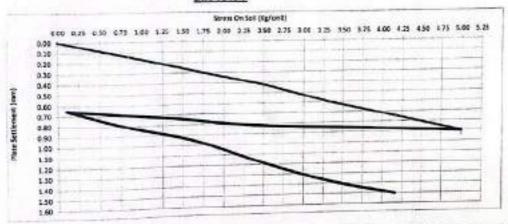


Company Name project Test Date seport date Location Test No.

- الذهبي للمقاولات و التوريدات العمومية :
- : Electric Express Train Sector (5) Qous to Arment.
- : 12/07/2023
- : 12/07/2023
- : Station (641+280)
- : 02

Nonrepetitive Static Plate Load Tests of Soils DIN 18134



Landley (II)		4	1 2	3	4	5	
Loading (1)			1172.8	1765.3	2352.6	2946.1	3532.5
Stage(Kg)	0	586	-	-	3.33	4.17	5.00
Stress (Kg/cm2)	0.00	0.83	1.66	2.50			0.90
Settlement (mm)	0.00	0.14	0.29	0.42	0.60	0.75	0.90

UnLoading (1)	-1	2	3	4
Stage(Kg)	3533	1766	884	71
Stress (Kg/cm2)	5.60	2.50	1.250	0.10
Settlement (mm)	0.90	0.82	0.73	0.65

Ev2/Ev1 = 0.80

D (mm) # 309		24 destrate.	0.20	and in the		
	PAULAS		1202			
Lander (%)	1 4	1 1	2	3	4	\$
Loading (2)	0	586,395	1172.8	1765.3	2352.5	2946.1
Stage(Kg)	- 4	-	1.60	2.50	3.33	4.17
Stress (Kg/cm2)	0.10	0.83	1.00	-	-	100

-	1	S1 (mrt)s	0.01	Szinet	1.40	AS =	0.47
Settlement (mm)	0.65	0.81	0.60	1000			
andre full anna)	120		nea	1.19	1.38	1.51	
Stress (Kg/cm2)	0.10	0.83	1.60	2.50	4/44	4.11	100

D (mm) +	300	81 (mm)#	0.93	\$2(mm)= 1,40	ΔS =	0.47
Ensiehmit -	(0.76°D*A#W	15	967			

Ev1 = Modulus of deformation during the loading stage.

Ev2 = Modulus of deformation during the Relauding stage.

D = Prate diameter (mm)

Os = The difference between 0.2 and 0.7 from the maximum loading (smax) (kg/cm²)

OS = Ofference in settlements corresponding to 0.3 and 0.7 from the maximum loading (mm)

CEL
مكتب معامل الاستشارات الهندسية
الاغتبارات المعملية
ما مسيح المعملية
ما مسيح المعملية الم

3 El Malek El Afdal Street Zamalck, Cairo.

Tel.& Fax: 27367231 - 27363093



۲ ش الملك الأفضل الزمالك - القاهرة تليفون + فاكس ، ۲۷۲٦۷۲۲۱ - ۲۷۲٦۳۰۹۳ www.cel-egypt.com



شركة الذهبي : Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023 Reporting Date : 12/09/2023

Reporting No. : 10-4

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Sieve Size (IN)	Passing %
50	2	98.1
37.5	1.5	95.3
25	1	89.4
19	3/4	84.4
12.50	1/1	77.7
9.50	3/8	73.3
4.75	4	58.4
2.00	10	45.9
0.425	40	27.5

Signature Association Superior State State

1 E Mark E Affau Steel Zahasiuk Caro

Te& Fax 273675 279/3698

IAS ACCREDITED المشر العلف الأفتسين الرمائل العاهور المعمر العائس (١٩٧١/١٤٠١ (١٩٢١/١٤٠١



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023 Reporting Date : 12/09/2023

Reporting No. : 10-4

Materials finer than 75 μm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 µM (No.200)	9,9

Signature /... Least 1/8







شركة الذهبي: Company Name

Project

: Electric Express Train - HSR From Qous To Armant

Testing Date

: 25/09/2023

Soil type

: Upper Embankment

Location

: St + From 641+200 To 641+300

Level

: - 1.25 M

Report No.

: 71

Compaction test by using Sand - Cone Test Method ASTM D- 1556

Test #	Station	Test Hole Volume cm ³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm ³)	Degree of Compaction (%)	Acceptance
1	641+230	1788.9	2.23	6	2.11	96.2%	Comply
2	641+260	1716.7	2.25	6.4	2.11	96.4%	Comply
3	641+290	1770.8	2.23	6.4	2.09	95.6%	Comply

Degree of compaction based on proctor test dated At

:Max. dry density =2.19 gm/cm3

At optimum moisture content = 6.4 %

Signature /

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Te8 Fax 2736723 - 27363093

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شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023 Reporting Date : 12/09/2023

Reporting No. : 10-4

Dear Gentleman,

Attached here with the delivered on 8/9/2023

This sample is representative for 5.000 M3

Materials test

Sieve analysis according to ASTM D-422.

- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- 5. Proctor Test according to ASTM D-1557
- 6. CBR according to ASTM D-1883

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023 Reporting Date : 12/09/2023

Reporting No. : 10-4

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)		
Liquid Limit	0		
Plastic Limit	Tax 15 to 10		
Plasticity Index	0		

Signature / Leastile





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023

Reporting Date : 12/09/2023

Reporting No. : 10-4

Soil Classification

TEST	Results (%)	1000	mits accord Projects Spec		
Group Classification	(A-1-a)	(A-1-a)	(A-1-b)	(A-2-4)	
2.00 mm (No.10).	45.9	Max 50 %			
0.425 mm (No. 40).	27.5	Max 30 %	Max 50 %		
0.075 mm (No. 200).	9.9	Max 15 %	Max 15 %	Max 15 %	
Liquid Limit					
Plasticity index	0	Max 6 %	Max 6 %	Max 10 %	

The test results are (

Comply -

Not Comply) with specifications limits

Signature 7 Language of Liberatories

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شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

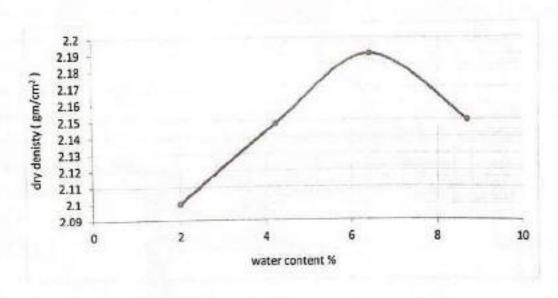
Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023 Reporting Date : 12/09/2023

Reporting No. : 10-4

Moisture – Density relation of soil
Test result (Modified proctor test)
ASTM D-1557



Max dry density (gm/cm²)

: 2.19

· Optimum moisture content %

: 6.4 %

Signature

و المستخدم المستخدم

a E. Malek E. Atdat Street

Zaramin, Garo

Ted Fac 2736723" 27963093



* ش المثلث الأفتسق الزمالات الداهوم المعود - عاكس = (۲۷۴۲-۲۴۱ و- ۲۷۳۲-۲۹۳



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023 Reporting Date : 12/09/2023

Reporting No. : 10-4

Test Results of California Bearing Ratio on Base Materials

ASTM D 1883

	AST W D 1665					
pen	etration	stress on piston (Mpa)				
mm	Inch					
0.64	0.025	0.36				
1.27	0.050	1.52				
1.91	0.075	2.59				
2.54	0.100	3.59				
3.18	0.125	4.54				
3.81	0.150	5.33				
4.45	0.175	6.09				
5.08	0.200	6.49				
6.35	0.250	6.92				

CBR Result	St	CBR 100 %	
At 0.1 inch (2.54 mm)	St. Value	Sample results	52 %
penetration	6.90	3.59	34 /6

Notes:

- 1- Attached graph shows penetration resistance versus penetration magnitude.
- 2- The sample was compacted to dry density of = 2.19(gm /cm³) At = 6.4 % optimum water content.

3- Surcharge load 4.50 Kg.

4- CBR > 10 for middle and lower embankments according project spec page No 36.

Signature / ASOOL / Signat



الشرائية التقصيل الرمائل العاهود المعدد عاصل (١٩٠١/١٩٠١ ١٩٧٢٢-١٤



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

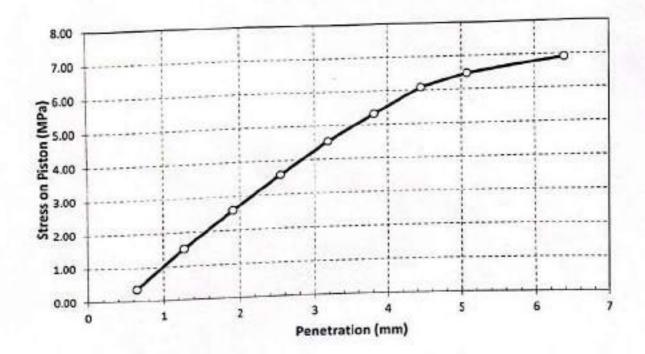
Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023 Reporting Date : 12/09/2023

Reporting No. : 10-4

Load Penetration Curve of CBR Test

ASTM D-1883





3 El Malek El Afdel Street Zanalek, Carro 14 & Fax 2736723 27367293



ا شرالطك الأقسيل الزمائل المناهرة الميسور عالاس (١٩٠٥م-١٩٧١) ويدويون



مكتب معامل الإستشارات الهندسية

شركة الذهبي : Company Name

Project

: Electric Express Train - HSR From Qous To Armant

Testing Date

: 27/09/2023

Soil type

: Lower Embankment

Location

: St + From 641+200 To 641+300

Level

: - 13 M

Report No.

: 74

Compaction test by using Sand - Cone Test Method ASTM D- 1556

Test#	Station	Test Hole Volume cm ³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm ³)	Degree of Compaction (%)	Acceptance
1	641+220	2106.9	2.23	6.4	2.09	95.1%	Comply
2	641+240	1763.2	2.26	5.8	2.13	97.0%	Comply
3	641+260	1281.3	2.29	5.6	2.17	98.6%	Comply
4	641+280	1658.3	2.23	6.4	2.10	95.3%	Comply

Degree of compaction based on proctor test dated At

:Max. dry density =2.20 gm/cm3

14 GJ, 219 - 911

At optimum moisture content = 6.4 %

Signature / A

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Talk Fax: 2736720 27363093

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شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 19/09/2023 Reporting Date : 23/09/2023

Reporting No. : 10-5

Dear Gentleman,

Attached here with the delivered on 19 / 9 / 2023

This sample is representative for 5.000 M3

Materials test

1. Sieve analysis according to ASTM D-422.

- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- Proctor Test according to ASTM D-1557
- CBR according to ASTM D-1883

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signatus Graphe المستحددة و Laboratories معامل الاستساطات المستحددة و المستحد



شركة الذهبي: Company Name

: Electric Express Train - HSR From Qous To Armant Project

: ST:641+400 E= 492410,088 N=2862759,57 Location

: Soil Embankment (Upper Embankment 0.0 M) Type of sample

: 19/09/2023 Delivery Date Reporting Date : 23/09/2023

Reporting No. : 10-5

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Sieve Size (IN)	Passing %	
50	2	98.4	
37.5	1.5	96.5	
25	1	90.2	
19	3/4	85.2	
12.50	И	74.9	
9.50	3/8	71.2	
4.75	4	55.1	
2.00	10	41.5	
0.425	40	25.2	



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شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 19/09/2023 Reporting Date : 23/09/2023

Reporting No. : 10-5

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	0
Plastic Limit	Marine On 1955
Plasticity Index	0





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 19/09/2023 Reporting Date : 23/09/2023

Reporting No. : 10-5

Materials finer than 75 μm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μΜ (No.200)	9.1







شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 19/09/2023 Reporting Date : 23/09/2023

Reporting No. : 10-5

Test Results of California Bearing Ratio on Base Materials

	ASTM D 188	3	
pene	etration	stress on piston (Mpa)	
mm	Inch		
0.64	0.025	0.38	
1.27	0.050	1.57	
	0.075	2.69	
1.91	0.100	3.73	
2.54	0.125	4.64	
3.18	0.150	5.43	
3.81	0.175	6.09	
4.45	0.200	6.54	
5.08		6.92	
6.35	0.250	0.72	

CBR Result	St	ress (Mpa)	CBR 100 %
	St. Value	Sample results	54 %
At 0.1 inch (2.54 mm) penetration	6.90	3.73	34 /4

Notes:

1- Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was compacted to dry density of = 2.20(gm/cm³) At = 6.4 % optimum water content.

Surcharee load 4.50 Kg.

R > 10 for middles to bwer embankments according project spec page No 36.

وماندون دروم الترجيل المتواون التراكم الترجيل المتواون التراكم التراك

Te& Fax 2736721 27363692



اشرائطانالافتش الرماك الداهرة اليمور والتي (1975-19 (1975-19



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

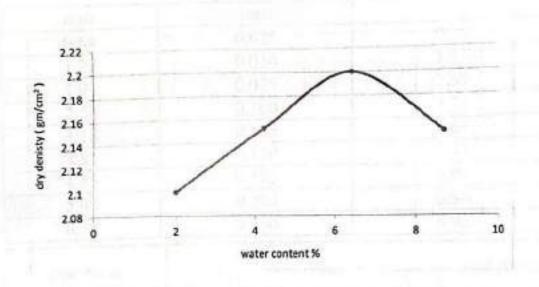
Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 19/09/2023 Reporting Date : 23/09/2023

Reporting No. : 10-5

Moisture – Density relation of soil
Test result (Modified proctor test)
ASTM D-1557



Max dry density (gm/cm²)

: 2.20

Optimum moisture content %

: 6.4 %

Signature / C. July Section of Consulting Engineering Consulting Engineering Consulting Engineering Consulting Consulting

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Zarwies, Gazo.

54& Fax 27967/31 27367690



فائل الطالحة الإطبليل الرحائل المناهرة المهدر الماطر (۱۹۹۷) ۱۹۲۹ (۱۹۲۷) في



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 19/09/2023 Reporting Date : 23/09/2023

Reporting No. : 10-5

Soil Classification

TEST	Results (%)	370	nits accord Projects Spec	
Group Classification	(A-1-a)	(A-1-a)	(A-1-b)	(A-2-4)
2,00 mm (No.10).	41.5	Max 50 %		
0.425 mm (No. 40).	25.2	Max 30 %	Max 50 %	******
0.075 mm (No. 200).	.91	Max 15 %	Max 15 %	Max 15 %
Liquid Limit				
Plasticity index	0	Max 6 %	Max 6 %	Max 10 %

The test results are (
Comply -
Not Comply) with specifications limits



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L-6 fax 2756721 27363093



ا اش الهناك الافتدان الرماك - الذاهران الدور - فاكار - المعترا الإدامة الإدامة



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 19/09/2023 Reporting Date : 23/09/2023

Reporting No. : 10-5

Load Penetration Curve of CBR Test ASTM D-1883

7.00 7.00 (Fe 5.00 (Fe 5.00) (Fe 5.00)



e El Marck El Attai Street Zurablek Caro Tels Fax (2796721) (27967093



Penetration (mm)

افترالطات الاقتدار الرمائل العاقرا الرمون دائلس (۱۹۵۰ر) از درجاریا



Company Name

شرعة الذهبي :

Project

: Electric Express Train - HSR From Qous To Armant

Testing Date

: 30/09/2023

Soil type

: Upper Embankment

Location

: St From 641+000 TO 641+200

Level

1 - 1.25 M

Report No.

: 78

Compaction test by using Sand - Cone Test Method ASTM D- 1556

Test#	Station	Test Hole Volume cm ³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm ³)	Degree of Compaction (%)	Acceptance
1	641+025	1575.0	2.29	6.4	2.15	97.7%	Comply
2	641+050	1667.4	2.22	6	2.09	95.1%	Comply
3	641+070	1563.2	2.24	6	2.11	96.0%	Comply
4	641+095	1595.8	2.26	5.8	2.14	97.2%	Comply
5	641+120	1519.4	2.23	5.3	2.12	96.4%	Comply
6	641+145	1588.9	2.33	6.4	2.19	99.8%	Comply
7	541+170	1343.8	2.24	6	2.11	95.9%	Comply
8	641+195	1356.3	2.30	6	2.17	98.5%	Comply

Degree of compaction based on proctor test dated At

Max. dry density = 2.20 guners:

At optimum moisfule contentures & Laboratories

مكتب معامل الاستشارات الته الله المنافق المن

1 E-Males E Afdat Street Zurwies, Carro 14 A Fax (279777) - 27973(93 IAS ACCREDITED في فيلادالإفسق الرماك الباهرة بليمور دواهي - cesyder ايد (١٧٢)



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 19/09/2023 Reporting Date : 23/09/2023

Reporting No. : 10-5

Dear Gentleman,

Attached here with the delivered on 19 / 9 / 2023

This sample is representative for 5.000 M³

Materials test

1. Sieve analysis according to ASTM D-422.

- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- 5. Proctor Test according to ASTM D-1557
- CBR according to ASTM D-1883

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signatu

مكتـب معاصل الانتهامازالكاليماسطا المراد مشروعات (مسؤصاج وقضا) رقع التسجيل الضريين: 537 - 991 - 219 المركز الوئيسن ۲ شارع اللك الاخضل ـ الزمالك ـ القاهر

St. Mark E Atta Shor Zuralion Garo Tel-Fax 27967.1 274-369





Consulting Engineering Bu مكتب معامل الإستشارات الهندسية

شركة الذهبي: Company Name

: Electric Express Train - HSR From Qous To Armant Project

: ST:641+400 E= 492410,088 N=2862759,57 Location

; Soil Embankment (Upper Embankment 0.0 M) Type of sample

: 19/09/2023 **Delivery Date** : 23/09/2023 Reporting Date

: 10-5 Reporting No.

Soil Classification

TEST	Results (%)	- 200	mits accordi Projects Spec	
Group Classification	(A-1-a)	(A-1-a)	(A-1-b)	(A-2-4)
2.00 mm (No.10).	41.5	Max 50 %		
0,425 mm (No. 40).	25.2	Max 30 %	Max 50 %	(1
0.075 mm (No. 200).	.91	Max 15 %	Max 15 %	Max 15 %
Liquid Limit				
Plasticity index	0	Max 6 %	Max 6 %	Max 10 %

Comply - 17 Not Comply) with specifications limits The to

Signat

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مكتب معامل الإستشارات الهندسية

شركة الذهبي: Company Name

: Electric Express Train - HSR From Qous To Armant Project

: ST:641+400 E= 492410,088 N=2862759,57 Location

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 19/09/2023 : 23/09/2023 Reporting Date

Reporting No. : 10-5

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Sieve Size (IN)	Passing %
50	2	98.4
37.5	1.5	96.5
25	1	90.2
19	3/4	85.2
	1/2	74.9
9.50	3/8	71.2
4.75	4	55.1
2.00	10	41.5
0.425	40	25.2

وهاج وقتلاي يان 537 - 991 - 537 ، + شارع الملك الأخشل. الزمالك. القاء

a E Malck E Aldal Street Zurwies, Caro testar 27907 2730768



التي الملك الاعتمار July Blad romania responsa Later mail



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 19/09/2023 Reporting Date : 23/09/2023

Reporting No. : 10-5

Materials finer than 75 μm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μΜ (No.200)	9.1

Consulting Application Bureau & Laboratories

Signature / معتب معاصل الاستوالية المستوالية المستوا

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شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 19/09/2023 Reporting Date : 23/09/2023

Reporting No. : 10-5

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	0
Plastic Limit	0
Plasticity Index	0

Signate

المنافع المنا

3 F Malek E Ahral Street Zamalok, Cairo Te& Fax: 27357;31 27367093





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

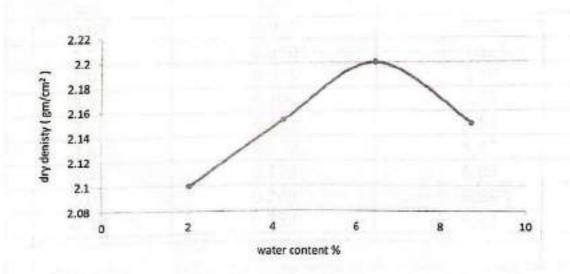
Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 19/09/2023 Reporting Date : 23/09/2023

Reporting No. : 10-5

Moisture - Density relation of soil Test result (Modified proctor test) ASTM D-1557



Max dry density (gm/cm²)

: 2.20

· Optimum moisture content %

: 6.4 %

Signatu

ت المحتودة المحتودة

LE Malek E Aktal Street Zarvalek, Catro TAA Fax: 22367231 27363093



الأشر الملك الأعصال الرماك الملفود المعار فاكن الالاعالات المالات



شركة الذهبي : Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 19/09/2023 Reporting Date : 23/09/2023

Reporting No. : 10-5

Test Results of California Bearing Ratio on Base Materials

penetration		stress on piston (Mpa)	
mm	Inch	Succession Production	
0.64	0.025	0.38	
1.27	0.050	1.57	
1.91	0.075	2.69	
2.54	0.100	3.73	
3.18	0.125	4.64	
3.81	0.150	5.43	
4.45	0.175	6.09	
5.08	0.200	6.54	
6.35	0.250	6.92	

CBR Result	St	ress (Mpa)	CBR 100 %
At 0.1 inch (2.54 mm)	St. Value	Sample results	51.0/
penetration	6.90	3.73	54 %

Notes:

1- Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was compacted to dry density of = 2.20(gm/cm³) At = 6.4 % optimum water content.

3- Surcharge load 4 50 Kg

4- CBR > 10 for middle and lower shakments according project spec page No 36.

Signature

مكتب معاصل الالتشارات الهندين . مشروعات ر سوهاع وقنا) م السجيل الشريس 537 - 991 – 219

ع ثمرع الله الأخشل - الرَّ الكي الكاهرة . Zarmies Caro

Sed Fax 279/53 279/3069

ACCREDITED

7 في العبائد الأصابل الوطاق الداهوة الدميد خالف (1945) 1948 (1945)



Company Name

شركة الذهبي :

Project

: Electric Express Train - HSR From Qous To Armant

Testing Date

:01/10/2023

Soll type

: Upper Embankment

Location

: St From 641+000 To 641+200

Level

: - I M

Report No.

: 80

Compaction test by using Sand - Cone Test Method ASTM D- 1556

Test#	Station	Test Hole Volume cm ³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance
1	641+025	1342.4	2.23	6	2.11	95.4%	Comply
2	641+050	1211.8	2.31	6.4	2.17	98.3%	Comply
3	641+075	1200.7	2.27	5.8	2.14	96.9%	Comply
4	641+095	1486.8	2.25	5	2.14	97.0%	Comply
5	641+125	1263.9	2.29	6.4	2.15	97.2%	Comply
6	641+150	1486.8	2.26	6.4	2.13	96.3%	Comply
7	641+75	1260.4	2.27	6	2.14	97.0%	Comply
8	641+195	1205.6	2.27	5.8	2.15	97.3%	Comply

Degree of compaction based on proctor test dated At

timum mosture pontent	6 A.v
turn / Lagracering E	Jureau & Laboratories
W (List Land	منسب سروعات ر
219 - 991 - 537 و الافتال الزوالك التافرة	ا رقع التسجيل الشريين الراب - ثارع ال
dies Card	
Fax 275672 27363500	
	THE RESERVE OF THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAME



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 26/09/2023 Reporting Date : 30/09/2023

Reporting No. : 10-6

Dear Gentleman,

Attached here with the delivered on 26 / 9 / 2023

This sample is representative for 5.000 M3

Materials test

1. Sieve analysis according to ASTM D-422.

- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- Proctor Test according to ASTM D-1557
- CBR according to ASTM D-1883

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature /

المستخدمة في المنافقة المستخدمة المستخدمة المنافقة المنا





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 26/09/2023 Reporting Date : 30/09/2023

Reporting No. : 10-6

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Sieve Size (IN)	Passing %
50	2	97.9
37.5	1.5	95.4
25	vicini i	90.6
19	3/4	84.1
12.50	1/2	73.7
9.50	3/8	72.5
4.75	4	53.8
2.00	10	39.3
0.425	40	22.4

مراح المراح الم

a F. Misek E. Artin Shoe Zurialek, Cam Tek Fair, 2016/731 - 27/9/3003





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 26/09/2023 Reporting Date : 30/09/2023

Reporting No. : 10-6

Materials finer than 75 μm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 µM (No.200)	9.9

Signature /

Consulting Engineering Bureau & Laboratories مكتب معاصل الاستشارات الهندسيسة مشروعات (سوشاح وقنا)

رقم التسجيل الْمُتريبي: 537 - 991 - 219 المركز الرئيسي 7 شارع الملك الأفضل ـ الزمالك ـ الكامرة





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 26/09/2023 Reporting Date : 30/09/2023

Reporting No. : 10-6

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	0
Plastic Limit	0
Plasticity Index	0

Consulting على مواسل المواسلة المواسلة





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

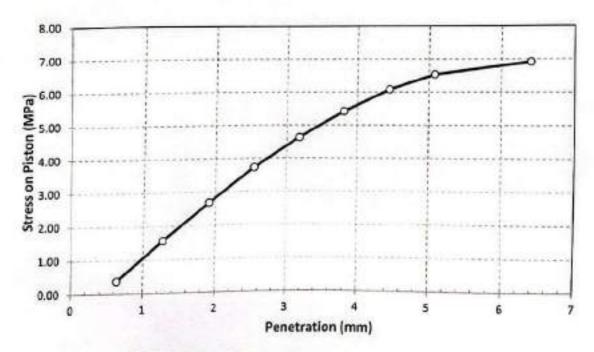
Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 19/09/2023 Reporting Date : 23/09/2023

Reporting No. : 10-5

Load Penetration Curve of CBR Test

ASTM D-1883



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فيل المطابا الأفسيل الرياف المقدرة الرياف دفاكل (((((۲۰۰۲) (۲۰۲۲) (۲۰۲۲)



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 26/09/2023 Reporting Date : 30/09/2023

Reporting No. : 10-6

Soil Classification

TEST	Results (%)		nits accord Projects Spec	
Group Classification	(A-1-a)	(A-1-a)	(A-1-b)	(A-2-4)
2.00 mm (No.10).	39.3	Max 50 %		
0.425 mm (No. 40).	22.4	Max 30 %	Max 50 %	******
0.075 mm (No. 200).	9.9	Max 15 %	Max 15 %	Max 15 %
Liquid Limit				
Plasticity index	0	Max 6 %	Max 6 %	Max 10 %

The test results are (- Comply - - Not Comply) with specifications limits

Signature Forsula

محتب معاصل الاستشارات المسلمة بما المسلمة المسلمة المسلمة المستشارات المسلمة المسلمة المسلمة المسلمة المسلمة ا مشروعات وسوماع وتشا) رقم التسجيل المشريين: 537 - 991 - 219 ، 199 المسلمة المس



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

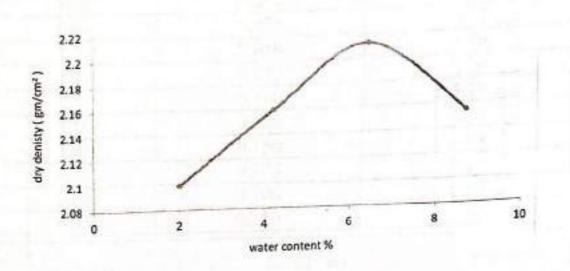
Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 26/09/2023 Reporting Date : 30/09/2023

Reporting No. : 10-6

Moisture - Density relation of soil
Test result (Modified proctor test)
ASTM D-1557



Max dry density (gm/cm²)

: 2.21

· Optimum moisture content %

: 6.4 %

Signature /

Alie dring Segularing Bureau & Laboratories مكتب معاصل الاستشارات البلسبي مكتب معاصل الاستشارات البلسبي مشروعات رسوماج وثنا) رقم التسجيل الضريس 537 - 531 - 1939 المراك التامرا

3 E Marek E Afrial Street

Zarada Cama

Sed For 27707 27 16 950



*شراله کلیالایستر ارماک المامری ارمان داری (۲۰۰۲ تا ۲۰۰۲ در ۲۰۰۲



مكتب معامل الإستشارات الهندسية

شركة الذهبي: Company Name

: Electric Express Train - HSR From Qous To Armant Project

: ST:641+400 E= 492410,088 N=2862759,57 Location

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

: 26/09/2023 Delivery Date Reporting Date : 30/09/2023

: 10-6 Reporting No.

Test Results of California Bearing Ratio on Base Materials

	ASTM D 188	3
pen	etration	stress on piston (Mpa)
mm	Inch	
0.64	0.025	0.41
1.27	0.050	1.60
	0.075	2.70
1.91	0.100	3.75
2.54	0.125	4.66
3.18		5.45
3.81	0.150	6.11
4.45	0.175	6.56
5.08	0.200	6.94
6.35	0.250	0.54

CBR Result	Stress (Mpa)		CBR 100 %
	- N. fra	Sample results	54.3 %
At 0.1 inch (2.54 mm)	St. Value 6.90	3.75	

Notes:

Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was compacted to dry density of = 2.21(gm /cm³) At = 6.4 % optimum water content.

3- Surcharge load 4.50 Kg

4- CBR > 10 for middle and lower embenkments according project spec page No 36.

Signature Consulting

٣ شارع الملك الأخشل _ الوّمالليم المتاهوة في المارا ا Zarwies, Caro

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شركة الذهبي: mpany Name

eroject : Electric Express Train - HSR From Qous To Armant

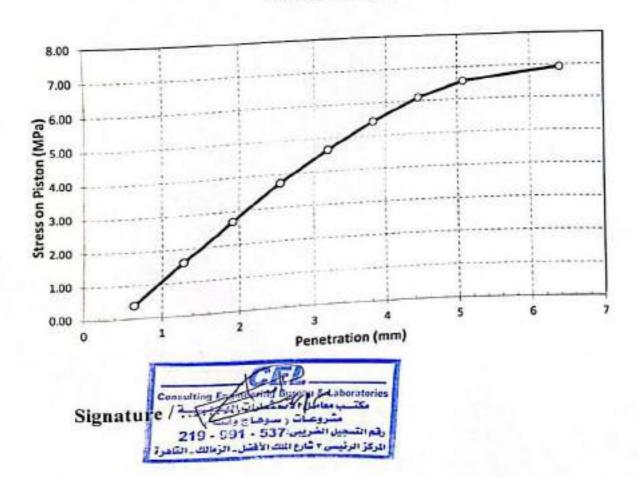
Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 26/09/2023
Reporting Date : 30/09/2023

Reporting No. : 10-6

Load Penetration Curve of CBR Test ASTM D-1883



3 E. Marck E. Ahmi Sheet Zarnakes, Carro 1-7, Lan. 2006221 - 27 07 000



الترافيقا الافسان الرباق، الدهور الفيور عاص (١٩٠٢-١٠٠١ ١٩٢١)



Consulting Engineering Bureau & Laboratories

مكتب معامل الإستشارات الهندسية

شركة الذهبي للمقاولات و التوريدات العمومية : Company

Project : Electric Express Train - Sector (5) - Qous to Arment.

: Determine the deformation and strength characteristics of soil by the Subject plate loading test according specifications DIN 18134:2012-04 and project requirements

Test Location : Station (641+000 to 641+160)

Test station : Station (641+050) , Station (641+130) - Level : - 4.0 (m)

Test Date : 09/07/2023 Repot Date : 10/07/2023 Type of soil : Original earth.

Report No. : 2.3

Dear Gentleman,

According to the above mentioned subject the test performed as follows:-

Apparatus

- 1. Loading plates consists of two plates with 300 mm and 300 mm diameter
- 2. The thickness of plates 30 mm
- 3. Dial gauges with accuracy 0.01 mm to measuring the settlement
- 4. Steel straightedges with magnetic supports to fixed the dial gauges
- 5. Hydraulic jack with pump to transfer reactive loads to the loading plates
- 6. Dial indicator measuring device with scale capacity 700 Bar (Enerbac)
- 7. Reaction loading system by roller compactor with weight approximately 15 ton.
- Calibration certificates are attached.

Test Procedure:

- 1. Clean the ground on test area to the required level with undisturbed soil
- 2. Install loading plates 300 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
- Prior to starting the test applied preloading about 30 seconds.
- 4. The strain gauge and the dial gauge shall be set to zero
- For a 300 mm loading plate, the limit values are 5.0 kg/cm²
- 6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
- 7. Each change in load (from stage to stage) shall be completed within one minute
- The load shall be released in 3 stages, to 50 %, 25 %, and approximately 2 % of the maximum load.
- Following unloading, a further (2nd) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached).

10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min.

11. Remove the loads EL 991 - 5371

3 El Malek El Afdal Street Zamalek, Calro.

Tel.& Fax: 27367231 - 27363093



٣ ش الملك الأفضل الزمالك - القاهرة تليفون + هاكس ، ١٧٣٦٧٢٣١ - ٢٧٣٦٣٠٩٣ www.cel-egypt.com



Report

- 1. Evaluation and representation of results.
- 2. Load Settlement curve.
- 3. The test report content the following:-
- · location of test site Dimension of loading plate.
- Measuring device used Type of soil.
- Type of Bedding material below the plate -Weathering condition.
- Time and date of measurements Unusual observation made during test.
- Dial gauge reading and corresponding normal stress Loading-settlement curve.
- Description of the soil condition below the plate after testing.

Report

Type of soil : Original earth

Job requirement : Ev2 > 400 Kg/cm² (40 MPa)

Item	Descriptions
Type of bedding material below the plate	Natural Soil
- Plate Diameter (mm)	300
- date of measurement	09/07/2023
- Unusual observation made during test	NO NO
- Description of the soil conditions below the plate after testing	No deformation

Evaluation and representation of results

Test	Stat	tion	1	First Cycle	Second Cycle	Evzl Ev	
No.	From	То	Location	Evi (kg/cm²)	Evz (kg/cm²)	Ratio	
1	641+000	641+100	641+050	708	1034	1.46	
2	641+100	641+160	641+130	1022	940	0.92	

Signature

IAS ACCREDITED



Company Name

شركة الذهبي للمقاولات و التوريدات العمومية :

Project

: Electric Express Train - Sector (5) - Qous to Arment.

Test Date

: 09/07/2023

report date Location

: Station (641+050)

Test No.

: 02

Nonrepetitive Static Plate Load Tests of Solls DIN 18134

Loading Stage (1)

Loading	Stress	Dist 4	Settlement	Dist o	Settlement	COMMISSION	
1	Kg/cm2	Dial 1	mm	Dial 2	mm	Average	
0	0.00	20.00	0.00	20.00	0.00	0.00	
1	0.63	19.75	0.25	19.80	0.20	0.23	
2	1.66	19.55	0.45	19.63	0.37	0.41	
3	2.50	19.33	0.67	19.20	0.80	0.74	
4	3.33	19.08	0.92	19.00	1.00	0.96	
5	4.17	18.77	1.23	18.82	1.18	1,21	
6	5.00	18.50	1.50	18.50	1.50	1.50	

Unloading Stage (1)

Landina	Stress	Dial 1	Settlement	Dial 2	Settlement	**********	
Loading Kg/cm2		Ciai 1	mm	Dial 2	mm	Average	
1	2.50	18.65	1.34	18.66	1.34	1.34	
2	1.25	18.75	1.25	18.80	1.20	1.23	
3	0.100	18.90	1.10	19.10	0.90	1.00	

Loading Stage (2)

Loading	Stress	Dial 1	Settlement	Dial 2	Settlement	S40/3000	
	Kglcm2	Dian 1	mm	Diai 2	mm	Average	
0	0.83	18.35	1.65	18.30	1.70	1.53	
1	1.66	18.20	1.80	18.10	1.90	1.68	
2	2.50	18.00	2.00	17.90	2.10	1.85	
3	3.33	17.83	2.17	17.75	2.25	2.05	
4	4.17	17.83	2.17	17.75	2.25	2.21	





Company Name Project **Test Date** seport date Location

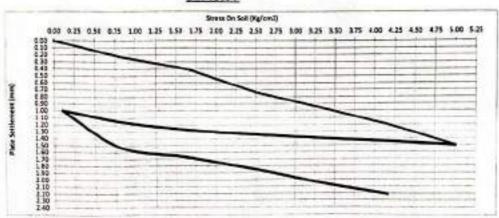
الذهبي المقاولات و الكروبات العبومية : Electric Express Train - Sector (5) – Qous to Arment.

: 09/07/2023

: 10/07/2023 : Station (641+050)

Test No. :02

Nonrepetitive Static Plate Load Tests of Soils DIN 18134



Loading (1)	0	1	2	3	4	- 6	6
Stage(Kg)	0	686	1172.8	1765.3	2352.6	2946.1	3532.5
Stress (Kg/cm2)	0.00	0.83	1,66	2.50	3.33	4.17	5.00
Settlement (mm)	0.00	0.23	0.41	0.74	0.96	1.21	1.50

UnLoading (1)	1	2	3	4
Stage(Kg)	3533	1766	884	71
Stress (Kg/cm2)	5.00	2.50	1.250	0.10
Settlement (mm)	1.50	1.34	1.23	1.00

D (mm) = 300		St (mm/a	0.3T	\$2(mm)=	1.01	AS=	0.6
Ev1 (kg/cm2) = (0.75°C	γ.Δογ.Δ.S		708				
Loading (2)	0	1 1	2	1 3	4	6	
Stage(Kg)	0	586.395	1172.8	1766.3	2352.6	2946.1	
Stress (Kg/cm2)	0.10	0.83	1.66	2.50	3 33	4.17	
Patting and I would	2.00	4.65	4.04	4.45	200	4.44	

Loading (2)	0	1 1	2	3	4	6	Ev
Stage(Kg)	0	586.395	1172.8	1766.3	2352.6	2946.1	110
ress (Kg/cm2)	0.10	0.83	1.66	2.50	3 33	4.17	
relamont /mm)	1.00	153	1.64	1.85	2.05	321	

D (mm) =	300	\$1 (mm)*	1.65	\$2(mm)=	2.06	ΔS =	0.44
Evi (kglonii) •	0.75°D'A014	LS	1034	1			

v2/Ev1 = 1.46

Ev1 - Modulus of deformation during the loading stage.

Ev2 - Modulus of deformation during the Reloading stage.

0 = Place diameter (mm)

Ds = The difference between 0.3 and 0.7 from the maximum loading (smas) (kg/cm²)

DS = Difference in settlements corresponding to 0.3 and 0.7 from the maximum loading (mm)



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Tel.& Fax: 27367231 - 27363093



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Company Name

شركة الذهبي للمقاولات و التوريدات العموسية :

Project

: Electric Express Train - Sector (6) - Qous to Arment.

Test Date report date

: 09/07/2023

Location

: Station (641+130)

Test No.

: 03

Nonrepetitive Static Plate Load Tests of Soils DIN 18134

Loading Stage (1)

Loading	Stress	Dial 1	Settlement	Dist	Settlement	A	
Section 1.	Kg/cm2	Dia 1	mm	Dial 2	mm	Average	
0	0.00	20.00	0.00	20.00	0.00	0.00	
1	0.83	19.66	0.34	19.77	0.23	0.29	
2	1.66	19.50	0.50	19.61	0.39	0.45	
3	2.50	19.30	0.70	19.40	0.60	0.65	
4	3.33	19.15	0.85	19.22	0.78	0.82	
5	4.17	18.90	1.10	19.08	0.92	1.01	
6	5.00	18.75	1.25	18.90	1.10	1.18	

Unloading Stage (1)

	Stress	Dial 1	Settlement	Dial 2	Settlement	- 1	
Loading	Kg/cm2	Diat	mm Dial 2		mm	Average	
1	2.50	18.83	1.12	19.05	0.95	1.04	
2	1.25	19.00	1.00	19.15	0.85	0.93	
3	0.100	19.35	0.65	19.40	0.60	0.63	

Loading Stage (2)

Loading	Stress	Dial 1	Settlement	Dial 2	Settlement	-1/00/00/00	
000000000000000000000000000000000000000	Kg/cm2	Diai 1	mm	Diai 2	mm	Average	
0	0.83	19.09	0.91	19.18	0.82	0.74	
1	1.66	18.80	1.20	19.05	0.95	0.87	
2	2.50	18.65	1.35	18.80	1.20	1.08	
3	3.33	18.40	1.60	18.61	1.39	1.28	
4	4.17	18.40	1.60	18.61	1.39	1.50	





Project Test Date mport date الذهبي المقاولات و التوريدات العمومية :

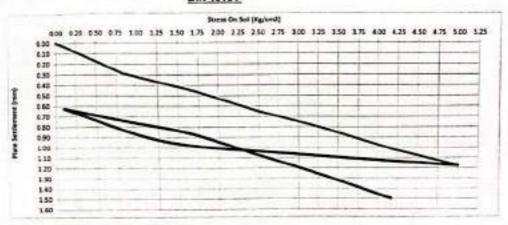
: Electric Express Train - Sector (5) - Qous to Arment.

: 09/07/2023 : 10/07/2023

: Station (641+130)

:03

Nonrepetitive Static Plate Load Tests of Soils DIN 18134



Loading (1)	0	1	2	3	4	5	6
Stage(Kg)	0	586	1172.8	1765.3	2352.6	2946.1	3532.5
Stress (Kg/cm2)	0.00	0.63	1.68	2.50	333	4.17	5.00
Settlement (mm)	0.00	0.29	0.45	0.65	0.82	1.01	1.18

UnLoading (1)	1	2	3	4
Stage(Kg)	3533	1766	884	71
Stress (Kg/cm2)	5.00	2.50	1.250	0.10
Settlement (mm)	1.18	1.04	0.93	0.63

Ev2/Ev1 = 0.92

D (mm) = 300		S1 (mm)=	0.41	52(mm)=	0.85	ΔS =	0.4
Er1 (kg/cm2) = (0.75°D	'ΔσγΔ\$		1022				
Looting (2)	0	1	2	1 3	4	6	
Stage(Kg)		586.395	1172.8	1766.3	2352.6	2946.1	
Stress (Kg/cm2)	0.10	0.83	1.66	2.50	3 33	4 17	

Stage(Kg)	0	586.395	1172.8	1766.3	2352.6	2946.1
Stress (Kg/cm2)	0.10	0.83	1.66	2.50	3 33	4.17
Settlement (mm)	0.63	0.74	0.67	1.08	1.28	1.50

O (mm) =	100	Si (maje	0.84	\$2(mm)*	1.12	AS=	0.48
Ex2 (kg/km2) =	(0.75° 0" Δα):	AS	943	1	-		-112.00

Ev1 = Wadukus of deformation during the loading stage. Ev2 - Modulus of deformation during the Reloading stage.

D + Plate diameter (mm)

Ds = The difference between 0.3 and 0.7 from the maximum loading (smar) (legicm²)

D5 = Difference in settlements corresponding to 6.3 and 0.7 from the maximum loading (mm)

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شركة الذهبي للمقاولات و التوريدات العمومية : Company

Project

: Electric Express Train - Sector (5) - Qous to Arment.

Subject

: Determine the deformation and strength characteristics of soil by the plate loading test according specifications DIN 18134:2012-04 and project requirements

Test Location : Station (641+160 to 641+300)

Test Date

: 12/07/2023

Repot Date

: 12/07/2023 : Original earth.

Type of soil Report No.

:1,2

Dear Gentleman,

According to the above mentioned subject the test performed as follows:-

Apparatus

- Loading plates consists of two plates with 300 mm and 300 mm diameter
- 2. The thickness of plates 30 mm
- Dial gauges with accuracy 0.01 mm to measuring the settlement
- Steel straightedges with magnetic supports to fixed the dial gauges
- Hydraulic jack with pump to transfer reactive loads to the loading plates
- Dial indicator measuring device with scale capacity 700 Bar (Enerbac)
- Reaction loading system by roller compactor with weight approximately 15 ton.
- Calibration certificates are attached.

Test Procedure:

- Clean the ground on test area to the required level with undisturbed soil
- install loading plates 300 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
- Prior to starting the test applied preloading about 30 seconds.
- The strain gauge and the dial gauge shall be set to zero
- For a 300 mm loading plate, the limit values are 5.0 kg/cm²
- 6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
- 7. Each change in load (from stage to stage) shall be completed within one minute
- 8. The load shall be released in 3 stages, to 50 %, 25 %, and approximately 2 % of the maximum load.
- 9. Following unloading, a further (2^{na}) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached).
- 10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min.

11 Remove the loads

Report

219-991-537

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Consulting Engineering Bureau & Laboratories

مكتب معامل الإستشارات الهندسية

- 1. Evaluation and representation of results.
- 2. Load Settlement curve.
- 3. The test report content the following:-
- location of test site Dimension of loading plate.
- Measuring device used Type of soil.
- Type of Bedding material below the plate -Weathering condition.
- Time and date of measurements Unusual observation made during test.
- Dial gauge reading and corresponding normal stress Loading-settlement curve.
- Description of the soil condition below the plate after testing.

Report

Type of soil : Original earth

Job requirement: Ev2 > 400 Kg/cm² (40 MPa)

ltem	Descriptions
Type of bedding material below the plate	Natural Soil
- Plate Diameter (mm)	300
- date of measurement	12/07/2023
- Unusual observation made during test	NO
- Description of the soil conditions below the plate after testing	No deformation

Evaluation and representation of results

	Stat	tion		Level	First Cycle	Second Cycle	Eval Eva
No. From To	Location	(m)	Evt (kg/cm²)	Ev2 (kg/cm²)	Ratio		
1	641+160	641+260	641+260	-4.5	721	930	1.29
2	641+260	641+300	641+280	-5.0	1202	957	0.80

Signature /





Company Name

شركة الذهبى للمقاولات و التوريدات العمومية :

Project

: Electric Express Train - Sector (5) - Qous to Arment.

Test Date

: 12/07/2023

report date Location : 12/07/2023 : Station (641+250)

Test No.

: 01

Nonrepetitive Static Plate Load Tests of Soils DIN 18134

Loading Stage (1)

Loading	Stress	Dist 4	Settlement		Settlement	Average	
	Kg/cm2	Dial 1	mm	Dial 2	mm		
0	0.00	20.00	0.00	20.00	0.00	0.00	
4	0.83	19.75	0.25	19.63	0.37	0.31	
2	1.66	19.30	0.70	19.20	0.80	0.75	
- 2	2.50	19.10	0.90	19.05	0.95	0.92	
3	3.33	18.81	1.19	18.77	1.23	1.21	
4	4.17	18.15	1.65	18.45	1.55	1.60	
5	5.00	18.28	1.72	18.21	1.79	1.76	

Unloading Stage (1)

Inloading Stage		1000000	Settlement		Settlement	Average
Loading		Dial 1	mm	Dial 2	mm	Manage
	Kg/cm2			10.10	1.60	1.63
1	2.50	18.35	1.65	18.40	1.47	1.46
2	1.25	18.55	1.45	18.53		1.34
2	0.100	18.68	1.32	18.65	1.35	1,34

Loading Stage (2)

	Stress		Settlement	Dial 2	Settlement	Average	
Loading	Kg/cm2	Dial 1	mm	Dian 2	mm		
	0.83	18.33	1.67	18.25	1.75	1.51	
-	1.66	18.10	1,90	28.08	1.92	1.71	
2	2.50	17.93	2.07	17.80	2.20	1.91	
2	3.33	17.85	2.15	17.68	2.32	2.14	
3	4.17	17.85	2.15	17.68	2.32	2.24	

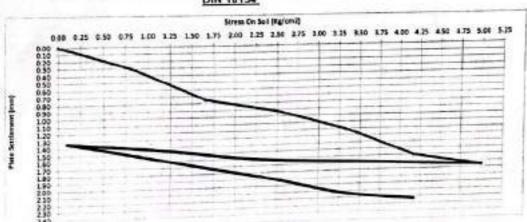




regions resi Date report date Location Test No.

- الذهبى للمقاولات و التوريدات الصومية : Electric Express Trais Sector (5) Qous to Arment.
- : 12/07/2023 : 12/07/2023
- : Station (641+250)

Nonrepetitive Static Plate Load Tests of Soils **DIN 18134**



			1 2	3	4	5	6
Loading (1)	0			**** 1	2352.6	2946.1	36325
Stage(Kg)	0	586	1172.8	-	-	4 17	5.00
Stress (Kg/cm²)	0.00	0.83	1.66	2.50	3.33	4.11	
Stress fred com	0.00	0.31	0.75	0.92	1.21	1.60	1.76

UnLoading (1)	1	2	3	4
Stage(Kg)	3533	1766	884	71
Stress (Kg/cm2)	5.00	2.50	1.250	0.10
Settlement (mm)	1.76	1.63	1.48	1.34

Ev2/Ev1 = 1.29

200	St (mm)s	0.67	\$2(mm)* 1	.29	Δ5 -	0.62
D (mm) = 300 Ev1 (kg/cm2) = (0.75°D°ΔσγΔS		721				
		-	111	4	5	

		-	9	3	4	. 5
Loading (2)	0	1	-	4300.0	2352.6	2946
Stage(Kg)	. 0	586.395	1172.8	1766.3	2332.0	-
	0.10	0.83	1.65	2.50	3.33	4.17
Stress (Kg/cm2)	0.10	000	-	TEST NO.		2.24
Settlement (mm)	1.34	1.51	1.71	1.91	2.14	2.44

D (mm) =	300	S1 (mm)=	1.67	\$2(mm)*	2.10	A3 -	0.48
	_		930				
Evz payenz) *	(0.75°0°&0)'A5	-	***				

Ey! - Modulus of deformation during the loading stage

Ev2 = Modulus of determation during the Reloading stage.

O . Plate dameter (mm)

Do = The difference between 0.3 and 0.7 from the measures loading (smea) (kg/cm²)

ding to 0.3 and 0.7 from the maximum loading (mm)

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Company Name

شركة الذهبي تلمقاولات و التوريدات العمومية :

Project

: Electric Express Train - Sector (5) - Qous to Arment.

Test Date

: 12/07/2023 : 12/07/2023

report date Location

: Station (641+280)

Test No.

: 02

Nonrepetitive Static Plate Load Tests of Soils DIN 18134

Loading Stage (1)

Loading	ading Stress		Settlement	Dial 2	Settlement	Average
	Kg/cm2	Dial 1	mm	Diat 2	mm	Average
0	0.00	20.00	0.00	20.00	0.00	0.00
1	0.83	19.83	0.17	19.90	0.10	0.14
2	1.66	19.65	0.35	19.78	0.22	0.29
3	2.50	19.50	0.50	19.66	0.34	0.42
4	3.33	19.28	0.72	19.52	0.48	0.60
- 5	4.17	19.10	0.90	19.40	0.60	0.75
	5.00	18.05	1.05	19.25	0.75	0.90

Unloading Stage (1)

	Stress	2017/201	Detroment Bi-1 A		Settlement	Average
Loading	Kg/cm2	Dial 1	mm	Dial 2	mm	A VEGET
	2.50	19.05	0.95	19.31	0.69	0.82
-	1.25	19.15	0.85	19.40	0.60	0.73
2	0.100	19.22	0.78	19.48	0.52	0.65

Loading Stage (2)

Loading	sading Stage (2)		Settlement	Dial 2	Settlement	Average	
Loading	Kg/cm2	Dial 1	mm	Diai 2	mm	,,,,eiuge	
0	0.83	19.08	0.92	19.30	0.70	0.81	
1	1.66	18.90	1.10	19.18	0.82	0.96	
2	2.50	18.65	1.35	18.98	1.02	1.19	
3	3.33	1850	1.50	18.75	1.25	1.38	
4	4.17	1839	1.61	18.60	1.40	1.51	







Company Name

شركة الذهبي:

Project

: Electric Express Train - HSR From Qous To Armant

Testing Date

: 16/7/2023

Soil type

: Soil Embankment

Location

: ST From 641+000 To 641+140

Level

: -4.0 M

Report No.

: 03

Compaction test by using Sand – Cone Test Method ASTM D- 1556

Test#	Station	Test Hole Volume cm³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance
1	641+020	1500	2.19	5	2.08	97.8%	Comply
2	641+100	1432	2.19	5.3	2.08	97.5%	Comply

- Degree of compaction based on proctor test dated At :
 - Max. dry density = 2.13 gm/cm³

. At optimum moisture content = 6.4 %

Signature

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3 C Malek E Aktal Street

Zarules, Caro.

Te8 Fax 27367231 27363093



في الطاعة المسلم المسلم



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 18/5/2023 Reporting Date : 23/5/2023

Reporting No. : 05

Dear Gentleman,

Attached here with the delivered on 18 / 5 / 2023

Materials test

Sieve analysis according to ASTM D-422.

- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- Soil classification according to Project Specs.
- Proctor Test according to ASTM D-1557
- CBR according to ASTM D-1883

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

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3 E Malek El Afdal Street Zamalek, Care. Te A Fax: 27397531 | 27363050



2



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 18/5/2023

Reporting Date : 23/5/2023

Reporting No. : 05

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Sieve Size (IN)	Passing %
50	2	100
37.5	1.5	100
25	1	98.8
19	3/4	96.2
12.50	1/2	92.2
9.50	3/8	88.8
4.75	4	82.4
2.00	10	74.4
0.425	40	38.5

عتد ساد الانتقارات موسط المسلم الانتقارات الانتقارات الانتقار الانتقارات الانتقار ا

3 El Malek El Afrail Street Zamalok, Catro 1 v 8 Fm - 27367/211 - 27363/250



*شراتهاداتاند. الرماك التناهر: الرماك التناهر: ۲۷۳۲۷۲۱ تا ۲۷۳۲۲



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 18/5/2023 Reporting Date : 23/5/2023

Reporting No. : 05

Materials finer than 75 μm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)	-
Percentage of material finer than Sieve Size 75 µM (No.200)	10.7	ż

Signatur

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2





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 18/5/2023 Reporting Date : 23/5/2023

Reporting No. : 05

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)	
Liquid Limit	0	
Plastic Limit	0	
Plasticity Index	0	

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1



شركة الذهبي: Company Name

Project : Electric Expr

: Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 18/5/2023

Reporting Date : 23/5/2023

Reporting No. : 05

Soil Classification

TEST	Results (%)	The state of the s	Limits accordi			
Group Classification	A-1-b	(A-1-a)	(A-1-b)	(<u>A</u> -2-4)		
2.00 mm (No.10).	74.4	Max 50 %				
0.425 mm (No. 40).	38.5	Max 30 %	Max 50 %			
0.075 mm (No. 200).	10.7	Max 15 %	Max 15 %	Max 15 %		
Liquid Limit						
Plasticity index	0	Max 6 %	Max 6 %	Majx 10 %		

The test results are (
Comply -
Not Comply) with specifications limits

Signature

معالم المنافقة المنا

3 El Malek El Aldai Street Zamalek, Cairo

Tel& Fax 2736721 - 27363093

IAS ACCREDITED حَلَى المِنَامِ الأَصْلَــنِ الرَّحِكَاتُ الْخُلَّمِيَةِ الرَّحِكَاتُ الْخُلَمِيَّةِ الْمُحَارِّعِيْنِ الْمُحَارِّعِيْنِ الْمُحَارِّعِيْنِ الْمُحَارِّعِيْنِ الْمُحَارِّعِيْنَ



شركة الذهبي : Company Name

Project : Electric Express Train - HSR From Qous To Armant

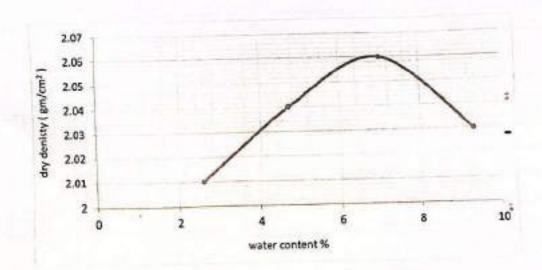
Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 18/5/2023 Reporting Date : 23/5/2023

Reporting No. : 05

Moisture – Density relation of soil
Test result (Modified proctor test)
ASTM D-1557



· Max dry density (gm/cm2)

: 2.06

Optimum meisture centent

: 7.0 %

Signature

. 3 تارع الله الافتال -

3 E Mulek E Athai Stide: Zarudos Gairo

Te& Fair 27367/3 - 27363093

IAS ACCREDITED التي الهلام الأفسار الرمالك المنافرة المدر التأمي (١٠٠١/١٠٠ ١١، ١٧٣١٤



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 18/5/2023 Reporting Date : 23/5/2023

Reporting No. : 05

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Sieve Size (IN)	Passing %
50	2	100
37.5	1.5	100
25	1	98.8
19	3/4	96.2
12.50	1/2	92.2
9.50	3/8	88.8
4.75	4	82.4
2.00	10	74.4
0.425	40	30.5





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 18/5/2023 Reporting Date : 23/5/2023

Reporting No. : 05

Materials finer than 75 μm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μΜ (No.200)	10.7





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 18/5/2023

Reporting Date : 23/5/2023

Reporting No. : 05

Test Results of California Bearing Ratio on Base Materials
ASTM D 1883

pene	etration	stress on piston (Mpa)		
mm	Inch	2		
0.64	0.025	0.22		
1.27	0.050	0.61		
1.91	0.075	1.01		
2.54	0.100	1.46		
3.18	0.125	1.74		
3.81	0.150	1.85		
4.45	0.175	1.76		
5.08	0.200	1.58		
6.35	0.250	1.19		

CBR Result	St	CBR 100 %	
At 0.1 inch (2.54 mm)	St. Value	Sample results	21.2 %
penetration	6.90	1.46	

Notes:

Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was compacted to dry density of = 2.06 (gm/cm³)
At = 7.0 % optimum water content.

3- Surcharge Gad H5 Kg.

4- CBR > 10 for middle and lower embankments according project spec page No 36.

Signature 219 feet 43 feet

3 El Malek El Aldal Street





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 18/5/2023 Reporting Date : 23/5/2023

Reporting No. : 05

Dear Gentleman,

Attached here with the delivered on 18 / 5 / 2023

Materials test

1. Sieve analysis according to ASTM D-422.

- Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- Proctor Test according to ASTM D-1557
- CBR according to ASTM D-1883

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the went it is taken

Signature

3 E Mack E Afta Street Zamatos, Carro Te& Fax: 273672 1 - 27363750





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

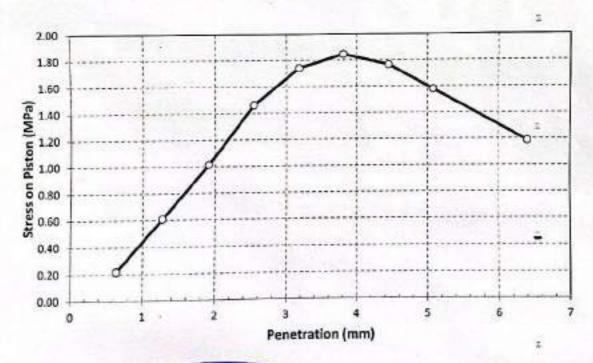
Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 18/5/2023 Reporting Date : 23/5/2023

Reporting No. : 05

Load Penetration Curve of CBR Test ASTM D-1883





3 E. Malek E. Aldul Shee: Zarunles, Cairo

To & Fax 2736723" 27363093



اش البلاحالاند. الرساف: الذلفرة المعور بالاس (۱۹۹۷/۱۹۰۱ (۲۰۲۷۲۰۲۲



شركة الذهبي: Company Name

Project

: Electric Express Train - HSR From Qous To Armant

Testing Date

: 20/7/2023

Soil type

: Middle Embankment

Location

: St From 641+100 To 641+160

Level

: -3.5 M

Report No.

: 08

Compaction test by using Sand – Cone Test Method ASTM D- 1556

Test#	Station	Test Hole Volume cm ³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance
1	641+110	1472	2.13	5.3	2.02	98.0%	Comply
2	641+140	1471	2.10	5.8	1.99	96.4%	Comply

. Degree of compaction based on proctor test dated At :

Max. dry.density = 2.06 gm/cm³

At optimum maisture content = 7.0 %

S El Maiox El Afdal Store Zamatos, Caro Loss Fair (27977) (2796390)





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 18/5/2023 Reporting Date : 23/5/2023

Reporting No. : 05

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	0
Plastic Limit	0
Plasticity Index	0



CEIPT of NOTIFICATION - Minimum I Was i described below will be complete and ready	for anspection at planned time shows	
Location Name	Contractor Company	Designer Company
From 641+000 to 641+100	EL-ZAHABY contraction	(SPECTRUM) Engineering Consulting Office
Name	Sign Date	Time

شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 18/5/2023 Reporting Date : 23/5/2023

Reporting No. : 05

Soil Classification

TEST	Results (%)	Limits according Projects Specs			
Group Classification	A-1-b	(A-1-a)	(A-1-b)	(A-2-4)	
2.00 mm (No.10).	74.4	Max 50 %	=		
0.425 mm (No. 40).	38.5	Max 30 %	Max 50 %	*****	
0.075 mm (No. 200).	10.7	Max 15 %	Max 15 %	Max 15 %	
Liquid Limit		******			
Plasticity index	0	Max 6 %	Max 6 %	Max 10 %	

The test results are Li Comply - | Not Comply) with specifications limits

3 El Malek El Afrika Street



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 الرمالات الطالباد



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

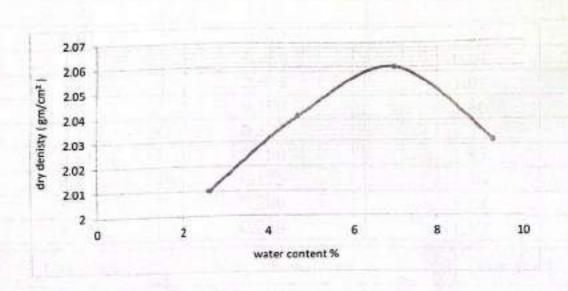
Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 18/5/2023 Reporting Date : 23/5/2023

Reporting No. : 05

Moisture – Density relation of soil
Test result (Modified proctor test)
ASTM D-1557



Max dry density (gm/cm²)

: 2.06

Ontimum mistage content

: 7.0 %

Signatur

3 E. Maleix E. Afrika Shire

Zarvalios, Caero Te&Fair, 27367231 - 27367293



المار الوطاء التحري الريالات المجود بليس مارس (عارض) (١٩٠٢ - ١٠٠١ ١٧٢٠٠٠ - ١



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

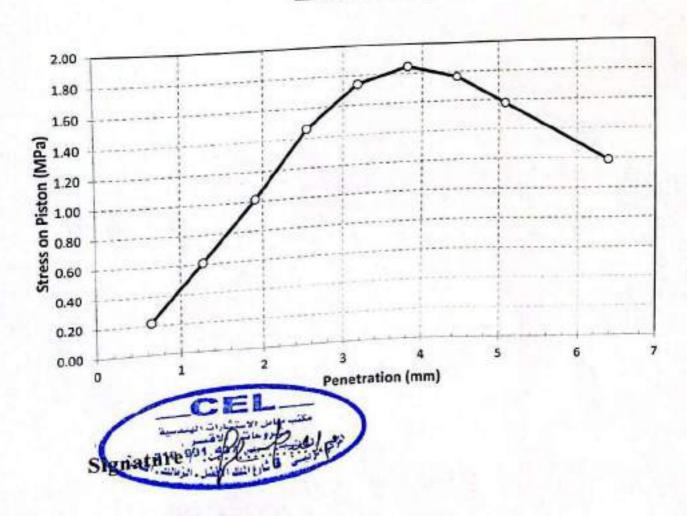
Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 18/5/2023

Reporting Date : 23/5/2023

Reporting No. : 05

Load Penetration Curve of CBR Test ASTM D-1883





شركة الذهبي: Company Name

Project

: Electric Express Train - HSR From Qous To Armant

Testing Date

: 19/7/2023

Soil type

: Middle Embankment

Location

: ST From 641+000 To 641+100

Level

: -3.5 M

Report No.

: 07

Compaction test by using Sand - Cone Test Method ASTM D- 1556

Test#	Station	Test Hole Volume cm ³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance
1	641+030	1380	2.09	5.8	1.98	96.1%	Comply
2	641+070	1526	2.10	5.3	1.99	96.7%	Comply

Degree of compaction based on proctor test dated At :

Max. dry density = 2.06 gm/cm³

At optimum maisture centent = 7.0 %

Signature

3 Er Malek Er Atta Street Zarrades, Cairo

WA Finx 2730725 27369693

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شركة الذهبي : Company Name

: Electric Express Train - HSR From Qous To Armant Project

: (ST: 641+100) E=32.9226620 N=25.8862030 Location

: Soil Embankment (Upper Embankment 0.0 M) Type of sample

: 18/5/2023 **Delivery Date**

Reporting Date : 23/5/2023

: 05 Reporting No.

Test Results of California Bearing Ratio on Base Materials

Test recommend	ASTM D 188	3
pene	etration	stress on piston (Mpa)
mm	Inch	
mm 0.64	0.025	0.22
0.64	0.050	0.61
1.27	0.075	1.01
1.91	0.100	1.46
2.54	0.125	1.74
3.18		1.85
3.81	0.150	1.76
4.45	0.175	1.58
5.08	0.200	1.19
	0.250	1.19
6.35	0.250	1.19

results	21.2 %
46	3,000,000
	.46

Notes:

 Attached graph shows penetration resistance versus penetration magnitude. 2- The sample was compacted to dry density of = 2.06 (gm/cm³)

ptimum water content.

and lower embankments according project spec page No 36.

3 E Malek E Attail Street Zingalia, Caro. Testax 27572 2750350





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Testing Date : 25/7/2023

Soil type : Middle Embankment

Location : St From 641+220 To 641+300

Level : -4.5 M

Report No. : 11

Compaction test by using Sand - Cone Test Method ASTM D-1556

Test#	Station	Test Hole Volume cm ³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance
1	641+240	1557	2.10	5.8	1.99	95.4%	Comply
2	641+280	1767	2.10	5.8	1.98	95.4%	Comply

- Degree of compaction based on proctor test dated At :
 - Max. dry density = 2.08 gm/cm³

At optimum moisture content = 7.0 %

Signature / ..

3 El Marck E. Artha Stree Zamales, Garn Talk Fas. 2756/01 - 2736/03





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 20/7/2023

Reporting Date : 24/7/2023

Reporting No. : 05-2

Dear Gentleman,

Attached here with the delivered on 20 / 7 / 2023

Materials test

Sieve analysis according to ASTM D-422.

- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- Proctor Test according to ASTM D-1557
- 6. CBR according to ASTM D-1883

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature

3 شارع الله الافتيل والنزطالة والله



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 20/7/2023 Reporting Date : 24/7/2023

Reporting No. : 05-2

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Sieve Size (IN)	Passing % 100 100	
50	2		
37.5	1.5		
	1	97.3 95.4 91.6 87.4 81.5	
25	3/4		
19	1/2		
12.50	3/8		
9.50	4		
4.75		71.3	
2.00	10	36.8	
0.425	40	Duns	



a E Malek E Afrid Shed! Zernylov, Camu Tark Fax: 2736723 - 27369.93



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شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 20/7/2023 Reporting Date : 24/7/2023

Reporting No. : 05-2

Materials finer than 75 μm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μΜ (No.200)	11.4







شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 20/7/2023

Reporting Date : 24/7/2023

Reporting No. : 05-2

Soil Classification

TEST	Results (%)	Limits according Projects Specs		
Group Classification	A-1-b	(A-1-a)	(A-1-b)	(A-2-4)
2.00 mm (No.10).	71.3	Max 50 %		
0.425 mm (No. 40).	36.8	Max 30 %	Max 50 %	
0.075 mm (No. 200).	11.4	Max 15 %	Max 15 %	Max 15 %
Liquid Limit		T		
Plasticity index	0	Max 6 %	Max 6 %	Max 10 %

The test results are (Comply - Not Comply) with specifications limits

Signature / 219 College Colleg

a E. Molek E. Aftiol Street Zumales, Caro Tri&Fax. 2/36/231 - 27363033



الشرائدات الأمييني الإخارات المتقوم المجين حالتين (Taryon) و Syrye



شركة الذهبي : Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 20/7/2023 Reporting Date : 24/7/2023

Reporting No. : 05-2

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	0
Plastic Limit	0
Plasticity Index	0





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

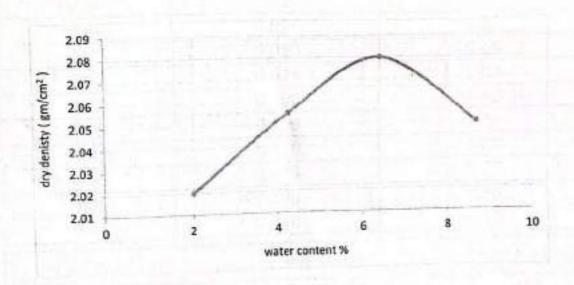
Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 20/7/2023 Reporting Date : 24/7/2023

Reporting No. : 05-2

Moisture - Density relation of soil Test result (Modified proctor test) ASTM D-1557



Max dry density (gm/cm²)

: 2.08

Optimum moisture content

: 6.4 %

Signature/

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3 El Maiek El Afrital Street Zamallox, Carro. Tel& Finx (273672)** (27363093) IAS ACCREDITED * في الهلامة الأناسس الرسائل المتاهورة اليمين الناشي (10 (100 و 10 و100)



شركة الذهبي: Company Name

Project

: Electric Express Train - HSR From Qous To Armant

: (ST: 641+100) E=32.9226620 N=25.8862030 Location

: Soil Embankment (Upper Embankment 0.0 M) Type of sample

Delivery Date : 20/7/2023 Reporting Date : 24/7/2023

: 05-2 Reporting No.

Test Results of California Bearing Ratio on Base Materials

W	ASTM D 188	3
pen	etration	stress on piston (Mpa)
mm	Inch	
0.64	0.025	0.25
1.27	0.050	0.66
1.91	0.075	1.07
2.54	0.100	1.52
3.18	0.125	1.78
	0.150	1.88
3.81	0.175	1.77
4.45	0.200	1.56
5.08	0.250	1.12
6.35	0.230	

CBR Result	Stress (Mpa)		CBR 100 %
	St. Value	Sample results	22 %
At 0.1 iach (2.54 mm) penetration	6.90	1.52	

Notes:

1- Attached graph shows penetration resistance versus penetration magnitude.

2. The sample was compacted to dry density of = 2.08 (gm/cm3) At = 6.4 % obtimum water content.

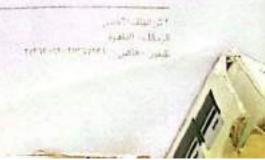
3- Surcharge load 4:50 Kg

4- CBR > 10 for middle and lower embankments according project spec page No 36.

Signature / 316 30

S.E. Marie E. Attail Clinic Zianaderi, Gairo WAR IN 219 727 - 27 69603







شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

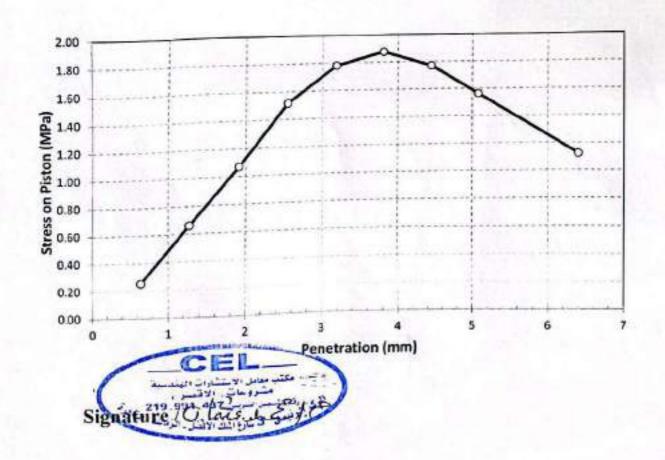
Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 20/7/2023 Reporting Date : 24/7/2023

Reporting No. : 05-2

Load Penetration Curve of CBR Test ASTM D-1883



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Project : Electric Express Train - HSR From Qous To Armant

Testing Date : 18/7/2023

Soil type : Soil Embankment

Location : ST: From 641+240 To 641+300

Level : -5.0 M

Report No. : 05

Compaction test by using Sand - Cone Test Method ASTM D- 1556

Test#	Station	Test Hole Volume cm ³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance
1	641+260	1505	2.17	5.8	2.05	99.7%	Comply

Degree of compaction based on proctor test dated At :

Max. dry density = 2.06 gm/cm³

At optimum moisture content = 7.0 %



3 El Malek El Aldal Street Zionakok, Carro Te & Fax (279172) - 2735/K68



* أن الملك الأنسان الرماك الإنادي شدير - فلكني = (١٤٠١/١٠٠١) - ١٤٣١/١٠



Project : Electr

: Electric Express Train - HSR From Qous To Armant

Testing Date : 26/7/2023

Soil type : Middle Embankment

Location : St From 641+000 To 641+100

Level : -3.0 M

Report No. : 13

Compaction test by using Sand - Cone Test Method ASTM D- 1556

Test#	Station	Test Hole Volume cm ²	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance
1	641+040	1923	2.09	5.5	1.98	95.3%	Comply
2	641+080	1298	2.17	5.8	2.05	98.4%	Comply

Degree of compaction based on proctor test dated At :

Max. dry density = 2.08 gm/cm³

. At optimum moisture content = 6.4%

Signature /

3 E. Maick E. Aldul Stract Zaniales, Caro

TeA Fax: 22/0/25" 22/9/3010





Project : Electric Express Train - HSR From Qous To Armant

Testing Date : 01/08/2023

Soil type : Middle Embankment

Location : St From 641+100 To 641-160

Level : -3 M

Report No. : 22

Compaction test by using Sand - Cone Test Method ASTM D- 1556

Test#	Station	Test Hole Volume cm ³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance
1	641+120	1414	2.13	5.8	2.01	96.8%	Comply
2	641+140	1446	2.14	5.8	2.03	97.4%	Comply

- Degree of compaction based on proctor test dated At :
 - Max. dry density =2.08 gm/cm³

At optimum moisture content = 6.4 %

Signature J. C. Cale 1791 P.

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شركة الذهبي : Company Name Project : Electric E:

: Electric Express Train - HSR From Qous To Armant

Testing Date

: 05/08/2023

Soil type

: Middle Embankment

Location

: St From 641+220 To 641+300

Level

: -4.0 M

Report No.

: 26

Compaction test by using Sand - Cone Test Method ASTM D- 1556

Test#	Station	Test Hole Volume cm ³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance
1	641+250	1574	2.19	6.4	2.06	96.7%	Comply
2	641+280	1581	2.13	5.2	2.03	95.2%	Comply

- Degree of compaction based on proctor test dated At :
 - Max. dry density =2.13 gm/cm³

At optimum moisture content = 6.4 %

Signature /

بيار المعربيس 437 ـ 100. 2 أن مردون والأفضل - ال

ى 3 ئارغ اللك

3 El Malek El Ahlot Street Zarusek Garo Tes Fax (276-77) (27.673-63)

IAS ACCREDITED



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 22/7/2023

Reporting Date : 26/7/2023

Reporting No. : 05-3

Dear Gentleman,

Attached here with the delivered on 22/7/2023

Materials test

1. Sieve analysis according to ASTM D-422.

- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- 5. Proctor Test according to ASTM D-1557
- 6. CBR according to ASTM D-1883

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

3 E. Muzek E. Afrika Stront Zonsales, Garro Te& Pax: 273670.1 - 27369093





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 22/7/2023 Reporting Date : 26/7/2023

Reporting No. : 05-3

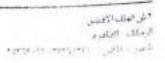
RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Sieve Size (IN)	Passing %
50	2	100
37.5	1.5	97.1
25	1	93.1
19	3/4	90.0
12.50	1/2	85.5
9.50	3/8	81.6
4.75	4	77.6
2.00	10	72.9
0.425	40	39.9



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شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 22/7/2023 Reporting Date : 26/7/2023

Reporting No. : 05-3

Materials finer than 75 µm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μΜ (No.200)	11.3







شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 22/7/2023 Reporting Date : 26/7/2023

Reporting No. : 05-3

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	0
Plastic Limit	0
Plasticity Index	0



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 22/7/2023 Reporting Date : 26/7/2023

Reporting No. : 05-3

Soil Classification

TEST	Results (%)	Clarents.	nits accordi Projects Spec	
Group Classification	A-1-b	(A-1-a)	(A-1-b)	(A-2-4)
	72.91	Max 50 %		*****
2.00 mm (No.10).	39.87	Max 30 %	Max 50 %	
0.425 mm (No. 40). 0.075 mm (No. 200).	11.3	Max 15 %	Max 15 %	Max 15 %
Canal I I Imie				
Plasticity index	0	Max 6 %	Max 6 %	Max 10 %

The test results are (Comply - Not Comply) with specifications limits

Signature 19 Grant El Cy

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شركة الذهبي : Company Name

Project : Electric Express Train - HSR From Qous To Armant

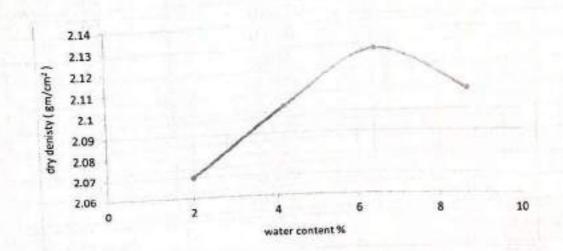
Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 22/7/2023 Reporting Date : 26/7/2023

Reporting No. : 05-3

Moisture - Density relation of soil
Test result (Modified proctor test)
ASTM D-1557



Max dry density (gm/cm²)

: 2.13

Optimum-moisture content %

: 6.4 %

Signatura Chaica

3 Et Malek Et Affait Street Zarnates, Carro TeA Last 27/97/55 27/96/09



قاش الموالد الانسان الزمالات الطفوز الممار دخالين (1974-1987) (1974-1984)



Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 22/7/2023 Reporting Date : 26/7/2023

Reporting No. : 05-3

Test Results of California Bearing Ratio on Base Materials
ASTM D 1883

ASTW D 1805	
tration	stress on piston (Mpa)
Inch	
0.025	0.25
	1.01
	1.78
	2,43
The second secon	3.05
	3.55
	3.96
0.200	4.16
0.250	4.06
	Inch 0.025 0.050 0.075 0.100 0.125 0.150 0.175 0.200

CBR Result	Stress (Mpa)		CBR 100 %	
440 (In al. (3 f)	St. Value	Sample results	35.3 %	
At 0.1 inch (2.54 mm)	6.90	2.43		

Notes:

1- Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was compacted to dry density of = 2.13 (gm /em³)
At 6.4 % optimum water content.

3- Surcharge load 4.50 Kg.

4- CBR > 10 for middle and lower embankments according project spec page No 36.

Signature Colore Color

TE Micro E artist Photo Zorwick Carris Teliffac 2736723 - 27369350





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

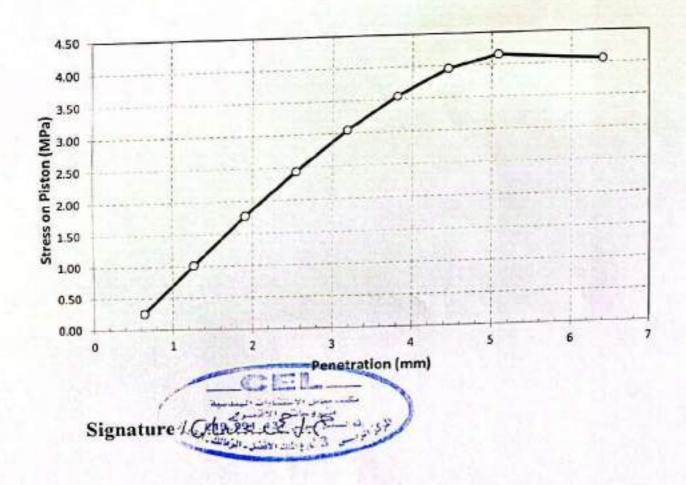
Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 22/7/2023 Reporting Date : 26/7/2023

Reporting No. : 05-3

Load Penetration Curve of CBR Test ASTM D-1883







Project : Electric Express Train - HSR From Qous To Armant

Testing Date : 12/08/2023

Soil type : Middle Embankment

Location : St From 641+180 To 641+300

Level : - 3.5 M

Report No. : 32

Compaction test by using Sand - Cone Test Method ASTM D- 1556

Test#	Station	Test Hole Volume cm ³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance
1	641+200	1352	2.17	5.5	2.06	96.1%	Comply
2	641+250	1488	2.20	5.5	2.09	97.6%	Comply
3	641+280	1369	2.20	5.5	2.09	97.5%	Comply

- Degree of compaction based on proctor test dated At :
 - Max. dry density =2.14 gm/cm³
 - At optimum moisture content = 6.4 %

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Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 26/7/2023 Reporting Date : 30/7/2023

Reporting No. : 05-4

Dear Gentleman,

Attached here with the delivered on 26 / 7 / 2023

Materials test

1. Sieve analysis according to ASTM D-422.

2. Material finer than sieve No. 200 according to ASTM D-1140.

- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- Proctor Test according to ASTM D-1557
- 6. CBR according to ASTM D-1883

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature

5 U Manch E Affan Street Zamanias Carci Talk Fare 2726 (CS - 2006)(SG





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 26/7/2023 Reporting Date : 30/7/2023

Reporting No. : 05-4

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Sieve Size (IN)	Passing %
50	2	98.2
37.5	1.5	95.2
25	1	91.5
19	3/4	88.2
12.50	1/2	84.5
9.50	3/8	80.2
4.75	4	73.5
2.00	10	70.1
0.425	40	35.4





Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 26/7/2023 Reporting Date : 30/7/2023

Reporting No. : 05-4

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	O O O O O O O O O O O O O O O O O O O
Plastic Limit	0
Plasticity Index	0





مكتب معامل الإستشارات الهندسية

شركة الذهبي: Company Name

: Electric Express Train - HSR From Qous To Armant Project

: (ST: 641+100) E=32.9226620 N=25.8862030 Location

: Soil Embankment (Upper Embankment 0.0 M) Type of sample

Delivery Date : 26/7/2023 Reporting Date : 30/7/2023

Reporting No. : 05-4

Soil Classification

TEST	Results (%)	Dunlante Course		
Group Classification	A-1-b	(A-1-a)	(A-1-b)	(A-2-4)
2.00 mm (No.10).	70.1	Max 50 %		
0.425 mm (No. 40).	35.4	Max 30 %	Max 50 %	
0.075 mm (No. 200).	10.3	Max 15 %	Max 15 %	Max 15 %
Liquid Limit	- Facility 1		*****	74
Plasticity index	0	Max 6 %	Max 6 %	Max 10 %

The test results are (
Comply -
Not Comply) with specifications limits

Signature /

3 E. Marek E. Ahtal Street Zurwien, Caro loater 273572 2735393





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 26/7/2023 Reporting Date : 30/7/2023

Reporting No. : 05-4

Materials finer than 75 μm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μΜ (No.200)	10.3

Signature 1. 219.991 437



Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 22/7/2023 Reporting Date : 26/7/2023

Reporting No. : 05-2

Test Results of California Bearing Ratio on Base Materials

pene	etration	stress on piston (Mpa)
mm	Inch	suces on piston (11-pa)
0.64	0.025	0.36
1.27	0.050	1.09
1.91	0.075	1.83
2.54	0.100	2.49
3.18	0.125	2.94
3.81	0.150	3.30
4.45	0.175	3.55
5.08	0.200	3.65
6.35	0.250	3.55

CBR Result	Stress (Mpa)		CBR 100 °	
At 0.1 inch (2.54 mm)	St. Value	Sample results	26.04	
penetration	6.90	2.49	36 %	

Notes:

- Attached graph shows penetration resistance versus penetration magnitude.
- 2- The sample was compacted to dry density of = 2.14 (gm/cm³) At = 6.4 % optimum water content.

3- Surcharge load 4.50 kg.

4- CBR > 10 for middle and lower embankments according project spec page No 36.

Signature

3 E. Matek El Afdal Street

Zar West, Caro

To & Fax 273676.37 273630.93





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

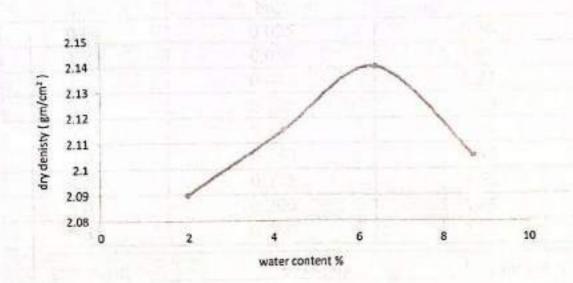
Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 26/7/2023 Reporting Date : 30/7/2023

Reporting No. : 05-4

Moisture – Density relation of soil Test result (Modified proctor test) ASTM D-1557



Max dry density (gm/cm²)

: 2.14

· Optimum moisture content %

: 6.4 %

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شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

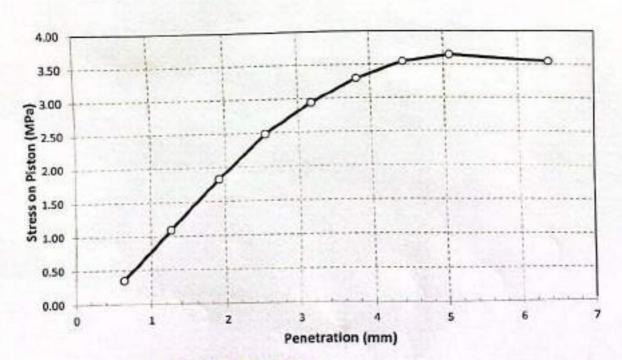
Location : (ST: 641+100) E=32.9226620 N=25.8862030

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 22/7/2023 Reporting Date : 26/7/2023

Reporting No. : 05-2

Load Penetration Curve of CBR Test ASTM D-1883





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Project

: Electric Express Train - HSR From Qous To Armant

Testing Date

: 15/08/2023

Soil type

: Middle Embankment

Location

: St From 641+160 To 641+300

Level

: - 3.0 M

Report No.

: 35

Compaction test by using Sand - Cone Test Method ASTM D- 1556

Test#	Station	Test Hole Volume cm ³	Bulk Density gm/ cm³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance
1	641+200	1370	2.19	5.8	2.07	96.7%	Comply
2	641+220	1506	2.18	5.8	2.06	96.2%	Comply
3	641+280	1378	2.23	5.8	2.11	98.4%	Comply

- Degree of compaction based on proctor test dated At :
 - Max. dry density =2.14 gm/cm³

At optimum moisture content = 6.4 %

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3 Et Malek E Afdat Street

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Te& Fax: 2736723" - 27363093

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Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample ; Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 4/8/2023 Reporting Date : 8/8/2023

Reporting No. : 04-2

Dear Gentleman,

Attached here with the delivered on 4/8/2023

Materials test

Sieve analysis according to ASTM D-422.

- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- Proctor Test according to ASTM D-1557
- CBR according to ASTM D-1883

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature.

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شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 4/8/2023 Reporting Date : 8/8/2023

Reporting No. : 04-2

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Sieve Size (IN)	Passing %
50	2	98.6
37.5	1.5	89.6
25	1	83.4
19 of material fi	of 1100 1 3/4	82.3
12.50	1/2	81.3
	3/8	80.9
9.50	4	72.6
4.75	10	56.3
0.425	40	31.4



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 4/8/2023 Reporting Date : 8/8/2023

Reporting No. : 04-2

Materials finer than 75 μm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 µM (No.200)	13.8

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شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 4/8/2023 Reporting Date : 8/8/2023

Reporting No. : 04-2

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	(a)) 5 < 0 and 5 Man
Plastic Limit	0
Plasticity Index	State of the Min





شركة الذهبي: Company Name

Project : Electric E

: Electric Express Train - HSR From Qous To Armant

Location

: (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample

: Soil Embankment (Upper Embankment 0.0 M)

Delivery Date

: 4/8/2023

Reporting Date

: 8/8/2023

Reporting No.

: 04-2

Soil Classification

TEST	Results (%)	Limits according Projects Specs			
Group Classification	A-1-b	(A-1-a)	(A-1-b)	(A-2-4)	
0.00	56.3	Max 50 %			
2.00 mm (No.10).	31.4	Max 30 %	Max 50 %		
0.425 mm (No. 40). 0.075 mm (No. 200).	13.8	Max 15 %	Max 15 %	Max 15 %	
		T			
Plasticity index	0	Max 6 %	Max 6 %	Max 10 %	

The test results are (Comply Distor Comply) with specifications limits

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Zarvalek, Cairo. Te-8 Fax: 27367231 - 27363093 IAS ACCREDITED عشرالمات الأفتسن الرماك الشلفوذ للمين - فاكس - ١٩٧٦٢ - ١٤٠ ١٧٣٦٢



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+500) E= 492410,088 N=2862759,57

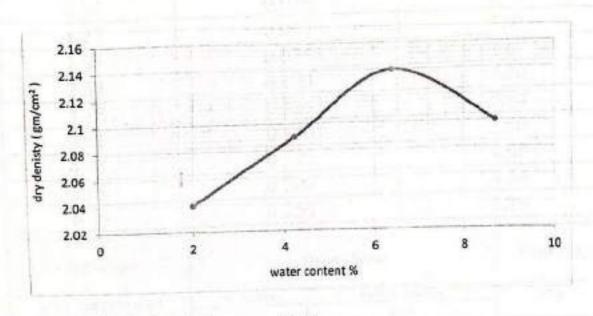
Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 4/8/2023

Reporting Date : 8/8/2023

Reporting No. : 04-2

Moisture - Density relation of soil Test result (Modified proctor test) ASTM D-1557



Max dry density (gm/em²)

: 2.14

Optimum moisture content %

: 6.4 %

Signature

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شركة الذهبي : Company Name

: Electric Express Train - HSR From Qous To Armant Project

: (ST: 641+500) E= 492410,088 N=2862759,57 Location

: Soil Embankment (Upper Embankment 0.0 M) Type of sample

Delivery Date : 4/8/2023 Reporting Date : 8/8/2023

Reporting No. : 04-2

Test Results of California Bearing Ratio on Base Materials

ASTM D 1883 penetration stress on piston (Mpa) Inch mm 0.26 0.025 0.64 1.01 0.050 1.27 1.67 0.075 1.91 2.28 0.1002.54 2.94 0.125 3.18 3.50 0.1503.81 4.08 0.1754.45 4.54 0.2005.08 5.29 0.250 635

CBR Result	St	CBR 100 %		
	St. Value	Sample results	33.1 %	
At 0.1 inch (2.54 mm) penetration	6.90	2.28	30.170	

Notes:

Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was compacted to dry density of = 2.14 (gm/cm³) At = 6.4 % optimum water content,

3- Surcharge lond . Str.

4- CBR > 10 for middle and lower embankments according project spec page No 36.

Signature Long 3 شرع اللك الأفشل - الم

3 El Malek El Afdat Street

Zamalek, Cairo.

Te & Fax: 2736723: - 27363093





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

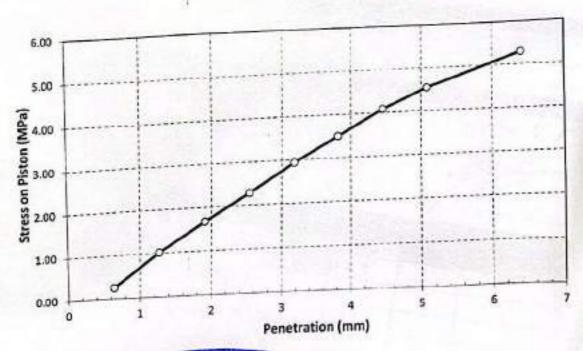
Location : (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 4/8/2023 Reporting Date : 8/8/2023

Reporting No. : 04-2

Load Penetration Curve of CBR Test ASTM D-1883





3 El Malek El Afdal Street

Zamalak, Cairo.

Tel8 Fax 27367231 - 27363093



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Project

: Electric Express Train - HSR From Qous To Armant

Testing Date

: 14/08/2023

Soil type

: Middle Embankment

Location

: St From 641+000 To 641+160

Level

: - 2.5'M

Report No.

: 34

Compaction test by using Sand - Cone Test Method ASTM D- 1556

Test#	Station	Test Hole Volume cm ³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance
1	641+020	1410	2.21	5.8	2.09	97.8%	Comply
2	641+070	1376	2.20	5.8	2.08	97.2%	Comply
3	641+150	1570	2.26	5.8	2.13	99.6%	Comply

- . Degree of compaction based on proctor test dated At :
 - Max. dry density =2.14 gm/cm³

At optimum moisture content - 64%

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Project

: Electric Express Train - HSR From Qous To Armant

Testing Date

: 20/08/2023

Soil type

: Middle Embankment

Location

: St From 641+000 To 641+160

Level

: - 2.0 M

Report No.

: 39

Compaction test by using Sand - Cone Test Method ASTM D- 1556

Test #	Station	Test Hole Volume cm ³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance
1	641+030	1344	2.24	5.8	2.12	99.0%	Comply
2	641+080	1438	2.23	5.8	2.11	98.6%	Comply
3	641+120	1408	2.22	5.8	2.09	97.9%	[→] Comply

- · Degree of compaction based on proctor test dated At :
 - Max. dry density =2.14 gm/cm³

At optimum moisture content = 6-4 2

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El Malek El Afdal Street
 Zamalek, Caro.

TelS Fax: 27367231 - 27363093

IAS AGGREDITED

على المالك الأضال
 الزيالات الشاهرة
 البوري د كاكس : ٢٧٣١٢ - ٢٧٣٠٢ ٢٧٢٢٢



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 4/8/2023

Reporting Date : 8/8/2023

Reporting No. : 04-3

Dear Gentleman,

Attached here with the delivered on 4 / 8 / 2023

Materials test

Sieve analysis according to ASTM D-422.

- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- Proctor Test according to ASTM D-1557
- CBR according to ASTM D-1883

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature /

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Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 4/8/2023 Reporting Date : 8/8/2023

Reporting No. : 04-3

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Sieve Size (IN)	Passing %
50	2	100
37.5	1.5	97 _
25	1	90
19	erthai ¾	85.4
12.50	1/2	77.2
9.50	3/8	73.3
4.75	4	69.6
2.00	10	58.5
0.425	40	40.7

3 El Malek El Afdal Street Zamalok, Cairo.

Te8 Fax : 27367231 - 27363093



۲ شرالطال الإفتنان الرماك الناهوة بليمان « تاكس (۲۷۳۹ - ۲۷۳۹ ۲۷۳۹



شركة الذهبي: Company Name

Project : Elec

: Electric Express Train - HSR From Qous To Armant

Location

: (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample

: Soil Embankment (Upper Embankment 0.0 M)

Delivery Date

: 4/8/2023

Reporting Date

: 8/8/2023

Reporting No.

: 04-3

Materials finer than 75 μm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)	
Percentage of material finer than Sieve Size 75 µM (No.200)	14.0	-





شركة الذهبي: Company Name

: Electric Express Train - HSR From Qous To Armant Project

: (ST: 641+500) E= 492410,088 N=2862759,57 Location

: Soil Embankment (Upper Embankment 0.0 M) Type of sample

: 4/8/2023 Delivery Date Reporting Date : 8/8/2023

: 04-3 Reporting No.

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)	
Liquid Limit	Here Is to 10 m 10 m	Mile
Plastic Limit	0	
Plasticity Index	0	

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Signature /

3 El Malek El Aldal Street Zamalek, Cairo.

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شركة الذهبي: Company Name

: Electric Express Train - HSR From Qous To Armant Project

: (ST: 641+500) E= 492410,088 N=2862759,57 Location

: Soil Embankment (Upper Embankment 0.0 M) Type of sample

: 4/8/2023 **Delivery Date** : 8/8/2023 Reporting Date

: 04-3 Reporting No.

Test Results of California Bearing Ratio on Base Materials ACTM D 1993

	ASTM D 100.	
pene	etration	stress on piston (Mpa)
	Inch	
mm	0.025	0.45
0.64	0.050	1.00
1.27	0.075	1.52
1.91	0.100	2.11
2.54	0.125	2.53 -
3.18	0.150	2.96
3.81		3.39
4.45	0.175	3.71
5.08	0.200	4.33
6.35	0.250	4.55

CBR Result	Stress (Mpa)		CBR 100 %	
	St. Value	Sample results	30.6%	
At 0.1 inch (2.54 mm) penetration	6.90	2.11	30.070	

Notes:

- Attached graph shows penetration resistance versus penetration magnitude.
- 2- The sample was compacted to dry density of = 2.14 (gm/cm³) At = 6.4 % ontimum water content.

3- Surcharge Told 4.50 Kg

4- CBR > 10 for middle and lower embanaments according project spec page No 36.

3 شارع اللك الافتشاء

3 El Malek El Afdal Street

Zamalek, Cairo.

Tel8 Fax: 27367231 - 27353093



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شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+500) E= 492410,088 N=2862759,57

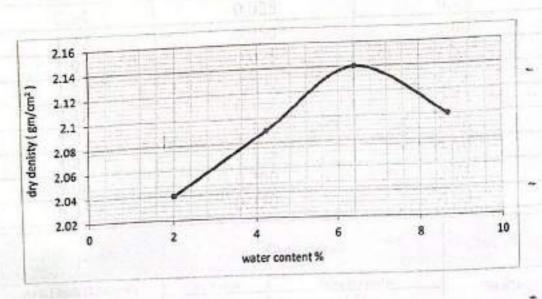
Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 4/8/2023

Reporting Date : 8/8/2023

Reporting No. : 04-3

Moisture – Density relation of soil Test result (Modified proctor test) ASTM D-1557



Max dry density (gm/cm²)

: 2.14

· Optimum moisture content %

: 6.4 %

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3 El Malek El Afdal Street Zamalek, Cairo.

Tel& Fax: 27367231 - 27353093



* ش العالم الابتشاق الرجالات التاهوز المبتول ، هاكس : ١٩٣٢، ٩٣-٢٧/١٢٢١



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 4/8/2023 Reporting Date : 8/8/2023

Reporting No. : 04-3

Soil Classification

TEST	Results		nits according Projects Specs	
Group Classification	A-1-b	(A-1-a)	(A-1-b)	(A-2-4)
	58.5	Max 50 %		
2.00 mm (No.10). 0.425 mm (No. 40).	40.7	Max 30 %	Max 50 %	
0.075 mm (No. 200).	14.0	Max 15 %	Max 15 %	Max 15 %
A. Carlo		T		
Plasticity index	0	Max 6 %	Max 6 %	Max 10 %

The test results are (
Comply -
Not Comply) with specifications limits

Signaturé

من به مار الاستان المناسب الم

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Te8 Fax: 27367231 - 27363093



٣ شرخاماك الإفتانية الرسال - الناهرة عليفون - هاكس - ١٧٣٦٢ - ٢٧٣٦٢ - ١٧٣٦٢



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

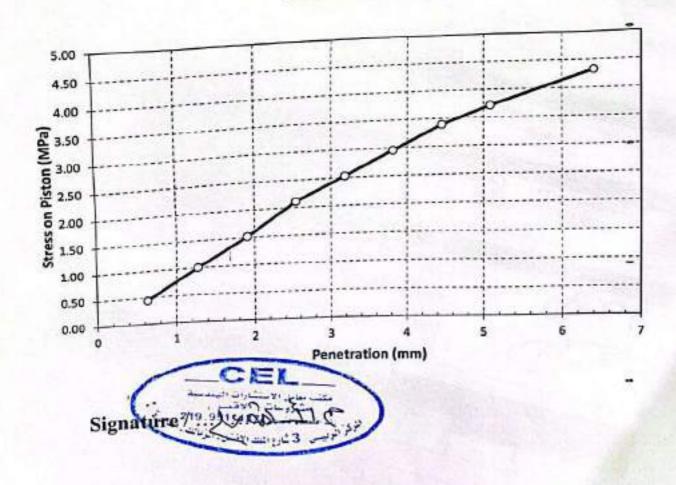
Location : (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 4/8/2023 Reporting Date : 8/8/2023

Reporting No. : 04-3

Load Penetration Curve of CBR Test ASTM D-1883





: Electric Express Train - HSR From Qous To Armant Project

Testing Date : 20/08/2023

: Middle Embankment Soil type

Location : St From 641+160 To 641+300

Level : - 2.5 M

Report No. : 40

Compaction test by using Sand - Cone Test Method **ASTM D-1556**

Test#	Station	Test Hole Volume cm ³	Bulk Density gm/ cm³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance
1	641+190	1497	2.21	5.8	2.08	96.9%	Comply
2	641+240	1486	2.19	5.8	2.07	96.3%	Comply
3	641+280	1508	2.21	5.8	2.09	97.0%	Comply

- Degree of compaction based on proctor test dated At :
 - Max. dry density =2,15 gm/cm3

Signature /

At optimum moisture content

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٢ ش المالك الافتشل الزمالك الماضرة AND A STORY OF THE STREET OF THE PARTY



Project : Electric Express Train - HSR From Qous To Armant -

Location : (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample : Soil Embankment

Delivery Date : 14/8/2023 Reporting Date : 19/8/2023

Reporting No. : 04-4

Dear Gentleman,

Attached here with the delivered on 14 / 8 / 2023

Materials test

Sieve analysis according to ASTM D-422.

- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- Proctor Test according to ASTM D-1557
- 6. CBR according to ASTM D-1883

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature

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شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample : Soil Embankment

Delivery Date : 14/8/2023 Reporting Date : 19/8/2023

Reporting No. : 04-4

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Sieve Size (IN)	Passing %
50	2	100
37.5	1.5	98.5
25	1	88.3
19	3/4	77.8
12.50	1/2	70.3
300000000	3/8	66.7
9.50	4	61.6 -
4.75	10	47.8
0.425	40	28.1







شركة الذهبي : Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample : Soil Embankment

Delivery Date : 14/8/2023 Reporting Date : 19/8/2023

Reporting No. : 04-4

Materials finer than 75 µm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μΜ (No.200)	13.5







شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample : Soil Embankment

Delivery Date : 14/8/2023 Reporting Date : 19/8/2023

Reporting No. : 04-4

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)	
Liquid Limit	0	ME
Plastic Limit	0	
Plasticity Index	0	Man







شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample : Soil Embankment

Delivery Date : 14/8/2023 Reporting Date : 19/8/2023

Reporting No. : 04-4

Soil Classification

TEST	Results (%)		Projects Specs	
Group Classification	A-1-b	(A-1-a)	(A-1-b)	(A-2-4)
77.774	47.8	Max 50 %		
2.00 mm (No.10).	28.1	Max 30 %	Max 50 %	
0.425 mm (No. 40). 0.075 mm (No. 200).	13.5	Max 15 %	Max 15 %	Max 15 %
0.075 mm (****				
Liquid Limit				
Plasticity index	0	Max 6 %	Max 6 %	Max 10 %

The test results are (III omply D Not Comply) with specifications limits

Signature

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Tel8 Fax: 27367231 - 27363093



۴ شراً العالمات الافتخار الزمالات الناهوة المينون - فاكس - ۲۲۲۱۲-۹۲-۲۷۶۱۷۳۲۱



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

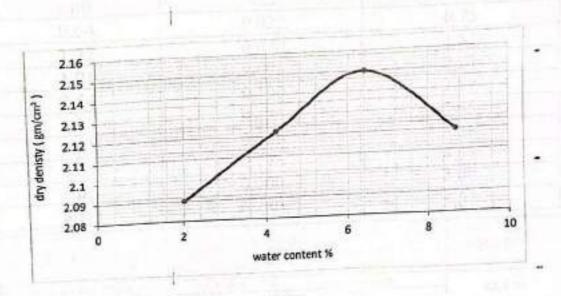
Location : (ST: 641+500) E= 492410,088 N=2862759,57

Type of sample : Soil Embankment

Delivery Date : 14/8/2023 Reporting Date : 19/8/2023

Reporting No. : 04-4

Moisture - Density relation of soil Test result (Modified proctor test) ASTM D-1557



Max dry density (gm/cm²)

: 2.15

Optimum moisture content %

: 6.4 %

Signature /

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Zamalek, Cairo.

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٢ شريطماك الافتدار الزمالك الناهرة الفون « فلكس ٢٧٣١ / ٢٠٢٠ ٤٢٠١٤



شركة الذهبي: Company Name

: Electric Express Train - HSR From Qous To Armant Project

: (ST: 641+500) E= 492410,088 N=2862759,57 Location

Type of sample : Soil Embankment

Delivery Date : 14/8/2023 Reporting Date : 19/8/2023

: 04-4 Reporting No.

Test Results of California Bearing Ratio on Base Materials

ASIM D 100.	
etration	stress on piston (Mpa)
Inch	
0.025	0.75
0.050	1.52
0.075	2.23 -
0.100	2.99
0.125	3.65
0.150	4.21
The second secon	4.67
	4.97
0.250	5.07
	Inch 0.025 0.050 0.075 0.100 0.125 0.150 0.175 0.200

CBR Result	Stress (Mpa)		CBR 100 %
New York and the second	St. Value	Sample results	43.4 %
At 0.1 inch (2.54 mm) penetration	6.90	2.99	45.4 /0

Notes:

Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was compacted to dry density of = 2.15 (gm /cm³) At = 6.4 % optimum water content.

3- Surcharge load 4.50 Kg

4- CBR > 10 for middle-and lower embankments according project spec page No 35.

Signature / ACONTAIN

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٢ ش المالد الافسان الزمالات النامرة البلين - فاكس - ۲۷۴۹۷۲۲۲ مع ۲۷۴۹۳۴



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : (ST: 641+500) E= 492410,088 N=2862759,57

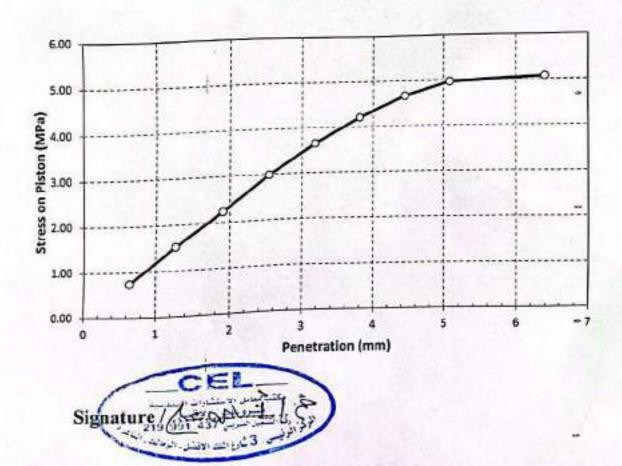
Type of sample : Soil Embankment

Delivery Date : 14/8/2023 Reporting Date : 19/8/2023

Reporting No. : 04-4

Load Penetration Curve of CBR Test

ASTM D-1883



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Project

: Electric Express Train - HSR From Qous To Armant

Testing Date

: 03/09/2023

Soil type

: Middle Embankment

Location

: St From 641+000 To 641+160

Level

: - 1.75 M

Report No.

: 52

Compaction test by using Sand - Cone Test Method ASTM D- 1556

Test#	Station	Test Hole Volume cm³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance e
1	641+030	1644	2.29	5.5	2.17	98.4%	Comply
2	641+060	1058	2.22	5.3	2.11	95.8%	Comply
3	641+090	1065	2.23	5.5	2.12	96.3%	Comply
	641+120	1404	2.20	5.5	2.09	95.0%	Comply
4	0417120		0.00	53	2.09	95.0%	Comply
5	641+150	1647	2.20	5.3	2.09	95.0%	- 0

Degree of compaction based on proctor test dated At :

Max. dry density =2.20 gm/cm³

At optimum moisture content = 6.4 %

.

Signature / Cool Lie

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شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 24/08/2023

Reporting Date : 28/08/2023

Reporting No. : 10

Dear Gentleman,

Attached here with the delivered on 24 / 8 / 2023

Materials test

1. Sieve analysis according to ASTM D-422.

2. Material finer than sieve No. 200 according to ASTM D-1140.

3. Liquid limits and plasticity index of soil according to ASTM D-4318.

Soil classification according to Project Specs.

Proctor Test according to ASTM D-1557

6. CBR according to ASTM D-1883

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature / Constitution Survey & Literatures

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شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 24/08/2023 Reporting Date : 28/08/2023

Reporting No. : 10

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Sieve Size (IN)	Passing %
50	2	100
37.5	1.5	98.4
25	1	92.3
19	3/4	89.1
12.50	1/2	80.6
9.50	3/8	70.6
4.75	4	59.4
2.00	10	40.9
0.425	40	25.1



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۷ ش المالد الأضنل . الزمالات التاهية تايفروج، هاكس : ۲۷۲۹۲۰۱۲۲



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 24/08/2023 Reporting Date : 28/08/2023

Reporting No. : 10

Materials finer than 75 μm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μΜ (No.200)	12.5





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant -

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 24/08/2023 Reporting Date : 28/08/2023

Reporting No. : 10

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	0
Plastic Limit	0
Plasticity Index	0

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٢ش الماك الأشتيل الزمالك - التأمرة المنزيز - فكس - ١٣٠٦٢/٢١ -١٠٠٦٢-١٢



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

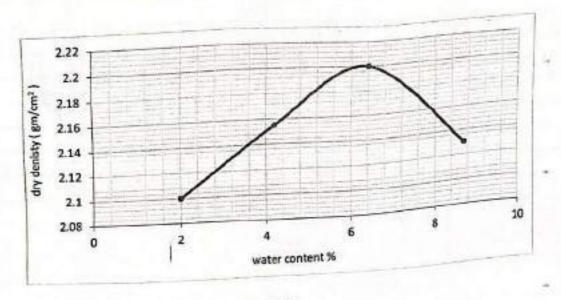
Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 24/08/2023 Reporting Date : 28/08/2023

Reporting No. : 10

Moisture – Density relation of soil Test result (Modified proctor test) ASTM D-1557



Max dry density (gm/cm²)

: 2.20

Optimum moisture content %

: 6.4 %

Signature /

م مسجد السويد (531 - 531 - 531) التي المشارع الملك الأفارل . المؤالك

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Teå Fax: 27367231 - 27363093

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شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 24/08/2023 Reporting Date : 28/08/2023

Reporting No. : 10

Soil Classification

TEST Results (%)		Limits according ** Projects Specs		
Group Classification	(A-1-a)	(A-1-a)	(A-1-b)	(A-2-4)
2.00 mm (No.10).	40.9	Max 50 %		
0.425 mm (No. 40).	25.1	Max 30 %	Max 50 %	
0.075 mm (No. 200).	12.5	Max 15 %	Max 15 %	Max 15 %
Liquid Limit				
Plasticity index	0	Max 6 %	Max 6 %	Max 10 %

The test results are (
Comply -
Not Comply) with specifications limits

Signature January Company of the State of th

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شركة الذهبي: Company Name

: Electric Express Train - HSR From Qous To Armant Project

: ST:641+400 E= 492410,088 N=2862759,57 Location

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 24/08/2023

Reporting Date : 28/08/2023

Reporting No. : 10

Test Results of California Bearing Ratio on Base Materials

ASTM D 1883

pend	etration	stress on piston (Mpa)
mm	Inch	stress on piston (wpa)
0.64	0.025	0.30
1.27	0.050	1.42
1.91	0.075	2.43
2.54	0.100	3.45
3.18	0.125	4.41
3.81	0.150	5.12
4.45	0.175	5.73
5.08	0.200	6.04
6.35	0.250	6.24

CBR Result	Stress (Mpa)		CBR 100 %
At 0.1 inch (2.54 mm)	St. Value	Sample results	50 %
penetration	6.90	3.45	50 7.

Notes:

Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was compacted to dry density of = 2.20 (gm/cm³) At = 6.4 % optimum water content.

3- Surcharge load 4.50 Kg.

4- CBR > 10 for middle and lower embankments according project spec page No 36.

Signature / ..

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الإشار الوالد الأشليل الزمال النافرة البليد و ماكين المجاورة و جوء وجوء



شركة الذهبي : Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

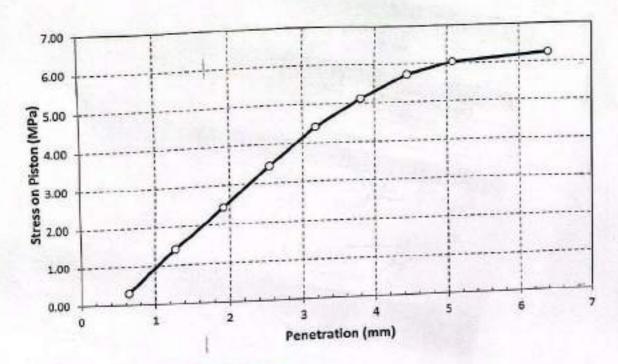
Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 24/08/2023

Reporting Date : 28/08/2023

Reporting No. : 10

Load Penetration Curve of CBR Test ASTM D-1883





3 El Malek El Afdal Street Zamalek, Cairo.

Telá Fax : 27367231 - 27363093



عمل الطالب الافتشل الزمانة الناصرة تليدور طائف ٢٧٣٦٢٢٠٤٢ ١٧٣٦٢٠٠



Project

: Electric Express Train - HSR From Qous To Armant

Testing Date

: 07/09/2023

Soil type

: Middle Embankment

Location

: St From 641+160 To 641+300

Level

: -2 M

Report No.

: 58

Compaction test by using Sand - Cone Test Method ASTM D-1556

Test#	Station	Test Hole Volume cm ³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptanc e
1	641+180	1792	2.25	5.5	2.13	96.6%	Comply
2	641+230	1698	2.24	5.3	2.13	96.3%	Comply
3	641+260	1374	2.25	5.5	2.14	96.6%	Comply
4	641+290	1058	2.22	5.5	2.10	95.1%	Comply

Degree of compaction based on proctor test dated At :

Max. dry density =2.21 gm/cm³

At optimum moisture content = 6.4 %

Signature / CF/

3 El Malek El Afdal Street

Zamolek, Caro.

Te8 Fox :27367231 - 20363093

IAS

* في الطلب الإفريش الرحالات القامرة عليمور ١ هاكس ١ ١٩٣٦٤ - ١٩٣٦٤ و١



Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 31/08/2023 Reporting Date : 04/09/2023

Reporting No. : 10-2

Dear Gentleman,

Attached here with the delivered on 31 / 8 / 2023

This sample is representative for 5.000 M3

Materials test

1. Sieve analysis according to ASTM D-422.

2. Material finer than sieve No. 200 according to ASTM D-1140.

3. Liquid limits and plasticity index of soil according to ASTM D-4318.

Soil classification according to Project Specs.

Proctor Test according to ASTM D-1557

CBR according to ASTM D-1883

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature

المجال ا



Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 31/08/2023

Reporting Date : 04/09/2023

Reporting No. : 10-2

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size	Sieve Size (IN)	Passing %
50	2	98.6
37.5	1.5	96.1
	1	91.3
25	3/4	87.2
19	1/4	79.2
12.50	3/8	71.2
9.50	4	56.9
4.75	10	41.2
2.00	40	28.2
0.425		



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على الملك الأمشل الرماك : الزاهرة المور" : الكس : ١٩٣١٤/١٤ - ١٥٠١٢/١٢ -



شركة الذهبي: Company Name

Project : Electric Exp

: Electric Express Train - HSR From Qous To Armant -

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 31/08/2023 Reporting Date : 04/09/2023

Reporting No. : 10-2

Materials finer than 75 μm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μΜ (No.200)	11.9

Signature / La Consulting Engineering Bureau & Laburascories

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Telà Fax: 27367231 - 27363093



التي الملك الأفتشل الزماك القاهرة شغير - فاكس (١٩٤١-١٩٤١ - ١٩٠٢-١٩٠٢



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 31/08/2023 Reporting Date : 04/09/2023

Reporting No. : 10-2

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	Max 50 % 0
Plastic Limit	O O
Plasticity Index	0

Signature روس المسلم ا





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

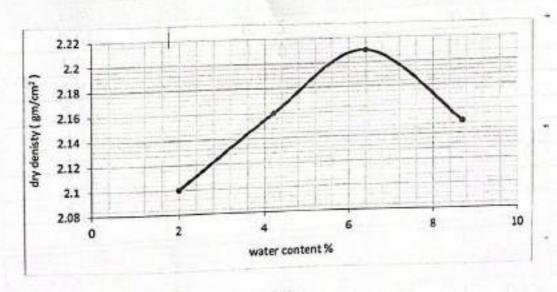
Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 31/08/2023 Reporting Date : 04/09/2023

Reporting No. : 10-2

Moisture – Density relation of soil Test result (Modified proctor test) ASTM D-1557



Max dry density (gm/cm²)

: 2.21

· Optimum moisture content %

: 6.4 %

Signature / .

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ا ش العلك الأبيشل الزمالك - القاهرة اليفون - هاكس - ١٩٣٦/٢٠١٢ - ٢٧٣٦٢-٢٢



مكتب معامل الإستشارات الهندسية

شركة الذهبي: Company Name

: Electric Express Train - HSR From Qous To Armant Project

: ST:641+400 E= 492410,088 N=2862759,57 Location

: Soil Embankment (Upper Embankment 0.0 M) Type of sample

: 31/08/2023 Delivery Date Reporting Date : 04/09/2023

Reporting No. : 10-2

Test Results of California Bearing Ratio on Base Materials

	ASTM D 1883		
penetration		stress on piston (Mp	
mm	Inch		
0.64	0.025	0.33 -	
	0.050	1.47	
1.27	0.075	2.54	
1.91	0.100	3.55	
2.54		4.51	
3.18	0.125	5.27	
3.81	0.150	5.83	
4.45	0.175		
5.08	0.200	6.14	
6.35	0.250	6.29	

CBR Result	Stress (Mpa)		CBR 100 %	
STATE OF THE PARTY.	St. Value	Sample results	51.5 %	
At 0.1 inch (2.54 mm) penetration	6.90	3.55		

Notes:

Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was compacted to dry density of = 2.21 (gm /cm³) At = 6.4 % optimum water content.

3- Surcharge load 4.50 Kg.

4- CBR > 10 for middle and lower embankments according project spec page No 36.

Signature / Se

3 El Malen Er Major Streeter Zamalek, Caro. Te& Fax: 27367231 - 2735



٢ ش المثان الأفيتيل الزوالك التلمرة المنفون - فاكس: ١٦٢١٧٢١ - ٢٠٦٢٠٢٢١



Project : Electric Express Train - HSR From Qous To Armant

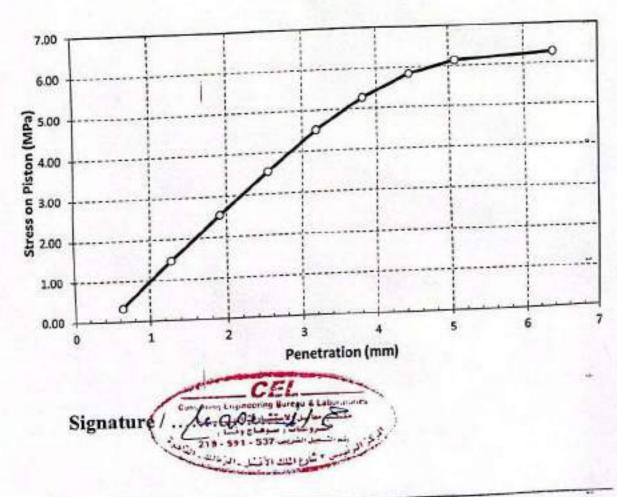
Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 31/08/2023 Reporting Date : 04/09/2023

Reporting No. : 10-2

Load Penetration Curve of CBR Test ASTM D-1883



3 El Malek El Afdal Street Zemalek, Cairo. Te& Fex: 27367231 - 27363093



۷ ش العلك الأفضال الزمالك - القاهود اليفون + فلكس + ۲۷۳۲۷ - ۲۷۳۲۲ و ۲۷۳۲۲



Project

: Electric Express Train - HSR From Qous To Armant

Testing Date

: 12/09/2023

Soil type

: Middle Embankment

Location

: St From 641+160 To 641+300

Level

: -2 M

Report No.

: 58

Compaction test by using Sand - Cone Test Method **ASTM D-1556**

Test #	Station	Test Hole Volume cm ³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance e
1	641+180	1792	2.25	5.5	2.13	97.0%	Comply
2	641+230	1698	2.24	5.3	2.13	96.8%	Comply
3	641+260	1374	2.25	5.5	2.14	97.1%	Comply
4	641+290	1058	2.22	5.5	2.10	95.6%	Comply

Degree of compaction based on proctor test dated At :

- Max. dry density =2.20 gm/cm3
- At optimum moisture content = 6.4 %

3 El Malek Bi Mosi Streep 91 - 937 Zamalek, Cairo. Te & Fax: 27367231 - 27363093

JANTON LAND الزمالك التلعرف TATTE - ST- EXTERNAL SURGE SUPPLY



Project : Electric Express Train - HSR From Qous To Armant -

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 7/09/2023

Reporting Date : 11/09/2023

Reporting No. : 10-3-2

Dear Gentleman.

Attached here with the delivered on 7/9/2023

This sample is representative for 5.000 M³

Materials test

Sieve analysis according to ASTM D-422.

2. Material finer than sieve No. 200 according to ASTM D-1140.

- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- Proctor Test according to ASTM D-1557
- 6. CBR according to ASTM D-1883

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature

3 El Malek El Aldal Street

Te& Fax: 27367231 - 27363063

Zamalek, Cairo.

Ž.





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 31/08/2023 Reporting Date : 04/09/2023

Reporting No. : 10-2

Soil Classification

TEST	Results (%)	The state of the s	nits accord	
Group Classification	(A-1-a)	(A-1-a)	(A-1-b)	(A-2-4)
2.00 mm (No.10).	41.2	Max 50 %		
0.425 mm (No. 40).	28.2	Max 30 %	Max 50 %	
0.075 mm (No. 200).	11.8	Max 15 %	Max 15 %	Max 15 %
Liquid Limit				
Plasticity index	0	Max 6 %	Max 6 %	Max 10 %

The test results are (
Comply -
Not Comply) with specifications limits

Signature Consultant Consultant State of Laboration Consultant Con

3 El Malek El Afdal Street Zamalek, Cairo.

Tell Fax: 27367231 - 27363093

IAS ACCREDITED ٢ ش العلك الأفضل الرماك القاهرة اليفون ، الكامر : ١٩٣٦/٢٢١ ، ١٤٣٦٢ و



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 7/09/2023

Reporting Date : 11/09/2023

Reporting No. : 10-3-2

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Sieve Size (IN)	Passing %
50	2	98.1
37.5	1.5	95.3
25	1	90.1
19	3/4	84.2
12.50	У	77.2
9.50	3/8	71.5
4.75	4	59.9
2.00	10	46.3
0.425	40	28.0

Signature /. ... Signature /. ... 219 - 591 - 537

3 El Malek El Afdal Street Zamalek, Cairo.

Tel Fax: 27367231 - 27363093

IAS ACCREDITED ۲ش العلاد الأفيشل الزمالات الماهوة المهور ماكس ٢٧٣٦٧٠٠١٠ ٢٧٣٦٢ ٢٧٢٦٢



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 7/09/2023

Reporting Date : 11/09/2023

Reporting No. : 10-3-2

Materials finer than 75 μm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)	
Percentage of material finer than Sieve Size 75 µM (No.200)	9.6	

Signature / ... Signature / ..

3 Et Malek Et Afdal Street Zersdek, Cairo. Te& Pax: 27367231 - 27363093



*ش الملتبالافشل الزمالك - الناجرة غلمون - ماكس - ۲۹۳۲۷۰۲۱



شركة الذهبي : Company Name

Project : Electric E

: Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 7/09/2023 Reporting Date : 11/09/2023

Reporting No. : 10-3-2

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test		Results (%)	
Liquid Limit	.3 hlau-80	0	
Plastic Limit	a stayou	14	12020
Plasticity Index		0	

Signature /. (219 - 991 - 537 (2011) 1111 (2111) (2111) 1111 (2111) 1111 (2111) 1111 (2111) 1111 (2111) 1111 (2111) 1111 (2111) 1111 (2111) (2

3 El Maiek El Afdal Street Zamalek, Cairo.

Tel& Fax: 27367231 - 27363093





شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 7/09/2023 Reporting Date : 11/09/2023

Reporting No. : 10-3-2

Soil Classification

TEST	Results (%)		rojects Spec	
Group Classification	(A-1-a)	(A-1-a)	(A-1-b)	(A-2-4)
2.00 mm (No.10).	46.3	Max 50 %		
0.425 mm (No. 40).	28.0	Max 30 %	Max 50 %	
0.075 mm (No. 200).	9.6	Max 15 %	Max 15 %	Max 15 %
Liquid Limit				
Plasticity index	0	Max 6 %	Max 6 %	Max 10 %

The test results are (
Comply -
Not Comply) with specifications limits

Signature /

د المسلم المسلم

3 El Malek El Afdal Street Zamalek, Cairo. Te& Fax: 27367231 - 27363093



ع ش المُعلك الأفضاق الرماك المناهرة المِعون - عاص : ۲۷۳۱۲۰۲۱ - ۲۷۳۲۲



شركة الذهبي : Company Name

Project : Electric Express Train - HSR From Qous To Armant

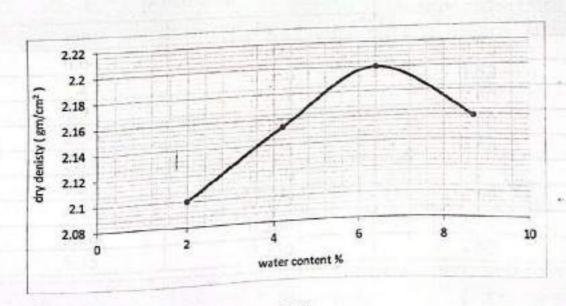
Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 7/09/2023 Reporting Date : 11/09/2023

Reporting No. : 10-3-2

Moisture - Density relation of soil
Test result (Modified proctor test)
ASTM D-1557



Max dry density (gm/cm²)

: 2.20

Optimum moisture content %

: 6.4 %

Signature /

و المسلمان المسلمان

3 El Malek El Afdat Street Zamalsk, Cairo.

Tel& Fax: 27367231 - 27363093



* ش العلك الافتخار الزهائل القاهرة الرهين - بماكس (١٣٣٦/١٢٠١)



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 7/09/2023

Reporting Date : 11/09/2023

Reporting No. : 10-3-2

Test Results of California Bearing Ratio on Base Materials
ASTM D 1883

	ASTIVI D 100.	3
p	enetration	stress on piston (Mpa)
mm	Inch	
0.64	0.025	0.36
1.27	0.050	1.52
1.91	0.075	2.60
2.54	0.100	3.60
3.18	0.125	4.56
3.81	0.150	5.31
4.45	0.175	6.09
5.08	0.200	6.56
6.35	0.250	7.02

CBR Result	St	ress (Mpa)	CBR 100 %
At 0.1 inch (2.54 mm)	St. Value	Sample results	52.1 %
penetration	6.90	3.60	2500 200

Notes:

Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was compacted to dry density of = 2.20(gm/cm³) At = 6.4 % optimum water content.

3- Surcharge load 4.50 Kg.

4- CBR > 10 for middle and lower embankments according project spec page No 36.

Signature / .

3 El Malek El Afdal Serva Zamalek, Cairo.

Tel& Fax: 27367231 - 27363093



7 ش الملك الافتشان الزمالي - القاهرة غليفون - فاكس - ١٩٢٦/١٢٤١ - ١٩٢٦٢ - ١٧٢٦٢



Company Name

شركة الذهبي:

Project

: Electric Express Train - HSR From Qous To Armant

Testing Date

: 16/09/2023

Soil type

: Middle Embankment

Location

: St From 641+200 to 641+300

Level

: -1.5 M

Report No.

: 63

Compaction test by using Sand - Cone Test Method ASTM D-1556

Test#	Station	Test Hole Volume cm ³	Bulk Density gm/ cm ³	Moisture Content %	Dry Density (gm/ cm³)	Degree of Compaction (%)	Acceptance
1	641+220	1826	2.24	6	2.11	95.9%	Comply
2	641+240	1440	2.23	6.4	2.10	95.2%	Comply
3	641+260	1633	2.23	6	2.11	95.7%	Comply
4	641+280	1042	2.28	5.8	2.16	98.1%	Comply

Degree of compaction based on proctor test dated At

:Max. dry density =2.19 gm/cm3

At optimum moisture content = 6.4

Signature

المونيسى ٢ شارع اللك الإللنسل - النا

3 El Malek El Atdal Street Zamalek, Cairo.

Te& Fax: 27367231 - 27363093



ا ش العلك الاعتمال الزمالك الناهرة نايفون (فاكس : ٢٠٢٢ ١٢٠٢ ٢٠٢٢



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023 Reporting Date : 12/09/2023

Reporting No. : 10-4

Dear Gentleman.

Attached here with the delivered on 12/9/2023

This sample is representative for 5.000 M3

Materials test

ignature 1

1. Sieve analysis according to ASTM D-422.

- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- 5. Proctor Test according to ASTM D-1557
- 6. CBR according to ASTM D-1883

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

3 El Malek El Afdal Street Zamalek, Cairo.

النك الأفضل والومالك

Tel& Fax: 27367231 - 27363093



* ش العلك الأفضل الزمالك - القاهرة تليس ، فاكس - ١٩٣٦/١٠ - ٢١٠٦/١٠ «١٧٢٨



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

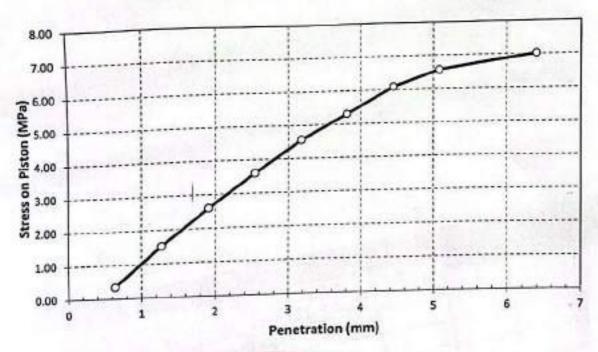
Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 7/09/2023 Reporting Date : 11/09/2023

Reporting No. : 10-3-2

Load Penetration Curve of CBR Test ASTM D-1883



Signature / Company to the State State of the Signature / CEL

3 El Malek El Afdal Street Zamalek, Cairo Tel& Fax: 27367231 - 27363093



الش المثالث الأفتشق الزمالات النافرة المهرات (الكافر الاستام (١٧٣٦٢ - ١٧٣٦٢ - ١٧٣٦٢



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023 Reporting Date : 12/09/2023

Reporting No. : 10-4

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	in 50 % O
Plastic Limit	0 15 16 10
Plasticity Index	0

Signature / Signat

3 El Malek El Afdel Street Zamalok, Cairo. Te& Fax: 27367231 - 27363093



۲ش العلك الأنشل الزماك - القامرة تليفون - ۱۵/۲۰۱۹ - ۲۷۳۹۲ - ۲۷۳۹۲



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023 Reporting Date : 12/09/2023

Reporting No. : 10-4

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Sieve Size (IN)	Passing %
50	2	98.1
37.5	1.5	95.3
25	1	89.4
19	74 William 3/4	84.4
12.50	1/4	77.7
9.50	3/8	73.3
4.75	4	58.4
2.00	10	45.9 -
0.425	40	27.5



3 El Malek El Ardal Street Zamalek, Cairo.

Tel& Fax: 27367231 - 27363093



لاش الطلب الأفشيل . التحلك الشاهرة التحور - فاكس : ۲۷۳۲۲۰۹۲-۲۷۳۲۲



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023 Reporting Date : 12/09/2023

Reporting No. : 10-4

Materials finer than 75 μm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μΜ (No.200)	9,9







شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

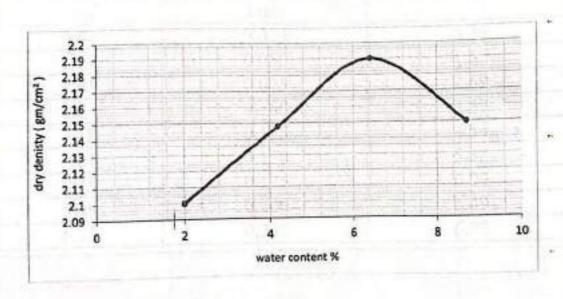
Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023 Reporting Date : 12/09/2023

Reporting No. : 10-4

Moisture - Density relation of soil
Test result (Modified proctor test)
ASTM D-1557



Max dry density (gm/cm²)

: 2.19

Optimum moisture content %

: 6.4 %

Signature /

معد ومديد 137 ما د م شارع الملك الأفضل

B Malek El Afdal Street
 Zamalek, Cairo.

Tel& Fax: 27367231 - 27363093



* ش العملات الاضتاق . الزمالات المناصرة المدين و فاعل (١٩٧٢/١٩١١ - ١٩٧٢/١٩١١ - ١٩٧٢



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023 Reporting Date : 12/09/2023

Reporting No. : 10-4

Test Results of California Bearing Ratio on Base Materials

	ASTM D 1883		
pen	etration	stress on piston (Mpa)	
mm	Inch		
0.64	0.025	0.36 -	
1.27	0.050	1.52	
1.91	0.075	2.59	
2.54	0.100	3.59	
3.18	0.125	4.54	
3.81	0.150	5.33	
4.45	0.175	6.09	
5.08	0.200	6.49	
6.35	0.250	6.92	

CBR Result	St	ress (Mpa)	CBR 100 %
At 0.1 inch (2.54 mm)	St. Value	Sample results	52 %
penetration	6.90	3.59	

Notes:

- 1- Attached graph shows penetration resistance versus penetration magnitude.
- 2- The sample was compacted to dry density of = 2.19(gm/cm³) At = 6.4 % optimum water content.

3- Surcharge load 4.50 Kg.

4- CBR > 10 for middle and lower embankments according project spec page No 36.

Signature

3 El Malex El Attentishmer

Zamalek, Cairo. Tel& Fax: 27367231 - 27363063 IAS ACCREDITED ؟ش الملك الافتشاق الزمالك - القاهرة عليفور - فاكس | ۲۷۳۵۲-۱۷۳۱ ۲۷۳۵۲-۲۷۳



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023 Reporting Date : 12/09/2023

Reporting No. : 10-4

Soil Classification

TEST	Results (%)	Limits according Projects Specs				
Group Classification	(A-1-a)	(A-1-a)	(A-1-b)	(A-2-4)		
2.00 mm (No.10).	45,9	Max 50 %				
0.425 mm (No. 40).	27.5	Max 30 %	Max 50 %			
0.075 mm (No. 200).	9.9	Max 15 %	Max 15 %	Max 15 %		
Liquid Limit						
Plasticity index	0	Max 6 %	Max 6 %	Max 10 %		

The test results are (Comply - Not Comply) with specifications limits

Signature / Top of the second of the second

3 El Malek El Afdal Street Zamalek, Cairo.

Te&Fax: 27367231 - 27363093



؟ ش العلك الأيضل الزمالك - الفاهوة تليفون - حاكس - ۲۹۳۷/۲۱۳۱



شركة الذهبي: Company Name

Project

: Electric Express Train - HSR From Qous To Armant

Location

: ST:641+400 E= 492410,088 N=2862759,57

Type of sample

: Soil Embankment (Upper Embankment 0.0 M)

Delivery Date

: 08/09/2023

Reporting Date

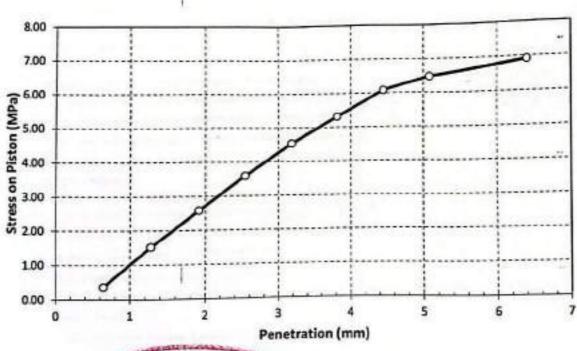
: 12/09/2023

Reporting No.

: 10-4

Load Penetration Curve of CBR Test

ASTM D-1883



Signature

3 El Malek El Afdal Street Zamalek, Cairo. Te& Fax: 27367231 - 27363093

٢ ش المثلث الافتشال Linkle Hilayi البلون و فاكس : ۲۲۲۷۲۷۱ - ۲۶۰۹۲۷۲۹



Report

- Evaluation and representation of results.
- 2. Load Settlement curve.
- 3 The test report content the following:-
- location of test site Dimension of loading plate.
- Measuring device used Type of soil.
- Type of Bedding material below the plate -Weathering condition.
- Time and date of measurements Unusual observation made during test.
- Dial gauge reading and corresponding normal stress Loading-settlement curve.
- Description of the soil condition below the plate after testing.

Report

Type of soil

: Original earth

Job requiremer: Ev2 > 40 MPa

Nem (St. 1988)	Descriptions
Type of bedding material below the plate	Natural Soil
Plate Diameter (mm)	309
date of measurement	:16/09/2023
Unusual observation made during test	NO
Description of the soil conditions below the plate after testing	No deformation

Evaluation and representation of results

2000	Sto	tion	1.5	Level	First Cyclo	Second Cycle	Eval Evi
Test No.	From	То	Location	(m)	Evi (MPa)	Evz (Mpa)	Ratio
1		841+300	841+240	-1.5	33.9	140.7	4.15



3 El Malek El Afdal Street Zamalek, Cairo. Tel.& Fax: 27367231 - 27363093





Company

شركة الذهبى للمقاولات والتوريدات السومية و

: Electric Express Train - Sector (5) - Qous to Arment.

Project Subject

: Determine the deformation and strength characteristics of soil by the

plate loading test according specifications DIN 18134:2012-04 and project requirements 641+200 to 641+300

Test Location Station

: Station

Level

641+240 -1.5

Test Date

: 10/09/2023

Repot Date

: 19/09/2023 : Original earth

Type of soil

Report No.

Dear Gentlemen,

According to the above mentioned subject the test performed as follows:-

Apparatus

- 1. Loading plates consists of two plates with 300 mm, and 300 mm diameter
- 2. The thickness of plates 30 mm.
- 3. Dial gauges with accuracy 0.01 mm to measuring the settlement
- 4. Steel streightedges with magnetic supports to fixed the dial gauges.
- 5. Hydraulic lack with pump to transfer reactive loads to the loading plates
- 8. Dial indicator measuring device with scale capacity 700 Bar (Enertiac)
- Reaction loading system by roller compactor with weight approximately 15 ton.
- Calibration certificates are attached.

Test Procedure:

- 1. Clean the ground on test area to the required level with undaturbed soil
- 2. Install loading plates 300 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
- 3. Prior to starting the test applied preloading about 30 seconds.
- 4. The strain gauge and the dial gauge shall be set to zero
- For a 300 mm loading plate, the limit values are 5.0 kg/cm.
- 6. The load shall be applied in aix stages, in approximately equal increments, until the required maximum normal stress is reached.
- 7. Each change in load (from stage to stage) shall be completed within one minute
- 8. The load shall be released in 3 stages, to 50 % , 25 %, and approximately 2 % of the maximum load.
- Following unleading, a further (2⁻⁴) leading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached).
- 10. At each stage the lead shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min.
- 11. Remove the loads



3 El Malek El Afdal Street Zamalek, Cairo. Tel.& Fax: 27367231 - 27363093



٣ ش الملك الأفضل الزمالك- القاهرة تليفون + فاكس ، ۲۷۲۱۷۲۲۱ - ۲۷۲۲۲۰۹۳ www.cel-egypt.com



Company Name

شركة الأهبى المقاولات و الثوريدات العومية :

Project

: Electric Express Train - Sector (5) - Qous to Ament.

Test Date

: 16/09/2023

report date Station

: 19/09/2023 641+240

Test No.

:1

Nonrepetitive Static Plate Load Tests of Soils DIN 18134

	Stage (1) Stress		Settlement	Dial 2	Settlement	Average	
Loading		Dial 1	-	Dial 2	mm	1000000000	
334	Kg/cm2	1000	mm	20.00	0.00	0.00	
0	0.00	20.00	0.00	THE RESERVE TO SHARE THE PARTY OF THE PARTY	0.79	0.74	
	0.83	19.30	0.70	19.21	1,45	1.40	
1	1.66	18.65	1,35	18.55	The second secon	2.06	
2		18.03	1.97	17.86	2.14	2.50	
3	2,50		2.35	17.35	2,65		
4	3.33	17.65	2.92	17.18	2.82	2.87	
5	4.17	17.08		16.20	3.80	3.84	
	5.00	15.53	3.47	10.10		-	

nloadin	g Stage (1		Settlement		Settlement	Average
ding	Stress	Dial 1		Dial 2	mm	1115
Loading	Kg/cm2		mm	16.33	3.67	3.02
-1	2.50	17.63	2.37	16.58	3.42	2.84
7	1.25	17.75	2.25	17.08	2.92	2.49
	0.400	17.95	2.05	A7300		

oading S	Stage (2)		Settlement	Dial 2	Settlement	Average
Loading	Stress	Dial 1	mm	D	mm	
	Kg/cm2		2.18	16.83	3.17	2.68
0	0.83	17.82		1662	3.35	2.80
simulally equ	1.68	17.78	2.22	1604		
	s is reache	d.		16.45	3.95	2.96
2	2.50	17.64	2.36	33300	3.69	3.06
3	3.33	17.58	2.42	16.31	3.89	3.23
-	4.17	17.43	2.57	16.12	3.88	9.25



Tel.& Fax: 27367231 - 27363093





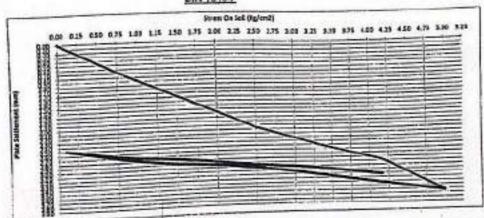
Company Name Project Test Dale report date Station Test No.

شركة الأهبى للمقاولات والتوويدات العبرسية : : Electric Express Train - Sector (5) - Qous to Arment,

: 16/09/2023 1 10/08/2023 641+240

:1

Nonrepetitive Static Plate Load Tests of Soils DIN 18134



1.30

			_			5	6
Loading (1)	0	1	2	3	-	22.00	3532.5
	-	510	1172.8	1766.3	2352,6	2946.1	2700.7
Stage(Kg)	0	200	1.00	2.50	3.33	4.17	5.00
Strees (Kg/cm2)	0.00	0.83	1,00	0.04	2.50	2.27	3.84
distances from	0.00	0.74	1.40	2.01	2.00		-

UnLoading (1)	1	2	3	4
Stege(Kg)	3533	1796	884	71
Stress (Kg/cm2)	5.00	2.50	1.250	0.10
Settlement (mm)	3.64	3.02	2.84	2.49

201		51 (mm)*	1.27	\$10mm)#	2.67	ΔS =
D (mm) = 309 Ev1 (NPs) = 10.75°D	Loyes	3. (33.9	7		
	-		2	3	4	- 5
Loading (2)	0	586,391	11728	1766.3	2352.6	2946.1
Stage(Kg) Stress (Kg/cm2)	0.10	0.63	1.68	2,50	3,33	4.17
Settlement (mm)	2.49	2.68	2.50	2.95	3,16	3.23

Settlement	(mm)	2.49	2.68	2.00	24			
D (mm) *	100	1	\$1 (mm)*	271	ED(mri)*	109	nx =	0 11
E-S MF4	_	_		140.7				

Ev2Ev1= 4.15

Evi = blodulus of deformation during the leading stage. Ext = Madulus of delarmation furing the Relateding stage.

D . Pleis diameter (mm)

Do = The difference between 0.3 and 0.7 from the maximum loading (emix) (hg/cm²) 0.5 = Difference in sufficients corresponding to 0.3 and 0.7 from the maximum loading (mm)



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مكتب معامل الإستشارات الهندسية

شركة الذهبي: Company Name

Project

: Electric Express Train - HSR From Qous To Armant

Testing Date

: 21/09/2023

Soil type

: Middle Embankment

Location

: St From 641+000 to 641+200

Level

: -1.5 M

Report No.

: 67

Compaction test by using Sand - Cone Test Method **ASTM D-1556**

Station	Test Hole Volume cm ³	Bulk Density am/ cm ³	Moisture Content %	Dry Density (gm/ cm ³)	Degree of Compaction (%)	Acceptance
641+025			5.8	2.12	96.7%	Comply
	-	2.21	5.8	2.09	95.3%	Comply
		2.26	6.4	2.12	97.0%	Comply
Chemina Compact		12500000	6	2.11	96.2%	Comply
- Control of the control of	5-2500,000	770-000	5.8	2.17	99.1%	Comply
No. of the second			5.5	2.12	97.0%	Comply
			5.6	2.16	98.7%	Comply
GOVERNOUS III			5.8	2.12	96.7%	Comply
	Station 641+025 641+050 641+075 641+095 641+115 641+140 641+166	Station Volume cm³ 641+025 1599 641+050 1571 641+075 1435 641+095 1392 641+115 1070 641+140 1690 641+166 1267	Station Volume cm³ Density gm/ cm³ 641+025 1599 2.24 641+050 1571 2.21 641+075 1435 2.26 641+095 1392 2.23 641+115 1070 2.30 641+140 1690 2.24 641+166 1267 2.28	Station Volume cm³ Density gm/ cm³ Content % 641+025 1599 2.24 5.8 641+050 1571 2.21 5.8 641+075 1435 2.26 6.4 641+095 1392 2.23 6 641+115 1070 2.30 5.8 641+140 1690 2.24 5.5 641+166 1267 2.28 5.6	Station Volume cm³ Density gm/ cm³ Content % (gm/ cm³) 641+025 1599 2.24 5.8 2.12 641+050 1571 2.21 5.8 2.09 641+075 1435 2.26 6.4 2.12 641+095 1392 2.23 6 2.11 641+115 1070 2.30 5.8 2.17 641+140 1690 2.24 5.5 2.12 641+166 1267 2.28 5.6 2.16	Station Volume cm³ Density gm/ cm³ Content % (gm/ cm³) Density (gm/ cm³) Compaction (%) 641+025 1599 2.24 5.8 2.12 96.7% 641+050 1571 2.21 5.8 2.09 95.3% 641+075 1435 2.26 6.4 2.12 97.0% 641+095 1392 2.23 6 2.11 96.2% 641+115 1070 2.30 5.8 2.17 99.1% 641+140 1690 2.24 5.5 2.12 97.0% 641+166 1267 2.28 5.6 2.16 98.7%

Degree of compaction based on proctor test dated At

:Max. dry density =2.19 gm/cm³

At optimum moisture content = 6

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Te & Pair 2736707 27363093

٢ ش العلك الأونسل الرماك الفاهره عليمون وهاكس و ۲۷۰۲۲۲۱ و دو ۱۲۰۲۲



شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023 Reporting Date : 12/09/2023

Reporting No. : 10-4

Materials finer than 75 μm (no.200) sieve By washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μM (No.200)	9.9

Signature /...







شركة الذهبي: Company Name

Project : Electric Express Train - HSR From Qous To Armant

Location : ST:641+400 E= 492410,088 N=2862759,57

Type of sample : Soil Embankment (Upper Embankment 0.0 M)

Delivery Date : 08/09/2023 Reporting Date : 12/09/2023

Reporting No. : 10-4

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	1 34493070 0
Plastic Limit	A botte in the control of
Plasticity Index	0

Signature Land CEL





محضر اعتماد حصر كميات



الكاريخ :15/10/2023 اسم المشروع بمشروع القطار الكهريائي السريع (5الكتوبر -اسوان -ابوسميل)الفطاع الخامس

قامت شركة برليانت كونلت للاستشارات الهنسية المسلمية (استشارى الاعمال المسلمية لهيئة الطرق والكباري)

باعضاد الكميات المنفذة الخاصة بشركة الذهبى للمقار لات

البلاحظات	الكنية بالنكر النكح	المشيف	الي المنطة رام	من المحطة رقم	4
اعدال ردم على (REV05)	24219.3	اعمال الودم	641+240	641+000	1
	24219.3		بثى الكبية	al	

حصر جاری (1) المرفقات : استلام منزانیة شبکیة قطاعات عرضیة شیت اکسیل موضح یه الکمیات

استثماری / سکتب سیکار م

Constitution of the consti

استشارى المسلحة / مكتب ير اليانت

مهلاس الثبركة المنفذة

برابات كاكل بر Blue Line - sec. 05 استان الاعسال نا مبا بالنطاع برلبات هناست الاحسال المالية HSR- Blue Line - sec. 05

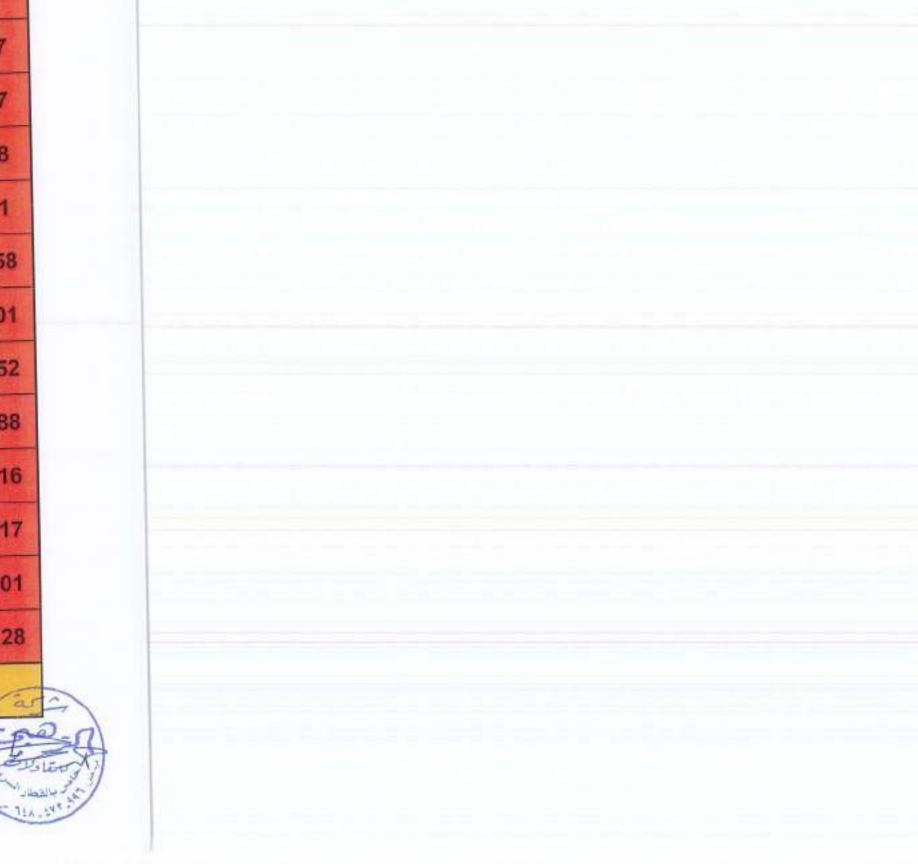


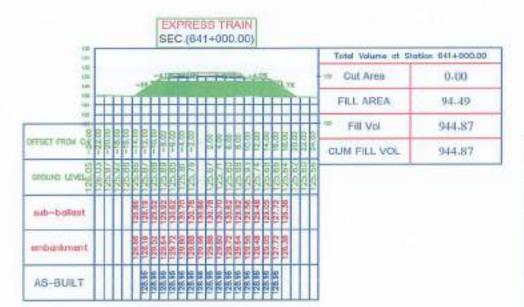
حصر كميات الردم مستخلص جاري (1) شركة الذهبي (1) مركة الذهبي (1) المريع القطاع (637+952-643+863) مشروع القطار السريع القطاع الخامس (قوص /ارمنت)

		THE PERSON NAMED IN COLUMN	CONTRACTOR OF STREET
Station	Fill Area (Sq.M.)	Fill Volume (Cu.M.)	Cum. Fill Vol. (Cu.M.)
641+000.00	94.49	944.87	944.87
641+020.00	95.4	1,898.90	2,843.77
641+040.00	95.55	1,909.51	4,753.27
641+060.00	94.56	1,901.11	6,654.38
641+080.00	94.19	1,887.53	8,541.91
641+100.00	90.48	1,846.67	10,388.58
641+120.00	100.47	1,909.43	12,298.01
641+140.00	92.09	1,925.51	14,223.52
641+160.00	89.85	1,819.36	16,042.88
641+180.00	89.88	1,797.28	17,840.16
641+200.00	92.52	1,824.02	19,664.17
641+220.00	117.16	2,096.84	21,761.01
641+240.00	128.67	2,458.27	24,219.28
المتر المكعب	اجمالي الكمية ب	24	219.3



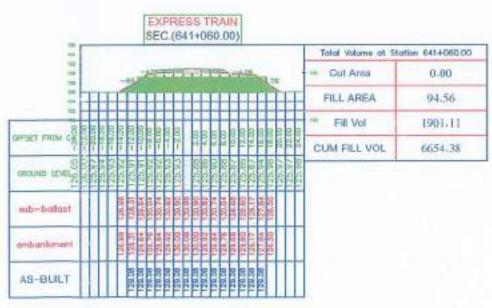
برليات كرست المسلم المسلم HSR- Blue Line - sec.05





107																		Total Volume	at St	otion #41+040.00
94			-55	-	-	T.	in.	E			-	ð		-	1.7			= Got Area		0.00
100	H	Н	1	H		F		F		H				+		H	Ŧ	FILL ARE	A.	95.55
8	888	00	1 3	8	2 0	g	q	,			0	0	9 6		0	2 5		= Fil Vol		1909.51
WESET FROM CA	984	7	-	-100		1	2	2	4.00	ď	0.0	198			0		100	CUM FILL V	OL.	4753-27
manin mari	120 and 1	125.93		125,91	125.50	1255.53	125.84	125.85	125.62	125.70	125.77	Sept.	1	1	50000	285.73	255.AU			
sub-balast			128.20	128.60	30.00	120,76	30.06	130.86	130.76	130.70	130.00	128.04	120.56	100.00	120,46					
embenkment			C III	128.60	125.60	128.00	120.06	128.86	25,00	120.80	128.72	38.54	129,56	197.60	126.46					
AS-BULT	T		20.04	10.04	129.04	1000	129.04	1080	20.04	*0.65	*1187	+0787	129.04	20.04			T			

EXPRESS TRAIN SEC (641+020,00) Total Volume at Station 641+020:00 Cut Area 0.00 FILL AREA 95,40 1898-90 Fill Vol. OFFSET FROM COM FILL VOL 2843.77 SHOUND LEVEL md-bolost umbankment AS-BUILT









<u>Owner</u> Ministry of Transportation National Authority for Tunnels (NAT)

Owner

Geraral Authority for Boxio , Britgesiffand Transport

Project Manne ELECTRIC EXPRESS TRAIN (HIGH-SPIED HAIL) SECTION (FROM CASS TO ARSANNT) STATION 638-110.12 - STATION 715-634.63

KEY PLAN



SECTION (FROM 05.5 TO ARMANT	
STATION 529+120:15 - STATION 713+8	24.6

	205001	PERSONAL PROPERTY OF STREET	the state of the s
549	308	Oraning feature	-03
	altern	presented	Amediani:

*All dimensions are in meters

List of cross-sec Expression

	Excising Traumi Local
_	Progoced Sub-Asilisational



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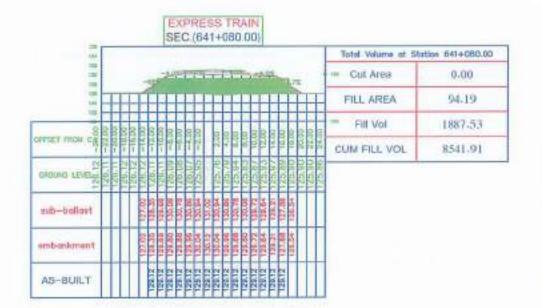




Contractor EL-ZAHABY (Z)

ross-sec for HSR OCTOBRE - ASWAN section: EL-ZAHABY COMPANY from km 637+952 to 643+863

Drawing NO HSR - SEC 5 - cross-sec- (1)



EXPRESS TRAIN

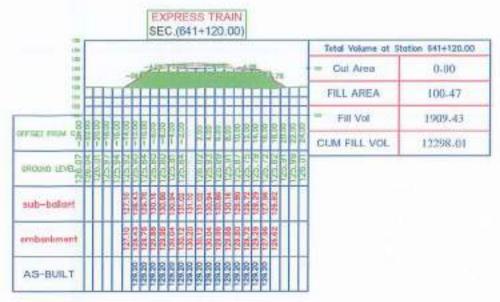
SEC.(641+100.00)

GROUND LEVE

sub-ballast

embonliment

AS-BUILT



	10	Γ	Ī			_	_		_		-	risere	_	_		_	0)	_	_	_	_	7		П	Total Volume at St	otion 641+140.00
	2 2 2	l				-	15	à	Ø	3	23	ų E	die	E	ш	2	O	М	X,	18	175	-			- Out Area	0.00
	(00 (04	F			F	r	ĺ		ı				ľ	ľ	F				=						FILL AREA	92.09
OFFSET FROM	9600	20,000	diam'r.	000	18.00	19,00	2.50	0070	0.00	6.00	4,000	20.00	907	4.00	000	007	20.00	2.00	90%	100	5.00	00'0	2.00	4.000	Fill Vol	1925.51
and the second	100	1 8	1.0	0.01	9	- IM	1	0	- 1497	1 000	ŧ	2	F	R			100	1 100	N		1.64	2	10	0	CUM FILL VOL	14223.52
ENGIND TE	Elg	1000	125	LAD	192	125	Tales.	1200	1000	1,000	1697	0	100	1,656	417	120.	125	1400.0	1508	1700	1700	1980	1,055	1745		
sub-bolo	nt	ļ			1	127.14	120.47	125.80	130.30	130.00	130,88	31.00	131.06	第1次1	130.00	130.20	128.84	123,76	133.33	138.00	120.66					
embankme	int.					127.14	128,47	129.80	100.00	130,00	130,06	120.04	13018	130.08	130000	129.92	120,000	128.76	28.50	138.00	135.55					
AS-BUIL	т		Ī				129.24	129.24	120.26	5,000	123.24	170.70	25.24	129,24	129.24	128.24	(28.24	128.24	129.26	130.24						



Total Volume at Station 641+100.00

0.00

90.48

1846-67

10388.58

Cut Area

FILL AREA

FIII Vot

CUM FILL VOL





Owner
Ministry of Transportation
National Authority for Tunnels (NAT)

Sensoral Arthority for Assets , Seedge (David Yveropret)

Project Name ELECTRIC EXPRESS TRAIN (HIGH-SPCED RAIL) SECTION (HIGH-OLD) TO ARRAM (T) STATION 628-LLO LE - STATION 7254624 68

KEY PLAN



SECTION (FROM QUIS TO ABJUANT) ETATION 629+130:15 - STATION 715-624 88

*All dimensions are in meters

List of cross-sec Expression

-	Ensisting Ground Lavel
_	Proposed help-heliest trust

vec consider





Contractor EL-ZAHABY



Drawing Name

cross-sec for HSR OCTOBRE - ASWAN section ! EL-ZAHABY COMPANY from km 637+952 to 643+863

Drawing scale

Drawing NO HSR - SEC 5 - cross-sec- (1

EXPRESS TRAIN SEC.(641+160.00) Total Valume at Station 641+160.00 101 101 101 Gut Area 0.00 89.85 FILL AREA Fill Vol. 1819.36 STREET PROM CUM FILL VOL 16042.88 RESOLUTE LEVE unb-ballast embaskment AS-BUILT

SEC.(641+200.00) Total Valume at Station 641+200.00 147 Cut Area 0.00 -----FILL AREA 92.52 Fill Vot 1824.02 CUM FILL VOL 19664.17 STOLING LEV nat-before embankment AS-BUILT

SECTION (FROM QUIS TO ARMANT) STATION 628-LLO.33 - STATION 715-624.63 1/2011 *All dimensions are in meters

owner

19mur

KEY PLAN

Ministry of Transportation tions Austority for Tunnels (WAT)

lowers hatherty for Foods , Bridges Carol Transport

Project Name
ELECTRIC ENTREE TRANS (HESH-SPEED NOL.)
SECTION (FROM QUS TO ARMANT)
SEATION 628-128-12 - STATION 715-EULIS

List of cross-sec Expression

weer comulta-

100 miles SRRLT Consultan

Contractor

EL-ZAHABY

Drawing Name

cross-sec for HSR OCTOBRE - ASWAN section EL-ZAHABY COMPANY from km 637+952 to 643+863

Drawing NO HSR - SEC 5 - cross-sec- (1)

EXPRESS TRAIN

							3	S	E(Q,	(6	41	+	1	80	0,0	0	N.								
104	Γ	_									11						ī								Total Valume at 5	itation 641+180.00
100	ı				9	2	à	H	E	L			8	E	L S		i	H	E.		ķr				= Cut Area	0.00
100 104 105	Ē	F			ľ			Ē						F		E	E	Ī	F	Ē	P				FILL AREA	89.88
9	200	90	3	3	30	200	00	00	8	9	3		0	0.0	2	9	98	R	20	100	-00	- 00	000	00	= Fill Vol	1797,28
ALPEL HOW CA	1	100	100	1	ŧ	ř	F	ī	Ì	1	1	ı	200	41	-	F	3	P	14.	1	P	ZW		44	CUM FILL VOL	17840.16
COCUMO LENGUE	ĝ		146.37	120.30	726.40	126.37	178.35	125,35	1250.92	145.47	140,35	5	100.46	126.25	42.25	125,24	7.17	26.18	126.74	3.202.119.	1455,015	120,08	120.UV	120,011		
sub-ballest					027.22	108.55	129.38	130,28	130,36	131.06	131.14	31.13	55.1A		130.58	130.28	129,02	100.04		BE BOX	126.74		Ī	Ī		
imbankment					127.72	128.55	139.86	130,00	130,00	150.16	20.24	130.32	5000	1001	130,08	136,00	129.92	10,82			128574					
AS-BUILT						129.32	120.32	129.32	120.32	120,32	28.32		129,32	128.32	129.32	28.32	128,32		128.32			Ī	Ī	Ī		

Total Volume at Station 641+220.00 Cut Area FILL AREA NORTH THEFT CUM FILL VOL sub-bollast emborémen AS-BUILT

		_
W 150	THE WATER WAS TAKEN	d
Penn street	ليان كرست في سندران	÷.
HCD.	Blag Eme - sec. O	5
# (tab)	تشارق الاعتمال الساحية	-1



0.00

117.16

2096.84

21761-01

EXPRESS TRAIN

EXPRESS TRAIN SEC.(641+220.00)



Fill Vol.

EXPRESS TRAIN SEC.(641+240.00) Total Vokame at Station 641+240.00 Cut Area 0.00 FILL AREA 128-67 Fit Vol 2458.27 WORN THEFT CUM FILL VOL 24219.28 GROUND LEVEL sub-hallost embankment AS-BUILT

المستورة الأسمال انساحية بالقداء





OWNER Ministry of Transportation National Authority for Turnells (NAT)

DWHEL

Seniral Authorsy for Royce , BridgesSland Nanopert

Project Name FLECTION DEPRESS TRAIN DRICH SPEED BIR. I SECTION (FROM QUE TO ARMANT) STATION 628+130.13 - STATION 715+624-63

KEY PLAN



SECTION	(FROM OU	STO ARIAM	NT.1
STATION IS	9+110-15-	STATION TO	D+504.6

		111211120112			
NV.	IMIC	Drawing berne			
CHE	9,0003	proteines.	Married Shippells		

*All dimensions are in meters

List of cross-sec Expression

	Entiting Ground Level	_
_	Everyoned Sub-Bulliant from	er.



6 ABI T Consultan





Contractor EL-ZAHABY



cross-sec for HSR OCTOBRE - ASWAN section 5 EL-ZAHABY COMPANY from km 637+952 to 643+863

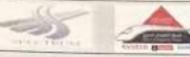
Drawing scale MSR - SEC 5 - cross-sec- (1)

Drawing NO









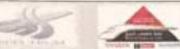
أعمال الشاء الجدر الترابي للقطار الكهربائي السريع (أكتوبر / أبوسميل). من محطة 110.13 + 629 + 715 عفول 86.5145 كم تنفيذ شركة / الذهبي بوسف التعلولات العمومية من محطة 67.578.67 التي 635.534 - 641 عطول 656.67 م

الإضالي	سرطة	1,40	Cent !	40 1845	النا
				إهال الاللة والطهير	1
50,000	6.00	8,333	2,	بالمتر السماح أصال تطهير الموقع من الإشمار والمزروطات والمطلقات في ساعتي ذات الطبيعة الزراعية الكليفة بمبنى. حتى 30 سم و التخلص منها بالمقالب العمومية وبلك لمسافة على 500 متر شهيدًا لأعمال الرفع المساهي لكامل حدود المشروع طبقا للشروط والمواصطات وتعليمات المهتدى المشرطار ايتر لمتنبات علاوه 0.30 جنيه كال 1 كل	F
5,429	61.00	89	3+	باسار الدكاف أحمال تأثير وازافة المنطحات العلهارة بالرصف الدالي في الإمكان فتي يحدها المهدس المشرف وطل ماح التأمير خارج الدواع ومترسط مسافة الثال علي 10 كم وجل ما يترام لهو الممل طبقة لكرامية فالدوما و الدواصفات وتطيمات المهدس المشرف. وفي حالة زيادة مسافة على دائج التأكسر عن 10 كم من معور الطريق يتم حساب 1 جنبة الكيلومتر الأزيادة أو القلص.	1.
			77	اعث تنفر	2
1,778	23.00	77	3+	يشتر البكاب احتال معز باستخدام المحالات الميكانيكية لفسيح لواج التربية السيارية المسعرية ونسوية السطح بألاث السوية والرش بشياء الأصوابة الرصول الى صنة الرطوبة المحالية والمملك الجيد بالهراسات الوصول الى الفسي كلفة جلة (1939 من الملكة المبلغة القسوري) ومعمل على البد تصيل وطل الأثرية الرائدة لمسالة المعالية المعابية والند بمعيم الغرى ويتم النفية علما المبلغة المسلمية والقدامات العرصية الفنونجية والرسومات القسيلية المعابية والند بمعيم مشاراة الجبية الكرائدسافة على نقح المعار وتفسيع 1.1 متيانكم ابتداء من 15/2023	2-1
85	1,10	77	3-	عاكرة سنالة النقل (كر	
46	0.60	77	3,	علاوة زيادة السوائل	-
01,760	26.00	7,760	34	القبار المكافب احدال على بشنطام المجانب الميكانيكية في قاربه المشابكة حدا التربه المسترية إبلستندام القوارد) ضورة السفح بالات السوية والرائل بالدياء الإصوابة الإصواب في سبة الرطوبة المطاربة والسلد الديد بالهراسات فرصور في العمل خلافة حكة (1955 من الكافة الموقة القسودي) ومعمل على الدعميل وقل الالزياة الرائدة الدائمة المحافظة المحافية والمسابقة والمسابقة والمسابقة والمسابقة المرازق والكافري وتعليمات المهندي المستوابة والديامات المهندي والكافري وتعليمات المهندي المدرود. محرود المسابقة على المح وتصدح 1.1 جنائهم ابتداء من 4/5/2023	2 2-
8,536	1.10	7,760	3,	الأرة بسفة النان 1 كام	
5,432	0.70	7,760	34	الره از يقد السو ال	w)

- Fring







مقايسه معدلة





أعدل الشاء الحدر الترابي للطار الكهريائي الدريع (أكتوبر / أبوسمبل). من محطة 13 110 + 629 حتى محطة 624.63 + 715 بطول 86.5145 كم. تنفيذ شركة / الذهبي يوسف المعاولات العمومية من محطة 640+578.67 التي 235.34 - 641-235.34 بطول 656.67

245	عول / 656.6 م سعر اللية	Two .	42.04	3+11 Um	
Prints.	100 00	440	Tage	أعال الثرية السلمة	- 6
	-		2,	باشدر مستخد نور بد وتركيب طبقه من النسيج المستامي هيونكستان مستورد الداخل لا على عن 10% ويتم اللغيا طبقاً الأصول المستامه والرسومات القصيفية المهتدية والتدريسوم متساتات طبقا لمواسطات الهيئة المائم الطرق والكباري وتطبيبات المهتدين السترف	1-
344	31.00	1.5	2,	تان وارير ٧ هال عن 200 هم/نر2	1-1
478	43.00	11	2	علت وزن لا وقل عن 300 مرابر2	
3,333	60.00	56	2,	شنارزن لا بال عن 400 هراء2	3-1
			2,	بالمثر مسطح توريد وتركيب طفه من السبح الصناعي جوهريد مستورد التداعل لا يكل عن 10% ويتر النفيد علنها الأصول المستاحة والرسومات القصيلية المهتمرة والبت بصبح منتمالات علنها المواصفات البهنة العامة الطرق والكاراي ومطلمات المهتمل المثروب	
489	44.00	11	2.	نات قرا شد 20 كارتبوش في الإحامين	1-2
3.885	47.00	83	0.	نات او دالد 30 كديوان في الإحاص	2-2
		Total Control		النصاب الفرسانية الرصف العرباني	13
5,444,105	433.00	12,573	22	بشتر السحاح المثل توريد وصب هوسته عليه مدك 15 مع لارخاج 10متر والتي تعديه الاقتف والدول الملتية المشتر في والدول الملتية المكون من دواوجت مثرح د 0.4 وق رمل مرش والإصحاف طبقا تعليمات الاستشاري (فير جميقا) على الديكون في والدول الدينة مع وصع فرو (بالقاسش) على الديكون الدر بالمنتوزي والدينة مع وصع فرو (بالقاسش) مسك 25م وطبق المختب الربه الطبيعة المثل الإستشاري) والمد ينحل تجهيز والمتعال مناسب الربه الطبيعة المثل الإستشاري والدينة المهدل المن 250 كمع المرح والتعليم المناسبة والمن المواصل المنتومين الدر من والتدين المدر المنتوري والمتعارف المناسبة المعددة والدر مدين مشتماته طبقاً لمو المنتان المهدل المنتوري المنتوري المناسبة المناسبة المناسبة الدينة عن 5 متر والسي) والمناسبة الدينة عن 5 متر والسي)	1
3,772,425	2.685.00	1,405	3+	بشتر المكامل اعدل توزيد وصب عرساته عاده كانها قديه سطيه و علويه الكانف و الديران الجانبية تكون من 0.0 بود المح من موارجيد خادر 19. (19. رمل حرش و الإصحاف طبقا العابدات الإستثناري (قدر صبية) على ال يكون الدين بطبقا ومضال والرمل خالي من الشواف والطفاة والأملاح والدواد العربية مع وصع فوم إيافاتسل بسنات الاستثناري والدواد المعار المعار المادان والدوار والموارد المعار من الموارد الموارد المعار الموارد الموارد المعار المعارف	2



مقايسة معالة

أعمال الشاء الجمر الترابي تقطار الفهريائي السريع (أكتوبر / أوسمبل). من مصلة 110.13+ 629 على مصلة 62 624 + 715 يطول 86.5145 كمر وكة / الذهبي يوسف المعلولات العمومية من مصلة 650 -578.67 ثير 642 -235 على 650 67 م

4	سلميد شوكة / الذهبي يوسف المعاولات العمومية عن معطة 578.67 (40+6-6). مان الاصال	Tag	Luc	نولقا	الإمدائي
130	Embanhment AG 341	1000000			
	احال نسبط والراب والل أقربة حكية البواسات وتشهلها استندام الات الدوية بسنة لا ويد ح كل سو طي جدوب (الأ سر) اسبل حسوب الترجة و مساد كاريد عن كالسد اطي من مدود و (الا دار) من حسوب الترجة الشهال الشدود السبحين التشكل الحمد و الإلكاف إلدية بصل القيم ما حلى (الرابة) ورابها بالبارة الإصوارة الوصور الى مدة طريقورة المساوية و الديارة الدين بالتي السبح المرابق على المنافق المنافة المنافة المنافة السبو من ويام اللهم منا المنافة ومن اسبوقة الهيئة المنافقة التي و القابل و و الهيئة المهدمة و الله بهدم منافقاته على السباح الله الرابة مساحة على جهل الإثراف و إدابات الدين المنافقة عن كان المرابق المنافقة المنفقة المنفقة المنفقة المنطقة المنفقة ال	Ďe.	113,000	60.00	6,780,000
3	Prepared Subgrada	100	The same	10000	222.2
7-	بالدين التحكم الحال تورية وقرائن طبقة الليس (Vropared Subgrade) من الأحضر السلبة التشريبة بالتي تقسير التحكم التشريبة التقريبة (Vropared Subgrade) من الأحضر السلبة التشريبة التقريبة (Vice مره الأورن اللية الديل من حكل 2000 هي 1.12 والتي عليه التقليب والتوريبة (Vice المنظم من 2014) والا ترب سببة التقليب والتي المنظم التحكم من 1014 والا يقل منظل الدورية (Fiv2) والا ترب بنية لهذا يجهل هي 2016 والا يقل منظل عن التحكم من التحكم ا	3a	B,000	130.00	1,040,000
	سعاعل 100 کے	3-	8,000	104.00	832,000
	غرته بريد الأستن	3-	8,000	25.00	200,000
	عاترة زيادة السولال	3,	8,000	1.90	14,400
13	Subtrated_wind with				
1.	يشتر الداهب احدال بوريد وهر بل طبقة أمان من الأمهار السبلية المشترجة بالح تشير الاستراث والمطلقة الشواصطات والفسي معبد المهينات ما من 20 من الرائد الرائد المناف المعبد المهينات ما من 20 من (10 و الدرج فرارد بالاشتراث المناف المفتر و الا يل معتبل (190) من نموية فرح المستراث (100 ميديات المفتر و الا يل معتبل الدرية (190) من نموية فرعد فرعة على طبيتين بالمناف (100 مرائز برية الاستمام عن 110 مردة فرعد على طبيتين بالمناف (100 مرائز برية الاستمام عن 110 مردة فرعد المعرف المستراث المناف المعاف المعاف المعاف المفتر المعاف	3,	6,000	135.00	810,000
	سفة على 100 كم	3-	6,000	104.00	624,000
-	لارية فريد الإستر	3,	6,000	25.00	150,000
	عالرة ريانا البواز	3.	6,000	1.80	10.000

