

A14 Orwell Bridge

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Head of Planning & Development (East) Operations

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Construction of the bridge commenced in October 1979 and was completed in December 1982.

It is 1287m long and 43m tall with 18 spans

When built it was the longest continuously post-tensioned concrete bridge in the UK.

Bearings are provided on the top of each pier which allows movement of the bridge deck to allow this expansion.



It is the longest bridge in the UK which isn't tolled.

The bridge grows and shrinks in length by as much as 600mm due to thermal expansion.

The bridge carries a water main which supplies water to Felixstowe.

Each carriageway has a separate deck.

Bridge joint failure



Whilst undertaking routine maintenance on Orwell Bridge it was noticed that the bridge joints on the west bound carriageway were generating higher levels of noise than was normal

From: Emergency Planning East <EmergencyPlanningEast@nationalhighways.co.uk>
Sent: Friday, September 6, 2024 4:44 PM
To: Orwell Bridge Distribution Group <OrwellBridgeDistributionGroup@nationalhighways.co.uk>; Norfolk Resilience Forum <norfolkresilienceforum@norfolk.gov.uk>; Suffolk Resilience Forum <SuffolkResilienceForum@suffolk.gov.uk>; Mailbox - Essex Resilience Forum <EssexResilienceForum@essex-fire.gov.uk>
Cc: Emergency Planning East <EmergencyPlanningEast@nationalhighways.co.uk>
Subject: Urgent: Important roadworks information - A14 Orwell Bridge – bridge joint repair
Importance: High

Good Afternoon

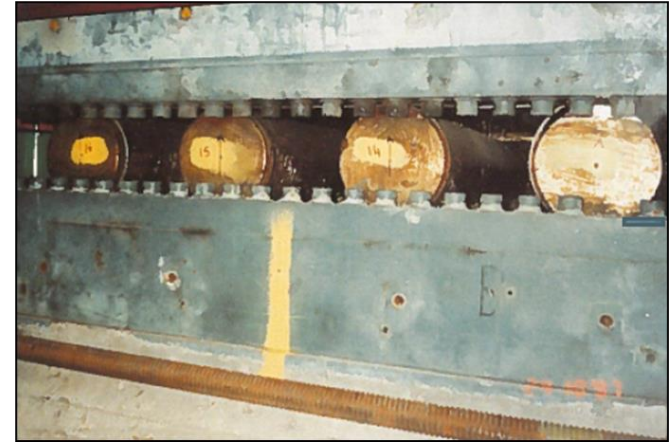
Urgent: Important roadworks information
A14 Orwell Bridge – bridge joint repair


I am writing to advise you that we will need to close lane one westbound of the A14 Orwell Bridge, in Ipswich due to discovering during a routine inspection today, one of the bridge joints is in a potentially unsafe condition. The lane closure will be in place until a temporary joint cover plate can be installed which will enable the lane closure to be removed. The lane closure will be in place from **tonight (Friday 6 September 2024) from 9pm** until further notice. We are currently working on a schedule of works which we will communicate to you in due course. We appreciate the impact this will have on the local community but taking this course of action is necessary to ensure all road users remain safe whilst travelling on our road

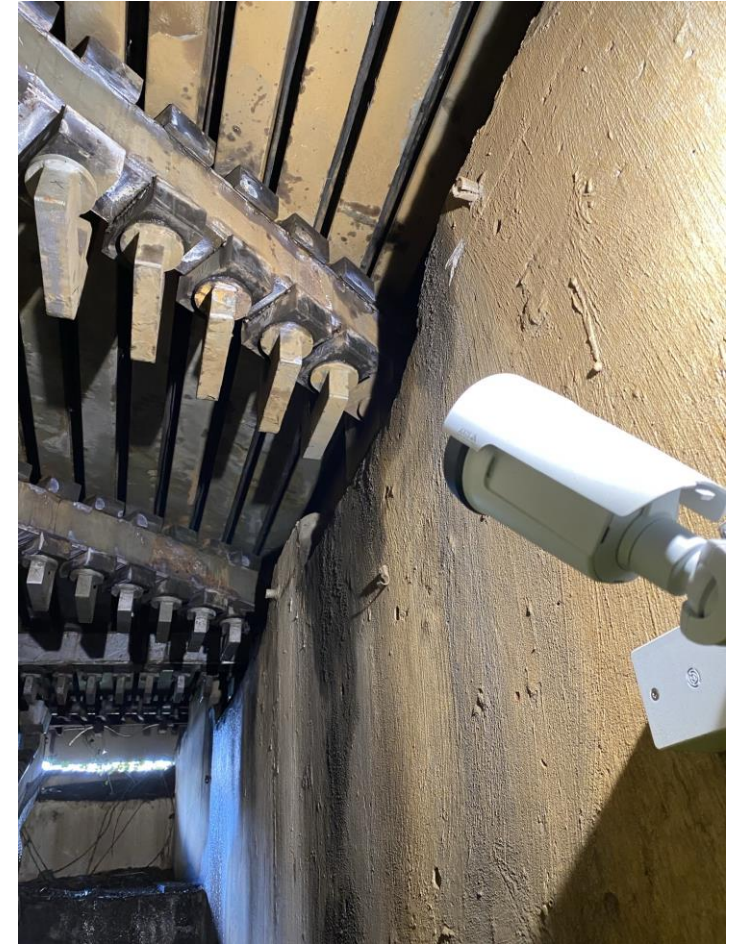
Future Maintenance

The works we will be carrying out over the next 8 years are listed below but not exclusive:

- Bridge Inspections General every 2 years Principal every 6 years (ongoing)
- PTSI (Post Tension Special Inspections)
- Cathodic Protection Inspections
- General maintenance activities (1 month per annum) Ongoing
- Cleaning of the Pollution Control Chambers (every 2 years) completed Sep 24
- CCTV replacement (RIS2 2 months) Completed
- Waterproofing / surfacing subsurface drainage (RIS3 6 months)
- Bird netting replacement (RIS3 2 months)
- Bridge welfare facilities (RIS3 1 month)



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- Monitoring equipment replacement (RIS2 3 months)
Remote CCTV monitoring of the Bridge joints (Ris2 1 week) complete
 - Bearing replacement (RIS3 this will be an annual rolling programme which will be circa 12-18 months works on site) detailed design starts March 2025 construction starts 2027/2028
 - Bridge joint replacement (RIS2/3 timescales to be confirmed)
 - High Winds Study Phase 2 for fixed signage and slip road gates (RIS2) complete April 25



Diversion route

- Diversion Route for Unplanned Events (DRUE) for closure of the A14 J56-J57 (Orwell Bridge) have been amended following consultation with Suffolk CC.
- This diversion route utilises the A1214 to the A12 and back to Junction 58 of the A14 avoiding the A1198 past Ipswich Hospital and the A1156 that the old route utilised

