

DEEP FOUNDATIONS

FROM START TO FINISH

Drilling and casting of drilled shafts, pile driving, micropiles and rigid inclusions. Our own machinery and equipment, with more than 30 years of experience across our management and technical teams.



alianzaparagon.com



30+

YEARS OF EXPERIENCE

20

OUR OWN DRILLING RIGS

8

SPECIALTIES

SPECIALTIES

DEEP FOUNDATIONS

CAST-IN-PLACE DRILLED SHAFTS

RIGID INCLUSIONS

PILE DRIVING

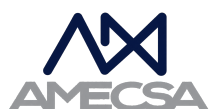
MICROPILES

WELL DRILLING

REBAR FABRICATION

EARTHWORKS

GROUP COMPANIES



DOCUMENT INDEX

Company profile of Alianza A|CP Cimentaciones Paragón and the companies with which it maintains partnerships and commercial alliances.

ALIANZA A CP CIMENTACIONES PARAGÓN		DEEP FOUNDATIONS
About us and services	3	
Mission, vision and objective · nationwide coverage	4	
Portfolio · featured projects	5	
Portfolio · completed projects	20	
Operating capacity · our own machinery and equipment	23	
Contact information	38	
TREC TECNOLOGÍA EN CIMENTACIÓN, S.A. DE C.V.		COMMERCIAL AND OPERATING PARTNER
Introduction	24	
About us and services	25	
Completed projects	26	
Projects in progress and operating capacity	27	
Equipment and project gallery	28	
Contact information	31	
GRUPO LCI · MECHANICALLY STABILIZED EARTH WALLS		COMMERCIAL ALLIANCE
Introduction · Humus Stabilis patent	32	
MSE wall system and benefits	33	
Specialty and completed projects	34	
Project gallery	35	
Contact information	37	

SPECIALISTS IN DEEP FOUNDATIONS

We work with our own machinery and equipment, applying the construction techniques and processes suited to each soil and project. We provide personalized advice at the start, throughout construction and upon completion, delivering within the agreed schedule.

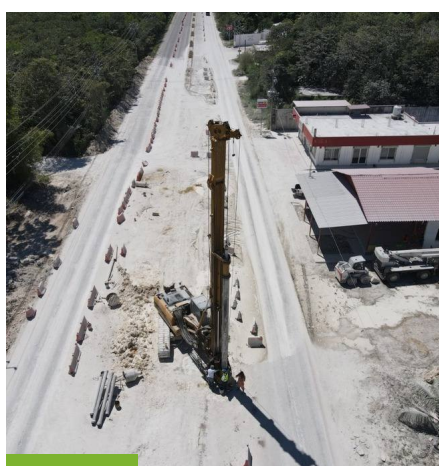
SERVICES

01 Deep foundations	02 Construction of drilled shafts and piles
03 Pile drilling and driving	04 Drilling, reinforcement placement and concrete casting of drilled shafts
05 Well drilling	06 Use of temporary and permanent casings
07 Micropiles and inclusions	08 Fabrication and placement of reinforcing steel for drilled shafts, footings, columns, pile caps, bearing seats and diaphragms



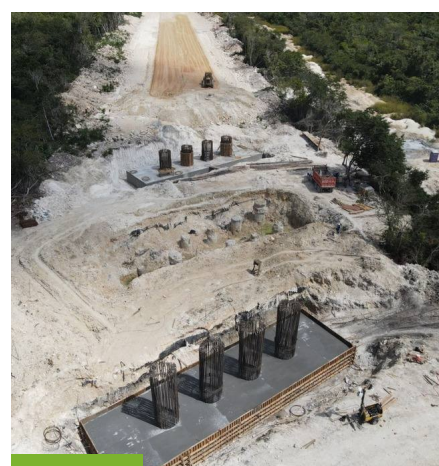
BEAM DESIGN AND SUPPLY

Structural design, plant fabrication and delivery of prestressed concrete beams, including loading, specialized transport and installation on pier caps and neoprene bearings.



COMPLETE FOUNDATION WORKS

Complete execution of deep foundation works: drilling with temporary casing, fabrication and lowering of reinforcement, tremie concrete placement, surveying and quality control for each element.



REBAR FABRICATION AND CONCRETE PLACEMENT

Fabrication and assembly of footings, pedestals and pile caps; reinforcing cages, anchor bolts and base plates; concrete placement using steel or timber formwork, vibration and controlled curing.

MISSION, VISION AND OBJECTIVE

MISSION

To provide services that uphold the highest principles of professional ethics, applying all our experience and the most advanced techniques to achieve objectives that lead to a fully satisfactory relationship.

"A satisfied client is our greatest recognition."

VISION

Maintain a continuous strategy for qualitative development through staff motivation, ongoing research and constant training, supported by our safety policies and quality philosophy. Add value to projects through appropriate materials and our own machinery.

"Motivation leads to success."

OBJECTIVE

Provide excellent service through personalized advice at the start, throughout construction and upon completion; deliver quality work with qualified personnel and execute projects within the agreed schedule, ensuring a prompt response to our commitments.

"Projects delivered on time and as agreed."

COVERAGE

NATIONWIDE PRESENCE

Our own machinery and equipment, mobilized throughout Mexico, from Tijuana to Cancún.

32

STATES SERVED OR AVAILABLE
FOR CONSTRUCTION



PUENTE EL CONEJO

OAXACA

IN PROGRESS

Construction of 30 drilled shafts, 1.50 m in diameter and 18 m deep, using stabilizing polymer at Puente El Conejo, Oaxaca. Steel casing, 1.60 m in diameter and 8 m long, lifted by crane and driven by the drilling rig itself.

30

DRILLED SHAFTS

1.50 m

SHAFT DIAMETER

18 m

DEPTH



POLYMER STABILIZATION · DEEP FOUNDATIONS

PUENTE SAN JUAN

HIDALGO

IN PROGRESS

Foundation shafts drilled using stabilizing polymer to support the borehole, with concrete placement and lifting of reinforcement cages for the bridge foundations.

8

DRILLED SHAFTS

1.20 m

SHAFT DIAMETER

4.50 m

DEPTH



STABILIZING POLYMER · CONCRETE PLACEMENT · LIFTING OF REBAR CAGES

PUENTE GARCÉS

HUAUTLA, HIDALGO

Drilled shafts constructed with bentonite slurry to stabilize the boreholes, with an on-site slurry mixing and recirculation plant, working inside the excavation at the foot of the existing bridge.

33

DRILLED SHAFTS

1.20 and 1.50 m

SHAFT DIAMETERS

10 m

DEPTH



BENTONITE SLURRY · ON-SITE MIXING PLANT · EXCAVATION AT THE FOOT OF THE BRIDGE

REMODELACIÓN SÚPERISSSTE

CANCÚN, QUINTANA ROO

Deep foundations for the store renovation: 120 drilled shafts in three diameters according to the structural element, constructed on an urban site with several drilling rigs operating simultaneously to meet the project schedule.

120

DRILLED SHAFTS

0.80 · 1.00 · 1.20 m

SHAFT DIAMETERS

12 m

DEPTH



THREE DIAMETERS · SIMULTANEOUS RIG OPERATIONS · URBAN SITE

PILOTES CON POLÍMERO LA PITAHAYA

EJIDO LA PITAHAYA, SAN LUIS POTOSÍ · GRUPO VISE

Large-diameter piles drilled with stabilizing polymer and steel casings installed using a vibratory driver: 1.60 m casings for 1.50 m piles and 2.10 m casings for 2.00 m piles, within a riverbed and with water-level control during construction.

24

FOUNDATION PILES

1.50 and 2.00 m

PILE DIAMETERS

18 m

DEPTH



STABILIZING POLYMER · 1.60 AND 2.10 m CASINGS · VIBRATORY DRIVER · RIVERBED WORK

PILOTES EJIDO LA PITAHAYA

CONSTRUCCIONES URALES

Cast-in-place foundation piles with permanent casings and flowable concrete placed by pumping, 1.80 m in diameter and 18 m deep, with crane support for lifting and lowering the rebar cages.

50

FOUNDATION PILES

1.80 m

PILE DIAMETER

18 m

DEPTH



PERMANENT CASING · FLOWABLE CONCRETE · PUMPED CONCRETE PLACEMENT · CRANE LIFTING OF REBAR CAGES

NAVE INDUSTRIAL CARRETERA A MÉRIDA

CARRETERA A MÉRIDA · INDUSTRIAL BUILDING FOUNDATIONS

Drilled shafts for the industrial building foundations, using a prepared working platform and following the structural grid, progressing row by row to release work areas for reinforcement and concrete placement.

20

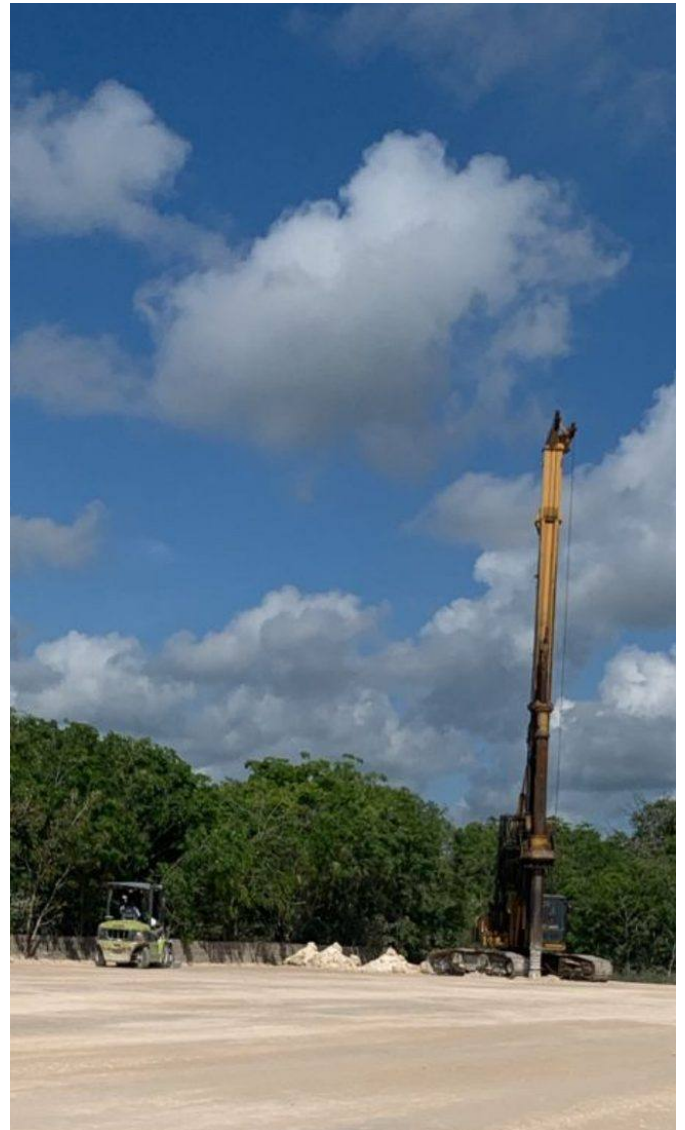
DRILLED SHAFTS

0.80 m

SHAFT DIAMETER

10 m

DEPTH



DRILLING ALONG THE STRUCTURAL GRID · WORKING PLATFORM · INDUSTRIAL CONSTRUCTION

TREN MAYA TRAMO 5 SUR

QUINTANA ROO · GRUPO INDI

Large-diameter, deep drilled shafts at the foot of the Tren Maya viaduct: drilling, fabrication and lowering of reinforcement and concrete placement, with the elevated section in operation and coordinated handling beneath the track.

6

DRILLED SHAFTS

1.70 m

SHAFT DIAMETER

25 m

DEPTH



DEEP DRILLING · WORK BENEATH AN OPERATING VIADUCT · CAST-IN-PLACE CONCRETE · GRUPO INDI

SUBESTACIÓN CFE MAHAHUAL

MAHAHUAL, QUINTANA ROO

Large-diameter drilled shafts for the electrical substation foundations, using the cloverleaf method: overlapping bores made with smaller-diameter tools to form the design section in limestone, followed by reinforcement and concrete placement.

5

DRILLED SHAFTS

2.00 m

SHAFT DIAMETER

15 m

DEPTH



CLOVERLEAF METHOD · OVERLAPPING BORES IN ROCK · ELECTRICAL SUBSTATION · CFE

PILAS TRONCOCÓNICAS PARA CFE

CELAYA, GUANAJUATO

Deep foundations for Comisión Federal de Electricidad infrastructure: drilling with temporary casing, fabrication and lowering of reinforcement, and concrete casting of large-diameter tapered shafts.

53

TAPERED DRILLED SHAFTS

2.00 · 2.20 · 2.40
2.60 · 2.80 · 3.00 m

SHAFT DIAMETERS

20 m

DEPTH



CASED DRILLING · LARGE DIAMETERS · ELECTRICAL INFRASTRUCTURE · SUNWARD SA 20/70

LÍNEA DE TRANSMISIÓN **GARRA DE JAGUAR**

PLAYA DEL CARMEN, Q. ROO · CFE

Foundations for six transmission-line towers: four legs per tower and four bores per leg, totaling 96 bores in limestone, including access clearing and working platforms within the forest.

96

DRILLED SHAFTS

1.80 m

BOREHOLE DIAMETER

10 m

DEPTH



4 BORES PER LEG · 96 IN TOTAL · ROCK DRILLING · FOREST ACCESS · CFE

PUENTE VALLE DE LOS FANTASMAS

SAN LUIS POTOSÍ, S.L.P.

Deep foundations for the road bridge: drilling, fabrication and lowering of reinforcing steel, and concrete casting of drilled shafts, with traffic maintained and restricted handling beneath the existing overpass.

65

DRILLED SHAFTS

1.50 m

SHAFT DIAMETER

18 m

DEPTH



DRILLING · FABRICATION AND LOWERING OF REINFORCEMENT · SHAFT CASTING · TRAFFIC MAINTAINED

PILAS TAMAZUNCHALE

TAMAZUNCHALE, SAN LUIS POTOSÍ

Roadside drilled shafts: drilling, fabrication and lifting of long rebar cages, and cast-in-place concrete, with coordinated drilling-rig and excavator operations for cage handling.

10

DRILLED SHAFTS

1.20 m

SHAFT DIAMETER

16 m

DEPTH



LIFTING OF LONG REBAR CAGES · SOILMEC R-210 · ROADSIDE WORK

COYUCA DE BENÍTEZ

GUERRERO · LARGE-DIAMETER SHAFTS WITH PERMANENT CASING

Large-diameter drilled shafts at the foot of the existing bridge: drilling with permanent casing to support the borehole in a riverbed containing cobbles and sand, with handling supported from the roadway above and continuous work during the rainy season.

50

DRILLED SHAFTS

1.80 and 2.00 m

SHAFT DIAMETERS

20 m

DEPTH



PERMANENT CASING · LARGE DIAMETERS · RIVERBED AND BRIDGE-BASE WORK · HANDLING FROM THE ROADWAY

CORREDOR INTEROCEÁNICO LÍNEA K

ISTMO DE TEHUANTEPEC · CHIAPAS

Foundation piles for structures on Línea K of the Corredor Interoceánico: drilling with temporary casing in soils containing cobbles and gravel, using two diameters according to the structure, with work fronts distributed along the railway alignment.

250

FOUNDATION PILES

1.20 and 1.50 m

PILE DIAMETERS

15 m

DEPTH



RAILWAY WORKS · TEMPORARY CASING · COBBLE AND GRAVEL SOILS · WORK FRONTS ALONG THE ALIGNMENT

LIBRAMIENTO CUAUTLA

CUERNAVACA, MORELOS · GRUPO VISE

Deep foundations for the highway bypass: drilling and concrete casting of shafts with diameters varying by structural element, constructed on slopes and beside the roadway with traffic maintained and several rigs operating simultaneously.

40

DRILLED SHAFTS

0.80 to 1.50 m

SHAFT DIAMETERS

12 m

DEPTH



VARIABLE DIAMETERS · SLOPE WORK · TRAFFIC MAINTAINED · SIMULTANEOUS WORK FRONTS

COMPLETED PROJECTS

Railway, urban road, airport and hotel projects: drilled shafts, rigid inclusions, pile driving and associated earthworks.



RAILWAY WORKS

Tren Maya · Frente Catenarias

Drilling for overhead-line mast foundations on sections 5 Norte (Cancún–Playa del Carmen Norte), 6 (Tulum–Bacalar) and 7 (Bacalar–Escárcega).

200 bores · dia. 0.60, 0.80 and 1.00 m · depth 10 m

Q. ROO / CAMPECHE · SECTIONS 5, 6 AND 7

2024



RAILWAY WORKS

Tren Maya · Catenarias sobre balasto

Foundation drilling along the right-of-way with a crawler-mounted rotary rig and restricted handling beside the track.

200 bores · dia. 0.40, 0.60 and 0.80 m · depth 8 m

Q. ROO / CAMPECHE · OVERHEAD-LINE WORK FRONT

2024



RIGID INCLUSION

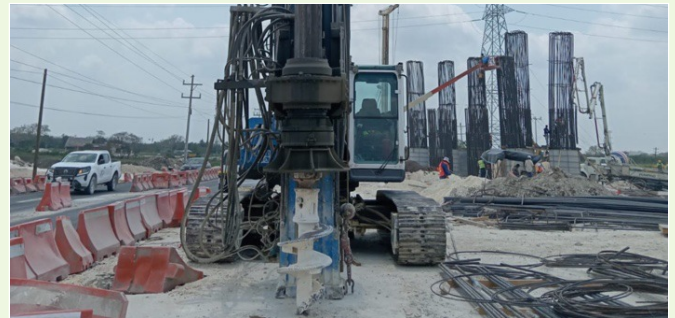
Tren Maya · Frente inclusiones Belice

Construction of rigid inclusions to improve the foundation ground along sections 5, 6 and 7 of the Tren Maya corridor.

300 inclusions · dia. 0.40, 0.60, 0.80 and 1.00 m · depth 10 m

Q. ROO / CAMPECHE · GROUND IMPROVEMENT

2024



RIGID INCLUSION

Tren Maya · Frente inclusiones Eric Paolo

Rigid inclusions installed using a Soilmec R-412 rig in an urban area, with operations beneath power lines and vehicle traffic protection.

200 inclusions · dia. 0.40, 0.60, 0.80 and 1.00 m · depth 10 m

Q. ROO / CAMPECHE · SOILMEC R-412

2024



RIGID INCLUSIONS

Tren Maya · Frente inclusiones Expofer

Rigid inclusions in forest and earthwork sections, using a rig with a tall mast to reach the design depths.

200 inclusions · dia. 0.40, 0.60, 0.80 and 1.00 m · depth 10 m

Q. ROO / CAMPECHE · EXPOFER WORK FRONT

2024



RIGID INCLUSIONS

Tren Maya · Expofer, frente de plataforma

Continuous-flight auger drilling on a prepared platform, with borehole collar protection and positioning control at each point.

100 bores · dia. 0.80 and 1.00 m · depth 15 m

Q. ROO / CAMPECHE · YUTONG YTR

2024



URBAN ROADS

Proyecto Integral Paseo 5 de Febrero

Drilled shafts with reinforcement lowering and concrete placement. Night work with traffic maintained.

243 bores · dia. 1.00, 1.20 and 1.50 m · depth 18 m

QUERÉTARO, QRO. · CAST-IN-PLACE DRILLED SHAFTS

2023



PILE DRIVING

Pile driving

Pile driving with ICE 812 and APE 200-6/700 vibratory drivers, suitable for concrete piles, sheet piles and steel sections.

OUR OWN EQUIPMENT · ICE 812 · APE 200-6/700



EARTHWORKS

Topsoil grading

Stripping, grading and compacting topsoil with a motor grader and vibratory roller, supporting the foundation work fronts.

MOTOR GRADER · VIBRATORY ROLLER



ASSOCIATED WORKS

Material spreading in trenches

Trench excavation, material spreading and backfilling with backhoe loaders, including work beside the track and in areas with restricted access.

BACKHOE LOADERS · TRENCHERS

MACHINERY AND EQUIPMENT

Group inventory, including AMECSA equipment.

01 DRILLING RIGS

20 units in inventory

- Sunward SA 20/70
- Yutong YTR 150
- Soilmec R-412, R-312 and RT3E
- Casagrande B175XP, B125XP and B100XP
- Maicat MC180
- Tescar SF 35 and CF 3
- Texoma 950
- EZ 90-52
- Sany SR-150C
- Soilmec SR45 · 3
- Soilmec SR50 · 1
- Soilmec SR60 · 1
- Bauer BG20H · 1

02 CRANES AND VIBRATORY DRIVERS

17 units in inventory

- Lorain CD118 crane
- P&H 5576 crane
- Link Belt LS108 and LS98 cranes
- ICE 812 vibratory driver
- APE 200-6/700 vibratory driver
- Mitsubishi M-25 and M-15 pile hammers
- Link Belt LS-118 · 2
- Terex RT-780 · 1
- Terex RT555-1 · 1
- Grove 600-E · 1
- Terex AC-350 · 2
- Peterbilt (Titán) · 1
- HIAB EP-3CLX · 1

03 EXCAVATORS AND BACKHOES

12 units in inventory

- Komatsu PC 450 LC
- Caterpillar 336D2L, 336DL, 320GX, 320DL and 416F2
- John Deere 210 C, 210 G, 310J and 310G
- Case 580 N
- JCB 3CX

04 TRENCHERS AND TRUCKS

8 units in inventory

- Ditch Witch RT-115 and RT-110 (wheel)
- Vermeer RTX1250 and C306 (wheel)
- Trenchor 860C and 660B (chain)
- 1996 Peterbilt drilling truck
- 1992 Dunham MP225E drilling truck

05 EARTHWORKS

- Caterpillar 12H motor grader
- Dynapac CA250 and CA2500D vibratory rollers
- Caterpillar D6 dozers

06 TOOLS

- Augers in various diameters
- Drilling buckets in various diameters
- Core barrels in various diameters
- Clay buckets in various diameters
- Tremie pipes for concrete placement
- Temporary and permanent casings
- Hunan FAE FASB 606 · 1 (pile breaker)

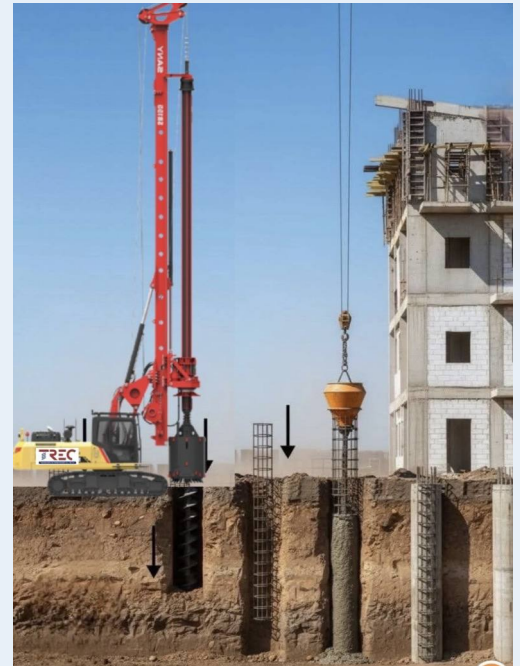
07 HYDRAULIC BREAKERS

- Hydraulic breakers

FOUNDATION TECHNOLOGY

TREC, S.A. DE C.V.

Deep foundations, cast-in-place shafts, micropiles and soakaway wells. Our own machinery and equipment, with over 20 years of construction experience.



20+

YEARS OF EXPERIENCE

7

OUR OWN DRILLING RIGS

26

FOUNDATION WORKS

SPECIALTIES

DEEP FOUNDATIONS

CAST-IN-PLACE DRILLED SHAFTS

MICROPILES

SOAKAWAY WELLS

REBAR FABRICATION

COMMERCIAL AND OPERATING ALLIANCE



ALIANZA A|CP CIMENTACIONES PARAGÓN® · TREC TECNOLOGÍA EN CIMENTACIÓN

COMMERCIAL AND OPERATING PARTNER IN DEEP FOUNDATIONS

Alianza A|CP Cimentaciones Paragón maintains a commercial and operating partnership with TREC Tecnología en Cimentación, S.A. de C.V. Under this arrangement, both companies jointly undertake deep foundation projects nationwide, combining machinery, tools, technical staff and response capacity to serve several work fronts simultaneously.

The alliance provides the client with a single point of contact at the start, throughout construction and upon completion, backed by both parties' own equipment and continuity of execution when required by the schedule. TREC's company profile follows.

TREC AT A GLANCE

TREC Tecnología en Cimentación, S.A. de C.V. is a wholly Mexican-owned company based in Durango, Dgo., with personnel bringing more than 20 years of industry experience and trained staff holding DC-3 certification. Its aim is to offer enhanced technology, quality and service in the national deep foundation drilling market.

SERVICES

01 Deep foundations	02 Cast-in-place drilled shafts
03 Micropiles	04 Soakaway wells
05 Well drilling to depths of 80 m	06 Sale of bagged bentonite
07 Rebar fabrication for piles, columns, beams, pedestals, walls and footings	08 Rental of crawler- and wheel-mounted drilling rigs for small and large diameters
09 Cranes for lifting operations up to 25 tonnes	

COMPLETED PROJECTS

Deep foundation projects completed by TREC Tecnología en Cimentación in different states across the country.

- **Puente La Comanjilla**
140 drilled shafts in Type II and III material · León, Gto.
- **Edificio Adamant Campestre**
Drilled shafts.
- **Postes y antenas CFE**
43 drilled shafts · Saltillo, Coah.
- **Nave industrial Torreón**
90 drilled shafts · Torreón, Coah.
- **Pozos de absorción ISSSTE**
45 wells · Texcoco, Estado de México.
- **Edificio Arcángeles**
68 drilled shafts · Durango, Dgo.
- **Torre Mazarik ABA Center**
72 drilled shafts · Aguascalientes, Ags.
- **Puentes deprimidos 5 de Febrero**
243 drilled shafts · Querétaro, Qro.
- **ITCO**
54 drilled shafts · Gómez Palacio, Dgo.
- **Torre Kioto**
65 drilled shafts · Culiacán, Sin.
- **Hospital ISSSTE Torreón**
280 drilled shafts · Torreón, Coah.
- **Agencia Geenly**
45 drilled shafts · Durango, Dgo.
- **Hulmaq**
60 drilled shafts · Durango, Dgo.
- **Corredor Interoceánico**
30 drilled shafts · Chiapas.
- **Caterpillar Trebotti**
135 drilled shafts · Torreón, Coah.
- **Amistad**
110 drilled shafts, pedestal and footing construction · Torreón, Coah. and Saltillo.
- **Salón de eventos Fortana**
28 drilled shafts · Torreón, Coah.
- **Rastro Long Beef**
322 drilled shafts · Francisco I. Madero, Coah.
- **Cemex, puente aeropuerto**
20 drilled shafts · Guadalajara, Jal.
- **Buhler Amistad**
95 drilled shafts · Torreón, Coah.
- **Nave Arizlu Trebotti**
Drilled shafts · Acatlán, Jal.

PROJECTS IN PROGRESS

Hospital ISSSTE Oaxaca de Juárez

432 drilled shafts, 103 soakaway wells and rebar fabrication.

Hospital ISSSTE Chetumal, Q. Roo

Expansion: 35 drilled shafts and rebar fabrication.

Puentes de libramiento Sabinas

67 drilled shafts · Sabinas, Coah.

Puente Tuxtepec

12 drilled shafts · Tuxtepec, Oax.

Top Park Laguna, nave industrial

35 drilled shafts.

OUR MACHINERY AND EQUIPMENT

DRILLING RIGS

7

- Tescar CF3 · crawler-mounted
- Texoma 950 · wheel-mounted
- Sany SR-150C · crawler-mounted (2 rigs)
- Sany SR-155C · crawler-mounted
- Soilmec SR-20 · crawler-mounted
- Soilmec STM-20 · truck-mounted

DRILLING TOOLS

- Augers in various diameters
- Clay buckets and core barrels
- Tremie pipes for concrete placement

SUPPORT EQUIPMENT

- Cranes for lifting operations up to 25 tonnes
- Bentonite slurry mixing plants
- Utility vehicles
- Welding units

GALLERY OF EQUIPMENT AND PROJECTS

TREC's own equipment for drilling, lifting operations and rebar fabrication.



DRILLING RIGS

Texoma 950

Wheel-mounted drilling rig working on site alongside rebar fabrication.



DRILLING RIGS

Soilmec STM-20

Truck-mounted drilling rig for work fronts requiring rapid relocation.



LIFTING OPERATIONS

P&H 22-tonne crane

Our own crane for lifting rebar cages and handling operations in the yard and on site.



REBAR

Rebar fabrication

On-site assembly of reinforcing cages before lifting and concrete casting of the shafts.



DRILLING RIGS

Sany SR-150C

Crawler-mounted drilling rig for large-diameter shafts.



DRILLING RIGS

Sany SR-150C

Rig assembly and positioning at an urban work front.



DRILLING RIGS

Sany SR-155C

Crawler-mounted drilling rig with greater mast reach.



DRILLING RIGS

Soilmec SR-20

Crawler-mounted drilling rig for shafts and micropiles.



DRILLING SLURRY

Bentonite plant

On-site mixing and recirculation of bentonite slurry to stabilize the boreholes during shaft concreting.



REBAR

Reinforcement placement

Crane lifting and lowering of long rebar cages using our own equipment.

RESPONSE CAPACITY

TREC has its own machinery, tools, slurry plant and personnel, enabling it to open and sustain several work fronts simultaneously throughout the country.

“Foundations in action”

Deep foundations from start to finish: drilling, fabrication and lowering of reinforcement, shaft concreting and associated works.

CONTACT INFORMATION

LEGAL COMPANY NAME

TREC Tecnología en Cimentación,
S.A. de C.V.

PHONE

618 134 57 58

EMAIL

treccimentaciones@gmail.com

ADDRESS

La Salle # 613
Durango, Dgo.

COVERAGE

Nationwide

SPECIALTY

Deep foundations,
micropiles and
soakaway wells



"FOUNDATIONS IN ACTION"

We would welcome the opportunity to be considered for your deep foundation projects throughout the country.

LIC. PEDRO NEVÁREZ ORTEGA
GENERAL MANAGEMENT

ALLIANCE CONTACT



ALIANZA A|CP CIMENTACIONES PARAGÓN®

(998) 185 0956 · (999) 119 3982
patoparagon@gmail.com · consorcioparagon@gmail.com



GRUPO **LCI**

COMPANY PROFILE

COMMERCIAL ALLIANCE

MECHANICALLY STABILIZED EARTH WALLS

HUMUS STABILIS PATENT

Earth retention system using precast concrete panels and reinforcement, as an alternative to reinforced concrete and masonry walls.



PIV 104 CHETUMAL · QUINTANA ROO

MSE

EARTH RETENTION

5

MSE WALL TYPES

7

PROJECTS IN THE PORTFOLIO

WALL TYPES

CONVENTIONAL MSE

MSE WITH SLOPE

FLOODABLE OR
SUBMERGED MSE

ABUTMENT OR BRIDGE MSE

INVERTED OR
CANTILEVER MSE

COMMERCIAL ALLIANCE



COMMERCIAL ALLIANCE · GRUPO LCI, HUMUS STABILIS PATENT

MSE WALL SYSTEM HUMUS STABILIS PATENT

Alianza A|CP Cimentaciones Paragón maintains a commercial alliance with Grupo LCI, holder of the Humus Stabilis patent for Mechanically Stabilized Earth Walls. This is a strictly commercial relationship: Grupo LCI carries out earth retention and embankment stabilization work using its own personnel and equipment, while the Alianza handles deep foundations.

Mechanically stabilized earth (MSE) walls are retaining structures that combine reinforcement and facing panels to retain soil. Their rapid assembly and design flexibility make them an alternative to concrete and masonry walls. Their use is determined by ground conditions and the requirements of each project.

CONSTRUCTION PROCESS

01

Preparation

Site setting-out and leveling.

02

Facing assembly

Fabrication and installation of precast concrete panels.

03

Reinforcement placement

Final positioning of reinforcement to ensure soil retention.

SYSTEM BENEFITS

01

Cost efficiency

Quick-to-install precast components reduce construction costs.

02

Ease of installation

No special equipment required; guidance and installation by trained personnel.

03

Less site preparation

Minimal site preparation saves time and accelerates construction.

04

Confined spaces

A small operating area is required, making the system suitable for urban sites and limited rights-of-way.

05

Seismic resistance

Flexible structures that accommodate deformation without requiring rigid foundations.

06

Design versatility

Panels adapt to various architectural shapes and finishes.

CONSTRUCTION, SPECIALISTS AND TECHNICAL ADVICE

Experience in Mechanically Stabilized Earth Walls, embankment stabilization and gabion walls, with capabilities in engineering, fabrication, assembly and construction of stabilized embankments.

Construction

Complete MSE wall construction: engineering, fabrication, assembly and construction of the stabilized embankment.

- Conventional MSE
- MSE with slope
- Floodable/submerged MSE
- Abutment/bridge MSE
- Inverted/cantilever MSE
-

Specialists

Each project is analyzed to provide the most appropriate technical advice.

- MSE walls
- Embankment stabilization
- Laboratory testing
- PANDA testing
- Geotechnical studies
-
-

Technical advice

Trained personnel for:

- Engineering
- Supervision
- Labor
- Equipment operators
- MSE wall specialist
-

PROJECTS USING HUMUS STABILIS

PIV 104 Chetumal

Quintana Roo

PIV 104 Mérida

Yucatán

Rampas DV AIFA

Estado de México

DV Toyota Apaseo el Grande

Guanajuato

PIV La Curva

Quintana Roo

PIV Belice

Quintana Roo

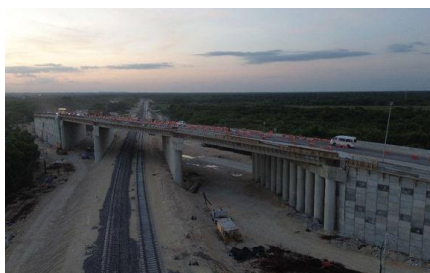
Parque Santa Fe

Ciudad de México

GALLERY OF PROJECTS

Mechanically Stabilized Earth Walls built using the Humus Stabilis system.

PIV 104 CHETUMAL • QUINTANA ROO



PIV 104 MÉRIDA • YUCATÁN



RAMPAS DV AIFA • ESTADO DE MÉXICO



DV TOYOTA APASEO EL GRANDE · GUANAJUATO



PIV LA CURVA · QUINTANA ROO



PIV BELICE · QUINTANA ROO



PARQUE SANTA FE · CIUDAD DE MÉXICO



GENERAL INFORMATION

CONTACT INFORMATION

GROUP / BRAND

Grupo LCI

PHONE NUMBERS

221 153 1904

222 952 1954

EMAIL

proyectos@grupolci.org

WEBSITE

www.grupolci.org

SPECIALTY

Mechanically Stabilized
Earth Walls

SYSTEM

Humus Stabilis patent

Grupo LCI

MECHANICALLY STABILIZED EARTH WALLS

HUMUS STABILIS PATENT

MECHANICALLY STABILIZED EARTH WALLS

Earth retention and embankment stabilization, offered as complementary services to the Alianza's deep foundation work.

®

ALLIANCE CONTACT

®

ALIANZA A|CP CIMENTACIONES PARAGÓN®

(998) 185 0956 · (999) 119 3982 · patoparagon@gmail.com

DEEP FOUNDATIONS

STRENGTH UNDERGROUND.

Drilled shafts · Driven piles · Micropiles · Rigid inclusions

THE TEAM BEHIND YOUR PROJECT.

OUR OWN MACHINERY, TOOLS AND CREWS

alianzaparagon.com



GENERAL INFORMATION

CONTACT INFORMATION

LEGAL COMPANY NAME

Alianza Cimentaciones Paragón®

PHONE NUMBERS

(998) 185 0956
(999) 119 3982

EMAIL

patoparagon@gmail.com
consorcioparagon@gmail.com
pga@alianzaparagon.com

COVERAGE

Nationwide
throughout Mexico

SPECIALTY

Deep foundations, rigid inclusions
and associated works



LET'S TALK ABOUT YOUR NEXT PROJECT

YOUR PROJECT. OUR TEAM.

From site preparation to foundations. Tell us the
scope of your next project.

DIRECT CONTACT

**Ing. Patricio
González Asfura**

999 119 3982

pga@alianzaparagon.com

alianzaparagon.com



VIEW MACHINERY