

BUSINESS CAREER



WORLD ENGINEERING CONSULTANTS, INC.

PLANNING-ARCHITECTURE-ENGINEERING-CONSULTANT



The year of	Job Name	Job Contents
2009~2010	Micro GTL Project (Transport to Brazil)	Check API, AISC, AWS, Lift and Transportation of Offshore steel building and a structural plan to bear rolling, Vibration Analysis of the Vibration machine, Design drawings making, Welding Connection detail drawing →MTO & gross weight report making by TEKLA Structures.
2008~2010	SHINTECH PLAQUEMINE VCM PLANT SPP-phase2 Project, USA	Made whole Design for the Equipment and Tank Foundation, Supporting Structure and Structure Framing by US Codes and Standards. (Structural Calculation of the Foot-Pounds, Drawing of the Feet and Inch Indication)Make up the Bill of Quantity. Comment follow work of the OWNER.
2007~2010	CO2 Removal device Support Structure design for Coal Thermal Power Generation	Made whole design for the steel structure frame, vibration Analysis, structure drawings and shop drawings by ACI, AISC/BS-CP, Using Software such as STAAD-Pro, SAP2000 and TEKLA Structures.
2009~2010	Saudi Arabia MANIFA Project	Structural Planning and Calculation of Pipe rack and Structure , and Preparation of Detail Design Drawing with STAAD-Pro, Navisworks and TEKLA Structures →MTO.
2008~2009	Saudi Arabia NCP Project	Structural Planning and Calculation of Pipe rack, Structure and Compressor Shelter, and Preparation of Detail Design Drawing. With STAAD-Pro, TEKLA Structures and Navisworks.
2007~2009	Singapore Parallel Train Project	Made whole Design by BCD for the General civil, Building, Pipe Rack, Equipment Support Structure, Equipment Foundation and Compressor Foundation.
2007~2008	Dubai Landmark Tower	Modeling for Steel Automatic Processing Design with TEKLA Structures of 3D-soft.
2007~2008	New Tower Plan	Performed Case Study of Material Selection for Resist of High Window Pressure.
2007~2008	Doha New International Airport	Made whole Design for the Shop Fabrication Drawings with TEKLA Structures Software, Consulting for Shop Fabricator.
2007~2008	PTTPE Ethylene Plant (Thailand)	Made whole Design for the Buildings, Structures, Pipe rack and Equipment Foundation. Approval work of the Owner, Technical work on the Site.
2007	Qatar Gas Project	Made whole Design for the Pipe rack, Structure Software with Auto-CAD and STAAD-Pro.
2007	GASSI TOUIL Project (Algeria)	Made Proposal Design for the Civil Works, and Steel Structural Design and Calculation.



2006~2008	FPSO Offshore Structural Design	Check API, AISC, AWS, BS & BS-CP, Lift & Transportation of Offshore Steel Structure and a structural plan to bear rolling, Structure analysis w/STAAD-Pro and SAP2000. Made design drawing w/3D. Welding connection detailed drawing → MTO & gross weight report making by TEKLA Structures. Vibration Analysis of the vibration machine → L/D making works to the Stool design.
2006~2008	Qatar GTL Project	Made whole Foundation and Structural Design by DEP of Shell, BS-CP. Design Software with PDMS, STAAD-Pro, SAP2000, Xsteel and Jet Stream.
2006~2007	Rabigh Petrochemical Complex	Made Design by Design Spec. of ARAMCO for Industrial Buildings (Including Pressure Resistant Building), Structure, Pipe rack and Equipment Foundations. Total number of Design Drawings: 1280 Sheets.
2006	Solomon Power Plant	Design for Extension of Power House, Unloading Shed and Tank Foundation etc.
2006	Qatar Gas Project QGX & QCS Plant	Check of Steel Structural Drawings and Calculation Sheet. Made Modeling with Xsteel for Field Change.
2006	Kajima Iron Works	Steel Structural Design & Calculation by AIJ. Made Drawings and Shop Drawings Using Xsteel.
2006	Bio-mass Fuel Plant	Structural Design of a domestic Bio-Mass Fuel Plant (Total of 11 Structures). Produce These Structures General Drawings and Shop Drawings Using Xsteel, and Prepare The Xsteel Model for PDMS Import.
2005~2006	HAWIYAH Gas Plant Project	Made Design for the Pipe rack, Structure and Shelter By 3D-Software with STAAD-Pro, SAP2000, Xsteel and PDS.
2003~2005	South Pars Gas Field Development Phases 6, 7 & 8	Made whole Design for the Buildings, Structures, Pipe rack and General Civil. Total of 780 drawing Sheets. BQ. Technical guidance on the steel frame Production on the Site, Execution Control work of Civil.
2003~2005	Sakhalin Energy LNG Project	Made whole Design by Snow Load and Frozen Depth of Soviet SNIP for the Buildings (Including Pressure Resistant Building), Structures, Pipe rack and General Civil. Total of 1200 drawing Sheets. BQ.
2003~2004	Hong Kong Racecourse Automatic Fabrication for Sliding Steel Roof	Modeling for Steel Automatic Processing Design with TEKLA Co.'s Xsteel in Finland. The Design & Input Material Record. Tie-up Work with NAWARAT Co. in Thailand.



2003~2004	Teijin Polycarbonate China-1 Project (TRC-1) China	Made whole Architectural and Mechanical Design for the Chemical Factory including 2 stories basement. Made the Material Records.
2003~2004	Sakhalin Energy LNG Project	Made the Structural Design and the Sketches for the Main Pipe rack & the Compressor Shelter.
2003~2004	Atyrau Refinery Reconstruction Project, Republic of Kazakhstan	Made whole Architectural and Mechanical Design for 4 Pump Houses and Production plant by the Building Codes of Kazakhstan.
2003~2004	Nanjing Tower Building	Designed by 3D Software with Frame Works Plus, STAAD-Pro, SAP2000 and Xsteel.
2000~2004	Steel-made Tower for Wind Power Generation	The Design for Wind Power Generation Towers for Inside and outside the Country. Made the Automatic Processing Design with Xsteel and input Material Record. The Consulting.
2000~2004	Tangguh LNG Plant, Irianjaya, Indonesia	The plans for the Soil volume calculation with InRoads software, Road Construction Plan, Foundations, Structures, Sheds, Bridges and B/Q.
2002~2004	Jubail Ethylene Glycol Project, Saudi Arabia	The Designed by 3D Design Software with Frame Works Plus, STAAD-Pro, SAP2000 and Xsteel.
2003	United Ethylene Plant Project, Saudi Arabia	Modeling for Steel Automatic Processing Design with Xsteel for the Pipe rack etc. The Design and Input Material Record.
2002~2003	Jubail United Olefin Complex Project, Saudi Arabia	Made whole Civil, Architectural and Structural Design for the Plant by the Owner's Project Design Spec, AISC 9th, ACI318~99, UBC97&94 and ANSI A58.1. With Microstation, FWP, STAAD-Pro (US), SAP2000 and Xsteel.
2002~2003	Dubai International Airport, UAE	Modeling for Steel Automatic Processing Design and Input Material Record for Hanger of AIRBUS 380 and the Maintenance for 3 classes. The Tie-up Work with Statutory company EBS in Dubai. With Xsteel V6.0.
2001~2003	New Bangkok International Airport, Thailand AIRBUS380 2 Planes Hangar Study	The Planning for the Hanger with No Supporting Column inside the Building and the Office. Prepared Presentation Documents. Made the Estimation with Semi-major General Contractor NAWARAT in Thailand. The Consulting.
2001~2003	Sakhalin Energy LNG Project(Sakhalin-1)	Made the Details for Jetty Pipe Support Bridges by the Design Term of Soviet SNIP, AISC, and the Owner's Design Standard Spec. With Xsteel.
2001~2003	Chubu International Airport Central Freight Terminal Facilities	The Design for the Large-Scale Shed and the Office Buildings of International Airlines and Domestic Airlines.



2000~2003	Al-Jubail Polyethylene Plant, Saudi Arabia	Made whole Design for Civil, Structures and Buildings by the Owner's Design Eng. Standards and US Codes & Standards. Follow up on the Changes on Site. With US Intergraph PDS Component Software. Follow up on the Changes on Site.
1998~2002	Malaysia M-Tiga LNG Plant	Made the Structural Study for Main Pipe Rack, Calculation and the Drawings by Shell DEP. Modeling for Steel Automatic Processing, Design and Input Material procurement. With US-Intergraph-made Microstation, FWP, STAAD-III, and Xsteel. Follow up on the changes on Site.
1998~2001	Malaysia M-Tiga LNG Plant	The Design Preparation by PDS (Plant Design System). Made whole Structural Design for the Main Pipe Rack and the Plant. Codes and Standards, BS & US Codes and Standards. Design Tool: FWP, STAAD-III, SAP2000, Xsteel. Follow up on the changes on Site.
1999~2000	Thai ROC (Rayon Olefin Company) Expansion Project	Coordination and Design of Framing, Existing foundations, Structure and Expansion. Made whole Civil-Architectural Design for the Extension. With STAAD-III(US) and Auto-CAD R14.
1998~2000	Turkmenistan Polypropylene and Utility (TPU) Project	Structures and Building Design of the Project by Snow Load by Soviet SNIP, referenced Frozen Depth and AIC & AISC. With Auto-CAD and STAAD-III.
1998~2000	Bintulu SMDS Reconstruction project	Civil-Architectural Design Execution for the Reconstruction by Shell DEP and the Project Spec. Long-term Residence for Site Survey for Existing Structure and Reconstruction. With Auto-CAD and STAAD-III(BS).
1998~2000	Host Nation (HN) Project, Malaysia	Technical Tie-up Business for Buildings in the Country by Japan-U.S. Military Agreement. With Auto-CAD, Micro Station and SAP2000.
1999	Power Generating Machine Development Project	Structural Design for the Power Generating Machine. Made the Material Schedule. With Software on domestic market.
1998~1999	Saudi Arabia Berri Gas Plant	The Design for the Buildings including Control Building by Aramco Engineering Standards. Follow up on the Owner's Request on Site with Auto-CAD and STAAD-III(US).
1998~1999	Thermal Power Plant	Foundation Design for the Main Equipments of 1.52 Million Kilowatts on Two Systems Turbine of U.S.-made. With STAAD-III, SAP2000 and Auto-CAD.



1997~1999	KERTIH AROMATICS (KR-2) Project Malaysia	Made whole Study and Detail Design of Civil and Structural for the 5 Process Areas by BS & BS-CP and John Brown's Design Spec. Made whole Architectural Planning and Detail Design for Office Bldg, Control Bldg, Laboratory, Substations and etc as 23 Buildings in Total (A1x1850 sheets). With Auto -CAD and STAAD-III.
1997~1999	Battan Polyethylene Project, Philippine	Made Basic Plan for the Main Building Structure and the Mechanical for each Building by US Code & Standards, Local Codes and Project Spec. Follow up on the Changes on Site. With Auto-CAD and STAAD-III(US).
1997~1999	Singapore Phenol Plant (SHP) Construction Project	Made for BCD Application Documents by Singapore Regulations. Made whole Civil-Architectural Design by BS & BS-CP. With Auto-CAD, FWP and STAAD-III(US).
1997~1999	Sidpec Ethylene Project (SEP), Egypt	Basic Plan of Civil-Architectural Design by ABB Lummus Standards and the Engineering Spec by US Code & Standards. Execution of Detail Design and B/Q. With Auto-CAD and STAAD-III. Long-term Residence for Technical Advice of Details on Site.
1998	Malaysia Titan LDPE Project	Made Standard Drawings by BS-CP3, BS8110, SS449, BS5950 and the Design Spec. Made whole Detail Design for the Structure, Pipe rack and Equipment Foundations with STAAD-III and Auto-CAD.
1998	Myanmar Auto Repair Factory	Made whole Detail Design for the Auto Repair Factory including Parts Custody Room and the Office. Made the Material Schedule. With Auto-CAD, STAAD-III(JAS) and EXCEL.
1997~1998	Indonesia Tuban HDPE PJ / RICX Plant	Made whole Detail Design for CCR & Substation Building, Palletizing House and Silo Structure etc by Exxon Spec. and the Drawings, ACI 318, AISC, ANSI and the Design Spec. With STAAD-III and Auto-CAD.
1997~1998	Sewage Plant Melted Furnace Equipment	Made whole Design for Melted Furnace Building and the Steel Trestle by AIJ. Coordination of Melted Furnace Equipment and the Structure. With Software on domestic market.
1997~1998	Indonesia Ethylene and Utility Plant Expansion Project (CAPCEX)	Took Part in the Coordination Adjustment for the Existing and the Expansion. Made whole Civil-Architectural Design by US Code and Standard. With STAAD-III, Dra-CAD and Auto -CAD.



1997~1998	Thai Paraxylene Project Sriracha, Thailand	Made whole Detail Design of the Buildings for the Flow Computer Building including the Blast Resistant Control Building, Workshop, Warehouse, Amenity Building Chemical Store and etc by Foster Wheeler Eng. Standard and the Project Spec. (A1x518 sheets) With STAAD-III for BS, BC-CP and Auto-CAD.
1996~1998	Thailand ROC Project Rayon 600,000T/Y Ethylene Plant	Made whole Civil-Architectural Design for Ethylene Plant and Benzene & Toluene Plants in Process Area by US Code & Standards and the Engineering Spec. (A-1 x 1500sheets). With STAAD-III and Auto-CAD. Follow up on the Changes by the Comments.
1996~1998	Singapore Eastman Chemical SEA OXO Project	Made for Singapore BCD Application Documents. Civil-Architectural Detail Design for Buildings, Structure, P/R, Equipment Foundation and Factory Drainage System with STAAD-III and Auto-CAD. Follow up on the Design with Site Work.
1996~1997	Indonesia AVC Project	Made whole Civil-Architectural Design for the Raw Material Factory by Local Codes & Standards of Indonesia, US Code & Standards and Engineering Spec. (A1x820 sheets) with STAAD-III, Auto-CAD and Dra-CAD. Follow up on the Design Changes.
1996~1997	Indonesia 615 MW x 2 Coal Fired Power Plant	Made the Standard Drawings and Detail Design for Power Plant Building. Follow up on the Coordination, Checking and Change on the Design Execution.
1996~1997	Qatar Ras Laffan LNG Project	Made whole Civil-Architectural Design and Concrete Structures in Sea Water Intake Facilities and Pumping Facilities with STAAD-III and Auto-CAD for BS, BS-CP.
1996~1997	Power Generating Machine Expansion	Coordination of the Existing Equipment and the Expansion. Made the Structural Study for the Expansion, the Statement, and the Drawings. With AIJ-STAAD-III and Auto-CAD.
1996~1997	Garbage Incineration Plant Construction	Made Design for Civil-Architectural Large-scale Incineration Equipment. Made the Materials Record. Follow up on the Changes on Site. With our Development Software and the other one on domestic market.



1995~1997	Mobil Oil Singapore Jurong Lube Oil Project	Review for the related Regulations with BCD Application. Made Building Drawings and Structural Calculation for BCD Application. Made the Engineering Spec. Made Drawing for Structures in Process Area, P/R and Equipment Foundation. Design for the Buildings including HVAC and Compressor Shelter etc. (A1x550sheets) with STAAD-III for BS, BS-CP, Auto-CAD and Dra-CAD.
1995~1997	Australia Mobil Oil Australia Altona FCC Project	Prepared Basic Design and Job Spec. by Australian Codes & Standards and Mobil Engineering Guides. Made Standard Drawings. Made whole Civil-Architectural Drawings for the Entire Plant. (A-1 800 sheets) with Auto-CAD and Dra-CAD. Made Structural Calculation by Australian Space Gass Soft.
1995~1997	Garbage Incineration Plant Construction	Made whole Civil-Architectural Design Execution for the Garbage Incineration Plant. Made Material Record with our Development Software and other Design soft on domestic market.
1996	Saudi Arabia, Al-Jubail Petro Kemya Olefins Expansion Plant	Made whole Civil-Architectural Design of Expansion and Remodeling for Olefins Expansion Plant Facility by Design Guidance and Existing Documents. MTO of Site Measurement.
1996	Oil manufacture Construction	Made Steel Structural Design for Plant Equipments by the AIJ. With AIJ-STAAD-III and Dra-CAD.
1995~1996	Chemical factory MMA Manufacturing devices	Made whole Design of Civil-Architectural Design including the Application for Government Office for the Entire Plant based on AIJ.
1995~1996	Singapore PCS- II Project Ethylene Plant	Coordination for the Existing and the Expansion. Made whole Design of Civil and Structure for the Entire Plant. With STAAD-III for BS, BS-CP, Auto-CAD and Dra-CAD. Follow up on the Coordination on Site.
1995~1996	Singapore PUB Senoko Gas Works	Structural Calculation for the Main Building and Structure by the Project Spec, Related Regulation in Singapore with STAAD-III for BS, BS-CP, Auto-CAD and Dra-CAD.
1995	Singapore Seraya Island Project	Made the Steel Structural Calculation for Equipments by Shell DEP, BS-5950 and BC-CP. With Dra-CAD and STAAD-III for BC & BS-CP.
1995	Desulfurization Device project	Made whole Civil-Architectural Detail Design for the Entire Plant including the Application for Government by AIJ. Coordination of the Existing and Newly Desulfurization Device. Follow up on the management on Site.



1994~1995	Thailand Thai Caprolactam /Ammonium Sulphate Complex	The Design for Main Structure and Buildings by US Code & Standards and Project Spec. (A1x750 sheets) with STAAD-III, & Dra-CAD.
1994~1995	Thailand Star Petroleum Refinery-TA Project	The Design for the Equipment Foundation in process Area and P/R Structure by US Code & Standards and Engineering Design Data. (A1x625 sheets) With STAAD-III, Dra-CAD and Auto-CAD.
1994~1995	Singapore Petrochemical Plant (2-PJ)	Prepared Project Design Spec. Made the Drawings and Structural Calculation for BCD Application. The Prepared Standard Drawings. Made whole Design of Civil, Architecture and Structure for the Entire Plant with STAAD-III, BS-CP and Dra-CAD.
1994~1995	Qatar Gas LNG Plant Project	Design for the Precast Concrete Pipe Rack in Process Area, Steel Structure and Foundation by BS & BS-CP and Standard Spec. with STAAD-III and Dra-CAD.
1994~1995	HSDC/CCR UNIT Construction	Made whole Design of Civil -Architectural and Structural for Entire Plant by AIJ and the Design Manual.
1993~1995	Host Nation (HN) Project	Technical Tie-up Business for Buildings in the Country by Japan-U.S. Military Agreement.
1993~1995	Malaysia EMSB Ethylene Project	Prepared Project Spec. and Standard Drawings BS and BS-CP by John Black's Standard Spec. Made whole Civil, Architecture and Structure Design for Ethylene Plant. (A1x1580sheets) with STAAD-III, Dra-CAD and Auto-CAD. B/Q Calculation. Follow up on the Owner's Comment.
1994	Korea Yukong Limited Ulsan Project	Made the Steel Structural Calculation by AISC, UBC, API, and Standard Spec. With STAAD-III, and Dra-CAD.
1994	Exhaust gas and Desulfurization device for Thermal Power Plant Construction work	Made the Steel Structure Calculation for Exhaust gas and Desulfurization Device by AIJ.
1994	Geothermal plant 65MW Turbine Trestle	Made the Structural Calculation for T-G Trestle and the whole Structure Drawings by AIJ. With STAAD-III, and Dra-CAD.
1994	SIP Project Seraya Chemicals Singapore (Pte) Ltd.	Made the Steel Structural Statement for the Equipments by BS-5950 and Shell DEP. With STAAD-III and Dra-CAD.



1990~1994	Saudi Arabia AI-Jubail Olefins Plant	Prepared Design Criteria and Standard Drawings by Owner's Technical Data, US, BS & BS-CP. Civil-Structural Design of Process Area by Computer and CAD. Architectural and Structural Design of the Explosion-proof type Central Control Room & Laboratory and etc.(A1x850 sheets). Follow up on the Construction.
1993	Singapore PCS- II Ethylene Plant	Made BCD Application Drawings for the 3 Buildings including Central Control Center on Off-Site and Utility Plant. Made whole Civil-Architectural Detail Design for the PCS- II Ethylene Plant Facility by BS-CP. Made the B/Q for Sea Water intake No.2 and Pump Pit.
1993	Saudi Arabia Jeddah 5 Power Desalination CH20 Project	Figured out the Materials and B/Q by the Over all Structural Calculation for the Entire Project including Turbine Halls, Switchgear Building, Boiler Structure, Compressor Stations, U/G Facilities etc.
1992~1993	Mobil Oil Singapore Jurong CHD-3 Project	Prepared for the Design Base. Made the Detail Drawings and the Application for Main Buildings by Engineering Spec.
1992~1993	Saudi Arabia Power, Desalination and R.O. Plant Lot 1A of A1-Kobal Phase3	Technical study for Tech. Req. Civil Design for the Turbine & Generator, Foundation of Main Equipment and 4-Unit related Power Generator.
1992~1993	Paper Mill Construction	Technical Consultant of Civil and Building for the Paper Mill Construction. Made the Basic Plan for the Consecutive type Factory Building, Warehouse and Office Building. Made the Rough Estimate Multiplication. With Auto-CAD.
1991~1993	Pulp Mill Expansion	Coordination for the Existing and the Extension, Measurement. Application to Authority. Detail Design and B/Q Calculation. Construction Management.
1991~1993	Oman Refinery CCR Expansion Project	Made whole Civil and Structural Design for CCR Expansion by Spec. of Oman Refinery Company, Eng. Code and Practice of BP, BS-CP, Design Spec. & Design information. Working for follow-up Design of the Existing and the Expansion.
1991~1993	Malaysia PSR Project	Civil and Structure Design for Refinery by Technical Req. & BS, BS-CP of Petronas. With STAAD-III & Dra-CAD.
1992	Oil Manufacture MTBE Plant	Civil and Structural Design for Main Oil Manufacture by AIJ. With our Development Software and Domestic Software on market.
1992	Singapore SRC Project	Made the BCD Application Drawings for the Building by Project Specification. The Main Civil and Architectural Design for Process Area of Refinery.



1992	SBR Project (Singapore) Shell Eastern Petroleum (Pte) Ltd	Made the Steel Structural Calculation for Equipments by BS5950, Shell DEP. With STAAD-III, Dra-CAD.
1992	Iran Bandar Abbas Refinery project	Steel Structural Analysis for the Equipments by AISC, ANSI, UBC and Local Code. With STAAD-III.
1991~1992	Thailand BPCX Project Rayrong, Thailand	Prepared the Design Spec & Standard Drawings by Design Spec of LURGI, Thai Local Regulations, US Codes & Standards etc. Made whole Design for the Building Structure and U/G Civil Works of Main Structure, Distillation Structure, P/R and Pelletizing House. With STAAD-III, and Dra-CAD.
1991~1992	Indonesia CAPC Olefins plant	Made whole Civil-Architecture Design by US Code & Standards. (A1-1250sheets) With STAAD-III, Dra-CAD and Auto-CAD.
1991	Oil Manufacture Construction	Made the Steel Structural Statement by AIJ and Standard Spec. With our Development Software.
1990~1991	Malaysia Bintulu SMDS Project	Made whole Civil-Architectural Design by Shell DEP and BS & BS-CP (A1x500sheets drawings). Structural Analysis by Computer. Case Study for Pre-cast Concrete Pipe Rack.
1990~1991	Indonesia 160,000MT/Y Polypropylene Plant	Made whole Civil- Architectural Design by US Code & Standards. (Structural Analysis by Computer). Follow up on the Changes on Site.
1990~1991	Indonesia EXOR-1 Project	Design of the Structural and Main Equipment Foundations for the Plant by US Codes & Standards, Project Spec and other Documents. With STAAD-III, and Auto-CAD.
1990~1991	Thailand THCX-2 Expansion Project	Made whole Design for the Homogenizing Silo, Palletizing House, P/R & Structure, Foundation, U/G Civil Design etc. by US Codes & Standards, Project Spec and the other Documents. B/Q work.
1990~1991	Thailand Tuban HDPE/LDPE Project	Made the Standard Drawings by US Codes & Standards. Made whole Civil Structure Design for the Plant. With STAAD-III, and Auto-CAD.
1989~1991	FPCA Plant Formosa Plastics Corporation	Made whole Civil- Architectural Detail Design for the Pipe rack, Structure, and Equipment Foundations by UBC-1988, ACI-1988 and AISC-8th Edition. (A1x500sheets) With STAAD-III & Auto-CAD.
1988~1990	Sri Lanka International Air port Terminal Bldg. Expansion & Renovation	Made the Detail Design Documents by the Basic Plan and Material Investigation. Checking the Shop Drawings. Management on Site.



1989~1990	HDPE Project Exxon Chemical Company Mont Belvieu Texas	Made whole Civil-Architectural Detail Design for the Structure, Foundation, Pelletizing House, Silo Structure, Centrifuge Structure and Other's Trestle by EXES, AISC, ACI 318-83 and ANSI A58.1-82.
1988~1989	Bulgaria 150,000 T/Y VCM Plant	Civil and Structural Design for Explosion-proof Control & Laboratory Building, Substation, Production Bldg etc as total 8 Buildings and Process Area. Structural Analysis by Computer.
1988~1989	ESSO Malaysia Port Dickson Refinery	Design for Refinery Main Pipe Rack and Structure by Technical Req of ESSO and Specification. Structural Analysis by Computer.
1988~1989	Bangladesh Ghosal Fertilizer Renovation	Site Measurement with Remodeling and Extension for Urea Fertilizer Process Unit. Made the Civil-Architectural Design by US Codes & Standards. (A1x400 sheets) Structural Analysis by Computer.
1988~1989	Mobil Oil Singapore Jurong MPHC/MIDW Project	Structural Analysis by Computer for Furnace and Special Steel Structures in the Process Area by Mobil Engineering Guides and US Codes and Standards.
1988~1989	Line IV Project Exxon Chemical Baytown TX USA	Made whole Civil -Architectural Detail Design for the Structure, Foundation, Pipe rack etc by EXES. AISC, ACI 318-83 and ANSI A58. With STAAD-III & Auto-CAD.
1987~1989	Pakistan Kot Addu Power Station Project	Made the Civil and Architectural Standard Drawings including Mechanical by Owner's Req. and US Codes & Standards. Made whole Drawings for the Civil and Architectural with Turbine Generator (A1x550sheets). B/Q Calculation. Construction Management on Site. Computer Analysis for the Structure.
1988	LLDPE Project Thai Polyethylene Co. Ltd	Made whole Design of the Structural for Catalyst Production, Silo Structure, Polymerization etc by ANSI A58 and AISC318-63. Computer Analysis for the Structure.
1980,1983,1988	MOBIL Project Mobil Oil Singapore Pte, Ltd	Made the Steel Structural Calculation of equipments by AISC, MOBIL EGE, ANSI A58.1'72 and ANSI A58.1'82.
1985~1988	Kuwait Az-Zour Gas Turbine Power Station Project	Made whole Civil and Building Design for the Power-generating machine by US Code & Standard, Din and JIS. Made the Bar Bending Drawings. Management of the Changes on Site.
1986~1987	S-1 Project ISK Singapore (Pte) Ltd	Made whole Building Structural Calculation by BS449 and BS CP110.



1985~1986	Bangladesh Chittagong Urea Fertilizer Project	Made whole Civil Structure Calculation for the Process Area by US Code and Standard. Explosion proof Building Design for Control & Labo. and Substation.
1985~1986	Alaska CGF Flare System	Lifting and Twist Resistant steel frame Structure Design of Steel Frame Skit type Building and Structure for Marine Transportation.
1985~1986	Power Plant Construction	Made whole Civil and Building Design for the Thermal Power Generation Equipment. Checking the Shop Drawing for Steel Structure.
1984~1986	Saudi Arabia Qassim Cement Plant	The Design for the Equipment Foundations of 2,200 MTD Clinker Production Plant by BS & BS-CP, DIN and the Design for Silos. Made the Bar Bending Drawing.
1985	Ecuadorina CEPE Esmeraldas Refinery Expansion	Took part in making for the Design Criteria by Instituto Ecuatoruano de Normalization and American Codes & Standards. Took part in making for the Standard Drawings. Took part in the Examination of the Coordination of the Existing and the Extension. Design for Main RC Frame and S/S.
1984~1985	Thailand LPG Market Development Project	Civil-Architecture Design for Ban Rong Po, Bang Chak, Lampang, Khon Kaen, Surat Thani, Nakhon and Sawan as total 6 sites. Took part in the Construction Supervise.
1983~1985	Arun LNG Plant No.6 Pertamina, Indonesia	Civil and Structural Design for Process Area. Building Design of Control Bldg, Main Substation and Workshop -Warehouse.
1983~1985	Malaysia Asean Bintulu Fertilizer Project	Made the Standard Drawings by BS & BS-CP. Civil-Architecture Design for Process Area.
1982~1985	NIGATA Nuclear Power Plant Construction	Structural Calculation of Turbine house and Preparation of Detail Design Drawing. Development of Bar Arrangement Drawings for RC Shelter of Nuclear Reactors Structure Design of Secondary Devices.
1983~1984	Egypt Alexandria 100,000 MTPA VCM Plant	Prepared the Basic Design Documents by US Code & Standards. Made the Standard Drawings. Made whole Civil-Architecture Design for the entire Plant and B/Q.
1982~1984	Indonesia, Pertamina Arun LNG Plant	Made the Design base by Owner's Technical Req and US Code and Standards. Detail Design for the Structure, P/R, Equipment Foundations etc.



1982~1984	Thailand Gas Separation Plant & Marine Terminal Project	Study and Planning for Cut Existing Slope, Storm Drainage System, Shoreline Projection of Marine Terminal etc. Made whole Detail Design by US Code and Standards as follows: Site Preparation, Storm Drainage and Sewer Systems, Slope Protection, Shoreline Protection, Tank Foundation and Dikes, Machinery and Equipment Foundations, General and Miscellaneous Foundations. Concrete Work for Underground Communication System; pipe Sleeper and Road & Paving. Checking the Shop Drawing. Supervise for Field Construction.
1982~1983	SEG Plant Ethylene Glycols (Singapore)	Made the Drawings for Application, Structural Calculation and B/Q by Related Regulations of Singapore, BS CP114 and CP449. Made whole design of the Structure, Pipe rack, CCR Bldg, Warehouse and other buildings. Made whole Detail Design for Civil and Building Foundations.
1982~1983	Saudi Arabia Al-Jubail Petrochemical project	Structure Analysis for Special Steel Structure of Furnaces, Duct- Supports and Stack.
1981~1983	Refinery Modernization Project Mina-Al- Ahamad Refinery, Kuwait(Cost Plus Fee Job)	Prepared for the Design Standards by American Codes & Standards. Design and Coordination of the Existing and the Extension at the Site. Made Civil and the Building Detail Design.
1980~1983	Singapore Van Ommeren Terminal Pulau Sebarok	Made BCD Approval Drawings for Admin-Bldg, Control-Labo.Bldg, Power House, Substation and Fire House. Made whole Detail Design for the Buildings by BS & BS-CP, AASHTO etc. Steel Processing Drawings and checking for the shop drawings.
1982	Power Plant Construction	Made whole Civil-Architectural Design for the Tank Foundation with Power Fuel, Oil Bank, Drainage and Oil Separator. Structural Design for Table-Top and P/R etc.
1982	Malaysia Shell Gas Tabangao LPG Terminal	Architectural Design for Control Bldg, Labo. Bldg., Substation, Jetty Entrance Building etc by Shell DEP
1982	Trengganu Refinery Project Petronas, Malaysia	Made whole Structural Calculation for the Admin.Bldg, Control Bldg Substation and the Industrial buildings.
1981~1982	Petrochemical Company of Singapore (PCS) SA & SB Plant	Made the Drawing for BCD Application, Structural Calculation and B/Q by SS CP114 and CP449. Made whole Details of the Control Bldg, Compressor Shed, Pipe rack and foundations.



1980~1982	Pulau Ayer Merbau, Singapore Aromatic & Butadien Plant	Made BCD Approval Drawings. Structural Design of Civil and the Buildings by Singapore Code & Standard, BS & BS-CP, AASHTO etc. Checking the Steel Processing Drawings.
1980~1983	Singapore SRC Catalytic Reformer Project	Made the BCD Approval Drawings and Structural Calculation for Civil-Architecture by Singapore Code & Standard, BS & BS-CP. Checking the Steel Processing Drawings. Construction Supervise.
1979~1982	Saudi Arabia AI-Jubail Desalination Power Plant Phase II	Made the Design Base by US Code and Standards. Design for Main Structure, Equipment Foundations and Power House. B/Q Calculation. Construction Management.
1980~1981	Kuwait Doha West Power Plant	Foundation Design for Generator by DIN4024 and Foundation Design Data of High-Speed Rotation Machine. Made whole design of the foundation for Supplementary Machines.
1980~1981	Singapore PCS Project Petrochemical Corporation of Singapore	Made the BCD Drawings for Application and Statement by Related Singapore Regulations and BS-CP. Made the Standard Drawings by Owner's Req. Made whole design of the Buildings for the Plant including Explosion-proof type Control Labo. & Substation.
1978~1982	Oil Factory Extension	Coordination for the Existing and the Extension. Prepared the BCD Application Document. Made Civil-Architectural Design. Construction supervising.
1980	HCC Project Hydro Cracker Complex-Singapore	Made whole Structure Design for the Structure and Pipe Rack by BS449, BEDD and Shell Spec.
1979~1980	Saudi Arabia New Riyadh International AirPort Project Central Plant	Made whole Civil and Structural Design for the Building and the related Equipments including the Heating & Cooling Plant Area, Plant Operation Area, Diesel Generator Plant Area and Cooling Tower Area by Technical Spec of Bechtel. Shop Drawing Checking and Construction Management.
1979	Singapore Pulau Bukom Refinery	Made the BCD Application Drawings. Took part in the Civil-Architectural Design by Singapore Regulations, Owner's Req. and BS-CP & BS449.
1979	Saudi Arabia Khurais-Riyadh-Crude Oil Pipe Line Project	Made the Design Criteria by ANSI A58.1 UBC 1978, AISC 7th Edition and ACI 318-71&318-77 etc. Civil and Building Detail Design Execution.
1979	Saudi-Bahrain Cement Plant Project	Made the Design Criteria by ACI 313-77, ACI 318 & 315-74, DIN 1055 and ANSI A58. Detail Design for Reinforced Concrete Silos, RC Structure, and Equipment Foundations etc.



1978~1979	Algeria EI-Kala Paper Plant	Made the Design Criteria for Civil and Building Works (English-French parallel description) by NF, Regulation NV65-67, BA68, CM66 and DTU. Prepared C.T.C Approval of Steel Structure and RC Structure.
1978~1979	Qapco Complex G.O.F. Qatar	Design Technical Assistance for Engineering company in Belgium by Compiling the Owner's Technical Req., NF and Local Construction Practice. Instruction of Plant Building Design.
1978~1979	Qatar NGL No.1 & Rebuild Project	Made the Technical Proposal Documents. Made the Civil and Structural Design Criteria by Shell DEP and BS-CP. Detail design for the Civil-Architecture. Construction Management.
1977~1979	Kaduna Refinery of Nigerian National Petroleum Corporation (Cost Plus Fee Project)	Prepared Design Criteria by ANSI, ACI-318-74, and AISC-7th Edition. Technological Standardization Works. Civil and the Building Detail Design.
1978	Jiddah Refinery Expansion of Petromin, Saudi Arabia	Structural Analysis for Special Steel Structure for Platform Type Furnace (1-unit), Vertical Cylindrical Furnaces (8-Unit), Stacks, Duct Support Structure etc by AISC 7th Edition.
1978	Riyadh Refinery Expansion of Petromin, Saudi Arabia	Structural Analysis for Special Steel Structure of BOX Type Furnaces (4-unit) etc by AISC 7th Edition.
1977~1978	Bangladesh Offshore Power Generation Plant	Calculation of Vibration mode and resonance check of Generator. Structure Design of Lifting and Twist resistant steel frame and Skit type Power House & Control room.
1977~1978	Kuwait Doha Distillation Plants Units Nos A1, A2, A3, A4, &A5	Made whole Civil-Architecture Design by US Code and Ministry of Electricity and Water.
1977~1978	CAT Reformer, Mobil Singapore	Made the Drawings for BCD Application. Prepared Civil and Structural Design Criteria by Singapore Regulation, Technical Requirement of Mobil Singapore and US Code & Standards. Civil and Architectural Design for Process Area.
1975~1978	Iran Petrochemical Complex Project of Iran Japan Petrochemical Company	Study for Iranian Laws relevant to Taxation and Lab and ISIRI (Institute of Standards and Industrial Research of Iran). Made the Tender Documents of Drafts, Local Quotation of Civil Works, Field Investigation and its Local investigation Report. Consulting for the Design Criteria of the Civil, Structural and Building Works.
1976~1977	K.O.C. Gas Project of Kuwait Oil Company	Made the Design Criteria by ACI Code 318-71, AISC 7th Edition and Structural Calculation. Made the Detail Drawings by ACI 315-74 and AISC.



1976~1977	Natural Gas Treatment Project Model II and Model III of Sonatrach, Algeria	Made the Design Base by Norme France (NF) & Algerian Regulations NV65-67, BA68, CM66, Document Technique Unifie (DTU), (English- French Parallel description etc.). Design of Main Structure (English- French Parallel description). Prepared Approval document for Control Technique de la Construction (CTC).
1975	Usiminas, Brazil 2.5 Million Ton Expansion Plan	Study for Associacao Brasileira de Normas Technica (ABNT) and Related technology regulations. Structural Calculation of Civil, Structure and Building. Made Standard Drawings.
1975	Iran, Khang Chemical LPG Expansion Project	Made the Tender Documents of Civil works for proposal. Design for the Main Structure and B/Q.
1975	Holland DMC Project	Structural Analysis for Furnace, Vibration Equipment Base and Table-top. Made the Standard Drawings.
1975	Construction of Central Laboratory	Architectural Design, Specification, Execution management and Construction management by JIS and AIJ.
1975	Construction of Iron Manufacture	Made the Structural Calculation for Heavy weight equipment and Pipe Rack.
1974	Jurong Singapore Construction of No.1 Repair Dock (MSHI 400,000ton Capacity Dry Dock)	Interpretation for Codes, Laws, Ordinances, Rules, Regulations and BS-CP of Singapore. Prepared Tender Documents. Evaluation for Construction Technology of Bid Contractor.
1974	Brazil Nitrocarbano Caprolactana Chemical Project	Investigation for Procurement of the Main Construction Materials, Processing Steel Material and Construction cost. Study for ABNT and Especificacao de Construcao Civil. Made the Document for the point of Civil Design.
1974	Construction for American Embassy of Japan	Prepared the Construction Specification of Building (English/Japanese- Parallel description). Made the English Translation for Design Standards of Architectural Institute of Japan.
1973	Sarawak Public work Council Negri Cum Ministrial Secretariat Complex	Field Research for Construction Materials Marketing, Scale of Construction firm's Machines, Fieldwork for the Construction Unit Cost. Made the Report and the Drawings for Bid in English.