

Byland Engineering Limited - Curriculum Vitae

Jim Martin BSc CEng FICE FGS, Geotechnical Engineer & Director

Profession:	Chartered Civil & Geotechnical Engineer (& Director)
Year of birth:	1960
Nationality:	British
Marital Status:	Married with 2 children
Specialisation:	Geotechnical Engineering
Education/professional achievements:	1983 – BSc (Hons) Civil Engineering, Loughborough University 1991 - Member of the Institution of Civil Engineers (MICE) 2002 - Fellow of the Geological Society (FGS) 2002 - Fellow of the Institution of Civil Engineers (FICE)

Relevant Experience

Comprehensive experience (~38 years) in the planning, design, optimisation, costing & construction of a wide variety of complex geotechnical schemes throughout the UK & Ireland. Extensive knowledge of ground engineering techniques and equipment, with expertise in drilling, piling, ground anchors, soil nails & grouting. Experienced designer with wide knowledge of computer analysis & CAD, which is used in many forms of geotechnical design, including large deep basements & embankment stabilisation. Troubleshooter on problem contracts to investigate the root causes & to give advice on the appropriate remedial actions. Independent 'Expert' Witness (Geotechnical) in construction litigation cases.

Experience Record

Sept 2005 - present Byland Engineering Limited Geotechnical Engineer & Director

Employed as a Geotechnical Specialist by the following Piling and Ground Engineering companies to undertake and review a wide range of geotechnical designs, primarily comprising of piles, retaining walls, soil nails, ground anchors and grouting works, including independent Cat 3 Checks:

- Van Elle Ltd
 - Keller Geotechnique – (Part of Keller Group)
 - Aarsleff Ground Engineering Ltd
 - Bauer Technologies Ltd – (Part of Bauer Group)
 - J Reddington – (Part of JRL Group)
 - Cementation Skanska Ltd - (Part of Skanska Group)
 - Expanded Piling Ltd – (Part of Laing O'Rourke Group)
 - Balfour Beatty Ground Engineering Ltd – (Part of Balfour Beatty Group)
 - Bachy Soletanche – (Part of Vinci Group)
 - Quinn Piling Ltd
 - Albion Drilling Ltd
 - Keltbray Piling Limited - (Part of Keltbray Group)
 - UK Sheet Piling Limited
 - Pennine Geotechnical Services Limited
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- 'Expert' piling advice (£2m Adjudication) re piling problems at Buckingham Gate (Won)
 - 'Expert' Witness (£0.5m Adjudication) for Beechcroft Dev. re piling problems in Kent (Won)
 - 'Expert' Witness (£0.5m Litigation) for Beachcroft LLP Driven Piles at Blackpool Pleasure Beach (?)
 - 'Expert' Witness (£0.5m Adjudication) for Kennedys LLP re artesian water problems at Clanfield (?)

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- 'Expert' piling advice (~£10m Arbitration) for Arup re piling problems at Eden Park, Hartlepool (?)
- Optimisation of several major piling schemes for Berkeley Homes at Kidbrooke Village, London.
- Design of 280m long tied pile wall to stabilise major slip in Lias Clay for Winvic Construction.
- Specialist ground anchor design assistance on the Boston Tidal Barrier Scheme.
- Specialist ground anchor and waling beam design for BBGE at Battersea Power Station Phase 3A.
- Specialist micropile advice to Skanska BAM on the Manchester Northern Hub Project
- Temporary & permanent works designs at various Crossrail Projects including Tottenham Court Road, Moorgate & Plumstead Portal.
- Independent reviewer for KMI / United Utilities on the £10m+ Preston UID Shaft Recovery.
- Specialist ground anchor advice to Balfour Beatty on the £3m Heathrow T2B Project.
- Specialist geotechnical advice to various Main Contractors including Esh Construction, McLaughlin & Harvey, Miller Construction, Shepherd Construction, BAM Nuttall & Skanska.
- Specialist geotechnical advice to several Consultants including WYG, Arup, Mason Clark, Mott MacDonald and BWB.
- Specialist geotechnical advice to Leeds, Newcastle, Bradford and Fife Councils.
- Specialist micro pile advice on the £300m Cannon Place Redevelopment in London.
- Overall scheme designer and contract administrator for MSI Holdings Ltd for new foundry hammer foundations in Doncaster.
- Development & optimisation of GSM-R modular micropile bases for Skanska Networks & Network Rail across the UK (~200 No sites).
- Civil & geotechnical designer for the £0.5m Keadby Lock Upgrade works for British Waterways
- Presenter at 1-day Piling & Ground Engineering Courses (~4 days / year – Kier Symonds Madge)

1996 – 2005 Cementation Foundations Skanska Ltd

Technical Manager (Ground Engineering)

Development & growth of the ground engineering market within Cementation in the UK & Ireland, including quality marketing & negotiation with major clients, contractors & consultants. Close liaison with various parties to deliver the optimum solution for the client. Intimately involved with the management, planning, design, costing, optimisation & construction of the following schemes from feasibility stage through to contract completion:

- Dublin (£5.0m) – Several deep basement schemes requiring piles, ground anchors & anti flotation systems including Smithfield's Market, Trinity College, Spencer Dock, Elm Park & Swords.
- Keadby Lock, Scunthorpe (£0.6m) - Complex geotechnical scheme to stabilise / strengthen Britain's oldest lock. This required micro piles, precast beams, CFA piles & passive ties to form a support cradle around the lock. Winner of the 2005 ICE Brunel Medal Award.
- Edmund Street, Birmingham (£0.6m) – Basement scheme in restricted inner-city site requiring soil nails, gunite, high capacity micro piles and rotary piles.
- Major soil nails schemes at Arnfield Reservoir, Dublin Airport, Westport & Gateshead.
- Leeds, The Light (£0.5m) – Large basement scheme with 300+ temporary ground anchors.
- Chapel Bar, Nottingham (£0.5m) - Large piling contract where a significant proportion of the piles incorporated permanent steel casings through man-made caves.
- NUFC (£0.4m) - Upgrading of existing column bases to accommodate additional loadings from a new stand with high capacity micro piles, including the grouting of old mine workings.
- Horsfall Tunnel, Todmorden (£1.4m) - 15m high temporary reticulated minipile retaining wall to enable tunnel reconstruction work. Winner of the 1999 Yorkshire ICE Merit Award.

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- Kitson Wood, Todmorden (£0.8m) - Major slope stabilisation contract for Railtrack with large diameter pin piles & horizontal ties. Winner of the Best Paper Award at the Rail 2000 Conference
- Rosyth, Scotland (£4.0m) – The UK's largest permanent ground anchor contract where 1,200 No. x 2,250kN anchors were installed to upgrade the entrance lock to withstand seismic loadings. This included the management of over £1million of anchor manufacture, in partnership with Dywidag Systems International, at Cementations Fabrication Workshops in Doncaster.

1992 – 1996 Keller Colcrete

Senior Geotechnical Engineer

- Managed, designed and value engineered a variety of geotechnical schemes in the UK.
- Implemented AutoCAD and a computer-based enquiry-tracking system within Keller.
- Quality Assurance Co-ordinator, with additional responsibility for the company library.

1990 – 1992 AMEC Civil Engineering Ltd

Senior Engineer

- Responsible for all temporary works, Q.A., sub-contractors, planning and materials procurement for the £20m Drax Flue Gas Desulphurisation Foundations contract.

1986 – 1990 Cementation Mining Ltd

Project Manager

- £1.5 million development contract at Welbeck Colliery, comprising of 1,000m of 1 in 6 drift
- £2.5 million U26 Development contract at Warsop Colliery; this included the design and installation of a 3,000m long surface grouting system. Responsible for all site financial, managerial and technical decisions plus a work force of 60.
- Site Engineer - Shaft sinking, inset and initial drivages at North Selby Mine (1,000m deep).

1983 to 1986 Cementation Specialist Engineering Division Graduate Training Scheme

- 9 months design office experience working for the late great Dr WGK Fleming.
- 6 months mining experience at North Selby Mine.
- 6 months seconded to Wembley Laboratories (Site Investigation).
- 9 months Major Projects - £11 million Trident Submarine shiplift foundations contract (diaphragm walls and large diameter piles) at Barrow-in-Furness.
- 6 months Ground Engineering Division (Yorkshire and Scotland).

Summer 1983 Tyler Hill Summer Camp, Pennsylvania, USA

Golf Counsellor

1981 to 1982 Balfour Beatty Civil Engineering Ltd

Student Engineer

- Loughborough University Industrial Training Year. Site Engineer (earthworks and structures) on the £3 million Barrow Gas Terminal and the £4 million Greenodd By-pass.

Summer 1980 John Mowlem Civil Engineering Ltd

Student Engineer

- Vacation work – setting out & testing driven pre-cast piles at Drax 'B' Power Station.

Professional Development

- Member of the ICE Ground Board/British Geotechnical Society Joint Meetings Panel from 1996 to 2000 and convened 4 evening meetings at the ICE in London, Compensation Grouting on the

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Jubilee Line Extension, Geotechnics on the Information Superhighway, Geotechnical Aspects of Rail Infrastructure Regeneration and Lessons learnt from Construction Litigation

- Publicity Secretary for the Yorkshire Geotechnical Group – 2001 to 2008. Strong regional group with six meetings per year including seminars, where I acted as Chairman for several meetings.
- Representative on the Federation of Piling Specialists Technical Committee 2004/2005.

Technical Papers and Awards

- Joint author of the new Micropile Section in SPERW 2017
- Joint author of 'Pile tests to justify higher adhesion factors in London Clay' published in Geotechnical Engineering Magazine April 2016
- Author of the Micropile section in the ICE Manual of Geotechnical Engineering, London 2012.
- "Cannon Station Redevelopment, London"
 - § Presented at the International DFI Conference May 2010, Excel Centre, London
 - § Winner of the Ground Engineering Technical Excellence Award 2009
- "High Capacity Micropile Groups for the Cannon Place Redevelopment in London"
 - § Presented at the 7th International Conference on Micropiles, ISM London 2009
- "Retrofit Micropile System to Increase the Capacity of Existing Foundations"
 - § Presented at the 2nd BGA International Conference on Foundations, ICOF 2008
- "The Design, Installation & Monitoring of High Capacity Antiflotation Bar Anchors to Restrain Deep Basements in Dublin"
 - § Presented at the International Conference on Ground Anchorages and Anchored Structures in Service 2007, London UK
- "Keadby Lock Strengthening Works"
 - § Winner of 2004 East Midlands ICE Merit Award & National 2005 ICE Brunel Award
- "Stabilisation of an Existing Railway Embankment Using Small Diameter Micropiles and Large Diameter Pin Piles at Kitson Wood, Todmorden"
 - § Presented and published at the Railway Engineering 2000 conference at the Commonwealth Centre, London.
 - § Winner of the award for the Best Paper on Engineering Applications.
- "Horsfall Tunnel, Todmorden: The Design, Construction and Performance of a Temporary Reticulated Micropile Retaining Wall"
 - § Presented and published at the Piling and Tunnelling 99 Conference in London.
 - § Winner of the 1999 Yorkshire ICE Merit Award
- "The Design and Installation of Soil Nail Slope Stabilisation Schemes using Snail"
 - § Presented at the Densification & Reinforcement Conference at the ICE in 1997.
- "The Design and Installation of Bridge Strengthening Schemes using Micropiles"
 - § Presented at the Structural Faults & Repair Conference at the ICE in July 1995.
- "Surface Grouting of Circular Roadways"
 - § Presented & published in The Mining Engineer in October 1989.
 - § Winner of Midlands Area Presentation Competition