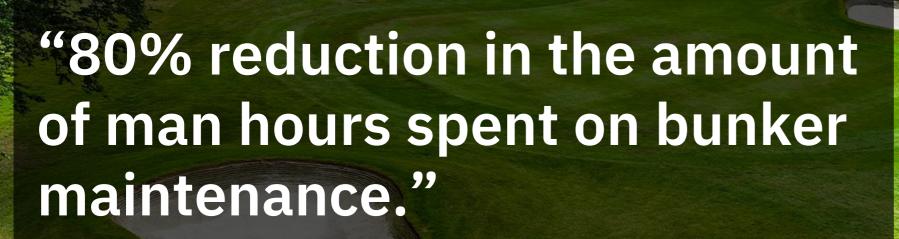


### UK Summary





Simon Watkins – Course Manager, Hartsbourne CC

ADVANCED

AQUAEDGE

**ECOTEC** 

**DRAINAGE** 

Save time and money. The leader in fortified bunker face, edge and collar solutions.

EcoBunker™ delivers innovative, effective, aesthetically natural, low maintenance solutions for golf bunker construction. Our team of inventors, engineers and greenkeepers design and supply a wide portfolio of patented solutions. And it's more than the materials alone. With our implementation support, we guarantee your bunkers will last at least 20 years.

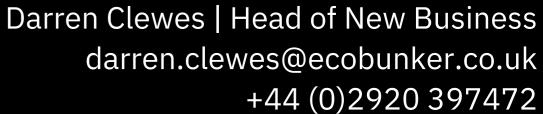
### Convert your bunkers from liabilities to assets...

Bunkers only occupy between 3-5% of the total area of a golf course, however they can require 20-40% of the maintenance budget. With Ecobunker™ fortified edges, faces, and collars, greenkeepers gain valuable time to focus resources on other key areas of golf course operations & beautification.

When engineered and implemented with our proven construction methodology, our

technologies will mitigate these maintenance challenges and extend life to at least 20 years (20-year warranty as standard). Compare this to the typical 2-7yr life span of traditional bunker edges.

As Tom Doak commented on our recent project at Pennard: "One of the benefits is that, from an Architect's perspective, I can 'lock-in' my design with Ecobunker™."





### Why Choose EcoBunker?

Our bunkers are indistinguishable from natural bunkers. Golf Architects including Tom Fazio, European Golf Design, Tom Doak, Rees Jones, Harley Kruse, Bruce Devlin, Donald Steel, Nicklaus Design, Arnold Palmer Design, Greg Norman GCD, Faldo Design, Bobby Weed, and Agustin Piza, to name a few, have incorporated Ecobunker™ into their designs we hope you and your team will too!

### How can we help?

We're a team of engineers and golfers with experience and expertise in bunker design and construction. Get in touch for a free, no obligation consultation with one of our engineers.

### **Build it Once**

By combining our bunker technology with our hands-on expertise and support, we guarantee your bunkers will last you more than 20 years! We're so confident, that every bunker comes with a 20-year warranty as standard.

### **ECOBUNKER ADVANCED**



Our second-gen synthetic bunker is constructed as a cantilever wall. This method builds upon our original concept by reducing waste whilst increasing structural ability.

### **ECOTEC BUNKER LINING**



The unique profile combines an open-matrix of filaments on the upper surface which effectively traps and stabilises sand grains. The Denser filaments on the underside permits rapid water filtration, whilst preventing sand grain wash-through.

### **ECOBUNKER AQUAEDGE**



AquaEdge is the only synthetic turf water edging system on the market. We turn unsightly edging features that have succumbed to erosion, into a clean, maintenance-free install.

### **DRAINAGE**



Our company was founded by Richard Allen, a qualified engineer with 30+ years of expertise in the design of civil engineering infrastructure, specialised in solving the trickiest drainage and flooding challenges.





Save time and money. The leader in fortified bunker face, edge and collar solutions.

EcoBunker deliver innovative, effective, aesthetically natural, low maintenance solutions for golf bunker construction. Our team of inventors, engineers and superintendents design and supply a wide portfolio of patented solutions: synthetic sod walls, bunker liners and the unique proprietary water edge construction method, Aquaedge.

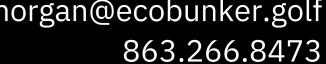
### Convert your bunkers from liabilities to assets...

Bunkers only occupy between 3-5% of the total area of a golf course, however they can require 20-35% of the maintenance budget. With Ecobunker™ fortified edges, faces, and collars, Superintendents gain valuable time to focus resources on other key areas of golf course operations & beautification.

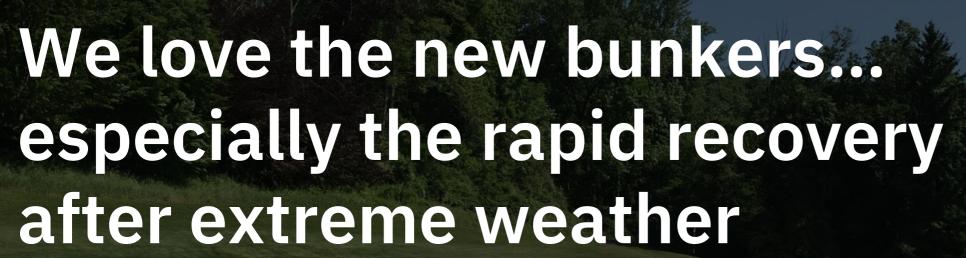
When engineered and implemented with our proven construction methodology, our

technologies will mitigate these maintenance challenges and extend life to at least 20 years (**20 year warranty as standard**). Compare this to the typical 2-10yr life span of traditional bunker edges.

As Tom Doak commented on our recent project at Pennard: "One of the benefits is that, from an Architect's perspective, I can 'lock-in' my design with Ecobunker™."







Alan FitzGerald – Superintendent and leading figure in the GCSAA



### Why Choose EcoBunker?

Golf Architects including Tom Fazio, Gil Hanse, Tom Doak, Rees Jones, Harley Kruse, Bruce Devlin, Donald Steel, Nicklaus Design, Arnold Palmer Design, Greg Norman GCD, Faldo Design, Bobby Weed, and Agustin Piza, to name a few, have incorporated Ecobunker™ into their designs we hope you and your team will too!

### How can we help?

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### **Build it Once**

Our bunkers are designed to be indistinguishable from natural bunkers and will last you 20 years. We're so confident, that every bunker comes with a 20 year warranty as standard.

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# Product Slides International



## Second generation synthetic golf bunkers from the world's first and best.

EcoBunker Advanced is the strongest and most efficient method of constructing stacked sod walls using synthetic grass tiles. The method was designed and developed exclusively by Richard Allen. EcoBunker Advanced is not a gravity structure. It performs as a cantilever wall, which is known to all civil engineers as a more efficient method of construction.

### EcoBunker Advanced™ G2

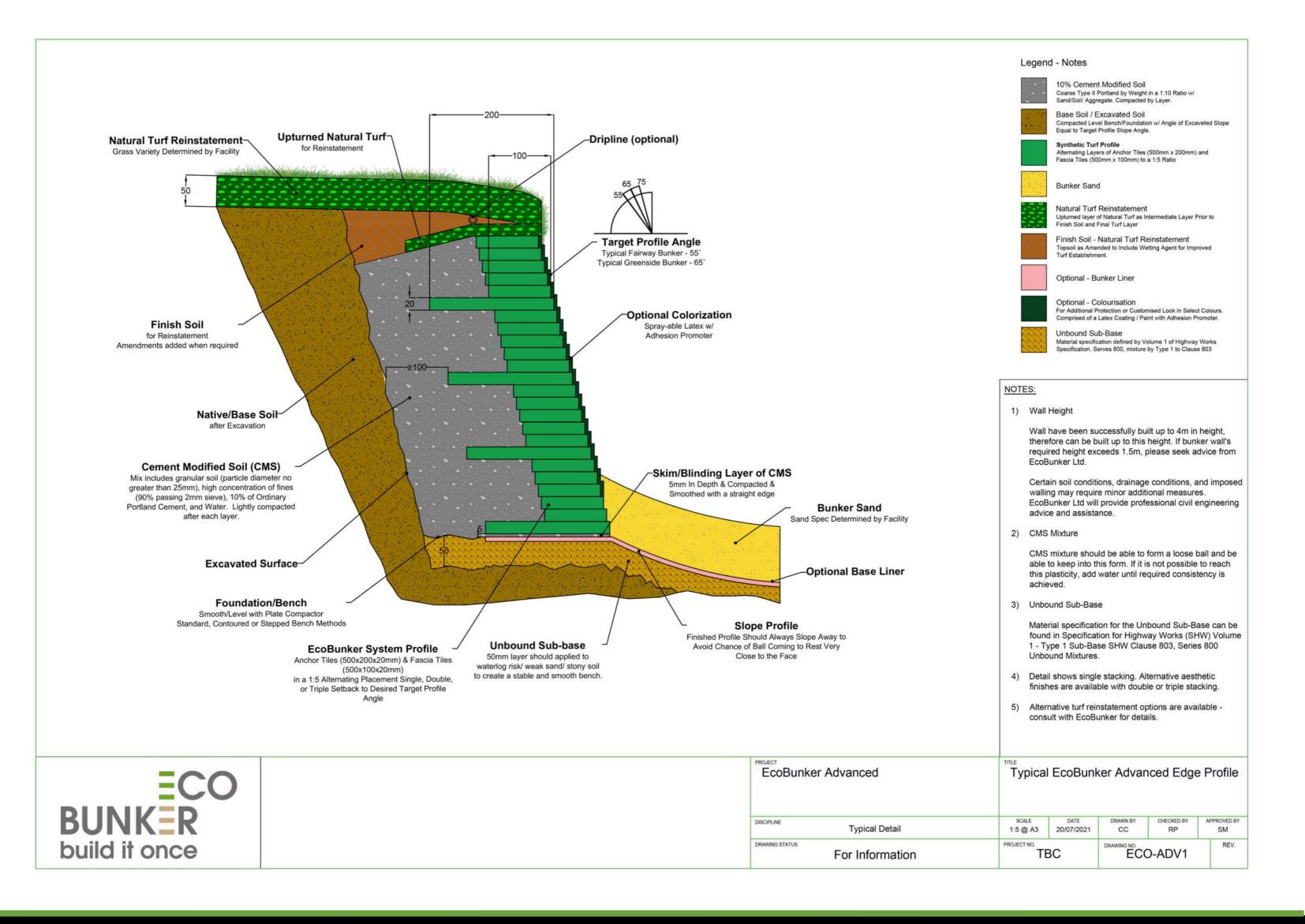
- Cantilever Design System

  Permits a more efficient use of materials
- Wider Range of Design Options
  Facilitated by ability to build higher and steeper wall. Click here for a useful wall calculator.
- Accidental Load Bearing
  It is unwise to track heavy machinery near any bunker edge, but in this instance EcoBunker Advanced provides an extra factor of safety.
- Improved Stiffness
  This provides an extra resilience to any minor ground movement that could cause bulging.
- Exhaustive laboratory testing by the Portland Cement Association has proved that CMS backfill continues to gain strength through multiple freeze-thaw cycles, and the hydration caused by curing reduces moisture content and thus reduces the potential for frost heave.



EcoBunker Advanced matches the construction speed and the beautiful aesthetics of the original method, but adds in the following benefits:

- 36% increase in structural stability
- 38% decrease in transportation costs
- Improved stiffness, reducing risk of bulging





The first and best maintenance-free water edging that saves you time and money..

The engineering factors and constraints of water margins are complex, particularly when maintaining a 'soft' interface between water and landscaping. Our innovative AquaEdge<sup>TM</sup> technology acts as a buffer and retaining wall that avoids the maintenance troubles of traditional solutions.

### EcoBunker AquaEdge™

### Safety

A stable edge, reducing risk of vehicles, staff or golfers slipping or sliding into the water.

### Ease of Maintenance

Very little maintenance required in comparison with many other edge details.

### Improved Aesthetics

Aquaedge not only makes beautiful and elaborate edges possible; It makes them easy and natural looking.

### Ease of Construction

Greatly reduced construction plant, reducing potential damage to golf course and saving money.

### Speed of Construction

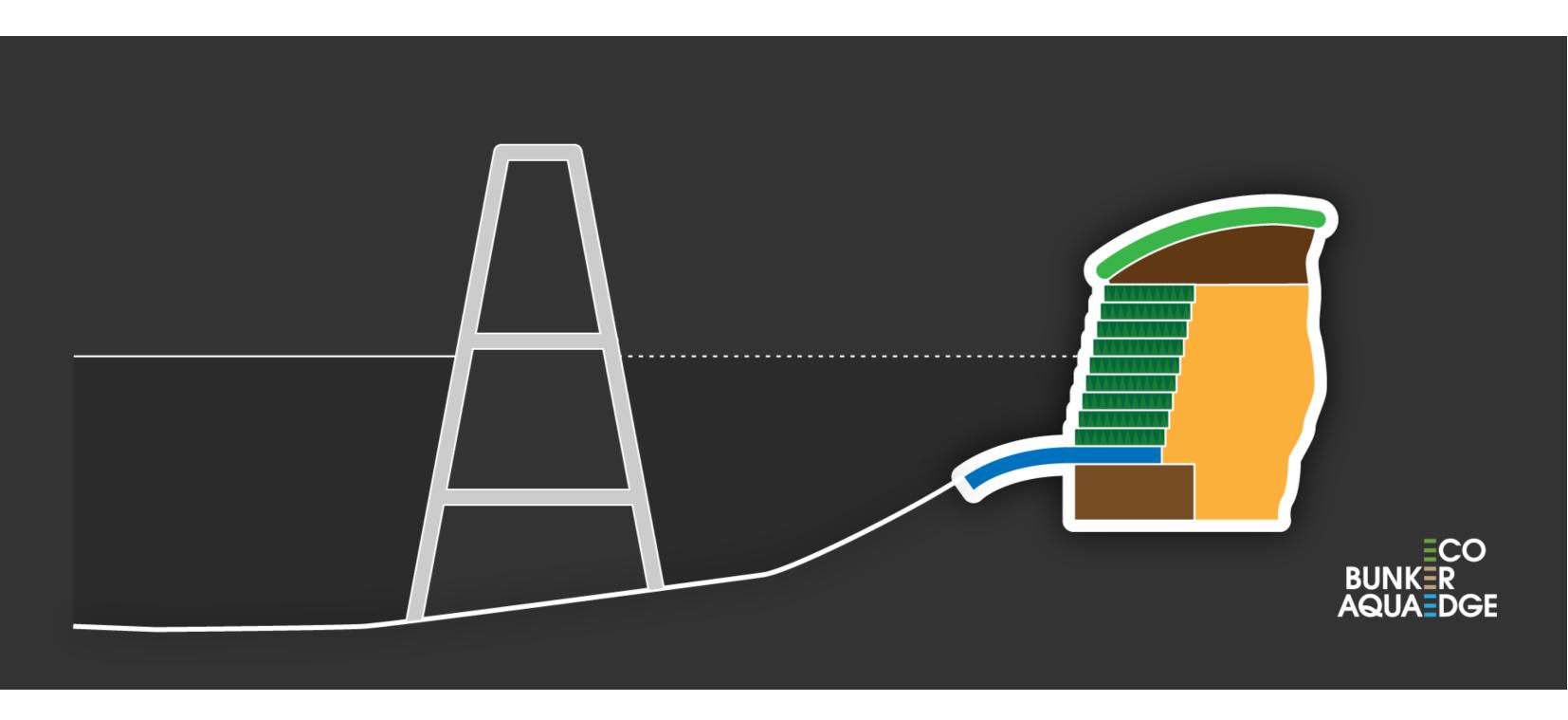
Quicker than all traditional lake edging construction options.

### **☑** No more ruling disputes

The margin of the hazard is accurately defined, and all those ugly yellow and red stakes can be dispensed with.



The engineering factors and constraints of water margins are complex. Things to consider include foundation design, hydraulic loading, flow velocity, erosion potential, imposed loads, construction and environmental hazards, and health and safety issues.



As with all EcoBunker products, we provide our unrivalled expertise to complement every installation.

AquaEdge is a civil engineering process which includes an initial investigation, design and specification work, planning, the supply of the various components and installation. Get in touch to see how we can advise and support your next project.



### Our EcoTec<sup>TM</sup> bunker liner is the only solution that ticks ALL the boxes.

EcoTec bunker liner provides installers an ultra-premium, yet affordable solution that outperforms the competition. Its looped matrix polymeric filament design, combined with our proprietary cold weld joint, creates a sealed single-piece bunker unit that can be relied upon for years to come.

### EcoBunker Advanced™ G2

- Ease of installation
- Can be installed in all weather conditions
- A seamless bunker liner solution
- Sand stabilisation prevents washout
- If damaged by machinery a spot repair can be done easily

- Forgiving liner with increased playability
- Unlike hardscapes, it prevents injury to player and equipment
- 14 year guarantee
- Holds sand up to 35 degrees +
- The first affordable bunker lining capable of all the above