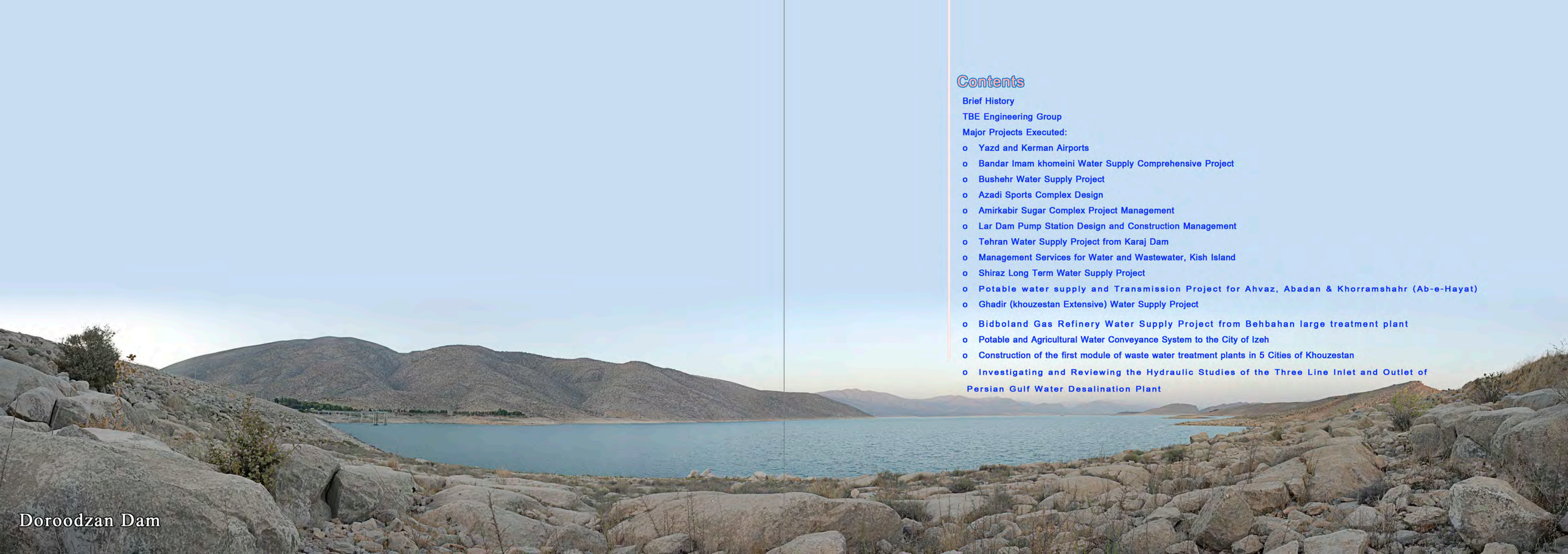
Tehran – Boston Enginners

TBE

[Since1962]

English



Doroodzan Dam

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- Investigating and Reviewing the Hydraulic Studies of the Three Line Inlet and Outlet of Persian Gulf Water Desalination Plant

BRIEF HISTORY

Tehran-Boston Engineers (TBE) was established in 1962 by an affiliation with the consulting firm of Metcalf & Eddy (M. & E.) of Boston U.S.A. with the object of transferring technology in the field of engineering services.

The objectives of the partnership were :

- o To establish a leading consulting engineering partnership in Iran.
- o To introduce and apply leading world technical standards in design and construction fields of various construction projects.

By the year 1970 the objective was achieved and the affiliation was terminated by mutual consent. Since then TBE resumed its activities as a hundred percent Iranian Consulting engineering firm.

While keeping the original TBE name the local part of the partnership continued the work as a 100% Iranian company.

In more than half century, since its establishment ,TBE has successfully completed many Projects consisting of design, construction, project management, supervision of construction work in the fields of water supplly and wastewater projects and other.

Some of the major projects in the above fields are described in the accompanying literature.

Currently, TBE has been classified and graded professionally by planning and Management Organization of Iran as:

- o First Grade in Water and Wastewater Engineering
- o Third Grade In Irrigation and Drainage Networks
- o Project Management Services in the Specialty of Water and Wastewater Engineering
- o Third Grade in Operation of Production, Transmission and Distribution
- o Third Grade in Operation of the Refinery

Official Translation
The Tarjoman
Islamic Republic of Iran
Presidency Planning & Strategic Supervision Deputyship

Ref: 2102/10/04
Date: 14 Jan 2022

Certificate of Consulting Services Competency

ATTN : Dear Mr. ISMAEIL MESGARPOUR YOUSI
Managing Director of Tehran Boston Eng. Company
Reg. No.: 8453
National code No.: 10100263818

On the strength of enactment No.H28437/20637, dated 13 Jul 2004, passed by the Cabinet, and by virtue of confirmation of the aforementioned company's competence for rendering consulting services within the standards of comprehensive system of determination of competency of executive technical system agents, the following limits are outlined as follows:

- Grade one of Specialization in the field of Water & Sewage Installations with six permitted projects.

The board of directors and shareholders of this company are the same as that of Zigma Tadbir Eng. Company; therefore, these companies are not authorized to simultaneously perform activity in one tender or project.

Furthermore, in case of rehiring work in the aforementioned company the contents of Tenders Holding Act No.13890, passed on 05 Feb 2005 and the respective executive bylaws must be observed.
This certificate shall be valid as of the date of issue up to the end of evaluation course and at most up to 25 Dec 2022.
On the strength of guidelines of investigating manner of transgressions of consultors, any changes in the company and information of the certified individuals, must be announced to the system within three months at latest.
Any new contracts, at most within three months after the contract is drawn up, and new checklists upon conformation of employer should be registered in SAIAT system so that their points be accounted in the next competency determination and for fixing the capacity.

In case of any discrepancy in this certificate with the data existing at http://pmn.mporg.ir, those registered in the website shall be valid.

[signature]
Authorized Signatory of Strategic Supervision Deputy.

True translation certified, 23 Jan 2022
N. Z. #: 2898

Tehran – Boston Enginners

TBE

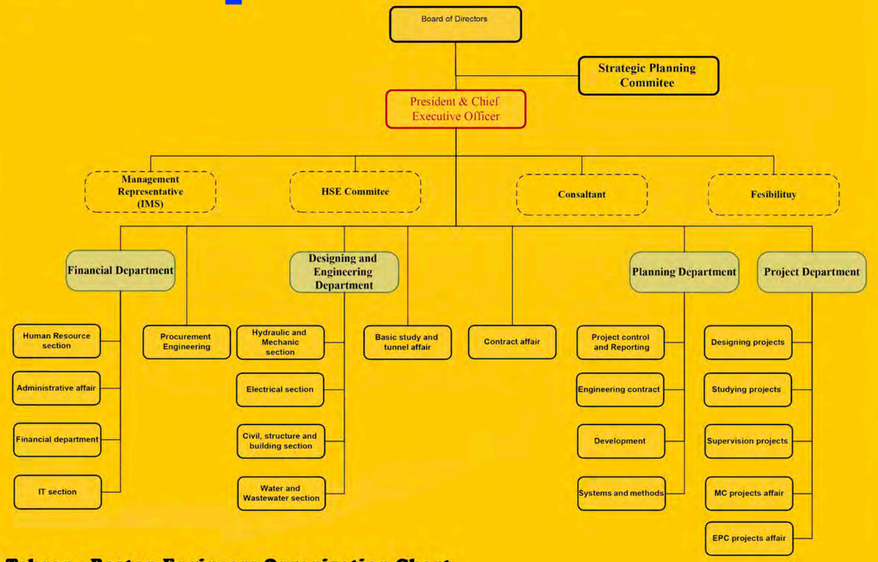
[Since1962] 59th Anniversary

As a leading Consultant TBE provides engineering services on :

Water and Wastewater Utility
Water Supply and Transmission
Irrigation and Drainage Network
Water and Wastewater Treatment Systems
Domestic Wastewater Treatment
Industrial Wastewater Treatment Plants
Water Supply from Dam Reservoirs

Tunnels and Underground Works
Civil and Structural Works

River Engineering
Water Resources Development
Concrete Protection and Marine Structures



Tehran - Boston Engineers Organization Chart

TBE
Engineering Group

At the fifth decade of its activities and in order to expand the domain of its ever offered services on design, procurement and execution of engineering projects, employment of expert and experienced professionals and their motivation and knowledge transfer to different regions of the country and considering the market demand for engineering and technical services, the TBE Engineering Group was established, with subsidiaries as listed hereunder.

OTE
OXIN TADBIR ENGINEERS

Oxin Tadbir Company was established in 2003 and is located in Khuzestan Province of Iran. As an independent company of Tehran-Boston Engineers active in offering technical, management and consultation services for to various projects and training local engineers in order to apply world class standards, This company can offer a wide range of services such as:

- Basic design
- Detailed Engineering
- Project management
- Installation and operation management
- Project Control

For the following:

- Water supply and sewage
- Wastewater collection
- Provision of maintenance instructions
- Wastewater treatment

Some of the most important design accomplishments of Oksin Tadbir Co are as follows:

- Water supply design for Fajr Petrochemical Plant
- Water supply and distribution for Andimeshk city
- Water supply and distribution for Khuzestan steel complex
- Long term Water Supply and Distribution for Emam Petrochemical complex
- Construction of water supply reservoir for Emam Petrochemical complex
- Water supply and distribution for Abadan & Khoramshar cities
- Engineering services for initial and subsequent water supply and distribution system for city of Izeh

TEC
Tadbir Eskan Co.

Tadbir Eskan Engineering Co. was established in 2002 in order to construct the steel structures designed by Tehran Boston Eng. As a dependant company Tadbir Eskan, now offers a wide range of services in both steel structures and related equipment.

The activities include the following:

- Specialized buildings
- Residential buildings
- Factories

This company has the capability to provide its clients with the following technical services:

- Consultation (economic evaluation of the projects, budget allocation etc.)
- Feasibility studies
- Design and submission of drawings
- Construction, inclusive of supervision of contracted work

Furthermore, the experienced technical team of the company has the expertise to apply well-known construction regulations such as UBC-IBC, Euro-code, and many other similar regulations. Some of the recent accomplishments of Tadbir Eskan Co. are listed below:

- Design and construction of 4units residential and administrative buildings.
- Designing 1100 units Mehr residential buildings in Esfarayaen and Parand.
- Designing a water treatment plant for Garmsar city
- Design and construction of 4units administrative buildings in Hashtgerd city

ΣTE
SigmaTadbir Engineers

As a Tehran-Boston dependant company, Sigma Tadbir consulting engineers was established in 2010 after employing professionals in oil& gas, petro chemistry and chemical units fields.
This company is offering a wide range of technical services like definition (including market research, economic evaluation and feasibility studies), extension (including technology provision and transfer, contractual services, project management and construction management) and project services (including scheduling and cost management of the projects, conceptual studies and fundamental design and equipment purchase services) to some important sectors and industries such as:

- Oil and gas process facilities
- Oil and gas fields development (Upstream and Surface facilities)
- Transmission and pipeline systems
- Fixed system (system, supplies, storage and…)
- Chemical industry and related facilities

Sigma Tadbir company is already known as the consultant for construction of the 26/24/20 inch oil transfer pipeline between Abadan refinery and pumping station in Tangefani and also 24 inch crude oil transfer pipeline from Sabzab pumping station to Tangefani pumping station and as a result offers the following services to its client:

- Management, planning and project control
- Review and basic engineering design
- Design and detailed engineering
- Procurement engineering services
- Detailed engineering design services (including route selection and mapping, hydrology, geology and geotechnical surveys)

Major Projects Executed

Tehran-Boston Engineering Co. is one of the pioneers of engineering services in Iran, which has been involved in large construction projects for nearly 60 years. The company has completed more than 200 projects in its lifetime till now. Therefore it is possible to see various types of construction and industrial projects in the form of different contracts in company's CV. The company has gone through all the steps needed to grow a company so that today, with past experiences, it can accomplish a wide range of engineering services, procurement and construction for large projects with great confidence.

Tehran-Boston Engineering Co. started its activities by providing engineering services (basic studies, design and supervision) and continued to work on EPC projects by providing project management services in projects with diverse specialized fields. Today, its approach is to participate in EPC, EPCC and EPCF projects, either independently or by participating in consortiums of the most experienced Iranian companies. In this way, by putting all of its capabilities into one package, it can guarantee that the client enjoys the high quality of the project.

The following is a brief overview of the past and ongoing projects of this company:

Municipal water Supply

Shiraz Water Supply Project	1970
Bushehr Water Supply Project	1970
Bandar Imam Khomeiny Water Supply Comprehensive Project	1971
Mazandaran Cities Group "A" Water Supply	1971
Water Supply, Transmission and Distribution Network for 17 Khosestan Cities	1979
Emam Khomeini Special Economic Zone, Long Term Water Supply and Transmission	1999
Tehran 6th.Water Treatment Plant	2002
Droudzan Dam Water Transmission Capacity Increase Project and Shiraz Long Term Water Supply	2002
Khozestan South Eastern Cities Long Term Water Supply and Transmission	2003
Shiraz long term Water Supply Project	2012

Urban sewage

Preliminary study of Tehran sewerage project	1971
Sewer Collection & Drainage, of Sarbandar City	1972
Supervision of the Tehran water and wastewater projects	2002
Technical, Economic, Social and Ecology Studies of Fereidunkenar City Sewage Project	2003
Maintenance and preserve of Kish Sewage Treatment plant	2005
Arvand Water and Wastewater System	2008
Mahshahr Sewage System	2011

Water Utility in Petrochemical Industry

Sea Water Intake Project	2013

Industrial projects

Qazvin Sewage Collection, Treatment and Disposal System	1970
Istelak Industrial Factories, Sewage Projects	
Toliddaro Industrial Factories Sewage Projects	1976
Water Supply of Iran Steel Industrial National Group	1991
Ahwaz Steel Irrigation Landscape	1995
Maroon Petrochemical Ethane Recovery Unit raw water transmission and treatment	2001
Transmission Condensed Water of Sugar Factory to Irrigation Canal	2003
Investigating and Reviewing the Hydraulic Studies of the Three Line Inlet and Outlet of Persian Gulf Water Desalination Plant	2020

Study and Development

Providing Architectural Design for Power Plants in Some Cities	1966
Providing Maintenance and Operation Manual for Bandar-Emam Water Supply	1969
Khuzestan Water and Power Authority Personnel Training for Maintenance and Operation of Bandar Imam Water Supply	1969
Study of Concrete in Tropical Areas of Iran	1994
Unaccounted for Water in Ahwaz Pilot Plant (International Research Plan, Development and Improvement Of Municipal Water Supply)	1996
Babol Water Supply History Report	2002
Study Under Ground Water of Assaluyeh	2004

Dam and Tunnel

Lar Dam Pump Station Design and Construction Management	1996
Tehran Water Supply Project from Karaj Dam	2002

Retrofit against earthquake

Retrofit Project for Shiraz Water Supply	2003
Rechecking Contract for Structural Projects of Great Tehran	2007

Civil Structures and Buildings

Yazad and Kerman Airports	1964
Azady Sports Complex Design	1968
Repair Of Concrete Structures In Sarbandar and Marghzar Wastewater Works	1993
Renovation of Industrial and Nonindustrial Buildings Of Fulad Ahwaz	1996
Construction of Telemetry Buildings and Ultrasonic Rooms	2005

Engineering, procurement and construction (EPC)

Ghadir Water Supply Project (Khouzestan Extensive Water Supply Project Design and Construction Supervision)	2009
Erbil International Food and Fruit Market Wastewater Treatment	2013
Investigating and Reviewing the Hydraulic Studies of the Three Line Inlet and Outlet of Persian Gulf Water Desalination Plant	2017

Engineering, procurement, construction and Finance (EPC+F)

Construction of the first module of waste water treatment plants in 5 Cities of khouzestan	2018
Potable and Agricultural Water Conveyance System to the City of Izeh	2018

Project Management Contract (MC)

Amirkabir Sugar Complex Project Management	1999
Construction Management of Petrochemical Special Economic Zone (phase1), Water Supply and Transmission Project	2000
Management Services for Water and Wastewater, Kish Island	2008

Yazd and Kerman Airports

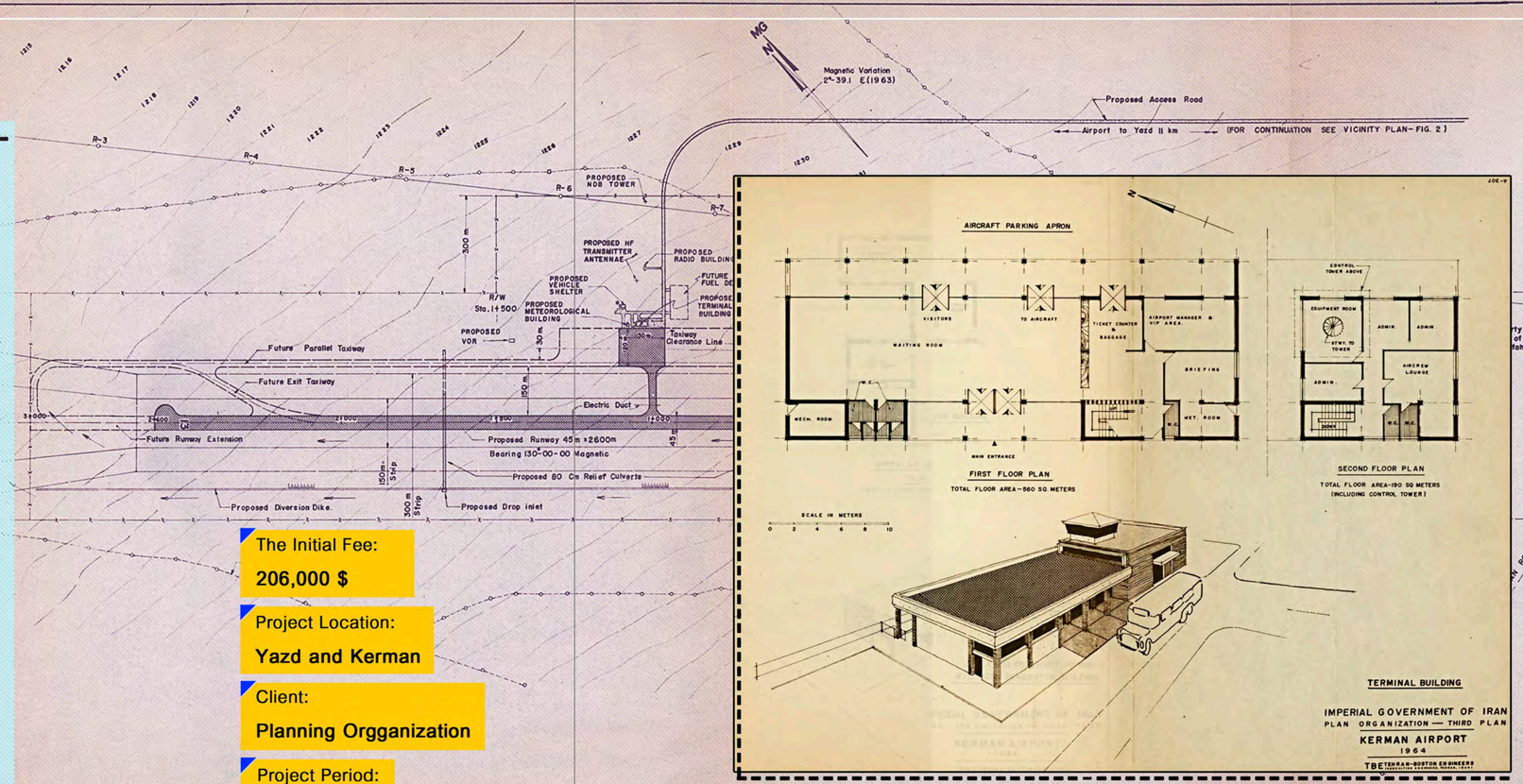
The first major project awarded to TBE was reconstruction of Yazd and Kerman Airports.

The work included major reconstruction of the existing airports inclusive of :

- Design and supervision of construction of Runway, Associated Buildings including Terminal Building, Control Tower, Weather Station and all other required buildings.
- Included also were Navigational Facilities, Runway Lighting, Approach Lighting, Hazard Lighting VOR, VORTAC, VHF and the like facilities.
- The experience of Metcalf & Eddy Engineers of Boston, Mass. And their guidance was essential in accomplishing such an important work.

Overview of Services Provided by TBE :

- ✓ Preliminary environmental and soil study;
- ✓ Preliminary design and cost estimate;
- ✓ Preliminary design of drainage and paving;
- ✓ Final design and provision of runway drawings and associated buildings;
- ✓ Preparation of Tenders Documents for preliminary and final execution of the Project;
- ✓ Supervision of work and provision of Asbuilt Drawings.



The Initial Fee:

206,000 $

Project Location:

Yazd and Kerman

Client:

Planning Orgganization

Project Period:

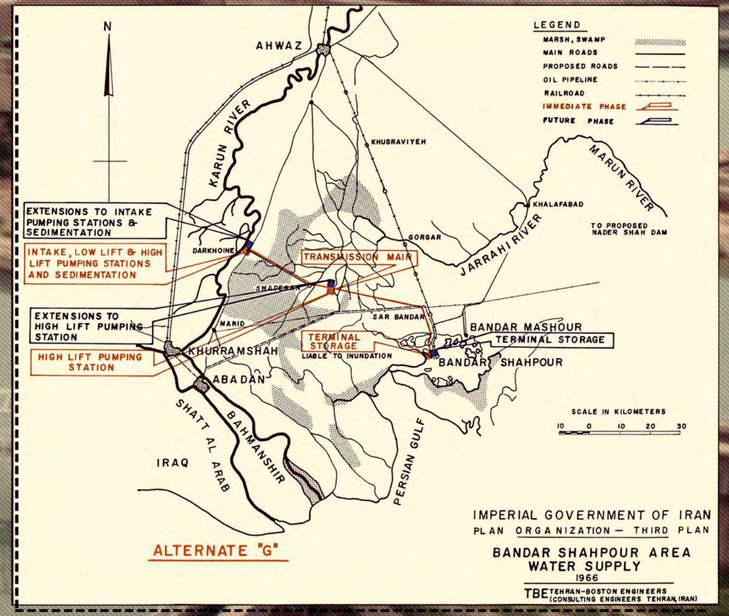
1963 – 1967

Bandar Imam khomeini Water Supply Comprehensive Project

The preliminary study, detail design and supervision on construction of the project with water flow of 4.9 m^3/s capacity consist of an intake pump station on the Karun river, 90 Km of Transmission line (GRP pipelines of 1800 to 1950 mm diameter and open canal with a capacity of water flow 11.5 m^3/s), 2 pumping stations (mansouri 1 and 2), 3 water treatment plants with 3, 4.5 and 4 m^3/s capacity each and steel reservoirs.

Overview of Services Provided by TBE :

- ✓ Collection and data gathering;
- ✓ Study of water design factors:
  - ☐ Characteristics and quality of raw water
  - ☐ Determination of treatment
  - ☐ Determination and forecast of water demand
  - ☐ Site selection for pump stations.
  - ☐ Site selection for water treatment plants;
- ✓ Pipeline and open canal Hydraulic Calculation
- ✓ Preparation and submission of the report;
- ✓ Preparation of drawings for civil, mechanical and electrical works;
- ✓ Preparation of tender documents;
- ✓ Carrying out tendering procedure and selection of the contractors;
- ✓ Supervision of construction works.



The Initial Fee:
500,000 $

Project Location:
Bandar Imam khomeini

Client:
Khuzestan Water and Power Organization

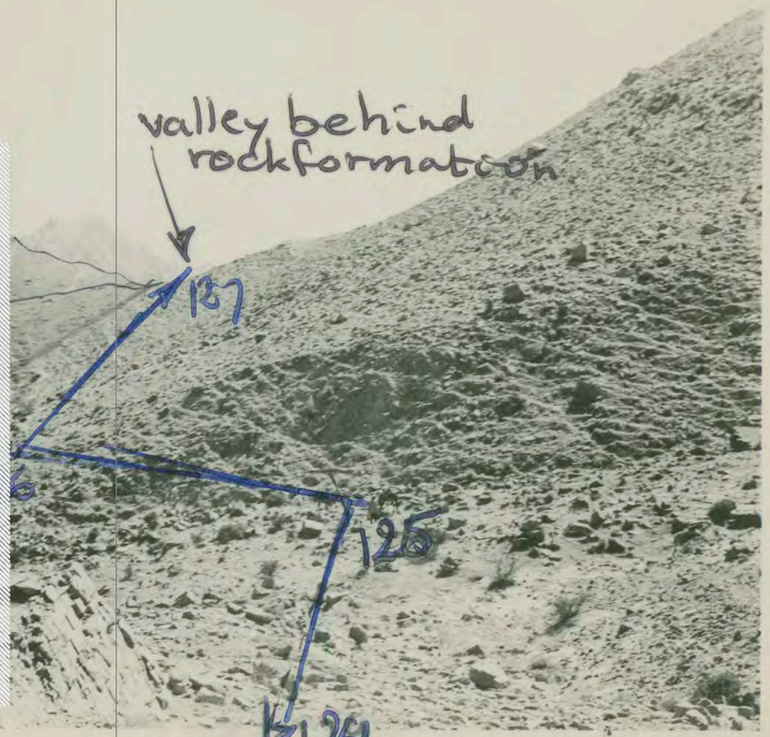
Project Period:
1973 – 1985

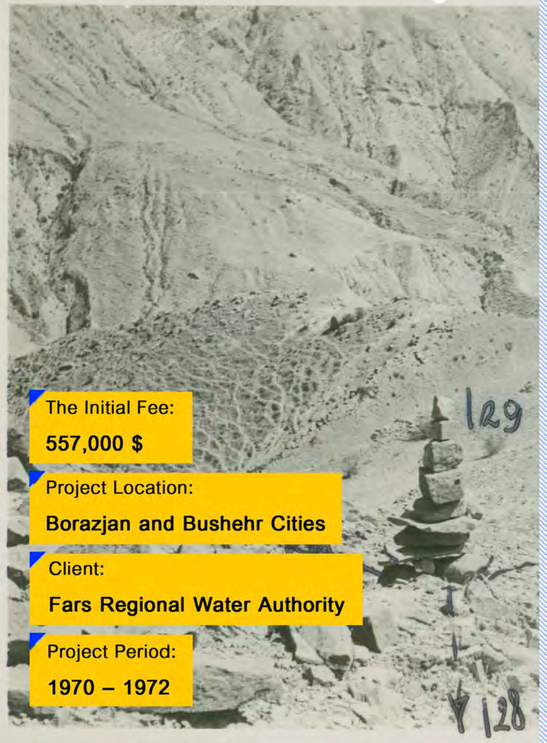
Bushehr Water Supply Project

The main objective of this project, which was a high priority, was to provide and supply drinking water for Bushehr and Borazjan Cities. By implementation of this project, daily amount of 10.500 m^3 treated water was supplied from Shahpour River. The work consisted of transfer of river water to the reservoir and thereafter to the treatment plant. After completion of treatment process, a high pressure pumping station transfers treated water via pipelines to the Borazjan City's reservoir. From this reservoir, the water is transferred to Bushehr City and Air Force Base via pipelines equipped with break pressure valves.

Overview of
Services Provided by TBE:

- ✓ Feasibility Study and Initial Design of the Project;
- ✓ Providing detail led Designs, Bill of Quantities for Equipment and Materials;
- ✓ Performing Hydraulic and Water Hammer Calculations;
- ✓ Preparation of Tender Documents;
- ✓ Supervision of Construction works, Putting into Operation and Handing Over to the Client.





The Initial Fee:
557,000 $

Project Location:
Borazjan and Bushehr Cities

Client:
Fars Regional Water Authority

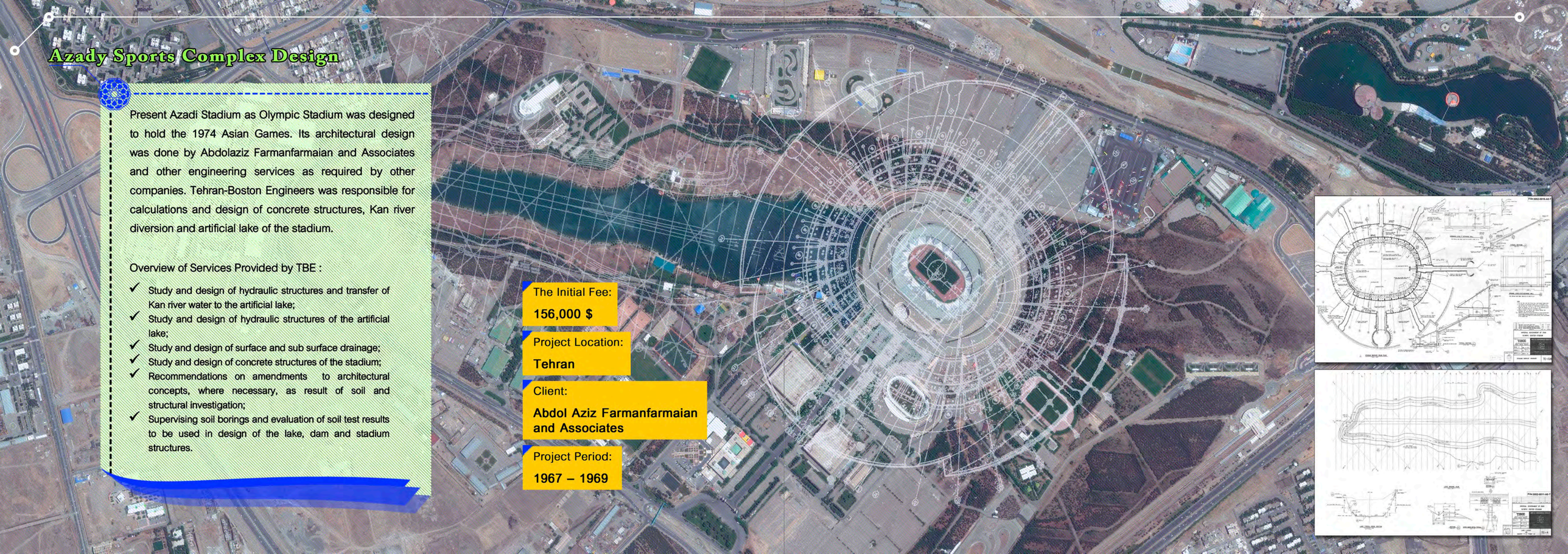
Project Period:
1970 – 1972

Azady Sports Complex Design

Present Azadi Stadium as Olympic Stadium was designed to hold the 1974 Asian Games. Its architectural design was done by Abdolaziz Farmanfarmaian and Associates and other engineering services as required by other companies. Tehran-Boston Engineers was responsible for calculations and design of concrete structures, Kan river diversion and artificial lake of the stadium.

Overview of Services Provided by TBE :

- ✓ Study and design of hydraulic structures and transfer of Kan river water to the artificial lake;
- ✓ Study and design of hydraulic structures of the artificial lake;
- ✓ Study and design of surface and sub surface drainage;
- ✓ Study and design of concrete structures of the stadium;
- ✓ Recommendations on amendments to architectural concepts, where necessary, as result of soil and structural investigation;
- ✓ Supervising soil borings and evaluation of soil test results to be used in design of the lake, dam and stadium structures.



The Initial Fee:

156,000 $

Project Location:

Tehran

Client:

Abdol Aziz Farmanfarmaian and Associates

Project Period:

1967 – 1969

Amirkabir Sugar Complex Project Management

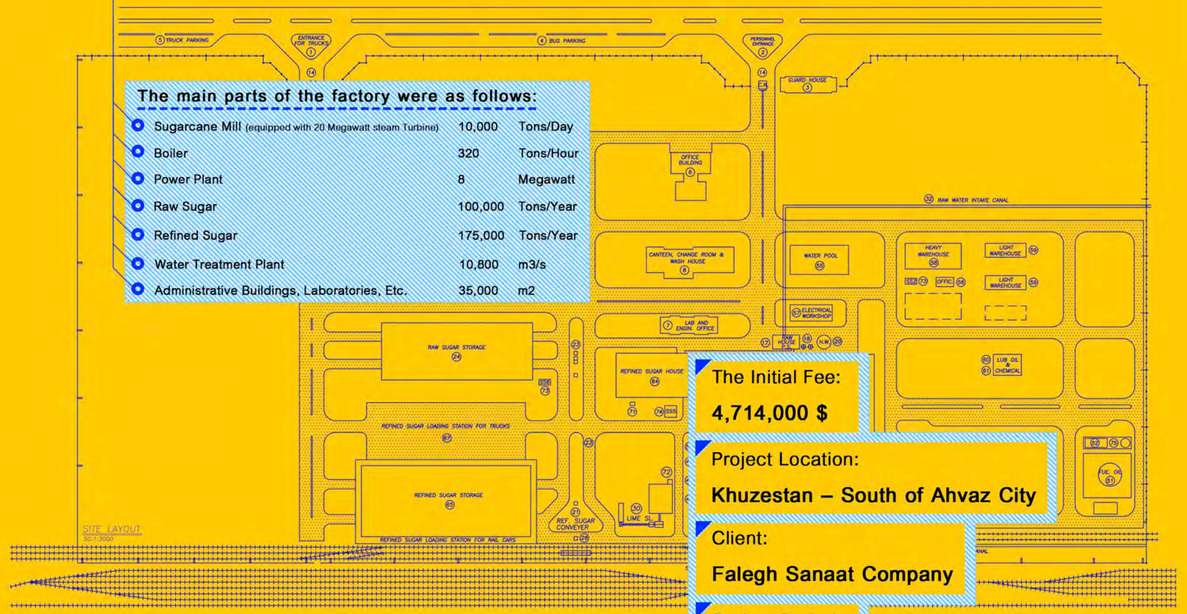
To reduce the import of white sugar it was a priority of the Government to use the potential of the Khouzestan region to grow sugar cane and subsequently to construct sugar factories to produce white sugar for country's use.

The construction of seven such factories was considered as a priority for the purpose.

Therefore the land was acquired in appropriate areas of the region and growing sugar cane and construction of the regional sugar factories began. Amirkabir Sugar Production Factory was the second sugar production and refining factory in the series of the factories. Due to experience and expertise of Tehran – Boston Engineers in complexity and diversity of processes and procedures, the management of the project was awarded to TBE. The factory comprises raw sugar production and refining hall sections, raw and refined sugar storages, chemicals, general and open storages, laboratories, water treatment plant, lime furnace, repair and maintenance and machining hall, boilers & power plant which are equipped with state of the art equipment and are currently completely operational. Requirement of various expertise for mechanical, civil, electrical, chemical, agricultural, engineering and also installation and commissioning of equipment and machinery, various control systems was one of the most challenging tasks of the project considering importance of quality, costs and time limitations made the supervision, workshop works, interior and exterior preparations, commencement of the operation and management intensively complex and fulfilling.

Overview of Services Provided by TBE:

- ✓ Project management
- ✓ Engineering services of phase three of the project
- ✓ Workshop management
- ✓ Quality control



The main parts of the factory were as follows:

Sugarcane Mill (equipped with 20 Megawatt steam Turbine)	10,000	Tons/Day
Boiler	320	Tons/Hour
Power Plant	8	Megawatt
Raw Sugar	100,000	Tons/Year
Refined Sugar	175,000	Tons/Year
Water Treatment Plant	10,800	m3/s
Administrative Buildings, Laboratories, Etc.	35,000	m2

The Initial Fee:

4,714,000 $

Project Location:

Khuzestan – South of Ahvaz City

Client:

Falegh Sanaat Company

Project Period:

1999 – 2003

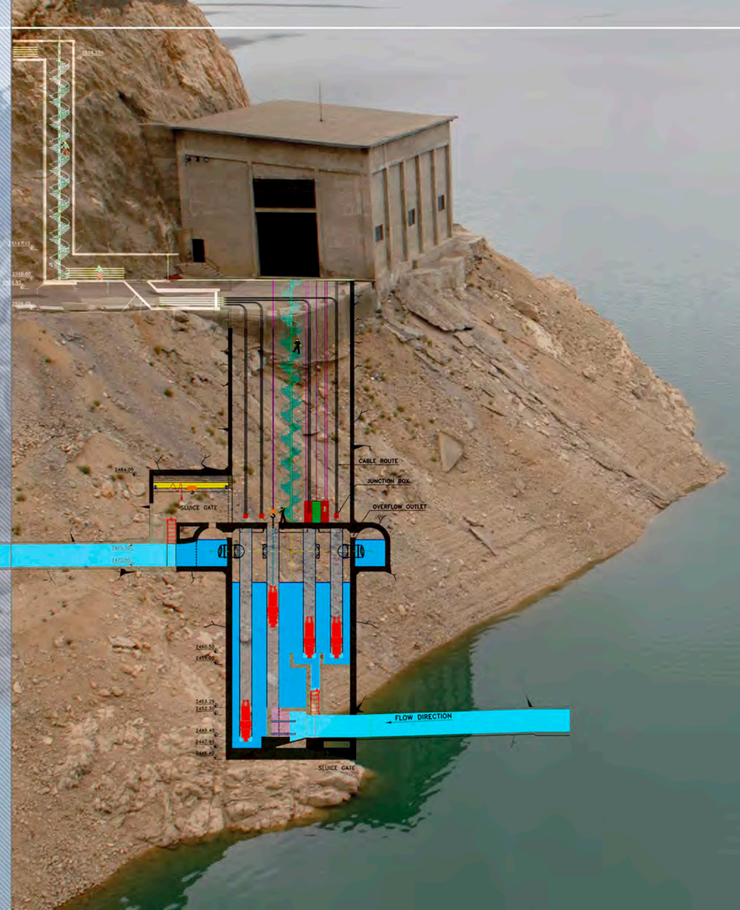
Lar Dam

Pump Station Design and Construction Management

Objective of this project was to provide a constant and continuous water flow to Tehran City by means of construction of a shaft, vault and tunnel and also of the pumping station. The main shaft with height of 65 m and diameter of 15.5 m was constructed in main vault of the pumping station with the depth of 35 m with diameter of 25 m. The pumping station of Lar Dam is equipped with 8 submersible pumps pumping the water to the required level. In addition to the main shaft and vault, Lar Dam pumping station includes water transferring tunnel, Control Unit Building constructed in three floors with total building area of 1800 m^2, building constructed over the main shaft with an area of 510 m^2 and access roads and passages 850 m long and equipped with all related installations.
The pumping capacity of this pumping station is 18.5 m^3/sec.

Overview of Services Provided by TBE:

- ✓ Project Evaluation and Submission of the Report;
- ✓ Preparing draft maps and performing initial estimation;
- ✓ Preparation of execution drawings;
- ✓ Implementing technical design and determining final costs of work;
- ✓ Preparing tender Documents for Civil and Pump Station Works;
- ✓ Evaluation of offers and Submission of reports on the tenders;
- ✓ Supervision of the work performed by the contractors.



The Initial Fee:
3,721,000 $

Project Location:
Lar Dam – located in Km 75 of Tehran – Amol Road

Client:
Tehran Regional Water Authority

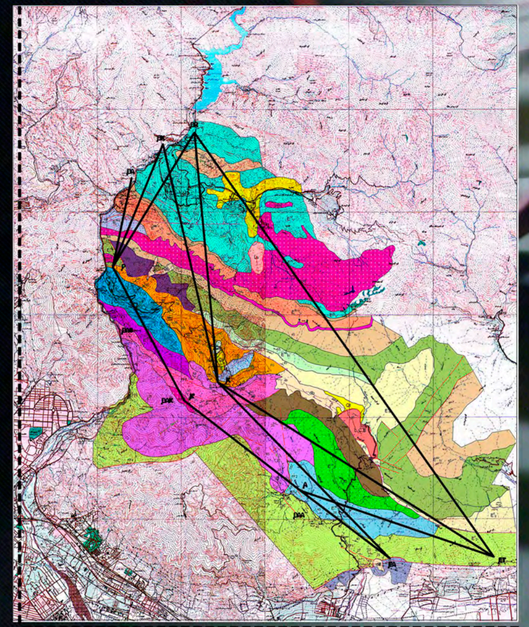
Project Period:
1996 – 2000

Tehran Water Supply Project
from Karaj Dam

This project was considered to increase water supply capacity from downstream of Karaj Dam to North-West of Tehran by construction of an intake and transmission tunnel with length of 30 km, and discharge capacity of 16 m^3/s to supply water to Water Treatment Plant Number 6.

Overview of Services Provided by TBE :

- ✓ Survey of different alternatives of draw-off construction facilities;
- ✓ Survey of different options of transmission including tunnel, pipeline and culvert;
- ✓ Survey of different Hydraulic Structures and Mechanical Installations related to each option;
- ✓ Survey of needed energy, electric utilities and power transmission for each option;
- ✓ Technical-economical studies to construct Hydroelectric Power Station;
- ✓ Survey of measurement, control systems and monitoring equipment;
- ✓ Survey of environmental effects and recommend methods of reducing negative effects;
- ✓ Survey of systems, excising utilities and providing reconstruction strategy, improvement and development as needed;
- ✓ Provide surveying services, geotechnical and soil mechanic analyses;
- ✓ Provide second stage program study and third stage construction work;
- ✓ Provide EPC tender documents for construction and transmission tunnel;
- ✓ Call for EPC tenders in order to construct the first section of the water transmission tunnel.



The Initial Fee:
969,000 $

Project Location:
From Karaj dam to Tehran 6th. Water Treatment Plant

Client:
Tehran Regional Water Organization

Project Period:
2002 – 2003

Kish Island
Management Services for Water and Wastewater

To provide water supply and removal of waste water was a priority consideration of the Water and Wastewater Authority of the Kish Island. Service management inclusive of development, establishing, and optimization of operations of water and wastewater systems, water treatment, fresh water generation, and storage were the projects duly considered by the Authority.

Main parts of the project include the following :

- ✓ Wastewater system in North part of West area;
- ✓ Water transportation system for providing water to Didaniha and Ghilan Park and collecting wastewater from coastal village;
- ✓ Upgrading Central and Mirmohanna water treatment capacity;
- ✓ Wastewater treatment 10000 m^3 per day;
- ✓ Wastewater system in East part of the North area;
- ✓ Pumping stations for wastewater;
- ✓ Central stations and water storage tanks of 20000 m^3 capacity.

The Initial Fee:

682,000 $
388,000 $

Project Location:

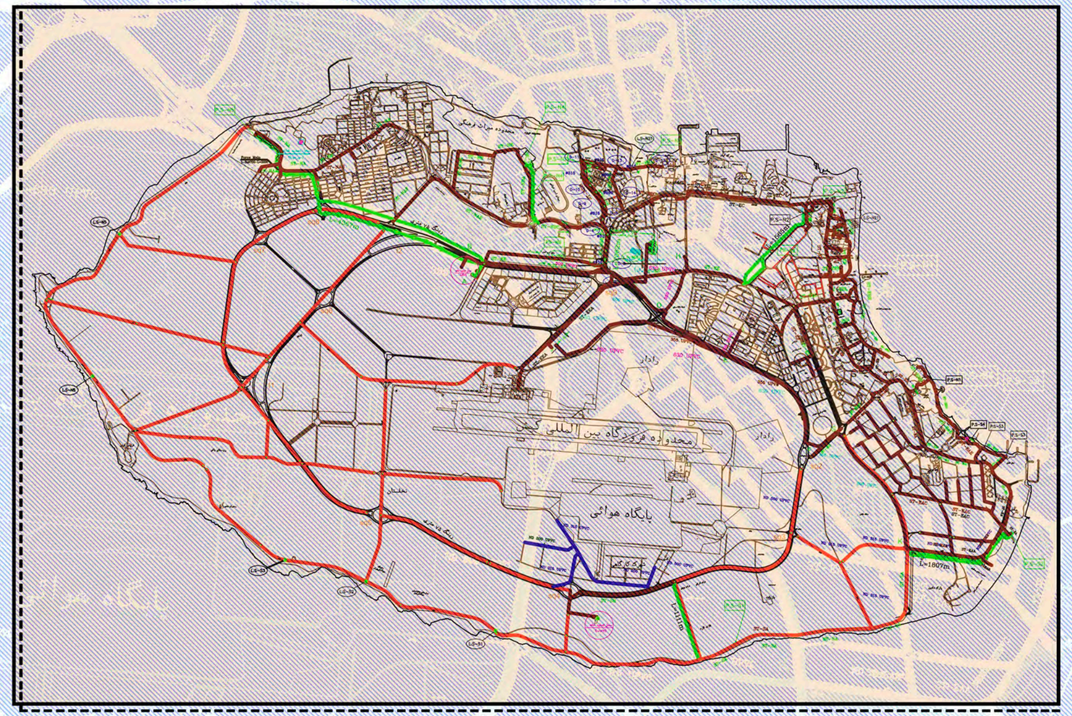
Kish Island

Client:

Kish Water Company
Kish Investment and Development Company

Project Period:

2008 – 2014



SHIRAZ
Long Term Water Supply Project

The objective of this project is to augment drinking water supply to Shiraz city and achieve objectives specified for year 2026 determined through intensive studies by TBE.

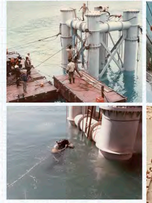
Upon completion of studies and design, the Contract for construction of second water treatment plant, another pumping station and drinking water transfer pipeline to Shiraz city was duly awarded to the contractor. Tehran Boston Engineers was commissioned to supervise the installation of pipelines, tunnel, water treatment plant and pumping station.

The Initial Fee:
3,017,000 $

Project Location:
Shiraz

Client:
Fars Regional Water Company (Public Joint Stock)

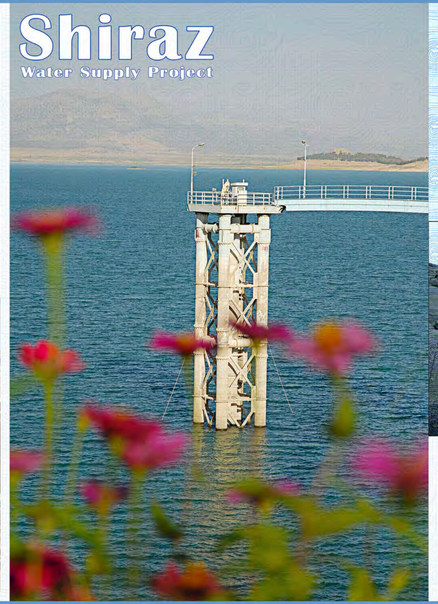
Project Period:
2012 – present



Different pictures during installation of intake tower in the lake of Doroodzan dam

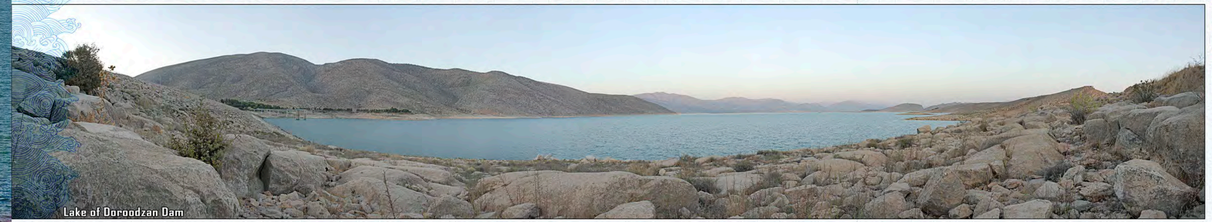
Shiraz

Water Supply Project



Pipe laying for extension of the Shiraz water supply project

Intake Tower, Capacity 5 m³/sec



Lake of Doroodzan Dam

Sand Filters

Sand Filters

Chlorine Cylinders

Filtered Water Reservoir

Ozone Reactors

Ozone Reactors

Chemical Room for Ozone System

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مهندسین تهران - بوستن

KHOUZESTAN

Potable water supply and Transmission Project for Ahvaz, Abadan & Khorramshahr (Ab-e-Hayat)

Basic studies, detail design and construction supervision of this project, which is a combination of two potable water supply projects in Ahvaz and Abadan & Khorramshahr, started in 1996 and were operated in 2001 in Ahvaz and in 2004 in Abadan & Khorramshahr.

In this project, 1320 lit/sec of potable water is taken from wells in Shooshtar and with a pump station in Galalak village is transmitted to destination through 234 km pipeline (94 km to Ahvaz and 140 km to Abadan & Khorramshahr reservoirs) of steel, GRP and Ductile Iron, which the diameters of them varies from 250mm to 1200mm. In Ahvaz 1070 lit/sec is taken out and 250 lit/sec of potable water is transmitted to Abadan & Khorramshahr.

The components of this project are as follows:

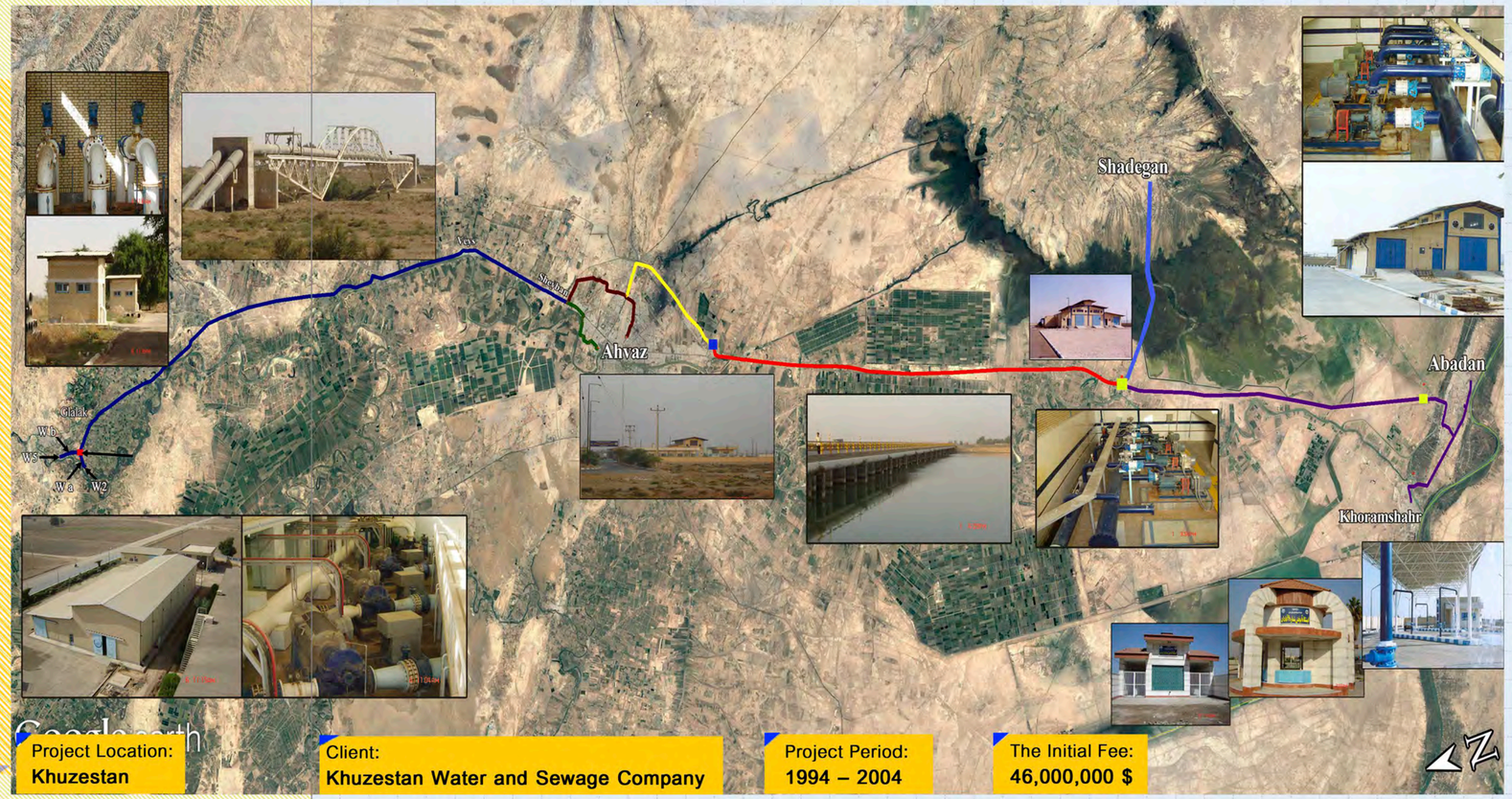
Semi deep wells named Fellman wells with equipment and water collection network.

Reservoirs with capacities of 12,000 and 20,000 cubic meters.

4 pump stations with total 16 electro-pumps.

Arched steel bridge with a span of 115 meters and width of 5.5 meters

234 km long of steel, cast iron and GRP transmission pipeline with diameters of 250 to 1200 mm.

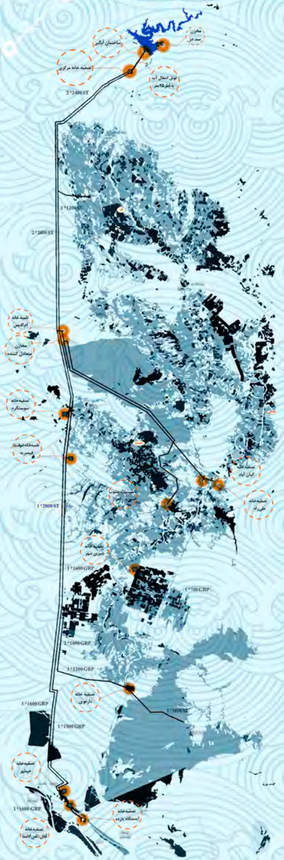


Project Location:
Khuzestan

Client:
Khuzestan Water and Sewage Company

Project Period:
1994 – 2004

The Initial Fee:
46,000,000 $



GHADIR WATER SUPPLY PROJECT

Khouzestan Extensive Water Supply Project Design and Construction Supervision

Objectives of this project is to supply water to southern and central cities of Khuzestan province that include Ahwaz, Abadan, Khorramshahr, Shadegan, Susangerd and other cities and villages which are on the rout of the water transmission lines.

Main parts of the project have been designed with three priorities: first preference is water transmission project to Abadan and Khorramshahr from MC1 canal, second is water transmission project from the canal located in lower part of the bridge in

Om-ol-Dabes to Ahwaz and Shadegan and the third is water transmission project from Dez dam to Om-ol-Dabes and cities bordering Andimeshk road. Parts of the project consist of pumping stations, water treatment, booster pumping stations, storage tanks, foundation work, installation of pipes and pipework and construction of access road. Total population which is covered by this project is 4.7 million and total water flow is 24 m^3/s including a total length of transmission pipework of 880 Km made of steel and GRP pipes of 800 to 2400 mm diameter.

Design Services Provided by TBE :

- ✓ Providing documents for EPC contract and participating in signing of the contract documents;
- ✓ Reviewing reports of first stage studies and submitting report on this;
- ✓ Preparing drawings and aerial photography, surveying and supplying master plan of intake location, utility, transportation lines and buildings;
- ✓ Performing environmental, cultural heritage, archeology studies of the pipe line route, intake location and utilities;
- ✓ Preparing geological maps, completing geology studies, studying pedology and Geotechnics of intake location, utilities and transportation lines;
- ✓ Detailed design (second phase) of project components such as intake, transportation and related buildings service, road, pass through rivers, water treatment plant, intake and booster pumping stations, tanks, telemetry and other related works.

Construction Services Provided by TBE :

- ✓ Provision of tender documents for execution and procurement, participate in holding required formalities and reviewing received documents from the bid participants and choosing contractors;
- ✓ Engineering services to purchase equipment such as pipes, joints, accessories, pumps, water treatment plant, controls, switchgear and telemetry;
- ✓ Engineering services for technical inspection during construction at manufacturers works, packaging, and the like;
- ✓ Planning services for studies, procurement and project control;
- ✓ Engineering services for field supervision of all activities related to the contract including manufacture, transportation and installation that should be performed by the main contractor and subcontractors;
- ✓ Performing quality control tests on equipment and materials as required.

The Initial Fee:

40,232,000 $

Project Location:

Khuzestan

Client:

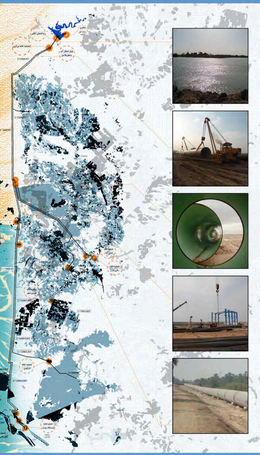
Khuzestan Water and Power Organization

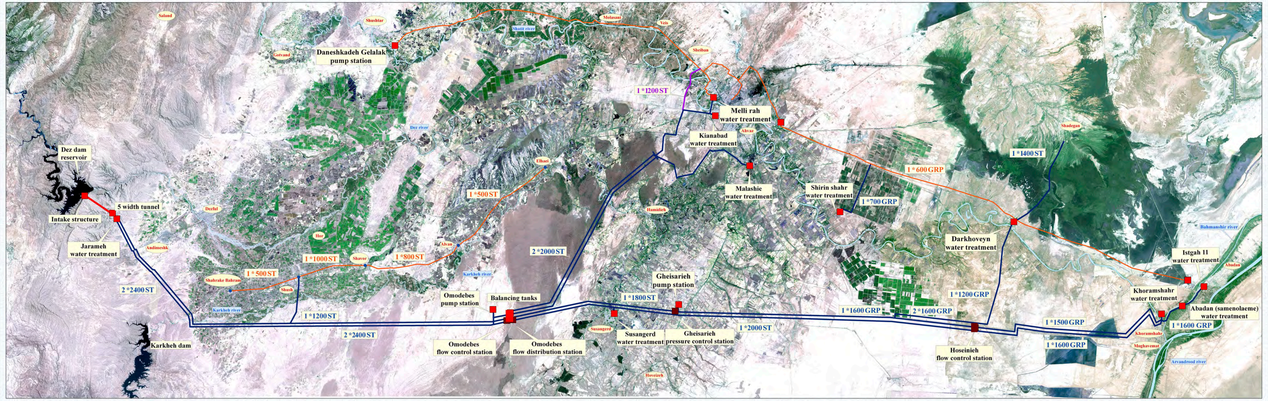
Project Period:

2008 – 2019

Ghadir
Water Supply Project

Khouzestan Extensive Water Supply Project Design and Construction Supervision





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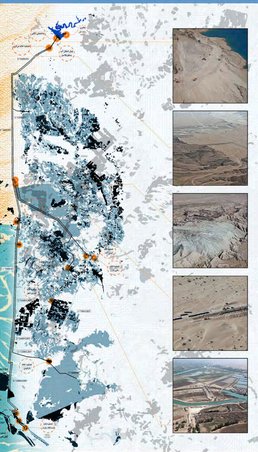
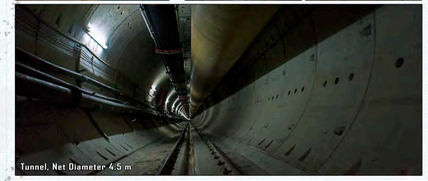
Ghadir
Water Supply Project

Khouzestan Extensive Water Supply Project Design and Construction Supervision



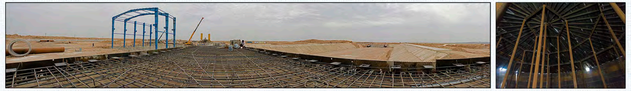


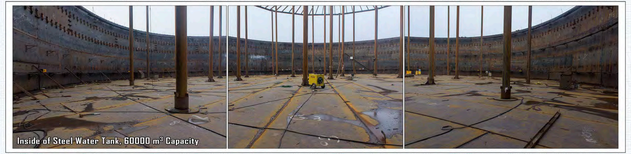
Tunnel, Net Diameter 4.5 m

TBM

Pump Station Structure

Welding of Steel Water Tank





Inside of Steel Water Tank, 60000 m³ Capacity

Installation of Steel Pipeline 2000 mm Diameter

Pipe laying Activities

Pipe laying Activities in the Karkheh Riverbed

Construction Works for Steel Water Tank, 9*60000 m³ Capacity

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KHOUZESTAN

BidBoland Gas Refinery Water Supply Project from Behbahan large treatment plant

The project is Enginnering, Procurement and Construction of (EPC) a 25,000 cubic meter per day water supply system for the Persian Gulf gas refinery. Which includes components such as a water intake, water transmission pipe line from the water intake to Behbahan Water Treatment Plant, WTP reconstruction, WTP pumpstation development, water transmission pipe line from the WTP to the site near the refinery parking lot, one 8,000 m3 reservoir, one pumping station near 8,000 m3 reservoir, and the water transmission pipe line from this reservoir to the water delivery point at Bidboland refinery which are 2 x 17,000 m3 reservoirs. The first phase of the project involves the temporary supply of water from the wells of Amir Hazer with a flow rate of 4000 cubic meters per day.

The Initial Fee:	Project Location:	Project Period:
7,000,000 $	Khuzestan	2017 – 2019

Client:
Sazeh-Jahanpars Consortium

Potable and Agricultural Water Conveyance System to the City of Izeh

This plan integrates two potable water transmission projects to the northeastern cities of Khouzestan province and the agricultural water transfer from central and northern Izeh to Baghmalek. The source of water supply is Karun 3 dam reservoir and the total volume of the flow is 11.1 m^3/s. The volume of agricultural use is 8 and the volume of potable use is 3.1 cubic meters per second.

The main components of this project are: 880-meter long intake tunnel with 3 m diameter, bridge with 10 m width and 120 m length, pumpstation with capacity of 11.1 m^3/s with pumping head of 225 m, short tunnel with 3 m diameter and length of 420 Meter, long tunnel with length of 4500 meters and finished diameter of 3.7 meters, a water treatment plant with capacity of 3.1 cubic meters per second, a tunnel with a diameter of 10.5 meters and a length of 320 meters, and transmission lines with diameter range of 800 to 2000 millimeters, and length of approximately 140 kilometers.

The Initial Fee:
270,000,000 €

Project Location:
Khuzestan

Client:
Khuzestan Water and Power Authority

Project Period:
2018 – present

Investigating and Reviewing the Hydraulic Studies of the Three Line Inlet and Outlet of Persian Gulf Water Desalination Plant

Water desalination of two hundred thousand cubic meters in Bandar Abbas is one of the seawater desalination installations to be transferred to Gol Gohar, Sarcheshmeh, and ChadorMelo mines in the plan to supply and transfer water from The Persian Gulf. This installation has been constructed by Sazeh Sazan Company in the form of BOO Contract. Sea water is provided and transferred by the Company and is transferred by Ab Asia Company to water desalination installations and after desalination, both the water desalinated and condensed effluent are returned to Persian Gulf Water Desalination Plant. Purified or desalinated water are transferred to the installations and the effluent is discharged into the sea The capacity of the Persian Gulf Water Desalination Plant is two hundred thousand Cube Meters a day which should be more than five hundred thousand cube meters a day considering the recycling coefficient. Therefore, about three hundred cubic meters of the condensed effluent is discharged into the sea through three pipelines
Tehran Boston Engineers Company had been in charge of reviewing the hydraulic studies of these three lines when nearly 90% of the operation was completed. This review was applied to ensure that hydraulic desalination plant has the necessary assurance for commissioning and operation

Design of Engineering Services:

- ✓Consolidation and integration of information from each transmission system
- ✓Hydraulic study of each of the three lines at Steady and Transient States
- ✓Investigating water hammering and presenting simulation results for protection
- ✓Providing short, medium and long-term solutions

The Initial Fee:

30,000 €

Project Location:

Hormozgan Province- Bandar Abbas

Client:

Sazeh Sazan Company

Project Period:

March 2020-May 2020

Construction of the first module of waste water treatment plants in 5 Cities of khouzestan

In this plan, the construction of the first module of waste water treatment plants in the cities of Shoosh, Andimeshk, Izeh, Behbahan and Bostan is defined by the EPC + F method of engineering services, procurement, construction, installation, commissioning, operation and financing alltogether.

The main components of this project are: Construction of the first module of wastewater treatment plant for five cities including supplying of materials and equipment's, performing the structural, mechanical, electrical, control system and instrument works, installation, two-year operation.
Implementation of gathering lines and sewage transfer to treatment plant in 300 to 1400 mm diameters, with all required works Including the provision of goods.
Preparation and implementation of telemetry network for treatment plant internal communications as well as connection to the sewage network.
Supply of financial resources and other services.

The Initial Fee:
66,150,000 €

Project Location:
Khuzestan

Project Period:
2018 – present

Client:
Khuzestan Water and Sewage Company

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