## **GLOBAL BEST & FIRST**





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# Global GS E&C

# Friendship is...

Expanding the size of the world and broadening the depth of your emotion. Global Corporation, GS Engineering & Construction Co. is leading us to a world of warmth filled with amazing new sights.





## **CEO's Message**

We sincerely thank our customers who have come to love and support GS E&C.









Global best & first

Since its establishment in 1969, GS E&C has continued its brilliant growth on the basis of a balanced business portfolio of industrial plants, electric power generation, environmental, civil engineering, construction and housing projects and is standing tall as the super excellent construction company of Korea.

We will lay the foundation stone for our emergence as a Global Top Tier constructor through our continuous development of human resources, the acquisition of high technology and the spirit of bold challenge and speedy implementation.

Dear Customers.

Now GS E&C is making a new start in its quest to become a true super excellent global company that leads the construction culture in Korea and competes with world-class construction companies.

We will secure global capabilities and fire up future growth businesses in the environment and energy-related business sectors and seek out continued investment and technological development. At the same time, we will maintain stable growth through systematic risk and business management.

GS E&C promises to remain true to our role as the best business partner providing total solutions through endless R&D and innovation.

We are putting top priority on providing our customers the quality and value.

Thank you.

CEO | Myung-Soo Huh / 5. /f-



Securing Top 5 Status in the Financial World,
And the No. 1 position in corporate preference,
GS is societies and the customer's most respected corporation!



#### **GS Group**

GS took the Top 5 status in the financial world, securing future growth engines, and taking the first place for their mid and long term goals of achieving the vision of 'Value No.1 GS envied by everyone'. This corporation is concentrating our energy on the profit-centric qualitative growth that took the Top 5 status in the financial world. We continue with plans to discover new businesses and continue to place emphasis on greater sales from our overseas/local businesses to secure our future growth engines.

This corporation aims to take the first place in corporate preference by revealing the best corporate image and by being the top corporation in the field by putting its top priority on being a corporate citizen most loved and respected by our customers and society while simultaneously seeking sustainable and profitable growth.



#### Symbol

The symbol represents construction, dynamism of energy business, growth and vigor of the distribution/service business

Orange: Energy, Dynamism, Sun, and Enthusiasm

Green: Environment, Land, Unlimited potential, Growth, Strong will, Support

Blue: Leadership, Excellence, Solidity, Sky, and Creativity

#### Logo

Our logo represents GS group's commitment to customer satisfaction in the forms of Good Service, Great Satisfaction, Great Solution and Great Success, etc.

#### **GS Group**

#### GS E&C

#### GS Holdings

GS Caltex (Petroleum)

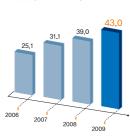
GS Retail (Convenience Stores, Supermarkets)

GS Shop(Online Shopping, Home Shopping)

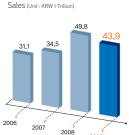
GS EPS(Power Plant & Development)

GS Global(Cement, Energy, Steel, Plant & machinery, Distribution)

GS Sports (Pro Soccer-FC Seoul)



Assets (Unit: KRW 1 Trillion)



Leaping toward the Global Top Tier, GS E&C develops itself into a true global corporation through the Vision 2015 plan!



#### **VISION & CORE VALUES**

GS E&C has begun a strong jump towards becoming a global Top Tier construction company, extending its borders far beyond. We will stand on high as a company that provides the best value to our customers through the 'Vision 2015', a specific strategy that was established to reach our goal of being a Top Tier company by 2015.

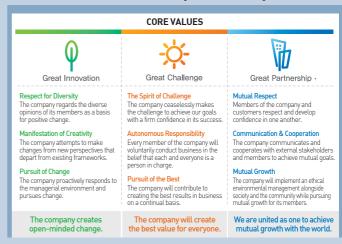
VISION

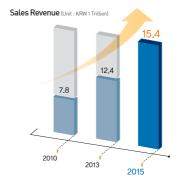
Through creativity and passion, GS E&C aims to create values that enrich human life and declare our emergence as a reliable partner and a global No. 1 company that is trusted by employees, investors and society.

With our creative passion, trust in us to create the world's best values Best Partner & First Company

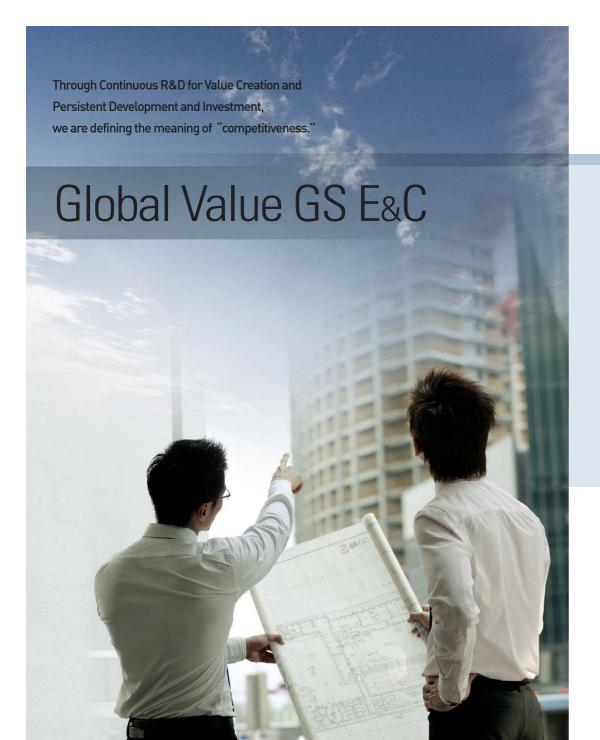
#### **CORE VALUES**

GS E&C is maximizing customers' satisfaction all over the world based on our three core values of change through innovation, being the best and securing trust.









#### GS E&C R&D

GS E&C is continuously investing in R&D to realize the dreams and future of the people of the world.

Technology Division, the core of the competitiveness of GS E&C aims to set a future image to create the best value through the acquisition of global top-tier technology that can realize Vision 2015 while pushing for such mid-to-long term strategies as "Advance into New Business through Technology" and "Enhancement of Technological Competitiveness in Existing Businesses."



- Acquisition of global top-tier technology
- Creation of the best value through technology

#### • Strategic Direction & Implementation Tasks

Earlier acquisition of World Class Technology products

Enhancement of design of new growth business & engineering competence

Green business

Enhancement of technological competitiveness • in existing businesses

Advance into

new business

through

technology

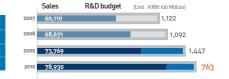
Cost reduction & enhanced acquisition of technology

Enhanced support for technology/safety/contract

#### Status of R&D investment

As a leading company in construction area, GS E&C has continued to expand R&D investment to discover future growth engines.

R&D budget				
Year	2007	2008	2009	2010
Sales	60,110	68,671	73,769	78,930
R&D budget	1,122	1,092	1.447	760
Ratio of investment in R&D	1.9%	1.6%	2.0%	1.0%



#### **GS E&C Research Institute**

- Environmental Research center | Clean room lab | Housing environment lab | Material Research center | Subsidiary Facilities and Micro-grid Verification Facilities
- Site area: 20,174 pyeong / Building area: 1,803 pyeong (Total floor area 5,579 pyeong) / Location: 417-1, Deokseong-ri, Idong-myeon, Cheoin-gu, Yongin, Gyeonggi-do, Korea

# Digitalized System

#### **GS E&C Systems Today**

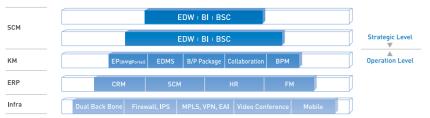
The company's digital (online) management systems are separated into customer relationship management (CRM), supply chain management (SCM), knowledge management (KM) and finance management (FM). Customer relationship management is subdivided into (1) corporate customers for the housing, architecture, civil engineering, and plant businesses, and (2) individual customers such as persons with resort memberships. The optimal CRM system is designed to accommodate the needs of customers in each segment.



#### **Future Direction**

To enhance operational efficiency, GS E&C has built optimal networks between the Head Office and construction sites, inside and outside Korea. Links to all construction sites are subject to security controls 24 hours a day. The company has used this platform to complete a consolidated construction data system for everyday operation. The next step is to become a real-time enterprise to assist strategic decision making.

#### Offering the Ultimate IT Solutions to Achieve Vision 2015



#### **GS E&C TPMS**

#### **TPMS Realizing Cost Innovation**

#### Daily Work Management

Daily work management entails planning and supervising work to be carried out onsite for each day. GS E&C has categorized all of the projects it has completed according to the work types and standardized the daily works of each type of projects as a Task. When a new project is taken on, a project manager formulates a master work schedule and sets up the task process and schedule in collaboration with subcontractors in accordance with the master plan. Then, conflicting Tasks are adjusted and resolved in advance of any anticipated problems

#### Material Management

TPMS material management operates under the JIT principle which states that the right amount should be delivered to the right place at the right time. The material information is linked to the detailed activity and in accordance with the work schedule, the orders for the required materials are sent to the vendors via a B2B system. The materials are delivered to the site at exactly the expected time. In the case of rebar, it is managed systematically from shop drawings to installation on the site by GS E&C's own rebar processing plant and TPMS.

#### Manpower Management

TPMS using RFID technology enables us to keep a close tab on the mobilized worker status and reduces the risk of safety accidents by restricting entrance of the safety offender to the site. It also helps establish an accurate manpower mobilization plan by calculating the productivity per worker automatically.

#### Portal Site

A customized portal site provides information and menus according to the users' needs, making it possible to share project information via TPMS. Finally, TPMS plays a role in collaboration binding every project stakeholder such as client, subcontractor, general contractor and supervisor etc.

In 1996, GS E&C became the first in the industry to adopt a Project Management System using EVM(Earned Value Management) to link schedule with profit/loss. In 2006, the TPMS(Total Project Management System) was completed by adding the concept of Lean Construction and JIT(Just In Time) to the Project Management System. This was done with the purpose of reducing waste and optimizing work processes.

This has been implemented on all sites and has enabled drastic increase of productivity. TPMS is an innovative integrated management system that enables RTE by managing the status and performance of construction sites.



# GS E&C BUSINESS AREA





Housing · Apartments · Residential Complexes & Studio Apartments

Civil - Underground Spaces & Railroads - Roads & Bridges

- Dams, Harbors & Development

Architecture · Office Building · Education, Research & Hospitals

· Culture, Leisure & Sports

· Clean Rooms & Manufacturing Facilities

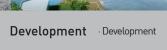
· Logistics & Remodeling

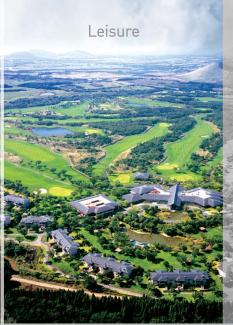


Power Plant Combined Cycle Plant Error Thermal Fired Power Plant Co-generation Plant District Heating Nuclear Power Plant









Leisure · Resorts · Golf Courses & Hotels

# GS E&C HISTORY



















of GS E&C, was established

• Lakhee Development Co., the origin

 Awarded U\$ 1 billion Construction Export Tower for overseas construction.

1982

• Established a local incorporation in the U.S.

- The company's name was changed to LG Construction Co., Ltd.
- Acquired Certificate of ISO 9001 International Quality Management Standard.

## 2000

- Seohae Grand Bridge received a Presidential Award.
- Awarded the best business manager prize in (97 construction management Grand Prize) by The Korea Management Association Corporation.Standard.

## 2002 The Xi apartment brand was launched.

 Awarded for corporate PR in World Advertisement Grand Prize International Quality Management Standard.

## 2005 The company's name was

changed to GS E&C Co., Ltd. (GS Group officially launched.) · Selected as a company of good corporate governance by Korea

Exchange.

#### Ranked as the 31st construction company in the world for 2 consecutive years by ENR (Engineering News-Record) in the U.S., a world-famous construction magazine.

## 2008 Ground-breaking ceremony for

the TBO road in Vietnam · Ranked No. 1 in the First Brand Grand Prize for 3 consecutive years with 'Xi' APT.magazine.

## 2009 2009'13<sup>th</sup> award ceremony for the ideal living

- 2009' Global Management Convention grand prize in the Customer Satisfaction Management sector 2009 Korean Architecture Award - grand prize in the
   Selected as the world's 36th largest constructor
- private sector • Received the 2009 'Most Reliable Korean Corporation Award' hosted by the Korea CEO

apartment-received the Banpo Xi Presidential

# 2010

- Integrated into DJSI Global Company Announcement of core value for the creation of
- a new organization culture Selected as the most trusted company 2 years
- by ENR, a worldwide construction weekly magazine in Europe, in 2010

## 1969~1994

- 1969 Lakhee Development Co. was established
- 1975 The company's name was changed to Lucky Development Co. Ltd.
- 1977 Lucky Overseas Construction Co., Ltd was established.
- 1979 Lucky Overseas Construction Co. was merged. / Appointed as a housing construction company by the Ministry of Construction.
- 1981 The company was opened to the public.
- 1983 A joint incorporation of Lucky Development (Arabia) Ltd. was established.
- 1984 Awarded U\$1 billion Construction Export Tower for overseas construction. / A joint company in the U.S., Lucky Development International Inc. was established.
- 1989 A local incorporation in Saipan, Lucky Development Inc., was established. /Vision 21C was established to be 'No. 1 General Developer in Korea' / Global General Constriction Company
- 1991 Acquired construction license in Japan. / Received a medal of merit for exemplary tax payment on '1991 Tax Day' | The company history of '20 Years of Lucky Development' was published. 1992 Granted a patent for retractable screens for the construction of variable walls in an apartment complex.
- / Appointed as No. 1 Company for disaster prevention among the 30 largest construction companies. 1993 Granted a certificate for the capabilities to build atomic power plant facilities by the American Society of
- Mechanical Engineers. A local incorporation in Bangkok, Lucky Thai Engineering Construction Co., Ltd., was established. 1994 Acquired Certificate of ISO 9001 International Quality Management Standard.
- "Korean-style garbage burning system for medium and small cities" technology acquired KT mark.

#### 1995~2001

- 1995 The company's name was changed to LG Construction. / The beginning of the year for 'Creation of a new construction culture' was announced. / The company's own supervision team was formed for the first time
- 1996 "Goyang-Hwajeong LG APT" was selected in the "Good APT Contest" held by Maeil Economic Daily. Acquired certificate of ISO 14001 Environmental Management System.
- 1997 "Busan Haewundae LG APT" was selected in the 'Good APT Contest' held by Maeil Economic Daily. "LG Chemica's Daedeok Research Center" was awarded the grand prize in the '97 Korea Construction
- Awarded in 6 areas including the Top Manager Prize in the '97 Construction Management Grand Prize' held by Korea Management Association Corporation. 1998 "Korea Polymer Building" was awarded in the '98 Korea Construction Culture Grand Prize'
- LG-HP SUNFLOWER INTERNATIONAL VILLAGE was awarded by Vietnam Haipong People's committee. Appointed one of the 30 superior companies in The 2nd Company Computerization Grand Prize' held by the Ministry of Information & Communication.
- 1999 LG Construction merged with LG Engineering. | Awarded a grand prize in the APT section in the good companies chosen by female consumers.
- 2000 The 'BIO-NET' construction method for sewage treatment was appointed as a new technology by the Ministry of Construction & Transportation. | Seohae Grand Bridge received a Presidential Award.
- 2001 LG Construction was appointed by The Korea Stock Exchange as the best exemplary company in corporate
- The construction work for the expansion of Donghae Expressway was awarded a Presidential Prize. Appointed as a Hit Product during the 2nd half of the year in APT division by the Daehan Daily Newspaper. Awarded for corporate PR in World Advertisement Grand Prize.
- LG Village in Suji, Yongin city, was awarded in the gardening division in the Contest for the 1st Eco-friendly Tree-planting Landscape.

#### 2002~2005

- 2002 Uljin-Jukbyeon road construction site was awarded by the Director of Busan National Land Management Agency.
- Balan-Banwol road construction site was awarded by the Minister of Construction & Transportation. LG Construction was awarded a silver industrial medal of merit for exemplary tax payment. LG Construction was awarded a Presidential prize on the Day of Housing Construction. Korea Electricity Building was awarded an architectural prize by Seoul City.
- Appointed by Korea Stock Exchange as a superior exemplary company for corporate governance. 2003 LG Construction declared the "VISION 2010"
- LG Construction received the "Award for Cyber IR" in the 5th Environmental IR Grand Prize. LG Construction was awarded the "First prize in construction/cement division" in the 1st Money Today IR Grand Prize.
- 2004 Awarded a grand prize in the construction division in "2004 Environmental Management Grand Prize". LG Construction was appointed by Korea Stock Exchange as a superior company for corporate
- LG Construction received the "Award for Cyber IR" in the 6th Hankyung Environmental IR Grand Prize. LG Construction was awarded the "First prize in construction/cement division" in the 2nd Money Today IR Grand Prize.
- 2005 The company's name was changed to GS E&C Co., Ltd. (GS Group officially launched.) and the company was ranked 1st in global customer satisfaction competency index (GCSI). Ranked 1st in the APT division in 2005 Korea Standard Service Quotient Index. The restoration project of Cheonggyecheon Stream in Seoul was awarded " silver industrial medal of merit". Awarded "General Grand Prize" in the 1st Grand Prize of Korea Civil Engineering & Construction.

#### 2006~2010

- 2006 Received an appreciation plaque for achievement of U\$ 200 billion in receiving orders in overseas construction.
- 2007 Ranked as the 31st construction company in the world for 2 consecutive years by ENR (Engineering News-Record) in the U.S., a world-famous construction magazine, Awarded a "Gold Tower Industrial Medal of Merit" on Tax Pavers" Day, Achieved KRW 10 trillion in receiving new orders. Awarded the "Best Business Management Company in Asia" by 'Asia Money'.
- 2008 Construction of TBO road in Vietnam started. Awarded the General Grand Prize in construction & industrial plant division in the 1st Korea Construction Quality Grand Prize. Management Standard.
- Awarded the 'Medal of merit for paying more than KRW 100 billion in tax on the 42<sup>rd</sup> tax payers day'. 2009 2009'13th award ceremony for the ideal living apartment-received the Banpo Xi Presidential Award

Received the 2009 'Most Reliable Korean Corporation Award' hosted by the Korea CEO Association

- 2009' Global Management Convention grand prize in the Customer Satisfaction Management sector 5th Korean Civil Engineering and Construction Awards Ceremony - received the grand prize in the Time Square General Buildin
- 2009 Korean Architecture Award grand prize in the private sector 5th Korean Civil Engineering and Construction Award - grand prize in general construction
- Broke overseas cumulative orders of \$21billion | The world's 45th construction company selected by ENR(Engineering News Record)
- 2010 First Brand Award Xi ranked 1st in the apartment house sector 5 years in a row Overseas Construction Award - Received the highest award in the plant sector
- Korea Masterpiece Brand Award Xi received the Grand Prize in the high-end apartment house sector Korea Housing Service Award -'Xi' received the Land Transport and Maritime Affairs Minister Award
- Han River Bam Island Xi was selected in the environmentally friendly sector for the Housing Culture Award in the second half of the year Korea Apartment House Brand Award Money Today
- Integrated into DJSI Global Company
- Announcement of core value for the creation of a new organization culture Selected as the most trusted company 2 years in a row
- Selected as the world's 36th largest constructor by ENR, a worldwide construction weekly magazine in Europe, in 2010

**Business Portfolio** 

GLOBAL BEST & FIRST

Global Best & First - GS E&C - Global BEST & FIRST - GS E&C - Global Best & First - GS E&C

# Plant

# This corporation is expanding into the world like a deep-rooted tree!

GS E&C has grown into the nation's top plant construction company recognized by the world both nominally and virtually in the EPC sector of oil refining/gas and petrochemical industries.

Our engineering and technical skills have been accumulated over many years.

Also, GS E&C is growing steadily by reinforcing network in overseas, diversifying business zone, strengthening Gas business, and securing of reliable future growth engines.





# **P**etrochemical

# Diverse experience of GS E&C makes it impossible to establish the its own petrochemical plants all over the world.

GS E&C has carried out successfully numerous petrochemical projects such as Ethylen, PP, Phenol/BPA, OCU of LG Petrochemical, and etc. in domestic market as well as Lidong Aromatics, Thai ATC Aromatics in Asia market.

With a wealth of experience in petrochemical plant construction, this corporation obtained the order of Sohar Aromatics in Oman for the USD 1.26

Billion which was the nation's largest one in 2006. We successfully completed the construction in early 2010 with the impressive attainment of an accident-free 1.8 million man-hours.

GS E&C has tried to expand its business area into Africa, Egyptian LAB project was a trigger point to break into Africa, as well as push forward the business into the Mideast/Asia/Central and

South America.











#### 001<sub>P</sub> E-LAB

Location: Alexandria, Egypt
- Linear Alkyl Benzene 100,000 MTPY
Project period: 2006. 02 ~ 2008. 07



#### 002<sub>P</sub> Sohar Aromatics

Location: Sohar, Oman
- BTX 1,000,000 MTPY
Project period: 2006. 06 ~ 2009. 11









# 006<sub>P</sub>

OO5P QP LAB Location: Mesaieed, Qatar - LAB 100,000 MTPY Project period: 2004. 01 ~ 2006. 04

005P

# OO6P ATC No.2 Aromatics Location: Map Ta Phut, Tailand - Benzene 362 KMPA - Toluene 66 KMPA

- Para Xylene 622 KMPA Project period: 2005. 08 ~ 2008. 10

#### 004P HMC PP

Location: Map Ta Phut, Tailand - Polypropylene 300,000 MTPY Project period: 2007. 07 ~ 2009. 11

# Oil & Gas

# The endless efforts in Oil & Gas Plant field were finally crowned with a successful penetration into world's market and we're gradually get to earn a world-wide reputation.

GS E&C was able to accumulate extensive Know-how of internal upgrading facilities by excuting GS-Caltex RFCC in the early 2000s, No. 2–3 HOU since the mid-2000s. This Corporation has not only strenghten fundamental skills in Oil sector, but also branched out into Gas sector through the LNG Terminal in Tongyoung, Incheon, and Pyeongtaek.

GS E&C has built up its oversea experience in Azerbaijan/Thailand/Qatar since the early 1990s, and showed impressive execution with its reliable corporation image as well as capability of managing large scale projects such as SP 9 ~ 10 in Aran, Green Diesel in UAE, PTTLNG in Thailand, and Salalah Methanol in Oman.

GS E&C was able to awarded USD 2.18 Billion contract in 2009 to build natural gas seperation facilities in UAE, which is called GASCO 4th NGL. Self-confidence for carrying out large-scale gas project and bright prospects for entering gas sector with effective strategy are the byproduct of this outstanding award.

#### **007**P Azerpetrochim CDU / VDU

Location: Baku, Azerbijan

- CDU 45,000 BPSD

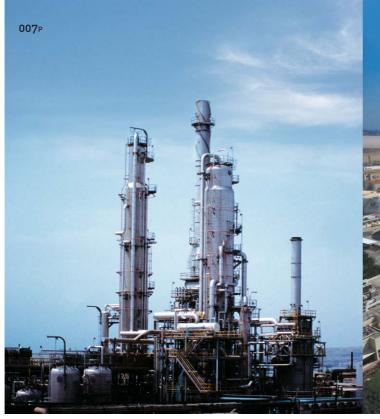
- VDU 28,000 BPSD

Project period: 1991. 10 ~ 1994. 04

#### 008<sub>P</sub> Laffan Refinery

Location: Laffan, Qatar

- Condensate Refinery 146,000 BPSD Project period: 2005. 05 ~ 2008. 12











#### 009P QP Refinery Expansion

Location: Mesaieed, Qatar

- CDU 70.000 BPSD
- Naphtha Hydrotreater 23,000 BPSD
- CCR 12,300 BPSD
- Kero Hydrotreater 11,223 BPSD Project period: 1999. 01 ~ 2002. 03

#### 010P Salalah Methanol

Location: Salalah, Oman - Methanol 1,000,000 tons/year Project period: 2007. 07 ~ 2010. 04

## O11P PTT LNG Location: Map Ta Phut, Thailand

- LNG Storage Tanks 160,000 kl/tank Project period: 2008. 02 ~ 2011. 06



#### 015P KNPC OCR Revamp of ARDS Unit

Location: Mina Abdulla, Kuwait - ARDS 66,000 BPSD → ARDS 84,000 BPSD Project period: 2002. 11 ~ 2004. 10

#### 016P TUPRAS Izmir DHP

Location: Izmir, Turkey - Kero./Diesel/Hydrotreating 60,400 BPSD

- SRU 65,335 MTPY Project period: 2002. 06 ~ 2004. 12

#### 017P No.3 Heavy Oil Upgrade

Location: Yeosu, Korea - VR HCR 60,000 BPSD

- VGO FCC 53,000 BPSD - HMP 110 MMSCFD

- SRU 450 tons/day

Project period: 2008. 02 ~ 2010. 08









#### 012P POGC South Pars Gas Field Development Phase 9&10

Location: Assaluyeh, Iran - Gas Facilities 2,000 MMSCFD Project period: 2003. 03 ~ 2010. 03

#### 013P TPI 150,000 BPSD Refinery

Location: Rayong, Thailand

- CDU 150,000 BPSD
- LPG Sweet 5,500 BPSD - Gas Con. 5,600 BPSD
- Sour Water Stripping 25,400 MMSCFD

Project period: 1996. 07 ~ 2000. 11

#### 014P Kirikkale DHP-CCR

Location: Kirikkale, Turkey - CCR 22,650 BPSD

- DHP 28,000 BPSD

Project period: 2005. 01 ~ 2007. 07



# Housing

# We paint the world with beautiful smiles!

It is people that should be made to be beautiful, not a structure. It is our life that should be renewed, not the residence. Thus GS E&C is constructing new concept of apartments to harmonize people, the environment and high-tech digital surroundings. GS E&C can build a house that can bring beauty to human life.





# **A**partments

#### High class apartment complexes that take the lead in high-quality residential culture.

GS E&C began to construct apartments nationwide in the 1970s, and we have led the housing industry and residential culture in Korea. In September, 2002, the company initiated a new challenge to become the No. 1 player in the housing market by introducing a new brand 'Xi' to replace the existing 'LG Village'. Xi has become the brand name for the best luxury apartments in Korea and by releasing its best technical skills in the business world is providing a higher level of living space. These are the spaces that are envied by all and reflect our fundamental philosophy of grasping customer trends in advance to create a new and better lifestyle.

Also, this corporation is leading the housing culture of the next generation by materializing its high-tech energy conservation technologies through Green Smart Xi, an environment-friendly, energy-saving housing design. This corporation has achieved the record of receiving the most awards in the business world in sectors such as brand competence, customer satisfaction and service from many external organizations by winning recognition for our high

GS E&C has supplied apartments to all major cities in Korea including Seoul, Yongin, Suwon, Daejeon, Daegu, Busan and Gwangju and also is showing excellent performance in the reconstruction and redevelopment field.

GS E&C will continue to create the residential culture of the future and foster the most desired apartment brand through endless technical innovation and R&D.













"XI", the top class apartment brand in Korea | Includes the meaning of 'special intellect' as an abbreviation for eXtra Intelligent, and symbolizes the top quality apartment that the most discerning customer would select. Xi is a value-centric high class space treated in consideration of its residents' values and septibility and a space that goes beyond the simple concept of what a residence should be. This corporation is going to

provide new space concepts and create new values securing aesthetic appreciation, culture and ultramodern design. We always respect our customer as a special being worthy of consideration and the utmost in service. We lead high class residential culture by providing a luxurious lifestyle and a higher level of cultural experience.

#### 001н BanPo Xi

Location: Seoul, Korea - Housing units: 3,410

Project period: 2006. 04 ~ 2009. 01











002н Ilsan Xi

Location: Kyungkido, Korea - Housing units: 4,683 Project period: 2008. 01 ~ 2010. 09



# - Housing units: 656 Project period: 2000. 05 ~ 2003. 04

003н HanKang Xi Location: Seoul, Korea

004н Heights Xi

Location: Busan, Korea
- Housing units: 1,149
Project period: 2004. 12 ~ 2008. 03

005H YangJu Xi Location: Kyungkido, Korea - Housing units: 4,902 Project period: 2003. 05 – 2006. 04

OO6H ChungAm Xi Location: Seoul, Korea - Housing units: 170 Project period: 2003. 07 ~ 2005. 08











#### 007н HanKang Bamsum Xi 008н SongDo Xi Harbor View 009н Cheongla Xi

Location: Seoul, Korea - Housing units: 488 Project period: 2007. 09 ~ 2010. 02

Location: Inchon, Korea - Housing units: 1,069 Project period: 2007. 07 ~ 2011. 02

Location: Inchon, Korea - Housing units: 884 Project period: 2007. 12 ~ 2010. 06

O10H Jochiwon Xi Location: Chungcheong Namdo, Korea - Housing units: 1,429 Project period: 2006. 11 ~ 2008.10

# Residential Complexes & Studio Apartments

# A high class residential space that contains new added values

GS E&C is basking in the limelight in residential complexes & apartment sectors This corporation has carried out such landmark projects like Yongsan Park Xi in Seoul, Yeouido Xi and Seocho Art Xi in the case of residential complexes, and has built studio apartments in both high traffic areas and business centers in Seoul Hangangno, Yeouido, Seonreung, Seocho the Gyeonggi Bundang, and the Incheon Airport, and our studio apartments are achieving recognition for the best merchantability. GS E&C will continue to expand into commercial-residential complexes and studio apartments by securing capabilities for the construction of high-rise buildings.

#### 011н Yeouido Xi

Location: Seoul, Korea - Housing units: 580 Project period: 2004. 12 ~ 2008. 04

#### 012н YongSan Park Xi

Location: Seoul, Korea - Housing units: 310 - Studio: 995 Project period: 2002. 08 ~ 2005. 12











#### 013н Mukdong Xi

Location: Seoul, Korea
- Housing units: 411
Project period: 2007. 10 ~ 2010. 12

#### 014H Boutique Monaco

Location: Seoul, Korea - Housing units: 172 Project period: 2005. 05 ~ 2008. 07

#### 015н SeoGyo Xi

Location: Seoul, Korea
- Housing units: 617
Project period: 2008. 07 ~ 2012. 06

#### 016H The City Seven Xi

Location: Kyungsang Namdo, Korea - Housing units: 1,060 Project period: 2005. 06 ~ 2008. 12

# Civil

# This corporation expands the world with its continual quest for something to take pride in.

It is our pride to contribute to the balanced development of the nation and the development of the national economy where GS E&C has successfully completed numerous civil engineering and SOC projects.





# **U**nderground Spaces & Railroads

#### A future land that broadens the horizons of life

With its characteristics and development potential, underground development becomes an alternative to solve the problem of limited space on the ground and is emerging as a new sphere in the 21st century. GS E&C has participated in the construction of subway lines and transportation facilities including the station buildings for the Subway Lines #3, #5, #6, #7 AND #9 IN Seoul, Incheon Subway Line #1, Hopo Car Station in Busan subway, Jijeongbu LRT (Light Rail Transit), Metropolitan Rapid Transit System line number 3 in Daegu, Metropolitan Rapid Transit System Zone 205 in Incheon, the Magnetic levitation train in Yongjong Island, Metro rail C911, C913 in Singapore, and many others. Our R&D in soil mechanics, rock mechanics and excavation techniques, has strengthened our capabilities for the development of underground space. In addition, the company promoted economical transportation abilities through railway projects that connect the whole nation. In addition with the completion of the Seoul-Busan High Speed Railways, a revolution began by connecting the major Korean cities in a system where all can be reached in 2 hours.







#### 001c Seoul-Busan High Speed Railroad

Location: Occheon, Korea - Total length 12.25 km

- Double Track Length 3.585 km

Project period: 1999. 05 ~ 2002. 11

002c Universal Unique Urban Maglev

Location: Incheon.Korea - PSC BOX Girder : 6.11km, 6Stations Project period: 2010. 03 ~ 2012. 09

#### 003c Uijeongbu Light Railway Transit

Location: Uijeongbu, Gyeonggi, Korea - Total length 11.1km, 15 Station, 1 Depot Project period: 2007. 08 ~ 2011. 07







#### **004**c Gyeongchun Line Electrified Double Track Railway Section No.7

Location: Chuncheon, Kangwon, Korea

- Total length 12.146km, 5 Bridge(L=3,224m)

- 4 Tunne([L=8,198m], 2Stations
Project period: 1999. 12 – 2011. 12

#### 005c Jungang Line(Cheongnyangni-Deokso) Electrified Double Track

Location: Namyangju, Gyeonggi, Korea

- Total length 9.5km

- 15 Bridges, 4 Station

Project period: 1997. 10 ~ 2006. 06

#### 006c Seoul Metro Subway Line No. 9 Section No.904 Location: Seoul, Korea

Location: Seoul, Korea
- Total Length : 1.95km, 2 Stations
Project period: 2001. 12 ~ 2009. 08

# Roads (Bridges & Tunnels)

# The main artery for the nation's development

Roads and bridges are the basic infrastructure for the development and prosperity of a nation and life itself is developed through the construction of road networks. Since its establishment, GS E&C has participated in numerous public and privately funded civil engineering and SOC projects to construct roads and bridges for the balanced development of the nation and to contribute to the national economy. The sweat from our hard work can be found on the Seohae Grand Bridge, which is the 10th longest bridge in the world with a total length of 7.31km, Gohajuggyo which is Korea's first 3-dimensional cable Sajang Bridge, 2nd Namhae Great Bridge which is the world's first tilted tower, the expressway that leads to the Incheon International Airport and the super highways that connect all major regions in Korea. GS E&C will focus on the construction of the world's best roads and bridges through continuous technological development.



#### 007c West Sea Grand Bridge

- Location: Dangjin,Korea
- Total length 4.08km
- 3 lanes each direction
- Bridge length 3.70km Project period: 1993. 11 ~ 2000. 12

#### 008c Cheonan-Nonsan Express Highway

Location: Cheonan, Korea

- Total Length: 24km, 4 Lanes
Project period: 1997. 12~2002. 12

#### 009c Expressway No.100 (Seoul Beltway)

Location: Yangju, Gyeonggi, Korea - Total length: 8km, 8 Lanes Project period: 2001.6 ~ 2007.12

# 010c Hyeonpung-Gimcheon Highway

Location: Gimcheon, Gyeongbuk, Korea - Total Length : 28.8km, 4Lanes Project period: 2001. 12 ~ 2007. 12













# O11c Expressway No.20 (Iksan-Jangsu Section No.5)

Location: Jinan, Jeonbuk, Korea

- Total length 3.4km
- 1 Bridge(L=1,060m), 1 Tunnel(L=2,300m) Project period: 2001. 11 ~ 2007. 12

# 012c Tan Son Nhat - Binh Loi Outer Ring Road 013c Goha Grand Bridge Location: Mokpo, Jeonnam, Korea

Location: Vietnam

- Total Length : 13.7km, 12Lanes, - Nielsen Arch Bridge Project period: 2008. 07 – 2012. 06

- Total Length : 4km, 4 Lanes Project period: 2004. 11 ~ 2012. 12



# 014c Daejeon - Dangjin Highway

Location: Dangjin, Korea - Total Length : 36.0km, 4Lanes Project period: 2001. 12 ~ 2009. 8

# 015c Gohyeon-Hadong IC2 National Road

Location: Gohyeon, Korea - Total Length : 3.1km, 4Lanes - Suspension Bridge : 990m Project period: 2009. 10 ~ 2016. 09

# Dams, River Developments & Marine Works

## An outpost for the development of a new world at sea

Korea is surrounded by the sea on three sides, and the vast ocean has become an important resource to be developed and managed. In this sense, harbors are essential in developing Korea into a logistics center in Northeast Asia. Dams are important in supplying a stable supply of service water and preventing national disasters. GS E&C has accumulated technologies and experience by participating in a Pan Yellow-Sea Port project which develops into a hub port in Northeast Asia. Pyeongtaek-Dangjin port, Gwangyang port, and the Incheon-docking facilities of the LPG undertaking base are representative examples and the company is proceeding with a large-scale port construction in UAF Abu Dhabi on the basis of our extensive experience in this area. For the construction of dams, the company will actively invest in core technologies beginning with Buhang Dam as a future growth engine. Furthermore, GS E&C has revived the eco-system and restored 600 years of cultural heritage through the restoration project of the Cheonggyecheon Stream. This corporation has also participated in the 4 Rivers Project of the Geumgang River, the Nagdong River to fall in line with the development plan of Korea's green growth. In the future, we will actively participate in development projects that will become an essential factor in balanced regional development.

#### 016c Cheonggye Stream Restoration

Location: Seoul, Korea

- 8 Bridges, Length 201.51m
- Landscaping and StreamRestoration 2.1km Project period: 2003. 06 ~ 2005. 12

#### 017c Pyeongtaek Dangjin Harbor Automobile Pier

Location: Pyongtaek, Korea

- Reclamation & Site improvement 123,250 m
- Foundation & Basin anchorageDredging 244,599 m² Project period: 2006. 04 ~ 2008. 10











# 018c Gunjang National Industrial Complex

Location: Gunsan, Jeongbuk, Korea

- Area: 1.9mil m²
- Earth Work:Dredgin & Reclamation[15.6mil. m\*]
  Project period: 1997. 7 ~ 2004. 12

## 021c Construction of the Naktong River restoration Project - Section 18

Location: Haman, Korea
- multifunctional barrage : [L=566.1m, H=13.2m]
Project period: 2009. 11 – 2011. 12

#### 019c Buhang Multipurpuse Dam

Location: Gimcheon, Korea

- Total Reservoir Capacity 54.3 million m
- Highway length 12.71km, 9 Bridges, length 1.545km Project period: 2006. 11 ~ 2012. 01

#### Approaching Facility

Location: Incheon, Korea

- Berth Facility : 55,000 DWT  $\, imes$  1 Berth
- Project period: 1996. 12 ~ 2000. 5

020c Incheon LPG Vessel

#### 022c Ecological River Improvement in the Kum River in Section 6 (Cheong Nam)

Location: Buyeo, Korea

- multifunctional barrage : (L=680.0m, H=5.0m) Project period: 2009. 11 ~ 2011. 12

# Architecture

# GS E&C transforms the World like a Wizard's spell!

The construction of a building is not merely the creation of a structure but the creation of a new history. GS E&C has created a beautiful and practical base of life and will make history with new constructions that balance high-tech function and formative art.



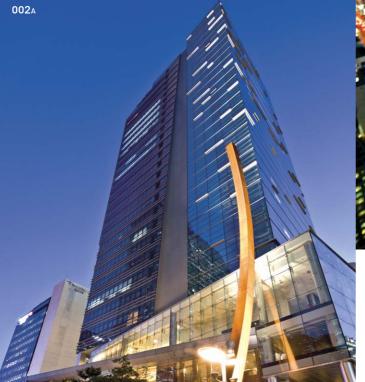


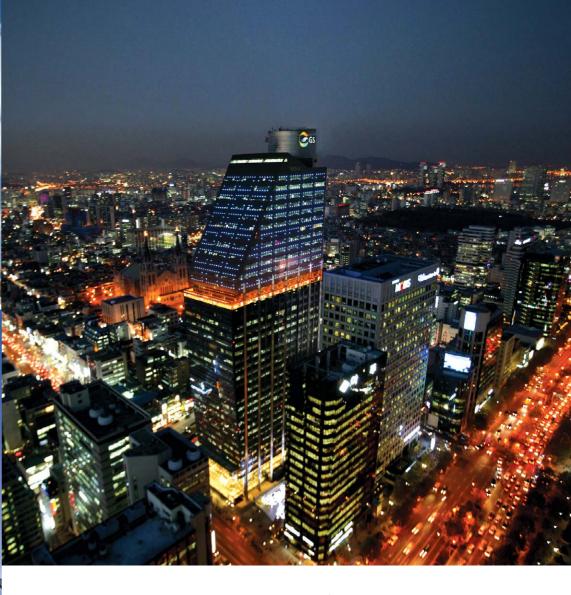
# Office Building

# The landmark which changes the skyline of a city

The office buildings constructed by GS E&C are not mere facilities for work but landmarks that comprise the image of a city. They also show the character and competitiveness of the tenant companies. On the basis of our refined technology and extensive experience, GS E&C is building high-tech intelligent buildings equipped with convenient functional aesthetics, differentiated designs and perfect construction work. World-class office buildings such as the GS Tower, COEX Convention Center, ASEM Tower and Seoul Central Post Office have become representative landmarks in Seoul. Internationally, we have built the LG Beijing Tower revealing the superior technological power of GS E&C to the world. Currently GS E&C is focusing its capabilities on the construction of high-tech buildings that integrate state-of-the-art technologies and businesses by reinforcing its abilities for the planning, constructing and engineering of modern high-rises.







#### 001a Gwangyang Port Business Facility

Location: Gwangyang, Korea - Total floor area 18,216 m², B1~19F Project period: 2004. 12 ~ 2007. 05

#### 002A Ferrum Tower

Location: Seoul, Korea - Total floor area 55,618 ml, B6~28F Project period: 2008. 05 ~ 2010. 08

#### 003A GS Tower

Location: Seoul, Korea - Total floor area 141,552 m, B6-38F Project period: 1994. 12 ~ 1999. 08

003A





Location: Seoul, Korea - Total floor area 72,506 m, B7-21F Project period: 2003. 07 ~ 2007. 08

#### 005A Kyungbang K-project

Location: Seoul, Korea - Total floor area 308,597 m, B5~20F Project period: 2006. 06 ~ 2009. 05

#### 006A New Jeollanam-do Government Complex

Location: Muan, Korea - Total floor area 79,305 m, B2-23F Project period: 2001. 12 ~ 2005. 11







#### 009A LG Beijing Tower

Location: Beijing, China
- Total floor area 151,346 m B4~30F
Project period: 2002. 08 ~ 2005. 08

009A



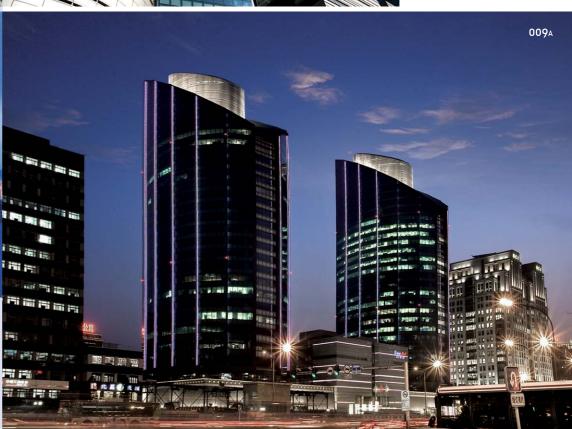
#### 007a LG Twin Tower Location: Seoul, Korea

Location: Seoul, Korea

- Total floor area 157,835 m, B3~34F
Project period: 1983. 06 ~ 1987. 06

#### 008A IFC Seoul

Location: Seoul, Korea - Total floor area 509,524 m, B7-55F Project period: 2008. 01 ~ 2011. 12



# Education, Research & Hospitals

## Function and aesthetics come alive in the spaces that we create

GS E&C possesses extensive experience and excellent technological power in educational, research and hospital facilities that pursue functional space and aesthetic space at one and the same time. For the construction of educational facilities that need to be designed and constructed on the basis of geography, culture and academic understanding, high-tech research facilities where various technical researches are carried out, and hospital facilities where optimal traffic lines per space and multipurpose option skills need to be applied, GS E&C combines convenient function and aesthetics simultaneously with excellence in technological prowess that maximizes our customers' satisfaction.

## 010A LG Chemical Institute of Technology

Location: Daejeon, Korea - Total floor area 22,983 m², B2~3F Project period: 1995. 01 ~ 2004. 09

#### 011A Saudi Imam University

Location: Riyadh, Saudi Arabia

- Total floor area 50,947 m
- Accomodation & support facilities Project period: 1996. 10 ~ 1997. 06

#### 012A Buddhist General Hospital, Dongguk University

Location: Ilsan, Korea - Total floor area 92,276 m, B2~12F Project period: 1999. 11 ~ 2002. 09











#### 013A LG Electronincs Seo-Cho R&D Campus

Location: Seoul, Korea - Total floor area 125,070 ml, B5~25F Project period: 2006. 02 ~ 2009. 02

#### 014A Eulji University Dunsan General Hospital

Location: Daejeon, Korea - Total floor area 91,741 m, B3~16F Project period: 2001. 04 ~ 2004. 02

#### 015A KT Training Institute, Wonjoo

Location: Wonju, Korea - Total floor area 53,245 m, B1~7F Project period: 1996. 11 ~ 2000. 05

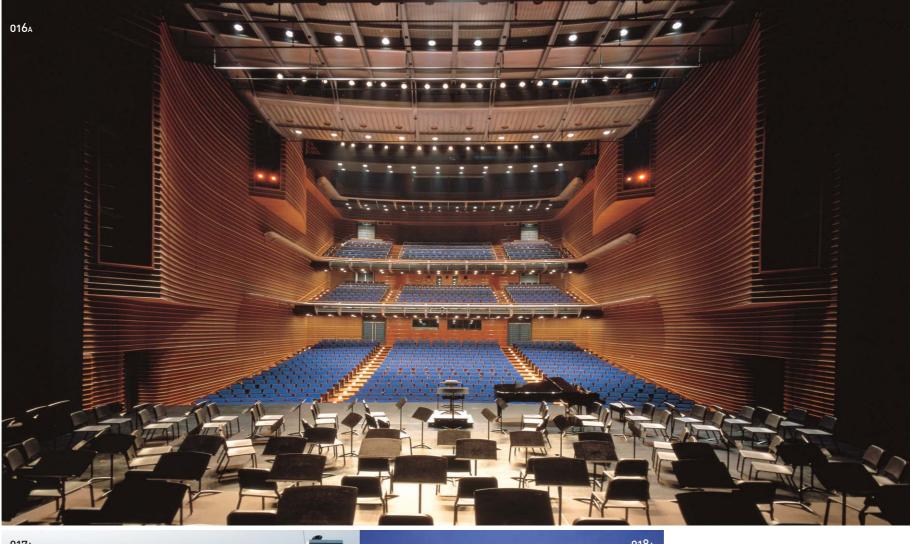
# Culture, Leisure & **S**ports

#### A beautiful space that upgrades quality of life

GS E&C has applied its differentiated technological power creating numerous achievements in the construction of composite facilities that combine culture, leisure and sports. We provide cultural facilities, classy hotels, leisure facilities and sports complexes that can accommodate cultural and artistic events. GS E&C has built facilities of living culture located in the local governments of Changwon, Masan, Wonju, and Jinju, Time Square was settled as the landmark of Yongdeungpo. The LG Art Center was lauded for its ideal arrangement of seating and stage, and also the main stadium of Imam University in Saudi Arabia stand as notable examples.

#### 016<sub>A</sub> LG Art center

Location: Seoul, Korea - Total floor area 18,713 ml, 9F Project period: 1994. 12 ~ 1999. 08





#### 017A Gimhea Cultural Center

Location: Gimhae, Korea - Total floor area 43,750 m², B2~7F Project period: 2001. 11 ~ 2005. 11

#### 018<sub>A</sub> Korea Electric Power Corporation Cultural Center

Location: Seoul, Korea - Total floor area 70,602 m, B1~17F

# 019A --------

#### 020A Health Center & Sports Area in Imam University

Location: Riyadh, Saudi Arabia

- Total floor area 136,110 m
- Main stadium, Gymnasium Project period: 1984. 05 ~ 1997. 06

#### 021A Masan 3.15 Cultural Center

Location: Masan, Korea - Total floor area 19,812 m, B1~3F Project period: 2005. 06 ~ 2008. 03

#### 022A National Museum of Korea

Location: Seoul, Korea - Total floor area 134,560 m, B1~6F Project period: 1997. 10 ~ 2004. 02





## 019A COEX Convention Center & ASEM Tower

Location: Seoul, Korea - Total floor area 554,631 ml, B4~41F Project period: 1997. 03 ~ 1999. 12



# Clean Rooms & Manufacturing Facilities

# State-of-the-art technology to improve company productivity

GS E&C has unparalleled technological capabilities in the area of special production facilities such as LCD. PDP. semi-conductors and pharmaceuticals. We also have the best technological power and performance in the industry in the construction of clean rooms. Clean rooms are core technology for factories producing super-precision products. GS&E&C build Industrial Clean Rooms as well as the Biological Clean Room essential to the production of pharmaceutical products. The company is now expanding its business areas both at home and abroad on the basis of its technological power and know-how accumulated through the successful implementation of large scale projects including the display production lines at the LG Display industrial complex, the factories of secondary battery and polarizing plates, and the production facilities of the GMP factories of pharmaceutical companies.

024A

### 023A LG display Paju LCD Cluster (P7, P8)

Location: Paju, Korea P7- Total floor area 668,547 ml, B2-7F P8-Total floor area 519,126 ml, B4-9F Project period: 2004. 03 ~ 2008. 08

### 024A Yuhan Pharmaceutical Corp. Ochang Factory

Location: Ochang, Korea
- Total floor area 54,420 m, B1~4F
Project period: 2004. 02 ~ 2006. 02











# Logistics & Remodeling

# The magic of architecture can increase the value of the building

GS E&C is leading logistics and remodeling sectors with superior specialty manpower, excellent planning ability, innovative design, perfect construction work and thorough maintenance and services. GS E&C has successfully completed Block A of the Southeastern Distribution Complex; the largest distribution complex in Korea, and many other large logistic facilities. In addition, the company has extensive experience in remodeling projects including the Samcheonggak, Yongsan Electronics Land and the Export-Import bank of Korea, GS E&C is doing its utmost to maximize customer's values by establishing a total solution system that covers the entire life cycle of a building including construction, structural diagnostics and post management.

### 025A Garden 5

Location: Seoul, Korea - Total floor area 426,743 m, B5~11F Project period: 2006. 10 ~ 2009. 03

### 026<sub>A</sub> Yongsan ET land/ Multiplex Theater

Location: Seoul, Korea - Total floor area 77,787 m, B3~8F Project period: 2001. 09 ~ 2002. 11

# 027A Lotte Department Store, Guri

Location: Guri, Korea - Total floor area 79,978 mt B5~9F Project period: 1996. 04 ~ 1998. 03

### 028A Namchon Leadership Center

Location: Seoul, Korea - Total floor area 6,956 m², B3~5F Project period: 2005. 10 ~ 2006. 09

# Power Plant

This Corporation shines brightly in the World like a Sun that never sets!

GS E&C will be a Global Top Tier company in the area of power plant construction on the basis of our state-of-the-art technology and perfect construction abilities that bring bright light and energy to the world.





# Power Plant

### A leader equipped with unique competitivenes

GS E&C has accumulated a wealth of experience and know-how in the construction of electric power plants such as the successful construction of the composite thermal power plants in Bugok, the #5 and #6 thermal power plants in Taean, and the #1 and #2 power plant of the Incheon composite thermal power plant. Currently the company is building the #1 and #2 Sinwolseong power plants in a number of atomic power plants including Yerevan CCPP in overseas Armenia. In the field of energy, GS E&C has participated in the construction of main pipelines for gas supply in the southern region, the western region and Gangwon Province as well as several oil storage facilities and regional heating facilities. Presently the company is striving to become a leader both at home and abroad in the areas of power generation and energy.



003PP



# **007**PP Shin-Wolsung Nuclear Power Plant(Unit1 & 2) Location: Gyeongju, Korea

- 1,000MW x 2

Project period: 2003. 07 ~ 2010. 09

# 008PP Shin-Uljin Nuclear Power Plant(Unit1 & 2)

Location: Uljin, Korea

- 1.400MW x 2

Project period: 2010. 04 ~ 2017. 04

# 009PP Yerevan Combined CyclePower Plant Location: Yerevan, Armenia

- Total 230MW - Gas Turbine 167MW x 1

- Steam Turbine 63MW x 1

Project period: 2007. 12 ~ 2010. 04









# 004PP Dangjin Coal-Fired Power Plant(Unit 7 & 8)

Location: Dangjin, Korea - Total 500MW x 2

Project period: 2003. 12 ~ 2007. 12

# 005PP Taean Coal Fired Power Plant(Unit 5 & 6) Location: Taean, Korea

- Total 1,000MW

- Steam Turbine 500MW x 2

- Boiler 1,690 T/H x 2 Project period: 1997. 11 ~ 2002. 09

# 006PP Barka3 & Sohar2 IPP Project(Oman) Location: Oman

- Total 1,500 MW (750MW x 2)

- Barka3 IPP (750 MW) - Sohar2 IPP (750 MW)

Project period: 2010. 06 ~ 2013. 03

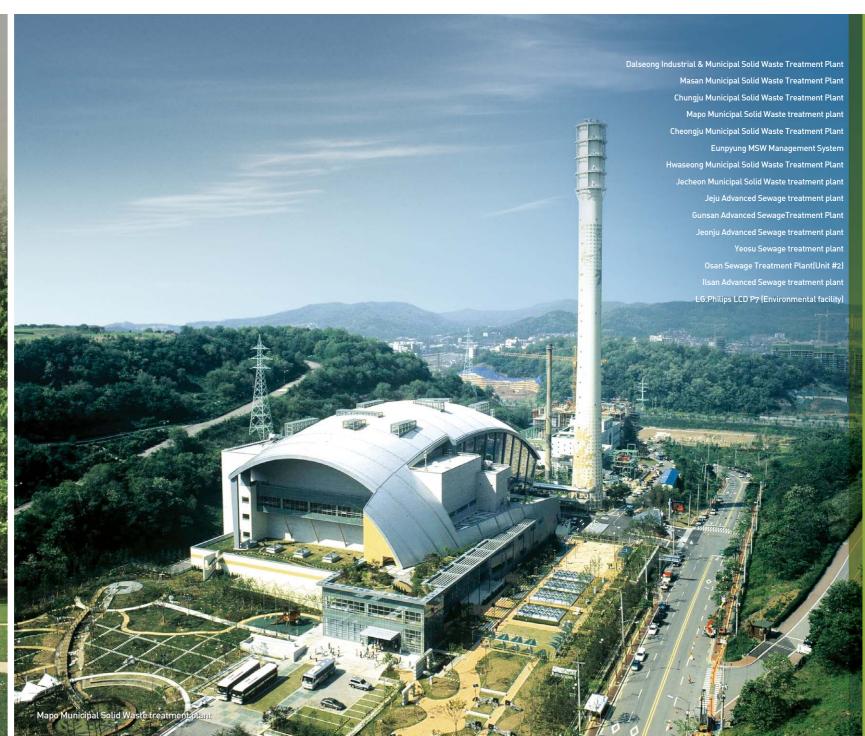


# Environment

# GS E&C working towards a clean world!

environmental businesses that preserve the natural environment are our promise to the nat generation.

GS E&C will create future-oriented values with the latest technologies and our perfect construction capabilities in the areas of waste treatment and water treatment.



GS E&C possesses the best performance in Korea in the area of waste burning disposal facilities as is demonstrated by the construction of the Mapo Recycling facilities, the Masan city Resource Recovery Facilities, and the Cheongju zone large area of incineration facilities. Notably, in the area of burning industrial wastes, the company was recognized for its advanced technologies by successfully carrying out the waste burning facilities project at the LG Philips LCD factory. In this way, GS E&C is trusted by our customers to ensure the maximization of household waste disposal facilities in the area of the Cheongju zone wide area of incineration facilities and the Masan household waste disposal facilities, prime examples of our differentiated competitiveness.



Location: Daegu, Korea

- Capacity: 70 ton/day

- Pyrolysis melting type

Project period: 2006. 04 ~ 2009. 12









### 002E Masan Municipal Solid Waste Treatment Plant

Location: Masan, Korea

- Incineration plant: 200 ton/day

- Stoker type

Project period: 2006. 09 ~ 2009. 09

### 003E Chungju Municipal Solid Waste Treatment Plant

Location: Chungju, Korea

- Incineration plant: 100 ton/day

- Incineration pu - Stoker type

Project period: 2007. 11 ~ 2010. 08

### 004E Mapo Municipal Solid Waste treatment plant

004E

Location: Seoul, Korea

- Incineration plant: 250 ton/day x 3units - Stoker type

Project period: 2001. 11 ~ 2005. 04



# 005E Cheongju Municipal Solid Waste Treatment Plant

Location: Cheongju, Korea - Incineration plant: 200 ton/day

Project period: 2006. 09 ~ 2009. 03

# 006E Eunpyung MSW Management System

Location: Seoul, Korea

- Capacity: 48 ton/day
   Pyrolysis melting type
   MSW Automation Collecting pipe: 29.1km
  Project period: 2006. 10 ~ 2009.10

# 007E Hwaseong Municipal Solid Waste Treatment Plant

Location: Hwaseong, Korea

-Capacity: 300 ton/day - Pyrolysis melting type Project period: 2007. 04 ~ 2010. 03

# 008E Jecheon Municipal Solid Waste treatment plant

Location: Jecheon, Korea

- Incineration plant: 50 ton/day
- Stoker type

Project period: 2006. 03 ~ 2008. 08

# Water & Sewage, Wastewater Treatment

# Technology that protects nature and man

GS E&C is leading the public project market in the areas of sewage and waste water, and advanced waste water and sewage treatment on the basis of advanced technology power and construction capabilities.

GS E&C is expanding in the area of the advanced waste water treatment having completed such projects as the Ohsan sewage treatment plant, the advanced waste water treatment in Jeonju and the advanced waste water treatment in the heavy materials recycling center, and in this way we are leading the water treatment area on the basis of the high-tech water treatment design/construction related to the LG Philips LCD manufacturing plant.







# 009E Jeju Advanced Sewage treatment plant

Location: Jeju, Korea

- Advanced Sewage Treatment: 130,000 m/day

- CNR Process

Project period: 2006. 09 ~ 2009. 05

### 010E Gunsan Advanced SewageTreatment Plant

Location: Gusan, Korea
- Advanced Sewage Treatment: 200,000 m/day

- 4-Stage BNR Process

Project period: 2006. 09 ~ 2010. 03

# 011E Jeonju Advanced Sewage treatment plant

Location: Jeonju, Korea

- Advanced Sewage Treatment: 303,000 m/day

- CNR Process

Project period: 2004. 10 ~ 2007. 06



# 012E Yeosu Sewage treatment plant Location: Yeosu, Korea

- Sewage Treatment: 35,000 m³/day

- MLE Process

Project period: 2005. 09 ~ 2008. 04

# 013E Osan Sewage Treatment Plant(Unit #2)

Location: Osan, Korea

- Sewage Treatment: 64,000 m³/day
- B3 Process

013E

014E

015E

- Sewage Recycling pump: 52,000 m²/day Project period: 2005. 08 ~ 2009. 08

# 014E Ilsan Advanced Sewage treatment plant

Location: Goyang, Korea

- Advanced Sewage Treatment: 270,000 m³/day
- MLE Process
- Project period: 2006. 12 ~ 2009. 12

# 015E LG.Philips LCD P7 (Environmental facility)

Location: Paju, Korea

- Wastewater Treatment: 51,000 m²/day
- Wastewater Recycling: 18,000 m/day
- Water Treatment: 40,000 m³/day
- Deionization System: 2,400 m³/hr
- Project period: 2004. 03 ~ 2006. 10

# Development

By Stretching the limits of the Imagination, GS E&C Designs a New World!

GS E&C, with the highest level of technology and expertise on urban mixed-use development projects, shows its capabilities to the world and extends beyond the national borders of Korea.

GS E&C is putting no limits to its imagination in the design of the future city and is successfully carrying out urban mixed-use project, new city development project and overseas development projects.





# **D**evelopment

### Beyond Korea and onto the world stage

GS E&C's development division is successfully carrying out numerous projects such as urban mixed-use development, urban revitalization, and new city development not only in Korea but also in overseas countries such as Vietnam. By 2015, we will solidify our grounds of becoming a Global Top Tier company through business diversification, continuous implementation of large development businesses both domestically and abroad, and by seeking out and fostering new businesses.

### 001D GS Metrocity Nha Be

- Location: Ho Chi Minh, Vietnam
- Site area : 349 ha
- Purpose : new town(residential, commercial, offices, school, leisure, hospital)

Project period: 2011 ~ 2020

### 002<sub>D</sub> Midan City

Location: Incheon, Korea

- Site area : 1,829,945 m²
- Purpose : new town(residential, commercial, offices, leisure, hotel)

Project period: 2008 ~ 2020











### 003p GS Metrocity Long Binh(Q9)

Location: Ho Chi Minh, Vietnam

- Site area : 92Ha

005D

- Purpose : new town(residential, commercial, school, leisure, culture)

Project period: 2014 ~ 2020

### 004<sub>D</sub> Xi Riverview Palace

Location: Ho Chi Minh, Vietnam

- Site Area : 17,209 m² - Total Floor Area : 73,099 m²

- Purpose : residential Project period: 2008 ~ 2011

### 005D Seogyo Xi West Valley

Location: Seoul, Korea

- Site area: 37,309 m² - Total floor area: 294,613 m²

- Purpose : residential, commercial, offices, culture Project period: 2008 ~ 2012

# \_eisure

# Ensuring Ease in Life!

Competitive in the construction of leisure facilities both at home and abroad, GS E&C is offering the leisure of life and joy through the construction of amazing new leisure facilities such as the Gonjiam CC and its dynamic courses as well as the Gangchon CC, Elysian CC, Grand Intercontinental Seoul, COEX Intercontinental Seoul and the Elysian Gangchon.





# Resorts & **G**olf Courses & Hotels

### Leisure of life, joy and rest

A new turning point has come in the leisure industry with the improvement in living standards and the five-day workweek. GS E&C has secured competitiveness in leisure areas by accumulating extensive experience in the construction of leisure facilities such as resorts, golf courses and hotels throughout Korea and abroad. GS E&C has constructed famous golf courses including the Gonjiam Country Club loved by golfers for its dynamic course and unique layout, and the Elysian Gangchon Country Club. After achieving fame with the construction of the COEX Intercontinental Seoul and the Ladera Tower in Guam, GS E&C built the Grand Intercontinental Seoul firmly establishing its reputation in the hotel construction. In addition, the company is securing composite capabilities for resort facilities from construction to management with the Elysian Jeju and the Elysian Gangchon now gaining popularity as 4-season composite family recreation resorts with condominiums, golf courses, ski slopes and many amenities.











### 001<sub>L</sub> Elysian Jeju

Location: Jeju, Korea

- Lot area 1,752,074 m
- Project area 1,586,784 m
- Main Facilities: Golf course/Club house Project period: 2002. 11 ~ 2005. 07



# 002L



### 003L Alpensia Resort

- Waterpark

Project period: 2007. 01 ~ 2010. 12

### 004L Grand Intercontinental Seoul

Location: Seoul, Korea

- Total area 128,254 m²

003L

- 33 stories with 597 rooms Project period: 1987. 07 ~ 1989. 04



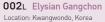












002L

- course/Condominium
- Total area 60,615 m - Main Facilities: Golf course/Ski Project period:1999. 11 ~ 2002. 11



### 005L Vietnam HaiphongSunflower

Location: Haiphong, Vietnam

- Total floor area 39,600 m²
- 4 stories with 120 rooms Project period: 1997. 01 ~ 1998. 09

### 006L Konjiam Resort

Location: Gyeonggi, Korea

- B3~13F
- Main Facilities: Condominium/Convenient Facilities Project period: 2006. 04 ~ 2008. 12

### 007L COEX Intercontinental Seoul

Location: Seoul, Korea

- Total floor area 109,069 m
- 29 stories with 654 rooms
- Project period: 1997. 03 ~ 1999. 09

# Major References

### **Underground Spaces**

Seoul Subway Lot No. 5-35(Wangshipri Station) U-1-1 Oil Storage South Oil Storage at Metropolitan Area Jeongreung Water Tunnel Incheon Subway Lot No. 1-13 / Seoul Subway Lot No. 6-10 Seoul Subway Lot No. 904 / Seoul Subway Lot No. 301 Seoul Subway Lot No. 705 / Seoul Subway Lot No. 917 Incheon Metropolitan railway 205 sector Construction Downtown Line2 C913 Shinbundang Line Extension PII Project

Bridge) Section No.1

Seoul-Munsan Highway

Seoul-Yuju (Lot No.4)

Singapore Depot C911

Uijeongbu Light Railway Transit

TB0 Highway

Roads, Bridges & Railroads Incheon-Ansan Highway Honam Highway Expansion (Lot No.8) Seoul Outor Ring Expressway (Lot No.1-17) Daegu-Chuncheon Highway

Kyeongbu Highway Expansion(Suwon-Chungwon) West Sea Grand Bridge (Lot No.2) Hongseong-Galsan highway Northern Urhan Highway Balan-Banwol Highway Cheonan-Nonsan Highway (Lot No.3,4) Jeonju-Gui Highway Uljin-Jukbyeon Highway Daegu-Pohang Highway Donghae-Jumunjin Highway Jukbyeon-Bukmyeon Highway Highway Expansion (Busan-Eonyang Lot No. 3) Iksan-Jangsu Highway (Lot No. 5) Hyunpung-Kimcheon Highway (Lot No. 1,3,6) Duksan-Yesan Highway Seoul Outor Ring Expressway (Lot No.4,6) Busan- Ulsan Highway (Lot No. 6) Dangjin-Daejeon Highway (Lot No. 4,5,6,7) Incheon Grand Bridge Expressway No.45[Yeoju-Yangpyeong Section No.3] Goha-Jukgyo Highway (Mokpo)

Highway No. 25(Namcheon-CheongDo(Gomtijae))

Gangnam Circulation Expressway Section No.6-1 Section 3 of Samcheok Tonghae Expressway Gohyeon-Hadong IC2 National Road Seoul-Busan High Speed Railroad(Lot No. 6-5)

Gwangyang Iron and Steel Mill Construction

Seoul-Chuncheon Railroad (Lot No. 7)

Jingu- Gwangyang Double Track Line (Lot No. 5)

Taeback jaecheon-Ssangyong Double Track Line Seoul-Busan High Speed Railroad(Lot No. 6-4A)

Dong Hae(pohang-samcheck) railway section No.2 DAEGU Metropolitan Rail Road Line3 section2

Jungang Railroad(Cheongyangri- Deokso) Okcheon-Jitan Railroad

Jungan IC Section 1 road construction

National Road Construction of Gohyeon ~ Hadong IC 2

The Road Construction Works for Sillim - Bongcheon Tunnel

Educational, Research & Medical health care Saudi Imam University / LG Inhwawor KT Training Center
Institute of Technology, Hanyang University
LG Chemicals Institute of Technology
General Hospital, Dongguk University
Uji University Dunsan Hospital
Ujieongbu St.Many's Hospital LG Gasan R&D Cor ark / Seoul Techno Park ho R&D Campus / LIG Ingenium

### Harbors & Dams

Port Bridge at Gwangyang LG Chemical 100,000 DWT Private Jetty Construction Incheon LPG Vessel Jetty Yeocheon GS-Caltex Vessel Jetty Gwangyang Harbor Pyeongtaek Dangjin Harbor Automobile Pier Dredging of Soil Wastes at Incheon North Port Port of Sokcho Construction Pyeongtaek Dangjin Harbor Dredging Ul-San New Port Construction (No 6 Terminal) Buhang Multipurpuse Dam Ruwais Refinery Expansion Project-PKG7 Shinma Port Construction

Estate & Development
Gunjang National Industrial Complex Cheonggye Restoration[Lot No. 2] Paju LCD Industrial complex Incheon Free Economic Zone Yeong-jong Sky City Section Sukmoon National Industrial Complet Kyungin Waterway Sector3 Gwangyang Port Western Hinterland Phase 1 Incheon free economic zone in cheongna district 2nd section Gulpo Drainage Canal Ecological River Improvement in the Kum River in Section 6 (Cheong Nam) Construction of the Naktong River restoration Project -Yeocheon industrial estate Youngsan River Dam Structure Repair Project 1 Section Busan Jinhae Free Economy Zone Development Project 1

## Intelligent Building LG Twin Tower/GS Tower

Section

Korea Industrial Complex Corporation Venture Center Hanoi – Haiphong Expressway Package-7 Hung Kuk L Yeosu National Industrial Complex Access Road(Cable-stayed KPC Tower Hung Kuk Life Insurance Sinmunno Office The Embassy of Iran and Residences in Korea LIG Gangnam Tower / LG CNS IT Center Sacheon City Hall / Gwangyang Port Business Facility Seoul Central Post Office National Agricultural Cooperative Federation Head Office LG Telecom Sangam DMC Office Kyungbang K-Project / IFC Seoul

### Cultural, Leisure & Sports Facilities

Gyeongnam Cultural Art Hall Saudi Imam University Sports Complex Wonju Chiak Cultural Art Hall Pohang Cultural Art Hall LG Art Center Coex Convention Center & Asem Tower Korea Electric Power Corporation Cultural hall New Juan church Bundang Somang church National Museum of Korea Gimhae Culture and Art Center Duckyang Culture and Sports Center 3.15 Art Center

### Clean room & Industrial Facilities

Busan Hopo Vehicle Terminal Samwha Paper Factory Shinseosan 765kV Substation Project Ansung Omron Factory LG Siltron Gumi factory LG Display Phase 2, Nanjing Dongbu Electric Rail Car Office Bank note Plant Heesung Elec. Daegu Factory 2 Yuhan Pharmaceutical Corp. Ochang Factory LS Cable Jeonju Factory LG Display Value Cluster in Poland Gwangdong G-proejct LG Display 345kV GIS Substation Sam-a pharma co. Wonju GMP factory gwae pharma co. Dangjin Factory LG Chem. Ochang Techno Park LG Display Paju LCD Cluster

### Logistics & Remodeling

GS Mart, Goyang nt Store, Guri (Ex-GS Square, Guri) Samcheonggak remodeling West-South Zone Agriculture and Fishery Market ic Land Remodeling Bank of Korea Remodeling nstruction District ship Center oul Distribution Center

### Golf course, Hotel

tercontinental Hotel m Country Club / Guam Ladera Tower EX Intercontinental Hotel / Daegu Park Hotel Gangchon Resort / Elysian Country Club Seungsan Sandpine Club House Gonjiam Resort / Alpensia National Safety Experience Theme Park

### Apartment

BanPo Xi / HanKang Xi / GaePo Xi SeoCho Xi / BangBae Xi / HwangSil Xi DouGok Rexle / CheongAm Xi / MunRae Xi MaPo Xi / Heights Xi / SongDo XI Harbor View Ilsan Xi / MookDong Xi / YoungJong Xi Cheongla Xi / Bamsum Xi / Gwangjang Xi HaNam Xi / SuJi Xi / YongIn Xi Yang Ju Xi I-III / SinBong Xi I,II / Juk Jeon XI I,II

MetroCity I~V / DongSuwon Xi I,II / SinSanbon Xi I,II YongIn SuJi LG Village I-VI / Ilsan DaeWha LG Village Xi Riverview Palace Haewoondae Xi

### Studio apartment / Residential complex

SeonReung Eclat / YokSam Eclat / Bundang Eclat I,II Yeouido Eclat / SeoCho Eclat / Incheon Airport Eclat HanKang Eclat / YongSan Park Xi / Yeouido Xi Boutique Monaco / The City Seven Xi / Chungmuro Xi

### Oil & Gas

Azerpetrochim CDU/VDU Project (Azerbaijan) GS- Caltex RFCC Project (Korea) S-Oil BCC Phase-I Project (Korea) S-Oil BCC Phase-II Project (Korea) S-OIL BCC Prise-II Project (Tolled)
TPI LBOP Project (Thailand)
Shantou LPG Terminal Project (China)
TPI 150,000BPSD Refinery Project (Thailand)

CPC RFCC Project (Taiwan) KNPC GOD Project (Gas Oil Desulfurization) (Kuwait) NODCO Refinery Expansion Project (Qatar) Noor Abad Compressor Station (Iran) Catalytic Dewaxing Project (India) KNPC OCR Revamp of ARDS Unit Project (Kuwait) Tupras Izmir DHP Project (Turkey) Izmit DHRP Project (Turkey) GS- Caltex No.2 HOU [Korea] Kirikkale DHP-CCR Project (Turkey) POGC South Pars Gas Field Development Phase 9&10 (Iran) No.4 CDU Debottlenecking (Korea) Laffan Condensate Refinery Project (Qatar) Salalah Methanol Project (Oman) Manifa Project (Saudi) PTT LNG Project (Thailand) Green Diesel Project (UAE) GS-Caltex No.3 HOU (Korea) Ruwais 4th NGL Train Project (UAE) Saih Nihayda Depletion Completion Phase-1 Project (Oman) Ruwais Refinery Expansion Pkg. 2 Project (UAE) No.3 LPG Project (Korea) Used Lube Oil Rerefining Project (Indonesia) Methanol Tank Terminal (YKK) (Korea) LNG Terminal Projects (Korea)

### Petrochemical

ERC Refinery Project (Egypt)

Black Gold Oil Sands Project (Canada) RP-II Pipeline Project (UAE)

3rd Train PP Expansion Project (Indonesia)
TPI EBSM Plant Project (Thailand) Tianjin PVC Project (China) TPC VCM Expansion Project (Thailand) LG-Dow Polycarbonate Project (Korea) LG Chem., VCM-II Expansion Proeict (Korea) Samnam, K-4 Project (Korea) Acetic Acid (Iran) LG MMA (YM-2) Project (Korea) GS-Caltex No.3 PX Project (Korea) GS-Caltex P-Xylene Expansion Project (Korea)
ICIIC LAB Revamping Project (Iran) 4th Aromatics (Iran) LG Chem., Phenol/BPA (Korea) QP LAB Project (Qatar) Oman Polypropylene Project (Oman) ATC No.2 Aromatics Project (Thailand) E-LAB Project (Egypt)
Sohar Aromatics Project (Oman)
HMC PP Project (Thailand)
LPC-NC Project (Korea) LG Chem., CA/EDC Project (Korea) LG Chem., Oxo-Alcohol Project (Korea)

LG Chem., 40.000 MTPY Acrylic Fiber Project (Korea) No.2 PA Project (Indonesia No.3 PA Project (Indonesia Epsilon PP Project (USA) Panjin PVC Project (China)
Beijing No.2 PVC Project (China)
No.4 DNT Project (Korea) Panjin F SNDC-1 Project (Oman)
IRPC Propylene Project (Thailand)

### Power & Energy

Incheon LNG Terminal Proje Korea Electric Power, Ilsan Combined Power Plant (Korea

GS EPS Bugok Combined Cycle Power Plant(Unit1 & 2) (Korea) Korea Electric Power, Taean Coal-Fired Power Plant Phase 5 & 6 (Korea) Korea Electric Power, Incheon Combined Cycle Power Plant(Phase #1) [Korea] Dangjin Coal-Fired Power Plant(Unit 7 & 8) Korea Electric Power, Incheon Combined Cycle Power Plant(Phase #2) (Korea) Yerevan Combined Cycle Power Plant (Yerevan, Armenia) Shin-Wolsung Nuclear Power Plant(Unit1 & 2) Barka3 & Sohar2 IPP Project(Oman) Yeongheung Coal Fired Power Plant(Unit 5 & 6) Shin-Uljin Nuclear Power Plant(Unit 4 2)

### Waste treatment & Recycling

The 1st landfill site of the Metropolitan Area LG.Philips LCD P4~P6 Mapo Municipal Solid Waste Treatment Plant Daeieon Incineration Plant No.2 Jecheon Municipal Solid Waste Treatment Plant Cheongiu Municipal Solid Waste Treatment Plant Masan Municipal Solid Waste Treatment Plant Eunpyung MSW Management System Dalseong Industrial & Municipal Solid Waste

Chungju Municipal Solid Waste Treatment Plant Daegu Sewage Sludge Treatment Plant Hwaseong Municipal Solid Waste Treatment Plant Gumi Municipal Solid Waste Treatment Plant Haengbok-City MSW Automation Collecting System Geoje Municipal Solid Waste Treatment Plant

### Water & Sewage, Wastewater Treatment

Xongjiang central Sewage Treatment Plant (china) Kimhae Sewage Treatment Plant LG.Philips LCD P7 Jeonju Advanced Sewage Treatment Plant Osong Wastewater Treatment Plant Yeosu Wastewater Treatment Plant Jeju Advanced Sewage Treatment Plant Osan Sewage Treatment Plant No.2 Ilsan Advanced Sewage Treatment Plant Gunsan Advanced Sewage Treatment Plant Namgangdam Upper Stream Sewage Treatment Suyoung Sewage Treatment Plant
BAPCO Wastewater Treatment Plant(Bahrain)

### Development

GS Metrocity Nha Be GS Metrocity Long Binh(Q9) Xi Riverview Palace Seogyo Xi West Valley Xi Riverside Palace Xi Thu Thiem Multipurpose Complex Pangyo Central Multipurpose Complex Eunpyeong Multipurpose Complex Yeongdeungpo Multipurpose Complex Gwangmyeong Multipurpose Complex Yongsan Int'l Business Complex

# Global Network

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arta Selatan 12710



# Global GS E&C is...

Takes on challenges and never gives up until we see the job through, We advance without fear of anything or anyone, We create the new. With our ceaseless spirit of challenge, GS E&C broadens the world and deepens our emotion.

The Power to Create a Splendid World! We are the Global First & Best GS E&C.