

## DEVELOPMENT

### Essex refuse tip transformed

Anglian Sportsturf has overcome formidable drainage problems to successfully construct a public golf course on the fringes of East London.



Fairlop Waters Golf Course where formidable drainage problems had to be overcome before construction could begin.

**D**erelict land, which has been the site of a fairground, a wartime fighter airfield, a gravel pit and a refuse tip, has been transformed into an 18 hole golf course. Fairlop Plain, as this 120 acre site was once called, now features a landscaped amenity with sailing, angling, country park, adventure playground and horse-riding alongside the golf course.

Owned by Redbridge Borough Council, Fairlop Plain needed extensive drainage and irrigation before the golf course could be built. Subject to settlement and flooding, a further difficulty was caused by the generation of methane gas as is found on all refuse tip sites. This killed the grass and it was essential that the percolation of methane through the grass sward was controlled.

First enquiries by the Council

suggested that it would be impossible to drain the site which is flat, having only an 11 foot fall in about 1,100 yards. Anglian Sportsturf suggested otherwise.

"In order to install the pipe drains with sufficient falls to overcome shifting levels in the ground, it was first necessary to design a drainage scheme that would take account of any natural drainage fall already existing," explained Harry Bird of Anglian Sportsturf. "In fact, the natural ground gave little help. However, a scheme was designed that would take what advantage it could from the existing levels. Even so, it is difficult to install pipes with a very shallow fall, and the design demanded the use of special laser controller trenchers.

"Considerable difficulties were encountered during the course of installation due to the debris –

– everything, including the kitchen sink, had been buried in the tip.

"Following the installation of the pipe drainage scheme an interconnecting matrix of sand/gravel drainage channels were installed. These pick up the surface water and carry it to the pipe drains. This enables the intensity of the drainage to be dramatically improved to an acceptable level for year round use," explained Harry Bird.

Anglian Sportsturf's work has been so successful that the drainage system has proved an effective safety valve, allowing the gas to be vented in a controlled manner so that it has little or no effect on the grass.

Anglian Sportsturf were also responsible for the construction of tees and greens and maintained the course until its opening.