

السيد المهندس / رئيس قطاع التنفيذ والمناطق

تحية طيبة.. وبعد،،

بالإحالة إلى مشروع القطار الكهربائي فائق السرعة (فوكة - مطروح) (القطاع السابع)
نتشرف بأن نرفق لسيادتكم طيه المقايضة المعدلة بعد المفاوضة لبنود الأعمال
بتاريخ / 18 - 12 - 2023 للقطاع الآتى :

مسلسل	اسم الشركة	بداية القطاع (كم)	نهاية القطاع (كم)	اتجاه
1	الزهور للمقاولات العمومية	536+000	537+000	الاسكندرية

برجاء من سيادتكم التفضل بالأحاطه والتوجيه بالازم

وتفضلوا بقبول فائق الاحترام والتقدير،،

رئيس الإدارة المركزية

المنطقة الخامسة- غرب الدلتا

عميد مهندس /

"هاني محمد محمود طه"





مشروع القطار الكهربائي السريع				
المقايضة المعدلة طبقا للمفاوضة بتاريخ (١٨ / ١٢ / ٢٠٢٣) لاستكمال تنفيذ الجسم الترابي بمشروع القطار الكهربائي السريع				
للقطاع السابع (فوكه - مطروح) اتجاه الاسكندرية				
القطاع من المحطة ٥٣٦+٠٠٠ الي ٥٣٧+٠٠٠				
رقم البند	بيان الأعمال	الوحدة	الكمية	القيمة
١	أعمال التطهير بالمتر المسطح أعمال تطهير الموقع من الأشجار المزروعات والمخلفات في مناطق الدلتا ذات الطبيعة الزراعية الكثيفة والتخلص منها بالمقالب العمومية تمهيدا لأعمال الرقع المساحي لكامل حدود المشروع طبقا للشروط ومواصفات وتعليمات المهندس المشرف	م ^٢	٢,٤٠٠,٠٠٠	٥,٠٠٠
١-٢	أعمال الحفر بالمتر المكعب أعمال حفر باستخدام المعدات الميكانيكية في التربة المتماسكة عدا التربة الصخرية (باستخدام البادوز) وتسوية السطح بالآلات الترسوية والرش بالمياه الاصلوية للوصول الى نسبة الرطوبة المطلوبة والدمك الجيد بالهراسات للوصول الى أقصى كثافة جافة (95%) من الكثافة الجافة القصوى) ومحمل على البند تحميل ونقل الاتربة الزائدة لمسافة ٥٠٠ متر من محور الطريق ويتم التنفيذ طبقا للمناسيب التصميمية والقطاعات العرضية النموذجية والرسومات التفصيلية المعتمدة والبند بجميع مشتتات طبقا لاصول الصناعة ومواصفات الهيئة العامة للطرق والكبارى وتعليمات المهندس المشرف. يتم احتساب علاوة ١,١ جنيه لكل ١ كم بالزيادة.			
	السعر في مايو (٢٠٢٣) طبقا للمفاوضة	م ^٣	١,٠٦٠,٠٠٠	٣٠,٥٠
١-٣	بالمتر المكعب أعمال توريد وتشغيل تربة صالحة للردم و مطابقة للمواصفات والتشغيل باستخدام الات الترسوية بسمك لا يزيد عن ٥٠ سم حتى منسوب ٢٠ متر و بسمك لا يزيد عن ٢٥ سم لاستكمال المنسوب التصميمي لتشكيل الجسر والاكتاف (نسبة تحمل كاليفورنيا لا تقل عن ١٥%) و رشها بالمياه الاصلوية للوصول الى نسبة الرطوبة المطلوبة والدمك الجيد بالهراسات للوصول الى أقصى كثافة جافة (95%) من الكثافة الجافة القصوى) ويتم التنفيذ طبقا للمناسيب التصميمية والقطاعات العرضية النموذجية والرسومات التفصيلية المعتمدة والبند بجميع مشتتات طبقا لاصول الصناعة ومواصفات الهيئة العامة للطرق والكبارى وتعليمات المهندس المشرف. في حالة طلب جهاز الإشراف زيادة نسبة الدمك عن ٩٥ % بحسب زيادة ١ جنيه عني زيادة نسبة الدمك لكل ١ % -مسافة النقل حتى ٢ كم ويتم احتساب علاوة ١,٥ جنيه لكل ١ كم بالزيادة -السعر يشمل قيمة المادة المحجرية	م ^٣		
	السعر في مايو (٢٠٢٣) طبقا للمفاوضة	م ^٣	٣٤,١٣٢,٦٧٨	١٠,١٤٠
	علاوة مسافة النقل ٣١٥,٥ كم	م ^٣	٣٤,١٣٢,٦٧٨	٤٧,٠٢٥
	علاوة تحصيل رسوم الكارثة والموازين طبقا لائحة الشركة الوطنية	م ^٣	٣٤,١٣٢,٦٧٨	١٣,٠٠٠
	الإجمالي			٢٠,٠٠٠,٠٠٠

فقط عشرون مليون جنيه لا غير

مدير عام المشروعات

م / محمد حسني غيث

مدير المشروع المالك

م / إبراهيم الخنوس

مدير المشروع الاستشاري

م / خالد فوزي

مدير المشروع المقاول

م / حسن سويلم

يعتمد

رئيس الإدارة المركزية

منطقة غرب الدلتا

الاسكندرية - مرسى مطروح

عميد مهندس /

" هاني محمد محمود طه "





قائمة الكميات الواردة بالمستخلص جاري (٣)

مشروع : القطار الكهربائي السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح في المسافة من الكم ٥٣٦+٠٠٠ الى الكم ٥٣٧+٠٠٠ بطول ١ كيلو متر اتجاه الاسكندرية

رقم البند و بيانه : (١-٢) أعمال حفر باستخدام المعدات الميكانيكية في التربة المتماسكة عدا الصخرية

تنفيذ : منشأة الزهور للمقاولات العمومية

مقدار العمل السابق : ٠,٠ م٣

الكمية	الابعاد (متر)		الموقع الكيلومتری		بيان الاعمال بالمقايضة
	مساحة المقطع	طول	الى	من	
١٢١٥,٤٤	١٢١٥,٤٤٠	١٠٠٠	537+000	536+000	القطاع الأول
١٢١٥,٤٤	اجمالي الكميات خلال فترة المستخلص الحالية (م٢)				
١٢١٥,٤٤	الاجمالي الكلي (م٢)				

مهندس الهيئة العامة
للطرق والكباري
م / إبراهيم الحناوي

مهندس الاستشاري
مكتب د/خالد قنديل
م / خالد فوزي

مهندس الاستشاري (xyz)
م / محمد خليل

مهندس الشركة
م / حسن سويلم



قائمة الكميات الواردة بالمستخلص جاري (٣)

مشروع : القطار الكهربائي السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح في المسافة من الكم ٥٣٦+٠٠٠ الى الكم ٥٣٧+٠٠٠ بطول ١ كيلو متر اتجاه الاسكندرية

رقم البند و بيانه : (١-٣) علاوة مسافة النقل ٣١٥,٥ كم

تنفيذ : منشأة الزهور للمقاولات العمومية

مقدار العمل السابق : ٠,٠ م٣

الكمية	الابعاد بالمتر		الموقع الكيلو كترى		بيان الاعمال بالمقايسة
	مساحة المقطع	الطول	الى	من	
٣٣٠٧٤,٨٨٩	٣٣,٠٧٥	١٠٠٠	537+000	536+000	القطاع الأول
٣٣٠٧٤,٨٨٩	اجمالي الكميات خلال فترة المستخلص الحالية (م٣)				
٣٣٠٧٤,٨٨٩	الاجمالي الكلي (م٣)				

مهندس الهيئة العامة
للطرق والكباري
م / إبراهيم الخطاوي

مهندس الإستشاري
مكتب د/خالد قنديل
م / خالد فوزي

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الشركة
م / حسن سويلم



قائمة الكميات الواردة بالمستخلص جاري (٣)

مشروع : القطار الكهربائي السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح في المسافة من الكم ٥٣٦+٠٠٠ الى الكم ٥٣٧+٠٠٠ بطول ١ كيلو متر اتجاه الاسكندرية

رقم البند و بيانه : (١-٣) علاوة تحصيل الكارتة والموازين طبقا للائحة الشركة الوطنية

تنفيذ : منشأة الزهور للمقاولات العمومية

مقدار العمل السابق : ٠,٠ م ٣

الكمية	الابعاد بالمتر		الموقع الكيلو كترى		بيان الاعمال بالمقايضة
	مساحة المقطع	الطول	الى	من	
٣٣٠٧٤,٨٨٩	٣٣,٠٧٥	١٠٠٠	537+000	536+000	القطاع الأول
٣٣٠٧٤,٨٨٩	اجمالي الكميات خلال فترة المستخلص الحالية (م ^٢)				
٣٣٠٧٤,٨٨٩	الاجمالي الكلي (م ^٢)				

مهندس الهيئة العامة
للطرق والكباري
م / إبراهيم الحساوي

مهندس الإستشاري
مكتب د/خالد قنديل
م / خالد فوزي

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الشركة
م / حسن سويلم



قائمة الكميات الواردة بالمستخلص جاري (٣)

مشروع : القطار الكهربائي السريع (العين السخنة - العاصمة الادارية - العلمين - مطروح) قطاع فوكة - مطروح في المسافة من الكم ٥٣٦+٠٠٠ الى الكم ٥٣٧+٠٠٠ بطول ١ كيلو متر اتجاه الاسكندرية

رقم البند و بيانه : (١-٣) أعمال توريد و تشغيل اترية صالحة للردم مطابقة للمواصفات

تنفيذ : منشأة الزهور للمقاولات العمومية

مقدار العمل السابق : ٠,٠ م٣

الكمية	الابعاد بالمتر		الموقع الكيلو كترى		بيان الاعمال بالمقايسة
	مساحة المقطع	الطول	الى	من	
٣٣٠٧٤,٨٨٩	٣٣,٠٧٥	١٠٠٠	537+000	536+000	القطاع الأول
٣٣٠٧٤,٨٨٩	اجمالي الكميات خلال فترة المستخلص الحالية (م٣)				
٣٣٠٧٤,٨٨٩	الاجمالي الكلي (م٣)				

مهندس الهيئة العامة
للطرق والكباري
م / إبراهيم الخناري

مهندس الاستشاري
مكتب د/خالد قنديل
م / خالد فوزي

مهندس الاستشاري (xyz)
م / محمد خليل

مهندس الشركة
م / حسن سويلم

مهله اضافيه

4: تنفيذ أعمال الجسر الترابي والأعمال الصناعية لمشروع القطار الكهربائي السريع (العين
السخنة - مطروح) لتنفيذ أعمال الجسر الترابي (قطاع فوكة - مطروح) المسافة من
الكم ٥٣٦,٠٠ الى الكم ٥٣٧,٠٠ بطول اكم اتجاه الاسكندرية.

إسم الشركة المنفذة: منشأة الزهور للمقاولات العمومية.

عقد العملية رقم : (٢٠٢٣/٢٠٢٢/١٨٧٦)

قيمة التعاقدية : ٢٠,٠٠٠,٠٠٠ جنيه

تاريخ بدء العمل: ٢٠٢٣/٥/١

تاريخ النمو طبقا للتعاقد : ٢٠٢٣/١٢/٣١

المطلوب : مد مده العملية (٦ اشهر) ليصبح تاريخ النهو ٢٠٢٤/٦/٣

المبررات :- ورد خطاب المنطقة المشرفة بشأن مد مده المشروع للاسباب الاتيه :-

بناءً على قرار مجلس الوزراء بالجلسة رقم (٢٥٤) بتاريخ ٢٠٢٣/٨/٣٠ بمد جميع التعاقدات الجارية تنفيذها لمدة (٦ أشهر) وذلك لمواجهة الآثار السلبية المترتبة على تداعيات الازمات العالمية الحالية والى طلب الشركة المنفذه المقدم بمبررات منحها تلك المدة وموافقة المنطقة المشرفة بعد دراستها الطلب على منحها تلك المدة وهي كالتالى:-

- تاخر التنفيذ بسبب تحرير سعر الصرف

- زيادة تكلفة المواد الخام وارتفاع اسعار نقلها

- ارتفاع اسعار قطع - يار المعدات وندرة توافرها

إعداد مهندس

مدير عام (صيانة/التفتيش) مسئول الكبريت

رئيس الإدارة العامة للشؤون المالية: د.

١٠٠

رأي الإدارة العامة

(شعبه ۱۰۰۰) جناب القاضی...

بقواتهم إلى صوم البصرة المسمى بـ

11. 7. 40. A. H. 1359. 11. 7. 40.

١٠٠٠

رئيس قطاع الشؤون الإدارية

شركة المشرق للصناعات

صاف و لکھنا / مینا یو

2-2-185

CamScanner

صوييا بـ CamScanner

ZHR - 6 176

UNIVERSAL
INSPECTION
REQUEST

RECEIPT of NOTIFICATION - Minimum Notice Period not less than 24

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

Contractor Company	EL . ZHOOR . COMPANY		Designer Company*	KK CONSULT.							
Issued by Contractor	Name	Sign	Date	Time							
	Eng : Mahmoud Elkhilwy		16 - 10 - 2023								
Received by Employers Representative	M.A	10/16/2023	UIR	C1	C2	C3	DD	MM	YY	HH	MM
				K.P536	E W	C S	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										

EXPLANATION OF WORK TO BE INSPECTED

Description	Element	Item
Earth Works	Fill (FERMA)	From St (536+720) to (536+800)




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

Planned Inspection Date	Planned Inspection Time
16.10.2023	

COMPLIANCE EVIDENCE Must be Included as appropriate

Checklist Attached <input type="checkbox"/>	Test Results Attached <input type="checkbox"/>	Calibration Attached <input type="checkbox"/>	Other as indicated <input type="checkbox"/>
Drawing Reference	ITP Reference	MS Reference	

Civil	Survey	Material
momentosmael is not inspection is approved	Almos Ashub leveling are approved	momentosmael Compaction test is approved 17/10/2023

INSPECTION RESULT					Approval Status	Please Tick if Not Attend
Organisation	Name	Sign	Date	Time	A-AWC-R	
Contractor	ENG : M. ELKHLAWY					
QA/QC*						
GARB**	ENG : KHALED FAWZY				A	
Employers Representative Notes						
Employers Representative Sign	M.A				A	

* Designer

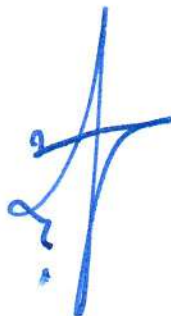
** Alignment: Bridges: Culvert

شيت تشغيل طبقات الردم لمشروع القطار السريع القطاع السابع (فوكه - مطروح)
 شركة (الزهور)
 من المحطة (536+720) إلى المحطة (536+800)

ENGINEERING CONSULTING OFFICE المكتب الهندسي الاستشاري إ.د. خالد مغنود													LAYER LEVEL		0		PGL												
LEFT SIDE													RIGHT SIDE																
STATION			ACT. WIDTH		13.44		10		5		S.E. %		DESIGN LEVEL		FERMA LEVEL		CL		S.E. %		5		9.94		ACT. WIDTH				
536+720					59.93		60.07		60.27		-4%		61.37		60.47		60.47		-4%		60.27		60.07						
Act.																													
Diff.					+1		✓		+2								+1				-3		+2		-1				
536+740					59.99		60.13		60.33		-4%		61.43		60.53		60.53		-4%		60.33		60.13						
Act.																													
Diff.					-1		+1		+2								+2				✓		+3		-1				
536+760					60.05		60.19		60.39		-4%		61.49		60.59		60.59		-4%		60.39		60.19		60.59				
Act.																													
Diff.					-1		✓		✓								+1				+1		✓		✓				
536+780					60.11		60.25		60.45		-4%		61.55		60.65		60.65		-4%		60.45		60.25		60.65				
Act.																													
Diff.					-1		+2		+2								✓				+2		+1		-2				
536+800					60.17		60.31		60.51		-4%		61.61		60.71		60.71		-4%		60.51		60.31		60.71				
Act.																													
Diff.					+2		+3		+1								✓				+1		+2		✓				



Approved by
 (Signature)

MS FROM ST.(536+700) TO ST.(536+780)							
Layer Zone	Layer No.	Station	536+700	536+720	536+740	536+760	536+780
Middle Empe Upper Empankemt	1	0	60.41	60.47	60.53	60.59	60.65
	2	-0.25	60.16	60.22	60.28	60.34	60.40
	3	-0.5	59.91	59.97	60.03	60.09	60.15
	4	-0.75	59.66	59.72			59.90
	5	-1	59.41				59.65
	6	-1.25	59.16				59.40
	7	-1.5					59.15
	8	-1.75					58.90
	9	-2					
	10	-2.5					
		DESIGN LEVEL	61.31	61.37	61.43	61.49	61.55
		FERMA LEVEL	60.41	60.47	60.53	60.59	60.65
		CUT LEVEL	59.11	59.66	59.90	59.87	58.85
		DIFF (FERMA - CUT)	1.30	0.81	0.63	0.72	1.79
							

MS Approved }
acc. to Design Table }
Rev-10

C.L DATA

Station	Easting	Northing
536+720.00	290300.9168	943924.3237
536+740.00	290281.612	943929.551
536+760.00	290262.3072	943934.7782
536+780.00	290243.0024	943940.0055
536+800.00	290223.6976	943945.2328

Pme. Ashutosh

[Signature]

TYPICAL WIDTH

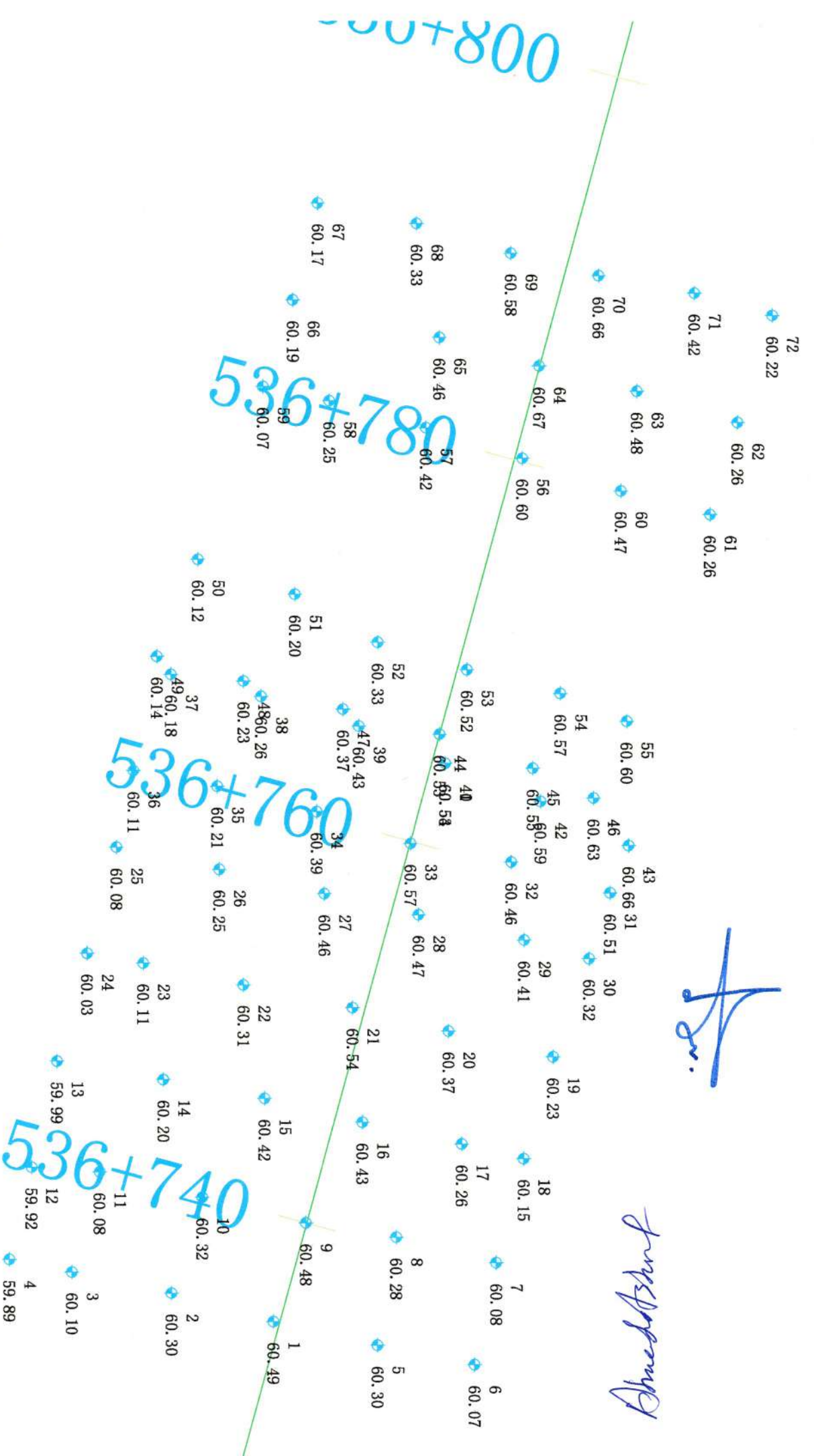
layer	slope	left	slop	right	TOTAL
0	-4.00%	13.44	-4.00%	9.94	23.38
-0.25	-4.00%	13.84	-4.00%	10.34	24.18
-0.5	-4.00%	14.24	-4.00%	10.74	24.98
-0.75	-4.00%	14.64	-4.00%	11.14	25.78
-1	-4.00%	15.04	-4.00%	11.54	26.58
-1.25	-4.00%	5	-4.00%	5	10
-1.5	0%	14.88	0%	11.59	26.47

Amo Ashab

sf

Dr.

Dr. S. S. S. S.



POINT	NORTH	EAST	ELEV
1	943927.871	290286.569	60.494
2	943922.746	290285.151	60.296
3	943917.725	290284.096	60.096
4	943914.58	290283.463	59.887
5	943933.115	290287.744	60.304
6	943938	290288.693	60.072
7	943939.084	290283.552	60.081
8	943934.047	290282.285	60.28
9	943929.504	290281.583	60.476
10	943924.287	290280.311	60.324
11	943919.122	290279.04	60.083
12	943915.696	290278.812	59.923
13	943916.978	290273.458	59.991
14	943922.333	290274.375	60.196
15	943927.428	290275.315	60.421
16	943932.35	290276.496	60.434
17	943937.352	290277.573	60.262
18	943940.47	290278.3	60.148
19	943941.948	290273.163	60.234
20	943936.684	290271.876	60.367
21	943931.858	290270.712	60.537
22	943926.368	290269.569	60.311
23	943921.325	290268.48	60.114
24	943918.494	290267.987	60.031
25	943919.969	290262.63	60.085
26	943925.146	290263.737	60.25
27	943930.44	290264.948	60.456
28	943935.174	290265.988	60.47
29	943940.494	290267.253	60.414
30	943943.763	290268.183	60.322
31	943944.824	290264.866	60.51
32	943939.841	290263.32	60.464
33	943934.773	290262.4	60.566
34	943930.05	290260.806	60.391

Ames Amc

[Signature]

POINT	NORTH	EAST	ELEV
35	943925.046	290259.542	60.207
36	943920.825	290258.765	60.108
37	943922.719	290253.89	60.183
38	943927.255	290255.001	60.261
39	943932.174	290256.49	60.428
40	943936.526	290258.358	60.533
41	943936.526	290258.349	60.537
42	943941.321	290260.251	60.586
43	943945.757	290262.48	60.655
44	943936.24	290256.882	60.527
45	943940.932	290258.586	60.554
46	943943.986	290260.077	60.626
47	943931.379	290255.639	60.372
48	943926.375	290254.224	60.226
49	943922.013	290252.987	60.135
50	943924.075	290248.082	60.116
51	943928.955	290249.837	60.198
52	943933.121	290252.251	60.332
53	943937.609	290253.609	60.523
54	943942.315	290254.803	60.571
55	943945.665	290256.207	60.596
56	943940.404	290242.915	60.598
57	943935.561	290241.386	60.425
58	943930.699	290240.038	60.249
59	943927.355	290239.332	60.07
60	943945.369	290244.56	60.473
61	943949.86	290245.762	60.255
62	943951.241	290241.08	60.259
63	943946.179	290239.52	60.476
64	943941.254	290238.258	60.669
65	943936.237	290236.826	60.455
66	943928.859	290234.947	60.191
67	943930.113	290230.058	60.171
68	943935.089	290231.078	60.33

Amos Asby

[Signature]

POINT	NORTH	EAST	ELEV
69	943939.832	290232.559	60.576
70	943944.247	290233.698	60.663
71	943949.071	290234.565	60.42
72	943952.983	290235.676	60.215

Almas Adab

[Signature]

MATERIAL INSPECTION REQUEST

الهيئة العامة
للطرق والكباري
(GARB)



Contractor Company	El . Zhoor . Company			Designer Company	KK CONSULT.					
Issued by Contractor	Name	Sign	Date	COD						
	Eng \ Mahmoud elkhlawy		12-4-2023	ZH 21						
Received by ER		MIR	C1	C2	C3	DD	MM	YY	HH	MM
						12	4	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	Fill material results					
Location to be Used	fill (0)	536+680	536+560	FILL (-0.5)	536+720	536+680
	FLAT (-1.5)	536+800	536+780	FILL (-0.75)	536+800	536+780
	FLAT (-1)	536+700	536+680	FILL (-0.25)	536+720	536+680
	FILL (-1.25)	536+800	536+780	FILL (-0.5)	536+800	536+780
	FILL (-0.75)	536+700	536+680	FILL (-0.25)	536+800	536+780
	FILL (-1)	536+800	536+780	FILL (0)	536+720	536+680
				FILL (0)	536+800	536+720
MAR Approval No				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	9 - 4 - 2023		
2	Proctor	m3	5000	9 - 4 - 2023		
3	Classification	m3	5000	9 - 4 - 2023		
4	Seive analysis	m3	5000	9 - 4 - 2023		
Comments by:			Comments by:			
Asample has been taken form fill material by KK office to (mansor ali hasan) lab and the results founded meet the specificonctions and accepted						
APPROVAL STATUS						
Organisation	Name	Sign	Date	A-AWC-R		
Contractor	Mahmoud elkhlawy					
QA/QC *	Mohamed Ali					
GARB**						
Comment by ER						
Employers Representative						

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

المجلس العام
للمطرق والكباري
(GARB)



وزارة النقل
Ministry of Transport and Public Works

ENGINEERING CONSULTING OFFICE
المكتب الاستشاري الهندسي
أ.د. خالد عبد الجليل



Contractor Company	EL ZHOOR COMPANY		Designer Company	KK							
Issued by Contractor	Name	Sign	Date	cod							
	ENG : MAHMOUD ELKHLAWY		12 - 4 - 2023	Zh 21							
Received by ER			MAR	C1	C2	C3	DD	MM	YY	HH	MM
							12	4	2023		

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

Description of Materials	Soil classify (A 1 a)			
Location to be Used	536+000 to 537+000			
item	Spacification	Test Requirment	Test Result Attachment	Remark
1	ASTM D 75	Aggregate Sampling	According Spacification	
2	ASTM C 136	Sieve Analysis	According Spacification	
3	ASTM D 1440	Passing Sieve #200	8.3 %	
4	ASTM D 4318	Atterberg Limit	NO _n	
5	ASTM D 2974	Moisture Content	6.5 %	
6	ASTM D 1557	Modifid Proctor	2.156	
7	ASTM D 1883	C B R	48.20%	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	MAHMOUD ELKHLAWY			
QA/QC *	Mohamed Ali			
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only



K&K CONSULTING OFFICE
المكتب الاستشاري
(د. خالد كافي)



SHAKUN

Engineering & Construction Services - E&C
Vibrating / Shaking Table Test - VIBRATION
Foundation - VIBRATION TABLES & EQUIPMENT
Phone: 011-4444444 (Fax: 011-4444444)



Operating Unit

Shakun Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	24/2023				
LOCATION:	K.P. 536+500			Zone	536+000 to 537+000
NAME COMPANY:	Elzohor				
Ref. Inspection Test:					

soil test

Sieve size (mm)				Sieve weight (g)		25101.00		g/m	Soil classify	
2	1.5	1	0.75	43	24	0.3	2.4	PASS		
0.075	0.0	1424.0	1424.0	1711.7	3251.0	2732.0	1087.0		A-4-0	
retention Retained (g)				1021.0	3277.0	11020.0	17007.0		PPH	2.156
retention Retained %				19.6	32.7	43.3	67.0		WC	6.50
retention Passing %									CBR	46.20

Sieve size (mm)				WT. OF sample		500.00		g/m
10	40	200						
retention Retained (g)	58.00	235.00	372.00					
retention Retained %								
retention Passing %								

Sieve size (mm)				Sieve weight (g)		25101.00		g/m	Soil classify	
2	1.5	1	0.75	30	12	30	2.4	2.10	2.40	0.200
0.075	0.0	1424.0	1424.0	10.0	12.5	9.5	4.75	2.00	0.425	0.075
retention Retained (g)										
retention Retained %										
retention Passing %										



ATTERBERG LIMITS	LIQUID LIMIT (LL)		PLASTIC INDEX (PI)
	ML	MR	

Contractor

Consultant



MI
3/2/23

 Karama Karama Engineering & Construction Co. P.S.C.	Project Name: Highway 10 Location: Al-Badakh Client: Ministry of Transport		
	Project No: 10/2021 Date: 10/2021		
	Project Location: Al-Badakh		
Operating Unit: Ministry of Transport	Project No: 10/2021		

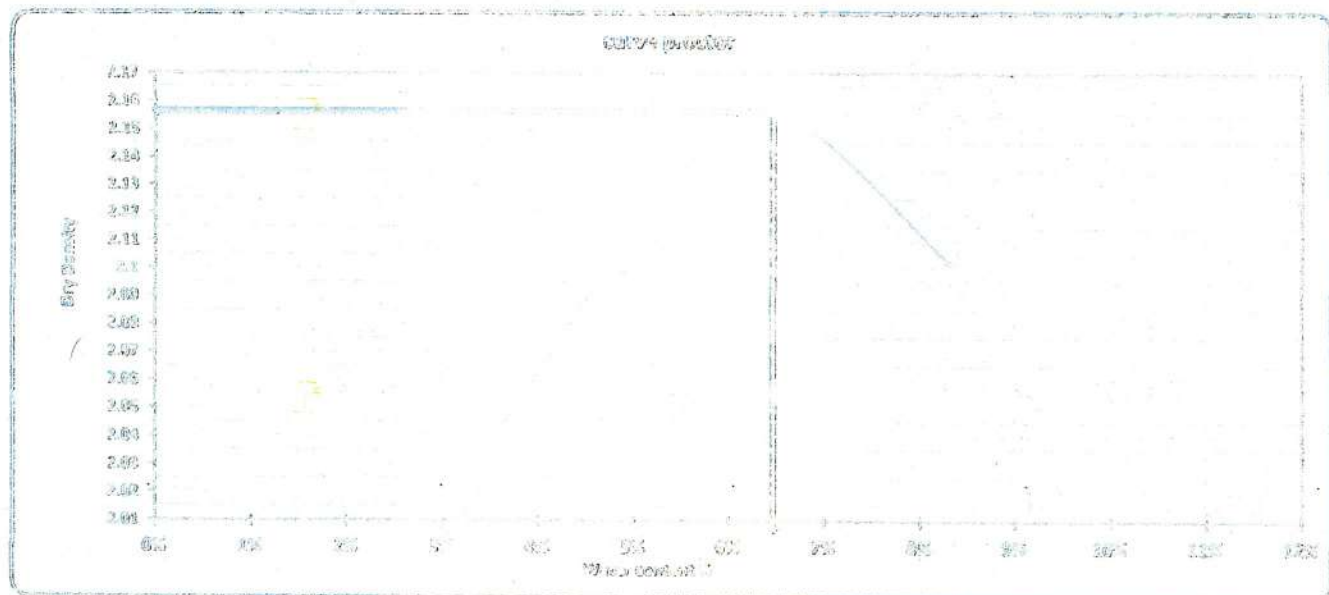
TESTING DATE:	10/2021			
LOCATION:	AL-BADAKH			
NAME COMPANY:	Karama			

Weight of empty mold:	5559.0
Mold Volume:	2131.0

MAX Dry Density:	2.155
Water content %:	6.5

trial no:	1	2	3	4
Wt. of Mold + soil:	10201.1	10200.2	10201.7	10201.9
Wt. WET Soil:	4642.1	4641.7	4642.7	4642.9
Wt. Density:	2.085	2.231	2.155	2.277

Test No.	1	2	3	4	5	6	7	8
Test wt.	55.05	55.12	55.05	55.12	55.05	55.12	55.05	55.12
Wt. Of wet soil & test	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
Wt. Of dry soil & test	194.5	194.5	194.5	194.5	194.5	194.5	194.5	194.5
Wt. Of water	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Wt. Of dry soil	194.5	194.5	194.5	194.5	194.5	194.5	194.5	194.5
Water content %	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
AV. Water content %	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
Dry Density	2.025	2.131	2.155	2.155	2.155	2.155	2.155	2.155



Contractor

Signature of Contractor
 Date: 10/2021

Consultant

Signature of Consultant
 Date: 10/2021



Wireless Engineering Co. - TCM

Construction Materials, Project TCM

Project Name	TCM				
Location	K.P. S301300	4000	Zone	S301300	S301300
Number of Columns	10000				

Test Results

Composition of Mortar	
Mortar No.	1
Mortar Vol. (cm ³)	2500
Mortar Wt. (gms)	1800
Mortar Wt. - Water Wt. (gms)	1800/25
Water Wt. (gms)	1000
Water Density (g/cm ³)	1.000
Dry Density (g/cm ³)	0.720
Proctor Density (g/cm ³)	0.950
Compaction %	75

Strength Ratio After Compaction	
Test No.	1
Test Wt. (gms)	1800
Test Wt. - Water Wt. (gms)	1800
Test Wt. - Dry Wt. (gms)	1800
Water Wt. (gms)	1000
Dry Wt. (gms)	1800
Moisture Content %	55

Sampling	
Mortar No.	1
Batch	0
Batch Size (gms)	1000
Batch Size (gms)	1000
Batch Size	0
Sample Size (gms)	10000.00
Sampling Point No.	000

Load Capacity

Proctor Density (gms)	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
Load Capacity (kN)	10000	11000	12000	13000	14000	15000	16000	17000	18000
Load (kN)	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0



Calculations

Proctor Density	Load	Required Load	CMR	Proctor Density	Load	CMR
(gms)	(kN)	(kN)	(%)	(gms)	(kN)	(%)
1.00	10000	10000	100	1.00	10000	100
1.25	11000	11000	100	1.25	11000	100

Lab. Results

Name: [Signature]

Signature: [Signature]





Construction Engineer

Name: Mohammed Ali

Signature: [Signature]

30

 Electric Express Train - HSR	From El Ain El Sokhna City To El Alamein Section -7 From FokaTo MARS MATROUH From Station 504+000 To Station 568+177	 وزارة النقل Ministry of Transport
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ACTIVITY : Sand cone test	laboratory results	COD	Z H (21)
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Company :	EL-ZHOUR COMPANY	Layer level :	fill (0)
Description:	Compaction test	Layer Thickness :	0.25 m
Station represented :	536+720 TO 536+800	Sample Date :	17/10/2023

Modified Proctor Testing Results

Max. Dry Density . gm/cm3	Optimum Moisture Content . %	Degree of Compaction Required . %	Bulk Density of Specified Sand . gm/cm3
2.15	6.5	95%	1.48

Compaction Testing Results & Calculations

STATION	536+745	536+770	536+795						
Hole No.	1	2	3						
WT, of Sand before Test ,gm	9724	9534	9674						
WT, of Sand After Test ,gm	5567	5466	5543						
WT, of Sand in Cone + hole ,gm	4157	4068	4131						
WT, of Sand in Cone	1140	1140	1140						
WT, of Sand at hole ,gm	3017	2928	2991						
Volume of the hole, Cm3	2039	1978	2021						
WT, of Soil from Hole ,gm	4482	4389	4459						
Bulk Density of Soil, Gm/cm3	2.199	2.218	2.206						
Moisture Content , %	6.3	6	5.7						
Dry Density, gm/cm3	2.068	2.093	2.087						
Compaction, (%)	96.2%	97.3%	97.1%						

Acceptance Criteria	Comply <input type="checkbox"/>	Not Comply <input type="checkbox"/>			
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CONSULTANT COMMENTS	
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Site engineer :- Name :- Mahmoud El Khlawy Signature :-	Consultant Materials Engineer :- Name :- <i>momen esmaeel</i> Signature :- <i>17/10/2023</i>
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Plate Load Test Results

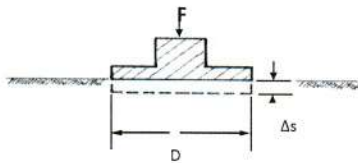
Company Name	El Zohour		
Location	536+720	To	536+800
Test Date	18-10-2023		
Layer level (m)	0		

Station	536+740
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EQUIPMENT AND TEST PROCEDURE :-

The basis of the given equation is Boussinesq's theory of the relationship between the modulus of elasticity and the settlement of a circular rigid plate with the diameter D .

The load is applied to a circular rigid steel bearing plate by a hydraulic jack in several steps. The settlement under each load step is recorded. The following sketch shows the principle of the test.



F = load

Δs = settlement

D = diameter of the plate

The diameter D of the plate is generally 0.30 m. For very coarse grained material also plates with diameter $D = 0.60$ m and $D = 0.762$ m are used

The load is applied in 6 load increments of equal size. Under each load step the settlement must come to a noticeable end (< 0.02 mm/minute). After the maximum load is reached the unloading procedure can begin. After that, the plate is reloaded in 5 steps. A loaded truck, an excavator or a roller usually serve as counterweight for the hydraulic jack

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	14.43	12.90		0.000	0.000		0.000
1.000	2.4	0.707	0.01	14.16	12.65		0.270	0.250		0.260
2.000	18.8	5.652	0.08	13.87	12.36		0.560	0.540		0.550
0.080	37.7	11.304	0.16	13.70	12.00		0.730	0.900		0.815
4.000	58.9	17.663	0.25	13.58	11.78		0.850	1.120		0.985
5.000	77.7	23.315	0.33	13.39	11.67		1.040	1.230		1.135
6.000	98.9	29.673	0.42	13.21	11.59		1.220	1.310		1.265
7.000	117.8	35.325	0.50	13.09	11.47		1.340	1.430		1.385
8.000	58.9	17.663	0.25	13.15	11.52		1.280	1.380		1.330
9.000	29.4	8.831	0.12	13.25	11.61		1.180	1.290		1.235
9.000	2.4	0.707	0.01	13.50	11.80		0.930	1.100		1.015
10.000	2.4	0.707	0.01	13.50	11.80		0.930	1.100		1.015
11.000	18.8	5.652	0.08	13.45	11.74		0.980	1.160		1.070
12.000	37.7	11.304	0.16	13.34	11.65		1.090	1.250		1.170
13.000	58.9	17.663	0.25	13.26	11.56		1.170	1.340		1.255
14.000	77.7	23.315	0.33	13.22	11.47		1.210	1.430		1.320
15.000	98.9	29.673	0.42	13.16	11.40		1.270	1.500		1.385

		s	Δs	Δσ
0.7 σ_1	0.35	1.16	0.37812	0.2
0.3 σ_1	0.15	0.78188		
0.7 σ_2	0.35	1.33444	0.20944	0.2
0.3 σ_2	0.15	1.12501		
D (mm)	300			
E_{v1}	119.01			
E_{v2}	214.86			
Area (Sq.m)	0.07065			

$$E_{v2}/E_{v1} = 1.81$$

$$E_v = 0.75 \cdot D \cdot \Delta \sigma / \Delta s$$

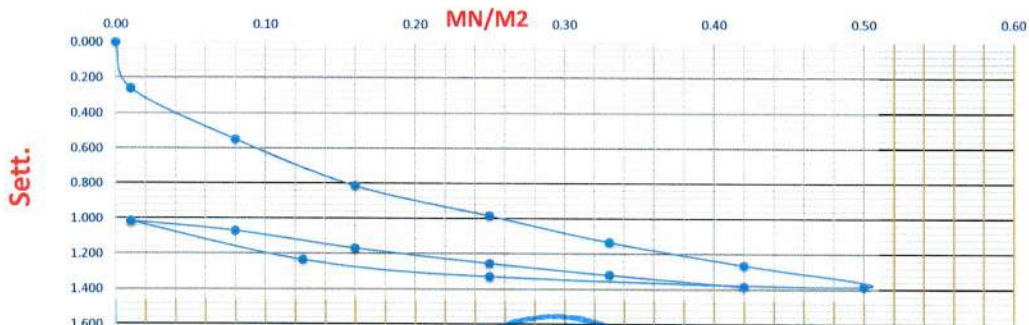
E_v = deformation modulus

$\Delta \sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta \sigma$ and Δs are usually taken from the load span between 0.3 σ_{max} and 0.7 σ_{max} .



Contractor Engineer

Name :

Sign :

Lab. Engineer

Name :

Sign :



Consultant Engineer

Name : Youssef Ragab

Sign :

Youssef
18/10/23

Plate Load Test Results

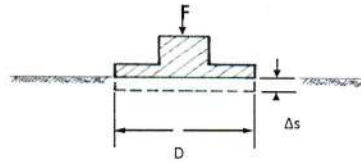
Company Name	El Zohour		
Location	536+720	To	536+800
Test Date	18-10-2023		
Layer level (m)	0		

Station 536+780

EQUIPMENT AND TEST PROCEDURE :-

The basis of the given equation is Boussinesq's theory of the relationship between the modulus of elasticity and the settlement of a circular rigid plate with the diameter D .

The load is applied to a circular rigid steel bearing plate by a hydraulic jack in several steps. The settlement under each load step is recorded. The following sketch shows the principle of the test.



F = load

Δs = settlement

D = diameter of the plate

The diameter D of the plate is generally 0.30 m. For very coarse grained material also plates with diameter $D = 0.60$ m and $D = 0.762$ m are used

The load is applied in 6 load increments of equal size. Under each load step the settlement must come to a noticeable end (< 0.02 mm/minute). After the maximum load is reached the unloading procedure can begin. After that, the plate is reloaded in 5 steps. A loaded truck, an excavator or a roller usually serve as counterweight for the hydraulic jack

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	15.51	14.70		0.000	0.000		0.000
1.000	2.4	0.707	0.01	15.34	14.55		0.170	0.150		0.160
2.000	18.8	5.652	0.08	15.20	14.40		0.310	0.300		0.305
0.080	37.7	11.304	0.16	15.05	14.24		0.460	0.460		0.460
4.000	58.9	17.663	0.25	14.90	14.12		0.610	0.580		0.595
5.000	77.7	23.315	0.33	14.75	13.95		0.760	0.750		0.755
6.000	98.9	29.673	0.42	14.61	13.80		0.900	0.900		0.900
7.000	117.8	35.325	0.50	14.41	13.64		1.100	1.060		1.080
8.000	58.9	17.663	0.25	14.45	13.71		1.060	0.990		1.025
9.000	29.4	8.831	0.12	14.60	13.79		0.910	0.910		0.910
9.000	2.4	0.707	0.01	14.88	13.98		0.630	0.720		0.675
10.000	2.4	0.707	0.01	14.88	13.98		0.630	0.720		0.675
11.000	18.8	5.652	0.08	14.80	13.89		0.710	0.810		0.760
12.000	37.7	11.304	0.16	14.73	13.80		0.780	0.900		0.840
13.000	58.9	17.663	0.25	14.65	13.73		0.860	0.970		0.915
14.000	77.7	23.315	0.33	14.56	13.68		0.950	1.020		0.985
15.000	98.9	29.673	0.42	14.50	13.60		1.010	1.100		1.055

		s	Δs	Δσ
0.7 σ_1	0.35	0.7425	0.30188	0.2
0.3 σ_1	0.15	0.44062		
0.7 σ_2	0.35	1.00056	0.15555	0.2
0.3 σ_2	0.15	0.84501		
D (mm)	300			
E_{v1}	149.07			
E_{v2}	289.30			
Area (Sq.m)	0.07065			

$E_{v2}/E_{v1} = 1.94$

$$E_v = 0.75 \cdot D \cdot \Delta \sigma / \Delta s$$

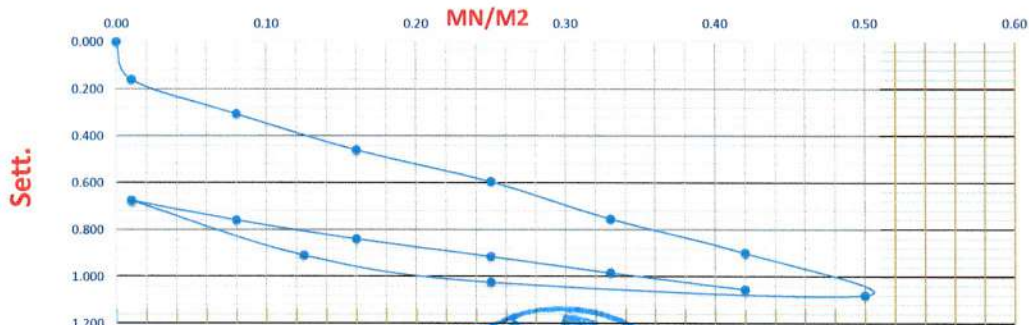
E_v = deformation modulus

$\Delta \sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta \sigma$ and Δs are usually taken from the load span between $0.3 \sigma_{max}$ and $0.7 \sigma_{max}$



Contractor Engineer

Name :

Sign :

Lab. Engineer

Name :

Sign :

Consultant Engineer

Name : Youssef Rugab

Sign :

Youssef
18/10/2023

ZHR - 6 - 175

UNIVERSAL
INSPECTION
REQUEST

RECEIPT of NOTIFICATION - Minimum Notice Period not less than 24

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

Contractor Company	EL . ZHOOR . COMPANY		Designer Company*	KK CONSULT.								
Issued by Contractor	Name	Sign	Date	Time								
	Eng : Mahmoud Elkhilawy		15 - 10 - 2023									
Received by Employers Representative	M.A		15/10/2023	UIR	C1	C2	C3	DD	MM	YY	HH	MM
					K.P536	E W	C S	15	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											

EXPLANATION OF WORK TO BE INSPECTED

Description	Element	Item
Earth Works	Fill (0)	From St (536+680) to (536+720)

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

Planned Inspection Date	Planned Inspection Time
15.10.2023	

COMPLIANCE EVIDENCE Must be Included as appropriate

Checklist Attached <input type="checkbox"/>	Test Results Attached <input type="checkbox"/>	Calibration Attached <input type="checkbox"/>	Other as indicated <input type="checkbox"/>
Drawing Reference	ITP Reference	MS Reference	

Civil	Survey	Material
momen esmaeel visual inspection is approved	Amr Ashraf Jaber Al-ABDUL is approved	momen esmaeel compaction test is approved 16/10/2023

INSPECTION RESULT

INSPECTION RESULT					Approval Status	Please Tick if Not Attend
Organisation	Name	Sign	Date	Time	A-AWC-R	
Contractor	ENG : M. ELKHLAWY					
QA/QC*						
GARB**	ENG : KHALED FAWZY				A	
Employers Representative Notes						
Employers Representative Sign	M.A		15/10/2023		A	

* Designer

** Alignment: Bridges: Culvert

شيت تشغيل طبقات الردم لمشروع القطار السريع القطاع السابع (فوكه - مطروح)
شركة (الزهور)
من المحطة (536+680) إلى المحطة (536+720)

ENGINEERING CONSULTING OFFICE المكتب الهندسي الاستشاري إ. ح. خالد فهد														LAYER LEVEL				0			
STATION		LEFT SIDE					PGL			RIGHT SIDE											
		ACT. WIDTH	13.44	10	5	S.E.%	DESIGN LEVEL	FERMA LEVEL	CL	S.E.%	5	9.94	ACT. WIDTH								
536+680			59.81	59.95	60.15		61.25	60.35	60.35		-4%	60.15	59.95								
Act.			-	+2	-				-			-	-								
Diff.																					
536+700			59.87	60.01	60.21		61.31	60.41	60.41		-4%	60.21	60.01								
Act.			-	+1	+1				+1			-	+1								
Diff.																					
536+720			59.93	60.07	60.27		61.37	60.47	60.47		-4%	60.27	60.07								
Act.			+1		-1				-1			+1	-1								
Diff.																					

Amr A. Al-Sayid
(To + al-Sayid)

MS FROM ST.(536+700) TO ST.(536+780)

Layer Zone
Layer No.

Station	536+700	536+720	536+740	536+760	536+780
DESIGN LEVEL	61.31	61.37	61.43	61.49	61.55
FERMA LEVEL	60.41	60.47	60.53	60.59	60.65
CUT LEVEL	59.11	59.66	59.90	59.87	58.85
DIFF (FERMA - CUT)	1.30	0.81	0.63	0.72	1.79
0	60.41	60.47	60.53	60.59	60.65
-0.25	60.16	60.22	60.28	60.34	60.40
-0.5	59.91	59.97	60.03	60.09	60.15
-0.75	59.66	59.72			59.90
-1	59.41				59.65
-1.25	59.16				59.40
-1.5					59.15
-1.75					58.90
-2					
-2.5					

[Signature]

MS Approved }
acc. to Design Table }
Rev-10

Middle Empankment

1
2
3
4
5
6
7
8
9
10

C.L DATA

Station	Easting	Northing
536+680	290339.5264	943913.8692
536+700	290320.2216	943919.0965
536+720	290300.9168	943924.3237

Amr Ashraf

27

TYPICAL WIDTH

layer	slope	left	slop	right	TOTAL
0	-4.00%	13.44	-4.00%	9.94	23.38
-0.25	-4.00%	13.84	-4.00%	10.34	24.18
-0.5	-4.00%	14.24	-4.00%	10.74	24.98
-0.75	-4.00%	5	-4.00%	5	10.00
-1	0.00%	14.13	0.00%	10.84	24.98

Mr. H. H. H.

29

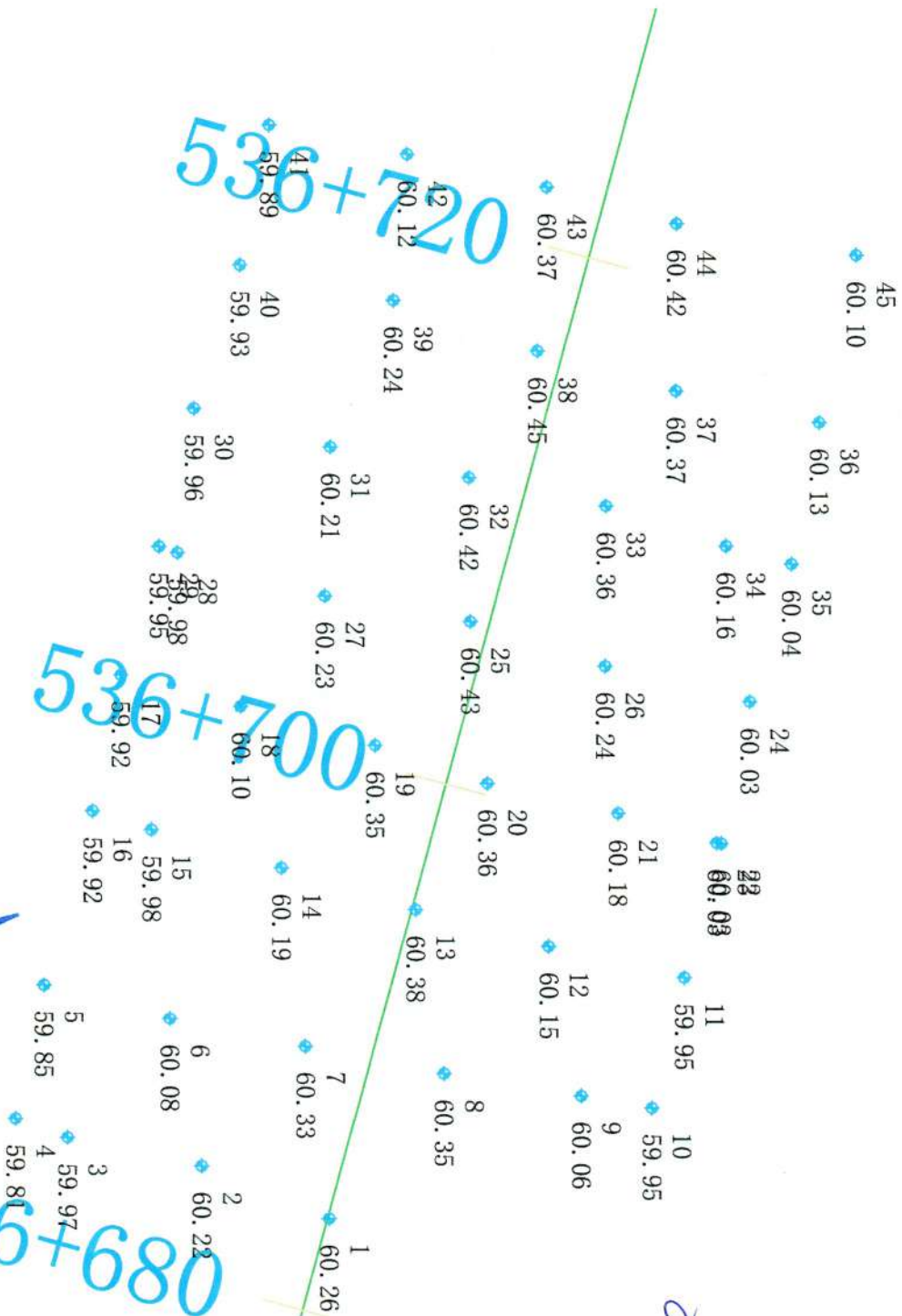
[Handwritten signature]

536+680

536+700

536+720

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POINT	NORTH	EAST	ELEV
1	943914.84	290336.141	60.258
2	943910.182	290334.241	60.222
3	943905.275	290333.21	59.969
4	943903.384	290332.519	59.809
5	943904.416	290327.61	59.853
6	943909.023	290328.837	60.082
7	943913.973	290329.838	60.329
8	943919.021	290330.831	60.35
9	943924.036	290331.625	60.056
10	943926.622	290332.067	59.947
11	943927.807	290327.269	59.947
12	943922.853	290326.138	60.149
13	943917.983	290324.812	60.385
14	943913.1	290323.291	60.193
15	943908.348	290321.903	59.985
16	943906.193	290321.226	59.923
17	943907.226	290316.25	59.922
18	943911.612	290317.39	60.1
19	943916.507	290318.804	60.351
20	943920.604	290320.178	60.356
21	943925.383	290321.262	60.176
22	943929.154	290322.35	60.027
23	943928.989	290322.333	60.031
24	943930.194	290317.167	60.031
25	943919.987	290314.267	60.432
26	943924.91	290315.875	60.244
27	943914.677	290313.341	60.231
28	943909.304	290311.766	59.978

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POINT	NORTH	EAST	ELEV
29	943908.626	290311.547	59.949
30	943909.901	290306.487	59.964
31	943914.88	290307.885	60.209
32	943919.934	290308.998	60.415
33	943924.945	290310.021	60.357
34	943929.325	290311.471	60.165
35	943931.731	290312.125	60.045
36	943932.742	290306.945	60.132
37	943927.507	290305.798	60.367
38	943922.447	290304.35	60.454
39	943917.177	290302.501	60.243
40	943911.581	290301.209	59.932
41	943912.66	290296.089	59.892
42	943917.691	290297.145	60.124
43	943922.789	290298.327	60.37
44	943927.531	290299.65	60.419
45	943934.09	290300.791	60.103

*Ames
P. Smith*

[Signature]

MATERIAL INSPECTION REQUEST

أمانة العامة
للطرق والكباري
(GARB)



وزارة النقل
Ministry of Transport and Public Works

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



Contractor Company	El . Zhoor . Company		Designer Company	KK CONSULT.																
Issued by Contractor	Name	Sign	Date	COD																
	Eng \ Mahmoud elkhlawy		12-4-2023	ZH 21																
Received by ER		MIR	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td>12</td> <td>4</td> <td>2023</td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM				12	4	2023			
C1	C2	C3	DD	MM	YY	HH	MM													
			12	4	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	Fill material results				
Location to be Used	fill (0)	536+680	536+560	FILL (-0.5)	536+720 536+680
	FLAT (-1.5)	536+800	536+780	FILL (-0.75)	536+800 536+780
	FLAT (-1)	536+700	536+680	FILL (-0.25)	536+720 536+680
	FILL (-1.25)	536+800	536+780	FILL (-0.5)	536+800 536+780
	FILL (-0.75)	536+700	536+680	FILL (-0.25)	536+800 536+780
	FILL (-1)	536+800	536+780	FILL (0)	536+720 536+680
				FILL (0)	536+800 536+720

MAR Approval No			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	9 - 4 - 2023	
2	Proctor	m3	5000	9 - 4 - 2023	
3	Classification	m3	5000	9 - 4 - 2023	
4	Seive analysis	m3	5000	9 - 4 - 2023	

Comments by:	Comments by:
Asample has been taken form fill material by KK office to (mansor ali hasan) lab and the results founded meet the specificonctions and accepted	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Mahmoud elkhlawy			
QA/QC *	Mohamed Ali			
GARB**				
Comment by ER				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

الهيئة العامة
للطرق والكباري
(GARB)



وزارة النقل
Ministry of Transport

ENGINEERING CONSULTING OFFICE
المكتب الاستشاري الهندسي
إ.د. خالد شحيد



Contractor Company	EL ZHOOR COMPANY		Designer Company	KK																	
Issued by Contractor	Name	Sign	Date	cod																	
	ENG : MAHMOUD ELKHLAWY		12 - 4 - 2023	Zh 21																	
Received by ER			MAR	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td>12</td> <td>4</td> <td>2023</td> <td></td> <td></td> </tr> </table>		C1	C2	C3	DD	MM	YY	HH	MM				12	4	2023		
C1	C2	C3	DD	MM	YY	HH	MM														
			12	4	2023																

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

Description of Materials	Soil classify (A 1 a)			
Location to be Used	536+000 to 537+000			
item	Spacification	Test Requirment	Test Result Attachment	Remark
1	ASTM D 75	Aggregate Sampling	According Spacification	
2	ASTM C 136	Sieve Analysis	According Spacification	
3	ASTM D 1440	Passing Sieve #200	8.3 %	
4	ASTM D 4318	Atterberg Limit	NOh	
5	ASTM D 2974	Moisture Content	6.5 %	
6	ASTM D 1557	Modifid Proctor	2.156	
7	ASTM D 1883	C B R	48.20%	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	MAHMOUD ELKHLAWY			
QA/QC *	Mohamed Ali			
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only



Marssonium Leaf

[illegible]

TESTING DATE:	9/4/2023				
LOCATION:	K.P 536+500			Zero	536+000 to 537+000
NAME COMPANY:	Etracor				
encl inspection form					

<u>valuation of built materials</u>				<u>SAMPLE WEIGHT (g)</u>		<u>25001.00</u>	<u>gpm</u>	<u>soil classify</u>
<u>sieve size</u>	<u>2</u>	<u>1.5</u>	<u>1</u>	<u>43</u>	<u>75</u>	<u>83</u>	<u>2.4</u>	<u>soil classify</u>
<u>0.09</u>	<u>0.0</u>	<u>1424.0</u>	<u>1672.0</u>	<u>1711.0</u>	<u>3251.0</u>	<u>2192.0</u>	<u>5067.0</u>	<u>A-1-a</u>
<u>retentive Retained (g)</u>				<u>1021.0</u>	<u>3237.0</u>	<u>11020.0</u>	<u>17007.0</u>	<u>PFO</u>
<u>retentive Retained %</u>				<u>19.6</u>	<u>42.7</u>	<u>49.3</u>	<u>67.0</u>	<u>WC</u>
<u>retentive Passing %</u>							<u>CBR</u>	<u>46.20</u>

<u>Particle Size Distribution</u>				<u>Wt. % Sample</u>	<u>700.00</u>	<u>900</u>
<u>Sieve size</u>	<u>10</u>	<u>40</u>	<u>200</u>			
<u>Cumulative Retained (%)</u>	<u>68.00</u>	<u>225.00</u>	<u>372.00</u>			
<u>Cumulative Retained %</u>						
<u>Cumulative Passing %</u>						

[illegible]



AYERBERG LIMITS	LIQUID LIMIT (P.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)	PLASTIC MADE (P.L.)
	ML	ML	ML	ML

Contractor



Comp: 0.000000

MI,
32, 15, 2

 KK KANSAS KRETECH CONSULTING ENGINEERS 1000 S. 10th St., Suite 100 Lawrence, KS 66044 Phone: (781) 841-1111 Fax: (781) 841-1112 Email: info@kk-engineers.com Website: www.kk-engineers.com	Project Name: Highway 100 Interchange Location: Highway 100 Interchange, Lawrence, Kansas Project No.: 100-100-100 Date: 10/10/10		
	Drawing No.: 100-100-100 Revision: 1 Date: 10/10/10		
	Drawing Title: Proposed Test		
	Drawing Scale: 1" = 100'		
Operating Lab	Materials Lab		

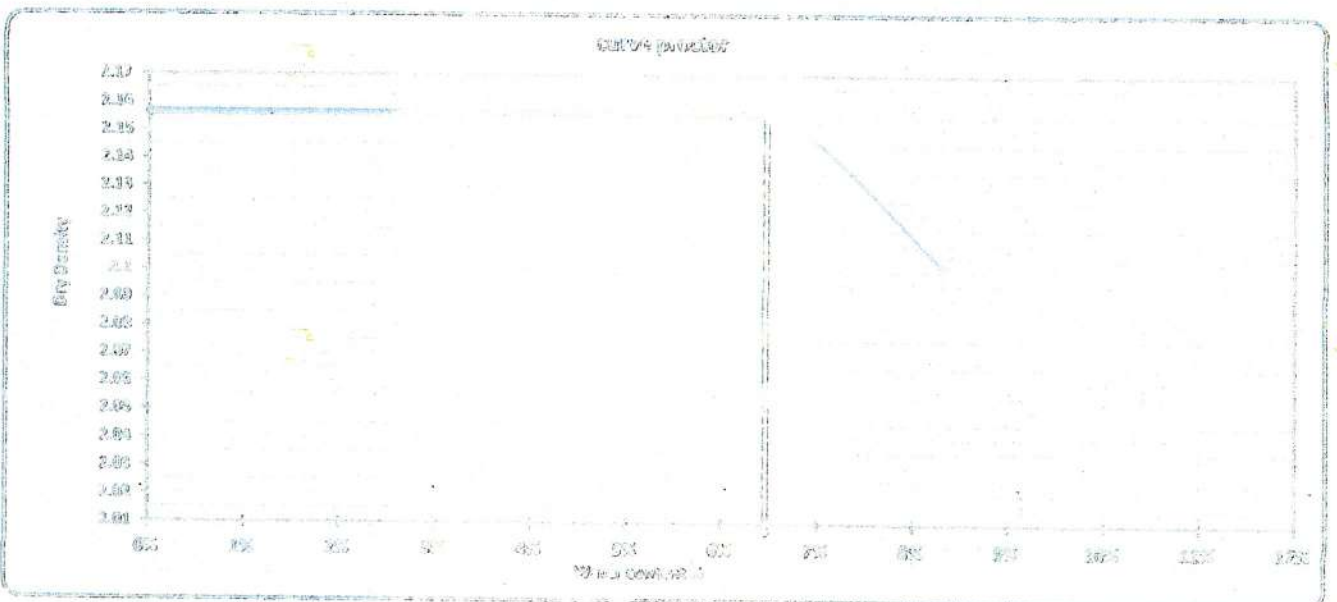
TESTING DATE:	10/10/10			
LOCATION:	K.P. 100-100			
NAME COMPANY:	Shelton			

Weight of empty mold:	2.000
Mold Volume:	2.000

Wet Dry Density:	2.000
Water content %:	6.5




Test No.:	1	2	3	4
Wt. of Mold (wet):	10.000	10.000	10.000	10.000
Wt. of Wet Soil:	1.000	1.000	1.000	1.000
Wt. Density:	2.000	2.000	2.000	2.000

Test No.	1	2	3	4	5	6	7	8
Test wt.	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Wt. of Wet soil & mold	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
Wt. of Dry soil & mold	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0
Wt. of water	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Wt. of dry soil	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0
Water content %	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
AV. Water content %	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
Dry Density	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000



Contractor 	Consultant 
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 Electric Express Train - HSR	From El Ain El Sokhna City To El Alamein Section -7 From FokaTo MARSA MATROUH From Station 504+000 To Station 568+177	 وزارة النقل Ministry of Transport
 ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي أ.د. خالد عبد الجليل		

ACTIVITY : Sand cone test	laboratory results	COD	Z H (21)
----------------------------------	---------------------------	------------	-------------------

Company :	EL-ZHOUR COMPANY	Layer level :	fill (0)
Description:	Compaction test	Layer Thickness :	0.25 m
Station represented :	536+680 TO 536+720	Sample Date :	16/10/2023

Modified Proctor Testing Results			
Max. Dry Density . gm/cm3	Optimum Moisture Content . %	Degree of Compaction Required . %	Bulk Density of Specified Sand . gm/cm3
2.15	6.5	95%	1.48

Compaction Testing Results & Calculations										
STATION	536+705	536+720								
Hole No.	1	2								
WT, of Sand befor Test ,gm	9538	9681								
WT, of Sand After Test ,gm	5460	5576								
WT, of Sand in Cone + hole ,gm	4078	4105								
WT, of Sand in Cone	1140	1140								
WT, of Sand at hole ,gm	2938	2965								
Volume of the hole, Cm3	1985	2003								
WT, of Soil from Hole ,gm	4405	4427								
Bulk Density of Soil, Gm/cm3	2.219	2.210								
Moisture Content , %	5.7	6.2								
Dry Density, gm/cm3	2.099	2.081								
Compaction, (%)	97.6%	96.8%								

Acceptance Criteria	Comply <input type="checkbox"/>	Not Comply <input type="checkbox"/>			
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CONSULTANT COMMENTS

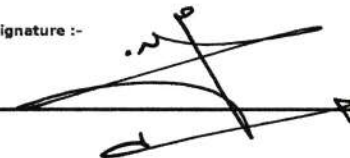
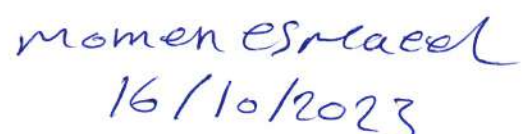
Site engineer :- Name :- Mahmoud El Khlawy Signature :- 	Consultant Materials Engineer :- Name :- Momen Esraeel Signature :- 
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Plate Load Test Results

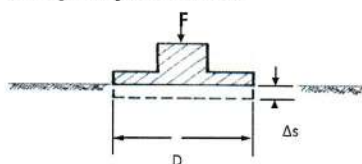
Company Name	El Zohour		
Location	536+680	To	536+720
Test Date	18-10-2023		
Layer level (m)	0		

Station	536+700
---------	---------

EQUIPMENT AND TEST PROCEDURE :-

The basis of the given equation is Boussinesq's theory of the relationship between the modulus of elasticity and the settlement of a circular rigid plate with the diameter D .

The load is applied to a circular rigid steel bearing plate by a hydraulic jack in several steps. The settlement under each load step is recorded. The following sketch shows the principle of the test.



F = load

Δs = settlement

D = diameter of the plate

The diameter D of the plate is generally 0.30 m. For very coarse grained material also plates with diameter $D = 0.60$ m and $D = 0.762$ m are used

The load is applied in 6 load increments of equal size. Under each load step the settlement must come to a noticeable end (< 0.02 mm/minute). After the maximum load is reached the unloading procedure can begin. After that, the plate is reloaded in 5 steps. A loaded truck, an excavator or a roller usually serve as counterweight for the hydraulic jack

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	18.55	17.99		0.000	0.000		0.000
1.000	2.4	0.707	0.01	18.31	17.80		0.240	0.190		0.215
2.000	18.8	5.652	0.08	18.05	17.55		0.500	0.440		0.470
0.080	37.7	11.304	0.16	17.75	17.36		0.800	0.630		0.715
4.000	58.9	17.663	0.25	17.56	17.21		0.990	0.780		0.885
5.000	77.7	23.315	0.33	17.32	17.08		1.230	0.910		1.070
6.000	98.9	29.673	0.42	17.10	16.94		1.450	1.050		1.250
7.000	117.8	35.325	0.50	16.85	16.75		1.700	1.240		1.470
8.000	58.9	17.663	0.25	16.92	16.80		1.630	1.190		1.410
9.000	29.4	8.831	0.12	17.05	16.88		1.500	1.110		1.305
9.000	2.4	0.707	0.01	17.35	17.15		1.200	0.840		1.020
10.000	2.4	0.707	0.01	17.35	17.15		1.200	0.840		1.020
11.000	18.8	5.652	0.08	17.25	17.07		1.300	0.920		1.110
12.000	37.7	11.304	0.16	17.13	16.98		1.420	1.010		1.215
13.000	58.9	17.663	0.25	17.05	16.90		1.500	1.090		1.295
14.000	77.7	23.315	0.33	16.94	16.82		1.610	1.170		1.390
15.000	98.9	29.673	0.42	16.80	16.76		1.750	1.230		1.490

		s	Δs	Δσ
0.7 σ_1	0.35	1.0575	0.37312	0.2
0.3 σ_1	0.15	0.68438		
0.7 σ_2	0.35	1.41222	0.21221	0.2
0.3 σ_2	0.15	1.20001		
D (mm)	300			
E_{v1}	120.60			
E_{v2}	212.05			
Area (Sq.m)	0.07065			

$$E_{v2}/E_{v1} = 1.76$$

$$E_v = 0.75 \cdot D \cdot \Delta\sigma / \Delta s$$

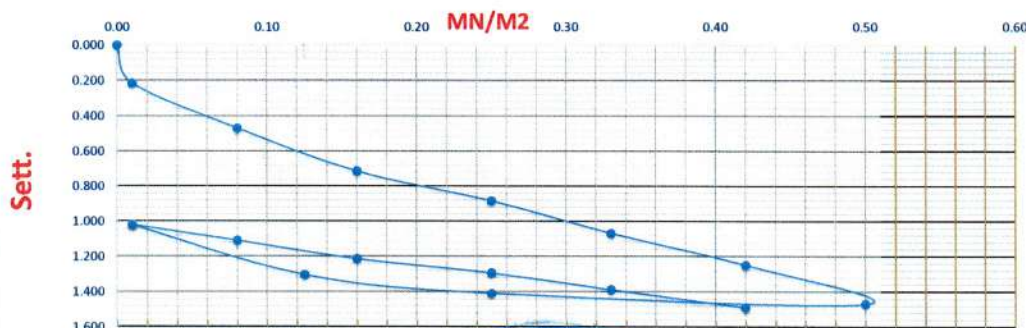
E_v = deformation modulus

$\Delta\sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta\sigma$ and Δs are usually taken from the load span between $0.3 \sigma_{max}$ and $0.7 \sigma_{max}$.



Contractor Engineer

Name :

Sign :

Lab. Engineer

Name :

Sign :

Consultant Engineer

Name :

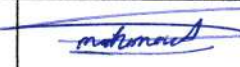
Sign :



Youssef Ragab
18/10/2023

ZHR-6-174

UNIVERSAL INSPECTION REQUEST	 ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي ا.د. خالد قنديل	 SVS/TA SHAKER	 الهيئة العامة للطرق والكباري
---	--	---	---


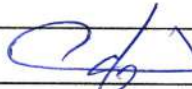
RECEIPT of NOTIFICATION - Minimum Notice Period not less than 24 The Work described below will be complete and ready for inspection at planned time shown											
Contractor Company	EL . ZHOOR . COMPANY				Designer Company*	KK CONSULT.					
Issued by Contractor	Name	Sign	Date	Time							
	Eng : Mahmoud Elkhilawy		11 - 10 - 2023								
Received by Employers Representative	M.A	10/11/2023	UIR	C1	C2	C3	DD	MM	YY	HH	MM
				K.P536	E W	C S	11	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									

EXPLANATION OF WORK TO BE INSPECTED		
Description	Element	Item
Earth Works	Fill (-0.25)	From St (536+780) to (536+800)

INSPECTION DETAILS	
The Following will be ready at the Planned Inspection Time	
Planned Inspection Date	Planned Inspection Time
11/10/2023	

COMPLIANCE EVIDENCE			
Must be Included as appropriate			
Checklist Attached <input type="checkbox"/>	Test Results Attached <input type="checkbox"/>	Calibration Attached <input type="checkbox"/>	Other as indicated <input type="checkbox"/>
Drawing Reference	ITP Reference	MS Reference	

Civil	Survey	Material
momentesmael visual inspection is approved	Ahmed Abdel tests are approved	momentesmael Compaction test is approved 12/10/2023

INSPECTION RESULT					Approval Status	Please Tick if Not Attend
Organisation	Name	Sign	Date	Time	A-AWC-R	
Contractor	ENG : M . ELKHLAWY					
QA/QC*						
GARB**	ENG : KHALED FAWZY				A	
Employers Representative Notes						
Employers Representative Sign	M.A	10/30/2023			A	

* Designer

** Alignment: Bridges: Culvert

شيت تشغيل طبقات الردم لمشروع القطار السريع القطاع السابع (فوكه - مطروح)
 شركة (الزهور)
 من المحطة (536+780) إلى المحطة (536+800)

STATION	LEFT SIDE				S.E. %	PGL			S.E. %	RIGHT SIDE			
	ACT. WIDTH	13.84	10	5		DESIGN LEVEL	FERMA LEVEL	CL		5	10.34	ACT. WIDTH	
536+780		59.84	60.00	60.20		61.55	60.65	60.40		60.20	59.98		
Act.					-4%			2,04	-4%				
Diff.		+1	-2	+1				42		-1	+1		
536+800		59.90	60.06	60.26		61.61	60.71	60.46		60.26	60.04		
Act.					-4%				-4%				
Diff.		+2	+1	✓				+1		+1	-1		

2,84 +
 59,60
 62,44

Hmad Ashraf
 2

2.27

mohamed

Layer Zone		MS FROM ST.(536+700) TO ST.(536+780)					Layer No.	
		Station	536+700	536+720	536+740	536+760	536+780	
		DESIGN LEVEL	61.31	61.37	61.43	61.49	61.55	
		FERMA LEVEL	60.41	60.47	60.53	60.59	60.65	
		CUT LEVEL	59.11	59.66	59.90	59.87	58.85	
		DIFF (FERMA - CUT)	1.30	0.81	0.63	0.72	1.79	
Middle Empe Upper Empankemt	1	0	60.41	60.47	60.53	60.59	60.65	
	2	-0.25	60.16	60.22	60.28	60.34	60.40	
	3	-0.5	59.91	59.97	60.03	60.09	60.15	
	4	-0.75	59.66	59.72			59.90	
	5	-1	59.41				59.65	
	6	-1.25	59.16				59.40	
	7	-1.5					59.15	
	8	-1.75					58.90	
	9	-2						
	10	-2.5						



MS Approved }
 over the Design Table }
 Rev-10

C.L DATA

Station	Easting	Northing
536+780.00	290243.0024	943940.0055
536+800.00	290223.6976	943945.2328

Amr A. H. H.

22/2

Amr A. H. H.

TYPICAL WIDTH

layer	slope	left	slop	right	TOTAL
0	-4.00%	13.44	-4.00%	9.94	23.38
-0.25	-4.00%	13.84	-4.00%	10.34	24.18
-0.5	-4.00%	14.24	-4.00%	10.74	24.98
-0.75	-4.00%	14.64	-4.00%	11.14	25.78
-1	-4.00%	15.04	-4.00%	11.54	26.58
-1.25	-4.00%	5	-4.00%	5	10
-1.5	0%	14.88	0%	11.59	26.47

Amor Asub

22

Amor Asub

MATERIAL INSPECTION REQUEST

الهيئة العامة
للطرق والكباري
(GARB)



ENGINEERING CONSULTING OFFICE
المكتب الاستشاري الهندسي
إ.د. خالد عبدالمجيد



Contractor Company	El . Zhoor . Company		Designer Company	KK CONSULT.							
Issued by Contractor	Name	Sign	Date	COD							
	Eng \ Mahmoud elkhlawy		12-4-2023	ZH 21							
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							12	4	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		Fill material results					
Location to be Used	fill (0)	536+680	536+560	FILL (-0.5)	536+720	536+680	
	FLAT (-1.5)	536+800	536+780	FILL (-0.75)	536+800	536+780	
	FLAT (-1)	536+700	536+680	FILL (-0.25)	536+720	536+680	
	FILL (-1.25)	536+800	536+780	FILL (-0.5)	536+800	536+780	
	FILL (-0.75)	536+700	536+680	FILL (-0.25)	536+800	536+780	
	FILL (-1)	536+800	536+780	FILL (0)	536+720	536+680	
				FILL (0)	536+800	536+720	
MAR Approval No				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	9 - 4 - 2023			
2	Proctor	m3	5000	9 - 4 - 2023			
3	Classification	m3	5000	9 - 4 - 2023			
4	Seive analysis	m3	5000	9 - 4 - 2023			
Comments by:				Comments by:			
Asample has been taken form fill material by KK office to (mansor ali hasan) lab and the results founded meet the specifcontions and accepted							
APPROVAL STATUS							
Organisation	Name	Sign	Date	A-AWC-R			
Contractor	Mahmoud elkhlawy						
QA/QC *	Mohamed Ali						
GARB**							
Comment by ER							
Employers Representative							

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

الهيئة العامة
للطرق والكباري
(GARB)



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



Contractor Company	EL ZHOOR COMPANY			Designer Company	KK						
Issued by Contractor	Name	Sign	Date	cod							
	ENG : MAHMOUD ELKHLAWY		12 - 4 - 2023	Zh 21							
Received by ER			MAR	C1	C2	C3	DD	MM	YY	HH	MM
							12	4	2023		



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

Description of Materials	Soil classify (A 1 a)			
Location to be Used	536+000 to 537+000			
item	Spacification	Test Requirment	Test Result Attachment	Remark
1	ASTM D 75	Aggregate Sampling	According Spacification	
2	ASTM C 136	Sieve Analysis	According Spacification	
3	ASTM D 1440	Passing Sieve #200	8.3 %	
4	ASTM D 4318	Atterberg Limit	NO	
5	ASTM D 2974	Moisture Content	6.5 %	
6	ASTM D 1557	Modifid Proctor	2.156	
7	ASTM D 1883	C B R	48.20%	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	MAHMOUD ELKHLAWY			
QA/QC *	Mohamed Al:			
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only

 K.K. CONSULTING OFFICE المكتب الاستشاري ك.ك. أ.د. خالد قنديل	Project Name: El-Zohor - El-Zohor - El-Zohor Project Location: El-Zohor - El-Zohor - El-Zohor Project Description: El-Zohor - El-Zohor - El-Zohor		 Ministry of Public Works and Urban Planning
	Operating Lab	Designing Lab	
	PARTICLE SIZE DISTRIBUTION TEST ON SOIL		
	TESTING DATE: 9/4/2023	LOCATION: K.P. 536+500	
NAME COMPANY: Elzohor			
Int. Inspection Test:			

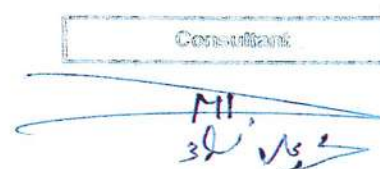
soil test



gradation of bulk materials				SACIFIC WEIGHT (g)		25161.00		g/m	table classify	
sieve size	2	1.5	1	48	24	8/3	# 4	PASS	soil classify	
0.075	0.0	1424.0	1700.0	1711.2	3251.0	2792.0	5007.0		A-1-a	
relative Retained (g)				100.0	3277.0	11020.0	17007.0		PRO	2.155
relative Retained %				10.0	42.7	43.8	67.8		WC	6.50
relative Passing %									CDR	48.20

material gradation				Wt. of sample		500.00		g/m
sieve size	10	40	200					
relative Retained (g)	58.00	235.00	372.00					
relative Retained %								
relative Passing %								

general gradation										
sieve size (in)	2	1.5	1	3/4	3/8	3/16	# 4	# 10	# 40	# 200
sieve size (mm)	50.0	37.5	25.0	19.0	9.5	4.75	4.75	2.00	0.425	0.075
relative Passing %										

ATTERBERG LIMITS	LIQUID LIMIT (LL)		PLASTIC INDEX (PI)
	ML	MP	



 KK <small>Engineering & Construction</small> <small>100% Egyptian Capital</small>	100% Egyptian Capital		
	Project Name: Water Supply Project - El-Dokki - El-Dokki		
Location: El-Dokki - El-Dokki		Project No.: 10000000000000000000	
Client: Ministry of Water Resources		Project Manager: Mr. [Name]	
Operating Lab	Ministry Lab	Project Test	

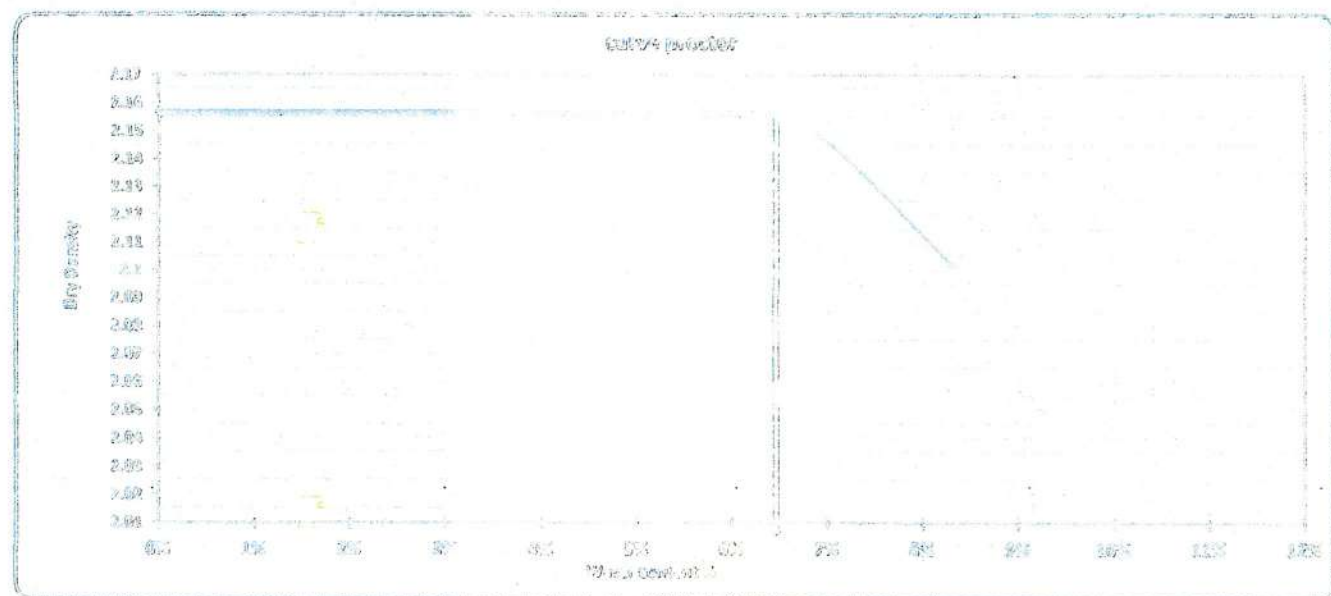
TESTING DATE:	9/1/2023			
LAB. ADDRESS:	K.P. 650+600			
CLIENT COMPANY:	El-Dokki			

Weight of empty mold:	5579.9
Mold Volume:	21.316

Wet Dry Density	2.015
Water content %	6.5

Test No.:	1	2	3	4
Wt. of mold + wet soil	10000.1	10000.2	10000.3	10000.4
Wt. of wet soil	4420.1	4420.2	4420.3	4420.4
Wt. Density	2.005	2.006	2.007	2.008

Test No.	1	2	3	4	5	6	7	8		
Wt. of mold	5579.9	5579.9	5579.9	5579.9	5579.9	5579.9	5579.9	5579.9		
Wt. of wet soil & mold	10000.1	10000.2	10000.3	10000.4	10000.5	10000.6	10000.7	10000.8		
Wt. of dry soil & mold	10000.1	10000.2	10000.3	10000.4	10000.5	10000.6	10000.7	10000.8		
Wt. of water	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		
Wt. of dry soil	10000.1	10000.2	10000.3	10000.4	10000.5	10000.6	10000.7	10000.8		
Water content %	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%		
AV. Water content %	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%		
Dry Density	2.005	2.006	2.007	2.008	2.009	2.010	2.011	2.012		



Contractor



Consultant

[Handwritten signature]



Chemical Engineer's Office - JICA

California Bearing Ratio (CBR)

Section No.:	124/2023				
Location:	K.P. 530+500	40m	Zone	530+000	531+000
Number of CBR test	Five				

Test Results:

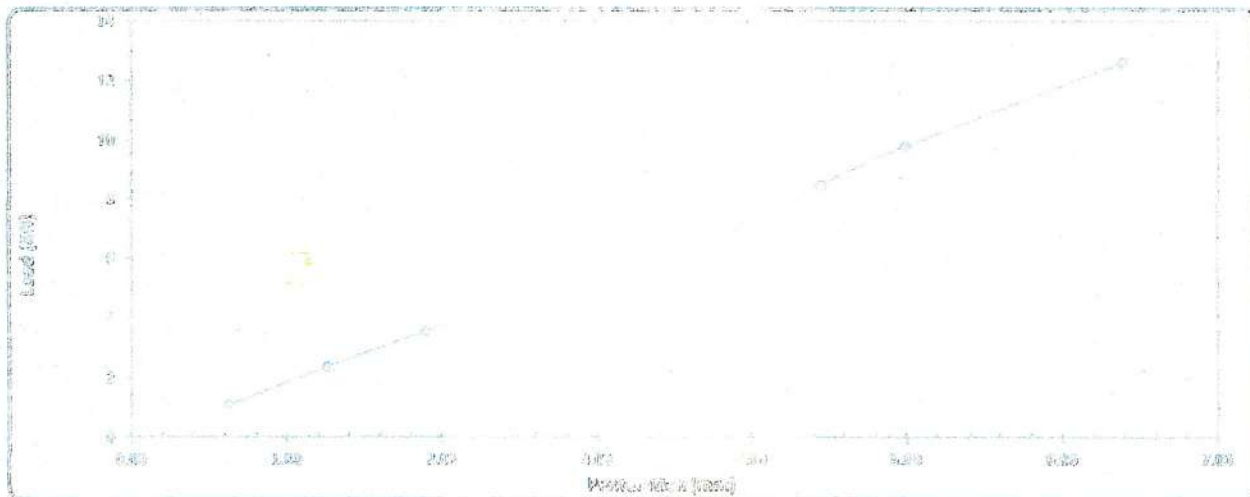
Compaction % for Moist	
Moist No.	1
Moist Wt. (g)	3765
Moist Wt. (g)	3677
Moist Wt. - Wt. Wt. (g)	4307.50
Wt. Wt. (g)	3600
Wt. Wt. (g)	3.282
Wt. Wt. (g)	3.142
Wt. Wt. (g)	3.142
Compaction %	99

Moisture Ratio, Moisture Content, and	
Moist No.	1
Wt. Wt. (g)	3.142
Wt. Wt. (g) - Wt. Wt. (g)	3.142
Wt. Wt. (g) - Wt. Wt. (g)	3.142
Wt. Wt. (g)	3.142
Wt. Wt. (g)	3.142
Wt. Wt. (g)	3.142

Soil Data	
Moist No.	1
Wt. Wt. (g)	3.142
Wt. Wt. (g) - Wt. Wt. (g)	3.142
Wt. Wt. (g) - Wt. Wt. (g)	3.142
Wt. Wt. (g)	3.142
Wt. Wt. (g)	3.142
Wt. Wt. (g)	3.142

Logarithmic Relationship:

Plasticity Index (PI)	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
CBR (log)	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
CBR (log)	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00



Calculations:

Plasticity Index (PI)	CBR (log)	CBR (log)	CBR (log)	CBR (log)	CBR (log)	CBR (log)
1.00	1.00	1.25	1.50	1.75	2.00	2.25
1.25	1.25	1.50	1.75	2.00	2.25	2.50

Calc. Results



Chemical Engineer

Name: Mohammed Ali

Signature: M.A. Ali



Electric Express Train - HSR

From El Ain El Sokhna City To El Alamein

Section -7 From FokaTo MARS MATROUH

From Station 504+000 To Station 568+177



ACTIVITY : Sand cone test

laboratory results

COD

Z H (21)

Company :	EL-ZHOUR COMPANY	Layer level :	fill (-0.25)
Description:	Compaction test	Layer Thickness :	0.25 m
Station represented :	536+780 TO 536+800	Sample Date :	12/10/2023

Modified Proctor Testing Results

Max. Dry Density . gm/cm3	Optimum Moisture Content . %	Degree of Compaction Required . %	Bulk Density of Specified Sand . gm/cm3
2.15	6.5	95%	1.48

Compaction Testing Results & Calculations

STATION	536+800									
Hole No.	1									
WT, of Sand before Test ,gm	9426									
WT, of Sand After Test ,gm	5376									
WT, of Sand in Cone + hole ,gm	4050									
WT, of Sand in Cone	1140									
WT, of Sand at hole ,gm	2910									
Volume of the hole, Cm3	1966									
WT, of Soil from Hole ,gm	4382									
Bulk Density of Soil, Gm/cm3	2.229									
Moisture Content , %	6.1									
Dry Density, gm/cm3	2.101									
Compaction, (%)	97.7%									

Acceptance Criteria

Comply

Not Comply

CONSULTANT COMMENTS

Site engineer :-

Name :- Mahmoud El Khawy

Signature :-

Consultant Materials Engineer :-

Name :-

Signature :-

momen esmaeel
12/10/2023

ZHR-6-173

UNIVERSAL
INSPECTION
REQUEST

RECEIPT of NOTIFICATION - Minimum Notice Period not less than 24

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

Contractor Company	EL . ZHOOR . COMPANY		Designer Company*	KK CONSULT.							
Issued by Contractor	Name	Sign	Date	Time							
	Eng : Mahmoud Elkhilawy	<i>Mohamed</i>	10 - 10 - 2023	10:12							
Received by Employers Representative	M.A	<i>10/10/2023</i>	UIR	C1	C2	C3	DD	MM	YY	HH	MM
				K.P536	E W	C S	10	10	2023	10	12
CODE-1	S1 to S21 Station Reference		D1 to S3 Depot Reference		Kp XXX Note For Kilometer point only Start Km is used						
CODE - 2	Work Activity										
CODE - 3	Sub Element of Activity										

EXPLANATION OF WORK TO BE INSPECTED

Description	Element	Item
Earth Works	Fill (-0.5)	From St (536+780) to (536+800)

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

Planned Inspection Date	Planned Inspection Time
<i>10.10.2023</i>	<i>12:01</i>

COMPLIANCE EVIDENCE Must be Included as appropriate

Checklist Attached <input type="checkbox"/>	Test Results Attached <input type="checkbox"/>	Calibration Attached <input type="checkbox"/>	Other as indicated <input type="checkbox"/>
Drawing Reference	ITP Reference	MS Reference	

Civil	Survey	Material
<i>momenesmaeel visual inspection is approved</i>	<i>Amr & Ashraf Idris ARE APPROVED</i>	<i>momenesmaeel Compaction test is approved 11/10/2023</i>

INSPECTION RESULT						Approval Status	Please Tick if Not Attend
Organisation	Name	Sign	Date	Time	A-AWC-R		
Contractor	ENG : M . ELKHLAWY	<i>Mohamed</i>					
QA/QC*							
GARB**	ENG : KHALED FAWZY	<i>Khaled</i>				A	
Employers Representative Notes							
Employers Representative Sign	M.A	<i>10/30/2023</i>				A	

* Designer

** Alignment: Bridges: Culvert


من المحطة (536+780) إلى المحطة (536+800)

Alma Aspin
(141408702)
(T. + 18.10.11)

2/10/20

Layer Zone
Layer No.

Layer No.

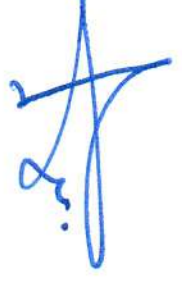


Rev-10

C.L DATA

Station	Easting	Northing
536+780.00	290243.0024	943940.0055
536+800.00	290223.6976	943945.2328

Abnef Hs de



TYPICAL WIDTH

layer	slope	left	slop	right	TOTAL
0	-4.00%	13.44	-4.00%	9.94	23.38
-0.25	-4.00%	13.84	-4.00%	10.34	24.18
-0.5	-4.00%	14.24	-4.00%	10.74	24.98
-0.75	-4.00%	14.64	-4.00%	11.14	25.78
-1	-4.00%	15.04	-4.00%	11.54	26.58
-1.25	-4.00%	5	-4.00%	5	10
-1.5	0%	14.88	0%	11.59	26.47

Handy

Handy
Handy (P)

MATERIAL INSPECTION REQUEST

الخبرة العامة
للطرق والكباري
(GARB)



وزارة النقل
Ministry of Transport and Public Works

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



Contractor Company	El . Zhoor . Company		Designer Company	KK CONSULT.																
Issued by Contractor	Name	Sign	Date	COD																
	Eng \ Mahmoud elkhlawy		12-4-2023	ZH 21																
Received by ER		MIR	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td>12</td> <td>4</td> <td>2023</td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM				12	4	2023			
C1	C2	C3	DD	MM	YY	HH	MM													
			12	4	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	Fill material results			
Location to be Used	fill (0)	536+680	536+560	FILL (-0.5) 536+720 536+680
	FLAT (-1.5)	536+800	536+780	FILL (-0.75) 536+800 536+780
	FLAT (-1)	536+700	536+680	FILL (-0.25) 536+720 536+680
	FILL (-1.25)	536+800	536+780	FILL (-0.5) 536+800 536+780
	FILL (-0.75)	536+700	536+680	FILL (-0.25) 536+800 536+780
	FILL (-1)	536+800	536+780	FILL (0) 536+720 536+680
				FILL (0) 536+800 536+720

MAR Approval No		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	9 - 4 - 2023	
2	Proctor	m3	5000	9 - 4 - 2023	
3	Classification	m3	5000	9 - 4 - 2023	
4	Seive analysis	m3	5000	9 - 4 - 2023	

Comments by:	Comments by:
Asample has been taken form fill material by KK office to (mansor ali hasan) lab and the results founded meet the specificonctions and accepted	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Mahmoud elkhlawy			
QA/QC *	Mohamed Ali			
GARB**				
Comment by ER				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

المشقة العامة
للطرق والكبارى
(GARB)



ENGINEERING CONSULTING OFFICE
المكتب الاستشارى الهندسى
إ.د. خالد شحيد



Contractor Company	EL ZHOOR COMPANY		Designer Company	KK																
Issued by Contractor	Name	Sign	Date	cod																
	ENG : MAHMOUD ELKHLAWY		12 - 4 - 2023	Zh 21																
Received by ER			MAR	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td>12</td> <td>4</td> <td>2023</td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM				12	4	2023		
C1	C2	C3	DD	MM	YY	HH	MM													
			12	4	2023															

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

Description of Materials	Soil classify (A 1 a)			
Location to be Used	536+000 to 537+000			
item	Spacification	Test Requirment	Test Result Attachment	Remark
1	ASTM D 75	Aggregate Sampling	According Spacification	
2	ASTM C 136	Sieve Analysis	According Spacification	
3	ASTM D 1440	Passing Sieve #200	8.3 %	
4	ASTM D 4318	Atterberg Limit	NO n	
5	ASTM D 2974	Moisture Content	6.5 %	
6	ASTM D 1557	Modifid Proctor	2.156	
7	ASTM D 1883	C B R	48.20%	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	MAHMOUD ELKHLAWY			
QA/QC *	Mohamed Ali			
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only



K.K. CONSULTING OFFICE
المكتب الاستشاري
للهندسة والبناء

Operating Lab

Measurement Lab

PROJECT: Highway - Phase - HSR
Location: Highway - Phase - HSR
Contract: Highway - Phase - HSR
Phase: Highway - Phase - HSR



PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	9/4/2023				
LOCATION:	K.P 536+500			Zone	536+000 to 537+000
NAME COMPANY:	Elzohor				
Ref. Intersection:					

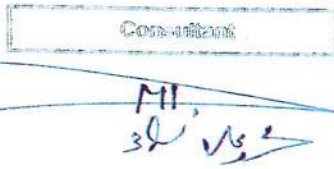
adjacent road

gradation of bulk materials				SAMPLE WEIGHT (g)		25161.00		gms	labo classify
sieve size	2	1.5	1	#3	#4	#3	#4	PASS	
0.075	0.0	100.0	100.0	1711.0	2277.0	2702.0	6007.0		soil classify
relative Retained (%)				6.8	9.1	10.8	24.0		A-1-a
uniform Retained %				19.6	42.7	43.8	67.0		2.150
cumulative Passing %									0.50
									46.20

material gradation				WT. OF sample		500.00		gms
sieve size	10	40	200					
relative Retained (%)	58.00	225.00	372.00					
uniform Retained %								
cumulative Passing %								

general gradation										
sieve size (in)	2	1.5	1	3/4	1/2	3/8	2/4	2/10	2/40	2/200
sieve size (mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
relative Passing %										





ATTERBERG LIMITS	LIQUID LIMIT (LL)		PLASTIC INDEX (PI)	PLASTIC LIMIT (PL)
	ML	MC		MP





3. $\frac{1}{\sqrt{2}}$ \rightarrow $\frac{1}{\sqrt{2}}$

Construction: Broomfield, Colo. No. 1057

	Electric Express Train - HSR	
	From El Ain El Sokhna City To El Alamein	
	Section -7 From FokaTo MARSA MATROUH	
	From Station 504+000 To Station 568+177	

ACTIVITY : Sand cone test	laboratory results	COD	ZH (21)
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Company :	EL-ZHOUR COMPANY	Layer level :	fill (-0.5)
Description:	Compaction test	Layer Thickness :	0.25 m
Station represented :	536+780 TO 536+800	Sample Date :	11/10/2023

Modified Proctor Testing Results

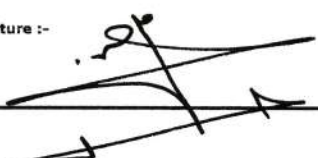
Max. Dry Density . gm/cm3	Optimum Moisture Content . %	Degree of Compaction Required . %	Bulk Density of Specified Sand . gm/cm3
2.15	6.5	95%	1.48

Compaction Testing Results & Calculations

STATION	536+800								
Hole No.	1								
WT, of Sand befor Test ,gm	9456								
WT, of Sand After Test ,gm	5376								
WT, of Sand in Cone + hole ,gm	4080								
WT, of Sand in Cone	1140								
WT, of Sand at hole ,gm	2940								
Volume of the hole, Cm3	1986								
WT, of Soil from Hole ,gm	4378								
Bulk Density of Soil, Gm/cm3	2.204								
Moisture Content , %	6.1								
Dry Density, gm/cm3	2.077								
Compaction, (%)	96.6%								

Acceptance Criteria	Comply	<input type="checkbox"/>	Not Comply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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CONSULTANT COMMENTS

Site engineer :- Name :- Mahmoud El Khlawy Signature :- 	Consultant Materials Engineer :- Name :- <i>momen esmaeel</i> Signature :- <i>11/10/2023</i>
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**UNIVERSAL
INSPECTION
REQUEST**



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



SVSLR SHAKER



الشبكة العامة
للطرق والكباري

ZHR-6-172

RECEIPT of NOTIFICATION - Minimum Notice Period not less than 24
 The Work described below will be complete and ready for inspection at planned time shown

Contractor Company	EL . ZHOOR . COMPANY		Designer Company*	KK CONSULT.							
Issued by Contractor	Name	Sign	Date	Time							
	Eng : Mahmoud Elkhilawy	<i>mahmoud</i>	9 - 10 - 2023								
Received by Employers Representative	M.A	10/9/2023	UIR	C1	C2	C3	DD	MM	YY	HH	MM
				K.P536	E W	C S	9	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		

EXPLANATION OF WORK TO BE INSPECTED		
Description	Element	Item
Earth Works	Fill (-0.25)	From St (536+680) to (536+720)

INSPECTION DETAILS	
Planned Inspection Date	Planned Inspection Time
9.10.2023	

COMPLIANCE EVIDENCE			
Must be Included as appropriate			
Checklist Attached <input type="checkbox"/>	Test Results Attached <input type="checkbox"/>	Calibration Attached <input type="checkbox"/>	Other as indicated <input type="checkbox"/>
Drawing Reference	ITP Reference	MS Reference	

Civil	Survey	Material
<i>momentum visual inspection is approved</i>	<i>Almes Agreement is approved</i>	<i>momentum confection test is approved 10/10/2023</i>

INSPECTION RESULT						Approval Status	Please Tick if Not Attend
Organisation	Name	Sign	Date	Time	A-AWC-R		
Contractor	ENG : M. ELKHLAWY	<i>mahmoud</i>					
QA/QC*							
GARB**	ENG : KHALED FAWZY	<i>Khaled</i>			A		
Employers Representative Notes							
Employers Representative Sign	M.A	10/30/2023			A		

* Designer

** Alignment: Bridges: Culvert

شيت تشغيل طبقات الردم لمشروع القطار السريع القطاع السابع (فوكه - مطروح)
 شركة (الزهور)
 من المحطة (536+680) إلى المحطة (536+720)

ENGINEERING CONSULTING OFFICE المكتب الهندسي الاستشاري [د. خالد قنديل]													LAYER LEVEL				-0.25		
LEFT SIDE													PGL		RIGHT SIDE				
STATION		ACT. WIDTH	13.84	10	5	S.E. %	DESIGN LEVEL	FERMA LEVEL	CL	S.E. %	5	10.34	ACT. WIDTH						
536+680			59.54	59.70	59.90	-4%	61.25	60.35	60.10	-4%	59.90	59.68							
Act.																			
Diff.			+1	-1	+2				+1			-1	+2						
536+700			59.60	59.76	59.96	-4%	61.31	60.41	60.16	-4%	59.96	59.74							
Act.																			
Diff.			+1	-2	+1				-2			+1	-2						
536+720			59.67	59.82	60.02	-4%	61.37	60.47	60.22	-4%	60.02	59.81							
Act.																			
Diff.			+1	-2	+1				+1			+2	+1						

Ahmed Ahmed
 (Total Station)

1/مهندس



Layer Zone		MS FROM ST.(536+700) TO ST.(536+780)					Layer No.	
		Station		536+700	536+720	536+740	536+760	536+780
		DESIGN LEVEL		61.31	61.37	61.43	61.49	61.55
		FERMA LEVEL		60.41	60.47	60.53	60.59	60.65
		CUT LEVEL		59.11	59.66	59.90	59.87	58.85
		DIFF (FERMA - CUT)		1.30	0.81	0.63	0.72	1.79
Middle Empe Upper Empankemt	1	0	60.41	60.47	60.53	60.59	60.65	
	2	-0.25	60.16	60.22	60.28	60.34	60.40	
	3	-0.5	59.91	59.97	60.03	60.09	60.15	
	4	-0.75	59.66	59.72			59.90	
	5	-1	59.41				59.65	
	6	-1.25	59.16				59.40	
	7	-1.5					59.15	
	8	-1.75					58.90	
	9	-2						
	10	-2.5						

MS Approved }
 acc. to Design Profile }
 Rev-10

C.L DATA

Station	Easting	Northing
536+680	290339.5264	943913.8692
536+700	290320.2216	943919.0965
536+720	290300.9168	943924.3237

Amir H. H. H.

2/2

15/10/2015

TYPICAL WIDTH

layer	slope	left	slop	right	TOTAL
0	-4.00%	13.44	-4.00%	9.94	23.38
-0.25	-4.00%	13.84	-4.00%	10.34	24.18
-0.5	-4.00%	14.24	-4.00%	10.74	24.98
-0.75	-4.00%	5	-4.00%	5	10.00
-1	0.00%	14.13	0.00%	10.84	24.98

Amr A. Abd

22

2020/10

MATERIAL INSPECTION REQUEST

الخطة العامة
للطرق والكباري
(GARB)



وزارة النقل
Ministry of Transport and Public Works

ENGINEERING CONSULTING OFFICE
المكتب الاستشاري الهندسي
أ.م. خالد عبد الحليم



Contractor Company	El . Zhoor . Company			Designer Company	KK CONSULT.						
Issued by Contractor	Name	Sign	Date	COD							
	Eng \ Mahmoud elkhlawy		12-4-2023	ZH 21							
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							12	4	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	Fill material results					
Location to be Used	fill (0)	536+680	536+560	FILL (-0.5)	536+720	536+680
	FLAT (-1.5)	536+800	536+780	FILL (-0.75)	536+800	536+780
	FLAT (-1)	536+700	536+680	FILL (-0.25)	536+720	536+680
	FILL (-1.25)	536+800	536+780	FILL (-0.5)	536+800	536+780
	FILL (-0.75)	536+700	536+680	FILL (-0.25)	536+800	536+780
	FILL (-1)	536+800	536+780	FILL (0)	536+720	536+680
				FILL (0)	536+800	536+720

MAR Approval No			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	9 - 4 - 2023	
2	Proctor	m3	5000	9 - 4 - 2023	
3	Classification	m3	5000	9 - 4 - 2023	
4	Seive analysis	m3	5000	9 - 4 - 2023	

Comments by:	Comments by:
Asample has been taken form fill material by KK office to (mansor ali hasan) lab and the results founded meet the specifcontions and accepted	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Mahmoud elkhlawy			
QA/QC *	Mohamed Ali			
GARB**				
Comment by ER				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST

المدينة العامة
للمطرق والكباري
(GARB)



وزارة النقل
Ministry of Transport and Public Works

ENGINEERING CONSULTING OFFICE
المكتب الاستشاري الهندسي
إ.د. خالد عبد الجليل



Contractor Company	EL ZHOOR COMPANY		Designer Company	KK							
Issued by Contractor	Name	Sign	Date	cod							
	ENG : MAHMOUD ELKHLAWY		12 - 4 - 2023	Zh 21							
Received by ER			MAR	C1	C2	C3	DD	MM	YY	HH	MM
							12	4	2023		

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

Description of Materials	Soil classify (A 1 a)			
Location to be Used	536+000 to 537+000			
item	Spacification	Test Requirment	Test Result Attachment	Remark
1	ASTM D 75	Aggregate Sampling	According Spacification	
2	ASTM C 136	Sieve Analysis	According Spacification	
3	ASTM D 1440	Passing Sieve #200	8.3 %	
4	ASTM D 4318	Atterberg Limit	Non	
5	ASTM D 2974	Moisture Content	6.5 %	
6	ASTM D 1557	Modifid Proctor	2.156	
7	ASTM D 1883	C B R	49.20%	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	MAHMOUD ELKHLAWY			
QA/QC *	Mohamed Al:			
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only



K.K. CONSULTING OFFICE
المكتب الاستشاري
للبناء والتشييد

Operating Lab

Monsieur Lab

Project Name: [Blank]
Project Location: [Blank]
Project Description: [Blank]
Project Status: [Blank]



PARTICULARS OF THE TESTS TO BE PERFORMED ON SOIL

TESTING DATE:	9/1/2023			
LOCATION:	K.P 536+500		Zone	536+000 to 537+000
NAME COMPANY:	Elzeher			

1st Inspection test

2nd test

Sieve size				SAMPLE WEIGHT (g)		25161.00		gm	table classify	soil classify
2	1.5	1	0.75	43	21	0.3	0.15	PASS		
0.075	0.075	1404.0	1102.0	1711.0	327.0	3702.0	1007.0			A-1-a
relative Retained (%)				100.0	32.7	11020.0	17007.0		PRO	2.155
percentage Retained %				19.6	32.7	43.3	67.0		WC	0.50
percentage Passing %									CBR	48.20

Sieve size				WT. OF sample		500.00		gm
10	40	200						
relative Retained (%)	58.00	224.00	272.00					
percentage Retained %								
percentage Passing %								

GENERAL GRADIENT										
sieve size (in)	2	1.5	1	0.75	0.6	0.425	0.3	0.25	0.15	0.075
sieve size (mm)	50.0	37.5	25.0	19.0	15.0	12.5	9.5	4.75	2.00	0.075
percentage Passing %										

ATTERBERG LIMITS	LIQUID LIMIT (LL)		PLASTIC LIMIT (PL)		PLASTIC INDEX (PI)	
	ML		PP		NP	



Consultant

Signature of Consultant



LABORATORY TEST REPORT
 Location: (The Laboratory) (City) and (State) - (Country)
 Project Name: (Project Name) (City) and (State) - (Country)
 Project No.: (Project No.) (City) and (State) - (Country)



Operating Lab: Missouri Lab

Proctor Test

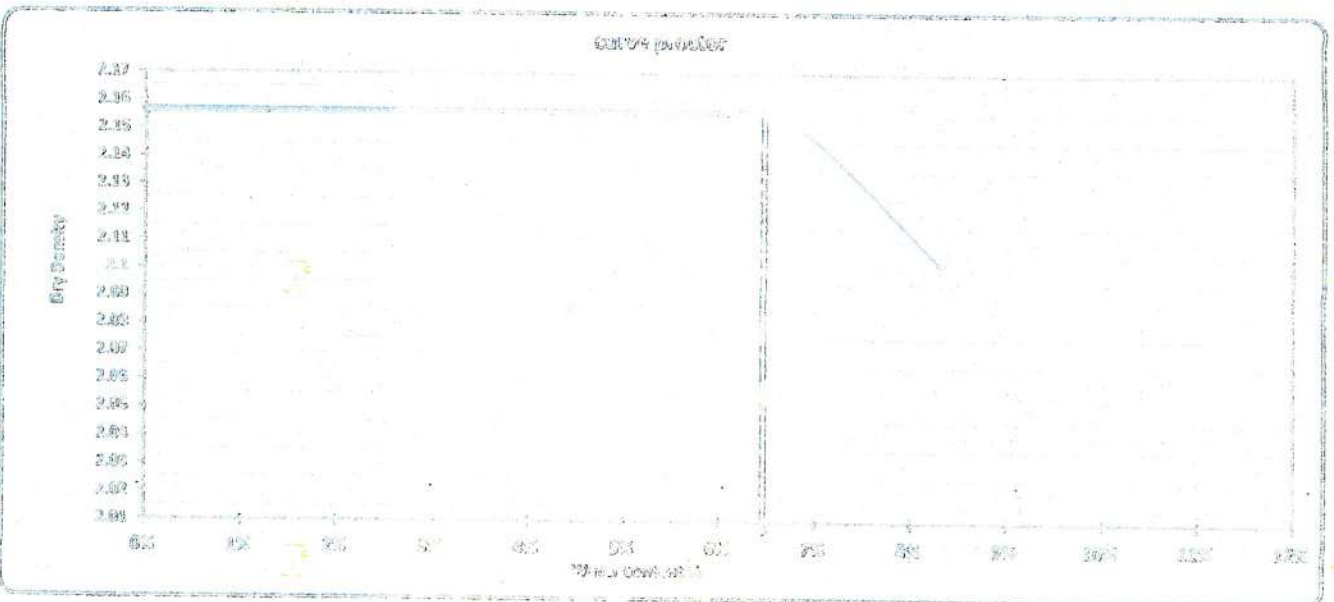
TESTING DATE:	04/20/23				
LOCATION:	FLP 550-550				
NAME COMPANY:	Elmer				

Weight of empty mold:	555.0
Mold Volume:	21.33

MAX Dry Density:	2.150
Water content %:	4.5

trial no:	1	2	3	4	
Wt. Of Mold + wet soil	1000.1	1000.7	1000.7	1001.9	
Wt. WET SOIL	445.1	445.7	445.7	445.9	
Wt. Density	2.085	2.091	2.095	2.097	

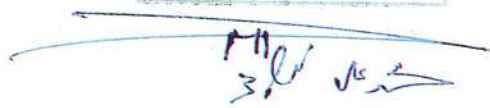
Tare No.	1	2	3	4	5	6	7	8		
Tare wt.	58.5	58.5	58.6	58.3	58.5	58.7	58.7	57.9		
Wt. Of wet soil & tare	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0		
Wt. Of dry soil & tare	190.5	190.5	191.9	192.7	191.0	191	191.0	190.0		
Wt. Of water	4.5	4.5	7.1	7.3	9.7	9.7	11.3	10.7		
Wt. Of dry soil	186.7	186.0	187.2	186.0	186.0	186.0	186.0	186.0		
Water content %	2.4%	2.4%	3.8%	3.9%	5.2%	5.2%	6.1%	5.8%		
A.V. Water content %	3.2%		3.2%		4.5%		4.2%			
Dry Density	2.020		2.120		2.095		2.102			



Contractor



Consultant





Ministry of Housing, Urban Planning and Construction

Construction Drawing, Sheet 1/1

Project Name:	124/2023	Zone:	Zone	Sub-zone:	Sub-zone
Location:	K.P. 530/1300	Area:			
Number of Floors:	1 Floor				

1. Test Results

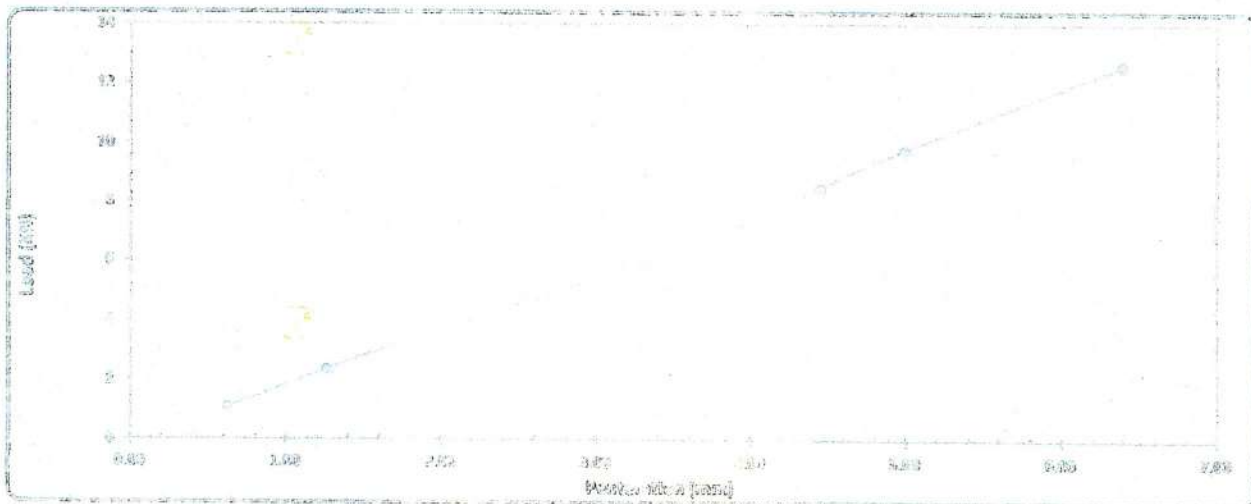
Compressive Strength of Mortar	
Mortar No.	1
Mortar Volume (cm ³)	2700
Mortar Weight (kg)	10.77
Mortar Volume (cm ³) - Water Volume (cm ³)	1350/1350
Water Volume (cm ³)	1350
Water Density (kg/cm ³)	1.00
Water Weight (kg)	1.35
Water Density (kg/cm ³)	1.00
Water Weight (kg)	1.35
Compressive Strength (kg/cm ²)	2.80
Compressive Strength (%)	90

Mortar Density After Compaction	
Mortar No.	1
Mortar Weight (kg)	10.77
Mortar Volume (cm ³)	1350
Mortar Weight (kg) - Water Weight (kg)	1.35
Water Weight (kg)	1.35
Water Volume (cm ³)	1350
Mortar Density (kg/cm ³)	1.00
Mortar Density (%)	90

Mortar Density	
Mortar No.	1
Mortar Weight (kg)	10.77
Mortar Volume (cm ³)	1350
Mortar Weight (kg) - Water Weight (kg)	1.35
Water Weight (kg)	1.35
Water Volume (cm ³)	1350
Mortar Density (kg/cm ³)	1.00
Mortar Density (%)	90

2. Mortar Density

Proportion (kg)	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
Mortar Density (kg)	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
Cost (SAR)	1.1	1.4	1.7	2.0	2.3	2.6	2.9	3.2	3.5



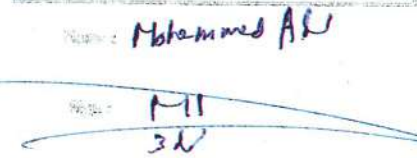
3. Calculations





Proportion	Cost	Proportion Cost	Cost	Proportion Cost	Proportion	Cost
(kg)	(SAR)	(kg)	(SAR)	(kg)	(kg)	(SAR)
1.00	1.1	1.1	1.1	1.1	1.1	1.1
1.25	1.4	1.4	1.4	1.4	1.4	1.4
1.50	1.7	1.7	1.7	1.7	1.7	1.7

1. Sub-structure



2. Sub-structure



	Electric Express Train - HSR	
	From El Ain El Sokhna City To El Alamein Section -7 From FokaTo MARS MATROUH From Station 504+000 To Station 568+177	

ACTIVITY : Sand cone test	laboratory results	COD	ZH (21)
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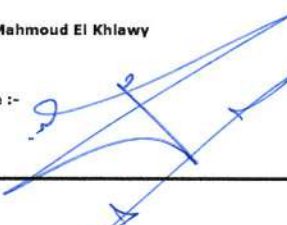
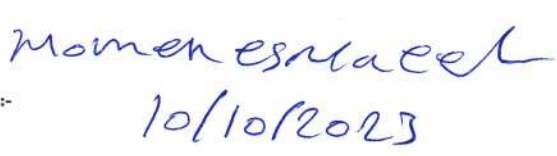
Company :	EL-ZHOUR COMPANY	Layer level :	fill (-0.25)
Description:	Compaction test	Layer Thickness :	0.25 m
Station represented :	536+680 TO 536+720	Sample Date :	10/10/2023

Modified Proctor Testing Results			
Max. Dry Density . gm/cm3	Optimum Moisture Content . %	Degree of Compaction Required . %	Bulk Density of Specified Sand . gm/cm3
2.15	6.5	95%	1.48

Compaction Testing Results & Calculations										
STATION	536+705	536+720								
Hole No.	1	2								
WT, of Sand befor Test ,gm	9548	9736								
WT, of Sand After Test ,gm	5469	5618								
WT, of Sand in Cone + hole ,gm	4079	4118								
WT, of Sand in Cone	1140	1140								
WT, of Sand at hole ,gm	2939	2978								
Volume of the hole, Cm3	1986	2012								
WT, of Soil from Hole ,gm	4386	4437								
Bulk Density of Soil, Gm/cm3	2.209	2.205								
Moisture Content , %	5.9	6.4								
Dry Density, gm/cm3	2.086	2.072								
Compaction, (%)	97.0%	96.4%								

Acceptance Criteria	Comply	<input type="checkbox"/>	Not Comply	<input type="checkbox"/>
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CONSULTANT COMMENTS	
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Site engineer :- Name :- Mahmoud El Khlawy Signature :- 	Consultant Materials Engineer :- Name :- Momen esmaeel Signature :- 
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