

INFRASTRUCTURE

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is the fundamental physical and organizational structures, facilities, and systems needed for the operation of a project or the construction industry as a whole. It encompasses a wide range of elements that support and facilitate construction activities, ensuring the smooth functioning of projects.



At Elite Group Infrastructure usually refers to supplying the main networks for projects, buildings, or residential complexes through the following services:

DRILLING

All works related to changing the natural features of the land which include (excavation, transport, backfilling, compacting, and leveling) for:

- Private & governmental projects.
- Dam works.
- Roads and airports.
- Buildings of different types.



These services are usually done through mechanical and manual ways such as:

BULLDOZERS

A powerful and heavy machine used for various earthmoving and construction tasks, equipped with a large metal blade at the front and a tracked undercarriage, which provides stability and mobility on rough terrain.

TRACTORS

Versatile, motorized vehicles designed primarily for pulling or pushing heavy machinery, trailers, or implements in agricultural, construction, and industrial settings.





BAGGERS

Heavy construction machines with a digging bucket on the end of a hydraulic arm.

GIGGING TOOLS

LIKE SHOVELS & MATTOCKS





BACKFILLING

The process of refilling an excavated area or trench with soil or other material for various reasons, such as laying utility lines, installing foundations, or other construction activities. It is a crucial step to restore the excavated area to its original grade and to provide support and stability to structures or utilities and the following terms must be considered:

- It should be in layers every 20-30 cm.
- It must be clean and free of any organic materials.
- It is necessary to use water extensively.
- It is necessary to use mechanical compaction machines.
- It is necessary to conduct a soil strength test after completing the backfilling work.



ELECTRICAL CABLES' INSTALLATIONS

Installing electrical cables underground involves burying them beneath the surface to provide power to various structures, neighborhoods, or industrial areas to reduce vulnerability to weather conditions, and less interference with the surrounding environment. It is usually done through the following steps:

• Digging a hole in the ground at least 80cm deep, and with a width suitable for the number of cables to be buried.

• A layer of soft sand, 10 cm thick, is placed to protect the cables to be extended.

• The cables are then extended over the soft sand then another layer of sand is placed over the cables, 10cm thick.

• Placing bricks along the cable route, to protect the cables and also as a guidepost for anyone trying to dig later.

• The hole is backfilled with the excavated dirt to a depth of 20cm, then place warning tape along the cable path as a warning signal to anyone who tries to dig later.

- The remaining dirt is filled in until the hole is completely covered.



PIPES' INSTALLATION

There are different kinds of pipes used in Infrastructure projects like:

Drainage pipes: Pipes designed to facilitate the efficient removal of excess water from various areas and play a vital role in preventing water accumulation, erosion, and potential damage to structures. They are used in a variety of settings, including residential, commercial, industrial, and agricultural applications.

HDPE pipes: High-density polyethylene (HDPE) pipes are a type of plastic pipe made from the polymer known as high-density polyethylene. HDPE is a versatile thermoplastic material commonly used for various applications, mainly water supply and firefighting, due to its favorable properties like its durability, flexibility, lightweight, longevity, chemical resistance, leak-free joints, and smooth interior.

Irrigation pipes: They play a multifaceted role in infrastructure construction, supporting agricultural activities, enhancing urban green spaces, contributing to environmental sustainability, and ensuring the efficient use of water resources. Integrating irrigation systems into infrastructure projects demonstrates a commitment to long-term functionality, aesthetics, and environmental responsibility.









FINISHES

They are the final surface treatments and installations that contribute to the aesthetics, functionality, and safety of a completed structure. They play a crucial role in enhancing the overall appearance and usability of buildings and infrastructure projects and they vary depending on the type of structure and its intended use. Elite finishes services include:

Asphalt paving: A construction process that involves the application of asphalt, a black, sticky, and highly viscous material, to create a smooth and durable surface for roads, driveways, parking lots, and various other applications.

Interlock: A method of building structures, such as pavements, driveways, or walls, using interlocking blocks, pavers, or units. The interlocking design involves connecting the individual components in a way that creates a stable and cohesive structure without the need for mortar or adhesives.

Kerb stones: They are short, rigid, and typically rectangular blocks that are used to edge or define the boundaries of roads, pavements, driveways, and other surfaces. These stones serve various practical and aesthetic purposes in urban and landscaping contexts.









LANDSCAPING

Landscaping at Elite refers to the planning, design, and implementation of outdoor spaces surrounding buildings and other structures. It involves the intentional arrangement and cultivation of natural elements, such as plants, trees, flowers, and hardscape features, to enhance the aesthetic appeal, functionality, and sustainability of a site. It includes many services like:

Agriculture: We provide comprehensive agriculture services from land preparation and irrigation system installation to infrastructure development for farming communities.

Division of outdoor spaces: We create distinct areas within a larger space, each serving a specific purpose or aesthetic. This division can be achieved through various elements such as hardscaping, softscaping, or functional zones. We create:



- Pathways.
- Retaining walls.
- Plant borders.
- Hedges.
- Container gardens.
- Entertainment areas.
- Ponds or water gardens.
- Pergolas or gazebos.
- Path lights.
- Outdoor furniture.





LANDSCAPING

Light Poles: Light poles provide essential illumination, enhancing visibility in outdoor spaces during the evening and night. This is crucial for pathways, walkways, driveways, and other areas where people need to navigate safely.



Water sprinkler systems: They distribute water evenly across sthe landscape, ensuring that each area receives the appropriate amount of water. They also minimize water wastage by delivering water directly to the root zones of plants.

