

Llanelli Coastal Park

South Wales 1998



Client	Carmarthenshire County Council
Contractor	Birse
Consultant	Ove Arup and Partners

The 22km long Millennium Coastal Park near Llanelli, has been created from a stretch of derelict industrial land into a recreational amenity. As part of this project, two land bridges were required to span the Swansea to Fishguard mainline railway.

The outline scheme for these structures was prepared by Ove Arup & Partners and was designed to mould the contours of the park across the rail line, whilst minimising the amount of imported fill. Reinforced Earth Company (RECo) were subsequently appointed by Birse Construction to design and supply the precast concrete arch segments which formed these tunnels.

The eastern (100m long) and western (35m long) land bridges were analysed using finite element techniques which produced a very economical 350mm thick arch section. The portals were formed using oblique precast concrete segments, which blended with the landscaped contours of the park.

Erection of the arch units were carried out during weekends, and despite suspension of the work whilst the boat train to Fishguard passed through the site, two cranes erected 16m of tunnel length per each 10 hour track possession.

The project was completed on time and within budget, saving 13% against the target cost. Furthermore the project was awarded the 1998 George Gibby Award by the ICE South Wales Association and shortlisted for the 1999 British Construction Industry Awards.