

The 300-yard eighth hole at Alma GC in San Jose, Calif., two other par 4s and six par 3s are lighted. (Inset) Recommended placement of floods and poles on 5-hole layout. Greens should be lighted from two directions to minimize harsh shadows and luminaires should be mounted at least 40 feet above ground.

Can A Standard Size Course Be Lighted?

By RON STREIBICH

Few people have tried to find an answer to a question such as this . . . But investigation shows that it can be done — and profitably, at that

When the subject of lights for golf courses is brought up usually it is in conjunction with Par 3, ranges or golf centers. Possibly as many as 50 per cent of these installations are equipped with lights because their owners have come to the realistic conclusion that not only profitable operations, but indeed survival, are dependent on night play.

How about standard size courses? Is it economically feasible to attempt to light all or part of layouts such as these? Several years ago it would have been considered folly to attempt it. But it can be and has been done in a few cases. And the cost, as you will find upon reading further, is not by any means outlandish.

The General Electric Co. has gone into

the lighting of standard size semi-private and private courses quite thoroughly in the last year or so and has made some interesting discoveries. Its findings, based on a 9-hole, 3,300 yard course, give precise figures on installation costs and returns that can be expected. Here they are:

Municipal, Semi-Private Courses

Municipal and semi-private courses usually are most crowded and would have little difficulty in attracting players from 8:30 to midnight to a fully-lighted back or front nine. On the average, this type of course can recoup its investment in four years and thereafter gross an extra \$15,000 per year. These figures are based on:

Annual income from night golf: extra nine-hole rounds per day — 60; On an average public course, during the 4 to 7 p.m. "rush hour," about 60 players tee-off for a quick nine-holes. This rush stops at 7 because golfers cannot tee off after this time and still get in nine holes. However, by lighting the course until midnight, golfers could start until 10. The extra three hours of play, based on activity between 4 and 7, could mean at least 60 more nine-hole rounds per evening.

Extra revenue per day — \$90; Assuming \$1.50 greens fees for nine holes, the added revenue for 60 extra nine-hole rounds per night would be \$90.

Extra revenue per year — \$18,000; Based on an average of 200 golfing days per year times the total added daily greens fees of \$90, extra gross income per year would be about \$18,000.

Lighting A Regulation Course

Initial investment amounts to about \$66,000. This is broken down in this manner:

As a general rule of thumb, one mercury floodlight for every 25 yards will give ample lighting for night golf. Therefore, an average nine holes — measuring 3,300 yards — requires 132 luminaires at a total cost of about \$21,500.

Poles — About 90 40-foot poles, with one or two luminaires apiece, would be needed to hold the 132 luminaires. The installed cost of these would be about \$5,400.

Lamps — A 1,000-watt lamp for each lighting fixture would total around \$4,100.

Cable — direct buried cable, eliminating overhead wires which might be unsightly for a golf course, would cost around \$2,200.

Transformers and controls — \$2,800 (based on \$20/kw)

Contractor's fees are almost impossible to estimate on a national level. However, as a rough guide, figure around \$30,000 for complete engineering and installation.

Cost of Lighting

Annual cost of the lighting system amounts to \$2,630. These factors must be considered:

Electric power — For 200 days per year, four hours per night, it costs about \$2,200 to operate the 132 luminaires.

Extra lamps — It's estimated that 9 of the 132 lamps will have to be replaced each year at a cost of \$280 for the lamps and \$18 for installing all of them.

Cleaning — All 132 floodlight fixtures should be cleaned each year at a cost of \$1.00 per fixture.

Wages — The course might now also require \$2,000 more in wages, due to the longer hours of operation. However, this can be compensated for by the added revenue from the pro shop, snack bar sales, etc.

From these figures it is shown that it would cost \$66,000 to light nine holes of a regulation golf course. Yearly operation would be \$2,630 extra, thereby resulting in a four-year outlay of \$76,520.

Paid For in 4 Years

Extra revenue for four years would be \$72,000, indicating the installation can be paid for in slightly less than that time. After this, added annual gross income would be \$15,370 — annual extra income minus annual operating cost.

These figures cover a hypothetical example and probably no installation would coincide with these exact figures. However, this is a conservative example. It is quite likely that many courses could pay for night golf in even less time and show even more profit if:

1. The nine to be illuminated were less than 3,300 yards.
2. There are about 200 golfing days per year. Many sections of the country have 250 to 300 golfing days.
3. More than 60 nine-hole rounds are played each night. Most people have more time for recreation after 7 p.m. than before.
4. Greens fees are more than \$1.50 for nine holes. A higher fee can be charged in most major metropolitan areas.

Country clubs and yearly membership courses may meet with some difficulty in proposing a plan to members involving
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Standard Course Lights

(Continued from page 44)

immediate lighting of an entire nine and a resultant increase in dues. An alternate approach perhaps would be to light the final two holes of each nine. This would allow up to an extra hour of golf per day on each nine and give members the opportunity to appraise the many benefits of night golf.

Cost of lighting two holes on each nine, derived by dividing the entire nine-hole cost by 2/9ths, comes to around \$15,000 for one nine and \$30,000 for the final two holes on each nine.

After a year or two, club officials could propose lighting an entire nine or all 18 holes, giving the members 3½ extra hours of golf per day. This could be paid for by a temporary increase in yearly dues, by adding more members or by charging a night golf fee.

A total of 132 floodlights are suggested for the 3,300-yard "typical" course described in this article. Five holes on this hypothetical course, with a proportionate

share of the lights, are shown in the accompanying figure. This spacing would illuminate the fairways to twice the light level of most main business streets in America. Also, the greens would be lighted to a level two times that of the fairways. While mercury-vapor luminaires provide high illumination, their brightness is very low and controlled so players aren't hampered in any way when making a shot.

Chamberlin Introduces Eagle III

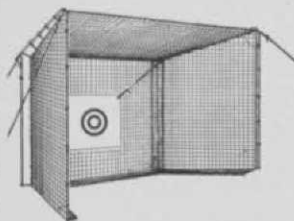
Newly introduced by Chamberlin Metal Products Co., Frankfort, Mich., is the electric-powered Eagle III model Caddy Car. It features a missile-type control system that does away with starters, solenoids, resistors, and rheostats, increasing power utilization and use between recharges.

MacDonald Gets Dunlap Promotion

Paul R. MacDonald has been named administrative assistant to Paul W. Gibbs, assistant vp of Dunlop Tire & Rubber Corp. Since joining Dunlop, MacDonald has been a territory representative and a regional manager. Prior to this, he was a sales and promotion rep for Golfcraft.

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