Construction/infrastructure writer of the year

Zak Garner-Purkis, *Construction News*

Stadium myths shattered: 90s new-builds to the Spurs soap opera

This article challenged the common perception that high-profile stadium construction projects are always late and over budget. Compiling data for a 20-year period and using insight from insiders, the piece revealed that just a few high-profile failures have seriously skewed public perception of this type of project.

Zak made extensive use of the *Construction News* archive to explore the history of stadium projects and illustrate how the market has evolved over time.

The feature was published amidst ongoing delays to Tottenham Hotspur FC's £850m stadium. Zak's article not only used this news as a hook, but also offered an alternative narrative to the one offered by national media, where the focus is on construction failures rather than the unrealistic expectations and disruptive actions of the client football club.

Carillion's silent victims: The dangers of speaking out

The collapse of Carillion was the biggest story in construction in the past 30-years. However, despite unsettled debts amounted to £1.9bn and widespread disruption to the supply chain, the impact of the collapse remained largely hidden. Almost no construction businesses were willing to come forward and talk to the media about the fallout, for fear of being tainted by association or revealing any knock-on weakness in their own operations.

Zak's investigation tracked down those most affected by Carillion's collapse and explored what had kept them from speaking out. He also used Freedom of Information requests to reveal that a £100m fund for afflicted businesses had gone unspent.

Black market construction exposed: Where modern slavery starts

Over the past year, no journalist has done more to investigate modern slavery in the construction industry. Zak spent countless red-eyed mornings embedded in construction's black market, mixing with the Romanian labourers who face dangerous jobs and receive little or no pay.

Zak gradually earned the trust of these vulnerable men, overcoming a deep-seated distrust of the British press resulting from tabloid stories about foreign workers undercutting British labour. He gained their confidence to the extent that they gave first-hand accounts of the daily dangers they face, from perilous working conditions to the threat of assault or abduction. They also gave never previously reported accounts of the construction industry 'pimps' who exploit their desperation and con them out of wages.

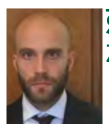
Zak's six-month investigation produced heartbreaking accounts of exploitation from victims, employers and the police.

The Home Affairs Committee inquiry into modern slavery requested a copy of Zak's report, while shadow home secretary Diane Abbott personally responded, calling Zak's story a "shocking indictment" of the industry. Many readers also contacted *CN* to express shock and outrage.

Zak's investigation also led to a collaboration with BBC Three, due to air later in 2019.

Breaking new ground

Late, over-budget and fraught with problems... stadium builds certainly have a bad reputation, but is it warranted? CN finds huge strides have been made in the sector over the past 20 years



STADIUMS
ZAK GARNER-PURKIS

The day after Spurs fans invaded the pitch at White Hart Lane to celebrate for the last time at their club's 118-year-old home, Mace chief executive Mark Reynolds was handed the keys. It was a symbolic gesture described by club chairman Daniel Levy as a "historic milestone".

Mace had now taken on "full responsibility" for White Hart Lane as "main contractor". On site, however, the reality of the situation was a little different.

Tottenham had been running the project long before they drafted in Mace as the construction manager. Work on the site adjoining the team's old ground had been well underway before the keys were handed over, led by Tottenham's in-house project director. The Premier League side had also signed deals with several subcontractors prior to the appointment of Mace.

Spurs' project director, Paul Phillips, was supported by an array of experienced managers in-house and the football club had acquired six tower cranes for the project.

Proposals had also been lodged for a separate 330-home mixed-use scheme, which the club planned to build after the stadium project was complete.

Maybe the semantics of it didn't matter to Mace at the time; the suggestion that it was taking responsibility didn't have negative connotations. But by September the following year, that had all changed. Responsibility had turned to blame with the club facing a backlash from fans amidst a media frenzy.

The Spurs experience

A stadium scheme source, who spoke to *Construction News* on the condition of anonymity, claims that there was a major public misconception about the way the project was run.

"Tottenham had everyone there that Mace had; all the big roles had their own counterparts. Every project manager. They knew everything," the source alleged. "In fact, if it wasn't for Mace, the job would actually be a hell of a lot worse off. But that's not the way it was sold. Mace had its hands tied on that project. There was nothing it could say or do that didn't make it look like the guilty party, because of the way it was portrayed."

But is the Spurs experience a familiar tale when it comes to UK stadiums?

Responding to questions about its role on the project, a Spurs spokesman said this was not unusual on a project of this scale and that the in-house PM team it employed had expanded to oversee the design. He said Mace had earned nearly £100m to date and had "worked closely with the club to procure the supply chain".

CN research has revealed that a history of failure has transformed the way these projects are run, and Spurs will have felt that they had little choice but to take on the risk themselves. It also shows how the ever-increasing complexity of these projects has caused a twentyfold rise in the price of building a stadium, an increase in the time to complete, as well as frequently ballooning project costs.

> **"There was nothing [Mace] could say or do that didn't make it look like the guilty party, because of the way it was portrayed"**

Bidding too low

In 1997, Sunderland played the first game at the Stadium of Light. The construction of the new arena had taken a year, at a cost of about £16m. It was the first newly built football ground above a 40,000-seat capacity to be built in the wake of the 1991 Taylor Report, which recommended that, following the Hillsborough disaster, all-seater stadiums be a requirement for teams in the top two divisions of English football.

Many other clubs took inspiration from Sunderland's speedily built and relatively affordable new stadium and began making plans for their own.

Contractor Ballast Wiltshier carved out a niche as a stadium specialist, working on a number of subsequent schemes in the following years across England's top leagues, including the £43m expansion of Newcastle United's home, St James' Park.

However, Ballast's growth in the stadium sector was coupled with a poor performance financially. Despite winning seemingly high-value projects, it struggled to turn a profit. Most of the jobs secured by the firm were on fixed-price contracts, where the contractor's fee was set and could not increase even if the job proved more difficult and costly than budgeted. These arrangements left no room for manoeuvre if problems arose on the job. And the nature of stadium contracting meant problems often did.

Several contractors were put off working on Sunderland's stadium because they believed the price was too low, with one withdrawing after having been shortlisted.

Following completion, there was also a legal battle over an alleged non-payment of £1m between subcontractor Crown House Technologies and Ballast.

Six years after building the stadium, Ballast went bust with debts of £156m.

The contractor's story was mirrored by Laing Construction, another firm that carved out a niche building big grounds. Laing was appointed to build both the Millennium Stadium in Cardiff and the City of Manchester stadium for the Commonwealth Games. The Millennium Stadium project turned out to be a nightmare for Laing, which had to fork out £31m to cover project costs, having won the deal on a fixed-price arrangement, which it later admitted was bid too low.

The effects of this 'Cardiff curse' were a contributing factor in Laing Group's decision to dispose of its construction arm to O'Rourke for £1 in 2001.

Meanwhile, the so-called "home of football", Wembley Stadium, proved to be the biggest example of a fixed-price disaster.

Australian giant Multiplex found itself about £340m in the red, having agreed to rebuild the stadium for £458m. What's more, the project was delivered four years later than the FA had planned, thereby missing the scheduled curtain raiser: the 2006 FA Cup final.

Shift in the power dynamic

A lack of appetite from contractors to take on the risks associated with the Spurs stadium was a key factor in the club's decision to take the project management of the stadium in-house.

The cautionary tales of Ballast, Laing and Multiplex, combined with overall market conditions, made it difficult to recruit construction firms with the size and ability to deliver the job.

"The risk profile now for complex jobs is huge," says Arcadis Stadia partner Paul Mitchell, who has worked as one of the top consultants on the Emirates Stadium, London Stadium and Spurs Stadium.

"With Emirates, we were on our way out of a recession, but [contractors] were still fairly hungry for work. The contractors were in reasonable shape and it was a simpler project."

Arsenal's was the last major UK stadium project to be procured using a fixed-price contract back in 2004. Sir Robert McAlpine built the 60,000-seat arena over a three-year period.

"When we got to Spurs, contractors had lots of work, [they had also] had a really hard time and were suffering," says Mr Mitchell. "A lot of them had introduced new governance around what they could bid, how they would bid things and how they would contract projects."

With the contractors wary or unable to take on significant risk, negotiations for the Spurs stadium followed a different route to how they had done it previously. "We were in a place where we had to be out trying to sell our projects to contractors, rather than [like] in the old days, when we would let them bid," Mr Mitchell tells *CN*.

"They were dictating to us, the clients, whose projects they would pitch for, how they would even contract those projects. We were bringing them in on a fairly regular basis, showing them where we were in the design process and effectively warming them up for bidding for the project."

Arcadis' leading stadium consultant told *CN* that this form of negotiation – with the builders dictating terms – continued down into some of the subcontractor agreements.

1,946%
Cost increase in stadium builds since 1997

The limited pool of contractors capable of managing a scheme of this scale is another factor in determining the power dynamic between club and builder.

"The nature of a stadium is that there is only a limited pool of contractors nationally that can do it," says Rider Levett Bucknall's global board member and stadium specialist, Russell Lloyd, who is advising Everton on their proposed new stadium.

"Stadiums haven't got a great track record for contractors in terms of their risk profile, and it's no different for this one [Everton], and the Tottenham scenario hasn't helped."

Despite the popular narrative that stadium projects are always delayed, evidence shows that the majority of the big grounds are delivered on time, especially once the construction timetable is established. Of the seven larger stadiums built since 1991, only two have missed their sporting deadlines because of construction delays: Spurs and Wembley.

Debunking the big delay myth

Arsenal's initial plans were delayed and the project was mothballed for a spell. But this was due to the scheme's financial backers getting cold feet rather than issues with construction. The club moved in for the 2006-07 season as planned, once the financial issues were resolved.

The perception that stadium mega-projects are regularly delayed in the UK is probably driven by Wembley's redevelopment. Wembley was closed in 2000 and did not reopen until seven years later, due to a host of planning and financial difficulties. But the construction delay was in fact one of the shorter setbacks, only adding a year to the project. However, with the site having been closed for so long, that final additional delay in 2006 undoubtedly intensified the public disappointment.

"Wembley was an unmitigated disaster, but with the other stadiums, most people that know them would say they're pretty successful projects," says Imtech chief executive Paul Kavanagh, whose firm has worked as the electrical contractor on most of the major stadium projects, including the Emirates, the Olympic stadium/conversion and Spurs.

Of the seven large stadiums built since 1991, three of those delivered on time were completed in order to host global sporting events. The Millennium Stadium was the centrepiece for the 1999 Rugby World Cup; the City of Manchester Stadium had to be completed in time for the 2002 Commonwealth Games; and the London Stadium opened for the 2012 Olympics.

Event-driven deadlines, explains Mr Kavanagh, offer no ▶

ESCALATING COSTS

The price of building a new stadium

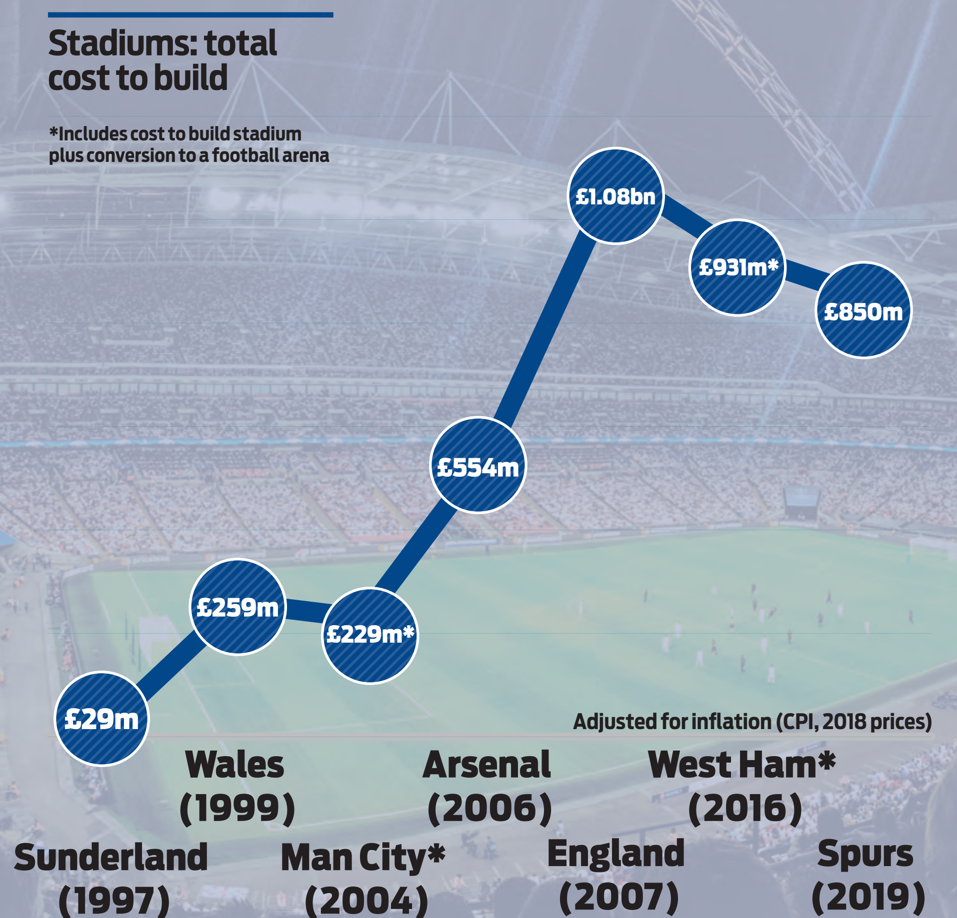
Since Sunderland built the Stadium of Light, there have been six new stadiums of more than 40,000 seats constructed in the UK.

Two of these projects, the City of Manchester Stadium and the London Stadium, were built originally as athletics stadiums and then converted to football grounds.

Analysis by *CN* of these projects reveals that, on a cost-per-seat basis with prices adjusted for inflation (see p21), there has been a near twentyfold increase (1,946 per cent) in the cost of building these larger stadiums over that 20-year period.

Between the construction of Arsenal's stadium in 2006 and Spurs this year, the cost to build a new ground has risen by 53.4 per cent.

The rise in project costs between the figures initially announced and the final sums has been consistently high. The difference between the figure announced by the team and the eventual price is on average more than double (114 per cent).



room for delay. "You start off with a very firm end date," he says.

"The Olympics is the classic example: it didn't matter what happened between then and the Olympics, it was going to happen on 5 August 2012."

Such projects also benefit from advantages in terms of funding, planning and land acquisition – obstacles that often delay the start of a stadium project. This is because the stakeholders in the joint venture behind the stadium include a public body.

The local authority is not only in charge of planning at the stadium's location, they can rely on central government to bail it out should the project run into financial obstacles. This is critical for stadium projects above 40,000 seats in capacity, despite a popular belief about the seemingly unending wealth of large football clubs, as RLB's Mr Lloyd tells *CN*.

"There's a perception that English Premier League football is a rich man's game because of the amount of money involved," he says. "But actually, big money goes in, big money goes out; the clubs are run on quite tight margins. And any big development usually involves going to market to borrow money."

It's also worth considering, that the only reason Spurs' stadium is late is because the timeframe set by the club was shorter than any stadium deadline in the past 20 years. If you adjust for that, then the only project of the seven that overran was Wembley.

> **"Clubs are run on quite tight margins and any big development usually involves going to market to borrow money"**
>
> RUSSELL LLOYD, RIDER LEVETT BUCKNALL

'Frightening' deadline

Since the turn of the century, the minimum length of time taken to build these big stadiums has stood at three years. In fact, no stadium of above a 40,000 capacity has been built from scratch in less than that timeframe since the Millennium Stadium was finished in 1999.

Tottenham's leaders were determined to buck that trend and set themselves a two-year period to complete the job.

"The timeframe was a challenge," says Mr Mitchell. "We always knew it was a challenge and it was one the club wanted us to embrace."

He says the deadline had an impact on the appointment of a contractor and the type of contract used. "It did frighten a lot of the main contractors. They were up for the challenge, but the probably wouldn't have signed up for a lump-sum design-and-build contract on that basis."

According to Spurs, Sir Robert McAlpine declined to submit the fixed-price design-and-build tender it had prepared, and instead offered to proceed on a construction-management basis.

"Other main contractors were also unwilling to bid on the fixed-price design-and-build form of contract preferred by banks – for a stadium – when they had lower risk opportunities in other sectors, such as office developments," the spokesman added.

At the time of the Spurs stadium contract award, a source told *CN* that despite being shortlisted for the job, Brookfield Multiplex had withdrawn before the decision was made. When the initial shortlist was announced, *CN* was also informed by sources that, despite discussions with Tottenham, Bouygues and Laing O'Rourke had decided against bidding for the job.

It appears that, to some extent at least, the industry had learnt its lessons regarding risk, and when Tottenham proposed such an ambitious timescale, contractors appeared to act with greater prudence than had been the case in the past.

"We didn't make enough three years ago of what a monster challenge we were taking on, trying to build the rest of that project in one year," says Mr Mitchell. "I'm sure it will be forgotten. People don't talk very often about Wembley and the problems they had getting over the line; people don't talk about Cardiff and the problems they had. [The Millennium Stadium] completed on time, but there were a lot of issues there."

Why so slow and expensive?

While it might be a misconception that big stadium projects are frequently late, it is undeniable that they are always expensive.

There has been a twentyfold increase in the cost per seat since the Stadium of Light was built and, even adjusting for inflation, the total cost to build has gone up considerably; those cost increases have come alongside improvements in the speed at which these projects have been delivered. The reason provided by most of those involved in these projects is the same: complexity.

Perhaps more than any other sector, the expectations of what a stadium could and should look like moves at an incredible pace.

Arcadis' Paul Mitchell witnessed first-hand just how much things changed from the Emirates project to Spurs' stadium. "The expectations of clients and the public have changed. Buildings are getting more complex," he says. "The quality of what we're providing at Tottenham is leagues above what we provided initially at the Emirates, all of which takes time and costs a lot more."

> **"Change is going to happen through those jobs because of the pressures from [clients]. You have to respond quickly and add value"**
>
> PAUL KAVANAGH, IMTECH

Football clubs are increasingly attempting to monetise their stadiums when they are not using them. But creating bespoke multipurpose spaces can be expensive.

The Spurs stadium, for example, will feature the world's first three-piece movable football pitch with an American Football surface beneath it for hosting NFL games. And the concourses are pillarless so they can be used to host conferences.

Decisions around such features are often made on a timescale unrelated to the construction programme, which means plans can end up changing on site.

Hospitality areas must feature the most up-to-date facilities, which often requires decisions to be delayed to the latest possible stage or altered as the job progresses, says Imtech's Paul Kavanagh. "Every time that we do one [stadium project], they get more complex," he says.

"[In particular] the management of hospitality, because the quality of the experience just goes up, and then the sophisticated systems managing that goes through step changes all the time.

Change is going to happen through those jobs because of the pressures from [clients]. You have to respond quickly and add value."

His thoughts are echoed by Mr Lloyd. "Stadiums are bespoke, and trying to get that right first time is challenging," he says. "Change can often come [unexpectedly] during construction, and if that happens, it's costly."

Vulnerability to shocks

The scale of a stadium project also makes it more vulnerable to being affected by unexpected events. The sheer volume of materials bought in from overseas meant the devaluation of the pound in the wake of Brexit had a greater impact on the Spurs stadium than other smaller projects.

Likewise, the lack of skilled labourers and abundance of work in London hit Tottenham harder because of the huge number of workers required for the job.

Imtech CEO Paul Kavanagh, however, doesn't believe there is much difference between the challenges faced on a stadium project and other schemes of a similar scale. "I'm not sure I see a huge difference between building a stadium and building a huge mixed-use, high-end, high-value project somewhere in central London," he says

"What happens with the costs or the programme will depend on how long you've had at the front to make the decisions, whether you've got the right procurement method, whether collaboration is right or wrong, and then possibly external shocks; those things are common to all projects."

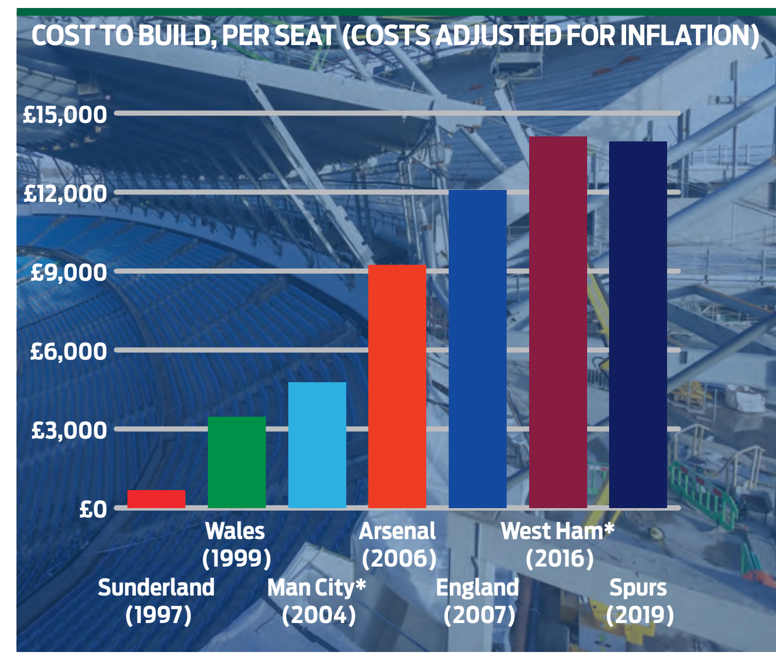
Another reason costs leap so much from one stadium to another is due to the relative infrequency in which they are built. "We're working with Everton and they asked for benchmarking projects of that sort of size [above 40,000]," continues Mr Lloyd. "Well, the last one that was new-build of that ilk was the Emirates in 2006, until Spurs gets built. It's then that they realise the level of inaccuracy that there can be in benchmarking stadiums."

With Chelsea shelving plans to build a new ground, all eyes will be on Everton – as is seeks to start construction of a new ground with more than 50,000 seats – to get a sense of the direction the market will go next. But for those who have made their career in this complex and often chaotic sector, one thing is certain: it will be an intense experience.

"They're a white-knuckle ride," Paul Mitchell tells *CN*.

"Not just from the construction side, but from the beginning – getting your planning permission to acquiring land to securing your contractor, delivering the brief, incorporating change, meeting the programmes.

"There are ups and downs all the way through and only the bravest come out the other end."



7 stadium sagas

Since 1991's Taylor report, which made all-seater stadiums a requirement for top-division football clubs, seven new stadiums with capacity of 40,000 spectators or more have been built

SUNDERLAND STADIUM OF LIGHT

- **Capacity:** 42,000[1]
- **Completed:** 1997
- **Initial cost*:** £14m
- **Final cost:** £16m
- **Cost increase:** 14.28 per cent
- **Contract type:** Fixed price
- **Time to build:** 1 year (1996-97)
- **Contractor:** Ballast Wiltshier
- **Cost per seat:** £381

This was the first new-build stadium with a capacity of more than 40,000 in Britain after the 1991 Taylor report.

Questions were raised from the outset about the location on the former Wearmouth Colliery, which was surrounded by old lime kiln walls and riddled with old mine shafts.

The club also found that they were faced with a series of planning and land-buying issues around their relocation from Roker Park. Once permission had been secured, only three of the four invited contractors chose to bid. Tilbury Douglas did not tender; sources told *Construction News* that this was because the club's budget for the job was too low.

The total project, including reclamation of the contaminated land, was valued at £30m by the club, but insiders have suggested to *CN* that the stadium alone was likely to cost much more than £14m.

The scheme was eventually won by Ballast Wiltshier, which would go on to work on a number of other UK stadium projects.

A year after its completion, the club carried out emergency works after dangerous carbon dioxide and methane gas from old mine shafts was found to have been building up beneath the stadium.

WELSH RUGBY UNION MILLENNIUM/PRINCIPALITY STADIUM

- **Capacity:** 74,500
- **Completed:** 1999
- **Initial cost:** £106m
- **Final cost:** £152m
- **Cost increase:** 43.39 per cent
- **Contract type:** Fixed price
- **Time to build:** Two years (1997-99)
- **Contractor:** Laing Construction
- **Cost per seat:** £2,040

The Millennium Stadium, as it was originally named, was often cited as a great example of a big, complex job that was delivered on time, ready for Wales to host the 1999 Rugby World Cup.

However, construction of the stadium was far from straightforward and contractor problems were so frequent that they were dubbed the 'Cardiff curse' by *CN* at the time.

Laing Construction landed the fixed-price contract, beating a field of five, in 1996. Following the contract award, the client – Welsh Rugby Union – and Cardiff County Council drastically changed the design and price for the job.

A dispute then broke out with the adjoining local rugby club, which refused to allow Laing permission to demolish part of its ground. This led to a major redesign and a reduction in capacity to 72,000. The start date was also delayed from autumn 1996 to February 1997, as Laing was forced to build around the structure.

As construction ramped up, the project was hit by a number of high-profile personnel departures, including the project manager, less than a year before the deadline.

Losses from the fixed-price job rose to £31m and Laing admitted it bid too low for the contract.

The firm struggled to recover from the debacle and, in 2001, Ray O'Rourke bought the construction division from Laing Group for £1.

MANCHESTER CITY CITY OF MANCHESTER/ETIHAD STADIUM

- **Capacity:** 48,000[2]
- **Completed:** 2002 (build)/ 2003 (conversion)
- **Initial cost:** £90m/£40m
- **Final cost:** £112m/£42m
- **Cost increase:** 24.44 per cent/ 5 per cent
- **Time to build:** Three years (1999-2002)/one year (2002-03)
- **Contract type:** Construction management
- **Contractor:** Laing Construction (combined)
- **Cost per seat:** £3,166 (combined)

The 2002 Commonwealth Games set-piece arena was designed to be converted and handed over to Manchester City FC after the event, unlike London's Olympic stadium.

The original stadium was procured using a two-stage tendering process, but Amec was booted off as the preferred contractor after it failed to agree costs with the council.

Laing, fresh from a loss on the Millennium Stadium, was brought in following six months of talks, but costs stil increased.

Midway through construction, Laing was sold to O'Rourke and the project was among those heavily studied by chairman Ray O'Rourke during a series of last-minute contract checks.

The same set of contractors that built the stadium carried out the conversion, which was completed on time at a cost of £42m.

ARSENAL THE EMIRATES

- **Capacity:** 60,000
- **Original deadline*:** 2004
- **Completed:** 2006
- **Initial cost:** £100m
- **Final cost:** £390m
- **Cost increase:** 290 per cent
- **Time to build:** Three years (2003-2006)
- **Contract type:** Fixed-price, two-stage design-and-build
- **Contractor:** Sir Robert McAlpine
- **Cost per seat:** £6,666

Arsenal FC's stadium was first announced in the autumn of 2000 with an anticipated cost of £100m.

The job expanded significantly by the time it received planning permission in December 2001, to include a number of additional developments, pushing the total value up to £250m.

Shortly after, Sir Robert McAlpine beat Taylor Woodrow to win the main contractor role.

However, the cost of buying up land for the development later increased by £50m per year.

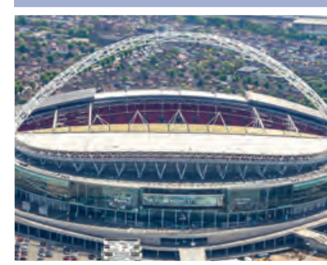
A lack of progress prompted the project's funders to pull out of a deal for the site and in April 2003, *CN* discovered the project had been mothballed.

In the aftermath, Arsenal searched for ways to restart the scheme, one of which included the proposal to Sir Robert McAlpine that would have involved the firm paying £400m to build the stadium and then leasing it back to the club.

In the end, Arsenal were able to find backers for the scheme, which was built by McAlpine under a two-stage fixed-price arrangement.

The job was considered such a success that many of those that worked on it subsequently moved on to the Olympic-stadium project.

THE FOOTBALL ASSOCIATION WEMBLEY STADIUM



- **Capacity:** 90,000
- **Original deadline:** 2003
- **Completed:** 2007
- **Initial cost:** £458m
- **Final cost:** £798m
- **Cost increase:** 74.23 per cent
- **Time to build:** Four years (2003-07)
- **Contract type:** Fixed price
- **Contractor:** Multiplex
- **Cost per seat:** £8,866

Multiplex won the contract to build the new Wembley as the sole bidder for the project in 2000. Despite initial interest from a number of contractors, the Football Association ended up with only one candidate, which, according to *CN* sources at the time, was due to its reputation as being "the client from hell".

The deal turned out to be a bad one for all involved and a May 2006 deadline – to be ready in time for the FA Cup final –failed to be met. And the combination of a fixed-price contract and soaring costs led to Multiplex suffering huge losses.

In the aftermath of the project the Australian contractor took legal action against several subcontractors. This included a staggering £253m action against Mott MacDonald over the stadium's steelwork design. The case, considered to be the largest construction legal action in the UK at the time, was later settled.

*Initial costs and original deadlines are those stated at the time the projects were unveiled.
[1]Expanded in 2000 to 49,000.
[2]After 2003 conversion from 38,000-capacity athletics arena; the stadium has since been expanded to 55,097 seats.
[3]Capacity reduced from 80,000 following London 2012 Summer Olympics.

WEST HAM LONDON STADIUM

- **Capacity:** 460,000[3]
- **Completed:** 2012 (stadium build)/2016 (conversion)
- **Initial cost:** £496m/£100m
- **Final cost:** £547m/£323m
- **Cost increase:** 10.28 per cent/ 223 per cent
- **Time to build:** Four years (2008-12)/three years (2013-16)
- **Contract type:** Target pricing contracts design-and-build
- **Contractor:** Sir Robert McAlpine and Balfour Beatty (conversion)
- **Cost per seat:** £15,263 (combined)

London's flagship Olympic venue was delivered on time and only slightly over budget. But this success story was marred by cost overruns and the chaotic delivery of the stadium's conversion from an athletics arena to a football ground.

First there was a bitter legal dispute with parties opposed to the decision to hand over the stadium to West Ham United. Then the decision to convert the stadium rather than rebuild it also led to problems, the most significant of which was the additional strengthening work required for the roof.

It has since emerged that Balfour Beatty suspended work on the London Olympic stadium and twice came close to adjudication over spiralling project costs.

TOTTENHAM HOTSPUR NAME TBC

- **Capacity:** 61,000
- **Original deadline:** Sep 2018
- **Completed:** TBC
- **Initial cost:** £400m
- **Final cost:** £850m (currently)
- **Cost increase:** 112.5 per cent
- **Time to build:** Three years (2016-TBC)
- **Contract type:** Construction management
- **Contractor:** Mace
- **Cost per seat:** £13,934

After weighing up a number of options for a new stadium, Tottenham Hotspur chose to build on land next to its White Hart Lane home 10 years ago.

Much like Arsenal a decade earlier, the project faced a host of planning challenges from the outset, with Haringey Council forcing revisions to Spurs' plans over a desire to see more wholesale regeneration.

Despite receiving planning approval to build on the White Hart Lane site, the club kept its options open, partnering with AEG and ENIC to table a bid to redevelop the Olympic Stadium site; the club were unsuccessful, but pursued a legal challenge over the decision.

Land acquisition at White Hart Lane was also a significant stumbling block and it took until 2015 for all land to be secured.

Mace was then appointed as the project's construction manager, pipping Brookfield Multiplex and Sir Robert McAlpine to the job. Work began in 2016 with a targeted completion date of August 2018.

Costs escalated quickly by 20 per cent, to £800m, which the club said was largely due to design changes made in 2015. And as the handover deadline approached, *CN* revealed how workers on the scheme had been incentivised to undertake back-to-back 12-hour shifts.

The club was forced to delay their move to the stadium in September last year following "issues with the critical safety systems".

As the delays continued, a *CN* report detailed allegations that site chaos, confusion and ill-discipline among workers lay behind the late delivery.

The dangers keeping Carillion's victims SILENT

A year on from Carillion's collapse, many subcontractors still feel unable to speak out or identify themselves as having lost large sums of money owed to them. *Construction News* speaks with some of those affected to find out why

CARILLION
ZAK GARNER-PURKIS

Michael* had to be careful who he told about the loss of almost a million pounds to his business following Carillion's liquidation.

Certain people had to know, including the dozens of workers he was forced to lay off and the suppliers he couldn't pay.

But beyond that, he believed the survival of his business would be put at risk if he revealed his firm had been left without payment for work on two big Carillion projects.

Why was he so cautious? Because the information could have been used against him.

"We definitely didn't tell any of our clients," he tells *Construction News* (he will only talk on the condition of anonymity).

"They may have known we were [working for Carillion], but we told them our exposure was next to nothing."

In the aftermath of Carillion's failure, there were concerns that its liquidation would lead to multiple collapses in the contractor's supply chain. Carillion's construction arm was estimated to have liabilities of close to £7bn when it went bust last year; it owed £1.9bn to creditors at the end of 2016 according to its last published set of accounts. The contractor was known to have 30,000 suppliers.

Publicly, though, some of those worst affected sought to downplay their exposure to Carillion and very few construction companies revealed their losses. But behind closed doors, clients and principal contractors were conducting wide-scale supply chain interrogations, targeting partners they either knew, or suspected, had worked with Carillion.

Credit-referencing agencies, used by businesses to assess the risk profile of potential suppliers, also went into overdrive, compiling lists of all the companies they believed could be next to go under. Any company that was identified by more than one of these agencies struggled to get its payments insured beyond a week at a time.

Companies such as Michael's were contacted by larger contractors demanding to know about the impact of the liquidation on their business and, more pointedly, whether they would survive.

Jeopardising future work

Multiple contractors have told *CN* how they felt gagged from speaking out as victims of Carillion, both to clients and the wider public, as doing so could effectively be a death knell for their businesses. Subcontractors feared that speaking publicly about having lost money would jeopardise their chances of securing future work and risk payments being withheld, potentially making dire financial situations worse.

"We were bidding for some contracts with a major tier one contractor at the time," recalls Michael. "If we had told them of our exposure, there's no way ▶

"We were bidding for some contracts with a major tier one contractor at the time. If we had told them of our exposure, there's no way we would have been awarded any of those contracts"

*some names have been changed to protect identities we would have been awarded any of those contracts."

As well as being asked to reveal any Carillion losses, Michael was also having his payment terms extended by main contractors.

"They immediately wanted to pay you later than they would have previously," he says. "If we were expecting to get paid in 20 or 30 days, it was suddenly extended to 45 or 60. Firstly, it was to protect their own cash flow and [secondly] so that if any of the companies that were hit by Carillion went under, they would have more of a cash pot to fund the works."

Michael tells *CN* that he had to ask the subcontractors to whom he owed cash to give him more time to pay, in a bid to keep the business afloat.

"All our suppliers were very good; we explained the situation to them and said they were going to have to wait for their money, and that it might take a while to work Carillion out of the system," he explains. "Every wholesaler we dealt with was supportive because if any one of them had decided to push and demand their money, then it could have meant that no one got paid."

A year later, the firm is still recovering from the impact of the write-downs on its cash flow due to Carillion's collapse. Michael was forced to take a bank loan and strike a deal with the taxman to ensure survival.

"We're still not fully recovered from the cash-flow issue yet. I suspect it will take another year," he says. "We had to approach HMRC and ask for more time to pay and, although it was eventually granted, it's not on very favourable terms."

Michael's business is one of many owed large sums by Carillion that was forced to make do or scrap for survival.

Contractors 'turn the screw'

One director at a major contractor had no qualms about expressing his "real reservations" about painting-and-decorating subcontractor Kevin McLoughlin's business, with which he had recently began working; he made an unsolicited call to Mr McLoughlin in the wake of Carillion's collapse – despite having never previously met or spoken with him. The call led Mr McLoughlin to lose his temper; he said to the caller: "Do you know who you're talking to? You owe me money [and] we've just started another job [together]. And let me tell you, we're a lot more likely to have a lot more money in the bank than you are."

The call was one of a number that he fielded from major contractors after talking about his business losing around £300,000 due to Carillion's liquidation. Mr

"If [contractors] get wind that you're in trouble, they'll act differently"

KEVIN MCLOUGHLIN, K&M MCLOUGHLIN DECORATING

McLoughlin tells *Construction News* he was quizzed by several other tier ones about whether his firm would survive because they needed to know if they would have to replace his business on their jobs. "If they get wind that you're in trouble, they'll act differently," he says.

Mr McLoughlin made the decision to go public because he had paid all of his suppliers on the Carillion job and felt things could not get any worse. Even then, he still concedes that he took a chance by revealing his losses.

"A lot of people probably said 'bloody hell, that's a bit of a risk'. [But] I was in a position to say we were done for a lot of money and that the system is wrong."

Mr McLoughlin claims he has witnessed first-hand how those higher up the supply chain "turn the screw" when they discover one of their suppliers is in a financially perilous situation.

"If you're working on a major project worth millions of pounds and they know you've lost a lot of money, there's two ways that they would do it: slow your payments down to put you under more financial pressure and to get better deals, or get someone else in to do the job. It was so risky and that's why nobody spoke."

Mr McLoughlin believes smaller companies are afraid of revealing any losses, even ones for which they are blameless, because of a long history of aggressive approaches taken by larger companies towards those in poor financial health. He claims that in previous recessions he has witnessed clients deliberately withholding payments, and telling suppliers to increase costs by hiring more staff to push financially restricted firms into further difficulty. The subsequent liquidations would then give the main contractor more "money to play with on the job", although Mr McLoughlin acknowledges he hadn't seen this happen in relation to Carillion.

Stephen's* business lost more than half a million when Carillion collapsed. The sum equated to about two years' worth of profit for the company, which faced a cash-flow crisis as a result.

As well as approaching its supply chain to ask for extended payment terms, Stephen's firm sought to access a government-backed scheme offering loans to small and medium-sized enterprises hit by Carillion. The initiative involved the state-owned British Business Bank providing £100m-worth of loans, which firms could access through high street banks. At the time of the scheme's launch, business secretary Greg Clark said: "We want to signal very clearly to small and medium-sized businesses who were owed money by Carillion that they will be supported to continue trading."

The measures were in addition to the special Carillion funds set up by HSBC, Lloyds and the Royal Bank of Scotland, totalling £225m, in the days following the collapse. These featured loan-repayment holidays, no-fee overdraft facilities and interest-rate reductions.

'Strings attached' to loans

Considering the difficult conditions within the market and the potential dangers that lay in asking clients for assistance, the state-sponsored Carillion bank loans seemed to Stephen and his firm to be a good way to ensure the survival of the business. The problem was that their plight was not desperate enough to qualify for the money.

"We couldn't take it up because [we were told] the criteria for that money was you had to pretty much be bankrupt," he tells *CN*. "You had to be on the verge of zero money and zero income."

Stephen explains that his firm applied for cash but was knocked back because the business had been able to transfer cash between its group companies thanks to a personal investment from the owner. "We did apply for it and they said 'no you can't get it' because at that time we had an inter-company loan, so they said 'just use your own money'," he says.

"You would have thought that if you're a supplier of Carillion, which owes you £600,000, then they [the initiative] would give you a loan to get you out of the hole. [But] there were strings attached; very few people could actually take up that money."

Michael* also applied for the financial packages underwritten by the government for Carillion victims. He too found that his firm didn't qualify for the lending and was instead encouraged to take out a traditional loan.

"We were told that the cash pile was for businesses where the bank wouldn't lend them money," says Michael. "The government talks about assistance to companies affected by Carillion. But that's a load of nonsense."

Michael alleges that the underwritten loans from the government were never likely to be used by firms hit by the liquidation; rather, that they were a means to shore up the banks that were taking large losses.

Responding to a freedom of information request from *CN*, the British Business Bank has revealed that, by 19 September 2018, UK lenders "had not needed to utilise the additional £100m made available" to the banks under the Carillion scheme.

According to separate government records, only three loans above £100,000 have been handed out by banks to companies hit by the liquidation, and just one loan below that threshold. This had not changed as of January 2019.

'Join the queue'

Both Michael and Stephen tell *CN* that they felt a lack of financial support from the government. The reason they survived, they insist, was down to the willingness of smaller firms in their supply chains to extend payment terms.

"It has been hard," says Stephen. "We've had to ask people to extend their credit terms and pay them in dribs and drabs. We were very fortunate; there were some creditors we were able to push out to 80 to 90 days to give us a chance to recover."

The nature of their response was in stark contrast to his dealings with the liquidator. "Any correspondence we did get from the liquidator was just 'join the queue'," he says.

"There never was any money coming for the likes of us. We were too far down the chain."

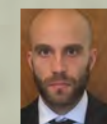
**Some names have been changed to protect the identities of individuals and their businesses*

More on Carillion

The latest on Carillion's legacy: www.constructionnews.co.uk/companies/contractors/carillion

Construction's black market

Sites across the UK are complicit in the exploitation of undocumented workers. *Construction News* has spent six months investigating the industry's hidden black market – and why prosecutions are so rare



MODERN SLAVERY
ZAK GARNER-PURKIS
@ZakGP_CN

The crowd of eager workers rushes towards the dark green hatchback as it approaches the kerb.

By the time it comes to a halt, there's a group of 20 men gathered around the car. A brief conversation ensues between the driver and two workers, after which the three of them drive off. The rest are left to kick their heels on the pavement, awaiting another opportunity.

If the two chosen workers are lucky, they will get enough money from the job to buy some food, pay their rent and a little extra to send home to their loved ones. But there could be worse in store.

This same pick-up point has been used by another driver who has been abducting workers, forcing them to work and imprisoning them, often for weeks at a time.

"He comes and is threatening us, to beat us up and stuff like that," a worker called Victor tells *Construction News*.

"My brother got in his car but I got him out. [The driver] then chased me," he says, recalling the encounter he'd had with the driver in question.

It's 7.30am on a grey Wednesday morning and *CN* is watching the desperate scramble that takes place daily in the road beside a car park of an east London DIY store.

This is a regular sight in areas across London, as predominantly non-UK workers attempt to secure a day's work from unscrupulous construction employers. *CN* visited four sites with a translator on multiple occasions to get a closer look at the black market for labour on sites.

Victor continues to watch the road as he speaks, having only agreed reluctantly to the interview on the basis he can leave immediately should the opportunity to get in a car arise.

Despite the risk of violence, intimidation and exploitation, Victor will still try to get into the next vehicle that pulls up. He still waits from 5:30am every day at this pavement.

For him, the dangers are just part of working in construction's black market.

Victor is from Romania and speaks no English. His round babyface and striking blue eyes sit in contrast atop a long heavy frame. His head remains bowed as he speaks, but jolts up occasionally to check *CN* is still listening.

He has been coming to this site for three years and regularly works long hours in dangerous conditions on construction sites, often to end up without a penny to show for his efforts.

"They take advantage," he says. "But that's because of my own stupidity in working for them. If I don't go and work, I won't have the money to support my family. It's not like they force you – and you can't just go and take them to court afterwards."

Construction has always had a large black market operating both in isolation and on the fringes of mainstream work. The practice of men loitering in an area hoping to be picked up for site work is also nothing new.

Some of the pick-up locations *CN* visited were the same places Irish workers waited seeking work back in the 1970s and 1980s.

These days, the majority of men waiting are Romanian, speak next to no English and are regular targets for those looking to exploit cheap labour.

The Metropolitan Police has seen a massive increase in allegations of exploitation in the construction industry over the past two years.

"In 2014, the number of allegations were in the single digits, which is crazy when you consider the number of people we see working in construction," says detective chief inspector Phil Brewer, who heads up the Met's modern slavery and kidnap unit.

Although modern slavery is widely adjudged to be on the rise, he says the scale of the industry's problem is underestimated, with many cases still going unreported.

> **"He comes and is threatening us, to beat us up and stuff like that. My brother got in his car but I got him out. [The driver] then chased me"**

According to DCI Brewer, the majority of these are in the "domestic-type construction" such as home extensions and renovations. But he also believes that exploited labour is present on larger projects where huge supply chains operate, often for larger clients and contractors who may be unaware what is happening on their sites.

For the last six months, *CN* has been investigating this black market of construction workers operating in the car parks of DIY stores and builder's warehouses across London.

This involved hours of speaking to predominantly Romanian workers that wait at these pick-up spots for jobs, via a translator.

CN discovered how workers are consistently being exploited and, in the worst cases, how alleged "pimps" profit by providing cheap labour for British construction sites.

'Look at my hands'

"It's from that pavement I can support my family," says Nicu, gesturing to a strip of road next to a south London home improvement store.

The pavement is scattered with workers that keep their eyes fixed solemnly on the road, their only movements being the occasional turn to the left or right to keep the wind from their faces.

Those that don't find work will keep their roadside vigil for as long as 10 hours and return the next day to do the same, come rain, sleet or snow.

Nicu has been coming to this site to wait for work for 10 years and bears the marks of a decade of hard labour. He has a stoop, a slight limp and cranes his head to speak because one of his eyes is swollen shut. He never explains the cause of this injury.

*** names have been changed to protect identities**

"Look at my hands," he splutters, opening his palms and twisting his wrists for *CN* to inspect. His skin is a patchwork of blisters, bruises, scars and cuts stained black by dirt – the result of years spent working without gloves, he says.

Nicu's clothes, like those of many who wait, are threadbare: worn, dirty and unsuitable for gruelling outdoor labour. Today he's wearing a battered old Sainsbury's fleece that was probably maroon at some point but is now a ragged brown.

"I've climbed on top of houses and done roofing, painting... I was scared. You have to do it because [if you refuse] they don't pay you"

"In this country you don't get anything for free," he tells *CN* with a wry laugh. "It's hard here... it's cold... you wait outside here for a job. Sometimes you get one, but people don't pay." The reason he's kept coming to this pick-up point for a decade is because of the money he can send back to his family in Baia Mare, north-west Romania. His father left the family home when he was young and he became provider for his mother and four siblings.

"I'd rather not eat and send what I have back; £40, £50, as much as I have. I can still manage here, but back home [life] is hard."

The economic disparity between the UK and Romania is such that even a few days' work below minimum wage is enough to provide for these workers' families. "If you get one day's work over here and you earn £80, you must work for almost one week for that in Romania," Nicu says.

"If you get three days in a week, that's good money."

For these workers, the benefit of delivering even the smallest of sums often outweighs the prospect of being exploited, making it all the harder for DCI Brewer and his team to convince people to report those profiting from their situation.

"The fact is that sending £20, £30 or £40 back home is money that they wouldn't ordinarily be able to provide for their family if they were working legitimately in their country of origin," DCI Brewer tells *CN*.

"They know they are being exploited and it's almost like it's an acceptance, because there is some benefit in terms of keeping their family on the straight and narrow and surviving, and that's the real challenge."

But soliciting work outside DIY stores can be dangerous.

Nicu was once picked up by a Portuguese man who took him all the way to Dover. He was promised £70, but once the day's work was done, he was abandoned in the port town with no money.

Nicu speaks limited English and it took him two days to make his way back to London, only managing to do so thanks to a chance encounter with a Romanian at a train station.

The working conditions that workers like Nicu encounter when they arrive on projects are also often dangerous. Being expected to carry out unsafe tasks in hazardous conditions is a regular occurrence, often without proper tools and inevitably without the right safety equipment and PPE.

"I've climbed on top of houses and done roofing, painting... I was scared," says Nicu. "You have to do it because [if you refuse] they don't pay you."

Like many of the men gathered at these car parks, Nicu fears injury – not necessarily because he'd rather not be hurt, but because of the implications of being unable to earn money.

He is one of multiple workers *CN* spoke to who have seen accidents that left people unable to work, with those employing them taking no responsibility.

"One guy went to paint a house, he fell off the ladder, he broke his hand," Nicu tells *CN*. "What did his boss say to him? 'Go to hospital'."

LEGAL MODERN SLAVERY

The obstacles to going 'legal'

Many people *Construction News* spoke to as part of this investigation began life in the UK by waiting for work at pick-up points before moving to mainstream businesses.

However, a number of workers told *CN* that the complicated payment systems used by agencies like umbrella companies (firms set up to provide payroll services to businesses and workers) was so unreliable that they had no option but to return to waiting for work in car parks.

John, who *CN* meets at the pick-up location in east London, came back to the site after he was left waiting two months for payment from an umbrella firm.

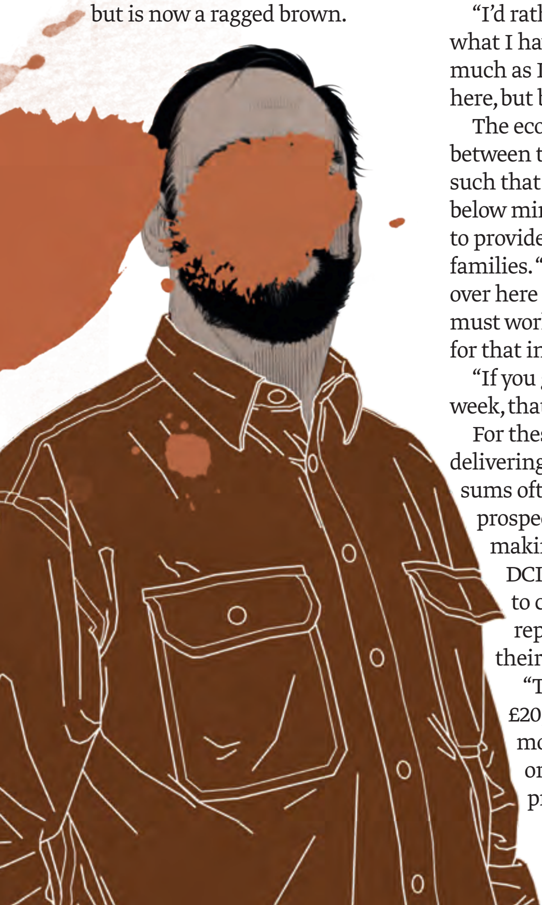
"I waited two months for my pay cheque," he says. "I had £400 to receive. I waited and waited, I called and I called."

Fortunately for John he was able to live with some siblings, but the experience gave him serious reservations about working on a large site. "I would like to work for an agency that doesn't take advantage of me," he says.

He told *CN* the reason he took the risk was simple: despite the dangers of the environment and the possibility he won't get paid, it was still more reliable than working for an agency that used an umbrella company for payment.

Unlike many of the others seeking construction work, John has a CSCS card and speaks good English.

The complications that stopped him being paid were far greater for the workers that didn't speak the language and spoke little English, he says.



'It is difficult to accept'

Cristian began his life in the UK by waiting for work with other Romanians at known pick-up points.

A trained carpenter, he gradually found more regular work with a few small British firms who recognised his skills.

As Cristian's English improved and his relationships with these contractors strengthened, they asked him not just to work, but to recruit.

He soon turned to the meeting places outside London DIY superstores to bring in Romanian labourers for his firms. But rather than pulling up in a car and taking whoever got in, he preferred to deal directly with the pick-up locations' "pimps".

He explains to *CN* that he would park his car away from the regular scrum of workers and deal with those negotiating on their behalf. These middlemen would explain to Cristian which specialities they could offer him and what the workers' rates were, which were then negotiated.

"In this country you don't get anything for free. It's hard here... it's cold... you wait outside here for a job. Sometimes you get one, but people don't pay"

Although he always paid the workers directly, Cristian says that if they ever needed to work for longer than anticipated, they had to inform those negotiating on their behalf.

He believes the "pimps" charge workers for arranging their pick-ups, pointing out that they did not work themselves and would wait until the end of the day with those not collected for jobs.

It is difficult to establish the level of control these middlemen have over these locations or the workers.

CN has witnessed these negotiations taking place between non-working "pimps" and potential customers. On one occasion, one man pretended to carry out repair work on a van as cover for recruiting workers, who were then taken to a customer. In another instance, a group attempted to physically intimidate *CN* and our interpreter until we left the site.

The only clear leverage these middlemen held over the workers we encountered appeared to be that they spoke better English, or that they had transported the workers to the pick-up point themselves. To the casual onlooker, it would be hard to determine there was a hierarchy at these locations at all, let alone that there was any violent or criminal control.

"Between the zero-hours contracts and modern slavery, we see so much exploitation that may not necessarily result in a police prosecution," DCI Brewer says.

"The fact is that we have more success with things such as sexual exploitation because the majority of victims are female and there is quite a strong network for finding them support through non-government organisations and charities. They are more willing to engage in those processes for support."

Another challenge for the police is that victims don't feel able to commit the time needed to see a prosecution through to conclusion.

"With labour exploitation, what you don't need – because you've come over here to earn money for your family – is to get bogged down in supporting a court case which may impact on your ability to find additional work," DCI Brewer says. "All the time you're supporting that investigation you are not able to work, so you're not providing for your family."

The Met's modern slavery chief also believes the demographic of those falling victim to this type of crime is a factor.

"In the construction industry most of the victims are men and you also have that added shame of being 'had over'," he tells *CN*. "You've let your family down and psychologically it is quite difficult to accept that you're a victim and seek support from the police or one of the agencies."

Despite the difficulties in taking prosecutions forward, in the past year there have been some construction-related modern slavery cases successfully pursued by police.

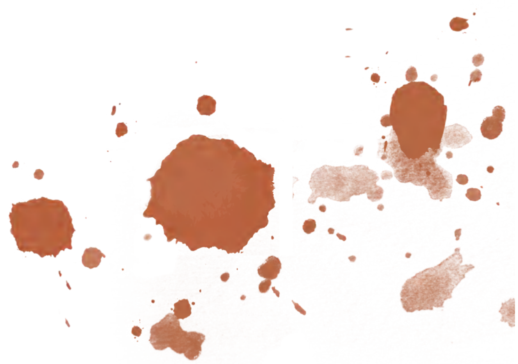
In April, David Lupu, a Romanian national who supplied labour for demolition work, was sentenced to seven years in prison for slavery offences.

This was followed in September by Thames Valley Police making three arrests following allegations of modern slavery on sites in Buckinghamshire.

'I told him to stop – it's dangerous'

Lunchtime is approaching and the workers outside a builder's warehouse on the edge of a major London ring road are getting edgy.

"I'm stressed and I'm angry," Gheorghe tells *CN's* interpreter when asked if we can have a quick chat. "I don't want to talk to you." The boss of the firm Gheorghe normally works for is in hospital, so he's had to come here to tout for work. As the clock ticks down,



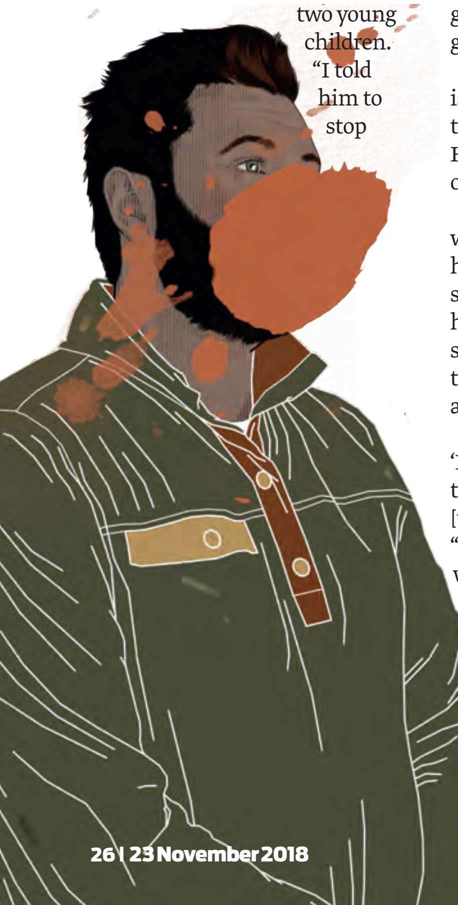
the chance of him securing a job lessens.

His worries increase when his mother-in-law turns up to the pick-up point with a warning. She says the Home Office picked up workers from this location yesterday and deported them.

CN finds her in the warehouse cafe, spinning coins around the table with her fingers and cradling a mug of milky coffee. "We thought you [*CN* and the interpreter] were policemen dressed as civilians," she confesses after we've spoken for a while.

She's worried about her son-in-law waiting for work at this location and fears he'll be picked up and deported, leaving her daughter alone in the UK with two young children.

"I told him to stop coming here because it's dangerous now," she says.



Outside a van pulls up, an English driver gets out and starts gesticulating at the Romanians gathered in front of him.

To Gheorghe's relief, the driver is from a north London-based tiling business, rather than the Home Office, and needs a couple of workers.

There's a chance Gheorghe won't get paid of course and that his mother-in-law will have to support him again, as has happened in the past. Not that she sees much benefit in reporting it to the police if someone does take advantage of him.

"If I call the police and say, 'Look they haven't paid me'... in this country it's not legal to work [without papers]," she says. "Maybe they will send the person who didn't pay me to prison, but they still didn't pay me, so what's the point?" This unwillingness to come forward poses a barrier to any attempts at preventing this type of exploitation.

But there's an equally damaging wall of silence on the client side of the industry. When these workers end up on larger building sites, their services having been procured via the "pimps" Cristian describes, the companies running those developments aren't interested how they got there.

"[It] didn't matter," Cristian says. "All it mattered for the builder was to bring them people because they needed them and they are difficult to find."

For DCI Brewer, this silent arrangement is difficult to police. "It's like a mutual acceptance that from a victim point of view you're not going to get paid enough, and from a suspect point of view you're getting extremely cheap labour," he says.

The large supply chains that exist in the construction industry only add to this, he points out. "When most of your work is subcontracted, the further down the line that goes, the greater the chance of exploitation.

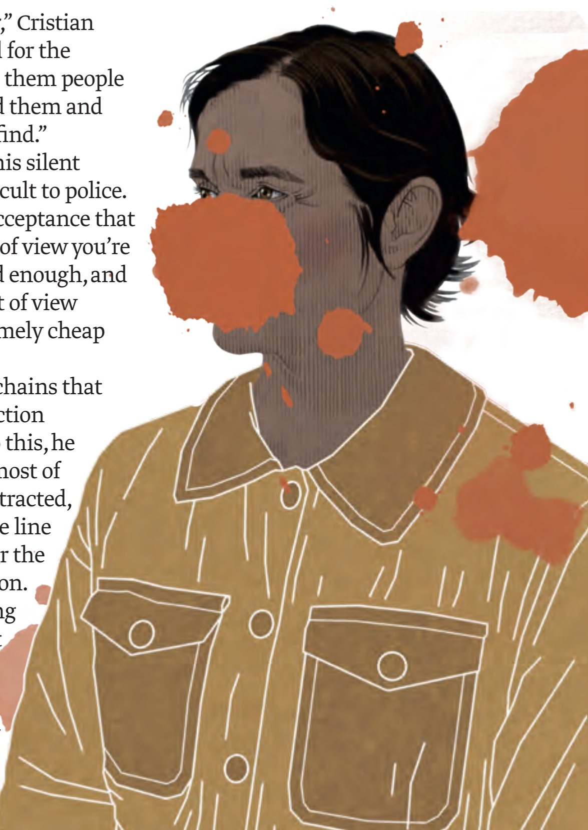
"Everyone is taking their little cut and it gets to the point where the only way that you can make a significant amount out of that particular contract is to employ people at significantly lower cost.

"To police it is difficult, and the further down the chain you go the harder it is."

The first time *CN* visited one of these sites, we were confronted by a worker who said we had already made up our minds about the article we would write.

'So what should we write?' *CN* asked him.

"It's a sad story," he replied. "The sad story of Romanians in construction... that should be the title of your story."



YOUR HELP GANGMASTERS & LABOUR ABUSE AUTHORITY

How to spot signs of exploitation

There are a number of signs of trafficking and labour abuse. Not all apply, and victims may be reluctant to share their experiences.

The questions below can help point people in the right direction if they are concerned:

- Are workers in possession of their passports and ID documents?
- Do they show signs that they are being controlled (can they move freely and speak to other people or are they being threatened and subject to measures keeping them on site)?
- How long are their working hours and do they ever have days off?
- Is their accommodation up to standard and do they know where they live?
- How much are they being paid? Do they have access to their earnings?

Contact the Gangmasters and Labour Abuse Authority on 0800 4320 804

Translations: Razvan Radu Boros

Illustrations: Hannah Emmett

***names in this feature have been changed to protect identities**