

**Imperial College
London**

**PEOPLE
PLACES
SPACES**

August 2023

ESTATES OPERATIONS

**Highs
and
lows!**

**Inside this
edition:**

**Now that's
classic**

**In the thick
of it**

**Return to
nature**



Welcome

from Nick Roalfe

The 'In Conversation with the President' staff sessions are proving to be extremely popular, with around 1,000 people able to attend the July session - the last for the academic year.

If you were unable to join, it was devoted mainly to sustainability, and how

Imperial research is leading the way on the global stage. It also put the spotlight on those with key roles within college who are driving the Imperial *Zero Pollution* agenda – Tim Green and Harriet Wallace. Tim and Harriet highlighted, amongst many other things, some of the topics which heavily involve Estates and will keep our teams busy for the foreseeable future. This will include not just the obvious Projects, Waste and Recycling and Energy teams, but other aspects such as construction, as we develop our plans in more

detail alongside the College strategy.

Previous 'In Conversations' have also highlighted other campus plans and ambitions, which also heavily involve the work of our teams. This clearly shows just how fundamental the work of Estates Operations is to the success and achievement of the College's plans and strategy.

If you have been unable to attend, I would urge you to watch the recordings, and certainly try and get along to the new season of sessions when they begin next term.

It seems almost incredible to be nearing a new academic year already – with Autumn rapidly approaching. I hope that you have managed to take well-earned some summer leave already, or if you are about to take some now as we reach the long bank holiday weekend, that you have an enjoyable break.

On that note, it might seem early, but I really want to ensure that this Christmas we have a party to celebrate our successes and get everyone together.

I'd welcome your suggestions on what that might look like, and to hear from those willing to help organise this event. Please do contact me directly, or through Anne-Marie.

I'd also like to take this opportunity to remind you that my door is always open if you would like to talk to me about anything or share your ideas.

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Alternative format

This magazine is available as a downloadable PDF on our website at: <https://www.imperial.ac.uk/estates-facilities/about-us/people-places-spaces/>



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That moment when ...

Project Manager Will Frame finally finishes work on the long-running Supersonic Wind Tunnel installation for the department of Aeronautics. The project started in 2013 with the design of the tunnel and lab, the construction of the lab was completed in 2017. The installation of the wind tunnel has now been completed and is being tested. More on this in a future edition!

Coming projects update

It's all go for Projects Delivery in the coming months with budgets approved for the following works:

The I-Lab in RCS1 – renovation and refurbishment of chemistry lab space for an open plan hot-desking and flexible working office for up to 30 staff, doubling as a research showcase and hosting space.

Reconfiguration of space in Skempton building to accommodate new research facility capable of large scale 3D printing primarily for the construction sector.

Health & Safety related essential works to the ventilation system for the Human Anatomy Unit (HAU) in the 14 floor lab block at Charing Cross.

The refurbishment of Huxley 009 laser lab suite improving ventilation and cooling, providing a ceiling gantry for power and cabling to house new research equipment in response to an investment award.

Refurbishments in the Business School of the Undergraduate Common Room; LG19A, teaching room; the ACEX corridor adjacent to the new lecture theatre; and the open plan office at Scale Space and the reconfiguration the IDEA lab space.

Refurbishments to address current teaching needs of Read and / or Pippard lecture theatre for Business School undergrad use; SALC; SECB and Hamilton.

All change

Building Manager Martin Benson retired this term after eight years, as did Assistant Building Manager (ABM) Brian Kelly after 28 years. We wish them both long and happy retirements.

We also said goodbye to ABM Aimée

Buirski after seven years.

Gary Nicholls will be joining Building Operations as ABM (12-month secondment), and a further permanent ABM position has been offered subject to confirmation as we went to press. Details in the weekly newsletter.

At Hammersmith

The Clinical Research Building (CRB) refurbishment at Hammersmith Campus, being project managed by Paco Villegas Ruiz, continues. The last bits of design and second stage tender are being finalised.

The first crane lift took place at the beginning of July and brought in a temporary chiller that will enable the disconnection and removal of the four old ones from the roof while maintaining critical activities in the occupied areas of the building.

A temporary standby generator is also in place to help with the replacement of the existing one which is at the end of its 30-year life.

Once completed during the summer of 2024, the National Heart and Lung Institute (Faculty of Medicine) will move in, mostly from St Mary's Medical School building but with a section from Sir Alexander Fleming building at South Kensington as well. This will be the last group to move out of St Mary's and will conclude the Faculty of Medicine Space Vision Programme after almost five years of successful projects and various moves across different campuses.

In the last edition of People, Places, Spaces we reported on some of the sustainability and recycling efforts being made in this project. There is further work happening behind the scenes which it is hoped will make this project even more sustainable. Watch out for the winter edition for more about this project.



Learning and development

Please visit the Estates Learning and Development One-Stop Shop for further information about these and other courses available during 2023 - 2024.



● Disability Awareness Briefings for Managers and Supervisors (online)

28 Sept, 10 Oct, 17 Jan (2024): 9.30am - 11am
8 Nov: 1.30pm - 3pm

Aimed at all managers and supervisors involved in the new Annual Review Conversation with direct reports. The 90-minute briefing is to support the conversation for 'working well'. It will cover how disability is defined and the rights and responsibilities around disability; how to support and implement reasonable adjustments and how to promote positivity around disability.

● Laboratory Animal Allergens (in person SK)

20 Sept:
9.30am - 10.30am

● Asbestos Awareness (online)

12 Sept, 5 Oct, 13 Dec:
9.30am - 11am

● Developing our Customer Service (online)

23 Nov, 6 Feb (2024):
9.30am - 12.30pm

● Estates Staff Forum (online)

14 Sept: 11am - 12.30pm
7 Dec: (in-person celebration) 1pm - 8pm

Laszlo Radva joined Building Operations in January on a 12-month secondment from the Business School, to cover for Assistant Building Manager Peter Bodi who is taking parental leave.

As People, Places, Spaces went to press he learned that he had attained a permanent position, an example of how secondment can further your career.

Laszlo is an early riser, and after taking care of his pet rabbit leaves home in Putney to reach work by 8.30am, writes Jan Carberry. Usually that is level 5 in Sherfield building, South Kensington, but can be straight to any of the many residences and buildings that are the responsibility of his role.

That may be planned, and at least once a week usually is, or it may be the result of an overnight event which needs following up. Laszlo usually find that out as he reads his emails before setting out or while on the train. Reports will have come in from his manager, through Planon reports, from Security, or

One life, one day – Laszlo Radva

the Village Managers from Campus Services among others.

When we meet, Laszlo's manager is the soon-to-retire Martin Benson. Buildings in his and Martin's mixed portfolio include residences in Acton, South Kensington, Silwood Park; the Beit building, and Ethos, Harlington Sports Ground, the Foundry and Eastside.

Laszlo came to us from the Business School, which was his first venture into working in the Higher Education sector. "It was very hands on", he says. "This role in Estates feels a natural step from that position. It's different, but I feel very relaxed", he says, attributing that to Martin – "a really good teacher" – and the rest of the team. "I feel supported, welcomed to the family, everyone is warm and has incredible patience as I learn."

When writing, Laszlo is mid-term in his secondment and Jolene Burger is transitioning to manager of the portfolio. "How lucky am I", beams Laszlo, "to get two different teachers to learn from during one secondment. I'm taking in as much knowledge as I can from Martin and looking forward to what I can learn from Jolene."

Laszlo certainly likes to learn, he has taken his level 3 Institute of Workplace and Facilities Management

(IWFM) qualification under his own initiative and is starting on his level 4.

Working in Estates, he says, has helped him to see and learn about the bigger picture about relationships and dependencies between departments than in his previous role. Relationships clearly come easily to Laszlo. As we go walkabout to take a photo for this article we make a number of stops to talk to people en route who want to say hello, and with others he knows who ask why I'm taking his photo. "I am, I suppose a 'people person', he says, "and good with a crisis, which is why I think I am good in this role, good at being the face seen by the customer."

When he's not at work, or studying, he likes to be active, going to the gym, hiking the peaks in the UK, even once cycling to Amsterdam. "But that was to avoid helping my wife decorate the flat", he half jokes. It is the couple's fifth wedding anniversary this year and he is looking forward to a holiday to celebrate in October. "My wife is surprising me. We take it in turns to organise the holidays, alternating between a relaxing one and an action one," he says.

As he learned of his permanent post he said: "I'm very happy, and at just seven months into my secondment!"

We have three fantastic Employees of the Quarter to celebrate this edition.

Controls Engineer Mark Reader was nominated by Senior Project Manager Paco Villegas Ruiz, Maintenance Technician Leading Hand, Gary Clements was nominated by Customer Services Centre Operative Sid Gurung and Building Manager Martin Benson (who retired at the end of June) was nominated by his seconded Assistant Building Manager Laszlo Radva.

Each receives a certificate and a gift voucher.

If you would like to nominate a colleague for their contribution to College Values [the nomination form is on our webpages.](#)



Employees of the Quarter



Mark – 'extraordinary dedication and professionalism'



Gary – 'helpful, prompt, polite, courteous and knowledgeable'



Martin – 'a great ambassador for Estates and well respected'

In the thick of it

With three ceremonies, 4,700 graduands and 8,000 guests the May 2023 graduation at the Royal Albert Hall was the biggest Imperial had ever seen. Assistant Building Manager Maggie Taylor, who is based at St Mary's, was one of the volunteers making it happen.



"I like volunteering as I get to meet a lot of people, usually from South Kensington which is not my everyday workplace", says Maggie (photo left), who has volunteered for many things, including during lockdown preparing the safety packs for those coming onto campus. "I love to volunteer at the Graduation and have been doing so for many years. I have always been on student gowning duties."



The gowning volunteers help the costumiers Ede and Ravenscroft, who hire the gowns, by sending the students through in a timely manner, alerting them to queries that need to be resolved (eg, those who haven't ordered a gown, or latecomers who need fast tracking through the queue so as not to be late for their ceremony), keeping the queue moving fluidly.

Fortunately Ede and Ravenscroft bring spare gowns and hoods, so they can be hired on the day by anyone that has forgotten.

"This year though, the volunteer leader said she needed to put me on the information desk in the morning and student collection point in the afternoon.

"So, I arrived bright and early to start my first shift at 8am. I was surprised that the information point I was on was in the College Main Reception as I had never been asked to be on such a front-facing role before. It was a fabulous viewing point as everyone came through here to find out where they had to go to collect their gowns, find out where official photos were being taken and where their receptions would be. It was very busy and there were queues forming

very early on for photo opportunities at the beautiful floral display in main reception. This meant that a bit of 'queue busting' was needed, making sure that any gaps were closed up and that people did not take too long getting their pictures, also keeping the queue orderly so that there was always space to get from one side of the main reception to the other.

"In the afternoon, I moved upstairs to the Junior Common Room where boxes labelled A-Z were laid out on a back table. These boxes contained the coveted 'Blue envelopes' which graduands needed to collect before being sent through to the Senior Common Room for gowning. This was interesting, as I had to check the student ID, either student card, passport or photo driving licence, then I had to go to the correct box to find the named envelope. Usually, this was a quick process, but sometimes took longer, due to double-barrelled surnames or people having very similar names. It was very important not to make a mistake.

"I didn't get to watch any of the ceremony this year, but memorably I did one year when I was helping with gowning the academics at the Royal Albert Hall.

"I finished just before 5pm and set off for home. I had walked over 13,500 steps in all and was quite tired, but happy to have been of help. I loved seeing all the outfits and the happy families coming together for this day. It is just a lovely atmosphere, activity everywhere, people wanting help to get to where they needed to be. A sense of relief when they realise the volunteers know what they are doing and have answers to their questions. Parents beaming with pride.

"Plus I met other staff members whose names I knew but hadn't actually met in person, so that was a bonus.

"I have already signed up for October's graduation."

It's rare for a team to be assembled at the same time, and for them to remain together for 10 years, but that's the story behind three long servers in the Engineering Team.

Hari Haren, Anthony 'Tony' Pittman and David Larbie were recruited in August and September 2013, by Andy Hammond. Now Head of Engineering, he was newly Engineering Manager at the time, and it was the early stage of a restructure of what has since 2019 grown into the Engineering, Energy and Environment Team.

David, a mechanical engineering graduate, was recruited as Technical Assistant, a role which would provide engineering knowledge to some of the administrative demands on the team. Anthony came in to take the Fire and Security role and Hari as Energy Engineer.

David worked in various roles including cost control and administration within engineering companies, before finding a route into the engineering career he wanted and joining Imperial. In the ten years David has grown



with the team, completing his Masters in Built Environment and is now Assistant Building Services Engineer.

He said: "The variety of interesting projects I can apply my knowledge to at Imperial gives me satisfaction. Among my key contributions are producing challenging temperature and air quality investigations and delivering complex engineering installation projects."

Tony brought some 30 years of industry experience with him – including at royal residences – and has certifications and accreditations too numerous to list!

He said: "I enjoy the diversity of my

Our Long Servers

The Estates Operations' Long Service Recognition Scheme celebrates those serving 10, 15, 20, 25, 30, 35, 40 or more years, and those who are retiring, with a certificate in a presentation folder and a letter from their Head of Department.

work and the challenges that this presents, also the opportunities to be involved in things outside of my role. I would consider my expertise in the production of technical performance specifications, project management and system design analysis as my key contributions."



Hari, who has a Masters in Energy Management, brought his knowledge and expertise from more than 25 years in the private and local authority sectors. Hari is: "... proud to acknowledge initiatives I have led on to further the College's ambitions. One example is water use reduction, initially through our contract with ADSM, which benefit not just the College, but people across the globe through its charitable efforts. Another is the working with other Russell Group universities on adoption and roll out at Imperial of the LEAF scheme, encouraging labs to reduce energy use."

Andy Hammond said: "Ten years almost doesn't seem possible. Tony, Hari and David have evolved with the wider team and the wider requirements this has brought, they use their technical expertise to support not only Estates Operations but the wider College community. I'm immensely proud of their achievements and to have them in my team."

40 years
Tyrone Wright
Maintenance Technician

25 years
Peter Barrett
Maintenance Technician

20 years
Joanna Fownes
Building Manager

Malika El-Attar
Cleaning Operative

15 years
Paul Young
Maintenance Leading Hand

Lee Horsburgh
Maintenance Operative

Peter Szpur
Site Services Supervisor

Michael Nutley
Maintenance Operative

Maria Correia Pereira
Cleaning Operative

Rosa Correia Pereira
Cleaning Operative

10 years
Paula Martins Botas
Supervisor, Soft Services

NOW THAT'S CLASSIC

Lucy loves motorsport!



PETROLHEAD: *someone who likes and is very interested in cars.*

Lucy Cowell wears the title with pride. She is quick to point out though that the often pejorative interpretation of the term, of someone resisting any suggestion to use other means of transport, does not apply.



She just likes classic motors, and the thrills, going back to the days of racing them.

The Fire Safety Advisor joined Estates Operations in the Fire and Safety Team in May last year. She has made an immediate impact in her role raising understanding and awareness of fire guidance, measures and precautions across

College, already having been recognised with an Excellence in Health and Safety Award from the Provost (photos right).

But when she's not at work she loves the occasional tinkering or cleaning of her classic cars, and 'taking them for a spin', although these days she does mainly leaving the tinkering to her husband. She and husband of 30 years, Steve, are currently mid-renovation of 'Colin the Cortina' boyfriend to Maisy, the MK 1, 1300e, Ford Escort.

But let's rewind to the beginning of the love affair – with both hubby and cars!

With two brothers who were both into cars when she was younger, she didn't want to be left out of the 'excitement'.

At 19, with hubby then boyfriend, she bought a Mini and trailer, and

at his parent's house, secretly from her own parents, converted it to race as a stock car.

The day came when she revealed to her own parents that she was planning to race: "My dad was thrilled, but mum, well, she was horrified!"

She raced regularly at the fortnightly meetings at the Alwalton Raceway, East of England Showground in Peterborough. "I was the only female when I started. In the pits the others were good to me, but as a driver in the race, well I didn't want to be treated differently and I wasn't. I held my own, at the end of my first year of racing, I won Novice of the Year, the trophy was dreadful but an honour to win all the same.

"I took the number 88, which was the same whether I was on my wheels or on the roof, and I did

roll it!" She was unscathed by the "thrilling experience" which was captured on film. She's made good use of that film for bragging rights since, especially when working in a school – making her cool enough to win over some of the harder to reach pupils!

She's owned a succession of vehicles over the years, quitting the racing as she and Steve got their own home (without the essential garage) and started their family, and the club they raced with was wound up.

But that hasn't stopped her from owning 'road classics' and for the last 13 years she has had Maisy, the 1975, 1300e Escort in jade green, and taken it to enthusiasts' rallies.

Colin

About three years ago a friend spotted a 1974 Mk3 Cortina, in the same colour, and says Lucy, "he was the perfect boyfriend for Maisy". She named him Colin, after, and in tribute to, her late Dad, the car number plate, by chance also including his initials.

Although Lucy can weld, tinker with mechanics and knows her way around a crossflow engine, Steve has taken on the renovation, stripping it down and repairing the bodywork. The latest addition is getting close to completion.

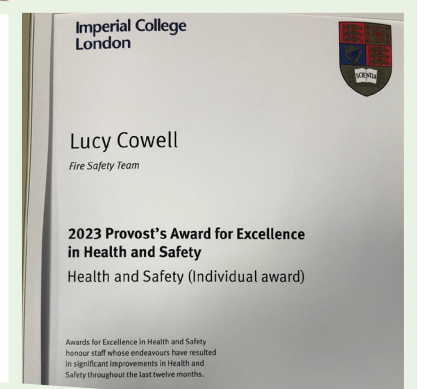
She's also used the vehicles for good causes. At the end of lockdown, as the weekly 'clap for the NHS' was ending, she and others in her hometown of Stotfold set up a classic car and vehicle parade to pay tribute.

When Lucy was working for Hertfordshire Fire Service as an enforcing officer, she was also a support liaison officer for one of



the fire stations in her district, Royston. Crews there were holding a charity car wash, so she took her two classics along to support the event, the firefighters took extra care in cleaning them both!

It comes as no surprise that Lucy very quickly found Downton Abbey star Jezebel, the Royal College of Science (RCS) mascot, on joining Imperial. Jezebel, number plate LP8389, is a 1916 Dennis 'N' Type fire engine weighing five tons! Guess who will be at RCS motor club runs!



Return to nature

Over the last four years *People, Places, Spaces* magazine has been following stages in the decommissioning of the former nuclear reactor at Silwood Park campus. The last phase – landscape reinstatement works – is close to completion.

The site remains subject to the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations (EiADR99) until the defined 'End State' is achieved. That is a grassland amenity is established, which is likely to be achieved by September.

Little thought was given to eventual decommissioning when the reactor was conceived back in 1963. Taking it from operational to brownfield site has taken near on a decade. Both a specialist decommissioning contractor and a nuclear waste disposal contractor were needed, and the reactor

scientists were part of the decommissioning team.

The Office for Nuclear Regulation set stringent conditions to ensure the safe and thorough restoration of the site. One critical requirement involved the remediation of asbestos-related concerns. To meet this a combined depth of 30cm of sub-soil and topsoil was carefully installed throughout the site, acting as a protective barrier against any remaining contaminants. To seal this protective layer, a lush carpet of amenity grass was sown on top.

On the east side of the site a steep 45 degree bank was reshaped into a gentler slope of under 30 degrees. This not only enhanced the site's visual appeal but also improved accessibility and safety.



ensures that excess water is efficiently channelled away, safeguarding the site, and preserving the long-term integrity of the surrounding environment (photo above).

Focus was placed on resurfacing the final section of the path connecting to the Move Imperial gym, thus ensuring that materials can be transported with ease, minimising disruption while supporting the future sustainability of the site.

The specially selected variety of hard-wearing perennial ryegrass, known for its resilience against disease, provides exceptional visual appeal and acts as a natural shield, enhancing the overall protection of the site (photo left).

It looks likely that a new multi-use games area (MUGA) will be built on part of the area, that closest to the gym on one edge of the site. But that will be the next stage in the site's story.

To enhance water drainage site-wide and mitigate potential flooding risks, a network of French drainage systems was installed and connected to the main drain. This intelligent solution



This stage in the Silwood Park story has been overseen by Gabriel Galvez in Projects Delivery.

Gabriel is currently Minor Works Project Manager, having joined the team around 15 months ago as Assistant Projects Manager, moving across to work with Wilson Rios about six months ago. He has worked across a whole variety of projects since joining, mainly at South Kensington until recently.

He said: "I've been very lucky to be mentored by Kirsty (Scallan) who taught me all our processes, and William (Frame) whose knowledge of construction technology has been inspiring.

"I'm currently leading on a new clinical trial facility at Chelsea and Westminster Hospital, working with Paco (Villegas Ruiz), which is from inception to completion. It is the most interesting for me to date. Running it daily as project manager is a big factor, but also that it involves managing relationships with a whole variety of stakeholders in a clinical setting."

This project will keep Gabriel occupied for around a year.



Fit for a Prince



A prestigious listed property in our portfolio presented its own unique set of challenges for Minor Works Project Manager Wilson Rios.

Built around 1850, Princes Gardens, suffered minor bomb damage during the Second World War, although two houses were lost altogether. There was neglect in subsequent years while proposals for various redevelopment schemes for the properties, which had been used as hostels and offices during wartime, came and went without fruition, until Imperial College took them on as part of their expansion in the 1950s.

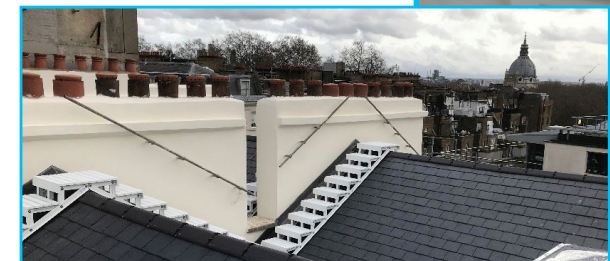
Inter-connecting 14 and 15 Princes Gardens, formerly part of a terrace, became an end of terrace, with what was an internal wall used as an external wall, (neighbouring Weeks Hall). The chimney flues and stacks were now on the outside of the building, and the decorative frieze, unique to the terrace, interrupted.

In his recent renovation and upgrade project Wilson has overseen the stripping back of the years, and the remediation of some of the inherited post-war austerity repairs, along with the general maintenance and repair required for a building of such a grand age.

Wilson commented: "The project proved to be a very challenging one and this was especially true with the front and rear flank wall next to Weeks Hall where serious structural issues were found when the render was removed.

"The construction of Weeks Hall in the 1960s supported the middle section of the building but the flank areas were just rendered. With the intervention and recommendations of appointed structural engineers the structural defects were made safe and the flank areas reinforced."

The roofs had already been scheduled for repair when it was agreed that it would be a cost-effective solution to utilise the scaffolding to investigate the structural and general condition of the properties, obtain costings, and to keep it in



PHOTOS SHOW: THE NEWLY PAINTED FACADE, HOW THE REAR AND EXTERNAL WALL LOOKED BEFORE, A CLOSE-UP OF THE FRIEZE AND THE NEW ROOF SAFE-WORKING ACCESS

place while the required schedule of works was carried out. The circa £1m project was carried out by Kinetic Contracts.

Formes of the frieze were made, so this detailing could be fully restored as part of the project (photo right).

The team managed to extend the works to complete redecoration works to the front of the building that will protect the facade for the next decade.

There is a new accessible access to the rear and the garden area will be reinstated.



'That was close'

Is a near-miss an accident waiting to happen, or is it a golden opportunity to prevent one happening?

The Estates Operations Safety Team are raising awareness of the benefits of and to create a fully proactive workplace health and safety culture.

They explain the importance of, and why we must all take ownership for recording near-misses.

The Health and Safety Executive says: "Near misses are less severe than accidents. However, they should not be ignored or treated lightly.

"Are there any patterns in when or how things go wrong. A pattern provides an early warning that something needs attention. It makes good sense to be proactive and take action early when problems are likely to be less serious."

Though near miss reporting is crucial in the construction industry, all workplace environments should record near misses. Not only should they be recorded, they should be acted on.

For example, a colleague trips over an extension cable on the ground. They narrowly miss hitting the side of their head on the corner of a nearby desk.

See it, report it, prevent it

By reporting it immediately, the unsafe condition – the extension cable lying on the ground – can be addressed to prevent someone else from tripping. By subsequently recording it, the reasons for the cable being left there can be investigated. Solutions can be found to prevent it being left there again, for example, a new socket being installed.

Sounds simple, but all too often 'incidents' – which this is - and which don't result in injury or damage, go totally unreported and unrecorded.

A high level of reporting shows a positive workplace safety culture. A low incidence can indicate entirely the opposite, no-one cares or is bothering to take safety seriously.

Head of Fire and Safety John Field said: "As in this example, it might be dealt with quickly, but the record is there to learn from. It can also provide reassurance for the person who saw something they felt was unsafe that they have taken action and the College has taken it seriously. We want to build a culture of 'See it, report it, prevent it'."

When London Fire Brigade attended a small fire



caused by an overheated light fitting within Beit Hall there were no injuries and only minor damage to ceiling tiles and floor coverings. The incident was reported using the Salus system. It wasn't a case of just replacing the damaged components, it was investigated by the Fire Safety Team. The cause of the failure in the light fitting was identified. It was decided that as a preventative measure all the light fittings which were of a similar age and type should be replaced. While this cost £37k, it was cost-effective, preventing future fires and serious damage, and potentially even injury.

Over a three year period there were two incidents of an overheated passive infrared (PIR) sensor in the Commonwealth building. The first one was replaced, but when there was a second that could potentially be a pattern it was decided to change them all. The subsequent investigation identified that apart from the fire hazard, the PIR system was not suitable for use in labs, and could leave people working in them unsafe, as people could be left in darkness. The system was replaced with manual switches.

What should I report?

Within the College setting examples of near misses where no injury, ill health, or damage occurs, could include: any non-compliance with regulations, faulty equipment, falling or flying objects, laboratory waste going into the wrong waste stream, failure to adhere to any standard operating procedures or risk assessments, failure of building facilities such as lack of water supply.

How do I report a near miss?

The Salus reporting system is used by Imperial. It is accessed easily on the College website by anyone with a College ID.

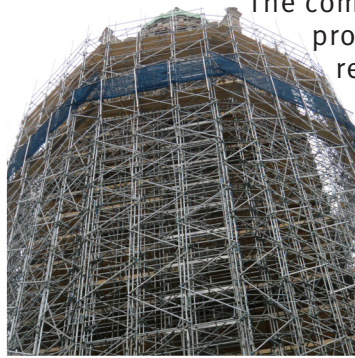
It probably will take you about 10 minutes to complete a report.

Cover Story: HIGHS AND LWS



A shroud of spider web-like scaffolding is now almost complete around the Queen's Tower, needed for its major renovation.

In the basement beneath the tower is a hidden network of below-ground props. Approximately 110 props line up on all four sides with the scaffolding above to support the large amount of posts needed. The concrete ceiling to the basement is sloped, as it is the underside of the stone steps around the tower base. ▶



The complex installation of props below ground required a high degree of coordination with the scaffolding loads above, as well as avoiding the existing services located in the basement. Ventilation also had to be brought in for those working there.

Above ground, the scaffolding, which first started going up last October, is near completion, it will rise to 42 levels, including protecting the sandstone steps around the tower's base and enclosing the copper dome and finial. JDC Scaffolding, engaged through our main contractor Russell Cawberry (as are all the contractors) is rightly proud of the engineering skill and management of this major project. See 'Making Headlines' opposite.

The lower levels of the tower's masonry have already been inspected from the scaffold, and

TIP TOP

The copper to the main dome and cupola at the top of the Queen's Tower will be replaced. Specialist copper and lead craftsmen are becoming a rarity. We are fortunate to have specialist sub-contractor, Full Metal jacket Ltd, working on this. They have removed some initial panels of copper that are accessible from the upper balcony to inform the potential extent of the repairs to the timbers beneath.

The new copper sheet was ordered at the beginning of this project, partly to fix the price against inflation, and partly to ensure that it was available immediately copper works could start. It is being stored in a bonded warehouse.

At the very top of the tower is a finial. This is part of the necessary lightning protection to the tower. Originally the finial was overlaid with gold leaf, and it is intended to dismantle the finial into two parts, and to bring these to ground level to repair and to regild.



some of the repairs and replacements required identified. However, when complete, the scaffolding will provide access for a full survey of the tower and for the comprehensive cleaning of the stonework, using water and light-touch methods (see right). This will fully expose the detail of repairs needed to the stonework. Other repairs to be executed



while the scaffolding is in place are the replacement of the timber louvres around the bell chamber, the repair or replacement of the flat roofs to the balconies, the installation of new copper on the dome, and the renovation of the finial topping the building (see 'Tip Top' left). *The restoration is a lengthy project, and will take at least a year.*

Bricks and mortar

The Queen's Tower is finished in Portland stone, repair materials will be sourced from the original quarry. There are also courses of red rubber bricks (photos above). These are finely textured handmade bricks with light creasing on the faces with a variation of natural shades.

Project Manager, Peter Thompson explains: "The stone and brick on the south and west facades of the tower have suffered the most deterioration as they are attacked by the strongest, most damaging winds." To source suitable modern replacements to match the colour and imperial sizing of the bricks the masonry expert has undertaken studies on a one-metre square sample weathered area of brickwork, also examining the all-important mortar. Peter adds: "Initially, four potential replacement bricks were identified, along with three different types of mortar containing different sizes of aggregate."

The existing mortar between the bricks was removed to a depth of 25mm using a diamond-disc rotary cutter. The bricks with highly weathered faces were also removed. The faces of some of the bricks were only found to be weathered on touching them — the face was loose and fell away. Three different types of lime mortar and one type of brick were installed in the sample area. The replacement lime mortar with the larger sizes of aggregate were seen as being the closest match, while the brick initially selected was seen as being too dark against the original.

Putti in their hands

Two pairs of cherubim adorn the tower. The pair are playing different musical instruments, traditionally associated with Putti, the Panpipes, and the horn.



The symbolism is often biblical, they are seen as the guards of God and their instruments as being heralds (the horn) and shepherds (the Panpipes) of God's word. Sadly though, these four are showing their age, indicative of the stone cleaning and repairs required to parts of the tower.

Masonry expert Simon Webb from Artisan Restoration, based in Enfield, will be repairing and cleaning the tower and the cherubim will be part of that process.

He explains: "We use water to initially loosen dirt and soiling before utilising the TORC system along with hand tooling with softwood scrapers."

The TORC system is especially suited to stone and brickwork buildings, it uses water and pressurised air, without chemicals, preserving delicate surfaces, allowing the work to be carried out quickly.

Each of the cherubs will take at least an hour to be cleaned. Adds Simon: "Once dirt is removed, any missing sections will have new pieces of stone fixed into place using stainless steel dowels and will then be recarved by one of our masons." Depending on the level of damage this could take up to 12 hours.

Once stone has been replaced and prior to the scaffold coming down, the team will review whether 'shelter coats' matched to the stone colour should be applied as a sacrificial coating to protect exposed or weathered areas.

Shelter coats comprise lime putty and fine stone-dusts, and occasionally natural pigments. Lactic-acid casein, a natural glue derived from milk, is added to improve adhesion and durability, the colour match achieved by matching the very fine stone dust. If applied, they should give 10-15 years of protection.

The Queen's Tower Restoration is being project managed by Peter Thompson, above.



MAKING HEADLINES

The project has caught the attention of the scaffolding industry press, appearing in the current edition of *Scaffmag*. There is a three page feature detailing the complexity of the design, engineering and erection.

Holidays, celebrations, diversity days and events

● Estates Forum	14 September	● <u>Diwali</u>	12 November
● Autumn Term begins	30 September	● <u>Disability History Month</u>	18 November - 18 December
● <u>Black History Month</u>	October	● <u>International Human Rights Day</u>	10 December
● <u>Suicide Prevention Day</u>	10 October	● <u>College Closure days</u>	27 - 29 December

The deep clean team

A new overnight cleaning team has been introduced as Soft Services aims for greater efficiencies and sustainable practices, writes Nic Dent, Head of Soft Services (photo right).

The team's focus will be on cleaning toilets. The overnight deep clean is aimed at reducing repeated daytime cleans which, because they are carried out quickly, can sometimes leave residues behind which build up over time. The new system was introduced last month.

Another efficiency in cleaning practice, team working, has been introduced. Instead of one cleaner working in a designated area, the team move through the building together each doing different tasks. It improves familiarity with our buildings, providing resilience in the team to cover sickness or absences.

So far it has been implemented in Sherfield, the Abdus Salam Library and Chemistry on South Kensington Campus.

This also allows for a deep clean team to go in where needed and to where defects have been reported.

The cleaners have said goodbye to traditional

non-recyclable 'dolly' mops. They've been replaced by flat mops using much less water, covering a larger area, easier to use, and the heads are machine washable and reusable. Electronic mops, have also been added to the toolkit. These use less water yet lift more dirt.

Another switch-out has been the type of cleaning cloths — a bit more expensive, but lasting much longer and doing a better job.

New carpet cleaners have been bought, they have an additional forward and back and side-to-side action, not just a rotary head. Although these weren't essential to using the new Purex water system, the two combined produce better results.

In the last edition of People, Places, Spaces, we reported on the trial of the 'Purex' or 'Clean Zero' water system, a super-filtered water, which as an unstable product absorbs dirt and contamination to gain stability. This eliminates the need for chemicals, using water alone to carry out many of the cleaning tasks. Purex is effective at reducing our CO2 emissions.

The team is now trialling a robot vacuum cleaner.

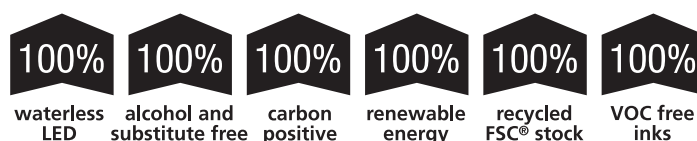


Sustainability Statement

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