



**Adam Tas Corridor Energy**

# **Singapore Long-Span Bridge Construction**





## Overview

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The Cross Island Line (CRL) is the largest ongoing construction project in Singapore, with an estimated construction cost of USD 31. Post-tensioning makes possible the cost-effective construction of high-quality bridges over a wide range of conditions and span lengths including highway alignment. Bridge structures constructed using post-tensioning have high intrinsic durability and are able to be built quickly with minimal. It links the established Raffles Avenue district with the new Bay precinct that contains the Sands Resort and the Gardens By The Bay, and leads around to the CBD Financial District. This blueprint launched on June 26, 2025, outlines development goals for the next 10 to 15 years prioritising liveability, sustainability. A joint venture (JV) led by Oriental Consultants Global Co Ltd (OC Global) has completed the girder connection of a four-span, continuous prestressed concrete box girder bridge for the Light Rail Transit (LRT) Jakarta Phase 1B (Velodrome to Manggarai) Project in Indonesia. As the sun sets over Marina Bay, the Helix Bridge's double helix structure shimmers like a work of art.



## Singapore Long-Span Bridge Construction

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### FSC-20644-WH 803..838

long-span bridges, steel box girder, design technology, construction technology, review and future perspectives 1 Introduction Bridge is an important part of transportation infrastructure, which can

### NUS Link Bridge, Singapore - UTRACON

80m long span viaduct was fully cast on the ground using long bed falseworks. The completed viaduct was then separated into smaller



### Latest developments in long span bridges

Long span bridges - own references Suspension bridges - built 1915 Çanakkale Bridge - 2023m, Türkiye 2022 present world record Osmangazi Bridge - 1550m, Türkiye 2016 Maputo-Katembe

### Long-Span and Specialty Bridges

In North America, we have more than 675 structural specialists to help you tackle complex bridge projects. From designing the highway and



transit bridges of our future, to rehabilitating important



### **(PDF) Long span steel pedestrian bridge at Singapore**

In a walking test for possible instability resulting from so-called 'synchronous lateral excitation' (SLE), pedestrian volunteers were fed onto the

### **Brownjohn 2**

Long span steel pedestrian bridge at Singapore Changi Airport - part 2: Crowd loading tests and vibration mitigation measures Synopsis



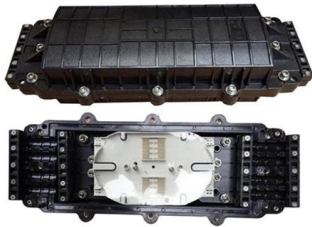
### **Special Issue on Recent Challenges and Innovations in Long-Span Bridges**

Therefore, there still exists genuine demand for the construction of record-shattering long-span bridges, and bridge engineers will have to grapple with new unique challenges, such as bridge



## **PPI ENGINEERING PTE LTD , Services**

Cast-in-place cantilever construction has become the preferred method of building long-span concrete bridges as well as concrete arches with the help of temporary towers and stays. It is a proven cost

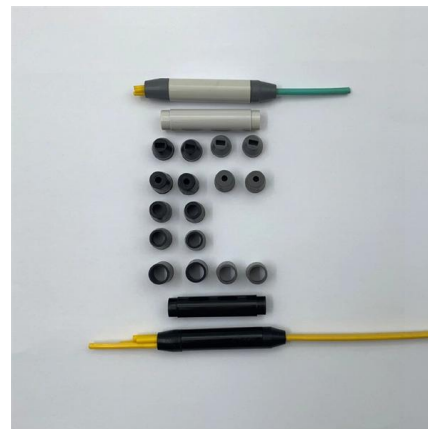


## **Behind The Scenes Of Singapore's Iconic Bridges:**

The construction of long bridges and river crossings in Singapore must take into account the city-state's dense urban landscape and strict environmental

## **Helix Bridge**

The Helix Bridge, officially The Helix, and previously known as the Double Helix Bridge, is a pedestrian bridge linking Marina Centre with Marina South in the Marina Bay area in Singapore. It



## **Creative engineering: How a giant 2km loop bridges new**

A 124m-long bridge, linking SIT's campus to JTC's business park, is the centrepiece of the Collaboration Loop, and showcases innovative solutions to



### Key Construction and Control Technology of Long Span Self-anchored

The design of temporary anchorage system is the key to the construction technology of "cable before beam" for long-span self-anchored suspension bridge, which is directly related to the safety and



### Benjamin Sheares Bridge

Built over reclaimed land by construction company Sato Kogyo, the bridge is made of pre-stressed concrete and links Tanjong Rhu on the east coast to Marina Bay on

### NUS Linkbridge

Location: Cullage Link Road, Singapore Sector:  
Bridge and Viaduct Awards: BCA Construction Excellence Awards 21012 (Merit) BCA Design and Engineering Safety Excellence Award 2012





## Airport Road Bridge, Singapore - UTRACON

- Total nos of span: 45 - Longest span: 45m  
Construction methodology: Span by span PC girder construction  
Builder: Sato Kogyo (S) Pte Ltd

## (PDF) Long span steel pedestrian bridge at Singapore

Long span steel pedestrian bridge at Singapore Changi Airport - Part 2: Crowd loading tests and vibration mitigation measures August 2004 The



## Built to last: Helix Bridge

The bridge is 285 metres long, made up of three 65 metre spans and two 45 metre end spans. The source of inspiration for the structure was the DNA molecule.

## SELECTION CRITERIA FOR LONG-SPAN BRIDGES

Long-span bridges crossing water ways and varying topographies are necessary for transportation all over the world. Construction of such structures



### **SE16 p21-27 Brownjohn 1**

Long span steel pedestrian bridge at Singapore Changi Airport - part 1: Prediction of vibration serviceability problems Synopsis



### **LONG SPAN STEEL PEDESTRIAN BRIDGE AT SINGAPORE**

The Changi Mezzanine Bridge is a 140m span flat arch footbridge constructed from welded tubular steel sections inside a tunnel that connects two passenger terminals at Changi



### **Recent development of design and construction of medium and long span**

In addition, recently completed long-span bridges are reviewed to feature several innovative structural forms on the HSR of China, including steel truss arches and cable-stayed





## Innovative Techniques Enhance Stability for Long-Span Bridge

In a significant breakthrough for civil engineering, the construction of long-span bridge bearing platforms in challenging deep and thick silt interlayers has been meticulously analyzed in a

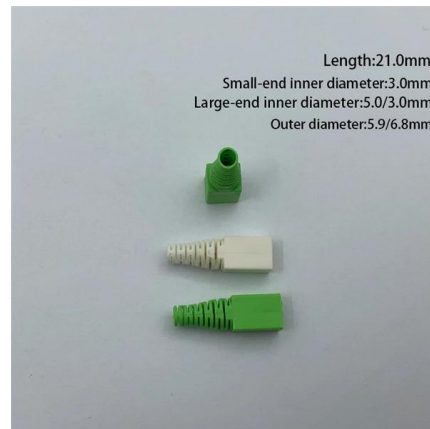


## Top 10 Construction Projects in Singapore 2026

Discover the top 10 ongoing and upcoming construction projects in Singapore (2025), including the Cross Island Line, Jurong Innovation District, and Tuas Mega Port.

## Constructability considerations in long span bridge design

This article reviews the construction methods on a number of long span bridges, including Stonecutters Bridge in Hong Kong, for structural stability during



## Special Issue on Recent Challenges and Innovations in Long-Span Bridges

The determination of a bridge span arrangement should satisfy requirements for shipping, construction, and mechanical performance , and the engineering economics should



### The Wonder of Engineering: Long-Span Bridge

Based on all of these factors, the bridge construction team may need to use deep foundations or even floating foundations to create a long-span



### Effective geotechnical solutions for Singapore's tallest tower

A joint venture (JV) led by Oriental Consultants Global Co Ltd (OC Global) has completed the girder connection of a four-span, continuous prestressed concrete box girder bridge for the Light Rail

### Long span steel pedestrian bridge at Singapore Changi

The Changi Mezzanine Bridge is a 140m span flat arch footbridge constructed from welded tubular steel sections inside a tunnel that connects two passenger





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