(M1971, F1987)

**Present Appointment** Director Scott Wilson Holdings Ltd

Managing Director Scott Wilson Scotland Ltd

**Date of Birth** 1945

**Nationality** British

**Education** BSc Hons, University of Strathclyde, 1967

	T this was the institution of Civil Engineers	(1.11), 1, 1, 1, 0, )
Qualifications	Fellow of the Institution of Structural Engineers	(1998)
	Fellow of the Institution of Highways & Transportation	(M1974, F1987)
	European Engineer	(1989)

Fellow of the Institution of Civil Engineers

Fellow of the Hong Kong Institution of Engineers
(M1979, F1998)
Fellow of the Association of Consulting Engineers
(M1989, F1997)
Member of the Chartered Institute of Arbitrators
(A1980, M1999)

**Languages** English: Mother tongue

#### **Synopsis**

**Professional** 

James P McCafferty is a Director of Scott Wilson Holdings Ltd, and Managing Director of Scott Wilson Scotland Ltd.

He has been with the Firm since 1967 and has been a Director/Partner since 1987.

Following graduation, his early experience was on the design and construction of Glasgow's urban motorways and other major transport projects in Scotland.

In 1976, he transferred to SWK Hong Kong where he was responsible for major projects in new towns, urban infrastructure, highways and bridges. He returned to Scotland in 1981 to manage design of urban infrastructure for Nigeria's New Federal Capital, Abuja.

Since 1982 he has been responsible for a broad range of projects including:-

Numerous bridges in various materials, building structures, development planning, structural investigations/assessments, expert advice, expert witness, bridge inspections/ advice/ strengthening, Design Build and DBFO projects as designer and clients agent, Road, Rail and Airport projects, various military projects and Project Management for a wide range of buildings, industrial/retail facilities and urban infrastructure.

He is active in Professional Institutions/Societies, has written and presented papers on a range of subjects and has received several awards for his projects.

**1995** to Date

Managing Director: Scott Wilson Scotland Ltd (1.5.95)
Director: Scott Wilson Holdings Ltd (1.5.97)

As a Director on the Main Board of Scott Wilson Holdings Ltd, responsible with the Board, for monitoring, strategic direction and performance of Scott Wilson worldwide.

As Managing Director of Scott Wilson Scotland Ltd, responsible for operations, strategic direction and performance in the Scottish Region (Scotland, North of England, N Ireland).

Scott Wilson International Director, Bridges Group.

Chairman Scott Wilson Ireland Group.

#### Projects Include:-

**Stirling/Alloa Railway**: Outline designs for parliamentary submission to reopen 23km disused railway.

West Coast Main Line Scotland: Audit of repair proposals for 22 bridges and 20 drainage culverts on existing railway.

**Larkhall/Milngavie Railway**: Feasibility study, Assessments and later, bridges and geotech design for DB contract for 10km of reconstruction.

West Coast Route Modernisation Trent Valley: Outline design of 40 bridges and associated civil works for upgrading 20km of existing twin track to 4-track.

**Fife Schools PPP**: Technical advisers to funders. Due diligence of technical proposals plus monitoring the construction of 3 new schools

Benbecula Airport: Resurfacing/strengthening of runways.

**A6 Cargo Fleet Interchange Middlesbrough**: Client's Agent, DB of complex 1km urban dual carriageway.

**A1 Newry Bypass NI**: Client's Agent on 15km semi rural new dual carriageway; Major bridges; Public Consultation.

**Burnton Viaduct Ayrshire**: DB assessment and strengthening of a masonry arch railway bridge.

**A720 Dreghorn Edinburgh**: Client's Agent for widening 3km of City Bypass & strengthening Water of Leith Bridge.

M1 Westlink & M2 Upgrade Belfast: Client's Agent for upgrading complex urban dual carriageway to motorway and widening existing M2: Public Inquiry; developing the Specimen Design for PPP.

**Barbush Viaduct Dunblane**: DB inspection/assessment of a 3 span wrought iron rail bridge.

**Banavie Bridge Fort William**: DB inspection/assessment of a 2 span wrought iron opening rail bridge over Caledonian Canal.

**Mousewater & Orbiston Viaducts**: DB inspection/assessment of multi-span masonry arch rail viaducts on WCML Lanarkshire.

**A6 Toome & Dungiven Bypass NI**: Client's Agent for 13km dual/single carriageway with several river crossings and interchanges.

**A8000 Forth Bridge to M9**: Client's Agent for 5km link to Forth Bridge: Major Bridges and specimen designs for DB contract.

**A96 Fochabers Bypass:** Client's Agent for 5km trunk road: Route location, outline design, several bridges, environmental assessment; awaits outcome of Public Inquiry.

**A9 Helmsdale Caithness**: Designer/Engineer 6km rural trunk road in difficult coastal terrain.

**A78 Ardrossan Bypass**: Route assessment, design and Client's Agent for 7km DB dual carriageway including several bridges.

**Kincardine Bridge**: Cat 3 check of assessment & remedial works for 750m long (112m main span) steel/rc viaduct over River Forth.

M74 Marvville Interchange: Assessment of 3 major steel bridges.

**The Millennium Link Canal Project**: Client's Agent for DB opening bridges and associated roadworks on Forth & Clyde canal at Bonnybridge, Twechar and Clydebank. Also for 10 DB fixed crossings on Forth & Clyde canal at Clydebank, A80, Falkirk, and at Wester Hailes on the Union Canal. Also feasibility study & outline design for restoration of the Victorian Leamington Lift Bridge on Union Canal at Edinburgh.

**National Cycle Network Lochearnhead:** Design supervision of an 11km cycleway on dismantled railway including a new steel arch bridge on the existing Kendrum Viaduct.

**A9** Cycleway: Millennium route. Design/supervision of several short span timber bridges on National Cycle Network in Highland Region.

**Rum & Muck Ferry Terminals:** Design & supervision for new DB Ro-Ro slipways, alignment structures and access roads.

**A5 Newtownstewart Bypass NI:** Client's Agent for 3km DB trunk road including major river crossings and difficult ground conditions.

**A66 Temple Sowerby Bypass Cumbria:** Client's Agent on 6km dual carriageway: Route selection, Environmental Statement, Public Inquiry, Early Contractor Involvement.

**Dalmakethar Bridge Moffat:** DB designer for rc box supporting West Coast Main Line and carrying local road. Box pushed into position.

**Fixed Link Studies: Argyll & Bute:** Feasibility study for fixed links to replace ferries between Bute/Colintraive; Coll/Tiree; Seil/Luing.

**A1 Howburn: Borders:** DB Designer 2km dual carriageway with 3 structures. **Raith Bridge Strengthening:** Designer for strengthening of a major 2 span steel/composite box girder bridge over River Clyde at Hamilton.

**M6 Extension Carlisle to Guardsmill:** Client's Agent for 10km dual 3 lane motorway. Early Contractor Involvement, route location, bridge assessment, parallel and off-line widening, major road and rail bridges.

**M74 N Extension Glasgow:** Client's adviser on cost estimates and value engineering prior to approval for DB procurement.

Milngavie Railbridge: DB Designer for replacement all steel deck with 'no-ballast track'.

**Limavaddy Bypass NI:** DB designer for 5km bypass over R. Roe and flood plain including several major bridges, flood relief culverts and access roads.

**Portrack Viaduct Dumfries:** DB designer for 2km track realignment of the G&SW line, 200m steel viaduct including a 90m curved truss over R Nith and a 25m steel composite bridge.

**Eigg Ferry Terminal:** Designer, new ferry terminal: ro-ro slipway, a solid alignment structure, dredging, access causeway, road, parking & buildings.

**A1 Haddington-Dunbar:** DB designer for 14km rural off-line dual carriageway: 13 structures, including 220m R. Tyne Bridge in prestressed concrete.

White Cart Viaduct Strengthening: Inspection, assessment and design of remedials and strengthening of two 800m long steel composite box girder viaducts carrying the M8 over the River Cart at Glasgow Airport.

**A8 Baillieston/Newhouse Glasgow:** DB designer for major refurb of 7km dual 2 lane, all-purpose road: Pavement strengthening, on-line widening, inspections/assessment/remedials for major bridges and river culverts.

**M77/Glasgow Southern Orbital:** DBFO designer for M77, a 17km rural motorway including major earthworks and many bridges and Checker for GSO structures and geotech works.

**Waverley Rail Project:** Road, bridge, geotech input and prelim design for parliamentary submission for reopening of 50km of dismantled railway between Edinburgh and Galashiels.

**Petershill Road Bridge:** DB designer for steel/composite road bridge over the Springburn Line, Glasgow.

**Greenock Cut:** Feasibility study for refurbishment of a 10km aqueduct opened around 1827 in the hills above Greenock to supply drinking water to the town and power to a large number of industrial water mills.

**Campbeltown Ro-Ro Ferry Terminal:** Engineering/Architecture of Terminal Buildings/Jetty/Linkspan/Infrastructure.

**BA Engineering Base Hangar Glasgow Airport:** Major alterations to existing Hangar for use by largest aircraft.

**M8 Ramp K West Glasgow:** D/B widening of elevated urban interchange.

**Almondvale Centre Livingstone:** Studies/design for phased redevelopment of major regional shopping centre.

**A96 Blackburn Kintore Bypass:** D/B project for 11 km of rural expressway including 9 bridges/structures.

Eurocentral Interchange: Clients Agent for D/B of major interchange.

**Erskine Bridge:** Investigation/Report on collision between this major cable stayed bridge and an oil platform topside in transit.

M6 DBFO: Secretary of State's Agent: Procurement of 90 km of M6 (M74).

M8 DBFO: Consultant to concession company bidder.

**Bridge Inspections/Studies/Audits/checks/strengthening** including work on Forth Bridge, Tay Bridge, South Esk Viaduct, plus various projects for M73, M8, M74, Scottish Office, Glasgow City, North & South Lanarkshire, Highland, Falkirk District, Railtrack, British Waterways, and other Authorities.

**Kingston Bridge Glasgow:** Advisers/independent checkers for Glasgow City Council concerning strengthening of the main bridge and various studies/reports on remedial measures for the approach viaducts/interchanges. **DEO for MOD:** Project Management and Advisory Term Commissions plus individual Project Management/Design Commissions including:-

Barry Buddon Phase 1 : Combined Kitchen/Mess Facility D/B.
Barry Buddon Phase 2 : Training Buildings/Facilities D/B.
HMS Neptune Faslane
Redford Barracks : 600 car Multi-storey Car Park D/B.
: Combined Band Facility D/B.

HMNB Rosyth : New Ship Refit Support Building D/B. Glencorse Barracks : Redevelopment/expansion of Battalion

Barracks D/B.

Redford Barracks : Medical & Dental Facilities Building.
Dundrennan Camp : Redevelopment of Army training camp.

RAF Kinloss : Upgrade runways/taxiways

1987 to 1995

Partner: Scott Wilson Kirkpatrick & Partners (Scotland) (1.5.87).

Responsible for the direction of major projects in structures, bridges, project management/transport infrastructure including:-

**The Glasgow Canal Project:** Studies for restoration of navigation on the Forth Clyde Canal plus Design/Construction of Glasgow/Firhill/Ruchill projects.

**Independent checks/assessments of major bridges:** Cheshire County, Strathclyde Region, Highland Region, Milton Keynes and various others.

**Independent scrutiny of Design and Construction of major buildings** at: St Giles Centre Elgin and Broomielaw East & Northgate Glasgow.

**DWS/DEO for MOD:** Project Management and Advisory Term Commissions, for Civil/Structural/Geotechnical/Public Health/M&E/QS/Architectural input to a broad range of buildings and infrastructure.

**Hong Kong:** Rambler Channel Bridge Eastern Approach Viaducts in prestressed concrete in a busy urban area.

**Kingston Bridge Glasgow:** Advice/Investigation/independent checks for remedial measures for this major bridge and its approach viaducts/interchanges which require strengthening and monitoring.

**Expert Witness and Investigatory studies**: from subsidence/cracking of small buildings to piling failure of a major electronics plant.

**M74Beattock/Ecclefechan:** Upgrading 32 km of A74(M) to Motorway standard: Parallel widening/new alignment/ 40 bridges/viaducts.

**SRC Dep't of Architecture & Related Services:** Investigations/remedials for various buildings including; Kilmarnock Academy, St Augustine's School, Cardonald College, Whiteinch Community Centre.

**M8 St James Interchange Glasgow:** The first (and largest for some time) Design/Build road/bridge project in the UK including two major steel viaducts each about 1km long in difficult ground conditions.

**A8 Gogar Interchange Edinburgh:** A major D/B project at a very busy junction. A 'flyunder' rather than the clients proposed flyover won the day.

**M8 Extension/Edinburgh City Bypass:** A Design/Build project with innovative reinforced earth walls/abutments and major bridges including the longest prestressed concrete Y beams constructed at the time (37m).

**M8 Widening Glasgow:** Client's adviser/designer/checker. Two major projects to widen existing viaducts/bridges while maintaining full traffic flow.

**Prestwick International Airport Rail Station:** Engineering, Architecture, M&E & QS input to the first privately built rail station in Scotland this century: Station buildings/platforms/ skywalk to Airport Terminal/escalators/lifts etc.

Fochabers - Mosstodloch Bypass: Bridge and route studies.

**M77 Ayr Road:** Consultant to Contractor bidding for a major D/B project. **Central and Eastern Europe:** Penetrating and developing the market.

## **Professional History**

1981 to 1987 Ass

**Associate: Scott Wilson Kirkpatrick & Partners (Scotland)** 

(Principal Engineer: 1981/82)

Managing various projects including:-

Abuja, Nigeria's Federal Capital: Roads/expressways/50 major bridges.

**Hong Kong, Tuen Mun New Town:** A major elevated urban motorway interchange (P1/P2) in prestressed concrete.

M42 and A6 England: Several major bridges.

**Arabian Gulf, Das Island:** Structural evaluation and repair proposals for seriously damaged structures in a liquid natural gas plant.

**Investigation of structural distress, subsidence and foundation problems** for numerous clients: Jobs ranged from simple domestic properties to major commercial and industrial buildings.

Edinburgh City Bypass: Union Canal Aqueduct in prestressed concrete. Structural inspection/assessment/repairs for numerous bridges: in the UK. Heathrow Terminal 4, London: Elevated approaches/structural steelwork.

HMS Cochrane/Caledonia, Rosyth: Development Plan. HM Naval Base, Rosyth: Developing Planning Group. East Kilbride Peel Park Road: Design/Supervision Don Bridge, Kintore Aberdeenshire: Design/Supervision

Clyde Submarine Base: Design/Supervision of 26km of access roads.

#### 1976 to 1981

#### Principal Engineer: Scott Wilson Kirkpatrick & Partners, Hong Kong

Managing various major projects including:-

**Tuen Mun Road:** 20 km motorway in steep mountainous terrain: Numerous bridges and viaducts mainly in prestressed concrete: Very large embankments and cuttings in decomposed rock.

**Tsuen Wan New Town:** Several major bridges and other infrastructure. **Cross Harbour Tunnel:** Study of methods to increase tunnel capacity. **Sabah, East Malaysia:** Roads and bridges for a 90 km jungle road.

**Tsuen Wan Bypass:** Prelim studies/independent checks for 2 km long prestressed concrete elevated motorway constructed in sea and reclaimed land.

## **Professional History**

1967 to 1976

Various assignments: Scott Wilson Kirkpatrick & Partners (Scotland)

(1975 to 1976)

## **Resident Engineer (Bridges)**

**M8 Renfrew Motorway Glasgow:** Supervision of major viaducts/bridges in prestressed/reinforced concrete in a congested urban environment. Major crossings of electric rail, underground railway and city streets requiring major retaining walls and complex piled foundations.

(1974 to 1975)

## **Senior Chartered Engineer**

M8 Renfrew Motorway: Structures design/Supervision-in-Chief.

Clyderail St John's Link Feasibility Study: Rehab of disused urban rail route. Glasgow Inner Ring Road (GIRR) East Flank: Feasibility studies for various routes including a major crossing of the River Clyde.

**GIRR Townhead Stage II:** Design of major bridges/viaducts in prestressed/reinforced concrete and steel.

Nigeria, Ibadan Bypass: Resident in Ibadan on design of major bridges.

(1971 to 1973)

#### **Chartered Engineer**

**Cathkin Relief Road Rutherglen:** Managing design team on all aspects of an urban dual carriageway.

**M8 Renfrew Motorway:** Managing design team on Scotland Street Viaduct, a group of multi-span continuous pre-stressed concrete box girder viaducts, total length 1.1 km, crossing streets, a major rail route and the Glasgow Underground railway.

**M8 Renfrew Motorway:** Geometrics, signing, roads design, accommodation works and geotechnics.

**Brandon Street Bypass Motherwell:** Design of a multi-span road bridge over a major rail route.

(1969 to 1971)

#### **Assistant Resident Engineer**

**GIRR, Woodside II:** Supervision of construction of major bridges/viaducts/retaining walls in prestressed/reinforced concrete.

(1967 to 1969)

## **Graduate Engineer**

GIRR, Woodside II: Design of major bridges, viaducts, retaining walls and foundations: Preparation of contract documents.

#### **Publications & Papers:**

#### P1/P2 Interchange Hong Kong

Presented to IStructE London 28 November 1985

Journal of The Institution of Structural Engineers October 1985.

#### **Union Canal Aqueduct**

Journal of The Institution of Highways & Transportation October 1986.

## **Clyde Submarine Base Access Roads**

Presented to ICE Glasgow [and others], 1987.

## **Glasgow Inner Ring Road**

'Visions ReVisited' Conference Glasgow University, October 1992.

## The Design of St James Interchange

Presented to ICE, IStructE, IHT [and others], Glasgow, Inverness, Aberdeen, 1993.

## The Design and Construction of M8 St James Interchange

New Steel Construction Magazine October 1993.

### M8 St James Interchange Design & Construct

British Construction Profile December 1993.

## Gogar Roundabout Grade Separation Design & Construct

British Construction Profile December 1993.

## **Bridge Procurement - Today & Tomorrow**

A Report and Commentary on an ICE/IStructE/IHT Meeting, Glasgow, 25 Jan 1994. Journal of The Institution of Highways & Transportation, July 1994.

## The Road Ahead - A Balanced View of Transportation

Seminar/Address to Members of Parliament at ICE London, February 1996

#### The Role of the Mentor in the ICE Mature Candidate Review

ICE Incorporated Engineers & Technicians Seminar, Troon, 6 March 1996.

# The Appearance of Small & Medium Span Bridges - A Consultants View Scottish Office Conference Edinburgh October 1996.

#### Rivalry in Bridge Design

Minds Meetings: Architecture on the Edinburgh Festival Fringe. Royal Fine Art Commission for Scotland Edinburgh August 1997.

## Rebuilding Scotland - The Post-war Vision 1945 - 1975

Edited by Miles Glendinning

Contributed chapter `Glasgow Inner Ring Road Past Present and Future`, Tuckwell Press, East Linton, Scotland, 1997. ISBN O 898410 33X

## Engineers and Societies - The Chairman's Address 1998

Presented to ICE Glasgow & West of Scotland Association, 1 October 1998, Published February 1999.

#### **Professional Service:** 1. The Institution of Civil Engineers

Member of Council 2000 to 2003

NCE Editorial Advisory Board

Awards Committee

2000 - 2003

Structural & Building Board

Member Services Committee

2001 - 2003

Archives Panel

Editorial Advisory Panel, Bridge Engineering

2002 - 2003

2002 - date

## **Glasgow & West of Scotland Association**

Chairman: 1998/99

Senior Vice Chairman: 1997/98 Vice Chairman: 1995/96 and 1996/97

Chairman: Exhibition & Archive Sub Committee (1993 - 1998)

Committee Member: 1993 to date

Chartered Professional Review - Reviewer (1994 - 1999)

Mature Candidate Review - Mentor (1993 - 1999)

Graduates & Students Section:

Spring Meetings/University of Stirling - Tutor

Essay Discussion Groups - Tutor

## 2. The Association of Consulting Engineers Scotland

Honorary Secretary: 1994 - 1998 Committee Member: 1994 - 2003

#### 3. The Saltire Society Awards for Civil Engineering

In Association with The Institution of Civil Engineers. Member of the Adjudication Panel: 1993, 1994, 1995, 1996

## 4. FIDIC '97 International Conference Edinburgh

Member of the Scottish Organising Committee

#### 5. Glasgow City of Architecture & Design 1999

Member of the Advisory Board 1997 - 1999.

Chairman: ICE, IStructE, IHT Committee for Civil Eng events 1997-1999

## 6. The Institution of Highways & Transportation

## The IHT Motorway Achievement Project

Member, co-ordinating committee, Scottish Regional Team (1997 - 1999).

## 7. University of Glasgow

## **Department of Civil Engineering**

Member of Advisory Group for Degree Programmes (1999 - date)

Member of the ASSET Panel: A new Masters training programme in Structural Engineering awarded jointly with the University of Strathclyde (2000 - date).

#### 8. Scottish Council Development & Industry (SCDI)

Member of the Executive Committee 2001 - 2003

(ICE Representative)

Member International Business Committee 2001 - to date

#### 9. Scottish Construction Industry Group (SCIG)

ACE Member : Professional Bodies College 2001 - 2003

(now Construction Industry Council Scotland)

Member: SCIG Representative Board 2001 - 2003

#### **Awards for Projects**

- 1988 Association for the Protection of Rural Scotland Commendation: Hermiston Aqueduct Union Canal at Edinburgh City Bypass
- 1992 Association for the Protection of Rural Scotland.
  Certificate of Merit: Glasgow Bridge, Forth & Clyde Canal
- 1993 The Saltire Society Awards for Civil Engineering.
  Design Commendation: West Lothian Canal Project
  Preston Road Bridge, Union Canal
- 1994 The Saltire Society Awards for Civil Engineering Design Award: M8 St James Interchange Glasgow
- 1995 The Saltire Society Awards for Civil Engineering.
  Design Award: A74(M) Cleuchbrae to Ecclefechan

## 1999 The Institution of Civil Engineers

The Brunel Medal 1999

Awarded to those involved in the design and construction of the **M6 DBFO Project** for valuable services to civil engineering

1999 The Concrete Society

Bridge of the Century Award: Greta Bridge Cumbria

2000 The Structural Steel Design Awards

**Certificate of Merit: Float Viaduct**, carrying the West Coast Main Line over the River Clyde at Carstairs

2000 National Rail Awards 2000

Highly Commended: Project of the Year: Float Viaduct

2000 British Construction Industry Awards

High Commendation, Major Project Category: M6 DBFO Project

2000 The Saltire Society Awards for Civil Engineering

Commendation: The M6 DBFO Project

Commendation: Environmental Sustainability on the M6 DBFO Project

2000 Structural Steel Design Awards

**Certificate of Merit: Float Viaduct Carstairs** 

2001 The Saltire Society Awards for Civil Engineering

The 2001 Award: Kingston Bridge Strengthening Project

**2002** The Institution of Civil Engineers

The Brunel Medal 2001

For Excellence in Civil Engineering: Awarded to the Team involved in the Kingston Bridge Strengthening Project

2003 National Rail Awards 2002

Highly commended: Project of the Year (Civil): Milngavie Rail Bridge