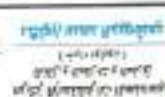


UNIVERSAL INSPECTION REQUEST



RECEIPT OF NOTIFICATION - Minimum Notice Period not less than 24 Hours

052-B-518

The Work described below will be complete and ready for inspection at planned time shown

Contractor Company		Egypt Stone CO. for contracting and roads paving		Designer Company	SGAC																		
Issued by		Name		Date	Time																		
Contractor		Mo hamed Elmaghrabi		29/10/2023	11:51																		
Received by ER		A.S		<table border="1"> <tr> <td>MM</td> <td>HH</td> <td>YY</td> <td>MM</td> <td>DD</td> <td>CS</td> <td>CS</td> <td>EW</td> <td>HP</td> </tr> <tr> <td>51</td> <td>11</td> <td>23</td> <td>10</td> <td>29</td> <td>05</td> <td>05</td> <td>05</td> <td>443</td> </tr> </table>		MM	HH	YY	MM	DD	CS	CS	EW	HP	51	11	23	10	29	05	05	05	443
MM	HH	YY	MM	DD	CS	CS	EW	HP															
51	11	23	10	29	05	05	05	443															
CODE-1		S1 to S21		D1 to S3		Depot Reference																	
CODE-2		Work Activity		Sub Element of Activity			Kg XXX Note For Kilometer point only Start Km is used																
CODE-3		Station Reference		D1 to S3			Depot Reference																

EXPLANATION OF WORK TO BE INSPECTED		
Description	Element	Item
FIRST LAYER SUBBALLAST (+0.70)	SUBBALLAST	from St (443+420) to St (443+520)

INSPECTION DETAILS	
Planned Inspection Date	Planned Inspection Time

COMPLIANCE EVIDENCE Must be included as appropriate	
☐ Checklist Attached ☐ Test Results Attached ☐ Calibration Attached ☐ Other as indicated	☐ ITP Reference ☐ MS Reference

Comments by:	Comments by:
Approved Mohamed Elmaghrabi 29/10/2023	Approved Mohamed Elmaghrabi 29/10/2023
Civil:	Material:
is a good quality material	the compaction test pass

INSPECTION RESULT					
Organisation	Name	Sign	Date	Time	Approval Status
Contractor	Mo hamed Elmaghrabi		29-10	3:11	A
QA/QC	midel		29-10	3:11	A
GAB	n-necm		29-10	3:11	A
Comments by ER	all work is done with a good quality material and the compaction test pass				
Employers Representative	A.S				A

* Designer
** Alignment Bridges: Current Only

EGYPT STONE FOR RIVER & TUNNEL		Electrical Express Train From El ALAMEIN City to FOKA From Station To Station 504+275 oA+394		مكتب ايد/ سعد الجيوشي	
التاريخ : / /		شركة (ايجيت ستون للتعبدين والتوريدات) قطاع المقاولات		مكتب ايد/ سعد الجيوشي	
		(+ +) الي الكم (+)			
		طلب استلام مساحة لطبقة منسوبها ()			
Station	MAIN ROAD	ABOVE	FERMA BY	0.70	
	LEFT EDGE		PGL	Slope R	RIGHT EDGE
	7.32	4.00	0.00	0.00	4.00
					7.32
443+420	33.834	33.967	34.127	-4.00%	33.957
قراءة تصحيحية					
قراءة قامة					
الفرق	-2	-2			-1
443+440	33.894	34.027	34.387	-4.00%	34.027
قراءة تصحيحية					
قراءة قامة					
الفرق	-2	-2			-1
443+460	33.994	34.247	34.447	-4.00%	34.087
قراءة تصحيحية					
قراءة قامة					
الفرق	-1	-1			-1
443+480	34.014	34.347	34.307	-4.00%	34.147
قراءة تصحيحية					
قراءة قامة					
الفرق	-1	-1			-1
443+500	34.074	34.367	34.567	-4.00%	34.207
قراءة تصحيحية					
قراءة قامة					
الفرق	-1	-1			-1
443+520	34.134	34.427	34.627	-4.00%	34.267
قراءة تصحيحية					
قراءة قامة					
الفرق	+2	-1	+1	+1	-1

EGYPT STONE
FOR RIVER & SUPPLIES
مطاع المقاولات
ESTABLISHED IN 1980

مطاع المقاولات
ESTABLISHED IN 1980

H-2



COORDINATES AND LEVELS FROM STATION 443+420 TO 443+520									
WL	CATCH L		CENTERLINE		CATCH R		WR		
	N	E	N	E	N	E			
7.32	922,518.19	379,237.13	922,501.59	379,235.45	922,503.60	379,014.54	7.32		
7.32	922,520.20	379,217.23	922,503.60	379,215.56	922,505.61	378,994.64	7.32		
7.32	922,522.21	379,197.33	922,505.60	379,195.66	922,507.62	378,974.74	7.32		
7.32	922,524.22	379,177.44	922,507.61	379,175.76	922,509.63	378,954.84	7.32		
7.32	922,526.23	379,157.54	922,509.62	379,155.86	922,511.63	378,934.94	7.32		
7.32	922,528.24	379,137.64	922,511.63	379,135.96	922,513.64	378,915.05	7.32		



2

SGAC Consultant Eng:-

Lab Contractor Ref: _____

Location of Tested Material

ASTM T27 & ASTM C-136

Station Represented :

Description :

Company:

443+420 TO 443+520

Sub Balast (First Layer)

Sample Date:

2023-10-22

2023-10-22

[illegible]

(ସାଧକ)
 ॥ମନ୍ତ୍ର ६॥ମୁକ୍ତି
 ॥ମୁକ୍ତି

१५५५/१५५६
 १५५६/१५५७
 १५५७/१५५८
 १५५८/१५५९



مختبر الجسور والبيئة (الطريق - الجسور) - 1405/500000

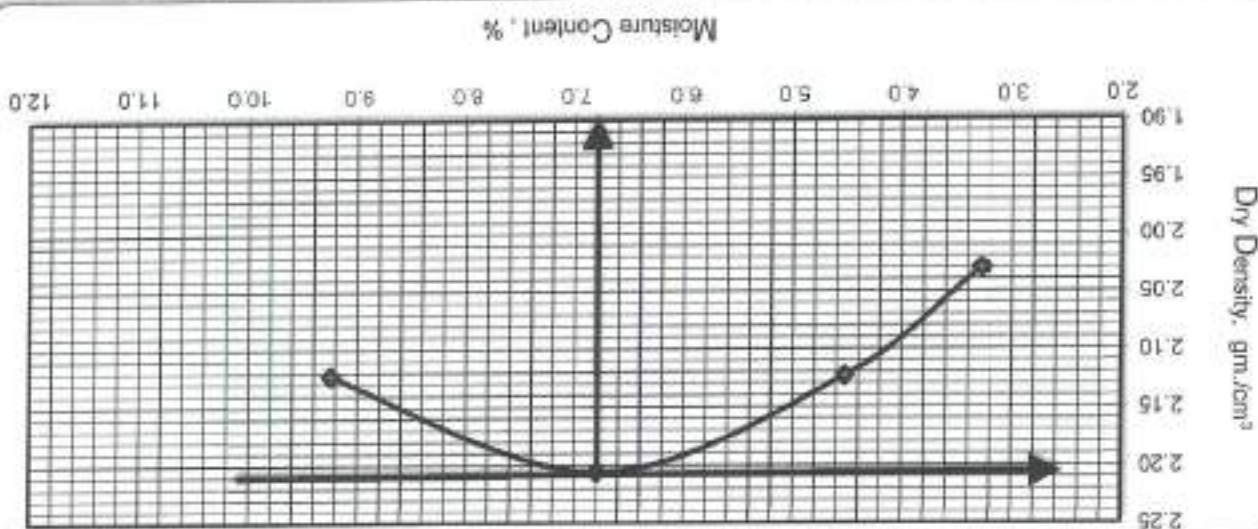
Company:	مختبر الجسور والبيئة
Description:	Sub Balast (First Layer)
Location Represented:	443+420 to 443+520
Report Date:	2023-10-23
Sample Date:	2023-10-22
Sample No:	

Laboratory Compaction Characteristics (Proctor) of Soil Sample

ASTM D 1557 - Method "C" 6 in. mold, 5 equal layers, each compacted by 56 blows
Using 10 lb. rammer dropped from 18 in. height, Producing a compactive effort of 56000 ft-lbf/ft³

Weight of PROCTOR Mold, gm	5590	Volume of PROCTOR Mold, cm ³	2120
----------------------------	------	---	------

Point No.	Weight of Soil + Mold, gm	Wet Density, gm/cm ³	Weight of Wet Soil Portion, gm	Weight after Drying, gm	Moisture Content, %	Dry Density, gm/cm ³
1	10035	2.097	107.3	103.9	3.3	2.030
2	10295	2.219	115.6	110.6	4.5	2.123
3	10585	2.356	182.3	170.7	6.8	2.206
4	10507	2.319	143.0	130.9	9.2	2.123
5						



Max. Dry Density= 2.206 gm/cm³ O.M.C= 6.8 %

CONSULTANT COMMENTS

Lab Contractor Eng.:-

SGAC Consultant Eng.:-



SGAC
Sulaymaniyah
Sulaymaniyah
Sulaymaniyah



شركة س.ج.ا.ع.م. (القطاع - فلسطين) - 45 كم / 2 ميل (45 كم - فلسطين) - 45 كم / 2 ميل (45 كم - فلسطين) - 45 كم / 2 ميل (45 كم - فلسطين)

Activity : كد : 1556

تاريخ الاختبار : 2023-10-25

Date

2023-10-25

Density and Unit Weight of Soil in Place by the Sand-Cone Method - ASTM D 1556

Company:	شركة س.ج.ا.ع.م. (القطاع - فلسطين)	Layer NO:	0.25
Description:	Sub Balast (First Layer)	Layer Thickness:	0.25
Station Represented:	443+420 TO 443+520	Sample Date:	2023-10-24

Modified Proctor Testing Results

Max. Dry Density, gm/cm ³	2.206	Optimum Moisture Content, %	6.80	Degree of Compaction Required, %	100%	Bulk Density of Specified Sand, gm/cm ³	1.484
--------------------------------------	-------	-----------------------------	------	----------------------------------	------	--	-------

Compaction Testing Results & Calculations

STATION	Hole No.	Wt. of Sand before Test, gm	Wt. of Sand After Test, gm	Wt. of Sand in Cone + hole, gm	Wt. of Sand in Cone	Wt. of Sand at hole, gm	Volume of the Hole, cm ³	Wt. of Soil from Hole, gm	Bulk Density of Soil, gm/cm ³	Moisture Content, %	Dry Density, gm/cm ³	Compaction, (%)
443+430	1	8003	4015	3988	1425	2563	1727	4074	2.358	6.7	2.211	100.2%
443+440	2	7897	4015	3882	1425	2457	1656	3918	2.366	6.8	2.216	100.4%
443+450	3	8048	4165	3883	1425	2458	1656	3916	2.364	6.7	2.216	100.4%
443+460	4	8164	4415	3769	1425	2344	1580	3755	2.377	6.8	2.226	100.9%
443+470	5	8305	4415	3690	1425	2465	1661	3936	2.370	6.7	2.221	100.7%
443+480	6	7656	3806	3850	1425	2425	1634	3856	2.360	6.6	2.214	100.3%
443+490	7	7363	3656	3708	1425	2283	1538	3660	2.379	6.7	2.230	101.1%
443+500	8	7892	3916	3876	1425	2551	1719	4078	2.372	6.7	2.223	100.8%

Acceptance Criteria

Comply

Not Comply

CONSULTANT COMMENTS

Lab Contractor Eng:-

SGAC Consultant Eng:-
SGAC Consultant Eng:-
SGAC Consultant Eng:-

الهيئة العامة للغذاء والدواء
Saudi Food & Drug Authority
(SFDA)

Activity : تاريخ اختبار التربة : Date : 2023-10-25

Density and Unit Weight of Soil in Place by the Sand-Cone Method - ASTM D 1556

Company:	الهيئة العامة للغذاء والدواء
Description :	Sub Ballast (First Layer)
Station Represented :	443+420 TO 443+520
Layer NO:	Sample Date : 2023-10-24
Layer Thickness:	0.25

Modified Proctor Testing Results

Max. Dry Density, gm/cm ³	Optimum Moisture Content, %	Degree of Compaction Required, %	Bulk Density of Specified Sand, gm/cm ³
2.206	6.80	100%	1.484

Compaction Testing Results & Calculations

STATION	443+510	443+520	Hole No.	9	10
Wt. of Sand before Test, gm	7851	7806	Wt. of Sand After Test, gm	3903	3940
Wt. of Sand in Cone + hole, gm	3948	3866	Wt. of Sand in Cone	1425	1425
Wt. of Sand at hole, gm	2623	2441	Volume of the Hole, cm ³	1700	1645
Wt. of Soil from Hole, gm	4042	3886	Bulk Density of Soil, gm/cm ³	2.377	2.362
Moisture Content, %	6.9	7.0	Dry Density, gm/cm ³	2.224	2.208
Compaction, (%)	100.8%	100.1%			

Acceptance Criteria ☒ Comply ☐ Not Comply

CONSULTANT COMMENTS

Lab Contractor Eng.:
STONE
الهيئة العامة للغذاء والدواء
Saudi Food & Drug Authority
(SFDA)

SGAC Consultant Eng.:
الهيئة العامة للغذاء والدواء
Saudi Food & Drug Authority
(SFDA)

Company Name : Egypt Stone

Project : Electric Express Train, from Al Ato Sokhna to Marsa Matruh

Type of sample : Sub-Ballast

Location : St. (441+600) : (444+600)

Delivery Date : 13/05/2023

Reporting Date : 20/05/2023

Reporting No. : 173

Sample No. : 07

Dear Gentleman,

Attached here with the Sub-Ballast delivered on 13/05/2023

Materials test

1. Sieve analysis according to ASTM D-422.
2. Material finer than sieve No. 200 according ASTM D-1140.
3. Liquid limits and plasticity index of soil according to ASTM D-4318.
4. Proctor test according to ASTM D-1557.
5. Specific Gravity & Absorption according to ASTM C-127 & D 6473.
6. CBR according to ASTM D-1883
7. Los Anglos according to ASTM C-131.

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

Signature /
[Signature]
[Stamp]



3 El Sheikh El Aghal Street
Zamalek, Cairo
Tel & Fax : 27367231 - 27367093

www.egyptstone.com
www.egyptstone.com
www.egyptstone.com

Company Name : Egypt Stone
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matruh

Type of sample : Sub-Ballast
Location : St. (441+600) : (444+600)

Delivery Date : 13/05/2023

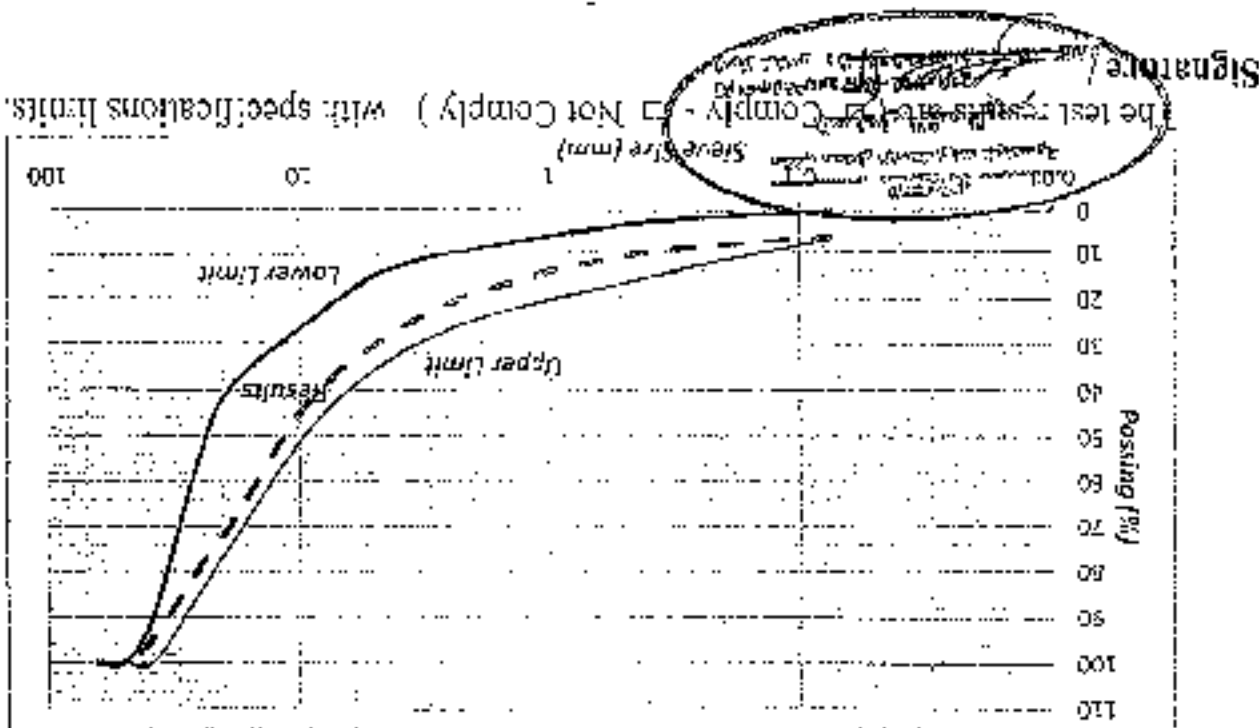
Reporting Date : 20/05/2023

Reporting No. : 173

Sample No. : 07

Results of sieve analysis according to ASTM D-422

Sieve Size (mm)	Passing %	Job specification limits (ASTM D-422)	
		Min.	Max.
63.5	100	100	100
50	100	100	100
38	94.7	50	100
25	79.6	33	85
19	70.3	40	75
12.5	54.1	—	—
9.5	43.8	26	50
4.75	29.6	5	35
2.00	19.3	9	25
0.425	10.5	3	16
0.075	6.0	0	7



Company Name : Egypt Stone
 Project : Electric Express Train, from Al Ain Soltana to Marsa Matrouh
 Type of sample : Sub-Ballast
 Location : St. (441+600) : (444+600)
 Delivery Date : 13/05/2023
 Reporting Date : 20/05/2023
 Reporting No. : 173
 Sample No. : 07

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

Test	Results (%)
Percentage of material finer than Sieve Size 75 μ m (No.200)	6.0

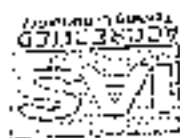
Signature: 
 Laboratory: 

Company Name : Egypt Stone Project
 Type of sample : Sub-Ballast
 Location : St. (441+600) : (444+600)
 Delivery Date : 13/05/2023
 Reporting Date : 20/05/2023
 Reporting No. : 173
 Sample No. : 07

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

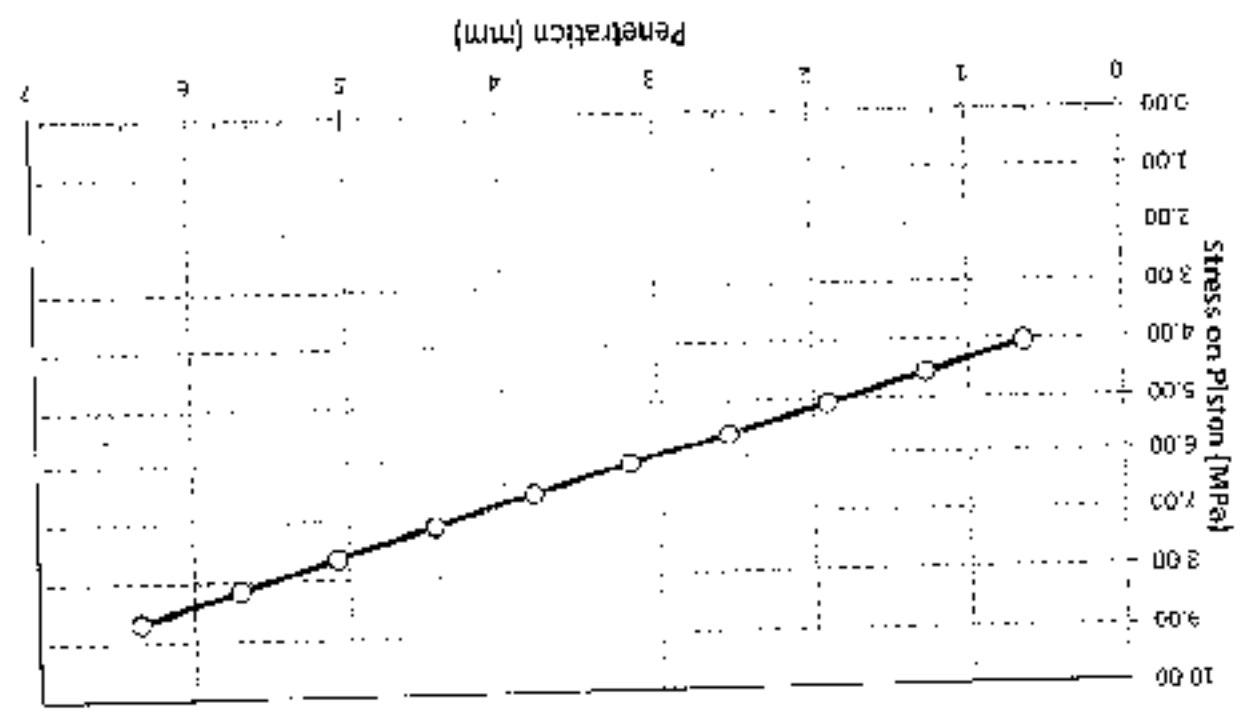


3 El Nakh El Agh Street
 Kameh, Cairo.
 Tel/Fax : 27367231 - 27363003

www.egar-egypt.com
 ٢٧٣٦٧٢٣١ - ٢٧٣٦٣٠٠٣
 كامي - القاهرة
 شارع النخ العا

Company Name : Egypt Stone
 Project : Electric Express Train, from Al Ain Sokhna to Marsa Matruh
 Type of sample : Sub-Ballast
 Location : St. (441+600) : (444+600)
 Delivery Date : 13/05/2023
 Reporting Date : 20/05/2023
 Reporting No. : 173
 Sample No. : 07

Load Penetration Curve of CBR Test
ASTM D-1883



Signature /
 [Signature]
 [Stamp]



1 El Nakh El Asad Street
 Zayed, Cairo
 Tel & Fax : 27367231 - 27363003

www.egypt-stone.com
 TYPING : 27367231 - 27363003
 E-MAIL : info@egypt-stone.com

Company: **EGYPT STONE**
 Project: Electric express train.

Delivery Date : 08/06/2023
 Report Date : 15/06/2023
 Sample Id : Sub-ballast sample No.4
 Type : Coarse Aggregate
 Source : Site
 Report No. : 04

**RESISTANCE TO DEGRADATION
 OF SMALL SIZE AGGREGATE BY ABRASION
 AND IMPACT IN LOS ANGELES MACHINE
 ASTM C 131**

Test	Results
Amount of loss by abrasion and impact (%)	27.4
Coarse Aggregate	

According to project specs :

The amount of loss by abrasion and impact for moderate weathering:
 • Shall not exceed 30 % (when subjected to 500 revolutions)

The Test Results is ☒ Comply ☐ Not Comply with Spec. Limits



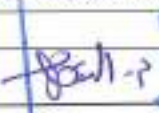
Signature



UNIVERSAL INSPECTION REQUEST				مركز الاستشارات المتكاملة للتخطيط العمراني والبنية التحتية (KPMG)	
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RECEIPT of NOTIFICATION - Minimum Notice Period not less than 24 Hours ES2-B-519

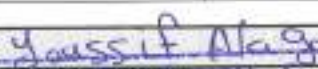
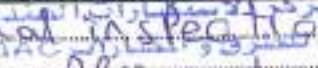
The Work described below will be complete and ready for inspection at planned time shown

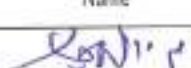
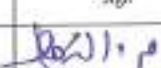
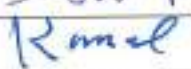
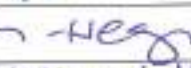
Contractor Company	Egypt Stone CO. for contracting and roads paving		Designer Company*	SGAC							
Issued by Contractor	Name	Signature	Date	Time							
			26-10-2023	10:00							
Received by ER		Signature	Signature	D1	C2	C3	DD	MM	YY	HH	MM
				Kp 443	E.W	C.S	29	10	2023	10	00
CODE-1	S1 to S21 Station Reference		D1 to S3 Depot Reference		Kp XXX Note For Kilometer point only Start Km is used						
CODE-2	Work Activity										
CODE-3	Sub Element of Activity										

EXPLANATION OF WORK TO BE INSPECTED		
Description	Element	Item
SECOND LAYER Sub Balast (+0.9)	SUBBALLAST	from St (443+420) to St (443+520)

INSPECTION DETAILS The Following will be ready at the Planned Inspection Time	
Planned Inspection Date	Planned Inspection Time

COMPLIANCE EVIDENCE Must be included as appropriate			
Checklist Attached ☐	Test Results Attached ☐	Calibration Attached ☐	Other as indicated ☐
Drawing Reference	ITP Reference	MS Reference	

Comments by: 	Comments by: 
Civil: 	Survey: 
Material: 	

INSPECTION RESULT						Approval Status	Please Tick If
Organisation	Name	Sign	Date	Time		A-AWC-R	Not Attend
Contractor			26-10-2023	1:00		A	
QA/QC*			26-10-2023	1:00		A	
GARB**			28-10-2023	1:00		A	
Comments by ER	All works under the contractor responsibility. The test results responsibility under which is under contractor has to submit final inspection and quantities.						
Employers Representative	S.A					AWC	☒

* Designer
** Alignment: Bridges: Culvert Only



Electrical Express Train From El ALAMEIN City to FOKA From Station
To Station 504+275 ٥٨٠+٣٩٤

شركة (ايجبت ستون للتعبدين والتوريدات) قطاع المقاولات

(+) (الي انكم) (+) (الطابع من انكم)

(0.25-) layer

طالب اسكلام مساحة لطيفة عنونها

مكتب ادم سعد الجورشي

Station	MAIN ROAD			ABOVE		FERMA BY		0.90		
	LEFT EDGE			PGL		Slope R		RIGHT EDGE		
	7.00	4.00	0.00	Slope L				0.00	4.00	7.00
443+420	34.047	34.167	34.327	-4.00%	34.327	-4.00%	34.327	34.327	34.167	34.047
قراءة تصحيحية										
قراءة قائمة										
الفرق	-									+
443+440	34.107	34.227	34.387	-4.00%	34.387	-4.00%	34.387	34.227	34.107	+
قراءة تصحيحية										
قراءة قائمة										
الفرق		+	-					-		
443+460	34.167	34.287	34.447	-4.00%	34.447	-4.00%	34.447	34.287	34.167	
قراءة تصحيحية										
قراءة قائمة										
الفرق	-	+	-			+				+
443+480	34.227	34.367	34.507	-4.00%	34.507	-4.00%	34.507	34.367	34.227	
قراءة تصحيحية										
قراءة قائمة										
الفرق		-	+							
443+500	34.287	34.407	34.567	-4.00%	34.567	-4.00%	34.567	34.407	34.287	
قراءة تصحيحية										
قراءة قائمة										
الفرق			-					+		-
443+520	34.347	34.467	34.627	-4.00%	34.627	-4.00%	34.627	34.467	34.347	
قراءة تصحيحية										
قراءة قائمة										



مشروع القطار السريع - غرب النيل

Station	443+420	443+440	443+460	443+480	443+500	443+520	443+540	443+560	443+580
Design	34.327	34.387	34.447	34.507	34.567	34.627	34.687	34.747	34.807
Forma level	33.427	33.487	33.547	33.607	33.667	33.727	33.787	33.847	33.907
BED CUT LEVEL	30.044	30.202	27.36	27.2	29.946	30.267	30.256	30.402	30.344
different	3.38	3.29	6.19	6.41	3.72	3.46	3.53	3.45	3.56
0	33.427	33.487	33.547	33.607	33.667	33.727	33.787	33.847	33.907
0.25	33.177	33.237	33.297	33.357	33.417	33.477	33.537	33.597	33.657
0.5	32.927	32.987	33.047	33.107	33.167	33.227	33.287	33.347	33.407
0.75	32.677	32.737	32.797	32.857	32.917	32.977	33.037	33.097	33.157
1	32.427	32.487	32.547	32.607	32.667	32.727	32.787	32.847	32.907
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3.5			30.047	30.107	30.167		30.287		30.407
4			29.547	29.607					
4.5			29.047	29.107					
5			28.547	28.607					
5.5			28.047	28.107					
6			27.547	27.607					
6.5									



COORDINATES AND LEVELS FRO STATION 443+420 to443+520

Station	WL	CATCH L		CENTERLINE		CATCH R		W/R
		N	E	N	E	N	E	
443+420	7.00	922,518.19	379,237.13	922,501.59	379,235.45	922,503.60	379,014.54	7.00
443+440	7.00	922,520.20	379,217.23	922,503.60	379,215.56	922,505.61	378,994.64	7.00
443+460	7.00	922,522.21	379,197.33	922,505.60	379,195.66	922,507.62	378,974.74	7.00
443+480	7.00	922,524.22	379,177.44	922,507.61	379,175.76	922,509.63	378,954.84	7.00
443+500	7.00	922,526.23	379,157.54	922,509.62	379,155.86	922,511.63	378,934.94	7.00
443+520	7.00	922,528.24	379,137.64	922,511.63	379,135.96	922,513.64	378,915.05	7.00

EGYPT
STONE
FOR MINING & EXPLORATION
قطاع المقاولات

مشروع القطار السريع - غرب النيل



مركز الاستشارات الهندسية
للنقل والطرق والموانئ
(خبراء دوليون)
دكتور / محمد الجبوشي

الهيئة العامة
للمنطقة والكباري
(GARE)



17/1/2017

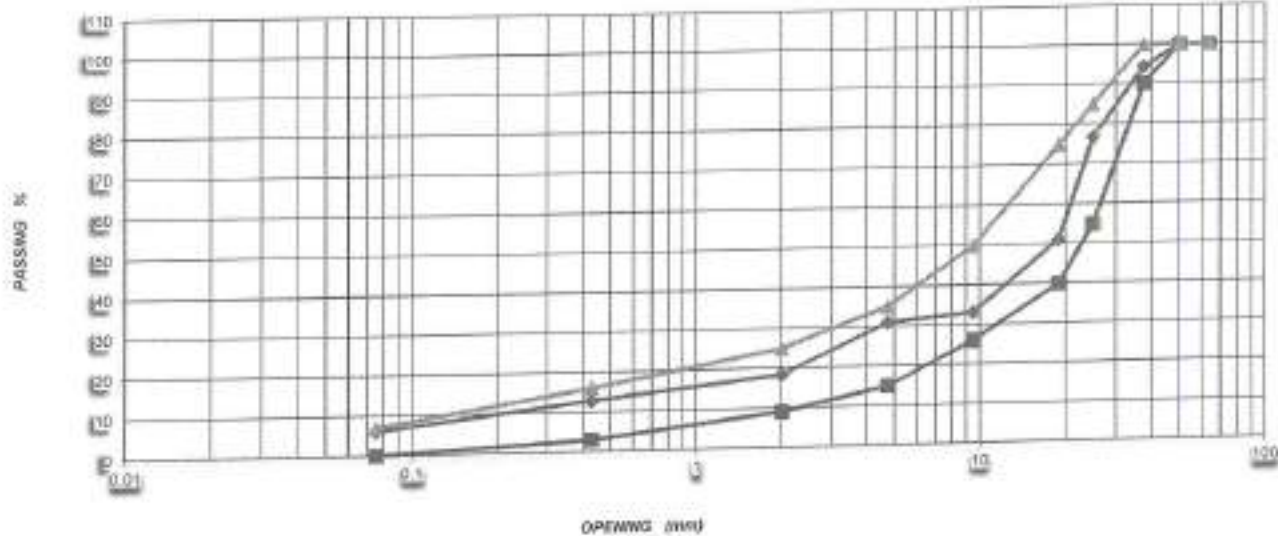


مشروع القطار السريع (العامين - فوكه) قطاع د / سعد الجبوشي مكتب سجاك للاستشارات الهندسية

Company:	ايجيبت استون للتعيين والتوريدات	Layer NO:	
Description :	Sub Balast (second Layer)	Sample Date:	2023/10/23
Station Represented :	443+420 TO 443+520	Report Date:	2023/10/23

SIEVE ANALYSIS & BLEND of SUB BALLAST MIX AASHTO T27 & ASTM C-136

Location of Tested Material	PREPARED SUPGRADE									
Sieve No.	2.5 in.	2.0 in.	1.5 in.	1.0 in.	3/4 in.	3/8 in.	No. 4	No.10	No.40	No. 200
Opening (mm)	63.50	50.00	37.50	25.00	19.00	9.50	4.75	2.00	0.43	0.075
Passing %	100.0	100.0	100.0	80.4	70.0	43.3	22.0	18.6	10.5	4.60
Min. %	100.0	100.0	90.0	55.0	40.0	26.0	15.0	9.0	3.0	0.0
Max. %	100.0	100.0	100.0	85.0	75.0	50.0	35.0	25.0	16.0	7.0



Lab Contractor Eng.:

Karim EGYPT
STONE
FOR DESIGN & CONSTRUCTION
قطاع المقاولات

SGAC Consultant Eng.:

مركز الاستشارات
للنقل والطرق والموانئ
دكتور / محمد الجبوشي
مشروع القطار السريع قطاع د

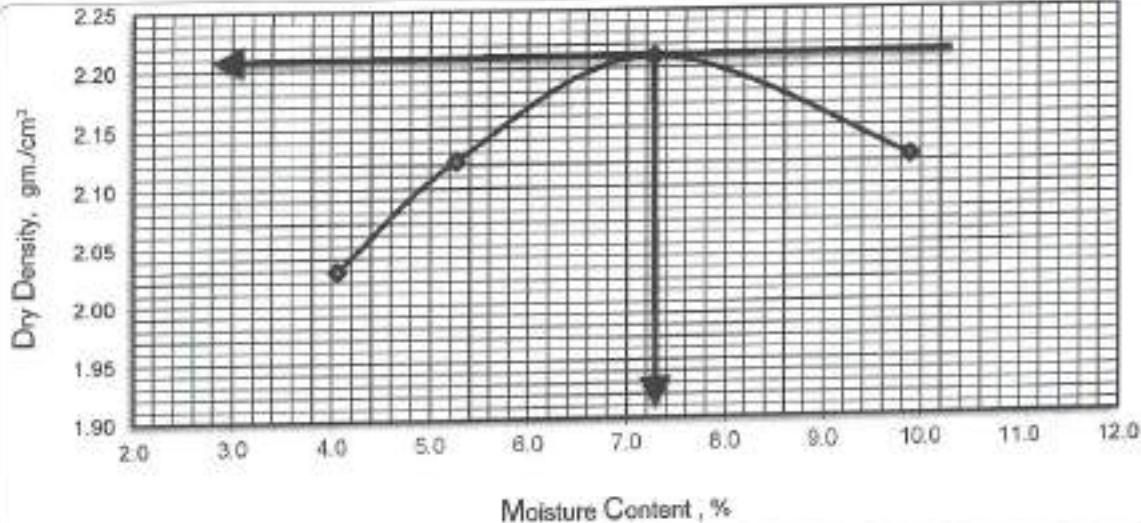
مشروع القطار السريع (العلمين - فوكه) قطاع د / سعد الجيوشي مكتب سجاك للاستشارات الهندسية

Company:	إيجيبت ستون للمعدن والتوريدات	Sample No:	
Description :	Sub Balast (second Layer)	Sample Date :	2023-10-23
ation Represente	443+420 to 443+520	Report Date:	2023-10-24

Laboratory Compaction Characteristics (Proctor) of Soil Sample

ASTM D 1557 - Method "C" 6 in. mold, 5 equal layers, each compacted by 56 blows
Using 10 lbf. rammer dropped from 18 in. high, Producing a compactive effort of 56000 ft-lbf/ft³

Weight of PROCTOR Mould, gm	5590	Volume of PROCTOR Mould, cm ³		2120	
Point No.	1	2	3	4	5
Weight of Soil + Mould, gm	10067	10327	10817	10539	
Wet Density, gm/cm ³	2.112	2.234	2.371	2.334	
Weight of Wet Soil Portion, gm	107.7	116.0	182.7	143.4	
Weight after Drying, gm	103.5	110.2	170.3	130.5	
Moisture Content, %	4.1	5.3	7.3	9.9	
Dry Density, gm/cm ³	2.029	2.123	2.210	2.124	



Max. Dry Density= 2.21 t/m³ O.M.C= 7.3 %

CONSULTANT COMMENTS

Kareem EGYPT
Lab Contractor Engo N
FOR PILING & FOUNDATION
قطاع المقاولات

مركز الاستشارات الهندسية
للنقل والمقارن والطرق
دكتور / سعد الجيوشي
مشروع القطار السريع قطاع د



مركز الاستشارات الهندسية
للطرق والمباني والاساسات
(ج.م.ع.م.)
دكتور محمد الجيوشي

الهيئة العامة
للطرق والكباري
(GARF)



مشروع القطر السريع (الطين - فوكه) قطاع د / سعد الجيوشي مكتب سجاد للاستشارات الهندسية

Activity : اختبار دمك

نتائج الاختبارات المعمل

Date

2023/10/26

Density and Unit Weight of Soil in Place by the Sand-Cone Method – ASTM D 1556

Company:	أيجيبت استون للتصنيع والتوريدات	Layer NO:	
Description :	Sub Balast (second Layer)	Layer Thickness:	0.25
Station Represented :	443+420 TO 443+520	Sample Date :	2023/10/25

Modified Proctor Testing Results

Max. Dry Density, gm/cm ³	Optimum Moisture Content, %	Degree of Compaction Required , %	Bulk Density of Specified Sand, gm/cm ³
2.21	7.3	100%	1.484

Compaction Testing Results & Calculations

STATION	443+510	443+520					
Hole No.	9	10					
Wt. of Sand before Test, gm	7854	7788					
Wt. of Sand After Test, gm	3900	3937					
Wt. of Sand in Cone + hole, gm	3954	3851					
Wt. of Sand in Cone	1425	1425					
Wt. of Sand at hole, gm	2529	2426					
Volume of the Hole, cm ³	1704	1635					
Wt. of Soil from Hole, gm	4030	3874					
Bulk Density of Soil, gm/cm ³	2.365	2.370					
Moisture Content, %	6.8	6.7					
Dry Density, gm/cm ³	2.214	2.221					
Compaction, (%)	100.2%	100.5%					

Acceptance Criteria

Comply



Not Comply



CONSULTANT COMMENTS

EGYPT
Lab Contractor Eng.
THE EGYPTIAN ENGINEERING
قطاع المقاولات

SGAC Consultant Eng.
مركز الاستشارات الهندسية
للطرق والمباني والاساسات
ج.م.ع.م.
دكتور محمد الجيوشي
مشروع القطر السريع قطاع د

Company Name : Egypt Stone
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (441+600) : (444+600)
Delivery Date : 13/05/2023
Reporting Date : 20/05/2023
Reporting No. : 173
Sample No. : 07

Dear Gentleman,

Attached here with the Sub-Ballast delivered on 13/05/2023

Materials test

1. Sieve analysis according to ASTM D-422.
2. Material finer than sieve No. 200 according ASTM D-1140.
3. Liquid limits and plasticity index of soil according to ASTM D-4318.
4. Procter test according to ASTM D-1557.
5. Specific Gravity & Absorption according to ASTM C-127 & D 6473.
6. CBR according to ASTM D-1883
7. Los Angeles according to ASTM C-13.

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 F3 Midek El Aldeif Street
Zamalek, Cairo.
Tel. & Fax : 27367351 - 27363093

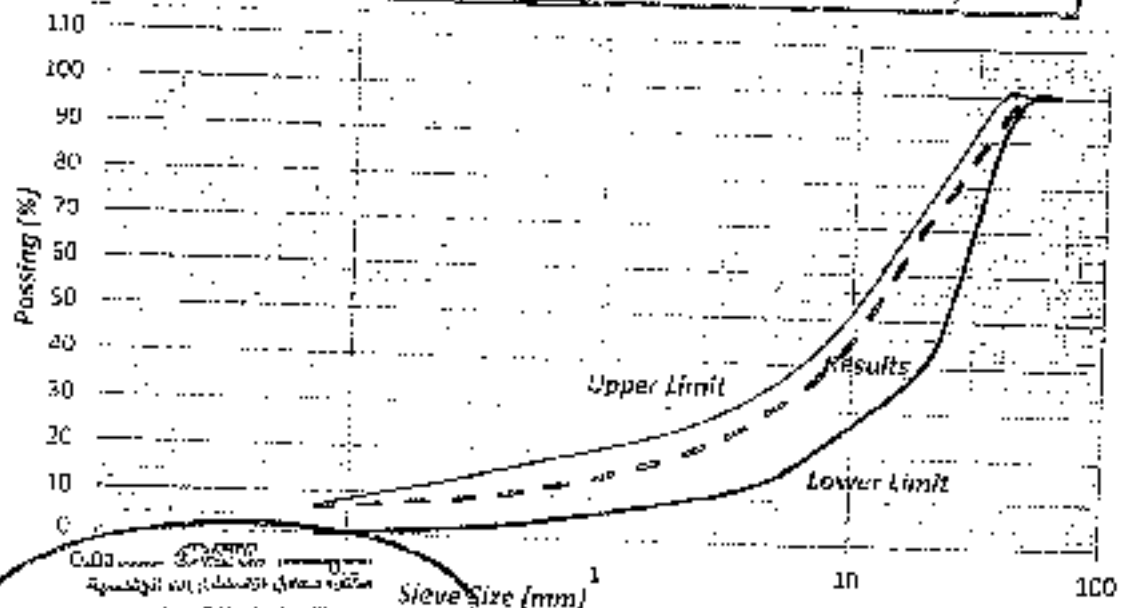


٣ ش المديك الأهفيل
الزمالك - القاهرة
تليفون - فاكس : ٢٧٣٦٧٣٥١ - ٢٧٣٦٣٠٩٣
www.gem-egypt.com

Company Name : Egypt Stone
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (441+600) : (444+600)
Delivery Date : 13/05/2023
Reporting Date : 20/05/2023
Reporting No. : 173
Sample No. : 07

Results of sieve analysis according to ASTM D-422.

Sieve Size (mm)	Passing %	Job specification limits (ASTM D-422)	
		Min.	Max.
63.5	100	100	100
50	100	100	100
38	94.4	90	100
25	79.6	55	100
19	70.3	40	75
12.5	54.1	-	-
9.5	43.8	25	50
4.75	29.6	15	35
2.00	19.2	9	25
0.425	10.5	1	16
0.075	6.0	0	7



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

Signature /

Company Name : Egypt Stone
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (441+600) ; (444+ 600)
Delivery Date : 13/05/2023
Reporting Date : 20/05/2023
Reporting No. : 173
Sample No. : 07

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

Test	Results (%)
Percentage of material finer than Sieve Size 75 μ M (No.200)	6.0

Signature


 المهندس / أحمد محمد عبد الحليم
 مهندس مدني - استشاري
 رقم ترخيص مهنة المهندس المدني ١٢٣٤٥٦٧٨٩٠
 رقم ترخيص مهنة الاستشاري ٩٨٧٦٥٤٣٢١٠

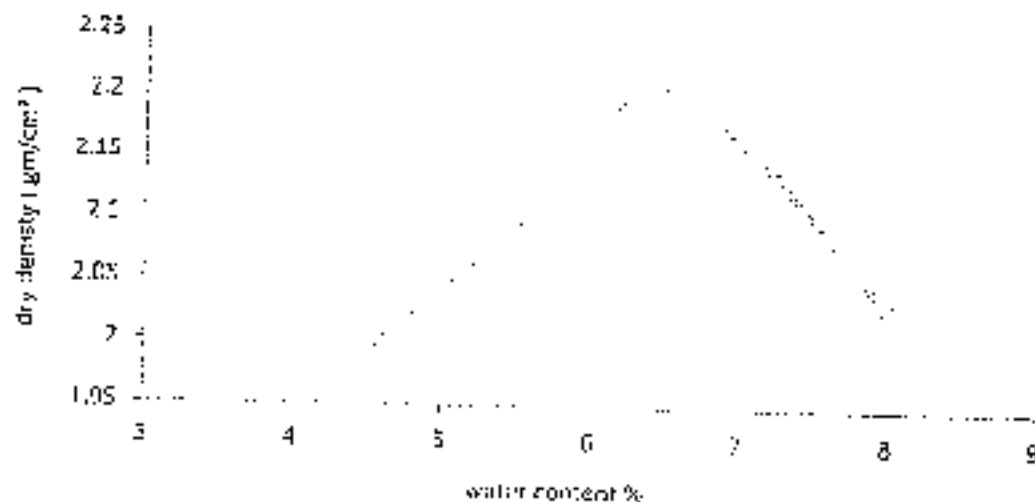
3 El Midekt El Ahdet Street
Zematek, Cairo.
Tel. & Fax : 27367231 - 27363093



٣ شارع الميدكت الأهديت
 الزماتك - القاهرة
 تليفون - فاكس : ٢٧٣٦٧٢٣١ - ٢٧٣٦٣٠٩٣
www.cel-egypt.com

Company Name : Egypt Stone
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (441+600) : (444+600)
Delivery Date : 13/05/2023
Reporting Date : 20/05/2023
Reporting No. : 173
Sample No. : 07

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



- Max dry density (gm/cm³) : 2.21
- Optimum moisture content % : 6.4

Signature



Company Name : Egypt Stone
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (441+600) : (444+600)
Delivery Date : 13/05/2023
Reporting Date : 20/05/2023
Reporting No. : 173
Sample No. : 07

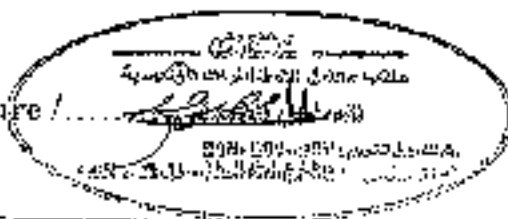
Results of Specific Gravity and Absorption of Course Aggregate ASTM C127 & D 6473

Test	Results
Bulk Specific Gravity (OD)	2.51
Bulk Specific Gravity (SSD)	2.54
Apparent Specific Gravity.	2.65
Absorption %	4.40

Note:

- (OD) Refer to Oven Dry.
- (SSD) Refer to Saturated Surface Dry.

Signature /



6

Company Name : Egypt Stone
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (44J+600) : (444+600)
Delivery Date : 13/05/2023
Reporting Date : 20/05/2023
Reporting No. : 173
Sample No. : 07

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

penetration		stress on piston (Mpa)
mm	inch	
0.64	0.025	4.06
1.27	0.050	4.57
1.91	0.075	5.08
2.54	0.100	5.60
3.18	0.125	6.12
3.81	0.150	6.63
4.45	0.175	7.14
5.08	0.200	7.65
5.71	0.225	8.17
6.35	0.250	8.68

CBR Result	Stress (Mpa)		CBR %
At 0.1 inch (2.54 mm) penetration	St. Value	Sample results	81.2
	6.98	5.68	

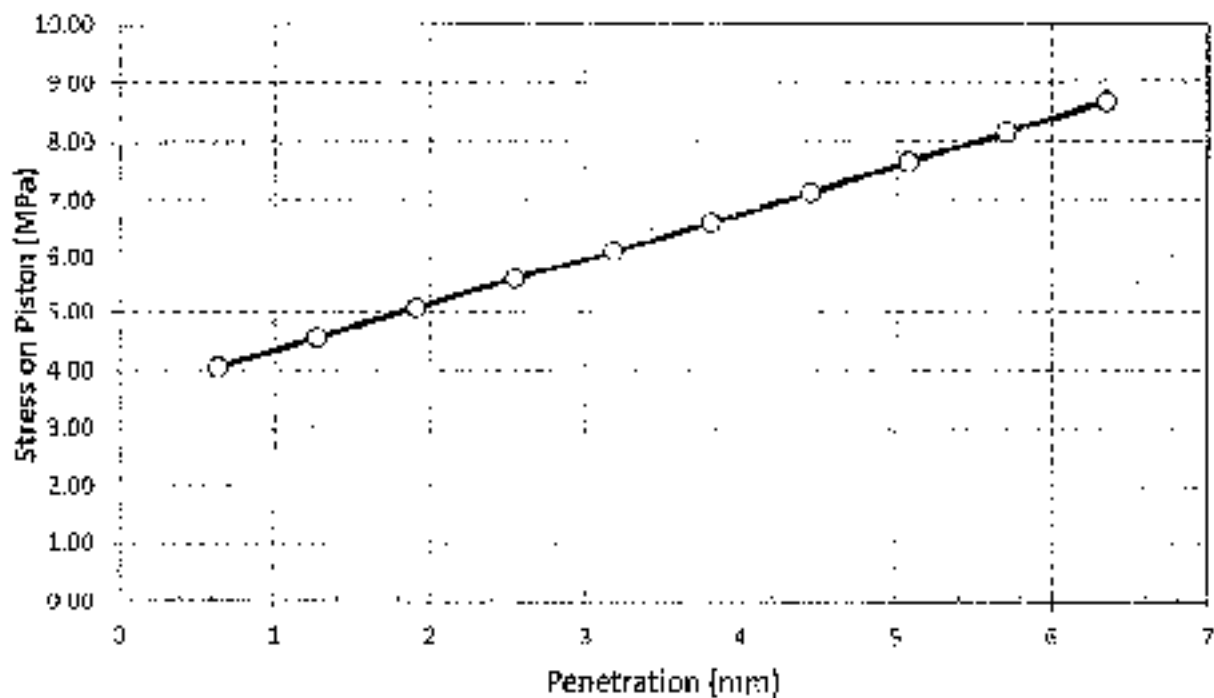
Notes :

- 1- Attached graph shows penetration resistance versus penetration magnitude.
- 2- The sample was compacted to dry density of 2.21 (gm/cm³) at 6% optimum water content.
- 3- Surcharge load 4.5 kN

Signature

Company Name : Egypt Stone
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (441+600) : (444+600)
Delivery Date : 13/05/2023
Reporting Date : 20/05/2023
Reporting No. : 173
Sample No. : 07

Load Penetration Curve of CBR Test ASTM D-1883



Signature /

المهندس في المشاورات
د. محمد العفيفي



Consulting Engineering Bureau & Laboratories

مكتب معامل الاستشارات الهندسية

Company:

EGYPT STONE

Project : Electric express train.
Delivery Date : 08/06/2023
Report Date : 15/06/2023
Sample Id : Sub-ballast sample No.4
Type : Coarse Aggregate
Source : Site
Report No. : 04

RESISTANCE TO DEGRADATION
OF SMALL SIZE AGGREGATE BY ABRASION
AND IMPACT IN LOS ANGELES MACHINE
ASTM C 131

Test	Results
Amount of loss by abrasion and impact (%) Coarse Aggregate	27.4

- According to project specs :

The amount of loss by abrasion and impact for moderate weathering:

- Shall not exceed 30 % (when Subjected to 500 revolutions)

The Test Results is ☒ Comply ☐ Not Comply) with Spec. Limits

Signature



RECEIPT of NOTIFICATION - Minimum Notice Period not less than 24 Hours ES2-G-516

The Work described below will be complete and ready for inspection at planned time shown

Contractor Company	Egypt Stone CO. for contracting and roads paving		Designer Company*	SGAC							
Issued by Contractor	Name	Sign	Date	Time							
			18/10/2023								
Received by ER	S.A.		U/R	C1	C2	C3	DD	MM	YY	HH	MM
				kp 443	EW	C.B.	18	10	23	1	00
CODE - 1	S1 to S21 Station Reference		D1 to S3 Depot Reference		Kp XXX Note For Kilometer point only Start Km is used						
CODE - 1	Work Activity										
CODE - 1	Sub Element of Activity										

EXPLANATION OF WORK TO BE INSPECTED		
Description	Element	Item
FIRST LAYER SubGRADE (+0.25)	SUBGRADE	from St (443+420) to St (443+520)

INSPECTION DETAILS The Following will be ready at the Planned Inspection Time	
Planned Inspection Date	Planned Inspection Time

COMPLIANCE EVIDENCE Must be Included as appropriate			
Checklist Attached ☐	Test Results Attached ☐	Calibration Attached ☐	Other as Indicated ☐
Drawing Reference	ITP Reference		MS Reference

Comments by: <u>Mustafa</u> Civil: <u>Visual inspection</u> Material: <u>Compacted</u> 	Comments by: <u>Mohamed Shams</u> Survey: <u>Approved</u> 
---	--

INSPECTION RESULT					Approval Status	Please Tick if
Organisation	Name	Sign	Date	Time	A-AWC-B	Not Attend
Contractor	Galina	Galina	18/10/2023	9:00	A	
GA/QC*	Kamel	Kamel	18/10/2023		A	
GARB**	M. Hassan	M. Hassan	17/10/2023		A	
Comments by ER	all works are done under contract stipulated that of test responsibility when issued then the contractor has to submit final shop drawing					
Employers Representative	S.A	S.A			ANC	✓

* Designer
** Alignment: Bridges: Culvert Only



Electrical Express Train From El ALAMEIN City to FOKA From Station
To Station 504+275 ٥٨٠+٢٩٤

شركة (ايحيى ستون للمبني والتوريدات) قطاع المقاولات

(+) (الي الكم) (+) (الكم من الكم)

(0.25-) Layer

(طلب استلام مساحة لطبقة منسوبها)

مكتب (ادارة) وسط الجوزى

MAIN ROAD ABOVE FERMA BY 0.25

Station	LEFT EDGE				PGL	RIGHT EDGE			
	8.04	4.00	0.00	Slope L		Slope R	0.00	4.00	8.04
443+420	33.355	33.517	33.677	-4.00%	34.327	-4.00%	33.677	33.517	33.355
قراءة تصحيحية									
قراءة قامة									
الفرق	-1								
443+440	33.415	33.577	33.737	-4.00%	34.382	-4.00%	33.737	33.577	33.415
قراءة تصحيحية									
قراءة قامة									
الفرق				+1			+1		
443+460	33.475	33.637	33.797	-4.00%	34.442	-4.00%	33.797	33.637	33.475
قراءة تصحيحية									
قراءة قامة									
الفرق									
443+480	33.535	33.697	33.857	-4.00%	34.502	-4.00%	33.857	33.697	33.535
قراءة تصحيحية									
قراءة قامة									
الفرق		-2							
443+500	33.595	33.757	33.917	-4.00%	34.562	-4.00%	33.917	33.757	33.595
قراءة تصحيحية									
قراءة قامة									
الفرق			+1						
443+520	33.655	33.817	33.977	-4.00%	34.622	-4.00%	33.977	33.817	33.655
قراءة تصحيحية									
قراءة قامة									

مشروع القطار السريع - غرب النيل

مستوى

									
Electrical Express Train From El ALAMEIN City to FOKA From Station To Station 504+275 o.A. + ٣٩٤									
شركة (ايجبت ستون للمبني والتوريدات) قطاع المقاولات القطاع من الكم () + (الي الكم) ()									
طلب استلام مساحة لطبقة منسوبها ()									
مكتب ايد / سيد الجوشي									
									
(0.25-) layer									
Station	MAIN ROAD		ABOVE		FERMA BY		0.25		
	LEFT EDGE				PGL		RIGHT EDGE		
	8.04	4.00	0.00	Slope L			Slope R	0.00	4.00
									8.04
الارتفاع									

م.س. ١٩٩

Station	443+420	443+440	443+460	443+480	443+500	443+520	443+540	443+560	443+580
Design	34.327	34.387	34.447	34.507	34.567	34.627	34.687	34.747	34.807
Forma level	33.427	33.487	33.547	33.607	33.667	33.727	33.787	33.847	33.907
BED CUT LEVEL	30.044	30.202	27.36	27.2	29.946	30.267	30.256	30.402	30.344
different	3.38	3.29	6.19	6.41	3.72	3.46	3.53	3.45	3.56
0	33.427	33.487	33.547	33.607	33.667	33.727	33.787	33.847	33.907
0.25	33.177	33.237	33.297	33.357	33.417	33.477	33.537	33.597	33.657
0.5	32.927	32.987	33.047	33.107	33.167	33.227	33.287	33.347	33.407
0.75	32.677	32.737	32.797	32.857	32.917	32.977	33.037	33.097	33.157
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6			27.547	27.607					
00									

مشروع القطار السريع - غرب النيل

EGYPT
STONE
FOR ARCHITECTS & ENGINEERS
قطاع المقاولات

COORDINATES AND LEVELS FRO STATION 443+420 to 443+520

Station	W/L	CATCH L		CENTERLINE		CATCH R		W/R
		N	E	N	E	N	E	
443+420	8.04	922,518.19	379,237.13	922,501.59	379,235.45	922,503.60	379,014.54	8.04
443+440	8.04	922,520.20	379,217.23	922,503.60	379,215.56	922,505.61	378,994.64	8.04
443+460	8.04	922,522.21	379,197.33	922,505.60	379,195.66	922,507.62	378,974.74	8.04
443+480	8.04	922,524.22	379,177.44	922,507.61	379,175.76	922,509.63	378,954.84	8.04
443+500	8.04	922,526.23	379,157.54	922,509.62	379,155.86	922,511.63	378,934.94	8.04
443+520	8.04	922,528.24	379,137.64	922,511.63	379,135.96	922,513.64	378,915.05	8.04

مشروع القطار السريع - غرب النيل

EGYPT
STONE
FOR BUILDING & SUPPLIES
قطاع المقاولات



مركز الاستشارات الهندسية
للطرق والمباني والبنية التحتية
(مصر)

الهيئة العامة
للطرق والكباري
(GARH)

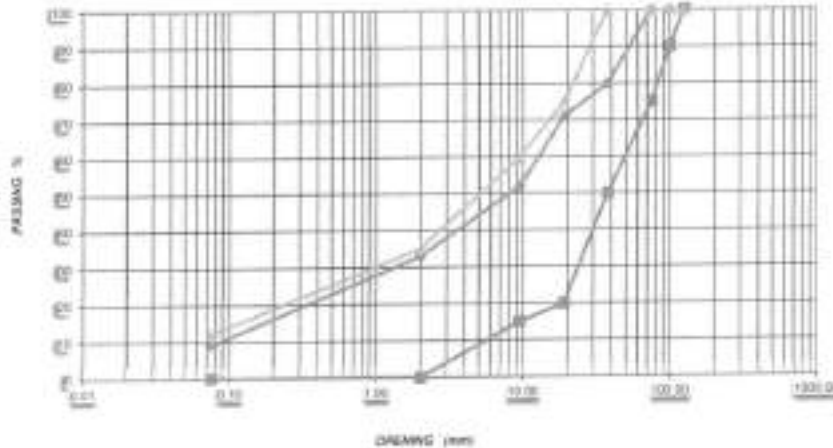


مشروع القطر السريع (العلمين - فوكة) قطاع د / سد الجبوشي مكتب سجاد للإستشارات الهندسية

Company:	ليجيت اسون للتصميم والتوريدات	Layer NO:	
Description :	prepared subgrade (first layer)	sample datas:	13/10/2023
Station Represented :	443+420 to 443+520		

SIEVE ANALYSIS & BLEND of BASE COURSE MIX ASTM C-136 & C-117

Location of Tested Material	PREPARED SUBGRADE							
Sieve No.	5.0 in.	4.0 in.	3.0 in.	1.5 in.	3/4 in.	3/8 in.	No. 10	No. 200
Opening (mm)	125.00	100.00	75.00	37.50	19.00	9.50	2.00	0.075
Passing %	100.0	100.0	100.0	80.0	71.0	52.0	33.0	9.0
Min. %	100.0	90.0	75.0	50.0	20.0	15.0	0.0	0.0
Max. %	100.0	100.0	100.0	100.0	75.0	60.0	35.0	12.0



Lab Contractor Eng.

قطاع المقاولات

SGAC Consultant Eng.:-

مركز الاستشارات الهندسية
للطرق والمباني والبنية التحتية
أ. د. محمد الجبوشي
مشروع القطر السريع قطاع ٦

SYSTRA



مركز الاستشارات الهندسية
للطرق والمباني والمياه
(مركز الاستشارات الهندسية)

إدارة العامة
للطرق والكباري
(GARIB)



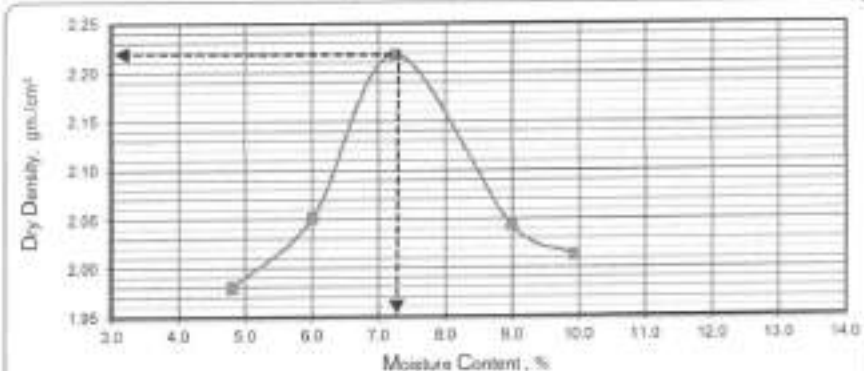
مشروع القطار السريع (العلمين - فركة) قطاع ٤ / سعد الجويوشي مكتب سجاك للاستشارات الهندسية

Company:	إيجيبت استون للتعمير والتوريدات	Sample No:	
Description :	prepared subgrade(first layer)	Sample Date :	13/10/2023
Station Repres:	443+420 to 443+520	Report Date:	14/10/2023

Laboratory Compaction Characteristics (Proctor) of Soil Sample

ASTM D 1557 - Method "C" 6 in. mold, 5 equal layers, each compacted by 56 blows
Using 10 lb. rammer dropped from 18 in. height. Producing a compactive effort of 56000 ft-lb/ft³

Weight of PROCTOR Mould, gm	5985	Volume of PROCTOR Mould, cm ³			2104
Point No.	1	2	3	4	5
Weight of Soil + Mould, gm	10,350	10,580	10,990	10,670	10,640
Wet Density, gm/cm ³	2.075	2.174	2.379	2.227	2.212
Weight of Wet Soil Portion, gm	155.1	150.0	162.8	172.2	156.1
Weight after Drying, gm	148.0	141.5	151.8	158.0	142.0
Moisture Content, %	4.8	6.0	7.2	9.0	9.9
Dry Density, gm/cm ³	1.980	2.051	2.218	2.043	2.013



Max. Dry Density =	2.218 t/m ³	Optimum Moisture Content =	7.2%
--------------------	------------------------	----------------------------	------

CONSULTANT COMMENTS

Lab Contractor Eng.

مركز الاستشارات الهندسية
للطرق والمباني والمياه
إ. د. سعد محمد الجويوشي
مشروع القطار السريع قطاع ٤



مركز الاستشارات الهندسية
للحرق والمطارات
(مصر - القاهرة)
مكتب سوك للاستشارات الهندسية

المركز
للحرق والمطارات
(ISAB)



مشروع القطر السريع (العين - فوك) قطاع ٦ / سعد الجبوشي مكتب سوك للاستشارات الهندسية

Activity: اختبار دمك

ناتج اختبارات العمل

Date

15-Oct-23

Density and Unit Weight of Soil in Place by the Sand-Cone Method – ASTM D 1556

Company:	إيجيبت أسفون للمبنيين والتشييد	Layer NO:	
Description:	اختبار دمك طبقه	Layer Thickness:	0.25
Station Represented:	443+420 to 443+520	Sample Date:	15/10/2023

Modified Proctor Testing Results

Max. Dry Density, gm/cm ³	Optimum Moisture Content, %	Degree of Compaction Required, %	Bulk Density of Specified Sand, gm/cm ³
2.218	7.25	95%	1.484

Compaction Testing Results & Calculations

STATION	443+430	443+440	443+450	443+460	443+470	443+480	443+490	443+500
Hole No	1	2	3	4	5	6	7	8
Wt. of Sand before Test, gm	7680	7810	7980	8180	8230	7560	7280	7710
Wt. of Sand After Test, gm	3850	4190	4280	4560	4500	3650	3740	4000
Wt. of Sand in Cone + hole, gm	3830	3710	3730	3620	3730	3700	3540	3710
Wt. of Sand in Cone	1425	1425	1425	1425	1425	1425	1425	1425
Wt. of Sand in hole, gm	2405	2285	2305	2195	2305	2275	2115	2285
Volume of the Hole, cm ³	1621	1540	1563	1479	1553	1533	1425	1540
Wt. of Soil from Hole, gm	3704	3584	3664	3464	3634	3604	3334	3534
Bulk Density of Soil, gm/cm ³	2.341	2.328	2.358	2.342	2.333	2.381	2.339	2.295
Moisture Content, %	7.0	7.0	7.7	7.6	7.8	7.1	7.1	6.6
Dry Density, gm/cm ³	2.176	2.175	2.190	2.177	2.188	2.195	2.184	2.153
Compaction, (%)	98.1%	98.1%	98.7%	98.1%	97.8%	99.0%	98.5%	97.1%

Acceptance Criteria

Comply

Not Comply

CONSULTANT COMMENTS

SGAC Consultant Eng.:-

مركز الاستشارات الهندسية
للحرق والمطارات
إ. د. سعد محمد الجبوشي
مشروع القطر السريع قطاع ٦

EGYPT
Lab Contractor Eng.
قطاع المقاولات



مركز الاستشارات الهندسية
للطرق والجسور
(SGAC)

الهيئة العامة
للطرق والجسور
(GAPD)



مشروع القطار السريع (العلمين - طوكيو) قطاع ٤ / سكة الجيوب في مكتب سجاد للاستشارات الهندسية

Activity : السكك

نتائج اختبارات المعمل

Date

16-Oct-23

Density and Unit Weight of Soil in Place by the Sand-Cone Method – ASTM D 1556

Company:	الهجيت استون للعلمين والطريق	Layer NO:	
Description:	اختبار سكة طبقة	Layer Thickness:	0.25
Station Represented:	443+420 to 443+520	Sample Date:	15/10/2023

Modified Proctor Testing Results

Max. Dry Density, gm/cm ³	Optimum Moisture Content, %	Degree of Compaction Required, %	Bulk Density of Specified Sand, gm/cm ³
2.218	7.25	95%	1.484

Compaction Testing Results & Calculations

STATION	443+510	443+520					
Hole No.	9	10					
Wt. of Sand before Test, gm	7705	7835					
Wt. of Sand After Test, gm	3850	4100					
Wt. of Sand in Cone + hole, gm	3656	3735					
Wt. of Sand in Cone	1425	1425					
Wt. of Sand at hole, gm	2430	2310					
Volume of the Hole, cm ³	1637	1557					
Wt. of Soil from Hole, gm	3705	3555					
Bulk Density of Soil, gm/cm ³	2.299	2.284					
Moisture Content, %	7.6	7.0					
Dry Density, gm/cm ³	2.137	2.134					
Compaction, (%)	96.3%	96.2%					

Acceptance Criteria

Comply

☐

Not Comply

☐

CONSULTANT COMMENTS

EGYPT
Lab Contractor Eng.
S. S. S. S. S.
قطاع المقاولات

SGAC Consultant Eng.
للطرق والجسور
إ. د. سجاد سجاد
مشروع القطار السريع قطاع ٤

Company Name : Egypt Stone
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Prepared Subgrade.
Location : St. (441+600) : (444+600)
Delivery Date : 25/03/2023
Reporting Date : 01/04/2023
Reporting No. : 163
Sample No. : 01

Dear Gentleman,

Attached here with the Prepared Subgrade delivered on 25/03/2023

Materials test

1. Sieve analysis according to ASTM D-422.
2. Material finer than sieve No. 200 according ASTM D-1140.
3. Liquid limits and plasticity index of soil according to D-4318.
4. Proctor Test according to D-1557
5. CBR according to ASTM D-1883
6. Los Anglos according to ASTM C-131.

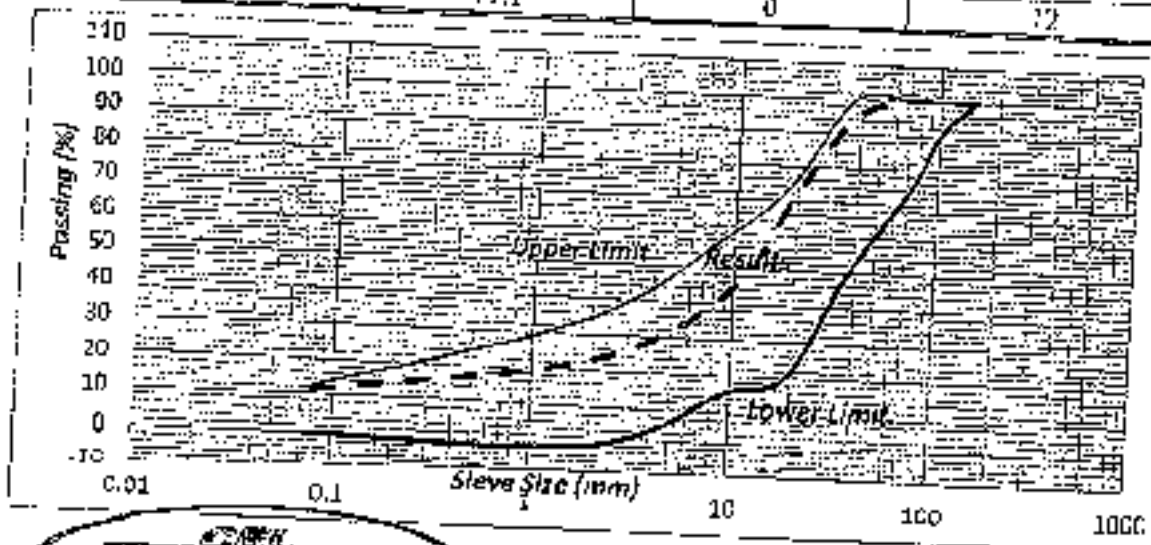
Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature /


Company Name : Egypt Stone
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Prepared Subgrade
Location : St. (441+600) : (444+600)
Delivery Date : 25/03/2023
Reporting Date : 01/04/2023
Reporting No. : 163
Sample No. : 01

Results of sieve analysis according to ASTM D-422.

Sieve Size (mm)	Passing %	Job specification limits (ASTM D-422)	
		Min.	Max.
125	100	100	100
100	100	90	100
75	100	75	100
30	100	--	--
17.5	94.5	50	100
25	76.6	--	100
19	70.0	20	75
12.5	49.9	--	--
9.5	43.3	15	60
4.75	27.4	--	--
2.00	22.9	0	35
0.425	17.7	0	--
0.075	11.1	0	12



The test results are ☒ Comply ☐ Not Comply with specifications limits.

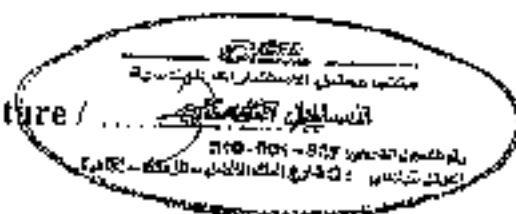
Signature: 

Company Name : Egypt Stone
 Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
 Type of sample : Prepared Subgrade
 Location : St. (441+600) : (444+600)
 Delivery Date : 25/03/2023
 Reporting Date : 01/04/2023
 Reporting No. : 163
 Sample No. : 01

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

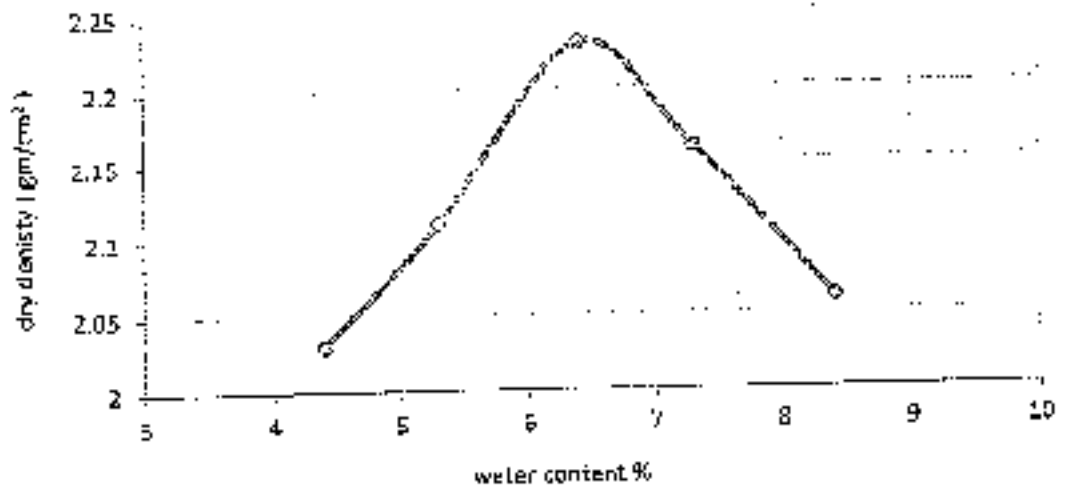
Test	Results (%)
Liquid Limit	NP
Plastic Limit	NP
Plasticity Index	NP

Signature /

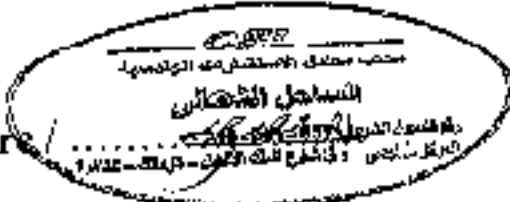


Company Name : Egypt Stone
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Prepared Subgrade.
Location : St. (441+600) : (444+600)
Delivery Date : 25/03/2023
Reporting Date : 01/04/2023
Reporting No. : 163
Sample No. : 01

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



- Max dry density (gm/cm³) : 2.23
- Optimum moisture content % : 6.4

Signature: 

Company Name : Egypt Stone
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Prepared Subgrade.
Location : St. (441+600) : (444+600)
Delivery Date : 25/03/2023
Reporting Date : 01/04/2023
Reporting No. : 163
Sample No. : 01

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

penetration		stress on piston (Mpa)
mm	Inch	
0.64	0.025	4.13
1.27	0.050	4.41
1.91	0.075	4.73
2.54	0.100	5.00
3.18	0.125	5.30
3.81	0.150	5.57
4.45	0.175	5.81
5.08	0.200	6.09
5.71	0.225	6.31
6.35	0.250	6.48

CBR Result	Stress (Mpa)		CBR %
At 0.1 inch (2.54 mm) penetration	St. Value	Sample results	72.4
	6.90	5.00	

Notes :

- 1- Attached graph shows penetration resistance versus penetration magnitude.
- 2- The sample was compacted to dry density of 2.23 (gm /cm³) at 6.4 % optimum water content.
- 3- Surcharge load 4.50 Kg

Signature /

م. محمد عبد الله
م. محمد عبد الله
م. محمد عبد الله

٢ من اعمالك الفضل
الزمالك - القاهرة
تليفون + فاكس : ٢٧٣٩٧٢٣١ - ٢٧٣٩٣٠٩٣
www.cel-egypt.com

Company:

Egypt stone

Project : Electric express train.
Delivery Date : 07/05/2023
Report Date : 15/05/2023
Sample Id : Prepared subgrade sample No.1
Type : Coarse Aggregate
Source : Site
Report No. : 01

RESISTANCE TO DEGRADATION
OF SMALL SIZE AGGREGATE BY ABRASION
AND IMPACT IN LOS ANGELES MACHINE
ASTM C 535

Test	Results
Amount of loss by abrasion and impact (%) Coarse Aggregate	25.0

- According to project specs :

The amount of loss by abrasion and impact for moderate weathering:

- Shall not exceed 40 % (when Subjected to 500 revolutions)

The Test Results is ☒ Comply - ☐ Not Comply) with Spec. Limits

Signature /



COMPLIANCE EVIDENCE Must be included as appropriate			
☐ Checklist Attached	☐ Test Results Attached	☐ Calibration Attached	☐ Other as Indicated
Drawing Reference		ITP Reference	
		MIS Reference	

EXPLANATION OF WORK TO BE INSPECTED		
Description	Element	Item
SECOND LAYER SUBGRADE (+0.5)	SUBGRADE	from St (443+420) to St (443+520)










Electrical Express Train From EL ALAMEIN City to FOKA From Station
To Station 504+275 ٥٨٠+٣٩٤



شركة (ايجبت ستون للتعبدين والتوريدات) قطاع المقاولات

(+ +) الي الكم (+)

مكتب ا.د/ صف الجوشي

طلب استلام مساحة لطبقة منسوبها ()

MAIN ROAD ABOVE FERMA BY 0.50

Station	LEFT EDGE			PGL	Slope R	RIGHT EDGE		
	7.64	4.00	0.00			0.00	4.00	7.64
443+420	33.621	33.767	33.927	34.327	-4.00%	33.927	33.767	33.621
قراءة تصميمية								
قراءة قائمة								
الفرق								
443+440	33.681	33.827	33.987	34.387	-4.00%	33.987	33.827	33.681
قراءة تصميمية								
قراءة قائمة								
الفرق								
443+460	33.741	33.887	34.047	34.447	-4.00%	34.047	33.887	33.741
قراءة تصميمية								
قراءة قائمة								
الفرق								
443+480	33.801	33.947	34.107	34.507	-4.00%	34.107	33.947	33.801
قراءة تصميمية								
قراءة قائمة								
الفرق								
443+500	33.861	34.007	34.167	34.567	-4.00%	34.167	34.007	33.861
قراءة تصميمية								
قراءة قائمة								
الفرق								
443+520	33.921	34.067	34.227	34.627	-4.00%	34.227	34.067	33.921
قراءة تصميمية								
قراءة قائمة								

مكتب ا.د/ صف الجوشي

مستطابق مع المخطط 191/100
 27.547
 28.047
 28.407
 29.107
 29.547
 30.107
 30.167
 30.607
 31.107
 31.607
 31.857
 32.107
 32.357
 32.607
 32.857
 33.107
 33.357
 33.607
 33.667
 33.727
 33.787
 33.847
 33.907
 34.387
 34.447
 34.507
 34.567
 34.627
 34.687
 34.747
 34.807

مستطابق مع المخطط 191/100

Station	Design	Fernia level	BED CUT LEVEL	different	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.5	3	3.5	4	4.5	5	5.5	6	41
443+580	34.807	33.907	30.344	3.56	33.907	33.657	33.407	33.157	32.907	32.657	32.407	32.157	31.907	31.407	30.907	30.407						
443+560	34.747	33.847	30.402	3.45	33.847	33.597	33.347	33.097	32.847	32.597	32.347	32.097	31.847	31.347	30.847							
443+540	34.687	33.787	30.256	3.53	33.787	33.537	33.287	33.037	32.787	32.537	32.287	32.037	31.787	31.287	30.787	30.287						
443+520	34.627	33.727	30.267	3.46	33.727	33.477	33.227	32.977	32.727	32.477	32.227	31.977	31.727	31.227	30.727							
443+500	34.567	33.667	29.946	3.72	33.667	33.417	33.167	32.917	32.667	32.417	32.167	31.917	31.667	31.167	30.667	30.167						
443+480	34.507	33.607	27.2	6.41	33.607	33.357	33.107	32.857	32.607	32.357	32.107	31.857	31.607	31.107	30.607	30.107	29.607	29.107	28.607	28.107	27.607	
443+460	34.447	33.547	27.36	6.19	33.547	33.297	33.047	32.797	32.547	32.297	32.047	31.797	31.547	31.047	30.547	30.047	29.547	29.047	28.547	28.047	27.547	
443+440	34.387	33.487	30.202	3.29	33.487	33.237	32.987	32.737	32.487	32.237	31.987	31.737	31.487	30.987	30.487							
443+420	34.327	33.427	30.044	3.38	33.427	33.177	32.927	32.677	32.427	32.177	31.927	31.677	31.427	30.927	30.427							

Handwritten signature and initials.

Handwritten text in Arabic: "مجلس بلدية - بلدية الخليل"



COORDINATES AND LEVELS FRO STATION 443+420 to 443+520									
Station	WL	CATCH L		CENTERLINE		CATCH R		WR	
		N	E	N	E	N	E		
443+420	7.64	922,518.19	379,237.13	922,501.59	379,235.45	922,503.60	379,014.54	7.64	
443+440	7.64	922,520.20	379,217.23	922,503.60	379,215.56	922,505.61	378,994.64	7.64	
443+460	7.64	922,522.21	379,197.33	922,505.60	379,195.66	922,507.62	378,974.74	7.64	
443+480	7.64	922,524.22	379,177.44	922,507.61	379,175.76	922,509.63	378,954.84	7.64	
443+500	7.64	922,526.23	379,157.54	922,509.62	379,155.86	922,511.63	378,934.94	7.64	
443+520	7.64	922,528.24	379,137.64	922,511.63	379,135.96	922,513.64	378,915.05	7.64	

SGAC
Sole General Agent
for the Kingdom of Saudi Arabia
for the construction of roads and bridges

SGAC
Sole General Agent
for the Kingdom of Saudi Arabia
for the construction of roads and bridges

Lab Contractor Eng.:-

[Signature]

SIEVE ANALYSIS & BLEND OF BASE COURSE MIX
ASTM C-136 & C-117

Location of Tested Material		PREPARED SUBGRADE	
Sieve No.	Opening (mm)	Passing %	Max. %
5.0 mm	125.00	100.0	100.0
4.0 mm	100.00	100.0	100.0
3.0 mm	75.00	90.0	100.0
2.5 mm	60.00	80.0	100.0
2.0 mm	47.50	71.0	75.0
1.5 mm	37.50	30.0	60.0
1.18 mm	19.00	15.0	15.0
75 µm	0.075	0.0	0.0
No. 200	0.075	0.0	12.0

Company: **مركز البحوث والدراسات الهندسية**

Description: **prepared subgrade (second layer)**

sample dates: **14/10/2023**

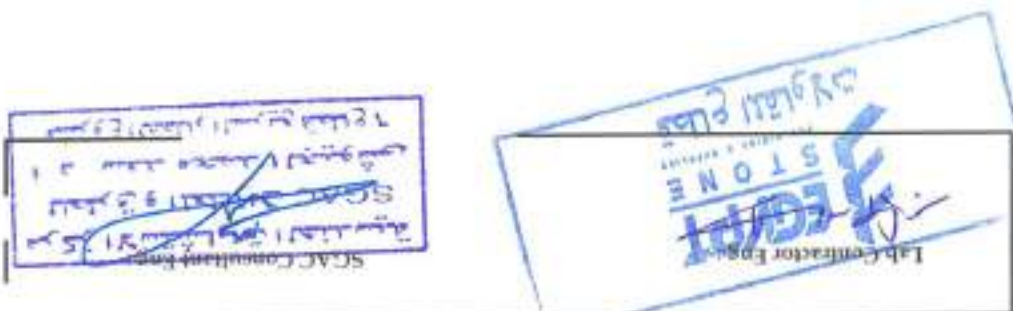
Station Represented: **443+420 to 443+520**

Layer NO: **1**

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for the Kingdom of Saudi Arabia
for the construction of roads and bridges

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for the Kingdom of Saudi Arabia
for the construction of roads and bridges

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Sole General Agent
for the Kingdom of Saudi Arabia
for the construction of roads and bridges

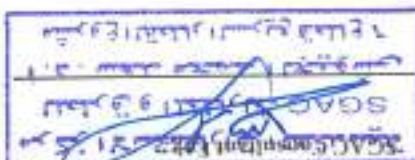


CONSULTANT COMMENTS	
Max. Dry Density = 2.218 gm/cm³ Optimum Moisture Content = 7.2%	ASTM D 1557 - Method 'C', 6 in. mold, 5 equal layers, each compacted by 56 blows Using 10 lb. rammer dropped from 18 in. height. Producing a compactive effort of 5600 ft-lb/ft³
Laboratory Compaction Characteristics (Proctor) of Soil Sample	
Station Repres: 443+420 to 443+520 Description: prepared subgrade (second layer) Company: شركة اسفالت والبويات	Report Date: 15/10/2023 Sample Date: 14/10/2023 Sample No:
مخبرية التربة (اسفلت - حصى) - 443+420 / 443+520	
SYSTRA	
SCAC	
شركة اسفالت والبويات	
شركة اسفالت والبويات	
شركة اسفالت والبويات	

Point No	Weight of Soil + Mold, gm	Wet Density, gm/cm ³	Weight of Wet Soil Portion, gm	Weight after Drying, gm	Moisture Content, %	Dry Density, gm/cm ³
1	10.350	2.075	155.1	148.0	4.8	1.980
2	10.560	2.174	150.0	141.5	6.0	2.051
3	10.990	2.379	162.0	151.8	7.2	2.218
4	10.670	2.227	172.2	158.0	9.0	2.043
5	10.640	2.212	166.1	147.0	9.9	2.013

Moisture Content, %

Dry Density, gm/cm³



STATION		Compaction Testing Results & Calculations		Modified Proctor Testing Results		Density and Unit Weight of Soil in Place by the Sand-Cone Method - ASTM D 1556	
443+430	443+440	443+450	443+460	443+470	443+480	443+490	443+500
1	2	3	4	5	6	7	8
Wt. of Sand before Test, gm	7700	7800	8000	8200	8250	7570	7100
Wt. of Sand After Test, gm	3850	4100	4750	4560	4500	3850	3740
Wt. of Sand in Cone + Weir, gm	3850	3730	3750	3640	3750	3730	3560
Wt. of Sand in Cone	1425	1425	1425	1425	1425	1425	1425
Wt. of Sand in Weir	2425	2295	2325	2215	2325	2295	2135
Volume of the Weir, cm ³	1634	1634	1634	1634	1634	1634	1634
Wt. of Soil from Hole, gm	3756	3536	3660	3465	3625	3465	3336
Bulk Density of Soil, gm/cm ³	2.323	2.309	2.346	2.322	2.314	2.332	2.319
Moisture Content, %	7.6	7.0	7.7	7.8	7.6	7.1	7.1
Dry Density, gm/cm ³	2.159	2.158	2.173	2.158	2.151	2.177	2.160
Compaction (%)	97.3%	97.3%	98.0%	97.3%	97.0%	98.2%	96.3%
Acceptance Criteria Comply Not Comply							
CONSULTANT COMMENTS							

Activity : المراقبة

الموقع : 443+430

Date : 17-06-23

Company : شركة الدراسات والبحوث في مجال الطرق

Description : دراسة الطرق

Station Represented : 443+420 to 443+520

Sample Date : 16/10/2023

Layer No : 0.5

Layer Thickness : 0.5

STON

مركز الدراسات والبحوث في مجال الطرق

Research and Studies Center in the Field of Roads

SOAC

مركز الدراسات والبحوث في مجال الطرق

Research and Studies Center in the Field of Roads

SGAC Engineering Limited
 17, 18 & 19, Al-Farabi Street, Al-Farabi District, Amman, Jordan
 Phone: +962 6 555 1111
 Fax: +962 6 555 1112
 Email: info@sgac-jordan.com

STATION
 Lab. Controller Eng.:-
 17-04-23

CONSULTANT COMMENTS:									
Assurance Criteria ☐ Comply ☐ Not Comply									
Station: 443+510 to 443+520 Description: 1st layer of subgrade Layer No: 0.25 Sample Date: 16/10/2023									
Density and Unit Weight of Soil in Place by the Sand-Cone Method - ASTM D 1556									
Modified Proctor Testing Result is:									
Max. Dry Density, g/cm ³		Optimum Moisture Content, %		Degree of Compaction Required, %		Bulk Density of Specified Soil, g/cm ³		2.218	
7.25		9.5%		95%		1.484			
Compaction Testing Results & Calculations									
STATION	443+510	443+520							
Moist. No.	9	10							
Wt. of Sand before Test, gm	7710	7540							
Wt. of Sand After Test, gm	3850	4700							
Wt. of Sand in Cone + hole, gm	3860	3740							
Wt. of Sand in Cone	1425	1425							
Wt. of Sand in hole, gm	2435	2315							
Volume of the hole, cm ³	1647	1560							
Wt. of Soil from hole, gm	3760	3550							
Bulk Density of Soil, g/cm ³	2.292	2.276							
Moisture Content, %	7.6	7.0							
Dry Density, g/cm ³	2.130	2.127							
Compaction, (%)	96.0%	95.9%							

Company Name : Egypt Stone
 Project : Electric Express Train, from Al Ain Sokhna to Marsa Matruh
 Type of sample : Prepared Subgrade.
 Location : St. (441+600) : (444-600)
 Delivery Date : 25/03/2023
 Reporting Date : 01/04/2023
 Reporting No. : 163
 Sample No. : 01

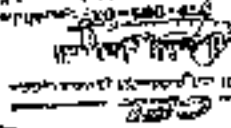
Dear Gentleman,

Attached here with the Prepared Subgrade delivered on 25/03/2023

Materials test

1. Sieve analysis according to ASTM D-422.
2. Material finer than sieve No. 200 according ASTM D-1140.
3. Liquid limits and plasticity index of soil according to D-4318.
4. Proctor Test according to D-1557
5. CBR according to ASTM D-1883
6. Los Angeles according to ASTM C-131.

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

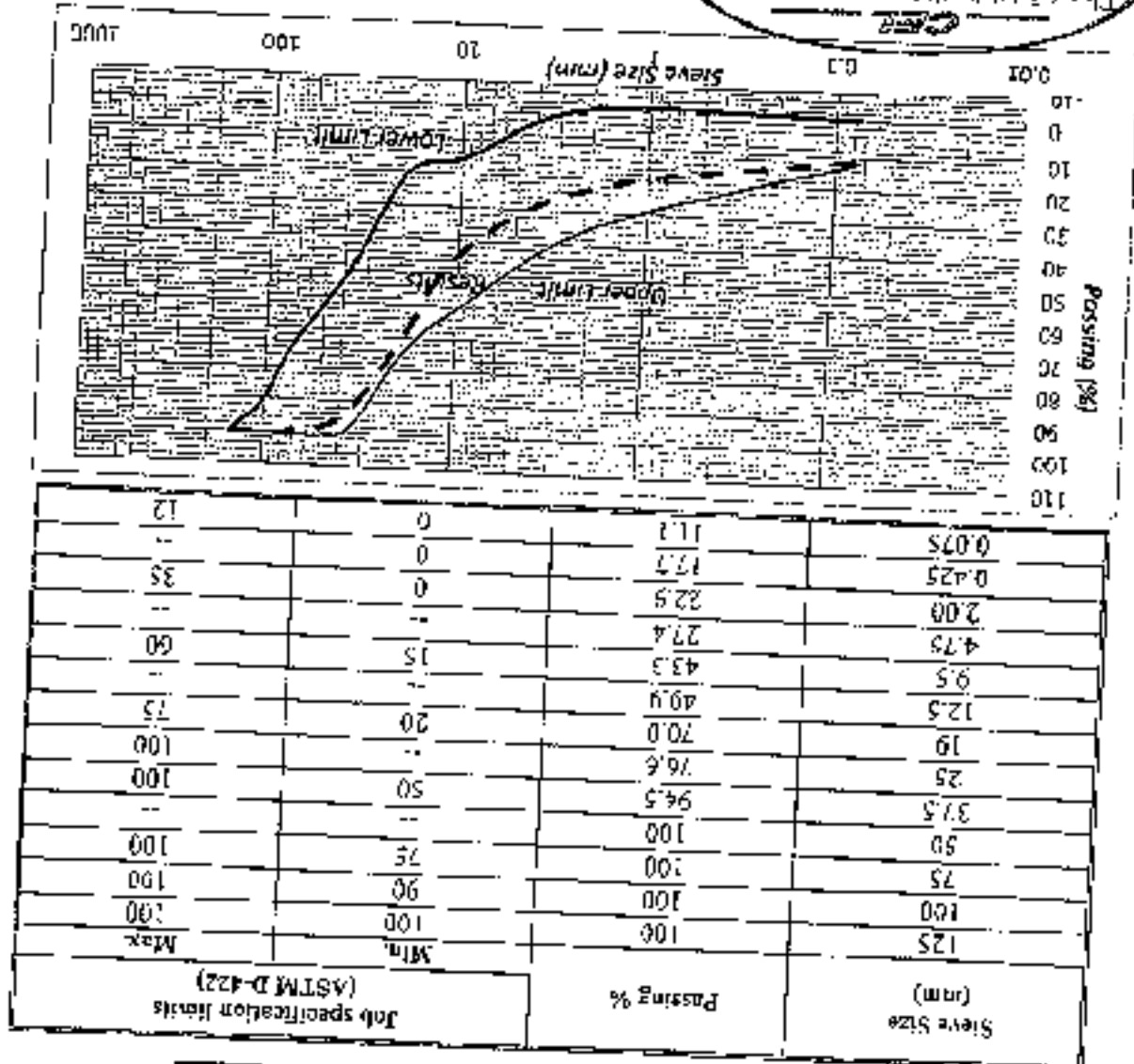
Signature /

 Mohamed Elmaghrabi
 Head of Laboratory



3 El Meshak El Aghal Street
 Zayedek, Cairo.
 Tel.& Fax : 27367331 - 27363093

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The test results are in compliance



Results of sieve analysis according to ASTM D-422.

10 : Sample No.

Reporting No. : 163

Reporting Date : 01/04/2023

Delivery Date : 25/03/2023

Location	St. (441+600) : (444+600)
...	...

Type of sample : Prepared Subgrade.

Project	Type of sample
: Electric Express Train, from Al Ain Solhna to Marsa Matruh	: Prepared Submerged

Company Name : Egypt Stone

Company Name : Egypt Stone
 Project : Electric Express Train, from Al Ain Sokhna to Marsa Matruh
 Type of sample : Prepared Subgrade
 Location : St. (441+600) : (444+600)
 Delivery Date : 25/03/2023
 Reporting Date : 01/04/2023
 Reporting No. : 163
 Sample No. : 01

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

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

Signature /
 250-604-837
 250-604-837
 250-604-837

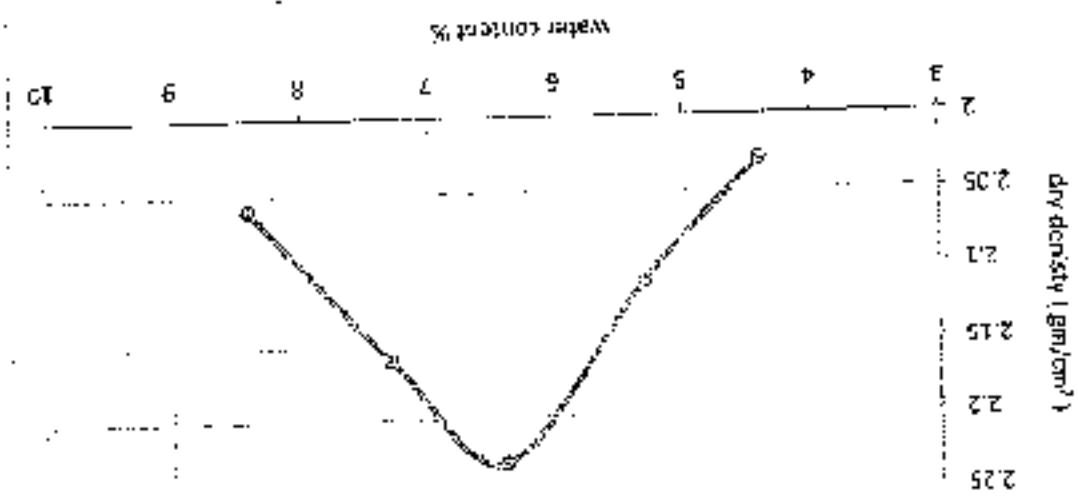


3 El Malek El Assad Street
 Zewail, Cairo
 Tel & Fax : 27367231 - 27363403

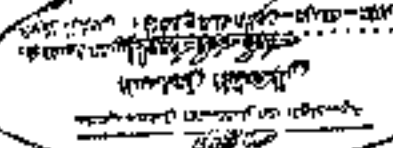
www.egyptian-consulting.com
 250-604-837 - 250-604-837
 250-604-837 - 250-604-837

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matruh
Type of sample : Prepared Subgrade
Location : St. (441+600) : (444+600)
Delivery Date : 25/03/2023
Reporting Date : 01/04/2023
Reporting No. : 163
Sample No. : 01

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



- Max dry density (gm/cm³) : 2.23
- Optimum moisture content % : 6.4

Signature

Engineer in Charge



3 El Nasse El Afnal Street
Zamalek, Cairo
T.M. & Fax : 27367231 - 27367093

Company Name : Egypt Stone
 Project : Electric Express Train, from Al Ain Sokhna to Marsa Matruh
 Type of sample : Prepared Subgrade
 Location : St. (441+600) : (444+600)
 Delivery Date : 25/03/2023
 Reporting Date : 01/04/2023
 Reporting No. : 163
 Sample No. : 01

Test Results of California Bearing Ratio on Base Materials

ASTM D 1883

penetration	mm	Inch	stress on piston (Mpa)	Stress (Mpa)		CBR Result
				St. Value	Sample results	
	6.35	0.250	6.48	6.90	5.00	At 0.1 inch (2.54 mm) penetration
	5.71	0.225	6.31			
	5.08	0.200	6.09			
	4.45	0.175	5.81			
	3.81	0.150	5.57			
	3.18	0.125	5.30			
	2.54	0.100	5.00			
	1.91	0.075	4.73			
	1.27	0.050	4.41			
	0.64	0.025	4.13			

Notes:

- 1- Attached graph shows penetration resistance versus penetration magnitude.
- 2- The sample was compacted to dry density of 2.23 (gm/cm³) at 0.4 % optimum water content.
- 3- Surcharge load of 50 Kg/cm².

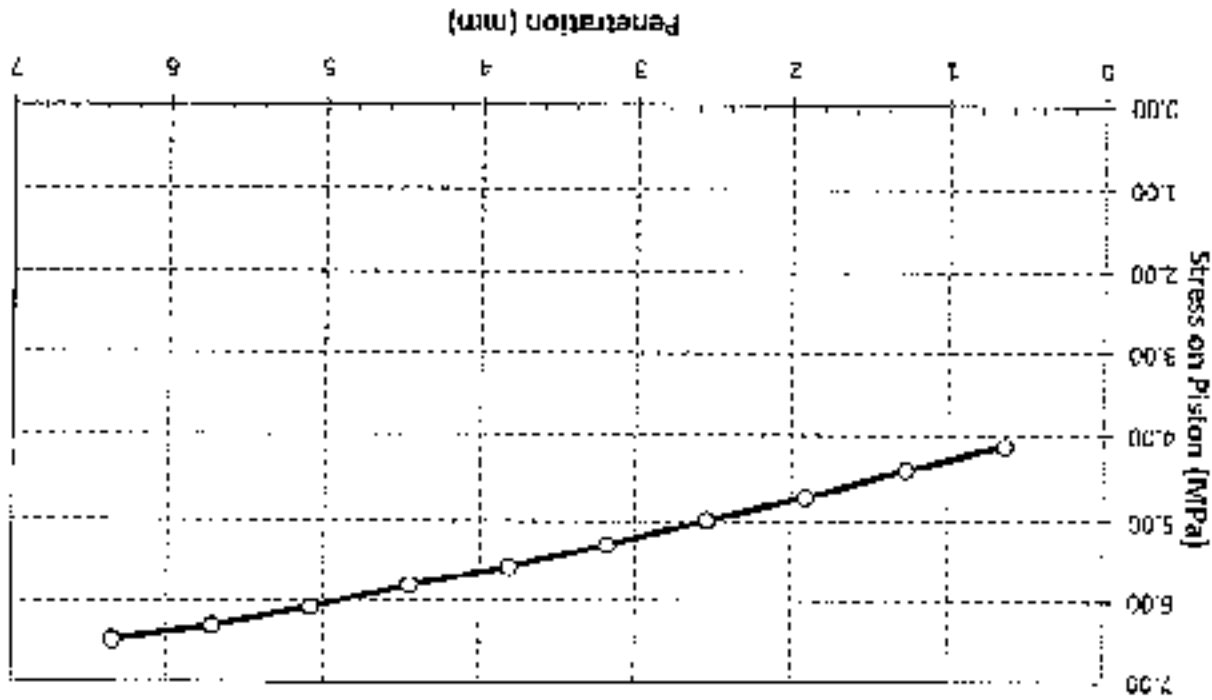
Signature

Stamp and Signature of the Engineer in Charge

Company Name : Egypt Stone
 Project : Electric Express Train, from Al Ain Sokhna to Marsa Matruh
 Type of sample : Prepared Subgrade
 Location : St. (441+600) : (444+600)
 Delivery Date : 25/03/2023
 Reporting Date : 01/04/2023
 Reporting No. : 163
 Sample No. : 01

Load Penetration Curve of CBR Test

ASTM D-1883



Signature /
 Name of the Engineer
 Date: 01/04/2023
 Stamp of the Engineer

• According to project specs:

Coarse Aggregate	Amount of loss by abrasion and impact (%)
25.0	Results

RESISTANCE TO DEGRADATION
OF SMALL SIZE AGGREGATE BY ABRASION
AND IMPACT IN LOS ANGELES MACHINE
ASTM C 635

Project	: Electric express train.
Delivery Date	: 07/05/2023
Report Date	: 15/05/2023
Sample Id	: Prepared subgrade sample No.1
Type	: Coarse Aggregate
Source	: Site
Report No.	: 01

Company: Egypt stone

Company : Egypt Stone

Project : Electric Express Train, Al Ain Sokhna to Marsa Matruh Priority Sector (6)
 - Ataman to Foka
 Subject : Determine the deformation and strength characteristics of soil by the plate loading test according specifications UIN 18734/2012-04 and project requirements
 Test Location : Station (443+420 to 443+520)
 Test Date : 18/10/2023
 Report Date : 18/10/2023
 Type of soil :
 Test level : subgrade
 Report No. : 1219.1222

Dear Gentleman,

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

Apparatus

1. Loading plates consists of two plates with 600 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 (Enorbac)
7. Reaction loading system by roller compactor with weight approximately 15 ton
8. Calibration certificates are attached

Test Procedure

1. Clear the ground on test area to the required level with undisturbed soil
2. Install loading plates 600 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
5. For a 600 mm loading plate, the limit values are 2.5 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 7 % of the maximum load
9. 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

S. aureus

Company Name : Egypt Stone company
Project : Electric Express Train, from Al Air Boulhous to Wassa Railway Priority Sector (I) - Admin to Foka
Test Date : 18/10/2023
Report date : 18/10/2023
Location : Station 443+420 to 443+445
Test No. : 1

Nonrepetitive Static Plate Load Tests of Soils

TIN 18134

Data sheet

Loading Stage (1)

Loading	Stress	Kg/cm ²	Dial 1	Dial 2		Dial 3	Average	
				Settlement	mm		Settlement	mm
0	0.00	20.00	0.60	20.00	0.00	20.00	0.00	0.00
1	0.42	19.58	0.15	19.82	0.18	19.78	0.22	0.18
2	0.83	19.70	0.20	19.60	0.34	19.60	0.40	0.35
3	1.25	19.54	0.48	19.45	0.58	19.41	0.58	0.53
4	1.67	19.38	0.62	19.28	0.72	19.23	0.77	0.70
5	2.08	19.23	0.77	19.10	0.86	19.06	0.94	0.88
6	2.50	19.05	0.53	18.97	1.03	18.91	1.03	1.02

Unloading Stage (1)

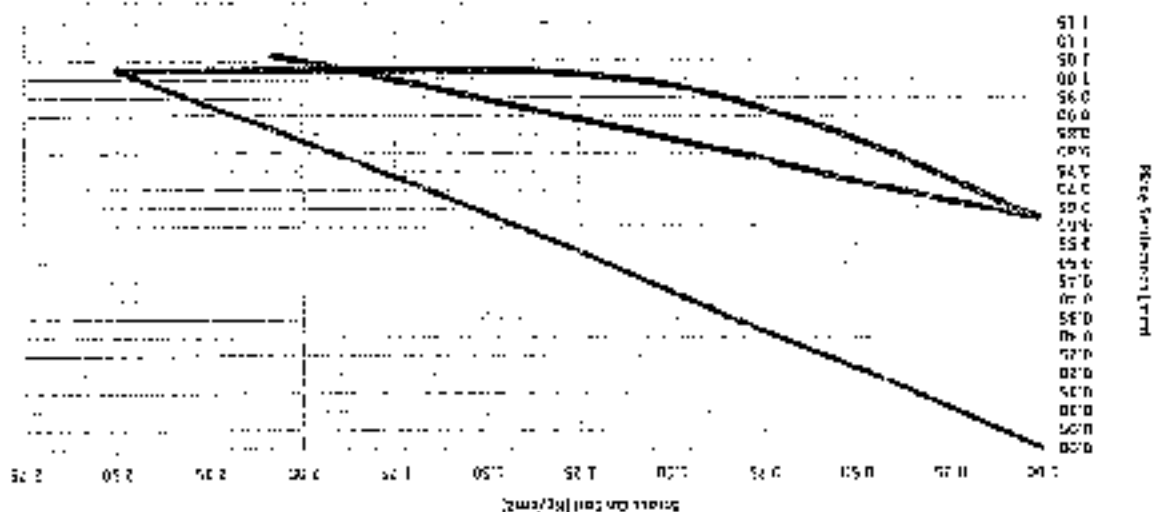
Loading	Stress	Kg/cm ²	Dial 1	Dial 2		Dial 3	Average	
				Settlement	mm		Settlement	mm
1	2.50	19.05	0.55	18.97	1.03	18.91	1.03	1.02
2	1.25	19.09	0.93	19.01	0.59	18.66	1.14	1.01
3	0.625	19.18	0.63	19.10	0.30	19.08	0.92	0.86
4	0.0	19.42	0.53	19.35	0.65	19.34	0.68	0.62

Loading Stage (2)

Loading	Stress	Kg/cm ²	Dial 1	Dial 2		Dial 3	Average	
				Settlement	mm		Settlement	mm
0	0.42	19.37	0.53	19.28	0.72	19.24	0.76	0.70
1	0.83	19.26	0.74	19.19	0.81	19.15	0.85	0.80
2	1.25	19.16	0.84	19.20	0.99	19.07	0.93	0.89
3	1.67	19.08	0.92	19.02	0.86	18.95	1.05	0.98
4	2.08	19.00	1.00	18.94	1.08	18.87	1.10	1.03

1
Electric Express Train, from Al Ain Station to Masra Matrouh Port
16/10/2022
16/10/2022
SINOTRAC 443+420 to 443+445

Nonreplicative Static Plate Load Tests of Soils
DIN 18134



Settlement (mm)	Stress (Kg/cm ²)	Stress (Kgf)	Loading (t)
0.00	0.00	0	0
0.10	0.42	1185.92	1
0.35	0.83	2345.6	2
0.53	1.25	3532.5	3
3.70	1.67	4719.4	4
0.06	2.08	5870.1	5
1.02	2.55	7065	6

σ (MPa)	800	81 mm ²	0.81	82 mm ²	0.75	$\Delta S = 0.42$
$E \Delta l / (Mpa \cdot mm)$	10.75-0.0015	105				

Location (z)	Stage (g)	Stress (kg/cm ²)	Sealant (mm)
0	1106.92	2349.6	3532.5
1	1106.92	2349.6	3532.5
2	1106.92	2349.6	3532.5
3	1106.92	2349.6	3532.5
4	1106.92	2349.6	3532.5
5	1106.92	2349.6	3532.5

12 (mm) = 600	51 (mm) = 0.22	52 (mm) = 1.30	25 = 0.22
---------------	----------------	----------------	-----------

מספר: 147 - תאריך: 09.09.2019

ԱՅՏԻՆ ԶԻՅՈՒՆ ԶԵՂԻ ԲԻՆՈՒՐ ԿՈՆՏՐԱԿՏՈՐՆԵՐ ԵՎ ՍՈՐԵՐՈՅՑ : 763

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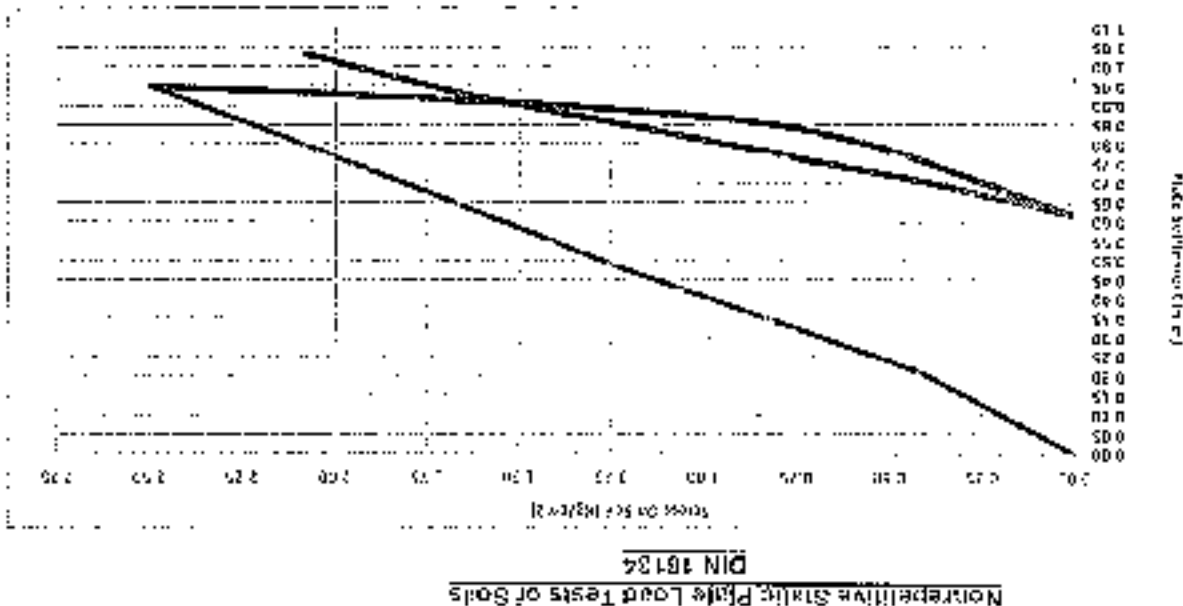
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Unloading Stage (1)

Loading Stage (2)

Loading	Stress Kg/cm ²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	19.17	0.73	15.28	0.72	19.33	0.67	0.71
1	0.63	19.23	0.50	19.11	0.70	19.25	0.75	0.78
2	1.25	19.18	0.67	19.17	0.88	19.18	0.87	0.66
3	1.67	19.06	0.76	19.06	0.97	19.08	0.92	0.90
4	2.08	18.96	1.32	18.93	1.07	19.11	0.89	1.00

Company Name	: Egypt Stone company
Project	: Electric Express Train, from Al Ain Sokhry to Marsa Matruh Priority Sector (g) - Almarina to Foka
Test Date	: 10/10/2023
Report date	: 18/10/2023
Location	: Station 143-145 to 143-147S
Test No.	: 2



Load no (1)	2	1	2	3	4	5	6	7
Size(kg)	2	1106.92	2345.6	3537.5	4719.4	5678.1	7065	
Stress (kg/cm ²)	0.00	0.42	1.83	1.25	1.67	2.08	2.51	
Settlement (mm)	0.00	0.21	0.35	0.49	0.60	1.86	2.95	

0.700 =	600	51 (mm)	0.52	5% (mm)	0.65	35 ~	0.35
EVI (mm) = 10.75 (0.49) 0.58							
1.25							

Loading (Z)	C	1	2	1	4	5
Slope(Ng)	0	-186.92	2045.6	3532.5	4719.4	5878.1
Stress (kg/cm ²)	0.7	0.42	0.63	1.25	1.67	2.38
Saturation (mm)	0.52	0.71	0.76	0.86	0.93	1.03

[illegible]

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[illegible]
$$|\psi\rangle = \frac{1}{\sqrt{2}}(|\uparrow\rangle + |\downarrow\rangle)$$

(100,6%)¹ արհեստի հաշվառման արդյունքում, ընդհանուր առմամբ 2017 թվականին 79,1 = 80:

US = Difference between the maximum loading level of the ship and the maximum loading level of the ship.

Data sheet

4	55.50	45.00	5.00	4.00	4.00	4.00
5	15.15	10.00	5.15	0.00	0.00	0.00

Company Name

122100

2004

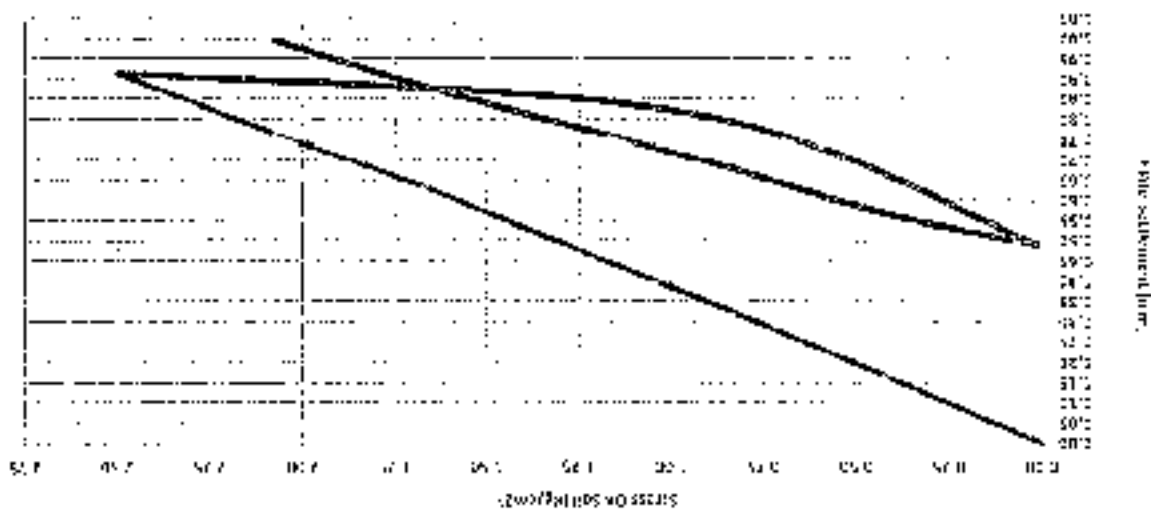
דעם זענען די צוויי זייטן פון דעם זעלבן קאמפאניאן.

5521522 06/04/2011 11:04:15:

5

Nottingham City Council

42134



Loading (t)	Stage(Kg)	Stress (kg/cm ²)	Settlement (mm)
0	0	0.00	0.00
1	1186.92	0.42	0.17
2	2345.6	0.83	0.32
3	3532.5	1.25	0.46
4	4718.4	1.67	0.63
5	5876.1	2.08	0.76
6	7065	2.50	0.91

Unloading (t)	1	2	3	4
Stage (kg)	7065	3533	1762	0
Stress (kg/cm ²)	2.50	1.25	0.625	0.0
Settlement (mm)	0.16	0.32	0.48	0.64

$D_{\text{eff}}(t) =$	600	51 (mm) ²	0.29	120 (mm) ²	2.40×10^{-5}	0.57
$F_{\text{eff}}(t) =$	$(0.75 - D_{\text{eff}})/AS$					
				171		

Load: 0 (g)	0	1	2	3	4	5
Single (kg)	0	1106.92	2345.6	3532.4	4719.4	5878.1
Stress (kg/cm ²)	0.0	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.49	0.57	0.68	0.78	0.88	1.00

0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	9.25	9.50	9.75	10.00
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Հանձնարարությունը կատարվել է 2017 թվականի 12-րդ ամսին:

785 - Երևանի քաղաքապետարանի քաղաքականության բաժնի պետ

၂၀၁၈ ခုနှစ် ဖွဲ့စည်းပုံအခြေခံဥပဒေ

Δ ρ = The difference between 0.1 and 0.7 from the maximum loading (mmol/l) [Mpherrin]

25 = 0 degrees in azimuth corresponding to 0 and 180 from the map above (see)

Company Name : Egypt Stone company
 Project : Electric Express Train, from A/ Ain Sukhna to Marsa Matruh Priority Sector (B) - Alameda For-4
 Test Date : 18/10/2023
 report date : 18/10/2023
 Location : Station 443+495 to 443+520
 Test No. : 4

Nonrepetitive Static Load Tests of Soils

DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress	kg/cm ²	Dial 1	Settlement	mm	Dial 2	Settlement	mm	Dial 3	Settlement	mm	Average
0	0.00	20.00	19.80	0.20	19.85	0.15	19.80	0.20	20.00	0.00	0.00	0.00
1	0.47	19.80	19.68	0.32	19.64	0.36	19.61	0.39	19.80	0.20	0.18	0.36
2	0.83	19.53	19.47	0.47	19.48	0.52	19.46	0.54	19.28	0.72	0.51	0.51
3	1.25	19.37	19.22	0.78	19.18	0.92	19.10	0.90	19.10	0.90	0.80	0.80
4	1.67	19.10	19.03	0.97	18.95	1.06	18.85	1.15	18.85	1.15	0.99	0.99
5	2.08	18.97	18.97	1.03	18.97	1.03	18.97	1.03	18.97	1.03	0.95	0.95
6	2.50	18.85	18.85	1.09	18.85	1.09	18.85	1.09	18.85	1.09	0.86	0.86

Unloading Stage (1)

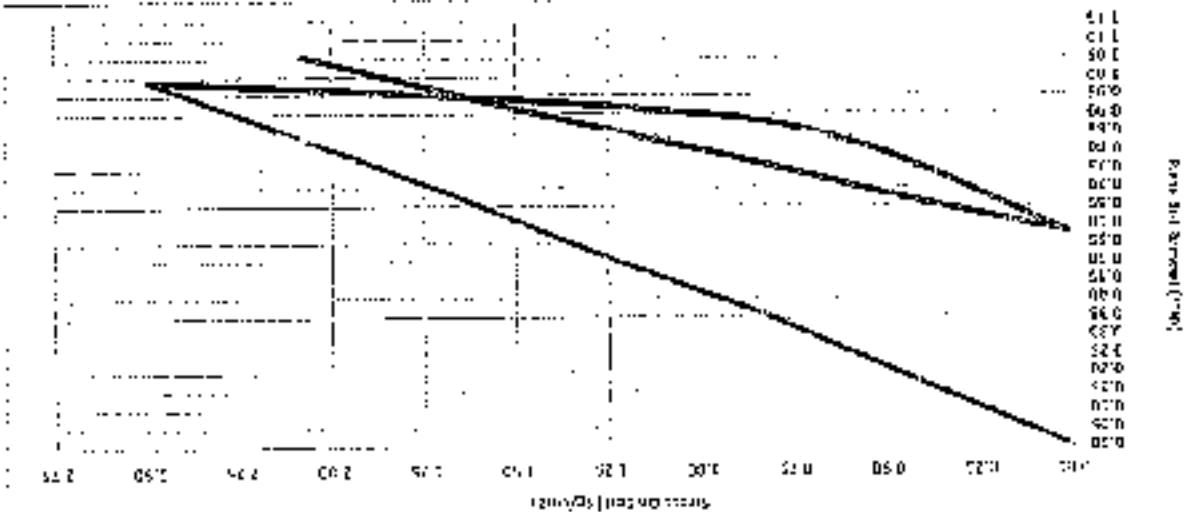
Loading	Stress	kg/cm ²	Dial 1	Settlement	mm	Dial 2	Settlement	mm	Dial 3	Settlement	mm	Average
1	2.50	19.08	18.92	0.88	19.01	0.88	18.94	1.08	18.94	1.08	0.86	0.86
2	1.25	19.19	18.90	0.50	19.07	0.53	19.03	0.57	19.03	0.57	0.52	0.52
3	0.825	19.13	18.95	0.35	19.18	0.32	19.13	0.37	19.13	0.37	0.33	0.33
4	0.01	19.41	19.58	0.58	19.40	0.51	19.36	0.64	19.36	0.64	0.50	0.50

Loading Stage (2)

Loading	Stress	kg/cm ²	Dial 1	Settlement	mm	Dial 2	Settlement	mm	Dial 3	Settlement	mm	Average
0	0.42	19.34	19.66	0.66	19.47	0.62	19.30	0.70	19.30	0.70	0.66	0.66
1	0.83	19.29	19.70	0.70	19.28	0.72	19.18	0.82	19.18	0.82	0.76	0.76
2	1.25	19.18	0.82	19.16	0.84	19.09	0.91	0.86	19.09	0.91	0.86	0.86
3	1.67	19.10	0.90	19.07	0.93	18.97	1.03	1.03	18.97	1.03	0.95	0.95
4	2.08	19.03	0.97	18.95	1.06	18.85	1.15	1.15	18.85	1.15	0.99	0.99

Company Name : Egypt Stone company
 Project : Electric Express train, from Al Ain Sokhna to Marsa Matruh Portcity Sector (B) - Matruh to Foka
 Test Date : 18/10/2023
 report date : 18/10/2023
 Location : Station 442+495 to 443+520
 Test No. : 4

Nonresonantive Static Plate Load Tests of Soils
 DIN 18134



Loading (t)	Stage(kg)	Stress (kg/cm²)	Settlement (mm)
0	1138.82	0.42	0.00
1	2545.6	0.83	0.36
2	3532.8	1.25	0.61
3	4719.4	1.67	0.86
4	6078.1	2.09	0.82
5	7066	2.50	0.95

Q (mm) = 600	S ₁ (mm) = 0.32	S ₅₀ (mm) = 0.71	A ₅ = 0.39
S ₀₁ (Mpa) = 10.75 D ₁₀ 0.53			
114			

Loading (t)	Stage(kg)	Stress (kg/cm²)	Settlement (mm)
0	1138.82	0.42	0.00
1	2545.6	0.83	0.06
2	3532.8	1.25	0.75
3	4719.4	1.67	0.86
4	6078.1	2.09	0.95
5	7066	2.50	1.06

L ₅₀ /C _u 1 =	1.7
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Q (mm) = 600	S ₁ (mm) = 0.74	S ₅₀ (mm) = 0.97	A ₅ = 0.23
E ₀₂ (Mpa) = 10.75 D ₁₀ 0.45			
192			

Q₀₁ = Modulus of deformation during the loading stage.
 E₀₂ = Modulus of deformation during the relaxing stage.
 C = Rate dependent (mm)

D₅ = The difference between d₁₅ and d₇₅ from the maximum loading (mm)
 d₁₅ = 3. The number in settlements corresponding to 3.0 and 4.0 from the maximum loading (mm)

أعمال الجسر القرائي لمشروع القطر الكهربائي السريع
قطاع العامين / فركة
في المسافة من كم ٦٠٠ + ٤٤١ الى كم ٦٠٠ + ٤٤٢ بطول ٢ كم (اتجاه العامين)

رقم البند	بيان الأعمال	الوحدة	التكمية	سعر الوحدة	الاجمالي
٤	طبقات الأساس				
١ - ٤	بالتر المكعب أعمال توريد و فرش طبقة تأسيس (Prepared Subgrade) من الأحجار الصلبة المدرجة ناتج تكسير الكسارات و المطابقة للمواصفات وأقصى حجم للحبيبات ١٠٠مم والزيادة نسبة المنخل ٢٠٠ من ١٢٪ والتدرج الوارد بالاشتراطات الخاصة بالمشروع لا يقل نسبة تحمل كاليفورنيا عن ٢٥٪ والزيادة نسبة الفائد بجهاز لوس أنجلوس عن ٢٣٪ والا يزيد الامتصاص عن ١٥٪ و الا يقل معامل المرونة (٢EV) من تجربة لوح التحميل عن ٨٠ ميجاباسكال و يتم فردها على طيقتين باستخدام آلات التسيوية الحديثة على أن لا يزيد سمك الطبقة بعد تمام الدمك عن ٢٥ سم و رشها بالمياه الاصولية للوصول الى نسبة الرطوبة المطلوبة و الدمك الجيد للهراسات للوصول الى أقصى كثافة جافة قصوى (لا تقل عن ٩٥٪) من الكثافة المعملية و الفتة تشمل اجراء التجارب المعملية و الحقلية و يتم التنفيذ طبقاً لأصول الصناعة و الرسومات التفصيلية المعتمدة و البند بجميع مشتلاته طبقاً للمواصفات الفنية للمشروع و تقرير الاستشاري و تعليمات المهندس المشرف. - مسافة النقل لا تقل عن ٢٠ كم. - يتم احتساب علاوة ١,٢ اجنيه لكل اكم بالزيادة او النقصان. - السمر يشمل قيمة المواد الحجرية طبقاً لافادة المنطقة بهذا القطاع (٦) من اكم ٢٩٥ الى اكم ٥٠٤	م ^٣	١٥١٥٥,٩٢	٢٧٨	٤٢١٢٢٤٩
	علاوة مسافة النقل ١٧٥ كم.	م ^٣	١٥١٥٥,٩٢	١٨٦	٢٨١٩٠٠٢
	علاوة تحميل رسوم الكسارات والموازن طبقاً للائحة الشركة الوطنية	م ^٣	١٥١٥٥,٩٢	٢٥	٣٧٨٨٩٨
٢ - ٤	بالتر المكعب أعمال توريد و فرش طبقاً أساس من الأحجار الصلبة المدرجة ناتج تكسير الكسارات و المطابقة للمواصفات و أقصى حجم للحبيبات ما بين ٣١,٥ مم الى ٤٠ مم و الا يزيد نسبة المنخل ٢٠٠ من ٢٥٪ والتدرج الوارد بالاشتراطات الخاصة بالمشروع لا تقل نسبة تحمل كاليفورنيا عن ٨٠٪ و الا يقل معامل المرونة (٢EV) من تجربة لوح التحميل عن ١٢٠ ميجاباسكال و الا يزيد نسبة الفائد بجهاز لوس أنجلوس عن ٢٣٪ والا يزيد الامتصاص عن ١٥٪ و يتم فردها على طيقتين باستخدام آلات التسيوية الحديثة على أن لا يزيد سمك الطبقة بعد تمام الدمك عن ٢٠ سم و رشها بالمياه الاصولية للوصول الى نسبة الرطوبة المطلوبة و الدمك الجيد بالهراسات للوصول الى أقصى كثافة جافة قصوى (لا تقل عن ٩٥٪) من الكثافة المعملية و الفتة تشمل اجراء التجارب المعملية و الحقلية و يتم تنفيذ طبقاً لأصول الصناعة و الرسومات التفصيلية المعتمدة و البند بجميع مشتلاته طبقاً للمواصفات الفنية للمشروع و تقرير الاستشاري و تعليمات المهندس المشرف. - مسافة النقل لا تقل عن ٢٠ كم. - يتم احتساب علاوة ١,٢ اجنيه لكل اكم بالزيادة او النقصان.	م ^٣	١٢٠٠٠	٢٩٨	٣٥٧٦٠٠٠



ملحوظة : أسعار البنود تقديرية ولحين التفاوض .

Figure 1