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Bridge over troubled water

Uncertainty over Brexit has not dented the confidence of the building services sector. Above-average pay rises and a continuing skills shortage mean adventurous engineers still have many opportunities to explore. **David Blackman** reports

Optimism is running high in building services, despite the wider economic uncertainties surrounding Brexit. That's the key finding of the latest *CIBSE Journal* salary guide, compiled by Hays Building Services.

The recruitment consultancy's annual survey of building services employers shows that 97% expect business activity levels to increase or stay the same over the next 12 months. While this is marginally lower than the unanimous confidence expressed this time last year, nearly two-thirds (61%) of firms are planning for increased activity. Nearly as many (59%) report optimism about the wider economic climate and the opportunities it may

create in the next two to five years – higher than the overall figure of 43% for UK employers.

The survey's findings are reflected at Black & White Engineering, which has its headquarters in the North East and has seen its turnover double compared with the previous year. Steven Horn, a director of the company, expects growth to be only 'slightly' slower this year.

David Stafford, director of S I Sealy, says the firm's pipeline of work will keep it 'very busy' for the next 12 months at least: 'We're busy fools at the moment – working our socks off.'

Peter Sutcliffe, managing director, buildings and places, for London Commercial at Aecom, says: 'We have been surprised by how much >>

The salary data has been compiled using information gathered during 2018 from Hays offices across the UK. It is based on job listings, job offers and candidate registrations. The recruiting trends are based on the survey findings of almost 23,000 employers and employees.

BREXIT UNCERTAINTY

» activity there is in the market.' Activity levels are very strong, he says, although the 'big question' is whether private sector clients will put projects on ice because of broader concerns about the market.

More than two-thirds (65%) of building services professionals would still consider moving jobs in the next 12 months, according to Hays. Uncertainties surrounding the wider economy could weigh on moves though, cautions Sutcliffe, who believes: 'If the market gets jittery, people will stay put.'

James Ford, who heads up Hoare Lea's sustainability team, agrees. 'There needs to be a level of confidence for candidates to move and for employers to recruit.'

Such concerns do not appear to be holding back the 80% of building services employers that, according to the survey, are planning to recruit over the next 12 months. More than a third (39%) plan on hiring temporary or



"More than a third said skills shortages have had an effect on expansion – while 41% said they have undermined their companies' ability to deliver projects"

Contractors: Directors

Region	Typical salary 2019	Min salary 2019	Max salary 2019
East of England	£57,500	£50,000	£73,000
London	£95,000	£80,000	£120,000
West Midlands	£61,000	£60,000	£70,000
East Midlands	£62,500	£60,000	£80,000
North West	£60,000	£60,000	£75,000
Northern Ireland	£67,000	£65,000	£85,000
Scotland	£55,000	£50,000	£65,000
South East	£75,000	£73,000	£80,000
South West	£60,000	£55,000	£65,000
Wales	£55,000	£55,000	£65,000
Yorkshire and the Humber	£54,000	£48,000	£62,000
North East	£58,000	£57,000	£62,000
National average	£63,333	£59,417	£75,167

% increase year on year: 3.5%

Contractors: CAD technician

Region	Typical salary 2019	Min salary 2019	Max salary 2019
East of England	£24,500	£22,000	£27,000
London	£41,500	£30,000	£50,000
West Midlands	£28,500	£25,000	£35,000
East Midlands	£28,500	£25,000	£30,000
North West	£29,000	£25,000	£32,000
Northern Ireland	£28,500	£24,000	£30,000
Scotland	£23,000	£22,000	£26,000
South East	£35,000	£33,000	£40,000
South West	£30,500	£30,000	£35,000
Wales	£29,000	£27,500	£32,500
Yorkshire and the Humber	£25,000	£23,000	£28,000
North East	£26,000	£23,000	£28,000
National average	£29,083	£25,792	£32,792

% increase year on year: 2.7%

Contractors: Contract quantity surveyor

Region	Typical salary 2019	Min salary 2019	Max salary 2019
East of England	£42,000	£33,000	£52,000
London	£58,500	£50,000	£80,000
West Midlands	£44,500	£45,000	£55,000
East Midlands	£43,000	£44,000	£55,000
North West	£39,500	£40,000	£55,000
Northern Ireland	£40,000	£35,000	£48,000
Scotland	£42,000	£35,000	£45,000
South East	£60,000	£55,000	£65,000
South West	£46,000	£45,000	£50,000
Wales	£43,000	£40,000	£45,000
Yorkshire and the Humber	£37,000	£32,000	£42,000
North East	£40,500	£35,000	£44,000
National average	£44,667	£40,750	£53,000

% increase year on year: 4.1%

Contractors: Estimator

Region	Typical salary 2019	Min salary 2019	Max salary 2019
East of England	£43,500	£35,000	£55,000
London	£56,000	£45,000	£60,000
West Midlands	£41,250	£40,000	£50,000
East Midlands	£41,500	£30,000	£45,000
North West	£41,000	£38,000	£45,000
Northern Ireland	£35,000	£32,000	£40,000
Scotland	£39,000	£35,000	£44,000
South East	£59,000	£45,000	£62,000
South West	£41,000	£40,000	£50,000
Wales	£38,500	£35,000	£45,000
Yorkshire and the Humber	£34,500	£26,000	£38,000
North East	£36,000	£31,000	£40,000
National average	£42,188	£36,000	£47,833

% increase year on year: 2.7%

Contractors: Project engineer

Region	Typical salary 2019	Min salary 2019	Max salary 2019
East of England	£38,500	£32,000	£48,000
London	£49,000	£40,000	£60,000
West Midlands	£38,000	£30,000	£45,000
East Midlands	£37,000	£25,000	£38,000
North West	£39,000	£30,000	£40,000
Northern Ireland	£34,000	£28,000	£36,000
Scotland	£38,500	£28,000	£40,000
South East	£42,500	£40,000	£45,000
South West	£37,000	£35,000	£42,500
Wales	£35,000	£30,000	£40,000
Yorkshire and the Humber	£34,000	£30,000	£42,000
North East	£33,500	£28,000	£37,000
National average	£38,000	£31,333	£42,792

% increase year on year: 3%

Contractors: Project manager

Region	Typical salary 2019	Min salary 2019	Max salary 2019
East of England	£47,000	£40,000	£57,000
London	£68,500	£60,000	£75,000
West Midlands	£46,000	£40,000	£55,000
East Midlands	£48,000	£35,000	£50,000
North West	£46,500	£30,000	£48,000
Northern Ireland	£37,000	£37,000	£45,000
Scotland	£43,500	£30,000	£45,000
South East	£65,000	£52,500	£67,000
South West	£46,000	£45,000	£52,500
Wales	£42,500	£40,000	£50,000
Yorkshire and the Humber	£47,000	£40,000	£57,000
North East	£44,000	£40,000	£50,000
National average	£48,417	£40,792	£54,292

% increase year on year: 2.5%

contract staff, with 59% of those doing so to meet peaks in demand.

This approach to temporary recruitment is reflected at Hoare Lea. Ford says: 'We keep it at a manageable level: the majority sits with the permanent staff, where we like it to be.' He adds that the company has just been putting the finishing touches to its graduate recruitment programme for the coming year.

Continuing buoyancy in the recruitment market has fed through into salaries, which rose by an average of 2.8% for building services roles last year. This was above the UK average for all UK sectors, which was 1.9%, and for construction and property (2.7%). Two-thirds (63%) of employers in building services had raised salaries in the past 12 months and 59% plan to increase them again in the coming year.

The survey's finding on pay rises tallies at S I Sealy, which awarded an average increase of about 2.5% when it conducted its last salary review in April, says Stafford. The company is now under 'a lot of pressure' from staff to go further this year. It will be difficult to accommodate such a big increase, however, given the fresh jump in auto-enrolled pension contributions, he says, which is due to kick in this April: 'We will probably offer 4%; we can't afford to give six. I don't see where the government thinks we can find that.'

Sutcliffe expects Aecom's across-the-board increase to be close to 2.8%. However, the consultancy giant is one of the building services

employers planning to add staggered increases to targeted staff, as a way of easing salary pressures, he says: 'Good people will always be offered opportunities, so there is tremendous pressure on salaries.'

Hoare Lea has also been offering incremental pay awards to recognise performance, says Ford: 'It's useful to manage the degree of uncertainty while ensuring that those who are performing well are rewarded.'

Last year's average increase of 2.8% across building services is below the previous survey's figure of 3.9% though. Richard Gelder, director at Hays Building Services, suspects this apparent easing of pay inflation marks an end of the post-financial crisis catch-up in salaries.

'We have had four or five years of above-inflation pay and it gets to the point where people are kind of OK. After the financial crisis, there was a real sense of needing to get earnings back and we are past that now. >>

Contractors: Senior contracts manager

Region	Typical salary 2019	Min salary 2019	Max salary 2019
East of England	£47,000	£40,000	£57,000
London	£68,500	£60,000	£75,000
West Midlands	£46,000	£40,000	£55,000
East Midlands	£48,000	£35,000	£50,000
North West	£46,500	£30,000	£48,000
Northern Ireland	£37,000	£37,000	£45,000
Scotland	£43,500	£30,000	£45,000
South East	£65,000	£52,500	£67,000
South West	£46,000	£45,000	£52,500
Wales	£42,500	£40,000	£50,000
Yorkshire and the Humber	£47,000	£40,000	£57,000
North East	£44,000	£40,000	£50,000
National average	£48,417	£40,792	£54,292
% increase year on year: 3.4%			

Consultants: Associate

Region	Typical salary 2019	Min salary 2019	Max salary 2019
East of England	£52,500	£50,000	£65,000
London	£68,000	£60,000	£75,000
West Midlands	£55,000	£50,000	£60,000
East Midlands	£57,500	£55,000	£65,000
North West	£56,500	£50,000	£60,000
Northern Ireland	£51,500	£45,000	£55,000
Scotland	£52,500	£50,000	£65,000
South East	£60,000	£60,000	£65,000
South West	£56,000	£55,000	£60,000
Wales	£51,500	£40,000	£55,000
Yorkshire and the Humber	£43,000	£38,000	£45,000
North East	£48,000	£42,000	£49,000
National average	£54,333	£49,583	£59,917
% increase year on year: 3%			

Consultants: CAD technician

Region	Typical salary 2019	Min salary 2019	Max salary 2019
East of England	£30,000	£25,000	£37,000
London	£34,000	£30,000	£38,000
West Midlands	£27,250	£25,000	£35,000
East Midlands	£28,250	£25,000	£30,000
North West	£28,250	£25,000	£37,000
Northern Ireland	£20,500	£18,000	£25,000
Scotland	£26,000	£22,000	£30,000
South East	£32,000	£30,000	£35,000
South West	£29,000	£25,000	£35,000
Wales	£29,500	£23,000	£30,000
Yorkshire and the Humber	£24,500	£21,000	£26,000
North East	£26,500	£22,000	£29,000
National average	£27,979	£24,250	£32,250
% increase year on year: 2.2%			

Consultants: Director

Region	Typical salary 2019	Min salary 2019	Max salary 2019
East of England	£62,000	£50,000	£70,000
London	£90,000	£80,000	£100,000
West Midlands	£63,000	£60,000	£70,000
East Midlands	£65,000	£60,000	£75,000
North West	£66,500	£60,000	£70,000
Northern Ireland	£61,500	£50,000	£70,000
Scotland	£58,500	£55,000	£70,000
South East	£70,000	£70,000	£80,000
South West	£58,500	£60,000	£70,000
Wales	£55,000	£52,000	£60,000
Yorkshire and the Humber	£51,000	£42,000	£54,000
North East	£52,000	£42,000	£55,000
National average	£62,750	£56,750	£70,333
% increase year on year: 2.2%			

Consultants: Intermediate M&E design engineer

Region	Typical salary 2019	Min salary 2019	Max salary 2019
East of England	£38,500	£33,000	£50,000
London	£39,000	£32,000	£45,000
West Midlands	£33,000	£25,000	£40,000
East Midlands	£35,000	£30,000	£38,000
North West	£35,000	£27,000	£38,000
Northern Ireland	£27,000	£28,000	£33,000
Scotland	£35,500	£30,000	£40,000
South East	£35,000	£30,000	£36,000
South West	£38,000	£33,000	£40,000
Wales	£35,000	£28,000	£40,000
Yorkshire and the Humber	£30,500	£28,000	£40,000
North East	£26,500	£22,000	£28,000
National average	£34,000	£28,833	£39,000
% increase year on year: 2.6%			

Consultants: Junior M&E design engineer

Region	Typical salary 2019	Min salary 2019	Max salary 2019
East of England	£24,500	£20,000	£28,000
London	£29,000	£25,000	£32,000
West Midlands	£24,000	£20,000	£30,000
East Midlands	£26,500	£24,000	£30,000
North West	£26,000	£18,000	£27,000
Northern Ireland	£23,500	£21,000	£26,000
Scotland	£27,500	£24,000	£30,000
South East	£28,500	£22,000	£30,000
South West	£27,000	£20,000	£32,000
Wales	£25,500	£22,000	£30,000
Yorkshire and the Humber	£21,500	£18,000	£25,000
North East	£21,500	£18,000	£24,000
National average	£25,417	£21,000	£28,667
% increase year on year: 3.2%			

We've had more than three years of above-inflation pay across the sector, so it's not a huge surprise that there would be a dip in overall salary rises.'

Employers are also under less pressure to award big pay hikes, Gelder says. 'Inevitably, there was a bit of over pay as people began to rebuild teams, which has settled down.'

Underpinning pay pressures, though, are lingering concerns about skills shortages, reported last year by nearly all (93%) building services employers. More than a third (39%) said skills shortages have had an effect on expansion, while 41% said they have undermined their companies' ability to deliver projects. Nearly a third (29%) of employers said skills shortages have had an impact on employee morale.

This challenge looks set to continue, with 64% of employers expecting to face a shortage of suitable applicants over the next 12 months. The UK's impending withdrawal from the EU is fuelling shortages, says Gelder. 'The availability of EU workers continues to decline against the backdrop of Brexit. In an already skills-short market, this loss of talent has been an extra element in creating pressure, which is feeding into increased competition.'

Sealy's Stafford says it is 'almost impossible' to get good senior electrical engineers, MEPs and BIM operators. Sutcliffe, meanwhile, says Aecom is exploring the possibility of more apprenticeships, and maintaining its 40-strong graduate training programme.

However, retaining engineers once they have achieved chartered status is also a problem, he says. 'We have no problems getting people into the business, but we are seeing challenges with convincing quality staff that want to remain in the industry.'

Increasingly, firms need to think beyond the bottom line to reward employees, says Gelder. 'It's not just about money, but about other things like flexible working.'

Non-pecuniary awards are on the agenda across the sector. 'We are having to do more to keep people,' says Stafford, who explains that Sealy is offering an extra day's holiday on an employee's birthday and health insurance from this April. Gelder says: 'Over the past year, the ones who are smarter are winning the battle for talent.'

Ford argues that the kind of projects Hoare Lea works on are a draw for would-be recruits and existing talent. He cites Deloitte's central London office at 1 New Street Square, which was the first workplace worldwide to be certified Well Gold and Breeam Outstanding. 'It has to go beyond the salary,' he says. 'People need to feel they are doing something of purpose.' □



Consultants: Professional quantity surveyor

Region	Typical salary 2019	Min salary 2019	Max salary 2019
East of England	£49,000	£40,000	£55,000
London	£65,000	£50,000	£75,000
West Midlands	£43,000	£35,000	£50,000
East Midlands	£46,000	£45,000	£55,000
North West	£43,500	£38,000	£45,000
Northern Ireland	£35,500	£32,000	£38,000
Scotland	£39,000	£35,000	£50,000
South East	£64,500	£55,000	£70,000
South West	£50,000	£45,000	£60,000
Wales	£42,500	£35,000	£45,000
Yorkshire and the Humber	£41,500	£35,000	£45,000
North East	£39,000	£35,000	£41,000
National average	£46,542	£40,000	£52,417
% increase year on year: 3.2%			

Consultants: Revit/BIM technician

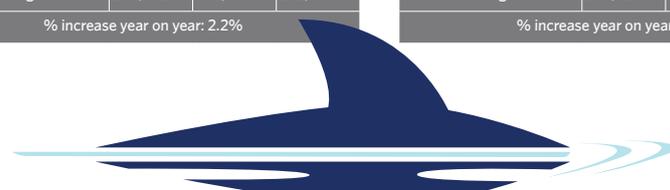
Region	Typical salary 2019	Min salary 2019	Max salary 2019
East of England	£32,000	£28,000	£38,000
London	£47,500	£40,000	£60,000
West Midlands	£33,000	£30,000	£40,000
East Midlands	£34,000	£30,000	£40,000
North West	£37,500	£32,000	£45,000
Northern Ireland	£25,500	£24,000	£30,000
Scotland	£31,500	£25,000	£35,000
South East	£42,500	£43,000	£55,000
South West	£38,000	£35,000	£45,000
Wales	£36,000	£30,000	£40,000
Yorkshire and the Humber	£34,000	£28,000	£35,000
North East	£35,000	£28,000	£38,000
National average	£35,542	£31,083	£41,750
% increase year on year: 2.6%			

Consultants: Senior M&E design engineer

Region	Typical salary 2019	Min salary 2019	Max salary 2019
East of England	£46,000	£40,000	£55,000
London	£55,000	£50,000	£65,000
West Midlands	£44,000	£40,000	£55,000
East Midlands	£48,000	£45,000	£55,000
North West	£46,500	£40,000	£50,000
Northern Ireland	£38,500	£40,000	£45,000
Scotland	£45,000	£40,000	£47,000
South East	£55,000	£52,000	£57,000
South West	£48,000	£45,000	£55,000
Wales	£45,500	£40,000	£50,000
Yorkshire and the Humber	£43,000	£38,000	£45,000
North East	£44,000	£40,000	£45,000
National average	£46,542	£42,500	£52,000
% increase year on year: 2.2%			

Consultants: Sustainability consultant

Region	Typical salary 2019	Min salary 2019	Max salary 2019
East of England	£51,000	£42,000	£60,000
London	£55,000	£45,000	£60,000
West Midlands	£43,500	£38,000	£48,000
East Midlands	£43,000	£35,000	£45,000
North West	£46,000	£40,000	£50,000
Northern Ireland	£37,000	£30,000	£40,000
Scotland	£43,250	£35,000	£50,000
South East	£43,500	£42,000	£47,000
South West	£45,000	£40,000	£50,000
Wales	£42,500	£38,500	£44,500
Yorkshire and the Humber	£41,000	£36,500	£43,500
North East	£43,500	£40,000	£47,500
National average	£44,521	£38,500	£48,792
% increase year on year: 2.2%			





Stronger together

CIBSE's Young Engineers Network is a great place to meet peers and keep abreast of the latest developments.

David Blackman talks to four YEN leaders on the benefits of membership

The transition from studying to the world of work can be tough. For rookie building service engineers, CIBSE helps bridge the gap with its Young Engineers Network (YEN).

This network offers a forum and network of support for young engineers within the Institution, and has a presence in every region of the UK. YEN also has international branches in Australia and New Zealand, Hong Kong, the UAE, and the Republic of Ireland.

In addition to providing platforms for new thinking and exchanging knowledge, each network runs technical and networking events that help young engineers keep up to speed with their CPD requirements.

YEN also promotes building services engineering to the next generation of engineers by representing the profession at events such as school and university careers fairs.

Rebecca Neill, who chairs the Scottish branch, says the networking offered by the YEN is 'invaluable'.

'They [attendees] could be your future colleagues - and could even end up being future clients depending on how their careers go.'

To discover more about the networks, *CIBSE Journal* spoke to Neill and other young engineers who lead the work done by the YEN. >>



» **Munis Hameed**

A couple of years ago, Munis Hameed wasn't even a member of CIBSE. Now he's chair of its YEN worldwide committee.

Hameed heard about the Institution while working in his first job at BuroHappold Engineering, which he joined after completing a Master's degree in sustainability at the Dubai campus of Heriot-Watt university.

The moribund UAE branch of the YEN was revived at a social gathering in Dubai four years ago, after Hameed put his hand up to become its technical officer. Six months after becoming branch chair last year, he took the same role on the global committee.

The 27-year-old got a taste for building services while studying energy conservation during the final year of his undergraduate degree in mechanical engineering at Heriot-Watt. Since starting work more than four years ago, he has worked on some of the Gulf's highest-profile projects. These include the Museum of the Future, where he worked on developing the distinctive façade, which is etched with calligraphy depicting the text of a famous Arab poem.

As well as being an interesting visual feature, the façade offers shading and boosts the sustainability credentials of the museum, which is designed to draw at least 80% of its power from a dedicated solar plant.

Hameed, of Ramboll, observes that clients are increasingly insisting on using BIM technology – a building services trend that he clearly welcomes.

'Sometimes it's hard to get the message across by presenting everything in 2D – but, if you are walking through a building, you can see it from all perspectives,' he says.

'There will come a point where drawings won't be issued in paper but will be produced via an online portal only. It may take a while for authorities to accept digital information instead of paperwork, but I see it happening in my time.'



Rebecca Neill

The Scottish branch of the YEN decided to inject some fun into continuing professional development (CPD) by holding a couple of sessions in the pub.

'It was to try to offer a more relaxed environment than your standard CPD and to get people along. It's a bit of a slog for people going somewhere after work,' says Rebecca Neill, chair of the Scottish YEN.

She stresses, however, that those attending the two trial CPD pub sessions, in Edinburgh and Glasgow, are only allowed one drink before they get down to business.

Neill, 27, got involved in building services after completing a mechanical engineering degree at the University of Edinburgh. Her interest was sparked by hearing presentations about the discipline while taking part in the Engineering Without Borders competition at Durham University.

Neill returned to her hometown of Aberdeen after graduating and took a job in the office of Wallace Whittle. She then moved to Edinburgh in 2015, to take an engineer's role at Cundall, where she mainly works on HVAC and public health.

The highest-profile project with which she has been involved is the restoration of the 19th-century City Observatory on Calton Hill, a neoclassical building that overlooks Edinburgh.

Neill admits it's been a 'fantastic project' to work on, and adds: 'It's the first time the buildings have been opened to the public since they were built.'

'The main challenge was the age of building: it wasn't designed for a lot of the modern conveniences we have nowadays.'

The refurbished observatory has its own mini-district heating system, which is powered by a combined heat and power plant.

Another benefit of being involved with the YEN is support when pursuing chartership, Neill says. She is very keen to spread the Scottish branch of the YEN beyond the cities of Edinburgh and Glasgow. She says: 'I'm very keen to expand it up into Scotland, but the challenge is getting people locally to help out with these things outside of the central belt.'

“If you want to work abroad, or in different sectors, you can: no two days are the same. If you are a good engineer you have a job for life – you are always in demand”



Alexandra Logan MCIBSE

Vice-chair of the YEN's global committee Alexandra Logan knows first-hand how tough it can be to make the transition from studying to getting established in the building services industry.

It was while completing a combined course in architecture and environmental design at the University of Nottingham that she discovered her preference for engineering. However, she graduated in 2010 – in the aftermath of the late-Noughties' recession, when opportunities in the construction industry were limited.

After working for three years in Nottingham, mainly on primary schools and small office developments, Logan relocated to London, and then to her home county of Kent. As well as giving her the chance to be closer to her family, the move gave the 30-year old opportunities to work on bigger projects in London.

Now, having moved to Chapman BDSP's Kent office as senior mechanical engineer, Logan is working on high-end residential projects.

Promoting health and well building – such as the provision of fresh air to prevent drowsiness and encouraging walking by furnishing staircases – has risen up the building services agenda over the past couple of years, says Logan.

While working on a high-end residential development, one of the key challenges has been reconciling thermal comfort with aesthetic consideration, such as placing grills and louvres behind stone lattice work to hide them from view.

She clearly enjoys working in building services, and highlights the variety of work as a plus point. 'If you want to work abroad, or in different sectors, you can: no two days or two projects are the same.

'If you are a good engineer you have a good job for life – you are always in demand.'



Charlotte Mercer

When she entered the world of building services, Charlotte Mercer never imagined she would end up working for the likes of Google and YouTube.

The chair of London YEN studied environmental engineering and architecture at the University of the West of England in Bristol.

While most of her year group took the architectural route, however, Mercer became an engineer, joining Aecom's graduate scheme at its St Albans office. There, she worked mainly on laboratory and hospital projects, which had been the focus of her university dissertation.

Since moving to Cundall, in London, in 2015, Mercer has changed professional tack. She is now a member of the practice's workplace team, focusing on commercial projects, as well as educational and mixed-use buildings. Her highest-profile work has been for tech giants Google and YouTube.

The 27-year-old was lead electric engineer on Google's engineering building at 6 Pancras Square in King's Cross, where she worked on site for 10 months after being novated to the scheme's contractor.

Mercer also led Cundall's work delivering a new recording studio for YouTube, also located in King's Cross.

While her earlier medical projects and more recent commercial work seem to have little common, they pose shared electrical engineering challenges. Both types of project require highly resilient power supplies. The implications of a power cut for an operating theatre could, literally, be a matter of life and death, but guarding against disrupted supply is also crucial for media and tech companies.

The positive experiences gives Mercer – who became a STEM ambassador while at Aecom – the opportunity to promote building services engineering as a rewarding vocation at the careers fairs to which the London YEN regularly goes.

'Although I was interested in the construction industry, I didn't know what a building services engineer was,' she says. 'So I'm always keen to talk to schoolchildren, because it's a profession that people don't know about.'



Budding into life

The Construction Youth Trust aims to give those from marginalised sectors of society the opportunity to grow a career in the building sector. **David Blackman** finds out how the charity is helping young people fulfill their potential with initiatives such as Budding Builders

The UK's major cities contain some of the country's most entrenched areas of poverty, many of which sit cheek by jowl with its biggest-ticket construction projects. Matching young people from these disadvantaged neighbourhoods with the opportunities on their doorsteps is the mission of the Construction Youth Trust (CYT), which was set up by the industry in 1961.

Currently, the CYT works mainly in London, north Kent and the Midlands, which contain sufficiently large workflows to create opportunities for potential candidates, says Andrew Garrett, the charity's operations manager. 'These are areas where there is disadvantage, but also the prospect of a real job at the other end,' he adds.

One of the main ways the trust tries to help young people is by going into schools, often with representatives from the charity's industry partners, such as contractor Multiplex, which has been involved with the CYT for several years.

The trust's schools partnership programme organises activities designed to engage students and get them involved in construction. These include 'Budding Builders', which is targeted at young people at risk of becoming 'Needs' – not in education, employment or training.

The proportion of pupils who receive free meals is the gauge used to identify which schools might be most in need of the trust's work. These schools then identify pupils who are in danger of becoming Needs.





'It's not about us working in isolation with the young person, but working with the schools,' says Deavon Sinclair, CYT's schools and further education coordinator.

Another programme, Budding Brunels, is aimed at sixth-formers who are looking to enter built environment professions such as quantity surveying and engineering. The three-day scheme showcases the diverse professional opportunities on offer in the construction industry. It also covers interview and public speaking skills, so that the young people are better equipped when applying for university courses and apprenticeships.

Separate from its schools activities, the CYT runs an apprenticeship support programme, backed by funding from the Construction Industry Training Board. It works predominantly with 17 and 18-year-old students looking to take higher level or degree apprenticeships.

At the apprenticeship support sessions, employers show would-be candidates what they are looking for in terms of responses on application forms. The trust also takes students out of their school environment to expose them to construction sites or project offices.

Sinclair believes it is important for participants to get a good understanding of what different roles in the industry entail. 'If it's a building services engineer, they get a site tour, so they can see the work that takes place and understand how the subjects they are studying in class - such as maths and physics - translate into a working environment,' he says. 'Depending

"Everyone thinks it's just men in hard hats doing dirty jobs. Challenging perceptions about the industry is vital"

on how students perform, some will be put forward for workplace opportunities.'

Candidates are pre-screened to ensure they are ready for a placement, so both they and the construction firm benefit from the experience, says Garrett. Such an opportunity can give the would-be apprentice a better sense of the tasks and responsibilities relevant to their area of interest, reducing the risk that they will drop out from the apprenticeship.

Nick Wicks, community engagement manager at Multiplex, says the CYT's programmes can raise pupils' aspirations by showing how construction offers the potential to make a good living. 'You can start as a labourer and work up to be a project director; if you have the drive and capability that will be seen,' he says, referring to how one of Multiplex's most senior managers started his career as a joinery apprentice at the age of 16.

'He's now in charge of £200m jobs. There are very few industries where real talent is identified and rewarded.'

Wicks is particularly keen to show young people the range of routes into the industry, including professional roles in building services. 'I want to get people out of the mindset that it's all about trudging around in the mud for the rest of your life: you can aspire to rise up,' he says. 'It's important to address misconceptions that construction is purely "on site".'

Multiplex and the CYT recently held an event for year 10 and 11 pupils from schools in the London borough of Westminster. 'We talk about different careers and get the kids to think outside the box about the wonderful opportunities in construction,' says Wicks, who adds that consulting and engineering firms are a closed book for most students. 'Everyone thinks it's just men in hard hats doing dirty jobs. Challenging perceptions about the industry is vital.'

He cites building controls installation as one of the more technologically sophisticated roles in the industry. 'When [the students] see some of the



Students get the chance to experience augmented reality on a CYT programme



The trust shows young people the opportunities within construction

“The construction industry is not one that worries where you come from if you are doing a good job. It’s very tolerant and inclusive”



Chase Farm Hospital, Enfield, on which Shane Sullivan (below) worked

» high-end systems and the blinds and windows they can control from an app on their phone or tablet, it’s an eye-opening experience,’ Wicks says.

Building information modelling (BIM) is also ‘pretty exciting’ for today’s tech-savvy youngsters, he adds. ‘You can demonstrate how you can design a system and work out where every cable and pipe is going to run.’

The other big plus point for construction is that it is more prepared than some industries to offer a second chance to young people who may have messed up, Wicks says:

‘The construction industry is quite forgiving if people have made mistakes in the past.’

Garrett agrees: ‘The industry is really tolerant of backgrounds: it’s not one that worries where you come from if you are good at the job. Your progress is very much around the next job: it’s an inclusive industry and doesn’t have the elitism some have.’

Of course, the trust’s work in seeking to expand the industry’s talent pool is also in the industry’s interests. ‘The supply of trades is drying up, when you ask senior managers where the gaps are, they say everywhere,’ says Wicks.

Many councils are making developers offer apprenticeships as a condition of planning consent. And, while the CYT’s work with young people doesn’t always pan out successfully – which is unsurprising given the challenging backgrounds from which they come – the rewards are great, says Sinclair.

He recalls one group of Year 12s who were not ready for apprenticeships when they began working with the trust, but – by the end – most of them were: ‘The best thing is seeing that change and development in young people over time.’ 

SPARKING A LOVE FOR LEARNING



Shane Sullivan was the kind of boy who couldn’t wait to get out of school. ‘I hated being in the classroom,’ he says. ‘I enjoy learning, but hate people telling me what to do. As soon as I could, I wanted to get out of there.’

Now, however, the 22-year-old is studying for a degree apprenticeship in electrical engineering at London South Bank University.

He credits a course with the Construction Youth Trust in 2013, when he was a bored Year 10 student at his comprehensive school in Dagenham, with setting him on this path.

It showed him opportunities in the construction industry that he would otherwise not have stumbled across. ‘[The CYT] opened your eyes to different things. School pigeon-holed you; [the CYT] didn’t, but showed you different things, such as surveying and engineering.’

After leaving school, Sullivan did a City & Guilds course in construction trades and another in electrician skills. He then secured an apprenticeship in electrical engineering with building services engineer Troup Bywaters + Anders.

He started off by studying for a BTech, but is now in the middle of a degree apprenticeship. The blend of work and study suits the way he learns, as well as his bank balance. ‘I can earn when I’m doing the job and don’t have to pay for the university course,’ Sullivan says.

‘I can have a joke with the teachers and go at my own pace: I don’t have to sit at the same table and chair every week.’

Sullivan is mainly working on healthcare projects, which range in size from GP surgeries to the recently completed Chase Farm Hospital in Enfield.

Would he have imagined fulfilling a professional role on such a big project when he was a bored pupil? ‘Definitely not – not in a million years.’



Chase Farm Hospital