

## Western Trunk Sewer – Werribee River Aqueduct Project

### Date

January 2009 to September 2010

### Location

Western Trunk Sewer – Werribee River, Hoppers Crossing

### Project Value

\$25.1M

### Awards

Winner of the 2010 Civil Contractor Federation Earth Awards

### Project Description

The Werribee River Aqueduct is the critical section of the Western Trunk Sewer (WTS) that crosses the Werribee River. The existing section first constructed in the 1960's reached the end of its design life and required replacement. The aqueduct project consisted of 190 metres of 4.5m diameter reinforced concrete pipe, with a 70m span being over the Werribee River.

### Key Elements

Specific project elements include; post-tensioned piers to support the aqueduct, construction of a combination casting bed and launch bay, segmentally cast and launch the aqueduct (including a HDPE liner cast into the structure), post-tensioned cast in-situ aqueduct segments, launching of these segments over the Werribee River, a combination concrete walkway and aqueduct protection system.

The element of work with most focus was the transition structures at each end of bridge, and staging of the transition from old to new as to avoid any potential for environmental spill.

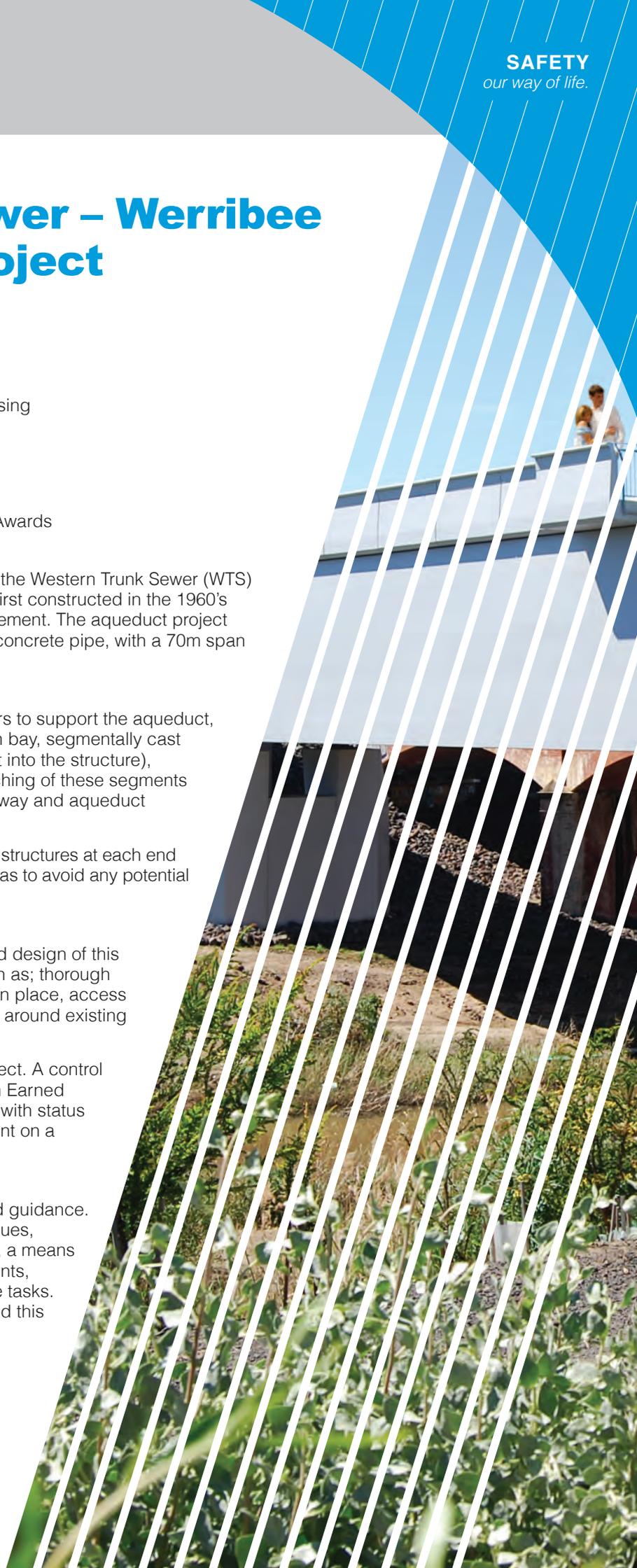
### Schedule and Project Planning

The Teams' expertise was in place prior to the detailed design of this aqueduct being complete. It was to ensure items such as; thorough project establishment for the construction works was in place, access requirements to all areas were considered, and works around existing Heritage areas was considered and possible.

Microsoft Project was used for each phase of the project. A control baseline was set; the phases were managed using an Earned Value Methodology. Scheduling was updated weekly, with status and progress against the baseline reported to the client on a monthly basis.

### Stakeholder Management

The project used a management plan, which provided guidance. It identified stakeholders, their requirements, risks, issues, engagement methodology, consultation requirements, a means to inform of individual elements, monitoring requirements, and resources required for implementation of all these tasks. An independent stakeholder satisfaction survey scored this project 93%. Credit to all involved.



### **Environmental Management**

A site environmental management plan was developed for this project, as was the sensitive nature of works over and around the Werribee River. The SEMP developed for this project provided clear guidelines for avoiding, reducing and managing environmental risks and achieving sustainability goals for the client during construction. It defined; Key Environmental Aspects from the a risk assessment process; Delegation of responsibilities; Communication requirements; Inspection checklists at appropriate intervals; Incident reporting; and encompassed associated documents such as incident response, awareness, and spill management etc.

To the clients satisfaction no major incident, including during the transition phase occurred during the project.

### **Quality & Client Satisfaction**

The team took a self-managed approach, which ensured the most appropriate person within the organisation was responsible for specifically suited tasks. Quality audits by the client were regularly performed to ensure compliance and to help identify improvements wherever possible.

We empower our team members with responsibility beyond their normal roles. This encourages the team to consider design intent, construction timeframes, and client needs as they perform their tasks. This empowerment greatly assists in the delivery of positive project outcomes.

The project was completed to the clients' satisfaction.



#### **JAYDO CONSTRUCTION**

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