HIGHWAYS AGENCY

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Codes, standards and information sources

Some questions to address

Why have standards?

Why have codes?

What are the differences between codes and standards?

What and where are the ‘other information sources’?

What other information is needed, where are the knowledge gaps?

How do we achieve effective feedback?

How do we share information more effectively?

What work is required – research, working groups?

Identify some key actions?

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Codes, standards and information sources

Some background and the need for codes, standards and information sources

- A standard is a technical publication that is used as a rule, guideline, or definition. Essentially, it is a consensus-built, repeatable way of doing something. Standards are created by bringing together all interested parties such as manufacturers, consumers, and regulators of a particular material, product, process, or service.

- A code (of practice) is a set of rules according to which people in a particular profession are expected to behave

- Other information sources generally supports the standards and codes

- To ensure a consistent approach, and good practice achieved
- To meet required levels of safety or reliability

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Codes, standards and information sources

Need for codes, standards and information sources

Recent Failures

- There have been a number of recent structural failures worldwide, some of which have had fatal consequences.
- What lessons can we learn in relation to codes, standards and good practice?

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Recent Failures

- Gerrards Cross – June 2005
- Boston Tunnel – July 2006
- Montreal, de la Concorde Viaduct – September 2006
- Minneapolis, I-35W Bridge – August 2007
- China – August 2007
- India – August 2007
- Pakistan – September 2007
- Vietnam – September 2007
- Dubai – November 2007
- Bruce County, Canada – November 2007
- Nepal – December 2007

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Gerrards Cross, UK - 2005

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Boston Tunnel - 2006

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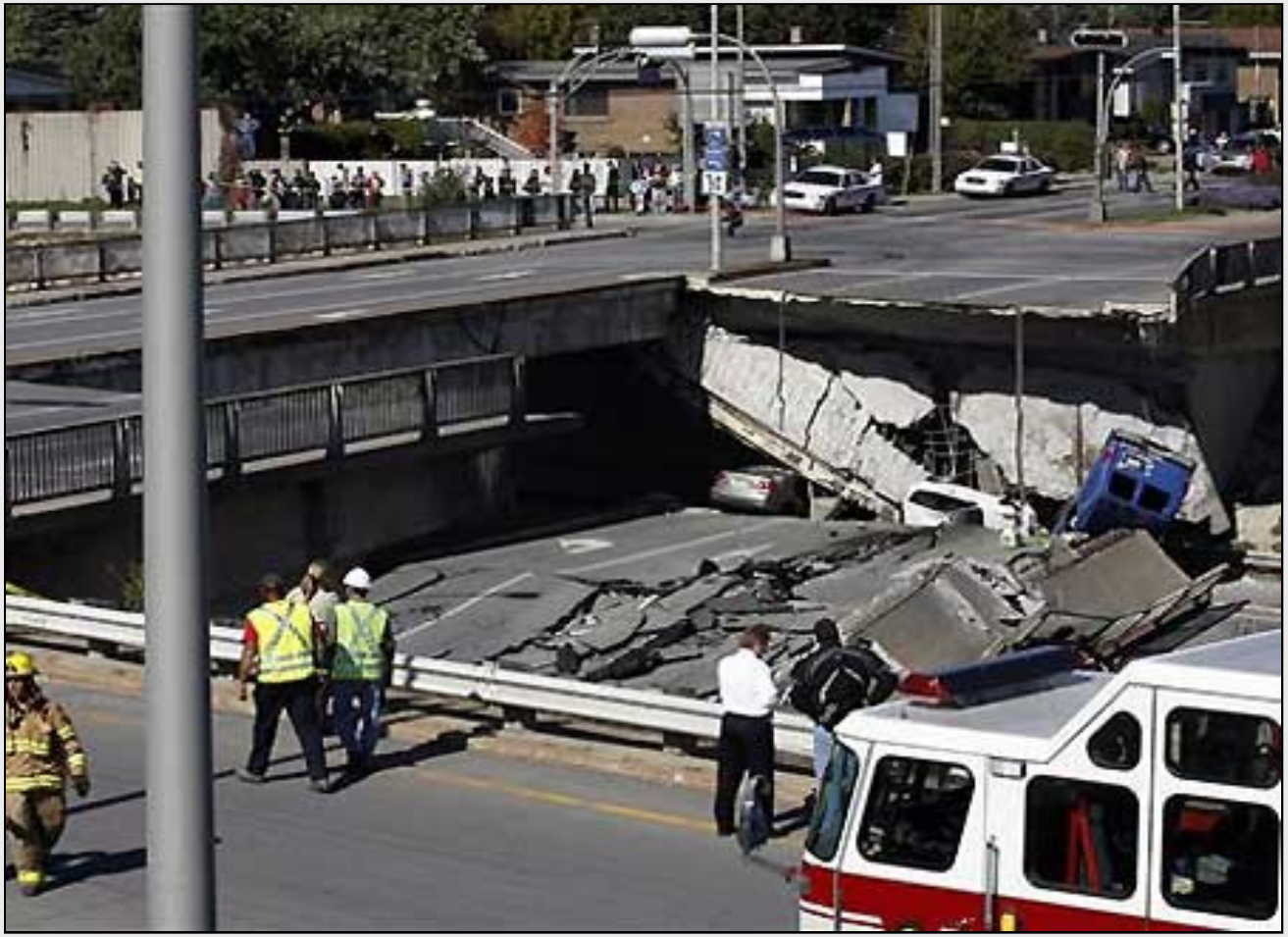
Montreal Bridge - 2006



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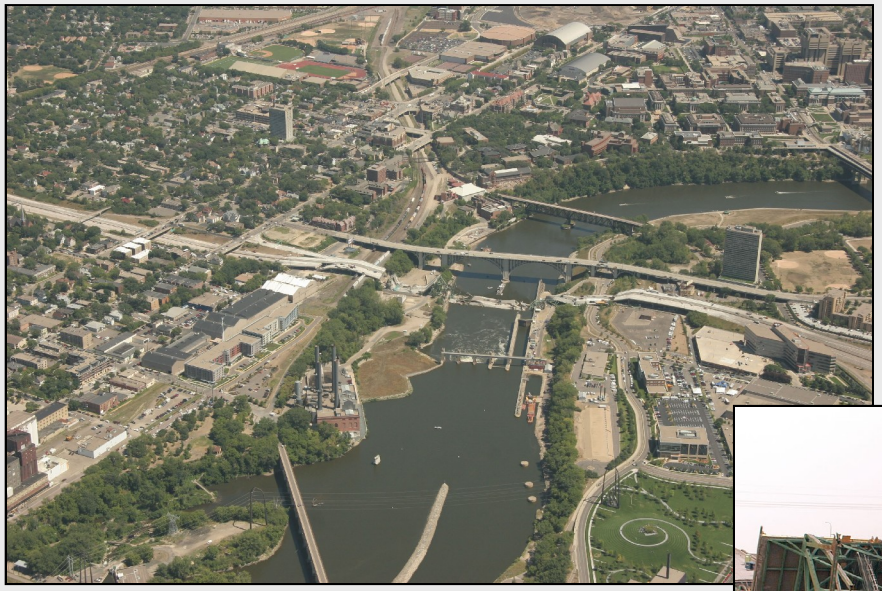
Minneapolis Bridge - 2007



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Clyde Arc Bridge - 2008

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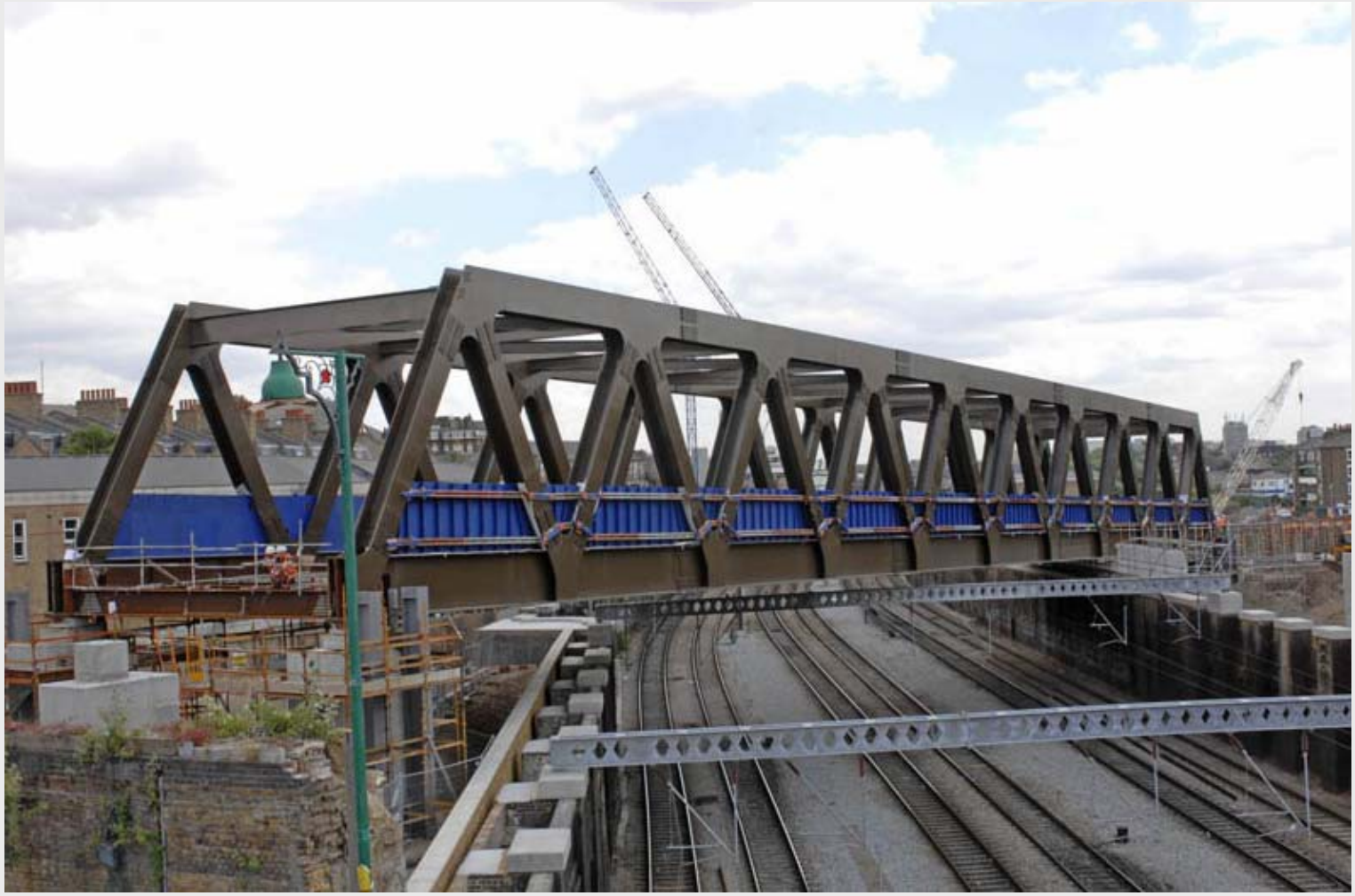
Bridge GE 19 - 2008



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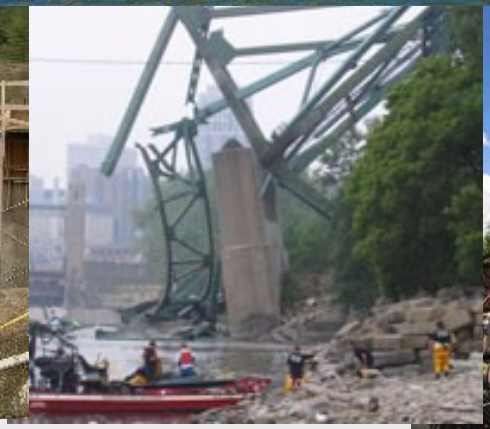
Other Recent Failures



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Post-tensioned Structures

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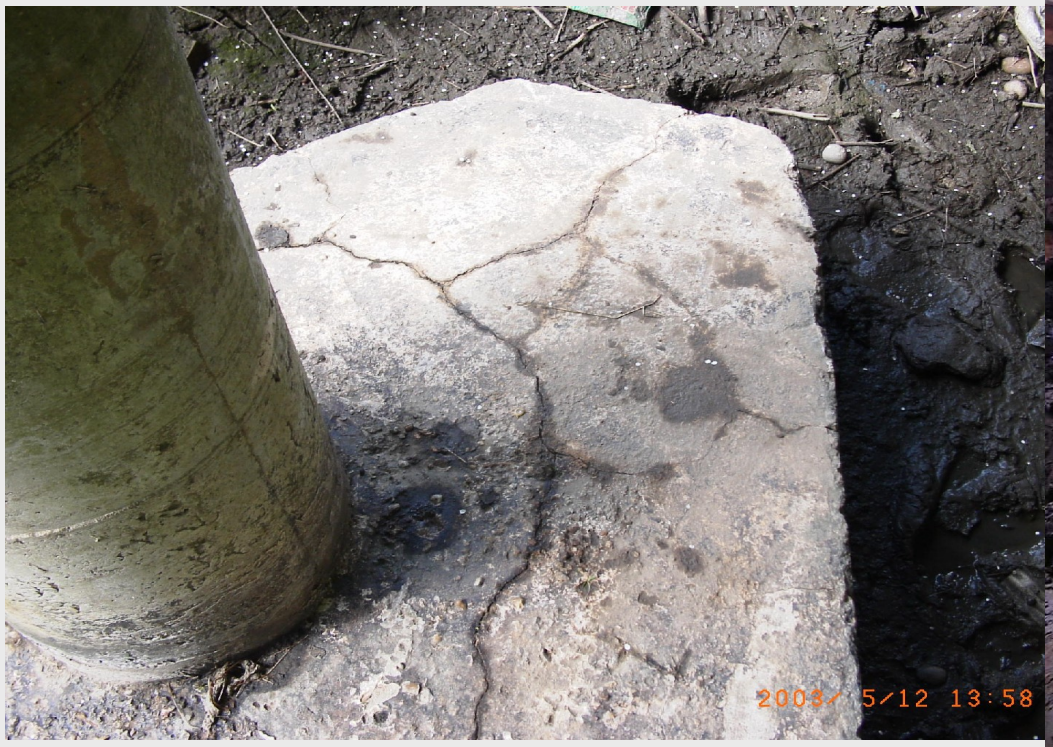
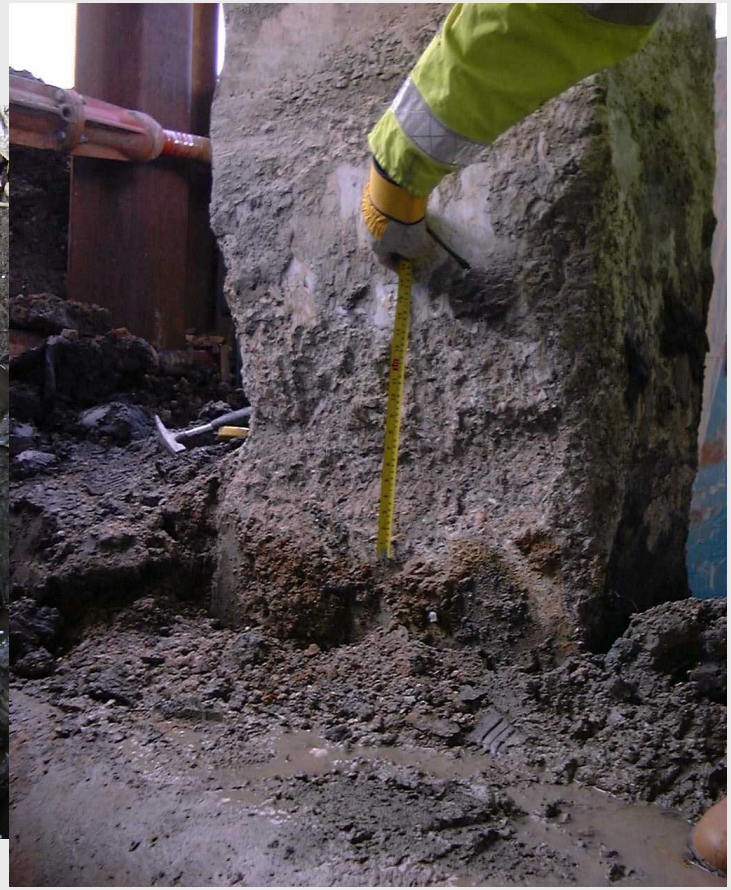
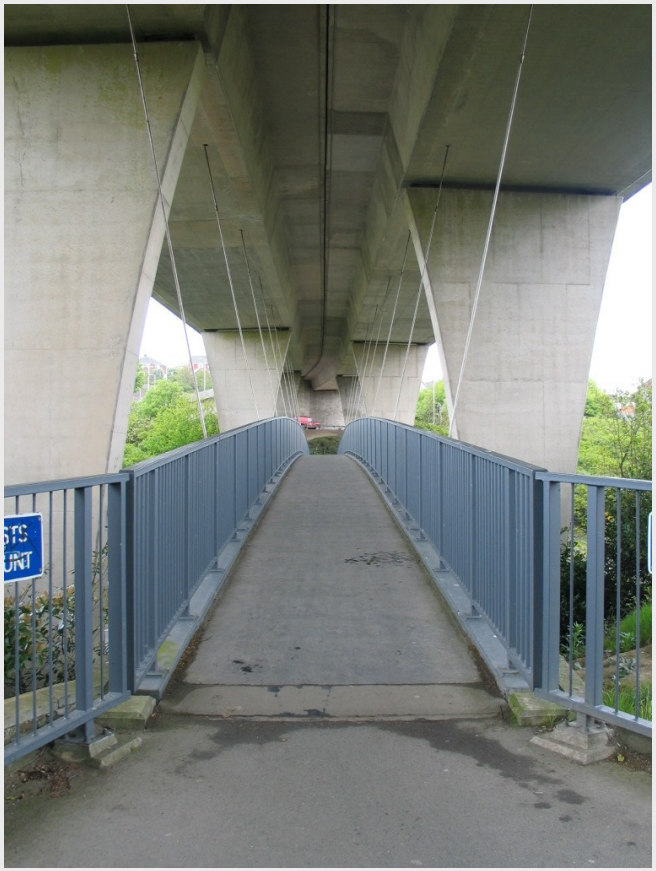
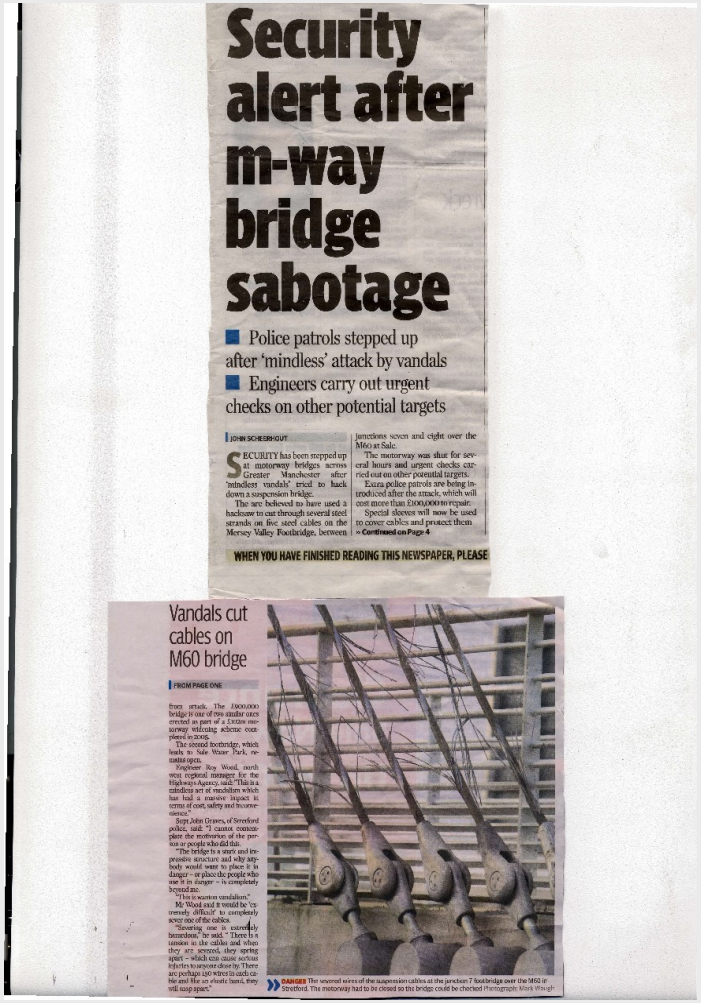
Concrete Deterioration





Suspension and Cable Stayed Bridges





Security alert after m-way bridge sabotage

- Police patrols stepped up after 'mindless' attack by vandals
- Engineers carry out urgent checks on other potential targets

JOHN SCHEERHOUT

SECURITY has been stepped up at motorway bridges across Greater Manchester after 'mindless' vandals tried to hack down a suspension bridge.

The are believed to have used a hacksaw to cut through several steel strands on five steel cables on the Mersey Valley Footbridge, between junctions seven and eight over the M60 at Sale.

The motorway was shut for several hours and urgent checks carried out on other potential targets.

Extra police patrols are being introduced after the attack, which will cost more than £100,000 to repair.

Special sleeves will now be used to cover cables and protect them.

» Continued on Page 4

WHEN YOU HAVE FINISHED READING THIS NEWSPAPER, PLEASE

Vandals cut cables on M60 bridge

FROM PAGE ONE

DANGER The severed wires of the suspension cables at the junction 7 footbridge over the M60 in Stretford. The motorway had to be closed so the bridge could be checked Photograph: Mark Waugh

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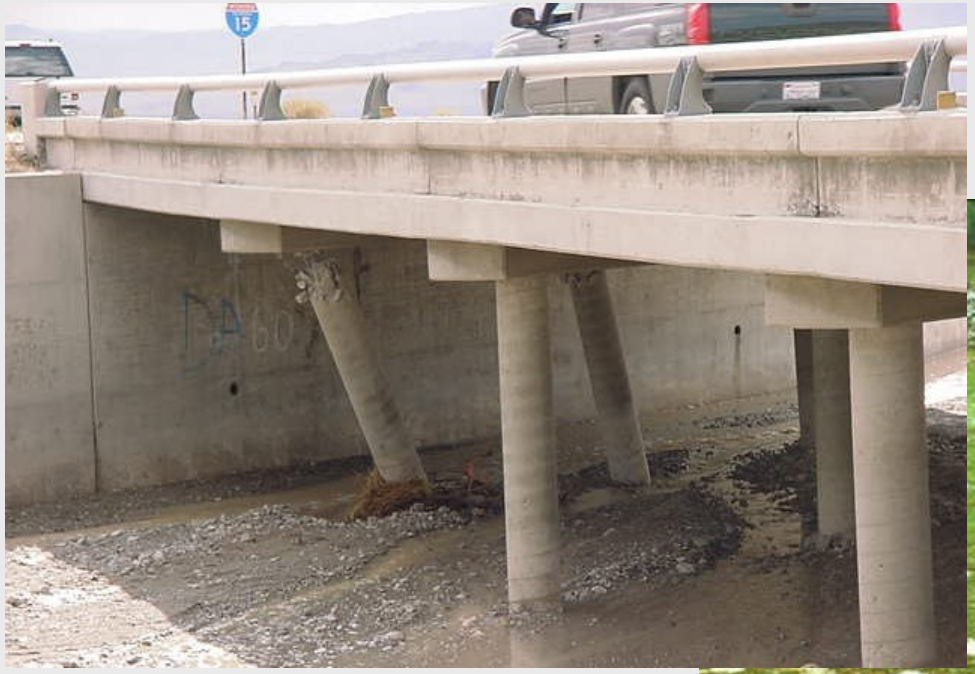
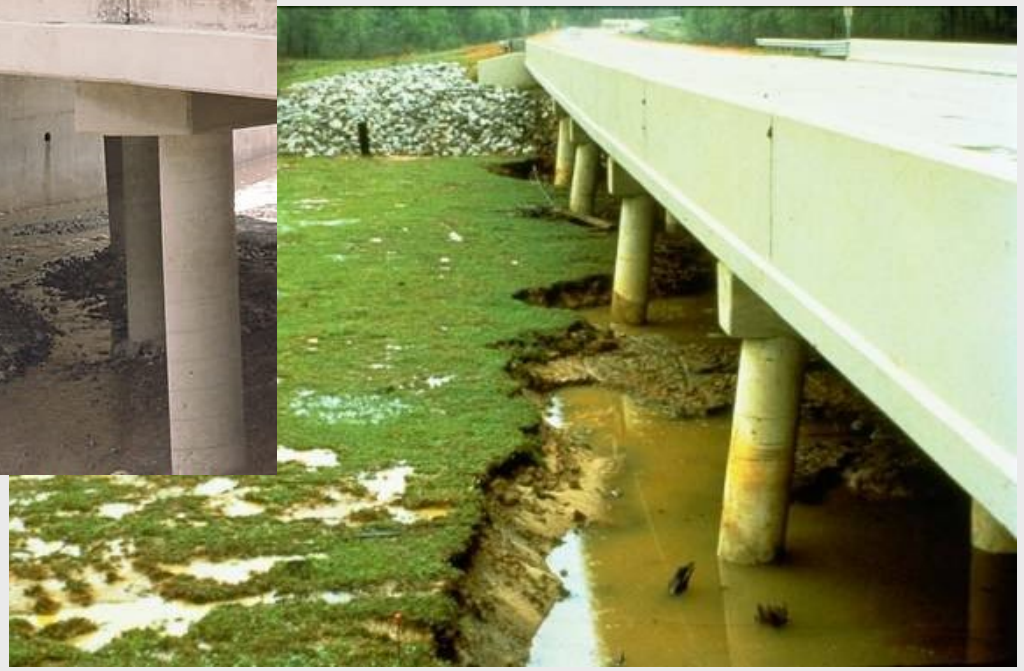
Bridges Susceptible to Scour





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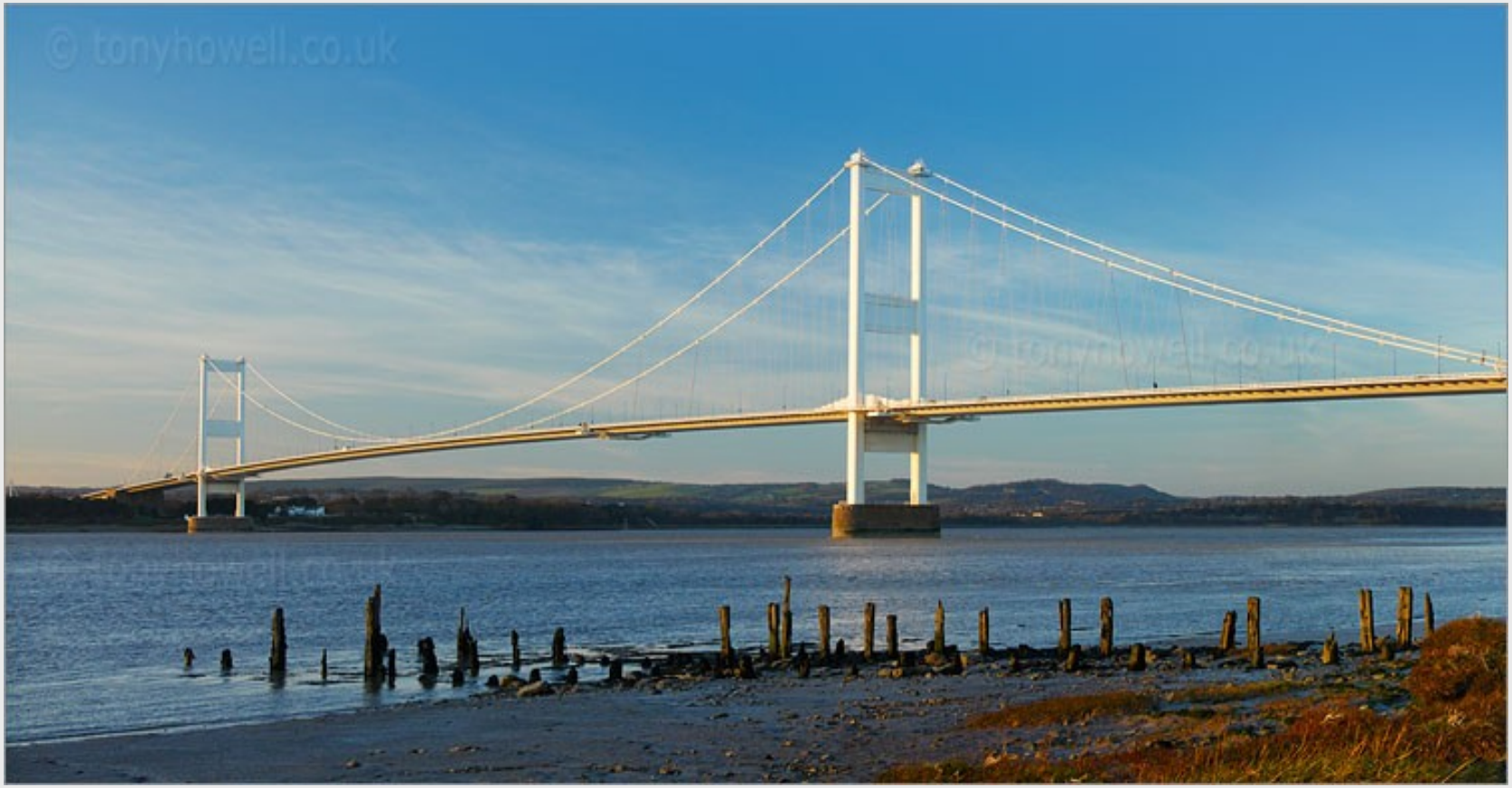
Severn Bridge



Codes, standards and information sources

Design standards - Eurocodes

- Implementation of Eurocodes
- Impact of Eurocodes
- Feedback on Eurocodes usage

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Codes, standards and information sources

- Traceability of standard and code requirements – need for commentaries giving background to standards
- Gaps in current knowledge
- Feedback on standards and guidance

Codes, standards and information sources

Standards, specifications and guidance

- Design
- Construction
- Different materials, products, systems and techniques
- Management and maintenance
- In-service issues

Codes, standards and information sources

Information sources

- Central sources of information particularly good practice guidance
- Central sources of research information
- Networks and working groups
- National organisations
- Websites
- Newsletters

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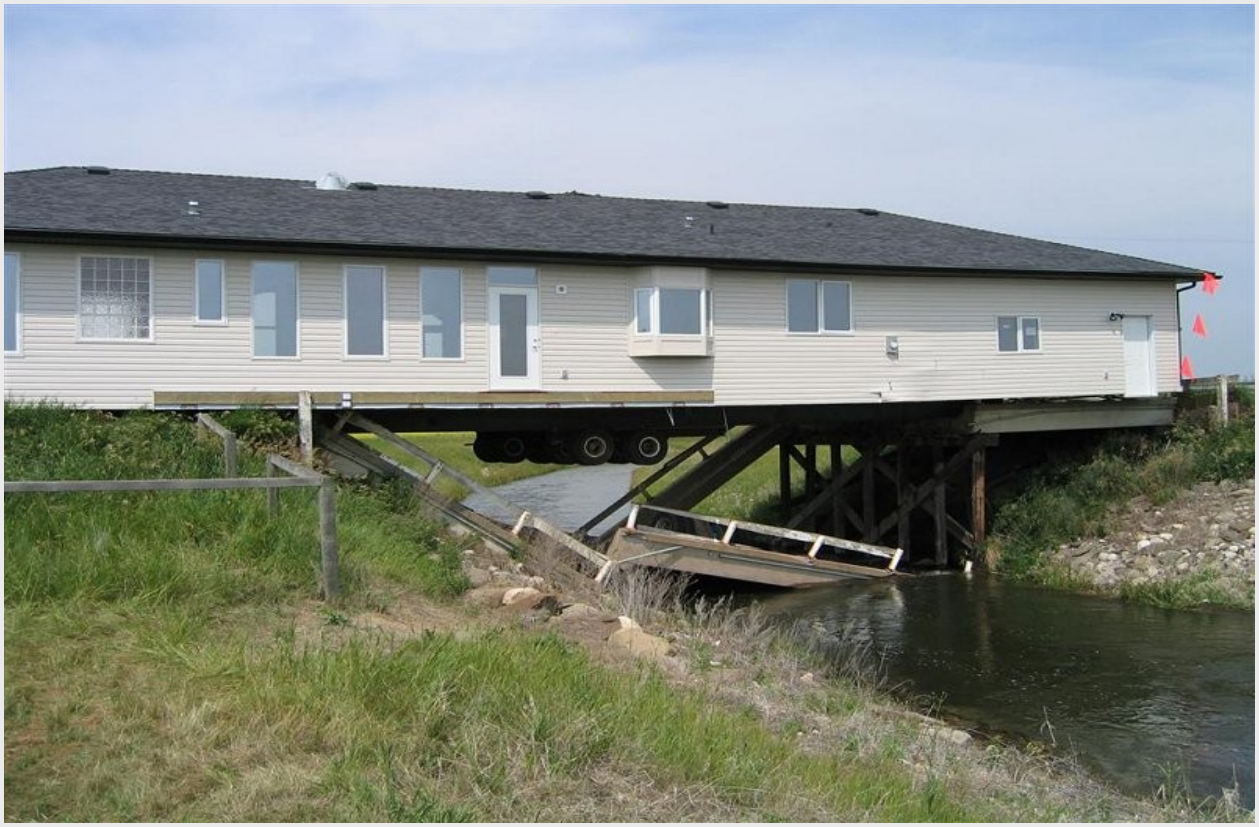
Finally



Did the designer allow for this – what standard !

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Codes, standards and information sources

- Discussion

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