Maccaferri Ltd

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## Engineering a **Better Solution**

### **GLOBAL ENGINEERS**

In the second half of the 19th century, we invented Gabions and dramatically changed the civil engineering landscape. We are still changing today. We work every day to find better solutions for our clients at every degree of latitude and longitude. Our worldwide network grows through innovation and diversification of sectors of activity and through an increasing range of high quality and environmentally friendly products and applications.

Maccaferri's motto is 'Engineering a Better Solution'; We do not merely supply products, but work in partnership with our clients, offering technical expertise to deliver versatile, cost effective and environmentally sound solutions. We aim to build mutually beneficial relationships with clients through

### OFFICINE MACCAFERRI GROUP PROFILE

the quality of our service and solutions.

Founded in 1879, our Group soon became a worldwide reference in the design and development of advanced solutions, with offices in over 70 countries and 30 factories worldwide.

Our mission is to pursue excellence through continuous improvement, while delivering to customers engineered solutions that are innovative, advanced and environmentally friendly. We are committed to outstanding safety, quality and sustainability, to create value for all stakeholders as well as our communities.

### **MACCAFERRI APPLICATIONS**





HYDRAULIC WORKS





EROSION CONTROL





BASAL REINFORCEMENT



COASTAL PROTECTION,
MARINE STRUCTURES & PIPELINE
PROTECTION



DRAINAGE OF STRUCTURES



SAFETY & NOISE BARRIERS



LANDSCAPE & ARCHITECTURE



FENCING & WIRE



AQUACULTURE NETS/CAGES



**ENVIRONMENT, DEWATERING** 

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## MACCAFERRI







# SOLUTIONS FOR DEVELOPERS

Level differences, vulnerable embankments, watercourses or soft ground; whatever challenge your development poses, Maccaferri has the solutions to help overcome them.

Maccaferri provides specialist great looking solutions. Each one engineered to offer you the best of both worlds: structural integrity and aesthetic appeal.

Concrete blockwork cleverly designed to have all the character of a traditional masonry wall. Welded gabion baskets that create clean, uniform lines, or biodegradable solutions that encourage a lush, green vegetative finish. With Maccaferri, you can have the retention or protection that you need with the appearance your customers and clients want.



## Quality through and through

High quality materials play a huge part in our solutions.

Our BBA certified double-twist gabion mesh with our new PoliMac® coating, offers greater performance to protect against the environmental conditions predicted in 120 years time.

You will also find that our solutions are designed to reuse site won materials wherever possible, reducing waste and carbon footprint as well as saving you money. Our key products have **Environmental Product Declarations**, an independently verified and registered document to communicate transparent carbon footprint information.

Everything you would expect from a market leader in geotechnical solutions – and more.



### Design, supply and install

Not only do we engineer the solutions and manufacture the products, we also offer a complete design, supply and install service. That way, we can value-engineer at each and every stage of your project to deliver the highest quality finish at the best price.

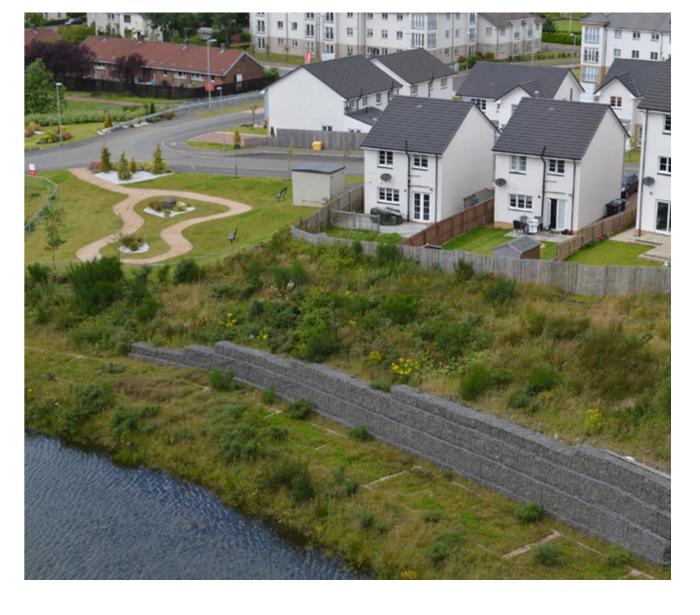
Alternatively, if you have your own install team, we can provide you with a supply price that includes a professionally indemnified design. Or, if it's simply our tried and trusted materials you want, we can guide you through the best options for your needs and budget.



### Talk to us

Simply tell us which option works best for you - our complete design, supply and install service; design and supply; or supply only - and we'll work with your development team to provide exactly that.

The earlier you can involve us, the greater the opportunity to value engineer and deliver real cost savings, just as we have done for some of the world's largest engineering projects, as well as smaller-scale, local projects.



MACCAFERRI | SOLUTIONS FOR HOUSING DEVELOPMENTS



## GABION WALLS WOVEN & WELDED

Whether you're looking for the most cost effective retaining wall or the most aesthetically appealing, we have a solution to suit every brief and budget.

### Woven Mesh Gabion Walls

Engineered from double-twist hexagonal steel wire mesh that has been protected against corrosion, these woven baskets are ideal for areas prone to settlement or scour, providing both strength and flexibility.

Constructed with a flush or stepped face, gabion baskets are installed on a compacted granular levelling pad. They are then filled with locally quarried stone that is hand-placed on all exposed faces to ensure the best aesthetic.





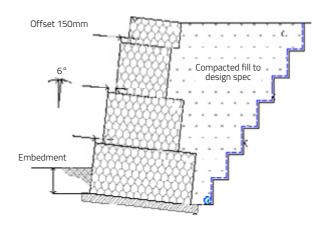


### Benefits of Woven Gabions:

- GalMac® advanced galvanised coating for up to 60 year design life
- PoliMac® coated option for over 120 year design life
- M Accommodates settlement
- Porosity helps drain soil fills
- Can incorporate mitred corners and tight radii
- Can accommodate fence post sleeves
- BBA-HAPAS certified and UKCA marked



### Gabion Wall typical section









### Welded Gabion Walls

Offering many of the benefits of their woven counterpart, welded gabion walls help achieve clean, uniform lines in areas where there is minimal risk of settlement, making them particularly popular for architectural and landscaping applications.

Benefits of Welded Gabions:

- Welded finish creates clean, uniform lines
- GalMac® advanced galvanised coating for up to 60 year design life
- Accommodate mitred corners









## REINFORCED SLOPES TERRAMESH® FAMILY

High wall or steep slope. Stone finish or soft, green vegetative cover. You'll find our different soil retention systems all come with one thing as standard: durability.

### Green Terramesh®

Green Terramesh® encourages a lush, vegetative finish combining double twist hexagonal steel wire mesh geogrid with an integral rapid-to-install fascia. This fascia of a rectangular steel frame, angle supports and erosion matting creates slopes at a 70 degree angle.

The frame and angle supports help minimise the lumps and bumps associated with a traditional 'wrapped face' reinforced soil slope and speeds up construction.

Matting and mesh secure soil in place and the use of site won materials saves on costs and road miles, making for a green solution in both senses of the word.





Benefits of Green Terramesh®:

- Gives reinforced slopes a green, vegetative finish
- PoliMac® coated with 120 year plus design life
- BBA-HAPAS certified & UKCA marked







### Mineral Terramesh®

Mineral Terramesh® creates reinforced soil slopes with a rock faced finish at angles up to 70°. This "maintenance-free" system has an integral steel frame that delivers clean uniform lines.

Selected stone fill is placed in a thin layer behind the front face to create the desired aesthetic.

Benefits of Mineral Terramesh®:

- Ideal for tall structures
- Maintenance free
- Integral steel frame delivers clean uniform lines
- PoliMac® coated with 120 year plus design life
- UKCA marked
- Re-using site won materials reduces cost and environmental impact

## Terramesh® System

Terramesh® System consists of a double twist woven wire mesh gabion fascia unit and an integral factory-fitted soil reinforcement geogrid.

The system is straightforward and rapid to construct; gabion stone is placed in the face unit, and structural backfill is placed and compacted on the geogrids.

Benefits of Terramesh System:

- BBA-HAPAS certified and UKCA marked
- Flexible accepts differential settlement
- GalMac® Al/Zn and PoliMac® coated woven mesh for unparalleled life
- Easy to construct and used in conjunction with our geogrids
- Saves on gabion stone costs vs traditional gabion walls















## M

# SEGMENTAL RETAINING WALLS MACWALL®

Durable reinforced soil wall system engineered with the use of segmental blocks. Concrete block finish with ParaGrid® geogrid soil reinforcement.

### MacWall®

The segmental block retaining wall system with the appeal of a traditional masonry wall and the engineered reassurance of soil reinforcement. The concrete blocks have a split-face finish for an authentic stone look, a choice of colours to complement your development and the added options of curves, corners and steps.

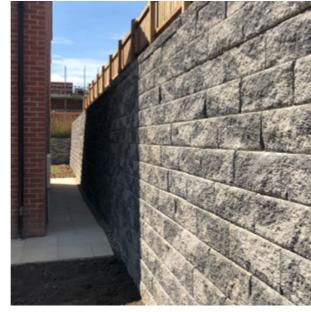
A mortarless build with our soil reinforcement geogrid ParaGrid® inbetween blocks and then backfilled.



### Benefits of MacWall®:

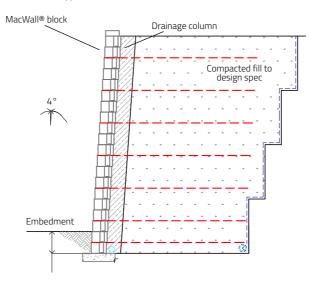
- BBA certified option\*
- Split-face finish for authentic stone look
- M Choice of colours to complement development
- Can incorporate curves, corners and steps
- Quick, mortar-free dry build







### MacWall® typical section





MACCAFERRI SOLUTIONS FOR HOUSING DEVELOPMENTS

MACCAFERRI SOLUTIONS FOR HOUSING DEVELOPMENTS

<sup>\*</sup> Certificate 17/H268 – Anchor Vertica Wall System for Reinforced Soil Retaining Walls

## M

### ADDED VALUE SOLUTIONS

With the most immediate priorities addressed, Maccaferri has a number of other specialist solutions that can help protect or add value to your development.

### S.U.D.S

A Sustainable Drainage System (SuDS) pond efficiently manages surface water, reducing flood risk, improving water quality, and boosting biodiversity. MacLine geomembranes ensure reliable containment, while BioMac erosion control blankets stabilise banks and support vegetation growth for enhanced ecological benefits.

### MacLine® GCL

MacLine® GCL is a geocomposite clay liner for attenuation and feature ponds. Simple to install as it does not require seam welding. For larger ponds, MacLine polymeric geomembranes are used; it is unrolled and adjacent rolls/panels are heat welded together.

### **Erosion Control**

We offer a range of erosion protection solutions to suit the slope and severity of erosion forces expected. Most of these products are also designed to facilitate the reestablishment of vegetation on the slope.



### MacMat® R

MacMat® R enhances soil-nailed or anchored slopes by promoting vegetation growth while providing surface stabilisation. Its 3D polymer matrix, reinforced with double twist mesh, ensures strength between nail heads, making it ideal for slopes with sufficient topsoil.

### MacMat

MacMat® Geomats are 3D geosynthetics made of polymeric fibers, designed to protect erosion-prone surfaces while reinforcing vegetation. For steep slopes, they can be reinforced with a double-twist hexagonal mesh or synthetic geogrid.

### BioMac®

Biomac® is a biodegradable erosion protection blanket made from natural fibres. When secured to the soil slope, it offers immediate erosion protection to the soil during the establishment phase of seeding and planting.





### **Basal Reinforcement**

When developing sites over soft ground, old mine workings or voids, our BBA-certified ParaLink® high strength geogrid will stabilise embankment foundations. ParaLink® enhances resistance to embankment failure and improves the overall structural integrity.



### Soil Stabilisation

When providing access over soft ground, to prevent rutting or limit differential settlement, MacGrid® EG and MacTex® geotextiles will help improve the subgrade capacity of flexible pavements, highways and parking areas. Both are simple to unroll and install and our engineers will assist you to identify which is the best solution for your needs.

### Working/Piling Platform

When you require a piling platform, you can rely on our reinforcement and separation geosynthetics, MacGrid® and MacTex® to provide the bearing capacity you need.







MACCAFERRI | SOLUTIONS FOR HOUSING DEVELOPMENTS