



**We open up a new world of
dreams beyond limits.**

G R E A T

G R E E N

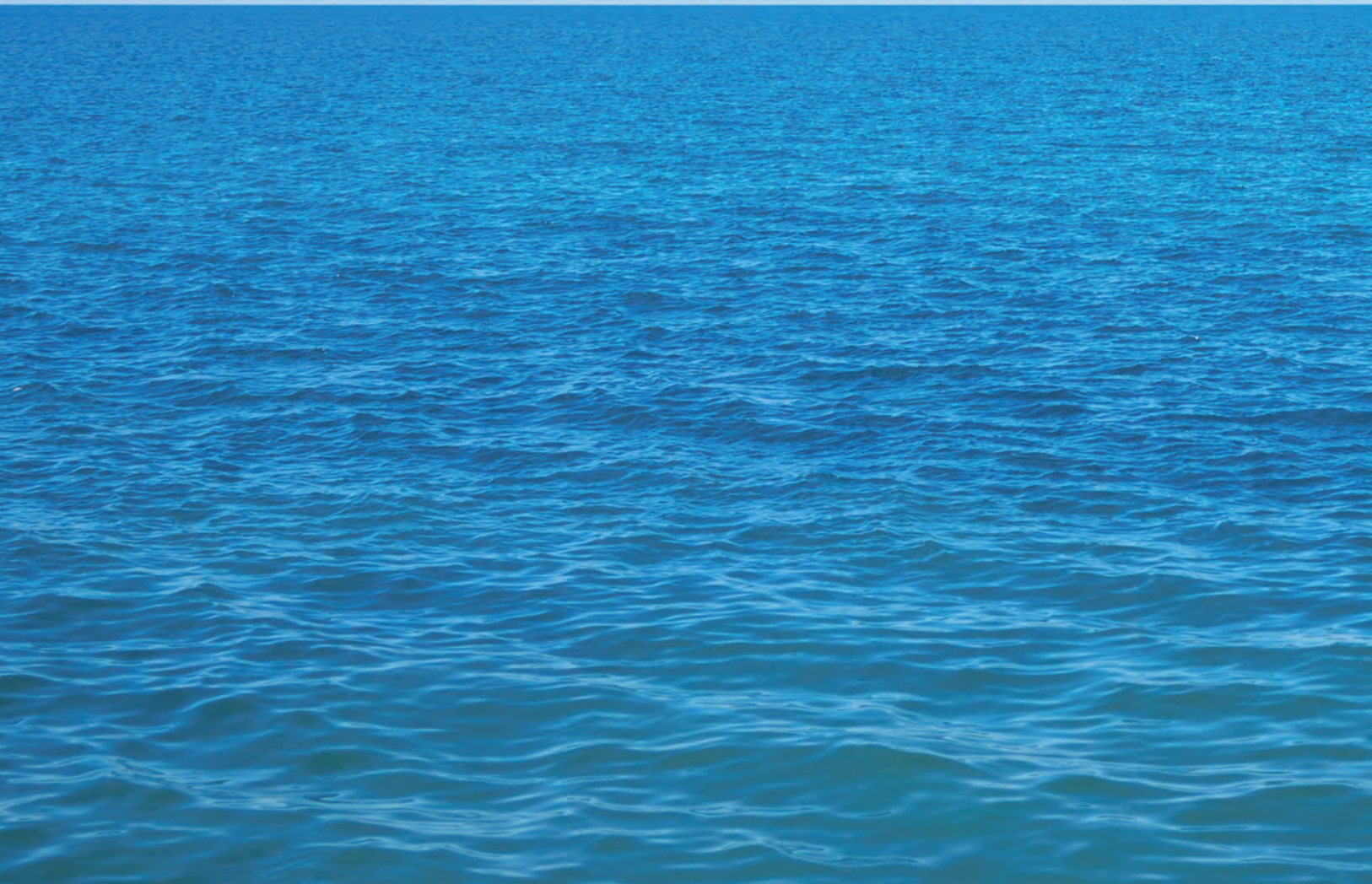
G L O B A L

DY Engineering, which began operations in 1980 with the great purpose of creating a better world through technology, has been a front-runner in the introduction of cutting-edge engineering to the fields of civil engineering for port and coastal structure, offshore plant, architecture, and construction.

Based on our reputation as the best engineering consultant firm in Korea. The reputation has been gained over decades of experience in areas of domestic port design and coastal development. DY is moving out onto the world stage and taking on expanded business opportunities.

BY ENGINEERING

DREAMS & JOY



The Technology of the Dream, Ties the World One – DY Engineering

DY Engineering attempts to bring harmony between technology and the needs of people in countries around the world to work toward a better future.

DY blends yesterday's experience with today's cutting edge technologies to successfully realize our clients' dreams for tomorrow.

PROJECT PERFORMANCE

PORT DEVELOPMENT DEPARTMENT

As a front runner in planning port facilities and related infrastructure, DY Engineering provides our clients with quality engineering consultation for development of ports and coastal areas, establishment of port-related information technology systems, creation of ocean cultural centers, etc.

GEOTECHNICAL DEPARTMENT

Geotechnical design services, based on various studies and tests, are provided to create a firm foundation for virtually any construction project around the world.

STRUCTURAL DESIGN DEPARTMENT

Based on our continuous efforts in technological development and our knowledge of civil engineering structures, we provide high quality investigation, planning, design, analysis, and safety assessment of structures.

NATIONAL LAND USE PLANNING DEPARTMENT

It is of vital importance to establish a spatial order and comprehensive system for efficient management of a nation's land, a very limited resource. Land use planning provides a blueprint for systematic development of land using green and sustainable technologies.

URBAN PLANNING DEPARTMENT

From development of the hinterland sections of ports, our business has expanded to the planning of port-related industrial complexes and even to development/redevelopment of large urban areas.

WATER AND SEWAGE SYSTEMS ENGINEERING DEPARTMENT

Our services range from overall design of water facilities for supplying residential and industrial water needs to extensive consultations and design for development and improvement to the urban living environment through treatment of waste water.

ENVIRONMENTAL ENGINEERING DEPARTMENT

We study and assess the various environmental impacts from planned construction projects so that the land can be developed in an efficient and environmentally-friendly way, maintaining a proper balance between development and conservation.

DISASTER PREVENTION & RISK ASSESSMENT DEPARTMENT

Prior review and analysis of the effects of possible disasters on facilities is an important process in protection and mitigation of damage from these disasters. We provide comprehensive contingency plans for port and coastal areas in cases of tsunamis, flooding, torrential downpours, typhoons etc.

OVERSEAS PROJECT DIVISION

Based on a wide range of marine and port related project experience in various countries over several decades, we can satisfy our clients' needs by offering integrated engineering services that separate us from our competitors, from technical support to project proposals and all those procedures required for the international bids.

PROJECT MANAGEMENT DIVISION

Time, cost, and quality are the three most important elements of a project, requiring careful management throughout the entire process of design and construction. DY Engineering, on behalf of our clients, contributes to efficient coordination of all the different stages of works, leading to a successful conclusion to a project.

RESEARCH & DEVELOPMENT CENTER

We provide a wide range of research and analysis from coastal erosion and coastal maintenance to numerical model tests for ocean environmental changes and stability and usability of coastal structures. We have developed new technologies for construction and been awarded several patents. Our studies are expanding to all corners of the world in order to broaden our understanding of environmental characteristics and changes, as well as to serve our client's needs.

CONSTRUCTION BUSINESS DIVISION

Starting from our strong foundation in civil engineering consultation on port facilities, plants, and development of port-related industrial complexes, DY Engineering is expanding its business capabilities into construction, where having a consistent plan throughout the entire design and construction phases of a project can put an exclamation point on success.

CHAIRMAN MESSAGE

**Let's create a better world
with DY Engineering.**

Around the time that Korea began to expand its economy and became one of the fastest growing developing countries in the world, DY Engineering, started as a major competitor in the field of coastal engineering, was founded.

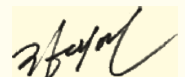
Our goal was to be the best and to represent Korea's civil engineering technology around the world. We would like to share with you our feelings of gratefulness and pride for what we have been able to achieve over the period of a generation.

Nothing would have been possible without your collaboration and interest in DY Engineering.

Based on the various experiences that we have gone through so far, DY Engineering is ready to live up to all your expectations and requirements and ready to create a better world with our advanced technology.

Thank you.

CHUNG, Dae-Yeon
CEO / President



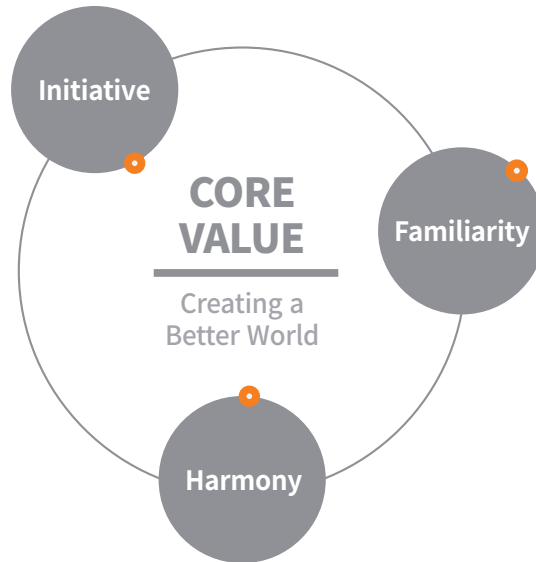
VISION & PHILOSOPHY



A new success story starts with our passionate and devoted people.

DY always stays focused on serving our clients' various interests by providing the best customized solutions for virtually any civil engineering concerns around the world. Our innovative technologies, assignment of relevant experts and specialist groups from different fields, and clear and accurate consultations will help our clients to reach the goals of their projects.

DY takes the initiative posture on every project whenever it comes. And this would lead DY for the better result and brighter future.



It's friendship and a sense of unity that keeps DY strong and moving toward tomorrow.

Creating a better world through finding the harmony between advanced technologies and human needs is what DY pursues.



BY ENGINEERING

WE CREATE TECHNOLOGIES

BUSINESS AREAS

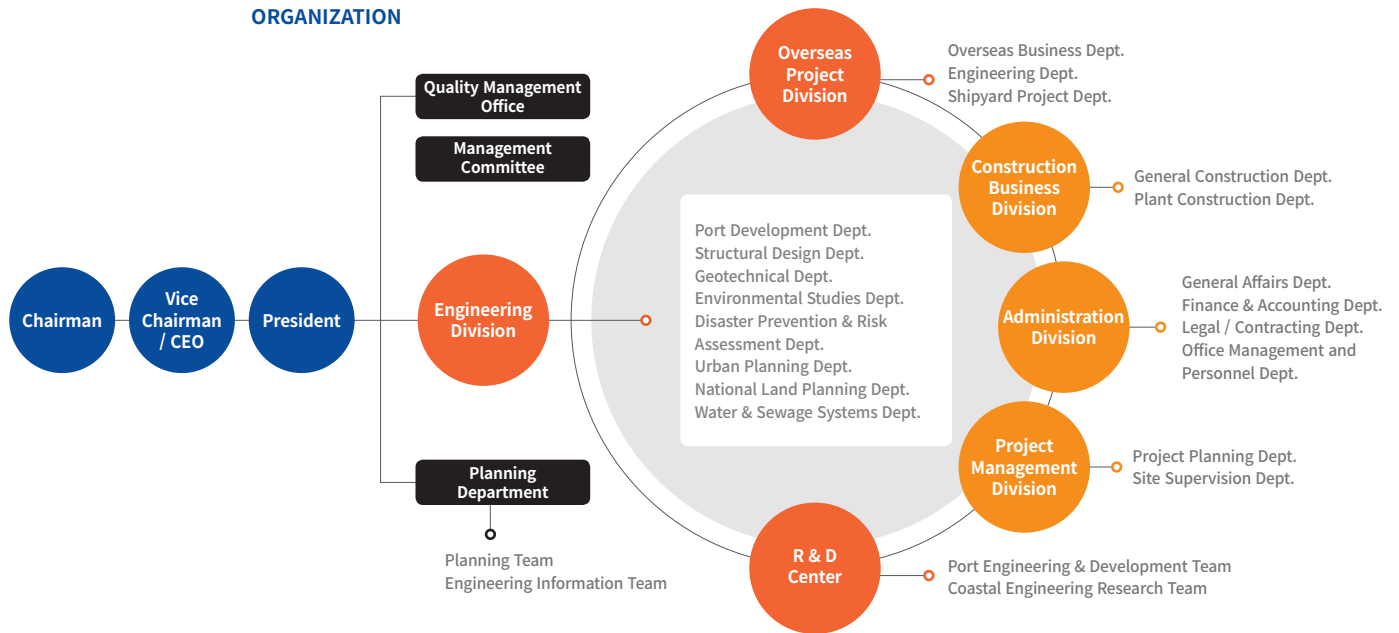


DY provides innovative and enterprising consultation for virtually any kind of civil engineering project around the world.

The port and harbor engineering areas that DY Engineering specializes in consist of railways, roads, water and sewage facilities, buildings, electricity, etc. DY Engineering has created a total solution system that can provide a consistent plan throughout an entire project, from design and construction to construction supervision.



ORGANIZATION



CERTIFICATES & LICENSES



Technology, a great start for a new world

DY Engineering has obtained the various certificates and licenses necessary for conducting its business and consulting activities.

DY Engineering develops new technologies, and adapts it to the practical works for more effective results.

Certificates

Aug. 2018	Registered the Software Service(B18-161294)	Apr. 2006	Registered for Construction Industry (Seoul Reg. No. 01-0485)
Mar. 2018	Registered as a Special Organization for Safety Impact Assessment for underground(Gyeongnam No. 9)	Nov. 1999	ISO 9001 Certification(CRK- Registration Service)
Sept. 2015	Registered as a Special Organization for Safety Inspection	Jan. 1997	Established the Industrial Technology Research Association (Ministry of Science & Technology No. 210)
Mar. 2015	Registered the Engineering Consultancy Service for Waste Disposal	Nov. 1994	Designated as a company hiring professional researchers
Apr. 2014	Registered the Engineering Consultancy Service for Noise and Vibration, Natural Soil and Environment	May. 1994	Set up a Research & Development Center
Feb. 2013	Registered the Engineering Consultancy Service for the field of Marine	Feb. 1994	Registered for Overseas Construction Management (The Ministry of Construction and Transportation)
Jul. 2012	Registered the Engineering Consultancy Service for the field of Transportation	Jan. 1994	Registered for Overseas Construction (The Ministry of Construction and Transportation)
Dec. 2010	Relocation of the Head Office to Changwonsi, Gyeongsangnamdo	Jun. 1993	Registered as an Engineering Consultant (Korea Engineering Promotion Association)
Sept. 2009	Certification for Value Engineering(SKVE-2009-0008)	Nov. 1987	Membership at I.B.R.D (International Bank of Reconstruction and Development)
Apr. 2008	Licensing for Sea Area Utilization-Impact Assessment(No. In-001)	Oct. 1987	Membership at A.D.B(Asian Development Bank)
Mar. 2008	Licensing for Disaster Contingency Plan(No.145)	Jan. 1983	Military Security Permission License(No. 2420635)
May. 2006	Certification for Technological Innovative Entrepreneurship (Seoul Regional Small Medium Business Administration No. 7012-1991)	Sept. 1980	Registered as an Engineering Service Provider at the Ministry of Science and Technology
Nov. 2006	licensing for Environmental Impact Assessment(No. Seo-216)	Aug. 1980	DY Engineering established
Aug. 2006	Registered as a Comprehensive Construction Service Provider (Seoul Reg. No. 02-01-1012)		

Patent / New Construction Technology List

Development of the DT wave dissipating block which is connected all the layers with perforation and its construction method	N.C.T. No.854	2018-12-07
Fabric stone bag anchor for a silt protector	10-1912576	2018-10-23
Dredge machinery unification dredging and transporting of dredging sand, and method for dredging dredging sand	10-1725973	2017-04-05
Shore bank using frame and geotextile, and method for constructing this same	10-1666626	2016-10-10
Prestressed steel and concrete composite pile construction methods	10-1465480	2014-11-20
Water affinity shore protection block with wave dissipating structure using porosity, shore protection structure and method for constructing the same	10-1461654	2014-11-07
Unmanned ship for wave induced current observation	10-1368592	2014-02-21
Construction method of shore protection using soil-bag having geotextile	10-1268681	2013-05-22
Shore protection using soil-bag	10-1268235	2013-05-21
Wave dissipation sea forest, marine flora and fauna transplant functional and wave dissipation structure	10-1104810	2012-01-04
Ground improving method running parallel ground solidification and excavation replacement	10-1008012	2011-01-06
Anchor system of pulling up the caisson with hanging-up cable and lifting device, and the pulling up method for using the same	10-1057827	2010-08-11
Send transportation apparatus for inside of a harbor burying and beach erosion prevention	10-0960728	2010-05-24
Intake structure of cooling water using contrary siphon	10-0794565	2008-01-08
Installation structure of air pipe line for solution upliftpressure of shore protection fabric	10-0706288	2007-04-04
Prevention block from digging for shore protectionformed by reclaiming from the sea	10-0706110	2007-04-04
Sinking pannel structure for prevention of declination	10-0698022	2007-03-15
Armour unit block of breakwater slope	10-0684297	2007-02-12
Wave dissipation block and reflected wave block and the breakwater designed with them	10-0642578	2006-10-30
Water resistance construction work method of softground	10-0639125	2006-10-20
Breakwater block of sea water circulating type using harbour	10-0621481	2006-08-31
Top-quality stuff concret cleat structure for overflow interception of breakwater	10-0584666	2006-05-23
The multi-layer vertical breakwater	10-0584665	2006-05-23
Inclined plane clothing block of shore protection	10-0582469	2006-05-16
A covering block of breakwater	10-0582468	2006-05-16



Innovation
Branding
Solution
Marketing
Analysis
Ideas
Success
Management

Technology
Innovation
SYSTEM



Innovation
Branding
Solution
Marketing
Analysis
Ideas
Success
Management



GREAT

WE CREATE **GREAT** TECHNOLOGIES

For the person who sees what is, and believes that it can be made better. For the person who is asked why, and responds why not? For the person who is told it can't be done, but knows with all his heart that it can. For the person who dreams of a greater future, DY is here for you.



Port Development

Government-sponsored Port Development Planning

Various in-depth studies were conducted and various plans evaluated in order to develop the best approach for master planning, investigation, development, feasibility studies, and realignment in the establishment of development projects for existing and proposed ports.



Basic & detailed design of construction for breakwater revetment at South Port in Ulsan New Port

LOCATION Donghae, Ulsan | YEAR 2013 | CLIENT Ulsan Regional Office of Oceans and Fisheries

The South Breakwater revetment Construction Project is a part of the ongoing plan: the 2nd Phase of the breakwater revetment and outer facilities, and is for securing the tranquil water area for the south terminal and the 2nd Phase of the Oil Hub in North-East Asia at Ulsan New Port.

Government-sponsored Port

Basic & Detailed Design for Reinforcement of the North Breakwater and Other Works at Hallim Port	2017	Jeju Special Self-Governing Province
Basic & Detailed Design for Expansion of the Cruise Terminal at Yeosu New Port	2017	Yeosu Regional Office of Oceans and Fisheries
Basic Research and Renovation for Small Island-Region's Navigation Infrastructure	2015	Ministry of Oceans and Fisheries
Detailed Design of Dredging Construction for Increasing Channel at Busan New Port	2015	Busan Regional Oceans & Fisheries Administration
Preparation of the Revision to the Marina Port Masterplan	2014	Ministry of Oceans and Fisheries
Basic & Detailed Design for Operation Supporting Facilities of Civil military Compound Type Cruise Wharf	2014	Jeju Special Self-Governing Province
Basic & Detailed Design of Reinforcement Works for Protective Facilities of Inner Port at Pyeongteak Dangjin	2014	Pyeongteak Regional Office of Oceans and Fisheries
Basic & Detailed Design of Construction of Daebul Steel Terminal in Mokpo Port	2014	Mokpo Regional Office of Oceans and Fisheries
Basic & Detailed Design of Reinforcement Work on the Jodo Breakwater in Busan Port	2013	Busan Regional Maritime Affairs and Port Office
Establishment of Medium and Long-Term Port Development Plan in Gwangyang Bay Area	2012	Yeosu Gwangyang Port Authority
Basic & Detailed Design of Coast Guard Wharf and Other Works at Jeju Port	2012	Jeju Special Self-Governing Province
Basic & Detailed Design for Revetment Construction at the Reclamation Site in Youngjongdo	2012	Incheon Port Construction Office



Basic investigation of outer facilities in Yeosu new north port and basic design of mooring facilities

LOCATION Namhae, Yeosu | YEAR 2013 | CLIENT Yeosu Regional Office of Oceans and Fisheries



Detailed design for Hupo Marina Port Development Project

LOCATION Donghae, Uljin | YEAR 2015 | CLIENT Uljin-gun, Gyeongsangbuk-do

Port Development

Turn Key Base
Alternative Design

This category of project includes a wide range of structures and facilities from new ports, special purpose terminals, container terminals, passenger terminals, outer wall facilities, quaywalls, breakwaters, revetment etc. to marinas, ocean recreational facilities, tidal plants, artificial islands, canals and other special facilities.



T/K Tender(Basic) Design for Expansion of Busan New Port West Container Terminal

LOCATION Namhae, Changwon | YEAR 2015~2016 | CLIENT HYUNDAI E&C

Expansion plan for west terminal 2-5 phase at Busan New Port which is aimed to be an international Hub Port for containers of Northeast Asia. -Applicable Structural type for deep sea water - Introduce the facilities for safe and effective construction of the container terminal



T/K Design for Construction of Breakwater at 3rd Phase(2 Lot) of Donghae(East Sea) Port	2017	HYUNDAI E&C
T/K Design for Construction of Breakwater at 3rd Phase(1 Lot) of Donghae(East Sea) Port	2016	HYUNDAI E&C
Alternative Tender design for Construction of North Breakwater at 3rd Phase(2 Lots) of Donghae(East Sea) Port	2016	HYUNDAI E&C
T/K Tender(Basic) Design for Expansion of Busan New Port West Container Terminal	2015	HYUNDAI E&C
Detailed Design of Counter Facilities at Yeosu New North Port	2015	HYUNDAI E&C
Tender(Basic) Design for Yeosu New North Port Outer Facility	2014	HYUNDAI E&C
Alternative Design of 2nd Phase of East Breakwater at Ulreung(Sadong) Port	2013	Daelim
Tender(Basic) Design of Construction Work for the International Passenger Terminal(Phase 2) at Incheon Port	2012	HYUNDAI E&C
Tender(Detailed) Design of Revetment for Songdo Dredged Soil Disposal Site for Busan New Port	2012	HYUNDAI E&C
Turnkey Basic Design of North Breakwater(Section 3) at Ulsan New Port	2011	Samsung C&T
Detailed Design for Renovation of Gulf of Mipo-Quaywall(4th Section)	2011	HYUNDAI E&C
Basic Design of Protective Facilities for Improving Harbor Tranquility at Gamcheon Port	2011	Samsung C&T



Construction of international passenger terminal and coast guard wharf at Busan port

LOCATION Namhae, Busan | YEAR 2003 | CLIENT POSCO E&C



Construction of revetment for Songdo dredged soil disposal site for Busan New Port

LOCATION Namhae, Busan | YEAR 2012 | CLIENT HYUNDAI E&C

Port Development

PPP Projects & Multifunctional Fishing Ports

Tasks for SOC projects can range from simply obtaining the approvals for private-investment projects from the appropriate authorities to developing complete project proposals. We also perform feasibility studies for fishing port development, maintenance of fishing ports, and development of designs for multifunctional fishing ports as well as fishing ports connected with the tourism industry.



Construction of material berth NO. 7 in Gwangyang Port

LOCATION Namhae, Gwangyang | YEAR 2012 | CLIENT POSCO E&C

Construction of the berthing facilities for a new berth designed for the bulk(material) terminal allows the 720,000DWT vessels to call, which to meet the increased cargo volumes due to the mid & long-term increases from the Gwangyang Steel Plant and the capacity pumping plan of SNNC.

Detailed Design for Construction of Eco-Friendly Power Plant at Samcheok	2016	POSCO E&C
Basic & Detailed Design for Tidal Current Power Generation and Supporting Structure Proof	2015	HYUNDAI E&C
Basic & Detailed Design for Repair and Reinforcement of the Leading Dolphin Lock Gate No.4 at Incheon	2013	Galatea Maritime Corp
Detailed Design of Material Wharf 7 Berths in Gwangyang Port	2012	POSCO E&C
Design of Site Preparation for Coal-Fired Power Plant in Samcheok	2012	Korea Electric Power Corporation
The First Wharf, 14Berths of Pohang New Port, Construction Work of the 3rd Wharf & Design of Dredging & Harbour Facilities	2010	POSCO E&C
Establishment of Regional Fishing Ports(Sonjuk Port Along With Other 2 Ports)	2017	Jeollanam-do
Basic Design and Maintenance & Improvement Plan for Anma Port	2017	Ministry of Oceans and Fisheries
Detailed Design of Jang-Gi Port Lighters Wharf Construction	2016	Gyeongsangnam-do Changwon-si City Office
Detailed Design for Maintenance and Improvement of Keomjin Port	2014	Donghae Regional Office of Oceans and Fisheries
Detailed Design for Pilot Project to Improve Usability of Geojin Port	2013	East Sea Fisheries Supervision Office, Ministry of Oceans & Fisheries
Detailed Design for Usability Upgrading Project of Bang-O-Jin Port	2013	East Sea Fisheries Supervision Office



Detailed design for Jang-go Port construction

LOCATION Seohaeh, Dangjin | YEAR 2012 | CLIENT Client West Sea Fisheries Supervision Office



Basic & detailed design of maintenance construction for Punngnam Port

LOCATION Namhae, Yeosu | YEAR 2014 | CLIENT Yeosu Regional Office of Oceans & Fisheries

Offshore Plant

DY Engineering provides overall engineering consultations on dry dock and dock repair yard, and civil facilities for marine plants, floating structures, power plants, marine energy projects, and various other marine structures.



Construction for Hyundai Heavy Industries' H-Dock

LOCATION Donghae, Uljin | YEAR 2007 | CLIENT HYUNDAI E&C

Designed Dry Dock and Shipyard for VLCC, Container ship, Post-Panamax Tandem ship in order to actively correspond to the increases of global shipbuilding demand



Marine Civil Engineering Service for SSPP Project	2018	Hyundai Heavy Industries
Revision of Port Masterplan for LNG Storage at Aewol Port	2015	Jeju Special Self-Governing Province
Feasibility Study for the PJT Cement Jetty in East Timor	2014	POSCO E&C
Pre-Investigation and Feasibility Study for Construction of Baengnyeongdo Island Ocean Research Station	2013	Korea Hydrographic and Oceanographic Administration, Ministry of Oceans & Fisheries
Singapore LPG Terminal Project(Marine Jetty Work)	2012	Doosan E&C
Design of Reservoir Tank for the Cryogenic Tank Farm Project, Saudi	2012	DAEWOO E&C
Establishment of Master Plan and Site Selection for Ship Repairing Complex	2012	Korea Maritime Institute
Design of Site Preparation for Coal-Fired Power Plant in Samcheok	2012	Korea Electric Power Corporation
Basic Design of Reinforcement for North Quay of Marine H-Dock Gate	2012	Hyundai Heavy Industries
Design Review of General Cargo and Liquid Terminal at Port of Salalah/Oman ProjectOman	2012	DAEWOO E&C
Tender Design of AZ Zour North IWPP Phase 1 Project in Kuwait	2011	Samsung Engineering
Conceptual Design of Sun Marine Shipyard Ltd. in Bangladesh	2011	Korea Maritime Consultants Co. Ltd.



Consultancy for designing of a dry-dock including dock gate & other facilities

LOCATION Bangladesh | YEAR 2015 | CLIENT KDDL



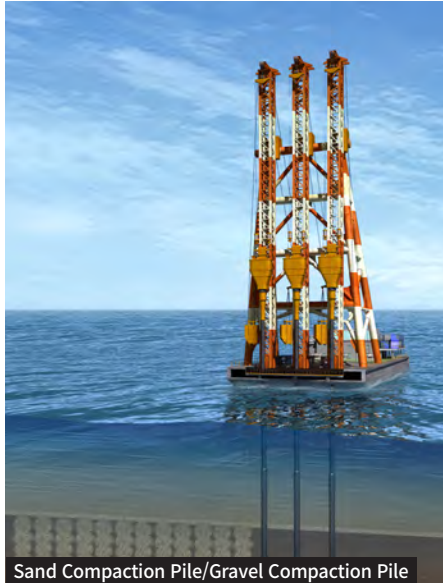
Master Plan of harbor facilities & site preparation for an integrated steel plant in Van Phong, Vietnam

LOCATION Vietnam | YEAR 2008 | CLIENT POSCO E&C

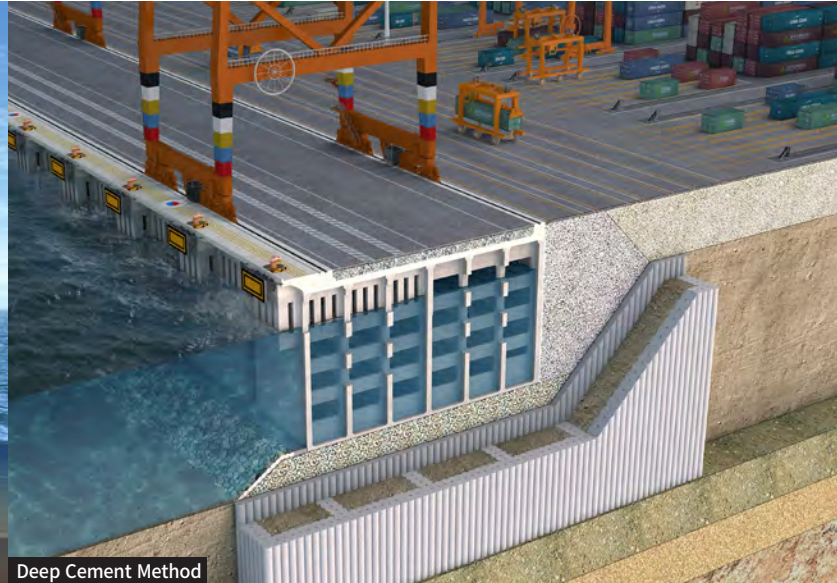
Geotechnical Area

Foundation treatments for structures / Reinforcement of existing structures
Soft soil improvement

Geotechnical design services, based on various studies and tests, are provided to create a firm foundation for virtually any construction project around the world.



Sand Compaction Pile/Gravel Compaction Pile



Deep Cement Method

Expansion of Busan New Port West Container Terminal

LOCATION Namhae, Busan | YEAR 2015 | CLIENT HYUNDAI E&C | TYPE Deep mixing method of soil stabilization



Foundation Treatment for Structures

T/K Design for Construction of Breakwater at 3rd Phase(1 Lot) of Donghae(East Sea) Port	Compaction Grouting	2016	HYUNDAI E&C
Alternative Tender Design for Construction of North Breakwater at 3rd Phase(2 Lot) of Donghae (East Sea) Port	Compaction Grouting	2016	HYUNDAI E&C
Basic & Detailed design of Construction for Breakwater Revetment at South Port in Ulsan New Port	Deep Cement Mixing	2013	Ulsan Regional Office of Oceans and Fisheries
Basic & Detailed Design for Revetment Construction at the Reclamation Site in Youngjongdo	Compaction Grouting	2012	Incheon Port Construction Office
Tender(Detailed) Design of Revetment for Songdo Dredged Soil Disposal Site for Busan New Port	Deep Cement Mixing	2012	HYUNDAI E&C

Reinforcement of Existing Structure

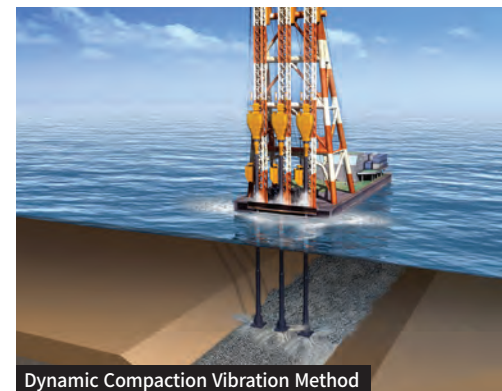
Basic & Detailed Design of Reinforcement Works for Protective Facilities of Inner Port at Pyeongteak Dangjin Port	Forced replacement method	2014	Pyeongteak Regional Office of Oceans and Fisheries
Safety Inspections on 4 Ocean Quay Walls and 2 other Structures, Ulsan	Compaction Grouting	2008	Hyundai Heavy Industries
Safety Inspections on 5 Ocean Quay Walls of the Route no. 1 & 2, Ulsan	Compaction Grouting	2008	Hyundai Heavy Industries
Alternative Design for Breakwater at Yeosu Port	GCP/Compaction Grouting	2007	Sambu Construction



Piling And Loading Test



Dynamic Compaction Method



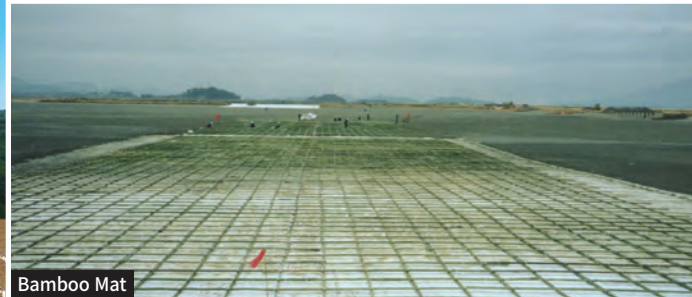
Dynamic Compaction Vibration Method



Plastic Board Drain



High Pressure Dry Sand Transfer



Bamboo Mat

Sub-Structure Works for Container Terminal(Phase 1-1) at Incheon New Port

LOCATION Seoehae, Incheon | YEAR 2008 | CLIENT HYUNDAI E&C | TYPE PBD/Bamboo mat/pre-loading method

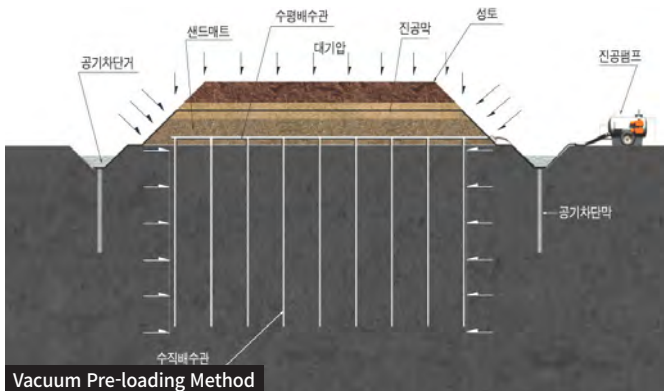


Soft Soil Improvement

T/K Tender(Basic) Design for Expansion of Busan New Port West Container Terminal	Bamboo mat/PBD/Pre-loading	2015	HYUNDAI E&C
Basic & Detailed Design of Construction of Daebul Steel Terminal in Mokpo Port	PBD/Pre-loading	2014	Mokpo Regional Office of Oceans and Fisheries
Basic Investigation of Outer Facilities and Basic Design of Mooring Facilities in Yeosu New North Port	PBD/Pre-loading	2013	Yeosu Regional Office of Oceans and Fisheries
Basic Design of Sub-Structure Works for Container Terminal(Phase 1-1) at Incheon New Port	Bamboo mat/PBD/Pre-loading	2008	HYUNDAI E&C
Basic & Detailed Design of the 2nd Construction Work for New Wharf of Increasing Capacity of Thick Plate in Gwangyang	PBD/Pre-loading	2008	POSCO E&C

Dredging & Land Reclamation

Basic & Detailed Design of the Revetment and the New Disposal Site Construction at Busan New Port(Site 2)	Slope stability /Disposal plan	2015	Busan Regional Oceans & Fisheries Administration
T/K Tender(Basic) Design for Expansion of West Container Terminal at Busan New Port	Slope stability /Reclamation plan	2015	HYUNDAI E&C
Basic & Detailed Design of Construction of Daebul Steel Terminal in Mokpo Port	Surface Soil Stabilization /Soil improvement	2014	Mokpo Regional Maritime Affairs and Port Office
Basic Investigation of Outer Facilities in Yeosu New North Port and Basic Design of Mooring Facilities	Surface Soil Stabilization /Soil improvement	2013	Yeosu Regional Maritime Affairs and Port Office



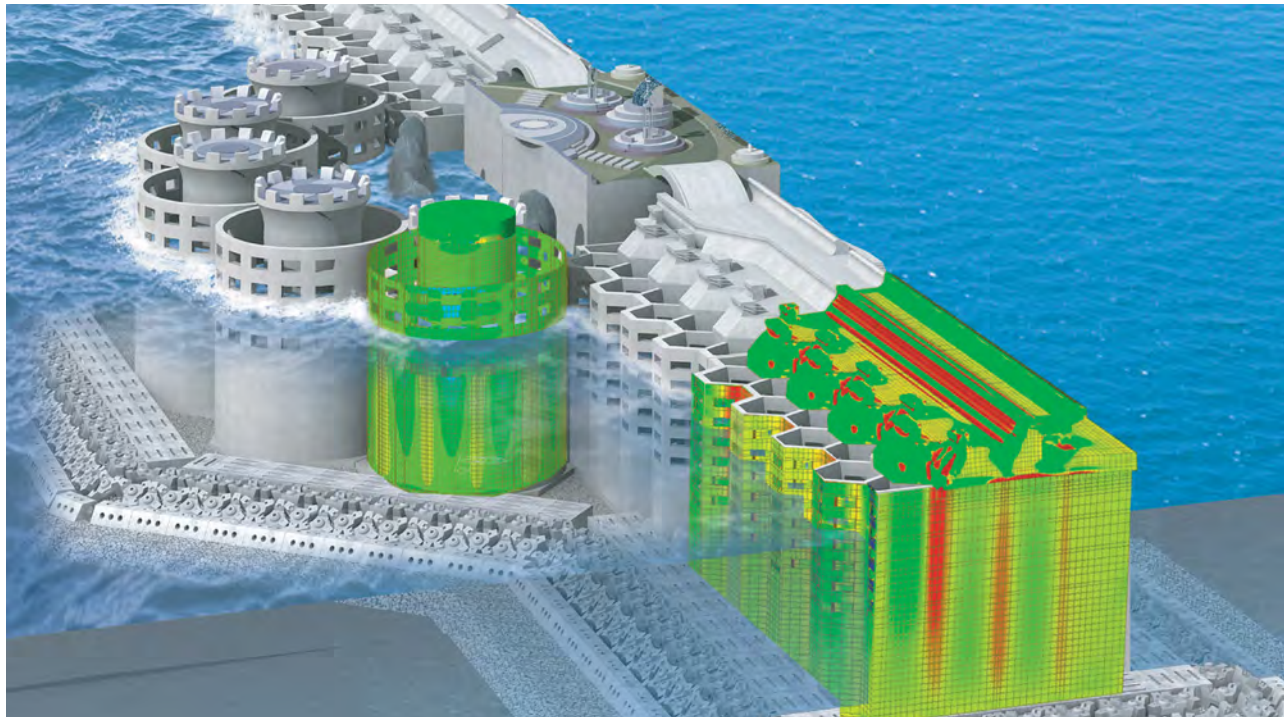
Vacuum Pre-loading Method



Geo-tube

Structural Design

Based on our continuous work in technology development and our knowledge of on civil engineering structures, we provide high quality investigation, planning, design, analysis, and safety assessment of structures



North Breakwater development at Ulsan New Port

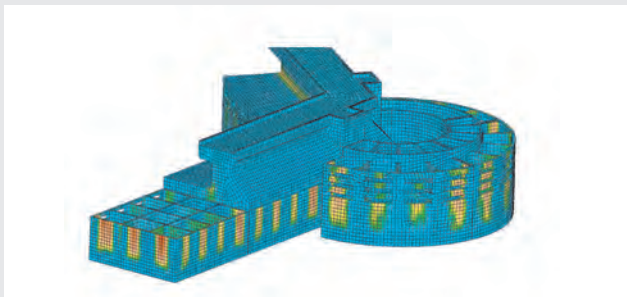
LOCATION Donghae, Ulsan | YEAR 2009 | CLIENT Samsung C&T



- Structural analysis and safety assessment of caisson, pier, jacket, dock
- 2D/3D FEM analysis of caisson
- Chloride penetration analysis/ Design for structural durability
- Hydration heat analysis of concrete cap
- Study on transport, launch, and towing of caissons
- Analysis of fatigue crack expansion
- Ship collision analysis
- 3D nonlinear analysis
- Analysis of differential settlement of large structures
- Structural safety inspection and review of reinforcement methods

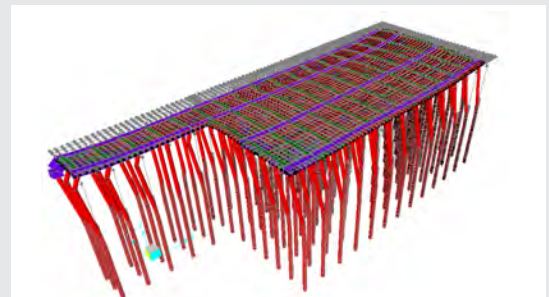
Structural Analysis Program

- MIDAS
- MOSES
- SAP2000
- LUSAS
- ATENA
- SACS
- ANSYS
- STAAD



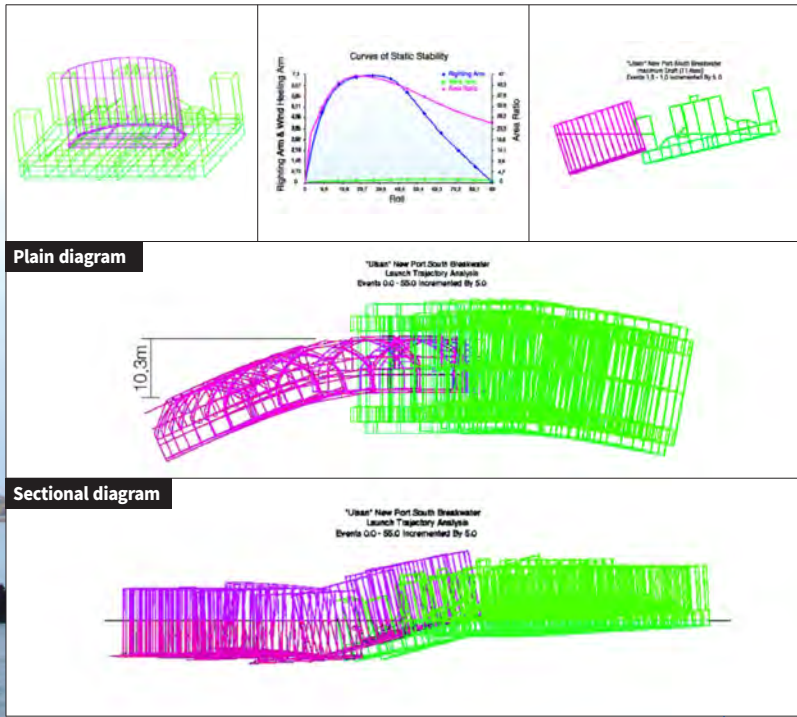
Tender(Detailed) design of counter facilities at Yeosu New North Port

LOCATION Namhae, Yeosu | YEAR 2015 | CLIENT HYUNDAI E&C



Tender design of VALE Malaysia Port project(Phase 2)

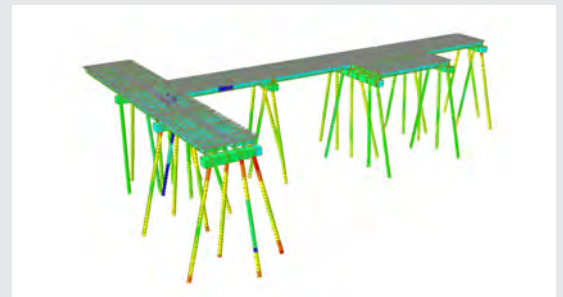
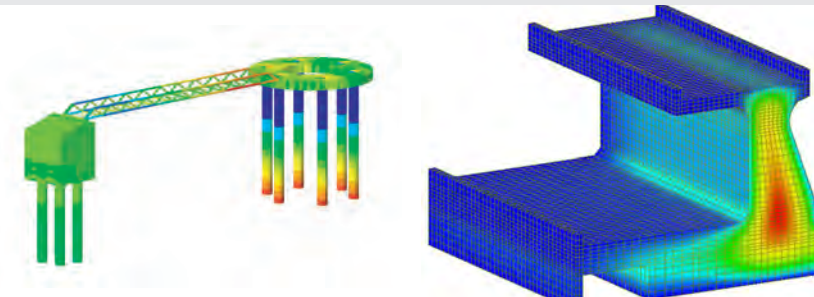
LOCATION Malaysia | YEAR 2011 | CLIENT POSCO E&C



Ulsan New Port South Breakwater Development
 LOCATION Donghae, Ulsan | YEAR 2004 | CLIENT HYUNDAI E&C



Marine Civil Engineering Service for SSPP Project	2018	Hyundai Heavy Industries
Basic & Detailed Design for Reinforcement of the North Breakwater and Other Works at Hallim Port	2017	Jeju Special Self-Governing Province
T/K Design for Construction of Breakwater Revetment at 3rd Phase(2 Lot) of Donghae(East Sea) Port	2017	HYUNDAI E&C
T/K Design for Construction of Breakwater Revetment at 3rd Phase(1 Lot) of Donghae(East Sea) Port	2016	HYUNDAI E&C
Alternative Tender Design for Construction of North Breakwater at 3rd Phase(2 Lot) of Donghae(East Sea) Port	2016	HYUNDAI E&C
T/K Tender(Basic) Design for Expension of Busan New Port West Container Terminal	2015	HYUNDAI E&C
Tender(Detailed) Design of Counter Facilities at Yeosu New North Port	2015	HYUNDAI E&C
Tender(Basic) design for construction of West Container Terminal(Phase 2-5) at Busan New Port	2015	HYUNDAI E&C
Basic & Detailed Design of Reinforcement Works for Protective Facilities of Inner Port at Pyeongteak Dangjin	2014	Pyeongteak Regional Office of Oceans and Fisheries
Tender(Basic) Design for Yeosu New North Port Outer facility	2014	HYUNDAI E&C
Basic & Detailed Design of Construction for Breakwater Revetment at South Port in Ulsan New Port	2013	Ulsan Regional Office of Oceans and Fisheries
Basic Investigation of Outer Facilities in Yeosu New North Port and Basic Design of Mooring Facilities	2013	Yeosu Regional Office of Oceans and Fisheries
Tender(Basic) Design of Construction Work for the International Passenger Terminal(Phase 2) at Incheon	2012	HYUNDAI E&C
Tender(Detailed) Design of Revetment for Songdo Dredged Soil Disposal Site for Busan New Port	2012	HYUNDAI E&C



T/K Design for Construction of Breakwater at 3rd Phase(2 Lot) of Donghae(East Sea) Port
 LOCATION Donghae | YEAR 2016 | CLIENT HYUNDAI E&C

Marine Civil Engineering Service for SSPP Project
 LOCATION Saudi Arabia | YEAR 2018 | CLIENT HYUNDAI Heavy Industry

Research & Development

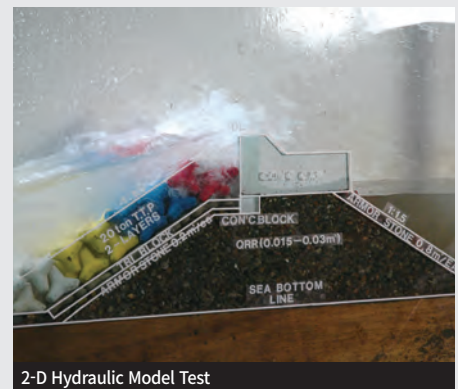
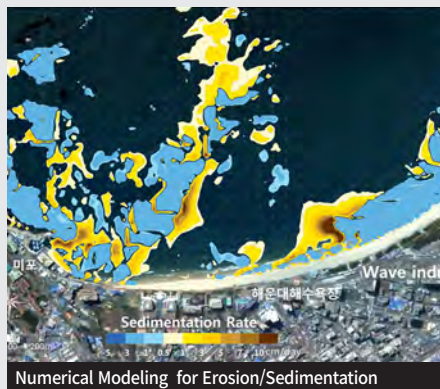
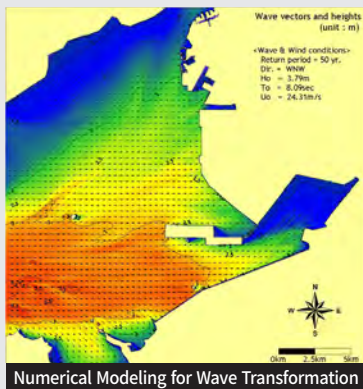
We provide a wide range of research and analysis, from coastal erosion and coastal maintenance to numerical model tests for ocean environmental changes and stability and usability of coastal structures. Our studies are expanding to all corners of the globe in order to add to our understanding of environmental characteristics and changes as well as to serve our client's needs



Monitoring Service For Coastal Maintenance At Haeundae Beach

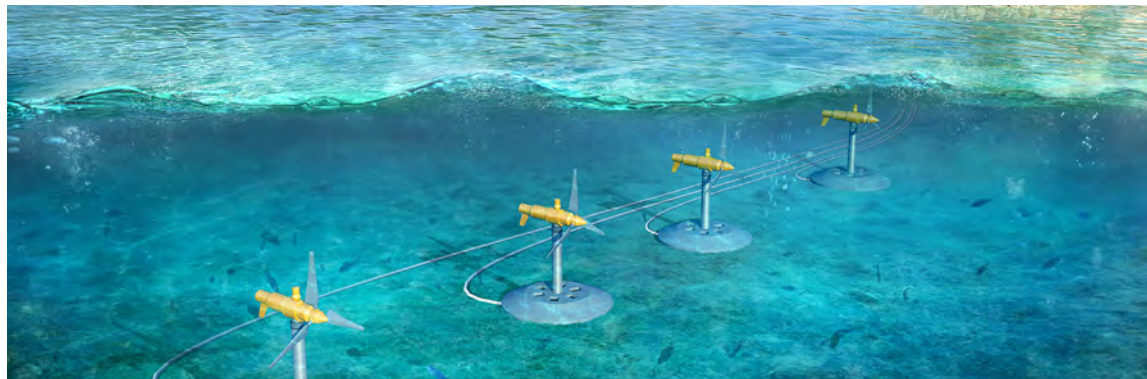
Coastal Maintenance

Monitoring the Status of the Shore Erosion 2017-2018	2020	Hwandonghae Office-Gangwondo Province
Establishment of Shoreline Stabilization and Improvement(3rd)	2019	Ministry of Oceans and Fisheries
Analysis of the Numerical Models and Establishment of Strategy for Reduction of the Deposition and Erosion at Fishing Ports in Korea	2018	Ministry of Oceans and Fisheries
Monitoring Service for Coastal Maintenance at Haeundae Beach	2018	Busan Regional Maritime Affairs and Port Office
Basic & Detailed Design for Coastal Maintenance in Eodal district	2016	Donghae-si, Gangwon-do
Basic & DetailDesign for Coastal Maintenance in Sanpo District in Uljin-Gun, Gyeongsangbuk-Do	2015	Ministry of Oceans and Fisheries
Basic & Detailed Design for Coastal Management at Haseori	2015	Gyeongju-si, Gyeongsangbuk-do
Detail Design for Coastal Management Project at Dongsan District, Youngdo	2014	Busan Regional Maritime Affairs and Port Office
Data Research and Coastal Management Plan for Namae Beach in Yangyang	2013	Donghae Regional Office of Oceans and Fisheries
Basic & Detail Design for Coastal Management at Sokcho Beach in Gangwon-Do	2013	Ministry of Oceans and Fisheries
Basic & DetailDesign for Coastal Maintenance in Wolsong District	2012	Uljin-gun, Gyeongsangbuk-do
Basic & Detailed Design for Coastal Maintenance in the Manheung District of Yeosu-Si, Jeollanam-Do	2012	Ministry of land, Transport and Maritime affairs





Basic & Detailed Design Of Coastal Maintenance Project Of Coastal Line(Jeongdongjin Beach, Dogu Beach)



Basic & Detailed design for the practical sea area of tidal power



Development of Technology for Disaster-Free Port	2019	Korea Institute of Ocean Science & Technology(KIOST)
Small Scaled Environmental Impact Lab Assessment for the Practical Sea Area of Tidal Power	2019	Korea Institute of Ocean Science & Technology(KIOST)
Basic & Detailed Design for the Practical Sea Area of Tidal Power	2019	Korea Institute of Ocean Science & Technology(KIOST)
Development Countermeasure Technology for Coastal Erosion	2017	Korea Institute of Ocean Science & Technology(KIOST)
Technology Development for Forecasting Information Contents of Maritime Disaster (Marine Accidents)	2016	Public Procurement Service of Korean Government
Basic & Detail Design for Tidal Current Power Generation and Supporting Structure Proof	2014	HYUNDAI E&C



3-D Hydraulic Model Test



Stability Test for Vessel Mooring

WE CREATE **GREEN** TECHNOLOGIES

DY Engineering develops and utilizes green technologies that assist people to build a sustainable world. Our eco-friendly technologies, based on our deep concerns for the environment, look as far into the future as possible in order to preserve a beautiful environment for our descendants.

DY Engineering is a green enterprise which always puts environmental concerns to the top of our priorities.



GREEN



**National
Land Use
Planning**

It is of importance to establish a spatial order and comprehensive system for efficient management of a nation's land, a very limited resource. Land use planning provides a blue print for systematic development of land using green and sustainable technologies.



Preparation for the site of Songdo International city for 1 ~ 8 Sections

LOCATION Seohae, Incheon | **YEAR** 1991-2006 | **CLIENT** Incheon Regional Office of Oceans & Fisheries/Incheon City/Free Economic Zone Authority

Preparation of the logistics sites and the residential land for as a supporting function of the Incheon South Port and the hinterland of the international logistic complex
Construction of the athletic facilities for leisure function of the Songdo International city and preparation of the greenery to correspond to the possible demand in the future



Construction in the hinterland at Ulsan New Port

LOCATION Donghae, Ulsan | **YEAR** 2009 | **CLIENT** Ulsan Port Authority



Preparation for the disposal site No. 2 at Incheon South Port

LOCATION Seohae, Incheon | **YEAR** 2007 | **CLIENT** Incheon Port Authority

Hinterland Development

Urban Planning and Water & Sewage systems

From development of hinterland sections of ports, our business has expanded to the planning of port related industrial complexes and even to development/ redevelopment of large urban areas



Busan North Port Redevelopment Project

LOCATION Namhae, Busan | YEAR 2009 | CLIENT Busan Port Authority

Selected Project

Establishment of Solution for the Traffic Congestion Section(Bukshinro and 1 Other) in Tongyoung	2016	Tongyoung-si, Gyeongsangnam-do
Basic & Detailed Design for Revetment Construction and New Dredged Soil Disposal Site at Busan New Port	2016	Busan Regional Office of Oceans and Fisheries
Establishment of Urban Planning of the City of Tongyoung(Revision)	2016	Tongyoung-si, Gyeongsangnam-do
Establishment of Urban Planning (Yongdo District, District Unit Plan) for Hakdong District-Second Round	2015	Geoje-si, Gyeongsangnam-do
Establishment of Urban Planning(Revision) of the Sports Facilities at Mt. Galme	2014	Changwon-si, Gyeongsangnam-do
Establishment of Development Plans for Pyeongchon Park and Two Others	2014	Milyang-si, Gyeongsangnam-do
Detail Design of Plans for Connecting Roads in a General Industrial Complex in Changwon	2014	Changwon-si, Gyeongsangnam-do
Detail Design of Improvement of Housing Environment in Muan Area	2012	Milyang-si, Gyeongsangnam-do
Basic Plan & Basic Design of Dredged Material Disposal Area	2011	Gyeonggi-do
Basic & Detailed Design of land Reclamation in Jangpyeong, Tongyeong	2009	Shinpoong Maritime Industry Co. Ltd.
Investigations for Construction of Hinterland in the Ungdong Area(Phase1)	2008	BPA(Busan Port Authority)
Detailed Design Related to Goseong Shipbuilding Industrial Zone Construction	2008	Hyukshin Machinery Co. Ltd.



Construction in the Hinterland of Incheon New Port

LOCATION Seoehae, Incheon | YEAR 2009 | CLIENT Incheon Port Construction Office



Waterfront 'Big-O' at the Expo 2012 Yeosu

LOCATION Namhae, Yeosu | YEAR 2007 | CLIENT HYUNDAI E&C

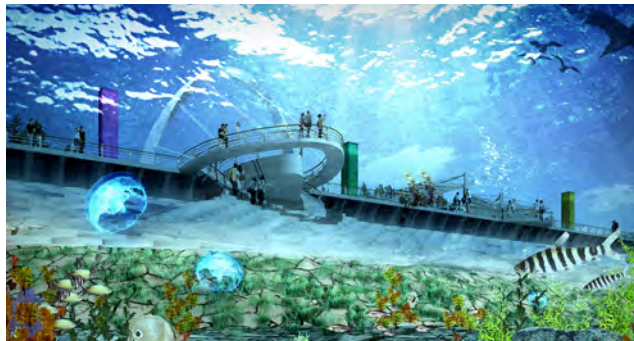
Environment

We study and assess the various environmental impacts from planned construction projects so that the land can be developed in an efficient and environmentally-friendly way, maintaining a proper balance between development and conservation.



Basic design for improvement of Estuary weir in the Youngsan river

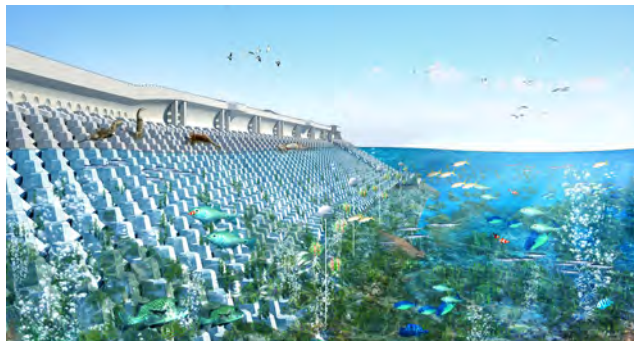
LOCATION Seohaeh, Mokpo | YEAR 2010 | CLIENT Agriculture and fisheries Authority



Artificial Seaweed Beds



Shelter For Halophyte And Birds



Marine Forest



Marine Observatory



Preparation for the integrated cultural complex in Time Island for Yeosu Expo 2012

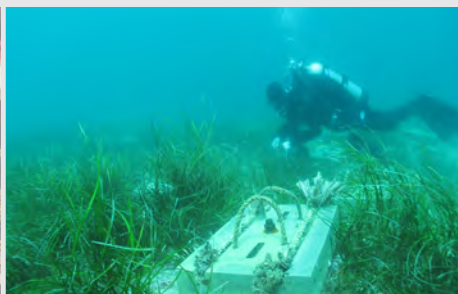
LOCATION Namhae, Yeosu | YEAR 2010 | CLIENT Yeosu City

Selected
Project

Post-Environmental Impact Assessment for To-Do(Island) at Busan New Port	2018	Busan Regional Maritime Affairs and Port Office
Environmental Impact Assessment for Disposal Site and Administrative Wharf at Boryeong Port	2017	Daesan Regional Office of Oceans and Fisheries
Post-Environmental Impact Assessment for Construction of the Yeonpyeongdo Port	2017	Incheon Regional Office of Oceans and Fisheries
Post-Up Environmental Impact Investigation for Construction of Ulsan Port Yeompo-Wharf(Section 3)	2016	Ulsan Regional Office of Oceans and Fisheries
Basic Planning for the 3rd Revision of National Coastal Port Plan and Strategic Environment Impact Assessment	2015	Ministry of Oceans and Fisheries
Strategic Environmental Impact Assessment(West Region) Services on Integrated Maintenance Plan for Small Streams in Gosung-Gun	2015	Goseong-gun Gyeongsangnam-do
Post-Up Review of Environmental Impact of Dredging at Waterfront Facilities in Pohang New Port	2015	POSCO E&C
Post-Environmental Impact Assessment for Hyundai-Daejuk General Industrial Complex	2014	Hyundai OilBank
Environmental Impact Investigation for Jangzwa General Industrial Complex	2014	Gosung Offshore & Shipbuilding Co., Ltd
Monitoring Service for Coastal Maintenance at Haeundae Beach	2013	Donghae Fisheries Supervision Office
Post-Up Environmental Impact Investigation Related to Dredging to Increase Water Depth at No. 3 & 4 Berths in Gwangyang Raw Material Terminal	2013	POSCO E&C
Environmental Impact Assessment for Construction of POS Power Samcheok Power Plant No.1 & 2	2012	POS POWER Co.



Investigation of Intertidal Zone



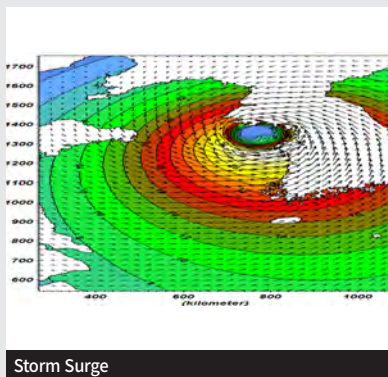
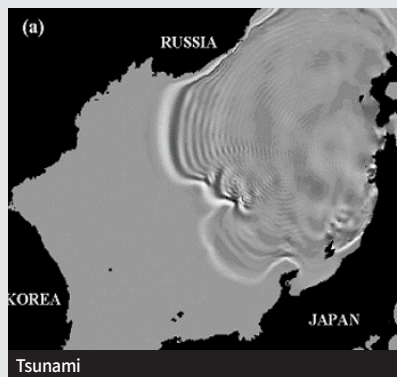
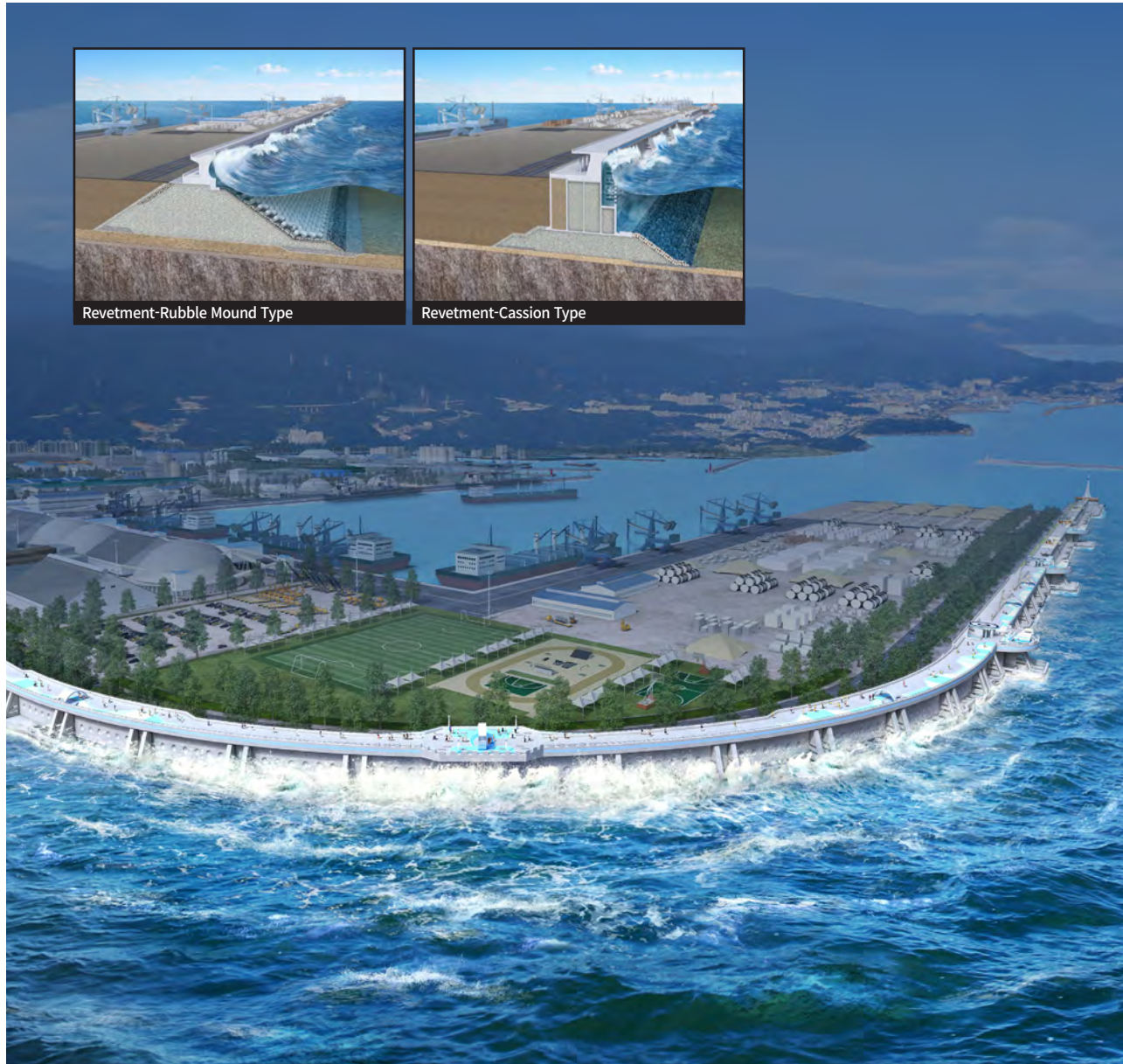
Investigation of marine life(submergence)

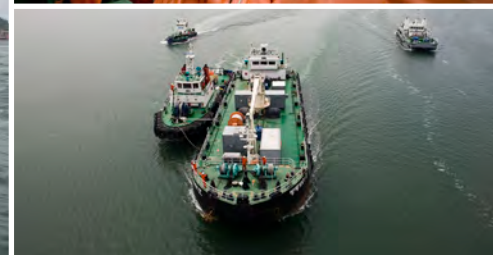


Investigation of Marine Sedimentation

Disaster Prevention

Prior review and analysis of the effects of potential disasters on facilities is an important process in protection and mitigation of damage from these disasters. We provide comprehensive contingency plans for port and coastal areas in cases of tsunamis, flooding and typhoons.





Selected
Project

Preliminary Disaster Inspection as a Part of the Port Development Masterplan Project of GS Caltex New Port and Storage Facilities	2017	Asan ENG
Preliminary Disaster Inspection of Urban Development at Saemal District in Gasuwondong(1 Administrative Plan, 1 Development Project)	2017	Seoho ENG
Preliminary Disaster Inspection for Building Project of the New Town at Yangchon Dream Village	2016	Nonsan-si, Choongchungnam-do
Preview of Disaster Impact Due to Restoration Business of Upo Wetland(Retarding Basin)	2015	Changnyeong County Office
Preliminary Disaster Inspection of Development Project at Changwon National Industrial Complex(Changwon Arboretum and 1 Another)	2015	Changwon-si, Gyeongsangnam-do
Preview of Disaster Impact Due to Creation of Taehwa General Industrial Complex in Nonsan	2014	Taesung Chemical
Preliminary Disaster Inspection in Accordance With the Extension & Pavement of the Gundo No. 4(Byeonggok - Sansu)	2013	Geochang-gun, Gyeongsangnam-do
Preview of Environmental Impact for Construction of Deokam Sports Park	2013	Daejeon Metropolitan City
Preview of Environmental Impact for No. 3 Sports Park at Doma and Byundong District	2012	Kisan Engineering Co.
Assessment of Disaster Impacts Due to Construction of Pohang New Port(2nd Wharf, Phase2)	2011	Dongkuk Steel Co., Ltd.
Review of Preliminary Environmental of Material wharf Construction(The 3rd Wharf) & Material wharf(1st Wharf) in Pohang New Port	2010	POSCO E&C
Proactive Assessment of Potential Disaster Impacts in the Detail Design of Sub-Structural Work for Container Terminal(Phase 1-1) at Incheon New Port, Section 2	2009	Korea Port Engineering Corporation

Project Management

Time, cost, and quality are the three most important elements of a project, requiring careful management throughout the entire process of design and construction. DY Engineering, on behalf of our clients, contributes to efficient coordination of all the different stages of works, leading to a successful conclusion to a project.




 Selected Project

Construction Supervision of Reinforcement Work for Outer Facilities at Sisan Port	2018 - 2028	Yeosu Regional Office of Oceans and Fisheries
Construction Supervision for Construction of South Breakwater(2-2) at Ulsan New Port	2017 - 2023	Ulsan Regional Office of Oceans and Fisheries
Construction Supervision for Maintenance & Improvement of Coastline at Wonpyoung District, Samcho	2017 - 2021	Samcheok-si, Gangwondo Province
Construction Supervision for Revetment Construction of the New Disposal Site(2 Zone) at Busan New Port	2016 - 2020	Busan Regional Maritime Affairs and Port Office
Construction Supervision for Facilities Improvement Plan for Swell Problem at Pohang New Port	2016 - 2020	Pohang Regional Office of Oceans and Fisheries
Construction Supervision of Dredging for Expansion Channel Depths at Busan New Port	2016 - 2017	Busan Regional Maritime Affairs and Port Office
Construction Supervision for Construction of North Breakwater at 3rd Phase(2 Lot) of Donghae(East Sea)Port	2016 - 2020	Donghae Regional Maritime Affairs and Port Office
Construction Supervision Including an Acting Supervisor for Private Invested Facilities of Busan New Port	2016 - 2021	Busan Container Terminal
Construction Supervision for Reinforcement Work for the Outer Facility at Inner-Port, Pyeongtaek/Dangjin Port	2015 - 2019	Pyeongtaek Regional Office of Oceans and Fisheries
Construction Supervision for Basic Design of Reinforcement Work for West Breakwater in Yeosu New Port	2015 - 2019	Yeosu Regional Office of Oceans and Fisheries
Construction Supervision for Preparation of Hinterland Complex at West Container Terminal of Busan New Port	2013 - 2018	Busan Regional Maritime Affairs and Port Office
Construction Supervision of Set-Up Work for Access Road to an Int'l Passenger Terminal in Incheon South Port	2013 - 2017	Incheon Regional Office of Oceans and Fisheries





GLOBAL

WE CREATE GLOBAL TECHNOLOGIES

DY Engineering will be the world classed leader of the engineering. You may be the witness of the result of our challenge to become a pioneer in the engineering industry as a “Dream Technology”.

Based on our experience and technology, we are happy to be one of the leaders who can discover the new market and spread out DY’s technology.

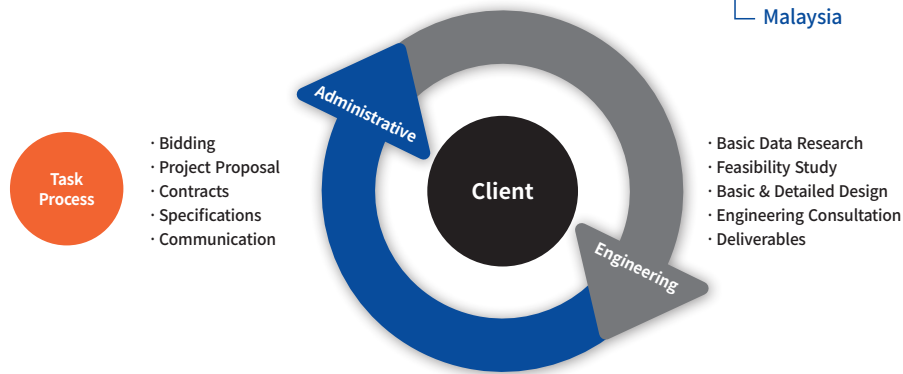
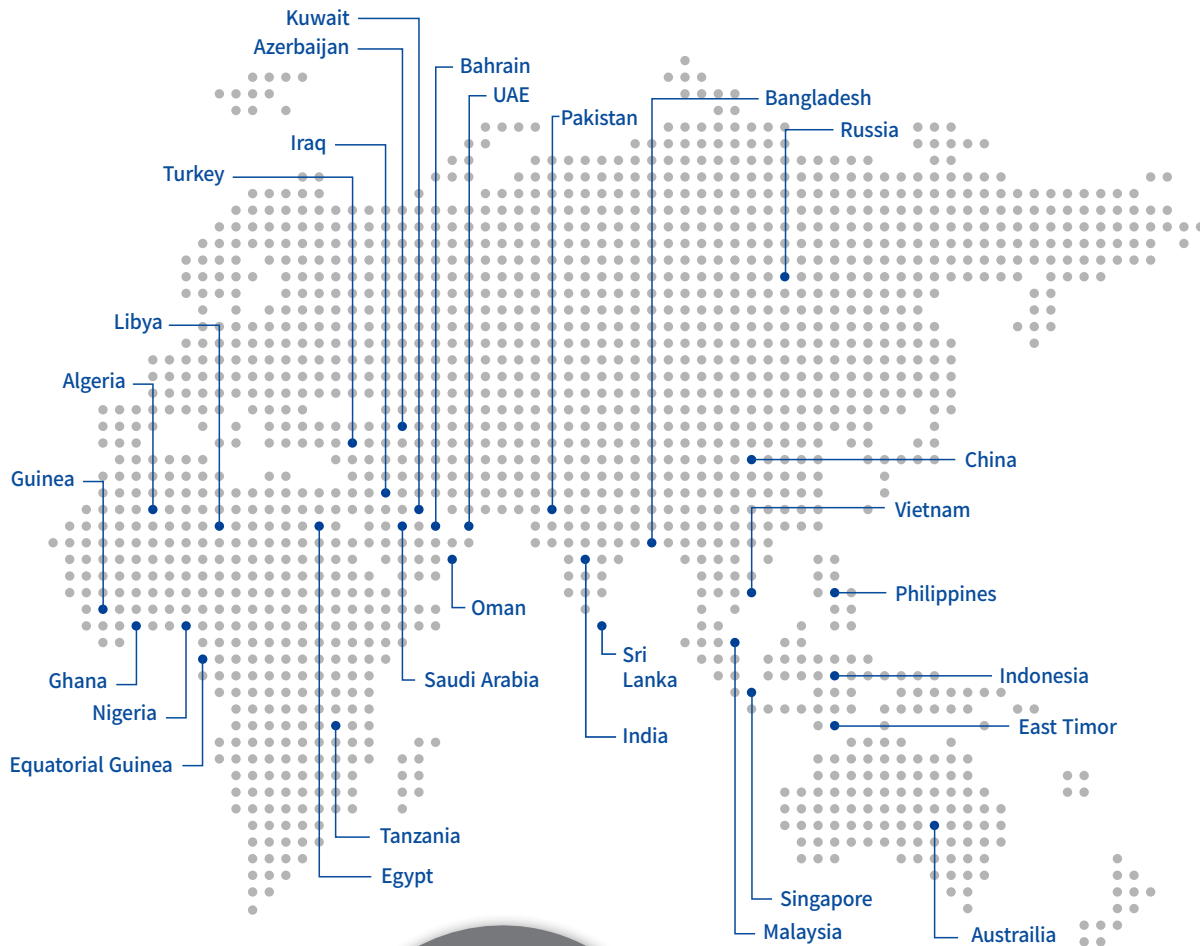
We will be the “Leader of the technology” who makes a big difference for the more people around the globe.

GLOBAL

Overseas
Projects

Overseas Projects

Based on a wide range of marine and port related project experience in various countries over several decades, we can satisfy our clients' needs by offering integrated engineering services that separate us from our competitors, from technical support to project proposals and all those procedures required for the international bids. Through the global network, we have diversified and expanded the scopes of our overseas projects by actively participating in our own ordering activities, partnerships with EPC bids, the projects funded by international funds (MDBs such as WB, ADB, AIIB, EDCF), and various ODA projects.



Design of facilities and site preparation for the BAKLANG PORT PROJECT
 LOCATION Nigeria | YEAR 2011



Feasibility study for development of Baku new port
 LOCATION Azerbaijan | YEAR 2008



Colombo Port Expansion Project East Container Terminal (Phase-1)
 LOCATION Sri Lanka | YEAR 2013



F/S for Port Development and Review of the Port Master Plan of Acajutla and other ports in El Salvador

LOCATION El Salvador | YEAR 2018 | CLIENT Ministry of Oceans & Fisheries



F/S on Cebu New Port Construction in the Philippines

LOCATION Philippines | YEAR 2015 | CLIENT K-EXIM Bank



The Pre-F/S for the Development of the Amapala Port in Honduras

LOCATION Honduras | YEAR 2016 | CLIENT KOICA

Pilot Project for the Empowerment of Marine Environment Control Infrastructure in Vietnam	2021	KOICA	Feasibility Study on Cebu New Port Construction in the Philippines	2014	Korea Exim Bank
Feasibility Study for Port Development and the Port Master Plan in Indonesia	2019	Ministry of Oceans and Fisheries	Consultancy Service for Basic design and Preparation of Tender Documents for EPC Contract for the Construction of GSPL Shipyard, India	2010	GSPL
Feasibility Study for Port Development and Review of the Port Master Plan in Bangladesh	2019	Ministry of Oceans and Fisheries	Design of FERTIL Expansion Project (Fertil-2), UAE	2010	Samsung Engineering
Feasibility Study for Port Development and Review of the Port Master Plan of Acajutla and Other Ports in El Salvador	2018	Ministry of Oceans and Fisheries	Coastal protection and management policy addressing climate change impact in Indonesia	2010	KOICA
Design for Tender Submission for King Salman Project, Saudi Arabia	2018	HYUNDAI E&C	Feasibility study for Baku International Sea Trade Port, Azerbaijan	2008	GS E&C
Offshore Civil Engineering Service for SSPP Project	2018	Hyundai Heavy Industries	Basic design of VINASHIN crane rail foundation, Vietnam	2008	HYUNDAI E&C
Feasibility Study and Masterplan for the Alexandria Greater Port Development, the Arab Republic of Egypt	2016	Ministry of Oceans and Fisheries	Review and study service of bidding document for Oil terminal construction in Vanphong, Vietnam	2007	POSCO E&C
The Preliminary Feasibility Study for the Development of the Amapala Port in Honduras	2016	KOICA	Master plan for port development and site preparation of the integrated steel & power plant in VAN PHONG, Vietnam	2007	POSCO E&C
Master Plan of Port Development in Colombia	2016	Ministry of Oceans and Fisheries	Technical consulting for Dalian Shipyard on the first stage design	2006	Dalian Shipbuilding
Consultancy for Designing of a Dry-Dock Including Dock Gate & Other Facilities	2015	Karnafuly Dry Dock Limited	Master plan for port development and site preparation of the steel plant of POSCO-India in Orissa	2005	POSCO E&C
Additional Technical Analysis and Support of Caissons for the Proposed Reclamation at Tuas Finger One Project	2015	HYUNDAI E&C	Basic aDetailed design for Construction Project of KIDECO PASIR Coal Facilities and Port, Pasir, Indonesiadesign of VINASHIN crane rail foundation, Vietnam	1988	Korea-Indonesia Human Resources Development Service



FUTURIE



WE CREATE **FUTURE** TECHNOLOGIES

We embrace new advances and create a better future.

Almost every day we hear of amazing advances in engineering technology, advances that have the potential to totally change the way we plan, develop, design and construct facilities in the future. DY believes that future can be now. We embrace these new advances and strive to incorporate and adapt these new technologies to our past experience and successful and proven methods in order to give each client a facility that will serve them well into the future.

COMPANY HISTORY

HALF-CENTURY

2018	Aug. 2018	Registered the Software Service (B18-161294)	
	Mar. 2018	Registered as a Special Organization for Safety Impact Assessment for Underground(Gyeongnam No. 9)	
	Sept. 2015	Registered as a Special Organization for Safety Inspection	
	Mar. 2015	Registered the Engineering Consultancy Service for Waste Disposal	
	Apr. 2014	Registered the Engineering Consultancy Service for Noise and Vibration, Natural Soil and Environment	
	Feb. 2013	Registered the Engineering Consultancy Service for the Field of Marine	
	Jul. 2012	Registered the Engineering Consultancy Service for the Field of Transportation	
2010	Dec. 2010	Relocation of the Head Office to Changwonsi, Gyeongsangnamdo	
	Sept. 2009	Certification for Value Engineering(SKVE-2009-0008)	
	Apr. 2008	Licensing for Sea Area Utilization-Impact Assessment(No. In-001)	
	Mar. 2008	Licensing for Disaster Contingency Plan(No.145)	
	May. 2007	Certification for Technological Innovative Entrepreneurship (Seoul Regional Small Medium Business Administration No. 7012-1991)	
	Nov. 2006	Obtained licensing for Environmental Impact Assessment(No. Seo-216)	
	Aug. 2006	Registered as a Comprehensive Construction Service Provider(Seoul Reg. No. 02-01-1012)	
	Apr. 2006	Registered for Construction Industry(Seoul Reg. No. 01-0485)	
	1999	Nov. 1999	ISO 9001 Certification(CRK- Registration Service)
		Jan. 1997	Established the Industrial Technology Research Association(Ministry of Science & Technology No. 210)
Nov. 1994		Designated as a Company Hiring Professional Researchers	
May. 1994		Set up a Research & Development Center	
May. 1994		Registered for Overseas Construction Management(The Ministry of Construction and Transportation)	
Feb. 1994		Registered for Overseas Construction(The Ministry of Construction and Transportation)	
Jan. 1994		Registered as an Engineering Consultant(Korea Engineering Promotion Association)	
Jun. 1993		Registered for Construction Industry(Seoul Reg. No. 01-0485)	
Nov. 1987		Membership at I.B.R.D(International Bank of Reconstruction and Development)	
Oct. 1987		Membership at A.D.B(Asian Development Bank)	
Jan. 1983		Military Security Permission License(No. 2420635)	
1980		Sept. 1980	Registered as an Engineering Service Provider at the Ministry of Science and Technology
		Aug. 1980	DY Engineering Established



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