
Where Economy Is False . . .

Don't Sacrifice the Potentially Great Holes To Save Money

By **KENNETH WELTON**

Architect, Welton & Collett, La Jolla, California

Any consideration of golf course architecture should start with function rather than with the details of course design and building. The architect can make his most valuable contribution before these phases get under way. Primarily, the architect should explore the main objective of a project and guide the developers toward the attainment of a course that will be suitable to the needs of the group of players it is being built for. In fact, many times he must take the lead in coordinating facts and figures to bring about a separation between extravagant and impractical ideas and reality.

Course developers are inclined to lend too much weight to the opinions, either solicited or unsolicited, of low-handicap local players and amateur architects. Too often their recommendations are along the

line of the spectacular, such as the so-called championship layout, or the extreme features which may be exactly opposite to the type of course the prospective supporting players should have. Apart from whether the course should be comfortably within the playing capacity of the majority, or laid out for tournaments and low-handicap players, there is the important question of costs.

Where there may be difficulty in financing the building of the course and its maintenance, the promoters should be helped to avoid costly artificially created architectural features and expensive maintenance conditions. In short, there is a great variety of objectives to be considered in arriving at the type of course to be designed. Some are strictly for private membership while others are for business

and the consequent profit motive. It is easy to see why the course architect's initial responsibility to his client is to make certain that there is a firm agreement on the type of course wanted and the money available before his further services are put to use.

Once these matters have been agreed upon, the architect is in a position to give sound advice on the selection and price of the property for the course. The preliminary examinations should satisfy him as to the feasibility of laying out and constructing the type of course agreed upon within the financial limitations set. Any major compromises with these goals should be made before the purchase of the property or construction is started.

Good tests of golf are by no means limited to any particular combination of topographic features. Holes can be designed so that each opens up an entirely new vista. Really fine courses can be built at minimum expense if natural features are used for hazards and in the landscaping. Attempts to approximate natural landscape features on flat, uninteresting land are costly and usually fail in attainment.

When it comes to the costs (including taxes) the architect will be conscious of the maintenance prob-

lems he is building into a course. An extra construction expense may be warranted if undertaken to attain an extra fine golf hole. But if it is almost certain to result in a continuing high maintenance expense, perhaps there should be a compromise. At the same time it isn't wise to deliberately sacrifice opportunities for outstanding golf or aesthetic values on any hole solely in order to attain low maintenance costs. Such action may backfire; the uninteresting course resulting might not attract the clientele it is being designed for. Saving money on building or maintenance does not depend so much on sacrificing an especially good golf hole as it does on controlling the urge to create the spectacular.

The aspects that should be suspect from an economy standpoint are the obvious window-dressings, such as putting greens with ridiculously high fills and steep banks, putting areas 50 to 100 per cent larger than the hole calls for, and useless bunkers scattered around the course. All of these require extra hand-maintenance and add nothing to the playing qualities of the course or its natural beauty.

Must Know the Shots

What qualifications must a course architect have to function along the lines described above, and to finally design and construct the course agreed upon. First, he must be a student of the game of golf. It does not seem necessary that he be an outstanding player. It is more helpful if he has studied many courses than to have played top golf. But he must know

(Continued on page 110)



Augusta wouldn't be Augusta, nor Winged Foot (below) Winged Foot if all the emphasis had been on economy.



MOODY
"Rainmaster"

**Better Turf
 Through
 Better
 Sprinkling**

MOODY
"Rainmaster"

MOODY SPRINKLER COMPANY, INC.
 P.O. Box 240, Arcadia, California

Irrigation at the Shore

Automatic system — Fairways only. Manual system — Greens and Tees

Three Row System — 60' Centers each sprinkler on Freeways — 600 outlets on Fairways

Greens — 5-6 sprinklers each

Tees — 2-3 sprinklers each

125 valves operated each night on fairways.

Valves — Buckner #14 Quick Coupling. Sprinklers — Bucknew #865 — $\frac{1}{4}$ x $\frac{5}{32}$ nozzle. Each sprinkler output — 17 gpm.

Automatic Valves — 75 Moody automatic valves controlling stations — quick coupling valves.

General Information — 90 ft. difference of elevation required two time clocks — one clock at high elevation required normally open valves. Time clocks are Moody ten station clocks.

Pressure supplied by gravity with water originating from reservoir located at an elevation higher than golf course. Pressure at sprinkler varied from 90 psi at low point and 45 psi at high point.

Pipe sizes reduced through automatic design providing positive control of output. Cost savings made on material basis as well as labor saving in operation.

Volume of Water — 350 gpm on fairways with 12-18 sprinklers running at one time. Greens and tees watered separately.

Cost of System — Materials and installation \$77,000.00.

Pipe sizing reduced resulting in pipe cost reduction affording monies to be applied to cost of automatic equipment.

False Economy

(Continued from page 28)

the shots; what is fair through the green and on the putting greens, and what conditions or design lead to interesting play. Also, he should know the limitations of players of all ages and degrees of skill to make the shots required.

From the technical standpoint, the golf course architect must know enough about soils to work with the problems of texture and structure, drainage, aeration, and fertility. He should have enough technical background to understand the environmental needs of plants and be particularly well advised on the playing qualities and cultural requirements of fine turf. Of

A GOLFING MUST!

MARK-A-BALL
 ON YOUR GREENS

FIX DIVOTS

ADVERTISE YOUR BUSINESS

THE BANK OF CALIFORNIA

MARK CLARK
 O.C.
 LAKEVIEW Oregon

Victoria SAVINGS & LOAN

• TOURNAMENTS • SOUVENIRS
 • FIX BALL MARKS • CLUB NAME

No Charge for Designs—Shipped Ppd.

MARK-A-BALL Write for samples and prices
 DEPT. G • P.O. Box 5844 • PORTLAND 22, OREG.

KEN Shop Supplies

Help You Give Better Service

All

Ellington Tools
Grip Conditioner
Stains, lacquers,
adhesives

Grips
Listing
Whipping
Shafts
Collars
Plugs
Sheathing
Buffing and
cleaning
supplies

Golf Club Scales
Official, Lorythmic,
Prorythmic

All other shop needs

Write for handy SHOP SUPPLY LIST



Kenneth Smith GOLF CLUBS

Hand-made to fit You

World's Largest Custom Club Maker

Box 41-GM, Kansas City 41, Mo., U.S.A.



\$600 GAIN

in cart rentals in
just two years with

STOWAWAY RENTAL CARTS



Pro says... "Club members appreciate a lighter, easier-to-handle cart. My rentals rose from \$800 in 1961, with a different cart, to \$1300 in 1962 and \$1400 in 1963, with STOWAWAY Carts."

You can increase your rental profits with this popular, sturdy, feather-weight cart built to withstand the rugged wear necessary in rental use. Designed for the golfer's pleasure and your profit. Write today for descriptive literature and prices.

SPORTS INTERNATIONAL

1225 SECOND AVENUE • OAKLAND, CALIFORNIA

*Professional's name upon request

Sales Representatives: Desirable territories available.

course, he should have a sufficient working knowledge of engineering to make plans, layouts, and specifications, and to be intimate with the technics of earth moving and grading.

Know Cost Control

He should know costs, construction and maintenance, and how to control them. He should know the machinery and equipment needed for both construction and future maintenance use. Few, if any, course architects can be considered expert in all of these sciences. But through years of training and experience the capable architect possesses the above qualifications, at least to the extent that he recognizes problems, admits to whatever limitations he may have, and will seek out more specialized advice when needed.

If an architect has enough of these prerequisites or acquires them, from there on the quality of his work depends largely on his natural ability. If he is gifted with an artistic sense and originality his work will show it.

Should Supervise Construction

The architect's role in course construction varies. Most designers prefer to have the overall supervision of construction as part of their contract with the developers as a guarantee that the details of their design work will not be lost through careless or unqualified supervision. Some architects will contract to build the course, but most prefer to retain the role of architect and to remain in an advisory capacity in assisting the developers to make suitable contractual arrangements.

The architect will no doubt advise the developers to select the man who will be put in charge of maintaining the course after it is built. This man, a qualified superintendent, should be employed early in the construction phase so he will be available to consult with the architect on maintenance problems and also be familiar with the construction details from the start of the job.

Golf course developers should choose their architect and gain confidence in his services early in the development. He can help in deciding on the type of course needed, in choosing suitable property, in cost control, design, construction and, finally, in helping to set up maintenance standards. His services may be of great value in any one or all phases; to not utilize them is false economy.