

Royal Ascot

Standing water, Parade Ring



Groundwater was collecting along a section of Royal Ascot's world-famous Parade Ring, resulting in saturated soil conditions which in turn adversely effected the growth of the signature hedge, which is a major decorative feature of this most prestigious venue. The area requiring drainage was sandwiched between the semi-permeable surface of the parade ring and a concrete viewing stand which meant that access was limited and that great care had to be taken to ensure that no damage was caused to surfaces, fencing or the hedge itself.

System Design

We designed a 30 metre long, linear formation of GD90s™ at 2 metre centres. The total installation consisted of 60 primary GD90s™ at a depth of 6 metres. The GD90s™ penetrated a thick layer of clay near the surface before reaching layers of unsaturated sand below. The ground was almost immediately relieved from saturation leaving the hedgerow to thrive in soil no longer burdened with standing groundwater. The Clerk of the Course was delighted with the outcome and, we guess, so was the hedge.

**£2 MILLION
WARRANTY**

Every GD90™ installation has
£2 million of Professional
Indemnity cover. We can increase
this for individual projects.

The GD90™ Transforming Drainage Design & Scope

The GD90™ is an internationally patented product with unique characteristics that solve a multitude of drainage problems. We launched it in the UK under licence in 2012, since when we have completed over 300 successful installations, from commercial and residential new builds to car parks and cemeteries. We also have our 'Hall of Fame' installs.

Made from high density polyethylene (HDPE), standard drainage extrusion, the unique GD90™ design uses a multiple open chamber system that creates lateral (horizontal) water transfer to soil stratas to a depth of over 12 metres (go to www.groundwaterdynamics.co.uk for full information).

Our ethos is that the time has come for a new drainage solution that:

- does not move large amounts of storm water from A to B in conventional horizontal pipes creating problems "down the line", including the flooding of water treatment facilities that then discharge into critical marine, river and stream ecosystems
- improves the carbon footprint by removing external energy requirements to deal with storm water, with no need for pumps moving water or the energy requirements of treatment works
- stimulates plant growth, creating GD90's™ CARBON NEGATIVE standard
- does not take storm water directly off the surface into deep borehole systems creating possible pathways for contaminants.

Instead, we have introduced a drainage system that takes ground water, indirectly, laterally through the ground into an installation of multiple GD90s™, **changing the drainage characteristics of soils which previously were unable to accommodate positive infiltration rates.** That's the game changer.



Edgbaston CC



Gleneagles



Royal Ascot



Silverstone

"The GD90™ design requires no maintenance, has no mechanical moving parts and needs no external energy requirement to function. It uniquely harnesses soil based gravitational pressure, porosity and waters enthusiasm to keep on moving."

"The unrivalled result is that a GD90™ installation uses the entire volume of soil to a depth of 12m below the ground for water drainage, creating a massive volume of earth to deal with storm water. For new build sites this results in less area for drainage, more for building and higher GDVs."