

Iron Cove Bridge

Australia, New South Wales

Work / Activity 1
Prestressing / Tendons
Work / Activity 2
Bridge and road products / Road
Joints



Companie(s) : Baulderstone
Owner : Bridge To Bay Alliance
Engineer : Hawkins Civil Engineering
Engineering consultant : Hyder

Subsidiary(ies) : Freyssinet Australia

Beginning of works : 06/2009
End of works : 12/2010

Description of the work :

The project consists of duplicating the existing Iron Cove Bridge made of 53m span simply supported steel trusses erected in the 1950's along Victoria Road between Rozelle and Drummoyne. Victoria Road being on one of the Sydney's major arterials, the new Iron Cove Bridge will have a dedicated bus lane, two traffic lanes and a shared path for pedestrian and cyclist. The bridge is 400m long at 8 spans, maximum span 53m. The cross section is 3.3m deep for 17m wide and made of prestressed concrete. The deck is located approximately 12m above water.



Freyssinet mission :

Freyssinet had an early involvement in the project, from the brainstorming stage to the construction method selection stage. One of the key achievements of Freyssinet in this project has been to convince the client that the original construction technique intended to be used (Moving Scaffolding System) was not best suited for the project and that traditional incremental launching was a better solution. Once the construction technique was agreed, Freyssinet was involved in the design and construction stage together with the consultant and the engineer for more than a year prior to mobilization of the operatives on site, as a sub alliance member. Due to this early involvement, Freyssinet secured an extensive scope: * assistance to post-tensioning design (no coupler, blisters only) * install the PT tendons (300 tons of launching & continuity PT) * supply and operate the pushing jack (Eberspacher 900 tons capacity) * design and supply the launch over pot bearings (with support from FPC) * design and supply finger plate expansion joint (WP 350) * design and supply the launch nose (75 tons at 32m long) * design and supply the pulling equipment for the first launches * supply the sliding pads and the sliding foil The client acknowledged that appointing Freyssinet early in a project has been a sound decision and that the construction team delivered a very good performance on site.

