



LEADSUN

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In partnership with



CASE STUDY

Client: New South Wales Government
Project: John Whitton Bridge, Sydney
Lighting Compliance: AS/NZS 1158.3.1.2005 P2

Innovative solar lighting solution lights up heritage-listed John Whitton Bridge in Sydney

Leadsun worked with the New South Wales Government to implement an innovative solar powered lighting system for the John Whitton Bridge and connecting pathways in Sydney. The bridge, which was previously a railway crossing before being refurbished for pedestrian and cyclist use in 2000, spans nearly 300 metres across the Parramatta River from Meadowbank to Rhodes.

Alternative to the design

The solution for lighting the bridge was based on a design by consulting engineers Northrop that involved the use of GE Evolve P4P5 lights, which are accredited by the City of Sydney and commonly used throughout the inner city. However, the design also specified the use of a different provider's solar panels to power these lights.

Leadsun offered an alternative solution that involved Leadsun solar panels to power the GE light, combined with "Dimonoff" wireless dimming and lighting controls – and our solution was approved.

Unique heritage challenges overcome

The lighting infrastructure for the John Whitton Bridge was to be located within a zone where no excavation could take place due to the adjacent railway. Additionally, because the bridge was heritage-listed, no drilling into the existing steel structure was allowed. To overcome both challenges, Leadsun's design team were able to provide two innovative, practical solutions.

Firstly, to avoid excavation but still house the infrastructure, the team designed and engineered above-ground concrete block pedestrian-seats in the area leading up to the bridge.





The seats included convenient phone-charging docks built in at the base of each column as well as inbuilt archways made of heavy-duty, lowerable poles designed to reflect the aesthetic of the bridge's archways.

Secondly, on the bridge itself, discrete brackets were created to secure the new solar lighting hardware to each of the bridge arches, leaving the heritage bridge structure unaltered.

Engineering ingenuity and a successful result

With pedestrians and cyclists now back to using this popular bridge day and night, the John Whitton Bridge lighting project was a great success. Upon project commissioning, additional lighting nodes were included in the system, with intentions to further expand in the future.

The project stands as another fantastic demonstration of the skills, ingenuity and flexibility of Leadsun's engineers and designers to adapt to unique project requirements and produce a successful result for all clients.



Leadsun System

- Lowerable lighting archways on concrete blocks incorporating USB charging stations.
- Remote solar engines
- 20W LED, GE P4/P5 LED light heads
- Adaptive control with PIR motion sensing

