

# Mike Hackney

BEng CEng FICE FIStructE

## **DETAILS**

### **Position**

**Technical Director** 

### **Discipline**

**Bridge Engineering** 

## Languages

English

# Qualifications

- BSc(Hons) Civil Engineering
- · Chartered Engineer
- Fellow of the Institution of Civil Engineers
- Fellow of the Institution of Structural Engineers

### **Key Skills**

- Leadership and Project Management
- Development of elegant structural solutions
- · Client's Engineer
- Design and Build Specialist
- · Highway Bridge Design
- · Railway Bridge Design
- · Structural Design
- Bridge Inspection, Assessment and Strengthening
- Expert Witness
- Member of IABSE Executive Committee
- Chairman of ICE GWoS EXAR Committee
- Awards, Papers & Presentations

Years of Experience 40

**URS Start Date** 14/07/1986

### **SYNOPSIS**

Mike Hackney is a Technical Director with Aecom, where his duties include all aspects of the technical and financial management of the Bridges discipline in Scotland and Ireland, including the successful initiative to develop a Bridges team in Edinburgh and Belfast. Between 2006 and 2010, he was also responsible for the successful development of a Building Structures team in Glasgow.

Currently he is responsible for the design and check of major bridge structures on the Aberdeen Western Peripheral Route and the New Forth Crossing, a major scheme to widen and strengthen the existing Dargan railway viaduct in Belfast and the design of the M8 Hillington Footbridge. He is also responsible for the design of a variety of other structures, including WTG bases, jetties and a complex scheme to strengthen the overhead crane gantry at Cruachan Power Station.

Most recently he was responsible for the design of the bridges on the A8 Belfast to Larne ECI and the M8 Anderston Footbridge Design and Build project. Also he was Transport Scotland's Engineer and Project Director for the £20M scheme to design and procure the strengthening of the M8 White Cart Viaduct, a strategic 800m long steel box girder bridge, carrying over 100,000 vpd.

Further he was responsible for the design of the bridges on the M80 DBFO, the Carlisle Northern Distributor Road, the Airdrie to Bathgate Railway Project and the provision of a new railway underbridge and slab- track at Glasgow Central Station; all Design and Build projects. In addition he was Transport Scotland's Engineer for the proof of concept and procurement by Design and Build of an iconic, steel, helical, truss footbridge over the M8 at Harthill.

Other notable Design and Build projects for which he has been responsible include the conceptual and detailed design of major bridges on the A68 Dalkeith Bypass, M77 DBFO, A1 Haddington to Dunbar Expressway and Portrack Railway Viaduct.

Previously he was responsible for the design of the bridge structures on several Design and Build Contracts including Float Viaduct, the M8 Extension near Edinburgh, the M8 Widening at Townhead Interchange, the M8 St James Interchange, the design of deeppiled foundations for the Eastern Approach Viaducts, Hong Kong and 3 major steel bridges over the MI near Nottingham.

Between 1974 and 1986 he gained his formative experience with several design organisations and a major civil engineering contractor in the planning, design and construction of bridges, civil works and building structures.

He has written and presented papers on many of the projects, with some projects also being recognized by gaining national awards. In 2003 his paper entitled "Float Viaduct - a High Speed Rail Bridge Replacement" was awarded the ICE Parkman Medal.

# SELECTED PROFESSIONAL HISTORY

### **Highway Bridges**

Team Leader responsible for the detailed design of over 50 major motorway bridges and structures on A8 Belfast to Larne, M80 DBFO, CNDR, A68 Dalkeith Bypass, M77 (GSO) and A1 Haddington Design and Build projects, including major river crossings such as the A6 River Eden Bridge, the A1 Tyne Bridge and the A68 River Esk Bridge.

Other notable projects include the conceptual and detailed design of twin 800 metre long steel plate girder viaducts and a railway crossing at St. James Interchange, Glasgow, the widening of an existing three span post-tensioned box girder bridge by the addition of a reinforced concrete box girder "stitched" to the existing deck at the M8 Townhead Interchange, Glasgow, and the design of three heavily skewed bridge decks supported on reinforced soil abutments and wingwalls at the M8 Extension near Edinburgh.



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## Glasgow

### Railway Bridges

Project Manager for the concept and detailed design of major railway infrastructure, including a scheme to dual track Dargan Railway Viaduct in Belfast, a new underbridge, slab-track and platforms at Glasgow Central Station, new and refurbished structures on the Airdrie to Bathgate Line, replacement of Portrack and Float Viaducts, Elvanwater Bridge and Dalmakether Bridge on the West Coast Main Line, UB 11 on the Milngavie Line, and the assessment, strengthening and repair of several bridges on the Larkhall Milngavie Railway Line. Also responsible for the refurbishment of several masonry viaducts including Mousewater and Meinwater Viaducts, Almond Viaduct and Burnton Viaduct.

### Inspection, Assessment and Strengthening

Project Manager for the inspection, assessment and design of the strengthening for major highway and railway bridges in all materials. Projects undertaken include the major steel box girder bridges at M8 White Cart Viaductand the M74 Raith Bridge, the M8/A8 Overbridges and the River Almond Viaduct. Other projects include the assessment of numerous bridges in all the major materials, including the assessment and widening of a multiple span masonry arch bridge at Carrick, Co. Donegal.

Project Director for the inspection, assessment and strengthening of the O/H crane gantry in Cruachan Power Station turbine hall to increase capacity to100 tonnes.

## **Footbridges**

Project Director responsible for the preliminary design, detailed design and procurement of several footbridges, including the M8 Hillington Footbridge, a 65 metre span steel bowstring truss, the M8 Anderston Footbridge, a 265 metre long reinforced concrete extension to an existing structure, the M8 Harthill Footbridge, a 65 metre span steel helical truss girder bridge, the River Eden Footbridge and Sapley Square Footbridge.

### AWARDS, COMPETITIONS, PUBLISHED PAPERS

Bygg Teknik, October 2013. Anderston Footbridge, Glasgow.

IABSE International Conference: *The Design of the Refurbishment of the M8 White Cart Viaduct, Glasgow.* Rotterdam 2013.

ICE Bridge Engineering Journal, September 2013. *Glasgow Central Station a new bridge, track and platforms.* 

Shortlisted in Metro West Liffey Bridge Design competition, Ireland, 2009

ICE West of Scotland Committee Prize for a paper entitled "Portrack Railway Realignment", September 2006

Permanent Way Institution Journal, Volume 123, Part 2, April 2005. *Portrack Viaduct, Portrack Scotland – Portrack Railway Realignment.* 

Proceedings of the Institution of Civil Engineers, Volume157, issue BE4, December 2004. *Portrack Viaduct, Portrack Scotland – a major railway realignment.* 

Portrack Viaduct, Portrack Scotland. Winner of the Saltire Award for Civil Engineering, 2004.

Awarded the Institution of Civil Engineers Parkman Medal, November 2003.

Proceedings of the Institution of Civil Engineers, Volume150, issue one, February 2002. Float Viaduct, Scotland – Float Viaduct, a high speed rail- bridge replacement.

Float Viaduct, Scotland. Merit Award; Structural Steel Design Awards, 2000

New Steel Construction, October 1993. M8 Motorway, Glasgow - The Design and