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CONTENTS
>30 PATENTS
>10,000 HA
>300 PROJECTS
>15 YEARS EXPERIENCE
OUR PROFILE

**GEOHARBOUR GROUP** is established in 2000 with significant time of research and development in soft soil treatment method. We are a global professional entity specialising in ground engineering including soil improvement, foundation, and marine engineering. Geoharbour Group is a Chief Editorial Unit of *Chinese Standard of Reclamation Soil Treatment* and a Directorate Body of *The Technical Committee of China Soft Soil Treatment*.

**GEOHARBOUR AUSTRALIA PTY LTD** has been established in 2016 and devoted ourself as an Engineering Procurement Construction (EPC) contractor. We are a member of Geoharbour Group.

Our group owns over 30 patents, is supported by more than 10 geotechnical PhD and has completed over 300 large-scale projects. We have treated soil of over 10,000 hectares including roadways, airport runways, land reclamation, power plants, port stack yards and factory buildings across the world. We are ISO9001, ISO14001, and OHSAS18001 certified.

MISSION and VISION

Geoharbour Australia Pty Ltd is always looking forward to develop the most advanced technology in soil improvement and implement them in our projects.

Our office started from Perth and will expand across Australia and New Zealand. With offices in Australia, China, Indonesia, India, Malaysia, Middle East, Myanmar, Singapore, Latin America and Vietnam, we work hard together to deliver optimum solution and first-rate service to our clients.
GH Overseas Development Companies

- Vietnam
- Singapore
- Myanmar
- Latin America

Finance Department
- Malaysia
- UAE
- New Zealand

Procurement Department
- Indonesia
- Thailand
- Australia

HRD

Projects Distribution:
- Malaysia
- Indonesia
- Thailand
- Vietnam
- Hong Kong
- Singapore
- China
- UAE
OUR SERVICES

INFORMATIVE CONSTRUCTION

CONSULTING

RESEARCH
Soil Improvement

DESIGN
Geotechnical Package Solution
Foundation Engineering
Municipal Engineering

INVESTIGATION
Geotechnical Design, Investigation, and Consulting
Dredging and Reclamation
SOIL IMPROVEMENT METHODS

HIGH VACUUM DENSIFICATION METHOD (HVDM)
- HVDM with Preloading
- HVDM with Composite Foundation
  - High Efficiency
  - Environment-friendly
  - Economically viable
  - Excellent QA & QC

METHODS
- DYNAMIC COMPACTION
- VIBROFLOTATION
- HIGH ENERGY ROLLER COMPACTOR
- DYNAMIC REPLACEMENT
- STONE COLUMN
- DEEP SOIL MIXING
- PREFABRICATED VERTICAL DRAIN (PVD)
- VACUUM PRELOADING
- SOIL NAILING
- PRESSURE GROUTING

Geoharbour is the patent(s) holder of HVDM(s), which are Surcharge Preloading Combining HVDM Patent No. ZL200410014257.9 and Composite Foundation Combining HVDM Patent No. ZL200510134966.5
High Vacuum Densification Method (HVDM)

HVDM is a fast soft soil treatment method. The method combines efforts of vacuum drainage and dynamic compaction in designated cycles, which leads the jobsite dewatered, densified and improved. The post-treatment (differential) settlement is thus mitigated.
Pipe Installation, *Palembang Indralaya Tollroad Project.*
SOIL IMPROVEMENT | AIRPORT
CHANGI TERMINAL 5

<table>
<thead>
<tr>
<th>Scope</th>
<th>PVD Installation Works, Deep Soil Mixing, and Vacuum Consolidation Works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>2014 - present</td>
</tr>
<tr>
<td>Location</td>
<td>Singapore</td>
</tr>
</tbody>
</table>

1. PVD installation rig
2. Construction site
3. Covering site using membrane

1  PVD installation rig
2  Construction site
3  Covering site using membrane
**SOIL IMPROVEMENT | POWER PLANT**  
**PLTU JAWA 7**

<table>
<thead>
<tr>
<th>Scope</th>
<th>Vacuum Consolidation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>2016 - present</td>
</tr>
<tr>
<td>Location</td>
<td>Java, Indonesia</td>
</tr>
<tr>
<td>Area</td>
<td>27 Ha</td>
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</table>
1 Material storage
2 Sand platform construction
3 Aerial view of Jawa 7 Project
4 Sealing trench construction of trial area
SOIL IMPROVEMENT | ROAD & HIGHWAY
PALEMBANG-INDRALAYA TOLL ROAD

<table>
<thead>
<tr>
<th>Scope</th>
<th>Vacuum Consolidation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>2015 - present</td>
</tr>
<tr>
<td>Location</td>
<td>Sumatra, Indonesia</td>
</tr>
<tr>
<td>Area</td>
<td>85 Ha</td>
</tr>
</tbody>
</table>
1,2,3  Aerial views of Palembang-Indralaya Toll Road

4  Site visitation of Jokowi, President of Indonesia
SOIL IMPROVEMENT | ROAD & HIGHWAY
NORTH-SOUTH EXPRESSWAY
Construction Project HCMC-Dau Giay Section, Package no.3

Client : Vietnam Expressway Corporation (VEC)
Scope : Vacuum Consolidation and Surcharge Loading
Year : 2011 - 2013
Location : Vietnam
1  Site
2  Horizontal drains
3  Membrane Placement
4  Membrane sealing in cut-off wall
5  Connection of PVD and horizontal drains
SOIL IMPROVEMENT | AIRPORT
SHANGHAI PUDONG 2ND RUNWAY

Scope : HVDM
Year : 2003
Location : Shanghai, China
1,2 Aerial views of Shanghai Pudong Airport
3 Dredging and reclamation
4 Drainage pipes
<table>
<thead>
<tr>
<th><strong>Scope</strong></th>
<th>Vibroflotation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
<td>2003</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>Shanghai, China</td>
</tr>
<tr>
<td><strong>Area</strong></td>
<td>170 Ha</td>
</tr>
</tbody>
</table>
1 Aerial View
2 Vibroflotation
## DEIRA ISLAND A DEVELOPMENT

<table>
<thead>
<tr>
<th>Client</th>
<th>Nakheel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope</td>
<td>Reclaimed area improvement by Vibroflotation</td>
</tr>
<tr>
<td>Status</td>
<td>Completed</td>
</tr>
<tr>
<td>Year</td>
<td>2014 - 2016</td>
</tr>
<tr>
<td>Location</td>
<td>Dubai, UAE</td>
</tr>
</tbody>
</table>

Construction site
<table>
<thead>
<tr>
<th>Client</th>
<th>MCC Overseas (M) Sdn Bhd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope</td>
<td>Bored Pile</td>
</tr>
<tr>
<td>Year</td>
<td>2016 - present</td>
</tr>
<tr>
<td>Location</td>
<td>Pulau Pinang, Malaysia</td>
</tr>
</tbody>
</table>

1. Construction site

2. Construction site
RESEARCH

SHANGHAI HARBOUR SOFT SOIL DESIGN & RESEARCH INSTITUTE

The Group founded Shanghai Harbour Soft Soil Design & Research Institute, with two academicians and more than a dozen professors from Tongji University, Hohai University, Zhejiang University, and PLA Logistics University, which is committed to elaborate the design concepts, specification and construction guidelines of current inventions. To further delve the mechanism of HVDM and advance complicated soft soil treatment, the company set up a scientific research base of 2 hectares to conduct pilot scale researches on development of HVDM and its equipments.

AUSTRALIAN RESEARCH COUNCIL LINKAGE PROJECT (LP160101254)

Geoharbour Australia, as a major Industry Partner, is working in collaboration with University of Wollongong, Infra Tech, the Australasian Centre for Rail Innovation (ACRI), Coffey Geotechnics and SMEC, on the ARC Linkage Project focusing on “Rail track stability - examine causes of ‘mud pumping’ and effectiveness of drainage”. Through an experimental program and field study, the mechanisms of mud pumping will be studied, and the role of vertically installed drains will be quantified for improved practical design. The project aims to contribute on improving track longevity and reducing maintenance costs, with a corresponding boost in rail productivity.

CERTIFICATIONS

AWARDS

The World 10th Bogsch Memory Medal 2012

Significant Innovative Enterpriser of Top 50 in China

Scientific and Technological Prize of China Harbor and Port Association

Shanghai Independent Innovation Top 10

Shanghai Science and Technology Medal

The Second Prize of Shanghai Invention Patent Award

The WIPO Award for Inventors 2012

The Green Invention Glory Medal 2012 (for fast processing method of HVDM)

The Gold Award for the Best International Invention, Special Prize, The Leading Innovation Award - Thailand Inventor’s Day 2014 (issued by NRCT & IIPNF)