

SWS Significant Projects

Ronnie: Comment. 1. My checker showed spelling and spacing issues. At start I corrected some then changed to showing them as [? Gap etc] or my understanding of the correct spelling [eg Jencks not Jenks]. It might be easier to download this copy to accept or reject changes. 2. Some Irish Job names showed as errors. My system should have all the correct names from other work I have done. Check or leave it until I get back from holiday. 3. I am happy with your choice of 'significance'. 4. I have added names of key staff [where I know them] and highlighted where I think we should try to add names or at least indicate that there were others who should be acknowledged. Regards, Jim. 14 July 2014.

This table attempts to record significant projects carried out by Scott Wilson in the operational areas which became the responsibility of Scott Wilson Scotland (comprising Scotland, North of England, Northern Ireland and Ireland). Prior to the formation of SWS, projects were carried out by the UK Partnership.

There is no simple definition of a significant Project. Whilst large projects can easily fall into this category, I have also included projects which added to the geographic and technical expansion of the firm. I have also included projects which created a stream of commissions. In part, the data in itself provides a detailed history of the development of SWS over the years.

The data has been taken from job number lists which were obtained from archive catalogues. This data appears very comprehensive from 1971 to 2001. Prior to 1971 and post 2001 the data appears less complete. There is an important issue to note; in some years it was the practice to take out a separate job number for the promotion and then take out a separate job number for the implementation. Unfortunately, the mists of time do not allow this to be dealt with properly and so reference in the table includes all job numbers. It appears that financial systems could not generate simple job lists from about 2004 onwards. From 2001, recourse was made to monthly marketing reports contained within Board Papers. Compared with the early years, the number of projects carried out in later years very much increased particularly through term commissions and partnering agreements but many were of relatively small scale (and value) which is a feature I recall from sales analyses.

Notes on table: 1 Where data is not verifiable it is marked: [?]

- 2 Job Numbers give a good clue about dates. Early UK Partnership numbers based on year (y) and project number (n): yynn and later yynnn. Early SWS numbers were in the series yy5nn. The next system used letters (l) rather than numbers: yylll. The next system used: S100nnn doesn't easily relate to dates. Where job numbers were not available, I have used the date the commission was recorded [mm/yy] to give some idea of the timeline.
- 3 R/G: R indicates a project with Regional significance whereas G indicates a project of Global (or Group) significance
- 4 The existence of a Project Description Sheet is shown as: ✓ and the existence of some archive photos is shown as: √

Date	Job No	Title	R / G	PDS or Photo	Key Staff	Comments and/or follow on projects	Why Significant?
1960		The Glasgow Highway Plan	G		H Grace R Hodgen JM Cullen	SW were [was?] appointed in 1960 by the City Council to design an Inner Ring Road. This was extended in 1961 to include traffic and highway planning for the whole city. The printed report was issued in 1965.	The founding project for the Glasgow Office and the Scottish firm.
1960	60040	GIRR Townhead Interchange Stage 1	G	√	H Grace [Partner] R Hodgen Highway Planning: JM Cullen A Davies; J Wood; J Stamper Bridges: B McKenna PAB Innes; GWB Walker; Bill Malcolm; Dr Stan Porter Roads: D Moncrief WC Dougall; H Taylor; WH Holmes Drainage: JMW Breakey	M8 Glasgow Inner Ring Road N Flank Junction 19. Following preliminary design, contract document preparation started at the end of 1963, construction started in 1965 and the road was opened in 1968. The original Stage One contract was let for £2.2m and following an extension was valued at £3.1m	The first road construction contract for the Scottish firm
1961	6106	ICI Ardeer, Ayrshire	R		K Innes?	An SWKP project probably managed from London [Ronnie, all the jobs, until SWKS was set up, were London Nos and theoretically 'managed' from there].	The first recorded industrial project in the Scotland Archive
1961	6108	East Kilbride Town Centre Development	R	√	Key Staff?	An SWKP project probably managed from London which continued well into the 2000's In the longer term the Scottish firm carried out a series of Road & Bridge projects for East Kilbride Development Corporation (see below) and several traffic studies and public Inquiries for Land Securities who in later years purchased the town centre properties: 98BNG Olympia East Kilbride Parking & Traffic Study S1000462 Centre West Car Park [04/02] Olympia Car Park Access Study [12/02] East Kilbride Bus Station [12/02] East Kilbride Olympia Car Park Access [01/05] Centre West Car Park [07/05] Centre West Car Park ? Peel Park Distributor Road/Bridge 86545 Kittoch Water Bridge	The first recorded commercial project in the Scotland archive.

1962	-	St Andrews University - Extension	R		PAB Edwards GMJ Williams? Ken Innes?	An SWKP project probably managed from London Later developed into: 64009 St Andrews University Hostels 66057 Old Course Hotel 66063 St Andrews University Extension	The first recorded education project in the Scotland Archive. Led to a series of iconic University buildings in St Andrews
1963	63040	GIRR Woodside Motorway Stage 1	R	✓	H Grace [Partner] R Hodgen Highway Planning: JM Cullen A Davies; J Wood; J Stamper Bridges: B McKenna PAB Innes; GWB Walker; Bill Malcolm; Dr Stan Porter Roads: D Moncrief WC Dougall; H Taylor; WH Holmes Drainage: JMW Breakey T Vaughan [RE]	M8 Glasgow Inner Ring Road west from J 19 Townhead towards Dobbie's Loan. [Ronnie, I'd like to include the main players from the main disciplines for all these chosen projects [where we can] rather than simply the PD/PM. There was such an important involvement from Bridges, Geotech, Drainage, Traffic, Highway Planning, Site, etc that we should include these names to recognise their efforts and add interest to the story.]	Part of the Glasgow Inner Ring Road
1964	64010	Greater Glasgow Transportation Study	G		TJ Lambie [TAMS] AS Davies? JM Wood? G Grey? H Murrison D Davidson [et al] [more details in Pontifact I think]	The study started in 1964 and was completed in 1968. Inevitably thereafter there was a plethora of supplementary studies The study team included TAMS (Tippetts-Abbett-McCarthy-Stratton of New York.) The study included both roads and public transport modes and although the output little changed the Highway Plan proposals they led to an enhancement of the heavy rail networks around Glasgow. Many of the team moved onto positions within the City of Glasgow Planning Department. Also: 71514 GGTS Follow up study	A classic example of a major multi-modal transport study involving significant data collection, modelling and scenario testing
1964	64015	M1 River Blackwater – Dungannon, NI Bridges	R		FM Bowen Key Others?	Project led by Tyrone CC, [gap]SWKP designed the bridges only. Opened in 1967.	First recorded project in NI in the Scotland archive
1964	64024	Rutherglen Roads & Traffic	R		JM Cullen [Others?]	Inevitably the Glasgow Highway Plan spawned improvements outside the city boundary one area being the Burgh of Rutherglen. Several construction projects followed (see below).	The first expansion of the Roads client base
1964	64038	BEA 40 Buchanan Street	R		?	The first recorded Scottish project for BEA (who would become BA). This through SWKP connections would provide work at Glasgow Airport and Helicopter hangars around Scotland (see	First recorded airports related project in the Scotland archive.

1964	64040	GIRR Woodside Motorway Stage 2	R	✓	B McKenna [Bridges] St G X Bridges: GWB Walker R McGowan J Bruce M Sergeant [sp?] RA McKittrick Viaducts 11-12 & Br 9: D Coutts D Smith JP McCafferty JM Breakey [Drainage] WC Dougal [Roads] H Mitchell Others? T Vaughan [RE] R Reeve [RER] R McGowan [REB] RA McKittrick [AREB] GWB Walker [REB] JP McCafferty [AREB]	below). M8 Glasgow Inner Ring Road between Dobbies Dobbie's Loan J 16 and St Georges cross. Opened in 1971.	Part of the Glasgow Inner Ring Road
1964	64210	Belfast Northern Approach Road	R		KCW James Key others?	Thought to be planning studies associated with the development of the M2 in NI. Worked was carried out in an office in Belfast in association with Kirk McLure McClure and Morton. The following contracts were constructed: M2 Templepatrick to Dunsilly. Open 1971 M22 Dunsilly to Ballygrooby [?]. Open 1971 M2 Sandyknowes to Templepatrick. Open 1975 M22 Ballygrooby [?] to Artresnahan [?]. Open 1973 M2 Railway Bridges [RTH: Check projects and spelling from Pontifact]	Developed into a series of construction contracts for the M2 and M22 in NI. SWS would return to upgrade these routes in the 2000's as part of DBFO1 in NI
1965 [?]	-	BEA, Glasgow Airport Hangar	G	✓	? The later projects: JP McCafferty [PD] BO Robertson [PM]	Design of a new Hangar and MT facility at Glasgow Airport which opened in 1966 to replace Renfrew Airport. SWKP designed the hangar in London and the relationship went on to provide a number of small projects over the years: 86527 BA MT Depot Structural Appraisal 88503 BA Cargo Centre Structural Appraisal 89579 Glasgow Airport Blastscreen 91503 BA Additional Storage 95ABG BA Engineering Base Hangar 95BOG British Airways Office Rehabilitation 96HJG BA Glasgow Cargo Weighscales	An iconic project in the Glasgow Area
1965	-	Inverkip Power Station Chimney	R		D Thorpe	An investigation into cracking in what was then the UK's tallest chimney at 800 ft. The project led to	First recorded energy project in the Scotland

[?]						subsequent work at Peterhead Power Station	archive
1969	69029? 71511	Brandon Street Bypass Motherwell	R		WC Dougall [Roads] JP McCafferty [et al] GWB Walker [Bridges] JP McCafferty CL Greig [RE]	Major roadworks in the Burgh of Motherwell to allow pedestrianisation and the creation of a Regional Shopping Centre. [Ronnie-my recollections shown; I was full time roads, part time bridges!!]	A further expansion of the Roads client Base
1970	70150	Motherwell Commercial Centre	R		GWB Walker [?]	Design of a Regional Shopping Centre in the style of the late 1960's. Was this actually designed and built? Was it a traffic study?	The first major building project designed in Scotland.
1971	71501	Glasgow Comprehensive Highway Study	R		JM Cullen Key Others?	This was an annual rolling contract which went on for a long number of years and continued the work of the Glasgow Highway Plan. This work followed on from the publication of the Glasgow Highway Plan and may have gone back as far as 1965. Job numbers were in the series: yy501	A major source of work.
1971	71505	Renfrew Motorway Stage 1	G	✓ √	JM Cullen [Planning] WC Dougall [Roads] H Mitchell JP McCafferty WH Holmes [et al] JM Breakey [Drainage] R McLean CR Ford [Late W2; Early R1; Bridges] R McGowan [Bridges] JP McCafferty P Mortimore H Blackwood [et al] I Hart [CRE 1] N McKay [PD; CRE 2] T Walters [CRE 3] JP McCafferty [REB] H Mitchell [RER] J Brownlee [REM]	M8 Glasgow -Design of a Braided Motorway Interchange with multi-span curved pre-stressed concrete bridges. The road was opened in 1976. There were a number of earlier planning projects: 67075 Renfrew Motorway Stage 1 67076 Renfrew Motorway Structures [Ronnie, I think these were the London Jobs before SWKCSL]	The signature Project of the 1970's
1971	71513	Rutherglen – Realignment of Mill Street	R		G Baillie JP McCafferty [Cathkin/Mill St]	The first section of an expressway bypassing Rutherglen Town Centre. Later projects were: 72507 Cathkin Relief Road 72508 Mill Street Extension	The first in a series of roads projects in Rutherglen
1971	71522	Dumbreck Rd Connection Ayr Motorway Stage1	R		JM Cullen [?] Key Others? Planning? Roads? Bridges? Site?	Planning work for the first of the Highway Plan routes to be taken forward which would eventually become the M77 although the first section was developed at a low key as the Dumbreck Road Connection (see below). There were also other projects recorded:	The first spoke from the Glasgow Inner Ring Road

						70153 [?] Ayr Motorway Stage 1 [Basingstoke No?]	
1971	71528	BEA Helicopter Hangar Dyce Airport Aberdeen	R	√	D Thorpe Glasgow Staff?	Typically designed by SWKP in London, Scottish staff provided site supervision. Other projects were: 77502 BA Helicopters Sumburgh 77511 BA Helicopters Aberdeen	The first of a series of hangars for BEA
1975	75098	Abu Dhabi Prison	R		G Baillie Key Others?	The first project in an attempt to widen the capability of the Glasgow Office. Subsequently followed by: 78502 Rumailah [Rumailah?] Womens Women's Hospital Doha	The first building project of significance designed in Scotland for SWKP
1975	75505	Clyderail – Rail Link – Rail Link St John's Link	R		JM Cullen WC Dougall JP McCafferty [B'dges]	A link from High St Station to the Clyde Crossing in Glasgow. Never constructed but still much talked about! Sometimes called the St Johns Link.	The first rail project in Scotland for SWS
1976	76509	Jetty at Rona	R	√	G Baillie RT Hunter Key Others?	Small jetty for MoD – part of a torpedo range off Skye. Contractor – RJ McLeod. A further project was carried out: 78507 Raasay Pier Ferry Terminal	The first D/B for SWS
1976	76703	Ejigbo Water Supply Scheme	G	√	J Maidment R McGowan RA McKittrick Key Others?	Structural design of Water Treatment Works in Africa for SWKP. There were a series of follow on projects: Mombasa Water Supply 76703 Ejigbo Water Supply 77510 Ejigbo Water Supply 78517 Iseyin water Supply 81503 Tarzebo Pump Station	These projects replaced roads work cut back in response to the oil crisis.
1978	78505	Mallagh Luce	R		G Baillie RT Hunter Key Others?	This was probably the first SWS relationship in Ireland building on G Baillie's contacts (he had worked in both N & S Ireland in the cement industry) Subsequent projects were: 80522 No 2 Keg Washer Guinness Brewery Dublin 81513 No 7 Keg Plant Guinness Brewery [Guinness]	The first attempt to create a relationship with an Irish firm. Eventually led to some small structural design tasks at Guinness Brewery Dublin
1978	78512	Trunk Road A9 Navidale – Ord of Caithness	R	✓ √	JM Cullen R McGowan WC Dougall JP McCafferty H Blackwood SJ Hindshaw DJ Webster AG Frew	A short improvement to the A9 in challenging terrain. Although appointed in 1978 it was eventually constructed in 2008 after much start/ stopping! 91531 Helmsdale – Ord of Caithness 94BJG A9 Helmsdale to Ord of Caithness [Ronnie, I suggest adding some detail to the names and what they did; eg I was involved in the Bridge; others? Geotech?]	The first trunk road project for the Scottish Development Department
1978	78514	Nigg Oil Terminal Marine Facilities	R		JM Cullen H Blackwood	The initial client was Highland Hydrocarbons but for the many follow on projects the client became the Cromarty Firth Port Authority (see below):	The first of a series of Marine projects won through the Dingwall

					Key Others?		Office to capitalise on the Oil Boom.
1978	78518	Land Renewal Scheme Fascally, Brora	R		G Baillie H Blackwood WC Dougall	The purpose of the projects was to encourage economic development by improving infrastructure and regenerating derelict land. Other projects included: 79502 Environmental Improvement Saltburn 79515 Inveresk Paper Mill Site Musselburgh 80514 Rosskeen Foreshore 80520 Railway Land Clydebank 80521 Forth & Clyde Canal Clydebank 82518 Drongan Block 1	The first in a series of projects for the Scottish Development Agency and the Regional Development Companies
1978	78528	Land Reclamation Nigg Oil Terminal	R	√	G Baillie RT Hunter	An excellent relationship developed with the Cromarty Firth Port Authority. A number of projects followed: 80535 Nigg Petrochemical sub Sea SI 80536 Nigg Petrochemical Land Reclamation 82520 Nigg Reclamation Phase 3	Significant experience developed in the marine field
1979	79509	Rosskeen Bridge	R	√	H Blackwood BO Robertson On the later projects: R McGowan [PD] JP McCafferty [PM] HH Grant	Projects were won by the Dingwall Office and work was shared between Dingwall and Glasgow . Other projects included: 79521 A835 Black Bridge 81523 Rosskeen Bridge Improvement Stage 2 83519 A835 Bridge Repairs 86537 A835 Contin Bridge Repairs 95DEW A835 Bridge Assessments-Assessments	The first in a long series of bridge designs for Highland Regional Council
1979	79516	Hong Kong Tunnel Stage 2	G		GMJ Williams JM Cullen R McGowan G Baillie Key Others?	Highway Planning and structures advice to SWKP and the HK office on various measures to increase the capacity of the cross harbour tunnel. Subsequent projects included: 81198 Cross Harbour Tunnel Hong Kong	The Hong Kong cross Harbour Tunnel was an iconic SWKP project
1979	79530	Baghdad Transportation Study	G		M Watson JM Cullen GH French R Rakusen WH Holmes JP Munro-Lafon	Long-term secondment of staff to a major SWKCL project. Further work came in due course: 80517 Baghdad Palestine St Interchanges 81514 Baghdad Transportation Study Assistance 82514 Baghdad Transportation Study Assistance [PD, PM etc?]	Significant transfer of Scottish staff to support a major overseas project
1979	79532	Heathrow Terminal 4	G	√	PA Rutter [PD] R McGowan [PD Scotland] JP McCafferty [PM] RT Hunter [?]	Quantities for substructures followed by separate appointments for structural steelwork check and design of approach ramps. Follow on projects were: 80130 Heathrow Terminal 4 80524 Heathrow Airport Terminal 4 Costing 81505 Heathrow Terminal 4 Departure Ramps 81527 Heathrow Terminal 4 Structural Steelwork	The first of a series of projects to assist SWKP

					AHW Baker[Structure]	90559 Heathrow Terminal 4	
1980	80510	Ninian Central	G	√	J Swift RT Hunter AHW Baker Key Others?	Secondment of staff to Chevron Petroleum (UK) Ltd both offshore and in Chevron's London Office. The projects included modifications to Ninian Central Platform to permit the production of gas and strengthening of Ninian Northern Platform: 80523 North Platform Design	This project was SWKPs iconic project in the North Sea Oil boom.
1980	80719	Abuja – New Federal City	G		R McGowan [PD] JP McCafferty [PM Bridges] WC Dougal [PM Roads] [Roads/Liaison in Abuja] H Blackwood WH Holmes	A preliminary design and masterplanning exercise for SW Nigeria. The long-awaited final design never came to anything got beyond the Central Area because of the deteriorating economic situation in Nigeria. [Ronnie, I was persuaded to return to Glasgow to become PM under RMcG PD, for the numerous bridges which were designed/studied in Glasgow and Basingstoke Several Bridges were constructed in the Central Area and there were numerous bridges for which outline designs were prepared. The actual masterplanning was done by Japanese Prof Kenzo Tange and others. SW later prepared outline designs for the outer expressways and radials (WCD, HB, WHH, who also spent month on/off on liaison in Abuja, all under RMcG I think.) There were many job numbers including: 80719 Abuja; New Capital City 81510 New Federal Capital City Abuja 83507 Abuja Phase II Central Sector	A significant overseas project which mirrored the original Glasgow Highway Plan
1981	81009	Iraq Airbases	G		PAB Innes RT Hunter Key Others?	Infrastructure design assistance to SWKP[gap] for Officers and Other Ranks small towns associated with three airbases for the Iraqi Air Force together with the design of off-site access roads.	Provision of military capability to Saddam Hussein's Hussein's regime whilst they were friends of the UK!
1981	81522	Blythe Bridge Uttoxeter Design Check	R		R McGowan [PD] BO Robertson Later Jobs: JP McCafferty [PM] AHW Baker MJ Hackney A Aitken RJ Doubal [Geotech]	This project fostered the relationships between the two major UK Bridge Offices and led to a series of projects: 81532 Blythe Bridge Uttoxeter Tracing 83188 Stocksbridge Cat 111 check 87543 Castle Donington North 87643 A42 Castle Donington North 88544 M42 Geotechnical Check 94CBG Derby Bypass Category 2 Checks 94FKG Derby Southern Bypass Bridge Design Checks	The first of a series of bridge projects for the SWKP Matlock Office

1982	82042	Das Island	G		GMJ Williams [PD] JP McCafferty DJ Monteith DGE Smith RT Hunter	Support to SWKP on the analysis and repair proposals for sea-water concrete remediation for a petrochemical plant on Das Island	Expert Witness support for major litigation against BP
1982	82532	Peel Park Distributor Road Railway Crossing	R	√	R McGowan [PD] WC Dougall [PM1] JP McCafferty [PM2] AHW Baker [Bridge] WH Holmes [Roads] AG Frew [RE?]	The projects resulted from a long relationship with the East Kilbride Development Corporation and subsequent projects included: 83522 Northern Development Bypass – Traffic 86542 Markethill Bridge 86545 Kittoch Water Crossing	The first of a series of projects on this road
1982	73806	P1/P2 Interchange, Hong Kong	G	√	JP McCafferty H Blackwood AG Frew [et al]	P1/P2 Interchange was a grade separated interchange and viaducts in Tuen Mun New Town, Hong Kong. The curved structures, which formed an expressway 'T' junction, were of prestressed concrete box girder construction. The project was designed in Glasgow for SW Hong Kong who provided the RE staff (A Bicket). Although the HK job number (73806) which was used suggests the project started in 1973, the design in Glasgow was carried out between 1982 and 1984. The project arose through JPMcC's contacts in Hong Kong.	A major International Project designed in Glasgow
1983	83515	Union Canal Aqueduct	R	✓ √	R McGowan [PD] JP McCafferty [PM] H Blackwood	Design of an aqueduct carrying the Union Canal over the Edinburgh City Bypass This project flowed from an earlier planning study led by JM Cullen to prove that the Union Canal could remain open and still allow the construction of the Edinburgh City Bypass: 78515 Edinburgh Bypass and Canal Subsequently we were asked to look at other sections of the canal: 89501 Union Canal Wester Hailes Feasibility Study Edinburgh City Bypass: Hermiston Aqueduct The Association for the Protection of Rural Scotland; Commendation 1988	The first significant stand-alone bridge project for SWS
1983	83535	Balgreen Road Edinburgh – Planning Appeal	R		WC Dougall RT Hunter Others?	TIA for a Supermarket proposal	The first SWS TIA of the modern era!
1984	84503	A78 Ardrossan Bypass [Ronnie, it would be useful to clarify PD, PM, Roads, Geotech etc; it was a	R	✓ √	R McGowan WC Dougall H Blackwood SJ Hindshaw DJ Webster	The project which was also known as the three towns Bypass (Ardrossan, Saltcoats and Stevenson) was finally completed in 2005: 92DUG Ardrossan Traffic Study 95AGG Ardrossan Bypass Revised Scheme	The second major (and long-lasting) project for the Scottish Office who would in the longer term become

		long job. WCD must have departed early on]			RT Hunter AG Frew JP McCafferty [B'dges] MJ Hackney [?] [Others?] RJ Doubal [Geotech]	99DAG Ardrossan Bypass A78 Montfode Railway Bridge The Saltire Society Awards for Civil Engineering Award: Construction Commendation 2006	our major client
1984	84504	HMS Caledonia/ Cochrane Development Plan	R	√	JP McCafferty [PD] AG Napier [PM] Others? [Especially later projects] I'm not sure AGN was in Scotland at the time! May have been done from Glasgow.	This project built on the SW experience with PSA/ MoD and was the start of a long and continuing relationship at various military establishments throughout Scotland. In due course PSA became DWS and both engineering and project management commissions were won for projects in Scotland and England. Follow on projects at HMNB Rosyth included: 84543 HMNB Rosyth-Assist Joint Planning Team 85539 RD57 Rosyth 86534 HMNB Rosyth Piezometer Installation 90547 HMNB Rosyth Water Network Study 93ALE RD40/1 No1 Dock West HMNB Rosyth 93AYG Enhancement of Block 920 HMNB Rosyth 94AFE RD61 Phase B HMNB Rosyth 94CWE Refurb Married Quarters HMS Cochrane 94 DJG Adopt'n Water & Drainage HMNB Rosyth 94ERE RD57 HMNB Rosyth Retaining Walls	The first major project for PSA/ MoD
1984	84505	Tonic Cinema – Bangor	R		WC Dougall RT Hunter	TIA for a retail proposal	The first project won by SWS in NI following the completion of the M2 Motorway by SWKP in the 1970's
1984	84514 84515	Garelochhead Bypass & Northern Access Road	R	✓ √	WC Dougall [PM1] JP McCafferty [PM2 + Bridges] MJ Hackney? AHW Baker? RT Hunter [Roads] Others? RJ Doubal [Geotech]	Roads designed to access the major upgrade for the Trident nuclear weapon system at CSB Faslane and RNAD Coulport for PSA/MoD. Follow on projects included: 85506 CSB Faslane Traffic Advice 85543 Glenn Fruin Haul Road 86501 RNAD Coulport Extension- Access Route Improvements 92DYG Glen Fruin Haul Road 93BPG Glen Fruin Haul Road Reinstatement Project	Signature Road projects for the 1980's to serve the MoD Trident Project
1984	84525	Don Bridge Kintore	R	√	JP McCafferty F Osborne J Tubman CL Greig [ER]	Client Grampian Regional Council. This followed the Independent check of New Wellington Bridge, Aberdeen [re-named?] RMcG/AHWB? There were some follow-up jobs over the years.	An iconic stand-alone bridge project.
1085	85526	IBM Greenock – Piling			JP McCafferty [PM]	The project involved acting as expert witness, the	The first recorded

					BO Robertson [Struct] RJ Doubal [Geotech]	provision of evidence in a lawsuit resulting from major foundation failures at an IBM Plant in Spango Valley, Inverclyde and advice on remedial works and long term monitoring. Follow on projects included: 85826 IBM Greenock 91525 IBM Greenock Monitoring The appointment came through contacts JPMcC had made in Hong Kong.	significant forensic engineering project
1986	86546	Forth & Clyde Canal Navigation Restoration	R	✓ √	JP McCafferty [PD] RT Hunter [PM] AG Frew Add names for Bridges, Roads, Geotech input.	The project developed over time and became known as the Glasgow Canal Project. The stages included: 87513 Forth & Clyde Canal 87516 Canal Leak Detection 87527 Glasgow Canal Project – Cleveden Bridge 87526 Townhead Bridge Kirkintilloch 88510 Balmuilty Bridge Final Design 88511 Glasgow Bridge Final Design 88512 Firhill Bridge Final Design 88513 Ruchill Bridge Final Design Glasgow, Firhill and Ruchill Bridges were subsequently constructed with some Mackintosh 'Glasgow Style' detailing. in a 'McIntosh' style. Thereafter the project became known as the Millennium Link: 97CCG Millennium Link Contract C3 98BLG Millennium Link Contracts 1 & 3 A similar commission was received for the Union Canal: 89533 Preston Road Bridge Feasibility Study. Preston Road Bridge was subsequently constructed clad in yellow sandstone. Glasgow Bridge Kirkintilloch The Association for the Protection of Rural Scotland; Certificate of Merit 1992 West Lothian Canal Project: Preston Road Bridge The Satire Civil Engineering Award: Design Commendation 1993	The first recording of a long association with BWB to reopen the Forth & Clyde Canal
1987	87521	Trunk Road Study – South of Edinburgh	R	✓	RT Hunter RJ Bissland WH Holmes SE Briggs	Became known as the Routes South of Edinburgh Study and came up with the startling conclusion that Edinburgh is west of Carlisle.	A major traffic/ economic/ highway planning study where we were given for the first time the Scottish

					[Others? HB?]		Office economic assessment tool (NESA) to use in-house and we purchased the first pc for use on the project
1987	87555	RAF Kinloss Married Quarters Modernisation	R		R McGowan [PD1] JP McCafferty[PD2] AG Napier [PM] A Aikman Others?	A series of projects, initially for PSA/ MoD, followed at this site. In due course PSA became DWS and both engineering and project management commissions were won: 89535 RAF Kinloss Modernisation of Airmen's Quarters 90527 RAF Kinloss –AMQ's Modernisation 92EQE RAF Kinloss Maritime Hangar 95CXG RAF Kinloss Airfield Restoration 96AWW RAF Kinloss-Phase 2 Option Study 96JVW RAF Kinloss Drainage Study Phase 2 98BHW RAF Kinloss Airfield Pavement Addendum Study 01BPW RAF Kinloss Training on Outfall	
1988	88525	RAF Machrihanish Water and Sewerage System Feasibility Study	R		AG Napier		The first recorded project in the water sector [Ronnie, there were serious water studies at Rosyth see 84504 etc]
1989	89511	Channel Tunnel Rail Link Study	G		H Blackwood SJ Hindshaw AHW Baker	Provision of senior staff to SWKP. Follow on projects included: 90501 Channel Tunnel Rail Link 1990 92BNG Rail link Project 1992 93DVG Rail Link Project 1993- J Douglas Secondment 94FJG Channel Tunnel Rail Link 94GLG Channel Tunnel Rail Link 95AQG Channel Tunnel Rail Link : Tender Submission	A major project by any standard.
1989	89576	M8 St James Interchange Improvement	G	✓ √	JP McCafferty [PD] RT Hunter [PM] MJ Hackney [Bridges] [Roads?] RJ Doubal [Geotech]	Design carried out for Balfour Beatty. M8 St James Interchange, Glasgow The Saltire Society Awards for Civil Engineering Award: Design Award 1994	The first major trunk road (non-estuary crossing) design-build project in the UK which was the forerunner of most road projects in Scotland
1989	89588	Royal Botanic Garden Herbarium and Extension	R	√	JP McCafferty [PD] AG Napier [PM] Others?	Further work came in due course: 94ESE RBG Caledonian Hall Floor 95EDE Cladding Survey	An iconic building in Edinburgh

						95GHE RBG Edinburgh Raised Walkway 95HNE RBGE Classroom Block Extension S100531 RBG Edinburgh Extension	
1990	90510	M74 Dinwoodie Green –Ecclefechan M74 Beattock – Dinwoodie Green	R	✓ √	H Blackwood [PD] SJ Hindshaw [PM] RTH? [Roads?] JP McCafferty [B'dges] AHW Baker MJ Hackney? RJ Doubal [Geotech] S Proud?	These projects as well as being fast tracked were also part of the Scottish Office Alternative Tendering Initiative whereby they wished to move steadily to reduce their exposure to out-turn cost increases (compared with tender values) These were major projects with a number of project numbers: 89589 M74 Dinwoodie Green to Ecclefechan Supply Studies 90507 M74 Beattock to Dinwoodie Green Supply Studies 91502 M74: Maintenance of A74 91510 M74 Lane Rental 91524 M74 Water Main Diversions 92ATG M74 Site Staff Contract 1B 92BYG Site Supervision M74-Dinwoodie Green to Muirhouse 92CAG Site Supervision M74 – Water of Milk to Ecclefechan 93BDG M74 Traffic & Economic Analysis 93BWG Site Supervision M74 Cleuchbrae to Dinwoodie Green 93BYG M74 Motorway Contractor Design Changes 93CEG M74 Mechanisms for Change – Geotechnics 93CFG M74 Mechanisms for change – Traffic 93CTG M74 Mechanisms for change – Structures 93 EFG A74(M) Contract 2B – Contractors Design Proposals 93EGG A74(M) Contract 2B – Contractors Design Proposals A74(M) Barr Proposals- Geotechnics Contract 2B 93ETG Motorway Services Area (M74) Design of Stormwater Sewer 94BLG M74 Ecclefechan to Eaglesfield Phase 2 96ABG M74 Ancillary Works A74(M) Cleuchbrae to Ecclefechan The Saltire Civil Engineering Award: Design Award 1994	Both projects were part of the fast track improvements to the M74 Motorway instigated by M Thatcher
1990	90546	Kingston Bridge Investigations and Repair	R	√	R McGowan [PD1] JP McCafferty [PD2] BO Robertson J Redpath	This project started out as the provision of technical support to Strathclyde Regional Council who were in dispute with the bridge designers over unacceptable movements. The project extended to include on-	An iconic Glasgow Structure on the M8 where it crosses the River Clyde

					<p>Others? RJ Doubal [Geotech?]</p>	<p>going monitoring and support and independent checks on the remedial measures which were carried out.</p> <p>92AJG Kingston Bridge North approaches Calcs 92CJG Kingston Bridge South Approaches 92FQG Kingston Bridge Strengthening 93BBG Kingston Bridge Assessment 94AYG Kingston Bridge – Design of Strengthening Works 94EUG Kingston Bridge Quay Wall Study 96JPG Stobcross Off-Ramp (Kingston Bridge Approaches) 96KEG Kingston Bridge Parapet Report 00BFG Kingston Bridge: Half Joint S100489 KB Half Joints & Articulation [03/02] Kingston Bridge Cope Check [09/05] Kingston Bridge Joint Assessment and Articulation Review [01/07] Kingston Bridge Bothwell Street Off-Ramp [07/07] Kingston Bridge Additional Finite Element Assessment</p> <p>Kingston Bridge Strengthening Works in Glasgow The Institution of Civil Engineers: Brunel Medal 2001</p>	
1991	91ACG	Gogar Roundabout	R	<p>✓ √</p>	<p>JP McCafferty [PD] RT Hunter [PM] SE Briggs [Roads] SF Leckie [Bridges] RJ Doubal [Geotech]</p>	<p>Balfour Beatty were the DB contractor client. The major difference [?] was that you had to prepare a solution <i>ab-initio</i> and there was little in the way of a Client's design [?]. The Client asked for a 'Flyover' viaduct, which [I think] we provided. However, we also proposed a 'Flyunder' below ground level which left the airspace above the junction free for a future 'Flyover' to carry a possible future extension of the Edinburgh City Bypass to the Forth Bridge. The 'Flyunder' 'won the day' but the 'Flyover' to the Forth Bridge was not constructed.</p>	<p>The first major roads design/build for a local authority [?] St James I/C?</p>
1991	91BAE	DWS Project Management Term Commission – Edinburgh	R	<p>√</p>	<p>JP McCafferty [PD] AG Napier [PM] Others?</p>	<p>This led to a continuing long term relationship with DWS/ MoD and in due course this led to appointments via the Prime Contractor relationship. Similar appointments and individual tasks included:</p> <p>93DCE DWS RAF Lossiemouth Control of Airfield Flooding 93FDE DWS: PM Term Commission Scotland 94CHE Advisory Services Term Commission to DWA Edinburgh 95GXE Provision of EWC Services for North Scotland</p>	<p>The first formal recording of a major Project Management Commission</p>

					<p>95KJW EWC Commission – North Scotland Group 96BWE PM Term Commission for DWA Edinburgh 96CJE PM OF Offices of Offices Stores and Armouries at RM Condor 96CQE PM of New Band Block Redford Barracks 97DSE Glencorse Barracks refurbishment Phase1 97ELE Advisory Services Term Commission for DWA Edinburgh 99CGE Defence Estates Partnering Agreement</p> <p>Scotland 01CQE RAF Kinloss Child Care Centre 01CUE RAF Leuchars Child Care Centre S001CR RAF Lossiemouth Child Care Centre S001FR ATR Glencorse Glencorse Barracks Refurbishment Phase1 S001DF RAF Buchan Rationalisation Option Study S100482 RAF Kinloss SWTP Prime Contracting [12/00] RAF Leuchars, HAS Accommodation for 43 & 111 Squadron [12/00] RAF Kinloss, New PTRC [01/01] RAF Kinloss, Sewage Treatment [02/01] HMNB Clyde, CSST Accommodation [02/01] RAF Leuchars, MSS & ESA Control [03/01] HMNB Clyde, Southern Berth Utilities [04/01] RAF Leuchars, relocation of 56 Sqn [07/01] DE Scotland, Accommodation Study [07/01] RNAD Culpport, Boiler Replacement [08/01] Redford Barracks, Kitchen [08/01] HMNB Clyde, Sports Pitches [09/01] RAF Kinloss, New Ops Facility [09/01] RAF Lossiemouth, Lossiemouth New Ring Main [10/01] Glencorse Bks, Glencorse Barracks Re- role [10/01] Cerium Bldg, Glasgow, Fit-out [10/01] DHE Edinburgh, Upgrade [11/01] RM Condor, Galley [11/01] RAF Kinloss, MQ's [11/01] DHE Upgrade [01/02] Redford Bks, Works Study [01/02] RNAD Crombie, Jetty LV Study [02/02] RAF Kinloss, Relocation of 202 Squadron [02/02] HMNB Rosyth, Housing Development [03/02] DHE, Upgrade Leuchars, Kinloss, Arbroath & Prestwick [04/02] HMNB Rosyth, POL upgrade [05/02] Redford Barracks, Roof [06/02] Redford Barracks, All weather Sports Pitches [06/02] 51 Sc Brigade, Accommodation Study</p>
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						<p>[03/03] RAF Kinloss, Pollution Control</p> <p>[09/03] Glencorse Bks, Glencorse Barracks Redevelopment</p> <p>[10/03] DE Partnering Agreement extended to Oct 2004</p> <p>[07/04] DHE, Milton Bridge Housing</p> <p>[09/05] Glencorse Glencorse Barracks Battalion Accomodation-Accommodation</p> <p>[04/07] Driver Training Facility HMNB Clyde</p>	
1992	92FRG	M8 Extension Bridges	R	√	JP McCafferty [PD] MJ Hackney [PM]	As part of the Alternative Tendering Initiative, Scottish Office trialled a conventional contract for the M8 Extension outside Edinburgh with the addition of three heavily skewed design/ build bridges and associated rock cuts. SWS were designer for Balfour Beatty. The proposals involved Super Y Beams, at the time the longest precast concrete beams ever constructed in the UK, and extensive use of reinforced earth abutments and retaining walls.	A major variation on Scottish Office Design/ Build
1993	93ATG	Prestwick Airport Rail Halt	R	✓ √	JP McCafferty [PD] BO Robertson [PM] SF Leckie BO Robertson	The original designer was WS Atkins who were removed from the project and SWS appointed as substitute. Together with SWR we designed the structure of the second new station in Scotland: 96BYG Edinburgh Park New Station	The first privately funded rail station in Scotland since the 1800's
1993	93BJG	A9 Route Strategy Study	R	✓	RT Hunter [PD] RJ Bissland [PM] Others?	In response to complaints of poor forward planning, high accident rates and piecemeal improvements, Scottish Office developed requirements for route strategy studies which which also introduced analysis of vehicle platooning and the benefits of overtaking opportunities (using the REVS modelling tool. SWS were able to build on the experience and transfer the capability to NI (see below). Follow on projects included: 98BSG A96 Corridor Study 98BTG A9 Cycleway – Millenium Millennium Route S100443 A9 (Perth to Blair Atholl ISS)	The irst first project in a series taking a new approach to road planning
1993	93GKG	A96 Fochabers - Mosstodloch Mosstodloch Bypass	R	✓ √	H Blackwood SJ Hindshaw AG Frew DJ Webster [Roads?] Was there change in	The road was opened in 2010. Also: 99DFG Fochabers – Mosstodloch Mosstodloch Bypass [12/06] A96 Fochabers Bypass	A major trunk road project for Scottish Office which would eventually be opened in 2011

					PD/PM? SF Leckie [PM?] JP McCafferty [B'dges] [Other Bridges?] RJ Doubal [Geotech] [Other key staff?]		
1994	94BKG	M8 Widening Westbound – Contract Advice [RTH: I'm unclear about what this job was! Discuss]	R	✓	JP McCafferty MJ Hackney RT Hunter Hunter [?]	Strathclyde Regional Council sought our advice on the widening of the GIRR because of our knowledge of the original construction and the DB process. [RTH: Was this the independent check of SRC bridge widening?]	First recorded exploitation of our DB capability
1994	94CFG	M6DBFO Project Development of Implementation	G	✓ √	RT Hunter SJ Hindshaw RJ Bissland [Other significant staff in the subsequent commissions: Roads Bridges, Geotech etc. eg: JP McCafferty [B'dges] AHW Baker etc RJ Doubal [Geotech]	This initial commission looked at the risks/ opportunities of procuring the remainder of the M74 upgrade (see above) by DBFO which eventually lead to a 90km DBFO contract which we are still supervising in 2012. Subsequent commissions included: 95DTG M6DBFO Project Implementation 95HEG Protection of the Quality of Controlled Waters 96AKG M6DBFO Project –Further Ground Investigations 96HUG M6DBFO Secretary of States Agent In later years the project supervision was run under the auspices of the Performance Audit Group (led by Halcrow) where we were responsible for all M6DBFO aspects: S100160 PAG Commission [08/02] PAG 2002 M6 DBFO Project The Institution of Civil Engineers: Brunel Medal 1999 M6 DBFO Project –A74(M) Paddy's Rickle Bridge to Cleuchbrae: BCIA Awards Major Project-High Commendation 2000 M6DBFO The Saltire Society Awards for Civil Engineering Award: Commendation 2000	The first move into DBFO in Scotland (and the UK?)
1994	94CKG	HAL Airfield Pavement Works Tiree/Wick	R	√	H Blackwood SJ Hindshaw AG Napier	This commission was the first of many for HAL over the years:	The first recorded project for Highlands and Islands Airports

					HH Grant	<p>94CXG Kirkwall Airport: Pavement Remedial Works</p> <p>94DDG Kirkwall Airport Rehabilitation of Runway 09/27</p> <p>95AVG HIAL Condition Surveys</p> <p>95BNG Sumburgh Airport Airfield Pavement</p> <p>95HYW HIAL Pavement Inspections</p> <p>95JWB Inverness Airport Demolition of Old Control Tower</p> <p>95JMG Inverness Airport: LAMA Planning Supervisor</p> <p>96CRG Sumburgh Airport Runway 09-27</p> <p>96DEG Wick Airport Runway 13-31 Remedials</p> <p>96GWG Review HIAL Maintenance Programme & Costs</p> <p>96DJG Inverness Airport Remedials to Perimeter Road</p> <p>96JKW Wick Airport Runway 13-31</p> <p>97AMG Wick Airport – Pavement Remedials</p> <p>97BXG Review HIAL Maintenance Programme and Costs</p> <p>98DYG Inverness Airport Runway</p> <p>98FPW Wick Airport Runway Inspection</p> <p>99AQG Wick Airport Runway 13-31</p> <p>00CPG Benbecula Airport – Airfield Pavement Works</p> <p>S100456 Tiree Airport Runway 05-23</p> <p>S100487 HIAL Airports</p> <p>[09/01] Stornoway Airport East Apron</p> <p>[01/03] Inverness Airport, East apron upgrade</p> <p>[03/03] Inverness Airport, North Apron</p> <p>[07/03] Inverness airport Main Runway Extension</p> <p>[06/04] HIAL Pavement Inspections</p> <p>[10/04] Tiree Airport runway 05-23 rehabilitation</p> <p>[05/05] Tiree Airport Maintenance Options</p> <p>[08/05] Inverness Airport South Apron Extension</p> <p>[02/07] Stornoway Airport AGL</p> <p>[03/07] Inverness Airport Parallel Taxiway</p> <p>[04/07] Stornoway Airport Northern Taxiway</p> <p>[07/07] Tiree Airport 05/23 Construction</p> <p>[07/07] 2007-2008 Airfield Inspections</p> <p>[10/07] Sumburgh Airport Investigations</p> <p>[10/07] Benbecula Airport Investigations</p> <p>S106743 Campbeltown Airport AGL Options</p> <p>S 106782 Islay Airport AGL</p> <p>S 106487 Dundee Airport Runway 09-27 Pavement; Inverness Airport Standby generator</p>	
1994	94DBG	Eurocentral Mossend	R	<p>✓</p> <p>√</p>	<p>RT Hunter [PD]</p> <p>WH Holmes</p> <p>RJ Bissland</p> <p>AG Frew [?] [Add to roads below?]</p>	<p>TIA and highway planning as part of a major development at Mossend for Amec/ Lanarkshire Development Agency. In due course, LDA asked us to procure the grade separated separated junction on the A8 trunk road by design/ build:</p>	<p>A TIA which grew to a major DB scheme</p>

					Others on later Jobs: JP McCafferty [B'dges] MJ Hackney Roads? AGF? RJ Doubal [Geotech]	96AYG A8 Eurocentral 96CYG Eurocentral	
1995	95ASG	Campbeltown Ro-Ro Ferry Terminal	G	✓ √	JP McCafferty [PD] AG Napier RG Clegg [PM] RJ Doubal [Geotech] [Struct Design?] AG Napier [PD2 later jobs] JJ Toal [ER]	Facility to link Scotland with Northern Ireland. Also: Other related work included: S100444 Campbeltown New Quay Extension ,07/04 S 106216 Campbeltown New Quay Ph2 (02/09)	A major marine project linking Scotland with No
1995	95CKG	Ramp K West [RTH: see 94BKG]	R	√	JP McCafferty [PD] MJ Hackney [PM]	Enhancement of the M8 GIRR at Townhead Interchange working for Balfour Beatty [? Did we work for SRC on Ind Check then for BB as designers?]	A major DB on the M8 GIRR at Townhead
1995	95GGG	Multi Storey Car Park HMS Neptune Faslane	R		JP McCafferty [PD] SF Leckie [PM] Later Jobs: AG Napier [PM] DJ Ogilvie [PM]	Subsequent projects at HMNB Faslane included: 96DME Uplift of Senior Rates Grade 4 SSQS HMS Neptune 96DMG PM of Senior SSQ's (Phase 4) Faslane	First major project inside HMNB Faslane
1996	96BSG	A96 Blackburn and Kintore Bypass	R	✓ √	RT Hunter [PD] SE Briggs [PM1?] AG Frew [PM2?] JP McCafferty[B'dges] MJ Hackney? RJ Doubal [Geotech]	The fifth DB project with Balfour Beatty	A major Design Build Project out-with the central belt [Aberdeenshire?]
1997	97CRG	Scottish Parliament Building	R	✓	RT Hunter RJ Bissland Others?	A comparative assessment of competing sites the results being presented to the First Minister	A very high profile transport and environmental assessment
1997	97DJG [?] 98CKG?	Milngavie to Larkhall Rail Link [RTH: Not clear what the original SJH/DJW involvement was under 97DJG; Maybe secondment of DJW or both to Railways for the job?] [The rest is as now shown]	R	√	JP McCafferty [PD] MJ Hackney [Bridges] RJ Doubal [Geotech]	Support to SWR on bridges and geotechnics under a variety of job numbers: 98CKG Larkhall/ Milngavie Project 99AIG Larkhall to Milngavie Railway B119501 Larkhall – Milngavie Tender [01/04] Larkhall to Milngavie Railway Larkhall to Milngavie Reopening of Railway Lines The Saltire Civil Engineering Award: Project Commendation 2007	The first railway line to be re-opened in Scotland since the Beeching era[-] [?]
1997	97FBG	BMK – Flood Protection Scheme	R	√	RT Hunter KT O'hara—O'Hara Key Others?	Innovative use of Design/ Build capability for a new sector. Also: 98DPG BMK Flood Protection Design	The first commission won on flood defences

1998	98CXG	A720 Edinburgh City Bypass Phase 2 Widening Works Dregghorn – Water of Leith	R	√	RT Hunter [PD] SE Briggs [PM] [Roads?] MJ Hackney [B'dges?]	Widening of hard shoulder to permit ease of maintenance and provision of a concrete crash barrier by DB together with drainage and road construction renewal	Clients Agent for Scottish Office
1998	98DWG 98DXG	A5 Newtown Stewart Bypass, NI A8 Belfast – Larne Road, NI	G	√	RT Hunter [PD] SE Briggs [PM] Others KT O'Hara [Roads?] MJ Hackney [B'dges?] RJ Doubal [Geotech] [FM Input?]	SWS had teamed up with Ferguson McIlveen of Belfast to win these projects the first decent roads projects to be let in NI for decades Newtown Stewart Bypass was constructed by a DB contract (without a PLI). Similarly the A8 was upgraded without a PLI in a small number of contracts using NEC forms. These included dualling of the A8, provision of climbing lanes and the Ballynure [?] Bypass. A5 Newtown Stewart - Stewart Bypass The Civil Engineering Environmental Quality Assessment and Awards Scheme: Whole Project Award 2003	First projects of any scale won in NI since the early motorway days
1998	98EMG	WCRM Task 9 – Trent Valley	G	√	SJ Hindshaw [PD] AHW Baker [Bridges] RJ Doubal [Geotech] Others?	Assistance Assistance was provided to SWR on the trent valley widening under a variety of projects: 99CLG WCRM: Feasibility Study 99EMG WCML: Lichfield to Armitage Additional Work 00CIG WCML: Additional Works A010802 West Coast Route Modernisation S100266 WCML Arch Viaducts S100458 WCML [05/03] WCRM Trent Valley Structures [05/03] WCRM Trent Valley Development [12/03] WCRM Optioneering [03/04] WCRM Additional Reports [04/04] WCRM Work Packages 3&4 [09/04] WCRM Design Supervision [03/05] WCRM Tender Queries [03/05] WCRM Highway Design [03/05] WCRM Lead discipline [03/05] WCRM CDM [04/05] WCRM Site Queries [04/05] WCRM Civil Engineering Management [05/05] WCRM Temporary Bailey Bridge [07/05] WCRM Headroom Report [11/05] WCRM Additional Design [12/05] WCRM Substructure Strength Checks [01/06] WCRM Network Rail Audit [01/06] WCRM Collision Protection Beam Check [03/06] WCRM Site Queries [07/06] WCRM EA [10/06] WCRM Noise Barriers	The first recorded project on the WCML upgrade project

1998	98EPG	Float Viaduct	R	✓ √	JP McCafferty [PD] MJ Hackney [PM] Others?	Float Viaduct carries the WCML in southern Scotland near to the M74. The viaduct was procured by Railtrack on a DB basis. SWS worked for Tarmac (later Carillion). It paved the way for a succession of successful projects: Portrack Viaduct (see below) Milngavie Bridge (see below) Dalmakethar Bridge Ravenscraig Bridge Burnton Viaduct Petershill Bridge Float Viaduct Structural Steel Design 2000: Certificate of Merit Award National Rail Awards 2000: Highly Commended ICE Parkman Medal awarded for ICE Proceedings Paper Feb 2002	The first railway bridge in Scotland procured by fixed price DB
1999	99BSG	Dublin Suburban Bus Study	R		SJ Hindshaw Key Others?		The first project won in Ireland by SWS since the seventies
1999	99DDG	A66 Temple Sowerby Bypass	G	√	SJ Hindshaw JA Forshaw-Forshaw		The first project won by SWS for the Highways Agency
2000	00AKG	M77: Glasgow Southern Orbital PFI Project	G	√	RT Hunter [PD] KT O'Hara [PM] [Roads?] JP McCafferty [B'dges] SF Leckie? MJH? RJ Doubal [Geotech] SF Leckie	A DBFO design for Balfour Beatty. Would become known as the M77DBFO: 01DSG M77 Fenwick to Malletsheugh M77 DBFO Project The Saltire Society Awards for Civil Engineering Award: Project Commendation 2005	First major project designed by SWS for a DBFO scheme
2000	00CDE	Fife Schools PPP Project	R		AG Napier [PD] RG Clegg [PM?] [Structures?] Key Others?	Also: 00CDE Fife Schools PFI KBACE Fife Schools Technical Advice [09/01] Fife Schools Certification [03/03] Fife Schools Extended Services	The first recorded Technical Auditor role on a PPP project
2000	00CJG	M6 Extension Carlisle to Guardsmill	R	√	SJ Hindshaw DJ Webster SE Briggs JP McCafferty [B'dges] AHW Baker RJ Doubal [Geotech] Add detail	This project started of as a conventional scheme after the HA failed to take advantage of the price within the M6DBFO project. Eventually it was completed as an ECI project (a first for SWS): 00EFG Carlisle to Guardsmill S100131 A74 Mossband Viaduct	The second project won for Highways Agency joining the M6 with the M74

						S100138 M6 Extension Carlisle to Guardsmill Early Contractor Involvement	
2000	00FLG	A66 Middlesbrough Interchange	R	√	RT Hunter [PD] AG Frew [PM] Key others? FM input? Roads? Bridges? Geotech?	Would become known as A66 Cargo Fleet Interchange: [08/03] Cargo Fleet Interchange	The first project won jointly with Ferguson McIlveen in the N Of England
2000	00FMG	A1 Beechill to Cloghogue, NI	R	√	RT Hunter [PD] AG Frew [PM?] KT O'Hara [Roads?] Key others? Bridges? Geotech? FM input?	This project was won jointly with Ferguson McIlveen to establish a route and promote orders. It was eventually completed as part of DBFO 2, NI where we acted as technical advisers to Roads Service: S100437 A1-N! Newry to Dundalk Link Road (2004) [02/07] RS DBFO 2	The first project where GIS was used in the route option evaluation
2001	[08/01]	Project Gander, BBC	R	√	S Shillington Others? K O'Hara?	SWS with Holfords [Holford?] designed the external set for 'River City' a Glasgow based soap opera produced by the BBC in Scotland. The imaginary set of 'Shieldinch' was somewhere on the R Clyde between Whiteinch and Shieldhall! (The soap is a Scottish version of Eastenders)	The first recorded design of a BBC set
2001	00CCG 01CAG 01DBG	A1 Howburn – Houndwood A1 Haddington to Dunbar A8 Baillieston to Newhouse	R	√	RT Hunter [PD] AG Frew [PM?] KT O'Hara [Roads?] Others? JP McCafferty [B'dges] MJ Hackney? Others? Input from Chesterfield on Tyne Bridge? RJ Doubal [Geotech] Others?	Three D/B projects for Scottish Office with Balfour Beatty were won in quick succession which stretched resources as they coincided in part with the M77 DBFO design. A1 Haddington to Dunbar Expressway The Saltire Society Awards for Civil Engineering Award Project Commendation 2004 A1 Howburn – Houndwood Dualling The Saltire Society Awards for Civil Engineering Award Environmentally Sustainable Construction Commendation 2004 A8 Baillieston to Newhouse Major Maintenance The Saltire Society Awards for Civil Engineering Award Construction Commendation 2004 A1 Tyne Bridge The Concrete Society Certificate of Excellence 2005	Three DB projects won in quick succession
2001	01APG	Milngavie Railway Bridge	R	√	JP McCafferty [PD] MJ Hackney [PM]	This bridge was a D/B project designed for Carillion. Although relatively small it carried the Milngavie	The first use of a proprietary track fixing

					W McQueen	<p>railway line over the 4 pipes carrying the Glasgow Water supply from Milngavie reservoir. The bridge was replaced in a 56 hour possession and incorporated an Edilon Corkelast [?] Embedded Rail System to save weight.</p> <p>Milngavie Railway Bridge National Rail Awards: Project of the Year (Civil) Highly Commended 2002</p>	system
2001	01AWG	Limavady Limavaddy [?] Bypass, NI	R	√	<p>RT Hunter [PD] KT O'Hara [PM?] Others? [Roads?] MJ Hackney [Bridges] RJ Doubal [Geotech] FM input?</p>	<p>This project on the A2 trunk road was one of tee [two?] let on the basis of a NEC target cost type of DB contract the 'Scottish Model' being not favoured by NI Contractors. The design was for Graham and we worked with Ferguson McIlveen</p>	The first DB for a NI contractor
2001	01BNG	Portrack Viaduct, Dumfriesshire	R	√	<p>JP McCafferty [PD] MJ Hackney [PM] Others? RJ Doubal [Geotech]</p>	<p>A very red 200m long steel viaduct including a 90m span curved steel truss spanning the River Nith in Dumfriesshire. Designed for DB Contractor Carillion for the South-West main line. The project it was influenced to some extent by 'Architectural Adviser' and Landscape Guru Charles Jenks Jencks whose Portrack House and 'Garden of Cosmic Speculation' was adjacent.</p> <p>Portrack Railway Realignment The Saltire Society Award for Civil Engineering Award-2004</p>	<p>Not so much a bridge more a piece of Landscape Art This is quite wrong and overstates the influence of Jencks, whose main influence was on the Chinese red colour of the structure [now sadly rather pink]. His more outlandish ideas were impractical and were rejected. The form of the structure and landscape was entirely by SWS. By contrast, Jenks did add to his own 'Garden of Cosmic Speculation' using land and part of the abandoned original viaduct transferred to him from the railway realignment as part of the deal for his permission to gain access to the site over his land.</p>
2001	01DJN	A9 Ballinluig	R	√	<p>RT Hunter [PD] SE Briggs [PM?] A Bickett [Roads?] [Bridges?] [Geotech?]</p>	<p>Developed from our earlier work on the A9 we promoted and procured this grade separation by DB for Scottish Office. Also recorded under:</p> <p>[12/03] A9 Ballinluig Junction</p>	A high profile 'political' project on the A9 trunk road

2001	S100149	M1 Westlink, NI	R	√	Key others? RT Hunter KT O'Hara [Bridges?] [Geotech?] Key others?	Initially appointed to provide buildability advice for a PLI, we were subsequently appointed Technical Adviser and then provided site supervision for the M1/Westlink and M2 widening in NI which became called DBFO1 for Roads Service. Also: S100297 M1 Westlink/ M2 Improvements Document Review [08/02] M1 Westlink [08/03] M1 & M2	The first DBFO in NI
2002	[04/02]	New Edinburgh Park Station	R	√	AG Napier Key Others?	Station on the Edinburgh – Glasgow Main Line adjacent to the Edinburgh Park Commercial development structural design carried out for SWR(S)L	First new station designed for Network Rail for years
2002	[06/02]	Stirling – Alloa Railway	R		N Hackett Key Others?	Provision of Environmental advice in support of the Parliamentary Bill process	The second Railway line to be opened in Scotland in recent years
2003	[07/03]	A6 Corridor Improvements, NI	R		RT Hunter RJ Bissland AG Frew M Maclean [Bridges?] [Geotech?] Key others?	Initially appointed as for a route assessment , the commission changed to a major road design study with public enquiry and procurement advice. Won in conjunction with Ferguson McIlveen. Also known as: S100537 A6 Castledawson to Londonderry [04/05] A6 Stage 1 Scheme Assessments S106087	This major project was an extension of the early SWKP project in NI, the M2 Motorway
2003	[08/03]	Scottish Executive MFA	R		AG Frew R Hutchison DJ Webster [Bridges?] [Geotech?] Key others?	Winning this project was critical as it was the vehicle for most SE consultancy commissions and led to work on the A9, A96 and A82 roads. Detailed projects included: [11/05] A96, Delnies Improvements [11/05] A96, Threaplan [?] Junction Improvements [09/06] A82 Pulpit Pulpit Rock [06/06] Aberdeen – Inverness Corridor Study These projects were relatively relatively long-term and were continued under: S 100785 Pulpit Rock D 128719 A9 Birnham to Tay Bridge In 07/02 SWS had also re-won their Standards Adviser commission for SE.	The first MFA type contract won by SWS. Essential for any forward workload with Transport Scotland (formerly Scottish Executive.)
2003	[10/03]	A8000/ A90 upgrade	R	√	RT Hunter AG Frew MJ Maclean [Bridges?]	This project dualled [?] the A8000 and improved the A90 to form a much improved connection between the M9 Motorway and the Forth Road Bridge. SWS were clients agent and subsequently let a difficult	The first Edinburgh City Council major road project let since Gogar Interchange

					[Geotech?] Key others?	mineworkings remediation contract and a DB contract for the main works	
2003	[11/03]	Galston Flood Prevention Scheme	R		AG Napier DR Wright Key Others?	The project was for East Ayrshire Council (see also BMK Flood Prevention Scheme above)	The second flood prevention scheme won but a first for the Edinburgh Water Section
2003	[01/04]	Eden Court Theatre, Inverness	R	√	AG Napier A Aikman Key Others?	Known as the 'Theatre of the Highlands', this project involved a new build theatre and reconfiguration of support buildings. The design was led by a signature architect, Page & Park, and was not without its challenges	An iconic building desin design won by SWS in their own right
2004	[05/04]	QBC 3 detailed Design & Supervision	R		DJ Webster [Bridges?] [Geotech?] Key others?	This Quality Bus Corridor Design was relatively new territory for SWS bringing public transport and roads design together.	The first project won for Glasgow City Council for a number of years
2004	S100454	Carlisle Northern Development Road	R		AG Frew D Murphy [Bridges?] [Geotech?] Key others?	Originally working for Balfour Beatty, the commission transferred to Birse (part of the BB Group of Companies) and was opened in 2011. Other job nos[?] included: S 100919 SWS were also commissioned by Connect, the Concession Company to provide traffic advice: [11/04] CNDR Traffic Adviser	The first DBFO for a Contractor in the North of England
2004	S100492	M8 WCV Parapet Replacement	R	√	MJ Hackney D Boothman [Bridges?] [Geotech?] Key others?	White Cart Viaduct - Analysis, Design and upgrade of a failing steel viaduct over the White Cart Water next to Glasgow Airport. Other sub-projects included: [08/01] M8 WCV Box Strengthening [07/02] WCV Strengthening [08/03] WCV HC Parapet Design [02/05] WCV design of Parapets & Lighting Columns [03/05] WCV Design of Box Strengthening [08/05] WCV Abnormal Load Assessment [01/06] WCV Phase 2 Design and Contract Docs [03/06] WCV Phase 3 Planning Supervision [04/06] WCV Procurement Report [08/05] WCV Strengthening [01/07] WCV RE Assistance S 100506 WCV Strengthening Site Supervision	A very political project on the M8 at Glasgow Airport
2004	S100507	NTC Concrete Testing Programme	R	√	SE Briggs T Buckley [Bridges?] [Geotech?] Key others?	Commissions for North Tyneside Council would become the mainstay of work for the Newcastle Office over many years and would include an ongoing series of term commissions. Individual tasks included:	The first recorded project for North Tyneside Council

						S100510 NTC Partnering Over Rail S100511 NTC Culvert and Pipe Study S100521 NTC PI's 05-06 S100522 NTCC West Chirton Traffic Study S100528 NTC Bridge Assessments 05-05 S100535 NTC SW061 Blue House East Bridge S100536 Burn Closes F/P Protection [05/04] NTC PI's	
2005	[01/05]	Rothesay Pier Ferry Berth	R	√	AG Napier RG Clegg RJ Doubal Key Others?	Rothesay Pier is an iconic 'Doon the Water' pier on the Firth of Clyde. The project involved upgrading the pier to cater for new Ro-Ro vessels and other ancillary works	The second major ferry terminal won by SWS
2005	[03/05]	Markinch Public Transport Interchange	R	√	A Bickett Key Others?	Carried out with SWR for Fife Council	A further advance into public transport infrastructure
2005	S100532	A2 Greenisland Widening, NI	R		SE Briggs G Philpott [Bridges?] [Geotech?] Key others?	The project was typically known as the A2 Shore Road. A planning study for a road improvement [space] through a tight urban area with vocal residents!. Won in conjunction with Ferguson McIlveen	A major road project in NI
2005	[06/05]	Scottish Borders PPP Schools	R		AG Napier A Aikman	The design of 3 schools for Graham Construction .[Space]	The first structural design project in the PPP/PFI market
2005	[07/05]	Almondvale Livingston, Stage 3	R	√	AG Napier A Aikman WH Holmes RJ Bissland Bissland S Shillington Shillington Key Others?	A string of small projects were undertaken for Land Securities who had become the owners of Livingston Town Centre. The projects mirrored those undertaken for Land Securities at East Kilbride (see above) and mostly related to the continuing expansion of the estate. In time most of the projects were traffic/ infrastructure related. Other projects include: [07/05] Livingston Traffic Assessment [09/06] Almondvale Phase 3 Infrastructure [10/07] Livingston Business Park	A major continuing involvement with Land Securities
2005	[09/05]	A29 Ballynahinch Bypass, NI	R		SE Briggs B Montgomery [Bridges?] [Geotech?] Key others?	Appointed at an early stage to develop and take forward a scheme.	A further major project for Roads Service
2005	[10/05]	A68 Dalkeith Northern Bypass	R	√	AG Frew D Murphy RJ Doubal MJ Hackney	This project had been developed by the Scottish Office over a long number of years. Originally SWS had carried out traffic and cost benefit studies for the SEDD. Later when it was to be procured by D/B SWS had teamed up with Balfour Beatty but this	A roads D/B project for a new client contractor

					[Bridges?] [Geotech?] Key others?	competition was cancelled. Finally SWS were appointed by Morgan Est as designer.	
2006	[04/06]	Technical Consulting Framework, Scottish Power	R		DR Wright N Hackett	The provision of technical advice mainly in the renewables field	A major A major commission for an energy provider.
2006	[06/06]	Inverness Trunk Link Road	R		AG Frew [Bridges?] [Geotech?] Key others?	Studies into a link road to join the A9 and the A82 – effectively a southern/ western bypass of Inverness including a crossing of the Caledonian Canal.	A major roads study for a client other than national governments which is becoming unusual
2006	[09/06]	Harthill Footbridge	R	√	MJ Hackney Key Others?	Harthill Services on the M8 covered both sides of the M8 Motorway and was joined by a nondescript covered footbridge. Scottish Ministers wished an iconic structure to mark the half-way point on the M8 between Glasgow and Edinburgh. The design developed by SWS for a D/B competition used a lattice tube structure. Harthill Footbridge The Saltire Civil Engineering Award 2009 – Project Commendation	An iconic Structure on the M8 Motorway
2006	[09/06]	Cragside Iron Bridge	R	√	T Buckley Key Others?	Cragside, owned by the National Trust is the former home of Vickers the armaments magnate. The cast iron bridge in the estate grounds over a deep gorge was a 'delicate' structure in need of restoration.	The refurbishment of a historic structure
2006	[09/06]	Airdrie to Bathgate Improvements	R		R Hutchison AHW Baker RJ Doubal Key Others?	Support to SWR who were designers of the reopened railway line between Glasgow and Edinburgh. For the most part the work concentrated on the refurbishment of a long abandoned line to allow electric services to run on the fourth route between Glasgow & Edinburgh. The SWS work concentrated on roads, bridges and geotechnics. Work was also recorded under: [01/08] M&E Services [01/08] ITT Civils [01/08] Flooding Issues S101041 Construction Support	The third Railway line re-opened in Scotland
2006	[10/06]	Newry Southern Relief Road, NI	R		RJ Bissland [Bridges?] [Geotech?] Key others?	A planning study looking at options to join the A1 Road to the Warrenpoint Road	A further planning study for RSNI building on work done on the A1 Newry Bypass
2006	[10/06]	Scottish Water Q&S Framework III	R		AG Napier DR Wright	Provision of civil services used on a variety of projects which included:	The first real breakthrough into the water market in

					Key Others?	[11/06] Loch Ryan Sewage Scheme	Scotland for the Edinburgh Office
2007	[02/07]	Cushendall Marina Lurgan Public Realm Portadown Public Realm	R		G Clarke P Gilbert Key Others?	FMcl had an established landscape design capability and these were the first recorded successes under the SWS banner	The first major successes in public realm design in NI following the purchase of Ferguson McIlveen
2007	[03/07]	Culvert Inspection Management	R		SJ Phillips Key Others?	Rivers Agency was a long established client with FMcl	The first recorded success in the water field for SWS in NI following the purchase of Ferguson McIlveen
2007	[07/07]	National Indoor Sports Arena Landscape	R		G Clarke Key Others?	NISP will form a key arena for the 2014 Commonwealth Games in Glasgow. The project was won by the former FMcl landscape team.	The only SWS involvement in the 2014 Commonwealth Games Site
2007	[07/07]	Belfast Metropolitan Arts Centre	R		L Manson Key Others?	Working in conjunction with a local architect.	The first recorded buildings job won by the former FMcl team
2007	[09/07] [10/07]	Govan Housing Association NHS Glasgow & Clyde Dumfries & Galloway Housing Partnership	R		P MacMillan Key Others?	These were all framework s for structural engineering services.	The first recorded successes for the former McLay Collier organisation within SWS
2008	[04/07]	Northumbria Water Framework Agreement	R		S Metcalfe Key Others?	FMcl had a strong water capability and this project was necessary to maintain capability in the north of England.	The first recorded success for the former FMcl Middlesbrough office in the water field win 'put them as part of SWS
2008	S105652	M80 DBFO	R	√	AG Frew [Bridges?] [Geotech?] Key others?	SWS were joint designer with Carl Bro for the third third major DBFO procured by Transport Scotland. SWS provided the design of the on-line section of the project for a consortium of Bilfinger and Berger, Graham and Farrans. The Saltire Society Award for Civil Engineering Award 2013	This continued an involvement in all DBFO/PPP projects in Scotland
2008	S105477 S105457	NI Water Zonal Studies Omagh Lisburn North	R		SJ Philips Others?	FMcl had a strong water capability in NI and this was the first major win in NI for SWS in the water sector	First major win in the NI water sector for SWS
2008	S106085 S106086 S106087	Bombardier C Class Manufacturing Facility	G	√	T Leaker R Nichol Others?	The design of a factory in Belfast for Bombardier who were [which was?] producing carbon fibre wings for their new C class aircraft. The design included architecture, structures, Civils and M&E. The M&E was procured from SWCL in Manchester. Inevitably	The first integrated design of a major industrial facility for SWS using the staff from the FMcl

						there was additional work instructed: S106354 Service Trench, Specialist Bases & Tender Assessment S106843 Torque Box Building S106530 Bombardier RE S106	acquisition.
2009	S106201	Royal Victoria Hospital Belfast, Phase 2B Site Staff	R	√	L Manson R Nichol Others?	FMCI had a long involvement in the design of the RVH. This project was the first awarded to SWS. Additional projects included: SS02071S Critical care Centre Reception Chamber	The first involvement in a major hospital project for SWS
2009	S106248	Khalifa Port Support	G		S Metcalfe Others?	This major commission was won and managed by the International Division of SWL. SWS provided project management support through through its troubled times, principally through the secondment of S Metcalfe. Further input came from time to time; S 106289	A major international project
2009	S105296	York Street Interchange Detailed Design	R		KT O'Hara [Bridges?] [Geotech?] Key others?	This was a follow on from the M1/ Westlink commission for RSNI. York Street was the gap in the Belfast motorway network at the join of the M1 and M2 motorways where there was a complex surfaced level junction. Proposals Proposals were developed to make the motorway network as continuous as possible.	A further major high profile commission for RSNI.
2009	D129099	Forth Replacement Crossing	G		AG Frew [Bridges?] [Geotech?] Key others?	A tender check in association with Aecom for the Forth Crossing Bridge Constructors (Hochtief, Dragados, American Bridge and Morrison.) FCBC eventually won the DB tender and SWS/ Aecom were appointed checker with SWS checking the approach roadworks.	The biggest roads/ bridge project ever to be undertaken in Scotland with a value of c£1,400M.
2009	S106385	Croy Station Car Park	R		S Shillington Others?	The infrastructure design of a P&R facility for Strathclyde Passenger Transport Authority. Previously SWS had designed the station building for SWRSL.	The first in a series of projects for the SPTE
2009	S106489	A8 Dualling, NI	R		SE Briggs [Bridges?] [Geotech?] Key others?	SWS had carried out much previous work on the A8 Belfast – Larne Road (see above). This commission involved the design (with Halcrow) for the Lagan/ Ferrovial/ Costain JV	A major DB project for RSNI
2010	S106196	Glasgow Central Station Platforms 12 & 13	R	√	MJ Hackney	As part part of the Glasgow Airport Rail Link, the db project involved the construction of two new platforms within Glasgow Central Station whilst maintaining existing services. The project project involved sophisticated analysis of the historic brickwork undercroft. GARL was subsequently cancelled but may yet re-appear!	The first major railways DB project with Balfour Beatty.
SW PLC (of which SWS was an operating company) was purchased by URS in the autumn of 2010s							

Glasgow 05.07.2014