
42.	DATE	ENG.	REVISION	
43.	DATE	ENG.	REVISION	
44.	DATE	ENG.	REVISION	
45.	DATE	ENG.	REVISION	
46.	DATE	ENG.	REVISION	
47.	DATE	ENG.	REVISION	
48.	DATE	ENG.	REVISION	
49.	DATE	ENG.	REVISION	
50.	DATE	ENG.	REVISION	

جمهورية مصر
REPUBLIC OF EGYPT
وزارة النقل
Ministry of Transport
الهيئة العامة للنقل
General Authority of
Transport

TABLE OF CONTENTS

ELECTRICAL EXPENSE (RAIN HIGH SPEED -RAIL)

GENERAL INVESTIGATION DIVISION



WJSCA 0125

V **FHECOR** 
Ingenieros Consultores



CONG. TITLE. RECWA ROAD BRIDGE PILES AT AES (P1, P2, P3)

DRAWING NO. PML-1004-02-10-003-010-500	DATE 08-2012	SCALE AS SHOWN
DRAWING BY ENG. E. Light Pearty	CHECKED BY ENG. Ashraf Muneem	REVISION BY ENG. Muneem Sah
SUPERVISOR DIL. Mahmood Lathien		APPROVED BY Eng. Ashraf Muneem

Total 5672.88

Pile Diameter	Ø12	Ø16	Ø22	Ø25	Ø32
TOTAL LENGTH(M)	678.47	213.69	233.39	577.2	288.04
TOTAL WEIGHT(Kg)	597.06	337.64	695.52	2222.22	1820.44

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.

REQUEST to POUR CONCRETE



Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
			7/9/2022								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE - 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (25))			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 30 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 11:30 pm	Concrete Volume: 51 m3			
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			7/9/2022	A



SVSTFA

ACE CONSULTING ENGINEERS
MOHAMMAD BAKHOUN

Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	9
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	7/9/2022
Pile No.	P25	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.53m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.09 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	69.435
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.33 m

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585399.934	830504.063
Actual	585399.941	830504.057
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

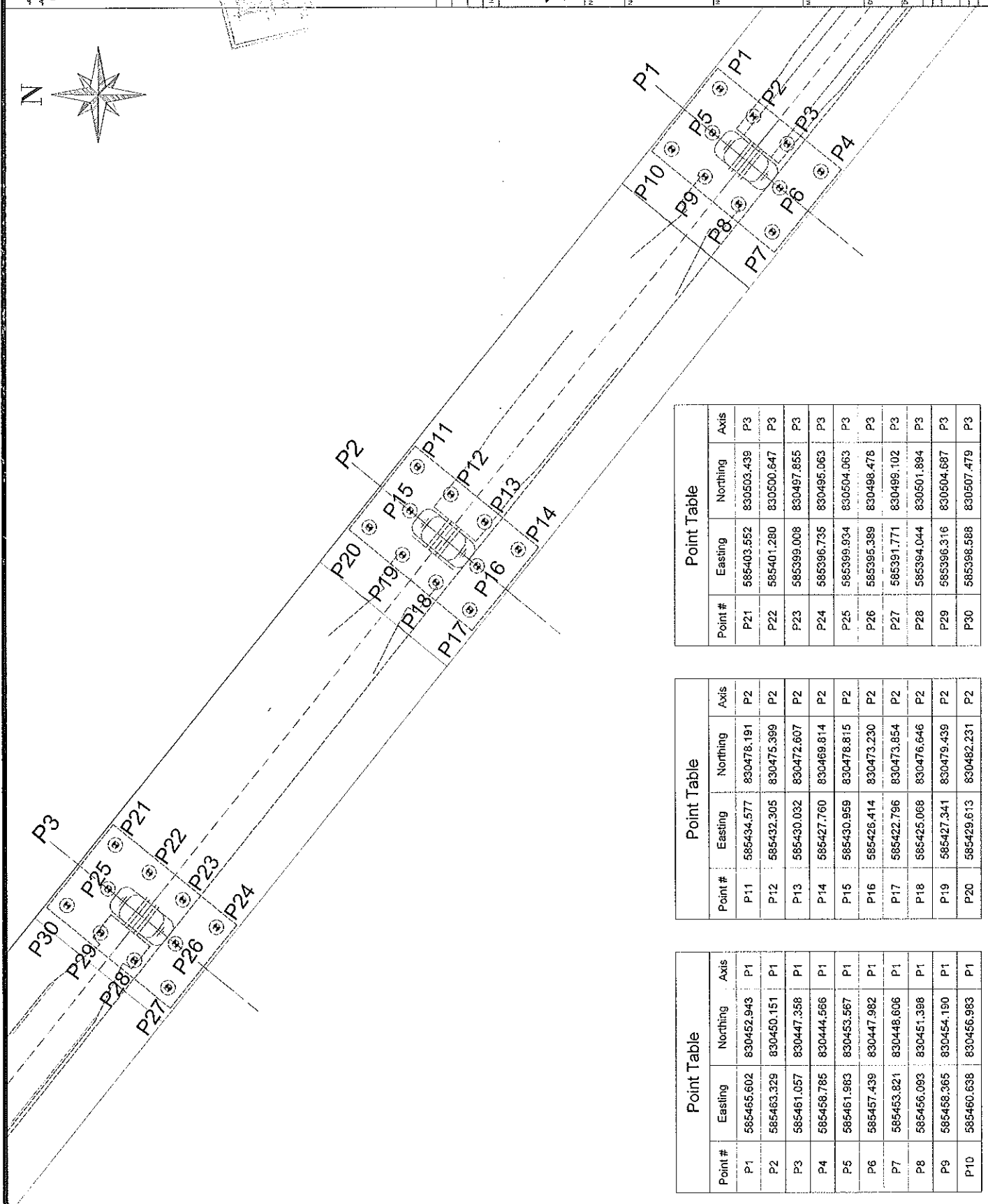
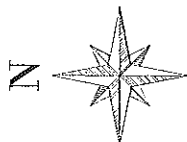
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	38
Sand Content %	Less than 4%	N/A	Less than 2%	0.75

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	6/9	12:30	15:30	Cleaning	-	-	-	
Install Cages	7/9	10:50	12:00	Pouring	7/9	13:30	14:42	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON EDM EGYPTIAN TRANSVERSE
MERCATOR AS PER THE RECEIVED SITE SURVEY.



Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.847	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.399	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.598	830507.479	P3

Point Table			
Point #	Easting	Northing	Axis
P-11	585494.577	830478.191	P2
P-12	585432.305	830475.399	P2
P-13	585430.032	830472.607	P2
P-14	585427.760	830469.814	P2
P-15	585430.959	830478.815	P2
P-16	585426.414	830473.230	P2
P-17	585422.796	830473.854	P2
P-18	585425.068	830476.646	P2
P-19	585427.341	830479.439	P2
P-20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P1	585455.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الاسمنتية
رأس المال المخصص به ١٥٠ مليون جنيه
والصندوق ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى وادى النطرون)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 25
Dimension : 15*15*15 cm
Date of casting : 05/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	05/09/2022	03/10/2022	28	8.661	118800	528	560
2	05/09/2022	03/10/2022	28	8.418	128900	573	
3	05/09/2022	03/10/2022	28	8.731	130400	580	

التوقيع:

الأستشارى

جودة المشروع

مهندس / أحمد عرابى

مدير المصنع

Head Office: Egypt, Madinet Nasr - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - Tel: 26772572 - 26573307

Planet : New Cairo, Katamia - Part 82 - 83

Tel: 29844136 / Fax: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrelal Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت: ٢٩٨٤٠١٠٩ / ف: ٢٩٨٤١١٣٦

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت: ٠٤٨ / ٢٦٣٠١٤٥ - ف: ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

الإدارة

موقع العمل



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المخصص به ٦٠ مليون جنيه
والمصدر ٢٥ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

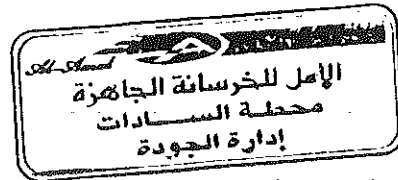
PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B25
Dimension : 15*15*15 cm
Date of casting : 07/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	07/09/2022	14/09/2022	7	8.389	93580	416	454
2	07/09/2022	14/09/2022	7	8.451	104700	465	
3	07/09/2022	14/09/2022	7	8.524	108200	481	

التوقيع:

مهندس / أحمد عربى
مدير المصنع

مركز هليوبوليس



ناصر المصطفى

Head Office : 41 Losaka st. - Second Floor - Flat 3 Mohamed El-Maqrief st.
Nasr City - / Telfax: 26772572
Planet : New Cairo - Katamia - Pfart 82 - 83
Tel.: 29841136 / Fax.: 29840109
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El Sadat City - Industriat Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : ٤١ ش لوساكا - الدور الثاني شقة ٣ - متفرع من ش محمد المقرئف
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٥ - ٧٠٠٣
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website : www.alamalreadymix.com

GENERAL NOTES

- All dimensions are in millimeters.
- Reinforcement bars shall be as per IS 1786.
- Concrete shall be as per IS 456.
- Steel shall be as per IS 2062.
- Reinforcement bars shall be as per IS 1786.
- Concrete shall be as per IS 456.
- Steel shall be as per IS 2062.
- Reinforcement bars shall be as per IS 1786.
- Concrete shall be as per IS 456.
- Steel shall be as per IS 2062.

All levels should be reduced below construction in 200.

- ABBREVIATION :
- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.F = Top of Footing
- T.O.P = Top of Pile
- N.G.L = Normal Ground Level

DRAWING REFERENCES

- REINFORCEMENT BAR SCHEDULE
- PILE CAP CONCRETE SCHEDULE
- PILE CONCRETE SCHEDULE
- PILE CAP CONCRETE SCHEDULE
- PILE CONCRETE SCHEDULE

REVISION

NO.	DATE	BY	CHK	REVISION
1				REVISION FOR CONSULTANT'S REVIEW

REVISION FOR CONSULTANT'S REVIEW

REVISION FOR CONSULTANT'S REVIEW

REVISION FOR CONSULTANT'S REVIEW

REVISION FOR CONSULTANT'S REVIEW

REVISION FOR CONSULTANT'S REVIEW

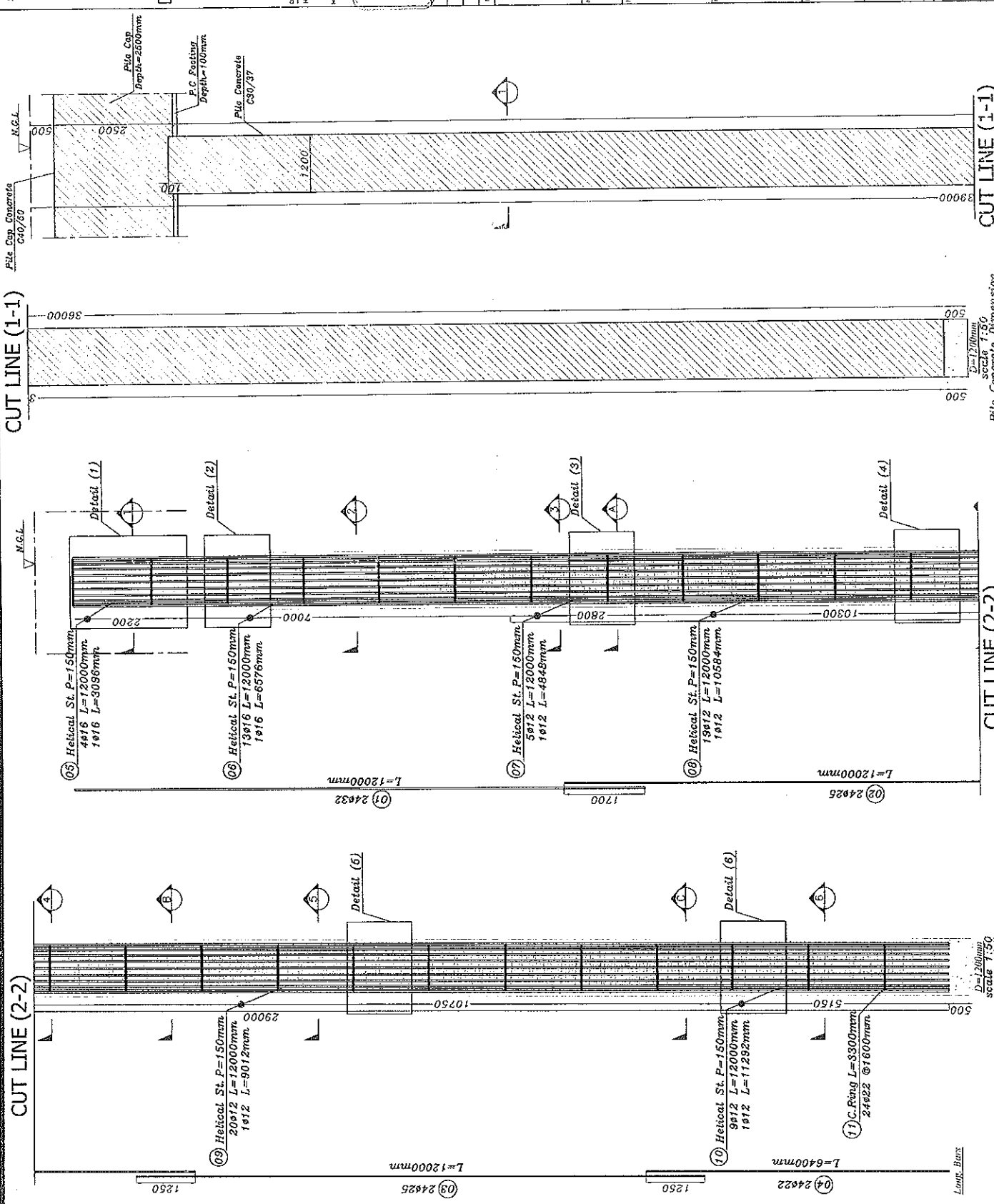
REVISION FOR CONSULTANT'S REVIEW

REVISION FOR CONSULTANT'S REVIEW

REVISION FOR CONSULTANT'S REVIEW

REVISION FOR CONSULTANT'S REVIEW

REVISION FOR CONSULTANT'S REVIEW



REVISION FOR CONSULTANT'S REVIEW

REVISION FOR CONSULTANT'S REVIEW

REVISION FOR CONSULTANT'S REVIEW

REVISION FOR CONSULTANT'S REVIEW

REVISION FOR CONSULTANT'S REVIEW

All services for 20 million
Do not need them either. All services for 20 million
Do not need them either.

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

MEVIA HONG DIED ON	MEVIA HONG BRIDGE
CRIPPLED NOTES	STRUCTURE
AMOUNT 1, DEFINITION	PICRSP1 PZ P3 REINFORCEMENT

And House of Engineering

	PAGE	CAN	DIRECTION	ISSUED FOR CONSTRUCTION AS PER REVIEW INDEX No. IN-9
0	JANUARY	MAY		

OWNER:

جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT

وزارة النقل
MINISTRY OF TRANSPORT

الهيئة العامة للنقل والكابري
والتنقل البري

قناة السويس لخطوط النقل

NAME OF PROJECT: ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF MILE TO ALABAMA)

SYSTEMA PŁACENIA SIŁAKH

FHECOR Ingenieros Consultores

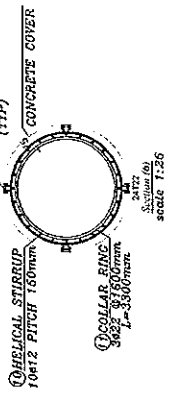
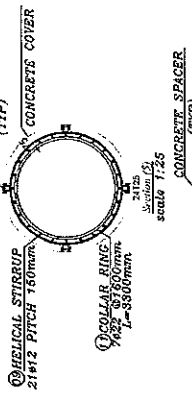
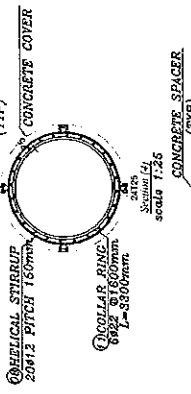
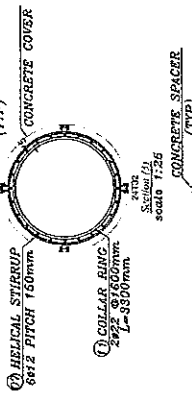
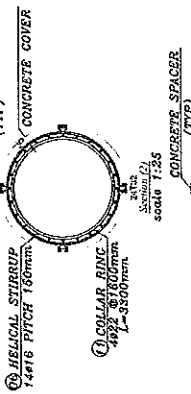
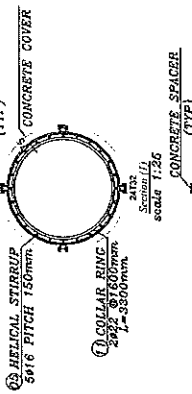
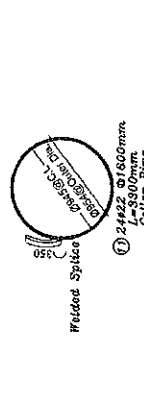
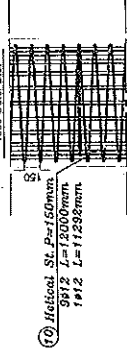
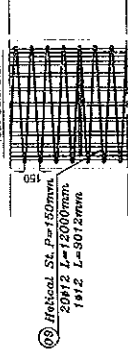
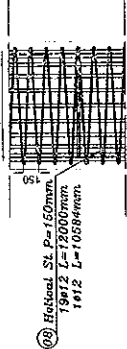
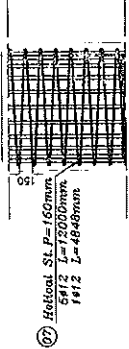
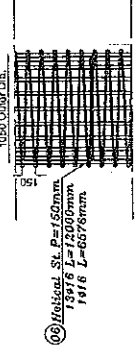
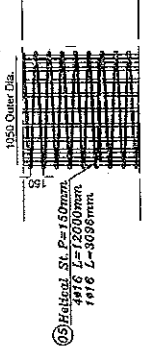
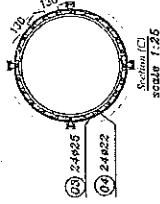
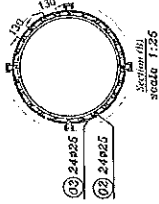
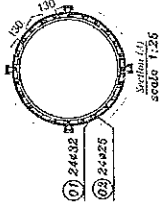
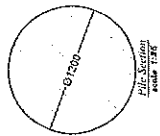


NEGOTIATION BRIDGE
PILES AT AXES (PI P28F3)
PILE REINFORCEMENT BARS SHOP DRAWING

DWG NO.: 05-110-002.91E-100	08-2022	AS SUTUM
DRAWING BY:	CHECKED BY:	REVISID BY:

1	mag
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SUPERVISOR	APPROVED BY:
DR. Mulvaney-Landrum	EAST JAMES TONICO



REQUEST to POUR CONCRETE



Contractor Company			Designer Company		
Issued by Contractor	Name	Sign	Date	Time	
Received by ER		محرم باخوم	30/8/2022		
Contractor Reference	النيل العامة				

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (2 7))			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 30 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 7:38 pm	Concrete Volume: 51 m3			
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			30/8/2022	A



SVSTRA

ACE CONSULTING ENGINEERING
MOHARRAM EL-DOKKI

Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	3
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	30/8/2022
Pile No.	P27	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.75 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.09 m	Theoretical Concrete Q	46.05 m ³	Temporary Casing Level	69.660
Act. Drilling Length	41 m	Act. Concrete Q	50.5 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.55 m

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585391.771	830499.102
Actual	585391.764	830499.105
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	36
Sand Content %	Less than 4%	N/A	Less than 2%	1.50

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	30/8	11:18	16:43	Cleaning	-	-	-	
Install Cages	30/8	17:20	18:34	Pouring	30/8	19:38	21:15	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B27
Dimension : 15*15*15 cm
Date of casting : 30/08/2022
MIX DESIGN STRENGTH : 370 kg / cm2

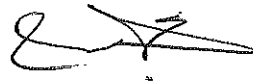
NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	30/08/2022	27/09/2022	28	8.451	130300	579	566
2	30/08/2022	27/09/2022	28	8.378	128600	572	
3	30/08/2022	27/09/2022	28	8.521	122900	546	

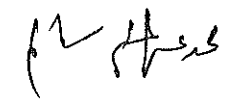
التوقيع:

الأستشارى

جودة المشروع

مهندس / أحمد عرابى
مدير المصنع







Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - / Telfax: 26772572 - 23573307

Planet : New Cairo - Katamia - Ppart 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industriai Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس: ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت: ٢٩٨٤١١٣٦ / ف: ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت: ٠٤٨ / ٢٦٣٠١٤٠ - ف: ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

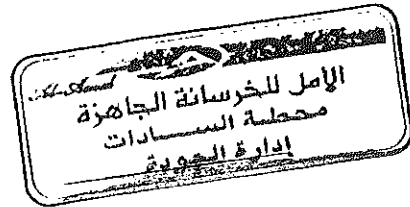
**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B27
Dimension : 15*15*15 cm
Date of casting : 30/08/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	30/08/2022	03/09/2022	4	8.667	88640	394	393
2	30/08/2022	03/09/2022	4	8.671	89770	399	
3	30/08/2022	03/09/2022	4	8.499	86980	387	

التوقيع:
مهندس / أحمد عرابى
مدير المصنع

مركز هليوبوليس



تامر مالحام

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B27
Dimension : 15*15*15 cm
Date of casting : 30/08/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	30/08/2022	06/09/2022	7	8.388	89800	399	420
2	30/08/2022	06/09/2022	7	8.643	97820	435	
3	30/08/2022	06/09/2022	7	8.592	95940	426	

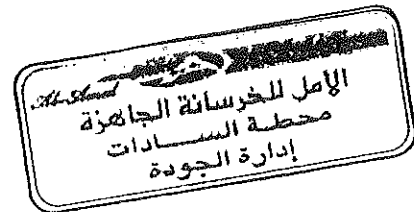
التوقيع:

مهندس / أحمد عرابى
مدير المصنع

(Signature)

مركز صليبيس

(Signature)



(Signature)

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ABBREVIATION :

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Natural Ground Level

CURE-VOL-1 CC-010-091-1101-E02	REGWA ROAD BRIDGE GENERAL NOTES ADDENDUM 1, DUE TO INQUIRY
CURE-VOL-1 CC-710-032-MIS E02	REGWA ROAD BRIDGE SUBSTRUCTURE PIERS #1, P2, P3, REFORMER

Arab House of Engineering
2027014135

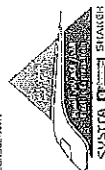
NO.	DATE	ENG.	REV.	ISSUED FOR CONSTRUCTION PER REVIEW
0	3/10/2011	11/13		NOTION No. 1009



جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للنقل والكابلات
والنقل البري
وزارة النقل والاتصالات
مصلحة العامة للنقل والاتصالات
OWNER:

NAME OF PROJECT: ELECTRICAL CAPLESS THRU (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF RILE TO ALABAMA)

NAME OF OWNER CONSULTANT:



016977

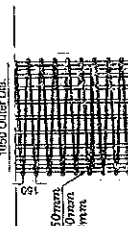
V
FHECOR 
Ingenieros Consultores

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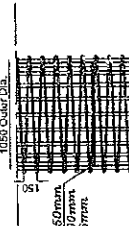
DWG. FILE:

PILES AT AXES (P1,P2&P3)

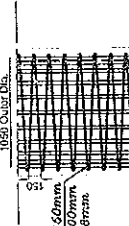
ENGINE NO.:	DATE:	SCALE:
4	10-2-2007	AS SHOWN
DRAWING BY:	CHECKED BY:	REVIEWED BY:
ENG. BILAL FAUZI	ENG. AMINAH AL-SAYED	ENG. MUHAMMAD SAHAB

SUPERVISOR: _____
QB-PMI-PH-00

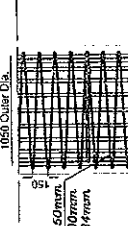
05 Helical St. P=150mm
4016 L=12000mm
1016 L=3096mm



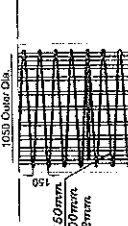
①6 Helical St. P=150mm
1916 L=12000mm
1916 L=6676mm



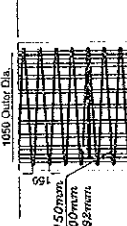
⑦ Helical St. P=150mm
5012 L=1200mm
1012 L=4848mm



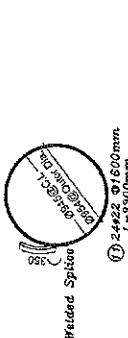
19412 Helical St. $P=150mm$
19412 $L=12000mm$
1412 $L=10584mm$



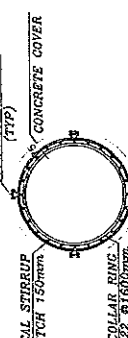
09) Helical St. $P=150mm$
 $2012 L=12000mm$
 $1612 I=9019mm^4$



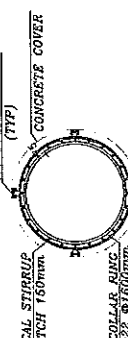
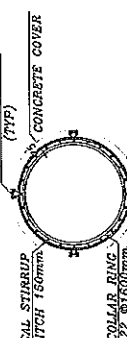
⑩ Helical St. $P=150\text{mm}$
9412 $L=12000\text{mm}$
4412 $L=14200\text{mm}$



⑪ 24022 01600mm



A circular stamp with the letters 'NC' in the center and the year '1977' at the bottom. The stamp is partially cut off on the left side.



177

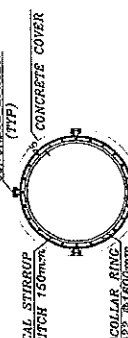
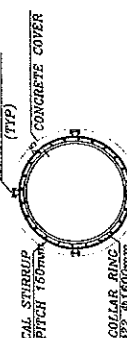
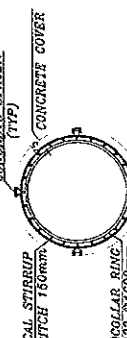


PLATE 1



242

[illegible]

ABBREVIATION :

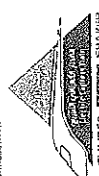
- T.O.A = Top of Asphalt
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- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

REB-V001-CC-015-001-N01-E02 RUGWA ROAD BRIDGE GENERAL NOTES ANUMENT 3, DEFINITION	REB-V001-CC-015-001-N01-E02 RUGWA ROAD BRIDGE GENERAL NOTES ANUMENT 3, DEFINITION
---	---

NO.	DATE	ENG.	REVISION
0	31-10-2012	MAS	CAUTION FOR CORRUPTION AS PER RULAW POLICE No. 1049


 وزارة النقل
 MINISTRY OF TRANSPORT
 AND PUBLIC WORKS
 الجمهورية العربية
 ARAB REPUBLIC OF EGYPT
 السكة الحديدية
 RAILWAYS
 القاهرة - قنا
 CAIRO - QUAH

NAME OF PROJECT: ELECTRICAL EXPRESS TRAIN (HIGH SPEED-RAIL)
SECTION THREE DESIGN VEST [OF NINE TO BE AWARDED]



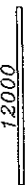
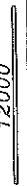
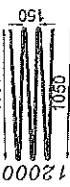
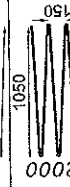
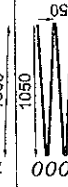
FHECOR [a]
Ingenieros Consultores



ONG. TITL.
RECWA ROAD BRIDGE
PILES AT AXES (P1, P2, P3)
PILE REINFORCEMENT BARS SHOP DRAWING

UWING NO.	DATE	SCALE
TYPE: 40-50-11400 (P.E. 50)	OR: 2022	AS SHOWN
DRAWING BY:	CHECKED BY:	NOTED BY:
EHO, Edgier Furry	ENG, Aslam Mueen	ENG, Shamsul Dade
		
SUPERVISOR		APPROVED BY:
DR, Mohamad Mueen		ENG, Amir Tazki

Arab House of Engineering
 شارع فلسطين - حي فلسطين - القاهرة
 Tel: 422016430 00201
 ١٠

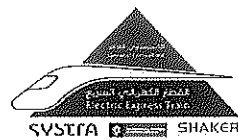
BAR MARK	BAR DIA.	SYMBOL(mm.)	NUMBER QTY	LENGTH (mm.)	TOTAL WEIGHT (kg)
01	32		24	12000	1820.44
02	25		24	12000	1111.11
03	25		24	12000	1111.11
04	22		24	6400	458.90
05	16		4+1	12000 + 3096	75.85 + 4.89
06	16		13+1	12000 + 6576	246.51 + 10.39
07	12		5+1	12000 + 4848	53.33 + 4.30
08	12		19+1	12000 + 10584	202.66 + 9.40
09	12		20+1	12000 + 9072	213.33 + 8.01
10	12		9+1	12000 + 11292	98.00 + 10.03
11	22		24	3300	236.62

Total	5672.88
-------	---------

Pile Diameter	Ø12	Ø16	Ø22	Ø25	Ø32
TOTAL LENGTH(M)	678.47	213.69	233.39	577.2	288.04
TOTAL WEIGHT(Kg)	597.06	337.64	695.52	2222.22	1820.44

ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.

REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			12/9/2022																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (28))			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 30 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 6:40 pm			Concrete Volume: 51 m3	
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			12/9/2022	A



EGYPT



SYSTEMA

AEC CONSULTING ENGINEERS
MOHAMMAD BAKHOU

Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	13
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	12/9/2022
Pile No.	P28	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.742 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.09 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	69.649
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.54

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585394.044	830501.894
Actual	585394.052	830501.886
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

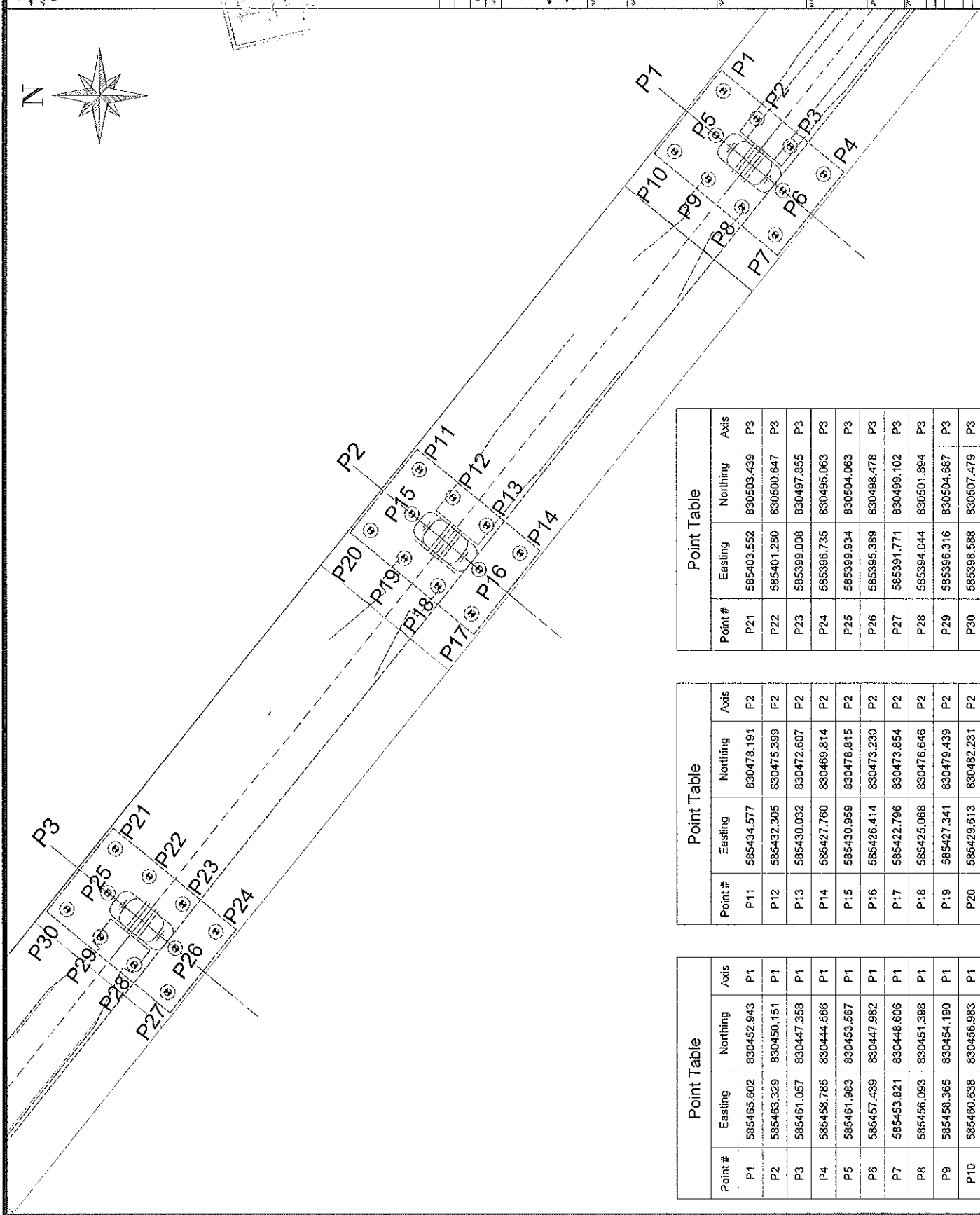
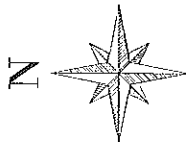
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.03	Less Than 1.5	1.06
Viscosity(Sec.)	30:70 Sec.	35	≤90 Sec.	38
Sand Content %	Less than 4%	N/A	Less than 2%	1

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	12/9	9:10	16:00	Cleaning	-	-	-	
Install Cages	12/9	16:30	17:20	Pouring	12/9	18:40	20:10	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

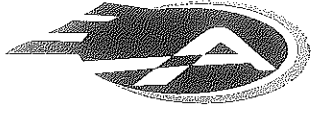
ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERIDATOR) AS PER THE RECEIVED SITE SURVEY.



Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

Point Table				
Point #	Easting	Northing	Axis	
P11	585434.577	830478.191	P2	
P12	585432.305	830475.399	P2	
P13	585430.032	830472.607	P2	
P14	585427.760	830469.814	P2	
P15	585430.959	830478.815	P2	
P16	585426.414	830473.230	P2	
P17	585422.796	830473.854	P2	
P18	585425.068	830476.646	P2	
P19	585427.341	830479.439	P2	
P20	586429.613	830482.231	P2	

Point Table			
Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.557	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.538	830456.983	P1



Al Amal Ready mix

الأمل
للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المخصص به ٦٠ مليون جنيه
والمصدر ٧٥ مليون جنيه

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B28
Dimension : 15*15*15 cm
Date of casting : 12/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	12/09/2022	19/09/2022	7	8.418	107600	478	482
2	12/09/2022	19/09/2022	7	8.537	101800	452	
3	12/09/2022	19/09/2022	7	8.501	116100	516	

التوقيع:

مهندس / أحمد عرابى
مدير المصنع

الاستشارى

جودة المشروع

Head Office : 41 Losaka st. - Second Floor - Flat 3 Mohamed El-Maqrief st.
Nasr City - / Telfax: 26772572

Planet : New Cairo - Katamia - Pfart 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

الإدارة : ٤١ ش لوساكا - الدور الثاني شقة ٣ - متفرع من ش محمد المقريف

مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢

موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com

website : www.alamalreadymix.com

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائى السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B28
Dimension : 15*15*15 cm
Date of casting : 12/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

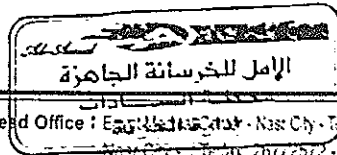
NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	12/09/2022	10/10/2022	28	8.521	125700	559	555
2	12/09/2022	10/10/2022	28	8.377	131200	583	
3	12/09/2022	10/10/2022	28	8.498	117400	522	

التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد عبد الرحمن
مدير المصنع



الإدارة : أيجيبت ميديكال ستار - مدينة نصر - المنطقة العشرة - الدور الخامس وحدة (١٠٧) - Nasr City - Tenth District - Fifth Floor Unit (437) - ٢٣٥٧٣٣٠٧ - ٢١٧٧٢٥٧٢
Head Office : ٢٣٥٧٣٣٠٧ - ٢١٧٧٢٥٧٢
New City - Tel.: 20112572 - 23573307
Planet : New Cairo - Katamia - Part 82 - 83
Tel.: 29341138 / Fax: 29340109
01227855596 - 01068844170 - 01006033880
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@alamarreadymix.com
website: www.alamarreadymix.com

GENERAL NOTES

- 1. All dimensions are in millimeters.
- 2. All reinforcement bars shall be supplied with standard lap.
- 3. All reinforcement bars shall be supplied with standard lap.
- 4. All reinforcement bars shall be supplied with standard lap.
- 5. All reinforcement bars shall be supplied with standard lap.
- 6. All reinforcement bars shall be supplied with standard lap.
- 7. All reinforcement bars shall be supplied with standard lap.
- 8. All reinforcement bars shall be supplied with standard lap.
- 9. All reinforcement bars shall be supplied with standard lap.
- 10. All reinforcement bars shall be supplied with standard lap.

All levels should be checked before construction in situ.

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- 2. All levels should be checked before construction in situ.
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REINFORCEMENT SCHEDULE
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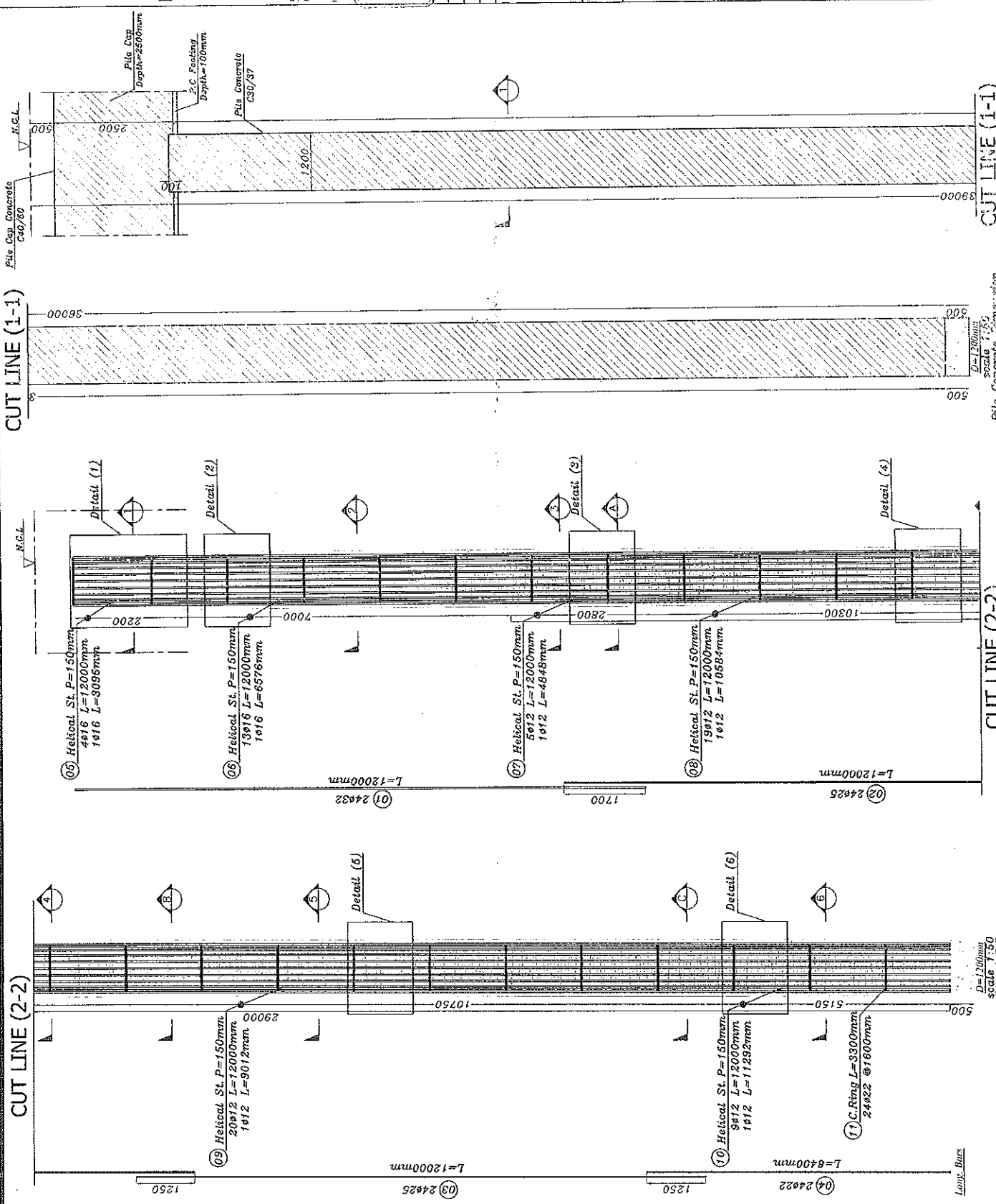
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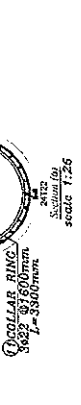


CUT LINE (1-1)

CUT LINE (2-2)

Long Bars

Scale 1:50
Pile R.F.T



REQUEST to POUR CONCRETE



Contractor Company			Designer Company	
Issued by Contractor	Name	Sign	Date	Time
			15/9/2022	
Received by ER		محرم باخوم	CON	
Contractor Reference	النيل العامة			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

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Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (23))		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐ Grade: 30 kg/cm ²
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour: 2:50 pm	Concrete Volume: 51 m3		

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			15/9/2022	A



BAUER EGYPT



SYSTRA

ACE CONSULTING ENGINEERS
MOHAMMAD BAKI QUMBored Piles Construction
Pile Record SheetPile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	17
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	15/9/2022
Pile No.	P29	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.6 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.03 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	69.570
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.46

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585396.316	830504.687
Actual	585396.322	830504.678
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

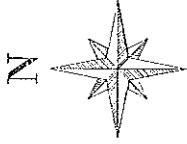
Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.06
Viscosity (Sec.)	30:70 Sec.	33	≤90 Sec.	37
Sand Content %	Less than 4%	N/A	Less than 2%	1.50

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	15/9	7:00	10:00	Cleaning	-	-	-	
Install Cages	15/9	11:20	14:00	Pouring	15/9	14:50	16:00	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			



NOTES

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON THE EGYPTIAN TRANSVERSE
MERIDIAN AS PER THE RECEIVED SITE SURVEY.

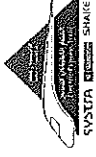


NO.	DATE	BY	REVISION
01	08/02/22	K.A.	ISSUED FOR CONSTRUCTION

OWNER
الهيئة العامة للغمر والنقل
ARAB REPUBLIC OF EGYPT
GENERAL AUTHORITY
OF WATERWAY
CONSTRUCTION
AND
NAVIGATION
CABLE

NAME OF PROJECT
ELECTRICAL EXPANSION THREE HIGH SPEED RAIL
SECTION THREE (FROM WEST OF FILE TO HAWASH)

NAME OF OWNER CONSULTANT

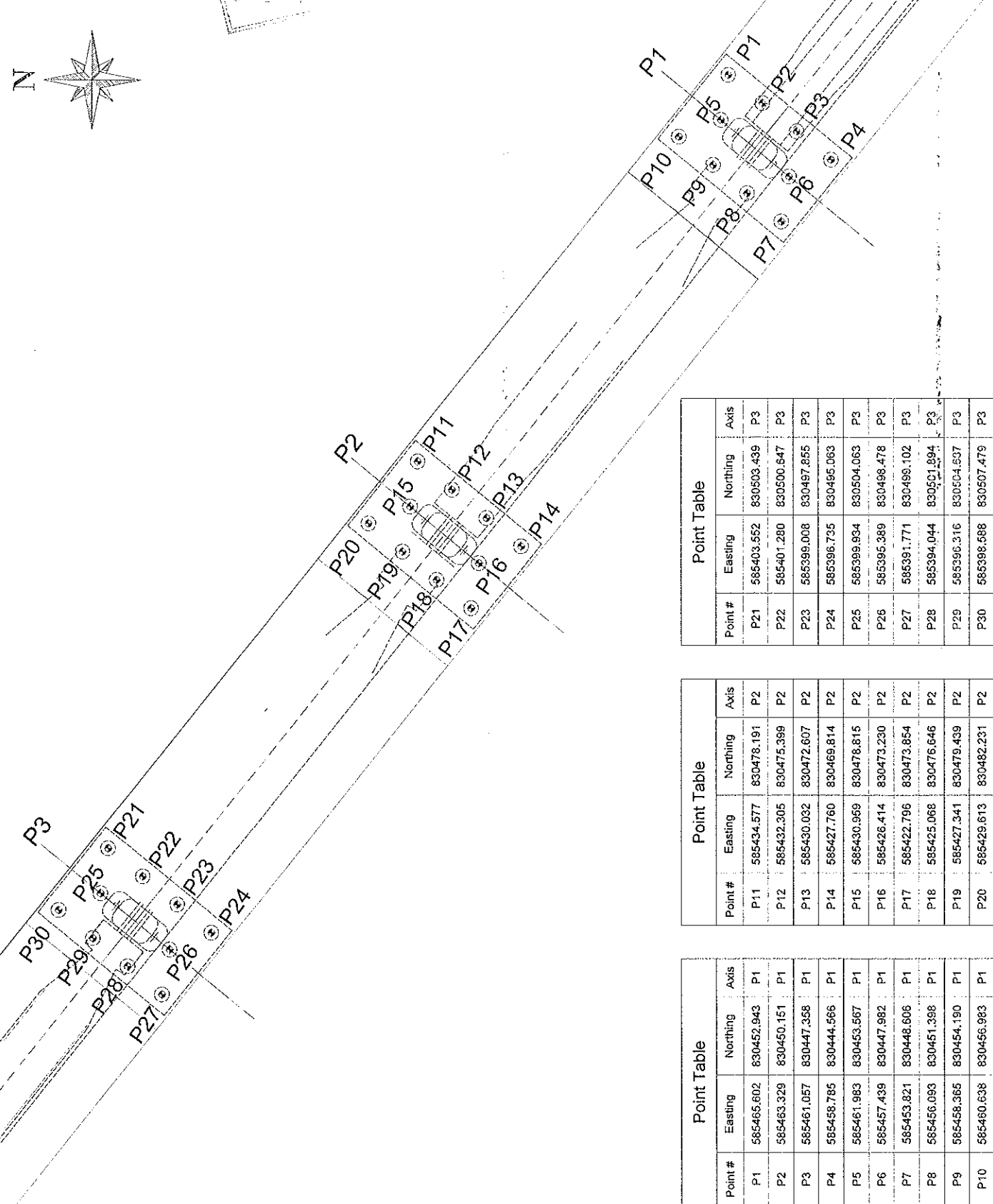


NAME OF CONTRACTOR CONSULTANT
FHECOR
Ingenieros Consultores



NAME OF TITLE
REGINA BRIDGE
PILES COORDINATES FROM APPROVED AXIS

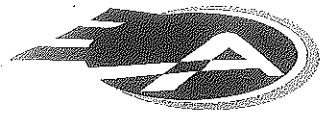
DATE	SCALE
08/02/22	1:100
DRAWING BY	CHECKED BY
Eng. Mohamed A. El-Sayed	Eng. Mohamed A. El-Sayed
DATE	SCALE
08/02/22	1:100
DRAWING BY	CHECKED BY
Eng. Mohamed A. El-Sayed	Eng. Mohamed A. El-Sayed



Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830496.478	P3
P27	585391.771	830490.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.507	P3
P30	585398.588	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830475.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.587	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.608	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1



Al Amal Ready mix

الأمل

للخرسانة الجاهزة ش.م.م.
رأس المال المرخص به ١٥٠ مليون جنيه
والصادر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B29
Dimension : 15*15*15 cm
Date of casting : 15/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	15/09/2022	22/09/2022	7	8.593	106900	475	488
2	15/09/2022	22/09/2022	7	8.346	108800	484	
3	15/09/2022	22/09/2022	7	8.395	114000	507	

التوقيع:
مهندس / أحمد عرابى
مدير المصنع

الاستشارى
[Signature]

جودة المشروع
مركز صلاح بولس
[Signature]

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : مول إيجيبت ميدكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر/ تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المخصص به ١٥٠ مليون جنيه
والصندوق ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B29
Dimension : 15*15*15 cm
Date of casting : 15/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

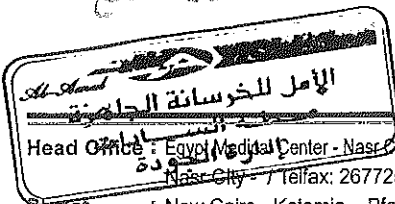
NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	15/09/2022	13/10/2022	28	8.621	146800	652	660
2	15/09/2022	13/10/2022	28	8.432	149100	663	
3	15/09/2022	13/10/2022	28	8.578	149900	666	

التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد عرابى
مدير المصنع



Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - / Tel/fax: 26772572 - 23573307

Planet : New Cairo - Katamia - Ppart 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

الإدارة

: إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر/ تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٦٧٧٢٥٧٢

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت: ٢٩٨٤١١٣٦ / ف: ٢٩٨٤١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت: ٠٤٨ / ٢٦٣٠١٤٠ - ف: ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٩٧٣

موقع العمل

[illegible]

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/9%
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G. = Normal Ground Level

WORKING REFERENCES :

REGWA ROAD BRIDGE
GENERAL NOTES
ADJUSTMENT 1, DEFINITIVE

REGWA ROAD BRIDGE
SUBSTRUCTURE
PIERS 1, 2, 3, NORTH ABUTMENT 1

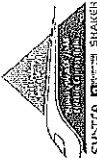
REGWA ROAD BRIDGE
GENERAL NOTES
ADJUSTMENT 1, DEFINITIVE

Arabic House of Engineering

	D	MAY 08 9AM '67	ISSUED FOR CREDIT INFORMATION PER REVIEW NOTICE NO. MAY 9
	PAGE	SERIALS	REVISIONS

NAME OF PROJECT: ELECTRICAL EXPRESS TUGSIN HIGH SPEED RAIL
SECTION THREE (FROM WEST OF RILEY TO ALABAMA)

WASIELE THE QUARTER CONSOLE YANT



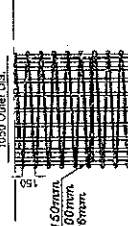
NAME OF CONTRACTION CONSULTANT

AV
FHECOR 
Ingenieros Consultores

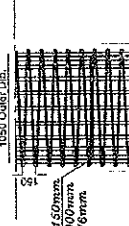
MAIN CONTRACTOR:



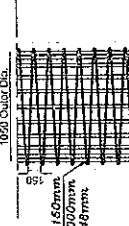
OWING TO:	DATE:	SCALE
NSM - 5501 TO 118 08 00 00	DA-022	AS SHOWN
CHANNING ST.	CHECKED BY:	REVISED BY:
END TAYLOR PARK	ENG. Abdullah Husein	ENR. Mawmaw Zai
SUBMITTED BY:	APPROVED BY:	
DR. Hamed al-Hadi	mag	ENR. Hamed Haddad



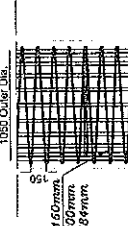
⑤ Helical St. P=150mm
4φ16 L=12000mm
1φ16 L=3096mm



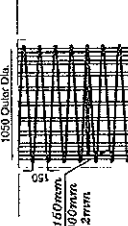
②6 Helical St. $P=150\text{mm}$
13916 $L=12000\text{mm}$
1016 $L=6576\text{mm}$



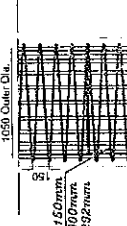
⑦ Helical St. P=150mm
6012 L=1200mm
1012 L=4848mm



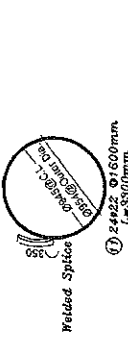
8) Helical St. P=150mm
1#12 L=12000mm
1#12 L=10584mm



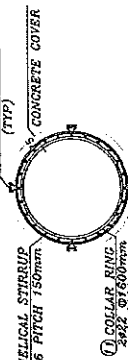
9) Helical St. P=150mm
20x12 L=12000mm
1x12 L=9012mm



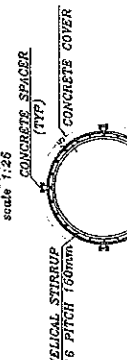
① Helical St. P=150mm
9012 L=12000mm
1012 L=11292mm



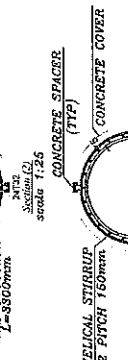
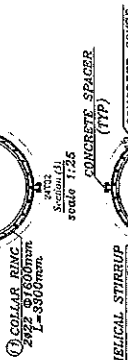
① 24022 01600mm
L=9900mm



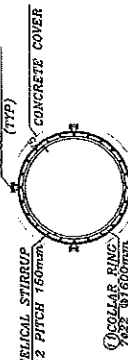
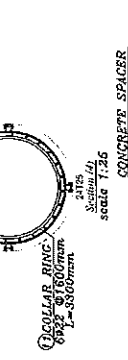
HELICAL STIRRUP



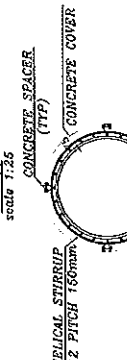
CONCRETE SPACER

Section (2)
2472

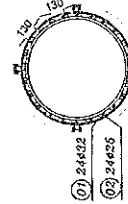
① COLLAR RING
2022 Ø1600mm



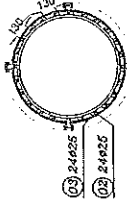
HELICAL STIRRUP



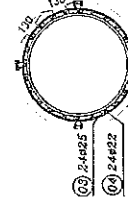
CONCRETE SPACER



① 24432
② 24425



Section 501



Section of a circular structure, possibly a pipe or tunnel, showing internal components. Callout 03 points to a vertical support or bracket, and callout 04 points to a horizontal support or bracket.

[illegible]

ABBREVIATION :

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

RULIWA ROAD BRIDGE GENERAL NOTES ABUTMENT 1 DETAIL	RECIVA ROAD BRIDGE SUBSTRUCTURE PIERCE PLATE REINFORCEMENT
--	--

NO.	DATE	ENG.	REVISION
0	31-03-2012	MAS	DESIGN FOR CONSTRUCTION AS PER REVIEW NOTICE NO. 1654


 جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للنقل والكابري
 والنقل الجوي
 GENERAL AUTHORITY
 OF AIR AND
 MARITIME TRANSPORT

ELECTRICAL EXPRESS TRAIN (HIGH SPEED-RAIL)
SECTION THREE (FROM WEST OF NILE TO ALAMAYNT)

W FHECOR
Ingenieros Consultores

PILE REINFORCEMENT BARS SHOP DRAWING

PROJECT NO:	05-2022	AS SHOWN
PROJECT NAME:	MSW-001-SO-10-403-PT-100	REVISED BY:
ISSUED BY:	ENR. Elynn Parry	CHECKED BY:
DATE:	ENR. Abdullah Nasser	ENR. Mahmoud Salah
APPROVED BY:	4	msc
SUPERVISOR:		

DR. Wilhelm Lorenz Eng. Javier Tomic

Total	5672.88
-------	---------

Pile Diameter	Ø12	Ø16	Ø22	Ø25	Ø32
TOTAL LENGTH(M)	678.47	213.69	233.39	577.2	288.04
TOTAL WEIGHT(Kg)	597.06	337.64	695.52	2222.22	1820.44

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.
LENGTH OF PILE = 39 M BELOW GROUND LEVEL ACCORDING TO GEOTECHNICAL REPORT.

REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			29/8/2022																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (30))		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade:	30 kg/cm ²		
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			29/8/2022	A



SVSTRA

AEC CONSULTING ENGINEERS
MOHAMMAD BAKHOUN

Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	2
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	29/8/2022
Pile No.	P30	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.56 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.09 m	Theoretical Concrete Q	46.104 m ³	Temporary Casing Level	69.465
Act. Drilling Length	40.8 m	Act. Concrete Q	51 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.36 m

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585398.588	830507.479
Actual	585398.605	830507.474
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	33	≤90 Sec.	36
Sand Content %	Less than 4%	N/A	Less than 2%	1.00

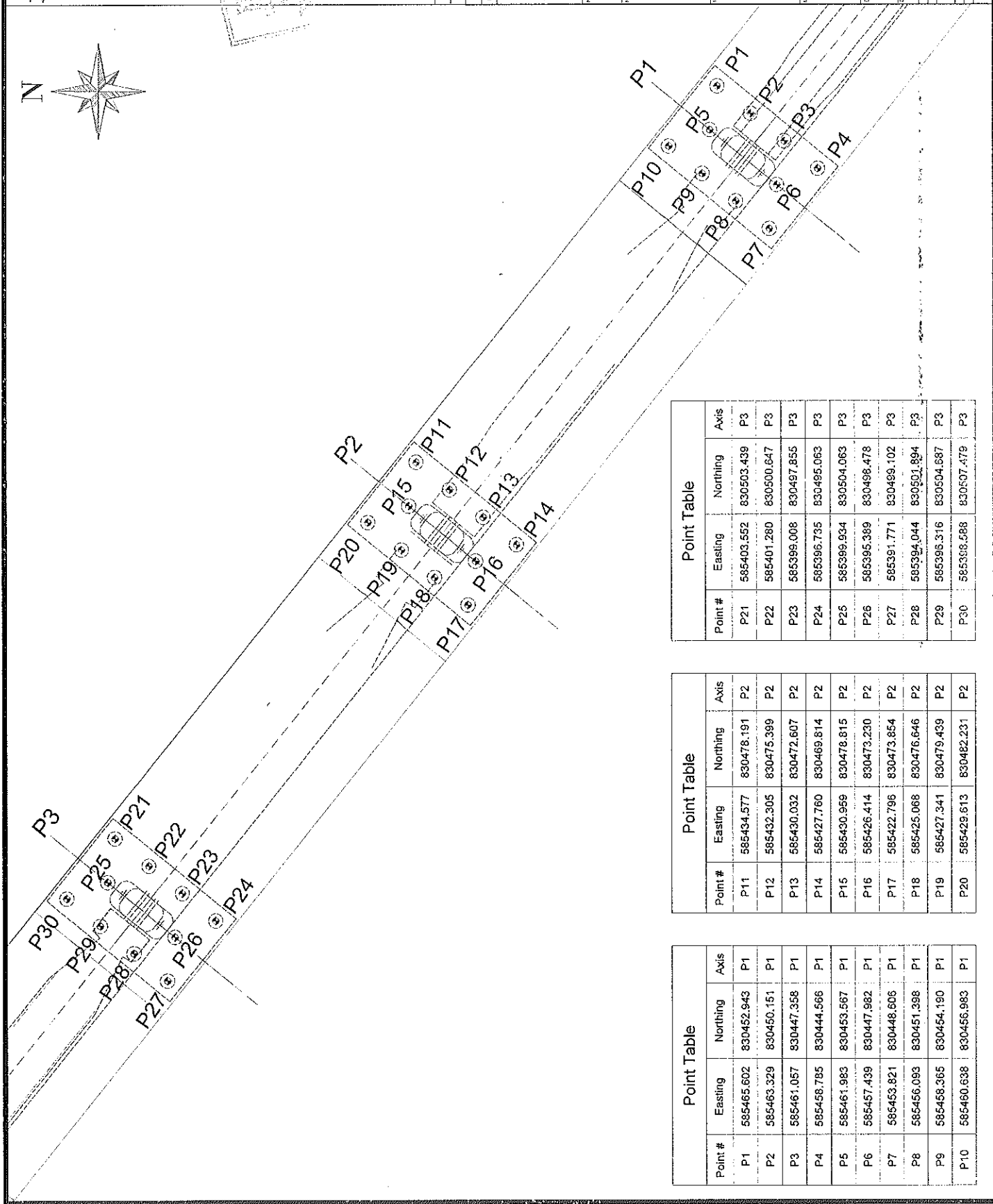
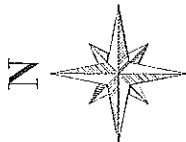
Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	29/8	7:30	11:40	Cleaning	-	-	-	
Install Cages	29/8	12:15	13.35	Pouring	29/8	19:20	21:00	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

NOTES:

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE INDICATED.
ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERIDIAN) AS PER THE RECEIVED SITE SURVEY.



Point Table			
Point #	Easting	Northing	Axis
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P5	585461.983	830453.567	P1
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P8	585456.093	830451.398	P1
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Point Table			
Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830496.478	P3
P27	585391.771	830498.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

OWNER		REVISION	
NO.	ISSUED FOR CONSTRUCTION	NO.	DATE
1	15/01/2023	1	15/01/2023

مملكة مصر العربية
جمهورية مصر العربية
وزارة النقل
مصلحة السكة الحديد
إدارة الجسر
إدارة الجسر
إدارة الجسر

NAME OF PROJECT
ELECTRICAL EXPANSION TRAMWAY SPEED AXIS
SECTION THREE FROM WEST OF TALE TO LUGHA
NAME OF OWNER CONSULTANT



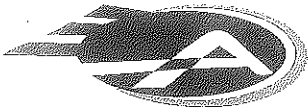
NAME OF CONTRACTOR CONSULTANT
FHECOR Ingenieros Consultores



DATE OF TITLE
RECONSTRUCTION OF BRIDGE
PILES COORDINATES FOR APPROVED AXIS
FROM P1 TO P30

DATE	SCALE
15/01/2023	1:100
DATE	SCALE
15/01/2023	1:100

SUPERVISOR	APPROVED BY
DR. Mohamed Elmaghrabi	DR. Jassim Elmaghrabi



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٠ مليون جنيه
والمصدر ٢٥ مليون جنيه

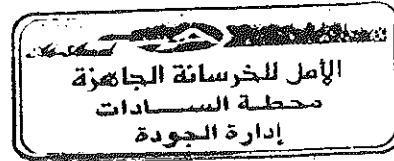
COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B30
Dimension : 15*15*15 cm
Date of casting : 29/08/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	29/08/2022	03/09/2022	5	8.418	95510	424	401
2	29/08/2022	03/09/2022	5	8.479	89660	398	
3	29/08/2022	03/09/2022	5	8.436	85250	379	

التوقيع:

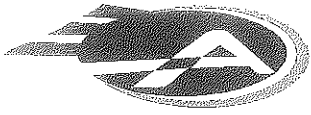
مرکز هالوبوليس مهندس / أحمد عرابى
مدير المصنع



Head Office : 41 Losaka st. - Second Floor - Flat 3 Mohamed El-Maqrief st.
Nasr City - / Telfax: 26772572
Planet : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrirel Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : ٤١ ش لوساكا - الدور الثاني شقة ٣ - متفرع من ش محمد المقرئف
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website : www.alamalreadymix.com



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الاسمنتية
رأس المال المخصص به ٦٠ مليون جنيه
والمصدر ٢٥ مليون جنيه

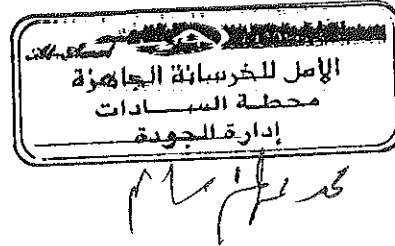
COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B30
Dimension : 15*15*15 cm
Date of casting : 29/08/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	29/08/2022	05/09/2022	7	8.676	87570	389	358
2	29/08/2022	05/09/2022	7	8.618	76090	338	
3	29/08/2022	05/09/2022	7	8.363	77930	346	

التوقيع:

مهندس / أحمد عرابى
مدير المصنع



الإدارة : ٤١ ش لوساكا - الدور الثانى شقة ٣ - متفرع من ش محمد المقرئف - مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢
Head Office : 41 Losaka st. - Second Floor - Flat 3 Mohamed El-Maqrief st. - Nasr City - / Telfax: 26772572
Planet : New Cairo - Katarnia - Pfar 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industriai Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت: ٢٩٨٤١١٣٦ / ف: ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت: ٠٤٨ / ٢٦٣٠١٤٥ - ف: ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website : www.alamalreadymix.com



Al Amal Ready mix

الأمل

للخرسانة الجاهزة
رأس المال المرخص به ١٥٠ مليون جنيه
والصادر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B30
Dimension : 15*15*15 cm
Date of casting : 29/08/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	29/08/2022	26/09/2022	28	8.689	131800	586	569
2	29/08/2022	26/09/2022	28	8.581	128400	571	
3	29/08/2022	26/09/2022	28	8.661	123700	550	

التوقيع: مهندس / أحمد عزابى
مدير المصنع

مدير عام
مدير المصنع

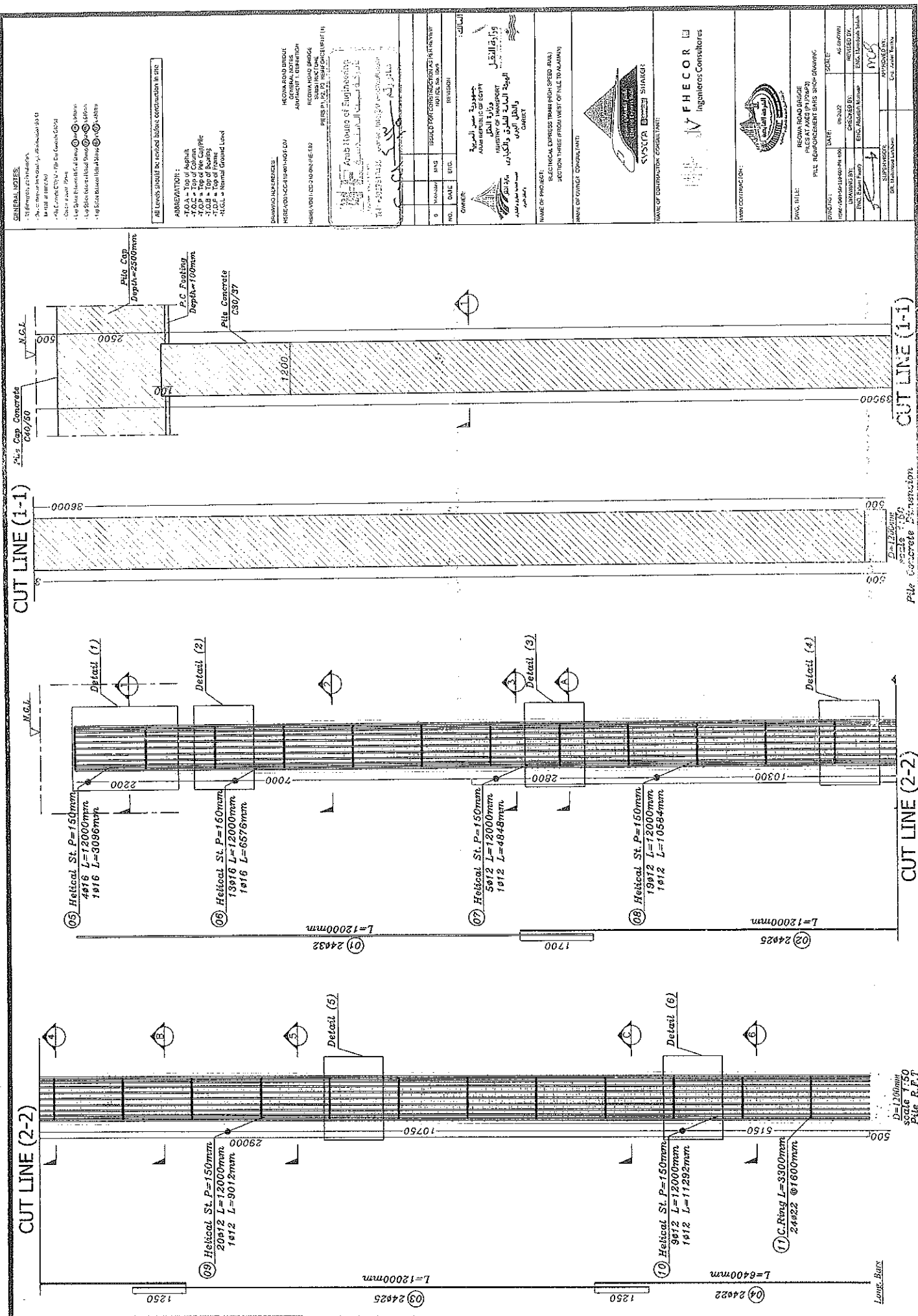
مدير المصنع

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

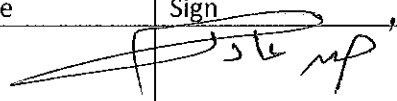
E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

الإدارة : مول إيجيبت ميدكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤١٠٩٠
٠١٠٦٨٨٤٤١٧٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٠٦٨٨٤٤١٧٠
مدينة السادات - المنطقة الصناعية الصناعية قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٤٩٧٦٤٩٧ - ٠١٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣



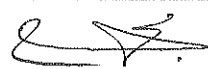
SUBMISSION OF DOCUMENTS



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			٢٠١٨/١٢/٩																	
Received by ER		محرم باخوم	SUB	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		steel bar test

NB: Package 1 Only (Package 2 via Aconex)				
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			Report On Tension and Cold Bend Tests	7
2			Report on chemical analysis test for steel bar specimens	3
3				
4				
Comments by:			Comments by	
التابع مقبولة ولا مانع من العمل. على ان يتم اخذ عينات بصورة دورية طبقاً للمواصفات المعمول بها				

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
Designer				A
GARB *				
ER	محمد ابراهيم		٢٠١٨/١٢/٩	
NAT				

* Alignment/ Bridges/ Culverts only

رقم التقرير: B0798B/2022

التاريخ: 29/08/2022

تقرير عن نتائج اختبار التحليل الكيميائي على عينات من صلب التسليح

العميل: شركة النيل العامة للطرق والكباري
المشروع: كوبري تقاطع طريق ريجوا من الكم 189+540 الى الكم 189+680
المالك: الهيئة العامة للطرق والكباري
الاستشاري: مكتب محرم باخوم - سيسترا
تم إعداد هذا التقرير بناءً على طلب شركة النيل العامة للطرق والكباري بخصوص إجراء اختبار التحليل الكيميائي على عينات من صلب التسليح.
العينات الموردة:

- عدد "1" عينة صلب تسليح ذو نتوءات بقطر اسمي 10 مم كود HADIDNA 500DWR .
- عدد "1" عينة صلب تسليح ذو نتوءات بقطر اسمي 12 مم كود HADIDNA 500DWR .
- عدد "1" عينة صلب تسليح ذو نتوءات بقطر اسمي 16 مم كود HADIDNA 500DWR .
- عدد "1" عينة صلب تسليح ذو نتوءات بقطر اسمي 18 مم كود HADIDNA 500DWR .
- عدد "1" عينة صلب تسليح ذو نتوءات بقطر اسمي 22 مم كود HADIDNA 500DWR .
- عدد "1" عينة صلب تسليح ذو نتوءات بقطر اسمي 25 مم كود HADIDNA 500DWR .
- عدد "1" عينة صلب تسليح ذو نتوءات بقطر اسمي 32 مم كود EGS ورتبة صلب "B500DWR" طبقاً لما هو وارد بخطاب العميل.

تم توريد العينات إلى الوحدة بتاريخ 11/08/2022 وذلك بمعرفة العميل وعلى مسؤوليته، وقد تم أخذ بيانات العينات من خطاب العميل أو من على العينات.

النتائج

1- عينة صلب تسليح قطر 10 مم:

C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Al %	Co %
0.32928	0.17006	1.51988	0.01973	0.01946	0.02938	0.00539	0.04283	0.00192	0.00515
Cu %	Nb %	Ti %	V %	W %	Pb %	Sn %	As %	Sb %	Zn %
0.15872	<0.001	0.00060	0.00207	<0.005	0.00404	0.02205	0.02897	0.03350	0.00469
المكافئ الكربوني		0.0340							

رقم التقرير: B0798B/2022

التاريخ: 29/08/2022

2- عينة صلب تسليح قطر 12 مم:

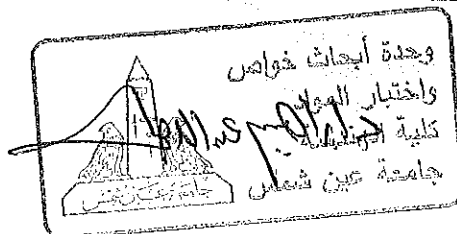
C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Al %	Co %
0.34001	0.21038	1.38039	0.01690	0.02044	0.02901	0.01235	0.06894	0.00230	0.00612
Cu %	Nb %	Ti %	V %	W %	Pb %	Sn %	As %	Sb %	Zn %
0.26864	0.00111	0.00056	0.00226	<0.005	0.00382	0.02138	0.03253	0.02832	0.00413
المكافئ الكربوني		0.60130							

3- عينة صلب تسليح قطر 16 مم:

C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Al %	Co %
0.32255	0.20032	1.43650	0.01472	0.01781	0.03340	0.00609	0.04549	0.00229	0.00548
Cu %	Nb %	Ti %	V %	W %	Pb %	Sn %	As %	Sb %	Zn %
0.14048	<0.001	0.00080	0.00213	<0.005	0.00434	0.02136	0.03249	0.02748	0.00513
المكافئ الكربوني		0.58269							

4- عينة صلب تسليح قطر 18 مم:

C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Al %	Co %
0.31215	0.20121	1.44135	0.01980	0.02269	0.03340	0.00569	0.04638	0.00236	0.00564
Cu %	Nb %	Ti %	V %	W %	Pb %	Sn %	As %	Sb %	Zn %
0.14051	0.00176	0.00082	0.00232	<0.005	0.00402	0.02146	0.03725	0.03209	0.00537
المكافئ الكربوني		0.57312							



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رقم التقرير: B0798B/2022

التاريخ: 29/08/2022

5- عينة صلب تسليح قطر 22 مم:

C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Al %	Co %
0.34562	0.20962	1.36366	0.01552	0.01643	0.03956	0.01049	0.05826	0.00246	0.00785
Cu%	Nb%	Ti%	V%	W%	Pb%	Sn%	As%	Sb%	Zn%
0.25376	0.00209	0.00098	0.00189	<0.005	0.00385	0.01975	0.02643	0.02817	0.00496
المكافئ الكربوني		0.60409							

6- عينة صلب تسليح قطر 25 مم:

C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Al %	Co %
0.35418	0.17370	1.47633	0.02005	0.01824	0.02260	0.00849	0.04505	0.00221	0.00658
Cu%	Nb%	Ti%	V%	W%	Pb%	Sn%	As%	Sb%	Zn%
0.18224	0.00155	0.00075	0.00246	<0.005	0.00467	0.02008	0.03013	0.02718	0.00630
المكافئ الكربوني		0.62210							

7- عينة صلب تسليح قطر 32 مم:

C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Al %	Co %
0.35041	0.22069	0.96942	0.02310	0.02192	0.10064	0.01625	0.11050	0.00261	0.01190
Cu%	Nb%	Ti%	V%	W%	Pb%	Sn%	As%	Sb%	Zn%
0.43248	0.00192	0.00132	0.00220	<0.005	0.00451	0.02577	0.03385	0.02639	0.00947
المكافئ الكربوني		0.57200							

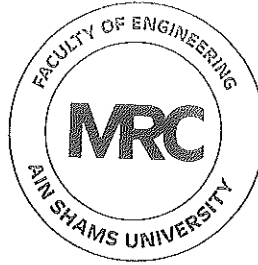
قائم بأعمال مدير الوحدة

راجع التقرير

أعد التقرير

وحدة أبحاث خواص واختبار المواد
كلية الهندسة
جامعة عين شمس
د. إبراهيم عبد اللطيف يوسف

كيميائي/ أشرف رزق



Ref. No.: B0798/2022

Date: 28/08/2022

Report on Tension and Cold Bend Tests

Client: شركة النيل العامة للطرق والكباري

Project: كوبري تقاطع طريق ريجوا من الكم 189+540 إلى الكم 189+680

Owner: الهيئة العامة للطرق والكباري

Consultant: مكتب محرم باخوم - سيسترا

Number of Specimens: 21

Type:

Deformed bars

Delivered by: Client on 11/08/2022

(a) Tension Test

Specimen Number	4	5	6
Code	HADIDNA B500DWR		
Nominal Diameter (d_n - mm)	12	12	12
Weight of Specimen (W - g)	281	275	279
Length of Specimen (L - mm)	317	309	310
Weight per Unit Length	Actual (kg/m')	0.886	0.890
	Deviation from nominal (%)	-0.105	0.293
Gauge Length (L_0 - mm)	60	60	60
Nominal Area (A_n - mm ²)	113.10	113.10	113.10
Yield Load (P_y - ton)	6.50	6.60	6.50
Maximum Load (P_{max} - ton)	8.50	8.50	8.50
Final Length (L_f - mm)	73	74	73
Yield Stress (R_{eH} - N/mm ²)	574.7	583.5	574.7
Tensile Strength (R_m - N/mm ²)	751.5	751.5	751.5
R_m / R_{eH}	1.31	1.29	1.31
Elongation after Breaking (A_5 - %)	21.6	23.3	21.6

(b) Cold Bend Test

Number of specimens passed the test (ALL)

Number of specimens failed the test (NON)

*Tests were carried out according to ES 262-2/2015 "Steel for the Reinforcement of Concrete".

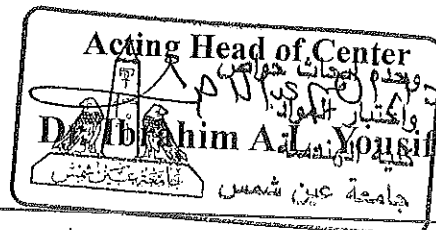
*All information was taken from the client letter (on his sole responsibility) or from the delivered specimens.

Prepared by
Eng. Karim Mohsen

2/7

Revised by

أ. محمد م. م. م.



Ref. No.: B0798/2022

Date: 28/08/2022

Report on Tension and Cold Bend Tests

Client: شركة النيل العامة للطرق والكباري
Project: كوبري تقاطع طريق ريجوا من الكم 189+540 إلى الكم 189+680
Owner: الهيئة العامة للطرق والكباري
Consultant: مكتب محرم باخوم - سيسترا
Number of Specimens: 21 **Type:** Deformed bars
Delivered by: Client on 11/08/2022

(a) Tension Test

Specimen Number	1	2	3
Code	HADIDNA B500DWR		
Nominal Diameter (d_n - mm)	10	10	10
Weight of Specimen (W - g)	195	195	193
Length of Specimen (L - mm)	314	314	313
Weight per Unit	Actual (kg/m)	0.621	0.621
Length	Deviation from nominal (%)	0.778	0.778
Gauge Length (L_0 - mm)	50	50	50
Nominal Area (A_n - mm ²)	78.54	78.54	78.54
Yield Load (P_y - ton)	4.50	4.80	4.80
Maximum Load (P_{max} - ton)	5.70	6.00	6.00
Final Length (L_f - mm)	63	64	64
Yield Stress (R_{eH} - N/mm ²)	572.9	611.1	611.1
Tensile Strength (R_m - N/mm ²)	725.7	763.9	763.9
R_m / R_{eH}	1.27	1.25	1.25
Elongation after Breaking (A_5 - %)	26.0	28.0	28.0

(b) Cold Bend Test

Number of specimens passed the test (ALL)

Number of specimens failed the test (NON)

*Tests were carried out according to ES 262-2/2015 "Steel for the Reinforcement of Concrete".

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Prepared by
Eng. Karim Mohsen

1/7

Revised by
د. محمود

وحدة أبحاث خواص
اختبار المواد
كلية الهندسة
جامعة عين شمس
Acting Head of Center
Dr. Ibrahim A.L. Yousif

Ref. No.: B0798/2022

Date: 28/08/2022

Report on Tension and Cold Bend Tests

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Consultant: مكتب محرم باخوم - سيسترا
Number of Specimens: 21 **Type:** Deformed bars
Delivered by: Client on 11/08/2022

(a) Tension Test

Specimen Number		7	8	9
Code		HADIDNA B500DWR		
Nominal Diameter (d_n - mm)		16	16	16
Weight of Specimen (W - g)		595	589	590
Length of Specimen (L - mm)		377	374	374
Weight per Unit	Actual (kg/m')	1.578	1.575	1.578
Length	Deviation from nominal (%)	0.045	-0.169	0.000
Gauge Length (L_o - mm)		80	80	80
Nominal Area (A_n - mm ²)		201.06	201.06	201.06
Yield Load (P_y - ton)		11.20	11.00	11.20
Maximum Load (P_{max} - ton)		14.70	14.60	14.70
Final Length (L_i - mm)		98	102	101
Yield Stress (R_{eH} - N/mm ²)		557.0	547.1	557.0
Tensile Strength (R_m - N/mm ²)		731.1	726.1	731.1
R_m / R_{eH}		1.31	1.33	1.31
Elongation after Breaking (A_5 - %)		22.5	27.5	26.2

(b) Cold Bend Test

Number of specimens passed the test (ALL)

Number of specimens failed the test (NON)

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Prepared by
Eng. Karim Mohsen
3/7

Revised by
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Acting Head of Center
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واختبار المواد
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Consultant: مكتب محرم باخوم - سيسترا
Number of Specimens: 21 **Type:** Deformed bars
Delivered by: Client on 11/08/2022

(a) Tension Test

Specimen Number		10	11	12
Code		HADIDNA B500DWR		
Nominal Diameter (d _n - mm)		18	18	18
Weight of Specimen (W - g)		816	825	832
Length of Specimen (L - mm)		423	428	432
Weight per Unit	Actual (kg/m')	1.929	1.928	1.926
Length	Deviation from nominal (%)	-3.380	-3.456	-3.538
Gauge Length (L _o - mm)		90	90	90
Nominal Area (A _n - mm ²)		254.47	254.47	254.47
Yield Load (P _y - ton)		14.20	14.20	14.10
Maximum Load (P _{max} - ton)		18.60	18.50	18.60
Final Length (L _i - mm)		113	113	111
Yield Stress (R _{eH} - N/mm ²)		558.0	558.0	554.0
Tensile Strength (R _m - N/mm ²)		730.9	727.0	730.9
R _m / R _{eH}		1.31	1.30	1.32
Elongation after Breaking (A ₅ - %)		25.5	25.5	23.3

(b) Cold Bend Test

Number of specimens passed the test (ALL)

Number of specimens failed the test (NON)

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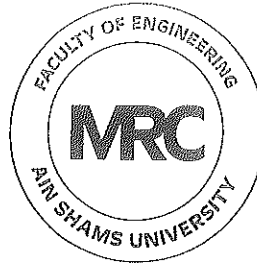
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4/7

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Acting Head of Center
Dr. Ibrahim A.L. Yousif



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Owner: الهيئة العامة للطرق والكباري

Consultant: مكتب محرم باخوم - سيسترا

Number of Specimens: 21

Type:

Deformed bars

Delivered by: Client on 11/08/2022

(a) Tension Test

Specimen Number		13	14	15
Code		HADIDNA B500DWR		
Nominal Diameter (d_n - mm)		22	22	22
Weight of Specimen (W - g)		1301	1273	1300
Length of Specimen (L - mm)		455	442	455
Weight per Unit Length	Actual (kg/m')	2.859	2.880	2.857
	Deviation from nominal (%)	-4.130	-3.435	-4.204
Gauge Length (L_o - mm)		110	110	110
Nominal Area (A_n - mm ²)		380.13	380.13	380.13
Yield Load (P_y - ton)		22.00	22.10	22.20
Maximum Load (P_{max} - ton)		28.50	28.50	28.60
Final Length (L_i - mm)		134	133	132
Yield Stress (R_{eH} - N/mm ²)		578.7	581.3	584.0
Tensile Strength (R_m - N/mm ²)		749.7	749.7	752.3
R_m / R_{eH}		1.30	1.29	1.29
Elongation after Breaking (A_5 - %)		21.8	20.9	20.0

(b) Cold Bend Test

Number of specimens passed the test (ALL)

Number of specimens failed the test (NON)

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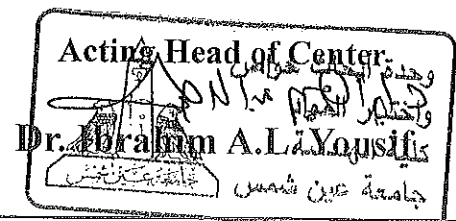
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Eng. Karim Mohsen

5/7

Revised by

د. محمود



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Consultant: مكتب محرم باخوم - سيسترا
Number of Specimens: 21 **Type:** Deformed bars
Delivered by: Client on 11/08/2022

(a) Tension Test

Specimen Number		16	17	18
Code		HADIDNA B500DWR		
Nominal Diameter (d_n - mm)		25	25	25
Weight of Specimen (W - g)		1902	1936	1863
Length of Specimen (L - mm)		505	494	485
Weight per Unit Length	Actual (kg/m')	3.766	3.919	3.841
	Deviation from nominal (%)	-2.209	1.756	-0.264
Gauge Length (L_o - mm)		125	125	125
Nominal Area (A_n - mm ²)		490.87	490.87	490.87
Yield Load (P_y - ton)		29.00	28.60	28.60
Maximum Load (P_{max} - ton)		37.50	37.20	37.00
Final Length (L_i - mm)		153	155	154
Yield Stress (R_{eH} - N/mm ²)		590.7	582.6	582.6
Tensile Strength (R_m - N/mm ²)		763.9	757.8	753.7
R_m / R_{eH}		1.29	1.30	1.29
Elongation after Breaking (A_5 - %)		22.4	24.0	23.2

(b) Cold Bend Test

Number of specimens passed the test (ALL)

Number of specimens failed the test (NON)

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Prepared by
Eng. Karim Mohsen

6/7

Revised by

د. محمد باخوم



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Consultant: مكتب محرم باخوم - سيسترا
Number of Specimens: 21 **Type:** Deformed bars
Delivered by: Client on 11/08/2022

(a) Tension Test

Specimen Number		19	20	21
Code		EGS		
Nominal Diameter (d_n - mm)		32	32	32
Weight of Specimen (W - g)		3379	3409	3520
Length of Specimen (L - mm)		538	551	564
Weight per Unit Length	Actual (kg/m')	6.281	6.187	6.241
	Deviation from nominal (%)	-0.467	-1.953	-1.094
Gauge Length (L_o - mm)		160	160	160
Nominal Area (A_n - mm ²)		804.25	804.25	804.25
Yield Load (P_y - ton)		43.00	45.00	45.20
Maximum Load (P_{max} - ton)		59.00	59.60	59.00
Final Length (L_i - mm)		192	194	190
Yield Stress (R_{eH} - N/mm ²)		534.6	559.5	562.0
Tensile Strength (R_m - N/mm ²)		733.6	741.0	733.6
R_m / R_{eH}		1.37	1.32	1.31
Elongation after Breaking (A_5 - %)		20.0	21.2	18.7

(b) Cold Bend Test

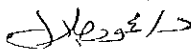
Number of specimens passed the test (ALL)

Number of specimens failed the test (NON)

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Revised by




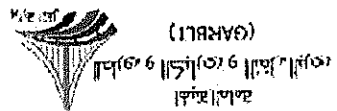
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CROSS-HOLE ULTRASONIC MONITOR (CHUM)

HIGH-SPEED RAIL BRIDGES (3RD SECTOR FROM NILE WEST TO

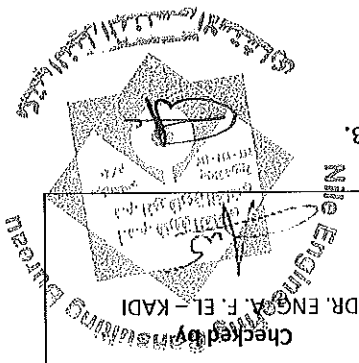
ALAMEIN), REGWA BRIDGE



Report on (2) Concrete Element(s)

Rev	Status	Date	Editor	Checked by
0	Final	05-OCT-2022	SHERIF SALAH, BSc	DR. ENG. A. F. EL - KADI

This report provides the factual results of the CHUM performed by NECB.



NILE ENGINEERING CONSULTING BUREAU (MISR)

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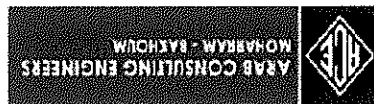
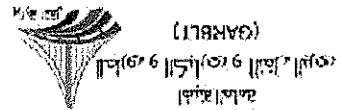




CROSS-HOLE ULTRASONIC MONITOR (CHUM)

HIGH-SPEED RAIL BRIDGES (3RD SECTOR FROM NILE WEST TO

ALAMEIN), REGWA BRIDGE



Report on (2) Concrete Element(s)

0	Rev
Final	Status
05-OCT-2022	Date
SHERIF SALAH, BSc	Editor
Checked by DR. ENG. A. F. EL - KADI	

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Geotechnical QC&QA Department
 Subject : CHUM Final Report_ High Speed Rail Bridges, 3rd Sector".
 To : General Nile for Road& Bridges".
 NECB Ref. : CHUM182/1101/022.
 Status : Formal Final_Rev 0, Oct 05th, 2022
 Checked by : A. F. El-Kadi, PhD.

1) Introduction

1.1 Upon the request of "General Nile for Road& Bridges" Cross Hole Ultra Sonic Monitoring (CHUM) following the Project Specifications executed to check the concrete homogeneous for (2) concrete element(s).
 1.2 The testing activities can be summarized as follows:

Project /Location	High-Speed Rail Bridges (3 rd sector from Nile West to Alamein), Regwa Bridge
Date /Time	05-Oct-2022
Witnessed	Project Engineer, and Client Engineer
NECB Staff	Amr Salah, BSc. Mohamed Ali, Geotec.
No. of tests/Type	2/ Concrete Elements / Bored/ Cast-in situ
CHUM Pattern	4 tubes, 6 logs (except if mentioned in item 3 below)
Tested Element (s)	As stated in item 3 below and annex 1
Information	

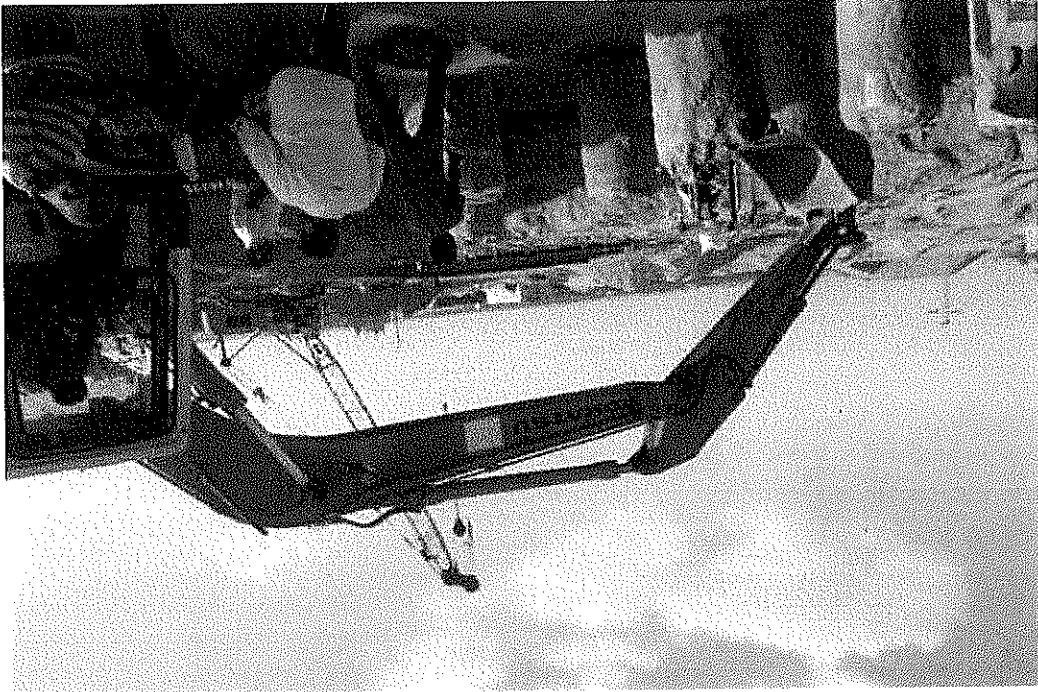


Fig. 1 CHUM in Progress

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4) 3-D Tomography output (Optional).....	4
5) Conclusion	4
General Tips.....	5
ANNEXES.....	6
CHUM TEST RESULTS.....	7
3-D TOMOGRAPHY	8
CHUM Method Statement.....	9

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2) The Measuring Technique

2.1 The measuring and the interpretation of the test following ASTM specifications (D6760-17), and AFNOR NF P 94-160-1 (2000) are as shown in the attachments.

2.2 The test equipment (CHUM) manufactured by Piletest UK. The related data are in the attachments.



3) Tested Element(s)

3.1 The tested element (s) data, CHUM input and test output attached in annex 1.

3.2 (6) CHUM logs are available for the tested and reported element(s) arranged as shown in fig.2.

3.3 The tested element(s) have the following dimension:

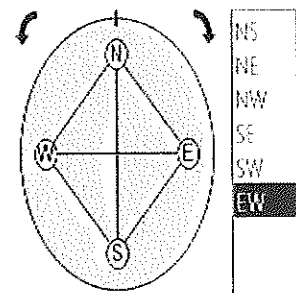


Fig 2 Element with 4 tubes (6 logs)

S	Pile ID	Type	Dimensions	Available CHUM tubes	Remark
1	P2-P13	Concrete pile	D1.2m / L40.0m	4 /4	-
2	P3-P29	Concrete pile	D1.2m / L40.0m	4 /4	-

4) 3-D Tomography output (Optional)

4.1 N/A.

5) Conclusion

Interpretation based on comparing both times interval vs. energy curves, and review wave velocities through test for the tested and reported element, in addition to Tomography results. The test results can summarized as follows:



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5.1 Tested and reported pile # (P3-29) is free from any significant defects, has a homogeneous and good quality concrete, and **Integrity Accepted (up to the end of available CHUM pipes)**.

5.2 For pile P2-13: CHUM detects high anomalies (Flaw) starting from depth 20.8m to 21.6m. The effective areas are varying from 84 to 88%.

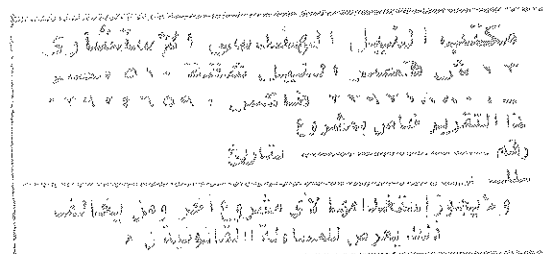
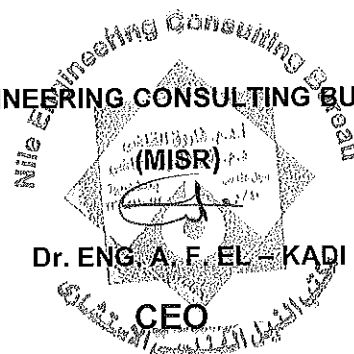
5.3 CHUM results for all tested piles, in addition to the tomography results attached in Annex 1&2.

General Tips

- 1) Low wave velocities near the CHUM tubes zones mean non-uniform tube spacing (green color in 3D Tomography). That will not affect the test results.
- 2) The effective area in 3D Tomography is related to the concrete quality, not the element cross-section.
- 3) Preparing CHUM pipes for test is out of NECB's scope of work.

Cairo, 5 Oct 2022

NILE ENGINEERING CONSULTING BUREAU



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ANNEXES



Geotechnical QC&QA Department.

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CHUM TEST RESULTS

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CHUM Annex



CHUM Summary

S	Pile ID	Profile	Measured length of pipes (m)	Apparent Wave Speed [m/s]	Remarks
1	P2P13	12	39.44m	4520	CHUM detects a relative energy reduction from depth 20.8m to 21.6m. The effective area varies between 84 %to 88%.
		23	38.15m	4520	
		34	38.94m	4590	
		14	38.89m	4550	
		13	38.79m	4630	
		24	39.19m	4430	
2	P3P29	12	31.98m	4470	Sound concrete without any significate anomaly. FAT is perfect during test.
		23	37.74m	4440	
		34	37.73m	4510	
		14	31.98m	4360	
		13	32.43m	4560	
		24	38.58m	4530	

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CHUM Annex



P2P13

10/5/2022

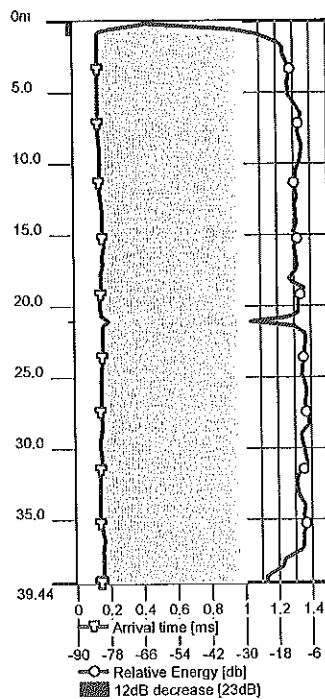
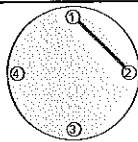
Diameter: 1.20m

12

39.44m

Distance: 0.55m

Filter: 1

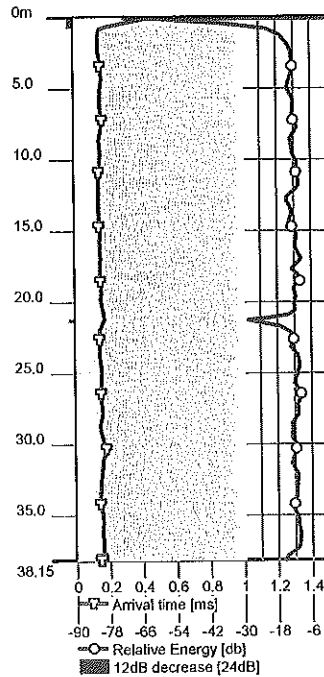
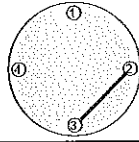


23

38.15m

Distance: 0.55m

Filter: 1

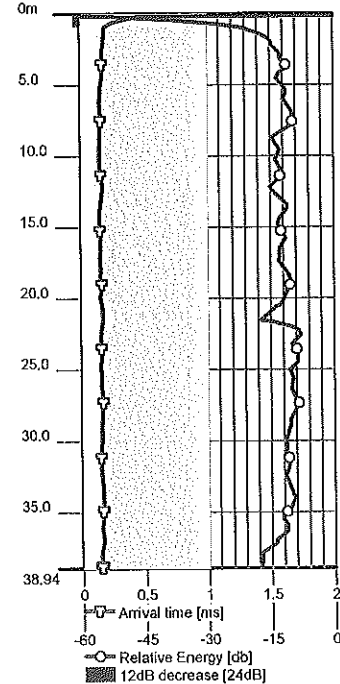
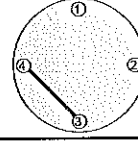


34

38.94m

Distance: 0.55m

Filter: 1



Subject : CHUM Final Report _ High Speed Rail _3rd Sector.
 To : General Nile for Road& Bridges.
 NECB Ref.: CHUM182/1101/022.
 CHUM Annex

**P2P13**

10/5/2022

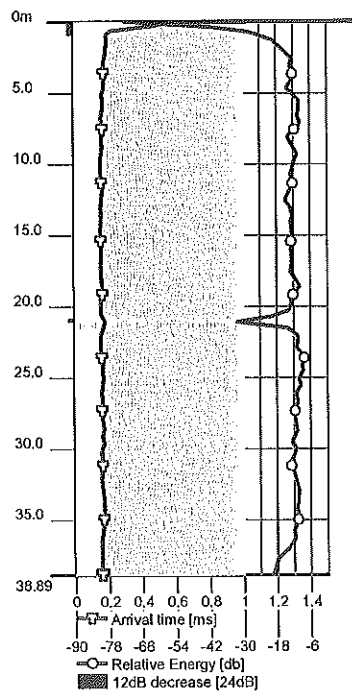
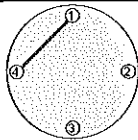
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14

38.89m

Distance: 0.55m

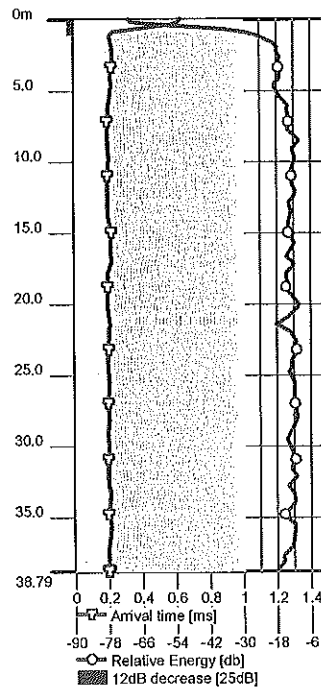
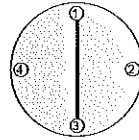
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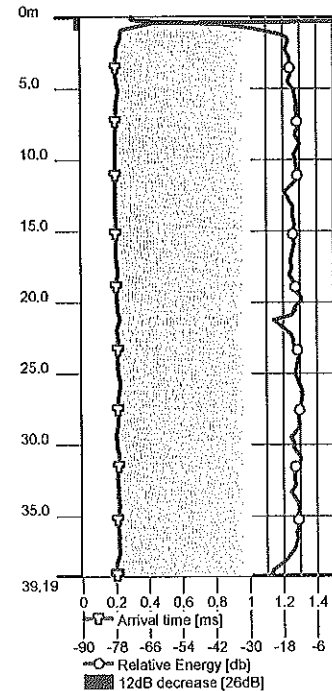
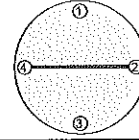
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**24**

39.19m

Distance: 0.85m

Filter: 1



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P3P29

10/5/2022

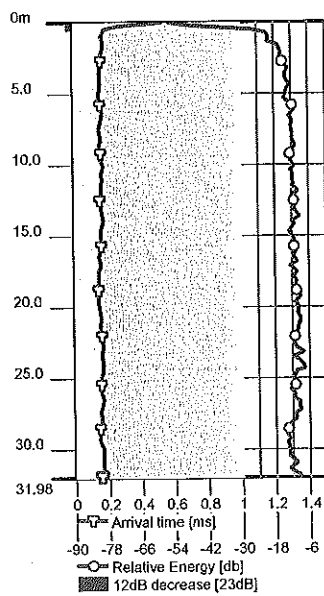
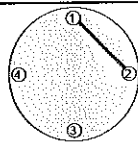
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12

31.98m

Distance: 0.55m

Filter: 1

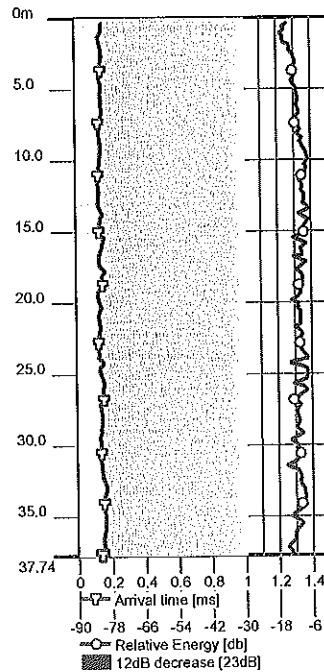
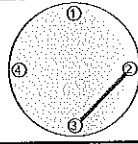


23

37.74m

Distance: 0.55m

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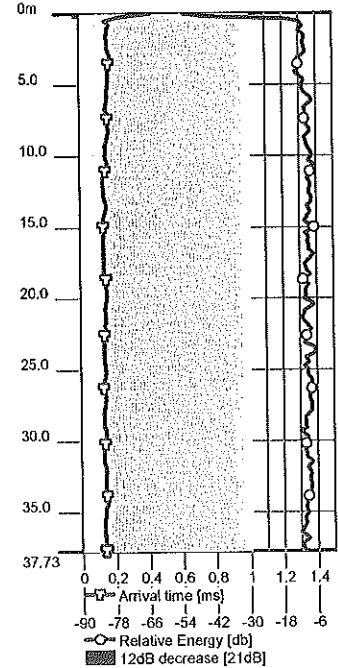
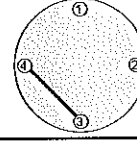


34

37.73m

Distance: 0.55m

Filter: 1



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To : General Nile for Road& Bridges.

NECB Ref.: CHUM182/1101/022.

CHUM Annex

**P3P29**

10/5/2022

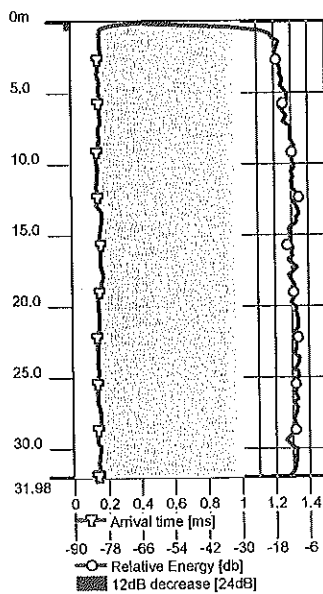
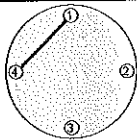
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14

31.98m

Distance: 0.55m

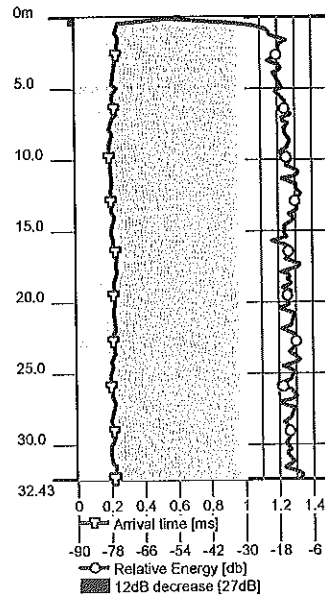
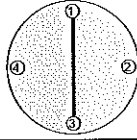
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**13**

32.43m

Distance: 0.85m

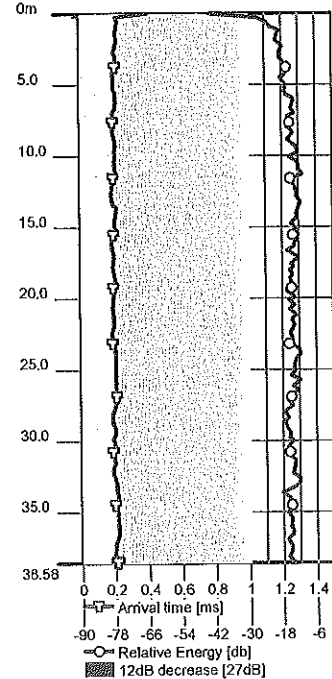
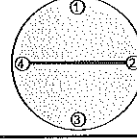
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**24**

38.58m

Distance: 0.85m

Filter: 2



Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM182/1101/022.

Status : Formal Final_ Rev 0, Oct 05th, 2022

Checked by : A. F. El-Kadi, PhD.



3D TOMOGRAPHY

N/A



Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3^d Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM182/1101/022.

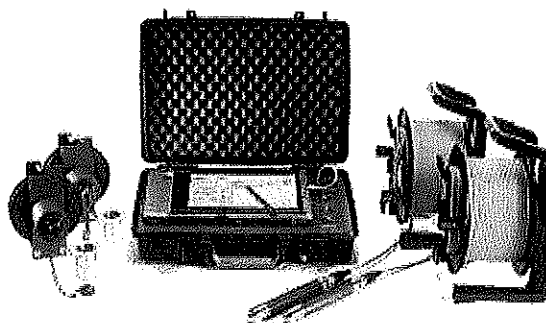
Status : Formal Final_Rev 0, Oct 05th, 2022

Checked by : A. F. El-Kadi, PhD.



CHUM Method Statement





CROSS-HOLE ULTRA SONIC MONITOR

GENERIC METHOD STATEMENT

NILE ENGINEERING CONSULTING BUREAU (MISR)

PRO.DR.ING. / FAROUK.I.K.EL KADI

DR.ING. / ANWAR FAROUK EL KADI

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1) General

- Cross Hole Ultra Sonic Monitor (CHUM) test is for checking the integrity of newly placed drilled shafts, seal footings, and slurry or diaphragm walls. CHUM test relies on the propagation of ultrasonic waves between two or more access tubes to measure the velocity and signal strength of the propagated waves. The testing can be performed on any concrete foundation provided two or more access tubes or core holes capable of holding water are present in the foundation. CHUM can also be used to check the integrity of underwater concrete piers and foundations by strapping access tubes to the sides. Cross hole Tomography can be performed to image critical anomalies found in CHUM tests.
- CHUM tests are typically performed on concrete, particularly concrete drilled shafts. Other materials, which support the transmission of ultrasonic waves, can be tested, such as slurry, rock, grout, water-saturated media, and cemented radioactive wastes.



Standards for CHUM method include ASTM D6760-16 for integrity testing of concrete deep foundations and ACI 228.2R for NDE applications, and FLH 521.830 for determining pulse velocity through concrete in drilled shafts.

2) Access

- Access tubes must be installed before the construction of the drilled shaft for quality assurance purposes unless core holes are to be drilled in a forensic case.
- PVC or black steel tubes (U.S. schedule 40) are typically used. The tubes are 1.5 (steel tubes only) to 2 inches (38 to 50 mm) in diameter and are typically tied to the rebar cage to ensure close to vertical positions of the tubes.
- The tubes must extend at least 30cm above the top of the shaft to

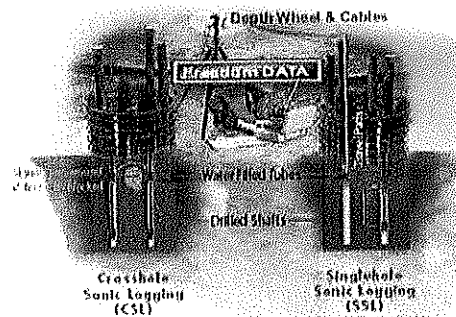


fig.2 System Installation

compensate for the water displaced by the source, receiver, and cables and to allow for easy access. Tubes must be bonded to the concrete for good test results. To minimize de-bonding of tubes, water should be added immediately before or after concrete placement and the tubes should not be mechanically disturbed.

- At least two tubes are needed to perform CHUM test. For good coverage of the test shaft, the following number of tubes be installed is recommended:

Shaft Diameter	Recommended Number Of Tubes	Tube Spacing
D < 2.5 ft (0.75m)	2 minimum	180 Degree
2.5 < D < 3.5 ft (1.0 m)	3 minimum	120 Degrees
3.5 < D < 5.0 ft (1.5 m)	4 minimum	90 Degrees
5.0 < D < 8.0 ft (2.5 m)	6 minimum	60 Degrees
8.0 < D <	8 minimum	45 Degrees

- The concrete in the shaft should normally be allowed at least 1-2 days to cure to hardened concrete before testing. If "PVC" tubes are used, testing should be done within 10 days after the placement of concrete due to possible tube-concrete de-bonding.

It is very important to fill tubes with clean Water immediately before or within one hour after concrete placement. This action inhibits de-bonding of concrete from the tube. Cap or Seal tube tops to keep out debris.

Also, all CHUM tubes should be washed using pure water and refilled using pure water at least 24 hr before starting CHUM test.

CHUM pipes should be leveled before start the test activities.

Tube Grouting

- After CHUM testing is completed and the engineer has accepted the shaft, remove all water from access tubes and any other drilled holes. Then fill tubes and holes completely with approved grout mix.

3) Data Collection

- In a CHUM test, the source is lowered to the bottom of one of the tubes, and

the receiver is lowered to the bottom of another tube. The source and receiver

are pulled simultaneously to allow the horizontal ultrasonic pulse velocity to be measured. A depth wheel controls the resolution of the collected data.

- Typically, the source is excited every 0.2 ft (6 cm) vertically and a measurement is taken. The source and receiver are pulled to the top of each shaft, thus giving a complete assessment of the concrete quality between the two tubes. CHUM tests are typically performed between all the perimeter tubes to check the perimeter of the shaft. Additional opposing diagonal CHUM tests are also performed to check the integrity of the inner core of the shaft. If there are more than 4 tubes and an anomaly is identified, CHUM tests may be performed of sub diagonal tube pairs to further define an anomaly. A pair of tubes can be logged and the results displayed in less than approximately 5 minutes. The Freedom data PC with the Cross hole Ultrasonic monitor system (CHUM) is used for the collection and analysis of CHUM data.

4) Testing Equipment and Tools

- Testing equipment fig. 3 consists of:
 - o Heavy Duty Computer;
 - o Two Hydro-phones;
 - o Depth Controller wheel;and
 - o Two Cables wheels;

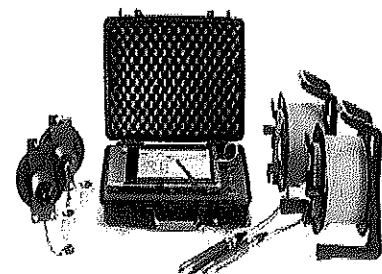


Fig.3 CHUM Equipment

5) Data Processing Techniques

- The collected data from CHUM measurements between two tubes at all depths are saved in one file. The file is scanned to determine first wave arrival times and energy levels at all depths. A CHUM log shows either the arrival time (or velocity) and signals energy plots vs. depth.
- CHUM system can easily scan any concrete element with enough tubes pairs as mentioned in table 1 above. The quality of the results is affected by the quality bonding between both concrete and steel tubes.

6) Interpretation of results

- In uniform, good quality concrete, the travel time between vertical equidistant tubes will be relatively constant and correspond to reasonable concrete pulse velocity from the bottom to the top of the foundation (see fig. 4).

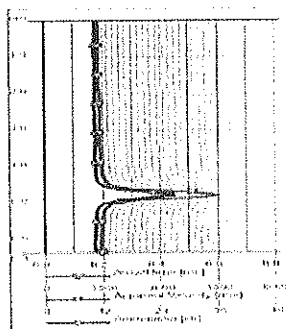


Fig. 4 CHUM interface (Arrival Time along pile length, and Energy,

- CHUM test will also produce records with good signal amplitude and energy in good quality concrete. Longer travel times and lower amplitude/energy signals indicate the presence of irregularities such as poor quality concrete, void, honeycomb, and soil

intrusions. In some severe defects, the signal may be completely lost.

- The variance in the arrival time between CHUM logs is due to the variance of tube spacing.



7) 3D Tomography (optional - fig. 5)

- 3D Tomography used for evaluate the concrete quality using wave velocity variation along pile length as follows:
 - Sound wave velocity over 4200m/s excellent concrete;
 - Sound wave velocity over 3657m/s very good concrete;
 - Sound wave velocity 3048 to 3657m/s accept concrete and;
 - Sound wave velocity less than 3048 m/s questionable concrete.
- The real concrete low quality or shaft defects be clear when receiving same defected zone on both of traveling time - energy curve and 3D tomography. otherwise maybe tube debonding or local uneffective low material quality.

8) Equipment calibration

- Calibration certificate for CHUM will attached in the final report.



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Foundation quality assurance NDT equipment since 1996

ORIGINAL

CERTIFICATE OF IN-HOUSE CALIBRATION

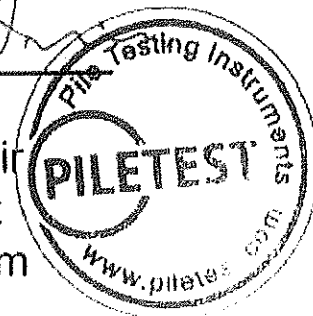
15222-2

Calibration date	2021-05-11
Valid till	2024-05-10

#	item	S/N	Results
1	CHUM System	1433	Pass
2	CHUM transducers	T 1451, T1700	Pass

I hereby certify that the above CHUM system was successfully calibrated according to all the requirements of ASTM standard D6760-16 using in-house method CALCH03A

Erez I. Amir
President
Piletest.com



PILETEST.COM

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P: +44 870 752 4081 | F: +44 870 23 738 | Sales@piletest.com | www.piletest.com



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IN-HOUSE Calibration Report

2021-05-11

UUC	S/N	
CHUM System	1433	
Temperature	20	°C

Results

Measured wave speed	340.0	m/s
Expected wave speed	343.3	m/s
Intercept	-3.6	us
R2	0.9999	
Results	Pass	

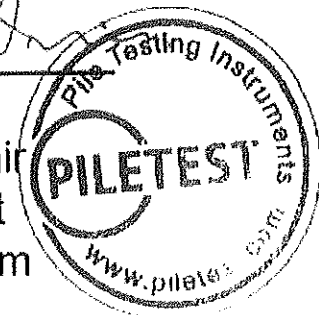
Measurements

FAT (sec)	Distance (m)
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0.0003020	0.102
0.0005740	0.197
0.0008700	0.301
0.00820	0.401
0.0014720	0.501
0.0017600	0.6

Summary

I hereby certify that the above CHUM system was successfully calibrated according to all the requirements of ASTM standard D6760-16 using in-house method CALCH03A

Erez I. Amir
President
Piletest.com



PILETEST.COM

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REQUEST



Contractor Company			Designer Company	
Issued by Contractor	Name	Sign	Date	Time
			2/5 / 2023	
Received by ER		محرم باخوم	CON	
Contractor Reference	النيل العامة			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity : Insulating For Footing Layer (1)		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Work Activity	Insulating For Footing P3 Layer (2)
Location	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P3

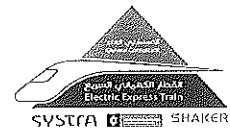
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Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative	Mohammed Gardouni			A

REQUEST



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CODE-2	Work Activity : Insulating For Footing Layer (1)		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Work Activity	Insulating For Footing P2 Layer (2)
Location	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P2

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Contractor				A
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Employee Representative	Mohammed Gad/ouh			A

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CODE - 3	Sub Element of Activity		

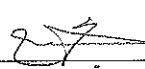
THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Work Activity	Insulating For Footing P3 Layer (1)
Location	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P3

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APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative	Mohammed Gardoun			A

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CODE-2	Work Activity : Insulating For Footing Layer (1)		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Work Activity	Insulating For Footing P2 Layer (1)
Location	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P2

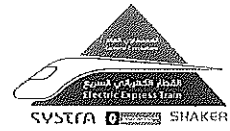
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Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative	Moham med Gardawh			A

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Contractor Company			Designer Company								
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Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity : INSULATING FOR FOOTING P1 LAYER 1		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

WORK Activity	INSULATING FOR FOOTING P1 LAYER 1
Location	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P1

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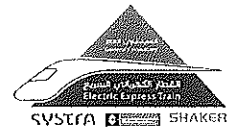
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Contractor				A
QA/QC				A
Employer Representative	Mohammed Gardoun			A

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CODE - 2	Work Activity : INSULATING FOR FOOTING P1 LAYER 2		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
WORK Activity	INSULATING FOR FOOTING P1 LAYER 2			
Location	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P1			
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Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative	Mohamed Gaidan			A

MATERIAL APPROVAL REQUEST



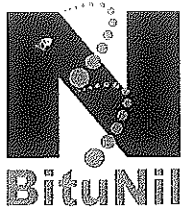
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Contractor Reference																				
Received by ER		محرم باخوم	MAR	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity IT Will be used to insulate footing		
CODE - 3	Sub Element of Activity		

Description of Materials	NILOCOAT R is a rubberized bitumen damp-proofing coating /adhesive, specially formulated to provide high resistance to the passage of water vapor, and is highly resistant to re-emulsification when in long term contact with water .		
Location to be Used	REGWA		
Sample only	Yes / No	Materials Type	Insulation Materials
Supplier Name		Data Sheet provided	Yes attached / No
Reference in BoQ		Specification	Clause
Prequalification reference		Test Samples Results	
Reference Photos	Yes attached / No	Other	
Comments by:	Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC -R
Contractor	Ahmed Adel			A
QA/QC *				A
GARB**				
Employers Representative	Mohammed Gardoni		25/3/2023	A

* Designer



BITUMINOUS COATS

NILOCOAT R

DESCRIPTION

NILOCOAT R is a rubberized bitumen damp-proofing coating /adhesive, specially formulated to provide high resistance to the passage of water vapor, and is highly resistant to re-emulsification when in long term contact with water.

NILOCOAT R bonds strongly to most substrates.

USES

- Damp-proofing of structural footings and below grade walls.
 - General damp-proofing applications & as a vapor barrier.
 - **NILOCOAT R** bonds extremely well to a wide variety of substrates including concrete, brick, bitumen & mastic asphalt membranes, slates, tiles, etc.
- Thus it is used as an adhesive to bond construction materials such as wood block, compatible insulation, tiles, etc..

MAJOR FEATURES

- Excellent damp-proofing characteristics.
- Superb adhesion
- Excellent movement capability.
- Solvent free - environment friendly.
- No re-emulsification in water.

INSTALLATION

PREPARATION:

- A. Thoroughly clean all surfaces to be coated with **NILOCOAT R**.
- B. Repair damaged or cracked substrate.
- C. Prepare porous surfaces by priming with **NILOCOAT R** diluted 1:1 with water.
- D. Allow primed surface to dry before application of coating.
- E. Stir well prior to application of coats.

Rubberized Damp-Proofing Coating & Adhesive

APPLICATION:

1. General damp-proofing & vapor barrier.
As a general Damp-proofing for vertical and horizontal application.
 - a.) Prepare surface as indicated earlier.
 - b.) Apply in two coats. The first at the rate of 0.6- 0.8 Kg/ m2. (depending on substrate condition) Allow to dry before applying the second coat which should be at right angle to the first, at the same rate.
 - c.) Use only as damp-proof membrane in sandwich construction. (i.e. Apply as above, blinding the wet second coat with clean, sharp sand before applying a minimum of 50mm sand cement screed surface (horizontal Application), or clean sand backfill (vertical application) .
 - d.) If **NILOCOAT R** is to be left exposed to sunlight for any length of time, the wet second coat must be blinded with clean sharp sand.

When used as a vapor barrier, it is essential that there are no imperfections in the coating. Any small hole will destroy the vapor seal.

2. As an adhesive for insulation & tiles

- a) Ensure surfaces are clean, smooth, & lightly dampened.
- b) Allow both surfaced to be bonded with the rubberized coating at 0.6- 0.8 Kg/m2 rate
- c) Allow to become tacky before pressing firmly together. Hold material in place until sufficient adhesive strength is developed.1

Store **BITUNIL NILOCOAT R** under cover, at temperatures between 5°C and 40°C. Storage must be frost free.

PACKING

15Kg and 200Kg containers.

HEALTH & SAFETY INSTRUCTIONS

As with all chemical products, care should be taken during use and storage.

Avoid contact with mouth, eyes, and skin.

Wear suitable protective clothing, gloves, and eye/ face protection.



NILOCOAT R

Rubberized Damp-Proofing Coating & Adhesive

Properties	Test Method	NILOCOAT R
Composition		Rubberized bitumen, water, emulsifying agents
Bitumen modifier	ASTM D 2939	SBR
Specific gravity	ASTM D 2939	1.05 ±0.02
Flammability		No tendency to flash or ignite
Drying time (firm set)		Less than 24 hrs at 80% RH [+5%] @ 27°C [±2°C]
Heat resistance, at 100°C		No flow, sag or blistering
Flexibility at 0°C		No cracking or flaking
Residue by evaporation, %		60 [nominal]
Water vapor transmission (g/m2/24Hrs)		0.8
Water resistance	ASTM D 2939	No blistering or re-emulsification in water
Shelf Life	-	12 Month (in factory sealed container, stored in a shaded ventilated area)

The information given in this Technical Data Sheet is given to the best of our knowledge based on laboratory test and practical experience. However, as the product is often used under conditions beyond our control, we cannot guarantee anything but the product itself.

Distributor:



Nile Waterproofing Material Co. S.A.E

شركة النيل للمواد العازلة ش.م.م

H.Q: 50, Al Khalifa Al Maamoun St. Roxy - Heliopolis, Cairo - Egypt, Tel : (202) 24511194 - 24511195 Fax: (202) 24511198.

MATERIAL APPROVAL REQUEST



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			25/3/2023																	
Contractor Reference																				
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C1	C2	C3	DD	MM	YY	HH	MM													

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity IT Will be used to inject the tubes that were used in the (ultra Sonic) experiment		
CODE-3	Sub Element of Activity		

Description of Materials	Sika Intraplast Z (Expanding Grout Admixture) (injection material)		
Location to be Used	REGWA (FOOTING P1)		
Sample only	Yes / No	Materials Type	Expanding Grout Admixture (injection material)
Supplier Name		Data Sheet provided	Yes attached / No
Reference in BoQ		Specification	Clause
Prequalification reference		Test Samples Results	
Reference Photos	Yes attached / No	Other	
Comments by:		Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Aakel			A
QA/QC *				A
GARB**				
Employers Representative	Mohammed Gardony		25/3/2023	A

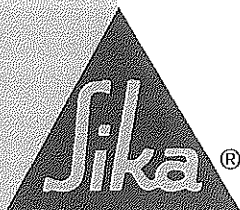
* Designer

** Alignment/Bridges: Culvert only

Intraplast® -Z

Expanding Grout Admixture

Product Description	An expanding grout admixtures which introduce micro bubbles into the cement mix. Wet volume expansion and increased fluidity, without segregation, are the enhanced performance characteristics when using Intraplast® -Z.
Uses	Intraplast® -Z is used to increase cohesion in cement grouts (addition of sand is possible). Intraplast® -Z develop hydrogen gas. In general Intraplast® -Z can be used for grouting of: ■ Pre-stressed cable ducts. ■ Rock and soil anchoring. ■ Bearing plates. ■ Pre-placed aggregates grouting. ■ Tunnel linings.
Advantages	Intraplast® -Z provide the following beneficial properties: ■ Increased frost resistance. ■ Improved fluidity. ■ Increased cohesion. ■ Volume expansion in the wet state. ■ Slight retardation of set (Intracrete only).
Approvals / Standards	■ Intraplast® -Z has been tested as per SCAQMD Rule 1168' Result VOC Content 0 g/L
Technical Data	
Colour	Grey
Density	1.0 ± 0.1 kg/l
Storage Conditions	Dry
Shelf Life	12 months
Packaging	160 x 1 kg or 20 x 1 kg
Application	
Dosage	2% by weight of cement. (1 kg sachet per 50 kg cement).
Dispensing	Add directly to the cement mix water, in the mixer. Sand may be added as required.
Important Recommendations	For pre-stressed concrete work, where mechanical batching is carried out, a mixing time of 4 minutes with a W/C ratio of 0.36 - 0.40 has been found to give the best results. The most effective mixing sequence has proven to be; water, cement and finally the admixture. Cements containing fly ash are unsuitable.



Typical Results		Control	Sample 1	Sample 2
Mix Design	Cement	1	1	1
	Water	0.50	0.45	0.45
	Intraplast® Z per 50 kg OPC	-	500 gm	1000 gm
Flow Test – JA Cone 3 mins after mixing (3 mins $\pm$ 0.3 sec)		3.09 Sec.	3.18 Sec.	3.31 Sec.
Density (kg/m ³)		1.840	1.850	1.885
Air Content (%)		8.2	5.8	6.4
Expansion (%)	3 days	-	-	0.470
	7 days	-	-	0.738
Compressive Strength (N/mm ²)	1 day	13.4	11.8	13.7
	7 days	26.0	29.2	30.6
	28 days	41.7	43.2	47.5

Safety Instructions

Ecology Do not dispose of into water or soil but according to local regulations.

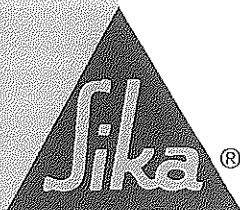
Transport Non-hazardous.

Safety Precautions Contact with eyes, skin may cause irritation. Wear gloves and goggles.

Toxicity Non-Toxic under relevant health and safety codes.

Legal notes

■ The information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.



Sika Egypt for Construction Chemicals

El Abour City
1st Industrial zone (A)
Section # 10 Block 13035,
Egypt

Tel :+202-
46100714/15/16/17/18
Fax :+202- 46100759
Mob :+2012- 3908822/55
www.sika.com.eg



MATERIAL APPROVAL REQUEST



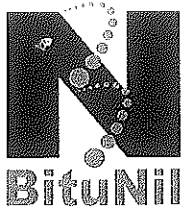
Contractor Company			Designer Company																	
	Name	Sign	Date	Time																
Issued by Contractor			25/3/2023																	
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Supplier Name		Data Sheet provided	Yes attached / No
Reference in BoQ		Specification	Clause
Prequalification reference		Test Samples Results	
Reference Photos	Yes attached / No	Other	
Comments by:	Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC -R
Contractor	Ahmed Adel			A
QA/QC *				A
GARB**				
Employers Representative	Mohammed Gardoni		25/3/2023	A

* Designer



BITUMINOUS COATS

NILOCOAT R

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- E. Stir well prior to application of coats.

Rubberized Damp-Proofing Coating & Adhesive

APPLICATION:

1. General damp-proofing & vapor barrier.
As a general Damp-proofing for vertical and horizontal application.
 - a.) Prepare surface as indicated earlier.
 - b.) Apply in two coats. The first at the rate of 0.6- 0.8 Kg/ m2. (depending on substrate condition) Allow to dry before applying the second coat which should be at right angle to the first, at the same rate.
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PACKING

15Kg and 200Kg containers.

HEALTH & SAFETY INSTRUCTIONS

As with all chemical products, care should be taken during use and storage.

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NILOCOAT R

Rubberized Damp-Proofing Coating & Adhesive

Properties	Test Method	NILOCOAT R
Composition		Rubberized bitumen, water, emulsifying agents
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Specific gravity	ASTM D 2939	1.05 ±0.02
Flammability		No tendency to flash or ignite
Drying time (firm set)		Less than 24 hrs at 80% RH [+5%] @ 27°C [±2°C]
Heat resistance, at 100°C		No flow, sag or blistering
Flexibility at 0°C		No cracking or flaking
Residue by evaporation, %		60 [nominal]
Water vapor transmission (g/m2/24Hrs)		0.8
Water resistance	ASTM D 2939	No blistering or re-emulsification in water
Shelf Life	-	12 Month (in factory sealed container, stored in a shaded ventilated area)

The information given in this Technical Data Sheet is given to the best of our knowledge based on laboratory test and practical experience. However, as the product is often used under conditions beyond our control, we cannot guarantee anything but the product itself.

Distributor:



Nile Waterproofing Material Co. S.A.E

شركة النيل للمواد العازلة ش.م.م

H.Q: 50, Al Khalifa Al Maamoun St. Roxy - Heliopolis, Cairo - Egypt, Tel : (202) 24511194 - 24511195 Fax: (202) 24511198.

REQUEST to POUR CONCRETE



Contractor Company				Designer Company			
Issued by Contractor	Name <i>Joseph</i>	Sign <i>[Signature]</i>	Date 27/8/2022	Time			
Received by ER			CON				
Contractor Reference							

CODE 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE 2	Work Activity		
CODE 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade:			
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	Concrete Volume:		

Comments by:	Comments by:

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Joseph</i>	<i>[Signature]</i>		A
QA/QC				A
Employer Representative	<i>[Signature]</i>	<i>[Signature]</i>		A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	27/08/2022
Pile No.	non- working Test Pile	Structure	bridge	Pile Cutoff Level	—
pier	—	Ground Level	67.85	Pile Toe Level	29.96
Theoretical Pile Length from caisson level	39.25 m	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	37.89 m	Theoretical concrete Q	46.33 m3	Temporary Casting Level	69.21
Act. Drilling Length	41 m	Act. concrete Q	50.5m3	Steel Top Level	68.61
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	0.6

Pile Survey

Coordinates	EAST	North
Theoretical	585430.032	830472.607
Actual	585430.043	830472.625

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.02	Less Than 1.5	1.06
Viscosity(Sec.)	30:70 Sec.	0:00	≤90 Sec.	37
Sand Content %	Less than 2%	N/A	Less than 2%	1.5

Geotechnical Log	
0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	27/08/2022	07:30	12:00	Cleaning	—	—	—
Install Cages	28/08/2022	13:00	14:44	pouring	27/08/2022	18:27	19:57

	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5
Slump	21.1	21.3	20.9	21.6	21.4
Temperature	30 c	29.5 c	29 c	29 c	28 c

	BAUER EGYPT	NILE COMPANY	OWNER / if Required
Signature			

All dimensions are in ft. dimensions.

Do not measure from diagonals, as dimension should
be in and or completed.

Pile Corrosion 0.30-0.37 - 1/4 in. Dia. Corrosion 0.40-0.50

Corrosion (in): None

Lap Splice Between Helical Stirrups: 0.00-0.05 - 0.10 ft

Lap Splice Between Helical Stirrups: 0.00-0.05 - 0.10 ft

Lap Splice Between Helical Stirrups: 0.00-0.05 - 0.10 ft

ABBREVIATION :

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

DRAWING REFERENCES:

REG-WA ROAD BRIDGE
GENERAL NOTES
ADJUSTMENT 1. DEFINITION

REG-WA ROAD BRIDGE
SUBSTRUCTURE

PIERS P1, P2, P3, REINFORCEMENT (1)

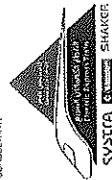
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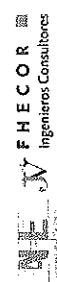
 جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للنقل والكابلات
 والنقل الجوي
 GANIBL
 محمد الهادي محمد والحسين
 محمد الهادي محمد والحسين
 OWNER:

NAME OF PROJECT: ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF NILE TO ALAMANNI)

NAME OF OWNER CONSULTANT:



NAME OF CONTRACTOR CONSULTANT:

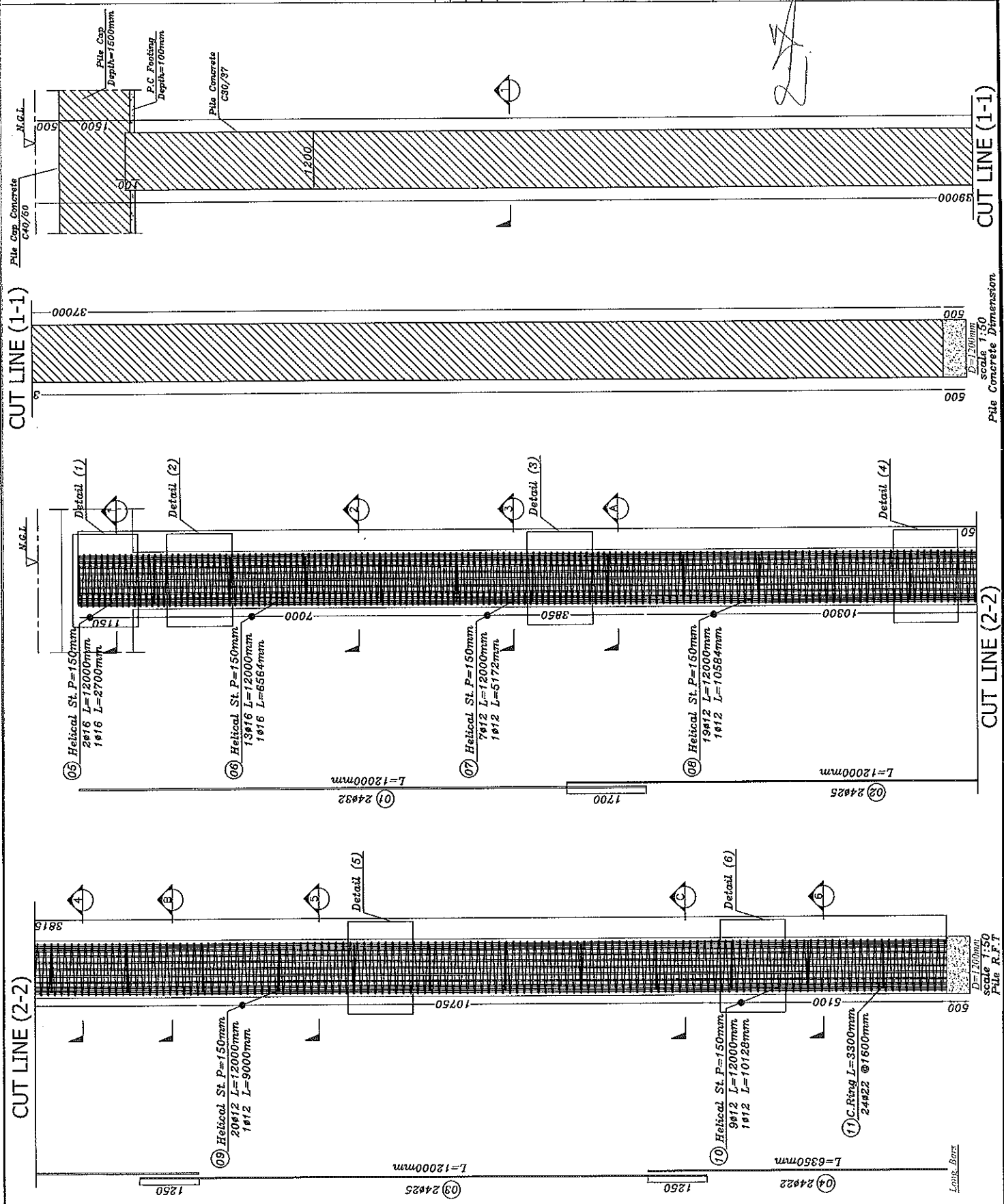


WIN CONTRACTOR:



NO. TITLE: REGWA ROAD BRIDGE
PILE LOAD TEST
PILE REINFORCEMENT BARS SHOW PLACING

PROJECT NO.:	DATE:	SHEET:
PROJECT NO. 104-104-104-104	07-2022	AS SHOWN
DRAWING BY:	CHECKED BY:	REVISED BY:
ENG. Mohamed Elmaghrabi	ENG. Abdelhak Elmaghrabi	ENG. Mohamed Elmaghrabi
SUPERVISOR:	APPROVED BY:	
DR. Mahmoud Elmaghrabi	Eng. Jaber Tarek	



[illegible]

ABBREVIATION :
 -T.O.A = Top of Age
 -T.O.C = Top of Cor
 -T.O.P = Top of Pill
 -T.O.B = Top of Bed
 -T.O.F = Top of F
 -N.S.L = Normal G

SAVING REFERENCES:

1.	DATE	ENG.	ISSUED FOR CONSTRUCTION
2.	DATE	ENG.	REVISION

السالك:

وزارة النقل
الهيئة العامة للنقل والبحري
والتجارة

جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للنقل والبحري
والتجارة

OWNER:

شركة النقل
شركة النقل

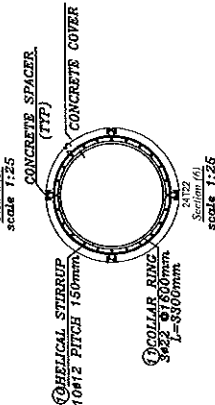
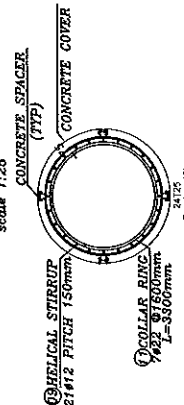
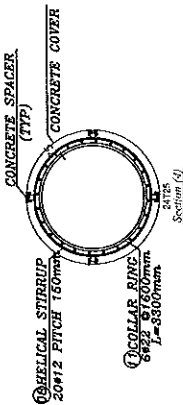
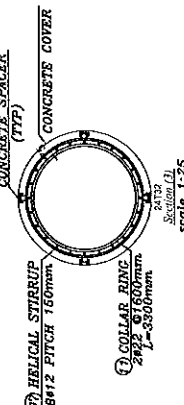
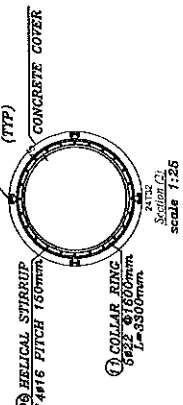
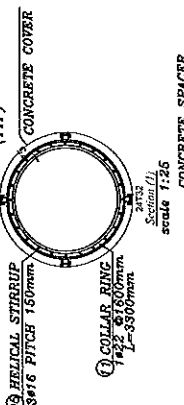
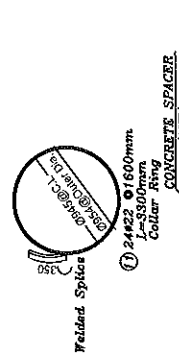
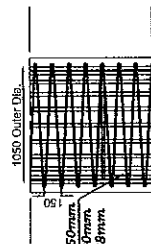
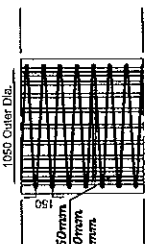
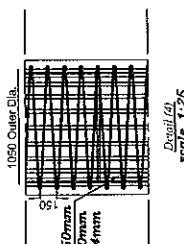
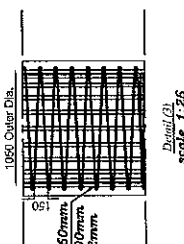
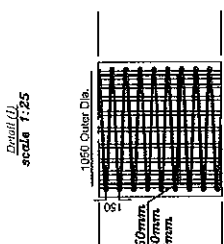
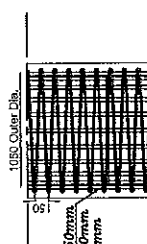
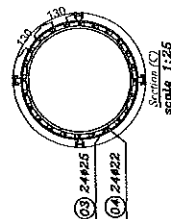
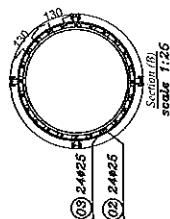
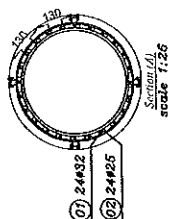
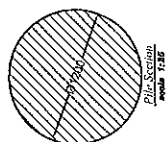
SECTION THREE (FROM WEST OF NILE TO ALAMINO)



FHEC
FHECOR
Ingenieros Consultores

REGINA ROAD BRIDGE
PILE LOAD TEST

YOUNG: 100-100-50-100-100-100-100	DATE: 07-2022	SCALE: AS SHOWN
DRAWING BY: ENG. Mohamed Gomath	CHECKED BY: ENG. Zaiden Ezzamel	REVISED BY: ENG. Mahmoud Salah
SUPERVISOR: DR. Mahmoud Lohman		APPROVED BY: Eng. Ezzamel Tawfik

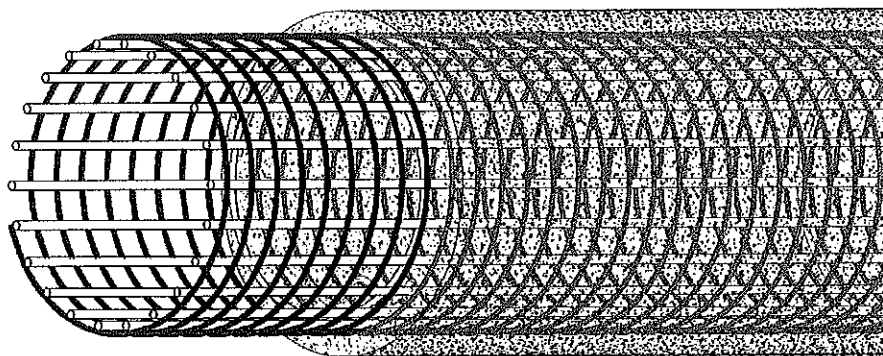


Total	5651.29
-------	---------

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 1600 TON ACCORDING TO GEOTECHNICAL REPORT.
- LENGTH OF PILE = 39 M BELOW GROUND LEVEL ACCORDING TO GEO-TECHNICAL REPORT.

3D View For Pile 1200mm

[Handwritten signature]



Do not measure light drawings. All dimensions should be taken in centimeters.

Pin Corolla (C20-37) = Pin Cap Corolla (C40-54)

Corolla (C40-74) = 74mm

Lip Splice Between Helical Straps (C20-37) = 6.88mm

Lip Splice Between Helical Straps (C40-54) = 6.88mm

Lip Splice Between Helical Straps (C60-74) = 4.88mm

Lip Splice Between Helical Straps (C80-94) = 4.88mm

All Levels should be revised before construction in site

-T.O.A = Top of Asphalt
-T.O.C = Top of Column
-T.O.P = Top of Pile Cap/Pile
-T.O.B = Top of Bearing
-T.O.F = Top of Frame
-N.G.L = Normal Ground Level

READING REFERENCES:

REGWA ROAD BRIDGE GENERAL NOTES ABUTMENT 1, DEFINITION	REGWA ROAD BRIDGE SUBSTRUCTURE PIERS P1, P2, P3, REINFORCEMENT (11
RE-V001-QC-010601-N0T-E02	RE-V001-QC-21002-P10-E02

0	14-02-2022	MAS	ISSUED FOR CONSTRUCTION
NO.	DATE	ENO.	REVISION

وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للنقل والكابلات

جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT

وزارة النقل
Ministry of Transport

القناة الدولية للتلفزيون الكابل
International Cable Television Channel

مصر - القاهرة
EGYPT - CAIRO

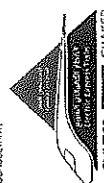
OWNER:

قناة النيل الدولية للتلفزيون الكابل

NAME OF PROJECT:

ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF NILE TO ALAMON)

NAME OF OWNED CONSULTANT:



STATE OF CONNECTICUT

FHECOR
Ingenieros Consultores

MAIN CONTRACTOR:-



DWG. TITLE:

PILE LOAD TEST

DRAWING NO:	DATE:	SHEET:
REF: AEC-001-00-000-000-000-000	DD-2022	AS SHOWN
DRAWING BY:	CHECKED BY:	REVIEWED BY:
ENG. Mohamed Moustafa	ENG. Abdelnabi Mohamed	ENG. Mohammed Salah
SUPERVISOR:		APPROVED BY:
DR. Mahmoud Lashin	Eng. Jouda Tawfik	

- All dimensions in the millimeter.
- Do not measure from drawings. All dimensions should be real or completed.
- Plus Corrosion C0207. - Min. Cap Corrosion C4030
- Corrosion Count: 7000
- Cap Splice Behavior Helical Splice ☒ 01 ☐ 02 ☐ 03 ☐ 04 ☐ 05 ☐ 06 ☐ 07 ☐ 08 ☐ 09 ☐ 10
- Cap Splice Behavior Helical Splice ☒ 01 ☐ 02 ☐ 03 ☐ 04 ☐ 05 ☐ 06 ☐ 07 ☐ 08 ☐ 09 ☐ 10
- Lap Splice Behavior Helical Splice ☒ 01 ☐ 02 ☐ 03 ☐ 04 ☐ 05 ☐ 06 ☐ 07 ☐ 08 ☐ 09 ☐ 10

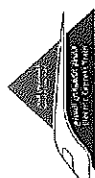
ABBREVIATION :

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

0	444-2825	MAS	ISSUED FOR CONSTRUCTION
NO.	DATE	ENG.	REVISION

جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
والمواصلات
والبحر
GARNET
الهيئة العامة للغمر والتفتيش
بمطار القاهرة

ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF NILE TO ALAMAIN)



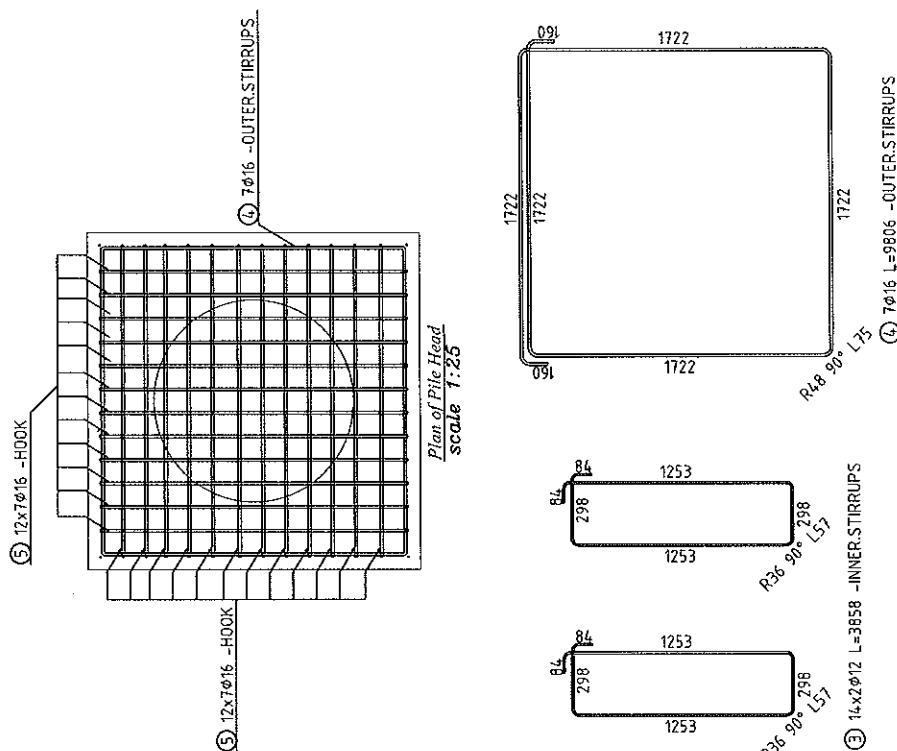
ALV
Ingenieros Consultores
FHECOR

PILE CAP REINFORCEMENT BARS SHOP DRAWING

0000-0001-6291-0001 ORCID iD
22.07.2022
NWOHS 24

ENG. NICHOLAS MONTANA	ENG. ABDULLAH MAMMAM	ENG. HANSEN SOLEH
-----------------------	----------------------	-------------------

DR. MINERVA LUSHINE	Eng. Jovana Tonkic
---------------------	--------------------

[illegible]

Mark	φ [mm]	Shape [mm]	Length [mm]	QTY	Mass [kg]	% of total	Notes
①	φ16		4459	28	197.05	17.6%	-T
②	φ12						

Pile Diameter	Ø12	Ø16
TOTAL LENGTH(M)	222.796	583.254
TOTAL WEIGHT(Kg)	197.79	920.58

REQUEST



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			18/3/2023																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity : pouring PC FOR Footing p1		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

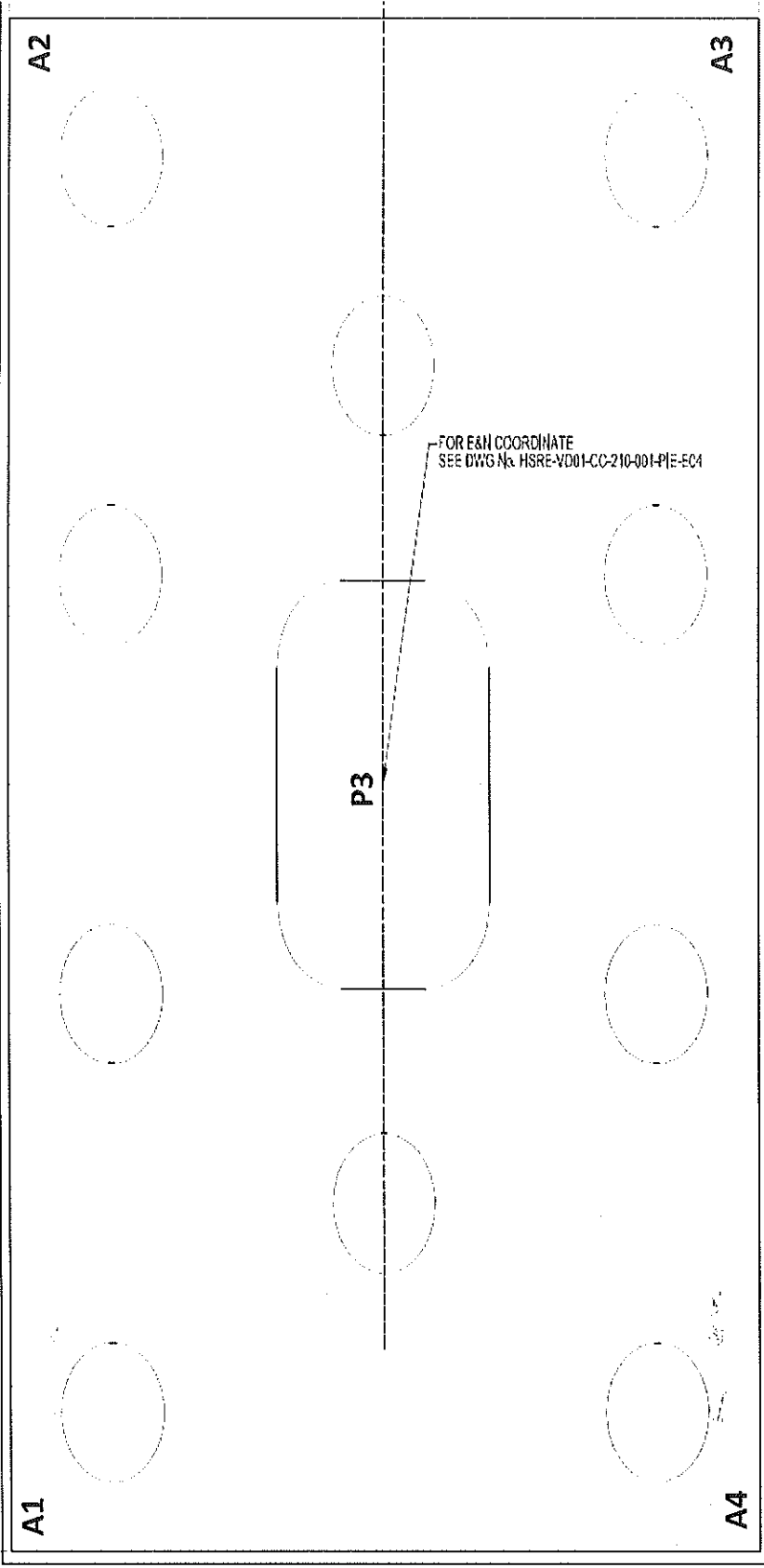
Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	12 m3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adh			A
QA/QC				A
Employer Representative	Mohammed Gadelouh			A



P.C FOOTING (P3) Coordinates		P.C FOOTING (P3) Dimensions	
X		Z	
A1	585467.43	830453.131	64.04
A2	585460.45	830458.811	
A3	585451.992	830448.418	
A4	585458.972	830442.737	

REQUEST to POUR CONCRETE



Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
			٢٠٢٢ / ١٠ / ٤								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	الفيل العامة										

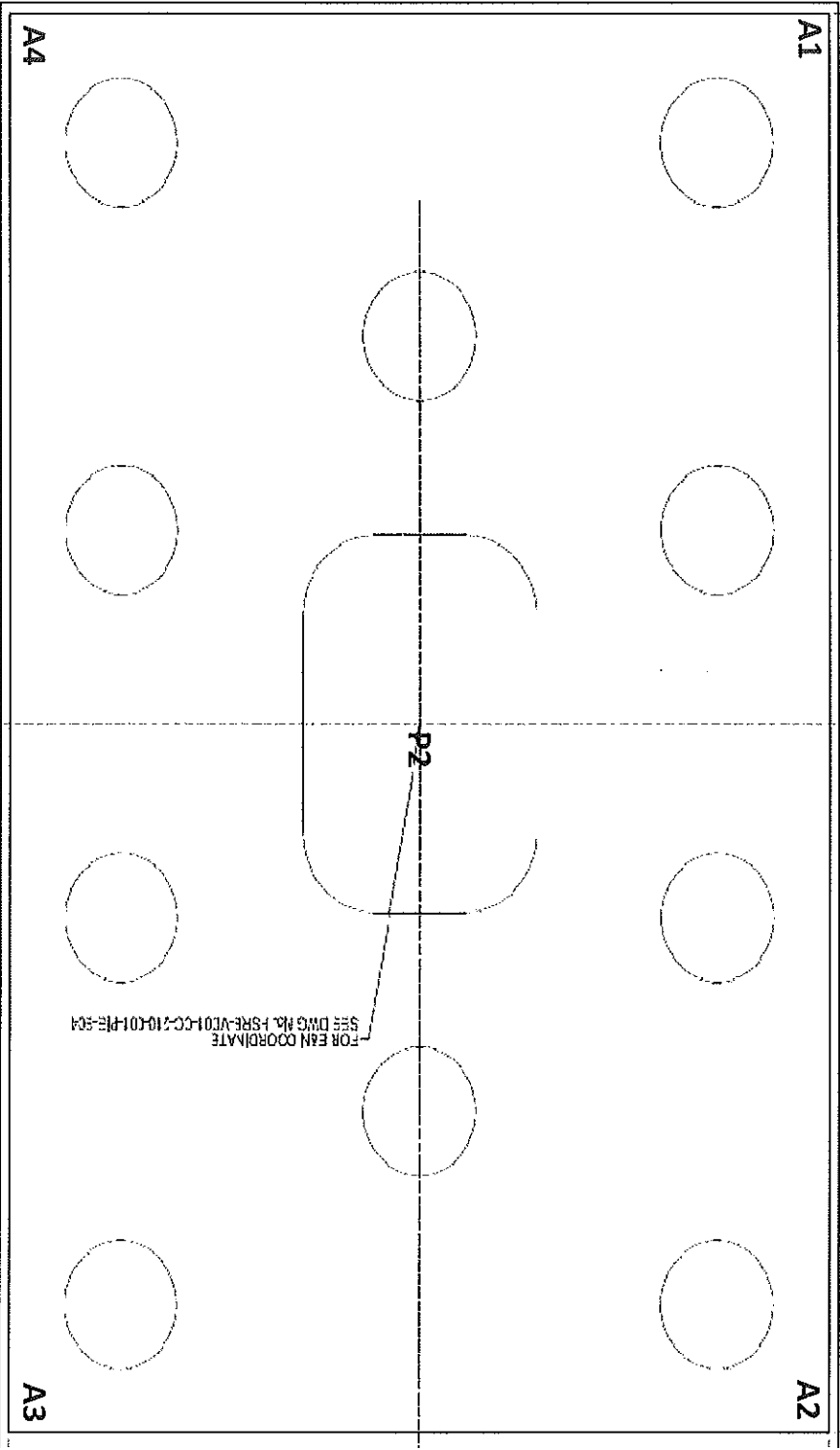
CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (P2 P.C FOOTING)			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 150 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour:	1:00 pm	Concrete Volume:	12m ³	
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			P.C FOOTING COORDINATES,level and dimensions	1
Comments by:		Comments by:		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative	محمد محمود		٢٠٢٢ / ١٠ / ٤	



P.C FOOTING (P2) Coordinates		P.C FOOTING (P2) Dimensions	
X		Z	
A1	585429.425	830484.06	64.907
A2	585436.406	830478.379	
A3	585427.948	830467.986	
A4	585420.967	830473.666	

REQUEST to POUR CONCRETE

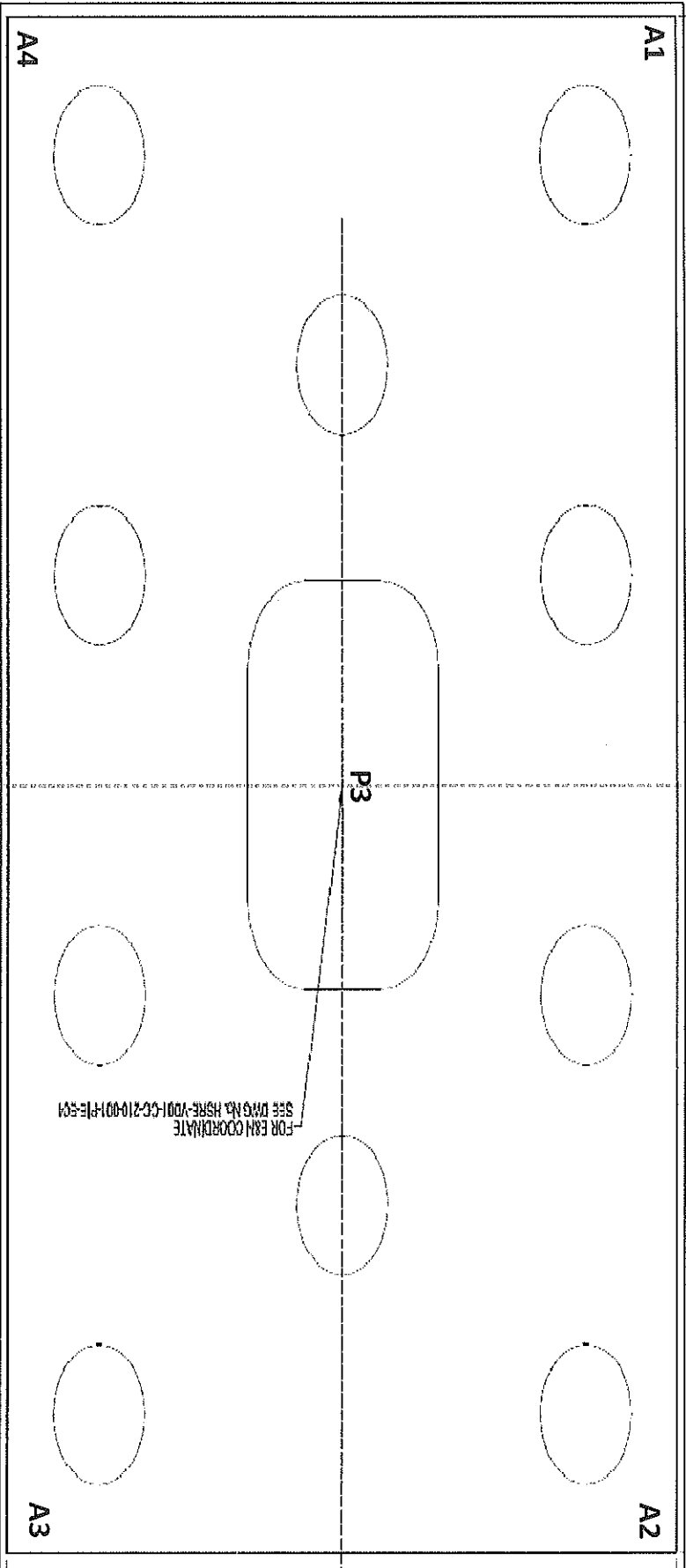


Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
	نادر رمزي		29/9/2022								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

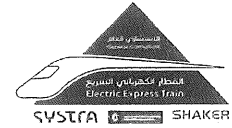
THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour		Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (P3 P.C FOOTING)		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 150 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 1:00 pm		Concrete Volume: 12m ³		
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			P.C FOOTING COORDINATES, level and dimensions	1
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative	محمد عبد الله		29/9/2022	



P.C FOOTING (P2) Coordinates		P.C FOOTING (P2) Dimensions	
X	Z	Level	
A1	585398.401	830509.308	13.4m
A2	585405.381	830503.627	9m
A3	585396.923	830493.234	
A4	585389.942	830498.914	

REQUEST to POUR CONCRETE

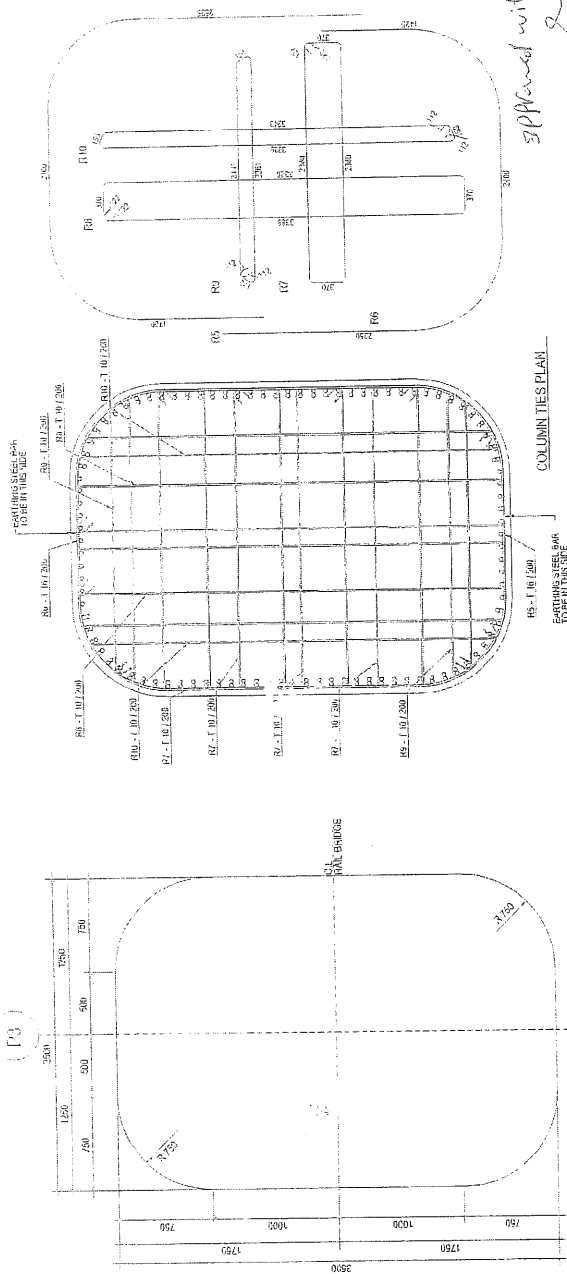


Contractor Company			Designer Company																	
Issued by Contractor	Name <i>Ahmed Adel</i>	Sign <i>[Signature]</i>	Date 21/6/2023	Time																
Received by ER		Work Activity CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

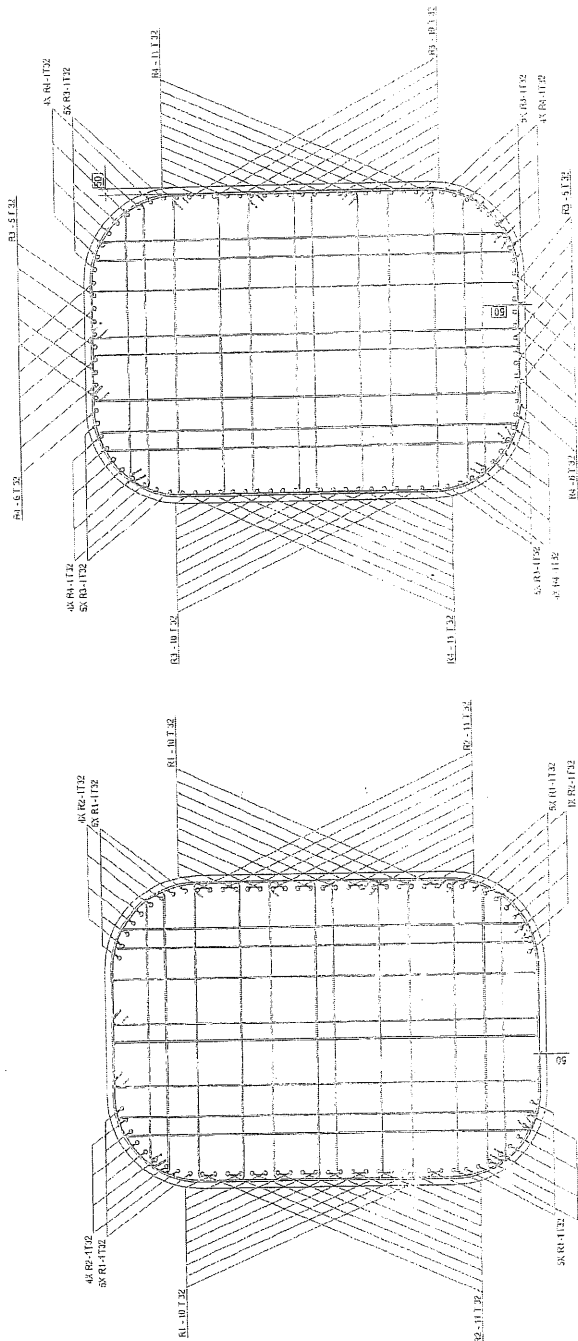
CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity : POURING Pier P1 Stem 4M HIGHT		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Location of Pour		Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km Pier P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade:
			Concrete Volume: 33M3	
Item	Document No	Revision	Title	Number of Sheets
1			SHOPDRAWING FOR COLUMN P1	
2			RESULT OF COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
3			COULMN COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Ahmed Adel</i>	<i>[Signature]</i>		A
QA/QC				A
Employer Representative	<i>Mohammed Gardouh</i>	<i>[Signature]</i>		A

[illegible][illegible]

Approved with comments
27
7/12/2023



OUTER BARS ARRANGEMENT PLAN

- 1- ALL REINFORCED STEEL SHALL BE IN THE DIRECTIONS AND ZONE INDICATED.
- 2- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
- 3- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
- 4- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
- 5- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
- 6- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
- 7- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
- 8- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
- 9- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
- 10- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
- 11- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
- 12- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
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- 14- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
- 15- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
- 16- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
- 17- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
- 18- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
- 19- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.
- 20- REINFORCED CONCRETE SHALL BE TYPE 100/100/100.

LEGEND

- 1. TOP FIBER
- 2. BOTTOM FIBER
- 3. QUANTITY OF FIBER
- 4. QUANTITY OF FIBER
- 5. QUANTITY OF FIBER
- 6. QUANTITY OF FIBER
- 7. QUANTITY OF FIBER
- 8. QUANTITY OF FIBER
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- 10. QUANTITY OF FIBER
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- 15. QUANTITY OF FIBER
- 16. QUANTITY OF FIBER
- 17. QUANTITY OF FIBER
- 18. QUANTITY OF FIBER
- 19. QUANTITY OF FIBER
- 20. QUANTITY OF FIBER

REINFORCED CONCRETE
TYPE 100/100/100

NO.	DATE	REV.	BY
1	10/10/2023	1	REVISION

REVISIONS
1. REVISION 1: 10/10/2023
2. REVISION 2: 10/10/2023
3. REVISION 3: 10/10/2023
4. REVISION 4: 10/10/2023
5. REVISION 5: 10/10/2023
6. REVISION 6: 10/10/2023
7. REVISION 7: 10/10/2023
8. REVISION 8: 10/10/2023
9. REVISION 9: 10/10/2023
10. REVISION 10: 10/10/2023
11. REVISION 11: 10/10/2023
12. REVISION 12: 10/10/2023
13. REVISION 13: 10/10/2023
14. REVISION 14: 10/10/2023
15. REVISION 15: 10/10/2023
16. REVISION 16: 10/10/2023
17. REVISION 17: 10/10/2023
18. REVISION 18: 10/10/2023
19. REVISION 19: 10/10/2023
20. REVISION 20: 10/10/2023

NAME OF PROJECT
ELECTRICAL SUPPLY SYSTEM (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF INE TO AL-JAHRAH)

NAME OF CLIENT CONSULTANT

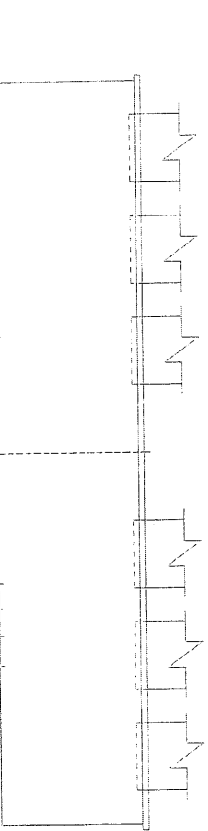
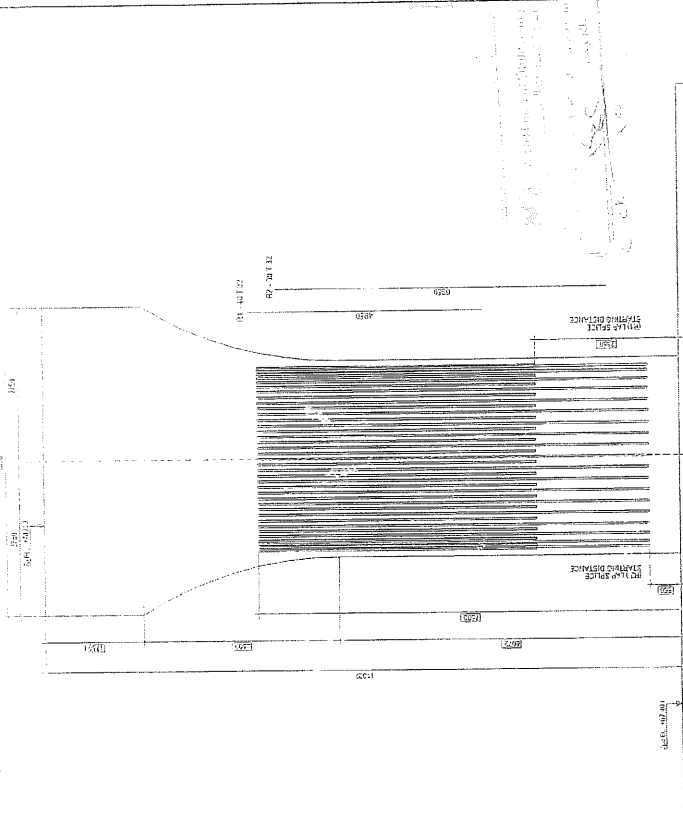


NAME OF CONTRACTOR CONSULTANT

W. F. H. E. C. O. R.
Ingenieros Consultores

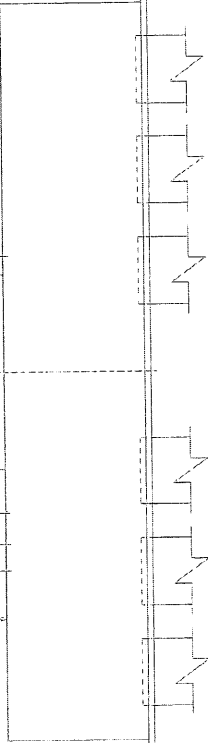
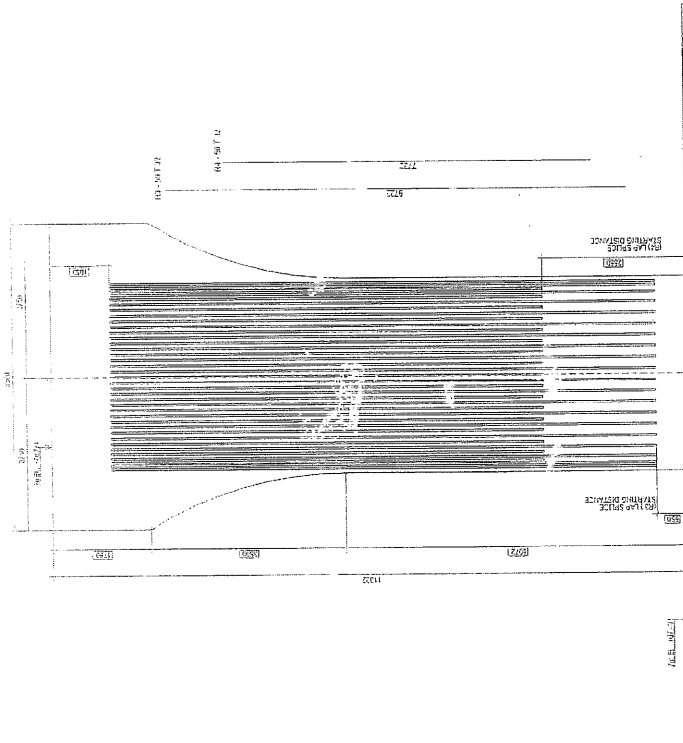


NO.	DATE	REV.	BY
1	10/10/2023	1	REVISION



PIER REINFORCEMENT VIEW

Bar Mark	Size	Qty	Length	Weight	Vol.	Bar Shape
R1	32	40	10.00	1250.0	1250.0	10.00
R2	32	40	10.00	1250.0	1250.0	10.00
R3	32	40	10.00	1250.0	1250.0	10.00
R4	32	40	10.00	1250.0	1250.0	10.00
R5	32	40	10.00	1250.0	1250.0	10.00
R6	32	40	10.00	1250.0	1250.0	10.00
R7	32	40	10.00	1250.0	1250.0	10.00
R8	32	40	10.00	1250.0	1250.0	10.00
R9	32	40	10.00	1250.0	1250.0	10.00
R10	32	40	10.00	1250.0	1250.0	10.00
R11	32	40	10.00	1250.0	1250.0	10.00
R12	32	40	10.00	1250.0	1250.0	10.00
R13	32	40	10.00	1250.0	1250.0	10.00
R14	32	40	10.00	1250.0	1250.0	10.00
R15	32	40	10.00	1250.0	1250.0	10.00
R16	32	40	10.00	1250.0	1250.0	10.00
R17	32	40	10.00	1250.0	1250.0	10.00
R18	32	40	10.00	1250.0	1250.0	10.00
R19	32	40	10.00	1250.0	1250.0	10.00
R20	32	40	10.00	1250.0	1250.0	10.00



PIER REINFORCEMENT VIEW

Approved with Comment

7/2/2023

check and revise BBs

NOTES:

P7^N



FHECOR
Ingenieros Consultores

Arab House of Engineering
شركة البيت الهندسية
Tid: 2027610435 email: info@ah-engineering.com
شارع رقم ١٠٠٠

FOR SUBMITTAL	
NO.	REVISION
1	12/2022
2	01/2023

الملك
جمهورية مصر العربية
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للطرق والكباري
القاهرة
GENERAL

NAME OF PROJECT
ELECTRICAL EXPRESS TRAIN HIGH SPEED-ARAB
SECTION THREE (FROM WEST OF AIN EL HELWAN)

NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR CONSULTANT
FHECOR
Ingenieros Consultores

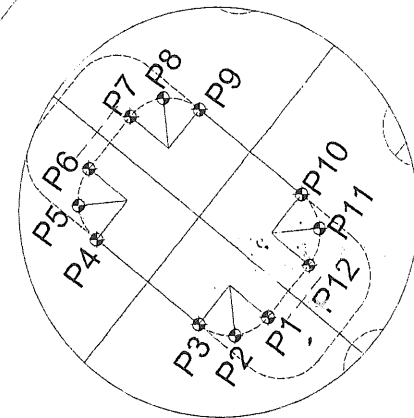
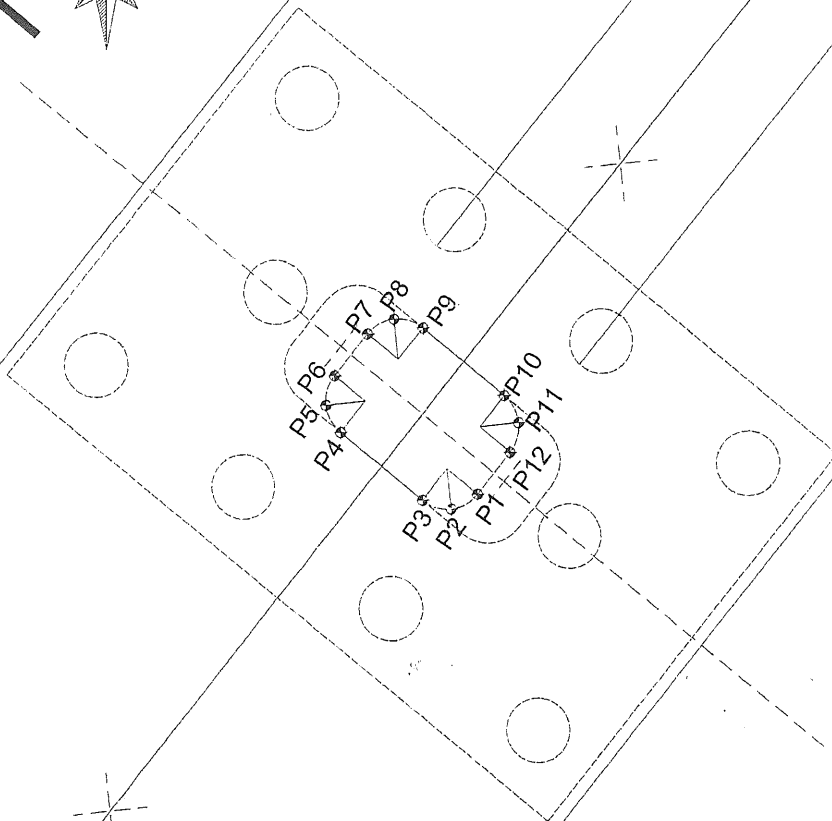
MAIN CONTRACTOR



DWG TITLE

COLUMNS COORDINATES
AT REGINA BRIDGE

DWG NO	COL. CO-01	DATE	12/2022	SCALE	1:50
DRAWING BY	ENG. OJJ	DRAWN BY	ENG. N.A	CHECKED BY	ENG. P.A
SUPERVISOR	DI. M. Almasoud Laifien	APPROVED BY		APPROVED BY	



Point Table

Point #	Easting	Northing	Axis
P1	585458.219	830449.733	P1
P2	585457.946	830450.238	P1
P3	585458.110	830450.788	P1
P4	585459.373	830452.339	P1
P5	585459.878	830452.612	P1
P6	585460.428	830452.447	P1
P7	585461.204	830451.816	P1
P8	585461.476	830451.311	P1
P9	585461.312	830450.761	P1
P10	585460.049	830449.210	P1
P11	585459.544	830448.937	P1
P12	585458.994	830449.102	P1



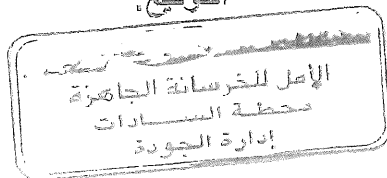
الأصل

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبري رجا)
CLIENT : شركة النيل العامة للطرق والكباري
ELEMENT : column (P1) stem
Dimension : 15*15*15 cm
Date of casting : 21/06/2023
MIX DESIGN STRENGTH : 500 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	21/06/2023	19/07/2023	28	8.542	149000	662	651
2	21/06/2023	19/07/2023	28	8.508	147200	654	
3	21/06/2023	19/07/2023	28	8.476	143400	637	

التوقيع:



مدير المركز

مدير المشروع

Head Office: Egypt National Center for Quality Control and Assurance
New City, Telefax: 02 25722009 - 02 24711453
Mokhi: 010 0109 010

Head Office: New Cairo - Heliopolis - Part 52 - 63

Tel: 02 25722009 - 02 24711453

Mokhi: 010 0109 010

E-mail: info@encqa.gov.eg

Website: www.encqa.gov.eg

مدير المركز
مدير المشروع

مدير المركز
مدير المشروع

مدير المركز
مدير المشروع

مدير المركز
مدير المشروع

مدير المركز
مدير المشروع

مدير المركز
مدير المشروع

مدير المركز
مدير المشروع

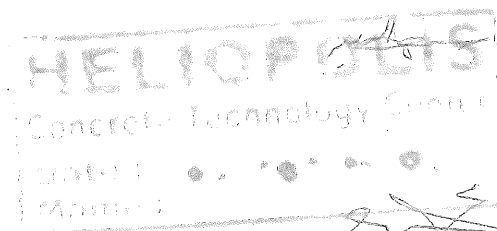
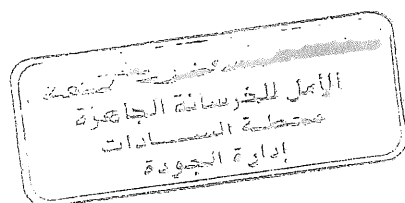
مدير المركز
مدير المشروع

[illegible]

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : column (P1)
Dimension : 15*15*15 cm
Date of casting : 21/06/2023
MIX DESIGN STRENGTH : 500 kg / cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm ²)	Average
1	21/06/2023	28/06/2023	7	8.532	133600	594	595
2	21/06/2023	28/06/2023	7	8.574	136100	605	
3	21/06/2023	28/06/2023	7	8.484	131600	585	

التوقيف:



Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01225545672 - 01003550685 - 01004176497

[illegible]

الإلهية

معرفة العمل

[illegible]

REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name <i>Ahmed Adel</i>	Sign 	Date 11/6/2023	Time																
Received by ER		Work Activity CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity : POURING Pier P2 Stem 4M HIGHT		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Location of Pour		Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km Pier P2		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade:
			Concrete Volume: 33M3	
Item	Document No	Revision	Title	Number of Sheets
1			SHOPDRAWING FOR COLUMN P2	
2			RESULT OF COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
3			COULMN COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Ahmed Adel</i>			A
QA/QC				A
Employer Representative	<i>Mohammed Gardouh</i>			A

NOTES:

1. ALL DIMENSIONS SHOWN IN THE DRAWING ARE IN METERS. ALL ELEVATIONS & COORDINATES ARE TO THE CENTERLINE OF THE ROAD.
2. FOR PERMITS, CONCRETE DIMENSIONS & SETBACKS, SEE THE DRAWING NO. 108-007-CC-210-001 NOT-FRM.
3. FOR PERMITS, CONCRETE DIMENSIONS & SETBACKS, SEE THE DRAWING NO. 108-007-CC-210-001 NOT-FRM.
4. REINFORCING STEEL SHALL CONFORM TO EN10082-1.
5. USED MATERIAL TYPE E80000 (F55000A).
6. REINFORCING STEEL SHALL BE 500mm ALL AROUND JRC.
7. JRC SHALL BE 500mm ALL AROUND JRC.
8. JRC SHALL BE 500mm ALL AROUND JRC.
9. ARRANGEMENT OF STEEL BARS SHALL BE STAGGERED.

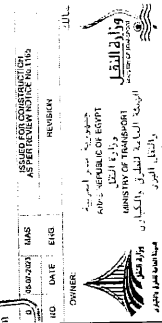
LEGEND

- BOTG: 100%
 TOP BAY:
 100% RH: 100% RH
 a. QUANTITY OF GROUPS
 b. QUANTITY OF BARS
 c. BARS SIZE
 d. BARS SPACING

NEJ FHECOR
Ingenieros Consultores

100% RH: 100% RH

100% RH: 100% RH



NAME OF PROJECT:
AL-ULAYNA EXPRESS FROM (FROM OFFICE) (AL-ULAYNA)
SECTION: INNER FROM WEST OF PILE TO AL-ULAYNA

NAME OF OWNER: CONSULTANT



NAME OF CONTRACTOR: SHAKER

NEJ FHECOR
Ingenieros Consultores



NAME OF CONTRACTOR: SHAKER

NAME OF PROJECT: AL-ULAYNA EXPRESS FROM (FROM OFFICE) (AL-ULAYNA)

SECTION: INNER FROM WEST OF PILE TO AL-ULAYNA

NAME OF OWNER: CONSULTANT

NAME OF CONTRACTOR: SHAKER

NAME OF PROJECT: AL-ULAYNA EXPRESS FROM (FROM OFFICE) (AL-ULAYNA)

SECTION: INNER FROM WEST OF PILE TO AL-ULAYNA

NAME OF OWNER: CONSULTANT

NAME OF CONTRACTOR: SHAKER

NAME OF PROJECT: AL-ULAYNA EXPRESS FROM (FROM OFFICE) (AL-ULAYNA)

SECTION: INNER FROM WEST OF PILE TO AL-ULAYNA

NAME OF OWNER: CONSULTANT

NAME OF CONTRACTOR: SHAKER

INNER BARS ARRANGEMENT VIEW

Bar Mark	Size	Qty	Length	Weight	Bar Shape
R1	32	40	4550	31.25	13002
R2	32	38	6950	43.06	16975
R3	32	50	9850	67.42	31210
R4	32	50	7885	49.79	24856
R5	16	21	5450	8.60	265.6
R6	16	31	6000	9.47	293.5
R8	10	62	4811	3.03	187.9
R10	10	62	7080	4.37	210.8
R7	10	124	5685	3.51	435.0
R9	10	62	7685	4.74	284.0
Total					10276.1

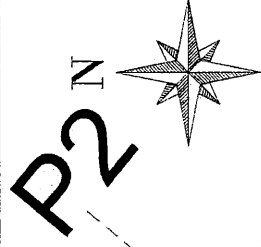
OUTER BARS ARRANGEMENT VIEW

approved With notes

9/15/2023

check and revise BBS

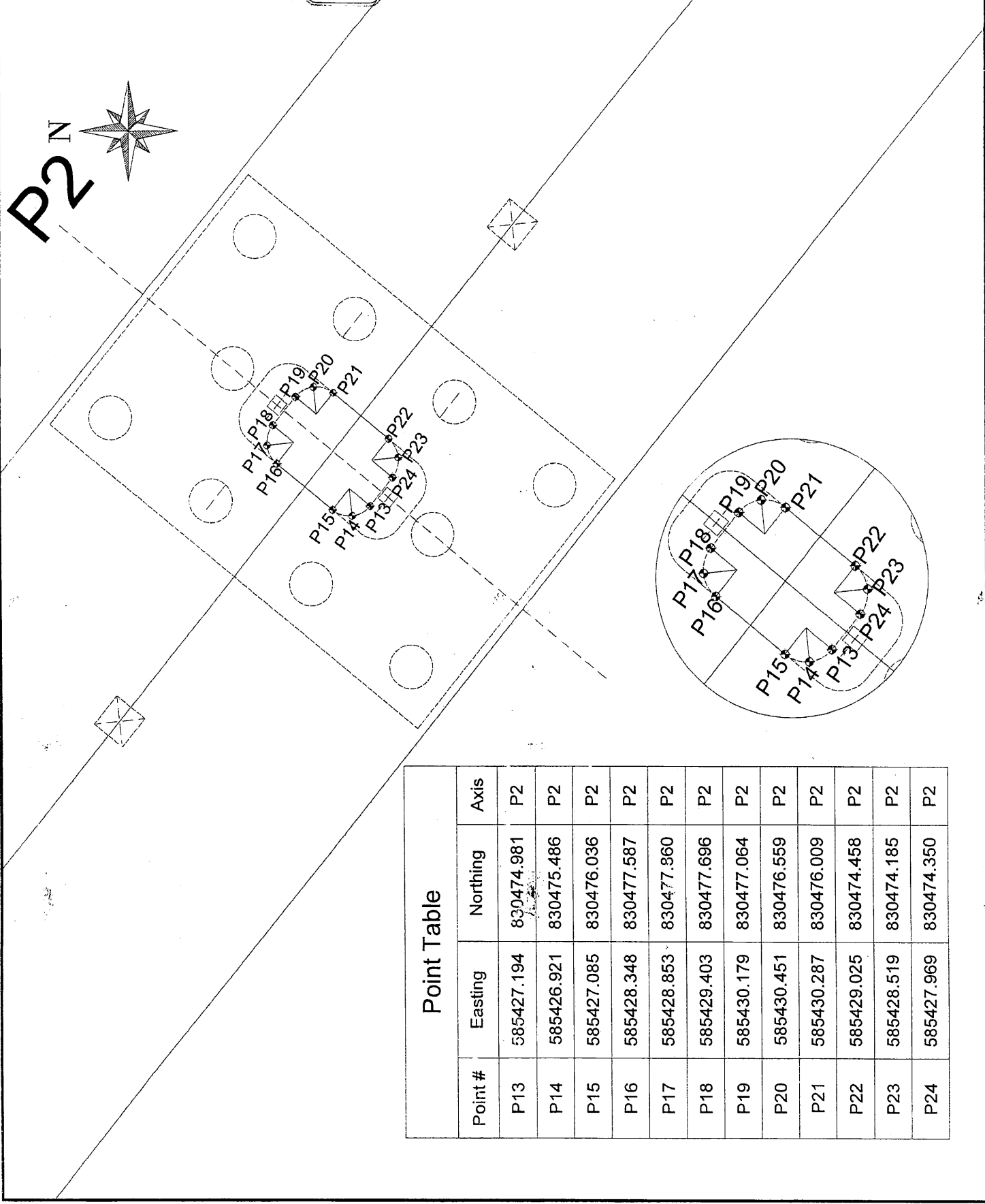
NOTES:



Arab House of Engineering
شركة بيت الهندسة
Tél: +2027109435 e-mail: info@ah-e.com
صاحب رقم ١٥

Point Table				
Point #	Easting	Northing	Axis	
P13	585427.194	830474.981	P2	
P14	585426.921	830475.486	P2	
P15	585427.085	830476.036	P2	
P16	585428.348	830477.587	P2	
P17	585428.853	830477.860	P2	
P18	585429.403	830477.696	P2	
P19	585430.179	830477.064	P2	
P20	585430.451	830476.559	P2	
P21	585430.287	830476.009	P2	
P22	585429.025	830474.458	P2	
P23	585428.519	830474.185	P2	
P24	585427.969	830474.350	P2	

FOR SUBMITTAL		REVISION	
NO.	DATE	NO.	DATE
00	12/2022		
OWNER			
جمهورية مصر العربية ARAB REPUBLIC OF EGYPT وزارة النقل MINISTRY OF TRANSPORT الهيئة العامة للطرق والكباري R.A. GENERAL AUTHORITY OF ROAD AND TRANSPORT GENERAL			
NAME OF PROJECT			
ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL) SECTION THREE (FROM WEST OF NILE TO ALAMANY)			
NAME OF OWNER CONSULTANT			
SYSTEM SHAKER			
NAME OF CONTRACTOR CONSULTANT			
FHECOR Ingenieros Consultores			
MAIN CONTRACTOR			
DWG. TITLE COLUMNS COORDINATES AT REGWA BRIDGE			
DWG. NO.	DATE	SCALE	
00	12/2022	1:50	
DRAWING BY	DESIGNED BY	CHECKED BY	
ENG. O.M.	ENG. K.A.	ENG. A.A.	
SUPERVISOR		APPROVED BY	
EN. MUSTAFA EL-SAYED		EN. JAFET TOUNG	

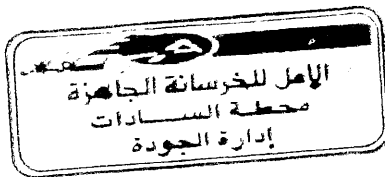


COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : column (P2) stem
Dimension : 15*15*15 cm
Date of casting : 11/06/2023
MIX DESIGN STRENGTH : 500 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	11/06/2023	18/06/2023	7	8.632	123000	547	538
2	11/06/2023	18/06/2023	7	8.681	113200	503	
3	11/06/2023	18/06/2023	7	8.567	126700	563	

التوقيع:



تأشير المهندس

28

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimali St. - Tenth District
Nesr City/Telefax: 02 35573307 - 02 34713558
Mobile: 0110116777
Work Office : New Cairo - Katameya - Part 82 - 83
Tel: 020344476 Fax: 020340109
0127450595 - 01066814170 - 0106055860
53 - Nesr City - Industrial Zone (P) - Fax: 7007 - 7006
Tel: 020 3400007 Fax: 020 3600040
0100000077 - 0100000000 - 0100000000

الإدارة :
1. إدارة الجودة : 0110116777
2. إدارة المشتريات : 0110116777
3. إدارة المبيعات : 0110116777
4. إدارة الهندسة : 0110116777
5. إدارة المحاسبة : 0110116777
6. إدارة التسويق : 0110116777
7. إدارة العلاقات العامة : 0110116777
8. إدارة التدريب : 0110116777
9. إدارة السلامة : 0110116777
10. إدارة البيئة : 0110116777
11. إدارة الصحة : 0110116777
12. إدارة الأمن : 0110116777
13. إدارة الحريق : 0110116777
14. إدارة الكهرباء : 0110116777
15. إدارة المياه : 0110116777
16. إدارة الغاز : 0110116777
17. إدارة التلوث : 0110116777
18. إدارة النفايات : 0110116777
19. إدارة الصحة العامة : 0110116777
20. إدارة السلامة المهنية : 0110116777

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : column (P2) stem
Dimension : 15*15*15 cm
Date of casting : 18/06/2023
MIX DESIGN STRENGTH : 500 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	18/06/2023	16/07/2023	28	8.496	149800	666	653
2	18/06/2023	16/07/2023	28	8.510	148300	659	
3	18/06/2023	16/07/2023	28	8.587	142600	634	

التوقيع:

الامر للخرسانة الجاهزة
محطة السادات
إدارة الجودة

Head Office : Egypt Medical Center mall - Fourth Floor - Dr. Shmouni - Tenth District
New City / Telecom. 02 25512007 - 02 247 1556
Mobile 01111907310

Workshop : New Cairo - Telecom. - Part 80 - 85

Tel : 01111907310 - 01111907310

01111907310 - 01111907310 - 01111907310

01111907310 - 01111907310 - 01111907310

01111907310 - 01111907310 - 01111907310

01111907310 - 01111907310 - 01111907310

REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			11/6/2023																	
Received by ER		Work Activity	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity : POURING COLUMN P3 FIRST STAGE 4M HIGHT		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km COLUMN (P3)			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	
	Grade:			
	Concrete Volume: 33M3			
Item	Document No	Revision	Title	Number of Sheets
1			SHOPDRAWING FOR COLUMN P3	
2			RESULT OF COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
3			COULMN COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Mohamed ABD			A
QA/QC				A
Employer Representative	Mohammed Gadouh			A

NOTES:

P3 N



FHECOR
Ingenieros Consultores

Arab House of Engineering
مركز البحوث والدراسات الهندسية
Toll: +967 11 4435 Email: info@ahouse.com
شارع ربيع
٩٢٧ ١٠

FOR SUBMITTAL
REV. DATE ENG. REVISIONS

OWNER
Ministry of Transport
وزارة النقل
الهيئة العامة للطرق والمواصلات
القطري

NAME OF PROJECT
ELECTRICAL EXPRESS TRAFFIC LIGHTS (ETL) -
SECTION THREE (PROJECT OF FIVE TO ALAMAR)

NAME OF CONSULTANT
FHECOR

NAME OF CONTRACTOR
FHECOR
Ingenieros Consultores



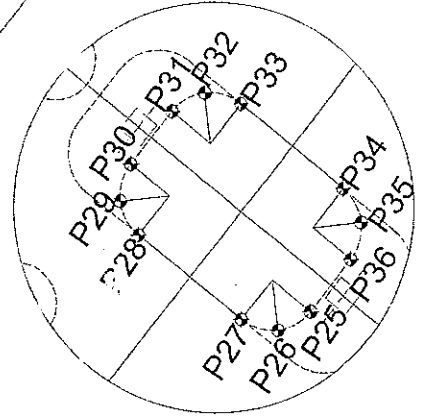
COLUMNS COORDINATES
AT REGIA BRIDGE

POINT	DATE	SCALE
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0097	12/2002	1:50
0098	12/2002	1:50
0099	12/2002	1:50
0100	12/2002	1:50

Point Table

Point #	Easting	Northing	Axis
P25	585396.169	830500.229	P3
P26	585395.896	830500.734	P3
P27	585396.061	830501.284	P3
P28	585397.323	830502.836	P3
P29	585397.828	830503.108	P3
P30	585398.379	830502.944	P3
P31	585399.154	830502.313	P3
P32	585399.427	830501.808	P3
P33	585399.262	830501.258	P3
P34	585398.000	830499.706	P3
P35	585397.495	830499.433	P3
P36	585396.945	830499.598	P3

P25 P26 P27 P28 P29 P30 P31 P32 P33 P34 P35 P36



NOTES:

- 1- ALL DIMENSIONS SHOWN IN THIS DRAWING ARE IN MILLIMETERS. (M)
- 2- FOR PRODUCT GENERAL INFORMATION SEE DRAWING NO. 1407-400
- 3- FOR PRELIMINARY DIMENSIONS AND SETTING OUT COORDINATES SEE DRAWING NO. 1407-400
- 4- REINFORCED CONCRETE GRADE C20/25
- 5- FOR EARTHWORK AND BONDING DETAILS SEE DRAWING NO. 1407-400
- 6- FOR REINFORCING STEEL SEE DRAWING NO. 1407-400

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NO.	DATE	REVISION
1	14/07/2014	1

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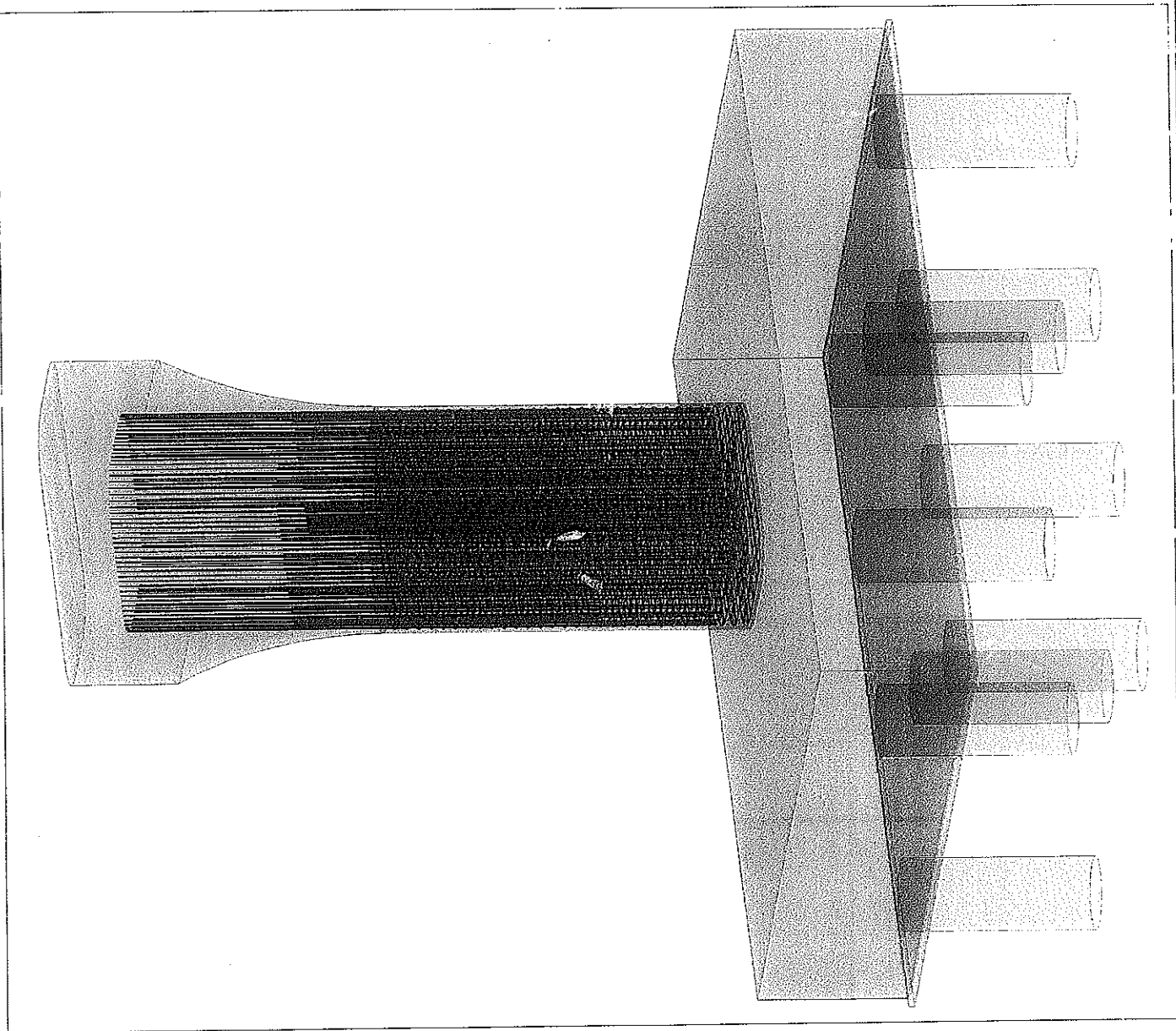
AF FHECOR
Ingenieros Consultores

AF FHECOR
Ingenieros Consultores

AF FHECOR
Ingenieros Consultores

AF FHECOR
Ingenieros Consultores

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Ingenieros Consultores



NOTES.

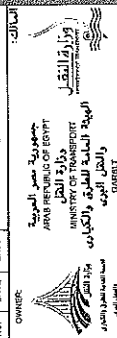
- 1- ALL DIMENSIONS SHOWN IN THIS DRAWING ARE IN MILLIMETERS. ALL ELEVATIONS & COORDINATES ARE GIVEN IN METERS.
- 2- FOR ALL DIMENSIONS NOT SHOWN IN THIS DRAWING, REFER TO THE DRAWING OF THE BRIDGE.
- 3- FOR PERM CONCRETE DIMENSION SETTING OUT COORDINATES SEE DRAWING NO. IRE/ENR/2010/004/RE-504
- 4- REINFORCING STEEL SHALL CONFORM TO EN 10082-1-1. USED MATERIAL TYPE BRIDGEWYRE (F750) MPa.
- 5- REINFORCED CONCRETE GRADE CUBED 28 DAYS.
- 6- CONCRETE COVER SHALL BE 50mm ALL AROUND UNDO.
- 7- FOR LAPPING & BONDING DETAILS SEE DRAWING NO. IRE/ENR/2010/004/RE-502
- 8- ARRANGEMENT OF STEEL BARS SHALL BE STITCHED.

LEGEND

- SECTION BARS
TOP BARS
QUANTITY OF GROUPS
BAR MARK
QUANTITY OF BARS
BAR SIZE
BAR SPACING

SVSITA
Ingenieros Consultores

NO.	DATE	ENCL.	REVISION
0	15/03/2010	MAS	APPROVED FOR CONSTRUCTION



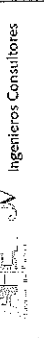
NAME OF PROJECT: ELECTRICAL EXPRESS TUNNEL HIGH SPEED RAIL
SECTION THREE (FROM WEST OF HALE TO AL-JABEL)

NAME OF OWNER: CONTA. TANT.



NAME OF CONTRACTOR: CONSULTANT

NAME OF CONTRACTOR: SVSITA Ingenieros Consultores



NAME OF CONTRACTOR: SVSITA Ingenieros Consultores

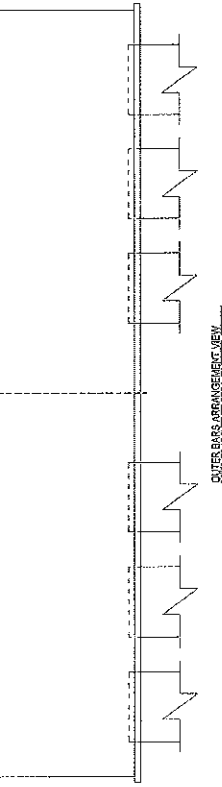
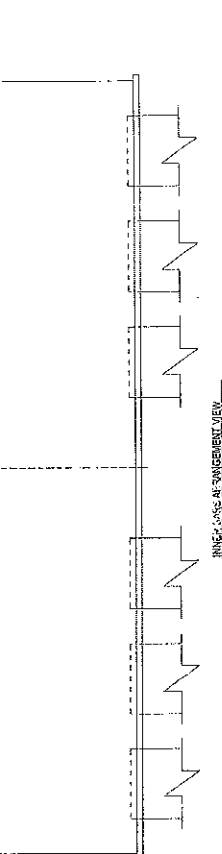
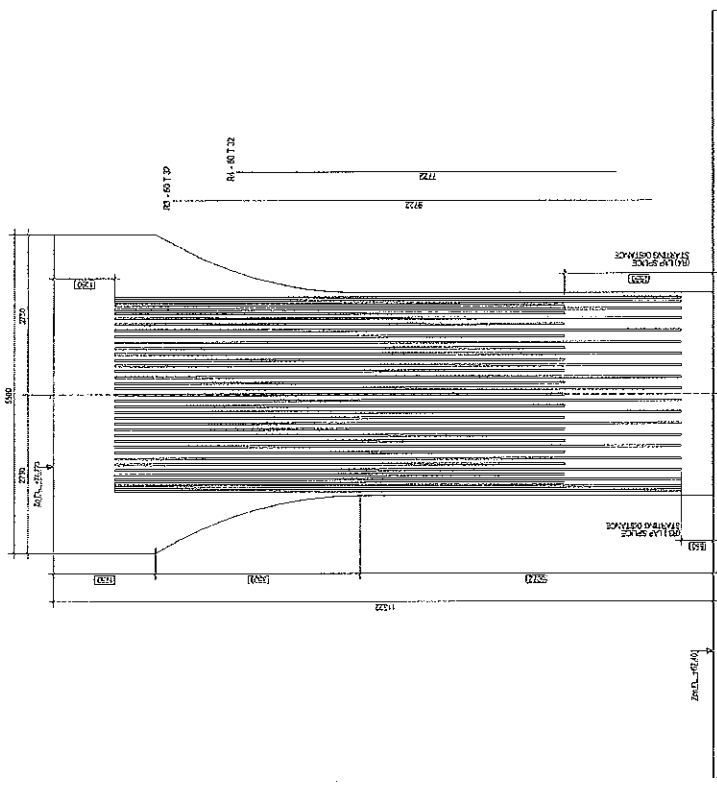
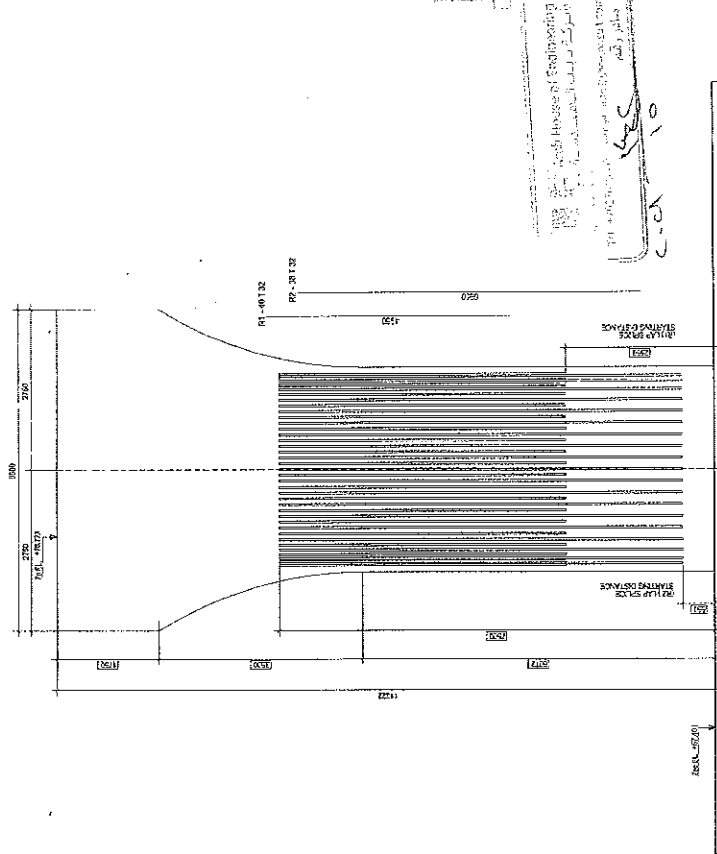
NAME OF CONTRACTOR: SVSITA Ingenieros Consultores

NAME OF CONTRACTOR: SVSITA Ingenieros Consultores

NAME OF CONTRACTOR: SVSITA Ingenieros Consultores

NAME OF CONTRACTOR: SVSITA Ingenieros Consultores

NAME OF CONTRACTOR: SVSITA Ingenieros Consultores



REBAR BENDING SCHEDULE

Bar Mark	Size	Qty.	Length	Weight	Bar Shop
R1	32	40	4950	31.25	1250.2
R2	32	38	6950	43.89	1567.5
R3	32	50	9722	61.38	2060.3
R4	32	50	7722	48.76	2037.9
R5	16	30	9450	0.86	259.0
R6	16	30	6000	0.47	284.0
R9	16	60	4511	3.03	181.0
R10	16	80	7000	4.37	282.1
R7	16	120	6886	3.51	421.0
R8	16	60	7886	4.74	281.5
				Weight	10114.2 Kg

INNER BARS ARRANGEMENT VIEW

OUTER BARS ARRANGEMENT VIEW

NOTES:

1. ALL DIMENSIONS SHOWN IN THIS DRAWING ARE IN MILLIMETERS. ALL ELEVATIONS & COORDINATES ARE SHOWN IN METERS.
2. FOR PROJECT GENERAL NOTES
3. FOR PIER CONCRETE DIMENSION & SETTING OUT COORDINATES SEE DRAWING NO. HSRE-ADD-CC-04-001-ADD-010
4. FOR PIER CONCRETE DIMENSION & SETTING OUT COORDINATES SEE DRAWING NO. HSRE-ADD-CC-04-001-ADD-010
5. FOR PIER CONCRETE DIMENSION & SETTING OUT COORDINATES SEE DRAWING NO. HSRE-ADD-CC-04-001-ADD-010
6. FOR REINFORCING STEEL SEE DRAWING NO. HSRE-ADD-CC-04-001-ADD-010

11-11-2020

11-11-2020

11-11-2020

NO.	DATE	BY	REVISION
1	11-11-2020	11-11-2020	11-11-2020

OWNER: **الهيئة العامة للطرق والنقل والمرى**
الهيئة العامة للطرق والنقل والمرى
الهيئة العامة للطرق والنقل والمرى

NAME OF PROJECT: **REINFORCED CONCRETE BRIDGE**
 SECTION THREE (FROM WEST OF PIER TO EAST)

NAME OF OWNER CONSULTANT: **AL-FECON**
Al-Fecon Engineering & Consulting

NAME OF CONTRACTOR CONSULTANT: **AL-FECON**
Al-Fecon Engineering & Consulting

NAME CONTRACTOR: **AL-FECON**
Al-Fecon Engineering & Consulting

DWG. TITLE: **REINFORCED CONCRETE BRIDGE**
CONCRETE DIMENSIONS

DWG. NO.: **11-11-2020**

SCALE: **1:100**

DESIGNED BY: **11-11-2020**

CHECKED BY: **11-11-2020**

DATE: **11-11-2020**

PROJECT NO.: **11-11-2020**

PROJECT NAME: **11-11-2020**

PROJECT LOCATION: **11-11-2020**

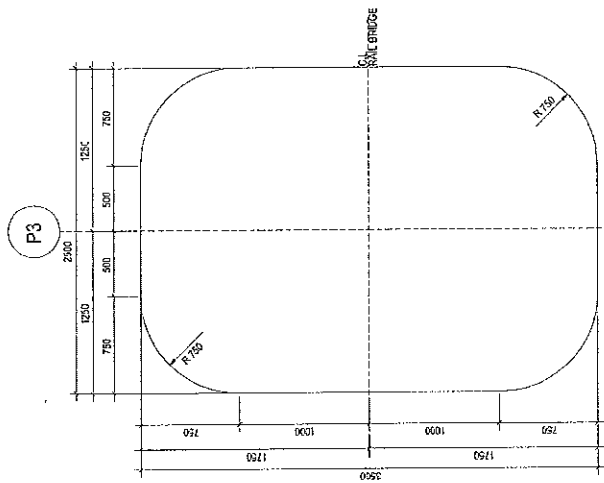
PROJECT DESCRIPTION: **11-11-2020**

PROJECT STATUS: **11-11-2020**

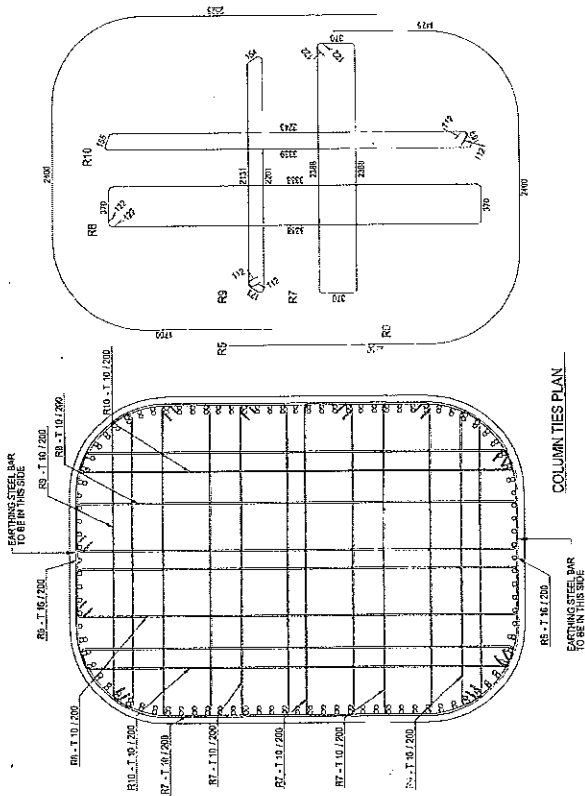
PROJECT OWNER: **11-11-2020**

PROJECT CONSULTANT: **11-11-2020**

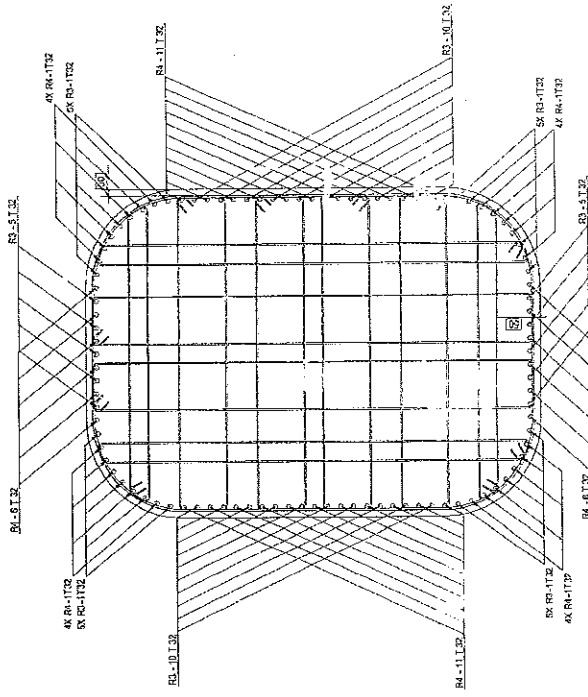
PROJECT CONTRACTOR: **11-11-2020**



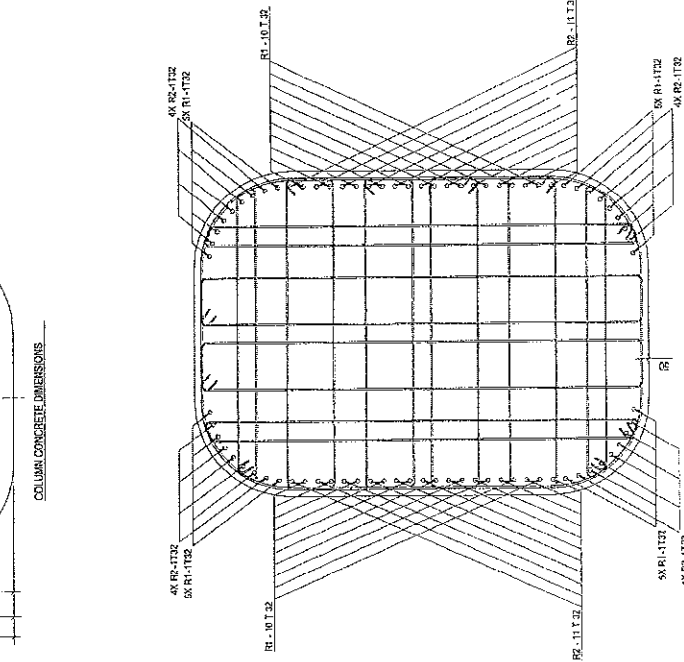
COLUMN CONCRETE DIMENSIONS



COLUMN TIES PLAN



OUTER BARS ARRANGEMENT PLAN



INNER BARS ARRANGEMENT PLAN



Al-Amal Ready mix

الأمال

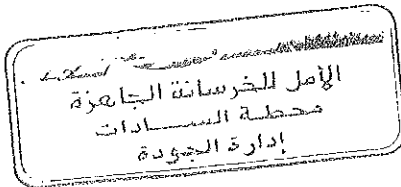
مختبر الخرسانة الجاهزة
رأس المال للنشر ١٥٠٠ ماريون بطنية
والصنوبر ٥٠ ماريون بطنية

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : column (P3)
Dimension : 15*15*15 cm
Date of casting : 11/06/2023
MIX DESIGN STRENGTH : 500 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	11/06/2023	09/07/2023	28	8.622	148000	658	668
2	11/06/2023	09/07/2023	28	8.596	149600	665	
3	11/06/2023	09/07/2023	28	8.514	153000	680	

التوقيع:



HELIOPOLIS
Concrete Technology Center
Date :
Name :

مدير المختبر

مدير المختبر

تاريخ الاختبار

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459873 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
web-site: www.alamalreadymix.com

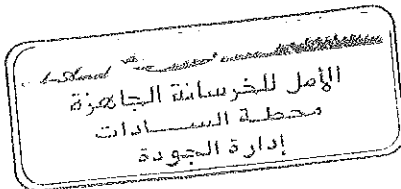
الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفون : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / فاكس : ٢٩٨٤٠١٠٩
٠١٠٢٢٧٨٥٥٥٩٦ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٠٦٠٢٢٨٦٠
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - فاكس : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠١٨٤٩٦٧٢

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : column (P3)
Dimension : 15*15*15 cm
Date of casting : 11/06/2023
MIX DESIGN STRENGTH : 500 kg / cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm ²)	Average
1	11/06/2023	18/06/2023	7	8.632	123000	547	538
2	11/06/2023	18/06/2023	7	8.681	113200	503	
3	11/06/2023	18/06/2023	7	8.567	126700	563	

التوقيع:



HELIOPOLIS
Concrete Technology Center
Date :
Name :

تأريخ
2023

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة
محل إيجيبت ميدكال سنتر - الدور الرابع - ش. د. الشيمي - المنطقة العاشرة
مدينة نصر/ تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤٠١١٣٦
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطرية ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٧

موقع العمل

REQUEST



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			24/5/2023																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity : pouring footing p1		
CODE - 3	Sub Element of Activity		

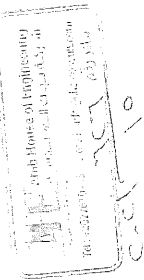
THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P1			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade:500 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour:		Concrete Volume: 290 m ³		
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-28 COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative	Mohammed Gerdouh			A

NOTES:

- 1- ALL DIMENSIONS SHOWN IN THIS DRAWING ARE IN METERS (M) UNLESS OTHERWISE SPECIFIED.
- 2- ELEVATIONS & COORDINATES ARE SHOWN IN THE FIELD.
- 3- PIER CAPS ARE TO BE CONCRETE.
- 4- ALL DIMENSIONS ARE TO BE TAKEN FROM THE CENTERLINE OF THE PIER.
- 5- PIER CAPS ARE TO BE CONCRETE.
- 6- PIER CAPS ARE TO BE CONCRETE.
- 7- PIER CAPS ARE TO BE CONCRETE.
- 8- PIER CAPS ARE TO BE CONCRETE.
- 9- PIER CAPS ARE TO BE CONCRETE.

HEW FHECOR
Ingenieros Consultores



REPUBLIC OF EGYPT
MINISTRY OF TRANSPORT
GENERAL AUTHORITY OF ROAD & RAILWAYS
RAILWAYS DIVISION
RAILWAY PROJECTS DEPARTMENT
RAILWAY BRIDGES SECTION

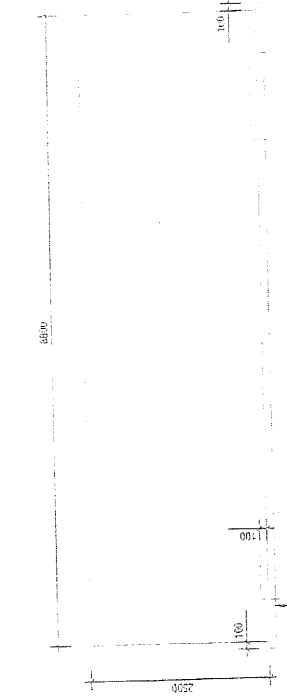
DATE OF PROJECT: 10/10/2011
SECTION: PIER CAP TYPE 1 PLAN & SECTION



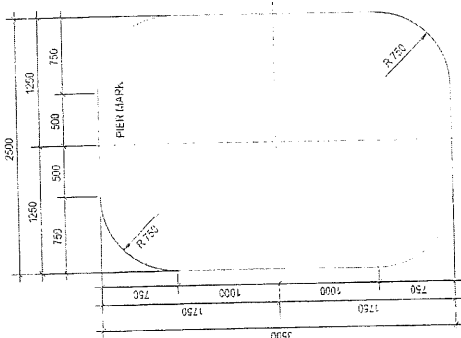
HEW FHECOR
Ingenieros Consultores



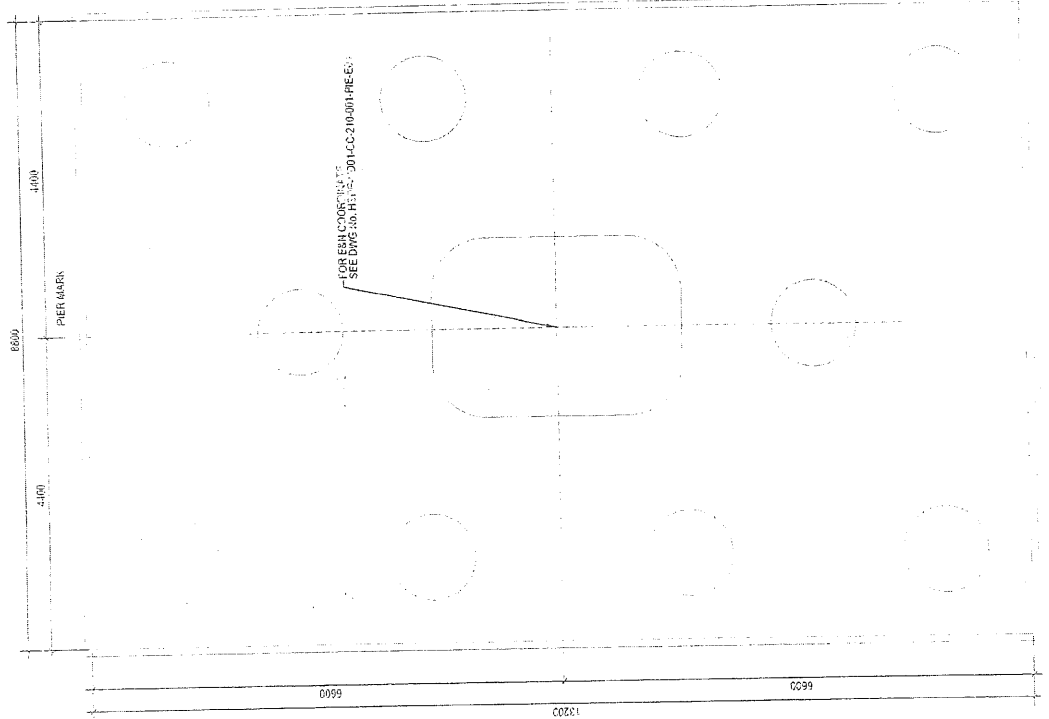
RAILWAY BRIDGE
CONCRETE DIMENSIONS
PIER CAP TYPE 1 PLAN & SECTION
SCALE: 1:100
DATE: 10/10/2011
DRAWN BY: [Signature]
CHECKED BY: [Signature]
APPROVED BY: [Signature]



SECTION A



COLUMN DIMENSIONS AT PIER CAP TOP ELEVATION



PILE CAP TYPE 1 PLAN

[illegible]

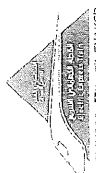
SCHWAB BROS
235 BIV F
S EVD
COUNTY OF DAV
MAY 03 9
A COUNTY OF CHICO
[illegible]
TOP PAGE
BOTH PAGES

THE COR
Ingenieros Consultores

[illegible]

UNIVERSITY OF CALIFORNIA

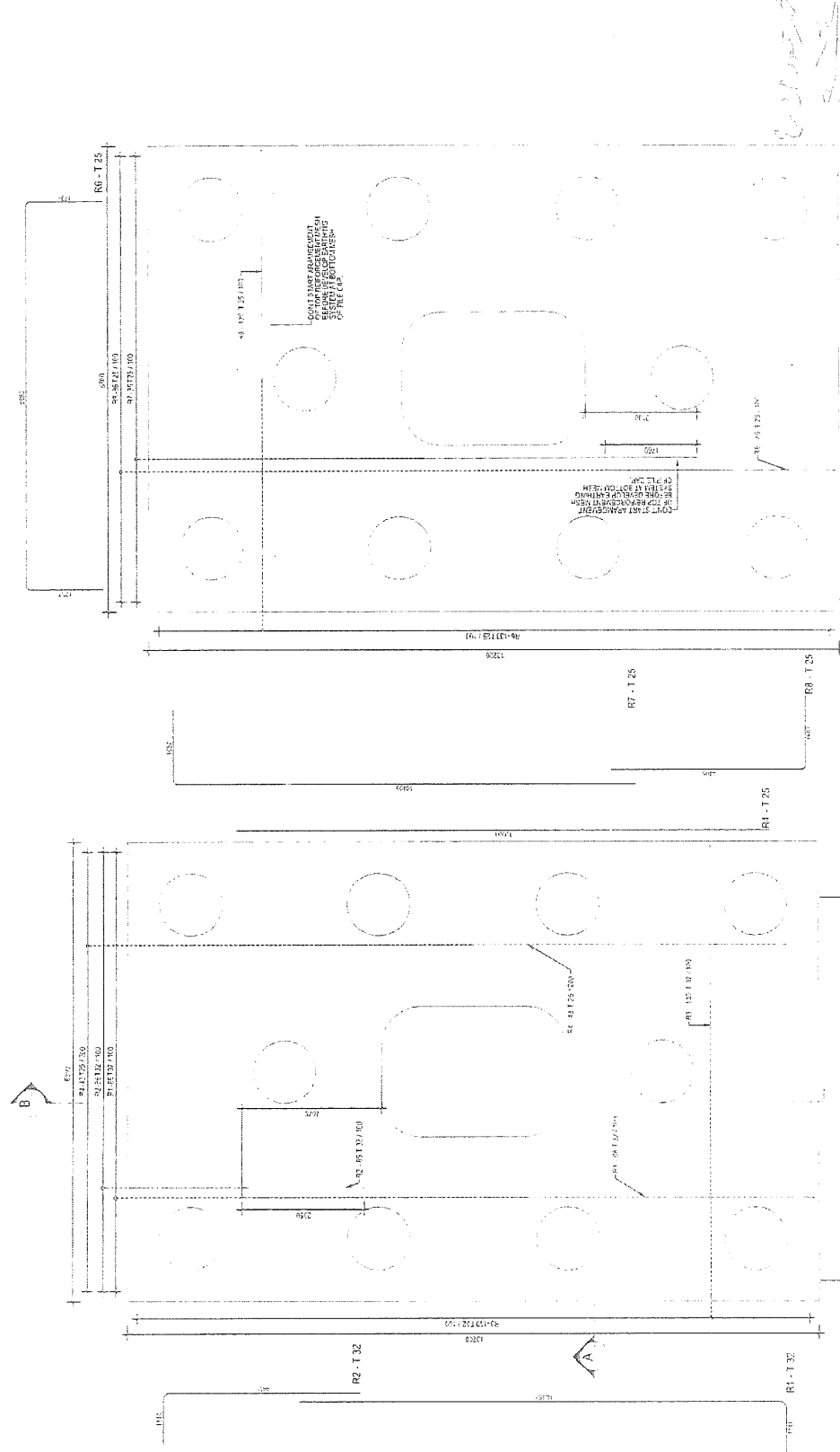

 وزارة التعليم
 وزارة التعليم العالي والبحث العلمي
 وزارة التعليم العالي والبحث العلمي
 وزارة التعليم العالي والبحث العلمي

[illegible]STATE OF NEW YORK COUNTY OF CATTARAUGUS
 IN SENATE,
 January 12, 1904.
 REPORT
 OF THE
 COMMISSIONER OF THE LAND OFFICE,
 IN RESPONSE TO A RESOLUTION PASSED BY THE SENATE
 MAY 10, 1903.
 ALBANY:
 J. B. LIPPINCOTT & COMPANY, PRINTERS,
 1904.
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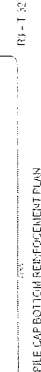

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 Ingenieros Consultores



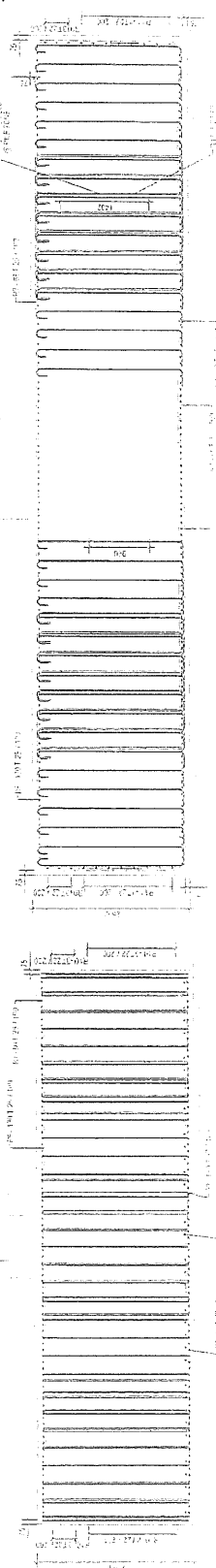
REGINA POLYGRAPH
PETERBOROUGH, ONTARIO
PETERBOROUGH POLYGRAPH & ELECTRONICS
SCOTT



REF TOP REINFORCEMENT PLAN

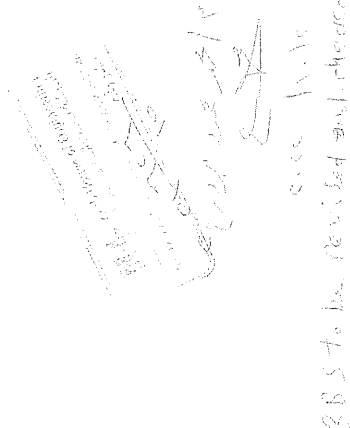
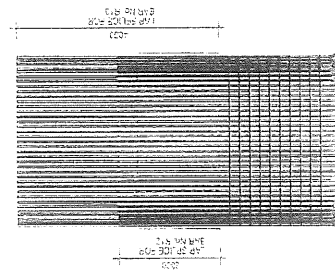
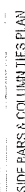


PILE CAP BOTTOM REINFORCEMENT PLAN



SECTION B

SECTION A



Bar Mark	Size	Qty.	Len. ft.	Weight	Steel spec.	Use Shape
R1	25	43	12000	55.25	A501	
R10	22	22	12000	35.61	A501	
R1	32	86	12000	75.17	A501	
R2	32	86	5500	34.73	A501	
R3	32	130	12000	75.77	A501	
R6	25	130	12000	46.25	A501	
R7	25	86	12000	46.25	A501	
R8	25	86	8000	23.12	A501	
R9	22	6	12000	35.61	A501	
R11	27	16	12000	35.81	A501	
R12	32	88	5000	31.57	A501	
R13	32	90	7000	44.20	A501	
R14	16	10	6000	9.47	A501	
R15	16	16	6792	9.88	A501	
R16	22	500	2000	5.97	A501	
R17	22	550	2200	6.57	A501	
R18	16	1000	2000	3.16	A501	
R19	16	1000	1270	2.71	A501	
R20	10	80	3000	1.85	A501	
R21	10	40	3700	2.28	A501	
R22	10	20	5800	3.49	A501	
R23	10	20	4000	2.47	A501	
R24	16	20	2000	1.25	A501	
R25	10	40	4000	2.47	A501	

[illegible]

TOP PASS
EQUUMPASS

1. NUMBER OF COLUMNS
 2. QUANTITY OF COLUMNS
 3. BAR MARKS
 4. QUANTITY OF MARKS
 5. BAR SIZE
 6. BAR SPACING

[illegible]

V FHECOR IT
Ingenieros Consultores



NEWARK ROAD, HINDLEY
LEIGH, BOLTON, LANC.
SOUTH LANC. DISTRICT COUNCIL
1974

NOTES:

P7^N



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Arab House of Engineering
شركة بيت الهندسة
Tid: 2027610435 email: info@ah-engineering.com
صاحب رقم ترخيص: 2027610435

NO.	DATE	ENG.	FOR SUBMITAL	REVISION
00	12/2022	K.A.		

جهازية مصر الجديدة
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للطرق والكباري
GENERAL
مجلس إدارة مشروع الجسر
BOARD OF PROJECT

NAME OF PROJECT
ELECTRICAL EXPRESS TRAIN HIGH SPEED - JALALI
SECTION THREE (FROM FIRST OF FILE TO ALAMAH)

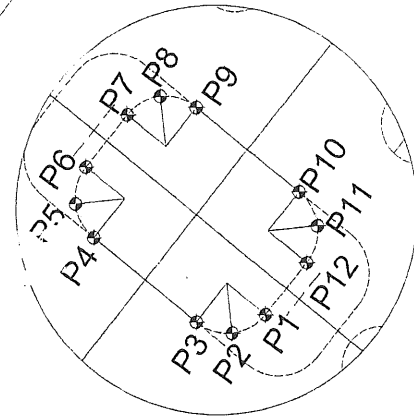
NAME OF OWNER, CONSULTANT
SYSTEM ENGINEERING SHARER

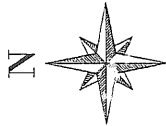
NAME OF CONTRACTOR CONSULTANT
FHECOR
Ingenieros Consultores



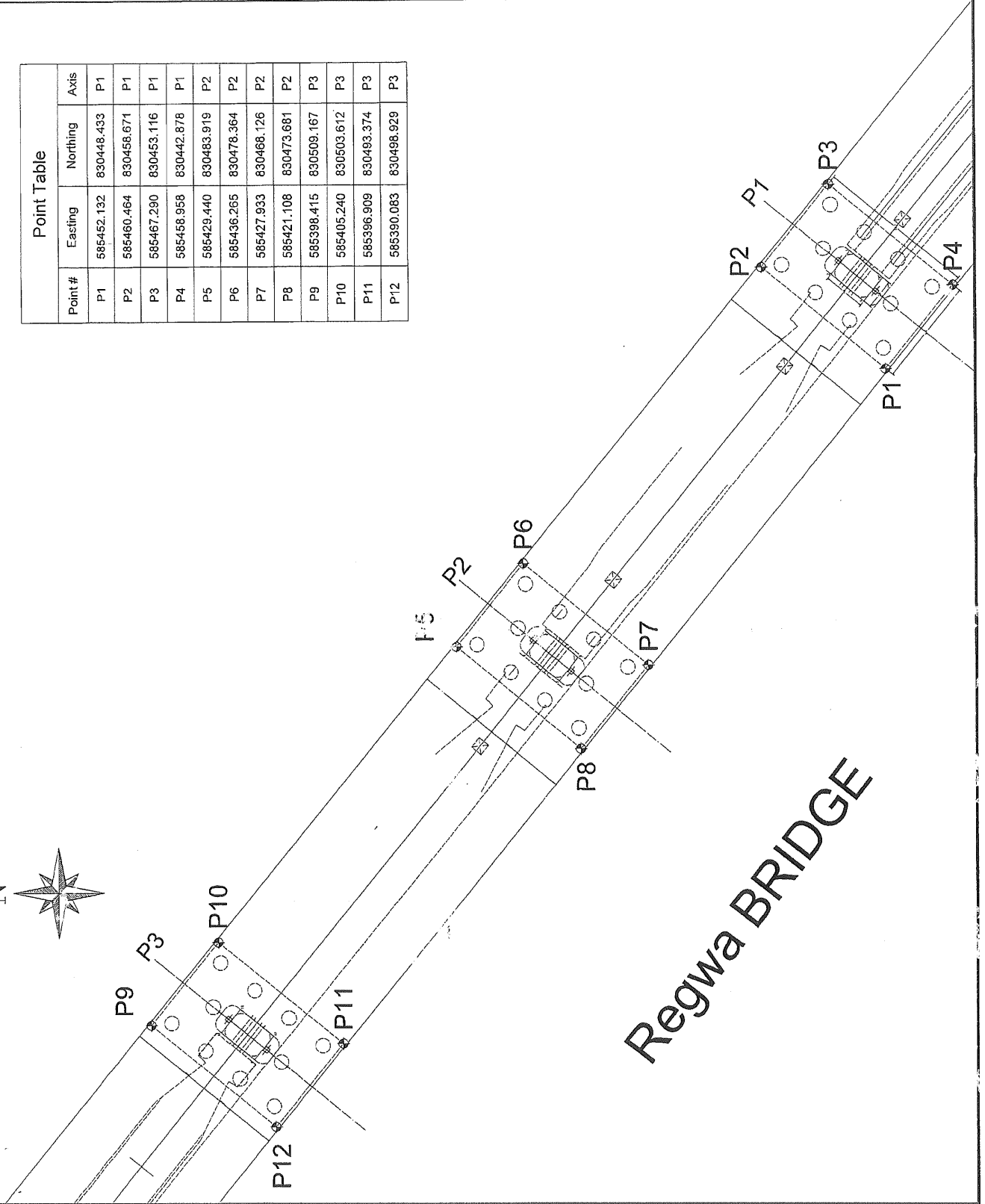
COLUMNS COORDINATES AT REGINA BRIDGE			
DWG. TITLE	DATE	SCALE	1:50
000/00	12/2022		
DRAWING BY ENG. O.H.	DESIGNED BY ENG. K.A.	CHECKED BY ENG. A.A.	APPROVED BY ENG. A.A.
SUPERVISOR DR. Mohamed Lutfan			

Point Table				
Point #	Easting	Northing	Axis	
P1	585458.219	830449.733	P1	
P2	585457.946	830450.238	P1	
P3	585458.110	830450.788	P1	
P4	585459.373	830452.339	P1	
P5	585459.878	830452.612	P1	
P6	585460.428	830452.447	P1	
P7	585461.204	830451.816	P1	
P8	585461.476	830451.311	P1	
P9	585461.312	830450.761	P1	
P10	585460.049	830449.210	P1	
P11	585459.544	830448.937	P1	
P12	585458.994	830449.102	P1	





Point Table			
Point #	Easting	Northing	Axis
P1	585452.132	830448.433	P1
P2	585460.464	830458.671	P1
P3	585467.290	830453.116	P1
P4	585458.958	830442.878	P1
P5	585429.440	830483.919	P2
P6	585436.265	830478.364	P2
P7	585427.933	830468.126	P2
P8	585421.108	830473.681	P2
P9	585398.415	830509.167	P3
P10	585405.240	830503.612	P3
P11	585396.909	830493.374	P3
P12	585390.083	830498.929	P3



NOTES:

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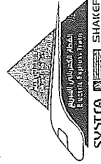
Arab House of Engineering
المنزل العربي للمهندسين
Toll +972 79 245555
شارع رقم 99
10

OWNER
NO. DATE ENG. REVISION

السلطة
جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
Ministry of Transport
الهيئة العامة للطرق والكباري
General Authority of Roads and Bridges
القناطر
QANAT
محافظة القناطر
El Qanater Governorate

NAME OF PROJECT
ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF ILE TO ALAMAH)

NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR CONSULTANT

FHECOR
Ingenieros Consultores



NAME CONTRACTOR

DRAWING TITLE

FOUNDATION COORDINATES
AT REGWA BRIDGE

DWG. NO. DATE SCALE

HSR-ADIF-2041 10/02/22 1:100

DRAWING BY: CHECKED BY:

Eng. Ahmed Elsayed Eng. Mohamed Elsayed

APPROVED BY:

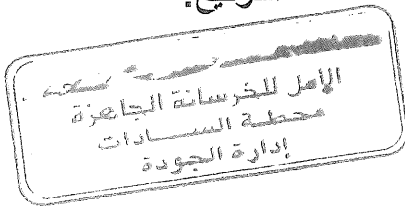
DR. Mohamed Elsayed Eng. Jaber Tawfik

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMENT : Pile Cap (P1)
Dimension : 15*15*15 cm
Date of casting : 24/05/2023
MIX DESIGN STRENGTH : 500 kg/cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm ²)	Average
1	24/05/2023	31/05/2023	7	8.461	109200	485	497
2	24/05/2023	31/05/2023	7	8.567	113800	506	
3	24/05/2023	31/05/2023	7	8.481	112700	501	
4	24/05/2023	31/05/2023	7	8.586	117450	522	
5	24/05/2023	31/05/2023	7	8.601	110020	489	
6	24/05/2023	31/05/2023	7	8.524	109800	488	
7	24/05/2023	31/05/2023	7	8.496	115060	511	
8	24/05/2023	31/05/2023	7	8.502	110900	493	
9	24/05/2023	31/05/2023	7	8.537	106900	475	

التوقيع:



Signature

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01026459673 - 01006880635 - 01004976497

موقع العمل : مولى إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر/ تليفاكس : ٢٣٥٧٣٣٠٧ - ٠٢ ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
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مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

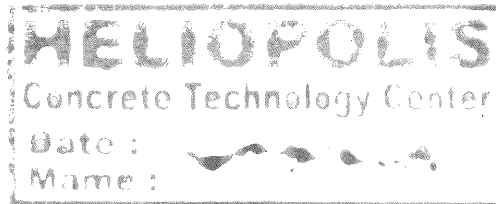
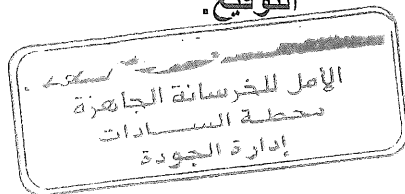
E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile Cap (P1)
Dimension : 15*15*15 cm
Date of casting : 24/05/2023
MIX DESIGN STRENGTH : 500 kg/cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm ²)	Average
1	24/05/2023	21/06/2023	28	8.502	134200	596	638
2	24/05/2023	21/06/2023	28	8.551	144000	640	
3	24/05/2023	21/06/2023	28	8.592	135500	602	
4	24/05/2023	21/06/2023	28	8.474	148600	660	
5	24/05/2023	21/06/2023	28	8.644	144900	644	
6	24/05/2023	21/06/2023	28	8.615	139600	620	
7	24/05/2023	21/06/2023	28	8.720	150800	670	
8	24/05/2023	21/06/2023	28	8.586	145600	647	
9	24/05/2023	21/06/2023	28	8.588	148700	661	

التوقيع:



مدير المختبر

مدير المختبر

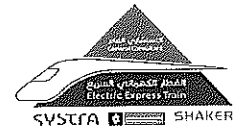
تأمر بالمال

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006380635 - 01004976497

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
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مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٤٨ / ٢٦٣٠١٤٠ - ف : ٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٩٦٧٢

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
			5/3/2023								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE - 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity : pouring footing p2		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P2		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade: 500 kg/cm ²			
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	290 m ³

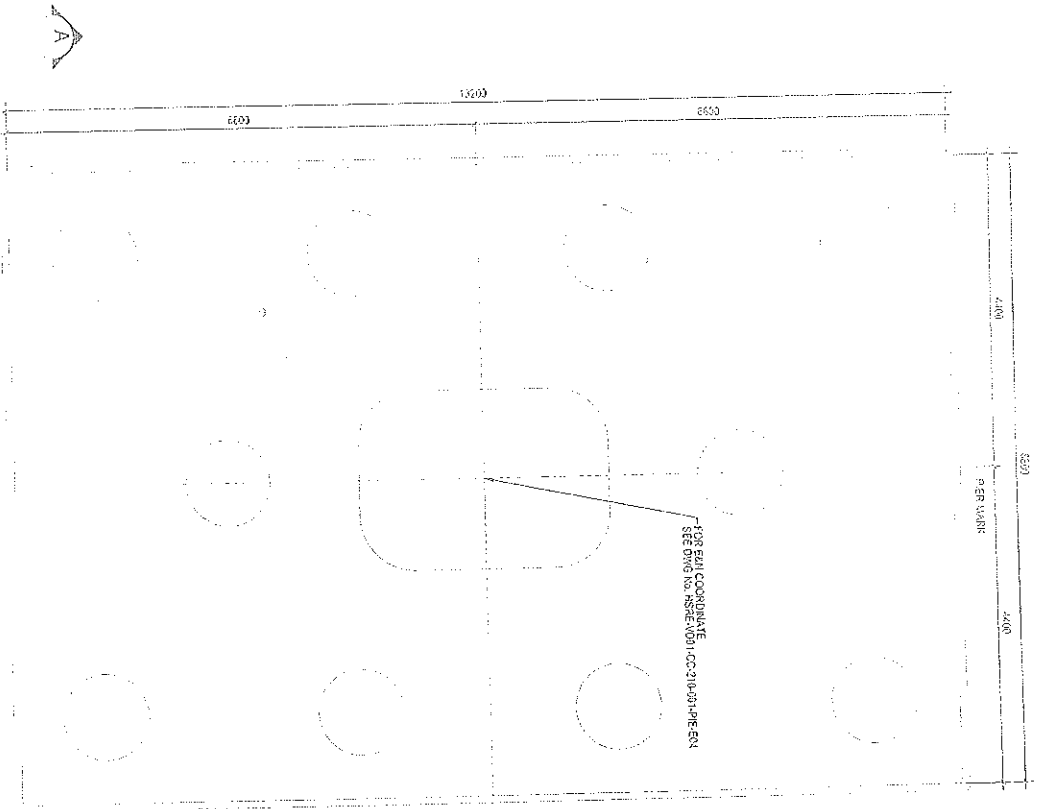
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-28 COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR footing	
3			footing COORDINATES	
Comments by:			Comments by:	

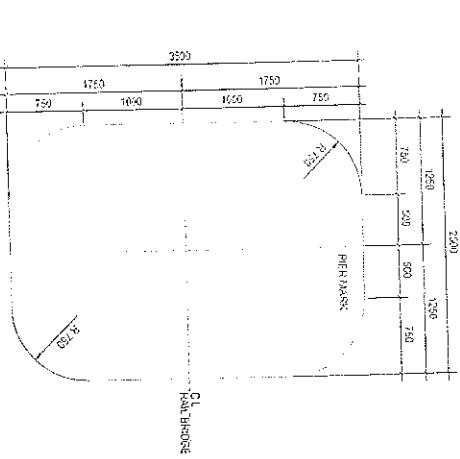
APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel			A
QA/QC				A
Employer	Mohamed Gardoun			A

PILE CAP TYPE 1 PLAN



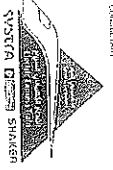
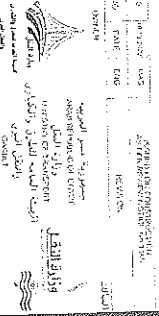
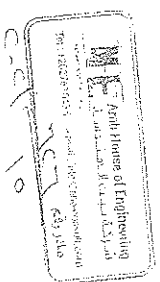
COLUMN DIMENSIONS AT PILE CAP TOP ELEVATION



SECTION A-A

NOTES:

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. REINFORCEMENT SHALL BE AS PER THE SPECIFICATION.
3. THE CAP SHALL BE CONCRETE GRADE C30/37.
4. THE CAP SHALL BE CAST IN PLACE.
5. THE CAP SHALL BE CURED FOR A MINIMUM OF 14 DAYS.
6. THE CAP SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
7. THE CAP SHALL BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE CASTING.
8. THE CAP SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
9. THE CAP SHALL BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE CASTING.
10. THE CAP SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.



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REGIONAL TOPOGRAPHIC
CARTOGRAPHIC SERVICE
MEMBERSHIP CARD FOR ALL SECTIONS

MEMBERSHIP CARD FOR ALL SECTIONS
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MEMBERSHIP CARD FOR ALL SECTIONS

NOTES:

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
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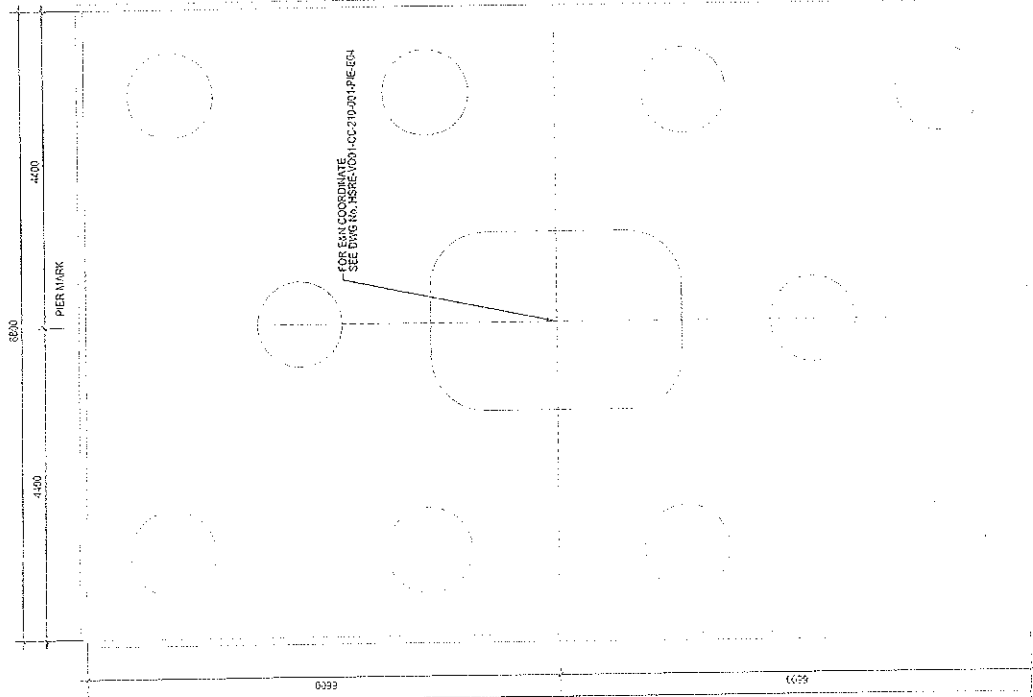
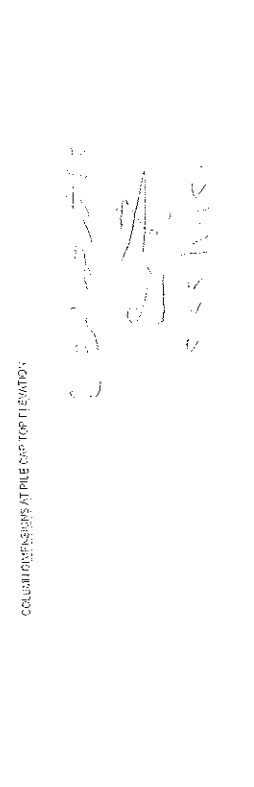
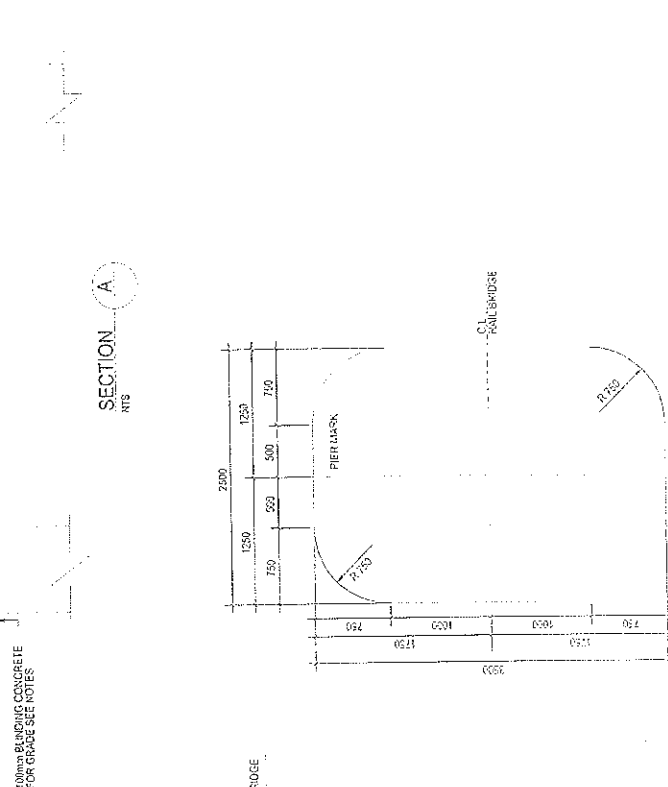
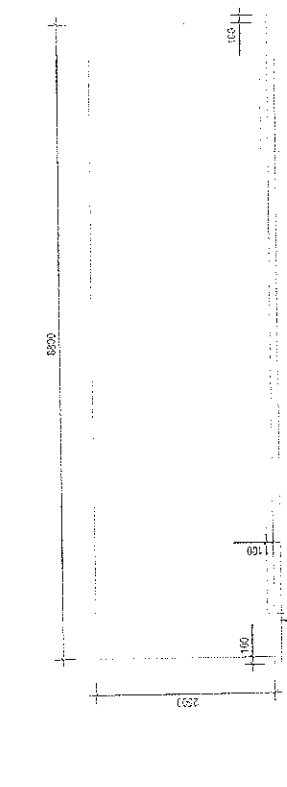
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PILE CAP TYPE 1 PLAN

A

NOTES:

1. ALL DIMENSIONS GIVEN IN PARENTHESIS ARE APPROXIMATE.
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LEGEND

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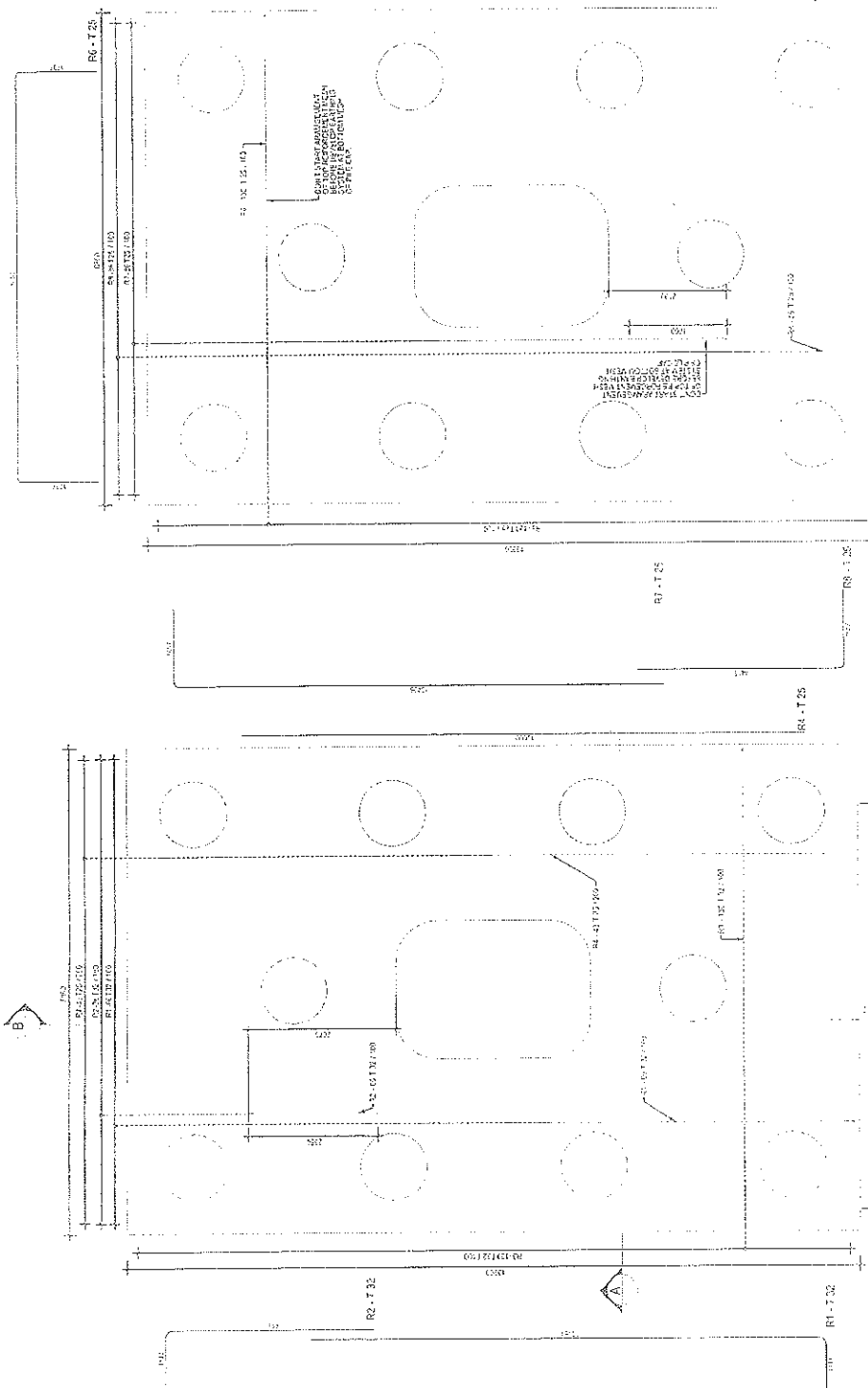
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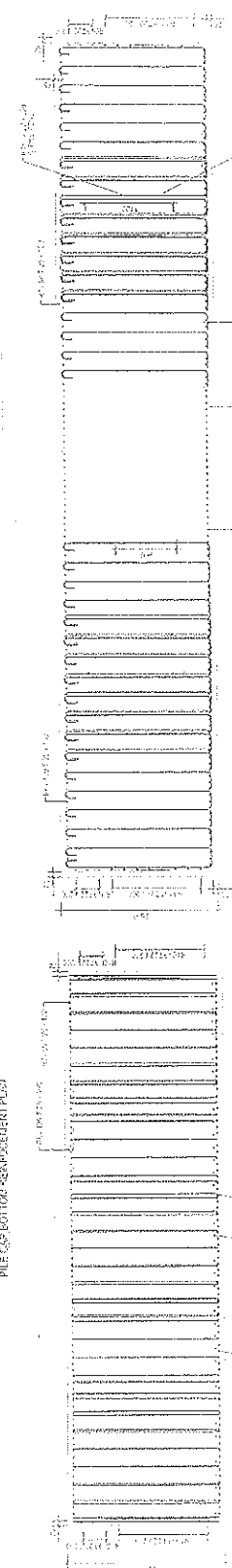
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PLAN OF REINFORCEMENT



SECTION B

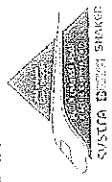
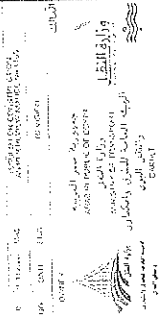
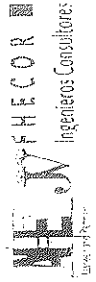
SECTION A

NOTES

1. ALL DIMENSIONS SHOWN ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF S.A.S. 101.
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LEGEND

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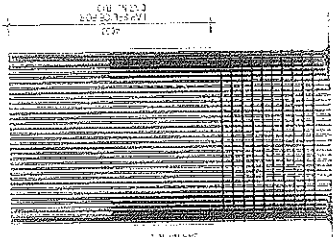
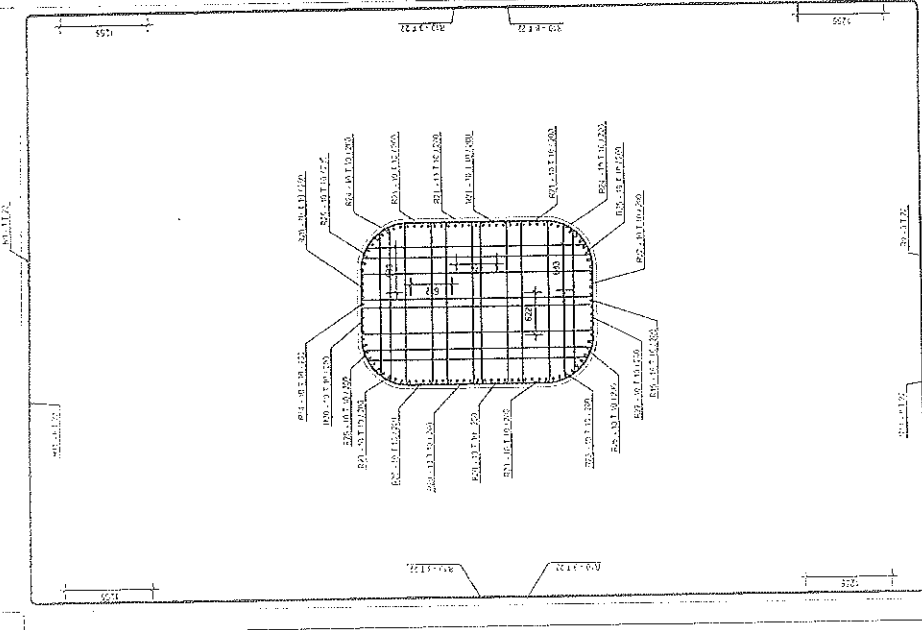
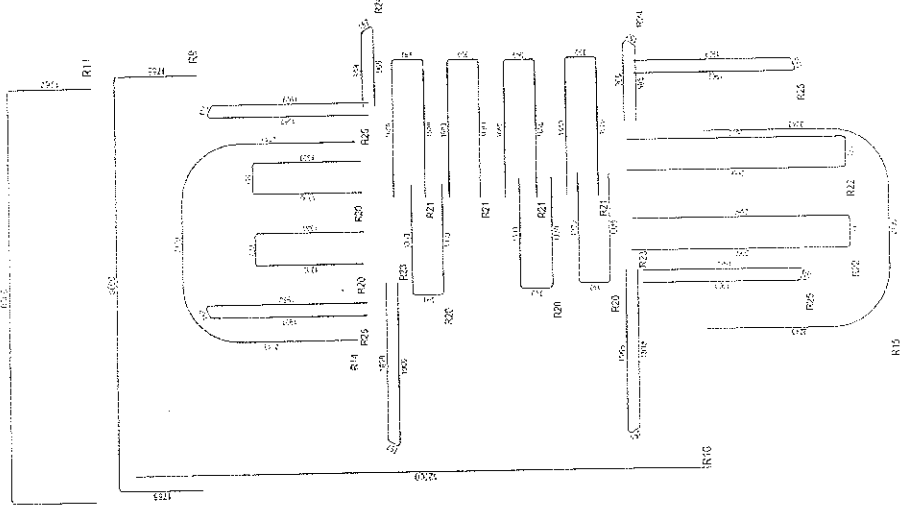
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REBAR BENDING SCHEDULE

Bar Mark	Size	Qty.	Length	Weight	Bar Shape
R1	25	43	1033.7	46.25	1033.7
R10	22	32	1500.0	35.91	1500.0
R11	32	86	1200.0	75.77	6516.0
R2	32	86	5500.0	34.73	2886.5
R3	32	120	1200.0	75.77	9016.8
R6	25	130	1200.0	46.25	9012.2
R7	25	66	1200.0	46.25	3077.3
R8	25	66	600.0	23.12	3887.1
R9	22	8	1200.0	35.81	214.8
R11	22	16	1200.0	35.81	572.9
R12	22	86	500.0	31.57	2770.2
R13	32	90	7050.0	41.20	3977.8
R14	16	10	600.0	9.47	91.7
R15	16	10	600.0	9.48	93.2
R16	22	86	200.0	5.97	3342.7
R17	22	450	220.0	6.57	3378.1
R18	16	1040	200.0	3.16	3310.6
R19	16	1040	1700.0	3.71	2817.0
R20	16	80	200.0	1.85	111.1
R21	16	40	910.0	2.25	91.0
R22	16	20	560.0	1.40	60.3
R23	16	20	490.0	1.47	48.4
R24	16	20	200.0	1.25	24.7
R25	16	40	190.0	2.67	50.0

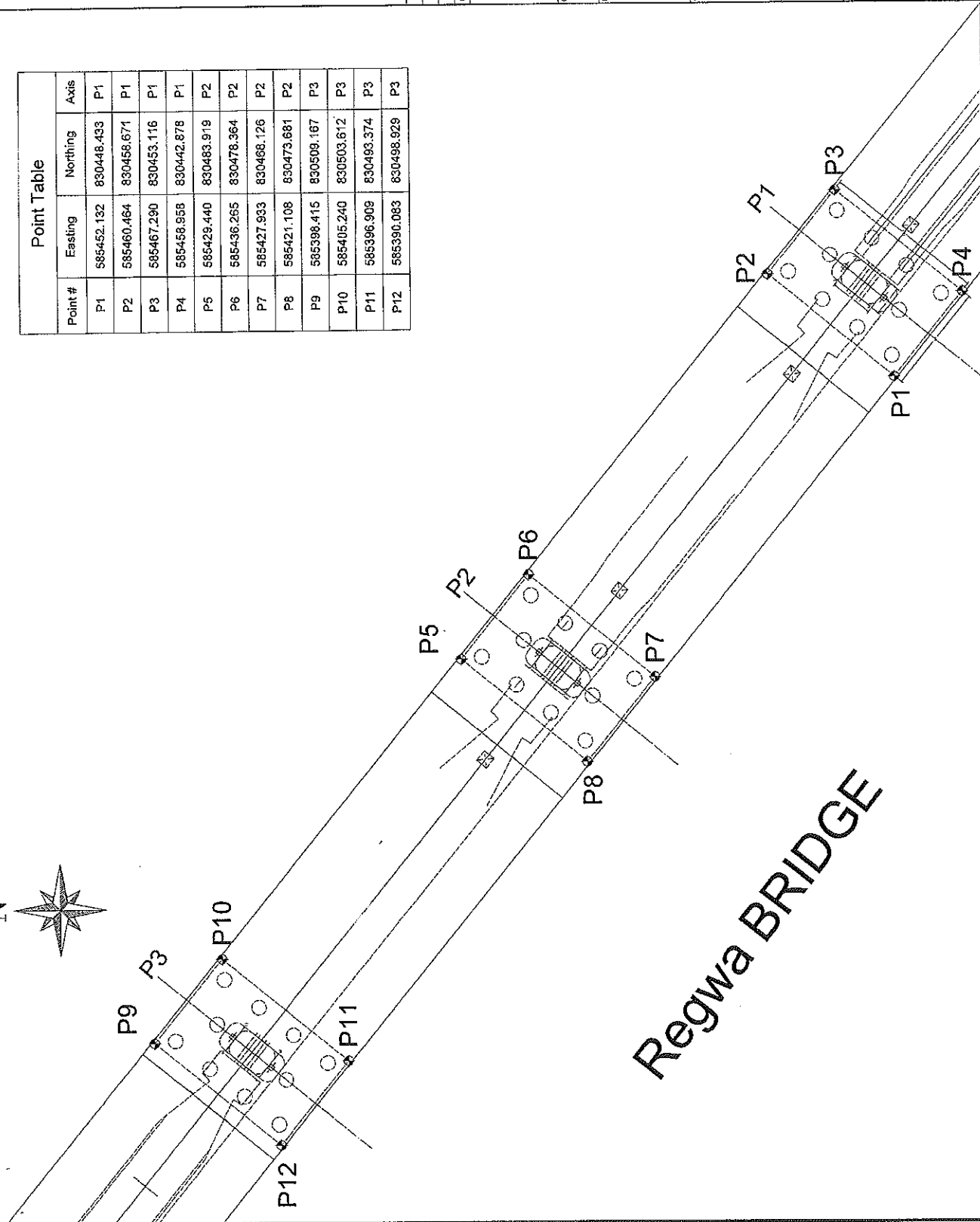


VIEW BARS & COLUMN TIES PLAN

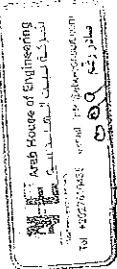
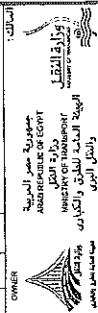
COLUMN STARTER AND SECTIONAL REINFORCEMENT

REBAR BENDING SCHEDULE

Point Table			
Point #	Easting	Northing	Axis
P1	585452.132	830448.433	P1
P2	585460.464	830458.671	P1
P3	585467.290	830453.116	P1
P4	585458.958	830442.878	P1
P5	585429.440	830483.919	P2
P6	585436.265	830478.364	P2
P7	585427.933	830468.126	P2
P8	585421.108	830473.681	P2
P9	585398.415	830508.167	P3
P10	585405.240	830503.612	P3
P11	585396.909	830493.374	P3
P12	585390.083	830498.929	P3



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[illegible]

NAME OF PROJECT: ELECTRICAL EXPOSED TRAIN (HIGH SPEED RAIL)
SECTION THREE (HIGH VOLTAGE OF RAIL TO TRAIN)

NAME OF OWNER CONSULTANT:



NAME OF CONTRACTOR COMPANY



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DWG. TITLE:
FOUNDATION COORDINATES
AT REGINA BRIDGE

DATE	10/2/22	TOTAL	1,100
DRAWING BY:	CHECKED BY:		
E. Ag. Shulard Allen	Dr. M. M. Smith		
SUPERVISOR:		APPROVED BY:	
Dr. Ashwood Lathrop		E. J. J. J. J.	

N
P2

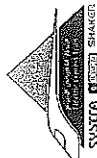

Arab House of Engineering
 شركة اربا للهندسة
 Arab House of Engineering
 Tel: +9027659655 e-mail: info@ah-engineering.com
 عمان - عمان

NO.	DATE	ENG	FOR SUBMITTAL	REVISION
00	12/20/22	K.A.		

[illegible]

NAME OF PROJECT	DATE	BY	REMARKS
ELECTRICAL EXPRESS TRAIN HIGH SPEED RAIL; SECTION THREE (FROM WEST OF HILL TO ALABAMA)			

NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR CONSULTANT

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MAIN CONTRACTOR

WG TITLE	COLUMNS COORDINATES
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DRAWING BY ENG OM	DESIGNED BY ENG. A.A	CHECKED BY ENG. A.A
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DA Harwood Latham	SUPERVISOR	APPROVED BY
		Eng. James T. Hall

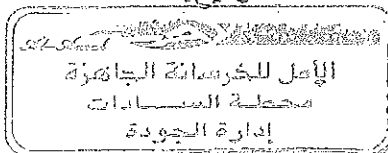
Point Table			
Point #	Easting	Northing	Axis
P13	585427.194	830474.981	P2
P14	585426.921	830475.486	P2
P15	585427.085	830476.036	P2
P16	585428.348	830477.587	P2
P17	585428.853	830477.860	P2
P18	585429.403	830477.696	P2
P19	585430.179	830477.064	P2
P20	585430.451	830476.559	P2
P21	585430.287	830476.009	P2
P22	585429.025	830474.458	P2
P23	585428.519	830474.185	P2
P24	585427.969	830474.350	P2

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 4881 : PART 4 : 1999

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMENT : Pier 2
Dimension : 15*15*15 cm
Date of casting : 04/03/2023
MIX DESIGN STRENGTH : 500 kg/cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm ²)	Average
1	04/03/2023	09/04/2023	28	8.516	142100	632	621
2	04/03/2023	09/04/2023	28	8.338	124500	553	
3	04/03/2023	09/04/2023	28	8.491	137400	611	
4	04/03/2023	09/04/2023	28	8.578	142300	632	
5	04/03/2023	09/04/2023	28	8.738	125600	558	
6	04/03/2023	09/04/2023	28	8.768	135200	601	
7	04/03/2023	09/04/2023	28	8.602	147600	656	
8	04/03/2023	09/04/2023	28	8.487	148600	660	
9	04/03/2023	09/04/2023	28	8.422	154100	685	

التوقيع:



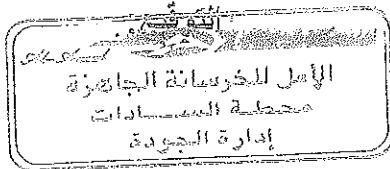
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Handwritten signature and initials.

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1993**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMENT : F2
Dimension : 15*15*15 cm
Date of casting : 04/03/2023
MIX DESIGN STRENGTH : 500 kg / cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm ²)	Average
1	04/03/2023	11/03/2023	7	8.443	133900	595	516
2	04/03/2023	11/03/2023	7	8.783	99600	443	
3	04/03/2023	11/03/2023	7	8.504	127500	567	
4	04/03/2023	11/03/2023	7	8.664	120400	535	
5	04/03/2023	11/03/2023	7	8.561	124200	552	
6	04/03/2023	11/03/2023	7	8.467	114500	509	
7	04/03/2023	11/03/2023	7	7.436	118500	527	
8	04/03/2023	11/03/2023	7	8.506	115200	512	
9	04/03/2023	11/03/2023	7	8.581	91800	408	



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[Signature]

[Signature]

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District

New City/Telefax: 02 23573367 - 02 24713558

Mobile: 0110116717

Branch Office : New Cairo - Katamia - Port 82 - 83

Tel: 29841185 / Fax: 29840109

01227655398 - 01068831170 - 01006033856

At Saida City - Saida Said Area (7) - Port 89

01003385398 - 01003385398

01003385398 - 01003385398

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District

New City/Telefax: 02 23573367 - 02 24713558

Mobile: 0110116717

Branch Office : New Cairo - Katamia - Port 82 - 83

Tel: 29841185 / Fax: 29840109

01227655398 - 01068831170 - 01006033856

At Saida City - Saida Said Area (7) - Port 89

01003385398 - 01003385398

01003385398 - 01003385398

REQUEST



Contractor Company			Designer Company		
Issued by Contractor	Name	Sign	Date	Time	
Received by ER		محرم باخوم	10/1/2023		
Contractor Reference	النيل العامة		CON	C1	C2
				C3	DD
				MM	YY
				HH	MM

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity : Receiving Steel Rienforcement,carpentry and Surveying works For Footing P3		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km/to 189+680 Km (footing P (3))		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade: kg/cm^2			
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	290 m3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

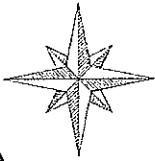
Item	Document No	Revision	Title	Number of Sheets
1			Steel Rienforcement Shop drawing for footing P3	
2			Footing COORDINATES	
3			Column COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel			A
QA/QC				A
Employer Representative	Mohammed Gardoun		10/1/2023	A

NOTES

P3 N



Point Table

Point #	Easting	Northing	Axis
P25	585396.169	830500.229	P3
P26	585395.896	830500.734	P3
P27	585396.061	830501.284	P3
P28	585397.323	830502.836	P3
P29	585397.828	830503.108	P3
P30	585398.379	830502.944	P3
P31	585399.154	830502.313	P3
P32	585399.427	830501.808	P3
P33	585399.262	830501.258	P3
P34	585398.000	830499.706	P3
P35	585397.495	830499.433	P3
P36	585396.945	830499.598	P3

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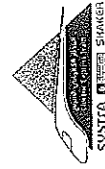
Arab House of Engineering
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T: +966 2 771 16455, Email: info@aheng.com
صندوق بري ١١٦٤٥٥ جدة ٢١٥١١
هاتف: +٩٦٦ ٢ ٧٧١ ١٦٤٥٥, البريد الإلكتروني: info@aheng.com

C-2510

FOR SUBMITTAL	
NO.	REVISION

مملكة العربية السعودية
وزارة النقل
Ministry of Transport
الهيئة العامة للطرق والكباري
والجسور
General Authority of
Roads and Bridges

NAME OF PROJECT
ELECTRICAL SUPPLY FOR HIGH SPEED RAIL
SECTION THREE PROJECT OF RAIL TO DUBAI II
NAME OF OWNER CONSULTANT

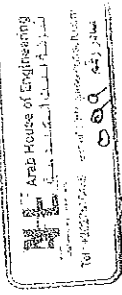


NAME OF CONTRACTOR CONSULTANT
FHECOR
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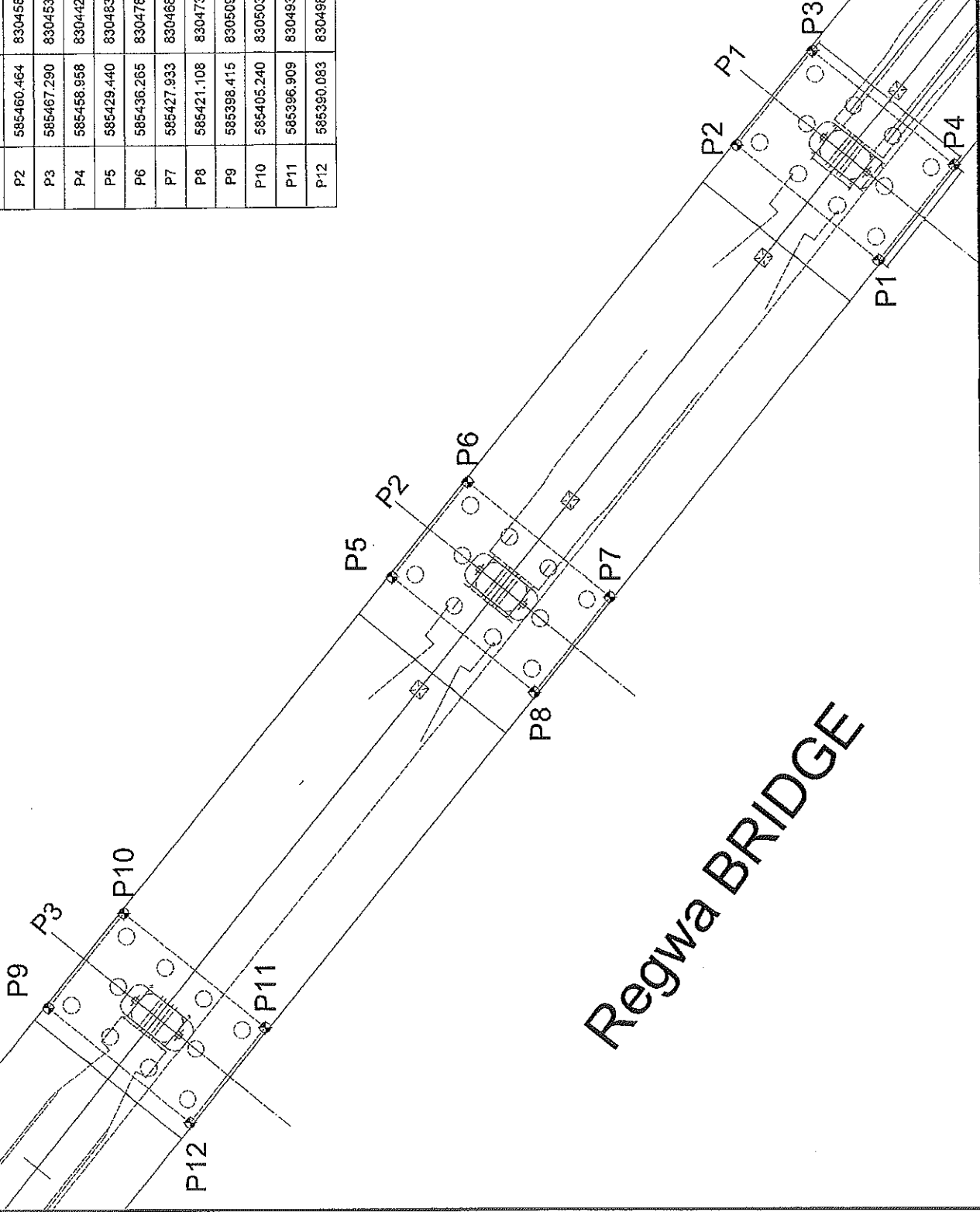
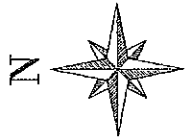
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COLUMNS COORDINATES AT REGINA BRIDGE	
DWG NO.	10000
DATE	10/03/2010
DESIGNED BY	ENG. N.A.
CHECKED BY	ENG. N.A.
APPROVED BY	
DATE	
BY	

NOTES:



09/10

Point Table			
Point #	Easting	Northing	Axis
P1	585452.132	830448.433	P1
P2	585460.464	830458.671	P1
P3	585467.290	830453.116	P1
P4	585458.958	830442.878	P1
P5	585429.440	830483.919	P2
P6	585436.265	830478.364	P2
P7	585427.933	830468.126	P2
P8	585421.108	830473.681	P2
P9	585398.415	830509.167	P3
P10	585405.240	830503.612	P3
P11	585396.909	830493.374	P3
P12	585390.083	830498.929	P3



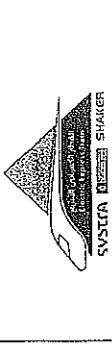
Regwa BRIDGE

NO.	DATE	ENG.	REVISION

OWNER:
 جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للقنوات
 GENERAL AUTHORITY OF CANALS
 القاهرة
 CAIRO

NAME OF PROJECT:
 ELECTRICAL EXPRESS TRAIN (HIGH SPEED-RAIL)
 SECTION THREE (FROM WEST OF NILE TO ALAMANA)

NAME OF OWNER CONSULTANT:



NAME OF CONTRACTOR CONSULTANT:



NAME OF CONTRACTOR:

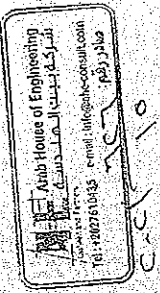
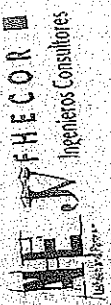


DRAWING TITLE:
 FOUNDATION COORDINATES
 AT REGWA BRIDGE

DESIGNER:	DATE:	SCALE:
DESIGNED BY:	CHECKED BY:	L:100
DATE: 14/02/2011	Eng. Mohamed Elmaghrabi	
APPROVED BY:		
Eng. Jassim Tawfik		

NOTES:

- 1- ALL DIMENSIONS SHOWN IN THIS DRAWING ARE IN MILLIMETERS. ALL ELEVATIONS & COORDINATES ARE SHOWN IN METERS.
- 2- FOR PROJECT GENERAL NOTES
- 3- FOR PIER & CONCRETE PILING SECTION, SEE DRAWING NO. HSE-400-CC-001-PIE-001
- 4- FOR PIER & CONCRETE PILING SECTION, SEE DRAWING NO. HSE-400-CC-001-PIE-002
- 5- FOR PIER & CONCRETE PILING SECTION, SEE DRAWING NO. HSE-400-CC-001-PIE-003
- 6- FOR PIER & CONCRETE PILING SECTION, SEE DRAWING NO. HSE-400-CC-001-PIE-004
- 7- FOR PIER & CONCRETE PILING SECTION, SEE DRAWING NO. HSE-400-CC-001-PIE-005
- 8- FOR REINFORCING STEEL SEE DWG NO. HSE-400-CC-001-PIE-006

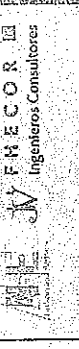


NO.	DATE	BY	CHKD.	REVISION	DESCRIPTION
1	2023/06/10	...	...	...	...

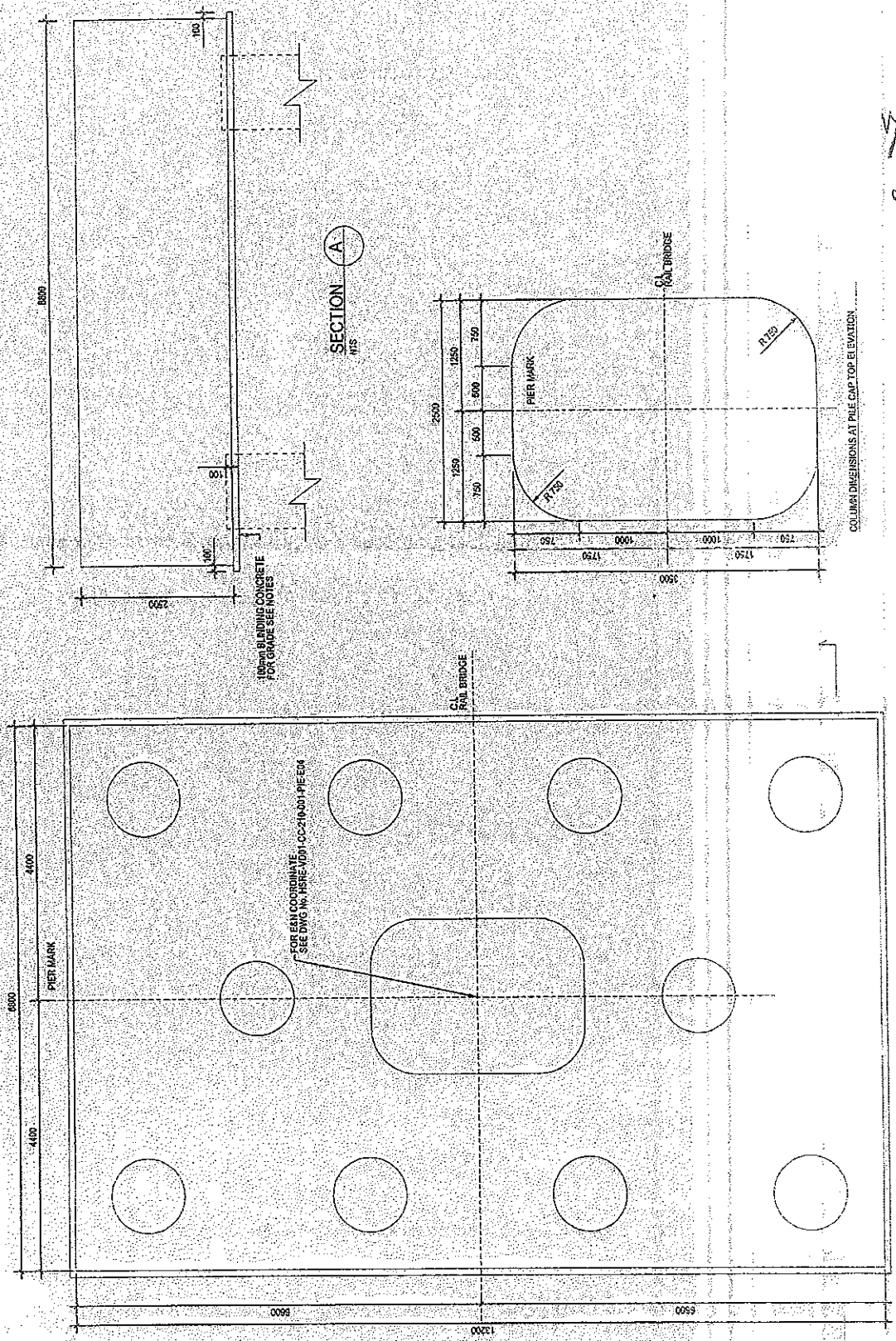
NAME OF PROJECT: ELECTRONIC EXPRESS TRAIN HIGH SPEED RAIL
SECTION THREE (FROM WEST OF FILE TO EAST)

NAME OF OWNER: CONSULTANT

NAME OF CONTRACTOR: SHAKER



PROJECT TITLE: REGINA ROAD BRIDGE	CONCRETE DIMENSIONS
PIER & AXES P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 P14 P15 P16 P17 P18 P19 P20 P21 P22 P23 P24 P25 P26 P27 P28 P29 P30 P31 P32 P33 P34 P35 P36 P37 P38 P39 P40 P41 P42 P43 P44 P45 P46 P47 P48 P49 P50 P51 P52 P53 P54 P55 P56 P57 P58 P59 P60 P61 P62 P63 P64 P65 P66 P67 P68 P69 P70 P71 P72 P73 P74 P75 P76 P77 P78 P79 P80 P81 P82 P83 P84 P85 P86 P87 P88 P89 P90 P91 P92 P93 P94 P95 P96 P97 P98 P99 P100	...



PILE CAP TYPE 1 PLAN

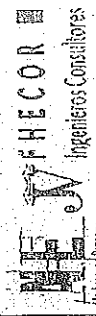
23/6/2022

NOTES:

1. ALL DIMENSIONS SHOWN IN THIS DRAWING ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
3. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
4. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
5. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
6. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
7. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
8. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
9. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
10. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.

LEGEND:

- 1. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 3. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 4. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 5. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 6. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 7. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 8. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 9. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 10. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.



NO.	DESCRIPTION	UNIT	QUANTITY	PRICE	TOTAL
1	CONCRETE	m³	100.00	100.00	100.00
2	STEEL	kg	1000.00	1000.00	1000.00
3	LABOR	hrs	1000.00	1000.00	1000.00
4	EQUIPMENT	hrs	1000.00	1000.00	1000.00
5	TRANSPORT	km	1000.00	1000.00	1000.00
6	MAINTENANCE	km	1000.00	1000.00	1000.00
7	INSURANCE	km	1000.00	1000.00	1000.00
8	TOTAL				



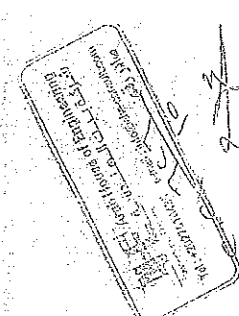
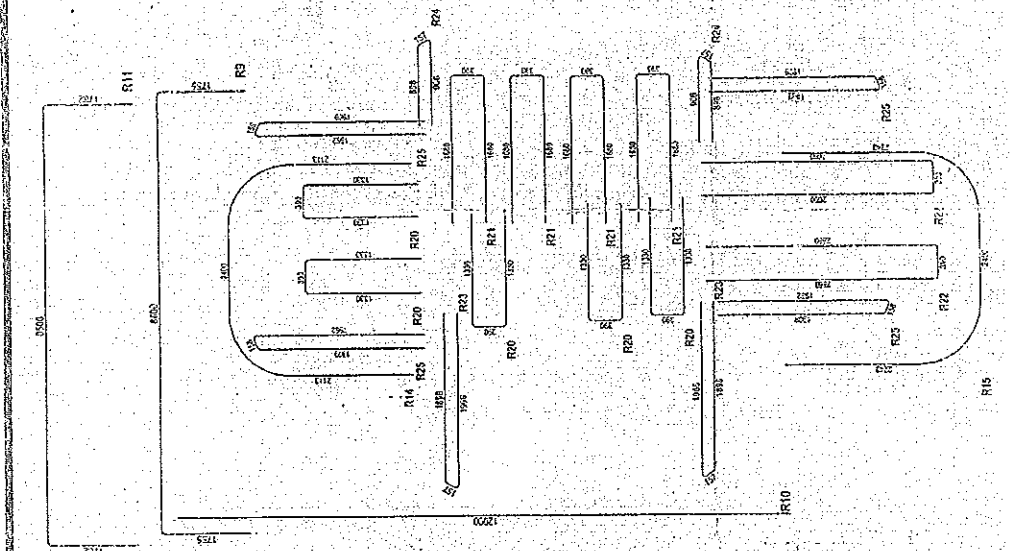
WHECOR Ingenieros Consultores



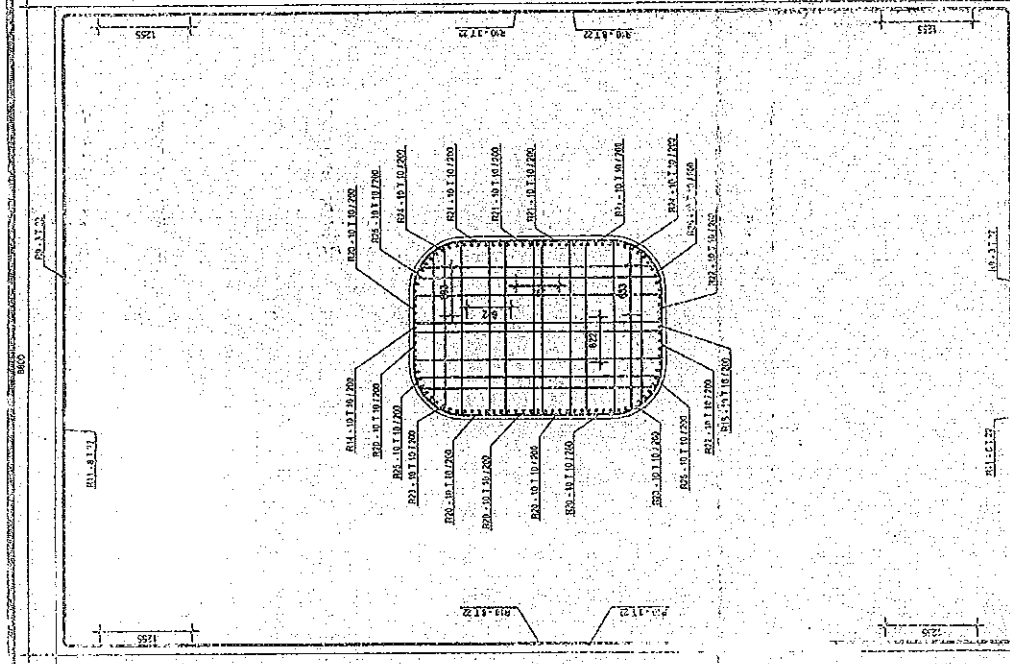
NO.	DESCRIPTION	UNIT	QUANTITY	PRICE	TOTAL
1	CONCRETE	m³	100.00	100.00	100.00
2	STEEL	kg	1000.00	1000.00	1000.00
3	LABOR	hrs	1000.00	1000.00	1000.00
4	EQUIPMENT	hrs	1000.00	1000.00	1000.00
5	TRANSPORT	km	1000.00	1000.00	1000.00
6	MAINTENANCE	km	1000.00	1000.00	1000.00
7	INSURANCE	km	1000.00	1000.00	1000.00
8	TOTAL				

REBAR BENDING SCHEDULE

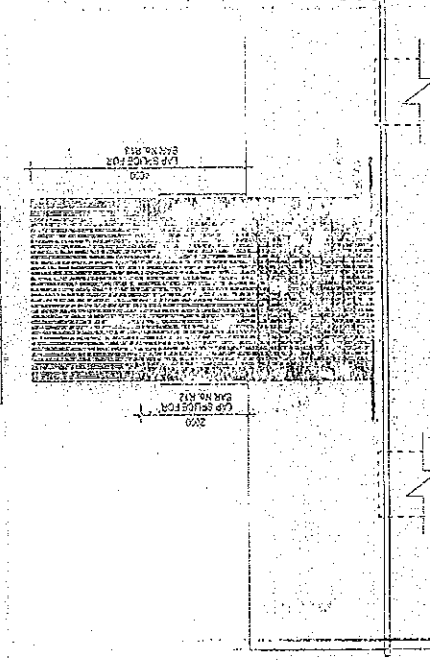
Bar Mark	Size	Qty.	Length	Weight	Bar Shape
R1	25	40	12000	15.25	15.25
R2	25	40	12000	15.25	15.25
R3	25	40	12000	15.25	15.25
R4	25	40	12000	15.25	15.25
R5	25	40	12000	15.25	15.25
R6	25	40	12000	15.25	15.25
R7	25	40	12000	15.25	15.25
R8	25	40	12000	15.25	15.25
R9	25	40	12000	15.25	15.25
R10	25	40	12000	15.25	15.25
R11	25	40	12000	15.25	15.25
R12	25	40	12000	15.25	15.25
R13	25	40	12000	15.25	15.25
R14	25	40	12000	15.25	15.25
R15	25	40	12000	15.25	15.25
R16	25	40	12000	15.25	15.25
R17	25	40	12000	15.25	15.25
R18	25	40	12000	15.25	15.25
R19	25	40	12000	15.25	15.25
R20	25	40	12000	15.25	15.25
R21	25	40	12000	15.25	15.25
R22	25	40	12000	15.25	15.25
R23	25	40	12000	15.25	15.25
R24	25	40	12000	15.25	15.25
R25	25	40	12000	15.25	15.25



23/10/2022
Bar Bending Schedule
to be checked



SIDE BARS & COLUMN TIES PLAN

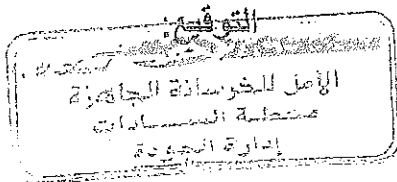


COLUMN STARTER BARS SECTION ELEVATION

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطر الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : قاعدة P3
Dimension : 15*15*15 cm
Date of casting : 10/01/2023
MIX DESIGN STRENGTH : 500 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	10/01/2023	07/02/2023	28	8.568	124600	554	596
2	10/01/2023	07/02/2023	28	8.464	133000	591	
3	10/01/2023	07/02/2023	28	8.615	137000	609	
4	10/01/2023	07/02/2023	28	8.607	122300	544	
5	10/01/2023	07/02/2023	28	8.615	134700	599	
6	10/01/2023	07/02/2023	28	8.623	134200	596	
7	10/01/2023	07/02/2023	28	8.445	141000	627	
8	10/01/2023	07/02/2023	28	8.565	138300	615	
9	10/01/2023	07/02/2023	28	8.604	142300	632	



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Handwritten signature

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائى السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : قاعدة P3
Dimension : 15*15*15 cm
Date of casting : 10/01/2023
MIX DESIGN STRENGTH : 500 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	10/01/2023	17/01/2023	7	8.273	96030	427	430
2	10/01/2023	17/01/2023	7	8.512	98360	437	
3	10/01/2023	17/01/2023	7	8.498	95110	423	
4	10/01/2023	17/01/2023	7	8.504	88110	392	
5	10/01/2023	17/01/2023	7	8.597	94680	421	
6	10/01/2023	17/01/2023	7	8.527	108600	483	
7	10/01/2023	17/01/2023	7	8.443	94170	419	
8	10/01/2023	17/01/2023	7	8.388	94970	422	
9	10/01/2023	17/01/2023	7	8.519	100900	448	

التوقيع
الإمام الخرسانة الجاهزة
مصلحة المسحقات
أمانة المحلة

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nesr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01003468673 - 01006880835 - 01004976497

الإدارة
عول إيجيبت ميديكال سنتر - الدور الرابع - ش. د. شيمي - المنطقة الإدارية
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
موقع العمل
القاهرة الجديدة - المنطقة قطمة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطمة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٨٣٥ - ٠١٠٠٦٨٤٠٩٧١

E-mail: info@alamal.com

Data Records

Date:	11/11/2023
Project Name:	مشروع القطار الكهربائي السريع (كوسموس ريسجوا)
Customer:	شركة النقل العام الطرق والكبار
Location:	كوسموس ريسجوا (مقابلة 3)
C.No.:	

	Temp °C	TC#1	TC#2	TC#3	TC#4	TC#5	TC#6	TC#7	TC#8	TC#9
2:00 AM	15.5	412	46.9	20.5	41.7	41.3	24.6	29.9	48.8	23.8

Temp °C	TC#1	TC#2	TC#3	TC#4	TC#5	TC#6	TC#7	TC#8	TC#9
22.2	31	57.5	32	49.1	53.8	30.5	33	58.2	37.3

12/1/2023

	Temp -°C	TC#1	TC#2	TC#3	TC#4	TC#5	TC#6	TC#7	TC#8	TC#9
Spool A	17.9	53.6	73.2	54.5	59.2	73	50	58.8	73.6	53.8

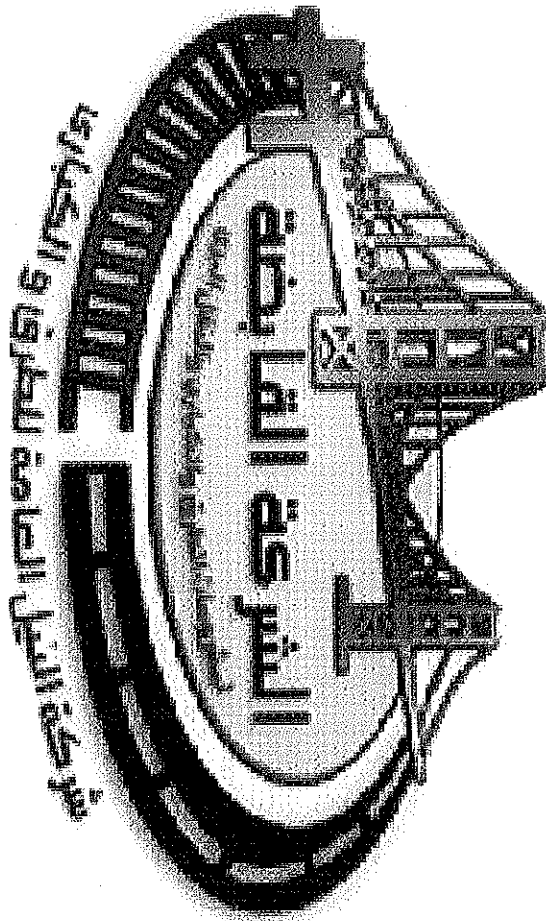
	TP PC	TC#1	TC#2	TC#3	TC#4	TC#5	TC#6	TC#7	TC#8	TC#9
Stroph	19.4	53	71.2	52.7	57.9	73.8	44	61.2	73.4	55.4

Customer Representative

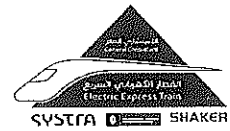
روغائیل رو

REQ

P3 FOOTING REGWA



REQUEST



Contractor Company			Designer Company																		
Issued by Contractor	Name <i>Ahmed Adel</i>	Sign <i>[Signature]</i>	Date 22 / 2 / 2023	Time																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM														
Contractor Reference	النيل العامة																				

CODE - 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity :		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P1 OF FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade: 370 kg/cm ²			
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m ³

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Ahmed Adel</i>	<i>[Signature]</i>		A
QA/QC				A
Employer Representative	<i>Mohammed Gadoon</i>	<i>[Signature]</i>		A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	22 / 2 / 2023
Pile No.	p1	Structure	bridge	Pile Cutoff Level	—
pier	p1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.141	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.671
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.341

Pile Survey

Coordinates	EAST	North
Theoretical	585465.602	830452.943
Actual	585465.621	830452.926
Δ	-0.019	0.017

Bentonite Slurry Test

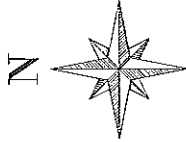
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.03	Less Than 1.15	1.07
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	39
Sand Content %	Less than 2%	N/A	Less than 2%	1.6 %

Geotechnical Log

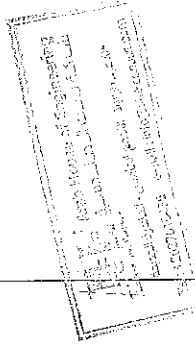
0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	22/2/2023			Cleaning	—	—	—
Install Cages	22/2/2023			pouring	22/2/2023		
	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5		
Slump	21	20.5	21.5	22	22.5		
Temperature	29	28	31	29.5	31.8		



NOTES:
ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON E.T.M (EGYPTIAN TRANSVERSE)
MERIDIAN) AS PER THE RECEIVED SITE SURVEY.

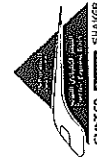


NO.	DATE	ENG.	ISSUED FOR CONSTRUCTION	REASON
01	04/02/2021	N.A.		
02				

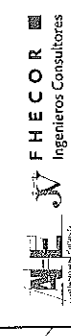
OWNER:
جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للطرق والكباري
General Authority of Road and Bridges
القاهرة
CAIRO

NAME OF PROJECT:
RECONSTRUCTION OF THE HIGH SPEED RAIL
SECTION THREE (FROM AGE OF AGE TO ALAMAR)

NAME OF OWNER CONSULTANT:



NAME OF CONTRACTOR CONSULTANT:

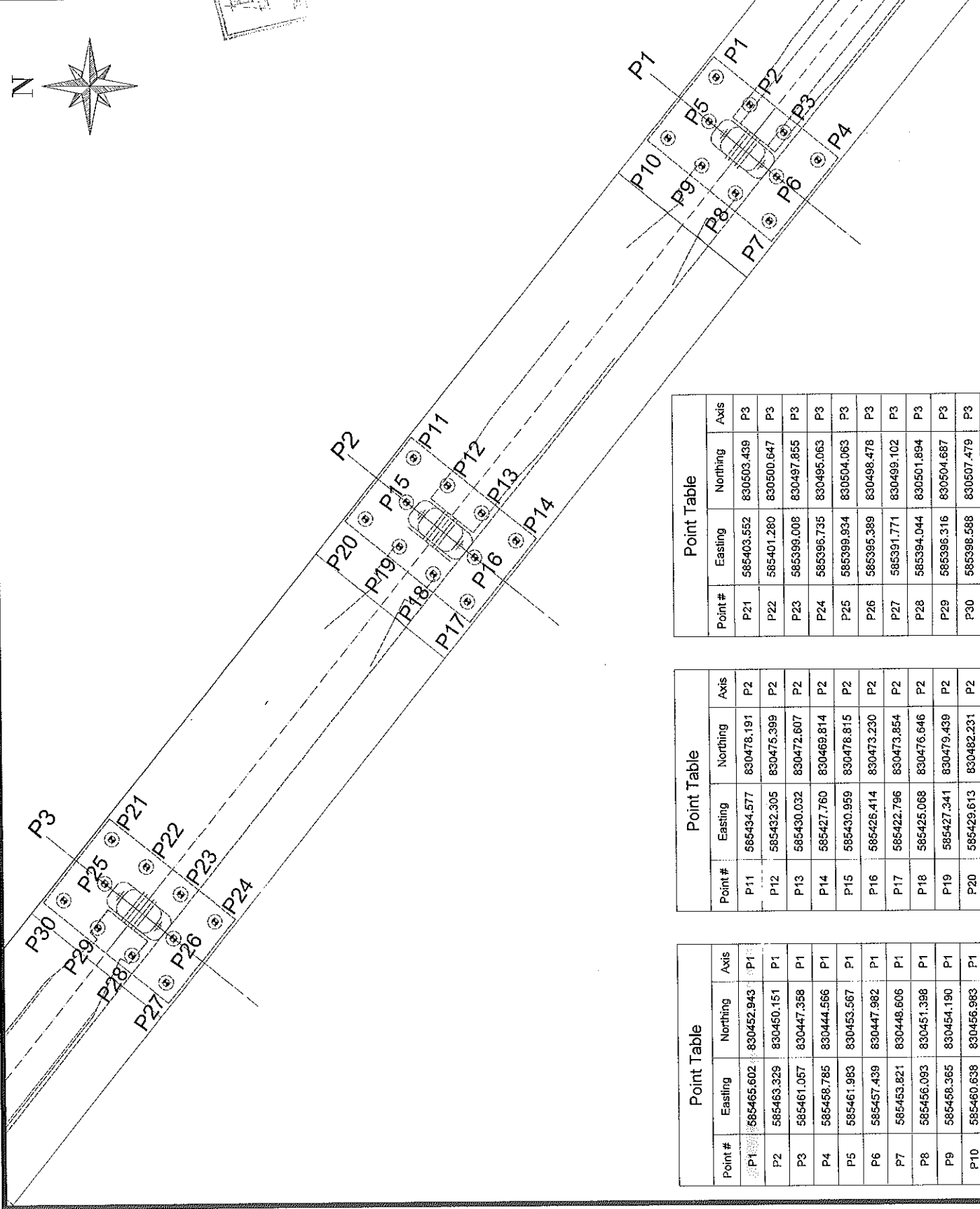


MAIN CONTRACTOR:



DWG TITLE:
RECONSTRUCTION OF THE HIGH SPEED RAIL
PILES COORDINATES FOR APPROVED AXIS
FROM P1 - P3

DATE	SCALE
04/02/2021	1:150
DRAWN BY	CHECKED BY
Eng. Mohamed Ali	Eng. Mohamed Ali
SUPERVISOR	APPROVED BY
Dr. Mohamed Lashin	Eng. Jaber Turco



Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830493.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

[illegible]

ABREVIATION:

-T.O.A = Top of Asphalt
-T.O.C = Top of Column
-T.O.P = Top of Pile Cap/Pile
-T.O.B = Top of Bearing
-T.O.F = Top of Frame
-N.G.L = Normal Ground Level

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
1	REINFORCEMENT BAR (R/B) 10mm	kg	100	1.20	120.00
2	CONCRETE (1:2:4)	m ³	10	12.00	120.00
3	FORMWORK (1:2:4)	m ²	20	6.00	120.00
4	LABOR (1:2:4)	man-days	10	12.00	120.00
5	TRANSPORTATION	km	10	12.00	120.00
6	PROTECTION	m ²	20	6.00	120.00
7	PAINTING	m ²	20	6.00	120.00
8	REINFORCEMENT BAR (R/B) 10mm	kg	100	1.20	120.00
9	CONCRETE (1:2:4)	m ³	10	12.00	120.00
10	FORMWORK (1:2:4)	m ²	20	6.00	120.00
11	LABOR (1:2:4)	man-days	10	12.00	120.00
12	TRANSPORTATION	km	10	12.00	120.00
13	PROTECTION	m ²	20	6.00	120.00
14	PAINTING	m ²	20	6.00	120.00
15	REINFORCEMENT BAR (R/B) 10mm	kg	100	1.20	120.00
16	CONCRETE (1:2:4)	m ³	10	12.00	120.00
17	FORMWORK (1:2:4)	m ²	20	6.00	120.00
18	LABOR (1:2:4)	man-days	10	12.00	120.00
19	TRANSPORTATION	km	10	12.00	120.00
20	PROTECTION	m ²	20	6.00	120.00
21	PAINTING	m ²	20	6.00	120.00
22	REINFORCEMENT BAR (R/B) 10mm	kg	100	1.20	120.00
23	CONCRETE (1:2:4)	m ³	10	12.00	120.00
24	FORMWORK (1:2:4)	m ²	20	6.00	120.00
25	LABOR (1:2:4)	man-days	10	12.00	120.00
26	TRANSPORTATION	km	10	12.00	120.00
27	PROTECTION	m ²	20	6.00	120.00
28	PAINTING	m ²	20	6.00	120.00
29	REINFORCEMENT BAR (R/B) 10mm	kg	100	1.20	120.00
30	CONCRETE (1:2:4)	m ³	10	12.00	120.00
31	FORMWORK (1:2:4)	m ²	20	6.00	120.00
32	LABOR (1:2:4)	man-days	10	12.00	120.00
33	TRANSPORTATION	km	10	12.00	120.00
34	PROTECTION	m ²	20	6.00	120.00
35	PAINTING	m ²	20	6.00	120.00
36	REINFORCEMENT BAR (R/B) 10mm	kg	100	1.20	120.00
37	CONCRETE (1:2:4)	m ³	10	12.00	120.00
38	FORMWORK (1:2:4)	m ²	20	6.00	120.00
39	LABOR (1:2:4)	man-days	10	12.00	120.00
40	TRANSPORTATION	km	10	12.00	120.00
41	PROTECTION	m ²	20	6.00	120.00
42	PAINTING	m ²	20	6.00	120.00
43	REINFORCEMENT BAR (R/B) 10mm	kg	100	1.20	120.00
44	CONCRETE (1:2:4)	m ³	10	12.00	120.00
45	FORMWORK (1:2:4)	m ²	20	6.00	120.00
46	LABOR (1:2:4)	man-days	10	12.00	120.00
47	TRANSPORTATION	km	10	12.00	120.00
48	PROTECTION	m ²	20	6.00	120.00
49	PAINTING	m ²	20	6.00	120.00
50	REINFORCEMENT BAR (R/B) 10mm	kg	100	1.20	120.00
51	CONCRETE (1:2:4)	m ³	10	12.00	120.00
52	FORMWORK (1:2:4)	m ²	20	6.00	120.00
53	LABOR (1:2:4)	man-days	10	12.00	120.00
54	TRANSPORTATION	km	10	12.00	120.00
55	PROTECTION	m ²	20	6.00	120.00
56	PAINTING	m ²	20	6.00	120.00
57	REINFORCEMENT BAR (R/B) 10mm	kg	100	1.20	120.00
58	CONCRETE (1:2:4)	m ³	10	12.00	120.00
59	FORMWORK (1:2:4)	m ²	20	6.00	120.00

Arab House of Engineering
مركز البحوث والدراسات الهندسية
Tel: +977613455 e-mail: info@arabhouse.com
www.arabhouse.com

NO.	DATE	ENG.	REVISION
1	11/01/94	MAS	CONSTRUCTION AS PER REVIEW
NOTICE NO. 1049			

NAME OF PROJECT: ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF NILE TO ALABAMA)

NAME OF WINNER CONSULTANT:

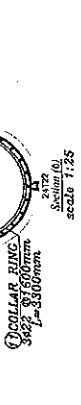
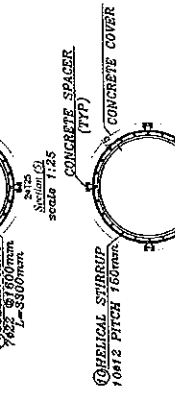
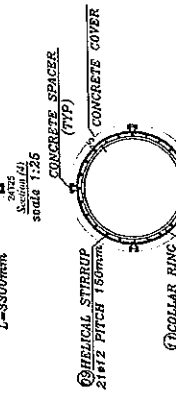
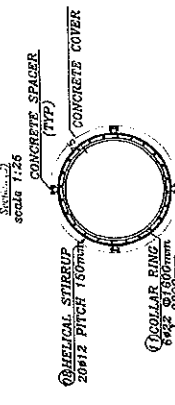
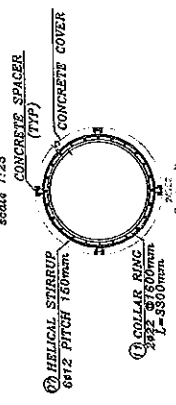
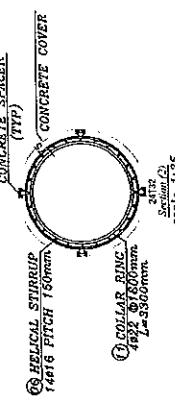
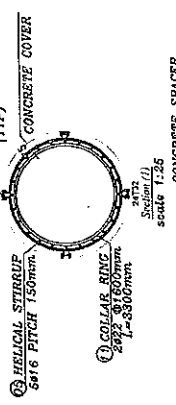
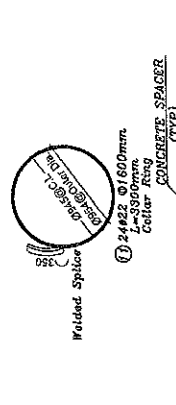
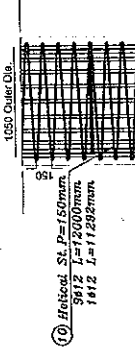
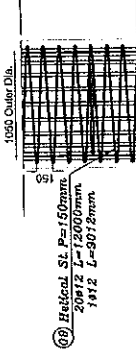
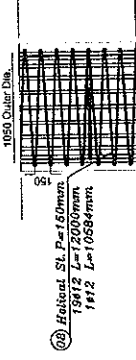
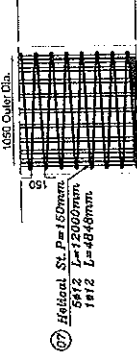
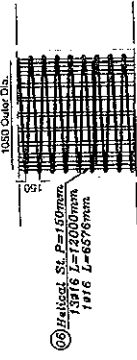
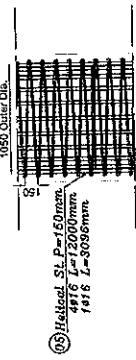
COEFFICIENT OF CONTRACTION CONSTANT:

AF
FHECOR
Ingenieros Consultores



DWG. TITLE:
REGWA ROAD BRIDGE
PILES AT AXES (P1,P2&P3)
PILE REINFORCEMENT BARS SHOWN

DATE	10-20-22	ALL SHOWN
CHECKED BY:		APPROVED BY:
ENG. Abdullah Dargatz		Eng. Aydin Tazoua
DRAWING BY:		SUPERVISORS
ENG. Fadi Hamez		OR. Mohamed Elsharrah
SCALE:		





Al Amal Ready mix

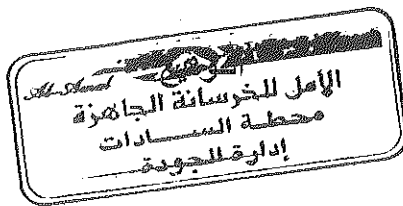
الأمل

المخرى بمقايير الجاهزة
رأس المال المخصص به ١٥٠ مليون جنيه
والقصر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile1- Pier1
Dimension : 15*15*15 cm
Date of casting : 22/02/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	22/02/2023	01/03/2023	7	8.413	90810	404	419
2	22/02/2023	01/03/2023	7	8.508	98780	439	
3	22/02/2023	01/03/2023	7	8.814	93500	416	



Handwritten signature

Handwritten signature

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Kalamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industriale Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٩
مدينة السادات .. المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥١٦٧٣

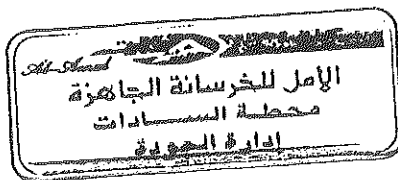
E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile1- Pier1
Dimension : 15*15*15 cm
Date of casting : 22/02/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	22/02/2023	22/03/2023	28	8.456	120600	536	531
2	22/02/2023	22/03/2023	28	8.478	119300	530	
3	22/02/2023	22/03/2023	28	8.623	118300	526	

التوقيع:



Signature

Signature

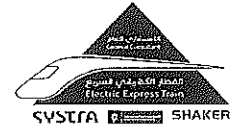
Head Office: Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation: New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
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El Sadat City - Industrial Zone (7) - Part 7003 - 7005
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E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ .. ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
٠١٠٠٦٠٣٣٨٦ .. ٠١٠٩٨٨٤٤١٧ .. ٠١٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية الصناعية قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٤٨ / ٢٦٣٠١٤٥ - ف : ٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ .. ٠١٠٠٩٨٨٠٦٣٥ .. ٠١٠٢٨٤٥٩٦٧٣

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name Ahmed Adel	Sign 	Date 1/ 3 / 2023	Time							
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity :		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P2 OF FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade:	370 kg/cm ²		
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m ³

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel			A
QA/QC				A
Employer Representative	Mohammed Gardouh			A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	1/ 3 / 2023
Pile No.	P2	Structure	bridge	Pile Cutoff Level	—
pier	P1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.061	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.591
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.261

Pile Survey

Coordinates	EAST	North
Theoretical	585463.329	830450.151
Actual	585463.351	830450.179
Δ	-0.022	-0.028

Bentonite Slurry Test

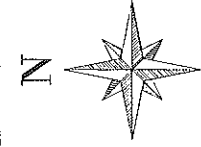
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.03	Less Than 1.15	1.06
Viscosity(Sec.)	30:70 Sec.	32	≤90 Sec.	37
Sand Content %	Less than 2%	N/A	Less than 2%	1.4 %

Geotechnical Log

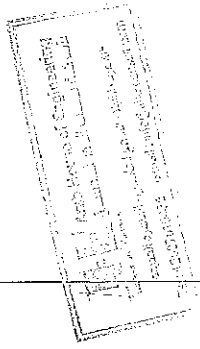
0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	1/3/2023			Cleaning	—	—	—
Install Cages	1/3/2023			pouring	1/3/2023		
		Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5	
Slump	22	21.5	23	22.8	21.9		
Temperature	29	30.1	32	31	29		



NOTES:
ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERCATOR) AS PER THE RECEIVED SITE SURVEY.



NO.	DATE	REV.	REASON
01	04/02/22	1.0	ISSUED FOR CONSTRUCTION

OWNER:
جمهورية مصر العربية
AND REPUBLIC OF EGYPT
وزارة النقل
Ministry of Transport
الهيئة العامة للنقل والملاحة
General Authority of
Transport and Navigation
CAE/ET

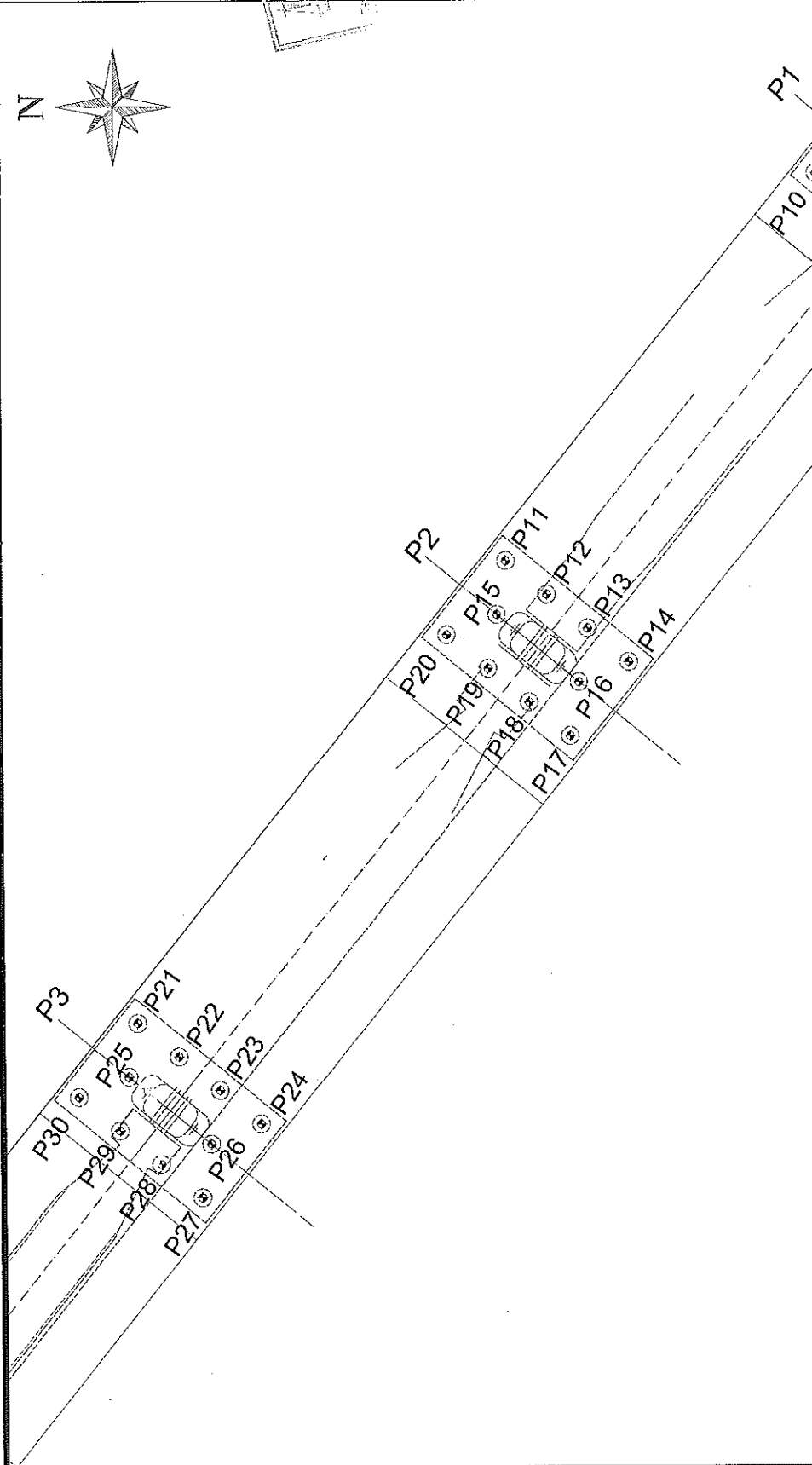
NAME OF PROJECT:
ELECTRICAL SUPPLY TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF TALE TO ALAMANA)

NAME OF OWNER CONSULTANT:
SVSITA
SPECIALIZED VEHICLE SYSTEMS AND TRAINING
INSTITUTE

NAME OF CONTRACTOR CONSULTANT:
FHECOR
Ingenieros Consultores



DWG. TITLE	REGIONAL BRIDGE PILES COORDINATES APPROVED AXIS FROM P1 - P3
SCALE	1:150
DRAWING BY	Eng. Mohamed Ali
CHECKED BY	Eng. Mohamed Ali
APPROVED BY	Eng. Mohamed Ali



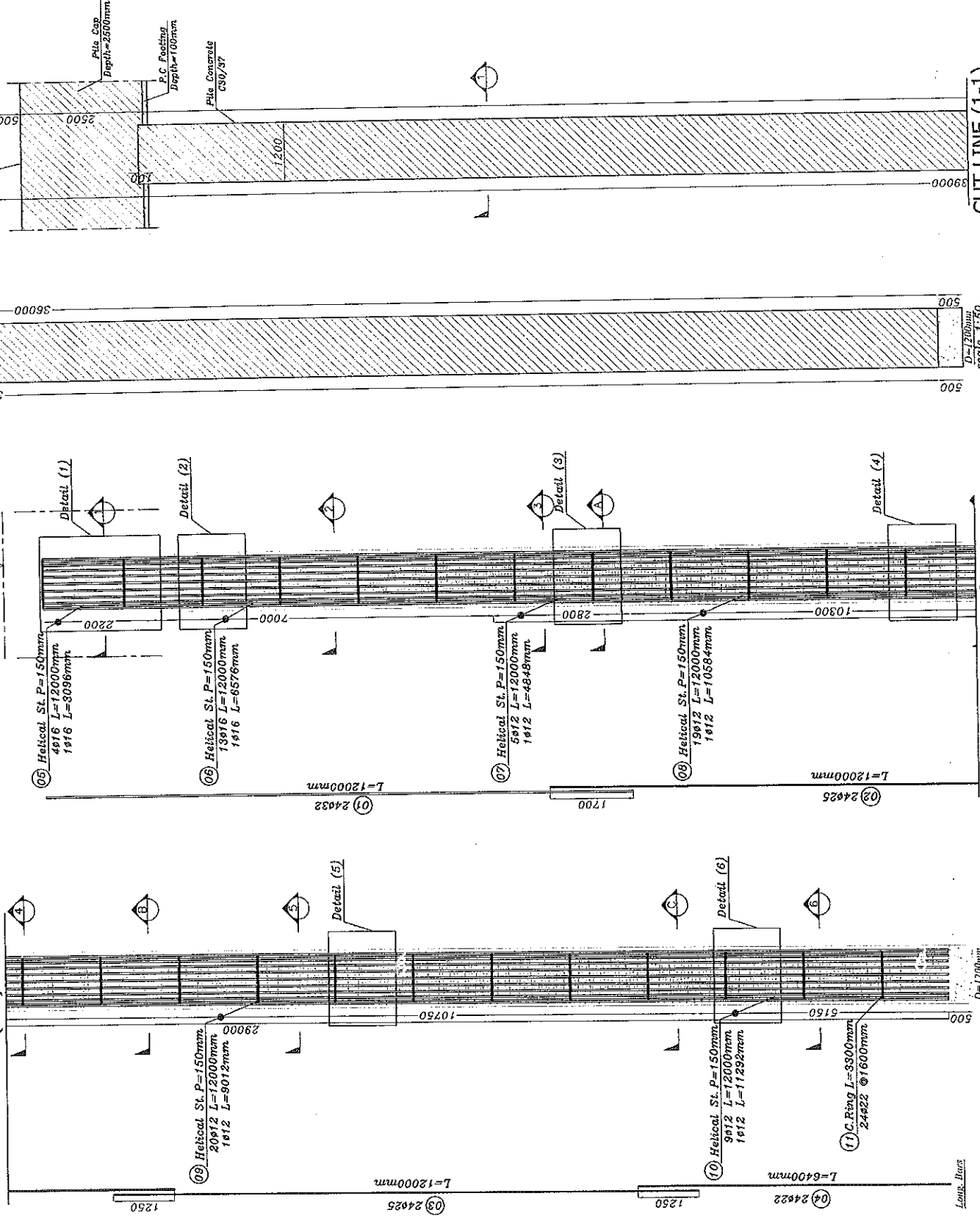
Point Table				
Point #	Easting	Northing	Axis	
P21	585403.552	830503.439	P3	
P22	585401.280	830500.647	P3	
P23	585399.008	830497.855	P3	
P24	585396.735	830495.063	P3	
P25	585399.934	830504.063	P3	
P26	585395.389	830498.478	P3	
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P28	585394.044	830501.894	P3	
P29	585396.316	830504.687	P3	
P30	585398.688	830507.479	P3	

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P5	585461.983	830453.567	P1	
P6	585457.439	830447.982	P1	
P7	585453.821	830448.606	P1	
P8	585456.093	830451.398	P1	
P9	585458.365	830454.190	P1	
P10	585460.638	830456.983	P1	

1

EMPL ID:	DATE:	SCORE:
1644	6-8-2022	AS SHOWN
TRAINING BY:	CHECKED BY:	REVISED BY:
BNG. Eulalia Parray	ENQ. Abdelhish Mahmet	ENQ. Mubarek Sule
		
SUPERVISOR:		APPROVED BY:
OIL. Nafiseh Lashin		ENQ. Jerald Taylor





Al-Ahly Engineering & Construction Co.

الأمل

للخدمات الهندسية والبناء
رأس المال المصرى - القاهرة
والبحر - مراكش - تونس

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائى السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 2- Pier 1
Dimension : 15*15*15 cm
Date of casting : 01/03/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	01/03/2023	08/03/2023	7	8.468	103500	460	479
2	01/03/2023	08/03/2023	7	8.581	112100	498	
3	01/03/2023	08/03/2023	7	8.601	107600	478	



Handwritten signature.

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Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Kalamia - Part 82 - 83

Tel.: 29841136 / Fax: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel: 048 2630145 / Fax: 048 2630140

01028459873 - 01006890835 - 01004976497

محل إيجيت ميديكال سنتر - الدور الرابع - ش. د. شيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨

موبايل : ٠١١٠١١١٦٧١٧

القاهرة الجديدة - المنطقة الصناعية قطعة ٨٢ - ٨٣

ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦ - ٠١٠٦٨٨٤٤١٧ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٠٧٨٤٩١٩٧٧

E-mail: info@alamohand.com

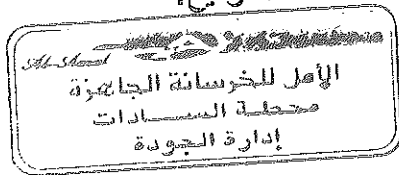
Website: www.alamohand.com

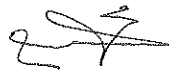
COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

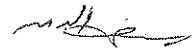
PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 2- Pier 1
Dimension : 15*15*15 cm
Date of casting : 01/03/2023
MIX DESIGN STRENGTH : 370 kg/cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	01/03/2023	29/03/2023	28	8.417	130200	579	565
2	01/03/2023	29/03/2023	28	8.523	129500	576	
3	01/03/2023	29/03/2023	28	8.546	121800	541	

التوقيع:

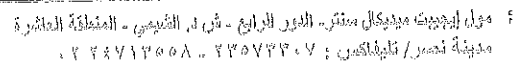






Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

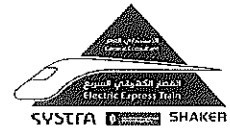
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855896 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01023459875 - 01006880835 - 01004970497

الإدارة : 
مقر إيجيبت ميديكال سنتر - الدور الرابع - ش. د. شيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨

موبايل : ٠١١٠١١١٦٧١٧
القاهرة الجديدة - المنطقة ٨٢ - ٨٣
تلف : ٢٩٨٤١١٣٦ / فاكس : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٠٠٦٠٣٣٨٦٠
مدينة السادات - المنطقة الصناعية الصناعية قطعة ٧٠٠٣ - ٧٠٠٥
تلف : ٠٤٨ / ٢٦٣٠١٤٥ - ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٦٧١٦١٧ - ٠١٠٠٦٨٨٠٨٣٥ - ٠١٠٢٨٢٥١٧٧

البريد الإلكتروني : info@ahram-engineering.com
البريد الإلكتروني : info@ahram-engineering.com

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name <i>Ahmed Adel</i>	Sign <i>[Signature]</i>	Date 25 / 2 / 2023	Time							
Received by ER	محرم باخوم		CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity :		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P3 OF FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade: 370 kg/cm ²			
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m ³

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Ahmed Adel</i>	<i>[Signature]</i>		A
QA/QC				A
Employer Representative	<i>Mohammad Gardouh</i>	<i>[Signature]</i>		A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	25 / 2 / 2023
Pile No.	p3	Structure	bridge	Pile Cutoff Level	—
pier	p1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.081	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.611
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.281

Pile Survey

Coordinates	EAST	North
Theoretical	585461.057	830447.358
Actual	585461.09	830447.388
Δ	-0.033	-0.03

Bentonite Slurry Test

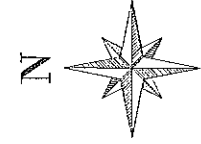
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.03	Less Than 1.15	1.07
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	39
Sand Content %	Less than 2%	N/A	Less than 2%	1.6 %

Geotechnical Log

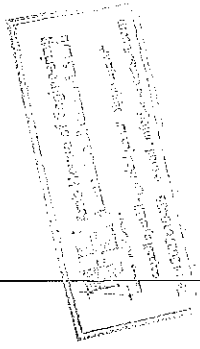
0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	25/2/2023			Cleaning	—	—	—
Install Cages	25/2/2023			pouring	25/2/2023		
	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5		
Slump	22	21.3	23	22.6	21.5		
Temperature	30	31.5	30.5	29.9	32		



NOTES:-
ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE
MERCATOR AS PER THE RECEIVED SITE SURVEY.



NO.	DATE	ENCL.	REASON
00	06/2022	N/A	ISSUED FOR CONSTRUCTION

OWNER:
جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة التخطيط
Ministry of Planning
الهيئة العامة للغمر والتجارة
General Authority of Survey and Trade
القاهرة
CAIRO

NAME OF PROJECT:
ELECTRICAL LEAPROG TRAIN (PILGRIMISED AND
SECTION THREE FROM WEST OF PILE TO ADJACENT)

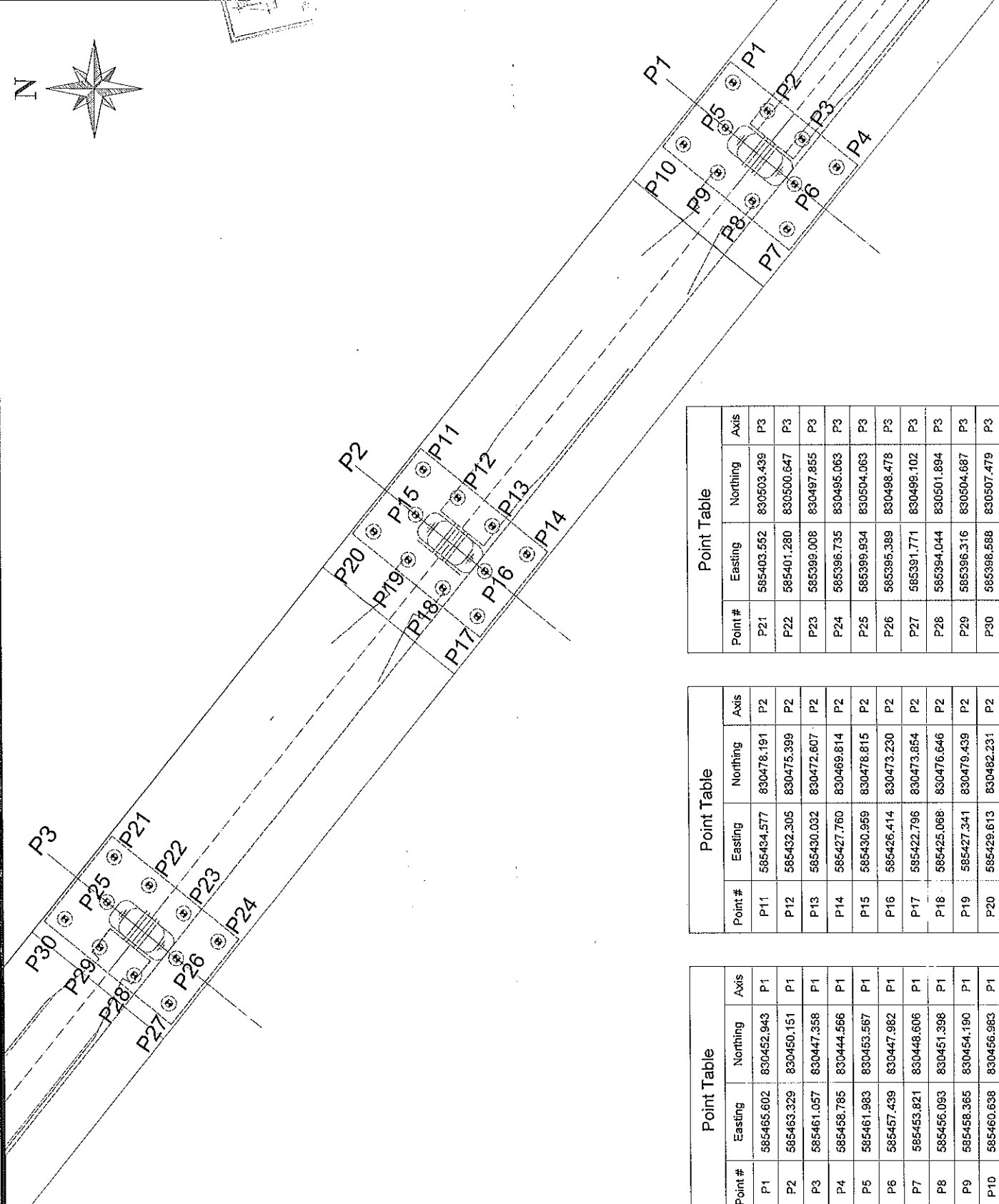
NAME OF OWNER CONSULTANT:



NAME OF CONTRACTOR CONSULTANT:
FHECOR
Ingenieros Consultores



DRG. TITLE	REGINA BRIDGE FROM P1 TO P3
DRG. NO.	000002
DATE	06/2022
SCALE	1:100
DRAWING BY	Engr. Mohamed Salah
CHECKED BY	
APPROVED BY	
Engr. Mohamed Salah	



Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830498.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

[illegible]

ABBREVIATION :

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/P
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground

RECEIVED FROM DUDGE	RECEIVED FROM DUDGE
GENERAL NOTES	SUBSTRUCTURE
ABUTMENT 1, DEFINITION	REINFORCING

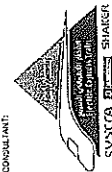
Tarbiyah Arab House of Engineering
جامعة الملك سعود
الرياض - المملكة العربية السعودية
Tel : +9667610225 Fax : +9667610225
info@tarbiyah.com

Q	11-01-0271	MAY	ISSUED FOR CONSTRUCTION AG PER REVIEW NOTICE No. 2008	
NO.	DATE	EST.	REVISION	


 وزارة النقل
 Ministry of Transport
 الجمهورية العربية السورية
 ARAB REPUBLIC OF SYRIA
 وزارة المواصلات
 Ministry of Communications
 الجمهورية العربية السورية
 ARAB REPUBLIC OF SYRIA
 وزارة المواصلات
 Ministry of Communications
 الجمهورية العربية السورية
 ARAB REPUBLIC OF SYRIA

SECTION THREE (FBI)

NAME OF OWNER/CONSULTANT:



W
FHECOR

PILES AT AXES (P1,P2&P3)

THIS COPY	DATE:	SCALE:
-----------	-------	--------

CLAIMING BY:	CHECKED BY:	REVISED BY:
--------------	-------------	-------------

[illegible]

BURMAN

ON Mahaboudj Island
Eng. Jantir Teekko

APPROVAL ST.

Figure 1. The effect of the initial concentration of the monomer on the polymerization of α -methylstyrene with BuLi in THF at -78°C .

1. *Journal of the American Medical Association*, 2000; 283: 2689-2694.

Journal of Management Inquiry 22(1)

[illegible]

440 Cap Concrete
C40/50

CUT LINE (1-1)

$D = 12.0 \text{ mm}$
scale 1:50

SECRET

$$D=1200mm$$

Quinn

BAR MARK	BAR DIA.	SYMBOL(mm.)	NUMBER QTY	LENGTH (mm.)	TOTAL WEIGHT (kg)
01	32	12000	24	12000	1820.44
02	25	12000	24	12000	1111.11
03	25	12000	24	12000	1111.11
04	22	6400	24	6400	458.90
05	16	12000	4+1	12000 + 3096	75.85 + 4.89
06	16	12000	13+1	12000 + 6576	246.51 + 10.39
07	12	12000	5+1	12000 + 4848	53.38 + 4.30
08	12	12000	19+1	12000 + 10584	202.66 + 9.40
09	12	12000	20+1	12000 + 9012	213.33 + 8.01
10	12	12000	9+1	12000 + 11292	96.00 + 10.03
11	22	3300	24	3300	236.62
Total					5672.88

Pile Diameter	φ12	φ16	φ22	φ25	φ32
TOTAL LENGTH(M)	678.47	213.69	233.39	577.2	288.04
TOTAL WEIGHT(Kg)	597.06	337.64	695.52	2222.22	1820.44

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.
- LENGTH OF PILE = 39 M BELOW GROUND LEVEL ACCORDING TO GEO-TECHNICAL REPORT.

GENERAL NOTES:
1. All dimensions are in millimeters (mm).
2. All dimensions are to be maintained.
3. All dimensions are to be maintained.
4. All dimensions are to be maintained.
5. All dimensions are to be maintained.
6. All dimensions are to be maintained.
7. All dimensions are to be maintained.
8. All dimensions are to be maintained.
9. All dimensions are to be maintained.
10. All dimensions are to be maintained.

All Levels should be verified before construction in site

ABBREVIATION:
-T.O.A = Top of Asphalt
-T.O.S = Top of Subgrade
-T.O.F = Top of Filling
-T.O.L = Top of Level
-T.O.C = Top of Concrete

DRAWING REFERENCE:

REINFORCEMENT BAR

REINFORCEMENT BAR

REINFORCEMENT BAR

REINFORCEMENT BAR

REINFORCEMENT BAR

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REINFORCEMENT BAR

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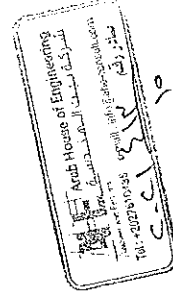
REINFORCEMENT BAR

REINFORCEMENT BAR

REINFORCEMENT BAR

REINFORCEMENT BAR

REINFORCEMENT BAR





Al-Amal Ready mix

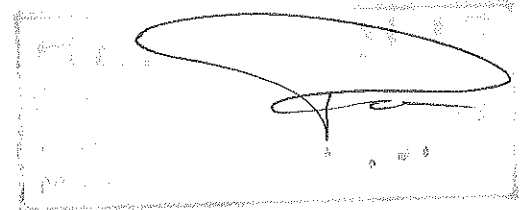
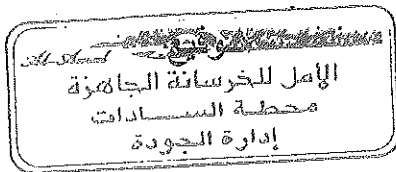
الأمل

للخرسانة الجاهزة ش.م.م
رأس النصار - القاهرة - مصر
والمنصورة - مصر

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile3- Pier 1
Dimension : 15*15*15 cm
Date of casting : 25/02/2023
MIX DESIGN STRENGTH : 370 kg / cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm ²)	Average
1	25/02/2023	04/03/2023	7	8.784	112000	498	478
2	25/02/2023	04/03/2023	7	8.639	99790	444	
3	25/02/2023	04/03/2023	7	8.332	110900	493	



Handwritten signature

Handwritten signature

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
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Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
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El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01020459673 - 01009380635 - 01004970497

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفون : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦ - ٠١٠٦٨٨٤٤١٧ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٤٨ / ٢٦٣٠١٤٥ - ف : ٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧١١٦٧ - ٠١٠٠٦٨٨٠١٢٥ - ٠١٠٢٨١٥١٦٧٣

E-mail: info@alamalreadymix.com
www.alamalreadymix.com



Al-Amal Ready mix

الأمل

الخرسانة الجاهزة
رأس النيل، مصر - 10000
والقاهرة، مصر - 10000

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 3 - Pier 1
Dimension : 15*15*15 cm
Date of casting : 25/02/2023
MIX DESIGN STRENGTH : 370 kg/cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	25/02/2023	26/03/2023	28	8.65	119600	532	548
2	25/02/2023	26/03/2023	28	8.705	120200	534	
3	25/02/2023	26/03/2023	28	8.743	130100	578	



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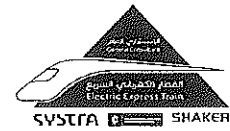
Handwritten signature

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459873 - 01006890635 - 01004978497

الإدارة : مول إيجيبت ميدكال سنتر - الدور الرابع - ش. د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٠٢ ٢٤٧١٣٥٥٨ - ٠٢ ٢٣٥٧٣٣٠٧
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ش. : ٢٩٨٤٠١٠٩ / فاكس : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦ - ٠١٠٠٦٨٨٤٤١٧ - ٠١٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية قطعة ٧٠٠٣ - ٧٠٠٥
ش. : ٠٤٨ / ٢٦٣٠١٤٥ - فاكس : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٩٧١٦٩٧ - ٠١٠٠٦٨٨٤١٣٥ - ٠١٢٨٤٥٩٩٧٧

E-mail: info@al-amalreadymix.com
www.al-amalreadymix.com

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name Ahmed Adel	Sign 	Date 4/ 3 / 2023	Time							
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity :		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P4 OF FOOTING P1			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade:370 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour:	pm	Concrete Volume:	51	m3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	

Comments by:	Comments by:

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel			A
QA/QC				A
Employer Representative	Mohammed Gardowh			A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	4/ 3 / 2023
Pile No.	P4	Structure	bridge	Pile Cutoff Level	—
pier	P1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.341	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.871
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.541

Pile Survey

Coordinates	EAST	North
Theoretical	585458.785	830444.566
Actual	585458.759	830444.555
Δ	0.026	0.011

Bentonite Slurry Test

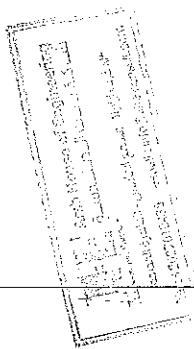
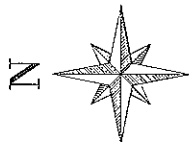
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.04	Less Than 1.15	1.07
Viscosity(Sec.)	30:70 Sec.	33	≤90 Sec.	38
Sand Content %	Less than 2%	N/A	Less than 2%	1.5 %

Geotechnical Log	
0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

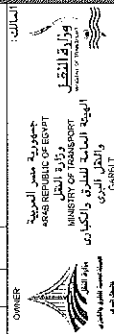
Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	4/3/2023			Cleaning	—	—	—
Install Cages	4/3/2023			pouring	4/3/2023		
	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5		
Slump	22	21.5	23	22.8	21.9		
Temperature	29	30.1	32	31	29		

NOTES:
ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERCATOR) AS PER THE RECEIVED SITE SURVEY.



NO.	DATE	ENG.	REVISION
01	26/02/23	K.A.	ISSUED FOR CONSTRUCTION

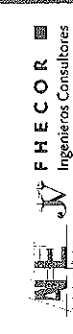


NAME OF PROJECT
ELECTRICAL EXPRESS TRAIN HIGH SPEED (AHLI)
SECTION THREE FROM WEST OF TALE TO AL-HAMRA

NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR CONSULTANT

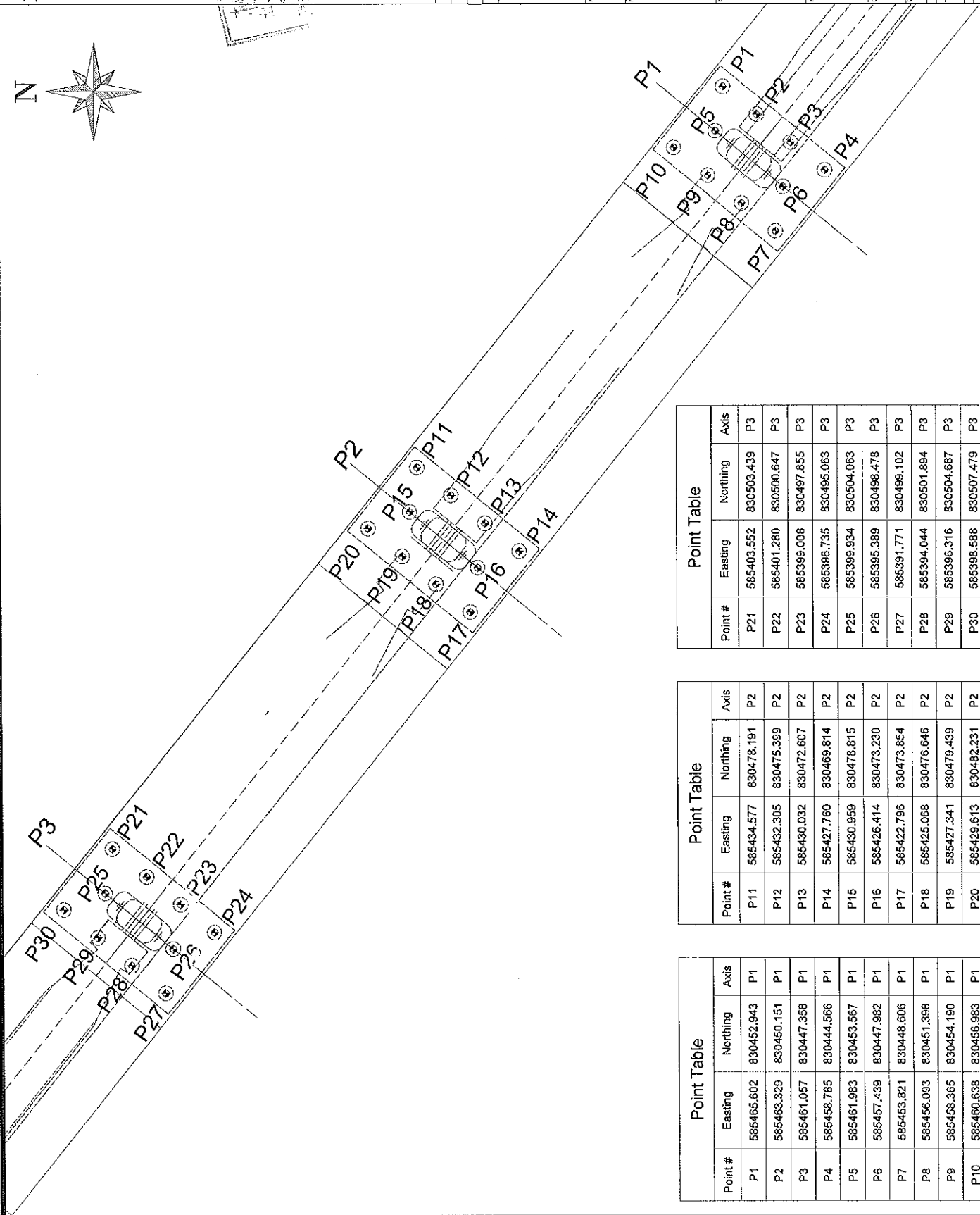


NAME CONTRACTOR



DWG. TITLE
PILES COORDINATES FOR APPROVED AXIS
FROM P1 TO P3

DATE	SCALE
08/02/23	1:150
DRAWN BY Eng. Mohamed Ali	CHECKED BY Eng. Mohamed Ali
SUPVISED BY Dr. Mohamed Ibrahim	APPROVED FOR Eng. Jaber Tarek



Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830473.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

Pirelli & C. S.p.A. - Via Cavour 15 - 20121 Milano
 Tel. 02/58001 - Telex 320511 - Cable 320511
 Pirelli & C. S.p.A. - Via Cavour 15 - 20121 Milano
 Tel. 02/58001 - Telex 320511 - Cable 320511

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- G.S.I = Natural Ground Level

REGINA ROAD BRIDGE
GENERAL NOTES
ASU 11/01/01, DEFINITION

Arab House of Engineering
Taj: +20270 15435 email: info@arab-house.com
c-21234

NO.	DATE	ENG.	REVISION
0	31 MAR 1972	MAS	ISSUED FOR CONSTRUCTION AS PER REVIEW NOTICE NO. 1069



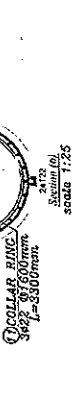
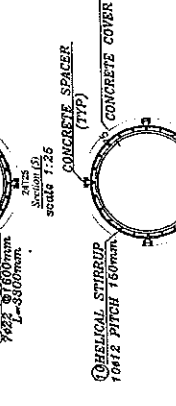
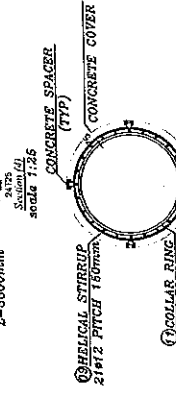
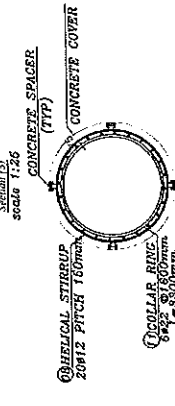
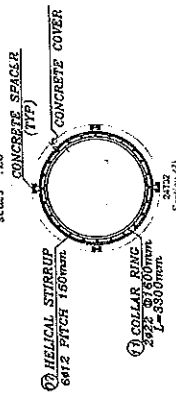
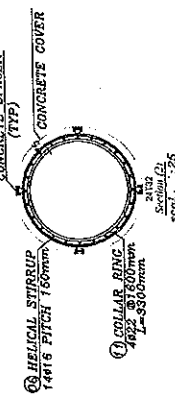
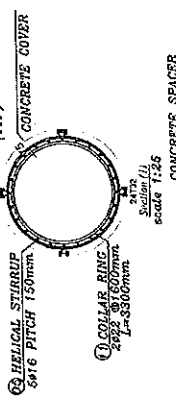
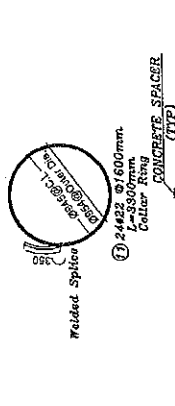
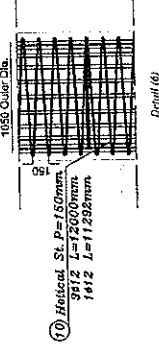
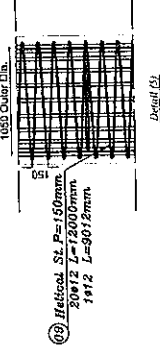
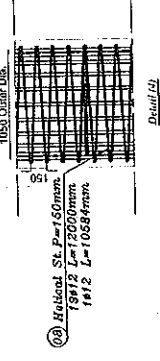
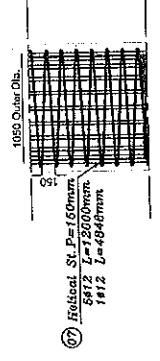
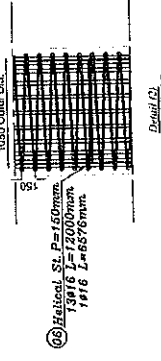
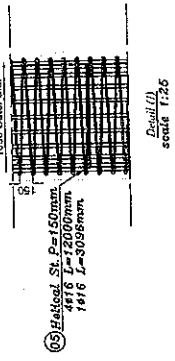
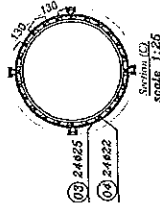
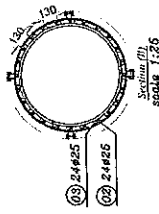
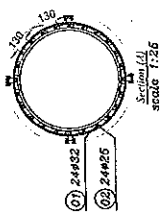
جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للنقل والكابري
والقنابل البري
GAMBLE
والقنابل البري

ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE IS NOW WEST OF MILE TO ALABAMA

FHECOR 
Ingenieros Consultores

PILE REINFORCEMENT BARS SHOP DRAWING

DWG NO.:	DATE:	SCALE:
W-101-00100-001-100	06-0022	AS SHOWN
DRAWING BY:	CHECKED BY:	REVIEWED BY:
ENG. J. J. J.	ENG. A. A. A.	ENG. M. M. M.
APPROVED BY:	APPROVED BY:	
DR. A. A. A.	DR. J. J. J.	



[illegible]

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- M.G.1 = Normal Ground Level

جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للنقل والكابلات
 GENERAL AUTHORITY OF TRANSPORT AND CABLES
 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للنقل والكابلات
 GENERAL AUTHORITY OF TRANSPORT AND CABLES

NAME OF PROJECT: ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF MILE TO ALABAMA)

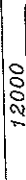
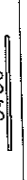
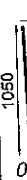
NAME OF YOUR COMPANY:

FHECOR 
Ingenieros Consultores



DWG. TITLE: REGWA ROAD BRIDGE
PILES AT AXES (P1,P2&P3)
PILE REINFORCEMENT BARS SHOP DRAWING

SWG NO:	DATE:	SCALE:
1046-999-25 11490114-540	08.2024	A3 SHOWNING
DRAWING BY:	CHK'D BY:	REVISOR BY:
ENG. Elyum Fawzy	ENG. Amalshah Fawzy	ENG. Mounirah St
		
SUPERVISOR:		APPROVED BY:
PO3. Mohamed Elshahin		Eng. Jaber Fawzy

BAR MARK	BAR DIA.	SYMBOL(mm)	NUMBER QTY	LENGTH (mm.)	TOTAL WEIGHT (Kg)
01	32		24	12000	1820.44
02	25		24	12000	1111.11
03	25		24	12000	1111.11
04	22		24	6400	458.90
05	16		4+1	12000 + 3096	75.85 + 4.89
06	16		13+1	12000 + 6576	246.51 + 10.39
07	12		5+1	12000 + 4848	53.33 + 4.30
08	12		19+1	12000 + 10584	202.66 + 9.40
09	12		20+1	12000 + 9012	213.33 + 8.01
10	12		9+1	12000 + 11292	96.00 + 10.03
11	22		24	3300	236.62

Total	5672.88
-------	---------

Pile Diameter	Ø12	Ø16	Ø22	Ø25	Ø32
TOTAL LENGHT(M)	678.47	213.69	233.39	577.2	288.04
TOTAL WEIGHT(Kg)	597.06	337.64	695.52	2222.22	1820.44

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.
- LENGTH OF PILE = 30 M BELOW GROUND LEVEL ACCORDING TO GEO-TECHNICAL REPORT.



Al-Amal Ready Mix

الأمل

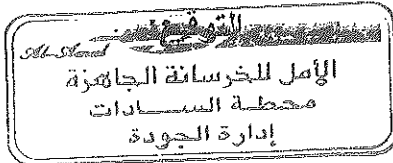
للخرسانة الجاهزة
وأساسات الخرسانة والتأجير
والصيانة والتأجير

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

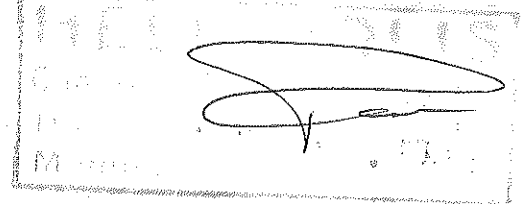
PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 4- Pier 1
Dimension : 15*15*15 cm
Date of casting : 04/03/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	04/03/2023	11/03/2023	7	8.433	100600	447	455
2	04/03/2023	11/03/2023	7	8.576	105200	468	
3	04/03/2023	11/03/2023	7	8.486	101600	452	

الخاصة بالعربية الرابعة والخامسة



توقيع



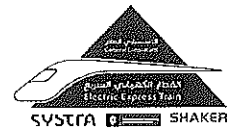
تامر سامح

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel: 29841136 / Fax: 29840109
01227855596 - 01068044170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel: 048 2630145 / Fax: 048 2630140
01028459673 - 01006030835 - 01004976497

Email: info@alamalreadymix.com
Website: www.alamalreadymix.com

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش. د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفون : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ش. د. ٢٩٨٤١١٣٦ / فاكس : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦ - ٠١٠٦٨٨٤٤١٧ - ٠١٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ش. د. ٠٤٨ / ٢٦٣٠١٤٥ - فاكس : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤١٧٦٤١٧ - ٠١٠٠٦٨٨٠١٣٥ - ٠١٠٢٨٤٩٦٧٧

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name Ahmed Adel	Sign 	Date 21/2/2023	Time							
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE - 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity :		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P5 OF FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade: 370 kg/cm ²			
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m ³

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel			A
QA/QC				A
Employer Representative	Mohammad Gardoun			A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	20/ 2 / 2023
Pile No.	P5	Structure	bridge	Pile Cutoff Level	—
pier	P1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	39.785	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.315
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	0.985

Pile Survey

Coordinates	EAST	North
Theoretical	585462.003	830453.572
Actual	585461.983	830453.567
Δ	0.02	0.005

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.04	Less Than 1.15	1.07
Viscosity(Sec.)	30:70 Sec.	33	≤90 Sec.	38
Sand Content %	Less than 2%	N/A	Less than 2%	1.5 %

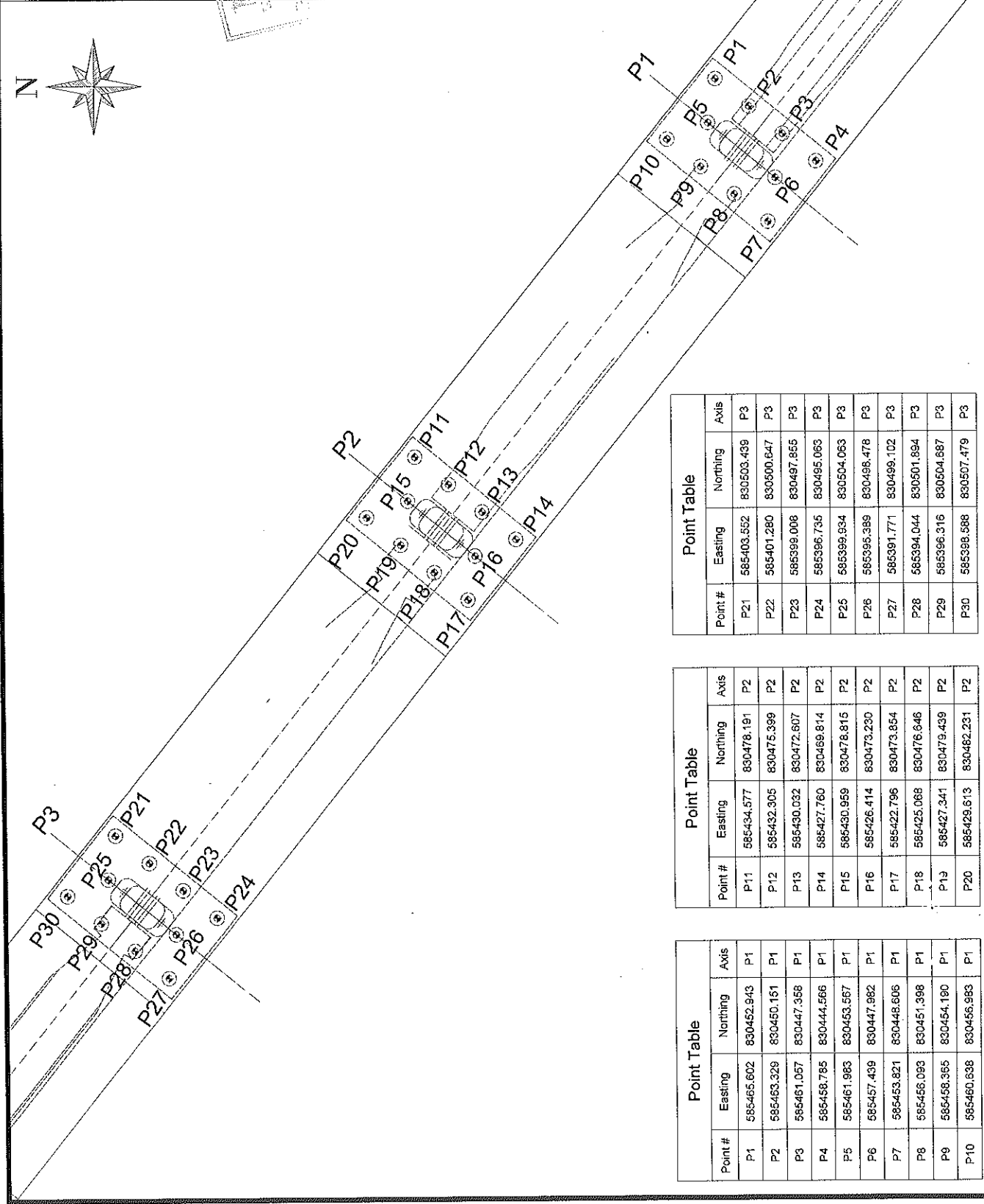
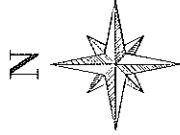
Geotechnical Log

0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	20/2/2023			Cleaning	—	—	—
Install Cages	20/2/2023			pouring	20/2/2023		
		Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5	
Slump	22	21.5	23	22.8	21.9		
Temperature	29	30.1	32	31	29		

NOTES:
 ALL COORDINATES ARE IN METERS UNLESS OTHERWISE IDENTIFIED
 ALL COORDINATES ARE BASED ON THE EGYPTIAN TRANSVERSE
 MERCATOR AS FOR THE RECEIVED SITE SURVEY.



NO.	DATE	BY	REVISION

PROJECT: **الخطوط الجوية المصرية**
 GENERAL CONTRACTOR: **شركة مصر للطيران**
 ARCHITECT: **م. م. محمد عبد الحليم**
 ENGINEER: **م. م. محمد عبد الحليم**
 SURVEYOR: **م. م. محمد عبد الحليم**
 DRAWN BY: **م. م. محمد عبد الحليم**
 CHECKED BY: **م. م. محمد عبد الحليم**
 APPROVED BY: **م. م. محمد عبد الحليم**

NAME OF PROJECT: **الخطوط الجوية المصرية**
 ELECTRICAL DRAWING: **شركة مصر للطيران**
 SECTION: **GENERAL CONTRACTOR**
 NAME OF OWNER: **م. م. محمد عبد الحليم**
 NAME OF CONSULTANT: **م. م. محمد عبد الحليم**
 NAME OF CONTRACTOR: **شركة مصر للطيران**
 NAME OF ARCHITECT: **م. م. محمد عبد الحليم**
 NAME OF ENGINEER: **م. م. محمد عبد الحليم**
 NAME OF SURVEYOR: **م. م. محمد عبد الحليم**
 NAME OF DRAWN BY: **م. م. محمد عبد الحليم**
 NAME OF CHECKED BY: **م. م. محمد عبد الحليم**
 NAME OF APPROVED BY: **م. م. محمد عبد الحليم**

NAME OF CONTRACTOR: **شركة مصر للطيران**
 NAME OF ARCHITECT: **م. م. محمد عبد الحليم**
 NAME OF ENGINEER: **م. م. محمد عبد الحليم**
 NAME OF SURVEYOR: **م. م. محمد عبد الحليم**
 NAME OF DRAWN BY: **م. م. محمد عبد الحليم**
 NAME OF CHECKED BY: **م. م. محمد عبد الحليم**
 NAME OF APPROVED BY: **م. م. محمد عبد الحليم**

Point Table				
Point #	Easting	Northing	Axis	
P21	585403.552	830503.439	P3	
P22	585401.280	830500.647	P3	
P23	585399.008	830497.855	P3	
P24	585396.735	830495.063	P3	
P25	585395.934	830504.053	P3	
P26	585395.389	830498.478	P3	
P27	585391.771	830499.102	P3	
P28	585394.044	830501.894	P3	
P29	585396.316	830504.887	P3	
P30	585398.588	830507.479	P3	

Point Table				
Point #	Easting	Northing	Axis	
P11	585434.577	830478.191	P2	
P12	585432.305	830475.399	P2	
P13	585430.032	830472.607	P2	
P14	585427.760	830469.814	P2	
P15	585430.959	830478.815	P2	
P16	585426.414	830473.230	P2	
P17	585422.796	830473.854	P2	
P18	585425.068	830476.646	P2	
P19	585427.341	830479.439	P2	
P20	585429.613	830482.231	P2	

Point Table				
Point #	Easting	Northing	Axis	
P1	585465.602	830452.943	P1	
P2	585463.329	830450.151	P1	
P3	585461.057	830447.358	P1	
P4	585458.785	830444.566	P1	
P5	585461.983	830453.567	P1	
P6	585457.439	830447.982	P1	
P7	585453.821	830448.606	P1	
P8	585456.093	830451.398	P1	
P9	585458.365	830454.190	P1	
P10	585460.638	830456.983	P1	



Al Amal Ready mix

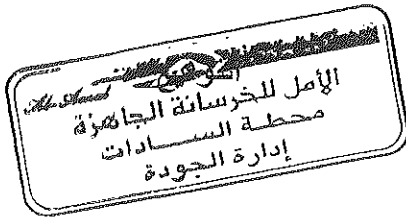
الأمل

المخرسانة الجاهزة ش.م.م.
رأس المال المخرم ١٥٠ مليون جنيه
والصبر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 5 - Pier 1
Dimension : 15*15*15 cm
Date of casting : 20/02/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	20/02/2023	27/02/2023	7	8.403	98510	438	475
2	20/02/2023	27/02/2023	7	8.364	112000	498	
3	20/02/2023	27/02/2023	7	8.760	110200	490	



Signature

Signature

تامر الناصر

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٩٣٥ - ٠١٠٢٨٤٥٩٦٧٣

الإدارة

موقع العمل



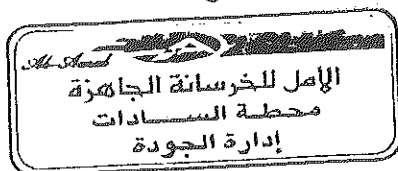
الخزينة العامة
رأس المال المخصص به ٦٠ مليون جنيه
والصندوق ٦٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT	:	مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT	:	شركة النيل العامة للطرق والكبارى
ELEMNET	:	Pile 5 - Pier 1
Dimension	:	15*15*15 cm
Date of casting	:	20/02/2023
MIX DESIGN STRENGTH	:	370 kg / cm ²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	20/02/2023	20/03/2023	28	8.483	134300	597	576
2	20/02/2023	20/03/2023	28	8.567	124200	552	
3	20/02/2023	20/03/2023	28	8.463	130500	580	

التوقيع:



[Handwritten signature]

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
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Tel.: 29841136 / Fax.: 29840109
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Tel.: 048 2630145 / Fax.: 048 2630140
01028459873 - 01006880835 - 01004976497

E-mail: info@alarmalreadymix.com
website: www.alarmalreadymix.com

مول إيجيبت ميدكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / القاهرة
٢٢٥٧٣١٠٧ - ٢٢٥٧١٣٥٥٨

2

الإدارة

موقع العمل :

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

٩٨٤٠١٠٩ : فب / ٩٨٤١١٩٦

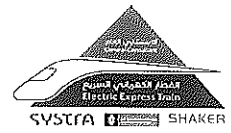
٩٧٧٨٥٥٩٦ : ١٠١٦٨٨٤٤١٧٠

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٤

٤٨ / ٧٢ : ١٤٥ : فب / ٧٢٧٠١٤٥

٤٨١٧١٤٧٠ : ١٠١٦٨٨١٧٣٥ - ١٠١٧٤٥٩٩٧٢

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name Ahmed Adel	Sign 	Date 21/2/2023	Time							
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity :		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P6 OF FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade:	370 kg/cm ²		
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m ³

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel			A
QA/QC				A
Employer Representative	Mohamed Gardoun			A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	21 / 2 / 2023
Pile No.	p6	Structure	bridge	Pile Cutoff Level	—
pier	p1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.044	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.574
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.244

Pile Survey

Coordinates	EAST	North
Theoretical	585457.439	830447.982
Actual	585457.417	830447.972
Δ	0.022	0.01

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.02	Less Than 1.15	1.04
Viscosity(Sec.)	30:70 Sec.	32	≤90 Sec.	37
Sand Content %	Less than 2%	N/A	Less than 2%	1.5 %

Geotechnical Log

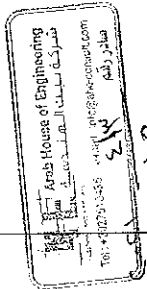
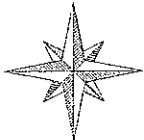
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0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	21/ 2 / 2023			Cleaning	—	—	—
Install Cages	21/ 2 / 2023			pouring	21/ 2 / 2023		
	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5		
Slump	20.1	22	21.3	21.6	22.8		
Temperature	28	27.5	30	31	30.9		

NOTES:

-ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
-ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE
MERCATOR AS PER THE RECEIVED SITE SURVEY.



NO.	REVISION
1	ISSUED FOR CONSTRUCTION
2	DATE
3	DATE
4	DATE
5	DATE

OWNER:
ANAS HOUSE OF ENGINEERING
ANAS REPUBLIC OF EGYPT
MINISTRY OF TRANSPORT
GENERAL AUTHORITY OF
CANALS AND WATERWAYS
GENERAL

NAME OF PROJECT:
ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF AIN HELWAN TO AIN HELWAN)

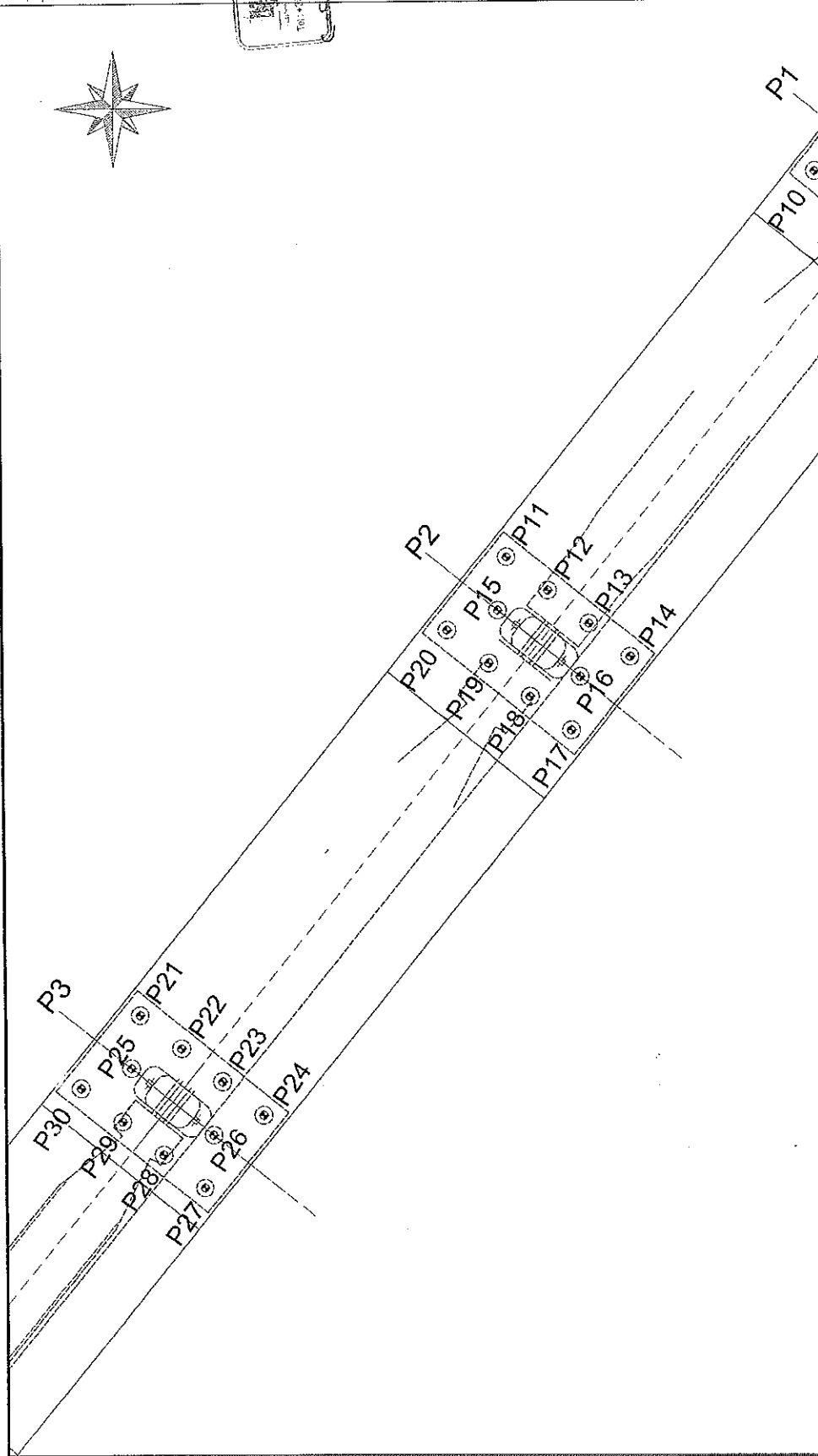
NAME OF OWNER CONSULTANT:
F H E C O R
Ingenieros Consultores

ROLE OF CONTRACTOR CONSULTANT:
SYSTEMS ENGINEER

NAME OF CONTRACTOR:
F H E C O R
Ingenieros Consultores

NAME OF CONTRACTOR:
F H E C O R
Ingenieros Consultores

NO.	REVISION
1	ISSUED FOR CONSTRUCTION
2	DATE
3	DATE
4	DATE
5	DATE



Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585407.280	830500.647	P3
P23	585395.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585455.821	830448.606	P1
P8	585455.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

Total 5672.88

Total 5672.88

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.

DR. Michael L. Lavin



Al Amal Ready mix

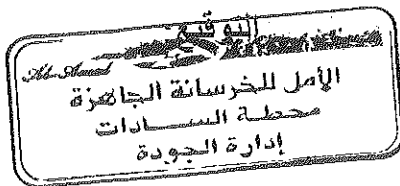
الأمل

للخرسانة الجاهزة
رأس المال المخصص به ٥٠ مليون جنيه
والصندوق ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 6- Pier 1
Dimension : 15*15*15 cm
Date of casting : 21/02/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	21/02/2023	28/02/2023	7	8.272	91440	406	379
2	21/02/2023	28/02/2023	7	8.635	79680	354	
3	21/02/2023	28/02/2023	7	8.643	84800	377	



Signature

Signature

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industriai Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax: 048 2630140
01028459873 - 01006880635 - 01004976497

الإدارة : مول إيجيبت ميدكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٩٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية الصناعية قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٩٩٧٧

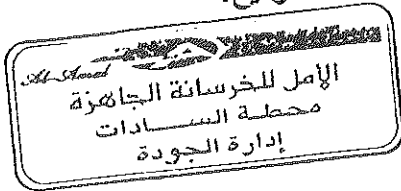
E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائى السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 6- Pier 1
Dimension : 15*15*15 cm
Date of casting : 21/02/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	21/02/2023	21/03/2023	28	8.444	97340	433	469
2	21/02/2023	21/03/2023	28	8.536	116200	516	
3	21/02/2023	21/03/2023	28	8.562	103100	458	

التوقيع:



27

Signature

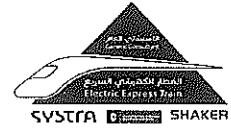
Head Office: Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation: New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@al-amalreadymix.com
website: www.al-amalreadymix.com

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية المساحة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٤٨ / ٢٦٣٠١٤٠ - ف : ٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٩٦٦٣

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name <i>Ahmed Adel</i>	Sign <i>[Signature]</i>	Date 28/ 2 / 2023	Time							
Received by ER		محرم ياخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	الفيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity :		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P7 OF FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade:	370 kg/cm ²		
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Ahmed Adel</i>	<i>[Signature]</i>		A
QA/QC				A
Employer Representative	<i>Mohammed Gardouni</i>	<i>[Signature]</i>		A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	28/ 2 / 2023
Pile No.	P7	Structure	bridge	Pile Cutoff Level	—
pier	P1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.407	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.937
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.607

Pile Survey

Coordinates	EAST	North
Theoretical	585453.821	830448.606
Actual	585453.824	830448.594
Δ	-0.003	0.012

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.03	Less Than 1.15	1.07
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	39
Sand Content %	Less than 2%	N/A	Less than 2%	1.5 %

Geotechnical Log

0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	28/ 2 /2023			Cleaning	—	—	—
Install Cages	28/ 2 /2023			pouring	28/ 2 /2023		
	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5		
Slump	21	20.9	22	22.6	23		
Temperature	31	29.9	30.7	31	29		

GENERAL NOTES:

- 1. All dimensions are in millimeters.
- 2. All reinforcement is to be in accordance with the specifications of the Ministry of Public Works and Urban Planning.
- 3. All reinforcement is to be in accordance with the specifications of the Ministry of Public Works and Urban Planning.
- 4. All reinforcement is to be in accordance with the specifications of the Ministry of Public Works and Urban Planning.
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- 9. All reinforcement is to be in accordance with the specifications of the Ministry of Public Works and Urban Planning.
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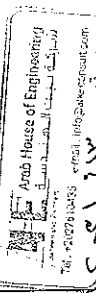
All Levels should be related before construction in site.

ABBREVIATION:

- T.O.A = Top of Arch Butt
- T.O.C = Top of Column
- T.O.F = Top of Footing
- T.O.S = Top of Slab
- T.O.P = Top of Pier
- N.G.L = Natural Ground Level

DRAWING REFERENCES:

- REINFORCEMENT BAR SPECIFICATION
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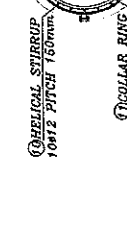
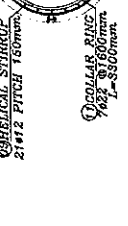
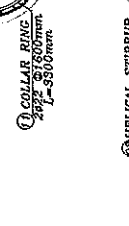
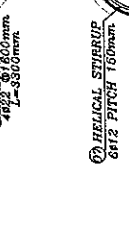
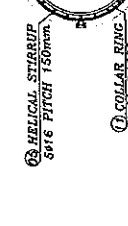
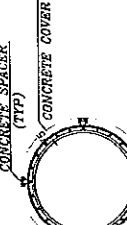
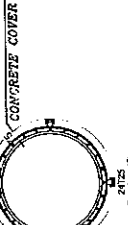
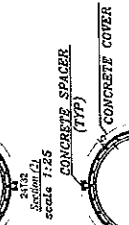
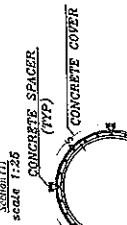
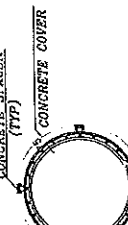
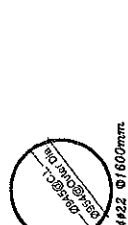
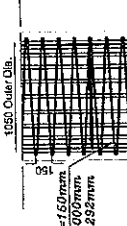
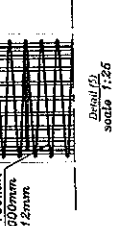
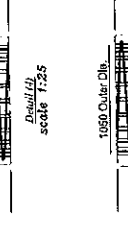
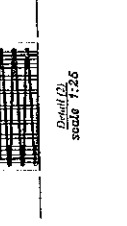
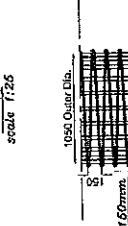
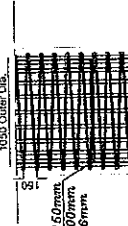
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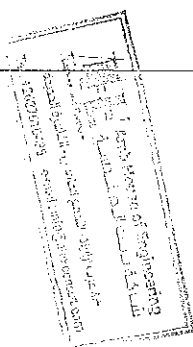
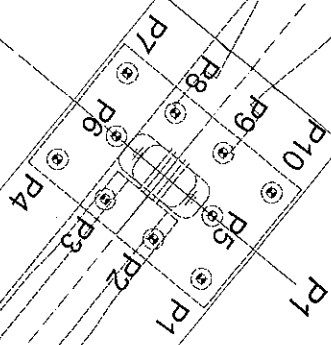
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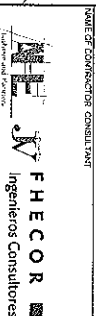


NOTES


 جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للطرق والكباري
 والنقل البري
 GENERAL

 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للطرق والكباري
 والنقل البري
 GENERAL

NAME OF OWNER CONSULTANT



DWG. NO.: _____ DATE _____ SCALE _____

DRAWN BY:	DESIGNED BY:	CHECKED BY:
Engr. Khawad Al-Jin	Engr. Mahmoud Salah	
SUPERVISOR:		
DR. Mahmoud Elshaban		APPROVED BY:
		Engr. Maher Tammou



Al-Amal Ready Mix

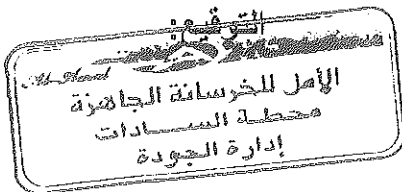
الأمل

للخرسانة الجاهزة
مركز الأمل القوي - القاهرة - مصر
والصين - ٥٠٠٠٠٠٠٠٠٠٠٠٠

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile7- Pier1
Dimension : 15*15*15 cm
Date of casting : 28/02/2023
MIX DESIGN STRENGTH : 370 kg/cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	28/02/2023	28/03/2023	28	8.428	128000	569	559
2	28/02/2023	28/03/2023	28	8.466	132600	589	
3	28/02/2023	28/03/2023	28	8.552	116800	519	



مدير المشروع

مدير المختبر

مدير المختبر

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713553
Mobile: 01101116717
Workstation : New Cairo - Katamis - Part 82 - 83
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01227855596 - 01068844170 - 01006033860
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Tel.: 048 2630145 / Fax: 048 2630140
01028459673 - 01006030655 - 01004976497

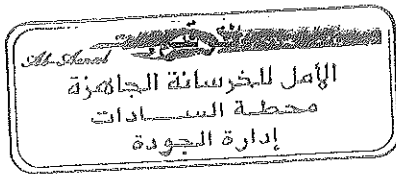
الإدارة :
محل إيجيث ميدكال سنتر - الدور الرابع - ش. د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفون : ٠٢ ٢٤٧١٣٥٥٨ - ٠٢ ٢٣٥٧٣٣٠٧
موبايل : ٠١١٠١١١٦٧١٧
مواقع العمل :
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / فاكس : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٢٨١ - ٠١٠٠٨٨٤٤١٧ - ٠١٢٢٧٨٥٥٩٦
مخبرات المختبرات : المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - فاكس : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠١١٧١٦١٧ - ٠١٠٠١٨٨٠١٣٥ - ٠١٠٢٨٦٥١٧٣

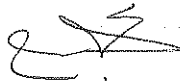
البريد الإلكتروني : info@al-amalreadymix.com
www.al-amalreadymix.com

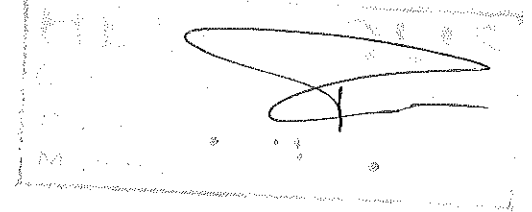
**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
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Dimension : 15*15*15 cm
Date of casting : 28/02/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	28/02/2023	07/03/2023	7	8.502	99980	444	464
2	28/02/2023	07/03/2023	7	8.356	109200	485	
3	28/02/2023	07/03/2023	7	8.536	103700	461	





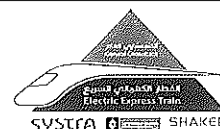


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Tel.: 048 2630145 / Fax.: 048 2630140
01020459673 - 01006880835 - 01004976497

الإدارة : ٤ مول إيجيبت ميدكال سنتر - الدور الرابع - ش. د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - القنصلية قطعة ٨٢ - ٨٣
تلف : ٢٩٨٤١١٣٦ / فاكس : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥١٦
مدينة السادات - المنطقة الصناعية الصناعية قطعة ٧٠٠٣ - ٧٠٠٥
تلف : ٠٤٨ / ٢٦٣٠١٤٥ - فاكس : ٠٤٨ / ٢٦٣٠١٤٠
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E-mail: info@al-amalreadymix.com
www.al-amalreadymix.com

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
	Ahmed Adel	[Signature]	7/3/2023								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	51 to 521 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity : pouring footing p1		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km P8 FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐ Grade: 370 kg/cm ²
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-28 COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel	[Signature]		A
QA/QC				A
Employer	Mohammed Badoun	[Signature]		A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	
Pile No.	P8	Structure	bridge	Pile Cutoff Level	—
pier	P1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.165	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.695
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.365

Pile Survey

Coordinates	EAST	North
Theoretical	585456.093	830451.398
Actual	585456.083	830451.381
Δ	0.01	0.017

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.03	Less Than 1.15	1.07
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	39
Sand Content %	Less than 2%	N/A	Less than 2%	1.6 %

Geotechnical Log

0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

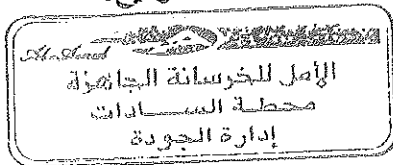
Activity	Date	From	To	Activity	Date	From	To
Drilling	26/ 2 /2023			Cleaning	—	—	—
Install Cages	26/ 2 /2023			pouring	26/ 2 /2023		
	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5		
Slump	22.5	21.6	20.6	20.8	22.3		
Temperature	32	29.9	30.5	30.2	28		

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائى السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 8 - Pier 1
Dimension : 15*15*15 cm
Date of casting : 07/03/2023
MIX DESIGN STRENGTH : 370 kg/cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	07/03/2023	09/04/2023	28	8.598	108600	483	516
2	07/03/2023	09/04/2023	28	8.509	121600	540	
3	07/03/2023	09/04/2023	28	8.58	118100	525	

التوقيع:



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COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1993

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل الحامة للطرق والكبارى
ELEMNET : Pile 8- Pier 1
Dimension : 15*15*15 cm
Date of casting : 07/03/2023
MIX DESIGN STRENGTH : 370 kg/cm²

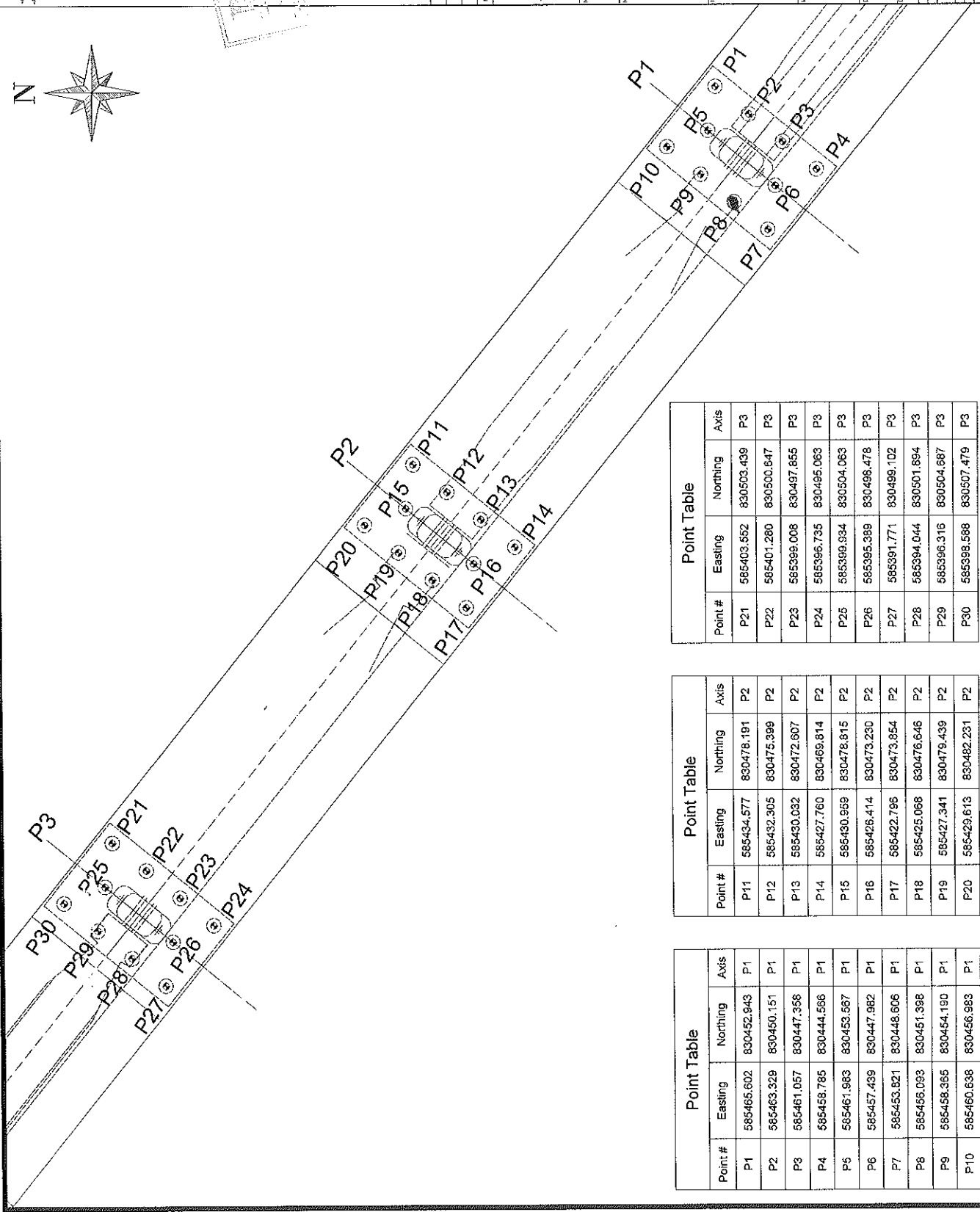
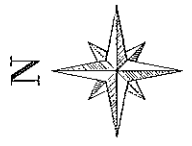
NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm ²)	Average
1	07/03/2023	14/03/2023	7	8.476	102900	457	445
2	07/03/2023	14/03/2023	7	8.533	105700	470	
3	07/03/2023	14/03/2023	7	8.47	91500	407	



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(Handwritten signature)

NOTES:
 ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
 ALL COORDINATES ARE BASED ON ETM EGYPTIAN TRANSVERSE
 MERCATOR, AS PER THE RECEIVED SITE SURVEY.



Point Table			
Point #	Easting	Northing	Axis
P1	585465.602	830452.843	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.565	P1
P5	585457.983	830453.597	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585458.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

Point Table			
Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.369	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

OWNER:		REVISION	
NO.	DATE	NO.	DATE
ISSUED FOR CONSTRUCTION		REVISION	
OWNER:			
NAME OF PROJECT:			
SECTION THREE (FROM WEST OF ABU TO ALAMIN)			
NAME OF OWNER CONSULTANT:			
NAME OF CONTRACTOR CONSULTANT:			
NAME OF CONTRACTOR:			
NAME OF TITLE:			
PILES COORDINATES FOR APPROVED AXIS FROM P1 : P3			
DATE	NO.	DATE	NO.
DESIGNED BY	DESIGNED BY	CHECKED BY	CHECKED BY
APPROVED BY	APPROVED BY	APPROVED BY	APPROVED BY
SUPERVISION:			
DATE: 2020/10/10			

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name <i>Ahmed Adel</i>	Sign <i>[Signature]</i>	Date 26 / 2 / 2023	Time							
Received by ER	محرم ياخوم		CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE - 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity :		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P9 OF FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade:	370 kg/cm ²		
PRESTART CHECKLIST			
IR Approved	Plant & equipment available		
Mix Approved	Back up equipment available		
Setting out Survey Approved	Cast in items secure		
Temp Works Approved	Access route clear		
Formwork Checked	Work area safe to progress		
Start Time for Pour:	pm	Concrete Volume:	51 m ³

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Ahmed Adel</i>	<i>[Signature]</i>		A
QA/QC				A
Employer Representative	<i>Mohamed Gadouch</i>	<i>[Signature]</i>		A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	26 / 2 / 2023
Pile No.	P9	Structure	bridge	Pile Cutoff Level	—
pier	P1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.165	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.695
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.365

Pile Survey

Coordinates	EAST	North
Theoretical	585458.365	830454.19
Actual	585458.342	830454.213
Δ	0.023	-0.023

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.03	Less Than 1.15	1.07
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	39
Sand Content %	Less than 2%	N/A	Less than 2%	1.6 %

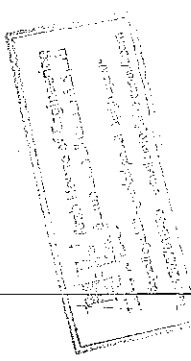
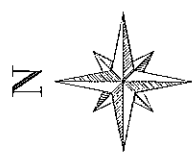
Geotechnical Log

0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	26/ 2 /2023			Cleaning	—	—	—
Install Cages	26/ 2 /2023			pouring	26/ 2 /2023		
	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5		
Slump	22.5	21.6	20.6	20.8	22.3		
Temperature	32	29.9	30.5	30.2	28		

NOTES:
ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE
MERIDIAN AS PER THE RECEIVED SITE SURVEY.

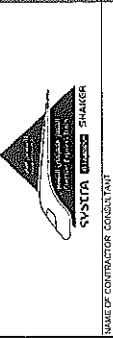


NO.	DATE	BY	REVISION
01	15/05/2022	ENG. MOHAMED SAH	ISSUED FOR CONSTRUCTION

OWNER:
 جمهورية مصر العربية
 وزارة النقل
 الهيئة العامة للنقل والكباري
 مكتب القاهرة
 (Client)

NAME OF PROJECT:
ELECTRICAL EXPRESS TRANS (HIGH SPEED-RAIL)
SECTION THREE (FROM WEST OF FILE TO ALAMINA)

NAME OF OWNER CONSULTANT:
SYSTRA SHAKER



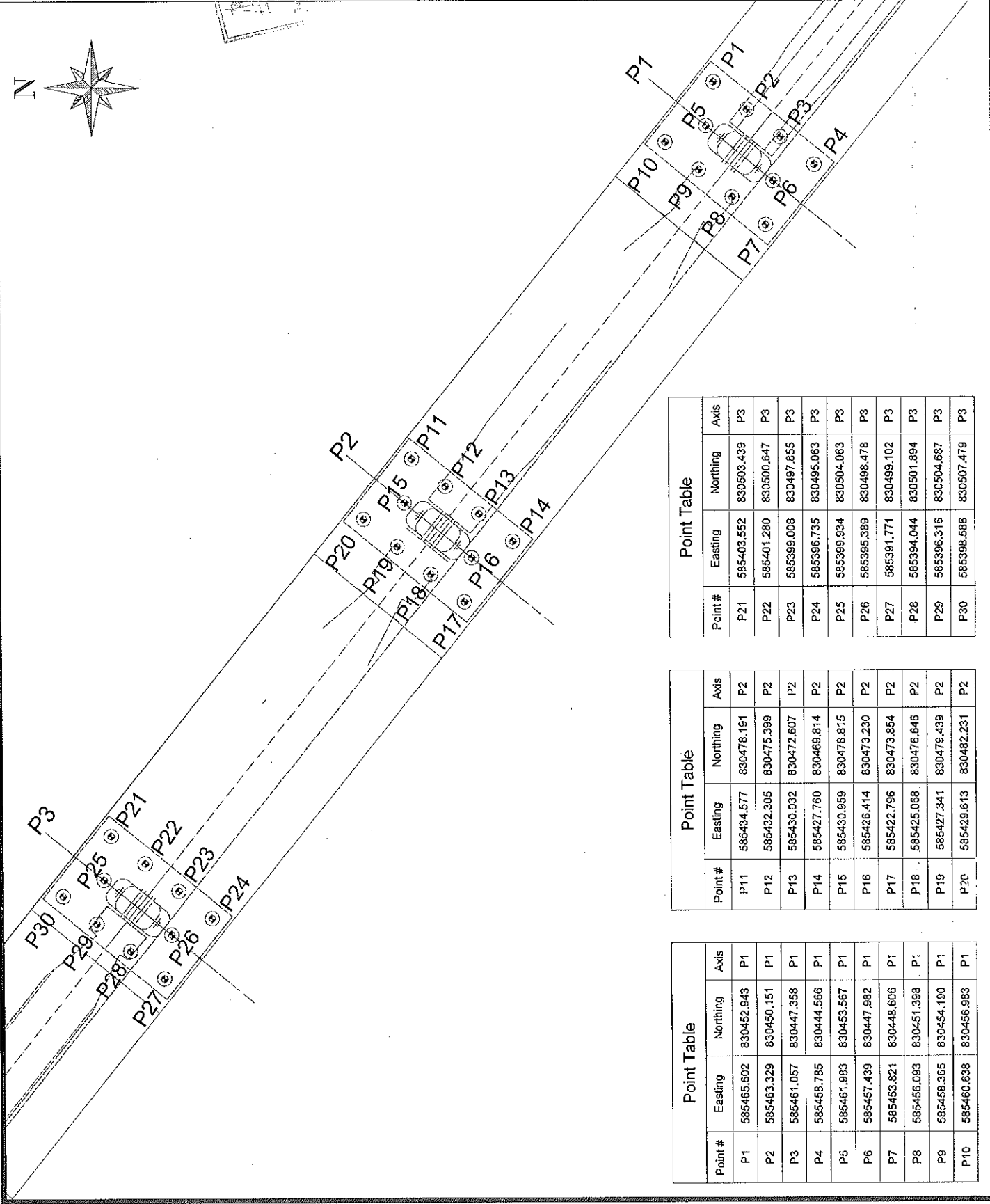
NAME OF CONTRACTOR CONSULTANT:
FHECOR Ingenieros Consultores

NAME OF CONTRACTOR:
[Blank]



DWG. TITLE:
RECEIVA BRIDGE
PILES COORDINATES FOR APPROVED AXIS
FROM P1 - P3

DWG. NO.	PC0400
DATE	08/02/22
SCALE	1:50
DRAWN BY	ENG. MOHAMED SAH
CHECKED BY	ENG. MOHAMED SAH
APPROVED BY	ENG. JAWAD TAYEB



Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.476	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

GENERAL NOTES

- 1. All dimensions are in millimeters.
- 2. If not specified, use the following materials:
- 3. Concrete: C40/50
- 4. Reinforcement: HRB400
- 5. Steel: S235
- 6. Welding: E43
- 7. All dimensions are in millimeters.
- 8. If not specified, use the following materials:
- 9. Concrete: C40/50
- 10. Reinforcement: HRB400
- 11. Steel: S235
- 12. Welding: E43

REVISIONS:

NO.	DATE	DESCRIPTION
1	01/01/2022	Initial Design
2	01/01/2022	Revised Design

DRAWING NO. 001-001-001-001

PROJECT NO. 001-001-001-001

CLIENT: ARAB HOUSE OF ENGINEERING

DESIGNER: ARAB HOUSE OF ENGINEERING

CHECKED BY: ARAB HOUSE OF ENGINEERING

APPROVED BY: ARAB HOUSE OF ENGINEERING

DATE: 01/01/2022

SCALE: 1:50

PROJECT: ARAB HOUSE OF ENGINEERING

CLIENT: ARAB HOUSE OF ENGINEERING

DESIGNER: ARAB HOUSE OF ENGINEERING

CHECKED BY: ARAB HOUSE OF ENGINEERING

APPROVED BY: ARAB HOUSE OF ENGINEERING

DATE: 01/01/2022

SCALE: 1:50

PROJECT: ARAB HOUSE OF ENGINEERING

CLIENT: ARAB HOUSE OF ENGINEERING

DESIGNER: ARAB HOUSE OF ENGINEERING

CHECKED BY: ARAB HOUSE OF ENGINEERING

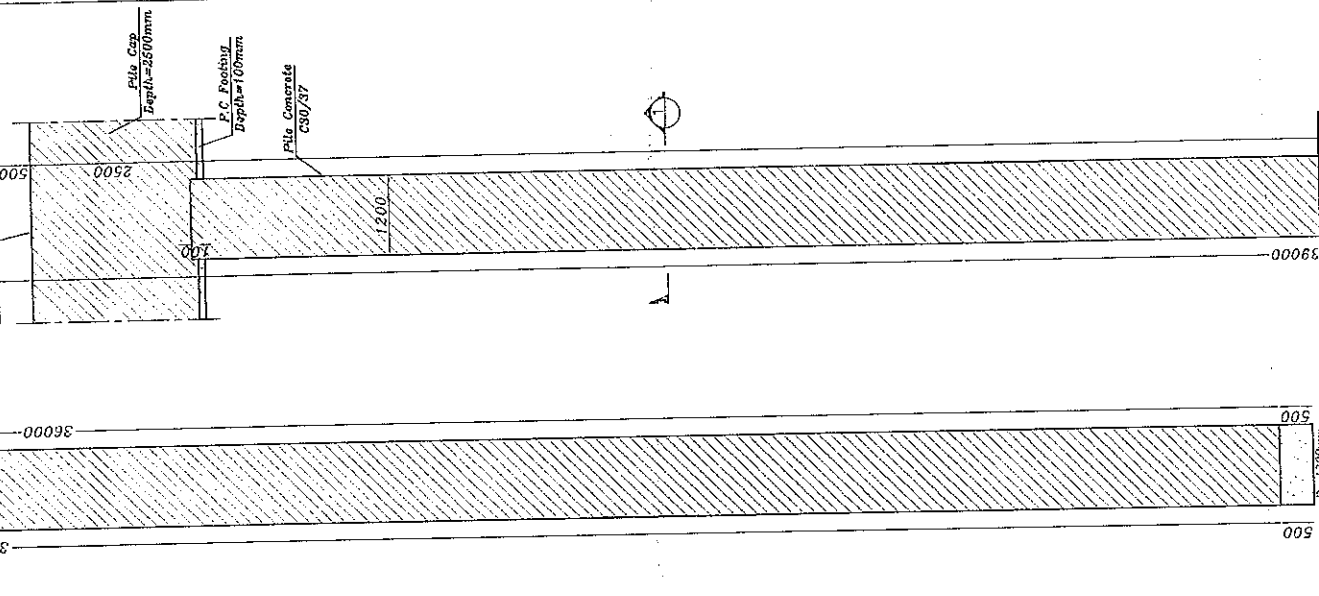
APPROVED BY: ARAB HOUSE OF ENGINEERING

DATE: 01/01/2022

SCALE: 1:50

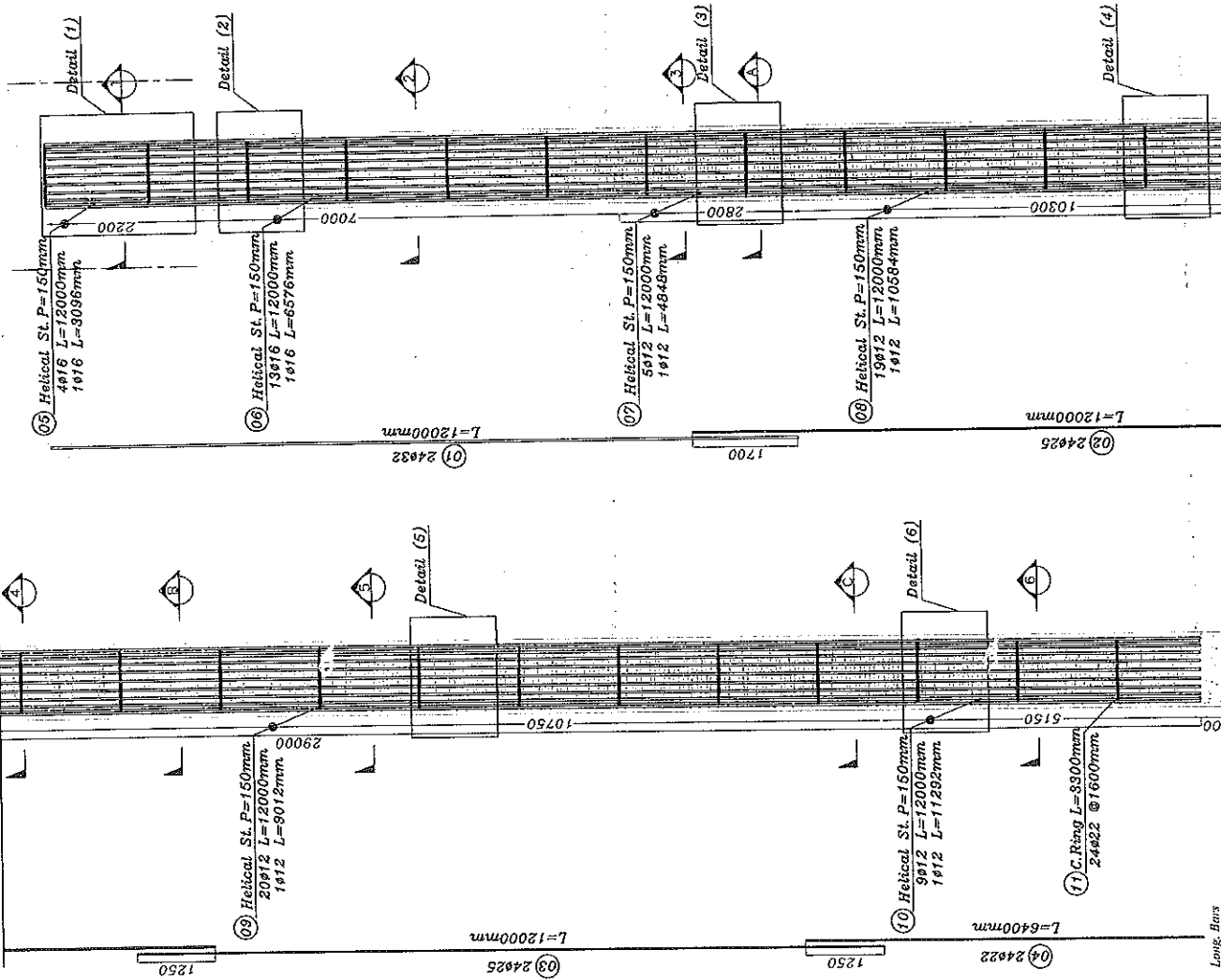
PROJECT: ARAB HOUSE OF ENGINEERING

CUT LINE (1-1)



CUT LINE (1-1)

CUT LINE (2-2)



CUT LINE (2-2)

Long. Box

GENERAL NOTES
 1. All dimensions are in millimeters.
 2. Reinforcement shall be as per specification.
 3. All reinforcement shall be lap welded.
 4. All reinforcement shall be lap welded.
 5. All reinforcement shall be lap welded.
 6. All reinforcement shall be lap welded.
 7. All reinforcement shall be lap welded.
 8. All reinforcement shall be lap welded.
 9. All reinforcement shall be lap welded.
 10. All reinforcement shall be lap welded.

All Levels should be reduced before construction in site

ABBREVIATION:
 -T.O.A = Top of Asphalt
 -T.O.C = Top of Concrete
 -T.O.S = Top of Soil
 -T.O.B = Top of Boxings
 -T.O.F = Top of Framer
 -T.O.L = Normal Ground Level

DRAWING REFERENCES:

1. HIGHWAY BOARD DRAWING

2. GENERAL NOTES

3. ALIGNMENT & DEFINITION

4. HIGHWAY BOARD DRAWING

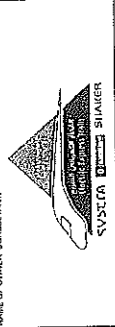
5. PILES IN, PG. 20, REINFORCEMENT (1)

NO.	DATE	BY	REVISION
0			ISSUED FOR CONSTRUCTION

OWNER:
 جمهورية مصر العربية
 وزارة النقل
 الهيئة العامة للطرق والكباري
 قطاع الطرق
 قسم الطرق

NAME OF PROJECT:
 SECTION THREE (FROM WEST OF NILE TO ALAMAY)

NAME OF OWNER CONSULTANT:



NAME OF CONTRACTOR CONSULTANT:

FHECOR
 Ingenieros Consultores

MAIN CONTRACTOR:



DRAWING TITLE:

PILE REINFORCEMENT BARS SHOP DRAWING

SCALE: 1:100

DATE: 10/10/2022

AS SHOWN

RECEIVED BY:

ENG. Mohamed Elmaghrabi

NO. 100

APPROVED BY:

ENG. Mohamed Elmaghrabi

DATE: 10/10/2022

Arabic House of Engineering
 شركة هندسة
 10/10/2022
 10/10/2022

BAR MARK	BAR DIA.	SYMBOL (mm)	NUMBER QTY	LENGTH (mm)	TOTAL WEIGHT (kg)
01	32	12000	24	12000	1820.44
02	25	12000	24	12000	1111.11
03	25	12000	24	12000	1111.11
04	22	6400	24	6400	458.90
05	16	1050	4+1	12000 + 3096	75.85 + 4.89
06	16	1050	13+1	12000 + 6576	246.51 + 10.39
07	12	1050	5+1	12000 + 4848	53.33 + 4.30
08	12	1050	19+1	12000 + 10584	202.66 + 9.40
09	12	1050	20+1	12000 + 9072	213.33 + 8.01
10	12	1050	9+1	12000 + 11292	96.00 + 10.03
11	22	3300	24	3300	236.62
Total					5672.88

Pile Diameter	φ12	φ16	φ22	φ25	φ32
TOTAL LENGTH (M)	678.47	213.69	233.39	577.2	288.04
TOTAL WEIGHT (kg)	597.06	337.64	695.52	2222.22	1820.44

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.
 - LENGTH OF PILE = 39 M BELOW GROUND LEVEL ACCORDING TO GEO-TECHNICAL REPORT.



Al-Amal Ready mix

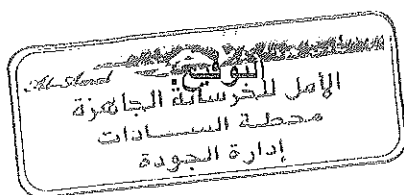
الأمل

للخرسانة الجاهزة
مادة البناء الجاهزة
والصخرات الجاهزة

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 9- Pier1
Dimension : 15*15*15 cm
Date of casting : 26/02/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	26/02/2023	05/03/2023	7	8.691	120300	535	487
2	26/02/2023	05/03/2023	7	8.673	109800	488	
3	26/02/2023	05/03/2023	7	8.445	98580	438	



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Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01066844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01020459673 - 01006680835 - 01004976497

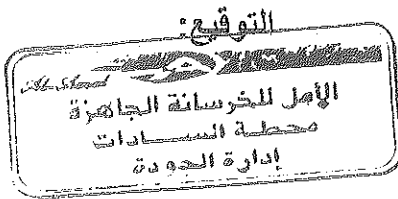
E-mail: info@al-amalreadymix.com
www.al-amalreadymix.com

الإدارة : مول إيجيبت ميدكال سنتر - الدور الرابع - فن د. الشيمي - المنطقة المباشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠١٢٧٨٥٥٥١١ - ٠١٠١٦٨٨٤٤١٧٠ - ٠١٠١٢٣٨١٠٠٠
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤١٧١١٧٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٩١١٧٣

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 9- Pier1
Dimension : 15*15*15 cm
Date of casting : 26/02/2023
MIX DESIGN STRENGTH : 370 kg/cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	26/02/2023	26/03/2023	28	8.513	96770	430	471
2	26/02/2023	26/03/2023	28	8.63	106500	473	
3	26/02/2023	26/03/2023	28	8.445	114700	510	



شعب

تامر سامح

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadai City - Industrial Zone (7) - Part 7003 - 7005
Tel: 048 2630145 / Fax: 048 2630140
01028459673 - 010068930635 - 01064978497

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش. د. شيمي - المنطقة العاشرة
مدينة نصر / تليفون : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧

مواقع العمل : القاهرة الجديدة - القليمانية قطعة ٨٢ - ٨٢
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٢٢٧٨٥٥٥١٦ - ٠١٠٦٨٨٤٤١٧ - ٠١٠٠٦٠٣٣٨١٠
مدينة المسادات - المنطقة الصناعية الصناعية قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠١١٧١١٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٦١٧٣

البريد الإلكتروني : info@alamalreadymix.com
البريد الإلكتروني : sales@alamalreadymix.com

REQUEST



Contractor Company			Designer Company																	
Issued by Contractor	Name Ahmed Adel	Sign 	Date 5/3/2023	Time																
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity :		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference	
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P10 OF FOOTING P1
Concrete Type:	Grout Mix ☐ Lean Mix ☐ Structural Mix ☐ Grade: 370 kg/cm ²
PRESTART CHECKLIST	
IR Approved	Plant & equipment available
Mix Approved	Back up equipment available
Setting out Survey Approved	Cast in items secure
Temp Works Approved	Access route clear
Formwork Checked	Work area safe to progress
Start Time for Pour: pm	Concrete Volume: 51 m ³

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel			A
QA/QC				A
Employer Representative	Mohammed Gardach			A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	5/ 3 / 2023
Pile No.	P10	Structure	bridge	Pile Cutoff Level	—
pier	P1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.066	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.596
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.266

Pile Survey

Coordinates	EAST	North
Theoretical	585460.603	5830456.914
Actual	585460.638	5830456.983
Δ	-0.035	-0.069

Bentonite Slurry Test

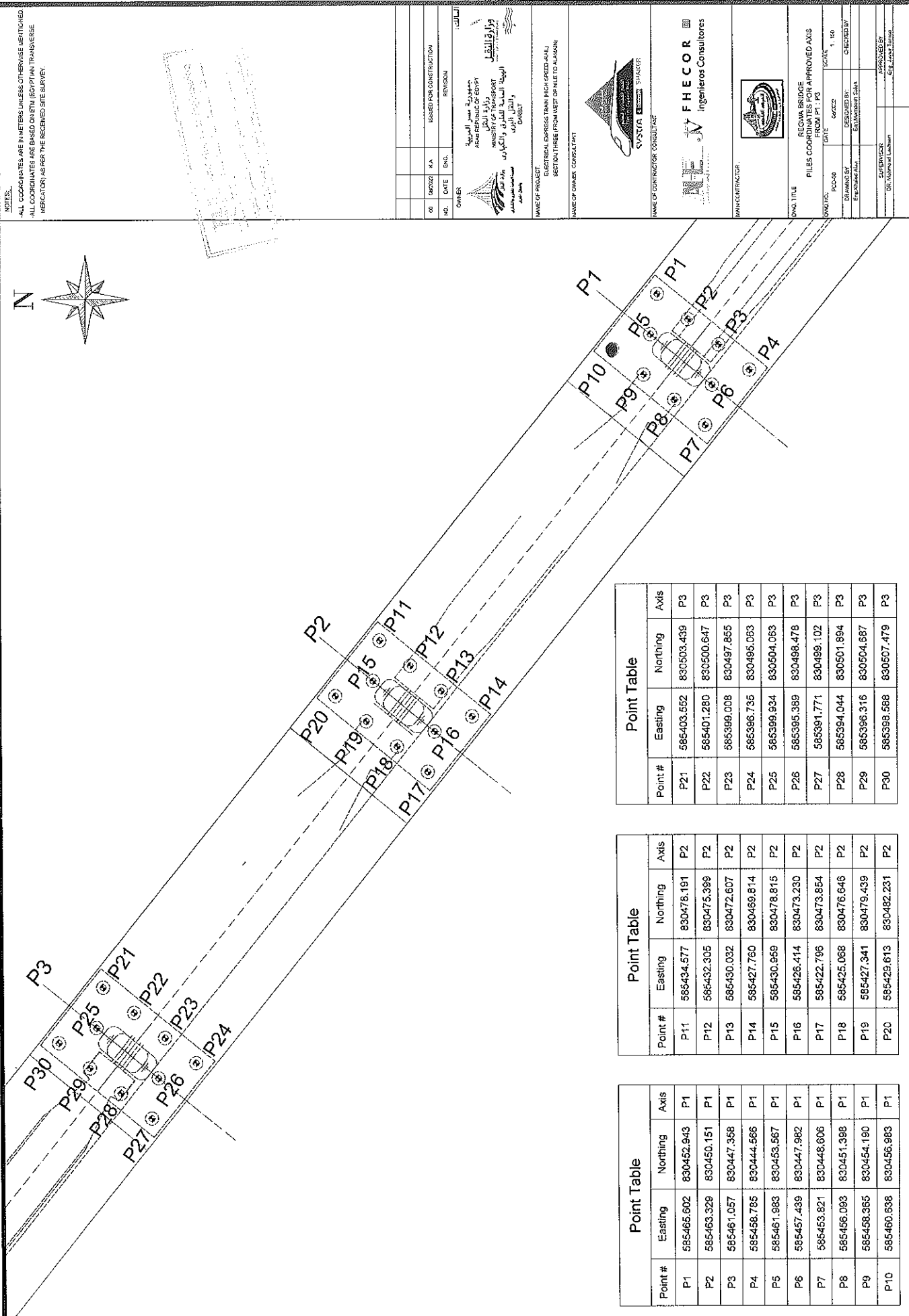
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.03	Less Than 1.15	1.07
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	39
Sand Content %	Less than 2%	N/A	Less than 2%	1.5 %

Geotechnical Log

0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	5/ 3 / 2023			Cleaning	—	—	—
Install Cages	5/ 3 / 2023			pouring	5/ 3 / 2023		
	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5		
Slump	21	20.9	22	22.6	23		
Temperature	31	29.9	30.7	31	29		



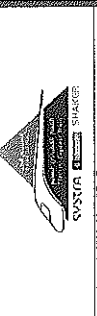
NOTES:
 - ALL COORDINATES ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 - ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE MERCATOR) AS PER THE RECEIVED SITE SURVEY.

NO.	DATE	BY	REVISION
01	06/02/2021	K.A.	ISSUED FOR CONSTRUCTION

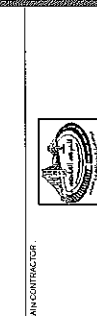
OWNER:
 جمهورية مصر العربية
 وزارة النقل
 GENERAL
 MINISTRY OF TRANSPORT
 الهيئة العامة للنقل والمواصلات
 والنقل البري
 GENERAL

NAME OF PROJECT:
 ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
 SECTION THREE (FROM WEST OF MILE TO ALMAHAR)

NAME OF OWNER CONSULTANT:
 SVSTIA SHAFER



NAME OF CONTRACTOR CONSULTANT:
 FHECOR Ingenieros Consultores



SCALE:	1:150
DATE:	06/02/2021
DRAWING BY:	Engr. Mohamed Elmaghrabi
CHECKED BY:	Engr. Mohamed Elmaghrabi
APPROVED BY:	Engr. Mohamed Elmaghrabi

Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.318	830504.687	P3
P30	585398.588	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585463.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.538	830456.983	P1



Al-Amal Ready mix



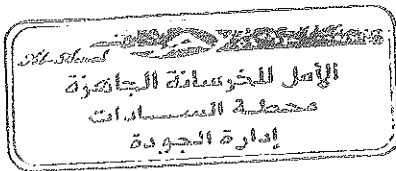
الخرسانة الجاهزة
بأسعار تنافسية
والجودة العالية

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile10 - Pier1
Dimension : 15*15*15 cm
Date of casting : 05/03/2023
MIX DESIGN STRENGTH : 370 kg/cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	05/03/2023	09/04/2023	28	8.468	121100	538	524
2	05/03/2023	09/04/2023	28	8.509	115200	512	
3	05/03/2023	09/04/2023	28	8.535	117300	521	

التوقيع:



شعب

مدير عام

تامر ملاح

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23673307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katarnia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033880
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2636145 / Fax.: 048 2630140
01028489670 - 010688306325 - 01004978697

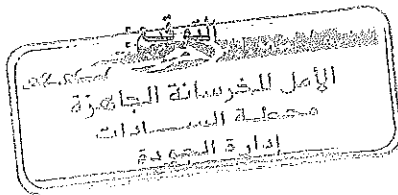
الإدارة :
محل إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفون : ٢٣٦٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
مواقع العمل :
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ش : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٢٢٧٨٥٥٥١٦ - ٠١٠٦٨٨٤٤١٧ - ٠١٠١٠٣٣٨٦٠
مدينة السادات - المنطقة الصناعية التابعة لقطاع ٧٠٠٣ - ٧٠٠٥
ش : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧١٣٦٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٠٣٨١٥١١٧٧

البريد الإلكتروني : info@al-amal.com
البريد الإلكتروني : info@al-amal.com

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1282

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile10- Pier1
Dimension : 15*15*15 cm
Date of casting : 05/03/2023
MIX DESIGN STRENGTH : 370 kg/cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	05/03/2023	12/03/2023	7	8.383	106200	472	421
2	05/03/2023	12/03/2023	7	8.448	84340	375	
3	05/03/2023	12/03/2023	7	8.531	93850	417	



Handwritten signature.

Handwritten signature.

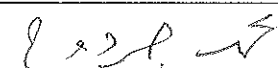
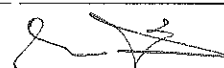
REQUEST to POUR CONCRETE



Contractor Company			Designer Company	
Issued by Contractor	Name	Sign	Date	Time
			4/9/2022	
Received by ER		محرم باخوم CON	C1 C2 C3 DD MM YY HH MM	
Contractor Reference	النيل العامة			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (11))			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 30 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 1:41 pm	Concrete Volume: 51 m3			
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			4/9/2022	A



SYSTRA



Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	6
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	4/9/2022
Pile No.	P11	Structure	bridge	Pile Cutoff Level	-
Pier	P2	Ground Level	67.15	Pile Toe Level	28.237
Theoretical Pile Length from caisson level	40.3 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.91 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	68.543
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	66.437
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.1

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585434.577	830478.191
Actual	585434.579	830478.177
BAUER Survivor		

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.04
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	39
Sand Content %	Less than 4%	N/A	Less than 2%	1.50

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

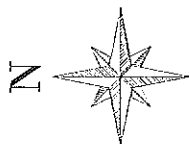
Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	4/9	7:35	10:30	Cleaning	-	-	-	
Install Cages	4/9	11:10	13:05	Pouring	4/9	13:41	14:45	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

NOTES:

1- ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
2- ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE MERCATOR AS PER THE RECEIVED SITE SURVEY.



P2
P20
P19
P18
P17
P16
P15
P14
P13
P12
P11

P3
P29
P28
P27
P26
P25
P24
P23
P22
P21

P1
P10
P9
P8
P7
P5
P4
P3
P2
P1

Point Table				
Point #	Easting	Northing	Axis	
P21	585403.552	830503.439	P3	
P22	585401.280	830500.847	P3	
P23	585399.008	830497.855	P3	
P24	585396.735	830495.063	P3	
P25	585399.934	830504.063	P3	
P26	585395.389	830498.478	P3	
P27	585391.771	830499.102	P3	
P28	585394.044	830501.694	P3	
P29	585395.316	830504.387	P3	
P30	585398.588	830507.479	P3	

Point Table				
Point #	Easting	Northing	Axis	
P11	585434.577	830478.191	P2	
P12	585432.305	830475.399	P2	
P13	585430.032	830472.807	P2	
P14	585427.760	830469.814	P2	
P15	585430.959	830478.815	P2	
P16	585426.414	830473.230	P2	
P17	585422.796	830473.854	P2	
P18	585425.068	830476.646	P2	
P19	585427.341	830479.439	P2	
P20	585429.813	830482.231	P2	

Point Table				
Point #	Easting	Northing	Axis	
P1	585465.602	830452.943	P1	
P2	585463.329	830450.151	P1	
P3	585461.057	830447.358	P1	
P4	585458.785	830444.566	P1	
P5	585461.983	830453.567	P1	
P6	585457.439	830447.982	P1	
P7	585453.821	830448.606	P1	
P8	585456.093	830451.398	P1	
P9	585458.365	830454.190	P1	
P10	585460.638	830456.983	P1	

OWNER
REPUBLIC OF EGYPT
MINISTRY OF TRANSPORT
GENERAL AUTHORITY OF
CANALS AND WATERWAYS
CARETAKER

NAME OF PROJECT
ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF MILE TO AL-HAMIN)

NAME OF OWNER CONSULTANT
SWEFA ENGINEERING & SHAKIR

NAME OF CONTRACTOR CONSULTANT
FHECOR Ingenieros Consultores

NAME OF CONTRACTOR
SWEFA ENGINEERING & SHAKIR

DATE
1/10/2022

PROJECT TITLE
REGIMA BRIDGE
PILES COORDINATES FOR APPROVED AXIS
FROM PT. P2

SCALE
1:100

CHECKED BY
DESIGNED BY
DRAWN BY
APPROVED BY
DATE



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المخصص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى وادى النظرون)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 11
Dimension : 15*15*15 cm
Date of casting : 05/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	05/09/2022	03/10/2022	28	8.638	120100	534	514
2	05/09/2022	03/10/2022	28	8.515	110800	492	
3	05/09/2022	03/10/2022	28	8.587	115800	515	

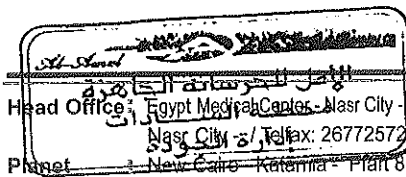
التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد عرابى

مدير المصنع



Head Office : Egypt Medical Cairo - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - Tel: 26772572 - 23573307

Plant : New Cairo - Katamra - Plant 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

إيجيبت ميدكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت: ٢٩٨٤١١٣٦ / ف: ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت: ٠٤٨ / ٢٦٣٠١٤٥ - ف: ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com



Al Amal Ready mix

الأمل
للخرسانة الجاهزة والمنتجات الإسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : B11 خازوق
Dimension : 15*15*15 cm
Date of casting : 04/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

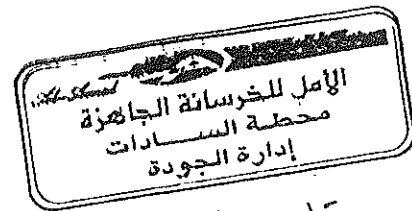
NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	04/09/2022	11/09/2022	7	8.735	103700	461	437
2	04/09/2022	11/09/2022	7	8.576	102200	454	
3	04/09/2022	11/09/2022	7	8.390	89370	397	

التوقيع:
مهندس / أحمد عرابى
مدير المصنع

(Signature)

(Signature)

(Signature)



(Signature)

الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧) : Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٦٧٧٢٥٧٢ : Nasr City - / Telfax: 26772572 - 23573307
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣ : موقع العمل : Planet : New Cairo - Katamia - P1art 82 - 83
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩ : Tel.: 29841136 / Fax.: 29840109
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦ : 01227855596 - 01068844170 - 01006033860
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥ : El Sadat City - Industrial Zone (7) - Part 7003 - 7005
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٠ : Tel.: 048 2630145 / Fax.: 048 2630140
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣ : 01028459673 - 01006880635 - 01004976497
E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 07-07-2001 BY 60322
UCBAW

ASSESSMENT:

-T.O.A = Top of Asphalt
 -T.O.C = Top of Culsion
 -T.O.P = Top of Pile Cap/
 -T.O.B = Top of Bearing
 -T.O.F = Top of Frame
 N.G. = Normal Ground

REC'DVA ROMU BRIDGE	REC'DVA ROMU BRIDGE
GENERAL NOTES	SUBSTRUCTURE
ARGUMENT 1, DEFINITION	PIC 1, P. 2, P. 3, REINFORCEMENT

REINFORCEMENT | 11

House of Engineering

P. neri, 1976: 308, fig. 20.

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

ISSUED FOR CONSTRUCTION AS PER
NOTICE No. 1009

جمهورية مصر العربية

المهبة السامة للطرق و١١

17880

SEE IF YOU WEST OF NILE TO ALABAMA

THE UNIVERSITY OF CHICAGO PRESS

INVTRE:

7 FHECOR

مكتبة جامعة القاهرة
القاهرة - مصر

STATIONARY BAR SHOP DRAWING

| | |
|---------|----------|
| DATE | 11-20-22 |
| CHARGE | 11-20-22 |
| REMARKS | |

| | |
|--|----|
| | ma |
|--|----|

1. *Journal of the American Medical Association*, 1998; 279: 1001-1005.

150
Qm m m m m

Detail (1)
scale 1:25

150

1050 Outer Dia.

Detail (2)
scale 1:25

1050 Ocular Dia.

1mm
0.5mm
0.1mm

Excell (1)
scale 1:25

Detail III
scale 1:25

1055 Outer Dia.

Detail 13.
sofa 1:25

0945@C.L.
0945@C.L. Da

CONCRETE SPACER
(TYP)
CONCRETE COVER

24732
Section 11
scale 1:25

CONCRETE SPACER
(TYP)

CONCRETE COVER

CONCRETE SPACER (TYP)

CONCRETE COVER

24x25
Section 41
scale 1:25

CONCRETE SPACER
(TYP)

CONCRETE COVER

2412b
Section (5)
scale 1:25

CONCRETE SPACER
(TYP)

Section (b)

[illegible]

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G. = Normal Ground Level

[illegible]

| | | | |
|---|------------|-------|-----------------|
| 8 | 31-07-2022 | 12:45 | NOTICE No. 1068 |
|---|------------|-------|-----------------|

OWNER:

100

والسلامة

MEANS OF PROS

—

1000

END

DRAMIN

25

DN.

Abstract

Arab House of Engineering
 مؤسسة الهندسة العربية
 رقم الترخيص: ١٠٣٤٥٦٧٨٩
 رقم الهاتف: ٠١١٢٣٤٥٦٧٨٩
 رقم الفاكس: ٠١١٢٣٤٥٦٧٨٩

| | |
|-------|---------|
| Total | 5672.88 |
|-------|---------|

| Pile Diameter | Ø12 | Ø16 | Ø22 | Ø25 | Ø32 |
|------------------|--------|--------|--------|---------|---------|
| TOTAL LENGTH(M) | 678.47 | 213.69 | 233.39 | 577.2 | 288.04 |
| TOTAL WEIGHT(Kg) | 597.06 | 337.64 | 695.52 | 2222.22 | 1820.44 |

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.

- LENGTH OF PILE = 39 M BELOW GROUND LEVEL ACCORDING TO GEO-TECHNICAL REPORT.

REQUEST to POUR CONCRETE



| | | | | | | | | | | | |
|----------------------|--------------|------------|------------------|------|----|----|----|----|----|----|----|
| Contractor Company | | | Designer Company | | | | | | | | |
| Issued by Contractor | Name | Sign | Date | Time | | | | | | | |
| | | | 14/9/2022 | | | | | | | | |
| Received by ER | | محرم باخوم | CON | C1 | C2 | C3 | DD | MM | YY | HH | MM |
| Contractor Reference | النيل العامة | | | | | | | | | | |

| CODE-1 | S1 to S21
Station Reference | D1 to S3
Depot Reference | Kp XXX Note
For Kilometer point only Start Km is used |
|----------|--------------------------------|-----------------------------|--|
| CODE - 2 | Work Activity | | |
| CODE - 3 | Sub Element of Activity | | |

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

| | | | |
|------------------------------|---|-----------------------------------|---|
| Mix Approval Reference | | | |
| Location of Pour | Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (12)) | | |
| Concrete Type: | Grout Mix ☐ | Lean Mix ☐ | Structural Mix ☐ |
| Grade: 30 kg/cm ² | | | |
| PRESTART CHECKLIST | | | |
| IR Approved | | Plant & equipment available | |
| Mix Approved | | Back up equipment available | |
| Setting out Survey Approved | | Cast in items secure | |
| Temp Works Approved | | Access route clear | |
| Formwork Checked | | Work area safe to progress | |
| Start Time for Pour: 6:15 pm | Concrete Volume: 51 m3 | | |

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

| Item | Document No | Revision | Title | Number of Sheets |
|--------------|-------------|----------|--|------------------|
| 1 | | | COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS | |
| 2 | | | STEEL RFT SHOPDRAWING FOR PILES | |
| 3 | | | PILES COORDINATES | |
| Comments by: | | | Comments by: | |
| | | | | |

APPROVAL STATUS

| Organisation | Name | Sign | Date | A-AWC-R |
|-------------------------|------|------|-----------|---------|
| Contractor | | | | A |
| QA/QC | | | | A |
| Employer Representative | | | 14/9/2022 | A |



BAUER EGYPT



SYSTRA

ACE CONSULTING ENGINEERS
MOHAMMAD BAKHOUN

Bored Piles Construction

Pile Record Sheet

Pile Data

| | | | | | |
|---|---|------------------------|----------------------|------------------------|-----------|
| Project | ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE | | | | |
| Owner | MINISTRY OF TRANSPORT | | | Report No. | 16 |
| Subcontractor | GENERAL NILE COMPANY FOR
ROADS&BRIDGES | | | Date | 14/9/2022 |
| Pile No. | P12 | Structure | bridge | Pile Cutoff Level | - |
| Pier | P2 | Ground Level | 67.15 | Pile Toe Level | 28.237 |
| Theoretical Pile Length from caisson level | 40.18 m | Water Table Level | N/A | Permanent Casing Level | N/A |
| Req. Drilling Length From Ground Level | 38.91 m | Theoretical Concrete Q | 46.33 m ³ | Temporary Casing Level | 68.42 |
| Act. Drilling Length | 41 m | Act. Concrete Q | 51m ³ | Steel Top Level | 66.437 |
| Permanent Casing Dim.
L(m)×D(m)×Thick.
(mm) | N/A | Steel Cage | Circular piles | Hook Length | 1.98 |

Pile Survey

| | | |
|----------------|------------|------------|
| Coordinates | EAST | NORTH |
| Theoretical | 585432.305 | 830475.399 |
| Actual | 585432.308 | 830475.409 |
| BAUER Survivor | | |

Geotechnical Log

| | |
|------|------------|
| 0.0 | CAISSON L. |
| 5.0 | |
| 10.0 | |
| 15.0 | |
| 20.0 | |
| 25.0 | |
| 30.0 | |

Bentonite Slurry Test

| Properties | Fresh Bentonite | | Before Cages Installation | |
|-------------------------------|-----------------|--------|---------------------------|--------|
| | Req. Limits | Actual | Req. Limits | Actual |
| Density (gm/cm ³) | Less Than 1.1 | 1.02 | Less Than 1.5 | 1.03 |
| Viscosity(Sec.) | 30:70 Sec. | 34 | ≤90 Sec. | 38 |
| Sand Content % | Less than 4% | N/A | Less than 2% | 1.50 |

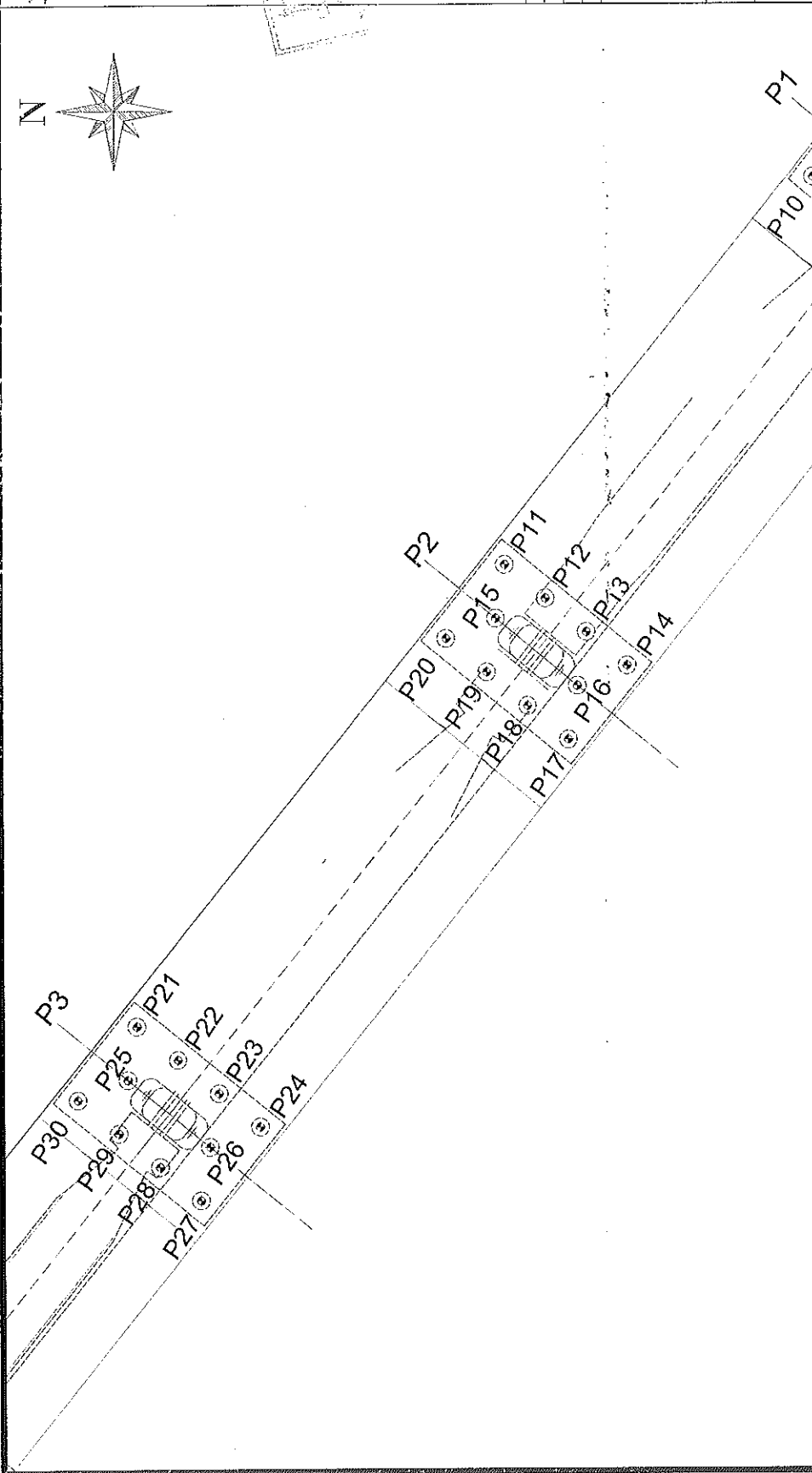
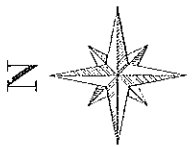
Time Survey

| Activity | Date | From | To | Activity | Date | From | To | Remarks |
|---------------|------|-------|-------|----------|------|-------|-------|---------|
| Drilling | 14/9 | 11:30 | 14:21 | Cleaning | - | - | - | |
| Install Cages | 14/9 | 13:37 | 17:26 | Pouring | 14/9 | 18:15 | 19:20 | |

| | | | |
|-----------|-------------|--------------|-------------------|
| | BAUER EGYPT | NILE COMPANY | OWNER/if Required |
| Signature | | | |

NOTES

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED
ALL COORDINATES ARE BASED ON ETM EGYPTIAN TRANSVERSE
MERCATOR AS PER THE RECEIVED SITE SURVEY.



| | | | |
|---|------|---|------|
| OWNER | | REGION | |
| NO. | DATE | NO. | DATE |
| ISSUED FOR CONSTRUCTION | | ISSUED FOR CONSTRUCTION | |
| PROJECT | | PROJECT | |
| SECTION THREE BRIDGE REST OF PILE TO A. 10. 10. 10. | | SECTION THREE BRIDGE REST OF PILE TO A. 10. 10. 10. | |
| NAME OF OWNER CONSULTANT | | NAME OF OWNER CONSULTANT | |
| NAME OF CONTRACTOR CONSULTANT | | NAME OF CONTRACTOR CONSULTANT | |
| NAME OF CONTRACTOR | | NAME OF CONTRACTOR | |
| REGIONAL TITLE | | REGIONAL TITLE | |
| FROM P1 - P3 | | FROM P1 - P3 | |
| DATE | | DATE | |
| DESIGNED BY | | DESIGNED BY | |
| CHECKED BY | | CHECKED BY | |
| APPROVED BY | | APPROVED BY | |
| SIGNATURE | | SIGNATURE | |
| DATE | | DATE | |

| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P21 | 585403.552 | 830503.439 | P3 |
| P22 | 585401.280 | 830500.647 | P3 |
| P23 | 585395.008 | 830497.855 | P3 |
| P24 | 585395.735 | 830495.063 | P3 |
| P25 | 585399.934 | 830504.063 | P3 |
| P26 | 585395.389 | 830498.478 | P3 |
| P27 | 585391.771 | 830499.102 | P3 |
| P28 | 585394.044 | 830501.894 | P3 |
| P29 | 585396.316 | 830504.687 | P3 |
| P30 | 585395.588 | 830507.479 | P3 |

| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P11 | 585434.577 | 830478.191 | P2 |
| P12 | 585432.305 | 830475.399 | P2 |
| P13 | 585430.032 | 830472.607 | P2 |
| P14 | 585427.760 | 830469.814 | P2 |
| P15 | 585430.959 | 830478.815 | P2 |
| P16 | 585426.414 | 830473.230 | P2 |
| P17 | 585422.796 | 830473.854 | P2 |
| P18 | 585425.068 | 830476.646 | P2 |
| P19 | 585427.341 | 830479.439 | P2 |
| P20 | 585429.613 | 830482.231 | P2 |

| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P1 | 585465.602 | 830452.943 | P1 |
| P2 | 585463.329 | 830450.151 | P1 |
| P3 | 585461.057 | 830447.358 | P1 |
| P4 | 585458.785 | 830444.566 | P1 |
| P5 | 585461.983 | 830453.567 | P1 |
| P6 | 585457.439 | 830447.982 | P1 |
| P7 | 585453.821 | 830448.606 | P1 |
| P8 | 585456.093 | 830451.398 | P1 |
| P9 | 585458.365 | 830454.190 | P1 |
| P10 | 585460.638 | 830456.983 | P1 |

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائى السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : B12 خازوق
Dimension : 15*15*15 cm
Date of casting : 14/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

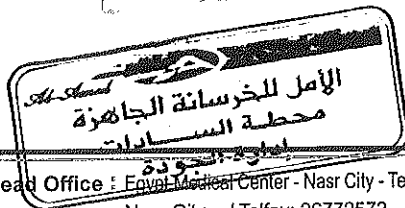
| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 14/09/2022 | 12/10/2022 | 28 | 8.481 | 121100 | 538 | 566 |
| 2 | 14/09/2022 | 12/10/2022 | 28 | 8.532 | 126800 | 564 | |
| 3 | 14/09/2022 | 12/10/2022 | 28 | 8.564 | 134200 | 596 | |

التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد عرابى
مدير المصنع



[Signature]

[Signature]

تامر الحام

[Signature]

Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - / Telfax: 26772572 - 23573307

Planet : New Cairo - Katamia - Ppart 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت: ٢٩٨٤١١٣٦ / ف: ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت: ٠٤٨ / ٢٦٣٠١٤٠ - ف: ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

الإدارة

موقع العمل



Al Amal Ready mix

الأمل

للخرسانة الجاهزة ش.م.م.
رأس المال المصرى به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائى السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B12
Dimension : 15*15*15 cm
Date of casting : 14/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 14/09/2022 | 21/09/2022 | 7 | 8.706 | 93270 | 415 | 496 |
| 2 | 14/09/2022 | 21/09/2022 | 7 | 8.652 | 115900 | 515 | |
| 3 | 14/09/2022 | 21/09/2022 | 7 | 8.609 | 125300 | 557 | |

التوقيع:
مهندس / أحمد عربى
مدير المصنع

الاستشارى
[Signature]

جودة المشروع
[Signature]

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

[illegible]

ABBREVIATION:

-T.O.A = Top of Asphalt
-T.O.C = Top of Column
-T.O.P = Top of Pile Cap/Pile
-T.O.B = Top of Bearing
-T.O.F = Top of Frame
-N.G.L = Normal Ground Level

| | |
|------------------------|---------------|
| REGINA ROAD BRIDGE | CC:010101-001 |
| GARBRIEL NOTES | |
| ADDITIONAL DESCRIPTION | |
| REGINA ROAD BRIDGE | CC:010102-001 |
| SUBSTRUCTURE | |

Arab House of Engineering
Tel: 02027934135

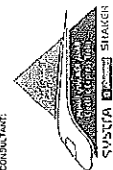
| NO. | DATE | TIME | NAME | ISSUED FOR COURSE INSTRUCTIONS AND MATERIALS
NOTICE NO. 1010 | REVISION |
|-----|---------|------|------|---|----------|
| 1 | 10-1-68 | | | | |
| 2 | 10-1-68 | | | | |
| 3 | 10-1-68 | | | | |
| 4 | 10-1-68 | | | | |
| 5 | 10-1-68 | | | | |
| 6 | 10-1-68 | | | | |
| 7 | 10-1-68 | | | | |
| 8 | 10-1-68 | | | | |
| 9 | 10-1-68 | | | | |
| 10 | 10-1-68 | | | | |
| 11 | 10-1-68 | | | | |
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| 14 | 10-1-68 | | | | |
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| 62 | 10-1-68 | | | | |
| 63 | 10-1-68 | | | | |
| 64 | 10-1-68 | | | | |

[illegible]


 جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للنقل والكابري
 والنقل الجوي
 CASRI

 ١٩٩٤
 ١٩٩٤

NAME OF PROJECT: ELECTRICAL EXPRESS TOWEN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF NILE TO ALAYASH)

[illegible]

THE FUTURE OF CONSTRUCTION CONSULTING

V **FHECOR** 
Ingenieros Consultores



DWG. TITLE: AEGWA ROAD BRIDGE

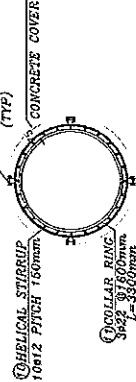
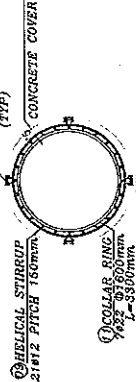
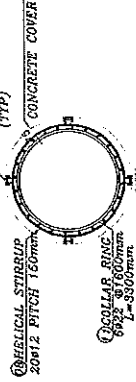
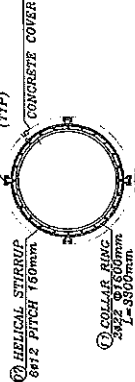
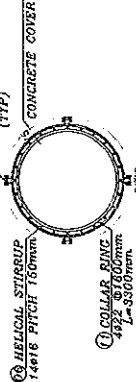
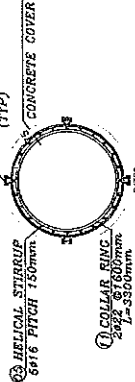
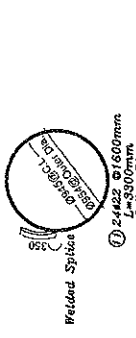
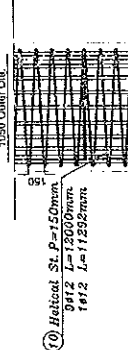
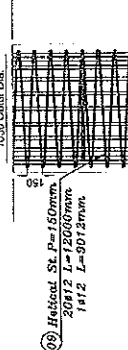
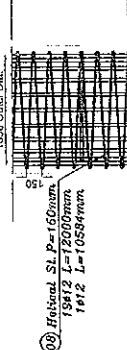
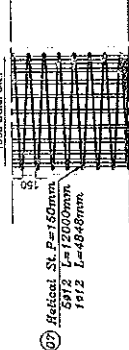
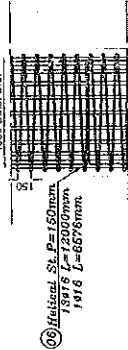
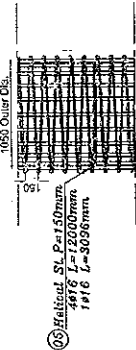
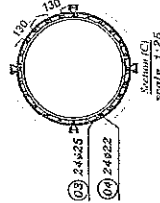
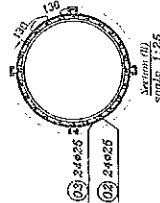
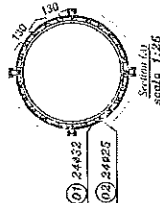
PILES AT AXES (P1, P28-3)

OWC NO. _____ DATE: _____ SCALE: _____

| | | |
|-------------|-------------|-------------|
| DRAWING BY: | CHECKED BY: | REVISED BY: |
| 00-2922 | | |
| AS SHOWN | | |

| | | | |
|------------------------|--|--|------------|
| ALVIN C. GIBSON & SONS | | | MAR 6 1907 |
|------------------------|--|--|------------|

| | |
|-------------------------------------|------------------------------------|
| APPROVED BY:
Eug. Javier Tulecio | SUPERVISOR:
DR. MARIANO LUSTINO |
|-------------------------------------|------------------------------------|



REQUEST to POUR CONCRETE



| | | | | | | | | | | | |
|----------------------|--------------|------------|------------------|------|----|----|----|----|----|----|----|
| Contractor Company | | | Designer Company | | | | | | | | |
| Issued by Contractor | Name | Sign | Date | Time | | | | | | | |
| | | | 19/9/2022 | | | | | | | | |
| Received by ER | | محرم باخوم | CON | C1 | C2 | C3 | DD | MM | YY | HH | MM |
| Contractor Reference | النيل العامة | | | | | | | | | | |

| CODE-1 | S1 to S21
Station Reference | D1 to S3
Depot Reference | Kp XXX Note
For Kilometer point only Start Km is used |
|--------|--------------------------------|-----------------------------|--|
| CODE-2 | Work Activity | | |
| CODE-3 | Sub Element of Activity | | |

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

| | | | |
|-----------------------------|--|-----------------------------------|---|
| Mix Approval Reference | | | |
| Location of Pour | Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (13)) | | |
| Concrete Type: | Grout Mix ☐ | Lean Mix ☐ | Structural Mix ☐ |
| Grade: | 330 kg/cm ² | | |
| PRESTART CHECKLIST | | | |
| IR Approved | | Plant & equipment available | |
| Mix Approved | | Back up equipment available | |
| Setting out Survey Approved | | Cast in items secure | |
| Temp Works Approved | | Access route clear | |
| Formwork Checked | | Work area safe to progress | |
| Start Time for Pour: | 4 pm | Concrete Volume: | 51 m3 |

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

| Item | Document No | Revision | Title | Number of Sheets |
|--------------|-------------|--------------|--|------------------|
| 1 | | | COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS | |
| 2 | | | STEEL RFT SHOPDRAWING FOR PILES | |
| 3 | | | PILES COORDINATES | |
| Comments by: | | Comments by: | | |
| | | | | |

APPROVAL STATUS

| Organisation | Name | Sign | Date | A-AWC-R |
|-------------------------|------|------|-----------|---------|
| Contractor | | | | A |
| QA/QC | | | | A |
| Employer Representative | | | 19/9/2022 | A |



SYSTRA

ACE CONSULTING ENGINEERS
MOHARRAM BAKHOM

Bored Piles Construction

Pile Record Sheet

Pile Data

| Project | ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE | | | | |
|---|---|------------------------|----------------------|------------------------|-----------|
| Owner | MINISTRY OF TRANSPORT | | | Report No. | 20 |
| Subcontractor | GENERAL NILE COMPANY FOR
ROADS&BRIDGES | | | Date | 19/9/2022 |
| Pile No. | P13 | Structure | bridge | Pile Cutoff Level | - |
| Pier | P2 | Ground Level | 67.15 | Pile Toe Level | 28.237 |
| Theoretical Pile Length from caisson level | 40.08 m | Water Table Level | N/A | Permanent Casing Level | N/A |
| Req. Drilling Length From Ground Level | 38.91 m | Theoretical Concrete Q | 46.33 m ³ | Temporary Casing Level | 68.322 |
| Act. Drilling Length | 41 m | Act. Concrete Q | 51 m ³ | Steel Top Level | 66.437 |
| Permanent Casing Dim.
L(m)×D(m)×Thick.
(mm) | N/A | Steel Cage | Circular piles | Hook Length | 1.88 |

Pile Survey

| Coordinates | EAST | NORTH |
|----------------|------------|------------|
| Theoretical | 585430.032 | 830472.607 |
| Actual | 585430.043 | 830472.625 |
| BAUER Survivor | | |

Bentonite Slurry Test

| Properties | Fresh Bentonite | | Before Cages Installation | |
|-------------------------------|-----------------|--------|---------------------------|--------|
| | Req. Limits | Actual | Req. Limits | Actual |
| Density (gm/cm ³) | Less Than 1.1 | 1.02 | Less Than 1.5 | 1.06 |
| Viscosity(Sec.) | 30:70 Sec. | 33 | ≤90 Sec. | 37 |
| Sand Content % | Less than 4% | N/A | Less than 2% | 1.50 |

Geotechnical Log

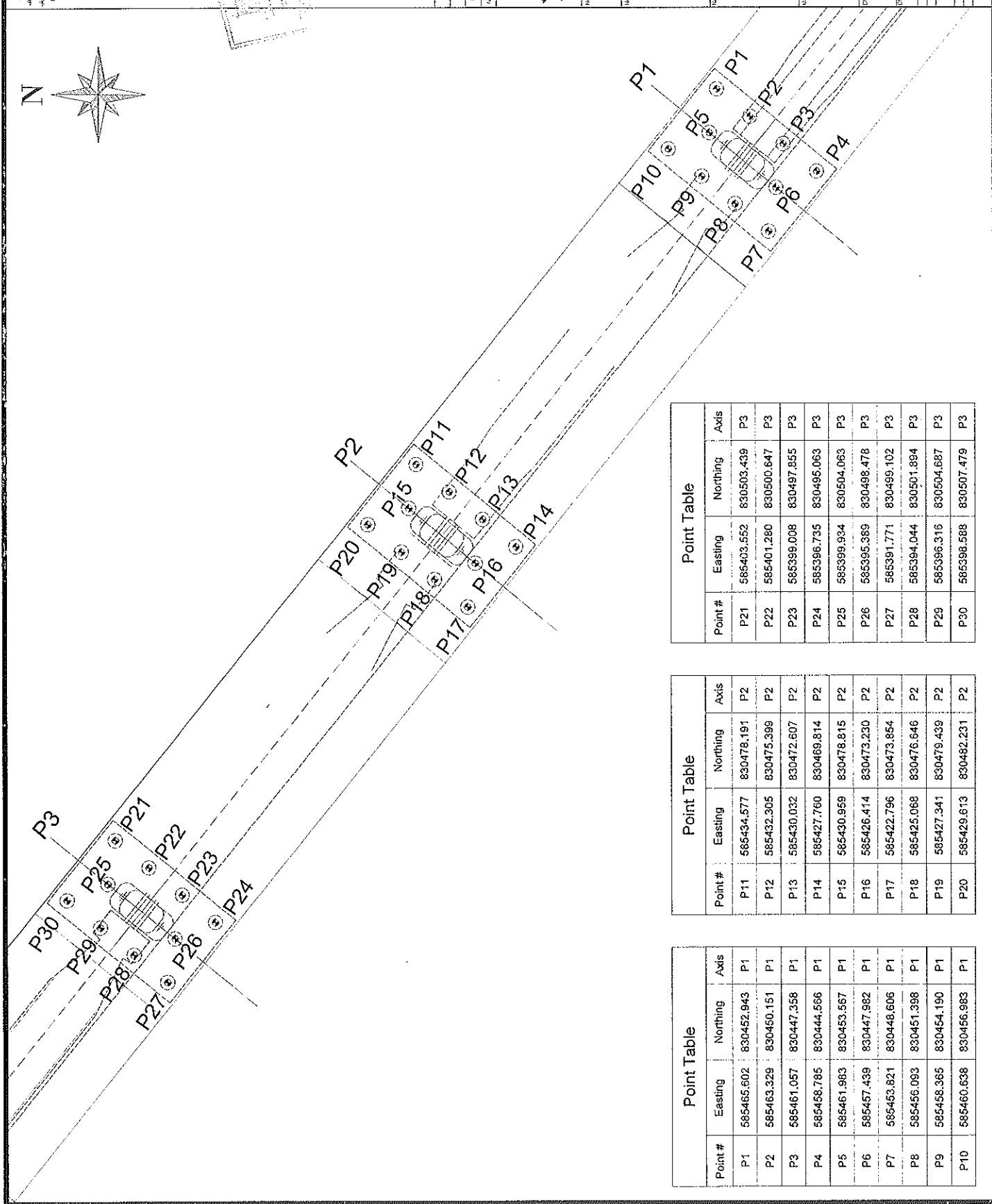
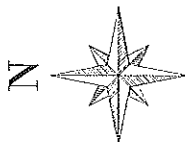
| 0.0 | CAISSON L. |
|------|------------|
| 5.0 | |
| 10.0 | |
| 15.0 | |
| 20.0 | |
| 25.0 | |
| 30.0 | |

Time Survey

| Activity | Date | From | To | Activity | Date | From | To | Remarks |
|---------------|------|-------|-------|----------|------|-------|-------|---------|
| Drilling | 19/9 | 6:00 | 9:00 | Cleaning | - | - | - | |
| Install Cages | 19/9 | 12:00 | 15:10 | Pouring | 19/9 | 16:00 | 17:00 | |

| | BAUER EGYPT | NILE COMPANY | OWNER/if Required |
|-----------|-------------|--------------|-------------------|
| Signature | | | |

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON THE EGYPTIAN TRANSVERSE
MERCATOR AS PER THE RECEIVED SITE SURVEY.



| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P1 | 585465.602 | 830452.943 | P1 |
| P2 | 585463.329 | 830450.151 | P1 |
| P3 | 585461.057 | 830447.358 | P1 |
| P4 | 585458.785 | 830444.566 | P1 |
| P5 | 585461.983 | 830453.587 | P1 |
| P6 | 585457.439 | 830447.982 | P1 |
| P7 | 585453.821 | 830448.606 | P1 |
| P8 | 585456.093 | 830451.398 | P1 |
| P9 | 585458.365 | 830454.190 | P1 |
| P10 | 585460.638 | 830456.983 | P1 |

| Point Table | | |
|-------------|------------|------------|
| Point # | Easting | Northing |
| P11 | 585434.577 | 830478.191 |
| P12 | 585432.305 | 830475.399 |
| P13 | 585430.032 | 830472.607 |
| P14 | 585427.760 | 830469.814 |
| P15 | 585430.959 | 830478.815 |
| P16 | 585426.414 | 830473.230 |
| P17 | 585422.796 | 830473.854 |
| P18 | 585425.068 | 830476.646 |
| P19 | 585427.341 | 830479.439 |
| P20 | 585429.613 | 830482.231 |

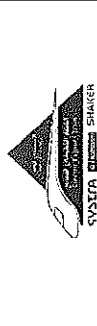
| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P21 | 585403.552 | 830503.459 | P3 |
| P22 | 585401.280 | 830500.647 | P3 |
| P23 | 585399.008 | 830497.855 | P3 |
| P24 | 585396.735 | 830495.063 | P3 |
| P25 | 585399.934 | 830504.063 | P3 |
| P26 | 585395.389 | 830498.478 | P3 |
| P27 | 585391.771 | 830499.102 | P3 |
| P28 | 585394.044 | 830501.894 | P3 |
| P29 | 585396.316 | 830504.687 | P3 |
| P30 | 585398.598 | 830507.479 | P3 |

| | | | |
|---|----------|------|-------------------------|
| NO. | DATE | ENG. | ISSUED FOR CONSTRUCTION |
| 10 | 02/02/20 | | |
| | | | REVISION |
| <div style="text-align: right;"> 11
 10
 9
 8
 7
 6
 5
 4
 3
 2
 1 </div> | | | |


جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للنقل والكابري
والنقل البري
وزارة النقل
مصر العربية

NAME OF PROJECT:
ELECTRICAL EXPRESS TRAIN HIGH SPEED RAIL,
SECTION THREE (FROM WEST OF NEE TO ALBANY)

BOARD OF CANCER CONSULTANT



NAME OF CONTRACTOR/CONSULTANT

FEV
Ingenieros Consultores



FIG. TITLE

| | | | | | |
|------|----------------------|--------------------|-------------------|------------|-------|
| NO.: | PC-00 | DATE | 08/02/11 | SOURCE | 11/11 |
| | DRAWN BY | DESIGNED BY | | CHECKED BY | |
| | Eng. Khalid Alwa | Eng. Mansour Saleh | | | |
| | SUPERVISOR | | APPROVED BY | | |
| | DR. Mahmoud Lashkari | | Eng. Abdel Fattah | | |



Al Amal Ready mix

الأمل

للخرسانة الجاهزة ش.م.م
رأس المال المزدحم به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B13
Dimension : 15*15*15 cm
Date of casting : 19/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 19/09/2022 | 26/09/2022 | 7 | 8.505 | 91240 | 406 | 466 |
| 2 | 19/09/2022 | 26/09/2022 | 7 | 8.546 | 113800 | 506 | |
| 3 | 19/09/2022 | 26/09/2022 | 7 | 8.658 | 109400 | 486 | |

التوقيع:
مهندس / أحمد عربى
مدير المصنع

الاستشارى
[Signature]

جودة المشروع
[Signature]

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Katamia - Part 82 - 83

Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤١٠٩٠
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائى السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B13
Dimension : 15*15*15 cm
Date of casting : 19/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 19/09/2022 | 17/10/2022 | 28 | 8.498 | 136400 | 606 | 633 |
| 2 | 19/09/2022 | 17/10/2022 | 28 | 8.537 | 142500 | 633 | |
| 3 | 19/09/2022 | 17/10/2022 | 28 | 8.599 | 148600 | 660 | |

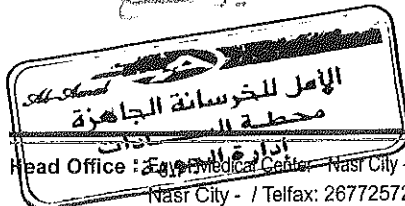
التوقيع:

الاستشارى

جودة المشروع

مهندس / احمد عمر ابى

مدير المصنع



الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧) : Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٦٧٧٢٥٧٢ : Nasr City - / Telfax: 26772572 - 23573307
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣ : Planet : New Cairo - Katamia - Pfar 82 - 83
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦ : Tel.: 29841136 / Fax.: 29840109
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٧٧٨٥٥٥٩٦ : 01227855596 - 01068844170 - 01006033860
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥ : El Sadat City - Industrial Zone (7) - Part 7003 - 7005
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠ : Tel.: 048 2630145 / Fax.: 048 2630140
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣ : 01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

[illegible]

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- M.G.L = Mean Ground Level

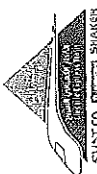
MEOWA ROAD BRIDGE
GENERAL NOTES
APPLICANT 1. DEFINITION

| | | | | | | |
|---|----------|------|--|--|-----------------|----------|
| 0 | 31-00002 | MASS | ISSUED FOR CONSTRUCTION AS PER THE NEW | | NOTICE NO. 104# | REVISION |
|---|----------|------|--|--|-----------------|----------|


 وزارة النقل
 الجمهورية العربية السورية
 ARAB REPUBLIC OF EGYPT
 MINISTRY OF TRANSPORT
 AND COMMUNICATIONS
 وزارة النقل
 الجمهورية العربية السورية
 ARAB REPUBLIC OF EGYPT
 MINISTRY OF TRANSPORT
 AND COMMUNICATIONS

NAME OF PROJECT: ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF MILE TO ALABAMA)

NAME OF OWNER CONSULTANT:



WJCC

FHECOR 
Ingenieros Consultores

100



OWG. TITLE. REDWA ROAD BRIDGE. 011 ES AT AXES 101 172303

PILE REINFORCEMENT BARS SHOP DRAWING

| | | | |
|------------|----------------------------|----------|---------------|
| DATE: | 08-2022 | AS SHOWN | DISCLOSED BY: |
| BY: | MYRAH DORRIS-10-0001416-20 | | |
| REASONING: | | | |

| | | | |
|---|-------------------|------------------------|----------------|
| 2 | CHQ, Estaji Faray | ENG. Abdullahi Mathien | ENG. Mamdouh S |
|---|-------------------|------------------------|----------------|

| | |
|--------------|-------------|
| APPROVED BY: | SUPERVISOR: |
| APPROVED BY: | SUPERVISOR: |

U.S. GOVERNMENT PRINTING OFFICE: 1974

Arab House of Engineering
مركز الدراسات والبحوث الهندسية
P.O. Box 60798, Jeddah 21566, Saudi Arabia
Tel: +966(0)2433 20000
Fax: +966(0)2433 20000

| BAR MARK | BAR DIA. | SYMBOL(mm.) | NUMBER QTY | LENGTH (mm.) | TOTAL WEIGHT (Kg) |
|----------|----------|--|------------|---------------|-------------------|
| 01 | 32 |  | 24 | 12000 | 1820.44 |
| 02 | 25 |  | 24 | 12000 | 1111.11 |
| 03 | 25 |  | 24 | 12000 | 1111.11 |
| 04 | 22 |  | 24 | 6400 | 458.90 |
| 05 | 16 |  | 4+1 | 12000 + 3096 | 75.85 + 4.89 |
| 06 | 16 |  | 13+1 | 12000 + 6576 | 246.51 + 10.39 |
| 07 | 12 |  | 5+1 | 12000 + 4848 | 53.33 + 4.30 |
| 08 | 12 |  | 19+1 | 12000 + 10584 | 202.66 + 9.40 |
| 09 | 12 |  | 20+1 | 12000 + 9012 | 213.33 + 8.01 |
| 10 | 12 |  | 9+1 | 12000 + 11292 | 96.00 + 10.03 |
| 11 | 22 |  | 24 | 3300 | 236.62 |

| | |
|-------|---------|
| Total | 5672.88 |
|-------|---------|

| Pile Diameter | Ø12 | Ø16 | Ø22 | Ø25 | Ø32 |
|------------------|--------|--------|--------|---------|---------|
| TOTAL LENGTH(M) | 678.47 | 213.69 | 233.39 | 577.2 | 288.04 |
| TOTAL WEIGHT(Kg) | 597.06 | 337.64 | 695.52 | 2222.22 | 1820.44 |

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.
- LENGTH OF PILE = 30 M BELOW GROUND LEVEL ACCORDING TO GEO-TECHNICAL REPORT.

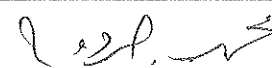
REQUEST to POUR CONCRETE



| | | | | |
|----------------------|---|---|------------------|---|
| Contractor Company |  | | Designer Company |  |
| Issued by Contractor | Name | Sign | Date | Time |
| | |  | 5/9/2022 | |
| Received by ER | | محرم باخوم | CON | |
| Contractor Reference | النيل العامة | | | |

| CODE - 1 | S1 to S21
Station Reference | D1 to S3
Depot Reference | Kp XXX Note
For Kilometer point only Start Km is used |
|----------|--------------------------------|-----------------------------|--|
| CODE - 2 | Work Activity | | |
| CODE - 3 | Sub Element of Activity | | |

| | | | | |
|---|--|-----------------------------------|--|------------------------------|
| THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW | | | | |
| Mix Approval Reference | | | | |
| Location of Pour | Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (14)) | | | |
| Concrete Type: | Grout Mix ☐ | Lean Mix ☐ | Structural Mix ☐ | Grade: 30 kg/cm ² |
| PRESTART CHECKLIST | | | | |
| IR Approved | | Plant & equipment available | | |
| Mix Approved | | Back up equipment available | | |
| Setting out Survey Approved | | Cast in items secure | | |
| Temp Works Approved | | Access route clear | | |
| Formwork Checked | | Work area safe to progress | | |
| Start Time for Pour: 7:02 pm | | | Concrete Volume: 51 m ³ | |
| THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW | | | | |
| Item | Document No | Revision | Title | Number of Sheets |
| 1 | | | COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS | |
| 2 | | | STEEL RFT SHOPDRAWING FOR PILES | |
| 3 | | | PILES COORDINATES | |
| Comments by: | | | Comments by: | |
| | | | | |

| | | | | |
|-------------------------|---|--|----------|---------|
| APPROVAL STATUS | | | | |
| Organisation | Name | Sign | Date | A-AWC-R |
| Contractor | |  | | A |
| QA/QC | | | | A |
| Employer Representative |  |  | 5/9/2022 | A |



EGYPT



SYSTEMA

ACE CONSULTING ENGINEERS
MOHAB RAM BAKHOM

Bored Piles Construction

Pile Record Sheet

Pile Data

| | | | | | |
|---|---|------------------------|----------------------|------------------------|----------|
| Project | ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE | | | | |
| Owner | MINISTRY OF TRANSPORT | | | Report No. | 8 |
| Subcontractor | GENERAL NILE COMPANY FOR
ROADS&BRIDGES | | | Date | 5/9/2022 |
| Pile No. | P14 | Structure | bridge | Pile Cutoff Level | - |
| Pier | P2 | Ground Level | 67.15 | Pile Toe Level | 28.237 |
| Theoretical Pile Length from caisson level | 40.21 m | Water Table Level | N/A | Permanent Casing Level | N/A |
| Req. Drilling Length From Ground Level | 38.91 m | Theoretical Concrete Q | 46.33 m ³ | Temporary Casing Level | 68.453 |
| Act. Drilling Length | 41 m | Act. Concrete Q | 51 m ³ | Steel Top Level | 66.437 |
| Permanent Casing Dim. L(m)×D(m)×Thick. (mm) | N/A | Steel Cage | Circular piles | Hook Length | 2 m |

Pile Survey

| | | |
|----------------|------------|------------|
| Coordinates | EAST | NORTH |
| Theoretical | 585427.760 | 830469.814 |
| Actual | 585427.772 | 830469.817 |
| BAUER Survivor | | |

Geotechnical Log

| 0.0 | CAISSON L. |
|------|------------|
| 5.0 | |
| 10.0 | |
| 15.0 | |
| 20.0 | |
| 25.0 | |
| 30.0 | |

Bentonite Slurry Test

| Properties | Fresh Bentonite | | Before Cages Installation | |
|-------------------------------|-----------------|--------|---------------------------|--------|
| | Req. Limits | Actual | Req. Limits | Actual |
| Density (gm/cm ³) | Less Than 1.1 | 1.03 | Less Than 1.5 | 1.06 |
| Viscosity(Sec.) | 30:70 Sec. | 34 | ≤90 Sec. | 40 |
| Sand Content % | Less than 4% | N/A | Less than 2% | 1 |

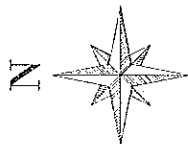
Time Survey

| Activity | Date | From | To | Activity | Date | From | To | Remarks |
|---------------|------|-------|-------|----------|------|-------|-------|---------|
| Drilling | 5/9 | 10:22 | 15:28 | Cleaning | - | - | - | |
| Install Cages | 5/9 | 16:50 | 18:07 | Pouring | 5/9 | 19:02 | 20:05 | |

| | | | |
|-----------|-------------|--------------|-------------------|
| | BAUER EGYPT | NILE COMPANY | OWNER/if Required |
| Signature | | | |

NOTES:

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED
ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE
MERIDIAN AS PER THE RECEIVED SITE SURVEY.

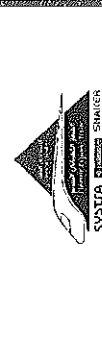


| NO. | DATE | ISSUED FOR CONSTRUCTION |
|-----|------|-------------------------|
| 1 | 2023 | FOR CONSTRUCTION |

REMARKS:
FOR CONSTRUCTION
MINISTRY OF TRANSPORT AND PUBLIC WORKS
REPUBLIC OF EGYPT
GENERAL CONTRACTOR
GENERAL CONTRACTOR

NAME OF PROJECT
ELECTRICITY EXPRESS TRAIN HIGH SPEED RAIL
SECTION THREE (FROM WEST OF HELI TO AL-KHAYMA)

NAME OF OWNER CONSULTANT
SYSTEM ENGINEERING

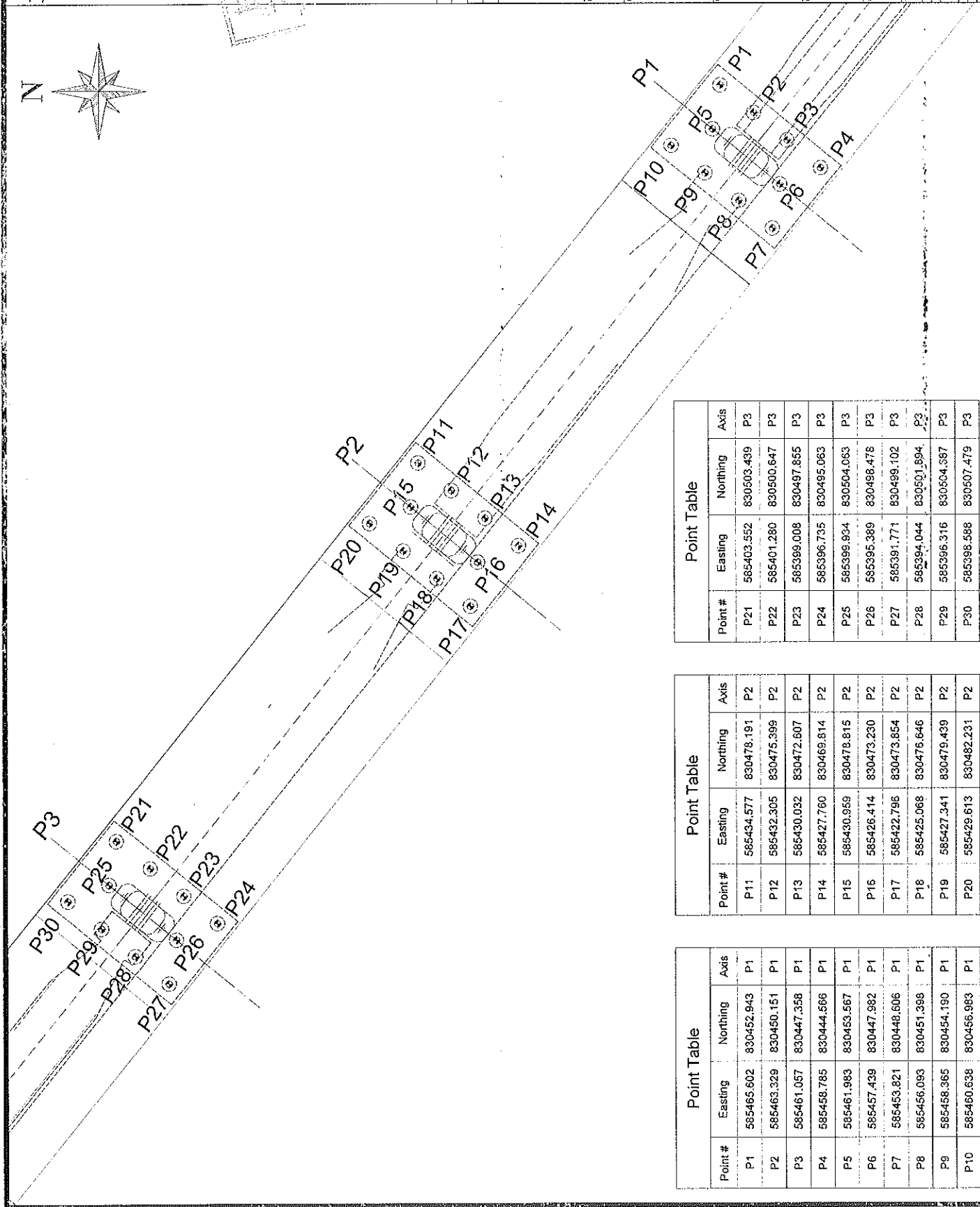


NAME OF CONTRACTOR CONSULTANT
FHECOR Ingenieros Consultores

NAME OF CONTRACTOR
FHECOR Ingenieros Consultores



| PILES COORDINATES FOR APPROVED AXIS
FROM P1 - P3 | |
|---|-------------|
| DATE | SCALE |
| 2023 | 1:100 |
| DRAWING BY | CHECKED BY |
| ENGINNER | ENGINNER |
| SUPERVISOR | APPROVED BY |
| ENGINNER | ENGINNER |



| Point # | Easting | Northing | Axis |
|---------|------------|------------|------|
| P21 | 585403.552 | 830503.439 | P3 |
| P22 | 585401.280 | 830500.647 | P3 |
| P23 | 585399.008 | 830497.855 | P3 |
| P24 | 585396.735 | 830495.063 | P3 |
| P25 | 585395.934 | 830504.063 | P3 |
| P26 | 585395.389 | 830488.478 | P3 |
| P27 | 585391.771 | 830499.102 | P3 |
| P28 | 585394.044 | 830501.894 | P3 |
| P29 | 585395.316 | 830504.587 | P3 |
| P30 | 585395.588 | 830507.479 | P3 |

| Point # | Easting | Northing | Axis |
|---------|------------|------------|------|
| P11 | 585434.577 | 830478.191 | P2 |
| P12 | 585432.305 | 830475.399 | P2 |
| P13 | 585430.032 | 830472.607 | P2 |
| P14 | 585427.760 | 830469.814 | P2 |
| P15 | 585430.959 | 830478.815 | P2 |
| P16 | 585426.414 | 830473.230 | P2 |
| P17 | 585422.796 | 830473.854 | P2 |
| P18 | 585425.068 | 830476.646 | P2 |
| P19 | 585427.341 | 830479.439 | P2 |
| P20 | 585429.613 | 830482.231 | P2 |

| Point # | Easting | Northing | Axis |
|---------|------------|------------|------|
| P1 | 585465.602 | 830452.943 | P1 |
| P2 | 585463.329 | 830450.151 | P1 |
| P3 | 585461.057 | 830447.358 | P1 |
| P4 | 585458.785 | 830444.566 | P1 |
| P5 | 585461.983 | 830453.567 | P1 |
| P6 | 585457.439 | 830447.982 | P1 |
| P7 | 585453.821 | 830448.606 | P1 |
| P8 | 585456.093 | 830451.398 | P1 |
| P9 | 585458.365 | 830454.190 | P1 |
| P10 | 585460.638 | 830456.983 | P1 |

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

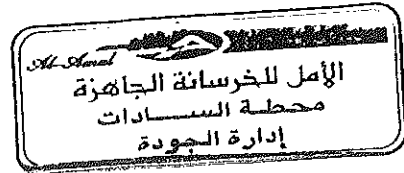
PROJECT : مشروع القطار الكهربائى السريع (كوبرى وادى النطرون)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B14
Dimension : 15*15*15 cm
Date of casting : 05/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 05/09/2022 | 12/09/2022 | 7 | 8.440 | 103700 | 461 | 454 |
| 2 | 05/09/2022 | 12/09/2022 | 7 | 8.580 | 107300 | 477 | |
| 3 | 05/09/2022 | 12/09/2022 | 7 | 8.382 | 95780 | 426 | |

التوقيع:

مهندس / أحمد عرابى
مدير المصنع

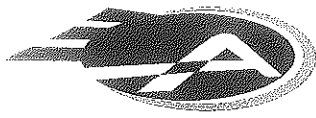
مركز هليوبوليس



تأشير العام

الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧) : ٢٣٥٧٢٣٠٧ - ٢٦٧٧٢٥٧٢
Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
Nasr City - / Telfax: 26772572 - 23573307
Planet : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax.: 29840109
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Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣ : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥ : ٠٤٨ / ٢٦٣٠١٤٥ / ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المخصص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : B14 خازوق
Dimension : 15*15*15 cm
Date of casting : 04/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 04/09/2022 | 02/10/2022 | 28 | 8.647 | 121900 | 542 | 524 |
| 2 | 04/09/2022 | 02/10/2022 | 28 | 8.659 | 117600 | 523 | |
| 3 | 04/09/2022 | 02/10/2022 | 28 | 8.477 | 114000 | 507 | |

التوقيع:

الأستشارى

جودة المشروع

مهندس / أحمد عرابى

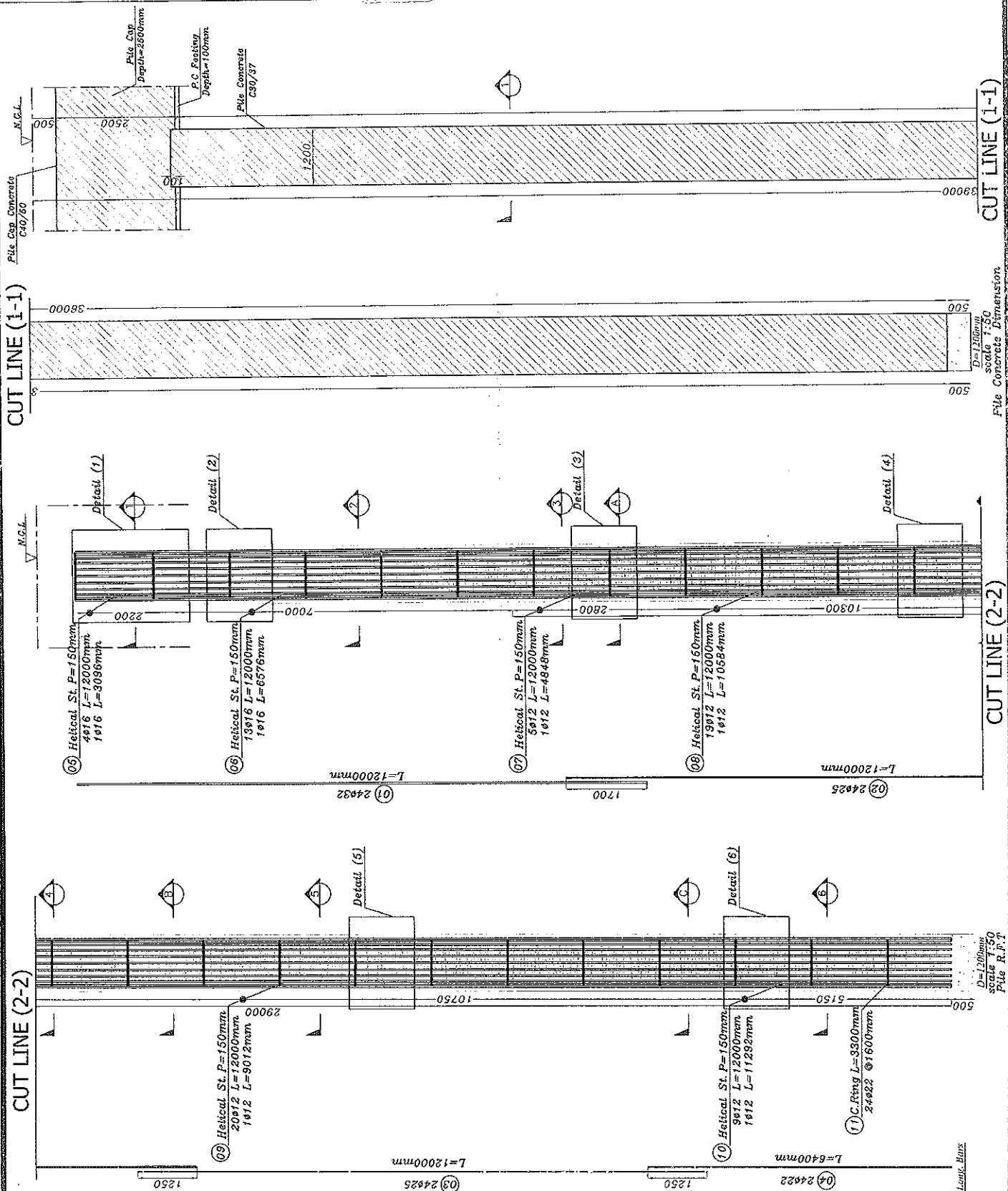
مدير المصنع

توقيع

توقيع

توقيع

الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧).
Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
Nasr City - / Telfax: 26772572 - 23573307
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
Planet : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax.: 29840109
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
٢٩٨٤٠١٠٩ : ف / ٢٩٨٤١١٣٦
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مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٥ - ٧٠٠٣
٠٤٨ / ٢٦٣٠١٤٠ : ف - ٠٤٨ / ٢٦٣٠١٤٥ : ت
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣
E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

[illegible]

ABBREVIATION :
 -T.O.A = Top of A
 -T.O.C = Top of C
 -T.O.P = Top of P
 -T.O.B = Top of B
 -T.O.F = Top of F
 -N.C.I = Normal C

DRAWING REFERENCES:
SHE-VDBI-CC-010-001-NOT
SME-VDBI-CC-210-002-ME-5

Saudi House of Engineering

الجمعية السعودية للمهندسين
Saudi Society of Engineers

Tel : +966-11-8077333 Fax : +966-11-8077334

www.sse.org.sa

| NO. | DATE | ENG. | ENG. | ISSUED FOR CONSTRUCTION AT PER REVIEW
NOTICE NO. 1049 |
|-----|---------|------|------|--|
| 9 | 7/10/84 | | | |


 جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للنقل والكابري
 والنقل البري

NAME OF PROJECT: ELECTRICAL EXPRESS TRAIN (HIGH SPEED JUNG)
SECTION THREE (FROM WEST OF MILC TO ALABAMA)

NAME OF OWNER CONSULTANT:




FHECOR
 Ingenieros Consultores



DWG. TITLE: RECHA ROAD BRIDGE
PILES AT AXES (#1,2,3)
PILE REINFORCEMENT BARS SHOP DRAWING

| | | |
|--|---------------------------------------|---------------------------------|
| WORK NO.:
10482-101-30-110-01-101-009 | DATE:
09-2002 | SCALE: |
| DRAWING BY:
ENG. Ismail Farzy | CHECKED BY:
ENG. Abdullatif Mawani | REVISED BY:
ENG. Mawani S.A. |
| 4 | | 100 |

| | |
|----------------------|-----------------|
| SUPERVISOR | APPROVED BY: |
| DR. Raymond Williams | Casey J. Taylor |

REQUEST to POUR CONCRETE



| | | | | | | | | | | | | | | | | | | | | |
|----------------------|--------------|------------|------------------|---|----|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|
| Contractor Company | | | Designer Company | | | | | | | | | | | | | | | | | |
| Issued by Contractor | Name | Sign | Date | Time | | | | | | | | | | | | | | | | |
| | | | 11/9/2022 | | | | | | | | | | | | | | | | | |
| Received by ER | | محرم باخوم | CON | <table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | C1 | C2 | C3 | DD | MM | YY | HH | MM | | | | | | | | |
| C1 | C2 | C3 | DD | MM | YY | HH | MM | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| Contractor Reference | النيل العامة | | | | | | | | | | | | | | | | | | | |

| CODE-1 | S1 to S21
Station Reference | D1 to S3
Depot Reference | Kp XXX Note
For Kilometer point only Start Km is used |
|--------|--------------------------------|-----------------------------|--|
| CODE-2 | Work Activity | | |
| CODE-3 | Sub Element of Activity | | |

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

| | | | |
|------------------------------|---|-----------------------------------|---|
| Mix Approval Reference | | | |
| Location of Pour | Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (15)) | | |
| Concrete Type: | Grout Mix ☐ | Lean Mix ☐ | Structural Mix ☐ Grade: 350 kg/cm ² |
| PRESTART CHECKLIST | | | |
| IR Approved | | Plant & equipment available | |
| Mix Approved | | Back up equipment available | |
| Setting out Survey Approved | | Cast in items secure | |
| Temp Works Approved | | Access route clear | |
| Formwork Checked | | Work area safe to progress | |
| Start Time for Pour: 9:20 pm | Concrete Volume: 51 m3 | | |

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

| Item | Document No | Revision | Title | Number of Sheets |
|--------------|-------------|--------------|--|------------------|
| 1 | | | COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS | |
| 2 | | | STEEL RFT SHOPDRAWING FOR PILES | |
| 3 | | | PILES COORDINATES | |
| Comments by: | | Comments by: | | |
| | | | | |

APPROVAL STATUS

| Organisation | Name | Sign | Date | A-AWC-R |
|-------------------------|------|------|-----------|---------|
| Contractor | | | | A |
| QA/QC | | | | A |
| Employer Representative | | | 11/9/2022 | A |



BAUER EGYPT



SYSTEMA

ACE CONSULTING ENGINEERS
MOHABER BANIGUM

Bored Piles Construction

Pile Record Sheet

Pile Data

| Project | ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE | | | | |
|---|---|------------------------|----------------------|------------------------|-----------|
| Owner | MINISTRY OF TRANSPORT | | | Report No. | 12 |
| Subcontractor | GENERAL NILE COMPANY FOR
ROADS&BRIDGES | | | Date | 11/9/2022 |
| Pile No. | P15 | Structure | bridge | Pile Cutoff Level | - |
| Pier | P2 | Ground Level | 67.15 | Pile Toe Level | 28.237 |
| Theoretical Pile Length from caisson level | 40.16 m | Water Table Level | N/A | Permanent Casing Level | N/A |
| Req. Drilling Length From Ground Level | 38.91 m | Theoretical Concrete Q | 46.33 m ³ | Temporary Casing Level | 68.396 |
| Act. Drilling Length | 41 m | Act. Concrete Q | 51 m ³ | Steel Top Level | 66.437 |
| Permanent Casing Dim. L(m)×D(m)×Thick. (mm) | N/A | Steel Cage | Circular piles | Hook Length | 1.96 |

Pile Survey

| Coordinates | EAST | NORTH |
|----------------|------------|------------|
| Theoretical | 585430.959 | 830478.815 |
| Actual | 585430.951 | 830478.827 |
| BAUER Survivor | | |

Geotechnical Log

| 0.0 | CAISSON L. |
|------|------------|
| 5.0 | |
| 10.0 | |
| 15.0 | |
| 20.0 | |
| 25.0 | |
| 30.0 | |

Bentonite Slurry Test

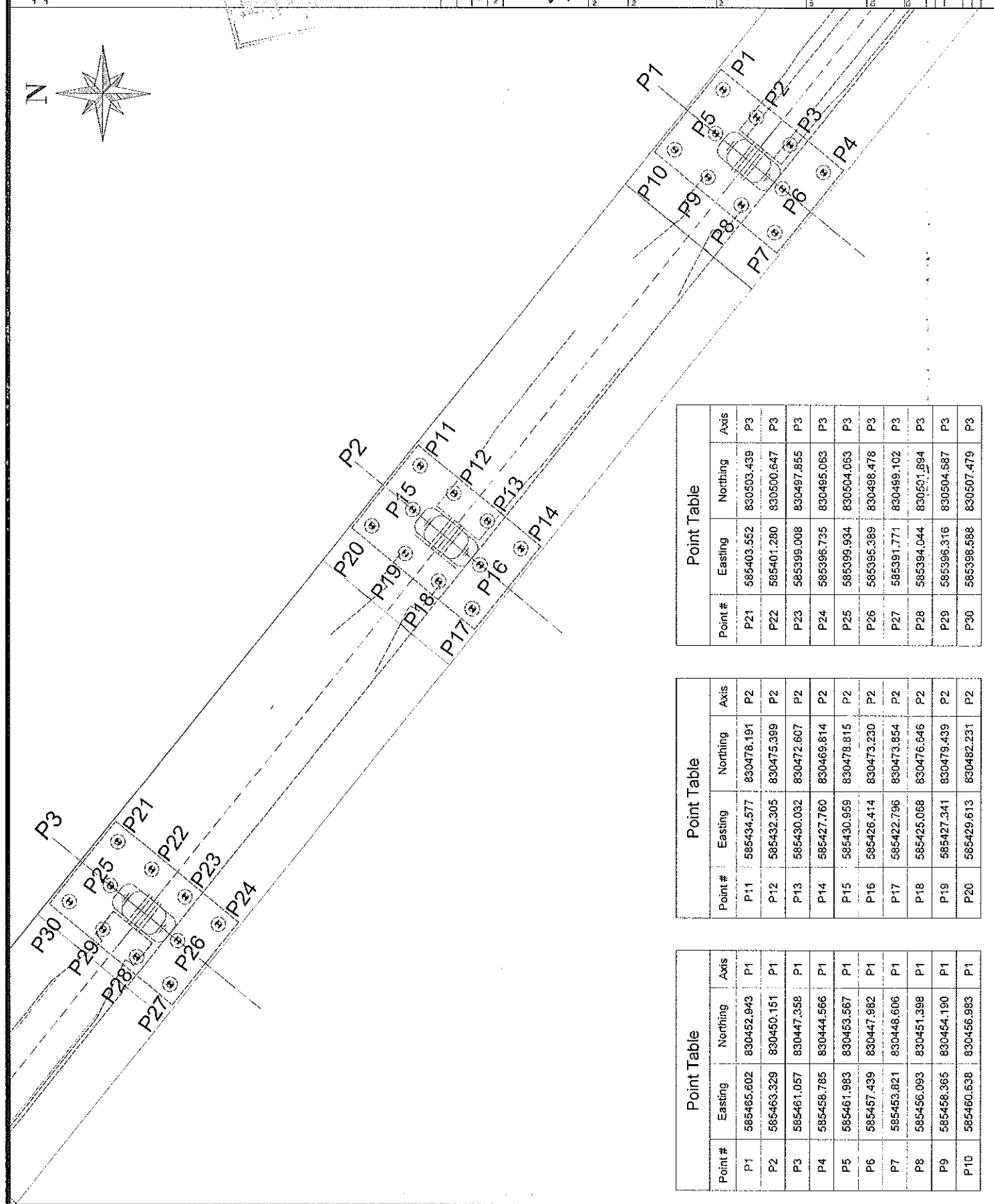
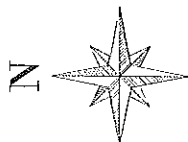
| Properties | Fresh Bentonite | | Before Cages Installation | |
|-------------------------------|-----------------|--------|---------------------------|--------|
| | Req. Limits | Actual | Req. Limits | Actual |
| Density (gm/cm ³) | Less Than 1.1 | 1.02 | Less Than 1.5 | 1.03 |
| Viscosity(Sec.) | 30:70 Sec. | 34 | ≤90 Sec. | 38 |
| Sand Content % | Less than 4% | N/A | Less than 2% | 1.50 |

Time Survey

| Activity | Date | From | To | Activity | Date | From | To | Remarks |
|---------------|------|-------|-------|----------|------|-------|-------|---------|
| Drilling | 11/9 | 14:15 | 19:00 | Cleaning | - | - | - | |
| Install Cages | 11/9 | 20:00 | 20:50 | Pouring | 11/9 | 21:20 | 22:30 | |

| | BAUER EGYPT | NILE COMPANY | OWNER/if Required |
|-----------|-------------|--------------|-------------------|
| Signature | | | |

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERCATOR) AS PER THE RECEIVED SITE SURVEY.



| | | | | | | |
|----|----------|-----|-------------------------|------|------|----------|
| 00 | 01/07/21 | K.A | ISSUED FOR CONSTRUCTION | DATE | ENG. | REVISION |
|----|----------|-----|-------------------------|------|------|----------|

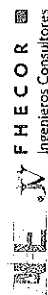

وزارة النقل
 الهيئة العامة للنقل
 جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للنقل
 والنقل البري

NAME OF PROJECT
ELECTRICITY EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF RILEY TO ALABAMA)

NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR CONSULTANT



CONCLUSION



3116

REGWA BRIDGE
COORDINATES FOR APPROVED AXIS
FROM P1 : P3

| | | | |
|------------------------------|-----------------------|-----------|--------|
| PC-00 | DATE | 6/8/92 | SOURCE |
| LAWRENCE J OY | DESIGNED BY | CHEC-BE-4 | 1 1-3 |
| Eing Student Ass. | Eing Mainwairt Stabls | | |
| SUPERVISOR | APPROVED BY | | |
| GK, Mainwaird Lawrent | Eing Assair Lawrent | | |

| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P21 | 585403.552 | 830503.439 | P3 |
| P22 | 585401.280 | 830500.647 | P3 |
| P23 | 585399.008 | 830497.855 | P3 |
| P24 | 585396.735 | 830495.063 | P3 |
| P25 | 585399.934 | 830504.053 | P3 |
| P26 | 585396.389 | 830498.478 | P3 |
| P27 | 585391.771 | 830499.102 | P3 |
| P28 | 585394.044 | 830501.894 | P3 |
| P29 | 585396.316 | 830504.687 | P3 |
| P30 | 585398.588 | 830507.479 | P3 |

| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P11 | 585434.577 | 830478.191 | P2 |
| P12 | 585432.305 | 830475.359 | P2 |
| P13 | 585430.032 | 830472.607 | P2 |
| P14 | 585427.760 | 830469.814 | P2 |
| P15 | 585430.959 | 830478.815 | P2 |
| P16 | 585426.414 | 830473.230 | P2 |
| P17 | 585422.796 | 830473.854 | P2 |
| P18 | 585425.068 | 830476.846 | P2 |
| P19 | 585427.341 | 830479.439 | P2 |
| P20 | 585429.613 | 830482.231 | P2 |

| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P1 | 585465.602 | 830452.943 | P1 |
| P2 | 585463.329 | 830450.151 | P1 |
| P3 | 585461.057 | 830447.358 | P1 |
| P4 | 585458.785 | 830444.566 | P1 |
| P5 | 585461.983 | 830453.587 | P1 |
| P6 | 585457.439 | 830447.982 | P1 |
| P7 | 585453.821 | 830448.606 | P1 |
| P8 | 585456.093 | 830451.398 | P1 |
| P9 | 585458.365 | 830454.190 | P1 |
| P10 | 585460.638 | 830456.993 | P1 |



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B15
Dimension : 15*15*15 cm
Date of casting : 11/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 11/09/2022 | 09/10/2022 | 28 | 8.456 | 127100 | 565 | 580 |
| 2 | 11/09/2022 | 09/10/2022 | 28 | 8.574 | 127900 | 568 | |
| 3 | 11/09/2022 | 09/10/2022 | 28 | 8.521 | 136800 | 608 | |

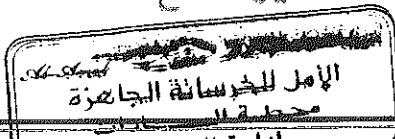
التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد حبيب

مدير المصنع



تامر لمان

الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧) : ٢٣٥٧٢٣٠٧ - ٢٦٧٧٢٥٧٢
Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
Nasr City - / Telfax: 26772572 - 23573307
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣ : ٢٩٨٤١١٣٦ / ف: ٢٩٨٤٠١٠٩
Planet : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industriale Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax: 048 2630140
01028459673 - 01006880635 - 01004976497
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥ : ٠٤٨ / ٢٦٣٠١٤٠ : ف: ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٩٧٣

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com



Al Amal Ready mix

الأمل
للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

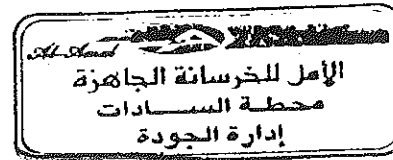
**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B15
Dimension : 15*15*15 cm
Date of casting : 11/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 11/09/2022 | 18/09/2022 | 7 | 8.501 | 108100 | 480 | 452 |
| 2 | 11/09/2022 | 18/09/2022 | 7 | 8.299 | 93530 | 416 | |
| 3 | 11/09/2022 | 18/09/2022 | 7 | 8.461 | 103800 | 461 | |

التوقيع:

مهندس / أحمد عرابى
مدير المصنع



الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧) : Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٩٧٧٢٥٧٢ : Nasr City - / Telfax: 26772572 - 23573307
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣ : Planet : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industriai Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497
E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

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 So come on in! All day. All day. All day.
 We need you!

This is the best place to work.
 Don't you think?

We need you!

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Plat
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Natural Ground Level

MEGWA ROAD BRIDGE
GENERAL NOTES
ASU T8ENT 1, DCPHIVIAI

PICRS PL, P2, P3, REIN-GRZELINE

STRUCTURE

PIERS PL, P2, P3, REIN-GRZELINE

Arab House of Engineering
P.O. Box 1076
Riyadh 11161 Saudi Arabia
Tel: +9667613485 e-mail: info@aheng.org.sa

| REV | DATE | SIZE | REVISION |
|-----|--------|-------------|--|
| 0 | 1-2-70 | 1/4" x 3/4" | ISSUED FOR CONSTRUCTION AND PER REVIEW TO DICE No. 14028 |

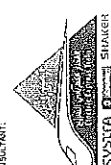
السلك:

وزارة النقل
الجمهورية العربية السورية
ARAB REPUBLIC OF SYRIA
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للنقل والكابلات
والنقل الجوي
GASBIL

OWNER:

مجلس إدارة مطار دمشق الدولي
دمشق - سورية

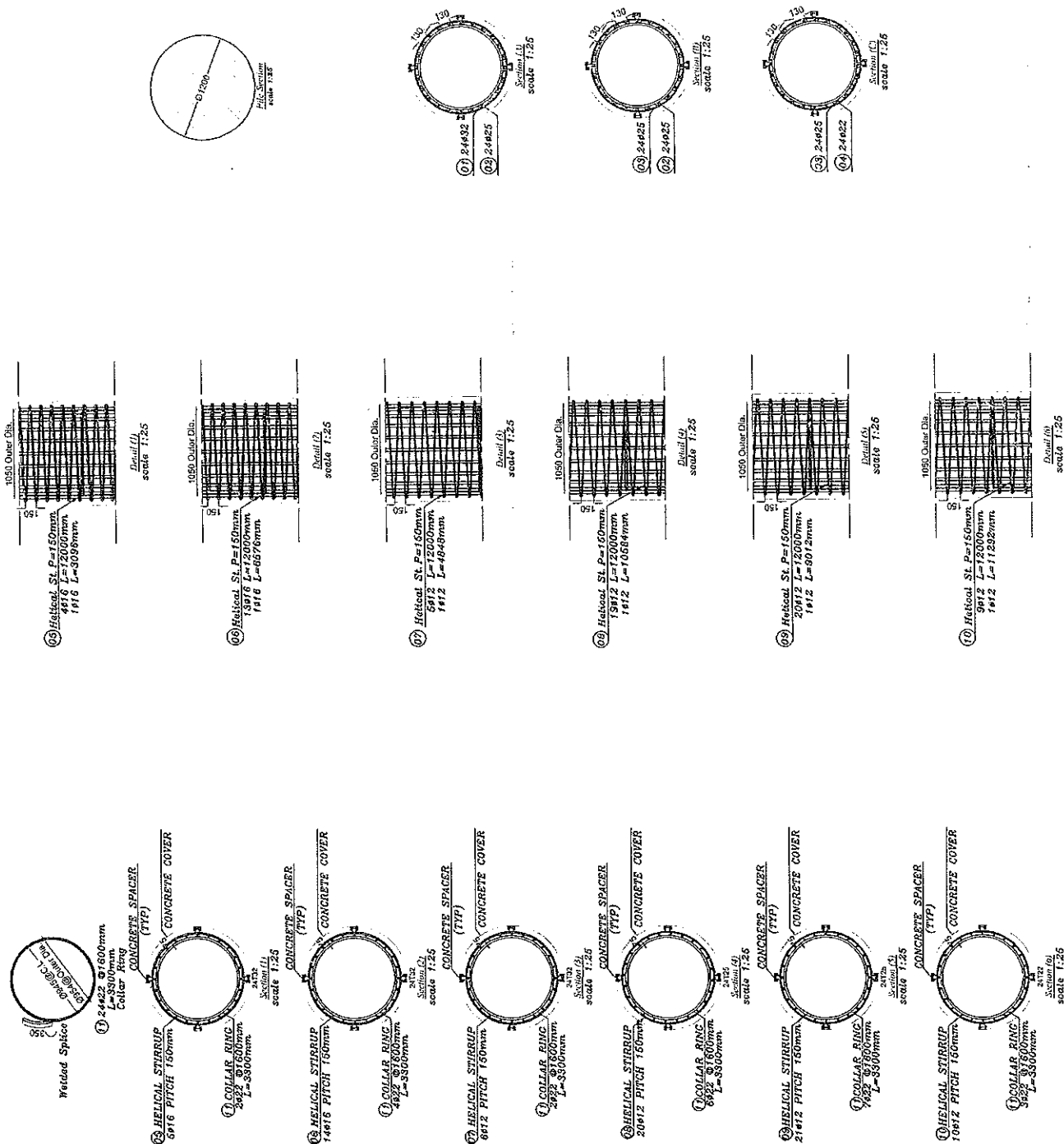
Table 1



THE NEW YORK PUBLIC LIBRARY

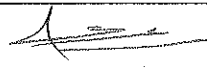
DWG. TITLE: HEGWA ROAD BRIDGE
PILES AT AXES (P1-P24P3)

| | | |
|---------------------------|------------------|------------------|
| PROJECT: | DATE: | TABLE: |
| WORK ORDER NO. 10-20-2010 | 10-20-2010 | AS SHOWN |
| DRAWING NO. | CHECKED BY: | REVISED BY: |
| ENG. S. H. H. H. | ENG. M. H. H. H. | ENG. M. H. H. H. |
| APPROVED BY: | APPROVED BY: | APPROVED BY: |
| DR. M. H. H. H. | DR. M. H. H. H. | DR. M. H. H. H. |



REQUEST to POUR CONCRETE



| | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|------------------|---|----|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|
| Contractor Company |  | | Designer Company |  | | | | | | | | | | | | | | | | |
| Issued by Contractor | Name | Sign | Date | Time | | | | | | | | | | | | | | | | |
| | |  | 13/9/2022 | | | | | | | | | | | | | | | | | |
| Received by ER | | محرم باخوم | CON | <table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | C1 | C2 | C3 | DD | MM | YY | HH | MM | | | | | | | | |
| C1 | C2 | C3 | DD | MM | YY | HH | MM | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| Contractor Reference | النيل العامة | | | | | | | | | | | | | | | | | | | |

| CODE-1 | S1 to S21
Station Reference | D1 to S3
Depot Reference | Kp XXX Note
For Kilometer point only Start Km is used |
|----------|--------------------------------|-----------------------------|--|
| CODE - 2 | Work Activity | | |
| CODE - 3 | Sub Element of Activity | | |

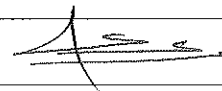
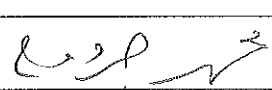
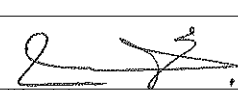
THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

| | | | |
|------------------------------|--|-----------------------------------|--|
| Mix Approval Reference | | | |
| Location of Pour | Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (16)) | | |
| Concrete Type: | Grout Mix ☐ | Lean Mix ☐ | Structural Mix ☐ Grade: 35 kg/cm ² |
| PRESTART CHECKLIST | | | |
| IR Approved | | Plant & equipment available | |
| Mix Approved | | Back up equipment available | |
| Setting out Survey Approved | | Cast in items secure | |
| Temp Works Approved | | Access route clear | |
| Formwork Checked | | Work area safe to progress | |
| Start Time for Pour: 3:50 pm | Concrete Volume: 51 m3 | | |

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

| Item | Document No | Revision | Title | Number of Sheets |
|--------------|-------------|--------------|--|------------------|
| 1 | | | COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS | |
| 2 | | | STEEL RFT SHOPDRAWING FOR PILES | |
| 3 | | | PILES COORDINATES | |
| Comments by: | | Comments by: | | |
| | | | | |

APPROVAL STATUS

| Organisation | Name | Sign | Date | A-AWC-R |
|-------------------------|---|--|-----------|---------|
| Contractor | |  | | A |
| QA/QC | | | | A |
| Employer Representative |  |  | 13/9/2022 | A |



BAUER EGYPT



SVSTRA

AGENCY CONSULTING ENGINEERS
MOHAMMAD BAKHOUNBored Piles Construction
Pile Record SheetPile Data

| | | | | | |
|---|---|------------------------|----------------------|------------------------|-----------|
| Project | ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE | | | | |
| Owner | MINISTRY OF TRANSPORT | | | Report No. | 14 |
| Subcontractor | GENERAL NILE COMPANY FOR
ROADS&BRIDGES | | | Date | 13/9/2022 |
| Pile No. | P16 | Structure | bridge | Pile Cutoff Level | - |
| Pier | P2 | Ground Level | 67.15 | Pile Toe Level | 28.237 |
| Theoretical Pile Length from caisson level | 40.179 m | Water Table Level | N/A | Permanent Casing Level | N/A |
| Req. Drilling Length From Ground Level | 38.91 m | Theoretical Concrete Q | 46.33 m ³ | Temporary Casing Level | 68.416 |
| Act. Drilling Length | 41 m | Act. Concrete Q | 51 m ³ | Steel Top Level | 66.437 |
| Permanent Casing Dim. L(m)×D(m)×Thick. (mm) | N/A | Steel Cage | Circular piles | Hook Length | 1.98 |

Pile Survey

| | | |
|----------------|------------|------------|
| Coordinates | EAST | NORTH |
| Theoretical | 585426.414 | 830473.230 |
| Actual | 585426.424 | 830473.240 |
| BAUER Survivor | | |

Geotechnical Log

| 0.0 | CAISSON L. |
|------|------------|
| 5.0 | |
| 10.0 | |
| 15.0 | |
| 20.0 | |
| 25.0 | |
| 30.0 | |

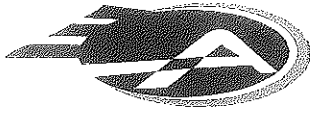
Bentonite Slurry Test

| Properties | Fresh Bentonite | | Before Cages Installation | |
|-------------------------------|-----------------|--------|---------------------------|--------|
| | Req. Limits | Actual | Req. Limits | Actual |
| Density (gm/cm ³) | Less Than 1.1 | 1.02 | Less Than 1.5 | 1.03 |
| Viscosity(Sec.) | 30:70 Sec. | 34 | ≤90 Sec. | 38 |
| Sand Content % | Less than 4% | N/A | Less than 2% | 0.75 |

Time Survey

| Activity | Date | From | To | Activity | Date | From | To | Remarks |
|---------------|------|-------|-------|----------|------|-------|-------|---------|
| Drilling | 13/9 | 8:30 | 12:40 | Cleaning | - | - | - | |
| Install Cages | 13/9 | 13:25 | 15:10 | Pouring | 13/9 | 15:50 | 16:53 | |

| | | | |
|-----------|-------------|--------------|-------------------|
| | BAUER EGYPT | NILE COMPANY | OWNER/if Required |
| Signature | | | |



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B16
Dimension : 15*15*15 cm
Date of casting : 13/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 13/09/2022 | 11/10/2022 | 28 | 8.358 | 134500 | 598 | 600 |
| 2 | 13/09/2022 | 11/10/2022 | 28 | 8.451 | 135300 | 601 | |
| 3 | 13/09/2022 | 11/10/2022 | 28 | 8.499 | 135100 | 600 | |

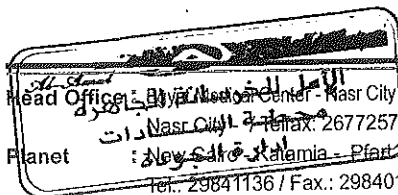
التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد حجازى
مدير المنتج

تامر الملا



Head Office: Bypass Center - Nasr City - Tenth District - Fifth Floor Unit (407).
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
٠١٠٠٦٠٣٣٨٦ - ٠١٠٦٨٨٤٤١٧ - ٠١٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية الصناعية قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com



Al Amal Ready mix

الأمال
للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٠ مليون جنيه
والمصدر ٧٥ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B16
Dimension : 15*15*15 cm
Date of casting : 12/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 13/09/2022 | 20/09/2022 | 7 | 8.456 | 106500 | 473 | 480 |
| 2 | 13/09/2022 | 20/09/2022 | 7 | 8.599 | 113400 | 504 | |
| 3 | 13/09/2022 | 20/09/2022 | 7 | 8.514 | 104000 | 462 | |

التوقيع:

مهندس / أحمد عرابى
مدير المصنع

الاستشارى

م. ج. ع.

جودة المشروع

مركز هليوبوليس

م. ج. ع.

Head Office : 41 Losaka st. - Second Floor - Flat 3 Mohamed El-Maqrief st.
Nasr City - / Telfax: 26772572

Planet : New Cairo - Katamia - Pflart 82 - 83
Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrirel Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website : www.alamalreadymix.com

الإدارة : ٤١ شارع لوساكا - الدور الثاني شقة ٣ - متفرع من ش محمد المقرئف
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢

موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩

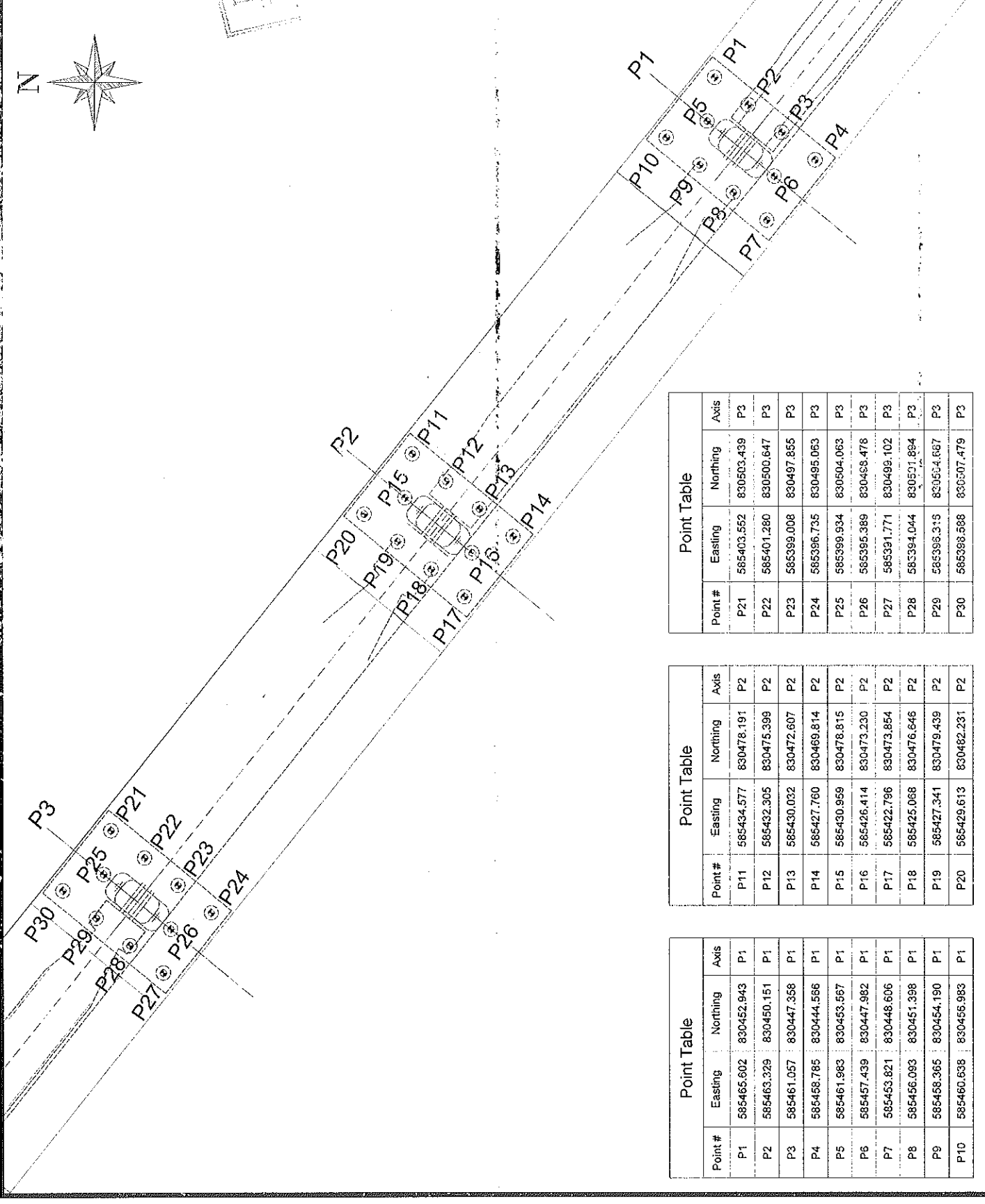
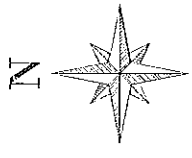
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

NOTES:
- ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED
- ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE
MERIDIAN AS PER THE RECEIVED SITE SURVEY.



| Point Table | | |
|-------------|------------|------------|
| Point # | Easting | Northing |
| P1 | 585465.602 | 830452.943 |
| P2 | 585463.329 | 830450.151 |
| P3 | 585461.057 | 830447.358 |
| P4 | 585458.785 | 830444.566 |
| P5 | 585461.983 | 830453.567 |
| P6 | 585457.439 | 830447.982 |
| P7 | 585453.821 | 830448.606 |
| P8 | 585456.093 | 830451.398 |
| P9 | 585458.365 | 830454.190 |
| P10 | 585460.638 | 830456.983 |

| Point Table | | |
|-------------|------------|------------|
| Point # | Easting | Northing |
| P11 | 585434.577 | 830478.191 |
| P12 | 585432.305 | 830475.399 |
| P13 | 585430.032 | 830472.607 |
| P14 | 585427.760 | 830469.814 |
| P15 | 585430.959 | 830478.815 |
| P16 | 585426.414 | 830473.230 |
| P17 | 585422.796 | 830473.854 |
| P18 | 585425.068 | 830476.646 |
| P19 | 585427.341 | 830479.439 |
| P20 | 585429.613 | 830482.231 |

| Point Table | | |
|-------------|------------|------------|
| Point # | Easting | Northing |
| P21 | 585403.552 | 830503.439 |
| P22 | 585401.280 | 830500.647 |
| P23 | 585399.008 | 830497.855 |
| P24 | 585396.735 | 830495.063 |
| P25 | 585399.934 | 830504.063 |
| P26 | 585395.389 | 830498.478 |
| P27 | 585391.771 | 830499.102 |
| P28 | 585394.044 | 830501.884 |
| P29 | 585396.315 | 830504.687 |
| P30 | 585398.588 | 830507.479 |

| | | | | | | | |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| TO: BOARD | | NO.: | | DATE: | | REVISION: | |
| OWNER: | | ENGINEER: | | CHECKER: | | APPROVED: | |
| | | | | | | | |
| PROJECT TITLE: ELECTRICAL BRIDGE FROM IRON SPUR TO AL-HIL
SECTION THREE FROM WEST OF NILE TO AL-HIL | | | | | | | |
| NAME OF OWNER: CONSULTANT | | | | | | | |
| NAME OF CONTRACTOR: CONSULTANT | | | | | | | |
| | | | | | | | |
| PROJECT LOCATION: | | | | | | | |
| PROJECT TITLE: REGWA BRIDGE | | | | | | | |
| PILES COORDINATES FOR APPROVED AXIS FROM P1 TO P3 | | | | | | | |
| POINT NO. | POINT NO. | POINT NO. | POINT NO. | POINT NO. | POINT NO. | POINT NO. | POINT NO. |
| P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 |
| CHECKED BY: _____ | | | | | | | |
| APPROVED BY: _____ | | | | | | | |

[illegible]

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pipe Cap/Pile
- T.O.B = Top of Biting
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

REGWA ROAD BRIDGE
SERIAL NOTES
ANNUAL 1. DEFINITION

REGWA ROAD BRIDGE
STRUCTURE
PERM. PZ PZ REINFORCEN

Arab House of Engineering
1000 W. 10th St., Suite 100
Tulsa, OK 74106
Tel: 405/441-1445
Fax: 405/441-1446
www.arabhouse.com

| NO. | DATE | FIG. | REVISION |
|-----|------------|------|----------|
| 0 | 31-01-2004 | MAG | |

ISSUED FOR CONSTRUCTION AS PER REVIEW
NOTICE No. 1003

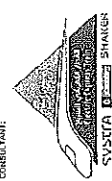


 جمهورية مصر العربية
 AMM REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 الوزارة العامة للنقل والداخلية
 والنقل الداخلي

١٩٨٤
 ١٩٨٤

CONTESTE:

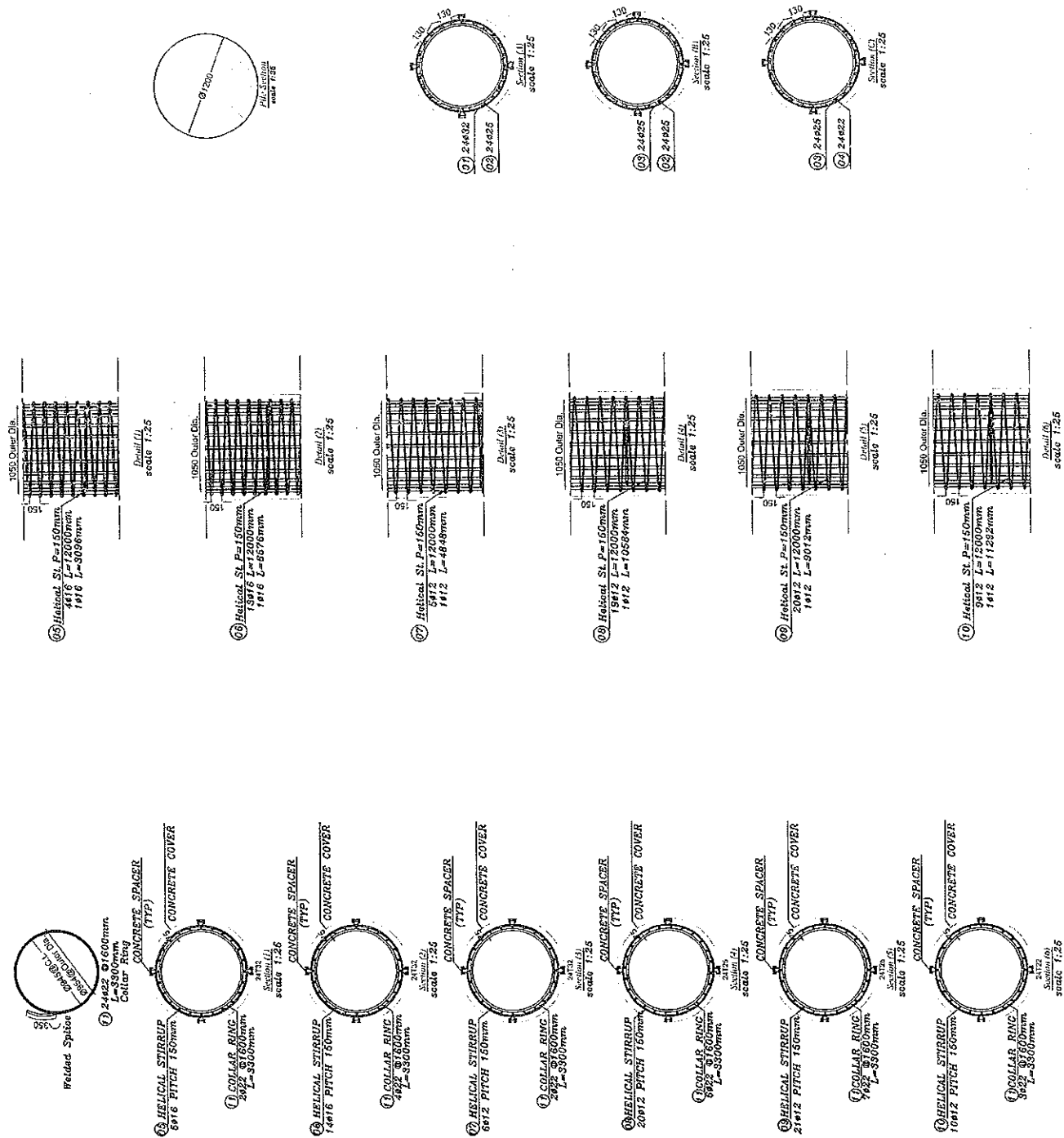
SECTION THREE OF



VFHECOR
Ingenieros Consultores

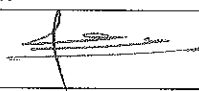
PILE REINFORCEMENT BARS SHOP DRAWING
FILES AT JOBS (P/12345)

| | | |
|---------------------------|----------------------|--------------------|
| ENGINE NO.: | DATE: | ISSUE |
| HOSE CO. NO. 115-071R-110 | 04-2022 | AS SHOWN |
| DRAWING BY: | CHECKED BY: | REVISOR BY: |
| ENG. John F. Kelly | ENG. Abdullah Mawzan | ENG. Marwan Saleh |
| <i>R</i> | | <i>mas</i> |
| SUPERVISOR: | | APPROVED BY: |
| OR, Authorized Engineer | | Eng. John F. Kelly |



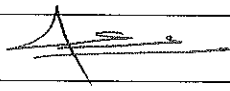
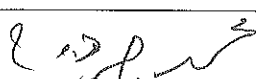
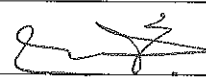
REQUEST to POUR CONCRETE



| | | | | | | | | | | | |
|----------------------|---|---|------------------|---|----|----|----|----|----|----|----|
| Contractor Company |  | | Designer Company |  | | | | | | | |
| Issued by Contractor | Name | Sign | Date | Time | | | | | | | |
| | |  | 7/9/2022 | | | | | | | | |
| Received by ER | | محرم باخوم | CON | C1 | C2 | C3 | DD | MM | YY | HH | MM |
| Contractor Reference | النيل العامة | | | | | | | | | | |

| CODE-1 | S1 to S21
Station Reference | D1 to S3
Depot Reference | Kp XXX Note
For Kilometer point only Start Km is used |
|--------|--------------------------------|-----------------------------|--|
| CODE-2 | Work Activity | | |
| CODE-3 | Sub Element of Activity | | |

| | | | | |
|---|--|-----------------------------------|--|-------------------------------|
| THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW | | | | |
| Mix Approval Reference | | | | |
| Location of Pour | Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (17)) | | | |
| Concrete Type: | Grout Mix ☐ | Lean Mix ☐ | Structural Mix ☐ | Grade: 350 kg/cm ² |
| PRESTART CHECKLIST | | | | |
| IR Approved | | Plant & equipment available | | |
| Mix Approved | | Back up equipment available | | |
| Setting out Survey Approved | | Cast in items secure | | |
| Temp Works Approved | | Access route clear | | |
| Formwork Checked | | Work area safe to progress | | |
| Start Time for Pour: 7:40 pm | | | Concrete Volume: 51 m3 | |
| THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW | | | | |
| Item | Document No | Revision | Title | Number of Sheets |
| 1 | | | COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS | |
| 2 | | | STEEL RFT SHOPDRAWING FOR PILES | |
| 3 | | | PILES COORDINATES | |
| Comments by: | | Comments by: | | |
| | | | | |

| APPROVAL STATUS | | | | |
|-------------------------|---|--|----------|---------|
| Organisation | Name | Sign | Date | A-AWC-R |
| Contractor | |  | | A |
| QA/QC | | | | A |
| Employer Representative |  |  | 7/9/2022 | A |



BAUER EGYPT



SVSTRA

ACE CONSULTING ENGINEERS
MOHAMMAD BAKHOUN**Bored Piles Construction**
Pile Record Sheet**Pile Data**

| | | | | | |
|---|---|------------------------|----------------------|------------------------|----------|
| Project | ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE | | | | |
| Owner | MINISTRY OF TRANSPORT | | | Report No. | 10 |
| Subcontractor | GENERAL NILE COMPANY FOR
ROADS&BRIDGES | | | Date | 7/9/2022 |
| Pile No. | P17 | Structure | bridge | Pile Cutoff Level | - |
| Pier | P2 | Ground Level | 67.15 | Pile Toe Level | 28.237 |
| Theoretical Pile Length from caisson level | 40.22 m | Water Table Level | N/A | Permanent Casing Level | N/A |
| Req. Drilling Length From Ground Level | 38.91 m | Theoretical Concrete Q | 46.33 m ³ | Temporary Casing Level | 68.461 |
| Act. Drilling Length | 41 m | Act. Concrete Q | 51 m ³ | Steel Top Level | 66.437 |
| Permanent Casing Dim.
L(m)×D(m)×Thick.
(mm) | N/A | Steel Cage | Circular piles | Hook Length | 2.02 |

Pile Survey

| | | |
|----------------|------------|------------|
| Coordinates | EAST | NORTH |
| Theoretical | 585422.796 | 830473.854 |
| Actual | 585422.804 | 830473.861 |
| BAUER Survivor | | |

Geotechnical Log

| | |
|------|------------|
| 0.0 | CAISSON L. |
| 5.0 | |
| 10.0 | |
| 15.0 | |
| 20.0 | |
| 25.0 | |
| 30.0 | |

Bentonite Slurry Test

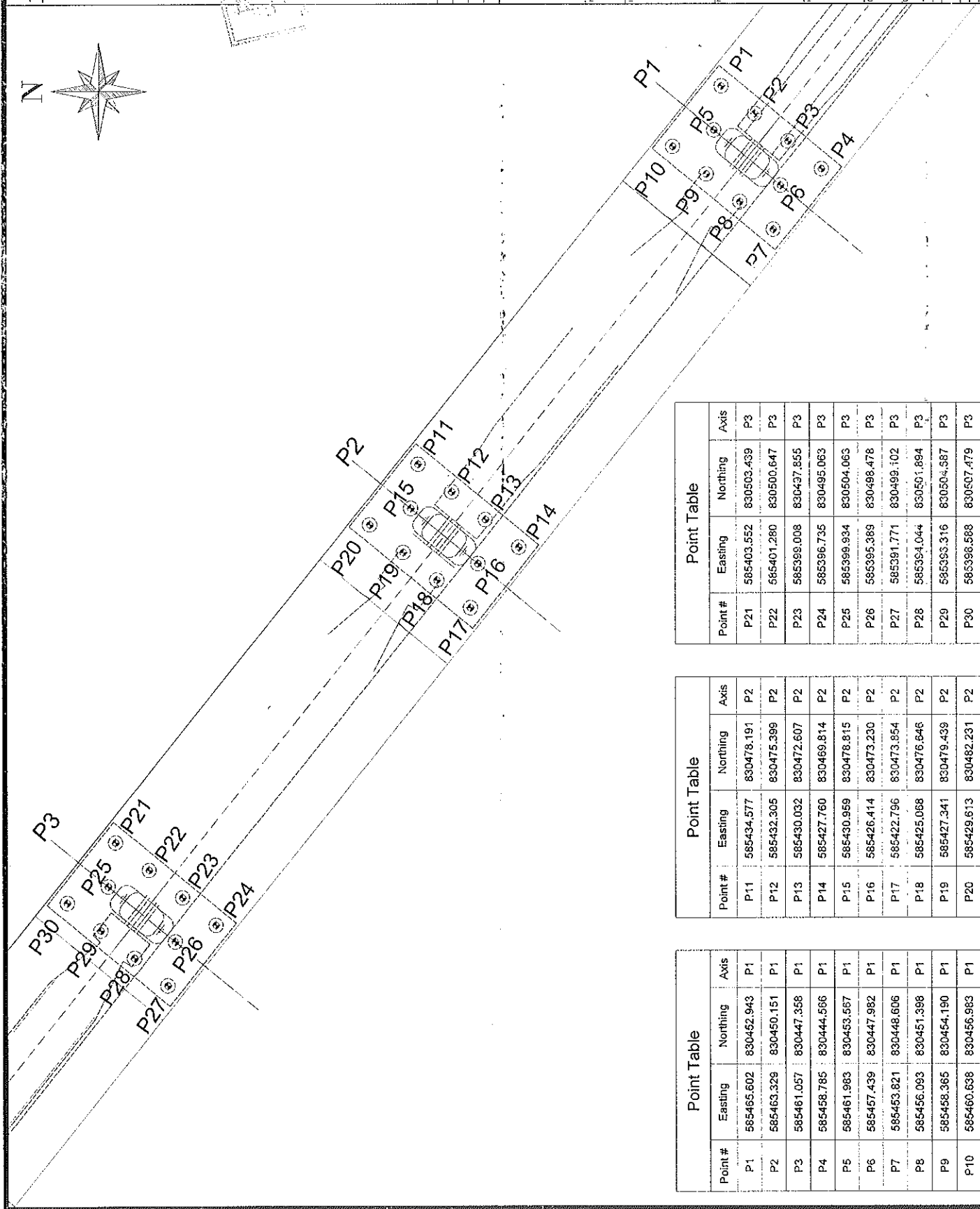
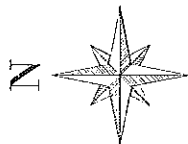
| Properties | Fresh Bentonite | | Before Cages Installation | |
|-------------------------------|-----------------|--------|---------------------------|--------|
| | Req. Limits | Actual | Req. Limits | Actual |
| Density (gm/cm ³) | Less Than 1.1 | 1.02 | Less Than 1.5 | 1.04 |
| Viscosity(Sec.) | 30:70 Sec. | 33 | ≤90 Sec. | 38 |
| Sand Content % | Less than 4% | N/A | Less than 2% | 1.50 |

Time Survey

| Activity | Date | From | To | Activity | Date | From | To | Remarks |
|---------------|------|-------|-------|----------|------|-------|-------|---------|
| Drilling | 7/9 | 12:30 | 16:15 | Cleaning | - | - | - | |
| Install Cages | 7/9 | 17:30 | 18:55 | Pouring | 7/9 | 19:40 | 20:50 | |

| | | | |
|-----------|-------------|--------------|-------------------|
| | BAUER EGYPT | NILE COMPANY | OWNER/if Required |
| Signature | | | |

NOTES:
ALL COORDINATES ARE IN METRIC UNLESS OTHERWISE MENTIONED
ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE
MERIDIAN AS PER THE RECEIVED SITE SURVEY.



| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P1 | 585465.602 | 830462.943 | P1 |
| P2 | 585463.329 | 830450.151 | P1 |
| P3 | 585461.057 | 830447.358 | P1 |
| P4 | 585458.785 | 830444.566 | P1 |
| P5 | 585461.983 | 830453.567 | P1 |
| P6 | 585457.439 | 830447.982 | P1 |
| P7 | 585453.821 | 830448.606 | P1 |
| P8 | 585456.093 | 830451.398 | P1 |
| P9 | 585458.365 | 830454.190 | P1 |
| P10 | 585460.638 | 830456.983 | P1 |

| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P11 | 585434.577 | 830478.191 | P2 |
| P12 | 585432.305 | 830475.399 | P2 |
| P13 | 585430.032 | 830472.607 | P2 |
| P14 | 585427.760 | 830469.814 | P2 |
| P15 | 585430.959 | 830478.815 | P2 |
| P16 | 585426.414 | 830473.230 | P2 |
| P17 | 585422.796 | 830473.854 | P2 |
| P18 | 585425.088 | 830476.646 | P2 |
| P19 | 585427.341 | 830479.439 | P2 |
| P20 | 585429.613 | 830482.231 | P2 |

| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P21 | 585403.552 | 830503.439 | P3 |
| P22 | 585401.280 | 830500.647 | P3 |
| P23 | 585399.008 | 830497.855 | P3 |
| P24 | 585396.735 | 830495.063 | P3 |
| P25 | 585399.934 | 830504.063 | P3 |
| P26 | 585395.389 | 830498.478 | P3 |
| P27 | 585391.771 | 830499.102 | P3 |
| P28 | 585394.044 | 830501.894 | P3 |
| P29 | 585393.316 | 830504.587 | P3 |
| P30 | 585396.588 | 830507.479 | P3 |

| NO. | DATE | REVISION |
|-----|------------|-------------------------|
| 01 | 10/02/2011 | ISSUED FOR CONSTRUCTION |

OWNER
الهيئة العامة للغمر والنقل
Ministry of Transport
الهيئة العامة للغمر والنقل
Ministry of Transport
الهيئة العامة للغمر والنقل
Ministry of Transport

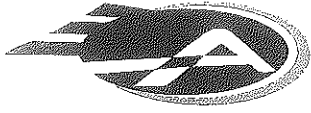
NAME OF PROJECT
ELECTRICAL EXPRESS TRAIN HIGH SPEED RAIL
SECTION THREE FROM WEST OF HELI TO EL-DOKKI
NAME OF OWNER CONSULTANT
SYSTEMA ENGINEERING SHARAH

NAME OF CONTRACTOR CONSULTANT
FHECOR
Ingenieros Consultores

NAME OF CONTRACTOR
FHECOR
Ingenieros Consultores

SCALE
1:100
DATE
10/02/2011
DRAWN BY
ENG. HANAN SAHAR
CHECKED BY
ENG. HANAN SAHAR

PROJECT TITLE
REGINA BRIDGE
PILES COORDINATES FOR APPROVED AXIS
FROM P1 - P3
APPROVED BY
ENG. HANAN SAHAR



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٠ مليون جنيه
والمصدر ٢٥ مليون جنيه

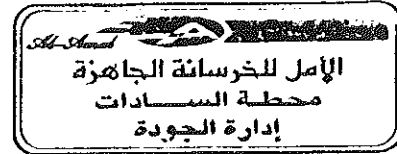
COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B17
Dimension : 15*15*15 cm
Date of casting : 07/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 07/09/2022 | 14/09/2022 | 7 | 8.326 | 89240 | 397 | 448 |
| 2 | 07/09/2022 | 14/09/2022 | 7 | 8.459 | 107300 | 477 | |
| 3 | 07/09/2022 | 14/09/2022 | 7 | 8.501 | 105700 | 470 | |

التوقيع:

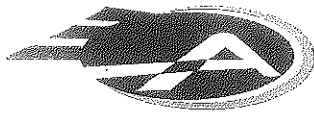
مركز هليوبوليس مهندس / أحمد عرابى
مدير المصنع



Head Office : 41 Losaka st. - Second Floor - Flat 3 Mohamed El-Maqrief st.
Nasr City - / Telfax: 26772572
Planet : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrirel Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : ٤١ ش لوساكا - الدور الثاني شقة ٣ - متفرع من ش محمد المقرئف
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website : www.alamalreadymix.com



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 17
Dimension : 15*15*15 cm
Date of casting : 07/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 05/09/2022 | 03/10/2022 | 28 | 8.669 | 132800 | 590 | 588 |
| 2 | 05/09/2022 | 03/10/2022 | 28 | 8.749 | 128500 | 571 | |
| 3 | 05/09/2022 | 03/10/2022 | 28 | 8.731 | 135600 | 603 | |

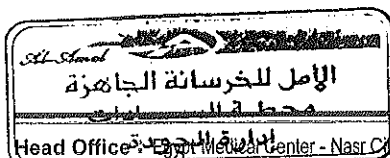
التوقيع:

الأستشارى

جودة المشروع

مهندس / أحمد عرابى

مدير المصنع



Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - / Telfax: 26772572 - 23573307

Planet : New Cairo - Katamia - Pfort 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

إيجيبت ميدكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٦٧٧٢٥٧٢

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت : ٠٤٨ / ٢٦٣٠١٤٥ : ف : ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

الإدارة

موقع العمل

All demand are in millions
 of units unless
 otherwise
 specified.
 Price
 is in dollars
 unless
 otherwise
 specified.

ABREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

PR.VD01.CC.010.001.450F.L02

PR.VD01.CC.010.002.410.032.PI.E.D>

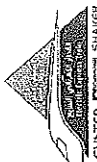
Arab House of Engineering

| | | | |
|---|------------|-----|---|
| 6 | 34-27387-2 | MA3 | ISSUED FOR CONSTRUCTION AFTER REVIEW
OFFICE NO. 1069 |
|---|------------|-----|---|

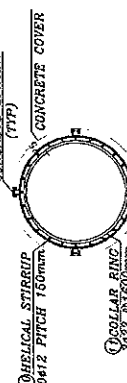
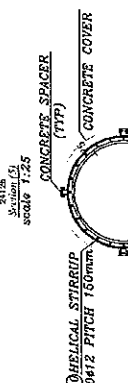
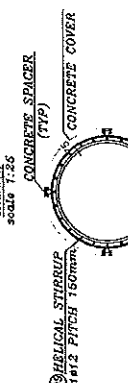
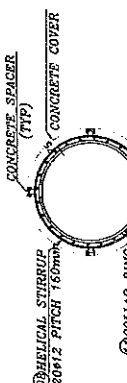
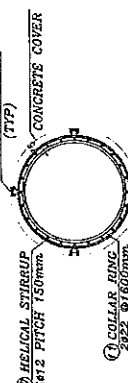
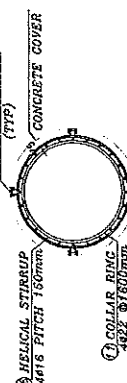
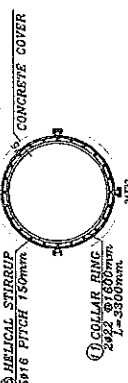
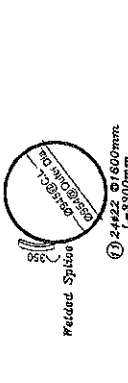
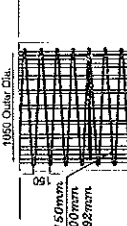
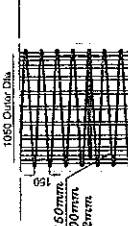
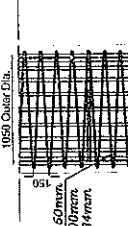
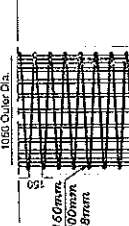
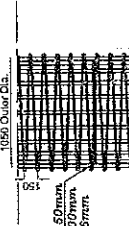
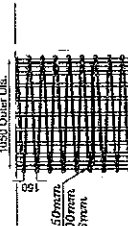
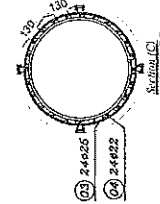
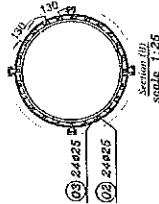
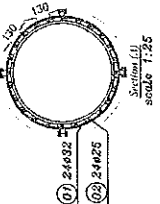
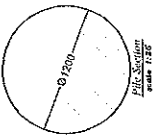
٥. DATE
 OWNER:
 ٦. SIGNATURE
 ٧. NAME
 ٨. ADDRESS
 ٩. CITY
 ١٠. COUNTRY
 ١١. POSTAL CODE
 ١٢. PHONE NO.
 ١٣. FAX NO.
 ١٤. E-MAIL
 ١٥. WEBSITE
 ١٦. OTHER INFORMATION

NAME OF PROJECT: ELECTRICAL EXPRESS TRAIN (HIGH SPEED-RAIL)
SECTION THREE (FROM WEST OF MILE TO ALABAMA)

NAME OF OWNER CONSULTANT:



VF
FHECOR
Engenharia Consultores

[illegible]

REQUEST to POUR CONCRETE



| | | | | | | | | | | | |
|----------------------|--------------|------------|------------------|------|----|----|----|----|----|----|----|
| Contractor Company | | | Designer Company | | | | | | | | |
| Issued by Contractor | Name | Sign | Date | Time | | | | | | | |
| | | | 17/9/2022 | | | | | | | | |
| Received by ER | | محرم باخوم | CON | C1 | C2 | C3 | DD | MM | YY | HH | MM |
| Contractor Reference | النيل العامة | | | | | | | | | | |

| CODE-1 | S1 to S21
Station Reference | D1 to S3
Depot Reference | Kp XXX Note
For Kilometer point only Start Km is used |
|----------|--------------------------------|-----------------------------|--|
| CODE - 2 | Work Activity | | |
| CODE - 3 | Sub Element of Activity | | |

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

| | | | | |
|------------------------------|--|-----------------------------------|---|-------------------------------|
| Mix Approval Reference | | | | |
| Location of Pour | Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (18)) | | | |
| Concrete Type: | Grout Mix ☐ | Lean Mix ☐ | Structural Mix ☐ | Grade: 350 kg/cm ² |
| PRESTART CHECKLIST | | | | |
| IR Approved | | Plant & equipment available | | |
| Mix Approved | | Back up equipment available | | |
| Setting out Survey Approved | | Cast in items secure | | |
| Temp Works Approved | | Access route clear | | |
| Formwork Checked | | Work area safe to progress | | |
| Start Time for Pour: 6:20 pm | Concrete Volume: 51 m3 | | | |

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

| Item | Document No | Revision | Title | Number of Sheets |
|------|-------------|----------|--|------------------|
| 1 | | | COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS | |
| 2 | | | STEEL RFT SHOPDRAWING FOR PILES | |
| 3 | | | PILES COORDINATES | |

| | | | |
|--------------|--|--------------|--|
| Comments by: | | Comments by: | |
| | | | |

APPROVAL STATUS

| Organisation | Name | Sign | Date | A-AWC-R |
|-------------------------|------|------|-----------|---------|
| Contractor | | | | A |
| QA/QC | | | | A |
| Employer Representative | | | 17/9/2022 | A |



SYSTRA

ACE CONSULTING ENGINEERS
MOHARRAM BAKHOUMBored Piles Construction
Pile Record SheetPile Data

| Project | ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE | | | | |
|---|---|------------------------|----------------------|------------------------|-----------|
| Owner | MINISTRY OF TRANSPORT | | | Report No. | 18 |
| Subcontractor | GENERAL NILE COMPANY FOR
ROADS&BRIDGES | | | Date | 17/9/2022 |
| Pile No. | P18 | Structure | bridge | Pile Cutoff Level | - |
| Pier | P2 | Ground Level | 67.15 | Pile Toe Level | 28.237 |
| Theoretical Pile Length from caisson level | 40.53 m | Water Table Level | N/A | Permanent Casing Level | N/A |
| Req. Drilling Length From Ground Level | 38.91 m | Theoretical Concrete Q | 46.33 m ³ | Temporary Casing Level | 68.772 |
| Act. Drilling Length | 41 m | Act. Concrete Q | 51 m ³ | Steel Top Level | 66.437 |
| Permanent Casing Dim.
L(m)×D(m)×Thick.
(mm) | N/A | Steel Cage | Circular piles | Hook Length | 2.33 |

Pile Survey

| Coordinates | EAST | NORTH |
|----------------|------------|------------|
| Theoretical | 585425.068 | 830476.646 |
| Actual | 585425.069 | 830476.663 |
| BAUER Survivor | | |

Geotechnical Log

| 0.0 | CAISSON L. |
|------|------------|
| 5.0 | |
| 10.0 | |
| 15.0 | |
| 20.0 | |
| 25.0 | |
| 30.0 | |

Bentonite Slurry Test

| Properties | Fresh Bentonite | | Before Cages Installation | |
|-------------------------------|-----------------|--------|---------------------------|--------|
| | Req. Limits | Actual | Req. Limits | Actual |
| Density (gm/cm ³) | Less Than 1.1 | 1.02 | Less Than 1.5 | 1.05 |
| Viscosity(Sec.) | 30:70 Sec. | 33 | ≤90 Sec. | 36 |
| Sand Content % | Less than 4% | N/A | Less than 2% | 1 |

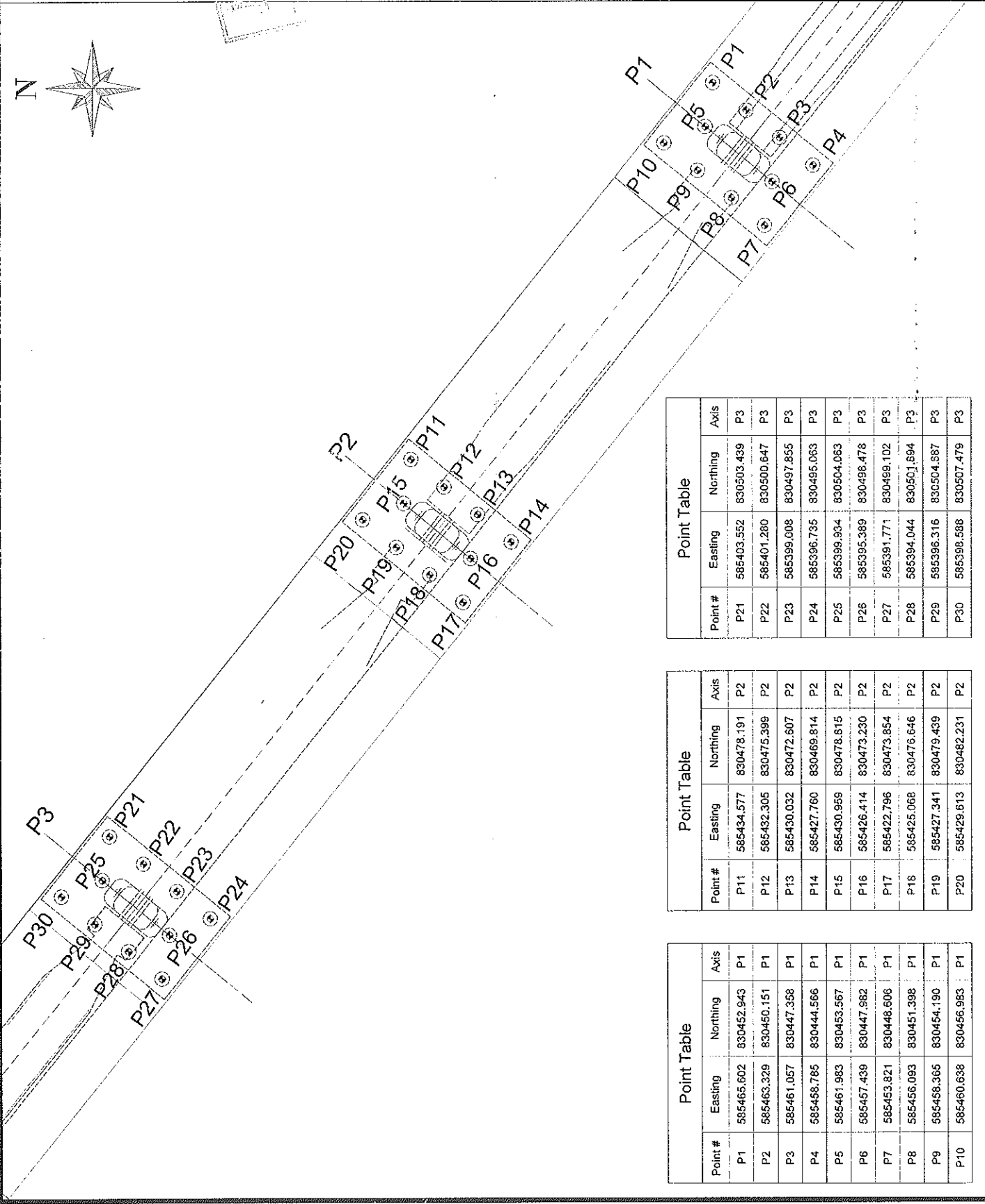
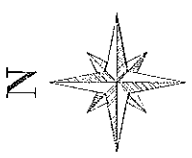
Time Survey

| Activity | Date | From | To | Activity | Date | From | To | Remarks |
|---------------|------|-------|-------|----------|------|-------|-------|---------|
| Drilling | 17/9 | 10:00 | 16:20 | Cleaning | - | - | - | |
| Install Cages | 17/9 | 16:40 | 18:00 | Pouring | 17/9 | 18:20 | 19:55 | |

| | BAUER EGYPT | NILE COMPANY | OWNER/if Required |
|-----------|-------------|--------------|-------------------|
| Signature | | | |

NOTES:

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE)
MERIDIAN, AS PER THE RECEIVED SITE SURVEY.



| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P21 | 585403.552 | 830503.439 | P3 |
| P22 | 585401.280 | 830500.647 | P3 |
| P23 | 585399.008 | 830497.855 | P3 |
| P24 | 585396.735 | 830495.063 | P3 |
| P25 | 585399.934 | 830504.063 | P3 |
| P26 | 585395.389 | 830498.478 | P3 |
| P27 | 585391.771 | 830499.102 | P3 |
| P28 | 585394.044 | 830501.894 | P3 |
| P29 | 585398.316 | 830504.587 | P3 |
| P30 | 585398.588 | 830507.479 | P3 |

| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P11 | 585434.577 | 830478.191 | P2 |
| P12 | 585432.305 | 830475.399 | P2 |
| P13 | 585430.032 | 830472.607 | P2 |
| P14 | 585427.760 | 830469.814 | P2 |
| P15 | 585430.959 | 830478.815 | P2 |
| P16 | 585426.414 | 830473.230 | P2 |
| P17 | 585422.796 | 830473.854 | P2 |
| P18 | 585425.068 | 830476.646 | P2 |
| P19 | 585427.341 | 830479.439 | P2 |
| P20 | 585429.613 | 830482.231 | P2 |

| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P1 | 585465.602 | 830452.943 | P1 |
| P2 | 585463.329 | 830450.151 | P1 |
| P3 | 585461.057 | 830447.358 | P1 |
| P4 | 585458.785 | 830444.566 | P1 |
| P5 | 585461.983 | 830453.567 | P1 |
| P6 | 585457.439 | 830447.982 | P1 |
| P7 | 585453.821 | 830448.606 | P1 |
| P8 | 585456.093 | 830451.398 | P1 |
| P9 | 585458.365 | 830454.190 | P1 |
| P10 | 585460.638 | 830456.983 | P1 |

| | | |
|---|--|---|
| NO. 000002
DATE: 08/02/22
DRAWN BY: Eng. Mohamed Salah
CHECKED BY: Eng. Mohamed Salah
SCALE: 1:100
PROJECT NO: 000002
SHEET NO: 01/01 | | REVISION
NO. 000002
DATE: 08/02/22
DRAWN BY: Eng. Mohamed Salah
CHECKED BY: Eng. Mohamed Salah
SCALE: 1:100
PROJECT NO: 000002
SHEET NO: 01/01 |
| NAME OF PROJECT
RESMA BRIDGE
SECTION THREE FROM AXIS TO LAMP
NAME OF OWNER
EGYPTIAN TRANSPORTATION AUTHORITY
NAME OF CONSULTANT
FHECOR Ingenieros Consultores | | NAME OF CONTRACTOR
FHECOR Ingenieros Consultores |
| NAME OF PROJECT
RESMA BRIDGE
SECTION THREE FROM AXIS TO LAMP
NAME OF OWNER
EGYPTIAN TRANSPORTATION AUTHORITY
NAME OF CONSULTANT
FHECOR Ingenieros Consultores | | NAME OF CONTRACTOR
FHECOR Ingenieros Consultores |



Al Amal Ready mix

الأمل

للخرسانة الجاهزة ش.م.م.
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B18
Dimension : 15*15*15 cm
Date of casting : 17/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 17/09/2022 | 24/09/2022 | 7 | 8.665 | 97780 | 435 | 441 |
| 2 | 17/09/2022 | 24/09/2022 | 7 | 8.561 | 108400 | 482 | |
| 3 | 17/09/2022 | 24/09/2022 | 7 | 8.337 | 91790 | 408 | |

التوقيع:

مهندس / أحمد عرابى
مدير المصنع

الاستشارى

ش.م.م.

جودة المشروع

مركز هالبرجوليس

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Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر/ تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983**

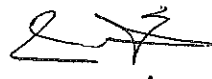
PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B18
Dimension : 15*15*15 cm
Date of casting : 17/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 17/09/2022 | 15/10/2022 | 28 | 8.635 | 128000 | 569 | 595 |
| 2 | 17/09/2022 | 15/10/2022 | 28 | 8.425 | 140900 | 626 | |
| 3 | 17/09/2022 | 15/10/2022 | 28 | 8.396 | 132600 | 589 | |

التوقيع:

الاستشارى

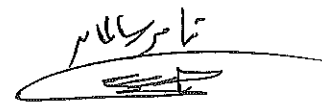
جودة المشروع





المهندس / المهندس / المهندس

مهندس المسح



الأمل للخرسانة الجاهزة
محطة الإنتاج

Head Office: Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - / Telfax: 26772572 - 23573307

Planet : New Cairo - Katamia - Ppart 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧

موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

GENERAL NOTES:

- 1. All dimensions are in millimeters.
- 2. All reinforcement bars shall be supplied in accordance with the specifications of the Egyptian Standards.
- 3. The concrete shall be of grade C40/50.
- 4. The reinforcement bars shall be of grade S420.
- 5. The reinforcement bars shall be of grade S420.
- 6. The reinforcement bars shall be of grade S420.
- 7. The reinforcement bars shall be of grade S420.
- 8. The reinforcement bars shall be of grade S420.
- 9. The reinforcement bars shall be of grade S420.
- 10. The reinforcement bars shall be of grade S420.

ABBREVIATION:

- 1. Top of Pile
- 2. Top of Pile
- 3. Top of Pile
- 4. Top of Pile
- 5. Top of Pile
- 6. Top of Pile
- 7. Top of Pile
- 8. Top of Pile
- 9. Top of Pile
- 10. Top of Pile

DRAWING REFERENCES:

- 1. REINFORCED CONCRETE BRIDGE
- 2. REINFORCED CONCRETE BRIDGE
- 3. REINFORCED CONCRETE BRIDGE
- 4. REINFORCED CONCRETE BRIDGE
- 5. REINFORCED CONCRETE BRIDGE
- 6. REINFORCED CONCRETE BRIDGE
- 7. REINFORCED CONCRETE BRIDGE
- 8. REINFORCED CONCRETE BRIDGE
- 9. REINFORCED CONCRETE BRIDGE
- 10. REINFORCED CONCRETE BRIDGE

REVISIONS:

| NO. | DATE | BY | REVISION |
|-----|------|----|----------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |

OWNER:

MINISTRY OF TRANSPORT
GENERAL DIRECTORATE OF HIGHWAYS
GENERAL DIRECTORATE OF HIGHWAYS

DESIGNER:

REINFORCED CONCRETE BRIDGE
REINFORCED CONCRETE BRIDGE
REINFORCED CONCRETE BRIDGE

SECTION THREE (FROM WEST OF PILE TO ALAMIN)

NAME OF PROJECT:

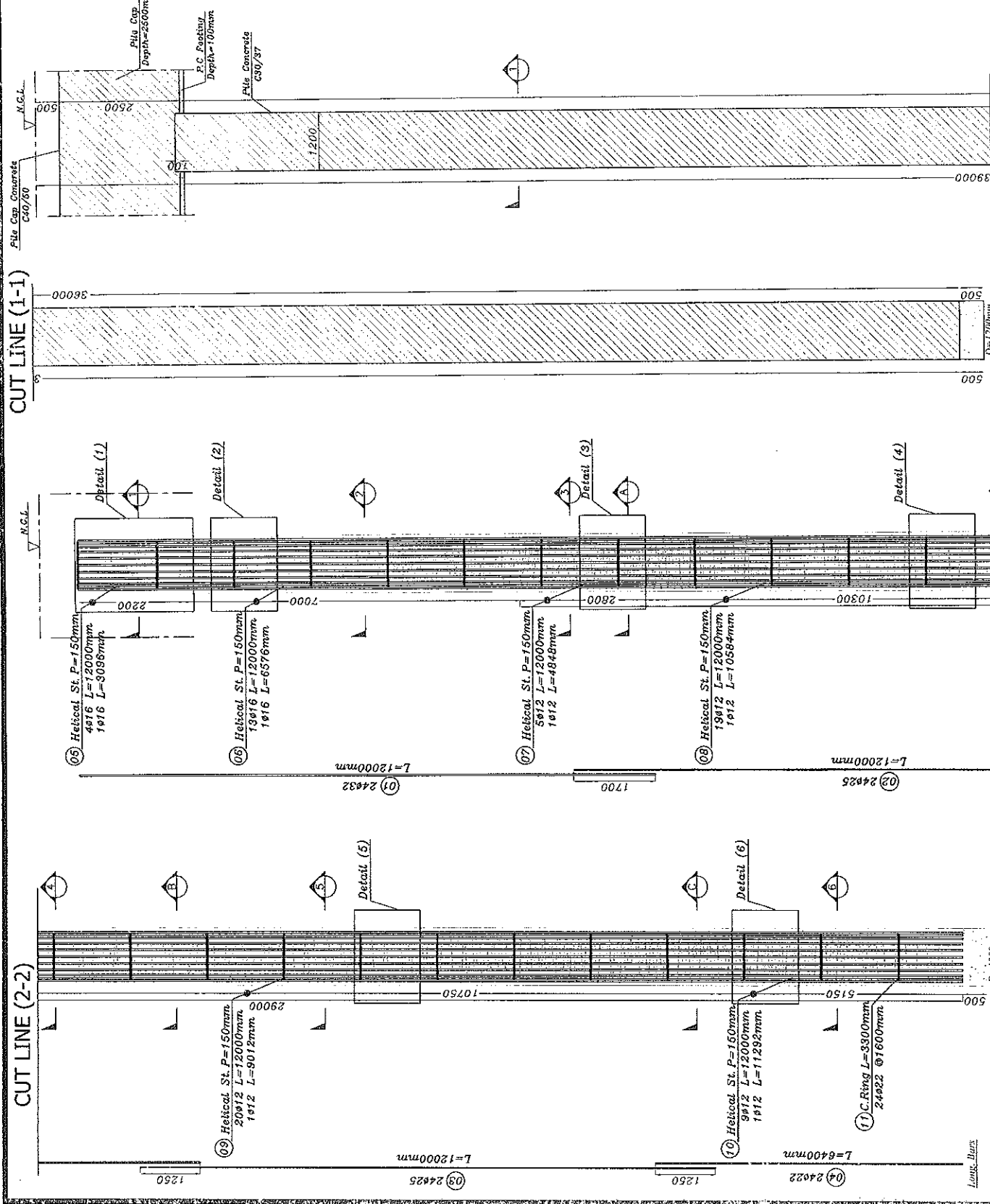
NAME OF CONSULTANT:

NAME OF CONTRACTOR:

SCALE:

DATE:

APPROVED BY:



REQUEST to POUR CONCRETE



| | | | | | | | | | | | |
|----------------------|-------------------|------------|-------------------|------|----|----|----|----|----|----|----|
| Contractor Company | | | Designer Company | | | | | | | | |
| Issued by Contractor | Name
نادر رمزي | Sign
 | Date
20/9/2022 | Time | | | | | | | |
| Received by ER | | محرم باخوم | CON | C1 | C2 | C3 | DD | MM | YY | HH | MM |
| Contractor Reference | النيل العامة | | | | | | | | | | |

| CODE-1 | S1 to S21
Station Reference | D1 to S3
Depot Reference | Kp XXX Note
For Kilometer point only Start Km is used |
|--------|--------------------------------|-----------------------------|--|
| CODE-2 | Work Activity | | |
| CODE-3 | Sub Element of Activity | | |

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

| | | | |
|-----------------------------|--|-----------------------------------|---|
| Mix Approval Reference | | | |
| Location of Pour | Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (19)) | | |
| Concrete Type: | Grout Mix ☐ | Lean Mix ☐ | Structural Mix ☐ |
| Grade: | 30 kg/cm ² | | |
| PRESTART CHECKLIST | | | |
| IR Approved | | Plant & equipment available | |
| Mix Approved | | Back up equipment available | |
| Setting out Survey Approved | | Cast in items secure | |
| Temp Works Approved | | Access route clear | |
| Formwork Checked | | Work area safe to progress | |
| Start Time for Pour: | 2:55 pm | Concrete Volume: | 51 m3 |

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

| Item | Document No | Revision | Title | Number of Sheets |
|--------------|-------------|--------------|--|------------------|
| 1 | | | COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS | |
| 2 | | | STEEL RFT SHOPDRAWING FOR PILES | |
| 3 | | | PILES COORDINATES | |
| Comments by: | | Comments by: | | |
| | | | | |

APPROVAL STATUS

| Organisation | Name | Sign | Date | A-AWC-R |
|-------------------------|------|------|-----------|---------|
| Contractor | | | | A |
| QA/QC | | | | A |
| Employer Representative | | | 20/9/2022 | A |



SVSTRA

ACE CONSULTING ENGINEERS
MOHARRAM BAKHOUM

Bored Piles Construction

Pile Record Sheet

Pile Data

| Project | ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE | | | | |
|---|---|------------------------|----------------------|------------------------|-----------|
| Owner | MINISTRY OF TRANSPORT | | | Report No. | 21 |
| Subcontractor | GENERAL NILE COMPANY FOR
ROADS&BRIDGES | | | Date | 20/9/2022 |
| Pile No. | P19 | Structure | bridge | Pile Cutoff Level | - |
| Pier | P2 | Ground Level | 67.15 | Pile Toe Level | 28.237 |
| Theoretical Pile Length from caisson level | 40.50 m | Water Table Level | N/A | Permanent Casing Level | N/A |
| Req. Drilling Length From Ground Level | 38.91 m | Theoretical Concrete Q | 46.33 m ³ | Temporary Casing Level | 68.734 |
| Act. Drilling Length | 41 m | Act. Concrete Q | 51 m ³ | Steel Top Level | 66.437 |
| Permanent Casing Dim.
L(m)×D(m)×Thick.
(mm) | N/A | Steel Cage | Circular piles | Hook Length | 2.3 |

Pile Survey

| Coordinates | EAST | NORTH |
|----------------|------------|------------|
| Theoretical | 585427.341 | 830479.439 |
| Actual | 585427.339 | 830479.446 |
| BAUER Survivor | | |

Geotechnical Log

| 0.0 | CAISSON L. |
|------|------------|
| 5.0 | |
| 10.0 | |
| 15.0 | |
| 20.0 | |
| 25.0 | |
| 30.0 | |

Bentonite Slurry Test

| Properties | Fresh Bentonite | | Before Cages Installation | |
|-------------------------------|-----------------|--------|---------------------------|--------|
| | Req. Limits | Actual | Req. Limits | Actual |
| Density (gm/cm ³) | Less Than 1.1 | 1.02 | Less Than 1.5 | 1.04 |
| Viscosity(Sec.) | 30:70 Sec. | 33 | ≤90 Sec. | 38 |
| Sand Content % | Less than 4% | N/A | Less than 2% | 1.50 |

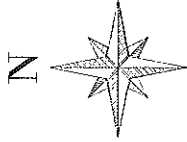
Time Survey

| Activity | Date | From | To | Activity | Date | From | To | Remarks |
|---------------|------|-------|-------|----------|------|-------|-------|---------|
| Drilling | 20/9 | 8:30 | 12:00 | Cleaning | - | - | - | |
| Install Cages | 20/9 | 12:30 | 14:10 | Pouring | 20/9 | 14:55 | 16:10 | |

| | BAUER EGYPT | NILE COMPANY | OWNER/if Required |
|-----------|-------------|--------------|-------------------|
| Signature | | | |

NOTES

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERCATOR) AS PER THE RECEIVED SITE SURVEY.



| | | | |
|-----|--------|------|-------------------------|
| NO. | EXP/02 | N.A. | ISSUED FOR CONSTRUCTION |
| NO. | DATE | DWG. | REVISION |

الجمهوريّة المصريّة
ARAB REPUBLIC OF EGYPT
وزارة النقل
Ministry of Public Works and Urban Planning
إدارة الجسور والكباري
Bridges and Viaducts Directorate
القاهرة
CAIRO

NAME OF PROJECT
EGYPTIAN EMBASSY TOWER HIGH SPEED RAIL
SECTION THREE FROM WEST OF AILE TO LAMAR

NAME OF OWNER/CONSULTANT



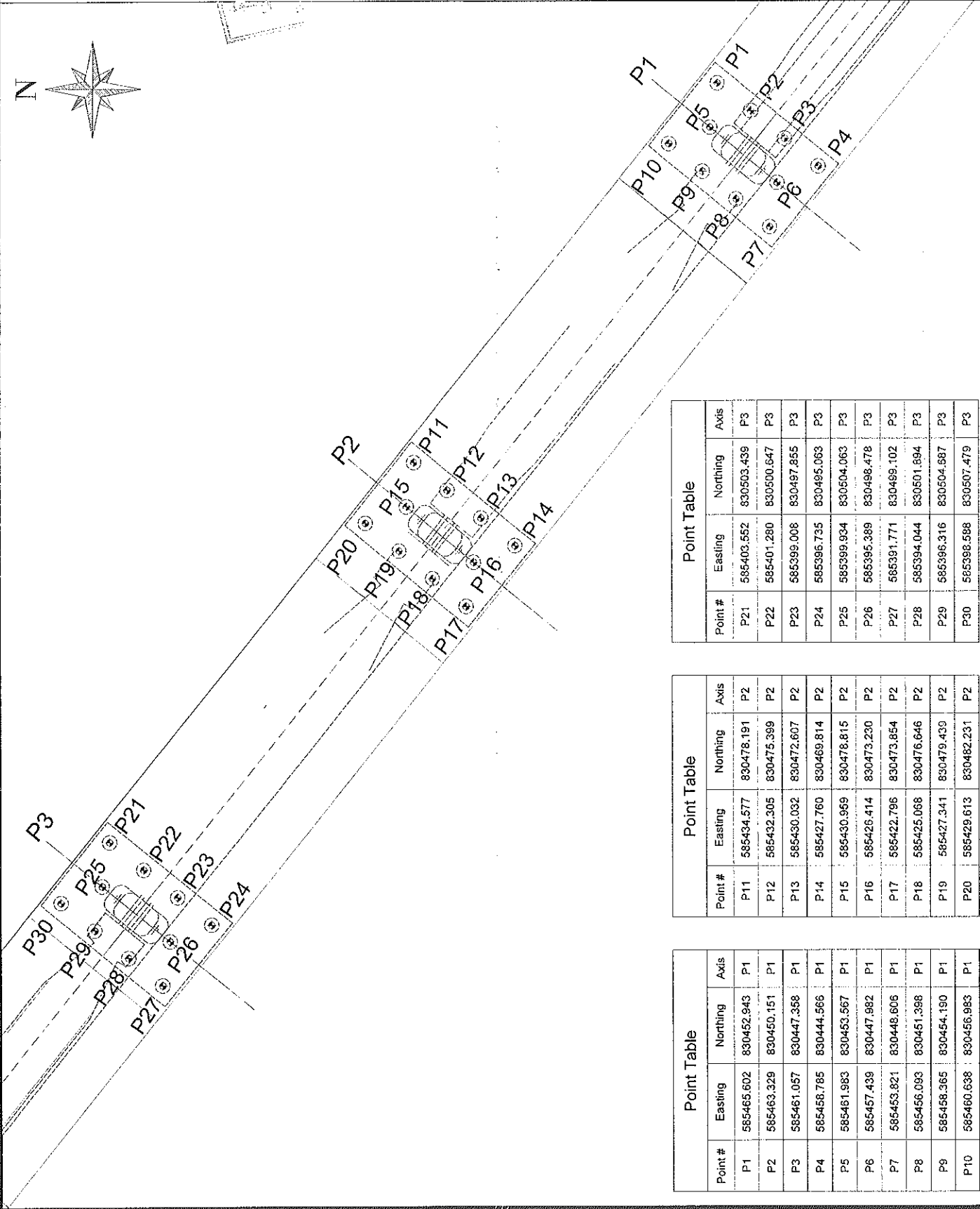
NAME OF CONTRACTOR/CONSULTANT
FHECOR
Ingenieros Consultores



NAME OF CONTRACTOR

PROJECT TITLE
EGYPTIAN EMBASSY TOWER HIGH SPEED RAIL
PILES COORDINATES FOR APPROVED AXIS
FROM PT. P3

| | | | |
|-------------|-------------------|-------------|------------|
| DATE | 06/02/2022 | SCALE | 1:500 |
| DRAWING BY | Eng. Mohamed Zaki | CHECKED BY | |
| APPROVED BY | | APPROVED BY | |
| DATE | 06/02/2022 | DATE | 06/02/2022 |



| Point Table | | | | |
|-------------|------------|------------|------|--|
| Point # | Easting | Northing | Axis | |
| P21 | 585400.552 | 830503.439 | P3 | |
| P22 | 585401.280 | 830500.647 | P3 | |
| P23 | 585398.008 | 830497.855 | P3 | |
| P24 | 585396.735 | 830495.063 | P3 | |
| P25 | 585399.934 | 830504.063 | P3 | |
| P26 | 585396.389 | 830498.478 | P3 | |
| P27 | 585391.771 | 830499.102 | P3 | |
| P28 | 585394.044 | 830501.894 | P3 | |
| P29 | 585396.316 | 830504.687 | P3 | |
| P30 | 585398.588 | 830507.479 | P3 | |

| Point Table | | | | |
|-------------|------------|------------|------|--|
| Point # | Easting | Northing | Axis | |
| P11 | 585434.577 | 830478.191 | P2 | |
| P12 | 585432.305 | 830475.399 | P2 | |
| P13 | 585430.032 | 830472.607 | P2 | |
| P14 | 585427.760 | 830469.814 | P2 | |
| P15 | 585430.969 | 830478.815 | P2 | |
| P16 | 585426.414 | 830473.230 | P2 | |
| P17 | 585422.796 | 830473.854 | P2 | |
| P18 | 585425.068 | 830476.646 | P2 | |
| P19 | 585427.341 | 830479.439 | P2 | |
| P20 | 585429.613 | 830482.231 | P2 | |

| Point Table | | | | |
|-------------|------------|------------|------|--|
| Point # | Easting | Northing | Axis | |
| P1 | 585465.602 | 830452.943 | P1 | |
| P2 | 585463.329 | 830450.151 | P1 | |
| P3 | 585461.057 | 830447.358 | P1 | |
| P4 | 585458.785 | 830444.566 | P1 | |
| P5 | 585461.983 | 830453.567 | P1 | |
| P6 | 585457.439 | 830447.982 | P1 | |
| P7 | 585453.821 | 830448.606 | P1 | |
| P8 | 585456.093 | 830451.398 | P1 | |
| P9 | 585458.365 | 830454.190 | P1 | |
| P10 | 585460.638 | 830456.983 | P1 | |

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B19
Dimension : 15*15*15 cm
Date of casting : 20/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

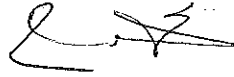
| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 20/09/2022 | 27/09/2022 | 7 | 8.532 | 121200 | 539 | 567 |
| 2 | 20/09/2022 | 27/09/2022 | 7 | 8.377 | 131100 | 583 | |
| 3 | 20/09/2022 | 27/09/2022 | 7 | 8.495 | 130700 | 581 | |

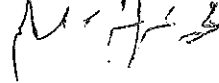
التوقيع:

الأستشارى

جودة المشروع

مهندس / أحمد عربى
مدير المصنع







Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B19
Dimension : 15*15*15 cm
Date of casting : 20/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 20/09/2022 | 18/10/2022 | 28 | 8.514 | 128600 | 572 | 610 |
| 2 | 20/09/2022 | 18/10/2022 | 28 | 8.624 | 144600 | 643 | |
| 3 | 20/09/2022 | 18/10/2022 | 28 | 8.437 | 138400 | 615 | |

التوقيع:

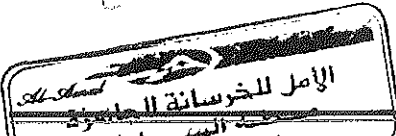
الاستشارى

جودة المشروع

مهندس / احمد عرابى

مدير المصنع

تامر ملاح



Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)
مدينة نصر / تليفاكس : ٢٩٨٤٠١٠٩ - ٢٩٨٤١١٣٦
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٧٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

| | |
|-------|---------|
| Total | 5672.88 |
|-------|---------|

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.
- LENGTH OF PILE = 39 M BELOW GROUND LEVEL ACCORDING TO GEO-TECHNICAL REPORT.

| | | | |
|---|---|--|-----------------------------------|
| NO. TITLE:
RECOVER TOTAL BRIDGE
PILES
FILE REINFORCEMENT BARS SHIP DRAWING | SCALE:
AS SHOWN
REVISED:
ENG. Modified | DATE:
08-2002
CHECKED BY:
ENG. Abdulrahman Alkhatib | APPROVED BY:
Eng. Jaber Tawfik |
| PROJ. NO.:
015-1000000-100
DRAWING NO.
CIVIL-EST-1-Formy | SUBMITTING:
UH, International Contractors | | |

REQUEST to POUR CONCRETE



| | | | | | | | | | | | |
|----------------------|--------------|------------|------------------|------|----|----|----|----|----|----|----|
| Contractor Company | | | Designer Company | | | | | | | | |
| Issued by Contractor | Name | Sign | Date | Time | | | | | | | |
| | | | 11/9/2022 | | | | | | | | |
| Received by ER | | محرم باخوم | CON | C1 | C2 | C3 | DD | MM | YY | HH | MM |
| Contractor Reference | النيل العامة | | | | | | | | | | |

| CODE-1 | S1 to S21
Station Reference | D1 to S3
Depot Reference | Kp XXX Note
For Kilometer point only Start Km is used |
|----------|--------------------------------|-----------------------------|--|
| CODE - 2 | Work Activity | | |
| CODE - 3 | Sub Element of Activity | | |

| | | | | |
|---|--|-----------------------------------|--|------------------------------|
| THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW | | | | |
| Mix Approval Reference | | | | |
| Location of Pour | Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (20)) | | | |
| Concrete Type: | Grout Mix ☐ | Lean Mix ☐ | Structural Mix ☐ | Grade: 30 kg/cm ² |
| PRESTART CHECKLIST | | | | |
| IR Approved | | Plant & equipment available | | |
| Mix Approved | | Back up equipment available | | |
| Setting out Survey Approved | | Cast in items secure | | |
| Temp Works Approved | | Access route clear | | |
| Formwork Checked | | Work area safe to progress | | |
| Start Time for Pour: 11:40 Am | Concrete Volume: 51 m3 | | | |
| THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW | | | | |
| Item | Document No | Revision | Title | Number of Sheets |
| 1 | | | COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS | |
| 2 | | | STEEL RFT SHOPDRAWING FOR PILES | |
| 3 | | | PILES COORDINATES | |
| Comments by: | | Comments by: | | |
| | | | | |

| APPROVAL STATUS | | | | |
|-------------------------|------|------|-----------|---------|
| Organisation | Name | Sign | Date | A-AWC-R |
| Contractor | | | | A |
| QA/QC | | | | A |
| Employer Representative | | | 11/9/2022 | A |



BAUER EGYPT



SVSTRA

ACE CONSULTING ENGINEERS
MOHARRAMBAKHOUA

Bored Piles Construction

Pile Record Sheet

Pile Data

| Project | ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE | | | | |
|---|---|------------------------|-------------------|------------------------|----------|
| Owner | MINISTRY OF TRANSPORT | | | Report No. | 4 |
| Subcontractor | GENERAL NILE COMPANY FOR
ROADS&BRIDGES | | | Date | 1/9/2022 |
| Pile No. | P20 | Structure | bridge | Pile Cutoff Level | - |
| Pier | P2 | Ground Level | 67.15 | Pile Toe Level | 28.237 |
| Theoretical Pile Length from caisson level | 40.12 m | Water Table Level | N/A | Permanent Casing Level | N/A |
| Req. Drilling Length From Ground Level | 38.91 m | Theoretical Concrete Q | 46 m ³ | Temporary Casing Level | 68.360 |
| Act. Drilling Length | 40.7 m | Act. Concrete Q | 51 m ³ | Steel Top Level | 66.437 |
| Permanent Casing Dim.
L(m)×D(m)×Thick.
(mm) | N/A | Steel Cage | Circular piles | Hook Length | 1.93 |

Pile Survey

| Coordinates | EAST | NORTH |
|----------------|------------|------------|
| Theoretical | 585429.613 | 830482.231 |
| Actual | 585429.627 | 830482.227 |
| BAUER Survivor | | |

Geotechnical Log

| 0.0 | CAISSON L. |
|------|------------|
| 5.0 | |
| 10.0 | |
| 15.0 | |
| 20.0 | |
| 25.0 | |
| 30.0 | |

Bentonite Slurry Test

| Properties | Fresh Bentonite | | Before Cages Installation | |
|-------------------------------|-----------------|--------|---------------------------|--------|
| | Req. Limits | Actual | Req. Limits | Actual |
| Density (gm/cm ³) | Less Than 1.1 | 1.02 | Less Than 1.5 | 1.03 |
| Viscosity(Sec.) | 30:70 Sec. | 34 | ≤90 Sec. | 37 |
| Sand Content % | Less than 4% | N/A | Less than 2% | 0.5 |

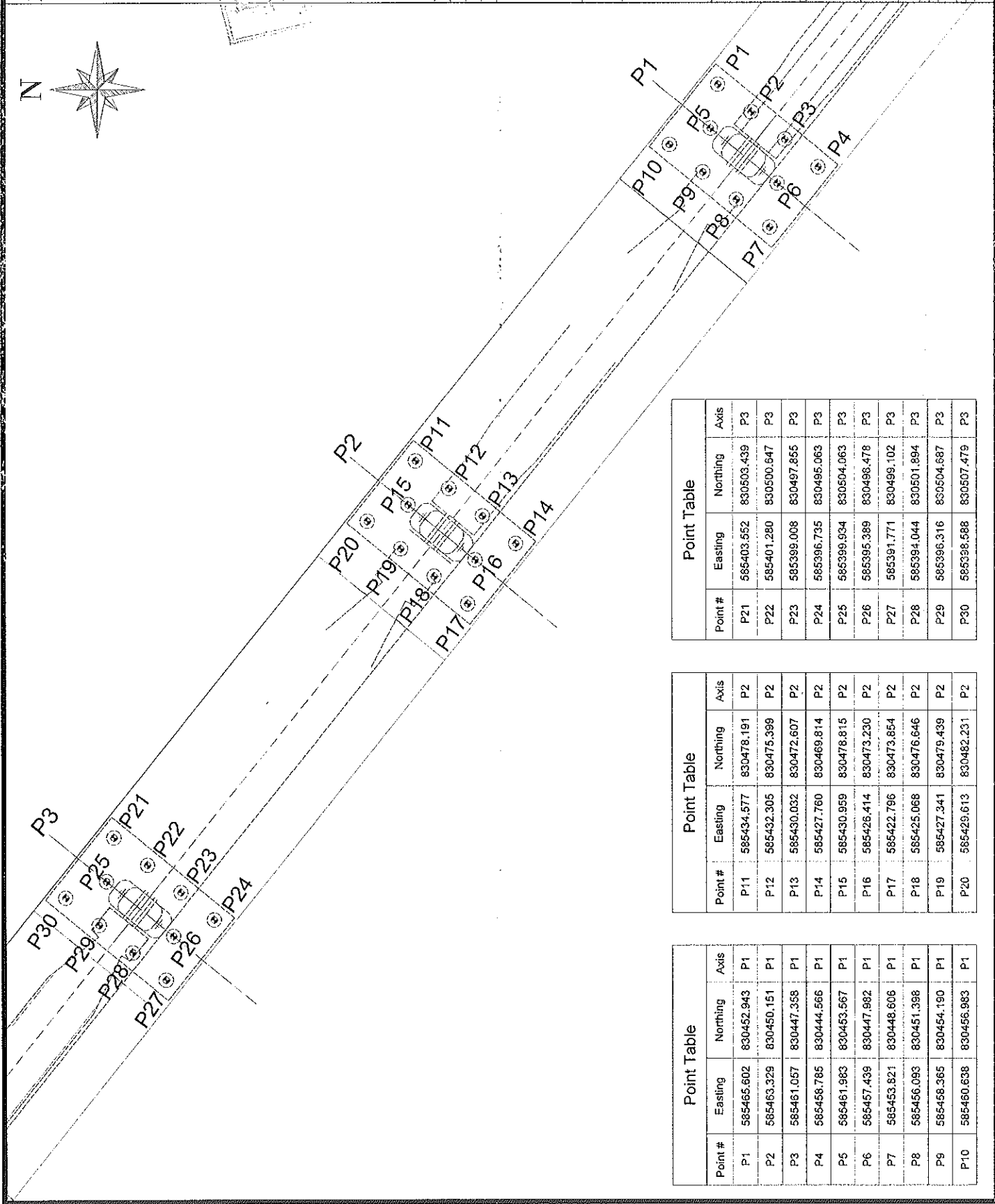
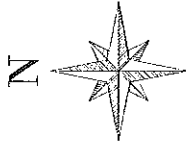
Time Survey

| Activity | Date | From | To | Activity | Date | From | To | Remarks |
|---------------|------|-------|-------|----------|------|-------|-------|---------|
| Drilling | 31/8 | 11:40 | 16:50 | Cleaning | - | - | - | |
| Install Cages | 1/9 | 9:37 | 11:04 | Pouring | 1/9 | 11:44 | 13:00 | |

| | BAUER EGYPT | NILE COMPANY | OWNER/if Required |
|-----------|-------------|--------------|-------------------|
| Signature | | | |

NOTES:

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE
MERIDIAN, AS PER THE RECEIVED SITE SURVEY.



| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P1 | 585455.602 | 830452.943 | P1 |
| P2 | 585463.329 | 830450.151 | P1 |
| P3 | 585461.057 | 830447.358 | P1 |
| P4 | 585458.785 | 830444.566 | P1 |
| P5 | 585461.983 | 830453.567 | P1 |
| P6 | 585457.439 | 830447.982 | P1 |
| P7 | 585453.821 | 830448.606 | P1 |
| P8 | 585456.093 | 830451.398 | P1 |
| P9 | 585458.365 | 830454.190 | P1 |
| P10 | 585460.638 | 830456.983 | P1 |

| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P11 | 585434.577 | 830478.191 | P2 |
| P12 | 585432.305 | 830475.399 | P2 |
| P13 | 585430.032 | 830472.607 | P2 |
| P14 | 585427.760 | 830469.814 | P2 |
| P15 | 585430.959 | 830478.815 | P2 |
| P16 | 585426.414 | 830473.230 | P2 |
| P17 | 585422.796 | 830473.854 | P2 |
| P18 | 585425.068 | 830476.646 | P2 |
| P19 | 585427.341 | 830479.439 | P2 |
| P20 | 585429.613 | 830482.231 | P2 |

| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P21 | 585403.552 | 830503.439 | P3 |
| P22 | 585401.280 | 830500.647 | P3 |
| P23 | 585399.008 | 830497.855 | P3 |
| P24 | 585396.735 | 830495.063 | P3 |
| P25 | 585399.934 | 830504.063 | P3 |
| P26 | 585395.389 | 830498.478 | P3 |
| P27 | 585391.771 | 830499.102 | P3 |
| P28 | 585394.044 | 830501.894 | P3 |
| P29 | 585396.316 | 830504.687 | P3 |
| P30 | 585398.588 | 830507.479 | P3 |

| OWNER | | | |
|-------|------|------|----------|
| NO. | DATE | SIG. | REVISION |
| 1 | | | |

الهيئة العامة للغمر العربية
جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
GENERAL AUTHORITY OF
RIVER RECLAMATION
الهبة العامة للغمر العربية
جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
GENERAL AUTHORITY OF
RIVER RECLAMATION

NAME OF PROJECT
ELECTRICAL EXPRESS TRAIL HIGH SPEED RAIL
SECTION THREE (FROM MEAS OF FILE TO LUGAH)

NAME OF OWNER CONSULTANT

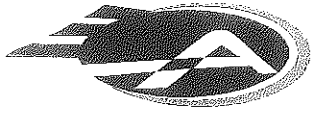


NAME OF CONTRACTOR CONSULTANT

SCALE
1:100
DATE
DESIGNED BY
CHECKED BY

RECEIVED
FROM P1 P2
PILES COORDINATES APPROVED AXIS

DATE
DESIGNED BY
CHECKED BY
SIGNATURE
DATE



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المخصص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

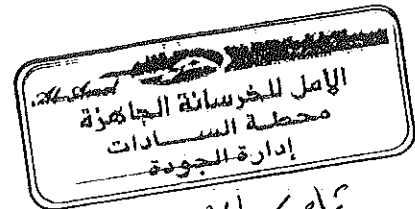
COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B20
Dimension : 15*15*15 cm
Date of casting : 01/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 01/09/2022 | 08/09/2022 | 7 | 3.501 | 35240 | 423 | 442 |
| 2 | 01/09/2022 | 08/09/2022 | 7 | 8.487 | 103600 | 460 | |
| 3 | 01/09/2022 | 08/09/2022 | 7 | 8.486 | 99780 | 443 | |

التوقيع:
مهندس / أحمد عرابى
مدير المصنع

مركز هاسيو بوليس



تامر الحام

Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
Nasr City - / Telfax: 26772572 - 23573307
Planet : New Cairo - Katamia - Pfart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : إيجيبت ميدكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧).
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

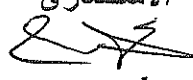
E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B20
Dimension : 15*15*15 cm
Date of casting : 01/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 01/09/2022 | 29/09/2022 | 28 | 8.578 | 126400 | 562 | 561 |
| 2 | 01/09/2022 | 29/09/2022 | 28 | 8.456 | 127200 | 565 | |
| 3 | 01/09/2022 | 29/09/2022 | 28 | 8.395 | 125000 | 556 | |

التوقيع:

الاستشارى


جودة المشروع



مهندس / أحمد عرابى

مدير المصنع

تامر الحام

GENERAL NOTES

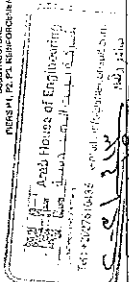
- All dimensions in millimeters.
- Reinforcement shall comply with SAE 4020 or 4022.
- The concrete shall be of grade C20/25.
- Concrete shall be cast in place.
- The steel reinforcement shall be of grade S420.
- The steel reinforcement shall be of grade S420.
- The steel reinforcement shall be of grade S420.

All levels should be related before construction in site.

- ABBREVIATION:
- T.O.A = Top of Asphalt
 - T.O.C = Top of Concrete
 - T.O.B = Top of Bitumastic
 - T.O.F = Top of Form
 - T.O.L = Top of Level
 - T.O.G = Top of Ground
 - T.O.H = Top of Height
 - T.O.S = Top of Surface
 - T.O.T = Top of Total
 - T.O.U = Top of Under
 - T.O.V = Top of Vertical
 - T.O.W = Top of Width
 - T.O.X = Top of X-axis
 - T.O.Y = Top of Y-axis
 - T.O.Z = Top of Z-axis
 - T.O.A = Top of Asphalt
 - T.O.C = Top of Concrete
 - T.O.B = Top of Bitumastic
 - T.O.F = Top of Form
 - T.O.L = Top of Level
 - T.O.G = Top of Ground
 - T.O.H = Top of Height
 - T.O.S = Top of Surface
 - T.O.T = Top of Total
 - T.O.U = Top of Under
 - T.O.V = Top of Vertical
 - T.O.W = Top of Width
 - T.O.X = Top of X-axis
 - T.O.Y = Top of Y-axis
 - T.O.Z = Top of Z-axis

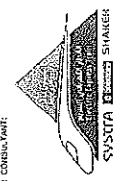
REVISIONS:

| NO. | DATE | BY | REVISION |
|-----|------------|----|-------------------------|
| 01 | 10/10/2010 | AS | ISSUED FOR CONSTRUCTION |



| NO. | DATE | BY | REVISION |
|-----|------------|----|-------------------------|
| 01 | 10/10/2010 | AS | ISSUED FOR CONSTRUCTION |

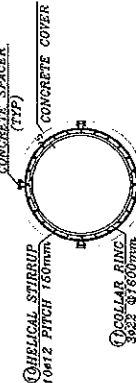
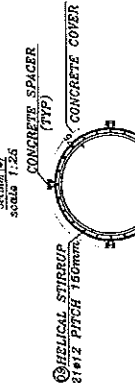
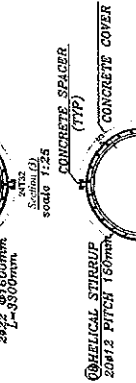
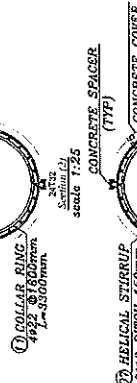
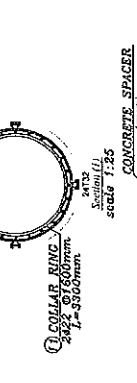
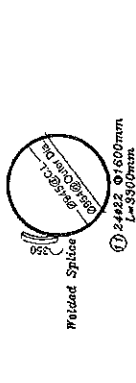
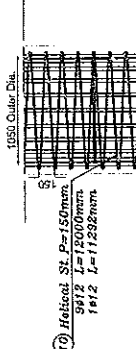
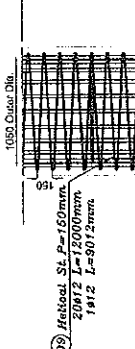
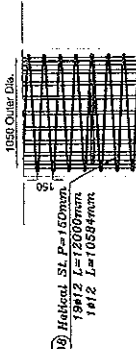
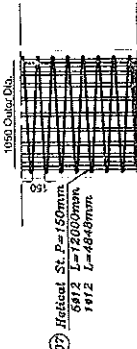
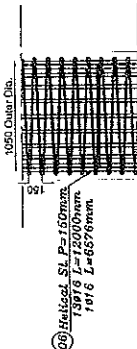
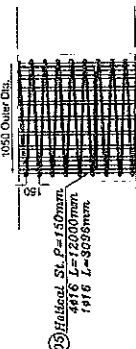
PROJECT: ELECTRICAL EXPANSION (HIGH SPEED RAIL)
SECTION THREE (FROM KHALEED STREET TO AL-MAJMAH)



FHECOR
Ingenieros Consultores



| NO. | DATE | BY | REVISION |
|-----|------------|----|-------------------------|
| 01 | 10/10/2010 | AS | ISSUED FOR CONSTRUCTION |



[illegible]

ABBREVIATION :

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

| | |
|----------------------------|---|
| ONE-VOL-CC-010-001-INT-E02 | REGWA ROAD BRIDGE
GENERAL NOTES
ADDITIONAL 1 DEFINITION |
| ONE-VOL-CC-010-002-INT-E02 | REGWA ROAD BRIDGE
STRUCTURE
PIERS #1, P2, P3, REINFORCEMENT |

[illegible]

جمهورية الكويت
ARAB REPUBLIC OF KUWAIT
وزارة النقل
MINISTRY OF TRANSPORT
والبحري
AND MARITIME AFFAIRS
دولة الكويت
State of Kuwait

ELECTRICAL EXPRESS TRAIN (HIGH SPEED-RAIL)
SECTION THREE (FROM YES) OF NILE TO ALMAANY

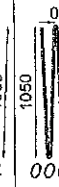
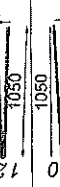
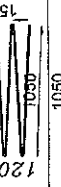
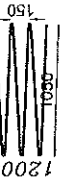
W FHECOR E
Ingenieros Consultores

PILE REINFORCEMENT BASE SHOT DRILLING
FILES AT AXES (P1, P2, P3)
NEWARK ROAD BRIDGE

| | | | |
|-----------------------------------|--|-------------------------------------|----------------------------|
| DRAWING BY:
ENG. El-Hajj Faray | CHECKED BY:
ENG. Abdulrahman Mahall | DESIGNED BY:
ENG. Mansour Ghalib | AS DIRECTOR
AS DIRECTOR |
| SUPERVISOR
(Signature) | | APPROVED BY:
(Signature) | |

| | |
|------------------------|------------------------|
| Dr. Mohamed Elmaghrabi | Exp. Jordan University |
|------------------------|------------------------|

Arab House of Engineering
 بيت المهندسين العرب
 تهران - ايران
 Tel: 42246135
 6-5152

| BAR
MARK | BAR
DIA. | SYMBOL(mm) | NUMBER
QTY | LENGTH
(mm) | TOTAL WEIGHT
(Kg) |
|-------------|-------------|---|---------------|---------------------|----------------------|
| 01 | 32 |  | 24 | 12000 | 1820.44 |
| 02 | 25 |  | 24 | 12000 | 1111.11 |
| 03 | 25 |  | 24 | 12000 | 1111.11 |
| 04 | 22 |  | 24 | 6400 | 458.90 |
| 05 | 16 |  | 4+1 | 12000
+
3096 | 75.85
+
4.89 |
| 06 | 16 |  | 13+1 | 12000
+
6576 | 246.51
+
10.39 |
| 07 | 12 |  | 5+1 | 12000
+
4848 | 53.33
+
4.30 |
| 08 | 12 |  | 19+1 | 12000
+
10584 | 202.66
+
9.40 |
| 09 | 12 |  | 20+1 | 12000
+
9072 | 213.33
+
8.01 |
| 10 | 12 |  | 9+1 | 12000
+
11292 | 96.00
+
10.03 |
| 11 | 22 |  | 24 | 3300 | 236.62 |

Total 5672.88

| | | | | | |
|------------------|--------|--------|--------|---------|---------|
| Pile Diameter | ø12 | ø16 | ø22 | ø25 | ø32 |
| TOTAL LENGHT(M) | 678.47 | 213.69 | 233.39 | 577.2 | 288.04 |
| TOTAL WEIGHT(Kg) | 597.06 | 337.64 | 695.52 | 2222.22 | 1820.44 |

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.
- LENGTH OF PILE = 39 M BELOW GROUND LEVEL ACCORDING TO GEO-TECHNICAL REPORT.

REQUEST to POUR CONCRETE



| | | | | | | | | | | | | | | | | | | | | |
|----------------------|--------------|------------|------------------|---|----|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|
| Contractor Company | | | Designer Company | | | | | | | | | | | | | | | | | |
| Issued by Contractor | Name | Sign | Date | Time | | | | | | | | | | | | | | | | |
| | | | 3/9/2022 | | | | | | | | | | | | | | | | | |
| Received by ER | | محرم باخوم | CON | <table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | C1 | C2 | C3 | DD | MM | YY | HH | MM | | | | | | | | |
| C1 | C2 | C3 | DD | MM | YY | HH | MM | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| Contractor Reference | النيل العامة | | | | | | | | | | | | | | | | | | | |

| CODE-1 | S1 to S21
Station Reference | D1 to S3
Depot Reference | Kp XXX Note
For Kilometer point only Start Km is used |
|--------|--------------------------------|-----------------------------|--|
| CODE-2 | Work Activity | | |
| CODE-3 | Sub Element of Activity | | |

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

| | | | |
|------------------------------|---|-----------------------------------|--|
| Mix Approval Reference | | | |
| Location of Pour | Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (21)) | | |
| Concrete Type: | Grout Mix ☐ | Lean Mix ☐ | Structural Mix ☐ Grade: 30 kg/cm ² |
| PRESTART CHECKLIST | | | |
| IR Approved | | Plant & equipment available | |
| Mix Approved | | Back up equipment available | |
| Setting out Survey Approved | | Cast in items secure | |
| Temp Works Approved | | Access route clear | |
| Formwork Checked | | Work area safe to progress | |
| Start Time for Pour: 6:19 pm | Concrete Volume: 51 m3 | | |

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

| Item | Document No | Revision | Title | Number of Sheets |
|--------------|-------------|--------------|--|------------------|
| 1 | | | COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS | |
| 2 | | | STEEL RFT SHOPDRAWING FOR PILES | |
| 3 | | | PILES COORDINATES | |
| Comments by: | | Comments by: | | |
| | | | | |

APPROVAL STATUS

| Organisation | Name | Sign | Date | A-AWC-R |
|-------------------------|------|------|----------|---------|
| Contractor | | | | A |
| QA/QC | | | | A |
| Employer Representative | | | 3/9/2022 | B |



SVSTRA

ACE CONSULTING ENGINEERS
MOHAMMAD BAKHOUN**Bored Piles Construction**
Pile Record Sheet**Pile Data**

| Project | ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE | | | | |
|---|---|------------------------|----------------------|------------------------|----------|
| Owner | MINISTRY OF TRANSPORT | | | Report No. | 5 |
| Subcontractor | GENERAL NILE COMPANY FOR
ROADS&BRIDGES | | | Date | 3/9/2022 |
| Pile No. | P21 | Structure | bridge | Pile Cutoff Level | - |
| Pier | P3 | Ground Level | 68.00 | Pile Toe Level | 28.907 |
| Theoretical Pile Length from caisson level | 40.45 m | Water Table Level | N/A | Permanent Casing Level | N/A |
| Req. Drilling Length From Ground Level | 39.09 m | Theoretical Concrete Q | 45.99 m ³ | Temporary Casing Level | 69.355 |
| Act. Drilling Length | 40.7 m | Act. Concrete Q | 51 m ³ | Steel Top Level | 67.107 |
| Permanent Casing Dim.
L(m)×D(m)×Thick.
(mm) | N/A | Steel Cage | Circular piles | Hook Length | 2.25 m |
| 28.907 | | | | | |

Pile Survey

| Coordinates | EAST | NORTH |
|----------------|------------|------------|
| Theoretical | 585403.552 | 830503.439 |
| Actual | 585403.539 | 830503.441 |
| BAUER Survivor | | |

Bentonite Slurry Test

| Properties | Fresh Bentonite | | Before Cages Installation | |
|-------------------------------|-----------------|--------|---------------------------|--------|
| | Req. Limits | Actual | Req. Limits | Actual |
| Density (gm/cm ³) | Less Than 1.1 | 1.02 | Less Than 1.5 | 1.03 |
| Viscosity(Sec.) | 30:70 Sec. | 35 | ≤90 Sec. | 39 |
| Sand Content % | Less than 4% | N/A | Less than 2% | 1 |

Geotechnical Log

| 0.0 | CAISSON L. |
|------|------------|
| 5.0 | |
| 10.0 | |
| 15.0 | |
| 20.0 | |
| 25.0 | |
| 30.0 | |

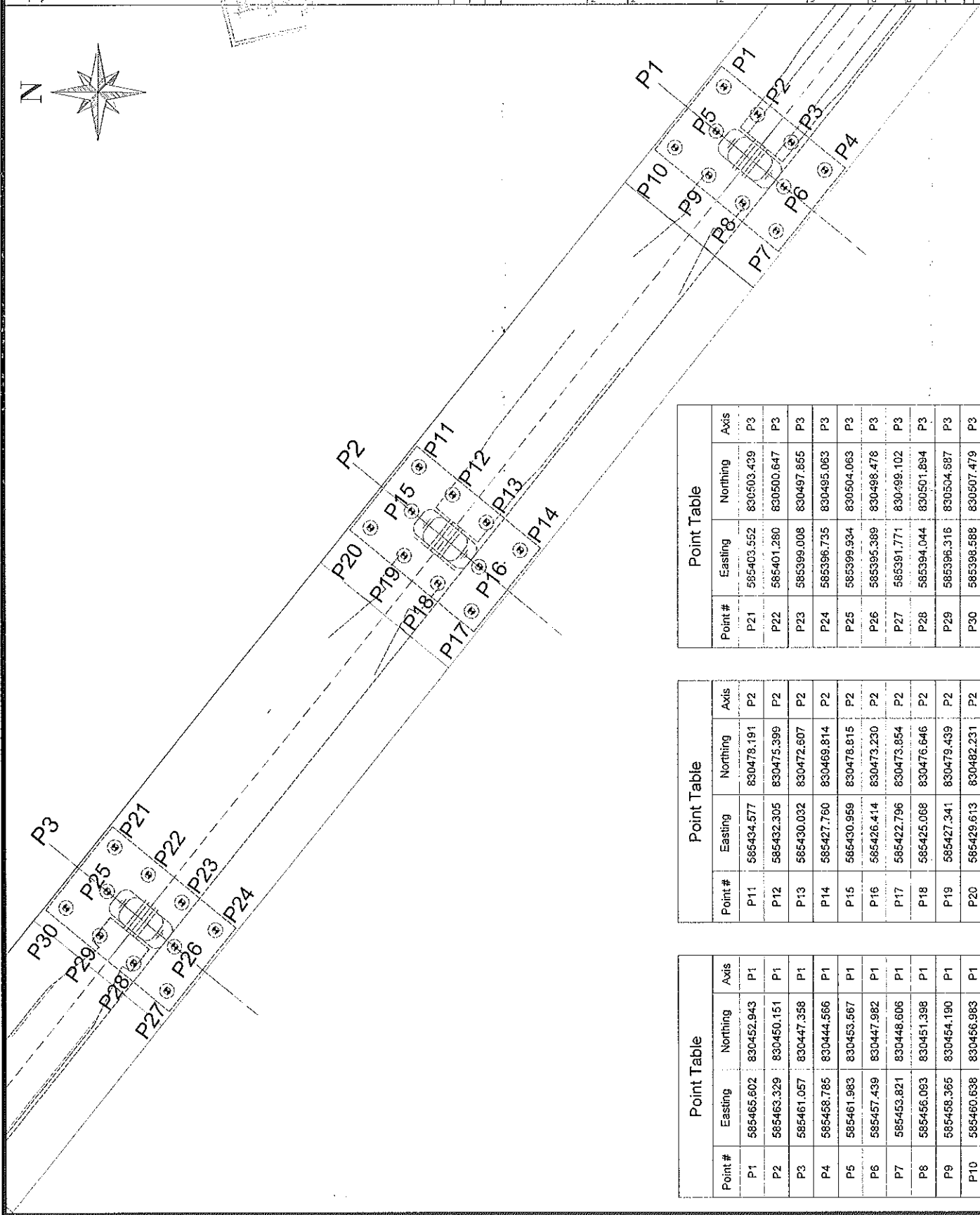
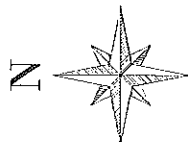
Time Survey

| Activity | Date | From | To | Activity | Date | From | To | Remarks |
|---------------|------|-------|-------|----------|------|-------|-------|---------|
| Drilling | 3/9 | 10:14 | 14:40 | Cleaning | - | - | - | |
| Install Cages | 3/9 | 16:07 | 17:45 | Pouring | 3/9 | 18:19 | 19:35 | |

| | | | |
|-----------|-------------|--------------|-------------------|
| | BAUER EGYPT | NILE COMPANY | OWNER/if Required |
| Signature | | | |

NOTES:

ALL COORDINATES ARE IN METRIC UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE
MERIDIAN/AS PER THE RECEIVED SITE SURVEY.



| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P21 | 585403.552 | 830503.439 | P3 |
| P22 | 585401.280 | 830500.647 | P3 |
| P23 | 585399.008 | 830497.855 | P3 |
| P24 | 585396.735 | 830495.063 | P3 |
| P25 | 585399.934 | 830504.063 | P3 |
| P26 | 585395.369 | 830498.478 | P3 |
| P27 | 585391.771 | 830499.102 | P3 |
| P28 | 585394.044 | 830501.894 | P3 |
| P29 | 585396.316 | 830504.587 | P3 |
| P30 | 585398.588 | 830507.479 | P3 |

| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P11 | 585434.577 | 830478.191 | P2 |
| P12 | 585432.305 | 830475.399 | P2 |
| P13 | 585430.032 | 830472.607 | P2 |
| P14 | 585427.760 | 830469.814 | P2 |
| P15 | 585430.959 | 830478.815 | P2 |
| P16 | 585426.414 | 830473.230 | P2 |
| P17 | 585422.796 | 830473.854 | P2 |
| P18 | 585425.068 | 830476.646 | P2 |
| P19 | 585427.341 | 830479.439 | P2 |
| P20 | 585429.613 | 830482.231 | P2 |

| Point Table | | | |
|-------------|------------|------------|------|
| Point # | Easting | Northing | Axis |
| P1 | 585465.602 | 830452.943 | P1 |
| P2 | 585463.329 | 830450.151 | P1 |
| P3 | 585461.057 | 830447.358 | P1 |
| P4 | 585458.785 | 830444.566 | P1 |
| P5 | 585461.983 | 830453.567 | P1 |
| P6 | 585457.439 | 830447.982 | P1 |
| P7 | 585453.821 | 830448.606 | P1 |
| P8 | 585456.093 | 830451.398 | P1 |
| P9 | 585458.365 | 830454.190 | P1 |
| P10 | 585460.638 | 830456.983 | P1 |

| | | | |
|---|------------|-------------------------|----------|
| OWNER | | ISSUED FOR CONSTRUCTION | |
| NO. | DATE | K.A. | REVISION |
| | | | |
| PROJECT NAME: ELECTRICAL EXPRESS TRAIL (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF PILE TO LAMINA) | | | |
| NAME OF OWNER CONSULTANT | | | |
| | | | |
| NAME OF CONTRACTOR CONSULTANT | | | |
| | | | |
| NAME OF CONTRACTOR | | | |
| | | | |
| SCALE: TITLE
PILES COORDINATES FOR APPROVED AXIS
FROM P1: P3 | | | |
| DATE | BY | CHECKED BY | SCALE |
| 01/02/2023 | 01/02/2023 | 01/02/2023 | 1:100 |
| APPROVED BY | | | |
| DR. Mohamed Elmaghrabi | | | |

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B21
Dimension : 15*15*15 cm
Date of casting : 03/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 03/09/2022 | 01/10/2022 | 28 | 8.702 | 117900 | 524 | 546 |
| 2 | 03/09/2022 | 01/10/2022 | 28 | 8.534 | 119300 | 530 | |
| 3 | 03/09/2022 | 01/10/2022 | 28 | 8.462 | 131200 | 583 | |

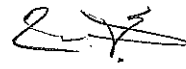
التوقيع:

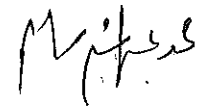
الاستشارى

جودة المشروع

مهندس / أحمد عرابى

مدير المصنع







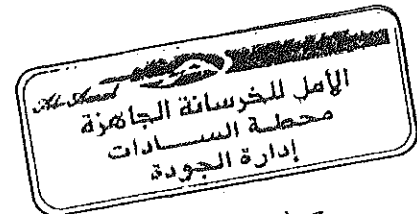
**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائى السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B21
Dimension : 15*15*15 cm
Date of casting : 03/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 03/09/2022 | 10/09/2022 | 7 | 8.543 | 101300 | 450 | 461 |
| 2 | 03/09/2022 | 10/09/2022 | 7 | 8.506 | 99720 | 443 | |
| 3 | 03/09/2022 | 10/09/2022 | 7 | 8.568 | 110300 | 490 | |

التوقيع:
مهندس / أحمد عرابى
مدير المصنع

مركز هليوبوليس



تامر المار

GENERAL NOTES

- 1. All dimensions are in millimeters.
- 2. Reinforcement shall be as per specification.
- 3. All reinforcement shall be lap welded.
- 4. All reinforcement shall be lap welded.
- 5. All reinforcement shall be lap welded.
- 6. All reinforcement shall be lap welded.
- 7. All reinforcement shall be lap welded.
- 8. All reinforcement shall be lap welded.
- 9. All reinforcement shall be lap welded.
- 10. All reinforcement shall be lap welded.

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.F = Top of Footing
- T.O.P = Top of Pile
- N.G.L = Natural Ground Level

REVISIONS:

- REVISION NO. 1: AS PER THE REQUIREMENT OF THE CLIENT.
- REVISION NO. 2: AS PER THE REQUIREMENT OF THE CLIENT.
- REVISION NO. 3: AS PER THE REQUIREMENT OF THE CLIENT.
- REVISION NO. 4: AS PER THE REQUIREMENT OF THE CLIENT.
- REVISION NO. 5: AS PER THE REQUIREMENT OF THE CLIENT.
- REVISION NO. 6: AS PER THE REQUIREMENT OF THE CLIENT.
- REVISION NO. 7: AS PER THE REQUIREMENT OF THE CLIENT.
- REVISION NO. 8: AS PER THE REQUIREMENT OF THE CLIENT.
- REVISION NO. 9: AS PER THE REQUIREMENT OF THE CLIENT.
- REVISION NO. 10: AS PER THE REQUIREMENT OF THE CLIENT.

DESIGNER'S NAME:

Arabian Gulf Engineering & Construction Co. Ltd.

DESIGNER'S ADDRESS:

PO BOX 111111, Doha, Qatar

DESIGNER'S PHONE:

974 4444 4444

DESIGNER'S FAX:

974 4444 4444

DESIGNER'S E-MAIL:

info@agc.com.qa

DESIGNER'S WEBSITE:

www.agc.com.qa

DESIGNER'S LOGO:

AGC Logo

DESIGNER'S SIGNATURE:

[Signature]

DESIGNER'S NAME:

Arabian Gulf Engineering & Construction Co. Ltd.

DESIGNER'S ADDRESS:

PO BOX 111111, Doha, Qatar

DESIGNER'S PHONE:

974 4444 4444

DESIGNER'S FAX:

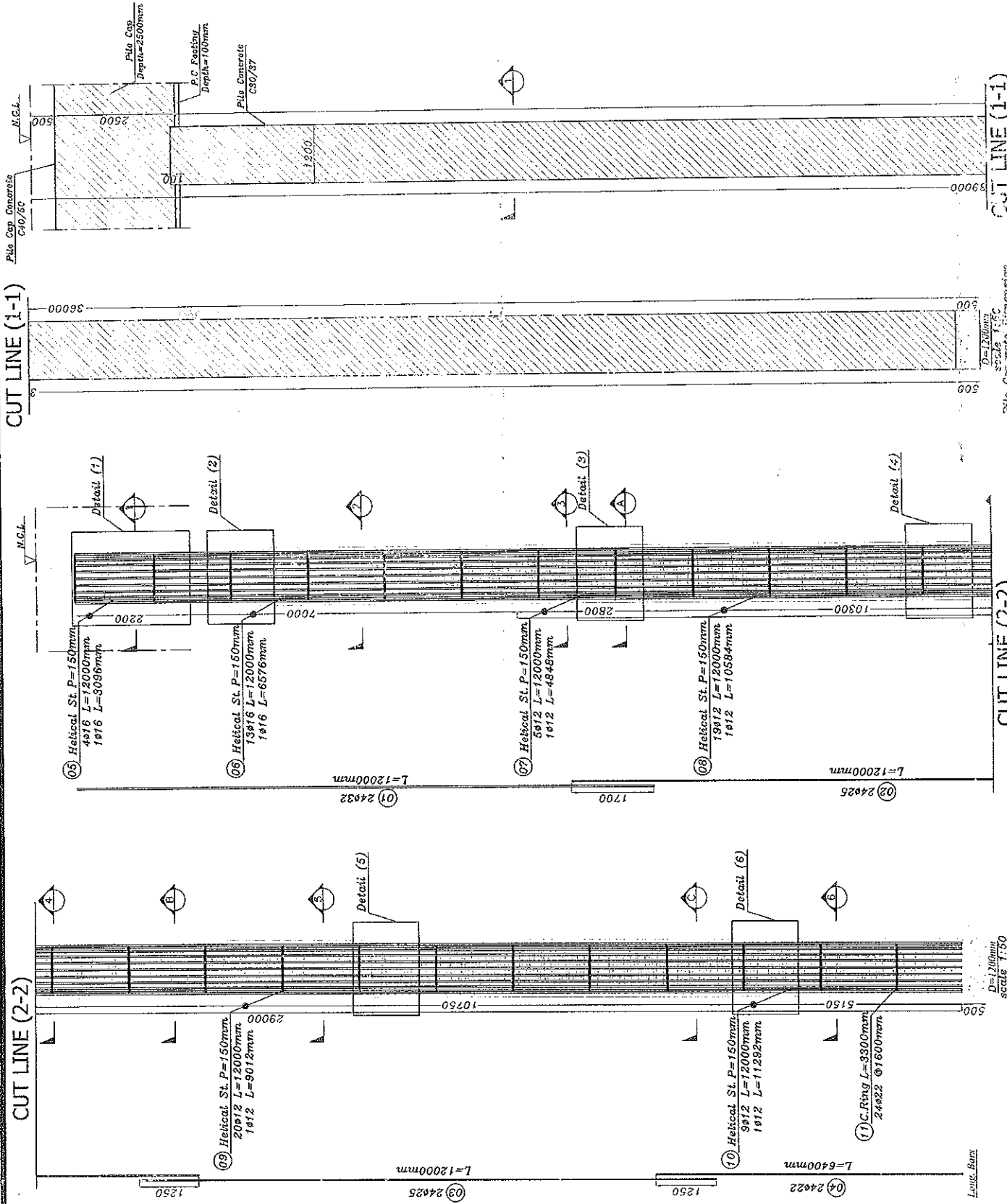
974 4444 4444

DESIGNER'S E-MAIL:

info@agc.com.qa

DESIGNER'S WEBSITE:

www.agc.com.qa



CUT LINE (1-1)

CUT LINE (2-2)

Scale: 1:50

Pile R.P.T

Drawn By: [Name]

Check By: [Name]

Approved By: [Name]

1. **What is the purpose of the study?**
 2. **What are the research objectives?**
 3. **What is the research design?**
 4. **What are the variables?**
 5. **What is the sample size?**
 6. **What are the data sources?**
 7. **What are the data collection methods?**
 8. **What are the data analysis methods?**
 9. **What are the results?**
 10. **What are the conclusions?**
 11. **What are the limitations?**
 12. **What are the recommendations?**

-T.O.A = Top of Asphalt
-T.O.C = Top of Column
-T.O.P = Top of Pipe Cap/Pile
-T.O.B = Top of Bresting
-T.O.F = Top of Frame
-H.G.L = Normal Ground Level

GENERAL NOTES
ABUTMENT 1, DEFINITION
NEGRA ROAD BRIDGE
SUBSTRUCTURE

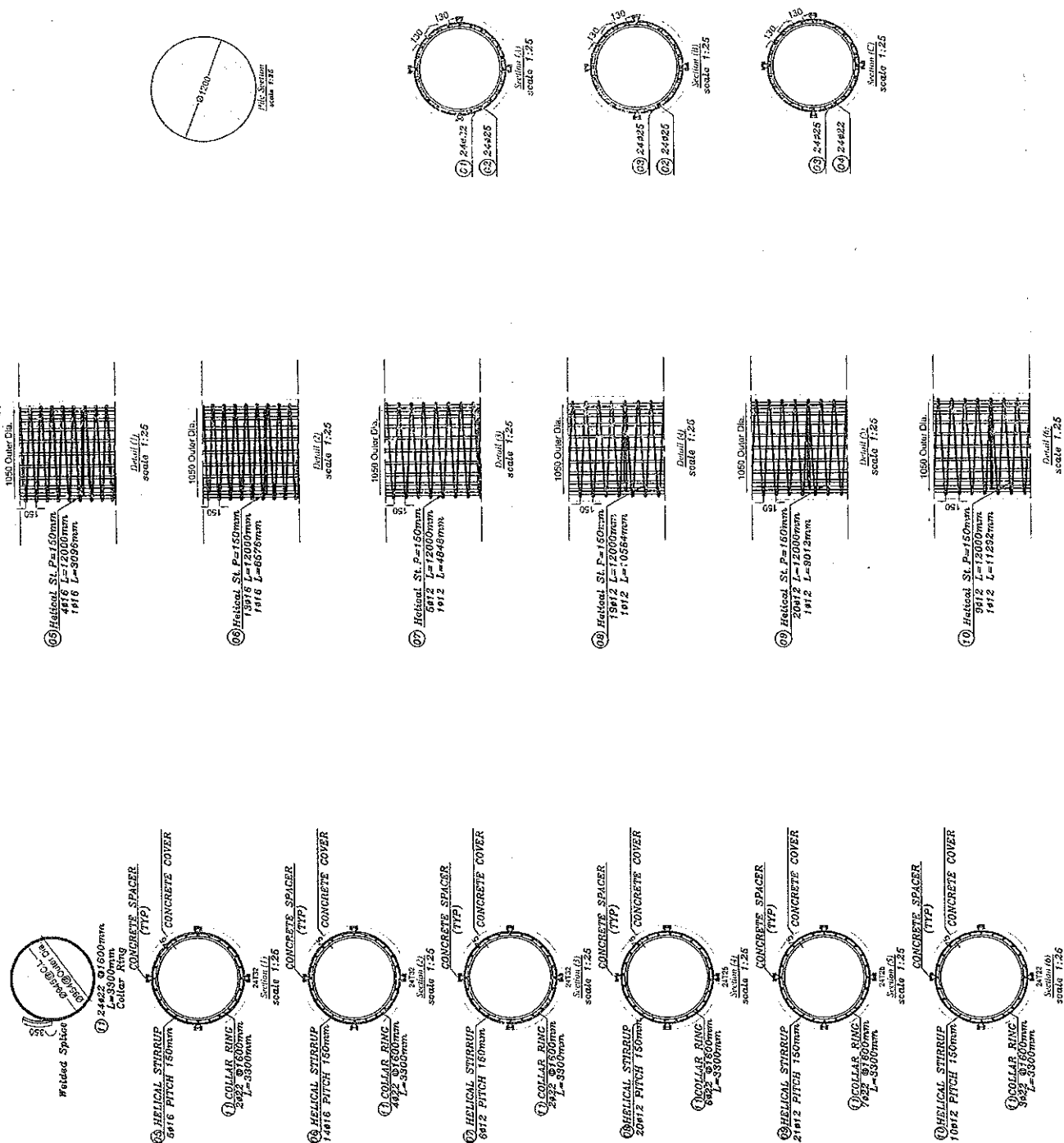
Arab House of Engineering
P.O. Box 10000, Jeddah 21511, Saudi Arabia
Tel: +9667611188 Fax: +9667611189
Said Al-Harbi

| NO. | DATE | ENO. | REVISION | ISSUED FOR CONSTRUCTION AS PER REVISED NOTICE NO. 1009 |
|-----|------------|------|----------|--|
| 0 | 24/04/2024 | 1145 | | |

جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للطرق والكباري والنقل البرى

ELECTRICAL EXPRESS TRAIN (HIGH SPEED -RAIL-)
SECTION THREE (FROM WEGY OF NILE TO AL-AHMED)

PHCOR
Ingenieros Consultores

[illegible]

[illegible]

ABBREVIATION :
 -T.O.A = Top of Air
 -T.O.C = Top of Coal
 -T.O.P = Top of Plinthis
 -T.O.B = Top of Bed
 -T.O.F = Top of Fiss
 -N.G.L = Normal G

| | |
|-----------------------------|--|
| 00000001-CC-010-001-IND-E02 | ALCANTARA ROAD BRIDGE
GENERAL NOTES
ADDITIONAL DEFINITION |
| 00000001-CC-010-002-PIB-E02 | ALCANTARA ROAD BRIDGE
SUBSTRUCTURE
PIERS #1, #2, #3, RETAINING WALLS |

[illegible]ELECTRICAL EXPRESS TRAIN (HIGH SPEED-RAIL)
 SECTION THREE (FROM WEST OF NH 1 TO MAINE)

.....



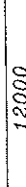
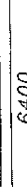
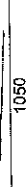
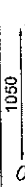
V **FHECOR** **SA**
Ingenieros Consultores

100

FILES AT ALE (P1,P2,P3)

FILE REINFORCEMENT GAGE SUB-DRAWING

| | | | |
|---|--------------------|---------------------------------|-------------|
| DATE: | 04-2002 | AS SHOWN | SCALE: |
| CHECKED BY: | ENG. Mansour Salah | REVISED BY: | REVISED BY: |
| ENG. Ezzat Elwanly | | ENG. Mansour Salah | |
| DRAWING BY:
ENG. Ezzat Elwanly | | APPROVED BY:
Eng. Zaidi Taha | |
| SUPPLEMENTARY:
ON: Reinforced Concrete | | | |

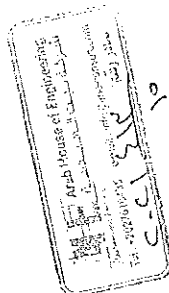
| BAR
MARK | BAR
DIA. | SYMBOL(mm.) | NUMBER
QTY | LENGTH
(mm.) | TOTAL WEIGHT
(Kg) |
|-------------|-------------|---|---------------|---------------------|----------------------|
| 01 | 32 |  | 24 | 12000 | 1820.44 |
| 02 | 25 |  | 24 | 12000 | 1111.11 |
| 03 | 25 |  | 24 | 12000 | 1111.11 |
| 04 | 22 |  | 24 | 6400 | 452.90 |
| 05 | 16 |  | 4+1 | 12000
+
3096 | 75.85
+
4.89 |
| 06 | 16 |  | 13+1 | 12000
+
6576 | 246.51
+
10.39 |
| 07 | 12 |  | 5+1 | 12000
+
4848 | 53.33
+
4.30 |
| 08 | 12 |  | 19+1 | 12000
+
10584 | 202.66
+
9.40 |
| 09 | 12 |  | 20+1 | 12000
+
9012 | 213.33
+
8.01 |
| 10 | 12 |  | 9+1 | 12000
+
11292 | 96.00
+
10.03 |
| 11 | 22 |  | 24 | 3300 | 236.62 |

| | |
|-------|---------|
| Total | 5672.88 |
|-------|---------|

| Pile Diameter | Ø12 | Ø16 | Ø22 | Ø25 | Ø32 |
|------------------|--------|--------|--------|---------|---------|
| TOTAL LENGTH(M) | 678.47 | 213.69 | 233.39 | 577.2 | 288.04 |
| TOTAL WEIGHT(Kg) | 597.06 | 337.64 | 695.52 | 2222.22 | 1820.44 |

ALL CUMULATIVE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.

LENGTH OF BR E = 30 M BELOW GROUND: EVEL ACCORDING TO GEO-TECHNICAL REPORT:



REQUEST to POUR CONCRETE



| | | | | | | | | | | | | | | | | | | | | |
|----------------------|--------------|------------|------------------|---|----|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|
| Contractor Company | | | Designer Company | | | | | | | | | | | | | | | | | |
| Issued by Contractor | Name | Sign | Date | Time | | | | | | | | | | | | | | | | |
| | | | 18/9/2022 | | | | | | | | | | | | | | | | | |
| Received by ER | | معمر باخوم | CON | <table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | C1 | C2 | C3 | DD | MM | YY | HH | MM | | | | | | | | |
| C1 | C2 | C3 | DD | MM | YY | HH | MM | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| Contractor Reference | النيل العامة | | | | | | | | | | | | | | | | | | | |

| | | | |
|--------|--------------------------------|-----------------------------|--|
| CODE-1 | S1 to S21
Station Reference | D1 to S3
Depot Reference | Kp XXX Note
For Kilometer point only Start Km is used |
| CODE-2 | Work Activity | | |
| CODE-3 | Sub Element of Activity | | |

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

| | | | |
|-----------------------------|--|-----------------------------------|---|
| Mix Approval Reference | | | |
| Location of Pour | Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (22)) | | |
| Concrete Type: | Grout Mix ☐ | Lean Mix ☐ | Structural Mix ☐ Grade: 350 kg/cm ² |
| PRESTART CHECKLIST | | | |
| IR Approved | | Plant & equipment available | |
| Mix Approved | | Back up equipment available | |
| Setting out Survey Approved | | Cast in items secure | |
| Temp Works Approved | | Access route clear | |
| Formwork Checked | | Work area safe to progress | |
| Start Time for Pour: | 5 pm | Concrete Volume: | 51 m3 |

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

| Item | Document No | Revision | Title | Number of Sheets |
|--------------|-------------|--------------|--|------------------|
| 1 | | | COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS | |
| 2 | | | STEEL RFT SHOPDRAWING FOR PILES | |
| 3 | | | PILES COORDINATES | |
| Comments by: | | Comments by: | | |
| | | | | |

APPROVAL STATUS

| Organisation | Name | Sign | Date | A-AWC-R |
|-------------------------|------|------|-----------|---------|
| Contractor | | | | A |
| QA/QC | | | | A |
| Employer Representative | | | 18/9/2022 | A |

Pile Data

| | | | | | |
|---|---|------------------------|----------------------|------------------------|-----------|
| Project | ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE | | | | |
| Owner | MINISTRY OF TRANSPORT | | | Report No. | 19 |
| Subcontractor | GENERAL NILE COMPANY FOR
ROADS&BRIDGES | | | Date | 18/9/2022 |
| Pile No. | P22 | Structure | bridge | Pile Cutoff Level | - |
| Pier | P3 | Ground Level | 68.00 | Pile Toe Level | 28.907 |
| Theoretical Pile Length from caisson level | 40.685 m | Water Table Level | N/A | Permanent Casing Level | N/A |
| Req. Drilling Length From Ground Level | 39.09 m | Theoretical Concrete Q | 46.33 m ³ | Temporary Casing Level | 69.592 |
| Act. Drilling Length | 41.3 m | Act. Concrete Q | 51 m ³ | Steel Top Level | 67.107 |
| Permanent Casing Dim. L(m)×D(m)×Thick. (mm) | N/A | Steel Cage | Circular piles | Hook Length | 2.48 |

Pile Survey

| | | |
|----------------|------------|------------|
| Coordinates | EAST | NORTH |
| Theoretical | 585401.280 | 830500.647 |
| Actual | 585401.290 | 830500.648 |
| BAUER Survivor | | |

Bentonite Slurry Test

| Properties | Fresh Bentonite | | Before Cages Installation | |
|-------------------------------|-----------------|--------|---------------------------|--------|
| | Req. Limits | Actual | Req. Limits | Actual |
| Density (gm/cm ³) | Less Than 1.1 | 1.02 | Less Than 1.5 | 1.05 |
| Viscosity(Sec.) | 30:70 Sec. | 34 | ≤90 Sec. | 37 |
| Sand Content % | Less than 4% | N/A | Less than 2% | 1.50 |

Geotechnical Log

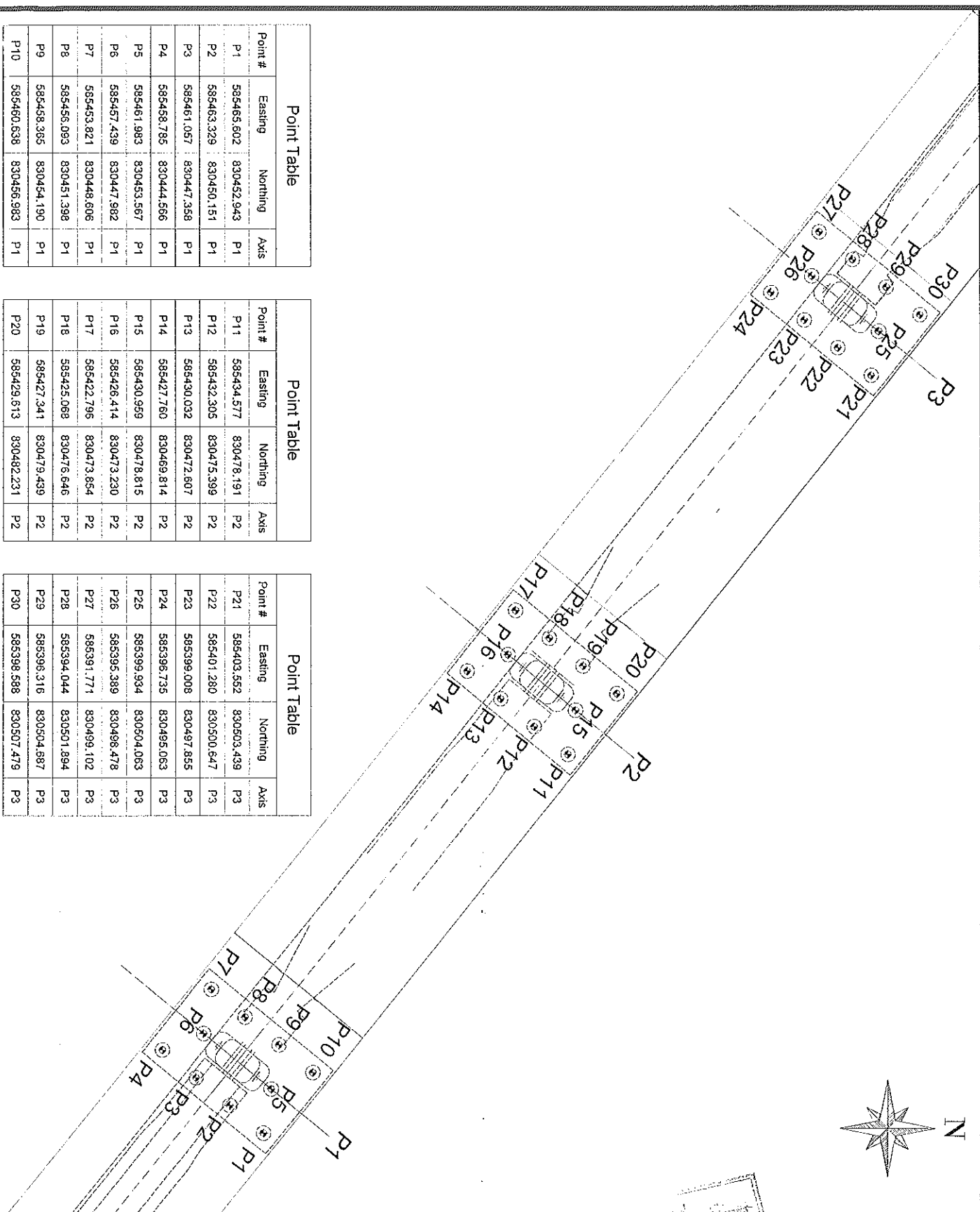
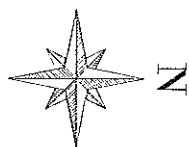
| 0.0 | CAISSON L. |
|------|------------|
| 5.0 | |
| 10.0 | |
| 15.0 | |
| 20.0 | |
| 25.0 | |
| 30.0 | |

Time Survey

| Activity | Date | From | To | Activity | Date | From | To | Remarks |
|---------------|------|-------|-------|----------|------|-------|-------|---------|
| Drilling | 18/9 | 12:00 | 14:45 | Cleaning | - | - | - | |
| Install Cages | 18/9 | 14:59 | 16:34 | Pouring | 18/9 | 17:00 | 18:13 | |

| | | | |
|-----------|---|--|-------------------|
| | BAUER EGYPT | NILE COMPANY | OWNER/if Required |
| Signature |  |  | |

NOTES:
-ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED
-ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE
MERIDIAN, AS PER THE RECEIVED SITE SURVEY.



Point Table

| Point # | Easting | Northing | Axis |
|---------|------------|------------|------|
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| P3 | 585461.057 | 830447.358 | P1 |
| P4 | 585458.785 | 830444.566 | P1 |
| P5 | 585461.983 | 830453.567 | P1 |
| P6 | 585457.439 | 830447.982 | P1 |
| P7 | 585453.821 | 830448.606 | P1 |
| P8 | 585456.093 | 830451.398 | P1 |
| P9 | 585458.365 | 830454.190 | P1 |
| P10 | 585460.638 | 830456.983 | P1 |

Point Table

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|---------|------------|------------|------|
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| P14 | 585427.760 | 830469.814 | P2 |
| P15 | 585430.959 | 830478.815 | P2 |
| P16 | 585426.414 | 830473.230 | P2 |
| P17 | 585422.795 | 830473.854 | P2 |
| P18 | 585425.068 | 830476.646 | P2 |
| P19 | 585427.341 | 830479.439 | P2 |
| P20 | 585429.613 | 830482.231 | P2 |

Point Table

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| P24 | 585396.735 | 830495.063 | P3 |
| P25 | 585399.934 | 830504.063 | P3 |
| P26 | 585395.389 | 830498.478 | P3 |
| P27 | 585391.771 | 830499.102 | P3 |
| P28 | 585394.044 | 830501.894 | P3 |
| P29 | 585396.316 | 830504.687 | P3 |
| P30 | 585398.588 | 830507.479 | P3 |

| | | | |
|---|--|---|--|
| <p>NAME OF PROJECT
ELECTRICAL ADDRESS THAMER-VEHICLE ROAD
ELECTION TIME: FROM HERE OF TALK TO A LASHBY</p> <p>NAME OF OWNER: CORALMAY</p> | | <p>NAME OF CONTRACTOR: SHAKEN</p> <p>NAME OF CONSULTANT: FHECOR Ingenieros Consultores</p> | |
| <p>DATE: 2022</p> <p>SCALE: 1:10</p> <p>DRAWN BY: Eng. Mohamed Ali</p> <p>CHECKED BY: Eng. Mohamed Ali</p> <p>OR: Mohamed Ali</p> | | <p>DATE: 2022</p> <p>SCALE: 1:10</p> <p>DRAWN BY: Eng. Mohamed Ali</p> <p>CHECKED BY: Eng. Mohamed Ali</p> <p>OR: Mohamed Ali</p> | |



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والنصر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B22
Dimension : 15*15*15 cm
Date of casting : 18/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 18/09/2022 | 16/10/2022 | 28 | 8.534 | 149400 | 664 | 648 |
| 2 | 18/09/2022 | 16/10/2022 | 28 | 8.564 | 146300 | 650 | |
| 3 | 18/09/2022 | 16/10/2022 | 28 | 8.689 | 141500 | 629 | |

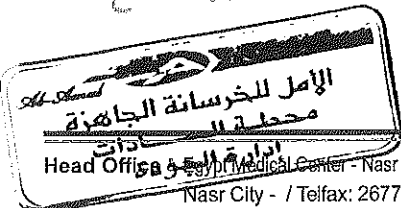
التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد عرابى

مدير المصنع



Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - / Telfax: 26772572 - 23573307

Planet : New Cairo - Katamia - Ppart 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industriat Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

الإدارة

إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧).

مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧

موقع العمل

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

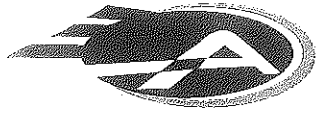
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٥٩٦٧٣



Al Amal Ready mix

الأمل

للخرسانة الجاهزة ش.م.م
رأس المال المخصص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B22
Dimension : 15*15*15 cm
Date of casting : 18/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 18/09/2022 | 25/09/2022 | 7 | 8.698 | 116300 | 517 | 476 |
| 2 | 18/09/2022 | 25/09/2022 | 7 | 8.673 | 101900 | 453 | |
| 3 | 18/09/2022 | 25/09/2022 | 7 | 8.569 | 103200 | 459 | |

التوقيع: مهندس / أحمد عرابي
مدير المصنع

الاستشارى
ش.م.م

جودة المشروع
رئيس مجلس إدارة
ش.م.م

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrireal Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية المساحة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

GENERAL NOTES

1. All dimensions are in millimeters.
2. Reinforcement shall be provided as indicated.
3. All reinforcement shall be lap welded.
4. All reinforcement shall be lap welded.
5. All reinforcement shall be lap welded.
6. All reinforcement shall be lap welded.
7. All reinforcement shall be lap welded.
8. All reinforcement shall be lap welded.
9. All reinforcement shall be lap welded.
10. All reinforcement shall be lap welded.

All loads should be applied before construction in situ.

- ASSUMPTIONS:
- T.O.A = Top of Asphalt
 - T.O.C = Top of Concrete
 - T.O.P = Top of Pile Cap
 - T.O.B = Top of Bridge
 - T.O.F = Top of Frame
 - R.G.L = Normal Ground Level

DRAWING INFORMATION

REINFORCED CONCRETE BRIDGE
SECTION THREE (Pile Cap and Pile)
AUTOMATIC 1.000000
REINFORCED CONCRETE BRIDGE
SECTION THREE (Pile Cap and Pile)
AUTOMATIC 1.000000

Arab House of Engineering
Civil Engineering
Tel: 0202731111
Fax: 0202731111

| NO. | DATE | ENG. | REVISION |
|-----|------------|------|-----------------------|
| 1 | 10/10/2007 | AS | REVISION FOR COMMENTS |

OWNER:
ARAB HOUSE OF ENGINEERING
Civil Engineering
Tel: 0202731111
Fax: 0202731111

NAME OF PROJECT:
SECTION THREE (Pile Cap and Pile)
SECTION THREE (Pile Cap and Pile)

NAME OF CONSULTANT:

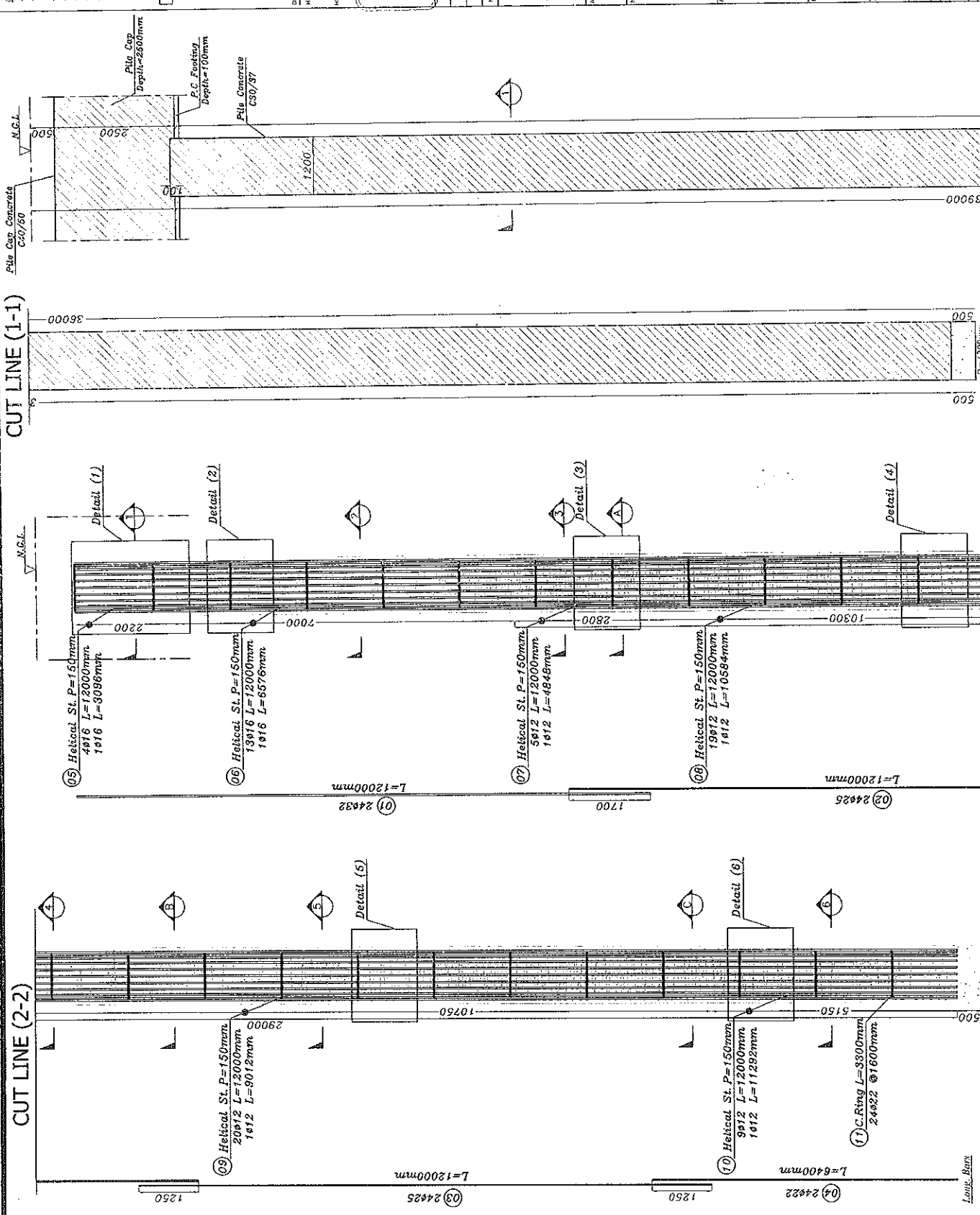


FHECOR
Ingenieros Consultores



REINFORCED CONCRETE BRIDGE
SECTION THREE (Pile Cap and Pile)
AUTOMATIC 1.000000

| NO. | DATE | ENG. | REVISION |
|-----|------------|------|-----------------------|
| 1 | 10/10/2007 | AS | REVISION FOR COMMENTS |



CUT LINE (1-1)

CUT LINE (2-2)

Pile Concrete Dimension
Scale 1:50

Pile R.F.T.
Scale 1:50

[illegible]

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Curbcut
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Boring
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

| | |
|--------------------------|--------------------------|
| REGINA ROAD BRIDGE | REGINA ROAD BRIDGE |
| GENERAL NOTES | GENERAL NOTES |
| ADJUSTMENT 1, DEFLECTION | ADJUSTMENT 1, DEFLECTION |
| REGINA ROAD BRIDGE | REGINA ROAD BRIDGE |

Law and House of Engineering
 1000 10th Ave. S.W. 1000 10th Ave. S.W.
 Minneapolis, MN 55415 Minneapolis, MN 55415
 Tel: 612/671-0332 Tel: 612/671-0332

| | | | |
|-----|------|------|----------|
| NO. | DATE | ENG. | REVISION |
| 1 | | ENG. | |
| 2 | | ENG. | |
| 3 | | ENG. | |
| 4 | | ENG. | |
| 5 | | ENG. | |
| 6 | | ENG. | |
| 7 | | ENG. | |
| 8 | | ENG. | |
| 9 | | ENG. | |
| 10 | | ENG. | |
| 11 | | ENG. | |
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| 13 | | ENG. | |
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| 97 | | ENG. | |
| 98 | | ENG. | |
| 99 | | ENG. | |
| 100 | | ENG. | |

الساحل:

جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للنقل والتوكيلات
والجناح الجوي

مطار القاهرة الدولي
CAIRO

COMPACTE:

مطار القاهرة الدولي
CAIRO

NAME OF PROJECT: ELECTRICAL CAPACITY TRAIN (HIGH SPEED RAIL)
SECTION THREE FROM WEST OF HILL TO ALABAMA

AFECOR
Ingenieros Consultores

[illegible]

- Do not mix your flower seeds. All flower seeds should be kept in separate bags.
- Plant in pots.
- Use Coward's Gravel - Pine Cap Collection 028-50
- Coward's cover 15 yr
- Use Spore Rich mulch, at 20 cm ϕ 20 x 20 cm
- Use 2000g Brown mulch at 20 cm ϕ 20 x 20 cm
- Use Spore Rich mulch at 20 cm ϕ 20 x 20 cm

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Natural Ground Level

| | |
|------------------------------|---|
| MSHA-V001-CC-010-001-NOT-E02 | MUSKOGEE ROAD BRIDGE
GENERAL NOTES
ADJUSTMENT 1, DEFINITION |
| MSHA-V001-CC-210-002-PIE-E02 | MUSKOGEE ROAD BRIDGE
SUBSTRUCTURE
PIERS P1, P2, P3, REINFORCEMENT 11) |

[illegible]

الجمهورية العربية السورية
ARAB REPUBLIC OF SYRIA
وزارة النقل
MINISTRY OF TRANSPORT
الميناء العامة للبحر والكيباري والنقل الجوي

ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF MILE TO ALABAMA)



NAME OF OWNER, CORPUS UNIT:

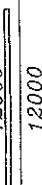
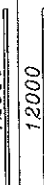
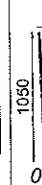
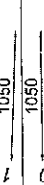
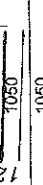
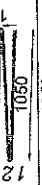
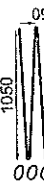
FHECOR S.A.
Ingenieros Consultores



الوزارة العامة للتعليم والاعتماد

الوزارة العامة للتعليم والاعتماد

| | | |
|---------------------------|--------------------------|---------------------------|
| FILE NO. 100-100-10000 | DATE: 08-2002 | SCALE: AS SHOWN |
| DRAWING BY: EHO, Edgar F. | CHECKED BY: EHO, William | REVIEWED BY: EHO, William |
| APPROVED BY: [Signature] | APPROVED BY: [Signature] | APPROVED BY: [Signature] |

| BAR MARK | BAR DIA. | SYMBOL(mm.) | NUMBER QTY | LENGTH (mm) | TOTAL WEIGHT (kg) |
|----------|----------|---|------------|---------------------|----------------------|
| 01 | 32 |  | 24 | 12000 | 1820.44 |
| 02 | 25 |  | 24 | 12000 | 1111.11 |
| 03 | 25 |  | 24 | 12000 | 1111.11 |
| 04 | 22 |  | 24 | 6400 | 458.90 |
| 05 | 16 |  | 4+1 | 12000
+
3096 | 75.85
+
4.89 |
| 06 | 16 |  | 13+1 | 12000
+
6576 | 246.51
+
10.39 |
| 07 | 12 |  | 5+1 | 12000
+
4848 | 53.33
+
4.30 |
| 08 | 12 |  | 19+1 | 12000
+
10584 | 202.66
+
9.40 |
| 09 | 12 |  | 20+1 | 12000
+
9012 | 213.33
+
8.01 |
| 10 | 12 |  | 9+1 | 12000
+
11292 | 96.00
+
10.03 |
| 11 | 22 |  | 24 | 3300 | 236.62 |

Total 5672.88

| | | | | | |
|------------------|--------|--------|--------|---------|---------|
| Pile Diameter | Ø12 | Ø16 | Ø22 | Ø25 | Ø32 |
| TOTAL LENGTH(M) | 678.47 | 213.69 | 233.39 | 577.2 | 288.04 |
| TOTAL WEIGHT(Kg) | 597.06 | 337.64 | 695.52 | 2222.22 | 1820.44 |

-ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.

REQUEST to POUR CONCRETE



| | | | | | | | | | | | | | | | | | | | | |
|----------------------|--------------|------------|------------------|---|----|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|
| Contractor Company | | | Designer Company | | | | | | | | | | | | | | | | | |
| Issued by Contractor | Name | Sign | Date | Time | | | | | | | | | | | | | | | | |
| | | | 10/9/2022 | | | | | | | | | | | | | | | | | |
| Received by ER | | محرم باخوم | CON | <table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | C1 | C2 | C3 | DD | MM | YY | HH | MM | | | | | | | | |
| C1 | C2 | C3 | DD | MM | YY | HH | MM | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| Contractor Reference | النيل العامة | | | | | | | | | | | | | | | | | | | |

| CODE - 1 | S1 to S21
Station Reference | D1 to S3
Depot Reference | Kp XXX Note
For Kilometer point only Start Km is used |
|----------|--------------------------------|-----------------------------|--|
| CODE - 2 | Work Activity | | |
| CODE - 3 | Sub Element of Activity | | |

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

| | | | | |
|------------------------------|---|-----------------------------------|---|-------------------------------|
| Mix Approval Reference | | | | |
| Location of Pour | Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (2 3)) | | | |
| Concrete Type: | Grout Mix ☐ | Lean Mix ☐ | Structural Mix ☐ | Grade: 370 kg/cm ² |
| PRESTART CHECKLIST | | | | |
| IR Approved | | Plant & equipment available | | |
| Mix Approved | | Back up equipment available | | |
| Setting out Survey Approved | | Cast in items secure | | |
| Temp Works Approved | | Access route clear | | |
| Formwork Checked | | Work area safe to progress | | |
| Start Time for Pour: 5:56 pm | Concrete Volume: 51 m3 | | | |

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

| Item | Document No | Revision | Title | Number of Sheets |
|------|-------------|----------|--|------------------|
| 1 | | | COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS | |
| 2 | | | STEEL RFT SHOPDRAWING FOR PILES | |
| 3 | | | PILES COORDINATES | |

| | |
|--------------|--------------|
| Comments by: | Comments by: |
| | |

APPROVAL STATUS

| Organisation | Name | Sign | Date | A-AWC-R |
|-------------------------|------|------|-----------|---------|
| Contractor | | | | A |
| QA/QC | | | | A |
| Employer Representative | | | 10/9/2022 | A |



SVSTRA

AGENCY FOR INVESTING IN THE
NILE BASINBored Piles Construction
Pile Record SheetPile Data

| Project | ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE | | | | |
|---|---|------------------------|----------------------|------------------------|-----------|
| Owner | MINISTRY OF TRANSPORT | | | Report No. | 11 |
| Subcontractor | GENERAL NILE COMPANY FOR
ROADS&BRIDGES | | | Date | 10/9/2022 |
| Pile No. | P23 | Structure | bridge | Pile Cutoff Level | - |
| Pier | P3 | Ground Level | 68.00 | Pile Toe Level | 28.907 |
| Theoretical Pile Length from caisson level | 40.38 m | Water Table Level | N/A | Permanent Casing Level | N/A |
| Req. Drilling Length From Ground Level | 39.09 m | Theoretical Concrete Q | 46.33 m ³ | Temporary Casing Level | 69.290 |
| Act. Drilling Length | 41 m | Act. Concrete Q | 51 m ³ | Steel Top Level | 67.107 |
| Permanent Casing Dim.
L(m)×D(m)×Thick.
(mm) | N/A | Steel Cage | Circular piles | Hook Length | 2.1 |

Pile Survey

| Coordinates | EAST | NORTH |
|----------------|------------|------------|
| Theoretical | 585399.008 | 830497.855 |
| Actual | 585399.001 | 830497.841 |
| BAUER Survivor | | |

Geotechnical Log

| 0.0 | CAISSON L. |
|------|------------|
| 5.0 | |
| 10.0 | |
| 15.0 | |
| 20.0 | |
| 25.0 | |
| 30.0 | |

Bentonite Slurry Test

| Properties | Fresh Bentonite | | Before Cages Installation | |
|-------------------------------|-----------------|--------|---------------------------|--------|
| | Req. Limits | Actual | Req. Limits | Actual |
| Density (gm/cm ³) | Less Than 1.1 | 1.02 | Less Than 1.5 | 1.03 |
| Viscosity(Sec.) | 30:70 Sec. | 34 | ≤90 Sec. | 38 |
| Sand Content % | Less than 4% | N/A | Less than 2% | 1.50 |

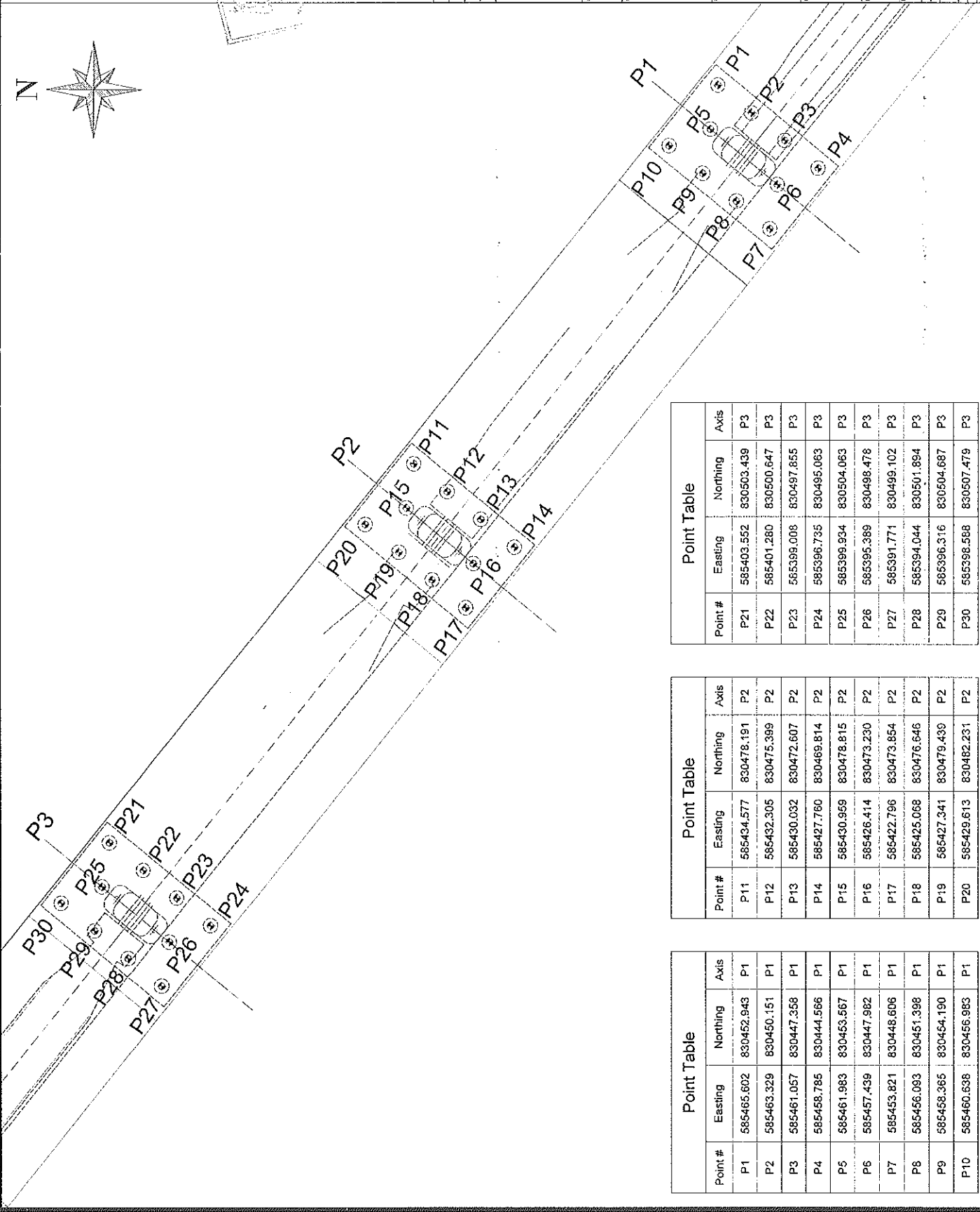
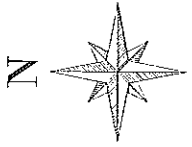
Time Survey

| Activity | Date | From | To | Activity | Date | From | To | Remarks |
|---------------|------|-------|-------|----------|------|-------|-------|---------|
| Drilling | 10/9 | 11:30 | 14:20 | Cleaning | - | - | - | |
| Install Cages | 10/9 | 16:00 | 17:18 | Pouring | 10/9 | 17:56 | 18:57 | |

| | BAUER EGYPT | NILE COMPANY | OWNER/If Required |
|-----------|-------------|--------------|-------------------|
| Signature | | | |

NOTES:

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE SPECIFIED.
ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERIDIAN) AS PER THE RECEIVED SITE SURVEY.



| Point Table | | |
|-------------|------------|------------|
| Point # | Easting | Northing |
| P1 | 585465.602 | 830452.943 |
| P2 | 585463.329 | 830450.151 |
| P3 | 585461.057 | 830447.358 |
| P4 | 585458.785 | 830444.566 |
| P5 | 585461.983 | 830453.567 |
| P6 | 585457.439 | 830447.982 |
| P7 | 585453.821 | 830448.606 |
| P8 | 585456.093 | 830451.398 |
| P9 | 585458.365 | 830454.190 |
| P10 | 585460.638 | 830456.983 |

| Point Table | | |
|-------------|------------|------------|
| Point # | Easting | Northing |
| P11 | 585434.577 | 830478.191 |
| P12 | 585432.305 | 830475.389 |
| P13 | 585430.032 | 830472.607 |
| P14 | 585427.760 | 830469.814 |
| P15 | 585430.959 | 830478.815 |
| P16 | 585426.414 | 830473.230 |
| P17 | 585422.796 | 830473.854 |
| P18 | 585425.068 | 830476.646 |
| P19 | 585427.341 | 830479.439 |
| P20 | 585429.613 | 830482.231 |

| Point Table | | |
|-------------|------------|------------|
| Point # | Easting | Northing |
| P21 | 585403.552 | 830503.439 |
| P22 | 585401.280 | 830500.647 |
| P23 | 585398.008 | 830497.855 |
| P24 | 585396.735 | 830495.063 |
| P25 | 585399.934 | 830504.083 |
| P26 | 585395.389 | 830498.478 |
| P27 | 585391.771 | 830499.102 |
| P28 | 585394.044 | 830501.894 |
| P29 | 585396.316 | 830504.687 |
| P30 | 585398.588 | 830507.479 |

| | | |
|---|--------------------------------|---|
| | | OWNER
GENERAL CONTRACTOR
GENERAL CONTRACTOR |
| NO. 000000
DATE
REVISION | NO. 000000
DATE
REVISION | NO. 000000
DATE
REVISION |
| NAME OF PROJECT
ELECTRICAL BRIDGE TRAFFIC HIGH SPEED RAIL
SECTION THREE FROM WEST OF HELI TO SAHARA | | |
| NAME OF OWNER CONSULTANT
FHECOR Ingenieros Consultores | | |
| NAME OF CONTRACTOR CONSULTANT
FHECOR Ingenieros Consultores | | |
| NAME OF CONTRACTOR
FHECOR Ingenieros Consultores | | |
| NAME OF TITLE
REGINA BRIDGE
PILES COORDINATES FOR APPROVED AXIS
FROM P1 TO P30 | | |
| DRAWN BY
DESIGNED BY
CHECKED BY | SCALE
1:100 | DATE
10/10/2019 |
| EX. APPROVED LAYOUT | | |



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B23
Dimension : 15*15*15 cm
Date of casting : 10/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 10/09/2022 | 08/10/2022 | 28 | 8.625 | 135500 | 602 | 582 |
| 2 | 10/09/2022 | 08/10/2022 | 28 | 8.547 | 116900 | 520 | |
| 3 | 10/09/2022 | 08/10/2022 | 28 | 8.601 | 140700 | 625 | |

التوقيع:

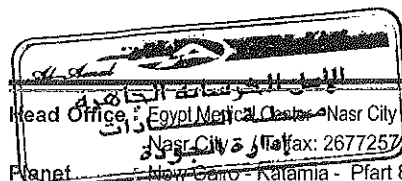
الاستشارى

جودة المشروع

مهندس / أحمد عرابى

مدير المصنع

ناصر المصنع



الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧) : Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
مدينة نصر / تليفاكس : ٢٣٥٧٢٣٠٧ - ٢٦٧٧٢٥٧٢ : Fax: 26772572 - 23573307
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣ : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497
مدينة الساعات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥ :
ت : ٠٤٨ / ٢٦٣٠١٤٠ : ف : ٠٤٨ / ٢٦٣٠١٤٠ :
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الاسمنتية
رأس المال المصرى به ٦٠ مليون جنيه
والمصدر ٧٥ مليون جنيه

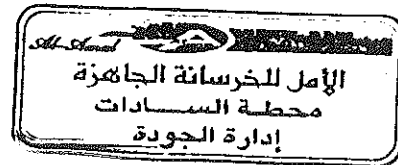
COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائى السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B23
Dimension : 15*15*15 cm
Date of casting : 10/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 10/09/2022 | 17/09/2022 | 7 | 8.654 | 107200 | 476 | 456 |
| 2 | 10/09/2022 | 17/09/2022 | 7 | 8.701 | 97310 | 432 | |
| 3 | 10/09/2022 | 17/09/2022 | 7 | 8.711 | 103500 | 460 | |

التوقيع:

مركز هليوبوليس
مهندس / أحمد عرابى
مدير المصنع



Head Office : 41 Losaka st. - Second Floor - Flat 3 Mohamed El-Maqrief st.
Nasr City - / Telfax: 26772572
Planet : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrireal Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : ٤١ ش لوساكا - الدور الثانى شقة ٣ - متفرع من ش محمد المقرئف
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٧٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website : www.alamalreadymix.com

| Site Handover Sheet (CHUM) | | | | | | | | | | |
|--|------------|--------------|------------------------|--------|-------|--------------------|--|--|--|--|
| مستلام موقع | | | | | | | | | | |
| Notes | | | | | | | | | | |
| Owner Name:
Client Name:
Project Name:
Date of Handover: 2022/ 3 / 18 | | | | | | | | | | |
| Other Measurements:
Available No. of Tubes: 4
D (cm): 120
L (m): 40 | | | | | | | | | | |
| Element Type | Element ID | No. of Tubes | Available No. of Tubes | D (cm) | L (m) | Other Measurements | | | | |
| 1 | Pile | P1-P8 | 4 | 4 | 120 | 40 | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| 11 | | | | | | | | | | |
| 12 | | | | | | | | | | |
| 13 | | | | | | | | | | |

The study of the tested elements data is in the client responsibility and should be checked via a stamped layout at site.

Client Representative:
 NECB Representative:
 Testing Equipment:
 Total Hot Tests:
 (Total Hot Tests)
 (Total Hot Tests)
 (Total Hot Tests)



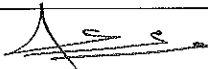
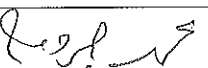
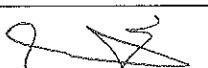
REQUEST to POUR CONCRETE



| | | | | | | | | | | | |
|----------------------|---|---|------------------|---|----|----|----|----|----|----|----|
| Contractor Company |  | | Designer Company |  | | | | | | | |
| Issued by Contractor | Name | Sign | Date | Time | | | | | | | |
| | |  | 14/9/2022 | | | | | | | | |
| Received by ER | | محرم باخوم | CON | C1 | C2 | C3 | DD | MM | YY | HH | MM |
| Contractor Reference | النيل العامة | | | | | | | | | | |

| CODE-1 | S1 to S21
Station Reference | D1 to S3
Depot Reference | Kp XXX Note
For Kilometer point only Start Km is used |
|--------|--------------------------------|-----------------------------|--|
| CODE-2 | Work Activity | | |
| CODE-3 | Sub Element of Activity | | |

| | | | | |
|---|--|-----------------------------------|--|------------------------------|
| THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW | | | | |
| Mix Approval Reference | | | | |
| Location of Pour | Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (24)) | | | |
| Concrete Type: | Grout Mix ☐ | Lean Mix ☐ | Structural Mix ☐ | Grade: 30 kg/cm ² |
| PRESTART CHECKLIST | | | | |
| IR Approved | | Plant & equipment available | | |
| Mix Approved | | Back up equipment available | | |
| Setting out Survey Approved | | Cast in items secure | | |
| Temp Works Approved | | Access route clear | | |
| Formwork Checked | | Work area safe to progress | | |
| Start Time for Pour: 12:58 pm | Concrete Volume: 51 m3 | | | |
| THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW | | | | |
| Item | Document No | Revision | Title | Number of Sheets |
| 1 | | | COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS | |
| 2 | | | STEEL RFT SHOPDRAWING FOR PILES | |
| 3 | | | PILES COORDINATES | |
| Comments by: | | Comments by: | | |
| | | | | |

| APPROVAL STATUS | | | | |
|-------------------------|---|--|-----------|---------|
| Organisation | Name | Sign | Date | A-AWC-R |
| Contractor | |  | | A |
| QA/QC | | | | A |
| Employer Representative |  |  | 14/9/2022 | A |



BAUER EGYPT



SYSTRA

ACE CONSULTING ENGINEERS
MORADY BAKHOUN

Bored Piles Construction

Pile Record Sheet

Pile Data

| | | | | | |
|---|---|------------------------|----------------------|------------------------|-----------|
| Project | ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE | | | | |
| Owner | MINISTRY OF TRANSPORT | | | Report No. | 15 |
| Subcontractor | GENERAL NILE COMPANY FOR
ROADS&BRIDGES | | | Date | 14/9/2022 |
| Pile No. | P24 | Structure | bridge | Pile Cutoff Level | - |
| Pier | P3 | Ground Level | 68.00 | Pile Toe Level | 28.907 |
| Theoretical Pile Length from caisson level | 40.58 m | Water Table Level | N/A | Permanent Casing Level | N/A |
| Req. Drilling Length From Ground Level | 38.09 m | Theoretical Concrete Q | 46.33 m ³ | Temporary Casing Level | 69.487 |
| Act. Drilling Length | 40.8 m | Act. Concrete Q | 51 m ³ | Steel Top Level | 67.107 |
| Permanent Casing Dim.
L(m)×D(m)×Thick.
(mm) | N/A | Steel Cage | Circular piles | Hook Length | 2.38 |

Pile Survey

| | | |
|----------------|------------|------------|
| Coordinates | EAST | NORTH |
| Theoretical | 585396.735 | 830495.063 |
| Actual | 585396.731 | 830495.073 |
| BAUER Survivor | | |

Geotechnical Log

| 0.0 | CAISSON L. |
|------|------------|
| 5.0 | |
| 10.0 | |
| 15.0 | |
| 20.0 | |
| 25.0 | |
| 30.0 | |

Bentonite Slurry Test

| Properties | Fresh Bentonite | | Before Cages Installation | |
|-------------------------------|-----------------|--------|---------------------------|--------|
| | Req. Limits | Actual | Req. Limits | Actual |
| Density (gm/cm ³) | Less Than 1.1 | 1.02 | Less Than 1.5 | 1.03 |
| Viscosity(Sec.) | 30:70 Sec. | 34 | ≤90 Sec. | 38 |
| Sand Content % | Less than 4% | N/A | Less than 2% | 1.50 |

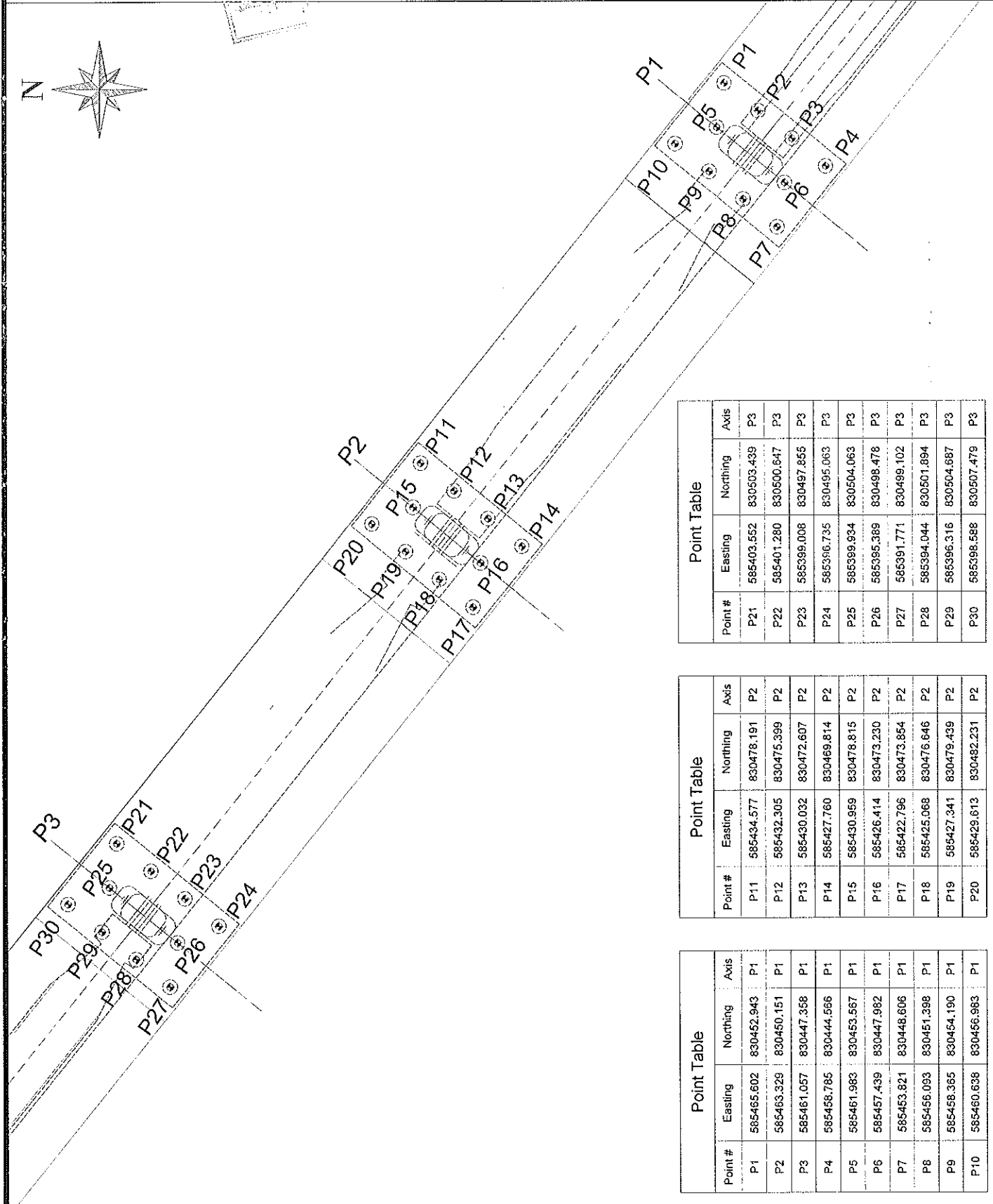
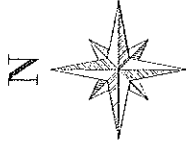
Time Survey

| Activity | Date | From | To | Activity | Date | From | To | Remarks |
|---------------|------|-------|-------|----------|------|-------|------|---------|
| Drilling | 13/9 | 13:45 | 18:00 | Cleaning | - | - | - | |
| Install Cages | 14/9 | 11:04 | 12:20 | Pouring | 14/9 | 12:58 | 2:00 | |

| | | | |
|-----------|-------------|--------------|-------------------|
| | BAUER EGYPT | NILE COMPANY | OWNER/if Required |
| Signature | | | |

NOTES:

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON ETM/EGYPTIAN TRANSVERSE
MERCATOR AS PER THE RECEIVED SITE SURVEY.

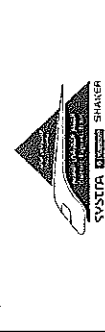


| NO. | DESCRIPTION | DATE | QING | REVISION |
|-----|-------------------------|------|------|----------|
| 01 | ISSUED FOR CONSTRUCTION | | | |

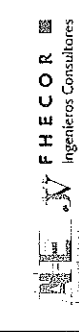
المالك
جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
Ministry of Transport
الهيئة العامة للطرق والكباري
General Authority of Road and Bridges
القاهرة
CAIRO

NAME OF PROJECT
EGYPTIAN ROAD AND BRIDGE AUTHORITY
SECTION THREE FROM WEST OF FAYOUM DAM

NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR CONSULTANT



WWW.CONTRACTOR



DWG TITLE

REGINA BRIDGE
PILES COORDINATES FOR APPROVED AXIS
FROM P1-P3

| NO. | DATE | SCALE |
|-----|------------|-------|
| 01 | 01/01/2011 | 1:100 |
| 02 | 01/01/2011 | 1:100 |
| 03 | 01/01/2011 | 1:100 |
| 04 | 01/01/2011 | 1:100 |
| 05 | 01/01/2011 | 1:100 |
| 06 | 01/01/2011 | 1:100 |
| 07 | 01/01/2011 | 1:100 |
| 08 | 01/01/2011 | 1:100 |
| 09 | 01/01/2011 | 1:100 |
| 10 | 01/01/2011 | 1:100 |
| 11 | 01/01/2011 | 1:100 |
| 12 | 01/01/2011 | 1:100 |
| 13 | 01/01/2011 | 1:100 |
| 14 | 01/01/2011 | 1:100 |
| 15 | 01/01/2011 | 1:100 |
| 16 | 01/01/2011 | 1:100 |
| 17 | 01/01/2011 | 1:100 |
| 18 | 01/01/2011 | 1:100 |
| 19 | 01/01/2011 | 1:100 |
| 20 | 01/01/2011 | 1:100 |
| 21 | 01/01/2011 | 1:100 |
| 22 | 01/01/2011 | 1:100 |
| 23 | 01/01/2011 | 1:100 |
| 24 | 01/01/2011 | 1:100 |
| 25 | 01/01/2011 | 1:100 |
| 26 | 01/01/2011 | 1:100 |
| 27 | 01/01/2011 | 1:100 |
| 28 | 01/01/2011 | 1:100 |
| 29 | 01/01/2011 | 1:100 |
| 30 | 01/01/2011 | 1:100 |

| Point # | Easting | Northing | Axis |
|---------|------------|------------|------|
| P21 | 585403.552 | 830503.439 | P3 |
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| P26 | 585395.389 | 830498.478 | P3 |
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|---------|------------|------------|------|
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| P14 | 585427.760 | 830469.814 | P2 |
| P15 | 585430.959 | 830478.815 | P2 |
| P16 | 585426.414 | 830473.230 | P2 |
| P17 | 585422.796 | 830473.854 | P2 |
| P18 | 585425.068 | 830476.646 | P2 |
| P19 | 585427.341 | 830479.439 | P2 |
| P20 | 585429.613 | 830482.231 | P2 |

| Point # | Easting | Northing | Axis |
|---------|------------|------------|------|
| P1 | 585465.602 | 830452.943 | P1 |
| P2 | 585463.329 | 830450.151 | P1 |
| P3 | 585461.057 | 830447.358 | P1 |
| P4 | 585458.785 | 830444.566 | P1 |
| P5 | 585461.983 | 830453.567 | P1 |
| P6 | 585457.439 | 830447.982 | P1 |
| P7 | 585453.821 | 830448.606 | P1 |
| P8 | 585456.093 | 830451.398 | P1 |
| P9 | 585458.365 | 830454.190 | P1 |
| P10 | 585460.638 | 830456.983 | P1 |



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الاسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والنصر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B24
Dimension : 15*15*15 cm
Date of casting : 14/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 14/09/2022 | 12/10/2022 | 28 | 8.647 | 132800 | 590 | 606 |
| 2 | 14/09/2022 | 12/10/2022 | 28 | 8.599 | 140700 | 625 | |
| 3 | 14/09/2022 | 12/10/2022 | 28 | 8.532 | 135500 | 602 | |

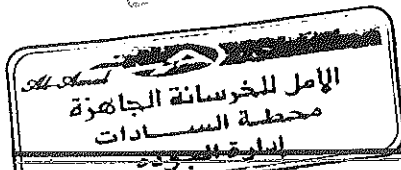
التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد عرابى

مدير المصنع



تأمر بالاعمال

Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - / Telfax: 26772572 - 23573307

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Tel.: 29841136 / Fax.: 29840109

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الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧

موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت: ٢٩٨٤٠١٣٦ / ف: ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت: ٠٤٨ / ٢٦٣٠١٤٠ - ف: ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣



Al Amal Ready mix

الأمل

للخرسانة الجاهزة ش.م.م.
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B24
Dimension : 15*15*15 cm
Date of casting : 14/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

| NO | CASTING
DATE | TESTING
DATE | AGE
(day) | weight
(kg) | crushing
load
(kg) | compressive
strength
(kg / cm2) | Average |
|----|-----------------|-----------------|----------------|------------------|----------------------------|---|---------|
| 1 | 14/09/2022 | 21/09/2022 | 7 | 8.608 | 109900 | 488 | 480 |
| 2 | 14/09/2022 | 21/09/2022 | 7 | 8.562 | 105900 | 471 | |
| 3 | 14/09/2022 | 21/09/2022 | 7 | 8.439 | 108000 | 480 | |

التوقيع: مهندس / أحمد خرابي
مدير المصنع

الاستشارى
[Signature]

جودة المشروع

مركز صلاح بوليس
[Signature]

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El Sadat City - Industrial Zone (7) - Part 7003 - 7005
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01028459673 - 01006880635 - 01004976497

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ / ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٢٨٤٥٩٦٧٣

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[illegible]

ABBREVIATION :

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

| | |
|-------------------------------------|---|
| <p>REUR-0001-CC-010-001-NOT-002</p> | <p>KEOWA ROAD BRIDGE</p> <p>OFFICIAL NOTES</p> <p>ARGUMENT 1, DEFINITION</p> <p>REDA ROAD BRIDGE</p> <p>SUBSTRUCTURE</p> <p>PIERS #1, P2, P3 (SINCE PIER #1</p> |
|-------------------------------------|---|

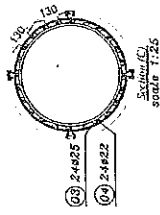
| DATE | TIME | ISSUED FOR CONSTRUCTION AND REPAIR WORK |
|------|----------|---|
| 0 | 11:40 AM | ISSUED FOR CONSTRUCTION AND REPAIR WORK |

NAME OF PROJECT: ELECTRICITY LOSS THRU HIGH SPEED RAIL
SECTION THREE (FROM WEST OF RILEY TO ALABAMA)

FHECOR
Ingenieros Consultores

PILES AT AXES (P1 P263)
PILE REINFORCEMENT BARS SHOP DRAWING

| | | | |
|---|-------|------------------------|-----------------------|
| ENGINE NO.: | DATE: | Q3-2022 | AS SHOWN |
| 194C-500-10-11402 P14-09 | | CHECKED BY: | REVISED BY: |
| DRWING NO.: | | ENG. Abdullah Alshaykh | ENG. Mansour Alshaykh |
| DRW. HANAN KADRY | | | mcg |
|  | | | |
| SUPERVISOR: | | APPROVED BY: | |
| FOR Mohamed Elshaykh | | FOR Mohamed Elshaykh | |



GENERAL NOTES

- All dimensions are in millimeters.
- Drawn by: Mr. Mohamed El-Sayed, M.Sc. (Structural Eng.)
- Checked by: Mr. Mohamed El-Sayed, M.Sc. (Structural Eng.)
- Approved by: Mr. Mohamed El-Sayed, M.Sc. (Structural Eng.)
- Date: 04/04/2022
- Scale: 1:100
- 1/2" = 1" (1:2 scale)
- 1/4" = 1" (1:4 scale)
- 1/8" = 1" (1:8 scale)
- 1/16" = 1" (1:16 scale)
- 1/32" = 1" (1:32 scale)
- 1/64" = 1" (1:64 scale)
- 1/128" = 1" (1:128 scale)
- 1/256" = 1" (1:256 scale)
- 1/512" = 1" (1:512 scale)
- 1/1024" = 1" (1:1024 scale)
- 1/2048" = 1" (1:2048 scale)
- 1/4096" = 1" (1:4096 scale)
- 1/8192" = 1" (1:8192 scale)
- 1/16384" = 1" (1:16384 scale)
- 1/32768" = 1" (1:32768 scale)
- 1/65536" = 1" (1:65536 scale)
- 1/131072" = 1" (1:131072 scale)
- 1/262144" = 1" (1:262144 scale)
- 1/524288" = 1" (1:524288 scale)
- 1/1048576" = 1" (1:1048576 scale)
- 1/2097152" = 1" (1:2097152 scale)
- 1/4194304" = 1" (1:4194304 scale)
- 1/8388608" = 1" (1:8388608 scale)
- 1/16777216" = 1" (1:16777216 scale)
- 1/33554432" = 1" (1:33554432 scale)
- 1/67108864" = 1" (1:67108864 scale)
- 1/134217728" = 1" (1:134217728 scale)
- 1/268435456" = 1" (1:268435456 scale)
- 1/536870912" = 1" (1:536870912 scale)
- 1/1073741824" = 1" (1:1073741824 scale)
- 1/2147483648" = 1" (1:2147483648 scale)
- 1/4294967296" = 1" (1:4294967296 scale)
- 1/8589934592" = 1" (1:8589934592 scale)
- 1/17179869184" = 1" (1:17179869184 scale)
- 1/34359738368" = 1" (1:34359738368 scale)
- 1/68719476736" = 1" (1:68719476736 scale)
- 1/137438953472" = 1" (1:137438953472 scale)
- 1/274877906944" = 1" (1:274877906944 scale)
- 1/549755813888" = 1" (1:549755813888 scale)
- 1/1099511627776" = 1" (1:1099511627776 scale)
- 1/2199023255552" = 1" (1:2199023255552 scale)
- 1/4398046511104" = 1" (1:4398046511104 scale)
- 1/8796093022208" = 1" (1:8796093022208 scale)
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- 1/35184372088832" = 1" (1:35184372088832 scale)
- 1/70368744177664" = 1" (1:70368744177664 scale)
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- 1/2923003274661805836407369665432566039311865085952" = 1" (1:2923003274661805836407369665432566039311865085952 scale)
- 1/5846006549323611672814739330865132078623730171904" = 1" (1:5846006549323611672814739330865132078623730171904 scale)
- 1/11692013098647223345629478661730264157247460343808" = 1" (1:11692013098647223345629478661730264157247460343808 scale)
- 1/23384026197294446691258957323460528314494920687616" = 1" (1:23384026197294446691258957323460528314494920687616 scale)
- 1/46768052394588893382517914646921056628989841375232" = 1" (1:46768052394588893382517914646921056628989841375232 scale)
- 1/93536104789177786765035829293842113257979682750464" = 1" (1:93536104789177786765035829293842113257979682750464 scale)
- 1/187072209578355573530071658587684226515959365500928" = 1" (1:187072209578355573530071658587684226515959365500928 scale)
- 1/374144419156711147060143317175368453031918731001856" = 1" (1:374144419156711147060143317175368453031918731001856 scale)
- 1/748288838313422294120286634350736906063837462003712" = 1" (1:748288838313422294120286634350736906063837462003712 scale)
- 1/1496577676626844588240573268701473812127674924007424" = 1" (1:1496577676626844588240573268701473812127674924007424 scale)
- 1/2993155353253689176481146537402947624255349848014848" = 1" (1:2993155353253689176481146537402947624255349848014848 scale)
- 1/5986310706507378352962293074805895248510699696029696" = 1" (1:598631070650737835

| | | | |
|---|--|--------------------|------------------------------|
| جدول وثيقة تأمين من المسؤولية المدنية العامة
رقم الوثيقة P/ACC/PL/001/2023/547 | | | |
| اسم الشركة | مصر للتأمين التكافلي وممتلكات ومسئوليات | | |
| نوع التأمين | وثيقة تأمين من المسؤولية المدنية العامة | | |
| اسم المشترك | شركة النزل العامة للطرق والكباري | | |
| عنوان المشترك | ارض الفواله - عابدين - القاهرة | | |
| مدة التأمين | من يوم 2023/11/01 | الى يوم 2024/11/01 | حسب التوقيات المحلي في ج.م.ع |
| الحد الأقصى لمسئولية الشركة خلال مدة التأمين | 1,000,000.00 | | |
| موضوع التأمين | تغطي الوثيقة في حدود الشروط والاستثناءات ومبالغ التأمين الواردة بها مسؤولية المشترك المدنية الثابتة قانونا وبصفة نهائية بموجب حكم قضائي نهائي صادر من المحاكم المصرية ووفقا لأحكام المواد 163 الى 174 من القانون المدني المصري الحالي عن الحوادث التي ينتج عنها الوفاة و/أو الاصابات الجسمية و الاضرار المادية التي قد تلحق بالغير (الطرف الثالث) أثناء احوال انشاء كوبرى ريجوا على مسار الخط الاول للقطار الكهربائى السريع (السخنة - القاهرة - الاسكندرية - العلمين - مطروح) فى المسافة من كم 189,498 حتى كم 189,635 بالامر المباشر | | |
| التغطيات | - التغطيات وفقا لشروط واشترطات واستثناءات وثيقة المسؤولية المدنية العامة المرفقة والتي تصدرها شركتنا والمعتمدة من الهيئة العامة للرقابة المالية. | | |
| التغطيات | الحد الأقصى لمسئولية الشركة (جنيه مصري) | | |
| الحد الأقصى لمسئولية الشركة للاصابات الجسمية للشخص الواحد | 100000 | | |
| الحد الأقصى لمسئولية الشركة عن الاصابات الجسمية للحدث الواحد - مهما بلغ عدد الاشخاص | 500000 | | |
| الاضرار المادية للممتلكات للحدث الواحد | 500000 | | |
| الحد الأقصى لمسئولية الشركة بالنسبة للاضرار المادية والاضرار الجسمية للحدث الواحد | 1000000 | | |
| الحد الأقصى لمسئولية الشركة خلال مدة التأمين | 1000000 | | |
| المحاكم المختصة | المحاكم المصرية التي تقع في دائرتها الشركة المُصدرة | القانون المطبق | القانون المصري |
| التحمل | 10 % من قيمة كل تعويض مغطى بموجب الوثيقة بحد أقصى 2500 ج.م. وذلك عن الأضرار المادية | | |
| الشروط الخاصة | | | |
| <ul style="list-style-type: none"> يُعين على المشترك الإطلاع على كافة شروط الوثيقة واستثناءاتها بعناية للتأكد من أنها تفي بإحتياجاته التأمينية قبل سدادها والذي يعتبر قبولا منه بكافة الشروط والاستثناءات ان يتخذ المشترك وتابعيه وموظفيه كافة الاحتياطات والاشتراطات اللازمة للمحافظة على سلامة أرواح الغير وان ينفذ بكل دقة تعليمات السلطات العامة الصادرة في هذا الخصوص ولا سقط حقه في المطالبة بأي تعويض قد يستحق بموجب هذه الوثيقة | | | |



حساب الاشتراك

| العملة | جنيه مصري |
|--|-----------|
| الإشتراك الصافي | 800.00 |
| نصف الدفعة النسبية | 44.00 |
| ضريبة الدفعة النوعية | 8.70 |
| رسوم الإشراف والرقابة | 4.80 |
| رسوم اعتماد ومراجعة | 0.80 |
| رسوم ضمان حملة الوثائق | 1.60 |
| مصاريف الإصدار | 60.10 |
| إجمالي الاشتراك | 920.00 |
| يستحق على المشترك اشتراك قدره فقط تسع مائة وعشرون جنيه مصري لا غير | |

شركة مصر للتأمين التكافلي

ممتلكات ومسئوليات

مصطفى محمد



اسم وسيط التأمين : محمد نجيب احمد زكى موسى هيكل

رقم القيد بالهيئة : 10963

تحريرا فى : 01/11/2023

مطالبه السداد

| | | | |
|-------------|---|-------------------------|-----------------------------|
| اسم الشركة | مصر للتأمين التكافلي - ممتلكات و مسئوليات | جهة الإصدار | المركز الرئيسي |
| نوع التأمين | وثيقة تأمين من المسؤولية المدنية العامة | الكود | 001 |
| رقم الوثيقة | P/ACC/PL/001/2023/547 | | |
| اسم المشترك | شركة النيل العامة للطرق والكباري | | |
| العنوان | ارض الفوالة - عابدين - القاهرة | | |
| مدة التأمين | 2023/11/01 | الساعة الثانية عشر ظهرا | إلى |
| | 2024/11/01 | الساعة الثانية عشر ظهرا | حسب التوقيت المحلي في ج.م.ع |

حساب الإشتراك

| العملة | جنيه مصري |
|---|-----------|
| الإشتراك الصافي | 800.00 |
| نصف الدفعة النسبية | 44.00 |
| ضريبة الدفعة النوعية | 8.70 |
| رسوم الإشراف والرقابة | 4.80 |
| رسوم اعتماد ومراجعة | 0.80 |
| رسوم ضمان حملة الوثائق | 1.60 |
| مصاريف الإصدار | 60.10 |
| إجمالي الإشتراك | 920.00 |
| يستحق على المشترك اشتراك وقدره تسع مائة وعشرون جنيه مصري لا غير | |

شركة مصر للتأمين التكافلي

ممتلكات ومسئوليات

محمد نجيب احمد زكى موسى هيكل

اسم وسيط التأمين

10963 :

رقم القيد بالهيئة

صلى الإشتراك تضمن قيمة الصلوات الأساسية المنصوص عليها بهيئات الصلوات الممنعة للشرقة قبل الأسقاطات بنسبة 10 % و بقية 80 ج.م

مصطفى عبد

توقيع المنتج

توقيع العميل

01/11/2023 : تحريراً فى

عميلنا العزيز:
لحماية سرية بياناتكم وسلامة التعامل من مخاطر الإحتيال نؤكد على ضرورة عدم قيامكم بالإفصاح عن البيانات الشخصية أو المالية أو اسم المستخدم أو الكلمات السرية سواء بالطريقة التقليدية أو من خلال الروابط الإلكترونية لأى شخص طبيعى أو إعتبارى.

