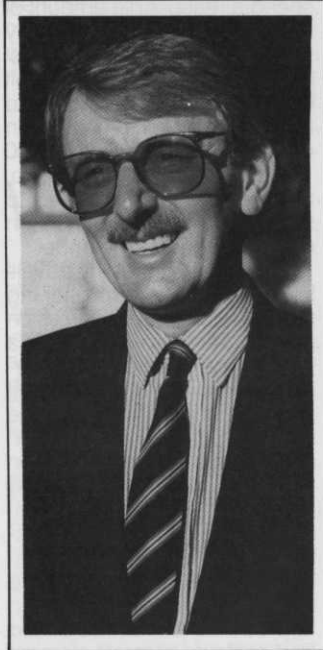


**PROFESSIONAL
STANDARDS IN GOLF
COURSE**

CONSTRUCTION
By Howard Swan MSc
Chairman, National
Turfgrass Council
Founder, British
Association of Golf
Course Constructors
Howard Swan Limited



Howard Swan.

THE growth in golf throughout the world is quite staggering. We are not alone in Europe in seeing a boom in what is a wonderful game and little has been seen like it in those more developed countries since the early 1970s.

In Europe golf courses are being developed from Finland to Portugal, from the Azores to Turkey. They are being produced in significant numbers to meet the increase in interest in the game at all levels. Without doubt, the success of our male and female golfers has meant that more people want to play the game, better. Increased television coverage by our satellite links of tournaments in America, in teh far East, and on the European Circuit, both through the Mens Tours and the Ladies Tours have meant that more people have seen the game of golf and more people have seen golf courses for the very first time. Their interest in the game, and the landscape in which the game is played, is keenly alerted and they too want to see more of that in their own countries.

As we move to the end of the decade, it should be noted that throughout Europe there are vast provisions of new golf courses. In Sweden some 200 are planned to almost double the present provision. In France in excess of 100 are presently being constructed, in Germany to a lesser extent but still the game thrives there and more and more people are

joining it and more and more people want to play it on more and more golf courses. Throughout Scandinavia, in Spain, in Portugal, in the South of France and in Italy, where the accent is on resort golf, there are more courses. In my own country, in England, we are experiencing the same. In the early 70s there were many courses until the oil bubble burst and the world economy was seriously shaken. Thereafter, we experienced a lull, if not a stagnation, in the market. We found that few investors felt that satisfactory returns would be gained from setting up golf clubs, whether they be private or public and so we had few courses. However, as our enterprise economy has been established in the United Kingdom, under the present government structure, there has been increasing confidence in investments of significant size in the private sector and we have seen, particularly in the last two

years, a great, great increase in the game and its popularity and the need for more courses to be provided.

Our own Sports Council, our government agency, has recently changed its parameters by which it judges the need for golf courses from one 9 hole unit per 20,000 people to one 9 hole unit per 12,000 people, on 80% increase.

The governing body of the game, The Royal and Ancient Golf Club of St Andrews, recently commissioned a survey throughout the country about the need and the demand for new courses. It was their view, I believe, although it has not officially been published, that some 600 courses were required in the next few years. The English Golf Union, which controls and administers the game in my own country, has taken the initiative in golf development by contributing its own committee and predicts that NOW some 675 golf courses are required to sustain the present demand, let alone to satisfy it in the years to come. This, in all, with the fact that we have around 2,000 in the United Kingdom already in operation.

It really is some prospect for all of us who are here today.

So how can we satisfactorily meet this requirement in providing courses?

I believe it is a worrying prospect as I recall only too well that in the early 70s when demand was high in my country we had some indifferent golf courses designed and built and irrigated and since then those greenkeepers who have tried to maintain them, some well, some indifferently, some badly, have struggled because the basic concept and engineering was indifferent and defective.

We must not let this happen again

After all, the investor has

rarely the experience of building more than one golf course. He wants to build it once, correctly, and first time only and does not want to suffer, I am sure, from recurring nightmares of remodelling and reconstruction and excessively costly greenkeeping because the initial product was simply not good enough.

In the United Kingdom we have recognised this situation,

I think responsibility, and are trying to address ourselves to the problem. The National Turfgrass Council, of which I have the privilege to be Chairman, has together with the English Golf Union formed a Golf technical Committee, and it is our remit to attempt to look towards providing minimum standards and guidelines for performance in the provision of golf courses. We have on our committee, the National Turfgrass Council members of the golf course architects and the golf course constructors, the irrigation companies and the greenkeepers, our research body the Sports Turf Research Institute, of whom Jeff Perris has already spoken to you earlier in this session, and the Golf Course Wildlife Trust, our ecologists and environmentalists in the field. This Committee together with the administrators of the game will be working hard towards setting up these standards and once established we hope that they may be able to be published, widely regarded by practitioners, investors, and golfers alike and so a policing and maintaining standard realised. From this, we hope that a more intensive, more realistic and pertinent education process will ensue in all sectors of the game so that by the pulling together of all the parties involved we will have an all encompassing, all meaningful, advance towards thoroughness in golf course provision.



British Association of Golf Course Constructors

CONTACT THE PROFESSIONALS

NEW GOLF COURSES, ALTERATIONS, DRAINAGE LAYOUTS.

Contact:

Mr. Tim Banks, The Secretary,

3 Angle Court, Dairy Yard, Market Harborough, Leic. LE16 7NL

Tel: (0858) 64346. Fax: (0858) 63734

Each of use therefore, has a responsibility to play in this. Although it is not my brief to talk specifically about golf course design and architecture in this paper I do hold some strong views on the subject. I am involved very closely with many golf course architects around the world and do, from time to time, become involved in golf course design myself. I look back to the traditions of the game in my British Isles and see nature having a profound influence on matters. In fact, I have often thought the greatest of our golf courses were those where man had very little hand in their manufacture. But clearly, that can't always be the case. Whatever, however, I fervently believe that the way we design golf courses should complement nature. It should not attempt to replace it but we should maximise utilization of the features which nature has given us on a particular site as far as is humanly possible in providing something which looks, as Alastair MacKenzie said in 1892, "as if nature had provided it herself". Such a statement is so relevant today.

I have to admit I am not a great believer in moving dirt to build the golf course, moving mountains to produce greens, tees and fairways. This surely isn't the way forward. The movement of large, often millions of cubic metres of sub-soil means great expense, high budgets, and I am far from convinced that, except in a few relatively isolated cases, the financial equation just cannot make sense and the golf market just cannot afford such extravagance. Perhaps its my inbred British modesty and regard for our heritage that sways my mind, but in the two or three examples which we have in England, I am concerned about the amount of money being spent on building a golf course, and more so the effect of such, dare I say it, rape, of my traditional landscape which I hold so dearly.

I can only exhort the golf course architects of the world to take the ultimate regard of what God and Mother Nature has provided and use it to its maximum advantage in changing the use of the land for this wonderful game of ours, and so enhancing the environment in which we live and play.

In providing the satisfactory standard of golf courses now and in the future it is important that construction is correct. The construction of a golf course is no easy task and should not be underestimated. It is specialist

in nature and needs a considerable understanding of a wide number of disciplines on the part of the project manager or the contractor who is responsible for executing the works. They need to be engineers, botanists, ecologists, geologists, hydrologists, agronomists, mechanics - is the list never ending? — as well as being sound businessman. The specifications to which they work need to be comprehensive, they need to be pertinent to the particular situation on any one site, and they need to be thorough, yet clear for all to read, comprehend, and comply with. In the old days, golf courses were often laid out from the back of an envelope or a cigarette packet. Today no more. It is necessary that the golf course architect, or the project manager has a document which adequately details the quality and the quantity of the work envisaged in building the golf course, and there is no room for error in the provision of the correct materials and the right standard of workmanship in effecting the construction. I have seen specifications which are wholly inadequate, and I have seen specifications that are so elaborate that they are just too difficult to see the light at the end of the tunnel. It is imperative that, particularly, materials are well specified and their quality is ensured by laboratory testing before they are used in any construction process. It is imperative that they are used correctly and with due regard to the weather and ground conditions which prevail in the period of work. It is all too easy to simply ruin the soil by the utilization of heavy machinery in poor conditions. It is easy for the constructor to walk away and say to the client and the greenkeeper "well there you are, I have built you your golf course" and they are left to pick up the pieces and struggle for years with only the method of surface treatment available to them, to try and restructure the soil. Its a sad tale, but it has often been seen.

There needs to be, in the golf course construction market, a sensible pricing policy, and an acceptance that golf courses are not built for inconsequential amounts of money. They can certainly cost too much, I believe, with excessive profits being made, and going into somebody's pocket somewhere. However, there is a need to understand that a golf course does cost something in its construction and if anyone want to see it done well, then they need to

spend a reasonable amount of money to ensure a thoroughly worked product. I am often faced in the demand for new golf courses, particularly from farmers in my country, with an expectation that for £100,000 18 holes may be built. Not so, and yet is there any need to spend millions of pounds on one golf course? I wonder.

I find, throughout my travels in Europe, that approaching the provision of golf courses on project management base is a sound one whereby, a coordinating ability, with specialist experience and knowledge may be applied to any situation and with good on site direction and supervision, with qualified personnel the necessary standards of golf course construction may be achieved efficiently, economically, and to a realistic programme. Such an approach is entirely fee based and contains no profit element in that a specified time involvement is involved and nothing else. Such an approach is particularly pertinent in countries where there is no tradition in golf course construction. There are caterpillar tractors, there are materials, and there is sufficient labour to build a golf course, but it just needs organising and I am finding an increasing place for my practice in that coordination in management.

But I would say that, whether the golf course in question is to be built by this, rather innovative approach, away from the traditional contracting base, or by a competitive tendering situation with contractors, the opportunity is here for us all to make sure that we provide the golf course that we would wish to see played upon in the years to come.

We have a wonderful opportunity throughout Europe to make sure this happens; a wonderful opportunity to meet this staggering demand for our game and we must make sure that we take this opportunity wholeheartedly, in a truly committed fashion, honestly, thoroughly, and above all professionally, and we can be proud of being part of the game.

ALL BRITAIN LAND SERVICES LIMITED

THE increasing number of golf courses being planned and built as land owners look for diversification has required that less free draining soils be considered for golf course construction.

Poor quality land and wayward retentive soils require efficient

drainage if good quality grass is to be grown. The best financial returns come from frequency of play but numbers of people put pressure on grass and inadequate drainage will often cause a course to be restricted or closed during wet periods.

This will not happen if drainage is considered at the outset of design and given as much importance and consideration as irrigation, for the two should work in close harmony for efficient results.

A company which is very much concerned with this aspect of land drainage is All Britain Land Services Ltd. ABLs offers a consultancy service to Golf Course Architects and Agronomists, both for new courses yet to be constructed, and existing golf courses who wish to improve their facilities.

Based in Winchester they, as their name suggests offer a nationwide service and can undertake design and installation using their own experienced teams if required.

They have been closely associated with the prestigious East Sussex National Course at Uckfield, Sussex where drainage continues to be installed to overcome water movement on a site where complex soil types both natural and man made have made drainage of vital importance.

All Britain Land Services', Managing Director, Marc Caplat, believes that the Company has the dedication to land drainage problems on Golf Courses that such a crucial element in a Golf Course's success requires and by careful attention to details and individual treatment for each course he believes the Company has much to offer and can provide a detailed drainage design at an early stage so allowing adequate provision in establishment and maintenance costs to be made.

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GOLF BUILD (UK)

GOLF Build (UK) may be a new name in the European Golf Course construction market, but the personalities behind it are old hands.

Chris Bakhurst recalls that it was in 1965 that the late C.K. (Ken) Cotton persuaded him to set up a construction company to join in the boom of new courses which lasted ten years. Golf Build's co-director, Bill Cooley, joined with Chris shortly after and jointly or individual-

ly they have since been involved in the construction of over thirty courses in the UK, Europe and Africa.

In 1989 they came together again working for the Bahar Leisure Group and after a highly successful contract were persuaded by the director of Bahar Leisure to accept funding and form the new company to enter the current booming market both to build courses within the group and for outside clients.

Chris Bakhurst says: "the industry is a pleasant marketplace still peopled with many personal friends and I am sure we have a lot to offer without kicking any shins, due to the high volume of current and anticipated projects. We already have 27 holes on our 1990 order book and are actively bidding in the UK and France. There is plenty of work for serious companies".

weather conditions permitting), can be completed in a matter of days or weeks.

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WHITE HORSE CONTRACTORS LTD.

WHITE Horse Contractors Ltd., operates from Blakes Oak Farm, Lodge Hill, Abingdon, Oxfordshire and provide services in land drainage, ditching, reservoir construction, landscaping and sportsfield/golf course drainage and construction, Civil Engineering and Plant Hire.

An increasingly important aspect of the business however, is Golf Course Drainage. Kevin Smith, Contracts Manager of White Horse Contractors Ltd comments: "The gradual change to Golf Course Drainage has resulted not only in a need for specialist equipment, but has meant that a higher standard of work has to be achieved. There is an emphasis on a quick tidy job with the least amount of damage to the Course as possible."

Mr Smith acquires the majority of his Company's amenity work through competitive tendering - although more and more work is now being obtained on recommendation. "If the job is large enough, then we will travel anywhere in the country," he says.

A complete design service is offered to customers and includes a site survey to find out if there is an existing drainage system with suitable outfalls. Soil types and levels must also be determined - the latter dictating the design of the new drainage scheme. Estimated costs for the proposed scheme are then presented to the customer.

"With a comprehensive drainage system" he comments, "it is important to consider the on-going maintenance costs when budgeting for a new drainage system for sportsturf," says Mr Smith.

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STA-BRITE CHANGE OF NAME

'**S**TA-BRITE', registered company name has been changed to 'STA-BRITE SUPPLIES LIMITED'.

Its trading address has moved to a newly fitted-out freehold warehouse and office complex in Basingstoke.

AERATION & DRAINAGE SERVICES

AERATION & Drainage Services was formed back in 1984 by Paul Wright, who was at that time the Head Greenkeeper at Dale Hill Golf Club, Ticehurst, E. Sussex, having previously been first assistant at Cuddington Golf Club (Banstead) and R.A.C. Golf & Country Club (Epsom) respectively.

The Business was started with one tractor and one Verti Drain operated by Paul himself. Ever since then the Business has gone from strength to strength and at present runs no less than five Verti Drains and other machinery such as a Wizz Wheel Trencher with high level conveyor and back fill hoppers for all kinds of Trenching, Drainage systems and sand/Gravel slits etc., also a Twose Turf Conditioner, Soil Admeliorator (Robin Dagger compressed aerator), Top Dressers and Over Seeders.

Paul says that now with more and more demands being put on the Greenkeeping staff as a result of the ever increasing amount of play, there is less time for Clubs to carry out their own construction/alterations. Therefore, given the staff, skills and equipment available it is a natural progression for Aeration & Drainage Services to follow. It also makes very good sense to carry out construction work during the summer months, meaning a project taking months over the winter period (when staff are available and

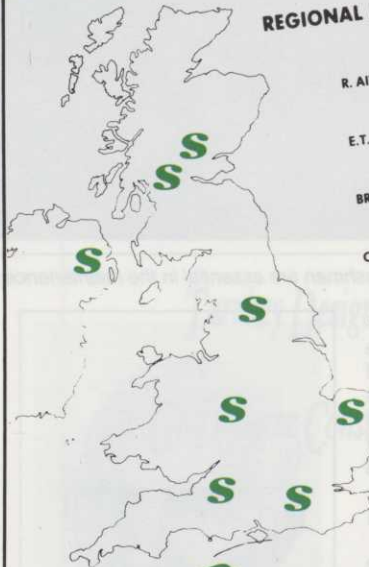
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Natural turf products

Spring Check List

- FERTILISERS**
 - Spring & Summer - Powder & Granular
 - Autumn & Winter - Powder & Granular
- SPECIALITY PRODUCTS**
 - Biological liquid to promote healthy turf
 - CYTO-TURF Wetting Agent
 - AQUA-GRO Liquid Iron
 - GREENSTAR Oil spill treatment
 - GREEN KLEEN Soil amendment
 - TURFACE
- GROUND MAINTENANCE EQUIPMENT**
 - GOLDLINE RANGE Roller squeegees, rakes
 - FERTILISER SPREADERS Even spread
- GRASS SEEDS**
 - Supaturf Cytozyme seed treated range

REGIONAL AMENITY DISTRIBUTORS:



- R. AITKEN (SEEDMEN) LTD**
123 Harmony Row, Govan
Glasgow G51 3NW Scotland
Tel: 041 440 0033
- E.T. BREAKWELL LTD**
814 Stratford Road, Shirley
Solihull, West Midlands B90 4BJ
Tel: 021 733 3344
- BROWN & SONS SEEDS LIMITED**
101 Whiteladies Road
Bristol BS8 2PE
Tel: 0272 736831
- COLLIER TURF CARE DISTRIBUTORS LTD**
Haverhill
Nr Cowston, Norwich
Tel: 0603 870944
- JOHN LINDSAY PROFESSIONAL SPORTSTURF**
40b Charlestown Road, Portadown
Co Armagh BT63 5PW N. Ireland
Tel: 0762 339229
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Stronghold Works
Mayfield Industrial Estate
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Working machines such as this Cushman are essential in the maintenance of good turf quality on the golf course, following professional construction.

THE occasion of my election as Chairman of the British Association of Golf Course Construction provides me with a reason - or excuse - to look back on 25 years of Golf Course Construction and to compare conditions at the start with those which exist nowadays.

It may come as a surprise that today there is less divergence of opinion between the main architects and contractors on basic construction than there was at the start of the golf course boom of the mid sixties.

It was then the exception rather than the rule for Architects to specify that greens were built on underdrained stone carpets. Certainly most specifications stipulated the use of local soil topped with "2" of seed-bed compost!

Greens were built in isolation from their environments and the imaginative marrying-in of greens with wide gently contoured surrounds was almost unknown. There was none of the current emphasis on keep-



Brian D. Pierson

ing constructional machinery away from vulnerable and very important approaches.

Some specifiers were still advising the use of perennial ryegrass for fairways and only minimal attention was given to construction and design.

What a contrast today! There is almost universal agreement

that both greens and tees must be built on drainage rafts, properly blinded and with a uniform imported sandy soil root zone two mix.

Often on entire courses from greens to rough is sown with basically the same fescue/bend seeds mixture, variations occurring only regarding seed rates and perhaps the use of cheaper strains for the rough.

Of course it costs a great deal more to build a golf course today than 25 years ago - from which time there are however plenty of examples of quite satisfactory courses being built for less than £10,000. This is not only due to inflation, but much more to higher standards and more elaborate specifications, including full automatic irrigation.

However, a word of warning may be appropriate. If the need for more golf courses is to be met economically (which does *not* mean building cheap, bad courses) then money must not be wasted in enormously expensive earth moving opera-

tions. Nor must we overly rely on extensive water features, to create character.

Contractors have to build to architects specifications and none of us should be inveigled into accepting constructional standards which have no relevance to our climatic and soil conditions. Sand greens! Will they ever work!

We, the contractors, have the experience and skill to make good courses to suit our Northern European conditions. It is depressing when inexperienced clients opt for much more expensive specifications quite needlessly, just because they think if they pay much more they will necessarily get a much better golf course.

The need for more courses is not arguable. How to produce them is, but we should, I feel, be thinking far more about providing for the beginner golfer because if he starts on something better than golf in a field, I feel that the long term future of golf will be in much safer hands.

BRIAN D. PIERSON