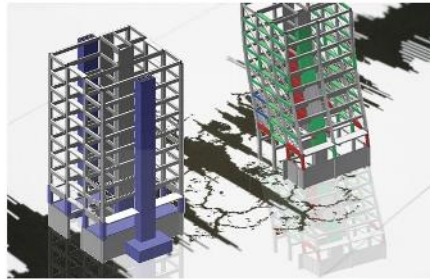


2024



Geotechnical Engineering



Structural Engineering



Dam Engineering



Retrofitting



Construction Monitoring



Architecture

COMPANY PORTFOLIO



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About us

Founded in 2001, ZaminJarfab (Z.J) Engineering is a multi-disciplinary company with around 50 registered engineers, geologists, field and laboratory technicians, and clerical personnel who combine their technical capabilities, past experience, dedication, and enthusiasm to offer the finest services through integrated team effort. We provide comprehensive civil engineering services and solutions in terms of consultancy and Engineering Procurement Construction (EPC) for private enterprises as well as government agencies. The Z.J Engineering major activities encompass geotechnical, structural, and architectural engineering, seismic retrofitting, and construction. Our quality services and responsiveness combined with our clear strategies reduce the risk and bring the innovative, flexible, and cost effective solutions that meet or exceed our client's expectations.



The Z.J engineering's services have been certified by various national and international organizations:



E.Azerbaijan Consulting Engineers Association



Certification of Consultancy Services, Iranian
Management and Planning Organization



License of Engineering Services, "Iranian
Ministry of Roads and Urban Development"



Iranian National Committee on
Large Dams

Geotechnical Engineering

Exploring Ground, Providing Solutions

The underground is often thought of as a “black box,” full of risk and uncertainty. Through expert analysis, design and discussion with our clients, we reduce the unknowns and get projects out of the ground on time and on budget. Every site poses a unique mix of challenges, such as tight space, neighboring buildings, soil contamination, complex regulations, community concerns and more. The Z.J Engineering designs and implements solutions that address those unique challenges.

Services offered

Consultancy/Design Services

Site investigation & sampling
Geology
"In situ" Testing
Laboratory Testing
Data analysis & Recommendations
Design of Geotechnical Structure.

Design-Build services

Soil Retention Systems

Tie-backs/Anchorage
Soil Nailing
MSE Walls
Soldier Piles
Micro-piles

Ground Improvement

Grouting Techniques
Deep Soil Mixing
Stone Columns
Jet Grouting

Structural Support

Drilled Shafts and Piles
Micro-piles
Pit Underpinning

Geotechnical Instrumentation and Monitoring

Inclinometers
Extensometers
Piezometers
Microgeodesy

As leader firm in geotechnics, ZaminJarfab (Z.J) Engineering is often asked to push the essential skill and science of designing and building structures in/on the ground. Geotechnical work includes geologic and hydro geologic evaluations, ground investigations, soil/rock testing, and providing geotechnical engineering solutions for projects ranging from residential to water supply projects, bridges, multi-story commercial buildings, highway construction projects and dams as well as handling deep excavation and subsoil issues through design-build services.

Z.J Engineering team provides geotechnical engineering evaluations, recommendations and design for deep and shallow foundations, retaining walls, dams and reservoirs, underground facilities, ground improvement, liquefiable soils, slope stability and landslides, rock mechanics, groundwater treatment, and pavements. Owning special equipment and years of experience, we also provide construction and EPC services for a wide range of challenging geotechnical issues.



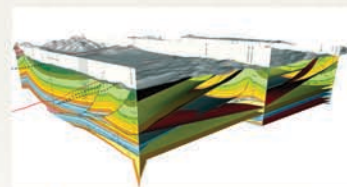
▲ Pile Installation, Tavrij Residential Tower



▲ In situ direct shear test, Tarlan complex



▲ Exploration drilling, Spiran bridge site



▲ Geological model, Rockwork output

Featured Geotechnical Projects / Consulting

Sungun Copper Mine Varzeghan, Iran, 2008-2009

Client: National Iranian Copper Industries Co.

The services included geotechnical and geological studies as well as stability risk assessment, monitoring of an unstable slope overlooking the main conveyor belt of the mine and geotechnical design for stabilization of the slope.



Zarrineroud Dam Water Tunnel Urmia, Iran, 2009

Client: West Azerbaijan Regional Water Authority

Complementary geotechnical studies and explorations for the tunnel included permeability and strength examination of the subgrade rock mass through drilling 3 boreholes with overall depth of 110-m to optimize dewatering tunnel system.



Gole-Sharg Complex Tabriz, Iran, 2011

Client: Bab Iran Co.

Geotechnical and hydrological studies for a residential-commercial complex comprised of three 34-story towers through 12 exploration boreholes with overall depth of 405-m, "in situ" tests, and field geological studies. Seismic hazard analysis, liquefaction hazard and a drainage system design for the project were also performed.



Besat Residential Complex- Block H Tabriz, Iran, 2015

Client: Housing Corporation of Educators

Geotechnical studies of the 35-story residential project included 6 sampling exploration boreholes with overall depth of 160-m, lab and in situ tests such as downhole and plate load tests and reports. Seismic hazard analysis and site-specific design spectrum were also prepared for the project.



Featured Geotechnical Projects / Consulting

Ayat Kandi Tailing Dam, Sungun Copper Mine Varzghan, Iran, 2016

Client: National Iranian Copper Industries Co.

To evaluate and monitor ground water level fluctuations, water contamination and environmental effects of Ayat Kandi tailing dam, 7 hydrological boreholes with overall depth of 835-m were drilled and logged. Sampling, lab tests (on soil, rock, and water) as well as in-borehole permeability tests were conducted and the results were presented in a thorough investigation report.



SMP Center 6 Tabriz, Iran, 2014

Client: SMP Center Group

Geotechnical investigation, seismic hazard analysis and site-specific design spectrum were conducted for a 150,000 m² trade building in 48 stories to be built on a 7,800 m² land. The geotechnical studies included 6 exploration boreholes with overall depth of 365-m, sampling, in situ and lab tests, hydro/geological studies, a challenging design for 27-m deep excavation below the Ground water level, and providing technical recommendations



Atlas Trade Center Tabriz, Iran, 2006

Geotechnical investigation for the 19-story Atlas Trade Center (13,000 m²) was conducted including drilling of 3 exploration boreholes with overall depth of 150-m, sampling, in situ /lab testing, and technical report. Seismic hazard analysis and drainage system design have also been provided.



Azarshahr Water Treatment Plant Azarshahr, Iran, 2016

A site investigation and complementary geotechnical studies was conducted including drilling 4 exploration boreholes as well as liquefaction evaluation of the site. A liquefaction remediation with stone-columns technique was designed and successfully implemented.



Featured Geotechnical Projects / Consulting

Tabriz refinery development plant

Tabriz, Iran, 2022

Client: Sazeh Consultants Co.

Complementary geotechnical study of the project included drilling 36 boreholes with overall depth of 978 m using continuous coring method. 3 hand boring boreholes have also been drilled with overall depth of 18 m. Seismic risk analysis, liquefaction & swelling potential evaluations were performed. Lefranc permeability & geo-electric tests were also done at the site.



Talaeyeh town

Tabriz, Iran, 2024

Client: Hamyari Organization of Tabriz Municipality

Geotechnical study of the project included drilling 11 boreholes with overall depth of 338 m using continuous coring method, sampling, in situ and lab testing in 132-ha talaeyeh town.



Shilat Industrial Shed

Tehran, Iran, 2021

Client: College of Agriculture & Natural Resources of University of Tehran

Geotechnical study of the project included drilling 5 boreholes with overall depth of 68.5 m using continuous coring method, sampling, in situ and lab testing.

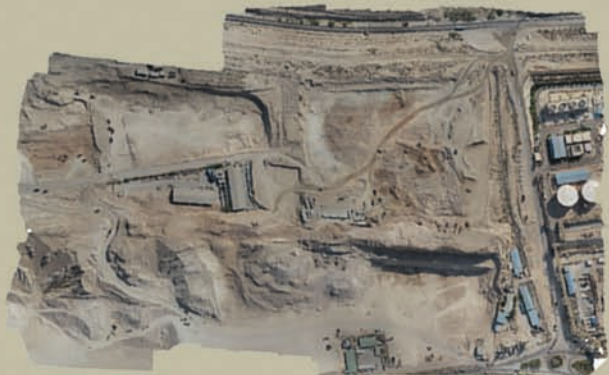


Farsa-Chimie Petrochemical Plant

Asaluyeh, Iran, 2024

Client: Farsa-Chimie Petrochemical Co.

The project included conducting surface geological studies, in situ testing, preparing a supplementary geotechnical study program, presenting a stability plan for existing slopes, retaining wall design, preparing site execution plans, required levels for foundation implementation as well as surface drainage design and surveying a total area of 20 hectares.



Featured Geotechnical Projects / Consulting

Talaeyeh town Tabriz, Iran, 2024

Client: Hamyari Organization of Tabriz Municipality

The project included stability assessment and design of retaining system for slopes adjacent to the 132-ha Talaeyeh town with the maximum height of 45m & about 2-km length.



Vesal & Saba towers Tabriz, Iran, 2023

Client: Kosar Azerbaijan Co.

The project included design of temporary soil nailing system & reinforced concrete piles for the 13-m deep excavation for the two 19-story residential buildings. Full depth of the excavation was through the fill material.



College of Interdisciplinary Science and Technologies Tehran, Iran, 2021

Client: University of Tehran

The project included design & construction supervision of temporary retaining wall structure with soil nailing for the 13-m deep excavation & 3300 m² wall area.



Shilat Industrial Shed Tehran, Iran, 2021

Client: College of Agriculture & Natural Resources of University of Tehran

The project included design of temporary soil nailing system & permanent Geogrid retaining wall with 7-m depth, adjacent to a river.





Other Main Projects

Geotechnical / Consulting

Residential, commercial, or administrative projects

Clients

Geotechnical and seismic studies and drainage system design for a 23-story residential complex, Tabriz, Iran

Municipal Housing Cooperation.

Site investigation & geotechnical studies for Golpad 19-story entertainment – residential complex, Anzali, Iran

Nosa Co.

Site investigation & geotechnical studies for Khajeh Nasir hospital, Maragheh, Iran

Maraghe Darman Gostar Co.

Site investigation & geotechnical studies for Nasr-1052 residential complex (21-story) , Tabriz, Iran

31 Ashura Housing Cooperation

Site investigation & geotechnical studies and design of deep excavation system for underground market for Imam Hosein square, Urmia, Iran

Heram Omran Azar Co.

Site investigation & geotechnical studies for residential complex of Farhangian (overall area of 100,000 m²), Miyandoab, Iran

Farhangian Housing Cooperation

Transportation

Clients

Site investigation & geotechnical studies for technical structures of Shahindej-Tekab road and tunnels, West Azerbaijan, Iran

Technical Administration, Ministry of Roads & Urban Development

Site investigation & geotechnical studies for Razan-Aavaj road, Tehran, Iran

Construction & developing of transportation infrastructure company- Ministry of Roads & Urban Development

Site investigation & geotechnical studies for Spiran Bridge at 90+19 station, Tabriz-Spiran highway, Tabriz, Iran

Ministry of Roads & Urban Development



Industrial

Clients

Site investigation & geotechnical studies for a power station site, Rasht, Iran

Faraniroo Co.

Site investigation & geotechnical studies for Sahand Kaj paper factory site, Tabriz, Iran

Azar Nasb Gostaran Co.

Site investigation & geotechnical studies for 230.63 KV power station site, Ardabil, Iran

Satavand Co. Tabriz

Site investigation & geotechnical studies for power station site, Chaboksar, Iran

Faraniroo Co.

Site investigation & geotechnical studies for an industrial hall of 1,800m² , Tabriz, Iran

Saf Film Co.

Site investigation & geotechnical studies for Marand glass fiber factory site, Marand, Iran

Marand Glass Fiber Development Company

Site investigation & geotechnical studies for water tank sites in Shahd-Bab factory site, Tabriz, Iran

Shahd-Bab Pars Co.

Water Engineering

Clients

Site investigation & geotechnical studies for diversion dam & water conveyance canal of Boylapoosh dam, Khoy, Iran

West Azerbaijan Regional Water Authority

Geotechnical studies for a borrow mine of Givi Zaviyeh earth fill dam, Khalkhal, Iran

Ardabil authority of agriculture

Site investigation and geotechnical studies for Geynarjeh earthfill dam, and its borrow mine, Tekab, Iran

West Azerbaijan Regional Water Authority

Site investigation & geotechnical studies for Khangahe Sorkh earth fill dam, Urmia, Iran

West Azerbaijan Regional Water Authority

Site investigation & geotechnical studies for upstream lands of Khodafarin irrigation network, Khodaafarin, Iran

West Azerbaijan Regional Water Authority

Featured Geotechnical Projects/EPC

Nosazan 14

Tehran, Iran, 2011-2013

Client: Urban Renewal Organization of Tehran & A.S.P Co.

The project included geotechnical investigation, design and construction of retaining wall system for commercial and residential complex of Nosazan 14. Soil nailing system was constructed for a 16-m deep excavation with 8,000 m² wall surface area.



Mellat Bank East Az. Administrative Center

Tabriz, Iran, 2014

Client: Tehran Civil Co.

The project included design & construction of temporary soil retaining structure with soil nailing and anchoring system for the 13.5-m deep excavation with 900 m² wall surface area, adjacent to several multi-story buildings.



Ahvaz Chamber of Commerce Building

Ahvaz, Iran, 2012

Client: Ahvaz Chamber of Commerce, Industries, Mines & Agriculture

The project included design and construction of temporary soil support system for excavation of underground levels. The system was designed using soil nails & underpinning piles for a 9-m deep excavation with 1,200 m² wall area. Existing a higher ground water level and adjacent old and unstable buildings were some of the challenges for this project which successfully overcome by innovative and cost-effective measures.

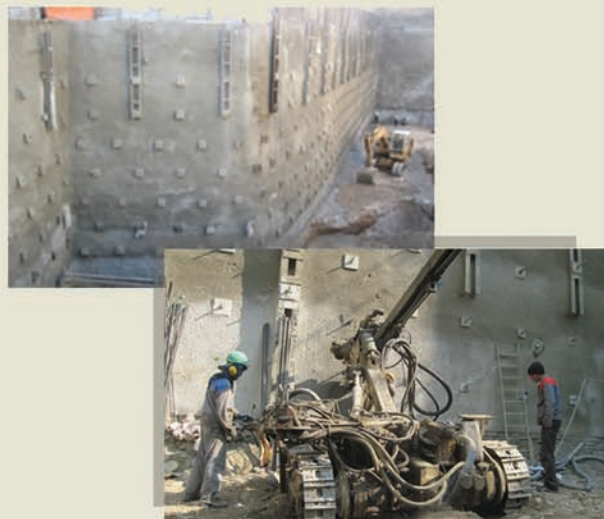


Iran Insurance co. Regional Headquarter

Tabriz, Iran, 2012

Client: Azar Sadid Co.

The project included design and construction of temporary soil support system for the underground levels of the building. The system was designed using grouted & pre-stressed anchors, soil nails & underpinning piles for a 11.5-m deep excavation with 1,000 m² wall surface area to secure stability and safety of the adjacent old buildings and pavements.



Featured Geotechnical Projects/EPC

Kouh-e-Noor Complex

Tabriz, Iran, 2014

Client: Ista Saz Co.

The project included design and construction of temporary soil nailing system for a 10-m deep excavation adjacent to several buildings including an 8-story building with 700 m² wall surface area. The excavation was about 3-m beneath the ground water level.



Mellat Insurance Co. Administrative & Commercial Complex

Tehran, Iran, 2013

Client: Mellat Insurance Co.

The project included design & construction of temporary soil nailing and anchoring system for a 13.5-m deep excavation with 900 m² wall surface area adjacent to multi-story buildings.



Arman Building Export Development Bank of Iran,

Tehran, Iran, 2013

Client: Safiran Export Development & Investment Co.

The project included design and construction of temporary soil support system for Arman building. The system was designed using grouted prestressed anchors, soil nails & underpinning piles for a 13-m deep excavation adjacent to high-rise buildings at east and west sides with 900 m² wall surface area.



Nasr Residential Complex

Tabriz, Iran, 2017

Client: Ashura Housing Cooperation

The project included design and construction of a temporary soil nailing system and a permanent MSE (geogrid) retaining wall for a 15-m high and 1,040 m² surface area.



Featured Geotechnical Projects/EPC

Metro Park Shopping Center

Tabriz, Iran, 2018

Client: Faraz Saze Fazayand Co.

The project included construction of temporary soil nailing and permanent drainage system for a 12-m deep excavation with 3,400 m² wall area.

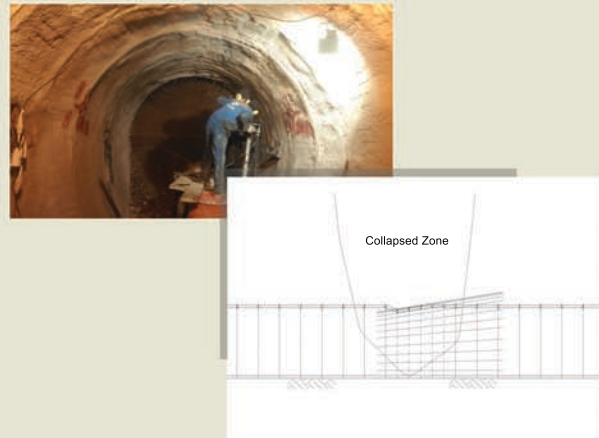


Tabriz 230 kV Cable Transmission Tunnel

Tabriz, Iran, 2017

Client: Azerbaijan Regional Electricity Company, (Alamoot Co)

The project included design and construction of stabilizing system for the collapsed part of the Tabriz cable transmission tunnel (Energy tunnel). Treating the collapsed region was a great challenge and forepoling method was utilized to this purpose within an approximate length of 6-m of the tunnel line. The overall drilling length of forepoled stabilizer bars was about 140-m.



UT Faculty of Entrepreneurship & UT Science & Technology Park

Tehran, Iran, 2015

Client: University of Tehran (UT)

The project included design and construction of two temporary soil nailing systems of a 14-m and 10-m deep excavation with 2,500 m² and 2800 m² wall surface area respectively.

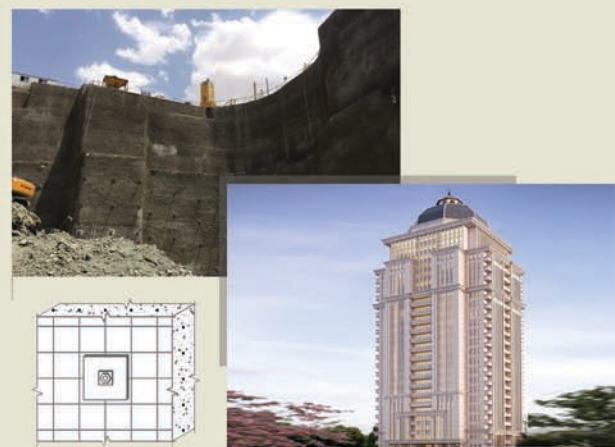


Tavrij Residential Tower

Tabriz, Iran, 2016-2017

Client: Iransazeh Co.

The project included design and construction of retaining soil system for 32 story residential Tavrij Tower. Stabilization system comprised of nailing and soldier pile-anchorage system with overall drilling length of 11,000-m for a 27.5-m deep excavation. The total stabilized walls surface area was 4,000 m².



Featured Geotechnical Projects/EPC

Navia (Ayman)

Tabriz, Iran, 2020-2021

Client: Maskan Investment Group Co./ northwest branch

The project included design and construction of permanent system of the Navia (Ayman) residential complex with 15 m depth & 2150 m² wall area. The system was designed using grouted prestressed anchors and reinforced concrete piles with overall 3200 m pile driving.



Setayesh Tower

Tabriz, Iran, 2020

Client: Kosar Azerbaijan Co.

The project included construction of soil nailing and ground anchorage systems for the 13-m deep excavation with 1300 m² wall area.



Faculty of Process Eng

Tabriz, Iran, 2022

Client: University of Tabriz

The project included design & construction of temporary soil nailing system of 6.5-m deep excavation with 150 m² wall area as well as site preparation, compaction and drainage system Implementation.



Ommat Building

Tabriz, Iran, 2019-2020

Client: Mr. Gaane Fard

The project included design & construction of ground anchorage system with concrete piles for the 8.5-m deep excavation. The site was located adjacent to an old commercial building with about 7-m of fill material.





Architectural & Structural Engineering

Innovative Design, Positive Solutions

Outstanding buildings are fulfilled by design and innovation; Architecture creates a new language based on the contextual inspiration and thus create new context as added value for the users. Responses to the new challenges of architecture based on values of economy, efficiency and sustainability are naturally integral parts of our architects' everyday work. Z.J Engineering has designed numerous contemporary residential and commercial projects through a multidisciplinary approach that involves client and consultants early in the design process. It is these strong relationships with both client and consultant that ensure a successful project.

Services offered

Architectural and Structural Design:

Schematic Design (SD),
reports and drawings

Design Development (DD),
reports and drawings

Construction Design (CD),
reports and drawings

Supervision

Construction Supervision and
Inspection

ZaminJarfab Engineering's Architectural and Structural Engineering team, have a breadth of knowledge in multiple project types and construction methods. A team-oriented studio atmosphere organizes the office, whereby each project benefits from the experiences of multiple team members. The architectural and structural engineering studio of Z.J Engineering and its members has been involved in design of creative spaces for some organizations and persons. The design of corporate projects involves developing a visual corporate pattern, corporate design guidelines, workplace analysis and strategies as well as dynamic interior architectural spaces.

Z.J Engineering has a strong focus on profitability, human well-being, sustainable solution and exquisite quality. The aim is to match or even surpass the client's expectations. The architectural and structural engineering team sees each assignment as an opportunity to explore the design potential of client's needs, translating a specific program into a distinctive architectural expression.



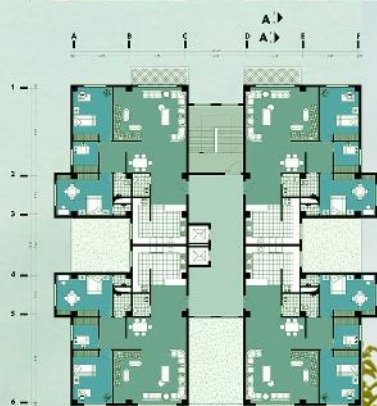
SECTION A-A



NINTH- TENTH
FLOORS PLANS



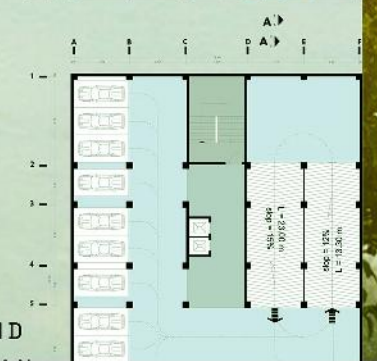
FIRST - 8TH
FLOORS PLANS



GROUND FLOOR PLAN



FIRST AND SECOND
UNDERGROUND PLANS



One major element of the quality of housing conditions is the availability of sufficient space in the dwelling. The main subject that has been developed to describe space problems is the overcrowding rate, which assesses the proportion of people living in an overcrowded dwelling, as defined by the number of rooms available to the household, the households size, as well as its members ages and family situation.





Yaqchian Resindental Complex

Designed by ZaminJarfab Architects

Featured Architectural and Structural Engineering Projects

Tekab Municipality Building

Tekab, Iran, 2011

client: Tekab Municipality

Provided schematic, development, and construction design reports and drawings for the multifunctional building of Tekab municipality. Area: 6,240 m²



Mehr Ghadir Residential Complex, 3,300 Units.

Sahand City, Iran, 2009

Client: Iran Aircraft Manufacturing and Industrial Co.

Provided schematic, development, and construction design reports and drawings for a residential complex including 142 blocks in 13 complexes.



Mehr Ghadir Residential Complex, 2,600 Units

Sahand City, Iran, 2009

Client: Iran Aircraft Manufacturing and Industrial Co.

Provided schematic, development, and construction design reports and drawings for a residential complex including 113 blocks in 4 complexes.



Tekab Farhangiyan Residential Complex, 192 Units

Tekab, Iran, 2008

Client: Tekab Housing Cooperation Co.

Provided schematic, development, and construction design reports and drawings for residential complex including 13 steel-frame blocks.



Featured Architectural and Structural Engineering Projects

Residential Complex of Resalat Housing Cooperation Co. 186 Units.

Maraghe, Iran, 2008

Client: Resalat Housing Cooperation Co.

Provided schematic, development, and construction design reports and drawings for residential complex including 3 blocks.



Shahid Motahari Urban Bus Terminal Complex

Tariz, Iran, 2015

Client: Tabriz Municipality

Provided schematic design drawings and reports for a multifunctional urban bus terminal including hypermarket and roof garden.



Chaykenar Shopping Center

Tabriz, Iran, 2016

Client: Tabriz Municipality

Provided proposal and schematic design drawings and reports for the multifunctional shopping and cultural center.



Diba Shopping Center

Tehran, Iran, 2017

Client: Royin Dezh Beton Co.

Provided proposal design for architectural competition for Diba shopping center in the Tehran Bazar's historical context.



Earthquake Engineering / Retrofitting

Ground Motion Assessment, Safety Enhancement

Earthquake is one of the major geological hazards in the planet. Most of the damages and loss of lives in earthquakes are a result of ground shaking. Buildings can be damaged by the shaking itself or by the ground beneath them settling to a different level than it was before the earthquake. To reduce the earthquake related losses, Z.J. Engineering delivers customized solutions based on an agreement on the performance objectives of the owners or clients. The ground motion specifications suitable to the project is determined and an efficient seismic-resistant design and construction approach is provided.

Services offered

Consultancy Services

Seismic Vulnerability
Assessment

Seismic Hazard

Seismic Analysis and
Design of Structures

Material Property Evaluation
for Existing Structures

Retrofit Design for Existing
Structures

EPC Services

Rehabilitation and Retrofitting
Systems for Structure

Shear Walls

Steel Braces

Steel / Concrete Jacketing

FRP Sheet Wrapping

Soil and Foundation Rehabilitation

Micropiles

Piers / Pit-Underpinning

Cement / Chemical Soil Grouting

Deep Soil Mixing (DSM)

Stone Columns

Mechanically Stabilized Earth Walls

Soil Nailing

Jet Grouting

Building Settlement Treatment

ZaminJarfab Engineering is one of the leading consultancy and service provider in earthquake engineering all over Iran. With over ten years of experience in this area, Z.J has been able to utilize the methods that minimize costs for clients, while providing fully effective services in compliance with governing instructions and standards.

Z.J earthquake engineering consultancy services include: rehabilitation, seismic retrofit, seismic design and seismic vulnerability assessment for residential, commercial, industrial, and military structures seismic hazard analysis, and material property evaluation of existing structures. We also provide construction and EPC services for above services professionally.



▲ FRP Sheet Wrapping



▲ Z.J Engineering technician using coring machine



▲ Piers / Pit-Underpinning



▲ Rebar scanning

Featured Earthquake Engineering / Retrofitting Projects

School Buildings in Tabriz and Heris East Azerbaijan, Iran

Client: East Azerbaijan Administrative Office for Development, Renovation and Equipping Schools.

The projects included seismic vulnerability assessment and material resistance studies followed by retrofitting and rehabilitation designs of 3 school buildings, one located in Tabriz and two in Heris, with overall building area of 4,495 m². New shear wall system has been added to the building in these projects.



Building of Tabriz Islamic Art University Tabriz, Iran

Client: Tabriz Islamic Art University

The project included seismic rehabilitation, material resistance studies and seismic vulnerability assessment followed by retrofitting and rehabilitation design of the 2-story historical building with 3,880 m² area and adding new masonry walls (5-m height and 75-cm thickness) as lateral resisting system.



Tabriz Water Supply System Tabriz, Iran

Client : East Azerbaijan Water and Waste Water Co.

Seismic rehabilitation studies and material resistance evaluation of the facilities included in-situ tests (coring, rebar scan, Schmidt hammer, ultrasonic pulse velocity, etc.) and laboratory tests (uniaxial compressive test, penetration resistance test and ultrasonic pulse velocity test for concrete core, rebar tensile strength test).



Sheikh Mohammad Khiabani Commercial Building Tabriz, Iran

Client: Khaneman Azar.

The project included seismic vulnerability assessment and retrofitting system design of a 4-story building with 2,700 m² area using concrete shear walls, FRP sheet wrapping, steel jacketing and foundation dimension correction.



Featured Earthquake Engineering / Retrofitting Projects

Resalat Residential and Commercial Building

Tabriz, Iran

Client: Azar Peyman Co.

The project included liquefaction potential assessment and design of soil improvement system using gravel columns (60~80 cm diameter and 8-m length) of two residential and commercial buildings with 3 and 10 stories and 2,370 m² site area.



School Building

Ardabil province, Iran

Client: Ardabil Administrative Office for Development, Renovation and Equipping Schools.

The project included seismic vulnerability assessment and material resistance studies followed by retrofitting and rehabilitation system design using braces, shotcrete, foundation dimension correction, piers, etc. Four masonry buildings with overall area of 6,282 m² and 8 steel frame buildings with overall area of 6,350 m² were assessed.



Garebaghiler Residential Building

Tabriz, Iran

Client: Mr. Notash

Foundation repair, design and Implementation by underpinning to prevent the excessive foundation settlement of 5- story residential building causing about 20-cm maximum deviation from vertical direction in top story.



Golha Complex Gas Station

Tabriz, Iran

Client: Sahand Ab Azerbaijan Consortium (SAACO)

The project included design & construction of an underpinning system and jacking up Golha gas station to prevent extra deformations and recover from induced differential settlements.



Featured Earthquake Engineering / Retrofitting Projects

Keshavarzi Bank building

Azarshahr, Iran, 2024

Client: East azerbaijan Keshavarzi Bank

The project involved Qualitative and Quantitative Vulnerability Assessment and Geotechnical Studies for the Bank building



Shahid Ghazi Tabatabai Telecommunications Center

Tabriz, Iran, 2023

Client: Naak Co.

The project involved Conducting Material Testing and Geotechnical Studies for the Structural and Seismic Evaluation Project of the Telecommunications Center.



Gas Facilities

East Azerbaijan Province, Iran, 2021

Client : Iranian Gas Transmission Co.

The project involved drilling, coring and material testing operations for Marand-Marganlar-Julfa-Zanjan-Hashtrud Facilities which are a part of gas transmission pipelines to Turkey.



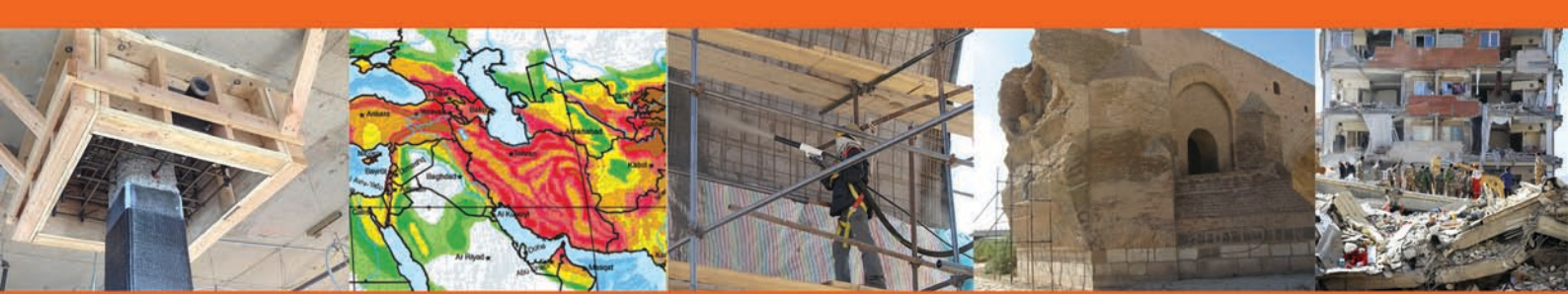
Salmas building

Salmas, Iran, 2023

Client: Mr. Rezayi

The project involved design & recovery of differential settlements for a 11-story residential building. Underpinning and jacking methods were used to recover about 37 cm differential settlement.





Featured Retrofitting Projects /EPC

Geotechnical / Consulting

Residential and Commercial Projects

Clients

Seismic vulnerability assessment in accordance with Iranian national codes, material resistance tests, providing strengthening system design by truss elements for Real Estate Registration Office of Osku town of East Azerbaijan-Iran

Real Estate Registration General Office of East Azerbaijan Province

Site-specific seismic hazard analysis for Gole-Sharg commercial complex, Tabriz-Iran

Bab Iran Co

Site-specific seismic hazard analysis for 19-story Atlas commercial center, Tabriz-Iran

Iran Atlas Co

Site-specific seismic hazard analysis for 6-story Negin Khavaran commercial center, Tabriz-Iran

Negin Khavaran Investment Group

Site-specific seismic hazard analysis for 23-story Bagche Ban residential building, Tabriz-Iran

HAPCO Consortium

Site-specific seismic hazard analysis for 15-story Nasr residential complex, Tabriz-Iran

Azerbaijan Housing Complex Co

Site-specific seismic hazard analysis for six 48-story SMP-center buildings, Tabriz-Iran

SMP-Center Group

Site-specific seismic hazard analysis for 18-story 31st- Ashura housing Cooperation Building Tabriz-Iran

31st-Ashura Housing Cooperation

Site-specific seismic hazard analysis Besat residential building Tabriz-Iran

East Azerbaijan Farhangian Housing Co

Foundation study, repair design and implementation by underpinning for an electrical substation building, Urmia-Iran

West Azerbaijan Regional Electricity



Water Engineering

Water management, Better future

An essential part of everyday life, water can be seen from many angles. The management of water is multi-faceted requiring a delicate balance between social, environmental and economic needs. In this context, we aim to convert our hydrology, ecology, civil engineering and environmental knowledge into solutions to manage the challenges of this natural resource. Our approach considers the entire project lifecycle from feasibility to the investigation, construction to operation and maintenance.

Services Offered

Water Infrastructure and
Systems Design

Water Engineering
Investigations and Studies

Water Resources Management

Catchment Management

Hydrology Services

Irrigation engineering

Drainage Consulting

Drainage Waste Management
Plans

ZJ offers a wide range of services including the design of water-related infrastructure and systems, investigations and studies concerning water engineering, water resources, catchment management, and hydrology as well as services in water and irrigation engineering. We also provide a range of drainage consulting and Drainage Waste Management Plans to manage ground water challenges in urban projects. Our approach considers the entire project lifecycle from feasibility to the investigation, construction to operation and maintenance. We are committed to providing sustainable and innovative water and irrigation engineering solutions that meet the needs of our clients and the communities they serve.



Kurdkandi dam

Bostan Abad, Iran, 2016-2018

Client: East Azerbaijan Agricultural Organization

The project involved design revise, general and workshop supervision of execution operations of pressurized irrigation network in the downstream of kurkandi (Vahdat) dam. The overall land area was 176 ha.



Taleghani complex

Tabriz, Iran, 2021

Client: Azerbaijan Housing Development Co.

The project involved construction of the parking drainage plan in the 888-Unit Residential Project. The overall site area was 5.5 ha.



Tailing dam

Gedabey, Republic of Azerbaijan, 2019

Client : Azerbaijan International Mining Company Limited (AIMC)

The project involved independent review of containment quality associates (CQA) design and construction supervision of the Gedabey Tailings Project.



Feasibility Studies for the First Phase of Qeynarjeh Dam

Tekab, Iran, 2017

Client: East Azerbaijan Regional Water Authority.

The project included feasibility studies for the first phase of the Qeynarjeh Dam, a reservoir dam for storing and supplying water for agricultural use (Reservoir volume: 2.5 million cubic meters, Dam height from natural bed: 17 meters, Dam type: embankment with clay core, Dam crest length: 560 meters)



Construction Monitoring

Precise Monitoring, Achieving Quality

Z.J Engineering is large enough to offer the range of services needed, but small enough to deliver projects with personal attention to our clients' quality standards, schedules, and budgets. Our skilled teams take pride in guiding a project from conception to successful completion.

Services Offered

Construction Management

Construction Inspection and Testing

Instrumentation

Construction services are often the most critical but often the most overlooked portion of a successful project. Experienced inspectors provide the key element needed to transform a design into reality and address real-time field conditions.

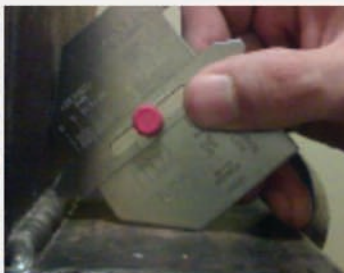
Our team includes inspectors experienced in all facets of construction ranging from materials testing to water and roadway inspection. The primary focus is performing a quality control and construction improvements to ensure they are installed according to plan. Additional services include construction staking, as-built survey and contract preparation. Our construction capabilities make Z.J Engineering a multi-disciplinary engineering firm.



▲ Quality control of Asphalt implementation of Urmia lake's bridge



▲ Construction supervision



▲ Welding quality control



▲ Quality control of Earthwork operations

Featured Construction Monitoring Projects

Construction Supervision of 9,300 Residential Units

Sahand city, Iran, 2010

Client: Omran Co. of New Sahand City

The project involved management & superior supervision of more than 60 contractors.



Construction Supervision of Mehr Ghadir Project

Sahand city, Iran, 2010

Client: Iran Aircraft Manufacturing Industrial Company

The project involved 3rd phase construction supervision of 142 blocks (3,003 units).



Construction Supervision of Tekab Housing Cooperation Project

Tekab, Iran, 2010

Client: Tekab Housing Cooperation Co.

The project involved 3rd phase construction supervision of 13 steel-frame blocks (192 units) with screw connections.



Atlas Trading Center

Tabriz, Iran, 2008

Client: Iran Atlas Co.

The project involved concrete quality control of 19-story Atlas Trading Center with 13,000 m²



Featured Construction Monitoring Projects

Quality Control of Diversion Dam & Water Conveyance Canal of Boylapoosh Dam Khoy, Iran, 2011

Client: Village Water & Sewage Company of West Azerbaijan

The project involved quality control of earthwork operations and concrete testing at job site laboratory.



Field Quality Control of DeirAli Dam salmas, Iran, 2011

Client: Village Water & Sewage Company of West Azerbaijan

The project involved quality control of earthwork operations and concrete testing at job site laboratory.



Implementation Monitoring West Azerbaijan Province, Iran, 2019-2024

Client: Bonyad Maskan Revolution of Iran, West Azerbaijan Province

The project involved monitoring of the implementation of rural development plans (Earthwork, Concrete, and Asphalt Operations) in West Azerbaijan Province



Combined Cycle Power Plant Heris, Iran, 2019-2022

Client: Tana Energy Co.

The project involved on-site laboratory and quality control services for the 500 MW Heris Combined Cycle Power Plant project





Construction Monitoring Featured Projects

Project	Client
Establishment of job-site laboratory & field QC of Meher housing, Urmia, Iran	Mehr Cooperation
Establishment of job-site laboratory & field QC of East Azerbaijan jurisdiction project , East Azerbaijan, Iran	Ministry of Roads & Urban Development
Establishment of job-site laboratory & field QC of Mahmoodabad water distribution network	National Iranian Oil Country
Concrete quality control of 22nd & 38th Tazilu cooperations, Urmia, Iran	Tazilu Housing Cooperation
Concrete quality control of 7th & 60th Golman cooperations, Urmia, Iran	Iran Sadra Co
Complete construction supervision of a 6-story building with 3,100 m ² area, Tabriz, Iran	Foundry Housing Cooperation of Tabriz Machine Manufacturing
Complete construction supervision of residential complex with 3,200 m ² area, Tabriz, Iran	Mr. Shamsolgarai
Architectural supervision of a 8-story residential complex with 1,200 m ² area, Tabriz, Iran	Mr. Merikhi
Concrete quality control of Andisheh residential complex with 176 units Tabriz, Iran	Foundry Housing Cooperation of Tabriz Machine Manufacturing

▼ Construction supervision of Tekab Housing Cooperation project





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