







مشروع القطار الكهربائي فالق السرعة قطاع (العلمين ، قوكة) المقايسة التقديرية لينود الإعمال تنفيذ المؤسسة المصرية المتحدة اتجاه التهيمة القطاع من المحطة 476+600 ألي 477+600

قم الهلت	هان الأصل	Final	الكمية	Lie	الإجمالي
7	اعمل افرام				
1-7	اصال تحديل و تزريد و تكل تزرية مطابقة المواصلات و تضفيلها باستخام الات قاموية بسمله لا يزيد عن ٥٠ سم على متسوب - لا مشر و بسمك الإيريد عن ١٥ سم الستكمل المنسوب القصمي للتنكيل فيصر و الانتفاء (سملة تحدل المايلوريات الالتي من ١٠٠٥) ورشها بالديوة الإيرانية عرصول في نسبة فرطوية المطابق في قصد فيهد بالهواسات الرساس الناس خلفة بالالا المناسبة و فرسوسات تضفيلية المشدة و الشند بجموع مشتمات طبالا المسول المستادات و مواصطات الهيئة النامة الشرقي و الكوري و المتهنات المهنس الشار في المسافر على من الام و يتم نصباب عائزة ١٠ ما يتمية اللم بالزيادة في القصائ فسعر يشمل عبل الترويات و فطيط و المتهاؤ الامان المطابق (١٠) من قام ١٠٠ في الام ١٠٠١.	3e	27,961.36	65	2,376,716
	عادرا مسطة هال ٢١٧ غم	3,-	27,961.36	295.40	8,259,785
	مادوة كمصيل رسوم الكارنة والموازين طبقا للامحة القرانة الوطئية	3,	27,961.36	13	363,498
	الإجمالي				11,000,000

مدير المشروع المقاول م / محمود شاویش

محضر استلام موقع

مشروع: أعمال الجسر الترابي لمسار القطار الكهرباني السريع الخط الأول (العين السخنة - مطروح) قطاع (العمين/فوكة) لتنفيذ المسافة من الكم 476+600 الى الكم 477+600 بطول 1 كم إتجاه الضبعة

تنفيذ: شركة المؤسسة المصرية المتحدة اشركة المنطقة الخامسة منطقة غرب الدلتا طبقاً للعقد رقم (2024/2023/255) بتاريخ 2023/8/22 ابنه في يوم الثلاثاء الموافق 2023/08/27 اجتمع كل من:-

مدير عام مشروعات - الهينة العامة للطرق والكباري

1- السيد المهندس /محد حستى فياض

مدير مشروع - الهينة العامة للطرق والكباري

2- السيد المهندس /إبراهيم عبد الله الحناوي

مدير مشروع شركة المؤسسة المصرية المتحدة

3- السيد المهندس/ محمود شاويش

وذلك للمرور على مسار العملية المذكورة عاليه لاستلام الموقع:وقد تبين أن الموقع خالياً من العوائق الظاهرية ويسمح بالبدء في التنفيذ وبناء عليه يعتبر
تاريخ 2023/08/26 هو تاريخ استلام الموقع وبدء الأعمال بالعملية
واقفل المحضر على ذلك ووقع الحضور

التوقيعات

رثيس الإدارة الركزية

منطقة غرب الدلتا

الاسكندرية - مراسسي مطروح

عميد . مهندسي

مانی محمد محمود طه"

3- معود شاوليس

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مشروع القطار السريع (العلمين -فوكة)

المؤسسة المصرية المتحدة من المحطة 475+600 الى المحطة 478+000

محضر تحديد مسافة نقل

(نقل الاتربة)

انه في يوم الاربعاء الموافق :- 2022/5/18

بناء على طلب المقاول المؤسسة المصرية المتحدة للمقاولات العامة لتحديد مسافة نقل الاتربة من محجر (المصرية)

على طريق وادى النطرون العلمين للمشروع المذكور أعلاه.

تم زيارة المحجر من قبل:-

ممثل الهيئة العامة الطرق والكباري

مدير مشروع الاستشاري مكتب د.سعد الجيوشي

ممثل استشاري المساحه مكتب المساحة XYZ

مندوب المؤسسة المصرية المتحدة

1- السيد المهندس / ابراهيم الحناوي

2- السيد المهندس / مصطفى نجم

3- السيد المهندس / محمد خليل

4- السيد المهندس / محمود شاويش

وتبين ان المحجر على مسافة 213 كم من منتصف قطاع المؤسسة المصرية المتحدة

N 30°33'19 .7"

E 29°45'06. 7"

احد اثى المحجر

N 31° 2'18.80"

E 28°11'30.38"

احداثي منتصف القطاع

وعلى ذلك تم توقيع،،

C.C. 3 -4

JUZ_ _ 3

- my -2

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قائمة الكميات الواردة بالمستخلص جاري (١)

مشروع: أعمال الجسر الترابي لمسار القطار الكهرباني السريع الخط الأول (العين السخنة - مطروح) قطاع (العلمين/فوكة) لتنفيذ المسافة من الكم ١٠٠ ٢٠ ٢ الى الكم ١٠٠ ٢٧٧٤ بطول ١ كم إتجاه الضبعة

رقم البند و بيانه: (٣-١) اعمال تحميل وتوريد ونقل اتربة صالحة للردم مطابقة للمواصفات

مقدار العمل السابق:

الكمية		الابعاد (متر)		اكيلومتري	الموقع ا	بيان الاعمال بالمقايسة		
-	مقطع	مساحة ال	طول	الى	من	بيان الاعمال بالمقايسة		
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۱٦٧٩,٨٦	٣	,۳٦	٥,,	£	£ Y Y + 1	القطاع الثاني		
YY431,	٣٦		(۳م) ع	ة المستخلص الحاليا	، الكميات خلال فتر	اجمالي		
YV971,	٣٦			ر الكلسي (م٣)	الإجمالــــــــــــــــــــــــــــــــــــ			

مهندس الهينة

مهندس الاستشاري مكتب داسعد الجيوشي

م / مجد خلیل

مهندس الاستشاري

مكتب XYZ

مهندس الشركة

Ro Caldin



قائمة الكميات الواردة بالمستخلص جاري (١)

مشروع: أعمال الجسر الترابي لمسار القطار الكهربائي السريع الخط الأول (العين السخنة - مطروح) قطاع (العلمين/فوكة) لتنفيذ المسافة من الكم ٢٠٠٠ ٢ ٢ ٤٧٤ الى الكم ٢٠٠٠ ٢٧٧٤ بطول ١ كم إتجاه الضبعة

رقم البند و بيانه : (٣-١) علاوة مسافة النقل ٢١٣كم

ت نفي ذ: شركة المؤسسة المصرية المتحدة

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مقدار العمل السابق:

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الكمية	الابعاد (متر)		الموقع الكيلومتري		3 15 N N - NN - N
	مساحة المقطع	طول	الى	من	بيان الاعمال بالمقايسة
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27421,82			ر الكلـــــــــــــــــــــــــــــــــــ	الاجمالــــــــــــ	

مهندس الهينة

مهندس الاستشاري

مكتب داسعد الجيوشي

مهندس الاستشاري

مكتب XYZ م / مجد خلیل

مهندس الشركة



قانمة الكميات الواردة بالمستخلص جاري (١)

مشروع: أعمال الجسر الترابي لمسار القطار الكهربائي السريع الخط الأول (العين السخنة - مطروح) قطاع (العلمين/فوكة) لتنفيذ المسافة من الكم ٢٠٠٠ الى الكم ٢٠٠ + ٢٧٤ بطول ١ كم إتجاه الضبعة

رقم البند و بياته: (٣-١) علاوة تحصيل رسوم الكارتة والموازين طبقا للائحة الشركة الوطنية

ت نفي ذ : شركة المؤسسة المصرية المتحدة

مقدار العمل السابق:

الكمية	الابعاد (متر)		كيلومتري	الموقع ال	بيان الاعمال بالمقايسة
-	مساحة المقطع	طول	الى	من	بيان الاعمال بالمقاسدة
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۱٦٧٩,٨٦	٣,٣٦	0	£77+7	£ ٧ ٧ + ١ · ·	القطاع الثاني
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YV971,1	• 4		الكلسي (م٣)	الاجمالـــــي	

مهندس الاستشاري

مكتب XYZ

م / مجد خلیل

مهندس الشركة

MATERIAL









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Comp	actor	U	alted Forms	an Fac			Decim		SV	otra m	SHAKE
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Employers Representative

* Designer

Comment by ER

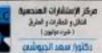
GARB**

Eng/ Mostafa Negm

MATERIAL INSPECTION REQUEST











Contractor Company	United Egypti	on Fo	undat	ion	Des	igner (ompa	iny	SGA	c	0	
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Suppl	ier Name							
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ARB**	En	g/ Mostafa Negm			my			
omme	nt by ER							
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Page 1 of 1



Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (477+000)

Delivery Date : 09/08/2022 Reporting Date : 15/08/2022

Reporting No. : 29 Sample No. : 26

Dear Gentleman,

Attached here with the Soil Replacement delivered on 09/08/2022

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

Signature /....

نر عسين عدريب 37 - 100 - 100 - 100 م در و ديس : 3 شوع 100 الأدن - كارت _ - تابع



Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (477+000)

Delivery Date : 09/08/2022 Reporting Date : 15/08/2022

Reporting No. : 29 Sample No. : 26

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Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
50	98.5
37.5	92.7
25	84.1
19	73.7
12.50	61.8
9.50	56.8
4.75	51.2
2.36	48.1
2.00	43.4
1.18	40.8
0.600	33,9
0.425	28.9
0.300	21.5
0.150	15.1

Signature /....

ر نوانسيط خلوجية 127 - 146 - 206 درية أوليس - 9 طبق عنك الطل - الانتف - المام

3 El Maick El Afdal Street Zamalek, Cairo.





Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (477+000)
Delivery Date : 09/08/2022

Reporting Date : 15/08/2022

Reporting No. : 29 Sample No. : 26

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)	13.4

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3 El Malek El Afdal Street Zamalek, Cairo.

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Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (477+000)

Delivery Date : 09/08/2022 Reporting Date : 15/08/2022

Reporting No. : 29 Sample No. : 26

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

Test	Results (%)
Liquid Limit	25.8
Plastic Limit	19.7
Plasticity Index	6.1

3 El Malek El Afdul Street Zamalek, Cairo. Tel.& Fox: 27367231 - 27363093

IAS



anpany Name : EGYPTIAN UNITED GROUP

eroject : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (477+000)

Delivery Date : 09/08/2022 Reporting Date : 15/08/2022

Reporting No. : 29 Sample No. : 26

0

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	100000000000000000000000000000000000000	its accordin rojects Specs	g
Group Classification	(A-2-4)*	(A-1-a)	(A-1-b)	(A-2-4)*
2.00 mm (No.10).	43.4	Max 50 %		
	28.9	Max 30 %	Max 50 %	
0.425 mm (No. 40). 0.075 mm (No. 200).	13.4	Max 15 %	Max 15 %	Max 15 %
Characteristics of fraction pa	ssing 0,425 mm (N	(0.40)	111	
Liquid Limit	25.8			
Plasticity index	6.1	Max 6 %	Max 6 %	Max 10 %

* Only allowed in lower embankment

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

Signature

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د داس : 2 تروه د مان - وره - الماني

3 El Malek El Afdal Street Zamalek, Cairo.



CEL

Consulting Engineering Bureau & Laboratories مكتب معامل الإستشارات الهندسية

Company Name : EGYPTIAN UNITED GROUP

eroject : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (477+000)

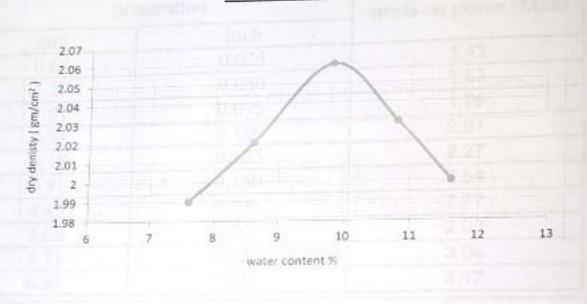
Delivery Date : 09/08/2022 Reporting Date : 15/08/2022

Reporting No. : 29 Sample No. : 26

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(1)

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



Max dry density (gm/cm²) : 2.06

Optimum moisture content % : 9.8

مكتب معلى الاستشارات المنسية المعلجل الشمالي

Signature /

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



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onipany Name : EGYPTIAN UNITED GROUP

eroject : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (477+000)

Delivery Date : 09/08/2022 Reporting Date : 15/08/2022

Reporting No. : 29 Sample No. : 26

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

stress on piston (Mpa	etration	pen
1.42	Inch	mm
	0.025	0.64
1.53	0.050	1.27
1.75	0.075	1.91
2.01	0.100	2.54
2.27	0.125	3.18
2.54	0.150	
2.77	0.175	3.81
2.92	0.200	4.45
3.04	0.225	5.08
3.17	0.250	5.71
100000000000000000000000000000000000000	0.250	6.35

St	ress (Mpa)	CBR %		
St. Value	Sample results	29.11		
6.90	2.01	-		
	St. Value	St. Yaluc		

Notes:

Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was compacted to dry density of 2.06 (gm/cm³) at 9.8.26 optimum water content.

3 Surcharge Gad 4.50 Kg.

Signature /

المسكنة المتكاملة المتكام

3 El Malek El Afdal Street Zamalek, Cairo.



Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

spe of sample : Soil Replacement (Embankment)

Location : St. (477+000)

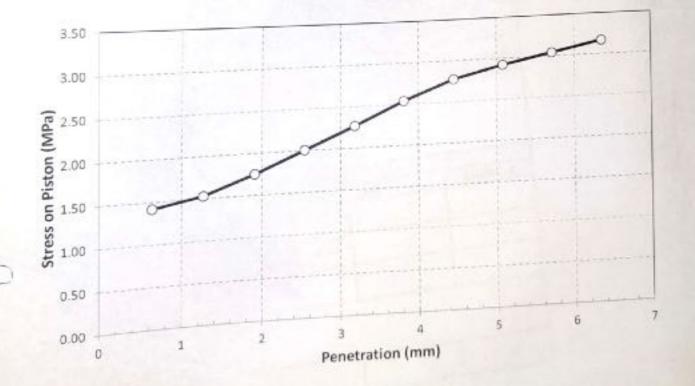
Delivery Date : 09/08/2022

Reporting Date : 15/08/2022

Reporting No. : 29 Sample No. : 26

No

Load Penetration Curve of CBR Test ASTM D-1883



Signature / A Signature / Sign

3 El Malek El Afdal Street Zamalek, Cairo. IAS

۴ ش العلك الأفضل الزمائك - القاهرة تليفون + هاكس : ۲۷۳۲۷۲۴۱ - ۲۷۳۲۳۰۹۳ www.cel-egypt.com

	MATER NSPECT REQUE	ION	belod suid ophical ophidal (OAMS)	A		3,30 yi	1964 (1964) 1965 (1964) 1964 (1964)	انمد	12150	8	4	ytra		SPIRATE
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12000	npany	-	inited Egypt	Sign	W	-	Date			1	ime			
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	tion to be		1-From stat						Date					
Supp	lier Name													
Test 8	Requirem	ent				Specifica	tion		Clause					
Refer	ence Pho	tos	Yes attached	I/No		Other			SIV					
tem	Descript	tion		1	Unit		Quantity	Arri	rival Date Not		Not	e		
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File: MIR - 5000 m3



Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+700)
Delivery Date : 13/08/2022

Reporting Date : 19/08/2022

Reporting No. : 30 Sample No. : 27

Dear Gentleman.

Attached here with the Soil Replacement delivered on 13/08/2022

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.

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 Afdul Street Zamalek, Cairo. Tel.& Fax: 27367231 - 27363093





Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+700)

Delivery Date : 13/08/2022 Reporting Date : 19/08/2022

Reporting No. : 30 Sample No. : 27

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	91.4
25	83.4
19	70.6
12.50	61.3
9.50	50.8
4.75	43.5
2.36	40.8
2.00	38.1
1.18	34.9
0.600	26.8
0.425	23.3
0.300	18.9
CEL 0.150	13.8

Signature /...

2







Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+700)

Delivery Date : 13/08/2022

Delivery Date : 13/08/2022 Reporting Date : 19/08/2022

Reporting No. : 30 Sample No. : 27

(T)

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

Test Test	Results (%)
Percentage of material finer than Sieve Size 75 μΜ (No.200)	9.3





Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+700)

Delivery Date : 13/08/2022

Reporting Date : 19/08/2022

Reporting No. : 30 Sample No. : 27

0

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

Test	Results (%)
Liquid Limit	26.7
Plastic Limit	18.6
Plasticity Index	8.1

Signature /.....

3 El Malek El Afdal Street Zamalek, Cairo.





: EGYPTIAN UNITED GROUP

apany Name : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

project type of sample : Soil Replacement (Embankment)

Location : St. (476+700)

Delivery Date : 13/08/2022

Reporting Date : 19/08/2022

Reporting No. : 30 Sample No. : 27

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)		Limits according Projects Specs					
Group Classification	(A-2-4)* (A-1-a)		(A-1-b)	(A-2-4)*				
	38.1	Max 50 %						
2.00 mm (No.10).	23.3	Max 30 %	Max 50 %					
0.425 mm (No. 40).		Max 15 %	Max 15 %	Max 15 %				
0.075 mm (No. 200).	9.3							
Characteristics of fraction pa	ssing 0.425 mm (N	(0.40)						
Liquid Limit	26.7			*****				
Plasticity index	8.1	Max 6 %	Max 6 %	Max 10 %				

^{*} Only allowed in lower embankment

The test results are (

Comply - □ Not Comply) with specifications limits

3 El Malek El Aldal

Zamelek, Cairo.





: EGYPTIAN UNITED GROUP pany Name

oject

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment) type of sample

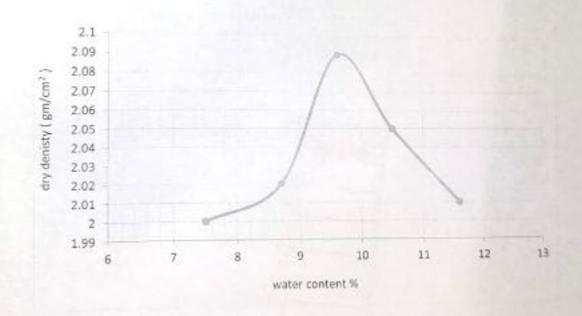
Location : St. (476+700)

Delivery Date : 13/08/2022

Reporting Date : 19/08/2022

Reporting No. : 30 Sample No. : 27

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



Max dry density (gm/cm2) : 2.09

Optimum moisture content % : 9.6

Signatur













Contractor Company	U	nited Egypti	on Founda	ition	Designer Company			ny	SGAC				
and the second	Name		Sign Date						Time				
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MATERIAL INSPECTION REQUEST

Contractor

Company



United Egyption Foundation







Designer Company



SGAC

Issued by		Name	e Sign AS Date				Time						
	ractor	Mahm	oud Shawlesh	T &		2	7	9.2	71				
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nplay	ers			-				4					

Representative



Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+640)

Delivery Date : 21/09/2022

Reporting Date : 27/09/2022

Reporting No. : 51 Sample No. : 20

Dear Gentleman,

Attached here with the Soil Replacement delivered on 21/09/2022

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

مانت معلق الاستشارات الوللسية المسلملات الشطال الشطال بغر تسعل تعرب 193 - 190 - 190 - 190 مودار تديين - المامية مودار تديس : 3 شعر على الاطن - الاست

3 El Malek El Afdal Street Zamulek, Cairo.





: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

Type of sample : Soil Replacement (Embankment)

Location : St. (476+640) **Delivery Date** : 21/09/2022 Reporting Date : 27/09/2022

Reporting No. : 51 Sample No. : 20

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	88.9
25	79.1
19	72.7
12.50	66.3
9.50	58.4
4.75	38.7
2.36	37.2
2.00	35.8
1.18	31.1
0.600	29.4
0.425	28.5
0.300	23.5
0.150	17.1

Signature /.

CEL

3 El Malek El Afdal Street Zamalek, Cairo.





Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+640)
Delivery Date : 21/09/2022

Reporting Date : 27/09/2022

Reporting No. : 51 Sample No. : 20

1

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

Test	Results (%)
	VIV.
Percentage of material finer than Sieve Size 75 µM (No.200)	11.6

ماتب معلى الورتشر بداده المسية المالية المسيد المس

3





Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+640)
Delivery Date : 21/09/2022
Reporting Date : 27/09/2022

Reporting No. : 51 Sample No. : 20

1

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

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

Signature / المعلمة التوانسية المعلمة التوانسية التوانس

3 El Malek El Afdal Street Zamalek, Cairo.





Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+640)

Delivery Date : 21/09/2022

Reporting Date : 27/09/2022

Reporting No. : 51 Sample No. : 20

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Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs			
Group Classification	A-1-a	(A-1-a)	(A-1-b)		
2.00 mm (No.10).	35.8	Max 50 %			
0.425 mm (No. 40).	28.5	Max 30 %	Max 50 %		
0.075 mm (No. 200).	11.6	Max 15 %	Max 15 %		
Characteristics of fraction passing 0.4	25 mm (No.40 NP)	*****		
lasticity index	NP	Max 6 %	Max 6 %		

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

Signature

مكتب معامل الاستثمارات الولدمور السمالول الشريطان رام فلسجل فضريس: 837 - 201 - 249 ومراز فراوس: 3 فلاع الك الأفان - الراك

3

3 El Malek El Afdal Street Zamalek, Cairo,





Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

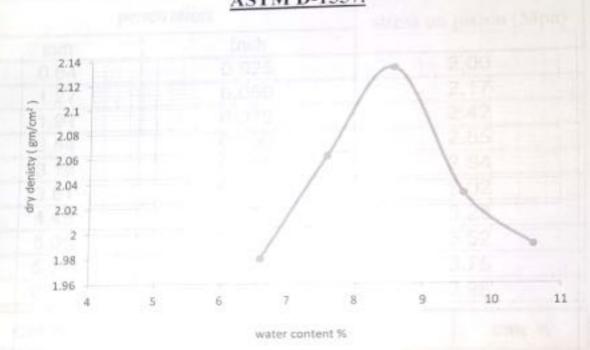
Location : St. (476+640)

Delivery Date : 21/09/2022

Reporting Date : 27/09/2022

Reporting No. : 51 Sample No. : 20

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



Max dry density (gm/cm²) : 2.13

• Optimum moisture content % : 8.6

Signature

مكتب معلى الاستثمرات الكندسية البهدل الكثماني در وسد فدرس 234 - 201 - 218 ومرو تربس : 3 على فيك الافتار - ازمك -

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_ CEL

Consulting Engineering Bureau & Laboratories مكتب معامل الإستشارات الهندسية

Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+640)

Delivery Date : 21/09/2022

Reporting Date : 27/09/2022

Reporting No. : 51 Sample No. : 20

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

pe	netration	stress on piston (Mpa				
mm	Inch	suces on piston (Mpa)				
0.64	0.025	2.00				
1.27	0.050	2.17				
1.91	0.075	2.42				
2.54	0.100	2.55				
3.18	0.125	2.84				
3.81	0.150	3.02				
4.45	0.175	3.25				
5.08	0.200	3.52				
5.71	0.225	3.75				
6.35	0.250	3.98				

CBR Result	Si	CBR %		
At 0.1 inch (2.54 mm) penetration	St. Value	Sample results	36.9	
	6.90	2.55		

Notes:

Attached graph shows penetration resistance versus penetration magnitude.

The sample was compacted to dry density of 2.13 (gm/cm³) at 8.6 % optiming system content.

3- Surcharge loaded to Kigh

Signature معمد مدين الاخلي المعامد الاخلي المعامد الاخلي المعامد الاخلي المعامد المعا

3 El Malek El Afdal Street Zamalek, Cairo,



: EGYPTIAN UNITED GROUP mpany Name project

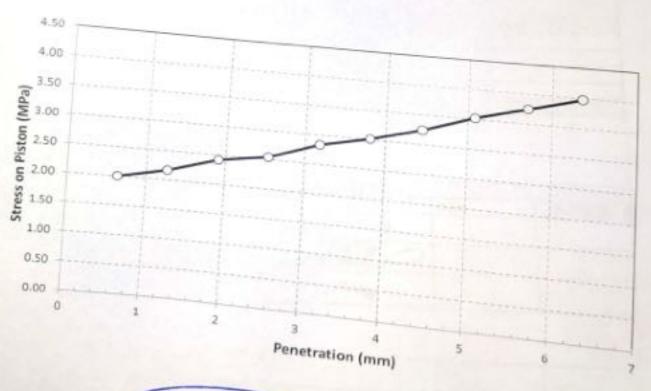
: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Type of sample : Soil Replacement (Embankment)

Location

: St. (476+640) **Delivery Date** : 21/09/2022 Reporting Date : 27/09/2022 Reporting No.

: 51 Sample No. : 20

Load Penetration Curve of CBR Test ASTM D-1883



Signature













Contractor Company	United Egyption Foundation				Designer Company				SGAC			
Issued by Contractor	Name	Sign	Sign 4						Time			
	Mahmoud Shawish		4		17	10	.70	22				
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			1-From station475+740 to station 476+880 (-5) 2-From station476+540 to station 476+660 (-4)									
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File: MIR - 5000 m3

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Page 1 of 1

ATERIAL نفره و الأكوار الأموان و الأكوار INSPECTION REQUEST Designer Company Contractor **SGAC** United Egyption Foundation Company Time Date Name Issued by Contractor Mahmoud Shawlesh Received by MIR ER Kp XXX Rote D1 to 53 CODE-1 51 to 521 Depot Reference For Kilometer point only Start Kim is used Station Reference Work Activity **Sub Element of Activity** CODE-1 Fill material results Description of Materials 1-From station475+900 to station 476+000 (-2) 2-From station476+000 to station 476+080 (-2) 3-From station476+200 to station 476+320 (-2.5) Location to be Used 3-From station476+900 to station 476+000 (-1.75) 4-From station475+740 to station 476+880 (-5) 5-From station476+540 to station 476+660 (-4 MAR Approval No Date Supplier Name Test Requirement Specification Clause Reference Photos Yes attached / No Other Item Description Unit Quantity Arrival Date CBR m3 10000 Comments by:

Asample has been taken form fill material by SGAC office to (CEL) lab and the results founded meet the specificontions and accepted

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Kamel Shehab	Kan >		
QA/QC*	Hamel	121		
GAR8**	Eng/ Mostafa Negm	Cy		
Comment by ER				
Employers Representative				

APPROVAL STATUS

Comments by:

File: MIR - 10000 m3

15/



: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : EGYPTIAN UNITED GROUP Company Name

Project

: Soil Replacement (Embankment) Type of sample

: St. (475+540) Location : 11/10/2022 Delivery Date

: 17/10/2022 Reporting Date

: 53 Reporting No. : 22 Sample No.

Dear Gentleman,

Attached here with the Soil Replacement delivered on 11/10/2022

Materials test

- Sieve analysis according to ASTM D-422.
- 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 /

3 El Malek El Afdul Street Zamalek, Cairo.





Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (475+540)
Delivery Date : 11/10/2022

Reporting Date : 17/10/2022

Reporting No. : 53 Sample No. : 22

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	92.8
25	81.9
19	76.8
12.50	72.1
9.50	64.6
4.75	43.8
2.36	41.2
2.00	40.8
1.18	37.6
0.600	33.2
0.425	31.7
0.300	24.4
0.150	19.1

مقتب معلىل الإستشارات الهلامية

Signature / January 1937

3 El Malek El Afdal Street Zamalek, Cairo.





Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (475+540)

Delivery Date : 11/10/2022

Reporting Date : 17/10/2022

Reporting No. : 53 Sample No. : 22

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)	12.9

Signature /

مئتب معلى الاستشرات الهنسوة

تر تنسيدل فشريبي: 427 - 401 - 210 - 210 مريخ الزاميس : 2 شفوع شاك الاختال - الأملاك - القاعرة

3

3 El Malek El Afdal Street Zamalek, Cairo.



Annial Cities in

Consulting Engineering Bureau & Laboratories مكتب معامل الاستشارات الهندسية

Company Name : EGYPTIAN UNITED GROUP

Project

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Type of sample

: Soil Replacement (Embankment) Location : St. (475+540)

Delivery Date : 11/10/2022 Reporting Date : 17/10/2022

Reporting No. : 53 Sample No. : 22

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

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

Signature



Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (475+540)

Delivery Date : 11/10/2022

Reporting Date : 17/10/2022

Reporting No. : 53 Sample No. : 22

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	2012m-0	ccording is Specs
Group Classification	A-1-b	(A-1-a)	(A-1-b)
2.00 mm (No.10).	40.8	Max 50 %	
0.425 mm (No. 40).	31.7	Max 30 %	Max 50 %
0.075 mm (No. 200).	12.9	Max 15 %	Max 15 %
Characteristics of fraction passing 0.4	25 mm (No.40))	
Liquid Limit	NP	10	2
Plasticity index	NP	Max 6 %	Max 6 %

The test results are (Comply - Dot Comply) with specifications limits

معتب معامل الإستشارات الهلاسية السياحل الشمالي

Signature

IAS



Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

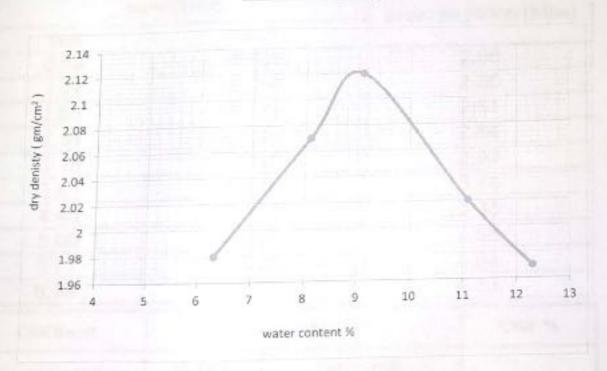
Location : St. (475+540)

Delivery Date : 11/10/2022

Reporting Date : 17/10/2022

Reporting No. : 53 Sample No. : 22

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



Max dry density (gm/cm²) : 2.12

Optimum moisture content % : 9.1

مكتب معامل الاستشارات الونعسوة السماحل الشمالي

Signature /

داد مسجد هندست: 257- 100-100 وقد عندس : 3 همار معصور المعادد

3 El Malek El Afdal Street Zamalek, Cairo.

Tel.& Fax: 27367231 - 27363093



6



Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (475+540)

Delivery Date : 11/10/2022

Reporting Date : 17/10/2022

Reporting No. : 53 Sample No. : 22

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

per	netration	stress on piston (Mpa)	
mm	Inch	Sucss on piston (Wpa	
0.64	0.025	2.08	
1.27	0.050	2.30	
1.91	0.075	2.51	
2.54	0.100	2.84	
3.18	0.125	2.96	
3.81	0.150	3.14	
4.45	0.175	3.38	
5.08	0.200	3.58	
5.71	0.225	3.83	
6.35	0.250	4.13	

CBR Result	Stress (Mpa)		CBR %	
At 0.1 inch (2.54 mm)	St. Value	Sample results		
penetration	6.90	2.84	41.1	

tes:

1- Attached graph shows penetration resistance versus penetration magnitude.

 The sample was compacted to dry density of 2.12 (gm/cm³) at 9.1% optimum system content.

3- Sarcharge load 4.50 Kg

nature

م صدر مدرس: 377 - 200 - 219 مرود و219 درود تروس : 3 مدع در 4 مرود و219 مرود و

-7

Il Malek El Afdal Street malek, Cairo.

& Fax: 27367231 - 27363093





Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

spe of sample : Soil Replacement (Embankment)

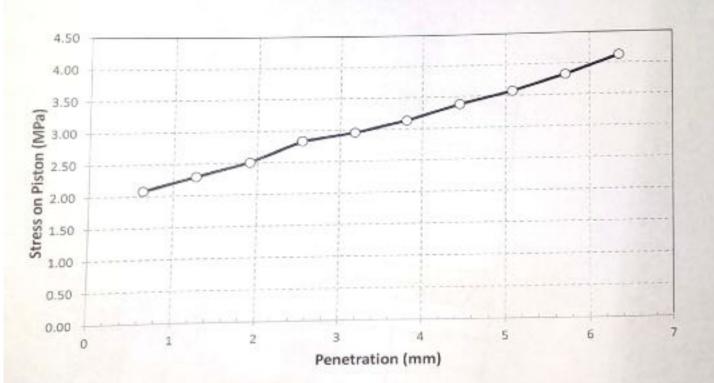
St. (475+540)

pelivery Date : 11/10/2022

Reporting Date : 17/10/2022

Reporting No. : 53 Sample No. : 22

Load Penetration Curve of CBR Test ASTM D-1883



8

3 El Malek El Afdal Street Zamalek, Cairo.



-MATERIAL INSPECTION REQUEST





مرکز الاستشارات المنصور تنظر و شارت و شرق (شرب بیلین) (گالوا) دهند الجنوشنان





Contractor Company	United Egypt	ion Fo	undatio	on	Desi	igner (Compa	any	SGA	C		
Issued by	Name	Sign	10	-	Date				Time			
Contractor	Mahmoud Shawish		K		6.	11.	2.	22				
Received by ER				MIR	C1	Q	CI	DD	ММ	YY	нн	MM

COBE-1	51 to 521 Station Reference	D1 to 53 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2		Work Activity	
CODE - 3		Sub Element of Activity	

De	scription of Materials	Fill material r				results	
Location to be Used 1-From station47 2-From station47 3-From station47) to sta	tion 476+740	(-4)	
MAF	R Approval No					Date	
Supp	olier Name						
Test	Requirement			Speci	fication	Clause	
Refer	rence Photos	Yes attached / No		Other			
tem	Description		Unit	t	Quantity	Arrival Date	Note
	LL& P.L & O.M.C %		m3		5000		
	Proctor		m3		5000	Al II	
	Classification	m:			5000		
	Seive analysis		m3		5000		

Comments by: Comments by:

Asample has been taken form fill material by SGAC office o (CEL) lab and the results founded meet the pecificontions and accepted

		APPROVAL STATUS		
rganisation	Name	Sign	Date	A-AWC-R
ontractor	Kamel Shehab	Kam -		
A/QC *	Ramel	Ang	0	1 19
RB**	Eng/ Mostafa Negm	1 Ciny		
mment by ER				
ployers resentative				

fiR - 5000 m3

Page 1 of 1



Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

: Soil Replacement (Embankment) Type of sample

: St. (476+000) Location

: 01/11/2022 **Delivery Date** : 06/11/2022 Reporting Date

: 54 Reporting No. : 23 Sample No.

Dear Gentleman,

Attached here with the Soil Replacement delivered on 01/11/2022

Materials test

1. Sieve analysis according to ASTM D-422.

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.

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

> CEL مكتب معامل الاستثمارات الهندسية المساحل الشسالي

Signature

3 El Mulek El Afdal Street Zamalek, Cairo.





Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+000)
Delivery Date : 01/11/2022

Reporting Date : 06/11/2022

Reporting No. : 54 Sample No. : 23

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
	100
37.5	96.6
25	83.7
19	70.6
12.50	62.9
9.50	59.1
4.75	40
2.36	38.2
2.00	37.3
1.18	33.7
0.600	30.9
0.425	29.1
0,300	25.8
0.150	19.3

Signature /

معتب معضل الاستشرات الهنسسية المسلطى الشيمالي رغ صور فعريف 1994 - 1994 عليه رضور تدييس : 5 فوج الملك الإثنان - الواكل - طلك

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





Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+000)

Delivery Date : 01/11/2022

Reporting Date : 06/11/2022

Reporting No. : 54 Sample No. : 23

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)	11.8

معتب معلى الإستشرات الهنسية المعتبر معلى المعتبر المع

3



Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+000)

Delivery Date : 01/11/2022

Reporting Date : 06/11/2022

Reporting No. : 54 Sample No. : 23

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

	The second secon	
Test	Results (%)	À
Liquid Limit	NP	
Plastic Limit	NP	41
Plasticity Index	NP	

معتب معامل الإسطاعيات الهندسية المساهل الشوائي ... / Dature ... معامل المساهل الشوائي / 375-350 معامل معامل المساهل الم

Malek El Afdal Street alek, Cairo.

k Fax: 27367231 - 27363093



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۳ ش الملك الأفضل الزمالك - القاهرة تليفون + فاكس ، ۲۷۳۱۷۲۳۱ - ۲۷۳۱۳۰۹۳ www.cel-egypt.com



Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+000)

Delivery Date : 01/11/2022 Reporting Date : 06/11/2022

Reporting No. : 54 Sample No. : 23

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)		ts Specs
Group Classification	A-1-a	(A-1-a)	(A-1-b)
2.00 mm (No.10).	37.3	Max 50 %	
0.425 mm (No. 40).	29.1	Max 30 %	Max 50 %
0.075 mm (No. 200).	11.8	Max 15 %	Max 15 %

Characteristics of fraction passing 0.425 mm (No.40)

Liquid Limit	NP	PRESSE	
Plasticity index	NP	Max 6 %	Max 6 %

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

مكتب معلمل الإستشار فتر الونعب السياحل الشيصائي

رام هنسمال هنرویی: 937 - 941 - 948 نحر از عربیس : 3 شارع فران والای والای

nature /

Malek El Afdal Street mick, Cairo.

& Fax: 27367231 - 27363093



٣ ش الملك الأفضل الزمالك - القاهرة تليفون + فاكس ، ٢٧٣٦٧٢٣١ - ٢٧٣٦٢٠٩٣ تليفون + فاكس ، ٣٣٣٠.cel-egypt.com



: EGYPTIAN UNITED GROUP any Name

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

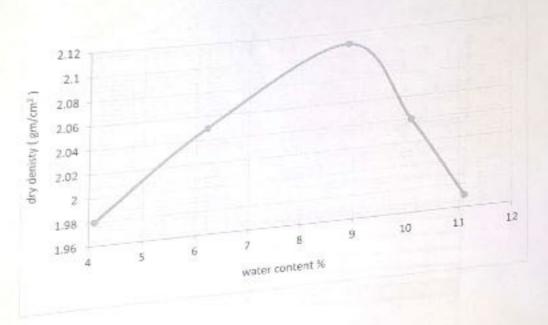
of sample : Soil Replacement (Embankment)

: St. (476+000) ocation

pelivery Date : 01/11/2022 geporting Date : 06/11/2022

Reporting No. : 54 Sample No. : 23

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



: 2.11 Max dry density (gm/cm2)

: 8.9 Optimum moisture content %

Signature

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ي فن البلك الأفضل الزمالك - القاهرة تَلْيِفُونُ + فَاكْسُ : ٢٦٧٢٣١ www.cel-egypt.com













Contractor Company	United Egypt	ion Foundatio	on	Desi	gner (ompa	ny	SGA	C		
Issued by	Name	Sign	-	Date				Time			
Contractor	Mahmoud Shawish	8	- In-	6	11.	20	D				
Received by ER			MIR	CI	E2	C3	00	NAM.	YY	НН	MM

CODE 1	S1 to S21 Station Reference	D1 to 53 Depet Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2		Work Activity	
CODE -3		Sub Element of Activity	

Desc	ription of Material	S		Fill	material	results			
Local	ion to be Used	1-From station47 2-From station47							
MAR	Approval No					Dat	e		
Suppl	ier Name								
Test F	Requirement			Specific	ation	Cla	use		
Refer	Reference Photos Yes attached / No			Other					
Item	Description		Unit		Quantity	Arrival	Date	Note	
1	LL & P.L & O.M.	%	m3		5000				
2	Proctor		m3		5000				
3	Classification		m3		5000				
4	Seive analysis	alysis		m3 5000					
Comm	ents by:		-	Co	Comments by:				
to					VILLE				
Oceani	sation Name		-	ALSIA	105	10	ate		A-AWC-R
Organi			Sign			-	late		A-MIVL-N
Contra	ctor	Kamel Shehab	1 k	land		>			
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omme	nt by ER								
mploy	ers		1						

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Page 1 of 1

MATERIAL INSPECTION REQUEST









Contractor Company	United Egypti	ion Found	ation	Des	igner (Compa	iny	SGA			
Issued by	Name	Sign K	-	Date	e			Time			
Contractor	Mahmoud Shawlesh	D		6	11.	20	-7				
Received by ER			MIR	cı	(2)	C3	00	MM	AA.	HH	MM
CODE-1	51 to 521 Station Reference	Di to s Depot Refe		53 erence For Kilom				Kp XXX Note eter point only Start Km is used			
CODE-2			Work Activ	vity		041007	-00140	1000			
CODE - 3			Sub Element of	Activit	y .						

CODE - 3				Sub Eleme	nt of Activity				
Description	of Materials	1			Fill material	results			
Location to I	be Used	1-From station4 2-From station4 3-From station4 4-From station4 5-From station4	76+640 t 76+000 t 76+740 t	o statio o statio o statio	n 476+740 n 476+100 n 476+860	(-4) (-1.75) (-4.5)			
MAR Approv	al No					Date			
Supplier Nan	ne								
Test Require	ment			Specifica	stion	Clause	e		
Reference Ph	otos	Yes attached / No	-	Other					
Item Descr	iption		Unit		Quantity	Arrival Date	Note		
1 CBR			m3		10000				
Comments by	r			Con	nments by:				
o (CEL)	been taken for lab and the s and accepte	rm fill material by SG results founded me d	AC office et the						
			APPROV	AL STAT	US				
Organisation	Name		Sign	VI TILLIAN TO		Date	A-AWC-R		
ontractor	K	amel Shehab	Ka	M	No o				
A/QC*	1	Land	1	1	9				
ARB**	Eng/	Mostafa Negm	1	/	Wy .				
omment by EF									
nployers									

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Page 1 of 1



Consulting Engineering But مكتب معامل الإستشارات الهندسية

Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

Type of sample : Soil Replacement (Embankment)

: 06/11/2022

Location : St. (476+300) Delivery Date : 01/11/2022 Reporting Date

Reporting No. : 55 Sample No. : 24

Dear Gentleman,

Attached here with the Soil Replacement delivered on 01/11/2022

Materials test

1. Sieve analysis according to ASTM D-422.

- 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 /

مكتب معضل الاستشارات الهلد

والراس : و غاوم صله العدن - الرحه - عالم



Company Name : EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Project : Soil Replacement (Embankment) Type of sample

: St. (476+300) Location

: 01/11/2022 Delivery Date : 06/11/2022 Reporting Date

Reporting No. : 55 : 24 Sample No.

Results of Sieve Analysis According to ASTM D-422.

Sieve Size	Passing %
(mm)	100
50	88.2
37.5	81.7
25	72.7
19	
12.50	65.3
9,50	61.1
	41.6
4.75	41.2
2.36	38.8
2.00	36.5
1.18	32.9
0.600	
0.425	30.2
0.300	24.1
0.150	17.6

Signature

On

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





Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

: Soil Replacement (Embankment) Type of sample

: St. (476+300) Location

: 01/11/2022 **Delivery Date** : 06/11/2022 Reporting Date

: 55 Reporting No. : 24 Sample No.

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

	Regular
Test	Results (%)
	44
Percentage of material finer than Sieve Size 75 μΜ (No.200)	12.3

Signature

iont



Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+300)

Delivery Date : 01/11/2022 Reporting Date : 06/11/2022

Reporting No. : 55 Sample No. : 24

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

Chadliferine Test	1.10	Results (%)	
Liquid Limit	30.1	NP	Alay S
Plastic Limit	162.0	NP	
Plasticity Index	2 425 Inn (750.5)	NP	

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3 El Malek El Afdal Street Zamalek, Cairo.





: EGYPTIAN UNITED GROUP Company Name

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

: Soil Replacement (Embankment) Type of sample

: St. (476+300) Location

Delivery Date : 01/11/2022 : 06/11/2022 Reporting Date

Reporting No. : 55 : 24 Sample No.

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	232830000000000000000000000000000000000	ets Specs		
Group Classification	A-1-b	(A-1-a)	(A-1-b)		
2.00 mm (No.10).	38.1	Max 50 %	*****		
0.425 mm (No. 40).	30.2	Max 30 %	Max 50 %		
0.075 mm (No. 200).	12.3	Max 15 %	Max 15 %		
Characteristics of fraction passing 0.4	125 mm (No.40))			
Liquid Limit	NP				
Plasticity index	NP	Max 6 %	Max 6 %		

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

Signature /

الساحل الشمال

مكتب معامل الاستضارات الهلدم

3 El Malek El Afdal Street Zamalck, Cairo.





ompany Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

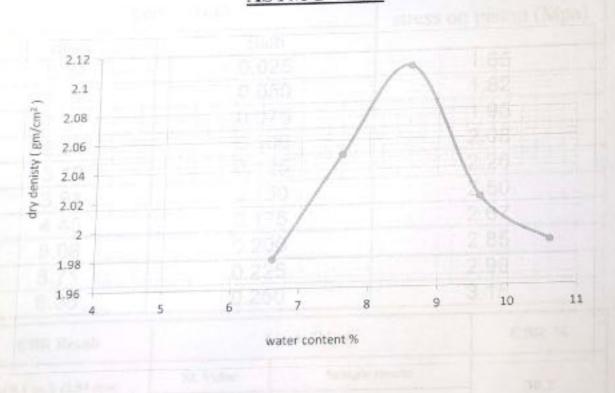
Type of sample : Soil Replacement (Embankment)

Location : St. (476+300)

Delivery Date : 01/11/2022 Reporting Date : 06/11/2022

Reporting No. : 55 Sample No. : 24

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



Max dry density (gm/cm²) ; 2.11

• Optimum moisture content % : 8.6

Signature

معنى معلى الاستشعرات البندسية السماحل الشمالين دام عسماد المدين المالية المالية المالية المراد المدين المالية المالية

CEL

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3 El Malek El Afdal Street Zamalek, Cairo.





مكتب معامل الإستشارات الهندسية

Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment) Location

: St. (476+300) **Delivery Date** : 01/11/2022

Reporting Date : 06/11/2022

Reporting No. : 55 Sample No. : 24

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

pen	etration	stress on piston (Mpa)
mm	Inch	Shess on piston (si-pa)
0.64	0.025	1.65
1.27	0.050	1.82
1.91	0.075	1.95
2.54	0.100	2.08
3.18	0.125	2.26
3.81	0.150	2.50
4.45	0.175	2.67
5.08	0.200	2.85
5.71	0.225	2.98
6.35	0.250	3.15

CBR Result	CBR %			
At 0.1 inch (2.54 mm)	St. Value	Sample results	20.2	
penetration	6.90	2.08	30.2	

tes:

Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was Compacted to dry density of 2.11 (gm/cm³) at 8.6 % optimum water content.

3- Surcharge load 4.50

gnature

El Malek El Afdal Street Zamalek, Cairo.





: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : EGYPTIAN UNITED GROUP Company Name

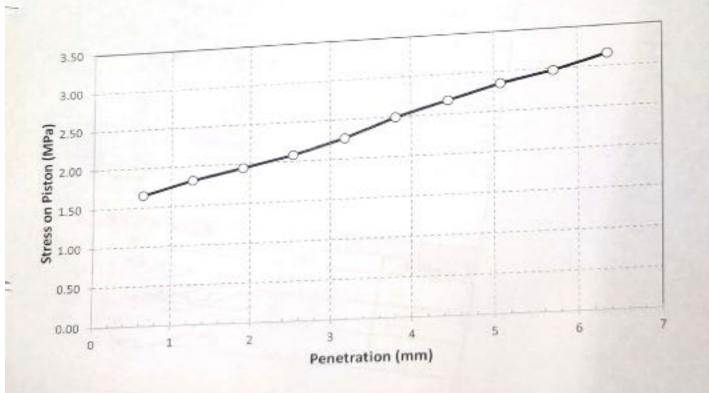
Project

: Soil Replacement (Embankment) Type of sample

: St. (476+300) Location : 01/11/2022 Delivery Date : 06/11/2022 Reporting Date

: 55 Reporting No. : 24 Sample No.

Load Penetration Curve of CBR Test ASTM D-1883



Signature



MATERIAL INSPECTION











Contractor Company	United Egyption Foundation		Des	igner (ompa	any	SGA				
Issued by	Name	Sign MS		Date			Time				
Contractor Mahmoud 5	Mahmoud Shawish	1		23	. 11	2	12	111111			-
Received by		-0		CI	(2	(3)	00	MM	77	100	
ER			MIR			250	11111111			НН	MM
CODE-1									_		

CODE-1 S1 to 521	D1 to S3	
CODE = 2 Station Reference	Depot Reference	Enr Kilomete
CODE-3	Work Activity	For Kilometer point only Start Km is used
Picture Con-	Sub Element of Activity	The state of the s

Des	scription of Materia	ls		Fill	material	results	
Loca	ation to be Used	1-From station4 2-From station4	1-From station477+840 to station 478+000 (-4 2-From station476+980 to station 477+100 (-5				
MAF	R Approval No						
Supp	olier Name				_	Date	
Test	Requirement		5	Specifica	tion	Clause	
Refer	Reference Photos Yes attached / No			Charles and the		Ciause	
Item	Description	· Courtagned / N	277	Other			
1	LL&PL&O.M.C	0/	Unit		Quantity	Arrival Date	Note
2	Proctor	76	m3		5000		14040
3	Classification		m3		5000		
4			m3		5000		
Comm			m3	m3 5000 Comments by:			
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ontrac	tor K	amel Shehab	V.			Date	A-AWC-I
A/QC		Lamel	Kan	14	21		
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Page 1 of 1

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Page 1 of 1

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Consulting Engineering I مكتب معامل الإستشارات الهندسية

Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

Type of sample : Soil Replacement (Embankment)

Location : St. (476+980) **Delivery Date** : 17/11/2022 Reporting Date : 23/11/2022

Reporting No. : 57 Sample No. : 26

Dear Gentleman,

Attached here with the Soil Replacement delivered on 17/11/2022

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

مكاتب معامل الإستشارات المله

Signature /

3 El Malek El Afdal Street Zamaiek, Cairo.





Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

: Soil Replacement (Embankment) Type of sample

: St. (476+980) Location : 17/11/2022 **Delivery Date** : 23/11/2022 Reporting Date

Reporting No. : 57 : 26 Sample No.

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %				
50	100				
37.5	95.1				
25	86.3				
19	76.2				
12.50	71.4				
9.50	63.2				
4.75	45.8				
2.36	43.3				
2.00	39.7				
1.18	34.1				
0.600	32.5				
0.425	31.2				
0.300	25.1				
0.150	18.4				

Signature

CEL مكتب معشل الإستشغرات الهذ

الله و المراج الله الافتال - الاسلام - الاسلام - الله

3 El Malek El Afdal Street Zamalek, Cairo.





Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+980)

Delivery Date : 17/11/2022 Reporting Date : 23/11/2022

Reporting No. : 57 Sample No. : 26

> 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)	12.4

Signature/.

مكتب معلى الاستهاري المناسط المساحل المشعالي داره مد ودرس ۱۵۷ - ۱۵۹ - ۱۵۹ شود ودرس : ۵ شوع شده الاشن - الاردي - المار

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Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+980)

Delivery Date : 17/11/2022

Reporting Date : 23/11/2022

Reporting No. : 57 Sample No. : 26

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

		11888	
Test	A-1-0	Results (%)	(10)
Liquid Limit	31.2	NP	Min
Plastic Limit	114	NP	Mai
Plasticity Index	THE RELEASE	NP	1

Signature

مكتب معلىل الاستشارات الهندسية السماحل الزئيموالي

در صدر فنرس ۱۳۵۱ - ۱۳۹۱ - ۱۳۹۱ سرد دراس : ۱۵ فارع شده اواسات - ازراد - عندر

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

IAS ACCREDITED



Consulting Engineering Bureau & Laboratories

مكتب معامل الإستشارات الهندسية Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Type of sample : Soil Replacement (Embankment)

Location

: St. (476+980) **Delivery Date** : 17/11/2022 Reporting Date : 23/11/2022

Reporting No. : 57 Sample No. : 26

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits a Project	ccording ts Specs		
Group Classification	А-1-ь	(A-1-a)	(A-1-b)		
2.00 mm (No.10).	39.7	Max 50 %			
0.425 mm (No. 40).	31.2	Max 30 %	Max 50 %		
0.075 mm (No. 200).	12.4	Max 15 %	Max 15 %		
Characteristics of fraction passing 0.4	125 mm (No.40))			
Liquid Limit	NP	*****	Pennsy		
Plasticity index	NP	Max 6 %	Max 6 %		

The test results are (a Comply | Not Comply) with specifications limits مكتب سعشال الإستشارات

Signature

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مكتب معامل الإستشارات الهندسية

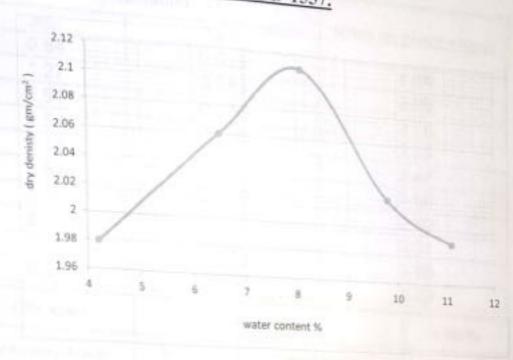
Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Type of sample Location

: St. (476+980) **Delivery Date** : 17/11/2022 Reporting Date : 23/11/2022

Reporting No. : 57 Sample No. : 26

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



Max dry density (gm/cm²)

Optimum moisture content %

مكتب معشل الإستشغرات اله

Signature /

الساحل الشمال

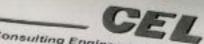
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company Name : EGYPTIAN UNITED GROUP

project

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh type of sample

Location : St. (476+980) Delivery Date : 17/11/2022 Reporting Date : 23/11/2022

Reporting No. : 57 Sample No. : 26

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

penetr	ration	
mm Inch 0.64 0.025 1.27 0.050 1.91 0.075 2.54 0.100 3.18 0.125	stress on piston (Mpa)	
0.64	0.025	1.00
1.27		1.89
1.91		2.08
		2.18
		2.35
	The state of the s	2.44
3.81	0.150	2.58
4.45	0.175	2.80
5.08	0.200	3.01
5.71	0.225	3.18
6.35	0.250	3.29

CBR Result	ress (Mpa)	CBR %				
At 0.1 inch (2.54 mm)	St. Value	Sample results	34.1			
penetration	6.90	6.90 2.35				

Notes:

Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was compacted to dry density of 2.11 (gm/cm3) at 8.1 % optimum of the content.

3- Surpharge load 4:50

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مكتب معامل الإستشارات الهندسية Company Name : EGYPTIAN UNITED GROUP

project

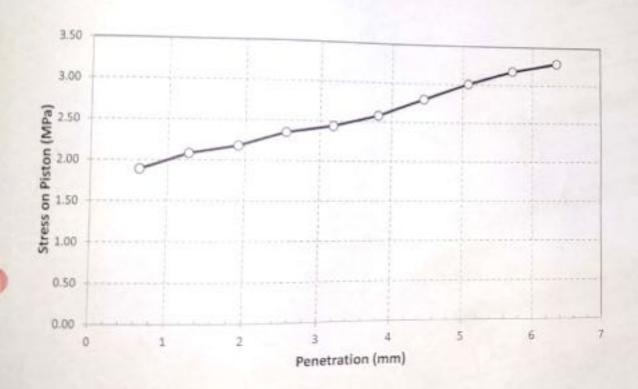
: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Type of sample

Location : St. (476+980)

Delivery Date : 17/11/2022 Reporting Date : 23/11/2022

Reporting No. : 57 Sample No. : 26

Load Penetration Curve of CBR Test ASTM D-1883



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Contractor Company	United Egyption Foundation		Designer Company				SGAC					
Issued by	Name	Sign	110	,	Date				Time			
Contractor	Mahmoud Shawish	5			6	. 12	. 20	20				
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CODE-1	S1 to S21 Station Reference	D1 to 53 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used				
CODE - 2		Work Activity					
CODE - 3		Sub Element of Activity					

Description of Materials		Fill material results									
Location to be Used		1-From station477+100 to station 477+220 (-5) 2-From station476+340 to station 476+540 (-2)									
MAR	Approval N	Vo.					_	Date			
Supp	lier Name										
Test Requirement			Specification			Clause					
Reference Photos		05	Yes attached / No	No Oth		ther		1 -1-10			
item	Descripti	on		Uni	1	Quantity	A	rrival Date	Note		
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Page 1 of 1



Contractor











Designer Company



SGAC

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CODE - 3					Sub	Element o	Activity						-		
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Supplier Name															
Test Requirement				Specification			Clause								
Reference Photos Yes attached / No				d/No	Other										
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Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

: Soil Replacement (Embankment) Type of sample

: St. (476+100) Location : 30/11/2022 **Delivery Date**

: 06/12/2022 Reporting Date

: 59 Reporting No. : 28 Sample No.

Dear Gentleman,

Attached here with the Soil Replacement delivered on 30/11/2022

Materials test

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.

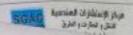
Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signatur

مكتب معامل الإستشاقرات الهلد

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Company Name : EGYPTIAN UNITED GROUP Project

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Type of sample

: Soil Replacement (Embankment) Location

: St. (476+100) **Delivery Date** : 30/11/2022 Reporting Date : 06/12/2022

Reporting No. : 59 Sample No. : 28

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	
25	95.8
19	84.1
	74.1
12.50	65.2
9.50	57.1
4.75	48.2
2.36	45.5
2.00	
1.18	43.1
	38.2
0.600	34.3
0.425	31.6
0.300	27.5
0.150	19.1

Signature /

CEL مكتب معامل الاستشارات البال

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Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+100)

Delivery Date : 30/11/2022

Reporting Date : 06/12/2022

Reporting No. : 59 Sample No. : 28

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

Test	Results (%)
Deventors of material finer than	
Percentage of material finer than Sieve Size 75 μM (No.200)	13.6

Signature /

السماحيل الشمالي دفروسيد النوس، 137 - 1919 و 192 عرف النوس ، 3 شرع الله اللفار - الروع - النام

مان معلن الاستارات

Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+100) **Delivery Date** : 30/11/2022 Reporting Date : 06/12/2022

Reporting No. : 59 Sample No. : 28

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

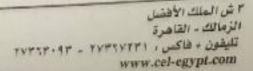
Test	Results (%)
Liquid Limit	NP
Plastic Limit	NP
Plasticity Index	NP

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Zamalek, Cairo.

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Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+100)

Delivery Date : 30/11/2022 Reporting Date : 06/12/2022

Reporting No. : 59 Sample No. : 28

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs	
Group Classification	A-1-b	(A-1-a)	(A-1-b)
	43.1	Max 50 %	******
2.00 mm (No.10).	31.6	Max 30 %	Max 50 %
0.425 mm (No. 40). 0.075 mm (No. 200).	13.6	Max 15 %	Max 15 %
Characteristics of fraction passing 0.		0)	
Liquid Limit	NP		
Plasticity index	NP	Max 6 %	Max 6 %

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

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Tel.& Fax: 27367231 - 27363093



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: EGYPTIAN UNITED GROUP Company Name

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

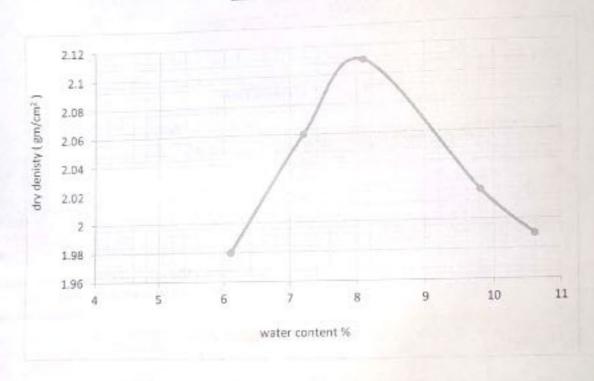
: Soil Replacement (Embankment) Type of sample

: St. (476+100) Location Delivery Date : 30/11/2022

Reporting Date : 06/12/2022

Reporting No. : 59 Sample No. : 28

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



Max dry density (gm/cm2) : 2.11

Optimum moisture content % : 8.1

Signature /

sar

مكثب معامل الإستشارات الهله المبلحل الشيمال

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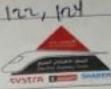












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Company Name : Egyptian United Group

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Delivery Date : 26-01-2023 Reporting Date : 06-02-2023

Reporting No. : 03 Sample No. : 02

Dear Gentleman,

Attached here with the Soil Replacement delivered on 26 / 01 / 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.

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

Signature

الساحل الورمالل المساحل المرسالل المرس

مكتب معامل الإستشارات الو

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Tel.& Fax: 27367231 - 27363093





Company Name : Egyptian United Group

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Delivery Date : 26-01-2023 Reporting Date : 06-02-2023

Reporting No. : 03 Sample No. : 02

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %		
50	97.8		
37.5	91.2		
25	85.2		
19	71.4		
12.50	62.3		
9.50	51.4		
4.75	38.9		
2.36	33.3		
2.00	31.4		
1.18	30.5		
0.600	28.5		
0.425	26.2		
0.300	21.7		
0.150	14.8		

مكتب معامل الإستشارات الولاسية الساحال الشمالي

=

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Company Name : Egyptian United Group

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Delivery Date : 26-01-2023 Reporting Date : 06-02-2023

Reporting No. : 03 Sample No. : 02

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)	10.8

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Tel.& Fax: 27367231 - 27363093





Consulting Engineering Bureau & Laboratories

Company Name : Egyptian United Group

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Delivery Date : 26-01-2023 Reporting Date : 06-02-2023

Reporting No. : 03 Sample No. : 02

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

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

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Tel.& Fex: 27367231 - 27363093





Name : Egyptian United Group

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

ope of sample : Soil Replacement (Embankment)

pelivery Date : 26-01-2023
Reporting Date : 06-02-2023

Reporting No. : 03 Sample No. : 02

Soil Classification According to Project Specs (Embankment)

TEST	Results		ccording ts Specs
Group Classification	(A-1-a)	(A-1-a)	(A-1-b)
	31.4	Max 50 %	******
2.00 mm (No.10). 0.425 mm (No. 40).	26.2	Max 30 %	Max 50 %
0.425 mm (No. 200).	10.8	Max 15 %	Max 15 %
Characteristics of fraction passing 0.4	125 mm (No.40)	
Liquid Limit	NP		******
Plasticity index	NP	Max 6 %	Max 6 %

The test results are to Comply Not Comply) with specifications limits

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: Egyptian United Group

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Company Name

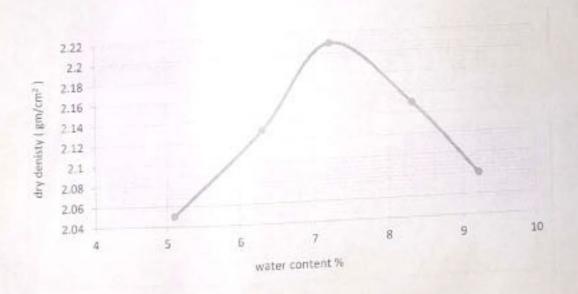
: Soil Replacement (Embankment) Project

Type of sample : 26-01-2023

Delivery Date : 06-02-2023 Reporting Date

: 03 Reporting No. : 02 Sample No.

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



Max dry density (gm/cm2) : 2.21

Optimum moisture content % : 7.2

Signature /

مكتب معامل الإستشارات اثهلا