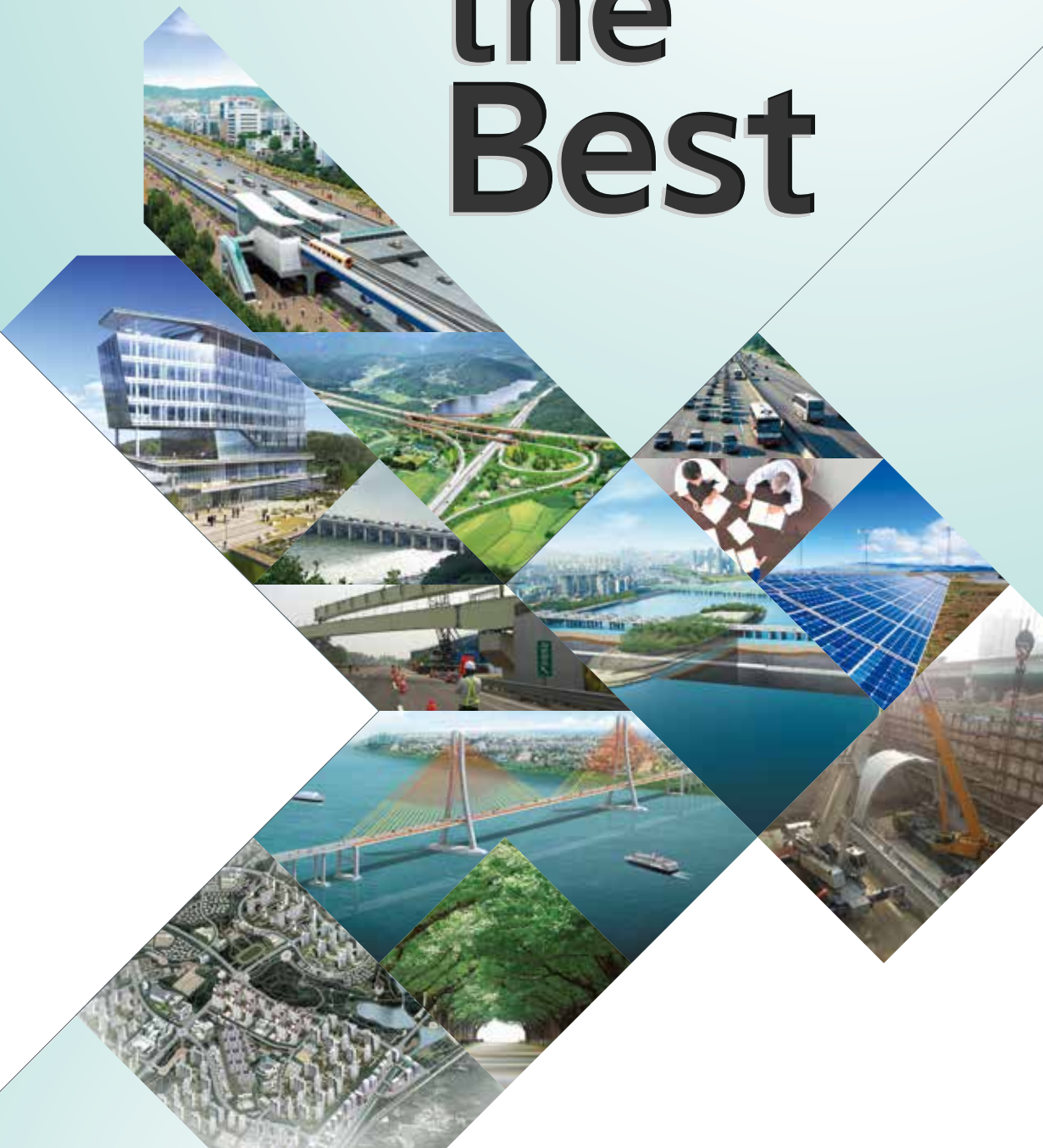


Better than the Best





Better
than
the 
Best



SAMBO ENGINEERING is establishing a global network to build construction worldwide for a better future.



Better than the Best



To the World, For the Future

Construction engineering is basically having big change as periodic requirements from "The 4th Industrial Revolution". SAMBO ENGINEERING is trying hard to change and innovate in order to satisfy clients and react actively to the change of engineering market.

SAMBO ENGINEERING provides total solution for the entire process of engineering such as plan, design, CM/PM, O&M in roads, railways, civil structures, tunnels & underground space development, transportation infrastructure & environmental treatment, new & renewable energy, urban & architecture planning for land development, water and sewage resource.

Recently, from natural disaster such as earthquakes and ground settlement, in order to create motivation for stable profit system, we adapt BIM, perform topographical survey using Drones, design automation using AI, underground safety impact assessment as well as active investment for new & renewable energy such as solar and wind power plant.

We accumulate lots of technologies and experience from R&D participation which develops and applies new technology and patent as well as technical exchange with academies and technical cooperation with major globalized engineering companies.

SAMBO ENGINEERING will be one of the leading engineering companies in the future by overcoming "The 4th Industrial Revolution".



Worldwide NETWORK

To the World, For the Future



SAMBO's Global Network

Cambodia Branch (Phnom Penh)

- Master Plan for Railway Network Development in Cambodia
- Detailed Design and Construction Supervision for Improvement of NR31, NR33, PR117 and Kampot Bypass Road Project
- Establishment of Resettlement Plan and Environmental Monitoring for NR31, NR33, PR117 and Kampot Bypass Road Project
- Detailed Design and Construction Supervision for Rural Road Improvement Project
- Review of Feasibility Study for Rural Road Improvement Project
- 1st Detailed Design and Construction Supervision for Rural Road Improvement Project
- 2nd Detailed Design and Construction Supervision for Rural Road improvement Project
- Feasibility Study for Phnom Penh City Intermediate 2nd Ring Road Project
- Basic and Detailed Design for Mekong River Bridge Project
- Feasibility Study for NR33 Road Construction Project

Georgia Branch (Tbilisi)

- Adjara Bypass Roads Development Project
- Preparation of Detailed Design and Preparation of Bidding Documents for Kobuleti Bypass Road, Kobuleti~Batumi Section and Batumi Bypass Road

Indonesia Branch (Jakarta)

- Feasibility Study for Serangan~Tanjung Benoa Road Project
- The Establishment of a Master Plan for the Arterial Road Network in Sumatra Island
- Feasibility Study for Toll Road PPP Project for 10 Routes
- Feasibility Study for Cikampek~Palimanan Road Construction Project
- Feasibility Study for JORR Ring Road II Project
- Feasibility Study for Yogyakarta~Kulonprogo Toll Road Construction Project

Pakistan Branch (Islamabad)

- Feasibility Study for Indus River Crossing Bridge Construction Project
- Feasibility Study for Mass Transit Project
- Construction Supervision for Hyderabad~Mirpurkhas Dual Carriageway Road Project
- Detailed Design for Hyderabad~Mirpurkhas Dual Carriageway Road Project (Section 1,2)
- Feasibility Study for Hyderabad~Badin Road Construction Project
- Basic Design for Peshawar~Kabul Expressway
- CAREC Corridor TA Project (ADB)

Philippines Branch (Quezon City)

- Detailed Design for Gapan~San Fernando~Olongapo(GSO) Road Pedestrian Overpass Construction Project
- Feasibility Study for Payatas Clean Energy Enter Construction Project
- Detailed Design for Access Road of Lubao Bypass
- Detailed Design and Construction Supervision for Widening for Gapan~San Fernando~Olongapo(GSO) Road and Emergency Dredging Project
- Feasibility Study for Payatas MSW Recycling Facility Project
- Feasibility Study for Baler~Casiguran Road Improvement Project
- Feasibility Study for the Panguil Bay Bridge Project

Turkey Branch (Istanbul)

- North Marmara Highway Construction Project (Proposed Project)
- Detailed Design for Istanbul Strait Road Tunnel Crossing Project
- Basic Design for Istanbul Strait Road Tunnel Crossing Project

USA Branch (Los Angeles)

- Feasibility Study for Los Angeles Highway Private Participation in Infrastructure Construction Project
- Feasibility Study for USA Florida State Tampa~Orlando~Miami High-Speed Rail Project

- Feasibility Study for LA expressway PPP Project
- Feasibility Study for Tampa~Orlando~Miami rapid transit railway Project in Florida
- Old bridge performance check Project

Uzbekistan Branch (Tashkent)

- A380 Road Improvement Project
- Construction Supervision for Central Asia Regional Economic Cooperation Corridor 2 Road Investment Program-Project 1
- Construction Supervision for Central Asia Regional Economic Cooperation Corridor 2 Road Investment Program-Project 2

Vietnam Branch (Ho Chi Minh City)

- Feasibility Study for Ho Chi Minh~Long Thanh~Dau Giay Expressway Project
- Feasibility Study and Basic Design for Tan Van~Nhon Trach Road Construction Project
- Detailed Design for Thanh Hoa City Comprehensive Socio-Economy Development Project
- Detailed Design and Construction Supervision for Vinh Thinh Bridge Construction Project
- Feasibility Study for Dong Thanh Landfill Gas CDM Project
- Feasibility Study and Basic Design for Thu Duc~Nhon Trach Road and Bridge Project
- Feasibility Study for Phuoc Hiep Landfill Gas Power Generation
- Feasibility Study for Bac Lieu~Vi Thanh Road Construction Project
- Detailed Design Consulting Services for Ha Noi~Lang Son Expressway Project
- Construction Supervision Consultant Service for Vam Cong Bridge Connecting Road Construction Project
- Consulting Services for Detailed Design and Construction Supervision for Thinh Long Bridge Construction Project
- Ho Chi Minh City Third Ring Road TA Project

Algeria
- Bir Touta~Zeralda Railway Project

Armenia
- Project Management for South-North Expressway Project

Azerbaijan
- Feasibility Study for Agdas~Laki, Arbsu~Kudamir~Bahramtepe Road
- Feasibility Study for Baku~Sumgayit Downtown Railroad Construction Project

Kazakhstan
- Feasibility Study for Bukhtarminsk Bridge Project

Bolivia
- Feasibility Study for Beni River Bridge Construction Project

Canada
- Conceptual Design for South Fraser Perimeter Road Project

DR Congo
- Pre-Feasibility Study for DR Congo Highway Modernization Project

Ghana
- Pre-Feasibility Study for Lake Volta New Bridge and Dodoikope~Katiajeli Road PPP Project

Libya
- Detailed Design for Qubba 2000 Units Housing Infrastructure Construction Project

Mongolia
- Project for Development of New Water Supply Sources for Yarmag Area of Ulanbator City

Myanmar
- Feasibility Study for ASEAN Highway Network Development Project
- Feasibility Study for Korea~Myanmar Friendship Bridge Construction Project

Paraguay
- Feasibility Study for Construction of Presidente Franco~Curupayty Railway

Saudi Arabia
- Al-Mashaaer~Al-Mugadassah Railway Project

Sri Lanka
- Colombo~Kandy Highway PPP Project
- Detailed Design for Low Cost Housing Project

Tunisia
- Implementation of Pilot Project for Collection, Recycling and Valorization of Electrical and Electronic Equipment in the Republic of Tunisia

Mozambique
- Consulting Services for Detailed Design and Construction Supervision for Rehabilitation of National Road N104 between Nampula and Nametil



SECTORS & SERVICES



SAMBO ENGINEERING creates the best synergy effect by close cooperation and harmony between departments as to become a global engineering & consulting company with expanding domestic & international market share and improvement in technology

Roads & Highways

- Highways & Arterial Roads
- National & Provincial Roads

Railways

- High-Speed & Conventional Railways
 - Subways
 - LRTs / PRTs
- System Operation & Maintenance

Civil Structures

- Road Structures
- Railway Structures
- Auxiliary Civil Structures

Tunnels & Underground Space Development

- Tunnels
- Soil Mechanics and Foundation
- Underground Space Development

Transportation Planning

Electrical & Mechanical Services

Environment

- Water Treatment
- Waste Treatment
- Environmental Management

Energy

- Power Plant
- Heat Recovery System
- Bio-Energy Plant
- New & Renewable Energy(Solar Power Plant)

Overseas Project Development

PF Project Development

Project Management

VE & ICE



• Transportation Infrastructure



• Environment & Energy



• Project Development

Administration

- Strategic Planning & Coordination
- General Affairs & Human Resources
- Finance & Accounting
- Technical Support



Land Development •

Research & Development Institute



Construction Supervision Construction Management



New Business •

- BIM/Drone survey
- Underground Safety Impact Assessment

• Construction Supervision



Urban Planning

- Urban Planning

Architecture Planning

- Architecture Planning & Design
- CM

Water Resources

- Water Resource Development
- Design of Water Supply and Sewage System

History

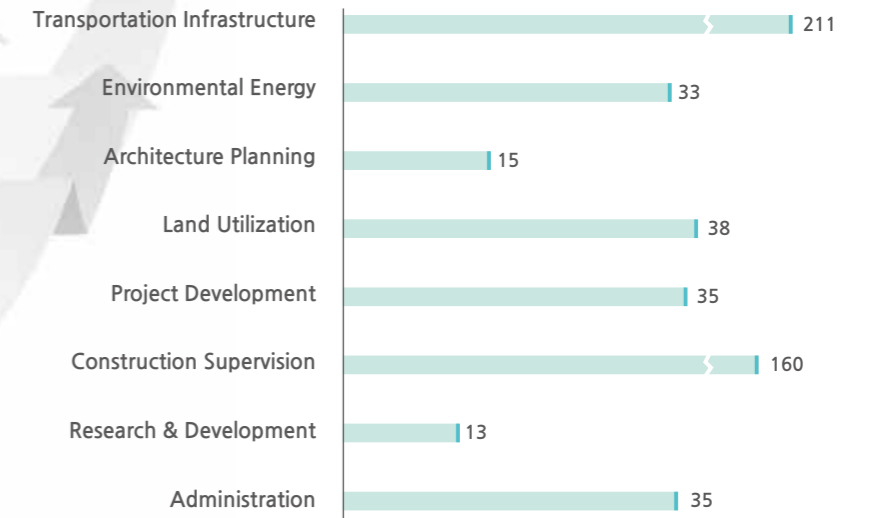
[2017] Grand Prize in "The 20th Civil Engineering Day" • Commendation Award of Gyeonggido • Presidential Award in "Construction Engineer's Day" [2016] Commendation Award by Minister of Land, Infrastructure and Transport in "Construction Engineer's Day" • Commendation Award by Minister of Land, Infrastructure and Transport in "The 20th Civil Engineering Day" • Awarded Gold, Silver, Bronze at Civil Structure of the Year Competition [2015] Best Award Cambodia Prime Minister • Commendation Awarded by the Secretary of Ministry of Construction and Transportation [2014] Commendation Awarded by the Secretary of Ministry of Construction and Transportation • Received "Brass-Tower Order of Industrial Service Merit" [2013] Commendation Awarded by the Secretary of Ministry of Construction and Transportation • Commendation for Becoming Superior Design Company" Awarded by Korea Rail Network Authority [2012] Awarded "Gold Prize in Contest for Civil Structure of the Year" by Korean Society of Civil Engineers [2011] Commendation Awarded by Korea Expressway Corporation [2009] Received "President's Award" from the President of the Republic of Korea • Received "Prime Minister's Award" from the Prime Minister of the Republic of Korea • Awarded "Seoul Sarang Citizens Award of the Year" by Seoul Mayor [2008] Awarded "The Grand Prize in Korea Construction Culture Award of the Year" by Korea Land Daily [2007] Opening of Jincheon Hidden Valley G.C • Awarded "Silver Prize in the Structure of the Year" by Korean Society of Civil Engineers [2006] Establishment of Sambo IDEA Co. • "Commendation for Becoming Superior Design Company" Awarded by Korea Rail Network Authority • Commendation Awarded by the Secretary of Ministry of Construction and Transportation [2005] Licensed in Air Quality Management • Received "The Best Road Engineer Award" on the 14th Commemoration Day of Roads • Received "The Grand Prize in Civil Engineering Division" from Korean Society of Civil Engineers [2004] Acquisition of ISO 14001 Certification • Namdo



Grand Bridge : "Structure of the Year", the Second Prizewinner of the Contest by Korean Society of Civil Engineers [2003] 10th Anniversary of the Foundation • Licensed as an Overseas Construction Company, Acquisition of Saegil Engineering [2002] Received "Iron Tower Order of Industrial Service Merit" • Licensed in Construction Supervision of Electrical Facilities • Licensed as a Comprehensive Construction Supervision Company [2001] Licensed in Fire Defense System Design • Licensed in Electrics and Machinery (Construction Division) • Licensed in Water Quality Maintenance (Environmental Division) • Licensed in Public Surveying [2000] Designation of New Technology • Licensed in Electrics Design [1999] Commendation Awarded by the President of the Republic of Korea, Daejung Kim [1998] Licensed as a Traffic Impact Assessment Agency • Acquisition of ISO9001 Certification [1997] Designation of New Technology, Technical Alliance with Norconsult(NMT Construction Method) [1996] Licensed as a Construction Supervision Company [1995] Training Company for Future Civil Engineers (Appointed by the Office of Military Manpower Administration) • Licensed in Applied Geology in Engineering • Licensed in Railway Construction • Foundation of Research and Development Institute [1994] Licensed in Harbor and Bay Construction • Licensed in Urban Engineering • Licensed in the Development of Water Resources, and Water Supply and Drainage System [1993] Licensed as a Civil Engineering Company • Licensed in Structure Design, Soil & Foundation Design, and Road and Airport Design • Foundation of Sambo Engineering.

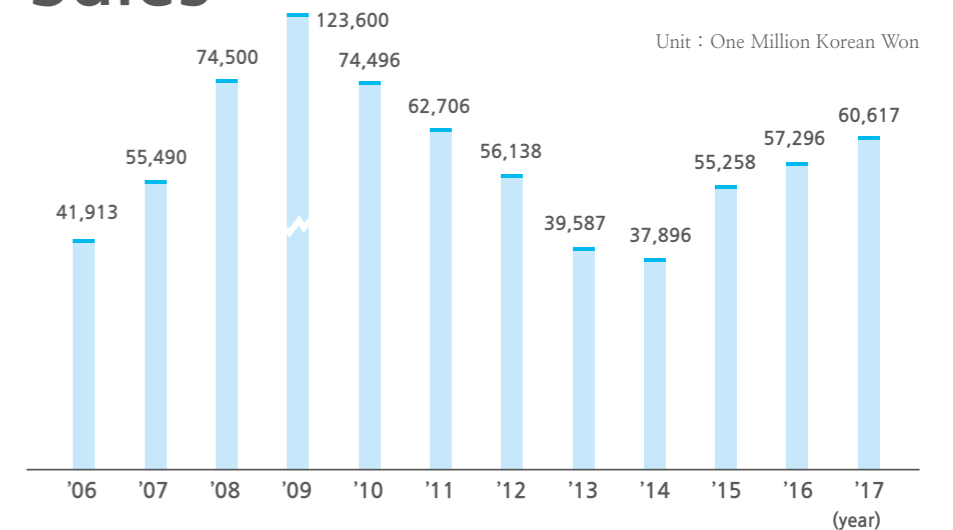
Manpower

Total : 540 employees
 ※ As of December 2017



Sales

Unit : One Million Korean Won



Global Company SAMBO ENGINEERING

08+09



Projects by Sector

SAMBO Engineering provides customized services and outstanding technology for clients in the world



Roads & Highways



The department of Roads and Highways carries out customer-oriented engineering services complying with environment and user-friendly design concepts. The department provides the highest quality engineering services in the fields of planning, design, construction implementation planning and maintenance of road projects including urban, regional and national highway systems.

With continuous participation in the design of arterial national roads, the department plays a significant role in the establishment of national road network. In particular the department leads the engineering market in Turnkey and Alternative design fields with superior technology and passion. The department plays the role of a pioneer in Public-Private Partnership engineering market by achieving the highest efficiency and providing creativity.

Establishment of Master Plans and Public Investment Guidelines

- Review of Comprehensive Development of Seoul Metropolitan Region Expressway
- Research on Basic Plan of Smart Interchange
- Highway Network Master Plan for National Happiness Promotion and Future Growth
- Solar Power Expansion Plan Applying to Upper Space of Highway
- Gyeonggi-Incheon Axis Road for Development Strategy, Technical Review for Railway Infrastructure, Concept and Review for Gyeonggi-Incheon Axis Hub Development Plan
- General Industrial Complex Access Road for Kumho Water-Polis, Daejeon Wadong-Sintanjin Wide-Area Road, Pohang-Yeongdeok Highway, Daesan-Dangjin Highway, Ansan-Daebudong West-South Connection Road, Dasa-Dasan Province Road

Basic Design, and Detailed Design for Government-Issued Projects

- Basic Plan and Design for Arterial Road Network
 - Basic Plan : Eastern Arterial Subterranean Road, Hyeongsan River Yurim Grand Bridge Construction Project
 - Basic Design : Yeongdong Expressway(Ansan-BukSuwon) Expansion, Jungbu Line (Seocheongju-Jeungpyeong) Expansion
 - Detailed Design : Saemangeum-Jeonju Highway(Lot 7), Seoul-Sejong Highway(Lot 6,7,8)
- Improvement for Traffic Environment and Transportation of Goods : Basic and Detailed Design for World Cup & Hannam Grand Bridge
- Installation for Structural Landmarks (Sea-crossing Bridges and Seabed Tunnels) : Yeonggwang-Haejae and Boryeong-Taeon National Road Construction Project

Turnkey and Alternative Bidding Projects

- Asan-Cheonan Highway(Lot 3) Construction Project
- Daegu Outer Ring Road Seongseo-Jicheon Construction Project
- Cheongju-Sangju Highway(Lot 3) Construction Project
- Boryeong-Taeon Road(Lot 2) Construction Project
- Taebaek-Miro Road(Lot 2-1) Construction Project

Successful PPP Projects of Project Development and Management

- First Public-Private Partnership Project : Seoul-Chuncheon Expressway Construction Project (Under Operation)
- 4th Daegu Outer Ring Road (Sangin-Bummul) Construction Project (Under Operation)
- 2nd Yeongdong Expressway (Gwangju-Wonju) Construction Project (Under Operation)
- 2nd Gyeongin (Anyang-Seongnam) Construction Project (Under Operation)
- 2nd Busan New Port Connector Expressway Construction Project (Under Operation)
- East-West Axis 5 (Oksan-Ochang) Highway Construction Project (Under Operation)
- Seoul Jemulpo Tunnel Construction Project
- 2nd Outer Circular Highway(Osan-Icheon)
- U-Smartway
- Busan Metropolitan Inner Circular(Mandeok-Santum) Urban Highway
- Western Inland Expressway

Railways



The department of Railways carries out comprehensive design of high-speed railways, arterial railways, subways, light rail transit, personal rapid transit and magnetic levitation trains. Our railway project services are fully integrated and encompass the resolution of community and policy issues.

Our integrated engineering capability can be applied to all kinds of railway projects with various customer requirements. Our highly qualified professionals have highly technical expertise in all phases of railroad engineering services from initial planning to final design.

Pre-feasibility Studies and Industrial and Academic Cooperation Projects

- Basic Planning of Railway Network in Gyeonggi Province
- Pre-Feasibility Study for Wolgot-Pangyo Double Track Subway
- Pre-Feasibility Study for Jungang Line (Dodam-Yeongcheon) Railway Construction Project
- Pre-Feasibility Study of Wonju-Gangreung Railway Construction
- Pre-Feasibility Study of GTX(Great Train Express) Line A PPP
- Feasibility Study and Basic Plan of KTX(Korea Train Express), Departing Incheon
- Technical Part for Feasibility Study of New Ansan Double Track Line PPP

Feasibility Studies, Basic, and Detailed Design of Government-Issued Railway Projects

- Establishment of National Arterial Railway Network for the 21st Century : Basic and Detailed Design of Seongnam-Yeouju Double Track Railway, Basic Design of Wonju-Gangneung Railway, Detailed Design of Donghae Line (Jukbyeon-Bukmyeon)
- High-Speed Railway : Detailed Design of Gyeongbu High-Speed Railway Lot 13-4, Gyeongbu High-Speed Railway Lot 14-2, Basic Planning of Honam High-Speed Railway, Basic Design of Honam High-Speed Railway Lot 6
- Detailed Design of Suseo~Pyeongtaek High-Speed Railway Lot 4, 3-2, 5
- Design Supervision of Honam High-Speed Railway, Capital Region High-Speed Railway(Lot 3)
- Establishment of Metropolitan Railway Network : New Bundang Railway, New Ansan Railway, Sosa-Wonsi Railway, Seongnam-Yeouju Railway
- Subway : Seoul Metro Subway Line No.3, No.7, No.9, and Busan Metro Subway Line No.2
- Samsung~Dongtan Metropolitan Express Railway Master plan

Railway Public-Private Partnership Projects

- New Bundang Subway (Gangnam-Jeongja), "First Subway BTO Project to be Proposed by Private Sector in Korea"
- Jeolla Line (Iksan-Sinri), "First Railway BTL Project in Korea"
- New Bundang Subway Extension (Jeongja-Gwanggyo / Gangnam-Yongsan) BTO Projects
- Sosa-Wonsi BTL, Bujeon-Masan BTL, Daegok-Sosa BTL
- Private Proposal of GTX Project
- Dongbuk LRT PPP Basic Design(Civil) & Create Business Proposal
- Basic Design of Daegok-Sosa Double Track Railway PPP
- New Ansan Line Double Track Railway PPP

Future-Oriented New Transit System

- Pre-Feasibility Study of LRT(102 lines)
- 3rd Party Suggestion of Ui-Sinsul LRT PPP
- First Proposal of Sinwol-Dangsan LRT PPP
- Suggested Design of Gimpo LRT PPP
- Detailed Design of Gwangmyeong LRT PPP
- Alternative Design of Pilot Project of Magnetic Levitation Train for Urban Area
- Technical Suggestion of Magnetic Levitation Train in Incheon, Gwangju
- Basic Design of Dongbuk LRT
- Basic and Detailed Design of Gwangju City Railway Line 2, Phase 2(Civil/Constructon Lot 4)
- Improvement for Public Transportation System Using New Transportation System

Civil Structures



The department of Civil Structures carries out the structural design of roads, railways, subways, high-speed railways and light rail transit based on the accumulated engineering expertise. In particular the department has superior technology and abundant experience in the design of cable-stayed bridges, suspension bridges, arch bridges, extra-dosed bridges, long-span bridges and other unconventional types of bridges.

Civil structure department introduces advanced technologies and developed new technologies based on professional R&D. SAMBO ENGINEERING is trying to build creative and beloved civil structures to implement our dreams.

Road Bridges

- Solvit Grand Bridge : Steel Composite Cable-Stayed Bridge (Main Span = 240m)
- Geumgang 4th Bridge : Concrete Cable-Stayed Bridge (Main Span = 250m)
- World Cup Grand Bridge :
First Asymmetric Composite Single Cable-Stayed Bridge with Mono Tower in Korea, "Award Winner of an International Prize Winning Contest" (2001)
- Namdo Grand Bridge :
Longest Basket Handle Type Nielsen Arch Bridge in Korea (Span Length = 160m), "Received the Second Prize in Structure of the Year" (2004)
- Gyeongancheon Bridge : First Extra-Dosed Bridge with Mono Tower in Korea
- Gungang 2nd Bridge : Asymmetrically Curved Cable-Stayed Bridge with Mono Tower
- Ulsan Grand Bridge: Short Span Suspension Bridge, Grand Prize in "Structure of the Year" (KSCE, 2016)
- Ungcheon-Soho Connected Bridge: Cable-Stayed Bridge with 1-Sided Hybrid Curved Pylon

Railway Bridges

- Northern Han River Bridge :
"First Extra-Dosed Bridge in Korea" (Steel Railway Bridge)
- Balheung Bridge :
Arch Railway Bridge "Jeolla Line Turnkey Bidding Winner" (2002)
- Mangyeonggang Bridge :
First Two Way PSC Panel-Stayed Railway Bridge in Korea, "Project Winner of Jeolla Line BTL Project" (2006)

Subway and Light Rail (LRT)

- Detailed Design of New Bundang Line BTO (Yongsan-Gangnam)
- Detailed Design of New Bundang Line BTO (Jeongja-Gwanggyo)
- Detailed Design of New Bundang Line BTO (Gangnam-Jeongja)
- Detailed Design of Gwangmyeong LRT BTO
- Basic Design of Ui-Sinsul LRT BTO
- Basic Design of Gimpo LRT BTO
- Basic and Detailed Design of Seoul Metro Line 9
- Basic and Detailed Design of Busan Metro Line 1 extension
- Basic and Detailed Design of Incheon Metro Line 2
- Detailed Design of Daegu Metro Line 3 Lot 8
- Detailed Design of Byullae Line (Amsa-Byullae) Double Track Train Lot 4

Tunnel & Underground Space Development



The department is the market leader in tunnel and underground space development technology in Korea. The market areas of the department services include underground utilities, underground buildings and transportation tunnels. The department's engineering expertise encompasses the full spectrum of state-of-the-art tunnelling technology, including the New Austrian Tunnelling Method (NATM), Mechanized Tunnelling Method (TBM tunnels) and Norwegian Method of Tunnelling (NMT).

We have innovated engineering technology which able to apply underground space development such as subway, roads and railway tunnel, TBM construction, underground tunnel station, urban underpass as well as domestic and overseas undersea tunnels based on accumulated experiences and technologies. Also, we are trying hard to maintain the best tunnel and underground space design technologies by R&D participations on double deck tunnel in deep underground space, technology independence for pole undersea tunnel with high resistance of water pressure, TBM development.

Road Tunnels

- Design Services for Privately Funded Seoul Jemulpo Tunnel BTO Project (First Diverging Road Tunnel in Korea)
- Longest 3 Lane Road Tunnel (Misiryong Tunnel, Length 4.9km)
- First Application of NMT and PCL Methods in Korea (Jangseong Tunnel, Length 3.5km)
- Inner Circular Highway(Mandeok-Santum) PPP, the First Urban Underpass Tunnel (Santum Tunnel, Length 9.6km)
- Basic & Detailed Services for Seokdong-Sosa Road Construction Project
- Anyang-Seongnam Expressway (Anyang Tunnel), Taebaek-Miro National Road (Dogae 1, 2 Tunnel), Gyeongju-Gampo National Road (Yangbuk Tunnel)
- Hamyang-Ulsan Highway(North-South tunnel), etc.

Railway and Subway Tunnels

- Longest Single Track Railway Tunnel in Korea (Solan Tunnel, Length 15.6km)
- First Application of Single Shell Method (Inclined Shafts of Wonhyo Tunnel)
- Bujeon-Masan PPP(Applied NATM Tunnel Station and EPB Shield TBM)
- Daegok-Sosa PPP (Passing Under Han River, Applied EPB Shield TBM)
- Wonju-Gangreung Railway Construction (Passing Urban Area, Applied Slurry Shield TBM)
- High-Speed Railway Lot 13-4, Lot 14-2, Donghae Nambu Line, Suseo-Pyeongtaek Lot 4, Bujeon-Masan Double Track Railway, Seoul Metro Line No. 3, No.7, No.9, Jinjeop Line, Hanam Line, Byullae Line, Samsung-Dongtan, GTX, New Bundang Line, etc.

Seabed & Riverbed Tunnels, Underground Space Development

- Application of Earth Pressure Balance (EPB) Shield TBM Method for Han River Section Which Requires High Level of Resistance Against Water Pressure
- Design of Istanbul Strait Road Tunnel Crossing (Double Deck) Project
- Research Study for Korea-Japan Strait Subsea Tunnel (Daema Island-Geoje Island, Length 200~230km)
- Deep Underground Road U-Smartway Construction(Shield TBM)
- Underground ○○Computerized Center Design (Designing Underground EMP Protection Facility)
- Numerous Industrial-Academic Cooperative Research Projects on Underground Space Development with Large Diameters (R&D Participations on Double Deck Tunnel in Deep Underground Space, Technology Independence for Pole Undersea Tunnel with High Resistance of Water Pressure, TBM Development, etc.)

Soft Ground Improvement in Shallow Tunnel Sections, and Basic Design of Bridge and Harbor Structures

- Design of Soft Ground Improvements in Deep Depth. (SCP, GCP, PBD, Preloading etc.)
- Design of Cast-in Situ Piles and Open Caisson
- Foundation and Lot Design of Busan New Port (1,050m / 600m), Design of 4 Quay Walls for 50,000 Tons, Design of Revetment with Length of 280m
- Busan New Port Design Lot 2-4, Quay Wall Design, Revetment Design
- Youngsan River Estuary Lot 2, Saemangeum East-West 2axis Road, Aphae-Amtae Lot 2

Transportation Planning



Traffic Impact Assessment

- Traffic Impact Assessment for Yangjae-dong Shift Construction
- Traffic Impact Assessment for Hidden Valley G.C Construction
- Traffic Impact Assessment for Suwon-Cheonan Double Track Train Construction
- Traffic Impact Assessment for Gyeongbu Line Suwon-Cheonan Infill Station Construction
- Traffic Impact Assessment for Ori-Suwon Railway Construction

Research

- Traffic Situation Analysis and Toll Fee Adjustment for Seoul Outer Circular Highway
- Establish Traffic System Connected to Saemangeum Region
- Basic Plans for Establishing East-West Peace Highway
- Basic Research for Activation of Asian Highway Network
- Technical Part for Establishing Highway Construction Management Plan, Daegu Metropolitan City

Overseas Project

- Master Plan for Sumatra Arterial Road Network, Indonesia
- Feasibility Study for NR33, Cambodia
- Participated in International Bidding for Turkey Eurasia Undersea Tunnel
- Feasibility Study for Paraguay Railway Construction
- Master Plan for Railway in Cambodia



The department has prepared transportation planning for many major Metropolitan areas in Korea and a lot of other cities in the world. The experts in the department concentrate on providing efficient, constructible and convenient transportation infrastructure to the public.

Major service field are traffic volume forecast for establishment of road and railway network, master plan and analysis of feasibility study for development of private participation in the public infrastructure project.

Research activity of new transit system, traffic impact assessment for road and railway construction are the other parts of main service field.

Electrical & Mechanical Services

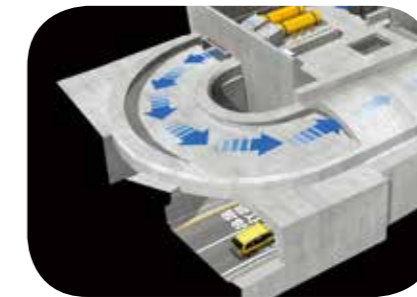


Research

We have variety of techniques from accumulated experience based on urban underpass, undersea tunnels, high-speed railways, deep underground tunnels, subways, etc.

Project Performed

- Gimhae New Airport Highway PPP
- Substitutional bypass of Dongducheon National Road
- Lift Facility for 3 Stations in Bundang Line Excluding Seonreung Station
- Installation Plan for Foundation Facility in Saemangeum
- Substitutional Bypass of Andong National Road
- 2nd Busan New Port Connector Expressway Construction PPP
- Dunnae-Mui2 Road Construction



The department of Electrical & Mechanical Services carries out design of lighting, ventilation and disaster prevention system that ensure passenger safety and comfort for road, seabed and riverbed tunnel. Also, we are contributing for green growth by applying high-tech ITS facilities, new technologies and designing renewable energy in order to reduce traffic congestion, improve drivers' mobility and safety, use energy efficiency and to reduce air pollution.

Environment



SAMBO Engineering has experiences in conducting individual studies focusing on a single issue, as well as with broad-based environmental research projects that integrate multiple issues from many areas. This flexibility, coupled with the breadth and depth of our scientific knowledge, allows us to provide clients of comprehensive and qualified technical expertise.

Strategic Environmental Impact Assessment

- Strategic Environmental Impact Assessment for Entry Road of Special Warfare Command
- Strategic Environmental Impact Assessment for Substitutional Bypass of Andong National Road (Yongsang-Gyori)

Environmental Impact Assessment

- Environmental Impact Assessment for Chungju-Mungyeong Railway Construction
- Environmental Impact Assessment for 2nd Busan New Port Connector Expressway Construction
- Environmental Impact Assessment for Younggwang-Haeje Road
- Environmental Impact Assessment for Sinni-Noeun Road Construction

Post-Environmental Survey

- Post-Environmental Survey for Prevention of Yeonggang River Disaster
- Post-Environmental Survey for Changwon Industrial Complex Construction
- Post-Environmental Survey for Jeolla Line (Iksan-Silli) Double Track Train PPP



Environment department provides the best quality for clients from many environmental projects such as water treatment, waste treatment, pollution treatment, and environmental impact assessment based on accumulated experience and professional R&D. SAMBO ENGINEERING is still working on developing scientific design and evaluation technique.



New & Renewable Energy



We are trying to be the best in new & renewable energy field by accumulating expert techniques such as O&M and projects according to worldwide trend and policies.

Feasibility Study, Basic Design, and Detailed Design

- Feasibility Study for Development of Carbon Neutral Program
- Feasibility Study for Dong Thanh Landfill Gas CDM Project in Ho Chi Minh City
- Basic Design for Paju DMZ Eco Park Development Project
- Basic Design for In-Situ Renewable Energy Supply System
- Basic Design for Clean Energy Facilities of Multifunctional Administrative City

Turnkey

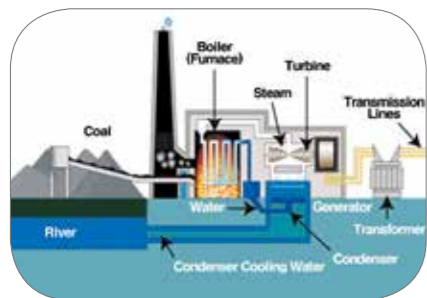
- Basic Design for Kyeongin Canal Lot No.6 CDM Project
- The Low Carbon, Green Growth System Construction Project in Ulsan Newport

PPP, EPC

- Waste Recycling Center and Waste Sorting Facility for Each Region in Chechnya, Russia
- Power Plant Project, Ecuador

Solar Power Plant Project

- Solar Power Plant for Upper Space of Highway
- Solar Power Plant for Bugan, Yeongcheon
- Solar Power Plant in Water Surface for Hwasung



Most countries including South Korea are preparing against depletion of fossil fuel and putting effort in new & renewable energy in order to diversify the energy source and reduce greenhouse gas exhaustion. Based on technologies in wide range, SAMBO ENGINEERING provides the best energy related techniques to both public and private institutions.



Urban Planning



Urban planning department is engaged in urban planning, complex design, and site design. Especially, we participated in the development of station area projects, urban development projects, industrial complexes, logistics complexes, golf courses and resorts to provide professional services for the entire project from feasibility review to implementation design.

Urban planning

- District Unit Changing Plan in Paju-si
- A Maintenance Zone Changing Plan in Jung-gye
- Urban Management Plan, District Unit Planning, Public Announcement of Topographic Maps, Urban Planning Facilities Project and etc.

Urban Development

- GTX Operational Efficiency Plan
- Urban Development Project in Gimpo
- Urban Development Project in Yongin
- A Feasibility Study, Development and Detailed Planning

Development of Industry and Logistics Complex

- Creating a General Industrial Complex in Chung Ju
- A Feasibility Study, Investment Letters, Development Plan and Detailed Plan

Complex Design

- Detailed Designs for Urban Development and Industrial Complex in Yongin
- Basic and Detailed Design for Urban Development, Industry Complex
- Earthwork, Road and Pavement, Water and Sewer Design

Landscape Design

- Feasibility Study and Planning for the Construction of Tourist Area, Golf Course and Resort
- Design and Green Park Planning for Residential and Industrial Complex



The department of Urban Planning consists of city planning team and site design team. In order to improve people's living standards, the department provides engineering services in a way that can efficiently and economically apply dynamic technologies in the development of various types of land utilization projects.



Architecture Planning



The department of architecture was founded to provide a solution for multi-use projects which require the ability of architectural and civil technology.

According to the complicated and various needs of the client, the department of architecture not only provides services for the SOC, architectural design and construction management area, but also performs public and private development projects with a creative idea and accumulated know-how.

SAMBO ENGINEERING has a goal to lead the market, create new culture of architecture and show the new vision of architecture which goes together with history by challenging views for creating the infinite value for the client.

SAMBO ENGINEERING never stops challenging and improving our passion for the better future and creates new architectural culture with infinite creativity which is able to make human life happier.

Project Development

- The Facilities of Huge Agriculture and Fishery Company in Saemangeum
- A Study on the New Conception Transportation in the Metropolitan Capital Area
- Development for Express Railway Area in the Seoul Metropolitan Area

Private Finance Initiative

- Seoul~Chuncheon Expressway
- New Bundang Subway Extension
- U-Smartway(Seoul Underground Expressway Project)
- Busan(Manduk-Centum) Inner Circulation Expressway
- Seoul Jemulpo Tunnel(Seoul Underground Expressway Project)

SOC Design

- Seoul Subway Metro Line No.9
- Gwangju~Wonju Expressway
- New Busan Harbor Behind-Road
- Nakan~Sangsa National Road
- Busan Harbor Behind-Road

Planning & Design

- Construction of ENF Dormitory in Asan
- Construction of Arte Hotel in Suwon
- Construction of Public Facilities in Gangbuk
- Jong-ro Culture & Arts Center
- Underground Public Parking Lots at Gyeonggi High Schools
- Observatory for the 4th Bridge on the Geumgang
- Hidden Valley Golf Club
- Jeongung-ri, Yongin-city Furniture Business Complex
- Yongin-city Project of Jukjeon Town House
- Oksan~Ochang Highway in a Place of Business/Tolgate, New Construction
- Daesan-Imhae Industrial Area Industrial Water Purification Plant Construction

CM/PM

- Changwon Science Center
- Ulsan National Institute of Science and Technology

Feasibility Study

- A Feasibility Study for the Underground Parking Lots in Gyeonggi High School
- A Feasibility Study for the Underground Parking Lots in Jeong-Dok Library
- A Feasibility Study for the Mixed-use Facilities of Chang-su Elementary School

International Project

- Hyderabad~Mirpurkhas Dual Carriageway PPP Project in Pakistan
- Istanbul Strait Road Tunnel Crossing in Turkey
- Adjara Bypass Roads Development Project in Georgia

Water Resources



Water resources department performs various engineering activities such as Basic Plan of the River, pre-assessment of the impacts of natural disasters, river Environment Improvement projects, analysis & assessment of various restoration projects, and Sub-basin rehabilitation master planning.

We contribute to the efficient development, utilization and management of water resources by carrying out Comprehensive flood control planning for the uncertainty caused by floods, droughts and climate change. Our Slogan is "World of clear water by people and water".

Main Business

- Conservation, Control, Environment Sector, Disaster Prevention
 - Conservation Sector : Basic Plan of the River, Comprehensive Flood Control Plan, Conservation Stability Security Plan
 - Control Sector : Instream Flow Security Plan , Eco-Friendly Control Facility Plan
 - Environment Sector : River Environment Management Plan, River Environment Improvement Projects
 - Disaster Prevention : Pre-Assessment of the Impacts of Natural Disasters, Formulation of a Master Plan for Preventing Storm & Flood Damages, Formulation of Emergency Response Plans, Analysis & Assessment of Various Restoration Projects
- Multipurpose Dam & Small Sized Dam, Small Hydro Power
 - The Department Carries Out Design, Construction Supervision, and Operation & Maintenance for Construction of Dams, Hydro Power Plants and Pumped Storage Power Plants, Which Enable the Economically Efficient Development and Use of Water Resources to be Made. We Also Compass Works Related to New Renewable Energy Such as Small Hydropower Project, etc.
 - The Department Executed Many Projects in This Realm, and is Now Making Efforts Towards Efficient and Green Development of Water Resources and for Overseas Projects with the Technology and Experiences Acquired from Domestic and Overseas Projects
- Tube Well Development & Irrigation System
 - The Department Carries Out Works to Increase Agricultural Products by Expanding and Reinforcing the Facilities(Reservoir, Pumping Station, and Weir, etc), and Improving Irrigation and Drainage Channels in Shortage Areas of Agricultural Water

Projects

- Water Resource and Design
 - Detailed Design of the Han River Restoration Project (Package No.6)
 - Detailed Design of the Nak-dong River Restoration Project (Package No.22)
 - Restructuring project of the Young-San Riverbank (Package No.2)
 - Disaster Prevention Project of the Whi-Chun River
 - Basic Plan of the Young-Duk River
 - Detailed Design of the Pal-Guh River Restoration Project
 - Basic Plan and Facility Inventory of the Wae-Gwan River
 - Basic Plan and Facility Inventory of the Dong-Chun with Four Rivers
 - Detailed Design of the Nonsi River
 - Rehabilitation Master Planning (Dal-Sung, Young-Yang, Ui-Sung, Go-Ryoung)
- Disaster Prevention
 - Formulation of a Master Plan for Preventing Storm & Flood Damages of the Gyeongsangbuk-do
 - Detailed Design of a Hydrophilic Facility
 - Pre-Assessment of the Impacts of Natural Disasters in Road Around New Busan Harbor
 - Pre-Assessment of the Impacts of Natural Disasters in Bujeon-Masan Railway
 - Pre-Assessment of the Impacts of Natural Disasters in Jae-Mul-Po Tunnel
 - Detailed Design of the River Environment Management Plan in Cho-Gok
 - Detailed Design of Natural Disaster Hazard Zoning Rehabilitation Master Planning in Nobu

Water & Sewage



We design, operate, and manage facilities that provide living, industrial and ecological water by combining existing water technologies and IoT technology. Recently, DB and BIM technologies were introduced to diagnose and assess the facility's performance for rebuilding aging and poorly performing facilities.

Feasibility Studies, Basic Design, and Detailed Design

- Feasibility Study for Payatas Clean Energy Center Construction Project in the Republic of the Philippines
- Basic Design for Effluent Recycling Facilities of Ulsan Yongyeon Sewage Treatment Plant
- Basic and Detailed Design for Advanced Treatment Process of Goyang-Samsung Sewage Project

Turnkey and Alternative Bidding Projects

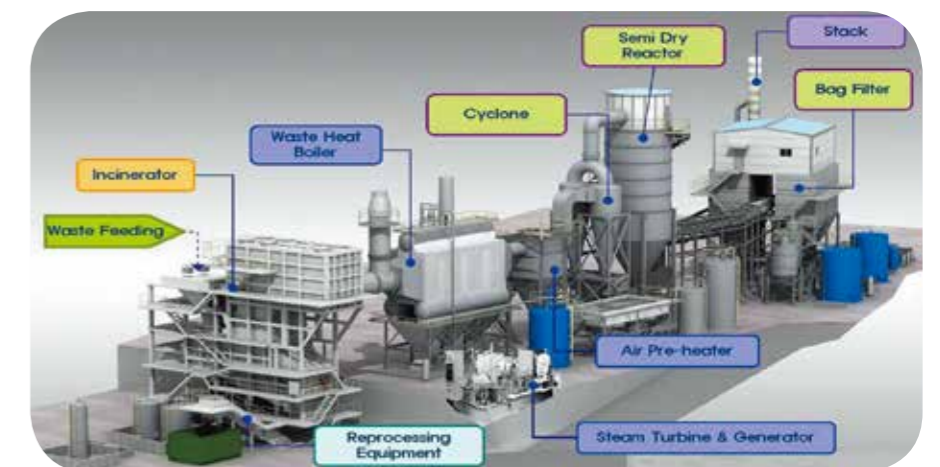
- Basic Design for Daesan Imhae Industrial Complex Water Facilities
- Detailed Design for Goyang, Samsung Water Quality Restoration Center(T/K)

Proposal Design and Development of Public-Private Partnership Projects

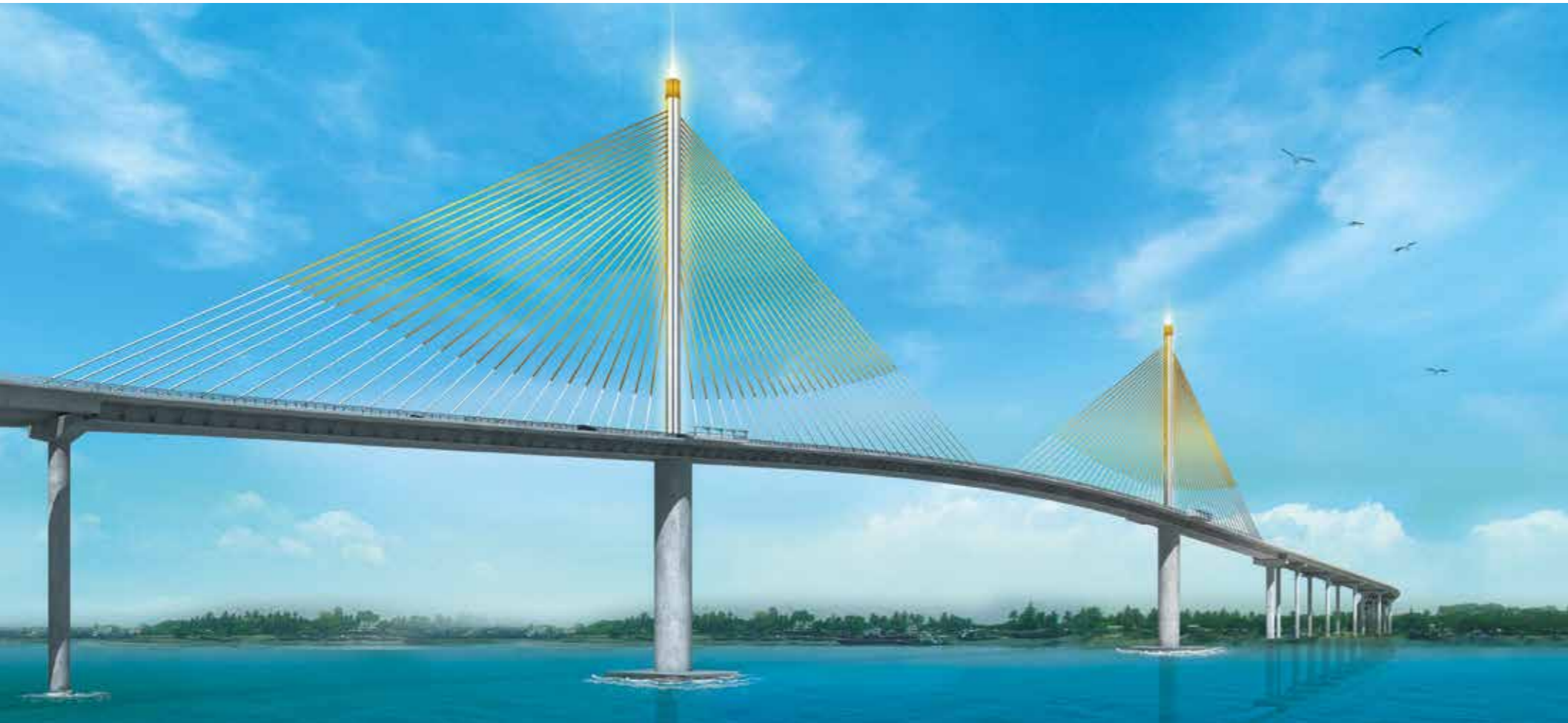
- Implementation of Pilot Project for Collection, Recycling and Valorization of Electrical and Electronic Equipment in the Republic of Tunisia
- Basic Design for Jeju Sewage Pipeline Maintenance(BTL) Project
- Detailed Design for Boryeong-city Sewage Pipeline Maintenance(BTL) Project



Water and Sewage department specialize in wastewater treatment and environmental management. We are responsible for passing on the clean environment to their descendants. SAMBO ENGINEERING is conducting research and development for sustainable development and conservation of natural environment.



Overseas Project Development



The department of overseas project development has accumulated technical competitiveness to compete in the global engineering based on many years know-how, has completed a lot of overseas engineering projects as listed on right side with quality exceeding the expectation of the Client.

The department is pursuing ODA projects and carrying out Public-Private Partnership project in Southeast Asian nations.

VIETNAM • Feasibility Study and Basic Design for Tan Van~Nhon Trach Road Construction Project • Detailed Design for Thanh Hoa City Comprehensive Socio-Economy Development Project(EDCF) • Detailed Design and Construction Supervision for Vinh Thinh Bridge Construction Project(EDCF) • Detailed Design Consulting Services for Ha Noi~Lang Son Expressway Project(ADB) • Construction Supervision Consultant Service for Vam Cong Bridge Connecting Road Construction Project(EDCF) • Consulting Services for Detailed Design and Construction Supervision for Thinh Long Bridge Construction Project(EDCF) • Feasibility Study and Basic Design for Thu Duc~Nhon Trach Road and Bridge Project

CAMBODIA • Master Plan for Railway Network Development in Cambodia (KOICA) • Detailed Design and Construction Supervision for Improvement of NR31, NR33, PR117 and Kampot Bypass Road Project(EDCF) • Detailed Design and Construction Supervision for Rural Road Improvement Project I (EDCF) / Project II (EDCF) • Feasibility Study for Phnom Penh City Intermediate 2nd Ring Road Project • Basic and Detailed Design for Mekong River Bridge Project

PHILIPPINES • Detailed Design and Construction Supervision for Widening for Gapan~San Fernando~Olongapo(GSO) Road and Emergency Dredging Project(EDCF) • Feasibility Study for Baler~Casiguran Road Improvement Project • Feasibility Study for the Panguil Bay Bridge Project

MYANMAR • Feasibility Study for Korea~Myanmar Friendship Bridge Construction Project(EDCF)

INDONESIA • Feasibility Study for Serangan~Tanjung Benoa Road Project(EDCF) • The Establishment of a Master Plan for the Arterial Road Network in Sumatra Island(KOICA) • Feasibility Study for Yogyakarta~Kulonprogo Toll Road Construction Project

PAKISTAN • Detailed Design and Construction Supervision for Hyderabad~Mirpurkas Dual Carriageway Road Project • Feasibility Study for Hyderabad~Badin Road Construction Project • Feasibility Study for Indus River Crossing Bridge Construction Project

UZBEKISTAN • CAREC Corridor 2 Road Investment Program-Project 1(ADB) • CAREC Corridor 2 Road Investment Program-Project 2(ADB)

GEORGIA • Adjara Bypass Roads Development Project(ADB) • Preparation of Detailed Design and Preparation of Bidding Documents for Kobuleti Bypass Road, Kobuleti~Batumi Section and Batumi Bypass Road(ADB)

MOZAMBIQUE • Consulting Services for Detailed Design and Construction Supervision for Rehabilitation of National Road N104 between Nampula and Nametil(EDCF)

USA • Feasibility Study for Los Angeles Highway Private Participation in Infrastructure Construction Project • Feasibility Study for USA Florida State Tampa-Orlando-Miami High-Speed Rail Project

TURKEY • Basic Design for Istanbul Strait Road Tunnel Project • Detailed Design for Istanbul Strait Road Tunnel Project

BOLIVIA • Feasibility Study for Beni River Bridge Construction Project(EDCF)

ARMENIA • Project Management for South~North Expressway Project

AZERBAIJAN • Feasibility Study for Agdas~Laki, Arbsu~Kudamir~Bahramtepe Road Project • Feasibility Study for Baku~Sumgait Metropolitan Railway Project

PARAGUAY • Feasibility Study for Construction of Presidente Franco~Curupaty Railway in Paraguay(KOICA)

TUNISIA • Implementation of Pilot Project for Collection, Recycling and Valorization of Electrical and Electronic Equipment in the Republic of Tunisia

MONGOLIA • Project for Development of New Water Supply Sources for Yarmag Area of Ulaanbaatar City

CANADA • Conceptual Design for South Fraser Perimeter Road Project

PF Project Development



The department of PF Project Development regards “mixed use development” as the new growth engine for the future. Through the accumulated experience in design, construction management and construction supervision, the department is actively broadening its market share in “mixed use development”.

The department of PF Project Development carries out various fields of engineering services such as master planning of large complexes and new town developments, site development and landscape and design of future-oriented new cities with the consideration of residences, environment, culture, medical facility and tourism. The department provides services in a way that can systematically utilize urban space while achieving richness of urban environment.

The department supports other departments by reviewing financial feasibility, planning viability, CM, project financing, lease, sales, and operation of housing lot facilities, commercial facilities, leisure facilities and public facility development projects.

Planning & Consulting

- Based On the Abundant Experience in the Planning and Consulting of Development Projects, The Department Satisfies Various Levels of Customer Demands Through the Network of Experts in the Fields of Finance, Law, Architecture, Urban Planning, Landscape, etc.
- New City and Lot Development Master Plan, Vacant US Army Base Utilization Plan, Retired Railway Area Utilization Plan, etc.

Project Development

- The main focus is on maximizing utilization of space while reflecting the project's characteristics. This is achieved through the application of either private or public development scheme depending on each project's characteristics
- Urban Planning, Housing Lot Development, Commercial Complex Development, Leisure Facility Development, Industrial Complex Development, etc.

Marketing & Operation

- The department enables efficient marketing and sales operation with professional expertise and distinguished planning know-how that have been acquired through various project experiences



Project Management



BTO, BTL Projects

The department provides comprehensive Project Management services for road, railway, and public building BTO, BTL projects.

PF Projects

The department provides comprehensive Project Management services for PF projects which are pursued by both public and private sector.



The department can manage the full range of activities necessary in a complex multidisciplinary project often worth billions of dollars. The department tailors service to meet each project's goals based on years of service experience in various kinds of architectural and civil projects. The experts in the department have provided management services to public and private clients in Korea and abroad.

VE & ICE



Value Engineering

Value Engineering is a systematic method to improve the "Value" of a project by using an examination of function. The department provides Value Engineering services in a way the value of a project's output is optimized. Implementation of Value Engineering identify equation that can best increase projects' input value.

Independent Check Engineering

Independent Check Engineering is a technical assessment that provides necessary data for potential investors of PPP projects. The department independently provides fair and technically professional review for the investors to assess feasibility of each project. The scope of Independent Check Engineering includes feasibility study, execution plan establishment, progress assessment of on-going project.



The department provides unwavering and independent technical opinion in Value Engineering & Independent Check Engineering. The department carries out Value Engineering(VE) in a way that can preserve basic function while pursuing value improvements. Independent Check Engineering(ICE) provides professional and unbiased project information to the client and stakeholders in order to enhance their understanding on the project.

Construction Supervision



The department of Construction Supervision prevents fraudulent construction work and enhances safety and quality of structures by strictly supervising overall construction process, while providing technical expertise as technical partners.

The department also reviews design drawings and provides best fitting construction method for each project in consideration of environmental preservation and cost efficiency, consequently resulting in the construction of high quality structures and the development of national infrastructure network.

Construction Supervision for Road Projects

- Saemangeum East-West 2 Axis Lot 1
- Yongin-Seoul Expressway
- Yeongdo Grand Bridge, Hwangsan Bridge
- Okseong-Seongsan Road 4 Lane Widening
- Construction Supervision for Busan Newport Construction Project
- Construction Supervision for Dongducheon City (Sangpae~Cheongsan) Bypass Road Construction Project
- Construction Supervision for Dolsan~Hwatae Connecting Bridge Construction Project
- Construction Supervision for Suwon~Gwangmyeong Expressway Construction Project
- Construction Supervision for Seoul~SaeJong Expressway Construction Project
- Construction Supervision for Hong-do Bridge Construction Project

Construction Supervision for Railway Projects

- Wonju~Gangneung Railway Lot 4, 5
- Wonju~Gangneung Railway Lot 11-3
- Busan~Ulsan Double Track Railway Lot 5
- Gimpo Urban Railway Lot 5
- Icheon~Chungju Railway Lot 1, 2
- Geongin(Seoul~Incheon) Line, Anchuncheon Bridge in Guil Station Railway
- East Suncheon-Gwangyang Double Track Railway Lot 1
- Ori-Suwon Double Track Railway
- Construction Supervision for Gyeongui Line (Yongsan~Munsan) Double Track Railway Construction Project (Lot 3)
- Construction Supervision for Honam High Speed Railway Road Bed Construction Project (Lot 4-1, 4-2)
- Construction Supervision for Gyeongbu High Speed Railway Road Bed Construction Project (Lot 10-3A, 10-3B)
- Construction Supervision for Jeonla Line Double Track Railway PPP Project
- Construction Supervision for Icheon~Mungyeong Railway Project (lot9)
- Construction Supervision for Shin-Bundang Line Railway Project (lot1-1, 1-2)
- Construction Supervision for Bosung~Imsung Railway Project (lot3,4)

Construction Supervision for Overseas Projects

- Widening of GSO Road Project in the Philippines
- Construction Supervision for NR31, NR33, PR117 and Kampot Bypass Road Project
- Construction Supervision for Rural Road Development Project
- Construction Supervision for Vinh Thinh Bridge Construction Project

Construction Management



The department of construction management services typically begin during design, and include schedule and budget evaluations, constructability reviews, accuracy checks on cost estimates, weighing project alternatives, structuring bid packages for lowest cost construction, monitoring and coordinating daily construction activities. The department has successfully delivered many of the largest and most complex projects built in Korea.

Management of Construction Process / Comprehensive Cost Control

- Through detailed management of construction implementation and cost, projects are more efficiently implemented

Quality Control / Other Control

- Efficient management of construction materials and curing status results in the cost effective and quality ensured construction

Administrative Control

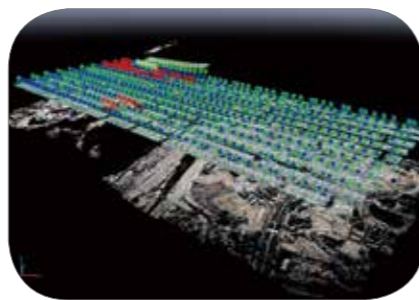
- Best fitting management method in consideration of required safety protocols, contract & claim risk, design alteration is selected for each project



Main purpose of the Construction Management is to minimize construction costs, reduce construction period, enhance quality and safety, and to prevent misunderstanding among the project stakeholders. Construction Management also supports the employer to implement optimal and consistent project management. The department offers professional construction management services that are tailored to the size and complexity of any given project.



BIM / Drone Survey



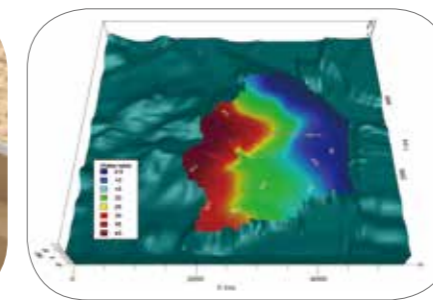
BIM is a system that models planning, design, engineering, and construction in a multidimensional virtual space. It can provide integrated information from various fields such as collaboration, error review, and quality improvement. SAMBO ENGINEERING designs to maintain platform based on BIM and Drone trends.

Underground Safety Impact Assessment



Projects Performed

- Underground Safety Impact Assessment and Develop Detailed Guidelines and Pilot Projects (2016~2017)
- Underground Safety Impact Assessment of the Hyupjin Building Construction
- Underground Safety Impact Assessment of the AMC Building Construction
- Underground Safety Impact Assessment of the Daegu Efficiency Apartment Construction
- Underground Safety Impact Assessment of the Pangyo Urban Development Apartment Building Construction



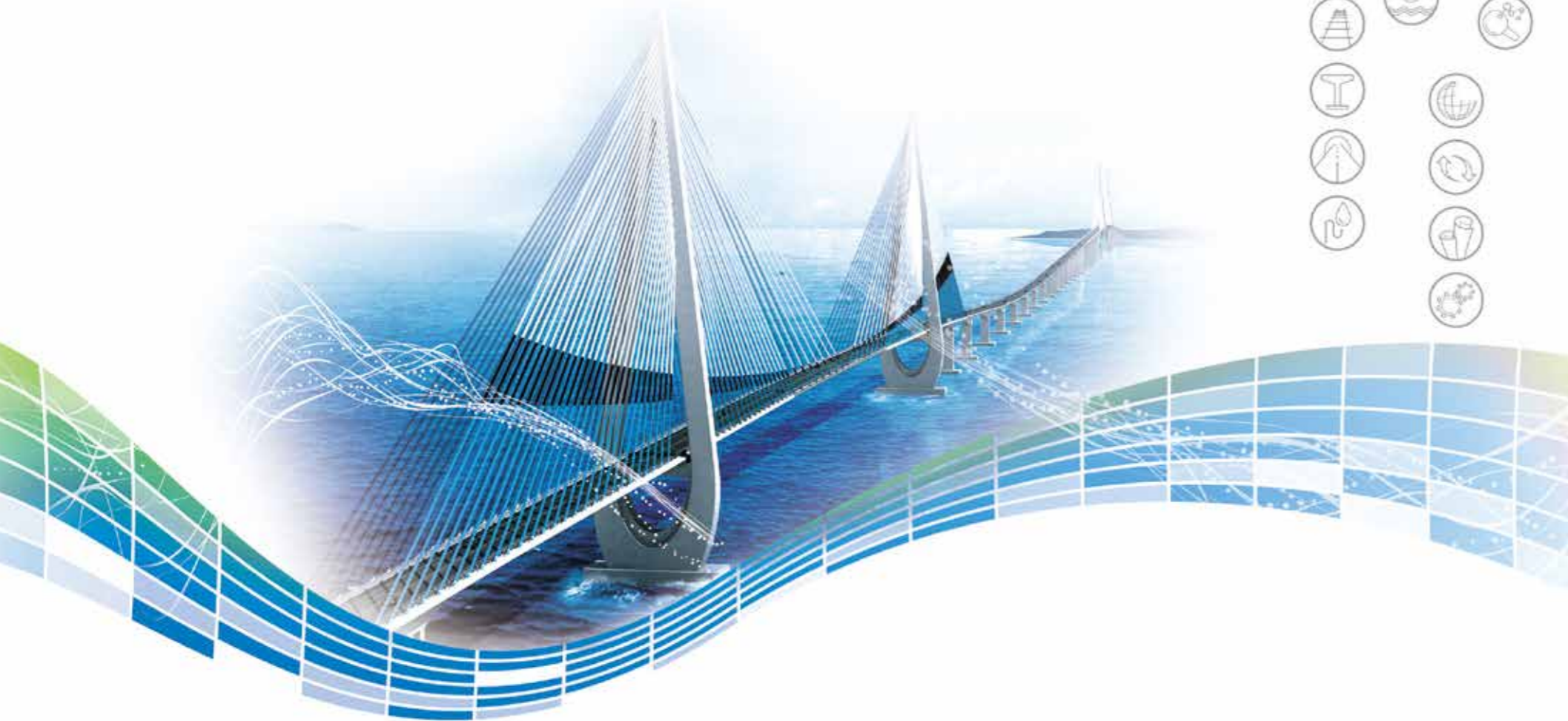
Underground Safety Impact Assessment can prevent and reduce subsidence by investigating, predicting and evaluating the impact on underground safety when underground excavation works. SAMBO ENGINEERING, who executed the first in the industry to conduct pilot projects, and also had the best technology and ability in Underground Safety Impact Assessment by creating relevant laws and detailed guidelines.

Research & Development Institute

R&D institute is invention, adoption and innovation of new civil engineering technologies. Major engineering fields of the research are long span bridges, seabed tunnel, development of new technology, and R&D projects.

In R&D institute, development of new technology and practical products, national research projects, practical design support, publication technical report, etc, have been carried.

Also, 44 industrial-academic cooperation projects, 2 new technologies, 55 patents, 1 practical innovations have been achieved by the institute since the foundation of company.



New technology / R&D project

1. **Cable Bridge Research Group**
co-work : Korea Highway Corporation, Korea Institute of Construction Technology, Seoul National University, Pyunghwa Engineering
2. **Super Long Span Bridge R&D Project**
co-work : Seoul National University, Korea University, DAEWOO Engineering & Construction, Korea Institute of Construction Technology
3. **Development of Design and Construction Technology for Double Deck Tunnel in Great Depth**
co-work : Korea Institute of Construction Technology, Hanseo University, Dongguk University, Konkuk University, Hanyang University
4. **Underwater Tunnel Research Group**
co-work : Seoul National University, Korea University, Konkuk University, Korea Institute of Construction Technology
5. **TBM Design Localization Technology**
co-work : Korea Institute of Construction Technology, EM Korea, Duna Information Technology, Kang Nung Construction
6. **Development of Long Span Girder Bridge**
co-work : GS Engineering & Construction
7. **Development of STA(Steel Tubular Arch) Girder**
co-work : Korea Institute of Construction Technology, Korea University
8. **Development of Prestressed Wale and Square Steel Strut (New Technology No. 640)**
co-work : SSANGYONG Engineering & Construction, KUKDONG Engineering & Construction, PStech Corporation
9. **Next-Generation High-Speed Rail Technology Center**
co-work : HYUNDAI Rotem, Korea Railroad Research Institute, Seoul National University, Korea University



Super Long Span Bridge National R&D Projects

- Economical design technology for long span cable bridge
- Wind-resistance system for long span cable bridge
- Suspension and cable-stayed bridge cable system utilizing high strength steel cable
- Development & application technology of high performance cable

Cable Bridge Research Group National R&D Project

- Cable Bridge full cycle technology solution development
- Cable Bridge Disaster response technology development
- Cable Bridge substructure design engineering technology development
- Marine bridge foundation circular steel building method development

Publication

For the introducing new technology and technical education, technical publications have been published regularly. To find a new technology and products, institute gathers information on the design specification, photography shooting around the world. Also, published periodicals which contain the research study results carried out in order to contribute to enhancement of civil technology in Korea.



Project Experiences

Turnkey and 3th Party Bidding

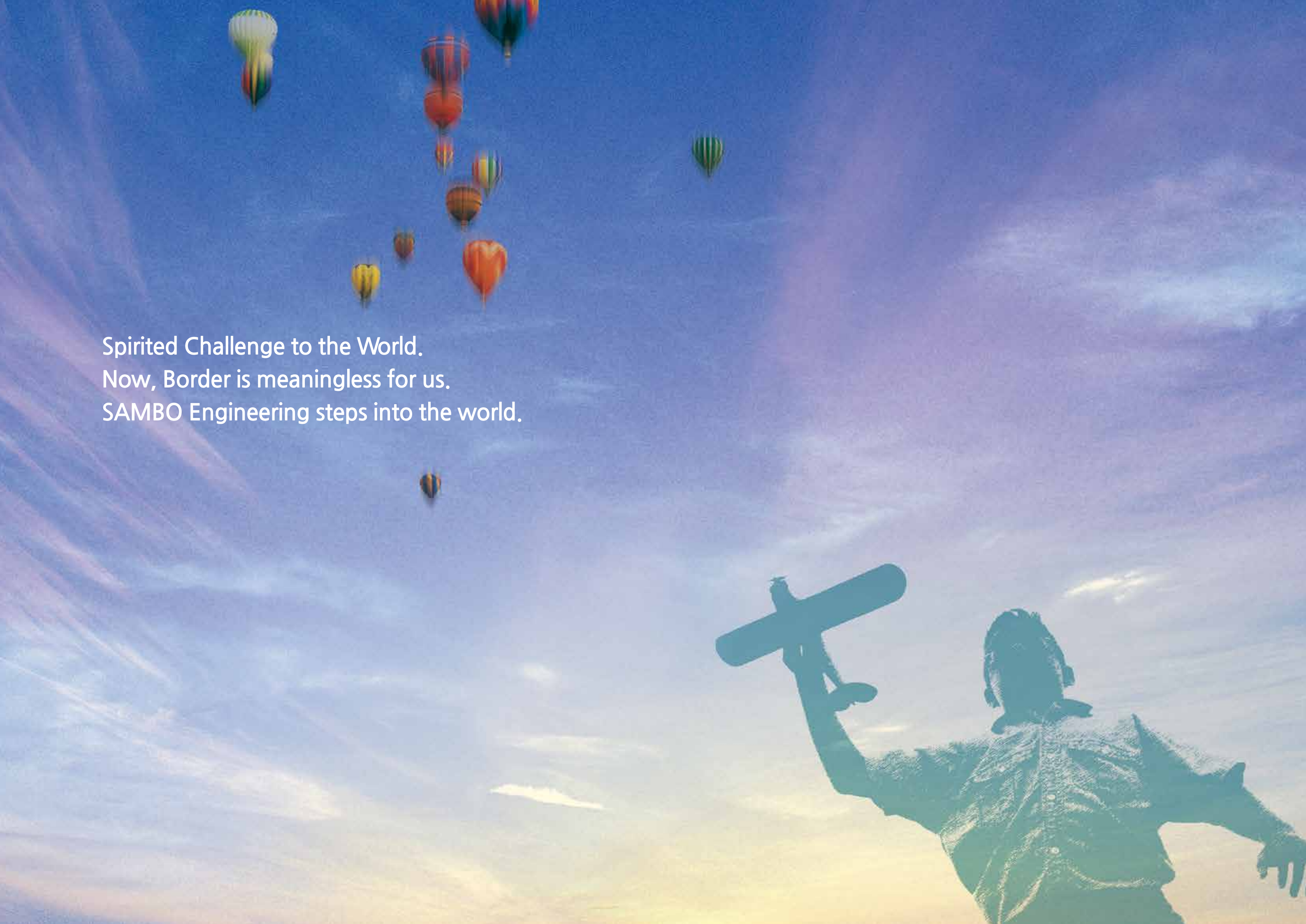
- 2017 • Ungcheon-Soho Road Construction
• Geumgang Walking Bridge of Multifunctional Administrative City
• Technique Suggestion for Hamyang-Changnyeong Construction(Lot 11)
• Golden Glow Bridge of Multifunctional Administrative City and Outer Circular Road in Living Zone No. 5
- 2016 • Saemangeum North-South Axis 2 Road Construction Lot 3
• Icheon-Mungyeong Railway Construction Lot 8
- 2015 • Byeollae(Amsa~Byeollae) Double Track Railway, Lot 4
- 2014 • Kimpo Metropolitan Subway, Lot 4
• Hanam Double Track Railway, Lot 3
• Hanam(Sangil~Geomdansen) Double Track Railway, Lot 4
• Jinjeop(Dangoggae~Jinjeop) Double Track Railway, Lot 3
- 2013 • The 2nd Metropolitan Ring road Hwado~Yangpheong, Lot 3
• Daegu Ring Road Seongseo~Jicheon, Lot 1
- 2012 • Design for Military Installation Work Design Project
• Jungang Double Track Line, Lot 2
• Jungang Double Track Line, Lot 11
- 2011 • Dongdaegu Station Over-Bridge
• Busan Outer Ring Road, Lot 6
• Ulleungdo Coastal Road
- 2010 • Multifunctional Administrative City, Geumgang 4 Bridge
• Seoul Subway Line No.9 Stage3, Lot 923
• Suseo-Pyeongtaek Metropolitan Rapid-Transit Railway, Lot 4
• Sangli-Yongjin Road Improvement
- 2009 • Boryeong-Taeon Road, Lot 2
• Incheon Subway Line No.2 Lot 204, 206, 214, 215
• Aphae-Amtae Road, Lot 1
• Poseung-Pyeongtaek Railway, Lot 1
• Three-Dimensional Construction of Olympic Highway
• Youngin-Cheongbuk Road, Lot 1
• Busan New Port Main Road (Angol Bridge)
• Demo-Line for Incheon Urban Maglev Train Program
- 2008 • Seoul Subway Line No. 9 Stage 2, Lot 916
• Seoul Subway Line No. 9 Stage 2, Lot 915
• Seokdong-Sosa Road Improvement
• Daegu Metropolitan Subway Line No. 3, Lot 8
• Busan Subway Line No. 1, Lot 4
- 2007 • Yeosu National Industrial Park Access Road Improvement, Lot 1
• Gwangyang Port West Rear Park, Lot 1
- 2006 • Yeosu Industrial Complex Connection Road, Lot 1
• Yeosu Industrial Complex Connection Road, Lot 4
• Taebaek-Miro Road, Lot 2-1
• Unongdong-Jangyeo National Road
• Yeongdeok-Osan Road (Provincial Road No. 211)
- 2005 • Donghaenambu Line Double Track Railway (Busan-Ulsan), Lot 2
• Hanrim-Saengrim Road
• Jinju-Gwangyang Double Track Railway, Lot 5
• Gwangyang West Connection Railway
• Sosa-Noksan Road
- 2004 • Doam-Yuchi National Road
• Seongnam-Yeouju Double Track Railway, Lot 5
• Seongnam-Yeouju Double Track Railway, Lot 6
• Seoul Metro Subway Line Extension No.7, Lot 704
• Yuchi-lyang Regional Road

PPI Projects

- 2017 • Basic and Detailed Design for Taejongdae Sightseeing Monorail
• Detailed Design for Mandeok-Santum
• First proposal for Honam(Gasuwon-Nonsan)
• First proposal for Gimhae New Airport highway
• Basic Design for New Ansan Line Double Track Train
- 2016 • Basic Design for Terminal Disposal Plant of Sewage Expansion in Gyeongsan
• Detailed Design for West Inland Highway
• First Proposal for South Inland High-Speed Railway (GimcheonGumi-Geoje)
• Basic Design for Isu-Gwacheon Underpass
- 2015 • Detailed Design for Icheon~Osan Expressway
• Basic Plan for Dongbu Arterial Underground Highway
• Modified Proposal Design for Mandeok~Centum Road
- 2014 • Proposal Design for Seoul~Sejong Expressway
• Modified Basic Design for Western Inland Highway
- 2013 • Detailed Design for Busan New Harbor Stage 2-4 Container Berth
• Basic Design for Western Inland Highway
- 2012 • Detailed Design for Oksan~Ochang Expressway
• Detailed Design for Sanseong Tunnel
• Detailed Design for Bujeon~Masan Double Track
• Proposal Design for Icheon~Osan Expressway
• Detailed Design for Seoul Jemulpo Tunnel
• Detailed Design for ISTANBUL Strait Road Crossing Project
- 2011 • Detailed Design for Newbundang Line Double Track Railway (Yongsan~Gangnam)
• Basic Design for Daemo Mountain Tunnel
• Basic Plan for Sejong City Access Road
- 2010 • Basic Design for Seoul Jemulpo Tunnel
• Construction Supervision for Pakistan Hyderabad~Mirpurkhas Dual Carriageway Road
• Pre-Feasibility Study for Gyeongin Underground Expressway
• Feasibility Study for Ansan City Sewage Recycling
- 2009 • Basic Design for Seoul Metropolitan Express Railway
• Detailed Design for Ulsan Grand Bridge and Access Road
• Detailed Design for Sosa-Wonsi Double Track
• Detailed Design for Istanbul Strait Road Tunnel Crossing Project
• Detailed Design for Hyderabad - Mirpurkhas Dual Carriageway Road
• Basic Design for Oksan-Ochang Expressway
• Bujeon-Masan Double Track Railway
• Daegok-Sosa Double Track Railway
- 2008 • Basic Design for Istanbul Strait Road Tunnel Crossing Project
• Basic Design for Sosa-Wonsi Double Track
• Basic Design for Newbundang Line (Jeongja-Gwanggyo) Extension
- 2007 • Detailed Design for the 2nd Gyeongin Expressway (Anyang-Seongnam)
• Detailed Design for the 2nd Busan New Port Connection Expressway
• Basic Design for Boryeong Sewerage System
• Basic Design for Ulsan Technical University
- 2006 • Jeolla Line Double Track Railway (Iksan-Sinri)
• Basic Design for the 2nd Seoul Outer Ring Road (Osan-Gwangju)
• Basic Design for the 2nd Seoul Outer Ring Road (Gimpo-Paju)
- 2005 • Basic Plan and Design for Mokdong Light Rail Transit
• Proposal Design for Newbundang Line Extension(Jeongja-Gwanggyo)

Government Projects

- 2017 • Basic Design for Cheonan-Cheongju Airport Double Track Train Lot 1
• Basic and Detailed Design for Sejong-Pocheon Highway (Lot 7)
• High-Speed Railway RDC04 of Kuala Lumpur, Malaysia-Singapore
• Detailed Design for Urban Development in Gimpo Pungmu, Station Influence Zone
• Basic Plan for Integrated Development of Seoul
• Detailed Design for Substitutional Bypass of Iksan National Road(Seosu-Pyeonggyang2)
• Feasibility Study and Basic Design for Peshawar~Kabul Expressway
• Basic and Detailed Design for Sewage Treatment Equipment Expansion Construction in Cheongsong
- 2016 • Feasibility Study for Seoul-Jeju High-Speed Railway Construction
• Detailed Instruction and Pilot Project Such as Underground Safety Impact Assessment
• Detailed Design for National Road(Waryong-Bujeon1) Construction
• Pakistan CAREC road TA Project
• Basic and Detailed Design for Seoul-Sejong(Ansung-Guri) (Lot 8)
• Basic and Detailed Design for Seoul-Sejong(Ansung-Guri) (Lot 6)
• Basic and Detailed Design for Samsung-Dongtan Rapid transit Lot 3
• Feasibility Study and Basic plan for Hyeongsan River Yurim Bridge
• Detailed Design for Saemangeum-Jeonju Highway (Lot 7)
- 2015 • Feasibility Study for New Western Daegu Station
• Gyeongsangbuk-do Province Comprehensive Plan for Storm and Flood Damage Reduction
• Feasibility Study & Basic Design for Yeongdong (Ansan~Buksuwon) Line Widening
• Detailed Design for Chungcheong Inland Road, Lot 3-2
• Basic Design for Honam(Donggwangju~Gwangsan) Expressway Widening
• Basic Study for Activation of ASEAN Highway Network
- 2014 • Detailed Design for Paju~Pocheon Expressway, Lot 2
• Basic Plan for Saemangeum Wide Area Infrastructure
• Feasibility Study for Kazakhstan Bukhtarminsky Bridge
• Basic Design for Iksan-City Bypass Road
• Detailed Design for Hanoi~Langson in Vietnam
• Basic & Detailed for Cheongyang~Sinpung National Road
• Detailed Design for Libya Qubba New Public Facilities
- 2013 • Basic Design for Yangpyeong~Icheon Expressway, Lot 2
• Detailed Design for Gyeongbu Expressway Widening(Nami-Cheonan), Lot 1
• Feasibility Study for Nowshera~Peshawar Highway Improvement & Widening
• Feasibility Study for Korea-Myanmar Friendship Bridge in Myanmar
• Basic Plan for Saemangeum 2 Axis Road of East-West
• Feasibility Study & Basic Plan for Samsung~Dongtan Express Railway
• Detailed Design for Gwangju Docheok~Silchon National Road
- 2012 • Basic Design for Paju~Pocheon Expressway, Lot 2
• Feasibility Study for Karachi Northern-part Bypass Road in Pakistan
• Basic & Detailed Design for Onam~Sudong Road, Lot 2
• Basic & Detailed Design for Dunnae~Mui No.2 Road
• Basic & Detailed Design for Jungang Double Track Line, Lot 4
• Basic & Detailed Design for Jungang Double Track Line, Lot 6
- 2011 • Feasibility Study for Vietnam Tan Van-Nhon Trach Road & Bridge
• Basic & Detailed Design for Samjahyeon Tunnel & Road
• Basic & Detailed Design for Yangjae Main Road Restoration from the Flood Damage
• Detailed Design & Construction Supervision for Cambodia Rural Road
• Feasibility Study for Pakistan Jhirk Mullah Katiyar Bridge
• Master Plan for Cambodia Railroad
• Feasibility Study & Facility Layout for Heavy Ion Accelerator
• Detailed Design for Georgia Adjara Bypass Roads Stage 2
- 2010 • Detailed Design for Hamyang-Ulsan Expressway Lot 19, 20
• Detailed Design for Cambodia NR31, NR33, PR117 & Kampot Bypass Road
• Feasibility Study for Pakistan Hyderabad~Badin Expressway in Pakistan
• Kimpo, Han River Metro Survey
• Pre-Feasibility Study for Dodam-Yeongcheon Railway
- 2009 • Seobu Light Rail Transit Viability Survey
• Seoul Metropolitan Expressway Interchange Development Investigation
• Saemangeum and Metropolitan Area Connecting Road Network Plan
• Technical Feasibility Investigation for Korea-China Undersea Tunnel
• Basic and Detailed Design for Busan Outer Ring Road
- 2008 • Daegu Technopolis Access Road
• Master Plan for Indonesia Sumatra Arterial Road Network
• 3rd Medium Term Transportation Investment Plan Research
• Basic Plan for Seoul-Sejong Expressway
• Basic Plan for Yeongjongdo-Ganghwa Road
• Privately Funded Road Demand Improvement Planning
• Feasibility Investigation and Basic Concept of Smart Interchanges
• Basic Plan for Administrative City Geumgang-4 Bridge
- 2007 • Pre-Feasibility Study for Daegu Circular Expressway
• Disaster Impact Assessment for Dongducheon Central Station Connector Installment
• Basic and Detailed Design for the Amsa Eco-park Restorations (Water Resources)
• Detailed Design for Gasan 2 Retarding Basin
• Detailed Design for Yeoidodong 13-23 Sewerage System Improvement
• Preparation for U.S. Army Base Site Development Alternatives and Comprehensive Development Scheme of Adjacent Areas
• Detailed Design for Daejo Dong Sewerage System 486-6-224-3 Area
- 2006 • Pre-Feasibility Study for Indukwon-Byeongjeom Double Track Railway
• Basic Design for Honam High-Speed Railway, Lot 6
• Basic Design for Sosa-Jeongwang Double Track Railway (Wongok-Wonsi)
• Feasibility Study for Tour Surface Railway
- 2005 • Pre-Feasibility for 2nd Stage Seoul Metro Line No.9
• Detailed Design for Yeonggwang-Haejae National Road
• Feasibility Study and Basic Design for Gumi Bypass Road (Gupo-Sanggok)
- 2004 • Pre-Feasibility Study for Asanman Industrial Railway (Poseung-Pyeongtaek)
• Pre-Feasibility for Gwangju Metro Line No.2
• Research for Traffic Condition Improvement in Metropolitan City

A person is silhouetted against a bright, hazy sky, holding a model airplane aloft in their right hand. The sky is filled with numerous hot air balloons of various colors and patterns, scattered across the upper half of the frame. The overall scene conveys a sense of aspiration and global reach.

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