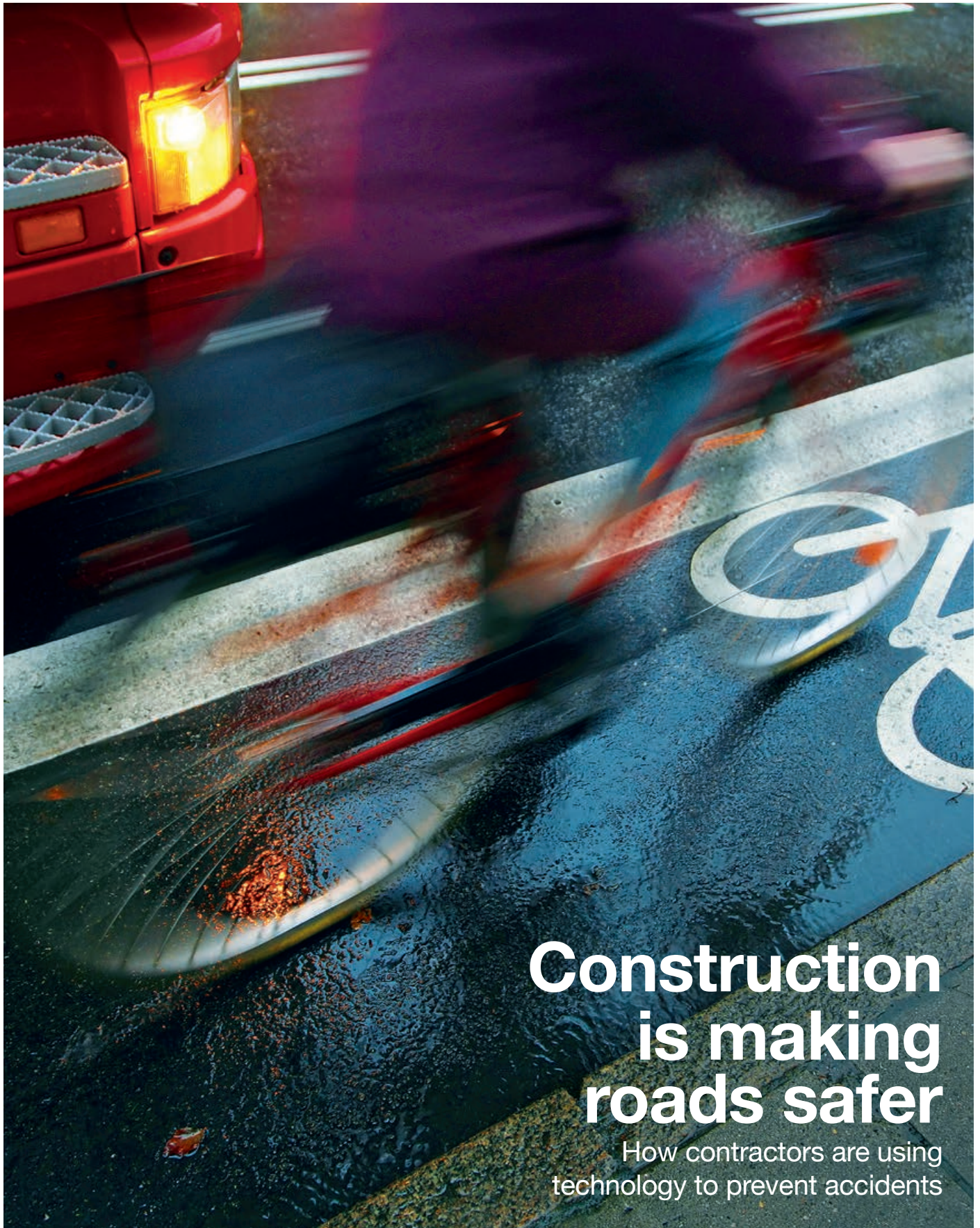


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health, safety and wellbeing in the built environment

Summer 2023



Construction is making roads safer

How contractors are using
technology to prevent accidents

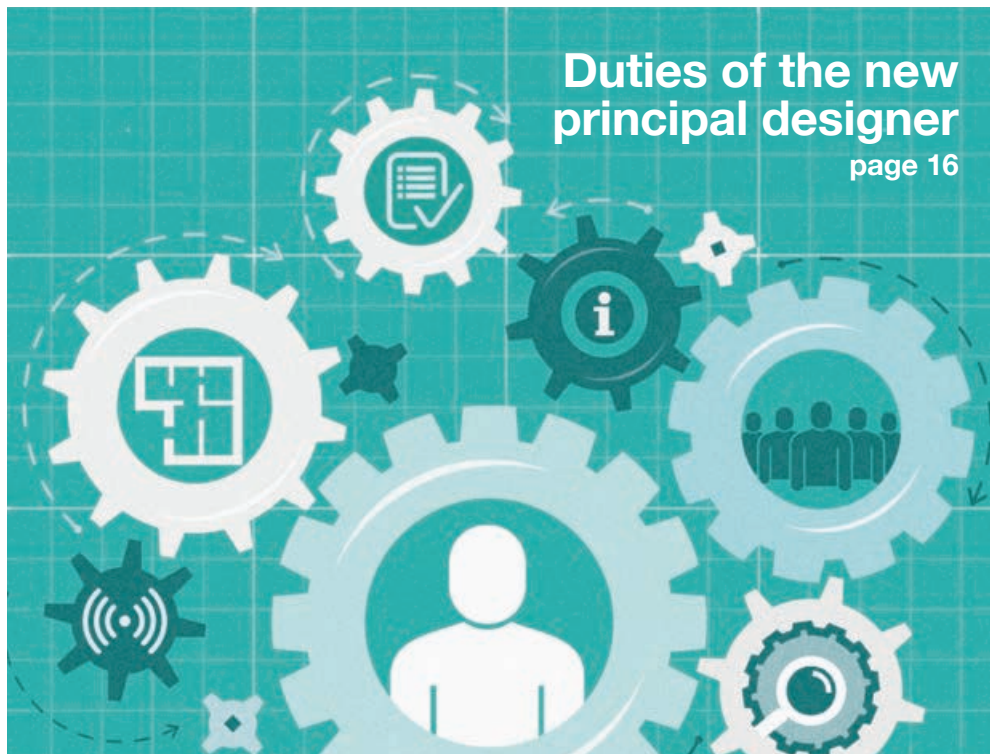
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Allows the head to move inside the helmet, engineered to help reduce the rotational force on certain impacts.



Mips

Safety for helmets



Duties of the new principal designer

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While we aim to use images that demonstrate best practice in this magazine, some are for illustrative purposes only.



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Member profile

page 20

“I definitely get a buzz when people see you're actually there to help them – and not just there to make things safer, but better too. When people see where you're coming from, that feels good”
Sam Mephram, RLB



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Welcome

As we prepare to head off on the roads for our holidays, it's a good time to think about the progress being made by innovative IT in managing risks associated with site traffic. By **Lesley McLeod**

It's hard to believe we're nearly halfway through the year – and your *Project Safety Journal* is on to its summer edition already. I'm sure many of you, like me, are beginning to feel the siren call of beaches and ice lollies, mountains and those dinky little cocktail umbrellas as you daydream your way to those well-earned summer holidays.

Some of you may even be dusting off your cycle clips – if such things still exist – to head off to the highways on two wheels. If so, it's worth having a read of our feature on road safety.

FM Conway recently lifted the top trophy in the health, safety and wellbeing category, sponsored by APS at the Constructing Excellence Awards. The winners focused on cutting the number of accidents, injuries and fatalities associated with site traffic, especially when it's out on the streets of our towns and cities. The innovative use of IT is having a positive effect.

Digital assistance seems to be lending a hand all over the place – as



Lesley McLeod
Association for
Project Safety

“Remember, if you missed the APS Spring Conference, you can catch up online

you'll see in our piece on the HSE's use of AI. Just as FM Conway's efforts were echoed at this year's APS Spring Conference in May. One of our expert panel, Kate Cairns, is a passionate believer road safety should move up the list of priorities in project safety.

And remember, if you missed the conference, you can catch up online – as you can with all APS events.

The conference also featured our president elect, Mark Snelling, in our presidents' debate. As part of the top three – with president Ray Bone and past-president Jonathan Moulam – he shared his insights about how risk management has changed over the years. And, in this edition of *PSJ*, Mark brings us bang up to date on the Building Safety Act.

The Act is certainly generating conversations on site and round the drawing board. Our member in the spotlight, Sam Mephram – a partner at Rider Levett Bucknall – is a self-confessed lover of legislation. But she also highlights one of the key findings

in the *APS Monitor*, the association's new annual publication taking a deep dive into key industry issues. Our first outing underscored what I think we all feared: that the construction sector is failing to attract new blood. And cannibalising itself to fill vacancies without bringing on new talent.

Key to making construction a career of choice must lie in how we treat one another. And we tackle ethics and behaviours in our CPD feature.

I know APS members are never strangers to professional development, so I'd urge you to check out our events update and keep an eye on the website – www.aps.org.uk/events – for the latest updates. You can book our latest CPD sessions, our Building Safety Act updates or even join in with Professional Development Week, which is sure to be a real summer special.

And that's all before you can pack your bags for that well-deserved getaway. ●

Lesley McLeod is CEO of the Association for Project Safety.





Safety at risk as construction sector struggles for staff

The industry faces an employment timebomb as ageing workforce set to retire

The UK's built environment is at risk of becoming less safe because the industry is failing to attract new staff and is dominated by an ageing workforce.

A new survey of APS members shows job vacancies around the country are being filled by people moving from firm to firm and not by increasing the talent pool.

The situation is compounded by the pipeline of new staff being closed off due to Brexit.

The survey, which was published in May, found:

- vacancies in construction design risk management being filled but at increased cost and possibly reduced levels of skill and experience;
- the pool of candidates coming from people already working in the UK industry, with little sign of fresh blood; and
- an employment timebomb, with people leaving their jobs, often to retire, or with plans to stop work in the next three years.

“The construction sector is consuming itself – it’s eating its own tail
Ray Bone, APS

APS president Ray Bone said: “Construction safety is at risk because fewer new people are coming into the industry. People are getting tapped on the shoulder and leaving an existing role in the construction industry to go to new jobs for higher salaries.

“The construction sector is consuming itself – it’s eating its own tail. This can’t go on indefinitely as the pool of well-qualified and experienced construction safety professionals is drying up. That group is ageing and thinking about retiring and there just isn’t the new blood coming in behind them to make sure the UK’s construction sector stays safe in the future.”

This could have serious consequences for everyone involved in the built environment, said Bone.

“APS is calling on the government to help in the medium term by taking another look at the people we are able to attract from the European Union so the industry can bring in fresh people while it works to develop home-grown talent of our own,” said Bone.

APS represents around 3,500 professionals working in construction health and safety risk management. The research also showed members were:

- England-based: 84% live and work in England with a concentration based in London and the south east (32%);
- mature workers: 81% are older workers (45-75), with just under half of those saying they are going to retire or planning to in the next three years; and
- white and male: 80% identify as both white and male. Only 4% said their roots are in any of the key minority ethnic communities and just 16% identified as female. ●

View the survey at: www.aps.org.uk/storage/app/media/PDFs/APS%20monitor%20-%202026.04.23.pdf

Product safety testing report finds many standards ‘outdated’



Paul Morrell: safety report

The government has published the long-awaited Independent Review of the Construction

Product Testing Regime – with a major shake-up in the regulatory system likely to follow.

The Department for Levelling Up, Housing and Communities (DLUHC) appointed former government chief construction adviser Paul Morrell and barrister Anneliese Day to examine how the UK’s system for testing the safety of construction products could be strengthened, following the 2017 Grenfell disaster.

The report said: “The most obvious gap in the current system is that only construction products for which there is a designated standard are covered by the Construction Products Regulation.”

This accounts for only one-third of all construction products in manufacture, leaving 20,000-30,000 products unregulated.

It added: “Many standards are outdated, inconsistent or non-existent.” Research in 2020 on

behalf of DLUHC questions “the fitness for purpose of a number of standards critical for testing products for resistance and reaction to fire”.

Among changes already under way, there is to be new National Regulator for Construction Products, based in the Office for Product Safety within the Department for Business and Trade. It will work with the new Building Safety Regulator, based in the Health and Safety Executive.

HSE investigates the potential of AI to manage risks

Six tech startups will work with HSE and contractors in pioneering 'sandbox' study



Above: Dr Helen Balmforth and Steve Naylor, HSE

Left: HSE is exploring how AI can be used to manage H&S risks (photo for illustrative purposes only)

explained Naylor. "It is hoped that the research will lead to field trials."

The Safetytech Accelerator was instrumental in helping recruit and select the startup companies, sourcing over 200, which were whittled down to 12. The final six were selected after a *Dragon's Den* style pitch.

Naylor said: "This is first sandbox specifically looking at technology linked to better health and safety practice. There are other regulatory sandboxes that have been used in the finance sector, and Civil Aviation Authority, which we are keen to learn from."

Balmforth told *PSJ*: "We hope to be able to use a sandbox approach to test things in the future and to keep interacting in this way. So far, we've had a lot of really positive interaction from tech companies and also industry and we'd like to be able to keep this going." ●

HSE scientists are investigating the potential of artificial intelligence (AI) technologies in improving health and safety risks.

In a pioneering programme of work, known as a 'sandbox', HSE has selected six startups and key players from the construction industry to explore the potential of the technologies and the barriers to take-up.

FYLD, HAL Robotics, Oculo, Eave, Plinx and Machine Eye will join seven major construction and infrastructure companies — including Balfour Beatty, BAM Nuttall, Costain, Heathrow Airport and Laing O'Rourke — in the Industrial Safetytech Regulatory Sandbox.

The sandbox, which is funded by the government-backed Regulators' Pioneer Fund, is being delivered by Discovering Safety, a programme led by HSE in partnership with the Safetytech Accelerator.

It considers how regulation affects the development and adoption of

life-saving technologies and how assessment and compliance activities can be done more effectively.

The eight-month programme of work began in April 2023.

Dr Helen Balmforth, the head of data analytics at HSE, said: "Technology is being adopted by industry. As a regulator, we want to make sure that we're aware of what's going on, understanding what people might be using to manage risks in the future and influencing that."

Steve Naylor, senior scientist in HSE's Science and Research Centre and a technical lead on Discovering Safety, explained: "The sandbox is a vehicle for bringing relevant parties together with an interest in accelerating adoption. At this stage it will not involve field trials but be more of a desktop exercise."

The six companies have been allocated construction industry and HSE mentors to look at the opportunities, challenges and practicalities of embedding new technology in construction processes.

"So, thinking about workforce perceptions, thinking about the ethics of it, thinking about the practicalities of adopting the technologies into management arrangements,"

The startups in detail

● **FYLD software** supports data-driven risk assessments by bringing together traditional health and safety information which it then analyses to help companies target their health and safety control efforts.

● **Hal Robotics** has developed adaptive software that is used in conjunction with robots and cobots to adapt them to work across different industries — they are particularly interested in adapting robots to perform construction tasks.

● **Machine Eye** is computer vision technology that is fitted to heavy plant and machinery that can detect when people are working in unauthorised areas. The smart technology can also monitor the operation of the equipment to support safer working.

● **Plinx** has developed a safety system based on wireless sensors that can be fitted around construction sites and, like Machine Eye, can be used to monitor the movement of people in relation to hazards.

● **Oculo** generates 3D visualisations at workplaces. Cameras can be fitted to hard hats, for example, to record the workplace as a worker moves. The recordings can be used to create 3D models.

● **Eave** is smart hearing technology, providing ear defenders that can cut out noise that's a hazard to health, but allowing users to still hear what they need to hear. If they wear Eave's headphones, workers are still able to talk with one another and don't lose their situational awareness.

“This is first sandbox specifically looking at technology linked to better health and safety practice
Steve Naylor, HSE

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What construction must learn from Grenfell – and Apollo 1

Improving safety in the industry requires more than regulation. It requires moral leadership and a willingness to challenge unethical behaviour at every turn, says **Paul Nash**



NASA

Like many people in our industry, I have spent the last five years trying to make sense of the events that combined to claim the lives of 72 people in the fire at Grenfell Tower on 14 June 2017, an event made all the more tragic because it was entirely avoidable.

Had those with the power to act in the face of mounting evidence of the risks of combustible cladding done so earlier, and had those corporates with an interest in promoting these products not put profit before human lives, the outcome of an electrical appliance catching fire in a high-rise building would not have led to the loss of so many lives.

Since the fire, much of the focus has been on the failure to properly regulate the industry linked to the government's stated policy to reduce the amount of regulation. This regulation reduction is a policy that appears to



Paul Nash
Past president, CIOB, and member Industry Safety Steering Group

Above: Apollo 1 astronauts (from left) Gus Grissom, Ed White and Roger Chaffee

have been pursued in ignorance of the implications and the potential consequences for those who most needed the protection it provided.

The need for better regulation and enforcement was one of the key recommendations of *Building a Safer Future*, the final report of the Independent Review of Building Regulations and Fire Safety led by Dame Judith Hackitt.

This has led to the creation of a new regulator for building safety and the introduction of legislation in the form of the Building Safety Act 2022. The Act sets out a new regime for higher-risk buildings aimed at ensuring the safety of those in and around them.

But regulations and standards are only effective if there is a culture of compliance that puts the safety and wellbeing of those who use the buildings that we create before profit or politics.

This requires moral leadership and a willingness to challenge unethical behaviour at every turn, to make a conscious decision to eschew what Dame Judith Hackitt described in her report as the "race to the bottom".

Taking this leadership stance isn't a guarantee that mistakes won't be made. No system is perfect. People sometimes get things wrong. But it can create a culture where it is acceptable to challenge and not feel afraid to do so.

Learning from failure

Which leads me to Gene Kranz, one of my personal heroes. Kranz was the flight director for the Apollo programme in the 1960s and oversaw the mission to put a man on the moon.

On 27 January 1967, a fire on the launchpad at Cape Kennedy, Florida, claimed the lives of three astronauts: Gus Grissom, Ed White and Roger Chaffee ►

“When the final report of the independent public inquiry is published I expect the focus to shift to how those responsible are to be held to account

Chaffee. They were conducting a countdown simulation ahead of what would have been the first piloted Apollo flight.

It was a tragedy which, like Grenfell, could have been avoided.

But it was what Kranz did in the immediate aftermath of the fire that was important. He gathered his team together and addressed them in what became known as the Kranz Dictum, and he began by spelling out what had gone wrong.

“Somewhere, somehow, we screwed up [...], not one of us stood up and said: ‘Dammit, stop!’”

He then went on to spell out what needed to change.

“From this day forward... we will never again compromise our

responsibilities... we will never take anything for granted... we will never be found short in our knowledge and in our skills.”

I have reproduced the Kranz Dictum in full in this article (see box below) because it should speak to anyone in our industry who is looking to express, in words, the type of behaviours that define what it means to be competent.

There is a lot that has, and will, be written about the Grenfell tragedy. In his excellent book, *Show Me the Bodies: How we let Grenfell happen*, Peter Apps describes much of what is known about the events that led to the fire and the night of the fire itself. But it also reminds us of the human consequences and how the events of that night continue to affect the lives of so many people.

When the final report of the independent public inquiry is published later this year, I expect the focus to shift to how those responsible are to be held to account. Those who lost loved ones in the fire at Grenfell Tower need and have a right to justice.

But that should not distract from the responsibility that we all have in this



NASA

The Apollo 1 crew during simulator training. From left: Chaffee, White, Grissom

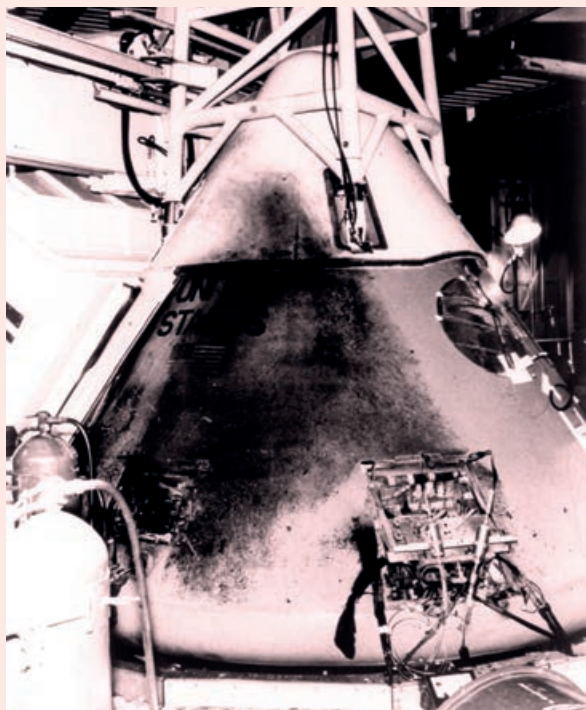
industry to act now to ensure there is never another Grenfell Tower fire.

And that means being prepared, when necessary, to say, “Dammit, stop!” and, importantly, know that we will be listened to. ●

Paul Nash is past president of CIOB and sits on the Industry Safety Steering Group. Chaired by Dame Judith Hackitt, it reports on the progress of construction in delivering culture change and holds the industry to account on behalf of the government.

The Kranz Dictum: Tough and competent

How the NASA flight director defined accountability after the Apollo 1 fire



NASA

The Apollo 1 Command Module after the 1967 fire

Spaceflight will never tolerate carelessness, incapacity and neglect. Somewhere, somehow, we screwed up. It could have been in design, build or test. Whatever it was, we should have caught it. We were too gung-ho about the schedule, and we locked out all of the problems we saw each day in our work. Every element of the programme was in trouble and so were we. The simulators were not working, Mission Control was behind in virtually every area and the flight and test procedures changed daily. Nothing we did had any shelf life. Not one of us stood up and said, “Dammit, stop!”

I don't know what Thompson's committee [set up to investigate the incident] will find as the cause, but I know what I find. We are the cause! We were not ready! We did not do our job. We were rolling the dice, hoping that things would come together by launch day, when in our hearts we knew it would take a miracle. We were pushing the

schedule and betting that the Cape would slip before we did.

From this day forward, Flight Control will be known by two words: “Tough” and “Competent”. Tough means we are forever accountable for what we do or what we fail to do. We will never again compromise our responsibilities. Every time we walk into Mission Control, we will know what we stand for. Competent means we will never take anything for granted. We will never be found short in our knowledge and in our skills. Mission Control will be perfect.

When you leave this meeting today you will go to your office and the first thing you will do there is to write “Tough and Competent” on your blackboards. It will never be erased. Each day when you enter the room these words will remind you of the price paid by Grissom, White and Chaffee. These words are the price of admission to the ranks of Mission Control.

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How construction is driving road traffic safety

Contractor FM Conway's work in successfully reducing road accidents earned it the top safety accolade – sponsored by APS – in the 2022 Construction Excellence Awards. **Andrew Pring** finds out more

“Using technology to tackle risk at the source, as well as improving driver behaviour via training, had to be the way forward
Dave Conway, FM Conway

Over 100 cyclists die each year on Britain's roads – it was 111 in 2021 – and during the same year 4,353 were seriously injured. 1,353 of those incidents involved cyclists in a collision with an HGV.

The construction industry is acutely conscious that many of those collisions involved one of their fleet vehicles. Great efforts are being made by contractors to reduce these sobering numbers, and among those leading the way has been FM Conway, the Kent-based family-owned firm that specialises in highways and other infrastructure work.

FM Conway operates a large, diverse fleet across the UK, with over 300 HGVs. Its vehicles traverse more than 22 million miles each year, much of that across crowded inner-city areas.

Embracing new technologies

For the past 10 years, FM Conway has been looking for innovative ways to embrace technologies that, in the words of Dave Conway, the company's integrated management system and road safety manager, “can eliminate, substitute or engineer out the high-risk activities that cause life-changing harm”. Harm not only caused to an injured party but also the psychological harm any driver involved in a major accident can experience.

Over that decade, Dave has seen a 55% reduction in the company's road traffic accidents and is on course to meet FM Conway's goal of causing no life-changing harm to any road user from 2030 onwards.

The firm has been garlanded with safety awards for its pioneering use of sensor and viewing technologies across its fleet, with the latest accolade bestowed by the Constructing Excellence Awards Programme, which made FM Conway's occupational road risk initiative the winner of the 2022 Health, Safety & Wellbeing Award, which was sponsored by APS.

Dave Conway is in some ways an unlikely champion of road safety.

Opposite: In 2021 111 cyclists were killed on the roads in Great Britain

Below: FM Conway drivers take part in virtual reality training courses

A management systems expert, he is sceptical about many aspects of health and safety, believing that trying to modify human behaviour through training courses is “a waste of time – people will always react in animalistic ways, and take risks and make mistakes”.

But when in 2013 Sir Peter Hendy, the commissioner of Transport for London, wrote to all leaders of major construction companies in relation to cyclist deaths on London roads, demanding an improvement in road safety, his role changed dramatically.

Says Dave: “Michael Conway, the business owner, asked me what we could do about it, and I said I'll write a management system to do x, y, z, which will improve the safety record of our fleet.”

Within a year, Dave had created a formal management system for road safety that met international standards set out in ISO 39001.

55%

In 10 years there has been a 55% reduction in FM Conway's road traffic accidents

The standard, which was created in 2012, specifies requirements for a road traffic safety management system to enable an organisation that interacts with the road traffic system to reduce death and serious injuries related to road traffic crashes which it can influence.

FM Conway was the first company in the UK to be certified, only the third in Europe and the 17th in the world.

Now, the system he created is a key element of what the company calls ‘The Big Ten in 10’, which identified the 10 everyday working risks most likely to kill or injure someone and applies various technologies and new training processes to reduce those risks.

Says Dave: “For occupational road risk, all the big improvements in safety over the decades have been due to technology: for example, air bags, seat belts, shatterproof glass and crash rails on roads and so forth. ►



“Using AI, six sensors track the motion of objects. Because the system is intelligent, the drivers know it must be a real issue when the alert sounds

Dave Conway, FM Conway

“So using technology to tackle risk at the source, as well as improving driver behaviour via the training process for our people, had to be the way forward.”

The technologies FM Conway introduced included cameras covering lorries’ blind spots linked to an in-cab video display; motion sensors covering the vehicles’ sides at low speeds; automated braking systems; and virtual reality training which recreates the experience of riding a bicycle on urban roads to enable lorry drivers to empathise with cyclists.

“We installed telematics for our vehicles nearly a decade ago to track a vehicle’s speed, location etc, and we have now also installed viewmatics, which allows us to know what’s going on in the driver’s cab. So if a driver picks up the phone while working for us, the artificial intelligence will identify that, notify his supervisor and enable an intervention before it causes an accident.

Above: FM Conway installs telematics and viewmatics on its fleet

Below: Human recognition cameras can detect nearby objects



“We also use it to assess a driver’s training style,” he explains. “Some people say to us, ‘I don’t want to be watched all day’ – and we say, ‘How would you like to watch someone be killed?’ We believe it’s brought about a 45% reduction in the risk of fatal or life-changing harm.”

The telematics and viewmatics systems costs £60 to install per vehicle, and £32 per month per vehicle to have the data. On Conway’s fleet of about 1,000 vehicles, that means they’re paying around £330,000 each year.

“We’ve had side sensors fitted on our lorries for about eight years. They detect anything within 2.5m of the

vehicle. We used beepers previously but they were detecting objects some distance away and constantly going off, so drivers turned the volume down so they couldn’t hear them.

“Now, using AI, six sensors track the motion of objects at a greater distance and assess what it is. Because the system is intelligent, the drivers know it must be a real issue when the alert sounds and a light starts flashing so they stop.”

FM Conway was the first contractor to have the system installed. Says Dave: “We worked very closely with the manufacturer, Brigade Electronics in Dartford, and they put their computers in our cabs to trial and test it. We have this on all 300 or so of our bigger lorries. We estimate it’s reduced the risk of fatalities by 84%.”

This doesn’t come cheap either – it costs about £120,000 for all their lorries each year.

The automated braking systems used by FM Conway employ human recognition cameras that automatically stop vehicles and plant when a nearby object is detected. Using the auto-stop radar on its fleet of sweepers has led to a 90% reduction in pedestrian interactions.

Virtual training courses are the other innovation introduced by FM Conway.

“In the past, we’ve sent our drivers on virtual training courses but they didn’t really work for us. One was an eight-hour course – two hours in the classroom followed by six hours riding around on a bike.

“It’s meant to make you a safer driver. But a year later when we asked our drivers who’d done the course, what they remembered, they couldn’t remember a thing. So we were paying





90%

Using the auto-stop radar on FM Conway's fleet of sweepers has led to a 90% reduction in pedestrian interactions

Dave Conway (left) receives the 2022 Constructing Excellence Health Safety and Wellbeing Award for FM Conway

a lot of money for our drivers to become good cyclists!

"Now, we have a virtual reality course, where they cycle round real locations virtually, and we discuss the issues with them while the film is being shown. It provides a safer and more efficient system, compared to an actual cycle ride – and it's a better use of our drivers' time."

Sharing strategies and technology

FM Conway's dedication to road safety also helps it attract drivers. "Our approach makes a big difference for professional drivers – they want to work for us," says Dave.

It has shared its strategy with competitors and industry bodies, as well as sharing the new technologies it has adopted to raise health and safety standards for all. By investing over £500,000 annually on risk-reducing technology, FM Conway has certainly put its money where its mouth is.

"It's totally worth it to prevent someone being killed," says Dave. "Road safety culture is something we care about more about than anything else in the world. We're a private family firm – and if takes us £1m not to kill anyone, we'll spend £1m." ●

Safety initiatives gain ground throughout the industry

Standards, apps and e-learning are helping to reduce vehicle risk

The Chartered Institute of Logistics and Transport says that great strides have been made towards improved road safety across the country, and particularly in London, in the past decade. It notes that: "The construction sector in particular has been extremely successful in improving and embedding safety cultures on site."

One major factor in raising the bar for road safety among contractors has been the creation in 2013 of Construction Logistics and Community Safety Scheme (CLOCS), which is a collaboration between the construction and fleet sectors to address shared issues. Drawing on best practice, it has grown to become the industry standard for developers, principal contractors and fleet operators. FM Conway is an active participant in CLOCS, for example.

CLOCS' latest development has been a campaign to further reduce road risk in supply chains – RiSC – which sets out guidelines for safe fleet operations. These cover independent fleet management audits, medical conditions for drivers and ensuring vehicles are fitted with safety equipment to help protect drivers and vulnerable road users.

The CLOCS Standard is a national industry standard. It defines the primary requirements placed on the key stakeholders associated with a construction project and places responsibilities on the client, the principal contractor controlling the construction site and the supply chain – including the operator of any roadgoing construction logistics vehicles servicing that project.

CLOCS client members must specify in tender documents that contractors and their supply chain must comply to the CLOCS Standard.

Among other requirements, principal contractors must ensure the project's potential impact on the community has been properly risk-assessed. They must also procure site and fleet operations that comply to the requirements of the CLOCS Standard.

Fleet operators are expected to be part of a separate scheme – the Fleet Operator Recognition Scheme or FORS. This is a voluntary accreditation scheme that shows clients the operator follows industry-leading best practice.

To be members of the CLOCS Standard, all construction logistics vehicle operations must meet the requirements described as Silver in the FORS Standard.

Mulalley protects road users
Redbridge-based contractor Mulalley is big supporter of the industry road safety schemes. It says that becoming FORS Gold accredited and a CLOCS Champion "has helped us to make tangible improvements to our own fleet, manage the impact of our sites and our supply chain, to ensure we protect vulnerable road users".

The company has a robust CLOCS procedure in place and has developed in-house e-learning for staff to raise awareness of the standard. Staff also complete the Considerate Constructors Scheme vulnerable road user course.

To monitor compliance, Mulalley undertakes site gate checks in accordance with the risk profile of the site. It has also developed an in-house app to undertake compliance monitoring checks to improve data capture and analysis of the fleet operator requirements.

Costain uses e-learning
Costain is another big supporter of the industry road safety initiatives. Since 2016 it has been using e-learning modules, with an online exam on the company's road safety policies and procedures.

In 2018 Costain introduced a requirement for managers to assess the risk to vulnerable road users from vehicles attending site and implement a site-specific transport logistics plan.

The minimum standard the company accepts from its suppliers is a FORS Bronze accreditation, but on projects with a higher risk assessment, suppliers must have attained FORS Silver.

Who can be the new building regulation principal designer?

As APS members look to prepare for implementation of the Building Safety Act, and in particular the long-awaited secondary legislation, **Mark Snelling** looks at the duties of the new building regulation principal designer

Section 34, 'Dutyholders and general duties', of the Building Safety Act 2022 (the Act) came into force on 6 April 2023. The Act modifies Schedule 1 to the Building Act 1984 and enables duties to be imposed on relevant persons in connection with the planning or management of the building work (work to which the building regulations apply).

The government consulted on these requirements last year. Its proposals suggest that the new dutyholders required in relation to compliance with the building regulations will mirror the dutyholder structure of the Construction (Design and Management) Regulations 2015 but be entirely separate from it.

It is proposed that the building regulations will be revised to impose new duties on those who commission, design and undertake building work to which building regulations apply. The regulations will set out who the dutyholders are and impose duties on them.

The dutyholders will be:

- client;
- principal designer;
- designers;
- principal contractor; and
- contractors.

It is proposed that, where the role of principal designer or principal contractor is carried out by an organisation, reasonable steps must be taken to ensure that the individual or individuals designated, who are fulfilling the functions for a specific project, have the appropriate skills, knowledge, experience and behaviours (SKEB).

The competency standards for an individual principal designer will be largely the same as a designated individual appointed by an organisational principal designer.

Competence and capability

It is proposed that any person carrying out any building work or any design work must have, where the person is an individual, the skills, knowledge, experience and behaviours necessary, or, where the person is not an individual, the organisational capability, to carry out:

- the building work in accordance with all relevant requirements;
- the design work so that, if built, the building work to which the design relates would be in accordance with all relevant requirements; and
- to fulfil their duties under the regulations in relation to the work.

It is also proposed that a person who is responsible for appointing a designer or contractor to carry out any building work or any design work must take all reasonable steps to satisfy themselves that any person they wish to appoint has the necessary SKEB, and any organisation has the necessary organisational capability.

Principal designer

It is proposed that the key role during the design phase is the principal designer, who will be a designer appointed to be in control of all the design work. They can be an individual or an organisation and possess the necessary SKEB.

It is proposed that the principal designer will need to be involved

“**Ensuring all designers have the necessary skills, knowledge, experience and behaviours will be central to ensuring compliance with the building regulations**”

with a number of activities. These include the need to:

- plan, manage and monitor the design work, ensuring that the design, if built, would comply with the relevant requirements of the building regulations;
- co-ordinate matters relating to the design work to ensure that, if built, the building work to which that design relates will comply with the relevant requirements of building regulations;
- ensure that they, and the designers in the team, cooperate, communicate and coordinate their work with the client, the principal contractor and other designers;
- liaise with the principal contractor and share information relevant to the building work; and
- assist the client in providing information to other designers and contractors.

Plan, manage and monitor

To be able to plan, manage and monitor compliance with the relevant requirements of the building regulations a principal designer will need have an understanding of the building regulation application and approval process.

This requires understanding of:

- the types of notification available (Regulation 12);
- the applicability of use of a building notice under Regulation 13;
- the applicability of use of a full plans notice under Regulation 14;
- the requirements for inspection of work (Regulation 16);



- the completion certificate process (Regulation 17);
- regularisation of building work that has been carried out without Building Control involvement (Regulation 18); and
- the requirements for the provision of fire safety information (Regulation 38).

The principal designer will also need to understand the requirements of the dutyholder and competence requirements of the – as yet unpublished – secondary legislation facilitated by Section 34, 'Dutyholders and general duties' and Section 35, 'Industry competence', of the Act. Ensuring all designers have the necessary skills, knowledge, experience and behaviours will be central to

ensuring compliance with the building regulations.

Those who wish to work on higher-risk buildings will also need to understand the gateway process and the golden thread requirements.

Approved documents

Approved documents are approved by the Secretary of State and give practical but prescriptive guidance on common building situations about how to meet the functional requirements of the Building Regulations 2010 for England.

Different approved documents give guidance on each of the technical parts of the regulations. There are currently 23 approved documents, which cover various elements

23

There are currently 23 approved documents which cover various elements and required performance from structure to ventilation

and required performance from structure to ventilation.

Complying with the guidance in the approved documents does not guarantee that building work complies with the requirements of the regulations – the approved documents cannot cover all circumstances.

Those responsible for building work must consider whether following the guidance in the approved documents is appropriate and likely to meet the requirements in the particular circumstances of their case.

There are also other ways to comply with the requirements on Schedule 1 (www.legislation.gov.uk/ukxi/2010/2214/schedule/1), other than the methods described in an approved document, ►

such as compliance with a relevant British Standard.

BS 9999:2017 *Fire safety in the design, management and use of buildings* or BS 9991:2015 *Fire safety in the design, management and use of residential buildings* can, for example, be used in fire safety design in order to satisfy functional requirements of Parts B1 to B5 in Part B of the building regulations.

Fire engineering principles can be applied to support alternative solutions where adherence to the prescriptive guidance provided by Approved Document B may conflict with the wider aspirations for the scheme through the application of BS 7974:2019 *Application of fire safety engineering principles to the design of buildings* and its Published Documents Parts 1-7.

In certain circumstances compliance with specified standards can provide an alternative route to compliance. There are over 600 codes and standards referenced in the approved codes of practice. Approved Document B, *Fire Safety*, alone refers to over 80 codes and standards.

Measuring and demonstrating competence

In response to the competence shortcomings identified by the Independent Review of Building Regulations and Fire Safety conducted by Dame Judith Hackitt in *Building a Safer Future*, the Department for Levelling Up, Housing & Communities (DLUHC) sponsored



“Being competent requires more than attending the right courses. You need to be able to provide evidence that you can deliver the role

the development of three new standards which set out competence requirements for building safety management including principal designers and principal contractors.

The Building Safety Regulator, which will oversee the enforcement of the Building Safety Act and its secondary regulations in relation to building regulation compliance, has made it clear that it will use these standards to determine whether dutyholders have the relevant skills, knowledge experience and behaviours (competence) to deliver the role on the project on which they have been engaged.

PAS 8671:2022 standard

The competence standard for building regulation principal designers is PAS 8671:2022 *Built environment – Framework for competence of individual Principal Designers – Specification*.

PAS 8671 addresses competence thresholds that individuals are expected to meet when managing the dutyholder functions of the principal designer building regulations role. It also specifies the minimum competence thresholds needed by principal designers and the additional requirements for working on higher-risk buildings (HRBs).

It should be noted that PAS 8671 does not cover the duties of principal designers under the Construction (Design and Management) Regulations 2015 (CDM).

600

There are over 600 codes and standards referenced in the approved codes of practice

The principal designer dutyholders' areas of competence are:

- appropriate behaviour;
- knowledge of legislative and regulatory framework for compliance;
- management of design work compliance; and
- awareness of technical framework for compliance.

Appropriate behaviour includes refusing to carry out work which is beyond their skills, knowledge or experience.

Principal designer competence

PAS 8671 states that the focus of the principal designer dutyholder role is on design work compliance. In the PAS, the individual managing the dutyholder functions, either a designated individual or an individual principal designer, is referred to as a principal designer because the competency standards for both a designated individual or an individual principal designer will be largely the same.

The following is taken from Section 4 – 'Minimum competences for the principal designer dutyholder role', PAS 8671, which makes it explicit that those undertaking this role have deep understanding and technical design knowledge. It says:

Principal designers are required to plan, manage, monitor, and coordinate the design work for design work compliance – ie, compliance with relevant requirements.

It is not sufficient, however, for fulfilling the principal designer dutyholder role to be a box-ticking exercise to record designers' claims of compliance. Instead, principal designers should appraise and challenge design work in a way that helps designers to reach consensus on compliance.

Principal designers should have a sufficient breadth of knowledge to critically assess relevant requirements so that they can make informed decisions, ask intelligent questions, understand when they need to bring in expert help, and coordinate overall action based on their findings.

In managing the process of design work compliance and liaising with



Gateway submission documents

Understanding the process for higher-risk buildings

<div> <div>GATEWAY 1</div> <div>Fire statement</div> </div>										
GATEWAY 2	Building Control submission	Competence declaration	Construction control plan	Change control plan	Mandatory occurrence system statement	D&B approach document	Fire & emergency file	Golden thread arrangements	Planning statement	Building Control approval
	Project description		Review policy	Change control schedule	Mandatory occurrence reports	Partial completion strategy	Building safety risk register	Golden thread		
	Dutyholder contract details		Schedule of personnel appointed	Change control records			Compliance approach statement	Key building information		
	Plan of building in local environment		Construction management arrangements				Management & maintenance arrangements			
	Building regulations drawings		Competence strategy and records							
GATEWAY 3	Completion certificate application	Competence declarations	Construction control plan	Change control plan		D&B approach document	Fire & emergency file	Client golden thread compliance declaration		Completion certificate
	Project description	Client construction compliance declaration	Compliance declaration	Compliance declaration		Partial completion strategy	Building safety risk register			
	Dutyholder contract details	PC compliance declaration				Compliance declaration	Compliance approach statement			
	As-built plan of building in local environment	PD compliance declaration					Management & maintenance arrangements			
	As-built building regulations drawings									

the principal contractor (ie, the new principal contractor dutyholder role introduced by secondary legislation under the BSA), principal designers should understand how consensus on compliance is reached, and how risks to compliance arise. They should have an extensive grounding in the relevant legal and technical frameworks, and understand how information about compliance should be managed.

Principal designers should have the competence (and, if relevant, organisational principal designers should have the organisational capability) to address any project-specific gaps in their own ability or capacity to manage the dutyholder functions, and to call in help when needed. While this suggests that persons in the principal designer dutyholder role should understand buildings as systems and have control of the design work, there are likely to be instances where it is reasonable for other types of designers to fulfil the dutyholder role.

Minimum competence requirements

To meet the minimum competence requirements of the PAS, principal designers must be able to:

- apply the legislative and regulatory framework related to how designers and design work meet legal requirements;
- apply general principles of management to plan design work compliance, and to manage, monitor and coordinate designers and design work in relation to compliance during the design phase;
- understand general principles of building design, general principles of construction and the ‘core criteria for building safety’ set out in BSI Flex 8670 sufficient to:
 - appraise designers’ evidence of design work compliance;
 - manage the process for designers to achieve consensus that coordinated design work complies with relevant requirements; and
 - appraise principal contractors’ comments affecting design work compliance.

The role requires more than being able to read the regulations, standards and codes. You need to know what they mean so that you can deliver the role of principal designer and in particular ensure that the design, if built, would comply with building regulations. These attributes come with experience.

This article is an abridged version of Briefing Note 3 prepared by Mark Snelling which is available in the members’ area of the APS website: www.aps.org.uk/guidance/aps-briefing-notes.

Are you competent?

If you can demonstrate through evidence that you can achieve the standards set out in PAS 8671 in relation to the projects you wish to work on, you are likely to be competent.

You don’t need to know all the requirements of the regulations, approved codes, standards and codes but you do need to be able to find the standard that applies to the task in hand, or at least know that it is the right standard when it is presented to you by a designer. You also need to be able to understand what the regulation, approved code etc means and requires.

You also need the interpersonal and management skills to manage a team of designers and interface with both clients and the principal contractors.

Being competent requires more than attending the right courses. You need to be able to provide evidence that you can deliver the role. Perhaps the best way of determining whether you have what it takes is to compile a portfolio of evidence that you can comply with the requirements of PAS 8671. ●

Mark Snelling is president elect of APS and managing director of Safetymark Consultancy Services.

‘The role is much more than just applying the law’



Sam Mepham, national head of health and safety services and partner at Rider Levett Bucknall, on getting to grips with her new role and rising to the challenges of the new Building Safety Act

What is your current role?

I'm a partner at Rider Levett Bucknall (RLB) and national head of health and safety services. RLB is a global property, construction and management consultancy, and when I started with them in 2015 as a senior consultant in the north west, the firm was looking to develop and expand its delivery of health and safety services in the region.

It was just me to start with, but there is now a team of 11 in the north west – which is soon to be 12.

I also head up a national team of over 35 located across RLB's 12 offices. Health and safety used to be incorporated within building surveying but we've become a standalone service.

I oversee a range of general health and safety areas – that may not necessarily be anything to do with construction. It could be the hairdressing salon next door that needs a risk assessment or a construction company that needs its management systems reviewing or wants to update its CDM procedures and processes.

“I'm an absolute law geek. I like the way that legislation is written. I like reading it and the debates it creates and the conversations it prompts

**Sam Mepham,
Rider Levett Bucknall**

How did you get into the safety industry?

I left school at 18 and worked as an administrative assistant at a police training academy. While there I joined and later managed the Criminal Justice Unit, where we helped assess the paperwork from police against Crown Prosecution Service standards. I started studying criminal law and found it interesting. I also got involved with general health and safety issues as a line manager.

When we were notified of closure and I was looking for another position, it coincided with helping my dad, who worked in health and safety himself, study for his NEBOSH qualifications. I enjoyed the legal elements of that too, so I applied for a number of health and safety positions and got one at a process manufacturing company.

I really enjoyed it and learned a lot practically, and that helped me get my next job as a consultant at Faithful+Gould (F+G), where I started delivering more CDM on construction projects.

I worked at F+G for nearly eight years. During that time, when I was on maternity leave for the first of my two children, I studied for and became chartered in IOSH and a registered (at the time) member of APS.

When the team was put on notice in 2015 I decided it was time to leave. I looked around and was about to join a firm when I came across RLB and instantly liked its approach. I joined as a senior consultant and worked my way through a number of different roles before becoming a partner and then national head of health and safety services.

What gives you a buzz out of health and safety?

I'm an absolute law geek. I like the way that legislation is written. I like reading it and the debates it creates and the conversations it prompts.

I definitely get a buzz when people see you're actually there to

help them – and not just there to make things safer, but better too. When people understand your values and see where you're coming from, that feels good.

There are some days when it can feel like no one's listening to you and no one's taking your advice. But there are many days when it clicks with someone and that's great.

Some people ask if I find it hard being a woman in construction but I feel like it's more the nature of the job that works against me. As the health and safety person you're sometimes seen as the person who comes along just to say 'No'. But that's only a tiny part of the role. It's much more than just applying the law, it's also about finding solutions to all kinds of practical problems.

What have been your personal highlights?

When RLB won the APS dutyholder of the year award in 2019 it was really special. We'd narrowly lost out the year before so that was a big moment. But I always feel my biggest success has been building the team I have around me. It took eight years but it's wonderful to work with such great people.

How are you tackling all the new legislation coming at you?

We knew the Building Safety Act was coming so we've been preparing for a few years. Obviously, we didn't know exactly what it would look like, but we had a pretty good idea.

Since it came into force last year, I've been heavily involved with what RLB is doing – rewriting our processes, developing new services, ensuring competence is there.

It's important for everyone to realise the Act isn't just impacting on health and safety – it impacts the whole industry. So we've made sure our cost managers, our project managers, everyone on the technical side are up to speed on the Act and what it means for their delivery.



**“As the health and safety person you're sometimes seen as the person who comes along just to say 'No'. But that's only a tiny part of the role
Sam Mepham,
Rider Levett Bucknall**

Any tips or advice for people looking to move into health and safety or get on in their career?

We need to acknowledge that health and safety is a shrinking group and that we need to start attracting more people – not just young people, but any age group.

One of the problems we've got, though, is that there seems to be a bit of stigma attached to health and safety – the killjoy issue. But, as I've said already, that's not what the job is about. It's a much more varied role with so many aspects to it.

If you're already in health and safety, just try and learn more about it, reach out to people. Look to find someone that is not only going to sponsor you through the qualifications, but also is going to give you the opportunity to apply it. That's so important.

You can't sit there and learn in isolation and then think that you can do it. Doing that, you run the risk of becoming that stereotypical health and safety person who says no to everything.

What do you do outside of work?

Very little! I don't have a lot of time for much beyond my kids, cats and our bearded dragon. ●

CV: Sam Mepham

● 2015 to present: Joined Rider Levett Bucknall as senior consultant, becoming associate then partner in 2020, and her current role as national head of health & safety services from 2022

● 2007-2015: Senior health and safety consultant, Faithful+Gould

● 2006-07: SQE adviser, Northpoint

● 2003-06: Rising to become Criminal Justice Unit manager, National Police Training

How to manage ethical employment practices

This CPD, in association with Achilles, examines how construction companies can ensure the ethical treatment of direct employees and people in their supply chains

Construction companies employ more than 2.2 million people nationwide. But while many firms are striving to meet sustainability and carbon reduction targets, the sector faces challenges in ethically managing labour.

The United Nations' International Labour Organization estimates that there are 50 million people held in situations of modern slavery. About 27.6 million people are in forced labour, including 3.3 million children.

Modern slavery continues to impact many people globally and highlights the need for businesses to ensure the ethical treatment of people in their direct employment and those working within their supply chains.

Poor ethical employment practices vary in severity from the most critical forms of modern slavery, such as human trafficking, to poor working conditions and practices affecting potentially huge numbers of workers.

For instance, Achilles' Ethical Business Trends Report, published in February 2022, identified that 17% of construction workers interviewed had received wage deductions for administration or payroll purposes.

According to anti-slavery charity Unseen UK, construction and related industries have been identified as key sectors associated with modern slavery globally.

Worker exploitation: policy versus practice

While the UK has legislation in place to tackle modern slavery, there continues to be a high prevalence of poor ethical employment practices.

As a result, there are further opportunities to raise industry standards. Despite many companies holding modern slavery policies, these are not being seen in practice.

Audits by Achilles identify poor practices which may provide a gateway to more serious forms of labour abuse.

There are often noticeable and common gaps – both with national framework contractors and much further down the supply chain – when it comes to understanding the complex ethical employment risks associated with the construction industry.

What are the most common trends?

Often there is an assumption that companies within the supply chain have adopted appropriate ethical recruitment and employment practices.

Construction managers should engage with their supply chains and verify the processes that they have in place, in addition to considering those that are directly employed by themselves.

“
Construction managers should engage with their supply chains and verify the processes that they have in place

All classifications of workers should be considered in the same way as a direct employee. *Achilles' Ethical Business Trends Report* identified that 11% of audited companies were unable to demonstrate that written terms and conditions of employment had been issued to workers.

Communication channels should be created, from initial engagement to the termination of services, to ensure individuals are aware of their basic employment rights and the terms associated with the assignment.

Established reporting and escalation routes for worker concerns should be available to all workers and clearly displayed. Policies and procedures should be considered as a commitment or an intention as opposed to evidence of compliance.

Construction managers should also consider verifying that intentions outlined within policies are enacted.

Recognised standards such as ISO 9001:2015 refer to the 'Plan, Do, Check, Act' cycle for monitoring and continual improvement. There is no reason a similar approach should not be considered when seeking to ensure the ethical employment of workers and their treatment on site.

Ensuring the ethical treatment of workers plays an important part in tackling modern slavery. Some issues may be considered less serious ►

In association with  Achilles



31 2022 Ethical Site Survey data shows that 31% of interviewed workers have presented non-standard evidence of right to work in the UK

than those seen in the headlines, but can leave workers susceptible to labour abuse. The identification of improper practice may be the tip of an iceberg that has largely gone unnoticed previously.

Rather than assuming the issue has gone away or only happens in other industries or other countries, it needs to be acknowledged that this is a global issue affecting people on a daily basis within supply chains.

For example, nine UK construction workers had reportedly witnessed acts of racial abuse and discrimination on sites where Achilles had conducted Ethical Site Surveys.

Spotting the warning signs of worker exploitation

Five years' worth of Achilles' data, site visits and worker interviews has demonstrated that there are still fundamental issues not being addressed, and significant opportunities for improvement regardless of industry or location.

Currently Achilles' 2022 Ethical Site Survey data shows ►

“Ensuring the ethical treatment of workers plays an important part in tackling modern slavery. Identification of improper practice may be the tip of an iceberg

Helping Sir Robert McAlpine and British Land to tackle modern slavery

A pilot of Achilles' Ethical Business Programme helped partners to identify potential issues

British Land and Sir Robert McAlpine have been using an Achilles service to find out more about what's really happening in their supply chain from the tradespeople contracted to work on their sites. When Achilles launched its Labour Practice Audits in 2015 (currently Ethical Business Programme), British Land and Sir Robert McAlpine were keen to pioneer their use.

Challenge

British Land was due to start work, in partnership with Sir Robert McAlpine as lead contractor, on the next phase of the 13ha Broadgate campus. At the same time, the Modern Slavery Act (2015) entered UK law, requiring companies to take responsibility for understanding the ethical performance of all businesses in their extended supply chains.

The two companies agreed to carry out a pilot project with Achilles to assess the effectiveness and value of the Labour Practice Audits.

Alice Hands, Sir Robert McAlpine's head of ethical and sustainable procurement, comments: "In terms of seriousness, forced labour and modern slavery represent the extreme end of a very wide spectrum. There are multiple lesser issues, all of which we wanted to address to ensure people are treated correctly, to counter any negative attitudes to our industry and to help ensure that Sir Robert

McAlpine is recognised as a great place to work."

Issues can include a lack of thorough due diligence, poor access to grievance procedures and failure to appropriately translate health and safety briefings.

The high proportion of self-employed workers can also give suppliers the opportunity to issue business-to-business contracts instead of contracts of employment, losing protective and other legislative measures.

Process

In determining the scope of the Labour Practice Audits, it was vital to both companies that onsite interviews were non-intrusive, unannounced in advance and anonymous (although identifying immediate employers). Only then would workers feel at ease to share how they really felt.

It was also important that interviewees were never taken away from their work, as this would mean they could be identified and lose anonymity.

Instead, the Achilles interviewers settled in site canteens and asked workers on a break for a few minutes of their time. In an overwhelming number of cases, workers were happy to help.

Following the interviews, the findings are analysed by both companies and Achilles to establish areas that need to be prioritised and subcontractors who need help most urgently.

The outcomes have been enormously helpful in enabling the partners to identify and start addressing potential issues. Inevitably, the Covid-19 pandemic disrupted delivery of the Labour Practice Audits programme, along with everything else.

To continue engaging with the supply chain, the programme moved to virtual Management System Audits with key supply chain partners and trades. These continue to grow awareness of potential supply chain issues, build good practice and raise standards for ethical employment.

Results

Hands says: "Some audits are simply about ticking boxes – as such, they are completely useless. The Achilles Labour Practice Audits (currently Ethical Business Programme) are proving to be the opposite. We are constantly uncovering new findings and learning more and, as long as the audits are providing us with increased knowledge and enabling us to fix issues we find, we will continue to carry them out."

British Land's sustainability manager Karina Williams highlights the support for its wider goals: "Working collaboratively with Sir Robert McAlpine and Achilles, we are pleased to have pioneered this audit programme, promoting better working environments and helping spread best practice across the industry."





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“Managers should consider the full range of tools at their disposal to promote best practice and ensure all workers are treated fairly

that 31% of interviewed workers have presented non-standard evidence of right to work in the United Kingdom, such as CSCS cards or driving licences.

Changes in supply chain due diligence legislation will soon place an emphasis on all businesses to do more to identify poor practices and prevent labour abuses within the supply chain.

Remediation rather than disciplinary reaction

Construction managers should educate and share knowledge to encourage transparency in supply chains in order to identify and plug the gaps that might exist.

While it would be easy to ignore this problem, there is a moral obligation to work towards improving practices within supply chains.

Managers should also consider the full range of tools at their disposal to promote best practice and ensure all workers are treated fairly. Ensuring workers are fully aware of their rights helps create an

empowered workforce and is key in mitigating exploitation risks.

A comprehensive induction process, including awareness of employment law and company policies, is vital to ensuring workers know what to expect and, crucially, are aware when something isn't right.

It is not enough to assume workers know their rights and entitlements. A lack of knowledge leaves a worker open to exploitation.

Evidence of supplier compliance is an essential part of any modern slavery strategy. During supplier onboarding, consider how your suppliers will be required to substantiate their compliance to relevant codes of conduct. This should not simply be a tick-box exercise.

The use of spot checks both on site and at contractor premises, or full Management System Audits, provide further opportunity to interrogate supply chain processes. ●

To test yourself on the questions and collect CPD points, go to: projectsafetyjournal.com

CPD Questions

1. What proportion of construction workers have received wage deductions for administration or payroll purposes?
a) 14%
b) 17%
c) 23%

2. Which statement below is true? Communication channels should be created from initial engagement to the termination of services to ensure that individuals are aware of...
a) ...the terms associated with the assignment
b) ...their basic employment rights and the terms associated with the assignment
c) ...their basic employment rights

3. What measures does Achilles recommend companies in the construction sector put in place?
a) Auditing suppliers and subcontractors
b) Training and consultancy
c) Responsible sourcing principles and rules

d) Modern slavery policy statement
e) All of the above

4. What offers further opportunity to interrogate supply chain processes?
a) Spot checks on site and at contractor premises, or full Management System Audits
b) Random sample interviews with site workers
c) Comprehensive paper records

5. Which of these was part of the Achilles Ethical Business Programme at British Land and Sir Robert McAlpine?
a) Non-intrusive, unannounced in advance, anonymous onsite interviews
b) Pre-arranged and anonymous onsite interviews
c) Analysis of interviews with subcontractors over the last 15 years
d) None of the above





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Scaffold and access accident frequency shows slight rise

Accident statistics across scaffolding and access companies point to a disproportionate incident rate among smaller companies



This represents a slight increase in accident frequency rate from the previous year by NASC members, though the total number has remained the same since 2013. The data shows that 181 NASC contractor members, 76% of the total, had no RIDDOR reportable accidents during 2021.

Among the 90 incidents was one fatality. A driver was killed after sustaining multiple injuries in a lorry loader incident. This is currently being investigated by the HSE.

There were 26 injuries reported as a result of manual handling, accounting for just under one in three (29%) of the 2021 total.

In second place came slips and trips at 24, the first time in 17 years that this was not the most common cause of injury. All but one incident occurred on site. The most common cause was poor ground conditions such as uneven surfaces.

Of the 89 non-fatal accidents suffered by NASC member operatives during 2021, 16 were recorded as 'major injuries', with the remaining 73 recorded as 'over seven days'. In 2021 94% of reportable accidents occurred on site.

Broken down by age, the highest number of injuries (31) were suffered by operatives aged 31-40, closely followed by the 21-30 bracket (27).

Those aged between 51 and 60 suffered 11 injuries. Operatives aged between 16 and 20 suffered eight injuries and those between 41 and 50 suffered nine. Operatives aged over 61 accounted for the rest.

The types of accidents reported makes for interesting reading when broken down by age bracket. The majority of the 31-40 and 21-30 groups' incidents are attributed to manual handling, with slips and trips on the same level. No other age brackets saw manual handling as the outright cause of injury.

Scaffolders suffered the most injuries by skill level (39).

The majority of incidents are suffered by operatives working for small companies (with between 21 and 50 operatives). The 21 incidents these companies recorded represent 23% of all incidents in 2021 despite the 3,123 operatives employed by these members only representing 20% of the total NASC member operative workforce.

Small/medium (51-100) company operatives suffered 32 injuries (36% of the total), despite only representing 19% of the total workforce.

Conversely, there were only six injuries reported by large members (1,001+ operatives), whose 4,220 operatives make up 27% of the total number of NASC operatives. ●

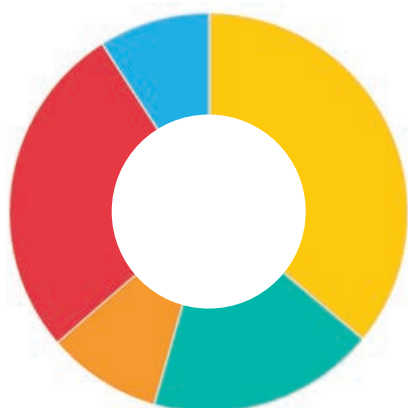
Manual handling was the most common cause of injury to operatives working in the scaffold and access industry, according to its 2022 safety report.

The National Access & Scaffolding Confederation's 2022 Safety Report contains NASC contractor member accident statistics and analysis relating to the 2021 calendar year.

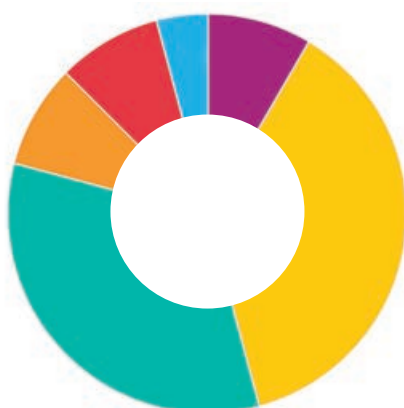
The number of accidents reported by NASC members is based on RIDDOR reportable incidents. There were 90 such accidents recorded in 2021 from a combined workforce of 15,620 operatives employed by 237 contractor members.

“The 21 incidents small companies recorded represent 23% of all incidents seen in 2021

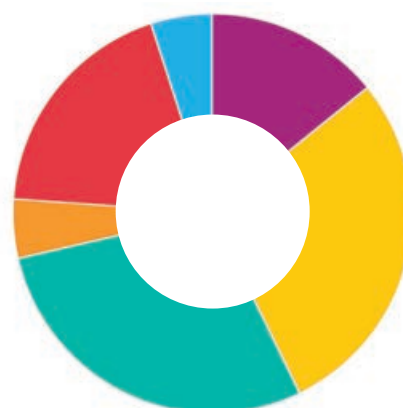
Injuries resulting from falls from height (%)



Injuries resulting from manual handling (%)



Injuries resulting from slips and trips (%)



■ 16-20 years ■ 21-30 years ■ 31-40 years ■ 41-50 years ■ 51-60 years ■ 61+ years

NASC 2022 SAFETY REPORT

In the dock

Recent prosecutions for health and safety breaches



Accidents by age (%)

■ 16-20 years ■ 41-50 years
■ 21-30 years ■ 51-60 years
■ 31-40 years ■ 61+ years



Accidents by grade (%)

■ Advanced ■ Labourer
■ Scaffolder ■ Driver
■ Trainee

Amey Rail fined over £533,000 after worker suffers electric shock

Amey Rail Limited (ARL) has been fined £533,334 after a worker suffered an electrical shock injury while working outside a London station.

The incident happened on 25 December 2019 when Allister Hunt, a self-employed senior linesman for ARL, was carrying out remedial 'snagging' works to overhead lines 2.5 miles from Paddington Station.

The onsite team was unaware that they were working outside the electrical isolation area. Hunt touched the live 25,000V contact wire and suffered 55% burns, which required skin grafts. His eyesight and hearing were also affected.

An investigation by the Office of Rail and Road (ORR) found that ARL had no effective and adequate system in place to ensure that the process of planning the works was carried out in a way that ensured the health and safety of those working on electrical lines.

£800,000 fine after child dies on Glasgow site

Civil engineering contractor RJ McLeod has been fined £800,000 after a 10-year-old boy died on a building site in Glasgow.

Shea Ryan was playing with friends on 16 July 2020. He entered the construction site adjacent to a children's play park and subsequently fell into a manhole.

Although emergency services and local residents rescued him from the manhole, he died from his injuries.

The construction site was part of a surface water management project being carried out on behalf of Glasgow City Council.

An investigation by Police Scotland and the Health and Safety Executive (HSE) found that insufficient measures were taken to prevent children gaining access to the construction site and that RJ McLeod had failed to carry out a suitable and sufficient assessment of the risk of unauthorised persons gaining access to the site.

£600,000 fine after lorry loading death

A garden landscaping company has been fined £600,000 after an employee died while loading a lorry.

Brian White, 59, was working for Kelkay when he was operating a forklift truck at the company's site in Pollington, East Yorkshire, on 15 June 2020.

White was fatally injured when the lorry he was loading was moved by the driver, pulling the forklift over and trapping him underneath.

An investigation by HSE found Kelkay's risk assessment failed to take into account the possibility of lorries moving while they were being loaded.

Creagh handed £1m fine after site fatality

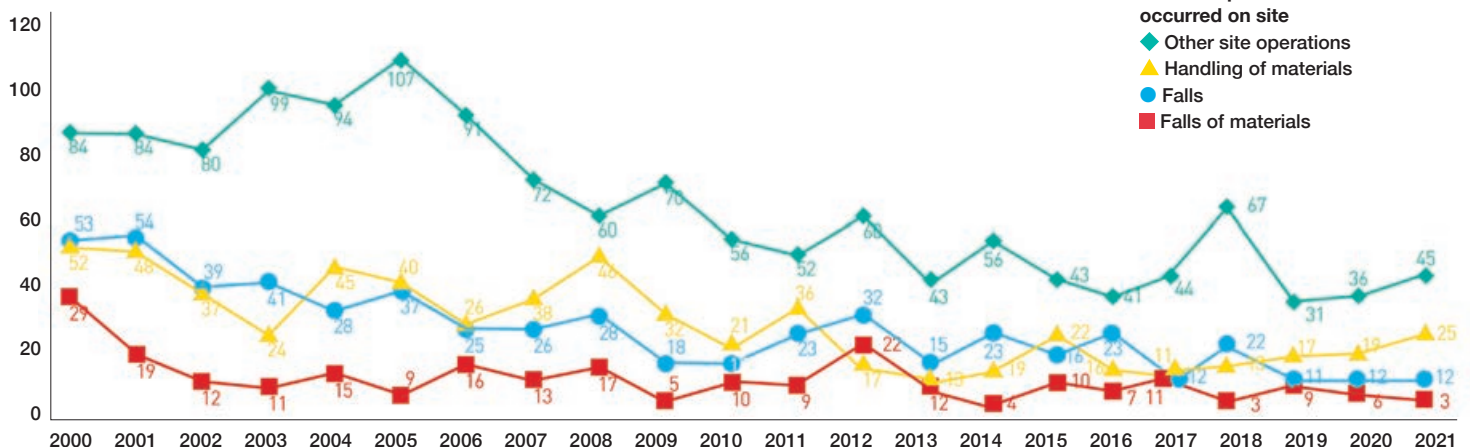
Creagh Concrete Products has been fined £1m and ordered to pay £47,521.08 in costs after a man died at a site in Nottingham.

Stewart Ramsay, 24, was working for the company at its Thurgarton Lane site in Hoveringham when he suffered fatal head injuries on 15 March 2017.

Ramsay was trying to fix a problem while he and his colleagues were using a metal grab to unload Spantherm, a concrete building product, from some trailers. His head became trapped in the jaws of the grab after a rope connected to the locking lever snapped.

An investigation by HSE found that Creagh did not have a safe system of work in place for the use of the grab. It also found that it had not carried out a risk assessment to identify risks for its use.

NASC accident figures: causes of accidents to site operatives



Site operations 2021:
94% of reportable accidents occurred on site

◆ Other site operations
▲ Handling of materials
● Falls
■ Falls of materials

Catch up with APS

Whether you attend live or watch later at your leisure, APS has a thought-provoking line-up of events available for members



During the first few months of 2023, the APS calendar was packed with interesting, informative and thought-provoking sessions, which more than 3,600 people registered to attend.

These included the association's first ever week-long event, the APS Energy Week at the end of January. This had a varied programme which covered broad aspects of energy, including safety and sustainability, net zero, Passivhaus and fuel poverty.

Our Essential Knowledge webinar series followed shortly after, looking at subjects such as menopause, demolition, modern slavery, working from height, the principal designer and CROSS reporting.

The Building Safety Act update webinars continued – and will continue to run until the end of this year at least.

At the beginning of May the APS Spring Conference focused on progress and prevention. The event was delivered virtually and brought a wealth of knowledge and thought-provoking discussions across the subject. Straight after the conference, the Spring CPD series followed covering noise and vibration in construction.

If you have missed any of the events this year so far, you can watch these back at any time in the 'on demand' section of the website: www.aps.org.uk/category/webinars. Members can view these for free, with the exception of the Spring Conference.

The rest of the year

The second half of the year is set to be just as busy – with many more online events providing updates on the key issues of importance. The majority are included within the membership fee, whether you attend live or watch back at your leisure. The only difference is that those attending live are provided with a CPD certificate while those who watch on demand are not.

Coming up over the next six months:

- Personal Development Week: Monday 5 – Friday 9 June 2023
- APS Annual Conference: Wednesday 6 September 2023 (online)
- Autumn webinar series: from the second week of September
- Building Safety Act updates will continue throughout the year.

More details of these events will follow shortly.

Where to catch up

If you are unable to attend a session live, you can always watch what you missed at a later date. Just log in at www.aps.org.uk/category/webinars.

Delegate feedback

The association appreciates your feedback. Every comment is read and taken on board. Your comments allow events to be enhanced to ensure you are receiving the best possible experience and training from your association. ●

Would you like to speak at an event?

The association is continuously looking for speakers to present webinars, or host sessions at various events. If you have something you would like to talk about, please get in touch at info@aps.org.uk.

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Synergie Training is one of the leading Construction, Infrastructure and IT Training Companies in the UK

Synergie Training specialises in the **APS Accredited Principal Designer** course which we provide as both onsite closed company courses and as public courses throughout the UK. We have successfully accredited over 2,000 individual Principal Designers with a 95% pass rate. We now also provide the **APS CDM Awareness**, **APS Accredited CDM Client** and **APS Accredited CDM Principal Contractor** courses along with CDM Overview, Domestic Client, Construction Safety through Design and customised CDM training.

VIRTUAL TRAINING

We are currently still running the majority of our CDM courses virtually via live trainers. These courses have been a great success having trained over 1000 delegates on our virtual APS CDM PD course.

Upcoming Dates include:

12 Jun	*VIRTUAL* – APS Accredited – CDM Awareness	Online - Remote	£250
12 Jun - 13 Jun	APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	London	£595
29 Jun	*VIRTUAL* – APS Accredited – CDM Client	Online - Remote	£295
10 Jul	*VIRTUAL* – CDM 2015 Overview	Online - Remote	£195
11 Jul - 12 Jul	APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	London	£595
11 Jul	*VIRTUAL* – APS Accredited – CDM 2015 for Principal Contractors	Online - Remote	£250
17 Jul - 18 Jul	*VIRTUAL* – APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Online - Remote	£595
21 Jul	*VIRTUAL* – Building & Fire Safety Act Overview – 1 Day	Online - Remote	£295
7 Aug - 8 Aug	*VIRTUAL* – APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Online - Remote	£595
21 Aug - 22 Aug	*VIRTUAL* – APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Online - Remote	£595
22 Aug	*VIRTUAL* – APS Accredited – CDM Awareness	Online - Remote	£250
23 Aug - 24 Aug	APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	London	£595
29 Aug - 30 Aug	APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Liverpool	£595
31 Aug	*VIRTUAL* – APS Accredited – CDM Client	Online - Remote	£295
5 Sep - 6 Sep	APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Newcastle	£595
11 Sep - 12 Sep	*VIRTUAL* – APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Online - Remote	£595

Please quote APS-JUNE-10 for a 10% discount on any of the above public courses.

Please visit: www.synergietraining.co.uk/course-schedule to view additional public course dates.

Synergie Training is an approved APS, CITB & IEMA Accredited Training Centre and holds ISO: 9001, ISO: 14001 and ISO: 45001 quality standard accreditations.

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