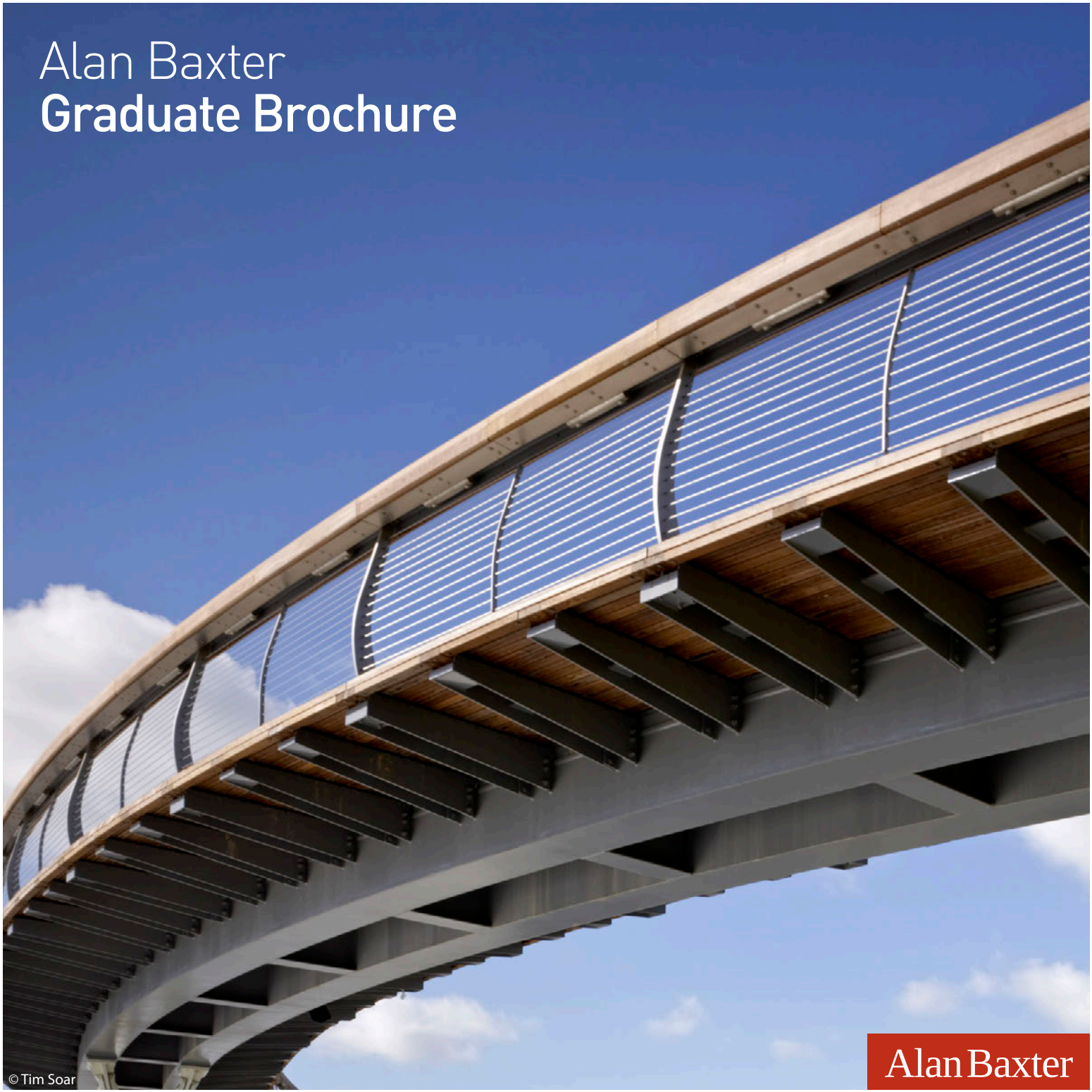
Alan Baxter
Graduate Brochure



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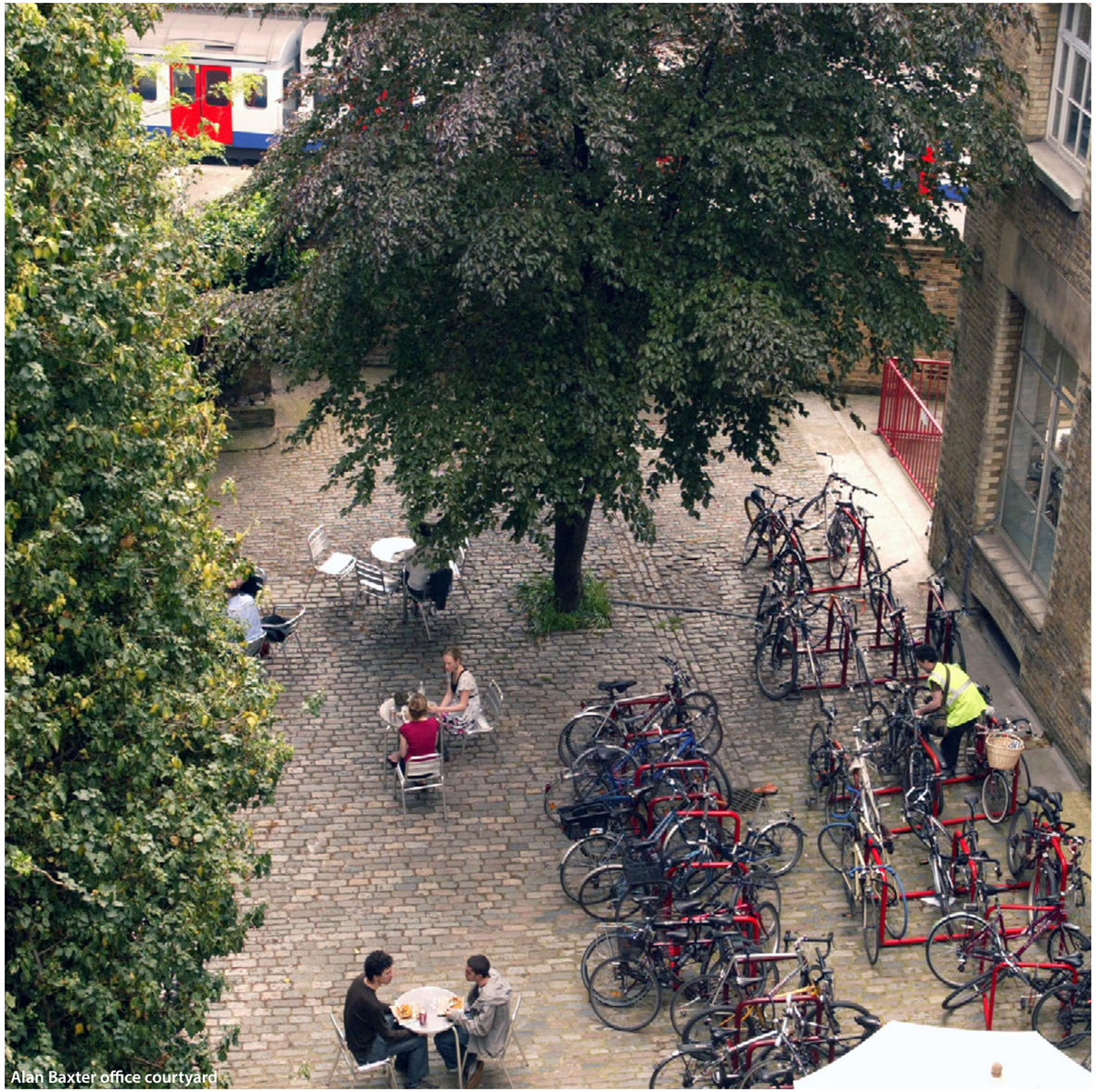
Alan Baxter



Alan Baxter office courtyard

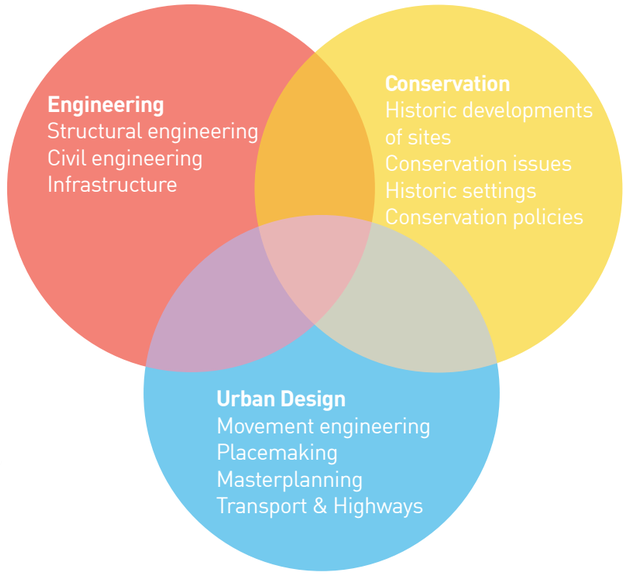
Alan Baxter

Structural engineering
Urban design
Conservation

At Alan Baxter we believe that a holistic approach leads to better buildings and places for people to live, work, and enjoy themselves. Since 1974 the firm has grown from a structural engineering practice into a highly regarded consultancy of 120, involved in all aspects of the built environment. Our urban designers, engineers, and conservation experts collaborate closely every day. This integrative method leads to the best long-term solutions for our clients.

Our constant awareness of the bigger picture, in both human and environmental terms, informs everything we do: while innovative solutions and efficient buildability are prime concerns, we strive to think beyond these to help create buildings and places which will be successful for generations to come. This approach provides value to the client and helps the delivery of the project in the long term.

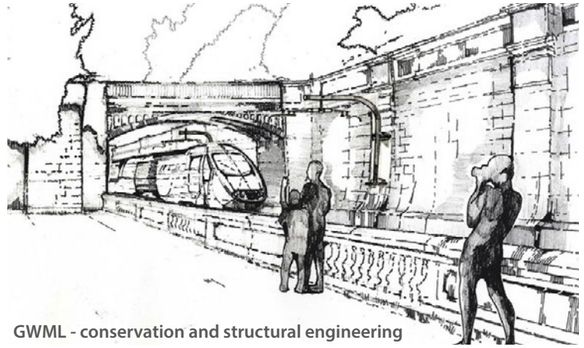
The following pages provided further details about the company. Five of our current graduates describe their experience of life at Alan Baxter and the diverse projects they have been involved with.



Projects

Our civil and structural engineering work covers the whole range of buildings and bridges, from the largest modern development to the smallest historic structure. Our highly regarded conservation team provide reports and advice on the most diverse range of buildings, from national museums and galleries to churches and private homes. In urban design and masterplanning, our staff have helped to pioneer new ways of thinking about our towns and cities, combining place-making with a comprehensive understanding of contemporary patterns of movement. In addition to project work, we have played our part in the wider debate on urbanism by authoring numerous publications for government and strategic organisations, addressing the challenges associated with creating and managing our built environment.

Oxford Castle - regeneration, masterplanning, conservation and structural engineering



GWML - conservation and structural engineering

© Tim Soar

Castleford Bridge - urban design and structural engineering

Training and Development

The Firm is committed to the ongoing development and education of all its employees, both to keep our existing staff up to date, and to help our new members span the gap between formal education and the professional environment. All our graduates are allocated a mentor to be their day-to-day contact.

We run an extensive in-house training programme, with a comprehensive annual series of technical and professional seminars, project reviews, talks and lectures on the wider issues of engineering and the built environment. We enable our graduates to develop their careers through working on appropriate projects within the firm.

We believe that all our graduates should aim for professional membership as soon as they are able - the firm's success rate for passing the IStructE exam is very high. We have a Training Agreement registered with the ICE and encourage membership of groups such as The Urban Design Group.

We encourage employees to travel for which we provide generous grants. The amassing of knowledge and experience through travel can prove invaluable when considering the broader issues related to the work we do. Our aim is for everyone to contribute to the future of the practice as well as their own careers.

Introduction to design session

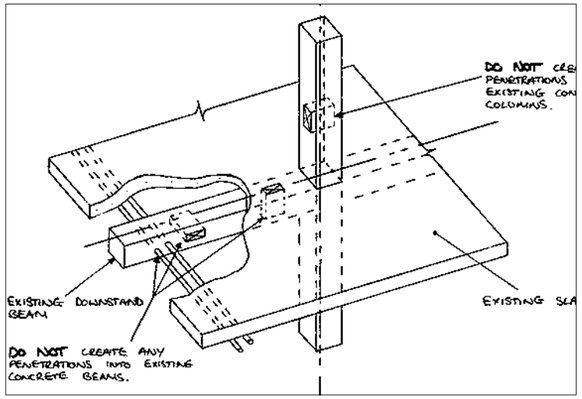
Brick Arch Exercise

Approach to Design

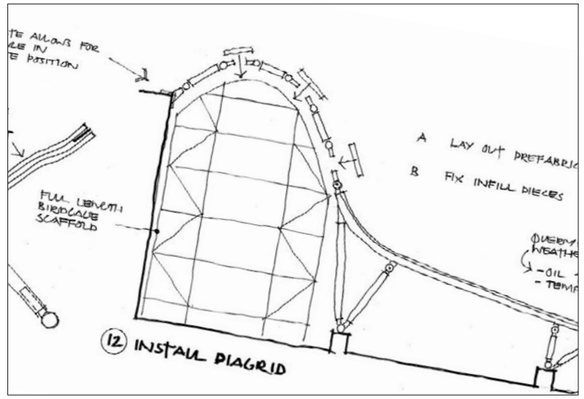
At Alan Baxter we have a uniquely interactive culture where our philosophy of integrated design is reflected in the way we work with each other, our partners, clients and with the wider community. By joining up all the various different strands of a project we are able to provide the highest quality and value design for our clients.

We believe that design is about creating and exploring ideas through thinking and creative discussion. We use sketches to communicate our ideas to our peers, other members of the design team and our clients. The ability to draw and communicate our ideas clearly to others is an essential ingredient of our work here.

From these design sketches, technicians are able to produce more formal hand and CAD drawings and calculations can be used to confirm the detail of the design principles. We have training sessions and workshops to help graduates improve their drawing skills and abilities.



Project Pintail, Penetration strategy



The Herbert Art Gallery & Museum, Coventry

Working at Alan Baxter

Reflecting our collaborative approach to work, our office is open plan, with all members of the practice working side by side. The cross-fertilisation of ideas that this produces is further enhanced by the presence of over 70 other organisations lodging in the building. Lodgers range from building conservation bodies to established architectural or urban design practices, and the resulting exchanges benefit all parties and help to give us fresh perspectives on projects.

Collaboration across disciplines is assisted by a considerable social programme, which includes communal lunches, evening lectures and discussions, sporting events, and exhibitions in our own gallery. Many of our events are organised by lodgers, or open to the public, ensuring a wide range of views are heard and discussed. Knowledge of what other members of the practice are working on is transmitted through regular seminars, at which staff are encouraged to discover what projects colleagues are working on, gaining insights into different areas of our work.

All our staff are encouraged to study for higher degrees and professional qualifications wherever possible and we have a system of financial support and study leave to encourage them to do so.

Summer in our courtyard

Study trip to Cologne

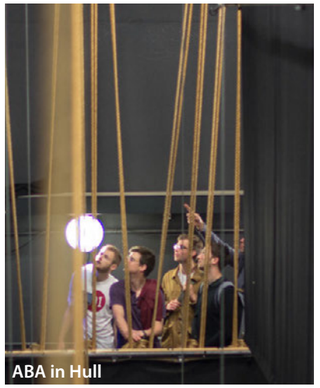
Career development at Alan Baxter means more than on-the-job experience. Our ongoing training programme includes seminars, discussion groups and study trips and we encourage employees to pursue continued education, for which we provide financial support. It's not all work though...


Team meeting


ABA in Hull


Chiltern Open Air Museum


ABA Wapping wander


ABA in Hull


Graduate weekend in Normandy


Engineering Antics


Exhibition Road study visit


Chiltern Open Air Museum


ABA hosts Bike week

Fraser Godfrey
The Great Western Mainline Electrification

I studied Architecture and Environmental Engineering at Nottingham and joined Alan Baxter in 2012. During my time here I have worked on a number of projects including a structural appraisal of a grade II listed dock warehouse in Wapping.

In 2011 Network Rail announced a programme to electrify the Great Western Main Line (GWML) which connects London with Bristol, Cardiff and Swansea. The section of the line between London and Bristol passes through the Bath World Heritage Site and was designed and built by Isambard Kingdom Brunel. It is therefore of particular historical significance, with over 80 listed structures associated with the line.

The most challenging part of the project has been the line through the World Heritage Site and in particular the Georgian Sydney Gardens in Bath. On the western approach to the city the railway divided the gardens in two, and was only partly sunk in a cutting. Brunel was not only a brilliant Engineer but also a sensitive architect and landscape designer. He gave the line an ornamental character, creating a balustraded section with ashlar retaining walls, and classically-inspired parapets to the bridges carrying the roads around the gardens. Here Brunel envisaged a 'theatre of the railway' where people could sit and enjoy the spectacle of passing trains. The challenge has been trying to maintain that sense of theatre while endeavoring to meet the necessary safety standards of a 21st century electrified railway.

The project has given me an opportunity to use both my engineering and architectural skills, but also develop new skills such as programming and liaising between the design team and client. Typically for Alan Baxter the project has drawn upon the wide range of skills available within the firm, while contributing to the expanse of our own knowledge.

GWML through Sydney Gardens

Toynbee Hall, 1885

Toynbee Hall, 2013

Hannah Butlin
Toynbee Hall

I graduated from UCL with a degree in Civil Engineering and had an aspiration to work for a consultancy with a reputation for creative design. I also wanted access to a training programme where I could experience team working in small groups. I found this at Alan Baxter.

Toynbee Hall is a grade II listed building in east London built in 1885. It was the setting for the charity — Toynbee Hall, which pioneered the reduction and alleviation of poverty in the local community, and still does so today. The charity have ambitious plans for the site, and for Alan Baxter, as structural engineers for the project, the key challenge has been to enhance and reconfigure the existing structures to meet modern day requirements for adaptable and open plan usage whilst, in the case of the Hall itself, rigorously respecting its historic significance.

I assessed the technical feasibility of adding significant loads to a 1960's reinforced concrete building on site. Research indicated that it was designed for future extension, creating the opportunity for a more efficient design, offering greater value for the client, including a new build and the refurbishment and extension of two existing buildings. Working on an existing structure is more challenging; it involves detective work and encompasses constraints and opportunities, driving the need for inventive design solutions.

For me, the best part of working at Alan Baxter is the diversity of project types and the range of different forms of construction I have encountered. I have had the opportunity to be involved in prestigious, high-profile schemes as well as having ownership over my own projects. Alan Baxter has a culture which nurtures engineering creativity, within a traditional professional environment, and with a great support network, in house training and events.

Lisa McIntyre
Rose Castle, Cumbria

I studied Communications at the University of Technology, Sydney and joined Alan Baxter in 2007, working first as the Personal Assistant to the Partner in charge of the conservation group. Whilst in that role, Alan Baxter gave me a bursary to study Building Conservation at the Architectural Association. I am now a Professional in the conservation group and have had the opportunity to work on an incredible range of projects.

Rose Castle is a grade I listed building of medieval origin and was, until recently, the official residence of the Bishops of Carlisle. The Church Commissioners, who manage the Church's property, wish to dispose of Rose Castle but are legally obliged to consult English Heritage before doing so. As part of this process, Alan Baxter was commissioned to prepare a Conservation Statement.

Conservation Statements are practical tools for the management of historic sites and help guide decision-making about their future. In the case of Rose, the document will help evaluate the viability of potential new uses, including the question of whether public use or private ownership is more appropriate. To prepare the document, I needed to gain a thorough understanding of the castle through historic research, site visits and discussion with the people who own and manage the site. This provided the background to help identify the most architecturally and historically significant elements of the site and to develop strategy and policies to both protect and enhance its future care.

Being able to transfer an interest in history, research and writing into practical documents for the care of historic buildings and as part of the planning process is immensely satisfying. You're reminded that history is not merely an academic pursuit but plays a fundamental role in the places we inhabit and in our day-to-day lives.

South-east facade of Rose Castle

Significant views plan

Notting Hill © Stanton Properties

Daniel Zwetsloot
Notting Hill

While studying for a degree in Civil Engineering at Cardiff University I took part in a summer placement at Alan Baxter within the urban design team. Following graduation in 2012, I joined as a graduate structural engineer and have worked on a wide variety of interesting projects since. These have included investigating the structural effects of tunnelling on the historic Magasin du Nord in Copenhagen, the design of an engineered timber Maggie's Cancer Care Centre and a new residential development in Notting Hill with challenging constraints.

Our client is proposing to construct a residential tower of up to fifteen storeys high with a two storey basement in west London. Although this sort of project is undertaken fairly frequently in London, this one is unusually challenging as the ground below the site is riddled with tunnels. The current basement is founded on the cut and cover brick arch of the District line. Below this there is a large Thames Water sewer, a shaft housing an escalator descending to the deeper Central line and the Central line running tunnels.

This has given me the opportunity to test my creative conceptual design skills in determining the form of the proposed structure, and how it is possible to construct it over tunnels which are sensitive to changes in loading and movements. It has also enabled me to develop my technical understanding of complex basement construction, the effects of over-ground developments on underground structures and steel and concrete design.

Projects undertaken by Alan Baxter are often complex and this is no exception. We are well placed to deal with the challenge of building close to and over tunnels due to the wealth of experience and shared knowledge within the office. It is a great environment in which to learn and to test yourself.

Ben Adams
The Old Vinyl Factory

I studied Civil Engineering at the University of Manchester and joined Alan Baxter in 2011 after graduating. I have worked on variety on transport and movement related projects ranging from the detailed design of a footway in the Royal borough of Greenwich to providing transport advice for a masterplan for 3000 homes in the Alton West Estate, south-west London.

Alan Baxter were appointed in 2011 to provide transport and movement advice for a proposed mixed use development in Hayes, west London, consisting of 500 flats, 50,000sqm of office space, a multi-screen cinema and a museum. The site is the former factory of the record company EMI. The challenge for Alan Baxter in this project is to provide advice to encourage the development of sustainable travel to and from the proposed development.

My role was to gather baseline information through site visits and desk top studies, creating an appropriate methodology to assess the transport impacts and then designing interventions to five junctions in the vicinity of the site so the road networks can continue to function to capacity. Planning permission for the scheme has now been secured and the development will be constructed over the next few years with a total value of over £250 million. Alan Baxter will also be providing engineering advice for the scheme using some of the knowledge I've gained from my work in the early stage of the developments design.

Within the transport and movement team, the projects I work on tend to be at the very early stages in the design process, so you get the opportunity to create concepts and principles that have a significant impact on the final design. Engineers who are interested in the 'bigger picture', want to take on challenging and complex projects, and have an interest in sustainable transport systems would certainly find Alan Baxter a stimulating place to work.

The Powerhouse ©SEW

Evening economy ©SEW

For more information about employment opportunities at Alan Baxter visit www.alanbaxter.co.uk or write to:

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