

Pipe Dreams

Jim Crabbe looks at the world of drainage through the eyes of a Contracts Manager and offers some advice to clubs seeking to improve their courses.

I was asked the other day how I could glamorise drainage contracting. Needless to say this was during a period prior to a dry lull in the weather. Much thought was given to the idea (I kid you not) and various ideas surfaced only to fade almost immediately. The truth is we are the necessity underpinning of the turf industry.



To most clubs we are the last resort. Once the "Course Closed" sign has been up for a sufficient period of time to allow the Club Secretary to lose his ability to be polite to the telephone enquires as to, "Are you open today?" or the club pro has decided that he has seen enough profits being pushed in to the mud of his driving range, the call goes out to the drainage contractors.

The discussions then go along the lines of, "We have this problem, what can you do about it? We have little money. Do you really have to take the machinery over the fairway? We won't see the marks for long will we? Can you start on Monday the 16th of October at 10:30 am after the Lady Captain has played off? Oh and you can't work here on Tuesdays due to the medal."

An exaggeration perhaps, but not far off in some cases. Drainage or, more precisely, the retrospective installation of drainage, is in most cases left as the last resort, where as it should be given a higher profile in the development plan of most courses.

The lucky few situated on good free draining soils can afford to play down the requirement to drain but even here there are trouble areas. How many clay based greens have been built on free draining golf courses and have been showing their inability to cope with the increased traffic that we now have during the winter period?

Retrospective drainage of these greens has increased year on year from the installation of gravel band to full herring bone pipe drainage systems.

In some cases the well planned installation of retrospective drainage has prevented the full reconstruction of the green and minimised time out of play.

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Where the professionals have been allowed to do this the results have been impressive. From the drainage contractors point of view this can lead to the establishing of a relationship with the club over the life, or part of the life, of the development plan.

Issues of programming, working method, specification, after care, etc can be fully discussed and form part of the development plan. The contractors can advise of their preferred time to undertake work, their availability, and their limits (drainage machinery does not have the ability to float over water).

Time is then in hand to inform the club members, rearrange fixtures and, hopefully, inconvenience as few people as possible for as short a period of time as possible.

White Horse Contractors have carried out work on a number of courses over three and five year periods and, in general, found that the mutual understanding formed allows for a better end result.

The usual request is, "Can we have the foreman and crew we had last year again? We know them and they know the course." This relationship allows the course management to realise and argue the case for work to be undertaken at a time that will ensure minimum impact on the course.

Ideally drainage installation should be undertaken between April and

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September, a time of high demand for the use of the course, but a time that allows the contractor to progress at a good pace and inflict little damage to the fine turf areas.

Drainage installation machinery is now very light of foot, trenchers are fitted with wide pads and tractors/dumpers have LGP tyres fitted.

It is, of course, the supply of back fill materials to the pipe layer that causes the wear to the course. It is most usual to have only one materials storage site and this at the furthest point away from the work area.

In the early part of the year, and late in the season, when soil moisture content is high this constant traffic to the same spot is where the damage is done.

Haul roads soon become impassable and in some cases, if the course is heavily contoured, dangerous. Output drops, progress becomes painful and an unsightly mess is made, leaving the

greenkeeping staff with a problem that they may not be able to deal with till the spring.

Long term planning can work round this problem, an informed membership will hopefully respond more positively once the case is made and a period allowed to consider the benefits of timely work.

Of concern to the Course Manager is the reinstatement of drains, in particular across fairway areas. Drain lines will take time to grow over and will be seen for some years after installation, particularly during periods of low rain fall in the summer.

The application of ceramics on top of drains or mixed in to the topping layer to improve the moisture retention of the "root zone", with out adversely affecting its drainage characteristics, has been tried. This has an improving effect, but can increase costs markedly.

Time is the only healer and some courses will recover quicker than others. The positive removal of water from the play area by a properly designed and installed pipe drainage system is the best long term solution to problem areas of the course that will cause closure during the wet winter period.

Verti draining, sand slitting and gravel banding will enhance the pipe system but not replace it. Soil character will determine the intensity of the drainage and so in turn the amount of scarring inflicted.

After care, in the form of overseeding, and keeping the drains topped

to the surface is critical in keeping the level of scarring to a minimum. Should the trench back fill settle, which it will to varying degrees, without further topping up being undertaken scarring will take much longer to heal.

Care must also be taken to ensure that worm action does not lead to capping over of the trench fill, as this will rapidly reduce the effectiveness of the system. Deep spiking is a must.

I mentioned that the course development plans look at all aspects of the management of the land.

Trees will figure significantly in the drawing up of the document. From the land drainage point of view one species stands out, the Poplar. Nothing can render a pipe drainage system ineffective faster than the roots of the Poplar tree and I have seen systems, six months after installation, jammed solid with roots.

Course Managers are keen to re-establish native habitat and removal of the poplar will help all concerned.

Should felling not be an option, then existing pipes must be protected, either with sheeting installed between the tree and the pipe or annual root pruning. New installation should use sealed pipe next to trees.

Drainage is not glamorous but it will allow the course to be brought to presentation standards earlier in the year and help maintain these standards for longer, going in to winter. In some cases it will help save the business if closures can be minimised over winter and increasingly, we are told, during wetter summers.

Planning is the key and informed decision making critical to overall success. Ask questions of your contractor but ensure that you heed the answers, get the pipe in the ground at the right time and in the right way and you may have sweeter dreams.

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