

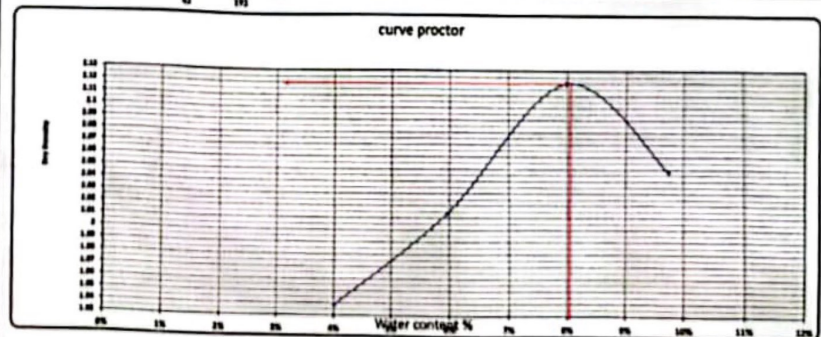
PROCTOR TEST

Testing Date	01-06-23	code		From Station	To Station
Location	KH 502+500	ARC2-15	Zone	522+000	522+500
ALARCAN 2	ALARCAN 2				

Weight of empty mold	5807.0	MAX Dry Density	2.22
Mold Volume	2129.0	Water content %	6.3

trial no	1	2	3	4	
Wt. Of Mold + wet soil	10100.0	10150.0	10681.0	10592	
WT. WET SOIL	4293.0	4543.0	4874.0	4785.0	
Wt. Density	2.016	2.134	2.289	2.248	

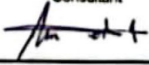
Tare No.	5	6	7	4	5	6	8	5		
Tare wt.	36.26	38.82	35.99	36.28	35.35	35.8	36.26	35.35		
Wt. Of wet soil & tare	160.0	160.0	160.0	160.0	160.0	160.0	160.0	160.0		
Wt. Of dry soil & tare	155.22	155.35	153.00	153.07	150.72	150.90	149.00	148.96		
Wt. Of water	4.8	4.7	7.0	6.9	9.3	9.1	11.0	11.0		
Wt. Of dry soil	119.0	116.5	117.0	116.8	115.4	115.1	112.7	113.6		
Water content %	4.02%	3.99%	5.98%	5.93%	8.04%	7.91%	9.76%	9.72%		
AV. Water content %	4.26%	4.48%	5.99%	5.93%	8.04%	7.91%	9.76%	9.72%		
Dry Density	2.014	2.014	2.123	2.123	2.123	2.123	2.123	2.123		



Contractor

Consultant

شركة جديدة للتعمير
 المعمل المركزي
 مشروع القطار السريع / فوكة - مطروح



 شركة ك. ك. ك. ك. ك. ك.	Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 7 From FOKA To MARSA MATROUH From Station 504+000 To Station 568+177	 وزارة النقل والتنمية الاقتصادية 2021
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Cooperating Lab: **Najda Central Lab**

PARTICLE SIZE DISTRIBUTION OF SOIL

Description of Materials: **Embankment**

Testing Date	01-08-23	CODE	0008	Zone	From Station	522+000	TO Station	522+500
Location	K.P 522+300	ARC2-15						
Company Name	ALARCAN 2							

1-visual inspection test :-

2-Gradient test :-

A-gradation of bulk materials			SAMPLE WEIGHT [g]				27535.00	gm	table classify	
seive size	2	1.5	1	3/4	1/2	3/8	# 4	PASS		soil classify
Mass retained (g)	404.0	3312.0	3784.0	3000.0	2697.0	962.0	2121.0			
Cumulative Retained (g)	404.0	3312.0	7098.0	10098.0	12793.0	13755.0	15876.0			
Cumulative Retained %	1.5	12.0	25.8	36.7	46.5	50.0	57.7		PRO	2.120
Cumulative Passing %	98.5	88.0	74.2	63.3	53.5	50.0	42.3		WC	8.1
									CBR	65.3%
									corr pro.	2.198%
									corr O.M.C	7.80%

B-soft material gradation				WT. OF sample		500.00	gm
seive size	10	40	200				
Cumulative Retained (g)	84.00	211.00	337.00				
Cumulative Retained %	16.80	42.20	67.40				
Cumulative Passing %	83.20	57.80	32.60				

C-General gradient										
seive size(in)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
seive size(mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	60.0	88.0	74.2	63.3	53.5	50.0	42.3	35.2	24.5	13.8

ATTERBERG LIMITS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	—	—	N.P

Contractor

شركة نجيدة للمقاولات
 المعمل المركزي
 مشروع القطار السريع / فوكا - مطروح

Consultant



California Bearing Ratio TEST

Testing Date	3-6-2023	code	ARC2-15	From Station	522+000	To station	522+500
Location	K.P. 522+300	Zone					
Company Name	ALARCAN I						

Test Results:

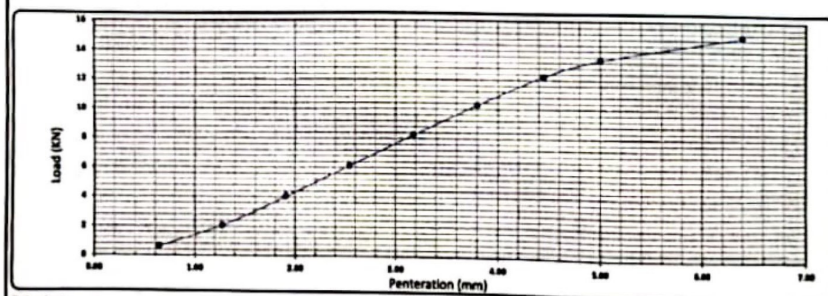
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm ³)	2170
Mold WT. (gm)	7700
Mold WT. + Wet WT. (gm)	12680
Wet WT. (gm)	4980
Wet Density (g/cm ³)	2.295
Dry Density (g/cm ³)	2.126
Proctor Density (g/cm ³)	2.120
Compaction %	100

Moisture Ratio After Compacted Mold	
Tare No.	5
Tare WT. (gm)	35.35
Tare WT. + Wet WT. (gm)	156.01
Tare WT. + Dry WT. (gm)	147.13
Water WT. (gm)	8.9
Dry WT. (gm)	111.8
Moisture Content %	7.94

Swelling	
Mold No.	1
Date	3-6-2023
Initial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0.00
Sample Height (mm)	116.40
Swelling Ratio %	0%

Loading Reading:

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	66	212	414	626	842	1050	1250	1348	1533
Load (KN)	0.6	2.1	4.1	6.2	8.3	10.3	12.3	13.2	14.9



Calculations :-

Penetration (mm)	Load (Kpa)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR % نسبة
2.50	6.13	13.4	46.0%			44.9%
5.00	13.38	20.0	66.8%	100	98	65.3%

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name :

شركة نجيبة للمقاولات
المعمل المركزي
مشروع القطار السريع / فوكة - مطروح

Consultant Engineer

Name :

Sign :

MATERIAL APPROVAL REQUEST

المجلس
التقني
لبنان
(MTC)



ENGINEERING CONSULTING OFFICE
المكتب الاستشاري الهندسي
إ. د. هادي زكي

الهيئة العامة للإسكان
GENERAL AUTHORITY FOR HOUSING
HAJAJ



Location Name	Contractor Company			Designer Company							
Electric express train	ALARCAN 2			k.k							
Issued by Contractor	Name	Sign	Date	Time							
	Eng/Salman gamal		3/6/2023								
Contractor Reference	AR2-15										
Received by ER			MAR	C1	C2	C3	DD	M	YY	HH	MM
							3	6	2023		

The Following Test Result are Attached For Review

Description of Materials	Soil (A-1-a)			
Location to be Used	522+050			
Item	AR2-15	Test requirement	Test result attachment	Remarks
1	ASTM D 75	Aggregate Sampling	According to specifications	
2	ASTM C 136	Sieve Analysis	According to specifications	
3	ASTM D 1440	Passing Sieve, No 200	13.8 %	
4	ASTM D 4318	Atterberg limit	N.P	
5	ASTM D 2974	Moisture content	7.8%	
6	ASTM D 1557	Modified proctor	2.198%	
7	ASTM D 1883	CBR	65.3 %	
Comments by:		Comments by:		
		تابع الملاحظات والمقنات مطابقة كميًا مثل حواس 5174		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/salman gamal			
Contractor QA/QC *	Ahmed Abazid			
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only

MATERIAL INSPECTION REQUEST

المكتب
المحلى والكبارى
(GARBLT)



ENGINEERING CONSULTING OFFICE
المكتب الاستشارى الهندسى
أ.د. خالد فريد

الهيئة القومية للإنفاق

NATIONAL AUTHORITY FOR TUNNELS



Contractor Company	ALARCAN 2		Designer Company																
Issued by Contractor	Name Eng/SLAMAN GAMAL	Sign <i>[Signature]</i>	Date 19-07-2023	Time															
Contractor Reference	P.S.G.1 ARC 2(P-1)																		
Received by ER		MIR	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>M</td> <td>YY</td> <td>HH</td> <td>M</td> </tr> <tr> <td></td> <td></td> <td></td> <td>19</td> <td>07</td> <td>2023</td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	M	YY	HH	M				19	07	2023		
C1	C2	C3	DD	M	YY	HH	M												
			19	07	2023														

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		

Description of Materials	Curshed Stone P.S.G.1 Material Result				
Location to be Used	522+000 TO 522+500 0.25+ 522+000 TO 522+500 0.50+				
MAR Approval No	P.S.G.1 ARC 2(P-1)			Date	
Supplier Name					
Test Requirement	Specification			Clause	
Reference Photos	Yes attached / No			Other	
Item	Description	Unit	Quantity	Arrival Date	Note
1	LL & P.L & O.M.C %	m3	5000	17-07-2023	
2	Proctor	m3	5000	18-07-2023	
3	Classification	m3	5000	17-07-2023	
4	Sieve Analysis	m3	5000	17-07-2023	
5	C.B.R	m3	5000	19-07-2023	
6	L.A	m3	5000	18-07-2023	
7	SP.Gravity	m3	5000	18-07-2023	
8	Absorbton	m3	5000	18-07-2023	
Comments by:			Comments by:		
APPROVAL STATUS					
Organisation	Name	Sign	Date	A-AWC-R	
Contractor	Eng/ Shehab Hamdi	<i>[Signature]</i>			
QA/QC *	<i>[Signature]</i>	<i>[Signature]</i>			
GARB**					
Employers Representative					

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

المركز
للمواد والبنية
(GARBIT)



ENGINEERING CONSULTING OFFICE
المكتب الاستشاري الهندسي
أ. د. خالد هادي

الهيئة القومية للإنفاق
NATIONAL AUTHORITY FOR TUNNELS
(NAT)



Location Name	Contractor Company				Designer Company						
Electric express train	ALARCAN 2				k.k						
Issued by Contractor	Name	Sign	Date	Time							
	Eng/SALMAN GAMAL		19-07-2023								
Contractor Reference	P.S.G.1 ARC2(P-1)										
Received by ER			MAR	C1	C2	C3	DD	M M	YY	HH	M M
							19	07	2023		

The Following Test Result are Attached For Review				
Description of Materials	P.S.G.1 (A-1-a)			
Location Of Stock	522+140			
Item	Specification	Test requirement	Test result attachment	Remarks
1	ASTM D 75	Aggregate Sampling	According to specifications	
2	ASTM C 136	Sieve Analysis	According to specifications	
3	ASTM D 1440	Passing Sieve, No 200	5.2 %	
4	ASTM D 4318	Atterberg limit	N.P	
5	ASTM D 2974	Moisture content	7.90 %	
6	ASTM D 1557	Modified proctor	2.194	
7	ASTM D 1883	CBR	88.8 %	
8	AASHTO-T96	L.A	24 %	
9	AASHTO-T85	Absorbtion	2.908 %	
10	AASHTO-T85	SP.Gravity	2.652	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/Shehab Hamdi			
Contractor QA/QC *				
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only

 KK ENGINEERING CONSULTING OFFICE مكتب الاستشارات الهندسية ك.ك. إنجنيئرنگ كونسولٲنٲنغ اوفيس	Electric Express Train - HSR From El Ain El Sekhna City To El Alamein - MATROUH Section - 7 From FOKA To MARSA MATROUH From Station 504+000 To Station 568+177	 جمهورية مصر العربية السكك الحديدية (GARBL)
Operating Lab	Negida Central Lab	

PARTICLE SIZE DISTRIBUTION OF PREPARED SUBGRADE

TESTING DATE:	17-07-2023	Code	Zone	FROM STATION	TO STATION
LOCATION	KP 522+140	ARC 2(P-1)		522+000	522+500
COMPANY NAME	ALARCAN 2				
MATERIALS	Prepared Subgrade				

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		31220.00		gm	Table classify	
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	Soil Classify	A-1-a
Mass retained (g)	0.0	1234.0	4817.0	2909.0	4920.0	2740.0	5838.0		PRO	2.194
Cumulative Retained (g)	0.0	1234.0	6051.0	8960.0	13880.0	16620.0	22458.0		WC	7.90
Cumulative Retained %	0.0	4.0	19.4	28.7	44.5	53.2	71.9		CBR	88.83%
Cumulative Passing %	100.0	96.0	80.6	71.3	55.5	46.8	28.1		Los Angeles	24
									Absorption	2.908

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	147.00	322.00	408.00					
Cumulative Retained %	29.40	64.40	81.60					
Cumulative Passing %	70.60	35.60	18.40					

C-General gradient										
sieve size(in)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
sieve size(mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	96.0	80.6	71.3	55.5	46.8	28.1	19.8	10.0	5.2
SPECIFICATION	—	97	—	70 — 75	—	15 — 60	—	0 — 35	—	0 — 12

ATTERBERG LIMITS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	—	—	N.P

Contractor

Mohamed Hamed
 مهندس
 المشروع
 مشروع القطار السريع - فوكا - مطروح

Consultant

ط
 19/7/2023

 ENGINEERING CONSULTING OFFICE مكتب استشارات الهندسة أ. د. خالد	 SYSTRA	Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 7 From FOKA TO MARSA MATROUH From Station 504+000 To Station 568+177		 المجلس الأعلى للتخطيط والتنمية الاقتصادية المجلس الأعلى للتخطيط والتنمية الاقتصادية (MPE)

PROCTOR TEST (PREPARED SUBGRADE)

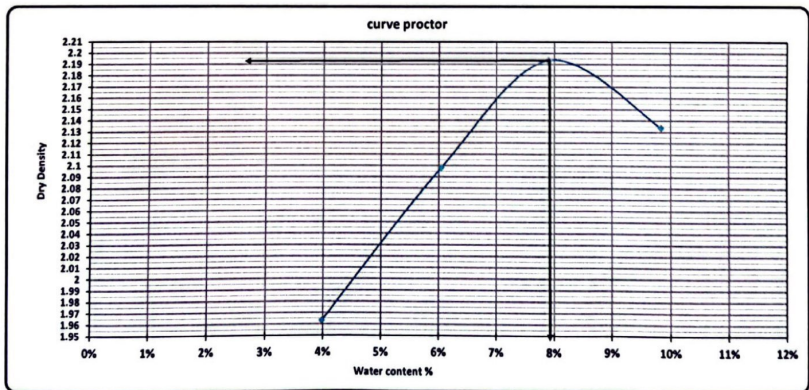
TESTING DATE:	18-7-2023	Code	zone	FROM	TO
LOCATION	522+140	ARC 2(P-1)		522+000	522+500
COMPANY NAME	ALARCAN 2				

Weight of empty mold :	5652.0
Mold Volume:	2125.0

MAX Dry Density	2.194
Water content %	7.9

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	9990.0	10380.0	10682.0	10633	
WT. WET SOIL	4338.0	4728.0	5030.0	4981.0	
Wt. Density	2.041	2.225	2.367	2.344	

Tare No.	7	19	13	17	15	40	31	32		
Tare wt.	42.2	44.1	53.6	53.2	30.9	46.2	80.7	82.7		
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0		
Wt. Of dry soil & tare	145.20	145.00	142.63	142.50	140.20	140.35	138.00	137.80		
Wt. Of water	4.8	5.0	7.4	7.5	9.8	9.7	12.0	12.2		
Wt. Of dry soil	123.0	123.0	123.0	123.0	123.0	123.0	123.0	123.0		
Water content %	3.9%	4.1%	6.0%	6.1%	8.0%	7.8%	9.8%	9.9%		
AV. Water content %	4.0%		6.0%		7.9%		9.8%			
Dry Density	1.963		2.098		2.194		2.134			



Contractor

Mohamed Elameel
المهندس محمد المرزوق
مشروع القطار السريع، فوكة مصر

Consultant

طه
19/7/2023

PREPARED SUBGRADE

TESTING DATE:	18-7-2023	code	zone	FROM	TO
LOCATION	522+140	ARC 2(P-1		522+000	522+500
COMPANY NAME	ALARCAN 2				

Weight of sample Before Test	—	gm
Weight of saturated -dry surface sample (B)	3008	gm
Weight of saturated sample in water (C)	1821	gm
Weight of dry sample after heating (A)	2923	gm

10695

Results:-

Bulk specific gravity = $A / (B-C)$	2.463	
Apparent specific gravity = $A / (A-C)$	2.652	
Asorbtion = $(B-A)/A$	2.908	%

Los Angeles abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3785	24

Lab. Specialist

Name: uv d

Sign: ✓ 19/7/2023

Lab. Engineer

Name: أحمد محمد

Sign : الطاعيل المرفوح

Consultant Engineer

Name :

Sign

 	Electric Express Train - HSR	 
Operating Lab	AL Nuby Central Lab	

California Bearing Ratio TEST

PREPARED SUBGRADE

Testing Date :	19-07-2023	Code	ZONE	FROM	TO
Location :	522+140	ARC 2(P-1)		522+000	522+500
COMPANY NAME	ALARCAN 2				

Test Results

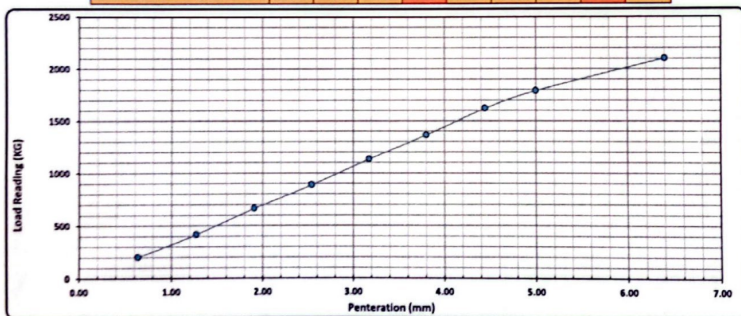
Compaction % for Mold	
Mold No.	1
Mold Vol.(cm ³)	2170
Mold WT.(gm)	7700
Mold WT. + Wat WT.(gm)	12644
Wet WT.(gm)	4964
Wet Density (g/cm ³)	2.288
Dry Density (g/cm ³)	2.128
Proctor Density (g/cm ³)	2.194
Compaction %	97

Moisture Ratio After Compacted Mold	
Tare No.	19
Tare WT.(gm)	44.1
Tare WT. + Wet WT.(gm)	188.62
Tare WT. + Dry WT.(gm)	178
Water WT.(gm)	10.6
Dry WT.(gm)	133.9
Moisture Content %	7.9

Swelling	
Mold No.	1
Date	19-07-2023
Initial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0
Sample Height (mm)	116.40
Swelling Ratio %	0.0%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Lead Reading (KG)	204.8	416.0	665.0	888.0	1135.0	1365.0	1621.0	1790.0	2103.0
Lead Reading (KN)	2.0	4.1	6.5	8.7	11.1	13.4	15.9	17.5	20.6



Calculations :

Penetration (mm)	Load (Ks)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR (%)
2.50	8.79	13.4	65.2%	97	98	66.1%
5.00	17.54	26.8	87.6%			88.8%

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name: Mohamed Hamel
 Sign: [Signature]
 مشروع القطار السريع - فوكية - مطروح

Consultant Engineer

Name :

Sign :

Name: [Signature]
 19/7/2023

KK

K.S.P.C. 2000



Electrical Express Train - HSR
From El Aouf - Sector City To El Aouf - MATROUS
Sector - 7 From FOMA TO MARSA MATRUH
From Station 501+000 To Station 502+177



PROCTOR TEST

Testing Date	31-05-23	Subgrade	Zone	From Station	To Station
Location	K.P. R22+300	ARC2-14		522+000	522+500
ALARCAN 2	ALARCAN 2				

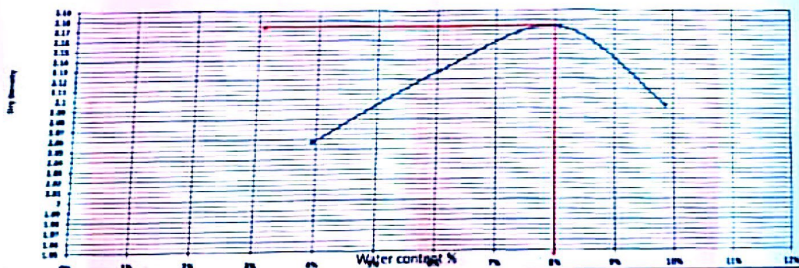
Weight of empty mold	5698.0
Mold Volume	2127.0

MAX Dry Density	2.175
Water content %	8

trial no :	1	2	3	4
Wt. Of Mold + wet soil	10245.0	10500.0	10694.0	10590
WT. WET SOIL	4547.0	4802.0	4996.0	4892.0
Wt. Density	2.138	2.358	2.349	2.300

Tare No	8	6	7	4	5	6	8	5
Tare wt	36.26	38.82	35.99	36.28	35.35	35.8	36.26	35.35
Wt. Of wet soil & tare	160.0	160.0	160.0	160.0	160.0	160.0	160.0	160.0
Wt. Of dry soil & tare	155.28	155.45	153.01	152.85	150.66	150.76	148.96	148.75
Wt. Of water	4.7	4.6	7.0	7.2	9.3	9.2	11.0	11.3
Wt. Of dry soil	119.0	116.6	117.0	116.6	115.3	115.0	112.7	113.4
Water content %	3.97%	3.90%	5.97%	6.13%	8.10%	8.04%	9.80%	9.92%
AV. Water content %	3.93%	6.05%	8.07%	9.85%				
Dry Density	2.057	2.129	2.173	2.094				

curve proctor



Contractor

Consultant

mohamed elsaied

m-elsaied

3-6-2023

شركة نجيبة للمقاولات
المعمل المركزي
شروع القطار السريع / فوكة - منظر

MATERIAL INSPECTION REQUEST



www.kk.com.eg
1999-2023



Contractor Company	Al-Jarjan for general contracting		Designer Company	
Issued by Contractor	Name	Sign	Date	Time
Contractor Reference	ARC2-14		3-6-2023	
Received by ER				

Section 1	Section 2	Section 3	Section 4
Station Reference	Station Reference	Station Reference	Station Reference
Work Activity	Work Activity	Work Activity	Work Activity
Sub Element of Activity	Sub Element of Activity	Sub Element of Activity	Sub Element of Activity

REPLACEMENT FILL MATERIAL RESULTS						
Description of Materials		S22-000 to S22-220 (-3.00)				
Location to be Used		S22-120 to S22-220 (-2.50)				
MAR Approval No		Date				
Supplier Name		Date				
Test Requirement		Specification		Clause		
Reference Photos		Yes attached / No Other				
Item	Description	Unit	Quantity	Arrival Date	Note	
1	Soil Analysis	M³	5000	31/5/2023		
2	Atterberg Limits	M³	5000	31/5/2023		
3	Proctor	M³	5000	31/5/2023		
4	CBR	M³	5000	1/6/2023		
Comments by:			Comments by:			
A sample has been taken from fill material by KK Office to (Nagida Central Lab) and the results founded meet the specifications accepted						
APPROVAL STATUS						
Organisation	Name	Sign	Date	A-ARC-R		
Contractor	Eng/ Salman Gamal					
QA/QC	M. Karam		31/5/2023	3-6-2023		
GARB**						
Employers Representative						



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Electrical Engineering Form - 1000

From El Ain El Sedkine City To El Alamein - 888700000

Section - 7 From FOUA To 8880000000000000000

From Station 800+000 To Station 888+177



Logo

Project Name

Region Control Unit

PARTICLE SIZE DISTRIBUTION OF SOIL

Description of Materials	Embarkment					
Testing Date	21-05-23				From Station	To Station
Location	N.P 822+300	ARC2-14	Zone		822+000	822+500
Company Name	ALARCAN 3					

1-visual inspection test :-

2-Gradient test :-

A-gradation of bulk materials			SAMPLE WEIGHT (g)					46052.00	gm	table classify
sieve size	2	1.5	1	3/4	1/2	3/8	# 4	PASS	soil classify	
Mass retained (g)	177.0	4552.0	8288.0	3671.0	3573.0	1886.0	4100.0			
Cumulative Retained (g)	177.0	4552.0	10820.0	14491.0	18064.0	19950.0	24050.0			
Cumulative Retained %	0.4	9.9	23.5	31.5	39.2	43.3	52.2		PRO	2.175
Cumulative Passing %	99.6	90.1	76.5	68.5	60.8	56.7	47.8		WC	8
									CBR	44.7%

B-soft material gradation				WT. OF sample	500.00	gm
sieve size	10	40	200			
Cumulative Retained (g)	57.00	201.00	369.00			
Cumulative Retained %	11.40	40.20	73.80			
Cumulative Passing %	88.60	59.80	26.20			

C-General gradient										
sieve size(mm)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
sieve size(mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	99.6	90.1	76.5	68.5	60.8	56.7	47.8	42.3	28.8	12.5

ATTEBERG LIMITS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
			N.P

Contractor

Consultant

mohamed elsayed

شركة تخطيط للمطامير
المعمل المركزي
مشروع القطار السريع - القاهرة - مطروح

3-6-2023

KK



Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date	14-2023	Test No.	1000	Test Results	1000
Location	K.P 322+800	Test No.	1000	Test Results	1000
Company Name	ALARCAN I	Test No.	1000	Test Results	1000

Test Results

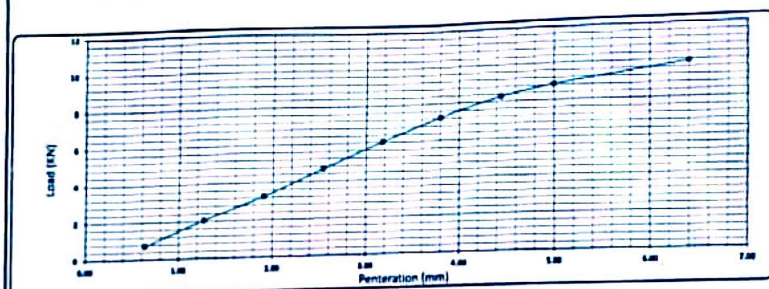
Compaction % for Mold	
Mold No.	2
Mold Vol. (mm ³)	2134
Mold WT. (gm)	8227
Mold WT. + Wet WT. (gm)	13077
Wet WT. (gm)	4850
Wet Density (g/mm ³)	2.273
Dry Density (g/mm ³)	2.107
Proctor Density (g/mm ³)	2.175
Compaction %	97

Moisture Ratio After Compaction Mold	
Tare No.	1
Tare WT. (gm)	11.89
Tare WT. + Wet WT. (gm)	181.98
Tare WT. + Dry WT. (gm)	173.14
Water WT. (gm)	10.8
Dry WT. (gm)	117.2
Moisture Content %	7.89

Swelling	
Mold No.	2
Date	14-2023
Initial Height (mm)	4.00
Final Height (mm)	4.00
Diffusion	0.00
Sample Height (mm)	118.40
Swelling Ratio %	0%

Loading Reading:

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.43	5.00	6.40
Load Reading (kg)	75	239	337	478	618	759	844	993	1010
Load (KN)	6.7	2.3	3.3	4.7	6.0	7.2	8.3	8.8	8.9



Calculations:-

Penetration (mm)	Load (KN)	Standard Load (Tb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR % 98 min
2.50	4.66	11.4	34.9%	97	98	35.4%
5.00	8.83	20.0	44.2%			44.7%

Lab Specialist

Lab Engineer

Consultant Engineer

Name:

Name:

Name:

mohamed elshared

Sign:

Sign:

Sign:

m. elshared

3-6-2023

شركة نجيدة للمقاولات
المعمل المركزي
شروع القطار السريع / فوكة - منطوق