MATERIAL INSPECTION REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company							
Contractor Refrence	GB66-121										
Issued by Contractor	Name	Sign		Date 10/8/2023			Time				
	Eng/ AHMED FOUAD										
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							10	8	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	REPLACMENT FILL MATERIAL RESULTS		
Location to be Used	565+230 TO 565+440 (-1.25) 565+220 TO 565+440 (-1)		
MAR Approval No		Date	
Supplier Name			
Test Requirement		Specification	Clause
Reference Photos	Yes attached / No	Other	

Item	Description	Unit	Quantity	Arrival Date	Note
1	Seive Analysis	M^3	5000	9/8/2023	
2	Atterberg Limits	M^3	5000	9/8/2023	
3	Proctor	M^3	5000	9/8/2023	
4	CBR	M^3	5000	10/8/2023	

Comments by:	Comments by:
	نتائج الصلاحيات والمرفقات مطابقة لكميات حوالي 5000 متر مكعب

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD			
QA/QC*	Yousef Rajab			
GARB**				
Employers Representative				

* Designer
** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company									
Contractor Refrence	GB66-121												
Issued by Contractor	Name	Sign		Date 10/8/2023						Time			
	Eng/ AHMED FOUAD												
Received by ER			MAR	C1	C2	C3	DD	MM	YY	H H	MM		
							10	8	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	Soil (A-1-a)			
Location to be Used	566 K.M			
Item	Spacification	Test Requirment	Test Result Attachment	Remark
1	ASTM D 75	Aggregate Sampling	According Spacification	
2	ASTM C 136	Sieve Analysis	According Spacification	
3	ASTM D 1440	Passing Sieve #200	12.7%	
4	ASTM D 4318	Atterberg Limit	N.P% N.P% N.P%	
5	ASTM D 2974	Moisture content	8.34%	
6	ASTM D 1557	Modifid Proctor	2.21	
7	ASTM D 1883	CBR	53.9%	
Comments by:		Comments by:		
		نتائج الصلاحيات والمرفقات مطابقة لكميات حوالي 5000 متر مكعب		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD			
QA/QC *				
GARB**				
Employers Representative				

* Designer
** Alignment/Bridges: Culvert only

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

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE	9/8/2023	code	ZONE	564+000	567+720
location	K.P 566+000	GB66-121	Material	Embankment	
NAME COMPANY	Gomaa Badr				
1-visual inspection test	operate by	GOMAA BADR LAB			

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		21980.00		gm
sieve size	2	1.5	1	4/3	2/1	3/8	# 4	PASS
Mass retained (g)	345.0	2479.0	2474.0	2793.0	2411.0	2346.0	2933.0	
Cumulative Retained (g)	345.0	2723.0	5197.0	7990.0	10371.0	12717.0	15650.0	
Cumulative Retained %	1.1	12.4	23.8	36.2	47.2	57.9	71.2	
Cumulative Passing %	98.9	87.6	76.4	63.8	52.8	42.1	28.8	

	table classify
	soil classify
	A-1-a
PRO	2.145
PRO. CORR.	2.21
WC	7.3%
CBR	53.9%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	101.00	176.00	280.00					
Cumulative Retained %	20.20	35.20	56.00					
Cumulative Passing %	79.80	64.80	44.00					

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 %	98.9	87.6	76.4	63.8	52.8	42.1	28.8	23.0	18.7	12.7

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

Contractor

المعمل المركزى
شركة جمعه بدر نوح

Consultant

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

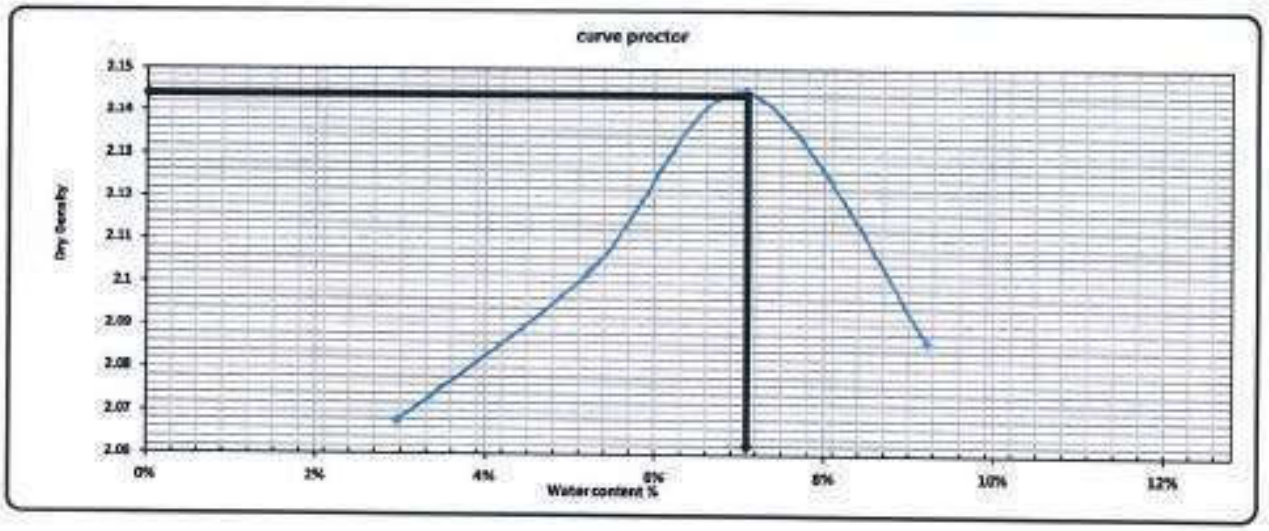
PROCTOR TEST

TESTING DATE	9/8/2023	code	ZONE	564+000	567+720
location	K.P 566+000	GB86-121	Material	Embankment	
NAME COMPANY	Gomaa badr				
	operate by	GOMAA BADR LAB			

Weight of empty mold :	6090.0	MAX Dry Density	2.145
Mold Volume:	2104.9	Water content %	7.30

trial no :	1	2	3	4		
Wt. Of Mold+ wet soil	10580.0	10755.0	10933.0	10895		
WT. WET SOIL	4490.0	4665.0	4843.0	4805.0		
Wt. Density	2.133	2.216	2.301	2.283		

Tare No.	7	7	11	11	6	6	9	9				
Tare wt.	26.12	26.12	25.51	25.51	24.44	24.44	26.14	26.14				
Wt. Of wet soil & tare	148.2	148.2	123.5	123.5	134.2	134.2	141.2	141.2				
Wt. Of dry soil & tare	144.47	144.47	118.41	118.41	126.78	126.78	131.3	131.3				
Wt. Of water	3.8	3.8	5.0	5.0	7.5	7.5	9.9	9.9				
Wt. Of dry soil	118.4	118.4	92.9	92.9	102.3	102.3	105.2	105.2				
Water content %	3.2%	3.2%	5.4%	5.4%	7.3%	7.3%	9.4%	9.4%				
AV.Water content %	3.2%		5.4%		7.3%		9.4%					
Dry Density	2.068		2.102		2.145		2.086					



Contractor

المعمل المركزى
شركة جمعه بدر نوح

Consultant

Youssef Ragab
2023

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

Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein - MATROUH
Section - 7 From FOKA To MARSA MATROUH
From Station 554+000 To Station 650+171

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE	10/8/2023	code	ZONE	554+000	567+720
location	K.P 556+000	GB66-121	Material	Embankment	
NAME COMPANY	Gomaa Badr				

	operate by	GOMAA BADR LAB	
Weight of sample		2000	gm
Weight of saturated -dry surface sample (B)		2056	gm
Weight of saturated sample in water (C)		1224	gm
Weight of dry sample after heating (A)		1976	gm

Results:-

Bulk specific gravity = A / (B-C)	2.374	
Apparent specific gravity = A /(A-C)	2.630	
Asorbtion = (B-A)/A	4.101	%

Los Angles abrasion AASHTO-T96

Results:-

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

Lab. Engineer
Name :
Sign :

Consultant Engineer
Name :
Sign :

المعمل المركزى
شركة جمعه بدر نوح

Correction of Unit Weight and Water Content For Soils Containing oversize Particles (ASTM D-4718)

Dry Unit Weight of Fine Fraction (Y_{Df}) (gm/cm^3)	2.145	Company	Gomaa Bader
Optimum Moisture Content (O.M.C) (%)	7.30	Date of Sample	10/08/2023
Specific Gravity of over Size Fraction (G_M)	2.374	Project	Express Train Project
Specific Gravity of Water (Y_W)	0.980	Sector	Foka - Matrouh

Sample Data	UNIT	VALUE
Total Weight of Wet Sample	gm	23000
Weight of Wet oversize Fraction (Retained 3/4)	gm	8202
Weight of Wet Fine Fraction (Passing 3/4)	gm	14798
Weight of Dry oversize Fraction (M_{DC})	gm	7688
Weight of Dry Fine Fraction (M_{Df})	gm	13541
Total Weight of Dry Sample	gm	21229
Water Content of oversize Fraction (W_C)	%	0.07
Water Content of Fine Fraction (W_F)	%	0.09
Percent of oversize Fraction By Mass (P_C)	%	36.21
Percent of Fine Fraction By Mass (P_F)	%	63.79

Calculations of Corrected Water for oversize Fraction & Finer Fraction (W_T) :-

Corrected Water for oversize Fraction & Finer Fraction (C_W)	$W_F P_F + W_C P_C$	8.34

Specific Gravity of over Size Fraction (G_M)	2.374		
Maximum Dry Density of Fine Fraction (Y_{Df})	2.145	gm/cm^3	
Specific Gravity of Water (Y_W)	0.980		

Calculations of Correctd Unit Dry Weight of the Total Material (combined finer and oversize fractions) (Y_{DT}):-

Corrected Dry Unit Weight of Total Material (Y_{DT})	(YDF * GM * YW) / ((YDF * PC) + (GM * YW * PF))	2.21

Corrected Maximum Dry Density (M.D.D)	2.21	gm/cm^3
Corrected Optimum Moisture Content (O.M.C)	8.34	%

المعمل المركزى
شركة جمعه بدر نوح

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE:	10/8/2023	code	ZONE	564+000	567+720
location	K.P 566+000	GB66-121	Material	Embankment	
NAME COMPANY	Gomaa badr				
	operate by	GOMAA BADR LAB			

-: Test Results

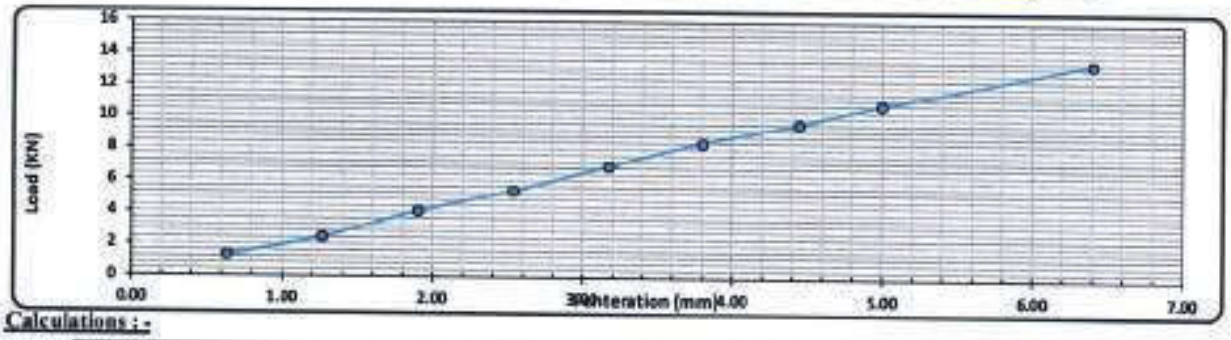
Compaction % for Mold	
Mold No.	2
Mold Vol. (cm^3)	2177.5
Mold WT. (gm)	16444
Mold WT. + Wet WT. (gm)	21412
Wet WT. (gm)	4968
Wet Density (g/cm^3)	2.282
Dry Density (g/cm^3)	2.125
Proctor Density (g/cm^3)	2.145
Compaction %	99

Moisture Ratio After Compacted Mold	
Tare No.	19
Tare WT. (gm)	27.41
Tare WT. +Wet WT. (gm)	154.22
Tare WT. +Dry WT. (gm)	145.54
Wt. Of water	8.7
Dry WT. (gm)	118.1
Moisture Content %	7.3

Swelling	
Mold No.	2
Date	24h
Intial Height (mm)	3.30
Final Height (mm)	3.39
Difference	0
Sample Height (mm)	181.00
Swelling Ratio %	0%

Loading Reading :

penetration	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.09	6.40
Load Reading (kg)	130.22	245.00	412.00	543.00	704.00	854.00	978.00	1101.00	1374.00
Load (KN)	1.3	2.4	4.0	5.3	6.9	8.4	9.6	10.8	13.5



Calculations : -

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	% 100 عند نسبة
2.50	5.32	13.4	39.9%	99	100	40.2%
5.00	10.79	20.0	53.9%			54.4%

Lab. Specialist
Name :
Sign :

المعمل المركزى
شركة جمعه بدر نوح

Consultant Engineer
Name : Youssef Rajab
Sign : 10/8/2023

MATERIAL INSPECTION REQUEST

Contractor Company	GOMAA BADER COMPANY				Designer Company							
Contractor Refrence	GB66-122											
Issued by Contractor	Name	Sign			Date 19/8/2023				Time			
	Eng/ AHMED FOUAD											
Received by ER			MIR		C1	C2	C3	DD	MM	YY	HH	MM
								19	8	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	REPLACMENT FILL MATERIAL RESULTS		
Location to be Used	565+220 TO 565+440 (-0.75) 565+210 TO 565+440 (-0.5)		
MAR Approval No		Date	
Supplier Name			
Test Requirement		Specification	Clause
Reference Photos	Yes attached / No	Other	

Item	Description	Unit	Quantity	Arrival Date	Note
1	Seive Analysis	M^3	~~5000~~ 5000	17/8/2023	
2	Atterberg Limits	M^3	~~5000~~ 5000	17/8/2023	
3	Proctor	M^3	~~5000~~ 5000	17/8/2023	
4	CBR	M^3	~~5000~~ 5000	19/8/2023	

Comments by:	Comments by:
	نتائج الصلاحيات والمرفقات مطابقة لكميات حوالي 5000 متر مكعب

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD			
QA/QC *	Ahmed Abozaid			
GARB**				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company							
Contractor Refrence	GB66-122										
Issued by Contractor	Name	Sign		Date 19/8/2023			Time				
	Eng/ AHMED FOUAD										
Received by ER			MAR	C1	C2	C3	DD	MM	YY	H H	MM
							19	8	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	Soil (A-1-a)			
Location to be Used	566 K.M			
Item	Spacification	Test Requirment	Test Result Attachment	Remark
1	ASTM D 75	Aggregate Sampling	According Spacification	
2	ASTM C 136	Sieve Analysis	According Spacification	
3	ASTM D 1440	Passing Sieve #200	13%	
4	ASTM D 4318	Atterberg Limit	N.P% N.P% N.P%	
5	ASTM D 2974	Moisture content	7.4%	
6	ASTM D 1557	Modifid Proctor	2.152	
7	ASTM D 1883	CBR	55.1%	
Comments by:		**Comments by:**		
		نتائج الصلاحيات والمرفقات مطابقة لكميات حوالي 5000متر مكعب		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD			
QA/QC *	Ahmed Abo Zaid			
GARB**				
Employers Representative				

* Designer
** Alignment/Bridges: Culvert only

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

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE	17/8/2023	code	ZONE	564+000	567+720
location	K.P 566+000	GB66-122	Material	Embankment	
NAME COMPANY	Gomaa Badr				
1-visual inspection test	operate by	GOMAA BADR LAB			

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		23540.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	3/8	# 4	PASS		soil classify
Mass retained (g)	754.0	1466.0	2214.0	1862.0	2402.0	3141.0	3157.0			A-1-a
Cumulative Retained (g)	754.0	2219.0	4433.0	6295.0	8747.0	11888.0	15045.0		PRO	2.152
Cumulative Retained %	3.2	9.4	18.8	26.7	37.2	50.5	63.9		WC	7.4%
Cumulative Passing %	96.8	90.6	81.2	73.3	62.8	49.5	36.1		CBR	55.1%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	120.00	203.00	320.00					
Cumulative Retained %	24.00	40.60	64.00					
Cumulative Passing %	76.00	59.40	36.00					

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 %	96.8	90.6	81.2	73.3	62.8	49.5	36.1	27.4	21.4	13.0

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

Contractor

المعمل المركزى
شركة جمعه بدر نوح

Consultant

Electric Express Train - HSR

From El Ain El Sokhna City To El Alamein - MATROUH

Section - 7 From FOKA TO MARSA MATROUH

From Station 604+000 To Station 668+177

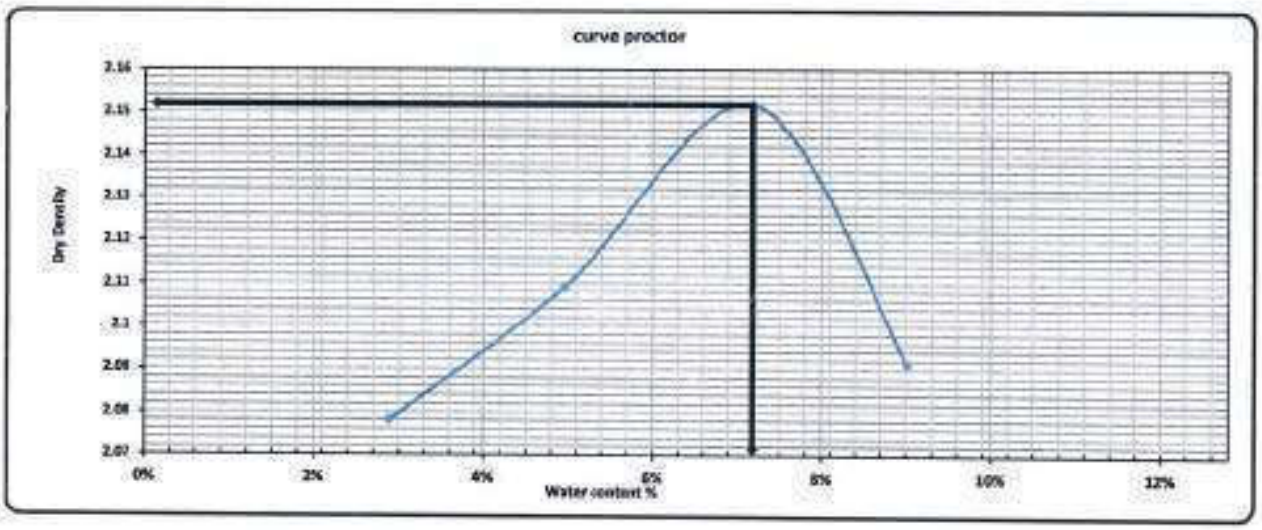
PROCTOR TEST

TESTING DATE	17/8/2023	code	ZONE	564+000	567+720
location	K.P 666+000	GB88-122	Material	Embankment	
NAME COMPANY	Gomaa Badr				
	operate by	GOMAA BADR LAB			

Weight of empty mold :	6090.0	MAX Dry Density	2.152
Mold Volume:	2104.9	Water content %	7.40

trial no :	1	2	3	4		
Wt. Of Mold+ wet soil	10599.0	10758.0	10954.0	10897		
WT. WET SOIL	4509.0	4668.0	4864.0	4807.0		
Wt. Density	2.142	2.218	2.311	2.284		

Tare No.	10	10	8	8	12	12	4	4				
Tare wt.	26.41	26.41	26.24	26.24	25.45	25.45	26.14	26.14				
Wt. Of wet soil & tare	155.4	155.4	135.4	135.4	149.8	149.8	133.3	133.3				
Wt. Of dry soil & tare	151.54	151.54	130.05	130.05	141.19	141.19	124.21	124.21				
Wt. Of water	3.9	3.9	5.4	5.4	8.6	8.6	9.0	9.0				
Wt. Of dry soil	125.1	125.1	103.8	103.8	115.7	115.7	98.1	98.1				
Water content %	3.1%	3.1%	5.2%	5.2%	7.4%	7.4%	9.2%	9.2%				
AV.Water content %	3.1%		5.2%		7.4%		9.2%					
Dry Density	2.078		2.109		2.152		2.091					



Contractor

المعمل المركزى
شركة جمعه بدر نوح

Consultant

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE:	19/8/2023	code	ZONE	564+000	567+720
location	K.P 566+000	GB88-122	Material	Embankment	
NAME COMPANY	Gomaa Badr				
	operate by	GOMAA BADR LAB			

-: Test Results

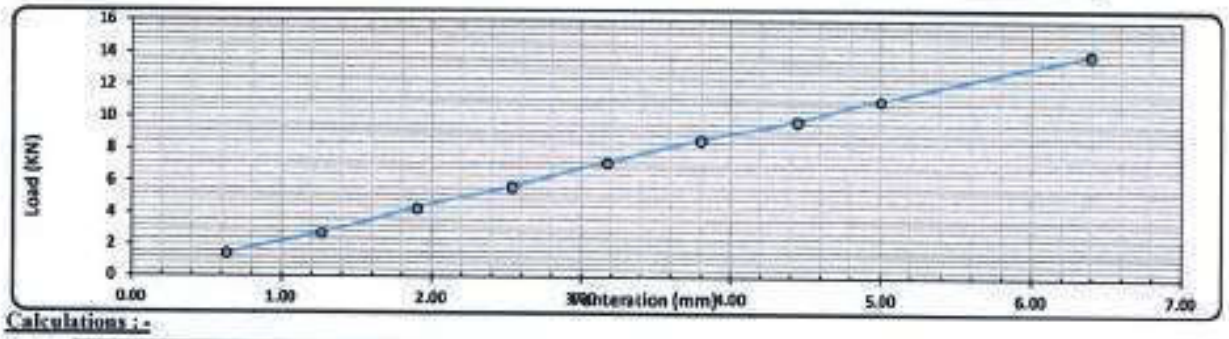
Compaction % for Mold	
Mold No.	2
Mold Vol. (cm^3)	2177.5
Mold WT. (gm)	16446
Mold WT. + Wet WT. (gm)	21432
Wet WT. (gm)	4958
Wet Density (g/cm^3)	2.291
Dry Density (g/cm^3)	2.138
Proctor Density (g/cm^3)	2.152
Compaction %	99

Mositure Ratio After Compacted Mold	
Tare No.	6
Tare WT. (gm)	26.45
Tare WT. +Wet WT. (gm)	156.32
Tare WT. +Dry WT. (gm)	147.64
WL Of water	8.7
Dry WT. (gm)	121.2
Mointure Content %	7.3

Swelling	
Mold No.	2
Date	24h
Initial Height (mm)	2.20
Final Height (mm)	2.29
Difference	0
Sample Height (mm)	181.80
Swelling Ratio %	0%

Loading Reading :

penetration	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	145.00	274.00	435.00	575.00	730.00	869.00	994.00	1123.00	1421.00
Load (KN)	1.4	2.7	4.3	5.6	7.2	8.5	9.7	11.0	13.9



Calculations : -

Penetration (mm)	Load (Kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR % 100
2.50	5.64	13.4	42.5%	99	100	42.5%
5.00	11.03	26.0	55.1%			55.4%

Lab. Specialist

Name :

Sign :

المعمل المركزى
شركة جمعه بدر نوح

Consultant Engineer

Name :

Sign :

MATERIAL INSPECTION REQUEST

Contractor Company	**GOMAA BADER COMPANY**			Designer Company							
Contractor Refrence	**GB66-123**										
Issued by Contractor	Name	Sign		Date 21/8/2023			Time				
	Eng/ AHMED FOUAD										
Received by ER			**MIR**	C1	C2	C3	DD	MM	YY	HH	MM
							21	8	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	**REPLACMENT FILL MATERIAL RESULTS**		
Location to be Used	566+210 TO 565+440 (-0.25) 565+210 TO 565+440 (Ferma) 564+480 TO 564+560 (-2.5)		
MAR Approval No		Date	
Supplier Name			
Test Requirement		Specification	Clause
Reference Photos	Yes attached / No	Other	

Item	Description	Unit	Quantity	Arrival Date	Note
1	Seive Analysis	M^3	5000	20/8/2023	
2	Atterberg Limits	M^3	5000	20/8/2023	
3	Proctor	M^3	5000	20/8/2023	
4	CBR	M^3	5000	21/8/2023	

Comments by:	**Comments by:**
	نتائج الصلاحيات والمرفقات مطابقة لكميات حوالي 5000 متر مكعب

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD			
QA/QC *	Ahmed Abo Zaid			
GARB**				
Employers Representative				

* Designer
** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Contractor Company	GOMAA BADER COMPANY				Designer Company						
Contractor Refrence	GB66-123										
Issued by Contractor	Name	Sign			Date 21/8/2023			Time			
	Eng/ AHMED FOUAD										
Received by ER			MAR	C1	C2	C3	DD	MM	YY	H H	MM
							21	8	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	Soil (A-1-a)			
Location to be Used	566 K.M			
Item	Spacification	Test Requirment	Test Result Attachment	Remark
1	ASTM D 75	Aggregate Sampling	According Spacification	
2	ASTM C 136	Sieve Analysis	According Spacification	
3	ASTM D 1440	Passing Sieve #200	11.3%	
4	ASTM D 4318	Atterberg Limit	N.P% N.P% N.P%	
5	ASTM D 2974	Moisture content	7.3%	
6	ASTM D 1557	Modifid Proctor	2.158	
7	ASTM D 1883	CBR	56%	
Comments by:		**Comments by:**		
		نتائج الصلاحيات والمرفقات مطابقة لكميات حوالي 5000 م٣ مكعب		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD			
QA/QC *	Ahmed Abo Zaid			
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only

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

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE	20/8/2023	code	ZONE	564+000	567+720
location	K.P 566+000	GB66-123	Material	Embankment	
NAME COMPANY	Gomaa Badr				
1-visual inspection test	operate by	GOMAA BADR LAB			

2-Gradiont test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		22000.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	3/8	# 4	PASS		soil classify
Mass retained (g)	754.0	1345.0	2085.0	1996.0	2451.0	2784.0	2820.0			A-1-a
Cumulative Retained (g)	754.0	2099.0	4184.0	6180.0	8611.0	11395.0	14215.0		PRO	2.158
Cumulative Retained %	3.4	9.5	18.9	28.0	39.1	51.8	64.6		WC	7.3%
Cumulative Passing %	96.6	90.5	81.1	72.0	60.9	48.2	35.4		CBR	56.0%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	160.00	258.00	340.00					
Cumulative Retained %	32.00	51.60	68.00					
Cumulative Passing %	68.00	48.40	32.00					

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 %	96.6	90.5	81.1	72.0	60.9	48.2	35.4	24.1	17.1	11.3

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

Contractor

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

Consultant

Electric Express Train - HSR

From El Ain El Sokhna City To El Alamein - MATROUH

Section - 7 From FOKA TO MARSA MATROUH

From Station 604+900 To Station 668+177

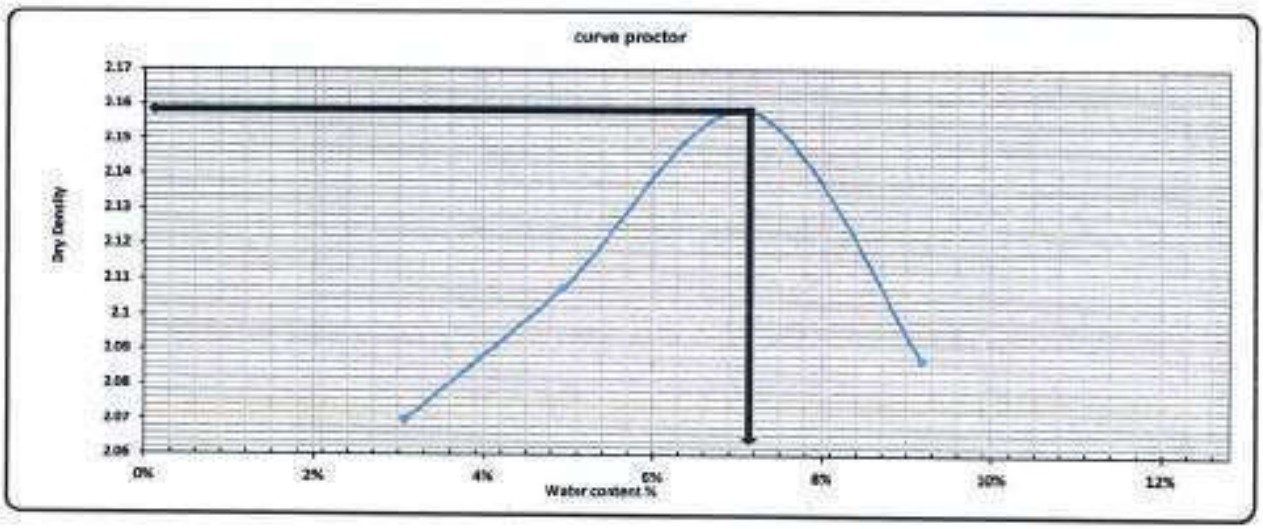
PROCTOR TEST

TESTING DATE	20/8/2023	code	ZONE	664+000	667+720
location	K.P 666+600	GB66-123	Material	Embankment	
NAME COMPANY	Gomaa Badr				
	operate by	GOMAA BADR LAB			

Weight of empty mold :	6090.0	MAX Dry Density	2.158
Mold Volume:	2104.9	Water content %	7.30

trial no :	1	2	3	4		
Wt. Of Mold+ wet soil	10589.0	10754.0	10966.0	10895		
WT. WET SOIL	4499.0	4664.0	4876.0	4805.0		
Wt. Density	2.137	2.216	2.316	2.283		

Tare No.	3	3	6	6	10	10	9	9				
Tare wt.	26.23	26.23	25.84	25.84	26.47	26.47	27.2	27.2				
Wt. Of wet soil & tare	143.3	143.3	140.2	140.2	149.5	149.5	136.3	136.3				
Wt. Of dry soil & tare	139.54	139.54	134.62	134.62	141.1	141.1	126.89	126.89				
Wt. Of water	3.7	3.7	5.6	5.6	8.4	8.4	9.4	9.4				
Wt. Of dry soil	113.3	113.3	108.8	108.8	114.6	114.6	99.7	99.7				
Water content %	3.3%	3.3%	5.1%	5.1%	7.3%	7.3%	9.4%	9.4%				
AV.Water content %	3.3%		5.1%		7.3%		9.4%					
Dry Density	2.070		2.107		2.158		2.087					



Contractor

مشروع القطار السريع
القطاع السابع
معمل المركزى
(6 أكتوبر)

Consultant

21/8/2023

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE:	21/8/2023	code	ZONE	564+000	567+720
location	K.P 566+000	GB66-123	Material	Embankment	
NAME COMPANY	Gomaa Badr				
	operate by	GOMAA BADR LAB			

-: Test Results

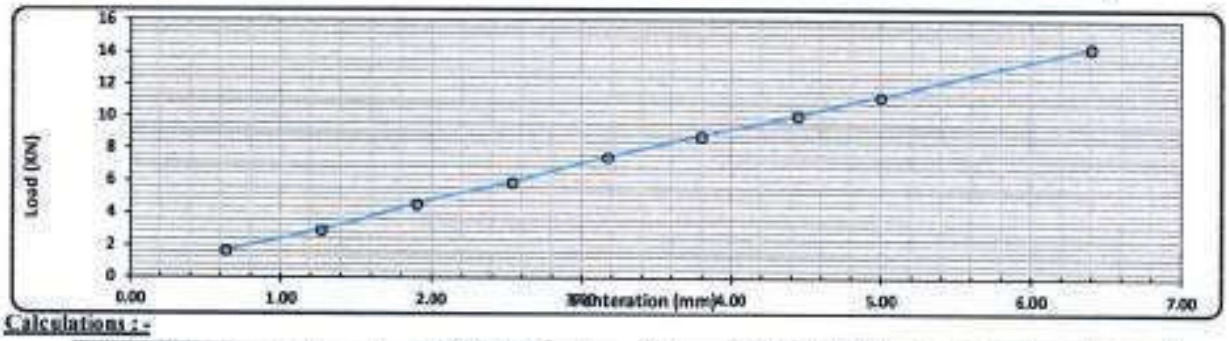
Compaction % for Mold	
Mold No.	2
Mold Vol. (cm^3)	2177.5
Mold WT. (gm)	16444
Mold WT. + Wet WT. (gm)	21451
Wet WT. (gm)	5007
Wet Density (g/cm^3)	2.299
Dry Density (g/cm^3)	2.145
Proctor Density (g/cm^3)	2.158
Compaction %	99

Moisture Ratio After Compacted Mold	
Tare No.	4
Tare WT. (gm)	26.84
Tare WT. +Wet WT. (gm)	166.21
Tare WT. +Dry WT. (gm)	156.85
Wt. Of water	9.4
Dry WT. (gm)	130.0
Moisture Content %	7.2

Swelling	
Mold No.	2
Date	24h
Intial Height (mm)	2.40
Final Height (mm)	2.49
Difference	0
Sample Height (mm)	181.00
Swelling Ratio %	0%

Loading Reading :

penetration	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.09	5.40
Load Reading (kg)	168.00	294.00	458.00	598.60	750.00	890.00	1025.00	1145.00	1458.00
Load (KN)	1.6	2.9	4.5	5.9	7.4	8.7	10.0	11.2	14.3



Calculations :-

Penetration (mm)	Load (Kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR % 100 نقطة
2.50	5.84	13.4	45.9%	99	100	44.3%
5.00	11.22	20.0	56.0%			56.4%

Lab. Specialist
Name :
Sign :

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

Consultant Engineer
Name :
Sign :

MATERIAL INSPECTION REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company							
Contractor Refrence	GB63-124										
Issued by Contractor	Name	Sign		Date 26/8/2023			Time				
	Eng/ AHMED FOUAD										
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							26	8	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	REPLACMENT FILL MATERIAL RESULTS				
Location to be Used	564+480 TO 564+560 (-2) 564+420 TO 564+560 (-1.75)				
MAR Approval No				Date	
Supplier Name					
Test Requirement		Specification		Clause	
Reference Photos	Yes attached / No	Other			

Item	Description	Unit	Quantity	Arrival Date	Note
1	Seive Analysis	M^3	5000	24/8/2023	2500
2	Atterberg Limits	M^3	5000	24/8/2023	2500
3	Proctor	M^3	5000	24/8/2023	2500
6	CBR	M^3	5000	26/8/2023	2500

Comments by:	Comments by:
	نتائج الصلاحيات والمرفقات مطابقة لكميات حوالي 5000 متر مكعب

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD			
QA/QC *	Ahmed Abo Fouad	26/8/2023		
GARB**				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL INSPECTION REQUEST

Contractor Company	GOMAA BADER COMPANY				Designer Company							
Contractor Refrence	GB63-124											
Issued by Contractor	Name	Sign			Date 26/8/2023				Time			
	Eng/ AHMED FOUAD											
Received by ER			MAR	C1	C2	C3	DD	MM	YY	H H	MM	
							26	8	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	Soil (A-1-a)			
Location to be Used	563 K.M			
Item	Spacification	Test Requirment	Test Result Attachment	Remark
1	ASTM D 75	Aggregate Sampling	According Spacification	
2	ASTM C 136	Sieve Analysis	According Spacification	
3	ASTM D 1440	Passing Sieve #200	12.1%	
4	ASTM D 4318	Atterberg Limit	N.P	
5	ASTM D 2974	Moisture content	8.04%	
6	ASTM D 1557	Modifid Proctor	2.21	
9	ASTM D 1883	CBR	54.3%	
Comments by:		**Comments by:**		
		نتائج الصلاحيات والمرفقات مطابقة لكميات حوالي 5000 متر مكعب		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD			
QA/QC *	Ahmed Abo Zaid	26/8/2023		
GARB**				
Employers Representative				

* Designer
** Alignment/Bridges: Culvert only

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

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE	24/8/2023	code	ZONE	562+000	565+000
location	K.P 563+000	GB66-124	Material	Embankment	
NAME COMPANY	Gomaa Badr				
1-visual inspection test	operate by	GOMAA BADR LAB			

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		24362.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	3/8	# 4	PASS		soil classify
Mass retained (g)	679.0	1853.0	3104.0	2415.0	2679.0	1946.0	2961.0			A-1-a
Cumulative Retained (g)	679.0	2532.0	5636.0	8051.0	10730.0	12676.0	15637.0		PRO	2.163
Cumulative Retained %	2.8	10.4	23.1	33.0	44.0	52.0	64.2		PRO.corr	2.21
Cumulative Passing %	97.2	89.6	76.9	67.0	56.0	48.0	35.8		WC.corr	8.04%
									CBR	54.3%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	153.90	241.34	331.13					
Cumulative Retained %	30.72	48.27	66.23					
Cumulative Passing %	69.28	51.73	33.77					

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 %	97.2	89.6	76.9	67.0	56.0	48.0	35.8	24.8	18.5	12.1

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

Contractor

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

Consultant

26/8/2023

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 668+177

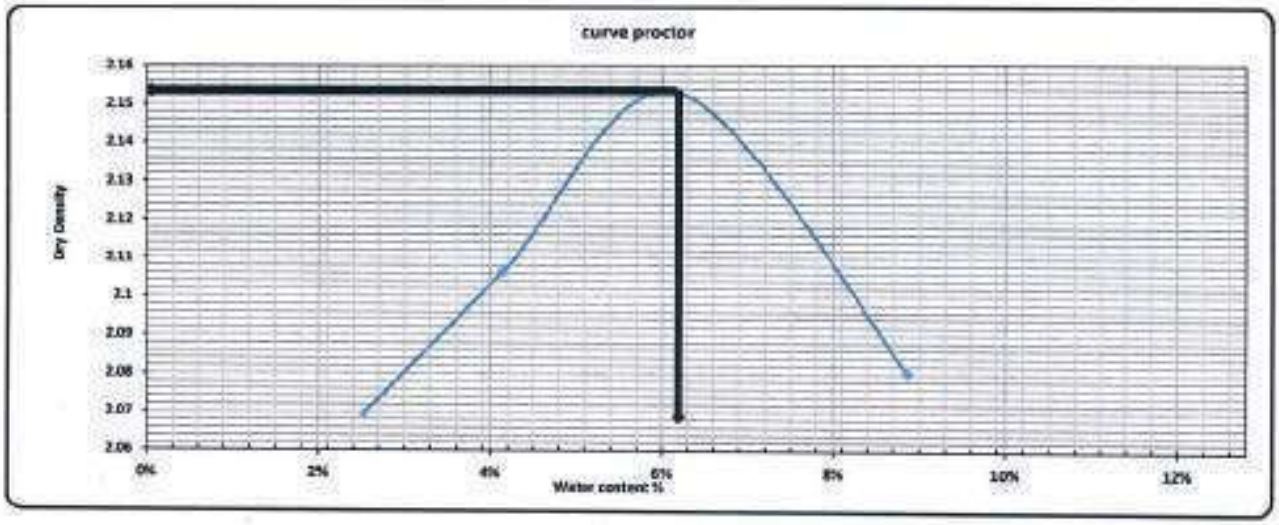
PROCTOR TEST

TESTING DATE	24/8/2023	code	ZONE	562+000	565+000
location	K.P 563+000	CB66-124	Material	Embankment	
NAME COMPANY	Gomaa Badr				
	operate by	GOMAA BADR LAB			

Weight of empty mold :	6210.0	MAX Dry Density	2.153
Mold Volume:	2104.9	Water content %	6.4

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10685.0	10836.0	11031.0	10986	
WT. WET SOIL	4475.0	4626.0	4821.0	4776.0	
Wt. Density	2.126	2.198	2.290	2.269	

Tare No.	1	1	16	16	30	30	15	15		
Tare wt.	26.26	26.26	25.93	25.93	25.73	25.73	25.33	25.33		
Wt. Of wet soil & tare	134.20	134.20	153.20	153.20	138.21	138.21	159.89	159.89		
Wt. Of dry soil & tare	131.33	131.33	147.90	147.90	131.46	131.46	148.70	148.70		
Wt. Of water	2.9	2.9	5.3	5.3	6.8	6.8	11.2	11.2		
Wt. Of dry soil	105.1	105.1	122.0	122.0	105.7	105.7	123.4	123.4		
Water content %	2.7%	2.7%	4.3%	4.3%	6.4%	6.4%	9.1%	9.1%		
AV. Water content %	2.7%		4.3%		6.4%		9.1%			
Dry Density	2.069		2.106		2.153		2.080			



Contractor

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

Consultant

26/8/2023

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

Electric Express Train - HSR
From El Alamein - MATROUH
Section - 7 From FOKA To MARSA MATROUH

Absorbtion & Aggregate specific gravity AASHTO-T86

TESTING DATE	25/8/2023	note	ZONE	562+000	565+000
location	K.P563+000	GB56-124	Material	Embankment	
NAME COMPANY	Gomaa Badr				

	operate by	GOMAA BADR LAB	
Weight of sample		2000	gm
Weight of saturated -dry surface sample (B)		2053.4	gm
Weight of saturated sample in water (C)		1226.3	gm
Weight of dry sample after heating (A)		1988.4	gm

Results:-

Bulk specific gravity = A / (B-C)	2.175	
Apparent specific gravity = A /(A-C)	2.609	
Asorbtion = (B-A)/A	3.774	%

Los Anglos abrasion AASHTO-T96

Results:-

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

Lab. Engineer
Name :
Sign :

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

Consultant Engineer
Name :
Sign : 26 / 8 / 2023

Correction of Unit Weight and Water Content For Soils Containing oversize Particles (ASTM D-4718)

Dry Unit Weight of Fine Fraction (Y_{DF}) (gm/cm^3)	2.153	Company	Gomaa Bader
Optimum Moisture Content (O.M.C) (%)	6.40	Date of Sample	25/8/2023
Specific Gravity of over Size Fraction (G_M)	2.375	Project	Express Train Project
Specific Gravity of Water (Y_W)	0.980	Sector	Foka - Matrouh

Sample Data	UNIT	VALUE
Total Weight of Wet Sample	gm	24362
Weight of Wet oversize Fraction (Retained 3/4)	gm	8645
Weight of Wet Fine Fraction (Passing 3/4)	gm	15717
Weight of Dry oversize Fraction (M_{DC})	gm	8055
Weight of Dry Fine Fraction (M_{DF})	gm	14497
Total Weight of Dry Sample	gm	22524
Water Content of oversize Fraction (W_C)	%	0.07
Water Content of Fine Fraction (W_F)	%	0.08
Percent of oversize Fraction By Mass (P_C)	%	35.76
Percent of Fine Fraction By Mass (P_F)	%	64.36

Calculations of Corrected Water for oversize Fraction & Finer Fraction (W_T) :-

Corrected Water for oversize Fraction & Finer Fraction (C_W)	$W_F P_F + W_C P_C$	8.04

Specific Gravity of over Size Fraction (G_M)	2.375			
Maximum Dry Density of Fine Fraction (Y_{DF})	2.153	gm/cm^3		
Specific Gravity of Water (Y_W)	0.980			

Calculations of Correctd Unit Dry Weight of the Total Material (combined finer and oversize fractions) (Y_{DT}):-

Corrected Dry Unit Weight of Total Material (Y_{DT})	(YDF * GM * YW) / ((YDF * PC) + (GM * YW * PF))	2.21

Corrected Maximum Dry Density (M.D.D)	2.21	gm/cm^3
Corrected Optimum Moisture Content (O.M.C)	8.04	%

مشروع القطار السريع
القطاع السابع
معمل المركزى
(6 رقم)

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE:	26/8/2023	code	ZONE	562+000	565+000
location	K.P 563+000	GB66-124	Material	Embankment	
NAME COMPANY	Gomaa Badr				
	operate by	GOMAA BADR LAB			

-: Test Results

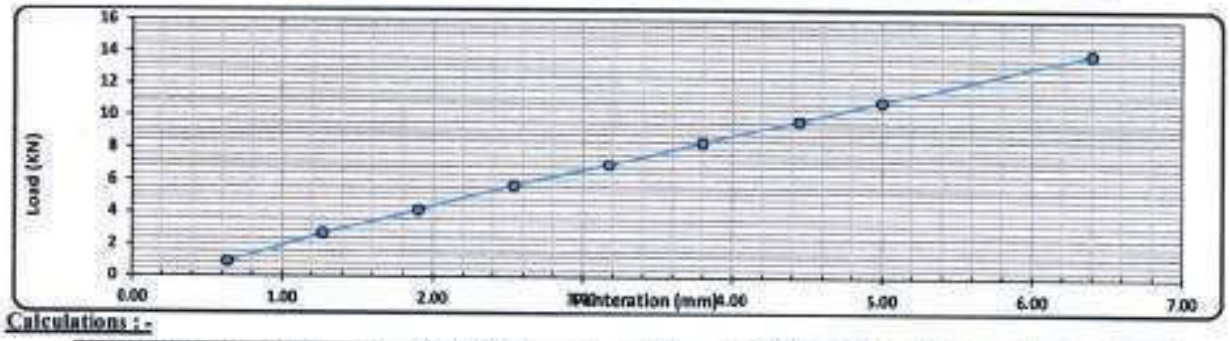
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	2177.5
Mold WT. (gm)	16553
Mold WT. + Wet WT. (gm)	21481
Wet WT. (gm)	4928
Wet Density (g/cm^3)	2.263
Dry Density (g/cm^3)	2.138
Proctor Density (g/cm^3)	2.153
Compaction %	99

Moisture Ratio After Compacted Mold	
Tare No.	2
Tare WT. (gm)	25.48
Tare WT. +Wet WT. (gm)	147.52
Tare WT. +Dry WT. (gm)	140.05
Water WT. (gm)	7.3
Dry WT. (gm)	114.6
Moisture Content %	6.3

Swelling	
Mold No.	1
Date	24h
Intial Height (mm)	0.00
Final Height (mm)	0.04
Difference	0
Sample Height (mm)	181.00
Swelling Ratio %	0%

Loading Reading :

85.00	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	90.00	270.00	420.00	580.00	710.00	850.00	990.00	1110.00	1420.00
Load (KN)	0.9	2.6	4.1	5.7	7.0	8.3	9.7	10.9	13.9



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	% 100 عند نسبة
2.50	5.68	13.4	42.6%	99	100	43.1%
5.00	10.88	20.0	54.3%			55.0%

Lab. Specialist	Consultant Engineer
Name :	Name :
Sign :	Sign :

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)