43 ➡

Types of problem

On an established course, the first question asked should be 'are we dealing with an increased usage or similar surface condition problem, or with a deeper problem? Or both'?

Draining a straightforward compaction problem caused by many more feet passing over the surface is a waste of time, as is spiking turf over a high water table. One is a soil problem, the other a water problem, although inevitably one affects the other. Pipes do not last forever: they block with soil, roots, dead rats even! They settle through subsidence or soil shrinkage, or may be damaged, shallow clay tiles especially. They become overloaded as additions are tagged-on over the years. This overloading or surcharging can cause a problem some distance from the source. For instance a new surface drainage system which intercepts what was surface run off into the pipe could cause headaches as gradients fall.

Water flow or hydrology can change, although recently the tendency has been for these effects to reduce – with springs or seepage lines disappearing, though not forever. Rising water levels at the main outflow end, due perhaps to sedimentation on or off site or increased run-off upstream are more likely offenders. Suffice to say that a wide ranging approach is needed at the problem examination stage if the resulting options are to be in any way reliable.

Planning a scheme

Whether the proposed work is large or small in scale, careful planning is always worth the effort. Much may be at stake, not least the reputation of those involved in organising on behalf of the club or management.

Timing and logistics should be thought out in detail to minimise the inevitable disruption which must occur to a greater or lesser extent with any work. Various 'windows' in the usually busy annual calendar of a course can be identified and those occurring at the favourable times of year earmarked. Unfortunately the best conditions for work and the busiest time of the year often coincide. Let us not forget also that the best laid plans of mice and men are always at the complete mercy of the weather.

We can at least attempt to make any drainage work as efficient as possible from the organisation and design point of view. Without going too deeply into the design aspects, it is worthwhile taking a look at how design can affect installation unfavourably.

There are only rare occasions when there is really only one option available to either solve a problem or lay out a new system. Finding the right one is not always a simple question of cost: it may be more to do with minimising disruption in terms of time taken to do the work or the effect on the course itself.

Quick and painless: with good planning, drainage improvement is not such a major job after all.
Picture courtesy of White Horse Contractors Ltd

DRAINAGE DECISIONS

Design

Take for instance trenching, the core of most schemes. Width, depth, and excavation difficulties need to be addressed. All displaced soil has to be handled, probably removed. Anything which can be done to reduce volumes involved helps efficiency, eg. smaller pipe size = narrower trench. Designing for minimum volumes, both of soil removed and permeable fill brought in, is very important; but it cannot be of any detriment to the required drainage capacity of the system. Additionally, when 'trimming' a design, a thought must always be given to the equipment that is going to be installing it.

You may be specifying a system which requires several machines where one would do, or a machine which is not easy to locate. Digging-wheel type trenchers have a width and depth restriction, generally 50-75mm and 600mm respectively. Chain trenchers similarly cannot generally go much less than 80-100mm wide, or much more than 150mm. At the greater widths and depths it is not easy to find a machine which can elevate soil directly into a trailer and thus soil handling becomes a problem. Deep drains, sometimes necessary for seepage lines, represent such a problem. The author has seen an ex-NCB loading shovel make an almost perfect job of lifting soil from a turf surface, following deep drain installation on a fairway, but who has the nerve to recommend this on their course! To avoid this type of problem the design might be adjusted. Is it possible to install two 150mm outfall points rather than one 300mm? Once out of even a large trenchers' capacity, a simple job can become a civil engineering exercise.

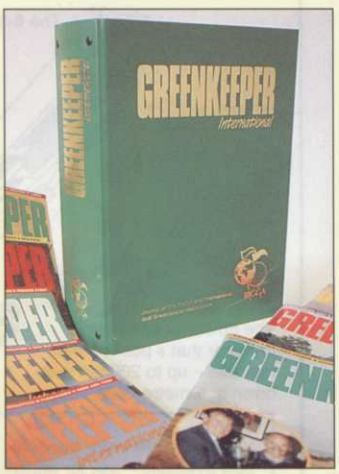
Design must carefully take into account gradients too. It is possible to 'grade-through' a hump or hollow, but the trenching depth capability becomes critical, as does an accurate means of levelling, ie. with well set-out boning rods, or ➡ 46

Magazine binders: good sense and great value

A well-worn phrase borrowed from the world of antiques and collecting – today's disposable is tomorrow's collectable – is really a warning not to throw things away. If you doubt such wisdom, think how valuable an early version of the simple hand mower is today.

But there's more to the whole question of keeping things than mere profit. For writers, researchers, lecturers and all practical exponents of business; art; craft or science, the most valuable source of information is the magazine, especially those from days long past.

This applies equally to the magazines of today, and a visit to the office of most head greenkeepers will usually reveal well-thumbed copies of even the most current issues of trade magazines, often stacked neatly with the good intent of keeping them for posterity.



Sadly, these copies often get mislaid, damaged or 'taken away' and what began as good intent can end as infernal frustration.

With that thinking in mind, and conscious of the fact that the bulk of serious articles appearing within the pages of Greenkeeper International offer the means by which greenkeepers may return to a feature of particular interest – perhaps to refresh the memory on a well established though perhaps little-used technique or to merely confirm an understanding of a given method or philosophy – your Association have commissioned binders for your copies of Greenkeeper International.

This move to provide additional services to readers and members can be witnessed in the provision of these clever binders, produced in the Association's green livery, stylish and convenient, and emboldened with the BIGGA logo on the spine.

On Page 11 of this issue you will find an advertisement for these splendid binders, priced at just £5.95 each or £10.90 for two – enough to keep 24 issues from the ravages of time.

Take a leaf from the antiques world, save it while you've got it, collect your copies of Greenkeeper International in these binders, complete with a useful index card for you to personalise. In doing so you will make them the basis of a useful reference library, whilst creating a collectable for future generations.