

TURKAZ

# TURKAZ

# ENGINEERING

## PRESENTATION

Explore our mission, vision, and the innovative solutions that help us shape the future of engineering. Discover how we deliver excellence and set new standards in the industry.





FLAME TOWERS



# COMPANY **OVERVIEW**

Turkaz Engineering is a premier engineering and consulting firm dedicated to delivering top-quality solutions in infrastructure, project management, and construction consulting since 2011. We leverage cutting-edge technology and our team's expertise to provide accurate, reliable services in topographic surveying, 3D modeling, and more. Our focus on excellence and client satisfaction has established us as a trusted partner both in domestic and international markets.



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# WHAT WE DO?

## **EXCAVATION AND LAND SURVEYS**

We perform excavation work, volume calculations, and detailed topographic surveys. We conduct land surveys to determine property boundaries and generate detailed orthoimages. Our expertise includes calculating land area and producing accurate geospatial data, which is essential for effective land management and planning.



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# MATTERPORT PRO3 LIDAR TECHNOLOGY

Matterport Pro3 is a cutting-edge lidar scanner that captures immersive 3D images and high-resolution spatial data, making it ideal for accurate virtual tours and detailed property documentation. With advanced lidar technology, the Pro3 can quickly scan large areas, creating precise 3D models for architecture, real estate, and construction projects.

- .OBJ: 3D object files for general 3D modeling.
- .XYZ: Point cloud data for CAD software.
- .DXF: Drawing Exchange Format for 2D floor plans.
- .PDF: Floor plans and schematic views.



## HIGH-RESOLUTION 3D SCANS

Captures high-quality scans for real estate, architecture, and construction projects.

## 3D WALKTHROUGHS

Provides virtual tours with realistic walkthroughs, ideal for presentations and planning.

## CAD INTEGRATION

Exports scans for CAD and BIM applications. Allows users to take measurements directly from the 3D model.

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# WHAT WE DO?



## ADVISORY AND CONSULTING

We offer high-quality advisory services for metal construction projects, utilizing advanced measurement tools and experienced personnel. Our goal is to ensure precision and expertise in each project we consult on.

## TECHNICAL INFRASTRUCTURE PROJECTS

Our team manages and consults on projects such as:

- Sewer systems
- Drinking water and rainwater infrastructure
- Natural gas installations We handle both design and application, ensuring sustainable and effective infrastructure solutions.

# WHAT WE DO?

## 3D MODELING AND BUILDING SURVEYS

We specialize in 3D facade surveys and building analysis, using the latest technologies to create detailed visualizations. These services support various stages of construction and renovation projects, enabling precise measurements and high-quality outputs.



# WHAT WE DO?

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# THE TECHNOLOGY AND EQUIPMENT WE USE

Our company uses the latest and most precise equipment for surveying and mapping, ensuring reliable and accurate results. Equipped with advanced GNSS and GPS RTK systems, total station devices, and laser scanners, our team provides high-quality data collection and analysis for various engineering and infrastructure projects.

## GNSS AND GPS RTK SYSTEMS

- Gintec GNSS GPS RTK: A high-precision GPS system for real-time kinematic (RTK) positioning.
- Comnov GNSS GPS RTK: A reliable GNSS system for various surveying applications.

## LASER SCANNERS AND DRONE TECHNOLOGY

- Faro M70 Laser Scanner: A laser scanner that captures detailed measurements for 3D modeling.
- Matterport Pro3 Lidar Scanner: A lidar scanner for high-resolution 3D mapping and modeling.
- DJI Mavic 3 Enterprise RTK: An RTK-equipped drone for precise aerial mapping and surveying.

## TOTAL STATION DEVICES

- LEICA TS 03 Total Station: A versatile total station for precise angle and distance measurements.
- Geomax Zoom 50 Total Station: A user-friendly device for accurate land surveying tasks.

- **Surveying and Mapping Services for Construction Sites**

We provide comprehensive surveying services for construction projects, including daily layout and elevation works. Our rental surveying equipment includes Total Station, Level (Nivo), and GPS, ensuring precise measurements for all types of projects.

Our topographic and cadastral mapping services cover existing condition (halihazır) maps, strip maps, plankote surveys, tree surveys, and volume calculations. Additionally, we offer specialized surveying services for mining and quarries, including measurement services for mining sites, volume (cubic) calculations for quarries, longitudinal and cross-section drawings, and excavation volume calculations.

For architectural and archaeological surveys, we provide façade surveys, archaeological surveying and mapping services, as well as exterior façade measurement and documentation. Our infrastructure project services include route staking for infrastructure crossings, elevation and axis tracking for infrastructure works, as-built survey and preparation, and landscaping/environmental design solutions.

In road projects, we handle route determination, marking of upper and lower slopes, road excavation monitoring, volume calculations, and construction tracking. We also specialize in concrete structure surveying, such as benchmark setting for lean concrete, foundation axis measurements, column axis and elevation services, and precision screed elevation tracking.

For steel structures, we provide precision anchor bolt staking and monitoring, 3D steel structure surveys, and steel axis and elevation staking. Our expertise extends to dams and hydroelectric power plants (H.E.S.), covering underwater measurements, bathymetric surveys, coastal and offshore construction measurements, current velocity measurements, and shipbuilding/shipyard measurement services.

We offer project design and consultancy services, including road project design and as-built preparation, infrastructure project design (sewage, stormwater, drinking water, etc.), energy transmission line and communication line surveys, and landscaping project design. Our height measurement services include antenna tower height measurement and survey, high-rise building measurement and survey, and energy transmission line measurement.

Lastly, we conduct deformation measurements for bridges, tunnels, viaducts, concrete structures, dams, railway systems, historical buildings, industrial facilities, retaining walls, and shoring systems. Our precise and reliable measurements ensure structural integrity and long-term stability for various engineering projects.



- We utilize state-of-the-art LiDAR and thermal drones to conduct precise and high-accuracy measurements across large-scale areas. Our advanced technology allows us to efficiently collect and analyze geospatial data for various industries, including energy sector projects. We specialize in surveying and mapping solar power plants, hydroelectric power plant (HPP) project sites, wind turbine farms, and other energy infrastructure developments. Our expertise ensures reliable data for engineering, construction, and land management applications, optimizing project planning and execution.



**Our company holds a state engineering geodetic survey license issued by the Republic of Azerbaijan and an ISO 9001 certification in compliance with international standards.**

### Hotel Project

- Quba Rixos hotel
- Siyazan Qalaalti hotel
- Baku Marriott hotel bulvard
  - Dinamo hotel
- Lənkəran Sprink hotel
- Courtyard by Marriott hotel
- Hilton Graden Hotel
- Boutique 19 hotel
  - Art hotel
- Merchand hotel
- The Ritz-Carlton
  - Shusha hotel
  - Abseron Hotel
- The Digital twin of La Luna Hotel removal

### Dam Industrial Plant and Infrastructure H.E.S and G.E.S Project

- SOCAR Ammonia and Urea Plant
- Accort Cement Plant
- Gobustan Power Plant Project
- Mingachevir Power Plant Project
- Gobustan-Khizi Wind Turbine Project
- Gabala Water Reservoir
- Gobustan Solar Energy Project
- Togana-Kalbajar Water Pipeline Project
- MR.FIX Factory
- AZGRANATA Warehouses
- Kurdamir-Masalli-Hajigabul Infrastructure Works
- Amburan Villas Infrastructure Projects
- SOCAR Oil Refinery Treatment Facility
- Nakhchivan – Measurement of 200 km Electric Transmission Lines
- Yevlakh – Aerial Survey of 500 ha Area via Drone (UAV)
- Kalbajar, Lachin, Gubadli – Aerial Survey of Total 150 km Area via Drone (UAV)

### Mall Project

- 28 Mall
- Gənclik Mall
- Nizami Mall
- Dəniz Mall
- Amburan Mall
- Crescent Mall

### Rezidans Project

- Knightbridge Baku
- Hayat Residence
- Vurgun Residence
- Gulustan Plaza
- Hazar Tv Plaza
- Crescent Residence
- Port Baku Residence
- Sea Breeze Residential Complexes

**Sport and Conference Venues**

- Gobustan Sports Complex
- Gabala Conference Hall
- Baku Congress Center
- Sports Society Facility
- Heydar Aliyev Sports Complex
- ADA University and School (ongoing)

**Historical Buildings and Stadium Projects**

- Jabrayil, Fuzuli, Aghdam, Zangilan, Kalbajar, Lachin – Historical Structure Projects
- Nobel Historical Building
- New Shusha Mosque
- Digital Twin Modeling of Old Houses in Khinalig
- Baku Olympic Stadium
- Kapaz Stadium
- Tovuz Central City Stadium
- Sumgayit Capital Arena
- ASK Arena
- Bakcell Arena Stadium
- Ganja Stadium
- Khankendi Stadium

**Tower Project**

- Socar Tower
- Baku Tower
- State Property Committee (Əmlak Komitəsi)
- Azersu Headquarters
- Port Baku 2 Business Tower
- National Bank (Milli Bank)
- Baku Boxing Federation

**Villa, Store, and Restaurant Projects**

- Starbucks Project
- Pidem Project
- Bigchef Project
- Boss Store
- Levis Store
- Burunello Store
- Defacto Store
- Paulaner Restaurant
- Mirvari Restaurant
- Aveneu Boutique
- El Portalon Restaurant
- Fireworks Restaurant
- Marivanna Restaurant
- Şekerci Cafe
- Buzovna Bitch
- Vandan Villa Project
- Amburan Villa Project
- White City Villa Project
- Bilgah Villa Project (Landscape)

• Paşa Development

- Azerenerji
- Met Design
- Work Place
- Mec Design
  - Tulpar
- FF Group
- Bcc Group
- Siba Enerji
  - Sinerji

• Semrat Mühendislik

- Technomak
- DOST AGRO
- CCN Altyapı Yatırım
  - Mace
  - ERA Group
- Az. Elmi-Təd və Layihə-Axtarış Energetika İns
- ARPA Consulting
- ARTCLOUD Network International
  - OASIS

• Qafqaz İnşaat

- Kartaş Kimya
  - Aga Group
  - Promor
- Atadan İnşaat
- Hazar İnşaat
  - UDG
- ICE Design
  - SIS
  - Azfen

# LICENSES AND CERTIFICATES



Permission for conducting engineering and surveying works for buildings and structures requiring a construction permit.



ISO 9001-2015



# PARTNER WITH TURKAZ TODAY

Thank you for taking the time to learn about Turkaz.  
We look forward to the opportunity to work with you  
and help your business achieve its goals.



+994 51 765 90 00  
+90 543 814 96 85



[HTTP://WWW.TURKAZMUHENDISLIK.COM](http://www.turkazmuhendislik.com)



[INFO@TURKAZMUHENDISLIK.COM](mailto:info@turkazmuhendislik.com)



BAKU CITY, YASAMAL DISTRICT, BALABABA  
MƏCIDOV STREET, ENTRANCE 23C



[TURKAZ HARITA](#)