What is TERRAFORCE?

TERRAFORCE is an award winning "one block does it all" interlocking concrete block earth retaining wall system.

TERRAFORCE blocks are tailored to create environmentally friendly residential or industrial retaining walls, supporting sustainable development in soil stabilisation.

Terraforce block walls can range from light gravity retaining walls to geogrid reinforced earth-retaining or heavy gravity, double skin retaining walls. They are suitable for any commercial and residential applications, small or large!

The system combines more advantages than other systems:

- The blocks are relatively light weight for easy transport and handling,
- They interlock horizontally as well as vertically - via coarse infill – for superior stability,
- The blocks are reversible to display a round face, flat face or rock face (if available) appearance,
- Are fully plant supportive with an open horizontal surface structure,
- A closed vertical surface structure prevents progressive erosion of compacted backfill,
- The blocks can be used as part of either a gravity system, as the fascia for a geosynthetic reinforced segmental retaining wall structure or as a fascia for a cement stabilised backfill.
- The unique block shape allows wall inclination and curvature to be adapted freely to suit site conditions.

TERRAFORCE blocks are used worldwide for many purposes:

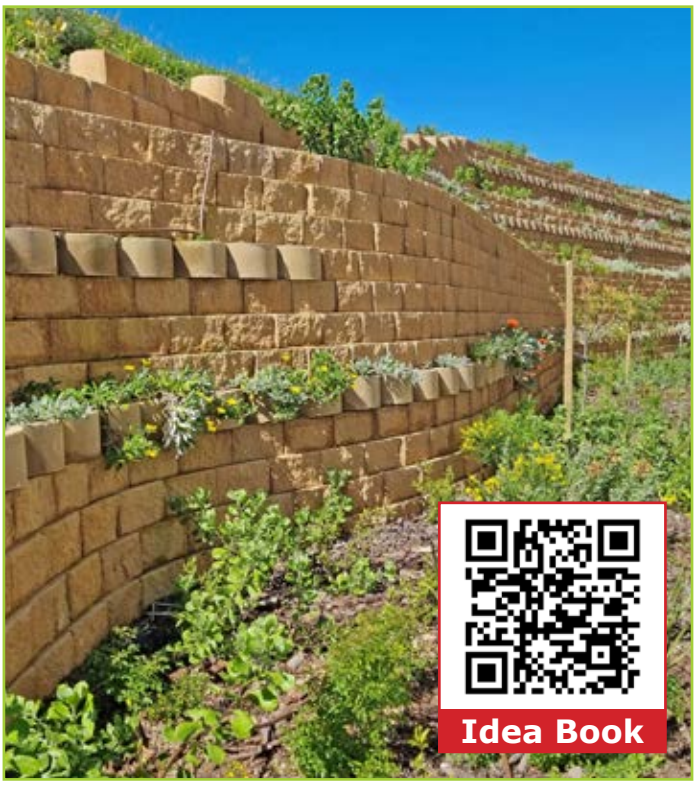
Land reclamation **|** coastline protection **|** river and stream rehabilitation

Garden landscaping **|** slope stabilization **|** noise and blast barriers **|** and much more!

Examples of Terraforce retaining walls

STEEP ROUND FACE WALLS, FULLY PLANTED

BENGALURU INTERNATIONAL AIRPORT, INDIA



FLAT AND ROCK FACE COMBO

BRIDGE ABUTMENT ROCK FACE WALLS DUBAI

ROUND FACE WALLS, LUXURY ESTATE

FLAT FACE WALLS, PRIVATE RESIDENCE

ROUND FACE FINISH WALLS, DUBAI

Installation Guidelines

BRIEF INSTALLATION GUIDELINES

Follow this link for more information on installation: https://www.terraforce.com/planning-design/installation-info

Develop a precise plan for your Terraforce wall by analszing your site, noting slopes, drainage and shape of wall. Measure the length and vertical height to obtain the surface area and thus the number of Terraforce blocks required.

Retaining walls require **professional design and supervision input** and must comply with local building regulations. Refer to Terraforce design and installation manuals available here: **https://www.terraforce.com/downloads**

1. Prepare a level foundation, gravel or concrete as directed by site conditions. Compacted gravel foundations are usually sufficient for structures not higher than one meter. On sloping sites the foundation may be stepped by block height at intervals to suit the slope.

2. Place first row of blocks to required alignment and ensure that the units are level in all directions. A small amount of mortar will assist with accurate levelling on a concrete foundation. Note: Stretcher or running bond is preferred but not always possible. Stack bond is allowed.

3. Install drainage pipe with outlet and free draining backfill as specified behind first row of blocks. A length of flexible pipe will assist in setting out smooth curves.

4. Fill blocks with good quality soil or soil compost mix and tamp lightly. In this instance the round face elevation was chosen.

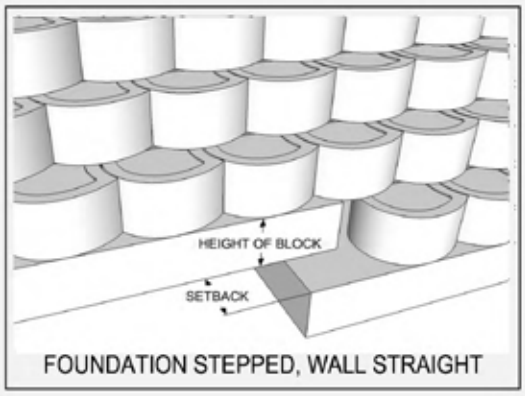
5. Continue construction, row by row while backfilling and compacting free draining material as each row is completed with topsoil infill. In situ or precast interlocking keys to be installed when directed by the engineer.

6. When specified, install geo grid/geo textile on compacted backfill and wedged be tween blocks (or cut and folded into blocks) as indicated by the engineer.

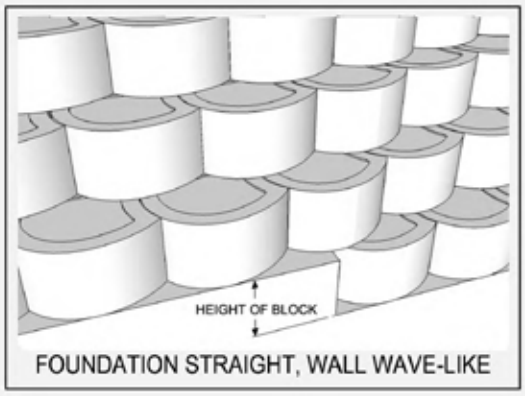
7. Terraced walls must also be well founded and must not impose a surcharge load on the lower wall.

The completed installation can now be turned into a growing, living investment by your imaginative choice of plants!

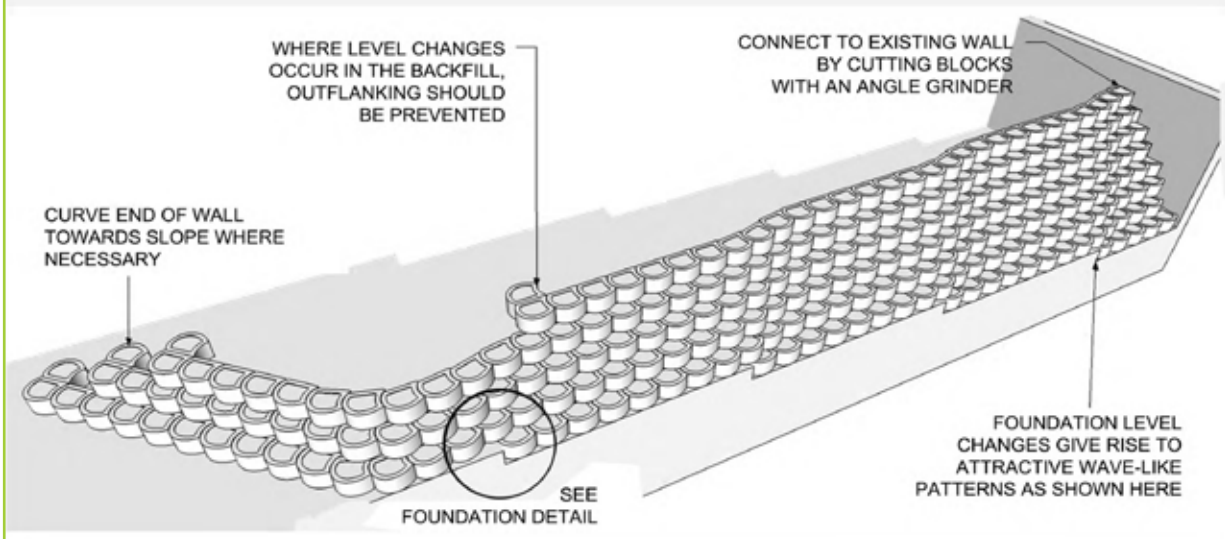
Foundation Details



FOUNDATION STEPPED, WALL STRAIGHT



FOUNDATION STRAIGHT, WALL WAVE-LIKE



ELEVATION

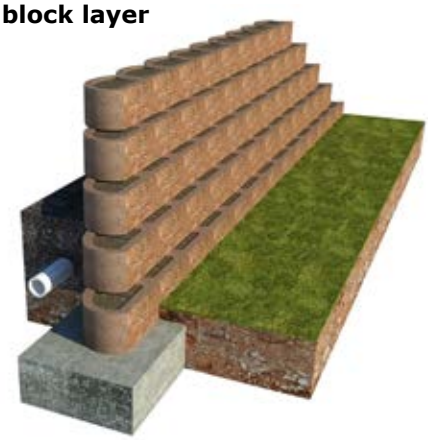
SLOPING FOUNDATION LEVEL -
WHERE BOTTOM ROW FOLLOWS ONE STRAIGHT LINE OR
ALTERNATIVELY-FOUNDATION STEPPED IN TWO DIRECTIONS

FOUNDATIONS

Prepare a level foundation, compacted earth, subbase or concrete as directed to suit site conditions. The top of finished foundation level should be at least 150mm below natural ground level. Compacted earth foundations are usually sufficient for structures not higher than 1.5metres. When poor ground conditions occur or higher walls are to be built, please consult your local supplier with regards to foundation details. On sloping sites, the foundation may be stepped in intervals to suit the height of units. **(SEE ILLUSTRATION ABOVE)**
Note: **No services and trenches are to be permitted immediately in front of the foundation.**

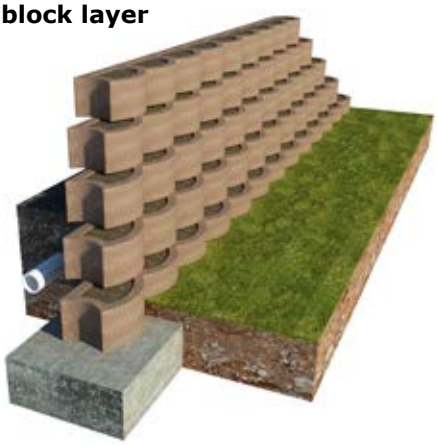
Some illustrations of designs possible, site dependent

Single block layer



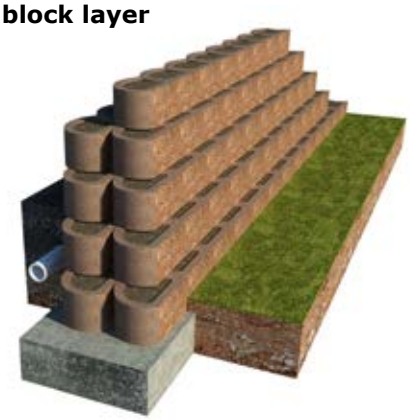
Light gravity retaining wall, rock face option

Single block layer



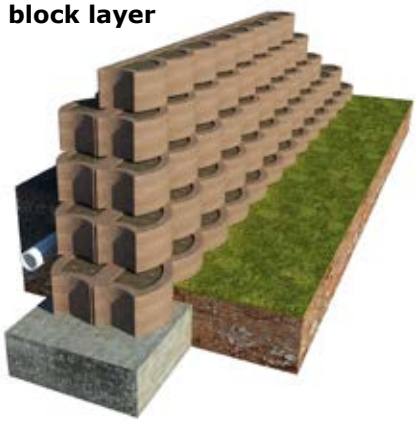
Light gravity retaining wall, round face option

Double block layer



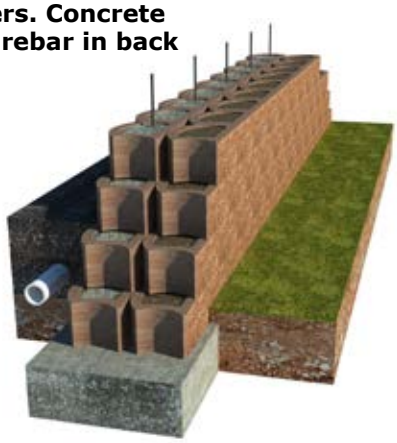
Heavy gravity retaining wall, rock face option

Double block layer



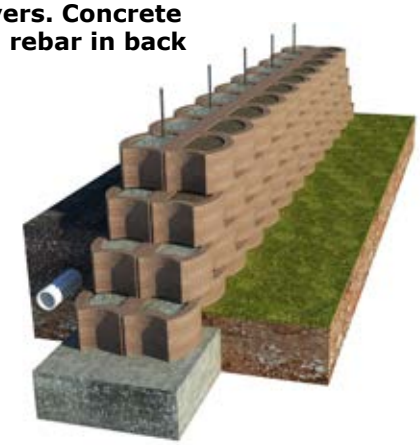
Heavy gravity retaining wall, round face option

Two block layers. Concrete infill and steel rebar in back layer



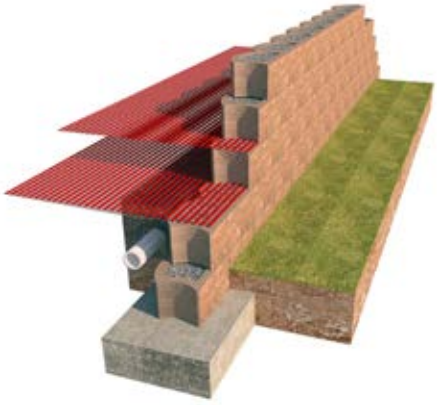
Reinforced gravity retaining wall, rock face

Two block layers. Concrete infilland steel rebar in back layer



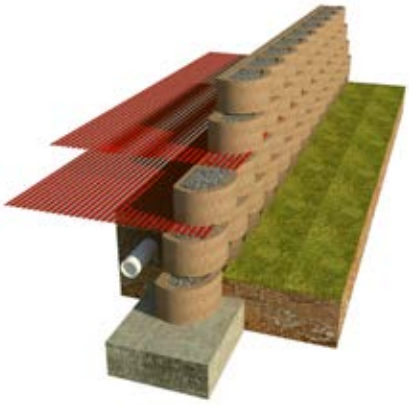
Reinforced gravity retaining wall, round face

Single block layer with geogrids



Composite retaining wall, rock face option

Single block layer with geogrids



Composite retaining wall, round face option

110 000 TERRAFORCE L12 blocks for the construction of retaining walls on both sides of Terminal Boulevard, Kempegowda International Airport at Bengaluru.

Read the full story here: https://www.terraforce.com/7-2023-terraforce-supplies-large-scale-retaining-wall-project-in-india/