



East End aesthetic

Engineers, architects and even an artist have worked together to design a bridge that blends the old and new in east London, reports Lisa Russell.

When a new bridge was needed to serve an industrial area at Three Mills in Bromley-by-Bow, the first instinct was to produce a purely functional structure. But instead, the opportunity was taken to give added impetus to a riverside area that is getting a new lease of life.

Three Mills Bridge bridge, near Stratford, will improve access to a film studio owned by London Industrial while keeping traffic away from the area immediately in front of refurbished historic buildings. It will also link to a new sports events area.

The intention was to provide a new focus for the area with a bridge that was sensitive to this setting.

Three Mills is a historic corner. The House Mill is an 18th century Grade I listed building being restored with funds from Stratford Development Partnership, which works to achieve local regeneration, and English Heritage. The old miller's house next door has been turned into an environmental education centre.

"We are trying to protect and improve a few little jewels in the area," says Stratford Development Partnership project manager Mark Newland-Smith. "We are trying to raise Stratford's pro-



Three Mills Bridge sits alongside historic mill buildings. Unusual features include different colours either side, a pattern in the dark blue southern girder and a cantilevered walkway.

file, attracting inward investment and encouraging people to live and work here."

The bridge has two principal 25t simply supported girders made by Rowecord Engineering. They are of a distinctive shape, curving down from a high point of 2.3m. The length of the south girder extends beyond the span itself, enclosing the approach ramps. Each girder is painted a different colour. The light blue is to allow the silhouette to blend with the sky on approach from the north, while the dark colour on the south is emphasises the enclosure of the river basin.

"This is a completely different bridge from what was originally envisaged, a more exciting one," says Newland-Smith. A purely functional bridge was to have been built, a brick and precast



concrete structure. But the developers decided to bring in architectural input. "I felt that heavy engineering in steel would fit in even better," says architect Peter Clash of Clash Associates. Steel, he felt, would be more appropriate to the industrial setting.

Design work was finalised in November, with contractor Apex Building Contracts starting on site in January and completion due at the end of this month. Cost of the bridge is £740,000.

Having an architect involved with a bridge design is no rarity; but inclusion of an artist certainly is. Peter Fink was brought in to give an extra aesthetic dimension to the structure with his input part funded by the London Arts Board.

Fink's contribution has included the drilling of holes in

the south girder to a pattern he designed with the intention of breaking up the solidity and allowing through the light and views. The hope is that the bridge will look dramatic by night as well as day, with variable coloured lighting from uplighters to the deck and walkway.

Design was complicated by the fact that the river wall provides flood protection. Breaching the wall would have required additional works to maintain the protection. "In the end, we decided to pick the whole thing up," says Michael Fisher of engineer Marks Heeley Brothwell.

The original design would have involved construction of piers in the river, but with the switch to steel, a 30m span has been designed founded solely on the banks.

"It is a fairly large span, and we tried to make the structure as light as possible," adds Fisher. Use of open mesh decking on the walkway and roadway suited both the engineer and the architect. From the engineer's point of view, it is light, while Clash likes the fact that people will be able to see the shadows and reflections of the water beneath.

Unusually, the pedestrian walkway is cantilevered from the outside of the structure. This not only makes it more dramatic, but keeps pedestrians away from the traffic and gives them views to the old buildings.

Clash says without the impetus from the development partnership this would have been simply a standard bridge. With neighbouring London Docklands Development Corporation promoting interesting bridges, Clash says Stratford should not be left behind.