



# PREQUALIFICATION

Q3 2026





# STRONG FOUNDATIONS FOR A SUSTAINABLE FUTURE



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# 1. Group

MOFARREH ALHARBI & PARTNERS (MAH) was established in 1977 and has since built a strong legacy as a Saudi owned enterprise operating across contracting and trading sectors.

With decades of industry expertise, MAH delivers comprehensive solutions encompassing project management, project planning, administration, engineering, design, procurement, construction, and testing and commissioning.

The Group operates across a diversified portfolio of sectors, including civil, electrical, mechanical, telecommunications, mining, onshore and offshore works, rental equipment, landscaping, and real estate, among others, as outlined within its service offerings.

## Sectors



# TERRA FIRMA

TERRA FIRMA is the In-House Ground Engineering Division of Mofarreh Al Harbi & Partners (MAH) Group that provide Design and built ground improvement services using techniques like Dynamic Compaction (DC), Rapid Impact compaction (RIC), Dynamic Replacement (DR), Vibro Compaction (VC), Vibro Replacement (VR/ SC) and Rigid Inclusion (RI).

**2000+**  
Employees

**100M**  
m<sup>2</sup> Area Improved

**9**  
Countries

**2019**  
Year of Establishment

# SAFE

[Sustainable, Advanced, Fast & Economical]  
Foundation Solutions



There is no perfect ground improvement solution that fits every soil or project. Our challenge is to provide custom made foundation and soil improvement solutions that meet our clients Budget, Schedule and Quality Standards.

**ANAS OURABI**  
General Manager

# Vision

To provide safe and quality work throughout the world, especially in those challenging projects where our experience and core values makes the difference.

# Mission

To be contractor of choice for soil improvement works all over the world.

# Core Values

- ▶ Technical excellence in Ground Engineering
- ▶ Commitment to safet
- ▶ Strong team and team development
- ▶ Integrity and honesty
- ▶ Encouragement of people creativity and ingenuity



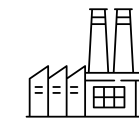
## Services

- Foundation Solutions
- Site Preparation
- Fill Compaction
- Deep Foundation
- Grouting
- Earth Retaining Structures

## Criteria

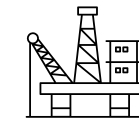
- Existing soil conditions
- Location, schedule & budget
- Type of structure to be built
- Project design criteria

## Applications



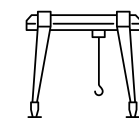
### Industrial

Geotechnical solutions are used extensively in industrial projects, where the site's subsurface conditions can impact the construction and performance of industrial facilities.



### Oil & Gas

In the oil and gas industry, geotechnical ground engineering services are used to reinforce the soil conditions in which drilling operations will take place.



### Infrastructure

In infrastructure projects such as roads, bridges, and tunnels, geotechnical solutions are used to improve the site's soil conditions, properties, and control groundwater levels.



### Mixed Use

Ground engineering solutions are used in mixed-use developments, which typically involve a variety of structures, including residential, commercial, and retail buildings. It will reduce the foundation sizes and project execution time.

## Activities

- ▶ **DC** - Dynamic Compaction
- ▶ **RIC** - Rapid Impact Compaction
- ▶ **RDC** - Rapid Dynamic Compaction
- ▶ **DR** - Dynamic Replacement
- ▶ **RDR** - Rapid Dynamic Replacement
- ▶ **VDR** - Vibro Dynamic Replacement
- ▶ **RI** - Rigid Inclusion
- ▶ **HEIC** - High Energy Impact Compaction
- ▶ **VC** - Vibro Compaction
- ▶ **VR** - Vibro Replacement
- ▶ **PVD** - Pre-fabricated Vertical Drains

However, it is possible to extend our services to aspect of geotechnical engineering by utilizing the experience of our local partners and alliances.

Such additional services may include but not limited to:

#### Piling:

- ▶ Bored Piles
- ▶ Auger Cast Piles
- ▶ Micro Piles
- ▶ Driven Piles and Pipes
- ▶ Diaphragm Walls

#### Grouting:

- ▶ Jet Grouting
- ▶ Compaction Grouting
- ▶ Permeation Grouting
- ▶ Cavity Grouting

#### Thrust Boring:

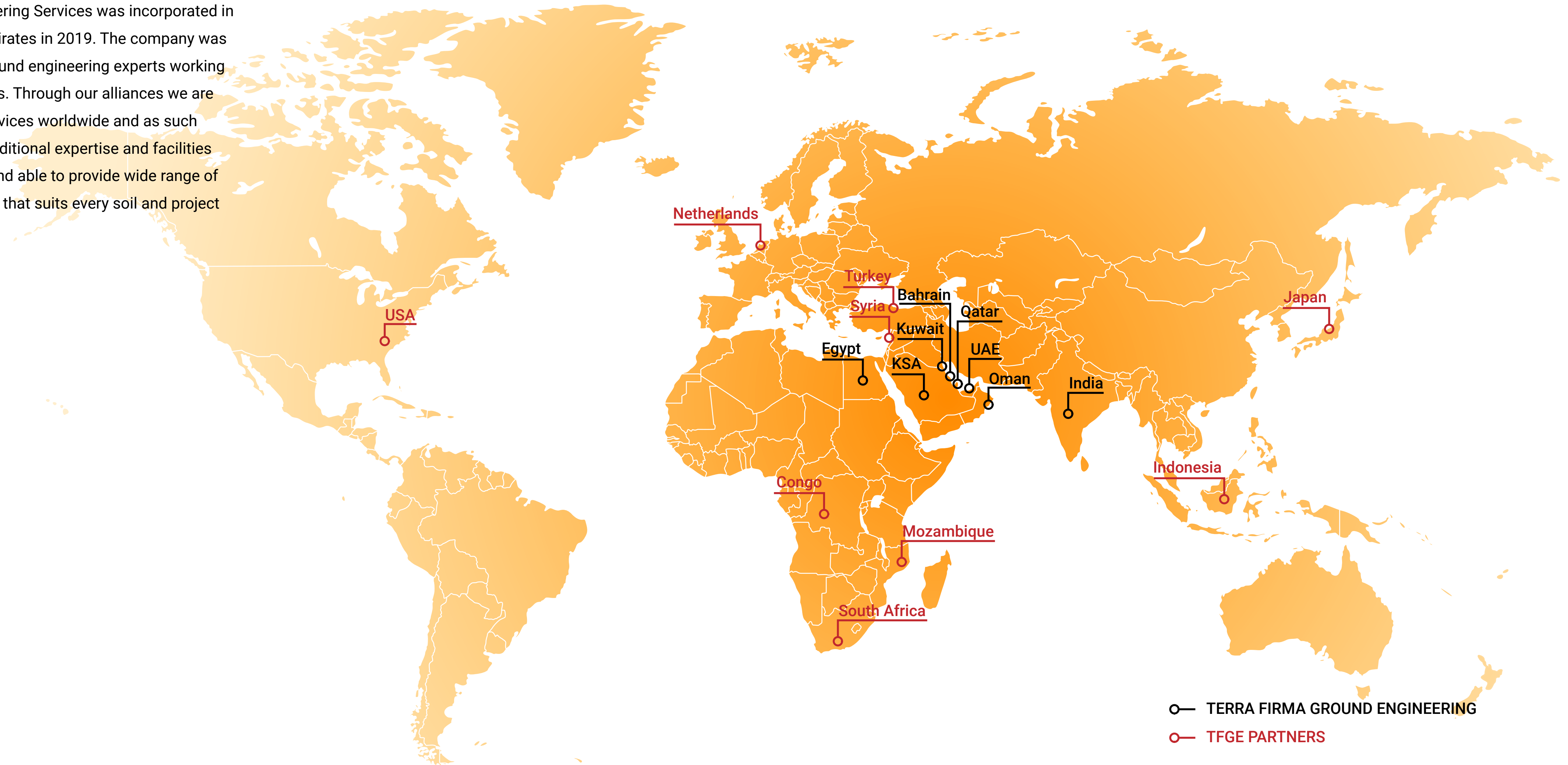
- ▶ Horizontal Drilling
- ▶ Micro Tunneling
- ▶ Pipe Jacking

#### Sand Compaction Piles

#### Instrumentation & Monitoring

## 2. Network

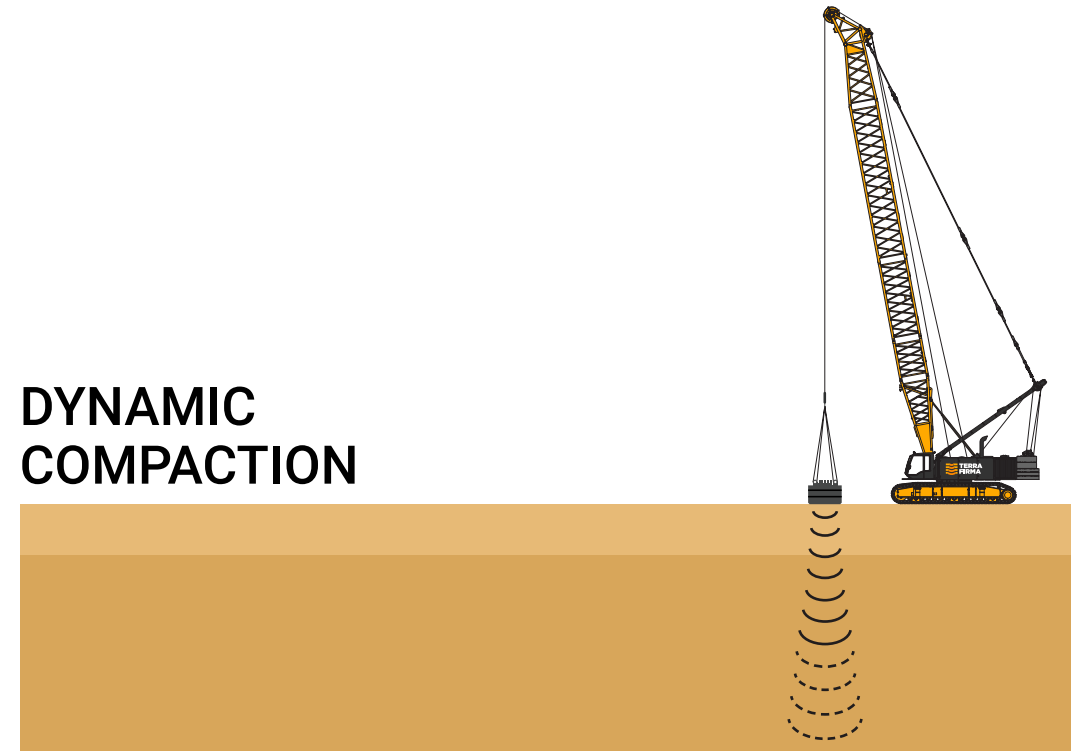
A Foundations Engineering Services was incorporated in Dubai, United Arab Emirates in 2019. The company was formed by team of ground engineering experts working together since 15 years. Through our alliances we are able to provide our services worldwide and as such we benefit from the additional expertise and facilities of our local partners and able to provide wide range of foundation techniques that suits every soil and project need.



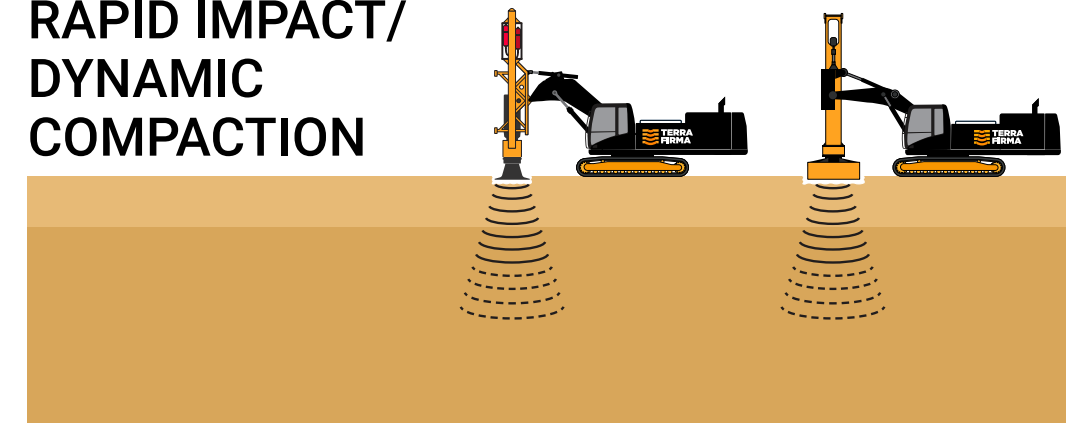
### 3. Solutions

There is no perfect ground improvement solution that fits every soil or project. Our challenge is to provide custom made foundation and soil improvement solutions that meet our clients Budget, Schedule and Quality Standards.

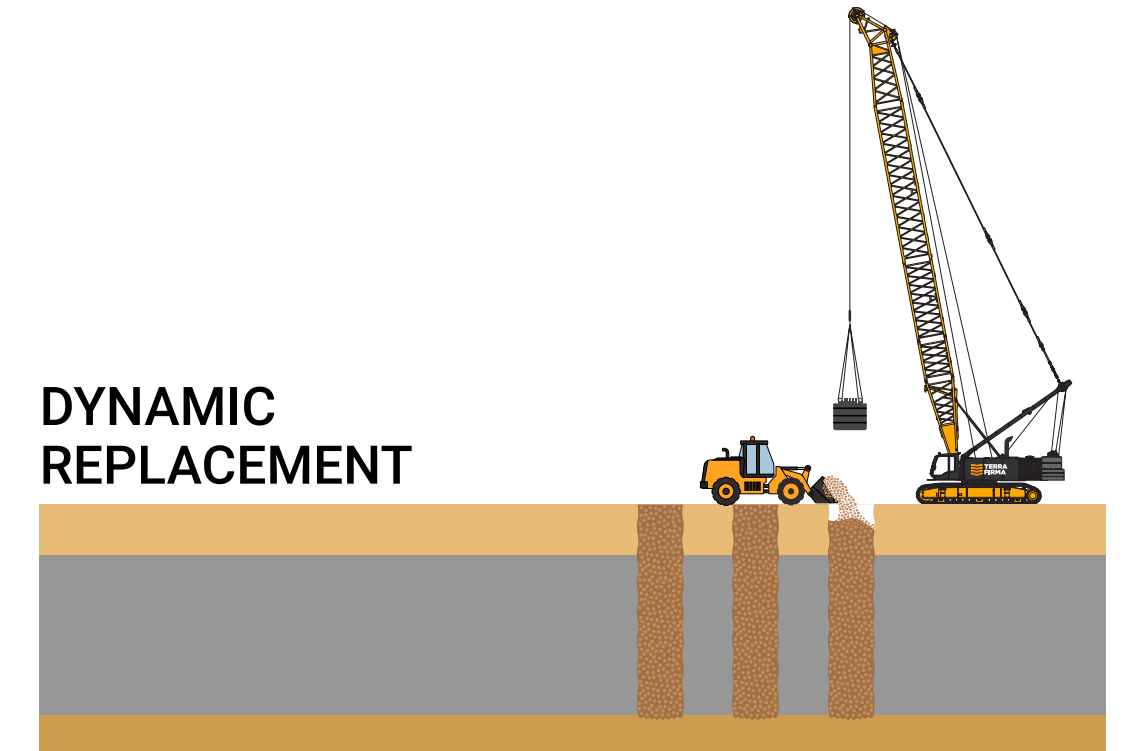
**DYNAMIC COMPACTION**



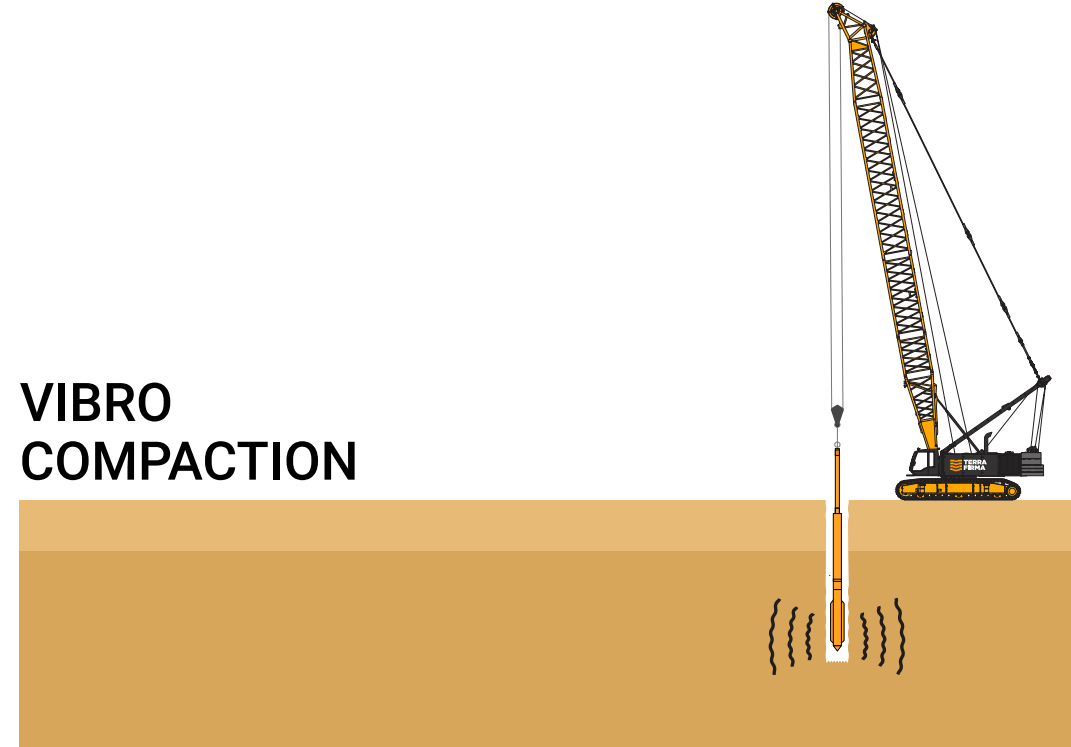
**RAPID IMPACT/ DYNAMIC COMPACTION**



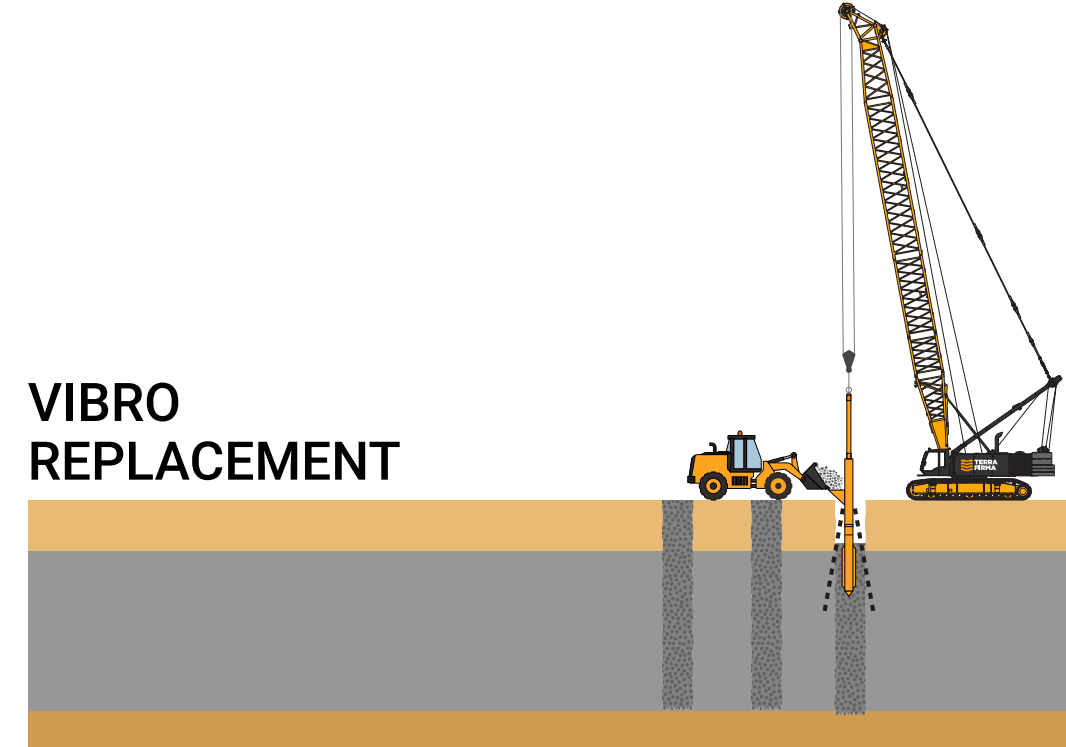
**DYNAMIC REPLACEMENT**



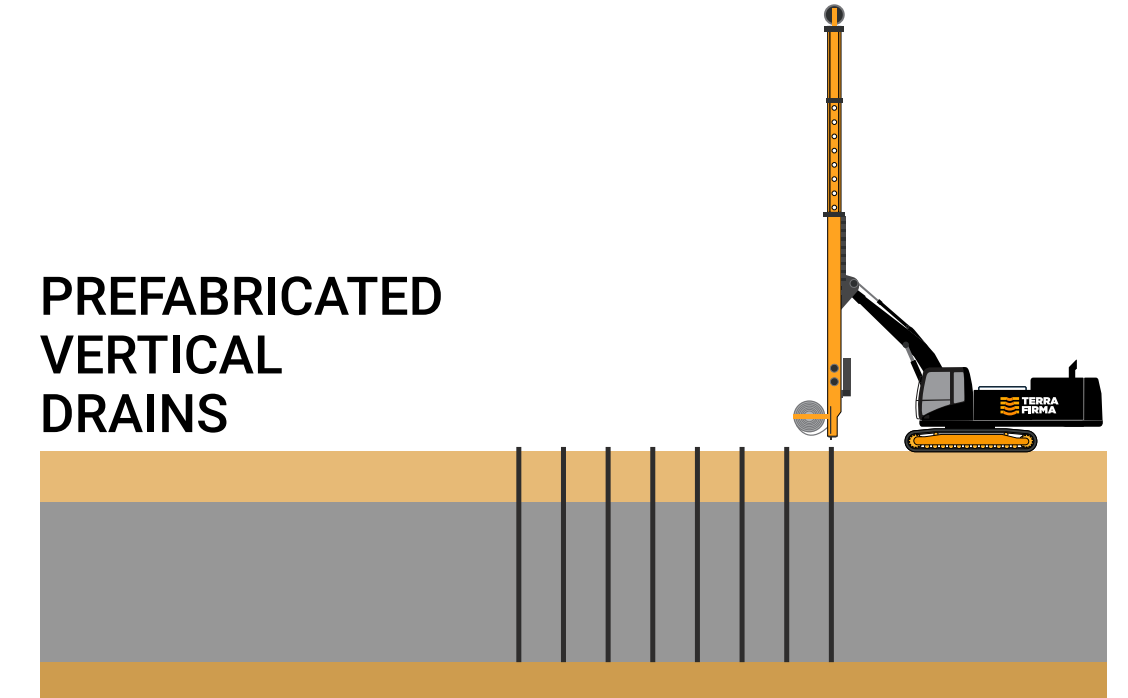
**VIBRO COMPACTION**



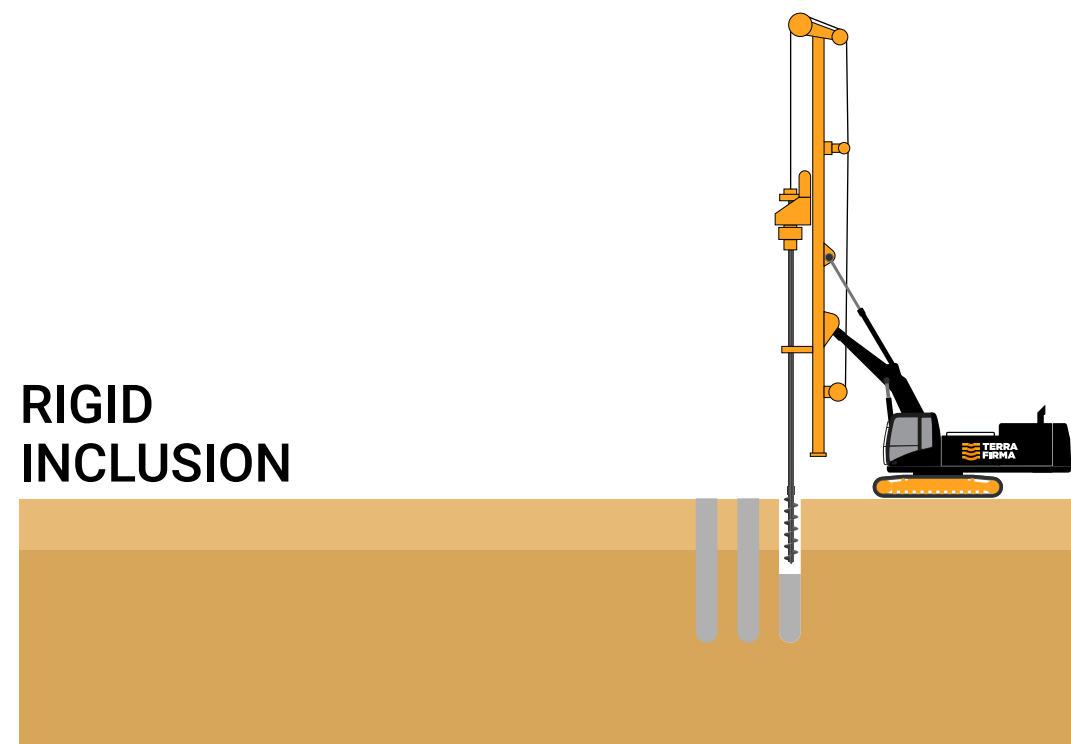
**VIBRO REPLACEMENT**



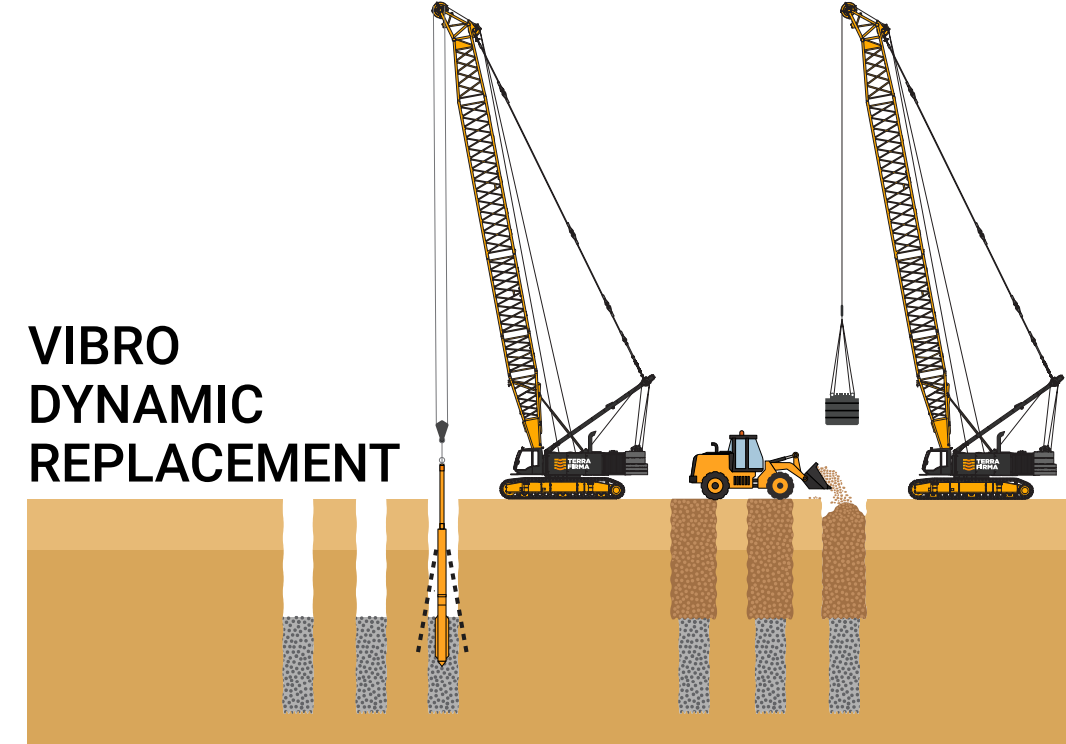
**PREFABRICATED VERTICAL DRAINS**



**RIGID INCLUSION**



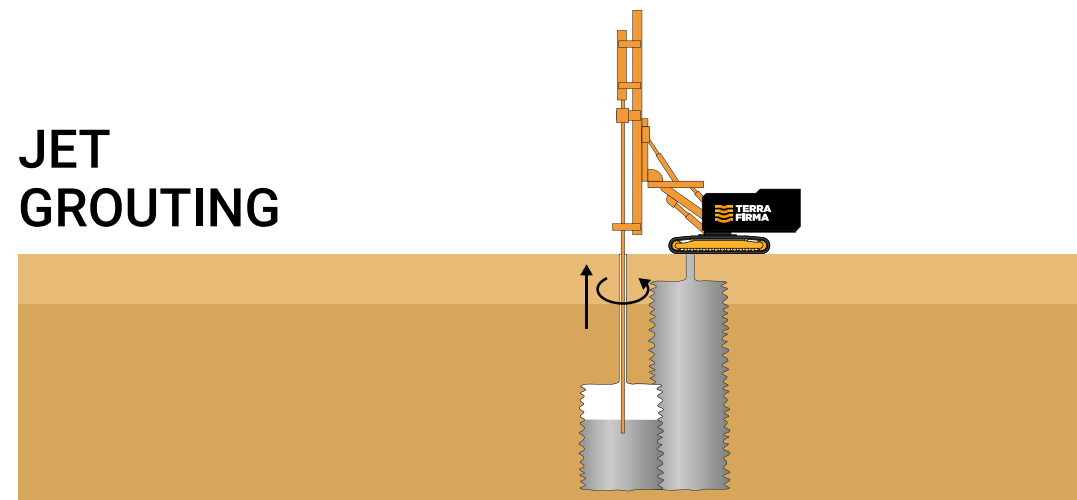
**VIBRO DYNAMIC REPLACEMENT**



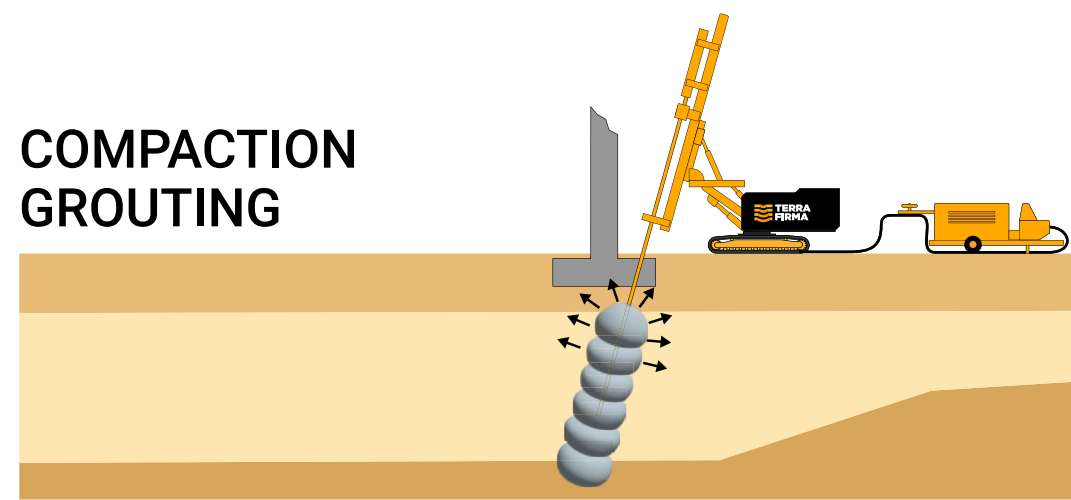
**HIGH ENERGY IMPACT COMPACTION**



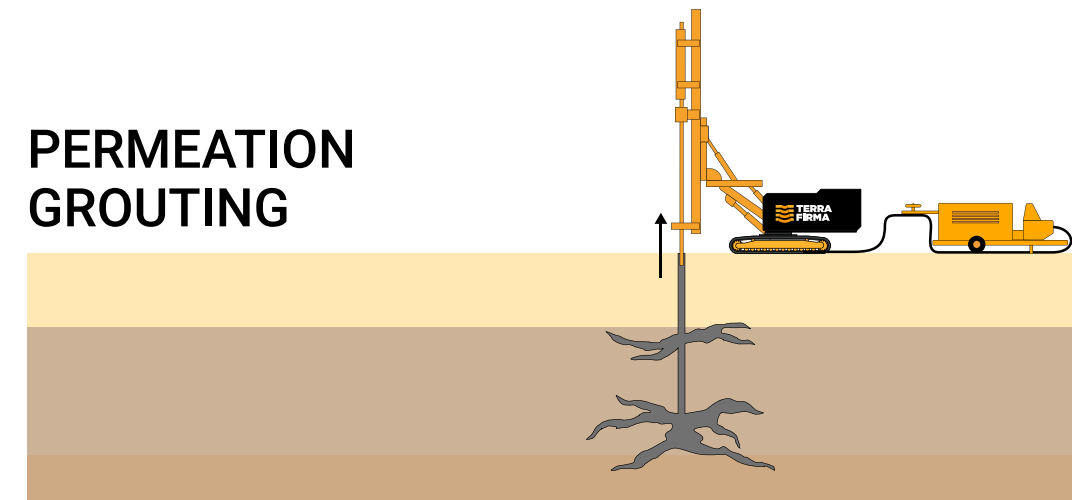
**JET GROUTING**



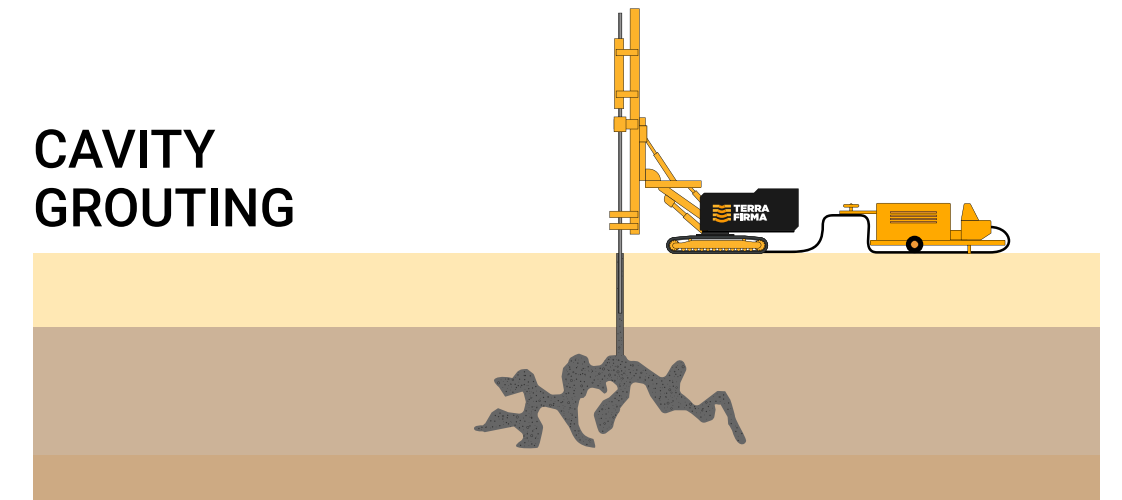
**COMPACTION GROUTING**



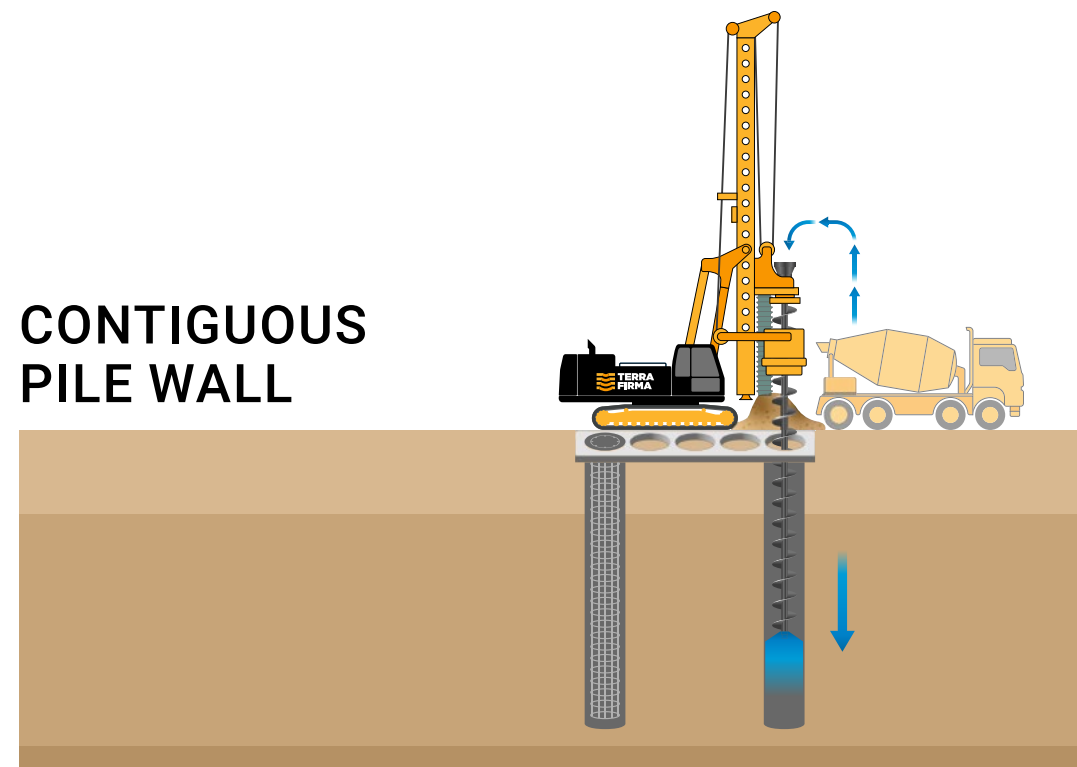
**PERMEATION GROUTING**



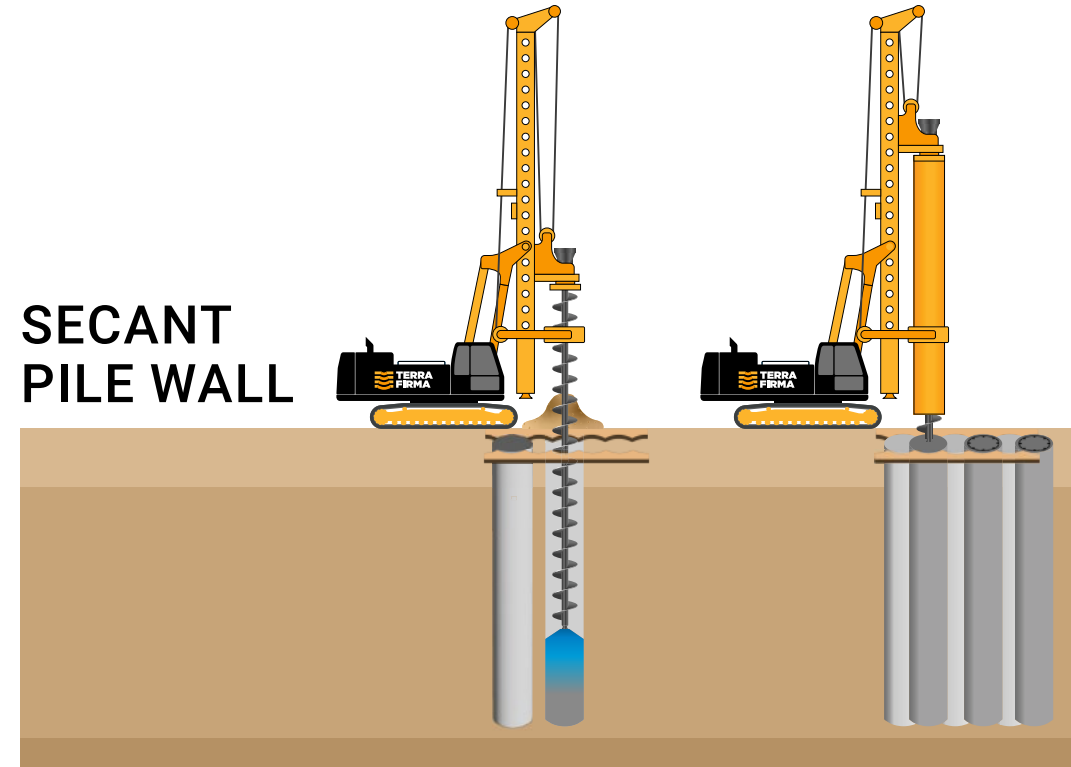
**CAVITY GROUTING**



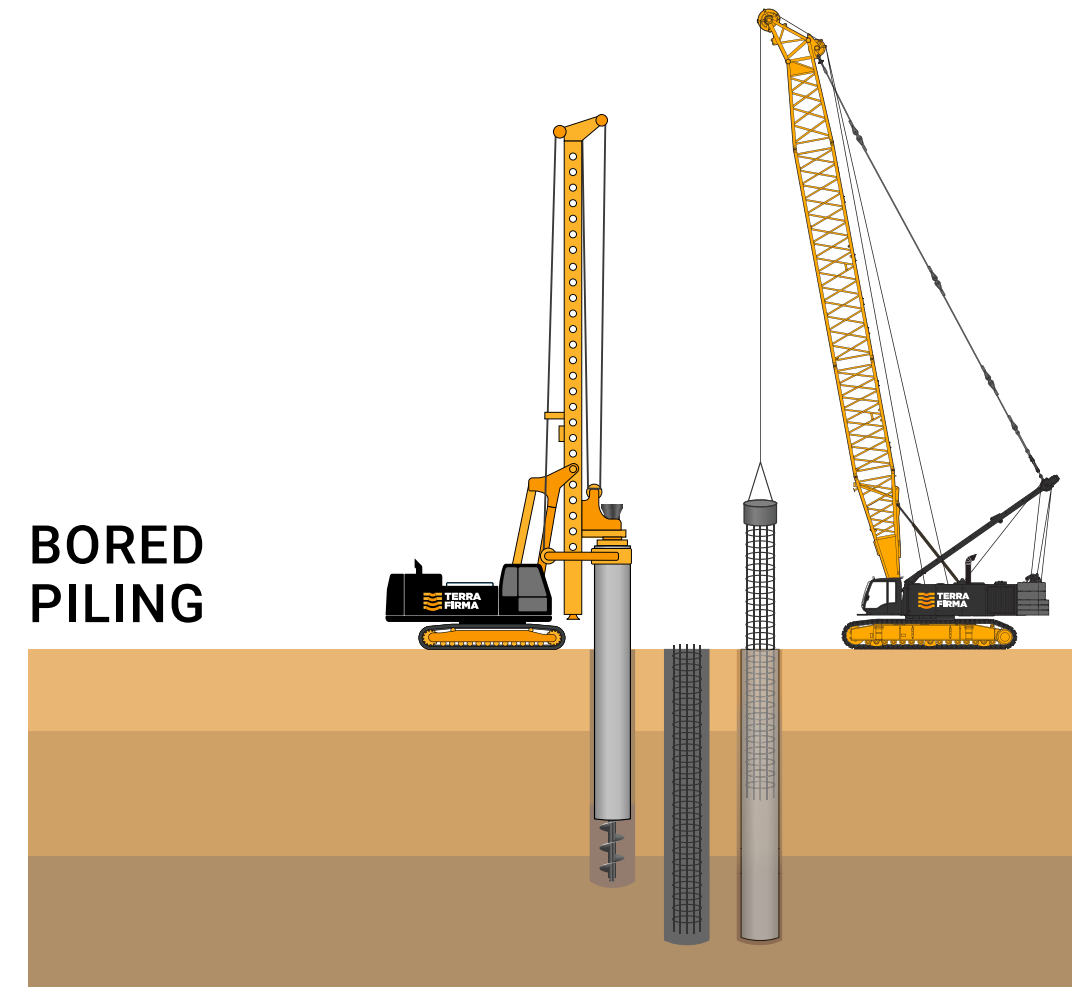
**CONTIGUOUS PILE WALL**



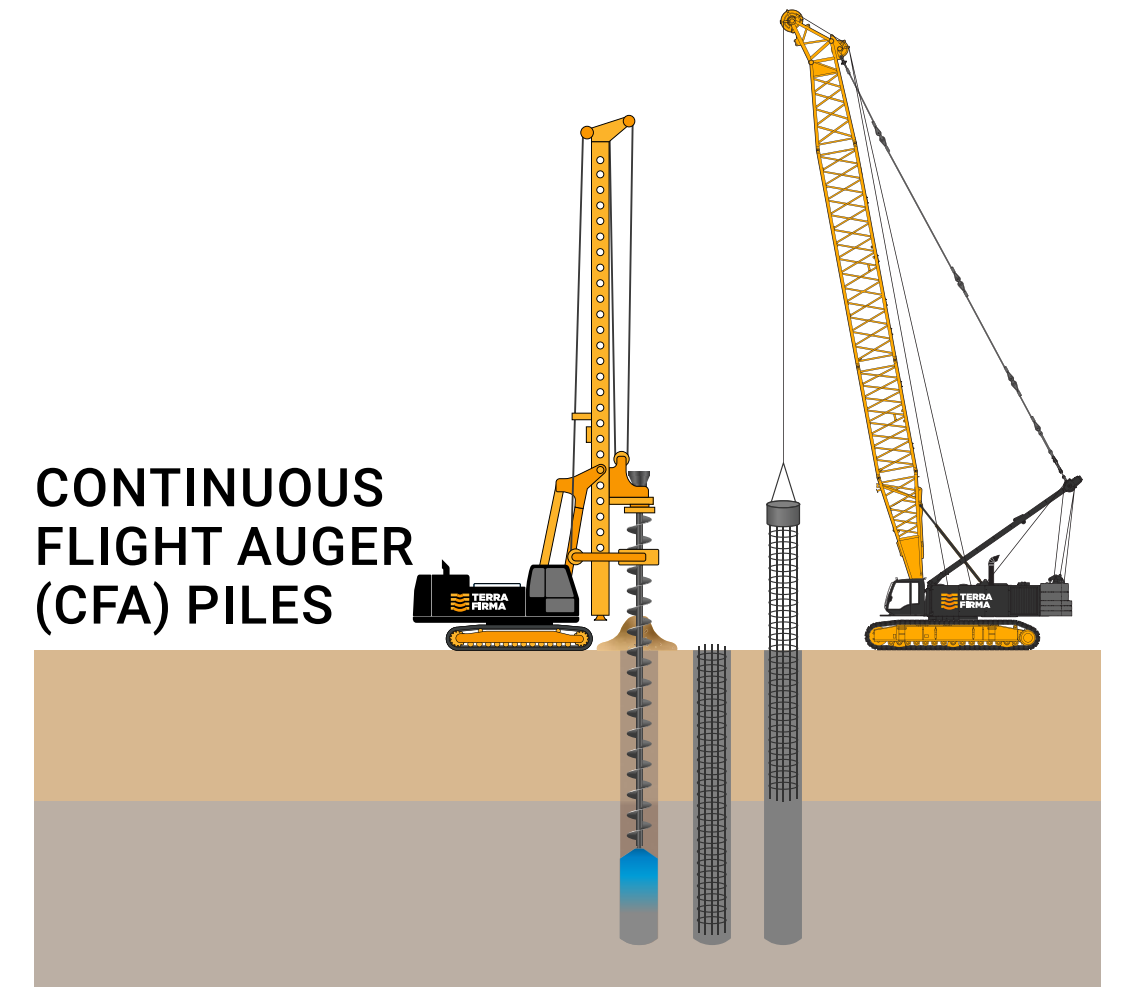
**SECANT PILE WALL**



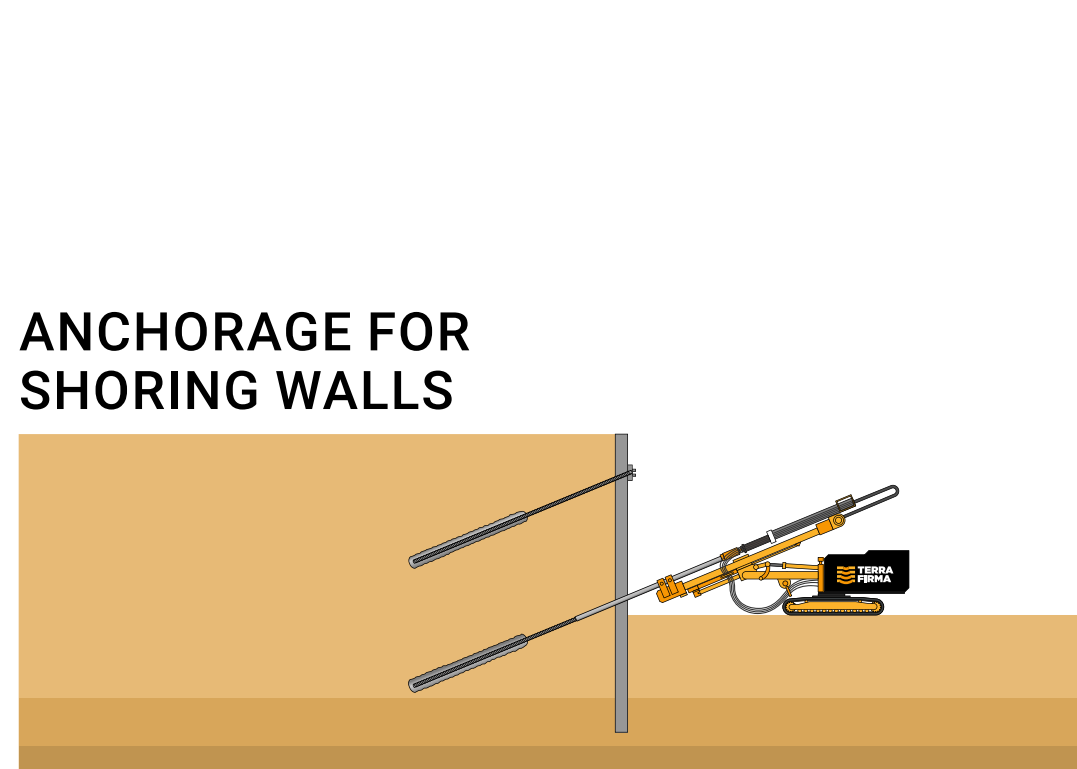
**BORED PILING**



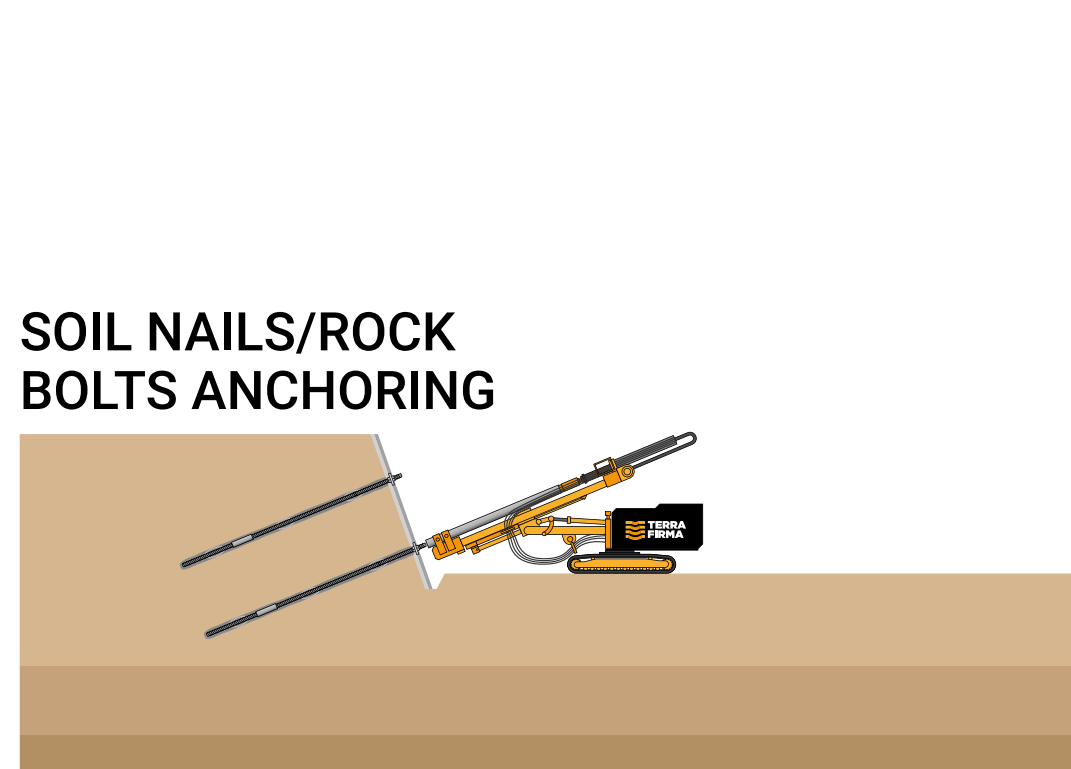
**CONTINUOUS FLIGHT AUGER (CFA) PILES**



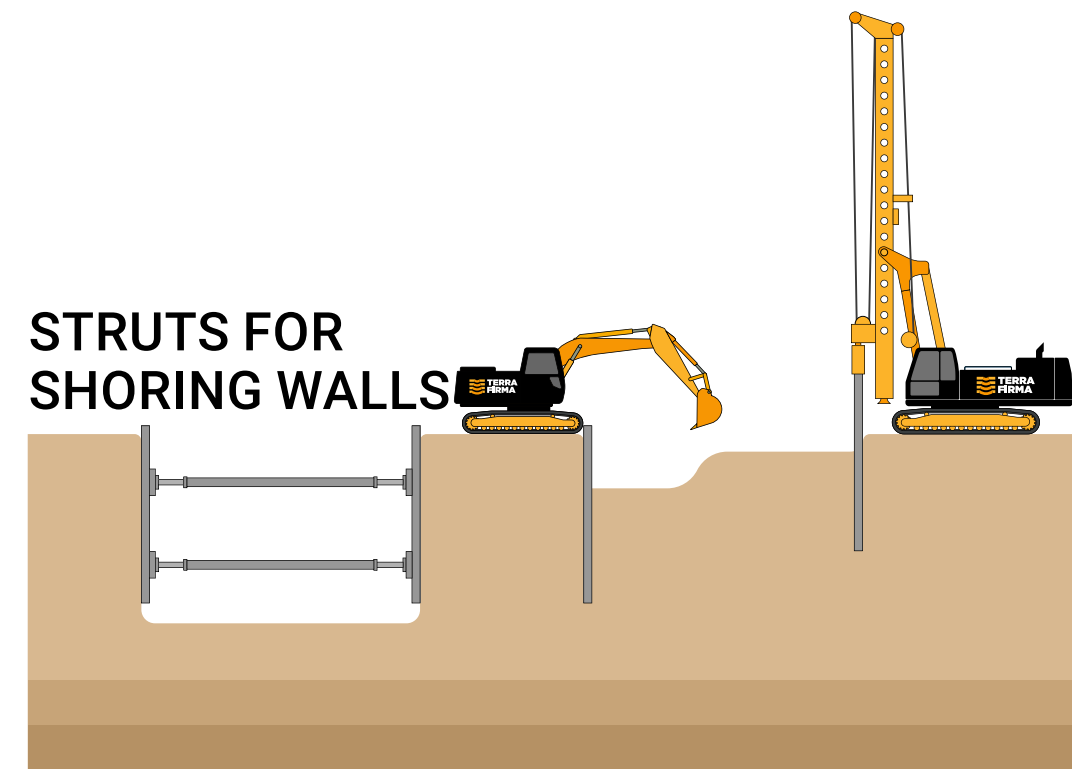
**ANCHORAGE FOR SHORING WALLS**



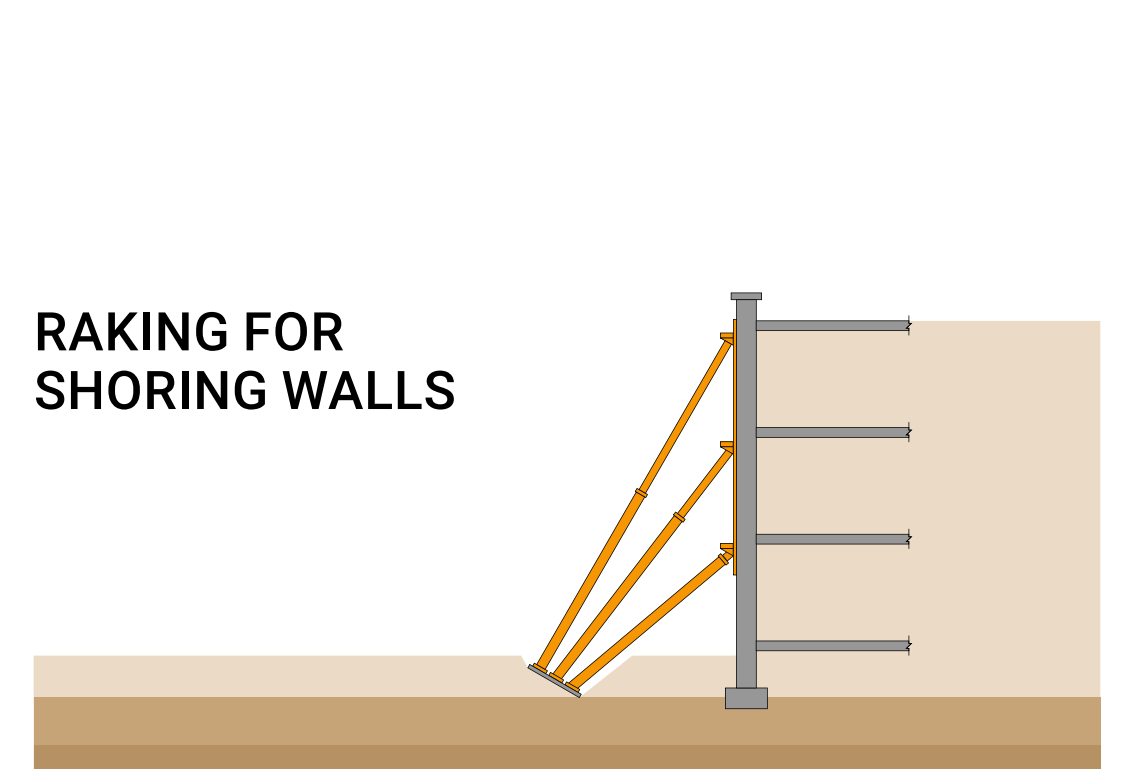
**SOIL NAILS/ROCK BOLTS ANCHORING**



**STRUTS FOR SHORING WALLS**



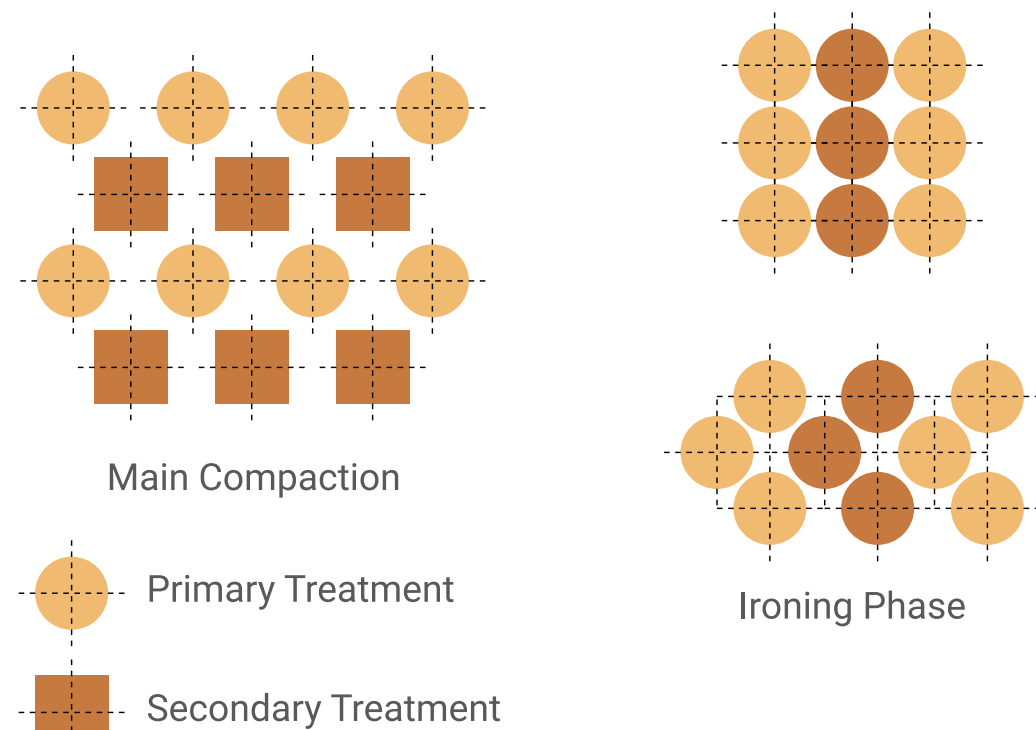
**RAKING FOR SHORING WALLS**



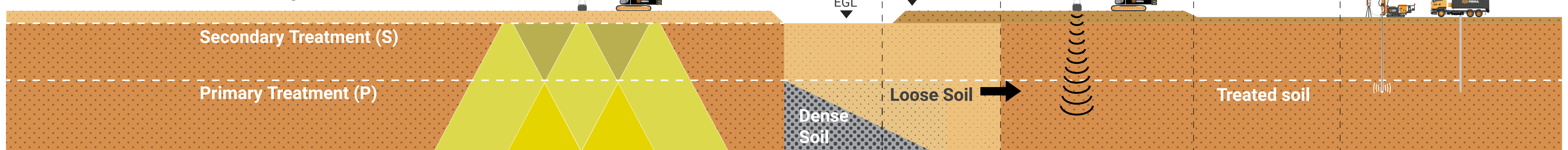
# Dynamic Compaction

Dynamic Compaction (DC) is a Ground Modification technique whereby loose soils can be effectively and economically densified to improve its mechanical characteristics and allow construction of different types of structures without need of deep foundations or soil replacement. The method involves dropping a heavy steel pounders repeatedly on the ground at regularly spaced intervals. The weight and height of pounding depends on the degree of compaction desired. The usual range of pounder is between 12 ton to 25 ton and the drop height can be up to 25m.

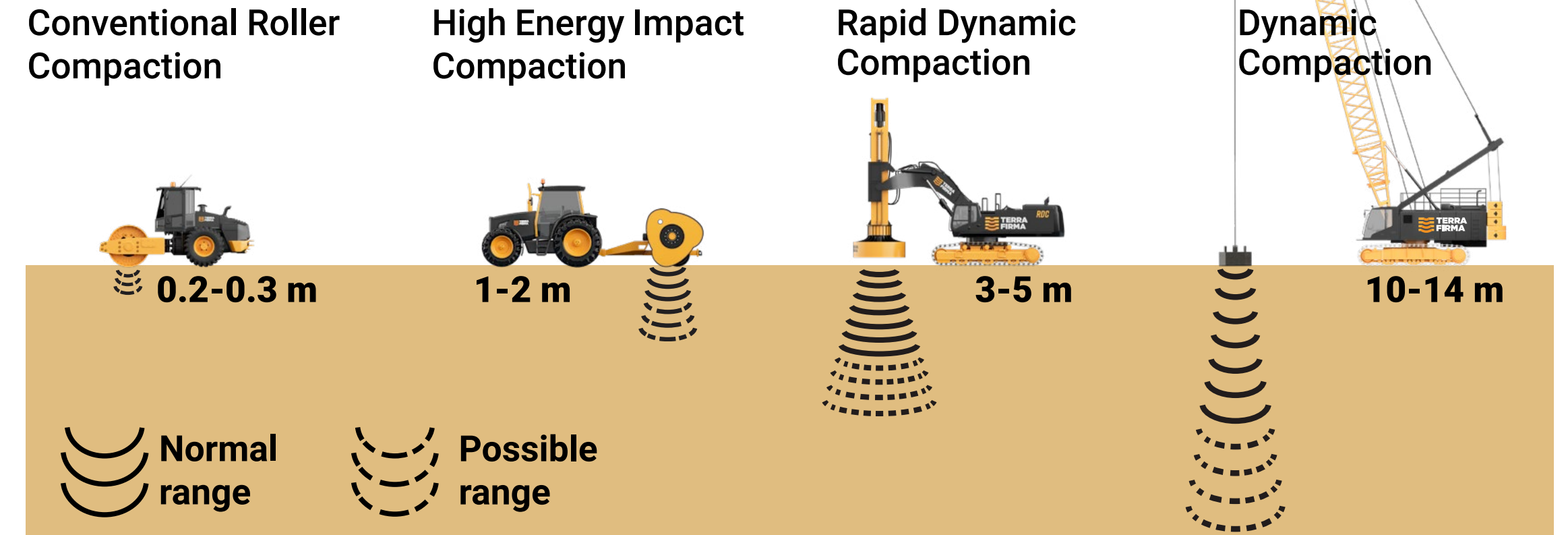
Dynamic Compaction (DC) method is applicable for a wide variety of soil conditions including saturated/unsaturated loose Sands, even with the presence of silty pockets, dune sands, inorganic fill, reclaimed soils with variable characteristics and sizes even with presence of large sized boulders, landfills deposits and collapsible soils. Dynamic Compaction (DC) has been extensively used to compact loose soils to depths of up to 10m, in order to increase the bearing capacity, decrease post construction settlement and mitigate liquefaction risk in case of seismic events. Dynamic Compaction (DC) can be safely executed as close as 50-30m from existing/under construction structures or concrete/civil works, without generating any undesirable vibrations. Special measures may also be taken to further reduce this distance such as decreasing the compaction energy or creating a surface trench to cutoff the propagation of surface waves created by the pounder impact.



## Final Ironing



## Influence Depth



# Rapid Dynamic Compaction

Rapid Dynamic Compaction (RDC) technique is a recently developed soil improvement technique, used for compaction of granular soils up to 5m deep, as alternative to DC method.

The RDC machine consists of a hydraulic excavator base with strengthened arm to which a strengthened arm to which a compaction hammer is attached.

The compaction energy is generated by the fall of a -12 16 ton hammer from height of up to 1.2 m. The hammer falls on a compaction foot having a diameter ranging from 2.0 to 2.6 m, in contract with the ground and the energy is in turn transferred to the ground.

The compaction of the subsoil is initiated by the vibrations generated by the impact of the weight upon the foot, and by the movement of the foot into the ground pushing the material into a denser structure.

RDC technique is well adapted to be used in combination with dynamic compaction and vibro dynamic compaction techniques in order to improve the surface soil.

RDC techniques generated limited vibrations comparing to dynamic compaction technique and thus can be used close to existing structures.

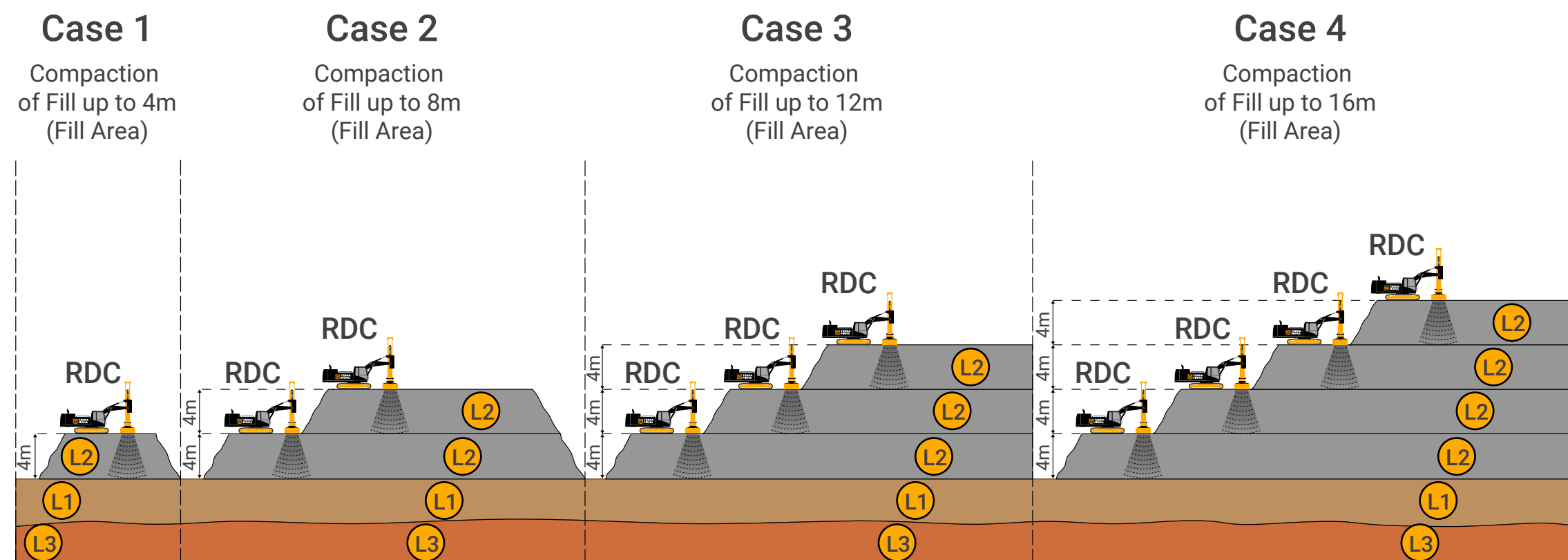
# Influence Depth

Dynamic Compaction is a very effective method for fill compaction of granular materials including: Engineering fill, dune sands, dredged materials..., with very flexible specifications comparing to other classical compaction methods.

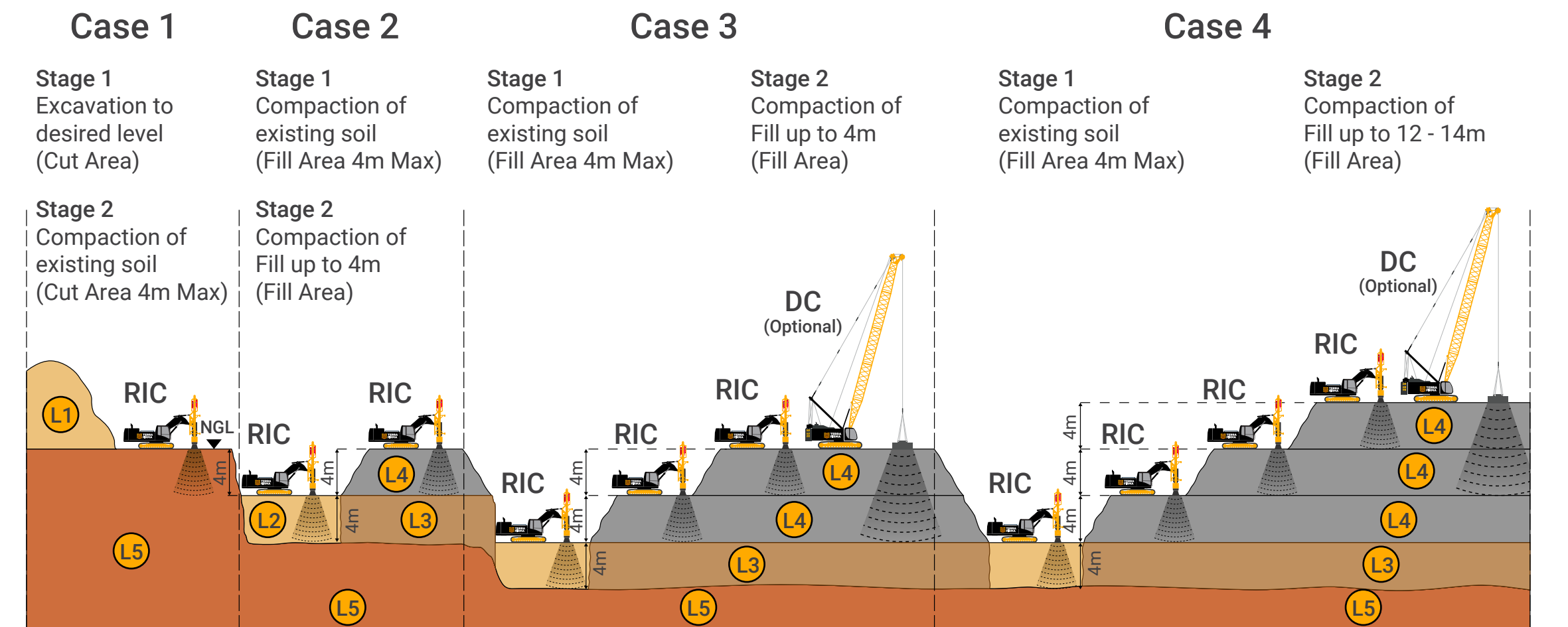
The most interesting aspect of using Dynamic Compaction for compaction of fill is that many meters of fill with thickness up to 10 meters can be placed and then compacted "in one go" instead FILL COMPACTION of compacting in thin layers, as per in traditional roller compaction.

The main advantages of DC comparing to the traditional method, are: Fast production: More than 40,000 m2/ month/crane/shift.

DC is very economical in comparison to roller compaction, especially for deep fills. Very flexible specifications for the backfilling materials.



**LEGEND**  
 L1 IMPROVED EXISTING SOIL    L2 LOOSE GRANULAR FILL    L3 ROCKY / VERY DENSE STRATA



**LEGEND**  
 L1 CUT    L2 LOOSE EXISTING SAND    L3 IMPROVED EXISTING SAND    L4 LOOSE GRANULAR FILL    L5 ROCK (SAND STONE/LIMESTONE) VERY DENSE STRATA

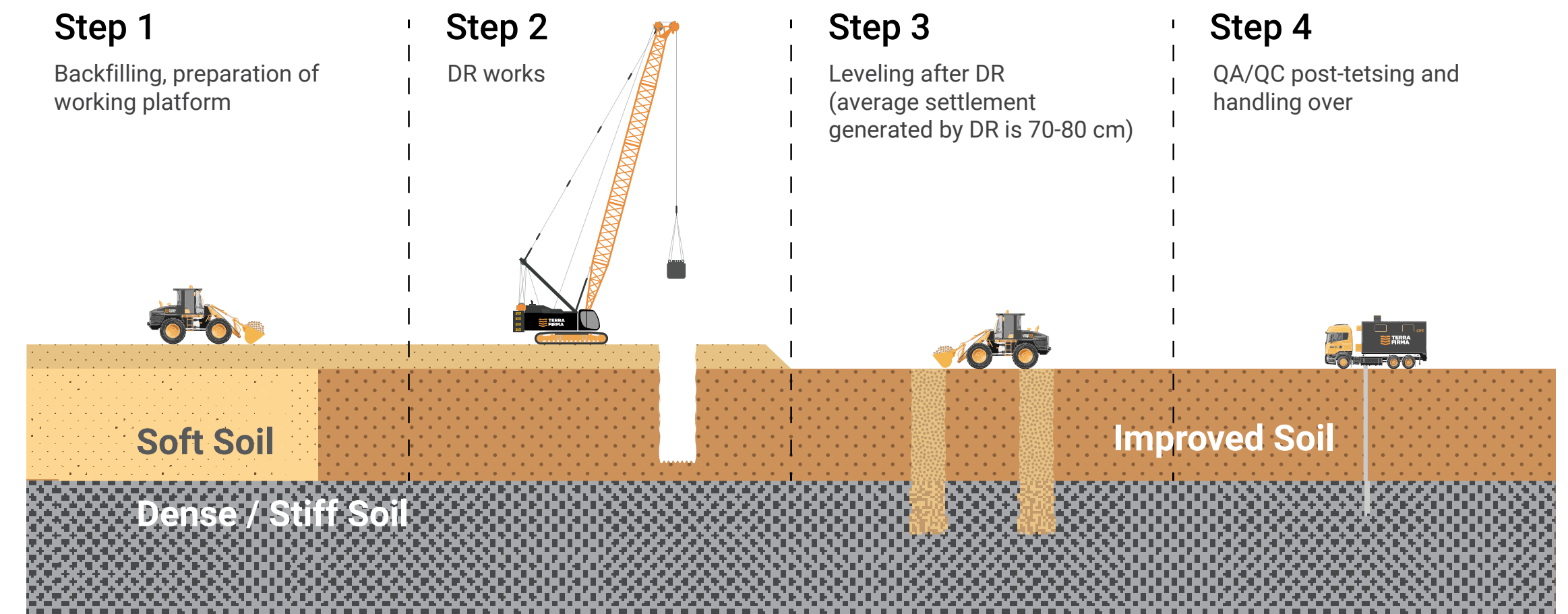
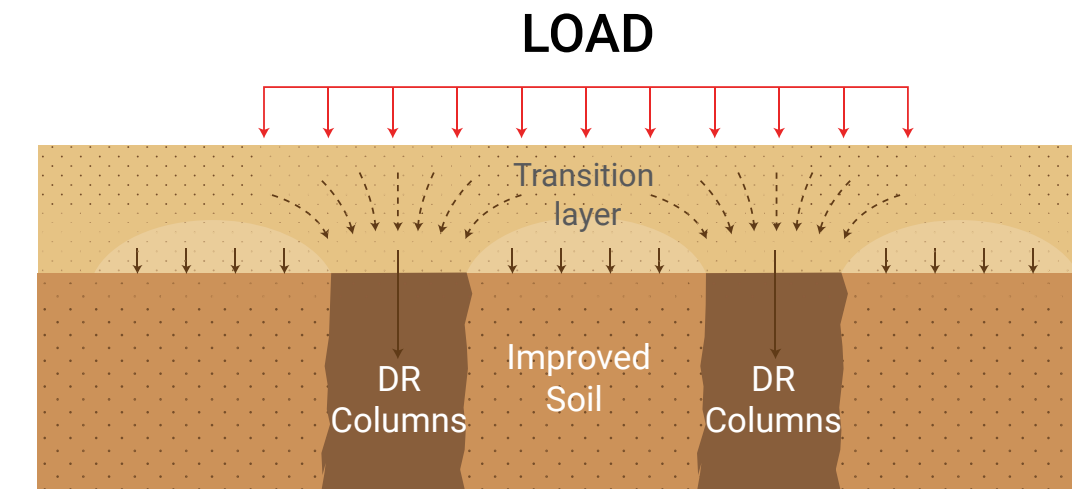
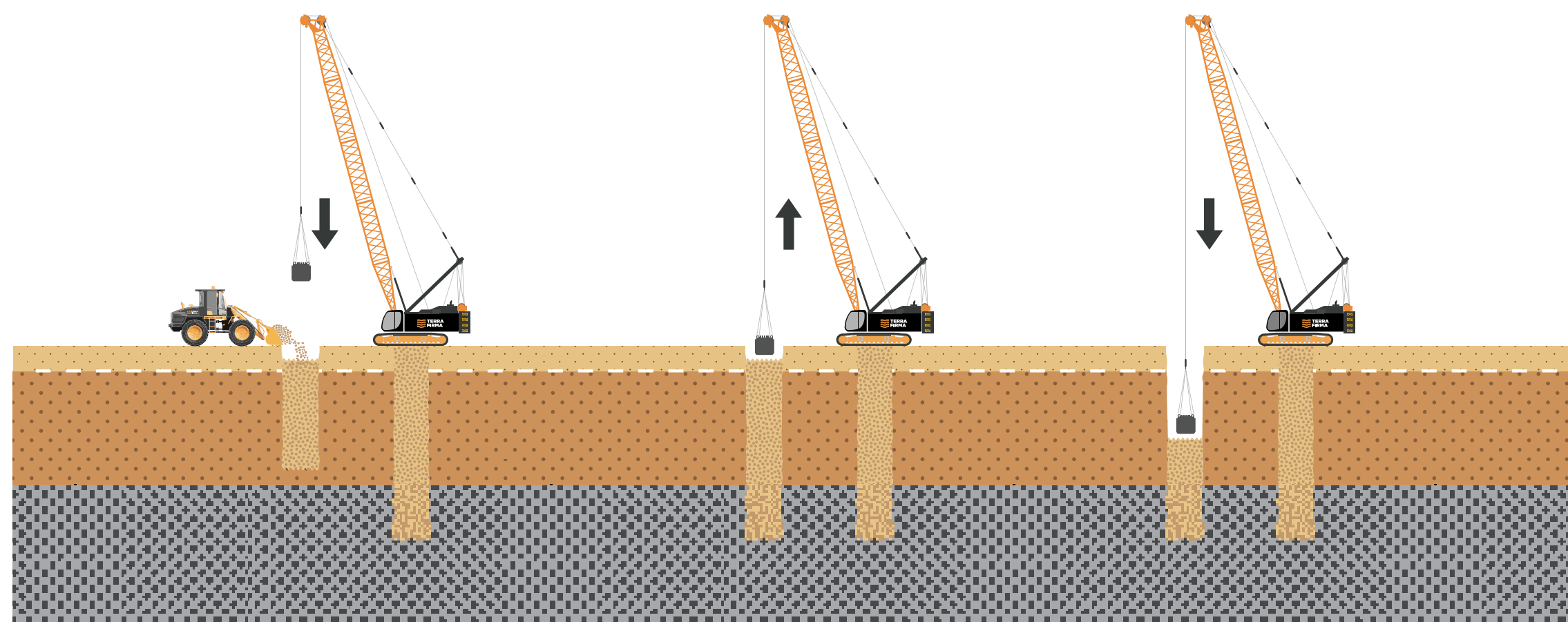
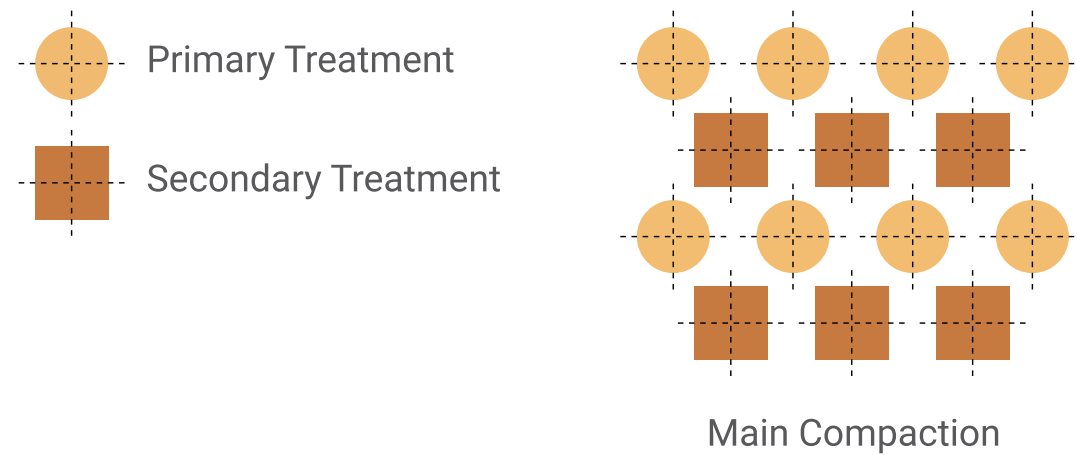
# Dynamic Replacement

Dynamic Replacement (DR) technique is an extension of Dynamic Compaction (DC) to compressible soils (such as soft clays, silt, sabkha...) where a large diameter columns (up to 2.5m diameter) of very dense granular materials are constructed by dropping heavy pounders from great heights into the soft soil.

Dynamic Replacement (DR) technique can be implemented as a global treatment or localized under foundations only in order to increase the soil bearing capacity and reduce the total and differential post-construction settlements.

This method combines the advantages from both Dynamic Compaction and Stone Columns technologies by creating large sized Dynamic Columns with high stiffness and internal shear resistance and overall improvement of mechanical characteristics of the intermediate soil.

A large variety of readily available granular materials may be used for construction of the DR columns. Clean well graded sands may be the most suitable, however, other sources such as dune sands, gravel/sand mix, concrete rubble/crushed gravel mixed with sand etc. may also be successfully used.



# Vibro Compaction

## Equipment and Execution

Depth vibrators are normally suspended from a suitable capacity crane for penetration into the ground assisted by water or air flushing under its own weight & follower tubes. Water jets are the essential part of the vibrator assembly. In granular soils the surrounding soil is compacted in predetermined stages during withdrawal from bottom to top.

## Principle of Vibro Compaction

The soil particles can be rearranged and compacted into denser state under the influence of vibrations. The range of influence zone depends on the type of vibrator used, the soil and the method employed. The soil subsidence or volume reduction after vibro compaction can reach unto %10 of the treated depth depending on the soil conditions and the intensity of the compaction effort.



## Work Sequence

### Step 1: Penetration

With assistance of vibration, water/air jetting and under its own weight, the vibrator penetrated to the design depth. The penetration process may be repeated to flush the hole and to ensure that the hole stays open. Once design depth is reached, the water flow is reduced or stopped but side water jets are kept open to ensure the soil cave in from walls of the hole.

### Step 2: Compaction

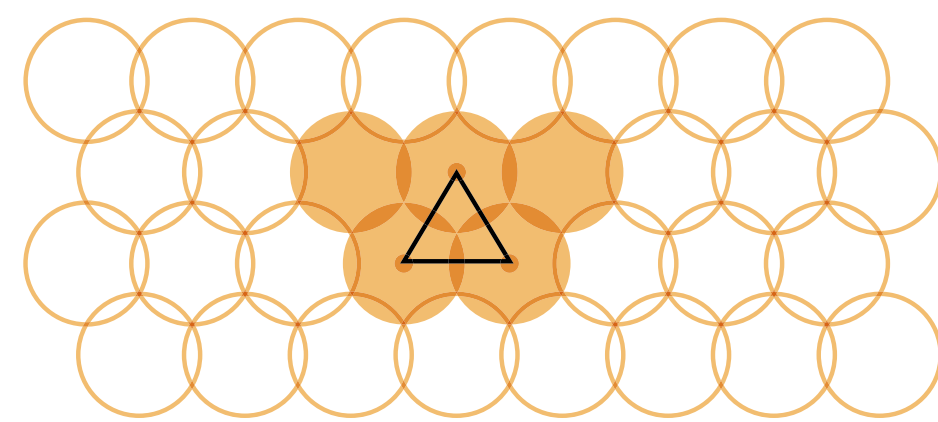
Compaction is carried out from bottom to top in predetermined steps during the field trial depending on soil behaviour. At each interval the vibrator is held vibrating until there is an increase in power or for a time determined in the compaction trial which is normally 40s. The increase in density is indicated by the power consumption of the vibrator/vibroflot.

### Step 3: Backfilling

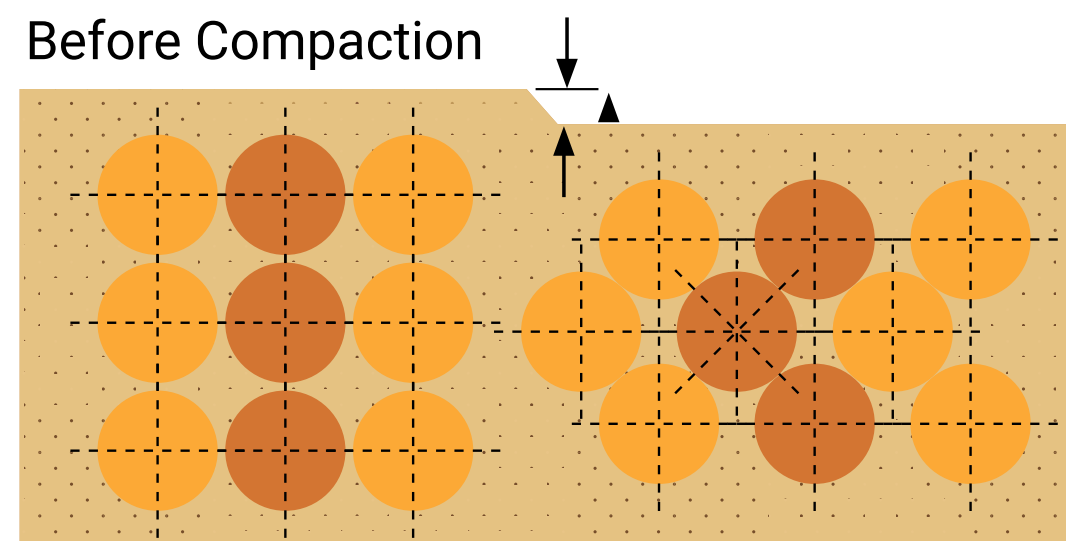
A crated forms around the vibrator/vibroflot which is backfilled with either available surface sand or imported sand. In case of imported sand a volume of approximately %10 of the treated soil volume is required. In case of consumption of existing surface sand, a subsidence up to 10% of treated depth occurs.

### Step 4: Completed Surface

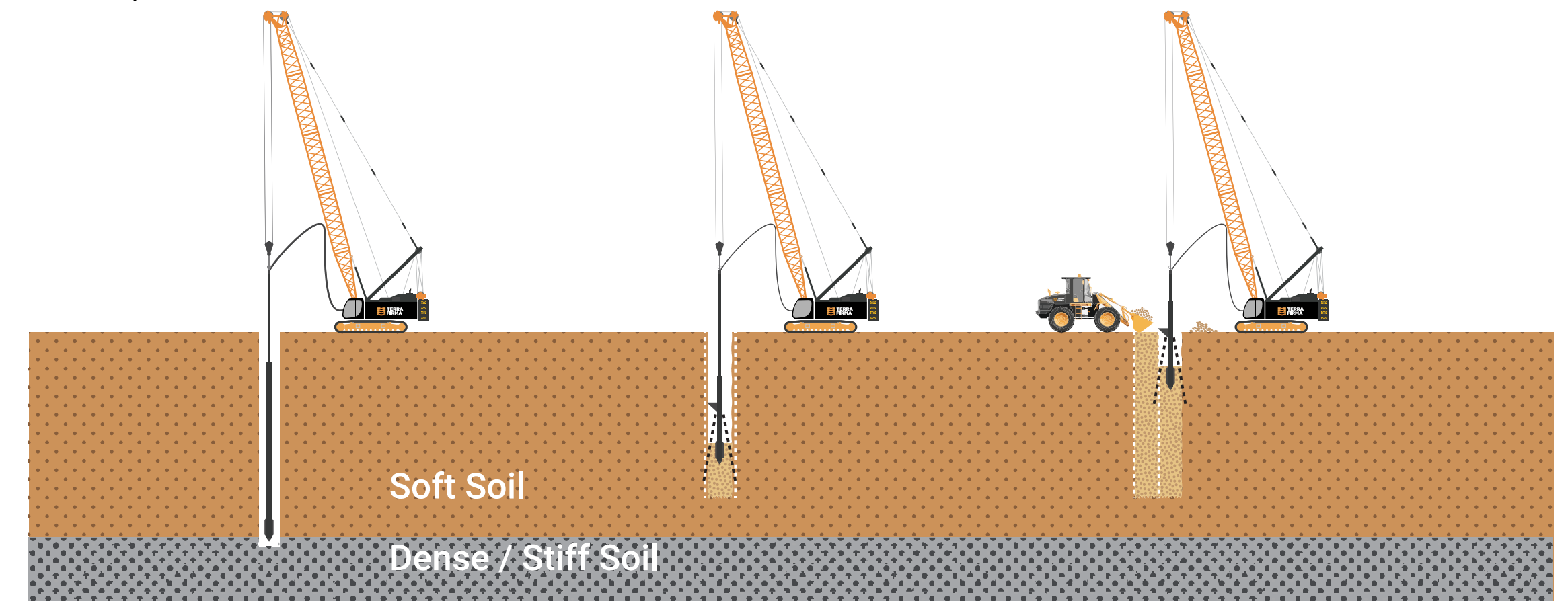
After completion of vibro compaction, the surface is roughly leveled and if required, compacted with a surface vibratory roller compactor.



Typical vibro compaction grid in triangular arrangement



Of the 10% Soil subsidence reaches up to treated depth



# Vibro Replacement (Stone Columns)

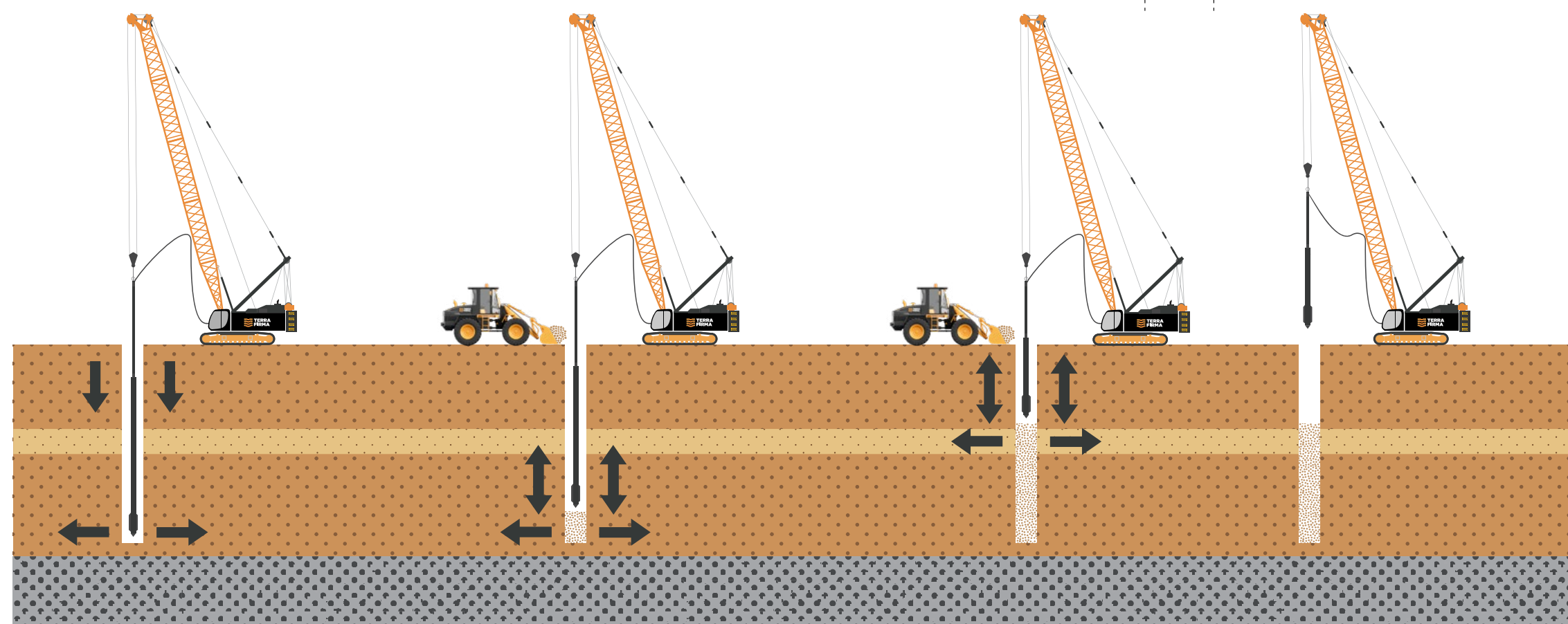
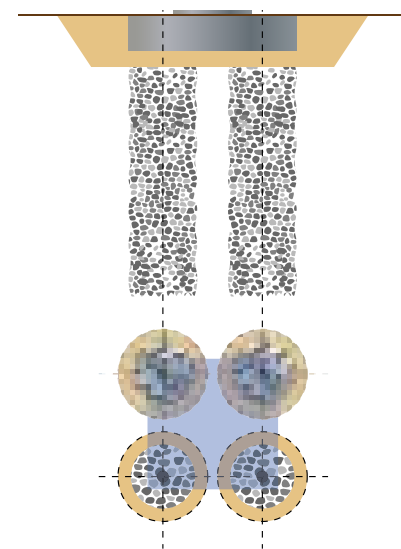
## Equipment and Execution

This method entails the use of same equipment as the vibro compaction which is essentially a depth vibrator suspended from a crane. In this method the backfill material which is normally stones or crushed aggregate is used to build a stone column in non compactable soils having high fines content. The backfill is compacted and pushed into the sides of the hole, thus forming a tightly compacted stone column from bottom to top. The increased motor resistance due to increased soil density is indicated in terms of current/pressure shown on the gauge installed in the crane cabin. This process is repeated in steps from bottom of the hole to top.

## Principle of Vibro Replacement

When the fines content exceeds more than %15, the vibrations from depth vibrator can no longer separate the soil particles from each other to achieve a closer density due to their cohesive forces. Improvement of such soils can be accomplished by installing stone columns.

Stone columns under a single footing



## Work Sequence

### Step 1: Penetration

With assistance of vibration, water/air jetting and under its own weight, the vibrator penetrated to the design depth. Upon reaching the design depth the vibrator is often completely withdrawn from the hole, allowing the hole to be cleaned from loose soil material. The water flow is adjusted to keep the annular space open around the vibrator.

### Step 2: Replacement

Now the coarse grained backfill material which is normally gravel or crushed stone aggregate is dumped into the hole. The stones are helped to reach the bottom of the hole by various up and down surging movements of the vibrator. Once the stones reach the bottom of the hole, the vibrator is re-penetrated to full depth again. The backfill is compacted and pushed into the sides of the hole with horizontal vibration and small up and down motion of the vibrator, thus forming a tightly compacted

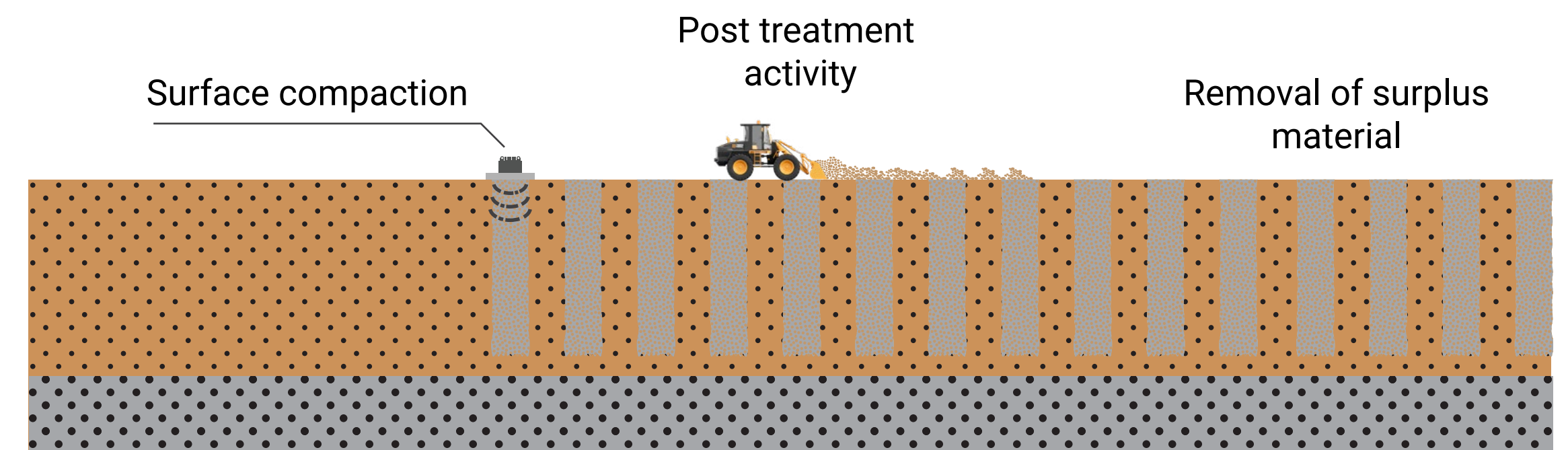
stone column. Increase in motor resistance indicates that the column building is completed at the particular level and repetition of the procedure should start at the next level.

### Step 3: Completion of Stone Column

Further stones are added through annular space around the vibrator and the whole process is repeated up to the ground level in small steps, resulting in a densely compacted stone column which is tightly interlocked with the surrounding soil of enhanced density.

### Step 4: Completed Surface

After completion of vibro replacement works, the topsoil should be cleaned off loose muddy deposits and re-compacted in layers if necessary using approved fill material to insure the correct transfer and distribution of the foundation load.



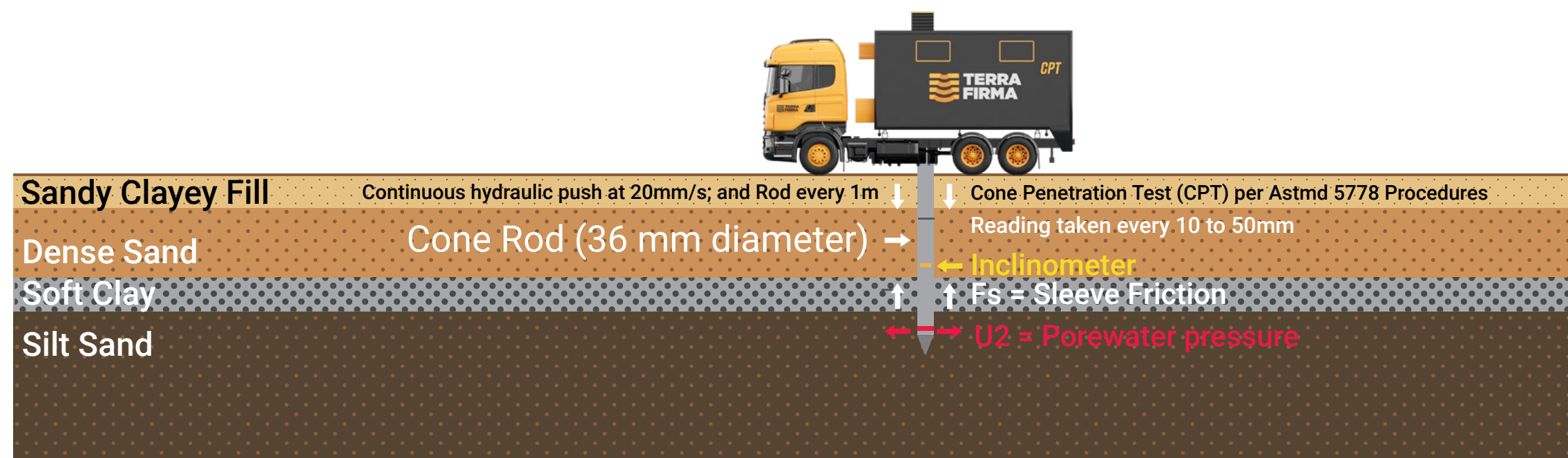
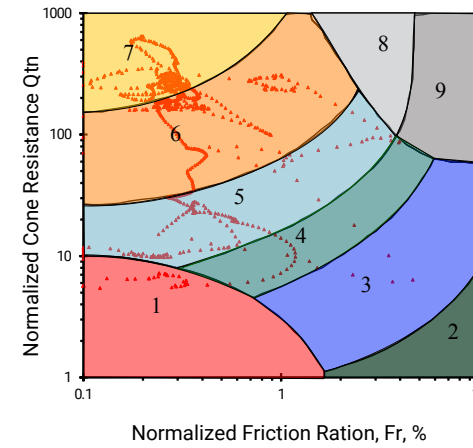
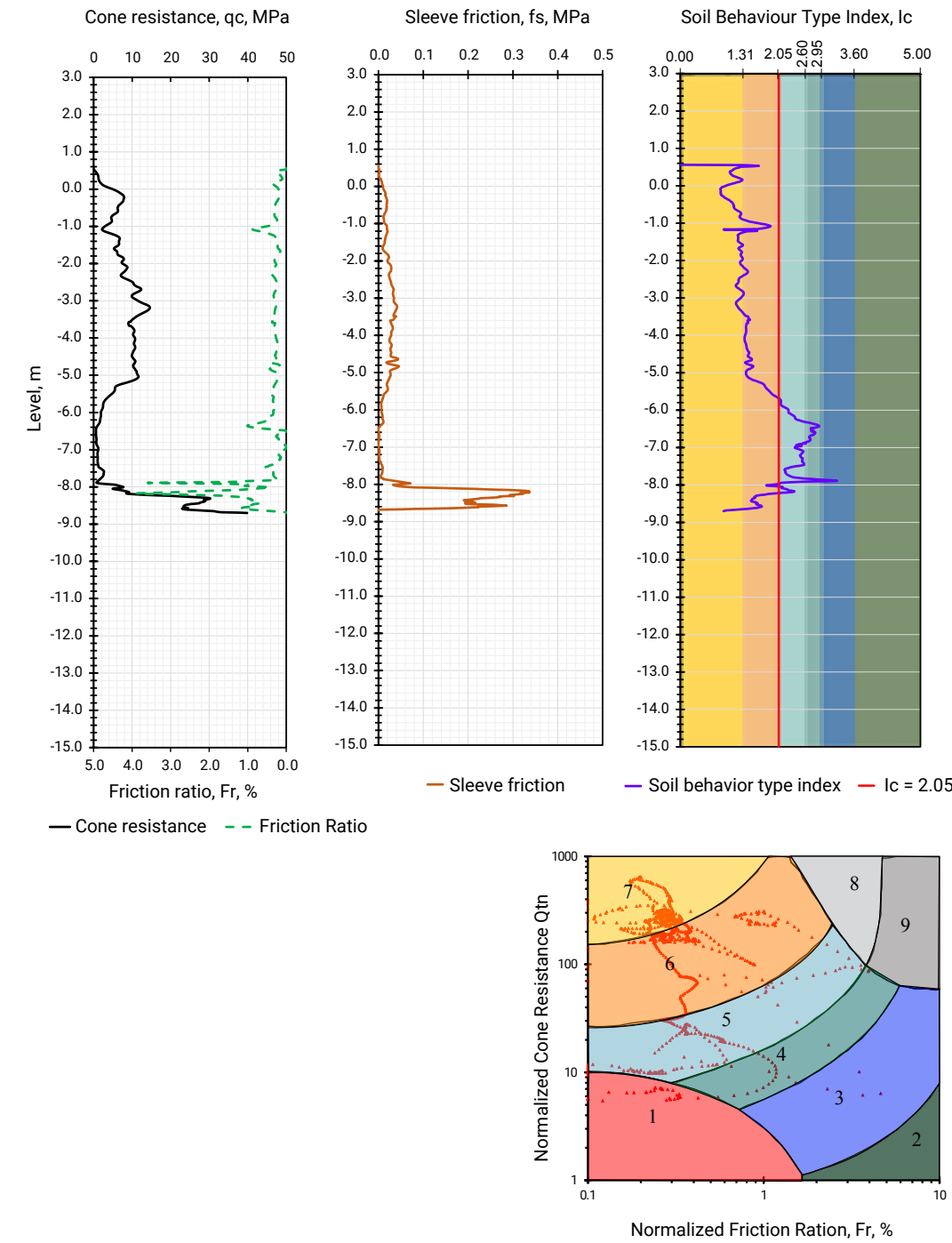
# Quality Control

## Data Recorder

The main working parameters are recorded on automated data recorder with real time printouts. The main parameters are time, power consumption and treatment depth. The data logger system is useful to control the vibro compaction of the soil and the working depth. The data logger display is normally positioned in the crane cabin.

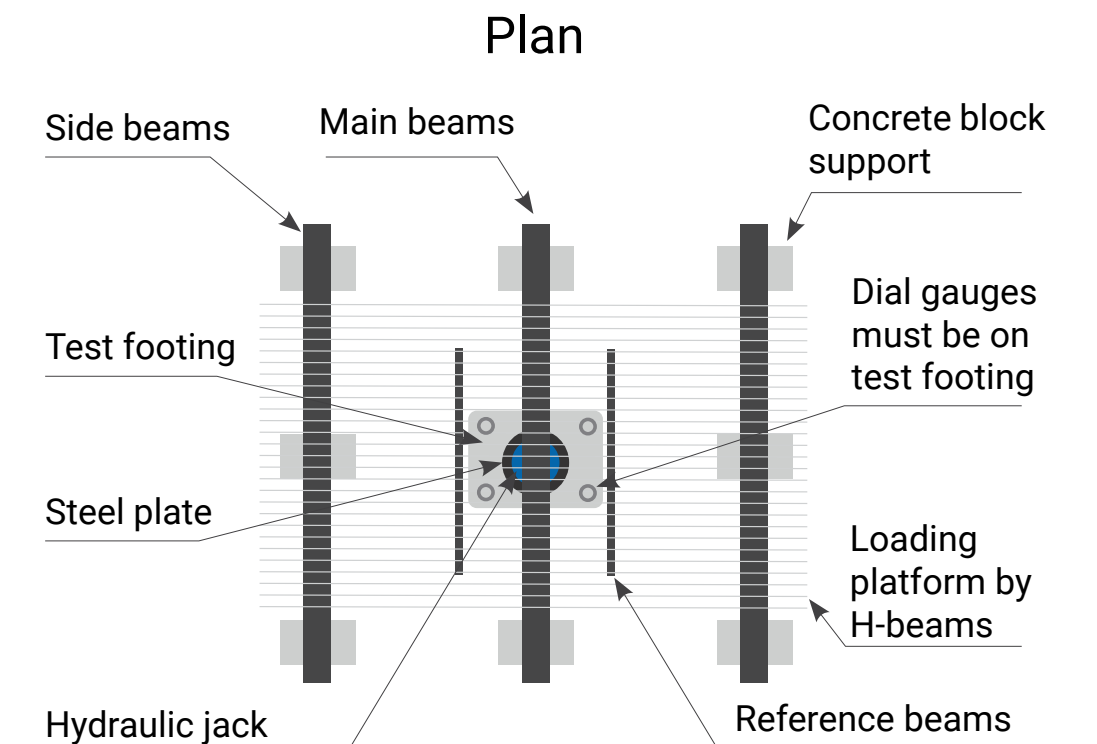
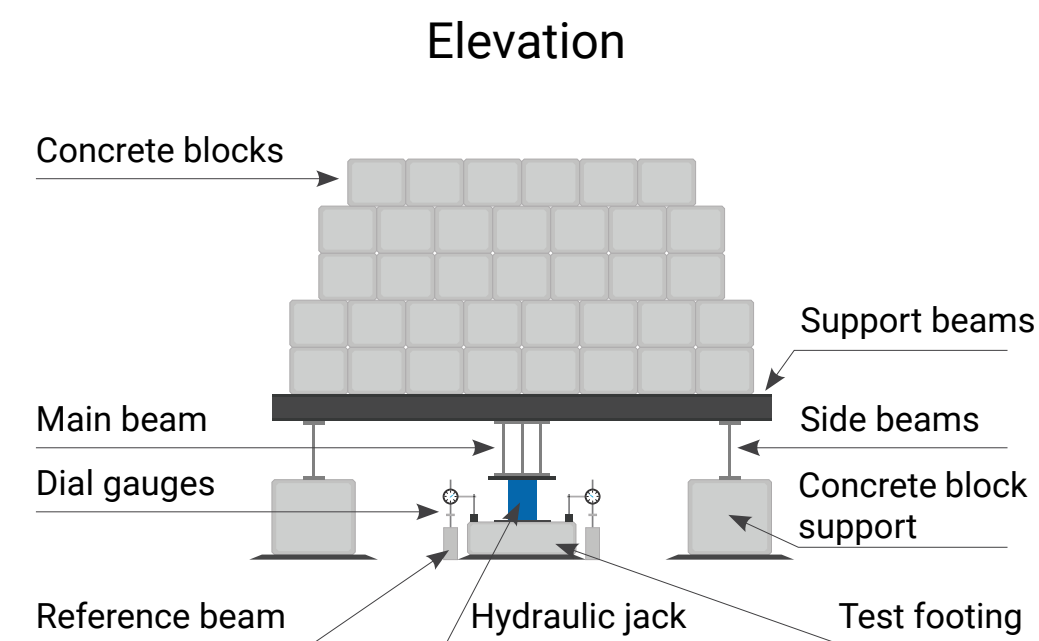
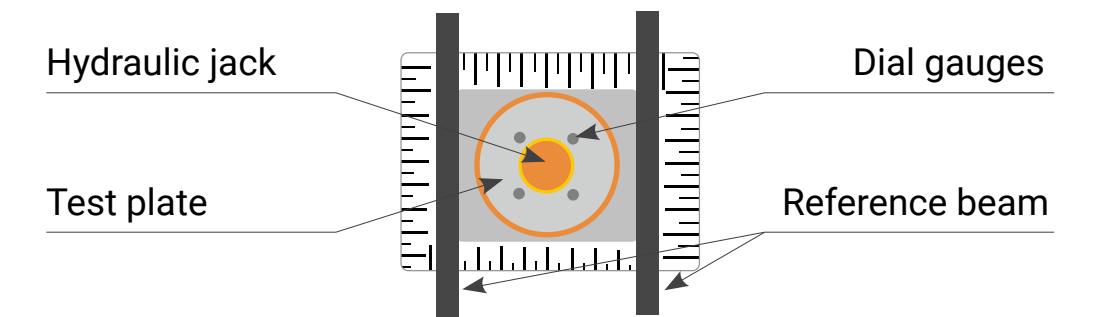
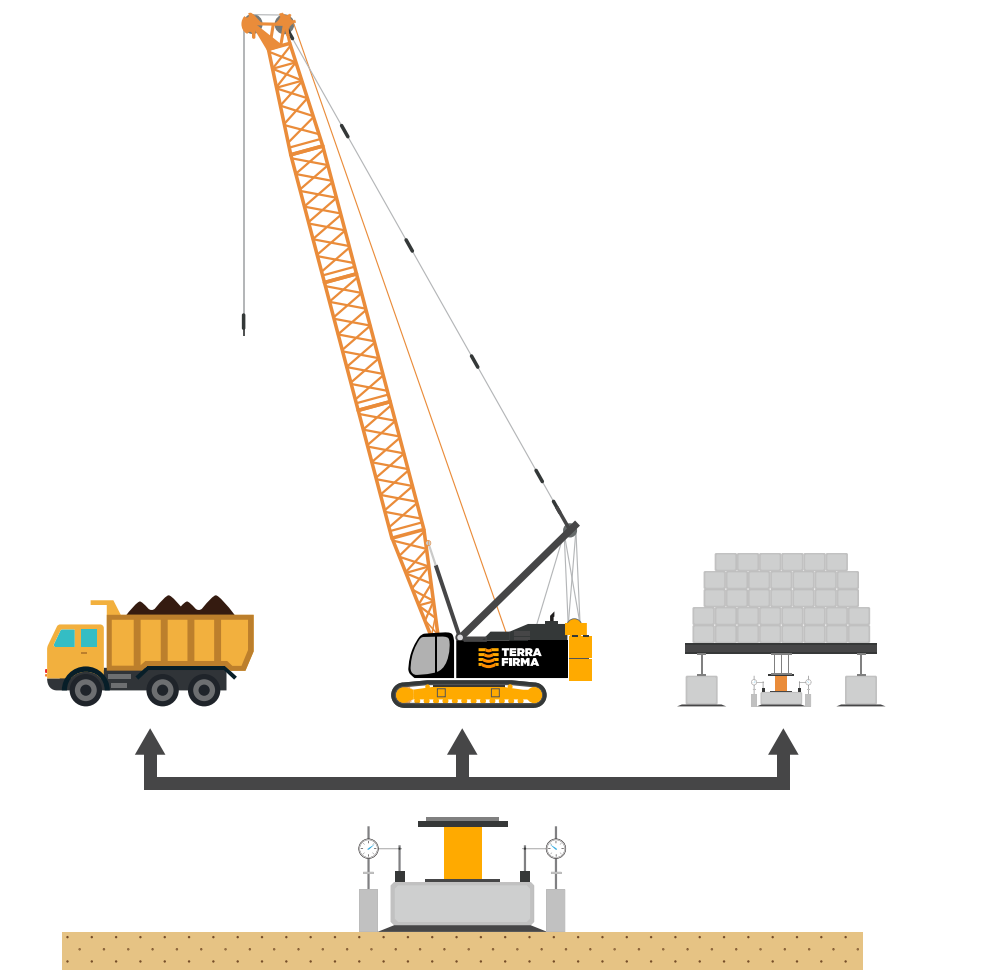
## Penetration Tests

Normally Cone Penetration Tests (CPT's) are carried out for the measurement of compaction results due to its reliability and low cost. CPT's measure qc, side friction & pore water pressure. Post compact CPT is normally carried out after minimum one week of vibro compaction in order to allow excess pore water pressure to dissipate, which was created by vibro compaction process.



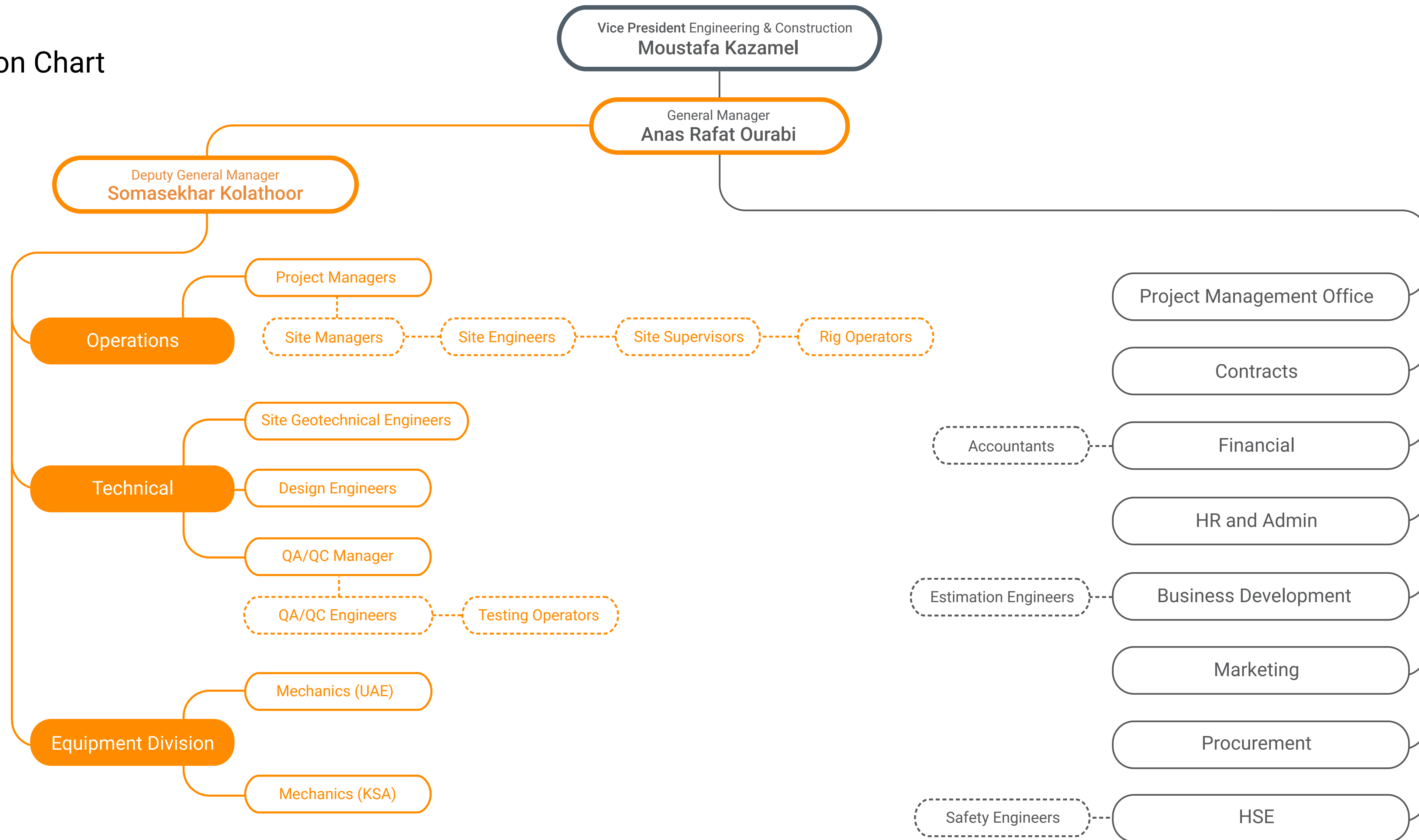
## Load Tests

Are the best quality control tests for the cohesive soils treated by vibro replacement. Load test could either be a plate load test performed by using a 0.75m to 1.0m dia steel plate or a big scale zone load test using a test slab of the size between 2x2m to 3x3m depending on stone column layout, treatment depth, load and type of structure.



# 4. Team

## Organization Chart





## Anas Ourabi

General Manager, Geotechnical

### Civil Engineering

- ▶ 20+ years of leadership experience in Ground Improvement and Geotechnical Engineering
- ▶ Bachelor's degree in Civil Engineering – Geotechnical from Tishreen University, Syria
- ▶ Directed large-scale projects across UAE, KSA, Oman, Kuwait, and Africa
- ▶ Expert in Dynamic Compaction, Replacement, and Rapid Impact Techniques

Dominican



## Somasekhar Kolathoor

Deputy General Manager

### Civil Engineering, Geotechnical

- ▶ 20+ years in Ground Improvement & Geotechnical Engineering
- ▶ Holds a Master's degree in Soil Mechanics & Foundation Engineering
- ▶ Led projects across UAE, KSA, Oman, Qatar, Kuwait and Mexico
- ▶ Specialized in Dynamic Compaction, Replacement, and Vibro Techniques

Indian



## Ahmed Alaaeldin

Technical & Business Development Manager

### Civil Engineering, Assistant Lecturer

- ▶ 13+ years of experience in Ground Improvement & Geotechnical Design
- ▶ Holds a Master's degree in Geotechnical & Structural Engineering
- ▶ Led and designed major projects across UAE, KSA, and Egypt
- ▶ Specialized in Dynamic Compaction, Rapid Impact, Stone Columns, and Shoring Works

Egyptian



## Shereef Aboo Backer

Operation Manager

### Civil Engineering

- ▶ 20+ years of experience in Ground Improvement and Geotechnical Projects
- ▶ Bachelor's degree in Civil Engineering from Calicut University, India
- ▶ Managed large-scale works across UAE, KSA, Oman, and Kuwait
- ▶ Expert in Dynamic Compaction, Replacement, and Vibro Techniques

Indian



## Hossam Edris

Area Project Manager

### Civil Engineering, Deep Foundations

- ▶ 30+ years in Deep Foundations, Ground Engineering, and Project Management
- ▶ Bachelor's degree in Civil Engineering and a Post-Graduate Diploma in Construction Management
- ▶ Led operations and major projects across UAE, KSA, Qatar, Kuwait, Oman, and India
- ▶ Specialized in Diaphragm Walls, Piling, Shoring, Anchors, Grouting, Soil Improvement, Rigid Inclusions, Dynamic Compaction, and Stone Columns

Egyptian



## Alireza Karimpour

Area Project Manager

### Civil Engineering, Geotechnical

- ▶ 25+ years of experience in Ground Improvement and Geotechnical Engineering
- ▶ Associate Degree in Civil Engineering, Road Subgrade from Lavizan University, Tehran, Iran
- ▶ Managed large-scale projects across UAE, India, Iraq, Georgia, and Central Asia
- ▶ Expert in Dynamic Compaction, Dynamic Replacement, Stone Columns, PVD, CMC, and Grouting Techniques

Iranian



## Ziad Khawam

Business Development Manager

### Civil Engineering

- ▶ 27+ years in construction, business development, and operations in UAE and GCC countries
- ▶ Degree in Civil Engineering from Jami't Alep University
- ▶ Led business growth and client relations for major projects across UAE and GCC
- ▶ Specialized in business development, sales strategy, client acquisition, and market expansion

Syrian



## Mohamed Razik Bathrudeen

Project Manager

### Civil Engineer, Geotechnical

- ▶ 15+ years of experience in Ground Improvement and Geotechnical Engineering
- ▶ Bachelor's Degree in Civil Engineering from Anna University, India
- ▶ Managed major projects across UAE and India in piling, shoring, grouting, and ground improvement
- ▶ Expert in Vibro Compaction, Dynamic Compaction, Piling, and Geotechnical Project Management

Indian



## Tanush Thampan

### Project Manager

#### Civil Engineering

- ▶ 10+ years of experience in Ground Improvement and Geotechnical Projects
- ▶ Bachelor's degree in Civil Engineering from Visvesvaraya Technical University, India
- ▶ Successfully led major projects across UAE, KSA, Bahrain, and India
- ▶ Expert in Dynamic Compaction, Rapid Impact, Rigid Inclusion, and Vibro Techniques

Indian



## Abdelrahman Ameen

### Project Manager

#### Civil Engineering

- ▶ 10+ years of experience in Civil Engineering and Project Management
- ▶ Bachelor's Degree in Civil Engineering
- ▶ Managed major projects across the Middle East in site execution and project delivery
- ▶ Experienced in project planning, coordination, execution, and operational management

Egyptian



## Osama Mostafa

### Site Manager

#### Civil Engineering, Geotechnical

- ▶ 10+ years of experience in Ground Improvement and Geotechnical Projects
- ▶ Bachelor's Degree in Civil Engineering from Helwan University, Egypt
- ▶ Managed major projects across UAE, KSA, and Egypt in site execution and project management
- ▶ Expert in Dynamic Compaction, Rigid Inclusions, Shoring, Piling, and Enabling Works

Egyptian



## Islam Abubaker

### Technical Engineer

#### Civil Engineering, Geotechnical

- ▶ 7+ years of experience in Structural and Geotechnical Design
- ▶ Bachelor's degree in Civil Engineering from Minya University, Egypt
- ▶ Worked on complex projects across UAE and Egypt, from high-rises to deep foundations
- ▶ Specialized in Piling, Shoring, Ground Anchors, and Soil Improvement Techniques

Egyptian



## Wahith Vavanan

### Geotechnical Engineer

#### Civil Engineering, Geotechnical

- ▶ 9+ years of experience in Geotechnical Design and Ground Improvement Projects
- ▶ Master's degree in Soil Mechanics & Foundation Engineering from Anna University, India
- ▶ Worked on large-scale developments across UAE, KSA, Kuwait, and Bangladesh
- ▶ Specialized in Dynamic Compaction, Replacement, RIC, and Vibro Techniques

Indian



## Amin Mohamed Lasheen

### Site Manager

#### Civil Engineering, Geotechnical

- ▶ 8+ years of experience in Ground Improvement and Geotechnical Projects
- ▶ Bachelor's degree in Civil Engineering from AAST, Egypt
- ▶ Managed large-scale site operations across Egypt with leading engineering firms
- ▶ Expert in Rigid Inclusions, Stone Columns, and PVD Techniques

Egyptian



## Hussein Sameh

### Equipment Manager

#### Mechatronics Engineer

- ▶ 14+ years of experience in Equipment Management for Ground Improvement and Geotechnical Engineering
- ▶ Bachelor's Degree in Mechatronics Engineering from the German University in Cairo
- ▶ Managed major equipment operations across KSA and Egypt
- ▶ Expert in Asset Management, Heavy Equipment, and Maintenance Planning

Egyptian



## Mina Gweid

### Site Manager

#### Civil Engineering, Geotechnical

- ▶ 10+ years of experience in Ground Improvement and Geotechnical Projects
- ▶ Bachelor's Degree in Civil Technology Engineering from Beni Suf University, Egypt
- ▶ Managed major projects across KSA and Egypt in site execution and quality control
- ▶ Expert in Dynamic Compaction, Dynamic Replacement, RDC, Stone Columns, and PVD Works

Egyptian



## Mohammed Albedaiwi

### Projects Safety Manager

#### Occupational Health, Safety, and Environment

- ▶ 14+ years of HSE experience in geotechnical and infrastructure projects
- ▶ Bachelor's Degree in Business Administration with advanced Health & Safety certifications
- ▶ Led HSE operations across major Ground Improvement, Deep Piling, and RIC projects in KSA
- ▶ Expert in HSE Governance, Risk Management, Emergency Planning, and Compliance Auditing

Saudi



## Mohamed Zakaria

### Geotechnical & Estimation Engineer

#### Civil Engineer, Geotechnical

- ▶ 6+ years of experience in Geotechnical Design and Ground Improvement
- ▶ Bachelor's Degree in Civil Engineering from Ain Shams University, Egypt
- ▶ Worked on major projects across UAE and Egypt in soil improvement and foundation design
- ▶ Expert in Dynamic Compaction, Dynamic Replacement, Vibro Techniques, and Geotechnical Design

Egyptian



## Sujith Madathil

### Production Design Engineer

#### Civil Engineering

- ▶ 15+ years of experience in Ground Improvement and Geotechnical Projects
- ▶ Diploma in Civil Engineering from the State Board of Technical Education, India
- ▶ Experienced in production design, QA/QC, and site supervision across UAE, KSA, and Africa
- ▶ Specialized in Dynamic Compaction, Replacement, and Rapid Impact Techniques

Indian



## Ahmed Ashraf

### Senior Geotechnical Design & Estimation Engineer

#### Civil Engineering, Geotechnical

- ▶ 8+ years of experience in Geotechnical Design and Ground Improvement Engineering
- ▶ Master's Degree in Geotechnical Engineering and Bachelor's Degree in Civil Engineering from Cairo University
- ▶ Worked on major projects across KSA, Egypt, USA, and Rwanda in design, estimation, and soil improvement
- ▶ Expert in Dynamic Compaction, Dynamic Replacement, RIC, Stone Columns, Shoring, and PLAXIS Modeling

Egyptian



## Omar Dannawi

### Technical & Commercial Engineer

#### Civil Engineering

- ▶ 3+ Years of experience in Ground Improvement and Civil Engineering
- ▶ Bachelor's Degree in Civil Engineering from Lattakia University in Syria
- ▶ Designed and executed projects across UAE
- ▶ Specialized in technical, operational, and tendering aspects of DC, DR and RIC techniques

Syrian



## Lama Abuteir

### Technical Engineer

#### Civil Engineering, Geotechnical

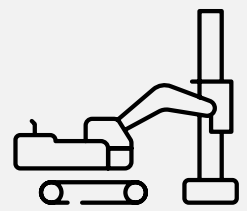
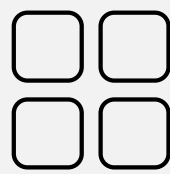
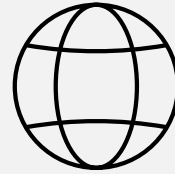

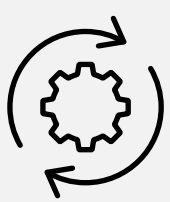
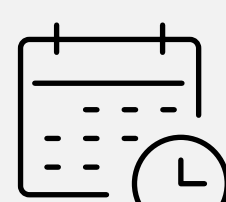
- ▶ 5+ years of experience in Ground Investigation, Ground Improvement and Geotechnical Projects
- ▶ Bachelor's degree in Civil Engineering from University of Palestine
- ▶ Worked on major projects across UAE in geotechnical & geophysical investigation and foundation design
- ▶ Expert in geotechnical design report and soil improvement design techniques

Palestinian

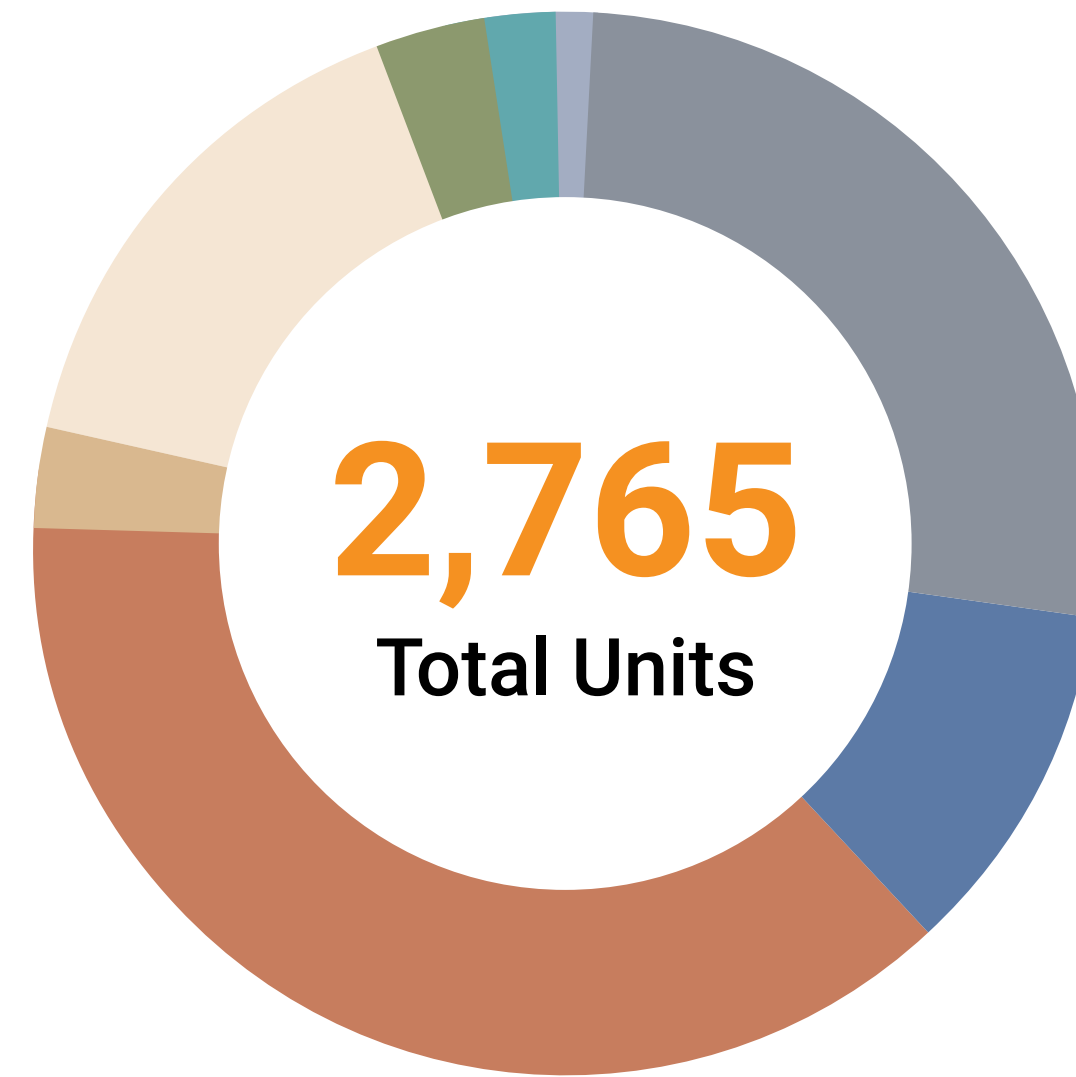
# 5. Equipment

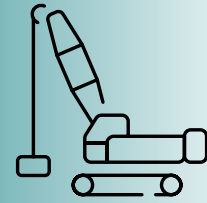
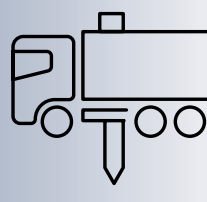

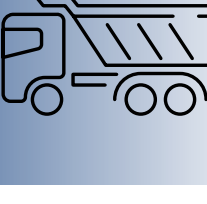


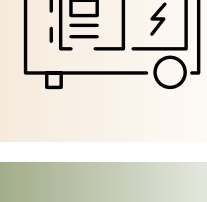

## Fleet Overview

Built for scale. Ready for every challenge.

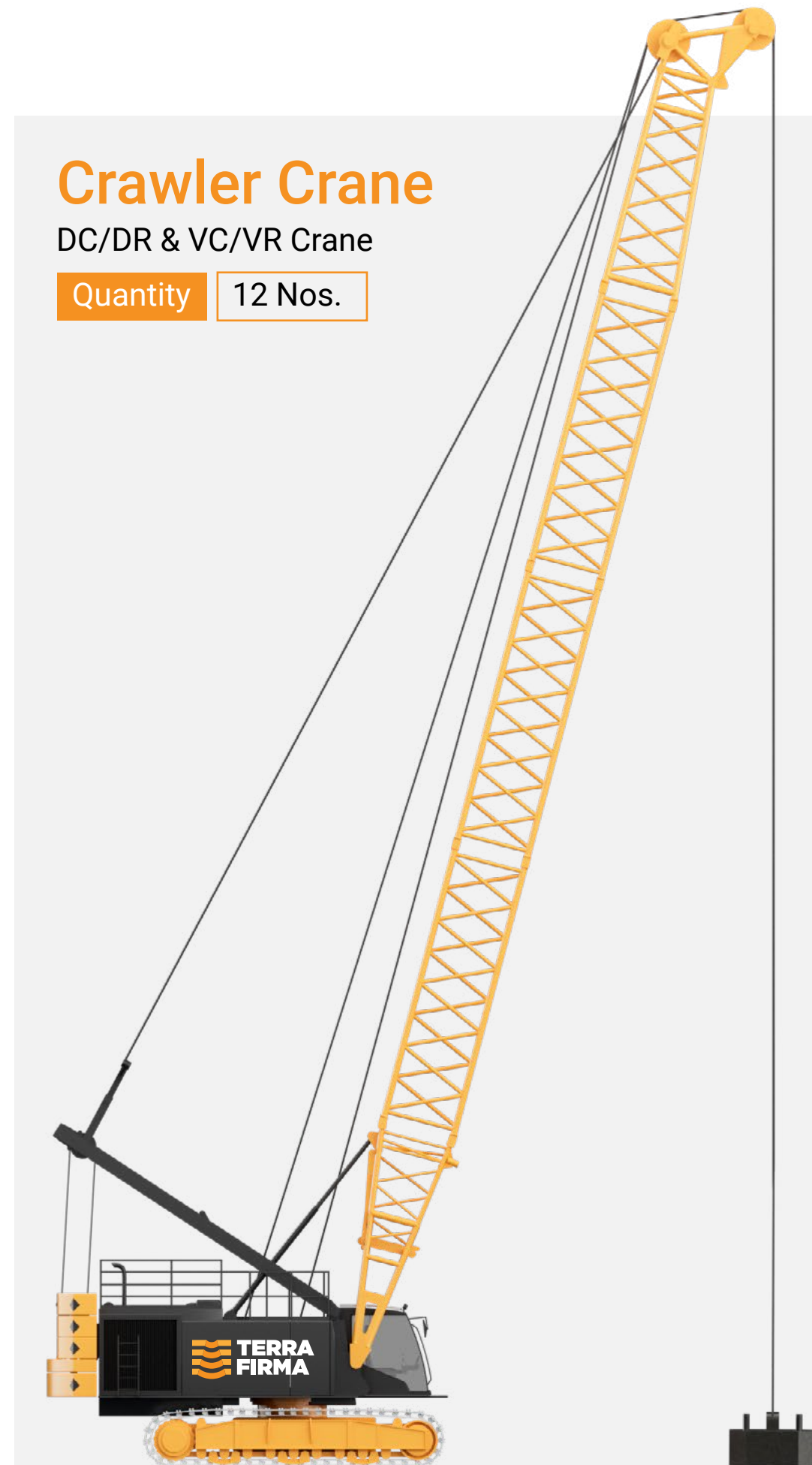
 <b>2,765</b> Total Units	 <b>30+</b> Equipment Types	 <b>10+</b> Global Brands
 Built to Deliver Performance at Scale	 Maintained to the Highest Standards	 Ready to Deploy Anytime, Anywhere

## Fleet Breakdown by Category



	<b>Ground Improvement</b>	<b>22</b>
	<b>Testing &amp; Instrumentation</b>	<b>5</b>
	<b>Earthmoving</b>	<b>731</b>
	<b>Haulage Equipment</b>	<b>296</b>
	<b>Transport Fleet</b>	<b>1,084</b>
	<b>Crushing &amp; Screening</b>	<b>88</b>
	<b>Site Support Equipment</b>	<b>451</b>
	<b>Tanker Fleet</b>	<b>88</b>

## Ground Improvement



### Crawler Crane

DC/DR & VC/VR Crane

Quantity 12 Nos.

### RDC Machine

Quantity 8 Nos.

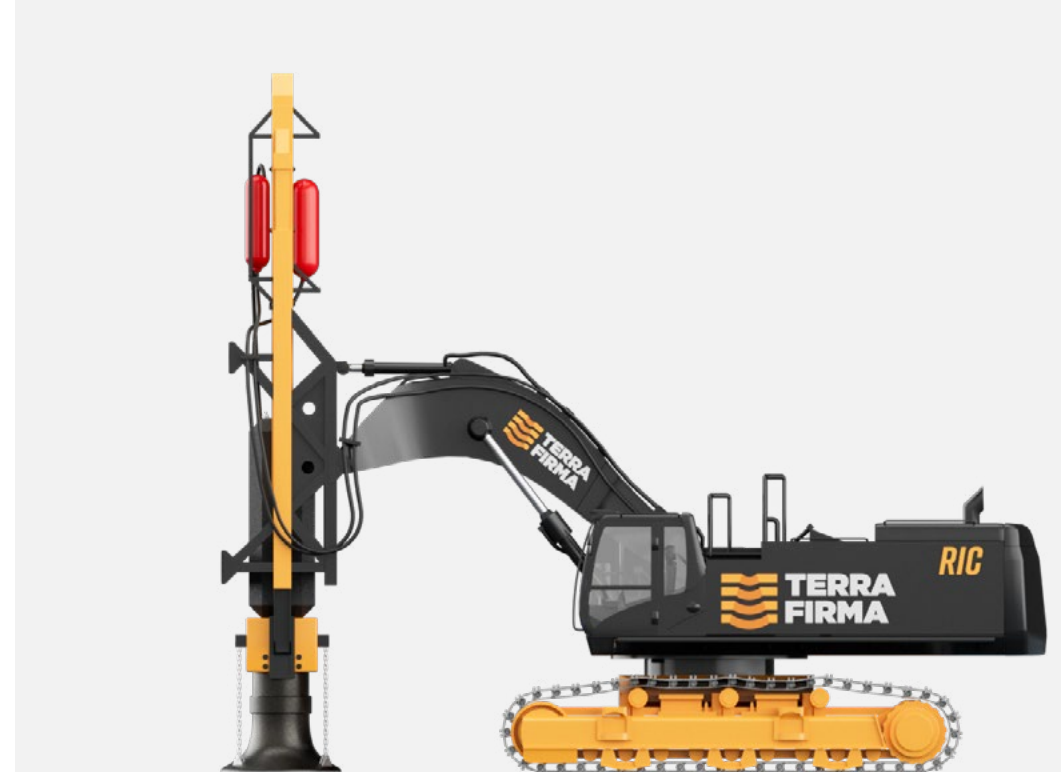
Capacity 17 Tons



### RIC Machine

Quantity 2 Nos.

Capacity 9 Tons



## Testing & Instrumentation

### CPT Truck

Testing Rig

Quantity 1 Nos.



### CPT Crawler Mounted

Testing Rig

Quantity 4 Nos.

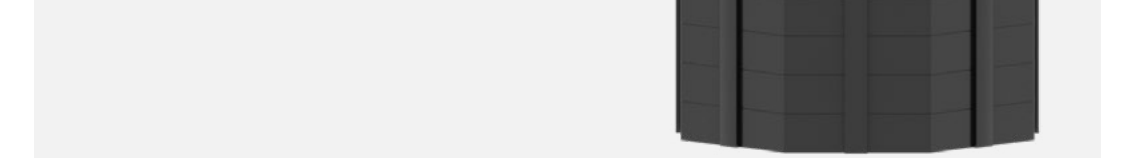


## Pounders

### DC Pounders

Quantity 6 Nos.

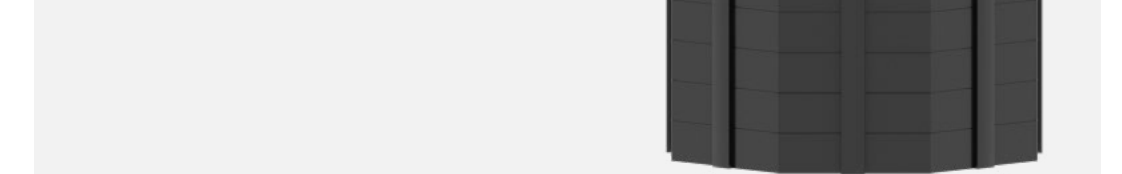
Weight 16-18 Tons



### DR Pounders

Quantity 9 Nos.

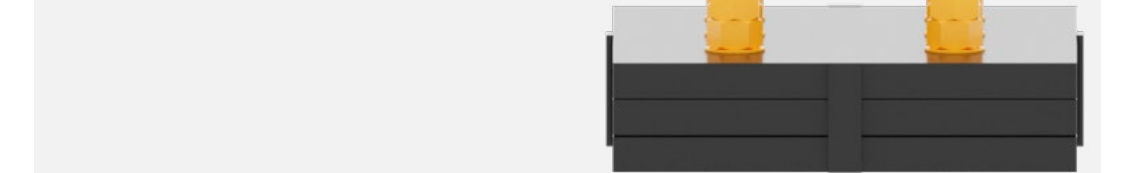
Weight 20 Tons



### Ironing Pounders

Quantity 3 Nos.

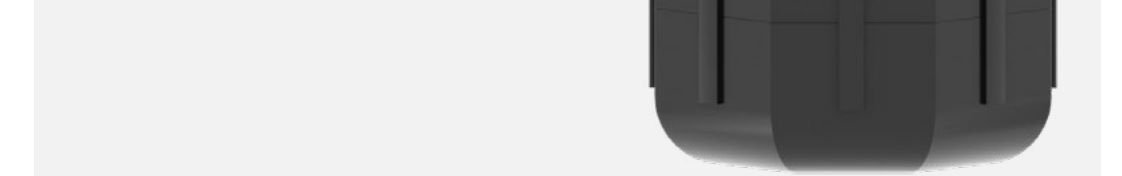
Weight 16 Tons










### DC/DR Pounders

Quantity 11 Nos.






Weight 23.5 Tons



## Earthmoving

	<b>Excavator</b> <ul style="list-style-type: none"> <li>Caterpillar</li> <li>Komatsu</li> <li>Volvo</li> <li>Doosan</li> <li>Hitachi</li> </ul>	<b>270</b> Units
	<b>Bulldozer</b> <ul style="list-style-type: none"> <li>Caterpillar</li> <li>Komatsu</li> <li>Volvo</li> </ul>	<b>138</b> Units
	<b>Wheel Loader</b> <ul style="list-style-type: none"> <li>Caterpillar</li> <li>Kawasaki</li> <li>Doosan</li> <li>Komatsu</li> </ul>	<b>120</b> Units
	<b>Roller Compactor</b> <ul style="list-style-type: none"> <li>Caterpillar</li> </ul>	<b>80</b> Units
	<b>Backhoe Loader</b> <ul style="list-style-type: none"> <li>Caterpillar</li> <li>JCB</li> </ul>	<b>50</b> Units
	<b>Motor Grader</b> <ul style="list-style-type: none"> <li>Caterpillar</li> </ul>	<b>45</b> Units
	<b>Skid Loader</b> <ul style="list-style-type: none"> <li>Bobcat</li> <li>Caterpillar</li> </ul>	<b>28</b> Units

## Fleet & Support Equipment

	<b>Haulage Equipment</b> <ul style="list-style-type: none"> <li>Dump Truck</li> <li>Dumper</li> <li>Mercedes</li> <li>Caterpillar</li> <li>Volvo</li> </ul>	<b>296</b> Units
	<b>Transport Fleet</b> <ul style="list-style-type: none"> <li>Box Trailer</li> <li>Head Trailer</li> <li>Low Bed Trailer</li> <li>Flat Bed Trailer</li> <li>Man</li> <li>Mercedes</li> <li>Volvo</li> <li>Local</li> </ul>	<b>1,084</b> Units
	<b>Crushing &amp; Screening</b> <ul style="list-style-type: none"> <li>Mobile Crusher</li> <li>Screen Crusher</li> <li>Meka</li> <li>Local</li> </ul>	<b>88</b> Units
	<b>Site Support Equipment</b> <ul style="list-style-type: none"> <li>Generator</li> <li>Tower Light</li> <li>Diesel Tank</li> <li>Jack Hammer</li> <li>Caterpillar</li> <li>Cummins</li> <li>Denyo</li> <li>Khonaysser</li> <li>Doosan</li> <li>JCB</li> <li>KMGP</li> <li>Perkins</li> <li>Alpha-Plus</li> <li>Rockbuster</li> </ul>	<b>451</b> Units
	<b>Tanker Fleet</b> <ul style="list-style-type: none"> <li>Tanker 12,000 Ltr</li> <li>Tanker 18,000 Ltr</li> <li>Mercedes</li> </ul>	<b>88</b> Units

## 6. Licenses

Business Registrations: UAE 



### Dubai Trade License

License No: 1199411  
 Company: Terra Firma Foundation Contracting LLC  
 Issue Date: 20 June 2023  
 Expiry Date: 19 June 2027

### Dubai Chamber Membership

Membership No: 468199  
 Member Since: 20 June 2023  
 Issue Date: 20 June 2023

### Dubai Commercial Register

Register No: 2094842  
 Issue Date: 20 June 2023

## Banking Partner

### First Abu Dhabi Bank



### Abu Dhabi Unified License

License No: CN-5094975  
 Establishment Date: 29 October 2023  
 Issue Date: 20 October 2025  
 Expiry Date: 29 October 2026

### Abu Dhabi Chamber Membership

Membership No: 8800059524  
 Member Since: 29 October 2023  
 Issue Date: 30 October 2024  
 Expiry Date: 29 October 2026

### In-Country Value Certificate

**Dubai**  
 Certificate No: 141632  
 Issue Date: 25 September 2025  
 Valid Until: 17 October 2026

### In-Country Value Certificate

**Abu Dhabi**  
 Certificate No: 141633  
 Issue Date: 25 September 2025  
 Valid Until: 17 October 2026

# Licenses

## Business Registrations: KSA

وزارة التجارة  
Ministry of Commerce



### Ministry of Commerce Certificate

License/CR No: 2050004953  
 Member Since: 1978  
 Issue Date: 11 June 2023  
 Expiry Date: 17 April 2028



### Saudi Chamber Membership

Membership No: 383593  
 Date of Membership: 11 June 2023  
 Expiry Date: 17 April 2028



### SCA Membership

Membership No: 10001405  
 Issue Date: 09 Feb 2026  
 Membership Expiry: 18 Feb 2027



### GOSI Social Insurance Certificate

Certificate Code: 110770340  
 Subscription No: 508037511

هيئة الزكاة والضريبة والجمارك  
Zakat, Tax and Customs Authority



### VAT Registration Certificate

VAT No: 300912474500003  
 Registration Effective: 01 January 2018

### ZATCA Tax Compliance Certificate

Valid Until: 30 April 2027



### Saudization (Nitaqat) Certificate

Certificate No: 132334-12894790  
 Issue Date: 12 Jan 2026  
 Expiry Date: 26 July 2026

العنوان الوطني  
NATIONAL ADDRESS



### National Address

Proof No: 1083475107  
 Issue Date: 07 April 2025  
 Expiry Date: 04 October 2026




رقم الرخصة / License No. **1199411**

**رخصة تجارية**  
Commercial License

تفاصيل الرخصة	
Company Name	تيرا فيرما لأعمال حفر الأساسات بش.ذ.م.م <b>TERRA FIRMA FOUNDATION CONTRACTING L.L.C</b>
Business Name	تيرا فيرما لأعمال حفر الأساسات بش.ذ.م.م <b>TERRA FIRMA FOUNDATION CONTRACTING L.L.C</b>
Legal Type	شركة ذات مسؤولية محدودة - الشخص الواحد (ذ.م.م) <b>Limited Liability Company - Single Owner(LLC - SO)</b>
Expiry Date	تاريخ الانتهاء <b>19/06/2027</b>
Issue Date	تاريخ الإصدار <b>20/06/2023</b>
VAT No.	رقم الرخصة الأم Main License No. <b>1199411</b>
Register No.	رقم السجل التجاري DCCI No.

أنشطة الرخصة التجارية	
Piling & Foundation Contracting	Active

Issued By  
استثمر في دبي  
**invest in dubai**  
www.investinDubai.ae

Printed Date

تاريخ الطباعة

هذه الوثيقة الإلكترونية صادرة من قبل دائرة الاقتصاد والسياحة في دبي ولا تحتاج إلى توقيع.  
Approved electronic document issued without signature by the Department of Economy and Tourism.




رقم الرخصة / License No. **1199411**

**رخصة تجارية**  
Commercial License

أطراف الرخصة				
Share / الحصص	Role / الصفة	Nationality / الجنسية	Name / الاسم	ID No. / رقم الشخص
100%	مالك حصص Shares owner	السعودية Saudi Arabia	مرووق بن مفرح الحربي MARZOUQ MOFARAH M ALHARBI	1330466
	مدير Manager	السعودية Saudi Arabia	مرووق بن مفرح الحربي MARZOUQ MOFARAH M ALHARBI	1330466
	مدير Manager	دومينيكا دول الكومنولث Commonwealth of Dominica	انس رافت عرابي ANAS RAFAT OURABI	1206640

Beneficiary Owner consent of this license has been signed on 21/09/2023. For more information or to know the Beneficiary Owner, please visit any DET service center or ID website.

تم التوقيع بموافقة المالك المستفيد لهذه الرخصة بتاريخ 21/09/2023. وللمزيد من المعلومات أو لمعرفة المالك المستفيد الحقيقي، يرجى زيارة مراكز الخدمة التابعة لدائرة الاقتصاد والسياحة أو زيارة الموقع الإلكتروني لخدمة استثمر في دبي.

العنوان				
Phone No	+971-508919982	هاتفون	P.O. Box	341101
Fax No	-	فاكس	Mobile No	+971-508919982
Email	Anas.ourabi@terrafirmage.com			
Parcel ID	626-0			



Office 114, Owned by للمناطق الاقتصادية المتكاملة، New Dubai, New Dubai

Issued By  
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**invest in dubai**  
www.investinDubai.ae

Printed Date

تاريخ الطباعة

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Approved electronic document issued without signature by the Department of Economy and Tourism.

رقم الرخصة / License No. **1199411**

**رخصة تجارية**  
Commercial License

الإيصاف	
Receipt Date	21/05/2026
Business Name	تيرا فيرما لأعمال حفر الأساسات بش.ذ.م.م <b>TERRA FIRMA FOUNDATION CONTRACTING L.L.C</b>
Procedure	Renew License
P.V.No.	رقم إذن الدفع
Payment Mode	eGovernment Online Payment
Amount in Words	ثلاثة عشر ألف و مائة و ستة عشر درهم صغار فلماً <b>Thirteen thousand one hundred sixteen Dirhams and zero fils</b>

Issued By  
استثمر في دبي  
**invest in dubai**  
www.investinDubai.ae

Printed Date

تاريخ الطباعة

هذه الوثيقة الإلكترونية صادرة من قبل دائرة الاقتصاد والسياحة في دبي ولا تحتاج إلى توقيع.  
Approved electronic document issued without signature by the Department of Economy and Tourism.



سلطة أبوظبي للتسجيل  
Abu Dhabi Registration Authority



دائرة التنمية الاقتصادية  
DEPARTMENT OF ECONOMIC DEVELOPMENT

### رخصة أبوظبي الاقتصادية Abu Dhabi Economic Licence

Licence Details		تفاصيل الرخصة	
Licence Type	Business	نوع الرخصة	تجارية
Licence Category	Branch	فئة الرخصة	فرع
Licence No.	CN-5094975	رقم الرخصة	
Unified Registration No.	101-2023-100166285	رقم التسجيل الموحد	
Unified Licence No.	501-2023-100239310	رقم الرخصة الموحد	
Establishment Date	29/10/2023	تاريخ التأسيس	
Issuance Date	20/10/2025	تاريخ الإصدار	
Expiry Date	29/10/2026	تاريخ الانتهاء	
Legal Form	UAE Branch - Dubai	الشكل القانوني	فرع إماراتية - دبي
Trade Name	TERRA FIRMA FOUNDATION CONTRACTING L.L.C - BRANCH OF ABU DHABI 1	الإسم التجاري	تيرا فيرما لأعمال حفر الأساسات ش.ذ.م.م - فرع أبو ظبي 1

Ownership and Representatives				الملكية والممثلين	
Representative of	Role/Position	Nationality	Name	الاسم	الجنسية
مالك	Owner	المملكة العربية السعودية	MARZOUQ MOFARAH M ALHARBI	مرزوق بن مفرح بن مرزوق الحربي	
المفوض بالتوقيع لبطاقة المنشأة	EC Authorized Signatory	دومينيكا	ANAS RAFAT OURABI	انس رافت عرابي	
مدير	Manager	دومينيكا	ANAS RAFAT OURABI	انس رافت عرابي	

Licence Activities			الأنشطة المرخصة	
foundations Digging , pillars installing AND rung Piles work	4390001	- أعمال حفر الأساسات و تثبيت الركائز ودفن الخوازيق		

**Address**

Official Email: hr@terrafirmage.com

Official Mobile: +971508919982

Address: الحصن, غرب 7\_1, 0 : م. ميني, بنك أبوظبي الأول ش.م.ع

**Additional Information**

Emerging Economic Establishment

ADCCI No: 8800059524

MOHRE Establishment Card No: 1977365

ICP Establishment Card No: 846580

www.adra.gov.ae

1 of 1 Print Date 20/10/2025 Print Time 10:33:09 To verify the economic licence kindly visit the TAHAQAQ service on www.tamm.abudhabi

الرقم الموحد : 8800059524

رقم الرخصة : CN-5094975



غرفة أبوظبي  
ABU DHABI CHAMBER

شهادة العضوية  
Membership Certificate

**بناءً على قانون غرفة تجارة وصناعة أبوظبي رقم 27 لسنة 2005 م وتعديلاته**

**فقد تم تسجيل : تيرا فيرما لأعمال حفر الأساسات ش.ذ.م.م - فرع أبو ظبي 1**

**لممارسة النشاط : أعمال حفر الأساسات و تثبيت الركائز ودفن الخوازيق**

**العنوان : الحصن, غرب 7\_1, 0 : م. ميني, بنك أبوظبي الأول ش.م.ع.**

**جنسية الشركاء: المملكة العربية السعودية**

**الشكل القانوني: فرع شركة احسية**

**صدرت بتاريخ : 20-10-2025**      **وسرى مفعولها حتى تاريخ : 29-10-2026**

مستند صادر من غرفة أبوظبي - دولة الإمارات العربية المتحدة. وللمزيد من التحقق الرجاء مسح QR كود







## IN-COUNTRY VALUE CERTIFICATE

Certificate No.: 141632  
 Issue Date: 25.09.2025  
 Valid Until: 17.10.2026

### TERRA FIRMA FOUNDATION CONTRACTING L.L.C

# 38.88%

**Company General Information**

License No.: 1199411  
 Company Type: **SME in UAE**  
 Financial Year End Date: 31.12.2024  
 Company Based In: **Within UAE**  
 Company Business: **SERVICE PROVIDER**



**For Cases of Re-Certification**  
Re-Certification (\*) No.:

Reason for this Re-Certification: Scan the QR code to verify status

---

<p><b>Signed By</b> On behalf of Supplier</p> <p><b>Name:</b> ANAS RAFAT OURABI</p> <p><b>Designation:</b> Manager</p>	<p><b>Verified as per ICV Agreed Upon Procedures (AUP)</b> On behalf of Certification Body</p> <p><b>Name:</b> Taher Singaporewala</p> <p><b>Designation:</b> Associate Director</p> <p><b>Company:</b> MBC Auditing &amp; Accounting</p> <p><b>Certificate Issued Based on ICV Version: 3.0</b></p>
--	--

**Electronically signed by**  
**Taher Singaporewala**



## IN-COUNTRY VALUE CERTIFICATE

Certificate No.: 141633  
 Issue Date: 25.09.2025  
 Valid Until: 17.10.2026

### TERRA FIRMA FOUNDATION CONTRACTING L.L.C - BRANCH OF ABU DHABI 1

# 30.12%

**Company General Information**

License No.: CN-5094975  
 Company Type: **SME in UAE**  
 Financial Year End Date: 31.12.2024  
 Company Based In: **Within UAE**  
 Company Business: **SERVICE PROVIDER**



**For Cases of Re-Certification**  
Re-Certification (\*) No.:

Reason for this Re-Certification: Scan the QR code to verify status

---

<p><b>Signed By</b> On behalf of Supplier</p> <p><b>Name:</b> ANAS RAFAT OURABI</p> <p><b>Designation:</b> Manager</p>	<p><b>Verified as per ICV Agreed Upon Procedures (AUP)</b> On behalf of Certification Body</p> <p><b>Name:</b> Taher Singaporewala</p> <p><b>Designation:</b> Associate Director</p> <p><b>Company:</b> MBC Auditing &amp; Accounting</p> <p><b>Certificate Issued Based on ICV Version: 3.0</b></p>
--	--

**Electronically signed by**  
**Taher Singaporewala**

**Branch Of Company Registration Certificate**  
شهادة تسجيل فرع شركة

Ministry of Commerce  
National Unified No : 7036510613  
No. : 2050172580  
Date : 1444/11/22 2023/06/11

Company's Trade Name: Company MUFREH MARZOUK AL-HARBI WESCHERKAH Ltd.  
Company's type: Limited liability Company's Total Capital: 2,000,000 Saudi Riyals  
Company's Head Quarter: 0000 al-dammam 31491-0000  
Telephone: 0138500011 Postal Code: 31491 P.O Box: 004028  
Main commercial registration number: 2050004953 Date: 1397/07/02 H / 1977/06/18 Issued by: Dammam  
Trade Name: Company ARDUL AL-QUYA Ltd.  
Address: 4397 al-dammam 32674-6626  
Telephone: 0000000000 Postal Code: 32674 P.O Box:  
Company's Activity: To view the CR activities please scan the QR code  
Manager's Name: MARZOUQ MOFARAH M ALHARBI  
Nationality: Saudi Arabia Date of Birth: 1398 H / 1978 Issued by: AL-ARABIA AL-SUDI  
ID No: 1039494966 ID Date: / / ID Issued by: AHAWAL AL-DAMMAM  
Managers Authorities: As stipulated in the company's contract Date: / / Issued by:  
The Commercial registration department of city acknowledge: Dammam That this company has been registered in the registry of city: Dammam  
This commercial registration will be valid: 1449/11/22 H / 2028/04/17 By the ticket No: 36427903 And Date: 1444/11/22 H / 2023/06/11

To Verify The Information Of This Certificate Visit <http://mc.gov.sa>  
يتمثل التحقق من صحة هذه الشهادة بالتحقق على <http://mc.gov.sa>  
+966 11 264 4444 | الرياض 11162 | المملكة العربية السعودية | Kingdom of Saudi Arabia | Riyadh 11162 | +966 11 264 4444

**شهادة تسجيل فرع شركة**  
Branch Of Company Registration Certificate

Ministry of Commerce  
رقم الموحد : ٧٠٣٦٥١٠٦١٣  
رقم المنشأة : ٢٠٥٠١٧٢٥٨٠  
التاريخ : ١٤٤٤/١١/٢٢ هـ

الدسم التجاري للشركة : شركة مفرح مرزوق الحربي وشركاه المحدودة  
نوعها : ذات مسئولية محدودة  
مقرها الرئيسي : الدمام حي غرناطة شارع المزارع  
هاتف : ٨٥٠٠١١ الرمز البريدي : ٣١٤٩١ ص.ب : ٠٠٤٠٢٨  
رقم سجل المركز الرئيسي : ٢٠٥٠٠٠٤٩٥٣ تاريخه : ١٣٩٧/٠٧/٠٢ هـ مصدره : الدمام  
الدسم التجاري : شركة الأرض القوية المحدودة  
العنوان : ٤٣٩٧، الدمام، الأرقام، ٦٦٢٦  
هاتف : ٠٠٠٠٠٠٠٠ الرمز البريدي : ٣٢٦٧٤ ص.ب :  
النشاط : لتأجير علي بيئات الأنشطة الرجاء مسح الرمز التجاري  
اسم المدير (رئيسيا) : مرزوق بن مفرح بن مرزوق الحربي  
الجنسية : سعودي تاريخ الميلاد : ١٣٩٨ هـ مكان الميلاد : العربية السعودية  
رقم السجل المدني : ١٠٣٩٤٩٤٩٦٦ تاريخه : مصدره : أحوال الدمام  
سلطات المدير : حسب ما نص عليه عقد الشركة  
يشهد مكتب السجل التجاري بمدينة : الدمام بأنه تم تسجيل فرع الشركة المذكورة أعلاه بمدينة : الدمام  
وتنتهي صلاحية الشهادات في : ١٤٤٩/١١/٢٢ هـ بموجب الإيصال رقم : ٣٦٤٢٧٩٠٣ وتاريخ : ١٤٤٤/١١/٢٢ هـ

To Verify The Information Of This Certificate Visit <http://mc.gov.sa>  
يتمثل التحقق من صحة هذه الشهادة بالتحقق على <http://mc.gov.sa>  
+966 11 264 4444 | الرياض 11162 | المملكة العربية السعودية | Kingdom of Saudi Arabia | Riyadh 11162 | +966 11 264 4444

هيئة المحتوى المحلي والمشتريات الحكومية  
Local Content & Government Procurement Authority

التاريخ : 29/9/2022  
عناية : شركة مفرح مرزوق الحربي وشركاه المحدودة  
رقم الشهادة : 0000670

لتذكير طريفة ووجد  
انتم كما نعلم بأنكم بعد مراجعة تقرير الدرجات المتعلق بعلوم المحتوى المحلية بنسبة المحتوى المحلي ل شركة مفرح مرزوق الحربي وشركاه المحدودة سجلت اذ كان  
رقم 2050004953 لتسعة المائة المئتمئة بتاريخ 31/12/2021 بين أن نسبة المحتوى المحلي هي 38.13%  
علما بأنه تمت المراجعة والرد لغرض بيان نسبة المحتوى المحلي في المنشأة المشار إليها أثناء ذلك السنة المالية المحددة بناء على طلبكم دون تدخل  
هيئة المحتوى المحلي والمشتريات الحكومية أو مسؤوليها  
مع كافة الإدارات والتدبير  
ملاحظة: نسبة المحتوى المحلي هي 19 شهر من نهاية السنة المالية المذكورة  
هذه الوثيقة مرسلة عبر النظام إلكتروني ولا تحتاج إلى توقيع

Greetings,  
We would like to inform you that after reviewing the agreed upon procedure report regarding local content score for Mufreah Marzouq Al Harbi and Partners - Commercial Register No. 2050004953 for the year ended 31/12/2021 We confirm that the LC Score is 38.13%  
Please note that LGOPA has reviewed the report for the purpose of confirming the LC score for the entity and the financial year mentioned above without holding LGOPA minimally responsible.  
Best Regards,  
Note: the validity of the local content score is 19 months from the end of the financial year mentioned.  
This certificate is sent via electronic mail and it does not require a signature.

للتحقق من صحة البيانات يرجى زيارة الرابط <http://mc.gov.sa> أو التواصل مع البريد الإلكتروني [lc@mc.gov.sa](mailto:lc@mc.gov.sa)  
Click here to validate the information in this certificate, or send the certificate number and the CR number to [lc@mc.gov.sa](mailto:lc@mc.gov.sa)

**شهادة اشتراك**  
Membership

البنوية الموحدة  
للغرف السعودية  
ASHARQA CHAMBER

This is to certify that نشهد بأن  
شركة الأرض القوية المحدودة  
is a member in the chamber الغرفة التجارية

Certificate Date	29/04/2025 - 01/11/1446	تاريخ طباعة الشهادة
Date of Membership	11/06/2023 - 22/11/1444	تاريخ الاشتراك
Date of Expiry	17/04/2028 - 22/11/1449	تاريخ الانتهاء
Subscription Status	فعال	حالة الاشتراك
NUN	7036510613	رقم المنشأة الموحد
Membership No	383593	رقم الإشتراك
Membership Degree	الأولى	درجة الإشتراك
Commercial Record/ License	2050172580	الرخصة / السجل التجاري
P. O. Box		صندوق البريد

التوقيع  
عبدالعزیز بن سعد المعمر  
مدير إدارة المشتركين والفروع

**SCA**  
الهيئة السعودية للمقاولين  
Saudi Contractors Authority

شهادة  
عضوية  
مقاول

تاريخ الإصدار: 09 Feb, 2026

طبقاً لتنظيم الهيئة السعودية للمقاولين فإننا نشهد بأن  
**شركة مفرح مرزوق الحربي وشركاه المحدودة**  
رقم العضوية: 10001405

مسجل في عضوية الهيئة حسب الإجراءات المتبعة وقد أعطى هذه الشهادة بناء على ذلك  
النشاط الأساسي للمقاول (\*):  
1 - تشييد المباني

تاريخ نهاية العضوية February 18, 2027  
الرجاء التحقق من صحة وصلاحيه الشهادة عبر زيارة الرابط <https://muqawil.org>

صدرت هذه الشهادة من الهيئة السعودية للمقاولين و تحمل ملكا للهيئة و يجب  
إعادتها للجهة المصدرة في حال إلغاء العضوية لأي سبب كان  
لمزيد من المعلومات يرجى زيارة موقعنا  
[www.muqawil.org/ar/contractors](http://www.muqawil.org/ar/contractors) أو الاتصال على الرقم +966920000968  
جميع الحقوق محفوظة للهيئة  
السعودية للمقاولين

رقم الهاتف: +966920000968  
البريد الإلكتروني: info@sca.sa  
[sca.sa](http://sca.sa)

الهيئة السعودية للمقاولين

رقم 3141 طريق أسس بن ملك -  
المنطقة  
الرياض 13521-8292 المملكة العربية  
السعودية

رؤية  
2030  
المملكة العربية السعودية  
KINGDOM OF SAUDI ARABIA

**gosi**  
التأمينات الاجتماعية  
Social Insurance

التاريخ: 10/03/2026  
الموافق: 1447/09/21  
رمز الشهادة: 110770340

**شهادة**

اسم المنشأة	شركة مفرح مرزوق الحربي وشركاه المحدودة
اسم صاحب العمل	
رقم الاشتراك	٥٠٨٠٣٧٥١١ الرقم الوطني الموحد 7001839815
العنوان	الدمام السعودية 4028 31432

عدد المشتركين السعوديين	عدد المشتركين غير السعوديين	المجموع
617	3095	3712

رقما  
كتابة

ستمائة و سبعة عشر  
مستركا

ثلاثة الاف و خمسة و تسعون  
مستركا

ثلاثة الاف و اثنا عشر  
مستركا

تشهد المؤسسة العامة للتأمينات الاجتماعية بأن المنشأة المذكورة أعلاه قد أوفت بالترامات تجاه  
المؤسسة وفق البيانات المقدمة منها حتى تاريخ اصدار هذه الشهادة، والتي تم منحها لتقديمه لأية جهة  
تطلبها، وهي صالحة لجميع الأغراض التي نصت عليها الفقرة (6) من المادة (التاسعة عشر) من نظام  
التأمينات الاجتماعية الصادر بالمرسوم الملكي رقم (م/33) بتاريخ 1421/9/3 هـ و المادة (العاشرة) من  
نظام التأمينات الاجتماعية الصادر بالمرسوم الملكي رقم (م/273) بتاريخ 1445/12/26 هـ .

هذه الشهادة سارية المفعول حتى 1447/12/24 هـ.

**Public عام**  
الشهادة معتمدة من صاحب الصلاحية ولا تحتاج لتوقيع أو ختم

تحقق من صحة وصلاحيه الشهادة عبر زيارة الرابط أدناه في الموقع الإلكتروني للمؤسسة العامة  
للتأمينات الاجتماعية أو عن طريق استخدام الرمز المعرف التالي

نعد هذه الشهادة من الوثائق الإلكترونية الحكومية الرسمية ويحظر قطعياً تقليدها أو إدخال أي تعديلات عليها سواء بالإضافة أو الحذف أو التغيير في بياناتها أو غير ذلك من أنواع التعديل.  
وعد الشهادة لاغية إذا شابهت من ذلك، كما نعرض صاحبها للملاحقة النظامية أمام الجهات المختصة بالإضافة إلى ما يفرضه نظام التأمينات الاجتماعية من عقوبات، ولا يجوز تداول الشهادة  
إلا في الأغراض التي أصدرت لأجلها وفقاً لأحكام نظام التأمينات الاجتماعية، والمؤسسة العامة للتأمينات الاجتماعية غير مسؤولة عن أي عملية تزوير أو تعديل تتم على البيانات الواردة فيها.

800 124 3344  
[gosi.gov.sa](http://gosi.gov.sa)

3795  
المملكة العربية السعودية، الرياض 12622 - 8308 حي الوزارات  
Kingdom of Saudi Arabia, Riyadh 12622- 8308 Al Wizarat 3795

العنوان الوطني  
NATIONAL ADDRESS

رقم الإثبات  
1083475107  
تاريخ الإصدار  
7/4/2026  
تاريخ الانتهاء  
4/10/2026

**إثبات عنوان  
Address Proof**

**Address Holder Details**

بيانات صاحب العنوان

الاسم  
شركة الأرض القوية المحدودة

رقم الحساب  
3 1 3 2 7 2 9 0 5 3 7

تاريخ التسجيل  
24/8/2025

**Address Details**

تفاصيل العنوان

العنوان المختصر  
E D D A 2 4 6 6

رقم المبنى  
طريق الملك فهد بن عبد العزيز  
2 4 6 6

الشارع  
King Fahad Bin Abdul Aziz Rd

الرقم الفرعي  
حي الحسام  
7 0 3 7

الرمز البريدي  
3 4 2 2 3

المدينة  
الدمام

المملكة العربية السعودية  
Kingdom of Saudi Arabia

**To Verify**  
للتحقق  
<https://proof.address.gov.sa/VerifyProofNA.aspx>

تم إصدار هذا الإثبات إلكترونياً ولا يتطلب التوقيع عليه  
تم إصدار هذا الإثبات بناء على طلب الموضح أعلاه، ويحظر قطعياً تقليده أو إدخال أي تعديلات عليه سواء بالإضافة أو الحذف، ويعد الإثبات لاغياً إذا شابه  
شيء من ذلك، كما يعرض صاحبه للمساءلة القانونية.

**This proof has been issued electronically and does not require a signature**  
This proof has been issued upon the request of the above-named, and it is absolutely prohibited to imitate it or make any modifications to it, whether  
by addition or deletion, and the proof is considered void if it is marred by something, and its owner is subject to legal accountability.



الموارد البشرية والتنمية الاجتماعية

## شهادة التوطين

Certificate ID / رقم الشهادة / 132334-12894790



تاريخ الإصدار: 12/01/2026 • تاريخ انتهاء الصلاحية: 26/07/2026

تاريخ التجديد/التحديث	27/04/2026
حالة الشهادة	تم التحقق 
اسم المنشأة:	شركة الأرض القوية المحدودة
رقم المنشأة:	4-2026700
رقم الترخيص:	—
الرقم الوطني الموحد:	7036510613
مستوى نطاقات الحالي:	اخضر مرتفع 
معدل التوطين:	18%

تشهد وزارة الموارد البشرية والتنمية الاجتماعية بأن المنشأة المذكورة أعلاه حققت نسبة التوطين المطلوبة وتم منحها هذه الشهادة بناءً على طلبها. الشهادة تم إنشاؤها إلكترونياً ومعتمدة من الجهة المختصة ولا تحتاج إلى ختم أو توقيع

The Ministry of Human Resources and Social Development certifies that the above mentioned Establishment has achieved the required Nationalization rate and has been granted this certificate upon request. The certificate is electronically generated and approved by the authority. It does not require any signature or stamp.



المملكة العربية السعودية  
Zakat, Tax and Customs Authority  
Kingdom of Saudi Arabia

## شهادة تسجيل في ضريبة القيمة المضافة VAT Registration Certificate

تشهد هيئة الزكاة والضريبة والجمارك بأن المكلف أدناه مسجل في ضريبة القيمة المضافة بتاريخ ٢٠١٧/٠٨/٢٤ م  
The Zakat, Tax and Customs Authority certifies that taxpayer below is VAT registered on 24/08/2017 AD

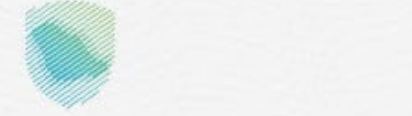
Taxpayer Name	شركة مفرح مرزوق الحربي وشركاه المحدودة	اسم المكلف
VAT Registration Number	300912474500003	رقم التسجيل الضريبي
Effective Registration Date	2018/01/01	تاريخ نفاذ التسجيل
Taxpayer Address	الدمام، غرناطة، الثامن والعشرون، 31491	عنوان المكلف
CR / License Contact / ID No	2050004953	رقم السجل التجاري / الرخصة / العقد / الهوية
Tax Period	شهرى - Monthly	الفترة الضريبية
First Filing due date	2018/02/28	تاريخ استحقاق أول إقرار ضريبي

**ملاحظة:** كمكلفين مسجلين في ضريبة القيمة المضافة، لا يجوز لكم تحصيل ضريبة القيمة المضافة من عملائكم قبل تاريخ نفاذ التسجيل في الضريبة. وفي حال تبين غير ذلك ستقوم هيئة الزكاة والضريبة والجمارك بتنفيذ الغرامات المستحقة

**Note:** As a VAT registered taxpayer, you are not allowed to collect VAT from your customers prior to the effective date of the tax registration. If otherwise approved, The ZAKAT, Tax and Customs Authority will impose the applicable penalties




www.zatca.gov.sa 19993 @zatca\_sa



المملكة العربية السعودية  
Zakat, Tax and Customs Authority  
Kingdom of Saudi Arabia

## شهادة Certificate

تشهد هيئة الزكاة والضريبة والجمارك أن المكلف /

شركة مفرح مرزوق الحربي وشركاه المحدودة

The Zakat, Tax and Customs Authority certifies that the Taxpayer

Entity Unified No./ID No. 7001839815

رقم الموحد للمنشأة / رقم الهوية

CR National Number / License / Contract No. 2050004953

الرقم الموحد للسجل التجاري / رخصة / عقد رقم

Has submitted his tax return for the period ending on 31/12/2025 AD, and he was granted the certificate to complete all his transactions including the payment of the final amount due on the contract.

قدم إقراره عن الفترة المنتهية في 1447/07/11 هـ، وقد منح هذه الشهادة لإنهاء جميع معاملاته بما في ذلك صرف مستحقاته النهائية عن العقود.


This certificate is valid until 23/11/1448 AH corresponding to 30/04/2027 AD

يسري مفعول هذه الشهادة حتى تاريخ 1448/11/23 هـ الموافق 2027/04/30 م

The Twenty third of Dhu al-Qi'dah one thousand four hundred forty-eight Hijri

الثالث والعشرون من ذو القعدة ألف وأربعمائة وثمانية وأربعون هجري

لا يعتد بهذه الشهادة إلا بعد التحقق من موقع الهيئة الإلكتروني [www.zatca.gov.sa](http://www.zatca.gov.sa)  
This certificate is not valid until verified by the Authority's Website [www.zatca.gov.sa](http://www.zatca.gov.sa)



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1117356443

TIN 3009124745 الرقم المميز  
Certificate No. 1117356443 رقم الشهادة  
Certificate date 1447/11/16 هـ تاريخ الشهادة



**هيئة الزكاة والضريبة والجمارك**  
Zakat, Tax and Customs Authority

المملكة العربية السعودية  
Kingdom of Saudi Arabia

### قائمة فروع المكلف

#### List of Taxpayer Branches

المدينة City	اسم الفرع Branch Name	الرقم الموحد للسجل التجاري / رخصة / عقد CR National Number /License/Contract No
الدمام Dammam	معرض مفرح مرزوق الحربي للسيارات فرع شركة مفرح مرزوق الحربي وشركاه	2050023773
الدمام Dammam	شركة مفرح مرزوق الحربي وشركاه المحدودة	2050024378
الدمام Dammam	شركة مفرح مرزوق الحربي وشركاه المحدودة	2050053918
الدمام Dammam	شركة مفرح مرزوق الحربي وشركاه المحدودة	2050067823
الدمام Dammam	فرع شركة مفرح مرزوق الحربي وشركاه المحدودة	2050083017
الدمام Dammam	نزل الفخامة للخدمات المساندة	2050105465
الدمام Dammam	شركة مفرح مرزوق الحربي	556
الدمام Dammam	نزل الفخامة للوحدات السكنية المفروشة	2050114456

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و لا يعتد بهذه الشهادة إلا بعد التحقق من موقع الهيئة  
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1117356443

TIN 3009124745 الرقم المميز  
Certificate No. 1117356443 رقم الشهادة  
Certificate date 1447/11/16 هـ تاريخ الشهادة



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Zakat, Tax and Customs Authority

المملكة العربية السعودية  
Kingdom of Saudi Arabia

المدينة City	اسم الفرع Branch Name	الرقم الموحد للسجل التجاري / رخصة / عقد CR National Number /License/Contract No
الدمام Dammam	شركة أمان الخليجية للتطوير العقاري	2050112391
الدمام Dammam	شركة قطرة للمياه	2050130865
الدمام Dammam	شركة الأعمال المعدنية لصيانة السيارات	2050129810
الدمام Dammam	شركة مفرح مرزوق الحربي وشركاه المحدودة	2050121264
الدمام Dammam	شركة القصر التنفيذي لتنظيم المعارض والمؤتمرات	2050130315
الدمام Dammam	فرع شركة مفرح مرزوق الحربي وشركاه المحدودة	4700106973
الدمام Dammam	مصنع شركة مفرح مرزوق الحربي وشركاه المحدودة	2055127133
الدمام Dammam	شركة مفرح مرزوق الحربي وشركاه المحدودة	2050160001
الدمام Dammam	شركة الأرض القوية المحدودة	2050172580

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1117356443

TIN 3009124745 الرقم المميز  
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Certificate date 1447/11/16 هـ تاريخ الشهادة



**هيئة الزكاة والضريبة والجمارك**  
Zakat, Tax and Customs Authority

المملكة العربية السعودية  
Kingdom of Saudi Arabia

المدينة City	اسم الفرع Branch Name	الرقم الموحد للسجل التجاري / رخصة / عقد CR National Number /License/Contract No
تبوك Tabuk	مصنع شركة مفرح مرزوق الحربي وشركاه المحدودة	3550162470
الدمام Dammam	شركة مفرح مرزوق الحربي وشركاه المحدودة	2050140509
جازان Jazan	شركة مفرح مرزوق الحربي وشركاه المحدودة	5900130405
الدمام Dammam	مساندة الحقول لخدمات النفط والغاز	2050109586
الدمام Dammam	شركة دائرة الصيانة لتنظيم المعارض والمؤتمرات	2050197041
الدمام Dammam	شركة مفرح مرزوق الحربي وشركاه المحدودة	2050081516
الدمام Dammam	شركة اوتيتب القابضة	2050203225

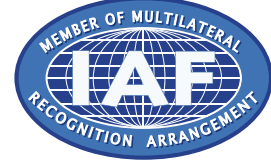
zatca.gov.sa 19993 @zatca\_sa



هذه الوثيقة مستخرجة من النظام الآلي ولا تحتاج إلى توقيع  
و لا يعتد بهذه الشهادة إلا بعد التحقق من موقع الهيئة  
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# 7. ISO Certificates

UAE 



Dubai

## ISO 9001:2015

Certificate No: CR/SD-26046/01  
Issue Date: 10 June 2026  
Expiry Date: 27 May 2027



## ISO 14001:2015

Certificate No: CR/SD-26046/02  
Issue Date: 10 June 2026  
Expiry Date: 27 May 2027



## ISO 45001:2018

Certificate No: CR/SD-26046/03  
Issue Date: 10 June 2026  
Expiry Date: 27 May 2027



Abu Dhabi

## ISO 9001:2015

Certificate No: CR/SD-26046/04  
Issue Date: 10 June 2026  
Expiry Date: 27 May 2027



## ISO 14001:2015

Certificate No: CR/SD-26046/05  
Issue Date: 10 June 2026  
Expiry Date: 27 May 2027



## ISO 45001:2018

Certificate No: CR/SD-26046/06  
Issue Date: 10 June 2026  
Expiry Date: 27 May 2027



KSA 



## ISO 9001:2015

Certificate No: KAQM202602041  
Initial Registration: 20 February 2026  
Certificate Expiry: 20 February 2027



## ISO 14001:2015

Certificate No: KAEM202602027  
Initial Registration: 20 February 2026  
Certificate Expiry: 20 February 2027



## ISO 45001:2018

Certificate No: KAOH202602029  
Initial Registration: 20 February 2026  
Certificate Expiry: 20 February 2027



UID : 748151  
Doc.No : CR/SD-26046/01  
Initial Certification : 28/05/2024



# CERTIFICATE

This is to certify that Management System of:

**TERRA FIRMA FOUNDATION CONTRACTING LLC**

Has been assessed and found compliant with the requirements of below:

**ISO 9001:2015**  
Quality Management System

**Certificate No:**  
CR/SD-26046/01

**Scope of Registration:**  
Design, Contracting & Execution of Piling and Foundation

**IAF Code(s):** 28

**NACE Code(s):** 43.1

**Registered Site(s):**  
Office 114-115, Digital Park A1, Dubai Silicon Oasis, Dubai, United Arab Emirates

Certificate Issued : 10/06/2026      Certificate Expiry : 27/05/2027

  
To Verify scan QR code or visit  
WWW.ITMAD.AE

  
  
Emirates International Accreditation Centre  
040-CB-QMS

  
For the issuing office:  
ITMAD  
  
Authorized Signatory

**ITMAD CERTIFICATION SERVICES L.L.C**  
P.O.Box # 232991, Office # 208, Dream Building 2, Al Qusais Ind. 4, Dubai, UAE

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UID : 683610  
Doc.No : CR/SD-26046/02  
Initial Certification : 28/05/2024



# CERTIFICATE

This is to certify that Management System of:

**TERRA FIRMA FOUNDATION CONTRACTING LLC**

Has been assessed and found compliant with the requirements of below:

**ISO 14001:2015**  
Environmental Management System

**Certificate No:**  
CR/SD-26046/02

**Scope of Registration:**  
Design, Contracting & Execution of Piling and Foundation

**IAF Code(s):** 28

**NACE Code(s):** 43.1

**Registered Site(s):**  
Office 114-115, Digital Park A1, Dubai Silicon Oasis, Dubai, United Arab Emirates

Certificate Issued : 10/06/2026      Certificate Expiry : 27/05/2027

  
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040-CB-EMS

  
For the issuing office:  
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Authorized Signatory

**ITMAD CERTIFICATION SERVICES L.L.C**  
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UID : 273045  
Doc.No : CR/SD-26046/03  
Initial Certification : 28/05/2024



# CERTIFICATE

This is to certify that Management System of:

**TERRA FIRMA FOUNDATION CONTRACTING LLC**

Has been assessed and found compliant with the requirements of below:

**ISO 45001:2018**  
Occupational Health and Safety Management System

**Certificate No:**  
CR/SD-26046/03

**Scope of Registration:**  
Design, Contracting & Execution of Piling and Foundation

**IAF Code(s):** 28

**NACE Code(s):** 43.1

**Registered Site(s):**  
Office 114-115, Digital Park A1, Dubai Silicon Oasis, Dubai, United Arab Emirates

Certificate Issued : 10/06/2026      Certificate Expiry : 27/05/2027

  
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UID : 484536  
Doc.No : CR/SD-26046/04  
Initial Certification : 28/05/2024



# CERTIFICATE

This is to certify that Management System of:

## TERRA FIRMA FOUNDATION CONTRACTING L.L.C - BRANCH OF ABU DHABI 1

Has been assessed and found compliant with the requirements of below:

### ISO 9001:2015

Quality Management System

**Certificate No:**  
CR/SD-26046/04

**Scope of Registration:**  
Design, Contracting & Execution of Piling and Foundation

**IAF Code(s):** 28  
**NACE Code(s):** 43.1

**Registered Site(s):**  
Unit 233, National Bank of Abu Dhabi Building, Al Irshan Street, Al Hisn, Abu Dhabi, United Arab Emirates

Certificate Issued : 10/06/2026      Certificate Expiry : 27/05/2027

  
To Verify scan QR code or visit  
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For the issuing office:  
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Emirates International Accreditation Centre  
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Authorized Signatory

**ITMAD CERTIFICATION SERVICES L.L.C**  
P.O.Box # 232991, Office # 208, Dream Building 2, Al Qusais Ind. 4, Dubai, UAE

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UID : 381837  
Doc.No : CR/SD-26046/05  
Initial Certification : 28/05/2024



# CERTIFICATE

This is to certify that Management System of:

## TERRA FIRMA FOUNDATION CONTRACTING L.L.C - BRANCH OF ABU DHABI 1

Has been assessed and found compliant with the requirements of below:

### ISO 14001:2015

Environmental Management System

**Certificate No:**  
CR/SD-26046/05

**Scope of Registration:**  
Design, Contracting & Execution of Piling and Foundation

**IAF Code(s):** 28  
**NACE Code(s):** 43.1

**Registered Site(s):**  
Unit 233, National Bank of Abu Dhabi Building, Al Irshan Street, Al Hisn, Abu Dhabi, United Arab Emirates

Certificate Issued : 10/06/2026      Certificate Expiry : 27/05/2027

  
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Emirates International Accreditation Centre  
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Authorized Signatory

**ITMAD CERTIFICATION SERVICES L.L.C**  
P.O.Box # 232991, Office # 208, Dream Building 2, Al Qusais Ind. 4, Dubai, UAE

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UID : 755619  
Doc.No : CR/SD-26046/06  
Initial Certification : 28/05/2024



# CERTIFICATE

This is to certify that Management System of:

## TERRA FIRMA FOUNDATION CONTRACTING L.L.C - BRANCH OF ABU DHABI 1

Has been assessed and found compliant with the requirements of below:

### ISO 45001:2018

Occupational Health and Safety Management System

**Certificate No:**  
CR/SD-26046/06

**Scope of Registration:**  
Design, Contracting & Execution of Piling and Foundation

**IAF Code(s):** 28  
**NACE Code(s):** 43.1

**Registered Site(s):**  
Unit 233, National Bank of Abu Dhabi Building, Al Irshan Street, Al Hisn, Abu Dhabi, United Arab Emirates

Certificate Issued : 10/06/2026      Certificate Expiry : 27/05/2027

  
To Verify scan QR code or visit  
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For the issuing office:  
ITMAD

  
Emirates International Accreditation Centre  
040-CB-OH-SMS

  
Authorized Signatory

**ITMAD CERTIFICATION SERVICES L.L.C**  
P.O.Box # 232991, Office # 208, Dream Building 2, Al Qusais Ind. 4, Dubai, UAE

This certificate's validity is subject to the organization maintaining their system in accordance with ITMAD requirements for system certification. Validity can be confirmed by visiting the www.itmad.ae. This certificate will remain the property of ITMAD & must be returned upon request.

## CERTIFICATE

This is hereby certified that the Quality Management System of  
**AL-ARADH AL-QAWIYYA LTD COMPANY (TERRA FIRMA)**  
 Bldg. No. 2466, King Fahad Bin Abdul Aziz Rd, Al Hussam Dist., 34223 - Dammam,  
 Kingdom of Saudi Arabia

Has been found to comply with the requirements of  
**ISO 9001: 2015**

This certificate is applicable for the following scope:  
**Design & Execution of Site Preparation (Cut & Fill), Soil Improvement,  
 Deep Foundation Contracting**

**Certificate Number: KAQM202602041**

Date of initial registration:	20 February 2026
Surveillance audit on/before:	20 January 2027
Certificate expiry:	20 February 2027
Recertification due:	19 February 2029

MANAGEMENT SYSTEM CERTIFICATE

Authorized Signatory  
KVQA Assessment Pvt. Ltd.

Website: [www.iso-registration.com](http://www.iso-registration.com) | Email: [info@iso-registration.com](mailto:info@iso-registration.com)  
 KVQA Assessment Private Limited is accredited to United Accreditation Foundation (UAF). UAF is internationally recognized by having a signatory status across multilateral recognition arrangement of International Accreditation Forum (IAF) and Asia Pacific Accreditation Cooperation (APAC).  
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 UAF address: 1060 Laskin Road, STE 12B/13B, Virginia Beach, VA 23451, United States of America

## CERTIFICATE

This is hereby certified that the Environmental Management System of  
**AL-ARADH AL-QAWIYYA LTD COMPANY (TERRA FIRMA)**  
 Bldg. No. 2466, King Fahad Bin Abdul Aziz Rd, Al Hussam Dist., 34223 - Dammam,  
 Kingdom of Saudi Arabia

Has been found to comply with the requirements of  
**ISO 14001: 2015**

This certificate is applicable for the following scope:  
**Design & Execution of Site Preparation (Cut & Fill), Soil Improvement,  
 Deep Foundation Contracting**

**Certificate Number: KAEM202602027**

Date of initial registration:	20 February 2026
Surveillance audit on/before:	20 January 2027
Certificate expiry:	20 February 2027
Recertification due:	19 February 2029

MANAGEMENT SYSTEM CERTIFICATE

Authorized Signatory  
KVQA Assessment Pvt. Ltd.

Website: [www.iso-registration.com](http://www.iso-registration.com) | Email: [info@iso-registration.com](mailto:info@iso-registration.com)  
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 UAF address: 1060 Laskin Road, STE 12B/13B, Virginia Beach, VA 23451, United States of America

## CERTIFICATE

This is hereby certified that the Occupational Health & Safety Management System of  
**AL-ARADH AL-QAWIYYA LTD COMPANY (TERRA FIRMA)**  
 Bldg. No. 2466, King Fahad Bin Abdul Aziz Rd, Al Hussam Dist., 34223 - Dammam,  
 Kingdom of Saudi Arabia

Has been found to comply with the requirements of  
**ISO 45001: 2018**

This certificate is applicable for the following scope:  
**Design & Execution of Site Preparation (Cut & Fill), Soil Improvement,  
 Deep Foundation Contracting**

**Certificate Number: KAOH202602029**

Date of initial registration:	20 February 2026
Surveillance audit on/before:	20 January 2027
Certificate expiry:	20 February 2027
Recertification due:	19 February 2029

MANAGEMENT SYSTEM CERTIFICATE

Authorized Signatory  
KVQA Assessment Pvt. Ltd.

Website: [www.iso-registration.com](http://www.iso-registration.com) | Email: [info@iso-registration.com](mailto:info@iso-registration.com)  
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 UAF address: 1060 Laskin Road, STE 12B/13B, Virginia Beach, VA 23451, United States of America

## 8. HSEQ

### Health, Safety, Environment, and Quality

#### Safety

TERRA FIRMA is a company committed to the Health and Safety of its personnel and any other personnel who may interact with TERRA FIRMA operations. The company is aware of its responsibilities and obligations towards all employees to ensure a healthy and safe working environment.

#### We are committed to:

- ▶ The complete Health and Safety of all personnel at all times and in all circumstances.
- ▶ Safely operate and maintain all plants and equipment employed at the construction site.
- ▶ Monitor, evaluate and continually improve our Health, Safety and Environmental (HSE) performance through the definition of operational standards, assessments and audits.
- ▶ Minimize our impact on the environment through pollution prevention and proper waste management. Prevent property damages or injuries to third parties due to company operations.
- ▶ Continuous training and education of our personnel to provide proper skills and to ensure awareness on rights and responsibilities.
- ▶ Communicate openly with all clients and interested parties and provide them with full support in the site HSE management.
- ▶ Ensure preparedness and appropriate response to any emergency situation within our workplace.

The principles of this commitment are what drive TERRA FIRMA Health, Safety and Environmental management system. TERRA FIRMA, with the support of all levels of management, will continually review and improve the current internal policies, standards and procedures integrating the HSE objectives into the company

management strategy as a contribution to the quality of the product delivered to our clients. All incidents, near misses and unsafe acts or conditions are preventable. A safe, healthy and clean working environment can and must be provided at all times. Participation in the HSE management and pro-activity towards HSE initiatives is encouraged and rewarded. The communication and regular consultation with all levels of personnel is the key to reach a wide employees consensus maintaining a high level of HSE awareness at all times and proving that people are considered the essential resource for the success of our company.

TERRA FIRMA is an organization with a continually improving commitment to addressing Health, Safety and Environmental (HSE) issues. The company is well aware of the highest international and local standards and their significant part in reducing workplace incidents and companies loss. TERRA FIRMA ultimate goal is to exceed all local and international HSE requirements and ensure our internal HSE standard is strictly followed by all personnel. The HSE management system is a core part of the company's mission and management strategy with the objective to systematically implement procedures in order to achieve a total control of our business in term of HSE and frequently carry out assessment for continuous improvement.

#### HSE Department

The implementation of the HSE management system requires a strong organization of people and resources ensuring that everyone is aware of their rights, roles and responsibilities. TERRA FIRMA HSE Department comprises over 10 professionals and it is rapidly expanding in order to meet the demand for HSE management at our construction sites throughout the Arabian Gulf Region. The department is essential for the success of our operations maintaining the corporate image of a company dedicated to its employees and to the quality of the product delivered. People are considered the "most valuable resource" therefore TERRA FIRMA provides training and development to all levels of personnel in order to enhance HSE skills and awareness.



# Health, Safety, Environment & Quality Policy

## Vision

To grow into a global ground improvement company that ranks among the top five globally by offering cutting-edge ground improvement solutions. The design approach that satisfies client needs while being affordable, sustainable, and has minimal impact on the environment.

## Mission

- ▶ Operate our business in accordance with all relevant laws and rules pertaining to HSEQ as they apply to our operations and services.
- ▶ Provide SAFE (Sustainable, Advanced, Fast & Economical) foundation solutions.
- ▶ Focus and identify the customer needs and expectation and provide cutting-edge foundation design.
- ▶ Focus to achieve sustainable growth in all aspect of the business that meet the stake holders and other interest parties' expectation.
- ▶ Implement as low as reasonably practicable measures to reduce the hazard and risk associated with our activities and services to employees and other interested parties.
- ▶ Ensure the continuous improvement of our HSEQ objectives by continuous monitoring.
- ▶ We will continually improve our environmental performance.
- ▶ We will ensure workers consultation on all the aspect of HSEQ matters.
- ▶ We will ensure employees have adequate training on HSEQ requirements to ensure a safe work environment and promote safety culture.

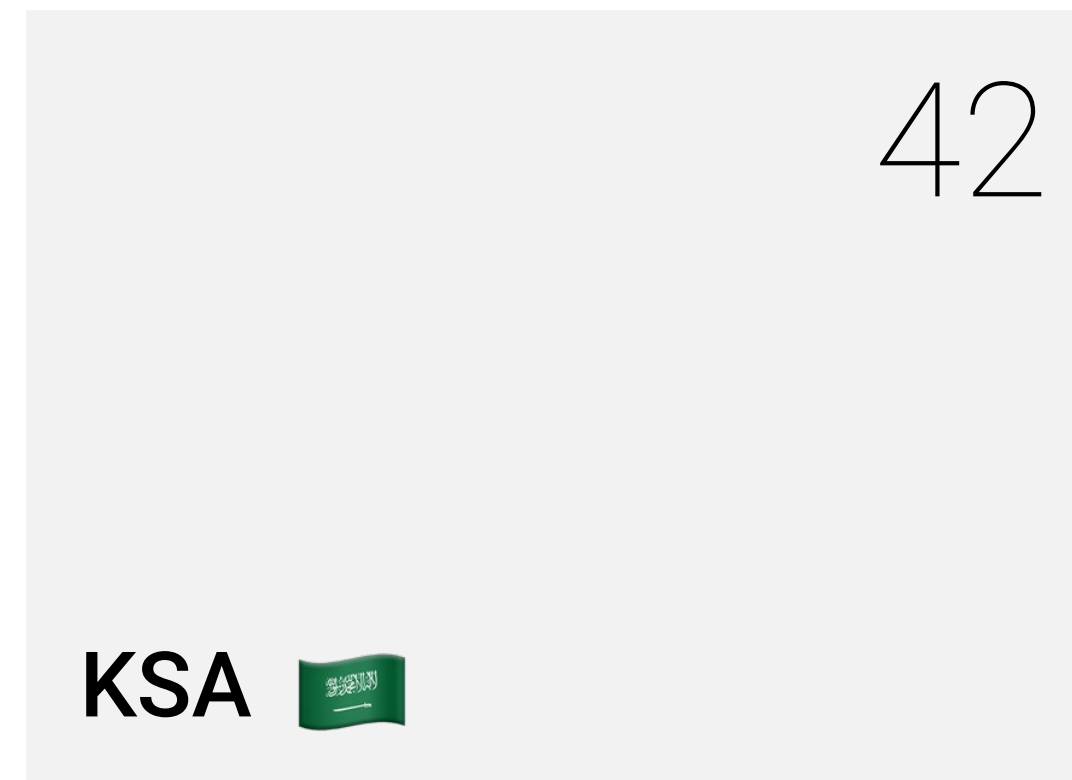
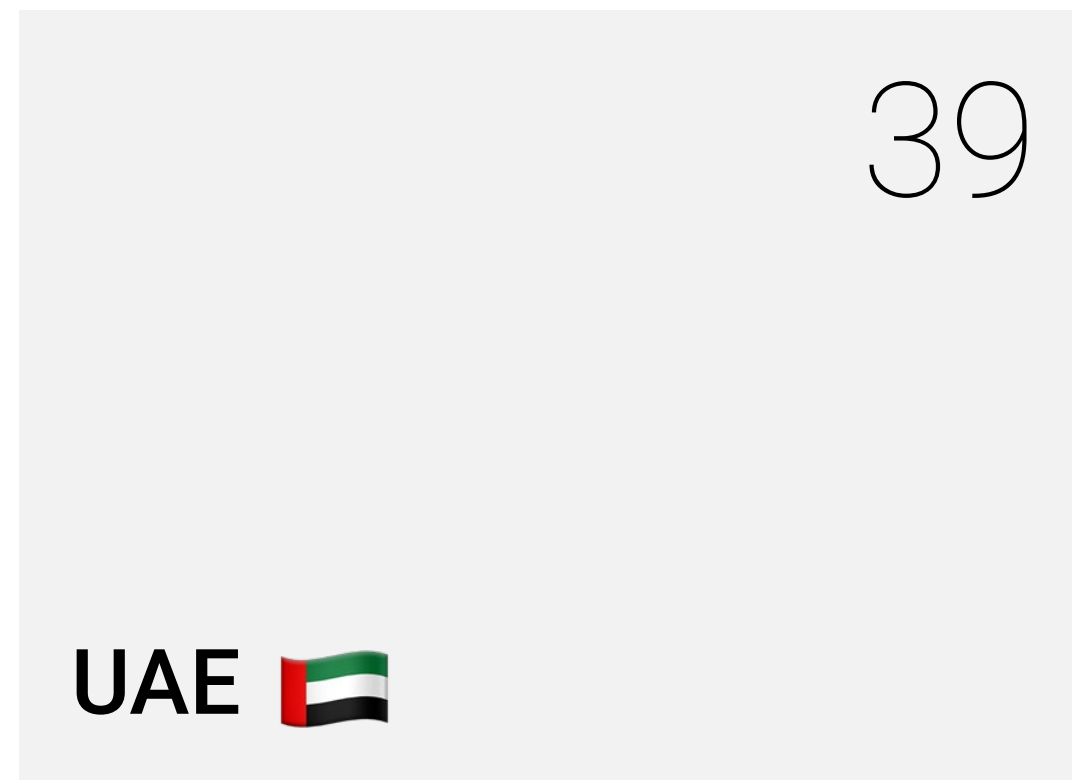
# Stop Work Authority Policy

At Terra Firma, our Health, Safety, and Environmental (HSE) policy is centered on ensuring a safe and secure work environment for all our personnel. We are committed to taking measures that are as low as reasonably practicable to avoid or reduce hazards, risks, and impacts on the environment. Our dedication to HSE principles underscores our responsibility to safeguard the well-being of our stakeholders and the preservation of the environment.

As part of our commitment to safety, it is imperative that all Terra Firma employees and contractors understand, and exercise STOP WORK AUTHORITY whenever a situation arises that puts an employee, member of the public, or the environment at risk. Management fully supports and encourages the use of STOP WORK AUTHORITY, and we rely on our employees to diligently execute this policy to maintain a safe working environment.

- ▶ STOP WORK AUTHORITY shall be applied if any situation arises due to an unsafe action, behavior, condition or omission to the workplace by any party involved in the operation. This applies to any action which may cause injury, serious harm, property damage or environmental impact if the situation were permitted to continue.
- ▶ Any person regardless of position, seniority or discipline has the right and duty to apply the STOP WORK AUTHORITY policy if it is in his/her opinion or judgment that such activity is deemed to be a potential incident.
- ▶ There shall be no blame or fault put on any employee that uses their STOP WORK AUTHORITY even if, upon investigation, the STOP WORK AUTHORITY was deemed unnecessary. The STOP WORK AUTHORITY must be applied in good faith.
- ▶ Timing is a critical factor. There should not be any delay in calling for a STOP WORK AUTHORITY order if the need arises.
- ▶ Work that has been halted due to an employee's STOP WORK AUTHORITY, shall not resume until all safety aspects have been cleared to the satisfaction of the employee who initiated the STOP WORK AUTHORITY, or the area Supervisor/Safety has properly reviewed the concern and deemed it safe to continue.

## 9. Projects



# Projects

UAE 



Abu Dhabi

## Hudayriyat East Expansion - Phase 3

**Client :** Modon Properties  
**Consultant :** ATM  
**Contractor :** NMDC  
**Duration :** Ongoing  
**Area :** 1,934,245 m<sup>2</sup>  
**Technique :** Dynamic Replacement and Stone Columns



Abu Dhabi

## Mid Island Parkway PH-1B - Saadiyat Island

**Client :** Department of Municipalities and Transport  
**Consultant :** Parsons  
**Contractor :** JV YAS projects /China Railway TunnelGroup  
**Duration :** 11 Months  
**Area :** 374,729 m<sup>2</sup>  
**Technique :** Dynamic Compaction and Dynamic Replacement



Abu Dhabi

## GI - Rahayel Passenger Heavy Maintenance Facility - ICAD

**Client :** Etihad Rail  
**Consultant :** Jacobs  
**Contractor :** L&T PowerChina JV  
**Duration :** 3 Months  
**Area :** 160,000 m<sup>2</sup>  
**Technique :** Rapid Dynamic Replacement and Dynamic Compaction



Al Dhafrah, Abu Dhabi

## Sectors 20 & 22 - Infrastructure, Villas and Community Facilities

**Client :** Abu Dhabi Housing Authority  
**Consultant :** (ECG) Engineering Consultants Group L&T  
**Contractor :** NAEL Construct-Vannord (Wicks)  
**Duration :** 3 Months  
**Area :** 71,000 m<sup>2</sup>  
**Technique :** Dynamic Compaction



Marjan, RAK

## RAK Hospital Enabling Works

**Client :** Marjan  
**Consultant :** Stantec  
**Contractor :** Terra Firma (enabling contractor)  
**Duration :** 3 Months  
**Area :** 67,267.87 m<sup>2</sup>  
**Technique :** EW, DC, RI, Shoring



Fujairah

## Etihad Rail - Fujairah Station

**Client :** Etihad Rail  
**Consultant :** Jacobs  
**Contractor :** China Railway International  
**Duration :** 6 Weeks  
**Area :** Foundation- 3,364 Im Satir case1593- LM  
**Technique :** Rigid Inclusion

UAE 



Wathba, Abu Dhabi

**Emirati Villas Neighborhoods at Al Wathba**

**Client :** Abu Dhabi Housing Authority  
**Consultant :** Khatib & Alami Consolidated Consulting  
**Contractor :** NAEL General Contracting  
**Duration :** 3 Months  
**Area :** 288,086 m<sup>2</sup>  
**Technique :** Rapid Impact Compaction



Al Ain

**Al Ain Amerah Residential**

**Contractor :** Wicks  
**Technique :** Dynamic Compaction and Rapid Impact Compaction



**Etihad Rail MBZ, Dubai & Fujairah Stations**

**Client :** Etihad Rail  
**Consultant :** Jacobs  
**Contractor :** China Railway Tunnel Group  
**Duration :** 1 Month  
**Area :** 5,310 m<sup>2</sup>  
**Technique :** Dynamic Compaction



Al Ain

**Seven VIP Modular Villas**

**Client :** Trojan  
**Area:** 4,852 m<sup>2</sup>  
**Duration:** 1 Month  
**Technique :** Dynamic Compaction



Al Ain

**Al Haffar Housing Project Infrastructure Work - P346**

**Client :** Aldar  
**Consultant :** AECOM  
**Contractor :** Western Bainoona Group  
**Technique :** Rapid Dynamic Compaction and Rapid Impact Compaction



Abu Dhabi

**Emirates Float Glass Manufacturing Facility ICAD II**

**Client :** Emirates Glass  
**Consultant :** Design House  
**Area :** ~36,000 sq.m  
**Technique :** Stone Columns and Piling

UAE



Abu Dhabi

### Emergency Repairs on the International Road (E11), Al Marfaa

**Client :** Department of Municipalities and Transport  
**Consultant :** Parsons  
**Contractor :** Noor Al Sahara  
**Technique :** TAM Grouting



Abu Dhabi

### Grouting Works for Bada Al Jubail Bridge 1 & 2

**Client :** Jubail Island  
**Consultant :** Parsons  
**Contractor :** Gulf Contractors  
**Duration :** 2 Months  
**Technique :** Cavity Grouting



Abu Dhabi

### Mid Island Parkways Phase -1A Protection of Existing Transco Network

**Client :** Department of Municipalities and Transport  
**Consultant :** Parsons  
**Contractor :** Dogus Abu Dhabi - GCC JV  
**Duration :** 11 Months  
**Area :** 3,675.263 m<sup>2</sup>  
**Technique :** Compaction Grouting



Al Bahia, Abu Dhabi

### Al Bahia Assets Enhancement O-15392

**Client :** TAQA  
**Consultant :** KN International  
**Contractor :** Gulf Contractors  
**Area:** 300 m<sup>3</sup>  
**Technique :** Grouting



Masdar City, Abu Dhabi

### Masdar City Infrastructure OS49 Plot Roads, Utilities and Streetscape

**Client :** Masdar City  
**Consultant :** AECOM  
**Contractor :** Gulf Contracting & Landscaping  
**Area :** SC: 15,201 m<sup>2</sup>  
                   Grouting: 3,734 m<sup>2</sup>  
**Technique :** Vibro Replacement/Stone Columns and Jet Grouting



Abu Dhabi

### Kezad Warehouse KLP7

**Client :** Abu Dhabi Ports Group  
**Contractor :** RAQ Contracting  
**Technique :** Dynamic Compaction and Dynamic Replacement (Stone Columns)

**KSA** 



**Qiddiyah Jeddah - Jeddah North Coast Project**

**Client :** Qiddiya  
**Consultant :** DAR Al Riyadh  
**Contractor :** Abdulmohsen Altamimi Contracting  
**Duration :** 7 Months  
**Area :** 4,154,544.19m<sup>2</sup>  
**Technique :** Dynamic Replacement and Rapid Impact Compaction



**Neom Oxagon Port - Wadi Jubbah (WO 69)**

**Client :** NEOM  
**Contractor :** HARBICO  
**Duration :** 3 Months  
**Area :** 487,445 m<sup>2</sup>  
**Technique :** Rapid Impact Compaction



**Jubail C14 Site Preparation of Support Area - Phase 2 021-C14**

**Client :** RCJY  
**Contractor :** HARBICO  
**Duration :** 6 Months  
**Area :** 810,080 m<sup>2</sup>  
**Technique :** Rapid Impact Compaction



**Al Khobar Development Project Programme 3 Dammam & Khobar**

**Client :** Saudi Entertainment Ventures (SEVEN)  
**Consultant :** WS Atkins  
**Contractor :** Mofarreh Alharbi & Partners  
**Duration :** 3 Months  
**Area :** 1,322 L.m  
**Technique :** Shoring (Secant Pile Wall)



**NPCC KSA Yard Facilities - Package 1**

**Client :** NPCC  
**Consultant :** ADEC Engineering Consultancy  
**Contractor :** HARBICO  
**Duration :** 6 Months  
**Area :** 400,000 m<sup>2</sup>  
**Technique :** Dynamic Compaction



**Fadhili Gas Plant Expansion - Offshore Gas Increment**

**Client :** ARAMCO  
**Consultant :** ARAMCO PMT  
**Contractor :** AL HARBI  
**Area :** 5,000,000 m<sup>2</sup>  
**Technique :** Rapid Impact Compaction and Dynamic Replacement

**KSA** 



Jubail

**Riyas NGL Fractionation Facility (RNLGF) Site Preparation Pkg6**

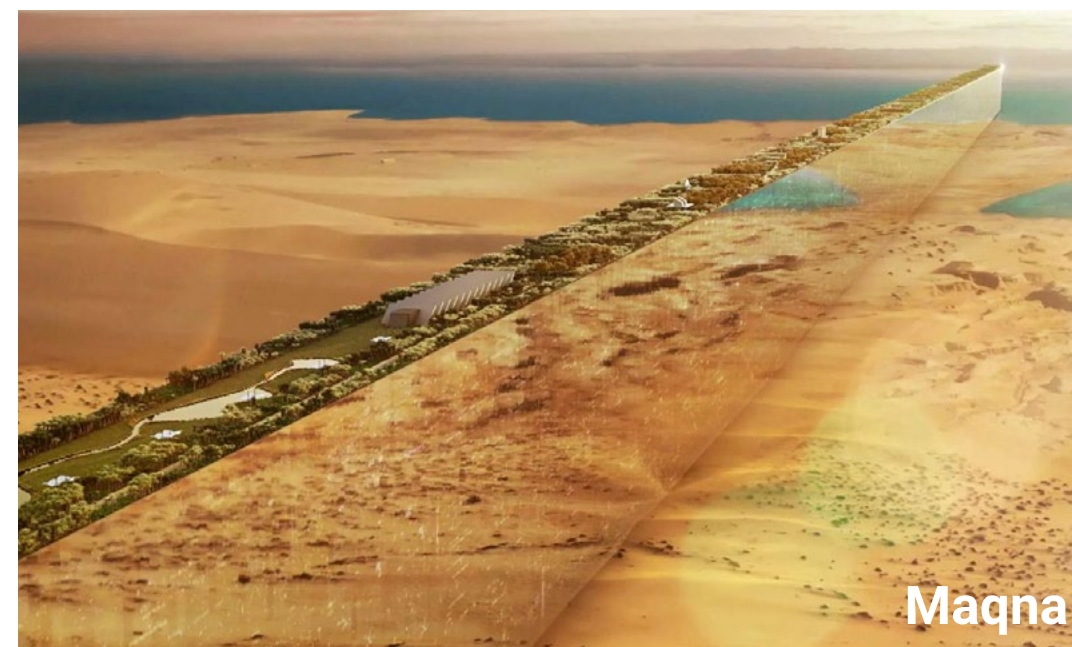
**Client :** ARAMCO  
**Consultant :** SAUDI ARAMCO  
**Contractor :** Mofarreh Alharbi & Partners  
**Duration :** 14 Months  
**Area :** 4,350,0007.93 m<sup>2</sup>  
**Technique :** Dynamic Compaction, Dynamic Replacement and Rapid Impact Compaction



Jubail

**Site Preparation for Support Area 21-C14 - Phases 2&3**

**Client :** RCJY  
**Consultant :** Royal Commesion  
**Contractor :** Royal Commesion  
**Area :** 100,000 m<sup>2</sup>  
**Technique :** Dynamic Replacement



Maqna

**W076 - NEOM**

**Client :** NEOM  
**Consultant :** AECOM  
**Contractor :** AL HARBI  
**Area :** 408,654 m<sup>2</sup>  
**Technique :** Rapid Impact Compaction



Ras Al Khair

**Two Diammonium Phosphate Plants (Phase 1) Maaden Phosphate 3 Plants (Phase 1)**

**Client :** Maaden  
**Consultant :** Maaden  
**Contractor :** AL HARBI  
**Area :** 121,000 m<sup>2</sup>  
**Technique :** Dynamic Compaction / Dynamic Replacement



Jafurah

**Jafura Gas Compression Plant (GCP) -04 Site Preparation -Trevi**

**Client :** ARAMCO  
**Consultant :** ABC  
**Contractor :** Trevi  
**Duration :** 2.5 Months  
**Area :** 500,000 m<sup>2</sup>  
**Technique :** Rapid Impact Compaction



Khurais

**Debottleneck Produced Water Handling System**

**Client :** ARAMCO  
**Contractor :** ENPPI  
**Area :** 349761.9 m<sup>2</sup>  
**Technique :** Rapid Dynamic Compaction

**KSA** 



Magna

**W077 - NEOM**

**Client :** NEOM  
**Consultant :** AECOM  
**Contractor :** AL HARBI  
**Area :** 852,917 m<sup>2</sup>  
**Technique :** Rapid Impact Compaction



Al Uqair

**Al Uqair Development - South Phase**

**Client :** Al Uqair Development  
**Contractor :** AL HARBI  
**Duration :** 3 months Phase-1, 6 months Phase-2  
**Area :** 872,300 m<sup>2</sup> (DR)  
 181,022 m<sup>2</sup> (RIC)  
**Technique :** Dynamic Replacement, Rapid Impact Compaction



Jafurah

**Jafurah PKG3 Project - Gas Compression Plants**

**Client :** ARAMCO  
**Contractor :** TR & SFEC  
**Area :** 2,169,139.018 m<sup>2</sup>  
**Technique :** Rapid Impact Compaction



Jeddah

**Jeddah Logistics Park Package 1**

**Client :** DP World  
**Consultant :** GEO Global Engineering Office  
**Contractor :** EDECS  
**Duration :** 2.5 Months  
**Area :** 184,363 m<sup>2</sup>  
**Technique :** Rapid Impact Compaction



Al Khobar

**Program 3 Al Khobar Entertainment Development**

**Client :** Saudi Entertainment Ventures ( SEVEN )  
**Consultant :** WS Atkins  
**Contractor :** SBG & Madarat El Emar  
**Area :** 17,814.15 m<sup>2</sup>  
**Technique :** Dynamic Replacement



Ras Al Khair

**Supply and Construction of Potable Water Pumping Station / Phase II**

**Client :** RCJY  
**Contractor :** Al Rafia Contracting Company  
**Area :** 85,225 m<sup>2</sup>  
**Technique :** Dynamic Compaction, Rapid Impact Compaction, Rigid Inclusion

**KSA** 



**Hajar Site Preparation**

**Client :** Hajr Two Electricity Company  
**Contractor :** JV TR - ORASCOM/ SFEC  
**Duration :** 1.5 Months  
**Area :** 336,646 m<sup>2</sup>  
**Technique :** Rapid Impact Compaction



**Construction of Qurayyah-4 380kV BS**

**Client :** Saudi Electric Company  
**Contractor :** L&T Power Transmission  
**Duration :** 1 Month  
**Area :** 40,000 m<sup>2</sup>  
**Technique :** Dynamic Compaction, Dynamic Replacement



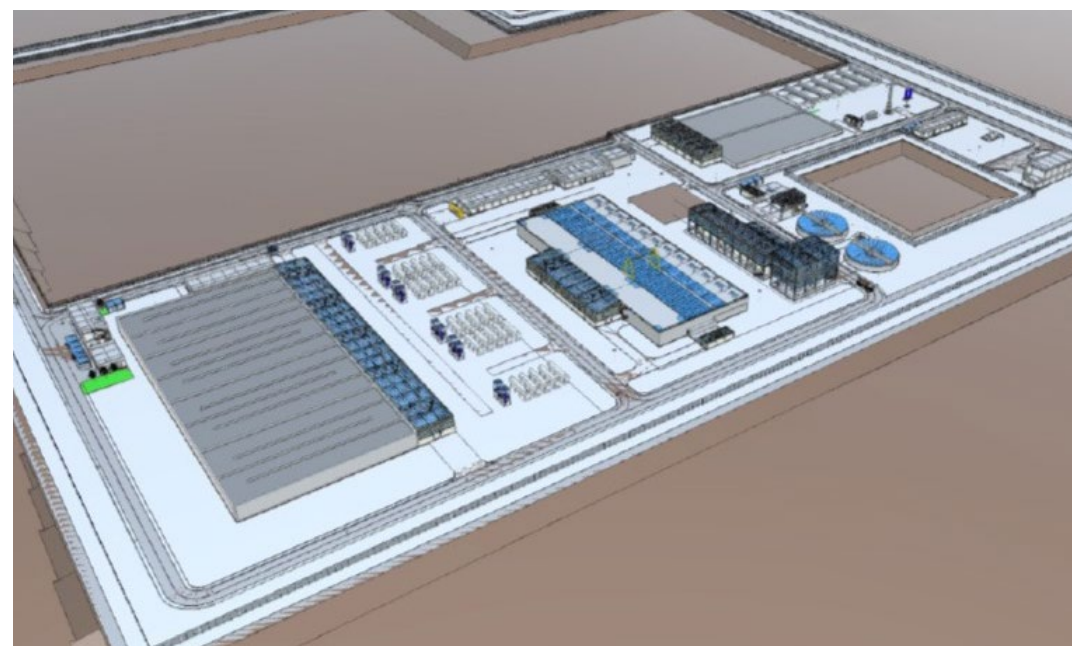
**Infrastructure - Jeddah Industrial City 3 Phase 1**

**Client :** Modon  
**Consultant :** Parsons/EGIS  
**Contractor :** Al Rawaf Contracting  
**Duration :** 5 Months  
**Area :** 3,553,772 m<sup>2</sup>  
**Technique :** Rapid Impact Compaction



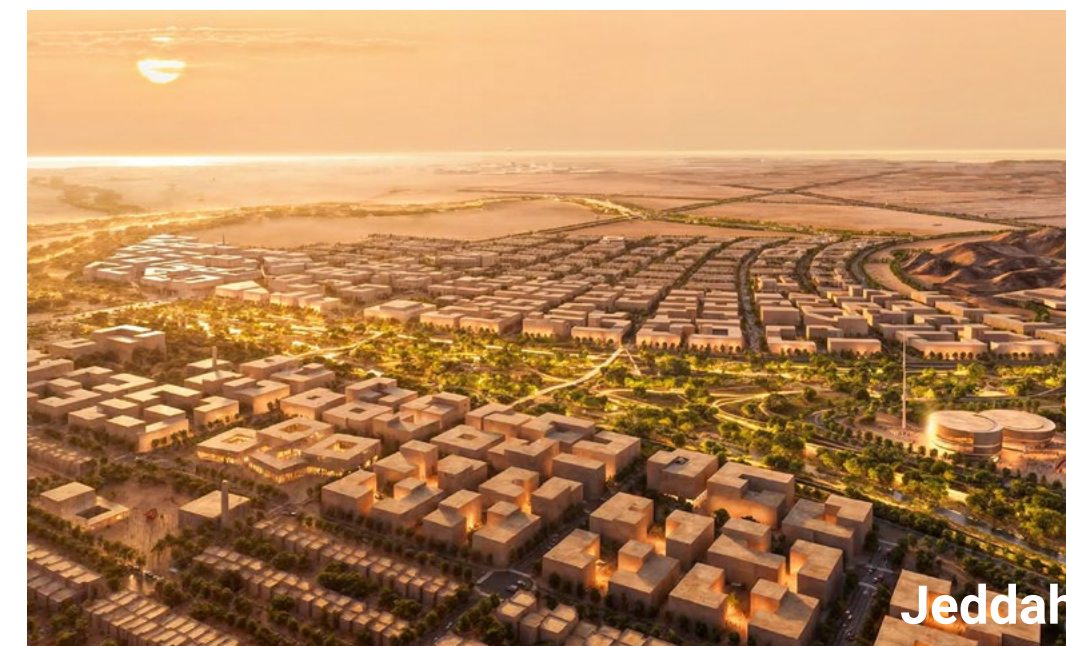
**Housing Infrastructure Development Project**

**Client :** National Housing Company (NHC)  
**Contractor :** Saad Saeed Al Saadi (SD)  
**Duration :** 1 Month  
**Area :** 81,000 m<sup>2</sup>  
**Technique :** Rapid Dynamic Compaction



**ZULUF Water Treatment Project - Roads**

**Client :** ARAMCO  
**Contractor :** Fisia italmipianti / Rawad Al Binah Cont.  
**Duration :** 2.5 Months  
**Area :** 120,000 m<sup>2</sup>  
**Technique :** Rapid Impact Compaction



**Bryman District**

**Client :** National Housing Company (NHC)  
**Consultant :** Khatib & Alami  
**Contractor :** Al Saadi  
**Duration :** 3 Months  
**Area :** 500,000 m<sup>2</sup>  
**Technique :** Rapid Impact Compaction

# Letter of Appreciation



## Enabling Works for RAK Greenfield Project

Client : Marjan  
Ref no. : 110.03.26/P01c-AA/L/177  
Date : 25 March 2026



Ref: 110.03.26/P01C-AA/L/177  
25<sup>th</sup> March 2026

To:  
Terra Firma Foundation Contracting LLC  
Dubai - United Arab Emirates  
Tel. No. +971 4 388 8453

Subject : Letter of Appreciation for Terra Firma Foundation Contracting LLC

Dear Terra Firma Team,

On of the Client 'Arabian Healthcare Group LLC', We would like to extend our sincere appreciation for your successful completion of the Enabling Works contract for the new Ras Al Khaimah Greenfield project.

Your team's professionalism, dedication, and commitment to excellence have been evident throughout the duration of the project. The timely execution of the works, adherence to quality standards, and proactive approach to addressing challenges have significantly contributed to establishing a strong foundation for the subsequent phases of development.

We particularly commend your collaborative spirit and clear communication, which have ensured smooth coordination with all stakeholders. Your efforts have played a vital role in maintaining project momentum and meeting key milestones.

Please convey our gratitude to everyone involved in this achievement. We look forward to the opportunity to collaborate with Terra Firma on future projects and wish you continued success in your endeavors.

Best Regards,



Mark Chicken  
Senior Commercial Manager  
Marjan LLC



T: +971 7 203 5000  
F: +971 7 243 0268  
E: info@marjan.ae  
PO Box 14587  
Ras Al Khaimah, UAE

marjan.ae

# 10. Approvals



		<b>HUDAYRIAT ISLAND EAST EXPANSION</b>		
<b>DOCUMENT TRANSMITTAL</b>				
Transmittal No.: 102HE-DTF-SC-027		Date: 13-July-2025		
From: NMDC Dredging & Marine, P.O. Box 3849, Abu Dhabi - UAE		To: Mr. Mohammed Razik - Project Manager Terra Firma Ground Engineering, UAE		
Response to Ref.:		Response Required: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Sr. No.	Document No.	Rev.	Description	*Return Status
1	P0027-K00035-NMD-MA00-XX-PQ-MR-000027	00	Prequalification Documents of M/s. Terra Firma - Subcontractor for Ground Improvement Works	Approved as noted (Code ? B)
This Submittal Intended For:		<input checked="" type="checkbox"/> Approval / Comments <input type="checkbox"/> Information / Records <input type="checkbox"/> As Per Your Request <input type="checkbox"/> For Implementation		
*Return Status Codes:		<input type="checkbox"/> Approved (Code 1 A) <input checked="" type="checkbox"/> Approved as noted (Code ? B) <input type="checkbox"/> Revise and Resubmit (Code 3 C) <input type="checkbox"/> Rejected (Code 4 D)		
Sent By:				
Name: Mr. Dirk Paul Hendriks		Designation: Project Manager	Signature:	Date: 13.Jul.2025
Acknowledgement of Receipt:				
Receiver Name:		Designation:	Signature:	Date:
Receiver Comments (if any):				
1.				
2.				
3.				
4.				
5.				

Consultant	Client	Contractor	FORM DT Rev.0	
	 دائرة البلديات والنقل DEPARTMENT OF MUNICIPALITIES AND TRANSPORT بلدية منطقة الفجيرة AL DHAFRAH REGION MUNICIPALITY		Client	Al Dhafrah Region Municipality
			Consultant	Parsons International Limited
			Contractor	Noor Al Sahara General Contracting
Project	Emergency Repairs on the International Road (E11) In Al-Marfaa' Area	Contract No.	DRM022/25	
Transmittal Ref. No.	NAS-P726-PIL-PQ-RD-0004	Date	16-12-2025	
Transmittal is Issued for your	<input type="checkbox"/> Information <input type="checkbox"/> Co-ordination <input type="checkbox"/> Review & Comments <input checked="" type="checkbox"/> Approval			
Doc. Type	PREQUALIFICATION			
<input checked="" type="checkbox"/> Civil	<input type="checkbox"/> Electrical	<input type="checkbox"/> Water	<input type="checkbox"/> Stormwater	<input type="checkbox"/> Sewer
<input type="checkbox"/> Irrigation/ Land Scaping				
I. Information				
SN	Sub-Contractor's Name	Submittal No.	Revision	Remarks
1.	Terra Firma - Ground Engineering		00	
II. For the Contractor				
Khaled Al Madani		16-12-2025		
Project Manager Name		Date		
III. Received By Consultant				
Badria Ahmad		17-12-2025		
Document Controller Name		Date		
IV. Consultant Review and Comments				
<div style="text-align: right;">Checked By: Sooria Ashar Date: 16-12-2025 Time:</div>				
V. For Consultant				
Wassim Jenbaz		17-12-2025		
Acting Resident Engineer Signature		Date		
VI. Received by Contractor				
Waseem Aslam		17-12-2025		
Document Controller Signature		Date		

Note: This Approval does not relieve the contractor from any of his contractual obligations

Form Number: FN-CN231-1-005

		Capital Gate, 6th Floor, Khaleej Arabi Street (30) PO Box 989, Abu Dhabi, UAE Tel: +971 (0)2 499 9999 Web: www.etihadrail.ae		
<b>Comment Sheet for Transmittal: S04-IFIA-JBS-CRI-02154</b>				
Project Reference: S04	Date: 10/01/2025 11:27:18	Issue Reason: IFIA-Issued for Implementation-Action		
Document Number	Rev	Title	Contract No.	Acceptance Status
P2319-S04-ECE-PF-00002	AA	Pre-qualification for Ground Improvement Works (M/s. Terra Firma Foundation Contracting LLC) - Abu Dhabi, Dubai, Fujairah	P2319-Package PS3 D&B of MBZ, EXPO & Fujairah Stations	02-Accepted with Co
Comments List Response		Consultant	Comment Status	
#2	Comments Sheet	<Consultant Response>	Status: New	
Made by Amit Kumar-JBS on the 09/01/2025 12:20:28  Comment Code: 02-Accepted with Comments				
Attachments: CRS.xlsx				
End of Document Comments List				



**SUB-CONTRACTOR PREQUALIFICATION SUBMITTAL - SCPS**

<b>Part A: Project Information:</b>			
Project Name	MID ISLAND PARKWAY PROJECT – PHASE 1A	SCPS. Ref. No	MIP1A-PQ-DGS-CIN-0063
Employer	Department of Municipalities and Transport	Rev. No	00
PMC		Date of Submission	16-04-2025
Engineer	Parsons International Limited	SCPS Submitted By	Dogus Abu Dhabi GCC Joint Venture
Contractor	Dogus Abu Dhabi – GCC Joint Venture	SCPS Submitted To	Parsons International Ltd.

<b>Part B: Sub-Contractor Discipline:</b>			
Related Discipline	<input type="checkbox"/> Civil	<input type="checkbox"/> Architectural	<input type="checkbox"/> Electrical
	<input type="checkbox"/> Mechanical	<input checked="" type="checkbox"/> Others	

**Part C: Sub-Contractor Details:**

Item Description	Details	List of Attachments (Tick all provided attachments)
Name	TERRA FIRMA FOUNDATION CONTRACTING L.L.C	<input checked="" type="checkbox"/> Valid Membership of Chamber of Commerce
Construction Activity/ Trade/ Scope of Work	Soil improvement under the existing TRANSCO line using cementitious pressure grouting.	<input checked="" type="checkbox"/> Valid Municipality License
Overall Experience	2 Years	<input checked="" type="checkbox"/> Pre-qualifications
Experience Related to the Project	2 Years	<input type="checkbox"/> Vendor List
Sub-Contractor/ Supplier mentioned in Vendor List?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Other Valid Licenses
Sub-Contractor's Address/ Location	P.O. BOX 341101, U.A.E.	<input checked="" type="checkbox"/> Organization Chart
Contact Person	Ziad Khawam	<input checked="" type="checkbox"/> ISO Certificate
Tel. Number	+971 561060608	<input checked="" type="checkbox"/> Quality Policy
Is Sub-Contractor Certified for any Quality Standard? (If yes, Specify?)	ISO 9001:2015	<input checked="" type="checkbox"/> Previous Approvals
Is Sub-Contractor Certified for any HSE Standard? (If yes, Specify?)	ISO 14001:2015, ISO 45001:2018	<input checked="" type="checkbox"/> List of Projects & Equipment
Other Remarks	Email: <a href="mailto:info@terrafirmage.com">info@terrafirmage.com</a> Web: <a href="http://www.terrafirmage.com">www.terrafirmage.com</a>	<input type="checkbox"/> Calibration Certificate



**Contractor's Review:**

We do certify that the submitted information herewith has been reviewed in details and in accordance with the Contract Documents except as otherwise stated here above.

	QA/QC Team Leader Subcontractor	QA/QC Manager Dogus GCC JV	HSE Manager - Dogus GCC JV	Project Manager Subcontractor	Project Director Dogus GCC JV
Name	SIJI KRISHNAN	Mehmet Alper ŞAHİN	Naveed ULLAH	ALIREZA KARIMPOUR	Kubilay ÖZTÜRK
Signature					
Date	16-04-2025	16-04-2025	16-04-2025	16-04-2025	16-04-2025

**The Engineer (Parsons)**

Comments (If Any) by Parsons: (Quality)

A- Approved  B- Approved with Comments  C- Revise and Resubmit  D- Rejected  Info

**The Engineer (Parsons)**

Comments (If Any) by Parsons: (Technical)

Grouting work shall be as per Approved MS and drawings.

A- Approved  B- Approved with Comments  C- Revise and Resubmit  D- Rejected  Info

**The Engineer (Parsons)**

Comments (If Any) by Parsons: (Safety)

A- Approved  B- Approved with Comments  C- Revise and Resubmit  D- Rejected  Info



**Document Transmittal Form**

To:	Ahmed Alhafez Construction Director, Parsons	From:	Ahmed El Attar Project Manager, Gulf Contractors
Record Ref:	CC2-GE-PQD-CE-0001	Rev:	0
No of copies:	1	Date:	14/01/2026
Project Name: JUBAIL ISLAND INFRASTRUCTURE WORKS – COLLECTIVE CONTRACT-02, Package-4 & Option-4G, Souk Town Centre Bridges & Bada Al Jubail Bridges-1 & 2.			
The Employer: Jubail Island Investment Company.		The Engineer: M/s PARSONS INTL. LTD	
The Contractor: Gulf Contractors LLC			

Subject :- Pre Qualification Documents for Ground Improvement Works & Grouting of Cavity- Alternative. (Sub Contractor :- Ms. Terra Firma Foundation Contracting LLC, Abu Dhabi, UAE.

Type: (Tick Applicable)	<input checked="" type="checkbox"/> Technical Data	<input type="checkbox"/> Guarantee	<input checked="" type="checkbox"/> Certificate	<input checked="" type="checkbox"/> Test Result
Attachment	<input checked="" type="checkbox"/> Schedules/ Programmes	<input checked="" type="checkbox"/> Report	<input type="checkbox"/> Statutory Issues (NOC)	<input checked="" type="checkbox"/> Others
Purpose of Issue (Tick Applicable)	<input type="checkbox"/> Samples	<input type="checkbox"/> Drawings	<input checked="" type="checkbox"/> Catalogue	<input type="checkbox"/> CD's <input type="checkbox"/> Others
	<input type="checkbox"/> For Information	<input type="checkbox"/> For Further Actionp	<input type="checkbox"/> For Record	<input checked="" type="checkbox"/> For Review

Detail :

Eng. Shadi Mohamed  
Technical Manager  
Gulf Contractors

المقاولون الخليجيون  
GULF CONTRACTORS  
P.O.Box 45363, Abu Dhabi, UAE  
Al Jubail Island

Received By:  
PARSONS International Ltd.

15 JAN 2026

**The Engineer (Parsons)**

Comments (If Any) by Parsons:

The attached Prequalification Documents have been reviewed and commented as per the attached consultant review sheets.


19.01.2026

A- Approved  B- Approved with Comments  C- Revise and Resubmit  D- Rejected  Info

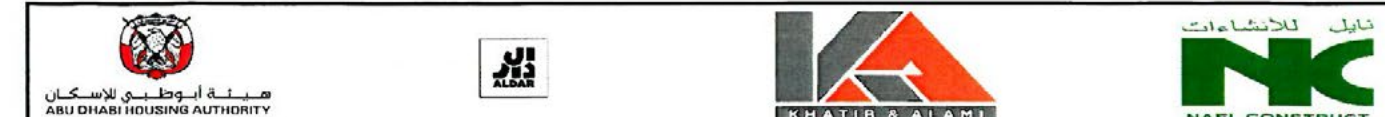
Signature:   
Resident Engineer  
Parsons


Received By: \_\_\_\_\_  
Contractor

Distribution:

					
<b>Method of Statement Submittal</b>					
Record Reference: <b>MIP1A-MST-CIN-00116</b>		Rev:00	No. of copies:1	Date: 15.08.2025	
Contract Reference:		DMT-CR-190-2023			
Project Name: Mid Island Parkway Project – Phase 1A					
Employer: Department of Municipalities and Transport (DMT)			Engineer: PARSONS International Limited		
Contractor: DOĞUŞ Abu Dhabi – GCC Joint Venture					
Discipline <input checked="" type="checkbox"/> Civil <input type="checkbox"/> Architecture <input type="checkbox"/> Mechanical <input type="checkbox"/> Electrical <input type="checkbox"/> Others					
Subject: Method Statement for Soil Improvement Works Using Rigid Inclusion (RI)					
Description: This method statement is applicable to define the step-by-step procedures of the <b>Soil Improvement Works Using Rigid Inclusion (RI) works</b> within the proposed project of <b>Mid Island Parkway Phase 1– Section 1A, Abu Dhabi. Soil Improvement Works Using Rigid Inclusion (RI) works</b> shall be executed safely and in accordance with the contract requirements and specifications, hazard and safety precautions implemented, and all the Quality Assurance/ Quality Control activities are conducted in a systematic manner, work inspected and documented as per project requirements.					
Contractor Signature:					
Discipline Engineer:	QA/QC Manager	HSE Manager	Construction Manager	Project Director:	Received by Parsons
The Engineer (Parsons) Material:					
Comments by Parsons: (Quality)					

FORM # 009 (Rev.00)

							
<b>METHOD STATEMENT SUBMITTAL</b>							
PROJECT NAME: INFRASTRUCTURE & BUILDING WORKS CONSTRUCTION, AL WATHBA NORTH, NORTH NEW & SOUTH							
DOCUMENT CODE	PROJECT #	DOCUMENT TYPE	TRADE CODE	RUNNING NUMBER	REV.	DATE	AUTHOR
	AD 1826	MS	INFRA / ROAD WORKS	0003	02	21-Nov-23	
ISSUED BY: NAEL GENERAL CONTRACTING LLC				TO: KHATIB & ALAMI (CEC)			
DOCUMENT DESIGNATION: METHOD STATEMENT SUBMITTAL FOR COMPACTION WORKS BY RAPID IMPACT COMPACTION (RIC)							
No.	Description / Title	Document No. /	Revision	No. of copies			
1	METHOD STATEMENT SUBMITTAL FOR COMPACTION WORKS BY RAPID IMPACT COMPACTION (RIC)	MS-1RW-0003-02	02	01 NOS HARD COPY / SOFT COPY			
SUBCONTRACTOR'S SIGNATURE:		CONTRACTOR'S SIGNATURE:		RECIPIENT'S SIGNATURE:			
The Engineer's Comments:							
Approved <input checked="" type="checkbox"/>		Approved As Noted <input type="checkbox"/>		Revised & Resubmit <input type="checkbox"/>			
Rejected <input type="checkbox"/>							
Engineer Representative:		SIGNATURE:		DATE:			
Ahmed Shalaby - Director (Khatib & Alami)				21/11/23			
Client Representative comments:							
Client Representative		SIGNATURE:		DATE:			
				21/11/23			

							
<b>DOCUMENT SUBMITTAL</b>							
PROJECT NAME: INFRASTRUCTURE & BUILDING WORKS CONSTRUCTION, AL WATHBA NORTH, NORTH NEW & SOUTH							
DOCUMENT CODE	PROJECT #	DOCUMENT TYPE	TRADE CODE	RUNNING NUMBER	REV.	DATE	AUTHOR
	AD 1826	DSUB	QA/QC	1101	01	14-Mar-24	
ISSUED BY: NAEL GENERAL CONTRACTING LLC				TO: KHATIB & ALAMI (CEC)			
DOCUMENT DESIGNATION: FINAL REPORT (RIC) - VILLAS STAGE-1 & 2 - AL WATHBA NORTH NEW (74 PLOTS).							
No.	Description / Title	Document No. /	Revision	No. of copies			
1	FINAL REPORT (RIC) - VILLAS STAGE-1 & 2 - AL WATHBA NORTH NEW (74 PLOTS).		01	01 NOS. HARD COPY			
CONTRACTOR'S SIGNATURE:		RECIPIENT'S SIGNATURE:					
Mohammed Fiyaz – Project Manager Nael General Contracting L.L.C.							
The Engineer's Comments:							
Approved <input checked="" type="checkbox"/>		Approved As Noted <input type="checkbox"/>		Revised & Resubmit <input type="checkbox"/>			
Rejected <input type="checkbox"/>							
Engineer Representative:		SIGNATURE:		DATE:			
Ahmed Shalaby - Director (Khatib & Alami)				21/3/24			
Client Representative comments:							
Client Representative		SIGNATURE:		DATE:			
				14 MAR 2024			

<b>QUALITY PRE-QUALIFICATION SUBMITTAL</b>	
PROJECT	Al Haffar Housing Project- Infrastructure Works- Package 1 [P154045/2025/C/001]
CLIENT	ALDAR <span style="float: right;">Date: 23/04/2026</span>
PMC	Kellogg Brown & Root (KBR) <span style="float: right;">Doc. Ref: HAIP1-IN-WBG-ZZ-ZX-PQ-EW-00001</span>
CONSULTANT	Parsons International Limited. (PIL) <span style="float: right;">Rev No: C00</span>
CONTRACTOR	Western Bainoona Group Contracting LLC[WBG]
DISCIPLINE	EarthWork
DETAILS	
SUB-CONTRACTOR	Prequalification Approval - M/s. TERRA FIRMA FOUNDATION CONTRACTING L.L.C - BRANCH OF ABU DHABI 1
JOB DESCRIPTION	For soil improvement Works
ADDRESS	Al Hisn Street, West 7 Building, First Abu Dhabi Bank P.J.S.C, 1_ -, Abu Dhabi, UAE.
ATTACHMENTS	Prequalification
COMMERCIAL REGISTER	Included in Prequalification
INCLUDED IN VENDOR LIST	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
FINANCIAL STATUS	Included in Prequalification
CURRENT PROJECT	Included in Prequalification
OTHERS (LIST ANY)	<ul style="list-style-type: none"> <li><input type="checkbox"/> Company profile</li> <li><input type="checkbox"/> Organization chart</li> <li><input type="checkbox"/> Trade License</li> <li><input type="checkbox"/> ISO Certifications</li> <li><input type="checkbox"/> Copies of previous project Approvals</li> <li><input type="checkbox"/> List of current and completed projects for UAE/Region with photos</li> <li><input type="checkbox"/> Compliance statement</li> <li><input type="checkbox"/> Appreciation from Entities</li> <li><input type="checkbox"/> List of bankers</li> <li><input type="checkbox"/> Others</li> </ul>
CONTRACTOR PROJECT MANAGER	SIGNATURE <span style="float: right;">DATE: 23-04-2026</span>
NAME: Elwaleed Elbashir Project Director	
<small>FWAPW-ZZ-KBR-ZZ-ZX-FM-AD-00075[C00] QUALITY PRE-QUALIFICATION SUBMITTAL (ALD-OP-QM-PQP-FRM-00012) 1</small> <small>Classification: Internal General Purpose Rev.02</small>	

<b>QUALITY PRE-QUALIFICATION SUBMITTAL</b>		
Received by Consultant	SIGNATURE	DATE
NAME:		
Recommendation by Consultant Representative:	STATUS	
Recviewed and have no objection subject to comply with all attached comments and satisfactory performance	<input type="checkbox"/> CODE A - Approved <input checked="" type="checkbox"/> CODE B - Approved with Comments <input type="checkbox"/> CODE C - Revise and Resubmit <input type="checkbox"/> CODE D - Rejected <input type="checkbox"/> CODE A - Approved	
Consultant Representative	Signature:	Date
Name: H. Olaywah		27-4-2026
Client/ PMC Representative	Signature:	Date
Name:		
Received by Contractors Representative	Signature:	Date
Name:		
<small>Note: Checking and approval by PMC/Consultant shall not relieve the contractor of his obligation to perform the works in accordance with the contract documents, requirements of safety and local authorities' regulations.</small>		
<small>FWAPW-ZZ-KBR-ZZ-ZX-FM-AD-00075[C00] QUALITY PRE-QUALIFICATION SUBMITTAL (ALD-OP-QM-PQP-FRM-00012) 2</small> <small>Classification: Internal General Purpose Rev.02</small>		

Key Activity :	General Correspondences
Status:	Approved
General Information	
Reference Number:	O-15392 Cont-Defn-AD/GC56
Consultant Contract No:	O-14942
Contractor Contract No:	O-15392
Consultant Letter Ref No:	P2202/SH/TAQA-WS/60161
Issue Date:	2026-05-04T16:35:20.000+04:00
General Correspondences Information	
Project Location:	Al Bahia Area, Abu Dhabi
Description:	Pre-Qualification Document for Soil Grouting Works M/s. Terra Firma Foundation Contracting LLC
Subject :	Pre-Qualification Document for Soil Grouting Works M/s. Terra Firma Foundation Contracting LLC
Official Use	Comments
 <b>Eng. Khaled Nabil</b> Projects Department Manager - Abu Dhabi	Consultant Comment: Dear Sirs, With reference to Gulf Contractors' letter Ref. No.: GC/O-15392/2/7/19/1547/25 dated 27 April 2026 regarding the submission of the Prequalification for the Subcontractor for Soil Improvement works, we would like to highlight that special approval is being sought in this case. As per the GCC letter and subsequent communications, the listed/approved vendors did not respond to the request. Therefore, based on the subcontractor's relevant and similar experience with Aldar and other Authorities, this prequalification is being submitted for your review and consideration. We have completed our review and hereby recommend the

### SUB-CONTRACTOR PREQUALIFICATION SUBMITTAL - SCPS

**Part A: Project Information:**

Project Name	Masdar City Infrastructure Project	PQN. Ref. No	LD737-MCIP-GCL-PQ-PW-0035-00
Employer	Masdar City Services LLC	Date of Submission	02-June-2026
Employer Rep.	Mubadala	SCPS Submitted By	GCL
PMC / Consultant	AECOM Middle East Ltd.	SCPS Submitted To	AECOM

**Part B: Supplier Discipline:**

Related Discipline	<input type="checkbox"/> Civil	<input type="checkbox"/> Utilities	<input type="checkbox"/> Electrical
	<input type="checkbox"/> Landscape	<input checked="" type="checkbox"/> Others (Specify): (Ground Improvement, Earthworks, Enabling works)	

**Part C: Supplier Contact Details:**

Item Description	Details	List of Attachments (Tick all provided attachments)
Name	Terra Firma Foundation Contracting LLC	<input checked="" type="checkbox"/> Scope of Works
Construction Activity/ Trade	Subcontractor / Expert in Foundation Contracting, Piling	<input checked="" type="checkbox"/> Contract Documents (Dwg, BOQ & Spec)
Overall Experience	Ground Improvement, Enabling work, Earthworks	<input checked="" type="checkbox"/> Valid Membership of Chamber of Commerce.
Experience Related to the Project	- Emirates Glass Factory - GCC Jubail Island - Hudayryat NMDC - Sadiyat Island (DOGUS/GCC)	<input checked="" type="checkbox"/> ISO Certifications
Sub-Contractor/ Supplier mentioned in Vendor List?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Organization chart of Supplier
Supplier's Address/ Location	114-115 DDP A1, Silicon Oasis P.O. Box 341101, Nadd Hessa Dubai, U.A.E	<input checked="" type="checkbox"/> Previous work's approvals
Contact Person	Mr. Ziad Khawam	<input checked="" type="checkbox"/> List of Total equipment & manpower
Mobile Number	+971 56 106 0608	<input checked="" type="checkbox"/> Total No. of projects executing presently.
Other Remarks		<input checked="" type="checkbox"/> List of manpower dedicated for this contract
		<input checked="" type="checkbox"/> List of equipment dedicated for this contract
		<input checked="" type="checkbox"/> CVs of proposed Engineers and Skilled Staff
		<input checked="" type="checkbox"/> Project Quality Assurance Plan / Method Statement
		<input checked="" type="checkbox"/> Satisfactory completion certificate of previous project /s
		<input type="checkbox"/> Vendor List
		<input checked="" type="checkbox"/> Other:

**Contractor's Review:**

"We confirm that the above-mentioned Supplier possesses all the equipment necessary to perform his job satisfactorily in accordance with the requirement of Contract Documents & the information given above is authentic"

	Sub-Contractor	Main Contractor	QA/QC	HSE	Project Manager
Name	Mr. Ziad Khawam	Gulf Contracting & Landscaping LLC	Akhil Unnikrishnan	Muhammad Sajid Usman	Ihab Khalaf
Signature					
Date	02.06.26		02.06.26	02.06.26	02.06.26

**Part D: Employer/ Engineer Review and Approval:**




Employer/ Engineer's Comments	<p style="color: red; font-weight: bold;">PMC Team HSE Comments:</p> <p style="color: red; font-weight: bold;">Please refer to the attached comments sheet and ADM Circular No. 006/2019 – Heavy Equipment &amp; Machinery Movement. All requirements and comments shall be fully complied with and effectively implemented.</p>
-------------------------------------	--

**Employer/ Engineer Approval:**

	<input type="checkbox"/> A: Approved	<input type="checkbox"/> B: Approved with Comments
	<input type="checkbox"/> C: Revise & resubmit	<input type="checkbox"/> D: Rejected

**Employer/ Engineer Approval:**


	For Consultant	For Client
Name	Firas Maleab	
Designation	Project Lead	
Signature		
Date		

RAK Hospital   

### Method Statement Submittal Form


Project name	P252030-RAK HOSPITAL	Method Statement Submittal no.	P252030-TFGE-ZZ-CIV-MET-0005-01
Contract no.			
Contract description			

**Contractor**

Subject	Method Statement for Soil Improvement Works by Rigid Inclusion (RI) Technique		
Specification no.	Drawing reference	TFGE-P252030-CIV-MST-005_01	Date
			22-May,2025
Discipline	<input type="checkbox"/> Architectural <input checked="" type="checkbox"/> Civil/ Structural <input type="checkbox"/> Mechanical <input type="checkbox"/> Electrical <input type="checkbox"/> Other (please specify):		
Date of Programmed work	Submitted for	<input checked="" type="checkbox"/> Approval <input type="checkbox"/> Information	
Contractor Authorized representative	Osama Mostafa	Signature	

**Health, Safety and Environment (HSE) Comments**


1) Contractor to include risks associated to rebar protrusion in the RA.  
2) Contractor to include risks associated with low visibility or work at night shift.

Name: Ashok Singh Date: 23 May 2025  
Signature: 




**Consultant's Comments**

Following the Pre-CPT results, the Contractor shall submit a detailed Shop Drawing for the Rigid Inclusions, including the borehole diameter, depth, and spacing between inclusions. Additionally, the Contractor shall:  
 \* Submit the design calculations for the Rigid Inclusions.  
 \* Concrete Strength in Rigid Inclusion used shall be as per Approved Mix Design and Approved design Calculation and Trial Mix shall satisfy the concrete design strength at 28 days  
 \* Approved Mix designs are as following, contractor shall follow proposed mix design in Calculation to satisfy the requirements  
 - C28 (Cylinder) / C35 (Cube) SRC  
 - C32 (Cylinder) / C40 (Cube) SRC  
 - C36 (Cylinder) / C46 (Cube) SRC  
 \* Submit the Method Statement and design calculations for the Zone Load Test (ZLT) to verify the bearing capacity.  
 \* All cured concrete specimens shall meet the acceptance criteria as defined in ACI 318-19 (Article 26.12.3), ensuring design compressive strength prior to conducting the ZLT  
 - ITP Item 3.1 and 3.2 shall be Hold point for consultant.

Stantec (Consultant) has reviewed and accepted this method statement based on the project specification and authority standards. The Consultant hereby relieves all responsibilities to the Contractor on the methodology of works done in accordance with this method statement. The Contractor shall ensure that the work methodology complies with all relevant codes, standards, and local regulations and shall be solely responsible for all Health and Safety and any errors or omissions in the methodology of works done.

 Atif Saeed


Page 1 of 2

RAK HOSPITAL   

### Method Statement Submittal Form


Project name	P252030-RAK HOSPITAL	Method Statement Submittal no.	P252030-TFGE-ZZ-CIV-MET-0007-00
Contract no.			
Contract description			

**Contractor**

Subject	METHOD STATEMENT FOR ZONE LOAD TEST (ZLT)		
Specification no.	Drawing reference		Date
			09-June-2025
Discipline	<input type="checkbox"/> Architectural <input checked="" type="checkbox"/> Civil/ Structural <input type="checkbox"/> Mechanical <input type="checkbox"/> Electrical <input type="checkbox"/> Other (please specify):		
Date of Programmed work	Submitted for	<input checked="" type="checkbox"/> Approval <input type="checkbox"/> Information	
Contractor Authorized representative	Osama Mostafa	Signature	

**Health, Safety and Environment (HSE) Comments**


Contractor to mandatorily include comments in attached CRS with the MSRA.

Name: Elmonir Mohamed - Resident Engineer Date: 13 June 2025  
Signature: 




**Consultant's Comments**

- Zone Load Test shall be conducted in accordance with ASTM standards.  
 - The applied load must reach a minimum of 1.5 times the required bearing capacity.  
 - The Zone Load Test shall be performed at the deepest foundation formation level to represent the most critical soil condition  
 - Site surface under the plate must be properly prepared, leveled, and compacted before testing.  
 - All test equipment, including hydraulic jacks, load cells, and dial gauges, must be calibrated and certified

"Stantec (Consultant) has reviewed and accepted this method statement based on the project specification and authority standards. The Consultant hereby relieves all responsibilities to the Contractor on the methodology of works done in accordance with this method statement. The Contractor shall ensure that the work methodology complies with all relevant codes, standards, and local regulations and shall be solely responsible for all Health and Safety and any errors or omissions in the methodology of works done."

 Atif Saeed


Page 1 of 2

RAK HOSPITAL   

### Method Statement Submittal Form

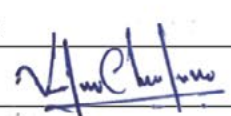
Project name	P252030-RAK HOSPITAL	Method Statement Submittal no.	TFGE-P252030-MS-TRN-003-01
Contract no.			
Contract description	Lumpsum		

**Contractor**

Subject	Dynamic Compaction (DC) Method statement		
Specification no.	Drawing reference	TFGE-P242030-CIV-MST-002_01	Date
			02-May,2025
Discipline	<input type="checkbox"/> Architectural <input checked="" type="checkbox"/> Civil/ Structural <input type="checkbox"/> Mechanical <input type="checkbox"/> Electrical <input type="checkbox"/> Other (please specify):		
Date of Programmed Work	Submitted for	<input checked="" type="checkbox"/> Approval <input type="checkbox"/> Information	
Contractor Authorized representative	Osama Mostafa	Signature	

**Health, Safety and Environment (HSE) Comments**

The MSRA is reviewed and approved, the contractor shall ensure below during the operation.  
 • HSE team to conduct regular inspections to ensure compliance with MSRA and authority requirements.  
 • Work areas must be barricaded and marked with caution signs to prevent unauthorized access.  
 • Monitor and record vibration levels, ensuring they remain within permissible limits.  
 • Keep all relevant documents (NOC, MSRA, PTW, third-party certificates) available at the worksite.  
 • Provide necessary welfare facilities (toilets, water, rest areas, first aid, firefighting) before starting work.  
 • Night work requires prior approval from authority, client, PMC, and supervision consultant.  
 • MSRA to be communicated to all crew involved in the task.

Name: Vipin Chandran Date: 05-May-2025  
Signature: 

**Consultant's Comments**

• Ensure that the Dynamic compaction is done as per approved Shop Drawing and is accurately aligned with the established benchmark.  
 • Submit the topographical survey reports before and after ground improvement works.  
 • Ensure that, after the Dynamic Compaction, the ground level matches the formation levels as per the IFC Drawings.  
 • Verify bearing capacity criteria 350 kPa for Main Building and 250 kPa for Podium Area of main building in accordance with the design requirements and IFC.  
 • Provide the method statement and shop drawings for the Rigid Inclusions (RI) works (separately).  
 • Submit shop drawings for the Dynamic Compaction trial area.  
 • Following the Dynamic Compaction trial Area, submit a detailed report/shop drawing including the following information:  
 o Grid Spacing  
 o Number of Blows per Print  
 o Drop Height  
 o Weight of Pounder  
 o Number of Phases or Passes  
 • Perform Suitability Test for the existing soil used for backfilling.  
 • The Inspection and Test Plan (ITP) & Checklist must be submitted with all future method statement.

Page 1 of 2

Project: MIP - 1B

**PROCORE** Parsons International Limited  
F9R8+54R - Al Danah - Zone 1  
Abu Dhabi, NA  
P: +971509076050

### Submittal #1.0-PQN-CIV-0042.0 - PQN-CIV-0042 - Pre-qualification for Ground Improvement Works - M/s Terra Firma Foundation Contracting L.L.C. 1.0 - Civil Works

**Distribution Summary**  
Distributed by Mohamed Asaad (Parsons International Limited) on 21 Oct, 2024

**To** Nadeem Latif (YP-CRIG-JV), Mohamed Asaad (Parsons International Limited), Hu Peng (YP-CRIG-JV), Athab Puthiyakath (YP-CRIG-JV), Yuebin Wu (YP-CRIG-JV)

**Message** None

**Attachments**

Name	Response	Attachments	Comments
Saleel Aerattu (Parsons International Limited)	B - Approved with Comments	<a href="#">PQN-CIV-0042 - Ground Improvement Works (Terra Firma).pdf</a> , <a href="#">CRS-MIP-1B-PAR-PQ-GE-CIV-0042-Rev-0.xlsx</a>	Please follow Parsons comments as noted in the attached CRS
Kanhaiya Meghwal (Parsons International Limited)	B - Approved with Comments	<a href="#">CRS-YP-CRIG-MIP-1B-PQN-CIV-0036-Rev-0.xlsx</a>	Refer to attached CRS.
Muhammad Ashraf (Parsons International Limited)	B - Approved with Comments	<a href="#">CRS-MIP-1B-PAR-PQ-GE-CIV-0042-Rev-0 (1).xlsx</a> , <a href="#">PQN-CIV-0042 - Ground Improvement Works (Terra Firma).pdf</a>	The prequalification approval is subject to compliance with the marked comments and satisfactory performance at site
Mohamed Asaad (Parsons International Limited)	B - Approved with Comments		

**Revision** 0      **Submittal Manager** Mohamed Asaad (Parsons International Limited)

**Status** B - Approved with Comments      **Date Created** 17 Oct, 2024

**Issue Date** 22 Oct, 2024      **Spec Section** 1.0 - Civil Works

**Final Due Date** 22 Oct, 2024      **Lead Time**

**Location**      **Type** Pre Qualification

**Approvers** Saleel Aerattu (Parsons International Limited), Muhammad Ashraf (Parsons International Limited), Kanhaiya Meghwal (Parsons International Limited), Emad Salem (Parsons International Limited), Muhammad Ashraf (Parsons International Limited), Mohamed Asaad (Parsons International Limited)

**Ball in Court**

**Distribution**

**Description** Dear Mr. Asaad,  
Please find attached herewith Prequalification Submittal for Ground Improvement Works - M/s Terra Firma Foundation Contracting L.L.C., for your review and approval.  
Thanks and Regards,  
For and on behalf of YP-CRIG-JV

Parsons International Limited      Page 1 of 2      Printed On: 21 Oct, 2024 12:26 PM +04

RECEIVED

21 OCT 2024

Yas Projects-CRIG-JV  
Mid Island Parkway - 1B

Project: MIP - 1B

Abdul Afthab  
Sr. Document Controller

### Submittal #1.0-PQN-CIV-0042.0 - PQN-CIV-0042 - Pre-qualification for Ground Improvement Works - M/s Terra Firma Foundation Contracting L.L.C.

**Submittal Workflow**

Name	Sent Date	Due Date	Returned Date	Response	Attachments
<b>General Information</b>					
Attachments: <a href="#">PQN-CIV-0042 - Ground Improvement Works (Terra Firma).pdf</a>					
Saleel Aerattu	18 Oct, 2024	28 Oct, 2024	20 Oct, 2024	B - Approved with Comments	<a href="#">PQN-CIV-0042 - Ground Improvement Works (Terra Firma).pdf</a> , <a href="#">CRS-MIP-1B-PAR-PQ-GE-CIV-0042-Rev-0.xlsx</a>
<b>Comment</b> Please follow Parsons comments as noted in the attached CRS					
Muhammad Ashraf	18 Oct, 2024	28 Oct, 2024	20 Oct, 2024	B - Approved with Comments	<a href="#">PQN-CIV-0042 - Ground Improvement Works (Terra Firma).pdf</a> , <a href="#">CRS-MIP-1B-PAR-PQ-GE-CIV-0042-Rev-0.xlsx</a>
<b>Comment</b> The approval is subject to compliance with the marked comments and satisfactory performance at site					
Kanhaiya Meghwal	18 Oct, 2024	28 Oct, 2024	18 Oct, 2024	B - Approved with Comments	<a href="#">CRS-YP-CRIG-MIP-1B-PQN-CIV-0036-Rev-0.xlsx</a>
<b>Comment</b> Refer to attached CRS.					
Emad Salem	18 Oct, 2024	28 Oct, 2024	20 Oct, 2024	Void	
Muhammad Ashraf	20 Oct, 2024	22 Oct, 2024	20 Oct, 2024	B - Approved with Comments	<a href="#">CRS-MIP-1B-PAR-PQ-GE-CIV-0042-Rev-0 (1).xlsx (Current)</a> , <a href="#">PQN-CIV-0042 - Ground Improvement Works (Terra Firma).pdf (Current)</a>
<b>Comment</b> The prequalification approval is subject to compliance with the marked comments and satisfactory performance at site					
Mohamed Asaad	20 Oct, 2024	22 Oct, 2024	21 Oct, 2024	B - Approved with Comments	

Parsons International Limited      Page 2 of 2      Printed On: 21 Oct, 2024 12:26 PM +04

Yas Projects CRIG-JV	Mid Island Parkway - 1B
Date:	
Forward to Action Coord Info	
Yes No	
CRIG HO	
GD	
JV Coord.	
PD	
DDP	
Comm. Mgr.	
Const. Dir.	
Design Coord	
HSE	
Planning	
HSE	
QA/QC	
Material Eng.	
Admin	
Procurement	
NOC	
DC	
PM	
Sub-Com	
Others	

Project: MIP - 1B

**PROCORE** Parsons International Limited  
F9R8+54R - Al Danah - Zone 1  
Abu Dhabi, NA  
P: +971509076050

### Submittal #1.0-PQN-CIV-0042.0 - PQN-CIV-0042 - Pre-qualification for Ground Improvement Works - M/s Terra Firma Foundation Contracting L.L.C. 1.0 - Civil Works

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**Message** None

**Attachments**

Name	Response	Attachments	Comments
Saleel Aerattu (Parsons International Limited)	B - Approved with Comments	<a href="#">PQN-CIV-0042 - Ground Improvement Works (Terra Firma).pdf</a> , <a href="#">CRS-MIP-1B-PAR-PQ-GE-CIV-0042-Rev-0.xlsx</a>	Please follow Parsons comments as noted in the attached CRS
Kanhaiya Meghwal (Parsons International Limited)	B - Approved with Comments	<a href="#">CRS-YP-CRIG-MIP-1B-PQN-CIV-0036-Rev-0.xlsx</a>	Refer to attached CRS.
Muhammad Ashraf (Parsons International Limited)	B - Approved with Comments	<a href="#">CRS-MIP-1B-PAR-PQ-GE-CIV-0042-Rev-0 (1).xlsx</a> , <a href="#">PQN-CIV-0042 - Ground Improvement Works (Terra Firma).pdf</a>	The prequalification approval is subject to compliance with the marked comments and satisfactory performance at site
Mohamed Asaad (Parsons International Limited)	B - Approved with Comments		

**Revision** 0      **Submittal Manager** Mohamed Asaad (Parsons International Limited)

**Status** B - Approved with Comments      **Date Created** 17 Oct, 2024

**Issue Date** 22 Oct, 2024      **Spec Section** 1.0 - Civil Works

**Final Due Date** 22 Oct, 2024      **Lead Time**

**Location**      **Type** Pre Qualification

**Approvers** Saleel Aerattu (Parsons International Limited), Muhammad Ashraf (Parsons International Limited), Kanhaiya Meghwal (Parsons International Limited), Emad Salem (Parsons International Limited), Muhammad Ashraf (Parsons International Limited), Mohamed Asaad (Parsons International Limited)

**Ball in Court**




**Distribution**

**Description** Dear Mr. Asaad,  
Please find attached herewith Prequalification Submittal for Ground Improvement Works - M/s Terra Firma Foundation Contracting L.L.C., for your review and approval.  
Thanks and Regards,  
For and on behalf of YP-CRIG-JV

Parsons International Limited      Page 1 of 2      Printed On: 21 Oct, 2024 12:26 PM +04

# Approvals

KSA 

Project: MA'ADEN PHOSPHATE 3-PHASE 1

Title: **Method of Statement for Trial Area Soil Compaction Works By Dynamic Compaction/Dynamic Replacement (DC/DR) - RAK**

Number: MD-522-1500-CN-CV-MST-MMAH-0014

Date: 29-May-2024

Rev: A01

Ma'aden Phosphate 3 – Phase 1			
NAME	TITLE	SIGN	DATE

REVIEW GRADE		
Result	Code	Description
<input type="checkbox"/>	A	Accepted
<input type="checkbox"/>	C	Proceed with exceptions to next Submission and Revision
<input type="checkbox"/>	R	Do Not Proceed - Revise as noted and Resubmit
<input type="checkbox"/>	I	For Information

Acceptance in any of these categories in no way relieves the Contractor/Supplier of its responsibility for the due and proper performance of the Works in accordance with the Contract/Purchase Order.




PROJECT MANAGER SIGN-OFF:

NAME	DATE

PROPRIETARY & CONFIDENTIAL

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PROPRIETARY & CONFIDENTIAL

Page 2 of 23

Date: 29-May-2024

Rev: A01

MD-522-1500-CN-CV-MST-MMAH-0014



**Method of Statement for Trial Area Soil Compaction Works By Dynamic Compaction/Dynamic Replacement (DC/DR) - RAK**

REVISION INDEX

Rev	Date	Description
A01	29-May-2023	For Approval

Rev.	Rev. Date	Description	Prepared By	Checked By	Approved By	Employer
A01	29-May-2023	For Approval	MAH Team	Khaled Mohamed - PM	AHMED ELHANAFY - PD	

PROPRIETARY & CONFIDENTIAL

## MA'ADEN Phosphate 3 Phase I - Stage 4 - EPCM Project

METHOD STATEMENT FOR TRIAL AREA SOIL COMPACTION WORKS BY DYNAMIC COMPACTION/ DYNAMIC REPLACEMENT (DC/DR)

RAS AL-KHAIR, KSA

Our Reference : MD-522-1500-CN-CV-MST-MMAH-0014  
Date : 29-05-2024  
Rev : A01

Revision	Date	Prepared by	Reviewed by	Approved by
01	29-May-2024	Wahith Vavanan	Ahmed Alaaeldin	Ahmed Alaaeldin

PROPRIETARY & CONFIDENTIAL

MD-522-1500-CN-CV-MST-MMAH-0014
Rev.A01
Page -2 of 22

Submittal #1.0-PQN-CIV-0042.0 - PQN-CIV-0042 - Pre-qualification for Ground Improvement Works - M/s Terra Firma Foundation Contracting L.L.C. Project: MIP - 1B

Abdul Afthab  
Sr. Document Controller

**Submittal Workflow**

Name	Sent Date	Due Date	Returned Date	Response	Attachments
General Information Attachments					
Saleel Aerattu	18 Oct, 2024	28 Oct, 2024	20 Oct, 2024	B - Approved with Comments	<a href="#">PQN-CIV-0042 - Ground Improvement Works (Terra Firma).pdf</a>
<b>Comment</b> Please follow Parsons comments as noted in the attached CRS					
Muhammad Ashraf	18 Oct, 2024	28 Oct, 2024	20 Oct, 2024	B - Approved with Comments	<a href="#">PQN-CIV-0042 - Ground Improvement Works (Terra Firma).pdf</a> <a href="#">CRS-MIP-1B-PAR-PQ-GE-CIV-0042-Rev-0.xlsx</a>
<b>Comment</b> The approval is subject to compliance with the marked comments and satisfactory performance at site					
Kanhaiya Meghwal	18 Oct, 2024	28 Oct, 2024	18 Oct, 2024	B - Approved with Comments	<a href="#">CRS-YP-CRIG-MIP-1B-PQN-CIV-0036-Rev-0.xlsx</a>
<b>Comment</b> Refer to attached CRS.					
Emad Salem	18 Oct, 2024	28 Oct, 2024	20 Oct, 2024	Void	
Muhammad Ashraf	20 Oct, 2024	22 Oct, 2024	20 Oct, 2024	B - Approved with Comments	<a href="#">CRS-MIP-1B-PAR-PQ-GE-CIV-0042-Rev-0 (1).xlsx (Current)</a> <a href="#">PQN-CIV-0042 - Ground Improvement Works (Terra Firma).pdf (Current)</a>
<b>Comment</b> The prequalification approval is subject to compliance with the marked comments and satisfactory performance at site					
Mohamed Asaad	20 Oct, 2024	22 Oct, 2024	21 Oct, 2024	B - Approved with Comments	

Parsons International Limited Page 2 of 2 Printed On: 21 Oct, 2024 12:26 PM +04

SOUTH OIL FACILITIES PROJECTS DEPARTMENT  
Khurais Projects Division

<b>PROJECT TITLE ▼</b> Debottleneck Produced Water Handling System	<b>Contract Number</b> 6600047860	<b>BI   Job Order No.</b> 10-13194
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<b>DOCUMENT TRANSMITTAL</b>	<b>Transmittal No.</b> SA-13194-T-0355/25
	<b>Date:</b> March 11, 2025
<b>AHMED HANAFY, Project Director</b> <b>AHMED YOUSSEF, Project Manager</b> Engineering for the Petroleum & Process Industries P.O. Box 3920 Al-Khobar 34425, Saudi Arabia Tel No. 054-6395252   056-7921024	<b>ALI H. AL-RUBEH, Company Representative</b> Saudi Arabian Oil Company (SAUDI ARAMCO) R-20   7 <sup>th</sup> Floor Hugayet Tower, Al-Khobar Mobile No. 055-680-5181   013 825-8928

<b>SUBJECT   TITLE</b>	<b>FINAL SOIL IMPROVEMENT REPORT FILL COMPACTION / SOIL IMPROVEMENT WORKS BY RAPID IMPACT COMPACTION (FOR AREA-A1- ZONE-4)</b>
<b>DOCUMENT TYPE</b>	<input checked="" type="checkbox"/> Documents <input type="checkbox"/> Drawings <input type="checkbox"/> Electronic File
<b>REVIEW STATUS</b>	<input type="checkbox"/> Approved <input checked="" type="checkbox"/> Approved With Comments <input type="checkbox"/> Revise and resubmit <input type="checkbox"/> Reviewed <input type="checkbox"/> Reviewed With Comments <input type="checkbox"/> REJECTED
<b>REQUIRED ACTION</b>	<input checked="" type="checkbox"/> Information <input type="checkbox"/> Cancellation <input type="checkbox"/> Action

<b>REFERENCES ▼</b>	<b>COMMENTS   NOTES ▼</b>
EN-SA-KDBN-TR-0831-25	CSD has reviewed the following documents with no further comments:  <i>Final Post-quality Control Test Report (Rev. 00) including the various Post CPTs undertaken for the Rapid Impact Compaction (RIC) technique for Debottleneck Produced Water Handling System, Area 1, Zone 4; construction activities refer to the improvement of natural soils and 2 additional fill layers by the said ground improvement method.</i>  Contractor may proceed with works ensuring the following: <ul style="list-style-type: none"> <li>In case of inconsistencies on both the factual data and the engineering interpretation resulting on non-compliance of the set criteria, then, the matter shall be referred back to the Soil Improvement Contractor.</li> <li>CSD is only reviewing the interpretative assessment of the field findings; the accuracy of the factual data (e.g. boreholes, Post CPTs, etc.) is a full responsibility of the entities supervising the Contractor and Geotechnical Vendor and therefore, factual data are taken as default by CSD.</li> </ul> <p>The review of the documents concerns geotechnical aspects only, and does not relieve Contractor from any liabilities to contracts term/conditions nor serve as a waiver to Mandatory Saudi Aramco's Engineering Requirements.</p>

Please acknowledge receipt and send copy via return email for our record to: [crisanto.perez.1@aramco.com](mailto:crisanto.perez.1@aramco.com)

TRANSMITTED BY SAPMT	RECEIVED BY ENPPI KSA
Signature :	Signature : _____
Name : <b>ALI H. AL-RUBEH</b>	Name : _____
Tel. No. : <b>055-680-5181</b>	Tel. No. : _____
Date : <b>03/11/2025</b>	Date : _____

Saudi Aramco: Company General Use

SOUTH OIL FACILITIES PROJECTS DEPARTMENT  
Khurais Projects Division

<b>PROJECT TITLE ▼</b> Debottleneck Produced Water Handling System	<b>Contract Number</b> 6600047860	<b>BI   Job Order No.</b> 10-13194
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<b>DOCUMENT TRANSMITTAL</b>	<b>Transmittal No.</b> SA-13194-T-0184/24
	<b>Date:</b> November 5, 2024
<b>AHMED HANAFY, Project Director</b> <b>NOUR A. HEIKAL, Project Manager</b> Engineering for the Petroleum & Process Industries P.O. Box 3920 Al-Khobar 34425, Saudi Arabia Tel No. 054-6395252   056-4649796	<b>ALI H. AL-RUBEH, Company Representative</b> Saudi Arabian Oil Company (SAUDI ARAMCO) R-20   7 <sup>th</sup> Floor Hugayet Tower, Al-Khobar Mobile No. 055-680-5181

<b>SUBJECT   TITLE</b>	<b>REVISED DESIGN REPORT FOR HOLDING AND OILY WATER TANKS, REV.2</b>
<b>DOCUMENT TYPE</b>	<input checked="" type="checkbox"/> Documents <input type="checkbox"/> Drawings <input type="checkbox"/> Electronic File
<b>REVIEW STATUS</b>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Approved With Comments <input type="checkbox"/> Revise and resubmit <input type="checkbox"/> Reviewed <input type="checkbox"/> Reviewed With Comments <input type="checkbox"/> REJECTED
<b>REQUIRED ACTION</b>	<input checked="" type="checkbox"/> Information <input type="checkbox"/> Cancellation <input type="checkbox"/> Action

<b>REFERENCES ▼</b>	<b>COMMENTS   NOTES ▼</b>
EN-SA-KDBN-TR-0570-24	CSD has reviewed the document for the Revised Design Report for Holding and Oily Water Tanks, Rev.2 with no further comments. The report is submitted in relation to soil improvement for BI-10-13194 Debottleneck Produced Water Handling System (Early Civil Construction Package).  <i>Note: The review of the documents concerns geotechnical aspects only, and does not relieve Contractor from any liabilities to contracts term/conditions nor serve as a waiver to Mandatory Saudi Aramco's Engineering Requirements. In addition, the review is based on the interpretative assessment of the field findings; the accuracy of the factual data (e.g. boreholes, PCPTs, etc.) is a full responsibility of the entities supervising the Contractor and Geotechnical Vendor and therefore, factual data are taken as default by CSD.</i>

Please acknowledge receipt and send copy via return email for our record to: [crisanto.perez.1@aramco.com](mailto:crisanto.perez.1@aramco.com)

TRANSMITTED BY SAPMT	RECEIVED BY ENPPI KSA
Signature :	Signature : _____
Name : <b>ALI H. AL-RUBEH</b>	Name : _____
Tel. No. : <b>055-680-5181</b>	Tel. No. : _____
Date : <b>11/05/2024</b>	Date : _____

Saudi Aramco: Company General Use

**FADHILI INCREMENT PROJECTS DEPARTMENT**  
**FADHILI INCREMENT PIPELINES & INFRASTRUCTURE PROJECTS DIVISION**  
 SAPMT Senior Management Office, Fadhili  
 Telephone No.: 013-678-0000

<b>DOCUMENT TRANSMITTAL</b>	Transmittal No. <b>FIPL&amp;IPD-SA-MMAH-T-01730</b>	Date 26-Jan-25			
<b>TO:</b> MOHAMED ADEL RAGEH CONTRACTOR Representative Dammam 31491, Saudi Arabia Tel: +966-55-361-9355	<b>FROM:</b> DAHFER A. AL QAHTANI COMPANY Representative Fadhili Increment P/L & Infrastructure Projects Div. Tel: +966-13-678-2111				
Contractor Name: Mofarreh Marzouq Al-Harbi and Partners Co. Ltd Contract No.: 6601000314 / BI-10-20857	Project Title: GIP Package 3, Offshore Gas Increment Site Preparation / Early Works Location: Fadhili				
MMAH Reference No. AFGP-MMAH-SA-T-02322					
<b>Saudi Aramco Remarks Code:</b> Code A - No Objection / Reviewed      Code C - Correct & Resubmit      Code E - For Information Code B - No Objection As Noted      Code D - Rejected      Code F - Others					
Document No.	Rev.	Subject	Remarks Code	Qty	Nature
CIVIL-ASR-029	1	FINAL ASSESSMENT REPORT COMPACTION OF NATURAL GROUND FOR HEAVY HUAL ACCESS ROAD BY RAPID IMPACT COMPACTION	<b>A</b>	1	ORIG.
SAUDI ARAMCO has reviewed and approved CIVIL-ASR-029 , Final Assessment Report Compaction of Natural Ground for Heavy Hual Access Road by Rapid Impact Compaction  Should you have any questions, please contact Tariqi, Mohammed H at 013-678-2844.					
 <b>DAHFER A. AL QAHTANI</b> Company Representative					
cc: MHT					
<b>DISCLAIMERS:</b> - Saudi Aramco response does not relieve the CONTRACTOR from any of its contractual obligations. - Saudi Aramco response does not relieve the CONTRACTOR from any of its obligations of full compliance with the applicable SA Standards and the referenced standards.					
Transmitted By:  Maitham Hafed	Received By:  Name and Signature	Received Date			

Saudi Aramco: Company General Use

**SAUDI ARABIAN OIL COMPANY**  
 RIYAS NGL PROJECTS DEPARTMENT  
 Ind Support Facs & Site Dev Div  
 15th Floor, Sky Tower, King Saud Bin Abdulaziz Road, Qurtuba,  
 Al-Khobar, Saudi Arabia

<b>DOCUMENT TRANSMITTAL</b>	Transmittal No. <b>RNGLFPD-SP-TR-0366/24</b>	Date May 21, 2024	
<b>TO:</b> Waleed Zaki Salama, Contractor Representative Mofarreh Marzouq AlHarbi & Partners Co.Ltd Dammam 31491, Saudi Arabia	<b>FROM:</b> Wail O. BuSaied, Company Representative Ind Support Facs & Site Dev Div Saudi Arabian Oil Company		
<b>Contract No.:</b> 6601000306	<b>Project Title:</b> Riyas NGL Site Preparation		
<b>COMPANY Response Remarks Code</b>			
<b>THE FOLLOWING</b>	<input checked="" type="checkbox"/> DOCUMENTS	<input type="checkbox"/> E-FILE <input type="checkbox"/> DRAWING	
<b>COMPANY RESPONSE</b>	<input type="checkbox"/> APPROVED	<input type="checkbox"/> REJECTED <input type="checkbox"/> REVISE & RESUBMIT	
	<input type="checkbox"/> FOR YOUR USE	<input type="checkbox"/> REVIEWED WITH COMMENTS <input checked="" type="checkbox"/> NO OBJECTION	
Contractor Reference Number	Rev	Subject	Remarks
ASP-MMAH-SA-T-00649	01	DC-DR Final Handover report, (Access Road A2 - Natural Soil + 2m Fill)	No Objection
COMPANY has no objection on the submitted report;  Please note that in case of inconsistencies on both the factual data and the engineering interpretation (that may be revealed by the subsequent CONTRACTOR during the handover) resulting on non-compliance of the early site preparation set criteria, then, the matter shall be referred back to the Early Site Preparation CONTRACTOR.  COMPANY is only reviewing the interpretative assessment of the field findings; the accuracy of the factual data (e.g. Post CPTs) is a full responsibility of the entities supervising the CONTRACTOR and Geotechnical Vendor and therefore, factual data are taken as default by COMPANY.  Should you require any further clarification, please contact Alqahtani, Mohammed Z, via <a href="mailto:mohammed.qahtani.188@aramco.com">mohammed.qahtani.188@aramco.com</a>			
 <b>Wail O. BuSaied</b> , Company Representative			
cc: SAM/MZQ			
Attachment(s): No			
cc: SUPERVISOR PROJECT ENGRG, Majed, Sami A ASSOCIATE ENGINEER, Qahtani, Mohammed Z			

Saudi Aramco: Company General Use

**FADHILI INCREMENT PROJECTS DEPARTMENT**  
**FADHILI INCREMENT PIPELINES & INFRASTRUCTURE PROJECTS DIVISION**  
 SAPMT Senior Management Office, Fadhili  
 Telephone No.: 013-678-0000

<b>DOCUMENT TRANSMITTAL</b>	Transmittal No. <b>GIPL&amp;IPD-SA-MMAH-T-01406</b>	Date 1-Oct-24			
<b>TO:</b> WALEED ZAKI SALAMA CONTRACTOR Representative Dammam 31491, Saudi Arabia Tel: +966-55-368-0066	<b>FROM:</b> DAHFER A. AL QAHTANI COMPANY Representative Fadhili Increment P/L & Infrastructure Projects Div. Tel: +966-13-678-2111				
Contractor Name: Mofarreh Marzouq Al-Harbi and Partners Co. Ltd Contract No.: 6601000314 / BI-10-20857	Project Title: GIP Package 3, Offshore Gas Increment Site Preparation / Early Works Location: Fadhili				
MMAH Reference No. AFGP-MMAH-SA-T-01872					
<b>Saudi Aramco Remarks Code:</b> Code A - No Objection / Reviewed      Code C - Correct & Resubmit      Code E - For Information Code B - No Objection As Noted      Code D - Rejected      Code F - Others					
Document No.	Rev.	Subject	Remarks Code	Qty	Nature
CON-MOS-035	2	METHOD STATEMENT FOR SOIL IMPROVEMENT WORKS BY DYNAMIC REPLACEMENT	<b>B</b>	2	ORIG.
CONTRACTOR shall comply with the attached comments in Comments Review Sheet (CRS)- 1 sheet.  Should you have any questions, please contact Tariqi, Mohammed H at 013-678-2844.					
 <b>DAHFER A. AL QAHTANI</b> Company Representative					
cc: MHT					
<b>DISCLAIMERS:</b> - Saudi Aramco response does not relieve the CONTRACTOR from any of its contractual obligations. - Saudi Aramco response does not relieve the CONTRACTOR from any of its obligations of full compliance with the applicable SA Standards and the referenced standards.					
Transmitted By:  Maitham Hafed	Received By:  Name and Signature	Received Date			

Saudi Aramco: Company General Use

**FADHILI INCREMENT PROJECTS DEPARTMENT**  
**FADHILI INCREMENT PIPELINES & INFRASTRUCTURE PROJECTS DIVISION**  
 SAPMT Senior Management Office, Fadhili  
 Telephone No.: 013-678-0000

<b>DOCUMENT TRANSMITTAL</b>	Transmittal No. <b>FIPL&amp;IPD-SA-MMAH-T-01729</b>	Date 26-Jan-25			
TO: MOHAMED ADEL RAGEH CONTRACTOR Representative Dammam 31491, Saudi Arabia Tel: +966-55-361-9355	FROM: DAHFER A. AL QAHTANI COMPANY Representative Fadhili Increment P/L & Infrastructure Projects Div. Tel: +966-13-678-2111				
Contractor Name: Mofarreh Marzouq Al-Harbi and Partners Co. Ltd Contract No.: 6601000314 / BI-10-20857	Project Title: GIP Package 3, Offshore Gas Increment Site Preparation / Early Works Location: Fadhili				
MMAH Reference No. AFGP-MMAH-SA-T-02332					
<b>Saudi Aramco Remarks Code:</b> Code A - No Objection / Reviewed      Code C - Correct & Resubmit      Code E - For Information Code B - No Objection As Noted      Code D - Rejected      Code F - Others					
Document No.	Rev.	Subject	Remarks Code	Qty	Nature
CIVIL-ASR-030	1	FINAL ASSESSMENT REPORT COMPACTION OF FILL FOR PATROL ACCESS ROAD BY RAPID IMPACT COMPACTION	<b>A</b>	1	ORIG.
SAUDI ARAMCO has reviewed and approved CIVIL-ASR-030 , Final Assessment Report Compaction of Fill for Patrol Access Road by Rapid Impact Compaction.  Should you have any questions, please contact Tariqi, Mohammed H at 013-678-2844.					
 <b>DAHFER A. AL QAHTANI</b> Company Representative					
cc: MHT					
<b>DISCLAIMERS:</b> - Saudi Aramco response does not relieve the CONTRACTOR from any of its contractual obligations. - Saudi Aramco response does not relieve the CONTRACTOR from any of its obligations of full compliance with the applicable SA Standards and the referenced standards.					
Transmitted By:  Maitham Hafed	Received By:  Name and Signature	Received Date			

Saudi Aramco: Company General Use

**GAS FACILITIES PROJECTS DEPARTMENT**  
**GAS INCREMENT PIPELINES & INFRASTRUCTURE PROJECTS DIVISION**  
 SAPMT Senior Management Office, Fadhili  
 Telephone No.: 013-678-0000

<b>DOCUMENT TRANSMITTAL</b>	Transmittal No. <b>GIPL&amp;IPD-SA-MMAH-T-00206</b>	Date 3-Oct-23			
TO: WALEED ZAKI SALAMA CONTRACTOR Representative Dammam 31491, Saudi Arabia Tel: +966-55-368-0066	FROM: MOHAMMED A. AL-MIR COMPANY Representative Gas Increment P/L & Infrastructure Projects Div. Tel: +966-13-678-6581				
Contractor Name: Mofarreh Marzouq Al-Harbi and Partners Co. Ltd Contract No.: 6601000314 / BI-10-20857	Project Title: GIP Package 3, Offshore Gas Increment Site Preparation / Early Works Location: Fadhili				
MMAH Reference No. AFGP-MMAH-SA-T-00202					
<b>Saudi Aramco Remarks Code:</b> Code A - No Objection / Reviewed      Code C - Correct & Resubmit      Code E - For Information Code B - No Objection As Noted      Code D - Rejected      Code F - Others					
Document No.	Rev.	Subject	Remarks Code	Qty	Nature
CON-MOS-005	03	Method Statement for Fill Compaction Works by Rapid Impact Compaction (RIC)	<b>B</b>	2	ORIG.
CONTRACTOR shall refer to comments attached in Comments Review Sheet (CRS) - 1 sheet.  Should you have any questions, please contact Khalid S. Aljameel at 013-678-2700.					
 <b>MOHAMMED A. AL-MIR</b> Company Representative					
cc: KSJ/MAB					
<b>DISCLAIMERS:</b> - Saudi Aramco response does not relieve the CONTRACTOR from any of its contractual obligations. - Saudi Aramco response does not relieve the CONTRACTOR from any of its obligations of full compliance with the applicable SA Standards and the referenced standards.					
Transmitted By:  Rodelo Perez Macalintal	Received By:  Vir Brian Jan Caday Bunayog Name and Signature	Received Date 08Oct23			

Saudi Aramco: Company General Use

**FADHILI INCREMENT PROJECTS DEPARTMENT**  
**FADHILI INCREMENT PIPELINES & INFRASTRUCTURE PROJECTS DIVISION**  
 SAPMT Senior Management Office, Fadhili  
 Telephone No.: 013-678-0000

<b>DOCUMENT TRANSMITTAL</b>	Transmittal No. <b>GIPL&amp;IPD-SA-MMAH-T-01406</b>	Date 1-Oct-24			
TO: WALEED ZAKI SALAMA CONTRACTOR Representative Dammam 31491, Saudi Arabia Tel: +966-55-368-0066	FROM: DAHFER A. AL QAHTANI COMPANY Representative Fadhili Increment P/L & Infrastructure Projects Div. Tel: +966-13-678-2111				
Contractor Name: Mofarreh Marzouq Al-Harbi and Partners Co. Ltd Contract No.: 6601000314 / BI-10-20857	Project Title: GIP Package 3, Offshore Gas Increment Site Preparation / Early Works Location: Fadhili				
MMAH Reference No. AFGP-MMAH-SA-T-01872					
<b>Saudi Aramco Remarks Code:</b> Code A - No Objection / Reviewed      Code C - Correct & Resubmit      Code E - For Information Code B - No Objection As Noted      Code D - Rejected      Code F - Others					
Document No.	Rev.	Subject	Remarks Code	Qty	Nature
CON-MOS-035	2	METHOD STATEMENT FOR SOIL IMPROVEMENT WORKS BY DYNAMIC REPLACEMENT	<b>B</b>	2	ORIG.
CONTRACTOR shall comply with the attached comments in Comments Review Sheet (CRS)- 1 sheet.  Should you have any questions, please contact Tariqi, Mohammed H at 013-678-2844.					
 <b>DAHFER A. AL QAHTANI</b> Company Representative					
cc: MHT					
<b>DISCLAIMERS:</b> - Saudi Aramco response does not relieve the CONTRACTOR from any of its contractual obligations. - Saudi Aramco response does not relieve the CONTRACTOR from any of its obligations of full compliance with the applicable SA Standards and the referenced standards.					
Transmitted By:  Maitham Hafed	Received By:  Name and Signature	Received Date			

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أرامكو السعودية  
saudi aramco

**GAS FACILITIES PROJECTS DEPARTMENT**  
GAS INCREMENT PIPELINES & INFRASTRUCTURE PROJECTS DIVISION  
SAPMT Senior Management Office, Fadhili  
Telephone No.: 013-678-0000

<b>DOCUMENT TRANSMITTAL</b>		Transmittal No. <b>GIPL&amp;IPD-SA-MMAH-T-00580</b>	Date 7-Feb-24		
TO: <b>WALEED ZAKI SALAMA</b> CONTRACTOR Representative Dammam 31491, Saudi Arabia Tel: +966-55-368-0066		FROM: <b>MOHAMMED A. ALMIR</b> COMPANY Representative Gas Increment P/L & Infrastructure Projects Div. Tel: +966-13-678-6581			
Contractor Name: Mofarreh Marzouq Al-Harbi and Partners Co. Ltd Contract No.: 6601000314 / BI-10-20857-0003		Project Title: GIP Package 3, Offshore Gas Increment Site Preparation / Early Works Location: Fadhili			
MMAH Reference No. AFGP-MMAH-SA-T-00721					
Saudi Aramco Remarks Code: Code A - No Objection / Reviewed Code B - No Objection As Noted Code C - Correct & Resubmit Code D - Rejected Code E - For Information Code F - Others					
Document No.	Rev.	Subject	Remarks Code	Qty	Nature
CON-MOS-015	00	METHOD STATEMENT FOR FILL COMPACTION WORKS BY RAPID IMPACT COMPACTION (RIC) IN AREA 3-OPEN AREA	B	1	ORIG.

CONTRACTOR shall refer to attached comments in CRDF-GIPLIPD-00122.

Should you have any questions, please contact Mubarak A. Albaqawi at [mubarak.albaqawi.1@aramco.com](mailto:mubarak.albaqawi.1@aramco.com).

\*\*\*\*\* STAMP ISSUED \*\*\*\*\*  
Saudi Aramco  
BI 10-20857 - Package 3, OGIP Site Preparation/Early Works  
February 07, 2024

**MOHAMMED A. ALMIR**  
Company Representative

CC: AMG/MAB

**DISCLAIMERS:**  
- Saudi Aramco response does not relieve the CONTRACTOR from any of its contractual obligations.  
- Saudi Aramco response does not relieve the CONTRACTOR from any of its obligations of full compliance with the applicable SA Standards and the referenced standards.

Transmitted By: Maitham A. Al-Hafed	Received By: Name and Signature	Received Date
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Saudi Aramco: Company General Use

**SOUTH OIL FACILITIES PROJECTS DEPARTMENT**  
Khurais Projects Division

أرامكو السعودية  
saudi aramco

<b>PROJECT TITLE</b> ▼ Debottleneck Produced Water Handling System	<b>Contract Number</b> 6600047860	<b>BI   Job Order No.</b> 10-13194
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<b>DOCUMENT TRANSMITTAL</b>	<b>Transmittal No.</b> SA-13194-T-0185/24
<b>Date:</b> November 5, 2024	

**AHMED HANAFY**, Project Director  
**NOUR A. HEIKAL**, Project Manager  
Engineering for the Petroleum & Process Industries  
P.O. Box 3920 Al-Khobar 34425, Saudi Arabia  
Tel No. 054-6395252 | 056-4649796

**ALI H. AL-RUBEH** Company Representative  
Saudi Arabian Oil Company (SAUDI ARAMCO)  
R-20 | 7<sup>th</sup> Floor Hugayet Tower, Al-Khobar  
Mobile No. 055-680-5181

SUBJECT   TITLE	REVISED METHOD OF STATEMENT FOR FILL COMPACTION / SOIL IMPROVEMENT WORK BY RAPID IMPACT COMPACTION, REV.2
<b>DOCUMENT TYPE</b>	<input checked="" type="checkbox"/> Documents <input type="checkbox"/> Drawings <input type="checkbox"/> Electronic File
<b>REVIEW STATUS</b>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Approved With Comments <input type="checkbox"/> Revise and resubmit <input type="checkbox"/> Reviewed <input type="checkbox"/> Reviewed With Comments <input type="checkbox"/> REJECTED
<b>REQUIRED ACTION</b>	<input checked="" type="checkbox"/> Information <input type="checkbox"/> Cancellation <input type="checkbox"/> Action

REFERENCES	COMMENTS   NOTES
EN-SA-KDBN-TR-0590-24	CSD has reviewed the document Revised Method Statement for Fill Compaction / Soil Improvement Work by Rapid Impact Compaction (RIC) Rev.2 with <b>no further comments</b> . The report is submitted in relation to soil improvement for BI-10-13194 Produced Water Handling System (Early Civil Construction Package).  <i>Note: The review of the documents concerns geotechnical aspects only, and does not relieve Contractor from any liabilities to contracts term/conditions nor serve as a waiver to Mandatory Saudi Aramco's Engineering Requirements. In addition, the review is based on the interpretative assessment of the field findings; the accuracy of the factual data (e.g. boreholes, PCPTs, etc.) is a full responsibility of the entities supervising the Contractor and Geotechnical Vendor and therefore, factual data are taken as default by CSD.</i>

Please acknowledge receipt and send copy via return email for our record to: [crisanto.perez.1@aramco.com](mailto:crisanto.perez.1@aramco.com)

TRANSMITTED BY SAPMT	RECEIVED BY ENPPI KSA
Signature :	Signature : _____
Name : <b>ALI H. AL-RUBEH</b>	Name : _____
Tel. No. : <b>055-680-5181</b>	Tel. No. : _____
Date : <b>11/05/2024</b>	Date : _____

Saudi Aramco: Company General Use

7/3/24, 11:14 AM Submittals - General - Project No. 10-17537

Submittals Save

Submittal Information Documents

**Record Header**

Project Name: 10-17537 - JAFURAH DEVELOPMENT PROGRAM - RIYAS NGL  
Project Number: 10-17537  
Record Number: CS-000947

Creator: **UMAR SHAFI SHAFI**  
Creation Date: 06/27/2024 07:43 AM  
Status: Acknowledged

**Submittal Info**

Select the Submittal Register and the Submittal Item in association with this record. If applicable, select the submitted document expiry date.

Ref Submittals Register: CSR-000008  
Title: General  
Due Date: \_\_\_\_\_

Select Submittal Item: General  
Submittal Category: Contract Administration  
Document Expiry Date: MMDD/YYYY

**Contract Details**

Contract Title: 6000176212-3001017011-Riyas NGL Site Pre  
Contract Number: 6601000306  
Vendor Name: MOFARREH MARZOUQ AL-HARBI AND  
Vendor Number: 0010028624

**Notes**

Use this section to add general notes/comments.

General Comments

Review Comments

Status: No further comments

COMMENTS: COMPANY has reviewed the Final Post-quality control test report (Rev. 00) including the various Post CPTs undertaken for the Dynamic Replacement (DR) & Dynamic Compaction (DC) techniques for Riyas NGL Site Preparation, Package 6 project (related to Zone A4); construction activities refer to the improvement of 4m of Natural soils and 2m of Fills plus additional fill layers 1 & 2 by the said ground improvement methods; COMPANY has no objection on the submitted report; Please note that in case of inconsistencies on both the factual data and the engineering interpretation (that may revealed by the subsequent Contractor during the handover) resulting on non-compliance of the early site preparation set criteria, then, the matter shall be referred back to the Early Site Preparation Contractor. COMPANY is only reviewing the interpretative assessment of the field findings; the accuracy of the factual data (e.g. Post CPTs) is a full responsibility of the entities supervising the Contractor and Geotechnical Vendor and therefore, factual data are taken as default by COMPANY.

Posted by: Show All

Comments Linked Records Linked Mail Workflow Progress Audit Log

[https://epmun.aramco.com/bp/mod/bp/record/open/uxqcs/146541/0/0?srcid=146541&model=uxqcs&fromcostloc=1&project\\_id=1564&nfi=0&\\_uref=uuu79080412313](https://epmun.aramco.com/bp/mod/bp/record/open/uxqcs/146541/0/0?srcid=146541&model=uxqcs&fromcostloc=1&project_id=1564&nfi=0&_uref=uuu79080412313)

1/1

**RCJ Submittals (Construction)**

**Submittal**  
General

Unifier Project ID: RCJ-0439	Submittal Number: 3723
Contract Number: 021-C14	Creator: Galal Elshafy
Contract Title: Site Preparation of Support Area - Phase 2 (Mofarreh M. Al-Harbi & Partners Co. Ltd)	Creation Date: 02/07/2024 11:47 AM (UTC+3)
Contractor Name: Mofarreh M. Al-Harbi & Partners Co. Ltd. (TERRA FIRMA)	Record No.: uxsubj-0032
Title: Method Statement for Soil Compaction Works by Dynamic Compaction Replacement (DC-DR) and Rapid Impact Compaction (RIC)	Record Status: Closed
Contractor Reference 773-021-C14-01-426-01 Number:	Record Last Update 18/07/2024 08:07 AM Date: (UTC+3)

Submittals types

Choose one: Technical Submittals

Technical Method Statement Submittals:	Non Technical Submittals:
Others (Please Specify):	Others (Please Specify):

Attention

Resident Engineer: Ali Aboelnaga

Subject

Subject: Method Statement for Soil Compaction Works by Dynamic Compaction Replacement (DC-DR) and Rapid Impact Compaction (RIC)

Page 1 of 3

Discipline

Discipline: Civil

Other Information

Document No: 773-021-C14-01-426-01

Rev No: 1

Description: Method Statement for Soil Compaction Works by Dynamic Compaction Replacement (DC-DR) and Rapid Impact Compaction (RIC)

Material Submittal

Manufacturer Name: None

Supplier Name: None

RC Specification 16 Division

Specification:

CSI Code 01 General Requirements 16:	CSI Code 50:
--------------------------------------	--------------

Local Content Contract?: Yes

RE Code and Comments

Recomm Code 1: Work May Proceed

Code: changes indicated

Comment: Work May Proceed

Page 2 of 3

Approver

Project Galal Elshafy Manager	AR Ali Aboelnaga Signatur Name:	CPS Mazin ZUHD Signatur Name:
Project 02/07/2024 11:47 AM Manage (UTC+3)	AR 18/07/2024 07:44 AM Signatur (UTC+3) e Date:	CPS 03/07/2024 02:27 PM Signatur (UTC+3) e Date:

Submittal

0 Item(s)

No.	Sr. No	Line Item Status

Submittals (Engineering)

0 Item(s)

Creator	Record No.	Contract Number	Contractor Name	Title	Record Status	Creation Date	Submittal Number

Attachments (1)      Linked Records (0)      Linked Mail (0)

Page 3 of 3

### Submittals

**Submittal Information**

Record Header

Project Name: 10-17537 - JAFURAH DEVELOPMENT PROGRAM - RIYAS NGL      Creator: UMAR SHAFI SHAFI

Project Number: 10-17537      Creation Date: 03/10/2025 03:44 AM (UTC-8)

Record Number: CS-002706      Status: Acknowledged

**Submittal Info**

Select the Submittal Register and the Submittal Item in association with this record. If applicable, select the submitted document expiry date.

Ref Submittals Register: CSR-000008      Submittal Item: General

Title: ASP-MMAH-SA-T-01014-Fiinal Report Tetra shelter      Submittal Category: Contract Administration

Due Date:

Reference Number: ASP-MMAH-SA-T-01014 Final Handover Report Compaction RIC/RDC Tetra Shelter Area      Document Expiry Date:

**Contract Details**

Contract 6000176212-3001017011-Riyas NGL      Contract 6601000306  
 Title: Site Pre      Number:

Vendor MOFARREH MARZOUQ AL-HARBI      Vendor 0010026624  
 Name: AND      Number:

**Notes**

Use this section to add general notes/comments.

General Comments:

Review Comments:

**Publish Path**

A Publish Path is used to specify the automatic publishing of documents to a specified folder.

Publish Path: /10.00 PROJECTS - BI or JO Specific

Page 1 of 4

**Task Details**

Record has been closed.

**Workflow Progress**

Step Name	Assignee	Company	Status	Action	Completion Date
Creation	UMAR SHAFI SHAFI	10026624	Completed	Send for Contrator Upload and Review	03/10/2025 03:44 AM
01 Contractor Team to Submit	UMAR SHAFI SHAFI	10026624	Completed	Submit to SA	03/10/2025 03:50 AM
03 SA Document Controller	Muhannad Almaktoom (ALMAKTMA)	SA	Completed	Assign to SAPMT	03/10/2025 04:41 AM
04 SAPMT Review	Hosam Alsubhi (ALSUHS0H)	SA	Closed	Reassign to SAPMT	03/15/2025 12:01 AM
04x SAPMT Internal Review	Renato Cuysona (CUYSONRC)	SA	Completed	Return to SAPMT	03/17/2025 03:26 AM
04 SAPMT Review	Hosam Alsubhi (ALSUHS0H)	SA	Completed	Submit to Company Rep	03/17/2025 10:59 PM
05 Company Rep Review	Adel Nasser Al Harbi HARBANO A (HARBANO A)	SA	Completed	Respond & Close	03/17/2025 11:40 PM

**Documents**

1 Item(s)

No.	Name	Title	Revision No.
001	ASP-MMAH-SA-T-01014-Fina.pdf		00

**Record - General Comments**

Page 2 of 4

1 Item(s)

03/17/2025 03:25 AM (UTC-8) Renato Cuysona (CUYSONRC) SA

**Comment Text**

Status: Approved with comments COMPANY has reviewed the submitted ASP-MMAH-SA-T-01014 Final Soil Improvement Handover Report Compaction of Fill And Natural Ground Dynamic Compaction/Replacement (DC/DR) Fill Layer by Rapid Impact / Dynamic Compaction RIC/RDC Tetra Shelter Area [Natural Soil + up to 2m Fill + Fill and found acceptable with comments from CSD. 1. Final Post-quality control test report (Rev. 00) including the various Post CPTs undertaken for the Dynamic Replacement (DR) & Rapid Impact Compaction (RIC) techniques for Riyas NGL Site Preparation, Package 6 project (related to Tetra Shelter Area); construction activities refer to the improvement of Natural soils and 2m of fills plus 1 additional fill layer by the said ground improvement methods; The review is carried out as mandated by SAEP-61 to ensure the design. 2. The approval of the Soil Improvement Handover Reports shall not relieve the contractor responsibilities for the safety and soundness of the embankment sections. RCC

**<Documents> - Line item - details**

Line Item No: 001

Name: ASP-MMAH-SA-T-01014-Fina.pdf

Title:

Revision No.: 00

Line Item Status:

**Attachments**

1 Item(s)

File Name	Title	Revision No.	Size	Issue Date
ASP-MMAH-SA-T-01014-Fina.pdf		00	80 MB	

**Comment Text**

**Attachments**

Attachments (0)      Linked Records (0)      Linked Mail (0)

Page 3 of 4



**SAUDI ARABIAN OIL COMPANY**  
 RIYAS NGL PROJECTS DEPARTMENT  
 Ind Support Facs & Site Dev Div  
 15th Floor, Sky Tower, King Saud Bin Abdulaziz Road, Qurtuba,  
 Khobar, Saudi Arabia

<b>DOCUMENT TRANSMITTAL</b>		Transmittal No. RNLGFPD-SP-TR-0325/24	Date March 20, 2024
<b>TO:</b> Waleed Zaki Salama, Contractor Representative Mofarreh Marzouq AlHarbi & Partners Co.Ltd Dammam 31491, Saudi Arabia		<b>FROM:</b> Wail O. BuSaied, Company Representative Ind Support Facs & Site Dev Div Saudi Arabian Oil Company	
<b>Contract No.:</b> 6601000306		<b>Project Title:</b> Riyas NGL Site Preparation	
<b>COMPANY Response Remarks Code</b>			
<b>THE FOLLOWING</b>	<input checked="" type="checkbox"/> DOCUMENTS	<input type="checkbox"/> E-FILE	<input type="checkbox"/> DRAWING
<b>COMPANY RESPONSE</b>	<input checked="" type="checkbox"/> APPROVED	<input type="checkbox"/> REJECTED	<input type="checkbox"/> REVISE & RESUBMIT
	<input type="checkbox"/> FOR YOUR USE	<input type="checkbox"/> REVIEWED WITH COMMENTS	<input type="checkbox"/> NO OBJECTION
<b>Contractor Reference Number</b>	<b>Rev</b>	<b>Subject</b>	<b>Remarks</b>
ASP-MMAH-SA-T-00500	05	MS for Trial Area Compaction by Dynamic Replacement and Compaction	APPROVED WITH COMMENT

COMPANY has reviewed and approved with comment the submitted document for (MS for Trial Area Compaction by Dynamic Replacement and Compaction). CONTRACTOR is requested to incorporate the comments attached and submitted to COMPANY for review. Find attached comments for CONTRACTOR action.

Should you require any further clarification, please contact Zakri, Abdulrahman A, via [abdulrahman.zakri.1@aramco.com](mailto:abdulrahman.zakri.1@aramco.com)

March 20, 2024  
**Wail O. BuSaied**, Company Representative

Attachment(s): Yes  
 Company Response comments, (one page)  
 cc: SUPERVISOR PROJECT ENGRG, Sami A. Majed  
 ENGINEER, Zakri, Abdulrahman A  
 Project File / Transmittal Book

4/30/24, 8:21 AM

Submittals - Method Statements - Project No. 10-17537

Save

**Submittals**

Submittal Information Documents

**Record Header**

Project Name: 10-17537 - JAFURAH DEVELOPMENT PRC  
 Project Number: 10-17537  
 Record Number: CS-000535

Creator: UMAR SHAFI SHAFI  
 Creation Date: 04/28/2024 04:10 AM  
 Status: Acknowledged

**Comments** | Linked Records | Linked Mail | Workfl

Posted by: Show All

Sami Ali Al Majed MAJESA0C Saudi Aramco 04/28/2024 05:41 AM  
 Status: Approved.  
 COMPANY has reviewed and approved the submitted document for Method Statement For Fill Compaction Works By Rapid Impact Compaction (RIC) Rev-02. CONTRACTOR is requested to comply with SAES-A-113 and SAES-A-114

**Submittal Info**

Ref Submittals Register: CSR-000008  
 Title: Method Statements  
 Due Date:

Select Submittal Item: Method Statements  
 Submittal Category: Project Deliverable  
 Document Expiry Date: MM/DD/YYYY

**Contract Details**

Contract Title: 6000176212-3001017011-Riyas NGL Site Pr  
 Contract Number: 6601000306  
 Vendor Name: MOFARREH MARZOUQ AL-HARBI AND  
 Vendor Number: 0010026624

**Notes**

Use this section to add general notes/comments.

General Comments

Review Comments  
 Status: Approved.  
 COMPANY has reviewed and approved the submitted document Method Statement For Fill

6/13/24, 11:10 AM

Submittals - General - Project No. 10-17537

Save

**Submittals**

Submittal Information Documents

**Record Header**

Project Name: 10-17537 - JAFURAH DEVELOPMENT PROGRAM - RIYAS NGL  
 Project Number: 10-17537  
 Record Number: CS-000813

Creator: UMAR SHAFI SHAFI  
 Creation Date: 06/02/2024 03:50 AM  
 Status: Acknowledged

**Comments** | Linked Records | Linked Mail | Workflow Progress | Audit Log

Posted by: Show All

Sami Ali Al Majed MAJESA0C Saudi Aramco 06/11/2024 08:37 AM  
 Status: No Further Comments.  
 COMPANY has reviewed the Final Post-quality control test report (Rev. 00) including the various Post CPTs undertaken for the Dynamic Replacement (DR) & Dynamic Compaction (DC) techniques for Riyas NGL Site Preparation, Package 6 project (related to PARKING AREA). Early works site preparation activities refer to the improvement of 4m of Natural soils and 2m of Fills by the DR/DC ground improvement methods.

**Submittal Info**

Ref Submittals Register: CSR-000008  
 Title: General  
 Due Date:

Select Submittal Item: General  
 Submittal Category: Contract Administration  
 Document Expiry Date: MM/DD/YYYY

**Contract Details**

Contract Title: 6000176212-3001017011-Riyas NGL Site Pre  
 Contract Number: 6601000306  
 Vendor Name: MOFARREH MARZOUQ AL-HARBI AND  
 Vendor Number: 0010026624

**Notes**

Use this section to add general notes/comments.

General Comments

Review Comments  
 Status: No Further Comments.  
 COMPANY has reviewed the Final Post-quality control test report (Rev. 00) including the various Post CPTs undertaken for the Dynamic Replacement (DR) & Dynamic Compaction (DC) techniques for Riyas NGL Site Preparation, Package 6 project (related to PARKING AREA). Early works site preparation activities refer to the improvement of 4m of Natural soils and 2m of Fills by the DR/DC ground

COMPANY has no objection on the submitted report subject to the conditions highlighted below:

- Please note that in case of inconsistencies on both the factual data and the engineering interpretation (which may be revealed by subsequent Top Facility Contractor during handover) resulting in non-compliance of the early site preparation set criteria, then, the matter shall be referred back to the Early Site Preparation Contractor.
- The assumption that the modulus estimated from correlation of CPT tip resistance is uniform from the depth of consideration and below is inaccurate because most of the CPT tip resistances have indicated diminishing tip magnitude. There is a risk that further soil improvement may be required by Top facility Contractor for foundations with influence zone beyond the maximum considered depth of 6m.
- COMPANY is only reviewing the interpretative assessment of the field findings. The accuracy of the factual data (e.g. Post CPTs) is the full responsibility of the entities supervising the CONTRACTOR and Geotechnical Vendor. Therefore, factual data are taken by COMPANY to be accurate by default.

		<b>DOCUMENT TRANSMITTAL</b> SAUDI ARAMCO LONG TERM AGREEMENT (LTA) FOR OFFSHORE FACILITIES NPCC YARD FACILITIES, RAS AL-KHAIR SAUDI ARABIA NPCC PROJECT NO: NPCC KSA YARD PROJECT																
Attn: Mr. Amas Ourabi PROJECT MANAGER: Mr. Muath Hussain Issued for : Review & Approval		Transmittal No: NPCC/KSA/YARD/T-0061/23 Date: 27-Aug-2023																
Attachment Type <input type="checkbox"/> Prints <input type="checkbox"/> Originals <input type="checkbox"/> Reproducibles <input type="checkbox"/> Drawings <input type="checkbox"/> Documents <input checked="" type="checkbox"/>		<b>Document Review Status</b> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Code A</td> <td style="width:60%;">Approved - Work may proceed</td> <td style="width:25%; text-align: center;">X</td> </tr> <tr> <td>Code B</td> <td>Approved with comments - Work may proceed subject to addressing comments</td> <td></td> </tr> <tr> <td>Code C</td> <td>Revise and Resubmit - Work shall not start</td> <td></td> </tr> <tr> <td>Code D</td> <td>Not approved/Rejected - Work shall not start</td> <td></td> </tr> <tr> <td>Code E</td> <td>For information</td> <td></td> </tr> </table>		Code A	Approved - Work may proceed	X	Code B	Approved with comments - Work may proceed subject to addressing comments		Code C	Revise and Resubmit - Work shall not start		Code D	Not approved/Rejected - Work shall not start		Code E	For information	
Code A	Approved - Work may proceed	X																
Code B	Approved with comments - Work may proceed subject to addressing comments																	
Code C	Revise and Resubmit - Work shall not start																	
Code D	Not approved/Rejected - Work shall not start																	
Code E	For information																	
Contractor Reference# MAH-NPCC-23003-T-0124																		
Sr. No	Document Number	Description																
1	MAH-NPCC-23003-REP-0014, Rev-01	Final Technical Report Post CPT at Zone-01 Area A																
2	MAH-NPCC-23003-REP-0015, Rev-01	Final Technical Report Post CPT at Zone-01 Area B																
3	MAH-NPCC-23003-REP-0016, Rev-01	Final Technical Report Post CPT at Zone-01 Area C																
4	MAH-NPCC-23003-REP-0010, Rev-02	Final Technical Report Post CPT at Zone-01 Area D																
5	MAH-NPCC-23003-REP-0013, Rev-02	Final Technical Report Post CPT at Zone-01 Area E																
6	MAH-NPCC-23003-REP-0012, Rev-02	Final Technical Report Post CPT at Zone-01 Area F																
COPY DISTRIBUTION		REMARKS																
		Signature: Name/Title: <u>Sofyan Rababa / Project Manager</u> Date Signed: <u>27-Aug-23</u>																
Document Receipt																		
Please acknowledge receipt of the above document(s) by: Sign and return the copy		Signature: _____ Name/Title: _____ Date Signed: _____																

		<b>SITE PREPARATION AND GROUND IMPROVEMENT WORKS          FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA</b> <b>Comment Response Sheet</b> CRS No.: ADC-22023-GEN-CRS-019 Rev.01				
Document no./Title:		MAH-N PCC-23003-REP-0014-Rev.01 Final Technical Report For Post CPT at Zone-1 Area-A				
Date:		24 August 2023				

Nr.	Reference No./Section	Rev	Comments	Response	Status
1	General	00	The contractor shall submit post CPT for surface compaction. In addition post SPT	Surface compaction CPTs and post SPT will be submitted as separate	B
		01	Noted		A
2	2	00	The contractor shall refer the outcomes of his investigations only.	Noted and amended as per SPT boreholes	B
		01	Noted		A
3	Appendix-6	00	<ul style="list-style-type: none"> <li>The Contractor shall provide charts for soil classification, shear strength, and <math>\alpha</math> factor with Elastic Modulus vs. Level before considering the equivalent qc.</li> <li>The long-term settlement (consolidation and secondary consideration to be considered in the analysis for cohesive material.</li> </ul>	The required graphs are added  Based on soil samples obtained from boreholes no cohesive material is encountered, hence no consolidation settlement analysis is required to be performed. CPT results shows cohesive like layer due to low qc value which is confirmed to be silty sand from boreholes.	B
		01	Noted		A
4	Appendix-6	00	<ul style="list-style-type: none"> <li>Check and adjust Cwy and Cwq according to the groundwater level</li> <li>Adjust FOS against BC as agreed</li> </ul>	The Cwy and Cwq values are matching with ground water level +1.0m elevation from boreholes. Refer to SPT logs submitted as addendum to this final report FOS is used as 2.5 as per technical note for qsafe calculations.	B
		01	Noted.		A
5	Appendix-6	00	The contractor shall consider 50 years for long-term calculations.	Noted and amended	B
		01	Noted		A
6	Appendix-6	00	The Foundation Base Level shall be tied to FGL +5.00. Check and Revise	Foundation level is considered at 0.00 ground depth for zero embedment depth footings. Details added in section 5.0	B

	<b>SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA</b> Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-019 Rev.01				
	Document no./Title:	MAH-N PCC-23003-REP-0014-Rev.01 Final Technical Report For Post CPT at Zone-1 Area-A			
	Date:	24 August 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
		01	Noted		A
<b>Document Code Status</b>		A			
A – Approved. Work may proceed		B – Approved with Comments. Work may proceed subject to addressing the comments. The contractor shall revise and resubmit		C – Revise & Resubmit before proceeding. The contractor shall revise and resubmit. Work shall not start.	
				D – Not Approved. The document is not technically approved. Work shall not start.	

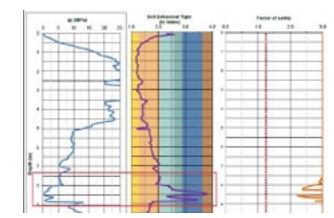
	<b>SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA</b> Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-020 Rev.01				
	Document no./Title:	MAH-N PCC-23003-REP-0015-Rev.01 Final Technical Report For Post CPT at Zone-1 Area-B			
	Date:	24 August 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
1	General	00	The contractor shall submit post CPT for surface compaction. In addition post SPT	Surface compaction CPTs and post SPT will be submitted as separate submittal	B
		01	Noted		A
2	2	00	The contractor shall refer the outcomes of his investigations only.	Noted and amended as per SPT boreholes	B
		01	Noted		A
3	Appendix-6	00	<ul style="list-style-type: none"> <li>The Contractor shall provide charts for soil classification, shear strength, and <math>\alpha</math> factor with Elastic Modulus vs. Level before considering the equivalent qc.</li> <li>The long-term settlement (consolidation and secondary consideration) to be considered in the analysis for cohesive material.</li> </ul>	The required graphs are added  Based on soil samples obtained from boreholes no cohesive material is encountered, hence no consolidation settlement analysis is required to be performed. CPT results shows cohesive like layer due to low qc value which is confirmed to be silty sand from boreholes	B
		01	Noted		A
4	Appendix-6	00	<ul style="list-style-type: none"> <li>Check and adjust Cwy and Cwq according to the groundwater level</li> <li>Adjust FOS against BC as agreed</li> </ul>	The Cwy and Cwq values are matching with ground water level +1.0m elevation from boreholes. Refer to SPT logs submitted as addendum to this final report FOS is used as 2.5 as per technical note for qsafe calculations	B
		01	Noted		A
5	Appendix-6	00	The contractor shall consider 50 years for long-term calculations.	Noted and amended	B
		01	Noted		A
6	Appendix-6	00	The Foundation Base Level shall be tied to FGL +5.00. Check and Revise	Foundation level is considered at 0.00 ground depth for zero embedment depth footings. Details added in section 5.0	B

	<b>SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA</b> Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-020 Rev.01				
	Document no./Title:	MAH-N PCC-23003-REP-0015-Rev.01 Final Technical Report For Post CPT at Zone-1 Area-B			
	Date:	24 August 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
		01	Noted		A
<b>Document Code Status</b>		A			
A – Approved. Work may proceed		B – Approved with Comments. Work may proceed subject to addressing the comments. The contractor shall revise and resubmit		C – Revise & Resubmit before proceeding. The contractor shall revise and resubmit. Work shall not start.	
				D – Not Approved. The document is not technically approved. Work shall not start.	

	<b>SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA</b> Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-021 Rev.01				
	Document no./Title:	MAH-N PCC-23003-REP-0016-Rev.01 Final Technical Report For Post CPT at Zone-1 Area-C			
	Date:	24 August 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
1	General	00	The contractor shall submit post CPT for surface compaction. In addition post SPT	Surface compaction CPTs and post SPT will be submitted as separate submittal	B
		01	Noted		A
2	2	00	The contractor shall refer the outcomes of his investigations only.	Noted and amended as per SPT boreholes	B
		01	Noted		A
3	Appendix-6	00	<ul style="list-style-type: none"> <li>The Contractor shall provide charts for soil classification, shear strength, and <math>\alpha</math> factor with Elastic Modulus vs. Level before considering the equivalent qc.</li> <li>The long-term settlement (consolidation and secondary consideration) to be considered in the analysis for cohesive material.</li> </ul>	The required graphs are added  Based on soil samples obtained from boreholes no cohesive material is encountered, hence no consolidation settlement analysis is required to be performed. CPT results shows cohesive like layer due to low qc value which is confirmed to be silty sand from boreholes	B
		01	Noted		A
4	Appendix-6	00	<ul style="list-style-type: none"> <li>Check and adjust Cwy and Cwq according to the groundwater level</li> <li>Adjust FOS against BC as agreed</li> </ul>	The Cwy and Cwq values are matching with ground water level +1.0m elevation from boreholes. Refer to SPT logs submitted as addendum to this final report FOS is used as 2.5 as per technical note for qsafe calculations	B
		01	Noted		A
5	Appendix-6	00	The contractor shall consider 50 years for long-term calculations.	Noted and amended	B
		01	Noted		A
6	Appendix-6	00	The Foundation Base Level shall be tied to FGL +5.00. Check and Revise	Foundation level is considered at 0.00 ground depth for zero embedment depth footings. Details added in section 5.0	B

	<b>SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA</b> Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-021 Rev.01				
	Document no./Title:	MAH-N PCC-23003-REP-0016-Rev.01 Final Technical Report For Post CPT at Zone-1 Area-C			
	Date:	24 August 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
		01	Noted		A
<b>Document Code Status</b>		A			
A – Approved. Work may proceed		B – Approved with Comments. Work may proceed subject to addressing the comments. The contractor shall revise and resubmit		C – Revise & Resubmit before proceeding. The contractor shall revise and resubmit. Work shall not start.	
				D – Not Approved. The document is not technically approved. Work shall not start.	

	<b>SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA</b> Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-013 Rev.03				
	Document no./Title:	MAH- NPCC -23003-REP-0010-Rev.02 Final Technical Report For Post CPT at Zone-1 Area-D			
	Date:	24 August 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
1	General	00	Please provide a list of references	Noted and amended	B
		01	Noted until providing the report		B
		02	Noted		A
2	General	00	Refer to MAH- NPCC -23003-LTR-0010, the ironing pass shall be conducted. Therefore, the final analysis shall consider the upper 1.5m-thick layer to check compliance with the Project requirements.	Noted and ironing pass is performed in Zone 1. The upper 1.5 meter will be tested again and will be checked with the target performance criteria mentioned in NPCC/YARD/KSA/L-0005. As the analysis of CPT results in this report has achieved the performance criteria for bearing capacity, settlement and liquefaction, reanalysis of tests after ironing might not be necessary as the calculation results will be much better after ironing pass.	B
		01	Due to the delay of the project, the supplementary report for surface compaction for the upper 1.50m thick layer may be submitted separately.		B
		02	No response.	Surface compaction CPTs and post SPT will be submitted as separate submittal	B
		03	Noted		A
3	General	00	Please add a paragraph for the groundwater level		B
		01	Noted until providing the report	Noted and amended	B
		02	This report is rev.02. Revise. The contractor shall refer to the outcomes of his investigations.	Noted and amended as per SPT boreholes	B

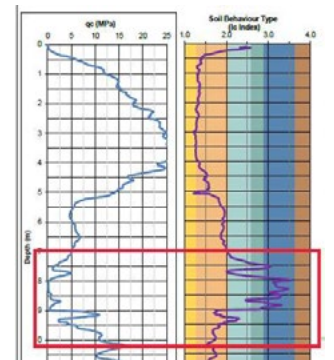
NPCC		SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-013 Rev.03		ADEC	
Document no./Title:		MAH- NPCC -23003-REP-0010-Rev.02 Final Technical Report For Post CPT at Zone-1 Area-D			
Date:		24 August 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
4	Appendix-6	00	<p>This report is Rev.03 Noted</p> <ul style="list-style-type: none"> <li>The Contractor shall provide charts for soil classification, shear strength, and <math>\alpha</math> factor with Elastic Modulus vs. Level before considering the equivalent qc.</li> <li>Show the idealized soil profile along with all design values (<math>\gamma</math>, <math>\phi</math> &amp; E)</li> <li>Some layers (e.g., refer to the below figure) show soil-like cohesive material. Please address these layers to check compliance with the Project requirements, especially for Mat foundations.</li> </ul> 	<p>Noted and amended.</p> <p><math>\alpha</math> factor is still considered as 4 as for normally consolidated soil instead of 6 for analysis of Post CPT as the ZLT is pending. The properties of soil showing cohesive-like material is also considered in analysis of bearing capacity and the result complies with the project performance criteria.</p>	C
		01	<p>Noted until providing the report with considering the below points</p> <ul style="list-style-type: none"> <li>The interpreted soil properties and idealized soil profile with design values are to be included in the report as per the comment</li> </ul>		C

NPCC		SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-013 Rev.03		ADEC	
Document no./Title:		MAH- NPCC -23003-REP-0010-Rev.02 Final Technical Report For Post CPT at Zone-1 Area-D			
Date:		24 August 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
Document Code Status			A		
A – Approved. Work may proceed		B – Approved with Comments Work may proceed subject to addressing the comments. The contractor shall revise and resubmit		C – Revise & Resubmit before proceeding The contractor shall revise and resubmit. Work shall not start.	
		D – Not Approved The document is not technically approved. Work shall not start.			

NPCC		SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-013 Rev.03		ADEC	
Document no./Title:		MAH- NPCC -23003-REP-0010-Rev.02 Final Technical Report For Post CPT at Zone-1 Area-D			
Date:		24 August 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
			<ul style="list-style-type: none"> <li>Noted, please clarify if there are layers with <math>\alpha</math> factor less than 4.</li> <li>The long-term settlement (consolidation and secondary consideration) to be considered in the analysis. The used parameters should be clarified</li> <li>Refer to NPCC/YARD/KSA/L-003, Post-SPT tests shall be conducted as a tool to calibrate post-CPT results. The contractor shall submit a supplementary report that includes SPT.</li> </ul>		
		02	<p>Please provide your response on rev.01</p> <p>The charts of soil parameters before equivalent qc are not clarified yet as commented earlier.</p> <p>The calculations of long-term settlement for cohesive material (consolidation and secondary consolidation) are not clarified yet.</p>	<p>The required graphs are added</p> <p>Based on soil samples obtained from boreholes no cohesive material is encountered, hence no consolidation settlement analysis is required to be performed. CPT results shows cohesive like layer due to low qc value which is confirmed to be silty sand from boreholes</p>	B
		03	Noted		A
5	Appendix-6	00	<ul style="list-style-type: none"> <li>Refer to MAH- NPCC -23003-PRO-0001, bearing capacity analysis shall be carried out based on a reliable correlation/approach.</li> <li>For BC calculations, average qc within a depth one foundation width below the bottom of the footing, the analysis shows that qc value is fixed for different widths of foundations for the same box.</li> </ul>	<p>Bearing capacity analysis cross-check will be carried out for critical points as agreed and the equation suggested by client/consultant will be used as capping value for Bearing capacity.</p>	C
		01	<p>Noted. refer to MAH- NPCC -23003-PRO-0001, please consider the adjusted value of the safety factor for the CPT approach and consider also classical bearing capacity equations</p>		B

NPCC		SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-018 Rev.02		ADEC	
Document no./Title:		MAH- NPCC -23003-REP-0013-Rev.02 Final Technical Report For Post CPT at Zone-1 Area-E			
Date:		24 August 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
1	General	00	Please provide a list of references	Noted and amended	B
		01	Noted.		A
2	General	00	Refer to MAH- NPCC -23003-LTR-0010, the ironing pass shall be conducted. Therefore, the final analysis shall consider the upper 1.5m-thick layer to check compliance with the Project requirements.	<p>Noted and Ironing pass is performed in Zone 1. The upper 1.5 meter will be tested again and will be checked with the target performance criteria mentioned in NPCC/YARD/KSA/L-0005. As the analysis of CPT results in this report has achieved the performance criteria for bearing capacity, settlement and liquefaction, reanalysis of tests after ironing might not be necessary as the calculation results will be much better after ironing pass.</p>	B
		01	Noted.		A
3	General	00	Please add a paragraph for the groundwater level	Noted and amended	B
		01	The contractor shall refer only to the outcomes of his investigations.	Noted and amended as per SPT boreholes	B
		02	Noted		A
4	General	00	Refer to NPCC/YARD/KSA/L-003, Post-SPT tests shall be conducted as a tool to calibrate post-CPT results.	SPT will be conducted and submitted as a separate report	C
		01	Noted		A
5	Appendix-6	00	<ul style="list-style-type: none"> <li>The Contractor shall provide charts for soil classification, shear strength, and <math>\alpha</math> factor with Elastic Modulus vs. Level before considering the equivalent qc.</li> </ul>	<p>Noted and amended.</p> <p><math>\alpha</math> factor is still considered as 4 as for normally consolidated soil instead of 6 for analysis of Post CPT as the ZLT is pending. The properties of soil showing cohesive-like material is also</p>	C

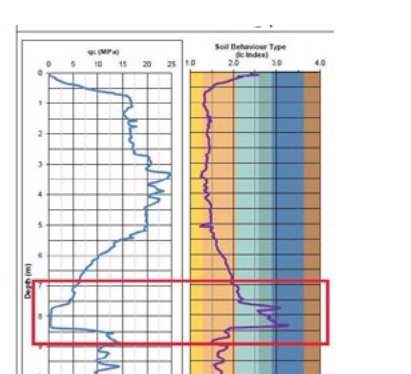
NPCC		SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-013 Rev.03		ADEC	
Document no./Title:		MAH- NPCC -23003-REP-0010-Rev.02 Final Technical Report For Post CPT at Zone-1 Area-D			
Date:		24 August 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
		02	No response on adjusted safety factor as agreed	FOS is used as 2.5 as per technical note for qsafe calculations	B
		03	Noted		A
6	Appendix-6	00	Please justify the project lifetime of 25 years that utilized in long-term settlement calculations	Usually, a period of 10 years (related to yard maintenance) is considered for structures to calculate long term settlement as the soil will undergo complete creep settlement in this time period. But for additional safety 25 years has been considered for calculations.	C
		01	Noted, please address 50 years for long-term settlement. No significant difference is expected		B
		02	No response. Consider 50 years for long-term settlement	Noted and amended	B
		03	Noted		A
7	Appendix-6	00	Design parameter values for some layers are over-estimated when compared to the qc value of these layers e.g., Elastic modulus from level 0.00 to level -5.00 for box 83. Please check.	Calculation of elastic modulus is performed by considering an $\alpha$ factor of 4 even for post CPT and it is capped at 80 MPa in all cases.	C
		01	As discussed with the designer engineer on the site, there are layers that are overestimated values compared to the resulting qc	Amended	C
		02	Noted		A

NPCC		SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-018 Rev.02		ADEC	
Document no./Title:		MAH- NPCC -23003-REP-0013-Rev.02 Final Technical Report For Post CPT at Zone-1 Area-E			
Date:		24 August 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
			<ul style="list-style-type: none"> <li>Show the idealized soil profile along with all design values (<math>\gamma</math>, <math>\phi</math> &amp; E)</li> <li>Some layers (e.g., refer to the below figure) show soil-like cohesive material. Please address these layers in terms of bearing capacity settlement (short &amp; long term) and liquefaction to check compliance with the Project requirements, especially for Mat foundations.</li> </ul> 	<p>considered in analysis of bearing capacity and the result complies with the project performance criteria.</p>	
		01	<p>1- The required charts are missing</p> <p>2- Noted</p>	<p>The required graphs are added</p> <p>Based on soil samples obtained from boreholes no cohesive</p>	B

NPCC		SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA			ADEC	
Document no./Title:		MAH- NPCC -23003-REP-0013-Rev.02 Final Technical Report For Post CPT at Zone-1 Area-E			ADEC	
Date:		24 August 2023				
Nr.	Reference No./Section	Rev	Comments	Response	Status	
		02	3- The long-term settlement (consolidation and secondary consideration to be considered in the analysis for cohesive layers.	material is encountered, hence no consolidation settlement analysis is required to be performed. CPT results shows cohesive like layer due to low qc value which is confirmed to be silty sand from boreholes	A	
6	Appendix-6	00	<ul style="list-style-type: none"> <li>Refer to MAH- NPCC -23003-PRO-0001, bearing capacity analysis shall be carried out based on a reliable correlation/approach.</li> <li>For BC calculations, average qc within a depth one foundation width below the bottom of the footing, the analysis shows that qc value is fixed for different widths of foundations for the same box.</li> </ul>	Bearing capacity analysis cross-check will be carried out for critical points as agreed and the equation suggested by client/consultant will be used as capping value for Bearing capacity.	C	
		01	<ul style="list-style-type: none"> <li>Check Cwq for the foundation with a width of 1.50 according to the groundwater level</li> <li>adjust FOS against BC as agreed</li> </ul>	The Cwq and Cwq values are matching with ground water level +1.0m elevation from boreholes. Refer to SPT logs submitted as addendum to this final report	B	
		02	Noted	FOS is used as 2.5 as per technical note for qsaf calculations.	A	
7	Appendix-6	00	Please justify the project lifetime of 25 years that utilized in long-term settlement calculations. The contractor shall consider project lifetime of 50 years.	Usually, a period of 10 years (related to yard maintenance) is considered for structures to calculate long term settlement as the soil will undergo complete creep settlement in this time period. But for additional safety 25 years has been considered for calculations.	C	
		01	Consider 50 years for long-term settlement	Noted and amended	B	
		02	Noted		A	

NPCC		SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA			ADEC	
Document no./Title:		MAH- NPCC -23003-REP-0013-Rev.02 Final Technical Report For Post CPT at Zone-1 Area-E			ADEC	
Date:		24 August 2023				
Nr.	Reference No./Section	Rev	Comments	Response	Status	
8	Appendix-6	00	Design parameter values for some layers are over-estimated when compared to the qc value of these layers e.g., Elastic modulus from level +1.00 to level -4.00 for box 48. Please check.	Calculation of elastic modulus is performed by considering an $\alpha$ factor of 4 even for post CPT and it is capped at 80 MPa in all cases.	C	
		01	Noted		A	
9	Appendix-1	00	Show the location of CPT Z1 - box 77-B	Noted and amended	B	
		01	It has not shown yet	Added	B	
		02	Noted		A	
<b>Document Code Status</b>		<b>A</b>				
A – Approved. Work may proceed		B – Approved with Comments Work may proceed subject to addressing the comments. The contractor shall revise and resubmit		C – Revise & Resubmit before proceeding The contractor shall revise and resubmit. Work shall not start.		
		D – Not Approved The document is not technically approved. Work shall not start.				

NPCC		SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA			ADEC	
Document no./Title:		MAH- NPCC -23003-REP-0012-Rev.02 Final Technical Report For Post CPT at Zone-1 Area-F			ADEC	
Date:		24 August 2023				
Nr.	Reference No./Section	Rev	Comments	Response	Status	
1	General	00	Please provide a list of references	Noted and amended	B	
		01	Noted.		A	
2	General	00	Refer to MAH- NPCC -23003-LTR-0010, the ironing pass shall be conducted. Therefore, the final analysis shall consider the upper 1.5m-thick layer to check compliance with the Project requirements.	Noted and ironing pass is performed in Zone 1. The upper 1.5 meter will be tested again and will be checked with the target performance criteria mentioned in NPCC/YARD/KSA/L-0005. As the analysis of CPT results in this report has achieved the performance criteria for bearing capacity, settlement and liquefaction, reanalysis of tests after ironing might not be necessary as the calculation results will be much better after ironing pass.	B	
		01	Noted.		A	
3	General	00	Please add a paragraph for the groundwater level	Noted and amended	B	
		01	The contractor shall refer only to the outcomes of his investigations.	Noted and amended as per SPT boreholes	B	
		02	Noted		A	
4	General	00	Refer to NPCC/YARD/KSA/L-003, Post-SPT tests shall be conducted as a tool to calibrate post-CPT results.	SPT will be conducted and submitted as a separate report	C	
		01	Noted		A	
5	Appendix-6	00	The Contractor shall provide charts for soil classification, shear strength, and $\alpha$ factor with Elastic Modulus vs. Level before considering the equivalent qc.	Noted and amended. $\alpha$ factor is still considered as 4 as for normally consolidated soil instead of 6 for analysis of Post CPT as the ZLT is pending.	C	

NPCC		SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA			ADEC	
Document no./Title:		MAH- NPCC -23003-REP-0012-Rev.02 Final Technical Report For Post CPT at Zone-1 Area-F			ADEC	
Date:		24 August 2023				
Nr.	Reference No./Section	Rev	Comments	Response	Status	
			<ul style="list-style-type: none"> <li>Show the idealized soil profile along with all design values (<math>\gamma</math>, <math>\phi</math> &amp; E)</li> <li>Some layers (e.g., refer to the below figure) show soil-like cohesive material. Please address these layers in terms of bearing capacity settlement (short &amp; long term) and liquefaction to check compliance with the Project requirements, especially for Mat foundations.</li> </ul>	The properties of soil showing cohesive-like material is also considered in analysis of bearing capacity and the result complies with the project performance criteria.		
						
		01	1- The required charts are missing 2- Noted	The required graphs are added Based on soil samples obtained from boreholes no cohesive	B	

NPCC		SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA			ADEC	
Document no./Title:		MAH- NPCC -23003-REP-0012-Rev.02 Final Technical Report For Post CPT at Zone-1 Area-F			ADEC	
Date:		24 August 2023				
Nr.	Reference No./Section	Rev	Comments	Response	Status	
		02	Noted		A	
6	Appendix-6	00	<ul style="list-style-type: none"> <li>The long-term settlement (consolidation and secondary consideration to be considered in the analysis.</li> <li>Refer to MAH- NPCC -23003-PRO-0001, bearing capacity analysis shall be carried out based on a reliable correlation/approach.</li> <li>For BC calculations, average qc within a depth one foundation width below the bottom of the footing, the analysis shows that qc value is fixed for different widths of foundations for the same box.</li> </ul>	Bearing capacity analysis cross-check will be carried out for critical points as agreed and the equation suggested by client/consultant will be used as capping value for Bearing capacity.	C	
		01	<ul style="list-style-type: none"> <li>Check Cwq for the foundation with a width of 1.50 m according to the groundwater level</li> <li>Adjust FOS against BC as agreed</li> </ul>	The Cwq and Cwq values are matching with ground water level +1.0m elevation from boreholes. Refer to SPT logs submitted as addendum to this final report	B	
		02	Noted	FOS is used as 2.5 as per technical note for qsaf calculations.	A	
7	Appendix-6	00	Please justify the project lifetime of 25 years that utilized in long-term settlement calculations. The contractor shall consider project lifetime of 50 years.	Usually, a period of 10 years (related to yard maintenance) is considered for structures to calculate long term settlement as the soil will undergo complete creep settlement in this time period. But for additional safety 25 years has been considered for calculations.	C	
		01	Consider 50 years for long-term settlement as per previous comment	Noted and amended	B	
		02	Noted		A	

NPCC		SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA			ADEC	
Document no./Title:		MAH- NPCC -23003-REP-0012-Rev.02 Final Technical Report For Post CPT at Zone-1 Area-F			ADEC	
Date:		24 August 2023				
Nr.	Reference No./Section	Rev	Comments	Response	Status	
8	Appendix-6	00	Design parameter values for some layers are over-estimated when compared to the qc value of these layers e.g., Elastic modulus from level +1.00 to level -5.00 for box 81. Please check.	Calculation of elastic modulus is performed by considering an $\alpha$ factor of 4 even for post CPT and it is capped at 80 MPa in all cases.	C	
		01	Noted		A	
<b>Document Code Status</b>		<b>A</b>				
A – Approved. Work may proceed		B – Approved with Comments Work may proceed subject to addressing the comments. The contractor shall revise and resubmit		C – Revise & Resubmit before proceeding The contractor shall revise and resubmit. Work shall not start.		
		D – Not Approved The document is not technically approved. Work shall not start.				

DOCUMENT TRANSMITTAL													
SAUDI ARAMCO LONG TERM AGREEMENT (LTA) FOR OFFSHORE FACILITIES NPCC YARD FACILITIES, RAS AL-KHAIR, SAUDI ARABIA NPCC PROJECT NO: NPCC KSA YARD PROJECT													
Attn: Mr. Anas Ourabi PROJECT MANAGER: Mr. Muath Hussain Issued for : Review & Approval	Transmittal No: NPCC/KSA/YARD/T-0063/23 Date: 29-Aug-2023												
<table border="1"> <thead> <tr> <th colspan="2">Attachment Type</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Prints</td> <td><input type="checkbox"/> Originals</td> </tr> <tr> <td><input type="checkbox"/> Reproducibles</td> <td><input type="checkbox"/> Drawings</td> </tr> <tr> <td><input type="checkbox"/> Documents</td> <td><input checked="" type="checkbox"/> X</td> </tr> </tbody> </table>		Attachment Type		<input type="checkbox"/> Prints	<input type="checkbox"/> Originals	<input type="checkbox"/> Reproducibles	<input type="checkbox"/> Drawings	<input type="checkbox"/> Documents	<input checked="" type="checkbox"/> X				
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<table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Document Number</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>MAH-NPCC-23003-REP-0022, Rev-02</td> <td>Final Technical Report Post CPT at Zone-02 Area A</td> </tr> <tr> <td>2</td> <td>MAH-NPCC-23003-REP-0029, Rev-01</td> <td>Final Technical Report Post CPT at Zone-02 Area B</td> </tr> </tbody> </table>		Sr. No.	Document Number	Description	1	MAH-NPCC-23003-REP-0022, Rev-02	Final Technical Report Post CPT at Zone-02 Area A	2	MAH-NPCC-23003-REP-0029, Rev-01	Final Technical Report Post CPT at Zone-02 Area B			
Sr. No.	Document Number	Description											
1	MAH-NPCC-23003-REP-0022, Rev-02	Final Technical Report Post CPT at Zone-02 Area A											
2	MAH-NPCC-23003-REP-0029, Rev-01	Final Technical Report Post CPT at Zone-02 Area B											
<table border="1"> <thead> <tr> <th colspan="2">COPY DISTRIBUTION</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		COPY DISTRIBUTION		REMARKS									
COPY DISTRIBUTION		REMARKS											
Signature: Name/Title: <u>Sofyan Rababa / Project Manager</u> Date Signed: <u>29-Aug-23</u>													
Document Receipt Signature: _____ Name/Title: _____ Date Signed: _____													
Please acknowledge receipt of the above document(s) by: Sign and return the copy													

NPCC		SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-022 Rev.02			
Document no./Title:		MAH-NPCC-23003-REP-0022-Rev.02		Final Technical Report For Post CPT at Zone-2 Area-A	
Date:		29 August 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
1	General	00	The contractor shall submit post CPT for surface compaction. In addition post SPT	Surface compaction CPTs and post SPT will be submitted as separate submittal as agreed in weekly meeting.	B
		01	Noted		A
2	2	00	The contractor shall refer the outcomes of his investigations only.	Noted and amended as per SPT boreholes	B
		01	Noted		A
3	Appendix-6	00	<ul style="list-style-type: none"> <li>The Contractor shall provide charts for soil classification, shear strength, and <math>\alpha</math> factor with Elastic Modulus vs. Level before considering the equivalent qc.</li> <li>The long-term settlement (consolidation and secondary consideration to be considered in the analysis for cohesive material.</li> </ul>	The required graphs are added.  Based on soil samples obtained from boreholes no cohesive material is encountered, hence no consolidation settlement analysis is required to be performed. CPT results shows cohesive like layer due to low qc value which is confirmed to be silty sand from boreholes.	B
		01	Noted		A
4	Appendix-6	00	<ul style="list-style-type: none"> <li>Check and adjust Cw<sub>y</sub> and Cw<sub>q</sub> according to the groundwater level</li> <li>Adjust FOS against BC as agreed</li> </ul>	The Cw <sub>y</sub> and Cw <sub>q</sub> values are matching with ground water level +1.0m elevation from boreholes. Refer to SPT logs submitted as addendum to this final report.  FOS is used as 2.5 as per technical note for qsafe calculations.	B
		01	Noted. Refer to section 5 of the report		A
5	Appendix-6	00	The contractor shall consider 50 years for long-term calculations.	Noted and amended	B
		01	Noted		A

NPCC		SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-022 Rev.02			
Document no./Title:		MAH-NPCC-23003-REP-0022-Rev.02		Final Technical Report For Post CPT at Zone-2 Area-A	
Date:		29 August 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
6	Appendix-6	00	The Foundation Base Level shall be tied to FGL +5.00. Check and Revise	Foundation level is considered at 0.00 ground depth for zero embedment depth footings.	B
		01	Noted		A
7	Appendix-6	00	The safe bearing capacity is not correct according to the estimated ultimate bearing capacity (e.g. Box-295, q <sub>n</sub> is 414 kPa whereas q <sub>safe</sub> equals 258 kPa).  It seems that the value of internal of friction angle is overestimated related to value of qc. Check and clarify	1. Achievement of bearing capacity for 1.25m width footing is further confirmed by achievement of performance line after surface compaction.  2. Average Phi in soil profile is capped at 40 degrees.	C
		01	Closed		A
8	Appendix-6	00	Since the width of the foundation is 1.25m, then the maximum thickness of each layer within the influence depth (6.0m) does not exceed 1.0m. Refine the soil parameters to correspond to 1.0m thickness for each layer	After surface compaction the CPT reveals the minimum value of average qc more than 9.0 MPa (within 1.5 m) in zone of maximum settlement 1xB (about 1.25m), so the calculations are in conservative side. Surface compaction report will be submitted as separate submittal.	C
		01	Closed		A
9		01	Liquefaction analysis sheets are irrelevant to the boxes of the report. Check	Amended	B
		02	Closed		A

	<b>SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA</b> Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-022 Rev.02				
	Document no./Title:	MAH-NPCC-23003-REP-0022-Rev.02 Final Technical Report For Post CPT at Zone-2 Area-A			
	Date:	29 August 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
<b>Document Code Status</b> <b>A</b>					
A – Approved. Work may proceed		B – Approved with Comments Work may proceed subject to addressing the comments. The contractor shall revise and resubmit		C – Revise & Resubmit before proceeding The contractor shall revise and resubmit. Work shall not start.	
				D – Not Approved The document is not technically approved. Work shall not start.	

	<b>SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA</b> Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-023 Rev.01				
	Document no./Title:	MAH-NPCC-23003-REP-0029-Rev.01 Final Technical Report For Post CPT at Zone-2 Area-B			
	Date:	29 August 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
1		00	Liquefaction analysis sheets are irrelevant to the boxes of the report.	Amended	B
		01	Closed		A
<b>Document Code Status</b> <b>A</b>					
A – Approved. Work may proceed		B – Approved with Comments Work may proceed subject to addressing the comments. The contractor shall revise and resubmit		C – Revise & Resubmit before proceeding The contractor shall revise and resubmit. Work shall not start.	
				D – Not Approved The document is not technically approved. Work shall not start.	

		<b>DOCUMENT TRANSMITTAL</b> SAUDI ARAMCO LONG TERM AGREEMENT (LTA) FOR OFFSHORE FACILITIES NPCC YARD FACILITIES, RAS AL-KHAIR SAUDI ARABIA NPCC PROJECT NO: NPCC KSA YARD PROJECT	
Attn: Mr. Anas Ourabi		Transmittal No: NPCC/KSA/YARD/T-0073/23	
PROJECT MANAGER: Mr. Muath Hussain		Date: 20-Sep-2023	
Issued for : Review & Approval		<b>Document Review Status</b>	
		Code A	Approved - Work may proceed <b>X</b>
Attachment Type		Code B	Approved with comments - Work may proceed subject to addressing comments
<input type="checkbox"/> Prints	<input type="checkbox"/> Originals	Code C	Revise and Resubmit - Work shall not start
<input type="checkbox"/> Reproducibles	<input type="checkbox"/> Drawings	Code D	Not approved/Rejected - Work shall not start
<input checked="" type="checkbox"/> Documents		Code I	For information
Contractor Reference# MAH-NPCC-23003-T-0138			
Sr. No.	Document Number	Description	
1	MAH-NPCC-23003-REP-0031, Rev.01	Final Technical Report for Post CPT at Zone-03	
COPY DISTRIBUTION		REMARKS	
		Signature: Name/Title: Sofyan Rahabab / Project Manager Date: Signed: 20-Sep-23	
Please acknowledge receipt of the above document(s) by: Sign and return the copy		Document Receipt Signature: _____ Name/Title: _____ Date: Signed: _____	

	<b>SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA</b> Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-029 Rev.00				
	Document no./Title:	MAH-NPCC-23003-REP-0042 Rev-00 Final Technical Report for Post CPT at Roads			
	Date:	17 September 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
1		00	The submitted results shall be under the contractor's supervision and QC. The interpretation and conclusion shall be under contractor's liabilities.		
<b>Document Code Status</b> <b>A</b>					
A – Approved. Work may proceed		B – Approved with Comments Work may proceed subject to addressing the comments. The contractor shall revise and resubmit		C – Revise & Resubmit before proceeding The contractor shall revise and resubmit. Work shall not start.	
				D – Not Approved The document is not technically approved. Work shall not start.	

	<b>SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA</b> Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-030 Rev.00				
	Document no./Title:	RoadsMAH-NPCC-23003-REP-0052 Rev-00 Final Technical Report Post CPT at Ancillary			
	Date:	18 September 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
1		00	The submitted results shall be under the contractor's supervision and QC. The interpretation and conclusion shall be under contractor's liabilities.		
<b>Document Code Status</b> <b>A</b>					
A – Approved. Work may proceed		B – Approved with Comments Work may proceed subject to addressing the comments. The contractor shall revise and resubmit		C – Revise & Resubmit before proceeding The contractor shall revise and resubmit. Work shall not start.	
				D – Not Approved The document is not technically approved. Work shall not start.	

	<b>SITE PREPARATION AND GROUND IMPROVEMENT WORKS FOR NPCC YARD DEVELOPMENT AT RAS AL KHAIR PORT, KSA</b> Comment Response Sheet CRS No.: ADC-22023-GEN-CRS-031 Rev.00				
	Document no./Title:	MAH-NPCC-23003-REP-0031 Rev-01 Final Technical Report for Post CPT at Zone-3			
	Date:	19 September 2023			
Nr.	Reference No./Section	Rev	Comments	Response	Status
1		00	The submitted results shall be under the contractor's supervision and QC. The interpretation and conclusion shall be under the contractor's liabilities.		
<b>Document Code Status</b> <b>A</b>					
A – Approved. Work may proceed		B – Approved with Comments Work may proceed subject to addressing the comments. The contractor shall revise and resubmit		C – Revise & Resubmit before proceeding The contractor shall revise and resubmit. Work shall not start.	
				D – Not Approved The document is not technically approved. Work shall not start.	

James Mita  
QIC DP - QIDDIYA COAST

Final (WF-001570) 02020\_AMT\_Contractor - Method St...  
WORKFLOW TRANSMITTAL

10:23 AM  
QDPCS-WTRAN-001656

**Qiddiya Coast Project**  
3rd Floor Building IN-01 ITCC Complex  
AlRaidah Digital City,  
Al Nakhil District  
Qiddiya  
Riyadh 12382 Saudi Arabia

**QIC DP - Qiddiya Coast**  
3rd Floor Building IN-01 ITCC Complex  
AlRaidah Digital City, Al Nakhil Dist.  
Riyadh  
Saudi Arabia, Riyadh 12382 Saudi Arabia

MAIL TYPE	MAIL NUMBER	REFERENCE NUMBER
Workflow Transmittal	QDPCS-WTRAN-001656	QDPCS-WTRAN-001656

**Final (WF-001570) 02020\_AMT\_Contractor - Method Statement (MST)- Method Statement For Soil Improvement Works using Dynamic Replacement, Dynamic Compaction, & Rapid Impact Compection Techniques.**

From: Mr James Mita - QIC DP - Qiddiya Coast

To (6): Mr Yasir Abbas - Abdulmohsen Altamimi Contracting Company (+5 more...)

Cc: Mr Craig Wood - QIC DP - Qiddiya Coast

Sent: Thursday, 25 July 2024 10:23:30 AM AST (GMT +03:00)

Status: N/A

DOCUMENT ATTACHMENTS (1)

File	Document No	Revision	Revision Date	Title	Status
	QCP-AMT-TEC-MST-CIV-02-Z01-00022	03	24/04/2024	Method Statement For Soil Improvement Works using Dynamic Replacement, Dynamic Compaction, & Rapid Impact Compection Techniques.	B - Approved with Comments

MESSAGE

**Workflow Review History**

The attached documents have completed the "02020\_AMT\_Contractor - Method Statement (MST)- Method Statement For Soil Improvement Works using Dynamic Replacement, Dynamic Compaction, & Rapid Impact Compection Techniques." workflow with the following results :

*This transmittal was automatically generated.*

Doc No	Step	Participant	Review Outcome	Comments
QCP-AMT-TEC-MST-CIV-02-Z01-00022	QDP QA Check	Q GateKeeper	A - Approved	
	CSC Review	M Alfukaha	B - Approved with Comments	1. Dynamic replacement has no specifications in the contract documents. Client approval on this MS is mandatory to proceed with the works accordingly. Otherwise, to provide detailed specs to follow. 2. Final surface to be leveled and compacted to meet the specs. 3. For RIC provide the compaction pattern. 4. Paragraph 9.2 explains trial preparation for DR. need to explain the same for RIC & DC also production parameters. 5. Paragraph 9.4-point c: Explain where the backfilling is required. 6. The Risk assessment is not signed by the contractor HSE manager. 7. For RIC Explain the impact pattern with influence zone. 8. ZLT and PLT to follow the specified MS 9. See markups
	HSE Review	W Ghanem	B - Approved with Comments	- Please refer to SC comments. - Responsibilities section is missing. - Assessment team should include the main contractor core team.
	QDP Quality Review	D Nugroho	B - Approved with Comments	
	QDP Approval	J Mita	B - Approved with Comments	

James Mita  
QIC DP - QIDDIYA COAST

Final (WF-004826) 02020\_AMT\_Contractor - Technical S...  
WORKFLOW TRANSMITTAL

01/05/2025  
QDPCS-WTRAN-005757

**Qiddiya Coast Project**  
3rd Floor Building IN-01 ITCC Complex  
AlRaidah Digital City,  
Al Nakhil District  
Qiddiya  
Riyadh 12382 Saudi Arabia

MAIL TYPE	MAIL NUMBER	REFERENCE NUMBER
Workflow Transmittal	QDPCS-WTRAN-005757	QDPCS-WTRAN-005757

**Final (WF-004826) 02020\_AMT\_Contractor - Technical Submissions -Final Technical Report#03 (FTR) for Section-01, Part-03, Subsection-(28&30-COMLETE) & Subsection-(26,29&31-PARTIAL)**

From: Mr James Mita - QIC DP - Qiddiya Coast

To (4): Mr Yasir Abbas - Abdulmohsen Altamimi Contracting Company (+3 more...)

Cc (2): Mr Craig Wood - QIC DP - Qiddiya Coast (+1 more...)

Sent: Thursday, 1 May 2025 1:46:08 PM AST (GMT +03:00)

Status: N/A

DOCUMENT ATTACHMENTS (1)

File	Document No	Revision	Revision Date	Title	Status
	QCDW701-AMT-C02020-REP-CIV-0000-X000-000004	00	10/04/2025	Final Technical Report#03 (FTR) for Section-01, Part-03, Subsection-(28&30-COMLETE) & Subsection-(26,29&31-PARTIAL)	A - Approved

MESSAGE

**Workflow Review History**

The attached documents have completed the "02020\_AMT\_Contractor - Technical Submissions -Final Technical Report#03 (FTR) for Section-01, Part-03, Subsection-(28&30-COMLETE) & Subsection-(26,29&31-PARTIAL)" workflow with the following results :

*This transmittal was automatically generated.*

Doc No	Step	Participant	Review Outcome	Comments
QCDW701-AMT-C02020-REP-CIV-0000-X000-000004	QDP QA Check	Q GateKeeper	A - Approved	QA Checked
	CSC Review	M Alfukaha	A - Approved	The ground improvement works using Rapid Impact Compaction (RIC) have been successfully implemented and have effectively improved the soil conditions to meet the project design criteria. [Review report attached].
	QDP Final	J Mita	A - Approved	

James Mita QIC DP - QIDDIYA COAST Final (WF-004842) 02020\_AMT\_Contractor - Final Techn... 07/05/2025 WORKFLOW TRANSMITTAL QDPCS-WTRAN-005859

**Qiddiya Coast Project**  
3rd Floor Building IN-01 ITCC Complex  
AlRaidah Digital City,  
Al Nakhil District  
Qiddiya  
Riyadh 12382 Saudi Arabia

**Qiddiya**

MAIL TYPE: Workflow Transmittal  
MAIL NUMBER: QDPCS-WTRAN-005859  
REFERENCE NUMBER: QDPCS-WTRAN-005859

Final (WF-004842) 02020\_AMT\_Contractor - Final Technical Report#04 (FTR) for Section-01, Subsection# (1,2,3,4,6,8,10,12,14,15,16,17, &20-Partial) & Subsection# (9,11,13,19,22,24- Completed)

From: Mr James Mita - QIC DP - Qiddiya Coast  
To (4): Mr Yasir Abbas - Abdulmohsen Altamimi Contracting Company (+3 more...)  
Cc (2): Mr Craig Wood - QIC DP - Qiddiya Coast (+1 more...)  
Sent: Wednesday, 7 May 2025 2:21:00 PM AST (GMT +03:00)  
Status: N/A

DOCUMENT ATTACHMENTS (1)

File	Document No	Revision	Revision Date	Title	Status
	QCDW701-AMT-C02020-REP-CIV-0000-X000-000005	00	14/04/2025	Final Technical Report#04 (FTR) for Section-01, Subsection# (1,2,3,4,6,8,10,12,14,15,16,17, &20-Partial) & Subsection#(9,11,13,19,22,24- Completed)	A - Approved

MESSAGE

**Workflow Review History**

The attached documents have completed the "02020\_AMT\_Contractor - Final Technical Report#04 (FTR) for Section-01, Subsection# (1,2,3,4,6,8,10,12,14,15,16,17, &20-Partial) & Subsection#(9,11,13,19,22,24- Completed)" workflow with the following results :

*This transmittal was automatically generated.*

Doc No	Step	Participant	Review Outcome	Comments
QCDW701-AMT-C02020-REP-CIV-0000-X000-000005	QDP QA Check	Q GateKeeper	A - Approved	QA Checked
	CSC Review	M Alfukaha	A - Approved	Technical review attached
	QDP Final	J Mita	A - Approved	

James Mita QIC DP - QIDDIYA COAST Final (WF-001858) 02020\_AMT\_Contractor - Design S... 10:25 AM WORKFLOW TRANSMITTAL QDPCS-WTRAN-001658

**Qiddiya Coast Project**  
3rd Floor Building IN-01 ITCC Complex  
AlRaidah Digital City,  
Al Nakhil District  
Qiddiya  
Riyadh 12382 Saudi Arabia

**QIC DP - Qiddiya Coast**  
3rd Floor Building IN-01 ITCC Complex  
AlRaidah Digital City, Al Nakhil Dist.  
Riyadh  
Saudi Arabia, Riyadh 12382 Saudi Arabia

MAIL TYPE: Workflow Transmittal  
MAIL NUMBER: QDPCS-WTRAN-001658  
REFERENCE NUMBER: QDPCS-WTRAN-001658

Final (WF-001858) 02020\_AMT\_Contractor - Design Submission - DESIGN REPORT #3 SECTION #01- SUB SECTIONS [06 TO 33]

From: Mr James Mita - QIC DP - Qiddiya Coast  
To (4): Mr Yasir Abbas - Abdulmohsen Altamimi Contracting Company (+3 more...)  
Cc (2): Mr Craig Wood - QIC DP - Qiddiya Coast (+1 more...)  
Sent: Thursday, 25 July 2024 10:25:37 AM AST (GMT +03:00)  
Status: N/A

DOCUMENT ATTACHMENTS (1)

File	Document No	Revision	Revision Date	Title	Status
	QCDW701-AMT-C02020-REP-DEN-7032-G012-00001	01	22/05/2024	DESIGN REPORT #3 SECTION #01- SUB SECTIONS [06 TO 33]	B - Approved with Comments

MESSAGE

**Workflow Review History**

The attached documents have completed the "02020\_AMT\_Contractor - Design Submission - DESIGN REPORT #3 SECTION #01- SUB SECTIONS [06 TO 33]" workflow with the following results :

*This transmittal was automatically generated.*

Doc No	Step	Participant	Review Outcome	Comments
QCDW701-AMT-C02020-REP-DEN-7032-G012-00001	QDP QA Check	Q GateKeeper	A - Approved	QA Checked
	CSC Review 1	M Alfukaha	B - Approved with Comments	see attached comments sheet
	CSC Approval	M Alfukaha	B - Approved with Comments	See attached comments sheet
	QDP Approval	J Mita	B - Approved with Comments	

**Worley**  
**JESA**  
**INTERNATIONAL**

**MA'ADEN** معادن  
Saudi Arabian Mining Company شركة التعدين العربية السعودية

**مفرج الحريبي وشركاه** MOFARREH ALHARBI & PARTNERS  
**TERRA FIRMA**

Project: MA'ADEN PHOSPHATE 3-PHASE 1

Title: **Pre CPT Report for Natural Ground by Terra Firma Ground Engineering - RAK**

Number: MD-522-1000-EG-PE-RPT-MMAH-0001

Date: 16-Oct-2024

Rev: A01

**Approved**  
Mr Malcolm Etherington Oct 29 2024 7:19 AM

Ma'aden Phosphate 3 - Phase 1			
NAME	TITLE	SIGN	DATE

REVIEW GRADE

Result	Code	Description
<input checked="" type="checkbox"/>	A	Accepted
<input type="checkbox"/>	C	Proceed with exceptions to next Submission and Revision
<input type="checkbox"/>	R	Do Not Proceed - Revise as noted and Resubmit
<input type="checkbox"/>	I	For Information

Acceptance in any of these categories in no way relieves the Contractor/Supplier of its responsibility for the due and proper performance of the Works in accordance with the Contract/Purchase Order.

PROJECT MANAGER SIGN-OFF:

NAME	DATE

Document Number: MD-522-1000-EG-PE-RPT-MMAH-0001  
Revision: A01  
Approved  
Mr Malcolm Etherington - Worley  
Oct 29, 2024, 7:20 AM GMT+3:00

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PROPRIETARY & CONFIDENTIAL

Client: 	PROJECT: <b>PROGRAM 3 - AL KHOBAR ENTERTAINMENT DEVELOPMENT - 3KHOB01</b>	 SAUDI BINLADIN GROUP CONTRACTING
Project Management Consultant: 	LOCATION: <b>AL KHOBAR COMPLEX</b>	Project No. 55002650
Cost Consultant Management: 	CONTRACT REFERENCE NO. 1394-8-2023	Doc. No. 3KHOB01-KHOB-07-SBG-CC-MES-00021
Supervision Consultant: 	DOCUMENT TITLE: Method Statement for Zone Load Test (ZLT)	Rev. B
		CRS No. 3KHOB01-KHOB-07-SBG-CC-CRS-00232
		Date: 04 <sup>th</sup> May 2025
		Page 1 of 84



  

<b>CONTRACT TITLE:</b>
<b>PROGRAM 3 – AL KHOBAR ENTERTAINMENT DEVELOPMENT – 3KHOB01</b>
<b>DOCUMENT TITLE:</b>
<b>Method Statement for Zone Load Test (ZLT)-In Situ CBR</b>

	<b>Saudi Binladin Group</b>
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Template No.: 3KHOB01-KHOB-08-QM-TEP-00005\_00\_Contractor Submittal Cover page\_240721

Client: 	PROJECT: <b>PROGRAM 3 - AL KHOBAR ENTERTAINMENT DEVELOPMENT - 3KHOB01</b>	 SAUDI BINLADIN GROUP CONTRACTING
Project Management Consultant: 	LOCATION: <b>AL KHOBAR COMPLEX</b>	Project No. 55002650
Cost Consultant Management: 	CONTRACT REFERENCE NO. 1394-8-2023	Doc. No. 3KHOB01-KHOB-07-SBG-CC-MES-00022
Supervision Consultant: 	DOCUMENT TITLE: Method Statement for Compaction by Dynamic Replacement	Rev. A
		CRS No. 3KHOB01-KHOB-07-SBG-CC-CRS-00175
		Date: 7 <sup>th</sup> December 2024
		Page 1 of 50




  

<b>CONTRACT TITLE:</b>
<b>PROGRAM 3 – AL KHOBAR ENTERTAINMENT DEVELOPMENT – 3KHOB01</b>
<b>DOCUMENT TITLE:</b>
<b>Method Statement for Compaction by Dynamic Replacement</b>

	<b>Saudi Binladin Group</b>
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Template No.: 3KHOB01-KHOB-08-QM-TEP-00005\_00\_Contractor Submittal Cover page\_240721

		
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Project: MA'ADEN PHOSPHATE 3-PHASE 1

Title: **Method of Statement for Trial Area Soil Compaction Works By Dynamic Compaction/Dynamic Replacement (DC/DR) - RAK**

Number: MD-522-1500-CN-CV-MST-MMAH-0014

Date: 29-May-2024

Rev: A01

	<b>Ma'aden Phosphate 3 – Phase 1</b>		
NAME	TITLE	SIGN	DATE
<b>REVIEW GRADE</b>			
Result	Code	Description	
<input type="checkbox"/>	A	Accepted	
<input type="checkbox"/>	C	Proceed with exceptions to next Submission and Revision	
<input type="checkbox"/>	R	Do Not Proceed - Revise as noted and Resubmit	
<input type="checkbox"/>	I	For Information	
Acceptance in any of these categories in no way relieves the Contractor/Supplier of its responsibility for the due and proper performance of the Works in accordance with the Contract/Purchase Order.			
<b>PROJECT MANAGER SIGN-OFF:</b>			
NAME		DATE	

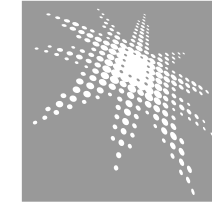
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AND TRANSPORT



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معدن  
MAADEN

DP WORLD

سابك  
sabk

مجموعة روشن  
ROSHN GROUP

نيوم  
NEOM

Qiddiya

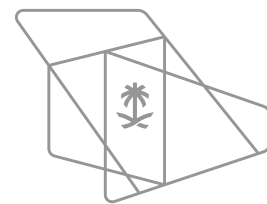
SEVEN  
SAUDI  
ENTERTAINMENT  
VENTURES

ألدار  
ALDAR

NHC

LARSEN & TOUBRO

الهيئة الملكية  
للجبل وينبع  
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**Terra Firma Foundation Contracting**

Office 114 & 008, Digital Park A1, Silicon Oasis

P.O. Box 341101, Dubai - UAE

+971 4 388 8453

[info@terrafirmaage.com](mailto:info@terrafirmaage.com)

[www.terrafirmaage.com](http://www.terrafirmaage.com)