

**From:** [Lees S \(Scott\)\(Transport\)](#)  
**To:** [Minister for Transport and Islands](#)  
**Cc:** [Transport Scotland Ministerial Submissions List](#); [REDACTED] [Hindshaw W \(Wayne\)](#); [Gair C \(Cameron\)](#); [REDACTED] [Gillies H \(Hugh\)](#); [Morrison D \(Donald\)](#)  
**Subject:** Forth Road Bridge Structural Member Failure  
**Date:** 01 December 2015 18:10:01

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## Minister

This afternoon the Forth Road Bridge Operating Company Amey identified a structural member failure on the underside of the Forth Road Bridge's southbound carriageway. The failure has occurred on the pendulum member which transfers the loads from the longitudinal stiffening truss to the truss end link attached to the Tower and is adjacent to the bottom chord of the stiffening truss. The bridge has not suffered from this defect before and we do not yet know the cause. It could be related long term fatigue through high wind loading or alternatively excessive loadings from an abnormally loaded vehicle crossing the bridge.

## What Have We Done

Amey have assessed the impact of the failure on the integrity of the bridge and are of the opinion that it is not safe to run traffic over the affected section until a full inspection of adjacent structural members is undertaken first light tomorrow. There is a concern that these adjacent member may fail due to additional stresses brought on by the loads transferring from the failed member. If they did fail, the deck would fall onto the steelwork below, causing us a considerably bigger headache. We have considered Amey's advice and agree that adopting a safety first approach is best in this instance, and have permitted a southbound carriageway closure from after tonight's pm peak for safety reasons.

## Next Steps

- Amey will install a contraflow after tonight's pm peak, which will see southbound/northbound traffic transferred onto the northbound carriageway.
- Amey will implement their emergency incident procedures and communicate details of the closure to the travelling public. The proposed contraflow will reduce traffic flow capacity over the bridge considerably and lead congestion approaching the bridge tomorrow morning.
- Amey's inspectors are monitoring the situation overnight.
- A structural inspection will take place at first light, pending safe wind conditions, and recommendations made on next steps. Transport Scotland's bridges team will work with Amey tomorrow to evaluate the best forward options, and provide further briefing as required.

Should you require further information please do not hesitate to contact me

Scott

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**Trunk Road & Bus Operations**

