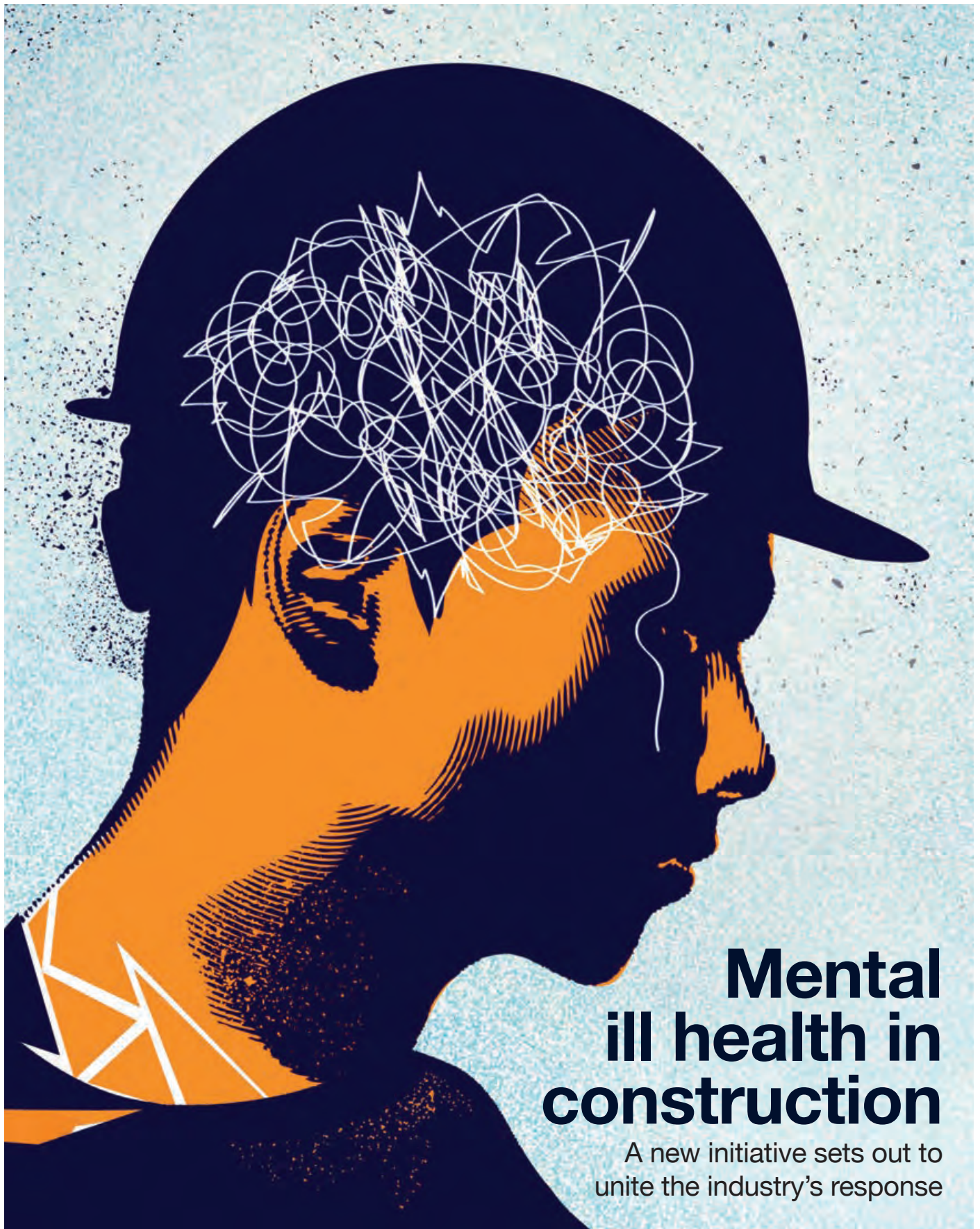


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health, safety and wellbeing in the built environment

Spring 2023



Mental ill health in construction

A new initiative sets out to
unite the industry's response



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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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The president's plans

page 6

“I'll be liaising with other presidents, other associations and affiliate bodies, as well as other professional bodies and local government stakeholders to try and make things happen

Raymond Bone, APS



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Welcome

Change is in the air as APS welcomes a new board and president elect, while in the wider industry we see positive moves in complex areas such as mental health support. By **Lesley McLeod**

At the Association for Project Safety (APS) we've been going through a bit of an upheaval. Since you received the last edition of your *Project Safety Journal*, changes – so long in the making – have come in at the association. We now have a sparkly new board of directors – for the first time chosen directly by you.

You also voted for your own industry expert, Mark Snelling, as your president elect. Mark will take over from current president, Ray Bone, when his term of office comes to an end. For now, we've a piece about what makes your president tick, what drives him on and what Ray hopes to achieve in his two years in the hot seat.

Among other things – like building closer links with other professional organisations and helping APS members upskill to meet the demands of the Building Safety Act – Ray is very keen to champion improving mental health across the construction sector.

It's an urgent issue, as you'll see in our cover issue. Suicide claims the lives of an estimated – and sobering – two construction workers every day. If accidents ran at a similar rate there



Lesley McLeod
Association for
Project Safety

“It is always worth taking a look at the APS website as new events go up nearly every week

would be an outcry – but people remain reluctant to reach out for help. It's a challenge and thank goodness we have people like Bill Hill from the Lighthouse Club to guide people home to safer waters.

There can be no quick or easy fix to such entrenched issues but we discuss excellent work going on out there proving just what can be done when there is the will to take the first step and make it easier for workers to get the support they need. It is clear the industry still has underlying problems to address and a raft of outdated attitudes that seem to be contributing to problems many people face.

The culture and behaviours certainly look to be putting good people off seeing construction as a career of choice so it is heartening to read from member Fran Watkins-White about her inspiring route into project safety.

Perhaps, the spotlight that is now highlighting competency – as a result of the demands flowing from the Building Safety Act – will go some way to raise the industry's game. There's a handy ready reckoner from Sam Mepham of RLB on what to expect as

the new regulations take shape this year. There are also some great pieces about designing for construction, fire and vehicle safety and some thought-provoking opinions about how safety professionals can encourage better working practices when they listen rather than rage.

And, certainly, professionals working in every aspect of the built environment are facing greater demands on their skills and knowledge. APS has a very full programme of events for 2023 and you can see – at the back of the magazine – a selection of what the association will be putting on to help you keep up with all the changes in legislation and regulation. It is always worth taking a look at the APS website as new events go up nearly every week.

The same is true of *Project Safety Journal* – the magazine may come out in this form four times a year but you can always catch up with breaking news at: www.projectsafetyjournal.com. ● **Lesley McLeod is CEO of the Association for Project Safety.**

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**APS
Promoting
Mental Health
in 2023**



Ray Bone: ‘We want members to feel they can talk about mental ill health’

APS president sets out what he wants to achieve in office as new governance proposals win members’ approval

APS president Raymond Bone has pledged to make raising the issue of mental ill health problems in construction one of his three main priorities during his time in office.

Bone, managing director of Abbey Construction Consultants and a lecturer at the University of Hull, took over the presidency in October 2022 and will hold the office for two years. And as well as tackling issues of mental ill health, he is also intent on making greater collaboration with other professional bodies and improving the membership experience the other two top priorities on his to-do list.

His pledge to focus on mental ill health comes as new data shows that construction suicides in England and Wales are at their highest level since analysis began. The data, compiled by Professor Billy Hare of Glasgow Caledonian University (GCU), shows the suicide rate for construction occupations in England

and Wales in 2021 was 34 per 100,000 in employment. Each year, the Office for National Statistics (ONS) publishes suicide numbers by Standard Occupation Code (SOC). Professor Hare uses these numbers to calculate how construction compares to other sectors (see page 12).

“Mental ill health is a real problem in construction,” says Bone. “APS has been running a series of presentations and webinars to highlight the issue and I would like to continue this activity during my presidency. We want members to feel they can talk about mental ill health and also help those in the sector who may be suffering and I want APS to give them the tools to be able to do that.”

As a former fireman for 10 years early in his career, Bone says he had first-hand experience of seeing colleagues keep issues to themselves for fear of appearing weak. He believes this is what happens in construction.

“I want to try and get the voice of APS and its members out there over the next two years and beyond”
Raymond Bone, APS

Speaking from experience

“In the fire brigade we used regularly to have to deal with fatalities. But everybody declined when we had the offer of talking to someone about how it had affected us. That was the normal thing to do. And then people went home and never talked about it with their partners.

“Construction suffers a similar ‘hard man’ image which stops workers talking about their problems. And many organisations don’t have the tools that can help people open up and talk about mental health issues.”

Adding to the stress, says Bone, are the poor working conditions that workers can find themselves in – and, if they’re self-employed, lack of payment when bad weather stops work on site.

Greater board access

A native of Hull, Bone has been a stalwart of APS for over 15 years, starting as a committee member for the Yorkshire region. At the time, he was the assistant principal engineer at the East Riding of Yorkshire Council where he persuaded other civil engineers to join APS and also stand for the council. He became chair of that Yorkshire region and through that attended council meetings and later joined the APS Board. He became president elect in 2020.

In future, serving such a long apprenticeship on regional committees will not be required to reach the highest level. Among the changes to APS governance voted through by members in December, those wishing to become a board director and stand for election to the presidency will no longer be required to serve on regional committees.

Bone is hopeful this will introduce greater diversity and new skills and knowledge to the upper echelons of the organisation, attracting people who might not have the time to get so



“Construction suffers a ‘hard man’ image which stops workers talking. And many organisations don’t have the tools that can help people open up
Raymond Bone, APS

involved with the regional structures. The new governance structure helps fulfil one of his other key aims, that of improving the membership experience, alongside helping members progress through the membership levels.

At the time of the interview in January, Bone was in the midst of recruiting a number of directors to sit on what will be a newly constituted APS Board. This process was largely completed by early February. He says the changes have worked: “We have members who have applied for some of these positions that are not chairs or do not sit on council or have been recent board members. So the new structure is doing exactly what we wanted it to.”

As part of bedding in the new governance structure, he plans to boost member engagement with a series of bi-monthly online discussions, where members can put questions to their president on whatever subject they wish. Open channels of communication are very important to him, he says. As president elect he made a point of connecting with every region, attending local meetings and communicating what’s happening in the background at board and council level.

A time for upskilling

Bone heads up APS at a particularly challenging time for health and safety professionals as they look to get to grips with the new Building Safety Act and the new dutyholder roles the legislation brings. For APS members that will invariably mean training and upskilling to be able to comply with competence requirements set out in the BSI Flex 8670, which provides a framework for competency. He says the APS will be working to provide members with the information and the tools to help them do exactly that.

Bone also says that, with changes coming as a result of the Building Safety Act, he wants to see APS boost its training activities. This has already started with setting up the new education and training committee, a proposal he originally put to the board about two years ago.



Another big challenge facing the profession is recruitment. Although more women are now working in health and safety than construction, numbers coming into the building sector are still low. “I lecture at the University of Hull on the BSc degree in occupational health and safety management and I’m a supervisor on the master’s degrees. We’re definitely seeing more women doing these degrees, but they don’t necessarily go into construction when they have finished their studies. We’d like to encourage more to join us.”

Bone is keen to raise the profile of construction to potential recruits and highlight the diverse opportunities it can provide for people of all genders and backgrounds. Greater collaboration with other industry bodies will be one way of doing this, he believes.

“I’ll be liaising with other presidents, other associations and affiliate bodies, as well as other professional bodies and local government stakeholders to try and make things happen. I want to try and get the voice of APS and its members out there over the next two years and beyond.”

He’s excited by the possibilities ahead. “I’m fortunate in that we have very dedicated professional people at APS working extremely hard to deliver it all and support what I want to achieve.” ●

The charity Mates in Mind has launched a text support service to reach individuals who may be struggling. Text “BEAMATE” to 85258, where trained volunteers are available 24/7 to help with issues including anxiety, stress or depression.

Raymond Bone: open channels of communication are very important

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The Building Safety Act: five considerations for 2023

2022 was a monumental year for building safety legislation but 2023 is where the true test begins, says **Sam Mephram**



Sam Mephram
Partner and
national head of
health and safety
Services, RLB

Last year saw the industry starting to get to grips with the Building Safety Act, which came into force in April, alongside other changes such as the extension to liability in the Defective Premises Act (June 2022). In 2023 we'll see the launch of the Building Safety Act's secondary legislation – and for many the practical delivery of projects and management of occupied buildings will change.

Here we consider what the top priorities for building safety will be.

1 Competence

It is strange to think that in 2015 the construction industry decided defining competence was too bureaucratic. Sadly, Grenfell has taught us that this is a key area that needs improving.

BSI Flex 8670, which provides core criteria for building safety in competence frameworks, is currently in the process of being translated into a British Standard. Expected in early 2024, it means as an industry we have another opportunity to review and comment on the proposals.

Many of us are confused by the decision to differentiate between the role of the CDM principal designer/contractor and building safety/regulations principal designer/contractor. Uncertainties may arise with other identified roles, as well

as preparation needed to identify potential gaps in our knowledge and skill sets of those they appoint.

2 Information management and the golden thread

Building safety can no longer sit low down the project priority list. Although we have come a long way in terms of understanding the importance of building safety, we need a cultural change to implement it properly.

Effective information management throughout the whole life cycle is necessary with digital systems needed together with the competent resource to facilitate the management of information from conception and throughout occupation. This is something the RLB Digital team is already seeing becoming more and more important for clients in both public and private sectors.

3 Gateways

Gateways are an urgent priority for those involved in construction projects, both in pre-construction and delivery stage. While the principle of gateways is not new, the introduction of Planning Gateway 1 in August 2021 demonstrates the high standard of information expected from the Building Safety Regulator. The industry needs to reflect on whether it is ready – or rather organised enough – to meet the requirements of Gateways 2 and 3.

“Six months later that window will close and anyone with buildings within scope will face penalties if they have not registered

4 Registration of existing buildings

In April 2023, registration of the 12,500 existing higher-risk buildings will open. Six months later that window will close and those with buildings within scope (seven storeys or 18m, with two or more residential dwellings) will face penalties if they have not registered within this time.

Completion of registration is not anticipated to be onerous but is dependent on the level of information held, its accessibility and its reliability. For those deemed the principal accountable person in 2023 (and for shared occupation this in itself creates a debate), now is the time to get knowledgeable about the buildings/estates you manage. New-build higher-risk buildings will also need to register as standard before occupation.

5 Certification of existing buildings

Linked closely with registration is the building safety certificate. The government has predicted a five-year programme to certify all existing buildings based on prioritisation criteria still to be confirmed. Again new builds will have to be certified before occupation. It is at this stage I believe we'll see the biggest impact as many organisations simply do not have the information necessary for the building to be certified.

The building safety case and report is built on the back of an array of information – from existing health and safety files, operation and maintenance manuals, fire strategies, risk assessments, statutory compliance records etc. For years these may have been neglected or poorly managed.

Organisations have often lacked a suitable management system that oversees the application and maintenance of this information, ensuring it is current and available – something that will be necessary as and when the Building Safety Regulator requests. ●

Sam Mephram is partner and national head of health and safety services at RLB.



Safety professionals need the human touch

If you're promoting a safe and healthy work environment, you have to be the friendliest people in the workplace, says **David Cant**

First, let's clarify that being friendly doesn't mean you have to be friends with employees. Safety professionals play a critical role in promoting a safe and healthy work environment for all employees. One important aspect of the job is building trust and positive relationships with workers so communicating safety information and fostering a culture of safety can be managed effectively.

Being friendly and approachable can help break down barriers and create a more open, psychologically safe and inclusive environment where employees feel comfortable sharing concerns or asking questions.

Additionally, workers are more likely to report, without fear of retaliation, safety hazards or issues to a safety professional who is friendly and approachable. Furthermore, they can help create a positive attitude and culture towards safety in the workplace, making everyone willing to work together to keep themselves and others safe.

There are several ways that safety professionals can be the friendliest in the workplace and promote a positive culture of safety.

Be approachable: This can be achieved by maintaining an open-door policy, being a good listener, making yourself available to answer questions and seeking out employee feedback.

Communicate effectively: Clear and concise communication is key in any workplace, but it is particularly important for safety professionals. They should communicate safety information in a way that is easy to understand and listen attentively to the employees.

Use simple language and avoid jargon or technical terms. Speaking in simple language is like putting on a pair of comfortable shoes: it allows easy movement and understanding. Whereas using jargon and technical terms is like walking on stilts – it may impress some people but it's hard to stay up and it can be off-putting for others.

Another useful communication technique is being curious and asking open questions. Instead of saying "Does that make sense to you?", ask "What didn't make sense to you?" This approach encourages dialogue.



David Cant
Director, Veritas Consulting

“Using jargon is like walking on stilts – it may impress some people but it's hard to stay up and it can be off-putting for others

Encourage participation: Safety professionals should involve employees actively in developing and implementing safety policies and procedures. This can help promote a sense of ownership.

Trust and respect: Being friendly demonstrates empathy and understanding. This can help build trust, respect and motivation among team members.

Check in: Regularly check in with your colleagues to see how they are doing both personally and professionally. For example, ask "What did you get up to the weekend?", "How did the family party go?" and "What can I do to help make your job easier?"

Lead by example: Safety professionals should practise what they preach and set an excellent example regarding safety behaviour. This shows that they take safety seriously and can help encourage other employees to do the same.

Show recognition and appreciation: Acknowledge employees when they do something right. Safety professionals should recognise and reward good safety performance because this can help boost morale and encourage employees to continue to work safely.

Use a sense of humour: A sense of humour can help build rapport and ease tension in the workplace. This makes it a more inviting place for employees.

It is important to note that being friendly doesn't mean that safety professionals have to compromise on ethics, professional standards and decision-making, but it helps them to lead and manage a team effectively.

All these actions can help build positive relationships with employees and colleagues, promoting a safety culture and, ultimately, helping ensure a safe and healthy work environment for all. Ask yourself: how friendly are you in the workplace? ●

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Working together for better mental health

Averaged over the year, two construction workers take their own life every working day.

Andrew Pring reports on a new initiative that unites contractors, clients and charities



Towards the end of January, a high-level industry meeting was convened to find new solutions for tackling the construction sector's worryingly bad mental health record.

Leading the virtual meeting was Bill Hill, chief executive of the Lighthouse Club, who was to unveil a new mental health campaign called Make It Visible. Tuning in to hear what he had to say about the new initiative was a broad spectrum of clients from both the private and public sectors, including the then Department for Business, Energy & Industrial Strategy (BEIS), as well as contractors and mental health charities.

Also represented was the Construction Leadership Council, which has challenged Hill to unite the industry and work collectively to improve the wellbeing and welfare

of construction's workforce "for this generation and the next".

Speaking with *Project Safety Journal* in advance of the meeting, Hill explained why the event was so vital and why so much rested on it.

"One of the big problems to date is the sector's lack of a unified approach to mental health. There should be a proper benchmark for everyone to index and measure their progress against. We want the whole industry to unite behind one single wellbeing programme and we believe the Make It Visible campaign can achieve that. I'm more optimistic about the year ahead and what we can achieve than I've ever been before."

Courses of action

Alongside Hill at the meeting was Professor Billy Hare, whose research covers safety, health and wellbeing in construction and who lectures on construction management at Glasgow Caledonian University. He has been studying mental health issues for the Lighthouse Club since the Stevenson-Farmer review of mental health in construction in 2017.

Setting out Hare's analysis of recent studies into the industry's approach to mental health over the past two years, Hill and his team suggested various courses of action. He then asked the industry attendees to decide priorities and set up teams to deliver a deep and lasting step change in a concerted pan-industry way.

Helping promote whatever plans were hatched at the meeting will be the Make It Visible campaign's Ford Transit vans. These are decked out in an



“The sector needs to address the root causes of poor mental health, which are so often linked to construction’s adversarial nature and macho culture

Professor Billy Hare, Glasgow Caledonian University



Bill Hill of the Lighthouse Club presents the Make It visible campaign

34

construction workers per 100,000 took their lives in 2020-21, compared to nine per 100,000 in all occupations

eye-catchingly colourful livery, donated free of charge by Ford, as is access to Ford's global marketing agency.

A pilot scheme last year saw trained mental health workers visit 150 sites around the country in one of these luminous vans. The workers talked with over 7,500 operatives about the many industry initiatives open to anyone suffering from stress and anxiety. Tellingly, says Hill, 95% of construction workers were totally unaware of a single one of those initiatives.

Suicide in construction rising

Suicide numbers are just one indication that the Make It Visible campaign has a very big job on its hands. Another is that surveys show the depth of misery in the construction sector far outstrips that of almost every other occupation.

To take the starkest statistic of all, 34 construction workers per 100,000 took their lives in 2020-21, compared to nine per 100,000 in all occupations – nearly four times the national average. (The ONS states 10.5 per 100,000, but this includes the construction sector: Professor Hare has arrived at the 'nine' figure after excluding construction.)

This equates to two construction workers taking their own life every single working day, or 507 for the year (the ONS only covers England and Wales; Scotland does not break down the number of suicides in its construction sector).

And, to the consternation of all and in contrast to a recent slight decline in whole-nation suicide rates, the situation has been getting worse over the past few years. In 2015, nine fewer

construction workers per 100,000 (25 in total) died by suicide, evidencing a rise in construction suicides of 26% in the past six or so years.

The vast majority of construction suicides occur among site operatives, but white-collar workers are by no means immune. ONS figures show that construction's management and professional occupations have had the lowest rates of death by suicide since 2015 and had been on a downward trajectory. However, in 2021 the rate for this group more than doubled from 4.9 to 11.2 deaths per 100,000 – the highest since the data was recorded from 2015.

The 2021 rate for skilled workers increased 21% on the previous five-year average, while plant and process and unskilled workers rose 18% and 16% respectively, although the rate for each of these occupations did actually fall slightly from the previous year.

Suicide is, of course, not the only indicator of the deep well of despair in the construction sector. In a survey by the Chartered Institute of Building in 2020, 26% of construction professionals said they had considered taking their own life in the previous 12 months.

Why construction workers suffer such high levels of poor mental health is no mystery. It's a tough, unforgiving working environment, where huge pressures can build up when trying to bring projects in on time and budget. Long hours, physically demanding and often dangerous activities, an itinerant lifestyle that may mean many nights away from home and loved ones, with the additional worry of not knowing where the next job is coming from, all add to the toxic mix. ►



CHARLIE MAGEE

So does construction's traditionally 'macho' culture, which can act as a strong barrier to sharing feelings of unhappiness and stress and reaching out for help. The overwhelmingly male nature of the industry (87% of workers) also affects the suicide rate, as men have a far higher propensity to take their own life – of the 6,000 suicides last year in the UK, 5,000 were men.

Financial pressures play their part too, particularly for the SME section of the industry, where cash flow can often dry up and finances buckle. Fifty-three per cent of the sector consists of individual self-employed workers, often on zero-hours contracts with no paid sick leave.

With all the economic stresses caused by both austerity and increasing interest rates, many more workers have been finding it harder to make ends meet. Covid and its effect on the ability to work may also have played a part, though industry experts differ over the extent.

Self-employed pressures

Mates in Mind, a mental health charity dedicated to helping those in the construction industry, carried out in December 2021 a major study of the mental health of self-employed construction workers and those working in small firms. It showed that intense workloads, financial problems, poor work-life balance and pressures on the supply of materials were combining significantly to raise stress and anxiety levels.

Overall, almost a third of respondents had 'severe' anxiety,



“We want the whole industry to unite behind one single wellbeing programme, and we believe the Make It Visible campaign can achieve that Bill Hill, Lighthouse Club

with a further third in the 'moderate' anxiety category and the remainder in the 'mild' anxiety group.

Almost half of respondents reported that they found “talking about my mental health extremely difficult” and almost 70% agreed that “that there is a stigma about mental health which stops people from talking about it”. Respondents with 'severe' anxiety – more than those with less severe anxiety – reported significantly lower willingness both to seek help and provide it to others.

Mates in Mind pinpointed five areas which respondents reported were contributing relatively frequently to feelings of stress, anxiety or low mood. These were: workload that is too high (42% experiencing this

The Make It Visible campaign's eye-catching Ford Transit vans are donated free of charge by Ford

frequently); difficulties with business partners/colleagues (37%); pressure at work (35%); anxiety about family or relationship problems (33%); and financial problems (32%).

Mental health initiatives

These stress factors are, of course, well understood throughout the industry, and it's important to acknowledge that enormous efforts have been made over the past decade and more to address them. Many main contractors have admirable mental health programmes – both reactive, seeking to help employees and supply chain members when problems strike, and proactive, teaching managers and teams to create a supportive working climate that encourages good mental health.

BAM is one of the leaders in developing a progressive, universal approach to the problem for both its staff and supply chain. Its work has been recognised through a number of major mental health awards.

Over the past few years Ruth Pott, head of workplace health and wellbeing for BAM UK & Ireland, has driven a comprehensive programme of measures aimed at improving mental health at work. She has had the full support of the main board. Most managers are trained in mental health awareness and, out of a directly employed staff of 6,500, over 400 have been trained to become mental health first-aiders and act as wellbeing champions, playing an active role in spreading the message that “it's OK not to be OK”.

Such is the scope and universality of BAM's wellbeing programme, there are

too many measures to list here – but one of the most successful has been onsite ‘wellbeing rooms’ which offer safe spaces for anyone on larger sites to have confidential conversations with a wellbeing champion. Another is 24-hour access to an employment assistance programme run by a specialist external company.

Taking a proactive approach

“It’s all about awareness training and taking a more proactive approach,” says Pott who, in 2021, was named ‘Most Inspiring Mental Health Leader’ by the national mental health organisation This Can Happen. “What we’re aiming to do is normalise the conversation around mental health. Life is hugely challenging and sadness is quite normal. People have to learn to live with anxiety, but we can support them and help them cope.”

BAM also makes a link between physical and mental health, and the impacts of poor mental health and wellbeing upon safety. The firm encourages participation in healthy activities and habits as part of its efforts to drive wellbeing.

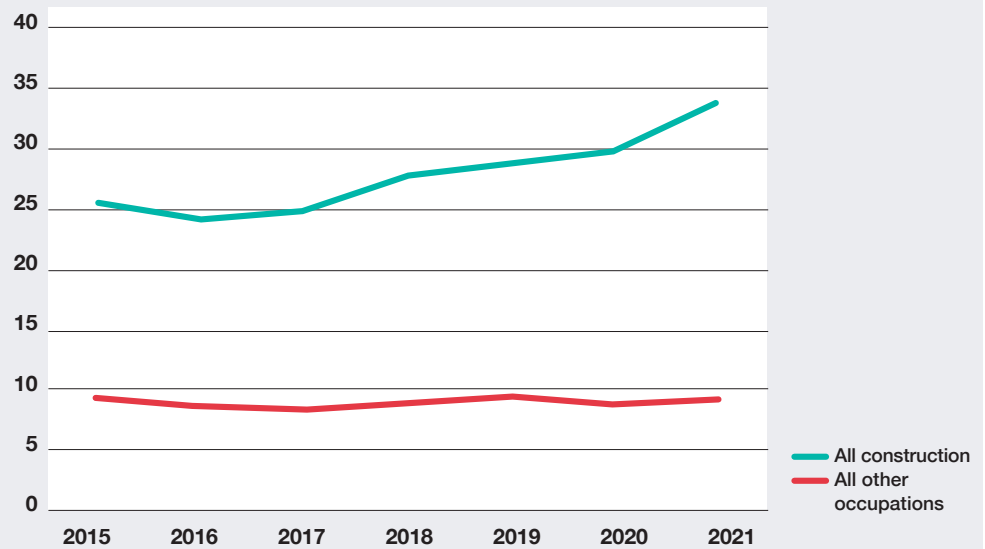
Skanska is another company that’s been showing the way towards better mental health since it embarked on its own wellbeing journey in 2016. Nearly 60% of its 3,300 UK staff have been through mental health awareness training and it has a network of 165 mental health ambassadors, trained by Mental Health First Aid (MHFA) England. Like BAM, it has an externally run employment assistance programme which offers round-the-clock support and counselling.

At Willmott Dixon, a similarly comprehensive mental health support package is in place, even down to offering safe places where their Ukrainian workers can phone loved ones at home.

Mark French, head of health, safety and the environment, runs the company’s All Safe Minds campaign,

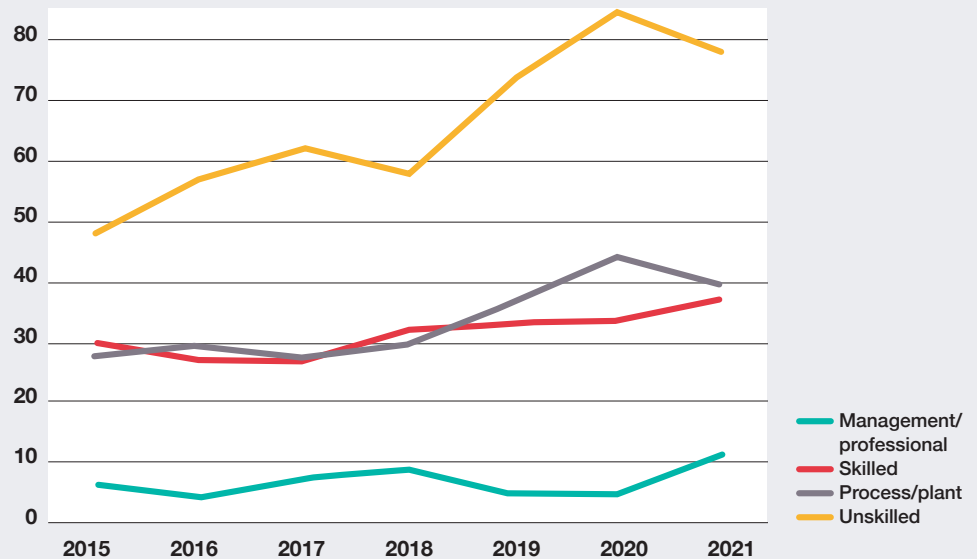
Suicide rates in construction in England and Wales 2015-2021 compared with other industries

Rate per 100,000



Construction suicides per occupation (as classified by standard occupation codes)

Rate per 100,000



PROFESSOR BILLY HARE, GCU BEAM RESEARCH CENTRE, GLASGOW

5,000

Men have a far higher propensity to take their own lives. Of the 6,000 suicides last year in the UK, 5,000 were men

which aims to ensure vulnerable workers are able to tap into a variety of recognised resources as quickly, easily and privately as possible. All Safe Minds encourages everyone to watch out for anyone who might be struggling with pressures and to start a conversation. Fifteen per cent of Willmott Dixon’s staff are trained as mental health first-aiders.

French says the company has recently switched to a mental health app run by the Lighthouse Club, and

it’s proving effective. “We’ve employed the Thrive app for several years but it uses language with which office workers are comfortable, but which does not necessarily work for site workers. The Lighthouse Club’s app is more attuned to their way of speaking.

“It’s part of the work we’re doing on sites to ‘make it real’ and we’re also trying to identify workers who are not necessarily supply chain managers but are characters that people look up to and who command respect. They ►

can be very good at encouraging people to speak up and make use of our support systems. And they can help us keep banging the drum and getting the message out there.”

What needs to change?

The authors of the hard-hitting report *Thriving at Work: The Stevenson/Farmer review of mental health and employers* back in 2017 would undoubtedly be impressed by how wholeheartedly the industry has moved to embrace and implement their recommendations.

Yet, for all the many impressive initiatives in place, it's clear they have failed to bring down the rates of depression and suicide across the sector. Why? And what will make the difference? Is it a question of continuing to do what's been done over the past five or so years and taking the mental health message further and further down the supply chain? Or could there be a more fundamental problem – one to do with the systemic nature of the construction industry itself – which prevents real progress being made?

Dr Nick Bell, a former risk consultant in the built environment, a chartered psychologist and currently a part-time principal lecturer at Cardiff Metropolitan University, has taken a professional interest in wellbeing for a number of years and has studied the construction industry closely. He's

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In a survey carried out by the Chartered Institute of Building in 2020, 26% of construction professionals said they had considered taking their own life

convinced that the “strongly adversarial” and “contractual and confrontational” culture, highlighted in the Egan report of 1998, is still prevalent and at the heart of the industry's mental health problems.

“Projects often have unrealistic timetables and financial conditions. This leads to people blaming each other and this conflict gets pushed down the line, putting tremendous pressure on the small trades.

“We need to get away from clients taking the cheapest bid and contractors working at unrealistically low cost levels with all the onsite stress that can cause.

“Clients need to set projects off on the right foot with an effective set-up. They need to involve the contractor as soon as possible, helping get the design right and ensuring early and effective co-ordination between the trades. That way, the building is much safer to build and people can develop much more positive relationships on site, which means less stress all round.”

Psychological needs

Bell is also convinced not enough is being done to develop more harmonious relationships on site. “In the UK, we don't pay enough attention to the psychological needs of our workers. Managers need to understand what makes people tick and how to make individuals feel respected and valued, part of a team and feel a sense of purpose in their work. It doesn't need to be complicated – you just need to train site managers and give them the time and motivation to implement this.

“At the moment, there's still too much of a ‘them and us’ mentality between managers and workers. So the mental health first-aiders you can see on sites these days are really just sticking on plasters and not addressing the underlying problems. It's no good having ‘work well Wednesday’ sessions if everyone's too busy to attend.”

There are some signs of change, Bell notes. Since 2021, the Health in Construction Leadership group has been focusing attention on “proactively fostering positive mental health and wellbeing”, not just preventing ill health.

He points to the various guidance notes for construction clients. “If clients do what they need to do from a CDM perspective, we will have the foundations of a project in which people can perform at their best and thrive. If that's followed through, then you can create the right culture on any project.”

Professor Billy Hare, the Glasgow academic who works closely with



“What we're aiming to do is normalise the conversation around mental health

Ruth Pott, BAM UK & Ireland

the Lighthouse Club, shares Bell's concern that initiatives are treating the symptoms rather than the causes of construction's mental health crisis.

“Counselling and advisers are certainly needed for the short term, but the sector also needs to address the root causes of poor mental health, which are so often linked to construction's adversarial nature and macho culture. In my opinion, there are common denominators to the mental health problem and they link to productivity, quality and conflict. Getting this issue right really is all to do with the way we procure our buildings.”

No doubt many attending January's Lighthouse Club meeting would be stung by these comments. They and others could quite justifiably say that this is exactly what they are already doing and that they could not be more passionate about improving construction's mental health record.

But it's clear that much more still needs to be done. Given the Construction Leadership Council is calling for a concerted approach to improve the wellbeing of construction's workforce “for this generation and the next”, industry leaders seem to have recognised that too.

Whatever plans emerged from the Lighthouse's virtual meeting, Bill Hill's optimism for the year ahead rests on the whole industry getting behind the charity and co-ordinating mental welfare activities.

Time alone will tell if it will work. But, in Hill's opinion, the sector's reputation is well and truly on the line: “To encourage the next generation to see construction as a top career choice,” he says, “the industry must unite to turn this moment into a long-term movement to drive cultural change.” ●



Low Friction Layer

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



Mips

Safety for helmets



Designing for construction

John Carpenter highlights the potential safety issues and the wider implications for designers and principal designers of not considering construction processes during design, including permanent works steelwork in temporary conditions

One would have thought that, after nearly 28 years of CDM, there would be nothing left to say on the subject of the designer's role and duties. Embarrassingly, appallingly, this is not so. The general level of knowledge and action across the industry is still lacking – with exceptions of course – although these can be hard to find in the public domain.



John Carpenter
FICE
Risk management specialist

A new guidance note, ostensibly about permanent works steelwork in temporary conditions arising during construction, gives emphasis to a risk management approach not widely adopted and yet which has significant potential. I wrote this note, *Design Risk Management: Steelwork temporary conditions* (reference 1) to capture known shortfalls in design and

to give them greater prominence. It was published by the Institution of Civil Engineers (ICE).

It provides a reminder of the design risk management process, from both the permanent and temporary works designer's perspective, for permanent works steelwork in the temporary condition arising during construction. There is an obligation on

“Hiding in plain sight, these ‘soft hazards’ are the ones which can cause not only serious safety situations, but also significant additional costs, delay and other detrimental effects

the permanent designer to consider these situations, highlight them if not obvious to a competent contractor and to make efforts to eliminate or reduce the consequential risks. Several commonplace examples are given. The principal designer should be asking if this has been done.

The steelwork advice note is one such example of what can be done to address design issues in the industry – two others are mentioned in the box on the right.

Poor design decisions

Even after all these years, designers are not good at thinking about construction processes (be it initial build or maintenance and repair). If we are to improve the standard of design, and buildability, with regard to the wellbeing of others, the best place to start is by thinking of those who may be harmed by poor design decisions.

These are contractors (both those who build and also those who maintain and repair) and those clients who have a long-term interest and who engage people to maintain and repair their asset.

There are many clients, of course, who do not have a long-term interest or who do not have the necessary understanding of the operational phase of an asset. In these cases, the designer should consider the longer-term aspects and, if not confident in this regard, seek advice.

Furthermore, poor design is likely to lead to a higher cost to clients because contractors will add money into their bid in anticipation of difficulties arising from anticipated poor design. When bidding is tight, it will arise instead in claims during the project or shortcuts being taken. These cost-related scenarios are more likely than the contractor's operatives suffering from harm, as the obligatory safe system of work will, in most cases, be a checkpoint.

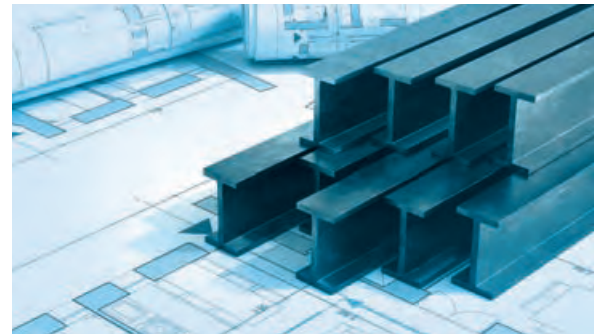
This is not a good advertisement for designers or the industry. The key

then is to identify commonplace poor design examples, or commonplace design information absence, and set out clear expectations such that it results in safe and healthy work tasks, is given authoritative status through industry organisations such as APS. Although not covered by legislation, we must also seek economic and sustainable solutions.

In addition to the traditional occupational safety and health issues (work at height, dust etc), the Building Safety Act has brought to the fore the need to consider structural failure and fire (although these were always there as statutory risks). If one studies these failures, occurring over the years, of whatever scale, and in any industry, one finds a common thread of root causes. These are mostly ‘soft hazards’, which include, as examples, checking, supervision/monitoring, validation and verification of software (See references 2,3,4).

Hiding in plain sight, these soft hazards are the ones which can cause not only serious safety situations, but also significant additional costs, delay and other detrimental effects. They are directly relevant to both designers and principal designers. Consideration of these hazards by designers and also principal designers should be a feature on all projects of any size and type.

Designers, encouraged by principal designers and others, should follow the advice given in the three referenced advice notes and, at an individual or project level, think through the construction phase in particular. ● **John Carpenter FICE is a past fellow of the Institution of Structural Engineers and of the Institution of Occupational Safety and Health. He is an ICE Gold Medallist 2021. He is past secretary of the Standing Committee on Structural Safety (SCOSS) and instigator of CROSS, founding secretary of the Temporary Works Forum (TWf) and past external member of APS Council.**



Further examples of ICE guidance on design

As well as the new safety note on steel design, the ICE has also produced two notes covering other aspects of design

1 Safe PC slabs

The HSE CDM Guidance *Managing Health and Safety in Construction* at (para 87a) (reference 5) somewhat confusingly talks of designers “considering the use of smaller slabs” (so as to lessen health issues, it is supposed). However, no advice is given on how the choice might be made, or how this marries with the use of commonly available sizes. The ICE advice note (reference 6) provides the answer to this in a practical way.

2 Edge distances on flat roofs

Surprisingly, there is no specific formal guidance as to when edge protection measures should be implemented in situations when access is required, but only for competent persons, eg on plant maintenance. ICE produced this note (reference 7) to provide such advice. It makes clear that just because access on to flat roofs will occur, it does not mean that edge protection has to be provided in all cases.

Further resources

1. Design Risk Management: Steelwork temporary conditions, at *Design Risk Management: Steelwork temporary conditions* Institution of Civil Engineers (ICE), ice.org.uk
2. *Designing a Safer Built Environment*, ICE Publishing
3. Essential consideration of soft hazards at *Essential consideration of ‘soft hazards’ on civil and building engineering projects* CROSS, cross-safety.org
4. CROSS Alert at *The Management of Design Related Risks: structural, civil and fire engineers* CROSS, cross-safety.org
5. *Managing Health and Safety in Construction at Construction (Design and Management) Regulations 2015* hse.gov.uk
6. Paving slabs at *Briefing Sheet: Health & Safety Expert Panel on Paving Slabs* Institution of Civil Engineers (ICE), ice.org.uk
7. Roof work: edge distances at *Roof Work: Repair and maintenance* Institution of Civil Engineers (ICE), ice.org.uk

Look out, behind you: limiting vehicle risk on site

The most obvious risks are usually those that occur frequently – that does not always translate into them being adequately and consistently controlled or mitigated.

A case in point is vehicle movement, says **Matt Kyle**



Construction sites are busy places with an almost constant movement of vehicles and plant, often in tight spaces with the vision of operators restricted. Those who may come into the path of vehicles are often preoccupied with a different task or taking the most direct route to save time. It is not surprising, therefore, that the Health and Safety Executive's (HSE) most recent accident statistics, for 2021/2022 figures released in November 2022, show that 20% of all work-related deaths involve vehicles.

These industry figures consistently show that around seven fatalities occur annually as a result of persons being struck by vehicles and plant on construction sites. Add to that the number of injuries and near misses and it is clear this is a very material risk – and, critically, one that is not being consistently well managed.

Arguably, the measures to control the risk are straightforward, but getting people to keep thinking about risk and embedding safe behaviours is challenging. We all know that we don't walk behind vehicles, so what training should there be?

Getting it wrong

There has been a number of recent prosecutions for vehicle-related incidents. Food manufacturer Egger (UK) was fined £910,000 after a self-employed lorry driver was killed making a routine delivery of recycled wood. The HSE found the company had failed to conduct sufficient risk assessments for workplace transport, stating: "This resulted in a failure to identify that pedestrians, including delivery drivers, were at risk of being struck by moving vehicles in the yard, despite the high level of vehicle movements and previous near misses."

Civil engineering firm BAM Nuttall was fined £700,000 following an incident in which an employee who

was repairing equipment was run over by a dumper truck and fatally injured. The HSE inspector commented: "This death could easily have been prevented if his employer had acted to identify and manage the risks involved and to put a safe system of work in place." Another significant fine of £866,650 was levied at Moy Park, a food processor, following serious injuries caused to an employee struck by a reversing forklift.

These are busy workplaces where vehicles may operate in tight spaces with limited visibility of pedestrians. On many construction sites the risk may be even greater, given the amount of activity and changing layouts. In each case the main failing was a lack of any proper assessment of the risk, meaning there was no system of keeping pedestrians and vehicles apart. There was no plan even before getting on to training safe behaviours.

Planning for vehicle and pedestrian movement

Applying a hierarchy of measures, the start point should be how the risk can be eliminated or at least greatly reduced by the way the site operates and vehicles and pedestrians interact.

Pedestrian and vehicle separation should be part of the design and organisation of the site. Main considerations include thinking about where vehicles will need access, where the heavy use areas are (the primary routes for delivery or access to main work areas) and whether these can be made vehicle only.

Planning should include how the traffic flows, maximising use of one-way routes, having designated parking areas, clear signing and the enforcement of speed restrictions. Work on site should be planned to minimise vehicle movements – particularly reversing – and to avoid



Matt Kyle
Associate director,
Osborne Clarke

“Pedestrian and vehicle separation should be part of the design and organisation of the site

unnecessary deliveries and the double handling of materials on site.

The location of loading and storage areas needs to be carefully considered. Where there is little onsite storage space, offsite storage areas may be required for temporary materials. Loading and storage areas should be located away from main pedestrian routes and should have one-way systems and safe exit points, as well as sufficient room for vehicle movements. Pedestrian routes should be defined, with dedicated walkways and clear and marked crosswalks. Efficient intersections are fundamental to controlling risk.

In some circumstances it may not be reasonably practicable to achieve physical segregation between pedestrians and vehicles – for example, during infrequent, short-duration, low-risk unloading operations. In such cases signallers and safe systems of work should be used to control vehicle and pedestrian movements. To ensure this happens, there needs to be some planning and oversight of vehicle movement. Too frequently, decision-making is left only to the vehicle operator, who might be keen just to get the job done quickly.

Driver aids

Driver assistance aids are a secondary layer of safety measures. These have improved and become more cost-effective in recent years. It is difficult to argue that they are not a reasonably practicable step. Measures such as additional mirrors, camera reversing aids and warnings are all helpful.

However, these rely heavily on the operator using them effectively and being aware of others around them. For example, a reversing alarm may not be heard; it should never be the primary control.

Training and entrenching behaviours

Communication is essential. Drivers and pedestrians entering the site need to be informed of the risks and rules regarding routes.

Drivers may visit the site only once, so someone needs to be responsible for managing their activities.

If the routes are well marked and everyone knows the plan, it might be argued there is no need for any further action – people know the risks and there are obvious easy-to-use control measures. However, behaviours can slip, the use of a site may change, areas become blocked and alternatives determined at short notice.

The role of all, but managers in particular, in developing the right culture is essential. The messaging around keeping safe from vehicles has to be continually reinforced so that following the systems in place becomes as natural as wearing a hard hat. Toolbox talks, signs and positive reinforcement of site rules are essential. Those failing to follow the safe routes should be called out – this includes those coming on to sites just to deliver. There has to be some accountability.

Easy to manage?

There will always be pinch points as a site evolves, and those who don't quite follow the rules, but this is an everyday risk with which everyone is familiar. Reviewing how the risk can be managed through good planning, backed by clear communication, is fundamental. It is a risk that we all know, but one of which all need to be made continually aware, to avoid harm to employees or visitors and a potentially costly prosecution. ●

Matt Kyle is an associate director in the health and safety team at Osborne Clarke.

What does the law say?

As well as general duties under the Health and Safety at Work Etc Act 1974 there are specific obligations governing the organisation of traffic routes in the Workplace (Health, Safety and Welfare) Regulations 1992. Regulation 17 requires the following:

- ① Every workplace must be safe for the people and vehicles using it.
- ② Workplace traffic routes must be suitable for the people and

vehicles using them. This would include ensuring that routes are far enough away from doors or gates that pedestrians use, or from pedestrian routes that lead on to them, so the safety of pedestrians is not threatened.

- ③ Measures should be taken to ensure that there is sufficient separation between vehicles and pedestrians.
- ④ All traffic routes are suitably indicated where necessary.

In addition, Regulations 27 and 28 of Construction (Design and Management) Regulations 2015 require the management of safe traffic and pedestrian routes throughout the construction phase and client handover period. Therefore, aside from managing the risk, those with responsibility for construction sites are exposed to criminal liability: there is the legislation in the HSE's armoury to make enforcement quite straightforward.





“To do safety ‘well’ you have to get under the skin of design, so that safety is embedded in that project from feasibility through to operation

Fran Watkins-White, Bureau Veritas

Talk me through your current role and what it involves?

I’m head of the CDM team at Bureau Veritas UK, and I’m based in Wolverhampton. My role is focused on growing and developing the CDM services that we provide from Bureau Veritas for built environment projects we work on around the country.

Before becoming part of Bureau Veritas when it took over in 2016, I worked for HCD Management for a number of years. Since then the company has expanded the scope of what I do and given me a more managerial role, which makes greater use of my skill set. I have a business degree from the University of South Wales and I enjoy putting my knowledge and experience to good use, developing my team and working with colleagues across the business.

I love working in the built environment and being part of shaping and growing buildings and implementing safety across the whole project lifecycle. CDM can have such a great impact on how people build and use buildings.

How did you get into health and safety?

After I graduated, I did a number of jobs including administrator for the local arts centre, which was where I started to become aware of health and safety. It was in the early 1990s and health and safety legislation was becoming much more important. I got involved in implementing some of the new legislation in the workplace I was in, but also did some IOSH health and safety training through the volunteering I was doing with St John Ambulance, so I started to develop a real interest in health and safety.

After I left the arts centre, I was temping for a surveyor’s and got into the built environment side because I knew about health and safety. I became involved in the old planning supervisor role and that was the start of my career in construction safety, which was something that had never occurred to me before.

‘I love being part of shaping buildings’

Fran Watkins-White talks to **Denise Chevin** about her role as head of CDM services at Bureau Veritas UK, part of an 82,000-strong global testing, inspection and certification organisation

I then did a postgraduate course in health and safety at Portsmouth University to give me a stronger foundation in health and safety awareness alongside my NEBOSH certificates and construction-specific knowledge. And that led me to membership of the APS.

Do you work across lots of different building types and different projects?

Yes, we've got everything from, say, a small laboratory refurbishment at a university through to multi-million-pound city centre rebuilds. Of course Bureau Veritas also does a lot of work in renewables these days and that's becoming an interesting area for me, particularly solar energy.

Are there any schemes that have given you particular satisfaction?

Some of the historic buildings we've worked on have been very satisfying. You can be refurbishing a medieval building and making it safe from fire and improving access for maintenance while retaining the historic aspects of the building. And, at the same time, it's very pleasing from an environmental standpoint to be reshaping and repurposing a building rather than knocking it down and replacing it with a rebuild.

How are things changing since the Building Safety Act came in?

We are already advising and working closely with clients – and advising on the Building Safety Act, working alongside my colleagues from building control, fire engineering and building standards to develop our service offering. We are looking at this very closely and considering how the principal designer for the Building Safety Act interacts with the principal designer for CDM and how we shape our services to respond to that.

We're also thinking about the competences required. They're going to become more and more important as we will all be required to demonstrate our competency. The industry has got a lot of upskilling to

“We've got to change some of the old-fashioned attitudes if we're to attract new talent to the sector. The world is evolving, and we've got to move with it
Fran Watkins-White,
Bureau Veritas

do in order to respond to the Building Safety Act, so we're looking at our team training plans and what they need to evidence over the next year.

For me, the big challenges are around how we work with architects. They are designing great buildings, but to do safety 'well' you have to get under the skin of design, so that safety is embedded in that project from feasibility through to operation.

Safety should be integral within that design and from day one on a project. We shouldn't be designing buildings and then looking at how to make them safe. So, for us, it's all about how we can influence architects and designers in the project teams.

Would you see yourself being the principal designer for both CDM and Building Safety?

We're evolving our views at the moment on how we will respond to that. We have fire engineers and building control and standards' experts within the company, so we're in a strong position to respond to that across the whole company.

Do you see any policy areas in the safety arena that you feel aren't working?

Competency is an area that concerns me. I come across lots of people working in this field who can't answer basic safety questions at an interview.

As an industry, we've got to grow our knowledge and also get architects and designers to think much more about safety as an integral part of what they're designing.

We've also got to become more diverse as an industry because construction is still very male dominated. We've got to change some of the old-fashioned attitudes if we're to attract new talent to the sector. The world is evolving and we've got to move with it and work as leaders and organisations to enable people to bring their whole self to work. I think that's really important.

It's an interesting challenge to see how we can create a



CV: Fran Watkins-White

● August 2021 to present: Head of CDM services, Bureau Veritas

● December 2020 to August 2021: Principal CDM consultant, Bureau Veritas

● October 2007 to December 2020: Senior health and safety consultant, HCD Management, A Bureau Veritas Group Company

● Outside interests:

As well as my involvement with St John Ambulance, I travel a lot and try to see as much of the world as I can. I once spent a week canoeing on the Zambezi River, which was an adventure. It's always good for a safety consultant to be chased by a hippo once in their life! I also enjoy belly dancing and a bit of flamenco too.

workplace and an industry that attracts women and a more diverse workforce. As part of that we have to consider how the APS can better reflect the wider population.

I think we all need to play a part in creating a training pathway for those that know little about the built environment to help them into CDM consultancy.

Tell me about your volunteering role

I have been involved in St John Ambulance since 1986, when I became a first-aider. I still do first aid but I've also moved into training and developed my leadership skills, I'm currently the area manager for Wolverhampton. The leadership training courses I did with St John Ambulance and skills I've learned have been really useful in my day job.

Any career tips?

Build your knowledge base – learn as much as you can about the built environment. Develop your people skills. And be open to opportunities. ●

Fire and smoke access solutions

There are a range of specification techniques that can be applied to achieve compliant and effective fire performance for wall and ceiling access solutions. **Tom Brandon** explains

Whether you are specifying riser doors, wall access panels, ceiling access panels or steel doors for a project, it is important first to understand the relevant application, its construction, technical requirements and corresponding legislation. This will enable you to achieve the correct product specification for your project. This will ensure compliance with the fire-resistance requirements for your access solutions.

What is a riser door?

A riser door enables relevant individuals to gain access to building services. Examples include electrical cupboards, service ducts or access to the rear of bathroom pods.

Unlike traditional timber doorsets, contemporary doorsets are concealed and clean, with all ironmongery elements hidden inside. They can be manufactured in continuous banks –



Tom Brandon
Specification
sales manager,
Access 360

such as triples, quads or fives – and can be engineered in length banks to allow greater access.

What is a fire door?

A fire door compartmentalises a building's physical structure, creating a barrier that cuts off the flow of smoke and fire to separate areas. This reduces the damage caused by fire and smoke, while protecting key routes of evacuation for individuals trying to escape. It also provides emergency services with a protected route to gain access to the building. Fundamentally, fire doors are there to save lives – and, secondly, to reduce damage to the building.

It's therefore extremely important that the manufacture, specification, installation and maintenance of fire doors are correct and that all risks have been appropriately managed.

There are multiple elements of a fire door: the door leaf, the

frame and its linings, intumescent seals and relevant smoke seals, the latch and lock, hinges and the correct function of a door closer. It's therefore important to understand how a fire door functions, so that you can select the right product for your project.

A fire door must be supplied with fire test evidence. This means it must have an independent certificate of performance from a fire or testing house.

It is also important to note that a fire test evidence certificate is different from a third-party accredited certificate. Every product that is fire tested will receive a certificate of performance, but not all products will have third-party accreditation.

A fire door must be tested by an independent test house in accordance with the relevant British or European standards.



In association with



British Standards

The first regulation you must consider is BS 476: Part 22. This determines the method of testing and outlines the structure and methodology of how the door should be constructed within the test house.

In the UK, all doors with smoke requirements must have no more than a 3mm gap at the bottom and there is a statutory requirement for a four-point frame.

This is covered in BS 476 Part 31 and also partly stipulated under the air pressure smoke testing, which is incorporated in BS 9999: 2008. Any door that has a risk of smoke must have a smoke seal fitted to it with no more than a 3mm gap.

Traditional timber riser doors typically have a standard three-point frame with a gap at the base, which means the doorset cannot receive the necessary test certification for a four-point frame.

You should therefore choose modern, metal riser doors that have a 3mm shadow gap around the edge, which conform to British Standards and are raised off the floor with a four-point frame.

The testing requirements between the UK and the EU come under two standard types, BS 476-22 and EN 1634-1. You will find that most manufacturers in the UK will test to both because they are selling their products into a European market. However, it is important to always look for the correct one for the marketplace into which you are specifying.

The only difference between them is the prefix: the British Standard uses FD for 'fire door' and the European standard uses E. The number (such as 30 or 60), states the number of

minutes, which is uniform across the whole of Europe. Each standard should be listed on the manufacturer's conformance documents.

In relation to smoke seals, it is important to look for the 'S' suffix. Again, the only differentiation between the British and the European Standard is the FD or E prefix, but they both stipulate 'S'. This is covered in BS 476-31.1 and EN 1634-3.

Approved Document B

Building Regulations Approved Document B stipulates that all doorsets – all elements of the door, including the associated ironmongery – must be installed and sourced from a single source. Under the regulations, all doors must be fully fitted and finished under the specific

Above left:
Bi-directional
fire testing –
after testing

Below:
Bi-directionally
fire-tested
riser doors
with adjustable
frames installed
at 8 Bishopsgate,
London

“Building Regulations Approved Document B stipulates that all doorsets – all elements of the door, including the associated ironmongery – must be installed and sourced from a single source

direction of the manufacturer and must be preassembled in a factory to be fully compliant.

Approved Document B states: “Any test evidence used to substantiate the fire resistance rating of a door should be carefully checked to ensure that it adequately demonstrates compliance and is applicable to the adequately complete installed assembly.”

Third-party accreditation

Third-party accreditation provides assurance of performance. The product is independently tested at a test house. It then issues an independent certificate that states the duration to which the product performed. An example of this is the Certifire scheme. This ►



MARK VARNEY

“**Bi-directional fire testing means the door has certificated fire performance from each direction of between two hours and four hours, depending on the product selected**

Bi-directionally fire-tested riser doors installed at the New Ludgate development in the City of London

includes third-party certification, tamper evidence labels and product specification data.

The third-party testers visit the manufacturer and review all certification documentation, while regularly visiting the factory to assess the manufacturing process. They will anonymously select doors during manufacture, then take the door away to retest it. If it passes, they will then confirm certification of performance.

Bi-directional fire testing

Bi-directional fire testing means the door is tested once from one side, then a new set is erected and it is tested from the other side. This means the door has certificated fire performance from each direction of between two hours and four hours, depending on the product selected.

Bi-directional testing is one of the chief recommendations to come out of the Hackitt report, which states that all doorsets should now be bi-directionally fire tested.

Additional performance considerations

It is important to note that performance relates to the complete install assembly. *Approved Document B* identifies the requirements and testing guidance for certification and non-deviance from the manufacturer's requirements.

Products should be tested to BS EN 476-22 and 31 and/or EN1634-1, 2 and 3 and performance should be confirmed by an Independent Product Conformity Certificate. Specification is key to compliance. Don't deviate from it – it saves lives.





MARK VARNEY

“If you want a more concealed solution where the doors are absolutely invisible, you can go with a clad solution, where cladding can be run across the face of the door

Design considerations

This means when looking to achieve your desired design aesthetics, there is a range of options to consider.

First, you can have riser doors – such as the Profab Access INTEGRA 4000 Series – pre-painted and delivered to site in whatever colour you require. Second, you can specify standard RAL 9010 matt finishes. This means the contractor can paint the wall and run the roller across the front of the riser door and off the other side.

If you want a more concealed solution – where the doors are absolutely invisible – you can go with a clad solution, such as the Profab Access VISION 8000 Series. This is where a cladding solution – such as tiles or stone – has been applied on a wall and that solution can be run continuously across the face of the door. It can either be a face fix or demountable solution.

The cladding solution doesn't diminish the fire performance

of the door as the riser door is manufactured with a fire-resistant plasterboard lining significantly reducing heat transfer to the point that it doesn't affect fire performance.

Frame considerations

Access panels and riser doors come in a range of frame options with the average frame of any access panel being 95mm thick. They are manufactured from 1.5mm Zintec steel which is easy to handle and transport. With the powder-coated finish, you don't have to worry about finishing the doors on site, unless you want to paint over them.

The frame options include Visible Raised Architrave, Picture Frames, Beaded Frames, Deep Plaster Board Frame and Dutch Folded Frame.

Profab Access' new PRECISION Adjustable Frame is a fully fitted, intumescent four-point frame which is adjustable. The door is fitted within the structural opening then, using the screw points at top and bottom, the metal spacer extends to fit the door in place. This enables the frame to move out 10mm in each direction.

The frame has a fully intumescent seal that locks the door in place, so packers are no longer required for installation. It has integral factory-applied intumescent seals, so intumescent mastic application is also unnecessary. ●

Tom Brandon is specification sales manager with Access 360.

Bi-directionally fire-tested riser doors installed at Parkgate Hotel, Cardiff

CPD Questions

1) All doors with smoke requirements must have no more than a gap of how many mm at the bottom?

- a) 3mm b) 0mm
c) 5mm d) 10mm

2) A fire door creates a barrier that cuts off the flow of:

- a) Fire
b) Smoke
c) Smoke and fire
d) People

3) Which of these is not a main document in the Certifire scheme?

- a) Tamper evidence label
b) Product data sheet
c) Third-party certificate
d) COSHH sheet

4) Steel doorsets can be used in:

- a) Residential buildings
b) Leisure facilities
c) Hospitals
d) All of the above

5) Bi-directional fire testing is:

- a) A recommendation to come out of the Hackitt report
b) Not relevant to riser doors or access panels
c) At the manufacturer's discretion
d) Not required

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

Comparing construction's health and safety record with other industries

New annual statistics for workplace health and safety were published in November last year, alongside a new report for construction. How does the record of the industry compare?

We all have a right to not get hurt or ill through work. But how much higher are the risks for being injured or getting ill if your job involves going to a building site every day?

Annual figures from the Health and Safety Executive (HSE), released in November 2022 for the 2021/22 period, showed that statistically construction can be a riskier place to earn a living – but improvements are being made.

Fatalities

In construction there were 30 fatal injuries to workers and five to members of the public in 2021/22 – a welcome fall on the previous period. Over the past five years there has been an average of 36 fatalities to workers and five to members of the public each year. One fatality is still one too many – and at 1.63 per 100,000 workers the fatal injury rate is around four times the all industry rate. Over half (51%) of deaths in construction over the same five-year period were due to falls from a height.

Non-fatal injuries

The latest construction report from the HSE estimates – based on

Labour Force Survey (LFS) estimated annual average 2019/20-2021/22 – shows that in construction there were 59,000 cases of non-fatal work-related injury. Of these, 39% involved over three days' and 26% over seven days' absence.

In the latest year, construction had a non-fatal injury rate of 2,880 per 100,000 workers, which compares to the all-industry rate of 1,650 per 100,000. The HSE points out that around 2.9% of workers in construction suffered from an injury. This rate is statistically significantly higher than that for workers across all industries, which is almost half at 1.6%

All illness

In the latest year, in construction, there were an estimated 78,000 work-related ill-health cases (new or longstanding) of which more than half (53%) were musculoskeletal disorders.

This equates to an ill health prevalence rate of 3,690 per 100,000 workers, which compares to the all-industry rate of 4,030 per 100,000. Around 3.7% of workers suffered from work-related ill health (new or

“In the latest year, around 2.9% of workers in construction suffered from an injury. This rate is statistically significantly higher than that for workers across all industries

longstanding cases). Again, this rate is not statistically different than the 4.0% rate for workers across all industries.

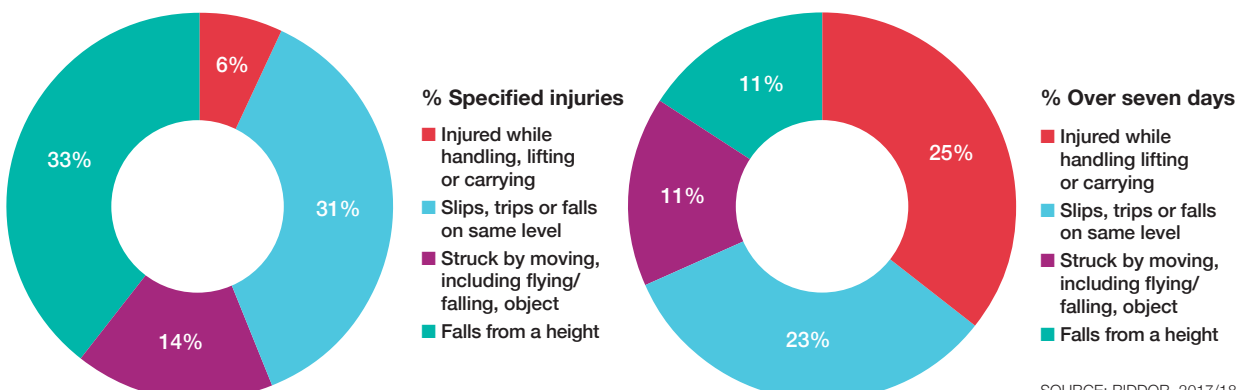
Another illness comparison to note in the HSE construction report was the high prevalence of musculoskeletal disorders of 1,970 per 100,000 workers, which compares to the all-industry rate of 1,110 per 100,000.

However, perhaps surprisingly in the latest year, construction had a stress, depression or anxiety prevalence rate of 980 per 100,000 workers, which compares to the all-industry rate of 2020 per 100,000 – perhaps reflecting that in the sector there is a tendency for workers not to report mental illness, as discussed in the feature on page 12.

Days lost

In construction around 2.2 million working days (full-day equivalent) were lost each year due to workplace injury (25%) and work-related illness (75%). That is equivalent to around 1.1 working days lost per worker, which is not statistically different than the all-industry level (1.0 days), says the HSE. ●

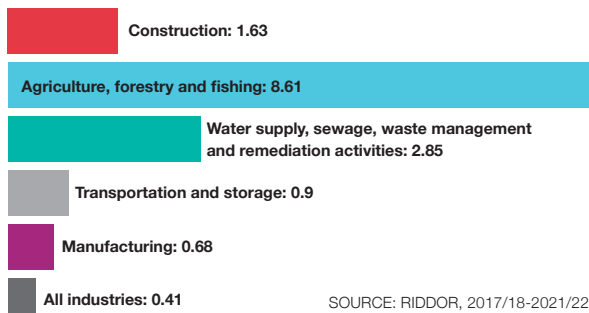
Accidents for the latest three years (2019/20 to 2021/22) were down to four main types



SOURCE: RIDDOR, 2017/18-2021/22

Fatalities: construction compared to industries with similar work activities

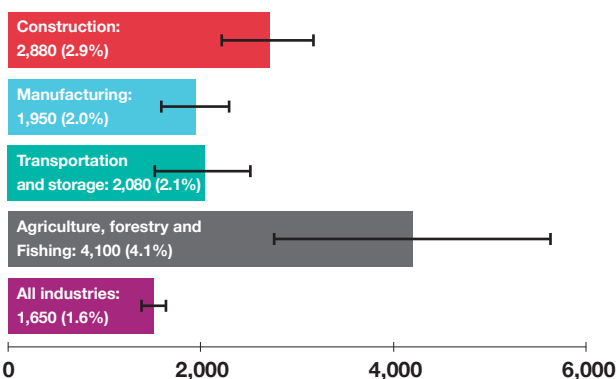
Rate per 100,000 workers



SOURCE: RIDDOR, 2017/18-2021/22

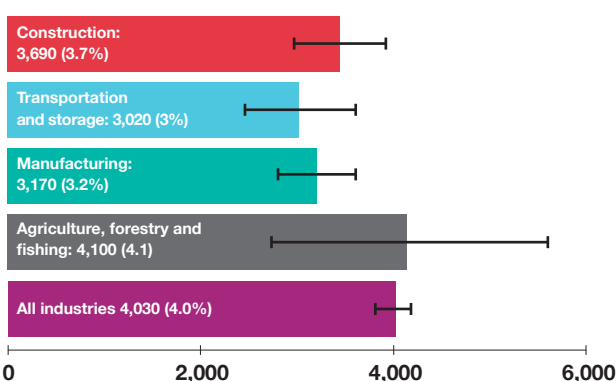
Non-fatal injuries: construction compared to industries with similar work activities

Rate per 100,000 workers



All illness: construction compared to industries with similar work activities

Rate per 100,000 workers



SOURCE: LFS, ESTIMATED ANNUAL AVERAGE 2019/20-2021/22
95% CONFIDENCE INTERVALS ARE SHOWN ON THE CHART

25%

In construction around 2.2 million working days (full-day equivalent) were lost each year due to workplace injury (25%)

In the dock

Recent prosecutions for health and safety breaches

£146,000 fine after joiner crushed by excavator

A construction company has been fined £146,000 after a joiner was crushed and killed by a 20-tonne excavator.

Philip McDonald had been hired by Birch Brothers (Kidderminster) to assist with the construction of a concrete overflow weir structure at Monks Pond, near Ashbourne in Derbyshire. On 5 September 2017, he was on a road above the work area waiting for the excavator to remove sand from trench boxes when it rotated clockwise and crushed him.

Birch Brothers (Kidderminster) pleaded guilty to breaching Regulation 27(1) of the Construction (Design and Management) Regulations 2015 and were fined £146,000 and ordered to pay costs of £4,621.90.

Kier fined after power lines fall on motorway

Kier has been fined £4.4m after workers hit overhead power lines, twice causing cables to land in the path of passing vehicles while carrying out work on the M6 motorway. In the first incident, a cable landed on the motorway. The second time, an overhead cable hit a lorry.

The incidents took place during overnight roadworks as part of the smart motorway scheme between junctions 16 and 18 near Sandbach in Cheshire.

The company was fined a total of £4.415m and ordered to pay costs of £87,759.60 at Manchester Crown Court on 12 January 2023.

Director ordered to do 250 hours of unpaid work

A demolition firm was fined £20,000 and a director ordered to do 250 hours of unpaid work after a 20-year-old labourer narrowly escaped death in an onsite incident.

Ace Demolition Services was working for Southend Borough Council, demolishing Futures Community College, in Southchurch Boulevard, Southend-on-Sea.

Shannon Brasier was working with a colleague to load a fuel hose into a 21-tonne excavator. The excavator moved round and crushed her

between the excavator and a mobile fuel tank.

Brasier suffered life-changing injuries, including to her neck, skull and face. The Health and Safety Executive (HSE) said she was "fortunate to survive".

Surveyor fall lands property firm £200,000 fine

A property management firm in Scotland has been fined £200,000 after an employee suffered life-changing injuries in a fall. On 5 April 2018, asbestos surveyor Robin Williamson was working for City Property (Glasgow). While carrying out a roof survey of Netherton Community Centre he fell 8m through a rooflight.

The fall caused Williamson multiple skull fractures, a bleed to the brain, and multiple spine and rib fractures. An HSE investigation found that City Property (Glasgow) did not provide a safe system for working at height. City Property (Glasgow) pleaded guilty to three breaches of the Health and Safety at Work Act. Glasgow Sheriff Court handed out the fine on 21 December 2022.

Suspended prison sentence for roofing company director

The sole director of a Wakefield roofing company has received a suspended prison sentence after a subcontractor died after falling 12m through a skylight.

Father-of-two Jonathan May, 39, from Horbury, Wakefield, was a subcontractor for Davis Industrial Roofing. On 18 December 2016, he was working with two others on a storm-damaged warehouse roof at F&G Commercial, Carlton Industrial Estate in Barnsley, when he fell.

The work involved the replacement of more than 300 skylights on a fragile asbestos cement roof. A hailstorm had damaged the skylights.

An investigation by the HSE found Davis Industrial Roofing had failed to provide an appropriate risk assessment, method statement, and suitable and sufficient fall protection measures for the roof work to be carried out safely.

The year ahead

The 2023 APS events calendar is packed with interesting, informative and thought-provoking sessions for you to enjoy virtually

There have been many discussions at APS HQ on the way the association will deliver events this year. The decision has been taken to keep all national CPD, conferences and, of course, webinars in a virtual setting. The main reason for this is accessibility. Your feedback has been taken on board, with many members preferring to attend events online due to time-saving and, more recently, the rising costs of fuel for travel.

We know that networking is important to you – and with that in mind we plan to run networking events regionally to allow you to do just that. More details of the dates and locations of these events will follow shortly.

Get in touch

If you have an idea or a suggestion for an event, or even if you would like to be a speaker, please don't hesitate to get in touch at info@aps.org.uk.

Dates for the diary

Spring webinar series

Monday 13 February – Friday 17 March 2023

The series, titled 'Essential Knowledge', covers topics that are important in the industry today – whether that be going back to basics with our look at Design Risk Management, or shining a spotlight on demolition, CROSS reporting and its implications, or a discussion on the recruitment crisis we currently have in construction.

Members will also be pleased to hear that by popular demand John Carpenter is back to cover a session on soft hazards and the challenges they present. His session on temporary works in the last series was very popular and can be viewed again at www.aps.org.uk/category/webinars.

Building Safety Act series

The next event takes place on Friday 3 March 2023, with further dates in 2023.

Mark Snelling (SafetyMark) and Andrew Leslie (APS) continue their new dedicated webinar series on the Building Safety Act. The BSA is incredibly important for the industry and APS is proud to present an in-depth look at the Act, what it means, what has been affected and what must be done.

APS Money Matters

The APS financial management services takes place on the first Friday of every month. It is followed up with a drop-in session on the third Friday.

Daryl Dunnigan from Seed Financial Planning presents a series of economic updates highlighting areas where your business and personal finances can be impacted. Expert guests will cover the latest Budget, investments, pensions, business protection, mortgage interest rates and more.

National CPD spring series

Wednesday 3 – Friday 19 May 2023

Spring Conference

Wednesday 10 May 2023

Personal development week

Monday 5 – Friday 9 June 2023

Annual Conference

Wednesday 6 September 2023

Autumn webinar series

Monday 25 September – Friday 26 October 2023

National CPD autumn series

Monday 6 – Thursday 30 November 2023

Remember, the majority of APS events are included in the subscriptions members pay. The exceptions are the two conferences for which there are additional fees. You can see the full list of events currently available to book at aps.org.uk/events.

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 improved and enhanced, ensuring members 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 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:

6 Mar	*VIRTUAL* – APS Accredited – CDM 2015 for Principal Contractors	Online - Remote	£250
7 Mar	*VIRTUAL* – CDM 2015 Overview	Online - Remote	£195
21 Mar - 22 Mar	APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	London	£595
23 Mar	*VIRTUAL* – Building & Fire Safety Act Overview – 1 Day	Online - Remote	£295
27 Mar - 28 Mar	*VIRTUAL* – APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Online - Remote	£595
3 Apr	*VIRTUAL* – APS Accredited – CDM Awareness	Online - Remote	£250
18 Apr - 19 Apr	APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Bristol	£595
19 Apr - 20 Apr	*VIRTUAL* – APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Online - Remote	£595
20 Apr	*VIRTUAL* – APS Accredited – CDM Client	Online - Remote	£295
25 Apr - 26 Apr	APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	London	£595
26 Apr - 27 Apr	*VIRTUAL* – APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Online - Remote	£595
3 May - 4 May	*VIRTUAL* – APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Online - Remote	£595
9 May	*VIRTUAL* – CDM 2015 Overview	Online - Remote	£195
9 May - 10 May	APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	London	£595
11 May	*VIRTUAL* – APS Accredited – CDM 2015 for Principal Contractors	Online - Remote	£250
22 May - 23 May	*VIRTUAL* – APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Online - Remote	£595
23 May - 24 May	APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Liverpool	£595
25 May	*VIRTUAL* – Building & Fire Safety Act Overview – 1 Day	Online - Remote	£295

Please quote **APS-MARCH-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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