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		table classify
sieve size	2	1.5	1	4/3	2/1	3/8	# 4	PASS		soil classify
Mass retained (g)	345.0	2478.0	2474.0	2783.0	2411.0	2346.0	2933.0			A-1-a
Cumulative Retained (g)	345.0	2723.0	5197.0	7980.0	10371.0	12717.0	15650.0		PRO	2.145
Cumulative Retained %	1.1	12.4	23.6	36.3	47.2	57.9	71.2		PRO. CORR.	2.21
Cumulative Passing %	98.9	87.6	76.4	63.8	52.8	42.1	28.8		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

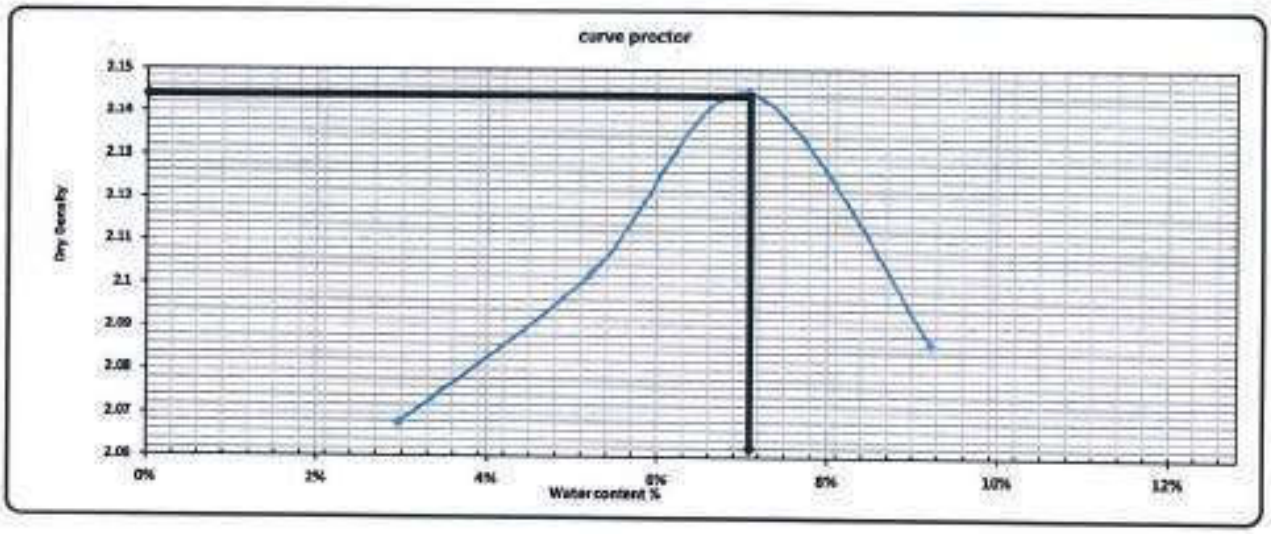
PROCTOR TEST

TESTING DATE	9/8/2023	code	ZONE	564+000	567+720
location	K.P 566+030	GB86-121	Material	Embankment	
NAME COMPANY	Gomaa badr				
	operate by	GOMAA BADR LAB			

Weight of empty mold :	6096.0	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

Yousef Ragab
10/8/2023

Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein - MATROUH
Section - 7 From FOKA To MARSA MATROUH
From Station 564+000 To Station 659+171

Absorbtion & Aggregate specific gravity AASHTO-T85

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

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 Angios 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/cm³)	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/cm³	
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/cm³
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 564+000	GB66-121	Material	Embankment	
NAME COMPANY	Gomaa badr				
	operate by	GOMAA BADR LAB			

-: Test Results

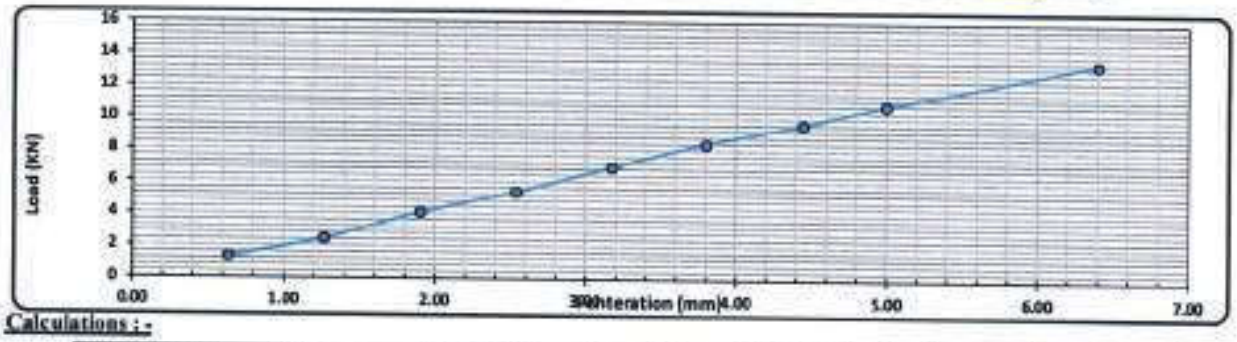
Compaction % for Mold	
Mold No.	2
Mold Vol. (cm^3)	2177.5
Mold WT. (gm)	16444
Mold WT. + Wet WT. (gm)	21412
Wet WT. (gm)	4968
Wet Density (g/cm^3)	2.282
Dry Density (g/cm^3)	2.125
Proctor Density (g/cm^3)	2.145
Compaction %	99

Mositure 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)	3.50
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 (mm)	Load (Kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR % 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 :

Consultant Engineer

Name :

Sign :

المعمل المركزى
شركة جمعه بدر نوح

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~~ 2500	17/8/2023	
3	Proctor	M^3	~~5000~~ 2500	17/8/2023	
4	CBR	M^3	~~5000~~ 5000	19/8/2023	

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 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	1486.0	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

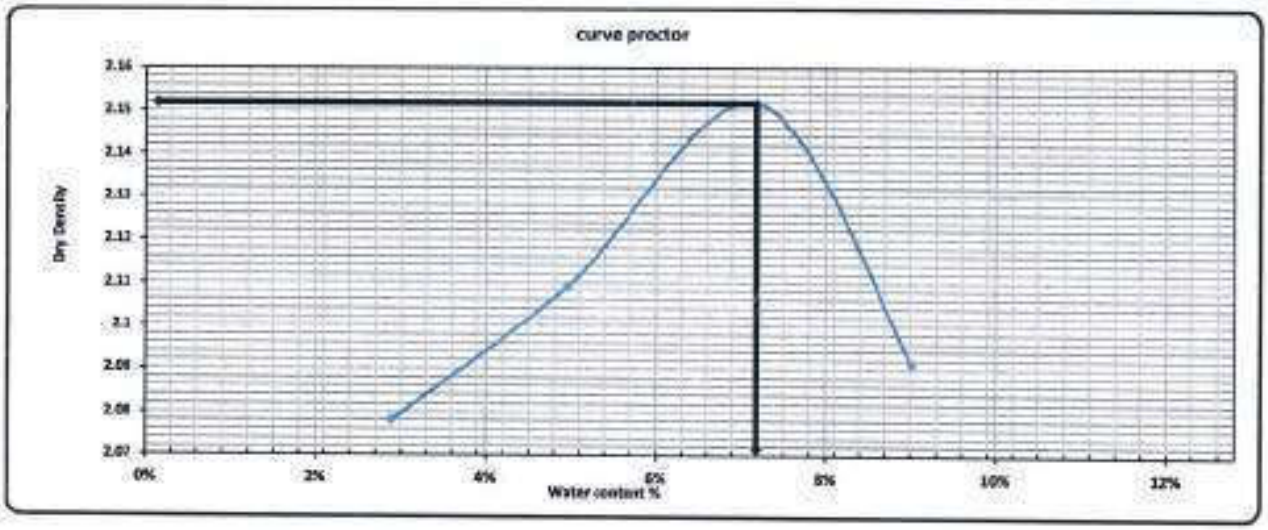
PROCTOR TEST

TESTING DATE	17/8/2023	code	ZONE	564+000	567+720
location	K.P 666+000	GB68-122	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	130.65	130.65	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

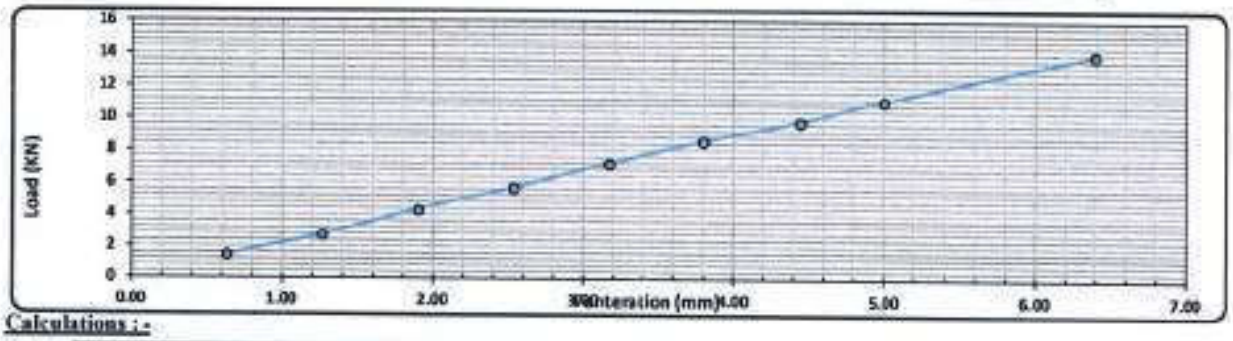
Compaction % for Mold	
Mold No.	2
Mold Vol. (cm^3)	2177.5
Mold WT. (gm)	16446
Mold WT. + Wet WT. (gm)	21432
Wet WT. (gm)	4958
Wet Density (g/cm^3)	2.291
Dry Density (g/cm^3)	2.138
Proctor Density (g/cm^3)	2.152
Compaction %	99

Mositure Ratio After Compacted Mold	
Tare No.	6
Tare WT. (gm)	36.45
Tare WT. +Wet WT. (gm)	196.32
Tare WT. +Dry WT. (gm)	147.64
Wt Of water	8.7
Dry WT. (gm)	121.2
Mointure Content %	7.3

Swelling	
Mold No.	2
Date	24t
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	5.08	6.40
Load Reading (lg)	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 :

Consultant Engineer

Name :

Sign :

المعمل المركزى
شركة جمعه بدر نوح

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 Abdzaid			
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	Ahmedfoud										
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 متر مكعب		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD	Ahmedfoud		
QA/QC *	Ahmed Abdelzaid			
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-Gradient 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	2065.0	1996.0	2451.0	2784.0	2820.0			A-1-a
Cumulative Retained (g)	754.0	2099.0	4164.0	6160.0	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

8/8/23

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

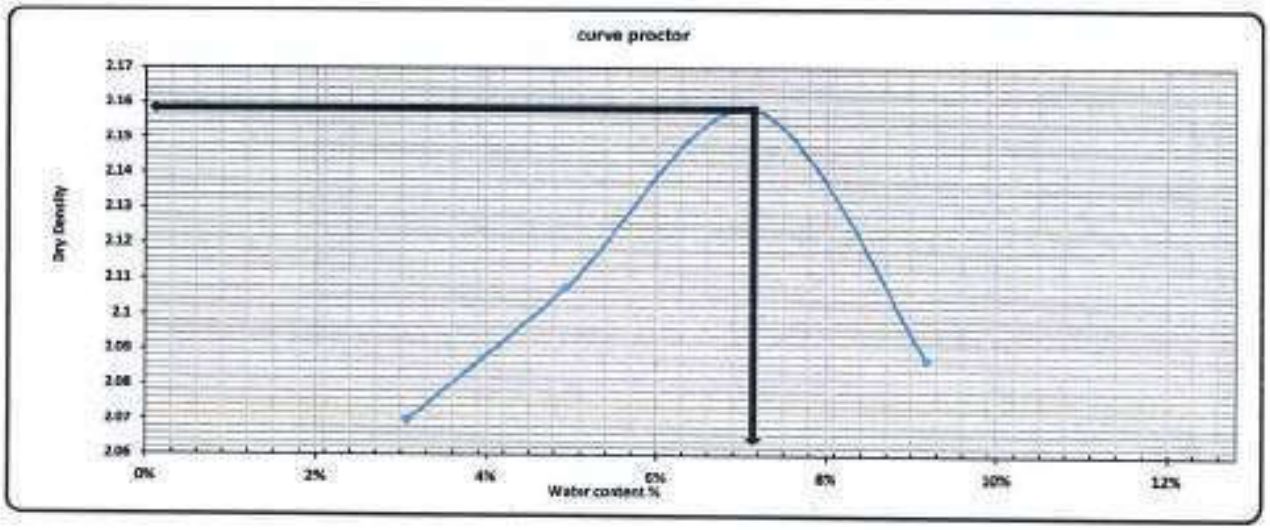
PROCTOR TEST

TESTING DATE	20/8/2023	code	ZONE	664+000	667+720
location	K.P 666+000	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 المركزي
(رقم 6)

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

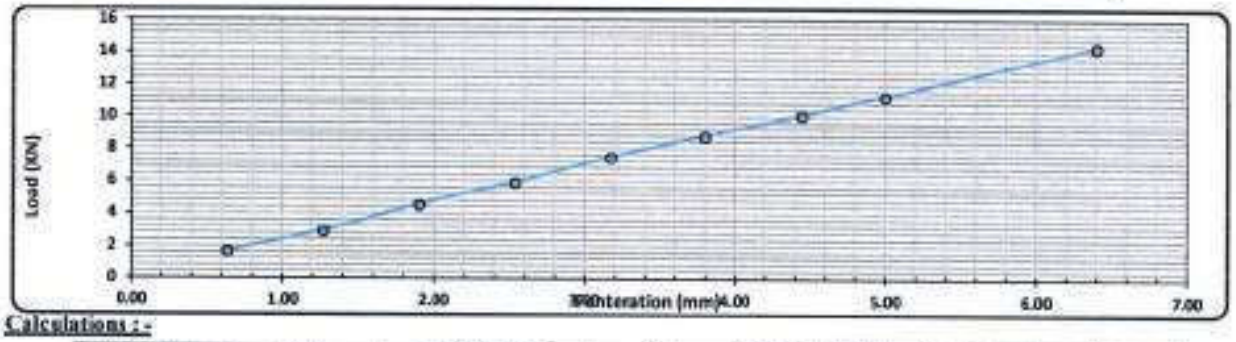
Compaction % for Mold	
Mold No.	2
Mold Vol. (cm^3)	2177.5
Mold WT. (gm)	10444
Mold WT. + Wet WT. (gm)	21451
Wet WT. (gm)	5007
Wet Density (g/cm^3)	2.299
Dry Density (g/cm^3)	2.145
Proctor Density (g/cm^3)	2.158
Compaction %	99

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	6.40
Load Reading (kg)	168.00	294.00	428.00	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 عند نسبة
2.50	5.86	13.4	43.9%	99	100	44.3%
5.00	11.22	20.0	56.0%			56.4%

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

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

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)	163.90	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

Electr'c 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

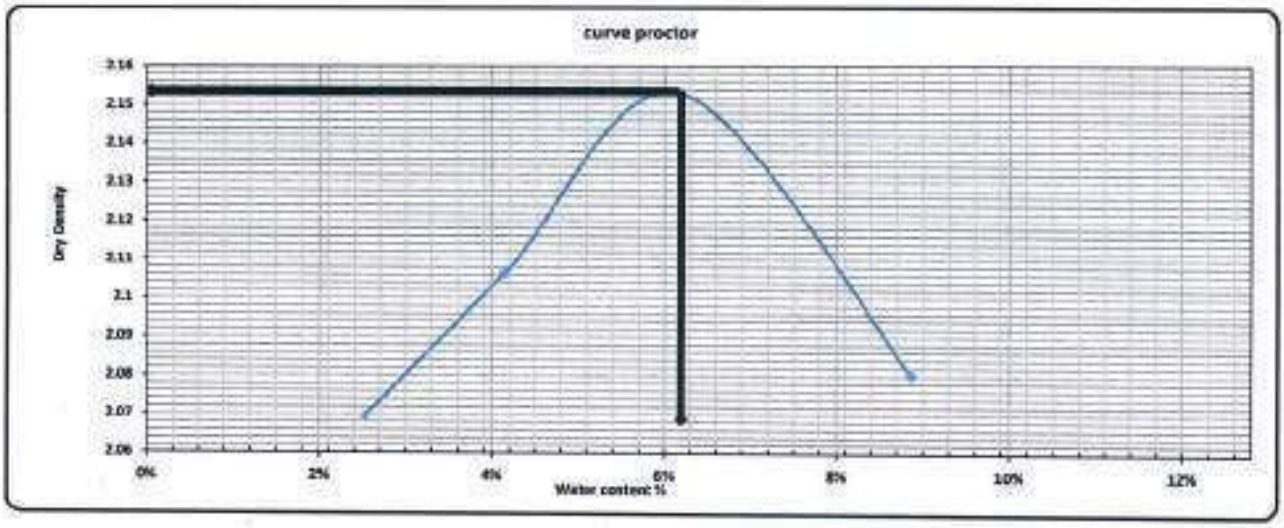
PROCTOR TEST

TESTING DATE	24/8/2023	code	ZONE	562+000	565+000
location	K.P 563+000	CB86-124	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 فتحي

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 868+177

Absorbtion & Aggregate specific gravity AASHTO-T86

TESTING DATE	25/8/2023	mdr	ZONE	662+000	666+000
location	K.PS63+000	GB66-124	Material	Embankment	
NAME COMPANY	Gomaa Badr				

operate by	GOMAA BADR LAB	
Weight of sample	2000	gm
Weight of saturated -dry surface sample (B)	2063.4	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)	2.375	
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
(رقم 6)

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

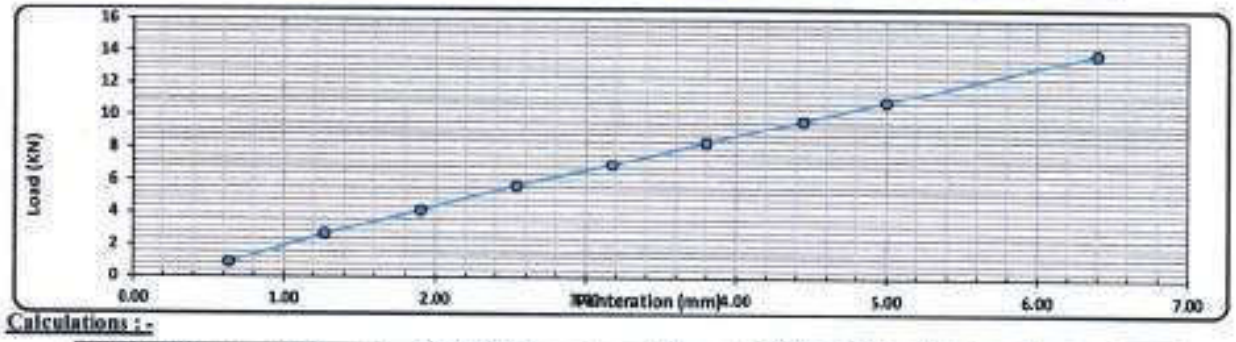
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	2177.5
Mold WT. (gm)	16553
Mold WT. + Wet WT. (gm)	21481
Wet WT. (gm)	4928
Wet Density (g/cm^3)	2.263
Dry Density (g/cm^3)	2.138
Practor Density (g/cm^3)	2.153
Compaction %	99

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 (mm)	Load (Kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR % 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
Name :
Sign :

Consultant Engineer
Name :
Sign :

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

MATERIAL APPROVAL REQUEST

Contractor Company	GOMAA BADER COMPANY				Designer Company						
Contractor Refrence	GB63-125										
Issued by Contractor	Name Eng/ AHMED FOUAD	Sign			Date 31/8/2023				Time		
Received by ER			MIR		C1	C2	C3	DD	MM	YY	HH	MM
								31	8	2023		

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Rp 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+420 TO 564+540 -1.5 & 564+420 TO 564+540 -1.25 564+420 TO 564+540 -1 & 564+420 TO 564+540 -.75 564+420 TO 564+540 -.5 564+420 TO 564+540 -.25				
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	29/8/2023	
2	Atterberg Limits	M^3	5000	29/8/2023	
3	Proctor	M^3	5000	30/8/2023	
6	CBR	M^3	5000	31/8/2023	

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 Ahmed Abo Zaid			
QA/QC *				
GARB**				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company								
Contractor Refrence	GB63-125											
Issued by Contractor	Name	Sign		Date 31/8/2023					Time			
	Eng/ AHMED FOUAD											
Received by ER			MAR	C1	C2	C3	DD	MM	YY	H H	MM	
							31	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	12.3%	
4	ASTM D 4318	Atterberg Limit	N.P	
5	ASTM D 2974	Moisture content	7.51%	
6	ASTM D 1557	Modifid Proctor	2.2	
9	ASTM D 1883	CBR	52.6%	
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

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	29/8/2023	code	ZONE	562+000	565+000
location	K.P 563+000	GB56-125	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)		20670.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	3/8	# 4	PASS		soil classify
Mass retained (g)	0.0	1689.0	2862.0	2204.0	2680.0	1349.0	2631.0			A-1-a
Cumulative Retained (g)	0.0	1689.0	4551.0	6755.0	9435.0	10834.0	13336.0		PRO	2.140
Cumulative Retained %	0.0	8.2	22.0	32.7	45.6	52.3	64.5		PRO.corr	2.2
Cumulative Passing %	100.0	91.8	78.0	67.3	54.4	47.7	35.5		WC.corr	7.51%
									CBR	52.6%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	106.00	212.00	326.00					
Cumulative Retained %	21.20	42.40	65.20					
Cumulative Passing %	78.80	57.60	34.80					

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	91.8	78.0	67.3	54.4	47.7	35.5	28.0	20.4	12.3

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

Contractor

Consultant

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

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

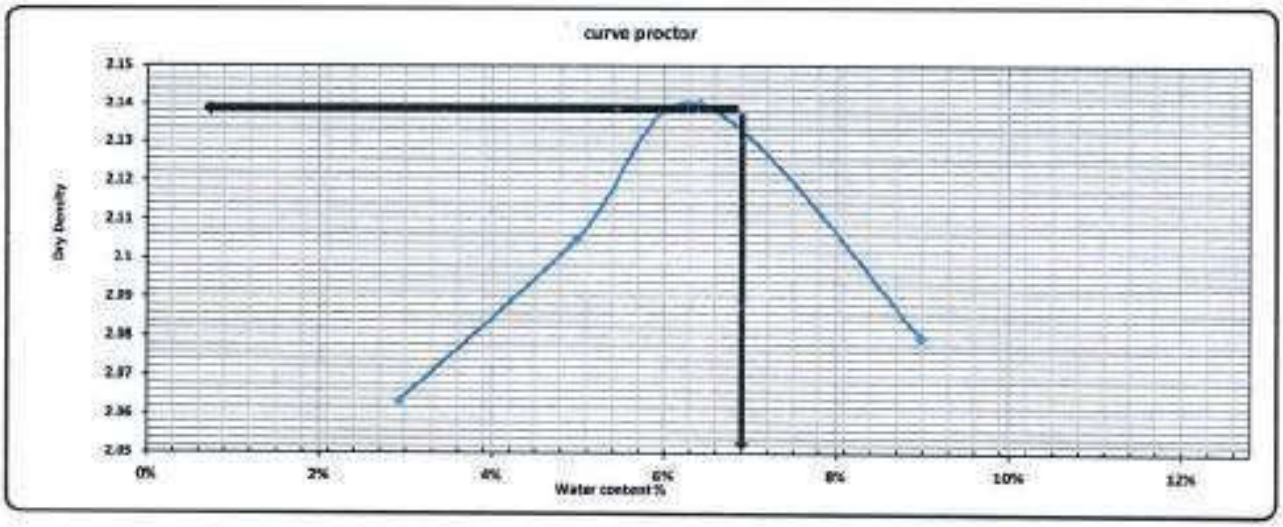
PROCTOR TEST

TESTING DATE	30/8/2023	code	ZONE	562+000	566+000
location	K.P 563+000	GS66-126	Material	Embankment	
NAME COMPANY	Gomaa Badr				
	operate by	GOMAA BADR LAB			

Weight of empty mold :	6210.0	MAX Dry Density	2.140
Mold Volume:	2104.9	Water content %	6.60

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10689.8	10870.0	11013.0	10990	
WT. WET SOIL	4479.0	4660.0	4803.0	4780.0	
Wt. Density	2.128	2.214	2.282	2.271	

Tare No.	3	3	6	6	9	9	11	11		
Tare wt.	25.45	25.45	26.35	26.35	24.55	24.55	25.45	25.45		
Wt. Of wet soil & tare	123.5	123.5	135.2	135.2	145.8	145.8	139.2	139.2		
Wt. Of dry soil & tare	120.56	120.56	129.87	129.87	138.3	138.3	129.66	129.66		
Wt. Of water	3.0	3.0	5.4	5.4	7.5	7.5	9.6	9.6		
Wt. Of dry soil	95.1	95.1	103.5	103.5	113.8	113.8	104.2	104.2		
Water content %	3.1%	3.1%	5.2%	5.2%	6.6%	6.6%	9.2%	9.2%		
AV.Water content %	3.1%		5.2%		6.6%		9.2%			
Dry Density	2.063		2.105		2.140		2.080			



Contractor

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

Consultant

31/8/2023

Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein - MATROUH
Section - 7 From FOKA To MARSA MATROUH
From Station 604+000 To Station 664+177

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE	30/8/2023	code	ZONE	662+000	665+000
location	K.P663+300	GB86-125	Material	Embankment	
NAME COMPANY	Gomaa Badr				

operate by	GOMAA BADR LAE	
Weight of sample	2000	gm
Weight of saturated -dry surface sample (B)	2063.0	gm
Weight of saturated sample in water (C)	1218.0	gm
Weight of dry sample after heating (A)	1991.0	gm

Results:-

Bulk specific gravity = A / (B-C)	2.358	
Apparent specific gravity = A /(A-C)	2.576	
Asorbtion = (B-A)\A	3.616	%

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 :

Consultant Engineer
Name :
Sign :

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

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)	2.140	Company	Gomaa Bader
Optimum Moisture Content (O.M.C) (%)	6.60	Date of Sample	30/8/2023
Specific Gravity of over Size Fraction (G_M)	2.356	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	20670		
Weight of Wet oversize Fraction (Retained 3/4)	gm	6755		
Weight of Wet Fine Fraction (Passing 3/4)	gm	13915		
Weight of Dry oversize Fraction (M_{DC})	gm	6106		
Weight of Dry Fine Fraction (M_{DF})	gm	13105		
Total Weight of Dry Sample	gm	19426		
Water Content of oversize Fraction (W_C)	%	0.11		
Water Content of Fine Fraction (W_F)	%	0.06		
Percent of oversize Fraction By Mass (P_C)	%	31.43		
Percent of Fine Fraction By Mass (P_F)	%	67.46		

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

Corrected Water for oversize Fraction & Finer Fraction (C_W)		$W_F P_F + W_C P_C$		7.51
Specific Gravity of over Size Fraction (G_M)	2.356			
Maximum Dry Density of Fine Fraction (Y_{DF})	2.140	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))	2.20

Corrected Maximum Dry Density (M.D.D)	2.20	gm/cm^3
Corrected Optimum Moisture Content (O.M.C)	7.51	%

31 / 8 / 2023

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE:	31/8/2023	code	ZONE	562+000	565+000
location	K.P 563+000	GB66-125	Material	Embankment	
NAME COMPANY	Gomaa Badr				
	operate by	GOMAA BADR LAB			

-: Test Results

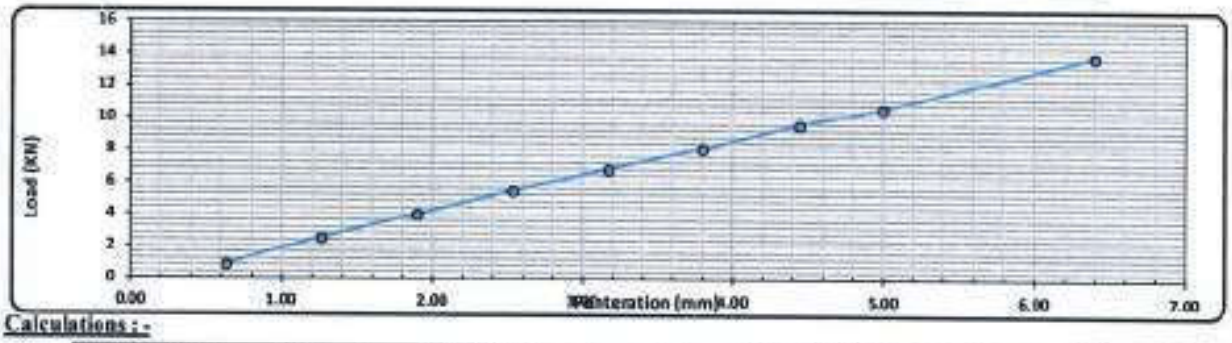
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	2177.6
Mold WT. (gm)	16553
Mold WT. + Wet WT. (gm)	21426
Wet WT. (gm)	4873
Wet Density (g/cm^3)	2.238
Dry Density (g/cm^3)	2.102
Proctor Density (g/cm^3)	2.140
Compaction %	98

Mositure Ratio After Compacted Mold	
Tare No.	9
Tare WT. (gm)	24.58
Tare WT. +Wet WT. (gm)	145.64
Tare WT. +Dry WT. (gm)	138.1
Water WT. (gm)	7.5
Dry WT. (gm)	113.6
Moisture Content %	6.5

Swelling	
Mold No.	1
Date	24h
Intial Height (mm)	0.00
Final Height (mm)	0.03
Difference	0
Sample Height (mm)	183.00
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)	80.00	250.00	400.00	550.00	690.00	820.00	970.00	1074.00	1400.00
Load (KN)	0.8	2.5	3.9	5.4	6.8	8.0	9.5	10.5	13.7



Calculations : -

Penteration (mm)	Load (kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR % 100 عند نسبة
2.54	5.39	13.4	40.4%	98	100	41.1%
5.00	10.53	20.0	52.6%			53.5%

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

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

MATERIAL APPROVAL REQUEST

Contractor Company	GOMAA BADER COMPANY				Designer Company						
Contractor Refrence	GB63-126										
Issued by Contractor	Name	Sign			Date 7/9/2023				Time		
	Eng/ AHMED FOUAD										
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							7	9	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+420 TO 564+540 (ferma) & 562+590 TO 562+620 (-0.5) 562+590 TO 562+620 (-.25) & 562+590 TO 562+620 (ferma)				
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	1500	5/9/2023	
2	Atterberg Limits	M^3	1500	5/9/2023	
3	Proctor	M^3	1500	6/9/2023	
6	CBR	M^3	1500	7/9/2023	

Comments by:	Comments by:
	نتائج الصلاحيات والمرفقات مطابقة لكميات حوالي 1500 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

MATERIAL APPROVAL REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company							
Contractor Refrence	GB63-126										
Issued by Contractor	Name	Sign		Date 7/9/2023			Time				
	Eng/ AHMED FOUAD	Ahmedfouad									
Received by ER			MAR	C1	C2	C3	DD	MM	YY	H H	MM
							7	9	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	9.4%	
4	ASTM D 4318	Atterberg Limit	N.P	
5	ASTM D 2974	Moisture content	8.3%	
6	ASTM D 1557	Modifid Proctor	2.21	
9	ASTM D 1883	CBR	56.6%	
Comments by:		**Comments by:**		
		نتائج الصلاحيات والمرفقات مطابقة لكميات حوالي 1500 م.ك مكعب		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD	Ahmedfouad		
QA/QC *	Yousef Rajab	Yousef Rajab		
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	5/9/2023	code	ZONE	562+000	565+000
location	K.P 563+000	GB86-126	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)		38440.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	3/8	# 4	PASS		soil classify
Mass retained (g)	1869.0	3568.0	5384.0	4039.0	2694.0	4685.0	5401.0			A-1-a
Cumulative Retained (g)	1869.0	5437.0	10821.0	14840.0	17534.0	22219.0	27620.0		PRO	2.148
Cumulative Retained %	5.1	14.9	29.8	40.7	48.1	61.0	75.8		PRO.corr	2.21
Cumulative Passing %	94.9	85.1	70.4	59.3	51.9	39.0	24.2		WC.corr	8.3%
									CBR	55.6%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	112.45	215.00	305.00					
Cumulative Retained %	22.49	43.00	61.00					
Cumulative Passing %	77.51	57.00	39.00					

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 %	94.9	85.1	70.4	59.3	51.9	39.0	24.2	18.8	13.8	9.4

ATTERBERG LIMITS	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

Youssef Raafat
2023

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

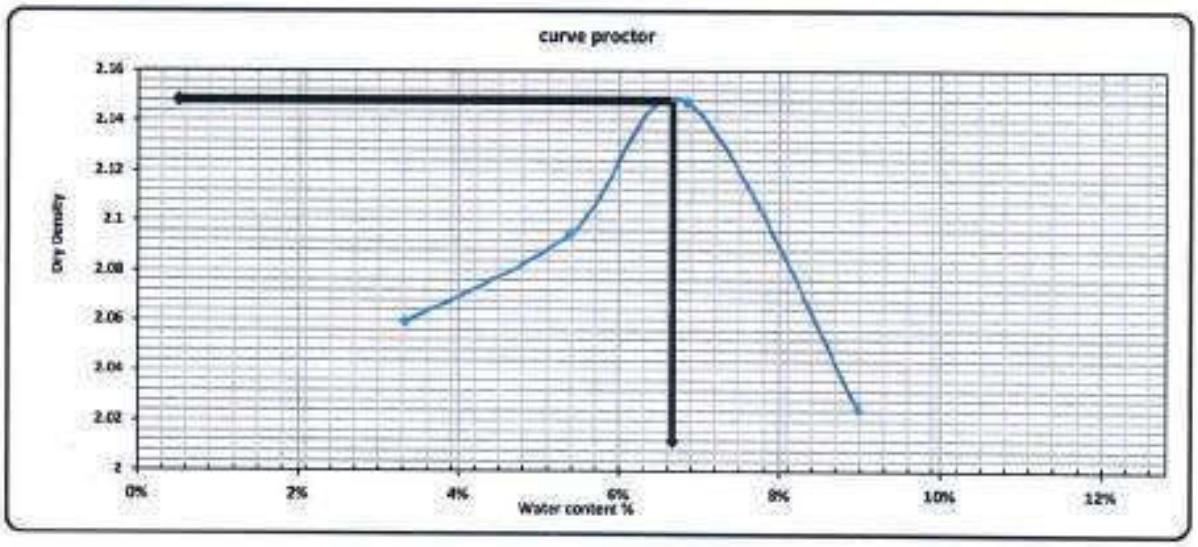
PROCTOR TEST

TESTING DATE	6/9/2023	code	ZONE	562+000	565+000
location	K.P 563+000	G066-126	Material	Embankment	
NAME COMPANY	Gomaa Badr				
	operate by	GOMAA BADR LAB			

Weight of empty mold :	6198.0	MAX Dry Density	2.148
Mold Volume:	2104.9	Water content %	7.00

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10685.0	10853.0	11036.0	10850	
WT. WET SOIL	4487.0	4655.0	4838.0	4652.0	
Wt. Density	2.132	2.212	2.298	2.210	

Tare No.	11	11	23	23	8	8	1	1		
Tare wt.	27.25	27.25	24.82	24.82	22.51	22.51	22.88	22.88		
Wt. Of wet soil & tare	143.26	143.26	136.25	136.25	148.12	148.12	130.68	130.68		
Wt. Of dry soil & tare	139.3	139.3	130.35	130.35	139.85	139.85	121.61	121.61		
Wt. Of water	4.0	4.0	5.9	5.9	8.3	8.3	9.1	9.1		
Wt. Of dry soil	112.1	112.1	105.5	105.5	117.3	117.3	98.7	98.7		
Water content %	3.5%	3.5%	5.6%	5.6%	7.0%	7.0%	9.2%	9.2%		
AV.Water content %	3.5%		5.6%		7.0%		9.2%			
Dry Density	2.059		2.094		2.147		2.024			



Contractor

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

Consultant

Yousef Ragab
7/9/2023

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

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 594+177

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE	6/9/2023	----	ZONE	562+000	565+000
location	K.PS63+000	GB66-126	Material	Embankment	
NAME COMPANY	Gomaa Badr				

operate by	GOMAA BADR LAB	
Weight of sample	2000	gm
Weight of saturated -dry surface sample (B)	2063.0	gm
Weight of saturated sample in water (C)	1218.0	gm
Weight of dry sample after heating (A)	1991.0	gm

Results:-

Bulk specific gravity = A / (B-C)	2.356	
Apparent specific gravity = A /(A-C)	2.576	
Asorbtion = (B-A)/A	3.616	%

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 :

Consultant Engineer
Name : Youssef Rafaat
Sign :

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

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)	2.148	Company	Magdy Bekheet
Optimum Moisture Content (O.M.C) (%)	7.00	Date of Sample	6/9/2023
Specific Gravity of over Size Fraction (G_M)	2.356	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	36440
Weight of Wet oversize Fraction (Retained 3/4)	gm	14840
Weight of Wet Fine Fraction (Passing 3/4)	gm	21600
Weight of Dry oversize Fraction (M_{DC})	gm	13759
Weight of Dry Fine Fraction (M_{Df})	gm	19862
Total Weight of Dry Sample	gm	33621
Water Content of oversize Fraction (W_C)	%	0.08
Water Content of Fine Fraction (W_F)	%	0.09
Percent of oversize Fraction By Mass (P_C)	%	40.92
Percent of Fine Fraction By Mass (P_F)	%	59.08

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

Corrected Water for oversize Fraction & Finer Fraction (C_W)		$W_F P_F + W_C P_C$	8.38
Specific Gravity of over Size Fraction (G_M)	2.356		
Maximum Dry Density of Fine Fraction (Y_{Df})	2.148	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})	$\frac{(YDF * GM * YW)}{((YDF * PC) + (GM * YW * PF))}$	2.21

Corrected Maximum Dry Density (M.D.D)	2.21	gm/cm^3
Corrected Optimum Moisture Content (O.M.C)	8.38	%

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE:	7/9/2023	code	ZONE	562+000	565+000
location	K.P 563+000	GS68-126	Material	Embankment	
NAME COMPANY	Gomaa Badr				
	operate by	GOMAA BADR LAB			

-: Test Results

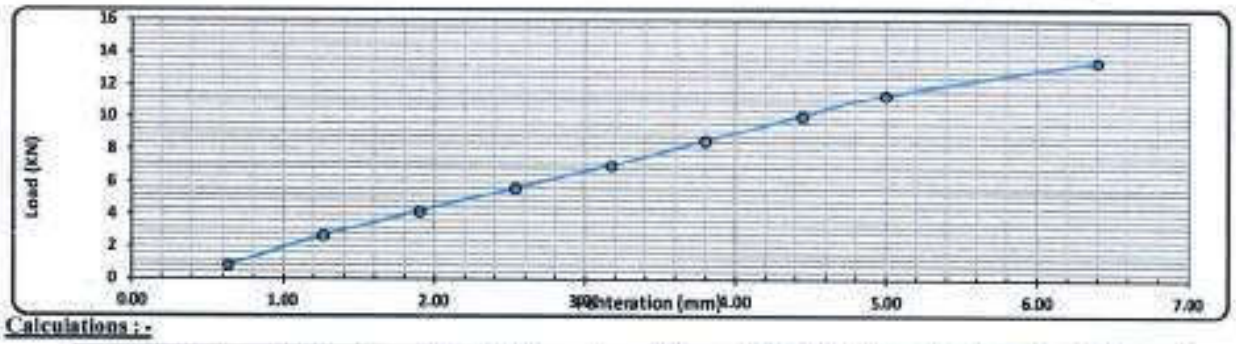
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	2177.5
Mold WT. (gm)	16553
Mold WT. + Wet WT. (gm)	21486
Wet WT. (gm)	4933
Wet Density (g/cm^3)	2.265
Dry Density (g/cm^3)	2.121
Proctor Density (g/cm^3)	2.147
Compaction %	99

Mositure Ratio After Compacted Mold	
Tare No.	13
Tare WT. (gm)	23.52
Tare WT. +Wet WT. (gm)	163.24
Tare WT. +Dry WT. (gm)	154.36
Water WT. (gm)	8.9
Dry WT. (gm)	130.8
Moisture Content %	6.8

Swelling	
Mold No.	1
Date	7/9
Initial 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)	78.00	268.00	421.00	568.00	710.00	864.00	1024.00	1136.00	1369.00
Load (KN)	0.8	2.6	4.1	5.6	7.1	8.5	10.0	11.5	13.4



Calculations : -

Penteration (mm)	Load (Kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR % 100 نقطة
2.50	5.57	13.4	41.7%	99	100	42.2%
5.00	11.33	20.0	56.6%			57.3%

Lab Specialist
Name :
Sign :

Consultant Engineer
Name : Youssef Refaat
Sign :

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

MATERIAL INSPECTION REQUEST

الهيئة العامة للطرق و الكباري و النقل البري (GARBLT)

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

SYSTRA SHAKER

Contractor Company	GOMAA BADER COMPANY		Designer Company	
Contractor Refrence	GB63-11			
Issued by Contractor	Name: ENG/AHMED FOUAD	Sign: [signature]	Date 23/5/2023	Time
Received by ER			MIR	

C1	C2	C3	DD	MM	YY	HH	MM
			23	5	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	562+880 TO 562+940 (0.5) 564+020 TO 564+240 (0.5) 563+460 TO 563+560 (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	22/5/2023	
2	Atterberg Limits	M^3	5000	22/5/2023	
3	Proctor	M^3	5000	22/5/2023	
4	CBR	M^3	5000	23/5/2023	
5	Los-Anglos abrasion	M^3	5000	23/5/2023	
6	Water absorption	M^3	5000	23/5/2023	

Comments by:	Comments by:
	نتائج الصلاحيات والمواصفات مطابقة للمواصفات تمثل حوالي 5000 م3

APPROVAL STATUS

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

* Designer
** Alignment / Bridges Culvert Only

MATERIAL APPROVAL REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company								
Contractor Refrence	GB63-11											
Issued by Contractor	Name	Sign		Date 23/5/2023			Time					
	ENG/AHMED FOUAD	Ahmedfouad										
Received by ER			MAR	C1	C2	C3	DD	MM	YY	H H	MM	
							23	5	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	Prepared Sub grade			
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	8.8%	
4	ASTM D 4318	Atterberg Limit	N.P% N.P% N.P%	
5	ASTM D 2974	Moisture content	7.1%	
6	ASTM D 1557	Modifid Proctor	2.195	
7	ASTM D 1883	CBR	62.3%	
8	ASTM C 535	Los-Anglos abrasion	29.10%	
9	ASTM D 1293	Water Absorption	-	

Comments by:	Comments by:

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/AHMEDFOUAD	Ahmedfouad		
QA/QC *	AhmedAbozaid			
GARB**	ENG/ KHALED FAWZY			
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 566+177

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE	22/5/2023	code	ZONE	562+000	565+000
location	K.P563+000	GB63-11	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader				
1-visual inspection test	operate by	Gomaa Bader Lab			

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		26000.00		gm		table classify
sieve size	5	4	3	1 1/2	3/4	3/8	# 4	PASS		soil classify
Mass retained (g)	0.0	0.0	0.0	300.0	4535.0	5140.0	4840.0			A-1-a
Cumulative Retained (g)	0.0	0.0	0.0	300.0	4835.0	9975.0	14815.0		PRO	2.195
Cumulative Retained %	0.0	0.0	0.0	1.2	18.6	38.4	57.0		WC	7.1
Cumulative Passing %	100.0	100.0	100.0	98.8	81.4	61.6	43.0		CBR	62.3%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	208.00	325.00	398.00					
Cumulative Retained %	41.60	65.00	79.60					
Cumulative Passing %	58.40	35.00	20.40					

C-General gradient										
sieve size(in)	5	4	3	1 1/2	3/4	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	100.0	100.0	98.8	81.4	61.6	43.0	25.1	16.1	9.8

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

Contractor

Consultant

المعمل المركزى
شركة جمعه بدر نوح

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

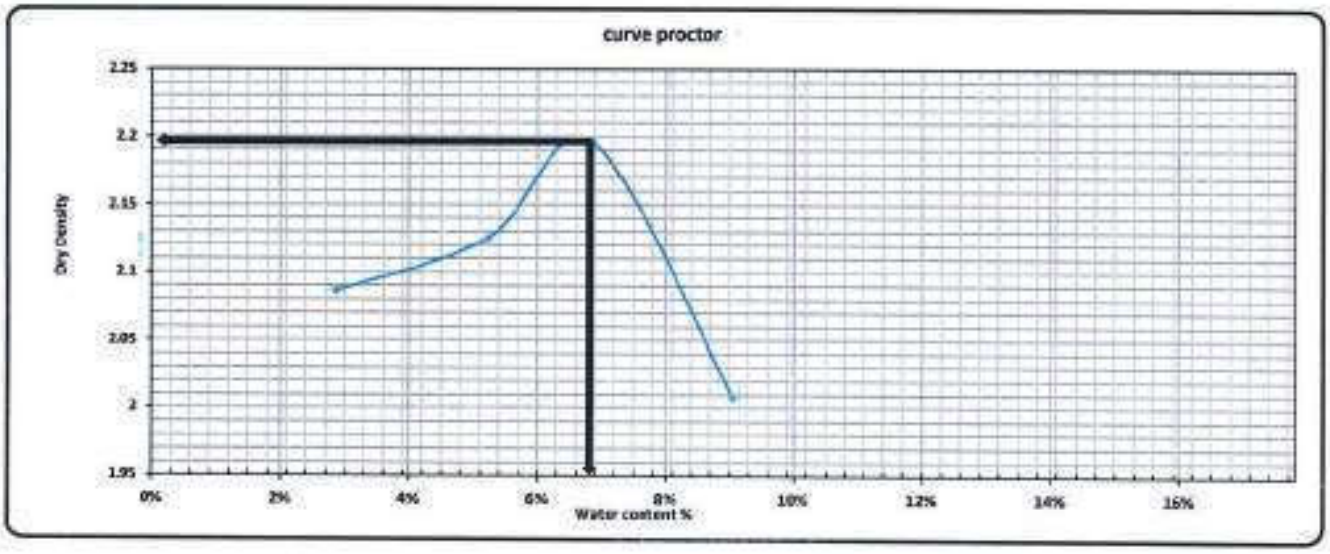
PROCTOR TEST

TESTING DATE	22/6/2023	CODE	ZONE	562+000	565+000
location	K.P563+000	GB63-11	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader				
	operate by	Gomaa Bader Lab			

Weight of empty mold :	6118.0	MAX Dry Density	2.195
Mold Volume:	2104.9	Water content %	7.10

trial no :	1	2	3	4		
Wt. Of Mold+ wet soil	10644.0	10832.0	11064.0	10734		
WT. WET SOIL	4526.0	4714.0	4946.0	4616.0		
Wt. Density	2.150	2.240	2.350	2.193		

Tare No.	6	6	12	12	11	11	4	4				
Tare wt.	26.41	26.41	26.45	26.45	26.24	26.24	27.11	27.11				
Wt. Of wet soil & tare	127.64	127.64	123.12	123.12	101.45	101.45	120.87	120.87				
Wt. Of dry soil & tare	124.61	124.61	118.14	118.14	96.49	96.49	112.92	112.92				
Wt. Of water	3.0	3.0	5.0	5.0	5.0	5.0	8.0	8.0				
Wt. Of dry soil	98.2	98.2	91.7	91.7	70.3	70.3	85.8	85.8				
Water content %	3.1%	3.1%	5.4%	5.4%	7.1%	7.1%	9.3%	9.3%				
AV.Water content %	3.1%		5.4%		7.1%		9.3%					
Dry Density	2.086		2.124		2.195		2.007					



Contractor

المعمل المركزى
شركة جمعه بدر نوح

Consultant

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

Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein - MATROUH
Section - 7 From POKA To MARSA MATROUH
From Station 304+000 To Station 360+177

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	23/5/2023	code	ZONE	562+000	565+000
LOCATION	K.P563+000	[illegible]	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader				

Weight of sample		gm
Weight of saturated -dry surface sample (B)		gm
Weight of saturated sample in water (C)		gm
Weight of dry sample after heating (A)		gm

Results:-

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

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3545	29.10

Lab. Engineer
Name :
Sign :

OPERATE BY
GOMAA BADR LAB

Consultant Engineer
Name :
Sign :

المعمل المركزى
شركة جمعه بدر نوح

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE	23/6/2023	GOOR	ZONE	562+000	565+000
location	K.P563+000	GR63-11	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader				
	operate by	Gomaa Bader Lab			

-: Test Results

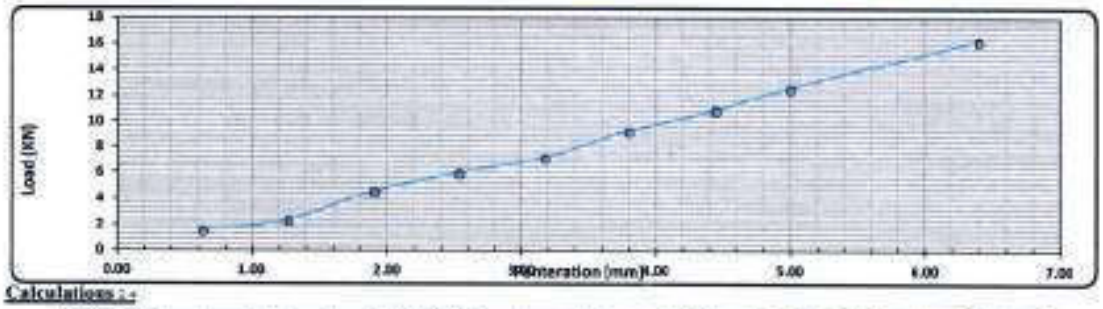
Compaction % for Mold	
Mold No.	2
Mold Vol. (cm^3)	2177.5
Mold WT. (gm)	16444
Mold WT. + Wet WT. (gm)	21488
Wet WT. (gm)	5044
Wet Density (g/cm^3)	2.316
Dry Density (g/cm^3)	2.158
Proctor Density (g/cm^3)	2.195
Compaction %	98

Moisture Ratio After Compacted Mold	
Tare No.	12
Tare WT. (gm)	24.51
Tare WT. +Wet WT. (gm)	156.2
Tare WT. +Dry WT. (gm)	147.31
Wt. Of water	9.0
Dry WT. (gm)	122.7
Moisture Content %	7.3

Swelling	
Mold No.	2
Date	24/6
Initial Height (mm)	1.50
Final Height (mm)	1.53
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	5.00	6.40
Load Reading (kg)	145.00	228.00	452.00	598.00	720.00	932.00	1098.00	1274.00	1645.00
Load (KN)	1.4	2.2	4.4	5.9	7.1	9.1	10.8	12.5	16.1



Calculations :-

Penetration (mm)	Load (Kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR % 100 نسبة هلة
2.50	5.80	13.4	43.3%	98	100	44.6%
5.00	12.49	28.0	63.3%			63.4%

Lab. Specialist

Name :

Sign :

Consultant Engineer

Name :

Sign :

المعمل المركزى
شركة جمعه بدر نوح

MATERIAL INSPECTION REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company								
Contractor Refrence	GB66-12											
	Name	Sign		Date 24/5/2023			Time					
Issued by Contractor	ENG/AHMED FOUAD	Ahmed Fouad										
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM	
							24	5	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+820 TO 564+940 (0.25) 564+820 TO 564+940 (0.5) 565+820 TO 566+000 (0.5) 566+000 TO 566+120 (0.5) 566+120 TO 566+240 (0.25) 566+120 TO 566+240 (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	23/5/2023	
2	Atterberg Limits	M^3	5000	23/5/2023	
3	Proctor	M^3	5000	23/5/2023	
4	CBR	M^3	5000	24/5/2023	
5	Los-Anglos abrasion	M^3	5000	23/5/2023	
6	Water absorption	M^3	5000	23/5/2023	

Comments by:	Comments by:
Sand ... prepared ... Mohamed Ali	نتائج الصلاحيات والمرفقات مطابقة لكميات تمثل حوالي 5000 متر مكعب Mohamed Ali

APPROVAL STATUS

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

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company								
Contractor Refrence	GB66 - 12											
Issued by Contractor	Name	Sign		Date 24/5/2023			Time					
	ENG/AHMED FOUAD	AhmedFouad										
Received by ER			MAR	C1	C2	C3	DD	MM	YY	H H	MM	
							24	5	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	Prepared Sub grade			
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	11.2%	
4	ASTM D 4318	Atterberg Limit	22.6% 18.5% 4%	
5	ASTM D 2974	Moisture content	7.2%	
6	ASTM D 1557	Modifid Proctor	2.182	
7	ASTM D 1883	CBR	63.0%	
8	ASTM C 535	Los-Anglos abrasion	29.10%	
9	ASTM D 1293	Water Absorption	-	

Comments by:	Comments by:
	نتائج الصلاحيات والمرفقات مطابقة لكميات تمثل حوالى 5000 متر مكعب

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/AHMEDFOUAD	AhmedFouad		
QA/QC *	Mohamed Ali			
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	23/5/2023	code	ZONE	564+000	567+757
location	K.P566+000	GB66-12	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader				
1-visual inspection test	operate by	Gomaa Bader Lab			

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		24510.00		gm		table classify
sieve size	5	4	3	1 1/2	3/4	3/8	# 4	PASS		soil classify
Mass retained (g)	0.0	0.0	0.0	1215.0	4970.0	5660.0	5010.0			A-1-a
Cumulative Retained (g)	0.0	0.0	0.0	1215.0	6185.0	11845.0	16855.0		PRO	2.182
Cumulative Retained %	0.0	0.0	0.0	5.0	25.2	48.3	68.8		WC	7.2
Cumulative Passing %	100.0	100.0	100.0	95.0	74.8	51.7	31.2		CBR	63.0%

B-soft materiel gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	99.00	196.00	321.00					
Cumulative Retained %	19.80	39.20	64.20					
Cumulative Passing %	80.20	60.80	35.80					

C-General gradient										
sieve size(in)	5	4	3	1 1/2	3/4	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	100.0	100.0	95.0	74.8	51.7	31.2	25.0	19.0	11.2

ATTERBERG LIMTS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	22.6%	18.5%	4%

Contractor

المعمل المركزى
شركة جمعه بدر نوح

Consultant

Mohamed Ali

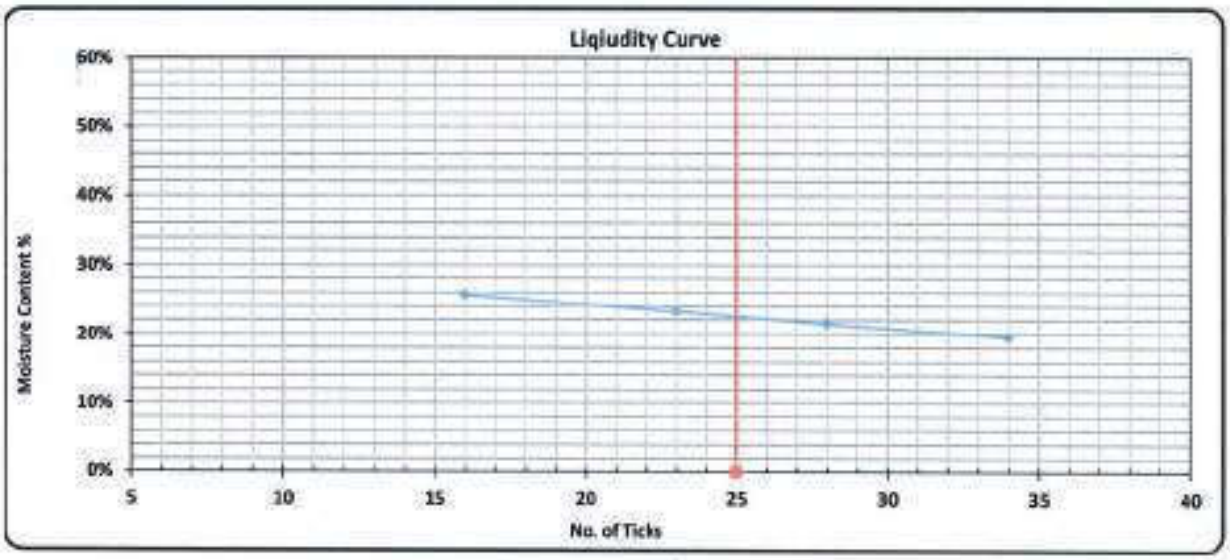
	Electric Express Train - HSR	

Plasticity and Liquidity Test -Atterberg Limits

TESTING DATE:	23/5/2023	code	ZONE	564+000	567+757
location	K.P566+000	GB66-12			
NAME COMPANY	Gomaa badr				

Testing Results :-

Test	Liqiud Limit				Plastic Limit	
No. of Ticks	16	23	28	34	0	0
Tare No.	5	45	13	46	K	D
Tare WT. (gm)	27.49	25.36	27.04	27.22	11.07	12.82
Tare WT. + Wet WT. (gm)	45.57	41.05	44.72	44.70	11.46	13.39
Tare WT. + Dry WT. (gm)	41.89	38.10	41.60	41.85	11.40	13.30
Water WT. (gm)	3.68	2.95	3.12	2.85	0.06	0.09
Dry WT. (gm)	14.40	12.74	14.56	14.63	0.33	0.48
Moisture Content %	25.6%	23.2%	21.4%	19.5%	18.2%	18.8%
Average %					18.5%	



32	P.L	P.I
22.5%	18.5%	4.0%

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

المعمل المركزى
شركة جمعه بدر نوح

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

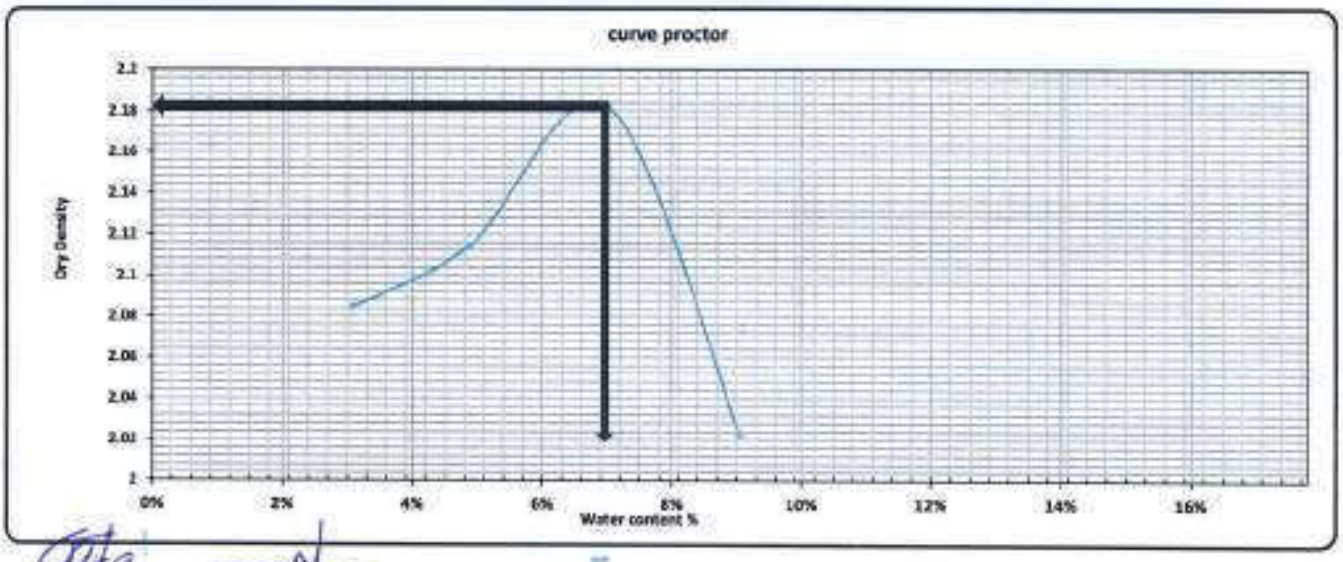
PROCTOR TEST

TESTING DATE	23/5/2023	code	ZONE	564+000	567+757
location	K.P566+000	GB66-12	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa badr				
	operate by	Gomaa Bader Lab			

Weight of empty mold :	6090.0	MAX Dry Density	2.182
Mold Volume:	2104.9	Water content %	7.20

trial no :	1	2	3	4		
Wt. Of Mold+ wet soil	10622.0	10765.0	11014.0	10741		
WT. WET SOIL	4532.0	4675.0	4924.0	4651.0		
Wt. Density	2.153	2.221	2.339	2.210		

Tare No.	8	8	13	13	15	15	7	7				
Tare wt.	26.42	26.42	27.25	27.25	26.3	26.3	26.41	26.41				
Wt. Of wet soil & tare	132.20	132.20	125.45	125.45	128.41	128.41	135.45	135.45				
Wt. Of dry soil & tare	124.2	124.2	120.71	120.71	121.55	121.55	126.21	126.21				
Wt. Of water	8.0	8.0	4.7	4.7	6.9	6.9	9.2	9.2				
Wt. Of dry soil	196.0	321.0	93.5	93.5	95.3	95.3	99.8	99.8				
Water content %	4.1%	2.5%	5.1%	5.1%	7.2%	7.2%	9.3%	9.3%				
AV.Water content %	3.3%		5.1%		7.2%		9.3%					
Dry Density	2.085		2.114		2.182		2.022					



Contractor

Consultant

المعمل المركزى
شركة جمعه بدر نوح

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE	24/5/2023	code	ZONE	564+006	567+757
location	K.P566+900	GB66-12	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader				
	operate by	Gomaa Bader Lab			

-: Test Results

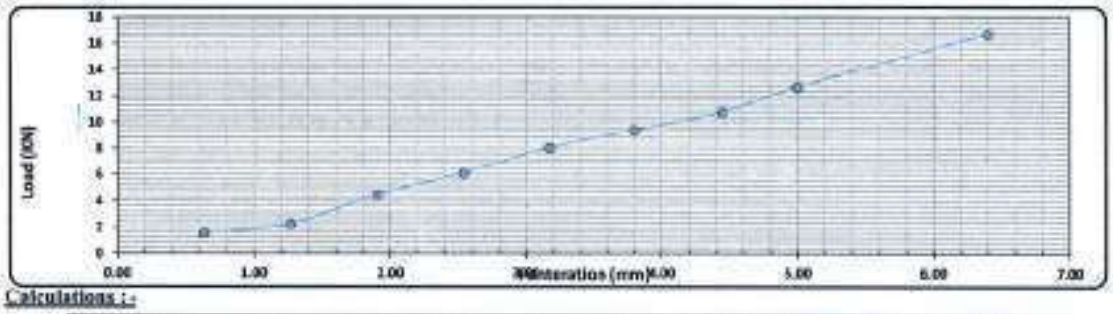
Compaction % for Mold	
Mold No.	2
Mold Vol.(cm^3)	2177.5
Mold WT. (gm)	10466
Mold WT. + Wet WT. (gm)	15487
Wet WT. (gm)	5045
Wet Density (g/cm^3)	1.316
Dry Density (g/cm^3)	1.164
Proctor Density (g/cm^3)	1.182
Compaction %	99

Moisture Ratio After Compacted Mold	
Tare No.	14
Tare WT. (gm)	28.14
Tare WT. +Wet WT. (gm)	156.9
Tare WT. +Dry WT. (gm)	146.4
7870	8.5
Dry WT. (gm)	121.3
Moisture Content %	7.0

Swelling	
Mold No.	2
Date	24/5
Initial Height (mm)	1.60
Final Height (mm)	1.63
Difference	0
Sample Height (mm)	183.00
Swelling Ratio %	0%

Loading Reading :

99.00	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	154.00	229.00	455.00	621.00	820.00	954.00	1094.00	1287.00	1698.00
Load (KN)	1.5	2.3	4.5	6.1	8.0	9.3	10.7	12.6	16.6



Calculations :

Penetration (mm)	Load (Kg)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR %
2.50	6.89	13.4	45.6%	99	100	46.0%
5.00	12.61	20.8	63.8%			63.5%

Lab. Specialist

Name:

Sign:

Consultant Engineer

Name : Mohamed

Sign :

المعمل المركزى
شركة جمعه بدر نوح

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

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 580+177

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	23/5/2023	code	ZONE	564+000	567+757
LOCATION	K.P566+000	G066-12	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader				

Weight of sample		gm	
Weight of saturated -dry surface sample (B)		gm	
Weight of saturated sample in water (C)		gm	
Weight of dry sample after heating (A)		gm	2851.0

Results:-

Bulk specific gravity = A / (B-C)			1970	3610
Apparent specific gravity = A /(A-C)				
Asorbtion = (B-A)/A				

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3545	29.10

Lab. Engineer
Name :
Sign :

OPERATE BY
GOMAA BADR LAB

Consultant Engineer
Name : Mohamed Ali
Sign :

المعمل المركزى
شركة جمعه بدر نوح

MATERIAL INSPECTION REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company								
Contractor Refrence	GB66-13											
Issued by Contractor	Name	Sign		Date 18/6/2023						Time		
	ENG/AHMED FOUAD											
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM	
							18	6	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	567+300 TO 567+380 (0.25) 567+680 TO 567+750 (0.5) 564+940 TO 565+000 (0.25) 564+940 TO 565+000 (0.5) 567+300 TO 567+380 (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	17/6/2023	
2	Atterberg Limits	M^3	5000	17/6/2023	
3	Proctor	M^3	5000	17/6/2023	
4	CBR	M^3	5000	18/6/2023	
5	Los-Anglos abrasion	M^3	5000	18/6/2023	
6	Water absorption	M^3	5000	18/6/2023	

Comments by:	Comments by:
	نتائج الصلاحيات والمرفقات مطابقة لكميات تمثل حوالى 5000 متر مكعب

APPROVAL STATUS

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

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company									
Contractor Refrence	GB66 - 13												
Issued by Contractor	Name	Sign		Date 18/6/2023						Time			
	ENG/AHMED FOUAD												
Received by ER			MAR	C1	C2	C3	DD	MM	YY	H H	MM		
							18	6	2023				

CODE-1	S1 to S21 Station Reference	D1 to S9 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	Prepared Sub grade			
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	6.8%	
4	ASTM D 4318	Atterberg Limit	N.P % N.P % N.P %	
5	ASTM D 2974	Moisture content	7.1%	
6	ASTM D 1557	Modifid Proctor	2.191	
7	ASTM D 1883	CBR	62.1%	
8	ASTM C 535	Los-Anglos abrasion	30.04%	
9	ASTM D 1293	Water Absorption	-	

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

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/AHMEDFOUAD			
QA/QC *	Mohamed AL			
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 559+177

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE	17/6/2023	code	ZONE	564+000	567+757
location	K.P566+000	GB46-13	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader				
1-visual inspection test	operate by	Gomaa Bader Lab			

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		22500.00		gm		table classify
sieve size	5	4	3	1 1/2	3/4	3/8	# 4	PASS		soil classify
Mass retained (g)	0.0	0.0	0.0	785.0	5412.0	4798.0	2650.0			A-1-a
Cumulative Retained (g)	0.0	0.0	0.0	785.0	6197.0	10995.0	13645.0		PRO	2.191
Cumulative Retained %	0.0	0.0	0.0	3.5	27.5	48.9	60.6		WC	7.1
Cumulative Passing %	100.0	100.0	100.0	96.5	72.5	51.1	39.4		CBR	62.1%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	180.00	365.00	413.00					
Cumulative Retained %	36.00	73.00	82.60					
Cumulative Passing %	64.00	27.00	17.40					

C-General gradient										
sieve size(in)	5	4	3	1 1/2	3/4	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	100.0	100.0	96.5	72.5	51.1	39.4	25.2	10.6	6.8

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

Mohamed Al

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

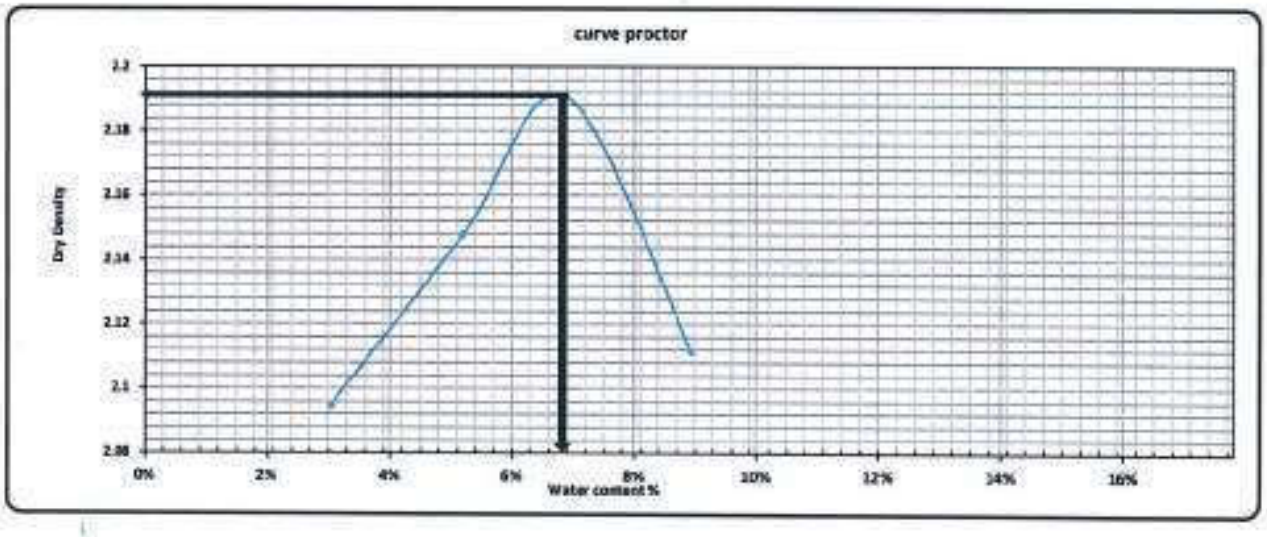
PROCTOR TEST

TESTING DATE	17/5/2023	code	ZONE	564+000	567+757
location	K.P566+000	GS66-12	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa badr				
	operate by	Gomaa Bader Lab			

Weight of empty mold :	6090.0	MAX Dry Density	2.191
Mold Volume:	2104.9	Water content %	7.10

trial no :	1	2	3	4		
Wt. Of Mold+ wet soil	10642.0	10854.0	11028.0	10941		
WT. WET SOIL	4552.0	4764.0	4938.0	4851.0		
Wt. Density	2.163	2.263	2.346	2.305		

Tare No.	9	9	12	12	18	18	15	15				
Tare wt	26.22	26.22	27.12	27.12	24.75	24.75	26.44	26.44				
Wt. Of wet soil & tare	134.25	134.25	125.14	125.14	128.66	128.66	135.55	135.55				
Wt. Of dry soil & tare	121.12	121.12	120.12	120.12	121.78	121.78	126.4	126.4				
Wt. Of water	13.1	13.1	5.0	5.0	6.9	6.9	9.2	9.2				
Wt. Of dry soil	380.0	432.0	93.0	93.0	97.0	97.0	100.9	100.0				
Water content %	3.5%	3.0%	5.4%	5.4%	7.1%	7.1%	9.2%	9.2%				
AV.Water content %	3.2%		5.4%		7.1%		9.2%					
Dry Density	2.095		2.147		2.191		2.111					



Contractor

المعمل المركزى
شركة جمعه بدر نوح

Consultant

Mohamed Ali

ENGINEERING CONSULTING OFFICE

Electric Express Train - HSR

From El Ain El Sokhna City To El Alamein - MATROUH

Section - 7 From FOUA To MARSA MATROUH

From Station 664+000 To Station 667+757

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	18/6/2023	code	ZONE	664+000	667+757
LOCATION	K.P666+000		Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader				

Weight of sample		gm
Weight of saturated -dry surface sample (B)		gm
Weight of saturated sample in water (C)		gm
Weight of dry sample after heating (A)		gm

Results:-

Bulk specific gravity = A / (B-C)		
Apparent specific gravity = A/(A-C)		
Asorbtion = (B-A)/A		

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3498	30.04

Lab. Engineer

Name :

Sign :

OPERATE BY
GOMAA BADR LAB

Consultant Engineer

Name : Mohamed Ali

Sign :

المعمل المركزى
شركة جمعه بدر نوح

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE	16/6/2023	0009	ZONE	564+000	567+757
location	K.P566+000	CBR6-13	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader	operate by	Soaring Egypt Lab		

-: Test Results

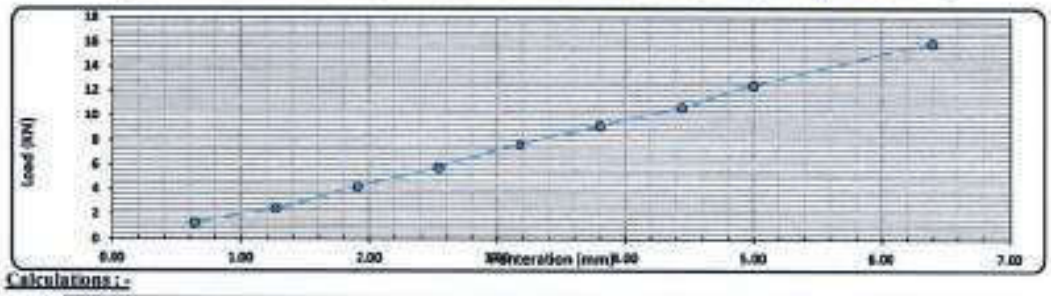
Compaction % for Mold	
Mold No.	2
Mold Vol. (cm^3)	2177.3
Mold WT. (gm)	10644
Mold WT. + Wet WT. (gm)	15688
Wet WT. (gm)	5044
Wet Density (g/cm^3)	2.316
Dry Density (g/cm^3)	2.165
Proctor Density (g/cm^3)	2.191
Compaction %	99

Moisture Ratio After Compacted Mold	
Tare No.	13
Tare WT. (gm)	36.34
Tare WT. +Wet WT. (gm)	166.34
Tare WT. +Dry WT. (gm)	130.60
Water	7.9
Dry WT. (gm)	113.5
Moisture Content %	7.0

Swelling	
Mold No.	2
Date	2/6/
Initial Height (mm)	1.70
Final Height (mm)	1.70
Difference	0
Sample Height (mm)	181.00
Swelling Ratio %	0%

Loading Reading :

180.00	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	130.00	240.00	425.00	569.00	778.00	930.00	1088.00	1266.00	1622.00
Load (KN)	1.3	2.4	4.2	5.8	7.6	9.1	10.7	12.4	15.9



Calculations : -

Penetration (mm)	Load (Kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR % 100 نقد نسبة
2.54	5.77	13.4	45.2%	99	100	43.8%
5.00	12.43	20.0	62.1%			62.8%

Lab Specialist

Name :

Sign :

Consultant Engineer

Name :

Sign :

المعمل المركزى
شركة جمعه بدر نوح

MATERIAL INSPECTION REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company							
Contractor Refrence	GB66-SG-14										
Issued by Contractor	Name	Sign		Date 22/7/2023				Time			
	ENG/AHMED FOUAD										
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							22	7	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+000 TO 565+160 (.5) 565+580 TO 565+820 (.25) 565+580 TO 565+820 (0.5) 565+160 TO 565+220 (0.5) 565+160 TO 565+220 (0.25) 567+450 TO 567+520 (0.25) 567+450 TO 567+520 (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	20/7/2023	
2	Atterberg Limits	M^3	5000	20/7/2023	
3	Proctor	M^3	5000	20/7/2023	
4	CBR	M^3	5000	22/7/2023	
5	Los-Anglos abrasion	M^3	5000	22/7/2023	
6	Water absorption	M^3	5000	22/7/2023	

Comments by:	Comments by:
	نتائج السلاحيات والمرفقات مطابقة لكميات تمثل حوالي 5000 متر مكعب

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/AHMED FOUAD			
QA/QC *	AhmedAbuZaid	22/7/2023		
GARB**				
Employers Representative				

* Designer

** Alignment / Bridges. Culvert Only

MATERIAL APPROVAL REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company								
Contractor Refrence	GB66-SG-14											
	Name	Sign		Date 22/7/2023						Time		
Issued by Contractor	ENG/AHMED FOUAD											
Received by ER			MAR	C1	C2	C3	DD	MM	YY	H H	MM	
							22	7	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	Prepared Sub grade			
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	6.1%	
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	2.193	
7	ASTM D 1883	CBR	63.0%	
8	ASTM C 535	Los-Anglos abrasion	-	
9	ASTM D 1293	Water Absorption	-	

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

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/AHMEDFOUAD			
QA/QC *	Ahmed Abozaid			
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 558+177

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE	20/7/2023	code	ZONE	564+000	567+757
location	K.P566+000	GB66-SG-14	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader				
1-visual inspection test	operate by	Gomaa Bader Lab			

2-Gradient test

A-gradation of bulk materiels				SAMPLE WEIGHT (g)		22500.00		gm		table classify
sieve size	5	4	3	1 1/2	3/4	3/8	# 4	PASS		soil classify
Mass retained (g)	0.0	0.0	0.0	974.0	4785.0	4685.0	3455.0			A-1-a
Cumulative Retained (g)	0.0	0.0	0.0	974.0	5759.0	10444.0	13899.0		PRO	2.193
Cumulative Retained %	0.0	0.0	0.0	4.3	25.6	46.4	61.8		WC	7.3
Cumulative Passing %	100.0	100.0	100.0	95.7	74.4	53.6	38.2		CBR	63.0%

B-soft materiel gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	240.00	358.00	420.00					
Cumulative Retained %	48.00	71.60	84.00					
Cumulative Passing %	52.00	28.40	16.00					

C-General gradient										
sieve size(in)	5	4	3	1 1/2	3/4	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	100.0	100.0	95.7	74.4	53.6	38.2	19.9	10.9	6.1

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 804+000 To Station 868+177

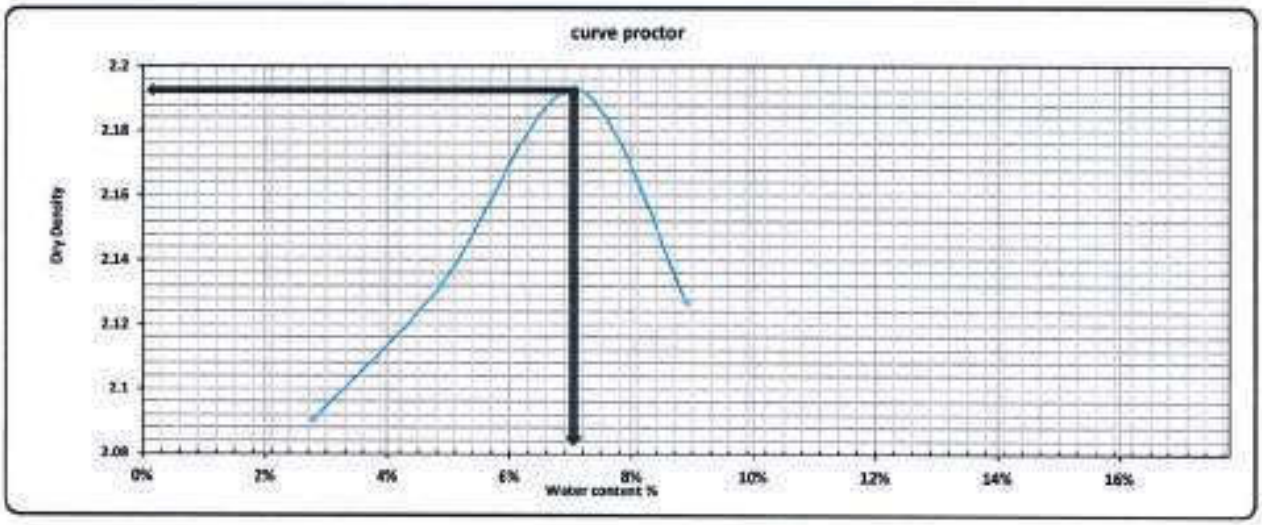
PROCTOR TEST

TESTING DATE	20/7/2023	code	ZONE	864+030	867+767
location	K.P866+800	GB66-SG-14	Material	Prepered Sub Grade	
NAME COMPANY	Gomaa badr				
	operate by	Gomaa Bader Lab			

Weight of empty mold :	6090.0	MAX Dry Density	2.193
Mold Volume:	2104.9	Water content %	7.30

trial no :	1	2	3	4		
Wt. Of Mold+ wet soil	10622.0	10805.0	11041.0	10974		
WT. WET SOIL	4532.0	4715.0	4951.0	4884.0		
Wt. Density	2.153	2.240	2.352	2.320		

Tare No.	6	6	9	9	11	11	12	12				
Tare wt.	25.45	25.45	26.44	26.44	26.44	26.44	26.2	26.2				
Wt. Of wet soil & tare	133.24	133.24	126.41	126.41	129.41	129.41	136.11	136.11				
Wt. Of dry soil & tare	121.14	121.14	121.58	121.58	122.43	122.43	126.94	126.94				
Wt. Of water	12.1	12.1	4.8	4.8	7.0	7.0	9.2	9.2				
Wt. Of dry soil	380.0	432.0	95.1	95.1	96.0	96.0	100.7	100.7				
Water content %	3.2%	2.8%	5.1%	5.1%	7.3%	7.3%	9.1%	9.1%				
AV.Water content %	3.0%		5.1%		7.3%		9.1%					
Dry Density	2.091		2.132		2.193		2.127					



Contractor

المعمل المركزى
شركة جمعه بدر نوح

Consultant

23 7 24 7-23

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE	22/7/2023	code	ZONE	664+000	667+787
location	K.P668+000	CB66-SG-14	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader				
	operate by	Gomaa Bader Lab			

-: Test Results

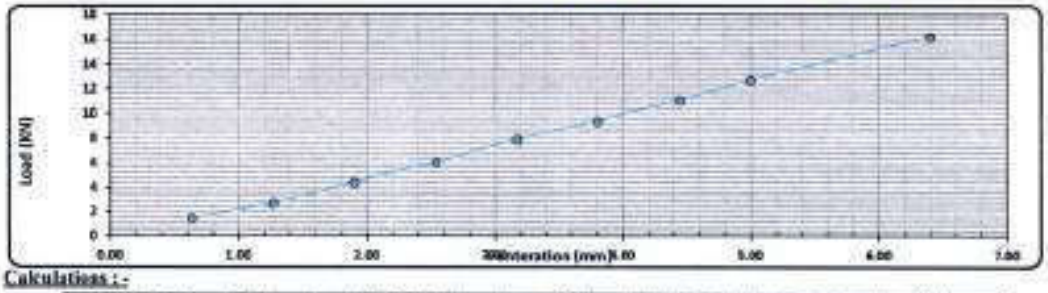
Compaction % for Mold	
Mold No.	2
Mold Vol. (cm^3)	2177.8
Mold WT. (gm)	16666
Mold WT. + Wet WT. (gm)	21656
Wet WT. (gm)	5050
Wet Density (g/cm^3)	2.319
Dry Density (g/cm^3)	2.164
Proctor Density (g/cm^3)	2.193
Compaction %	99

Moisture Ratio After Compacted Mold	
Tare No.	16
Tare WT. (gm)	25.47
Tare WT. +Wet WT. (gm)	149.25
Tare WT. +Dry WT. (gm)	140.00
?	8.3
Dry WT. (gm)	114.6
Moisture Content %	7.2

Swelling	
Mold No.	1
Date	241
Initial Height (mm)	3.02
Final Height (mm)	3.03
Difference	0
Sample Height (mm)	151.00
Swelling Ratio %	0%

Loading Reading :

150.00	0.64	1.27	1.91	2.54	3.18	3.40	4.45	5.80	6.40
Load Reading (kg)	145.00	269.00	445.00	612.00	798.00	952.00	1125.00	1288.00	1645.00
Load (KN)	1.4	2.6	4.4	6.0	7.8	9.2	11.0	12.6	16.1



Calculations : -

Penetration	Load	Standard Load	CBR	Mod - Compaction	Compaction	CBR
(mm)	(kn)	(lb)	(%)	(%)	(%)	% 100 من أجل
2.50	6.01	13.4	44.9%	99	100	45.5%
5.00	12.62	28.0	63.9%			63.9%

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

المعمل المركزى
شركة جمعه بدر نوح

MATERIAL INSPECTION REQUEST

Contractor Company	**GOMAA BADER COMPANY**				Designer Company								
Contractor Refrence	**GB-SG-15**												
Issued by Contractor	Name	Sign			Date 27/8/2023					Time			
	Eng/ AHMED FOUAD												
Received by ER				MIR	C1	C2	C3	DD	MM	YY	HH	MM	
								27	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+210 TO 565+420 (0.25) 565+210 TO 565+420 (0.50)				
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	26/8/2023	2500
6	CBR	M^3	5000	27/8/2023	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 Zaid			
GARB**				
Employers Representative				

* Designer
** Alignment / Bridges: Culvert Only

MATERIAL INSPECTION REQUEST

Contractor Company	GOMAA BADER COMPANY				Designer Company							
Contractor Refrence	GB-SG-15											
Issued by Contractor	Name	Sign			Date 27/8/2023				Time			
	Eng/ AHMED FOUAD											
Received by ER			MAR		C1	C2	C3	DD	MM	YY	H H	MM
								27	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	Perpared Sub Grade			
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	10%	
4	ASTM D 4318	Atterberg Limit	N.P	
5	ASTM D 2974	Moisture content	7.2%	
6	ASTM D 1557	Modifid Proctor	2.19	
9	ASTM D 1883	CBR	71%	
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

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	564+000	567+720
location	K.P566+000	GB66-SG-15	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader				
1-visual inspection test	operate by	Gomaa Bader Lab			

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		23676.00		gm		table classify
sieve size	5	4	3	1 1/2	3/4	3/8	# 4	PASS		soil classify
Mass retained (g)	0.0	0.0	0.0	941.0	5826.0	5134.0	3946.0			A-1-a
Cumulative Retained (g)	0.0	0.0	0.0	941.0	6767.0	11901.0	15847.0		PRO	2.190
Cumulative Retained %	0.0	0.0	0.0	4.0	28.6	50.3	66.9		WC	7.2
Cumulative Passing %	100.0	100.0	100.0	96.0	71.4	49.7	33.1		CBR	71.0%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	182.36	254.00	348.30					
Cumulative Retained %	36.47	50.80	69.66					
Cumulative Passing %	63.53	49.20	30.34					

C-General gradient

sieve size(in)	5	4	3	1 1/2	3/4	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	100.0	100.0	96.0	71.4	49.7	33.1	21.0	16.3	10.0

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
(6 رقم)

Consultant

27/8/2023

Electric Express Train - HSR

From El Ain El Sokhna City To El Alamein - MATROUH

Section - 7 From FOKA TO MARSA MATROUH

From Station 604+000 To Station 668+177

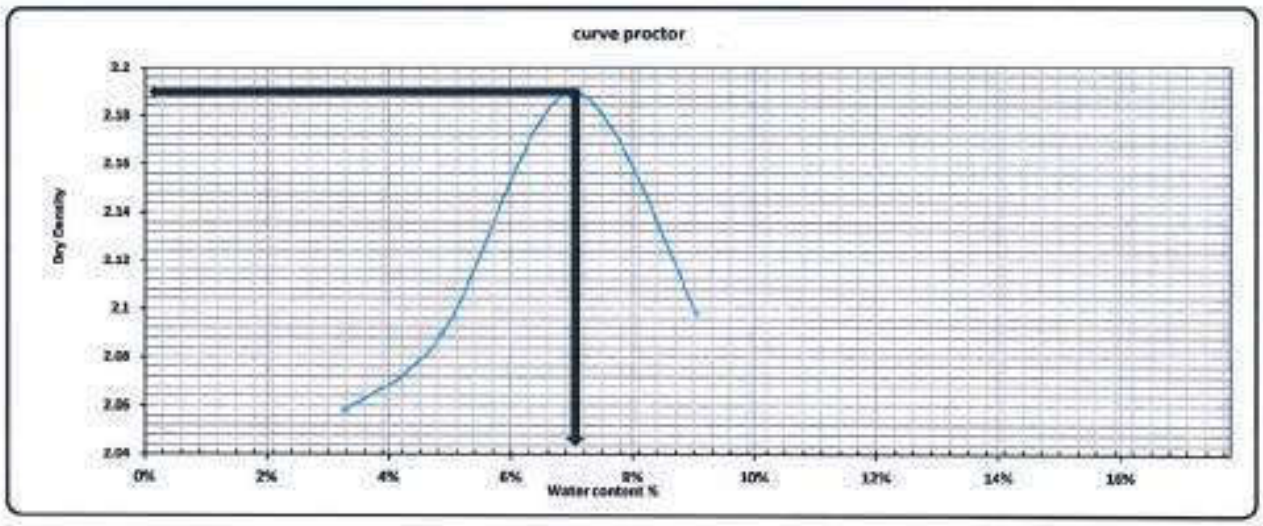
PROCTOR TEST

TESTING DATE	26/8/2023	code	ZONE	564+000	667+720
location	K.P566+000	GB01-SG-16	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa badr				
	operate by	Gomaa Bader Lab			

Weight of empty mold :	6090.0	MAX Dry Density	2.190
Mold Volume:	2104.9	Water content %	7.20

trial no :	1	2	3	4		
Wt. Of Mold+ wet soil	10574.0	10710.0	11031.0	10916		
WT. WET SOIL	4484.0	4620.0	4941.0	4826.0		
Wt. Density	2.130	2.195	2.347	2.293		

Tare No.	7	7	5	5	13	13	4	4				
Tare wt.	26.4	26.4	27.25	27.25	26.3	26.3	26.41	26.41				
Wt. Of wet soil & tare	132.20	132.20	125.45	125.45	128.41	128.41	135.45	135.45				
Wt. Of dry soil & tare	128.63	128.63	120.71	120.71	121.55	121.55	126.21	126.21				
Wt. Of water	3.6	3.6	4.7	4.7	6.9	6.9	9.2	9.2				
Wt. Of dry soil	102.2	102.2	93.5	93.5	95.3	95.3	99.8	99.8				
Water content %	3.5%	3.5%	5.1%	5.1%	7.2%	7.2%	9.3%	9.3%				
AV.Water content %	3.5%		5.1%		7.2%		9.3%					
Dry Density	2.058		2.089		2.190		2.098					



Contractor

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

Consultant

ENGINEERING CONSULTING OFFICE
المكتب الاستشاري الهندسي
أ.م. خالد فتحيل

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

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	26/8/2023	code	ZONE	564+000	567+720
LOCATION	K.P 566+000	GB66-SG-15	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader				

Weight of sample	2000.00	gm
Weight of saturated -dry surface sample (B)	2032.12	gm
Weight of saturated sample in water (C)		gm
Weight of dry sample after heating (A)	1995.84	gm

Results:-

Bulk specific gravity = A / (B-C)	0.982	
Apparent specific gravity = A /(A-C)	1.000	
Asorbtion = (B-A)/A	1.818	%

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3521	29.58

Lab. Engineer
Name :
Sign :

OPERATE BY
GOMAA BADR LAB

Consultant Engineer
Name :
Sign :

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE	27/8/2023	code	ZONE	864+000	867+720
location	K.P866+000	G866-SG-18	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader				
	operate by	Gomaa Bader Lab			

-: Test Results

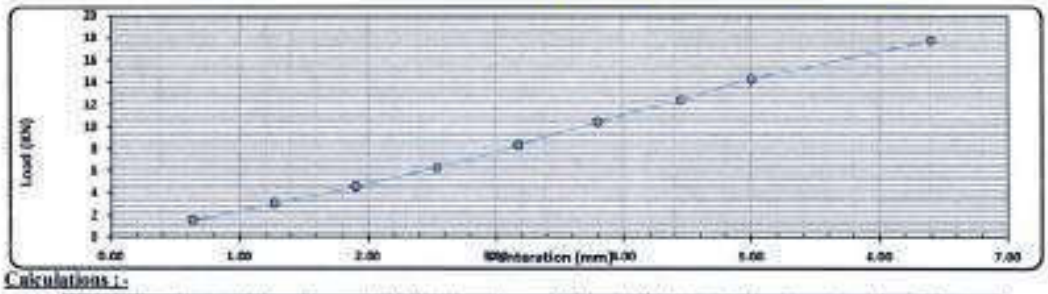
Compaction % for Mold	
Mold No.	3
Mold Vol. (cm^3)	2377.5
Mold WT. (gm)	10604
Mold WT. + Wet WT. (gm)	21454
Wet WT. (gm)	5050
Wet Density (g/cm^3)	2.215
Dry Density (g/cm^3)	2.166
Proctor Density (g/cm^3)	2.190
Compaction %	99

Moisture Ratio After Compacted Mold	
Tare No.	17
Tare WT. (gm)	25.47
Tare WT. +Wet WT. (gm)	168.23
Tare WT. +Dry WT. (gm)	158.8
7945	9.4
Dry WT. (gm)	133.3
Moisture Content %	7.1

Swelling	
Mold No.	2
Date	101
Initial Height (mm)	0.00
Final Height (mm)	0.01
Difference	0
Sample Height (mm)	181.00
Swelling Ratio %	0%

Loading Reading :

180.00	0.64	1.27	1.91	2.54	3.18	3.81	4.45	5.08	6.40
Load Reading (kg)	161.00	306.00	471.00	641.00	843.00	1067.00	1267.00	1451.00	1813.00
Load (KN)	1.6	3.0	4.6	6.3	8.3	10.5	12.4	14.2	17.8



Calculations :-

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	% 100 Standard
2.50	6.28	13.4	47.1%	99	100	47.6%
5.00	14.22	20.0	71.0%			71.8%

Lab. Specialist	Consultant Engineer
Name :	Name :
Sign : 27/8	Sign : 8/10/23

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

MATERIAL INSPECTION REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company									
Contractor Refrence	GB63-SG-16												
Issued by Contractor	Name	Sign		Date 12/9/2023			Time						
	Eng/ AHMED FOUAD												
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM		
							12	9	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+420 TO 564+540 (+0.50)		
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	500	11/9/2023	
2	Atterberg Limits	M^3	500	11/9/2023	
3	Proctor	M^3	500	11/9/2023	
4	Spacific Gravity	M^3	500	12/9/2023	
6	CBR	M^3	500	12/9/2023	

Comments by:	Comments by:
	متر مكعب500نتائج الصلاحيات والمرفقات مطابقة لكميات حوالي

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD	Ahmed Fouad		
QA/QC *	mohamed elsaied	M. elsaied	17-9-2023	
GARB**				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company								
Contractor Refrence	GB63-SG-16											
Issued by Contractor	Name	Sign		Date 12/9/2023			Time					
	Eng/ AHMED FOUAD											
Received by ER			MAR	C1	C2	C3	DD	MM	YY	H H	MM	
							12	9	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	SUBGRADE			
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	10.4%	
4	ASTM D 4318	Atterberg Limit	N.P	
5	ASTM D 2974	Moisture content	7.4%	
6	ASTM D 1557	Modifid Proctor	2.192	
9	ASTM D 1883	CBR	64.1%	
Comments by:		**Comments by:**		
		متر مكعب500نتائج الصلاحيات والمرفقات مطابقة لكميات حوالى		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD	Ahmed Fouad		
QA/QC *	mohamed elsaied	m.elsaied	17-9-2023	
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 604+050 To Station 685+177

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE	11/9/2023	code	ZONE	562+000	565+000
location	K.P563+000	GB63-SG-16	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader				
1-visual inspection test	operate by	Gomaa Bader Lab			

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		26380.00		gm		table classify
sieve size	5	4	3	1 1/2	3/4	3/8	# 4	PASS		soil classify
Mass retained (g)	0.0	0.0	0.0	880.0	6820.0	4475.0	4440.0			A-1-a
Cumulative Retained (g)	0.0	0.0	0.0	880.0	7700.0	12175.0	16615.0		PRO	2.192
Cumulative Retained %	0.0	0.0	0.0	3.3	29.2	46.2	63.0		WC	7.4%
Cumulative Passing %	100.0	100.0	100.0	96.7	70.8	53.8	37.0		LOS.	33.48%
									CBR	64.1%

B-soft material gradation				WT.OF sample		600.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	175.00	246.00	360.00					
Cumulative Retained %	35.00	49.20	72.00					
Cumulative Passing %	65.00	50.80	28.00					

C-General gradient										
sieve size(in)	5	4	3	1 1/2	3/4	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	100.0	100.0	96.7	70.8	53.8	37.0	24.1	10.8	10.4

ATTERBERG LIMITS	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

mohamed elsaid

17-9-2023

Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein - MATROUH
Section - 7 From FOKA TO MARSA MATROUH
From Station 864+030 To Station 868+177

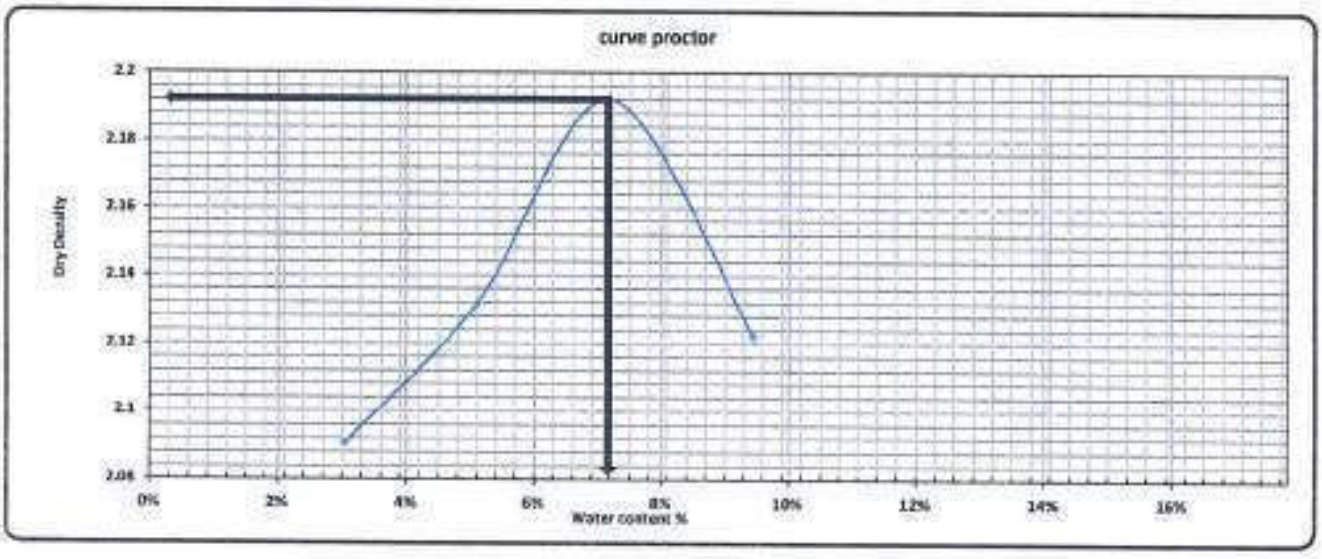
PROCTOR TEST

TESTING DATE	11/9/2023	code	ZONE	562+000	565+000
location	K.PS63+000	GB63-SG-16	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa badr				
	operate by	Gomaa Bader Lab			

Weight of empty mold :	6096.0	MAX Dry Density	2.192
Mold Volume:	2104.9	Water content %	7.40

trial no :	1	2	3	4		
Wt. Of Mold+ wet soil	10633.0	10815.0	11045.0	10988		
WT. WET SOIL	4543.0	4725.0	4955.0	4898.0		
Wt. Density	2.158	2.245	2.354	2.327		

Tare No.	5	5	3	3	7	7	9	8				
Tare wt.	26.33	26.33	27.14	27.14	25.88	25.88	26.74	25.25				
Wt. Of wet soil & tare	135.24	135.24	129.25	129.25	132.24	132.24	148.21	141.05				
Wt. Of dry soil & tare	122.14	122.14	124.1	124.1	124.92	124.92	136.54	130.54				
Wt. Of water	13.1	13.1	5.2	5.2	7.3	7.3	9.7	10.5				
Wt. Of dry soil	380.0	432.0	97.0	97.0	99.0	99.0	103.8	105.3				
Water content %	3.4%	3.0%	5.3%	5.3%	7.4%	7.4%	9.3%	10.0%				
AV.Water content %	3.2%		5.3%		7.4%		9.6%					
Dry Density	2.091		2.132		2.192		2.122					



Contractor

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

Consultant

mohamed elsaied

17-9-2023

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

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

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	12/9/2023	code	ZONE	562+000	565+000
LOCATION	K.P 563+000	G563-SG-16	Material	Prepared Sub Grade	
NAME COMPANY	Gomaa Bader				

Weight of sample	2000.00	gm
Weight of saturated -dry surface sample (B)	2044.00	gm
Weight of saturated sample in water (C)	1220.70	gm
Weight of dry sample after heating (A)	1993.00	gm

Results:-

Bulk specific gravity = A / (B-C)	2.421	
Apparent specific gravity = A /(A-C)	2.581	
Asorbtion = (B-A)/A	2.559	%

LOS

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3326	33.48

Lab. Engineer
Name :
Sign :

OPERATE BY
GOMAA BADR LAB

Consultant Engineer
Name : mohamed elsaied
Sign : m.elsaied
17-9-2023

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE	12/9/2023	[illegible]	ZONE	362+000	686+000
location	K.P685+600	[illegible]	Material	Prepared Sub Grade	
NAME COMPANY	Gomza Bader				
	operate by	Gomaa Hafez Lab.			

-: Test Results

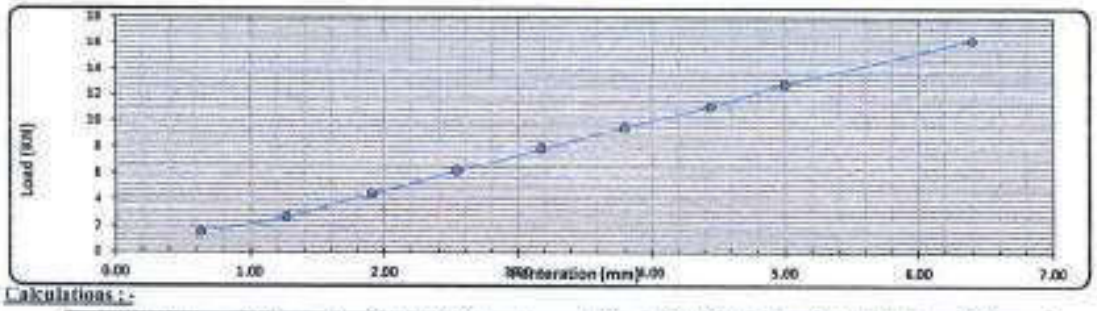
Compaction % for Mold	
Mold No.	2
Mold Vol. (cm^3)	2177.6
Mold WT. (gm)	10444
Mold WT. + Wet WT. (gm)	21502
Wet WT. (gm)	4658
Wet Density (g/cm^3)	2.323
Dry Density (g/cm^3)	2.162
Proctor Density (g/cm^3)	2.192
Compaction %	99

Moisture Ratio After Compacted Mold	
Tare No.	18
Tare WT. (gm)	26.16
Tare WT. +Wet WT. (gm)	150.65
Tare WT. +Dry WT. (gm)	142.05
[illegible]	8.4
Dry WT. (gm)	115.9
Moisture Content %	7.4
	LOS

Swelling	
Mold No.	2
Date	3/9
Intial Height (mm)	1.73
Final Height (mm)	1.79
Difference	0
Sample Height (mm)	181.06
Swelling Ratio %	0%

Loading Reading :

180.00	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	55.00	274.00	455.00	632.00	806.00	974.00	1136.00	1310.00	1660.00
Load (KN)	1.3	2.7	4.4	6.2	7.9	9.5	11.1	12.8	16.3



Calculations : -

Penetration (mm)	Load (lb)	Standard Load (lb)	CBR (%)	Moist - Compaction (%)	Compaction (%)	CBR (% من الحمولة)
2.50	6.19	13.4	46.4%	99	100	47.8%
5.00	12.84	20.0	64.1%			65.8%

Lab. Specialist

Name : Hafez

Sign :

مشروع القطار السريع
القطاع السابع
معمل المركزى
(6 رقم)

Consultant Engineer

Name : mohamed elsaied

Sign : m.elsaied

17-9-2023

MATERIAL INSPECTION REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company								
Contractor Refrence	GB63-SG-17											
Issued by Contractor	Name	Sign		Date 14/9/2023				Time				
	Eng/ AHMED FOUAD											
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM	
							14	9	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	S64+420 TO S64+540 (+0.25)		
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	500	13/9/2023	
2	Atterberg Limits	M^3	500	13/9/2023	
3	Proctor	M^3	500	13/9/2023	
4	Spacific Gravity	M^3	500	14/9/2023	
6	CBR	M^3	500	14/9/2023	

Comments by:	Comments by:
	متر مكعب500نتائج الصلاحيات والمرفقات مطابقة لكميات حوالى

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD			
QA/QC *	mohamed elsaied	m. elsaied	17-9-2023	
GARB**				
Employers Representative				

* Designer
** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company								
Contractor Refrence	GB63-SG-17											
Issued by Contractor	Name	Sign		Date 14/9/2023			Time					
	Eng/ AHMED FOUAD											
Received by ER			MAR	C1	C2	C3	DD	MM	YY	H H	MM	
							14	9	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	SUBGRADE			
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	9.9%	
4	ASTM D 4318	Atterberg Limit	N.P	
5	ASTM D 2974	Moisture content	7.2%	
6	ASTM D 1557	Modifid Proctor	2.19	
9	ASTM D 1883	CBR	63.4%	
Comments by:		**Comments by:**		
		متر مكعب500نتائج الصلاحيات والمرفقات مطابقة لكميات حوالي		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD	Ahmed Fouad		
QA/QC *	mohammed elsaied	m-elsaied	17-9-2023	
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 668+177

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE	13/9/2023	code	ZONE	564+420	564+540
location	K.P563+000	GB63-SG-17	Material	Prepared Sub Grade(sector)	
NAME COMPANY	Gomaa Bader				
1-visual inspection test	operate by	Gomaa Bader Lab			

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		41154.00		gm		table classify
sieve size	4	3	2	1 1/2	3/4	3/8	# 4	PASS		soil classify
Mass retained (g)	0.0	0.0	950.0	985.0	8340.0	9030.0	4815.0			A-1-a
Cumulative Retained (g)	0.0	0.0	950.0	1935.0	10775.0	19805.0	24620.0		PRO	2.19
Cumulative Retained %	0.0	0.0	2.3	4.7	26.2	48.1	59.8		WC	7.2%
Cumulative Passing %	100.0	100.0	97.7	95.3	73.8	51.9	40.2		LOS.	33.9%
									CBR	63.4%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	126.20	242.50	377.00					
Cumulative Retained %	25.24	48.40	75.40					
Cumulative Passing %	74.76	51.60	24.60					

C-General gradient										
sieve size(in)	5	4	3	1 1/2	3/4	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	100.0	97.7	95.3	73.8	51.9	40.2	30.0	20.7	9.9

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

mohamed elsaied

m.elsaied

17-9-2023

Electric Express Train - HSR

From El Ain El Sokhna City To El Alamein - MATROUH

Section - 7 From FOKA TO MARSA MATROUH

From Station 564+000 To Station 568+177

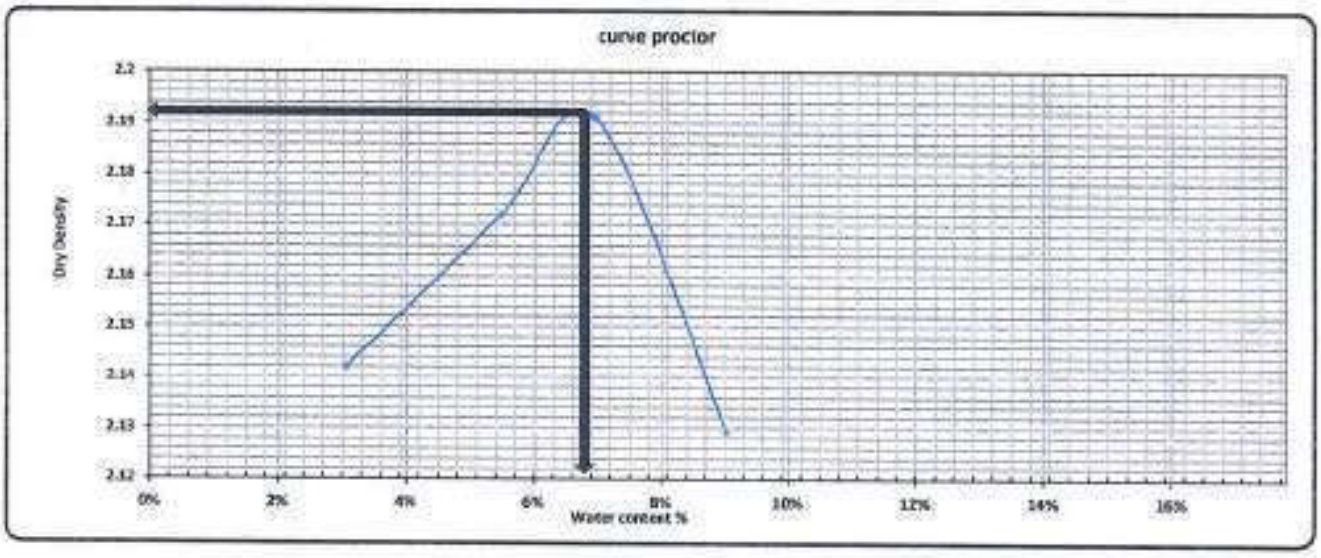
PROCTOR TEST

TESTING DATE	13/9/2023	code	ZONE	564+420	564+540
location	K.P568+000	GM66-SG-17	Material	Prepared Sub Grade(sector)	
NAME COMPANY	Gomaa badr				
		Gomaa Bader Lab			

Weight of empty mold :	6090.0	MAX Dry Density	2.19
Mold Volume:	2104.9	Water content %	7.20

trial no :	1	2	3	4		
Wt. Of Mold+ wet soil	10745.0	10921.0	11032.0	10985		
WT. WET SOIL	4655.0	4831.0	4942.0	4895.0		
Wt. Density	2.212	2.295	2.348	2.326		

Tare No.	5	5	16	16	13	13	10	10				
Tare wt.	24.25	24.25	25.64	25.64	26.45	26.45	27	27				
Wt. Of wet soil & tare	135.26	135.26	128.25	128.25	131.25	131.25	133.56	133.56				
Wt. Of dry soil & tare	122.1	122.1	122.74	122.74	124.25	124.25	124.56	124.56				
Wt. Of water	13.2	13.2	5.5	5.5	7.0	7.0	9.0	9.0				
Wt. Of dry soil	380.0	432.0	97.1	97.1	97.8	97.8	97.6	97.6				
Water content %	3.5%	3.0%	5.7%	5.7%	7.2%	7.2%	9.2%	9.2%				
AV.Water content %	3.3%		5.7%		7.2%		9.2%					
Dry Density	2.142		2.172		2.191		2.129					



Contractor

مشروع القطار السريع
القطاع السابع
مصعد المركزى
(رقم 6)

Consultant

mohamed elsaid

m.elsaid

17-9-2023

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

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

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	14/9/2023	code	ZONE	564+420	564+540
LOCATION	K.P 563+000	OBES-SG-17	Material	Prepared Sub Grade(sector)	
NAME COMPANY	Gomaa Bader				

Weight of sample	2000.00	gm
Weight of saturated -dry surface sample (B)	2046.00	gm
Weight of saturated sample in water (C)	1227.00	gm
Weight of dry sample after heating (A)	1995.00	gm

Results:-

Bulk specific gravity = A / (B-C)	2.436	
Apparent specific gravity = A /(A-C)	2.598	
Asorbtion = (B-A)/A	2.556	%

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3305	33.90

Lab. Engineer
Name :
Sign :

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

OPERATE BY
GOMAA BADR LAB

Consultant Engineer
Name : mohamed elsaid
Siga : m-elsaid
17-9-2023

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE	14/9/2023	[illegible]	ZONE	564+420	564+540
location	KJP568+000	[illegible]	Material	Prepared Sub Grade(sector)	
NAME COMPANY	Gomaa Bader	operate by	Gomaa Bader Lab		

-: Test Results

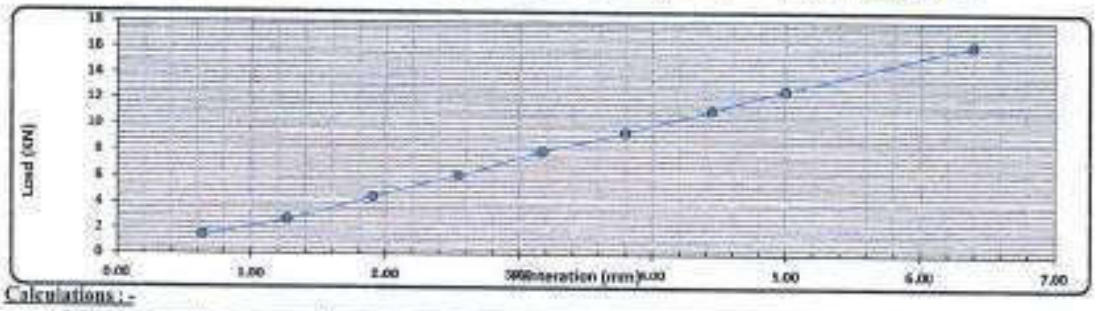
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	2177.5
Mold WT. (gm)	10644
Mold WT. + Wet WT. (gm)	21490
Wet WT. (gm)	5046
Wet Density (g/cm^3)	2.317
Dry Density (g/cm^3)	2.163
Proctor Density (g/cm^3)	2.180
Compaction %	99

Moisture Ratio After Compacted Mold	
Tare No.	4
Tare WT. (gm)	28.25
Tare WT. +Wet WT. (gm)	145.2
Tare WT. +Dry WT. (gm)	137.5
7945	7.9
Dry WT. (gm)	101.1
Moisture Content %	7.1

Swelling	
Mold No.	2
Date	2/6
Intial Height (mm)	1.60
Final Height (mm)	1.62
Difference	0
Sample Height (mm)	181.00
Swelling Ratio %	0%

Loading Reading :

186.00	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	155.00	274.00	450.00	622.00	810.00	965.00	1136.00	1295.00	1655.00
Load (KN)	1.5	2.7	4.5	6.1	7.9	9.4	11.1	12.7	16.2



Calculations : -

Penetration (mm)	Load (Kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR % 100 عند نسبة
2.50	6.10	13.4	45.1%	99	100	46.2%
5.00	12.69	28.0	63.4%			64.2%

Lab. Specialist

Name :

Sign :

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

Consultant Engineer

Name : mohamed elsaid

Sign : m.elsaid

17-9-2023

MATERIAL INSPECTION REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company								
Contractor Refrence	GB63-SB-7											
Issued by Contractor	Name	Sign		Date 3/9/2023				Time				
	Eng/ AHMED FOUAD											
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM	
							3	9	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	SUBBALLAST				
Location to be Used	563+600 TO 563+800 (0.7) 563+800 TO 563+920 (0.7) 564+120 TO 564+360 (0.7)				
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	2/9/2023	
2	Atterberg Limits	M^3	5000	2/9/2023	
3	Proctor	M^3	5000	2/9/2023	
4	Los Anglos	M^3	5000	2/9/2023	
5	specific gravity	M^3	5000	3/9/2023	
6	CBR	M^3	5000	3/9/2023	

Comments by:	Comments by:
	نتائج الصلاحيات والمرفقات مطابقة لكميات حوالي 1000 م.م مكعب

APPROVAL STATUS

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

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Contractor Company	GOMAA BADER COMPANY					Designer Company						
Contractor Refrence	GB63-SB-7											
Issued by Contractor	Name	Sign				Date 3/9/2023				Time		
	Eng/ AHMED FOUAD											
Received by ER			MAR	C1	C2	C3	DD	MM	YY	H H	MM	
							3	9	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	Sub Ballast			
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	3.5%	
4	ASTM D 4318	Atterberg Limit	N.P	
5	ASTM D 2974	Moisture content	7.3%	
6	ASTM D 1557	Modifid Proctor	2.222	
7	ASTM C 335	Los Anglos	24.08%	
8	ASTM D 6473	specific gravity	2.524	
9	ASTM D 1883	CBR	91.4%	
Comments by:		**Comments by:**		
		نتائج الصلاحيات والمرفقات مطابقة لكميات حوالي 1000 م.م مكعب		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD			
QA/QC *	Youssef Rafat	Youssef		
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 564+000 To Station 568+177

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE	2/9/2023	code	ZONE	562+000	565+000
location	K.P 563+000	GB-SB-7	Material	Sub Ballast	
NAME COMPANY	Gomaa Bader				

1-visual inspection test — operate by: Gomaa Bader Lab

2-Gradient test

A-gradation of bulk materials

				SAMPLE WEIGHT (g)		20145.00		gm		table classify
sieve size	3	1 1/2	1	3/4	1/2	3/8	# 4	PASS		soil classify
Mass retained (g)	0.0	811.0	2195.0	2260.0	1650.0	3420.0	4810.0			A-1-a
Cumulative Retained (g)	0.0	811.0	3006.0	5266.0	6916.0	10336.0	15146.0		PRO	2.222
Cumulative Retained %	0.0	4.0	14.9	26.1	34.3	51.3	75.2		WC	7.3%
Cumulative Passing %	100.0	96.0	85.1	73.9	65.7	48.7	24.8		B.S.G	2.524
									CBR	91.4%

B-soft material gradation

				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	205.00	363.00	429.00					
Cumulative Retained %	41.00	72.60	85.80					
Cumulative Passing %	59.00	27.40	14.20					

C-General gradient

sieve size(in)	3	1 1/2	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	85.1	73.9	65.7	48.7	24.8	14.6	6.8	3.5

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

Contractor

Consultant

Youssef Ragab

Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein - MATROUH
Section - 7 From FOKA TO MARSA MATROUH
From Station 504+300 To Station 568+177

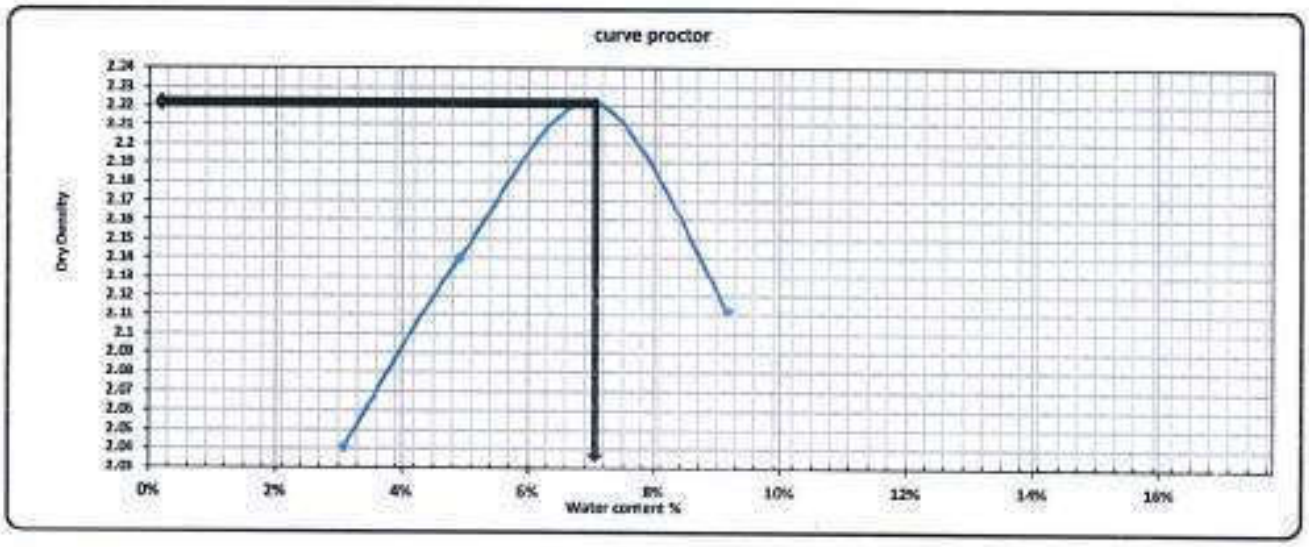
PROCTOR TEST

TESTING DATE	2/9/2023	code	ZONE	562+000	565+000
location	K.P 563+000	GB-SB-7	Material	Sub Ballast	
NAME COMPANY	Gomaa Bader				
	operate by	GOMAA BADR LAB			

Weight of empty mold :	6090.0	MAX Dry Density	2.222
Mold Volume:	2104.9	Water content %	7.30

trial no :	1	2	3	4		
Wt. Of Mold+ wet soil	10526.0	10825.0	11106.0	10952		
WT. WET SOIL	4436.0	4735.0	5016.0	4862.0		
Wt. Density	2.107	2.250	2.383	2.310		

Tare No.	5	5	11	11	8	8	2	2				
Tare wt.	26.2	26.2	27.1	27.1	22.7	22.7	25.4	25.4				
Wt. Of wet soil & tare	115.6	115.6	139.3	139.3	145.4	145.4	158.6	158.6				
Wt. Of dry soil & tare	112.78	112.78	133.8	133.8	137.05	137.05	147.2	147.2				
Wt. Of water	2.8	2.8	5.5	5.5	8.3	8.3	11.4	11.4				
Wt. Of dry soil	86.6	86.6	106.7	106.7	114.4	114.4	121.8	121.8				
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	2.040		2.140		2.222		2.112					



Contractor

مشروع السريع
مصمل المركزى
(رقم 6)

Consultant

Youssef

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

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

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	3/9/2023	code	ZONE	562+000	565+000
LOCATION	K.P 563+000	GB-SB-7	Material	Sub Ballast	
NAME COMPANY	Gomaa Bader				

Weight of sample	2000.00	gm
Weight of saturated -dry surface sample (B)	2032.00	gm
Weight of saturated sample in water (C)	1242.35	gm
Weight of dry sample after heating (A)	1993.30	gm

Results:-

Bulk specific gravity = A / (B-C)	2.524	
Apparent specific gravity = A /(A-C)	2.654	
Asorbtion = (B-A)/A	1.942	%

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3796	24.08

Lab Engineer
Name :
Sign :

مشروع القطار السريع
معمل المركزي
(رقم 6)

OPERATE BY
GOMAA BADR LAB

Consultant Engineer
Name : Youssef Rafat
Sign : Youssef 3/9/2023

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE	3/9/2023	code	ZONE	662+000	565+000
location	K.P 663+000	GB-SB-6	Material	Sub Ballast	
NAME COMPANY	Gomaa Bader				
	operate by	GOMAA BADR LAB			

-: Test Results

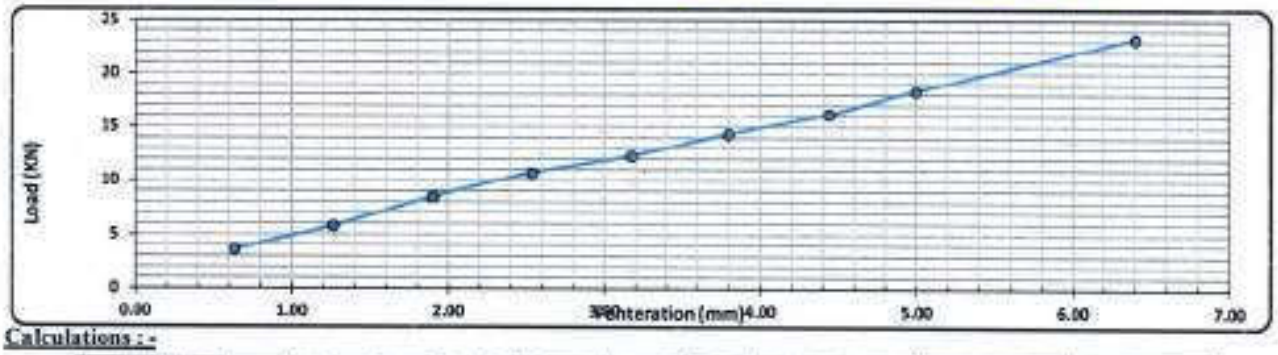
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	2177.4
Mold WT. (gm)	16446
Mold WT. + Wet WT. (gm)	21573
Wet WT. (gm)	5127
Wet Density (g/cm^3)	2.356
Dry Density (g/cm^3)	2.205
Proctor Density (g/cm^3)	2.222
Compaction %	99

Moisture Ratio After Compacted Mold	
Tare No.	10
Tare WT. (gm)	24.59
Tare WT. +Wet WT. (gm)	184.43
Tare WT. +Dry WT. (gm)	174.1
2853	10.3
Dry WT. (gm)	149.5
Moisture Content %	6.9

Swelling	
Mold No.	1
Date	3/8/
Initial Height (mm)	0.00
Final Height (mm)	0.01
Difference	0
Sample Height (mm)	181.00
Swelling Ratio %	0%

Loading Reading :

penitration	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.08	6.40
Load Reading (kg)	362.00	586.00	859.00	1086.00	1248.00	1462.00	1648.00	1868.00	2368.00
Load (kN)	3.5	5.7	8.4	10.6	12.2	14.3	16.2	18.3	23.2



Calculations : -

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	% 100 على أساس
2.50	10.64	13.4	79.7%	99	100	80.4%
5.00	18.31	20.0	91.4%			92.2%

Lab. Specialist

Name :

Sign :

مشروع القطار الكهربائي السريع
معمل المركزي
(رقم 6)

Consultant Engineer

Name : Youssef Raafat

Sign : Youssef 2-93

MATERIAL INSPECTION REQUEST

Contractor Company	**GOMAA BADER COMPANY**			Designer Company								
Contractor Refrence	**GB63-SB-8**											
Issued by Contractor	Name	Sign		Date 6/9/2023					Time			
	Eng/ AHMED FOUAD											
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM	
							6	9	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	SUBBALLAST		
Location to be Used	562+000 TO 562+100 (0.7) 564+020 TO 564+120 (0.7) 564+820 TO 564+940 (0.7) 564+360 TO 564+420 (0.7) 562+700 TO 562+740 (0.7)		
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	4/9/2023	
2	Atterberg Limits	M^3	5000	4/9/2023	
3	Proctor	M^3	5000	4/9/2023	
4	Los Anglos	M^3	5000	5/9/2023	
5	specific gravity	M^3	5000	5/9/2023	
6	CBR	M^3	5000	6/9/2023	

Comments by:	**Comments by:**
	نتائج الصلاحيات والمرفقات مطابقة لكميات حوا لي 1000 م.م مكعب

APPROVAL STATUS

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

* Designer
** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company								
Contractor Refrence	GB63-SB-8											
Issued by Contractor	Name	Sign		Date 6/9/2023				Time				
	Eng/ AHMED FOUAD											
Received by ER			MAR	C1	C2	C3	DD	MM	YY	H H	MM	
							6	9	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	Sub Ballast			
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	5.8%	
4	ASTM D 4318	Atterberg Limit	N.P	
5	ASTM D 2974	Moisture content	7.3%	
6	ASTM D 1557	Modifid Proctor	2.212	
7	ASTM C 335	Los Anglos	22.62%	
8	ASTM D 6473	specific gravity	2.516	
9	ASTM D 1883	CBR	87.4%	
Comments by:		**Comments by:**		
		نتائج الصلاحيات والمرفقات مطابقة لكميات حوالي 1000 م.ت مكعب		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD			
QA/QC *	Youssef Ragab	Youssef		
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 588+177

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE	4/9/2023	code	ZONE	562+000	565+000
location	K.P 553+000	GB-S8-8	Material	Sub Ballast	
NAME COMPANY	Gomaa Bader				
1-visual inspection test	operate by	Gomaa Bader Lab			

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		35365.00		gm		table classify
sieve size	3	1 1/2	1	3/4	1/2	3/8	# 4	PASS		soil classify
Mass retained (g)	0.0	775.0	5175.0	3665.0	3000.0	3810.0	6290.0			A-1-a
Cumulative Retained (g)	0.0	775.0	5950.0	9615.0	12615.0	16225.0	22515.0		PRO	2.212
Cumulative Retained %	0.0	2.2	16.8	27.2	35.7	45.9	63.7		WC	7.3%
Cumulative Passing %	100.0	97.8	83.2	72.8	64.3	54.1	36.3		B.S.G	2.516
									CBR	87.4%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	169.40	316.50	420.40					
Cumulative Retained %	33.88	63.30	84.08					
Cumulative Passing %	66.12	36.70	15.92					

C-General gradient										
sieve size(in)	3	1 1/2	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	97.8	83.2	72.8	64.3	54.1	36.3	24.0	13.3	5.8

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

Contractor

Consultant

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

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

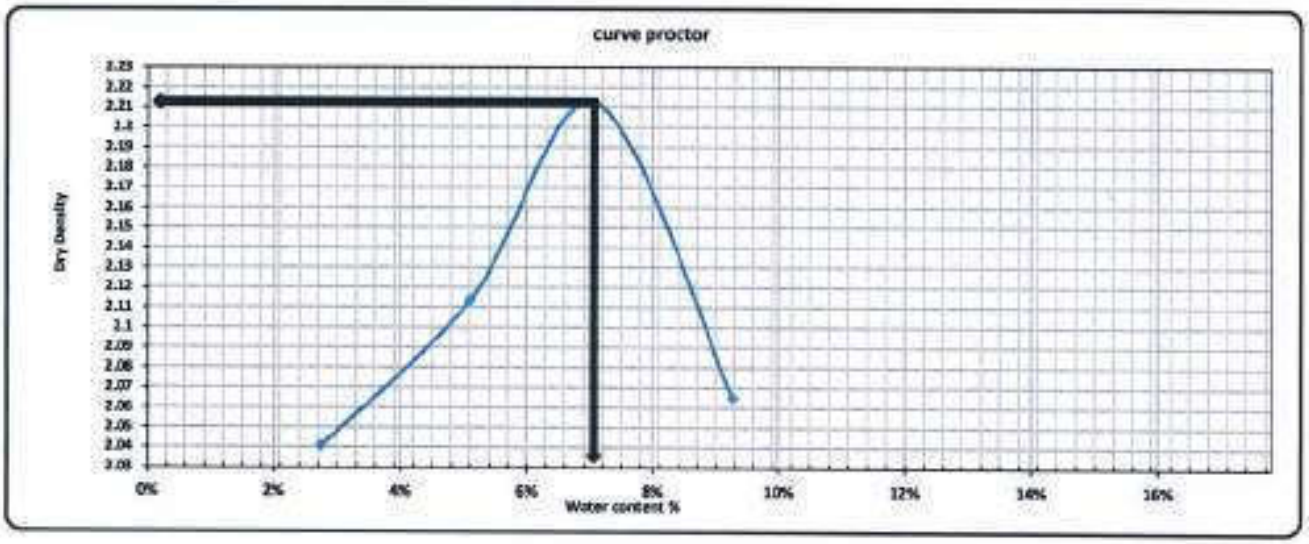
PROCTOR TEST

TESTING DATE	5/9/2023	code	ZONE	562+000	565+000
location	K.P 563+600	GB-SR-II	Material	Sub Ballast	
NAME COMPANY	Gomaa Bader				
	operate by	GOMAA BADR LAB			

Weight of empty mold :	6210.0	MAX Dry Density	2.212
Mold Volume:	2104.9	Water content %	7.30

trial no :	1	2	3	4		
Wt. Of Mold+ wet soil	10632.0	10895.0	11205.0	10968		
WT. WET SOIL	4422.0	4685.0	4995.0	4758.0		
Wt. Density	2.101	2.226	2.373	2.260		

Tare No.	4	6	11	13	20	20	14	14				
Tare wt.	22.25	22.25	23.69	23.69	27.43	27.43	22.86	22.86				
Wt. Of wet soil & tare	135.37	135.37	129.26	129.26	168.27	168.27	138.22	138.22				
Wt. Of dry soil & tare	132.12	132.12	123.93	123.93	158.69	158.69	128.23	128.23				
Wt. Of water	3.3	3.3	5.3	5.3	9.6	9.6	10.0	10.0				
Wt. Of dry soil	109.9	109.9	100.2	100.2	131.3	131.3	105.4	105.4				
Water content %	3.0%	3.0%	5.3%	5.3%	7.3%	7.3%	9.5%	9.5%				
AV.Water content %	3.0%		5.3%		7.3%		9.5%					
Dry Density	2.040		2.113		2.212		2.065					



Contractor

مشروع القطار السريع
المقطع السابع
معمل المركزى
(رقم 6)

Consultant

Youssef

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

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

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	5/9/2023	code	ZONE	562+000	565+000
LOCATION	K.P 563+000	GB-SB-8	Material	Sub Ballast	
NAME COMPANY	Gomaa Bader				

Weight of sample		
Weight of saturated -dry surface sample (B)	1996.00	gm
Weight of saturated sample in water (C)	1215.90	gm
Weight of dry sample after heating (A)	1963.00	gm

Results:-

Bulk specific gravity = A / (B-C)	2.516	
Apparent specific gravity = A /(A-C)	2.627	
Asorbtion = (B-A)/A	1.681	%

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3869	22.62

Lab. Engineer
Name :
Sign :

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

OPERATE BY
GOMAA BADR LAB

Consultant Engineer
Name : Youssef Raafat
Sign :

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE	6/9/2023	code	ZONE	562+000	565+000
location	K.P 563+000	GB-SB-8	Material	Sub Ballast	
NAME COMPANY	Gomaa Bader				
	operate by	GOMAA BADR LAB			

-: Test Results

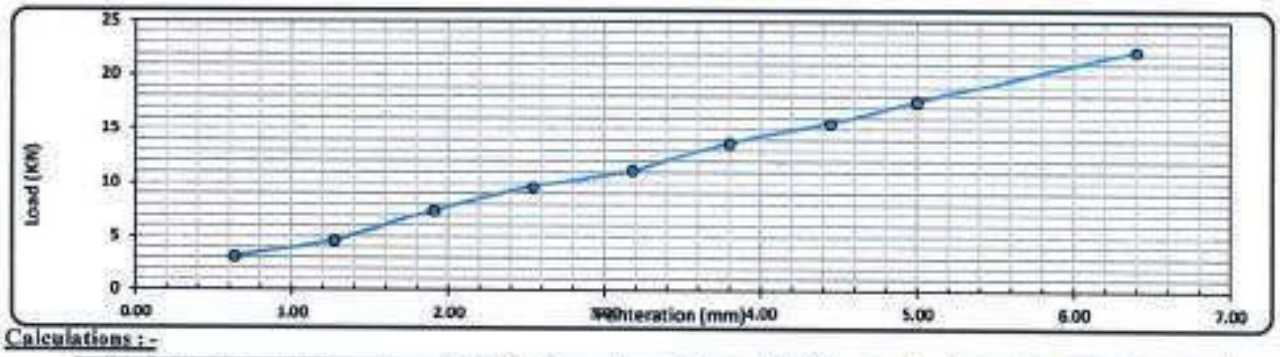
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	2177.4
Mold WT. (gm)	16444
Mold WT. + Wet WT. (gm)	21530
Wet WT. (gm)	5086
Wet Density (g/cm^3)	2.336
Dry Density (g/cm^3)	2.178
Proctor Density (g/cm^3)	2.312
Compaction %	98

Mositure Ratio After Compacted Mold	
Tare No.	46
Tare WT. (gm)	26.25
Tare WT. +Wet WT. (gm)	180.1
Tare WT. +Dry WT. (gm)	169.7
2853	10.4
Dry WT. (gm)	143.5
Moisture Content %	7.2

Swelling	
Mold No.	1
Date	3/8/5
Intial Height (mm)	0.00
Final Height (mm)	0.00
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	5.00	6.40
Load Reading (kg)	312.00	469.00	751.00	976.00	1134.00	1394.00	1581.00	1786.00	2265.00
Load (KN)	3.1	4.6	7.4	9.6	11.1	13.7	15.5	17.5	22.2



Calculations : -

Penetration (mm)	Load (Kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR (%)
2.50	9.56	13.4	71.6%	98	100	72.8%
5.00	17.50	20.0	87.4%			88.8%

Lab. Specialist

Name :

Sign :

مشروع القطار السريع
القصر العالي
معمل المركزي
(رقم 6)

Consultant Engineer

Name : Youssef Rafat

Sign : Youssef 6/9/2023

MATERIAL INSPECTION REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company								
Contractor Refrence	GB63-SB-9											
Issued by Contractor	Name	Sign		Date 16/9/2023				Time				
	Eng/ AHMED FOUAD											
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM	
							16	9	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	SUBBALLAST		
Location to be Used	563+480 TO 563+500 (+0.7) 563+480 TO 563+700 (+0.9) 562+700 TO 562+800 (+0.9)		
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	1000	13/9/2023	
2	Atterberg Limits	M^3	1000	13/9/2023	
3	Proctor	M^3	1000	13/9/2023	
4	Los Anglos	M^3	1000	14/9/2023	
5	specific gravity	M^3	1000	14/9/2023	
6	CBR	M^3	1000	16/9/2023	

Comments by:	Comments by:
	نتائج الصلاحيات والمرفقات مطابقة لكميات حوا لي 1000 م.تر مكعب

APPROVAL STATUS

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

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Contractor Company	**GOMAA BADER COMPANY**			Designer Company								
Contractor Refrence	**GB63-SB-9**											
Issued by Contractor	Name	Sign		Date 16/9/2023					Time			
	Eng/ AHMED FOUAD											
Received by ER			MAR	C1	C2	C3	DD	MM	YY	H H	MM	
							16	9	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	Sub Ballast			
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	4.4%	
4	ASTM D 4318	Atterberg Limit	N.P	
5	ASTM D 2974	Moisture content	7.3%	
6	ASTM D 1557	Modifid Proctor	2.23	
7	ASTM C 335	Los Anglos	24.08%	
8	ASTM D 6473	specific gravity	2.521	
9	ASTM D 1883	CBR	91.9%	
Comments by:		**Comments by:**		
		تتبع الصلاحيات والمرفقات مطابقة لكميات حوا لي 1000 م ثر مكعب		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD			
QA/QC *	mohammed elsaid			
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	13/9/2023	code	ZONE	562+000	565+000
location	K.P 563+000	GB-SB-9	Material	Sub Ballast	
NAME COMPANY	Gomaa Bader				
1-visual inspection test	operate by	Gomaa Bader Lab			

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		26540.00		gm		table classify
sieve size	3	1 1/2	1	3/4	1/2	3/8	# 4	PASS		soil classify
Mass retained (g)	0.0	1025.0	4535.0	2510.0	2570.0	2995.0	4605.0			A-1-a
Cumulative Retained (g)	0.0	1025.0	5560.0	8070.0	10640.0	13635.0	18240.0		PRO	2.230
Cumulative Retained %	0.0	3.9	20.9	30.4	40.1	51.4	68.7		WC	7.3%
Cumulative Passing %	100.0	96.1	79.1	69.6	59.9	48.6	31.3		B.S.G	2.521
									LOS.	24.08%
									CBR	91.9%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	167.00	338.00	429.00					
Cumulative Retained %	33.40	67.60	85.80					
Cumulative Passing %	66.60	32.40	14.20					

C-General gradient										
sieve size(in)	3	1 1/2	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
sieve size(mm)	80.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	96.1	79.1	69.6	59.9	48.6	31.3	20.8	10.1	4.4

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

Mohamed elsaid

m.elsaid

17-9-2023

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

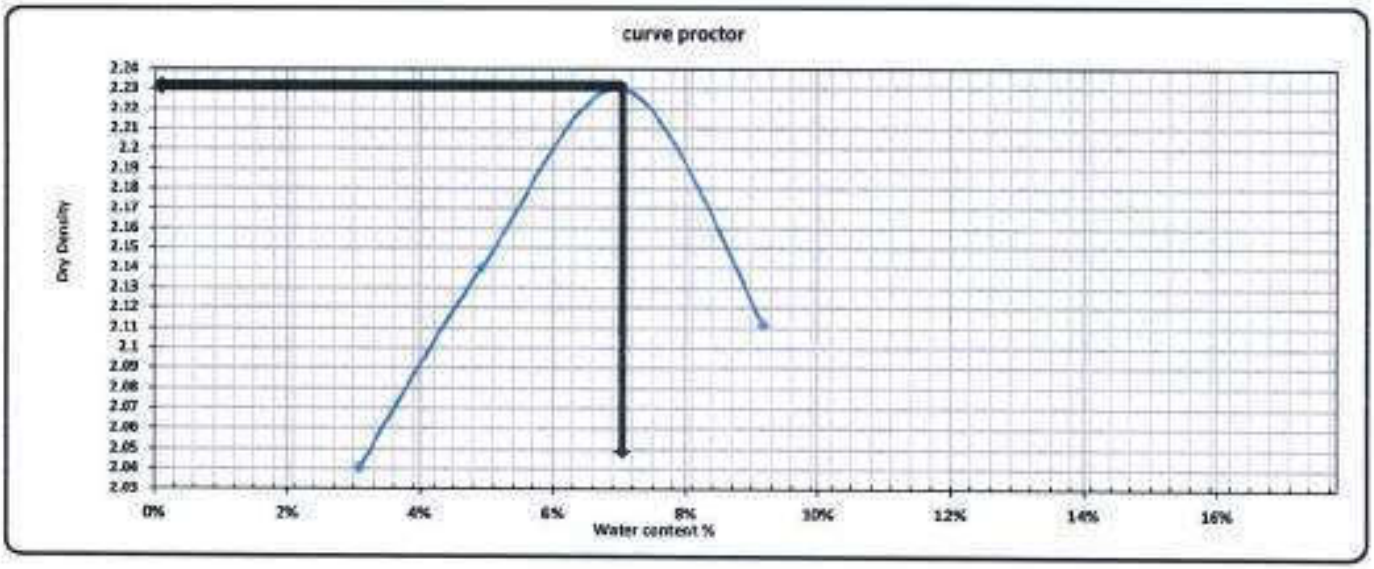
PROCTOR TEST

TESTING DATE	13/9/2023	code	ZONE	562+000	565+000
location	K.P 563+000	CB-SB-5	Material	Sub Ballast	
NAME COMPANY	Gomaa Bader				
	operate by	GOMAA BADR LAB			

Weight of empty mold :	6090.0	MAX Dry Density	2.230
Mold Volume:	2104.9	Water content %	7.30

trial no :	1	2	3	4		
Wt. Of Mold+ wet soil	10526.0	10825.0	11125.0	10952		
WT. WET SOIL	4436.0	4735.0	5035.0	4862.0		
Wt. Density	2.107	2.250	2.392	2.310		

Tare No.	5	5	11	11	8	8	2	2				
Tare wt.	26.2	26.2	27.1	27.1	22.7	22.7	25.4	25.4				
Wt. Of wet soil & tare	115.6	115.6	139.3	139.3	145.4	145.4	158.6	158.6				
Wt. Of dry soil & tare	112.78	112.78	133.8	133.8	137.05	137.05	147.2	147.2				
Wt. Of water	2.8	2.8	5.5	5.5	8.3	8.3	11.4	11.4				
Wt. Of dry soil	86.6	86.6	106.7	106.7	114.4	114.4	121.8	121.8				
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	2.040		2.140		2.130		2.112					



Contractor

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

Consultant

mohamed elsaid

17-9-2023

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

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

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	14/9/2023	code	ZONE	562+000	565+000
LOCATION	K.P 563+000	GB-SB-9	Material	Sub Ballast	
NAME COMPANY	Gomaa Bader				

Weight of sample	2000.00	gm
Weight of saturated -dry surface sample (B)	2027.00	gm
Weight of saturated sample in water (C)	1238.00	gm
Weight of dry sample after heating (A)	1989.00	gm

Results:-

Bulk specific gravity = A / (B-C)	2.521	
Apparent specific gravity = A /(A-C)	2.648	
Asorbtion = (B-A)/A	1.911	%

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3796	24.08

Lab. Engineer
Name :
Sign :

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

OPERATE BY
GOMAA BADR LAB

Consultant Engineer
Name : mohamed elsaid
Sign : m.elsaid
17-9-2023

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE	16/9/2023	code	ZONE	562+000	565+000
location	K.P 563+000	GB-SB-9	Material	Sub Ballast	
NAME COMPANY	Gomaa Bader				
	operate by	GOMAA BADR LAB			

-: Test Results

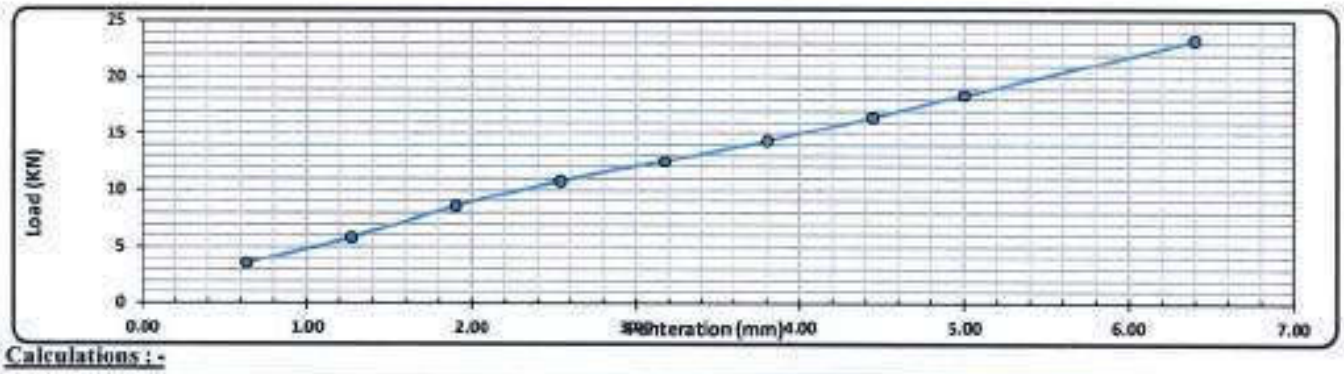
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	2177.4
Mold WT. (gm)	16444
Mold WT. + Wet WT. (gm)	21573
Wet WT. (gm)	5129
Wet Density (g/cm^3)	2.356
Dry Density (g/cm^3)	2.198
Practor Density (g/cm^3)	2.230
Compaction %	99

Mositure Ratio After Compacted Mold	
Tare No.	10
Tare WT. (gm)	24.59
Tare WT. +Wet WT. (gm)	184.43
Tare WT. +Dry WT. (gm)	173.74
2853	10.7
Dry WT. (gm)	149.2
Moisture Content %	7.2

Swelling	
Mold No.	1
Date	2/01
Intial Height (mm)	0.00
Final Height (mm)	0.01
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	5.00	6.40
Load Reading (kg)	362.00	586.00	870.00	1095.00	1274.00	1462.00	1678.00	1877.00	2368.00
Load (KN)	3.5	5.7	8.5	10.7	12.5	14.3	16.4	18.4	23.2



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	% 100 عند نسبة
2.50	10.73	13.4	80.4%	99	100	81.6%
5.00	18.39	20.0	91.9%			93.2%

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

مشروع القطار السريع
القطاع السابع
معمل المركزى
(رقم 6)

17-9-2023

MATERIAL INSPECTION REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company								
Contractor Refrence	GB63-SB-10											
Issued by Contractor	Name	Sign		Date 18/9/2023				Time				
	Eng/ AHMED FOUAD	Ahmedfouad										
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM	
							18	9	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	SUBBALLAST				
Location to be Used	563+700 TO 563+900 (+0.9) 562+800 TO 563+000 (+0.9) 563+000 TO 563+200 (+0.9)				
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	2000	17/9/2023	
2	Atterberg Limits	M^3	2000	17/9/2023	
3	Proctor	M^3	2000	17/9/2023	
4	Los Anglos	M^3	2000	18/9/2023	
5	specific gravity	M^3	2000	18/9/2023	
6	CBR	M^3	2000	18/9/2023	

Comments by:	Comments by:
	نتائج الصلاحيات والمرفقات مطابقة لكميات حوالي 2000 م٣ مكعب

APPROVAL STATUS

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

* Designer
** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Contractor Company	GOMAA BADER COMPANY			Designer Company									
Contractor Refrence	GB63-SB-10												
Issued by Contractor	Name	Sign		Date 18/9/2023						Time			
	Eng/ AHMED FOUAD	Ahmed Fouad											
Received by ER			MAR	C1	C2	C3	DD	MM	YY	H H	MM		
							18	9	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	Sub Ballast			
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	3.8%	
4	ASTM D 4318	Atterberg Limit	N.P	
5	ASTM D 2974	Moisture content	7.3%	
6	ASTM D 1557	Modifid Proctor	2.224	
7	ASTM C 335	Los Anglos	23.96%	
8	ASTM D 6473	specific gravity	2.538	
9	ASTM D 1883	CBR	92.4%	
Comments by:		**Comments by:**		
		الصلاحيات والمرفقات مطابقة لكميات حوا لي 2000 م. م مكعب نتائج		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	ENG/ AHMED FOUAD	Ahmed Fouad		
QA/QC *	Youssef Ragab	Youssef		
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	17/9/2023	code	ZONE	562+000	565+000
location	K.P 563+000	GB-SB-10	Material	Sub Ballast	
NAME COMPANY	Gomaa Bader				

1-visual inspection test — operate by: *Gomaa Bader Lab*

2-Gradient test

A-gradation of bulk materials — SAMPLE WEIGHT [g]: 20715.00 gm

sieve size	3	1 1/2	1	3/4	1/2	3/8	# 4	PASS
Mass retained (g)	0.0	575.0	2920.0	2065.0	1710.0	1975.0	3740.0	
Cumulative Retained (g)	0.0	575.0	3495.0	5560.0	7210.0	9185.0	12925.0	
Cumulative Retained %	0.0	2.8	16.9	26.8	34.8	44.3	62.4	
Cumulative Passing %	100.0	97.2	83.1	73.4	65.2	55.7	37.6	

	table classify
	soil classify
	A-1-a
PRO	2.224
WC	7.3%
B.S.G	2.538%
LOS.	23.96%
CBR	92.4%

B-soft material gradation — WT.OF sample: 500.00 gm

sieve size	10	40	200					
Cumulative Retained (g)	182.30	367.30	449.00					
Cumulative Retained %	36.46	73.46	89.80					
Cumulative Passing %	63.54	26.54	10.20					

C-General gradient

sieve size(in)	3	1 1/2	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	97.2	83.1	73.4	65.2	55.7	37.6	23.9	10.0	3.8

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 الساحلي
معمل المركزي
(رقم 6)

Consultant

Youssef Bagous

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 566+177

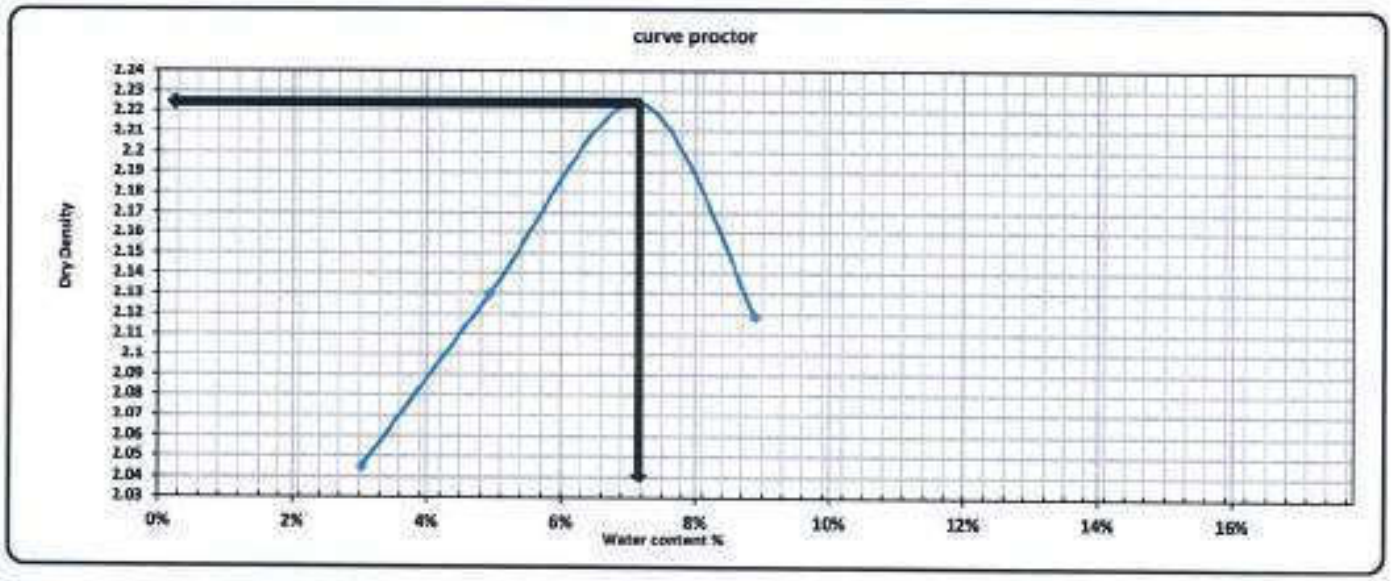
PROCTOR TEST

TESTING DATE	17/9/2023	code	ZONE	562+000	565+000
location	K.P 563+000	GB-SB-10	Material	Sub Ballast	
NAME COMPANY	Gomaa Bader				
	operate by	GOMAA BADR LAB			

Weight of empty mold :	6050.0	MAX Dry Density	2.224
Mold Volume:	2104.9	Water content %	7.30

trial no :	1	2	3	4		
Wt. Of Mold+ wet soil	10533.0	10802.0	11115.0	10955		
WT. WET SOIL	4443.0	4712.0	5025.0	4865.0		
Wt. Density	2.111	2.239	2.387	2.311		

Tare No.	9	9	7	7	12	12	16	16				
Tare wt.	26.3	26.3	26.4	26.4	24.6	24.6	27.2	27.2				
Wt. Of wet soil & tare	123.3	123.3	136.3	136.3	141.2	141.2	166.3	166.3				
Wt. Of dry soil & tare	120.21	120.21	130.9	130.9	133.24	133.24	154.7	154.7				
Wt. Of water	3.0	3.0	5.4	5.4	8.0	8.0	11.6	11.6				
Wt. Of dry soil	93.9	93.9	104.5	104.5	108.7	108.7	127.4	127.4				
Water content %	3.2%	3.2%	5.1%	5.1%	7.3%	7.3%	9.1%	9.1%				
AV.Water content %	3.2%		5.1%		7.3%		9.1%					
Dry Density	2.045		2.129		2.224		2.119					



Contractor

مشروع السريع
القطاع السابع
معمل المركزى
(رقم 6)

Consultant

Yousef Bader
2023

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

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 565+177

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	18/9/2023	code	ZONE	562+000	565+000
LOCATION	K.P 563+000	GB-SB-10	Material	Sub Ballast	
NAME COMPANY	Gomaa Bader				

Weight of sample	2000.00	gm
Weight of saturated -dry surface sample (B)	2025.00	gm
Weight of saturated sample in water (C)	1239.60	gm
Weight of dry sample after heating (A)	1993.00	gm

Results:-

Bulk specific gravity = A / (B-C)	2.538	
Apparent specific gravity = A /(A-C)	2.645	
Asorbtion = (B-A)/A	1.606	%

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3802	23.96

Lab. Engineer
Name :
Sign :

مشروع القطار السريع
القطاع الس
معمل المركزى
(رقم 6)

OPERATE BY
GOMAA BADR LAB

Consultant Engineer
Name : Youssef Ragab
Sign :

Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE	18/9/2023	code	ZONE	562+000	565+000
location	K.P 563+000	GB-SB-10	Material	Sub Ballast	
NAME COMPANY	Gomaa Bader				
	operate by	GOMAA BADR LAB			

-: Test Results

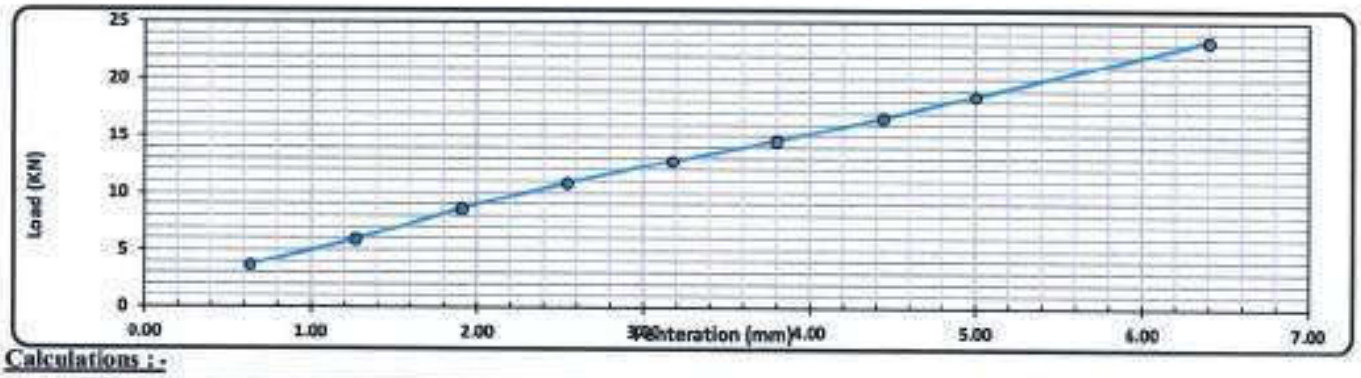
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	2177.4
Mold WT. (gm)	16444
Mold WT. + Wet WT. (gm)	21584
Wet WT. (gm)	5140
Wet Density (g/cm^3)	2.361
Dry Density (g/cm^3)	2.202
Proctor Density (g/cm^3)	2.224
Compaction %	99

Mesiture Ratio After Compacted Mold	
Tare No.	11
Tare WT. (gm)	26.25
Tare WT. +Wet WT. (gm)	166.25
Tare WT. +Dry WT. (gm)	156.85
2853	9.4
Dry WT. (gm)	130.6
Moisture Content %	7.2

Swelling	
Mold No.	1
Date	24/1
Initial Height (mm)	0.00
Final Height (mm)	0.01
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	5.00	6.40
Load Reading (kg)	374.00	598.00	871.00	1102.00	1299.00	1485.00	1693.00	1889.00	2374.00
Load (KN)	3.7	5.9	8.5	10.8	12.7	14.6	16.6	18.5	23.3



Calculations : -

Penteration (mm)	Load (Kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR % 100 عند نسبة
2.50	10.80	13.4	80.9%	99	100	81.7%
5.00	18.51	20.0	92.4%			93.4%

Lab Specialist

Name :

Sign :

مشروع القطار الكهربائي السريع
القطاع السابع
معمل الخرسانة
(6 رقم)

Consultant Engineer

Name : Youssef Refaat

Sign : Youssef 18/9/23