

THE BUNKER

Discovering the science of bunker construction and maintenance

Issue 1

Optimism at Orchardleigh



Orchardleigh - New styling and construction method by Ecobunker Ltd

The new owners at Orchardleigh Golf Club, near Frome in Somerset are embarking on an exciting programme of course investments. Course Manager Dave Roberts identified the bunkers as one of the first areas for attention and



Huw Morgan

turned to Huw Morgan of EcoBunker Ltd for advice. Huw's site visit revealed Orchardleigh's major issues of concern; sand washouts during heavy rain, stone contamination and

unnecessarily large sand areas. He also took time to understand the club's long-term aspirations and likely budget for the works before proposing a suitable solution the club.

Sand washout will be almost entirely eliminated by introducing Ecobunker raised edges, enabling a slightly lower sand face, that is much easier to maintain.

Contamination will be addressed by introducing an affordable bunker liner system, exclusively developed by Ecobunker Ltd using a unique design by engineer, Richard Allen. Due to the large sand surface areas, cost was a major concern, but EcoBunker was able to control expenditure and demonstrate the effectiveness of their liner which has now been installed on over 20 golf courses with very high levels of satisfaction. The EcoBunker option exceeds the performance of established comparable bunker liner systems AND is less than HALF the cost!

'All in all I would highly recommend EcoBunker to any fellow greenkeepers and also welcome them to visit Orchardleigh to see the stunning results first hand'.

Dave Roberts, Course Manager at Orchardleigh

Smart Irrigation

The long dry summer we've just had in the UK has certainly highlighted the importance of good irrigation systems.

And no doubt, there will be many clubs who, due to 'austerity' have been making do with less than perfect irrigation infrastructure, stretching out the design life of their pipes, pumps and sprinkler heads to the limit. That can only last so long and irrigations suppliers and installers are expecting a busy winter. If you are one such club, about to embark on a major irrigation system upgrade, please pause for a second and think about doing something slightly different.



Smart Irrigation - XFS dripline in tandem with Ecobunker Edge

Bunker edges take a hammering during extreme dry spells and often disintegrate and collapse. But there is a way to prevent this. EcoBunker and Rainbird have worked in partnership to develop a sub surface irrigation pipe, buried close to the bunker edge, efficiently delivering just enough moisture to keep grass alive in that most difficult zone.

The staff at EcoBunker were the first to develop synthetic bunker edges, and several other innovations before this latest irrigation option was tested in the summer of 2018. The results have shown that the combination of EcoBunker's edge, plus Rainbird's blockage proof XFS system really works. And with options like wireless controlled solenoid valves connecting to the pressurised network it is possible to control bunker edges without leaving your chair.

Irrigation projects are always expensive, frequently in the £200k to £300k range, but for a fraction more investment it is possible to solve a significant bunker problem at the same time. Please contact us if you are in the lead up to a major irrigation project. It could turn out to be a very smart move.

Dumbarnie Links

Traditional Styling, Modern Methods



Dumbarnie - One of 53 ecobunkers on this £11m project

The brainchild of former Ryder Cup player, and BBC golf commentator, Clive Clark, Dumbarnie Links is the largest new golf construction project underway in the UK during 2018. Clark, a California based golf course architect for the past 20 years and part of the US consortium funding the project has realised a lifetime ambition to design and build a true, traditional links in his homeland.

The links will comprise the full array of design features you would expect to see along the Scottish coast: wild high dunes, wall to wall fescue, humps and hollows, sandy 'blow out' areas, a meandering burn and even a nod to North Berwick in the form of a rugged stone wall, very much in play on the risk reward 17th hole. As you would expect, the course will also feature 53 menacing revetted pot bunkers and this is where the developer and contractor (Landscapes Unlimited) decided to make a very slight break from tradition.

After first seeing the EcoBunker revetting system on several projects in the USA, notably Secession, The Medalist, Greenbrier and various TPC venues, the Dumbarnie Development team were fully aware of the beautiful natural

aesthetics and the fact that golfers are simply unaware of the synthetic nature of the bunker walls. After preliminary discussions with Clark, and a meeting with Ecobunker Ltd at GIS 2018 in San Antonio, a cost benefit study was undertaken, comparing the performance of EcoBunker's system, with all other options including the traditional natural sod construction method.

Richard Allen, CEO of Ecobunker Ltd was able to provide proof of major maintenance savings at clubs that had already installed EcoBunker and the unrivalled engineered resilience of the product, which has survived the most severe hurricanes with no damage whatsoever. In April 2018, Landscapes Unlimited commissioned EcoBunker Ltd as a sub-contractor to build all 53 bunkers on the golf course.

EcoBunker Ltd provided a full time site based 6-man team, led by Project Manager, Llewellyn Matthews, a former Walker Cup golfer, qualified greenkeeper and one of the world's most experienced golf bunker construction specialists. Supporting Llewellyn was a highly skilled team, featuring Patrick Hothersall, a veteran of New South Wales GC, Pine Valley (USA) and Ellerston (Australia) as the deputy project manager and other local staff drawn from Panmure and Bruntsfield Links.

EcoBunker Ltd were responsible for all the bunker construction tasks and at the time of writing the project is now entering the 12th week of a 16 week contract, and is scheduled to be completed on time before the end of October 2018.

Even though the course is not due to open until the summer of 2019, some of the bunkers already look as if they have been in place on the Fife coastline for 100 years or more!



EcoBunker's Llewellyn Matthews giving hands on support



The EcoBunker behind the 14th Green

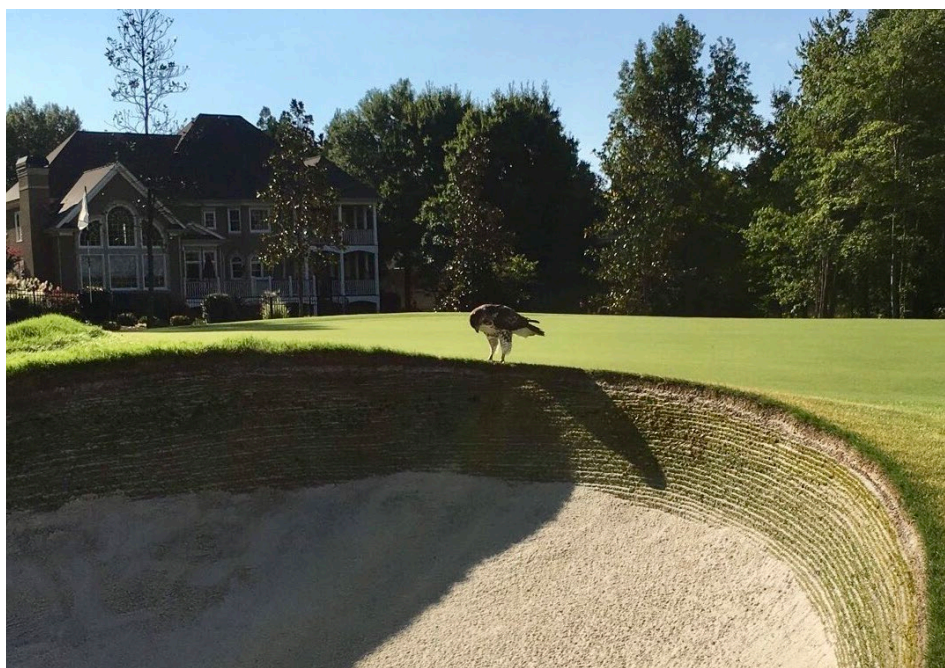
Richard Allen, the engineer behind the synthetic bunker wall concept summarises what this project means to EcoBunker Ltd:



'Building a brand-new genuine links, at the home of golf has to be a once in a lifetime opportunity for all those involved. We thank Clive Clark and the development consortium for their vision and the trust they have placed in EcoBunker. Their wise investment will further prove that this product has a place at even the most traditionally minded golf clubs.'

Caption This

Here's a great photo of one of our ecobunkers at TPC Sugarloaf being inspected by an interested guest. Send your captions to info@ecobunker.co.uk labelled "Caption This"



The Ryder Cup Connection

Technology from Le Golf National combining with EcoBunker



The Ryder Cup Connection - The first fully sealed bunker at Singapore Island Country Club

What a great Ryder Cup. Well done Europe, yet again for defying the odds. The 'Golf National' won many plaudits this week for its design and conditioning, and did you know that every bunker was lined, under the sand with concrete? The product is Capillary Concrete, which is rapidly becoming the preferred option for many top-class golf courses around the globe. The liner is excellent for maintaining sand purity and moisture (critical for consistent playability) and will prevent contamination from beneath. But what about contamination through the edges and sides? Many bunkers suffer from edge erosion and the resultant sand contamination.

The solution? Combine a base liner like Capillary Concrete with the EcoBunker edge solution, to effectively form the ultimate low maintenance bunker. Effectively a sealed tank. Chris Gray, Director of Agronomy at The Singapore

Island Country Club explains: 'The full course bunker renovation with Capillary Concrete and EcoBunker is continuing, and with 5 bunkers completed to date we are already getting compliments on the aesthetics and noticing improved playability'.

EcoBunker can be combined with all types of bunker liners, and it's particularly compatible with Capillary Concrete. There are many joint projects underway, at Denham, Hazel Grove, Dale Hill, and Dumfries County in the UK, plus multiple installations in France, USA, SE Asia, Hong Kong and Australia.



Local Contractors Were provided with intensive training from Ecobunker's Llewellyn Matthews