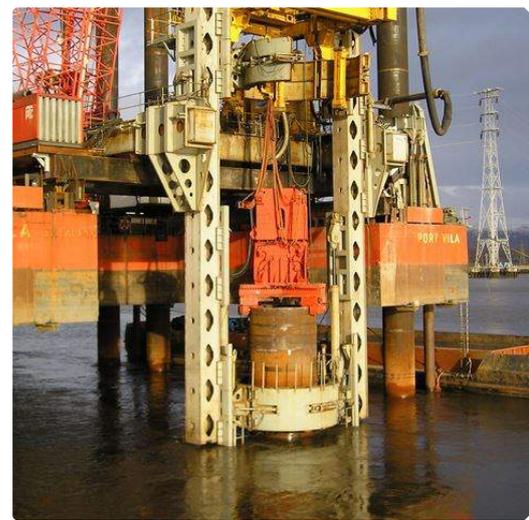
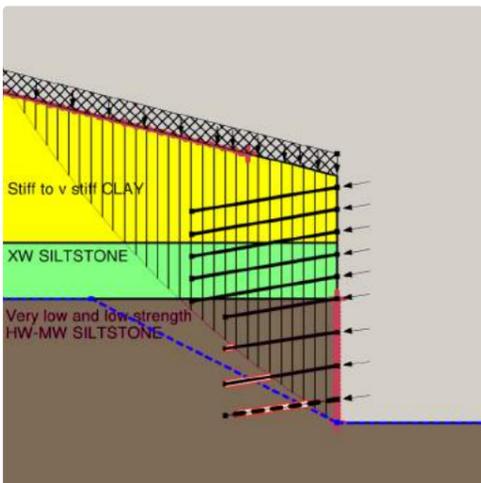
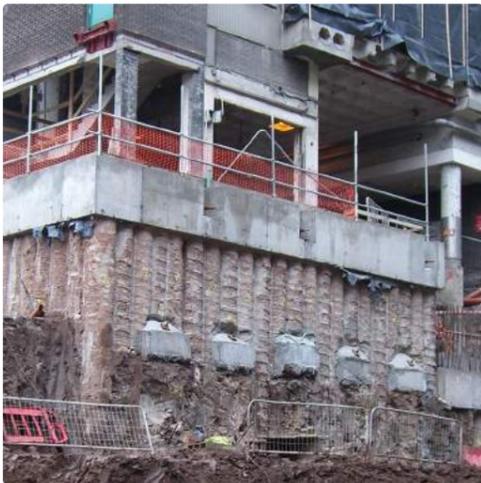


Geotechnical Consulting Services

FOR THE CONSTRUCTION INDUSTRY





Grant & Brown

Grant & Brown is a specialist independent Geotechnical Engineering consultancy, providing high quality geotechnical design and comprehensive advice, as well as expert services for claims | dispute resolution | insurance purposes.

Grant & Brown combines the benefits of extensive industry-wide experience and expertise with strong commercial awareness, and the flexibility, speed and value of a small specialist independent set-up.

The work is carried out by Richard Grant and Mark Brown, ensuring a highly skilled, efficient approach, which is responsive and with a strong focus to achieve client's objectives.

We operate with detailed, up to date knowledge of industry Standards / Codes and implementation of the latest geotechnical analysis software, applying a fully considered, analysed and pragmatic approach to all our services.

Key Focus

- Efficient, safe, buildable & cost effective engineering solutions
- Optimization for construction sequence, programme, temporary and permanent works
- Integration and coordination between geotechnical, structural, civil and construction disciplines

Aims

- Collaborative & communicative
- Knowledgeable & comprehensive
- Proactive & pragmatic
- Flexible & responsive
- Innovative & practical



Our Expertise

We have considerable experience and expertise covering a wide range of complex geotechnical aspects of both temporary and permanent works for buildings, bridges, basements, deep excavations and other underground and above ground structures.

Deep and piled foundations	Optioneering / value engineering alternatives
Shallow and raft foundations	Slopes and embankments
Settlement / ground movement	Soil structure interaction & numerical modelling
Gravity and embedded retaining walls	Ground improvement
Basements and deep excavations	Ground reinforcement using ground anchors and nails

Richard and Mark have been working together for over 12 years. During this time we have established an implicit understanding & appreciation of each other's individual expertise and a synergy in our approach.

Richard Grant BEng PhD CEng FICE

Richard has over 25 years experience in Geotechnical Engineering, a PhD and is a Fellow of the Institution of Civil Engineers. Before becoming independent in 2012, he was a Technical Director for major engineering consultancies. Richard has extensive expertise and has been responsible for the geotechnical aspects of numerous wide-ranging and challenging projects, as well as experience directing multi-disciplinary design teams.



Mark Brown MEng ACGI CEng MICE

Mark has been working in the profession for over 15 years and is a Member of the Institution of Civil Engineers. He has considerable experience as the geotechnical lead in multi-disciplinary teams, interfacing with other professional disciplines to ensure fully co-ordinated designs. Mark is highly skilled in analytical geotechnical techniques including numerical analyses (Finite Element Analysis-FEA) to model soil-structure interaction.





Our Services

Grant & Brown offer the full range of geotechnical design services for buildings, bridges, basements and deep excavations, cut and cover tunnels and other large civil engineering structures.

We have a proactive and communicative approach to provide practical, buildable, efficient and coordinated solutions within the constraints of project cost and programme. Our aim is always to optimize and integrate temporary and permanent works design with construction sequence, working with teams collaborating across geotechnical, structural, civil and construction disciplines.

We add value at any project stage and have particular experience in the Design and Construct (D&C) sector.

Consultants

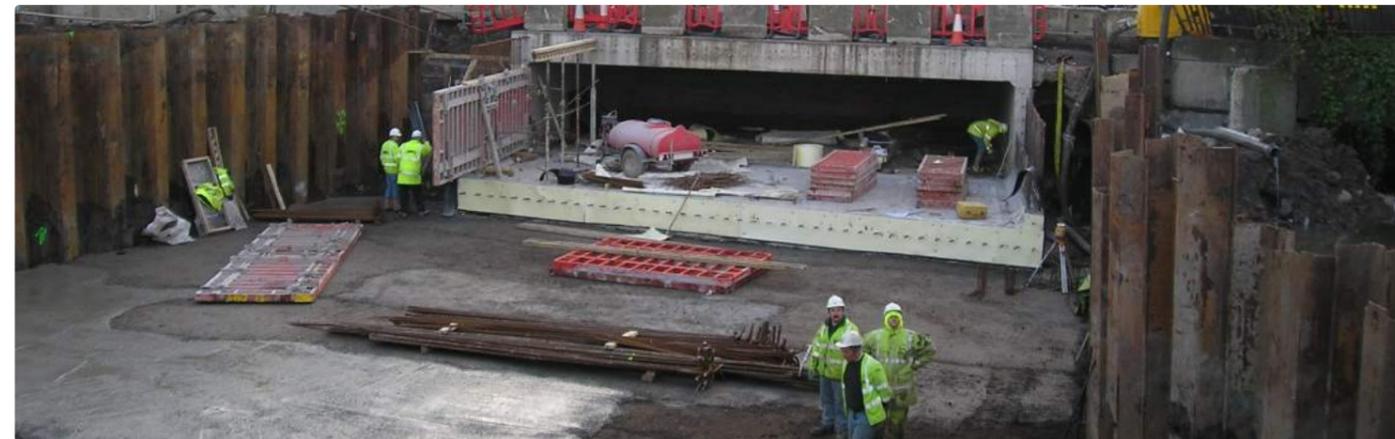
We work with consultants and specialist civil/structural engineering firms to broaden their technical capability, provide external independent design review and independent checking services, or simply to provide flexible resources.

Contractors

We work with contractors and their other consultants during all stages of project delivery from tender-support services and development of value engineering alternatives, through to detailed permanent and temporary works design and on-site construction support.

Claims | Dispute Resolution

Richard and Mark have both spent extended periods working on expert / dispute resolution commissions relating to claims. We work closely with legal advisors, clients and commercial teams to achieve the required objectives.



Foundations

Emirates Air Line, London

Lead Geotechnical Engineer (URS) for the D&C detailed design of the stations and compression towers of this award winning structure in central London. Piled foundations close to substantial tunnelling works; soil-structure interaction / numerical modelling; complex loading conditions and construction over water.

Olympic Park Bridges, London

Lead Geotechnical Engineer (Benaim) for the D&C design of three bridges at the new Olympic Park. Bridge 17 comprised a 90m span steel tied arch over existing railway lines and the buried Channel Tunnel Rail Link.

Blackwater Railway, Australia

Lead Geotechnical Engineer (URS) responsible for the geotechnical design of 40km of rail duplication works, including six rail bridges up to 135m long on the Blackwater Rail System in Queensland, Australia. Role included certification of piles during construction.

Dubai Metro, UAE

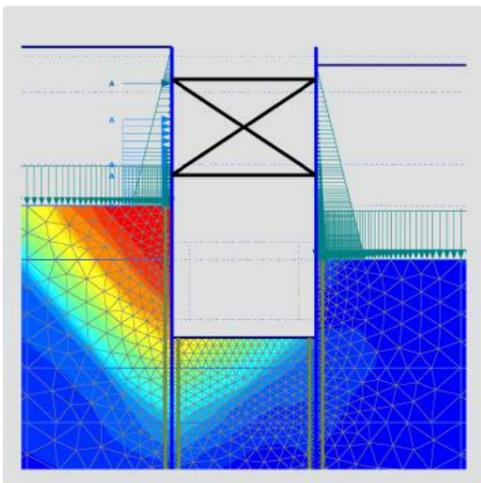
Lead Geotechnical Engineer (Benaim) responsible for the design of the piled foundations for numerous stations and viaducts for the Red and the Green metro lines in Dubai. Lead Geotechnical Engineer (Benaim) for the D&C tender design of several deep underground stations and above ground viaducts for the scheme.

Clackmannanshire Bridge, Scotland

Geotechnical Engineer and Lead Geotechnical Reviewer (Benaim) for multi-award winning, D&C design, 1200m long launched bridge. Each pier is sat on a single 3m diameter pile socketed into rock. On completion it became the second longest incrementally launched bridge in the world.

Blackwater Viaduct, Ireland

Lead Geotechnical Engineer (Benaim) for the D&C permanent and temporary works design. The piers are founded on a mixture of driven pre-cast piles and spread footings and were constructed in an environmentally sensitive area.



Excavations

Royal Victoria Hospital, Belfast

Contractor's Lead Geotechnical Adviser (Benaim) for construction of large two/three level basement on congested hospital site. Anchored contiguous/secant bored pile retention structures & integration of temporary & permanent works design with construction methodology.

Crossrail, London

Complex deep cut-and-cover structures in congested urban areas constructed using a mix of top-down and bottom-up techniques. Variety of diaphragm, secant/contiguous bored pile and sheet-pile walls for support, with permanent and temporary propping.

Project Lead and Lead Geotechnical Engineer (URS) for the independent checking of **Royal Oak Portal, Tottenham Court Road Station, Bond Street Station and Woolwich Station**. Lead Geotechnical Reviewer (URS) for detailed design of **Farringdon Station and Pudding Mill Lane Portal**.

Broadway Underpass, M1/Westlink

Project Manager & Geotechnical Engineer (Benaim) for the D&C design of this large new online urban underpass structure in difficult ground conditions. Large diameter secant bored pile walls with 140m long by 30m wide single span roof / deck over central section.

Victoria Square Development, Belfast

Contractor's Lead Geotechnical Adviser (Benaim) for construction of this large (approx. 160m x 160m) deep basement structure. Constraints of city-centre site bounded by existing buildings and difficult ground conditions.



Claims | Dispute Resolution

UK - Adjudication / Expert Opinion

Expert Opinion reporting for adjudication regarding secant bored pile embedded retaining walls, construction sequence and temporary works for a major urban basement project. Extensive further work for main contractor in substantiating claims in respect of the basement retaining walls and building foundation piles.

Europe - High Court (England & Wales) Hearing

Extensive technical support on Expert Witness team for a major High Court (England and Wales) hearing regarding the design and construction of embedded retaining diaphragm walls for a new underground construction project.

Singapore - Arbitration

Extensive technical support on Expert Witness team for a major arbitration regarding the design and construction of a substantial new underground construction project in Singapore.

UK - Mediation

Technical support [Benaim] to Experts during mediation following the collapse of a partially complete buried arch tunnel onto a live railway line. Extensive soil-structure interaction analysis to assess factors relevant to the collapse.

Selected Other

- **Hinkley Point C, Enabling Works** — Geotechnical Consultant to lead designer
- **University of Ulster, Building** — Contractor's advisor for basement and foundation piles
- **Izmit Bay Suspension Bridge, Turkey** — Project Director (URS) advising concession company
- **Water Treatment Works, Abu Dhabi** — Lead Geotechnical Engineer (Benaim)
- **Belfast Sewer Tunnel Project, Northern Ireland** — Geotechnical advice to contractor (Benaim)
- **3rd Karnaphuli Bridge, Bangladesh** — Geotechnical Engineer (Benaim) for independent check
- **M6 Toll Road, Birmingham** — Lead Geotechnical Engineer (Benaim) for 11 motorway bridges

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View Our CVs

Please download our CVs from our website, or by clicking the following links:

[Richard Grant's CV](#)

[Mark Brown's CV](#)

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