



# Tony Gee News

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## Historic project in Tasmania

Tony Gee is delivering the design for Tasmania's largest ever transport infrastructure project – the Bridgewater Bridge – replacing a 1940s lift span bridge.

The new 1.2km-long structure will strengthen Tasmania's National Highway and connect local communities. It will carry the Midland Highway over the River Derwent and provide 22 spans configured to give a 45m-wide navigation channel below with a 16m height clearance for vessels.

The bridge deck accommodates four traffic lanes with two outer shoulders in each direction, a 3m-wide path for pedestrians and cyclists, and a 3m-high safety screen.

The superstructure is configured with two constant depth, prestressed concrete segmental box girders. Each box is supported with a 2.45m diameter mono-pile concept and, at a depth of up to 90m, this project holds Australia's record for the deepest bored piles. The design prefabricates wherever possible. Marine pilecaps are made from pre-cast concrete shells, pier and pile reinforcement cages assembled offsite, and the segments are precast offsite and erected in a balanced cantilever. The box girder superstructure is longitudinally prestressed with internal top cantilever and external prestressing only. The box girders are linked by continuous insitu slab.

Nick Southward, Tony Gee Asia's MD, said: "This is a great example of our design and constructability expertise. Geometry has been key with the box design standardised to benefit the precasting construction, and reinforcement cages detailed as 'slices' to suit efficient fixing methods."

Tony Gee is working for contractor McConnell Dowell on this project with Jacobs, Tonkin and Taylor, CM+ and Pitt & Sherry. Construction is due to complete in mid-2025.

## Gold standard success

Tony Gee has been awarded a Gold accreditation from Investors in People. Gareth Drought, HR Director, said: "The best way to drive improvement is to continually challenge ourselves. The Investors in People process allows us to do just that and fully understand how our business holds up to scrutiny, particularly when it comes our people. This Gold status is testament to the work we do to create the best possible workplace for all. We will continue to listen, digest and question ourselves for future success."

## Our rising stars...

Tony Gee engineer Emma McGregor was named 'Rising Star for Technical Excellence' at *Construction News and New Civil Engineer's* Inspiring Women in Construction and Engineering Awards 2023.

Emma's contribution to the design and construction of SSE Renewables Viking Wind Farm project in Shetland impressed the judges, who said: "Emma shows the impact an individual in a graduate position can make at the start of their career path."

Apprentice Scott Seweryn was also shortlisted in the NCE Graduate and Apprentice Awards 2023. Paul Pankhurst, nominating Scott, said: "Scott is incredibly talented and shows a high degree of professionalism in all that he does and constantly exceeds our expectations."



Emma McGregor collecting her award



## Chris' corner

As we end yet another turbulent year, with many political, financial and environmental challenges going on around us, I am delighted to say that 2023 has been a busy and enjoyable year for Tony Gee.

I trust we have helped you achieve the outcomes you desired from the projects we have worked on together. Very pleasingly, I have been able to pass on some lovely feedback on a number of projects to our design teams throughout the year.

As we start to look forward to next year and beyond, it is interesting to see some developing changes. We have long been involved in renewable energy schemes and, together with nuclear, these are starting to make up a larger part of our workload as the drive for clean, secure energy gains momentum. On highways, our projects are moving more towards reconditioning or modifying existing schemes and including more provision for active travel. While our rail work continues to focus on getting the very best out of existing assets, as well as enhancing provision to encourage greater use of sustainable public transport.

In my view, the world does seem to have finally woken up and realised that we have to do things differently and have to think differently to get better outcomes for future generations.

Thank you to all our clients and suppliers for helping us achieve our goals this year and for making this a busy and enjoyable business to be in.

**Chris Young**  
*Executive Managing Director*



## Tung Chung East works underway in Hong Kong

Tony Gee is working for contractor Build King Civil Engineering on the temporary works design to support the installation of infrastructure on a new reclamation area in Hong Kong. A primary element of the work is the design of cofferdams for the construction of a combined utility tunnel – a concrete box structure 16–20m wide and 6.5m high, buried approximately 8m below ground level. This work requires excavations in the new reclamation of up to 16.5m in depth and in challenging ground conditions. The soft marine deposits are around 13m deep and have been treated with deep cement mixed ground columns. Whilst helpful in supporting the 9–10m thickness of newly-placed fill material for the reclamation, it is less so in offering much improvement in passive resistance for the retaining walls. Much of the design makes use of AZ50 sheet piles to provide the stiffness and strength required in combination with walings and complex laced struts to span across the 25m-wide excavation.

## Tony Gee on track in Canada

A year on from establishing an office in Toronto, Tony Gee reports good business progress in Canada.

The team has focused on establishing a strong network of relationships and growing brand presence across the city, as well as recruiting staff.

The in-country team now comprises nine staff members, with an office move already planned in 2024 to allow for further expansion and capability growth.

The team currently delivers a broad range of expertise covering geo-structural, structural and civil design for both permanent and temporary works.

## Awards success

Tony Gee projects have won a clutch of awards throughout 2023 including Large Project Award and Overall Project Winner (ICE West Midlands) for the SAS13 Bridge, and Highly Commended for the Heritage Award for Parkhead Viaduct (as part of the Midland Metro Alliance). The SAS13 Bridge also received commendation at the Structural Steel Design Awards 2023.

The Dawlish Seawall Resilience Colonnades to Coastguards project, supporting BAM, took Best Re-engineered Project (over £8m) and the Judges Showcase Award at the ICE South West. At the CECA North East Awards Tony Gee was cited as contributing to the Project of the Year (over £5m) which was won by PD Ports Teesport.

## Offshore wind farm takes shape

Tony Gee is part of a specialist multi-disciplinary team selected to develop the onshore civils works for Berwick Bank Offshore Wind Farm which is set to be one of the world's largest offshore wind projects.

Located in the North Sea, in the outer Firth of Forth, the wind farm, for SSE Renewables, has the potential to deliver up to 4.1GW of installed capacity.

Tony Gee is working with Jones Bros Civil Engineering UK to deliver a contractor-led detailed design commission for Phases A and B of the project, with a combined installed capacity of up to 2.3GW. The onshore cable route comprises 220/275kV cabling from landfall to Berwick Bank onshore substation followed by 400kV cabling to Branxton substation.

Tony Gee's growing power & energy capability, based in Manchester, is leading on the scope which includes highways, bulk earthworks, earthworks platforms, drainage and watercourse crossings designs. The team has put constructability and value engineering at the core of the plans, with its work building on a 10-year relationship with both SSE Renewables and Jones Bros on design and development of wind farm projects.



### Idless Dam insights

Tony Gee has undertaken civils design and modelling for a new screen bypass channel at Idless Dam in Cornwall, for the Environment Agency.

The dam protects the city of Truro from river flooding. The work will make the dam more resilient with an automated penstock and bypass channel so that reservoir water could be drained if need be. 3D models using Revit, Sketchup and Twinmotion enabled concept designs and virtual walk throughs to ensure safe operation after flooding.



### Fresh thinking at Lune Gorge

Tony Gee has been appointed as one of the lead designers on the M6 Lune Gorge project, working for Kier Transportation as part of the Professional Services Alliance with Kier Design Services and RPS.

The scheme, for National Highways, will renew the entire deck of eight bridges which carry the M6 and A685.

The project is located in the Lune Gorge, between Junction 37 and 38 of the M6, in an incredibly picturesque area nestled between the Lake District and Yorkshire Dales National Parks.

Tony Gee's scope covers the design of five bridge renewals and is being jointly delivered by teams in

the Esher, Manchester and UAE offices.

Launched in March, the work's primary focus has been on value engineering for each bridge, challenging convention and considering alternative construction forms and methodology to reduce disruption, embodied carbon and capital cost wherever possible. The goal is to reuse the existing substructure where feasible.

The options taken forward are now agreed with National Highways and preliminary design is underway. The client, contractor and design teams have actively engaged in positive workshops designed to foster a strong culture of collaboration.

# Insights for students and apprentices

Tony Gee's annual Student and Apprentice Week was another resounding success in 2023. It aims to enhance understanding of the construction world with visits to live sites and delivering some real life experience.

Project sites visited included Dawlish (with BAM), Benbrack Wind Farm (Jones Bros), One Leadenhall (courtesy of Multiplex), Ashley Down Station (BAM UK & Ireland) and as part of the Transpennine Route Upgrade (TRU) with the TRU West Alliance. Students and apprentices explored the complexities of the project designs and gained first-hand insights. The week concluded with a two-day conference in Birmingham on the future of civil engineering and the impact of using virtual reality and artificial intelligence.



## New push in Asia

Peter Atkinson has joined Tony Gee's Hong Kong office as Business Development Manager for Asia.

Peter is a chartered civil engineer with a passion for solutions and technical tools that make projects safer and more efficient. He said: "Tony Gee has an excellent reputation for out-of-the-box engineering schemes. My aim is to make it even more prominent in the region. Our healthy pipeline of work across Asia is a great platform to start from. We want to be first-in-line whenever civil engineering clients need consultants."



## Adding social value in times of need

Tony Gee continued to increase its commitment to social value throughout 2023 by supporting RedR, local office charities, Bridges to Prosperity (B2P), STEM events and a 'Summer of Active Travel' campaign.

Tony Gee combined with Knights Brown for B2P again, successfully building the Nyagafunzo bridge in Rwanda. Created in close collaboration with the local community, the bridge spans 77 metres and was completed within an impressive timeframe of just under two weeks. The bridge now provides essential year-round access to education, healthcare, and vital resources for 3000 local residents.

Closer to home, volunteers from the Ashford office have been spending time each month at FareShare in Kent. FareShare helps vulnerable groups in food poverty. The volunteers organised food and household supplies gathered from surplus supermarket stock. They catalogued the stock for processing and distribution, picking and packing to support efficient delivery to local charities. The volunteers found the work truly valuable and rewarding and will continue to help throughout 2024.

Tony Gee's Glasgow office was one of the first to join the Beatson Cancer Charity's 1000 Club, when they pledged to raise £1000 in 2022. They continued their pledge to raise £1000 for the charity in 2023 and reached this target through payroll giving, fundraising events and a sponsored half marathon by Executive Director, Alasdair Fowler.

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