



Overseeing construction at Westerwood Golf Club

Recently the EIGCA published an information leaflet for potential golf course developers. EIGCA Senior Member Jonathan Gaunt fleshes out the information provided within the guide.

from virgin site to the opening day...

Developing a Golf Course

Over recent years many landowners have become increasingly attracted to the idea of developing their property for golf. However, for any potential developer the seemingly simple task of building a golf course can become a complicated, drawn out and expensive affair.

There will need to be marketing studies and site suitability reports. Planning permission will be required. A project development team will need to be selected and the construction and grow-in properly managed. Finally the operation of the golf course will need to be determined, programmed and costed.

Before proceeding a developer needs to find answers to a number of important questions: What kind of course should be built? How can I be sure it will be successful? How much will it cost? How can revenues be maximised on the available acreage? What needs to be done to satisfy local and national environmental regulations? Are there enough prospective golfers who will want to play? To which market am I trying to appeal?

Successful developers are very choosy when it comes to developing potential golf course sites. There are a number of criteria that a good site must satisfy and the first is location.

Location is so important, because, historically, this is the one factor above all others that will determine the success of the facility. Depending on the nature of the facility and who it is designed to cater for, the site should ideally be close to a major road network, and within an hour of a major conurbation or airport.

Quality of land is not a major problem, except when finance is severely limited, for today a golf course can be built almost anywhere - on poorly drained areas, disused gravel pits, land-fill sites or mountain slopes. Indeed some greens have even been built floating on pontoons in the middle of a lake! The amount of land available will determine if the course is to be 9, 18, 27 or 36 holes and this has a direct bearing upon the number of golfers who can play at any one time - which in turn affects the profit.

A major question to be asked is 'does the golf course need to be profitable?' The course may need to be able to pay for itself with a view to generating revenues over the long term, or perhaps the golf course is simply provided to bring extra value to other parts of the development such as housing or a hotel. The possibility of other profitable leisure facilities which can be provided in the clubhouse on the property should also be considered.

Article by
Jonathan Gaunt



It must never be forgotten that the overriding factor most likely to prevent development going ahead is of course finance - or the lack of it - for building a golf course is never cheap. Landowners and developers often steam ahead with planning applications without first doing anywhere near enough research and in particular without having a feasibility study produced.

Developers with foresight will commission a feasibility study from a company or individual who has experience in the preparation of such documents. The information included within the study is wide ranging in content and a number of sources are often required.

The study will determine where the site is in relation to the market demand, by researching population levels in the locality, looking at the demand for golf, studying local and national tourism patterns and examining in depth existing golf facilities and their success or failure. The object of the study is to establish if the project should progress into the development phase and what type of project will best ensure long term success.

In addition to the feasibility study, or possibly as part of it, a second report to ascertain the suitability of the site for golf will be required and ideally this report should be prepared by an experienced golf course architect. The study should examine whether the physical elements of the site, such as land area, topography, soils, geology, vegetation, drainage and water availability will allow a golf course to be built, and, if so, how many holes (9, 18, 36 etc.).



It should also look at other restraints such as legal and environmental restrictions, surrounding landuse, local infrastructure and location of services, and identify any potential conflicts or safety issues which are likely to occur.

Common limitations which restrict golf course development are steep slopes, rock or poor soil conditions, lack of suitable water, poor water quality, the need to conserve important natural habitats and public rights of way. For example, it may be that only 50 per cent of a site can be used because of extreme slopes or perhaps the soil is so poor that a massive drainage system is required which could be prohibitively expensive to install, thus making the development non viable.



Hennerton Golf Club

The amount of land needed for golf development will vary depending on the type of golf course planned (i.e. tournament, resort, residential, private, pay to play etc), how many holes, extent of practice facilities and so on. However, on average, an 18 hole golf course with a practice area will require between 60 and 75 hectares of usable land.

Typically golf courses set within a residential development require more land because of the additional safety margins which are required and the proportion of the land that is permitted to be built upon by the local authority. Sites which comprise steep terrain, protected zones or are of an irregular shape also need to be larger.

Steep slopes often lead to extensive earthworks in order to make them suitable for golf. Similarly, very flat sites may also require considerable earth movement to facilitate surface drainage and to create fill material. The ideal site has gently undulating landforms which are capable of forming natural locations for greens, tees and fairways.

The information gathered from the site feasibility studies should allow an approximate golf course construction cost to be compiled.

A feasibility study can save both money and worry. Planning applications are expensive and time consuming, especially if they are unsuccessful. By having a study prepared at the outset the developer will have a firm foundation upon which to establish a successful project. He must also be prepared for other possibilities: that he may be strongly advised not to proceed at all, that he must look elsewhere for more suitable land, or his original concept for the project should be completely revised.

Once the feasibility of the project has been determined it is now time to develop a master-plan in order to investigate the opportunities which are available and to fix the locations of the various project elements within the site.

Often the architect will play the role of project leader. As well as establishing the layout of the golf course and practice facilities he will play a central role in locating the clubhouse and maintenance compound, determining the irrigated area and landscape character, and planning the location, style and size of lakes, streams, walls, bridges and pathways. ♦



With the masterplan completed it is now time to approach the relevant authorities with a view to achieving the necessary planning approvals. Requirements for approval differ greatly from country to country and even between regions within the same country.

Often the procedure for obtaining planning permission can be lengthy. It is important to fully understand the approval process and its likely programme at the start of the project. In Europe it is common for an Environmental Impact Assessment to be produced as part of the approval documentation and it will often be necessary for the design team to complete much of the detailed design package in order to fulfill the planning submission requirements.

With the necessary approvals obtained it is effectively possible to begin construction works on site if all the design elements and contract documents have been finalised and a contractor appointed, although it is more often the case that further detailed design work will still be required.

The masterplan alone will be insufficient in providing the detailed information necessary for the construction of a golf course as it will only show a relationship between greens, tees and fairways, as opposed to finished levels of the proposed features. It will therefore be necessary to produce construction drawings for greens, tees, fairways, bunkers and all other features on site, such as lakes and mounds.

To prepare these, a thorough topographical site survey will need to have been carried out, showing all existing contours and other interesting features such as hedgerows, lakes, streams, marsh-land, public footpaths, mature trees and woodlands, badger setts, sites of special scientific interest, statutory authority services including electricity cables and gas pipes and any conservation areas that may exist.

The routing plan will have taken these important factors into consideration, as will all detailed construction drawings.

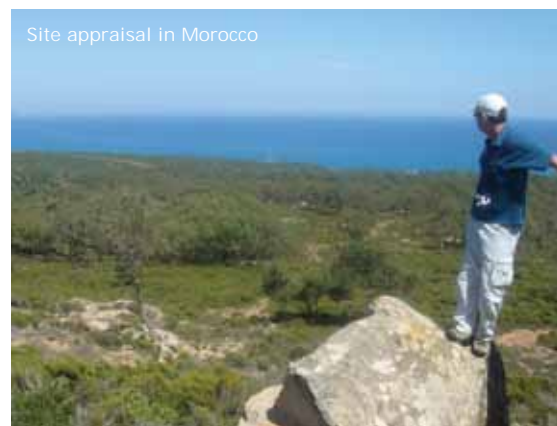
The construction drawing will show the area where a proposed feature is to be located and indicate, by showing proposed contours in relation to existing levels, how much earth movement will be necessary to create each feature. The scale of the drawings will be sufficiently large in order that accurate measurements may be taken off in setting out the designs on site.

Alternatively the designs will be issued in 3D digital format allowing the contractor to mark out the site accurately using GPS.

Each green, tee and fairway drawing will provide the contractor with an accurate means of pricing the construction work, however these drawings should only be read in conjunction with a specification and accompanying Bills of Quantities.

Once a contractor has been chosen, by competitive tender or by negotiation it is his responsibility to provide both architect and client with a construction programme and timetable, indicating the period necessary to build the golf course and including an agreed completion date. Sometimes a contractor can suffer major set-backs due to inclement weather or with differing soils, which can make it very difficult to estimate just how the contract is likely to progress. The construction programme, therefore, is produced purely as a guideline.

The contractor must also provide the architect with samples of soil, peat, sand and seed mixes for approval and analysis prior to any orders being made. Once a design is finalised the contractor is responsible for the accurate setting out of the design on site, which is checked and approved by the architect before construction proceeds.



The architect must also ensure the golf course is being built according to the specifications and that the correct materials are used. He will normally visit the site once or twice a month to inspect construction progress and certify completed work. The contractor will provide sample stockpiles of materials on site, which must be available for random testing should the architect feel such tests are necessary.

During the construction the contractor will submit to the client monthly valuations related to works completed. This is normally at the end of each month. It is the architect's responsibility to then issue a certificate which confirms that the contractor's calculations are true and correct. The client should employ a Clerk of Works throughout to oversee the works, however, the architect will act as an unbiased judge should complications or disagreements arise between either party.

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Once the architect has signed a certificate the client should release payment to the contractor.

As the contract progresses, meetings will be set up on site by the architect, involving both contractor, client and himself and established to ensure progress is satisfactory and the contractor is keeping to construction schedules.

There are many imponderables, but if the contractor has adhered to specifications, drawings and his programme and there have been no major difficulties, the golf course will be finished on time, enabling the architect to grant the contractor a Certificate of Completion.

This is only issued when both architect and client are fully satisfied and will, as a normal course of action, include a defects correction clause.

This clause is a negotiable factor and is dependant upon individual client wishes, however, it usually extends for twelve months after completion. If any part of the golf course fails in

this time, the responsibility lies with the contractor to return to site and make good those faults.

Once construction works have been completed the course should be left to establish and mature and it is during this ‘growing-in’ period that course grooming will play a vital role and a maintenance contract will be established. The golf course architect should again make regular visits to the golf course during this period to mark out mowing lines for greens, fairways and roughs and sand lines on bunkers and to establish with the course manager a maintenance regime which will create the intended golf course character.

Grow-in of a new golf course can take anything between 6 - 24 months depending on its location within Europe and the time of seeding, but hopefully it will not be long before the first golfers are enjoying their golf at a successful and well planned development. ■



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