



**BANGLADESH DIGITAL
ENGINEERING**

COMPANY PROFILE

Bangladesh Digital Engineering (BDE) is an independent private company of consultants, engineers and planners which is established in 2023 at Dhaka, Bangladesh. BDE as a multi-disciplinary consulting firm has been extending state-of-the-art services to the government, private corporations and international organizations.

BDE offers a full range of services starting from project conception right up to completion including reconnaissance survey, physical survey, geotechnical investigation, project identification, feasibility study, environmental and social impact assessment, economic studies, re-settlement assessment, planning, detailed engineering, bid documentation, construction supervision, project management, post evaluation etc.

BDE provides, in the most professional manner, consultancy services for a wide range of civil, mechanical, electrical and electronics, energy, health, education, agriculture, environmental & ecology, water resources, socio-economy, IT, research, capacity development training and other social infrastructure projects.

COMPANY DETAILS

- Name of the Company : BANGLADESH DIGITAL ENGINEERING
- Mailing Address : House: 227, Nayatola, Moghbazar, Dhaka-1217, Bangladesh
- Mobile : +8801732661777 , +8801675824660
- E-mail : bangladeshdigitalengineering@gmail.com
info@bdengg.com
- Website : www.bdengg.com
- Type of Organization : Proprietorship
- Income Tax TIN No. : 860531609038
Taxes Zone 12, Dhaka
- Year of the Establishment : 2023
- Trade License No. : TRAD/DNCC/149926/2022
- Name of Banker : Uttara Bank PLC,
New Eskaton Branch,
Dhaka

ORGANOGRAM





ENGR. MD SAFWAN SAFA

Greetings!!

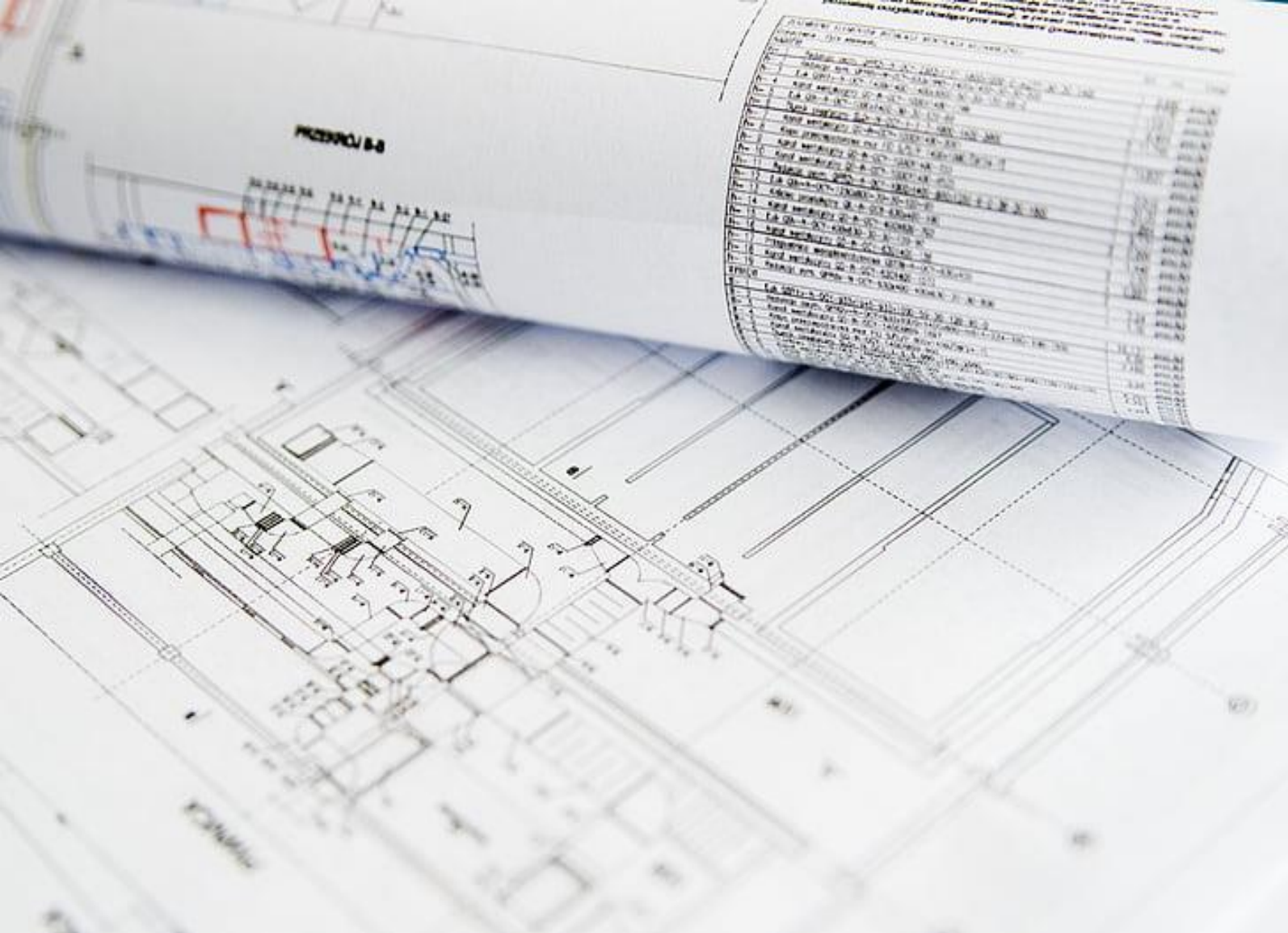
I, Engr. Md Safwan Safa, Proprietor & CEO of Bangladesh Digital Engineering (BDE), a Bangladeshi citizen, born and brought up in the Dhaka City of Bangladesh. I've been residing in this area for three generations. I completed my high school degree from Mastermind English Medium School and bachelor's degree from North South University of Dhaka, Bangladesh. I started my work career from field engineer to working for a mid-level local consultancy firm, to working for a leading local group of companies, to working for a fortune 500 multinational construction company. Throughout my job career I've been associated as an engineer with significant numbers of small to large scale projects in home and abroad.

Surveying and Engineering solutions being the basics of any construction always fascinated me and the continuous quest in providing the best quality solution with technologically advanced equipment and satisfying clients run deep within me as both my father and late grandfather are well-known service providing civil engineers of the country. Thus enabling me to start up my own company called 'Bangladesh Digital Engineering' (BDE) in the year 2023. This was a dream come true moment as I always wished to be ahead of the market technically and technologically and a company of my own could provide both.

I would like to take this opportunity to thank the Almighty for his benevolence showered upon us in all our endeavors and then to our committed workforce. I would also like to thank the Government of the People's Republic of Bangladesh (GOB) for providing mega infrastructure wherein opportunities are plentiful.

Last but not the least, I would like to thank you for reading our company profile. I hope the company profile was able to express our portfolio and services that we intend to offer for our respective clients and we hope our products and services may have served your purpose.

I personally assure you of best services at all times.



MISSION

Support our Clients to reach their vision is our mission.

BDE is committed to fulfilling the needs of its clients and employees through quality service, innovation, and leadership. To facilitate this commitment, the firm is committed to fostering customer knowledge, technical innovation, and focused expertise. BDE is proud that the fulfilment of its mission is often recognized by the public, clients, and the consultancy industry.



5 Mega Projects of 2023

VISION

To provide services with the utmost professionalism, transparency, and accountability in the development issues of Bangladesh and abroad through high quality works. BDE aspires to be the most respected sub-contractor, renowned for:

- Excellence
- Leadership
- Unsurpassed value
- Quality
- Professionalism
- Corporate Social Responsibility



STRATEGY & COMMITMENT

To provide the right building blocks and fit-for-purpose solutions, indefinitely for all our clients so that they can thrive for as long as they please so.

The strategy of BDE is to continue to grow the consultancy business within Bangladesh and globally beyond whilst improving all aspects of operation and performance.

BDE will never walk away from the project and the tasks you entrusted to us to fulfill and we will always put forth the effort and resources to do whatever it takes to complete and deliver your project on time.

CORE VALUES

CUSTOMER SATISFACTION

At BDE, we put our client's need first and strive to exceed their expectation.

QUALITY

We are committed to Quality in our services, products and Excellence in our processes.

INTEGRITY, LOYALTY AND HONESTY

We believe in honest and ethical business practices. We deliver what we promise.

TRUST & RESPECT

We at BDE earn and instill trust by being accountable at every level of our performed work and in all our interactions.

TEAM WORK

Our unified culture and shared knowledge and experience help us achieve our goals. Every personnel at BDE have something to contribute to BDE's survey and engineering teams and this belief is the key to our mutual success.

INNOVATION

We strive to find the best solutions and dare to do things differently and safely.

EXCELLENCE

Attention to details is what makes a great project into an exceptional project. We seek and are committed to achieving outstanding performances and exceptional outcomes.

PASSION

BDE's employees love what they do. They are passionate towards their line of work and eager to take the lead and lead by example.

Cadastral or Title Surveys

- Re-defining land boundaries for ownership
- Subdivisions for land and strata titles
- Determining boundary encroachments
- Preparation of plans for submission under the Government of Bangladesh (GOB) laws



Engineering & Construction Surveys

- Setting out surveys for construction & engineering works
- Height monitoring and land deformation studies
- Bridge and Tunnel surveys
- Land reclamation
- Pipeline and cable laying surveys (power, sewer, etc.)
- Pre-computation
- Grid Line Marking



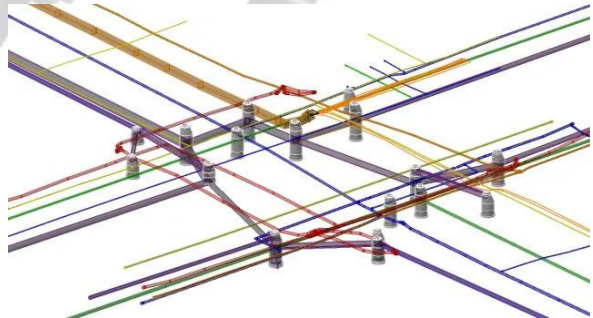
Topographic Surveys (Total Station, GPS/GNSS, RTK, LiDAR)

- Location of detail natural and artificial features on the ground
- Contour and thematic mapping
- Map production



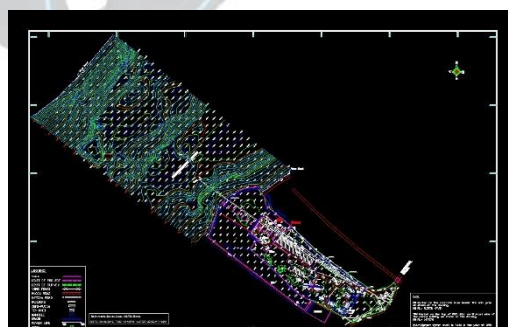
Underground Surveys

- Utility Surveys



Hydrographic Surveys

- Bathymetric Surveys
- Charting and mapping of the near-shore seabed
- Detail set-out of harbor works
- Advising on site selection for offshore pipelines
- Dredging and reclamation surveys
- Consultancy services to shipping and port authorities



Geodetic Surveys

- Establishing large area control network surveys
- GPS (Global Positioning System) surveys
- Precise levelling and establishing Benchmarks



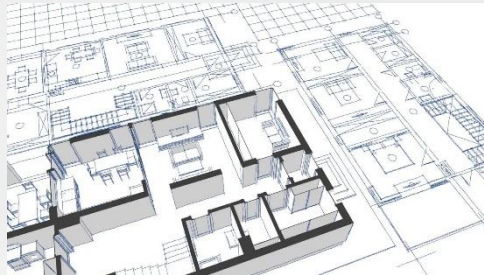
Drone Surveys

- Photogrammetric Surveys
- Aerial photography surveys
- Orthophoto (Orthorectified images)
- Terrestrial photography surveys
- Photo-control point establishment
- Digital terrain modelling
- Urban Planning & Land Management
- Construction Update Survey
- Progression Reports



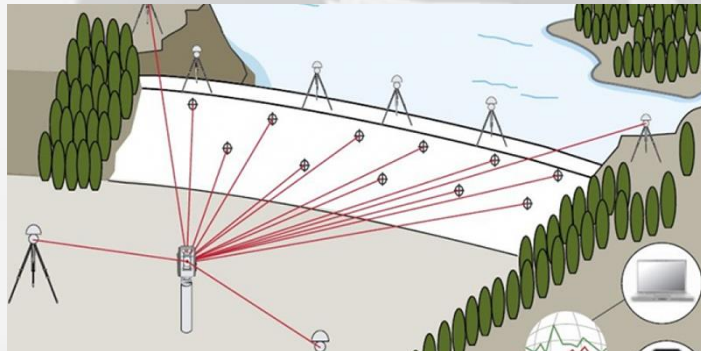
As-Built Surveys

- Measured Surveys
- GFA Surveys
- NLA Surveys
- Floor Plan
- Elevation & Section



Monitoring Surveys

- Ground Settlement
- Existing Structure Monitoring
- Railway & Tunnel Monitoring



Tunnel Surveys

- Wriggle Surveys
- Geometry Surveys



Dimensional Surveys

- Dimensional Control



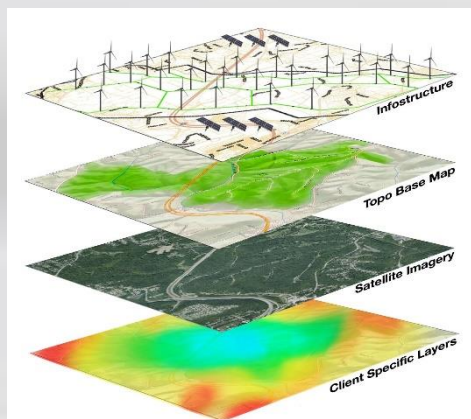
Special Surveys

- Volumes Survey
- Gazette Survey
- Flatness/Levelness Survey
- UAV



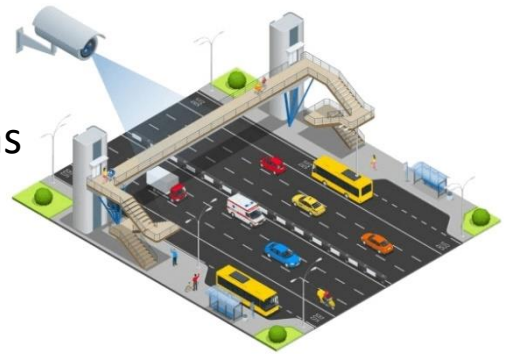
GIS (Geographic Information Systems) Services

- GIS Consultancy services
- Geographic and Land information management
- Spatial data management
- Digital mapping services



Traffic Surveys

- Vehicle Counting
- Willingness Surveys
- Origin Destination Surveys
- Mid – Block Surveys
- Turning Movement Count Surveys
- Signal Timing and Queuing Surveys
- Pedestrian Surveys
- Speed Assessment Surveys
- Parking Surveys
- Vehicle Occupancy Surveys
- Travel Time Surveys
- Identifying issues in the areas
- Traffic Impact Studies

**Geotechnical Surveys**

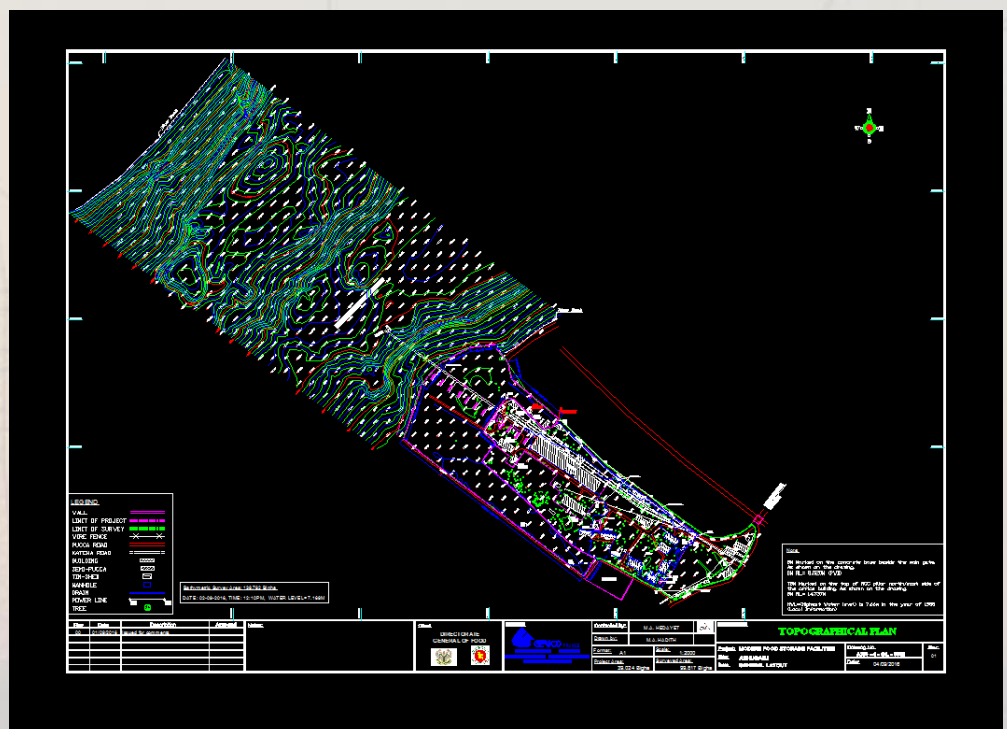
- Geotechnical Investigation (Onshore/Offshore)
- Chemical & Biological Laboratory
- Physical & Mechanical Testing
- Nondestructive Testing Services
- Environmental Testing
- Geophysical Mapping
- Special Test Services



• Detail Topographic Survey

BDE provides topographic mapping services that supports engineering consultants in designing the roads, infrastructure and building projects. The topographic survey services helps in route planning, thematic data preparation, and decision-making for telecom and transport services and disaster management. We are indeed proud to mention that we conduct all our data collection moving on foot to ensure maximum accuracy.

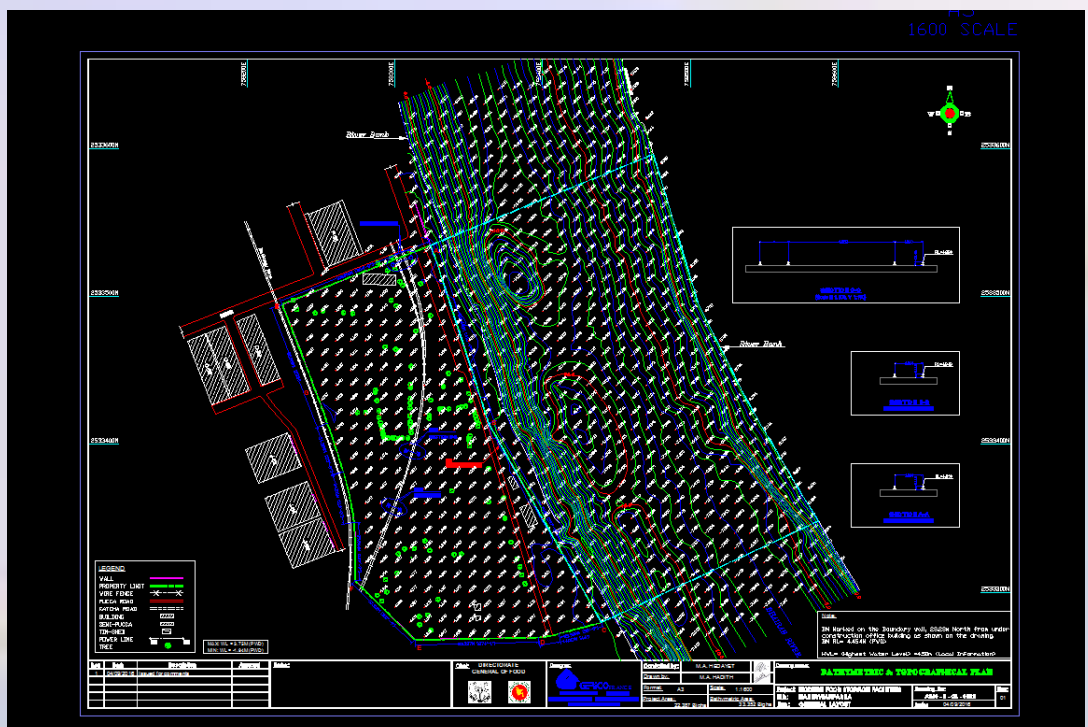
Our services include creating comprehensive topographic maps to the specified projection parameters, including generating contours. Our survey records all features visible above ground including the position of the street furniture, road lines, buildings, services, contours, embankments, vegetation etc. We are using latest surveying equipment for our projects.



• Bathymetric / Hydrographic Survey

Bathymetry is the study of the bed (floor) of a waterbody, involving mapping of features on charts to provide information on water depth. Bathymetric charts are typically produced to aid navigation and inform dredging activities, for example during maintenance of navigational channels.

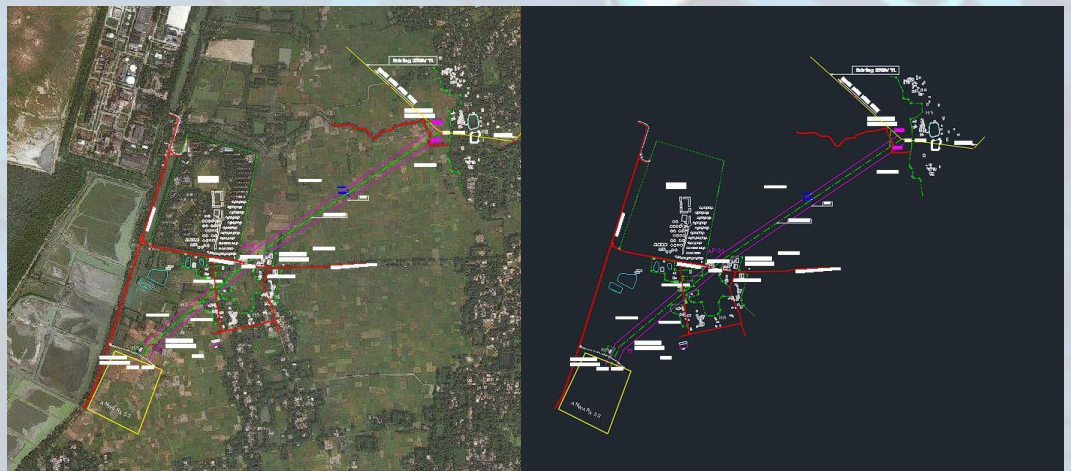
Bathymetry traditionally uses an echo sounder attached to a survey boat. As the boat drives across the survey area, the echo sounder generates electrical signals that are then converted to sound waves by a transducer under water. The sound waves bounce off of the underwater features and this echo is picked up by the echo sounder which then calculates the distance to the feature. The system uses high accuracy GNSS (GPS) system to then link each distance measurement to a specific depth on a map.



- **Aerial / Drone Survey**

Time and accuracy are very important in our service. Considering the same, BDE deals with different types of Aerial Surveys which give fast and accurate results. We use advanced Drone Solutions for the client with the support of our experienced staff in the same. We provide a faster and timely solution to the traditional methods where a lot of time is consumed towards the survey and inspection.

The use of aerial surveys by using drones also gives a continuous check on the adherence of site-staff safety and compliance and that it's in line with the government regulations or as per the legal system of the land. We provide the methods like Quarry Inspection, Asset Inspection, Shoreline Mapping, Survey Grade Mapping, Power Line Modelling, Site & Route Planning, Resource Mapping, Disaster Analyses, Volume Determinations, Progress Monitoring / Reporting and Boundary & Topographic Surveys.



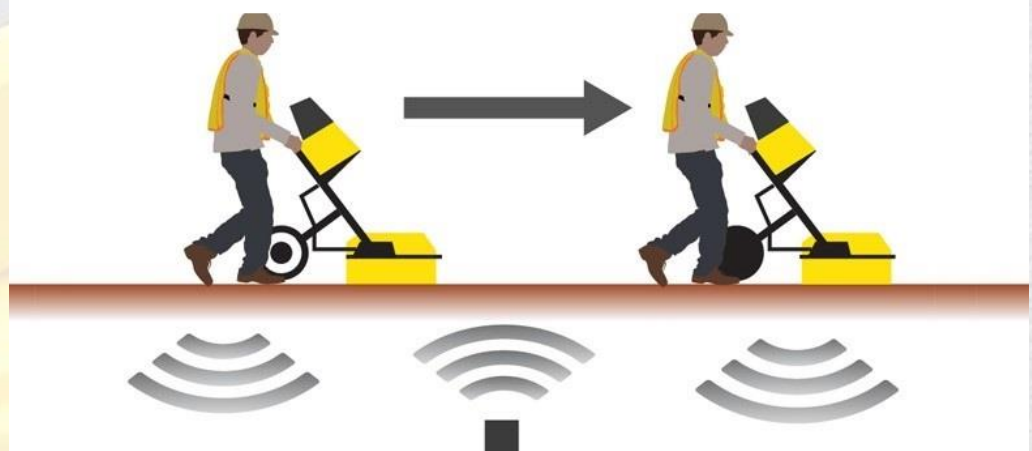
• Underground Utility Survey

In the process of planning and undertaking both design and construction work determining the precise location of utilities is critical. Underground Utility Mapping , Underground services and Topographical Surveys by BDE provide a comprehensive understanding of infrastructure above and below ground.

We offer a broad range of Underground services for locating, identifying and mapping all utilities and repair routes along with gas, water, telecommunications, electricity and drainage, using the most recent innovative technology and tracing methods.

GPR allows us to locate metal & non-metal pipes, alongside the indication to buried with high advanced services, voids and ducts within the location plan.

GROUND PENETRATING RADAR (GPR)



- **GPS/GNSS Survey**

BDE have been using, learning and testing state-of-the art technology, including GPS and high-accuracy coordinate pinpointing via Global Positioning System. As a result of these endeavors, we can effectively provide centimeter-level positioning in real-time or post process our observation data to obtain even millimeter-level positioning.



• Traffic Survey

BDE provides a data collection, analysis and presentation service to the traffic and transport sector. Our objective is to constantly deliver accurate survey information/data within the timeframes required by our clients and acquire a proactive approach to all our clients' needs.

Traffic count data are used by traffic planners, government agencies, stake holders etc. Data collected helps to analyze the ongoing traffic congestions as the traffic keeps on changing according to the infrastructure and development projects taking place such as residential, commercial & school areas. Traffic counts are also essential for traffic diversions. Government authorities, stakeholders, Contractors can design the traffic diversion plan in such a way it doesn't affect the daily commuters. We follow the RHD traffic survey data collection method.

Traffic Volume Count Tally Sheet Sheet: of

Name of Road: Road No.: Direction From: To:

Station Name: Station Number: Date: / /

Enumerator: Supervisor:

Hours Counted	MOTORISED										NON-MOTORISED		
	1 Heavy Truck	2 Medium Truck	3 Small Truck	4 Large Bus	5 Mini Bus	6 Microbus	7 Utility	8 Car	9 Auto Rickshaw	10 Motor Cycle	11 Bicycle	12 Cycle Rickshaw	13 Animal Cart / Push Cart
0:00-0:15													
0:15-0:30													
0:30-0:45													
0:45-1:00													
1:00-1:15													
1:15-1:30													
1:30-1:45													
1:45-2:00													

- **Geotechnical / Sub-Soil Investigation**
On-Shore

Geotechnical investigations are performed to obtain information on the physical properties of soil and rock at site to design foundations for different structures and for repairing or renovation of distress earthworks and structures. Geotechnical investigation includes subsurface exploration, conducting some field tests and collection of soil samples. To obtain information about the soil conditions below the surface, some form of subsurface exploration is required.

Methods of observing the soils below the surface, obtaining samples, and determining physical properties of the soils and rocks include test pits, trenching (particularly for locating faults and slide planes), boring, and in situ tests. Reliability and accuracy are the essence of geotechnical investigation. Comprehensive, precise, detail and reliable investigation can reduce construction cost and time. On the other hand, unreliable geotechnical parameters always deceive or betray engineers and entrepreneur.



- **Geotechnical / Sub-Soil Investigation**
Off-Shore

BDE is one of the most trusted soil investigation and geo-technical solution companies in Dhaka, Bangladesh. We are specialized in Site Investigation for Buildings, Bridges, Water boring, Geotechnical Instrumentation and Monitoring, Pile Instrumentation, Offshore Investigation, Geophysical Survey and Laboratory Testing Services. The quality of the soil on your site plays a key role in your construction projects. As a result, you need to identify the characteristics of the soil to determine its ability to support your structure. Soil testing from BDE enables you to assess the suitability of the soil, providing you with vital data for informed decision making and planning.



NAME OF INSTRUMENT	NAME OF INSTRUMENT
TOTAL STATION	GPR SURFACE
Leica	Proceq GS 8000
Kolida	DRONE
Topcon	DJI Phantom 4 RTK
Sokkia	DIGITAL ECO SOUNDER
GPS & GNSS	Hondex Digital Echo Sounder
Topcon GR5	Hummingbird
Trimble R8s	AUTO LEVEL
Garmin Hand GPS	Wild
EDM	Kern
Kern	Pentax
Pentax	Sokkia
Sokkia	Topcon
PRINTER & SCANNER	Leica
Epson A3 Color Printer	BORING AND SOIL TESTING EQUIPMENT
Epson A4 Color Printer	Tri Pod
Cannon Scanner	Dong King Pump
CONSTRUCTION EQUIPMENT	Hammer
Earth Excavator (Italy)	Split Spoon
Vibrator Roller (Vibromax)	Cutter
Road Roller (China)	Undisturbed Tube
Pneumatic Tire Roller	Drilling Pipe
Dozer Tire (Japan)	Rubber Pipe
Mixture Machine, Bangladesh, 7cft capacity	Pulley
Concrete vibrator, Bangladesh, 1.5 inches dia hose	Pipe Range, Sly Range
Concrete Vibrator, Japan, Diesel Engine	Sample Bag, Bucket, Belches, Drum
Pump Machine, Electric 1 H.P. U.K	Measurement Tape Screw Driver
Welding Set, 440 Volt.	Rope



Wish you the best in your future endeavors!

BANGLADESH DIGITAL ENGINEERING

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