MATERIAL INSPECTION REQUEST

Contractor Company	Yousef Negida (1)			Designer Company							
Issued by Contractor	Name	Sign		Date				Time			
	Eng/Shehab Hamdi			09/09/2023							
Contractor Refrence	P.S.G YN1(P-10)										
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							09	09	2023		

CODE - 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

Description of Materials	Curshed Stone P.S.G.10 Material Result				
Location to be Used	515+160	515+180	0.50+		
	515+180	515+300	0.25+		
	515+180	515+300	0.50+		
	517+110	517+160	0.50+		
	515+780	515+840	0.25+		
	515+780	515+840	0.50+		
MAR Approval No	P.S.G. YN1(P-10)			Date	
Supplier Name					
Test Requirement			Specification	Clause	
Reference Photos	Yes attached / No		Other		

Item	Description	Unit	Quantity	Arrival Date	Note
1	L.L & P.L & O.M.C %	m3	2000	06-09-2023	
2	Proctor	m3	2000	07-09-2023	
3	Classification	m3	2000	06-09-2023	
4	Sieve Analysis	m3	2000	06-09-2023	
5	C.B.R	m3	2000	09-09-2023	
6	L.A & Absorption	m3	2000	08-09-2023	

Comments by:	Comments by:

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/ Shehab Hamdi			
QA/QC *	Ahmed Abo Zaid			
GARB**				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Location Name	Contractor Company			Designer Company							
Electric express train	Yousef Negida (1)			k.k							
Issued by Contractor	Name	Sign		Date			Time				
	Eng/Shehab Hamdi			09/09/2023							
Contractor Reference	P.S.G YN(10)										
Received by ER			MAR	C1	C2	C3	DD	MM	YY	HH	MM
							09	09	2023		

The Following Test Result are Attached For Review				
Description of Materials	Crushed stone (Prepared Subgrade) (A-1-a)			
Location of Stock	514+515			
Item	Specification	Test requirement	Test result attachment	Remarks
1	ASTM D 75	Aggregate Sampling	According to specifications	
2	ASTM C 136	Sieve Analysis	According to specifications	
3	ASTM D 1440	Passing Sieve, No 200	11.6 %	
4	ASTM D 4318	Atterberg limit	N.P	
5	ASTM D 2974	Moisture content	8 %	
6	ASTM D 1557	Modified proctor	2.205	
7	ASTM D 1883	CBR	82%	
8	AASHTO-T96	L.A	27 %	
9	AASHTO-T85	Absorption	2.207%	
Comments by:			Comments by:	

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

* Designer

** Alignment/Bridges: Culvert only

KK	Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 7 From FOKA To MARSA MATROUH From Station 904+990 To Station 948+177	

Operating Lab	Negida Central Lab

PARTICLE SIZE DISTRIBUTION OF PREPARED SUBGRADE

TESTING DATE:	6-9-2023	Code	Zone	FROM STATION	TO STATION
LOCATION	KP 514+515	Yh(P-10)		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA 1				
MATERIALS	Prepared Subgrade				
Quantity	3000 m3				

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		27178.00		gm	Table classify	
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	Soil Classify	A-1-a
Mass retained (g)	0.0	996.0	4034.0	3075.0	3926.0	1666.0	2289.0		PRO	2.205
Cumulative Retained (g)	0.0	996.0	5030.0	8105.0	12032.0	13698.0	15987.0		WC	8.80
Cumulative Retained %	0.0	3.7	18.5	29.8	44.3	50.4	58.8		CBR	82%
Cumulative Passing %	100.0	96.3	81.5	70.2	55.7	49.6	41.2		Los Angles	27
									Absorption	2.207

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	110.00	221.00	359.00					
Cumulative Retained %	22.00	44.20	71.80					
Cumulative Passing %	78.00	55.80	28.20					

C-General gradient										
sieve size(in)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
sieve size(mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	96.3	81.5	70.2	55.7	49.6	41.2	32.1	23.0	11.6
SPECIFICATION	——	97	——	74 — 71	——	11 — 44	——	0 — 35	——	8 — 12

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

Contractor	Consultant
Shehab Hamdi	9/9/2023

شركة نجيدة للمقاولات
الموقع الشرقي
مشروع القطار السريع / فوكة - مطروح

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 560+177

PROCTOR TEST (PREPARED SUBGRADE)

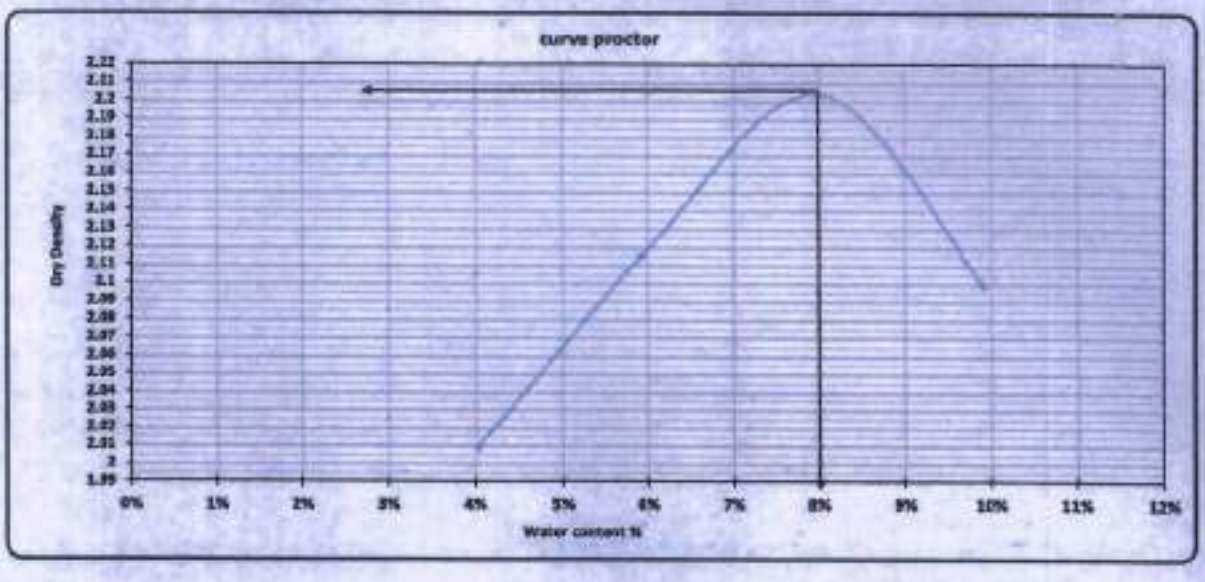
TESTING DATE:	7-9-2023	Code	zone	FROM	TO
LOCATION	K.P 514+515	[illegible]		514+000	516+500
COMPANY NAME	YOUSEF NEGIDA 1				

Weight of empty mold :	5698.0
Mold Volume:	2127.0

MAX Dry Density	2.205
Water content %	8

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10144.0	10466.0	10763.0	10607	
WT. WET SOIL	4446.0	4768.0	5065.0	4909.0	
Wt. Density	2.090	2.241	2.381	2.308	

Tare No.	7	19	13	17	15	40	31	32		
Tare wt.	41.2	44.1	53.6	53.2	30.9	46.1	80.7	81.7		
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0		
Wt. Of dry soil & tare	145.0	145.1	142.8	142.6	140.2	140.1	137.6	138.0		
Wt. Of water	5.0	4.9	7.2	7.4	9.8	9.9	12.4	12.0		
Wt. Of dry soil	123.8	123.8	123.8	123.8	123.8	123.8	123.8	123.8		
Water content %	4.1%	4.0%	5.9%	6.0%	8.0%	8.0%	10.1%	9.8%		
AV.Water content %	4.0%		5.9%		8.0%		9.9%			
Dry Density	2.009		2.116		2.205		2.100			



Contractor

Sherif Hamdi

شركة [illegible] للمقاولات
[illegible]
2023
[illegible]

Consultant

2/9/2023

Electric Express Train - HSR

From El Ain El Sokhna City To El Alamein - MATROUH

Section - 7 From FOKA To MARSA MATROUH

From Station 594+900 To Station 668+177

Absorbtion & Aggregate specific gravity AASHTO-T85

PREPARED SUBGRADE

TESTING DATE:	8-9-2023	code	zone	FROM	TO
LOCATION	K.P 514+515	Y14(P-10)		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA 1				

Weight of sample Before Test	——	gm	
Weight of saturated -dry surface sample (B)	4215	gm	
Weight of saturated sample in water (C)	2967	gm	
Weight of dry sample after heating (A)	4124	gm	10995

Results:-

Bulk specific gravity = A / (B-C)	2.487	
Apparent specific gravity = A /(A-C)	2.832	
Asorbtion = (B-A)/A	2.207	%

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3659	27

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name : Shehab Hamdi

Sign :

شركة ... للمعمل المركزى
مشروع القطار السريع / فوكة - مطروح

Consultant Engineer

Name :

Sign :

Electric Express Train - HSR

Operating Lab: AL Nuby Central Lab

California Bearing Ratio TEST

PREPARED SUBGRADE

Testing Date :	9-9-2023	Code	ZONE	FROM	TO
Location :	K.P 514+515	YN(P-10)		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA 1				

- : Test Results

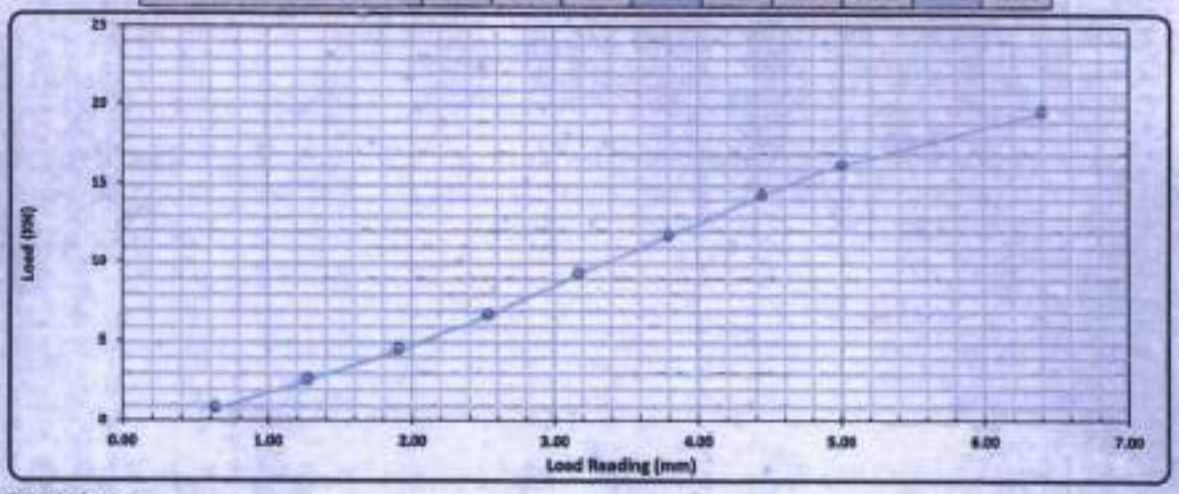
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	2000
Mold WT. (gm)	8856
Mold WT. + Wet WT. (gm)	12859
Wet WT. (gm)	4003
Wet Density (g/cm^3)	2.100
Dry Density (g/cm^3)	2.132
Procter Density (g/cm^3)	2.200
Compaction %	97

Moisture Ratio After Compacted Mold	
Tare No.	40
Tare WT. (gm)	46.2
Tare WT. +Wet WT. (gm)	232.7
Tare WT. +Dry WT. (gm)	218.7
Water WT. (gm)	13.0
Dry WT. (gm)	164.5
Moisture Content %	7.9

Swelling	
Mold No.	4
Date	9-9-2023
Initial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0
Sample Height (mm)	116.40
Swelling Ratio %	0.0%

Loading Reading :

Load Reading (mm)	0.44	1.27	1.91	2.54	3.18	3.81	4.45	5.08	6.40
Load (KN)	0.9	2.6	4.3	6.0	9.4	11.8	14.2	16.1	19.6
Load (KG)	88.0	265.0	441.0	595.0	955.0	1202.0	1464.0	1666.0	2004.0



Calculations :-

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(Kn)	(%)	(%)	(%)	%
2.50	6.76	13.4	50.7%	97	95	51.3%
5.00	16.27	20.0	81.3%			81.3%

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

شركة تنفيذ قاعدة ولات
المقاولون العرب
مشروع القطار السريع / طوكة - مطروح

MATERIAL INSPECTION REQUEST

Contractor Company	Yousef Negida (1)			Designer Company						
Issued by Contractor	Name	Sign		Date				Time		
	Eng/Shehab Hamdi			02/09/2023						
Contractor Refrence	P.S.G YN(P-9)									
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							02	09	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	Cursched Stone P.S.G.9 Material Result					
Location to be Used	516+240	TO	516+300	0.25+		
	516+040	TO	516+080	0.25+		
	516+080	TO	516+200	0.25+		
	516+200	TO	516+240	0.25+		
	515+840	TO	515+960	0.25+		
	515+960	TO	516+040	0.25+		
	515+040	TO	515+180	0.25+		
	516+240	TO	516+300	0.50+		
	516+040	TO	516+080	0.50+		
	516+080	TO	516+200	0.50+		
	516+200	TO	516+240	0.50+		
	515+840	TO	515+960	0.50+		
	515+960	TO	516+040	0.50+		
	515+040	TO	515+160	0.50+		
MAR Approval No	P.S.G. YN(9)				Date	
Supplier Name						
Test Requirement			Specification		Clause	
Reference Photos	Yes attached / No		Other			

Item	Description	Unit	Quantity	Arrival Date	Note
1	L.L & P.L & O.M.C %	m3	5000	30-08-2023	
2	Proctor	m3	5000	31-08-2023	
3	Classification	m3	5000	30-08-2023	
4	Sieve Analysis	m3	5000	30-08-2023	
5	C.B.R	m3	5000	02-09-2023	
6	L.A & Absorption	m3	5000	31-08-2023	

Comments by:	Comments by:

APPROVAL STATUS

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

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Location Name	Contractor Company			Designer Company							
Electric express train	Yousef Negida (1)			k.k							
Issued by Contractor	Name	Sign		Date			Time				
	Eng/Shehab Hamdi			02/09/2023							
Contractor Reference	P.S.G YN(9)										
Received by ER			MAR	C1	C2	C3	DD	MM	YY	HH	MM
							02	09	2023		

The Following Test Result are Attached For Review				
Description of Materials	Crushed stone (Prepared Subgrade) (A-1-a)			
Location of Stock	514+515			
Item	Specification	Test requirement	Test result attachment	Remarks
1	ASTM D 75	Aggregate Sampling	According to specifications	
2	ASTM C 136	Sieve Analysis	According to specifications	
3	ASTM D 1440	Passing Sieve, No 200	11.1 %	
4	ASTM D 4318	Atterberg limit	N.P	
5	ASTM D 2974	Moisture content	8.10 %	
6	ASTM D 1557	Modified proctor	2.217	
7	ASTM D 1883	CBR	72%	
8	AASHTO-T96	L.A	28 %	
9	AASHTO-T85	Absorption	2.391%	
Comments by:			Comments by:	

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

* Designer

** Alignment/Bridges: Culvert only

Electric Express Train - HSR

Phase 02 Am El Sesbhou City To El Alamein - MATROUH

Section - 7 From FOGA To MARSA MATROUH

From Station Sta+000 To Station 584+177

Operating Lab: Negida Central Lab

PARTICLE SIZE DISTRIBUTION OF PREPARED SUBGRADE

TESTING DATE:	30-01-2023	Curve	Zone	FROM STATION	TO STATION
LOCATION	KP 514+515	TNEP-41		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA 1				
MATERIALS	Prepared Subgrade				
Quantity	5000 m3				

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		21347.00		gm	Table classify	
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	Soil Classify	A-1-a
Mass retained (g)	0.0	885.0	5395.0	2528.0	5850.0	1571.0	2652.0		PRO	2.217
Cumulative Retained (g)	0.0	885.0	6280.0	8808.0	14658.0	16229.0	18881.0		WC	8.10
Cumulative Retained %	0.0	2.8	20.0	28.1	46.8	51.8	60.2		CBR	72%
Cumulative Passing %	100.0	97.2	80.0	71.9	53.2	48.2	39.8		Los Angles	24
									Absorption	2.381

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	102.00	234.00	361.00					
Cumulative Retained %	20.40	46.80	72.20					
Cumulative Passing %	79.60	53.20	27.80					

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	97.2	80.0	71.9	53.2	48.2	39.8	31.7	21.2	11.1
SPECIFICATION	—	97	—	70 — 75	—	45 — 60	—	5 — 30	—	5 — 12

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

Contractor

Shehab Hamdi

Consultant

Hassan

Electric Express Train - HSR

From El Alamein City To El Alamein - MATROUH

Section - 7 From FOKA TO MARSA MATROUH

From Station [illegible] To Station [illegible]

PROCTOR TEST (PREPARED SUBGRADE)

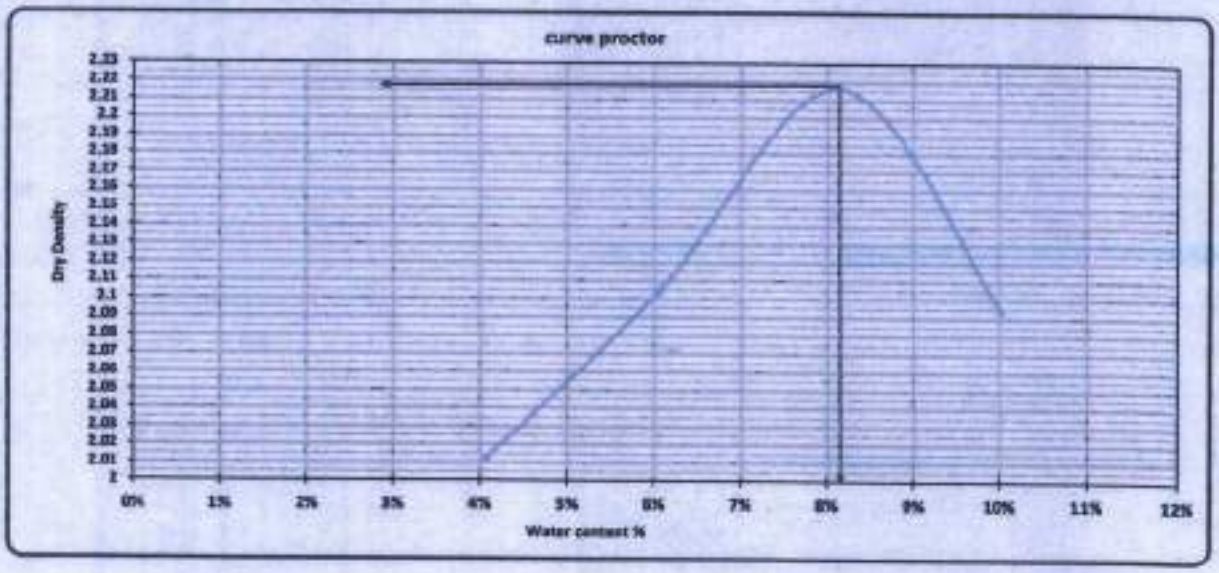
TESTING DATE:	31-8-2023	Code	2006	FROM	TO
LOCATION	KP 514+515	[illegible]		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA 1				

Weight of empty mold :	5917.0
Mold Volume:	2120.0

MAX Dry Density	2.217
Water content %	8.1

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10263.0	10558.0	10910.0	10712	
WT. WET SOIL	4456.0	4751.0	5103.0	4905.0	
Wt. Density	2.093	2.232	2.397	2.304	

Tare No.	7	19	13	17	15	40	31	32		
Tare wt.	41.2	44.1	53.6	53.2	30.9	46.2	88.7	82.7		
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0		
Wt. Of dry soil & tare	144.9	145.1	142.8	142.3	139.9	140.1	137.5	137.9		
Wt. Of water	5.1	4.9	7.2	7.7	10.1	9.9	12.5	12.2		
Wt. Of dry soil	123.0	123.0	123.0	123.0	123.0	123.0	123.0	123.0		
Water content %	4.1%	4.0%	5.9%	6.3%	8.2%	8.0%	10.2%	9.9%		
AV.Water content %	4.0%		6.1%		8.1%		10.0%			
Dry Density	2.012		2.184		2.217		2.094			



Contractor

Shehab Hamdi

شركة [illegible]

المعمل المركزي

مشروع القطار السريع/فوكة - مطروح

Consultant

Hassan

2023

Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein - MATROUH
Section - T From FOKA To MARSA MATROUH
From Station 504+000 To Station 568+177

Absorbtion & Aggregate specific gravity
AASHTO-T85

PREPARED SUBGRADE

TESTING DATE:	31-05-2023	code	zone	FROM	TO
LOCATION	K.P 514+515	TN(P-6)		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA 1				

Weight of sample Before Test	——	gm
Weight of saturated -dry surface sample (B)	3983	gm
Weight of saturated sample in water (C)	2438	gm
Weight of dry sample after heating (A)	3890	gm

Results:-

Bulk specific gravity = A / (B-C)	2.618	
Apparent specific gravity = A /(A-C)	2.679	
Asorbtion = (B-A)/A	2.391	%

Los Angles abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3582	28

Lab. Specialist
Name :
Sign :

Lab. Engineer
Name : Shehab Hamdi
Sign :
المعمل المركزى
مشروع القطار السريع / فوكة - مطروح

Consultant Engineer
Name : Hassan
Sign :

Electric Express Train - HSR

AL Nuby Central Lab

California Bearing Ratio TEST

PREPARED SUBGRADE

Testing Date :	2-09-2023	Code	ZONE	FROM	TO
Location :	K.P 514+515	YN(P-0)		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA 1				

-: Test Results

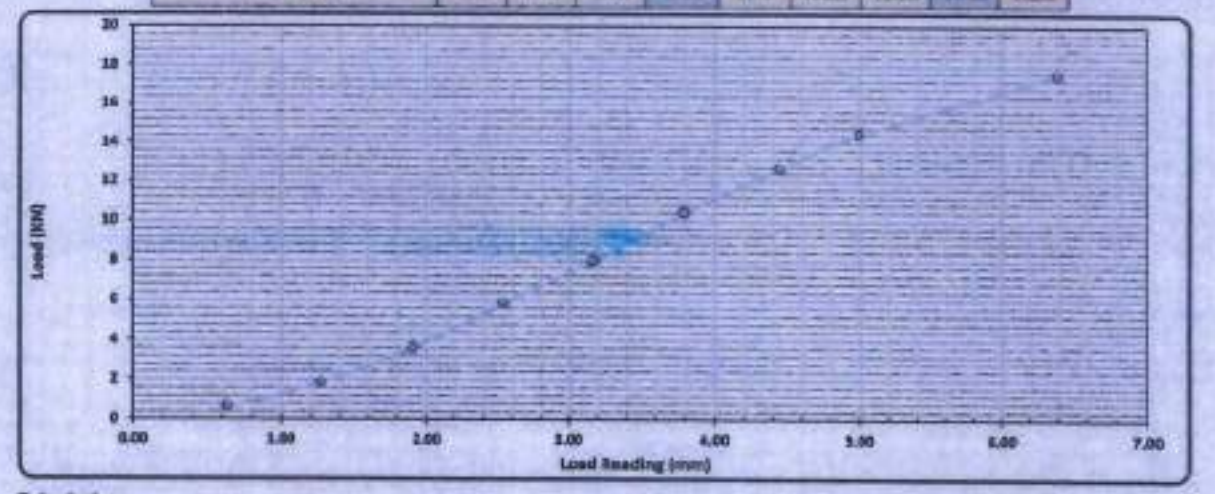
Compaction % for Mold	
Mold No.	4
Mold Vol.(cm^3)	1000
Mold WT. (gm)	8950
Mold WT. + Wet WT. (gm)	12941
Wet WT. (gm)	4091
Wet Density (g/cm^3)	2.341
Dry Density (g/cm^3)	2.168
Proctor Density (g/cm^3)	2.217
Compaction %	98

Moisture Ratio After Compacted Mold	
Tare No.	7
Tare WT. (gm)	32.1
Tare WT. +Wet WT. (gm)	187.31
Tare WT. +Dry WT. (gm)	165.2
Water WT. (gm)	22.1
Dry WT. (gm)	153.0
Moisture Content %	8.8

Swelling	
Mold No.	4
Date	2-09-2023
Initial Height (mm)	8.00
Final Height (mm)	8.00
Difference	0
Sample Height (mm)	116.40
Swelling Ratio %	0.0%

Loading Reading :

Load Reading (mm)	0.00	0.27	0.95	1.84	2.87	3.88	4.42	5.00	6.00
Load (KN)	0.4	1.0	3.6	5.2	8.0	10.4	12.7	16.5	17.5
Load (KG)	40.8	101.8	367.0	530.1	815.3	1060.0	1293.8	1679.8	1783.4



Calculations : -

Penetration	Load	Standard Load	CBR	Moist - Compaction	Compaction	CBR
(mm)	(Kn)	(Kn)	(%)	(%)	(%)	(% من الـ 100 %)
2.54	5.04	13.4	[illegible]	98	98	37.8%
5.00	16.48	20.0	[illegible]			72%

Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name : Shehab Hamdi	Name : Hassan
Sign :	Sign :	Sign :

مختبر الوادي الجديد
المعمل المركزي
مشروع القطار السريع لوكة - العلمين
2023

MATERIAL INSPECTION REQUEST

Contractor Company	Yousef Negida (1)			Designer Company						
Issued by Contractor	Name	Sign		Date				Time		
	Eng/Shehab Hamdi			01/8/2023						
Contractor Refrence	P.S.G YN(8)									
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							01	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	Curshed Stone P.S.G.8 Material Result				
Location to be Used	515+450 515+300 516+940	515+780 515+780 517+110	0.25+ 0.50+ 0.50+		
MAR Approval No	P.S.G. YN(8)			Date	
Supplier Name					
Test Requirement		Specification		Clause	
Reference Photos	Yes attached / No	Other			

Item	Description	Unit	Quantity	Arrival Date	Note
1	L.L & P.L & O.M.C %	m3	5000	30-07-2023	
2	Proctor	m3	5000	31-07-2023	
3	Classification	m3	5000	30-07-2023	
4	Sieve Analysis	m3	5000	30-07-2023	
5	C.B.R	m3	5000	01-08-2023	
6	L.A & Absorption	m3	5000	31-07-2023	

Comments by:	Comments by:

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/ Shehab Hamdi			
QA/QC *	mohamed elsaid	m-elsaid 1-8-2023		
GARB**				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Location Name	Contractor Company			Designer Company							
Electric express train	Yousef Negida (1)			k.k							
Issued by Contractor	Name	Sign		Date			Time				
	Eng/Shehab Hamdi			01/08/2023							
Contractor Reference	P.S.G YN(8)										
Received by ER			MAR	C1	C2	C3	DD	MM	YY	HH	MM
							01	8	2023		

The Following Test Result are Attached For Review				
Description of Materials		Crushed stone (Prepared Subgrade) (A-1-a)		
Location of Stock		514+515		
Item	Specification	Test requirement	Test result attachment	Remarks
1	ASTM D 75	Aggregate Sampling	According to specifications	
2	ASTM C 136	Sieve Analysis	According to specifications	
3	ASTM D 1440	Passing Sieve, No 200	11.2 %	
4	ASTM D 4318	Atterberg limit	N.P	
5	ASTM D 2974	Moisture content	8.00 %	
6	ASTM D 1557	Modified proctor	2.21	
7	ASTM D 1883	CBR	89%	
8	AASHTO-T96	L.A	28 %	
9	AASHTO-T85	Absorption	%3.8	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/Shehab Hamdi			
QA/QC *	mohamed elsaied	m.elsaied 1-8-2023		
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only

Electric Express Train - HSR

From El Ain El Sokhna City To El Alamein - MATROUH

Section - 1 From FOKA To MARSA MATROUH

From Station 504+900 To Station 566+177

Operating Lab | Negida Central Lab

PARTICLE SIZE DISTRIBUTION OF PREPARED SUBGRADE

TESTING DATE:	30-7-2023	Code	Zone	FROM STATION	TO STATION
LOCATION	KP 514+515	Th(P-4)		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA 1				
MATERIALS	Prepared Subgrade				
Quantity	5000 m3				

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		30396.00		gm	Table classify	
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	Soil Classify	A-1-a
Mass retained (g)	0.0	1254.0	5966.0	1750.0	3213.0	1202.0	4110.0		PRO	2.210
Cumulative Retained (g)	0.0	1254.0	7220.0	9010.0	12223.0	13485.0	17595.0		WC	8.00
Cumulative Retained %	0.0	4.3	23.9	29.6	40.2	44.4	57.9		CBR	59%
Cumulative Passing %	100.0	95.7	76.1	70.4	59.8	55.6	42.1		Los Angles	25
									Absorption	3.940

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	91.00	266.00	367.00					
Cumulative Retained %	18.20	53.20	73.40					
Cumulative Passing %	81.80	46.80	26.60					

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	95.7	76.1	70.4	59.8	55.6	42.1	34.0	19.7	11.2
SPECIFICATION	——	97	——	70 — 75	——	15 — 80	——	4 — 35	——	0 — 12

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

Contractor

Shehab Hamdi

شركة نجيد للمقاولات
المعمل المركزي
مشروع القطار السريع / طريق - مطروح

Consultant

mohamed elsaied

m-elsaied

1-8-2023

Electric Express Train - HSR

From El Ain El Sokhna City To El Alamein - MATROUH

Section - 7 From FORA TO MARSA MATROUH

From Station 504+000 To Station 588+177

PROCTOR TEST (PREPARED SUBGRADE)

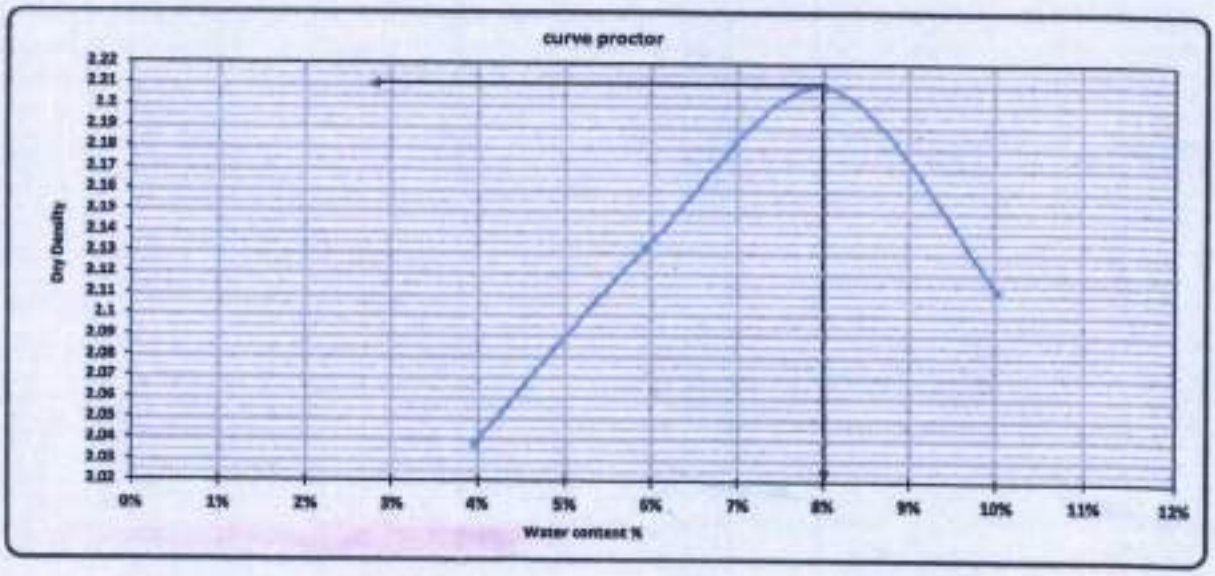
TESTING DATE:	31-7-2023	Code	zone	FROM	TO
LOCATION	K.P 514+515	Th(P-4)		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA 1				

Weight of empty mold :	5652.0
Mold Volume:	2125.0

MAX Dry Density	2.21
Water content %	8

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10154.0	10456.0	10725.0	10591	
WT. WET SOIL	4501.0	4802.0	5073.0	4939.0	
Wt. Density	2.119	2.260	2.387	2.324	

Tare No.	7	19	13	17	15	40	31	32		
Tare wt.	42.2	44.1	53.6	53.2	36.9	46.2	88.7	82.7		
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0		
Wt. Of dry soil & tare	145.1	145.2	142.9	142.5	140.1	143.2	137.5	137.9		
Wt. Of water	4.9	4.8	7.1	7.5	9.9	9.8	12.5	12.1		
Wt. Of dry soil	123.0	123.0	123.0	123.0	123.0	123.0	123.0	123.0		
Water content %	4.0%	3.9%	5.8%	6.1%	8.1%	8.0%	10.2%	9.9%		
AV.Water content %	4.0%		5.9%		8.0%		10.0%			
Dry Density	2.038		2.133		2.216		2.113			



Contractor

Shehab Hamdi

شركة نجدة للمقاولات
المعمل المركزي
مشروع القطار السريع / طوكة - مطروح

Consultant

mohamed elsaied

M. elsaied
1-8-2023

ENGINEERING CONSULTING OFFICE	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+171

Absorbtion & Aggregate specific gravity AASHTO-T85

PREPARED SUBGRADE

TESTING DATE:	31-7-2023	code	zone	FROM	TO
LOCATION	K.P 514+515	YN(P-6)		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA 1				

Weight of sample Before Test	——	gm
Weight of saturated -dry surface sample (B)	3769	gm
Weight of saturated sample in water (C)	2223	gm
Weight of dry sample after heating (A)	3620	gm

10695

Results:-

Bulk specific gravity = A / (B-C)	2.367	
Apparent specific gravity = A /(A-C)	2.591	
Asorbtion = (B-A)/A	3.840	%

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3602	28

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name : Shehab Hamdi

Sign :

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

Consultant Engineer

Name : mohamed elsaied

Sign : m-elsaied

1-8-2023

KK	**Electric Express Train - HSR**	

Testing Lab: Al. Nuby Central Lab

California Bearing Ratio TEST

		PREPARED SUBGRADE			
Testing Date :	01-08-2023	Curtin	ZONE	FROM	TO
Location :	K.P 514+515	TNEP-6		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA 1				

-: Test Results

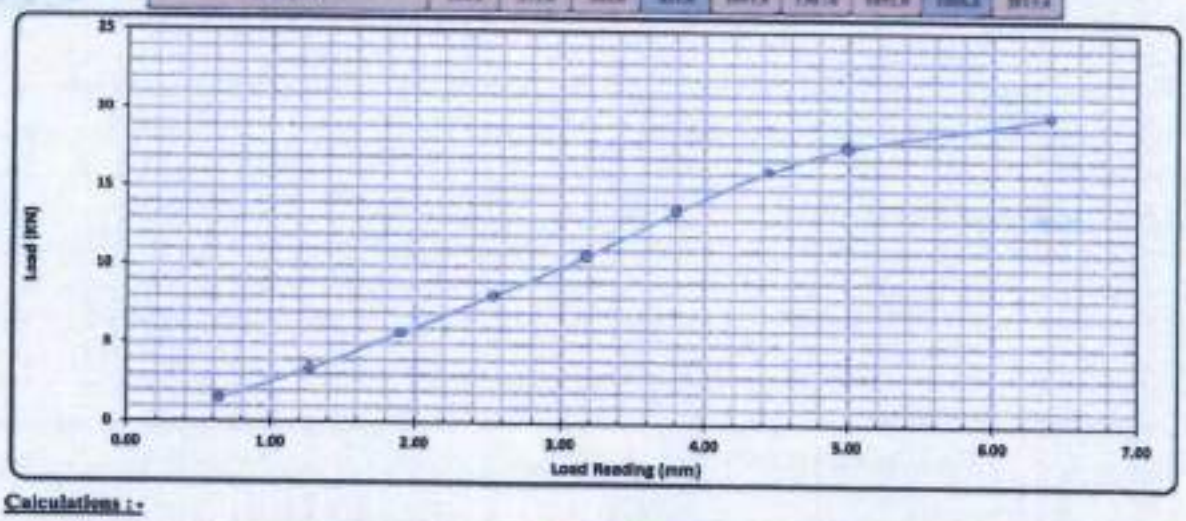
Compaction % for Mold	
Mold No.	5
Mold Vol.(cm^3)	2956
Mold WT. (gm)	8047
Mold WT. + Wet WT. (gm)	12031
Wet WT. (gm)	4784
Wet Density (g/cm^3)	2.325
Dry Density (g/cm^3)	2.154
Proctor Density (g/cm^3)	2.210
Compaction %	97

Moisture Ratio After Compacted Mold	
Tare No.	21
Tare WT. (gm)	80.7
Tare WT. +Wet WT. (gm)	196.3
Tare WT. +Dry WT. (gm)	187.8
Water WT. (gm)	8.5
Dry WT. (gm)	107.1
Moisture Content %	7.9

Swelling	
Mold No.	5
Date	01-08-2023
Initial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0
Sample Height (mm)	116.40
Swelling Ratio %	0.0%

Loading Reading :

Load Reading (mm)	0.00	1.27	1.91	3.04	3.81	5.08	6.35	7.00	7.40
Load (KN)	1.8	3.4	5.7	8.1	10.7	13.6	16.2	17.7	19.7
Load (KN)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]



Calculations :-

Penetration	Load	Standard Load	[illegible]	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	[illegible] %
2.50	8.14	13.4	[illegible]	97	98	61.2%
5.00	17.70	20.0	[illegible]			89%

Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name : Shehab Hamdi	Name : mohamed elsaied
Sign :	Sign :	Sign : m. elsaied 1-8-2023

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

MATERIAL INSPECTION REQUEST

Contractor Company	Yousef Negida (1)			Designer Company						
Issued by Contractor	Name	Sign		Date				Time		
	Eng/Shehab Hamdi			31/7/2023						
Contractor Refrence	P.S.G YN(7)									
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							31	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	Curshed Stone P.S.G.7 Material Result		
Location to be Used	514+900	515+040	0.50+
	514+000	514+160	0.25+
	514+000	514+160	0.50+
	514+160	514+180	0.50+
	514+640	514+700	0.25+
	514+640	514+700	0.50+
	515+300	515+450	0.25+

MAR Approval No	P.S.G. YN(7)	Date	
Supplier Name			
Test Requirement		Specification	Clause
Reference Photos	Yes attached / No	Other	

Item	Description	Unit	Quantity	Arrival Date	Note
1	L.L & P.L & O.M.C %	m3	5000	29-07-2023	
2	Proctor	m3	5000	30-07-2023	
3	Classification	m3	5000	29-07-2023	
4	Sieve Analysis	m3	5000	29-07-2023	
5	C.B.R	m3	5000	31-07-2023	
6	L.A & Absorption	m3	5000	30-07-2023	

Comments by:	Comments by:

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/ Shehab Hamdi			
QA/QC *	mohamed elsaid		1-8-2023	
GARB**				
Employers Representative				

* Designer

** Alignment / Bridges; Culvert Only

MATERIAL APPROVAL REQUEST

Location Name	Contractor Company	Designer Company
Electric express train	Yousef Negida (1)	k.k

	Name	Sign	Date	Time
Issued by Contractor	Eng/Shehab Hamdi	31/7/2023	31/07/2023	
Contractor Reference	P.S.G YN(7)			

Received by ER			MAR	C1	C2	C3	DD	MM	YY	HH	MM
							31	7	2023		

The Following Test Result are Attached For Review	
Description of Materials	Crushed stone (Prepared Subgrade) (A-1-a)
Location of Stock	514+515

Item	Specification	Test requirement	Test result attachment	Remarks
1	ASTM D 75	Aggregate Sampling	According to specifications	
2	ASTM C 136	Sieve Analysis	According to specifications	
3	ASTM D 1440	Passing Sieve, No 200	11.8 %	
4	ASTM D 4318	Atterberg limit	N.P	
5	ASTM D 2974	Moisture content	8.05 %	
6	ASTM D 1557	Modified proctor	2.204	
7	ASTM D 1883	CBR	72 %	
8	AASHTO-T96	L.A	29 %	
9	AASHTO-T85	Absorption	%3.6	

Comments by:	Comments by:

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/Shehab Hamdi	31/7/2023		
QA/QC *	mohamed elsaied	m.elsaied	1-8-2023	
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only

Operating Lab	Negida Central Lab

Electric Express Train - HSR

From El Ain El Sokhna City To El Alamein - MATROUH

Section - 7 From FOKA To MARSA MATROUH

From Station 394+999 To Station 998+177

PARTICLE SIZE DISTRIBUTION OF PREPARED SUBGRADE

TESTING DATE:	29-7-2023	Code	Zone	FROM STATION	TO STATION
LOCATION	KP 514+515	TNIP-7)		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA 1				
MATERIALS	Prepared Subgrade				
Quantity	5000 m3				

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		[illegible] (N)		gm	Table classify	
sieve size	2	1.5	1	4/3	2/1	3/3	# 4	PASS	Soil Classify	A-1-a
Mass retained (g)	0.0	1235.0	8292.0	4485.0	4207.0	2188.0	6460.0		PRO	2.204
Cumulative Retained (g)	0.0	1235.0	9527.0	14012.0	18219.0	20407.0	26867.0		WC	8.05
Cumulative Retained %	0.0	2.5	19.0	28.0	36.4	40.8	53.7		CBR	72%
Cumulative Passing %	100.0	97.5	81.0	72.0	63.6	59.2	46.3		Los Angles	29
									Absorption	1.632

B-soft material gradation				WT.OF sample		[illegible] (N)		gm
sieve size	10	40	200					
Cumulative Retained (g)	125.00	288.00	373.00					
Cumulative Retained %	25.00	57.60	74.60					
Cumulative Passing %	75.00	42.40	25.40					

C-General gradient										
sieve size(in)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
sieve size(mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	97.5	81.0	72.0	63.6	59.2	46.3	34.7	18.9	11.4
SPECIFICATION	——	97	——	75 — 75	——	55 — 85	——	0 — 35	——	0 — 12

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

Contractor	Consultant
Shehab Hamdi	

شركة نجيدة للمقاولات
المعمل
مشروع القطار السريع / فوكة - مطروح

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 505+177

PROCTOR TEST (PREPARED SUBGRADE)

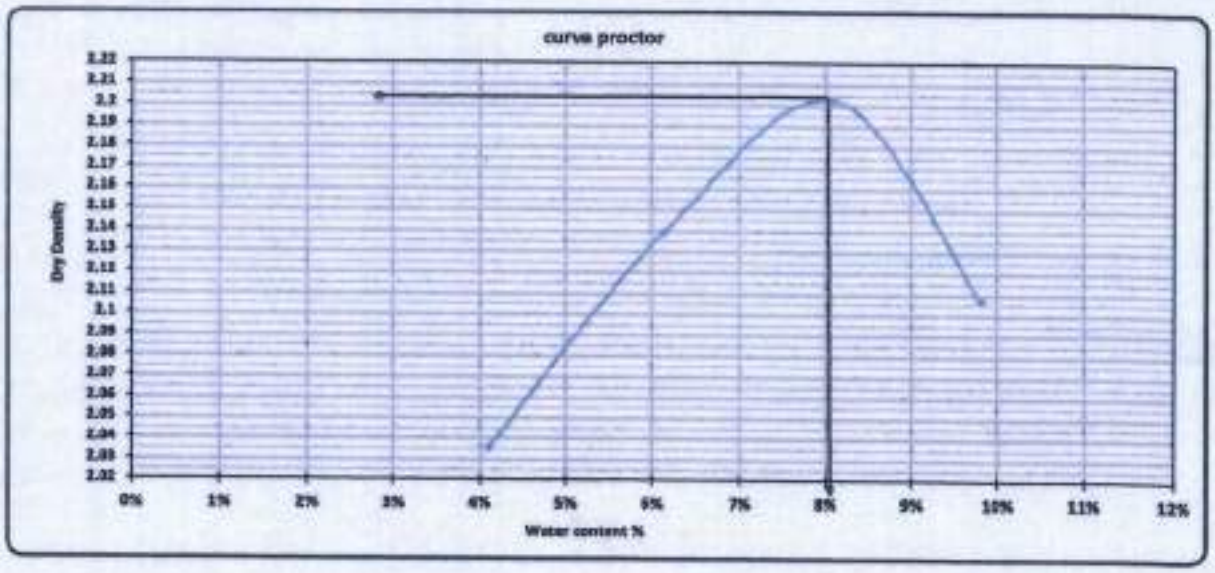
TESTING DATE:	30-7-2023	Code	zone	FROM	TO
LOCATION	514+515	[illegible]		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA 1				

Weight of empty mold :	5652.0
Mold Volume:	2135.0

MAX Dry Density	[illegible]
Water content %	[illegible]

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10155.0	10477.0	10713.0	10569	
WT. WET SOIL	4501.0	4825.0	5061.0	4917.0	
Wt. Density	2.119	2.271	2.382	2.314	

Tare No.	7	19	13	17	15	46	31	32		
Tare wt.	42.2	44.1	53.6	53.2	30.9	46.2	80.7	82.7		
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0		
Wt. Of dry soil & tare	145.1	144.8	142.6	141.3	140.0	140.1	138.0	137.0		
Wt. Of water	4.9	5.2	7.4	7.7	10.0	9.9	12.0	12.3		
Wt. Of dry soil	123.0	123.0	123.0	123.0	123.0	123.0	123.0	123.0		
Water content %	4.0%	4.2%	6.0%	6.3%	8.1%	8.1%	9.8%	9.9%		
AV.Water content %	4.1%		6.1%		8.1%		9.8%			
Dry Density	2.035		2.139		2.203		2.107			



Contractor

Shehab Hamdi

Consultant

شركة نجوم [illegible] 2023
مشروع القطار السريع / فوكة - مطروح

Absorbtion & Aggregate specific gravity AASHTO-T85

PREPARED SUBGRADE

TESTING DATE:	30-7-2023	code	zone	FROM	TO
LOCATION	514+515	YN(P-7)		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA 1				

Weight of sample Before Test	——	gm	
Weight of saturated -dry surface sample (B)	3793	gm	
Weight of saturated sample in water (C)	2196	gm	
Weight of dry sample after heating (A)	3673	gm	10695

Results:-

Bulk specific gravity = A / (B-C)	2.371	
Apparent specific gravity = A /(A-C)	2.595	
Asorbtion = (B-A)/A	3.638	%

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (grn)	Weight of sample after test (grn)	Abrasion ratio (%)
5000	3568	29

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name : Shehab Hamdi

Sign :

Consultant Engineer

Name :

Sign :

Electric Express Train - HSR

Testing Lab: AL Noby Central Lab

California Bearing Ratio TEST

PREPARED SUBGRADE

Testing Date :	31-7-2023	Code:	ZONE	FROM	TO
Location :	514+515	TNSP-7)		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA I				

-: Test Results

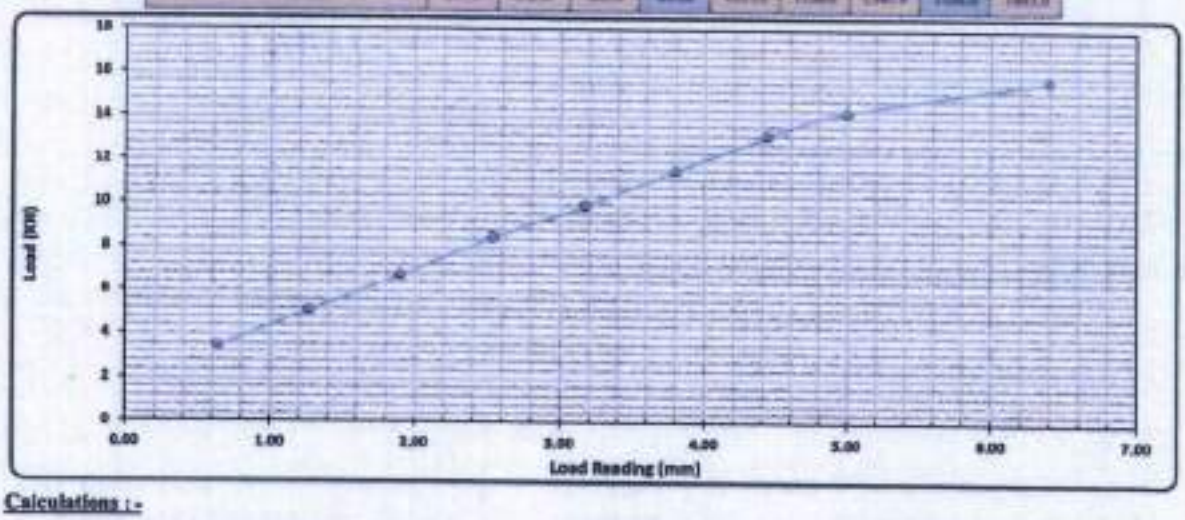
Compaction % for Mold	
Mold No.	1
Mold Vol.(cm^3)	2170
Mold WT. (gm)	7166
Mold WT. + Wet WT. (gm)	12066
Wet WT. (gm)	4900
Wet Density (g/cm^3)	2.300
Dry Density (g/cm^3)	2.119
Proctor Density (g/cm^3)	2.204
Compaction %	97

Moisture Ratio After Compacted Mold	
Tare No.	17
Tare WT. (gm)	53.2
Tare WT. +Wet WT. (gm)	179.96
Tare WT. +Dry WT. (gm)	170.6
Water WT. (gm)	9.4
Dry WT. (gm)	117.4
Moisture Content %	8.0

Swelling	
Mold No.	1
Date	31-7-2023
Initial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0
Sample Height (mm)	116.48
Swelling Ratio %	0.0%

Loading Reading :

Load (KN)	3.5	5.1	6.7	8.2	9.9	11.4	13.2	14.2	15.1
Load (N/C)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]



Calculations :-

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kg)	(lb)	(%)	(%)	(%)	[illegible] %
2.50	5.47	13.4	[illegible]	97	98	64.3%
5.00	14.27	20.0	[illegible]			72%

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

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

MATERIAL INSPECTION REQUEST

Contractor Company	Yousef Negida (1)			Designer Company						
Issued by Contractor	Name	Sign		Date				Time		
	Eng/Shehab Hamdi			14/6/2023						
Contractor Refrence	P.S.G YN(6)									
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							14	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	Curshed Stone P.S.G.6 Material Result				
Location to be Used	516+560	516+600	0.25+		
	516+560	516+600	0.50+		
	516+600	516+630	0.50+		
	516+630	516+800	0.50+		
	516+800	516+880	0.50+		
	516+880	516+940	0.50+		
MAR Approval No	P.S.G. YN(6)			Date	
Supplier Name					
Test Requirement		Specification		Clause	
Reference Photos	Yes attached / No	Other			

Item	Description	Unit	Quantity	Arrival Date	Note
1	L.L & P.L & O.M.C %	m3	5000	11-06-2023	
2	Proctor	m3	5000	12-06-2023	
3	Classification	m3	5000	11-06-2023	
4	Sieve Analysis	m3	5000	11-06-2023	
5	C.B.R	m3	5000	14-06-2023	
6	L.A & Absorption	m3	5000	13-06-2023	

Comments by:	Comments by:

APPROVAL STATUS

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

* Designer
** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Location Name	Contractor Company			Designer Company							
Electric express train	Yousef Negida (1)			k.k							
Issued by Contractor	Name	Sign		Date			Time				
	Eng/Shehab Hamdi			14/06/2023							
Contractor Reference	P.S.G YN(6)										
Received by ER			MAR	D	D	D	DD	MM	YY	HH	MM
							14	6	2023		

The Following Test Result are Attached For Review				
Description of Materials	Crushed stone (Prepared Subgrade) (A-1-a)			
Location of Stock	514+515			
Item	Specification	Test requirement	Test result attachment	Remarks
1	ASTM D 75	Aggregate Sampling	According to specifications	
2	ASTM C 136	Sieve Analysis	According to specifications	
3	ASTM D 1440	Passing Sieve, No 200	12.7 %	
4	ASTM D 4318	Atterberg limit	N.P	
5	ASTM D 2974	Moisture content	7.8 %	
6	ASTM D 1557	Modified proctor	2.198	
7	ASTM D 1883	CBR	73.6 %	
8	AASHTO-T96	L.A	32 %	
9	AASHTO-T85	Absorption	%4.9	
Comments by:			Comments by:	

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

* Designer

** Alignment/Bridges: Culvert only

Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 1 From FOKA To BARSA MATROUH From Station 504+000 To Station 568+171		

Operating Lab: Negida Central Lab

PARTICLE SIZE DISTRIBUTION OF PREPARED SUBGRADE

TESTING DATE:	11-6-2023	Code	Zone	FROM STATION	TO STATI
LOCATION	KP 514+515	TN(P-8)		514+000	518+50
NAME COMPANY	YOUSEF NEGIDA 1				

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		49447.00		gm	Table classify	
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	Soil Classify	A-1-a
Mass retained (g)	186.0	1640.0	9400.0	4378.0	5371.0	3232.0	7132.0		PRO	2.200
Cumulative Retained (g)	186.0	1826.0	11226.0	15604.0	20975.0	24207.0	31339.0		WC	7.80
Cumulative Retained %	0.4	3.7	22.7	31.6	42.4	49.0	63.4		CBR	73.70%
Cumulative Passing %	99.6	96.3	77.3	68.4	57.6	51.0	36.6		Los Angles	32
									Absorption	4.361

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	78.00	188.00	327.00					
Cumulative Retained %	15.60	37.60	65.40					
Cumulative Passing %	84.40	62.40	34.60					

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 %	99.6	96.3	77.3	68.4	57.6	51.0	36.6	30.8	22.8	12.7
SPECIFICATION	—	97	—	70 — 75	—	15 — 60	—	0 — 35	—	0 — 12

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

Contractor

شركة نجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع/فوكة - مطروح

Consultant

Youssef Rafat

Electric Express Train - HSR

From El Ain El Sokhna City To El Alamein , MATROUH

Section - 7 From FOKA TO MARSA MATROUH

From Station 314+000 To Station 368+117

PROCTOR TEST (PREPARED SUBGRADE)

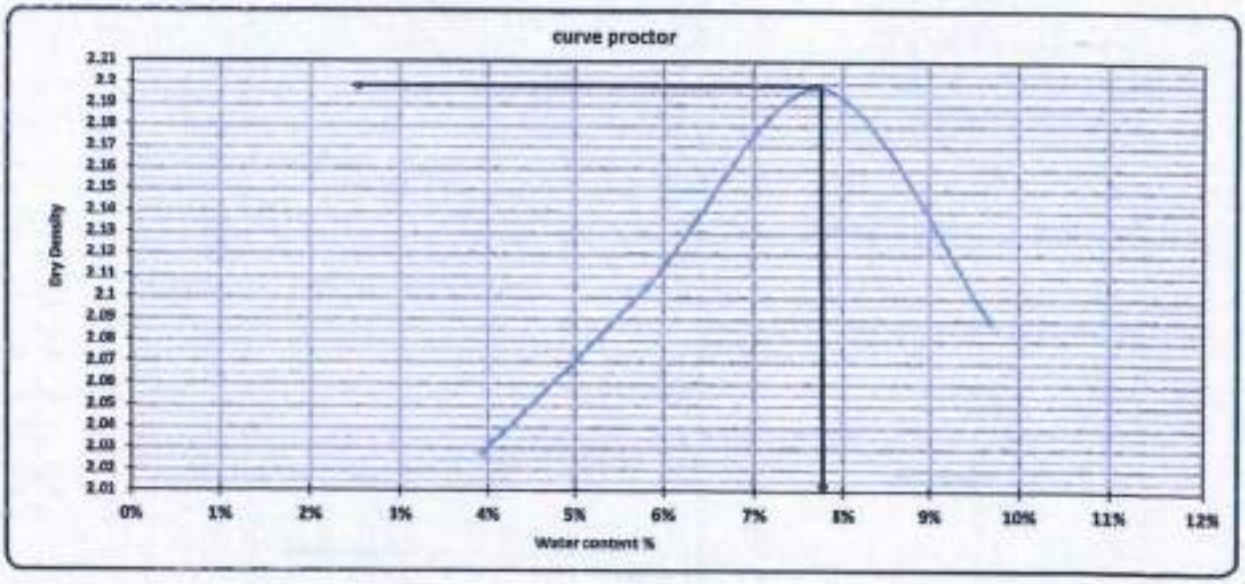
TESTING DATE:	12-6-2023	Code	zone	FROM	TO
LOCATION	514+515	TN(P-6)		514+000	518+500
NAME COMPANY	YOUSEF NEGIDA 1				

Weight of empty mold :	5652.0
Mold Volume:	2125.0

MAX Dry Density	2.198
Water content %	7.8

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10132.0	10385.0	10685.0	10523	
WT. WET SOIL	4480.0	4735.0	5033.0	4871.0	
Wt. Density	2.108	2.227	2.368	2.292	

Tare No.	7	19	13	17	15	40	31	32		
Tare wt.	42.2	44.1	53.6	53.2	50.9	46.2	80.7	82.7		
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	160.0	160.0		
Wt. Of dry soil & tare	145.2	145.1	142.9	142.8	140.5	140.4	138.2	138.0		
Wt. Of water	4.8	4.9	7.1	7.2	9.5	9.6	11.8	12.0		
Wt. Of dry soil	123.0	123.0	123.0	123.0	123.0	123.0	123.0	123.0		
Water content %	3.9%	4.0%	5.8%	5.9%	7.7%	7.8%	9.6%	9.8%		
AV.Water content %	3.9%		5.8%		7.8%		9.7%			
Dry Density	2.028		2.105		2.198		2.090			



Contractor

شركة نجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع/ فوكة - مطروح

Consultant

Yousef Rafik

Electric Express Train - HSR

Operating Lab: AL Nuby Central Lab

California Bearing Ratio TEST

PREPARED SUBGRADE

		Code	ZONE	FROM	TO
Testing Date :	13/6/2023	YN(P-8)		514+000	518+500
Location :	514+515				
Company Name	YOUSEF NEGIDA 1				

- : Test Results

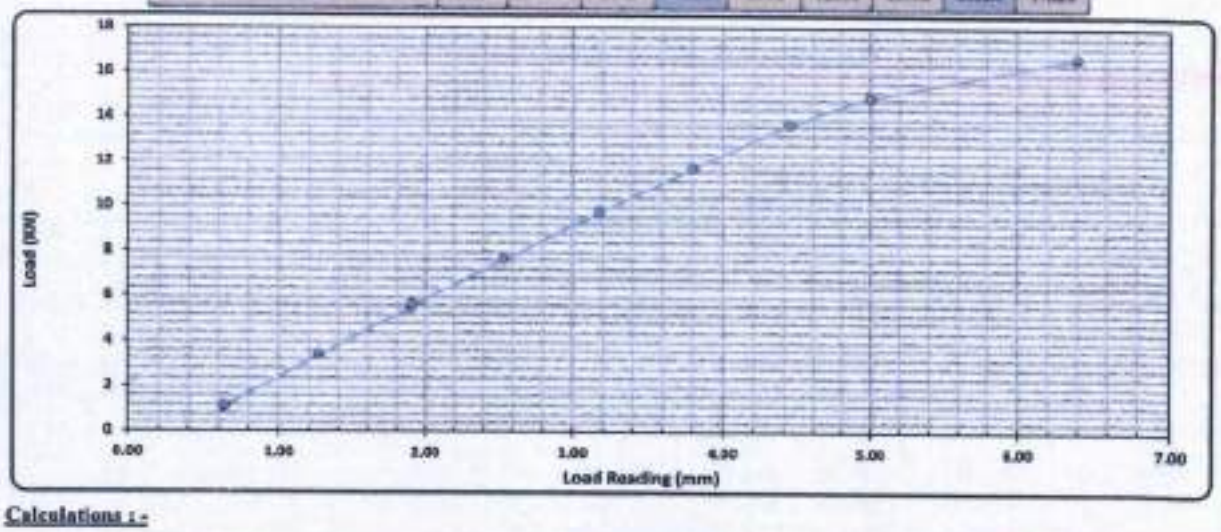
Compaction % for Mold	
Mold No.	4
Mold Vol.(cm^3)	2058
Mold WT. (gm)	8078
Mold WT. + Wet WT. (gm)	12940
Wet WT. (gm)	4916
Wet Density (g/cm^3)	2.352
Dry Density (g/cm^3)	2.179
Proctor Density (g/cm^3)	2.198
Compaction %	99

Moisture Ratio After Compacted Mold	
Tare No.	15
Tare WT. (gm)	30.9
Tare WT. +Wet WT. (gm)	186.61
Tare WT. +Dry WT. (gm)	175.2
Water WT. (gm)	11.4
Dry WT. (gm)	144.3
Moisture Content %	7.9

Swelling	
Mold No.	4
Date	13/6/2023
Intial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0
Sample Height (mm)	116.48
Swelling Ratio %	0.0%

Loading Reading :

Load Reading (mm)	0.04	1.27	2.54	3.81	5.08	6.35	7.62	8.89	10.16
Load (KN)	1.1	3.4	5.6	7.1	9.8	11.8	13.7	14.9	16.7
Load (KG)	117.0	352.0	574.0	725.0	999.0	1200.0	1396.0	1521.0	1706.0



Calculations : -

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	98 هلا لنسبة %
2.50	7.07	13.4	[illegible]	99	99	16.8%
5.00	14.91	20.0	[illegible]			72.6%

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

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

Absorbtion & Aggregate specific gravity
AASHTO-T85

PREPARED SUBGRADE

TESTING DATE:	13-6-2023	code	zone	FROM	TO
LOCATION	514+515	TN(P-6)		514+000	518+500
NAME COMPANY	YOUSEF NEGIDA 1				

Weight of sample Before Test	———	gm
Weight of saturated -dry surface sample (B)	5099	gm
Weight of saturated sample in water (C)	3034	gm
Weight of dry sample after heating (A)	4858	gm

Results:-

Bulk specific gravity = A / (B-C)	2.341	
Apparent specific gravity = A /(A-C)	2.549	
Asorbtion = (B-A)/A	4.961	%

Los Angios abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3417	32

Lab. Specialist
Name :
Sign :

Lab. Engineer
Name :
Sign :

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

Consultant Engineer
Name : Youssef Rafat
Sign :

MATERIAL INSPECTION REQUEST

Contractor Company	Yousef Negida (1)			Designer Company							
Issued by Contractor	Name	Sign		Date				Time			
	Eng/Shehab Hamdi			17/5/2023							
Contractor Refrence	P.S.G.1 YN(5)										
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							17	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	Curshed Stone P.S.G.5 Material Result			
Location to be Used	517+640 ----517+860 0.50+ 514+500 ----514+640 0.50+ 516+300 ----516+350 0.50+ 516+350 ----516+480 0.50+ 516+480 ----516+560 0.50+ 514+700 ----514+800 0.50+ 514+800 ----514+900 0.50+			
MAR Approval No	P.S.G.1 YN(5)		Date	
Supplier Name				
Test Requirement		Specification	Clause	
Reference Photos	Yes attached / No	Other		

Item	Description	Unit	Quantity	Arrival Date	Note
1	L.L & P.L & O.M.C %	m3	5000	14-05-2023	
2	Proctor	m3	5000	15-05-2023	
3	Classification	m3	5000	14-05-2023	
4	Sieve Analysis	m3	5000	14-05-2023	
5	C.B.R	m3	5000	17-05-2023	
6	L.A & Absorption	m3	5000	16-05-2023	

Comments by:	Comments by:

APPROVAL STATUS

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

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Location Name	Contractor Company			Designer Company							
Electric express train	Yousef Negida (1)			k.k							
Issued by Contractor	Name	Sign		Date			Time				
	Eng/Shehab Hamdi			17/05/2023							
Contractor Reference	P.S.G YN(5)										
Received by ER			MAR	C1	C2	C3	DD	MM	YY	HH	MM
							17	5	2023		

The Following Test Result are Attached For Review				
Description of Materials	Prepared Subgrade (A-1-a)			
Location to be Used	514+515			
Item	Specification	Test requirement	Test result attachment	Remarks
1	ASTM D 75	Aggregate Sampling	According to specifications	
2	ASTM C 136	Sieve Analysis	According to specifications	
3	ASTM D 1440	Passing Sieve, No 200	11.2 %	
4	ASTM D 4318	Atterberg limit	N.P	
5	ASTM D 2974	Moisture content	7.4 %	
6	ASTM D 1557	Modified proctor	2.185	
7	ASTM D 1883	CBR	83.9 %	
8	AASHTO-T96	L.A	30 %	
9	AASHTO-T85	Absorption	%4.178	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/Shehab Hamdi			
QA/QC *	Youssef Rafat	Youssef Rafat		
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 [illegible] To Station [illegible]

Operating Lab: Negida Central Lab

PARTICLE SIZE DISTRIBUTION OF PREPARED SUBGRADE

TESTING DATE:	14-5-2023	Code	Zone	FROM STATION	TO STATI
LOCATION	KP 514+515	YN(P-6)		514+000	518+500
NAME COMPANY	YOUSEF NEGIDA 1				

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		19796.00		gm	Table classify	
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	Soil Classify	A-1-a
Mass retained (g)	0.0	555.0	1853.0	2724.0	1481.0	2108.0	3551.0		PRO	2.185
Cumulative Retained (g)	0.0	555.0	2408.0	5132.0	6613.0	8721.0	12272.0		WC	7.40
Cumulative Retained %	0.0	2.8	12.2	25.9	33.4	44.0	62.0		CBR	83.92%
Cumulative Passing %	100.0	97.2	87.8	74.1	66.6	56.0	38.0		Los Angles	30
									SPECIFIC .Gravity	2.594

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	110.00	264.00	353.00					
Cumulative Retained %	22.00	52.80	70.60					
Cumulative Passing %	78.00	47.20	29.40					

C-General gradient										
sieve size(in)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
sieve size(mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	97.2	87.8	74.1	66.6	56.0	38.0	29.7	17.9	11.2
SPECIFICATION	——	97	——	70 — 75	——	15 — 40	——	0 — 35	——	8 — 12

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

Contractor

Consultant

Youssef Rafat

شركة نجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع/طوكة - مطروح

Electric Express Train - HSR

From El Alm El Sothna City To El Alamein - MATROUH

Section - 7 From FOKA TO MARSA MATROUH

From Station 504+000 To Station 558+177

PROCTOR TEST (PREPARED SUBGRADE)

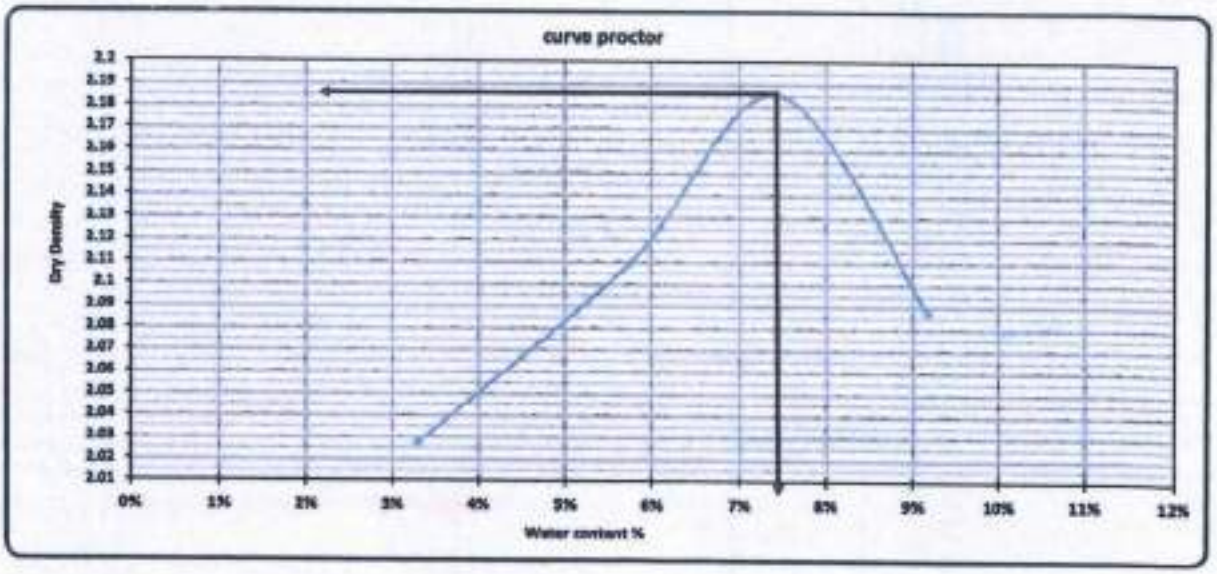
TESTING DATE:	15-5-2023	Code	zone	FROM	TO
LOCATION	514+515	Y9(P-8)		514+000	518+500
NAME COMPANY	YOUSEF NEGIDA 1				

Weight of empty mold :	5652.0
Mold Volume:	2125.0

MAX Dry Density	2.185
Water content %	7.8

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10102.0	10391.0	10642.0	10495	
WT. WET SOIL	4450.0	4740.0	4990.0	4843.0	
Wt. Density	2.094	2.231	2.348	2.279	

Tare No.	7	19	13	17	18	40	31	32		
Tare wt.	42.2	44.1	55.6	53.2	30.9	46.2	80.7	82.7		
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0		
Wt. Of dry soil & tare	146.0	145.9	143.0	142.9	140.8	140.9	138.9	138.5		
Wt. Of water	4.0	4.1	7.0	7.1	9.2	9.1	11.1	11.5		
Wt. Of dry soil	123.0	123.0	123.0	123.0	123.0	123.0	123.0	123.0		
Water content %	3.3%	3.3%	5.7%	5.8%	7.5%	7.4%	9.0%	9.3%		
AV.Water content %	3.3%		5.7%		7.4%		9.1%			
Dry Density	2.027		2.110		2.186		2.088			



Contractor

شركة نجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع/ فوكة - مطروح

Consultant

Yousef Rafat

Absorbtion & Aggregate specific gravity AASHTO-T85

PREPARED SUBGRADE

TESTING DATE:	16-5-2023	code	zone	FROM	TO
LOCATION	514+515	YH(F-5)		514+000	518+500
NAME COMPANY	YOUSEF NEGIDA 1				

Weight of sample		gm
Weight of saturated -dry surface sample (B)	4438	gm
Weight of saturated sample in water (C)	2638	gm
Weight of dry sample after heating (A)	4260	gm

Results:-

Bulk specific gravity = A / (B-C)	2.354	
Apparent specific gravity = A /(A-C)	2.610	
Asorbtion = (B-A)/A	4.178	%

Los Angios abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3484	30

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name :

Sign :

Consultant Engineer

Name : Youssef Rafat

Sign :

شركة نجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع/فوكة - مطروح

KK	Electric Express Train - HSR	

Operating Lab: AL Nuby Central Lab

California Bearing Ratio TEST

PREPARED SUBGRADE

Testing Date :	17/5/2023	Code	ZONE	FROM	TO
Location :	514+515	YN(P-6)		514+000	518+500
Company Name	YOUSEF NEGIDA 1				

- : Test Results

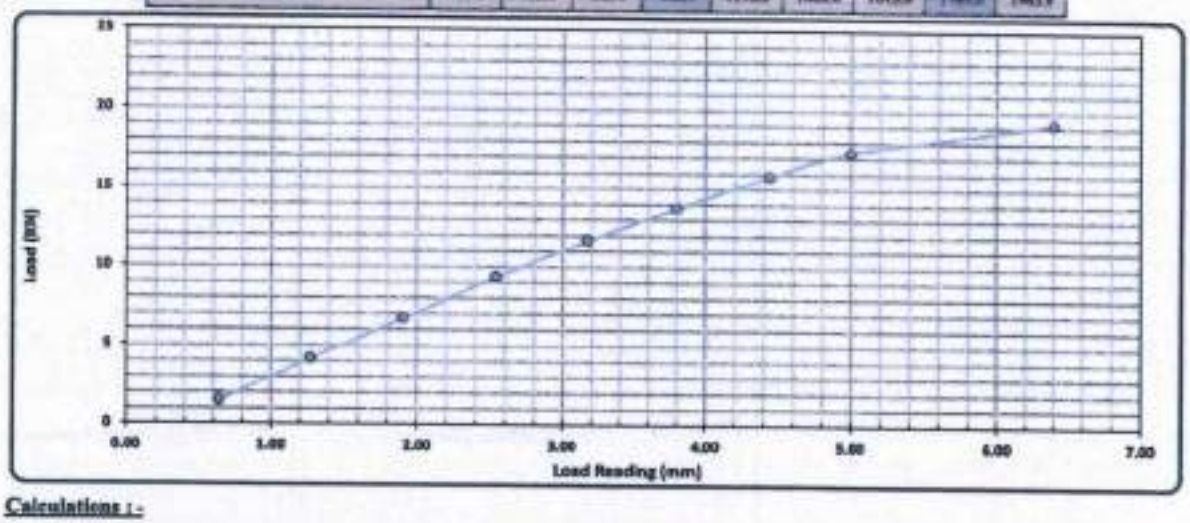
Compaction % for Mold	
Mold No.	2
Mold Vol.(cm^3)	2103
Mold WT. (gm)	7009
Mold WT. + Wet WT. (gm)	11835
Wet WT. (gm)	4826
Wet Density (g/cm^3)	2.295
Dry Density (g/cm^3)	2.141
Proctor Density (g/cm^3)	2.189
Compaction %	98.0

Moisture Ratio After Compacted Mold	
Tare No.	18
Tare WT. (gm)	21.9
Tare WT. +Wet WT. (gm)	159
Tare WT. +Dry WT. (gm)	142.1
Water WT. (gm)	7.9
Dry WT. (gm)	110.2
Moisture Content %	7.2

Swelling	
Mold No.	2
Date	17/5/2023
Initial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0
Sample Height (mm)	120.00
Swelling Rate %	0.0%

Loading Reading :

Load Reading (mm)	0.00	1.27	1.91	2.54	3.18	3.81	4.45	5.08	6.35
Load (KN)	1.3	4.2	6.7	9.4	11.7	13.4	15.8	17.2	19.2
Load (KG)	133.0	428.0	683.0	958.0	1195.0	1365.0	1610.0	1754.0	1963.0



Calculations :-

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kg)	(lb)	(%)	(%)	(%)	95 % من الـ %
2.50	9.36	13.4	59.1%	98.0	95	68.8%
5.00	17.34	20.0	86.6%			83.9%

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

شركة نجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع/طوكة - مطروح

MATERIAL INSPECTION REQUEST

Contractor Company	YOUSEF NEGIDA			Designer Company					
Issued by Contractor	Name	Sign		Date			Time		
	Eng/Shehab Hamdi			24-10-2023					
Contractor Refrence	YN-SUB 9								
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							24	10	2023		

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

Description of Materials	Curshed Stone SUB-Ballast Material Result				
Location to be Used	516+640	516+760	0.90+		
	516+760	516+890	0.90+		
	516+890	517+020	0.90+		
	517+020	517+100	0.90+		
	517+100	517+160	0.90+		
	517+640	517+680	0.90+		
	517+680	517+850	0.90+		
MAR Approval No	YN-SUB 9			Date	
Supplier Name					
Test Requirement			Specification	Clause	
Reference Photos	Yes attached / No		Other		

Item	Description	Unit	Quantity	Arrival Date	Note
1	L.L & P.L & O.M.C %	m3	5000	22-10-2023	
2	Proctor	m3	5000	23-10-2023	
3	Classification	m3	5000	22-10-2023	
4	Sieve Analysis	m3	5000	22-10-2023	
5	C.B.R	m3	5000	24-10-2023	
6	L.A	m3	5000	24-10-2023	

Comments by:	Comments by:

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/ Shehab Hamdi			
QA/QC *	Ahmed Abo Zaid			
GARB**				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Location Name	Contractor Company	Designer Company
Electric express train	YOUSEF NEGIDA	k.k

	Name	Sign	Date	Time
Issued by Contractor	Eng/Shehab Hamdi		24-10-2023	
Contractor Reference	YN-SUB 9			

Received by ER			MAR	C1	C2	C3	DD	MM	YY	HH	MM
							24	10	2023		

The Following Test Result are Attached For Review	
Description of Materials	SUB -BALLAST (A-1-a)
Location to be Used	517+600

Item	Specification	Test requirement	Test result attachment	Remarks
1	ASTM D 75	Aggregate Sampling	According to specifications	
2	ASTM C 136	Sieve Analysis	According to specifications	
3	ASTM D 1440	Passing Sieve, No 200	5.9 %	
4	ASTM D 4318	Atterberg limit	N.P	
5	ASTM D 2974	Moisture content	6.3 %	
6	ASTM D 1557	Modified proctor	2.259	
7	ASTM D 1883	CBR	91.6%	
8	AASHTO-T96	L.A	21 %	

Comments by:	Comments by:

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/Shehab Hamdi			
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		

Operating Lab	Negida Central Lab

PARTICLE SIZE DISTRIBUTION OF SUB-BALLAST

TESTING DATE	22-10-2023	Code	Zone	FROM STATION	TO STATION
LOCATION	K.P 517+600	YN1-SUB 9		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA				
MATERIALS	SUB-BALLAST				

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		53457.00		gm	Table classify	
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	Soil Classify	A-1-a
Mass retained (g)	0.0	1401.0	4653.0	9571.0	5056.0	7400.0	4319.0		PRO	2.259
Cumulative Retained (g)	0.0	1401.0	6054.0	15625.0	20681.0	28081.0	32400.0		WC	6.30
Cumulative Retained %	0.0	2.6	11.3	29.2	38.7	52.5	60.6		CBR	91.6%
Cumulative Passing %	100.0	97.4	88.7	70.8	61.3	47.5	39.4		Los Angles	21
									Absorption	1.677
									SP.Gravity	2.500

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	113.00	336.00	425.00					
Cumulative Retained %	22.60	67.20	85.00					
Cumulative Passing %	77.40	32.80	15.00					

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 %	100.0	97.4	88.7	70.8	61.3	47.5	39.4	30.5	12.8	6.8
SPECIFICATION	—	97	—	70 — 75	—	15 — 30	—	5 — 35	—	0 — 7

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

Contractor	Consultant
Shehab Hamdi	

شركة نجيب [illegible]
المعمل المركزي
مشروع القطار الكهربائي السريع فوكة - مطروح

24/10/2023

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 568+177

PROCTOR TEST (SUB-BALLAST)

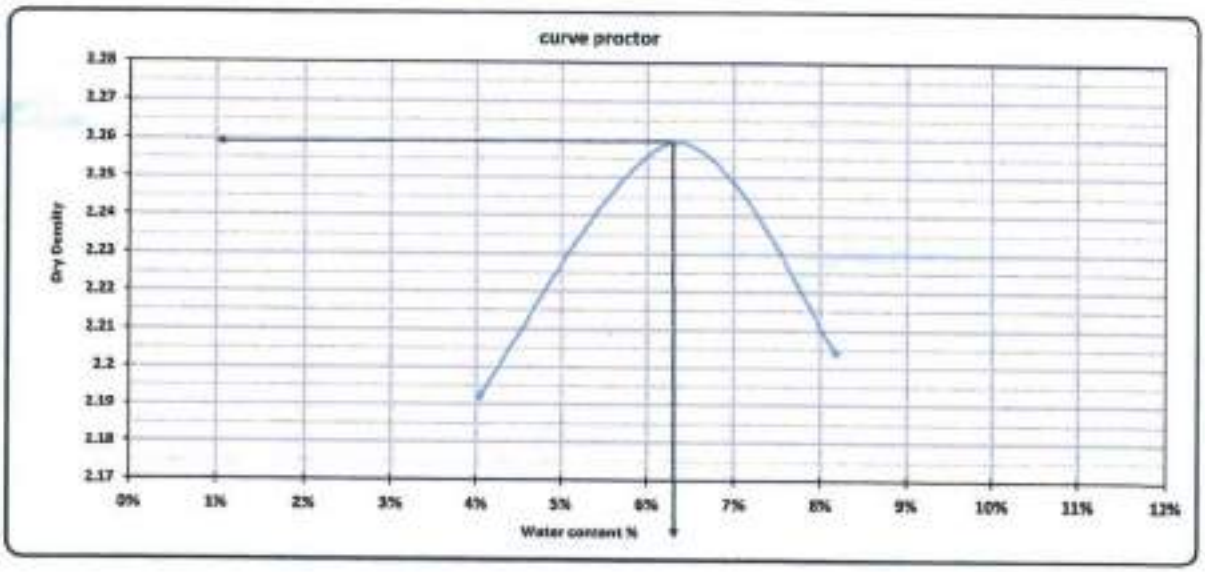
TESTING DATE:	23-10-2023	Code	zone	FROM	TO
LOCATION	K.P 517+600	YN1-SUB 9		514+500	518+500
COMPANY NAME	YOUSEF NEGIDA				

Weight of empty mold :	5861.0
Mold Volume:	2118.0

MAX Dry Density	2.259
Water content %	6.3

trial no :	1	2	3		
Wt. Of Mold+ wet soil	10692.0	10948.0	10911.0		
WT. WET SOIL	4831.0	5087.0	5050.0		
Wt. Density	2.281	2.402	2.384		

Tare No.	7	19	13	17	15	40				
Tare wt.	42.2	44.1	53.6	53.2	38.9	46.2				
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0				
Wt. Of dry soil & tare	145.00	145.06	142.30	142.17	139.98	139.98				
Wt. Of water	5.0	4.9	7.7	7.8	10.0	10.1				
Wt. Of dry soil	123.0	123.0	123.0	123.0	123.0	123.0				
Water content %	4.1%	4.0%	6.3%	6.4%	8.1%	8.2%				
AV.Water content %	4.0%		6.3%		8.2%					
Dry Density	2.192		2.259		2.284					



Contractor

Shehab Hamdi

شركة نجيب للمقاولات
المعمل الهندسي
مشروع القطار المصري / فوكة - مطروح

Consultant

24 / 10 / 2023

Absorbtion & Aggregate specific gravity AASHTO-T85

SUB-BALLAST

TESTING DATE:	24-10-2023	code	zone	FROM	TO
LOCATION	K.P 517+600	YN1-SUB 9		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA				

Weight of sample Before Test	——	gm
Weight of saturated -dry surface sample (B)	4002	gm
Weight of saturated sample in water (C)	2433	gm
Weight of dry sample after heating (A)	3936	gm

Results:-

Bulk specific gravity = A / (B-C)	2.509	
Apparent specific gravity = A /(A-C)	2.619	
Asorbtion = (B-A)/A	1.677	%

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3929	21

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name : Shehab Hamdi

Sign :

شركة نجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع / فوكة - مطروح

Consultant Engineer

Name: 24/10/2023

Sign :

Processing Lab	Negida Central Lab	

Electric Express Train - HSR

California Bearing Ratio TEST

		SUB-BALLAST			
Testing Date :	24-10-2023	Code	ZONE	FROM	TO
Location :	K.P 517+600	YN1-SUB 9		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA				

- : Test Results

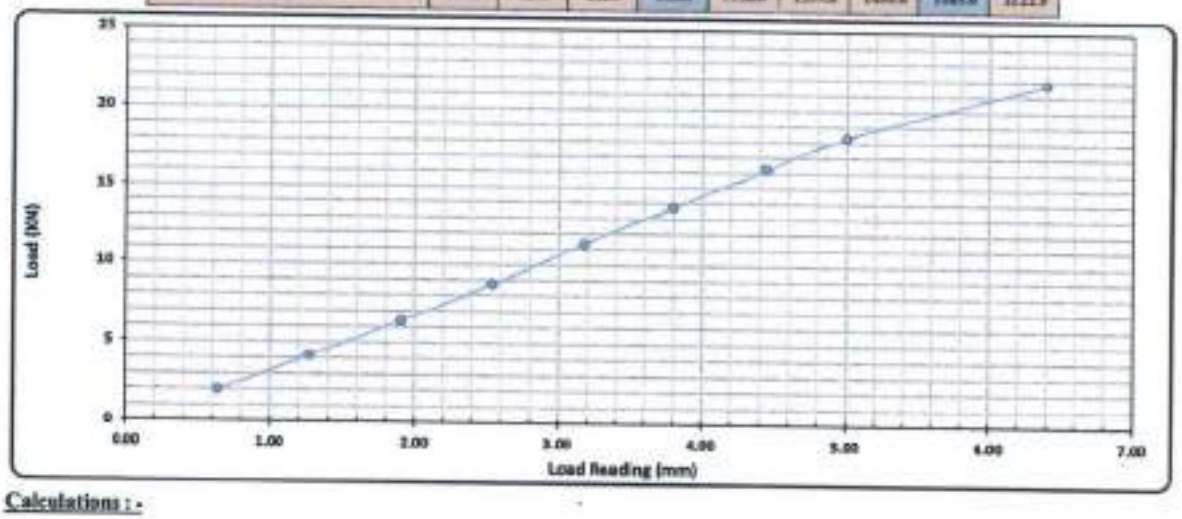
Compaction % for Mold	
Mold No.	3
Mold Vol.(cm^3)	2133
Mold WT. (gm)	8210
Mold WT. + Wet WT. (gm)	13310
Wet WT. (gm)	5100
Wet Density (g/cm^3)	2.391
Dry Density (g/cm^3)	2.252
Proctor Density (g/cm^3)	2.250
Compaction %	100

Moisture Ratio After Compacted Mold	
Tare No.	13
Tare WT. (gm)	53.4
Tare WT. +Wet WT. (gm)	261
Tare WT. +Dry WT. (gm)	248
Water WT. (gm)	12.8
Dry WT. (gm)	194.4
Moisture Content %	6.2

Swelling	
Mold No.	3
Date	24-10-2023
Initial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0
Sample Height (mm)	116.40
Swelling Ratio %	0.0%

Loading Reading :

Load Reading (mm)	0.00	1.27	1.91	2.54	3.18	3.81	4.45	5.08	6.40
Load (KN)	2.0	4.2	6.4	8.7	11.3	13.7	16.2	18.5	21.8
Load (KG)	201.0	428.0	652.0	886.0	1150.0	1395.0	1651.0	1885.0	2222.0



Calculations : -

Penetration (mm)	Load (Kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR (% من نسبة 100)
2.50	8.70	13.4	65.4%	100	100	65.4%
5.00	18.28	20.0	91.6%			91.6%

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

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

MATERIAL INSPECTION REQUEST

Contractor Company	YOUSEF NEGIDA			Designer Company							
Issued by Contractor	Name	Sign		Date				Time			
	Eng/Shehab Hamdi			16-10-2023							
Contractor Refrence	YN-SUB 8										
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							16	10	2023		

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

Description of Materials	Curshed Stone SUB-Ballast Material Result				
Location to be Used	514+800	515+000	0.90+		
	515+000	515+160	0.90+		
	515+160	515+320	0.90+		
	515+450	515+600	0.90+		
	515+600	515+700	0.90+		
	516+000	516+100	0.90+		
	516+100	516+220	0.90+		
	516+220	516+360	0.90+		
	516+360	516+490	0.90+		
	516+490	516+640	0.90+		
	515+870	516+000	0.90+		
MAR Approval No	YN-SUB 8			Date	
Supplier Name					
Test Requirement			Specification	Clause	
Reference Photos	Yes attached / No		Other		

Item	Description	Unit	Quantity	Arrival Date	Note
1	L.L & P.L & O.M.C %	m3	5000	14-10-2023	
2	Proctor	m3	5000	15-10-2023	
3	Classification	m3	5000	14-10-2023	
4	Sieve Analysis	m3	5000	14-10-2023	
5	C.B.R	m3	5000	16-10-2023	
6	L.A	m3	5000	15-10-2023	

Comments by:	Comments by:

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

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Location Name	Contractor Company			Designer Company							
Electric express train	YOUSEF NEGIDA			k.k							
Issued by Contractor	Name	Sign		Date			Time				
	Eng/Shehab Hamdi			16-10-2023							
Contractor Reference	YN-SUB 8										
Received by ER			MAR	C1	C2	C3	DD	MM	YY	HH	MM
							16	10	2023		

The Following Test Result are Attached For Review				
Description of Materials	SUB -BALLAST (A-1-a)			
Location to be Used	517+600			
Item	Specification	Test requirement	Test result attachment	Remarks
1	ASTM D 75	Aggregate Sampling	According to specifications	
2	ASTM C 136	Sieve Analysis	According to specifications	
3	ASTM D 1440	Passing Sieve, No 200	5.2 %	
4	ASTM D 4318	Atterberg limit	N.P	
5	ASTM D 2974	Moisture content	6.1 %	
6	ASTM D 1557	Modified proctor	2.219	
7	ASTM D 1883	CBR	104.9%	
8	AASHTO-T96	L.A	20 %	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/Shehab Hamdi			
QA/QC *	Abdallah Shaly			
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		

Operating Lab	Negida Central Lab

PARTICLE SIZE DISTRIBUTION OF SUB-BALLAST

TESTING DATE:	14-10-2023	Code	Zone	FROM STATION	TO STATION
LOCATION	K.P 517+600	YN1-SUB 8		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA				
MATERIALS	SUB-BALLAST				

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		59106.00		gm	Table classify	
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	Soil Classify	A-1-a
Mass retained (g)	0.0	799.0	4634.0	9147.0	4565.0	4711.0	4784.0		PRO	2.219
Cumulative Retained (g)	0.0	799.0	5433.0	14580.0	19145.0	23856.0	28640.0		WC	6.10
Cumulative Retained %	0.0	1.6	10.8	29.1	38.2	47.6	57.2		CBR	104.7%
Cumulative Passing %	100.0	98.4	89.2	70.9	61.8	52.4	42.8		Los Angles	20
									Absorption	2.253
									SP.Gravity	2.916

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	122.00	372.00	439.00					
Cumulative Retained %	24.40	74.40	87.80					
Cumulative Passing %	75.60	25.60	12.20					

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	98.4	89.2	70.9	61.8	52.4	42.8	32.4	11.8	5.2
SPECIFICATION	—	97	—	70 — 75	—	15 — 60	—	0 — 35	—	0 — 7

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

Contractor	Consultant
Shehab Hamdi	

شركة نجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع / فوكة - مطروح

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

PROCTOR TEST (SUB-BALLAST)

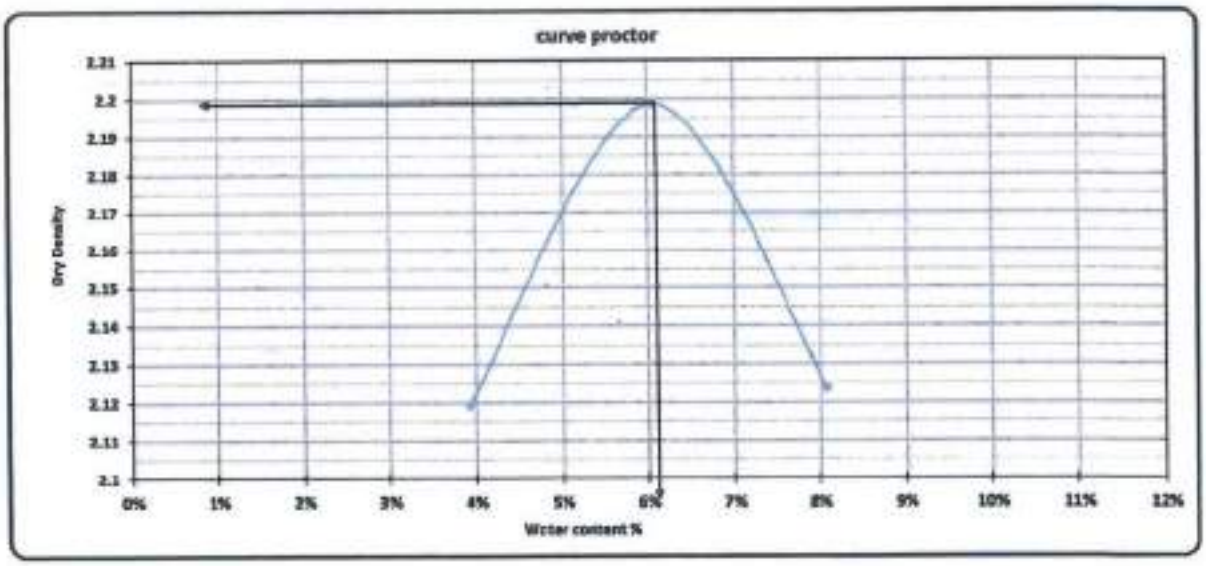
TESTING DATE:	15-10-2023	Code	zone	FROM	TO
LOCATION	K.P 517+600	YN1-SUB 8		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA				

Weight of empty mold :	5747.0
Mold Volume:	2115.0

MAX Dry Density	2.219
Water content %	6.1

trial no :	1	2	3		
Wt. Of Mold+ wet soil	10405.0	10679.0	10601.0		
WT. WET SOIL	4658.0	4932.0	4854.0		
Wt. Density	2.202	2.332	2.295		

Tare No.	7	19	13	17	15	40				
Tare wt.	42.2	44.1	53.6	53.2	30.9	46.2				
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0				
Wt. Of dry soil & tare	145.11	145.24	142.47	142.45	140.12	146.02				
Wt. Of water	4.9	4.8	7.5	7.3	9.9	10.0				
Wt. Of dry soil	123.0	123.0	123.0	123.0	123.0	123.0				
Water content %	4.0%	3.9%	6.1%	6.0%	8.0%	8.1%				
AV.Water content %	3.9%		6.0%		8.1%					
Dry Density	2.110		2.199		2.124					



Contractor

Shehab Hamdi

شركة يوسف للمقاولات
المعمل المعتمد 16
مشروع القطار السريع / فوكة - مطروح

Consultant

Absorbtion & Aggregate specific gravity AASHTO-T85

SUB-BALLAST

TESTING DATE:	15-10-2023	code	zone	FROM	TO
LOCATION	K.P 517+600	YN1-SUB 8		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA				

Weight of sample Before Test	——	gm
Weight of saturated -dry surface sample (B)	3181	gm
Weight of saturated sample in water (C)	1945	gm
Weight of dry sample after heating (A)	3110	gm

Results:-

Bulk specific gravity = A / (B-C)	2.516	
Apparent specific gravity = A /(A-C)	2.670	
Asorbtion = (B-A)/A	2.283	%

Los Angios abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3998	20

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name : Shehab Hamdi

Sign :

شركة نجيدة للمقاولات
شروع القطار السريع / فوكة - مطروح

Consultant Engineer

Name :

Sign :

Electric Express Train - HSR

Operating Lab: Negida Central Lab

California Bearing Ratio TEST

SUB-BALLAST

		Code	ZONE	FROM	TO
Testing Date :	16-10-2023	YN1-SUB 8		514+000	518+-500
Location :	K.P 517+600				
COMPANY NAME	YOUSEF NEGIDA				

- : Test Results

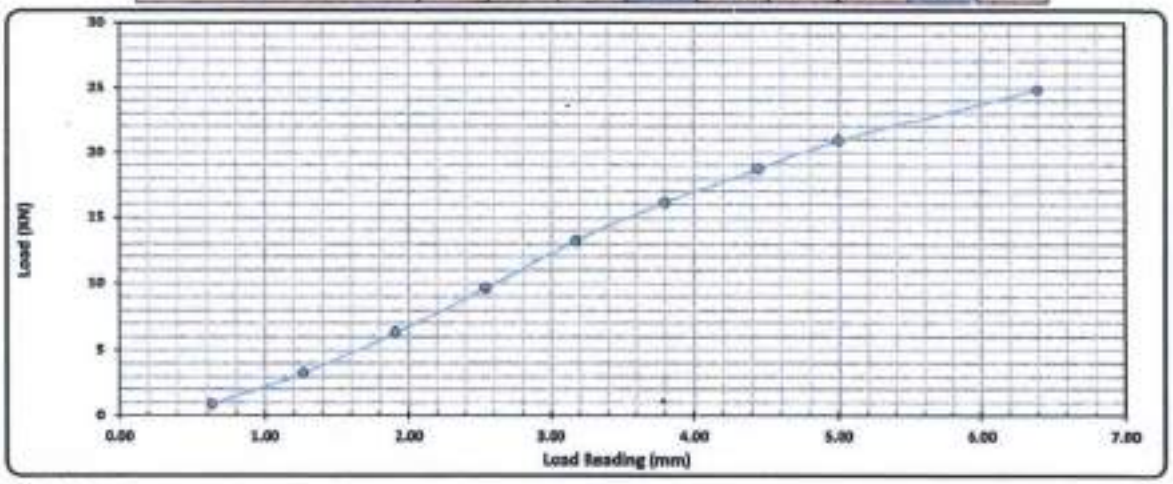
Compaction % for Mold	
Mold No.	8
Mold Vol. (cm^3)	2000
Mold WT. (gm)	8068
Mold WT. + Wet WT. (gm)	12960
Wet WT. (gm)	4892
Wet Density (g/cm^3)	2.352
Dry Density (g/cm^3)	2.214
Proctor Density (g/cm^3)	2.219
Compaction %	100

Moisture Ratio After Compacted Mold	
Tare No.	19
Tare WT. (gm)	44.1
Tare WT. +Wet WT. (gm)	351.2
Tare WT. +Dry WT. (gm)	334.4
Water WT. (gm)	16.8
Dry WT. (gm)	290.3
Moisture Content %	6.2

Swelling	
Mold No.	5
Date	16-10-2023
Initial Height (mm)	0.00
* Final Height (mm)	0.00
Difference	0
Sample Height (mm)	116.40
Swelling Ratio %	0.0%

Loading Reading :

Load Reading (mm)	0.64	1.27	1.91	2.54	3.18	3.81	4.45	5.08	5.72
Load (KN)	0.9	3.3	6.3	9.6	13.3	16.1	18.8	20.9	24.8
Load (KG)	91.8	336.6	642.9	980.8	1357.8	1647.8	1915.8	2134.8	2534.8



Calculations :-

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	100 حد نسبي %
2.50	9.64	13.4	71.2%	100	100	72.4%
5.00	20.91	20.0	104.4%			104.7%

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

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

MATERIAL INSPECTION REQUEST	

Contractor Company	YOUSEF NEGIDA					Designer Company					
Issued by Contractor	Name	Sign				Date				Time	
	Eng/Shehab Hamdi					10-10-2023					
Contractor Refrence	YN-SUB 7										
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							10	10	2023		

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

Description of Materials	Curshed Stone SUB-Ballast Material Result			
Location to be Used	517+850 518+000 0.90+ 518+000 518+100 0.90+ 518+100 518+300 0.90+ 518+300 518+500 0.90+			
MAR Approval No	YN-SUB 7		Date	
Supplier Name				
Test Requirement		Specification	Clause	
Reference Photos	Yes attached / No	Other		

Item	Description	Unit	Quantity	Arrival Date	Note
1	L.L & P.L & O.M.C %	m3	5000	08-10-2023	
2	Proctor	m3	5000	09-10-2023	
3	Classification	m3	5000	08-10-2023	
4	Sieve Analysis	m3	5000	08-10-2023	
5	C.B.R	m3	5000	08-10-2023	
6	L.A	m3	5000	10-10-2023	

Comments by:	Comments by:
	تتابع الصلاحيات والمنشآت مطابقة الكميات تمثل حوالى 5000 متر

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

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

Location Name	Contractor Company	Designer Company
Electric express train	YOUSEF NEGIDA	k.k

	Name	Sign	Date	Time
Issued by Contractor	Eng/Shehab Hamdi		09-10-2023	
Contractor Reference	YN-SUB 7			

				C1	C2	C3	DD	MM	YY	HH	MM
Received by ER			MAR				10	10	2023		

The Following Test Result are Attached For Review				
Description of Materials		SUB -BALLAST (A-1-a)		
Location to be Used		517+600		
Item	Specification	Test requirement	Test result attachment	Remarks
1	ASTM D 75	Aggregate Sampling	According to specifications	
2	ASTM C 136	Sieve Analysis	According to specifications	
3	ASTM D 1440	Passing Sieve, No 200	6.2 %	
4	ASTM D 4318	Atterberg limit	N.P	
5	ASTM D 2974	Moisture content	6.1 %	
6	ASTM D 1557	Modified proctor	2.215	
7	ASTM D 1883	CBR	93.6%	
8	AASHTO-T96	L.A	21 %	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/Shehab Hamdi			
QA/QC *	Ahmed Abo Zeid			
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		
Operating Lab	Negida Central Lab	

PARTICLE SIZE DISTRIBUTION OF SUB-BALLAST

TESTING DATE:	08-10-2023	Code	Zone	FROM STATION	TO STATION
LOCATION	K.P 517+600	YN1-SUB 7		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA				
MATERIALS	SUB-BALLAST				
Quantity	5000 M3				

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		50996.00		gm	Table classify	
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	Soil Classify	A-1-a
Mass retained (g)	0.0	1420.0	4013.0	8126.0	5586.0	4243.0	7012.0		PRO	2.215
Cumulative Retained (g)	0.0	1420.0	5433.0	13559.0	19145.0	23388.0	30400.0		WC	6.10
Cumulative Retained %	0.0	2.8	10.7	26.6	37.5	45.9	59.6		CBR	93.6%
Cumulative Passing %	100.0	97.2	89.3	73.4	62.5	54.1	40.4		Los Angles	21
									Absorption	1.758
									SP.Gravity	2.627

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	156.00	338.00	423.00					
Cumulative Retained %	31.20	67.60	84.60					
Cumulative Passing %	68.80	32.40	15.40					

C-General gradient										
sieve size(in)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
sieve size(mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	97.2	89.3	73.4	62.5	54.1	40.4	27.8	13.1	6.2
SPECIFICATION	——	97	——	70 — 75	——	15 — 60	——	0 — 35	——	0 — 7

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

Contractor

Shehab Hamdi

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

Consultant

16 / 10 / 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 568+177

PROCTOR TEST (SUB-BALLAST)

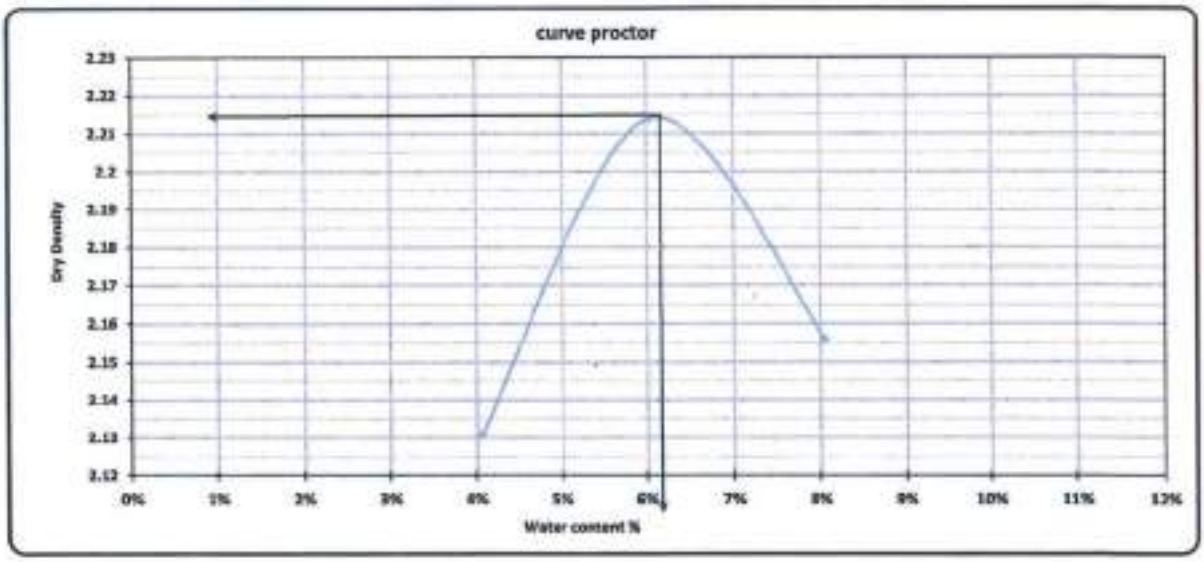
TESTING DATE:	9-10-2023	Code	zone	FROM	TO
LOCATION	K.P 517+600	YN1-SUB 7		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA				

Weight of empty mold :	5747.8
Mold Volume:	2115.8

MAX Dry Density	2.215
Water content %	6.1

trial no :	1	2	3		
Wt. Of Mold+ wet soil	10436.0	10713.0	10674.0		
WT. WET SOIL	4689.0	4966.0	4927.0		
Wt. Density	2.217	2.348	2.330		

Tare No.	7	19	13	17	15	40				
Tare wt.	42.3	44.1	53.6	53.2	36.9	46.2				
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0				
Wt. Of dry soil & tare	144.98	145.05	142.47	142.65	140.14	140.04				
Wt. Of water	5.0	4.9	7.5	7.3	9.9	10.0				
Wt. Of dry soil	123.0	123.0	123.0	123.0	123.0	123.0				
Water content %	4.1%	4.0%	6.1%	6.0%	8.0%	8.1%				
A.V.Water content %	4.1%		6.0%		8.1%					
Dry Density	2.131		2.214		2.156					



Contractor

Shehab Hamdi

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

Consultant

10/10/2023

Absorbtion & Aggregate specific gravity
AASHTO-T85

SUB-BALLAST

TESTING DATE:	09-10-2023	code	zone	FROM	TO
LOCATION	K.P 517+600	YN1-SUB 7		514+000	518+500
COMPANY NAME	YOUSEF NEGIDA				

Weight of sample Before Test	——	gm
Weight of saturated -dry surface sample (B)	3646	gm
Weight of saturated sample in water (C)	2228	gm
Weight of dry sample after heating (A)	3583	gm

Results:-

Bulk specific gravity = A / (B-C)	2.527	
Apparent specific gravity = A /(A-C)	2.644	
Asorbtion = (9-A)/A	1.758	%

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3930	21

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name : Shehab Hamdi

Sign :

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

Consultant Engineer

Name :

Sign :

	Electric Express Train - HSR	

Operating Lab: Negida Central Lab

California Bearing Ratio TEST

SUB-BALLAST

		Code	ZONE	FROM	TO
Testing Date :	10-10-2023	YN1-SUB 7		514+000	518+500
Location :	K.P 517+600				
COMPANY NAME	YOUSEF NEGIDA				

-: Test Results

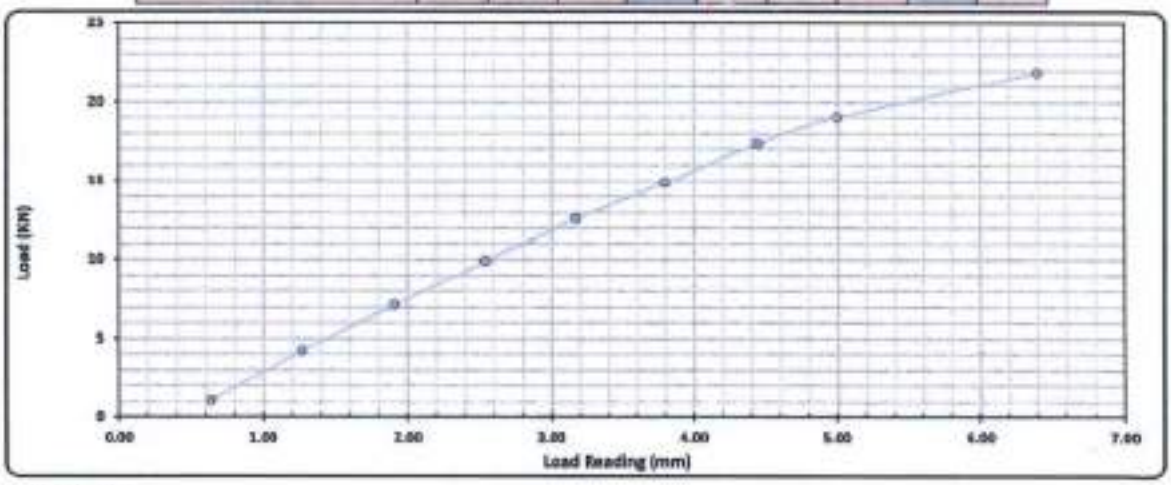
Compaction % for Mold	
Mold No.	5
Mold Vol.(cm^3)	2000
Mold WT. (gm)	8068
Mold WT. + Wet WT. (gm)	12933
Wet WT. (gm)	4865
Wet Density (g/cm^3)	2.339
Dry Density (g/cm^3)	2.203
Proctor Density (g/cm^3)	2.218
Compaction %	99

Moisture Ratio After Compacted Mold	
Tare No.	7
Tare WT. (gm)	42.2
Tare WT. +Wet WT. (gm)	331.2
Tare WT. +Dry WT. (gm)	314.4
Water WT. (gm)	16.8
Dry WT. (gm)	272.2
Moisture Content %	6.2

Swelling	
Mold No.	5
Date	10-10-2023
Initial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0
Sample Height (mm)	116.40
Swelling Ratio %	0.0%

Loading Reading :

Load Reading (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.08	6.40
Load (KN)	2.1	4.2	7.1	9.9	12.6	14.9	17.4	19.0	21.9
Load (KG)	213.0	430.0	728.0	1008.0	1287.0	1519.0	1771.0	1942.0	2234.0



Calculations :-

Penetration (mm)	Load (Kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR % عند نسبة 98
2.50	9.88	13.4	74.8%	99	98	72.9%
5.00	19.03	20.0	95.0%			93.6%

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

شركة تجمع للمقاولات
المعمل المركزى
مشروع القطار السريع / فوكة - محطوط

10/10/2023

Contractor Consultant | Contractor

Plate Load Test Results

Layer:	PREPARED SUBGRADE 2		0.50+
Station:	517+110	TO	517+160
Date:	04-11-23		

COMPANY	YOUSEF NEGIDA 1
Location	517+130

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	7.79	8.08		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.74	8.03		0.050	0.050		0.050
2.000	7.9	5.652	0.08	7.64	7.99		0.150	0.090		0.120
0.080	15.8	11.304	0.16	7.57	7.91		0.220	0.170		0.195
4.000	24.7	17.663	0.25	7.47	7.83		0.320	0.250		0.285
5.000	32.6	23.315	0.33	7.35	7.78		0.440	0.300		0.370
6.000	41.5	29.673	0.42	7.26	7.70		0.530	0.380		0.455
7.000	49.4	35.325	0.50	7.16	7.63		0.630	0.450		0.540
8.000	24.7	17.663	0.25	7.19	7.65		0.600	0.430		0.515
9.000	12.4	8.831	0.12	7.23	7.68		0.560	0.400		0.480
9.000	1.0	0.707	0.01	7.29	7.72		0.500	0.360		0.430
10.000	1.0	0.707	0.01	7.29	7.72		0.500	0.360		0.430
11.000	7.9	5.652	0.08	7.29	7.71		0.500	0.370		0.435
12.000	15.8	11.304	0.16	7.27	7.70		0.520	0.380		0.450
13.000	24.7	17.663	0.25	7.24	7.66		0.550	0.420		0.485
14.000	32.6	23.315	0.33	7.21	7.62		0.580	0.460		0.520
15.000	41.5	29.673	0.42	7.17	7.59		0.620	0.490		0.555

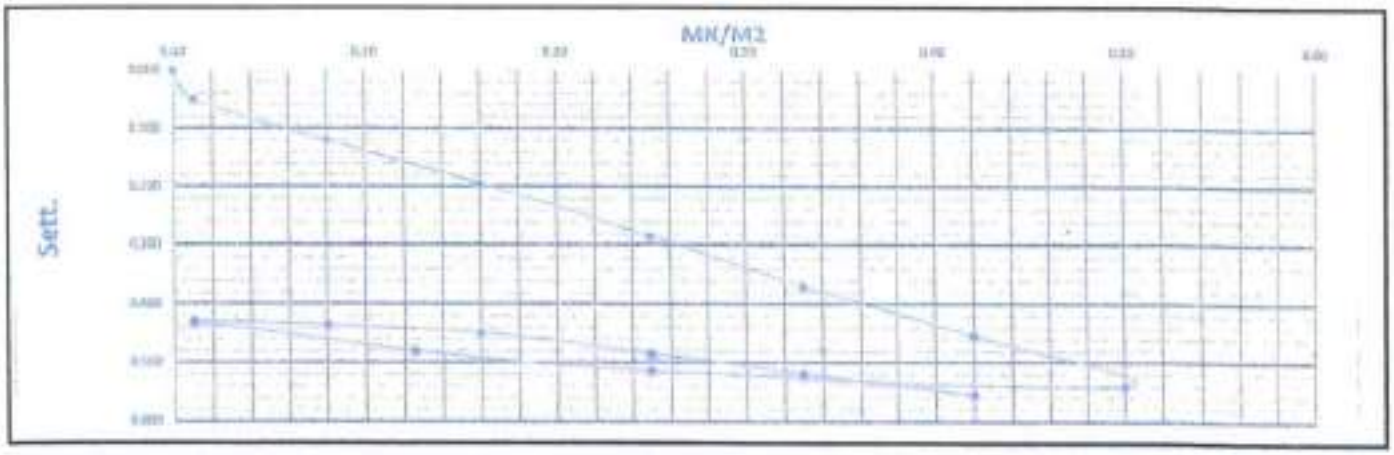
		Δ	ΔS	$\Delta\sigma$
$0.7\sigma_1$	0.35	0.3806	0.195	0.2
$0.3\sigma_1$	0.15	0.1856		
$0.7\sigma_2$	0.35	0.5278	0.08778	0.2
$0.3\sigma_2$	0.15	0.44		
D (mm)	300			
Ev_1	230.77			
Ev_2	512.66			
Area (Sq.m)	0.07068			

Ev2/Ev1	2.22		

LOAD

UN LOAD

RE LOAD



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

Contractor Consultan

Contractor

Plate Load Test Results

Layer:	PREPARED SUBGRADE 2		0.50+
Station:	517+110	TO	517+160
Date:	04-11-23		

COMPANY	YOUSEF NEGIDA I
Location	517+150

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	7.89	6.03		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.73	5.85		0.160	0.180		0.170
2.000	7.9	5.652	0.08	7.60	5.74		0.290	0.290		0.290
0.080	15.8	11.304	0.16	7.51	5.66		0.380	0.370		0.375
4.000	24.7	17.663	0.25	7.42	5.57		0.470	0.460		0.465
5.000	32.6	23.315	0.33	7.33	5.48		0.560	0.550		0.555
6.000	41.5	29.673	0.42	7.22	5.37		0.670	0.660		0.665
7.000	49.4	35.325	0.50	7.16	5.30		0.730	0.730		0.730
8.000	24.7	17.663	0.25	7.23	5.37		0.660	0.660		0.660
9.000	12.4	8.831	0.12	7.30	5.46		0.590	0.570		0.580
9.000	1.0	0.707	0.01	7.38	5.53		0.510	0.500		0.505
10.000	1.0	0.707	0.01	7.38	5.53		0.510	0.500		0.505
11.000	7.9	5.652	0.08	7.35	5.48		0.540	0.550		0.545
12.000	15.8	11.304	0.16	7.32	5.44		0.570	0.590		0.580
13.000	24.7	17.663	0.25	7.29	5.35		0.600	0.680		0.640
14.000	32.6	23.315	0.33	7.26	5.31		0.630	0.720		0.675
15.000	41.5	29.673	0.42	7.22	5.27		0.670	0.760		0.715

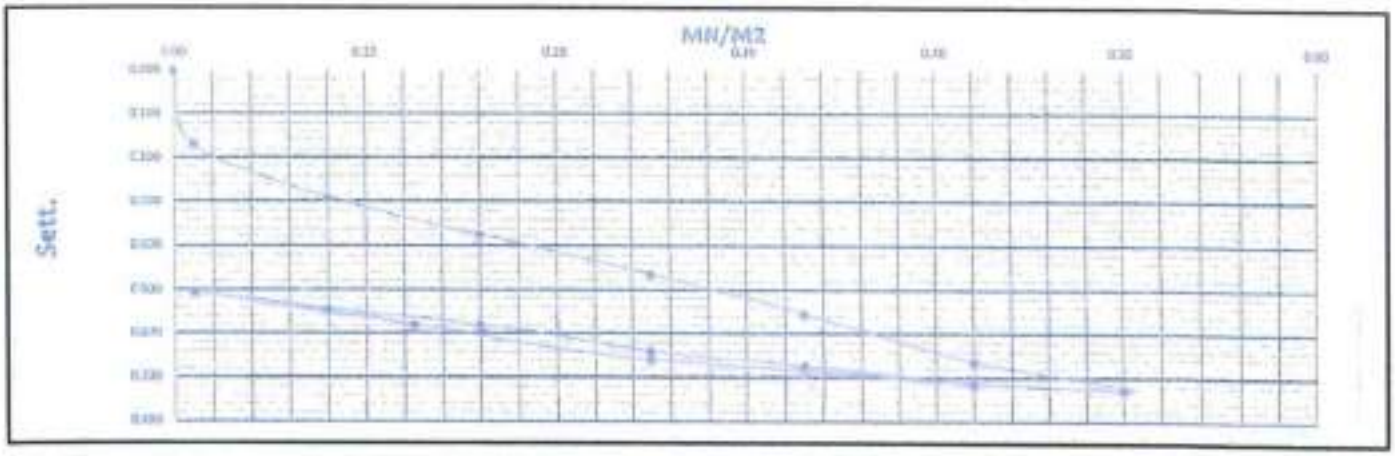
		x	ΔS	Δσ
$0.7\,\sigma_1$	0.35	0.6081	0.24375	0.2
$0.3\,\sigma_1$	0.15	0.3644		
$0.7\sigma_2$	0.35	0.6839	0.09888	0.2
$0.3\sigma_2$	0.15	0.585		
D (mm)	300			
Ev_1	184.62			
Ev_2	455.87			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.46		

LOAD

UN LOAD

RE LOAD



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

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer:	PREPARED SUBGRADE 2		0.50+
Station:	516+880	TO	516+940
Date:	21-09-23		

COMPANY	YOUSEF NEGIDA 1
Location	516+890

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	7.52	7.46		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.48	7.41		0.040	0.050		0.045
2.000	7.9	5.652	0.08	7.41	7.36		0.110	0.100		0.105
0.080	15.8	11.304	0.16	7.30	7.27		0.220	0.190		0.205
4.000	24.7	17.663	0.25	7.18	7.15		0.340	0.310		0.325
5.000	32.6	23.315	0.33	7.04	7.09		0.480	0.370		0.425
6.000	41.5	29.673	0.42	6.89	6.97		0.630	0.490		0.560
7.000	49.4	35.325	0.50	6.71	6.81		0.810	0.650		0.730
8.000	24.7	17.663	0.25	6.72	6.84		0.800	0.620		0.710
9.000	12.4	8.831	0.12	6.74	6.89		0.700	0.570		0.675
9.000	1.0	0.707	0.01	6.78	6.93		0.740	0.530		0.635
10.000	1.0	0.707	0.01	6.78	6.93		0.740	0.530		0.635
11.000	7.9	5.652	0.08	6.76	6.92		0.760	0.540		0.650
12.000	15.8	11.304	0.16	6.72	6.90		0.800	0.560		0.680
13.000	24.7	17.663	0.25	6.69	6.87		0.830	0.590		0.710
14.000	32.6	23.315	0.33	6.66	6.83		0.860	0.630		0.745
15.000	41.5	29.673	0.42	6.63	6.80		0.890	0.660		0.775

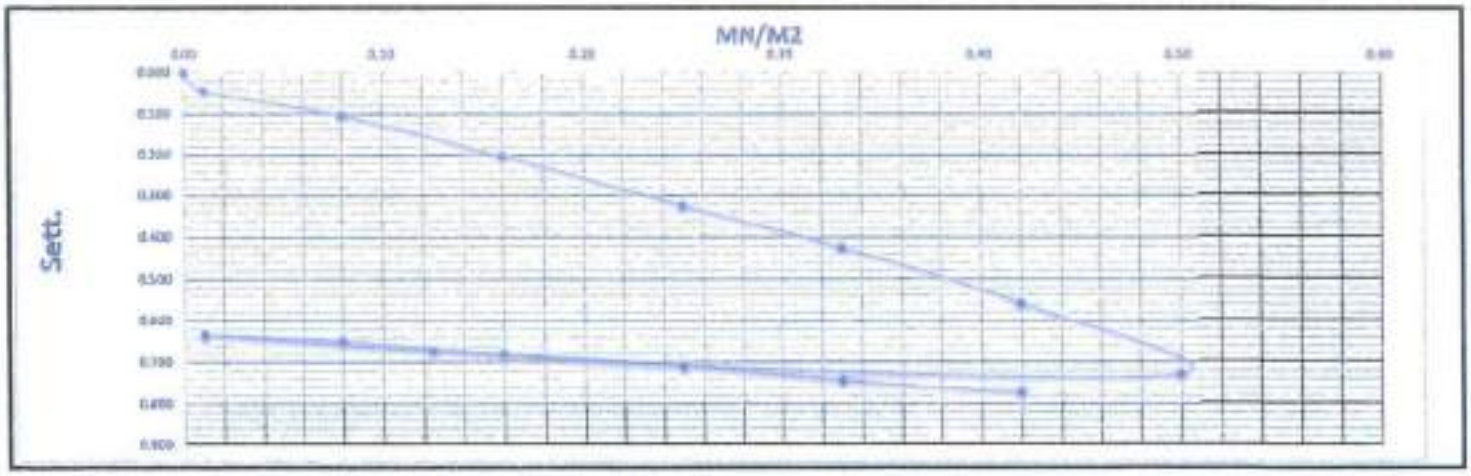
		s	ΔS	Δσ
$0.7\,\sigma_1$	0.35	0.41125	0.21875	0.2
$0.3\,\sigma_1$	0.15	0.1925		
$0.7\sigma_2$	0.35	0.75167	0.08667	0.2
$0.3\sigma_2$	0.15	0.665		
D (mm)	300			
Ev_1	205.71			
Ev_2	519.24			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.52		

LOAD

UN LOAD

RE LOAD



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

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer:	PREPARED SUBGRADE 2		0.50+
Station:	516+880	TO	516+940
Date:	21-09-23		

COMPANY	YOUSEF NEGIDA 1
Location	516+915

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	8.23	8.29		0.000	0.000		0.000
1.000	1.0	0.707	0.01	8.18	8.24		0.050	0.050		0.050
2.000	7.9	5.652	0.08	8.11	8.16		0.120	0.130		0.125
0.080	15.8	11.304	0.16	8.02	8.08		0.210	0.210		0.210
4.000	24.7	17.663	0.25	7.91	8.02		0.320	0.270		0.295
5.000	32.6	23.315	0.33	7.80	7.91		0.430	0.380		0.405
6.000	41.5	29.673	0.42	7.70	7.80		0.530	0.490		0.510
7.000	49.4	35.325	0.50	7.51	7.67		0.720	0.620		0.670
8.000	24.7	17.663	0.25	7.53	7.68		0.700	0.610		0.655
9.000	12.4	8.831	0.12	7.57	7.70		0.660	0.590		0.625
9.000	1.0	0.707	0.01	7.61	7.74		0.620	0.550		0.585
10.000	1.0	0.707	0.01	7.61	7.74		0.620	0.550		0.585
11.000	7.9	5.652	0.08	7.59	7.73		0.640	0.560		0.600
12.000	15.8	11.304	0.16	7.57	7.70		0.660	0.590		0.625
13.000	24.7	17.663	0.25	7.54	7.67		0.690	0.620		0.655
14.000	32.6	23.315	0.33	7.51	7.64		0.720	0.650		0.685
15.000	41.5	29.673	0.42	7.48	7.60		0.750	0.690		0.720

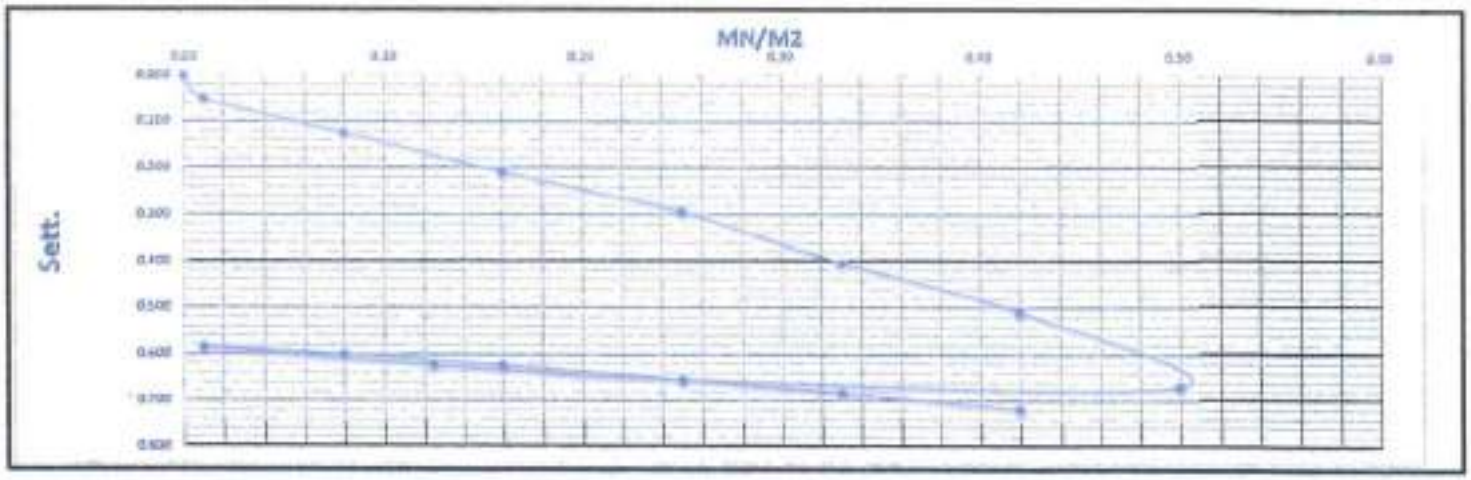
		s	ΔS	Δσ
$0.7\,\sigma_1$	0.35	0.37	0.17063	0.2
$0.3\,\sigma_1$	0.15	0.19938		
$0.7\sigma_2$	0.35	0.69278	0.07778	0.2
$0.3\sigma_2$	0.15	0.615		
D (mm)	300			
Ev_1	263.74			
Ev_2	578.58			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.19		

LOAD

UN LOAD

RE LOAD



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

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

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer:	PREPARED SUBGRADE 2		0.50+
Station:	516+880	TO	516+940
Date:	21-09-23		

COMPANY	VOUSEF NEGIDA 1
Location	516+940

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	8.03	8.17		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.96	8.09		0.070	0.080		0.075
2.000	7.9	5.652	0.08	7.89	8.01		0.140	0.160		0.150
0.080	15.8	11.304	0.16	7.80	7.93		0.230	0.240		0.235
4.000	24.7	17.663	0.25	7.68	7.82		0.350	0.350		0.350
5.000	32.6	23.315	0.33	7.55	7.71		0.480	0.460		0.470
6.000	41.5	29.673	0.42	7.41	7.61		0.620	0.560		0.590
7.000	49.4	35.325	0.50	7.27	7.44		0.760	0.730		0.745
8.000	24.7	17.663	0.25	7.29	7.47		0.740	0.700		0.720
9.000	12.4	8.831	0.12	7.31	7.49		0.720	0.680		0.700
9.800	1.0	0.707	0.01	7.35	7.53		0.680	0.640		0.660
10.000	1.0	0.707	0.01	7.35	7.53		0.680	0.640		0.660
11.000	7.9	5.652	0.08	7.33	7.51		0.700	0.660		0.680
12.000	15.8	11.304	0.16	7.31	7.49		0.720	0.680		0.700
13.000	24.7	17.663	0.25	7.28	7.46		0.750	0.710		0.730
14.000	32.6	23.315	0.33	7.25	7.42		0.780	0.750		0.765
15.000	41.5	29.673	0.42	7.22	7.39		0.810	0.780		0.795

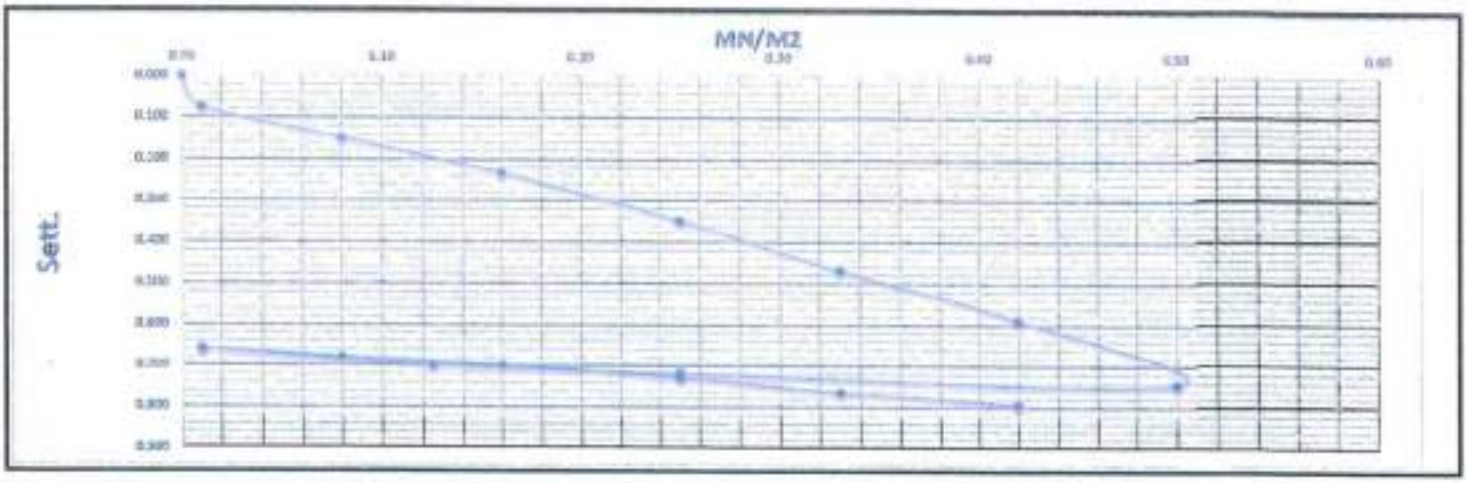
		s	ΔS	Δσ
$0.7\,\sigma_1$	0.35	0.45437	0.23	0.2
$0.3\,\sigma_1$	0.15	0.22438		
$0.7\sigma_2$	0.36	0.77167	0.07166	0.2
$0.3\sigma_2$	0.15	0.7		
D (mm)	300			
Ev_1	195.65			
Ev_2	637.93			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.21		

LOAD

UN LOAD

RE LOAD



Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name : Mohamed Hamed	Name : 21 9 2023
Sign :	Sign :	Sign :

Contractor Consultant Contractor Owner

Plate Load Test Results

Layer:	PREPARED SUBGRADE 2		0.50+
Station:	515+180	TO	515+300
Date:	20-09-23		

COMPANY	YOUSEF NEGIDA 1
Location	515+290

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	AVE. Sett. mm
0.000	0.0	0.000	0.00	8.21	8.26		0.000	0.000		0.000
1.000	1.0	0.707	0.01	8.16	8.20		0.050	0.060		0.055
2.000	7.9	5.652	0.08	8.09	8.13		0.120	0.130		0.125
0.080	15.8	11.304	0.16	8.00	8.05		0.210	0.210		0.210
4.000	24.7	17.663	0.25	7.89	7.99		0.320	0.270		0.295
5.000	32.6	23.315	0.33	7.79	7.88		0.420	0.380		0.400
6.000	41.5	29.673	0.42	7.65	7.78		0.560	0.480		0.520
7.000	49.4	35.325	0.50	7.49	7.64		0.720	0.620		0.670
8.000	24.7	17.663	0.25	7.51	7.65		0.700	0.610		0.655
9.000	12.4	8.831	0.12	7.55	7.67		0.660	0.590		0.625
9.000	1.0	0.707	0.01	7.59	7.71		0.620	0.550		0.585
10.000	1.0	0.707	0.01	7.59	7.71		0.620	0.550		0.585
11.000	7.9	5.652	0.08	7.57	7.70		0.640	0.560		0.600
12.000	15.8	11.304	0.16	7.55	7.67		0.660	0.590		0.625
13.000	24.7	17.663	0.25	7.52	7.64		0.690	0.620		0.655
14.000	32.6	23.315	0.33	7.49	7.62		0.720	0.640		0.680
15.000	41.5	29.673	0.42	7.44	7.56		0.770	0.700		0.735

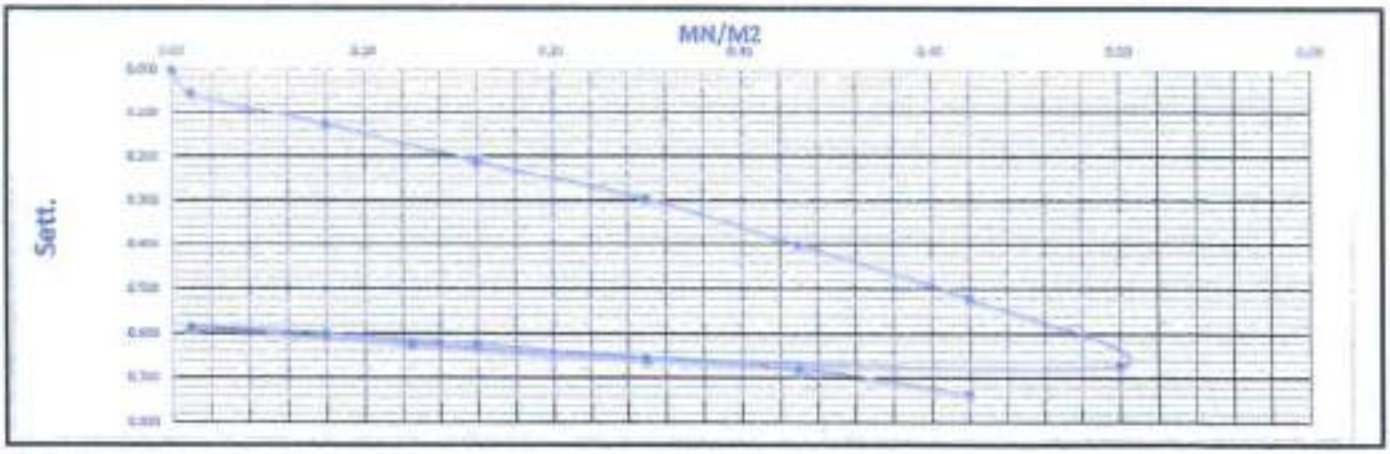
		x	ΔS	Ae
$0.7\,\sigma_1$	0.35	0.3888	0.18938	0.2
$0.3\,\sigma_1$	0.15	0.1994		
$0.7\sigma_2$	0.35	0.6922	0.07722	0.2
$0.3\sigma_2$	0.15	0.815		
D (mm)	300			
Ev_2	237.62			
Ev_1	582.75			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.45		

LOAD

UN LOAD

RE LOAD



Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name :
Sign :	Sign :	Sign : 28/9/2023

Contractor Consultant Contractor Owner

Plate Load Test Results

Layer:	PREPARED SUBGRADE 2		0.50+
Station:	515+180	TO	515+300
Date:	20-09-23		

COMPANY	YOUSEF NEGIDA 1
Location	515+260

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	7.90	8.10		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.83	8.02		0.070	0.080		0.075
2.000	7.9	5.652	0.08	7.76	7.94		0.140	0.160		0.150
0.080	15.8	11.304	0.16	7.67	7.86		0.230	0.240		0.235
4.000	24.7	17.663	0.25	7.55	7.75		0.350	0.350		0.350
5.000	32.6	23.315	0.33	7.42	7.63		0.480	0.470		0.475
6.000	41.5	29.673	0.42	7.28	7.52		0.620	0.580		0.600
7.000	49.4	35.325	0.50	7.14	7.37		0.760	0.730		0.745
8.000	24.7	17.663	0.25	7.16	7.39		0.740	0.710		0.725
9.000	12.4	8.831	0.12	7.18	7.41		0.720	0.690		0.705
9.000	1.0	0.707	0.01	7.22	7.45		0.680	0.650		0.665
10.000	1.0	0.707	0.01	7.22	7.45		0.680	0.650		0.665
11.000	7.9	5.652	0.08	7.20	7.44		0.700	0.660		0.680
12.000	15.8	11.304	0.16	7.18	7.42		0.720	0.680		0.700
13.000	24.7	17.663	0.25	7.15	7.39		0.750	0.710		0.730
14.000	32.6	23.315	0.33	7.12	7.35		0.780	0.750		0.765
15.000	41.5	29.673	0.42	7.09	7.32		0.810	0.780		0.795

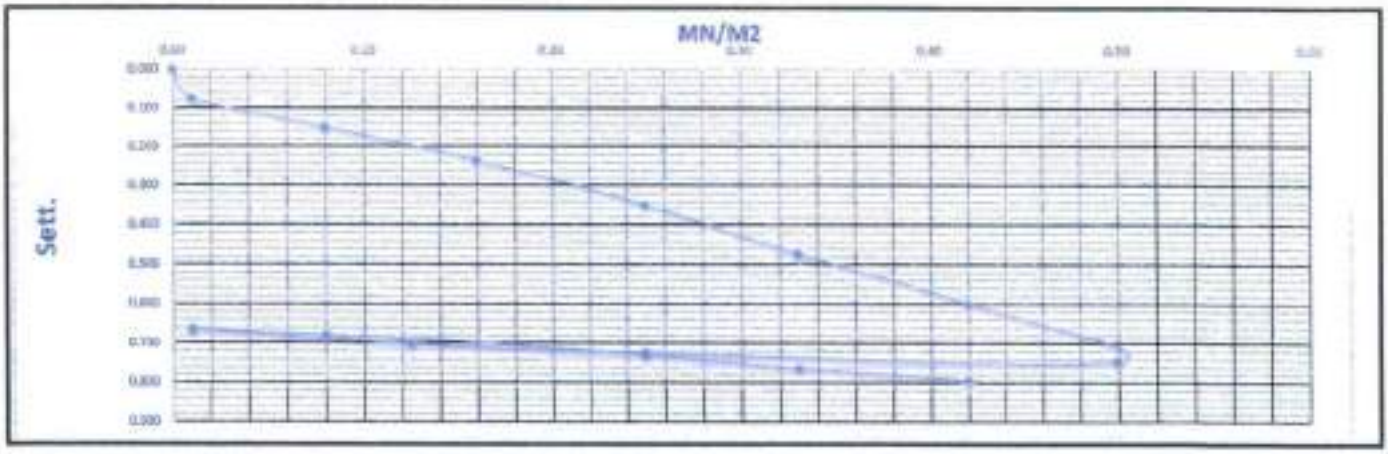
		s	ΔS	Δσ
$0.7\ \sigma_1$	0.35	0.4731	0.24875	0.2
$0.3\ \sigma_1$	0.15	0.2244		
$0.7\sigma_2$	0.35	0.7717	0.07667	0.2
$0.3\sigma_2$	0.15	0.695		
D (mm)	300			
Ev_1	100.90			
Ev_2	306.97			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.34		

LOAD

UN LOAD

RE LOAD



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

Contractor Consultant | Contractor | Client

Plate Load Test Results

Layer:	PREPARED SUBGRADE 2		0.50+
Station:	515+180	TO	515+300
Date:	20-09-23		

COMPANY	YOUSEF NEGIDA 1
Location	515+240

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	7.79	7.26		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.76	7.22		0.030	0.040		0.035
2.000	7.9	5.652	0.08	7.69	7.18		0.100	0.080		0.090
0.080	15.8	11.304	0.16	7.64	7.13		0.150	0.130		0.140
4.000	24.7	17.663	0.25	7.56	7.06		0.230	0.200		0.215
5.000	32.6	23.315	0.33	7.46	6.98		0.330	0.280		0.305
6.000	41.5	29.673	0.42	7.34	6.88		0.450	0.380		0.415
7.000	49.4	35.325	0.50	7.23	6.77		0.560	0.490		0.525
8.000	24.7	17.663	0.25	7.24	6.79		0.550	0.470		0.510
9.000	12.4	8.831	0.12	7.26	6.82		0.530	0.440		0.485
9.000	1.0	0.707	0.01	7.29	6.85		0.500	0.410		0.455
10.000	1.0	0.707	0.01	7.29	6.85		0.500	0.410		0.455
11.000	7.9	5.652	0.08	7.28	6.83		0.510	0.430		0.470
12.000	15.8	11.304	0.16	7.26	6.79		0.530	0.470		0.500
13.000	24.7	17.663	0.25	7.23	6.76		0.560	0.500		0.530
14.000 .	32.6	23.315	0.33	7.19	6.74		0.600	0.520		0.560
15.000	41.5	29.673	0.42	7.17	6.71		0.620	0.550		0.585

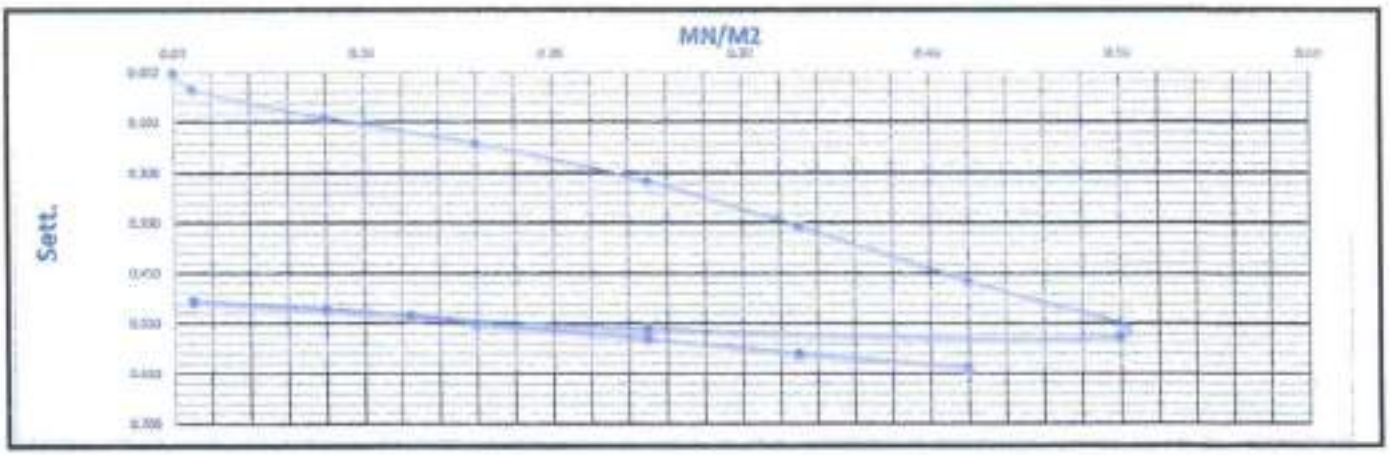
		a	ΔS	Δσ
$0.7\ \sigma_1$	0.35	0.3188	0.185	0.2
$0.3\ \sigma_1$	0.15	0.1338		
$0.7\sigma_2$	0.35	0.5656	0.08055	0.2
$0.3\sigma_2$	0.15	0.485		
D (mm)	300			
Ev_1	343.34			
Ev_2	598.63			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.30		

LOAD

UN LOAD

RE LOAD



Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name : Hassan
Sign :	Sign :	Sign : 21/9/2023

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer:	PREPARED SUBGRADE 2		0.50+
Station:	515+180	TO	515+300
Date:	20-09-23		

COMPANY	YOUSEF NEGIDA 1
Location	515+215

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	8.19	8.60		0.000	0.000		0.000
1.000	1.0	0.707	0.01	8.13	8.54		0.060	0.060		0.060
2.000	7.9	5.652	0.08	8.05	8.46		0.140	0.140		0.140
0.080	15.8	11.304	0.16	7.97	8.40		0.220	0.200		0.210
4.000	24.7	17.663	0.25	7.87	8.36		0.320	0.240		0.280
5.000	32.6	23.315	0.33	7.76	8.31		0.430	0.290		0.360
6.000	41.5	29.673	0.42	7.64	8.20		0.550	0.400		0.475
7.000	49.4	35.325	0.50	7.52	8.10		0.670	0.500		0.585
8.000	24.7	17.663	0.25	7.54	8.11		0.650	0.490		0.570
9.000	12.4	8.831	0.12	7.57	8.14		0.620	0.460		0.540
9.000	1.0	0.707	0.01	7.61	8.17		0.580	0.430		0.505
10.000	1.0	0.707	0.01	7.61	8.17		0.580	0.430		0.505
11.000	7.9	5.652	0.08	7.60	8.15		0.590	0.450		0.520
12.000	15.8	11.304	0.16	7.58	8.12		0.610	0.480		0.545
13.000	24.7	17.663	0.25	7.55	8.09		0.640	0.510		0.575
14.000	32.6	23.315	0.33	7.53	8.06		0.660	0.540		0.600
15.000	41.5	29.673	0.42	7.50	8.03		0.690	0.580		0.635

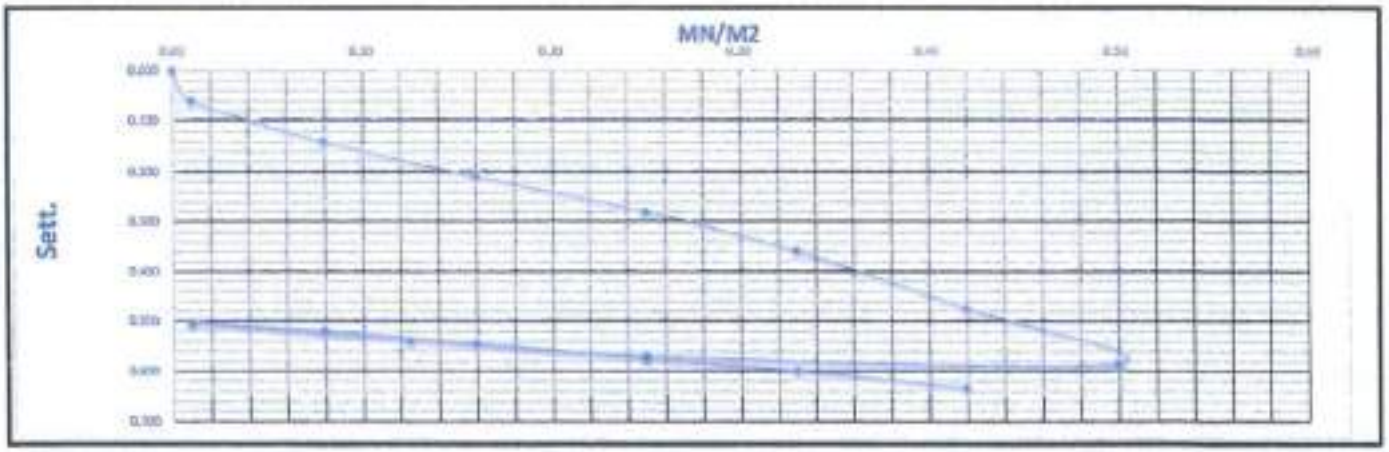
		s	ΔS	Δσ
$0.7\,\sigma_1$	0.35	0.3788	0.1775	0.2
$0.3\,\sigma_1$	0.15	0.2012		
$0.7\sigma_2$	0.35	0.6078	0.07278	0.2
$0.3\sigma_2$	0.15	0.535		
D (mm)	300			
Ev_2	383.83			
Ev_1	618.33			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.44		

LOAD

UN LOAD

RE LOAD



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

Contractor Consultant

Contractor

Plate Load Test Results

Layer:	PREPARED SUBGRADE 2		0.50+
Station:	515+180	TO	515+300
Date:	20-09-23		

COMPANY	YOUSEF NEGIDA 1
Location	515+190

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	8.11	8.36		0.000	0.000		0.000
1.000	1.0	0.707	0.01	8.06	8.31		0.050	0.050		0.050
2.000	7.9	5.652	0.08	7.99	8.23		0.120	0.130		0.125
0.080	15.8	11.304	0.16	7.90	8.15		0.210	0.210		0.210
4.000	24.7	17.663	0.25	7.79	8.09		0.320	0.270		0.295
5.000	32.6	23.315	0.33	7.68	7.98		0.430	0.380		0.405
6.000	41.5	29.673	0.42	7.55	7.87		0.560	0.490		0.525
7.000	49.4	35.325	0.50	7.39	7.74		0.720	0.620		0.670
8.000	24.7	17.663	0.25	7.41	7.75		0.700	0.610		0.655
9.000	12.4	8.831	0.12	7.45	7.77		0.660	0.590		0.625
9.000	1.0	0.707	0.01	7.49	7.81		0.620	0.550		0.585
10.000	1.0	0.707	0.01	7.49	7.81		0.620	0.550		0.585
11.000	7.9	5.652	0.08	7.47	7.80		0.640	0.560		0.600
12.000	15.8	11.304	0.16	7.45	7.77		0.660	0.590		0.625
13.000	24.7	17.663	0.25	7.42	7.74		0.690	0.620		0.655
14.000	32.6	23.315	0.33	7.39	7.71		0.720	0.650		0.685
15.000	41.5	29.673	0.42	7.36	7.67		0.750	0.690		0.720

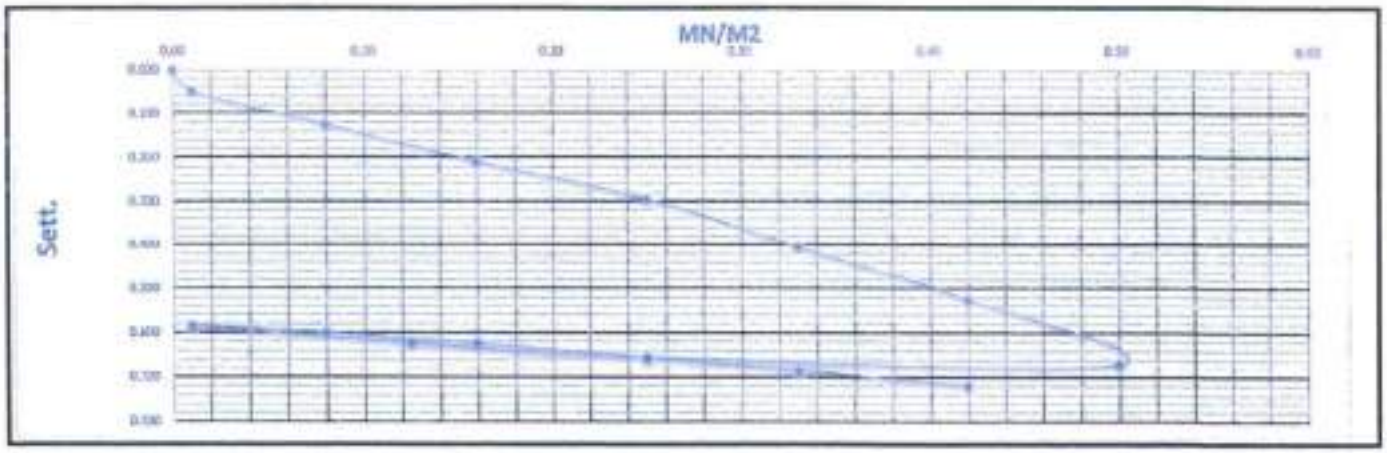
		ε	ΔS	$\Delta\sigma$
$0.7\ \sigma_1$	0.35	0.3981	0.19875	0.2
$0.3\ \sigma_1$	0.15	0.1994		
$0.7\sigma_1$	0.35	0.6928	0.07778	0.2
$0.3\sigma_1$	0.15	0.615		
D (mm)	300			
E_{v_2}	236.42			
E_{v_1}	376.50			
Area ($S_{0.80}$)	0.07065			

Ev2/Ev1	2.56		

LOAD

UN LOAD

RE LOAD



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

Contractor Consultant

Contractor

Owner

Plate Load Test Results

Layer:	SUB-BALLAST 2		0.90+
Station:	514+600	TO	514+700
Date:	23-10-23		

COMPANY	YOUSEF NEGIDA 1
Location	514+610

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	6.71	8.05		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.62	7.96		0.090	0.090		0.090
2.000	7.9	5.652	0.08	6.50	7.90		0.210	0.150		0.180
0.080	15.8	11.304	0.16	6.42	7.83		0.290	0.220		0.255
4.000	24.7	17.663	0.25	6.33	7.77		0.380	0.280		0.330
5.000	32.6	23.315	0.33	6.24	7.70		0.470	0.350		0.410
6.000	41.5	29.673	0.42	6.16	7.63		0.550	0.420		0.485
7.000	49.4	35.325	0.50	6.06	7.52		0.650	0.530		0.590
8.000	24.7	17.663	0.25	6.10	7.55		0.610	0.500		0.555
9.000	12.4	8.831	0.12	6.13	7.59		0.580	0.460		0.520
9.000	1.0	0.707	0.01	6.15	7.62		0.560	0.430		0.495
10.000	1.0	0.707	0.01	6.15	7.62		0.560	0.430		0.495
11.000	7.9	5.652	0.08	6.12	7.60		0.590	0.450		0.520
12.000	15.8	11.304	0.16	6.09	7.57		0.620	0.480		0.550
13.000	24.7	17.663	0.25	6.06	7.53		0.650	0.520		0.585
14.000	32.6	23.315	0.33	6.02	7.51		0.690	0.540		0.615
15.000	41.5	29.673	0.42	5.98	7.48		0.730	0.570		0.650

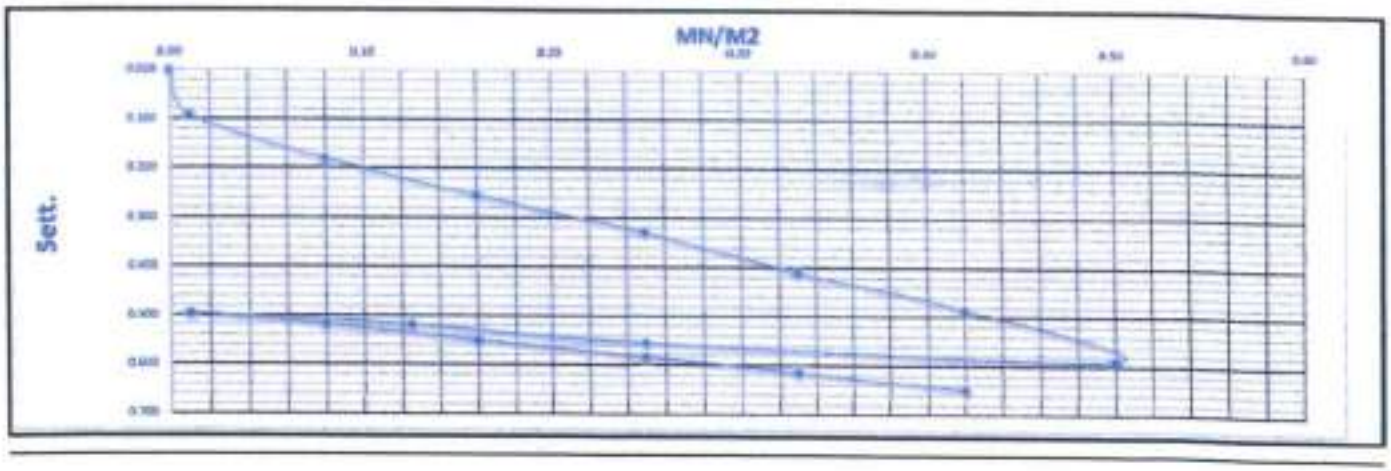
		ε	ΔS	$\Delta\sigma$
$0.7\,\sigma_1$	0.35	0.39313	0.1475	0.2
$0.3\,\sigma_1$	0.15	0.24563		
$0.7\sigma_2$	0.35	0.61278	0.07778	0.2
$0.3\sigma_2$	0.15	0.545		
D (mm)	300			
Ev_2	305.88			
Ev_1	378.59			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.98		

LOAD

UN LOAD

RE LOAD



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

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer:	SUB-BALLAST 2		0.90+
Station:	514+600	TO	514+700
Date:	23-10-23		

COMPANY	YOUSEF NEGIDA 1
Location	514+635

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	6.10	9.11		0.000	0.000		0.000
1.000	1.0	0.707	0.01	5.99	9.02		0.110	0.090		0.100
2.000	7.9	5.652	0.08	5.93	8.92		0.170	0.190		0.180
0.080	15.8	11.304	0.16	5.82	8.86		0.280	0.250		0.265
4.000	24.7	17.663	0.25	5.77	8.77		0.330	0.340		0.335
5.000	32.6	23.315	0.33	5.70	8.70		0.400	0.410		0.405
6.000	41.5	29.673	0.42	5.63	8.63		0.470	0.480		0.475
7.000	49.4	35.325	0.50	5.55	8.55		0.550	0.560		0.555
8.000	24.7	17.663	0.25	5.58	8.58		0.520	0.530		0.525
9.000	12.4	8.831	0.12	5.62	8.60		0.480	0.510		0.495
9.000	1.0	0.707	0.01	5.67	8.63		0.430	0.480		0.455
10.000	1.0	0.707	0.01	5.67	8.63		0.430	0.480		0.455
11.000	7.9	5.652	0.08	5.64	8.60		0.460	0.510		0.485
12.000	15.8	11.304	0.16	5.61	8.58		0.490	0.530		0.510
13.000	24.7	17.663	0.25	5.57	8.55		0.530	0.560		0.545
14.000	32.6	23.315	0.33	5.53	8.52		0.570	0.590		0.580
15.000	41.5	29.673	0.42	5.49	8.45		0.610	0.660		0.635

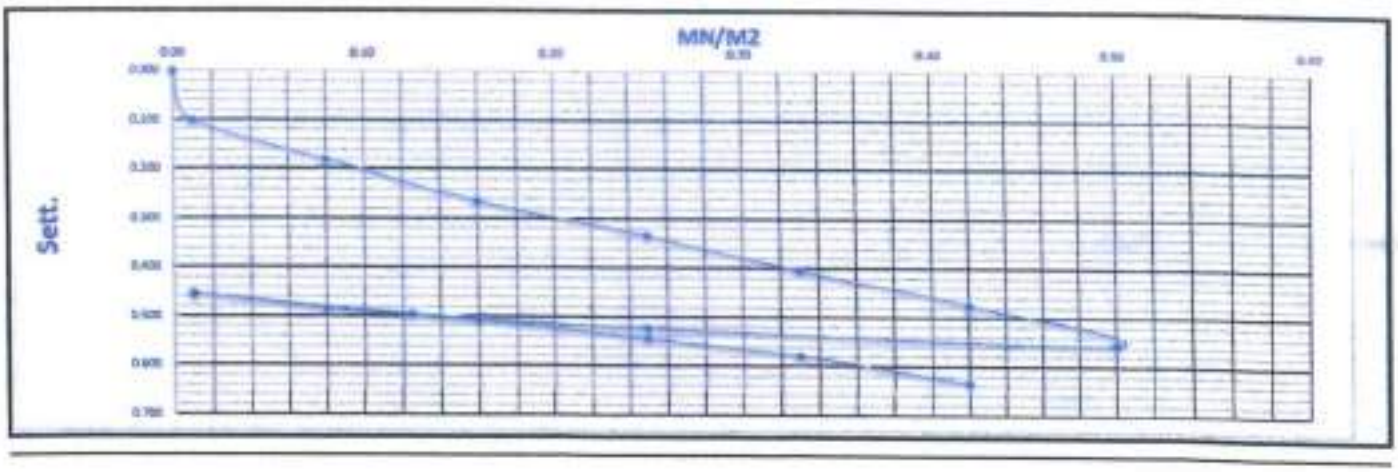
			AS	Ar
$0.7\,\sigma_1$	0.35	0.405	0.15062	0.2
$0.3\,\sigma_1$	0.15	0.25438		
$0.7\sigma_2$	0.35	0.59222	0.07722	0.2
$0.3\sigma_2$	0.15	0.515		
D (mm)	300			
Ev_2	298.76			
Ev_1	582.76			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.95		

LOAD

UN LOAD

RE LOAD



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

شركة [illegible] للمقاولات
المعمل المركزي
شروع القطار السريع / فوكة - مطروح

Contractor Consultant

Contractor

Plate Load Test Results

Layer:	SUB-BALLAST 2		0.90+
Station:	514+600	TO	514+700
Date:	23-10-23		

COMPANY	YOUSEF NEGIDA
Location	514+480

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	7.77	8.93		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.68	8.85		0.090	0.080		0.085
2.000	7.9	5.652	0.08	7.60	8.78		0.170	0.150		0.160
0.000	15.8	11.304	0.16	7.49	8.70		0.280	0.230		0.255
4.000	24.7	17.663	0.25	7.40	8.62		0.370	0.310		0.340
5.000	32.6	23.315	0.33	7.32	8.53		0.450	0.400		0.425
6.000	41.5	29.673	0.42	7.22	8.45		0.550	0.480		0.515
7.000	49.4	35.325	0.50	7.13	8.37		0.640	0.560		0.600
8.000	24.7	17.663	0.25	7.16	8.40		0.610	0.530		0.570
9.000	12.4	8.831	0.12	7.20	8.44		0.570	0.490		0.530
9.000	1.0	0.707	0.01	7.23	8.47		0.540	0.460		0.500
10.000	1.0	0.707	0.01	7.23	8.47		0.540	0.460		0.500
11.000	7.9	5.652	0.08	7.20	8.45		0.570	0.480		0.525
12.000	15.8	11.304	0.16	7.17	8.41		0.600	0.520		0.560
13.000	24.7	17.663	0.25	7.13	8.38		0.640	0.550		0.595
14.000	32.6	23.315	0.33	7.09	8.34		0.680	0.590		0.635
15.000	41.5	29.673	0.42	7.06	8.31		0.710	0.620		0.665

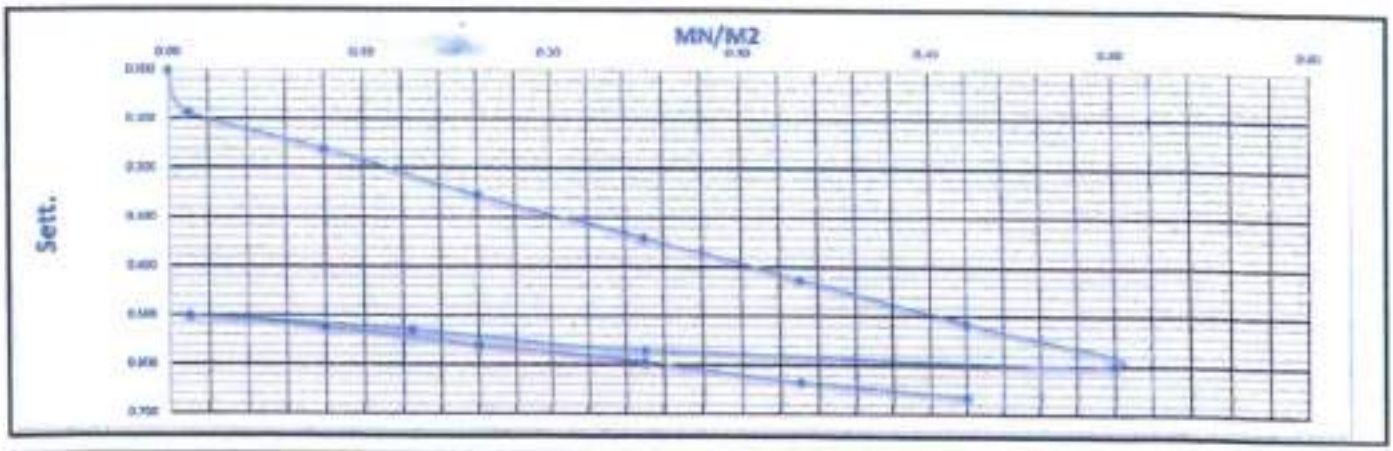
		1	ΔS	Δσ
$0.7\sigma_1$	0.35	0.44063	0.1975	0.2
$0.3\sigma_1$	0.15	0.24313		
$0.7\sigma_2$	0.35	0.64167	0.09166	0.2
$0.3\sigma_2$	0.15	0.55		
D (mm)	300			
Ev_1	227.85			
Ev_2	490.52			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.15		

LOAD

UN LOAD

RE LOAD



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

مشروع القطار السريع / فوكة - مطروح

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer:	SUB-BALLAST 2		0.90+
Station:	514+600	TO	514+700
Date:	23-10-23		

COMPANY	YOUSEF NEGIDA 1
Location	514+685

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	6.86	7.45		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.73	7.36		0.130	0.090		0.110
2.000	7.9	5.652	0.08	6.62	7.27		0.240	0.180		0.210
0.080	15.8	11.304	0.16	6.51	7.20		0.350	0.250		0.300
4.000	24.7	17.663	0.25	6.43	7.12		0.430	0.330		0.380
5.000	32.6	23.315	0.33	6.34	7.04		0.520	0.410		0.465
6.000	41.5	29.673	0.42	6.27	6.95		0.590	0.500		0.545
7.000	49.4	35.325	0.50	6.16	6.90		0.700	0.550		0.625
8.000	24.7	17.663	0.25	6.20	6.94		0.660	0.510		0.585
9.000	12.4	8.831	0.12	6.23	6.96		0.630	0.490		0.560
9.000	1.0	0.707	0.01	6.26	6.99		0.600	0.460		0.530
10.000	1.0	0.707	0.01	6.26	6.99		0.600	0.460		0.530
11.000	7.9	5.652	0.08	6.24	6.95		0.620	0.500		0.560
12.000	15.8	11.304	0.16	6.21	6.92		0.650	0.530		0.590
13.000	24.7	17.663	0.25	6.17	6.88		0.690	0.570		0.630
14.000	32.6	23.315	0.33	6.13	6.85		0.730	0.600		0.665
15.000	41.5	29.673	0.42	6.10	6.88		0.760	0.650		0.705

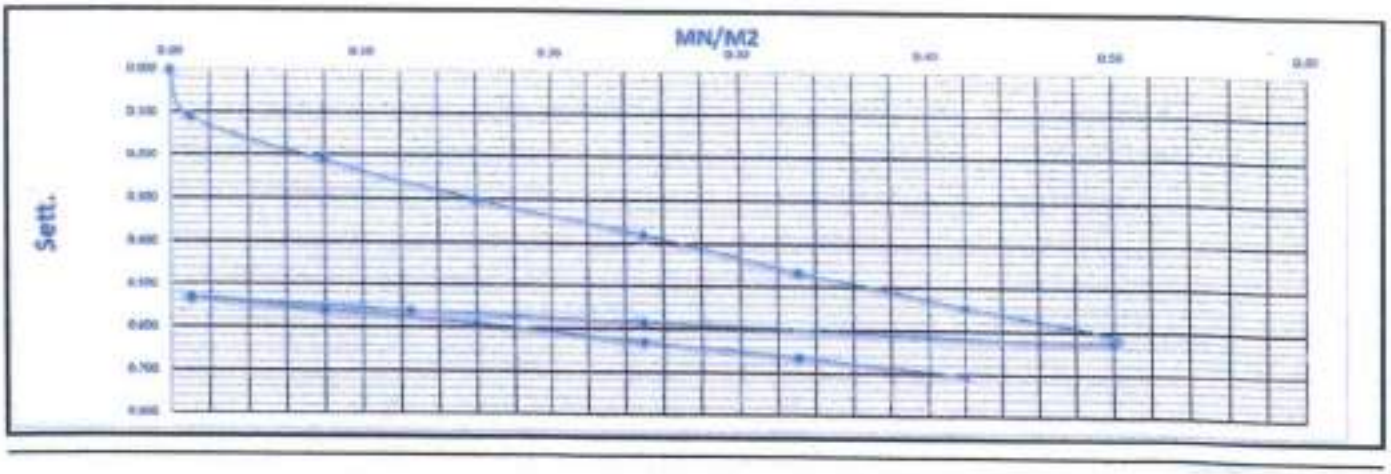
		I	ΔS	$\Delta\sigma$
$0.7\,\sigma_1$	0.35	0.475	0.18625	0.2
$0.3\,\sigma_1$	0.15	0.28875		
$0.7\sigma_2$	0.35	0.67389	0.08589	0.2
$0.3\sigma_2$	0.15	0.59		
D (mm)	300			
Ev_1	241.61			
Ev_2	536.44			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.21		

LOAD

UN LOAD

RE LOAD



Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name : Mahmoud Hamdi	Name :
Sign :	Sign :	Sign : Abdelhe

شركة نجدة للمقاولات
و.م. المعمل المركزي
مشروع القطار السريع / فوكة - مطروح

Contractor Consultant

Contractor

Plate Load Test Results

Layer:	SUB-BALLAST 2		0.90+
Station:	514+700	TO	514+800
Date:	23-10-23		

COMPANY	YOUSEF NEGIDA 1
Location	514+710

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	6.20	8.24		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.09	8.19		0.110	0.050		0.080
2.000	7.9	5.652	0.08	6.02	8.13		0.180	0.110		0.145
0.080	15.8	11.304	0.16	5.92	8.08		0.280	0.160		0.220
4.000	24.7	17.663	0.25	5.84	8.00		0.360	0.240		0.300
5.000	32.6	23.315	0.33	5.77	7.92		0.430	0.320		0.375
6.000	41.5	29.673	0.42	5.70	7.83		0.500	0.410		0.455
7.000	49.4	35.325	0.50	5.63	7.81		0.570	0.430		0.500
8.000	24.7	17.663	0.25	5.66	7.84		0.540	0.400		0.470
9.000	12.4	8.831	0.12	5.70	7.88		0.500	0.360		0.434
9.000	1.0	0.707	0.01	5.72	7.90		0.480	0.340		0.410
10.000	1.0	0.707	0.01	5.72	7.90		0.480	0.340		0.410
11.000	7.9	5.652	0.08	5.70	7.88		0.500	0.360		0.430
12.000	15.8	11.304	0.16	5.66	7.85		0.540	0.390		0.465
13.000	24.7	17.663	0.25	5.62	7.81		0.580	0.430		0.505
14.000	32.6	23.315	0.33	5.59	7.77		0.610	0.470		0.540
15.000	41.5	29.673	0.42	5.55	7.74		0.650	0.500		0.575

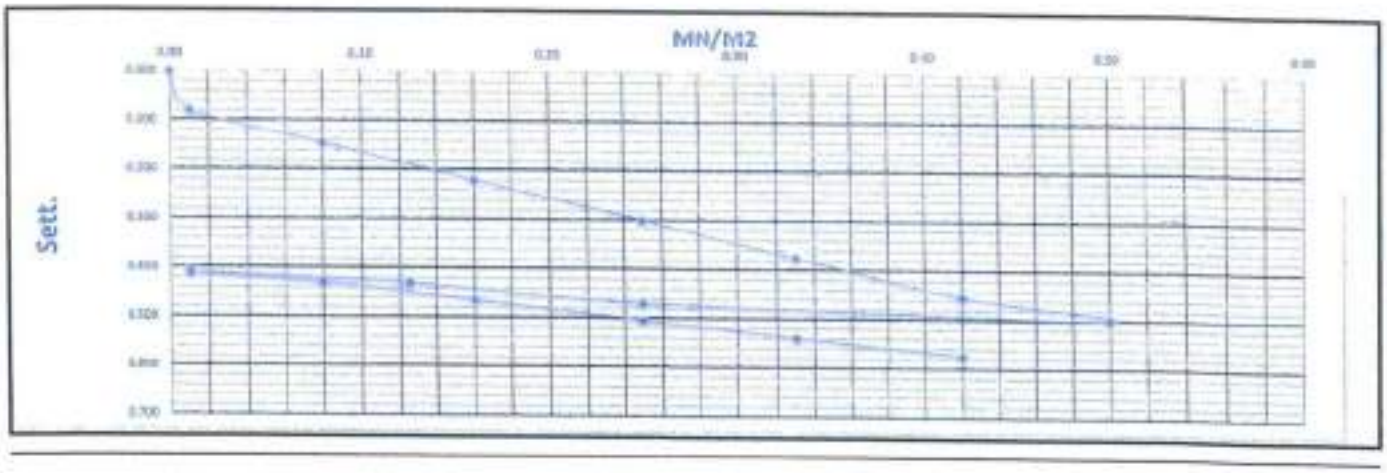
		s	ΔS	Δσ
$0.7\,\sigma_1$	0.35	0.41563	0.205	0.2
$0.3\,\sigma_1$	0.15	0.21063		
$0.7\sigma_2$	0.35	0.54778	0.09778	0.2
$0.3\sigma_2$	0.15	0.45		
D (mm)	300			
Ev_1	219.51			
Ev_2	460.24			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.10		

LOAD

UN LOAD

RE LOAD



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

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer:	SUB-BALLAST 2		0.90+
Station:	514+700	TO	514+800
Date:	23-10-23		

COMPANY	YOUSEF NEGIDA 1
Location	514+735

Loading Stage No.	Load Ro/	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	5.53	5.97		0.000	0.000		0.000
1.000	1.0	0.707	0.01	5.48	5.90		0.050	0.070		0.060
2.000	7.9	5.652	0.08	5.44	5.85		0.090	0.120		0.105
0.080	15.8	11.304	0.16	5.39	5.79		0.140	0.180		0.160
4.000	24.7	17.663	0.25	5.33	5.72		0.200	0.250		0.225
5.000	32.6	23.315	0.33	5.27	5.68		0.260	0.290		0.275
6.000	41.5	29.673	0.42	5.22	5.63		0.310	0.340		0.325
7.000	49.4	35.325	0.50	5.18	5.55		0.350	0.420		0.385
8.000	24.7	17.663	0.25	5.20	5.57		0.330	0.400		0.365
9.000	12.4	8.831	0.12	5.23	5.60		0.300	0.370		0.335
9.000	1.0	0.707	0.01	5.25	5.63		0.280	0.340		0.310
10.000	1.0	0.707	0.01	5.25	5.63		0.280	0.340		0.310
11.000	7.9	5.652	0.08	5.20	5.59		0.330	0.380		0.355
12.000	15.8	11.304	0.16	5.15	5.55		0.380	0.420		0.400
13.000	24.7	17.663	0.25	5.11	5.51		0.420	0.460		0.440
14.000	32.6	23.315	0.33	5.08	5.47		0.450	0.500		0.475
15.000	41.5	29.673	0.42	5.03	5.43		0.500	0.540		0.520

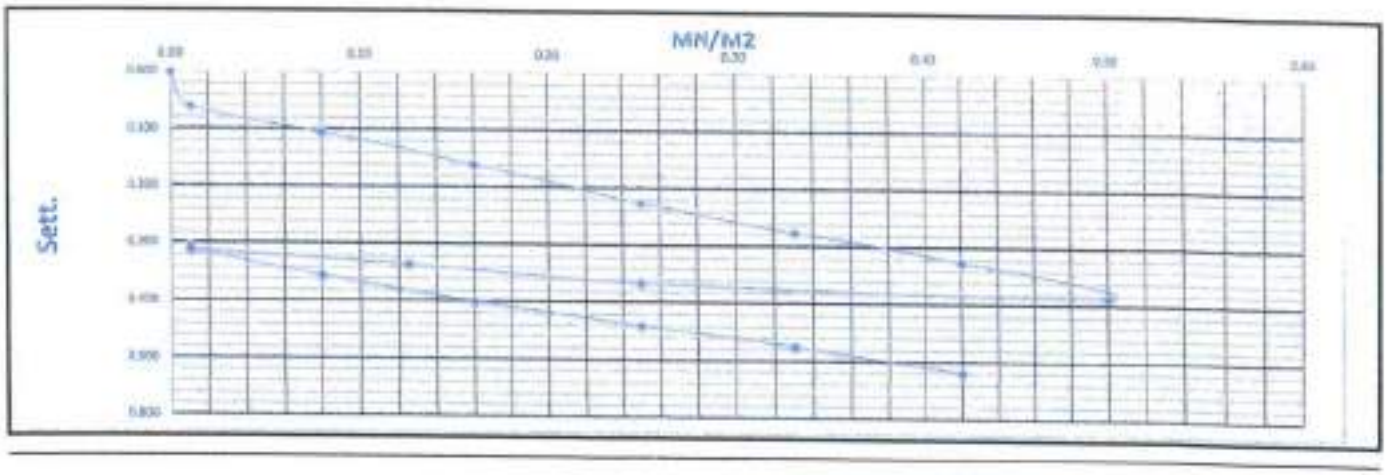
		s	ΔS	Δσ
$0.7\ \sigma_1$	0.35	0.2725	0.11938	0.2
$0.3\ \sigma_1$	0.15	0.15313		
$0.7\sigma_2$	0.35	0.485	0.085	0.2
$0.3\sigma_2$	0.15	0.4		
D (mm)	300			
Ev_1	376.86			
Ev_2	529.44			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.40		

LOAD

UN LOAD

RE LOAD



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

Connector Consultant

Contractor

Plate Load Test Results

Layer:	SUB-BALLAST 2		0.90+
Station:	514+700	TO	514+800
Date:	23-10-23		

COMPANY	YOUSEF NEGIDA 1
Location	514+760

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	6.70	8.13		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.56	8.05		0.140	0.080		0.110
2.000	7.9	5.652	0.08	6.47	7.98		0.230	0.150		0.190
0.080	15.8	11.304	0.16	6.40	7.89		0.300	0.240		0.270
4.000	24.7	17.663	0.25	6.33	7.73		0.370	0.400		0.385
5.000	32.6	23.315	0.33	6.26	7.64		0.440	0.490		0.465
6.000	41.5	29.673	0.42	6.22	7.55		0.480	0.580		0.530
7.000	49.4	35.325	0.50	6.14	7.46		0.560	0.670		0.615
8.000	24.7	17.663	0.25	6.17	7.51		0.530	0.620		0.575
9.000	12.4	8.831	0.12	6.20	7.56		0.500	0.570		0.535
9.000	1.0	0.707	0.01	6.22	7.60		0.480	0.530		0.505
10.000	1.0	0.707	0.01	6.22	7.60		0.480	0.530		0.505
11.000	7.9	5.652	0.08	6.20	7.57		0.500	0.560		0.530
12.000	15.8	11.304	0.16	6.17	7.53		0.530	0.600		0.565
13.000	24.7	17.663	0.25	6.12	7.49		0.580	0.640		0.610
14.000	32.6	23.315	0.33	6.10	7.46		0.600	0.670		0.635
15.000	41.5	29.673	0.42	6.07	7.42		0.630	0.710		0.670

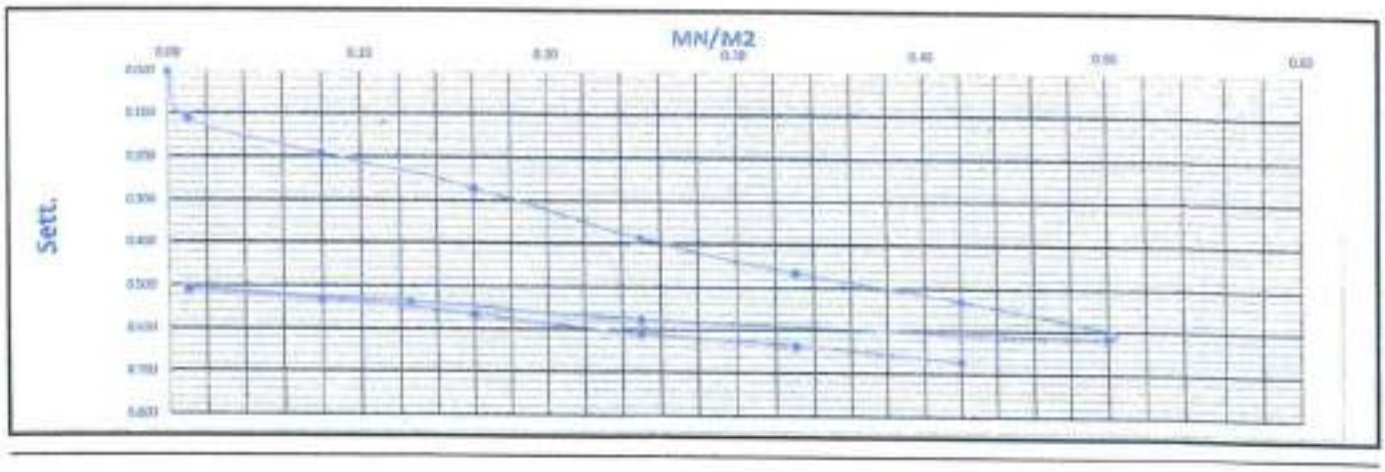
		1	ΔS	Δe
$0.7\sigma_1$	0.35	0.45563	0.19563	0.2
$0.3\sigma_1$	0.15	0.26		
$0.7\sigma_2$	0.35	0.64278	0.08778	0.2
$0.3\sigma_2$	0.15	0.555		
D (mm)	300			
Ev_1	230.83			
Ev_2	512.47			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.21		

LOAD

UN LOAD

RE LOAD



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

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer:	SUB-BALLAST 2		0.90+
Station:	514+700	TO	514+800
Date:	23-10-23		

COMPANY	VO ESEF NEGIDA 1
Location	514+785

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	6.20	9.05		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.13	8.98		0.070	0.070		0.070
2.000	7.9	5.652	0.08	6.03	8.85		0.170	0.200		0.185
0.080	15.8	11.304	0.16	5.91	8.74		0.290	0.310		0.300
4.000	24.7	17.663	0.25	5.81	8.65		0.390	0.400		0.395
5.000	32.6	23.315	0.33	5.73	8.55		0.470	0.500		0.485
6.000	41.5	29.673	0.42	5.64	8.46		0.560	0.590		0.575
7.000	49.4	35.325	0.50	5.53	8.35		0.670	0.700		0.685
8.000	24.7	17.663	0.25	5.59	8.41		0.610	0.640		0.625
9.000	12.4	8.831	0.12	5.64	8.47		0.560	0.580		0.570
9.000	1.0	0.707	0.01	5.69	8.54		0.510	0.510		0.510
10.000	1.0	0.707	0.01	5.69	8.54		0.510	0.510		0.510
11.000	7.9	5.652	0.08	5.68	8.52		0.520	0.530		0.525
12.000	15.8	11.304	0.16	5.66	8.48		0.540	0.570		0.555
13.000	24.7	17.663	0.25	5.64	8.42		0.560	0.630		0.595
14.000	32.6	23.315	0.33	5.60	8.39		0.600	0.660		0.630
15.000	41.5	29.673	0.42	5.54	8.37		0.660	0.680		0.670

		s	ΔS	Δσ
$0.7\,\sigma_1$	0.35	0.47875	0.19313	0.2
$0.3\,\sigma_1$	0.15	0.28563		
$0.7\sigma_2$	0.35	0.63889	0.09889	0.2
$0.3\sigma_2$	0.15	0.54		
D (mm)	300			
Ev_1	233.81			
Ev_2	455.06			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.95		

LOAD

UN LOAD

RE LOAD

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

شركة بحيرة للمقاولات والعمل المركزي
مشروع القطار السريع / فوكة - مطروح

Contractor Consultant

Contractor

Owner

Plate Load Test Results

Layer:	SUB-BALLAST 2		0.90+
Station:	514+800	TO	515+000
Date:	24-10-23		

COMPANY	YOUSEF NEGIDA 1
Location	514+810

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	7.00	7.58		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.90	7.50		0.100	0.080		0.090
2.000	7.9	5.652	0.08	6.86	7.43		0.140	0.150		0.145
0.080	15.8	11.304	0.16	6.81	7.36		0.190	0.220		0.205
4.000	24.7	17.663	0.25	6.77	7.30		0.230	0.280		0.255
5.000	32.6	23.315	0.33	6.72	7.24		0.280	0.340		0.310
6.000	41.5	29.673	0.42	6.63	7.15		0.370	0.430		0.400
7.000	49.4	35.325	0.50	6.59	7.09		0.410	0.490		0.450
8.000	24.7	17.663	0.25	6.64	7.14		0.360	0.440		0.400
9.000	12.4	8.831	0.12	6.68	7.16		0.320	0.420		0.370
9.000	1.0	0.707	0.01	6.70	7.19		0.300	0.390		0.345
10.000	1.0	0.707	0.01	6.70	7.19		0.300	0.390		0.345
11.000	7.9	5.652	0.08	6.68	7.17		0.320	0.410		0.365
12.000	15.8	11.304	0.16	6.65	7.15		0.350	0.430		0.390
13.000	24.7	17.663	0.25	6.61	7.12		0.390	0.460		0.425
14.000	32.6	23.315	0.33	6.58	7.10		0.420	0.480		0.450
15.000	41.5	29.673	0.42	6.55	7.06		0.450	0.520		0.485

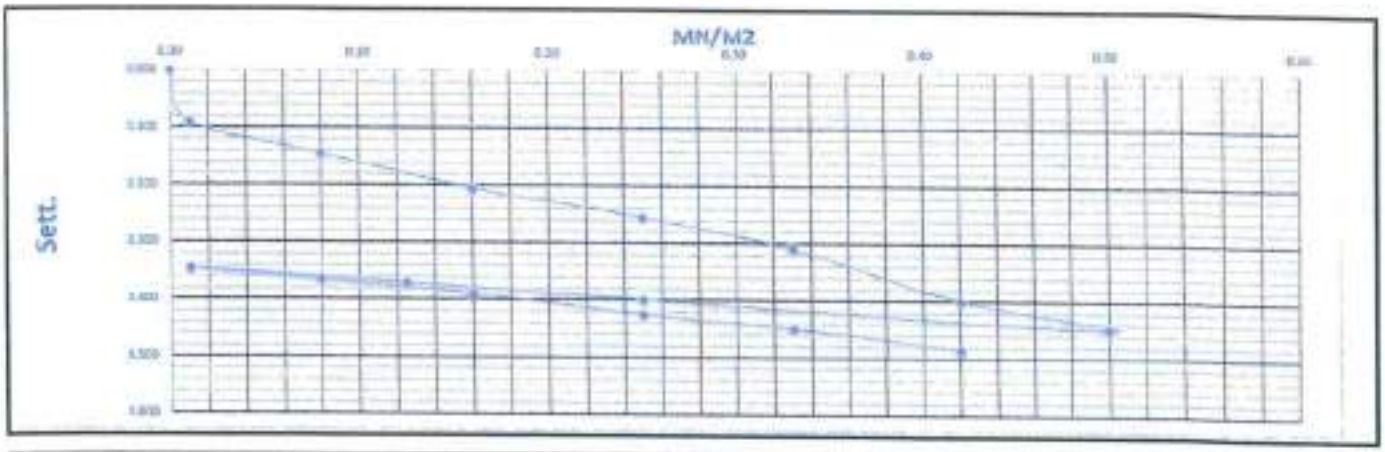
		λ	ΔS	Δe
$0.7\ \sigma_1$	0.35	0.35625	0.15875	0.2
$0.3\ \sigma_1$	0.15	0.1975		
$0.7\sigma_2$	0.35	0.45778	0.07778	0.2
$0.3\sigma_2$	0.15	0.385		
D (mm)	300			
Ev_2	283.46			
Ev_1	418.34			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.11		

LOAD

UN LOAD

RE LOAD



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

Contractor Consultant

Contractor

Owner

Plate Load Test Results

Layer:	SUB-BALLAST 2		0.90+
Station:	514+800	TO	515+000
Date:	24-10-23		

COMPANY	YOUSEF NEGIDA I
Location	514+835

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	AVR. Sett. mm
0.000	0.0	0.000	0.00	7.99	9.00		0.000	0.000		0.000
1.000	1.8	0.707	0.01	7.82	8.91		0.170	0.090		0.130
2.000	7.9	5.652	0.08	7.73	8.83		0.260	0.170		0.215
0.080	15.8	11.304	0.16	7.64	8.76		0.350	0.240		0.295
4.000	24.7	17.663	0.25	7.55	8.70		0.440	0.300		0.370
5.000	32.6	23.315	0.33	7.46	8.62		0.530	0.380		0.455
6.000	41.5	29.673	0.42	7.38	8.54		0.610	0.460		0.535
7.000	49.4	35.325	0.50	7.30	8.46		0.690	0.540		0.615
8.000	24.7	17.663	0.25	7.32	8.49		0.670	0.510		0.590
9.000	12.4	8.831	0.12	7.35	8.51		0.640	0.490		0.565
9.000	1.0	0.707	0.01	7.38	8.54		0.610	0.460		0.535
10.000	1.0	0.707	0.01	7.38	8.54		0.610	0.460		0.535
11.000	7.9	5.652	0.08	7.36	8.52		0.630	0.480		0.555
12.000	15.8	11.304	0.16	7.33	8.48		0.660	0.520		0.590
13.000	24.7	17.663	0.25	7.30	8.45		0.690	0.550		0.620
14.000	32.6	23.315	0.33	7.26	8.43		0.730	0.570		0.650
15.000	41.5	29.673	0.42	7.22	8.40		0.770	0.600		0.685

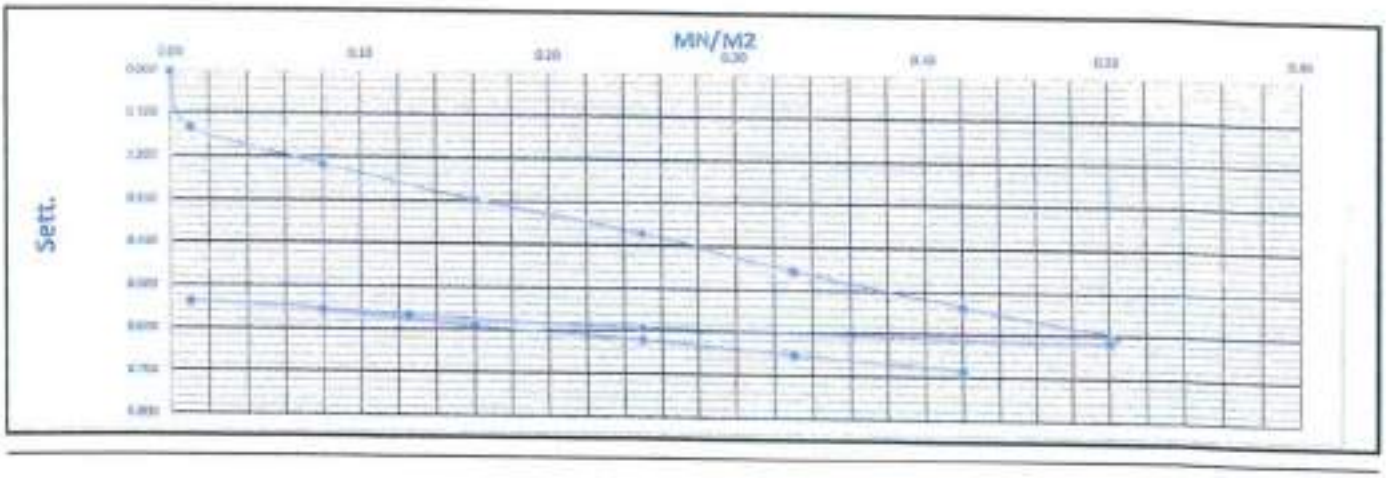
		λ	λS	λe
$0.7\ \sigma_1$	0.35	0.465	0.18	0.2
$0.3\ \sigma_1$	0.15	0.285		
$0.7\sigma_2$	0.35	0.65778	0.08278	0.2
$0.3\sigma_2$	0.15	0.575		
D (mm)	304			
Ev_1	250.00			
Ev_2	543.84			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.17		

LOAD

UN LOAD

RE LOAD



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

شركة [illegible]
المعمل المركزي
مشروع القطار السريع / فوكة - مطروح

Consultant Consultant Contractor Client

Plate Load Test Results

Layer:	SUB-BALLAST 2		0.90+
Station:	514+800	TO	515+000
Date:	24-10-23		

COMPANY	YOUSEF NEGIDA 1
Location	514+868

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	9.61	6.16		0.000	0.000		0.000
1.000	1.0	0.707	0.01	9.53	6.08		0.080	0.080		0.080
2.000	7.9	5.652	0.08	9.43	5.96		0.180	0.200		0.190
0.080	15.8	11.304	0.16	9.32	5.85		0.290	0.310		0.300
4.000	24.7	17.663	0.25	9.24	5.74		0.370	0.420		0.395
5.000	32.6	23.315	0.33	9.12	5.67		0.490	0.490		0.490
6.000	41.5	29.673	0.42	9.04	5.58		0.570	0.580		0.575
7.000	49.4	35.325	0.50	8.95	5.47		0.660	0.690		0.675
8.000	24.7	17.663	0.25	8.98	5.49		0.630	0.670		0.650
9.000	12.4	8.831	0.12	9.04	5.54		0.570	0.620		0.595
9.000	1.0	0.707	0.01	9.10	5.60		0.510	0.560		0.535
10.000	1.0	0.707	0.01	9.10	5.60		0.510	0.560		0.535
11.000	7.9	5.652	0.08	9.09	5.57		0.520	0.590		0.555
12.000	15.8	11.304	0.16	9.04	5.54		0.570	0.620		0.595
13.000	24.7	17.663	0.25	9.01	5.50		0.600	0.660		0.630
14.000	32.6	23.315	0.33	8.97	5.46		0.640	0.700		0.670
15.000	41.5	29.673	0.42	8.92	5.43		0.690	0.730		0.710

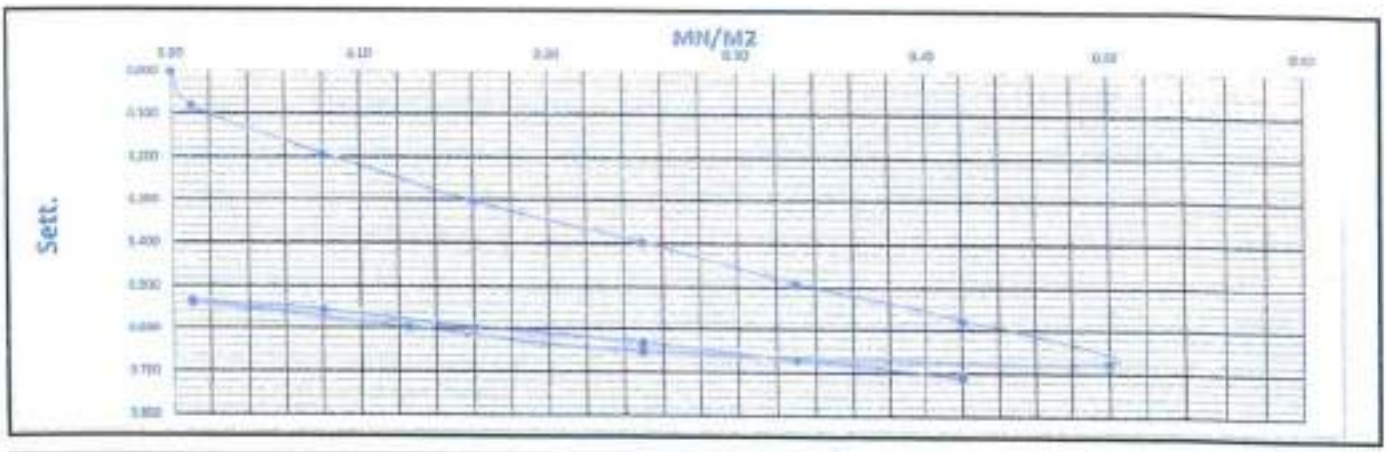
		γ	ΔS	$\Delta\sigma$
$0.7\ \sigma_1$	0.35	0.4875	0.20125	0.2
$0.3\ \sigma_1$	0.15	0.28625		
$0.7\sigma_2$	0.35	0.67889	0.10389	0.2
$0.3\sigma_2$	0.15	0.575		
D (mm)	300			
Ev_1	223.60			
Ev_2	433.16			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.94		

LOAD

UN LOAD

RE LOAD



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

Contractor Consultant

Contractor

Owner

Plate Load Test Results

Layer:	SUB-BALLAST 2		0.90+
Station:	514+800	TO	515+000
Date:	24-10-23		

COMPANY	YOUSEF NEGIDA 1
Location	514+885

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dist 1 mm	Dist 2 mm	Dist 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	8.28	7.50		0.000	0.000		0.000
1.000	1.0	0.707	0.01	8.17	7.42		0.110	0.080		0.095
2.000	7.9	5.652	0.08	8.08	7.31		0.200	0.190		0.195
0.080	15.8	11.304	0.16	7.98	7.22		0.300	0.280		0.290
4.000	24.7	17.663	0.25	7.90	7.14		0.380	0.360		0.370
5.000	32.6	23.315	0.33	7.82	7.06		0.460	0.440		0.450
6.000	41.5	29.673	0.42	7.76	6.95		0.520	0.550		0.535
7.000	49.4	35.325	0.50	7.67	6.86		0.610	0.640		0.625
8.000	24.7	17.663	0.25	7.71	6.90		0.570	0.600		0.585
9.000	12.4	8.831	0.12	7.75	6.94		0.530	0.560		0.545
9.000	1.0	0.707	0.01	7.80	6.99		0.480	0.510		0.495
10.000	1.0	0.707	0.01	7.80	6.99		0.480	0.510		0.495
11.000	7.9	5.652	0.08	7.75	6.96		0.530	0.540		0.535
12.000	15.8	11.304	0.16	7.71	6.92		0.570	0.580		0.575
13.000	24.7	17.663	0.25	7.68	6.87		0.600	0.630		0.615
14.000	32.6	23.315	0.33	7.64	6.84		0.640	0.660		0.650
15.000	41.5	29.673	0.42	7.60	6.80		0.680	0.700		0.690

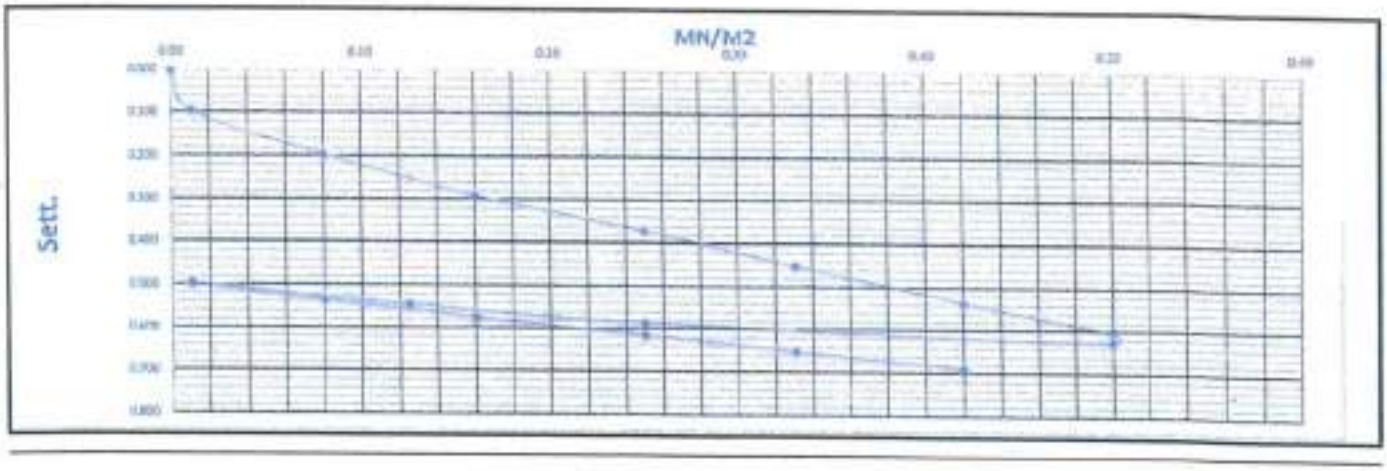
		I	ΔS	Se
$0.7\sigma_1$	0.35	0.45625	0.17813	0.2
$0.3\sigma_1$	0.15	0.27813		
$0.7\sigma_2$	0.35	0.65889	0.08388	0.2
$0.3\sigma_2$	0.15	0.575		
D (mm)	300			
Ev_1	202.63			
Ev_2	456.45			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.12		

LOAD

UN LOAD

RE LOAD



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

Contractor Consultant

Contractor

Plate Load Test Results

Layer:	SUB-BALLAST 2		0.90+
Station:	514+800	TO	515+000
Date:	24-10-23		

COMPANY	YOUSEF NEGIDA I
Location	514+910

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	6.66	7.49		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.57	7.40		0.090	0.090		0.090
2.000	7.9	5.652	0.08	6.50	7.33		0.160	0.160		0.160
0.080	15.8	11.304	0.16	6.42	7.26		0.240	0.230		0.235
4.000	24.7	17.663	0.25	6.33	7.20		0.330	0.290		0.310
5.000	32.6	23.315	0.33	6.24	7.12		0.420	0.370		0.395
6.000	41.5	29.673	0.42	6.17	7.05		0.490	0.440		0.465
7.000	49.4	35.325	0.50	6.10	6.95		0.560	0.540		0.550
8.000	24.7	17.663	0.25	6.14	7.00		0.520	0.490		0.505
9.000	12.4	8.831	0.12	6.18	7.04		0.480	0.450		0.465
9.000	1.0	0.707	0.01	6.22	7.08		0.440	0.410		0.425
10.000	1.0	0.707	0.01	6.22	7.08		0.440	0.410		0.425
11.000	7.9	5.652	0.08	6.20	7.05		0.460	0.440		0.450
12.000	15.8	11.304	0.16	6.16	7.02		0.500	0.470		0.485
13.000	24.7	17.663	0.25	6.13	6.97		0.530	0.520		0.525
14.000	32.6	23.315	0.33	6.10	6.93		0.560	0.560		0.560
15.000	41.5	29.673	0.42	6.05	6.90		0.610	0.590		0.600

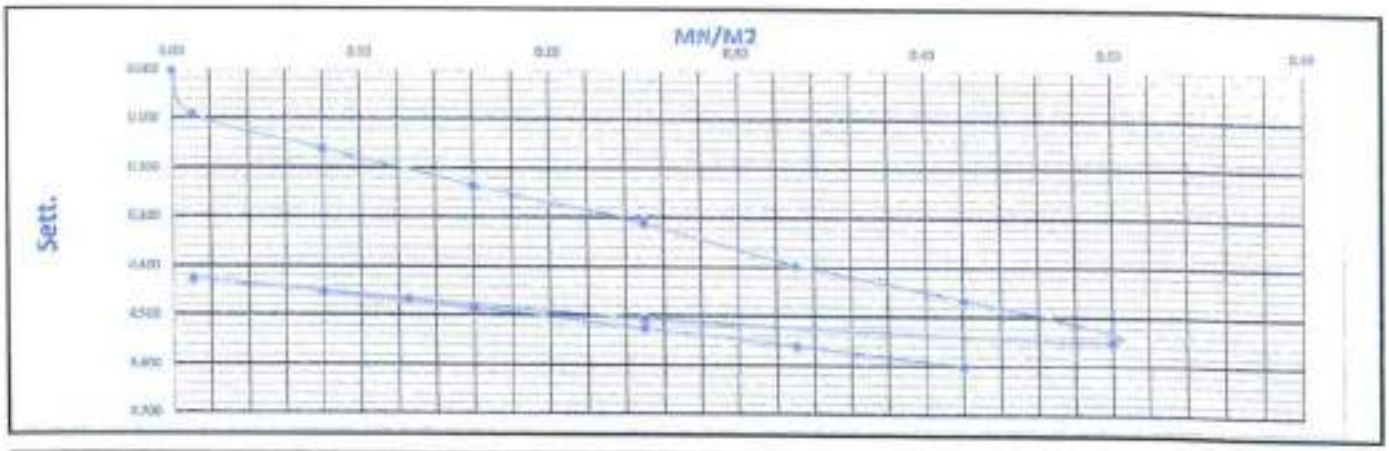
		ε	ΔS	$\Delta\sigma$
$0.7\,\sigma_1$	0.35	0.39063	0.165	0.2
$0.3\,\sigma_1$	0.15	0.22563		
$0.7\sigma_2$	0.35	0.56889	0.09389	0.2
$0.3\sigma_2$	0.15	0.475		
D (mm)	300			
Ev_1	272.73			
Ev_2	479.30			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.76		

LOAD

UN LOAD

RE LOAD



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

Contractor Consultant

Contractor

Plate Load Test Results

Layer:	SUB-BALLAST 2		0.90+
Station:	514+800	TO	515+000
Date:	24-10-23		

COMPANY	YOUSEF NEGIDA 1
Location	514+935

Loading Stage No.	Load Bar	Load kN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Adj. Sett. mm
0.000	0.0	0.000	0.00	8.70	7.90		0.000	0.000		0.000
1.000	1.0	0.707	0.01	8.59	7.81		0.110	0.090		0.100
2.000	7.9	5.652	0.08	8.54	7.72		0.160	0.180		0.170
0.080	15.8	11.304	0.16	8.49	7.62		0.210	0.280		0.245
4.000	24.7	17.663	0.25	8.40	7.55		0.300	0.350		0.325
5.000	32.6	23.315	0.33	8.31	7.47		0.390	0.430		0.410
6.000	41.5	29.673	0.42	8.21	7.37		0.490	0.530		0.510
7.000	49.4	35.325	0.50	8.07	7.25		0.630	0.650		0.640
8.000	24.7	17.663	0.25	8.08	7.27		0.620	0.630		0.625
9.000	12.4	8.831	0.12	8.10	7.31		0.600	0.590		0.595
9.000	1.0	0.707	0.01	8.13	7.36		0.570	0.540		0.555
10.000	1.0	0.707	0.01	8.13	7.36		0.570	0.540		0.555
11.000	7.9	5.652	0.08	8.12	7.34		0.580	0.560		0.570
12.000	15.8	11.304	0.16	8.10	7.32		0.600	0.580		0.590
13.000	24.7	17.663	0.25	8.06	7.29		0.640	0.610		0.625
14.000	32.6	23.315	0.33	8.03	7.26		0.670	0.640		0.655
15.000	41.5	29.673	0.42	8.00	7.24		0.700	0.660		0.680

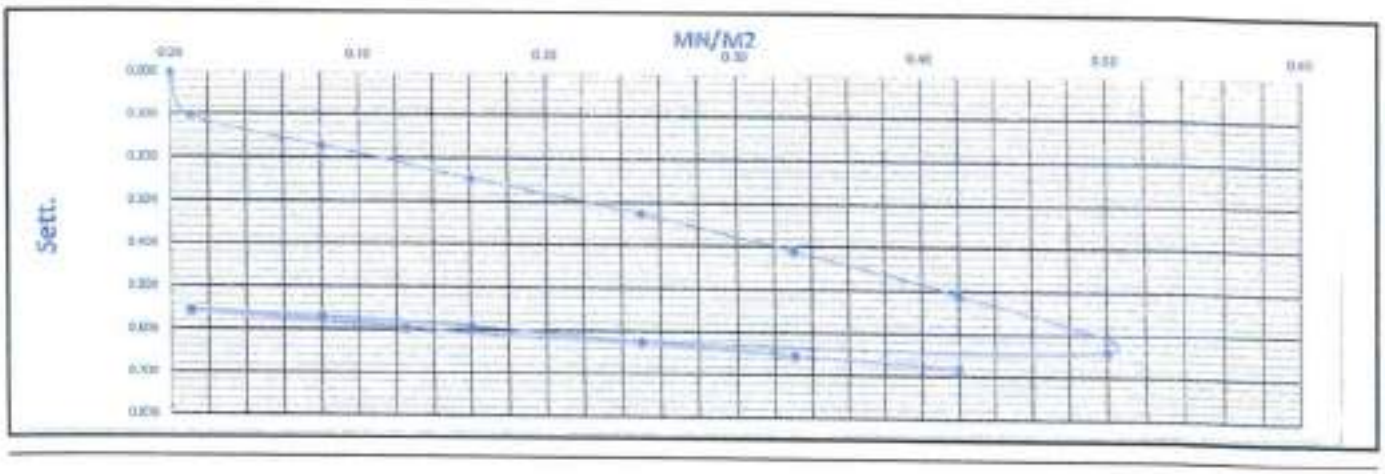
		1	ΔS	ΔS
$0.7\,\sigma_1$	0.35	0.39625	0.16962	0.2
$0.3\,\sigma_1$	0.15	0.23563		
$0.7\sigma_2$	0.35	0.66056	0.07555	0.2
$0.3\sigma_2$	0.15	0.585		
D (mm)	300			
Ev_1	280.16			
Ev_2	905.60			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.13		

LOAD

UN LOAD

RE LOAD



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

Contractor Consultant

Contractor

Owner

Plate Load Test Results

Layer:	SUB-BALLAST 2		0.90+
Station:	514+800	TO	515+000
Date:	24-10-23		

COMPANY	YOUSEF NEGIDA 1
Location	514+960

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	7.11	8.42		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.03	8.33		0.080	0.090		0.085
2.000	7.9	5.652	0.08	6.92	8.24		0.190	0.180		0.185
0.080	15.8	11.304	0.16	6.90	8.15		0.210	0.270		0.240
4.000	24.7	17.663	0.25	6.83	8.06		0.280	0.360		0.320
5.000	32.6	23.315	0.33	6.74	8.00		0.370	0.420		0.395
6.000	41.5	29.673	0.42	6.66	7.93		0.450	0.490		0.470
7.000	49.4	35.325	0.50	6.60	7.86		0.510	0.560		0.535
8.000	24.7	17.663	0.25	6.64	7.90		0.470	0.520		0.495
9.000	12.4	8.831	0.12	6.67	7.93		0.440	0.490		0.465
9.000	1.0	0.707	0.01	6.71	7.96		0.400	0.460		0.430
10.000	1.0	0.707	0.01	6.71	7.96		0.400	0.460		0.430
11.000	7.9	5.652	0.08	6.67	7.92		0.440	0.500		0.470
12.000	15.8	11.304	0.16	6.63	7.88		0.480	0.540		0.510
13.000	24.7	17.663	0.25	6.60	7.83		0.510	0.590		0.550
14.000	32.6	23.315	0.33	6.56	7.80		0.550	0.620		0.585
15.000	41.5	29.673	0.42	6.52	7.75		0.590	0.670		0.630

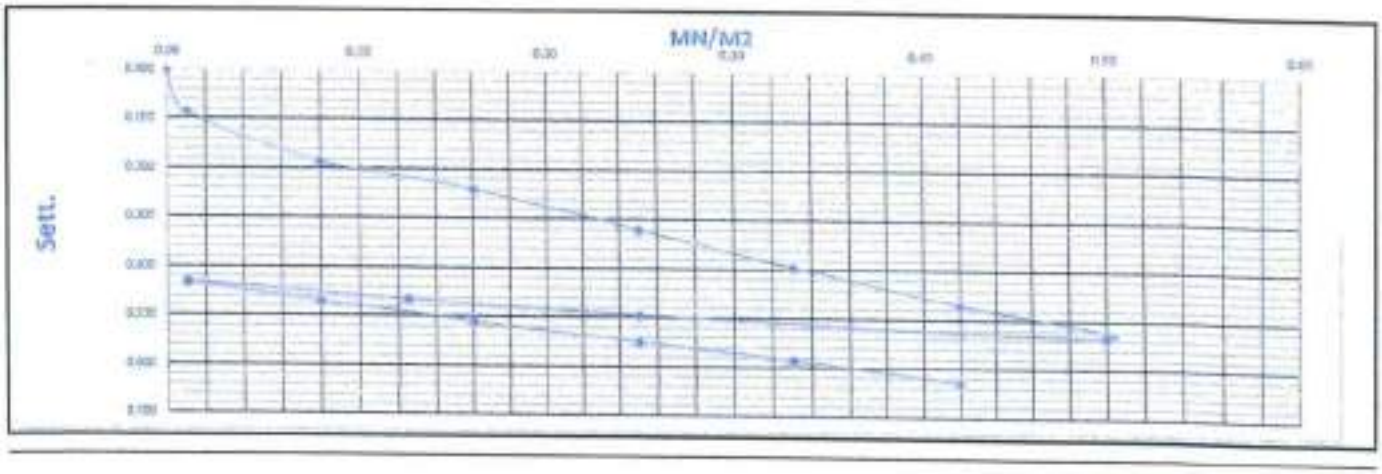
		1	ΔS	Δσ
$0.7\,\sigma_1$	0.35	0.41313	0.18	0.2
$0.3\,\sigma_1$	0.15	0.23313		
$0.7\sigma_2$	0.35	0.595	0.015	0.2
$0.3\sigma_2$	0.15	0.51		
D (mm)	300			
Ev_1	250.00			
Ev_2	529.44			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.11		

LOAD

UN LOAD

RE LOAD



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

Contractor Consultant

Contractor

Plate Load Test Results

Layer:	SUB-BALLAST 2		0.90+
Station:	514+800	TO	515+000
Date:	24-10-23		

COMPANY	YOUSEF NEGIDA 1
Location	514+985

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	7.19	8.57		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.09	8.50		0.100	0.070		0.085
2.000	7.9	5.652	0.08	7.00	8.41		0.190	0.160		0.175
0.080	15.8	11.304	0.16	6.92	8.33		0.270	0.240		0.255
4.000	24.7	17.663	0.25	6.84	8.24		0.350	0.330		0.340
5.000	32.6	23.315	0.33	6.79	8.16		0.400	0.410		0.405
6.000	41.5	29.673	0.42	6.71	8.12		0.480	0.450		0.465
7.000	49.4	35.325	0.50	6.63	8.03		0.560	0.540		0.550
8.000	24.7	17.663	0.25	6.66	8.06		0.530	0.510		0.520
9.000	12.4	8.831	0.12	6.70	8.10		0.490	0.470		0.480
9.000	1.0	0.707	0.01	6.73	8.13		0.460	0.440		0.450
10.000	1.0	0.707	0.01	6.73	8.13		0.460	0.440		0.450
11.000	7.9	5.652	0.08	6.70	8.10		0.490	0.470		0.480
12.000	15.8	11.304	0.16	6.68	8.05		0.510	0.520		0.515
13.000	24.7	17.663	0.25	6.64	8.01		0.550	0.560		0.555
14.000	32.6	23.315	0.33	6.60	7.98		0.590	0.590		0.590
15.000	41.5	29.673	0.42	6.55	7.95		0.640	0.620		0.630

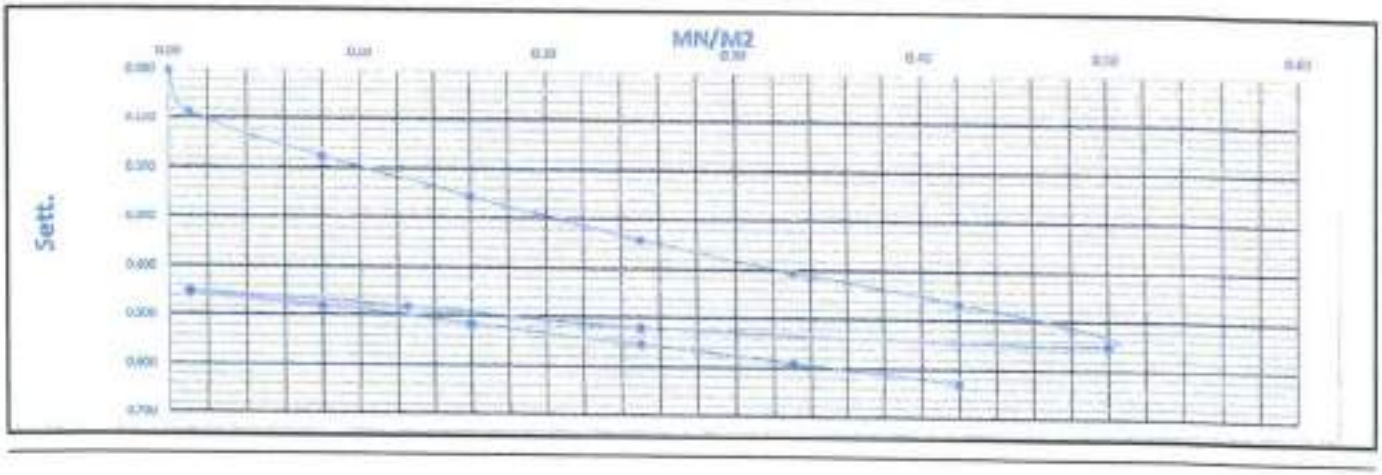
		I	ΔS	Ar
$0.7\,\sigma_1$	0.35	0.39063	0.14563	0.2
$0.3\,\sigma_1$	0.15	0.245		
$0.7\sigma_2$	0.35	0.59889	0.08889	0.2
$0.3\sigma_2$	0.15	0.51		
D (mm)	300			
E_{v1}	309.81			
E_{v2}	506.27			
Area (Sq.m)	0.07065			

E2/Ev1	1.64		

LOAD

UN LOAD

RE LOAD



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

Contractor Consultant

Contractor

Plate Load Test Results

Layer:	SUB-BALLAST	0.90+	
Station:	517+020	TO	517+100
Date:	05-11-23		

COMPANY	Y'OUSEF NEGIDA 1
Location	517+025

Loading	Load	Load	Stress	Dial 1	Dial 2	Dial 3	Sett. 1	Sett. 2	Sett. 3	Avg. Sett.
Stage No.	Bar	KN	MN/M2	mm	mm	mm	mm	mm	mm	mm
0.000	0.0	0.000	0.00	6.81	8.21		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.73	8.12		0.080	0.090		0.085
2.000	7.9	5.652	0.08	6.66	8.03		0.150	0.180		0.165
0.080	15.8	11.304	0.16	6.58	7.94		0.230	0.270		0.250
4.000	24.7	17.663	0.25	6.52	7.86		0.290	0.350		0.320
5.000	32.6	23.315	0.33	6.46	7.80		0.350	0.410		0.380
6.000	41.5	29.673	0.42	6.40	7.76		0.410	0.450		0.430
7.000	49.4	35.325	0.50	6.33	7.66		0.480	0.550		0.515
8.000	24.7	17.663	0.25	6.34	7.68		0.470	0.530		0.500
9.000	12.4	8.831	0.12	6.36	7.71		0.450	0.500		0.475
9.000	1.0	0.707	0.01	6.38	7.72		0.430	0.490		0.460
10.000	1.0	0.707	0.01	6.38	7.72		0.430	0.490		0.460
11.000	7.9	5.652	0.08	6.34	7.70		0.470	0.510		0.490
12.000	15.8	11.304	0.16	6.31	7.66		0.500	0.550		0.525
13.000	24.7	17.663	0.25	6.26	7.64		0.550	0.570		0.560
14.000	32.6	23.315	0.33	6.24	7.59		0.570	0.620		0.595
15.000	41.5	29.673	0.42	6.21	7.55		0.600	0.660		0.630

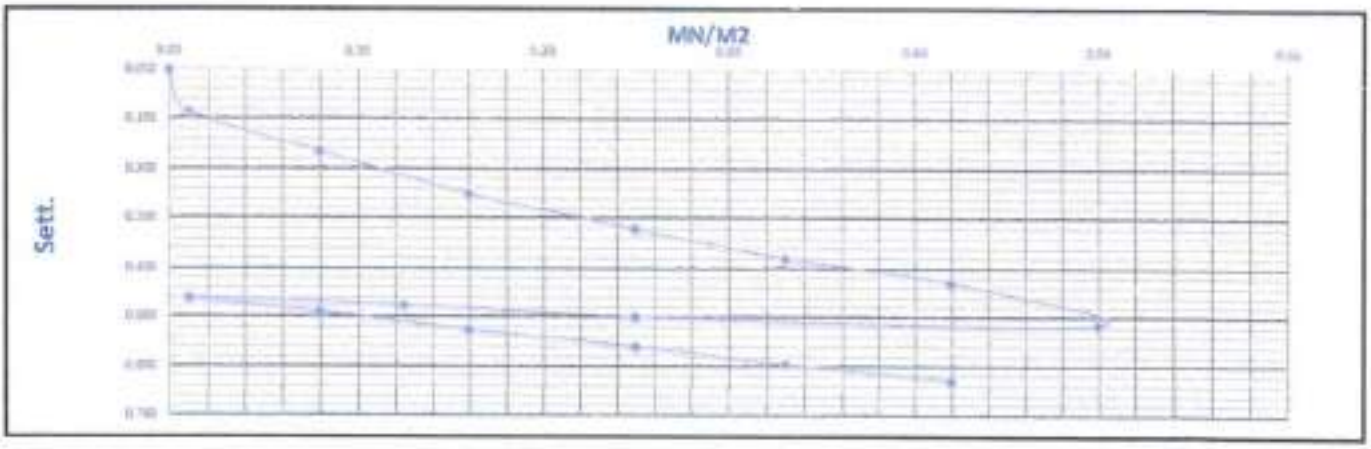
		ε	ΔS	Δσ
$0.7\ \sigma_1$	0.35	0.35563	0.11625	0.2
$0.3\ \sigma_1$	0.15	0.23938		
$0.7\sigma_2$	0.35	0.60278	0.08277	0.2
$0.3\sigma_2$	0.15	0.52		
D (mm)	300			
Ev_1	387.10			
Ev_2	543.64			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.40		

LOAD

UN LOAD

RE LOAD



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

شركة نجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع/فوكة - مطروح

Contractor Consultant

Contractor

Plate Load Test Results

Layer: SUB-BALLAST 0.90+

Station: 517+020 TO 517+100

Date: 05-11-23

COMPANY	YOUSEF NEGIDA 1
Location	517+050

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	7.65	8.93		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.59	8.84		0.060	0.090		0.075
2.000	7.9	5.652	0.08	7.52	8.77		0.130	0.160		0.145
0.080	15.8	11.304	0.16	7.46	8.70		0.190	0.230		0.210
4.000	24.7	17.663	0.25	7.40	8.63		0.250	0.300		0.275
5.000	32.6	23.315	0.33	7.34	8.55		0.310	0.380		0.345
6.000	41.5	29.673	0.42	7.26	8.48		0.390	0.450		0.420
7.000	49.4	35.325	0.50	7.18	8.41		0.470	0.520		0.495
8.000	24.7	17.663	0.25	7.21	8.43		0.440	0.500		0.470
9.000	12.4	8.831	0.12	7.23	8.45		0.420	0.480		0.450
9.000	1.0	0.707	0.01	7.25	8.48		0.400	0.450		0.425
10.000	1.0	0.707	0.01	7.25	8.48		0.400	0.450		0.425
11.000	7.9	5.652	0.08	7.22	8.45		0.430	0.480		0.455
12.000	15.8	11.304	0.16	7.19	8.43		0.460	0.500		0.480
13.000	24.7	17.663	0.25	7.17	8.37		0.480	0.560		0.520
14.000	32.6	23.315	0.33	7.14	8.34		0.510	0.590		0.550
15.000	41.5	29.673	0.42	7.10	8.30		0.550	0.630		0.590

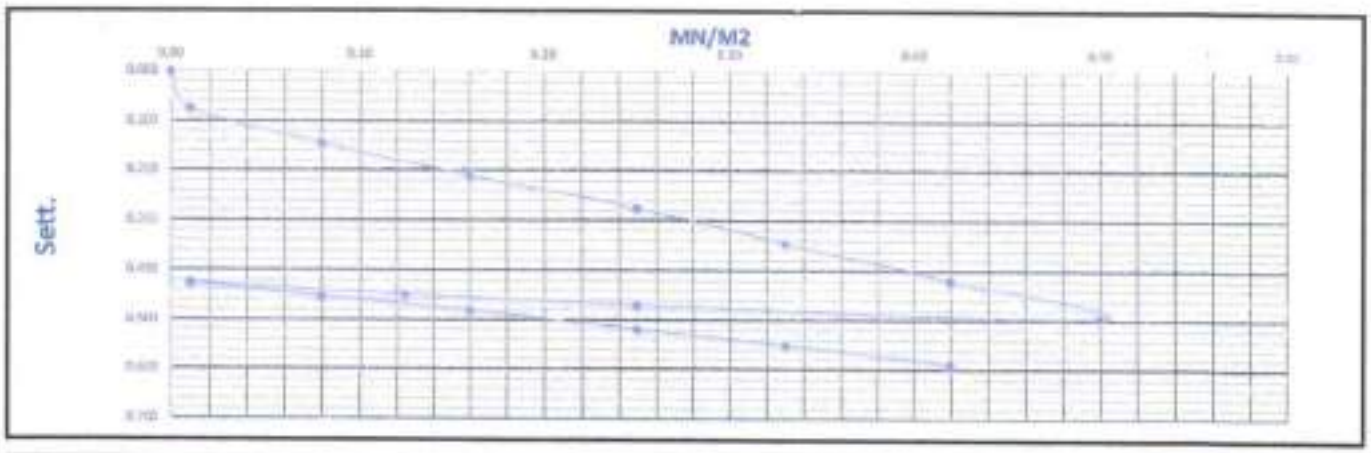
		s	ΔS	Δσ
$0.7\sigma_1$	0.35	0.35438	0.1525	0.2
$0.3\sigma_1$	0.15	0.20188		
$0.7\sigma_2$	0.35	0.55889	0.07389	0.2
$0.3\sigma_2$	0.15	0.485		
D (mm)	300			
Ev_1	298.80			
Ev_2	609.05			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.04		

LOAD

UN LOAD

RE LOAD



Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name : Shehab Hamdi	Name : 5 / 11 / 2023
Sign :	Sign :	Sign :

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

Contractor Consultant Contractor Owner

Plate Load Test Results

Layer: SUB-BALLAST 0.90+

Station: 517+020 TO 517+100

Date: 05-11-23

COMPANY	YOUSEF NEGIDA 1
Location	517+075

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	7.98	6.85		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.92	6.79		0.060	0.060		0.060
2.000	7.9	5.652	0.08	7.85	6.72		0.130	0.130		0.130
0.080	15.8	11.304	0.16	7.78	6.62		0.200	0.230		0.215
4.000	24.7	17.663	0.25	7.71	6.51		0.270	0.340		0.305
5.000	32.6	23.315	0.33	7.63	6.44		0.350	0.410		0.380
6.000	41.5	29.673	0.42	7.58	6.38		0.400	0.470		0.435
7.000	49.4	35.325	0.50	7.51	6.29		0.470	0.560		0.515
8.000	24.7	17.663	0.25	7.53	6.30		0.450	0.550		0.500
9.000	12.4	8.831	0.12	7.57	6.33		0.410	0.520		0.465
9.000	1.0	0.707	0.01	7.61	6.37		0.370	0.480		0.425
10.000	1.0	0.707	0.01	7.61	6.37		0.370	0.480		0.425
11.000	7.9	5.652	0.08	7.60	6.33		0.380	0.520		0.450
12.000	15.8	11.304	0.16	7.57	6.30		0.410	0.550		0.480
13.000	24.7	17.663	0.25	7.53	6.26		0.450	0.590		0.520
14.000	32.6	23.315	0.33	7.48	6.24		0.500	0.610		0.555
15.000	41.5	29.673	0.42	7.44	6.20		0.540	0.650		0.595

		s	ΔS	As
$0.7\,\sigma_1$	0.35	0.365	0.16063	0.2
$0.3\,\sigma_1$	0.15	0.20438		
$0.7\sigma_2$	0.35	0.56389	0.08889	0.2
$0.3\sigma_2$	0.15	0.475		
D (mm)	300			
Ev_1	288.10			
Ev_2	506.25			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.81		

LOAD

UN LOAD

RE LOAD

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

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

Contractor Consultant

Contractor

Plate Load Test Results

Layer: SUB-BALLAST 0.90+

Station: 517+020 TO 517+100

Date: 05-11-23

COMPANY	YOUSEF NEGIDA 1
Location	517+100

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	6.17	7.21		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.09	7.14		0.080	0.070		0.075
2.000	7.9	5.652	0.08	6.01	7.06		0.160	0.150		0.155
0.080	15.8	11.304	0.16	5.96	7.00		0.210	0.210		0.210
4.000	24.7	17.663	0.25	5.90	6.93		0.270	0.280		0.275
5.000	32.6	23.315	0.33	5.83	6.88		0.340	0.330		0.335
6.000	41.5	29.673	0.42	5.76	6.81		0.410	0.400		0.405
7.000	49.4	35.325	0.50	5.70	6.74		0.470	0.470		0.470
8.000	24.7	17.663	0.25	5.73	6.76		0.440	0.450		0.445
9.000	12.4	8.831	0.12	5.75	6.79		0.420	0.420		0.420
9.000	1.0	0.707	0.01	5.78	6.81		0.390	0.400		0.395
10.000	1.0	0.707	0.01	5.78	6.81		0.390	0.400		0.395
11.000	7.9	5.652	0.08	5.75	6.78		0.420	0.430		0.425
12.000	15.8	11.304	0.16	5.72	6.75		0.450	0.460		0.455
13.000	24.7	17.663	0.25	5.68	6.72		0.490	0.490		0.490
14.000	32.6	23.315	0.33	5.65	6.69		0.520	0.520		0.520
15.000	41.5	29.673	0.42	5.61	6.67		0.560	0.540		0.550

		s	ΔS	Ar
$0.7\sigma_2$	0.35	0.34813	0.145	0.2
$0.3\sigma_2$	0.15	0.20313		
$0.7\sigma_2$	0.35	0.52667	0.07166	0.2
$0.3\sigma_2$	0.15	0.455		
D (mm)	300			
Ev_1	319.34			
Ev_2	627.93			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.01		

LOAD

UN LOAD

RE LOAD

Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name : Shehab Hamdi	Name : 5/11/2023
Sign :	Sign :	Sign :

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

هيئة عامة
للطرق والكباري

قائمة الكميات الواردة بالمستخلص جاري (٢)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٥١٤+٠٠٠ الى الكم ٥١٨+٥٠٠ بطول ٤,٥ كيلو متر بالاتجاهين

رقم البند و بيانه : (٤-١) أعمال توريد وتشغيل طبقات التأسيس (prepared subgrade)

تـــــنفيـــــذ : شركة يوسف نجيدة للمقاولات

مقدار العمل السابق : ١٨٦٩٧,٦٤ م٣

بيان الاعمال بالمقايسة		الموقع الكيلومتري		الابعاد (متر)		الكمية
		من	الى	طول	مساحة المقطع	
القطاع الأول	طبقة تاسيس أولى	٥١٥+١٨٠	٥١٥+٣٠٠	١٢٠	٣,٩١٢	٤٦٩,٤٥
القطاع الثاني	طبقة تاسيس أولى	٥١٥+٨٤٠	٥١٥+٩٦٠	١٢٠	٣,٨٧٧	٤٦٥,٢٣
القطاع الثالث	طبقة تاسيس ثانية	٥١٤+٠٠٠	٥١٤+١٦٠	١٦٠	٣,٧٢٣	٥٩٥,٦٥
القطاع الرابع	طبقة تاسيس ثانية	٥١٥+٠٤٠	٥١٥+٣٠٠	٢٦٠	٣,٧٢٣	٩٦٧,٩٩
القطاع الخامس	طبقة تاسيس ثانية	٥١٥+٨٤٠	٥١٦+٣٥٠	٥١٠	٣,٩٣٢	٢٠٠٥,٢٧
القطاع السادس	طبقة تاسيس ثانية	٥١٦+٨٨٠	٥١٧+١٦٠	٢٨٠	٩,٢٩٩	٢٦٠٣,٨٤
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)						٧١٠٧,٤٣
الاجمالـــــي الكلـــي (م٣)						٢٥٨٠٥,٠٧

مهندس الشركة	مهندس الإستشاري (xyz)	مهندس الإستشاري	مهندس الهيئة العامة
م / زياد علي	م / محمد خليل	مكتب د/خالد قنديل	للطرق والكباري
		م / خالد فوزي	م / إبراهيم الحناوي

الهيئة العامة
للطرق والكباري

قائمة الكميات الواردة بالمستخلص جاري (٢)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٥١٤+٠٠٠ الى الكم ٥١٨+٥٠٠ بطول ٤,٥ كيلو متر بالاتجاهين

رقم البند و بيانه : (٤-١) علاوة مسافة النقل ٧٢ كم لأعمال طبقات التأسيس (prepared subgrade)

تـــــنفيـــــذ : شركة يوسف نجيدة للمقاولات

علاوة مسافة النقل

تـــــنفيـــــذ : شركة يوسف نجيدة للمقاولات

مقدار العمل السابق : ١٨٦٩٧,٦٤ م٣

بيان بالكميات	الكمية
الكمية طبقا لقوائم الكميات	٧١٠٧,٤٣
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)	٧١٠٧,٤٣
الاجمالـــــي الكلي (م٣)	٢٥٨٠٥,٠٧

مهندس الشركة	مهندس الإستشاري (xyz)	مهندس الإستشاري	مهندس الهيئة العامة
م / زياد علي	م / محمد خليل	مكتب د/خالد قنديل م / خالد فوزي	للطرق والكباري م / ابراهيم الحناوي
زيادي	محمد خليل	٢٩-١١-٢٠٢٤	

الهيئة العامة
للطرق والكباري

قائمة الكميات الواردة بالمستخلص جاري (٢)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٥١٤+٠٠٠ الى الكم ٥١٨+٥٠٠ بطول ٤,٥ كيلو متر بالاتجاهين

رقم البند و بيانه : (٤-١) رسوم الكارتة والموازين طبقاً للمادة(٣٦) من الشروط العامة والمواصفات طبقاً لما جاء بالقائمة الموحدة لاسعار الطرق لأعمال طبقات التأسيس (prepared subgrade)

تـــــنفيـــــذ : شركة يوسف نجيدة للمقاولات

الكارتات والموازين

تـــــنفيـــــذ : شركة يوسف نجيدة للمقاولات

مقدار العمل السابق : ١٨٦٩٧,٦٤ م٣

بيان بالكميات	الكمية
الكمية طبقاً لقوائم الكميات	٧١٠٧,٤٣

اجمالي الكميات خلال فترة المستخلص الحالية (م٣)	٧١٠٧,٤٣
الاجمالـــــي الكلي (م٣)	٢٥٨٠٥,٠٧

مهندس الشركة	مهندس الإستشاري (xyz)	مهندس الإستشاري	مهندس الهيئة العامة
م / زياد علي	م / محمد خليل	مكتب د/خالد قنديل	للطرق والكباري
		م / خالد فوزي	م/ ابراهيم الحناوي

الهيئة العامة للطرق والكباري

قائمة الكميات الواردة بالمستخلص جاري (٢)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٥١٤+٠٠٠ الى الكم ٥١٨+٥٠٠ بطول ٤,٥ كيلو متر بالاتجاهين

رقم البند و بيانه : (٤-٢) أعمال توريد وتشغيل طبقات الأساس (sub-ballast)

تـــــنفيـــــذ : شركة يوسف نجيدة للمقاولات

مقدار العمل السابق : ٠,٠ م٣

بيان الاعمال بالمقايسة		الموقع الكيلومتري		الابعاد (متر)		الكمية
		من	الى	طول	مساحة المقطع	
القطاع الأول	طبقة أساس أولى	٥١٤+٠٠٠	٥١٥+٧٨٠	١٧٨٠	٢,٨٤١	٥٠٥٧,٧٣
القطاع الثاني	طبقة أساس أولى	٥١٥+٨٤٠	٥١٧+١٦٠	١٣٢٠	٤,٥٨٩	٦٠٥٧,٥٩
القطاع الثالث	طبقة أساس أولى	٥١٧+٧٠٠	٥١٨+٥٠٠	٨٠٠	٧,٤٢٩	٥٩٤٣,٢٠
القطاع الرابع	طبقة أساس ثانية	٥١٤+٠٠٠	٥١٥+٧٠٠	١٧٠٠	٢,٧٢١	٤٦٢٥,٣٦
القطاع الخامس	طبقة أساس ثانية	٥١٥+٨٧٠	٥١٧+١٦٠	١٢٩٠	٤,٥٢٦	٥٨٣٨,٢٧
القطاع السادس	طبقة أساس ثانية	٥١٧+٧٠٠	٥١٨+٥٠٠	٨٠٠	٧,٣١٥	٥٨٥٢,٠٠
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)						٣٣٣٧٤,١٦
الاجمالـــــي الكلـــــي (م٣)						٣٣٣٧٤,١٦

مهندس الشركة
م / زياد علي

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الإستشاري
مكتب د/خالد قنديل
م / خالد فوزي
٢٩-١١-٢٠٢٠

مهندس الهيئة العامة
للطرق والكباري
م / ابراهيم الحداوي

الهيئة العامة
للطرق والكباري

قائمة الكميات الواردة بالمستخلص جاري (٢)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٠٠٠+٥١٤ الى الكم ٥٠٠+٥١٨ بطول ٤,٥ كيلو متر بالاتجاهين

رقم البند و بيانه : (٤-٢) علاوة مسافة النقل ٢٢٢ كم لأعمال طبقات الأساس (sub-ballast)

تـــــنفيـــــذ : شركة يوسف نجيدة للمقاولات

علاوة مسافة النقل

تـــــنفيـــــذ : شركة يوسف نجيدة للمقاولات

مقدار العمل السابق : ٠ م٣

بيان بالكميات	الكمية
الكمية طبقاً لقوائم الكميات	٣٣٣٧٤,١٦
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)	٣٣٣٧٤,١٦
الاجمالـــــي الكلي (م٣)	٣٣٣٧٤,١٦

مهندس الشركة
م / زياد علي
زيادي

مهندس الإستشاري (xyz)
م / محمد خليل
محمد خليل

مهندس الإستشاري
مكتب د/خالد قنديل
م / خالد فوزي
٢٩-١١-٢٠٢٠

مهندس الهيئة العامة
للطرق والكباري
م / إبراهيم الختاري

الهيئة العامة
للطرق والكباري

قائمة الكميات الواردة بالمستخلص جاري (٢)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٥١٤+٠٠٠ الى الكم ٥١٨+٥٠٠ بطول ٤,٥ كيلو متر بالاتجاهين

رقم البند و بيانه : (٤-٢) رسوم الكارتة والموازين طبقاً للمادة(٣٦) من الشروط العامة والمواصفات طبقاً لما جاء بالقائمة الموحدة لاسعار الطرق لأعمال طبقات الأساس (sub-ballast)

تـــــنفيـــــذ : شركة يوسف نجيدة للمقاولات

الكارتات والموازين

تـــــنفيـــــذ : شركة يوسف نجيدة للمقاولات

مقدار العمل السابق : ٠ م٣

بيان بالكميات	الكمية	
الكمية طبقاً للقوائم الكميات	٣٣٣٧٤,١٦	
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)		٣٣٣٧٤,١٦
الاجمالـــــــي الكلي (م٣)		٣٣٣٧٤,١٦

مهندس الشركة	مهندس الإستشاري (xyz)	مهندس الإستشاري	مهندس الهيئة العامة
م / زياد علي	م / محمد خليل	مكتب د/خالد قنديل م / خالد فوزي ٢٩-١١-٢٠٢٢	للطرق والكباري م / ابراهيم الحناوي

الهيئة العامة
للطرق و الكباري
(GARB)
وزارة النقل

المنطقة الخامسة – (غرب الدلتا)

السيد المهندس / رئيس قطاع التنفيذ والمناطق

تحية طيبة.. وبعد،،

بالإحالة إلى مشروع القطار السريع (العين السخنة – العاصمة الإدارية -برج العرب - مرسى مطروح)

نتشرف بأن نرفق لسيادتكم طيه المقايسات المعدلة للقطاعات الأتية:

أولا : القطاع السابع (فوكة/مطروح) :

م	المسافة		الطول (كم)	الشركة	التكلفة (مليون)	الاتجـــــاه
	من	الى				
1	514+000	518+500	4.5	يوسف نجيدة للمقاولات	154.761	الاتجاهين

برجاء من سيادتكم التفضل بالاحاطه والتوجيه بالازم

وتفضلوا بقبول فائق الأحترام والتقدير،،

رئيس الإدارة المركزية

المنطقة الخامسة- غرب الدلتا

عميد مهندس/

"هاني محمد محمود طه "

١١/١٠/٢٠٢٣

وزارة النقل
الهيئة العامة للطرق والكباري

SYSTRA SHAKER

KK ENGINEERING CONSULTING OFFICE
المكتب الاستشاري الهندسي
أ.د. خالد غنديل

NEGIDA تجيدة للمقاولات CONTRACTING

مشروع القطار الكهربائي السريع

المقايسة المعدلة لاستكمال بنود الاعمال للقطاع السابع (فركة - مطروح) - شركة يوسف نجيدة للمقاولات

القطاع من المحطة ٥١٤+٠٠٠ إلى المحطة ٥١٨+٥٠٠ الاتجاهين

رقم البند	بيان الأعمال	الوحدة	الكمية	اللفة	الاجمالي
٢	أعمال الحفر				
٢-٩	الحفر الناعم: أعمال حفر باستخدام المعدات الميكانيكية في تربة الشقوق بعد التربة السطحية وإستخدام الشوريات وتدوير المخلفات الأدوية والتراب بالمنطقة الأمرية الزمنية في تربة الرخوة الصخرية والتماسك الجيد بالمرات الزمنية في الحفر كافة حالة (٥٥%) من الكلفة الحالة الضرورى ومعتمد عليه الذى تعدى وفق الأدلة الرائدة لسلطة ٢٠٠ متر من محور الطريق و يتم التنفيذ طبقا للمناسيب التصميمية والقطاعات العرضية الموضحة بالرسومات التفصيلية المعتمدة والتى يجمع مشتملاته طبقا لأصول الصناعة ومواصفات الهيئة العامة للطرق والكباري وتعليمات المهندس المشرف. يتم احتساب حفارة ١ جنيه لكل ١ كم بالزيادة	م٣	١٠,٠٠٠,٠٠٠	٢٣,٠٠	٢٣٠,٠٠٠
٢-٢	الحفر الناعم: أعمال حفر باستخدام الميكانيكية في تربة صخرية				
	بئر الجهد (٢٠٠×٢٠٠) كيلومتر	م٣	٦,٠٠٠,٠٠٠	٥٤,٠٠	٥٤٠,٠٠٠
	بئر الجهد (٢٠٠×٢٠٠) كيلومتر	م٣	١٥,٠٠٠,٠٠٠	٦٥,٥٠	٩٨٢,٥٠٠
	بئر الجهد (٢٠٠×٤٠٠) كيلومتر	م٣	١٠,٠٠٠,٠٠٠	٧٦,٠٠	٧٦٠,٠٠٠
	ملحق على البند الأتي: - تعديل في طريقة الحفر لمسافة لا تقل عن ٢٠٠ متر - تزويد التربة بمقاومة الإنزلاقات في شقوقها باستخدام الآلات الأمرية بحيث لا يزيد عن ٢٤ مم لإستقلال المسبب التصميمي لتقليل الضرر والتكاليف إضافة لعمل تقليص بما لا يقل عن ١٠ (٪) و رباعيا بالمرات الأمرية الزمنية في تربة الرخوة الصخرية والتماسك الجيد بالمرات الزمنية في الحفر كافة حالة (٥٥٪) من الكلفة الحالة الضرورى ويتم التنفيذ طبقا للمناسيب التصميمية والقطاعات العرضية الموضحة بالرسومات التفصيلية المعتمدة والتى يجمع مشتملاته طبقا لأصول الصناعة ومواصفات الهيئة العامة للطرق والكباري وتعليمات المهندس المشرف. - في حالة زيادة مسافة نقل ناتج الحفر عن ٢٠٠ متر من محور الطريق يتم حساب ٠,٠ جنيه للكيلومتر زيادة				
٣	عمل الردم				
٣-١	الدفك: الكشف أعمال تزويد وتشكيل التربة مطابقة للمواصفات والتحليل باستخدام الآلات الأمرية بمسافة لا يزيد عن ٢٠ مم على مشروب ٢٠ طن و بمسافة لا يزيد عن ٢٥ مم لإستقلال المسبب التصميمي لتشكيل الجسر والكتف والأمية لعمل الكلوريا لا تقل عن ١٢ (٪) و رباعيا بالمرات الأمرية الزمنية في تربة الرخوة الصخرية والتماسك الجيد بالمرات الزمنية في الحفر كافة حالة (٥٥ ٪) من الكلفة الحالة الضرورى ويتم التنفيذ طبقا للمناسيب التصميمية والقطاعات العرضية الموضحة بالرسومات التفصيلية المعتمدة والتى يجمع مشتملاته طبقا لأصول الصناعة ومواصفات الهيئة العامة للطرق والكباري وتعليمات المهندس المشرف. في حالة طلب جهاز الكثافات زيادة نسبة الدمك عن ٩٥ (٪) يحسب زيادة ١ جنيه على زيادة نسبة الدمك كل ١ (٪) - مسافة النقل ١ كم ويتم احتساب حفارة ١,٨ جنيه لكل ١ كم بالزيادة أثر الانحدار. الحفر بالدمك عمل الكريكات والطبقة بالقاطرة وتنقل أنواع الفصل حتى مسافة ١ كم. الحفر بالدمك قيمة تصميمية طبقا لأفضل المنطقة بهذا القطاع (٧) من الكم ٥١٠ إلى ٥٦٨	م٣	١٨٩,٤٠٥,٧٥	٨٥,٠٠	١٦,٠٩٩,٤٨٩
	حفارة مسافة النقل ٢٥٠ كم	م٣	١٨٩,٤٠٥,٧٥	٤٠٦,٠٠	٧٦,٨٩٨,٧٣٦
	حفارة المحصول ومعدات الإزالة والتوازن طبقا للأمية الفرنسية	م٣	١٨٩,٤٠٥,٧٥	١٣,٠٠	٢,٤٦٦,٢٢٥
٤	الطبقة الأساسية				
٤-١	الدفك: الكشف أعمال تزويد وتوفير طبقة (prepared Subgrade) من الأسفل المسامية المشروعة تتم تشمير الشقوق والطبقة المواصفات والمعدلة بمعدل ١٠٠ مم والأتزيد نسبة الفرز من مثقل ٢٠٠ عن ١٢ (٪) والتدرج الفرز والأتزيد الكتل الفضية والمشروع لا تقل نسبة تحمل كاليفورنيا عن ٢٠ (٪) و الأتزيد نسبة الفقد بجهاز لوس انجلوس عن ٣٠ (٪) و الأ يزيد الانضغاطي عن ١٢ (٪) و الأ يقل معامل الدرونة (EV2) [من تجربة لوح التحميل عن ٦٠ ميجاباسكال ويتم قراءة على طبقتين باستخدام الات الدرونة المحمولة على أن لا يزيد معامل الطبقة بعد إتمام الدمك عن ٢٠ مرة وتعديلها الأصولية المرسول في نسبة الرطوبة المطلوبة والدمك الجيد بالمرات المرسول في نفس كافة حالة الفرق [اقل من ٩٠ (٪)] من الكلفة العملية وتقلة تشمل أجراء التجارب العملية والمطلوبة ويتم القاعدة طبقا لأصول الصناعة والمواصفات التفصيلية المعتمدة والتى يجمع مشتملاته طبقا لأمر المواصفات الفنية للمشروع وتقرير الاستشاري وتعليمات المهندس المشرف. - مسافة النقل لا تقل عن ٢٠ كم - يتم احتساب حفارة ١,٦ جنيه لكل ١ كم بالزيادة أثر الانحدار. الحفر بالدمك قيمة تصميمية طبقا لأفضل المنطقة بهذا القطاع (٧) من الكم ٥١٠ إلى ٥٦٨	م٣	٤٠,٠٠٠,٠٠٠	٢٧٨,٠٠	١١,١١٠,٠٠٠
	حفارة مسافة النقل ٢٥٠ كم		٤٠,٠٠٠,٠٠٠	٦٢,٤٠	٢,٤٩٦,٠٠٠
	حفارة المحصول ومعدات الإزالة والتوازن طبقة الأمية الفرنسية		٤٠,٠٠٠,٠٠٠	٢٥,٠٠	١,٠٠٠,٠٠٠
٤-٢	الدفك: الكشف أعمال تزويد وتوفير طبقة أساس من الأسفل المسامية المشروعة تتم تشمير الشقوق والطبقة المواصفات والمعدلة بمعدل المسميات ما بين ٢٠,٤ مم إلى ٢٠ مم والأ يزيد نسبة الفرز من مثقل ٢٠٠ عن ٣٥ (٪) والتدرج الفرز والأتزيد الكتل الفضية والمشروع لا تقل نسبة تحمل كاليفورنيا عن ٩٠ (٪) و الأ يقل معامل الدرونة (EV2) [من تجربة لوح التحميل عن ١٢٠ ميجاباسكال و الأ يزيد نسبة الانضغاطي عن ٢٠ (٪) و الأ يزيد الانضغاطي عن ١٥ (٪) ويتم قراءة على طبقتين باستخدام الات الدرونة المحمولة على أن لا يزيد معامل الطبقة بعد إتمام الدمك عن ٢٠ مرة وتعديلها الأصولية المرسول في نسبة الرطوبة المطلوبة والدمك الجيد بالمرات المرسول في نفس كافة حالة الفرق [لا يقل عن ١٠٠ (٪)] من الكلفة العملية وتقلة تشمل أجراء التجارب العملية والمطلوبة ويتم القاعدة طبقا لأصول الصناعة والمواصفات التفصيلية المعتمدة والتى يجمع مشتملاته طبقا لأمر المواصفات الفنية للمشروع وتقرير الاستشاري وتعليمات المهندس المشرف. - مسافة النقل لا تقل عن ٢٠ كم - يتم احتساب حفارة ١,٢ جنيه لكل ١ كم بالزيادة أثر الانحدار. الحفر بالدمك قيمة تصميمية طبقا لأفضل المنطقة بهذا القطاع (٧) من الكم ٥١٠ إلى ٥٦٨	م٣	٥٥,٠٠٠,٠٠٠	٢٩٨,٠٠	١٦,٤٠٠,٠٠٠
	حفارة مسافة النقل ٢٥٠ كم		٥٥,٠٠٠,٠٠٠	٢٤٦,٤٠	١٠,٩٠٨,٠٠٠
	حفارة المحصول ومعدات الإزالة والتوازن طبقة الأمية الفرنسية		٥٥,٠٠٠,٠٠٠	٢٥,٠٠	١,٣٧٥,٠٠٠
٥	الإنشاءات الخرسانية				
٥-١	الدفك: الكشف أعمال تزويد وصب خرسانة عادية مسلحة ٢٥ مم لتشغيل الأساسات والهيكل العلوية تكون من طرح مع مواد مكونة مكونة ٠,٥ (٪) وزن حرق + ٣٥٠ كغم أسمنت ومواد مضافة مضادة للأملاح (Water repellent) على أن يكون قدر مطلوب ومعمول والرش على الأسطح والشقوق والأملاح والمواد الكربية والتنقية داخل الجهود والمناطق مشهور. التربة الطبيعية أعمال الحفارة المرسول في الحساب الحسابية على أن يتم نقل الحفر بمسافة لا تقل عن ٢٠٠ كيلو أمتار والتكلف الخرج والتنقية طبقا لأصول الصناعة والمواصفات التفصيلية المعتمدة والتى يجمع مشتملاته طبقا لأمر مواصفات الهيئة العامة للطرق والكباري وتعليمات المهندس المشرف.	م٣	٣٣,٠٠٠,٠٠٠	٣٥٥,٠٠	١١,٧١٥,٠٠٠
٥-٥	الدفك: الكشف أعمال تزويد وصب خرسانة عادية للمنشآت المسلحة والمسلحة تكون من ٠,٥ (٪) من طرح مع مواد مكونة ٠,٥ (٪) وزن حرق و الإضافات طبقا لمتطلبات الاستشاري (فيبر + حبة) على أن يكون الماء مطلوب و الرش على الأسطح والشقوق والأملاح والمواد الكربية مع وضع لوح (فاصل) بسمك ٢ سم وطبقة الطبقات الاستشاري و الهيئة يشمل أعمال الحفر والتشوين والرش على أن تكون الرسالة بالمهندس على أن تصل الرسالة الجهد لا يقل عن ٢٥٠ كيلو باسكال و على المواصفات الفنية من الرمل و التنقية طبقا لأصول الصناعة و الرسومات التفصيلية المعتمدة والتى يجمع مشتملاته طبقا لأمر مواصفات الهيئة العامة للطرق والكباري و تعليمات المهندس المشرف.	م٣	٢,٥٠٠,٠٠٠	٢,٢٠٠,٠٠	٥,٥٠٠,٠٠٠
	الإجمالي				١٥٤,٧٦١,٠٠٠,٠٠٠

(مائة وأربعة وخمسون مليون و سبعمائة واحد و ستون ألف جنيها لاغير)

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مدير المشاريع الخاصة
م / إبراهيم الحداري

مدير المشروع الاستشاري
م / خالد فوزي

مدير المشروع المقاول
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