

## NEW DEVELOPMENTS

### INTERNATIONAL GOLF COMPLEX PLANNED FOR BLACKPOOL

Golf Commentators, Peter Alliss and Clive Clark have joined forces to design a new championship course at Blackpool. Blackpool Borough Council are instructing the international construction, engineering and development group AMEC p.l.c. and The Boddington Group plc to develop a 205-acre wasteland site near the resort's Stanley Park, to include the golf course, tennis courts and four-star hotel as well as the construction of 368 homes on the site by Fairclough Homes.

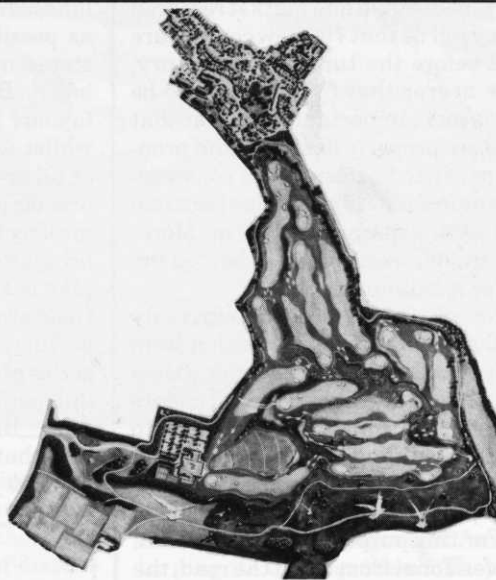
The council endorsed the recommendation of its Policy and Resources Committee to select AMEC to carry out the £45 million project.

The championship golf course, sited on

123 acres, will provide a wide range of golf facilities for Blackpool residents, although it will be open for visitors.

It is envisaged that the course will accommodate up to 50,000 rounds a year, with 30,000 of these being played by visitors.

*Right: Herons Reach, Blackpool, will include a championship golf course, a 164-bedroom hotel and 368 homes on the 205 acres east of East Park Drive*



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# Donald Steel believes golf course construction does *'It does need professional design, construction and the correct specifications'*

Current demand and market research may tell us that 700 new courses are needed before the turn of the century, but the nearer that figure comes to be met, it is more important than ever that courses are properly designed and properly constructed. Design and construction are inseparably linked as Fortnum and Mason, eggs and bacon or Morecambe and Wise - each dependent on the other for maximum effect.

In times of plenty, such as currently exist, there is the risk of invasion from inexperienced "cowboy" concerns, a time also when equally inexperienced clients and developers think there is no more to golf course building than turning over a bit of soil, undertaking some rudimentary shaping and throwing down a bit of seed. For this purpose, they may call in the professional from down the road, the first motorway contractor they can find in Yellow Pages, and quite likely fall into the additional trap of thinking that the overall recipe for success lies in buying a well known star name to tell the world how good it all is.

They are people who always take their toothache to the dentist, their legal problems to a solicitor and their tax demands to an accountant. Quite why therefore they feel at home in "deep waters" or why players of all vintages consider themselves qualified to air their views on architecture as well as greenkeeping, has never been adequately answered. However, it makes it more than ever vital to employ only those capable of giving the correct advice - advice based on proper grounding. After all, it is as easy to do things right as wrong; and it is certainly cheaper.

If Bernard Darwin, who took such an interest in golf course architecture, used to preface any remarks on the subject by claiming them to be "unqualified", it should be seen as a lesson to others. It is a pity that most editors nowadays think that the only item of public interest is a recital of money winnings, but the principles of sound golf course architecture haven't changed all that much. The sad thing is that many architects choose to ignore them in the unenlightened search for something more gimmicky, more trendy.

The greatest qualifications for an architect are a rich imagination, an eye for

land, a familiarity with as many courses as possible and a retentive mind that stores up good points and rejects the bad. Building slavish imitations of famous holes is seldom successful but, whilst welcoming the occasional heroic or all-or-nothing hole, there is probably less emphasis on punishing a bad shot directly than ultimately ensuring that it brings its punishment in the subsequent play to the hole.

Good architects do not come down on the bad player like a ton of bricks but pose a series of options whereby the main onus falls on those players best equipped to cope. Back in 1961, Henry Longhurst said that "a player who can only hit the ball 150 yards doesn't need to find it in a



Donald Steel

sand pit to make the game difficult. It is difficult enough as it is". Yet perhaps the biggest danger of the next ten years is that American architects will spend millions of pounds filling Europe with courses that are unplayable for 90% of golfers.

There is a ridiculous notion that every course must be of championship standard but, in addition to making the best of the land available (within the budget available), the prime responsibility of a golf course architect is to combine challenge and pleasure to all - the significant words being "pleasure" and "all". Losing dozens of balls in numerous lakes while

attempting shots with impossible carries is not everybody's idea of fun.

Professional golfers seem to find it hard to put themselves in the spiked shoes of ordinary golfers but Alister Mackenzie's opening sentence in his book *Golf Architecture* stated that "economy in course construction consists in obtaining the best possible results at the minimum of cost". That cannot mean spending millions to make the best course although every architect needs enough money; and enough is far more than it used to be. So what is the sequence of events most likely to give the best results? Firstly, the proper guidance and advice from official bodies such as The English Golf Union. Their Golf Development Committee (operating regionally) will offer an initial visit but their message to those clients and developers who have not made direct contact with a reputable architect is to guide them on just those lines.

They recommend members of the British Association of Golf Course Architects, a body set up in 1971 to safeguard the public against "unskilled labour". They then tackle each project stage by stage. This starts with a feasibility study to discuss the potential of the land, the technical problems that may have to be overcome and an estimate of cost. After planning permission is granted, the architect is responsible for drawing up the specification of works, drafting whatever necessary working scale drawings and handling the tender documents. Choice of contractors is every bit as important as the choice of architect and the tender list should be based on those with honest reputations, impressive track records and skilled foremen. The architect may be the controller of the contract but he is powerless without the correct interpretation of his wishes, a high level of co-operation and understanding, and a strong respect for each other. It is, in every sense, a team undertaking, the reason for commending members of the British Association of Golf Course Constructors who keep a close hold on the standards expected of their members.

The most worthwhile understanding comes from regular supervisory visits during construction and a policy that is not too rigid. Adjustments can easily be

# not need to be expensive

made as you go along but it should be perfectly possible for architects to have the vision to get everything right first time. It is a definite sign of weakness to be forever making changes, although it would surprise many the extent of the changes to which architects commanding the highest fees sometimes resort. It is often said (with truth) that an architect is only as good as his specification and here the most crucial facet is in specifying the correct materials. Good materials are always good, bad materials always bad until such time as they are replaced - at a cost.

This is not the moment to divulge trade secrets but the foundations of a green require the same attention to detail as the foundations of a building except that greens based on bottomless seaside sand need no auxiliary drainage; and they are a joy to shape.

It bears constant repetition that drainage is the main problem on greens all over the world and that any impermeable layers will impede the passage of water. This can limit the powers of



*The root zone mix must be uniform*

only greens are to be encouraged in Europe. For one thing, some sands are far from ideal and, for another, the maintenance costs and risks of disease are far greater.

Much is being made of courses in Britain costing £3-4 million, although much of this sum goes in the costly preparation of what the Americans call "moving dirt". Many American architects have never

It is somewhat ironic that, as Europe introduces more courses built on American lines, there are signs that America is turning its back on them. They recognise that a return to what one might term traditional courses better embodies the spirit of the game. A couple of years ago, a leading American administrator, referring to recent golf course developments, said "what's happening in my country is insane".

Britain has the architects and contractors to build the best courses with much less song and dance than those from overseas and, in keeping with the tradition of Alister Mackenzie, much more economically, although they could, if asked, spend £3 million as well as the next man. However 700 new courses will not be built if they cost £3 million and, if they do cost £3 million, you will price out of the market all those whom you want to attract. Golf is popular in Britain because it has always been within the pocket of the average man and woman; and that has only been the case because our courses have been comparatively inexpensively built.

True, some have been too cheap and we are learning that lesson, but we have not learned all the lessons. It is an undeniable fact that, in the present buoyant market, there aren't enough expert architects, contractors and greenkeepers to go round in spite of moves afoot to increase their education. Nevertheless, that is no excuse for defying logic and ignoring common sense by employing those with none of the right credentials. You wouldn't dream of engaging a butcher to render a heart transplant.



*The use of special plant and good materials are essential*

recovery after heavy rain or set up conditions of compaction which may not be able to be tackled satisfactorily. Compaction can be caused by the traffic of contractors, another reason for employing those who insist on the prescribed working disciplines.

It is imperative that the rootzone mix is absolutely uniform (however it is composed) if roots are to penetrate their full depth, but that is not to say that sand-

been able to accept the contours as they find them and hence indulge in extensive earthmoving practises which invariably make the natural look artificial and may upset the drainage. I have stressed earlier that sufficient funds are essential and I acknowledge that limited, fairly local earthmoving can be distinctly beneficial, but spending twice as much doesn't necessarily make new golf courses twice as good.

# INCREASED WEAR IS A MAJOR PROBLEM ON BRITISH COURSES

says . . . Jim Arthur

**M**any are the problems that beset those in charge of our golf courses in this changing age - but the worst is caused by the success of the game in attracting so many new entrants, aided and abetted by televised golf, which in 30 years has turned what was, south of the Border anyway, a rather elitist game into possibly the second most widely practiced participator sport, now looking to overtake even angling at the top of the tree. The problem is *wear*, caused by all that extra traffic. It is not helped by so many new golfers being unable to obtain membership of a club, that might inform them as well as control them. The clubless golfer today cannot be reached through the normal disciplines of club structure and administration and only if at all through the media.

Whilst the worst effect of extra traffic is undoubtedly wear and the resultant damage to playing surfaces, it is not the only one. We must also consider the insensitivity of golf's new entry or some of it, towards course maintenance which must never according to their books, get between them and their game.

There have, of course, been aggravating factors which have affected course-management - chiefly the effect of constantly changing direction (in every sense) as regularly changing Green Committees, desperate to assuage complaining members, impose one cure after another - with predictably unsuccessful results. Whether these changes are effected with the complaisance of, or against the expressed views of the Course Manager, the results are the same.

Frankly, the situation has now got to a point where the influence of greenkeeping, as such, has little or no effect on the problem. Intensive aeration, all the year round is banned by the over-sensitivity of those in command to members' complaints. As one example, Vertidrainage is ordered to be carried out far too late in the season, so as not to interfere with the last monthly medal - and then when surfaces are disturbed heavy sanding is ordered, resulting in smearing, smothering, disease and wheel marking and many a good greenkeeper has been

reprimanded, and some indeed actually dismissed, for obeying management instructions, often given to them in writing. A lawsuit for wrongful dismissal is scant compensation for losing not only a job and possibly a house, but the link with a course to which the victim has given a section of his life in terms of dedication and enthusiasm, so it is no wonder that fewer and fewer good men are willing to stand up and put their jobs on the line - and why should they!

For too long advice has been aimed at the converted, who are often relatively powerless to implement it. In greenkeeping, very rarely does one isolated treatment achieve a dramatic solution. It is more the case that sound routine measures prevent the problem arising.

There is an old Scottish adage relating to wear, to the effect that if all the golfers could be got off the course altogether, it would always be in perfect order. While this may be humourously meant and impracticable, there is nevertheless a measure of truth in it.

**M**embership of golf clubs may not actually have increased, in total, dramatically in the past 25 years but not only today do all the members now play - and all the year round too - but they play more frequently. Scotland excepted, in the not so distant past, save in holiday periods, mid-week play was greatly reduced and winter play virtually unknown, save on links courses, except for a handful of hardy enthusiasts and exiled Scots! Not only is there now more traffic from members, but too many clubs are increasingly reliant on the financial returns from massive invasions by golfing societies and visitors. Figures of £100,000 per annum as 'green fee' revenue are no longer unheard of - indeed very few even 'unremarkable' clubs take much less than half this amount and think nothing of it. Some of this revenue may go back into the course - but most is used to keep subscriptions down, thus hiding the effect of the increasing costs required to maintain increasing standards all the year round, but at the expense all too often of course condition.

For too long the emphasis on course presentation has been influenced directly and indirectly by the professional Tour, whose members play no competitive golf in this country for more than six months of the year - and the most difficult six months at that! Too much is sacrificed to the urgent demands for courses to be 'all right on the night' - no matter what this costs in serious course deterioration later - as a critical examination of the current condition of far too many of the venues for the main events on this seasons golfing calendar will confirm. Peaks are always preceded and followed by troughs. If winter play is so vital - and we play golf under 'winter' conditions for more months than under summer ones, then we must encourage winter (or all the year round) grasses to dominate by correct management and eschew annual meadow grass which is satisfactory for perhaps five months of the year at most.

If greenkeepers are pressurised into tarting up courses, not just for major events but even for those on the club calendar, then they cannot also produce all-year excellence, under our climatic and budgetary restraints. We thus come to the crunch - that the problem lies with direction and not with management.

Something has to be done about the trend of non-member golfers, soon to exceed in total the numbers of club members. They are subject to few disciplines and have no long term interests, in all year round condition of the courses that they visit. The provision of additional facilities for them, I will return to in a future article. However it is the limitation of traffic on existing courses to which we must bend our minds.

**C**risis induced by the effects of prolonged droughts such as 1989 (and 1976) may concentrate a few minds but given the amazing resilience and natural recovery of our native turf, it is not long before the causes return and with them, the inherent problems. There can indeed be only one deduction. The first step to improving the all-year round playing condition of our courses is to eliminate Green Committees and the sec-

ond is to improve greenkeeping education at all levels and the third to limit traffic.

Green Committees were never a good idea but worked in the past, especially when they effectively consisted of one 'amiable dictator', but essentially they are a relic of the days when greenkeepers were poorly educated, willing stalwarts, thinking nothing of getting on with a day's work after mowing eighteen greens with a hand pushed Certes. Today Green Committees are all too often a way in which misguided but determined new entrants to the game

can achieve the power to produce course conditions which suit their game and their television-induced ideas of what quality standards are all about - failing to realise that there is total incompatibility between such artificial standards and all year round playability. This is not to denigrate the efforts and motives of some devoted members fulfilling a thankless task, merely to comment that they have had almost to a man no training to carry out what is an increasingly complex and technical task. Constant change is even worse, as individuals fight to impose their ideas in the short term of office available to them, and a clash with sound men with a lifetime's experience in course management is inevitable. There must be a change to a permanent management structure of professionally qualified individuals and this team should include

the Head man or course manager, but not the professional (any more than the catering manager or steward, as they are not involved and have their own spheres of responsibility).

Then and only then, can a course management policy document be drawn up and continuity of both policy and management assured.

There are of course many ways in which winter playing conditions can be improved and wear reduced, other than by reducing numbers of players. These vary from routine management, sensibly but rigorously carried out without excessive interference from outside factors, to special measures. Those experienced managers presenting their links courses for such events as the Open Championship pride themselves that they could take the Open on their course at any time given six weeks warning, but for the rest of the circus even six months is

not enough! Tarting up is not for them!

Special measures vary from sensible appreciation of the factors causing problems to very long term planning. Golf Architects have, especially in the past decade, taken traffic very much into consideration, in thinking of alternative wide walk-off points in contrast to a single line between flanking greenside bunkers; alternative tee positions, even to the extent of siting them left and right of the previous green; and in controlling planting or advocating major clearance of en-

pressure and related compaction in defending buggies are so irrelevant. If the offending vehicles spread their routes widely the damage would be less, but necessarily and inevitably they converge on the most vulnerable areas, off tees; around average drive-landing areas; approaches and around greens. This is why I hope we never see the buggy situation which occurs in so many (if not all) American courses, where the only answer to course damage has been to build hard roads all round the course to which buggies are physically confined, which leads to rounds lasting five hours and more. It is also worth considering that if, when trolleys are banned, caddies replace them, then we get a double set of wearing feet!

**T**hose responsible for the direction of club management and course presentation must balance the advantages of the revenue from non-members (visitors and society) golf against the problems of extra wear and sadly disproportionately greater damage through both lack of proficiency and understanding of the rules. High scores are often directly related to greater punishment of the course, and there is a case to be argued that the whole of the extra revenue should be diverted to repair work and remedial measures, instead of, as is so often the case the bulk being used to



croaching trees to improve light and ventilation.

**T**here is some scope on most inland courses for systematic woodland management to get air to turf and so reduce disease and discourage massive annual meadow grass invasion, in itself one of the poorest wearing grasses but admittedly one of the quickest to recover.

Paths are really no answer, they merely transfer the problem to the end of the path. I have seen paths off tees extending further and further into the fairway, until eventually older members were hard pushed to reach turf off the tee!

Banning trolley's in winter is always unpopular but necessary, not because the wheels do the harm but because those towing trolleys always follow one line like sheep. This is why arguments about tyres and ground

keep subscriptions from rising in direct proportion

to costs. Any course in any given year can only take so much punishment, that is why we must restrict the number of rounds and have not only a balanced financial budget, but a balanced ecological one as well.

In the end however, there is no substitute for sound greenkeeping principles and an even greater need for correct independent education coupled with the establishment of a uniform interpretation by the ever increasing number of training colleges of what is at best a confusing and ambiguous syllabus. Equally, these courses must be open to non-greenkeepers for although we would all wish to do away with greens committees it is inevitable that even if they are reduced in size (to only one!) that the real power will always tie with the members and not the clubs employees.

# LOCH LOMOND . . . . .

"The finest piece of land we have ever been given to build a golf course"

. . . . . say Tom Weiskopf and Jay Morrish



*Looking out across Loch Lomond from Rossdhu House, the stately home, later to become the club-house*

Having played on the Tom Weiskopf/Jay Morrish designed Troon golf course in Scottsdale, Arizona just after it opened in 1985, and finding it to be one of the best courses I have ever seen, I couldn't wait to look at the layout of the new Loch Lomond golf courses being designed by the same pair.

That's how I came to be ploughing through six inches of mud a few weeks later trying my best to avoid the multiple diggers and soil haulers that seemed to be everywhere, on a typical, wet and misty Loch Lomond day.

When I eventually found the historic and impressive 'Rossdhu House', which is to be the clubhouse for the High Road course, I thought right away the journey was going to be very worthwhile. I was met by project manager Alan Wilson who was more than willing to fill me in on the lead up

## **Duncan Gray takes the High Road to Loch Lomond, but can't wait to return along the Low Road**

to getting the whole project off the ground, and the construction progress to date.

David Brench, a self confessed golf nut, conceived the idea around five years ago, and spent the next four years in discussion with members of the Clan Calquhoun family, owners

of the land concerned, and the Dunbarton local authority, before eventually negotiating a 128 year lease and gaining planning permission. During this time Mr Brench had been trying to contact Jack Nicklaus, who, I would say luckily, never returned the calls. Through a quirk of fate he then visited Scottsdale on a golfing holiday with good friend Eamon D'Arcy, and after playing Troon, voted best new private course in the States in 1986, Eamon introduced him to Tom Weiskopf. Two hours later Tom had agreed to look at the Loch Lomond site. A decision Tom now says was one of the best he ever made, as he feels it is by far the most beautiful site for a golf course he has seen.

David Brench has certainly put together a strong team to ensure the success of this project. Tom Weiskopf and Jay Morrish as designers, Alex

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Looking over an inlet of the Loch towards the 17th green

Hay as management consultant, the late Sir Peter Scott to create a nature preserve, and forestry expert Nigel Hastle to ensure the preservation of the gorgeous woodland abounding on the site.

The Rosisdhu estate, home o' the Chiefs o' the Clan Calquhoun, is steeped in history... (note the chinese drawing room must remain intact through any alterations...) The plan is for two top class golf courses. The High Road and The Low Road, each with their own clubhouse, a centrally situated professionals shop with large practice area, a five star hotel, a boating marina, and traditional Scottish hunting lodges for sale as time-share units. All this is in a landscape covering 1200 acres of pure Scottish grandeur. The thick woodland at the Northern end includes 500 year old hardwoods, huge redwoods which were imported from America over 200 years, as well as lovely Scotspines, and countless rhododendrons and azeleas. This is the area that the first of the courses, The High Road, has been routed through. Everything is more or less shaped and drained ready for top-soiling and seeding in the Spring of 1990. A nice balance has been achieved with six holes through thick woodland, six through lightly wooded grassy areas, and three water holes on each nine. The par is 36-35, SSS 72, and a length off the back tees of 6845 yards.

One of the things I particularly liked was the constant changing of direction, although with so many trees about you would hardly know at times in which direction you were heading.

The construction work is being carried out by Nagolfco Inc. of Las Vegas, to an extremely high spec, especially from the drainage point of view. They have obviously done their home work on the rainfall figures in that area! As if to argue that point though, a full greens, tees and fairways irrigation system is being installed just in case.

All the playing areas were first stripped clean of all top-soil, then thousands of tons of base material carted in to shape and contour greens, tees, fairways, mounds, bunkers etc.

Once this shaping was finished the drainage system was introduced. To aid the drainage, several ponds were dug in the lowlying areas. These yielded large amounts of peat which will be used as part of the top-mix for the

fairways and tees. The greens are constructed to the USGA specification, that is, a base with drainage system, a six inch gravel layer, a 2" blinding sand layer, and 12" of rootzone material consisting of 80% sand and 20% soil. Not pure sand you will notice. Thank goodness for a more sensible approach. Even links greens are not pure sand.

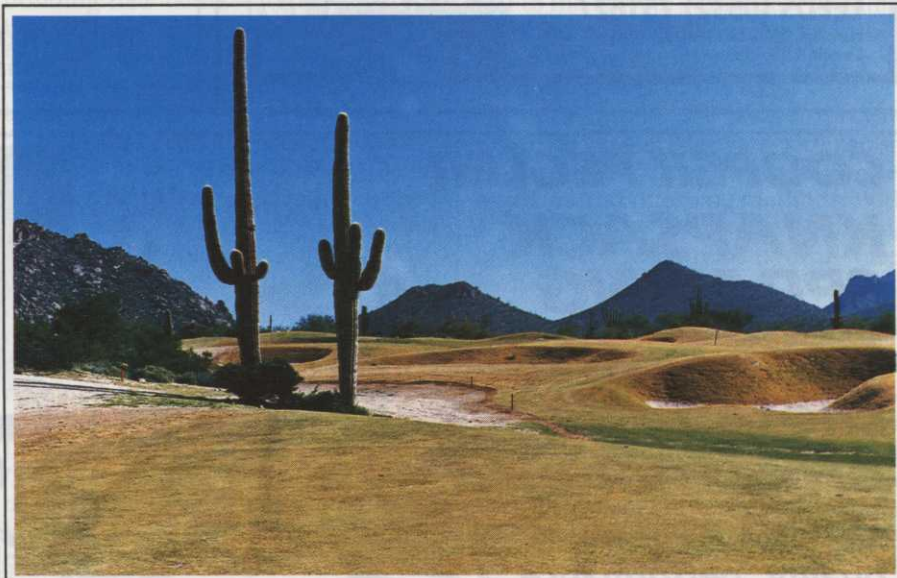
At the time of writing it had not been decided which seed mixtures to use, although the original specification for pencross was certainly being changed, and there would be no rye grass.

One thing I have to get off my chest is that I gather from what was said that an American Superintendent is being engaged to look after this superb new complex, which is a right good slap in the face for the greenkeeping profession in this country. There are a good number of greenkeepers I know of who are perfectly capable of handling a facility like this to international standards, and it is time someone made a stand in this matter with the government.

Back to the purpose of this article however. I have to congratulate David Brench, Tom Weiskopf and Co., on their, so far, brilliant work, making excellent use of the natural lie of the land, existing features, and conservation work.

The second course, The Low Road, will be over more lightly wooded ground, but still very impressive and should prove to be an ideal partner to The High Road. Opening schedules are Spring '91 for the High Road and Spring '93 for The Low Road.

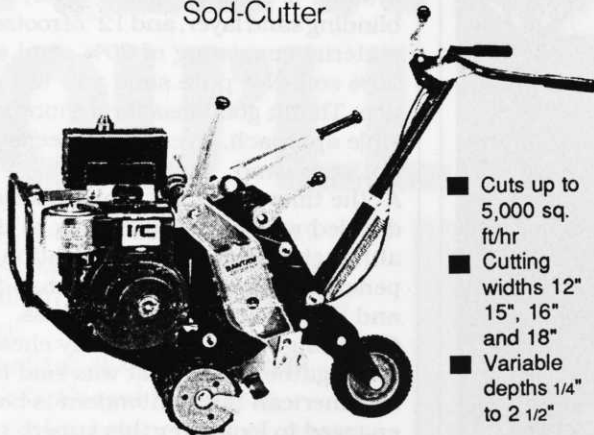
There is no doubt this, is going to be a real gem in Scotland's crown of golf courses, and I for one can't wait to play there.



Weiskopf's major design to date is Troon Golf Club, built in the Arizona Desert to the north of Phoenix

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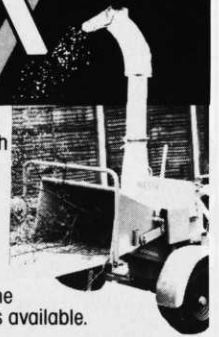
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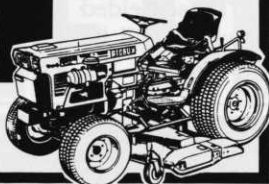
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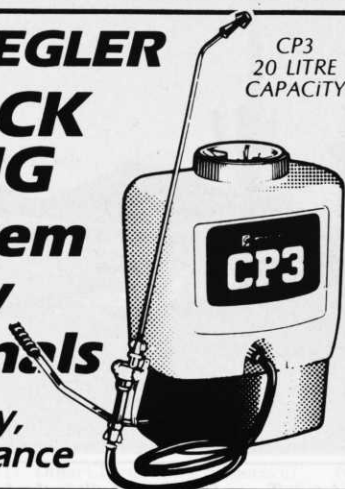
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# Irrigation expert expands his team

**W**hen Philip York first launched himself into the business of golf course and landscape irrigation consultancy in 1985, it was an act of optimism bolstered by his twenty-five years experience in the fine turf market-place.

"I realised it would not be easy", said Philip. "Even in '85, automatic irrigation was still a luxury of the future in many people's minds - especially in the UK landscape industry, but having been part of a gradual, but increasing development of the golf course market - especially in Europe - I concentrated my initial efforts in that direction".

With his mind made up, Philip set himself up in a small office and faced the fact that he had to handle the whole of the technical advisory side of his business alone. A part-time secretary, and Philip's wife helped with the administration!

That was four and a half years ago. Today, the depth of experience invested in Philip York and Partners has developed into a business acknowledged by many as probably being Europe's most experienced independent irrigation engineering design consultancy.

Back in 1986 the picture at Ringwood was a different one. Involved almost exclusively in golf course irrigation system designs - for both UK and European courses, Philip York became increasingly aware that like it or not, his professional activities were, by demand, forcing him to ignore opportunities emerging in the landscape markets.

This problem was solved in 1988 when Bruce Parker joined the Consultancy. A District Technical Advisory Officer for the Ministry of Agriculture, from 1973 to 1978, Bruce subsequently spent a number of years in the Middle East, working as a consultant Irrigation Engineer, mainly involved with landscaping projects.

"Bruce's knowledge and practical know-how relative to the landscaping industry (and horticulture) provided the perfect balance with my own sports turf irrigation experience".

Commuting regularly from Hampshire to visit customer's sites in Portugal, Sweden, Spain, Norway, Finland, France as well as around the UK, the two consultant engineers gradually realised that they needed yet another experienced 'head' to help them cope with steadily increasing market de-

mands.

So, in the Spring of 1989, Philip York invited Mike Martin to join the Consultancy. Specialising in agricultural irrigation system design, Mike also has extensive experience of pumping and water sourcing procedures. Like Philip, Mike gained his in-depth knowledge of large scale irrigation with Wright Rain Limited, the company who pioneered the use of sprinkler irrigation for UK farming and horticulture during the sixties.

"Between the three of us, we now have an integral mix of technical experience which enables us to cope professionally with just about any type of irrigation design concept thrown at us!", says Philip York.

**S**o how does all this experience benefit the average golf club? we asked.

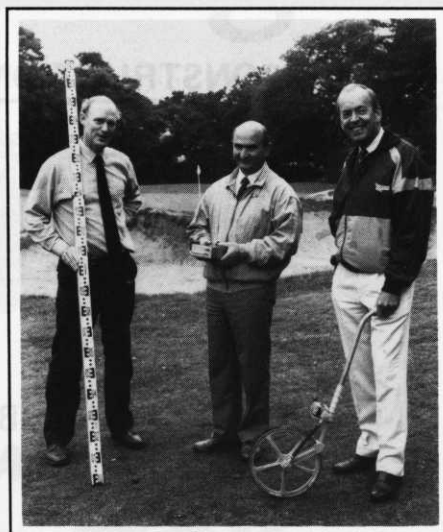
"First and foremost, we can, because we are completely independent of any trading company, offer clubs contemplating spending money on irrigation systems, an objective and unbiased opinion".

"This facility is available to clubs who have an existing system but who are unhappy with its performance - we are, for example, currently reviewing the system installed some years ago at the Aloha championship course, in Spain. Having assessed it, we shall put forward recommendations designed to up-date the system - and its performance".

"Equally, we are able to advise architects or developers responsible for building new courses. The recent 18 hole China Fleet development at Saltash, Cornwall, is just one of several UK golf courses where we are totally involved".

"Earlier this year, the local authority, which owns the 18 hole public Queens Park course in Bournemouth, retained us to prepare a feasibility study and design a viable pop-up system. Constructed back in the thirties, the course had traditionally been watered by ad-hoc methods - our design will not only automate it, it will provide regular, consistent water coverage far superior to anything ever achieved there before.

"Because there is now a proliferation of irrigation equipment and control systems available on the market, it is extremely difficult for a green committee, developer or purchasing authority to choose wisely and to invest many



*L to R: Bruce Parker, Mike Martin and Philip York probably Europe's most experienced team of golf course irrigation engineering design consultants.*

thousands of pounds effectively".

"We are totally conversant with the range of equipment available today and therefore we can recommend that which best suits a particular need.

"So far we've talked about irrigation system design - but our advisory services go much further than that. If requested, we will oversee the entire project. Having walked a course, we will produce a viable design, invite tenders - usually from three reputable companies - assess those tenders, evaluate the capabilities of the installation team, agree a contract, (that's most important) then visit the site to ensure that the work is being carried out to the correct standards, commission the completed system and then when we are satisfied, and only then, we hand it over to the club.

"In addition, we are able to provide practical - assistance with water sourcing and storage, the provision of power supplies and pumping methods. With Mike Martin's knowledge of drilling bore holes, we can help with water extraction!

**P**eter Beverly has now joined the team as Field Engineer to the Philip York Partnership. Peter, who has some fifteen years experience of UK and overseas irrigation systems, will be responsible for the important task of managing irrigation installation projects on site. His brief, to ensure that installation standards are met and maintained right through to the commissioning stage.

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