

Foundations

Welcome to Foundations, a publication written by our students and apprentices to let you know more about what it's like to work with Tony Gee and Partners as an Undergraduate Engineer or an Apprentice.

Who are Tony Gee and Partners?

Tony Gee is a practice of Civil, Structural and Geotechnical design engineers providing specialist technical services to the worldwide construction industry. We strive for innovation and pride ourselves on the satisfaction of clients – providing them with efficient designs, clearly presented on time.

We are strongly committed to supporting and training the whole team, encouraging all to meet their full potential.



Students and Apprentices at Tony Gee

Currently there are around 450 staff working at Tony Gee worldwide, approximately 50 of whom are students and apprentices. All sponsored students undertake a work placement during their summer vacation. Whichever team you join, you can be sure that there will be another student working close by, making it easier to settle in and ask as many questions as needed. Students will slot into live project teams and will work alongside staff of all levels.

Tony Gee is part of the Technician Apprenticeship Consortium (TAC) and is involved in the development of a framework of learning for those who wish to go into engineering but do not want to go to university. Our apprentices split their time between working on projects and studying at college one day per week.

What will you gain from your placement?

At Tony Gee we involve every member of the design team, allowing you to be 'hands-on' in all forms of work. Depending on your office location, you have the opportunity to work in all of the groups at Tony Gee including Highways, Structures, Rail, Geotechnics, Marine and Special Projects.

This experience proves invaluable to your development as a civil engineer and puts you firmly on the ladder to professional accreditation.

Aside from the work there are plenty of other activities to keep you occupied. Regular socials are arranged including trips to the Comedy Store, go-karting, five-a-side football tournaments and fund-raising events for our chosen charity RedR.



Tony Gee Projects

Tony Gee is an international consultancy, and while the majority of our work takes place in the UK, the business also completes a number of projects around the globe. Students will be based in one of our seven UK offices and stationed in different technical groups, giving experience in a variety of fields. Below is a selection of the type of projects you could be involved with.



The Mersey Gateway

Tony Gee provided Temporary Works and CAT3 Checks as part of the £1.86bn bridge for the Merseylink Construction Joint Venture.



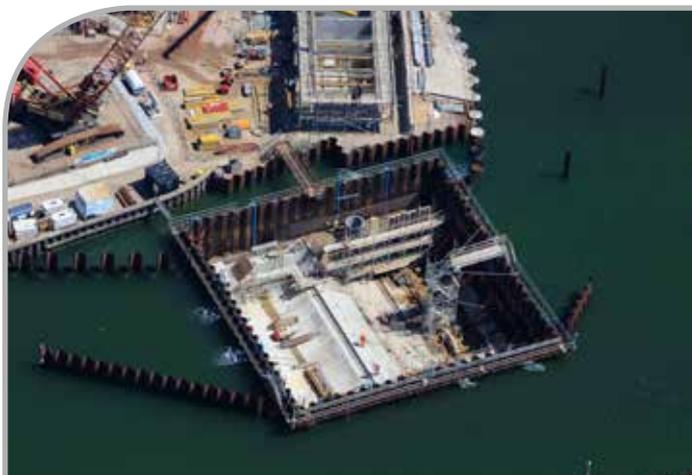
Central Wan Chai Bypass, Hong Kong

Cost saving design for the 400m long tunnel structure, temporary excavation and lateral support works.



Bath Spa Station

Lead Designers for HOCHTIEF (UK) on improving the infrastructure of the Grade II* Listed Station originally designed by Isambard Kingdom Brunel.



Ipswich Flood Barrier Cofferdam

Tony Gee designed the temporary Cofferdam whilst also providing ongoing support as part of the Ipswich Flood Defence Management Strategy.



Adelaide Pedestrian Footbridge, Australia

Tony Gee completed the alternative design of a 135m footbridge stretching over the River Torrens in South Adelaide to provide regeneration to the area.

For more information visit:

tonygee.com/projects

Student and Apprentice Week: First Impressions



By Helen Zhang

I had the pleasure of participating in my first ever Student and Apprentice Week with Tony Gee this year and it was a very enjoyable and rewarding experience. We visited six diverse projects across the country, which all started with a talk by the hosts, followed by an insightful site visit

to see how engineering was being brought to life.

We started the week by heading to Ely, Cambridgeshire, where the construction of a new bypass has just begun. The new bypass will direct heavy traffic away from Ely town centre. As part of the bypass, a new road bridge will span across River Great Ouse. This project includes an interesting viaduct design that challenges the need for a balance between buildability and architecture merit.

The next day we drove to Manchester to visit Ashton-Under-Lyne station during the engineering possession phase to see the progress on site. This visit proved that visiting construction sites are very engaging learning experiences. Everything can be put into perspective whilst the contractors talked through their solutions to a series of challenges, including how to place a crane in a limited sloping space.



On Wednesday we visited Ordsall Chord, a major rail project that will improve the capacity and connectivity of central Manchester stations. We had a chance to admire the UK's first ever Network Arch bridge up close. The two conjoining 600 tonnes arches was lifted using one of the largest cranes available. The entire structure will use 28,500 tonnes of ballast, 4,000 tonnes of steel and 15,000m³ of concrete. These numbers probably don't mean much to you



(it certainly didn't for me) until you get the chance to see the sheer size of the structure up close.

On Thursday we travelled back down south to visit the Dover Western Docks Redevelopment. This is one of the top five vital construction projects currently in the UK, with the port handling up to 17% of annual trade. Planned works include extensive dredging and construction of a new 560m curved marina pier, the piling works for this was underway during our visit. I very much enjoyed listening to my peers talk about their contributions for this project, and look forward to be able to do the same in the future.



Our last day was spent in London, visiting the Carnwath Road site of the Thames Tideway Scheme. There are seven main sites along the 25km stretch of the river. Each site requires a unique Tunnel Boring Machine due to varying ground conditions, boring depth and pipe diameters. As the site is adjacent to the River Thames, barges have been utilised to provide material transportation which will reduce approximately 90 heavy goods vehicles on the roads per day.



In the afternoon, we travelled to Waterloo to visit the Southbank Development where eight new blocks will replace the original structures surrounding the existing Shell Tower. We concluded our week by a visit to the 20th floor of one of

apartment blocks, which had amazing views overlooking the River Thames.

This week proved to be a fantastic opportunity to meet the other students from different offices. Everyone bonded through the journeys on the minibuses and it was great to be able to socialise together throughout the week.

Many thanks to everyone involved for making this wonderful week possible.



Watch the Student Week video at tonygee.com/careers/students

Life at Tony Gee



Sophie is about to enter her final year at University after recently completing a summer placement at Tony Gee's Manchester office.

Although I didn't apply before starting my studies, I was fortunate to join Tony Gee's sponsored student programme and I am currently nearing the end of my second summer placement in the Manchester office.

With the much broader appreciation of rail infrastructure gained in my first summer, I have been able to get involved in the current works at Ashton-Lyne Station and Turner Lane Bridge. Turner Lane was especially exciting as I worked with the project engineers to formulate flexible and feasible design solutions in a limited timeframe.

Student and Apprentice Week added to this experience as we were able to visit the Ashton-Lyne Station. It was a brilliant experience to be able to get onto that site to see the extent of the works in person, this gave a completely different perspective to working in the office setting.

I've really enjoyed working in an encouraging office environment whilst on my placement. I have also enjoyed the deadlines experienced in the industry and how these are introduced to student engineers. I've noticed there is an emphasis on developing our skills and show us how to manage tight deadlines.

This encouraging environment has extended beyond the office. I have been given the ability of flexible working which has allowed me to continue with my sporting commitments. As I go back to University in September for my final year, I have a much better idea of the direction I'd like to go with my career with Tony Gee and hope to be able to broaden my knowledge in the future.



Q&A *Harinder has been based across a variety of our offices as part of his summer placements while studying at City University*



How were you introduced to working at Tony Gee?

While at Secondary School I attended a Careers fair where I was very keen to explore the world of engineering. As part of my academic year I had a placement arranged to work at Tony Gee's Ashford office for a fortnight.

I found this experience really insightful and it gave me the confidence to pursue a career in engineering. Following on from my work experience, I arranged placements within Tony Gee's Esher and Ashford offices while undertaking my studies at University.

What do you enjoy most about your job?

The ability to visually affect the world you see by the work done here is definitely the biggest draw. It's nice to see that what you do on a day to day basis contributes to improving the world we live in and making a difference.

What advice would you give to aspiring engineers?

Get as much experience as you can. Whether that's work experience, summer internships or spending a year in industry, it all helps a lot to have experience. Not only for future employability, it also tends to help during your course as well.

What kind of support have you received while working at Tony Gee?

Everyone I have come across at Tony Gee has been very helpful, especially the engineers I have worked under. The standout quality of this is the fact I never felt I couldn't ask any questions or for help, something which really helped build my confidence.



What has been your favourite project to work on and why?

The work done on repairing the Dover-Folkestone railway line in Ashford. I was heavily involved throughout the project which was very fulfilling when you know it's making a huge difference to people in the area.

Want to find out more?



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