DATE OF BIRTH	21st August 1944
PROFESSION	Chartered Engineer; Chartered Environmentalist
NATIONALITY	British

EDUCATION AND PROFESSIONAL QUALIFICATIONS

Secondary Education:-

Huddersfield College (Grammar School) - 1953/1963

2 "Scholarship" Levels, 2 "A" Levels, 9 "O" Levels

QUALIFICATIONS:

Degree in Civil Engineering..
Post Grad. Qualifications.
1970 - Admitted as Member to the Institution of Civil Engineers.
1971 - Registered with the C.E.I.
1981 - Registered with the Engineering Council as Chartered Engineer.
1986 - Admitted as member to the Institution of Public Health Engineers.
1988 - Admitted as member to the Chartered Institution of Water and Environmental Managers.
1989 - Admitted as member to the Federation Europeene d'Associations Nationales d'Engenieurs.
2005 - Admitted as a member of the Society for the Environment.

KEY EXPERIENCE

- Project Management.
- Optioneering.
- Condition Studies.
- Estimating.
- Planning.
- Arbitration.

DETAILED SUMMARY

2001- Microphase Consulting Ltd.

Principal of Microphase Consulting Ltd., commissions included:-

Assisting United Utilities in their AMP5 bid to OFWAT; valuing infrastructure and non- infrastructure assets. Estimating the potential value of private sewerage to be transferred to U.U. during AMP5. Checking the quality of the Companies' corporate GIS database.

Design and supervision of canal marinas for Private Developers.

A Consultant to the Office of the Secretary of State as an Arbitrator on Planning Appeals.

Design, preparation of tender documents and management of the construction of a landfill leachate treatment plant and a liquid waste acceptance plant for Cumbria Waste Ltd.,

Consultant to United Utilities "World Class Asset Management" team during AMP4 valuing the Company's infrastructure with regard to age, condition and useful life.

Senior Construction Representative leading a multi-disciplined team of Civil, Mechanical, Electrical and S.I. Engineers in the United Utilities AMP3 programme. Providing amongst other things, but not exclusively, the following services.

- Planning and optioneering of the various packages of work including a significant contribution to work methods, resources and systems to meet construction project requirements. On commencement and during each project the control of project costs, quality and progress was continually assessed.
- Developed teams and individuals to enhance their performance, including a planned programme of continuing professional selfdevelopment.
- Ensured the smooth running and timely conclusion of the Contracts by developing productive working relationships with the Client and their staff, the contractors and work colleagues. Not only developing a happy and productive environment for the team but also encouraging success and aiding fellows who were underperforming and dealing with the problems to the benefit of the project.
- Facilitated meetings and managed very difficult environmental challenges and health and safety issues.

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• In addition to the above, oversaw other projects in the same geographical area to lend experience where required.

Some of the works managed:-

- Year 2 AMP3 the successful implementation of 48 competitively tendered UID projects.
- Year 3 and 4 the successful implementation of 28 Large UID schemes.
- Two significant wastewater projects enlarging existing works and transferring flows from other redundant facilities.
- A marine project slip-lining an existing 1.2 metre diameter outfall one kilometre long.
- The asset management programme is currently being concluded with the construction of two major schemes the first being the Filter to Recycle project at Watchgate Water Treatment Works the second being the Hayeswater Water Quality Improvement scheme involving 76 kilometres of pipeline, three pumping stations and two service reservoirs. The works all taking place in an area with very challenging issues of terrain, planning, archaeology and sensitive environments.

Contract portfolio approximately £95million

1999-2001 SAR Marine and General Ltd. (Later BME Holdings Ltd.)

Director of Engineering Services, with responsibilities including;

- The Companies Engineering strategy
- Implementation of Quality Assurance and Health, Safety and Environmental matters.
- Client liaison and marketing.
- Estimating and design.

The bulk of the Company's work entailed marine construction worldwide and structures/bridge surveys for Railtrack Contractors. The marine works comprised harbours, jetties, pipelines, river crossings, salvage, mine clearance etc. The last project being the design and costing of the new Euro Ferry Port at Rosyth (Edinburgh).

1997-1999 ADWEC

Principal of AD water and Environmental Consultancy Ltd.

Work on contract to Bechtel Water Technology to manage a multidisciplined team to build, test and commission all aspects of the refurbishment, new build and commissioning of seven Contracts total value £51.5m. Contracts included:-

- The construction, testing and commissioning of a new Orbal secondary treatment plant, Modification of the existing primary treatment works and refurbishment, testing and commissioning of three anærobic sludge digestors.
- Remedial works to a series of pumping stations in West Lancs. (Renewal of pumps, PLCs, MCCs Instrumentation, Alarm telemetry etc.)
- Replacement of primary tank scrapers.
- Renewal of storm and inlet screens.
- To manage the construction, testing and commissioning of new potable water plant with new Instrumentation, PLC's, SCADA, data highway and alarm systems (project value £10m). The plant incorporated new secondary treatment filter for manganese removal. The work involved amongst other things the co-ordination of suppliers and Contractors; overall planning and liaison with the Client NWW to dovetail the work into the existing operation with minimum interference and to develop new systems.

1986/1997 Leadrail Ltd.

Recruited from the Civil Engineering Industry to become Engineering Manager of Leadrail, a company operating in the marine environment; with particular emphasis on diving. Expanded the field of the Companies operations to include normal topside civil engineering works but with a marine flavour, and incorporated a survey and inspection arm. Major works carried out by the company include the following:-

- Salvage of 115 sunken vessels in Beirut Harbour, Lebanon.
- Removal of unexploded ordnance.
- Refurbishment of Victoria Falls hydroelectric dam Uganda.
- Harbour and off-shore works Ghana.
- Riser installation Angola.
- Vessel refurbishment Portugal.
- Installation and bed preparation of the submerged tunnel elements on the Prevasa Submerged Tube Tunnel crossing, Greece.
- Conwy Submerged Tube Tunnel Crossing.
- Removal and repair of lock gates Port of Silloth.
- Installation and dredging of the bed reception area for the Rosyth Royal Dockyard "Z" caisson which won the small categories award for the Construction Industry 1996.
- Installation of reception bed and rock armour for 5000 tonne elements on the Cardiff Barrage project.
- Scour protection, underwater grouting, underwater pointing of lock systems, bridge piers etc.

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- Flood protection work including tidal gates bunds etc.
- Scour and bed protection on the Tees Barrage scheme.
- Installation and inspection of several sea outfalls.
- Structural and hydrographic survey of Beirut Port, Lebanon.
- Structural repairs to Owen Falls Dam Uganda.
- Inspection and survey of all British Waterways bridges.
- Inspection and underwater survey of bridges in all areas for Railtrack and several County Councils.
- Environmental assessment of settling ponds and lagoons for ScotRail.
- Shipwreck Recovery and E.O.D clearance (mines, mortars, r.p.g's, shells, cannon rounds)
- River crossings.
- Confined space entry.
- Blasting, dredging.
- Structural steel fabrication and erection.
- Underwater concreting.
- Bridge scour protection.

<u>Skills.</u>

- Human resources:-
- Job specification.
- Interviewing.
- Selection.
- Marketing, sales.
- Management accounts and business plans.
- Estimating.
- Production and development of the Companies:-
- Safety policy, hazard/risk assessment.
- Environmental policy.
- Quality assurance scheme.
- Aims and objectives.
- Initiated the Companies information technology.
- Keeping the Company abreast of all corporate legislation.

Continuing career development.

- Bridge Engineering and Assessment, Bradford University.
- Construction (Design and Management) Regulations 1994, James R. Knowles.
- Arbitration and Contract Law. James R. Knowles.
- Member of the Television Network Civil Engineers' Channel.

1975/1986 North West Water Authority.

Senior Resident Engineer.

Project.1975/1980

Construction of a £14m regional effluent treatment works and 37 km of associated gravity and pumping mains. Responsible for the overall contract co-ordination of the project including electrical, mechanical and civil contractors. In addition to this, responsible for a number of water supply mains and sewerage schemes in the North West. Negotiating access with land owners.

Project.1980/1982.

Seconded to Blackpool Borough Council to design and supervise the fabrication and installation of a 2.8 metre diameter one kilometre sea outfall. Project included landfall works, dredging, high quality welding to API5LX radiography, ultrasonic and destructive testing. This project had a high environmental impact and required considerable public and statutory management.

Project.1982/1983.

Design and installation of a large sludge digestion and filter belt press installation. The work entailed dealing with both viscous sludges and clear liquors designed to minimise the environmental aspects of land disposal.

Project.1983/1985.

Construction of a 20 magalitre service reservoir, including 9 miles of pipelines and all the mechanical and electrical installation, co-ordination of all the Contractors etc.

Project.1985/86.

Construction of 1.8 metre x 14 km pipeline through very difficult ground conditions including an area of Special Scientific Interest. The work included deep coffer dams, ground stabilisation, ground dewatering and vibration, noise and settlement monitoring.

General.

During the whole of this period as the Senior Resident Engineer, superintended other Resident Engineers on other Contracts throughout the North West, liaised with the Public, land owners, the Authority, Architects and the Contractors of all disciplines.

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1963/1975 Taylor Woodrow Construction Ltd.

Construction.

- Graduate Engineer at Wylfa Nuclear Power Station.
- Wylfa 400KV switch house.
- Senior Engineer / Agent Heysham Nuclear Power Station.
- Heathrow Airport Cargo Tunnel.
- Invergordon Aluminium Smelter Office.
- Cavendish Square Underground Car Park
- Hatton Cross tunnel.

Topics.

- Precast concrete production.
- Concrete laboratory management and instrumentation.
- Bulk excavation rock and soft.
- Tunnelling rock and soft (including compressed air)
- Steel erection.(frameworks and cladding)
- Pre-cast concrete erection.
- Concrete production.
- Insitu concrete.(Reinforced, pre-stressed, post tensioned, wire wound)
- Temporary works design.
- Setting out. (Primary datums and general)

Design Office.

- Reactor pressure vessels (concrete)
- Tunnels.
- Reinforced concrete structures.
- Frameworks (steel, concrete)
- Earthworks.
- Sheet piling.
- System building.

Research:-

- Behaviour of concrete at cryogenic temperatures.
- Behaviour of concrete in deep sea structures.
- Long term behaviour of concrete in reactor vessels.

Computer applications:-

 Developing design programmes for slip circle analysis, sheet pile design, framework analysis.

Estimating.

 Various major developments including power stations, bridges, highways, commercial office development etc.