وزارة النقل

الإدارة العامة للطرق والكباري (GARB)

SYSTEM SHAKER

مركز الاستشارات الهندسية للنقل والمطارات والطرق (خبراء دوليون)
دكتور/ سعد الجيوشي

مشروع القطار الكهربائي فائق السرعة قطاع (المنصورة - طوخ)
المناقصة التقديرية لبنود أعمال تنفيذ شركة جوزاء القطاع من ٤٤٨٠٦٠٠ الى ٤٤٩٠٨٥٠
مرحلة أعمال (الحفر - التطهير - تشكيل الجسر - التأسيس - الأساس)

رقم البند	بيان الأعمال	الوحدة	السعر	الكمية	الاجمالي
١	أعمال الحفر				
١-١	بالمتر المكعب أعمال حفر بالاستخدام المعدات الميكانيكية لجميع أنواع التربة جاف التربة الصخرية وتسوية السطح بالآلات التسوية والرش بالمياه الأسبوعية الوصول الى نسبة الرطوبة المطلوبة والدمك الجيد بالهراسات للوصول الى القصى كثافة جافة (٩٥ % من الكثافة الجافة القصوى) ومعمل 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 مشتملاته طبقا لأصول الصناعة ومواصفات الهيئة العامة للطرق والكباري وتعليمات المهندس المشرف . وفي حالة زيادة مسافة نقل ناتج الحفر عن ٥٠٠ متر من محور الطريق يتم حساب ١ جنيه للكيلومتر الزيادة .	م٣	٢٢	٧٦٠,٠٠٠	١,٧٢٨,٠٠٠
٢-١	بالمتر المكعب أعمال الحفر بالاستخدام المعدات الميكانيكية في التربة المتماسكة عدا التربة الصخرية (بالاستخدام البلدوزر) وتسوية السطح بالآلات التسوية والرش بالمياه الأسبوعية الوصول الى نسبة الرطوبة المطلوبة والدمك الجيد بالهراسات للوصول الى القصى كثافة جافة (٩٥% من الكثافة الجافة القصوى) ومعمل 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 مشتملاته طبقا لأصول الصناعة ومواصفات الهيئة العامة للطرق والكباري وتعليمات المهندس المشرف . وفي حالة زيادة مسافة نقل ناتج الحفر عن ٥٠٠ متر من محور الطريق يتم حساب ١ جنيه للكيلومتر الزيادة .	م٣	٧٦	١٨٠,٠٠٠	٤٢٨,٠٠٠
٢	أعمال الإزالة والتطهير				
١-٢	بالمتر المكعب أعمال تكسير وإزالة المنشآت المقامة بالرصف الحالي (المتقاطعة مع مسار القطار) في الأماكن التي يحددها المهندس المشرف و نقل ناتج التكسير خارج الموقع و متوسط مسافة النقل حتى ١٠ كم و عمل ما يلزم لهو الأعمال طبقا لكراسة الشروط و المواصفات و تعليمات المهندس المشرف وفي حالة زيادة مسافة نقل ناتج التكسير عن ١٠ كم من محور الطريق يتم حساب ٠,٠ جنية للكيلومتر الزيادة او النقص	م٣	٦٠	١٠٠	٦,٠٠٠
٢-٢	بالمتر المسطح أعمال تطهير الموقع من الأشجار والمزروعات والمخلفات في مناطق الدلتا ذات الطبيعة الزراعية الكثيفة والتخلص منها بالمقالب العمومية تمهيدا لأعمال الرفع المساحي لتكامل حدود المشروع طبقا للشروط والمواصفات وتعليمات المهندس المشرف .	م٢	٩	٢٥,٠٠٠	٢٢٥,٠٠٠
٣-٢	بالمتر المكعب أعمال تكسير و إزالة المباني او خرسانة عادية او مسلحة او رصيفة او دبش مع نقل ناتج التكسير خارج الموقع للمقالب العمومية طبقا لتعليمات المهندس المشرف و الفئة شاملة مما جميعة بالمتر المكعب . يتم حساب ٠,٠ جنية للكيلومتر الزيادة او النقص	م٣	٨٠	٦٥٠	٥٢,٠٠٠
٣	أعمال الردم				
١-٣	أعمال تعديل وتوريد ونقل التربة مطابقة للمواصفات وتدفيتها باستخدام الآلات التسوية بسمك لايزيد عن ٥٠ سم حتى منسوب (2.00- متر) وبسمك لايزيد عن ٢٥ سم لاستكمال المنسوب التصميمي لتشكيل الجسر الترابي والأرصفة (نسبة تحمل كاليفورنيا لا تقل عن ١٥%) ورشها بالمياه الأسبوعية للوصول الى نسبة الرطوبة المطلوبة والدمك الجيد بالهراسات للوصول الى القصى كثافة جافة (٩٥% من الكثافة الجافة القصوى) ويتم التنفيذ طبقا للمناسيب التصميمية والقطاعات العرضية النموذجية والرسومات التفصيلية المعتمدة والبند بجميع مشتملاته طبقا لأصول الصناعة ومواصفات الهيئة العامة للطرق والكباري وتعليمات المهندس المشرف . - مسافة النقل حتى ٢ كم ويتم احتساب جنيه ٠,٢ جنية للكم بالزيادة او النقصان . - السعر يشمل عمل التشوينات وتخليط واختبارات ونقل لموقع العمل . - السعر يشمل قيمة المادة المحجرية طبقا للمادة المتعلقة بهذا القطاع (٦) من الكم ٣٦٥ الى الكم ٥٠٤	م٣	٨٥	٨,٠٠٠	٦٨٠,٠٠٠
	علاوة مسافة النقل ٢-٣ كم	م٣	٢٨١,٤	٨,٠٠٠	٢,٢٥١,٢٠٠

مدير المشروع المطلوب — م/ سعيد زغلول سعيد

مدير المكتب الاستشاري — م/ احمد [illegible]

مدير المشروع (الهيئة) — م/ [illegible]

مدير عام المشروعات (الهيئة) — م/ محمد حسني فراش

ملحوظة : اسعار البنود تقديرية لحين التفاوض

مكتب زايد للمقاولات العمومية
س ت : ٣٨٢٩٢
ب ض : ٢٦٩ - ٦١٠ - ٢٠٨
أحمد حسن نصار حسن

مشروع القطار الكهربائي فائق السرعة القطار (العلمين - فوكة)
المقايسة التقديرية لبنود اعمال تنفيذ شركة مبنى دار القطار من ٤٤٨+٦٠٠ الى ٤٤٩+٨٥٠
مرحلة اعمال (الحفر - التطهير - تشكيل الجسر - التاسيس - الأساس)

رقم البند	بيان الأصناف	الوحدة	الفئة	الكمية	الاجمالي
٣	اعمال الردم				
١-٣	بالمتر المكعب اعمال تحميل و نقل اتربة صالحة للردم من المحاجر المعتمدة و المطابقة للمواصفات و تشغيلها باستخدام الآلات التسوية بسمك لا يزيد عن ٢٥ سم الاستكمال المنسوب التصميمي لتشكيل الجسر و الاكتاف (نسبة تحميل كاليفورنيا لا تقل عن ١٠ %) و رشها بالمياه الاصولية للوصول الى نسبة الرطوبة المطلوبة و الدمك الجيد بالمراسات للوصول الى اقصي كثافة جافة (95% من الكثافة الجافة القصوي) و يتم التنفيذ طبقا للمناسيب التصميمية و القطاعات العرضية النموذجية و الرسومات التفصيلية المعتمدة و البند بجميع مشتملاته طبقا لاصول الصناعة و مواصفات الهيئة العامة للطرق و الكباري و تعليمات المهندس المشرف . مسافة النقل حتي ٢ كم . يتم احتساب علاوه ١,٤ جنية لكل ١ كم زياده و ذلك حتي مسافة نقل ١٠٠ كم و ١,٢ . جنية لكل ١ كم زيادة عن مسافة نقل ١٠٠ كم يتم زيادة مبلغ ١,٥ جنية في حالة استخدام بلدوزر في التحجير الارض المتماسكة و . ذلك طبقا لتحليل التربة السعر لا يشمل قيمة المادة المحجرية مع قيام الشركة المنفذة بتقديم ما يثبت من . الجهات الرسمية المعتمدة المشرفة عن المحاجر	م٣	٣١,٤	٥٩٠٠٠	١٨٥٦٥٠٠
	علاوة مسافة النقل ١٥ كم	م٣	١٦,٨	٥٩,٠٠٠	٩٩١,٢٠٠
	علاوه تحميل الكارته والموازين طبقا للائحه الشركة الوطنية	م٣	١٢	٦٧,٠٠٠	٨٧١,٠٠٠
٤	طبقة الأساس				
١-٤	بالمتر المكعب اعمال توريد وفرش طبقة اساس(Prepared Subgrade) من الأحجار الصلبة المتدرجة ناتج تكسير الكسارات والمطابقة للمواصفات وأقصي حجم للحبيبات ١٠٠ مم والا تزيد نسبة الغار من منخل ٢٠٠ عن ١٢ % والتدرج الوارد بالاشتراطات الخاصة والمشروع لا تقل نسبة تحمل كاليفورنيا عن ٢٥ % و الا تزيد نسبة نسبة الفاقد بجهاز لوس انجلوس عن ٣٠ %والا يزيد الامتصاص عن ١٥ % والا يقل معامل المرونة (EV2) من تجربة لوح التحميل عن ٨٠ ميجنيوتن ويتم فردها علي طبقتين باستخدام الالات التسوية الحديثة علي الا يزيد سمك الطبقة بعد تمام الدمك عن ٢٥ سم ورشها بالمياه الاصولية للوصول الي نسبة الرطوبة المطلوبة والدمك الجيد بالمراسات للوصول الي اقصي كثافة جافة (لا تقل عن ٩٥%) من الكثافة المعملية والفئة تشمل اجراء التجارب المعملية والحقلية ويتم التنفيذ طبقا لاصول الصناعة والرسومات التفصيلية المعتمدة والبند بجميع مشتملاتة طبقا لمواصفات الهيئة العامة للطرق والكباري وتعليمات المهندس المشرف مسافة النقل ٢٠ كم يتم احتساب علاوة ٢,٢ جنية لكل ١ كم بالزيادة او النقصان . السعر يشمل قيمة المواد المحجرية طبقا لافادة المنطقة برنا القطاع [٦] من الكم ٣٩٥ الي الكم ٥٠٤ .	م٣	٢٧٨	٢٠١٠٠	٥٥٨٧٨٠٠
	علاوة مسافة النقل ١٤ كم	م٣	١٤٤	٢٠١٠٠	٢,٨٩٤,٤٠٠
	علاوة تحصيل رسوم الكارتة والموازين طبقا لائحة الشركة الوطنية	م٣	٢٥	٢٠١٠٠	٥٠٢,٥٠٠

مدير المشروع المقاول	مدير المشروع الاستشاري	مدير المشروع (الهيئة)	مدير عام المشروعات (الهيئة)
م / سعيد رجب مرجد	م / مصطفى نجم	م / ابراهيم المطاري	م/ محمد حسني فياض

ملحوظة : اسعار البنود تقديرية لحين التفاوض

احمد سمك

هاتف الهيئة العامة للطرق والكباري
س ت : ٣٨٧٩٢
ب ض : ٣٦٩ - ٦١٠ - ٢٠٨
أحمد حسن نصار حسن

وزارة النقل

الهيئة القومية للأنفاق

مركز الاستشارات الهندسية للنقل والمطارات والطرق (خبراء دوليون)

دكتور/ محمد الحيوطي

مشروع القطار الكهربائي فائق السرعة قطاع (العلمين - طوكة)

المقايسة التقديرية لبنود أعمال تنفيذ شركة صين داي القطاع من ٦٠٠+١٤٨ الى ٤٤٩+٨٥٠

مرحلة أعمال (الحفر - التطوير - تشكيل الجسر - الناسيس - الأساس)

رقم البند	بيان الأعمال	الوحدة	الكمية	الفئة	الإجمالي
٢٠١	بالمحجر المكعب أعمال توريد وفرش طبقة أساس من الاحجار العملية المتدرجة تالية تكسير الكسارات والمطابقة للمواصفات وأقصي حجم للحبيبات ما بين ٣١,٥ مم الي ٤٠ مم وألا يزيد نسبة الغار من منخل ٢٠٠ عن ٥% والتدرج الوارد بالاشتراطات الخاصة بالمشروع لا تقل نسبة تحمل كاليفورنيا عن ٨٠ % وألا يقل معامل المرونة (Ev2) من تجربة لوح التحميل عن ١٢٠ ميجابسكال والا يزيد نسبة الفاقد بجهاز لوس انجلوس عن ٣٠ % والا يزيد الامتصاص عن ١٥ % ويتم فردها علي طبقتين باستخدام الات التسوية مع مراعاة علي ان لا يزيد سمك الطبقة بعد تمام الدمك عن ٢٠ سم و رشها بالمياة الاصولية الوصول الي نسبة الرطوبة المطلوبة والدمك الجيد بالهرسات للوصول الي المنصي كثافة جافة قصوي (لا يقل عن ١٠٠%) من الكثافة المعملية واخذة تشمل اجراء التجارب المعملية والحقلية ويتم تنفيذ طبقا لاصول الصناعة والرسومات التفصيلية المعتمدة والبند بجميع مشتملاته طبقا للمواصفات الفنية للمشروع وتقرير الاستشاري وتعليمات المهندس المشرف . مسافة النقل لا تقل عن ٢٠ كم يتم احتساب علاوة ١,٢ جنيه لكل ١ كم بالزيادة او النقصان التسعير يشمل قيمة المواد المحجرية طبقا لافادة المنطقة بولة القطاع (٦) من الكم ٣٩٥ الى الكم ٥٠٤ .	م٣	٢٨٨	٢٧٥٩,٩٥	٦٦٢٠٤٦٦
	علاوة مسافة النقل ١٨٢ كم	م٣	٦٦٢,٤	٢٧٥٩,٩٥	٢٣١,٩٣٥
	علاوة تحصيل الكرته والموزين طبقا للائحة الشركة الوطنية	م٣	٢٥	٢٧٥٩,٩٥	٩٣,٩٩٩
	الإجمالي				٢٠,٠٠٠,٠٠٠

(عشرون مليون جنيه فقط لا غير)

مدير المشروع المقاول	مدير المشروع الاستشاري	مدير المشروع (الهيئة)	مدير عام المشروعات (الهيئة)
م / سعيد رجب سعيد	م / مصطفى [illegible]	م / [illegible]	م / [illegible]

يعتمد

رئيس الإدارة المركزية

منطقة غرب الدلتا

الإسكندرية

عقيد مهندس / [illegible]

الإدارة العامة للشئون الهندسية والمشروعات والمشتريات

الإدارة المركزية للشئون المالية والإدارية

ملحوظة : اسعار البنود تقديرية لحين التفاوض

جاد زايد للمقاولات العمومية

س ت : ٣٨٣٩٢

ب ض : ٣٦٩ - ٦١٠ - ٧٠٨

أحمد محمد نصار حسين

CEL
Consulting Engineering Bureau & Laboratories
مكتب معامل الاستشارات الهندسية

Company : New Rim Construction

Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (9) – Alamein to Fuka

Subject : Determine the deformation and strength characteristics of soil by the plate loading test according specifications: DIN 18134:2012-04 and project requirements

Test Location : (440+250 to 440+900)

Test Date : 06/03/2023

Report Date : 07/03/2023

Type of soil : A-1-a

Test level : Upper Embankment (Farma) .

Report No. : 111/121

Dear Gentlemen,

According to the above mentioned subject the test performed as follows:-

Apparatus

1. Loading plates consists of two plates with 600 mm and 300 mm diameter
2. The thickness of plates 30 mm
3. Dial gauges with accuracy 0.01 mm to measuring the settlement
4. Steel straightedges with magnetic supports to fixed the dial gauges
5. Hydraulic jack with pump to transfer reactive loads to the loading plates
6. Dial indicator measuring device with scale capacity 700 bar (Unevisa)
7. Reaction loading system by relief compactor with weight approximately 15 ton
8. Calibration certificates are attached

Test Procedure

1. Clean the ground on test area to the required level with undisturbed soil
2. Install loading plates 600 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
3. Prior to starting the test applied preloading about 30 seconds
4. The strain gauge and the dial gauge shall be set to zero
5. For a 600 mm loading plate, the limit values are 2.5 kg/cm²
6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
7. Each change in load (from stage to stage) shall be completed within one minute
8. The load shall be released in 3 stages, to 50 %, 25 %, and approximately 0 % of the maximum load.
9. Following unloading, a further (2nd) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached)
10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min.
11. Remove the loads

3 El Malek El Afdal Street
Zamalek, Cairo.
Tel.& Fax : 27367231 - 27367850

٣ ش الملك الأفضل
الزمالك - القاهرة
تليفون - فاكس : ٢٧٣٦٧٢٣١ - ٢٧٣٦٧٨٥٠
www.cel-egypt.com

Report

1. Evaluation and representation of results
2. Load Settlement curve
3. The test report content the following:

- location of test site - Dimension of loading plate
- Measuring device used - Type of soil
- Type of bedding material below the plate -Weathering condition
- Time and date of measurements - Unusual observation made during test
- Dial gauge reading and corresponding normal stress - Loading settlement curve
- Description of the soil condition below the plate after testing

Report

Type of soil: Upper Embankment (Fores) , Test level: A-1-a

- **Job requirement: Ev2 = 600 Kg/cm^2 (60 MPa).**

Item	Descriptions
- Type of bedding material below the plate	Natural Soil
- Weather condition	Partly Sunny
- Plate Diameter (mm)	600
- date of measurement	16/03/2023
- Unusual observation made during test	NO
- Description of the soil condition below the plate after testing	No deformation

Evaluation and representation of results

Test No	Station		First Cycle	Second Cycle	E_{v2}/E_{v1} Ratio
	From	To	E_{v1} (kg/cm^2)	E_{v2} (kg/cm^2)	
1	449+250	449+300	952	2250	2.3
2	449+300	449+350	937	2250	2.4
3	449+350	449+400	1334	1967	1.5
4	449+400	449+450	1071	2300	2.1
5	449+450	449+500	1500	1900	1.3
6	449+500	449+550	1134	1967	1.7
7	449+550	449+600	1083	1967	1.8
8	449+600	449+650	1125	2250	2.0
9	449+650	449+700	1250	2308	1.8
10	449+700	449+750	1324	2308	1.8
11	449+750	449+800	1134	2400	2.1

Signature /

Company Name : Sun Rise Construction
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 01

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]
1	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	1.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	2.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	0.833	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	0.01	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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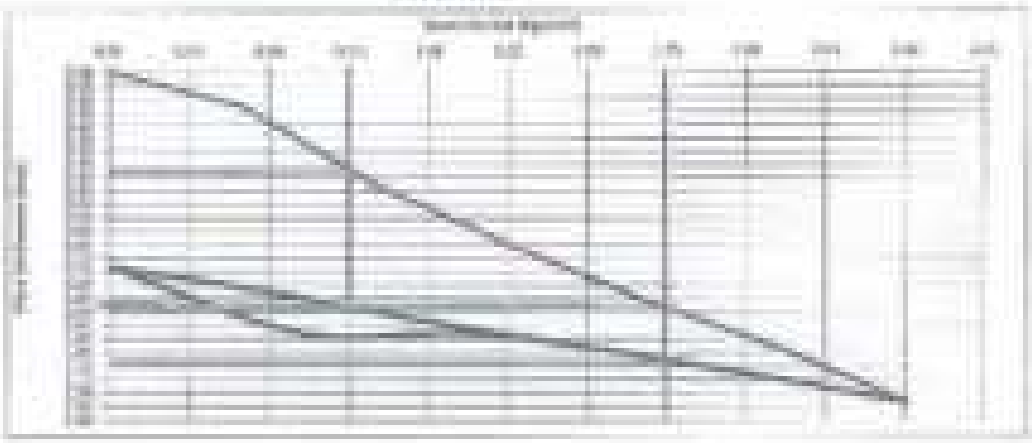
Company Name : Sun Elite Construction
Project : [illegible]
Test Date : [illegible]
Issued Date : [illegible]
Location : [illegible]
Test No. : 01

Nonconsolidated Static Plate Load Tests of Soils
(BS 1377)



Loading (T)	0	1	2	3	4	5	6
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	4	3	2	1	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

T Loading = [illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]			

Loading (T)	0	1	2	3	4	5
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

T Loading = [illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]			

[illegible] = [illegible]

[illegible] = Maximum of deformation during first loading stage.
[illegible] = Maximum of deformation during the flattening stage.
[illegible] = [illegible]
[illegible] = [illegible]
[illegible] = [illegible]

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 02

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.12	[illegible]	0.14	[illegible]	0.19	0.13
2	0.83	[illegible]	0.23	[illegible]	0.32	[illegible]	0.23	0.23
3	1.25	[illegible]	0.49	[illegible]	0.63	[illegible]	0.47	0.47
4	1.67	[illegible]	0.56	[illegible]	0.92	[illegible]	0.67	0.67
5	2.08	[illegible]	0.76	[illegible]	1.30	[illegible]	0.89	0.98
6	2.50	[illegible]	0.87	[illegible]	1.40	[illegible]	0.95	1.04

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
7	2.00	[illegible]	0.87	[illegible]	1.40	[illegible]	0.95	1.04
8	1.25	[illegible]	0.84	[illegible]	1.37	[illegible]	0.91	1.08
9	0.625	[illegible]	0.74	[illegible]	1.26	[illegible]	0.84	1.00
10	0.00	[illegible]	0.57	[illegible]	0.88	[illegible]	0.61	0.63

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.58	[illegible]	1.13	[illegible]	0.67	0.73
1	0.83	[illegible]	0.65	[illegible]	1.21	[illegible]	0.68	0.80
2	1.25	[illegible]	0.72	[illegible]	1.29	[illegible]	0.69	0.87
3	1.67	[illegible]	0.79	[illegible]	1.58	[illegible]	0.70	0.98
4	2.08	[illegible]	0.85	[illegible]	1.46	[illegible]	0.76	1.02

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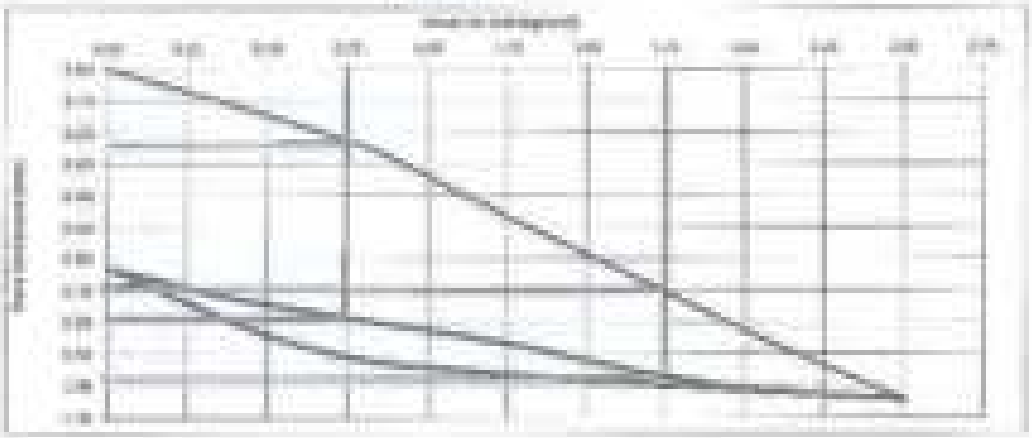
Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report Date : [illegible]
Location : [illegible]
Test No : [illegible]

Incremental Static Plate Load Tests of Soils
DIN 18134



Loading (T)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Moment (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]			[illegible]		

Unloading (T)	1	2	3	4
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Moment (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Moment (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		[illegible]		

Sr = = Modulus of deformation during the loading stage
Sur = = Modulus of deformation during the unloading stage
D = = Plate diameter (cm)
Ps = = The difference between S 1 and S 2 from the maximum loading cycle (kg/cm²)
Ds = = Difference in settlements corresponding to S 1 and S 2 from the maximum loading cycle

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 03

Noncyclic Static Plate Load Tests of Soils DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.62	[illegible]	0.11	[illegible]	0.09	[illegible]	0.14	0.11
2	0.93	[illegible]	0.22	[illegible]	0.21	[illegible]	0.25	0.22
3	1.25	[illegible]	0.30	[illegible]	0.35	[illegible]	0.42	0.36
4	1.57	[illegible]	0.46	[illegible]	0.48	[illegible]	0.57	0.52
5	1.88	[illegible]	0.58	[illegible]	0.56	[illegible]	0.75	0.64
6	2.00	[illegible]	0.68	[illegible]	0.70	[illegible]	0.88	0.76

Unloading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.00	[illegible]	0.64	[illegible]	0.70	[illegible]	0.82	0.76
2	1.25	[illegible]	0.61	[illegible]	0.68	[illegible]	0.82	0.69
3	0.633	[illegible]	0.52	[illegible]	0.58	[illegible]	0.65	0.58
4	0.01	[illegible]	0.38	[illegible]	0.28	[illegible]	0.32	0.31

Loading Stage (2)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.62	[illegible]	0.41	[illegible]	0.38	[illegible]	0.38	0.39
1	0.62	[illegible]	0.49	[illegible]	0.45	[illegible]	0.53	0.49
2	1.25	[illegible]	0.57	[illegible]	0.61	[illegible]	0.65	0.59
3	1.87	[illegible]	0.58	[illegible]	0.80	[illegible]	0.78	0.70
4	2.00	[illegible]	0.83	[illegible]	0.84	[illegible]	0.87	0.73

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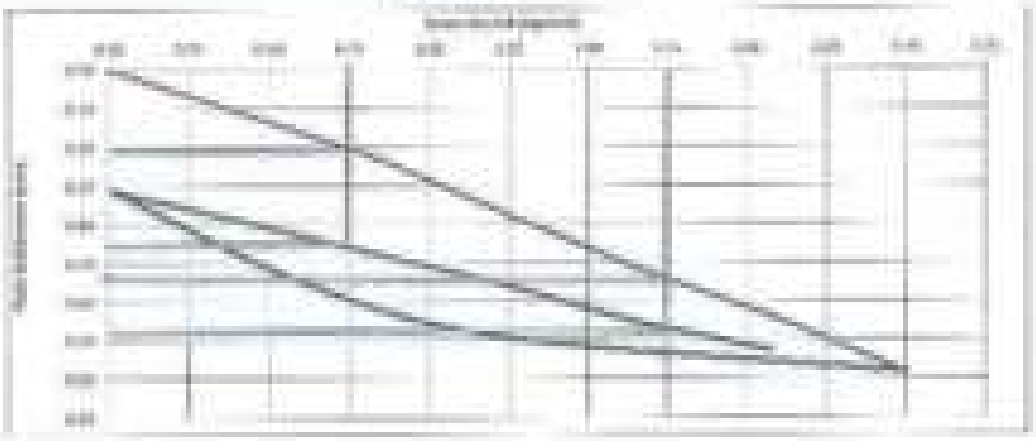
Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report Date : [illegible]
Location : [illegible]
Test No. : [illegible]

Incremental Static Plate Load Test at Site
BS 1377-9



Loading (T)	0	1	2	3	4	5	5
Stage(Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	4	3	2	1	0
Stage(Kg)	[illegible]	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

K (mm) = [illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]				

Loading (T)	0	1	2	3	4	5
Stage(Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

K (mm) = [illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]				

[illegible] =	[illegible]

[illegible] = Modulus of deformation during the loading stage.
[illegible] = Modulus of deformation during the Unloading stage.
[illegible] = Body deflection [illegible]
[illegible] = The difference between [illegible] and [illegible] from the maximum loading [illegible] [illegible]
[illegible] = Difference in deformation corresponding to [illegible] and [illegible] from the maximum loading [illegible]

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Company Name : Sun Rise Construction
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 04

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.13	[illegible]	0.22	[illegible]	0.17	0.17
2	0.83	[illegible]	0.29	[illegible]	0.38	[illegible]	0.39	0.31
3	1.25	[illegible]	0.43	[illegible]	0.52	[illegible]	0.48	0.50
4	1.67	[illegible]	0.56	[illegible]	0.70	[illegible]	0.65	0.67
5	2.08	[illegible]	0.70	[illegible]	0.80	[illegible]	0.69	0.81
6	2.50	[illegible]	0.83	[illegible]	1.14	[illegible]	0.85	0.87

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.08	[illegible]	0.83	[illegible]	1.14	[illegible]	0.98	0.97
2	1.25	[illegible]	0.73	[illegible]	0.87	[illegible]	0.82	0.84
3	0.829	[illegible]	0.63	[illegible]	0.85	[illegible]	0.69	0.72
4	0.01	[illegible]	0.37	[illegible]	0.55	[illegible]	0.45	0.45

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.65	[illegible]	0.89	[illegible]	0.56	0.00
1	0.83	[illegible]	0.88	[illegible]	0.79	[illegible]	0.61	0.00
2	1.25	[illegible]	1.08	[illegible]	0.90	[illegible]	0.73	0.76
3	1.67	[illegible]	0.74	[illegible]	0.98	[illegible]	0.81	0.84
4	2.08	[illegible]	0.88	[illegible]	1.00	[illegible]	0.96	0.92

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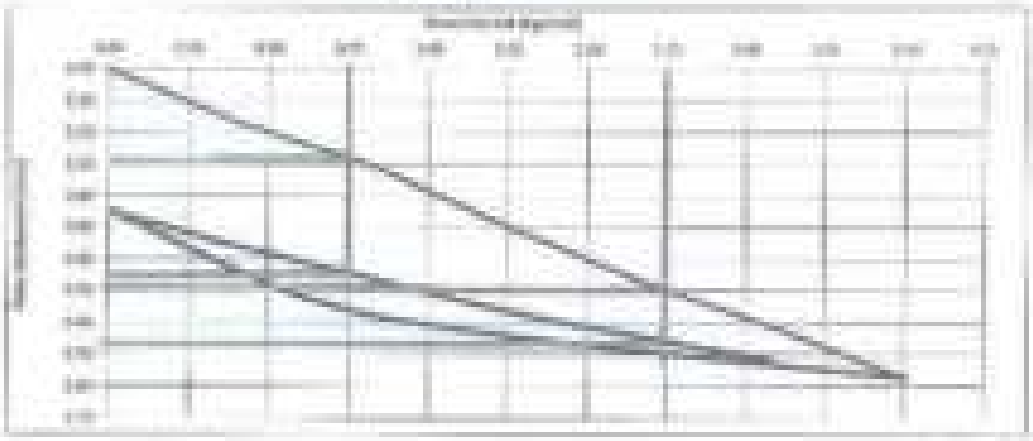
Company Name : Dear Mine Construction,
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : [illegible]
Test No. : [illegible]

Incremental Static Plate Load Tests at Soils
ASTM D1195



Loading (T)	0	1	2	3	4	5	6
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dissen (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	4	3	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	0
Dissen (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dissen (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	4
Stress (Kg/cm²)	[illegible]	[illegible]
Dissen (Kg/cm²)	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]

Sd 1 = Settlement during the loading stage.
Sd 2 = Recovery of settlement during the unloading stage.
Sr = Total settlement (mm).
Pu = The ultimate collapse at S1 and S2 (Ultimate maximum loading power (kg/cm²)).
Qa = Allowance or admissible bearing capacity at S1 and S2 (Max the allowable loading power).

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 85

Noncompetitive Static Plate Load Tests of Soils
DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.40	[illegible]	0.38	[illegible]	0.39	0.40
2	0.83	[illegible]	0.35	[illegible]	0.33	[illegible]	0.28	0.29
3	1.25	[illegible]	0.29	[illegible]	0.37	[illegible]	0.50	0.43
4	1.67	[illegible]	0.52	[illegible]	0.64	[illegible]	0.60	0.59
5	2.08	[illegible]	0.45	[illegible]	0.83	[illegible]	0.66	0.60
6	2.50	[illegible]	0.62	[illegible]	0.81	[illegible]	0.80	0.73

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	0.83	[illegible]	0.50	[illegible]	0.81	[illegible]	0.38	0.73
2	1.25	[illegible]	0.47	[illegible]	0.86	[illegible]	0.49	0.74
3	0.833	[illegible]	0.47	[illegible]	0.74	[illegible]	0.78	0.64
4	0.01	[illegible]	0.23	[illegible]	0.33	[illegible]	0.40	0.41

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.30	[illegible]	0.83	[illegible]	0.34	0.51
1	0.83	[illegible]	0.49	[illegible]	0.73	[illegible]	0.85	0.60
2	1.25	[illegible]	0.45	[illegible]	0.99	[illegible]	0.77	0.73
3	1.67	[illegible]	0.45	[illegible]	1.06	[illegible]	0.88	0.92
4	2.08	[illegible]	0.62	[illegible]	1.13	[illegible]	0.97	0.97

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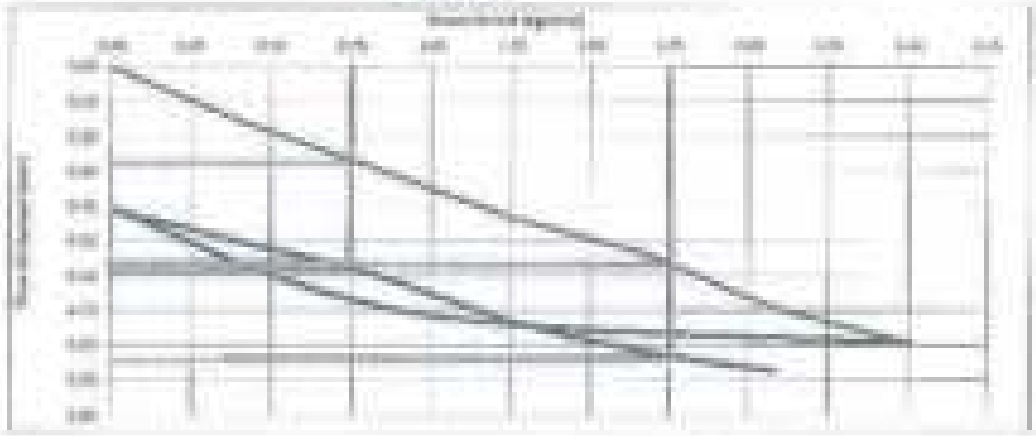
Contractor Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
Report Date : [illegible]
Location : [illegible]
Test No. : 02.

Non-repeated Slow Static Plate Load Tests of Soils
BS 1377-9



Loading (T)	0	1	2	3	4	5	6
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	0.00	0.40	0.80	1.20	1.60	2.00	2.20
Settlement (mm)	0.00	0.16	0.26	0.40	0.54	0.66	0.76

Unloading (T)	1	2	3	4
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm²)	2.10	1.80	1.40	0.00
Settlement (mm)	0.76	0.70	0.60	0.47

K (mm) = [illegible]	K1 (mm) = 0.04	Regression = 0.98	SR = 0.35		
Ult. Capacity = [illegible]	[illegible]				

Loading (T)	0	1	2	3	4	5
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	0.00	0.40	0.80	1.20	1.60	2.00
Settlement (mm)	0.00	0.01	0.05	0.15	0.40	0.67

K (mm) = [illegible]	K1 (mm) = 0.00	Regression = 0.91	SR = 0.38		
Ult. Capacity = [illegible]	[illegible]				

[illegible] = 1.1

K = Modulus of deformation during the loading stage.
K1 = Modulus of deformation during the unloading stage.
S = Plate settlement (mm).
SR = The difference between K2 and K1 (That's the deformation resulting (mm) (kg/cm²).
Ult. = Maximum or ultimate load corresponding to K2 and K1 (kind the maximum loading (mm).

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : [illegible]

Noncyclic Static Plate Load Tests of Soils DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]
1	0.42	[illegible]	0.55	[illegible]	0.15	[illegible]	0.15	[illegible]
2	0.83	[illegible]	0.49	[illegible]	0.92	[illegible]	0.84	[illegible]
3	1.25	[illegible]	0.58	[illegible]	0.99	[illegible]	0.93	[illegible]
4	1.67	[illegible]	0.73	[illegible]	0.95	[illegible]	0.92	[illegible]
5	2.08	[illegible]	0.84	[illegible]	1.00	[illegible]	0.85	[illegible]
6	2.50	[illegible]	0.94	[illegible]	1.13	[illegible]	0.88	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
7	2.00	[illegible]	0.94	[illegible]	1.13	[illegible]	0.88	[illegible]
8	1.25	[illegible]	0.87	[illegible]	0.95	[illegible]	0.79	[illegible]
9	0.625	[illegible]	0.75	[illegible]	0.86	[illegible]	0.71	[illegible]
10	0.00	[illegible]	0.47	[illegible]	0.58	[illegible]	0.50	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.55	[illegible]	0.87	[illegible]	0.46	[illegible]
1	0.83	[illegible]	0.64	[illegible]	0.70	[illegible]	0.55	[illegible]
2	1.25	[illegible]	0.74	[illegible]	0.82	[illegible]	0.71	0.75
3	1.67	[illegible]	0.83	[illegible]	0.90	[illegible]	0.84	[illegible]
4	2.08	[illegible]	0.88	[illegible]	0.96	[illegible]	0.91	[illegible]

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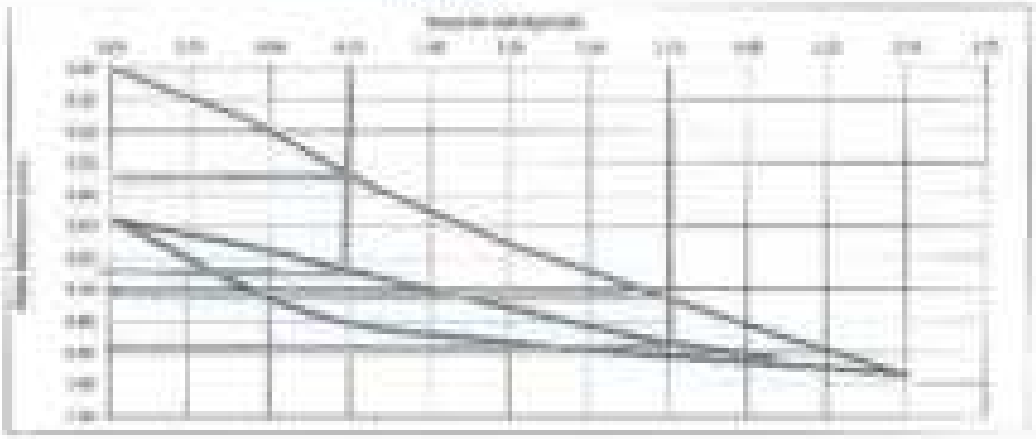
Company Name:	[illegible]
Project:	[illegible]
Test Date:	[illegible]
Report date:	[illegible]
Location:	[illegible]
Test No:	[illegible]

Representative Static Plate Load Tests of Soils
[illegible]



Loading (N)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Re-loading (N)	1	2	3	4
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (2)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

[illegible]

[illegible]

[illegible]

[illegible]

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 07

Nonrecursive Static Plate Load Tests of Soils DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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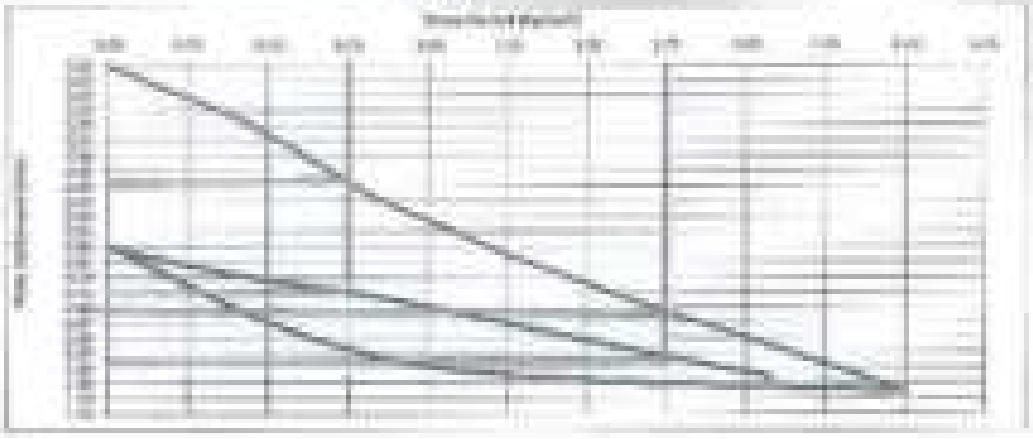
[illegible]

[illegible] Static Plate Load Tests of Soils

[illegible]



Loading (T)	0	1	2	3	4	5	6
Stress (Kg/cm2)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]							
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]							

Unloading (T)	4	2	1	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stress (Kg/cm2)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]						
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]						

[illegible]

Sr1 = Maximum of deformation during the loading stage.
Sr2 = Maximum of deformation during the unloading stage.
Sr = Plate Elevation (mm).
Sr1 = Plot of Maximum deflection 0.5 and 0.7 Times the maximum loading (mm/cm²).
DR = Difference in deformation corresponding to 0.5 and 0.7 Times the maximum loading (mm).

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 06

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	1.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	2.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	0.75	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	0.025	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	0.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	0.63	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.87	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	2.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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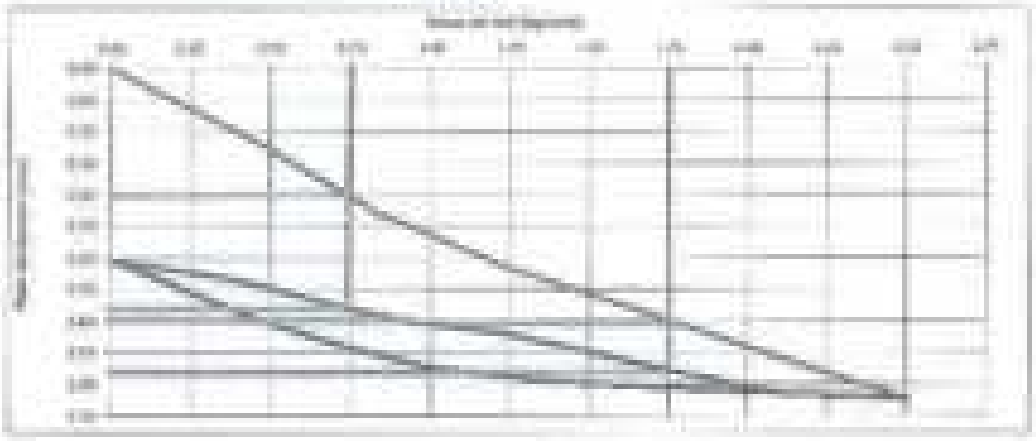
Company Name	: Sun Wind Construction
Project	: Twenty Eighteen Tower, Nasr City, Sun Building in Mokattam Residential Housing Section (ph.) - Block 16 & 17
Test Date	: [illegible]
Report date	: [illegible]
Location	: Shafea [illegible] to [illegible]
Test No.	: 08

Intermediate Static Plate Load Tests of Soils

EM 50134



Loading (%)	0	1	2	3	4	5	6
Weight(Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

E (mm) = [illegible]	P1 (mm) = [illegible]	Diameter = [illegible]	Ratio = [illegible]		
P1/D (Ratio) = [illegible]	[illegible]				

Unloading (%)	5	4	3	2	1	0
Weight(Kg)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

E (mm) = [illegible]	P2 (mm) = [illegible]	Diameter = [illegible]	Ratio = [illegible]		
P2/D (Ratio) = [illegible]	[illegible]				

Unloading (%)	3	2	1	0
Weight(Kg)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] = [illegible]

P1/D = Relation of deformation during the loading stage

P2/D = Relation of deformation during the Unloading stage

D = Plate diameter (mm)

Ratio = Ratio of difference between E (mm) & P1 (mm) to diameter loading (mm) (Ratio=E-P1/D)

P1/D = Relation of deformation corresponding to E (mm) & P1 (mm) to diameter loading (mm)

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 89

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Steps (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.43	[illegible]	0.18	[illegible]	0.15	[illegible]	0.17	0.70
2	0.83	[illegible]	0.35	[illegible]	0.42	[illegible]	0.35	0.36
3	1.25	[illegible]	0.48	[illegible]	0.64	[illegible]	0.48	[illegible]
4	1.67	[illegible]	0.57	[illegible]	0.70	[illegible]	0.62	0.00
5	2.08	[illegible]	0.76	[illegible]	0.86	[illegible]	0.84	0.01
6	2.50	[illegible]	0.82	[illegible]	1.15	[illegible]	0.96	0.07

Unloading Steps (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
7	2.50	[illegible]	0.77	[illegible]	1.13	[illegible]	0.96	0.07
8	1.25	[illegible]	0.75	[illegible]	1.00	[illegible]	0.89	0.00
9	0.000	[illegible]	0.63	[illegible]	0.90	[illegible]	0.77	0.70
10	0.01	[illegible]	0.34	[illegible]	0.84	[illegible]	0.93	0.49

Loading Steps (2)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.41	[illegible]	0.72	[illegible]	0.56	0.50
1	0.83	[illegible]	0.81	[illegible]	0.81	[illegible]	0.94	0.81
2	1.25	[illegible]	0.80	[illegible]	0.82	[illegible]	0.73	0.71
3	1.67	[illegible]	0.88	[illegible]	0.88	[illegible]	0.82	0.80
4	2.08	[illegible]	0.78	[illegible]	0.93	[illegible]	0.98	0.90

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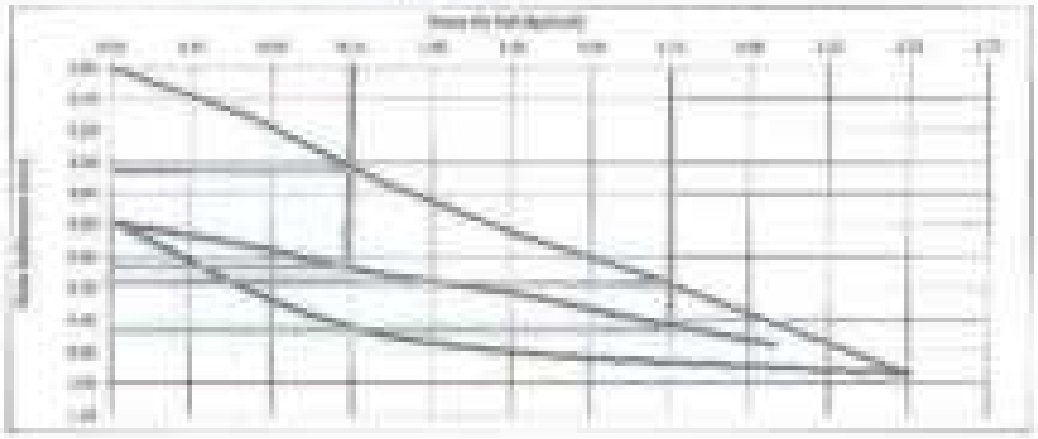
Company Name : [illegible]
Project : [illegible]
Test date : [illegible]
Report date : [illegible]
Location : [illegible]
Test No. : [illegible]

Incremental Static Plate Load Tests of Soils

[illegible]



Loading (T)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Notes:

[illegible]

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 440+700 to 440+790
Test No. : 10

Repetitive Static Plate Load Tests of Soils
DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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Project	[illegible]
Test Date	[illegible]
Report Date	[illegible]
Location	[illegible]
Test No.	[illegible]

[illegible] Static Plate Load Tests of Soils

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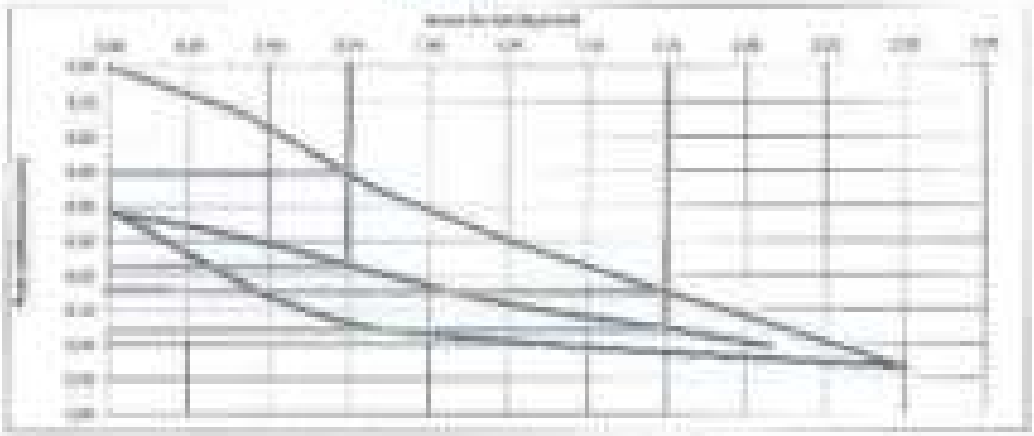

Loading (T)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Unloading (T)	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 11

Incremental Static Plate Load Tests of Soils DIN 18134.

Unloaded

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	1.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	2.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
7	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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Project	: [illegible]
Test Date	: [illegible]
Report date	: [illegible]
Location	: [illegible]
Test No	: [illegible]

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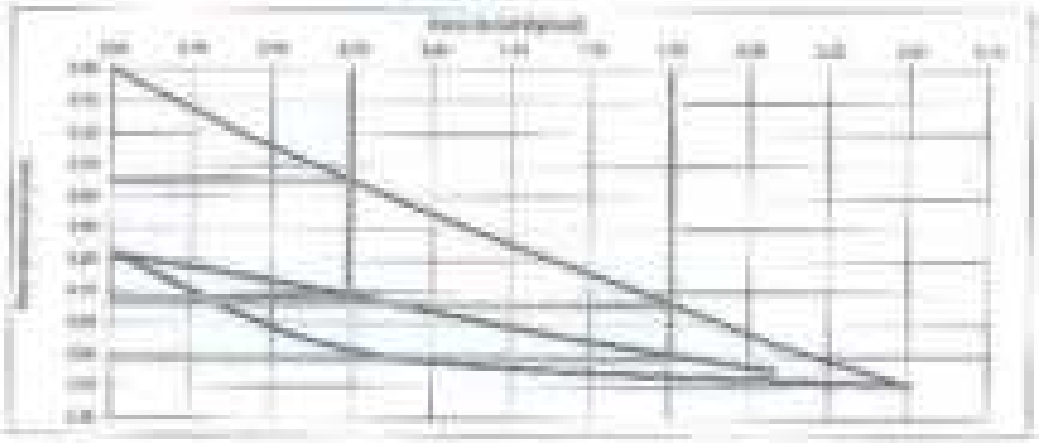

Loading (T)	[illegible]						
Stage(Kg)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Pre-loading (T)	[illegible]	[illegible]	[illegible]	[illegible]
Stage(Kg)	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	[illegible]					
Stage(Kg)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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Contractor : Sun Rise Construction

Project : Electric Express Train, Al Ain Sokhna to Misr al Matrouh Private Sector (6) Alamein to Fuka

Subject : Determine the deformation and strength characteristics of soil by the plate loading test according specifications: DIN 18134:2012-04 and project requirements

Test Location : Station 449+000 to 449+200

Test Date : 23/03/2023

Report Date : 25/03/2023

Type of soil : A-1-a

Test level : Upper Embankment (Fence)

Report No. : 99:102

Dear Gentlemen,

According to the above mentioned subject the test performed as follows:-

Apparatus

1. Loading plates consists of two plates with 600 mm and 300 mm diameter
2. The thickness of plates 30 mm
3. Dial gauges with accuracy 0.01 mm to monitoring the settlement
4. Steel straightedges with magnetic supports to fixed the dial gauges
5. Hydraulic jack with pump to transfer reactive loads to the loading plates
6. Dial indicator measuring device with scale capacity 700 Bar (Lowrbar)
7. Reaction loading system by roller compactor with weight approximately 15 ton
8. Calibration certificates are attached

Test Procedure

1. Clean the ground on test area to the required level with undisturbed soil
2. Install loading plates 600 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
3. Prior to starting the test applied preloading about 30 seconds.
4. The strain gauge and the dial gauge shall be set to zero
5. For a 600 mm loading plate, the limit values are 2.5 kg/cm^2
6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached
7. Each change in load (from stage to stage) shall be completed within one minute
8. The load shall be released in 3 stages, to 50 %, 25 %, and approximately 2 % of the maximum load
9. Following unloading, a further (2nd) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached).
10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min
11. Remove the loads

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Report

1. Evaluation and representation of results
2. Load Settlement curve
3. The test report contain the following:

- location of test site - Dimension of loading plate
- Measuring device used - Type of soil
- Type of bedding material below the plate -Weathering condition
- Time and date of measurements - Unusual observation made during test
- Dial gauge reading and corresponding normal stress - Loading settlement curve
- Description of the soil condition below the plate after loading

Report

Type of soil: Upper Embankment (Fermal) ,Test level: A-1-a

- **Job requirement: Ev2 > 600 Kg/cm^2 (60 MPa).**

Item	Description
- Type of bedding material below the plate	Natural Soil
- Weather condition	Partly Sunny
- Plate Diameter (mm)	600
- date of measurement	23/02/2023
- Unusual observation made during test	NO
- Description of the soil conditions below the plate after loading	No deformation

Evaluation and representation of results

Test No.	Station		First Cycle	Second Cycle	Ev2/Ev1 Ratio
	From	To	Ev1 (kg/cm^2)	Ev2 (kg/cm^2)	
1	449+000	449+050	1731	2247	1.3
2	449+050	449+100	1607	2143	1.3
3	449+100	449+150	1216	1552	1.3
4	449+050	449+000	1600	1098	0.7
5	449+000	449+098	1324	1652	1.2
6	449+050	449+106	1875	1154	0.6
7	449+100	449+150	1250	1800	1.4
8	449+150	449+200	1304	1957	1.5

Signature /

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Company Name : Sun Rise Construction.
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Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 01

Noncyclic Static Plate Load Tests of Soils DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]
1	0.42	[illegible]	0.34	[illegible]	0.28	[illegible]	0.34	[illegible]
2	0.83	[illegible]	0.59	[illegible]	0.57	[illegible]	0.57	[illegible]
3	1.25	[illegible]	0.87	[illegible]	0.86	[illegible]	0.85	[illegible]
4	1.67	[illegible]	0.98	[illegible]	0.91	[illegible]	0.94	[illegible]
5	2.08	[illegible]	0.98	[illegible]	0.93	[illegible]	0.97	[illegible]
6	2.50	[illegible]	0.79	[illegible]	0.83	[illegible]	0.81	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.00	[illegible]	0.79	[illegible]	0.83	[illegible]	0.81	[illegible]
2	1.25	[illegible]	0.72	[illegible]	0.80	[illegible]	0.76	[illegible]
3	0.625	[illegible]	0.68	[illegible]	0.69	[illegible]	0.70	[illegible]
4	0.00	[illegible]	0.61	[illegible]	0.63	[illegible]	0.60	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.83	[illegible]	0.85	[illegible]	0.86	[illegible]
1	0.83	[illegible]	0.76	[illegible]	0.86	[illegible]	0.79	[illegible]
2	1.25	[illegible]	0.98	[illegible]	0.71	[illegible]	0.96	[illegible]
3	1.67	[illegible]	0.96	[illegible]	0.83	[illegible]	0.93	[illegible]
4	2.08	[illegible]	1.01	[illegible]	0.99	[illegible]	1.07	[illegible]

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Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : [illegible]
Test No. : [illegible]

Reconsolidation Static Plate Load Tests of Soils

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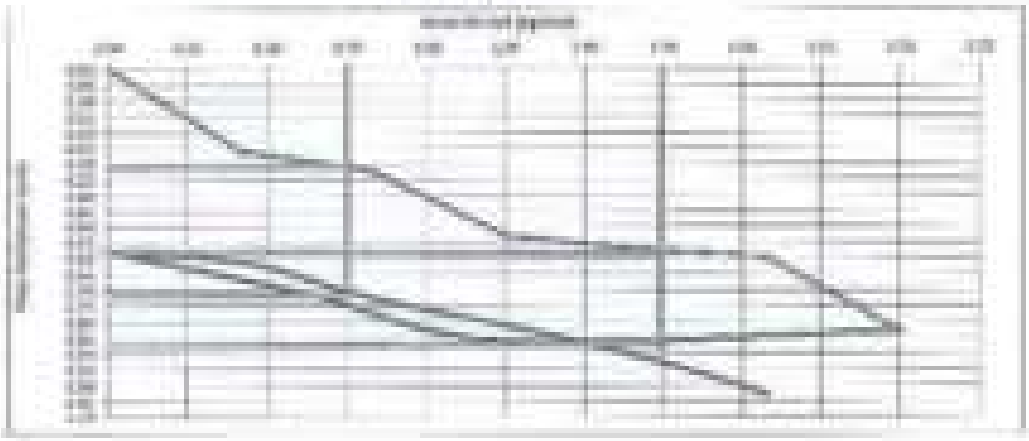

Loading (T)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Weight (kg)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]							
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]			[illegible]				

Unloading (T)	[illegible]	[illegible]	[illegible]	[illegible]
Weight (kg)	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Weight (kg)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]						
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]			[illegible]			

[illegible]

[illegible] = Modulus of deformation during the loading stage.
[illegible] = Modulus of deformation during the unloading stage.
[illegible] = Plate diameter (cm).
[illegible] = The difference between [illegible] and [illegible] from the maximum loading stress (kg/cm²).
[illegible] = Difference in settlements corresponding to [illegible] and [illegible] of the maximum loading (mm).

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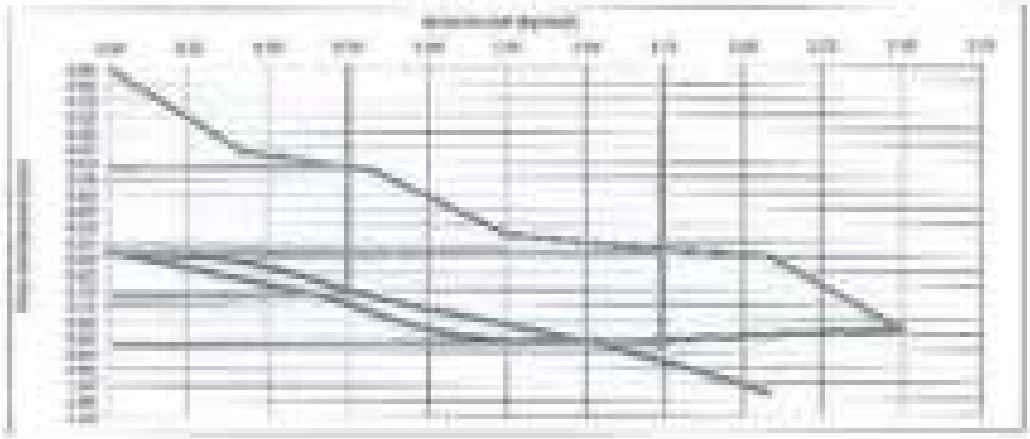
Contracting Name	: Sino Hydro Corporation Ltd.
Project	: [illegible]
Test Date	: [illegible]
Report Date	: [illegible]
Location	: [illegible]
Test No.	: [illegible]

Repeated Plate Static Plate Load Tests of Soils
ASTM D1195



Loading (T)	0	1	2	3	4	5	6
Stage (Kg/cm2)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] = [illegible]		[illegible]	[illegible]	[illegible] = [illegible]	[illegible] = [illegible]
[illegible] = [illegible]			[illegible]		

Unloading (T)	5	4	3	2	1	0
Stage (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0
Rebound (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stage (Kg/cm2)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] = [illegible]		[illegible]	[illegible]	[illegible] = [illegible]	[illegible] = [illegible]
[illegible] = [illegible]			[illegible]		

[illegible] = [illegible]

[illegible] = Modulus of deformation during the loading stage

[illegible] = Modulus of deformation during the unloading stage

[illegible] = Plate diameter (cm)

[illegible] = The difference between [illegible] and [illegible] from the maximum loading (mm) (approx)

[illegible] = Difference in settlements corresponding to [illegible] and [illegible] from the maximum loading stage

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 440+038 to 440+000
Test No. : 03

Horizontal Static Plate Load Tests of Soils
DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.47	[illegible]	6.24	[illegible]	6.28	[illegible]	6.28	6.26
2	0.93	[illegible]	6.29	[illegible]	6.37	[illegible]	6.31	6.32
3	1.40	[illegible]	6.43	[illegible]	6.50	[illegible]	6.49	6.53
4	1.87	[illegible]	6.46	[illegible]	6.61	[illegible]	6.64	6.57
5	2.34	[illegible]	6.49	[illegible]	6.63	[illegible]	6.67	6.60
6	2.80	[illegible]	6.75	[illegible]	6.83	[illegible]	6.91	6.83

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.32	[illegible]	6.72	[illegible]	6.83	[illegible]	6.81	6.82
2	1.79	[illegible]	6.72	[illegible]	6.81	[illegible]	6.80	6.81
3	0.925	[illegible]	6.69	[illegible]	6.66	[illegible]	6.75	6.71
4	0.01	[illegible]	6.61	[illegible]	6.63	[illegible]	6.68	6.64

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.47	[illegible]	6.63	[illegible]	6.56	[illegible]	6.68	6.61
1	0.93	[illegible]	6.76	[illegible]	6.88	[illegible]	6.73	6.72
2	1.40	[illegible]	6.88	[illegible]	6.71	[illegible]	6.84	6.81
3	1.87	[illegible]	6.96	[illegible]	6.83	[illegible]	6.85	6.83
4	2.34	[illegible]	7.03	[illegible]	6.88	[illegible]	7.07	7.02

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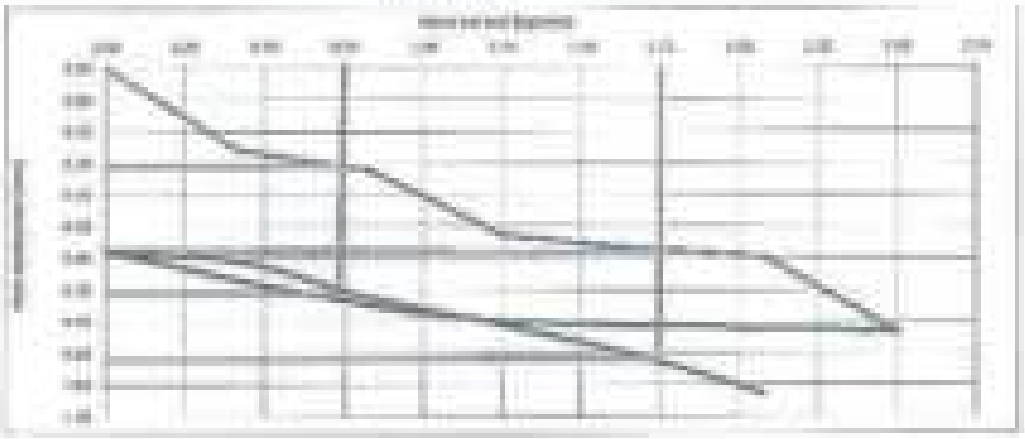
Project	: [illegible]
Test Date	: [illegible]
Report date	: [illegible]
Location	: [illegible]
Test No.	: [illegible]

[illegible] Plate Load Tests of Soils

[illegible]



Loading (%)	0	1	2	3	4	5	6
Stress (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Unloading (%)	1	2	3	4
Stress (kg)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

Loading (%)	0	1	2	3	4	5
Stress (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

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Company Name : Sun River Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 440+900 to 440+550
Test No. : 03

Horizontal Static Plate Load Tests of Soils
DIN 18134

Date sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.47	[illegible]	0.09	[illegible]	0.22	[illegible]	0.13	0.14
2	0.93	[illegible]	0.19	[illegible]	0.37	[illegible]	0.31	0.28
3	1.40	[illegible]	0.34	[illegible]	0.46	[illegible]	0.40	0.40
4	1.87	[illegible]	0.48	[illegible]	0.60	[illegible]	0.50	0.54
5	2.34	[illegible]	0.57	[illegible]	0.73	[illegible]	0.63	0.71
6	2.80	[illegible]	0.76	[illegible]	0.85	[illegible]	0.81	0.84

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.00	[illegible]	0.70	[illegible]	0.85	[illegible]	0.81	0.79
2	1.20	[illegible]	0.71	[illegible]	0.70	[illegible]	0.67	0.73
3	0.575	[illegible]	0.63	[illegible]	0.74	[illegible]	0.69	0.71
4	0.01	[illegible]	0.38	[illegible]	0.40	[illegible]	0.37	0.51

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.40	[illegible]	0.51	[illegible]	0.77	[illegible]	0.71	0.63
1	0.80	[illegible]	0.83	[illegible]	0.82	[illegible]	0.83	0.87
2	1.20	[illegible]	0.73	[illegible]	0.87	[illegible]	0.88	0.77
3	1.60	[illegible]	0.86	[illegible]	0.92	[illegible]	1.09	0.95
4	2.00	[illegible]	0.87	[illegible]	0.99	[illegible]	1.07	1.00

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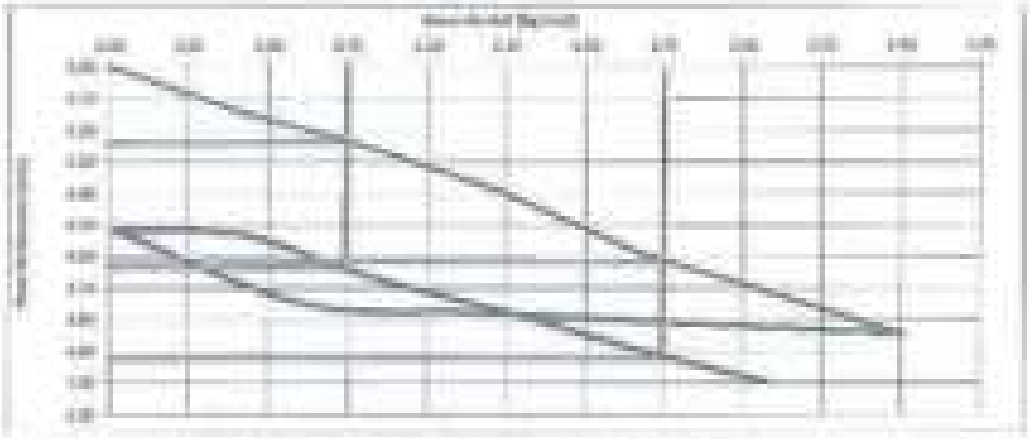

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 448+950 to 449+000
Test No. : 94

Incrementitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.47	[illegible]	0.14	[illegible]	0.08	[illegible]	0.22	0.15
2	0.93	[illegible]	0.28	[illegible]	0.16	[illegible]	0.39	0.33
3	1.40	[illegible]	0.48	[illegible]	0.24	[illegible]	0.48	0.40
4	1.87	[illegible]	0.57	[illegible]	0.36	[illegible]	0.58	0.53
5	2.33	[illegible]	0.71	[illegible]	0.48	[illegible]	0.76	0.65
6	2.80	[illegible]	0.88	[illegible]	0.61	[illegible]	0.83	0.75

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.32	[illegible]	0.88	[illegible]	0.61	[illegible]	0.83	0.75
2	1.86	[illegible]	0.73	[illegible]	0.56	[illegible]	0.78	0.69
3	0.925	[illegible]	0.58	[illegible]	0.48	[illegible]	0.71	0.57
4	0.00	[illegible]	0.48	[illegible]	0.35	[illegible]	0.58	0.45

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.47	[illegible]	0.58	[illegible]	0.71	[illegible]	0.48	0.63
1	0.93	[illegible]	0.88	[illegible]	0.43	[illegible]	0.58	0.57
2	1.40	[illegible]	0.82	[illegible]	0.97	[illegible]	0.71	0.70
3	1.87	[illegible]	2.08	[illegible]	0.79	[illegible]	0.86	1.00
4	2.33	[illegible]	1.07	[illegible]	0.99	[illegible]	0.92	0.99

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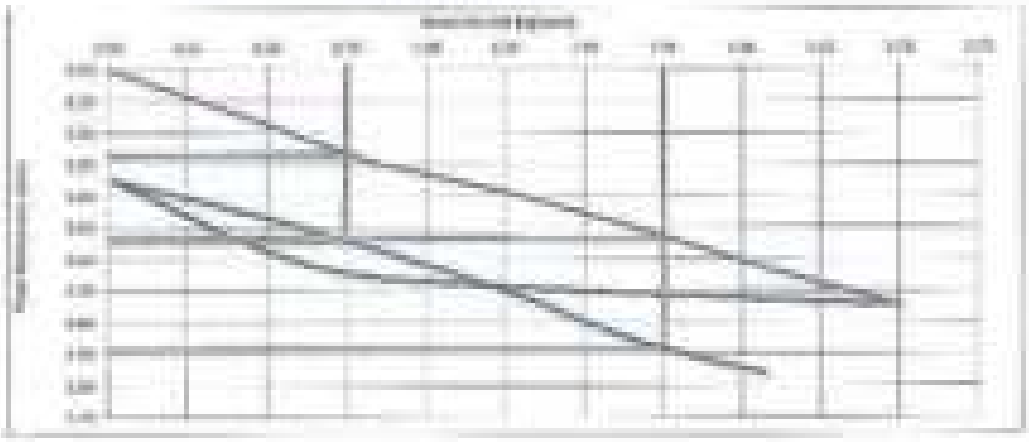
Consulting Bureau
Project
Test Date
Report date
Location
Test No.

: Steel Fiber Concrete Cubes
: Flexible Exterior Tubes from Air Valves to Water Network Priority Number (8) – Manole in Farm
: [illegible]
: [illegible]
: Sharkia 14&15&16 to 6th[illegible]
: 01

Recommended Daily Field Load Tests of Cubes
ECP 203/24



Loading (t)	0	1	2	3	4	5	6
Weight (Kg)	0	1180.00	2360.0	3540.0	4720.0	5900.0	7080
Stress (Kg/cm2)	0.00	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.11	0.20	0.29	0.39	0.51	0.75
[illegible] = 708		[illegible]	0.28	Minimum = 0.19	[illegible] = 0.28		
[illegible]			1000				

Unloading (t)	3	2	1	0
Weight (Kg)	7080	5900	4720	0
Stress (Kg/cm2)	2.50	2.08	1.67	0.00
Settlement (mm)	0.75	0.60	0.45	0.00

Loading (t)	0	1	2	3	4	5
Weight (Kg)	0	1180.00	2360.0	3540.0	4720.0	5900.0
Stress (Kg/cm2)	0.00	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.00	0.05	0.07	0.10	0.00	0.00
[illegible] = 708		[illegible]	0.00	Minimum = 0.00	[illegible] = 0.00	
[illegible]	[illegible]		1000			

[illegible] = 0.7

[illegible] = Maximum of [illegible] during the loading stage.
[illegible] = Minimum of [illegible] during the loading stage.
[illegible] = Plate diameter (mm).
[illegible] = The difference between [illegible] and [illegible] from the maximum loading (mm) (optional).
[illegible] = A tolerance in settlements corresponding to [illegible] and [illegible] from the maximum loading (mm).

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 440+960 to 440+030
Test No. : 95

Nonrecoverable Static Plate Load Tests of Soils DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	0.47	[illegible]	0.14	[illegible]	0.21	[illegible]	0.22	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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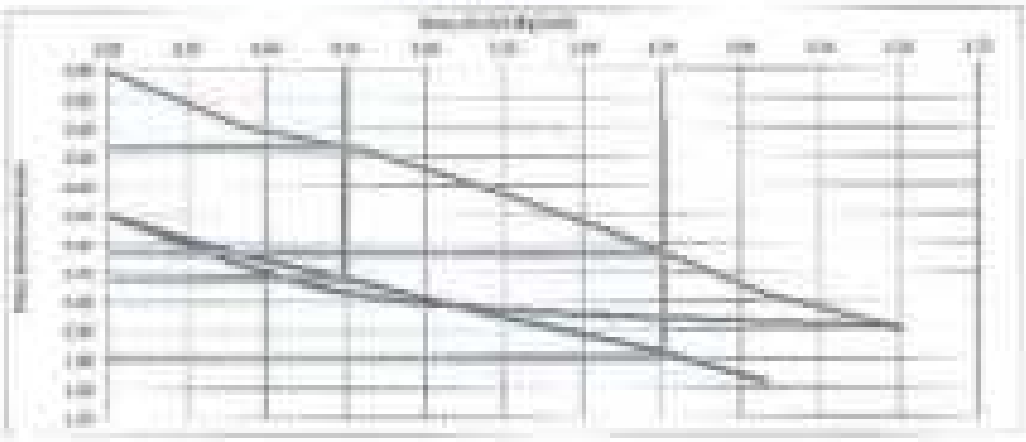
Company Name : Sun Flow Construction.
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : [illegible]
Test No. : [illegible]

Interpretation: Static Plate Load Tests of Soils
(BS 1377)



Loading (T)	0	1	2	3	4	5	6
Stress (kg/cm2)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	1	2	3	4
Stress (kg/cm2)	[illegible]	[illegible]	[illegible]	0
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stress (kg/cm2)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Notes:
[illegible]

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 440+036 to 440+100
Test No. : 90

Nonrepetitive Static Plate Load Tests of Soils DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.14	[illegible]	0.05	[illegible]	0.24	0.12
2	0.85	[illegible]	0.36	[illegible]	0.15	[illegible]	0.36	0.23
3	1.28	[illegible]	0.47	[illegible]	0.24	[illegible]	0.46	0.35
4	1.67	[illegible]	0.58	[illegible]	0.34	[illegible]	0.58	0.47
5	2.06	[illegible]	0.72	[illegible]	0.49	[illegible]	0.79	0.63
6	2.50	[illegible]	0.79	[illegible]	0.68	[illegible]	0.83	0.74

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	[illegible]	0.79	[illegible]	0.68	[illegible]	0.83	0.74
2	1.25	[illegible]	0.72	[illegible]	0.54	[illegible]	0.79	0.68
3	0.625	[illegible]	0.63	[illegible]	0.38	[illegible]	0.71	0.51
4	0.01	[illegible]	0.41	[illegible]	0.20	[illegible]	0.56	0.39

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.68	[illegible]	0.21	[illegible]	0.46	0.45
1	0.85	[illegible]	0.71	[illegible]	0.43	[illegible]	0.68	0.57
2	1.25	[illegible]	0.82	[illegible]	0.57	[illegible]	0.77	0.70
3	1.67	[illegible]	0.91	[illegible]	0.79	[illegible]	0.84	0.85
4	2.08	[illegible]	1.00	[illegible]	0.91	[illegible]	0.92	0.97

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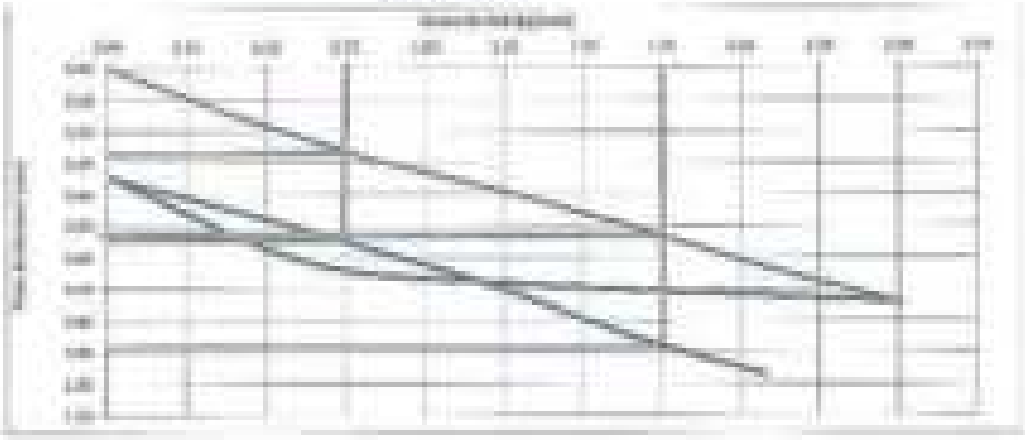
Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report with : [illegible]
Location : [illegible]
Test No : [illegible]

Recommended Static Plate Load Tests of Soils
BS 1377-9



Loading (T)	0	1	2	3	4	5	6
Stage (Kg)	0	1186.82	2186.8	3186.8	4186.8	5186.8	1868
Stress (Kg/cm²)	0.00	0.42	0.80	1.20	1.67	2.06	2.30
Settlement (mm)	0.00	0.16	0.29	0.38	0.51	0.63	0.75
[illegible]							
[illegible]							

Unloading (T)	4	3	2	1	0
Stage (Kg)	4186.8	3186.8	2186.8	1186.8	0
Stress (Kg/cm²)	2.06	1.20	0.80	0.42	0.00
Settlement (mm)	0.75	0.64	0.57	0.48	0.38

Loading (T)	0	1	2	3	4	5
Stage (Kg)	0	1186.82	2186.8	3186.8	4186.8	5186.8
Stress (Kg/cm²)	0.00	0.42	0.80	1.20	1.67	2.06
Settlement (mm)	0.00	0.46	0.57	0.70	0.80	0.87
[illegible]						
[illegible]						

Unloading = [illegible]

Su1 = Modulus of deformation during the loading stage
Su2 = Modulus of deformation during the unloading stage
D = Plate diameter (mm)
Dy = The difference between D-3 and D1 (for maximum loading case in figure)
Dx = difference in settlements corresponding loading to D-3 and D1 from the maximum loading point

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 07

Incrementive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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Company Name : Sam Wise Constructions.
Project : [illegible]
Test Date : [illegible]
Issued Date : [illegible]
Location : [illegible]
Test No : 07

Nonexpandible Static Plate Load Tests of Soils
[DIN 18134]

Loading (%)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]							
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]			[illegible]				

Un-loading (%)	1	2	3	4
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (%)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]						
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]			[illegible]			

[illegible] = [illegible]

[illegible] = Maximum of settlement during the loading stage.
[illegible] = Maximum of settlement during the Unloading stage.
B = Plate diameter (mm)
[illegible] = Net difference between [illegible] (kg/cm²)
[illegible] = Difference in settlement corresponding to [illegible] (mm)

Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 449+150 to 449+200
Test No : 06

Incremental Static Plate Load Tests of Soils ASTM D1196

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]
1	0.42	[illegible]	0.19	[illegible]	0.27	[illegible]	0.13	[illegible]
2	0.83	[illegible]	0.32	[illegible]	0.49	[illegible]	0.27	[illegible]
3	1.25	[illegible]	0.41	[illegible]	0.65	[illegible]	0.41	[illegible]
4	1.67	[illegible]	0.54	[illegible]	0.83	[illegible]	0.57	[illegible]
5	2.08	[illegible]	0.68	[illegible]	0.97	[illegible]	0.69	[illegible]
6	2.50	[illegible]	0.80	[illegible]	1.09	[illegible]	0.80	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
3	1.50	[illegible]	0.60	[illegible]	1.00	[illegible]	0.60	[illegible]
2	1.00	[illegible]	0.71	[illegible]	0.83	[illegible]	0.76	[illegible]
1	0.075	[illegible]	0.63	[illegible]	0.85	[illegible]	0.63	[illegible]
0	0.00	[illegible]	0.38	[illegible]	0.61	[illegible]	0.43	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.43	[illegible]	0.73	[illegible]	0.37	[illegible]
1	0.83	[illegible]	0.57	[illegible]	0.84	[illegible]	0.68	[illegible]
2	1.25	[illegible]	0.68	[illegible]	0.91	[illegible]	0.79	[illegible]
3	1.67	[illegible]	0.79	[illegible]	1.06	[illegible]	0.87	[illegible]
4	2.08	[illegible]	0.91	[illegible]	1.17	[illegible]	0.98	[illegible]

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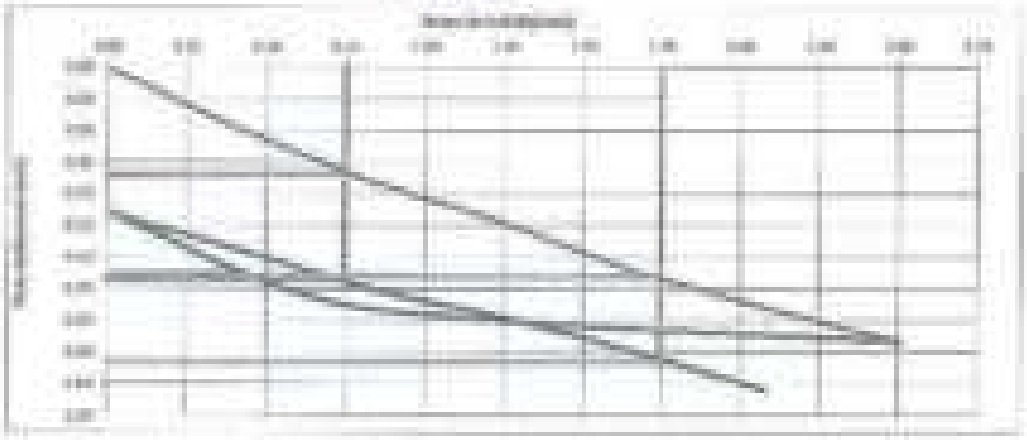
Company Name	: [illegible]
Project	: [illegible]
Test Date	: [illegible]
Report Date	: [illegible]
Location	: [illegible]
Test No.	: [illegible]

Repressible Static Plate Load Tests of Soils

[illegible]



Loading (T)	0	1	2	3	4	5	6
Stress (Kg/cm2)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	4	3	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	0
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Loading (T)	0	1	2	3	4	5
Stress (Kg/cm2)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

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Company Name	: **Sun Rise**
Project	: **Electric Express Train, from Al Ain Sokhna to Marsa Matrouh**
Location	: **St. (448+600) :(449+100)**
Type of sample	: **Soil Replacement (Embankment)**
Delivery Date	: **01 / 12 / 2022**
Reporting Date	: **09 / 12 / 2022**
Reporting No.	: **25**
Sample No.	: **15**

Dear Gentleman,

Attached here with the Soil Replacement delivered on 01/12/2022

Materials test

1. Sieve analysis according to ASTM D-422.
2. Material finer than sieve No. 200 according to ASTM D-1140.
3. Liquid limits and plasticity index of soil according to ASTM D-4318.
4. Soil classification according to Project Specs.
5. Proctor test according to ASTM D-1557.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signatory :

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Company Name : Sun Rise
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Location : St. (448+600) :(449+100)
Type of sample : Soil Replacement (Embankment)
Delivery Date : 01 / 12 / 2022
Reporting Date : 09 / 12 / 2022
Reporting No. : 25
Sample No. : 15

Results of Sieve Analysis According to ASTM D-422

Sieve Size (mm)	Passing %
50	100
37.5	98.7
25	97.4
19	95.1
12.50	72.3
9.50	46.7
4.75	35.5
2.36	34.2
2.00	33.2
1.18	29.7
0.600	24.6
0.425	21.2
0.300	19.2
0.150	15.4

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Company Name	: Sun Rise
Project	: Electric Express Train, from Al Ain Sukhna to Marsa Matrouh
Location	: St. (448+600) :(449+100)
Type of sample	: Soil Replacement (Embankment)
Delivery Date	: 01 / 12 / 2022
Reporting Date	: 09 / 12 / 2022
Reporting No.	: 29
Sample No.	: 15

Materials finer than 75 µm (no.200) sieve by washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 µM (No.200)	9.5

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Company Name	: Sun Rise
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Location	: St. (448+600) :(449+100)
Type of sample	: Soil Replacement (Embankment)
Delivery Date	: 01 / 12 / 2022
Reporting Date	: 09 / 12 / 2022
Reporting No.	: 25
Sample No.	: 15

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	NP
Plastic Limit	NP
Plasticity Index	NP

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Company Name : Sun Rise
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Location : St. (440+600) :(449+100)
Type of sample : Soil Replacement (Embankment)
Delivery Date : 01 / 12 / 2022
Reporting Date : 09 / 12 / 2022
Reporting No. : 25
Sample No. : 15

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs	
• Group Classification	(A-1-a)	(A-1-a)	(A-1-b)
2.00 mm (No.10).	33.2	Max 50 %	——
0.425 mm (No. 40).	21.2	Max 30 %	Max 50 %
0.075 mm (No. 200).	9.5	Max 15 %	Max 15 %
Characteristics of fraction passing 0.425 mm (No.40)			
Liquid Limit	NP	——	——
Plasticity index	NP	Max 6 %	Max 6 %

The test results are (Comply / Non Comply) with specifications limits

Signature / .....

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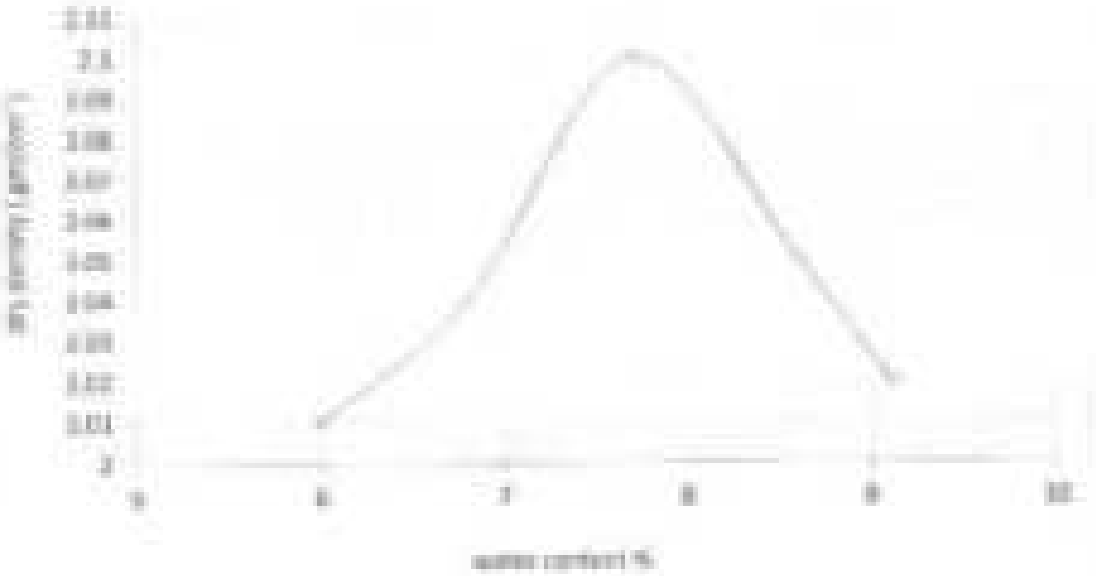
Project	: **Electric Express Train, from Al Ain Sokhna to Marsa Matrouh**
Location	: **St. (448+600) :(449+100)**
Type of sample	: **Soil Replacement (Embankment)**
Delivery Date	: **01 / 12 / 2022**
Reporting Date	: **09 / 12 / 2022**
Reporting No.	: **25**
Sample No.	: **15**

Moisture – Density relation of soil
Test result (Modified proctor test)
ASTM D-1557



- **Max dry density (gm/cm³)** : **2.10**
- **Optimum moisture content %** : **8.1**

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Company Name	: **Sun Rise**
Project	: **Electric Express Train, from Al Ain Sukhna to Marsa Matrouh**
Location	: **St. (448+600) :(449+100)**
Type of sample	: **Soil Replacement (Embankment)**
Delivery Date	: **16 / 11 / 2022**
Reporting Date	: **24 / 11 / 2022**
Reporting No.	: **21**
Sample No.	: **11**

Dear Gentleman,

Attached here with the Soil Replacement delivered on 16/11/2022

Materials test

1. Sieve analysis according to ASTM D-422.
2. Material finer than sieve No. 200 according to ASTM D-1140.
3. Liquid limits and plasticity index of soil according to ASTM D-4318.
4. Soil classification according to Project Specs.
5. Proctor test according to ASTM D-1557.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature /.....

3 El Malek El Afdal Street
Zamalek, Cairo,
Tel.& Fax : [illegible]

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٣ ش الملك الأفضل
الزمالك - القاهرة
التليفون : فاكس : [illegible]
www.cel-egypt.com

Company Name : Sun Rise
Project : Electric Express Train, from Al Ain Sukhna to Marsa Matrouh
Location : St. (448+600) :(449+100)
Type of sample : Soil Replacement (Embankment)
Delivery Date : 16 / 11 / 2022
Reporting Date : 24 / 11 / 2022
Reporting No. : 21
Sample No. : 11

Results of Sieve Analysis According to ASTM D-422

Sieve Size (mm)	Passing %
50	100
37.5	93.4
25	86.5
19	78.4
12.50	66.4
9.50	48.8
4.75	31.0
2.36	29.7
2.00	28.3
1.18	25.4
0.600	21.6
0.425	18.7
0.300	13.2
0.150	10.7

Signature /

135 Malek El Afdal Street
Zamalek, Cairo.
Tel.& Fax : 2360720 - 2360801

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Company Name	: **Sun Rise**
Project	: **Electric Express Train, from Al Ain Sokhna to Marsa Matrouh**
Location	: **St. (448+600) ,(449+100)**
Type of sample	: **Soil Replacement (Embankment)**
Delivery Date	: **16 / 11 / 2022**
Reporting Date	: **24 / 11 / 2022**
Reporting No.	: **21**
Sample No.	: **11**

Materials finer than 75 µm (no.200) sieve by washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 µM (No.200)	7.4

Signature /.....

Company Name	: Nun Rise
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Location	: St. (448+600) :(449+100)
Type of sample	: Soil Replacement (Embankment)
Delivery Date	: 16 / 11 / 2022
Reporting Date	: 24 / 11 / 2022
Reporting No.	: 21
Sample No.	: 11

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	NP
Plastic Limit	NP
Plasticity Index	NP

Signature .....

8 El Habib Al Allai Street
Zamalek, Cairo.
Tel.& Fax : (0202) 27362003

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Company Name : Sun Rise
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Location : St. (449+600) ;(449+100)
Type of sample : Soil Replacement (Embankment)
Delivery Date : 16 / 11 / 2022
Reporting Date : 24 / 11 / 2022
Reporting No. : 21
Sample No. : 11

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs	
Group Classification	(A-1-a)	(A-1-a)	(A-1-b)
2.00 mm (No.10).	28.3	Max 50 %	——
0.425 mm (No. 40).	18.7	Max 30 %	Max 50 %
0.075 mm (No. 200).	7.4	Max 15 %	Max 15 %
Characteristics of fraction passing 0.425 mm (No.40)			
Liquid Limit	NP	——	——
Plasticity index	NP	Max 6 %	Max 6 %

The test results are (Comply / Not Comply) with specifications limits

Signature / .....

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Zamalek, Cairo
Tel.& Fax : 27362525 - 27362062

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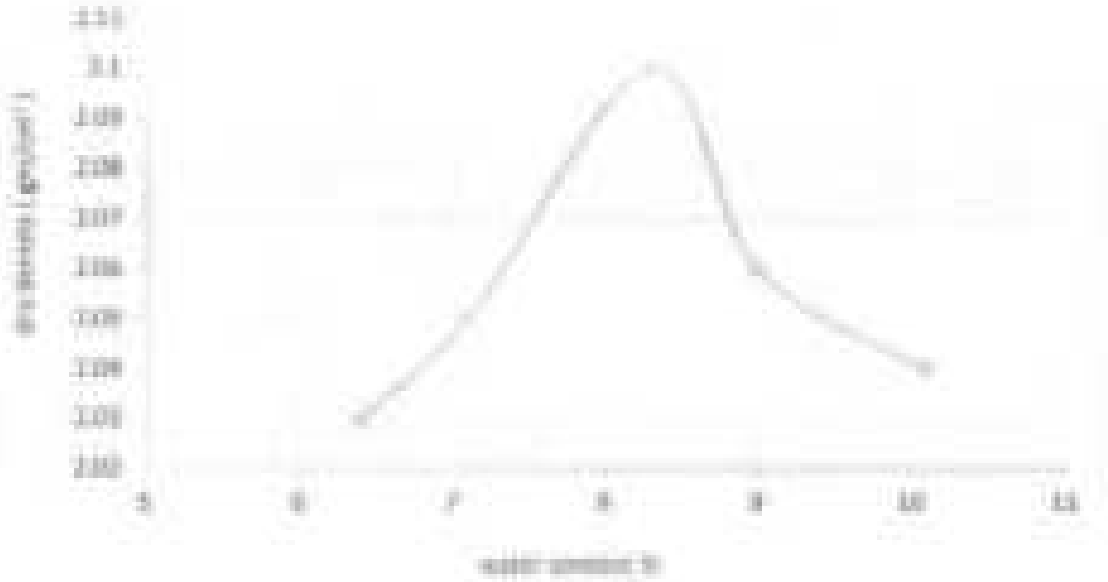
www.cel-egypt.com

Company Name	: **Sun Rise**
Project	: **Electric Express Train, from Al Ain Sokhna to Marsa Matrouh**
Location	: **St. (448+600) :(449+100)**
Type of sample	: **Soil Replacement (Embankment)**
Delivery Date	: **16 / 11 / 2022**
Reporting Date	: **24 / 11 / 2022**
Reporting No.	: **21**
Sample No.	: **11**

Moisture – Density relation of soil
Test result (Modified proctor test)
ASTM D-1557



- **Max dry density (gm/cm³)** : **2.10**
- **Optimum moisture content %** : **8.3**

Signature

Company : **Sun Rise Construction**

Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (5) - Alamein to Fuka

Subject : Determine the deformation and strength characteristics of soil by the plate loading test according specifications: DIN 18134:2012-04 and project requirements

Test Location : Station 448+825 to 448+900

Test Date : 02/04/2023

Report Date : 03/04/2023

Type of soil : ----

Test level : **prepared subgrade**

Report No. : 188/188

Dear Gentleman,

According to the above mentioned subject the test performed as follows:-

Apparatus

1. Loading plates consists of two plates with 600 mm and 300 mm diameter
2. The thickness of plates 30 mm
3. Dial gauges with accuracy 0.01 mm to measuring the settlement
4. Steel straightedges with magnetic supports to fixed the dial gauges
5. Hydraulic jack with pump to transfer reactive loads to the loading plates
6. Dial pressure measuring device with scale capacity 700 Bar (Finertec)
7. Reaction loading system by roller compactor with weight approximately 15 ton
8. Calibration certificates are attached

Test Procedure

1. Clean the ground on test area to the required level with undisturbed soil
2. Install loading plates 600 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
3. Prior to starting the test applied preloading about 60 seconds.
4. The strain gauge and the dial gauge shall be set to zero
5. For a 600 mm loading plate, the first values are 2.5 kg/cm^2
6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
7. Each change in load (from stage to stage) shall be completed within one minute
8. The load shall be released in 3 stages, to 50 %, 25 %, and approximately 0 % of the maximum load.
9. Following unloading, a further (2nd) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached)
10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min.
11. Remove the spots

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Report

1. Evaluation and representation of results
2. Load Settlement curve
3. The test report content the following:

- location of test site - Dimension of loading plate
- Measuring device used - Type of soil
- Type of Bedding material below the plate -Weathering condition
- Time and date of measurements - Unusual observation made during test
- Dial gauge reading and corresponding normal stress - Loading-settlement curve
- Description of the soil condition below the plate after testing

Report

Type of soil: prepared subgrade.

- **Job requirement: Ev2 > 900 Kg/cm² (90 MPa).**

Item	Description
- Type of bedding material below the plate	Natural Soil
- Weather condition	Partly Sunny
- Plate Diameter (mm)	600
- date of measurement	02/04/2020
- Unusual observation made during test	NO
- Description of the soil conditions below the plate after testing	No deformation

Evaluation and representation of results

Test No.	Chainage		Peak Load (Kg/cm²)	Rebound Deflection (Kg/cm²)	Peak/Rebound Ratio
	From	To			
1	448+825	448+850	1218	1731	1.4
2	448+850	448+875	1552	2500	1.6
3	448+875	448+900	1398	3068	2.2

Signature:

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 01

Representative Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (I)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	[illegible]	[illegible]	0.13	[illegible]	0.42	[illegible]	0.12	[illegible]
2	[illegible]	[illegible]	0.38	[illegible]	0.75	[illegible]	0.50	[illegible]
3	[illegible]	[illegible]	0.55	[illegible]	0.94	[illegible]	0.78	[illegible]
4	[illegible]	[illegible]	0.71	[illegible]	1.13	[illegible]	0.97	[illegible]
5	[illegible]	[illegible]	0.82	[illegible]	1.22	[illegible]	1.06	[illegible]
6	[illegible]	[illegible]	0.83	[illegible]	1.40	[illegible]	1.18	[illegible]

Unloading Stage (I)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	[illegible]	[illegible]	0.83	[illegible]	1.40	[illegible]	1.12	[illegible]
2	[illegible]	[illegible]	0.80	[illegible]	1.08	[illegible]	1.06	[illegible]
3	[illegible]	[illegible]	0.84	[illegible]	1.05	[illegible]	1.03	[illegible]
4	[illegible]	[illegible]	0.87	[illegible]	0.98	[illegible]	0.90	[illegible]

Loading Stage (II)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	0.00	[illegible]	0.00	[illegible]	0.77	[illegible]
1	[illegible]	[illegible]	0.75	[illegible]	0.96	[illegible]	0.88	[illegible]
2	[illegible]	[illegible]	0.96	[illegible]	1.10	[illegible]	0.97	[illegible]
3	[illegible]	[illegible]	0.99	[illegible]	1.20	[illegible]	1.05	[illegible]
4	[illegible]	[illegible]	1.00	[illegible]	1.02	[illegible]	1.13	[illegible]

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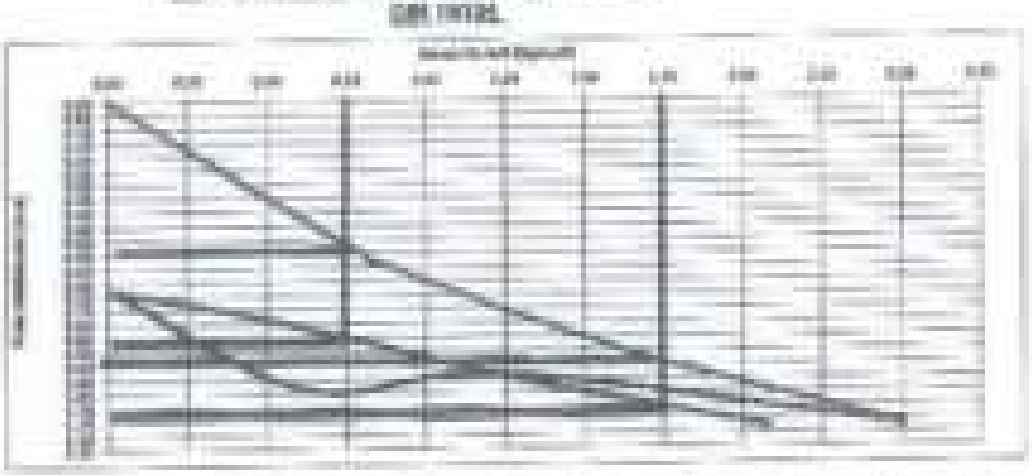
Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : [illegible]
Test No. : [illegible]

[illegible] Chart: Plate Load Testing at Suite
DIN 18134.



Loading (T)	0	1	2	3	4	5	6
Stage(Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

DeLoading (T)	1	2	3	4
Stage(Kg)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stage(Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

DeLoading (T)	1
Stage(Kg)	[illegible]

[illegible] = Stabilization of settlements during the loading stages
[illegible] = Stabilization of settlements during the delloading stage
Q = Plate diameter (mm)
Pu = The allowable settlement is 0 and 0.2 Nominal Ultimate Loading (ultimate stress)
DN = Allowance to settlements corresponding to 0.2 and 0.3 Nominal Ultimate loading (mm)

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[illegible]

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Contracting Name : San Fitas Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 08

Horizontal Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]
1	0.42	[illegible]	0.15	[illegible]	0.20	[illegible]	0.15	[illegible]
2	0.83	[illegible]	0.34	[illegible]	0.56	[illegible]	0.30	[illegible]
3	1.25	[illegible]	0.37	[illegible]	0.77	[illegible]	0.30	[illegible]
4	1.67	[illegible]	0.46	[illegible]	0.90	[illegible]	0.47	[illegible]
5	2.08	[illegible]	0.59	[illegible]	1.06	[illegible]	0.54	[illegible]
6	2.50	[illegible]	0.63	[illegible]	1.18	[illegible]	0.62	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.33	[illegible]	0.63	[illegible]	1.18	[illegible]	0.62	[illegible]
2	[illegible]	[illegible]	0.58	[illegible]	1.12	[illegible]	0.58	[illegible]
3	0.665	[illegible]	0.52	[illegible]	1.07	[illegible]	0.71	[illegible]
4	0.07	[illegible]	0.40	[illegible]	0.98	[illegible]	0.52	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.45	[illegible]	0.78	[illegible]	0.42	[illegible]
1	0.83	[illegible]	0.00	[illegible]	0.81	[illegible]	0.45	[illegible]
2	1.25	[illegible]	0.09	[illegible]	0.88	[illegible]	0.53	[illegible]
3	1.67	[illegible]	0.62	[illegible]	1.10	[illegible]	0.69	[illegible]
4	2.08	[illegible]	0.70	[illegible]	1.18	[illegible]	0.68	[illegible]

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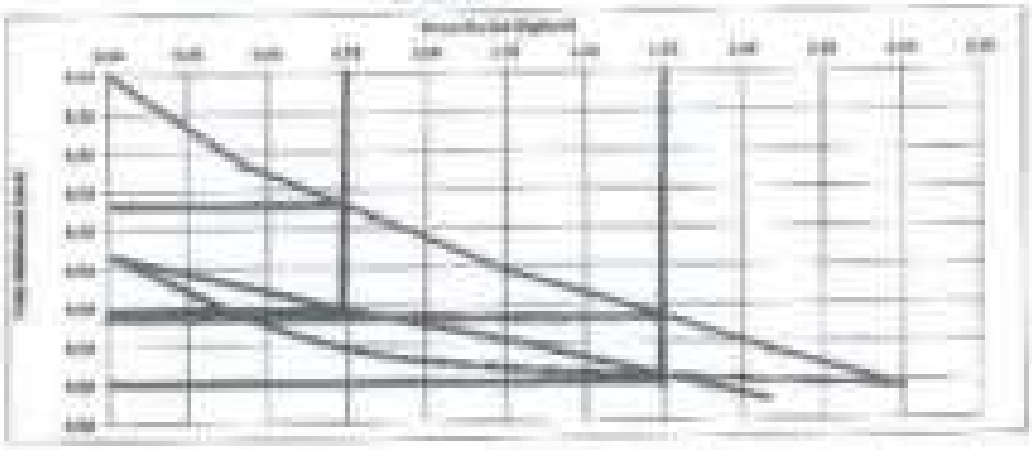
[illegible]

Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : [illegible]
Test No. : [illegible]

[illegible] Static Plate Load Tests of Soils
[illegible]



Loading (t)	0	1	2	3	4	5	6
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (t)	4	3	2	0
Weight (kg)	[illegible]	[illegible]	[illegible]	0
Settlement (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (t)	0	1	2	3	4	5
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : [illegible]

Incrementive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]
1	0.42	[illegible]	0.20	[illegible]	0.18	[illegible]	[illegible]	[illegible]
2	0.83	[illegible]	0.40	[illegible]	0.37	[illegible]	[illegible]	[illegible]
3	1.25	[illegible]	0.57	[illegible]	0.55	[illegible]	[illegible]	[illegible]
4	1.67	[illegible]	0.80	[illegible]	0.88	[illegible]	1.08	[illegible]
5	2.08	[illegible]	0.79	[illegible]	0.78	[illegible]	1.30	[illegible]
6	2.50	[illegible]	0.81	[illegible]	0.85	[illegible]	1.33	1.13

Unloading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.50	[illegible]	0.81	[illegible]	0.86	[illegible]	1.30	1.13
2	1.25	[illegible]	0.88	[illegible]	0.80	[illegible]	1.40	[illegible]
3	0.925	[illegible]	0.81	[illegible]	0.85	[illegible]	1.30	[illegible]
4	0.41	[illegible]	0.87	[illegible]	0.79	[illegible]	1.00	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.74	[illegible]	0.75	[illegible]	1.15	[illegible]
1	0.83	[illegible]	0.79	[illegible]	0.81	[illegible]	1.24	[illegible]
2	1.25	[illegible]	0.88	[illegible]	0.88	[illegible]	1.32	[illegible]
3	1.67	[illegible]	0.85	[illegible]	0.96	[illegible]	1.40	1.12
4	2.08	[illegible]	1.01	[illegible]	1.04	[illegible]	1.49	[illegible]

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[illegible]

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Zamalek, Cairo.
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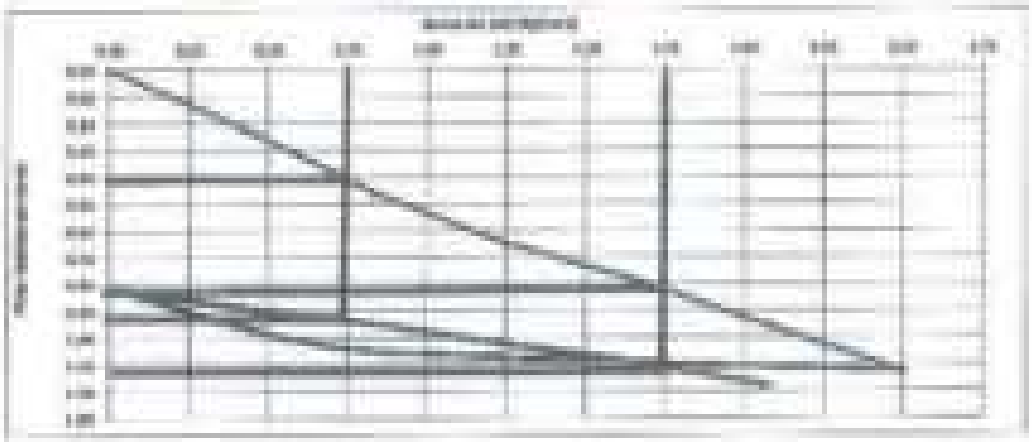
Horizontal Static Plate Load Tests of Soils
DIN 18134



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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

Company Name	: **Sun Rise**
Project	: **Electric Express Train, from Al Ain Sokhna to Marsa Matrouh**
Type of sample	: **Sub-Ballast**
Location	: **St. (448+600) : (449+600)**
Delivery Date	: **26/03/2023**
Reporting Date	: **03/04/2023**
Reporting No.	: **60**
Sample No.	: **02**

Dear Gentleman,

Attached here with the Sub-Ballast delivered on 26/03/2023

Materials test

1. Sieve analysis according to ASTM D-422.
2. Material finer than sieve No. 200 according ASTM D-1140.
3. Liquid limits and plasticity index of soil according to ASTM D-4318.
4. Proctor test according to ASTM D-1557.
5. Specific Gravity & Absorption according to ASTM C-127 & D-6473.
6. CBR according to ASTM D-1883
7. Los Angles according to ASTM C-131.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature /

3 Al Malek El-Afdal Street
Zeitoun, Cairo.
Tel.& Fax : 22361111 - 22360040

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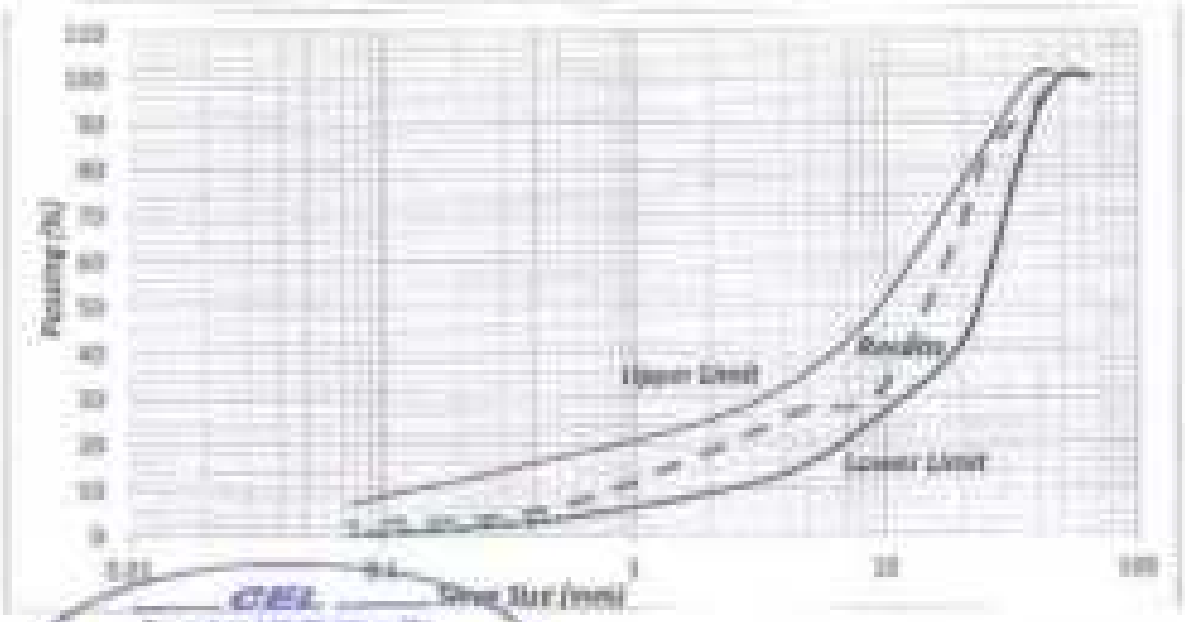
www.cel-egypt.com

Company Name : Sun Rise
Project : Electric Express Train, from Al Ain Sukhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (440+600) : (449+600)
Delivery Date : 26/03/2023
Reporting Date : 03/04/2023
Reporting No. : 69
Sample No. : 02

Results of sieve analysis according to ASTM D-422

Sieve Size (mm)	Passing %	Job specification limits (ASTM D-422)	
		Min.	Max.
63.5	100	100	100
50	100	100	100
38	93.6	90	100
25	82.5	55	85
19	64.6	40	75
12.5	35.6	–	–
9.5	21.4	20	50
4.75	13.2	15	35
2.00	10.1	8	22
0.425	5.4	5	19
0.075	2.5	0	7



The test results (Comply - Not Comply) with specifications limits.

Signature

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www.cel-egypt.com

Company Name : Sun Rise
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (448+600) : (449+600)
Delivery Date : 26/03/2023
Reporting Date : 03/04/2023
Reporting No. : 60
Sample No. : 03

Materials finer than 75 µm (no.200) sieve by washing ASTM D-1140

Test	Results (%)
Percentage of material finer than Sieve Size 75 µM (No.200)	2.5

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3 El Malek El Afdal Street
Faggala, Cairo.
Tel & Fax : 27367221 - 27367003
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www.cel-egypt.com

Company Name : Sun Rise
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (448+600) : (449+600)
Delivery Date : 26/03/2023
Reporting Date : 03/04/2023
Reporting No. : 60
Sample No. : 02

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	NP
Plastic Limit	NP
Plasticity Index	NP

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2 Ali Shalab St. 6 Oct. Street
Zamalek, Cairo.
Tel.& Fax : 2736222 - 2736999

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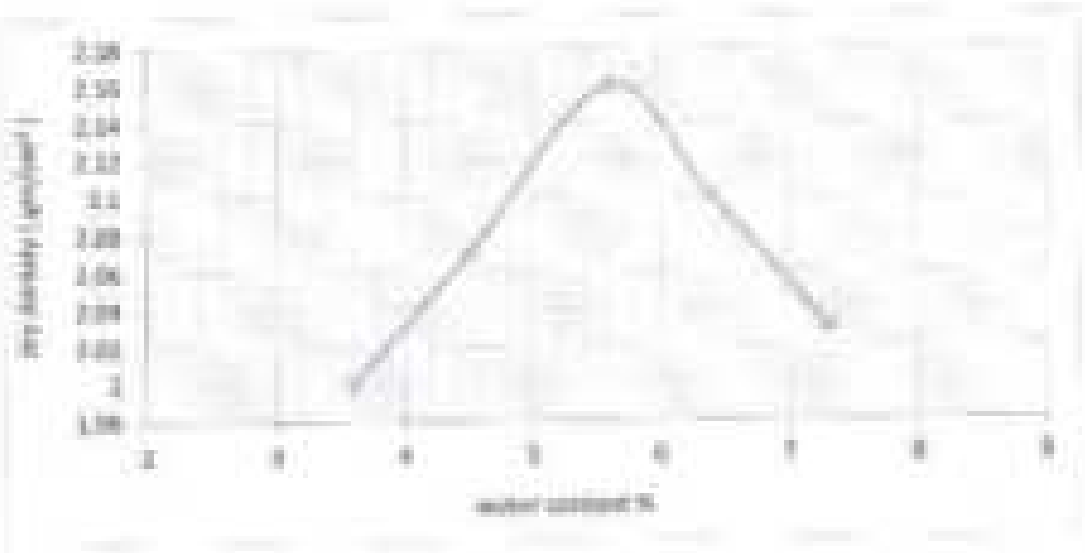
www.cel-egypt.com

Company Name	: Sun Rise
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Sub-Ballast
Location	: St. (448+600) : (449+600)
Delivery Date	: 26/03/2023
Reporting Date	: 03/04/2023
Reporting No.	: 60
Sample No.	: 02

Moisture – Density relation of soil
Test result (Modified proctor test)
ASTM D-1557



- Max dry density (gm/cm³) : 2.16
- Optimum moisture content % : 5.8

Signature /

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Zamalek, Cairo
Tel.& Fax : 27362201 - 27362001

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www.cel-egypt.com

Company Name : Sun Rise
Project : Electric Express Train, from Al Ain Sukhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (448+600) : (449+600)
Delivery Date : 26/03/2023
Reporting Date : 03/04/2023
Reporting No. : 60
Sample No. : 02

Results of Specific Gravity and Absorption of Course Aggregate ASTM C127 & D 6473

Test	Results
Bulk Specific Gravity (OD)	2.51
Bulk Specific Gravity (SSD)	2.53
Apparent Specific Gravity.	2.61
Absorption %	4.3

Note:

- (OD) Refer to Oven Dry.
- (SSD) Refer to Saturated Surface Dry.

Signatures

3 El Nakeb St. El Abbal Street
Faroukh, Cairo.
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www.cel-egypt.com

Company Name : Sun Rise
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (448+600) : (449+600)
Delivery Date : 26/03/2023
Reporting Date : 03/04/2023
Reporting No. : 60
Sample No. : 02

Test Results of California Bearing Ratio on Base Materials
ASTM D 1883

penetration		stress on piston (Mpa)
mm	Inch	
0.64	0.025	4.10
1.27	0.050	4.64
1.91	0.075	5.20
2.54	0.100	5.76
3.18	0.125	6.36
3.81	0.150	6.82
4.45	0.175	7.38
5.08	0.200	7.94
5.71	0.225	8.51
6.35	0.250	9.07

CBR Result	Stress (Mpa)		CBR %
	St. Value	Sample results	
At 0.1 inch (2.54 mm) penetration	6.90	5.76	83.4

Notes:

1. [illegible] resistance versus penetration magnitude
2. The sample was compacted to the density of 2.16 (gm /cm³) at 5.6 % [illegible] water content
3. [illegible]

Signature:

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Zamalek, Cairo
Tel./Fax : [illegible]

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تليفون + فاكس : [illegible]
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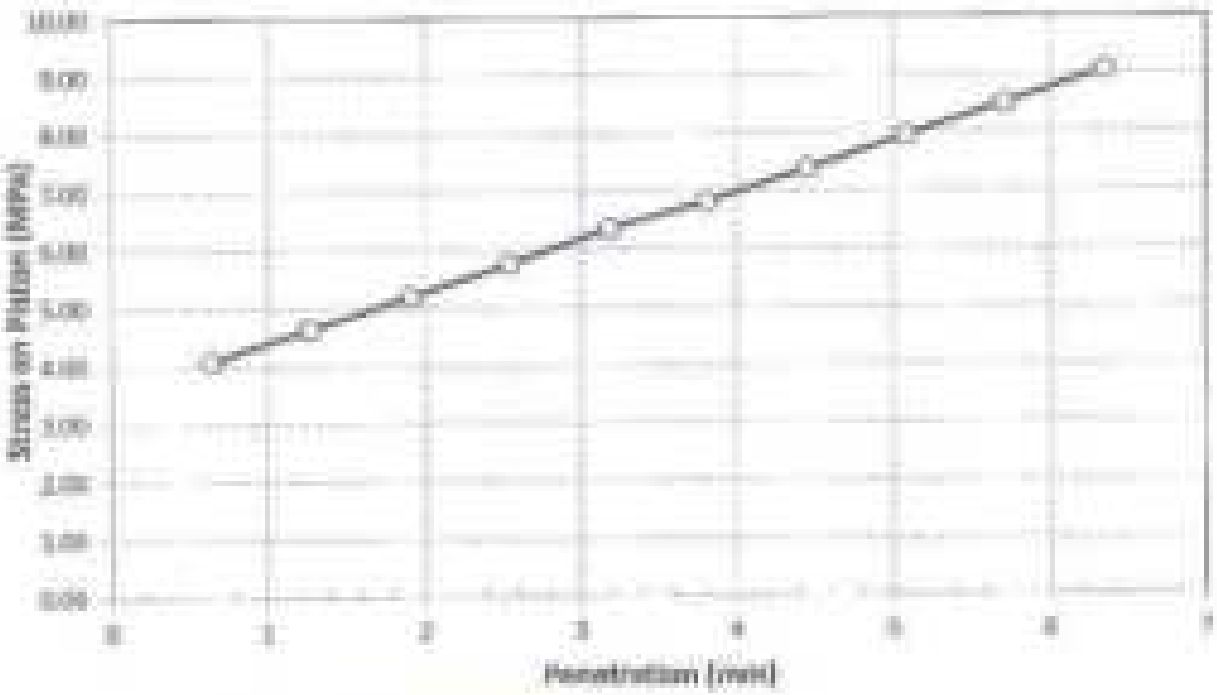
Company Name	: Sun Rise
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Sub-Ballast
Location	: St. (448+600) : (449+600)
Delivery Date	: 26/03/2023
Reporting Date	: 03/04/2023
Reporting No.	: 60
Sample No.	: 02

Load Penetration Curve of CBR Test
ASTM D-1883



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3 Th Maziq El Alfaf Street
Zamalek, Cairo.
Tel-fax : 27367333 - 27362899

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Report

1. Evaluation and representation of results
2. Load Settlement curves
3. The test report should the following:-

- Location of test site - Dimension of loading plate
- Measuring device used - Type of soil
- Type of Bedding material below the plate -Weathering condition
- Time and date of measurements - Unusual observation made during test
- Dial gauge reading and corresponding normal stress - Loading settlement curve
- Description of the soil condition below the plate after testing

Report

Type of soil: Sub ballast.

- Job requirement: E_{v2} > 1200 Kg/cm^2 (120 MPa) E_{v2}/E_{v1} ≤ 2.2 .

Item	Descriptions
- Type of bedding material below the plate	Natural Soil
- Weather condition	Sunny
- Plate Diameter (mm)	600
- date of measurement	[illegible]
- Unusual observation made during test	NO
- Description of the soil condition below the plate after testing	No information

Evaluation and representation of results

Test No.	Station		First Cycle	Second Cycle	E_{v2}/E_{v1} Ratio
	From	To	E_{v1} (Kg/cm^2)	E_{v2} (Kg/cm^2)	
1	440+000	440+025	1067	1658	1.1
2	440+075	440+100	1319	1352	1.0
3	440+800	440+825	1440	1395	1.0
4	440+825	440+850	1287	1715	1.2
5	440+950	440+975	1547	1438	0.9
6	440+975	441+000	1152	1487	1.3
7	441+000	441+025	1524	1449	0.9
8	441+025	441+050	1498	1372	0.9
9	441+050	441+075	1328	1360	1.0
10	441+075	441+100	1496	1462	1.0

Signature

Company Name : Sun Rise Construction
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : [illegible]
Test No. : 01

Incremental Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress (kg/cm²)	Dial 1	Settlement (mm)	Dial 2	Settlement (mm)	Dial 3	Settlement (mm)	Average
0	0.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	1.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	2.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress (kg/cm²)	Dial 1	Settlement (mm)	Dial 2	Settlement (mm)	Dial 3	Settlement (mm)	Average
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	0.019	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	0.01	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress (kg/cm²)	Dial 1	Settlement (mm)	Dial 2	Settlement (mm)	Dial 3	Settlement (mm)	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.87	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	2.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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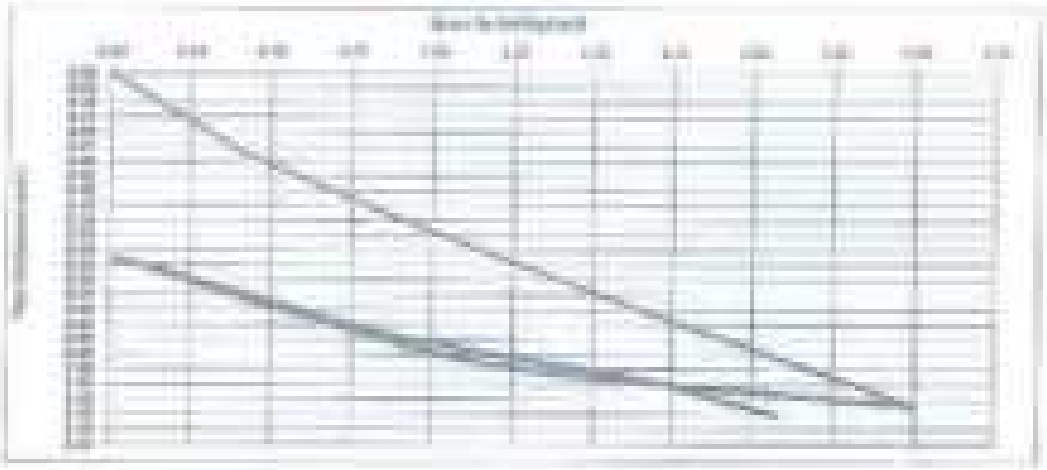
[illegible]

[illegible] Data Load Tests of Piles
DIN 1054



Loading (%)	0	1	2	3	4	5	6
Stepping	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

(Unloading (%)	3	2	1	0
Stepping	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]					

Loading (%)	0	1	2	3	4	5
Stepping	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]					

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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مكتب معامل الاستشارات الهندسية

Company Name : Ibn Rina Construction
Project : Maadi Express Train, from Al Ain Sokhna to Ataqa Bakouk Priority Section (B) – Ramses to Polus
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 02

Plate Load Tests Static (Plate Load Tests of Soils DIN 18134)

Data sheet

Loading Stage (1)

Loading	Stress (kg/cm2)	Dial 1	Settlement (mm)	Dial 2	Settlement (mm)	Dial 3	Settlement (mm)	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.13	[illegible]	0.07	[illegible]	0.09	0.12
2	0.83	[illegible]	0.19	[illegible]	0.33	[illegible]	0.38	0.30
3	1.25	[illegible]	0.27	[illegible]	0.73	[illegible]	0.52	0.53
4	1.67	[illegible]	0.34	[illegible]	0.87	[illegible]	0.68	0.64
5	2.08	[illegible]	0.41	[illegible]	1.12	[illegible]	0.77	0.75
6	2.50	[illegible]	0.51	[illegible]	1.29	[illegible]	0.92	0.87

Unloading Stage (1)

Loading	Stress (kg/cm2)	Dial 1	Settlement (mm)	Dial 2	Settlement (mm)	Dial 3	Settlement (mm)	Average
1	2.50	[illegible]	0.51	[illegible]	1.26	[illegible]	0.92	0.87
2	1.25	[illegible]	0.45	[illegible]	1.13	[illegible]	0.88	0.75
3	0.625	[illegible]	0.42	[illegible]	0.96	[illegible]	0.68	0.62
4	0.01	[illegible]	0.18	[illegible]	0.55	[illegible]	0.38	0.28

Loading Stage (2)

Loading	Stress (kg/cm2)	Dial 1	Settlement (mm)	Dial 2	Settlement (mm)	Dial 3	Settlement (mm)	Average
0	0.42	[illegible]	0.05	[illegible]	0.63	[illegible]	0.49	0.46
1	0.83	[illegible]	0.75	[illegible]	0.88	[illegible]	0.87	0.95
2	1.25	[illegible]	0.95	[illegible]	0.89	[illegible]	0.89	0.71
3	1.67	[illegible]	0.81	[illegible]	1.18	[illegible]	0.74	0.80
4	2.08	[illegible]	0.78	[illegible]	1.58	[illegible]	0.85	0.91

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Dokki, Cairo
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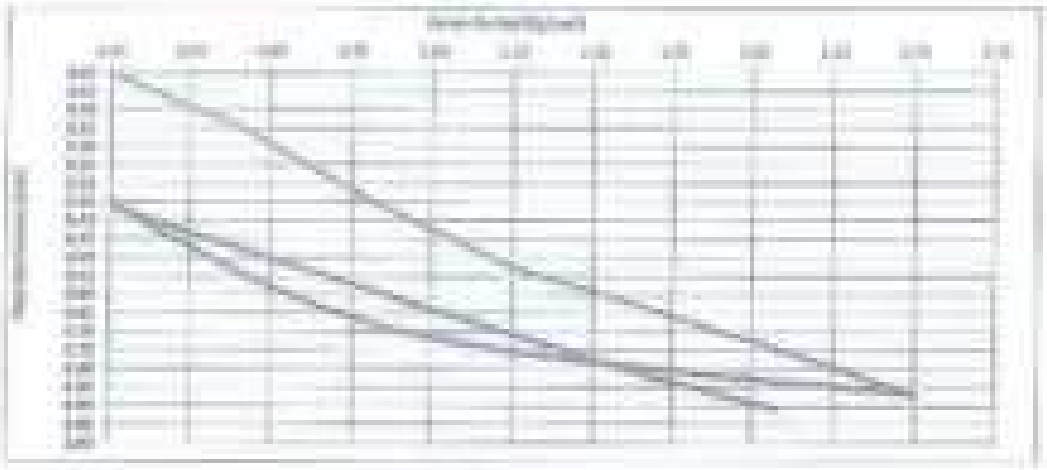
Processing Factory	[illegible]
Product	[illegible]
Test Date	[illegible]
Report Date	[illegible]
Location	[illegible]
Test No.	[illegible]

[illegible]



Loading (T)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Weight (kg)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Deflection (Millimeter)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	[illegible]	[illegible]	[illegible]	[illegible]
Weight (kg)	[illegible]	[illegible]	[illegible]	[illegible]
Deflection (Millimeter)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]						

Loading (T)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Weight (kg)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Deflection (Millimeter)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]						

[illegible]

[illegible]

IAS

[illegible]

Company Name : Bani Riaa Construction
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : [illegible]
Test No. : [illegible]

Horizontal Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.37	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.41	[illegible]	0.05	[illegible]	0.10	[illegible]	0.02	0.05
2	0.83	[illegible]	0.09	[illegible]	0.03	[illegible]	0.08	0.40
3	1.32	[illegible]	0.37	[illegible]	0.42	[illegible]	0.09	0.23
4	1.87	[illegible]	0.68	[illegible]	0.60	[illegible]	0.79	0.30
5	2.38	[illegible]	0.79	[illegible]	0.75	[illegible]	0.83	0.78
6	2.95	[illegible]	0.84	[illegible]	0.90	[illegible]	0.97	0.93

Unloading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.32	[illegible]	0.84	[illegible]	0.90	[illegible]	0.87	0.92
2	1.73	[illegible]	0.83	[illegible]	0.75	[illegible]	0.86	0.84
3	0.873	[illegible]	0.85	[illegible]	0.74	[illegible]	0.74	0.95
4	0.41	[illegible]	0.55	[illegible]	0.25	[illegible]	0.42	0.34

Loading Stage (2)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.47	[illegible]	0.53	[illegible]	0.51	0.44
1	0.83	[illegible]	0.08	[illegible]	0.84	[illegible]	0.82	0.02
2	1.25	[illegible]	0.77	[illegible]	0.84	[illegible]	0.73	0.95
3	1.87	[illegible]	0.81	[illegible]	0.88	[illegible]	0.83	0.75
4	2.55	[illegible]	0.80	[illegible]	0.88	[illegible]	0.84	0.88

Geographic Name:	[illegible]
Project:	[illegible]
Test Date:	[illegible]
Report Date:	[illegible]
Executer:	[illegible]
Test No.:	[illegible]

Stress-Settlement Curve, Plate Load Tests of Soils
DIN 18134

Loading (L)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (U)	4	3	2	1
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]						

Loading (L)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]						

[illegible]

Category Name : Dam Piles Construction
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : [illegible]
Test No. : [illegible]

Horizontal Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Step (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.17	[illegible]	0.19	[illegible]	0.15	0.17
2	0.87	[illegible]	0.32	[illegible]	0.38	[illegible]	0.27	0.32
3	1.33	[illegible]	0.44	[illegible]	0.44	[illegible]	0.38	0.43
4	1.87	[illegible]	0.51	[illegible]	0.55	[illegible]	0.54	0.56
5	2.05	[illegible]	0.63	[illegible]	0.74	[illegible]	0.68	0.69
6	2.52	[illegible]	0.73	[illegible]	0.89	[illegible]	0.81	0.81

Unloading Step (1)

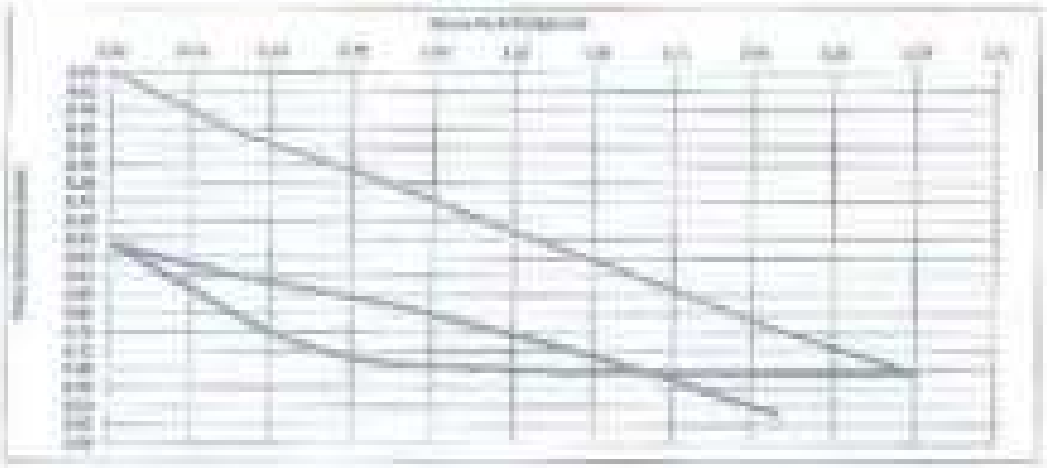
Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
5	2.52	[illegible]	0.75	[illegible]	0.95	[illegible]	0.81	0.87
4	1.87	[illegible]	0.71	[illegible]	0.81	[illegible]	0.77	0.80
3	0.929	[illegible]	0.68	[illegible]	0.84	[illegible]	0.72	0.74
0	0.01	[illegible]	0.38	[illegible]	0.53	[illegible]	0.41	0.47

Loading Step (2)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.40	[illegible]	0.47	[illegible]	0.70	[illegible]	0.48	0.55
1	0.83	[illegible]	0.55	[illegible]	0.74	[illegible]	0.60	0.63
2	1.79	[illegible]	0.83	[illegible]	0.81	[illegible]	0.68	0.71
3	1.87	[illegible]	0.73	[illegible]	0.86	[illegible]	0.85	0.81
4	2.58	[illegible]	0.81	[illegible]	0.98	[illegible]	0.87	0.93

Consulting Bureau	[illegible]
Project	[illegible]
Test Date	[illegible]
Report Date	[illegible]
Location	[illegible]
Test No.	[illegible]

Permeability Static Plate Load Tests of Soils
[illegible]



Loading (T)	0	1	2	3	4	5	6
Stopping (s)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (Mm/mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	1	2	3	0
Stopping	[illegible]	[illegible]	[illegible]	0
Settlement (Mm/mm)	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]			

Loading (T)	0	1	2	3	4	5
Stopping (s)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (Mm/mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]			

[illegible]	[illegible]

[illegible]

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مكتب معامل الاستشارات الهندسية

Company Name : [illegible] Construction
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : [illegible]
Test No. : [illegible]

[illegible] Plate Load Tests of Soils
DR 18126

Data sheet

Loading Stage (1)

Loading	Stress Applied	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.47	[illegible]	0.29	[illegible]	0.33	[illegible]	0.36	0.32
2	0.93	[illegible]	0.63	[illegible]	0.68	[illegible]	0.68	0.63
3	1.40	[illegible]	0.82	[illegible]	0.88	[illegible]	0.93	0.88
4	1.87	[illegible]	0.98	[illegible]	0.79	[illegible]	0.77	0.87
5	2.33	[illegible]	0.72	[illegible]	0.85	[illegible]	0.82	0.79
6	2.80	[illegible]	0.85	[illegible]	0.89	[illegible]	0.87	0.84

Unloading Stage (1)

Loading	Stress Applied	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
3	2.80	[illegible]	0.68	[illegible]	1.06	[illegible]	0.87	0.84
2	1.75	[illegible]	0.79	[illegible]	0.81	[illegible]	0.88	0.83
1	0.933	[illegible]	0.58	[illegible]	0.70	[illegible]	0.74	0.67
0	0.01	[illegible]	0.35	[illegible]	0.38	[illegible]	0.42	0.35

Loading Stage (2)

Loading	Stress Applied	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.24	[illegible]	0.05	[illegible]	0.03	0.05
1	0.93	[illegible]	0.45	[illegible]	0.55	[illegible]	0.64	0.55
2	1.75	[illegible]	0.68	[illegible]	0.75	[illegible]	0.73	0.67
3	2.57	[illegible]	0.88	[illegible]	0.75	[illegible]	0.82	0.75
4	2.59	[illegible]	0.98	[illegible]	0.89	[illegible]	0.85	0.90

[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

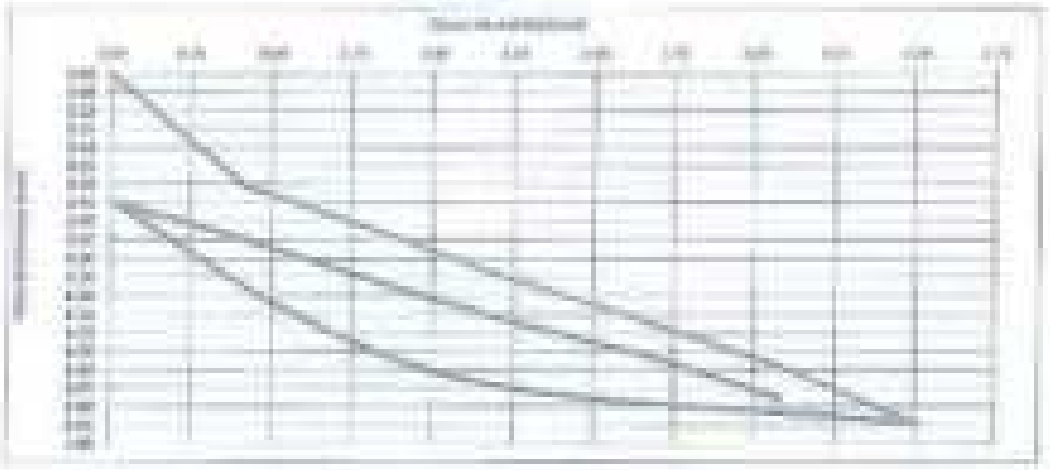
CEL

Consulting Engineering Bureau & Laboratories

مكاتب معامل الاستشارات الهندسية

Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report Date : [illegible]
Laboratory : [illegible]
Test No. : [illegible]

[illegible] Static Plate Load Tests at Site
[illegible]



Loading (T)	0	1	2	3	4	5	6
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	3	1	0
Weight (kg)	[illegible]	[illegible]	[illegible]	0
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Loading (T)	0	1	2	3	4	5
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]
[illegible]
[illegible]

[illegible]
[illegible]
[illegible]

Company Name : Jisan Wire Construction
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No : 88

Recommended Static Plate Load Tests of Soils
BS 8004

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

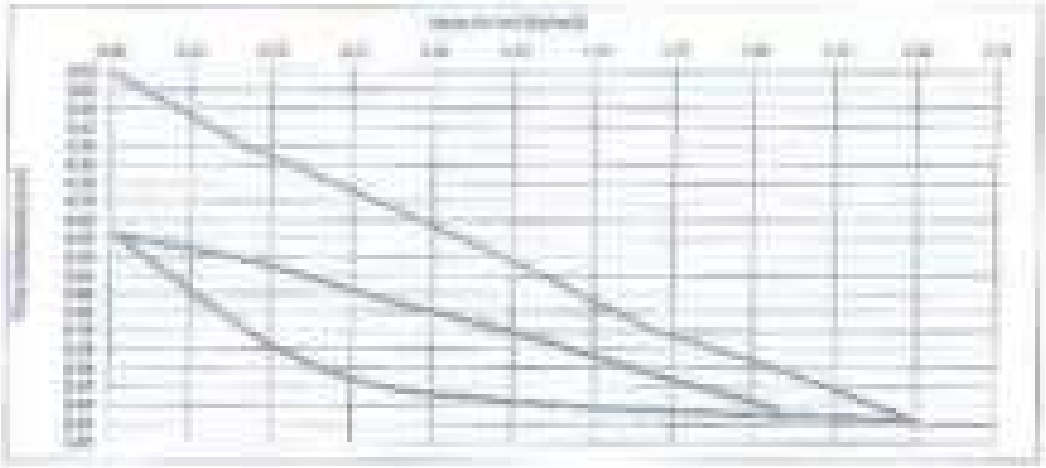
Unloading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (3)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]



[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

Company Name : Sun Rise Construction
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : [illegible]
Test No. : 87

Standard Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.33	[illegible]	0.33	[illegible]	0.33	0.33
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	1.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	2.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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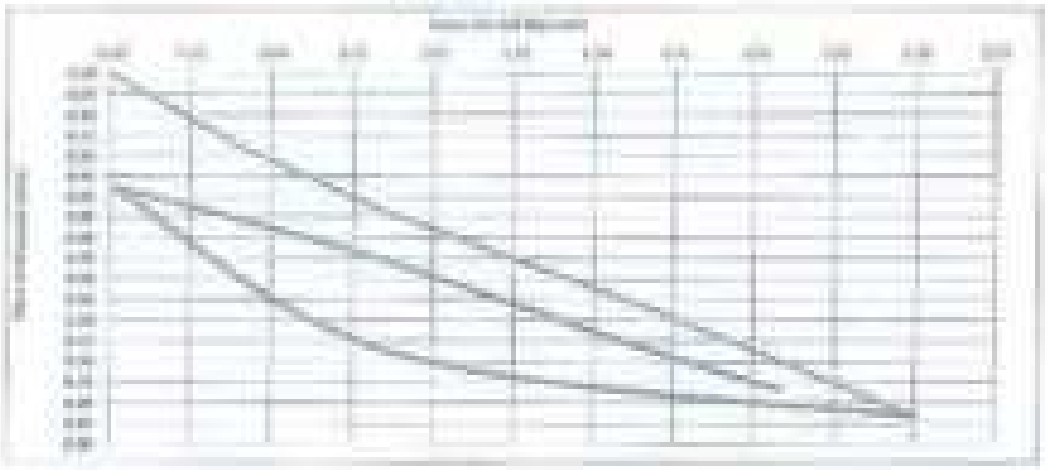
Contractor Name	[illegible]
Project	[illegible]
Test Date	[illegible]
Report Date	[illegible]
Location	[illegible]
Test No.	[illegible]

[illegible]



Loading (T)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stage/Cycle	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Deflection (Rigid/mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Deflection (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	[illegible]	[illegible]	[illegible]	[illegible]
Stage/Cycle	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (Rigid/mm)	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		

Loading (T)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stage/Cycle	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (Rigid/mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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مكاتب معامل الاستشارات الهندسية

Contracting Firm : Bin Rizq Construction
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : [illegible]
Test No. : [illegible]

Incremental Static Plate Load Tests of Soils
QM 18134

Data sheet

Loading Phase (1)

Loading	Stress (kg/cm²)	Dial 1	Settlement (mm)	Dial 2	Settlement (mm)	Dial 3	Settlement (mm)	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.41	[illegible]	0.70	[illegible]	0.83	[illegible]	0.74	0.76
2	0.81	[illegible]	1.32	[illegible]	1.43	[illegible]	1.34	1.42
3	1.21	[illegible]	2.42	[illegible]	2.33	[illegible]	2.48	2.13
4	1.62	[illegible]	3.71	[illegible]	4.60	[illegible]	3.50	3.88
5	2.02	[illegible]	5.04	[illegible]	5.80	[illegible]	5.75	5.42
6	2.42	[illegible]	7.00	[illegible]	6.95	[illegible]	6.98	6.94

Unloading Stage (1)

Loading	Stress (kg/cm²)	Dial 1	Settlement (mm)	Dial 2	Settlement (mm)	Dial 3	Settlement (mm)	Average
1	1.62	[illegible]	1.49	[illegible]	1.88	[illegible]	1.83	1.69
2	1.21	[illegible]	4.88	[illegible]	5.08	[illegible]	5.78	5.02
3	0.81	[illegible]	6.75	[illegible]	6.75	[illegible]	6.83	6.71
4	0.41	[illegible]	8.47	[illegible]	8.48	[illegible]	8.31	8.28

Loading Stage (2)

Loading	Stress (kg/cm²)	Dial 1	Settlement (mm)	Dial 2	Settlement (mm)	Dial 3	Settlement (mm)	Average
0	0.42	[illegible]	0.51	[illegible]	0.63	[illegible]	0.46	0.47
1	0.83	[illegible]	0.89	[illegible]	0.88	[illegible]	0.83	0.83
2	1.25	[illegible]	0.78	[illegible]	0.73	[illegible]	0.74	0.75
3	1.67	[illegible]	0.64	[illegible]	0.75	[illegible]	0.67	0.68
4	2.08	[illegible]	0.95	[illegible]	0.98	[illegible]	0.94	0.95

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Managing Owner	[illegible]
Project	[illegible]
Test Date	[illegible]
Sample Code	[illegible]
Location	[illegible]
Test No.	[illegible]

[illegible] Plate Load Tests of Soils

[illegible]

Loading (t)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Weight (kg)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (t)	[illegible]	[illegible]	[illegible]	[illegible]
Weight (kg)	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

[illegible]	[illegible]

Loading (t)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Weight (kg)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

[illegible] = [illegible] of [illegible] during the loading stage.

[illegible] = [illegible] of [illegible] during the unloading stage.

Q = [illegible] (mm)

[illegible] = [illegible]

[illegible] = [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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[illegible]

Company Name : Sun Rise Construction
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : Chainage 449+000 to 449+075
Test No. : 99

Horizontal Static Plate Load Tests of Soils
ASTM D1196

Data sheet

Loading Stage (1)

Loading	Stress (kg/cm²)	Dial 1	Settlement (mm)	Dial 2	Settlement (mm)	Dial 3	Settlement (mm)	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	0.85	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	1.57	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	1.98	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	2.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress (kg/cm²)	Dial 1	Settlement (mm)	Dial 2	Settlement (mm)	Dial 3	Settlement (mm)	Average
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress (kg/cm²)	Dial 1	Settlement (mm)	Dial 2	Settlement (mm)	Dial 3	Settlement (mm)	Average
0	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Company Name	[illegible]
Project	[illegible]
Test Date	[illegible]
Report Date	[illegible]
Reference	[illegible]
Test No.	[illegible]

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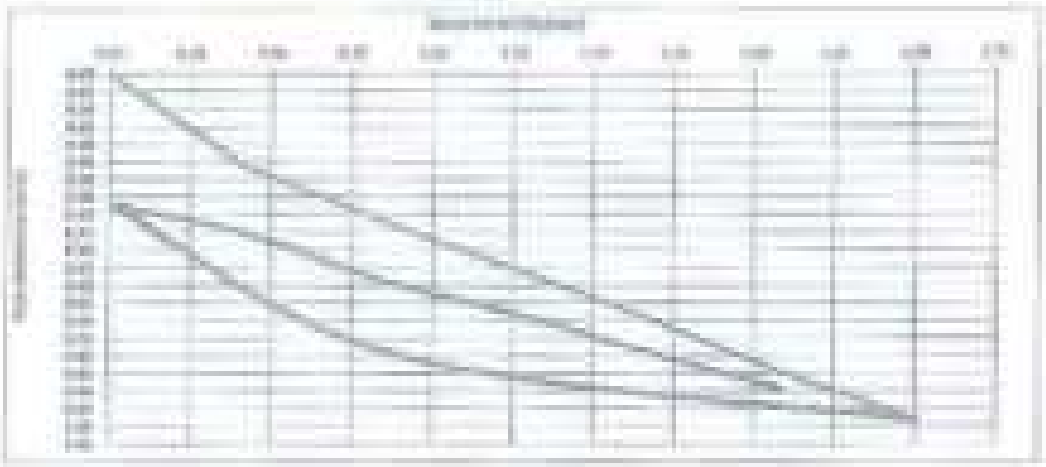

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[illegible]

Company Name : Dam Rhee Construction
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : [illegible]
Test No. : 14

Incremental Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress (kg/cm²)	Dial 1	Settlement (mm)	Dial 2	Settlement (mm)	Dial 3	Settlement (mm)	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.34	[illegible]	0.39	[illegible]	0.23	0.32
2	0.83	[illegible]	0.56	[illegible]	0.65	[illegible]	0.38	0.57
3	1.25	[illegible]	0.67	[illegible]	0.79	[illegible]	0.50	0.65
4	1.67	[illegible]	0.84	[illegible]	0.93	[illegible]	0.62	0.80
5	2.08	[illegible]	0.89	[illegible]	0.97	[illegible]	0.75	0.75
6	2.50	[illegible]	0.97	[illegible]	1.00	[illegible]	0.88	0.86

Unloading Stage (1)

Loading	Stress (kg/cm²)	Dial 1	Settlement (mm)	Dial 2	Settlement (mm)	Dial 3	Settlement (mm)	Average
1	1.50	[illegible]	0.83	[illegible]	1.00	[illegible]	0.88	0.90
2	1.25	[illegible]	0.72	[illegible]	0.90	[illegible]	0.77	0.80
3	0.833	[illegible]	0.53	[illegible]	0.75	[illegible]	0.58	0.66
4	0.01	[illegible]	0.08	[illegible]	0.06	[illegible]	0.07	0.08

Loading Stage (2)

Loading	Stress (kg/cm²)	Dial 1	Settlement (mm)	Dial 2	Settlement (mm)	Dial 3	Settlement (mm)	Average
0	3.42	[illegible]	0.55	[illegible]	0.55	[illegible]	0.48	0.50
1	3.83	[illegible]	0.61	[illegible]	0.63	[illegible]	0.68	0.64
2	4.25	[illegible]	0.85	[illegible]	0.73	[illegible]	0.78	0.81
3	4.67	[illegible]	0.93	[illegible]	0.85	[illegible]	0.78	0.77
4	5.08	[illegible]	0.95	[illegible]	0.85	[illegible]	0.88	0.87

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Contractor Name:	[illegible]
Project:	[illegible]
Test Date:	[illegible]
Report No.:	[illegible]
Location:	[illegible]
Total No.:	[illegible]

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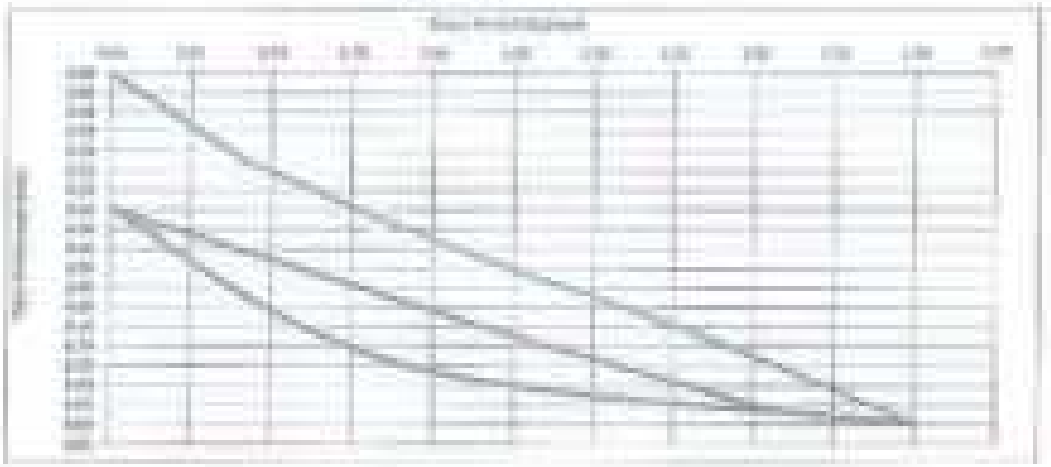

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مكتب معامل الاستشارات الهندسية

Company : Sun Rise Construction

Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Private Sector (6) - Alamein to Fuka

Subject : Determine the deformation and strength characteristics of soil by the plate loading test according specifications : DIN 18134:2012-04 and project requirements

Test Location : Station 449+025 to 449+335

Test Date : 25/03/2023

Report Date : 25/03/2023

Type of soil : [illegible]

Test level : **prepared subgrade .**

Report No. : 152:109

Dear Gentleman,

According to the above mentioned subject the test performed as follows:-

Apparatus

1. Loading plates consists of two plates with 899 mm and 300 mm diameter
2. The thickness of plates 30 mm
3. Dial gauges with accuracy 0.01 mm to measuring the settlement
4. Steel straightedges with magnetic supports to fixed the dial gauges
5. Hydraulic jack with pump to transfer reactive loads to the loading plates
6. Dial indicator measuring device with scale capacity 700 Bar (Dwelbar)
7. Reaction loading system by roller compactor with weight approximately 15 ton.
8. Calibration certificates are attached

Test Procedure

1. Clean the ground on test area to the required level with undisturbed soil
2. Install loading plates 899 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
3. Prior to starting the test applied preloading about 10 seconds.
4. The strain gauge and the dial gauge shall be set to zero
5. For a 300 mm loading plate, the limit values are 2.5 kg/cm^2
6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
7. Each change in load (from stage to stage) shall be completed within one minute.
8. The load shall be released in 3 stages, to 50 %, 25 % and approximately 2 % of the maximum load.
9. Following unloading, a further (2nd) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached).
10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min.
11. Remove the loads

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Report

1. Evaluation and representation of results
2. Load Settlement curve
3. The test report contain the following:-

- Location of test site - Dimension of loading plate
- Measuring device used - Type of soil
- Type of bedding material below the plate - Weathering condition
- Time and date of measurements - Unusual observation made during test
- Dial gauge reading and corresponding normal stress - Loading settlement curve
- Description of the soil condition below the plate after testing

Report

Type of soil: prepared subgrade .

- **Job requirement: Ev2 > 600 Kg/cm² (60 MPa).**

Item	Descriptions
- Type of bedding material below the plate	Natural Soil
- Weather condition	Partly Sunny
- Plate Diameter (mm)	600
- date of measurement	28/05/2023
- Unusual observation made during test	NO
- Description of the soil conditions below the plate after testing	No deformation

Evaluation and representation of results

Test No.	Station		First Cycle	Second Cycle	E_{v2}/E_{v1} Ratio
	From	To	E_{v1} (kg/cm²)	E_{v2} (kg/cm²)	
1	449+025	449+050	1216	1675	1.5
2	449+050	449+075	1216	1607	1.3
3	449+075	449+100	1216	1550	1.3
4	449+100	449+125	1350	2143	1.6
5	449+125	449+150	1324	1552	1.2
6	449+150	449+175	1154	1957	1.7
7	449+175	449+200	1023	1667	1.6
8	449+200	449+225	1125	2250	2.0

Signature /

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 449+070 to 449+030
Test No. : 01

Microcontroller Static Plate Load Tests of Soils
DIS 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	1.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	2.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
6	2.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	0.625	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	0.01	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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[illegible] Static Plate Load Tests of Soils

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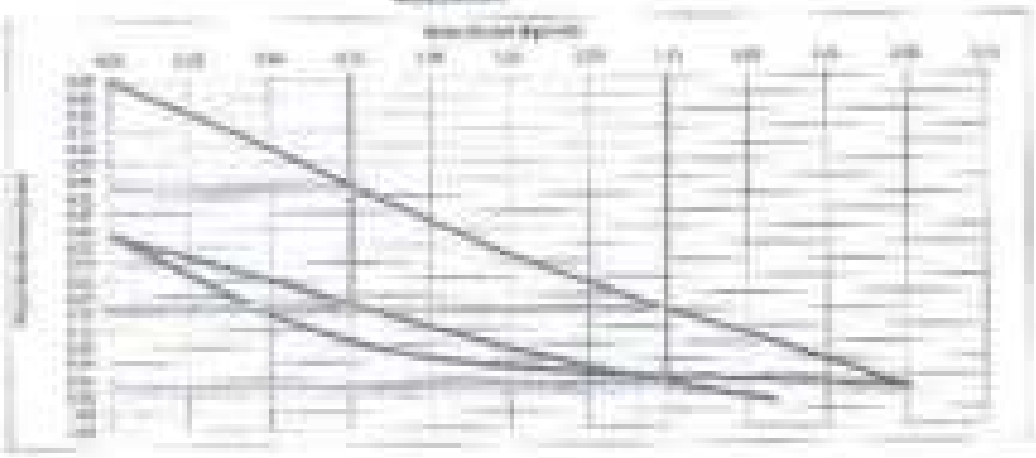

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 449+050 to 449+075
Test No. : 03

Nonrepetitive Static Plate Load Tests of Soils DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]
1	0.42	[illegible]	0.16	[illegible]	0.22	[illegible]	0.26	[illegible]
2	0.83	[illegible]	0.30	[illegible]	0.38	[illegible]	0.37	[illegible]
3	1.25	[illegible]	0.43	[illegible]	0.38	[illegible]	0.54	[illegible]
4	1.67	[illegible]	1.08	[illegible]	0.46	[illegible]	0.62	[illegible]
5	2.08	[illegible]	1.33	[illegible]	0.56	[illegible]	0.72	[illegible]
6	2.50	[illegible]	1.58	[illegible]	0.62	[illegible]	0.80	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.00	[illegible]	1.58	[illegible]	0.62	[illegible]	0.80	[illegible]
2	1.25	[illegible]	1.50	[illegible]	0.54	[illegible]	0.72	[illegible]
3	0.83	[illegible]	1.43	[illegible]	0.48	[illegible]	0.64	[illegible]
4	0.41	[illegible]	1.14	[illegible]	0.16	[illegible]	0.56	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	1.24	[illegible]	0.31	[illegible]	0.38	0.64
1	0.83	[illegible]	1.43	[illegible]	0.38	[illegible]	0.48	0.73
2	1.25	[illegible]	1.48	[illegible]	0.46	[illegible]	0.58	0.84
3	1.67	[illegible]	1.08	[illegible]	0.52	[illegible]	0.70	0.93
4	2.08	[illegible]	1.86	[illegible]	0.81	[illegible]	0.79	1.01

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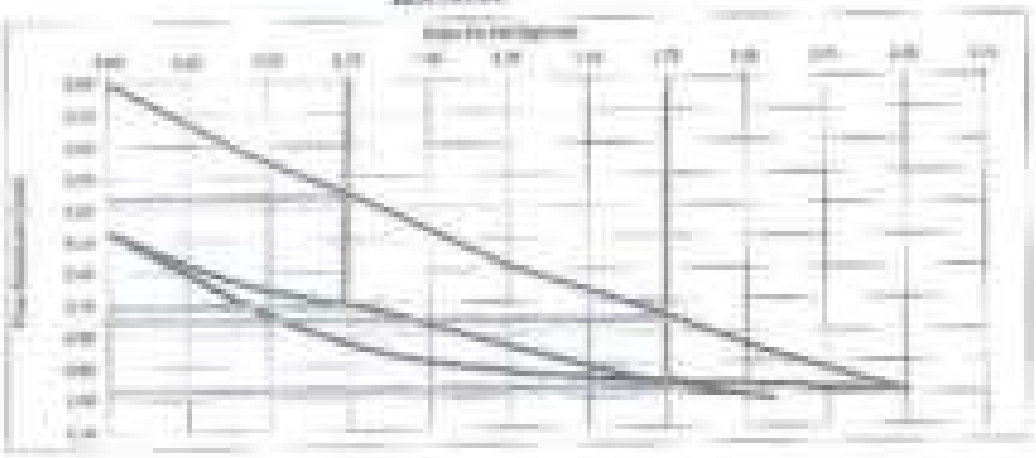
Customer Name: [illegible]
Project: [illegible]
Test Date: [illegible]
Report date: [illegible]
Specimen: [illegible]
Test No.: [illegible]

Homogeneities Static Plate Load Tests of Soils
(BS 1377/9)



Loading (L)	0	1	2	3	4	5	6
Weight (Kg)	0	1100.00	2200.0	3300.0	4700.0	5870.0	7000
Stress (Kg/cm²)	0.00	0.47	0.93	1.40	1.97	2.44	2.93
Settlement (mm)	0.00	0.12	0.24	0.36	0.73	0.81	0.96
E (Kg/cm²) = [illegible]			E.F. (mm) = [illegible]		E.F. = [illegible]		BR = [illegible]
(1+1.5(B/L)) = [illegible]					1.50		

Unloading (U)	0	1	2	3
Weight (Kg)	7000	5870	3700	0
Stress (Kg/cm²)	2.93	2.44	1.55	0.00
Settlement (mm)	0.96	0.90	0.75	0.00

Reloading (R)	0	1	2	3	4	5
Weight (Kg)	0	1100.00	2200.0	3300.0	4700.0	5870.0
Stress (Kg/cm²)	0.00	0.45	0.91	1.36	1.97	2.44
Settlement (mm)	0.00	0.04	0.12	0.16	0.30	0.35
E (mm) = [illegible]		E.F. (mm) =	0.16	Stress =	0.00	BR = [illegible]
E (Kg/cm²) = [illegible]			1.00			

B.R. = [illegible]

S.F. = Stiffness of deformation during the loading stage.
S.R. = Stiffness of deformation during the reloading stage.
B = Plate diameter (cm).
(B) = The difference between S.F. and S.R. from the modulus loading (cycle digital).
(B) = Difference in settlements corresponding to S.F. and S.R. from the modulus loading (cycle).

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 449+075 to 449+100
Test No. : 83

Incrementitive Static Plate Load Tests of Soils
DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.62	[illegible]	0.00	[illegible]	0.27	[illegible]	0.13	0.14
2	1.24	[illegible]	0.15	[illegible]	0.37	[illegible]	0.21	0.25
3	1.86	[illegible]	0.34	[illegible]	0.49	[illegible]	0.40	0.40
4	2.48	[illegible]	0.45	[illegible]	0.63	[illegible]	0.58	0.55
5	3.10	[illegible]	0.57	[illegible]	0.75	[illegible]	0.65	0.71
6	3.72	[illegible]	0.76	[illegible]	0.84	[illegible]	0.81	0.84

Unloading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.32	[illegible]	0.78	[illegible]	0.84	[illegible]	0.87	0.84
2	1.24	[illegible]	0.71	[illegible]	0.78	[illegible]	0.87	0.78
3	0.620	[illegible]	0.63	[illegible]	0.74	[illegible]	0.88	0.75
0	0.00	[illegible]	0.39	[illegible]	0.49	[illegible]	0.67	0.51

Loading Stage (2)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.81	[illegible]	0.37	[illegible]	0.71	0.58
1	0.83	[illegible]	0.83	[illegible]	0.52	[illegible]	0.83	0.80
2	1.25	[illegible]	0.73	[illegible]	0.67	[illegible]	0.92	0.77
3	1.67	[illegible]	0.93	[illegible]	0.82	[illegible]	1.03	0.93
4	2.08	[illegible]	0.97	[illegible]	0.90	[illegible]	1.07	1.00

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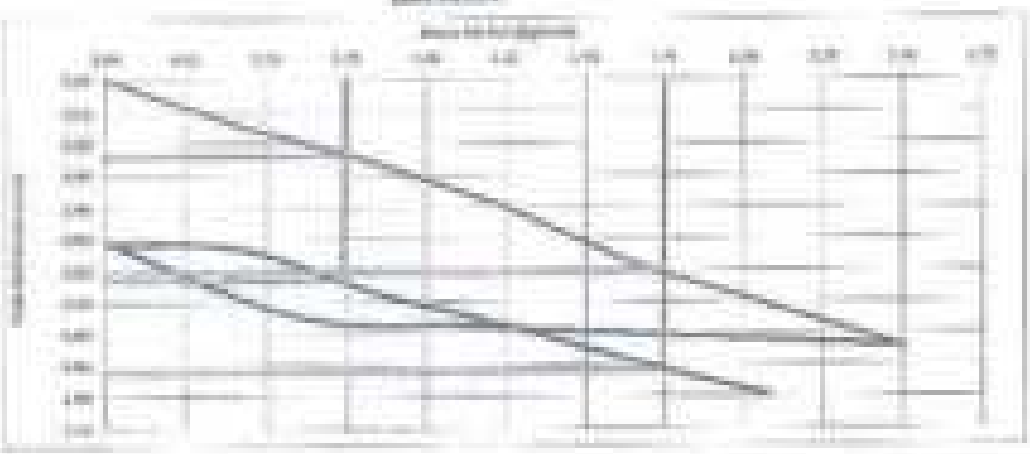

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 440+100 to 440+125
Test No. : 04

Nonrepetitive Static Plate Load Tests of Soils DIN 18134.

Data Sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.11	[illegible]	0.17	[illegible]	0.19	0.15
2	0.85	[illegible]	0.22	[illegible]	0.27	[illegible]	0.30	0.26
3	1.25	[illegible]	0.34	[illegible]	0.36	[illegible]	0.40	0.37
4	1.67	[illegible]	0.37	[illegible]	0.45	[illegible]	0.50	0.40
5	2.08	[illegible]	0.42	[illegible]	0.55	[illegible]	0.65	0.53
6	2.50	[illegible]	0.49	[illegible]	0.64	[illegible]	0.72	0.62

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.00	[illegible]	0.48	[illegible]	0.64	[illegible]	0.72	[illegible]
2	1.25	[illegible]	0.43	[illegible]	0.55	[illegible]	0.61	[illegible]
3	0.83	[illegible]	0.33	[illegible]	0.45	[illegible]	0.46	0.41
4	0.41	[illegible]	0.19	[illegible]	0.23	[illegible]	0.19	0.19

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.24	[illegible]	0.32	[illegible]	0.22	0.26
1	0.85	[illegible]	0.33	[illegible]	0.41	[illegible]	0.36	0.37
2	1.25	[illegible]	0.37	[illegible]	0.48	[illegible]	0.55	0.46
3	1.67	[illegible]	0.47	[illegible]	0.56	[illegible]	0.65	0.53
4	2.08	[illegible]	0.58	[illegible]	0.64	[illegible]	0.78	0.61

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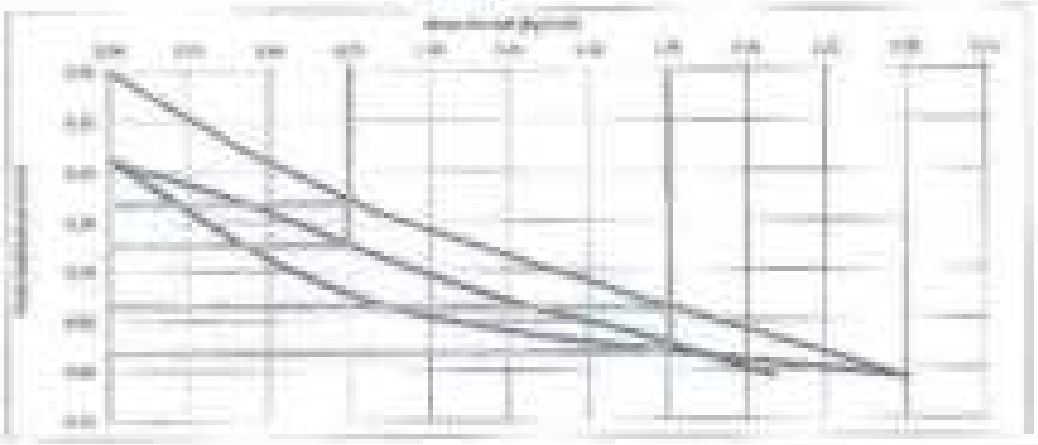

Loading (t)	0	1	2	3	4	5	6
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (t)	4	3	2	1	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	0
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading (t)	0	1	2	3	4	5
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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Company Name : Sun Rise ConstructCon.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 445+125 to 445+150
Test No. : 05

Horizontal Static Plate Load Tests of Soils DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.47	[illegible]	0.16	[illegible]	0.21	[illegible]	0.12	0.16
2	0.93	[illegible]	0.48	[illegible]	0.33	[illegible]	0.48	[illegible]
3	1.39	[illegible]	0.66	[illegible]	0.51	[illegible]	0.51	0.43
4	1.87	[illegible]	0.87	[illegible]	0.64	[illegible]	0.67	[illegible]
5	2.34	[illegible]	0.74	[illegible]	0.83	[illegible]	0.76	[illegible]
6	2.80	[illegible]	0.86	[illegible]	0.81	[illegible]	0.87	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.00	[illegible]	0.82	[illegible]	0.91	[illegible]	0.97	[illegible]
2	1.33	[illegible]	0.73	[illegible]	0.86	[illegible]	0.89	[illegible]
3	0.025	[illegible]	0.58	[illegible]	0.74	[illegible]	0.81	[illegible]
4	0.01	[illegible]	0.48	[illegible]	0.81	[illegible]	0.57	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.47	[illegible]	0.58	[illegible]	0.83	[illegible]	0.89	0.83
1	0.93	[illegible]	0.98	[illegible]	0.16	[illegible]	0.79	0.74
2	1.39	[illegible]	0.62	[illegible]	0.87	[illegible]	0.87	0.35
3	1.87	[illegible]	0.39	[illegible]	0.96	[illegible]	0.83	0.35
4	2.00	[illegible]	1.09	[illegible]	1.09	[illegible]	1.11	1.05

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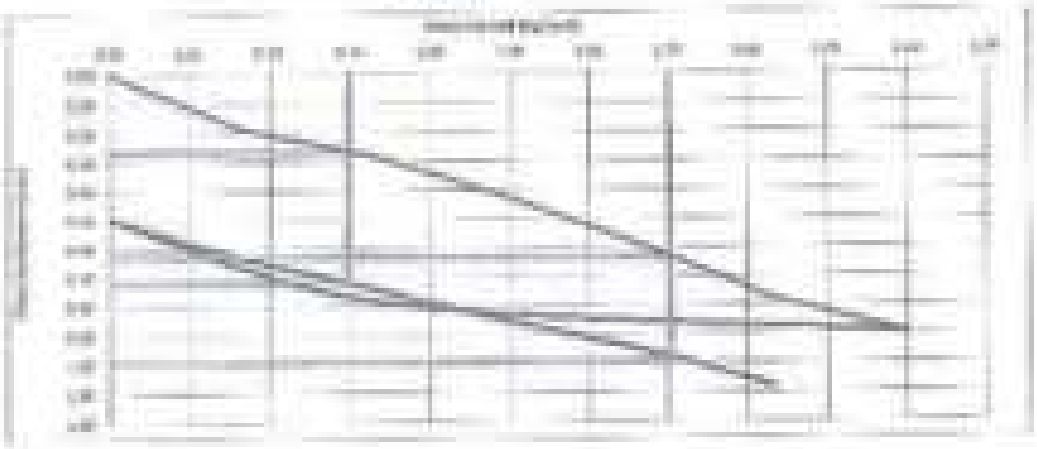
Contractor Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report Date : [illegible]
Location : [illegible]
Test By : [illegible]

Incremental Static Pile Load Test of Piles
(BS 8110)



Loading (%)	0	1	2	3	4	5	6
Weight (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (%)	1	2	3	0
Weight (Kg)	[illegible]	[illegible]	[illegible]	0
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (%)	0	1	2	3	4	5
Weight (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Qu = Ultimate Load = [illegible] Kg

Qu = Ultimate Load = [illegible] Kg

Q = Pile Ultimate Load

Qu = Pile Ultimate Load at 0.5 and 0.7 hour for Incremental loading (mm) (Kg/cm²)

Qu = Settlement in Incremental Load according to 0.5 and 0.7 hour for Incremental loading (mm)

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Company Name : Sun Hive Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : [illegible]
Test No. : 16

Incremental Static Plate Load Tests of Soils DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	1.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	2.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	2.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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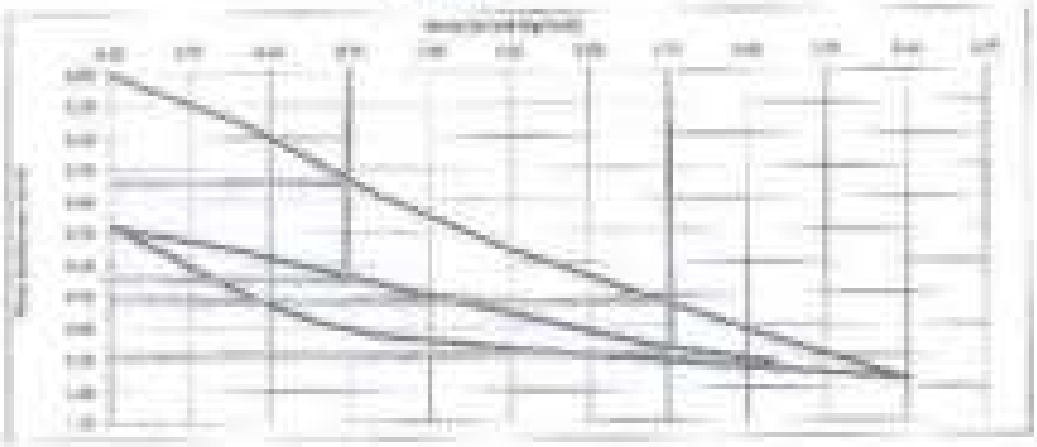
Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Inspect. date : [illegible]
Location : [illegible]
Test No. : [illegible]

[illegible] Static Plate Load Tests of Soils

[illegible]



Loading (T)	0	1	2	3	4	5	6
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]							

Unloading (T)	1	2	3	4
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	0
Settlement (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]						

[illegible]

(n) = Number of subsequent cycle for loading stage.
(n-1) = Number of subsequent cycle for unloading stage.
D = Plate diameter (mm).
Sn = The difference between S (n-1) (from last unloading reading) and S (n) (from last loading reading).
Sr = Difference in settlements corresponding to S (n-1) and S (n) from the maximum loading stage.

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : Station 440+170 to 440+200
Test No. : 07

Noncontinuous Static Plate Load Tests of Soils DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.39	[illegible]	0.55	[illegible]	0.19	0.15
2	0.83	[illegible]	0.37	[illegible]	0.44	[illegible]	1.76	0.41
3	1.25	[illegible]	0.58	[illegible]	0.67	[illegible]	0.97	0.63
4	1.67	[illegible]	0.81	[illegible]	0.75	[illegible]	0.80	0.79
5	2.08	[illegible]	1.02	[illegible]	0.84	[illegible]	0.92	0.93
6	2.50	[illegible]	1.24	[illegible]	0.87	[illegible]	1.05	1.05

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	[illegible]	1.21	[illegible]	0.97	[illegible]	1.12	1.08
2	1.25	[illegible]	1.12	[illegible]	1.00	[illegible]	0.75	1.02
3	0.625	[illegible]	1.01	[illegible]	0.93	[illegible]	0.88	0.93
4	0.00	[illegible]	0.70	[illegible]	0.96	[illegible]	0.96	0.92

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.78	[illegible]	0.83	[illegible]	0.68	0.70
1	0.83	[illegible]	0.96	[illegible]	0.78	[illegible]	0.73	0.76
2	1.25	[illegible]	0.94	[illegible]	0.78	[illegible]	0.84	0.85
3	1.67	[illegible]	1.05	[illegible]	0.88	[illegible]	0.93	0.95
4	2.08	[illegible]	1.15	[illegible]	0.92	[illegible]	1.07	1.03

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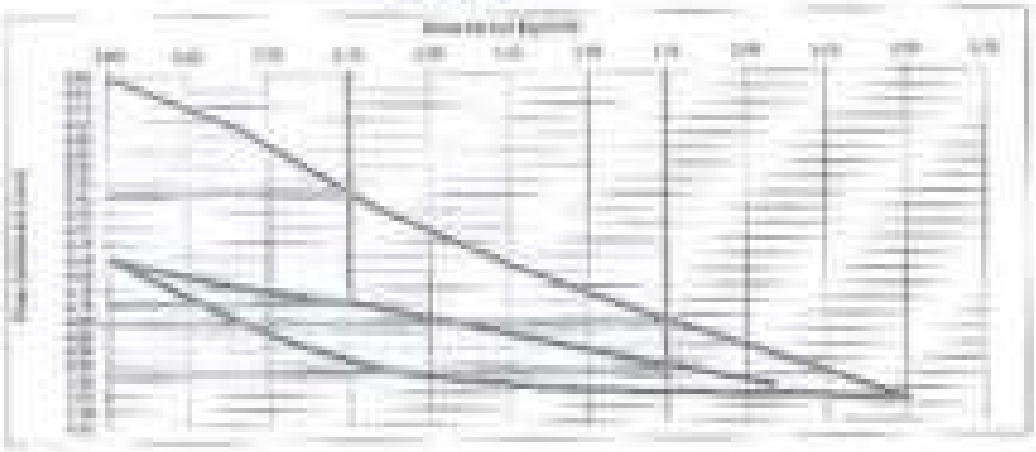
Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report Date : [illegible]
Location : [illegible]
Test No. : [illegible]

Incremental Static Plate Load Tests of Soils
BS 1377:9



Loading (T)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]							
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]							

Unloading (T)	7	8	9	10
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] = [illegible]

Loading (T)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]						
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]						

[illegible]

[illegible] = Modulus of deformation during the loading stage
[illegible] = Modulus of deformation during the unloading stage
[illegible] = Plate diameter (mm)
[illegible] = The difference between [illegible] and [illegible] from the maximum loading cycle (kg/cm²)
[illegible] = Difference between [illegible] and [illegible] from the maximum loading cycle (mm)

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Company Name : Sun Rise Construction
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station: 449+326 to 449+370
Test No. : 06

Nonmovable Static Plate Load Tests of Soils BS 10134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.23	[illegible]	0.55	[illegible]	0.28	0.11
2	0.83	[illegible]	0.50	[illegible]	0.55	[illegible]	0.52	0.46
3	1.24	[illegible]	0.72	[illegible]	0.85	[illegible]	0.71	0.83
4	1.67	[illegible]	0.83	[illegible]	0.83	[illegible]	0.80	0.77
5	2.08	[illegible]	0.86	[illegible]	0.75	[illegible]	1.03	0.91
6	2.50	[illegible]	1.12	[illegible]	0.87	[illegible]	1.19	1.03

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
5	2.50	[illegible]	1.12	[illegible]	0.87	[illegible]	1.19	1.00
2	1.25	[illegible]	1.04	[illegible]	0.81	[illegible]	1.00	[illegible]
1	0.625	[illegible]	0.81	[illegible]	0.69	[illegible]	0.92	0.85
4	0.07	[illegible]	0.62	[illegible]	0.53	[illegible]	0.68	0.61

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.71	[illegible]	0.56	[illegible]	0.75	0.69
1	0.83	[illegible]	0.83	[illegible]	0.68	[illegible]	0.88	0.79
2	1.25	[illegible]	0.99	[illegible]	0.71	[illegible]	0.92	0.84
3	1.67	[illegible]	0.98	[illegible]	0.83	[illegible]	1.08	0.94
4	2.08	[illegible]	1.05	[illegible]	0.98	[illegible]	1.25	1.03

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Company Name :
Project :
Test Date :
Operator Name :
Location :
Test No. :

[illegible]

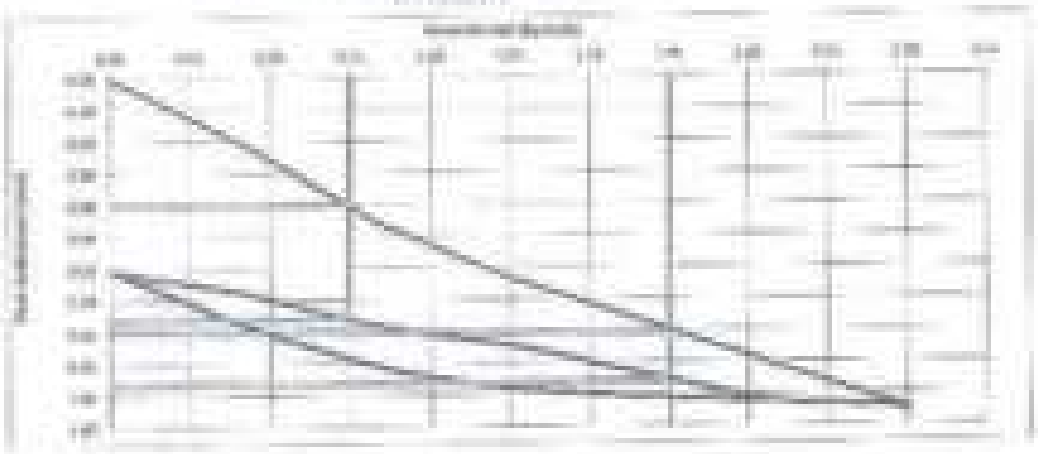
[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



Loading (T)	0	1	2	3	4	5	6
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	4	3	2	0
Weight (kg)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] = [illegible]		[illegible]	[illegible]	[illegible] = [illegible]	[illegible] = [illegible]
[illegible] = [illegible]			[illegible]		

[illegible] =	[illegible]

Loading (T)	0	1	2	3	4	5
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] = [illegible]		[illegible]	[illegible]	[illegible] = [illegible]	[illegible] = [illegible]
[illegible] =	[illegible]		[illegible]		

[illegible] = Maximum or ultimate load during the loading origin

[illegible] = Maximum or ultimate load during the Reloading origin

[illegible] = Plate diameter (mm)

[illegible] = Net differential Settlement [illegible] and [illegible] Under the maximum loading (mm/T)

[illegible] = Differential or additional Settlement [illegible] to [illegible] and [illegible] Under the maximum loading (mm)

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[illegible]

[illegible] El Mahdi, El Alfi Street
Zamalek, Cairo.
Tel.& Fax.: [illegible] - [illegible]

IAS

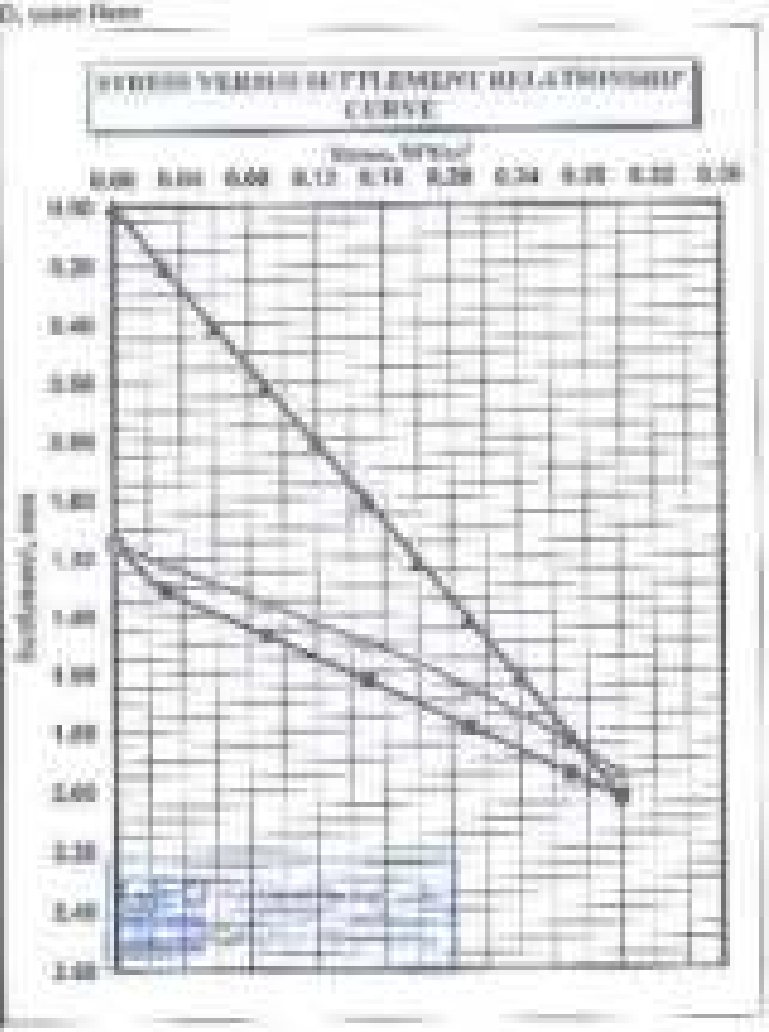
[illegible] المهدي، الألفي
الزمالك - القاهرة
التليفون و الفاكس : [illegible] - [illegible]
[illegible]

Horema Ltd
Soil Investigation & Q.C.

Plate Load Tests of Soils
BS 1881/124

CLIENT	Sun Rise Company	TIME START:	[illegible]
PROJECT	Electric Express Train	TIME FINISH:	[illegible]
LOCATION	Al-Hakaa (100–150) – 375 subgrade	DATE	[illegible]
PLATE LOAD NO.	PLT-17	LAB. REF.	[illegible]
PLATE DIAMETER (mm)	75.00	** Note : Soil is Wet	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress kN/m²	Settlement mm
0.00	0.00
0.03	0.21
0.06	0.41
0.09	0.62
0.12	0.81
0.15	1.00
0.18	1.22
0.21	1.42
0.24	1.62
0.27	1.82
0.30	2.01
0.27	1.95
0.21	1.79
0.15	1.60
0.09	1.47
0.03	1.31
0.00	1.18
0.03	1.22
0.06	1.29
0.09	1.36
0.12	1.43
0.15	1.50
0.18	1.57
0.21	1.66
0.24	1.75
0.27	1.84
0.30	1.86



STRAIN MODULUS, Ev

	1st loading	2nd loading
Stress	0.30	0.30
s_1 [mm/(MN/m²)]	0.554	1.987
s_2 [mm/(MN/m²)]	0.515	2.040
Ev [MN/m²]	83.8	315.1
Ev2/Ev1	2.57	

MODULUS OF SUB-GRADE REACTION, Ks

$k_s = \Delta\sigma/\Delta s$ 144.0 MN/m^3

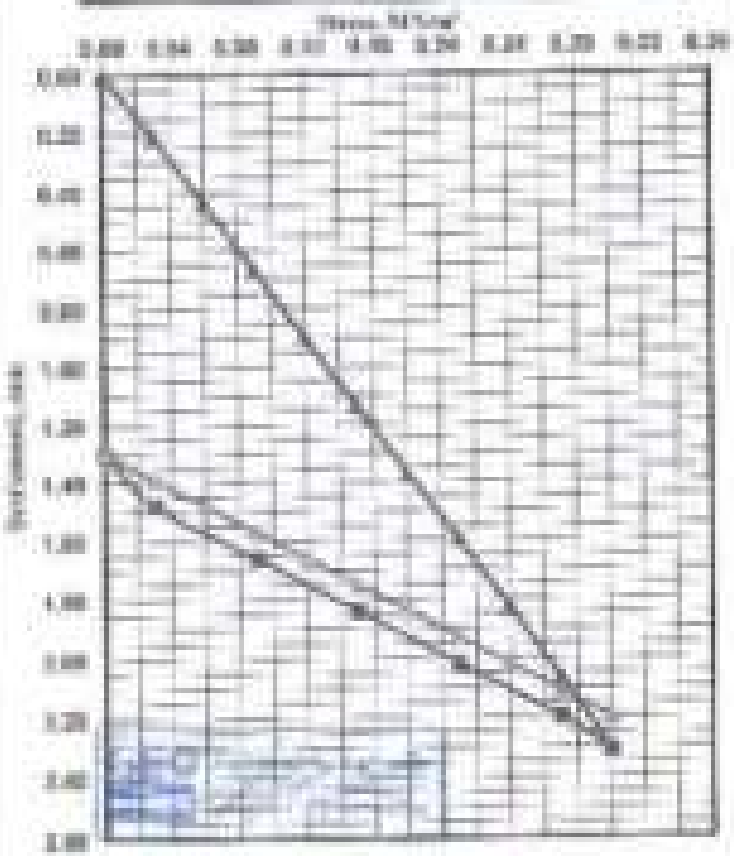
Horena LLC
Soil Investigation & G.E.

Plate Load Tests of Soils
JES 18134

CLIENT:	Sea Bird Company	TIME START:	[illegible] PM
PROJECT:	Electric Express Train	TIME FINISH:	[illegible] PM
LOCATION:	Al-Dakaa ([illegible]) – [illegible]	DATE:	5-Apr-[illegible]
PLATE LOAD NO.	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	75.00		
TYPE OF SOIL:	GRAVEL and SAND, some fines		

Note : Soil is Wet

Stress MN/m²	Settlement mm
0.00	0.00
0.02	0.21
0.06	0.44
0.09	0.67
0.12	0.90
0.15	1.13
0.18	1.36
0.21	1.60
0.24	1.83
0.27	2.07
0.30	2.31
0.27	2.29
0.21	2.05
0.15	1.84
0.09	1.66
0.03	1.48
0.00	1.30
0.03	1.50
0.06	1.46
0.09	1.67
0.12	1.85
0.15	1.75
0.18	1.94
0.21	1.90
0.24	2.02
0.27	2.11
0.30	2.20



STRAIN MODULUS, Ev

	1st loading	2nd loading
σ0/max	0.30	0.30
a_1 [mm/(MN/m²)]	7.541	3
a_2 [mm/(MN²/m²)]	0.665	0
Ev [MN/m²]	72.6	187.5
Ev2/Ev1	2.58	

Remarks

MODULUS OF SUB-GRADE REACTION, Ks

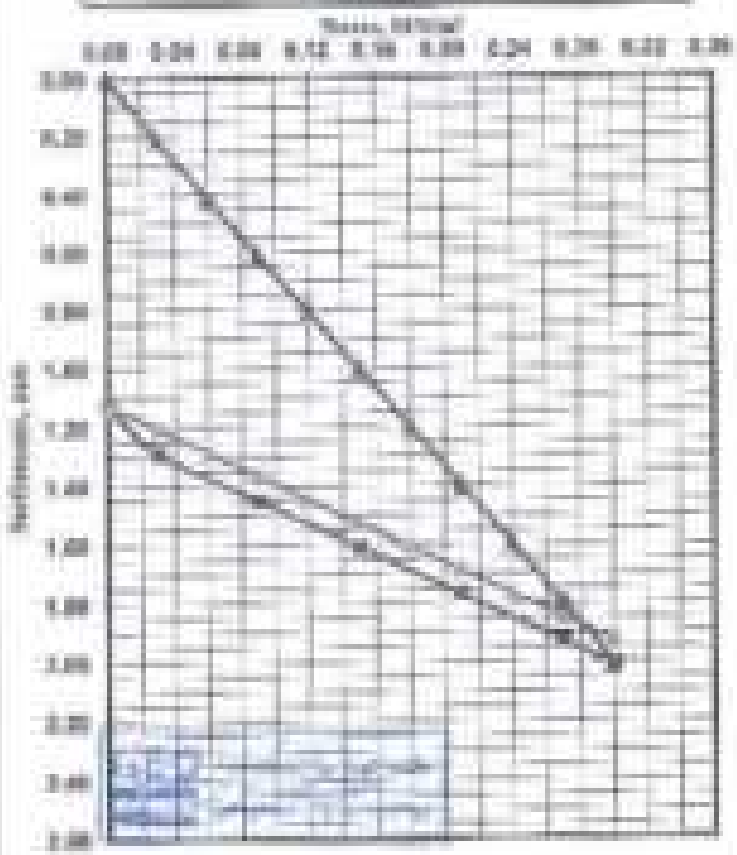
Ks = Δσ/Δs 136.4 MN/m³

Horema S.A.
Soil Investigation & O.C.

Plate Load Tests of Soils
DIN 18134

CLIENT	Sun Sine Company	TIME START:	[illegible]
PROJECT	Electric Express Train	TIME FINISH:	[illegible]
LOCATION	Al Dabaa ([illegible]) – [illegible] subgrade	DATE	[illegible]
PLATE/LOAD NO.	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	[illegible]	** Note : Soil is Wet	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress MN/m²	Deformation mm
0.00	0.00
0.03	0.22
0.06	0.41
0.09	0.61
0.12	0.81
0.15	1.00
0.18	1.20
0.21	1.40
0.24	1.60
0.27	1.79
0.30	2.01
0.27	1.93
0.21	1.77
0.18	1.61
0.15	1.45
0.09	1.29
0.06	1.13
0.03	1.21
0.06	1.29
0.09	1.37
0.12	1.49
0.15	1.53
0.18	1.61
0.21	1.69
0.24	1.77
0.27	1.85
0.30	1.93



STRAIN MODULUS, Ev

	1st loading	2nd loading
σ0max	0.30	0.30
a_1 [mm/(MN/m²)]	6.583	2.667
a_2 [mm/(MN²/m²)]	0.034	0
Ev [MN/m²]	85.5	210.9
Ev2/Ev1	2.47	

MODULUS OF SUB-GRADE REACTION, Ks

ks = /s=0.8 152.0 MN/m³

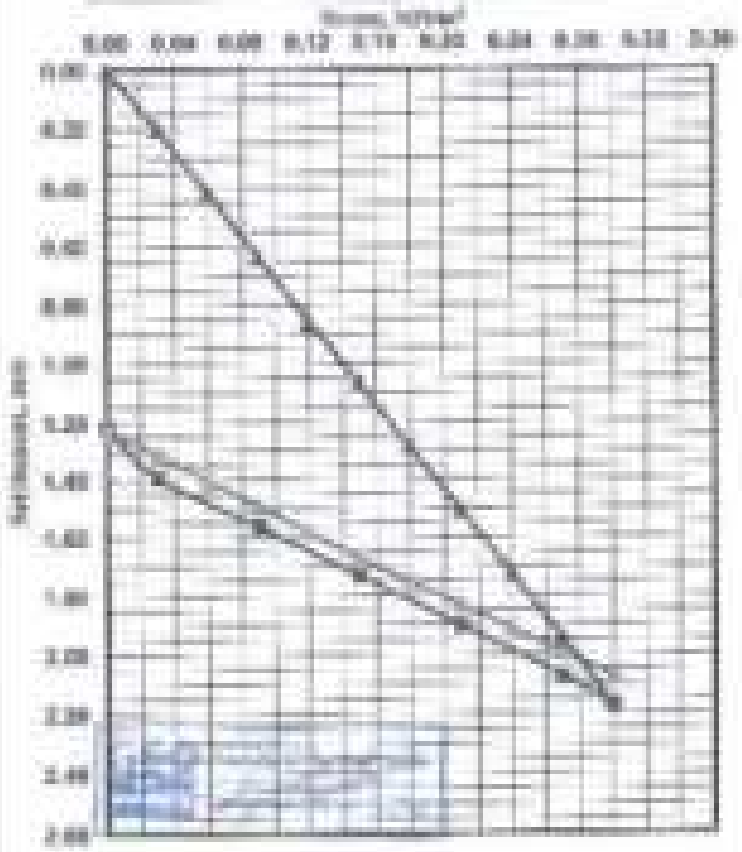
Horena LLC
Road Investigation & Q.C.

Plate Load Test of Soils
DIN 18134

CLIENT:	Sea Blue Company	TIME START:	[illegible] PM
PROJECT:	Electric Express Trains	TIME FINISH:	[illegible] PM
LOCATION:	Al-Rahma [illegible]	DATE:	[illegible]
PLATE LOAD NO.	PL1-10	LAB. REF.	[illegible]
PLATE DIAMETER (mm)	75.00	** Note : Soil is Wet	
TYPE OF SOIL:	GRAVEL and SAND, some fines		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.03
0.06	0.41
0.09	0.84
0.12	0.95
0.15	1.07
0.18	1.23
0.21	1.33
0.24	1.73
0.27	1.95
0.30	3.17
0.27	3.07
0.24	1.90
0.21	1.73
0.18	1.66
0.15	1.35
0.12	1.27
0.09	1.31
0.06	1.40
0.03	1.46
0.00	1.58
0.03	1.67
0.06	1.75
0.09	1.83
0.12	1.91
0.15	1.99
0.18	2.07

STRESS VERSUS SETTLEMENT RELATIONSHIP CURVE



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
σ0/Mpa	0.30	0.30
a_1 [mm/(MN/m²)]	7.340	3.117
a_2 [mm/(MN²/m²)]	0.171	-0.05
Ev [MN/m²]	77.2	196.6
Ev2/Ev1	2.57	

REMARKS

MODULUS OF SUB-GRADE REACTION, Ks

Ks = Jo/Js 141.0 MN/m³

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Company : Nile Rise Construction

Project : Electric Express Train, Al Ain Sokhna to Marsa Mubarak Priority Sector (6)
: Alamein to Fekia

Subject : Determine the deformation and strength characteristics of soil by flat plate loading test according specifications 109/ 1813/2012-01 and project requirements

Test Location : (449+ 980 to 449+460)

Test Date : 18/07/2023

Report Date : 17/07/2023

Type of soil : ----

Test level : **subgrade** ;

Report No. : **299/202**

Dear Gentlemen,

According to the above mentioned subject the load performed as follows :

Apparatus

1. Loading plates consists of two plates with 600 mm and 300 mm diameter
2. The thickness of plates 30 mm
3. Dial gauges with accuracy 0.01 mm to measuring the settlement
4. Steel straightedges with magnetic supports to fixed the dial gauges
5. Hydraulic jack with pump to transfer reactive loads to the loading plates
6. Dial indicator measuring device with scale capacity 700 Bar (Overflow)
7. Reaction loading system by roller compactor with weight approximately 18 ton
8. Calibration certificates are attached

Test Procedure

1. Clean the ground on test area to the required level with undisturbed soil
2. Install loading plates 600 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
3. Prior to starting the test applied pretreating about 30 seconds.
4. The strain gauge and the dial gauge shall be set to zero
5. For a 600 mm loading plate, the limit values are 2.5 kg/cm^2
6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
7. Each change in load (from stage to stage) shall be completed within one minute
8. The load shall be released in 3 stages, to 50 %, 25 %, and approximately 0 % of the maximum load.
9. Following unloading, a further (2nd) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached).
10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min.
11. Remove the loads.

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Report

1. Evaluation and representation of results
2. Load Settlement curve
3. The test report contact the following :-

- location of test site - Dimension of loading plate
- Measuring device used - Type of soil
- Type of bedding material below the plate -Weathering condition
- Time and date of measurements - Unusual observation made during test
- Dial gauge reading and corresponding normal stress - Loading settlement curve
- Description of the soil condition below the plate after loading

Report

Type of soil: subgrade.

- **Job requirement: EV2 > 800 Kg/cm^2 (80 MPa).**

Item	Descriptions
- Type of bedding material below the plate	Natural Soil
- Weather condition	Sunny
- Plate Diameter (mm)	300
- Date of measurement	16/07/2023
- Unusual observation made during test	NO
- Description of the soil condition below the plate after testing	No deformation

Evaluation and representation of results

Test No.	Station		First Cycle	Second Cycle	E_{v2}/E_{v1} Ratio
	From	To	E_{v1} (kg/cm^2)	E_{v2} (kg/cm^2)	
1	449+350	449+375	1010	1111	1.0
2	449+375	449+400	1040	1104	1.1
3	449+400	449+425	1100	1206	1.1
4	449+425	449+450	1254	1382	1.1

Company Name : Sun Rise Construction
Project : Electric Express Train, from Al-Abo Station to Mamo Nakeem's Friendly Station (8) – Alexandria to Paris
Test Date : 14/07/2023
report date : 17/07/2023
Location : Station 449+350 to 449+375
Test No. : 01

Incremetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	10.00	0.00	10.00	0.00	10.00	0.00	0.00
1	0.42	10.79	0.22	10.60	0.20	10.68	0.32	0.25
2	0.63	10.94	0.36	10.71	0.29	10.84	0.49	0.37
3	1.25	10.93	0.38	10.60	0.40	10.43	0.56	0.45
4	1.87	10.41	0.59	10.49	0.51	10.31	0.69	0.60
5	1.58	10.30	0.70	10.16	0.84	10.10	0.90	0.73
6	2.50	10.10	0.90	10.10	0.90	10.00	1.00	0.93

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.50	10.10	0.84	10.10	0.80	10.00	1.00	0.93
2	1.25	10.03	0.96	10.00	0.79	10.06	0.91	0.93
3	0.625	10.02	0.98	10.00	0.53	10.02	0.78	0.87
4	0.01	10.07	0.38	10.16	0.32	10.16	0.44	0.33

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	10.00	0.41	10.10	0.30	10.17	0.53	0.41
1	0.83	10.00	0.58	10.05	0.09	10.05	0.85	0.51
2	1.25	10.00	0.81	10.00	0.50	10.04	0.70	0.62
3	1.67	10.07	0.73	10.16	0.42	10.25	0.65	0.73
4	2.08	10.10	0.82	10.20	0.70	10.04	0.96	0.83

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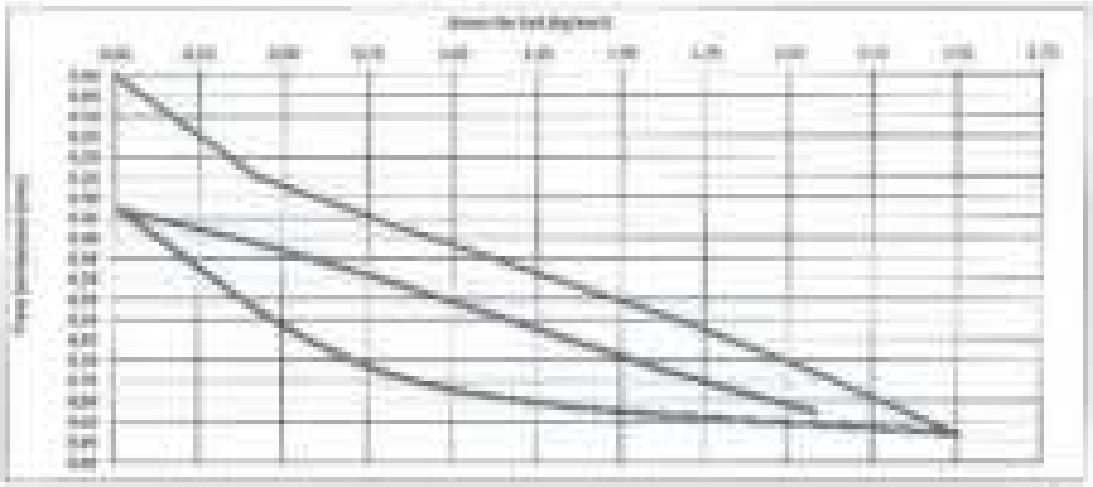
مكتب معامل الإستشارات الهندسية

Company Name	: New Giza Construction
Project	: Qbadia Express Tower, Area 46 Acre Situated in Mansur Waterway Priority Sector (9) – Alexandria Road
Test Date	: [illegible]
Report Date	: [illegible]
Location	: Block no. [illegible] to [illegible]
Test No.	: 01

Incremental Static Cyclic Load Tests of Bells
DIN 18134



Loading (%)	0	1	2	3	4	5	6
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	0.00	0.42	0.85	1.28	1.67	2.06	2.50
Settlement (mm)	0.00	0.05	0.07	0.08	0.09	0.13	0.20

Unloading (%)	1	2	3	4
Weight (kg)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	2.50	1.25	0.625	0.00
Settlement (mm)	0.20	0.05	0.07	0.03

[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
[illegible]			19.00			

Loading (%)	0	1	2	3	4	5
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	0.00	0.42	0.83	1.25	1.67	2.08	
Settlement (mm)	0.00	0.05	0.07	0.08	0.13	0.20	

Qu (kg/cm²) =	0.8

[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
[illegible]			14.11			

Qu = Ultimate of deformation during the loading stage

Qu2 = Ultimate of deformation during the unloading stage

S = Plate diameter (mm)

Qu = Pile ultimate bearing capacity (kg/cm²)

Qu2 = Pile ultimate bearing capacity (kg/cm²)

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Company Name : Sun Rise Construction
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 02

Nonrepetitive Static Plate Load Tests of Soils
ISO 19134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.32	[illegible]	0.32	[illegible]	0.23	0.28
2	0.83	[illegible]	0.44	[illegible]	0.40	[illegible]	0.36	0.40
3	1.25	[illegible]	0.52	[illegible]	0.52	[illegible]	0.50	0.52
4	1.67	[illegible]	0.64	[illegible]	0.64	[illegible]	0.63	0.64
5	2.08	[illegible]	0.64	[illegible]	0.75	[illegible]	0.77	0.77
6	2.50	[illegible]	0.80	[illegible]	0.80	[illegible]	0.80	0.81

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
5	2.02	[illegible]	0.80	[illegible]	0.80	[illegible]	0.80	0.81
2	1.25	[illegible]	0.80	[illegible]	0.80	[illegible]	0.75	0.82
3	0.833	[illegible]	0.77	[illegible]	0.80	[illegible]	0.64	0.80
4	0.01	[illegible]	0.48	[illegible]	0.34	[illegible]	0.30	0.35

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.43	[illegible]	0.40	0.44
1	0.83	[illegible]	0.60	[illegible]	0.54	[illegible]	0.52	0.55
2	1.25	[illegible]	0.69	[illegible]	0.64	[illegible]	0.63	0.63
3	1.67	[illegible]	0.88	[illegible]	0.83	[illegible]	0.79	0.71
4	2.08	[illegible]	0.91	[illegible]	0.72	[illegible]	0.79	0.81

3 El Malek El Afdal Street
Zamalek, Cairo.
Tel.& Fax : [illegible]

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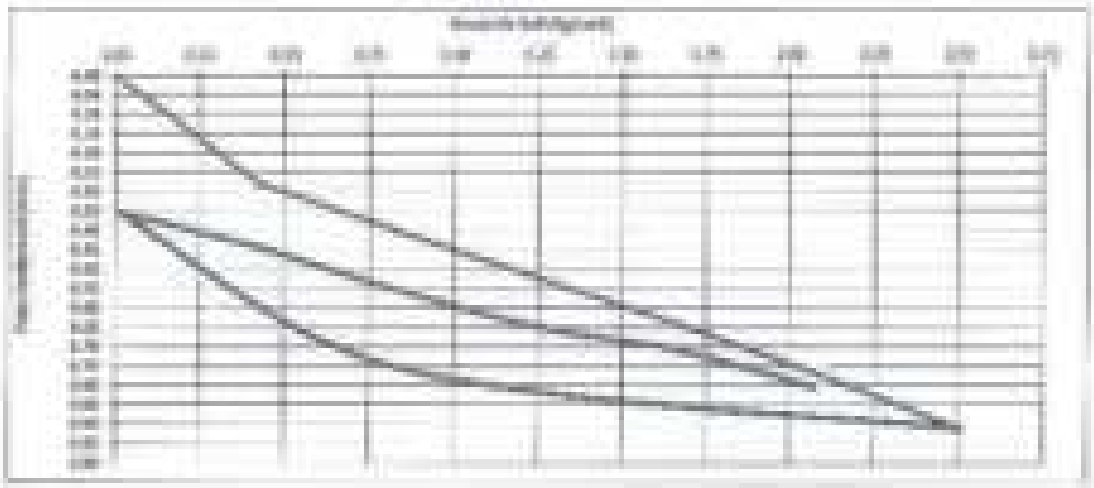
Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : [illegible]
Test No. : [illegible]

Incremental Static Plate Load Tests of Soils
DM 191/38



Loading (T)	0	1	2	3	4	5	6
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	4	3	2	1	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Loading (T)	0	1	2	3	4	5
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

[illegible] =	1.1

Sr1 = Settlement during the loading stage.
Sr2 = Settlement during the unloading stage.
S = Plate deflection (mm).
Sr = The difference between S1 and S2 (Total the maximum loading (mm) - Sr2mm).
Rd = Difference in settlements and unloading in S1 and S2 (Total the maximum loading (mm)).

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Zamalek, Cairo
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Company Name : Sun Rise Construction
Project : [illegible]
Test Date : 16/07/2023
report date : 17/07/2023
Location : Station 449+469 to 449+429
Test No. : 01

Nonrecoverable Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.14	[illegible]	0.10	[illegible]	0.20	0.18
2	0.83	[illegible]	0.33	[illegible]	0.35	[illegible]	0.50	0.39
3	1.25	[illegible]	0.46	[illegible]	0.53	[illegible]	0.67	0.57
4	1.67	[illegible]	0.63	[illegible]	0.66	[illegible]	0.72	0.67
5	2.08	[illegible]	0.81	[illegible]	0.85	[illegible]	0.91	0.86
6	2.50	[illegible]	0.94	[illegible]	1.02	[illegible]	1.04	1.00

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.32	[illegible]	0.94	[illegible]	1.02	[illegible]	1.04	1.00
2	1.25	[illegible]	0.86	[illegible]	0.95	[illegible]	0.93	0.91
3	0.829	[illegible]	0.75	[illegible]	0.83	[illegible]	0.86	0.81
4	0.41	[illegible]	0.48	[illegible]	0.52	[illegible]	0.47	0.49

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.52	[illegible]	0.61	[illegible]	0.68	0.60
1	0.83	[illegible]	0.78	[illegible]	0.73	[illegible]	0.68	0.72
2	1.25	[illegible]	0.86	[illegible]	0.85	[illegible]	0.79	0.85
3	1.67	[illegible]	0.96	[illegible]	0.98	[illegible]	0.91	0.94
4	2.08	[illegible]	1.06	[illegible]	1.10	[illegible]	1.08	1.08

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Company Name:	[illegible]
Project:	[illegible]
Test Date:	[illegible]
Report date:	[illegible]
Location:	[illegible]
Test No.	[illegible]

Incremental Static Plate Load Tests of Soils
DIN 18134

Loading (T)	0	1	2	3	4	5	6
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	1	2	3	4
Weight (kg)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

D (mm) =	[illegible]	D/B (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ks1 (kg/cm³) = [illegible]				[illegible]			

Loading (T)	0	1	2	3	4	5
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Stability =	[illegible]

D (mm) =	[illegible]	D/B (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ks2 (kg/cm³) = [illegible]				[illegible]			

Ks1 = Modulus of deformation during the loading stage

Ks2 = Modulus of deformation during the unloading stage

D = Plate diameter (mm)

Ks = the difference between Ks1 and Ks2 from the relationship loading (stress) diagram

NB = [illegible]

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Company Name : Sun Rise Construction
Project : Electric Express Trains from Al Ain Sokhna to Ain Sokhna Railroad Priority Sector (A) - Alamein to Poka
Test Date : [illegible]
report date : [illegible]
Location : Station 449+420 to 449+450
Test No. : 04

Noncyclic Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.47	[illegible]	0.20	[illegible]	0.15	[illegible]	0.22	0.19
2	0.93	[illegible]	0.41	[illegible]	0.30	[illegible]	0.38	0.36
3	1.40	[illegible]	0.53	[illegible]	0.45	[illegible]	0.53	0.52
4	1.87	[illegible]	0.76	[illegible]	0.61	[illegible]	0.66	0.68
5	2.35	[illegible]	0.89	[illegible]	0.80	[illegible]	0.81	0.83
6	2.80	[illegible]	1.05	[illegible]	0.95	[illegible]	0.99	1.00

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.33	[illegible]	1.02	[illegible]	0.95	[illegible]	0.96	1.02
2	1.87	[illegible]	0.96	[illegible]	0.86	[illegible]	0.86	0.93
3	0.929	[illegible]	0.84	[illegible]	0.67	[illegible]	0.75	0.75
4	0.01	[illegible]	0.58	[illegible]	0.46	[illegible]	0.51	0.51

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.04	[illegible]	0.03	[illegible]	0.02	0.02
1	0.93	[illegible]	0.78	[illegible]	0.69	[illegible]	0.73	0.73
2	1.86	[illegible]	0.86	[illegible]	0.75	[illegible]	0.84	0.82
3	1.87	[illegible]	0.99	[illegible]	0.90	[illegible]	0.93	0.94
4	2.06	[illegible]	1.07	[illegible]	1.02	[illegible]	1.09	1.06

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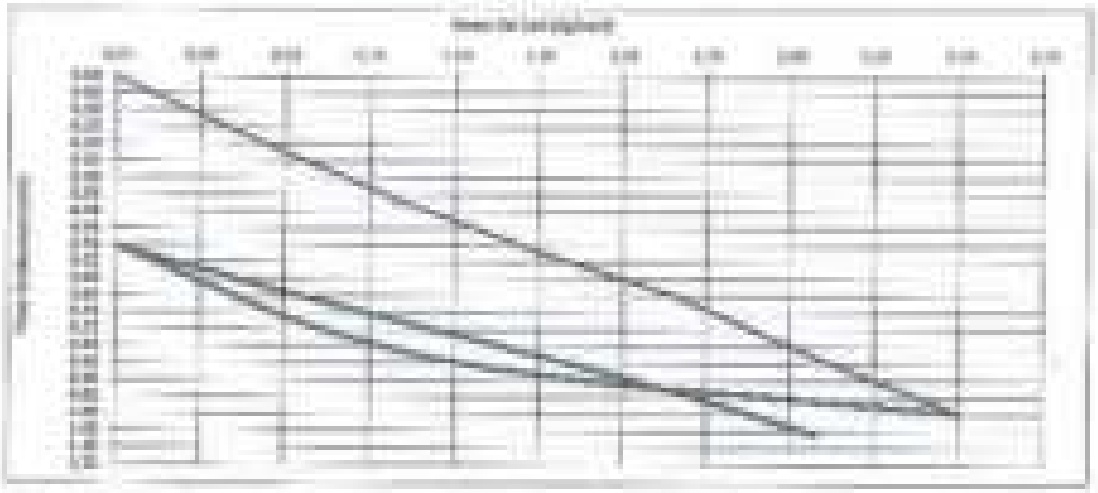
Company Name : Sun Rise Construction
Project : Electric Highway Tolls, From Al Ain Sokhna to Sharm Bedrandi Friendly Section (3) – Kilometer to Point
Test Date : [illegible]
Report date : [illegible]
Location : Station: [illegible] to [illegible]
Test No : 04

Recommended Static Plate Load Tests of Rigid DIN 18134



Loading (T)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	1196.91	2349.8	3512.5	4179.8	5815.1	7340
Stress (Pa/cm²)	0.00	0.12	0.23	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.14	0.30	0.62	0.80	0.93	1.00

Unloading (T)	4	2	0	0
Stress (kg/cm²)	1984	3633	4750	0
Stress (Pa/cm²)	1.98	1.45	1.520	0.00
Settlement (mm)	1.00	0.90	0.70	0.61

K1 (kg/cm³) = 8.7777 Sa/Sb			1194		

Loading (T)	0	1	2	3	4	5
Stress (kg/cm²)	0	1196.91	2349.8	3512.5	4179.8	5815.1
Stress (Pa/cm²)	0.00	0.12	0.23	1.25	1.67	2.08
Settlement (mm)	0.00	0.12	0.70	0.85	0.94	1.00

K2 (kg/cm³) = 8.7777 Sa/Sb			1300		

K1 = Modulus of deformation during the loading stage
K2 = Modulus of deformation during the Unloading stage
Sa = Plate diameter (mm)
Sb = The difference between K1 and K2 (have the maximum loading stress) (kg/cm²)
Sb = difference in settlements corresponding to (1 [illegible] the maximum loading stress)

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Company : Sun Rise Construction

Project : Elevated Express Train, Al Ain (Sakhna to Marsa Matrouh Priority Sector (B) - Alamein to Fuka

Subject : Determine the deformation and strength characteristics of soil by the plate loading test according specifications: DIN 18134:2012-04 and project requirements.

Test Location : Station 400+120 to 400+250

Test Date : 07/03/2023

Report Date : 08/03/2023

Type of soil : ----

Test level : prepared subgrade .

Report No. : 122-128

Dear Gentlemen,

According to the above mentioned subject the test performed as follows :

Apparatus

1. Loading plates consists of two plates with 600 mm and 300 mm diameter
2. The thickness of plates 20 mm
3. Dial gauges with accuracy 0.01 mm to measuring the settlement
4. Steel straightedge with magnetic supports to fixed the dial gauges
5. Hydraulic jack with pump to transfer reactive loads to the loading plates
6. Dial indicator measuring device with scale capacity 700 Kar (Proving ring)
7. Reaction loading system by roller compactor with weight approximately 15 ton
8. Calibration certificates are attached

Test Procedure

1. Clean the ground on test area to the required level with undisturbed soil
2. Install loading plates 600 mm and 300 mm diameter, hydraulic jack and 4 dial gauges
3. Prior to starting the test applied preloading about 30 seconds.
4. The strain gauge and the dial gauge shall be set to zero
5. For a 600 mm loading plate, the limit values are 2.5 kg/cm^2
6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
7. Each change in load (from stage to stage) shall be completed within one minute
8. The load shall be released in 3 stages, to 50 %, 25 %, and approximately 2 % of the maximum load
9. Following unloading, a further (2nd) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached)
10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min
11. Remove the loads

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Report

1. Evaluation and representation of results
2. Load Settlement curve
3. The test report content the following:

- location of test site - Dimension of loading plate
- Measuring device used - Type of soil
- Type of bedding material below the plate -Weathering condition
- Time and date of measurements - Unusual observation made during test
- Dial gauge reading and corresponding normal stress - Loading-settlement curve
- Description of the soil condition below the plate after testing

Report

Type of soil: prepared subgrade .

- **Job requirement: Ev2 = 600 Kg/cm² (60 MPa).**

Item	Descriptions
- Type of bedding material below the plate	Natural Soil
- Weather condition	Partly Sunny
- Plate Diameter (mm)	600
- date of measurement	07/03/2023
- Unusual observation made during test	NO
- Description of the soil conditions below the plate after testing	No deformation

Evaluation and representation of results

Test No.	Station		First Cycle	Second Cycle	E_{v2}/E_{v1} Ratio
	From	To	E_{v1} (kg/cm²)	E_{v2} (kg/cm²)	
1	450+125	450+150	1667	2143	1.3
2	450+150	450+175	1667	2143	1.3
3	450+175	450+200	1219	1562	1.3
4	450+200	450+225	1600	1000	0.7
5	450+225	450+250	1324	1562	1.3

Signature /

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 408+120 to 408+130
Test No. : 01

Nonconstitive Static Plate Load Tests of Soils DIN 18135.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.43	[illegible]	0.24	[illegible]	0.26	[illegible]	0.28	0.26
2	0.85	[illegible]	0.28	[illegible]	0.37	[illegible]	0.35	0.32
3	1.28	[illegible]	0.42	[illegible]	0.50	[illegible]	0.60	0.53
4	1.67	[illegible]	0.48	[illegible]	0.61	[illegible]	0.64	0.57
5	2.08	[illegible]	0.48	[illegible]	0.63	[illegible]	0.67	0.60
6	2.50	[illegible]	0.75	[illegible]	0.85	[illegible]	0.94	0.83

Unloading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	[illegible]	0.75	[illegible]	0.83	[illegible]	0.91	0.83
2	1.25	[illegible]	0.72	[illegible]	0.80	[illegible]	0.88	0.80
3	0.625	[illegible]	0.68	[illegible]	0.80	[illegible]	0.73	0.71
4	0.01	[illegible]	0.61	[illegible]	0.63	[illegible]	0.65	0.58

Loading Stage (3)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.41	[illegible]	0.03	[illegible]	0.08	[illegible]	0.04	0.01
1	0.83	[illegible]	0.76	[illegible]	0.80	[illegible]	0.73	0.72
2	1.25	[illegible]	0.08	[illegible]	0.71	[illegible]	0.89	0.81
3	1.67	[illegible]	0.96	[illegible]	0.83	[illegible]	0.93	0.91
4	2.08	[illegible]	1.03	[illegible]	0.98	[illegible]	1.07	1.02

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Contracting Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report Date : [illegible]
Location : [illegible]
Test No. : [illegible]

Incremental Static Plate Load Tests of Soils
BS 1377-9

Loading (T)	0	1	2	3	4	5	6
Stage (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]			

Unloading (T)	1	2	3	4
Stage (Kg)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stage (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]			

[illegible]	[illegible]

[illegible] = Modulus of deformation during the loading phase.
[illegible] = Modulus of deformation during the Reloading phase.
B = Plate diameter (mm).
Sa = The difference between S3 and S1 from the maximum loading (mm) (Figure 2).
Sb = Difference in settlements corresponding to S3 and S1 from the maximum loading (mm).

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Company Name: : Sun Rise Construction.
Project: [illegible]
Test Date: : [illegible]
report date: : [illegible]
Location: : Station: 490+130 to 450+175
Test No.: : 02

Nonconditioning Static Plate Load Tests of Soils BS.1377.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.24	[illegible]	0.20	[illegible]	0.28	0.28
2	0.83	[illegible]	0.38	[illegible]	0.37	[illegible]	0.31	0.32
3	1.25	[illegible]	0.42	[illegible]	0.00	[illegible]	0.00	[illegible]
4	1.67	[illegible]	0.46	[illegible]	0.61	[illegible]	0.04	0.37
5	2.08	[illegible]	0.48	[illegible]	0.63	[illegible]	0.07	0.00
6	2.50	[illegible]	0.79	[illegible]	0.89	[illegible]	0.91	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.67	[illegible]	0.78	[illegible]	0.83	[illegible]	0.91	[illegible]
2	1.25	[illegible]	0.72	[illegible]	0.83	[illegible]	0.86	[illegible]
3	0.833	[illegible]	0.69	[illegible]	0.68	[illegible]	0.78	[illegible]
4	0.01	[illegible]	0.01	[illegible]	0.03	[illegible]	0.02	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.83	[illegible]	0.85	[illegible]	0.84	0.01
1	0.83	[illegible]	0.78	[illegible]	0.85	[illegible]	0.73	0.72
2	1.25	[illegible]	0.89	[illegible]	0.71	[illegible]	0.94	0.01
3	1.67	[illegible]	0.98	[illegible]	0.93	[illegible]	0.93	0.01
4	2.08	[illegible]	1.03	[illegible]	0.98	[illegible]	1.07	1.03

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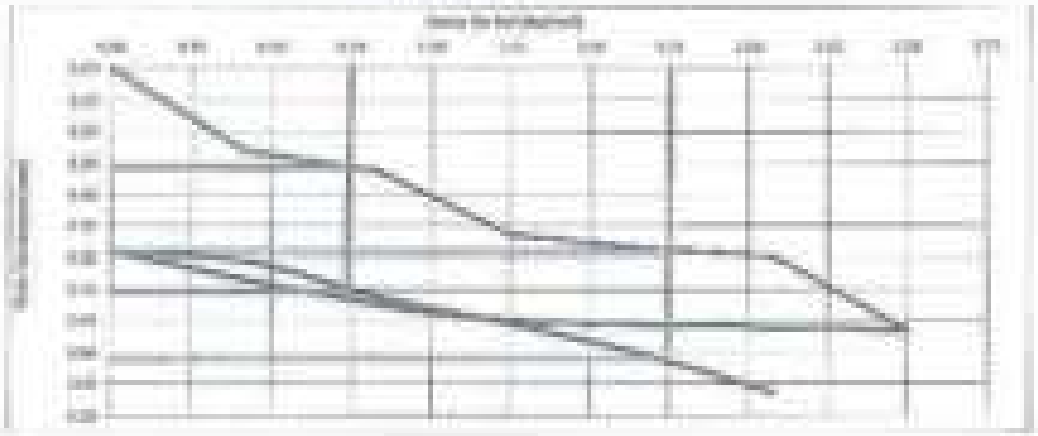
Contracting Firm :
Project :
Test Date :
Report Date :
Location :
Test No. :

: Stars Wise Consultants
(Quality Control Tests from Site Activities in Mixing, Material Quality Studies (QS), Materials in Public)
: [illegible]
: [illegible]
: [illegible]
: 02

Incremental Static Plate Load Tests of Soils

ISO 14534



Loading (T)	0	1	2	3	4	5	6
Stage (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	0.00	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.28	0.32	0.37	0.47	0.55	0.65

E (mm) =	[illegible]	E* (mm) =	0.34	Elastic = 0.24	ER = 0.28
Cc = Kg/cm² = [illegible]			[illegible]		

Unloading (T)	4	3	2	1
Stage (Kg)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm²)	2.08	1.25	0.83	0.42
Settlement (mm)	0.55	0.45	0.37	0.28

Loading (T)	0	1	2	3	4	5
Stage (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	0.00	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.00	0.01	0.15	0.23	0.37	1.45

E (mm) =	[illegible]	E* (mm) =	0.15	Elastic = 0.1	ER = 0.21
Kv (Kg/cm³) =	[illegible]		0.08		

[illegible]

Kv1 = Modulus of deformation during the loading stage.
Kv2 = Modulus of deformation during the Remoulding stage.
Cc = Plate correction factor.
Cs = The difference between Cc and Cs (since the maximum loading cannot reach Kv1).
ER = Difference in settlements corresponding to 1.5 and 0.5 of the maximum loading (mm).

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible]
Test No. : 03

Representative Static Plate Load Tests of Soils DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.86	[illegible]	0.72	[illegible]	0.63	0.74
2	0.83	[illegible]	0.79	[illegible]	0.77	[illegible]	0.71	0.76
3	1.25	[illegible]	0.24	[illegible]	0.40	[illegible]	0.48	0.43
4	1.67	[illegible]	0.08	[illegible]	0.06	[illegible]	0.53	0.03
5	2.08	[illegible]	0.07	[illegible]	0.75	[illegible]	0.83	0.71
6	2.50	[illegible]	0.78	[illegible]	0.84	[illegible]	0.91	0.84

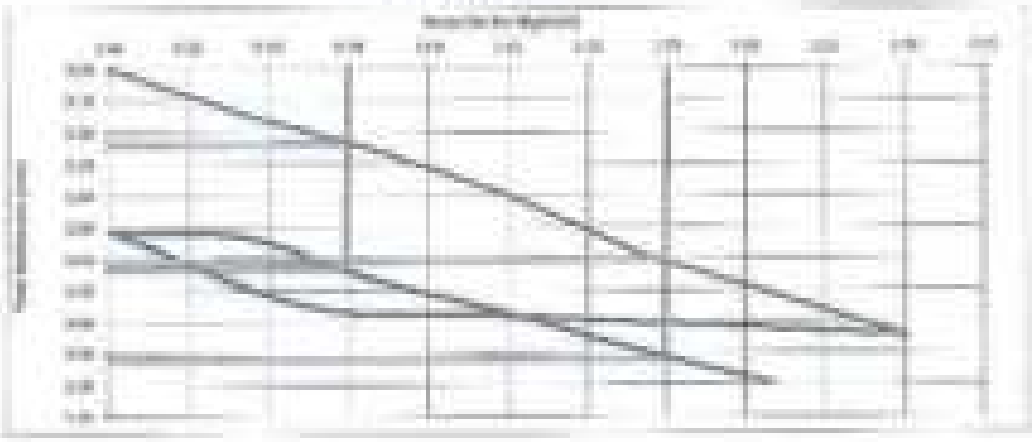
Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.50	[illegible]	0.78	[illegible]	0.84	[illegible]	0.91	0.84
2	1.25	[illegible]	0.75	[illegible]	0.78	[illegible]	0.87	0.78
3	0.[illegible]	[illegible]	0.42	[illegible]	0.74	[illegible]	0.68	0.73
4	0.01	[illegible]	0.38	[illegible]	0.40	[illegible]	0.37	0.33

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.71	[illegible]	0.57	[illegible]	0.73	0.63
1	0.83	[illegible]	0.86	[illegible]	0.97	[illegible]	0.83	0.87
2	1.25	[illegible]	0.72	[illegible]	0.87	[illegible]	0.88	0.77
3	1.67	[illegible]	0.88	[illegible]	0.83	[illegible]	1.06	0.88
4	2.08	[illegible]	0.87	[illegible]	0.86	[illegible]	1.07	1.00

[illegible]



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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 459+196 to 459+225
Test No. : 04

Nonrepetitive Static Plate Load Tests of Soils DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.63	[illegible]	0.15	[illegible]	0.20	[illegible]	0.22	0.18
2	0.93	[illegible]	0.38	[illegible]	0.15	[illegible]	0.35	0.30
3	1.25	[illegible]	0.48	[illegible]	0.25	[illegible]	0.46	0.39
4	1.57	[illegible]	0.57	[illegible]	0.38	[illegible]	0.58	0.50
5	2.08	[illegible]	0.71	[illegible]	0.49	[illegible]	0.70	0.63
6	2.50	[illegible]	0.80	[illegible]	0.61	[illegible]	0.83	0.75

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	[illegible]	0.80	[illegible]	0.61	[illegible]	0.83	0.75
2	1.25	[illegible]	0.73	[illegible]	0.53	[illegible]	0.75	0.69
3	0.625	[illegible]	0.66	[illegible]	0.42	[illegible]	0.71	0.62
4	0.01	[illegible]	0.48	[illegible]	0.25	[illegible]	0.38	0.35

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.62	[illegible]	0.50	[illegible]	0.31	[illegible]	0.45	0.45
1	0.93	[illegible]	0.69	[illegible]	0.43	[illegible]	0.58	0.57
2	1.25	[illegible]	0.82	[illegible]	0.57	[illegible]	0.79	0.70
3	1.57	[illegible]	0.90	[illegible]	0.70	[illegible]	0.84	0.80
4	2.08	[illegible]	1.07	[illegible]	0.90	[illegible]	0.92	0.96

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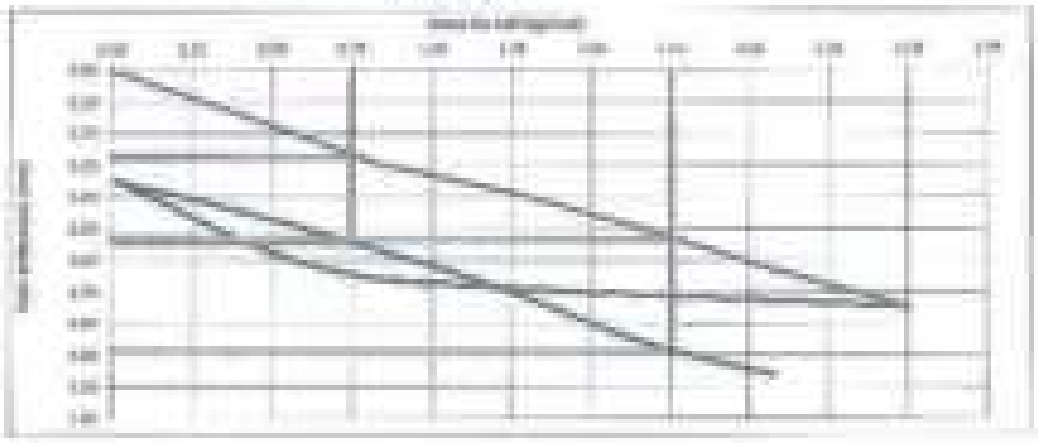
Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report Date : [illegible]
Location : [illegible]
Test No. : [illegible]

Representative Static Plate Load Tests of Soils
BS 5930.



Loading (T)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	1	2	3	4
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	1	2	3	4
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Notes :

S.1 = Settlement at intermediate during the loading stage.
S.2 = Settlement at intermediate during the Unloading stage.
D = Plate diameter (mm)
Sc = The difference between S.3 and S.1 from the maximum loading stress (kg/cm²)
Sh = Difference in settlements corresponding to S.3 and S.1 from the maximum loading (mm)

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Company Name: : Sun Rise Construction.
Project: [illegible]
Test Date: : 07/03/2023
report date: : 09/03/2023
Location: : Station [illegible] to [illegible]
Test No.: : 05

Nonrepetitive Static Plate Load Tests of Soils DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.47	[illegible]	0.14	[illegible]	0.21	[illegible]	0.27	0.19
2	0.93	[illegible]	0.38	[illegible]	0.35	[illegible]	0.06	0.26
3	1.25	[illegible]	0.46	[illegible]	0.61	[illegible]	0.31	0.43
4	1.87	[illegible]	0.57	[illegible]	0.94	[illegible]	0.57	0.58
5	2.08	[illegible]	0.71	[illegible]	0.83	[illegible]	0.78	0.72
6	2.50	[illegible]	0.89	[illegible]	0.81	[illegible]	0.87	0.86

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.08	[illegible]	0.88	[illegible]	0.84	[illegible]	0.87	0.86
2	1.25	[illegible]	0.73	[illegible]	0.85	[illegible]	0.89	0.83
3	0.625	[illegible]	0.66	[illegible]	0.74	[illegible]	0.81	0.74
4	0.00	[illegible]	0.42	[illegible]	0.61	[illegible]	0.57	0.50

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.63	[illegible]	0.80	[illegible]	0.75	[illegible]	0.79	0.74
2	1.25	[illegible]	0.82	[illegible]	0.87	[illegible]	0.87	0.86
3	1.87	[illegible]	0.90	[illegible]	0.98	[illegible]	0.93	0.93
4	2.08	[illegible]	1.04	[illegible]	1.08	[illegible]	1.11	1.08

1 El Sheikh Ali Abdel Sayed
Faisalia, Cairo
Tel.& Fax : 27367231 - 27362003

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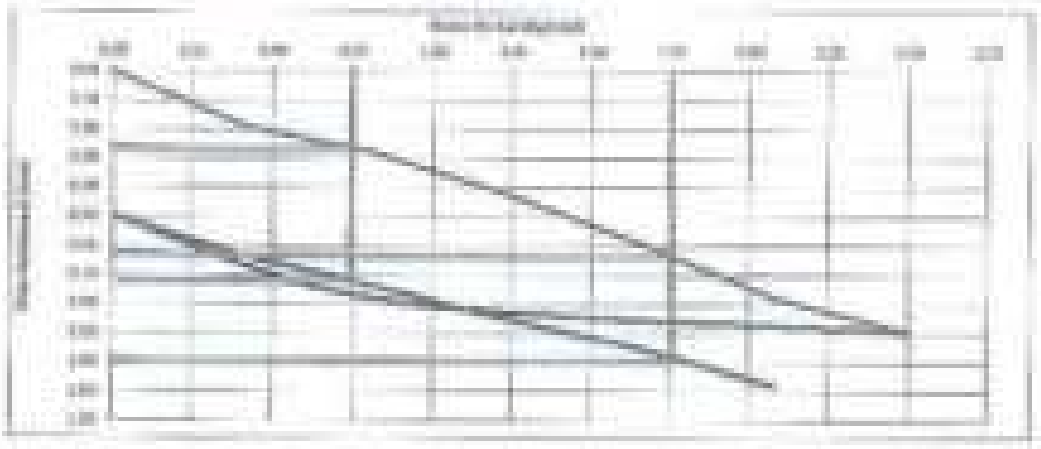
Company Name : Sun Pipe Construction
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : [illegible]

Measurable Static Plate Load Tests of Soils
DIN 18134



Loading (T)	0	1	2	3	4	5	6
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	3	2	1	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

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Company : Sun Rise Construction

Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Fuka

Subject : Determine the deformation and strength characteristics of soil by the plate loading test according specifications DIN 18134:2012-04 and project requirements

Test Location : Station 499+225 to 449+025

Test Date : 28/03/2023

Report Date : 30/03/2023

Type of soil : ----

Test level : prepared subgrade .

Report No. : 100/169

Dear Gentlemen,

According to the above mentioned subject the test performed as follows :

Apparatus

1. Loading plates consists of two plates with 600 mm and 300 mm diameter
2. The thickness of plates 25 mm
3. Dial gauges with accuracy 0.01 mm to measuring the settlement
4. Steel straightedges with magnetic supports to fixed the dial gauges
5. Hydraulic jack with pump to transfer reactive loads to the loading plates
6. Dial indicator measuring device with scale capacity 700 Bar (Everbar)
7. Reactive loading system by roller compactor with weight approximately 15 ton
8. Calibration certificates are attached

Test Procedure

1. Clean the ground on test area to the required level with undisturbed soil
2. Install loading plates 600 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
3. Prior to starting the test applied preloading about 30 seconds.
4. The strain gauge and the dial gauge shall be set to zero
5. For a 600 mm loading plate, the first values are 3.5 kg/cm^2
6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
7. Each change in load (from stage to stage) shall be completed within one minute
8. The load shall be released in 5 stages, to 50 %, 25 %, and approximately 2 % of the maximum load
9. Following unloading, a further (2nd) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached).
10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 millimetre.
11. Replace the loads.

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Report

1. Evaluation and representation of results
2. Load Settlement curve
3. The test report content the following:-

- location of test site - Dimension of loading plate
- Measuring device used - Type of soil
- Type of bedding material below the plate. Weathering condition
- Time and date of measurements - Unusual observation made during test
- Dial gauge reading and corresponding normal stress - Loading settlement curve
- Description of the soil condition below the plate after testing

Report

Type of soil: prepared subgrade .

- Job requirement: Ev2 > 600 Kg/cm² (60 MPa).

Item	Descriptions
- Type of bedding material below the plate	Natural Soil
- Weather condition	Partly Sunny
- Plate Diameter (mm)	600
- date of measurement	20/03/2013
- Unusual observation made during test	NO
- Description of the soil conditions below the plate after testing	No deformation

Evaluation and representation of results

Test No.	Station		First Cycle	Second Cycle	E_{v2}/E_{v1} Ratio
	From	To	E_{v1} (kg/cm²)	E_{v2} (kg/cm²)	
1	440+225	440+250	1154	1731	1.5
2	440+000	440+025	1154	2045	1.7
3	440+925	440+950	1218	2045	1.7
4	440+900	440+975	1154	2143	1.9
5	440+975	440+950	1452	2368	1.6
6	440+900	440+925	1154	1807	1.7

Signature :

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Company Name : Iron Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 448+225 to 449+230
Test No. : 04

Nonrepetitive Static Plate Load Tests of Soils DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.40	[illegible]	0.19	[illegible]	0.21	[illegible]	0.17	0.19
2	0.80	[illegible]	0.33	[illegible]	0.37	[illegible]	0.34	0.34
3	1.20	[illegible]	0.48	[illegible]	0.54	[illegible]	0.55	0.51
4	1.60	[illegible]	0.66	[illegible]	0.70	[illegible]	0.67	0.68
5	2.00	[illegible]	0.82	[illegible]	0.86	[illegible]	0.86	0.85
6	2.50	[illegible]	0.99	[illegible]	1.05	[illegible]	0.96	1.00

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
4	2.50	[illegible]	0.93	[illegible]	1.05	[illegible]	0.98	1.00
3	1.25	[illegible]	0.81	[illegible]	1.00	[illegible]	0.92	0.94
2	0.625	[illegible]	0.67	[illegible]	0.81	[illegible]	0.82	0.76
1	0.31	[illegible]	0.47	[illegible]	0.55	[illegible]	0.52	0.51

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.82	[illegible]	0.68	[illegible]	0.77	[illegible]	0.73	0.73
2	1.25	[illegible]	0.90	[illegible]	0.98	[illegible]	0.88	0.94
3	1.67	[illegible]	0.99	[illegible]	0.99	[illegible]	0.94	0.94
4	2.08	[illegible]	1.07	[illegible]	1.10	[illegible]	1.00	1.06

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Company Name	: Sun Kind Construction
Project	: [illegible]
Test Date	: [illegible]
Report date	: [illegible]
Location	: [illegible]
Test No.	: 07

Interpretive Static Data Load Tests of Piles

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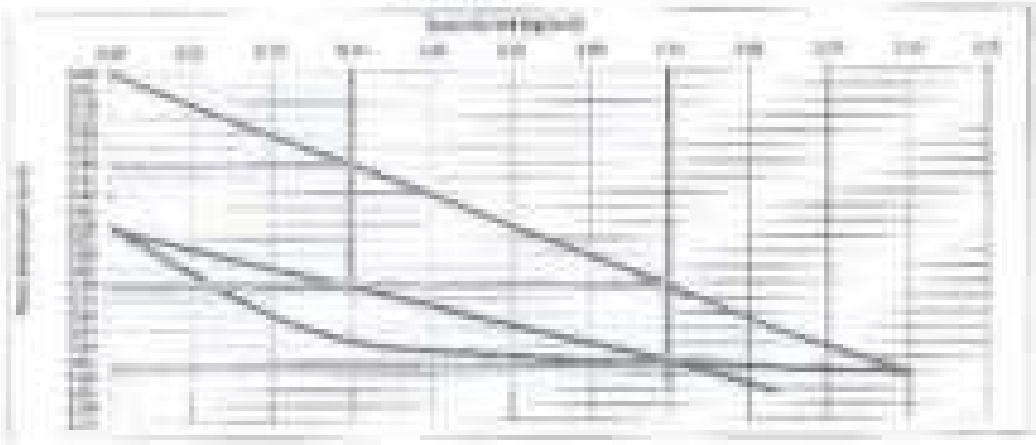

Loading (T)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Weight (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Unloading (T)	[illegible]	[illegible]	[illegible]	[illegible]
Weight (Kg)	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

Loading (T)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Weight (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

[illegible]

[illegible]

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 448+900 to 444+925
Test No. : 42

Incremental Static Plate Load Tests of Soils DIN 18134.

Data sheet

Loading State (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]
1	0.42	[illegible]	0.19	[illegible]	0.25	[illegible]	0.20	[illegible]
2	0.83	[illegible]	0.33	[illegible]	0.36	[illegible]	0.35	[illegible]
3	1.25	[illegible]	0.52	[illegible]	0.53	[illegible]	0.52	[illegible]
4	1.67	[illegible]	0.61	[illegible]	0.73	[illegible]	0.67	[illegible]
5	2.08	[illegible]	0.74	[illegible]	0.80	[illegible]	0.83	[illegible]
6	2.50	[illegible]	0.98	[illegible]	0.97	[illegible]	0.98	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
5	[illegible]	[illegible]	0.90	[illegible]	0.97	[illegible]	0.89	[illegible]
2	[illegible]	[illegible]	0.61	[illegible]	0.65	[illegible]	0.76	[illegible]
1	0.83	[illegible]	0.71	[illegible]	0.77	[illegible]	0.68	[illegible]
0	[illegible]	[illegible]	0.58	[illegible]	0.45	[illegible]	0.47	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.62	[illegible]	0.66	[illegible]	0.59	[illegible]
1	0.83	[illegible]	0.68	[illegible]	0.68	[illegible]	0.61	[illegible]
2	1.25	[illegible]	0.73	[illegible]	0.80	[illegible]	0.69	[illegible]
3	1.67	[illegible]	0.77	[illegible]	0.88	[illegible]	0.82	[illegible]
4	2.08	[illegible]	0.92	[illegible]	0.99	[illegible]	1.01	[illegible]

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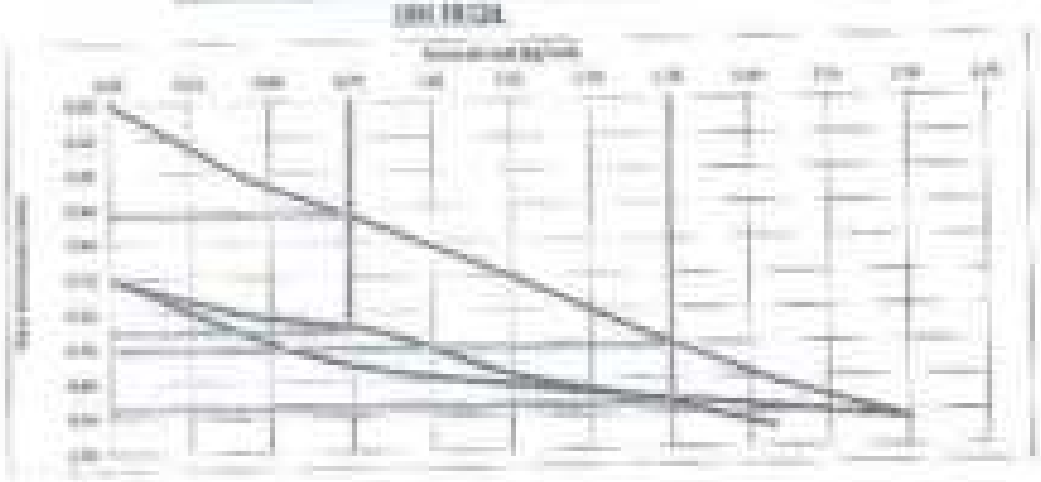
الزمالك - القاهرة
التليفون + الفاكس : [illegible]
www.cel-egypt.com

Developing Owner : Bank Misr Construction
Project : [illegible]
Test Date : [illegible]
Legend date : [illegible]
Location : [illegible]
Test No. : [illegible]

Maintenance Work Plate Load Tests of Rails
[illegible]



Loading (T)	0	1	2	3	4	5	6
Stage(kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	4	3	2
Stage(kg)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stage(kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading = [illegible]

Ev1 = Modulus of deformation during the loading cycle
Ev2 = Modulus of deformation during the reloading cycle
K = Plate deflection [illegible]
Ev = Two different Subgrade Reaction (K1 and K2) from the pressure loading (mean figure)
Ev = Deformation in subgrade corresponding to K1 and K2 from the pressure loading (mean figure)

Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 440+00% to 440+050
Test No. : 03

Incrementive Static Plate Load Tests of Soils DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]
1	0.42	[illegible]	0.20	[illegible]	0.22	[illegible]	0.34	[illegible]
2	0.82	[illegible]	0.34	[illegible]	0.46	[illegible]	0.59	[illegible]
3	1.28	[illegible]	0.53	[illegible]	0.58	[illegible]	0.78	[illegible]
4	1.67	[illegible]	0.63	[illegible]	0.74	[illegible]	0.87	[illegible]
5	2.08	[illegible]	0.82	[illegible]	0.85	[illegible]	0.96	[illegible]
6	2.50	[illegible]	0.95	[illegible]	0.98	[illegible]	1.05	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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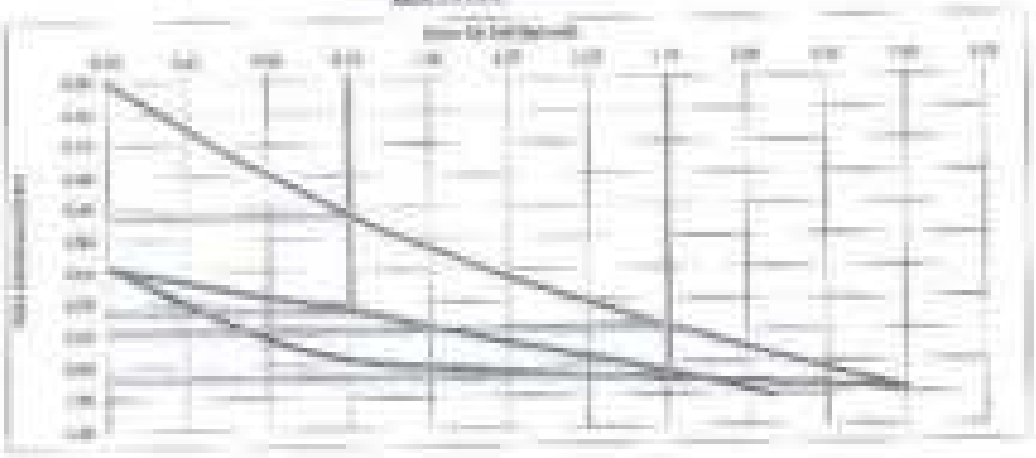
Company Name: [illegible]
Project: [illegible]
Test Date: [illegible]
Inspect date: [illegible]
Location: [illegible]
Test No.: [illegible]

[illegible] Construction
[illegible]
[illegible]
[illegible]
[illegible]

[illegible] Static Pile Load Test at Site
[illegible]



Loading (T)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stepping	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	[illegible]	[illegible]	[illegible]	[illegible]
Stepping	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stepping	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
Report Date : [illegible]
Location : Station 448+300 to 448+[illegible]
Test No : 64

Horizontal Static Plate Load Tests of Soils DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.23	[illegible]	0.39	[illegible]	0.21	0.29
2	0.83	[illegible]	0.39	[illegible]	0.46	[illegible]	0.37	0.41
3	1.25	[illegible]	0.37	[illegible]	0.84	[illegible]	0.53	0.58
4	1.67	[illegible]	0.70	[illegible]	0.88	[illegible]	0.73	0.76
5	2.08	[illegible]	0.92	[illegible]	0.88	[illegible]	0.90	0.90
6	2.50	[illegible]	1.07	[illegible]	1.11	[illegible]	1.08	1.08

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	[illegible]	1.07	[illegible]	1.11	[illegible]	1.08	1.08
2	1.25	[illegible]	1.00	[illegible]	1.07	[illegible]	0.93	0.99
3	0.00	[illegible]	0.60	[illegible]	0.89	[illegible]	0.84	0.81
4	0.01	[illegible]	0.62	[illegible]	0.83	[illegible]	0.83	0.59

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.14	[illegible]	0.71	[illegible]	0.01	0.60
1	0.83	[illegible]	0.83	[illegible]	0.82	[illegible]	0.78	0.79
2	1.25	[illegible]	0.95	[illegible]	0.97	[illegible]	0.93	0.89
3	1.67	[illegible]	1.05	[illegible]	1.03	[illegible]	0.98	0.99
4	2.08	[illegible]	1.17	[illegible]	1.15	[illegible]	0.98	1.07

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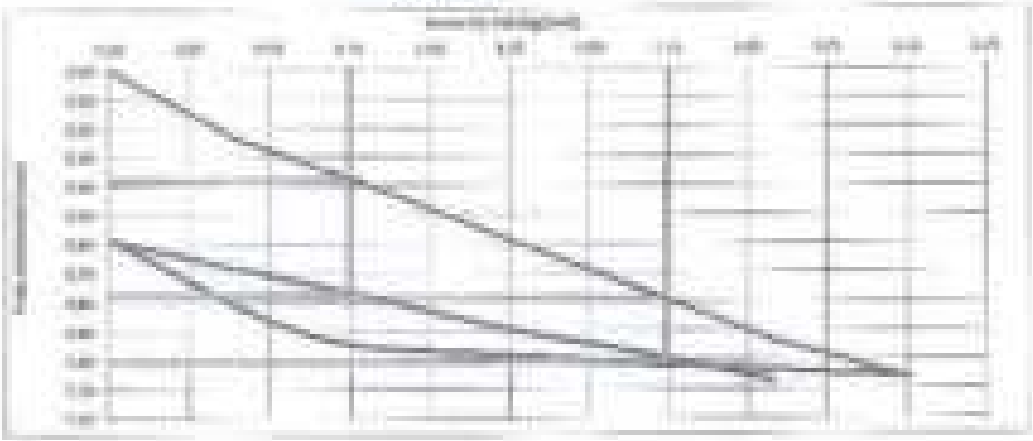
Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report Date : [illegible]
Location : [illegible]
Test No. : [illegible]

Non-cyclic Shells Plate Load Form of Soils (BS 1377-9)



Loading (T)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

D.V = Deviation of deformation during the loading stages
R.V = Recovery of deformation during the unloading stages
D = Plate diameter (mm)
Δs = The difference between S-1 and S-2 from the loadbearing testing (initial degree)
Δs1 = Difference in settlements corresponding to S-1 and S-2 from the accelerated testing (mm)

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Contracting Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No : [illegible]

Nonrestrictive Static Plate Load Tests of Soils DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.14	[illegible]	0.15	[illegible]	0.14	0.15
2	0.83	[illegible]	0.27	[illegible]	0.27	[illegible]	0.31	0.28
3	1.25	[illegible]	0.38	[illegible]	0.43	[illegible]	0.40	0.43
4	1.67	[illegible]	0.47	[illegible]	0.56	[illegible]	0.60	0.56
5	2.08	[illegible]	0.53	[illegible]	0.67	[illegible]	0.73	0.64
6	2.50	[illegible]	0.68	[illegible]	0.76	[illegible]	0.82	0.76

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.52	[illegible]	0.68	[illegible]	0.76	[illegible]	0.82	0.76
2	1.25	[illegible]	0.65	[illegible]	0.70	[illegible]	0.78	0.71
3	0.625	[illegible]	0.61	[illegible]	0.62	[illegible]	0.70	0.64
4	0.01	[illegible]	0.48	[illegible]	0.38	[illegible]	0.38	0.41

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.01	[illegible]	0.01	[illegible]	0.48	0.48
1	0.83	[illegible]	0.05	[illegible]	0.03	[illegible]	0.58	0.56
2	1.25	[illegible]	0.03	[illegible]	0.62	[illegible]	0.67	0.65
3	1.67	[illegible]	0.73	[illegible]	0.69	[illegible]	0.75	0.72
4	2.08	[illegible]	0.88	[illegible]	0.76	[illegible]	0.82	0.82

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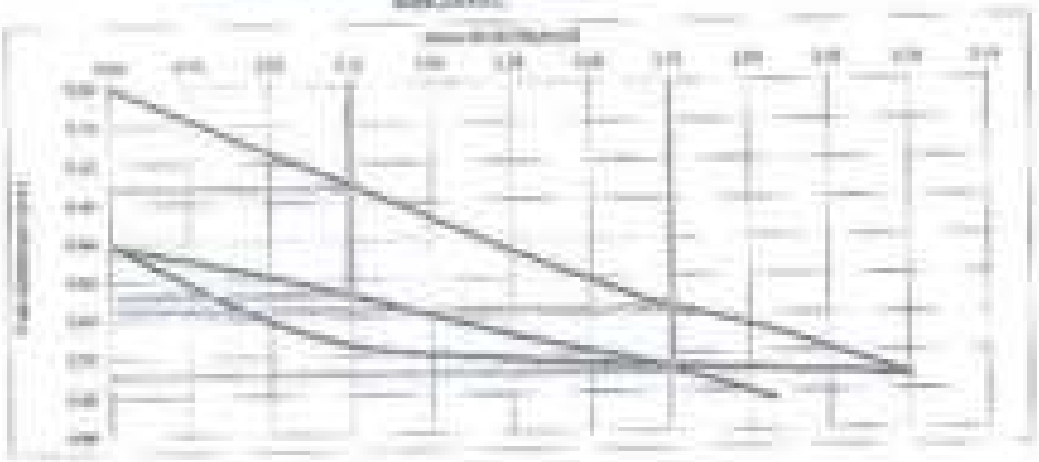
[illegible]

[illegible]



[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]
[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : [illegible]
Test No. : 06

Nonrewetting Static Plate Load Tests of Soils DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	1.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	2.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
5	2.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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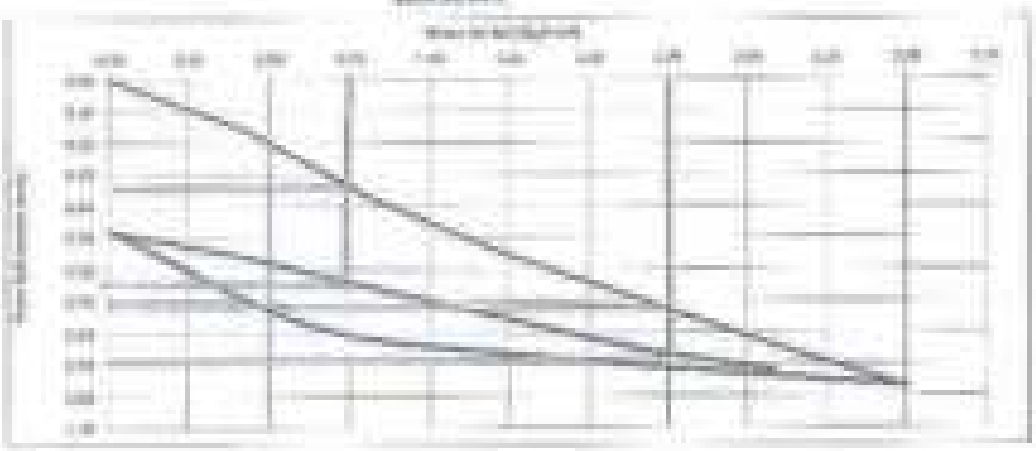
Contractor Name	[illegible]
Project	[illegible]
Test Date	[illegible]
Report date	[illegible]
Location	[illegible]
Test No.	[illegible]

[illegible] Static Plate Load Tests (4 Tests)

[illegible]



Loading (T)	0	1	2	3	4	5	6
Stage(kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]							
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]							

Old loading (T)	1	2	3	4
Stage(kg)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stage(kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]						
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]						

[illegible] = [illegible]

[illegible] = Modulus of deformation during first loading stage.

[illegible] = Modulus of deformation during non-first loading stage.

[illegible] = Plate diameter (cm).

[illegible] = The difference between [illegible] and [illegible] from the maximum loading (mm) (kg/cm²).

[illegible] = Difference in settlement corresponding to [illegible] and [illegible] from the maximum loading (mm).

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مكاتب معامل الاستشارات الهندسية

Company : New Rise Construction

Project : Electric Express Train, Al-Ain Sokhna to Marsa Matrouh Priority Sector (II) Alamein to Fuka

Subject : Determine the deformation and strength characteristics of soil by the plate loading test according specifications: DIN 18134:2012-04 and project requirements

Test Location : (449+200 to 449+400)

Test Date : 14/06/2023

Report Date : 15/06/2023

Type of soil : ------

Test level : Sub ballast.

Report No. : 249:247

Dear Gentlemen,

According to the above mentioned subject the test performed as follows:-

Apparatus

1. Loading plates consists of two plates with 600 mm and 300 mm diameter
2. The thickness of plates 30 mm
3. Dial gauges with accuracy 0.01 mm to measuring the settlement
4. Steel straightedges with magnetic supports to hold the dial gauges
5. Hydraulic jack with pump to transfer reaction loads to the loading plates
6. Dial indicator measuring device with scale capacity 100 mm (Proving)
7. Reaction loading system by rotor compactor with weight approximately 18 ton
8. Calibration certificates are attached

Test Procedure

1. Clean the ground on test area to the required level with undisturbed soil
2. Install loading plates 600 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
3. Prior to starting the test applied preloading about 30 seconds
4. The strain gauge and the dial gauge shall be set to zero
5. For a 600 mm loading plate, the limit values are 2.5 kg/cm²
6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
7. Each change in load (from stage to stage) shall be completed within one minute
8. The load shall be released in 3 stages, to 60 %, 35 %, and approximately 2 % of the maximum load
9. Following unloading, a further (2nd) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached)
10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min
11. Remove the loads

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Report

1. Evaluation and representation of results
2. Load Settlement curve
3. The test report contain the following:

- location of test site - Dimension of loading plate
- Measuring device used - Type of soil
- Type of bedding material below the plate - Weathering condition
- Time and date of measurements - Unusual observation made during test
- Dial gauge reading and corresponding normal stress - Loading settlement curve
- Description of the soil condition below the plate after testing

Report

Type of soil: Sub ballast.

- **Job requirement: Ev2 >(120 MPa), Ev2 ≥ (200 Mpa) and (Ev2/Ev1≤ 2.2).**

Item	Descriptions
- Type of bedding material below the plate	Natural Soil
- Weather condition	Sunny
- Plate Diameter (mm)	600
- date of measurement	15/08/2023
- Unusual observation made during test	NO
- Description of the soil conditions below the plate after testing	No deformation

Evaluation and representation of results

Test No.	Station		First Cycle	Second Cycle	Ev2/Ev1 Ratio
	From	To	Ev1 (kg/cm²)	Ev2 (kg/cm²)	
1	449+200	449+225	1301	1507	1.1
2	449+225	449+250	1388	1498	1.1
3	449+250	449+275	1451	1889	1.3
4	449+275	449+300	1307	2028	1.5
5	449+300	449+325	1428	1432	1.0
6	449+325	449+350	1162	1432	1.2
7	449+350	449+375	1433	1432	1.0
8	449+375	449+400	1318	1432	1.1

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Company Name : Sun Rise Construction
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : Station 449+285 to 449+325
Test No. : 01

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.10	[illegible]	0.11	[illegible]	0.15	0.13
2	0.83	[illegible]	0.14	[illegible]	0.23	[illegible]	0.30	0.29
3	1.25	[illegible]	0.48	[illegible]	0.37	[illegible]	0.45	0.43
4	1.67	[illegible]	0.60	[illegible]	0.56	[illegible]	0.67	0.67
5	2.08	[illegible]	0.69	[illegible]	0.63	[illegible]	0.76	0.70
6	2.50	[illegible]	0.87	[illegible]	0.79	[illegible]	0.91	0.85

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.33	[illegible]	0.87	[illegible]	0.75	[illegible]	0.81	0.81
2	1.25	[illegible]	0.80	[illegible]	0.69	[illegible]	0.84	0.78
3	0.625	[illegible]	0.72	[illegible]	0.57	[illegible]	0.75	0.65
4	0.01	[illegible]	0.46	[illegible]	0.39	[illegible]	0.48	0.37

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.58	[illegible]	0.65	[illegible]	0.58	0.53
1	0.83	[illegible]	0.73	[illegible]	0.84	[illegible]	0.72	0.70
2	1.25	[illegible]	0.85	[illegible]	0.79	[illegible]	0.85	0.83
3	1.67	[illegible]	0.89	[illegible]	0.89	[illegible]	0.86	0.84
4	2.08	[illegible]	1.11	[illegible]	0.96	[illegible]	1.07	1.09

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Faroukia, Cairo.
Tel.& Fax : [illegible]

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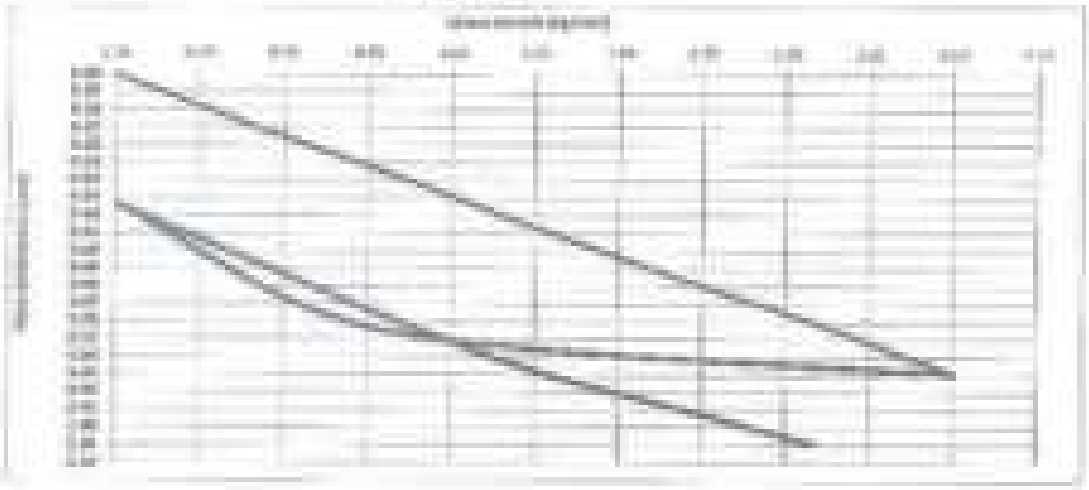
Company Name	: [illegible]
Project	: [illegible]
Test Date	: [illegible]
Report Date	: [illegible]
Location	: [illegible]
Test No.	: [illegible]

Incremental Static Plate Load Tests of Soils

[illegible]



Loading (T)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	4	3	2
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		

Loading (T)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		

[illegible]	[illegible]

Cyl. = Modulus of deformation during the loading stage

Cyl. = Modulus of deformation during the Unloading stage

S = Plate Elements Index

[illegible]

[illegible]

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Company Name : Sun Max Construction
Project : Greater Express Trans.from Al Ain Tunnels to Bawa Nonwoven Filtering Sector (B) - Remote to Tube
Test Date : 14/06/2023
report date : 15/06/2023
Location : Station: 449+225 to 449+250
Test No. : 02

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.13	[illegible]	0.15	[illegible]	0.17	0.15
2	0.83	[illegible]	0.38	[illegible]	0.36	[illegible]	0.39	0.37
3	1.25	[illegible]	0.50	[illegible]	0.44	[illegible]	0.43	0.45
4	1.67	[illegible]	0.54	[illegible]	0.54	[illegible]	0.57	0.55
5	2.08	[illegible]	0.77	[illegible]	0.69	[illegible]	0.70	0.72
6	2.50	[illegible]	0.88	[illegible]	0.81	[illegible]	0.83	0.84

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	[illegible]	0.88	[illegible]	0.81	[illegible]	0.83	0.84
2	1.25	[illegible]	0.83	[illegible]	0.71	[illegible]	0.76	0.76
3	0.625	[illegible]	0.68	[illegible]	0.66	[illegible]	0.62	0.63
4	0.01	[illegible]	0.38	[illegible]	0.27	[illegible]	0.29	0.30

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.58	[illegible]	0.57	[illegible]	0.59	0.43
1	0.83	[illegible]	0.83	[illegible]	0.98	[illegible]	0.83	0.55
2	1.25	[illegible]	0.74	[illegible]	0.82	[illegible]	0.88	0.66
3	1.67	[illegible]	0.88	[illegible]	0.79	[illegible]	0.80	0.81
4	2.08	[illegible]	0.96	[illegible]	0.89	[illegible]	0.97	0.92

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Consulting Office :
Project :
Test Date :
Report date :
Location :
Test No. :

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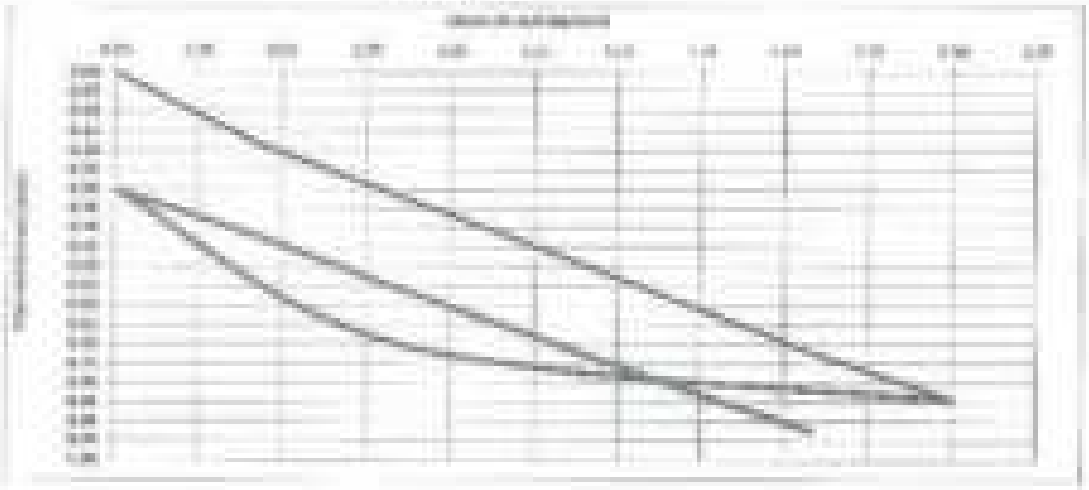
: [illegible]
: [illegible]
: [illegible]

Nonexpansive Static Plate Load Tests of Soils
[illegible]



Loading (%)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (%)	5	4	3	2
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Loading (%)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

[illegible] =	[illegible]

[illegible] = Modulus of deformation during the loading stage.
[illegible] = Modulus of deformation during the unloading stage.
[illegible] = Plate diameter (cm).
[illegible] = The difference between [illegible] and [illegible] from the maximum loading (stress kg/cm²).
[illegible] = Difference in settlements corresponding to [illegible] and [illegible] from the maximum loading (mm).

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Company Name : Sun Rise Construction
Project : [illegible]
Test Date : 14/06/2023
report date : 15/06/2023
Location : Station 449+250 to 449+275
Test No : 03

Non-repetitive Static Plate Load Tests at Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.12	[illegible]	0.29	[illegible]	0.18	0.17
2	0.82	[illegible]	0.33	[illegible]	0.54	[illegible]	0.31	0.39
3	1.25	[illegible]	0.56	[illegible]	0.46	[illegible]	0.43	0.42
4	1.67	[illegible]	0.69	[illegible]	0.61	[illegible]	0.57	0.50
5	2.09	[illegible]	0.64	[illegible]	0.69	[illegible]	0.68	0.67
6	2.50	[illegible]	0.78	[illegible]	0.83	[illegible]	0.84	0.82

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
5	2.09	[illegible]	0.78	[illegible]	0.83	[illegible]	0.84	0.82
2	1.25	[illegible]	0.78	[illegible]	0.74	[illegible]	0.75	0.73
3	0.025	[illegible]	0.56	[illegible]	0.61	[illegible]	0.62	0.60
4	0.01	[illegible]	0.39	[illegible]	0.32	[illegible]	0.32	0.31

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.41	[illegible]	0.46	[illegible]	0.51	0.46
1	0.82	[illegible]	0.53	[illegible]	0.67	[illegible]	0.69	0.58
2	1.25	[illegible]	0.64	[illegible]	0.68	[illegible]	0.75	0.69
3	1.67	[illegible]	0.76	[illegible]	0.81	[illegible]	0.85	0.81
4	2.08	[illegible]	0.84	[illegible]	0.87	[illegible]	0.93	0.88

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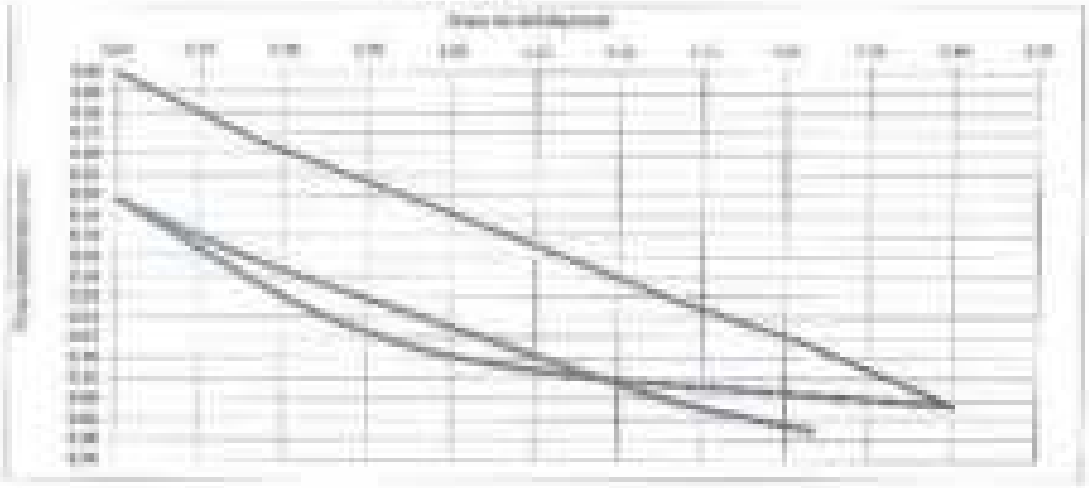
Company Name:	[illegible]
Project:	[illegible]
Test Date:	[illegible]
Report date:	[illegible]
Location:	[illegible]
Test No.:	[illegible]

Nonrewoliive Static Plate Load Tests of Soils

ASTM D1194



Loading (L)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (L)	1	2	3	4
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Loading (L)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

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E.U.I = [illegible]

E = [illegible]

Nc = [illegible]

Nb = [illegible]

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Company Name : Sun Rise Construction
Project : Roads Repairs Ivory, Sara Al Ain Institute to Marwa Rehmeh Priority Sector (8) - Manzala to Fiha
Test Date : 14/06/2023
report date : 15/06/2023
Location : Station 440+275 to 440+300
Test No. : 04

Horizontal Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.17	[illegible]	0.19	[illegible]	0.13	0.17
2	0.83	[illegible]	0.29	[illegible]	0.30	[illegible]	0.27	0.29
3	1.25	[illegible]	0.45	[illegible]	0.44	[illegible]	0.39	0.43
4	1.67	[illegible]	0.56	[illegible]	0.60	[illegible]	0.54	0.56
5	2.08	[illegible]	0.65	[illegible]	0.74	[illegible]	0.68	0.69
6	2.50	[illegible]	0.78	[illegible]	0.86	[illegible]	0.81	0.81

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.50	[illegible]	0.76	[illegible]	0.82	[illegible]	0.81	0.81
2	1.25	[illegible]	0.72	[illegible]	0.81	[illegible]	0.77	0.80
3	0.625	[illegible]	0.66	[illegible]	0.64	[illegible]	0.74	0.74
4	0.00	[illegible]	0.38	[illegible]	0.60	[illegible]	0.61	0.47

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.47	[illegible]	0.55	[illegible]	0.46	0.50
1	0.83	[illegible]	0.58	[illegible]	0.74	[illegible]	0.67	0.62
2	1.25	[illegible]	0.63	[illegible]	0.81	[illegible]	0.68	0.71
3	1.67	[illegible]	0.73	[illegible]	0.89	[illegible]	0.81	0.81
4	2.08	[illegible]	0.81	[illegible]	0.98	[illegible]	0.87	0.92

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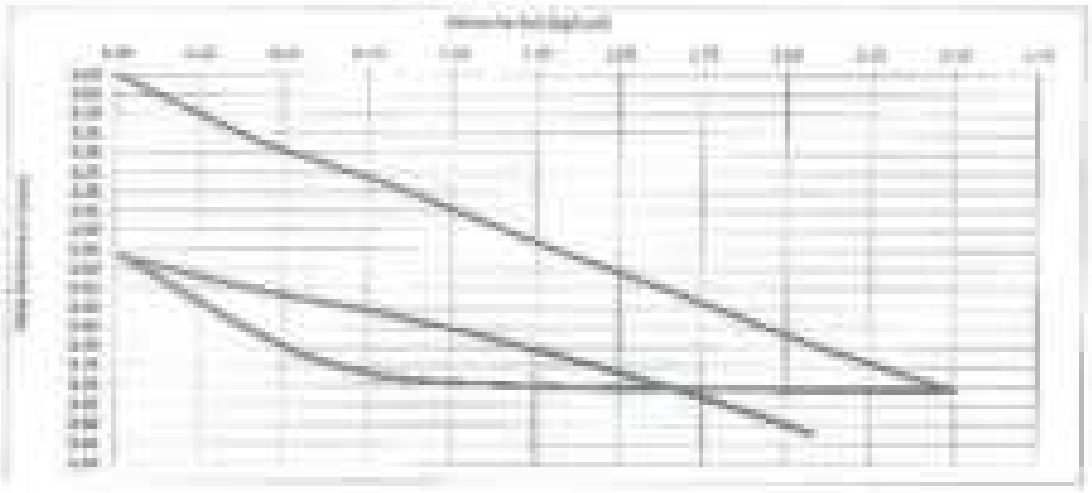
Contracting Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report Date : [illegible]
Location : [illegible]
Test No. : [illegible]

[illegible] Static Plate Load Tests of Soils
DIN 18134



Loading (-)	0	1	2	3	4	5	6
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (-)	1	2	3	4
Weight (kg)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]					

Loading (-)	0	1	2	3	4	5
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]					

[illegible] = [illegible]
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[illegible] = [illegible]
[illegible] = [illegible]
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Company Name : Sun Rise Construction
Project : Electric Express Tram, from Al Ain Sokhna to Kilometer Waterway Priority Section (E) – Pharaohs Air Cities
Test Date : 14/06/2023
report date : 15/06/2023
Location : Station 449+300 to 449+325
Test No. : 05

Incremental Static Plate Load Tests of Soils
DIN 18134

Data about

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.62	[illegible]	0.19	[illegible]	0.14	[illegible]	0.12	0.15
2	1.25	[illegible]	0.37	[illegible]	0.26	[illegible]	0.23	0.27
3	1.75	[illegible]	0.45	[illegible]	0.40	[illegible]	0.36	0.40
4	1.87	[illegible]	0.50	[illegible]	0.53	[illegible]	0.50	0.54
5	2.00	[illegible]	0.68	[illegible]	0.64	[illegible]	0.60	0.00
6	2.50	[illegible]	0.83	[illegible]	0.79	[illegible]	0.76	0.79

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.00	[illegible]	0.83	[illegible]	0.79	[illegible]	0.76	0.79
2	1.25	[illegible]	0.77	[illegible]	0.70	[illegible]	0.67	0.70
3	0.625	[illegible]	0.61	[illegible]	0.57	[illegible]	0.55	0.58
4	0.01	[illegible]	0.02	[illegible]	0.00	[illegible]	0.02	0.01

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.48	[illegible]	0.41	[illegible]	0.38	0.42
1	0.83	[illegible]	0.60	[illegible]	0.54	[illegible]	0.47	0.54
2	1.25	[illegible]	0.72	[illegible]	0.69	[illegible]	0.72	0.71
3	1.67	[illegible]	0.84	[illegible]	0.81	[illegible]	0.77	0.81
4	2.08	[illegible]	0.96	[illegible]	0.93	[illegible]	0.84	0.92

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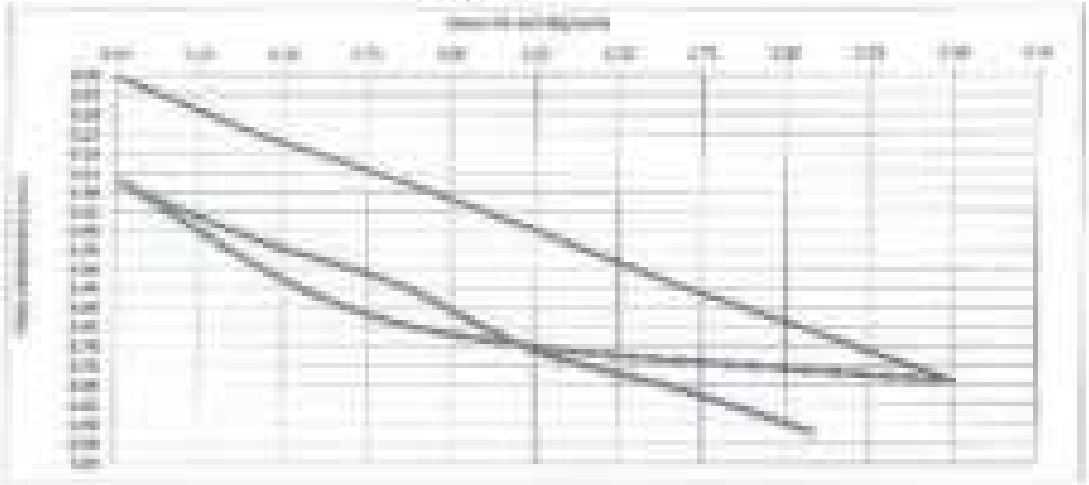
Company Name	: Sun Wire Constructions
Project	: [illegible]
Test Date	: [illegible]
report date	: [illegible]
Location	: [illegible]
Test No.	: [illegible]

[illegible] Static Plate Load Tests of Soils
DIN 18134



Loading (T)	0	1	2	3	4	5	6
Stress(Kg/cm2)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	4	3	2
Stress(Kg/cm2)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Loading (T)	0	1	2	3	4	5
Stress(Kg/cm2)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

[illegible]

[illegible] = Modulus of deformation during the loading stage

[illegible] = Modulus of deformation during the Reloading stage

D = Plate diameter (mm)

[illegible]

[illegible]

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Company Name : Sun Rise Construction
Project : Electric Express Trolly from Al Ain Sokhna to Suez - Ismailia Factory (6) – Ismailia to Fakia
Test Date : 14/06/2023
report date : 15/06/2023
Location : Station 449+375 to 449+350
Test No. : 96

Incrementive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.15	[illegible]	0.23	[illegible]	0.21	0.20
2	0.83	[illegible]	0.31	[illegible]	0.45	[illegible]	0.38	0.35
3	1.25	[illegible]	0.48	[illegible]	0.63	[illegible]	0.52	0.51
4	1.67	[illegible]	0.67	[illegible]	0.74	[illegible]	0.66	0.69
5	2.08	[illegible]	0.76	[illegible]	0.83	[illegible]	0.76	0.80
6	2.50	[illegible]	0.82	[illegible]	0.87	[illegible]	0.84	0.84

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.50	[illegible]	0.82	[illegible]	0.87	[illegible]	0.84	0.84
2	1.25	[illegible]	0.77	[illegible]	0.81	[illegible]	0.80	0.79
3	0.83	[illegible]	0.75	[illegible]	0.83	[illegible]	0.80	0.79
4	0.00	[illegible]	0.48	[illegible]	0.47	[illegible]	0.48	0.48

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.48	[illegible]	0.53	[illegible]	0.56	0.51
1	0.83	[illegible]	0.67	[illegible]	0.88	[illegible]	0.91	0.81
2	1.25	[illegible]	0.68	[illegible]	0.74	[illegible]	0.88	0.70
3	1.67	[illegible]	0.77	[illegible]	0.86	[illegible]	0.88	0.81
4	2.08	[illegible]	0.88	[illegible]	0.89	[illegible]	0.88	0.81

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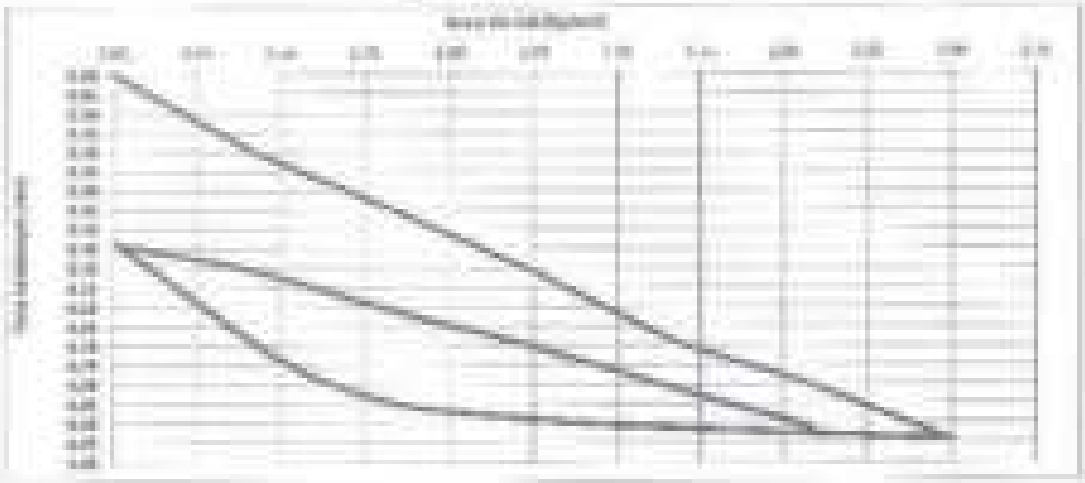
Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : [illegible]
Test By : [illegible]

Overexpansion Static Plate Load Tests of Soils
DIN 18134



Loading (T)	0	1	2	3	4	5	6
Stage (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	4	3	2	1	0
Stage (Kg)	[illegible]	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]						

Loading (T)	0	1	2	3	4	5
Stage (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]						

[illegible]	[illegible]

[illegible]

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Company Name : Sun Rise Construction
Project : Rashid Express Tram, from Al Ma Rukhsa to Borg Al Arab Borrow Priority Sector (5) – Remete to Fire
Test Date : 14/06/2023
report date : 15/06/2023
Location : Station 449+350 to 449+375
Test No. : 07

Nonrecovrable Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.76	0.22	19.73	0.27	19.80	0.20	0.23
2	0.83	19.44	0.56	19.57	0.43	19.67	0.33	0.37
3	1.25	19.51	0.49	19.63	0.37	19.51	0.49	0.51
4	1.67	19.39	0.61	19.59	0.39	19.63	0.37	0.93
5	2.08	19.27	0.73	19.23	0.73	19.30	0.70	0.71
6	2.50	19.23	0.88	19.04	0.91	19.15	0.81	0.88

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	19.15	0.85	19.04	0.91	19.15	0.81	0.86
2	1.25	19.24	0.76	19.18	0.82	19.27	0.73	0.77
3	0.625	19.37	0.63	19.30	0.70	19.40	0.60	0.69
4	0.01	19.60	0.38	19.50	0.50	19.69	0.31	0.35

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	19.51	0.49	19.46	0.54	19.55	0.45	0.49
1	0.83	19.38	0.62	19.31	0.69	19.41	0.59	0.63
2	1.25	19.24	0.76	19.19	0.81	19.28	0.72	0.76
3	1.67	19.12	0.88	19.10	0.90	19.15	0.85	0.88
4	2.08	19.00	0.00	18.90	1.00	19.00	0.00	0.00

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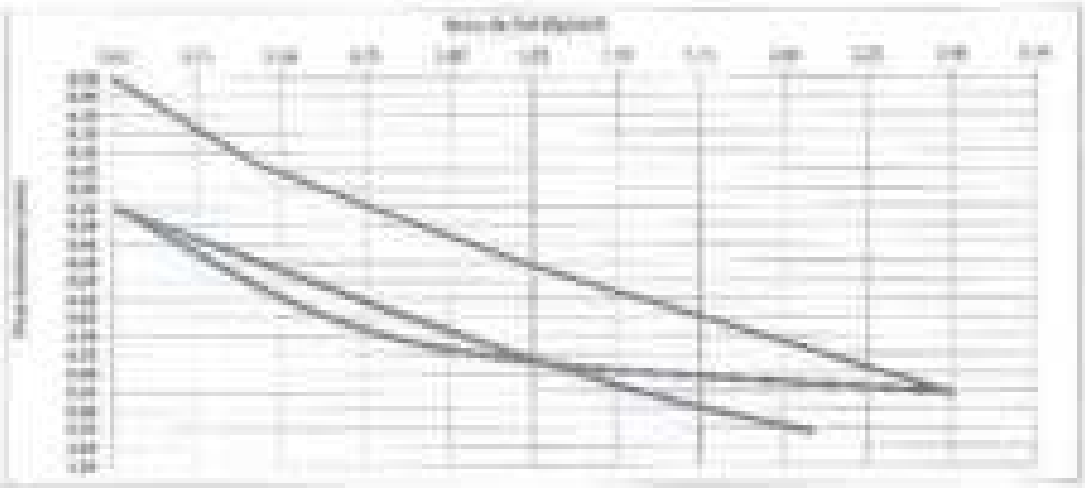
مكتب معامل الاستشارات الهندسية

Contracting Firm	: Sam Misr Construction
Project	: Rosetta Suppress Tunnel from Km Kilometer to Marsa Matrouh Priority Review (3) – Alexandria to Tobruk
Test Date	: [illegible]
Report Date	: [illegible]
Location	: Station [illegible] to [illegible]
Test No	: 03

Non-Destructive Static Plate Load Tests of Soils
DIN 18135



Loading (T)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	1106.90	2105.9	3052.5	4119.4	5015.1	7000
Stress (kg/cm²)	0.01	0.42	0.91	1.32	1.87	2.28	3.18
Settlement (mm)	0.01	0.17	0.37	0.51	0.63	0.74	0.86

Unloading (T)	5	3	1	0
Stress (kg/cm²)	5015	3052	1106	0
Stress (kg/cm²)	2.28	1.39	0.438	0.01
Settlement (mm)	0.86	0.77	0.54	0.36

D (mm) =	800	D/2 (mm)	400	Stress=	3.18	Δs = 0.36
Ev1 (kg/cm²) = 8.7777342258			1864			

Loading (T)	0	1	2	3	4	5
Stress (kg/cm²)	0	1106.90	2105.9	3052.5	4119.4	5015.1
Stress (kg/cm²)	0.01	0.42	0.91	1.32	1.87	2.28
Settlement (mm)	0.01	0.49	0.65	0.75	0.86	0.96

Stiffnet =	1.8

D (mm) =	800	D/2 (mm)	400	Stress=	2.28	Δs = 0.96
Ev2 (kg/cm²) = 6.7777342258			1442			

Ev1 = Modulus of deformation during first loading phase

Ev2 = Modulus of deformation during first reloading stage

K = Plate deflection modulus

Ds = The difference between S at 0.7 load (the maximum loading criteria stipulated)

Ds = Difference in settlements corresponding to S at 0.7 load in 1 hour the maximum loading (load)

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Company Name : Sun Rise Construction
Project : Placido Expansion Trans Sinai Al Ain Sokhna to Berse Betrayah Priority Sector (8) - Alamein to Cairo
Test Date : 14/06/2023
report date : 15/06/2023
Location : Station 449+375 to 409+400
Test No. : 06

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.62	[illegible]	0.37	[illegible]	0.72	[illegible]	0.38	0.39
2	0.93	[illegible]	0.40	[illegible]	0.35	[illegible]	0.45	0.41
3	1.25	[illegible]	0.57	[illegible]	0.49	[illegible]	0.58	0.55
4	1.87	[illegible]	0.68	[illegible]	0.63	[illegible]	0.79	0.69
5	2.50	[illegible]	0.87	[illegible]	0.76	[illegible]	0.87	0.82
6	3.12	[illegible]	0.98	[illegible]	0.88	[illegible]	1.04	0.98

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
5	3.50	[illegible]	0.95	[illegible]	0.88	[illegible]	1.04	0.95
2	1.20	[illegible]	0.82	[illegible]	0.81	[illegible]	0.94	0.87
3	0.625	[illegible]	0.72	[illegible]	0.68	[illegible]	0.82	0.74
4	0.01	[illegible]	0.38	[illegible]	0.39	[illegible]	0.51	0.42

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.62	[illegible]	0.86	[illegible]	0.80	[illegible]	0.77	0.80
2	1.25	[illegible]	0.96	[illegible]	0.89	[illegible]	0.91	0.93
3	1.87	[illegible]	0.98	[illegible]	0.93	[illegible]	1.11	1.00
4	2.50	[illegible]	1.06	[illegible]	0.99	[illegible]	1.19	1.08

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9 Ali Khalek St. Abdel Moneim
Zamalek, Cairo.
Tel./Fax : 27367331 - 27362893

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الزمالك - القاهرة
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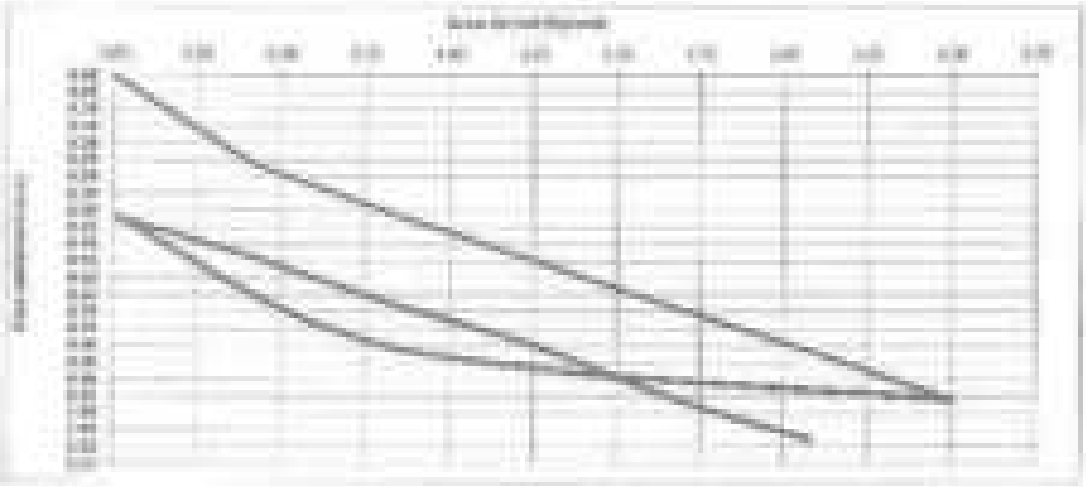
مكتب معامل الإستشارات الهندسية

Company Name	[illegible]
Project	[illegible]
Test Date	[illegible]
Report date	[illegible]
Location	[illegible]
Test No.	[illegible]

[illegible] Plate Load Tests of Bulb

[illegible]



Loading (T)	0	1	2	3	4	5	6
Stage (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	1	2	3	4
Stage (kg)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

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[illegible]	[illegible]					

Loading (T)	0	1	2	3	4	5
Stage (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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Company : Sun Rise Construction

Project : Electric Express Train, Al Ain Sokhna to Menia Matrouh Priority Sector (6) - Alamein to Fuka.

Subject : Determine the deformation and strength characteristics of soil by the plate loading test according specifications: DIN 18134:2012-04 and project requirements

Test Location : (449+625) to (449+925)

Test Date : 03/04/2023

Report Date : 04/04/2023

Type of soil : ——

Test level : **Prepared Subgrade .**

Report No. : 158-176

Dear Gentlemen,

According to the above mentioned subject the test performed as follows:-

Apparatus

1. Loading plates consists of two plates with 600 mm and 300 mm diameter
2. The thickness of plates 30 mm
3. Dial gauges with accuracy 0.01 mm to measuring the settlement
4. Steel straightedges with magnetic supports to fixed the dial gauges
5. Hydraulic jack with pump to transfer reactive loads to the loading plates
6. Dial indicator measuring device with scale capacity 700 flor (Contract)
7. Reaction loading system by roller compactor with weight approximately 15 ton
8. Calibration verification are attached

Test Procedure

1. Clean the ground on test area to the required level with undisturbed soil
2. Install loading plates 600 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
3. Prior to starting the test applied preloading about 30 seconds.
4. The strain gauge and the dial gauge shall be set to zero
5. For a 600 mm loading plate, the limit values are 2.5 kg/cm^2
6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
7. Each change in load (from stage to stage) shall be completed within one minute
8. The load shall be released in 3 stages, to 50 %, 25 %, and approximately 2 % of the maximum load.
9. Following unloading, a further 2nd loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached).
10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min.
11. Plotting the results

3 El Nasr St. Abbas Street
Kasr El Nil, Cairo
Tel./Fax : 23767733 - 27760909

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Report

1. Evaluation and representation of results
2. Load Settlement curve
3. The real report content the following:-

- location of test site - Dimension of loading plate
- Measuring device used - Type of soil
- Type of bedding material below the plate -Weathering condition
- Time and date of measurements - Unusual observation made during test
- Dial gauge reading and corresponding normal stress - Loading settlement curve
- Description of the soil condition below the plate after testing

Report

Type of soil: Prepared Subgrade .

- **Job requirement: Ev2 > 800 Kg/cm² (80 MPa).**

- Type of bedding material below the plate	Natural Soil
- Weather condition	Partly Sunny
- Plate Diameter (mm)	600
- date of measurement	03/04/2013
- Unusual observation made during test	NO
- Description of the soil condition below the plate after testing	No deformation

Evaluation and representation of results

Test No.	Stress		Pvt Cycle	Second Cycle	Ev2/Ev1 Ratio
	From	To	Ev1 (kg/cm²)	Ev2 (kg/cm²)	
1	445+625	445+650	1350	2045	1.6
2	445+650	445+675	1402	2143	1.5
3	445+675	445+700	1406	2143	1.5
4	445+700	445+725	1125	1857	1.7
5	445+725	445+750	1324	1652	1.2
6	445+750	445+775	1326	1857	1.4
7	445+775	445+800	1154	2143	1.9
8	445+800	445+825	1184	2143	1.8

Signature /

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Company Name : Ban Abin Construction.
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 01

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134.

Units mm

Loading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.34	[illegible]	0.19	[illegible]	[illegible]	[illegible]
2	0.85	[illegible]	0.41	[illegible]	0.32	[illegible]	0.35	0.38
3	1.28	[illegible]	0.58	[illegible]	0.48	[illegible]	0.42	[illegible]
4	1.67	[illegible]	0.77	[illegible]	0.65	[illegible]	0.64	[illegible]
5	2.08	[illegible]	0.87	[illegible]	0.82	[illegible]	0.79	[illegible]
6	2.48	[illegible]	1.05	[illegible]	0.95	[illegible]	0.90	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.02	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	[illegible]
2	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.06	[illegible]
3	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.15	[illegible]
4	0.01	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.02	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.00	[illegible]	0.01	[illegible]	0.58	0.00
1	0.85	[illegible]	0.77	[illegible]	0.71	[illegible]	0.87	[illegible]
2	1.28	[illegible]	0.89	[illegible]	0.88	[illegible]	0.75	[illegible]
3	1.67	[illegible]	0.94	[illegible]	0.88	[illegible]	0.88	2.05
4	2.08	[illegible]	1.03	[illegible]	0.98	[illegible]	0.93	3.97

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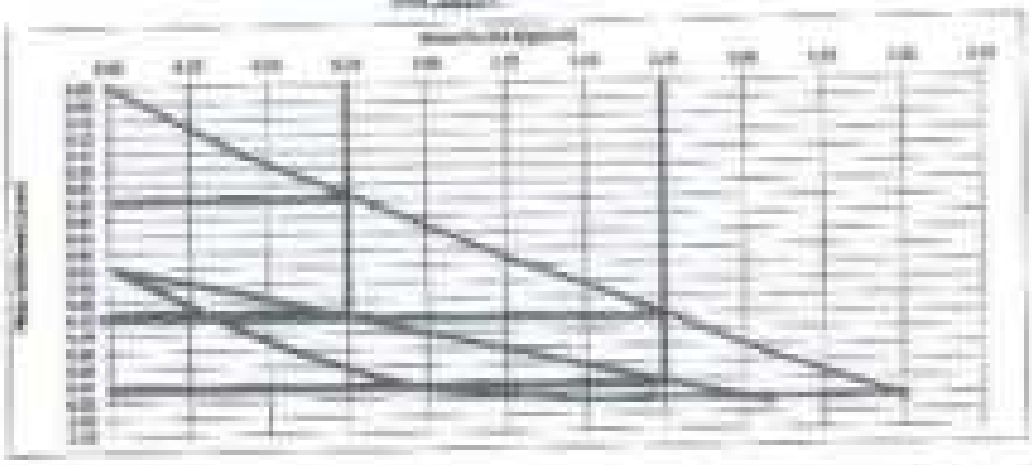

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Company Name : Gam Hiaa Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 02

Incrementtiven Static Plate Load Tests of Soils DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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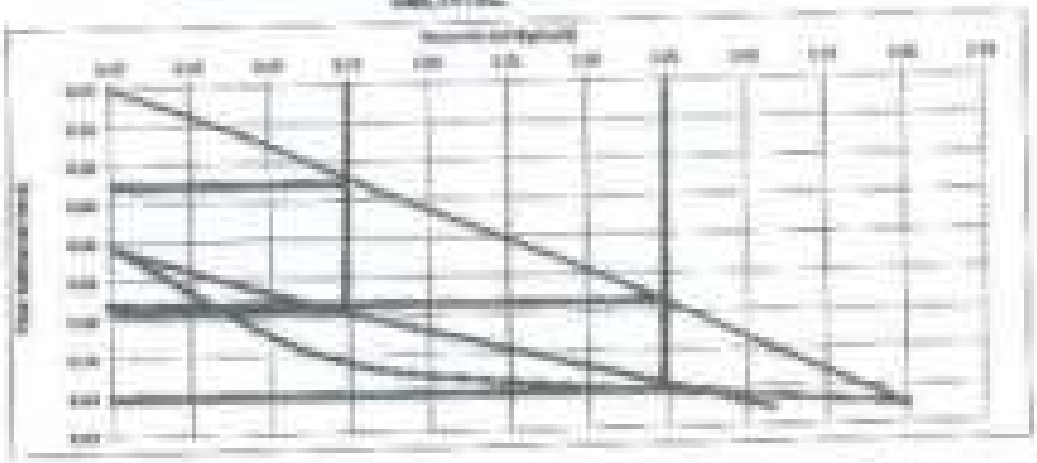

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Company Name : Sun Flag Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : [illegible]

Horizontal Static Plate Load Tests of Soils
DIN 18134.

Data sheet

Loading Stage (I)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (I)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (II)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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المعامل المصرية

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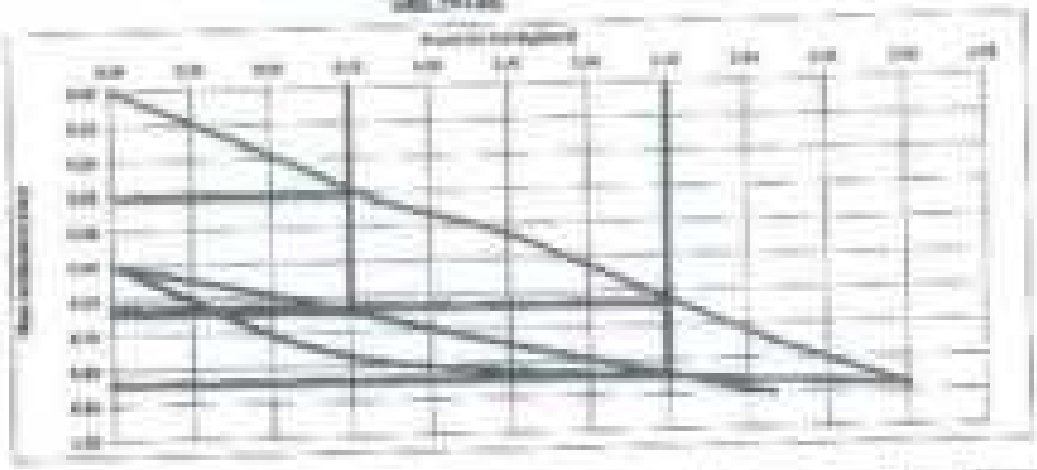

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Company Name : Sun Rise Construction.

Project : [illegible]

Test Date : [illegible]

report date : [illegible]

Location : Station 448+700 to 448+720

Test No. : 94

Noncyclic Static Plate Load Tests of Soils DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.15	[illegible]	0.22	[illegible]	0.19	[illegible]
2	0.83	[illegible]	0.34	[illegible]	0.37	[illegible]	0.39	0.34
3	1.25	[illegible]	0.43	[illegible]	0.55	[illegible]	0.44	0.44
4	1.67	[illegible]	0.72	[illegible]	0.75	[illegible]	0.50	0.67
5	2.08	[illegible]	0.89	[illegible]	0.96	[illegible]	0.78	0.94
6	2.50	[illegible]	1.05	[illegible]	1.00	[illegible]	0.90	0.99

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
5	2.08	[illegible]	1.05	[illegible]	1.00	[illegible]	0.90	0.98
2	1.25	[illegible]	0.88	[illegible]	0.94	[illegible]	0.83	0.88
3	0.83	[illegible]	0.80	[illegible]	0.88	[illegible]	0.76	0.84
4	0.41	[illegible]	0.66	[illegible]	0.80	[illegible]	0.60	0.68

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.77	[illegible]	0.87	[illegible]	0.87	0.85
1	0.83	[illegible]	0.81	[illegible]	0.76	[illegible]	0.88	0.78
2	1.25	[illegible]	0.81	[illegible]	0.89	[illegible]	0.79	0.84
3	1.67	[illegible]	1.00	[illegible]	0.94	[illegible]	0.85	0.93
4	2.08	[illegible]	1.07	[illegible]	1.02	[illegible]	0.93	1.01

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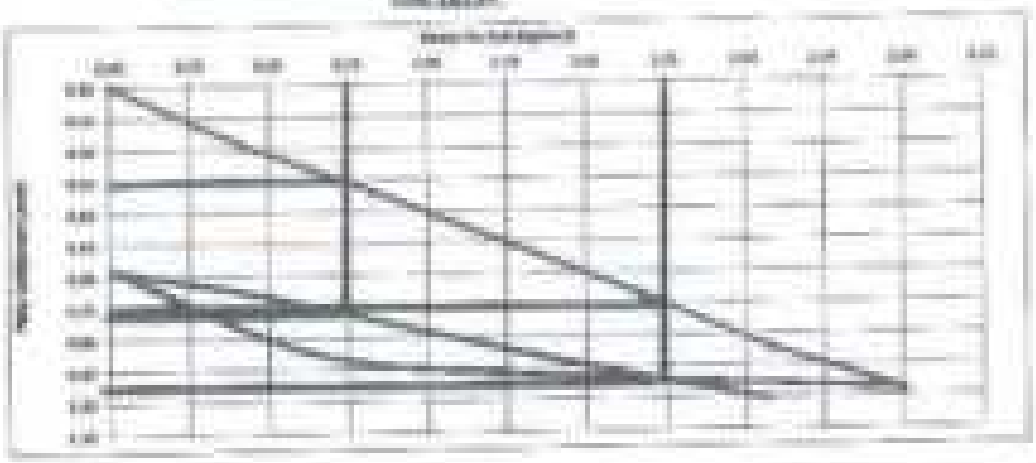
Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : [illegible]
Test No. : [illegible]

[illegible] Load Curve of Slab



Loading (T)	0	1	2	3	4	5	6
Stage (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]							
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]							

Unloading (T)	4	3	2	0
Stage (Kg)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stage (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]						
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]						

[illegible]

[illegible] = Maximum of deformation during the loading stage.
[illegible] = Maximum of deformation during the unloading stage.
[illegible] = Plate diameter (mm)
[illegible] = The difference between 1.2 and 0.7 times the maximum loading (tonnes Kg/cm²)
[illegible] = Difference in corresponding settlings for 1.2 and 0.7 times the maximum loading (mm)

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مكاتب معامل الاستشارات الهندسية

Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 06

Representative Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Steps (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Steps (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Steps (2)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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Tel./Fax : [illegible]

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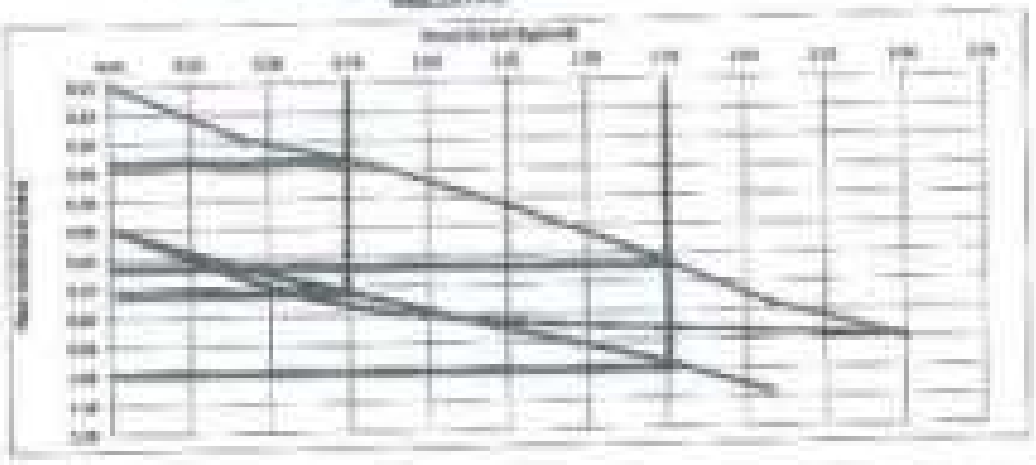
[illegible]



[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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[illegible]

Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : Station 448+150 to 448+770
Test No. : 08

Horizontal Static Plate Load Tests of Soils
DIN 18134.

Data sheet

Loading Stage (I)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.88	0.12	19.89	0.11	19.91	0.09	0.11
2	0.83	19.70	0.30	19.71	0.29	19.79	0.21	0.27
3	1.25	19.53	0.47	19.63	0.37	19.60	0.40	0.40
4	1.67	19.38	0.62	19.50	0.50	19.71	0.29	0.52
5	2.08	19.23	0.79	19.37	0.63	19.69	0.31	0.58
6	2.50	19.09	0.91	19.23	0.78	19.54	1.00	0.90

Unloading Stage (II)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
4	2.50	19.09	0.91	19.23	0.78	19.54	1.00	0.90
3	2.25	19.24	0.86	19.38	0.74	19.65	1.00	0.87
2	1.875	19.31	0.75	19.50	0.58	19.73	0.90	0.74
1	1.37	19.51	0.49	19.69	0.40	19.78	0.85	0.58

Loading Stage (II)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	19.44	0.56	19.53	0.47	19.76	0.74	0.59
1	0.83	19.34	0.66	19.44	0.56	19.67	0.83	0.69
2	1.25	19.21	0.79	19.41	0.59	19.65	0.81	0.77
3	1.67	19.16	0.84	19.31	0.77	19.60	1.00	0.88
4	2.08	19.09	0.91	19.30	0.80	19.51	1.08	0.93

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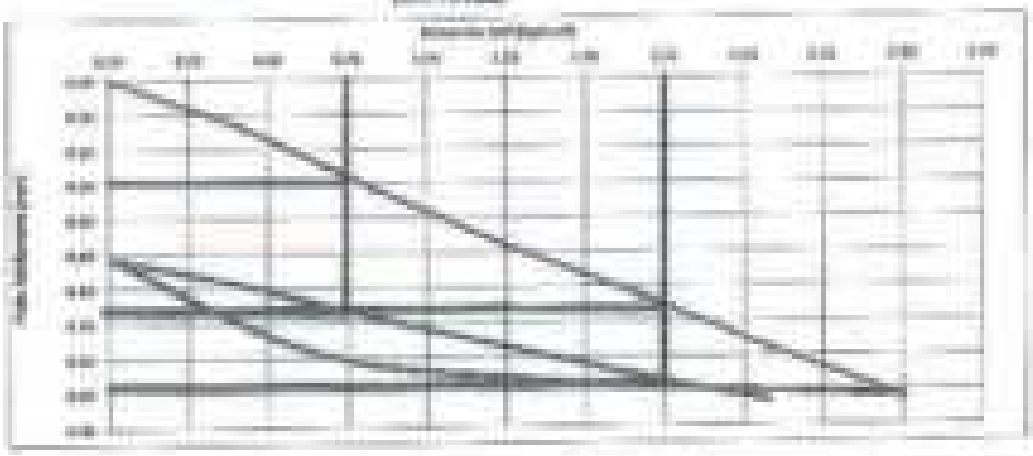
المعامل المعتمدة

Company Name: [illegible]
Project: [illegible]
Test Date: [illegible]
Report Date: [illegible]
Location: [illegible]
Test By: [illegible]

Non-Destructive Static Plate Load Test (ASTM D1196)



Loading (T)	0	1	2	3	4	5	6
Weight (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Deflection (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	4	2	1	0
Weight (Kg)	[illegible]	[illegible]	[illegible]	0
Settlement (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Deflection (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]			

Loading (T)	0	1	2	3	4	5
Weight (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Deflection (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]			

Sol = deflection at full unloading due to applied load.
Sol' = deflection at full unloading due to full loading steps.
δ = Plate deflection (mm).
Cu = Plate deflection between 0.5 and 1 times the maximum loading (kg/cm²).
Cu' = deflection to settlement corresponding to 0.5 and 0.1 times the maximum loading (mm).

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Company Name : Sun Rise Constructions.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 448+770 to 448+800
Test No. : 07

Horizontal Static Plate Load Tests of Soils
DIN 18134.

Data sheet

Loading Stage (I)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.90	0.10	19.77	0.23	19.83	0.17	0.17
2	0.83	19.78	0.22	19.58	0.42	19.68	0.32	0.32
3	1.25	19.60	0.40	19.35	0.65	19.53	0.47	0.50
4	1.67	19.47	0.53	19.18	0.80	19.37	0.63	0.65
5	2.10	19.33	0.68	19.05	0.94	19.23	0.77	0.79
6	2.50	19.23	0.80	18.95	1.05	19.08	0.91	0.95

Unloading Stage (I)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
7	2.00	19.33	0.68	19.05	1.05	19.14	0.86	0.91
8	1.25	19.37	0.63	19.10	1.00	19.14	0.86	0.90
9	0.825	19.38	0.62	19.20	0.80	19.39	0.60	0.67
0	0.01	19.40	0.60	19.44	0.57	19.50	0.50	0.56

Loading Stage (II)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	19.53	0.47	19.21	0.79	19.43	0.58	0.60
1	0.83	19.41	0.59	19.15	0.85	19.33	0.67	0.68
2	1.25	19.31	0.69	19.05	0.95	19.25	0.75	0.77
3	1.67	19.24	0.76	19.03	0.98	19.18	0.82	0.85
4	2.08	19.17	0.83	18.83	1.08	19.08	0.91	0.94

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المعامل المعمارية
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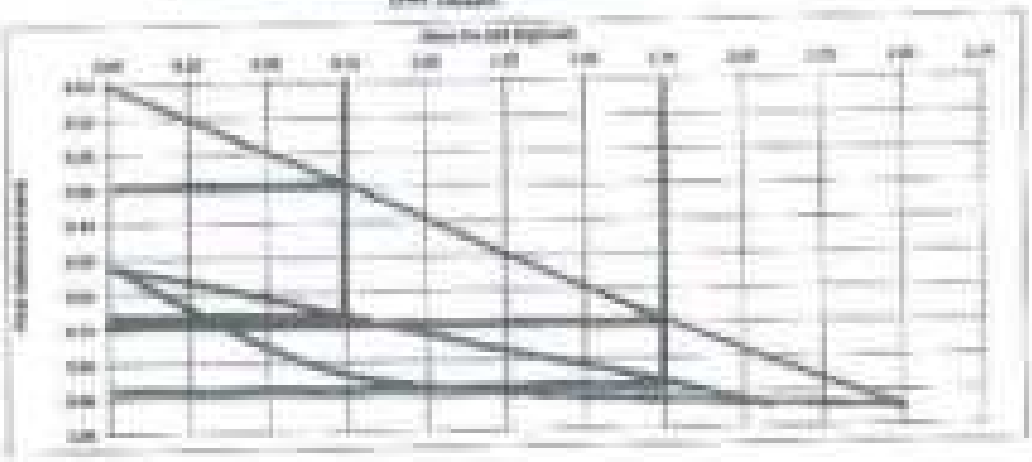

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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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[illegible]

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Changing Hours : Sun Hiss Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 08

Horizontal Static Plate Load Tests of Soils
DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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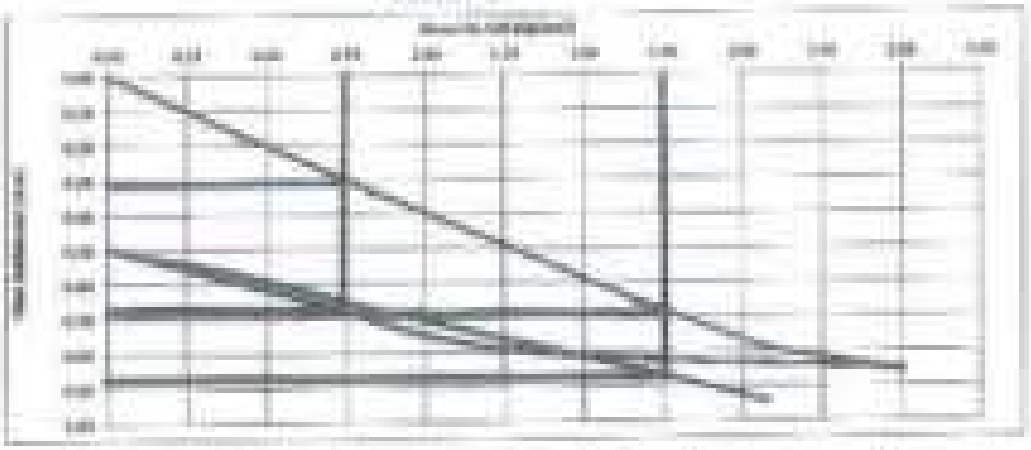
Company Name : [illegible]
Product : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : [illegible]
Test No. : [illegible]

[illegible]



[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

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Customer : New Rise Contraction

Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) : Alamein to Fuka

Subject : Determine the deformation and strength characteristics of soil by the plate loading test according specifications: DBN 101/34.3012-04 and project requirements

Test Location : (449+500 to 449+750)

Test Date : 15/09/2023

Report Date : 17/09/2023

Type of soil : ——

Test level : Sub ballast

Report No. : 348/257

Dear Gentlemen,

According to the above mentioned subject the test performed as follows:

Equipment

1. Loading plates consists of two plates with 600 mm and 300 mm diameter
2. The thickness of plates 30 mm
3. Dial gauges with accuracy 0.01 mm to measuring the settlement
4. Steel straightedges with magnetic supports to fixed the dial gauges
5. Hydraulic jack with pump to transfer reaction loads to the loading plates
6. Dial indicator measuring device with scale capacity 700 Bar (Overlaw)
7. Reaction loading system by roller compactor with weight approximately 15 ton
8. Calibration certificates are attached

Test Procedure

1. Clean the ground on test area to the required level with undisturbed soil
2. Install loading plates 600 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
3. Prior to starting the test applied preloading about 30 seconds.
4. The strain gauge and the dial gauge shall be set to zero
5. For a 600 mm loading plate, the limit values are 2.5 kg/cm²
6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
7. Each change in load from stage to stage shall be completed within one minute
8. The load shall be released in 5 stages, to 50 %, 25 %, and approximately 2 % of the maximum load
9. Following unloading, a further (2nd) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached).
10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min.
11. Remove the loads

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Report

1. Evaluation and representation of results
2. Load Settlement curve
3. The test report contain the following:-

- location of test site – Dimension of loading plate
- Measuring device used – Type of soil
- Type of bedding material below the plate -Weathering condition
- Time and date of measurements - Unusual observation made during test
- Dial gauge reading and corresponding normal stress - Loading-settlement curve
- Description of the soil condition below the plate after testing

Report

Type of soil: Sub ballast.

- Job requirement: Ev2 >(120 MPa), Ev2 ≤ (300 Mpa) and (Ev2/Ev1≤ 2.2).

Item	Descriptions
- Type of bedding material below the plate	Natural Soil
- Weather condition	Sunny
- Plate Diameter (mm)	600
- date of measurement	15/09/2023
- Unusual observation made during test	NO
- Description of the soil conditions below the plate after testing	No deformation

Evaluation and representation of results

Test No.	Station		First Cycle	Second Cycle	Ev2/Ev1 Ratio
	From	To	Ev1 (kg/cm²)	Ev2 (kg/cm²)	
1	440+100	440+125	1070	1638	1.5
2	440+125	440+150	1324	1546	1.2
3	440+150	440+175	1442	1781	1.2
4	440+175	440+200	1424	1246	0.9
5	440+600	440+625	1341	1344	1.0
6	440+625	440+650	1183	2444	2.1
7	440+650	440+675	1483	1519	1.0
8	440+675	440+700	1377	1696	1.2
9	440+700	440+725	1329	1789	1.3
10	440+725	440+750	1366	1602	1.1

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Company Name : Sun Rise Construction
Project : Giza's Express Trip, from Al Ain Sokhna to Warer Retreat Priority Sector (8) - Western to Fyka
Test Date : 10/06/2022
report date : 17/06/2022
Location : Station 449+500 to 449+525
Test No. : 01

Nonrecovering Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.81	0.17	19.89	0.11	19.86	0.14	0.14
2	0.83	19.62	0.38	19.75	0.25	19.69	0.31	0.31
3	1.25	19.36	0.64	19.63	0.37	19.57	0.43	0.48
4	1.67	19.21	0.79	19.42	0.58	19.38	0.62	0.59
5	2.08	19.00	0.99	19.30	0.80	19.18	0.82	0.80
6	2.50	18.88	1.12	19.22	0.88	19.10	0.90	0.97

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.50	19.00	1.12	19.22	0.88	19.10	0.90	0.97
2	1.25	19.06	1.04	19.20	0.80	19.18	0.81	0.88
3	0.625	19.14	0.96	19.31	0.69	19.27	0.73	0.78
4	0.21	19.20	0.88	19.41	0.59	19.33	0.67	0.67

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	19.27	0.73	19.49	0.52	19.45	0.55	0.59
1	0.83	19.19	0.81	19.34	0.67	19.29	0.71	0.73
2	1.25	19.07	0.93	19.21	0.79	19.15	0.85	0.85
3	1.67	19.00	1.00	19.10	0.90	19.05	0.95	0.95
4	2.08	18.89	1.11	19.06	1.00	18.95	1.05	1.07

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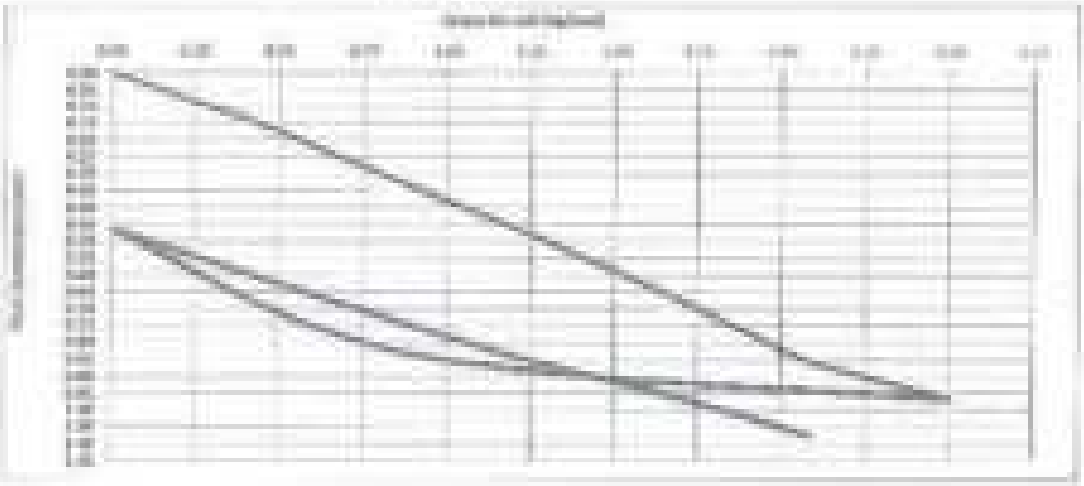
Company Name	: [illegible]
Project	: [illegible]
Test Date	: [illegible]
Report date	: [illegible]
Location	: [illegible]
Test No.	: [illegible]

Incremental Static Plate Load Tests of Soils
ORN 05124



Loading (T)	0	1	2	3	4	5	6
Stage(Kg)	0	1186.80	2349.6	3532.8	4718.4	5878.1	7065
Stress (Kg/cm²)	0.00	4.42	8.80	13.16	17.57	21.89	26.30
Settlement (mm)	0.00	0.14	0.31	0.49	0.68	0.90	0.97

Unloading (T)	7	3	2	1
Stage(Kg)	7065	3532.8	2349.6	0
Stress (Kg/cm²)	26.30	13.16	8.80	0.00
Settlement (mm)	0.97	0.88	0.78	0.67

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Loading (T)	0	1	2	3	4	5
Stage(Kg)	0	1186.80	2349.6	3532.8	4718.4	5878.1
Stress (Kg/cm²)	0.00	0.00	0.00	1.20	5.07	9.39
Settlement (mm)	0.00	0.06	0.13	0.20	0.36	1.27

[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

[illegible] = Modulus of deformation during the loading stage.
[illegible] = Modulus of deformation during the Reloading stage.
[illegible] = Plate diameter (mm).
[illegible] = The difference between [illegible] and [illegible] from the maximum loading (mm) (Inches).
[illegible] = Difference in settlement corresponding to [illegible] and [illegible] from the maximum loading (mm).

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Company Name : Sun Rise Construction
Project : [illegible]
Test Date : 19/06/2023
report date : 17/06/2023
Location : Station 689+525 to 689+550
Test No. : 90

Nonconvention Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.15	[illegible]	0.14	[illegible]	0.08	0.14
2	0.83	[illegible]	0.31	[illegible]	0.30	[illegible]	0.24	0.27
3	1.25	[illegible]	0.50	[illegible]	0.45	[illegible]	0.37	0.44
4	1.67	[illegible]	0.55	[illegible]	0.57	[illegible]	0.50	0.55
5	2.08	[illegible]	0.73	[illegible]	0.71	[illegible]	0.67	0.71
6	2.50	[illegible]	0.83	[illegible]	0.80	[illegible]	0.83	0.83

Unloading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	[illegible]	0.92	[illegible]	0.90	[illegible]	0.83	0.88
2	1.75	[illegible]	0.88	[illegible]	0.81	[illegible]	0.79	0.84
3	0.825	[illegible]	0.73	[illegible]	0.70	[illegible]	0.64	0.70
4	0.01	[illegible]	0.38	[illegible]	0.38	[illegible]	0.32	0.36

Loading Stage (2)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.51	[illegible]	0.52	[illegible]	0.45	0.49
1	0.83	[illegible]	0.64	[illegible]	0.65	[illegible]	0.56	0.59
2	1.25	[illegible]	0.77	[illegible]	0.85	[illegible]	0.65	0.70
3	1.67	[illegible]	0.88	[illegible]	0.95	[illegible]	0.79	0.83
4	2.08	[illegible]	0.96	[illegible]	0.96	[illegible]	0.85	0.94

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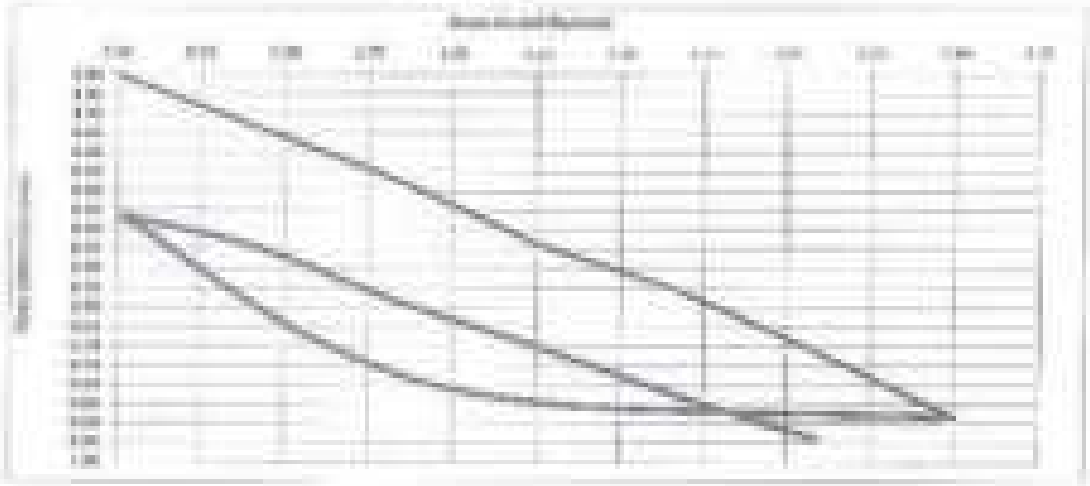
Company Name:	[illegible]
Project:	[illegible]
Test Date:	[illegible]
Report date:	[illegible]
Location:	[illegible]
Test No.:	[illegible]

Horizontal Static Plate Load Tests of Soils
DIN 18134



Loading (L)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	1166.84	2334.6	3502.5	4716.4	5670.1	7000
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (L)	1	2	3	4
Stress (kg/cm²)	1865	1033	4704	0
Stress (kg/cm²)	2.25	1.25	0.020	0.01
Settlement (mm)	0.08	0.04	0.76	0.08

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]			1866			

Loading (L)	0	1	2	3	4	5
Stress (kg/cm²)	0	1166.84	2334.6	3502.5	4716.4	5670.1
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]			1866			

[illegible] = Number of deformation during first loading stage.

[illegible] = Number of deformation during the reloading stage.

[illegible] = Plate diameter (mm)

[illegible] = The difference between [illegible] and [illegible] from the maximum loading (mm) Diagram 1

[illegible] = Difference in settlement corresponding to [illegible] and [illegible] from the maximum loading (mm)

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Company Name : Sun Rise Construction
Project : Shorbia Express Train, Part Al Ain Sokhna to Marsa Matrouh Priority Sector (9) - Ptolemis to Fuka
Test Date : 15/06/2023
report date : 17/06/2023
Location : Station 449+899 to 449+575
Test No. : 03

Reconnaissance Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.62	[illegible]	0.26	[illegible]	0.18	[illegible]	0.32	0.26
2	0.63	[illegible]	0.48	[illegible]	0.32	[illegible]	0.48	0.40
3	1.25	[illegible]	0.62	[illegible]	0.48	[illegible]	0.60	0.53
4	1.87	[illegible]	0.68	[illegible]	0.68	[illegible]	0.70	0.69
5	2.50	[illegible]	0.79	[illegible]	0.73	[illegible]	0.83	0.78
6	2.50	[illegible]	0.94	[illegible]	0.86	[illegible]	0.97	0.92

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.25	[illegible]	0.94	[illegible]	0.84	[illegible]	0.97	0.92
2	1.25	[illegible]	0.86	[illegible]	0.78	[illegible]	0.90	0.84
3	0.625	[illegible]	0.65	[illegible]	0.58	[illegible]	0.74	0.65
4	0.01	[illegible]	0.38	[illegible]	0.24	[illegible]	0.42	0.34

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.47	[illegible]	0.33	[illegible]	0.51	0.44
1	0.83	[illegible]	0.68	[illegible]	0.44	[illegible]	0.62	0.55
2	1.25	[illegible]	0.79	[illegible]	0.54	[illegible]	0.73	0.68
3	1.67	[illegible]	0.85	[illegible]	0.62	[illegible]	0.83	0.76
4	2.08	[illegible]	0.98	[illegible]	0.86	[illegible]	0.94	0.95

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Zamalek, Cairo.
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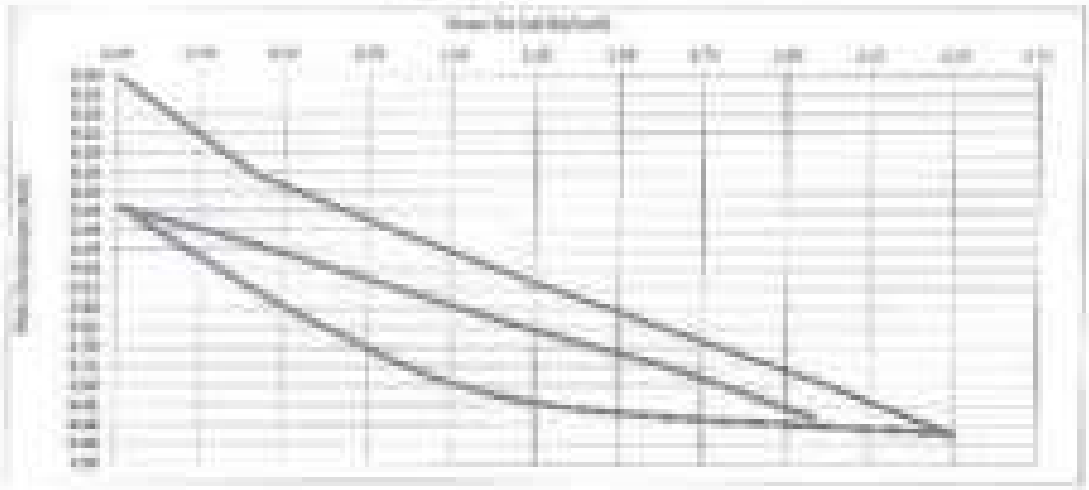
Company Name	: Sael Misr Construction
Project	: Electric Express Trains, from Al Ain Sokhna to Marsa Shalouah Friendly Station (3) - Alexandria to Cairo
Test Date	: [illegible]
Report date	: [illegible]
Location	: Station [illegible] to [illegible]
Test No.	: 01

Horizontal Static Plate Load Tests of Soils
DIN 18134



Loading (T)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	4	3	2
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Loading (T)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Residual =	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

E(1) = Modulus of elasticity during the loading stage.
E(2) = Modulus of elasticity during the unloading stage.
D = Plate diameter (mm).
Ev = The difference between E 1 and E 2 from the maximum loading pressure (kg/cm²).
Ev1 = Difference in settlement corresponding to E1 and E 2 from the maximum loading (mm).

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Company Name : Sun Rise Construction
Project: [illegible]
Test Date : 15/06/2022
report date : 16/06/2022
Location: : Station 449+575 to 449+000
Test No. : 94

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.23	[illegible]	0.58	[illegible]	0.39	0.32
2	0.83	[illegible]	0.36	[illegible]	0.33	[illegible]	0.38	0.36
3	1.25	[illegible]	0.63	[illegible]	0.47	[illegible]	0.55	0.51
4	1.67	[illegible]	0.84	[illegible]	0.89	[illegible]	0.83	0.85
5	2.08	[illegible]	0.73	[illegible]	0.73	[illegible]	0.74	0.74
6	2.50	[illegible]	0.90	[illegible]	0.87	[illegible]	0.92	0.90

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
7	2.50	[illegible]	0.90	[illegible]	0.87	[illegible]	0.92	0.90
8	1.25	[illegible]	0.63	[illegible]	0.70	[illegible]	0.63	0.61
9	0.625	[illegible]	0.70	[illegible]	0.66	[illegible]	0.72	0.69
0	0.01	[illegible]	0.28	[illegible]	0.34	[illegible]	0.40	0.30

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.42	[illegible]	0.46	[illegible]	0.51	0.50
1	0.83	[illegible]	0.68	[illegible]	0.61	[illegible]	0.67	0.65
2	1.25	[illegible]	0.81	[illegible]	0.78	[illegible]	0.85	0.81
3	1.67	[illegible]	0.96	[illegible]	0.99	[illegible]	0.93	0.95
4	2.08	[illegible]	1.11	[illegible]	1.03	[illegible]	1.15	1.10

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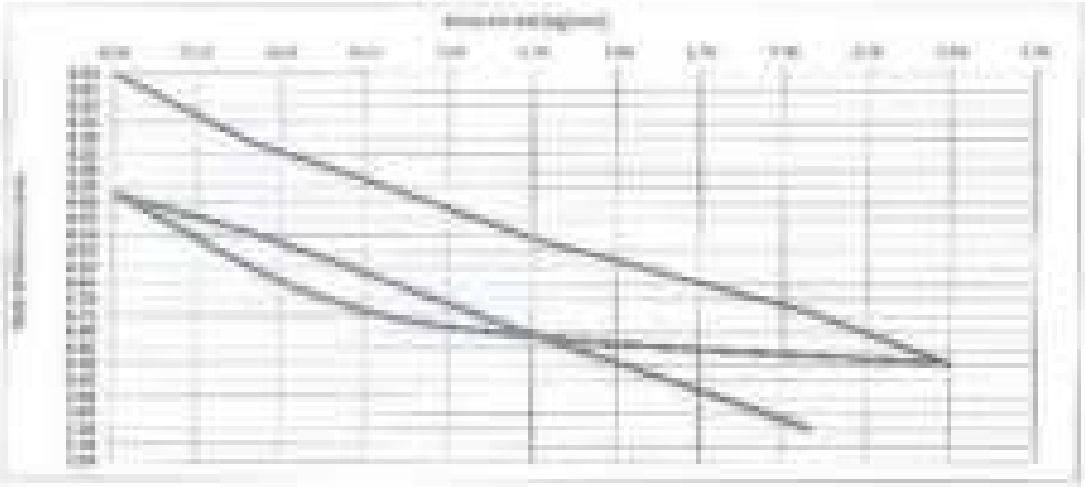
Company Name	[illegible]
Project	[illegible]
Test Date	[illegible]
Report Date	[illegible]
Location	[illegible]
Test No	[illegible]

[illegible] Plate Load Tests at Site
[illegible]



Loading (T)	0	1	2	3	4	5	6
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	1	2	3	4
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]					

Loading (T)	0	1	2	3	4	5
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

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Company Name : Sun Rise Construction
Project : [illegible]
Test Date : 19/09/2023
report date : 17/09/2023
Location : Station 449+625 to 449+625
Test No. : 06

Incremental Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.02	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.26	[illegible]	0.28	[illegible]	0.26	0.33
2	0.83	[illegible]	0.38	[illegible]	0.43	[illegible]	0.38	0.37
3	1.25	[illegible]	0.46	[illegible]	0.57	[illegible]	0.50	0.51
4	1.67	[illegible]	0.61	[illegible]	0.73	[illegible]	0.66	0.66
5	2.08	[illegible]	0.79	[illegible]	0.83	[illegible]	0.76	0.77
6	2.50	[illegible]	0.84	[illegible]	0.87	[illegible]	0.89	0.90

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.25	[illegible]	0.84	[illegible]	0.87	[illegible]	0.89	0.90
2	0.25	[illegible]	0.75	[illegible]	0.87	[illegible]	0.78	0.80
3	0.025	[illegible]	0.61	[illegible]	0.75	[illegible]	0.64	0.66
4	0.01	[illegible]	0.30	[illegible]	0.38	[illegible]	0.33	0.34

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.49	[illegible]	0.38	[illegible]	0.48	0.45
1	0.83	[illegible]	0.54	[illegible]	0.60	[illegible]	0.58	0.57
2	1.25	[illegible]	0.67	[illegible]	0.77	[illegible]	0.71	0.72
3	1.67	[illegible]	0.82	[illegible]	0.91	[illegible]	0.85	0.86
4	2.08	[illegible]	1.00	[illegible]	1.05	[illegible]	0.98	1.01

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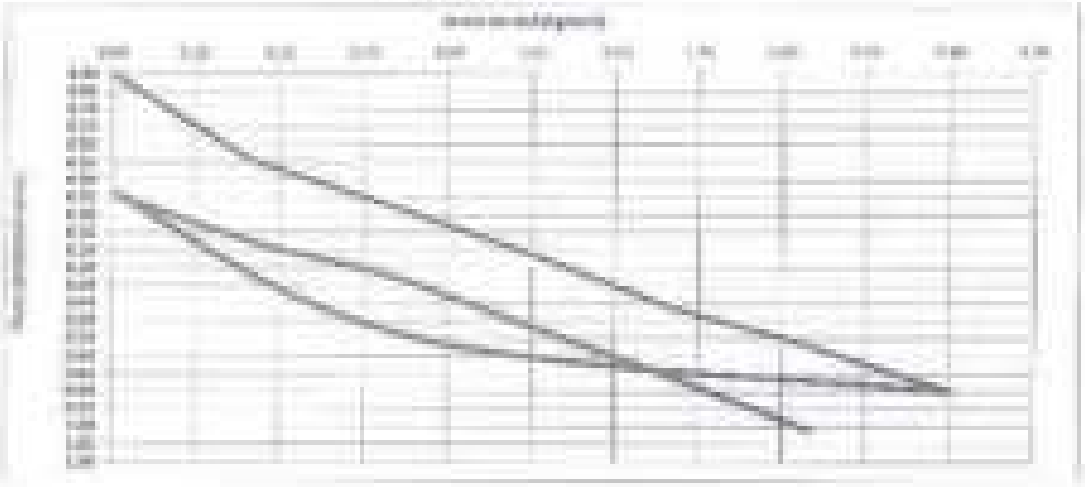
Contracting Firm:	[illegible]
Project:	[illegible]
Test Date:	[illegible]
Report date:	[illegible]
Location:	[illegible]
Test No:	[illegible]

Representative Static Plate Load Tests of Soils
[illegible]



Loading (T)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	7	8	9	10
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]			

Loading (T)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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Company Name : Sun Rise Construction
Project : Health Express Trim, from M.Ali Ibrahim to Mecca Mahmoud Priority Route (R) - Rehabilitation
Test Date : 15/06/2023
report date : 17/06/2023
Location : Station 449+625 to 449+650
Test No. : 06

Horizontalities Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.05	[illegible]	0.16	[illegible]	0.29	0.23
2	0.83	[illegible]	0.57	[illegible]	0.38	[illegible]	0.55	0.47
3	1.22	[illegible]	0.73	[illegible]	0.48	[illegible]	0.70	0.65
4	1.67	[illegible]	0.92	[illegible]	0.64	[illegible]	0.87	0.79
5	2.05	[illegible]	0.96	[illegible]	0.77	[illegible]	0.96	0.93
6	2.50	[illegible]	1.07	[illegible]	0.82	[illegible]	1.05	0.99

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	[illegible]	1.07	[illegible]	0.82	[illegible]	1.05	0.99
2	1.25	[illegible]	1.02	[illegible]	0.72	[illegible]	0.90	0.91
3	0.625	[illegible]	0.91	[illegible]	0.64	[illegible]	0.83	0.79
4	0.01	[illegible]	0.57	[illegible]	0.56	[illegible]	0.58	0.53

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.65	[illegible]	0.46	[illegible]	0.60	0.58
1	0.83	[illegible]	0.68	[illegible]	0.55	[illegible]	0.77	0.68
2	1.25	[illegible]	0.75	[illegible]	0.66	[illegible]	0.86	0.75
3	1.67	[illegible]	0.83	[illegible]	0.71	[illegible]	0.92	0.82
4	2.08	[illegible]	1.18	[illegible]	0.83	[illegible]	0.99	0.97

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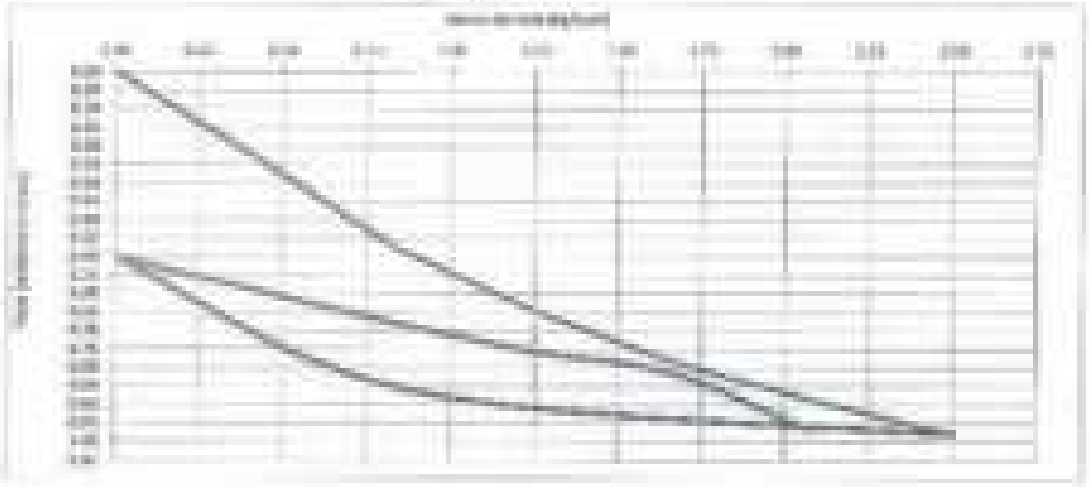
Contractor Name	: Nasr Misr Construction
Project	: [illegible]
Test Date	: [illegible]
Report Date	: [illegible]
Condition	: [illegible]
Test No	: [illegible]

Successive Static Plate Load Tests of Soils
DIN 18134



Loading (T)	0	1	2	3	4	5	6
Weight (Kg)	0	1186.52	2369.8	3550.3	4719.4	5870.1	7063
Stress (Kg/cm²)	0.05	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.01	0.07	0.09	0.16	0.33	0.58

Unloading (T)	5	3	1	0
Weight (Kg)	5864	3550	1768	0
Stress (Kg/cm²)	2.08	1.25	0.625	0.05
Settlement (mm)	0.58	0.51	0.16	0.00

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		

Loading (T)	0	1	2	3	4	5
Weight (Kg)	0	1186.52	2369.8	3550.3	4719.4	5870.1
Stress (Kg/cm²)	0.05	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.00	0.00	0.05	0.16	0.32	0.57

[illegible]	0.1

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Company Name : Sun Rise Construction
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 449+858 to 449+875
Test No. : 07

Nonrecoverable Static Plate Load Tests of Soils DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.19	[illegible]	0.21	[illegible]	0.26	0.22
2	0.83	[illegible]	0.32	[illegible]	0.35	[illegible]	0.42	0.36
3	1.25	[illegible]	0.47	[illegible]	0.48	[illegible]	0.55	0.50
4	1.67	[illegible]	0.56	[illegible]	0.60	[illegible]	0.68	0.62
5	2.08	[illegible]	0.66	[illegible]	0.70	[illegible]	0.78	0.73
6	2.50	[illegible]	0.80	[illegible]	0.84	[illegible]	0.90	0.85

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.67	[illegible]	0.68	[illegible]	0.84	[illegible]	0.90	0.85
2	0.83	[illegible]	0.73	[illegible]	0.75	[illegible]	0.81	0.76
3	0.00	[illegible]	0.58	[illegible]	0.62	[illegible]	0.70	0.63
4	0.01	[illegible]	0.38	[illegible]	0.34	[illegible]	0.40	0.35

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.44	[illegible]	0.48	[illegible]	0.55	0.49
1	0.83	[illegible]	0.58	[illegible]	0.61	[illegible]	0.70	0.63
2	1.25	[illegible]	0.71	[illegible]	0.76	[illegible]	0.83	0.77
3	1.67	[illegible]	0.84	[illegible]	0.88	[illegible]	0.95	0.89
4	2.08	[illegible]	0.91	[illegible]	0.99	[illegible]	1.00	0.96

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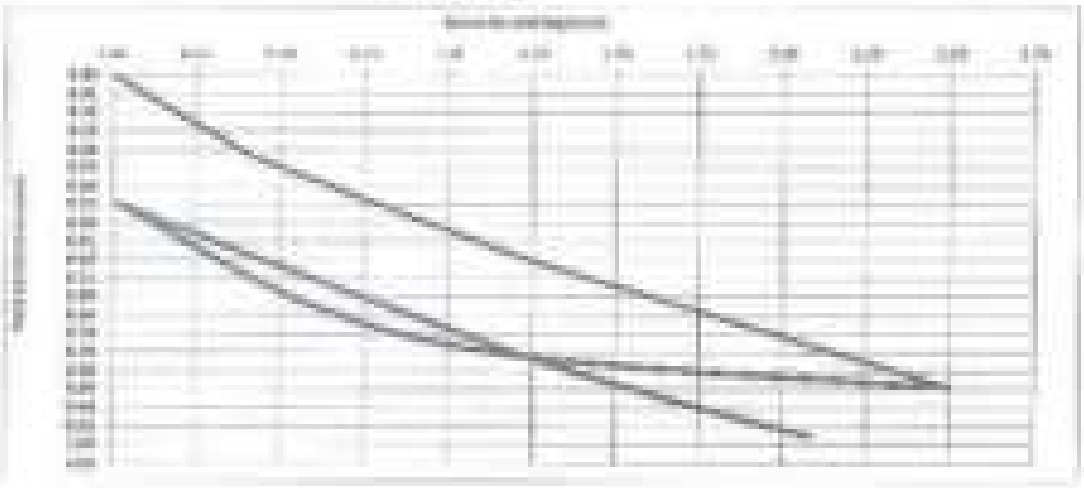
Company Name	[illegible]
Project	[illegible]
Test Date	[illegible]
Report Date	[illegible]
Location	[illegible]
Test No.	[illegible]

Nonexceedance Static Plate Load Tests of Soils

DIN 18134



Loading (T)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	7	8	9	10
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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[illegible]

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Company Name : Sun Rise Construction
Project : [illegible]
Test Date : 16/06/2022
report date : 17/06/2022
Location : Stables [illegible] to [illegible]
Test No. : 06

Noncyclic Static Plate Load Tests of Soils DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.18	[illegible]	0.14	[illegible]	0.23	0.19
2	0.83	[illegible]	0.33	[illegible]	0.29	[illegible]	0.37	0.33
3	1.25	[illegible]	0.48	[illegible]	0.44	[illegible]	0.53	0.49
4	1.67	[illegible]	0.64	[illegible]	0.58	[illegible]	0.67	0.63
5	2.08	[illegible]	0.78	[illegible]	0.72	[illegible]	0.83	0.78
6	2.50	[illegible]	0.93	[illegible]	0.85	[illegible]	0.96	0.91

Unloading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.00	[illegible]	0.81	[illegible]	0.85	[illegible]	0.96	0.87
2	1.25	[illegible]	0.53	[illegible]	0.77	[illegible]	0.87	0.82
3	0.833	[illegible]	0.70	[illegible]	0.64	[illegible]	0.73	0.69
4	0.01	[illegible]	0.42	[illegible]	0.38	[illegible]	0.48	0.43

Loading Stage (2)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.58	[illegible]	0.53	[illegible]	0.55	0.55
1	0.83	[illegible]	0.71	[illegible]	0.62	[illegible]	0.78	0.70
2	1.25	[illegible]	0.81	[illegible]	0.88	[illegible]	0.87	0.83
3	1.67	[illegible]	0.93	[illegible]	0.89	[illegible]	0.98	0.93
4	2.08	[illegible]	1.06	[illegible]	1.00	[illegible]	1.09	1.05

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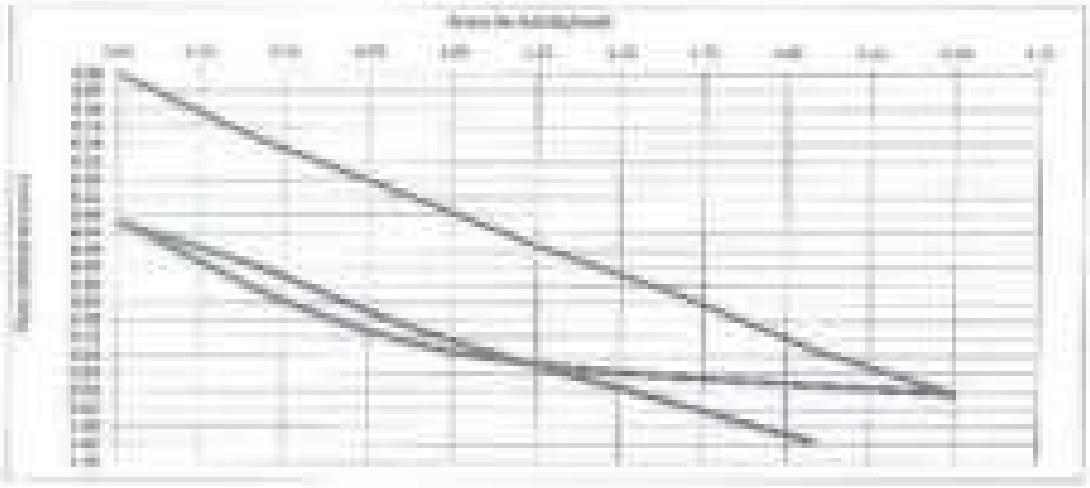
Company Name	: [illegible]
Project	: [illegible]
Test Date	: [illegible]
Report date	: [illegible]
Location	: [illegible]
Test No.	: [illegible]

Nonexpansive Stiff Clay Load Tests at Site
[illegible]



Loading (L)	0	1	2	3	4	5	6
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (U)	7	8	9	10
Weight (kg)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Loading (L)	0	1	2	3	4	5
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]					

U.L. = [illegible]

U.U. = [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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مكتب معامل الاستشارات الهندسية

Company Name : Sun Rise Construction
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 09

Incrementive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress (kg/cm²)	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.21	[illegible]	0.19	[illegible]	0.42	0.29
2	0.83	[illegible]	0.36	[illegible]	0.31	[illegible]	0.57	0.47
3	1.25	[illegible]	0.55	[illegible]	0.45	[illegible]	0.71	0.57
4	1.67	[illegible]	0.64	[illegible]	0.68	[illegible]	0.85	0.05
5	2.08	[illegible]	0.78	[illegible]	0.74	[illegible]	1.00	0.84
6	2.50	[illegible]	0.92	[illegible]	0.86	[illegible]	1.16	0.96

Unloading Stage (1)

Loading	Stress (kg/cm²)	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	[illegible]	[illegible]	0.80	[illegible]	0.56	[illegible]	1.12	0.96
2	1.25	[illegible]	0.62	[illegible]	0.78	[illegible]	1.00	0.90
3	0.015	[illegible]	0.47	[illegible]	0.62	[illegible]	0.94	0.71
4	0.01	[illegible]	0.34	[illegible]	0.38	[illegible]	0.40	0.37

Loading Stage (2)

Loading	Stress (kg/cm²)	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.43	[illegible]	0.35	[illegible]	0.50	0.45
1	0.83	[illegible]	0.57	[illegible]	0.49	[illegible]	0.60	0.55
2	1.25	[illegible]	0.68	[illegible]	0.59	[illegible]	0.78	0.68
3	1.67	[illegible]	0.78	[illegible]	0.66	[illegible]	0.89	0.79
4	2.08	[illegible]	0.87	[illegible]	0.75	[illegible]	1.04	0.88

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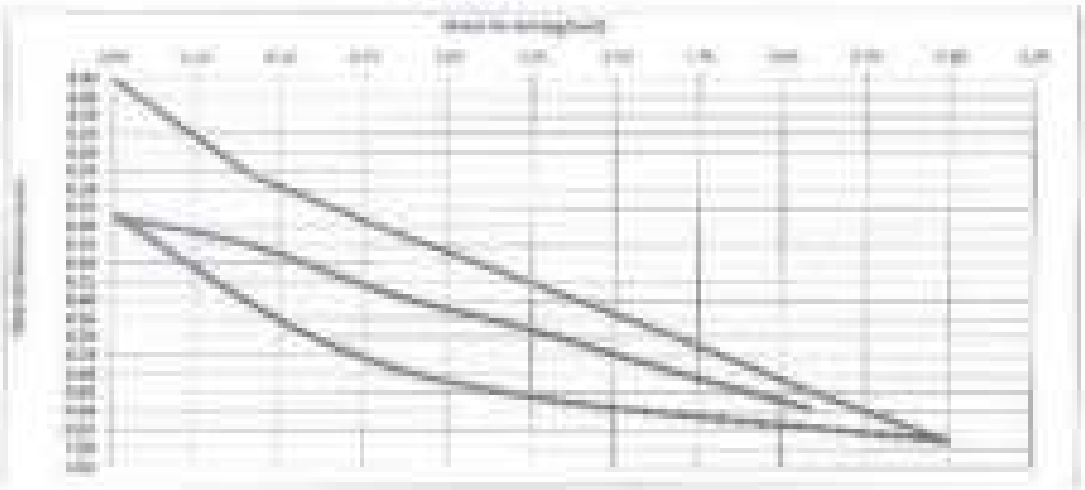
Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : [illegible]
Test No. : [illegible]

[illegible] Static Plate Load Tests of Soils
[illegible]



Loading (T)	0	1	2	3	4	5	6
Stress(Kg/cm2)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	3	1	0
Stress(Kg/cm2)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Loading (T)	0	1	2	3	4	5
Stress(Kg/cm2)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

[illegible]	[illegible]

[illegible] = Modulus of deformation during the loading stage
[illegible] = Modulus of deformation during the unloading stage
D = Plate diameter (mm)
[illegible] = The difference between [illegible] from the maximum loading (stress [illegible])
[illegible] = Difference in settlements corresponding to [illegible] from the maximum loading (stress)

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[illegible]

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Company Name : Sun Blue Constructors
Project : Planned Express Trains Point Al Nile Pulliers to Borsa Matrouh Priority Racing (3) – Alamein to Tahta
Test Date : 15/06/2022
report date : 17/06/2022
Location : Station 446+175to 446+700
Test No. : 09

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress	Dial 1	Settlement	Dial 2	Settlement	Dial 3	Settlement	Average
	Kg/cm2		mm		mm		mm	
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.70	0.30	19.79	0.24	19.74	0.26	0.27
2	0.83	19.61	0.39	19.61	0.39	19.61	0.39	0.39
3	1.25	19.46	0.54	19.46	0.54	19.46	0.54	0.54
4	1.67	19.30	0.69	19.30	0.69	19.30	0.65	0.65
5	2.08	19.17	0.83	19.22	0.72	19.13	0.87	0.81
6	2.50	19.00	0.99	19.10	0.90	19.09	0.91	0.93

Unloading Stage (1)

Loading	Stress	Dial 1	Settlement	Dial 2	Settlement	Dial 3	Settlement	Average
	Kg/cm2		mm		mm		mm	
1	2.08	19.25	0.75	19.18	0.82	19.08	0.91	0.83
2	1.25	19.38	0.62	19.19	0.80	19.19	0.82	0.81
3	0.83	19.30	0.70	19.18	0.82	19.24	0.76	0.77
4	0.01	19.69	0.34	19.18	0.32	19.69	0.31	0.33

Loading Stage (2)

Loading	Stress	Dial 1	Settlement	Dial 2	Settlement	Dial 3	Settlement	Average
	Kg/cm2		mm		mm		mm	
0	0.42	19.53	0.47	19.19	0.81	19.55	0.45	0.44
1	0.83	19.41	0.59	19.47	0.53	19.42	0.58	0.57
2	1.25	19.29	0.71	19.20	0.80	19.32	0.68	0.69
3	1.67	19.15	0.85	19.20	0.80	19.19	0.81	0.81
4	2.08	19.00	0.98	19.08	0.92	19.14	0.86	0.92

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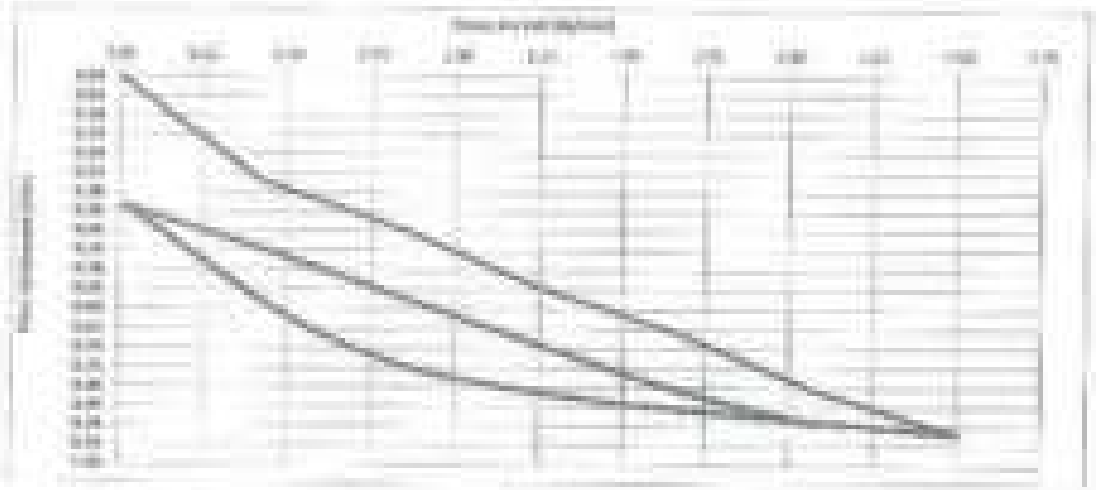
Contractor Name:	[illegible]
Project:	[illegible]
Test Date:	[illegible]
Report Date:	[illegible]
Location:	[illegible]
Test No:	[illegible]

Reconstitution Static Plate Load Tests of Soils
DIN 18134



Loading (L)	0	1	2	3	4	5	6
Weight (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (U)	4	3	2	1	0
Weight (Kg)	[illegible]	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		

Loading (L)	0	1	2	3	4	5
Weight (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		

Stabilized =	[illegible]

[illegible]

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Company : Sun Rise Construction

Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (8) - Alamein to Fuka

Subject : Determine the deformation and strength characteristics of soil by the plate loading test according specifications DIN 18134:2012-04 and project requirements

Test Location : (448+525 to 448+600)

Test Date : 04/04/2023

Report Date : 05/04/2023

Type of soil : ——

Test level : Prepared Subgrade .

Report No. : 177/150

Dear Gentlemen,

According to the above mentioned subject the test performed as follows:

Apparatus

1. Loading plates consists of two plates with 600 mm and 300 mm diameter
2. The thickness of plates 30 mm
3. Dial gauges with accuracy 0.01 mm in measuring the settlement
4. Steel straightedges with magnetic supports to fixed the dial gauges
5. Hydraulic jack with pump to transfer reactive loads to the loading plates
6. Dial indicator measuring device with scale capacity 700 Bar (Calibrated)
7. Reaction loading system by roller compactor with weight approximately 15 ton
8. Calibration certificates are attached

Test Procedure

1. Clean the ground on test area to the required level with undisturbed soil
2. Install loading plates 600 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
3. Prior to starting the test applied preloading about 30 seconds.
4. The strain gauge and the dial gauge shall be set to zero
5. For a 600 mm loading plate, the first values are 2.5 kg/cm^2
6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
7. Each change in load from stage to stage shall be completed within one minute
8. The load shall be released in 3 stages, to 50 % , 25 %, and approximately 0 % of the maximum load.
9. Following unloading, a further (2nd) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached).
10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min.
11. Remove the loads

Report

1. Evaluation and representation of results
2. Load Settlement curve
3. The test report content the following:

- location of test site - Dimension of loading plate
- Measuring device used - Type of soil
- Type of Bedding material below the plate -Weathering condition
- Time and date of measurements - Unusual observation made during test
- Dial gauge reading and corresponding normal stress - Loading settlement curve
- Description of the soil condition below the plate after testing

Report

Type of soil: Prepared Subgrade .

- **Job requirement: Ev2 > 800 Kg/cm^2 (80 MPa).**

Item	Description
- Type of bedding material below the plate	Natural Soil
- Weather condition	Partly Sunny
- Plate Diameter (mm)	600
- date of measurement	04/06/2003
- Unusual observation made during test	NO
- Description of the soil condition below the plate after testing	No information

Evaluation and representation of results

Test No.	Station		Ev1 (Kg/cm²)	Ev2 (Kg/cm²)	Ev2/Ev1 Ratio
1	448+825	448+850	938	1607	1.7
2	448+500	448+575	775	1875	2.4
3	448+575	448+600	1098	2250	2.1
4	448+600	448+625	775	1607	2.1

Signature /

Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : 04/04/2023
report date : 05/04/2023
Location : Station 448+025 to 448+000
Test No. : 01

Incrementive Static Plate Load Tests of Soils
DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.47	19.92	0.10	19.90	0.10	19.48	0.32	0.21
2	0.93	19.81	0.15	19.47	0.53	19.11	0.73	0.13
3	1.40	19.62	0.23	19.25	0.75	18.84	1.10	0.69
4	1.87	19.03	0.38	19.05	0.95	18.65	1.35	0.83
5	2.34	18.45	0.57	18.94	1.06	18.56	1.53	0.94
6	2.80	18.32	0.61	18.81	1.19	18.15	1.87	1.20

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.34	18.49	0.51	18.87	1.13	18.23	1.67	0.93
2	1.87	18.37	0.76	18.71	1.29	18.44	1.56	1.11
3	0.93	18.48	0.60	19.05	0.95	18.51	1.36	0.85
4	0.00	18.61	0.39	19.19	0.67	18.87	1.13	0.73

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	19.54	0.46	19.24	0.76	18.96	1.04	0.75
1	0.93	19.44	0.56	19.04	0.96	18.85	1.15	0.89
2	1.87	18.38	0.62	19.00	1.00	18.81	1.19	0.89
3	1.87	18.34	0.76	18.92	1.08	18.53	1.47	1.10
4	2.80	18.19	0.81	18.81	1.19	18.41	1.59	1.19

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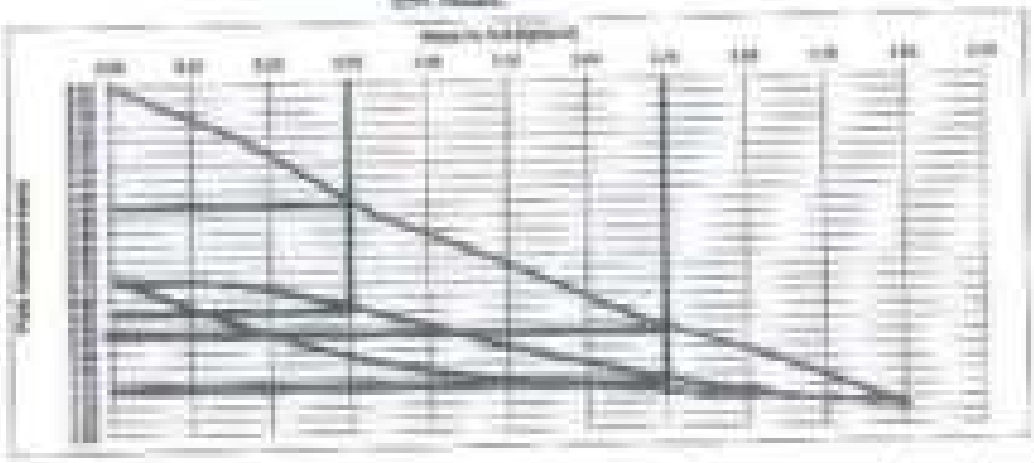
Occupancy Name
Project
Test Date
Report date
Location
Test No.

: Sony Dave Constructions
: [illegible]
: [illegible]
: [illegible]
: [illegible]
: [illegible]

Pressure/Settle Static Plate Load Cycle of Soil
(IR 10.12)



Loading (T)	0	1	2	3	4	5	6
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	1	2	3	4
Weight (kg)	[illegible]	[illegible]	[illegible]	0
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rebound (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Sett = Settlement at intermediate loading (no unloading stage).
Reb = Rebound at intermediate loading (no unloading stage).
1 = Plate diameter (cm).
Sa = The allowable settlement is 2 and is equal the maximum loading (zero degree).
Sb = Difference in settlement in two loading is 2 and is equal the maximum loading (zero).

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 02

Nonrecoverable Static Plate Load Tests of Soils
BS 1377-9.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	[illegible]	0.00	20.00	0.00	0.00
1	0.42	19.79	0.21	[illegible]	0.38	19.79	0.40	[illegible]
2	0.83	19.60	0.40	19.28	0.71	19.60	0.40	[illegible]
3	[illegible]	19.46	0.54	19.07	0.93	19.36	0.64	[illegible]
4	[illegible]	19.39	0.61	18.83	1.17	19.19	0.81	[illegible]
5	[illegible]	19.09	0.91	18.64	1.36	18.82	1.18	[illegible]
6	[illegible]	18.90	1.10	18.40	1.60	18.68	1.32	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	0.50	18.90	1.10	18.40	1.60	18.68	1.32	[illegible]
2	1.00	18.84	1.16	18.57	1.43	18.68	1.32	[illegible]
3	0.625	18.91	0.87	18.71	1.29	18.77	1.23	[illegible]
4	0.11	19.04	0.96	18.81	1.08	19.02	0.98	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	18.77	0.88	18.46	1.19	18.91	1.09	1.01
1	0.83	19.04	0.96	18.79	1.21	18.88	1.12	[illegible]
2	1.25	19.00	1.00	18.66	1.34	18.75	1.25	[illegible]
3	1.67	18.90	1.10	18.57	1.43	18.81	1.19	[illegible]
4	2.08	18.76	1.24	18.36	1.64	18.57	1.43	[illegible]

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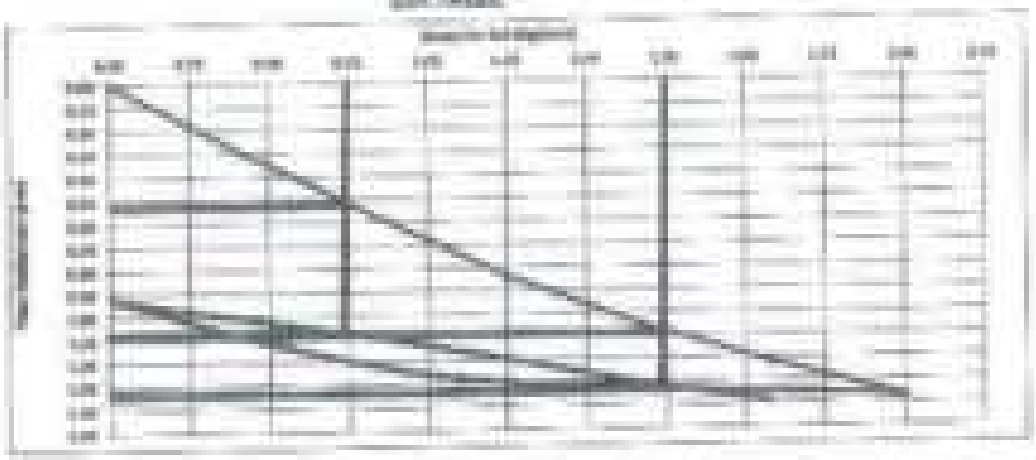
[illegible]

Representative Static Plate Load Tests of Soils
(DR 18.18)



Loading (T)	0	1	2	3	4	5	6
Stage (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Moment (Kg/cm/m)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	4	3	0
Stage (Kg)	[illegible]	[illegible]	[illegible]	0
Moment (Kg/cm/m)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stage (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Moment (Kg/cm/m)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Sm = Maximum of deformations during the loading stage.

Sr = Maximum of elastic rebounds during the unloading stage.

D = Plate diameter (mm).

Sc = The allowance settlement is at and is 2 mm the maximum loading (mm) (kg/cm²).

Sd = Difference in differentials corresponding to 0.5 and 0.1 times the maximum loading (mm).

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Company Name : Sam Fine Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : [illegible]

Incremental Static Plate Load Tests of Soils
DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (3)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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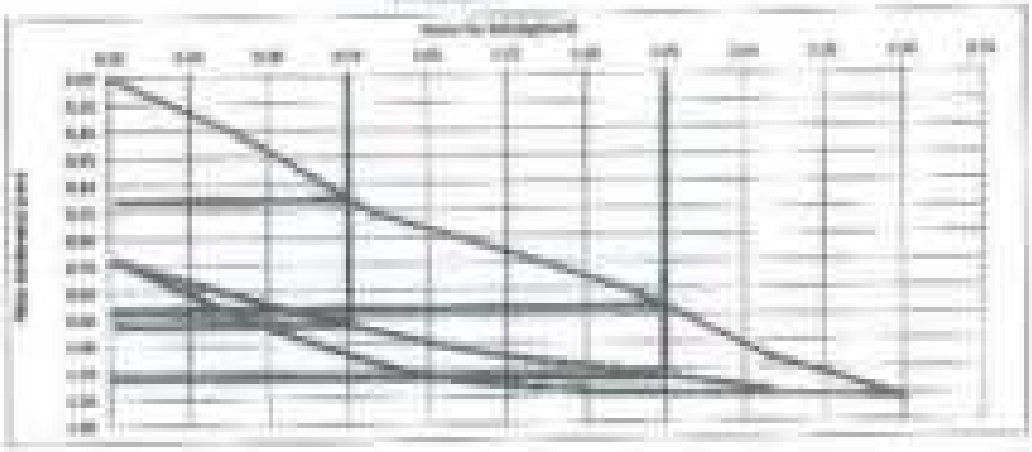
Company Name	: [illegible]
Project	: [illegible]
Test Date	: [illegible]
Report date	: [illegible]
Location	: [illegible]
Test No.	: [illegible]

Incremental Static Plate Load Tests of Soils
ISO 22477



Loading (T)	0	1	2	3	4	5	6
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	4	3	2
Weight (kg)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]					

Loading (T)	0	1	2	3	4	5
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]					

[illegible]

[illegible]

[illegible]

[illegible]

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[illegible]

Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 448+600 to 448+675
Test No. : 08

Nonrecurrentive Static Plate Load Tests of Soils
DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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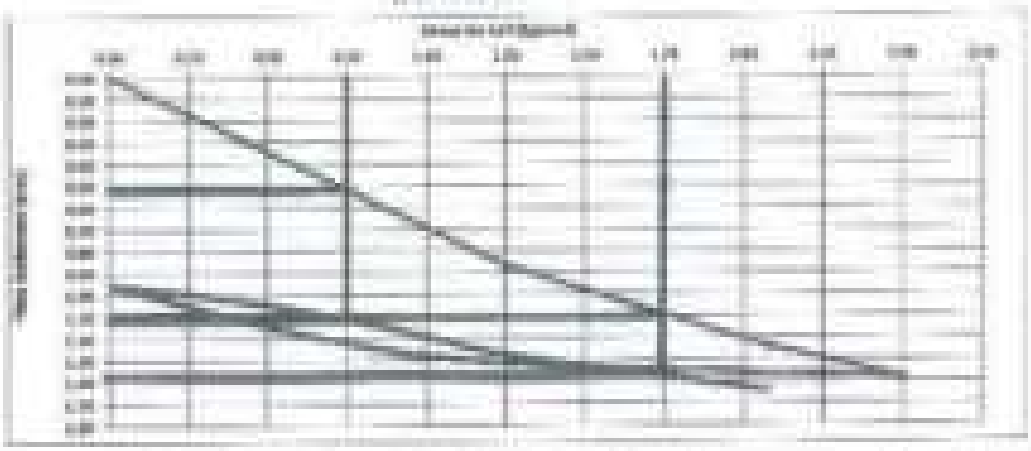
Company Name : [illegible]
Project : [illegible]
Test date : [illegible]
Report date : [illegible]
Location : [illegible]
Test No. : [illegible]

Incremental Static Plate Load Tests of Soils
(BS 1377)



Loading (T)	0	1	2	3	4	5	6
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]			

Unloading (T)	1	2	3	4
Weight (kg)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]			

Sc1 : Modulus of deformation during the loading stage.
Sc2 : Modulus of deformation during the Rebounding stage.
S : Plate deflection stress.
Sa = Max Allowable Settlement of 2 and 3 (mm for maximum loading intensity (kg/cm²))
SS = Difference in settlements corresponding to 0.1 and 0.7 times the maximum loading (mm)

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Company : Sea Ring Constructions

Project : Electric Express Train, Al Ain Sokhna to Mouna Mahrouf Priority Sector (X) - Alamein to Fuka

Subject : Determine the deformation and strength characteristics of soil by the plate loading test according specifications: DIN 18134:2012-04 and project requirements

Test Location : (449+100 to 449+200)

Test Date : 13/06/2023

Report Date : 14/06/2023

Type of soil : ----

Test level : Sub ballast.

Report No. : 238:239

Dear Gentlemen,

According to the above mentioned subject the test performed as follows:-

Apparatus

1. Loading plates consists of two plates with 600 mm and 300 mm diameter
2. The thickness of plates 30 mm
3. Dial gauges with accuracy 0.01 mm to measuring the settlement
4. Steel straightedges with magnetic supports to fixed the dial gauges
5. Hydraulic jack with pump to transfer reaction loads to the loading plates
6. Dial indicator measuring device with scale capacity 100 Bar (Pressure)
7. Reaction loading system by roller compactor with weight approximately 15 ton
8. Calibration certificates are attached

Test Procedure

1. Clean the ground on test area to the required level with undisturbed soil
2. Install loading plates 600 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
3. Prior to starting the test applied preloading about 30 seconds.
4. The strain gauge and the dial gauge shall be set to zero
5. For a 600 mm loading plate, the limit values are 2.5 kg/cm^2
6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
7. Each change in load (from stage to stage) shall be completed within one minute
8. The load shall be released in 3 stages, to 50 %, 30 %, and approximately 2 % of the maximum load
9. Following unloading, a further (2nd) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached).
10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min.
11. Remove the loads

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Report

1. Evaluation and representation of results
2. Load Settlement curve
3. The test report content the following:-

- location of test site - Dimension of loading plate
- Measuring device used - Type of soil
- Type of Bedding material below the plate -Weathering condition
- Time and date of measurements - Unusual observation made during test
- Dial gauge reading and corresponding normal stress - Loading-settlement curve
- Description of the soil condition below the plate after testing

Report

Type of soil: Sub bollast.

- **Job requirement: Ev2 > 1200 Kg/cm² (120 MPa) Ev2/Ev1≤ 2.2 .**

Item	Descriptions
- Type of bedding material below the plate	Natural Soil
- Weather condition	Sunny
- Plate Diameter (mm)	600
- date of measurement	13/06/2013
- Unusual observation made during test	NO
- Description of the soil conditions below the plate after testing	No deformation

Evaluation and representation of results

Test No.	Station		First Cycle	Second Cycle	E_{v2}/E_{v1} Ratio
	From	To	E_{v1} (kg/cm²)	E_{v2} (kg/cm²)	
1	449+100	449+125	1400	1565	1.1
2	449+125	449+150	1183	2003	1.7
3	449+150	449+175	1442	1395	1.0
4	449+175	449+200	1152	1845	1.5

Signature :

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Company Name : Sun Rise Construction
Project : Electric Express Tolls from Al Ain Sokhna to Ras - Ratemah Priority Section (6) - Alexandria to Paka
Test Date : 13/06/2023
report date : 14/06/2023
Location : Station 449+190 to 449+120
Test No. : 01

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.12	[illegible]	0.20	[illegible]	0.21	0.18
2	0.85	[illegible]	0.23	[illegible]	0.35	[illegible]	0.34	0.32
3	1.28	[illegible]	0.35	[illegible]	0.51	[illegible]	0.47	0.43
4	1.67	[illegible]	0.44	[illegible]	0.73	[illegible]	0.58	0.59
5	2.08	[illegible]	0.55	[illegible]	0.87	[illegible]	0.68	0.70
6	2.50	[illegible]	0.71	[illegible]	1.04	[illegible]	0.72	0.82

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.08	[illegible]	0.71	[illegible]	1.04	[illegible]	0.72	0.83
2	1.25	[illegible]	0.65	[illegible]	0.93	[illegible]	0.69	0.73
3	0.83	[illegible]	0.57	[illegible]	0.88	[illegible]	0.61	0.69
4	0.37	[illegible]	0.38	[illegible]	0.37	[illegible]	0.39	0.34

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.40	[illegible]	0.55	[illegible]	0.38	0.44
1	0.83	[illegible]	0.58	[illegible]	0.65	[illegible]	0.64	0.50
2	1.25	[illegible]	0.64	[illegible]	0.74	[illegible]	0.81	0.68
3	1.67	[illegible]	0.73	[illegible]	0.80	[illegible]	0.79	0.78
4	2.08	[illegible]	0.88	[illegible]	0.89	[illegible]	0.81	0.93

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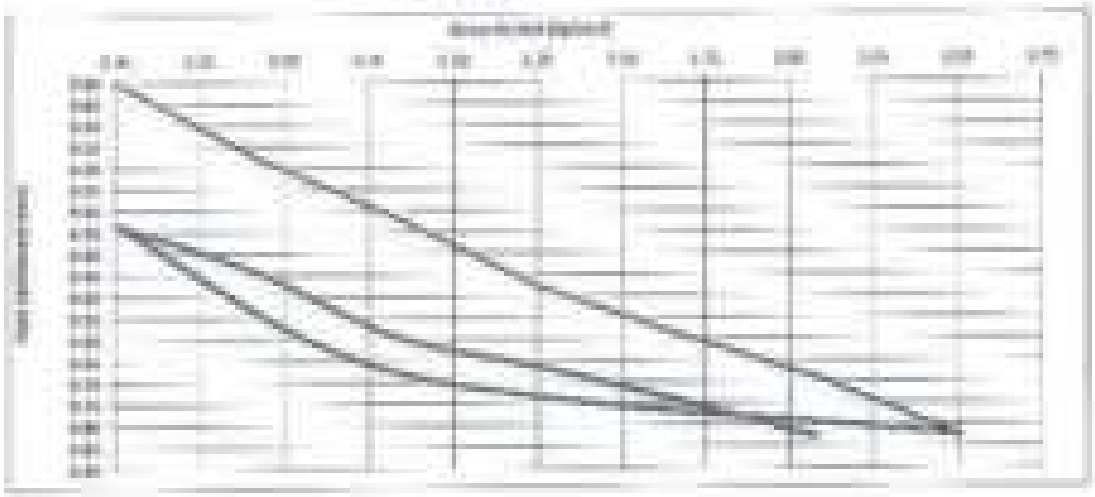
Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Original Date : [illegible]
Location : [illegible]
Test No. : [illegible]

Summarizing Static Plate Load Tests of Soils



Loading (T)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	4	3	2	1
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] = [illegible]	[illegible]	[illegible]	[illegible]	[illegible] =	[illegible]
[illegible] = [illegible]		[illegible]			

Loading (T)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] = [illegible]	[illegible]	[illegible]	[illegible]	[illegible] =	[illegible]
[illegible] = [illegible]		[illegible]			

[illegible] = [illegible] = [illegible]

[illegible] = Rebound of deformation during the loading stage

[illegible] = Rebound of deformation during the unloading stage

D = Plate diameter (cm)

[illegible] = The difference between [illegible] from the maximum loading (cycle 2 kg/cm²)

[illegible] = [illegible] corresponding to [illegible] from the maximum loading (cycle)

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Company Name : Sun Rise Construction
Project : Desert Express Train: from Al-Ain Sokhna to Ramsis Multi-task Priority Sector (6) – Ramsis to Poles
Test Date : 13/06/2023
report date : 13/06/2023
Location : Station: 449+128 to 449+168
Test No : 02

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	10.00	0.00	10.00	0.00	10.00	0.00	0.00
1	0.62	10.75	0.23	10.68	0.18	10.72	0.28	0.23
2	0.83	10.64	0.57	10.70	0.30	10.65	0.55	0.47
3	1.25	10.27	0.73	10.31	0.69	10.23	0.76	0.73
4	1.87	10.12	0.88	10.16	0.84	10.13	0.87	0.79
5	2.08	10.00	0.96	10.10	0.73	10.02	0.98	0.93
6	2.50	10.00	1.37	10.10	0.82	10.07	1.05	0.93

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	10.00	1.37	10.10	0.82	10.07	1.05	0.93
2	1.25	10.00	1.02	10.20	0.75	10.04	0.98	0.91
3	0.00	10.00	0.91	10.30	0.64	10.11	0.83	0.78
4	0.01	10.00	0.57	10.30	0.39	10.41	0.59	0.50

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	10.00	0.00	10.10	0.00	10.10	0.00	0.00
1	0.83	10.00	0.69	10.10	0.56	10.23	0.77	0.66
2	1.25	10.00	0.79	10.10	0.66	10.14	0.90	0.75
3	1.67	10.10	0.82	10.20	0.71	10.06	0.92	0.82
4	2.08	10.10	0.96	10.10	0.79	10.00	1.05	0.90

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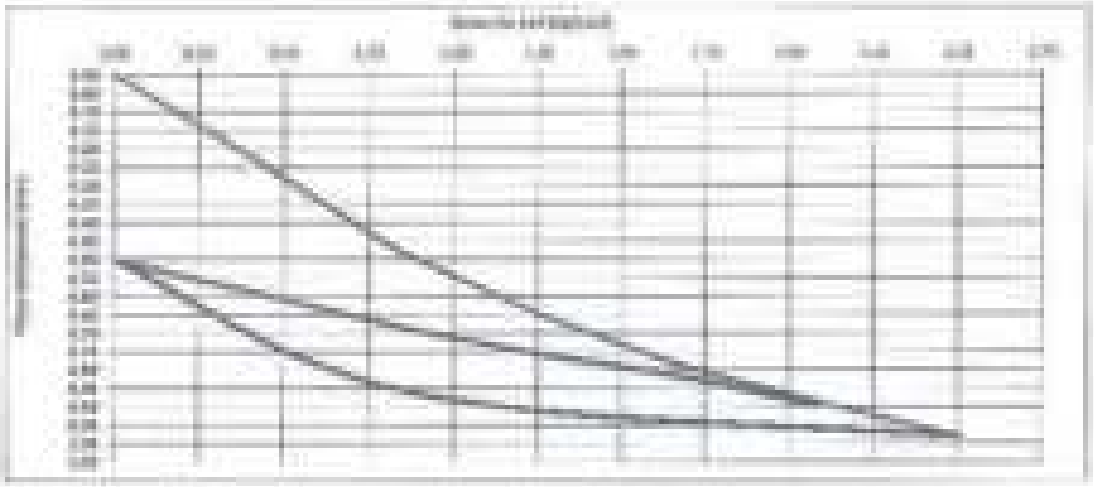
Company Name	: Bin Ghay Construction
Project	: Dimensions Capacity Tests, Area Al Ain Northern to Mamsa Mubarak Priority Invoice (B) - Mussafah to Fuka
Test Date	: [illegible]
Report date	: [illegible]
Location	: Station [illegible]
Test No.	: 01

Reconsolidation Static Plate Load Tests of Soils
(BS 1377:9)



Loading (T)	0	1	2	3	4	5	6
Stress(Kg/cm2)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	0.00	0.42	0.82	1.20	1.61	2.00	2.00
Settlement (mm)	0.00	0.23	0.47	0.65	0.79	0.88	0.88

Mid-unloading (T)	5	3	2	0
Stress(Kg/cm2)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	2.00	1.20	0.820	0.00
Settlement (mm)	0.88	0.65	0.78	0.00

T (mm) =	[illegible]	[illegible]	0.70	Diameter:	0.30	AB = 0.30
Ev2 (kg/cm2) = [illegible]			[illegible]			

Loading (T)	0	1	2	3	4	5
Stress(Kg/cm2)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	0.00	0.42	0.82	1.20	1.61	2.00
Settlement (mm)	0.00	0.20	0.38	0.50	0.60	0.66

Poisson's =	0.2

T (mm) =	[illegible]	[illegible]	0.70	Diameter:	0.30	AB = 0.30
Ev2 (kg/cm2) = [illegible]			[illegible]			

Ev2 = Modulus of deformation during the loading stage

Ev2-4 = Modulus of deformation during the reloading stage

D = Plate diameter (mm)

Dp = The difference between D 2 and D 1 from the maximum loading stress (kg/cm2)

DR = Difference in settlements corresponding to 0.2 and 0.7 from the maximum loading stress

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Company Name : Sun Rise Construction
Project : [illegible]
Test time : [illegible]
report date : [illegible]
Location : Station 449+150 to 449+175
Test No. : 03

Successive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.47	[illegible]	0.20	[illegible]	0.19	[illegible]	0.22	0.20
2	0.93	[illegible]	0.40	[illegible]	0.32	[illegible]	0.48	0.40
3	1.38	[illegible]	0.52	[illegible]	0.46	[illegible]	0.69	[illegible]
4	1.87	[illegible]	0.68	[illegible]	0.65	[illegible]	0.79	0.70
5	2.33	[illegible]	0.78	[illegible]	0.73	[illegible]	0.83	0.78
6	2.80	[illegible]	0.90	[illegible]	0.86	[illegible]	0.97	0.92

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.00	[illegible]	0.84	[illegible]	0.80	[illegible]	0.87	[illegible]
2	1.40	[illegible]	0.82	[illegible]	0.79	[illegible]	0.86	[illegible]
3	0.825	[illegible]	0.80	[illegible]	0.76	[illegible]	0.74	[illegible]
4	0.01	[illegible]	0.30	[illegible]	0.28	[illegible]	0.42	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.47	[illegible]	0.33	[illegible]	0.51	0.44
1	0.93	[illegible]	0.95	[illegible]	0.44	[illegible]	0.62	0.55
2	1.39	[illegible]	0.70	[illegible]	0.54	[illegible]	0.73	0.66
3	1.87	[illegible]	0.91	[illegible]	0.63	[illegible]	0.83	0.79
4	2.08	[illegible]	0.99	[illegible]	0.98	[illegible]	0.94	0.95

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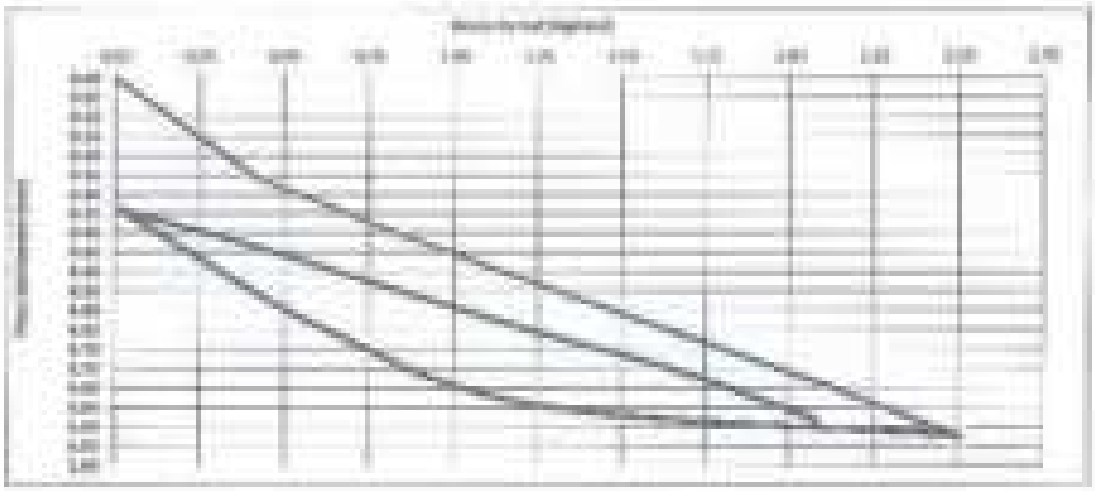
Company Owner	: [illegible]
Project	: [illegible]
Test Date	: [illegible]
Report Date	: [illegible]
Location	: [illegible]
Test No.	: [illegible]

Reproducible Static Plate Load Tests of Soils
DIN 18134



Loading (T)	0	1	2	3	4	5	6
Stage(Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	1	2	3	4
Stage(Kg)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Loading (T)	0	1	2	3	4	5
Stage(Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

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Company Name : Sun Rise Construction
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : [illegible]
Test No : 04

Nonsaturation Static Plate Load Tests of Soils DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.47	[illegible]	0.13	[illegible]	0.22	[illegible]	0.15	0.16
2	0.93	[illegible]	0.34	[illegible]	0.47	[illegible]	0.49	0.41
3	1.40	[illegible]	0.62	[illegible]	0.95	[illegible]	0.89	0.84
4	1.87	[illegible]	0.83	[illegible]	0.81	[illegible]	0.85	0.72
5	2.34	[illegible]	0.82	[illegible]	0.90	[illegible]	0.94	0.87
6	2.80	[illegible]	0.76	[illegible]	1.00	[illegible]	1.03	0.93

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
5	2.33	[illegible]	0.78	[illegible]	1.00	[illegible]	1.03	0.93
2	1.25	[illegible]	0.72	[illegible]	0.94	[illegible]	0.98	0.88
1	0.629	[illegible]	0.66	[illegible]	0.88	[illegible]	0.91	0.77
0	0.01	[illegible]	0.38	[illegible]	0.57	[illegible]	0.52	0.49

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.47	[illegible]	0.47	[illegible]	0.83	[illegible]	0.87	0.66
1	0.93	[illegible]	0.55	[illegible]	0.73	[illegible]	0.83	0.64
2	1.40	[illegible]	0.65	[illegible]	0.79	[illegible]	0.74	0.77
3	1.87	[illegible]	0.72	[illegible]	0.86	[illegible]	0.91	0.83
4	2.34	[illegible]	0.81	[illegible]	0.98	[illegible]	0.92	0.90

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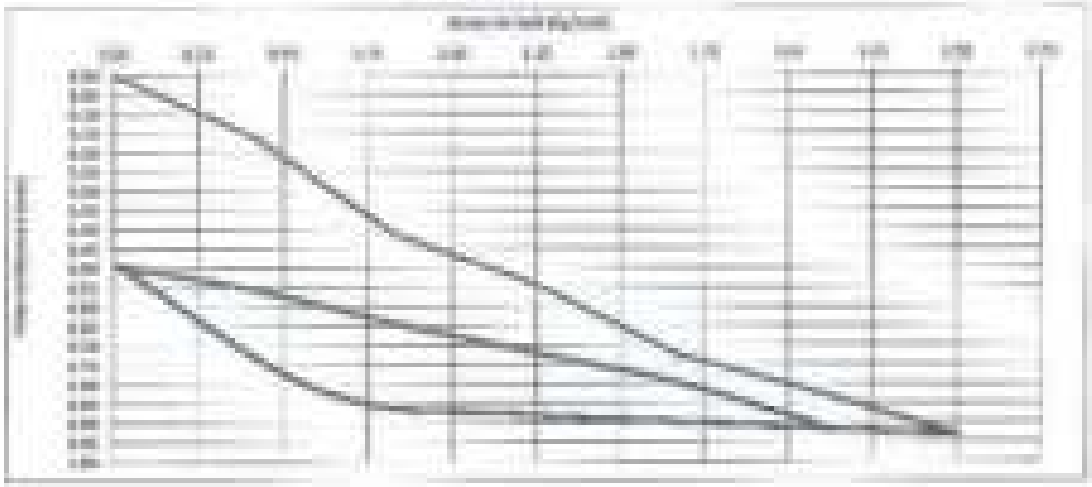
Project	: [illegible]
Test Date	: [illegible]
Report date	: [illegible]
Location	: [illegible]
Test No.	: [illegible]

Nonconfined Static Plate Load Tests of Soils
DIN 18134



Loading (T)	0	1	2	3	4	5	6
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	4	3	2	1	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	0
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

D (mm) =	[illegible]	D' (mm)	[illegible]	Diameter	[illegible]	Ab = [illegible]
Sv1 (kg/cm²) = [illegible]			[illegible]			

Loading (T)	0	1	2	3	4	5
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Sv1/Sv2 =	[illegible]

D (mm) =	[illegible]	D' (mm)	[illegible]	Diameter	[illegible]	Ab = [illegible]
Sv2 (kg/cm²) = [illegible]			[illegible]			

Sv1 = Modulus of deformation during the loading stage

Sv2 = Modulus of deformation during the delloading stage

D = Plate diameter (mm)

Sv = The difference between Sv1 and Sv2 from the maximum loading (stress) (kg/cm²)

Sv2 = Difference in settlement corresponding to 0.3 and 0.7 Pulse the maximum loading (mm)

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Company : Sun Rise Construction

Project : Electric Express Train, All Air Switches in Marsa Matrouh Priority Sector (B) – Alamein to Fuka.

Subject : Determine the deformation and strength characteristics of soil by the plate loading test according specifications: DIN 18134:2012-04 and project requirements.

Test Location : Station 449+250 to 449+375

Test Date : 27/03/2023

Report Date : 28/03/2023

Type of soil : ----

Test level : prepared subgrade .

Report No. : 148/150

Dear Gentlemen,

According to the above mentioned subject the test performed as follows:-

Apparatus

1. Loading plates consists of two plates with 600 mm. and 300 mm diameter
2. The thickness of plates 20 mm
3. Dial gauges with accuracy 0.01 mm to measuring the settlement
4. Steel straightedges with magnetic supports to fixed the dial gauges
5. Hydraulic jack with pump to transfer reaction loads to the loading plates
6. Dial indicator measuring device with scale capacity 700 lbs (Proving)
7. Reaction loading system by roller compactor with weight approximately 10 ton
8. Calibration certificates are attached

Test Procedure

1. Clean the ground on test area to the required level with undisturbed soil
2. Install loading plates 600 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
3. Prior to starting the test applied preloading about 30 seconds.
4. The strain gauge and the dial gauge shall be set to zero
5. For a 600 mm loading plate, the limit values are 3.0 kg/cm^2
6. The load shall be applied in six stages, in approximately equal increments, until the required maximum nominal stress is reached.
7. Each change in load (from stage to stage) shall be completed within one minute
8. The load shall be released in 3 stages, to 50 %, 20 %, and approximately 2 % of the maximum load.
9. Following unloading, a further (2nd) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached)
10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min.
11. Remove the loads

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Report

1. Evaluation and representation of results
2. Load Settlement curve
3. The test report contain the following:-

- location of test site - Dimension of loading plate
- Measuring device used - Type of soil
- Type of Bedding material below the plate -Weathering condition
- Time and date of measurements - Unusual observation made during test
- Dial gauge reading and corresponding normal stress - Loading-settlement curves
- Description of the soil condition below the plate after testing

Report

Type of soil: prepared subgrade .

- Job requirement: Ev2 = 600 Kg/cm^2 (60 MPa).

Item	Descriptions
- Type of bedding material below the plate	Natural Soil
- Weather condition	Partly Sunny
- Plate Diameter (mm)	600
-date of measurement	27/01/2023
- Unusual observation made during test	NO
- Description of the soil conditions below the plate after testing	No deformation

Evaluation and representation of results

Test No.	Station		First Cycle	Second Cycle	E_{v2} / E_{v1} Ratio
	From	To	E_{v1} (Kg/cm^2)	E_{v2} (Kg/cm^2)	
1	449+250	449+275	1000	2250	2.3
2	449+275	449+300	1073	1667	1.6
3	449+300	449+325	1219	1552	1.3
4	449+325	449+350	1125	2647	2.4
5	449+350	449+375	1452	2356	1.6

Signature

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Company Name : San Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : [illegible]

Representive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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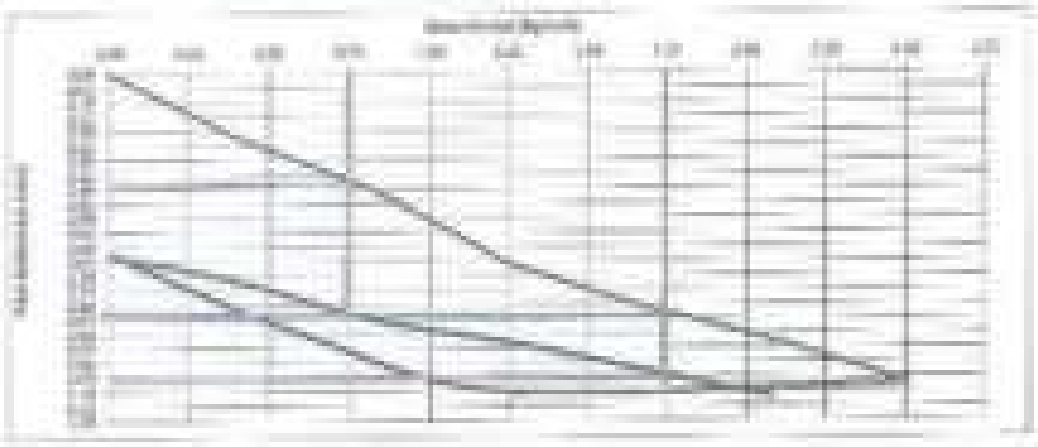
Company Name	Sun River Construction
Project	[illegible]
Test Date	[illegible]
Input Data	[illegible]
Location	[illegible]
Test No.	[illegible]

Summary Plate Load Tests of Soils

[illegible]



Loading (T)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]							
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]							

Unl. Loading (T)	0	1	2	3	4
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]						
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]						

[illegible]

S₁ = Modulus of deformation during the loading stage.
S₂ = Modulus of deformation during the unloading stage.
D = Plate diameter (cm).
S₁ = [illegible] (between 0 and 1 T) from the maximum loading curve (kg/cm²).
S₂ = [illegible] (corresponding to 0 T and 1 T) from the unloading curve.

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : [illegible]
Test No. : 02

Incremental Static Plate Load Tests of Soils BS 13134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.14	[illegible]	0.31	[illegible]	0.38	0.23
2	0.83	[illegible]	0.25	[illegible]	0.55	[illegible]	0.48	0.39
3	1.25	[illegible]	0.42	[illegible]	0.80	[illegible]	0.59	0.53
4	1.67	[illegible]	0.50	[illegible]	1.03	[illegible]	0.77	0.79
5	2.08	[illegible]	0.63	[illegible]	1.22	[illegible]	0.91	0.94
6	2.50	[illegible]	0.78	[illegible]	1.40	[illegible]	1.00	1.07

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.00	[illegible]	0.78	[illegible]	1.40	[illegible]	1.00	1.07
2	1.25	[illegible]	0.71	[illegible]	1.24	[illegible]	0.98	1.01
3	0.829	[illegible]	0.71	[illegible]	1.00	[illegible]	0.91	0.90
4	0.01	[illegible]	0.38	[illegible]	0.87	[illegible]	0.53	0.58

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.83	[illegible]	0.08	[illegible]	0.09	[illegible]	0.01	0.06
2	1.25	[illegible]	0.73	[illegible]	0.15	[illegible]	0.00	0.00
3	1.67	[illegible]	0.77	[illegible]	1.27	[illegible]	0.02	0.00
4	2.08	[illegible]	0.87	[illegible]	1.32	[illegible]	1.01	1.07

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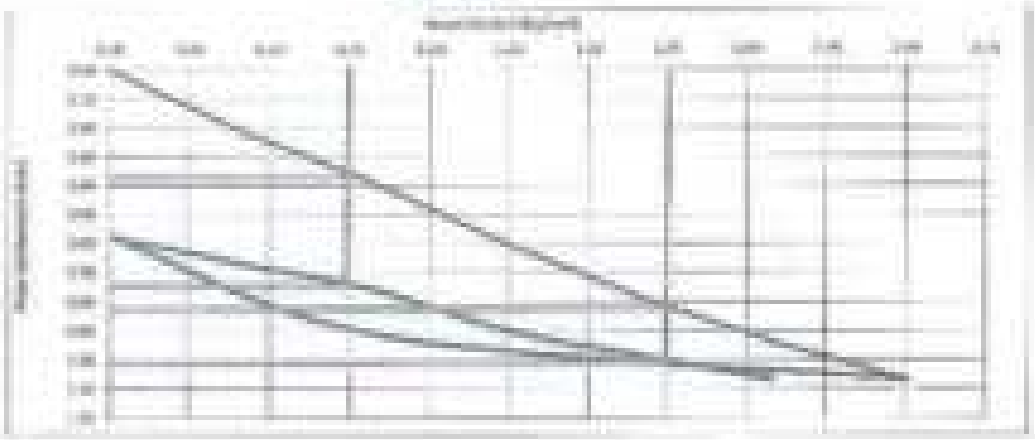
Contractor Name	: Sam Wiser Consultancies
Project	: [illegible]
Test Date	: [illegible]
Report Date	: [illegible]
Location	: [illegible]
Test No.	: 02

Bearing Capacity Plate Load Tests of Soils

BS: 10134



Loading (T)	0	1	2	3	4	5	6
Weight (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Q (ultimate) = [illegible]		Pf (mm) = [illegible]		Qallow = [illegible]		Qall = [illegible]	
Test Approved = [illegible]			[illegible]				

Unloading (T)	6	5	4	3
Weight (Kg)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	6	1	2	3	4	5
Weight (Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Q (ultimate) = [illegible]		Pf (mm) = [illegible]		Qallow = [illegible]		Qall = [illegible]
Test Approved = [illegible]			[illegible]			

Q (ultimate) = [illegible]

Q = Total Load
Pf = Total Settlement (mm)
Qall = Allowable Load (Ton/m²)
Qallow = Allowable Load (Ton/m²)

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Company Name : Sun Rise Construction.
Project : Static Express Train, from Al Ain Sokhna to Suez, Bridge Piering Packet (B) - Kilometer to Km
Test Date : 27/8/2023
report Date : 28/8/2023
Location : Station 449+989 to 449+325
Test No. : 03

Homogeneous Static Plate Load Test of Soils DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.08	[illegible]	0.22	[illegible]	0.13	0.14
2	0.83	[illegible]	0.16	[illegible]	0.37	[illegible]	0.27	0.26
3	1.25	[illegible]	0.24	[illegible]	0.56	[illegible]	0.40	0.40
4	1.67	[illegible]	0.33	[illegible]	0.83	[illegible]	0.58	0.53
5	2.08	[illegible]	0.37	[illegible]	0.73	[illegible]	0.83	0.71
6	2.50	[illegible]	0.78	[illegible]	0.84	[illegible]	0.91	0.84

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
5	2.50	[illegible]	0.78	[illegible]	0.84	[illegible]	0.91	0.84
2	1.25	[illegible]	0.71	[illegible]	0.76	[illegible]	0.82	0.75
1	0.00	[illegible]	0.63	[illegible]	0.74	[illegible]	0.88	0.75
4	0.51	[illegible]	0.58	[illegible]	0.69	[illegible]	0.87	0.71

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.91	[illegible]	0.87	[illegible]	0.71	0.83
1	0.83	[illegible]	0.86	[illegible]	0.80	[illegible]	0.93	0.87
2	1.25	[illegible]	0.75	[illegible]	0.87	[illegible]	0.80	0.77
3	1.67	[illegible]	0.96	[illegible]	0.97	[illegible]	1.06	0.99
4	2.08	[illegible]	0.97	[illegible]	0.95	[illegible]	1.07	1.00

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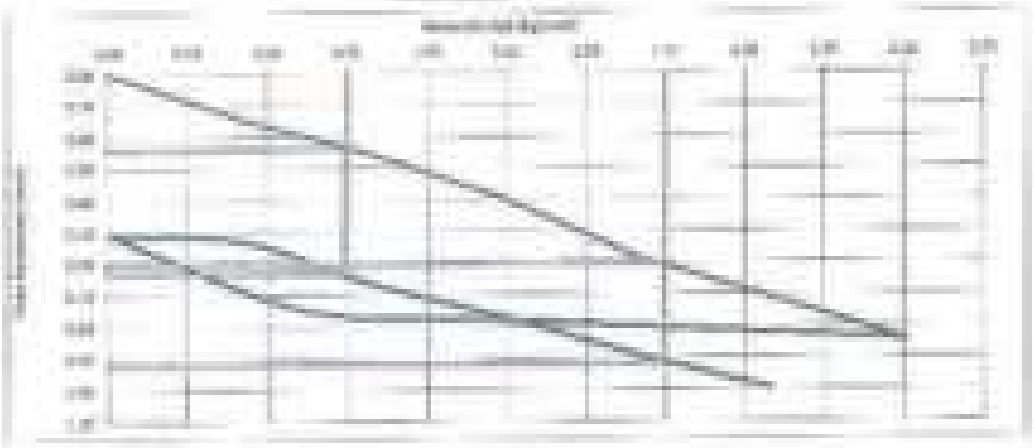
Occupancy Period
Project
Test Date
Report date
Location
Test No.

: Sun Rise Constructions
: [illegible]
: [illegible]
: [illegible]
: [illegible]
: 02

Bearing Value Static Plate Load Tests of Soils
SOIL DETAIL



Loading (T)	0	1	2	3	4	5	6
Stress (Kg/cm2)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] = [illegible]		[illegible]	[illegible]	[illegible] = [illegible]	[illegible] = [illegible]	
[illegible] = [illegible]			[illegible]			

Unloading (T)	1	0	1	4
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Stress (Kg/cm2)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] = [illegible]		[illegible]	[illegible]	[illegible] = [illegible]	[illegible] = [illegible]	
[illegible] = [illegible]			[illegible]			

[illegible] =	[illegible]

[illegible] = Number of information during the loading phase
[illegible] = Number of information during the unloading stage
[illegible] = Plate diameter (mm)
[illegible] = [illegible]
[illegible] = [illegible]

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Company Name : Sun Rise Construction.
Project : [illegible]
Test Date : 27/03/2023
report date : 28/03/2023
Location : Station 449+525 to 449+550
Test No. : 64

Incremental Static Plate Load Tests of Soils DIN 18134.

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.14	[illegible]	0.33	[illegible]	0.20	0.22
2	0.82	[illegible]	0.23	[illegible]	0.47	[illegible]	0.38	0.36
3	1.25	[illegible]	0.33	[illegible]	0.72	[illegible]	0.48	0.54
4	1.67	[illegible]	0.47	[illegible]	0.93	[illegible]	0.71	0.70
5	2.08	[illegible]	0.55	[illegible]	1.09	[illegible]	0.85	0.83
6	2.50	[illegible]	0.70	[illegible]	1.23	[illegible]	0.95	0.96

Unloading Stage (1)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	[illegible]	0.70	[illegible]	1.23	[illegible]	0.95	0.95
2	1.25	[illegible]	0.58	[illegible]	1.17	[illegible]	0.91	0.92
3	0.00	[illegible]	0.51	[illegible]	1.05	[illegible]	0.81	0.82
4	[illegible]	[illegible]	0.46	[illegible]	0.93	[illegible]	0.69	0.73

Loading Stage (2)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.47	[illegible]	0.93	[illegible]	0.71	0.71
1	0.83	[illegible]	0.55	[illegible]	0.98	[illegible]	0.78	0.74
2	1.25	[illegible]	0.69	[illegible]	1.08	[illegible]	0.87	0.83
3	1.67	[illegible]	0.84	[illegible]	1.15	[illegible]	0.98	0.99
4	2.08	[illegible]	0.70	[illegible]	1.27	[illegible]	0.98	0.95

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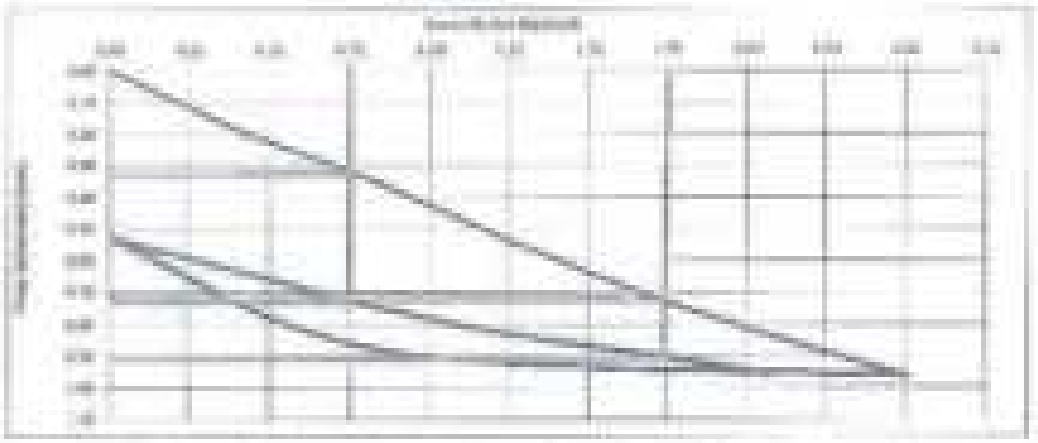
Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : [illegible]
Test No. : [illegible]

[illegible] Plate Load Tests of Soils
(BS 5930)



Loading (T)	0	1	2	3	4	5	6
Weight (Kg)	0	1100.0	2200.0	3300.0	4400.0	5500.0	6600
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Unloading (T)	4	3	2	0
Weight (Kg)	4400	3300	2200	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Weight (Kg)	0	1100.0	2200.0	3300.0	4400.0	5500.0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Q (t) = Modulus of deformation during the loading stage.
Q (t) = Modulus of deformation during the discharging stage.
D = Plate diameter (mm).
Q = The differential between Q (t) and Q (t) is the permanent loading period (kg/cm²).
S.R = Difference in settlement corresponding to Q (t) and Q (t) from the maximum loading period (mm).

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Company Name : Sun Rise Construction,
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station 449+350 to 449+375
Test No. : 96

Incremental Static Plate Load Tests of Soils
DIN 18134.

Data sheet

Loading Stage (I)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.47	[illegible]	0.14	[illegible]	0.16	[illegible]	0.14	0.15
2	0.93	[illegible]	0.27	[illegible]	0.27	[illegible]	0.31	0.28
3	1.40	[illegible]	0.35	[illegible]	0.42	[illegible]	0.52	0.43
4	1.87	[illegible]	0.47	[illegible]	0.56	[illegible]	0.65	0.56
5	2.34	[illegible]	0.53	[illegible]	0.67	[illegible]	0.74	0.64
6	2.80	[illegible]	0.60	[illegible]	0.75	[illegible]	0.82	0.70

Unloading Stage (I)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.30	[illegible]	0.68	[illegible]	0.75	[illegible]	0.82	0.70
2	1.25	[illegible]	0.56	[illegible]	0.76	[illegible]	0.78	0.71
3	0.625	[illegible]	0.51	[illegible]	0.63	[illegible]	0.79	0.64
4	0.01	[illegible]	0.18	[illegible]	0.28	[illegible]	0.35	0.41

Loading Stage (II)

Loading	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.61	[illegible]	0.64	[illegible]	0.48	0.49
1	0.83	[illegible]	0.98	[illegible]	0.83	[illegible]	0.98	0.98
2	1.25	[illegible]	0.89	[illegible]	0.87	[illegible]	0.87	0.88
3	1.67	[illegible]	0.72	[illegible]	0.89	[illegible]	0.79	0.77
4	2.08	[illegible]	0.98	[illegible]	0.76	[illegible]	0.82	0.87

3 El Sheikh El Allfi Street
Zamalek, Cairo.
Tel.& Fax : [illegible]

٣ ش الشيخ الألفي
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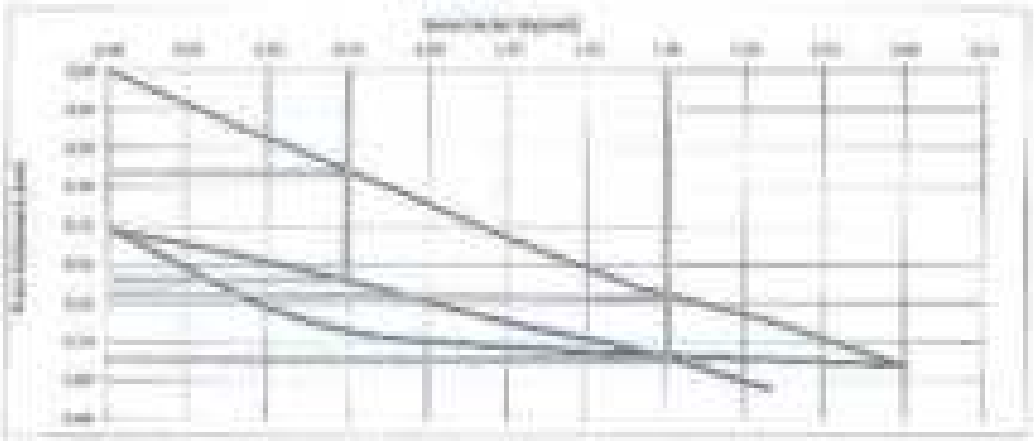
CEL

Consulting Engineering Bureau & Laboratories

مكاتب معامل الاستشارات الهندسية

Company Name	: Sun River Construction
Project	: [illegible]
Test Date	: [illegible]
Approx. Area	: [illegible]
Location	: [illegible]
Test No.	: 01

Representative Static Plate Load Tests of Piles
(BS 8004)



Loading (T)	0	1	2	3	4	5	6
Time (Hr)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Unloading (T)	1	2	3	4
Time (Hr)	[illegible]	[illegible]	[illegible]	0
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Loading (T)	0	1	2	3	4	5
Time (Hr)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

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[illegible] Abdel Al Abdel Street
Zamalek, Cairo.
Tel.& Fax : [illegible]

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[illegible] الأقصى
الزمالك - القاهرة
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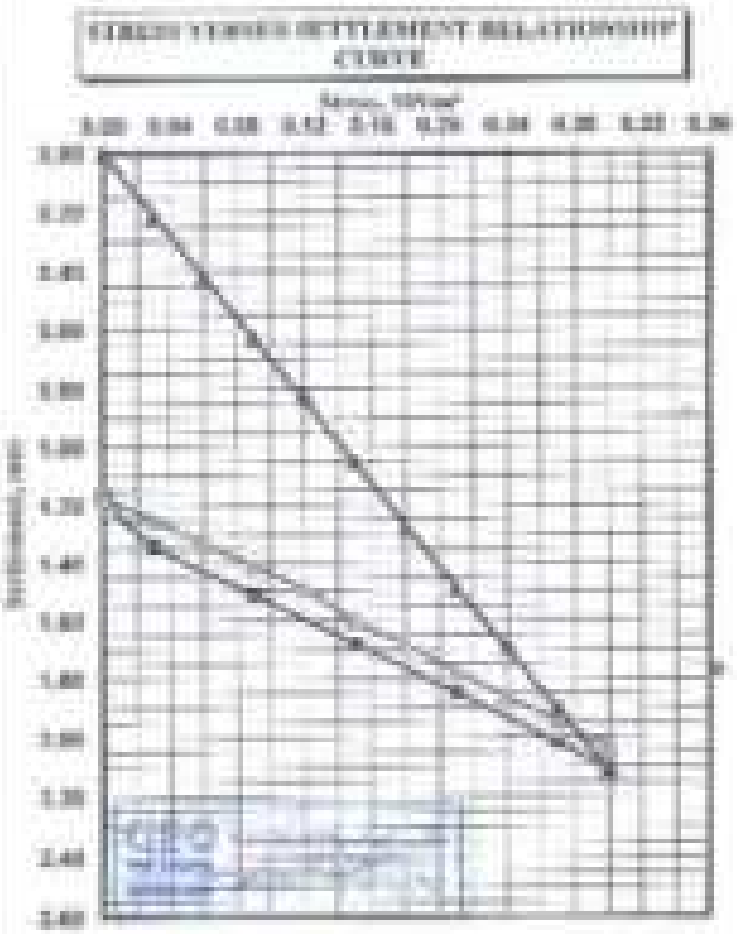
Horema LLC
Soil investigation & G.C.

Plate Load Test of Soils
DIN 18134

CLIENT	Sun Rise Company	TIME START:	[illegible]
PROJECT	Electric Express Train	TIME FINISH:	[illegible]
LOCATION	Al-Rukaa (GR-300) - [illegible]	DATE	4-Apr-[illegible]
PLATE LOAD NO.	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	[illegible]	** Note : Soil is Wet	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.22
0.06	0.42
0.09	0.63
0.12	0.83
0.15	1.05
0.18	1.28
0.21	1.49
0.24	1.68
0.27	1.90
0.30	2.11
0.27	2.02
0.21	1.85
0.18	1.68
0.15	1.51
0.12	1.39
0.09	1.27
0.03	1.25
0.06	1.33
0.09	1.41
0.12	1.49
0.15	1.60
0.18	1.68
0.21	1.78
0.24	1.86
0.27	1.93
0.30	2.03



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
Offset	0.30	0.30
a_v [mm/(MN/m²)]	6.011	2.186
a_d [mm/(MN/m²)]	0.359	0.517
Ev [MN/m²]	80.0	193.3
Ev2/Ev1	2.42	

Remarks

MODULUS OF SUB-GRADE REACTION, Ks

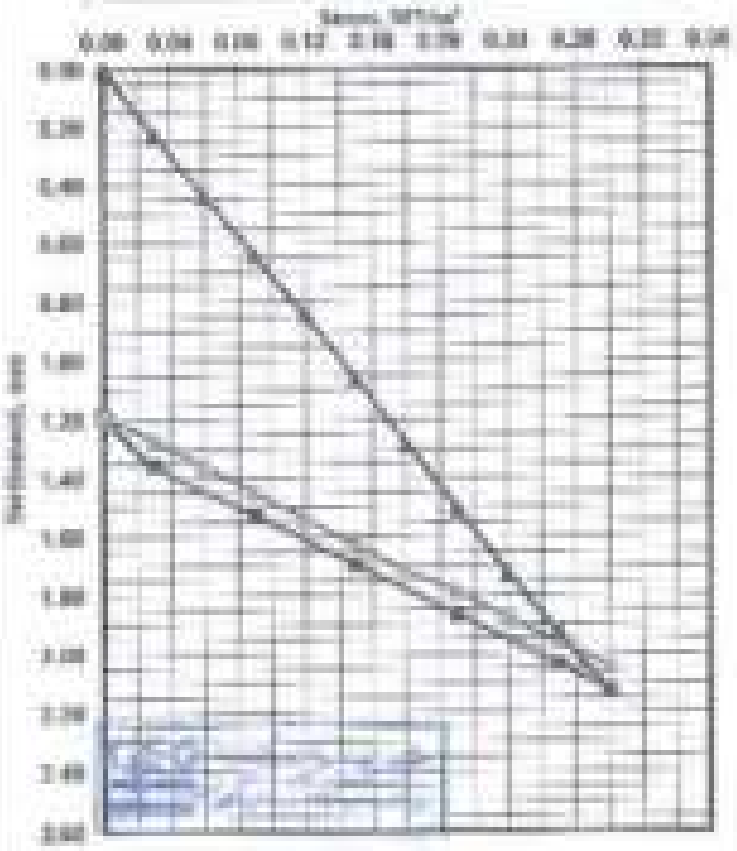
Ks = Jo/Ns 141.6 MN/m³

Horema LLC
Soil Investigation & Q.C.

Plate Load Test of Soils
DEVIATION

CLIENT	Sun Rise Company	TIME START:	[illegible]
PROJECT	Electric Express Train	TIME FINISH:	[illegible]
LOCATION	Al-Dahna ([illegible]) – [illegible] subgrade	DATE	4-Apr-22
PLATE LOAD NO.	PLT-10	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	75.00	*** Note : Soil in Wet	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.53
0.06	0.64
0.09	0.94
0.12	0.84
0.15	1.08
0.18	1.29
0.21	1.52
0.24	1.73
0.27	1.93
0.30	2.13
0.27	2.04
0.21	1.87
0.18	1.79
0.15	1.63
0.12	1.50
0.09	1.39
0.03	1.27
0.06	1.36
0.09	1.46
0.12	1.54
0.15	1.63
0.18	1.72
0.21	1.79
0.24	1.86
0.27	1.96
0.30	2.04



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
σ Stress	0.30	0.30
a_1 [max[MN/m²]]	2.002	3.010
a_0 [max[MN/m²/m²]]	0.299	-0.557
Ev [MN/m²]	79.3	107.2
Ev2/Ev1	2.49	

Remarks

MODULUS OF SUB-GRADE REACTION, Ks

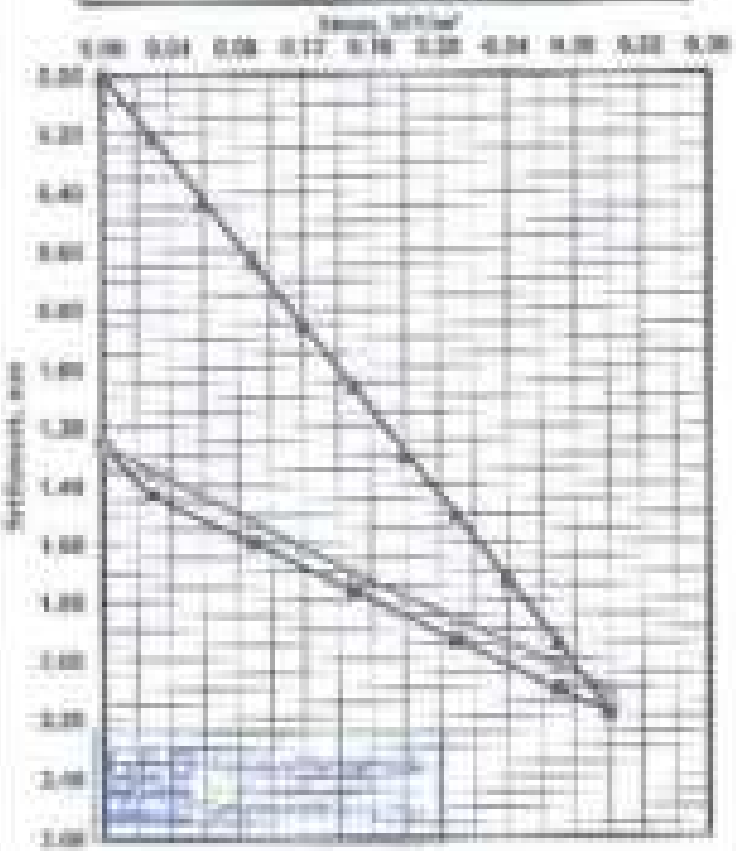
Ks = 3σ/Δs 141.6 MN/m³

Horema LLC
Soil Investigation & G.C.

Plain Load Test of Soils
DIN 18134

CLIENT	Sun Rise Company	TIME START:	[illegible]
PROJECT	Electric Express Train	TIME FINISH:	[illegible]
LOCATION	Al-Dalam (250+550) ~+575 subgrade	DATE	4-Apr-21
PLATE LOAD SOIL	[illegible]	LAB. REF	[illegible]
PLATE DIAMETER (cm)	75.00	** Made : Soil in West	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.22
0.06	0.43
0.09	0.63
0.12	0.85
0.15	1.06
0.18	1.30
0.21	1.51
0.24	1.73
0.27	1.95
0.30	2.18
0.27	2.11
0.21	1.94
0.18	1.77
0.06	1.60
0.03	1.43
0.00	1.26
0.03	1.35
0.06	1.44
0.09	1.53
0.12	1.62
0.15	1.71
0.18	1.79
0.21	1.87
0.24	1.95
0.27	2.03
0.30	2.11



STRAIN MODULUS, Es

	1 st loading	2 nd loading
ν Poisson	0.30	0.30
a_1 [mm/(MN/m²)]	0.509	3.167
a_2 [mm/(MN/m²)²]	0.148	-2.071
Ev [MN/m²]	84.7	169.7
Es=2/(Ev)	0.24	

MODULUS OF SUB-GRADE REACTION, Ks

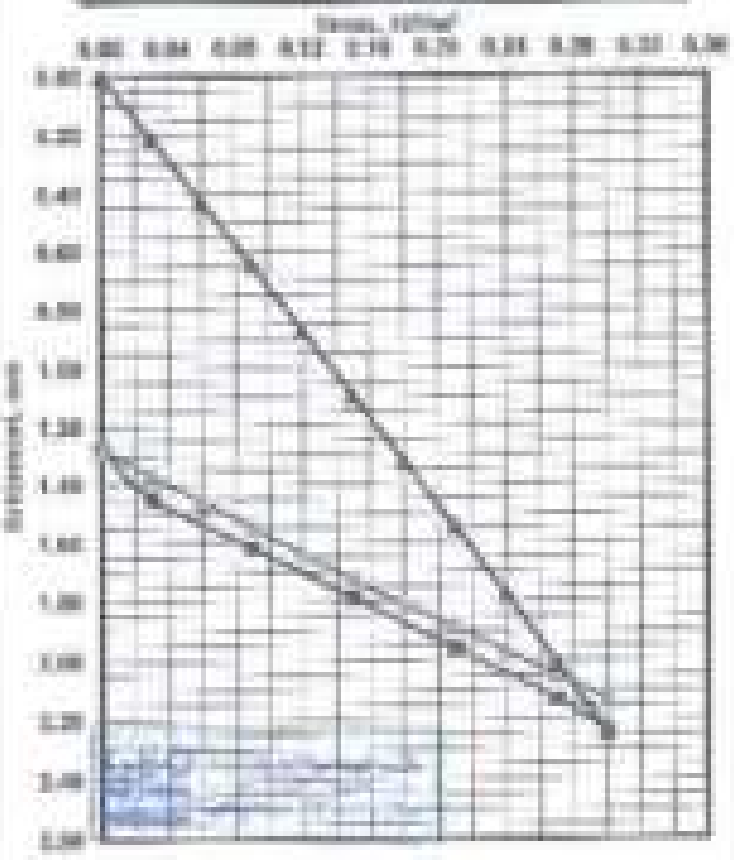
ks = 4pi/3a 137.6 MN/m³

Horema LLC
Soil Investigation & Q.C.

Plate Load Test of Soils
DIN 18134

CLIENT	Sun Rise Company	TIME START:	[illegible]
PROJECT	Electric Express Train	TIME FINISH:	[illegible]
LOCATION	Al-Rahaw ([illegible]) - [illegible]	DATE:	4-Apr-[illegible]
PLATE LOAD NO.	[illegible]	LAB REF:	[illegible]
PLATE DIAMETER (cm)	77.00	*** Note : Soil is Dry	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.21
0.06	0.42
0.09	0.63
0.12	0.87
0.15	1.03
0.18	1.32
0.21	1.55
0.24	1.78
0.27	2.01
0.30	2.24
0.27	2.13
0.21	1.98
0.15	1.78
0.09	1.62
0.03	1.46
0.00	1.25
0.03	1.37
0.06	1.48
0.09	1.55
0.12	1.64
0.15	1.73
0.18	1.81
0.21	1.89
0.24	1.97
0.27	2.05
0.30	2.13



STRAIN MODULUS, Ev

	1st loading	2nd loading
D(mm)	0.30	0.30
a_1 [mm/(MN/m²)]	7.264	3.117
a_2 [mm/(MN²/m⁴)]	0.872	-0.96
Ev [MN/m²]	75.0	196.6
Ev2/Ev1	2.63	

MODULUS OF SUB-GRADE REACTION, Ks

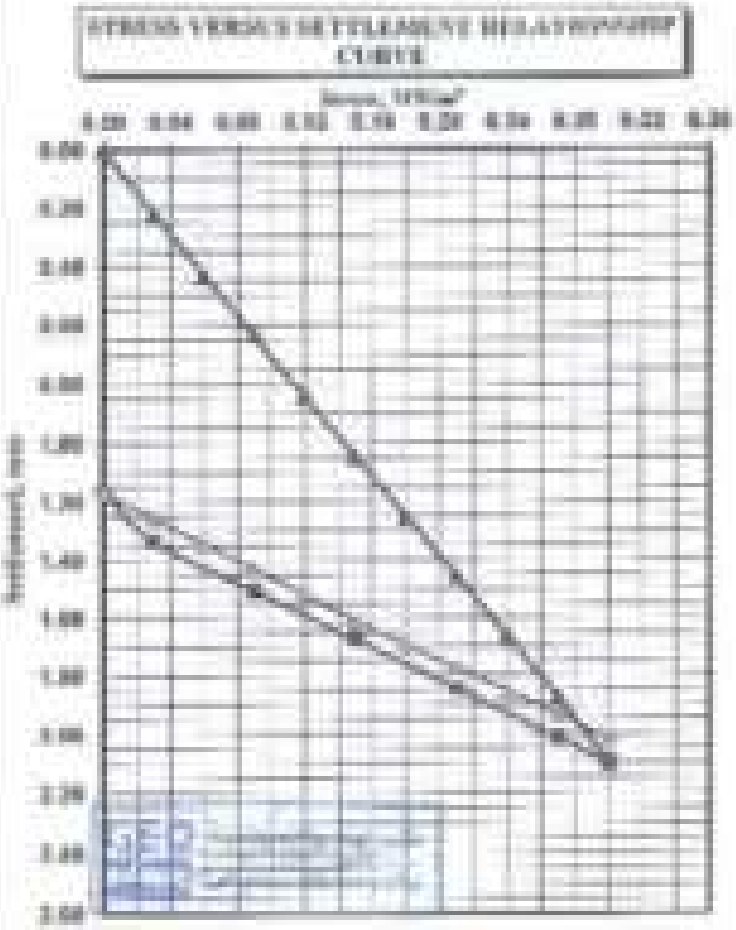
ks = Δσ/Δs 103.6 MN/m³

Horema LLC
Soil Investigation & Q.C

Plate Load Tests of Soils
DIN 18134

CLIENT	Sun Blue Company	TIME START:	12:00 PM
PROJECT	Khawlie Express Tower	TIME FINISH:	1:30 PM
LOCATION	Al-Dahaa (190+400) →423 subgrade	DATE	8-Apr-23
PLATE LOAD NO.	PLT-21	LAB. REF.	5650
PLATE DIAMETER (cm)	75.00	** Note : Soil is Wet	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.22
0.06	0.43
0.09	0.83
0.12	0.84
0.15	1.00
0.18	1.20
0.21	1.46
0.24	1.66
0.27	1.88
0.30	2.10
0.27	2.02
0.21	1.88
0.18	1.68
0.09	1.51
0.03	1.34
0.00	1.17
0.03	1.26
0.06	1.34
0.09	1.43
0.12	1.52
0.15	1.61
0.18	1.69
0.21	1.77
0.24	1.85
0.27	1.93
0.30	2.02



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
ΔStress	0.30	0.30
a_1 [mm/(MN/m²)]	8.743	2.900
a_2 [mm/(MN²/m²)]	0.571	0.494
Ev [MN/m²]	31.4	109.4
Ev2/Ev1	2.48	

MODULUS OF SUB-GRADE REACTION, Ks

ks = Ao/Ha 143.2 MN/m³

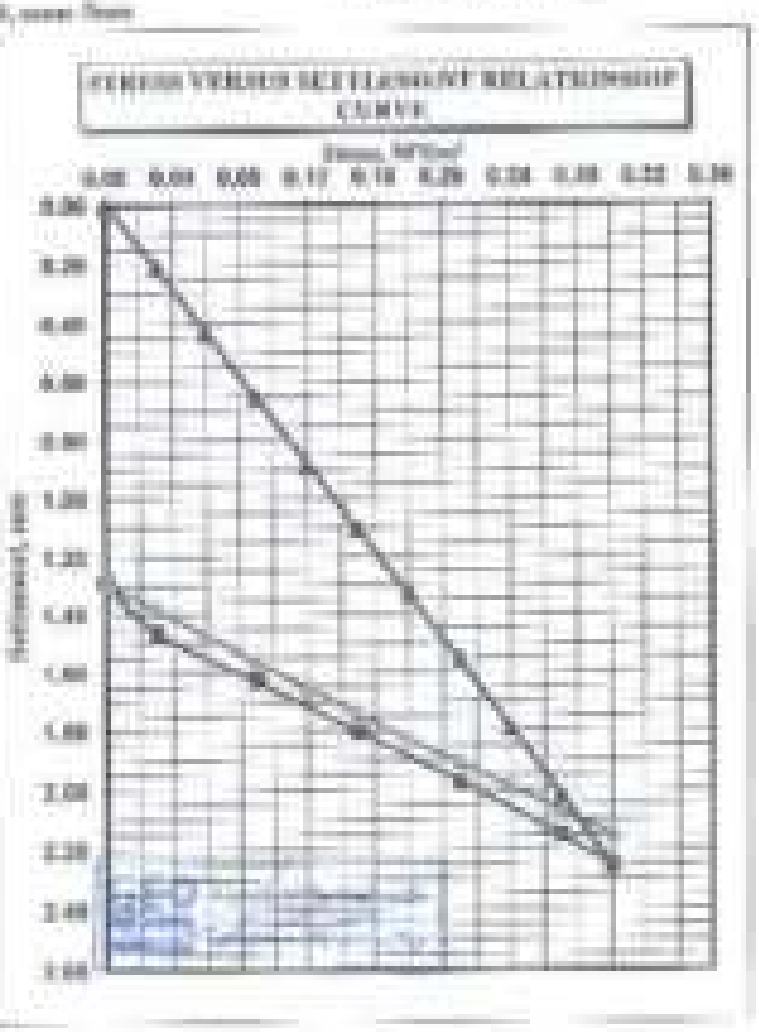
Horema LLC

Nafil Innovation & G.C.

Plate Load Test of Soils
DIN 18134

CLIENT	Sun Rise Company	TIME STARTED:	1:30 PM
PROJECT	Electric Express Train	TIME FINISH:	3:00 PM
LOCATION	Al-Dabaa (430-435) +650 subgrade	DATE	5-Apr-22
PLATE LOAD NO.	PL 1 (2)	LAB. REF.	54383
PLATE DIAMETER (mm)	75.00	** Note : Soil is Wet	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.21
0.06	0.43
0.09	0.65
0.13	0.88
0.15	1.10
0.18	1.33
0.21	1.56
0.24	1.79
0.27	2.02
0.30	2.25
0.27	2.15
0.21	1.97
0.18	1.88
0.09	1.69
0.03	1.48
0.00	1.29
0.03	1.39
0.06	1.47
0.09	1.57
0.13	1.66
0.16	1.74
0.18	1.82
0.21	1.91
0.24	1.99
0.27	2.07
0.30	2.15



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
σ1(max	0.30	0.30
a_1 [mm/(MN/m²)]	7.38	3.157
a_2 [mm/(MN²/m²)]	0.606	-0.065
Ev [MN/m²]	74.5	195.0
Ev2/Ev1	2.63	

MODULUS OF SUB-GRADE REACTION, Ks

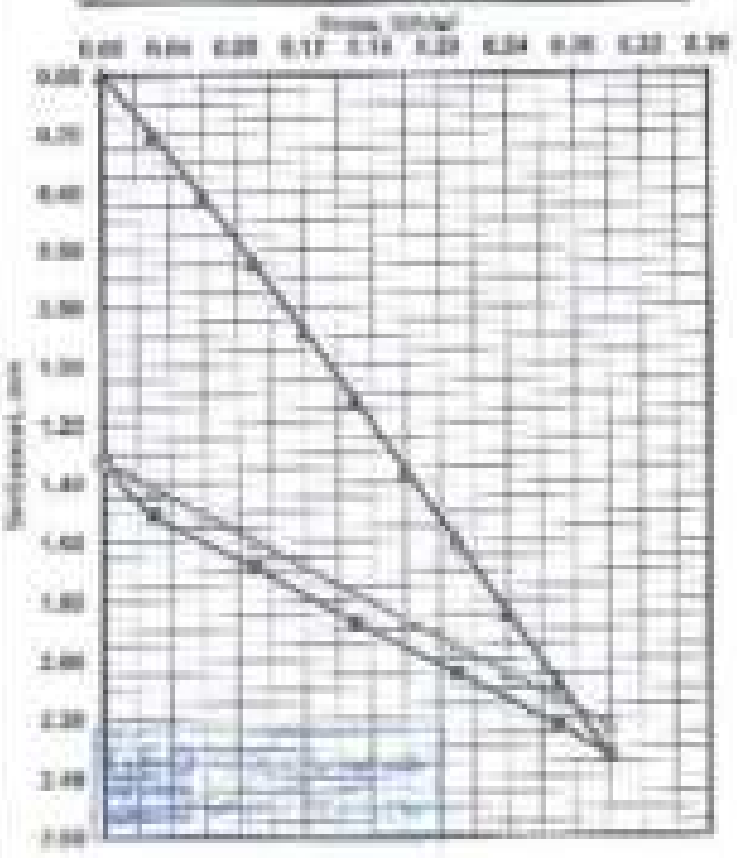
ks = Δσ/Δs 133.6 MN/m³

Horema LLC
Soil Investigation & Q.C

Plate Load Test of Soils
DIN 18134

CLIENT	Sun Rim Company	TIME START:	[illegible]
PROJECT	Electric Express Train	TIME FINISH:	[illegible]
LOCATION	Al Dafna ([illegible]) – [illegible] subgrade	DATE	[illegible]
PLATE LOAD NO.	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	75.00	** Note : Soil is Wet	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress N/cm²	Settlement mm
0.00	0.00
0.03	0.20
0.06	0.42
0.09	0.64
0.12	0.88
0.15	1.13
0.18	1.30
0.21	1.60
0.24	1.84
0.27	2.08
0.30	2.32
0.27	2.23
0.21	2.09
0.18	1.87
0.09	1.68
0.03	1.51
0.00	1.33
0.03	1.42
0.06	1.55
0.09	1.60
0.12	1.68
0.15	1.78
0.18	1.87
0.21	1.98
0.24	2.05
0.27	2.14
0.30	2.23



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
ODnlda	0.30	0.30
a_1 [mm/(MN/m²)]	7.407	3
a_0 [mm/(MN²/m²)]	1.538	0
Ev [MN/m²]	71.5	167.5
Ev2/Ev1	2.62	

MODULUS OF SUB-GRADE REACTION, Ks

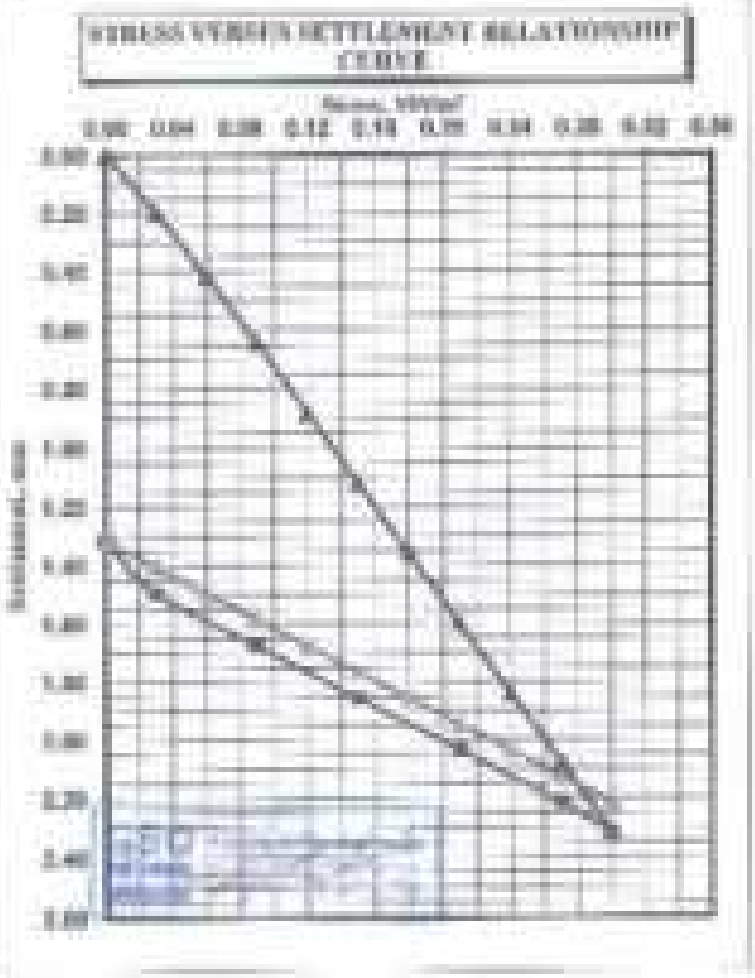
ks = 2ar/3a 120.8 MN/m³

Horema Ltd
Soil Investigation & G.C.

Plate Load Test of Soils
DIN 18134

CLIENT	Sun Rise Company	TIME START:	4:30 PM
PROJECT	Electric Express Train	TIME FINISH:	6:00 PM
LOCATION	Al Dakhan (400+470) → 700 subgrade	DATE:	4-Apr-17
PLATE LOAD NO.	PL1124	LAB. REF.	0/002
PLATE DIAMETER (mm)	75.00	** Note : Soil is Wet	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress N/mm²	Settlement mm
0.00	0.00
0.03	0.20
0.06	0.62
0.09	0.85
0.12	0.98
0.15	1.12
0.18	1.26
0.21	1.60
0.24	1.84
0.27	2.00
0.30	2.22
0.27	2.22
0.24	2.04
0.21	1.80
0.18	1.60
0.15	1.50
0.12	1.32
0.09	1.41
0.06	1.40
0.03	1.50
0.00	1.68
0.03	1.77
0.06	1.86
0.09	1.95
0.12	2.04
0.15	2.13
0.18	2.22



STRAIN MODULUS, Ev

	1st loading	2nd loading
ν (Poisson)	0.30	0.30
A_1 [mm/(MN/m²)]	7.478	3
A_2 [mm/(MN²/m²)]	1.228	0
Ev [MN/m²]	71.7	187.5
Ev2/Ev1	2.62	

Remarks

MODULUS OF SUB-GRADE REACTION, Ks

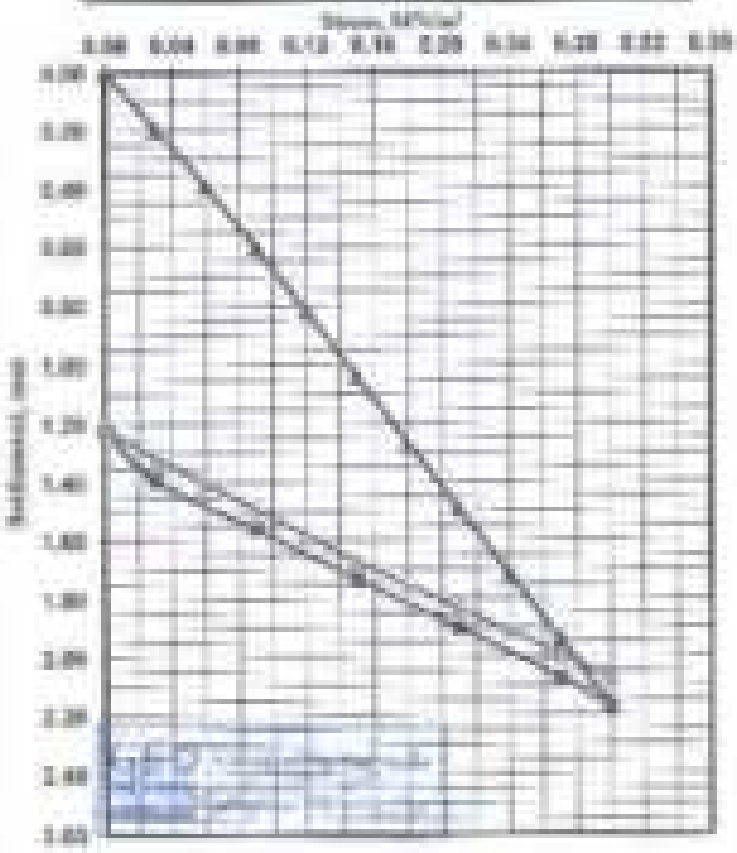
Ks = Ae/Aa 129.6 MN/m³

Horema LLC
Soil investigation & Q.C.

Plate Load Test of Soils
BS 1377/9

CLIENT	Sun Rise Company	TIME START:	[illegible]
PROJECT	Electric Express Train	TIME FINISH:	[illegible]
LOCATION	Al-Dafna (450/500) – 725 subgrade	DATE:	[illegible]
PLATE GROUND:	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	75.00	** Note : Soil in Wet	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress N/m²	Settlement mm
0.00	0.00
0.03	0.20
0.06	0.36
0.09	0.60
0.12	0.82
0.15	1.04
0.18	1.27
0.21	1.48
0.24	1.72
0.27	1.94
0.30	2.17
0.27	2.07
0.21	1.86
0.15	1.73
0.09	1.60
0.00	1.39
0.00	1.23
0.03	1.31
0.06	1.43
0.09	1.49
0.12	1.56
0.15	1.67
0.18	1.75
0.21	1.83
0.24	1.91
0.27	1.98
0.30	2.07



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
ν (Poisson)	0.30	0.30
a_1 [mm/(MN/m²)]	8.72	3.117
a_2 [mm/(MN²/m⁴)]	1.003	-0.08
Ev [MN/m²]	77.2	198.8
Ev2/Ev1	2.57	

Assumed

MODULUS OF SUB-GRADE REACTION, Ks

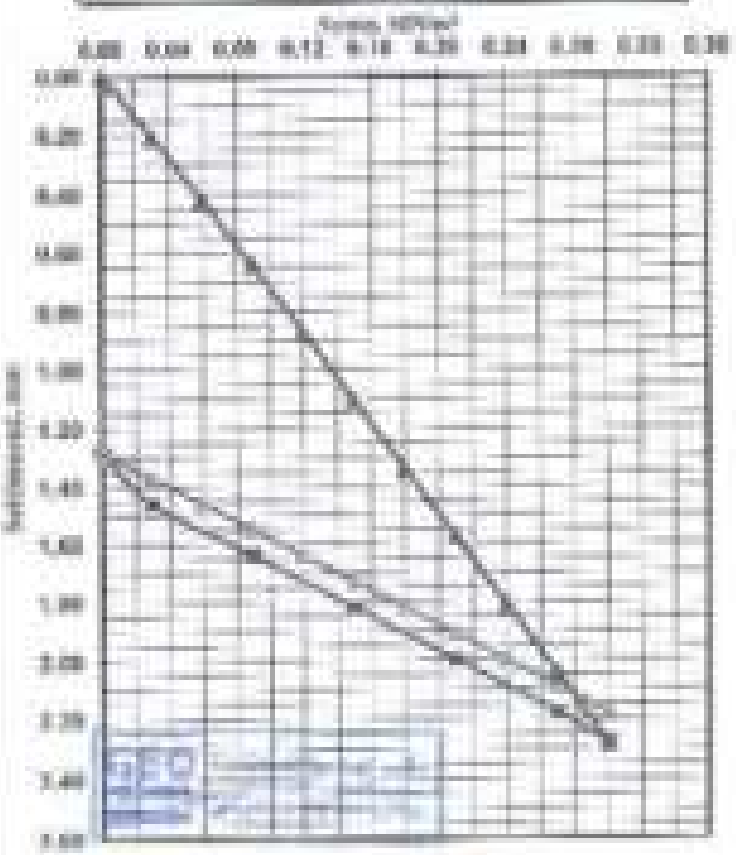
ks = Ev/1.5a 138.4 MN/m³

Horema LLC
Soil Investigation & G.C.

Plate Load Tests of Soils
DIN 18134

CLIENT	San Bilar Company	TIME START:	7:30 AM
PROJECT	Electric Express Trains	TIME FINISH:	[illegible] AM
LOCATION	Al-Salma (Km 120) – [illegible] subgrade	DATE:	4-Apr-21
PLACE LOAD NO.	PL 1-36	LAB. REF.	84002
PLATE DIAMETER	300 mm	** Note : Soil is Wet	
TYPE OF SOIL	GRAVEL and SAND, cream flow		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.21
0.06	0.42
0.09	0.64
0.12	0.87
0.15	1.11
0.18	1.34
0.21	1.57
0.24	1.81
0.27	2.03
0.30	2.28
0.27	2.13
0.21	2.00
0.18	1.83
0.09	1.64
0.03	1.46
0.00	1.28
0.03	1.27
0.06	1.46
0.09	1.65
0.12	1.84
0.15	1.73
0.18	1.92
0.21	1.81
0.24	2.00
0.27	2.09
0.30	2.18



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
σ0max	0.30	0.30
a_1 [mm/(MN/m²)]	7.242	3
a_2 [mm/(MN²/m²)]	1.428	0
Ev [MN/m²]	73.3	187.5
Ev2/Ev1	2.56	

MODULUS OF SUB-GRADE REACTION, Ks

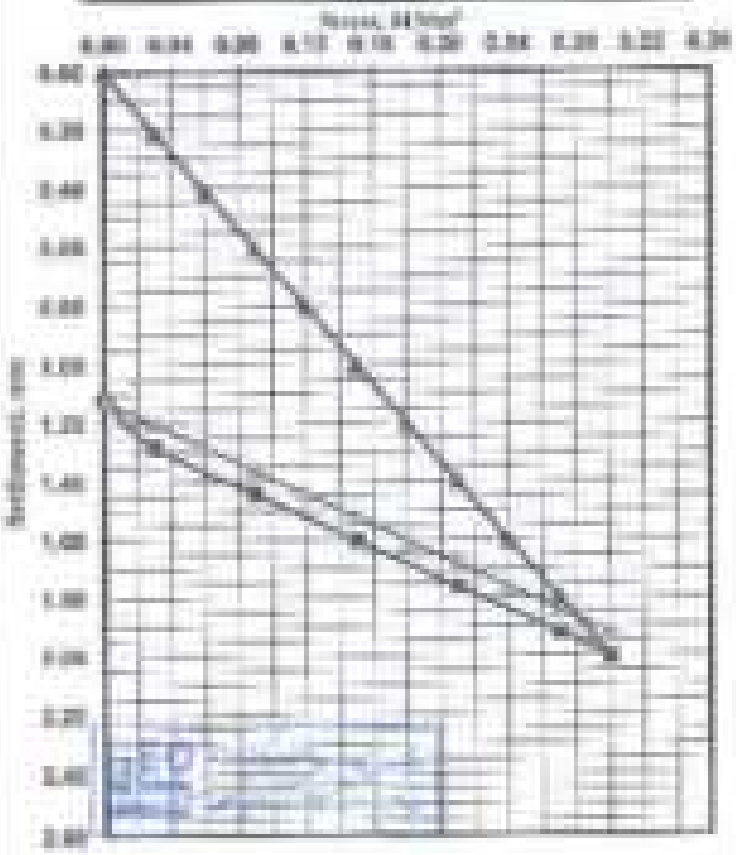
ks = Δσ/Δs 131.2 MN/m³

Horema LLC
Soil Investigation & Q.C.

Plate Load Test of Soils
(BS 1377)

CLIENT	Sea Rim Company	TIME START:	[illegible]
PROJECT	Electric Express Train	TIME FINISH:	[illegible]
LOCATION	Al-Ghuba (050+750) – (750 subgrade	DATE	6-Apr-21
PLATE LOAD NO.	[illegible]	LAB. REF.	94002
PLATE DIAMETER (cm)	75.00	** Note : Soil is Wet	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress, MN/m²	Settlement mm
0.00	0.00
0.03	0.21
0.06	0.41
0.09	0.61
0.12	0.80
0.15	1.00
0.18	1.20
0.21	1.40
0.24	1.60
0.27	1.80
0.30	2.00
0.27	1.82
0.24	1.76
0.18	1.60
0.09	1.44
0.03	1.28
0.00	1.12
0.03	1.32
0.06	1.28
0.09	1.36
0.12	1.44
0.15	1.52
0.18	1.60
0.21	1.68
0.24	1.76
0.27	1.84
0.30	1.92



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
Poisson	0.30	0.30
a_0 [mm/(MN/m²)]	6.937	7.667
a_1 [mm/(MN²/m²)]	0.273	0
Ev [MN/m²]	85.0	210.0
Ev2/Ev1	2.48	

Remarks

MODULUS OF SUB-GRADE REACTION, Ks

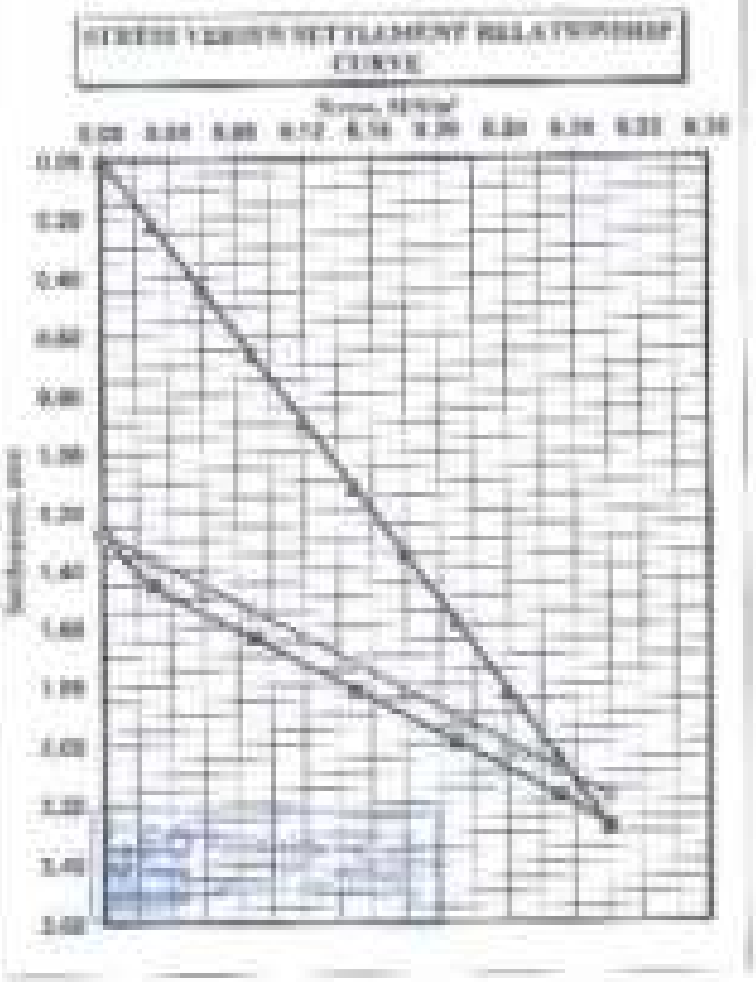
ks = 4a/(1-μ²) 149.6 MN/m³

Horema
Soil Investigation & Q.C.

Plate Load Tests of Soils
ASTM D1195

CLIENT	Sea Rim Company	TIME START:	[illegible]
PROJECT	Electric Express Trains	TIME ENDS:	[illegible]
LOCATION	Al-Dafna ([illegible]) - [illegible] subgrade	DATE	[illegible]
PLATE LOAD NO.	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	[illegible]	** Note : Soil is Wet.	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress N/mm²	Settlement mm
0.00	0.00
0.03	0.22
0.06	0.44
0.09	0.67
0.12	0.90
0.15	1.12
0.18	1.35
0.21	1.58
0.24	1.82
0.27	2.05
0.30	2.28
0.27	2.19
0.21	2.00
0.15	1.82
0.09	1.68
0.03	1.46
0.00	1.28
0.03	1.37
0.06	1.46
0.09	1.55
0.12	1.64
0.15	1.73
0.18	1.82
0.21	1.91
0.24	2.00
0.27	2.09
0.30	2.18



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
C0(max)	0.50	0.30
a_1 [mm/(MN/m²)]	7.505	3
a_2 [mm/(MN²/m²)]	0.51	0
Ev [MN/m²]	73.5	187.5
Ev2/Ev1	2.55	

Remarks

MODULUS OF SUB-GRADE REACTION, Ks

ks = Ave/δ 132.0 MN/m³

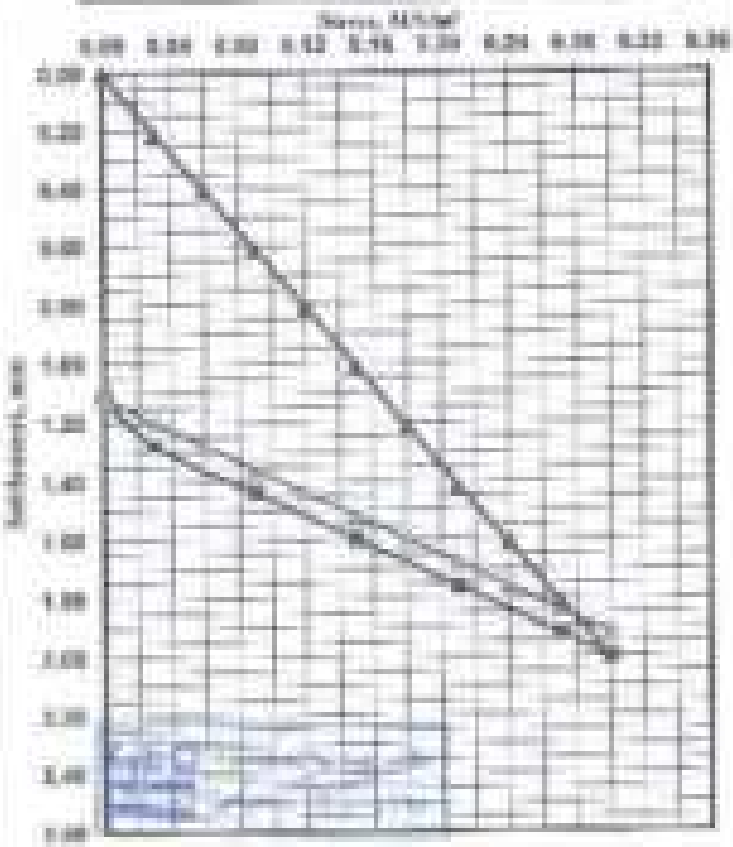
Horema LLC
Soil Investigation & Q.C.

Plate Load Tests of Soils
DIN 18134

CLIENT	Sun Rise Company	TIME (START)	[illegible]
PROJECT	Electric Express Train	TIME (FINISH)	[illegible]
LOCATION	Al-Ashar ([illegible]) – [illegible] subgrade	DATE	6-Apr-21
PLATE LOAD NO.	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	[illegible]	** Note : Soil Is Wet.	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress N/mm²	Settlement mm
0.00	0.00
0.03	0.21
0.06	0.41
0.09	0.61
0.12	0.81
0.15	1.01
0.18	1.22
0.21	1.42
0.24	1.61
0.27	1.81
0.30	2.00
0.27	1.87
0.21	1.76
0.18	1.60
0.15	1.44
0.12	1.28
0.09	1.12
0.03	1.28
0.06	1.28
0.09	1.36
0.12	1.44
0.15	1.52
0.18	1.60
0.21	1.68
0.24	1.76
0.27	1.84
0.30	1.92

STRESS VERSUS SETTLEMENT RELATIONSHIP CURVE



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
ν (Poisson)	0.30	0.30
a_1 [mm/(MN/m²)]	6.709	2.667
a_2 [mm/(MN²/m²)]	-0.434	0
Ev [MN/m²]	94.3	210.9
Ev2/Ev1	2.30	

MODULUS OF SUB-GRADE REACTION, Ks

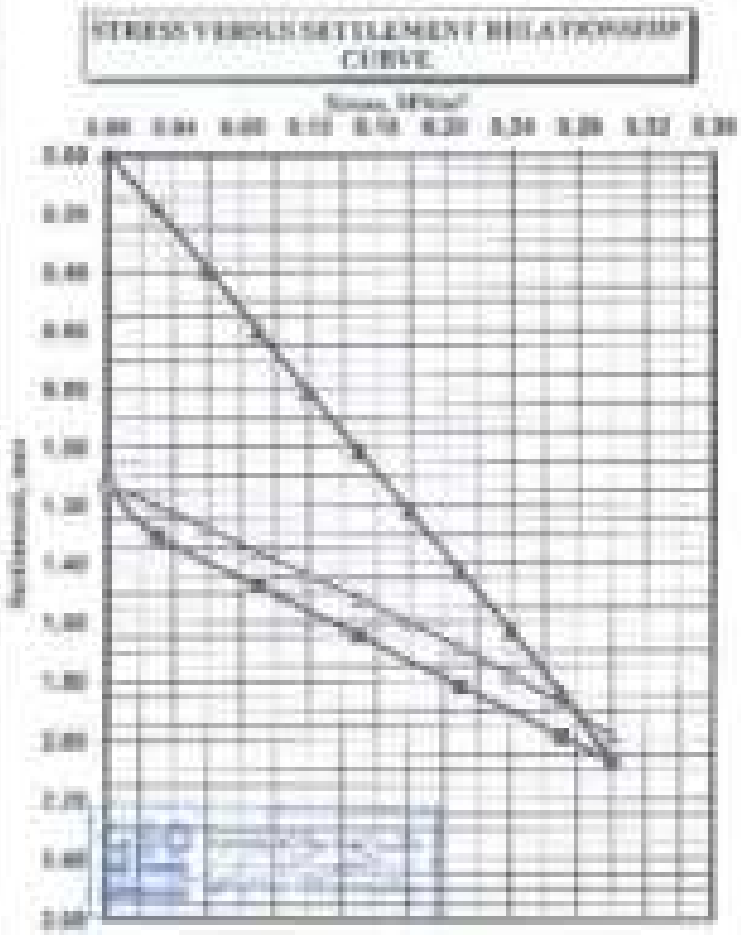
Ks = Ev/(1-ν²) 140.0 MN/m³

Horema Ltd
Soil Investigation & Q.C.

Plate Load Tests of Soils
DIN 18134

CLIENT	Sun Rise Company	TIME STARTED	[illegible]
PROJECT	Electric Express Train	TIME FINISHED	[illegible]
LOCATION	[illegible]	DATE	[illegible]
PLATE LOAD NO.	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	75.00	*** Made : Soil to Well	
TYPE OF SOIL	GRAVEL and SAND, stone free		

Stress MN/m²	Settlement mm
0.06	0.00
0.03	0.79
0.06	0.39
0.09	0.60
0.12	0.81
0.15	1.01
0.18	1.22
0.21	1.43
0.24	1.63
0.27	1.84
0.30	2.07
0.27	1.79
0.21	1.52
0.15	1.25
0.09	1.48
0.03	1.37
0.00	1.13
0.03	1.20
0.06	1.23
0.09	1.30
0.12	1.44
0.15	1.62
0.18	1.83
0.21	1.69
0.24	1.79
0.27	1.69
0.30	1.89



STRAIN MODULUS, Ev

	1st loading	2nd loading
ν (Poisson)	0.30	0.30
a_1 [mm/(MN/m²)]	0.605	2.315
a_2 [mm/(MN²/m²)]	0.71	1.726
Ev [MN/m²]	81.5	106.5
Ev2/Ev1	1.43	

MODULUS OF SUB-GRADE REACTION, Ks

ks = Ao/Ka 144.9 MN/m³

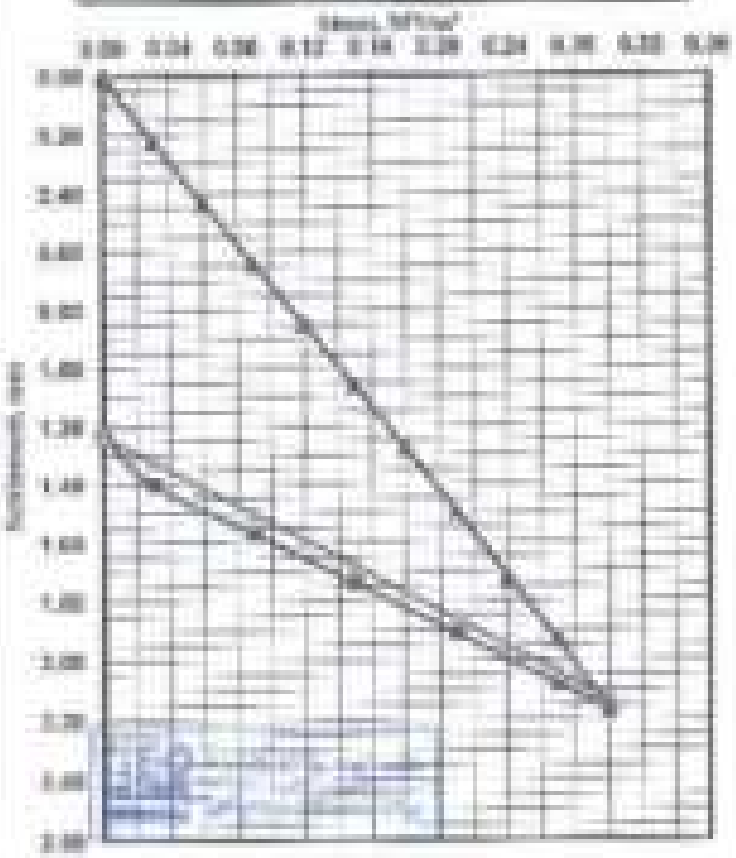
Horema LLC
Soil Investigation & G.C.

Plate Load Tests of Soils
DIN 18134

CLIENT	San Bim Company	TIME START:	[illegible]
PROJECT	Khartoum Express Train	TIME FINISH:	[illegible]
LOCATION	Al-Rabaa ([illegible]) - [illegible]	DATE	4-Apr-22
PLACE LOAD NO.	PLT-[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (mm)	75.00	** Note : Soil is Wet	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress N/cm²	Settlement mm
0.00	0.00
0.03	0.22
0.06	0.43
0.09	0.65
0.12	0.80
0.15	1.06
0.18	1.28
0.21	1.50
0.24	1.73
0.27	1.93
0.30	2.17
0.27	2.08
0.24	1.85
0.18	1.74
0.09	1.57
0.03	1.40
0.00	1.22
0.03	1.32
0.06	1.41
0.09	1.50
0.12	1.59
0.15	1.68
0.18	1.77
0.21	1.86
0.24	1.96
0.27	2.06
0.30	2.15

STRESS VERSUS SETTLEMENT RELATIONSHIP CURVE



STRAIN MODULUS, Ev

	1. st loading	2. nd loading
ν Poisson	0.30	0.30
a_0 [mm/(MN/m²)]	0.031	3
a_1 [mm/(MN/m²/m²)]	1.104	0
Ev [MN/m²]	78.5	187.5
Ev2/Ev1	2.39	

Remarks

MODULUS OF SUB-GRADE REACTION, Ks

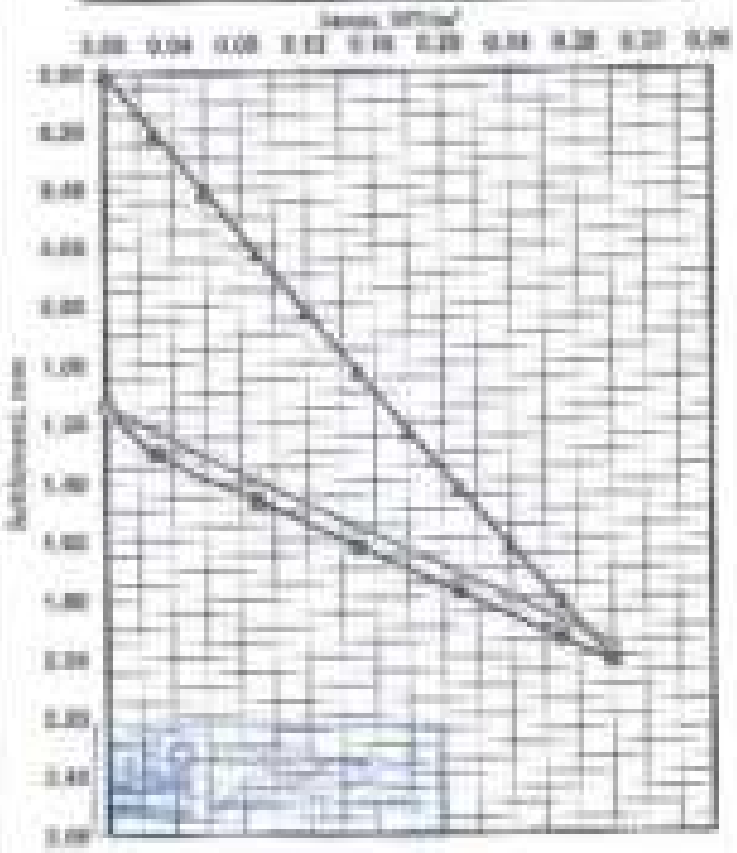
ks = Ev/Ra 136.4 MN/m³

Horema LLC
Soil Investigations & G.C.

Plate Load Test of Soils
JOY IRDM

CLIENT:	Sino Rail Company	TIME START:	[illegible]
PROJECT:	Electric Express Train	TIME FINISH:	[illegible]
LOCATION:	Al-Ashar (250+875) – 300 subgrade	DATE:	[illegible]
PLATE GRAF NO:	PL 1 / 1	LAB. REF:	[illegible]
PLATE DIAMETER (cm):	77.00	** Note : Soil is Wet.	
TYPE OF SOIL:	GRAVEL and SAND, some fines		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.21
0.06	0.41
0.09	0.63
0.12	0.82
0.15	1.03
0.18	1.23
0.21	1.43
0.24	1.62
0.27	1.82
0.30	2.02
0.27	1.96
0.24	1.78
0.21	1.62
0.18	1.46
0.15	1.30
0.12	1.14
0.03	1.22
0.06	1.32
0.09	1.40
0.12	1.48
0.15	1.56
0.18	1.64
0.21	1.72
0.24	1.80
0.27	1.88
0.30	1.96



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
Ø Strain	0.30	0.30
a_1 [mm/(MN/m²)]	6.925	2.888
a_2 [mm/(MN²/m²)]	-0.747	-0.554
Ev [MN/m²]	83.9	300.7
Fx2/Ev1	2.46	

Approximate

MODULUS OF SUB-GRADE REACTION, Ks

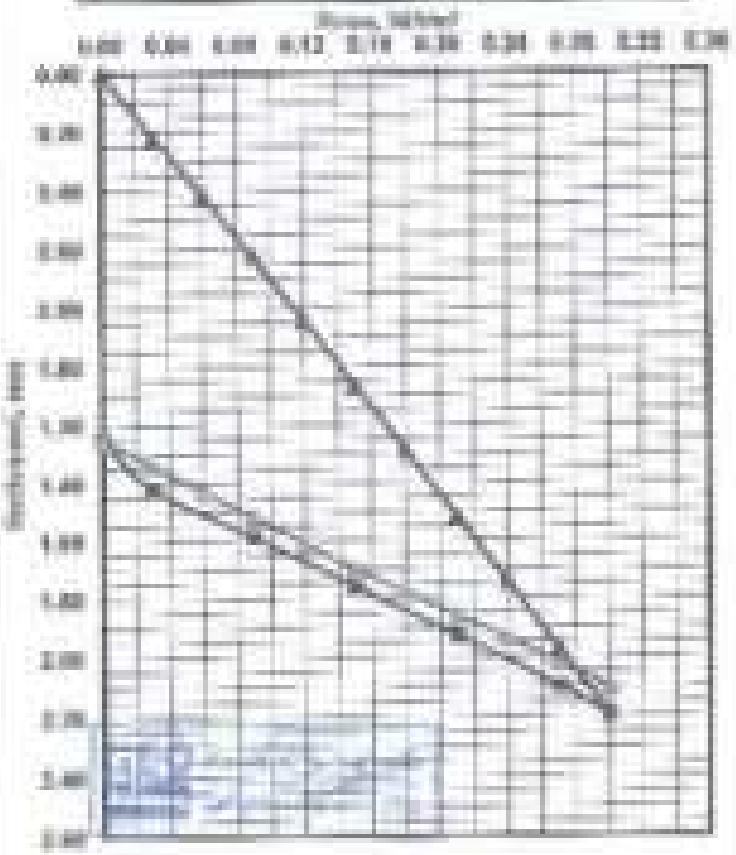
ks = Ao/Ns 148.8 MN/m³

Horema S.M
Soil Investigation & G.C.

Plate Load Test of Soils
DIS.38134

CLIENT	Sun Blue Company	TIME START:	6:00 PM
PROJECT	Electric Express Train	TIME FINISH:	7:30 PM
LOCATION	Al-Galaa (430+900) 910 subgrade	DATE	6-Apr-23
PLATE LOAD NO.	PLT-01	LAB. REF.	04001
PLATE DIAMETER (cm)	75.00	** Note : Soil is Wet	
TYPE OF SOIL	GRAVEL and SAND, coral Bars		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.22
0.06	0.41
0.09	0.62
0.12	0.84
0.15	1.07
0.18	1.29
0.21	1.52
0.24	1.75
0.27	1.97
0.30	2.19
0.27	2.10
0.24	1.89
0.21	1.76
0.18	1.58
0.15	1.42
0.12	1.23
0.09	1.34
0.06	1.43
0.09	1.52
0.12	1.67
0.15	1.70
0.18	1.78
0.21	1.88
0.24	1.94
0.27	2.02
0.30	2.10



STRAIN MODULUS, Ev

	1st loading	2nd loading
ν Poisson	0.30	0.30
a_1 [mm/(MN/m²)]	6.877	3.117
a_2 [mm/(MN²/m²)]	1.498	0.95
Ev [MN/m²]	76.9	105.6
Ev2/Ev1	2.09	

MODULUS OF SUB-GRADE REACTION, Ks

ks = Δσ/Δs 136.9 MN/m³

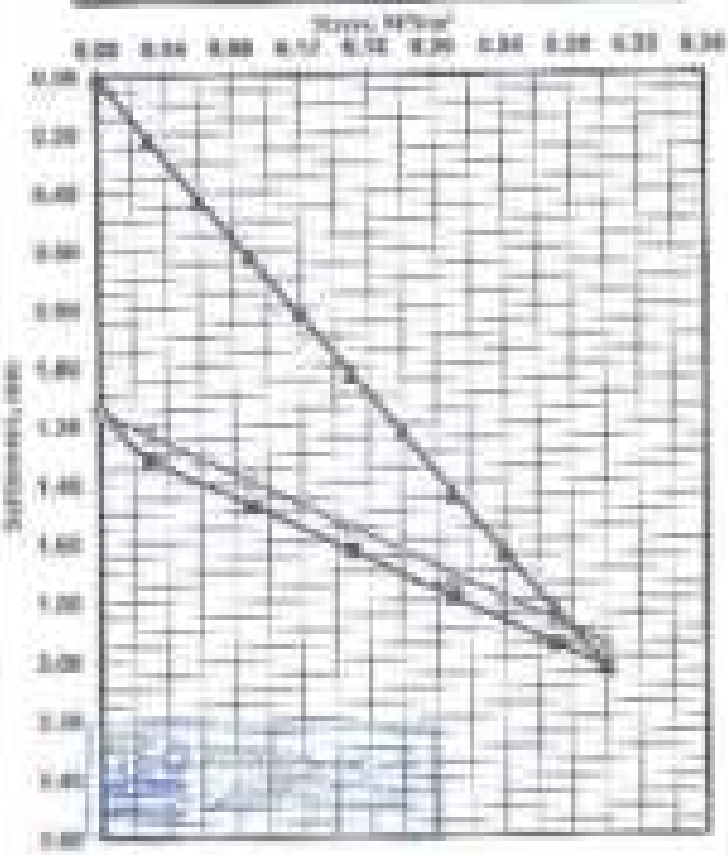
Horema Ltd
Soil Investigation & Q.C.

Plate Load Tests of Soils
DIN 18134

CLIENT	Sun Rise Company	TIME START:	[illegible]
PROJECT	Electric Express Train	TIME ENDS:	[illegible]
LOCATION	Al-Salam ([illegible]) -[illegible]	DATE	[illegible]
PLATE LOCATION	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	[illegible]	** Note : Soil is Wet	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress N/m²	Settlement mm
0.00	0.00
0.03	0.32
0.06	0.43
0.09	0.63
0.12	0.80
0.15	1.03
0.18	1.23
0.21	1.45
0.24	1.64
0.27	1.84
0.30	2.03
0.27	1.88
0.24	1.78
0.18	1.63
0.09	1.47
0.03	1.37
0.00	1.15
0.03	1.23
0.06	1.31
0.09	1.39
0.12	1.47
0.15	1.55
0.18	1.63
0.21	1.71
0.24	1.79
0.27	1.87
0.30	1.95

STRESS VERSUS SETTLEMENT RELATIONSHIP CURVE



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
σ30max	0.30	0.30
s_1 [mm/(MN/m²)]	0.846	2.067
s_2 [mm/(MN²/m²)]	0.543	0
Ev [MN/m²]	83.4	210.9
Ev2/Ev1	2.53	

MODULUS OF SUB-GRADE REACTION, Ks

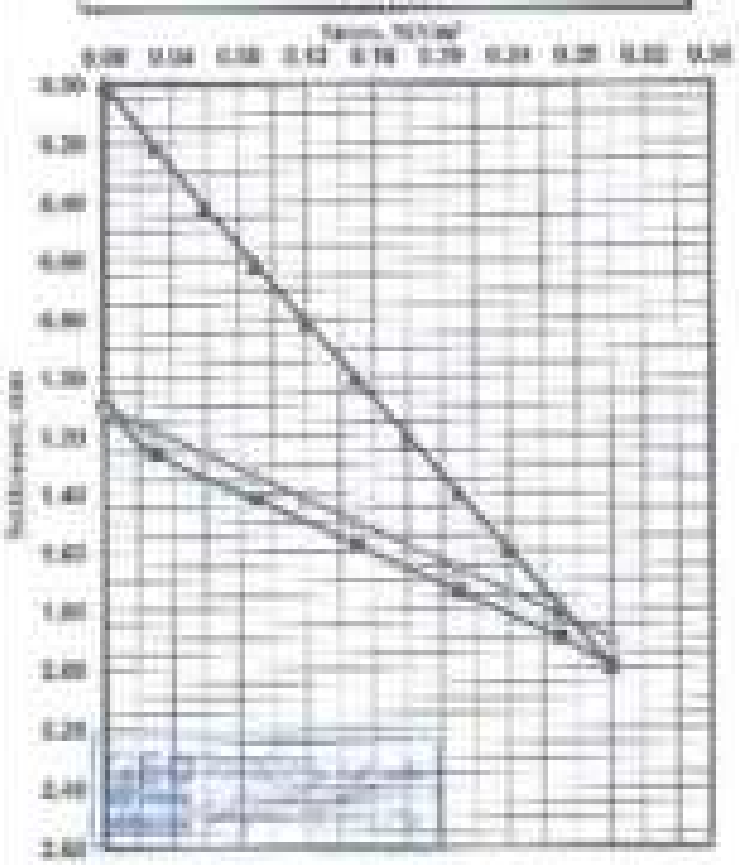
$k_s = \Delta\sigma/\Delta s$ 144.0 MN/m³

Horema LLC
Soil Investigation & G.C.

Plate Load Test of Soils
DIN 18134

CLIENT	Iron Rise Company	TIME START:	[illegible]
PROJECT	Electric Express Train	TIME FINISH:	[illegible]
LOCATION	Al-Dhiba (490/500) - (475 subgrade	DATE:	5-Apr-22
PLATE LOAD NO.	PLT-10	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	75.00	*** Note : Soil is Wet.	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.23
0.06	0.42
0.09	0.61
0.12	0.81
0.15	1.03
0.18	1.21
0.21	1.43
0.24	1.65
0.27	1.90
0.30	1.88
0.27	1.90
0.21	1.74
0.15	1.58
0.09	1.43
0.03	1.28
0.00	1.13
0.03	1.18
0.06	1.32
0.09	1.38
0.12	1.43
0.15	1.56
0.18	1.58
0.21	1.66
0.24	1.79
0.27	1.82
0.30	1.88



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
σ0max	0.30	0.30
a_1 [mm/(MN/m²)]	6.518	2.007
a_2 [mm/(MN²/m²)]	0.175	0
Ev [MN/m²]	85.6	210.9
Ev2/Ev1	2.46	

Notation

MODULUS OF SUB-GRADE REACTION, Ks

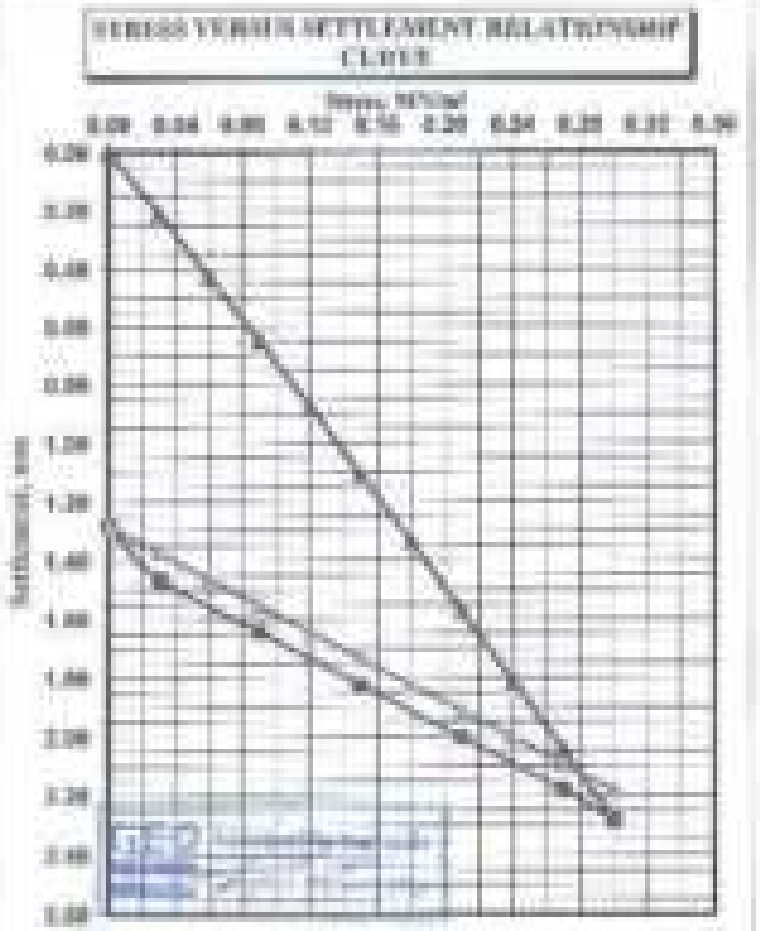
Ks = Ev/1.5a 144.0 MN/m³

Horema LLC
Soil Investigation & G.C.

Plate Load Test of Soils
DESIGN

CLIENT	Sun Rise Company	TIME START:	[illegible]
PROJECT	Electric Express Train	TIME FINISH:	[illegible]
LOCATION	Al-Dafna ([illegible])	DATE	[illegible]
PLATE LOAD NO.	PL1-[illegible]	FAR. REF.	[illegible]
PLATE DIAMETER (mm)	75.00	** Note : Soil is Wet	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.21
0.06	0.43
0.09	0.65
0.12	0.88
0.15	1.11
0.18	1.34
0.21	1.57
0.24	1.81
0.27	2.04
0.30	2.28
0.27	2.18
0.24	2.08
0.18	1.82
0.09	1.64
0.03	1.46
0.00	1.28
0.03	1.37
0.06	1.46
0.09	1.55
0.12	1.64
0.15	1.73
0.18	1.82
0.21	1.91
0.24	2.00
0.27	2.09
0.30	2.19



STRAIN MODULUS, Ev

	1st loading	2nd loading
[illegible]	0.30	0.30
a_1 [mm/(MN/m²)]	7.294	3
a_2 [mm/(MN²/m²)]	1.169	0
Ev [MN/m²]	73.6	187.5
Ev2/Ev1	2.55	

Equations

1) [illegible]

2) [illegible]

3) [illegible]

4) [illegible]

5) [illegible]

6) [illegible]

MODULUS OF SUB-GRADE REACTION, Ks

Ks = 3xEv/3a 140.0 MN/m³

CEL

Consulting Engineering Bureau & Laboratories

مكاتب معامل الاستشارات الهندسية

Company : New Rise Constructions

Project : Electric Express Train, Al Ain Sokhna to Marsa Mahrouh Priority Sector (II) - Alamein to Fuka.

Subject : Determine the deformation and strength characteristics of soil by the plate loading test according specifications: DIN 18134:2012-04 and project requirements.

Test Location : (665+775 to 445+800)

Test Date : 17/06/2023

Report Date : 25/07/2023

Type of soil : ------

Test level : Sub ballast.

Report No. : 271/276

Dear Gentlemen,

According to the above mentioned subject the test performed as follows:-

Apparatus

1. Loading plates consists of two plates with **600 mm** and **300 mm** diameter
2. The thickness of plates 30 mm
3. Dial gauges with accuracy 0.01 mm to measuring the settlement
4. Steel straightedges with magnetic supports to fixed the dial gauges
5. Hydraulic jack with pump to transfer reactive loads to the loading plates
6. Dial indicator measuring device with scale capacity 700 Bar (Kneebar)
7. Reaction loading system by roller compactor with weight approximately 18 ton
8. Calibration certificates are attached

Test Procedure

1. Clean the ground on test area to the required level with undisturbed soil
2. Install loading plates **600 mm** and **300 mm** diameter, hydraulic jack and 4 dial gauges
3. Prior to starting the load applied preloading about 30 seconds.
4. The strain gauge and the dial gauge shall be set to zero
5. For a 600 mm loading plate, the first values are 2.5 ignored
6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
7. Each change in load (from stage to stage) shall be completed within one minute
8. The load shall be released in 3 stages, to 66 %, 33 %, and approximately 2 % of the maximum load.
9. Following unloading, a further (2nd) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached).
10. At each stage the load shall be maintained until the rate of settlement at the plate becomes less than 0.02 mm/min.
11. Remove the loads

7 El Nile St. 14 Abbas Street
Zamalek, Cairo.
Tel.& Fax : 27362154 - 27362863

IAS

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Report

1. Evaluation and representation of results.
2. Load-Settlement curve
3. The test report contains the following:

- location of test site - Dimension of loading plate
- Measuring device used - Type of soil
- Type of bedding material below the plate -Weathering condition
- Time and date of measurements - Unusual observation made during test
- Dial gauge reading and corresponding normal stress - Loading settlement curve
- Description of the soil condition below the plate after testing

Report

Type of soil: Sub ballast.

- Job requirement: Ev2 >(120 MPa), Ev2 ≤ (300 Mpa) and (Ev2/Ev1≤ 2.2).

Item	Descriptions
- Type of bedding material below the plate	Natural Soil
- Weather condition	Sunny
- Plate Diameter (mm)	600
- date of measurement	17/06/2023
- Unusual observation made during test	NO.
- Description of the soil condition below the plate after testing	No deformation

Evaluation and representation of results

Test No.	Station		First Cycle	Second Cycle	Ev2/Ev1 Ratio
	From	To	Ev1 (kg/cm²)	Ev2 (kg/cm²)	
1	440+775	440+800	1375	2058	1.5
2	440+750	440+775	1367	1898	1.2
3	440+700	440+725	1327	1701	1.3
4	440+625	440+650	1368	1770	1.1
5	440+550	440+575	1341	1344	1.0
6	440+525	440+500	1182	2444	2.1

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Company Name : Sun Rise Construction
Project : Electric Express Train from Al-Ain Sokhna to Marsa Matrouh Priority Section (6) - Alamein to Fuka
Test Date : 17/05/2023
report date : 26/07/2023
Location : Station 440+173 to 440+656
Test No. : 01

Incremental Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.18	[illegible]	0.20	[illegible]	0.29	0.21
2	0.83	[illegible]	0.33	[illegible]	0.42	[illegible]	0.51	0.42
3	1.25	[illegible]	0.48	[illegible]	0.60	[illegible]	0.73	0.56
4	1.67	[illegible]	0.58	[illegible]	0.75	[illegible]	0.89	0.70
5	2.08	[illegible]	0.68	[illegible]	0.83	[illegible]	1.02	0.87
6	2.50	[illegible]	0.81	[illegible]	1.07	[illegible]	1.18	1.01

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
7	2.32	[illegible]	0.81	[illegible]	1.07	[illegible]	1.16	1.01
8	2.15	[illegible]	0.70	[illegible]	1.04	[illegible]	1.09	0.90
9	0.025	[illegible]	0.67	[illegible]	0.90	[illegible]	1.00	[illegible]
10	0.01	[illegible]	0.67	[illegible]	0.88	[illegible]	0.79	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.54	[illegible]	0.76	[illegible]	0.78	0.69
1	0.83	[illegible]	0.62	[illegible]	0.82	[illegible]	0.84	0.76
2	1.25	[illegible]	0.69	[illegible]	0.85	[illegible]	0.87	0.83
3	1.67	[illegible]	0.77	[illegible]	0.95	[illegible]	1.08	0.91
4	2.08	[illegible]	0.84	[illegible]	1.06	[illegible]	1.08	0.96

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Zamalek, Cairo
Tel./fax : [illegible]

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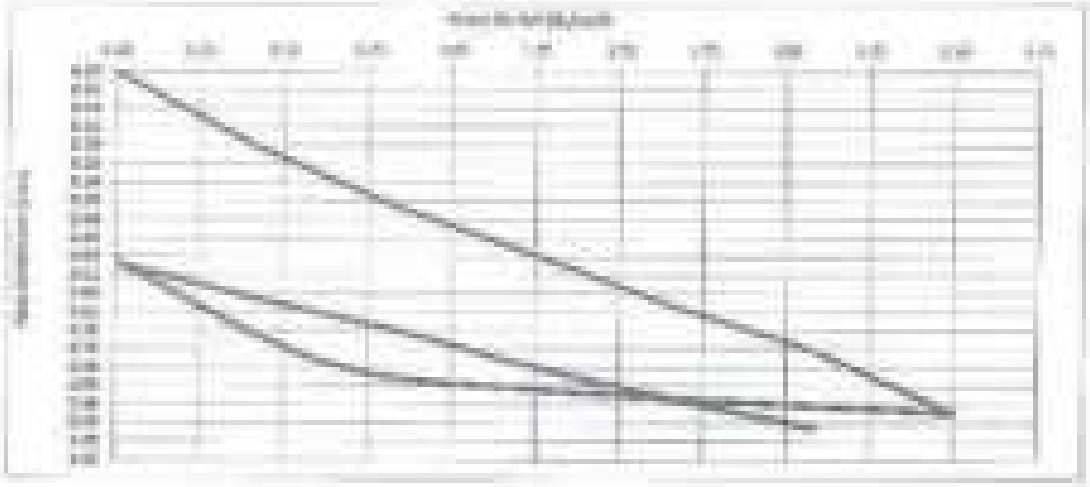
الزمالك - القاهرة
تليفون - فاكس : [illegible]
www.cel-egypt.com

Company Name	: [illegible]
Project	: [illegible]
Test Date	: [illegible]
Report date	: [illegible]
Location	: [illegible]
Test No.	: [illegible]

Incremental Static Plate Load Tests of Soils
DIN 18134



Loading (T)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	3	2	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Loading (T)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Ezf = Modulus of deformation during the loading stage.
Ezd = Modulus of deformation during the Unloading stage.
S = Plate diameter (mm)
Sv = the difference between S(1) and S(2) (Take the maximum loading (control stage))
Cb = Reference to coefficients corresponding to S (1 and 2) (Take the maximum loading (control stage))

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المعامل المعتمدة

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مكتب معامل الإستشارات الهندسية

Company Name : Sun Rise Construction
Project : Phase Expense Tests, from Al Ula Subbase to Marsa Markaat Friendly Survey (8) – Alexandria to Paka
Test Date : 17/06/2023
report date : 26/07/2023
Location : Stations 649+750 to 649+775
Test No. : 60

Noncyclic Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.15	[illegible]	0.21	[illegible]	0.13	0.16
2	0.83	[illegible]	0.29	[illegible]	0.34	[illegible]	0.31	0.31
3	1.25	[illegible]	0.43	[illegible]	0.48	[illegible]	0.39	0.43
4	1.67	[illegible]	0.59	[illegible]	0.63	[illegible]	0.54	0.59
5	2.08	[illegible]	0.77	[illegible]	0.74	[illegible]	0.66	0.72
6	2.50	[illegible]	0.91	[illegible]	0.85	[illegible]	0.78	0.85

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	[illegible]	0.91	[illegible]	0.89	[illegible]	0.78	0.86
2	1.75	[illegible]	0.86	[illegible]	0.81	[illegible]	0.71	0.79
3	0.875	[illegible]	0.78	[illegible]	0.70	[illegible]	0.64	0.71
4	0.00	[illegible]	0.46	[illegible]	0.38	[illegible]	0.33	0.39

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.56	[illegible]	0.42	[illegible]	0.41	0.49
1	0.83	[illegible]	0.83	[illegible]	0.75	[illegible]	0.68	0.76
2	1.25	[illegible]	0.71	[illegible]	0.88	[illegible]	0.85	0.82
3	1.67	[illegible]	0.79	[illegible]	0.83	[illegible]	0.79	0.80
4	2.08	[illegible]	0.87	[illegible]	0.94	[illegible]	0.95	0.91

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الزمالك – القاهرة
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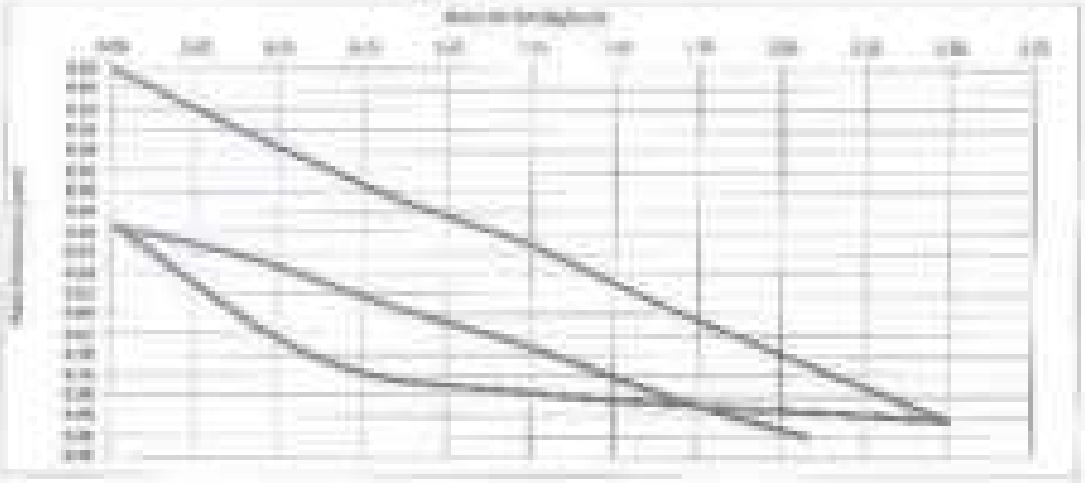
www.cel-[illegible]

Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : [illegible]
Test No : [illegible]

Plate Load Tests of Soils
DIN 18134



Loading (T)	0	1	2	3	4	5	6
Stage(Kg)	0	1186.00	2368.0	3552.0	4736.0	5920.0	7104
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	4	3	2	1	0
Stage(Kg)	4736	3552	2368	1186	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]						

Loading (T)	0	1	2	3	4	5
Stage(Kg)	0	1186.00	2368.0	3552.0	4736.0	5920.0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]						

[illegible]

[illegible]

[illegible]

[illegible]

Company Name : Sun Rise Construction
Project : Flexible Pavement from, from Al Ain Sokhna to Nasr - Mokhtach Priority Sector (8) - Alternate to Poles
Test Date : 17/06/2023
report date : 20/07/2023
Location : Station 449+600 to 449+625
Test No. : 02

Nonrepetitive Static Plate Load Tests of Soils DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.43	19.78	0.22	19.89	0.11	19.87	0.13	0.15
2	0.83	19.60	0.40	19.48	0.52	19.75	0.25	0.39
3	1.23	19.44	0.56	19.12	0.88	19.61	0.39	0.44
4	1.67	19.31	0.69	18.90	0.80	19.49	0.51	0.00
5	2.08	19.21	0.79	18.77	0.73	19.27	0.73	0.75
6	2.50	19.06	0.94	18.14	0.86	19.13	0.87	0.87

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.50	19.06	0.94	18.14	0.86	19.13	0.87	0.87
2	1.25	19.11	0.89	18.22	0.78	19.20	0.80	0.81
3	0.829	19.20	0.80	18.44	0.56	19.30	0.70	0.69
4	0.01	19.34	0.66	18.76	0.24	19.58	0.42	0.34

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	19.53	0.47	19.67	0.33	19.51	0.49	0.42
1	0.83	19.43	0.58	19.36	0.64	19.40	0.60	0.54
2	1.25	19.30	0.70	19.46	0.54	19.32	0.68	0.64
3	1.67	19.19	0.81	19.37	0.63	19.19	0.81	0.75
4	2.08	19.10	0.90	19.20	0.80	19.08	0.92	0.87

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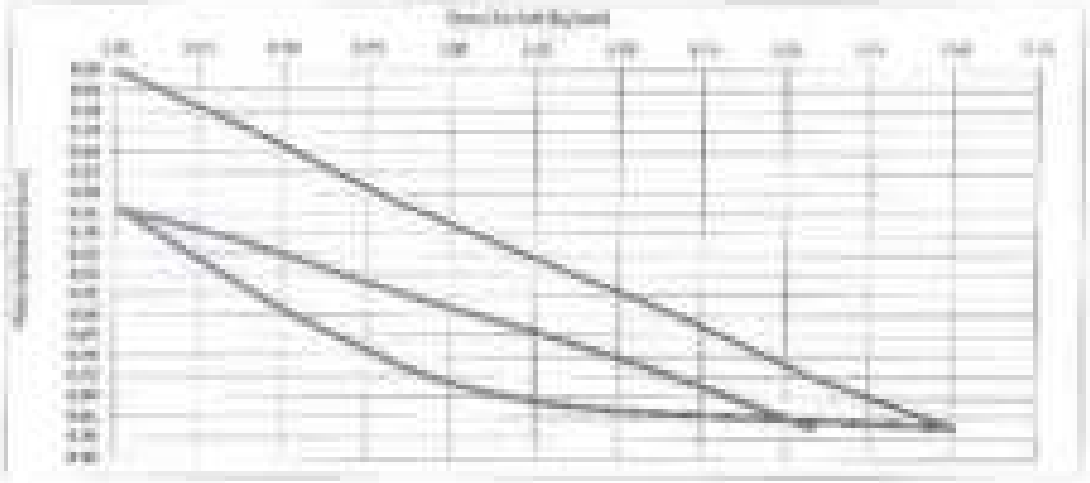
مكتب معامل الاستشارات الهندسية

Employer Name	: Dar Misr Construction
Project	: Electric Express Trolly, Area 35 Km Suitable to Marine Materials Priority Sector (35 - Fifteen to Fifty)
Test Date	: [illegible]
Report date	: [illegible]
Location	: Station [illegible] to [illegible]
Test No.	: 03

Permissible Static Plate Load Tests of Soils
(ML1510)



Loading (T)	0	1	2	3	4	5	6
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	4	3	2
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

Loading (T)	0	1	2	3	4	5
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]				

[illegible] = Modulus of deformation during the loading stage.

[illegible] = Modulus of deformation during the unloading stage.

[illegible] = Plate deflection [illegible]

[illegible] = The difference between [illegible] and [illegible] from the maximum loading [illegible]

[illegible] = Difference in settlement corresponding to [illegible] from the maximum loading [illegible]

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[illegible]

Company Name : Sun Rise Construction
Project : [illegible]
Test Date : 17/06/2023
report date : 26/07/2023
Location : Station 649+625 to 649+850
Test No. : 64

Noncyclic Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.16	[illegible]	0.16	[illegible]	0.15	0.15
2	0.83	[illegible]	0.31	[illegible]	0.27	[illegible]	0.30	0.29
3	1.25	[illegible]	0.39	[illegible]	0.38	[illegible]	0.42	0.39
4	1.67	[illegible]	0.47	[illegible]	0.51	[illegible]	0.53	0.50
5	2.08	[illegible]	0.56	[illegible]	0.64	[illegible]	0.60	0.62
6	2.50	[illegible]	0.77	[illegible]	0.78	[illegible]	0.81	0.77

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	[illegible]	0.71	[illegible]	0.70	[illegible]	0.81	0.77
2	1.75	[illegible]	0.73	[illegible]	0.75	[illegible]	0.78	0.75
3	0.[illegible]	[illegible]	0.84	[illegible]	0.83	[illegible]	0.84	0.84
4	0.[illegible]	[illegible]	0.78	[illegible]	0.78	[illegible]	0.79	0.78

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.39	[illegible]	0.35	[illegible]	0.49	0.39
1	0.83	[illegible]	0.50	[illegible]	0.50	[illegible]	0.52	0.51
2	1.25	[illegible]	0.61	[illegible]	0.62	[illegible]	0.64	0.62
3	1.67	[illegible]	0.72	[illegible]	0.71	[illegible]	0.73	0.72
4	2.08	[illegible]	0.80	[illegible]	0.82	[illegible]	0.83	0.82

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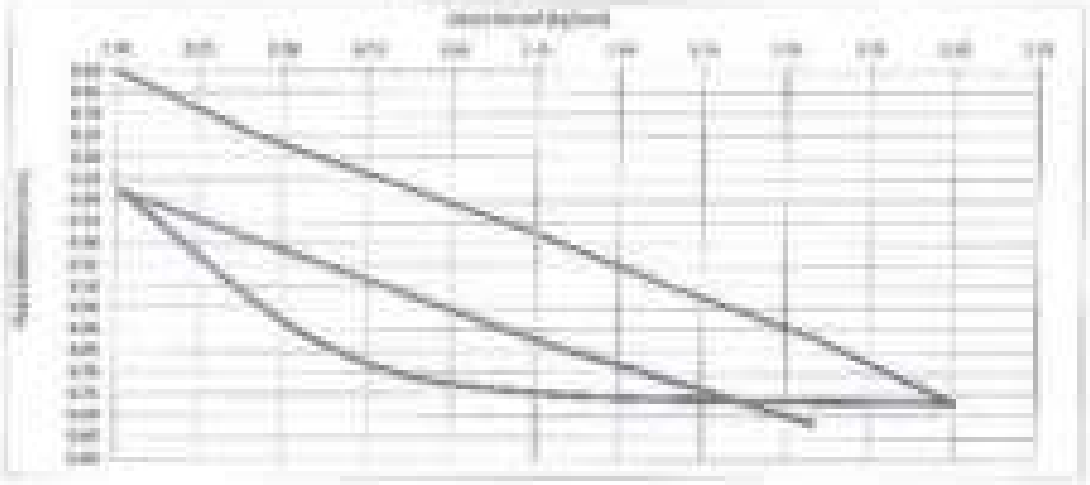
Company Name	[illegible]
Project	[illegible]
Test Date	[illegible]
Report date	[illegible]
Location	[illegible]
Total No.	[illegible]

Plate Load Test of Soils
ERM 1811-84



Loading (T)	0	1	2	3	4	5	6
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	4	3	0
Weight (kg)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		

Loading (T)	0	1	2	3	4	5
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Shakir = [illegible]

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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مكاتب معامل الاستشارات الهندسية

Company Name : Sun Rise Construction
Project : [illegible]
Test Date : 17/09/2023
report date : 06/07/2023
Location : Station 449+500 to 449+675
Test No. : 58

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.38	[illegible]	0.29	[illegible]	0.26	0.25
2	0.83	[illegible]	0.54	[illegible]	0.43	[illegible]	0.36	0.37
3	1.25	[illegible]	0.48	[illegible]	0.57	[illegible]	0.48	0.51
4	1.67	[illegible]	0.61	[illegible]	0.73	[illegible]	0.63	0.66
5	2.08	[illegible]	0.72	[illegible]	0.83	[illegible]	0.76	0.77
6	2.50	[illegible]	0.84	[illegible]	0.97	[illegible]	0.89	0.90

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.08	[illegible]	0.84	[illegible]	0.97	[illegible]	0.89	0.90
2	1.25	[illegible]	0.76	[illegible]	0.87	[illegible]	0.79	0.80
3	0.42	[illegible]	0.61	[illegible]	0.74	[illegible]	0.64	0.66
4	0.01	[illegible]	0.38	[illegible]	0.39	[illegible]	0.33	0.34

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.48	[illegible]	0.50	[illegible]	0.48	0.49
1	0.83	[illegible]	0.54	[illegible]	0.60	[illegible]	0.59	0.57
2	1.25	[illegible]	0.67	[illegible]	0.77	[illegible]	0.71	0.72
3	1.67	[illegible]	0.82	[illegible]	0.91	[illegible]	0.85	0.86
4	2.08	[illegible]	1.08	[illegible]	1.08	[illegible]	0.96	1.01

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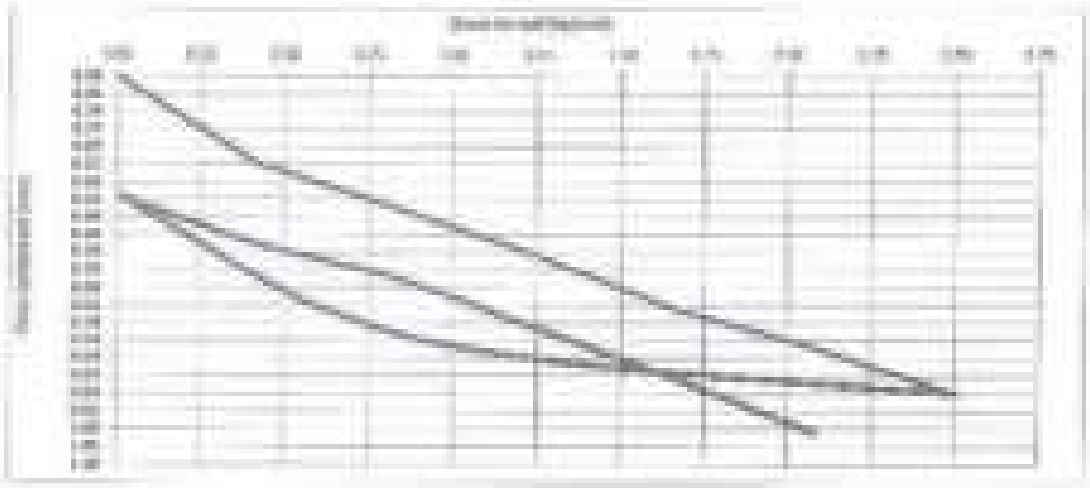
www.[illegible]

Company Name:	[illegible]
Project:	[illegible]
Test Date:	[illegible]
Report date:	[illegible]
Location:	[illegible]
Test No.:	[illegible]

Recommended Static Plate Load Tests of Soils
[illegible]



Loading (T)	0	1	2	3	4	5	6
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	4	3	2	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]			

Loading (T)	0	1	2	3	4	5
Stress (Kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] = [illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]			

[illegible] = Resistance of deformation during loading steps.
[illegible] = Resistance of deformation during the unloading stage.
[illegible] = Plate diameter (mm).
[illegible] = The difference between [illegible] and [illegible] from the maximum loading stress (Kg/cm²).
[illegible] = Difference in settlements corresponding to [illegible] and [illegible] from the maximum loading stress.

Company Name : Sun Rise Construction
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 06

Horizontal Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.47	[illegible]	0.25	[illegible]	0.16	[illegible]	0.20	0.20
2	0.93	[illegible]	0.37	[illegible]	0.35	[illegible]	0.35	0.47
3	1.40	[illegible]	0.73	[illegible]	0.65	[illegible]	0.76	0.70
4	1.87	[illegible]	0.85	[illegible]	0.84	[illegible]	0.87	0.79
5	2.34	[illegible]	0.96	[illegible]	0.77	[illegible]	0.98	0.90
6	2.80	[illegible]	1.07	[illegible]	0.82	[illegible]	1.05	0.98

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.40	[illegible]	1.07	[illegible]	0.82	[illegible]	1.05	0.98
2	1.25	[illegible]	1.02	[illegible]	0.75	[illegible]	0.96	0.91
3	0.93	[illegible]	0.91	[illegible]	0.63	[illegible]	0.93	0.78
4	0.61	[illegible]	0.57	[illegible]	0.35	[illegible]	0.39	0.50

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.47	[illegible]	0.63	[illegible]	0.46	[illegible]	0.60	0.56
1	0.93	[illegible]	0.98	[illegible]	0.98	[illegible]	0.77	0.90
2	1.40	[illegible]	0.75	[illegible]	0.86	[illegible]	0.86	0.76
3	1.87	[illegible]	0.82	[illegible]	0.71	[illegible]	0.92	0.87
4	2.08	[illegible]	1.18	[illegible]	0.82	[illegible]	0.99	0.97

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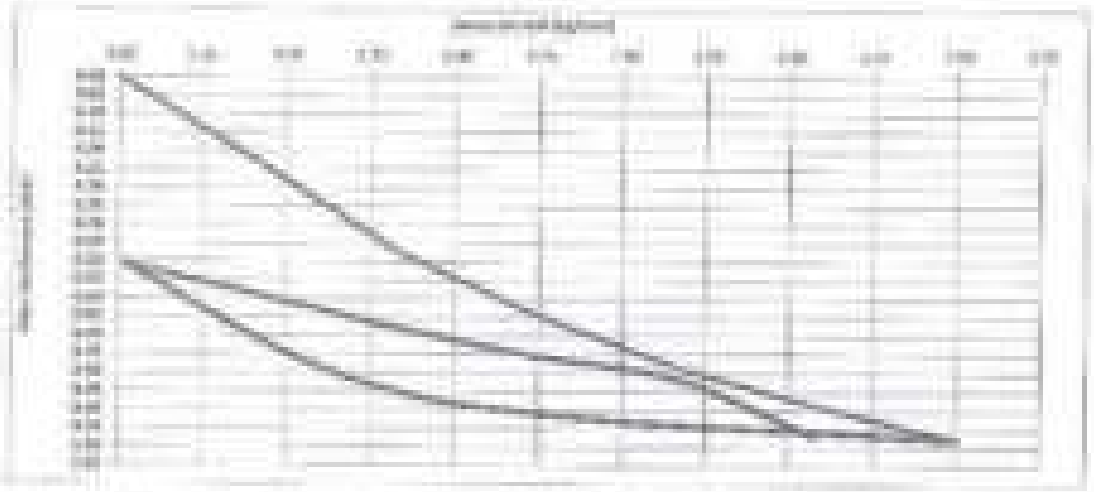
Company Name : Sun River Construction
Project : Dhorbi Express Trade Area in the Address to Mansa Mahmoud Priority Sector (8) – Nasrallah Kaka
Test Date : [illegible]
Report date : [illegible]
Location : Station [illegible]
Test No. : 06

Plate Load Tests of Soils
ERC 193.04



Loading (T)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	1180.84	2149.8	3236.8	4119.8	5075.1	7000
Settlement (mm)	0.00	0.42	0.82	1.23	1.67	2.08	2.78

Unloading (T)	4	3	2	1	0
Stress (kg/cm²)	7000	5000	3000	1000	0
Settlement (mm)	2.38	1.98	1.52	0.91	0.24

[illegible] = [illegible]		[illegible]	[illegible]	[illegible]	[illegible]
Ext (kg/cm²) = [illegible]			7000		

Loading (T)	0	1	2	3	4	5
Stress (kg/cm²)	0	1180.84	2149.8	3236.8	4119.8	5075.1
Settlement (mm)	0.00	0.42	0.82	1.23	1.67	2.08

[illegible] = [illegible]		[illegible]	[illegible]	[illegible]	[illegible]
Ext (kg/cm²) = [illegible]			5000		

[illegible] =	[illegible]

[illegible] = [illegible]
Ext = [illegible]
D = Plate diameter (mm)
Dy = The difference between S and S1 (Total settlement minus loading cycle settlement)
Dz = Difference in settlement and corresponding to S and S1 (Total settlement minus loading cycle)

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مكتب معامل الاستشارات الهندسية

Company : Sun Rise Construction

Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (B) - Alamein to Fuka

Subject : Determine the deformation and strength characteristics of soil by the plate loading test according specifications: DIN 18134:2012-04 and project requirements

Test Location : (440+500 to 440+550)

Test Date : 24/05/2023

Report Date : 25/05/2023

Type of soil : ——

Test level : Sub Subbase .

Report No. : 203.218

Dear Gentlemen,

According to the above mentioned subject the test performed as follows:-

Apparatus

1. Loading plates consists of two plates with 840 mm and 300 mm diameter
2. The thickness of plates 30 mm
3. Dial gauges with accuracy 0.01 mm to measuring the settlement
4. Steel straightedges with magnetic supports to fixed the dial gauges
5. Hydraulic jack with pump to transfer reactive loads to the loading plates
6. Dial indicate measuring device with scale capacity 700 Bar (Gnerbes)
7. Reaction loading system by roller compactor with weight approximately 15 ton
8. Calibration certificates are attached

Test Procedure

1. Dewe the ground on test area to the required level with undisturbed soil
2. Install loading plates 825 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
3. Prior to starting the test applied preloading about 30 seconds.
4. The strain gauge and the dial gauge shall be set to zero
5. For a 600 mm loading plate, the limit values are 2.3 kg/cm²
6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
7. Each change in load (from stage to stage) shall be completed within one minute
8. The load shall be released in 3 stages, to 50 %, 25 %, and approximately 2 % of the maximum load.
9. Following unloading, a further (2nd) loading cycle shall be carried out, in which, however, the load is to be increased only in the penultimate stage of the first cycle (so that the full load is not reached).
10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min
11. Remove the loads

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Report

1. Evaluation and representation of results
2. Load Settlement curve
3. The test report content the following :

- location of test site - Dimension of loading plate
- Measuring device used - Type of soil
- Type of bedding material below the plate -Weathering condition
- Time and date of measurements - Unusual observation made during test
- Dial gauge reading and corresponding normal stress - Loading settlement curve
- Description of the soil condition below the plate after testing

Report

Type of soil: Sub ballast.

- **Job requirement: Ev2 > 1200 Kg/cm² (120 MPa) Ev2/Ev1≤ 2.2 .**

Item	Descriptions
- Type of bedding material below the plate	Natural Soil
- Weather condition	Sunny
- Plate Diameter (mm)	600
- date of measurement	24/05/2023
- Unusual observation made during test	NO
- Description of the soil conditions below the plate after testing	No deformation

Evaluation and representation of results

Test No.	Station		First Cycle	Second Cycle	Ev2/Ev1 Ratio
	From	To	Ev1 (kg/cm²)	Ev2 (kg/cm²)	
1	448+600	448+625	1408	1361	0.9
2	448+625	448+650	1487	1720	1.1
3	448+650	448+675	1398	1890	1.4
4	448+675	448+700	1319	1860	1.4
5	448+700	448+725	1514	1762	1.2
6	448+725	448+750	1301	2027	1.6
7	448+750	448+775	1348	1658	1.2
8	448+775	448+800	1428	1705	1.2
9	448+800	448+825	1208	1839	1.5
10	448+825	448+850	1449	1642	1.1

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Company Name : Sarr Rise Construction.
Project : [illegible] Express Tolls from [illegible] to [illegible]
Test Date : 04/05/2023
report date : 25/05/2023
Location : Station [illegible] to [illegible]
Test No. : 01

Nonrecursive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.22	[illegible]	0.24	[illegible]	0.20	2.07
2	0.85	[illegible]	0.33	[illegible]	0.37	[illegible]	0.34	3.41
3	1.28	[illegible]	0.43	[illegible]	0.49	[illegible]	0.72	5.54
4	1.67	[illegible]	0.57	[illegible]	0.60	[illegible]	0.65	6.00
5	2.02	[illegible]	0.63	[illegible]	0.75	[illegible]	0.94	7.78
6	2.55	[illegible]	0.76	[illegible]	0.86	[illegible]	1.03	8.00

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.33	[illegible]	0.76	[illegible]	0.88	[illegible]	1.02	8.00
2	1.25	[illegible]	0.70	[illegible]	0.81	[illegible]	0.95	7.83
3	0.833	[illegible]	0.68	[illegible]	0.73	[illegible]	0.81	5.71
4	0.41	[illegible]	0.42	[illegible]	0.48	[illegible]	0.53	5.41

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.58	[illegible]	0.58	[illegible]	0.59	5.57
1	0.83	[illegible]	0.65	[illegible]	0.67	[illegible]	0.67	6.63
2	1.25	[illegible]	0.72	[illegible]	0.75	[illegible]	0.75	5.74
3	1.67	[illegible]	0.81	[illegible]	0.81	[illegible]	0.82	6.85
4	2.08	[illegible]	0.88	[illegible]	0.88	[illegible]	1.01	6.94

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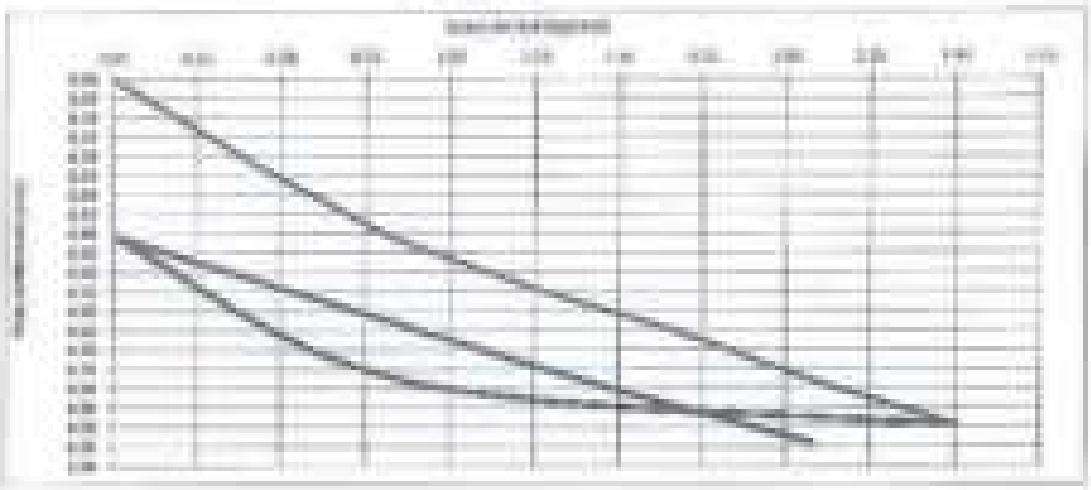
Company Name : [illegible]
Project : [illegible]
Test Date : [illegible]
Report date : [illegible]
Location : [illegible]
Test No. : [illegible]

Horizontal Static Plate Load Tests of Soils
DIN 18134



Loading (T)	0	1	2	3	4	5	6
Stage(Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

DeLoading (T)	1	2	3	4
Stage(Kg)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

Z (mm) = [illegible]	Z1 (mm) = [illegible]	Dilmax = [illegible]	EB = [illegible]	
E1 (kg/cm2) = [illegible]	[illegible]			

Loading (T)	0	1	2	3	4	5
Stage(Kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Z (mm) = [illegible]	Z1 (mm) = [illegible]	Dilmax = [illegible]	EB = [illegible]	
E2 (kg/cm2) = [illegible]	[illegible]			

E1 = Modulus of deformation during the loading stage.
E2 = Modulus of deformation during the reloading stage.
D = Plate diameter (mm).
Z = The difference between D and D1 from the maximum loading (mm).
Dlmax = Deflection in millimeters corresponding to D1 and D2 from the maximum loading (mm).

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Company Name : Sun Rise Construction
Project : [illegible] Tram, from El Ale Station to Kiosq Wakout Friendly Tunnel (E) – Kilometer to Fake
Test Date : 24/05/2023
report date : 25/05/2023
Location : Station 449+620 to 449+650
Test No. : 02

Nonrecoverable Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.11	[illegible]	0.20	[illegible]	0.13	0.14
2	0.83	[illegible]	0.31	[illegible]	0.45	[illegible]	0.28	0.34
3	1.25	[illegible]	0.48	[illegible]	0.66	[illegible]	0.37	0.51
4	1.67	[illegible]	0.53	[illegible]	0.79	[illegible]	0.44	0.59
5	2.08	[illegible]	0.62	[illegible]	0.88	[illegible]	0.53	0.68
6	2.50	[illegible]	0.73	[illegible]	0.97	[illegible]	0.66	0.76

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.08	[illegible]	0.73	[illegible]	0.87	[illegible]	0.68	0.76
2	1.25	[illegible]	0.65	[illegible]	0.80	[illegible]	0.60	0.71
3	0.42	[illegible]	0.56	[illegible]	0.70	[illegible]	0.52	0.59
4	0.01	[illegible]	0.48	[illegible]	0.57	[illegible]	0.39	0.42

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.48	[illegible]	0.64	[illegible]	0.37	0.49
1	0.83	[illegible]	0.64	[illegible]	0.74	[illegible]	0.49	0.55
2	1.25	[illegible]	0.69	[illegible]	0.83	[illegible]	0.48	0.68
3	1.67	[illegible]	0.72	[illegible]	0.87	[illegible]	0.61	0.73
4	2.08	[illegible]	0.83	[illegible]	0.94	[illegible]	0.74	0.84

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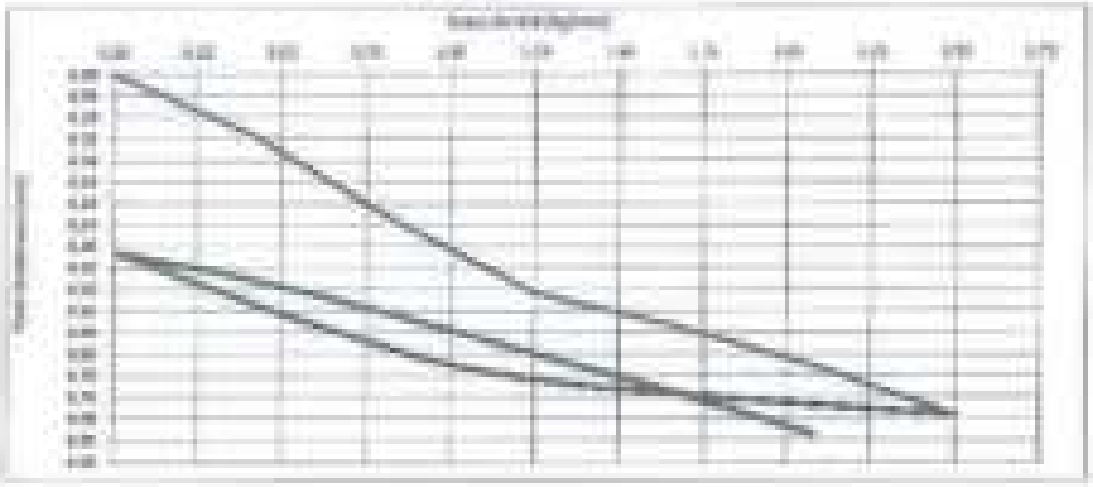
Company Name	: [illegible]
Project	: [illegible]
Test Date	: [illegible]
Report Date	: [illegible]
Location	: [illegible]
Test No.	: [illegible]

[illegible] Load Tests of Rolls
[illegible]



Loading (T)	0	1	2	3	4	5	6
Stopping	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	4	3	2
Stopping	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] = [illegible]		[illegible]				

Loading (T)	0	1	2	3	4	5
Stopping	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (Kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] =	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] = [illegible]		[illegible]				

[illegible] = Modulus of deformation during the loading stage.

[illegible] = Modulus of deformation during the Reloading stage.

D = Plate diameter (mm).

[illegible] = The difference between [illegible] and [illegible] from the maximum loading stress (kg/cm2).

[illegible] = Difference in settlements corresponding to [illegible] and [illegible] from the maximum loading stress.

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Company Name : Sun Rise Construction
Project : [illegible]
Test Date : 24/05/2023
report date : 25/05/2023
Location : Station 448+650 to 448+675
Test No. : 03

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.14	[illegible]	0.11	[illegible]	0.25	0.17
2	0.83	[illegible]	0.30	[illegible]	0.24	[illegible]	0.37	0.30
3	1.25	[illegible]	0.41	[illegible]	0.36	[illegible]	0.48	0.43
4	1.67	[illegible]	0.57	[illegible]	0.50	[illegible]	0.59	0.57
5	2.08	[illegible]	0.60	[illegible]	0.58	[illegible]	0.71	0.67
6	2.50	[illegible]	0.76	[illegible]	0.68	[illegible]	0.84	0.80

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.50	[illegible]	0.78	[illegible]	0.68	[illegible]	0.84	0.80
2	1.25	[illegible]	0.70	[illegible]	0.75	[illegible]	0.80	0.75
3	0.83	[illegible]	0.63	[illegible]	0.59	[illegible]	0.72	0.65
4	0.42	[illegible]	0.45	[illegible]	0.48	[illegible]	0.48	0.47

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.56	[illegible]	0.52	[illegible]	0.58	0.55
1	0.83	[illegible]	0.62	[illegible]	0.55	[illegible]	0.66	0.62
2	1.25	[illegible]	0.69	[illegible]	0.67	[illegible]	0.74	0.70
3	1.67	[illegible]	0.77	[illegible]	0.75	[illegible]	0.81	0.78
4	2.08	[illegible]	0.88	[illegible]	0.85	[illegible]	0.88	0.88

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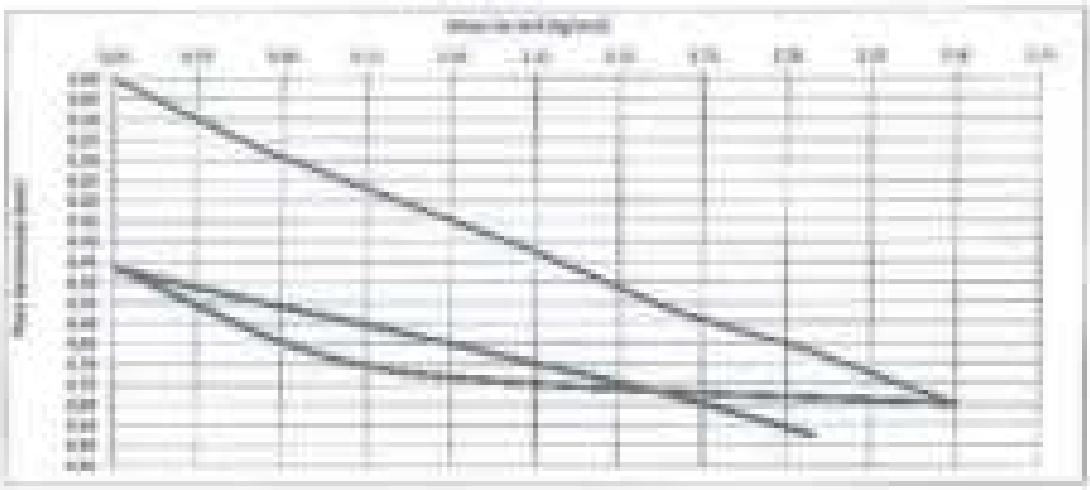
Company Name	[illegible]
Project	[illegible]
Test Date	[illegible]
Report date	[illegible]
Location	[illegible]
Test No.	[illegible]

Nonexpansive Static Pile Load Tests of Piles
DIN 18134



Loading (T)	0	1	2	3	4	5	6
Weight(kg)	0	1186.00	2345.0	3523.0	4710.0	5875.1	7060
Stress (kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	7	6	3	0
Weight(kg)	7060	5910	3706	0
Stress (kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

S (mm) = [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tot (kg/cm2) = [illegible]		1186			

Loading (T)	0	1	2	3	4	5
Weight(kg)	0	1186.00	2345.0	3523.0	4710.0	5875.1
Stress (kg/cm2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Ecc/Dia =	[illegible]

S (mm) = [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tot (kg/cm2) = [illegible]		1186			

[illegible] = Residual of deformation during the loading steps.

[illegible] = Residual of deformation during the unloading steps.

S = Pile deflection (mm).

Sc = The difference between S 1 and S 7 from the maximum loading (mm) (kg/cm²).

Dh = Difference in settlements corresponding to 0.5 and 0.1 from the maximum loading (mm).

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Zamalek, Cairo.
Tel.& Fax : [illegible]

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تليفون + فاكس : [illegible]
www.cel-egypt.com

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Company Name : Sun Rise Construction
Project : [illegible]
Test Date : [illegible]
report date : [illegible]
Location : Station [illegible] to [illegible]
Test No. : 94

Repetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	1.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	2.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	1.25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	1.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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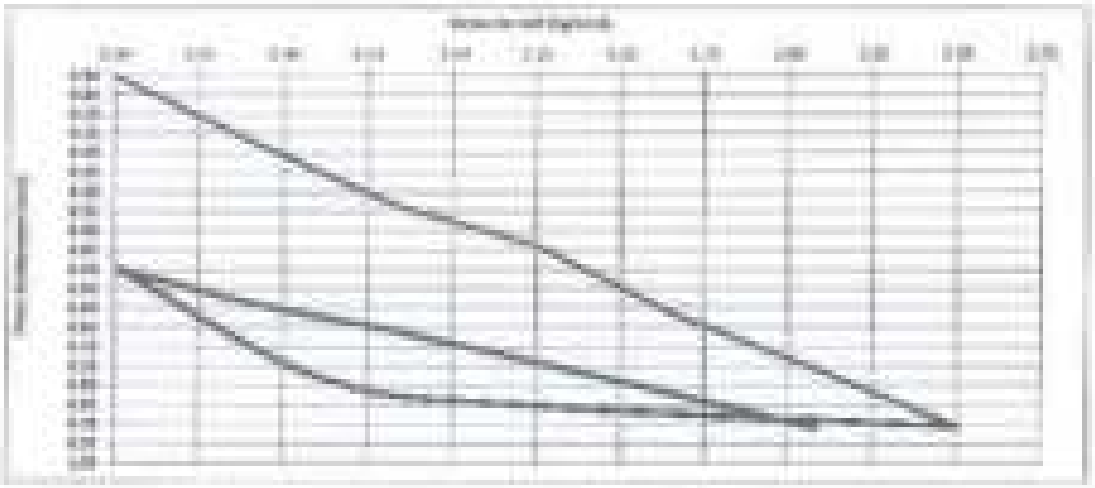
[illegible]

Company Name	Bon Bon Construction
Project	Electric Furnace Trans. from Air Kabinet to Blanc. Network Priority Sector (6) – Aswan to Kaka
Test Date	[illegible]
Report Date	[illegible]
Location	Station [illegible] to [illegible]
Test No.	08

Interpretative Static Plate Load Tests of Piles
BS 8004



Loading (T)	0	1	2	3	4	5	6
Weight (kg)	0	1195.92	2391.8	3592.3	4788.1	5979.1	7163
Stress (kg/cm²)	0.00	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.10	0.04	0.04	0.02	0.16	0.01

Unloading (T)	1	2	3	4
Weight (kg)	7163	5973	4788	0
Stress (kg/cm²)	2.50	2.08	1.67	0.00
Settlement (mm)	0.01	0.01	0.15	0.00

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ext (kg/cm²) = [illegible]			[illegible]			

Loading (T)	0	1	2	3	4	5
Weight (kg)	0	1195.92	2391.8	3592.3	4788.1	5979.1
Stress (kg/cm²)	0.00	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.00	0.08	0.04	0.04	0.02	0.15

Qu (kg/cm²) =	5.0

Q (mm) =	[illegible]	[illegible]	0.08	[illegible]	[illegible]	[illegible]
P.U (kg/cm²) = [illegible]				[illegible]		

Ext = Maximum of deformation during the loading stage.
Ext = Maximum of deformation during the Unloading stage.
D = Plate diameter (mm).
Qu = The difference between of D and D.2 from the maximum loading (stress (kg/cm²)
DD = Difference in settlement readings reading for 4 P and 8 T from the maximum loading point

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Company Name : Sun Rise Construction
Project : Electric Express Track, from Al-Ain Sokhna to Borg Al Arab Materials Priority Border (B) - Alexandria to Taba
Test Date : 24/04/2023
report date : 25/05/2023
Location : Station 448+750 to 448+720
Test No. : 05

Incrementative Static Plate Load Tests of Soils
DIN 18134

Data.xlsxx

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.16	[illegible]	0.35	[illegible]	0.12	0.19
2	0.83	[illegible]	0.31	[illegible]	0.49	[illegible]	0.24	0.32
3	1.25	[illegible]	0.44	[illegible]	0.63	[illegible]	0.35	0.41
4	1.67	[illegible]	0.58	[illegible]	0.83	[illegible]	0.47	0.56
5	2.08	[illegible]	0.73	[illegible]	0.79	[illegible]	0.56	0.70
6	2.50	[illegible]	0.89	[illegible]	0.93	[illegible]	0.65	0.82

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	1.25	[illegible]	0.86	[illegible]	0.53	[illegible]	0.62	0.67
2	0.25	[illegible]	0.81	[illegible]	0.68	[illegible]	0.58	0.80
3	0.025	[illegible]	0.65	[illegible]	0.63	[illegible]	0.52	0.73
4	0.01	[illegible]	0.49	[illegible]	0.54	[illegible]	0.34	0.46

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.57	[illegible]	0.81	[illegible]	0.43	0.54
1	0.83	[illegible]	0.66	[illegible]	0.89	[illegible]	0.51	0.62
2	1.25	[illegible]	0.74	[illegible]	0.78	[illegible]	0.59	0.70
3	1.67	[illegible]	0.83	[illegible]	0.88	[illegible]	0.67	0.79
4	2.08	[illegible]	0.91	[illegible]	0.95	[illegible]	0.75	0.87

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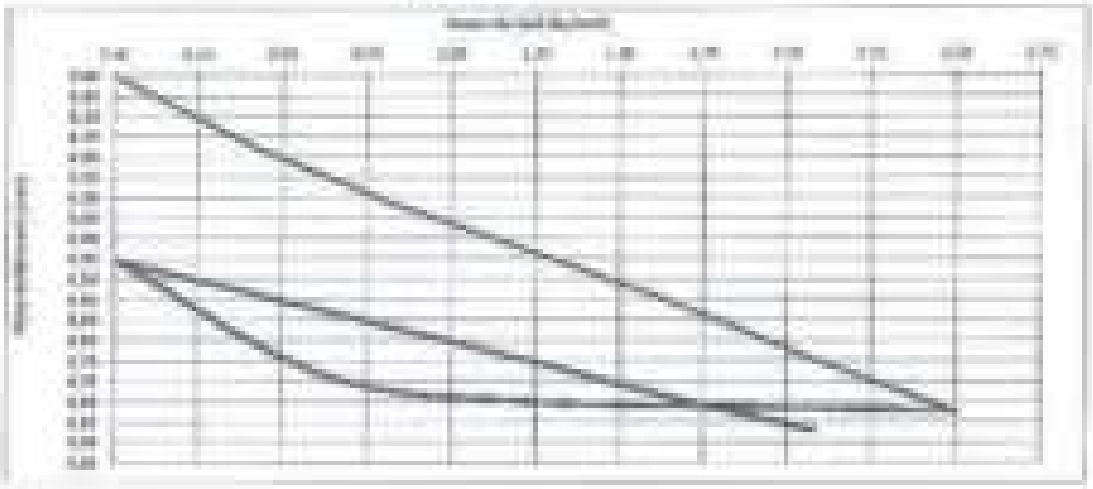
الاستشارات الهندسية

Company Name	: Sun Ring Construction
Project	: Finishing Expansion Works from Al Ain Sokhna to Marsa Shalateen Priority Bridge (B) – Diameter 1.5 Meter
Test Date	: [illegible]
Report date	: [illegible]
Location	: Station [illegible] to [illegible]
Total No.	: [illegible]

Representative Static Cyclic Load Tests of Bolts
DIN 18126



Loading (T)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Ult. Loading (T)	7	8	9	10
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ext. diameter = [illegible]			[illegible]			

Loading (T)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] = [illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ext. diameter = [illegible]			[illegible]			

Ext = Modulus of deformation during the loading stage.
Ext = Modulus of deformation during the Unloading stage.
D = Plate diameter (mm).
Ho = Dial difference between 0.5 and 0.1 from the maximum loading (mm) (Ho).
DR = Difference in settlement corresponding to 0.5 and 0.1 from the maximum loading (mm).

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[illegible]

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Company Name : Sun Rise Construction
Project : Riyadh Express Tram, from Al-Ain Sokhna to Marsa Makwadi Priority Sector (5) - Marsa to Tolia
Test Date : 24/05/2021
report date : 25/05/2023
Location : Station 449+725 to 449+750
Test No. : 06

Nonrecoverable Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.37	[illegible]	0.35	[illegible]	0.09	0.19
2	0.83	[illegible]	0.41	[illegible]	0.36	[illegible]	0.24	0.13
3	1.25	[illegible]	0.57	[illegible]	0.50	[illegible]	0.37	0.45
4	1.67	[illegible]	0.74	[illegible]	0.61	[illegible]	0.53	0.63
5	2.08	[illegible]	0.89	[illegible]	0.78	[illegible]	0.66	0.78
6	2.50	[illegible]	1.04	[illegible]	0.94	[illegible]	0.82	0.90

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.00	[illegible]	1.04	[illegible]	0.94	[illegible]	0.82	0.90
2	1.25	[illegible]	0.97	[illegible]	0.79	[illegible]	0.77	0.84
3	0.625	[illegible]	0.88	[illegible]	0.71	[illegible]	0.78	0.79
4	0.01	[illegible]	0.80	[illegible]	0.63	[illegible]	0.43	0.51

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.75	[illegible]	0.65	[illegible]	0.57	0.00
1	0.83	[illegible]	0.81	[illegible]	0.69	[illegible]	0.61	0.07
2	1.25	[illegible]	0.86	[illegible]	0.83	[illegible]	0.88	0.74
3	1.67	[illegible]	0.93	[illegible]	0.73	[illegible]	0.88	0.82
4	2.08	[illegible]	1.01	[illegible]	0.81	[illegible]	0.89	0.91

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Contractor Name	[illegible]
Project	[illegible]
Test Date	[illegible]
Report Date	[illegible]
Location	[illegible]
Test No.	[illegible]

Horizontal Bar Static Plate Load Tests of Soils
DIN 18134

Loading (1)	0	1	2	3	4	5	6
Stage (kg)	0	1196.67	2393.3	3589.9	4786.6	5983.3	7180
Stress (kg/cm2)	0.00	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.19	0.33	0.49	0.63	0.75	0.85

Unloading (2)	1	2	3	4
Stage (kg)	7180	3589	1196	0
Stress (kg/cm2)	2.50	1.25	0.420	0.01
Settlement (mm)	0.85	0.68	0.76	0.01

K (mm) =	300	K1 (mm) =	0.00	Elasticity = 0.85 / 0.00 =	0.00
Ev1 (kg/cm2) = 18.75*K/Se(mm)			1191		

Loading (3)	0	1	2	3	4	5
Stage (kg)	0	1196.67	2393.3	3589.9	4786.6	5983.3
Stress (kg/cm2)	0.00	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.00	0.30	0.57	0.74	0.92	0.99

Ratio =	1.6

K (mm) =	300	K1 (mm) =	0.00	Elasticity = 0.99 / 0.00 =	0.00
Ev2 (kg/cm2) = 18.75*K/Se(mm)			1007		

Ev1 = Modulus of deformation during the loading stage

Ev2 = Modulus of deformation during the unloading stage

K = Plate diameter (mm)

Ratio = The difference between Ev1 and Ev2 (from the unloaded loading period (Ev2/Ev1))

Note = References to settlements corresponding to Ev1 and Ev2 from the standard loading stage

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Company Name : Sun Rise Construction
Project : [illegible]
Test Date : 24/03/2023
report date : 25/03/2023
Location : Station 446+[illegible] to 448+[illegible]
Test No. : 07

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.40	[illegible]	0.18	[illegible]	0.15	[illegible]	0.14	0.17
2	0.83	[illegible]	0.28	[illegible]	0.23	[illegible]	0.30	0.29
3	1.23	[illegible]	0.37	[illegible]	0.46	[illegible]	0.45	0.44
4	1.67	[illegible]	0.48	[illegible]	0.58	[illegible]	0.60	0.56
5	2.08	[illegible]	0.63	[illegible]	0.75	[illegible]	0.72	0.70
6	2.50	[illegible]	0.78	[illegible]	0.83	[illegible]	0.88	0.84

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.00	[illegible]	0.78	[illegible]	0.83	[illegible]	0.88	0.84
2	1.25	[illegible]	0.75	[illegible]	0.83	[illegible]	0.84	0.80
3	0.829	[illegible]	0.67	[illegible]	0.70	[illegible]	0.76	0.74
4	0.01	[illegible]	0.50	[illegible]	0.47	[illegible]	0.44	0.45

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.49	[illegible]	0.53	[illegible]	0.51	0.51
1	0.83	[illegible]	0.59	[illegible]	0.64	[illegible]	0.58	0.61
2	1.25	[illegible]	0.67	[illegible]	0.73	[illegible]	0.66	0.69
3	1.67	[illegible]	0.76	[illegible]	0.82	[illegible]	0.77	0.78
4	2.08	[illegible]	0.84	[illegible]	0.94	[illegible]	0.88	0.88

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Company Name	[illegible]
Project	[illegible]
Test Date	[illegible]
Report Date	[illegible]
Location	[illegible]
Test No.	[illegible]

[illegible] Static Plate Load Tests of Soils

[illegible]

Loading (T)	0	1	2	3	4	5	6
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	1	2	3	4
Weight (kg)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]			[illegible]				

Loading (T)	0	1	2	3	4	5
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Bulkier =	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]			[illegible]				

[illegible] = Modulus of deformation during the loading stage.

[illegible] = Modulus of deformation during the Reloading stage.

[illegible] = Plate diameter (mm).

[illegible] = The difference between [illegible] and [illegible] from the maximum loading (mm) (before).

[illegible] = Settlement in settlement corresponding to [illegible] and [illegible] from the maximum loading (mm).

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[illegible]

Company Name : Suez Rise Construction
Project : Cairo Express Train, Rock N Ro Tunnel to Borg Marouti Priority Section (6) – Alamein to Fuka
Test Date : [illegible]
report date : [illegible]
Location : Station 448+775 to 448+800
Test No. : 98

Nonrepetitive Static Plate Load Tests of Soils (BS 18134

Data sheet

Loading Stage (I)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.21	[illegible]	0.09	[illegible]	0.10	0.10
2	0.83	[illegible]	0.38	[illegible]	0.23	[illegible]	0.25	0.12
3	1.25	[illegible]	0.51	[illegible]	0.36	[illegible]	0.40	0.45
4	1.67	[illegible]	0.66	[illegible]	0.49	[illegible]	0.60	0.58
5	2.08	[illegible]	0.88	[illegible]	0.61	[illegible]	0.73	0.71
6	2.50	[illegible]	0.98	[illegible]	0.77	[illegible]	0.88	0.87

Unloading Stage (II)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.00	[illegible]	0.96	[illegible]	0.77	[illegible]	0.88	0.87
2	1.25	[illegible]	0.89	[illegible]	0.72	[illegible]	0.84	0.82
3	0.83	[illegible]	0.78	[illegible]	0.64	[illegible]	0.76	0.73
4	0.00	[illegible]	0.52	[illegible]	0.36	[illegible]	0.44	0.48

Loading Stage (II)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.62	[illegible]	0.40	[illegible]	0.51	0.54
1	0.83	[illegible]	0.79	[illegible]	0.55	[illegible]	0.68	0.62
2	1.25	[illegible]	0.78	[illegible]	0.64	[illegible]	0.68	0.70
3	1.67	[illegible]	0.87	[illegible]	0.71	[illegible]	0.86	0.83
4	2.08	[illegible]	0.83	[illegible]	0.81	[illegible]	0.91	0.85

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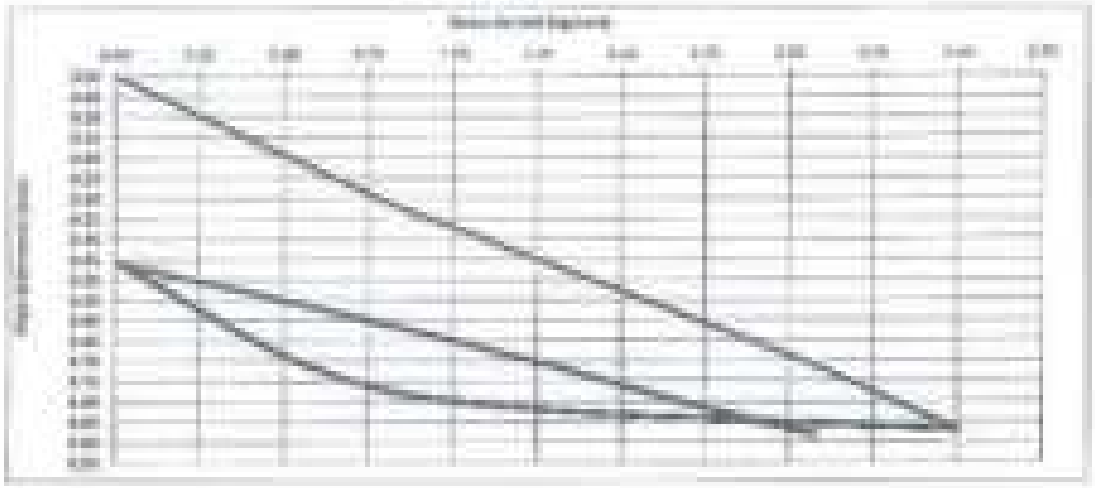
Company Name	: Sun Rise Construction
Project	: [illegible]
Test Date	: [illegible]
Report date	: [illegible]
Location	: [illegible]
Test No.	: 08

Incremental Rate Static Plate Load Tests of Soils
BS 1377/9



Loading (T)	0	1	2	3	4	5	6
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (T)	5	4	3	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	0
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]					

Loading (T)	0	1	2	3	4	5
Stress (kg/cm²)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (Kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] =	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]					

[illegible] = Modulus of deformation during the loading stage.
[illegible] = Modulus of deformation during the Unloading stage.
[illegible] = Plate diameter (mm).
[illegible] = The difference between [illegible] and [illegible] from the [illegible] loading (mm) (Sp/Sw).
[illegible] = Difference in settlements during loading [illegible] from the [illegible] loading (mm).

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Company Name : Sam Elias Construction
Project : Cairo Expressway Tract, from Al Ain Sukhna to Marsa Matrouh Priority Sector (5) – Planets to Fidra
Test Date : 04/05/2023
report date : 15/05/2023
Location : Station 448+600 449+625
Test No. : 09

Nonresistive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Leveling	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.11	[illegible]	0.15	[illegible]	0.21	0.17
2	0.83	[illegible]	0.28	[illegible]	0.29	[illegible]	0.39	0.32
3	1.25	[illegible]	0.43	[illegible]	0.42	[illegible]	0.53	0.47
4	1.67	[illegible]	0.58	[illegible]	0.62	[illegible]	0.70	0.64
5	2.08	[illegible]	0.69	[illegible]	0.75	[illegible]	0.84	0.77
6	2.50	[illegible]	0.82	[illegible]	0.94	[illegible]	0.98	0.91

Unloading Stage (1)

Leveling	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.00	[illegible]	0.82	[illegible]	0.94	[illegible]	0.98	0.91
2	1.25	[illegible]	0.70	[illegible]	0.89	[illegible]	0.82	0.80
3	0.0125	[illegible]	0.70	[illegible]	0.81	[illegible]	0.85	0.79
4	0.00	[illegible]	0.57	[illegible]	0.51	[illegible]	0.63	[illegible]

Loading Stage (2)

Leveling	Stress Kg/cm²	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.03	[illegible]	0.09	[illegible]	0.79	0.01
1	0.83	[illegible]	0.01	[illegible]	0.07	[illegible]	0.79	0.00
2	1.25	[illegible]	0.03	[illegible]	0.15	[illegible]	0.85	0.77
3	1.67	[illegible]	0.15	[illegible]	0.05	[illegible]	0.83	0.00
4	2.08	[illegible]	0.00	[illegible]	0.06	[illegible]	1.00	0.00

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Consultant Name : [illegible]
Project : [illegible]
Road Date : [illegible]
Report date : [illegible]
Location : [illegible]
Total No. : [illegible]

Incremental Static Plate Load Tests of Soils
DIN 18134

Loading (t)	0	1	2	3	4	5	6
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Unloading (t)	4	3	2	1
Weight (kg)	[illegible]	[illegible]	[illegible]	0
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Loading (t)	0	1	2	3	4	5
Weight (kg)	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Stress (kg/cm²)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Settlement (mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] = Modulus of deformation during the loading stage
[illegible] = Modulus of deformation during the unloading stage
[illegible] = Plate diameter (mm)
[illegible] = The difference between [illegible] and [illegible] from the maximum loading (stress [illegible])
[illegible] = Difference in settlements corresponding to [illegible] and [illegible] from the maximum loading (mm)

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Company Name : Sam Nine Construction
Project : Social Explore Tests, from Al Ain Sokhna to Siaya, Bidirectional Priority Section (8) – Kilometer to Folio
Test Date : 24/05/2023
report date : 05/06/2023
Location : Station 448+025-448+050
Test No. : 10

Nonconductive Static Plate Load Tests at Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	[illegible]	0.00	[illegible]	0.00	[illegible]	0.00	0.00
1	0.42	[illegible]	0.13	[illegible]	0.09	[illegible]	0.17	0.13
2	0.83	[illegible]	0.26	[illegible]	0.34	[illegible]	0.32	0.28
3	1.25	[illegible]	0.41	[illegible]	0.45	[illegible]	0.47	0.43
4	1.67	[illegible]	0.55	[illegible]	0.53	[illegible]	0.58	0.54
5	2.08	[illegible]	0.68	[illegible]	0.63	[illegible]	0.72	0.68
6	2.50	[illegible]	0.84	[illegible]	0.78	[illegible]	0.89	0.81

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.08	[illegible]	0.81	[illegible]	0.76	[illegible]	0.88	0.81
2	1.25	[illegible]	0.76	[illegible]	0.71	[illegible]	0.81	0.70
3	0.625	[illegible]	0.70	[illegible]	0.64	[illegible]	0.75	0.70
4	0.01	[illegible]	0.42	[illegible]	0.30	[illegible]	0.41	0.38

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	[illegible]	0.53	[illegible]	0.35	[illegible]	0.02	0.43
1	0.83	[illegible]	0.81	[illegible]	0.68	[illegible]	0.89	0.87
2	1.25	[illegible]	0.89	[illegible]	0.87	[illegible]	0.97	0.88
3	1.67	[illegible]	0.78	[illegible]	0.74	[illegible]	0.76	0.73
4	2.08	[illegible]	0.98	[illegible]	0.82	[illegible]	0.95	0.94

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Company Name	: Sun Rise Construction
Project	: [illegible]
Test Date	: [illegible]
Report Date	: [illegible]
Location	: [illegible]
Test No.	: [illegible]

Harmonic Mean Static Plate Load Tests of Bells

[illegible]

Loading (T)	0	1	2	3	4	5	6
Weight (Kg)	0	1186.52	2343.4	3512.9	4714.4	5876.1	7002
Stress (Kg/cm2)	0.00	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.13	0.26	0.42	0.54	0.68	0.81

Unloading (T)	5	4	3	0
Weight (Kg)	5862	4632	3396	0
Stress (Kg/cm2)	2.50	1.92	0.833	0.00
Settlement (mm)	0.81	0.75	0.70	0.36

[illegible]	[illegible]	[illegible]	0.36	[illegible]	[illegible]	[illegible]
[illegible]			3400			

Loading (T)	0	1	2	3	4	5
Weight (Kg)	0	1186.52	2343.5	3512.3	4719.3	5876.1
Stress (Kg/cm2)	0.00	0.42	0.83	1.24	1.67	2.08
Settlement (mm)	0.36	0.46	0.57	0.66	0.79	0.94

Bulkhead =	1.7

[illegible]	[illegible]	[illegible]	0.36	[illegible]	[illegible]	[illegible]
[illegible]			3400			

[illegible] = Modulus of deformation during the loading stage.

[illegible] = Modulus of deformation during the unloading stage.

[illegible] = Plate diameter (mm).

[illegible] = The difference between 0.5 and 0.7 times the maximum loading (mm) (kg/cm²).

[illegible] = Difference in settlements corresponding to 0.5 and 0.7 times the maximum loading (mm).

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Chart Title

[illegible]

Company Name	: **Sun Rise**
Project	: **Electric Express Train, from Al Ain Sokhna to Marsa Matrouh**
Type of sample	: **Sub-Ballast**
Location	: **St (449+600) : (451+100)**
Delivery Date	: **26/03/2023**
Reporting Date	: **03/04/2023**
Reporting No.	: **62**
Sample No.	: **04**

Dear Gentleman,

Attached here with the Sub-Ballast delivered on 26/03/2023

Materials test

1. Sieve analysis according to ASTM D-422.
2. Material finer than sieve No. 200 according ASTM D-1140.
3. Liquid limits and plasticity index of soil according to ASTM D-4318.
4. Proctor test according to ASTM D-1557.
5. Specific Gravity & Absorption according to ASTM C-127 & D 6473.
6. CBR according to ASTM D-1883
7. Lan Angles according to ASTM C-131.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

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Signature : .....

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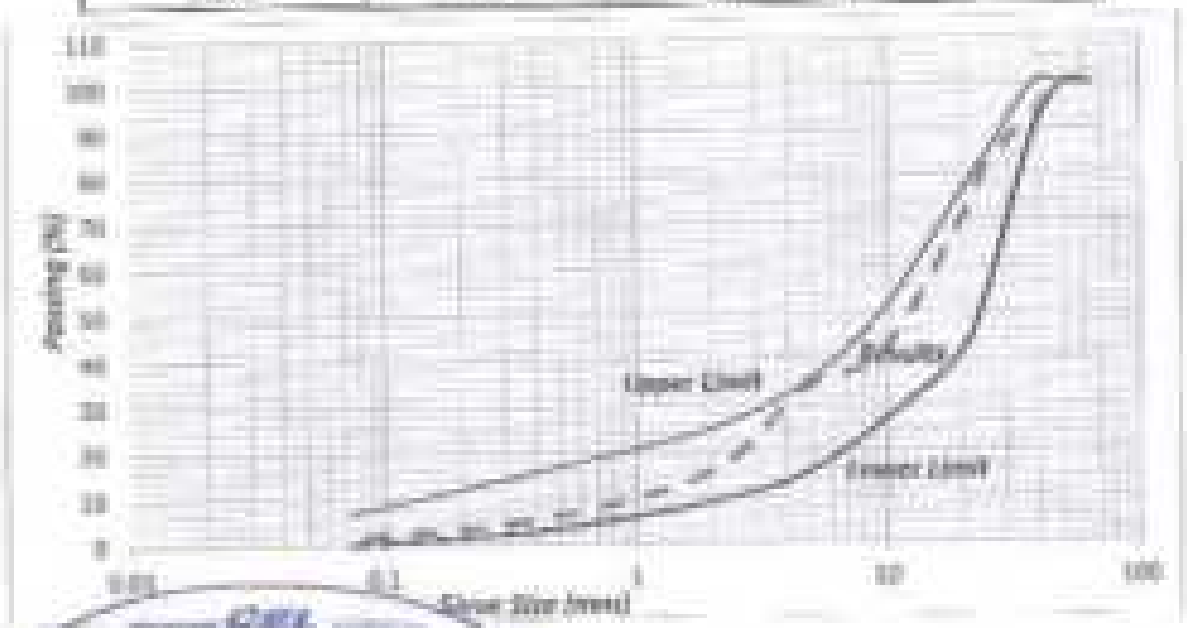
Company Name	: Sun Rise
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Sub-Ballast
Location	: St (449+600) : (451+100)
Delivery Date	: 26/03/2023
Reporting Date	: 03/04/2023
Reporting No.	: 62
Sample No.	: 04

Results of sieve analysis acorrding to ASTM D-422.

Sieve Size (mm)	Passing %	Air specification limits (ASTM D-422)	
		Min.	Max.
63.5	100	100	100
50	100	100	100
38	93.2	90	100
25	85.4	55	85
19	72.3	40	75
12.5	56.7	–	–
9.5	41.2	30	60
4.75	23.6	15	35
2.00	15.6	9	25
0.425	5.8	3	16
0.075	1.5	0	7



The test results are (Comply - Not Comply) with specification limits.

Signature

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Company Name : Sun Rise
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St (449+600) : (451+100)
Delivery Date : 26/03/2023
Reporting Date : 03/04/2023
Reporting No. : 42
Sample No. : 04

Materials finer than 75 µm (no.200) sieve by washing ASTM D-1140

Test	Results (%)
Percentage of material finer than Sieve Size 75 µM (No.200)	1.5

Signature /

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Company Name : Sun Rise
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St (449+600) : (451+100)
Delivery Date : 26/03/2023
Reporting Date : 03/04/2023
Reporting No. : 62
Sample No. : 04

Results of liquid limit and plasticity index of soils according to ASTM D-4318

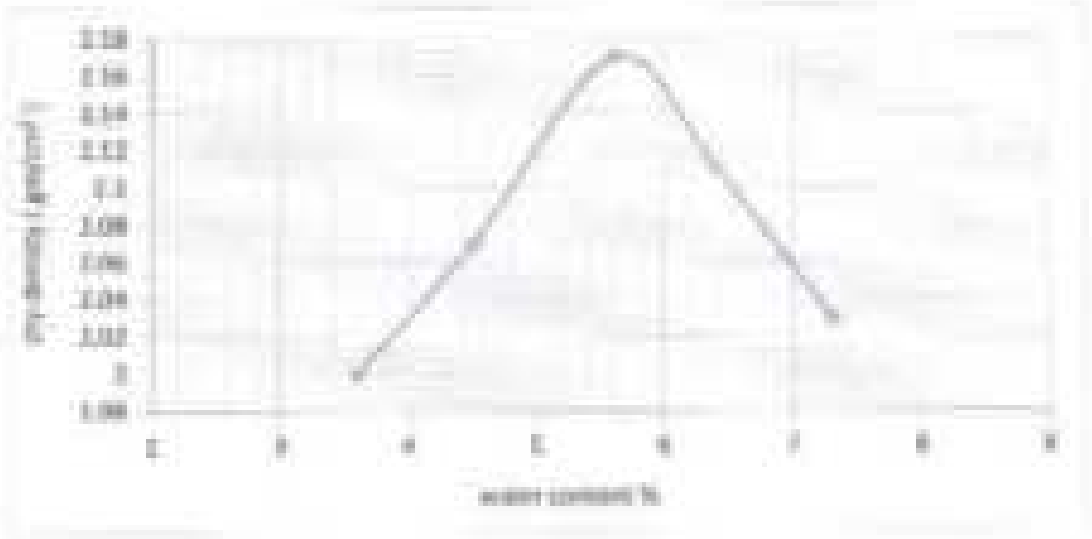
Test	Results (%)
Liquid Limit	NP
Plastic Limit	NP
Plasticity Index	NP

Signature /

8 El Sadek, El Adhal Street
Zamalek, Cairo.
Tel.& Fax : 27367321 - 27368091
IAS
٨ ش الصادق العاضل
الزمالك - القاهرة
التليفون و فاكس : ٢٧٣٦٧٣٢١ - ٢٧٣٦٨٠٩١
www.celeg.com

Company Name	**: Sun Rise**
Project	**: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh**
Type of sample	**: Sub-Ballast**
Location	**: St (449+600) : (451+100)**
Delivery Date	**: 26/03/2023**
Reporting Date	**: 03/04/2023**
Reporting No.	**: 62**
Sample No.	**: 04**

Moisture – Density relation of soil
Test result (Modified proctor test)
ASTM D-1557



- **Max dry density (gm/cm³)** **: 2.17**
- **Optimum moisture content %** **: 5.6**

Signature

1 El Mahdi St. Abbas Street
Zamalek, Cairo
Dokki Fax : 37607211 - 37607000
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الزمالك - القاهرة
الدقي - فاكس : ٣٧٦٠٧٢١١ - ٣٧٦٠٧٠٠٠
www.cel-egypt.com

Company Name : Sun Rise
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St (449+600) : (453+100)
Delivery Date : 26/03/2023
Reporting Date : 03/04/2023
Reporting No. : 62
Sample No. : 94

Results of Specific Gravity and Absorption of Course Aggregate ASTM C127 & D 6473

Test	Results
Bulk Specific Gravity (OD)	2.53
Bulk Specific Gravity (SSD)	2.55
Apparent Specific Gravity.	2.60
Absorption %	2.9

Note:

- (OD) Refer to Oven Dry.
- (SSD) Refer to Saturated Surface Dry.

Signature /

Company Name	: Sun Rise
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Sub-Ballast
Location	: St (449+600) : (451+100)
Delivery Date	: 26/03/2023
Reporting Date	: 03/04/2023
Reporting No.	: 62
Sample No.	: 84

Test Results of California Bearing Ratio on Base Materials
ASTM D 1883

penetration		stress on piston (Mpa)
mm	Inch	
0.64	0.025	4.06
1.27	0.050	4.69
1.91	0.075	5.25
2.54	0.100	5.81
3.18	0.125	6.42
3.81	0.150	6.98
4.45	0.175	7.55
5.08	0.200	8.11
5.71	0.225	8.67
6.35	0.250	9.23

CBR Result	Stress (Mpa)		CBR. %
At 0.1 inch (2.54 mm) penetration	St. Value	Sample results	84.2
	6.98	5.81	

Notes :

1. A graded graph showing penetration resistance versus penetration magnitude.
2. The test was carried out on a compacted dry density of 2.17 (gm/cm³) at 96% optimal moisture content.
3. Interpretation [illegible]

Signature

3 El Malek El Afdal Street
Zamalek, Cairo.
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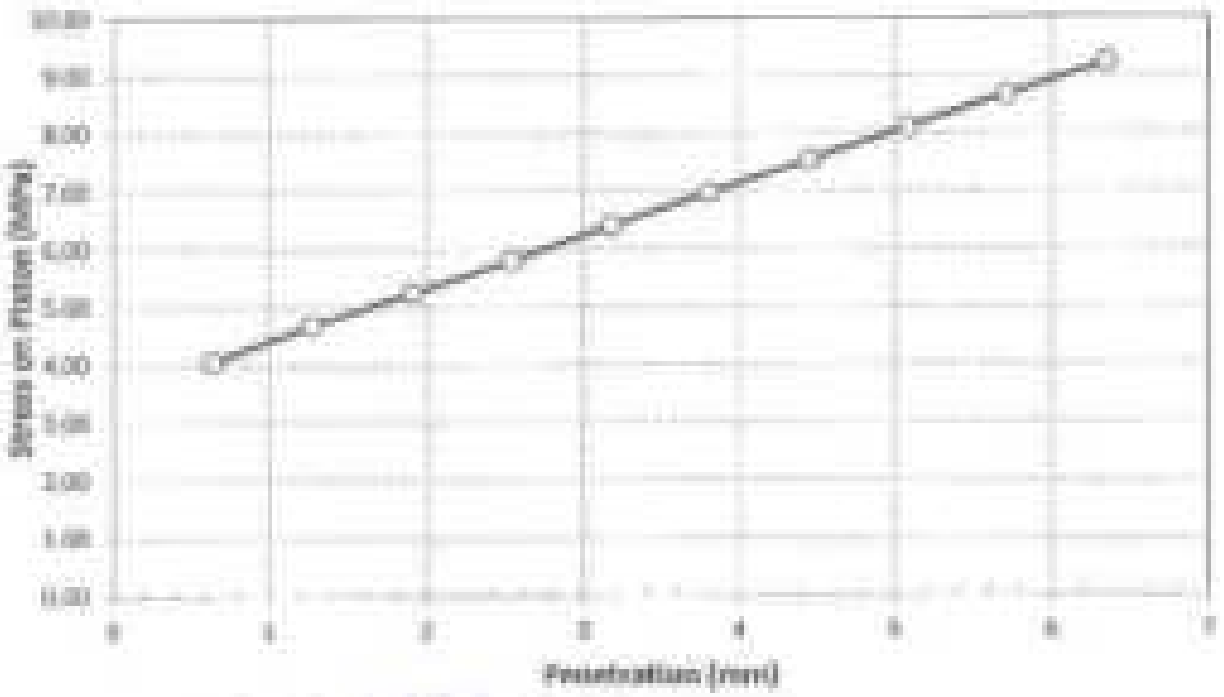
[illegible]
[illegible] - القاهرة
التليفون : [illegible]
www.cel-egypt.com

Company Name	: Sun Rise
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Sub-Ballast
Location	: St (449+600) : (451+400)
Delivery Date	: 26/03/2023
Reporting Date	: 03/04/2023
Reporting No.	: 62
Sample No.	: 04

Load Penetration Curve of CBR Test
ASTM D-1883



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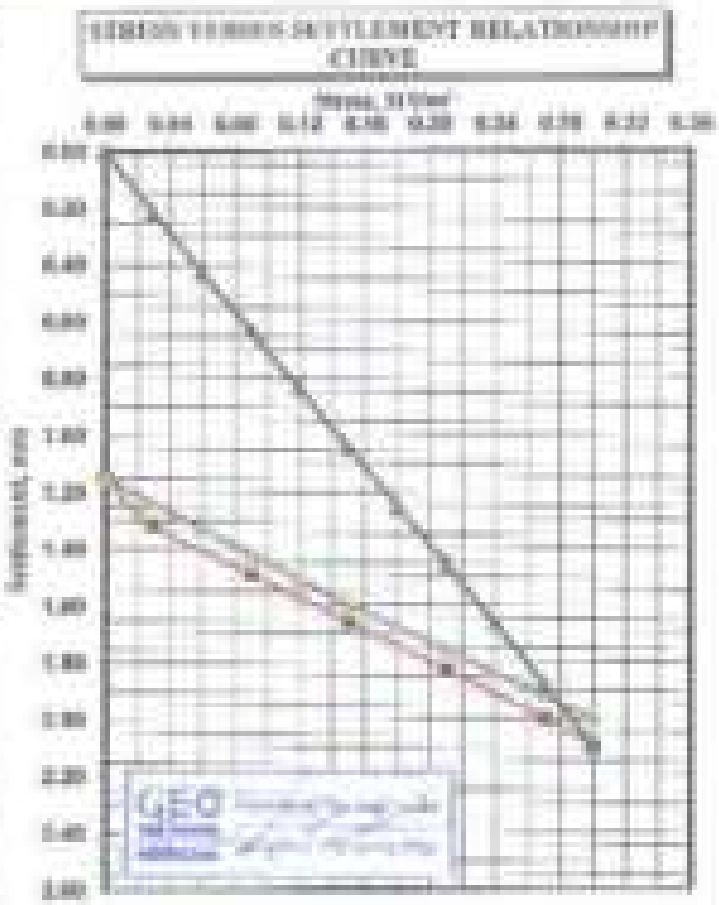
www.celengpl.com

Horema Ltd
Soil Investigations & G.C.

Plate Load Tests of Soils
DIN 18134

CLIENT	Sea Rim Company	TEST START:	[illegible]
PROJECT	Electric Express Trains	TEST FINISH:	[illegible]
LOCATION	Al-Jahra (km [illegible]) – [illegible]	DATE	1-Apr-21
PLATE LOCATION	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	75.00	** Note : Soil is Wet	
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress N/cm²	Settlement mm
0.00	0.00
0.03	0.22
0.06	0.42
0.09	0.63
0.12	0.84
0.15	1.05
0.18	1.26
0.21	1.48
0.24	1.68
0.27	1.88
0.30	2.10
0.27	2.00
0.21	1.85
0.15	1.68
0.09	1.48
0.03	1.22
0.00	1.15
0.03	1.24
0.06	1.33
0.09	1.42
0.12	1.51
0.15	1.60
0.18	1.68
0.21	1.78
0.24	1.84
0.27	1.92
0.30	2.00



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
Offset	0.20	0.20
a_1 [mm/(MN/m²)]	6.743	3.117
a_2 [mm/(MN/m²)]	0.571	0.95
Ev [MN/m²]	81.4	138.5
Ev/Ev1	2.44	

Notation

1 Loading plate diameter of 75 mm

2 Offset strain equal to 0.20 mm

3 Intercept of the straight line with the ordinate

4 Slope of the straight line

5 Modulus of elasticity

6 Poisson's Ratio taken as 0.50

MODULUS OF SUB-GRADE REACTION, Ks

ks = Ev/Ks 142.4 MN/m³

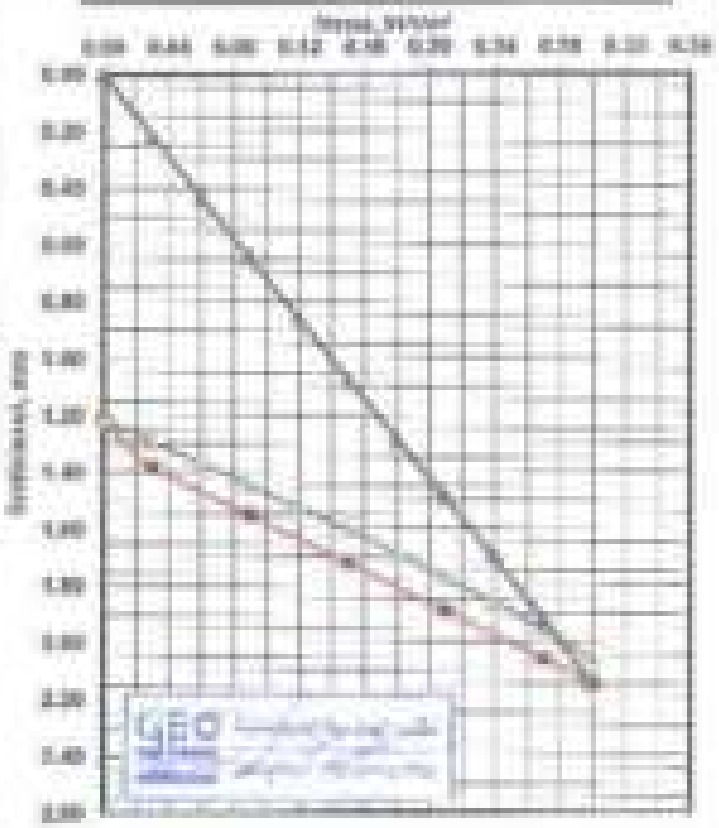
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

Horema L.L.C
Soil Investigation & G.C.

Plate Load Tests of Soils
(DIN 18134)

CLIENT:	Sun Flow Company	TIME START:	[illegible]
PROJECT:	Electric Express Trains	TIME FINISH:	[illegible]
LOCATION:	[illegible]	DATE:	[illegible]
PLATE DIAMETER:	[illegible]	LAB. REF:	[illegible]
PLATE DIAMETER (cm):	[illegible]	** Note : Soil is Wet	
TYPE OF SOIL:	GRAVEL and SAND, some fines		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.23
0.09	0.44
0.06	0.64
0.12	0.86
0.15	1.08
0.18	1.28
0.21	1.48
0.24	1.70
0.27	1.93
0.30	2.15
0.27	2.08
0.21	1.88
0.15	1.72
0.09	1.55
0.03	1.38
0.00	1.21
0.03	1.29
0.06	1.37
0.09	1.45
0.12	1.53
0.15	1.60
0.18	1.68
0.21	1.76
0.24	1.89
0.27	1.98
0.30	2.08



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
ν(Poisson)	0.30	0.30
a_1 [mm/(MN/m²)]	0.904	2.446
a_2 [mm/(MN²/m²)]	0.098	1.171
Ev [MN/m²]	76.6	200.9
Ev2/Ev1	2.63	

Remarks:

MODULUS OF SUB-GRADE REACTION, Ks

ks = Av/Δs 130.2 MN/m³

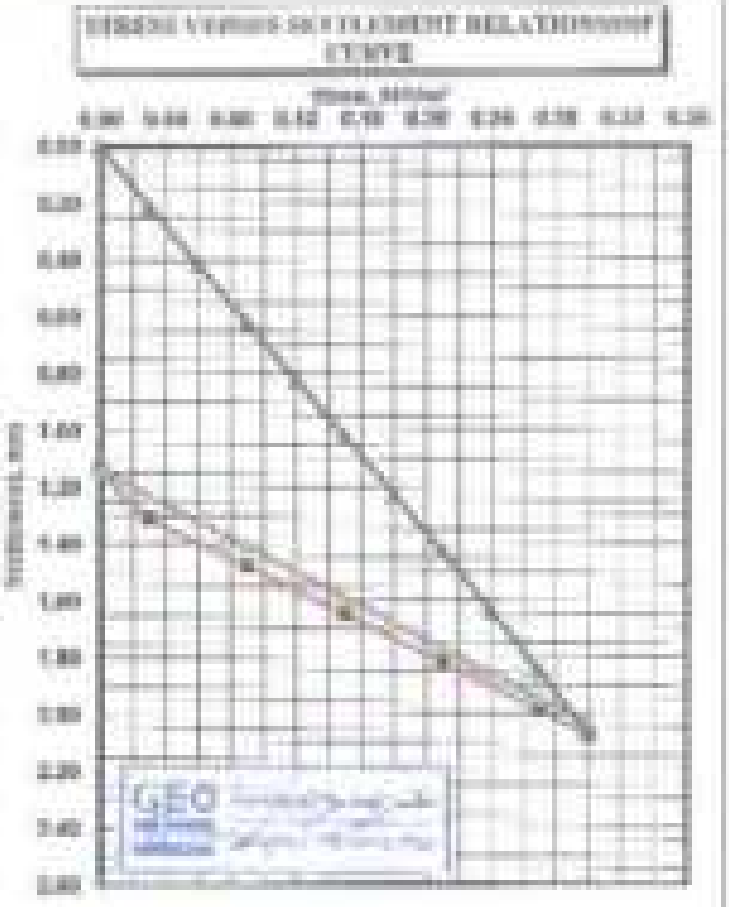
[illegible]

Horema Ltd
Soil Investigation & Q.C.

Plate Load Tests of Soils
DIN 18134

CLIENT:	Sun Rise Company	TIME START:	[illegible]
PROJECT:	Electric Experts Tools	TIME FINISH:	[illegible]
LOCATION:	Al-Rabiaa [illegible] – [illegible]	DATE:	1-Apr-21
PLATE DIAMETER:	[illegible]	LAB. REF:	[illegible]
PLATE MASS/TYR (ton):	[illegible]	** Note : Soil is Wet	
TYPE OF SOIL:	GRAVEL and SAND, some fines		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.23
0.06	0.47
0.09	0.67
0.12	0.83
0.15	1.03
0.18	1.21
0.21	1.40
0.24	1.64
0.27	1.85
0.30	2.08
0.27	1.88
0.21	1.62
0.18	1.48
0.06	1.08
0.03	1.31
0.00	1.14
0.03	1.23
0.06	1.32
0.09	1.41
0.12	1.46
0.15	1.53
0.18	1.58
0.21	1.77
0.24	1.88
0.27	1.98
0.30	2.04



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
ν(Poisson)	0.30	0.30
a_1 [mm/(MN/m²)]	6.438	3
a_2 [mm/(MN²/m²)]	1.353	0
Ev [MN/m²]	82.8	187.5
Ev2/Ev1	2.27	

Notes:

MODULUS OF SUB-GRADE REACTION, Ks

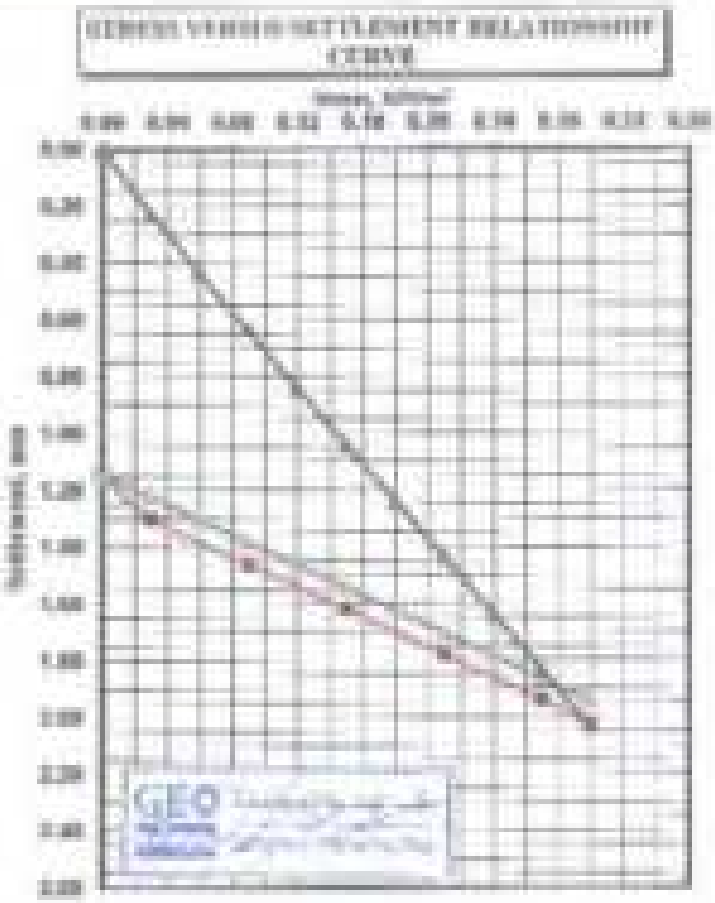
ks = Av/Sa 144.0 MN/m³

[illegible]

Plate Load Tests of Soils
ASTM D1194

CLIENT	Sun Bite Company	TIME START:	[illegible]
PROJECT	Electric Express Trade	TIME FINISH:	[illegible]
LOCATION	Al-[illegible]	DATE:	[illegible]
PLATE LOAD NO.	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	[illegible]	** Note : Soil is Wet	
TYPE OF SOIL	SIRAYEL and SAND, some fines		

Stress MN/m²	Settlement mm
0.00	0.00
0.02	0.23
0.03	0.44
0.06	0.64
0.12	0.85
0.15	1.05
0.18	1.25
0.21	1.44
0.24	1.64
0.27	1.84
0.30	2.05
0.27	1.84
0.21	1.76
0.18	1.62
0.15	1.46
0.12	1.30
0.06	1.18
0.03	1.03
0.06	1.21
0.09	1.39
0.12	1.47
0.18	1.60
0.18	1.62
0.21	1.74
0.24	1.76
0.27	1.87
0.30	1.95



STRAIN MODULUS, Ev

	1st loading	2nd loading
ν (Poisson)	0.30	0.30
a_1 [mm/(MN/m²)]	6.975	3.79
a_2 [mm/(MN²/m²)]	0.043	-0.248
Ev [MN/m²]	54.1	209.4
Ev2/Ev1	2.49	

Remarks

MODULUS OF SUB-GRADE REACTION, Ks

ks = Ev/3a 147.2 MN/m³

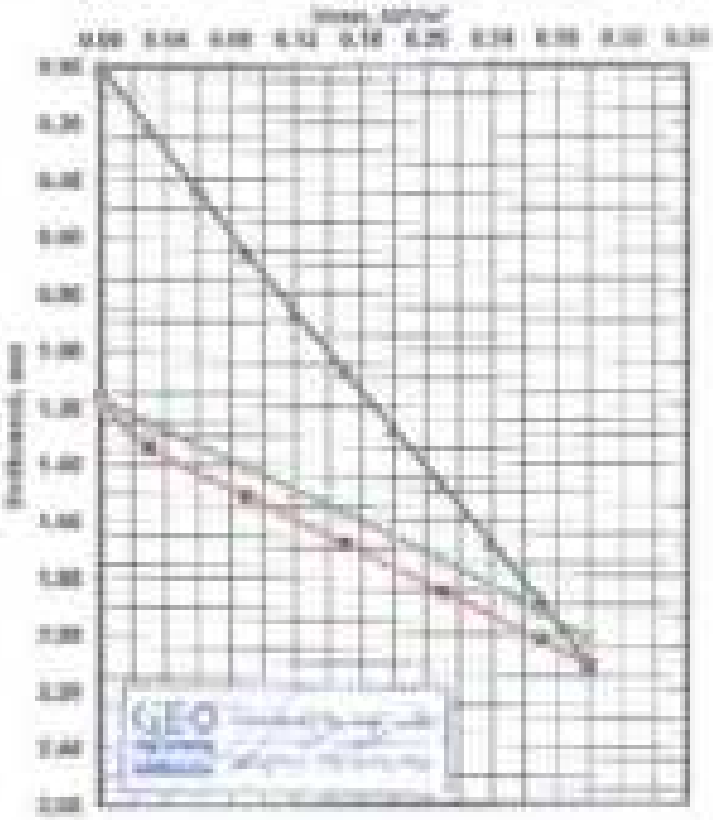
Horema L.L.C
Soil Investigation & Q.C.

Plate Load Tests of Soils
BS 1924

CLIENT	Sun Rise Company	TIME STARTS	[illegible]
PROJECT	Electric Express Train	TIME FINISHES	[illegible]
LOCATION	Al-Ghafoor [illegible]	DATE	[illegible]
PLATE LOAD NO.	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	[illegible]	*** Note : Soil in Wet	
TYPE OF SOIL	GRAVEL and SAND, [illegible]		

Stress MN/m²	Settlement mm
0.00	0.00
0.02	0.22
0.05	0.43
0.06	0.60
0.12	0.88
0.15	1.07
0.19	1.28
0.21	1.46
0.24	1.58
0.27	1.89
0.30	2.07
0.27	2.03
0.21	1.88
0.18	1.68
0.09	1.51
0.05	1.34
0.00	1.17
0.03	1.25
0.06	1.33
0.09	1.41
0.12	1.46
0.15	1.57
0.18	1.68
0.21	1.74
0.24	1.83
0.27	1.92
0.30	2.03

STRESS VERSUS SETTLEMENT RELATIONSHIP CURVE



STRAIN MODULUS, Ev

	1st loading	2nd loading
ν(Poisson)	0.30	0.30
a_1 [mm/(MN/m²)]	7.168	2.499
a_2 [mm/(MN/m²)²]	0.749	1.123
Ev [MN/m²]	81.0	199.1
Ev2/Ev1	2.46	

Remarks

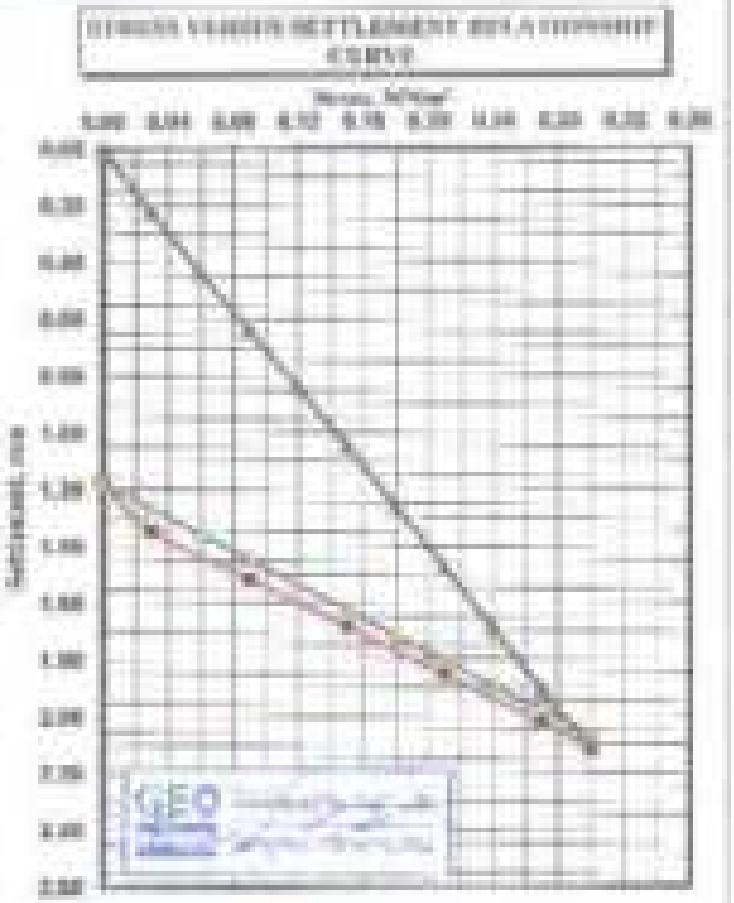
MODULUS OF SUB-GRADE REACTION, Ks

Ks = Ev/1.5 141.0 MN/m³

Plate Load Tests of Soils
005.18124

CLIENT:	Sea Bite Company	TIME START:	[illegible]
PROJECT:	Electric Engineer Trade	TIME FINISH:	[illegible]
LOCATION:	Al-[illegible] (19°[illegible]) – [illegible]	DATE:	[illegible]
PLATE TEST NO.	P1.1 a	LAB. REF.:	[illegible]
PLATE DIAMETER (cm)	75.00	*** Note : Sold In West	
TYPE OF SOIL	S.B.A.V.1, and S.A.T.0, sandy flow		

Stress MN/m²	Settlement mm
0.00	0.00
0.02	0.23
0.05	0.44
0.09	0.64
0.12	0.84
0.15	1.05
0.18	1.26
0.21	1.46
0.24	1.69
0.27	1.91
0.30	2.12
0.27	2.03
0.21	1.88
0.15	1.60
0.09	1.32
0.03	1.04
0.00	1.18
0.03	1.37
0.09	1.70
0.06	1.45
0.15	1.64
0.18	1.45
0.24	1.73
0.27	1.91
0.24	1.90
0.27	1.99
0.30	2.08



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
σ0 (kPa)	0.30	0.30
a_1 [mm/(MN/m²)]	0.083	3.005
a_2 [mm/(MN²/m²)]	1.012	0.434
Ev [MN/m²]	80.3	193.4
Ev2/Ev1	2.38	

Reporting

1. Loading plate diameter = 75 cm
2. Test continued to 0.30 m
3. Extrapolation calculations with curve fitting by the collaborator
4. Data simplification calculations made in accordance with the Guide
5. Analysis calculations and graph were made on the collaborator
6. Working Results are in kgf/cm²

MODULUS OF SUB-GRADE REACTION, Ks

Ks = 3σ0/3δ 541.8 MN/m³

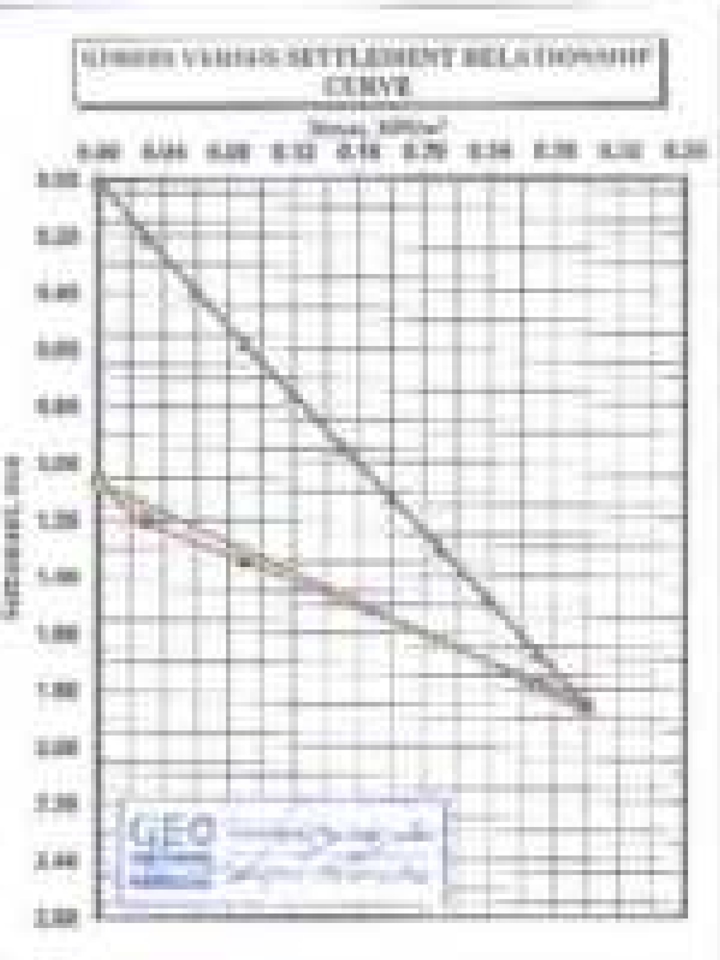
Horema Ltd
Soil Investigation & Q.C.

Plate Load Tests of Soils

[illegible]

CLIENT	[illegible] Company	TIME START:	[illegible]
PROJECT	Electric Express Trains	TIME FINISH:	[illegible]
LOCATION	[illegible]	DATE:	[illegible]
PLATE LOAD NO.	PLT 7	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	[illegible]	** Note : Soil is Wet	
TYPE OF SOIL	GRAVEL and SAND, [illegible]		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.21
0.06	0.39
0.09	0.60
0.12	0.76
0.15	0.90
0.18	1.10
0.21	1.20
0.24	1.40
0.27	1.57
0.30	1.86
0.27	1.77
0.21	1.63
0.15	1.46
0.09	1.22
0.03	1.21
0.00	1.07
0.03	1.15
0.06	1.23
0.09	1.31
0.12	1.35
0.15	1.47
0.18	1.55
0.21	1.65
0.24	1.71
0.27	1.80
0.30	1.88



STRAIN MODULUS, Ev

	1 st loading	2 st loading
σ0max	0.30	0.30
a_1 [mm/(MN/m²)]	0.088	2.519
a_2 [mm/(MN²/m⁴)]	-0.005	0.258
Ev [MN/m²]	92.4	208.7
Ev2/Ev1	2.26	

Remarks
[illegible]

MODULUS OF SUB-GRADE REACTION, Ks

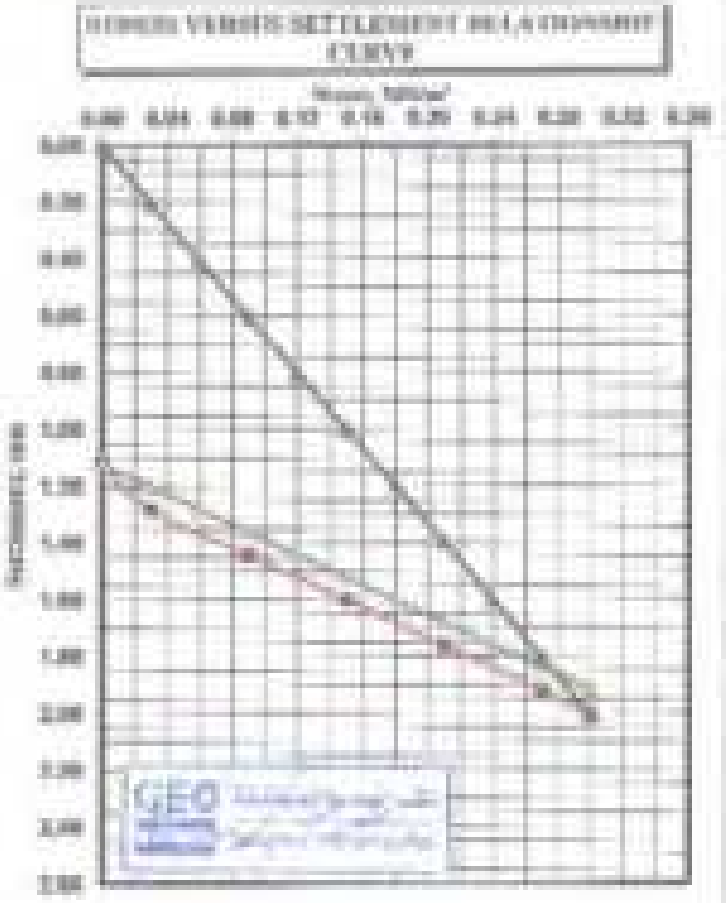
Ks = [illegible] 153.8 MN/m³

Horema Ltd
Soil Investigation & G.E.

Plate Load Tests of Soils
MOS 18KM

CLIENT	Saa Bin Company	TIME START:	[illegible]
PROJECT	Electric Express Train	TIME FINISH:	[illegible]
LOCATION	Al-Hafaya [illegible]	DATE	[illegible]
PLATE LOAD NO.	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	[illegible]	*** Note : Soil is Wet	
TYPE OF SOIL	SHAKEL and SAND, [illegible]		

Stress MN/m²	Settlement mm
0.00	0.00
0.02	0.21
0.05	0.47
0.09	0.67
0.12	0.81
0.15	1.00
0.19	1.22
0.21	1.40
0.24	1.60
0.27	1.81
0.30	2.05
0.27	1.82
0.21	1.76
0.18	1.60
0.06	1.44
0.03	1.28
0.00	1.12
0.03	1.20
0.06	1.28
0.09	1.36
0.12	1.44
0.15	1.52
0.18	1.60
0.21	1.68
0.24	1.76
0.27	1.84
0.30	1.92



STRAIN MODULUS, Ev

	1st loading	2nd loading
Poisson	0.30	0.30
a_v [mm/(MN/m²)]	0.502	2.667
a_v [mm/(MN/m²)]	0.494	0
Ev [MN/m²]	94.7	215.9
Ev2/Ev1	2.49	

Notes/Note

MODULUS OF SUB-GRADE REACTION, Ks

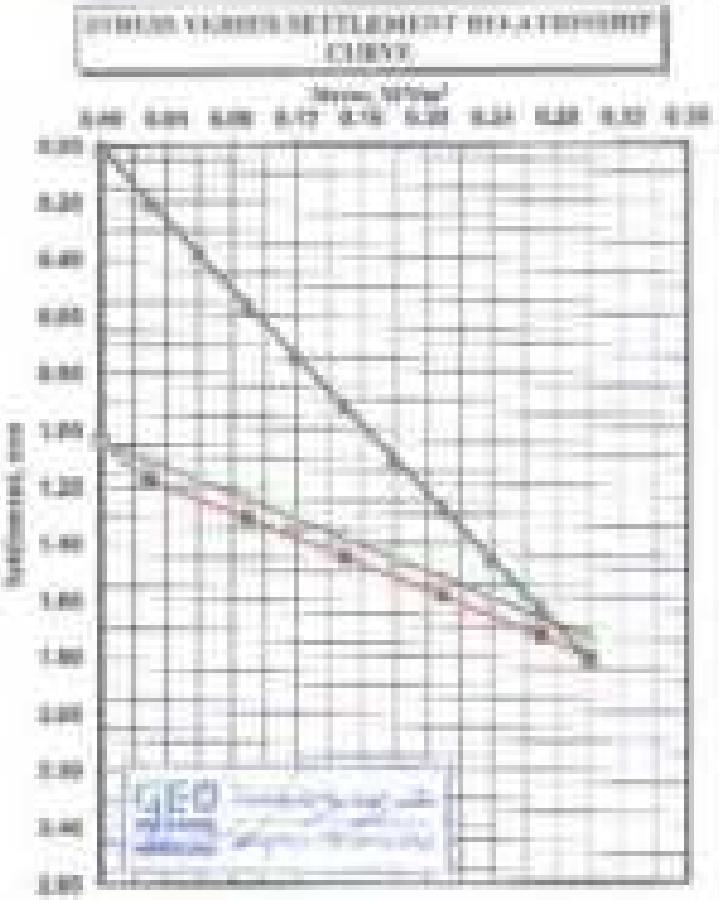
ks = 2ev/3B 140.0 MN/m³

Horema Ltd
Soil Investigation & G.E.

Plate Load Tests of Soils
[illegible]

CLIENT	Red River Company	TIME STARTED	[illegible]
PROJECT	Electric Express Trains	TIME FINISH	[illegible]
LOCATION	Al [illegible]	DATE	[illegible]
PLATE LOAD NO.	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	[illegible]	** Note : Stress in Mpa	
TYPE OF SOIL	GRAVEL and SAND, coarse Sand		

Stress MPa	Settlement mm
0.00	0.00
0.03	0.29
0.06	0.59
0.09	0.86
0.12	0.76
0.15	0.97
0.18	1.11
0.21	1.28
0.24	1.46
0.27	1.64
0.30	1.85
0.27	1.73
0.24	1.60
0.21	1.46
0.18	1.33
0.15	1.17
0.12	1.03
0.09	1.11
0.06	1.18
0.03	1.25
0.00	1.30
0.03	1.39
0.06	1.46
0.09	1.53
0.12	1.60
0.15	1.67
0.18	1.74



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
ν(Poisson)	0.30	0.30
a_1 [mm/(MN/m²)]	6.000	2.436
a_2 [mm/(MN²/m²)]	0.264	0.246
Ev [MN/m²]	99.8	239.1
Ev2/Ev1	2.39	

Reference

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]

MODULUS OF SUB-GRADE REACTION, ks

ks = Ev/Is 165.5 MN/m³

[illegible]

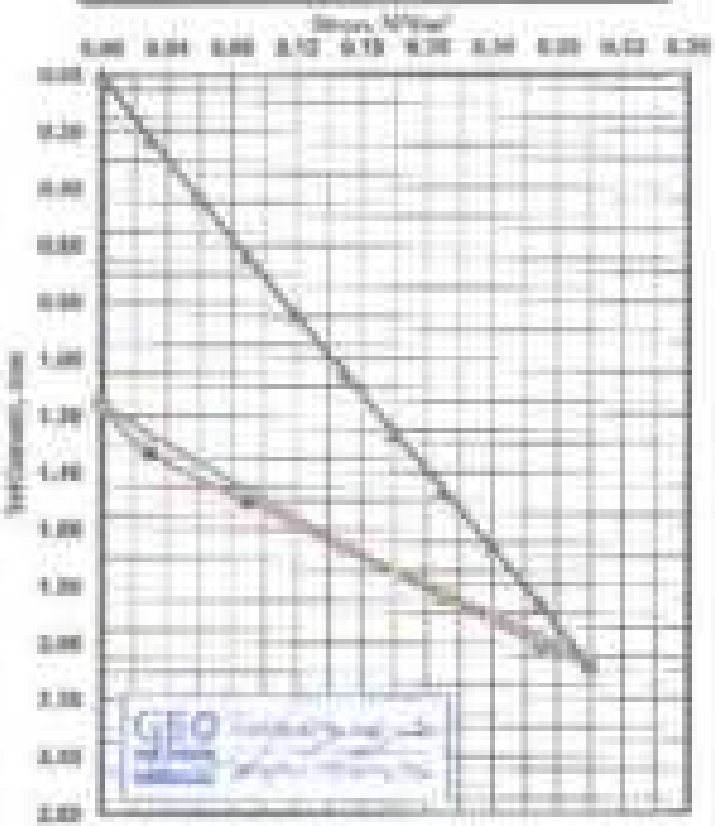
Horema Ltd
Soil Investigation & G.E.G.

Plate Load Tests of Soils
[illegible]

CLIENT	[illegible]	TIME START	[illegible]
PROJECT	Electric Express Train	TIME FINISH	[illegible]
LOCATION	[illegible]	DATE	[illegible]
PLATE LOAD NO.	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (m)	[illegible]		
TYPE OF SOIL	GRAVEL and SAND, some fines		

Stress, MN/m²	Settlement mm
0.00	0.00
0.03	0.03
0.06	0.44
0.09	0.94
0.12	0.96
0.15	1.06
0.18	1.19
0.21	1.47
0.24	1.66
0.27	1.87
0.30	2.09
0.27	2.01
0.23	1.94
0.19	1.87
0.16	1.85
0.09	1.53
0.05	1.15
0.03	1.08
0.06	1.08
0.09	1.08
0.12	1.08
0.15	1.08
0.18	1.14
0.21	1.62
0.24	1.96
0.27	1.98
0.30	2.08

STRESS VERSUS SETTLEMENT RELATIONSHIP CURVE



STRAIN MODULUS, Ev

	1st loading	2nd loading
Cf(mm)	0.30	0.30
a_1 [mm/(MN/m²)]	0.002	3.567
a_2 [mm/(MN²/m²)]	-0.02	-1.9
Ev [MN/m²]	62.0	107.7
Ev2/Ev1	2.23	

Remarks

MODULUS OF SUB-GRADE REACTION, Ks

ks = Ev/Cf 143.3 MN/m³

[illegible]

Horema LLC
Soil Investigation & G.C.

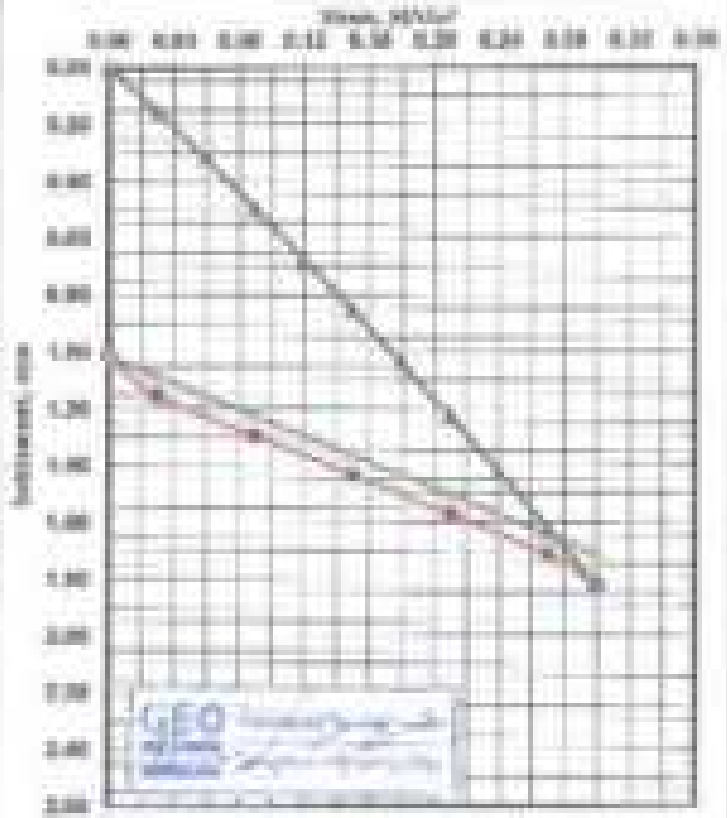
Plate Load Tests of Soils
DIN 18134

CLIENT	[illegible]	TIME START:	[illegible]
PROJECT	[illegible]	TIME FINISH:	[illegible]
LOCATION	[illegible]	DATE:	[illegible]
PLATE DIAMETER:	[illegible]	LAB. REF.	[illegible]
PLATE HAMMER (ton):	[illegible]		
TYPE OF SOIL:	[illegible]		

Note : Soil is Wet

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.19
0.06	0.32
0.09	0.55
0.12	0.69
0.15	0.90
0.18	1.04
0.21	1.23
0.24	1.43
0.27	1.63
0.30	1.83
0.27	1.72
0.21	1.58
0.18	1.44
0.15	1.30
0.12	1.16
0.09	1.02
0.06	1.06
0.09	1.16
0.12	1.23
0.15	1.30
0.18	1.37
0.18	1.44
0.21	1.51
0.24	1.58
0.27	1.65
0.30	1.72

STRESS VERSUS SETTLEMENT RELATIONSHIP CURVE



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
ν(Poisson)	0.30	0.30
a_1 [mm/(MN/m²)]	5.420	2.333
a_2 [mm/(MN²/m²)]	2.261	0
Ev [MN/m²]	92.0	241.1
Ev2/Ev1	2.62	

Remarks

MODULUS OF SUB-GRADE REACTION, Ks

$k_s = Ave/ks$ 104.0 MN/m³

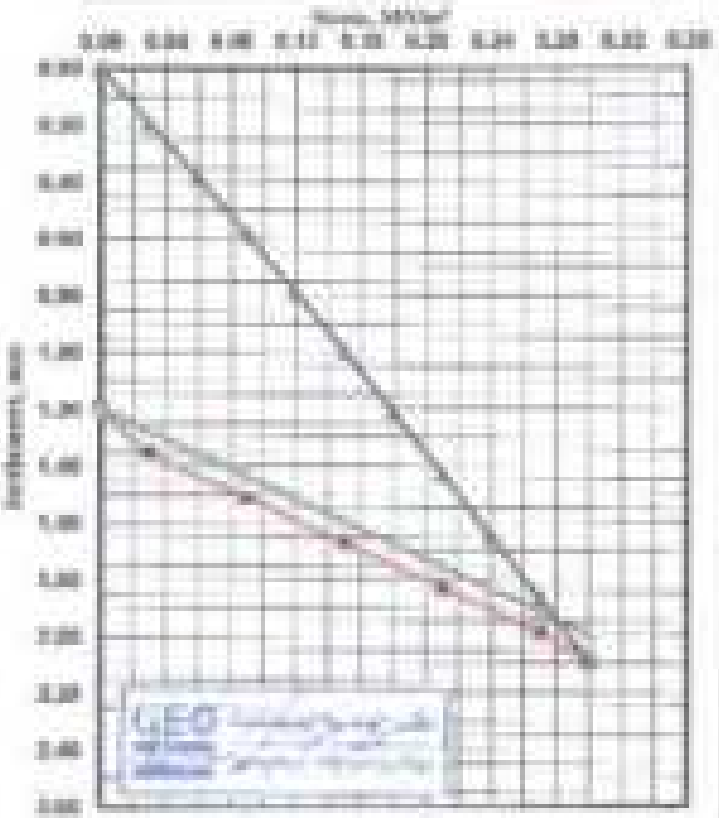
Horema L.L.C
Soil Investigation & Q.C.

Plate Load Tests of Soils
2015.1015

CLIENT	Sun Rise Company	TIME START	[illegible]
PROJECT	Electric Express Train	TIME FINISH	[illegible]
LOCATION	[illegible]	DATE	1-Apr-15
PLATE DIAMETER	75.1 [illegible]	LAB. REF.	[illegible]
PLATE THICKNESS	75.00		Note : Soil is Wet
TYPE OF SOIL	GRAVEL and SAND, [illegible]		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.10
0.06	0.38
0.09	0.58
0.12	0.80
0.15	1.00
0.18	1.21
0.21	1.43
0.24	1.65
0.27	1.87
0.30	2.08
0.27	1.86
0.21	1.63
0.15	1.37
0.09	1.11
0.03	0.85
0.00	0.58
0.03	0.88
0.06	1.36
0.09	1.44
0.12	1.53
0.15	1.61
0.18	1.68
0.21	1.76
0.24	1.84
0.27	1.92
0.30	2.00

STRESS VERSUS SETTLEMENT RELATIONSHIP CURVE



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
ΔSmax	0.30	0.30
a_1 [mm/(MN/m²)]	6.352	2.79
a_2 [mm/(MN²/m²)]	2.064	-0.348
Ev [MN/m²]	80.7	205.4
Ev2/Ev1	2.55	

Remarks

MODULUS OF SUB-GRADE REACTION, Ks

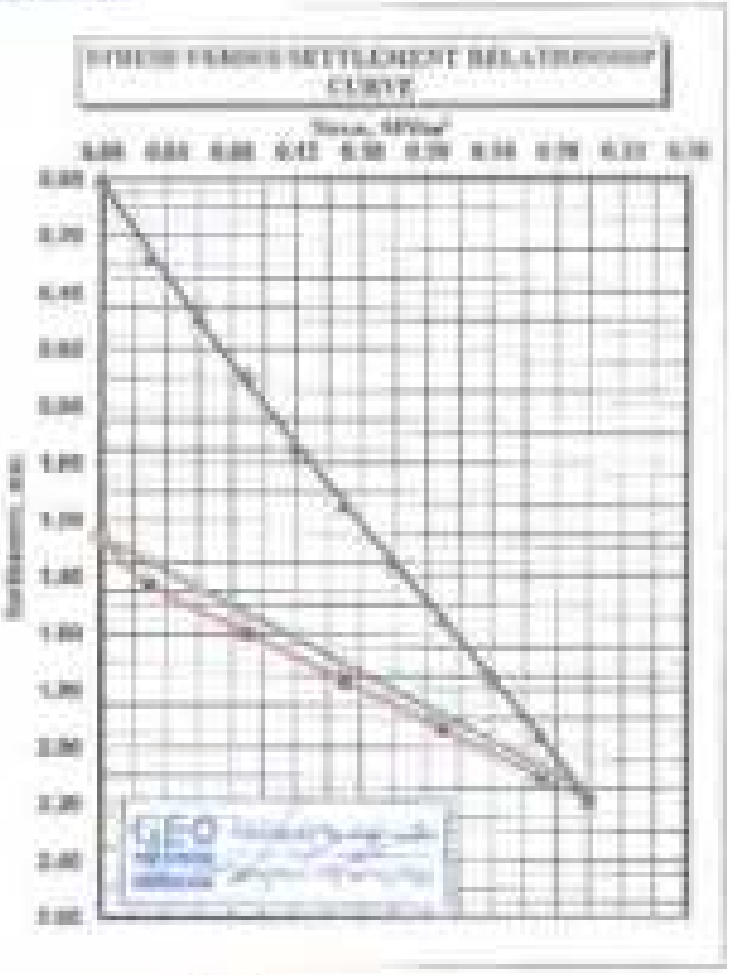
ks = 3a/3s 143.2 MN/m³

Horema LLC
Soil Investigation & G.C.

Plate Load Tests of Soils
[illegible]

AGENCY	Suez Rise Company	TIME START	[illegible]
PROJECT	Electric Express Train	TIME FINISH	[illegible]
LOCATION	[illegible]	DATE	[illegible]
PLATE Dia/ Sq	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (cm)	75.00		Note : Soil in Wet
TYPE OF SOIL	[illegible]		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.28
0.06	0.46
0.09	0.75
0.12	0.88
0.15	1.12
0.18	1.38
0.21	1.56
0.24	1.76
0.27	1.96
0.30	2.19
0.27	2.11
0.21	1.94
0.15	1.77
0.09	1.60
0.03	1.43
0.00	1.35
0.03	1.38
0.06	1.44
0.09	1.53
0.12	1.62
0.15	1.71
0.18	1.80
0.21	1.89
0.24	1.98
0.27	2.07
0.30	2.16



STRAIN MODULUS, Ev

	Loading	Unloading
Poisson	0.30	0.30
a_1 [mm/(MN/m²)]	7.327	3
a_2 [mm/(MN²/m²)]	0.951	0
Ev [MN/m²]	79.8	167.5
Ev2/Ev1	2.10	

Remarks

MODULUS OF SUB-GRADE REACTION, Ks

Ks = 3ro/Ss 136.6 MN/m³

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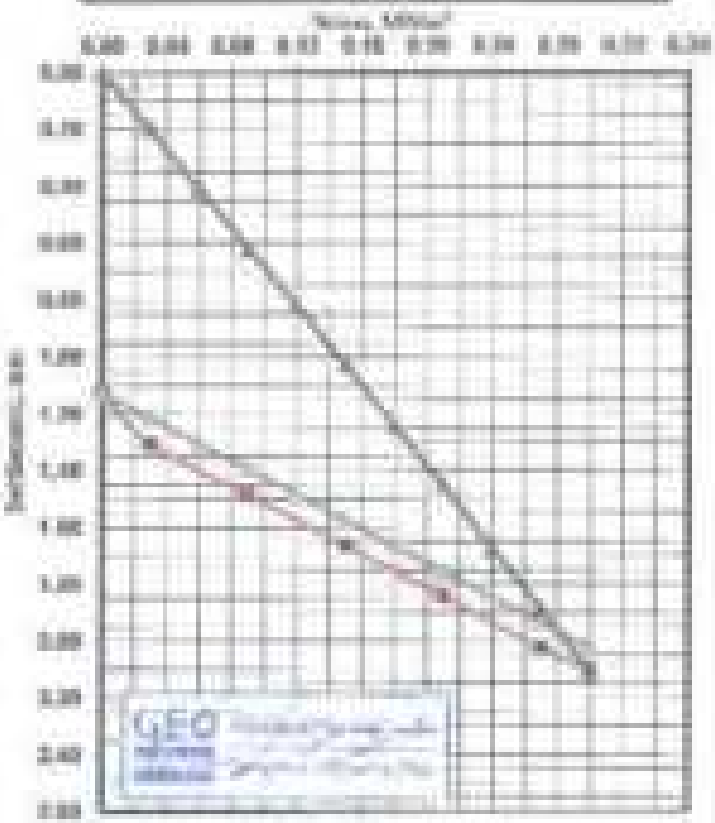
Plate Load Tests of Soils
[illegible]

CLIENT	Sun Bite Company	TIME START:	[illegible]
PROJECT:	Electric Engineer Trailer	TIME FINISH:	[illegible]
LOCATION	Al-Dhahna [illegible]	DATE	2-Apr-21
PLATE LOAD NO.	PLT-2	LAB. REF.	[illegible]
PLATE DIAMETER (mm)	75.00		** [Note : Soil is Wet
TYPE OF SOIL	GRAVEL and SAND, [illegible]		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.20
0.06	0.41
0.09	0.62
0.12	0.83
0.15	1.03
0.18	1.24
0.21	1.45
0.24	1.66
0.27	1.86
0.30	2.11
0.27	2.03
0.21	1.80
0.15	1.60
0.09	1.40
0.03	1.27
0.00	1.13
0.03	1.22
0.06	1.31
0.09	1.40
0.12	1.49
0.15	1.58
0.18	1.67
0.21	1.76
0.24	1.85
0.27	1.94
0.30	2.03

STRESS VERSUS SETTLEMENT RELATIONSHIP CURVE



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
CONST	0.30	0.30
a_1 [mm/(MN/m²)]	6.78	3
a_2 [mm/(MN²/m²)]	0.901	0
Ev [MN/m²]	50.0	167.0
Ev2/Ev1	3.34	

MODULUS OF SUB-GRADE REACTION, Ks

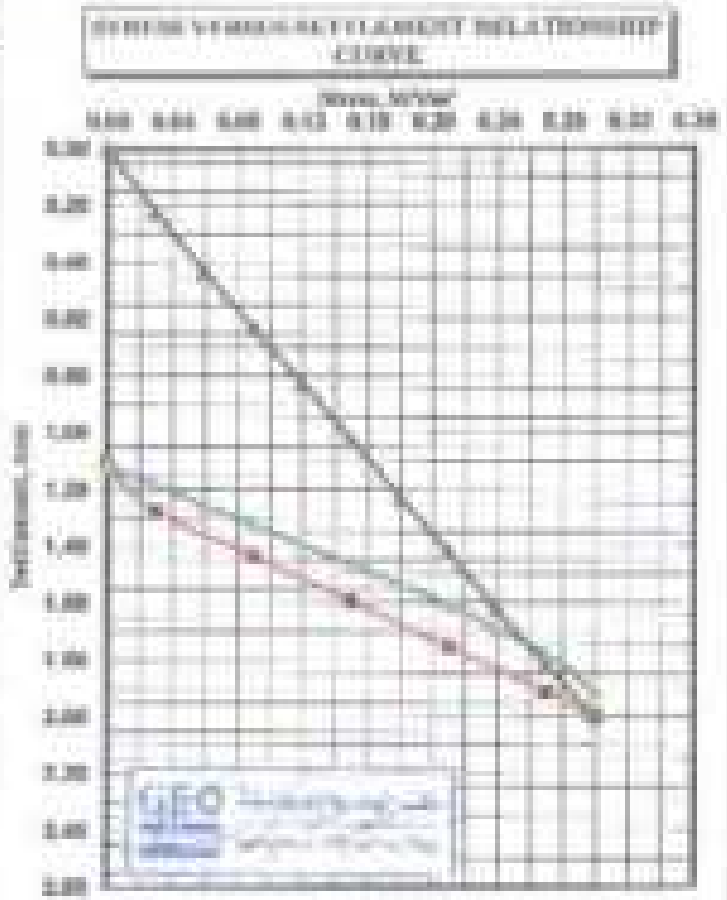
ks = 3ev/3a 142.4 MN/m³

Horema LLC
Soil Investigation & Q.C.

Plate Load Tests of Soils
[illegible]

CLIENT	Sun Rise Company	TIME START	[illegible]
PROJECT	Electric Express Train	TIME FINISH	[illegible]
LOCATION	Al-Rabwa [illegible]	DATE	[illegible]
PLATE LOAD NO.	[illegible]	LAB. REF	[illegible]
PLATE DIAMETER (cm)	[illegible]		
TYPE OF SOIL	GRAVEL and SAND, [illegible]		

Stress N/m²	Settlement mm
0.00	0.00
0.03	0.25
0.06	0.44
0.09	0.63
0.12	0.83
0.15	1.01
0.18	1.19
0.21	1.42
0.24	1.63
0.27	1.82
0.30	2.00
0.27	1.80
0.24	1.76
0.21	1.69
0.18	1.64
0.15	1.28
0.12	1.12
0.09	1.19
0.06	1.36
0.03	1.61
0.00	1.46
0.03	1.47
0.06	1.54
0.09	1.61
0.12	1.70
0.15	1.78
0.18	1.86



STRAIN MODULUS, Ev

	1 st loading	2 nd loading
D/30mm	0.30	0.30
a_1 [mm/(MN/m²)]	5.919	1.949
a_2 [mm/(MN²/m²)]	-0.022	2.005
Ev [MN/m²]	86.1	230.5
Ev2/Ev1	2.68	

Remarks

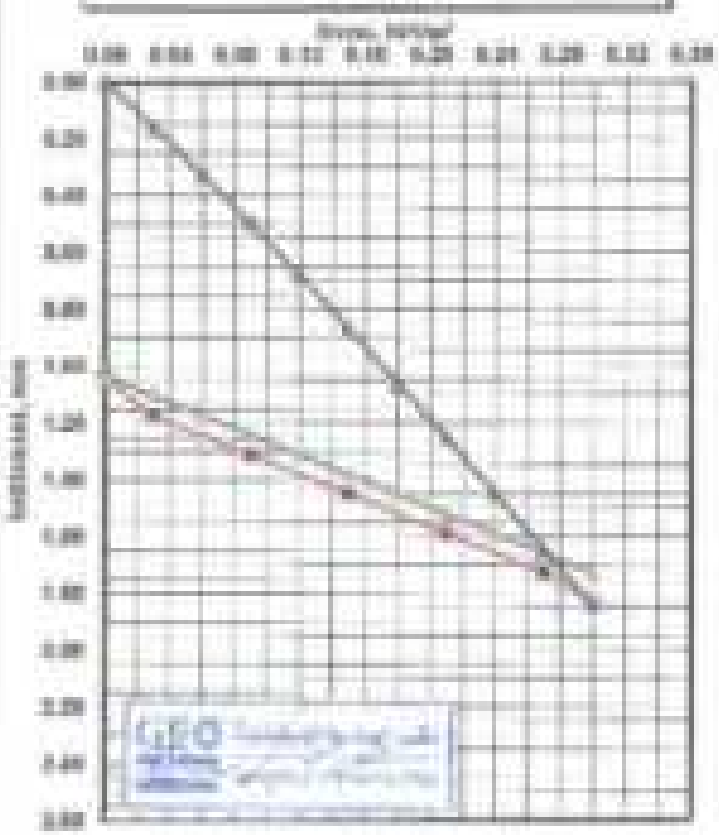
MODULUS OF SUB-GRADE REACTION, Ks

Ks = Ev/Ks 149.6 MN/m³

Plate Load Tests of Soils
DIN 18134

CLIENT	Sun Rise Company	TIME START:	[illegible]
PROJECT	Khadeja Express Train	TIME ENDED:	[illegible]
LOCATION	Al-Rahma ([illegible]) - [illegible] subgrade	DATE	[illegible]
PLATE LOAD (kN)	[illegible]	LAB. REF.	[illegible]
PLATE DIAMETER (mm)	[illegible]	** Rudy : Soil & Wet	
TYPE OF SOIL	[illegible] sand [illegible], some fines		

Stress MN/m²	Settlement mm
0.00	0.00
0.03	0.16
0.06	0.32
0.09	0.46
0.12	0.68
0.15	0.87
0.18	1.07
0.21	1.28
0.24	1.46
0.27	1.66
0.30	1.84
0.33	2.14
0.36	1.98
0.39	1.45
0.42	1.21
0.45	1.17
0.48	1.03
0.51	1.10
0.54	1.17
0.57	1.24
0.60	1.31
0.63	1.38
0.66	1.46
0.69	1.52
0.72	1.58
0.75	1.66
0.78	1.72



STRAIN MODULUS, Ev

	1st loading	2 nd loading
$\Delta\sigma_{max}$	0.30	0.30
a_v [mm/(MN/m²)]	5.561	2.333
a_v [mm/(MN/m²)]	2.138	0
Ev [MN/m²]	90.7	241.1
Ev2/Ev1	2.66	

Description

MODULUS OF SUB-GRADE REACTOR, Ks

Ks = Δσ/Δs 162.4 MN/m³

Alexandria University
Faculty of Engineering
Eng. Center for Coastal Service
Chem. Analysis Laboratory

جامعة الإسكندرية
كلية الهندسة
مركز الهندسي لخدمة الساحل
معمل التحليل الكيميائي

التحليل الكيميائي لعينات SUBGRADE

تاريخ ورود العينة: ٢٠٢٢/٩/١٢

الجهة الواردة منها العينات : شركة من زيو للمقاولات العمومية

مشروع القطار الكهربائي السريع (العلمين – قنوات) من كم 446+600 الى 451+100

نوع العينات : عينة ١

SUBGRADE (446+600 الى 449+600)

نتائج التحليل الكيميائي :

م	التحليل	%
١	فقد الحرق عند ٩٥٠ م°	٣٢,٥٠
٢	السيليكا الكلية	٢١,٦١
٣	الأملاح القابلة للذوبان	٠,٠٤٨
٤	الكلوريدات	٠,٠٢٥
٥	الكبريتات الذائبة	٠,٠٠٥
٦	الكبريتات الكلية	٠,٢٢
٧	الألومينا الطينية	٢,١٠
٨	أكسيد الكالسيوم	٣٦,٨٣
٩	أكسيد الماغنسيوم	١,٦٧

* وذلك دون أدنى مسئولية على المعمل من حيث الطريقة التي أخذت بها العينة أو الكيفية التي وصلت بها

القائم بالتحليل

د. أيمن عبد المنعم كامل

المشرف على التحليل

أ.د. أحمد أمين [illegible]

مدير معمل التحاليل الكيميائية

أ.د. أيمن محمد صبري الشاذلي

الإسكندرية ٢١٥٤٤ – جمهورية مصر العربية - ت: ٠٣/٥٥٥٥٥٥٠/٦/٧/٨/٩ ف: (٠٣)٥٩٢١٥٤٣
Alexandria 21544 – Egypt, Tel:(03)5555606/7/8/9 Fax: (03)592-1543

Alexandria University
Faculty of Engineering
Eng. Center for Consult. Service
Chem. Analysis Laboratory

جامعة الإسكندرية
كلية الهندسة
المركز الهندسي للاستشارات
معمل التحاليل الكيميائية

التحليل الكيميائي لعينات SUBGRADE

تاريخ ورود العينة: ٢٠٢٣/٩/١٢

الجهة الوارد منها العينات: شركة عين زاوز للمقاولات العمومية

مشروع القطار الكهربائي السريع (العلمين – مرسى مطروح) من كم 446+600 إلى 453+100

نوع العينات: عينة ٢

SUBGRADE (449+600 إلى 450+600)

نتائج التحليل الكيميائي:

م	التحليل	%
١	فقد الحرق عند ٩٥٠ م°	٣٣,٤١
٢	السيليكا الكلية	١٢,٩١
٣	الأملاح القابلة للذوبان	٠,٠٤٥
٤	الكلوريدات	٠,٠٥٥
٥	الكبريتات الذائبة	٠,٠٠٤
٦	الكبريتات الكلية	٠,٢٣
٧	الألومنيا القلوية	٢,٠٣
٨	أكسيد الكالسيوم	٣٩,٢٠
٩	أكسيد الماغنسيوم	٢,٠٠

- وإننا إذ نؤكد أقصى مسئولية على المعمل من حيث الطريقة التي أخذت بها العينة أو الكيفية التي أرسلت بها

القائم بالتحليل
د. أمينة عبد المنعم كامل

المشرف على التحليل
أ.د. أحمد أمين [illegible]

مدير معمل التحاليل الكيميائية
أ.د. أيمن محمد صبري الشاذلي

(الإسكندرية ٢١٥٤٤ – جمهورية مصر العربية – ت: ٠٣/٥٩٥٥٠٨٦/٧/٨/٩ ف: ٠٣/٥٩٢١٨٥٣)
Alexandria 21544 – Egypt, Tel:(203)5955086/7/8/9 Fax: (203)592-1853

التحليل الكيميائي لعينات مياه

التاريخ ووقت العينة: ٢٠٢٣/٦/١٣

اسم المشروع: مشروع القطار الكهربائي السريع – موقع: (٤٤٧٠٦٠٠ إلى ٤٥٢١٠٠٠)

الشركة المنفذة: شركة مترو رابر للمقاولات العمومية

نوع العينات: مياه – عينة ١ – من كم ٤٤٩٥٠٠٠ إلى ٤٥١٠٠٠٠

نتائج التحليل الكيميائي:

م	التحليل	%
١	فقد الحرق عند ٩٥٠ م°	٣٣,٧٠
٢	السيليكا الكلية	٢٦,٢٢
٣	الأملاح القابلة للذوبان	٠,٠٣٥
٤	الكلوريدات	٠,١١٦
٥	الكبريتات الذائبة	٠,١٠٤
٦	الكبريتات الكلية	٠,٢٠
٧	الألومينا القلوية	١,٤٠
٨	الجير الكلسيوم	٣٥,٧٠
٩	الجير الماغنسيوم	١,٦٧

- وإنك نود أنني مسئولة على العمل من حيث الطريقة التي أجريت بها فنيا أو الكيفية التي أرسلت بها

القائم بالتحليل

د. أدب عبد المنعم كامل

المشرف على التحليل

أ.د/ أحمد أمين رضوان

مدير معمل التحاليل الكيميائية

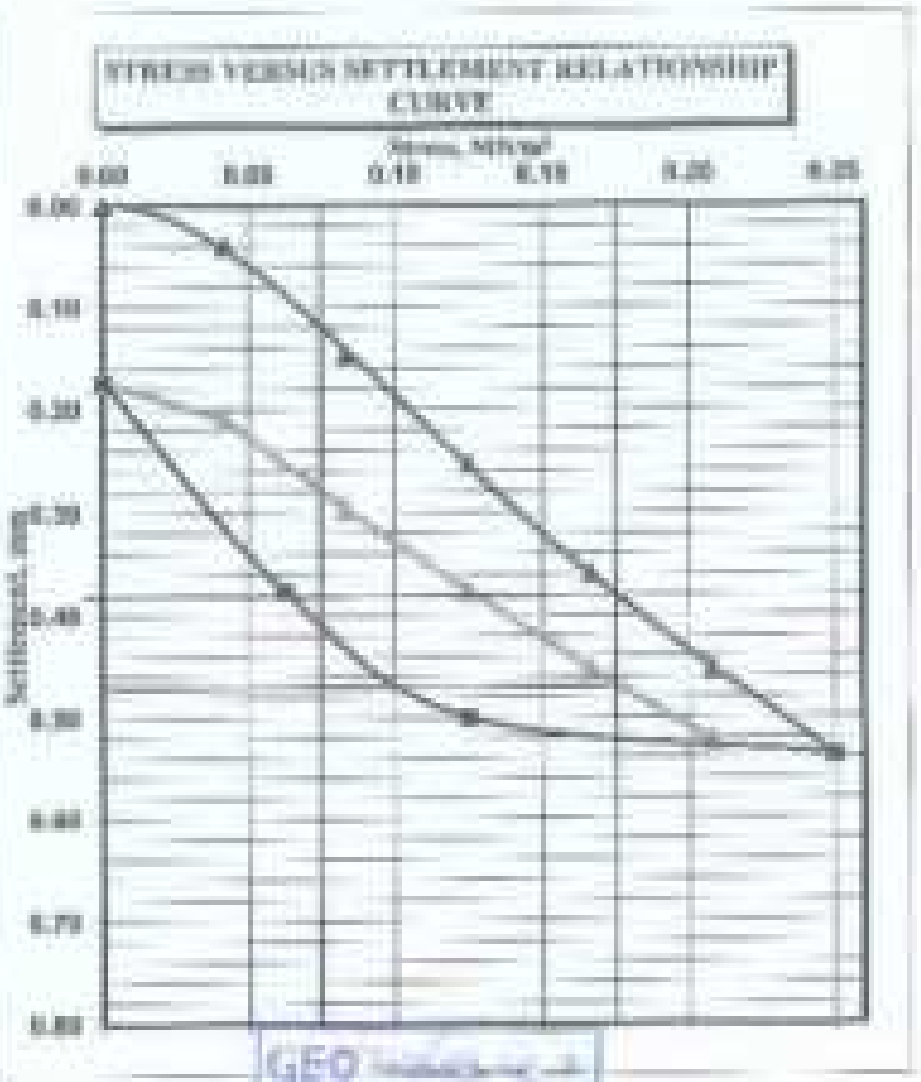
أ.د/ ايمن محمد سري الشاذلي

Horema LLC
Soil Investigation & G.E.

Plate Load Tests of Soils
DIN 18134

CLIENT	Sorfine	TYPE OF SOIL	(level +0.30m)
PROJECT	Electric Express Train	TIME START:	8:00 AM
LOCATION	Al-Dafna (419+430)x(499+477) (level +0.30m)	TIME FINISH:	9:30 AM
PLATE LOAD NO.	PL1- 39	DATE	9-Aug-21
PLATE DIAMETER (cm)	60.00	LAB. REF.	11031

Stress MN/m²	Settlement mm
0.00	0.00
0.04	0.04
0.08	0.15
0.13	0.25
0.17	0.36
0.21	0.45
0.25	0.54
0.13	0.50
0.08	0.38
0.03	0.17
0.04	0.21
0.08	0.30
0.13	0.38
0.17	0.45
0.21	0.52
0.25	0.58



0.3*σ(max)	0.075
0.7*σ(max)	0.175
S1 at 0.3*σ(max)	0.120
S2 at 0.3*σ(max)	0.200
S1 at 0.7*σ(max)	0.382
S2 at 0.7*σ(max)	0.470

STRAIN MODULUS, Ev

Ev1 [MN/m²]	173.08
Ev2 [MN/m²]	236.04
Ev2/Ev1	1.37

Accessories

1. Loading plates consists of 600 mm. The thickness of plates 20 mm
2. Dial gauges with accuracy 0.01 mm to measuring the settlement
3. Steel triangle frame with magnetic supports to fixed the dial gauges
4. Hydraulic jack with pump to transfer reactive loads to the loading plates
5. Proving Ring for plate load 250 KN

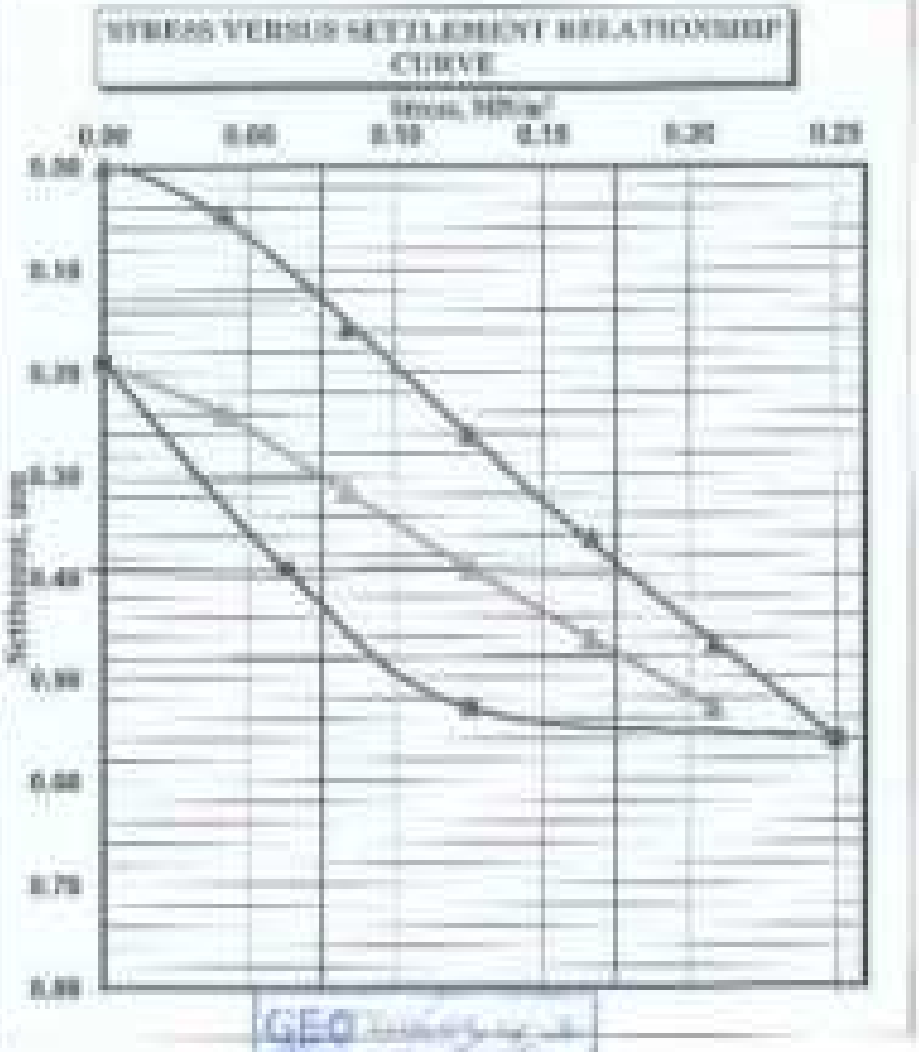
Horema Ltd
Soil Investigation & G.C.

Plate Load Tests of Soils
DIN 18134

CLIENT	[illegible]	TYPE OF SOIL	[illegible]
PROJECT	Elastic Express Train	TIME START:	6:00 AM
LOCATION	Al-Dahra ([illegible])	TIME FINISH:	7:30 AM
PLATE LOAD NO.	PLT-49	DATE	7-Aug-23
PLATE DIAMETER (cm)	60.00	LAB. REF.	11021

Stress MN/m²	Settlement mm
0.00	0.00
0.04	0.00
0.08	0.16
0.13	0.26
0.17	0.36
0.21	0.47
0.25	0.56
0.13	0.53
0.08	0.39
0.00	0.10
0.04	0.24
0.08	0.32
0.13	0.39
0.17	0.46
0.21	0.53
0.25	0.58

0.3*σ3max	0.075
0.7*σ3max	0.175
S1 at 0.3*σ3max	0.127
S2 at 0.3*σ3max	0.308
S1 at 0.7*σ3max	0.300
S2 at 0.7*σ3max	0.480



STRAIN MODULUS, Ev

Ev1 [MN/m²]	169.81
Ev2 [MN/m²]	250.00
Ev2/Ev1	1.47

Remarks:

1. Loading plates consists of 600 mm. The thickness of plates 20 mm
2. Dial gauges with accuracy 0.01 mm to measuring the settlement
3. Steel strong beams with magnetic supports to fixed the dial gauges
4. Hydraulic jack with pump to transfer reactive loads to the loading plates
5. Proving Ring for plate load 250 KN

[illegible]

التحليل الكيميائي لعينات سن

تاريخ ورود العينة: ١٢/٦/٢٠٢٢

اسم المشروع: مشروع النظام الكهربائي المدروج – مواقع (٤٤٢٠٦٠٠ إلى ٤٤٢٠٦٠٠)

الشركة المنفذة: شركة مس وبر للمقاولات العمومية

نوع العينات: سن – عينة ٢ – من كم ٤٤٢٠٦٠٠ إلى ٤٤٢٠٦٠٠٠

نتائج التحليل الكيميائي:

م	التحليل	%
١	فاقد الحرق عند ٩٥٠ °	٣٢,٧٠
٢	السيليكا الكلية	٢٨,٦٠
٣	الأملاح القابلة للذوبان	٠,٠٤٦
٤	الكلوريدات	٠,٠٩٦
٥	الكبريتات الذائبة	٠,٠٠٤
٦	الكبريتات الكلية	٠,١٢
٧	الأكاسيد القلوية	١,١٢
٨	أكسيد الكالسيوم	٣٥,٠٠
٩	أكسيد الماغنسيوم	٤,٦٢

- وكانت نوده أدنى مسئولية على التحليل من حيث الطريقة التي أجريت بها التجربة أو الكيفية التي وضعت بها

القائم بالتحليل

د. أميرة عبد الصمد كامل

المشرف على التحليل

أ.د. أسامة أمين رمضان

مدير معمل التحاليل الكيميائية

أ.د. أيمن محمد عزيز الشاذلي

Alexandria University
Faculty of Engineering
Eng. Center for Cement Service
Chem. Analysis Laboratory

جامعة الإسكندرية
كلية الهندسة
مركز الهندسة لخدمة الأسمنت
معمل التحليل الكيميائي

التحليل الكيميائي لعينات: سن

التاريخ ووقت العينة: ٢٠٢٢/٦/١٣

اسم المشروع: مشروع الغاز الكهربائي الجديد – موقع: (٥٤٧٥٦٠٠ إلى ٥٥١١٢٠٠)

الشركة المنفذة: شركة سن وتر للمقاولات العمومية

نوع العينات: سن – عينة ٢ – من كم ١٤٩٢٠٠٠ إلى ١٥٢٦٠٠٠)

نتائج التحليل الكيميائي:

م	التحليل	%
١	فقد الحرق عند ٩٥٠ م°	٣٣,٧٠
٢	السيليكا الكلية	٢٦,٣٢
٣	الأراضي القابلة للذوبان	٠,٠٣٥
٤	الكلوريدات	٠,٠١٦
٥	الكبريتات الذائبة	٢,٠٠٤
٦	الكبريتات الكلية	٠,٢٠
٧	الألومينا الطائرة	١,٤٠
٨	الحديد كأكسيد	٣٥,٧٠
٩	الحديد كأكسيد	١,٦٢

- وبذلك نود أننى مسئولية على العمل من حيث طريقة التي أخذت بها العينة أو الكيفية التي أرسلت بها

القائم بالتحليل

د. أ.م. عبد الرحمن كامل

المشرف على التحليل

أ.د. إبتسام أمين يعقوب

مدير معمل التحاليل الكيميائية

أ.د. أيمن محمد صبري الشناوي

الإسكندرية ٢١٥٤٤ – جمهورية مصر العربية – ت: ٩/٦/١٤/٦٠٣٥٩٢٥٥٥٠ ف: ٠٣٥٩٢١٨٥٣
Alexandria 21544 – Egypt, Tel:(003)(0)3/5926556/7/8/9 Fax: (003)(0)3-5921853

Alexandria University
Faculty of Engineering
Eng. Center for Consult. Service
Chem. Analysis Laboratory

جامعة الإسكندرية
كلية الهندسة
المركز الهندسي للخدمات
معمل التحليل الكيميائي

التحليل الكيميائي لعينات سن

تاريخ ورود العينة: ٢٠٢٢/٦/١٣

اسم المشروع: مشروع القطار الكهربائي السريع -- موقع: (٤٤٧١٦٠٠ الى ٥٥١١٦٠٠)

الشركة المنفذة: شركة سن وتر للمقاولات العمومية

نوع العينات: سن -- عينة ٦ -- من كم (٤٤٩٠٠٠٠ الى ٤٥٩٠٠٠٠)

نتائج التحليل الكيميائي:

م	التحليل	%
١	فقد الحرق عند ٩٥٠ م°	٣٣,٧٠
٢	السيليكا الكلية	٢٦,٢٢
٣	الأملاح القابلة للذوبان	٠,٠٢٥
٤	الكلوريدات	٠,٠٦٦
٥	الكبريتات القابلة	٠,٠٠٤
٦	الكبريتات الكلية	٠,٢٠
٧	الألومينا الحلازونة	٦,٤٠
٨	الأكسيد الكالسيوم	٣٥,٧٠
٩	الأكسيد الماغنسيوم	١,٦٧

- وإذا تم توجد أدنى مسئولية على المعمل من حيث الطريقة التي أجريت بها التجربة أو الكيفية التي ارتبطت بها

القائم بالتحليل

د. أ.م.د: عبد المنعم كامل

المشرف على التحليل

أ.د: أحمد أمين رحمتوط

مدير معمل التحاليل الكيميائية

أ.د: يحيى محمد عبد الشافي

الإسكندرية ٢١٥٤٤ -- جمهورية مصر العربية -- ت: ٢٠٣/٥٥٥٥٥٨٦/٧/٨/٩ ، ف: ٢٠٣/٥٩٢١٨٥٣
Alexandria 21544 -- Egypt, Tel:(203)5555586/7/8/9 Fax: (203)592-1853

W.Q.L

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

Chan Eda

W.Q.

THE CALIFORNIA BEARING RATIO (AASHTO DESIGNATION ...)

C.B.R =

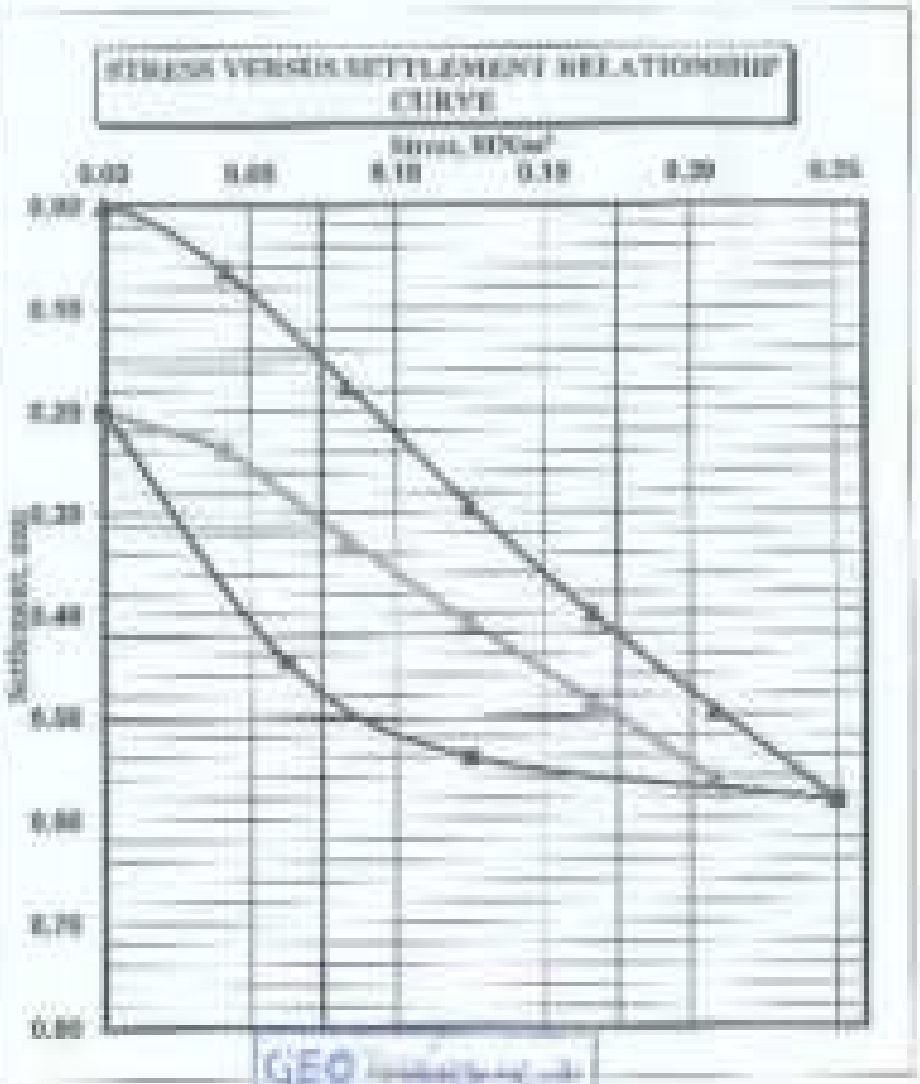
Horema Lab
Soil Investigation & Q.C.

Plate Load Tests of Soils
DIN 18134

CLIENT	Saudiac	TYPE OF SOIL	(level +0.10m)
PROJECT	Electric Express Train	TIME START:	6.00 AM
LOCATION	Al Dahna (411+800km/411+820) (level +0.10m)	TIME FINISH:	7.30 AM
PLATE LOAD NO.	PLT. 10	DATE	28-May-23
PLATE DIAMETER (mm)	600	LAB. REF.	11071

Stress MN/m²	Settlement mm
0.00	0.00
0.04	0.06
0.06	0.19
0.13	0.29
0.17	0.40
0.21	0.50
0.25	0.58
0.13	0.54
0.06	0.45
0.00	0.30
0.04	0.34
0.06	0.33
0.13	0.41
0.17	0.49
0.21	0.56
0.25	0.62

0.3*σ1max	0.075
0.7*σ3max	0.175
S1 at 0.3*σ1max	0.166
S2 at 0.3*σ1max	0.312
S1 at 0.7*σ1max	0.426
S2 at 0.7*σ1max	0.600



GEO

STRAIN MODULUS, Ev

Ev1 [MN/m²]	195.67
Ev2 [MN/m²]	230.36
Ev2/Ev1	1.44

Apparatus

1. Loading plates consists of 600 mm. The thickness of plates 25 mm
2. Dial gauges with accuracy 0.01 mm to measuring the settlement
3. Steel straightedges with magnetic supports to fixed the dial gauges
4. Hydraulic jack with pump to transfer required loads to the loading plates
5. Proving Ring for plate load 250 KN

الهيئة العامة
للطرق و الكبارى
(GARB)
وزارة النقل

محضر استلام موقع

مشروع: اعمال الجسر الترابي لمشروع القطار الكهربائي السريع
(العين السخنة – العاصمة الإدارية – العلمين – مطروح)
قطاع العلمين / فوكة
في المسافة من كم ٦٠٠+٤٤٨ الي كم ٨٥٠+٤٤٩ بطول ١,٢٥ كم
(المنطقة الخامسة – غرب الدلتا)

تنفيذ: شركة صن رايز للمقاولات العمومية
إشراف : المنطقة الخامسة – منطقة غرب الدلتا

طبقاً للعقد رقم (٢٠٢٤/٢٠٢٣/٤٢١) بتاريخ ٢٠٢٣/٩/٢٠

إنه في يوم الاربعاء الموافق ٢٠٢٣/٩/٢٠ حضر كل من:

١- السيد المهندس /محمد حسني فياض — مدير عام مشروعات - الهيئة العامة للطرق والكباري
٢- السيد المهندس /إبراهيم عبد الله الحناوي — مهندس العملية - الهيئة العامة للطرق والكباري
٣- السيد المهندس / سعيد رجب سعيد — مدير مشروع - شركة صن رايز للمقاولات العمومية

وذلك للمرور على مسار العملية المذكورة عالية لاستلام الموقع :-
وقد تبين أن الموقع خالياً من العوائق الظاهرية ويسمح بالبدء في التنفيذ وبناء عليه يعتبر تاريخ ٢٠٢٣/٩/٢٠ هو تاريخ استلام الموقع وبدء الأعمال بالعملية

واقفل المحضر على ذلك ووقع الحضور

التوقيعات

٣- سعيد رجب
٢-
١-

رئيس الإدارة المركزية
منطقة غرب الدلتا
الاسكندرية - مرسى مطروح
عميد . مهندس /
"هاني محمد محمود طه"
١٣/١١/٢٠٢٣

1314769

وثيقة تأمين جميع اخطار المقاولين

بموجب هذه الوثيقة تم الاتفاق بين شركة وثاق للتأمين التكافلي (المشار عنها فيما بعد بالشركة) والمشترك الوارد اسمه بجدول الوثيقة على ان تتعهد الشركة وفقا لشروط هذه الوثيقة ومقابل تمام سداد الاشتراك المبين بجدول وايصال الوثيقة بتعويض المشترك عن الخسائر والأضرار التي تحدث بسبب تحقق أي من الأخطار المغطاة الواردة بالوثيقة وذلك خلال المدة المبينة بهذه الوثيقة أو أي ملاحق لها وذلك في حدود الشروط والاشتراطات والاستثناءات الواردة بهذه الوثيقة.

جدول الوثيقة

رقم الوثيقة :	2187/2023	اصدار	
اسم المشترك/ اوالمشتركين :	شركه صن رايز للمقاولات العموميه		
العنوان :	شارع الحجاز القنطرة غرب - الاسماعيلية		
اسم المستفيد :	الهيئه العامه للطرق والكبارى		
اسم المقاولة :	تأمينا على عقد رقم (421 / 2023 / 2024) اعمال الجسر الترابي والاعمال الصناعية لمسار القطار الكهربائي السريع الخط الاول (العين السخنة - العاصمة الاداريه - العلمين - مطروح) قطاع (العلمين / فوكه) مراحل اعمال الحفر و التطهير و تشكيل الجسر و التاسيس و الاساس المسافة من الكم 448,600 الى الكم 449,850 بطول 1,250 كم		
موقع العمل :	(العلمين / فوكه)		
مدة التأمين :			
أ- بالنسبة للأعمال	بدأ التأمين في :	2023/09/20	
	وينتهي في :	2024/09/19	
ب- بالنسبة لأعمال الصيانة	تبدأ من :		
	وتنتهي في :		
مبلغ التأمين :	20,000,000.00	فقط عشرون مليونا جنيه مصري	
القسم الاول :	الاضرار المادية		
القسم الثاني :	المسئولية المدنية قبل الغير		

تحريرا في 20/09/2023

اسم المستخدم منه الله جمال

كود المنتج 23697 مصطفى محمد مصطفى

شركة وثاق للتأمين التكافلي - مصر

wethaq

1314770

تابع جدول وثيقة تأمين جميع اخطار المقاولين رقم : 2187/2023 اصدار

القسم الاول: الأضرار المادية		
البنود المؤمن عليها	مبلغ التأمين	التحمل عن كل حادث
1- أعمال المقاولة (الأعمال الدائمة والمؤقتة متضمنة جميع المواد المبينة فيما بعد) -	-	-
1-1 قيمة العقد -	20,000,000.00 جم	يتحمل المشترك الـ 20% من كل حادث بحد ادنى 100,000 جم
1-2 الأشياء والمواد التي يوردها صاحب أو أصحاب المشروع - مغطى ضمن مبلغ التامين	-	-
2- أدوات ومهمات التشييد - غير مغطى	-	-
3- آلات و معدات التشييد - غير مغطى	-	-
4 - إزالة الأنقاض - غير مغطى	-	-
اجمالي مبلغ التأمين للقسم الاول	20,000,000.00	

الأخطار الطبيعية	حدود التعويض(1)	التحملات
1- الزلازل / البراكين / الأعاصير 2- العواصف / الزوابع/ الفيضان / غمر المياه / إنزلاق وانهيار التربة - غير مغطى	-	-

(1) حدود التعويض لكل خسارة او ضرر او سلسلة من الخسائر او الأضرار الناشئة عن حادث واحد.

القسم الثاني: المسئولية المدنية قبل الغير		
البنود المؤمن عليها	حدود التعويض(2)	التحملات
1- الإصابات الجسمانية -	-	-
1-1 للشخص الواحد -	100,000.00	-
1-2 مهما كان عدد الأشخاص -	200,000.00	-
2- الأضرار المادية للممتلكات -	200,000.00	يتحمل المشترك الـ 20% من كل حادث بحد ادنى 40,000 جم
اجمالي التزام الشركة بموجب هذا القسم	400,000.00	

(2) حدود التعويض لكل حادث او سلسلة من الحوادث الناشئة عن واقعة واحدة.

تحريرا في 20/09/2023

اسم المستخدم منه الله جمال

شركة وثاق للتأمين التكافلي - مصر

wethaq

1314771

تابع جدول وثيقة تأمين جميع اخطار المقاولين رقم : 2187/2023 اصدار

حساب الاشتراك		
الاشتراك الصافي	1,806.00	جم
نصف الدمغة النسبية	99.33	جم
الضريبة النوعية	27.00	جم
مصاريف إصدار	51.42	جم
رسم الإشراف و الرقابة / ستة في الألف	10.84	جم
اشتراك صندوق حملة الوثائق / اثنان في الألف	3.61	جم
مقابل خدمات مراجعة و اعتماد / واحد في الألف	1.81	جم
اجمالي الاشتراك	2,000.00	جم

تحريرا في 20/09/2023

اسم المستخدم عبد الله جمال

شركة وثاق للتأمين التكافلي - مصر

1314772

يعتبر متمما لهذه الوثيقة طلب التامين الموقع عليه من المشترك.
و تعتبر الملاحق التالية و المذكورة فيما يلي والمرفقة جزءا لا يتجزء من هذه الوثيقة .

شركة وثاق للتأمين التكافلي - مصر

تحريرا في 20/09/2023
اسم المستخدم منه الله جمال

1314773

تابع جدول وثيقة تامين جميع اخطار المقاولين رقم : 2187/2023 اصدار

الشروط و التغطيات

يجب تخزين الالواح الخشبية بما في ذلك الدعامات وخلافة - في حالة استخدامها في اعمال الخرسانة بعيدا عن المبنى او المباني بمسافات كافية
يجب الاحتفاظ باجهزة مقاومة الحريق في الموقع وان تكون جاهزة للاستعمال الفوري و صـــالحة للاستخدام
يجب تدريب عدد كافي من العمال تدريبا كاملا على استخدام المعدات ويشترط تواجدهم باستمرار للتدخل الفوري
يجب تجنب استخدام عمليات اللحام والتقطيع في الاماكن المغلقة او التي يكون بها مواد قابلة للاشتعال
من المعلوم و المتفق عليه لا تسري تغطيه خطر السطو و / أو السرقه بالاكراه علي العدد و التشوينات و المؤمن عليها الا داخل المخازن فقط وبالاعتداء المسلح على الخفراء أو افراد الامن المكلفين بالحراسة
يشترط تعيين حراسة مسلحة بصفة دائمه طوال 24 ساعه على المخازن والا سقط حق المشترك في التعويض
من المعلوم و المتفق عليه و بناء على الشروط العامه لوثيقه جميع اخطار المقاولين ان الوثيقه تغطي خطري الحريق و السطو
شرط الإطلاع :
يقر المشترك بأنه اطلع على كافة شروط الوثيقة واستثناءاتها بعناية للتأكد من انها تفي باحتياجاته التأمينية قبل سدادها الذي يعتبر قبولا منه بكافة الشروط والاستثناءات.
انه في حالة وقوع حادث تغطيه هذه الوثيقة تدفع كافة التعويضات المستحقة لصالح الهيئه العامه للطرق و الكباري .
أنه لا يجوز إجراء أي تعديل أو تغيير او الغاء على هذه الوثيقة الا بعد أخذ موافقة كتابية من الهيئه العامه للطرق والكباري .
استثناء العنف السياسي والارهاب والتخريب والشغب والاضطرابات الاهليه والاضرابات العماليه والاخطار الطبيعية
استثناء الممتلكات القائمه والمحيطه بالمشروع وازالة الانقاض و الحطام
استثناء فيروس كورونا (مرفق)
استثناء الأمراض المعديه (مرفق)
المرفقات:
لا يعتد بالوثيقة بدون وجود رمز الاستجابة السريع "QR-CODE"
ملحق رقم 009استثناء الخسارة والضرر أو المسؤولية الناتجة عن الزلازل (مرفق)
ملحق رقم 010استثناء الخسارة أو الضرر أو المسؤولية الناشئة عن الفيضان أو غمر بالمياه (مرفق)
ملحق رقم 012استثناء الخسارة أو الضرر أو التلف أو المسؤولية الناتجة عن العواصف أو الرياح المحملة بالمياه (مرفق)
ملحق رقم 106التعويض الخاص بطوال الأقسام المنفذه (مرفق)

تحريرا في 20/09/2023

اسم المستخدم منه الله جمال

شركة وثاق للتأمين التكافلي - مصر

1314774

تابع جدول وثيقة تأمين جميع اخطار المقاولين رقم : 2187/2023 اصدار

الشروط والتغطيات

ملحق رقم 12 اشروط خاصة فيما يتعلق بوسائل مكافحة الحريق والامان من الحريق فى مواقع التشييد (مرفق)

تحريرا في 20/09/2023

اسم المستخدم منه الله جمال

شركة وثاق للتأمين التكافلي - مصر

www.wethaq-egypt.com E-mail:wethaq@wethaq-egypt.com www.facebook.com/wethaq

Head Office : 26 Moustafa st., Dokki - Giza
Mohandessen Branch : 20 Wadi el Nil st., Mohandessin - Giza
Nasr City Branch : 6 Abbas El Aqad st., Nasr City - Cairo
Alexandria Branch : 66 Fouad st., (El Horia Road) - Alexandria
Smouha Branch : 91 Fawzy Moaz Street, Smouha-Sid Gaber Station-Alex
El Mansoura Branch : Awad Ata Building 2, El Galish st., El Mansoura
Port said Branch : Block 3/A, Al Mounira and Mahmoud Badr Street - East Section - Alaab Tower above Abu Dhabi Bank - port Said
Ismailia Branch : Sheikh Street, Andalus Tower - Front of Financial Directorate
Port said Branch : Gamal Abdel Nasser Street - Agricultural Society Building, near to Sheikh Governorate
Damietta Branch : Corniche El Nile Fourth Section, Dumiat El Ritai Building, above U-Tech and Wafa Bank

الخط الساخن 19685

المركز الرئيسي : ٢٦ شارع مصدق - الدقي - الجيزة
فرع المهندسين : ٢٠ ش وادي النيل - المهندسين - الجيزة
فرع مدينة نصر : ٦ شارع عباس - العقاد - مدينة نصر - القاهرة
فرع الإسكندرية : ٨٨ شارع فؤاد (طريق الحرية) - الإسكندرية
فرع سموحة : ٩١شارع شارع فوزي معاذ - سموحه - قسم سيدي جابر-الاسكندرية
فرع المنصورة : عمارة عوض الله رقم ٢ ش الجيش أعلى البنك المصري الخليجي - المنصورة
فرع بورسعيد : قطعة ٣/أ شارع المأمون ومحمود صدقي - قسم الشرق- برج العلا أعلى مصرف أبو ظبي - بورسعيد
فرع الإسماعيلية : شارع شبين برج الأندلس - أمام المديرية المالية
فرع الزقازيق : ش جمال عبد الناصر مبنى الجمعية الزراعية بجوار مبنى محافظة الشرقية
فرع دمياط : شقة رقم ٢ الدور الرابع عمارة الرتاعي أعلى بنك كورنيش النيل - دمياط

1314775

مرفقات وثيقة تأمين جميع اخطار المقاولين 2187/2023 اصدار

المرفقات

* تعتبر الشروط العامه المعتمده من الهيئه العامه للرقابه الماليه لوثيقة جميع اخطار المقاولين و الملاحق التاليه المرفقة جزءا لا يتجزء من هذة الوثيقة .

* شرط استثناء فيروس كورونا
هذا التأمين لا يغطي أية مطالبات بالتعويض بأي حال عن أي ضرر وقع بسبب أو نتج عن:
أ) فيروس كورونا (COVID-19)
ب) فيرو س كورو نا المرتبط بالمتلازمة التنفسية الحادة الشديدة النوع (SARS-COV-2)
ج) أي تحويرات أو تغيرات او سلالة تنشأ عن فيرو س كورونا المرتبط بالمتلازمة التنفسية الحادة الشديدة النوع (SARS-COV-2)
د) اي خسائر مالية نتيجة خوف و/أو تهديد من جراء ما سبق اعلاه .

* شرط إستثناء الأمراض المعديه
من المعلوم والمتفق عليه انه بغض النظر عن اي من الشروط و الاستثناءات و الاحكام و الاشتراطات المنصوص عليها في هذه الوثيقة او اي من ملاحقها . فانه يستثنى كافة الخسائر والاضرار و فقد الايراد و/او فقد الأيراد الطارئ و التكاليف المتعلقة و الناتجة بشكل مباشر او بشكل غير مباشر من تفشي عدوي و/او أمراض المعديه بما في ذلك حالات التلوث و/او اعمال التطهير و/او اعمال التعقيم او اي قرارات صادرة من سلطات قانونية فيما يتعلق بالاغلاق و/او التقييد و/او منع الوصول عند التعامل مع تفشي هذه الأمراض المعديه .

* ملحق رقم 009استثناء الخسارة والضرر أو المسؤولية الناتجة عن الزلازل
من المعلوم والمتفق عليه ، ومع عدم الاخلال بالشروط والاستثناءات والاحكام والاشتراطات المنصوص عليها في الوثيقة او الملحقة بها ، أن الشركة ليست مسئوله عن تعويض المشترك عن الخسارة أو الضرر او المسئوليه المباشرة او غير المباشرة المتسببة من أو الناتجة عن الزلازل .

* ملحق رقم 010استثناء الخسارة أوالضرر أو المسؤلية الناشئة عن الفيضان أو غمر بالمياه
من المعلوم والمتفق عليه ، ومع عدم الاخلال بالشروط والاستثناءات والاحكام والاشتراطات المنصوص عليها في الوثيقة أو الملحقة بها ، أن الشركة ليست مسئوله عن تعويض المشترك عن الخسارة أو التلف أو المسئوليه المباشرة او غير المباشرة المتسببة من أو الناتجة عن الفيضان أو غمر المياه.

* ملحق رقم 012إستثناءالخسارة او الضرر أو التلف او المسؤولية الناتجة عن العواصف او الرياح المحملة بالمياه
من المعلوم والمتفق عليه أن الشركة لن تعوض المشترك عن الخسارة او التلف او المسئولية المباشرة او غير المباشرة الناشئة من او الناتجة عن العواصف التي تعادل او تزيد عن 8 درجات على مقياس بورفورت (بمعنى أن تتجاوز سرعة الرياح على 62 كم/ساعة) أو اي خسارة او تلف بسبب المياه المصاحبة او الناشئة عن تلك العواصف .

* ملحق رقم 106التعويض الخاص بأطوال الأقسام المنفذه
من المعلوم والمتفق عليه ، ومع عدم الإخلال بالشروط و الإستثناءات و الأحكام و الإشتراطات المنصوص عليها في الوثيقه أو الملحقه بها ، فإن الشركه سوف تقوم بتعويض المشترك فقط عن أي تلف أو خساره أو مسئوليه تحدث مباشره أو غير مباشره الجسور و القواطع و الشدات والمصارف و القنوات واعمال الطرق قد انشئت على أقسام لا تتعدى في مجموعها الأطوال المحدده ادناه ، وذلك بغض النظر عن حالة إتمام الأعمال المؤمن عليها ، ويكون التعويض عن أي حادث محددا

تحريرا في 20/09/2023

اسم المستخدم منه الله جمال

شركة وثاق للتأمين التكافلي - مصر

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مرفقات وثيقة تأمين جميع اخطار المقاولين 2187/2023 اصدار

بمصاريف إصلاح تلك الأقسام .
الحد الأقصى لطول القسم 250 متر ، وبحد اقصى 3 اقسام ويتم العمل فيها في نفس الوقت.

* ملحق رقم 12 الشروط خاصة فيما يتعلق بوسائل مكافحة الحريق والامان من الحريق في مواقع التشييد
انه من المعلوم والمتفق عليه ومع عدم الاخلال بالشروط والاستثناءات والاحكام والاشتراطات المنصوص عليها في الوثيقة او الملحقة بها وفيما عدا ذلك .
فان الشركة سوف تقوم بتعويض المشترك عن الخسارة او التلف المتسبب بصفة مباشرة او غير مباشرة عن الحريق او الانفجار وذلك فقط باشتراط مايلي :-
1) توافر معدات مكافحة الحريق المناسب ووسائل الاطفاء الكافية الصالحة للتشغيل في جميع الاوقات مع تقدم العمل .
2) ان يكون هناك خط مواسير مياه حريق جاهزة في وضع التشغيل الكامل ممدود حتى المستوى الاقل مباشرة من المستوى الجاري العمل به وان يكون مغلق باغطية مؤقتة .
3) ان يتم فحص الصناديق المحتوية على بكرات خراطيم الحريق وطفايات الحريق اليدوية على فترات منتظمة وبما لايقل عن مرتين كل اسبوع .
4) ان يتم تركيب قواصل منع انتشار الحريق المطلوبة وفقا للانظمة المحلية باسرع مايمكن بعد ازالة الشدات المستخدمة في الانشاء .
5) ان يتم الغلق المؤقت لفتحات ابيار المصاعد ، انابيب الخدمات واى فراغات اخرى باسرع مايمكن وبما لا يجاوز البدء في اعمال التجهيزات .
6) ان يتم ازالة المخلفات بانتظام – ازالة المخلفات القابلة للاشتعال من جميع الادوار التي يتم تجهيزها وذلك في نهاية كل يوم عمل .
7) اتباع نظام (التصريح بالعمل) لجميع المقاولين المتعاقدين على (اعمال ينشأ عنها لهب) من اى نوع مثل :-
- عمليات الجلخ ، التقطيع ، اللحام .
- استخدام لمبات اللحام الغازية او الكهربائية .
- استعمال البيتومين الساخن .
- او اى عمليات اخرى ينتج عنها سخونة .
8) يتم تنفيذ العمل الحرارى فقط بوجود عامل على الاقل مزود بطفاية حريق ومدرب على مكافحة الحريق على ان يتم فحص منطقة هذه الاعمال التي ينشأ عنها لهب بعد انتهاءها بساعة .
9) عند تخزين المواد المستخدمة في التشييد او التركيب يتم تقسيمها الى وحدات تخزين لاتتجاوز القيمة المبينة ادناه لكل وحدة تخزين .
10) كل وحدة تخزين مستقلة يجب ان تفصل بما لايقل عن خمسين متر او ان تفصل بحوائط مقاومة للحريق .
11) يتم تخزين جميع المواد القابلة للاشتعال وخاصة السوائل او الغازات القابلة للاشتعال في مكان يبعد مسافة كبيرة مناسبة من الممتلكات تحت الانشاء او التركيب او اى اعمال ينشأ عنها لهب .
12) تعيين منسق امان بالموقع .
13) تركيب نظام يعتمد عليه للانذار من الحريق مع تجهيز وصلة اتصالات مباشرة مع اقرب مركز اطفاء حريق متى امكن ذلك .
14) تنفيذ خطة حماية من الحريق وخطة مواجهة الحريق بالموقع عند وقوع حريق مع تحديثها بانتظام .
15) ان يكون قد تم تدريب عمال المقاول على مكافحة الحريق وان تتم التدريبات العملية اسبوعيا.
16) ان يكون اقرب مركز اطفاء للحريق على دراية بموقع المشروع وان تكون هناك مداخل جاهزة له في جميع الاوقات .
17) ان يحاط الموقع بسور وتكون المداخل تحت المراقبة .
قيمة كل وحدة تخزين : 125.000 جم .

شركة وثاق للتأمين التكافلي - مصر

تحريرا في 20/09/2023
اسم المستخدم منه الله جمال

مطالبة سداد

1314777

نوع الاصدار اخطار الهندسي اصدار

:

وثيقة رقم 2187/2023 نوع التأمين : جميع اخطار المقاولين

الفرع المركز الرئيسي ملحق رقم :

إسم المشترك : شركه صن رايز للمقاولات العموميه

العنوان : شارع الحجاز القنطرة غرب - الاسماعيلية

لصالح : الهيئه العامه للطرق والكبارى

مدة التأمين : من : 20/09/2023

الى: 19/09/2024

العملة : جم

مبلغ التأمين : 20,000,000.00

فقط عشرون مليونا جنيه مصري

الاشتراك	:	1,806.00	جم
نصف الدمغة النسبية	:	99.33	جم
مصاريف الاصدار	:	51.42	جم
الضريبة النوعية	:	27.00	جم
رسم الإشراف و الرقابة / ستة في الألف	:	10.84	جم
اشتراك صندوق حملة الوثائق / أثنان في الألف	:	3.61	جم
مقابل خدمات مراجعة و اعتماد / واحد في الألف	:	1.81	جم
إجمالي الاشتراك	:	2,000.00	جم

(فقط ألفان جنيه مصري)

تحريرا في 20/09/2023

اسم المستخدم منه الله جمال

كود المنتج 23697 مصطفى محمد مصطفى

شركة وثاق للتأمين التكافلي - مصر

قيمة العمولات الأساسية قبل الاستقطاعات 90.30 5 %

1339009

جدول وثيقة تأمين الحوادث الشخصية

رقم الوثيقة : 1847/2023 اصدار فرع الاصدار : المركز الرئيسي

اسم المشترك : شركه صن رايز للمقاولات السوميه

العنـــوان : شارع الحجاز القنطرة غرب - الاسماعيلية

المستفيد : الهيئه العامه للطرق والكباري

التغطية التأمينية : تأمينا على عدد 4 افراد غير محددي الاسماء مقسمين كالاتي(عدد 1مهندس + عدد 1مساعد مهندس +عدد 1سائق معدة + عدد 1عامل) عاملين لدي المشترك , بإجمالي مبلغ تامين وقدره 130,000 جم (مائة وثلاثون الف جنيه مصري فقط لاغير) بواقع 75,000 جم (خمسة وسبعون الف جنيه مصري لاغير) للمهندس , 30,000 جم(ثلاثون الف جنيه مصري لاغير) لمساعد المهندس، 15,000 جم (خمسة عشر الف جنيه مصري لاغير) لسائق المعدة، 10,000 جم (عشرة الاف جنيه مصري لاغير)للعامل, وذلك ضد خطر (الوفاة + العجز الكلي والجزئي المستديم)نتيجة حادث وذلك اثناء وبسبب قيامهم بأعمالهم داخل موقع العمل فقط "من تنفيذ اعمال مشروع عقد رقم (421 / 2023 / 2024) اعمال الجسر الترابي والاعمال الصناعية لممر القطار الكهربائي السريع الخط الأول (العين السخنة - العاصمة الاداريه - العلمين - مطروح) قطاع (العلمين / فوكه) مراحل اعمال الحفر و التطهير و تشكيل الجسر و التأسيس و الاساس المسافة من الكم 448,600 الي الكم 449,850 بطول 1.250 كم والمتمثل عليه بموجب وثيقة جميع أخطار المقاولين رقم 2187/2023 والمصدرة من شركة وثاق للتأمين التكافلي - مصر.

مدة التأمين

من : 20/09/2023

الى : 19/09/2024

حساب الأشتراك

الإشتراك الصافي :	430.00	جم
نصف الدمغة النسبية :	4.30	جم
الضريبة النوعية :	11.60	جم
مصاريف الاصدار	50.23	جم
رسم الأشراف و الرقابة / مئة في الألف :	2.58	جم
اشتراك صندوق حماية الوثائق/ اثنان في الألف :	0.86	جم
مقابل خدمات مراجعة و اعتماد / واحد في الألف :	0.43	جم
اجمالي الاشتراك فقط خمسمائة جنيه مصري	500.00	جم

حدود التغطية :-

التغطية	الحدود للفرد
الوفاة نتيجة حادث	طبقا لحدود التغطية الواردة بالتغطية التأمينية لكل فرد
العجز الكلي المستديم نتيجة حادث	طبقا لحدود التغطية الواردة بالتغطية التأمينية لكل فرد
العجز الجزئي المستديم نتيجة حادث	طبقا للنسبة الواردة بالشروط العامة للوثيقة
العجز الكلي المؤقت نتيجة حادث	غير منطبق
ارجاع النفقات الطبية نتيجة حادث	غير منطبق

الحد الأقصى الذي تلتزم به الشركة عن الحادث الواحد (مهما بلغ عدد الأشخاص) :- 130,000.00 جم فقط مائة و ثلاثون ألفا جنيه مصري

الحد الأقصى الذي تلتزم به الشركة خلال مدة التأمين :- 130,000.00 جم فقط مائة و ثلاثون ألفا جنيه مصري

تحريرا في : 20/09/2023

تاريخ الطباعة : 20/09/2023

إعداد: ندى محمد قيم احمد

كود المنتج: 23687 مصطفى محمد مصطفى

مرفقات هذه الوثيقة :
أ - الشروط العامة للوثيقة .
ب - تابع لجدول الوثيقة .

شركة وثاق للتأمين التكافلي - مصر

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الخط الساخن 19685

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Nasr City Branch : 8 Abbas El Aqad st., Nasr City - Cairo
Alexandria Branch : 88 Fouad st., (El Horia Road) - Alexandria
Smouha Branch : 90 Fawzy Moaz Street - Smouha-Sid Gaber Station Alex
El Mansoura Branch : Awad Alla Building 2, El Gaish st., El Mansoura
Port said Branch : Block 3 / A, Al-Mamoun and Mahmoud Sadq Street - East Section-Alaala Tower above Abu Dhabi Bank - port Said
Ismailia Branch : Shebin Street, Andalus Tower - Front of Financial Directorate
Port said Branch : Gamal Abdel Nasser Street - Agricultural Society Building, next to Sharkia Governorate
Damietta Branch : Cornish El Nile Fourth Section,Damiat,El Rifai Building, above E-Tech and Wala Bank

المركز الرئيسي : ٢٥ شارع مصدق - الدقي - الجيزة
فرع المهندسين : ٢٠ ش وادي النيل - المهندسين - الجيزة
فرع مدينة نصر : ٦ شارع عباس العقاد مدينة نصر - القاهرة
فرع الإسكندرية : ٨٨ شارع فؤاد (طريق الحرية) - الإسكندرية
فرع سموحة : ٩٠ شارع شارع فوزي معاذ -سموحة- قسم سيدي جابر-الاسكندرية
فرع المنصورة : عمارة عوض الله رقم ٢ ش الجيش أعلى البنك المصري الخليجي - المنصورة
فرع بورسعيد : قطعة ٣/أ شارع المأمون ومحمود صدقي - قسم الشرق- برج الصدا أعلى مصرف أبو ظبي - بورسعيد
فرع الإسماعيلية : شارع شبين برج الأندلس - أمام المديرية المالية
فرع الزقازيق : ش جمال عبد الناصر مبنى الجمعية الزراعية بجوار مبنى محافظة الشرقية
فرع دمياط : شقة رقم ٢ الدور الرابع عمارة الرفاعي اعلى بنك كورنيش النيل - دمياط

1339010

تابع جدول وثيقة تأمين الحوادث الشخصية رقم 1847/2023 اصدار

الشروط والتغطيات

الشروط الخاصة

- يشترط ألا يقل عمر المؤمن عليهم عن18عام ولا يزيد عن65عام .
- يتعين على المشترك الاطلاع على كافة شروط الوثيقة واستثناءاتها بعناية للتأكد من أنها تفي باحتياجاته التأمينية قبل سدادها ويعتبر سداده للوثيقة بمثابة قبولا منه بكافة شروط وأحكام الوثيقة .
- يشترط أن يكون عدد الأفراد الفعلي داخل موقع العمل لا يتعدى عدد الأفراد المؤمن عليهم بالوثيقة وإلا سقط حق المشترك في التعويض
- تقتصر التغطية التأمينية للسادة المؤمن عليهم داخل موقع العمل فقط وأثناء تنفيذ المشروع المشار إليه والموضح تفاصيله بجدول الوثيقة
- يتعين أن يتخذ المشترك كافة الاحتياطات والاشتراطات لضمان سلامة أرواح المؤمن عليهم
- في حالة الوفاة نتيجة حادث مغطى تدفع كافة التعويضات لصالح الورثة الشرعيين
- يشترط وجود علاقة عمل تربط بين السادة المؤمن عليهم والمشترك.
- لا يعتد بالوثيقة بدون وجود رمز الاستجابة السريع "QR-CODE"

الإستثناءات

- استثناء الأخطار السياسية .
- استثناء فيروس كورونا (مرفق)
- استثناء الأمراض المعديه (مرفق)

تحريرا في : 20/09/2023

تاريخ الطباعة : 20/09/2023

إعداد: ندى محمد فهيم احمد

كود المنتج: 23697 مصطفى محمد مصطفى

شركة وثاق للتأمين التكافلي - مصر

www.wethaq-egypt.com E-mail:wethaq@wethaq-egypt.com www.facebook.com/wethaq

Head Office : 25 Mossadak st., Dokki - Giza
Mohandessen Branch : 20 Wadi el Nil st., Mohandessen - Giza
Nasr City Branch : 5 Abbas El Aqad st., Nasr City - Cairo
Alexandria Branch : 68 Fouad st., (El Horia Road) - Alexandria
Smouha Branch : 59 Fawzy Moaz Street, Smouha-Sidi Gaber Station Alex
El Mansoura Branch : Awad Alla Building 2, El Galish st., El Mansoura
Port said Branch : Block 3/1 A, Al-Maamun and Mahmoud Sedky Street - East Section, Asala Tower above Abu Dhabi Bank - port Said
Ismailia Branch : Shebin Street Andalus Tower - Front of Financial Directorate
Port said Branch : Gamal Abdel Nasser Street - Agricultural Society Building, next to Sharia Governorate
Damietta Branch : Corniche El Nile Fourth Section,Dumiatt,El Rifai Building, above B-Tech and Wafa Bank

مركز الخدمة 19685

المركز الرئيسي : ٢٥ شارع مصدق - الدقي - الجيزة
فرع المهندسين : ٢٠ ش وادي النيل - المهندسين - الجيزة
فرع مدينة نصر : ٥ شارع عباس - العقاد مدينة نصر - القاهرة
فرع الإسكندرية : ٦٨ شارع فؤاد (طريق الحرية) - الإسكندرية
فرع سموحة : ٥٩ شارع شارع فوزي معاذ - سموحة - قسم سيدي جابر - الإسكندرية
فرع المنصورة : عمارة عوض الله رقم ٢ ش الجيش أعلى البنك الأهلي الخليجي - المنصورة
فرع بورسعيد : قطعة ٣/أ شارع المأمون ومحمود صدقي - قسم الشرق - برج السفا أعلى مصرف أبو ظبي - بورسعيد
فرع الإسماعيلية : شارع شبين برج الأندلس - أمام المديرية المالية
فرع الزقازيق : ش جمال عبد الناصر مبنى الجمعية الزراعية بجوار مبنى محافظة الشرقية
فرع دمياط : شقة رقم ٢ الدور الرابع عمارة الرفاعي أعلى بي تك كورنيش النيل - دمياط

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مرفقات وثيقة تأمين الحوادث الشخصية رقم 1847/2023 اصدار

1339011

- شرط إستثناء الأمراض المعديه

من المعلوم والمتفق عليه انه بغض النظر عن أي من الشروط و الاستثناءات و الاحكام و الاشتراطات المنصوص عليها في هذه الوثيقة او اي من ملاحقها , فانه يستثنى كافة الخسائر والاضرار و فقد الايراد و/او فقد الايراد الطارئ و التكاليف المتعلقة و الناتجة بشكل مباشر او بشكل غير مباشر من تفشي عدوي و/او أمراض المعديه بما في ذلك حالات التلوث و/أو اعمال التطهير و/أو اعمال التعقيم او أي قرارات صادرة من سلطات قانونية فيما يتعلق بالاغلاق و/او التقييد و/او منع الوصول عند التعامل مع تفشي هذه الأمراض المعديه .

- شرط أستثناء فيروس كورونا

هذا التامين لا يغطي أية مطالبات بالتعويض بأي حال عن أي ضرر وقع بسبب أو نتج عن:

أ) فيروس كورونا (COVID-19)

ب) فيروس كورونا المرتبط بالمتلازمة التنفسية الحادة الشديدة النوع (SARS-COV-2)

ج) أي تحويرات أو تغيرات او سلالة تنشأ عن فيروس كورونا المرتبط بالمتلازمة التنفسية الحادة الشديدة النوع (SARS-COV-2)

د) أي خسائر مالية نتيجة خوف و/أو تهديد من جراء ما سبق أعلاه .

تحريرا في : 20/09/2023

تاريخ الطباعة : 20/09/2023

إعداد: ندى محمد فهيم أحمد

كود المنتج: 23697 مصطفى محمد مصطفى

شركة وثاق للتأمين التكافلي - مصر

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Head Office : 25 Moneim st., Dokki - Giza
Mohandessen Branch : 20 Wadi el Nil st., Mohandessen - Giza
Naser City Branch : 6 Abbas El Aqad st., Naser City - Cairo
Alexandria Branch : 58 Fouad st., (El Horia Road) - Alexandria
Smouha Branch : 10 Fawzy Moaz Street -Smouha-Sidi Gaber Station Area
El Mansoura Branch : Awad Alla Building 2, El Gaish st., El Mansoura
Port said Branch : Block 3 / A, Al-Mamoun and Mahmoud Sedqi Street - East Section - Alalfi Tower above Abu Dhabi Bank - port Said
Ismailia Branch : Shobin Street Andalus Tower - Front of Financial Directorate
Port said Branch : Gamal Abdel Nasser Street - Agricultural Society Building, next to Sveskia Governorate
Damietta Branch : Corniche El Nile Fourth Section,Dunieil,El Rifai Building, above U-Tech and Wafa Bank

خط الساخن 19685

المركز الرئيسي : ٢٥ شارع منعم - الدقي - الجيزة
فرع المهندسين : ٢٠ ش وادي النيل - المهندسين - الجيزة
فرع مدينة نصر : ٦ شارع عباس - العقاد مدينة نصر - القاهرة
فرع الإسكندرية : ٥٨ شارع فؤاد (طريق الحرية) - الإسكندرية
فرع سموحة : ١٠ شارع فوزي معاذ - سموحة - قسم سيدي جابر - الإسكندرية
فرع المنصورة : عمارة عوض الله رقم ٢ ش الجيش أعلى البنك المصري الخليجي - المنصورة
فرع بورسعيد : قطعة ٣/أ شارع المأمون ومحمود صدقي - قسم الشرق - برج المنا أعلى مصرف أبو ظبي - بورسعيد
فرع الإسماعيلية : شارع شبين برج الأندلس - أمام الشهرية المالية
فرع الزقازيق : ش جمال عبد الناصر مبنى الجمعية الزراعية بجوار مبنى محافظة الشرقية
فرع دمياط : شقة رقم ٢ الدور الرابع عمارة الرفاعي أعلى بي اند كوتيك النيل - دمياط

1339012

مطالبة سداد

نوع الاصدار : حوادث عامة — اصدار

مطالبة رقم : (-----)

وثيقة رقم : 1847/2023 — نوع التامين : الحوادث الشخصية

الفرع : المركز الرئيسي — ملحق رقم :

إسم المشترك : شركه صن رايز للمقاولات العموميه

العنوان : شارع الحجاز القنطرة غرب - الاسماعيلية

لصالح : الهيئه العامه للطرق والكبارى

مدة التأمين : من : 20/09/2023

الى : 19/09/2024

العملة : جنيه مصري

الإشتراك الصافي	:	430.00	جم
نصف الدمغة النسبية	:	4.30	جم
الضريبة النوعية	:	11.60	جم
مصاريف الاصدار	:	50.23	جم
رسم الإشراف و الرقابة / ستة في الألف	:	2.58	جم
اشتراك صندوق حملة الوثائق / أثنان في الألف	:	0.86	جم
مقابل خدمات مراجعة و اعتماد / واحد في الألف		0.43	جم
إجمالي الأشتراك	:	500.00	جم

فقط خمسمائة جنيه مصري

تحريرا في : 20/09/2023

تاريخ الطباعة : 20/09/2023

إعداد : ندى محمد فهيم احمد

كود المنتج : 23697 مصطفى محمد مصطفى

قيمة العمولات الأساسية قبل الاستقطاعات 43.00 10 %

شركة وثاق للتأمين التكافلي - مصر

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Head Office : 25 Mesaeek st., Dokki - Giza
Mohandeseen Branch : 20 Wadi al Nil st., Mohandesseh - Giza
Nasr City Branch : 6 Abbas El Aqad st., Nasr City - Cairo
Alexandria Branch : 88 Fouad st., (El Horia Road) - Alexandria
Smouha Branch : 90 Fawzy Moaz Street - Smouha-Sidi Gaber Station Alex
El Manaseer Branch : Awad Alla Building 2, El Gaish st., El Manaseer
Port said Branch : Block 3/ A, Al-Masrian and Mahmoud Sedki Street - East Section- Alsafa Tower above Alex Misr Bank - port Said
Ismailia Branch : Shebin Street Andalus Tower - Front of Financial Directorate
Port said Branch : Gamal Abdel Nasser Street - Agricultural Society Building, next to Sharkia Governorate
Damietta Branch : Dornish El Nile Fourth Section Damiat El Rifai Building, above B-Tech and Wala Bank

الخط الساخن 19685

المركز الرئيسي : ٢٥ شارع مصدق - الدقي - الجيزة
فرع المهندسين : ٢٠ ش وادي النيل - المهندسين - الجيزة
فرع مدينة نصر : ٦ شارع عباس - العقاد مدينة نصر - القاهرة
فرع الإسكندرية : ٨٨ شارع فؤاد (طريق الحرية) - الإسكندرية
فرع سموحة : ٩٠ شارع شارع فوزي معاذ - سموحة - قسم سيدي جابر - الإسكندرية
فرع المنصورة : عمارة عوض الله رقم ٢ ش الجيش أعلى البنك الأهلي الخليجي - المنصورة
فرع بورسعيد : قطعة ٣/أ شارع المأمون ومحمود صدقي - قسم الشرق - برج الصفا أعلى مصرف أبو ظبي - بورسعيد
فرع الإسماعيلية : شارع شبين برج الأندلس - أمام المديرية المالية
فرع الزقازيق : ش جمال عبد الناصر مبنى الجمعية الزراعية بجوار ديوان محافظة الشرقية
فرع دمياط : شقة رقم ٢ الدور الرابع عمارة الرفاعي أعلى بي تك كورنيش النيل - دمياط

مشروع القطار السريع(العلمين -فوكة)

شركة صن رايز للمقاولات العامة -من المحطة ٦٠٠+٤٤٨ الى المحطة ١٠٠+٤٥١

محضر تحديد مسافة نقل

(نقل السن SUB BALLAST)

انه في يوم الاحد الموافق :- ٢٠٢٢/١٢/١٨

- بناء علي طلب المقاول شركة صن رايز للمقاولات العامة لتحديد مسافة نقل السن SUB BALLAST من كساره (الماسه ياسين) علي طريق وادي النطرون العلمين للمشروع المذكور اعلاه

تم زيارة الموقع من قبل:-

١- السيد المهندس / ابراهيم الحناوي	ممثل الهيئة العامة الطرق والكباري
٢- السيد المهندس / مصطفي نجم	ممثل الاستشاري مكتب د سعد الجيوشي
٣- السيد المهندس / محمد خليل	ممثل استشاري المساحة مكتب (Xyz)
٤- السيد المهندس / مصطفي نبيل	استشاري مكتب د. سعد الجيوشي
٥- السيد المهندس / سعيد رجب	ممثل شركة صن رايز للمقاولات العامة

وتبين ان الكساره علي مسافة ١٨٢ كم من منتصف القطاع الشركة صن رايز للمقاولات العامه

احداثي كساره (الماسه ياسين) E 29 ° 58 ´30.158" N 30 ° 31 ´ 44.778 "

احداثي منتصف القطاع E 28 ° 28 ´ 15.052" N 30 ° 59 ´ 46.05 "

وعلي ذلك تم توقيع،،

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مشروع القطار السريع(العلمين -فوكة)

شركة صن رايز للمقاولات العامة -من المحطة ٦٠٠+٤٤٨ الي المحطة ١٠٠+٤٥١

محضر تحديد مسافة نقل

(نقل السن SUB GRADE)

انه في يوم الاحد الموافق :- ٢٠٢٢/١٢/١٨

- بناء علي طلب المقاول شركة صن رايز للمقاولات العامة لتحديد مسافة نقل السن SUB GRADE المساعد من كساره (الزيتون) علي طريق وادي النطرون العلمين للمشروع المذكور اعلاه

تم زيارة الموقع من قبل:-

١- السيد المهندس / ابراهيم الحناوي	ممثل الهيئة العامة الطرق والكباري
٢- السيد المهندس / مصطفي نجم	ممثل الاستشاري مكتب د سعد الجيوشي
٣- السيد المهندس / محمد خليل	ممثل استشاري المساحة مكتب (Xyz)
٤- السيد المهندس / مصطفي نبيل	استشاري مكتب د. سعد الجيوشي
٥- السيد المهندس / سعيد رجب	ممثل شركة صن رايز للمقاولات العامة

وتبين ان الكساره علي مسافة ١٤٠ كم من منتصف القطاع الشركة صن رايز للمقاولات العامه

احداثي كساره (الزيتون)	E 29 ° 38 ´43.758"	N 30 ° 37 ´ 53.468 "
احداثي منتصف القطاع	E 28 ° 28 ´ 15.052"	N 30 ° 59 ´ 46.05 "

وعلي ذلك تم توقيع،،

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CamScanner

مشروع القطار السريع(العلمين -فوكة)

شركة صن رايز للمقاولات العامة من المحطة ٦٠٠+٤٤٨ الى المحطة ١٠٠+٤٥١

محضر تحديد مسافة نقل

(نقل الاتربة)

انه في يوم الاربعاء الموافق :- ٢٠٢٢/٩/٢٨

- بناء على طلب المقاول شركة صن رايز للمقاولات العامة لتحديد مسافة نقل الاتربة من محجر المصرية الى المسار الجديد (بعد التعديل بمدينة الضبعة)

للمشروع المذكور أعلاه.

تم زيارة الموقع من قبل:-

١- السيد المهندس / ابراهيم الحناوي	ممثل الهيئة العامة الطرق والكباري
٢- السيد المهندس / مصطفي نجم	ممثل الاستشاري مكتب د سعد الجيوشي
٣- السيد المهندس / محمد خليل	ممثل استشاري المساحة مكتب (Xyz)
٤- السيد المهندس / مصطفي نبيل	استشاري مكتب د. سعد الجيوشي
٥- السيد المهندس / سعيد رجب	ممثل شركة صن رايز للمقاولات العامة

وتبين ان محجر المصرية علي مسافة ٢٠٣ كم من منتصف المسار الجديد لشركة صن رايز للمقاولات العام

احداثي محجر المصرية	E 29 ° 45 ´ 06 . 7 "	N 30° 33 ´ 19.7 "
احداثي منتصف القطاع الجديد	E 28 ° 28 ´ 15.052"	N 30 ° 59 ´ 46.05 "

وعلي ذلك تم توقيع،،

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CamScanner