

Cracking Matters



THE JOURNAL OF THE CONCRETE REPAIR ASSOCIATION

ISSUE NO. 33

Goodbye to Cracking Matters... and hello to CrackingMatters.com

The Concrete Repair Association has made the difficult decision to discontinue the printed version of Cracking Matters, its popular bi-annual journal.

In a bid to reach out to new entrants in the industry, the Association is entering the digital age and will instead be developing a range of social media initiatives including CrackingMatters.com - an online blog - with links to other platforms such as Linked-In, Twitter and Facebook. The Association will also continue to support the regular Structural Concrete Alliance E-Bulletin and a new Alliance blog.

Since this is the last issue, we will be taking a trip down memory lane and reviewing some news and campaigns that have featured in Cracking Matters over the years. You should also find within this issue a poster to pull out and keep that features the covers of every issue published, and some of its most famous headlines. And don't forget if this review whets your appetite, you can view every issue on the CRA website at ww.cra.org.uk/cracking_matters.php

Cracking Matters has been bringing you news from the CRA for almost 20 years. In 33 issues, this popular journal has led several important campaigns,

always highlighting the expertise of CRA members, while also calling for improvements in standards, training and health & safety. It has also featured hundreds of interesting case studies of concrete repair projects conducted by CRA member companies.

And as well as the serious stuff, Cracking Matters has always seen the lighter side of the industry, with popular sections including Concrete Crisis/Not strictly Concrete Repair featuring on-site images of improbable scenarios; and the ever-popular humorous commentary on trade matters from Allen Broad. Allen's first offering appeared in January 2001 when he invited readers to 'Make our Day' and ever since Allen has continued to entertain, making the day for many Cracking Matters readers, who have enjoyed a little smile and occasionally a full on belly laugh at his insightful comments.

And one mustn't forget the CRA's five minutes of fame when, in 2005, Cracking Matters featured as the guest publication on the BBC's popular TV programme 'Have I got news for you'. The journal received 'rave reviews' from the panel of comedians, who were asked to fill in the missing words from the journal's story headlines. And this moment of fame also led to a significant increase in circulation from discerning viewers which included consultants, architects and surveyors!

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CRA chairman outlines development strategy

The Concrete Repair Association's new chairman Keith Barrow has outlined his plans for further developing the Association, detailing a series of key objectives

which aim to uphold the professionalism for which the Association and its members are recognised.

During his two-year tenure as Chairman, Keith plans to further develop the training available to members, ensuring their continued competence and advancing their skills and expertise. He also hopes to improve the benefits and rewards of membership and encourage greater participation, particularly from smaller contractors.

Highlighting that the CRA is an established professional association within this specialist sector of construction, Keith explains that its strict entry requirements mean that membership provides businesses with a marker of credibility.

As well as being able to demonstrate a proven track record and overall proven ability, each full member is obliged to be QA accredited to ISO 9001, and to

the environmental standard BS EN ISO 14001. Members must also comply with the Association's stringent Codes of Practice and its training requirements. They must also display their commitment to maintaining high standards of health and safety performance, with many members having achieved accreditation to OHSAS 18001.

The CRA is also a valuable source of information regarding standards and good practice and produces numerous technical publications, including the newly updated Standard Method of Measurement.

"The Concrete Repair Association is a compass of competency and emblem of quality workmanship," declares Keith.

"I hope to develop the Association into a stronger and more rewarding organisation for its current members by continuing to develop the membership services, support and benefits they receive.

"I also aim to demonstrate that membership is excellent value for money so that other professional companies within the sector will aspire to join."

Keith, who is Director for Major Projects at

Volkerlaser Ltd, was elected as Chairman of the CRA at its Annual General Meeting in Manchester on 16 October 2015. He has extensive experience of the industry and has been on the CRA Executive committee for some 10 years.

Having graduated in Civil Engineering, he worked worked as a Graduate Engineer with Amey before joining Balfour Beatty. He moved internally to Balvac Whitley Moran (now Balvac Ltd) in 1990 and worked in various roles before becoming Director and General Manager in 2006. He joined Volkerlaser in 2009.

The CRA is a member of Structural Concrete Alliance. This brings together the expertise of the CRA, Corrosion Prevention Association (CPA) and Sprayed Concrete Association (SCA) to provide a single co-ordinated voice for the asset protection and repair industry. It offers technical guidance, CPD presentations and regional seminars aimed at improving understanding of concrete repair and refurbishment techniques.

Further information on the Concrete Repair Association can be obtained from tel: 01420 471612; email: info@cra.org.uk; website: www.cra.org.uk.

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www.cra.org.uk

STRUCTURAL CONCRETE ALLIANCE ANNOUNCES 2015 AWARD WINNERS



The Structural Concrete Alliance announced the winner of the 2015 Structural Concrete Alliance Award for Repair and Refurbishment as Concrete Repair Association member Bersche-Rolt for its concrete repair and coating works to the Barry Island Eastern Shelter in September 2014.

The award was presented to the company by broadcaster Huw Edwards during the Concrete Society Awards held at the Grosvenor Hotel, Park Lane, London on 4 November 2015.

Bersche-Rolt Ltd completed concrete repair and coating works to the Grade II listed Barry Island Eastern Shelter, as part of a significant regeneration of the Eastern promenade for Vale of Glamorgan Council.

The reinforced concrete structure, constructed in the 1930s, has a concrete

roof slab supported by columns on the seaward side, a retaining wall on the landward side and a series of primary and secondary concrete beams. All structural elements showed signs of concrete defects, with cracking and delamination within the beams and columns, reinforcement corrosion and peeling and discoloured paintwork.

Working closely with consultant engineers, Bingham Hall Partnership, Bersche-Rolt first carried out a survey of the structure before preparing a specification for the repairs, using products from Sika. Works included cleaning and priming the reinforcement, the application of a bonding bridge, erecting shuttering and repairing the concrete. The complete structure was then coated with a three-part protective anti-carbonation system in a decorative coloured finish.



Commenting on the award, the judges stated:

“The Alliance judging committee agreed this was the winning project given the professional and sympathetic approach to restore and enhance the structure to extend its service life within the landscape on Barry Island.”

“The main aim of the initiative was to create a scheme of urban realm improvements which would create a contextual improvement to this part of Barry Island and act as a catalyst for further private sector investment.

“The Eastern Shelter, now fully restored, sits proudly within the surrounding landscape and on Barry Island’s rejuvenated Eastern Promenade.

mortars, to make primary repairs to the concrete and provide a smooth, level finish. A Sika Ebonex cathodic protection system was installed to the top three levels to protect both the concrete and the steel from further deterioration and to provide structural integrity.



Balfour Beatty Concrete Repairs was awarded third place for its repairs to the Sherborne Footbridge in Salford. The bridge tendons of this reinforced concrete superstructure were suffering from chloride induced corrosion and there was severe spalling of the cross head beams; while the pre-cast concrete panels of the bridge deck were beyond repair.

Balfour Beatty’s solution involved the installation of a unique DuoGuard hybrid anode system, designed by Corrosion Preservation Technologies, and the use of carbon fibre plates to add additional strength to the superstructure. The cross head beams were repaired using Fosroc hand-placed repair mortars, while the adjacent concrete was protected by a CPT Patchguard anode system. The existing precast bridge deck was replaced with a composite deck.

The winners were chosen from entries received from members of the three trade associations which make up the Structural Concrete Alliance: the Concrete Repair Association (CRA); Corrosion Prevention Association (CPA); and the Sprayed Concrete Association (SCA).



Second place was awarded to Sika Ltd for its solution for Britannia House, a 1930s building with a concrete-encased steel frame in the heart of Bradford city centre. The building was showing signs of corrosion to its masonry exterior and steel frame. Sika supplied a variety of products to seal the building envelope, stop water ingress and repair and strengthen the structure.

Specialist contractor Freyssinet applied a Sika Monotop cementitious two-component system, consisting of polymer modified

CURRENT CRA MEMBERS

| Contractors: | Telephone: |
|---|---------------|
| Alfred Bagnall & Sons (Restoration) Ltd | 020 8311 3910 |
| Amber Construction Services Limited | 0208 592 5699 |
| APA Concrete Repairs Limited | 01422 379640 |
| Balvac Ltd | 01928 719875 |
| Bersche-Rolt Ltd..... | 01825 713000 |
| CCL (GB) Ltd | 0113 2701221 |
| Cemplas Waterproofing & Concrete Repairs Ltd | 020 8654 3149 |
| Colas Ltd | 01342 711000 |
| Concrete Repairs Ltd | 020 8288 4848 |
| Concrete Restoration Ltd..... | 020 8994 8860 |
| Currall Lewis and Martin (Construction) Limited | 0121 5529292 |
| Foster Property Maintenance Ltd | 01945 586999 |
| Freyssinet Ltd..... | 01952 201901 |
| GPL Civil Engineering Ltd | 0161 745 7888 |
| Gunitite (Eastern) Ltd..... | 01480 466880 |
| JB Specialist Refurbishments Ltd..... | 01487 834017 |
| Mackenzie Construction Ltd | 0141 6335555 |
| Makers Construction Ltd | 0845 8994444 |
| Oxford Hydrotechnics | 01869 346001 |
| P J Mear Ltd | 01480 431117 |
| Prestec UK Ltd | 0121 3088001 |
| Primars Coatings Services Ltd | 0208 9523330 |
| Renocon Limited Mulalley Planned Maintenance | 020 85519999 |
| RSS Construction Projects Limited..... | 08456 123293 |
| Sealability Limited | 0870 4050001 |
| Skyform Specialist Contracts | 0141 8105722 |
| South West Concrete Repairs Limited | 01752 561300 |
| Structural Renovations Ltd | 01753 825511 |
| Topbond Plc | 01795 414050 |
| Universal Sealants (UK) Limited | 0191 4161530 |
| VolkerLaser Limited | 0800 022 3292 |

| Manufacturers: | Telephone: |
|------------------------|-------------------|
| Fosroc Ltd..... | 01827 262222 |
| Mapei UK Ltd | 0121 5086970 |
| Remmers (UK) Ltd | 01293 594010 |
| Ronacrete Ltd | 01279 638700 |
| Sika Limited | 01707 394444 |
| StoCretec GmbH..... | 00 49 6192 401152 |
| Weber | 0870 333 0070 |

| Distributors: | Telephone: |
|-----------------------------|--------------|
| EPMS Supplies Limited | 0113 2760037 |
| Resapol Ltd | 01942 609001 |
| SIG Insulation..... | 07809 510583 |

| Associates: | Telephone: |
|---|--------------|
| Acivico Ltd t/a Birmingham City Laboratories..... | 0121 3039300 |
| Martech Technical Services Ltd | 01487 832288 |
| The Concrete Consultancy 2000 Ltd | 01707 268034 |

CRA updates Standard Method of Measurement for Concrete Repair

The Concrete Repair Association (CRA) has released a new edition of its *Standard Method of Measurement for Concrete Repair*. The document, now in its third edition, has been fully revised to reflect new and current methods, practices and standards.

The *Standard Method of Measurement for Concrete Repair* aims to assist the origination of clearer Bills of Quantities for concrete repair work by providing a uniform basis for measuring concrete repair and for fully itemising all aspects of the work involved.

It provides notes on repair measurement and a specimen Bill of Quantities. The method of measurement includes detailed instructions for: General, Trials and Routine Testing;

Surface Cleaning; Survey; Repairs; Crack Repairs; Pore/Blow Hole Fillers; Levelling Mortars/Fairing Coats; Surface Coatings and Treatments; and Resin Injection. It also itemises time-related elements such as provision of access and site facilities.



The *Standard Method of Measurement* has proved of enormous benefit to construction professionals since the first edition was published in 1990. Being one of the CRA’s most popular technical documents, thousands of copies have been downloaded from the CRA website or provided in hard copy format.

The new third edition of the document is available for free download from the CRA website, www.cra.org.uk.

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(Continued from page 1)

CRA – the stamp of quality

The importance of appointing specialist contractors for concrete repair and explaining how CRA members can demonstrate their skills is a key theme for the CRA and the focus of many an article in Cracking Matters. In 2001, Cracking Matters introduced ISO 9001:2000 as ‘the new standard for the new millennium’ and reminded readers that accreditation to the standard was a condition of membership of the CRA. In 2009, it reported that all members would additionally have to be accredited to the Environmental standard ISO: 14001.

In June 2010, Cracking Matters urged readers to ‘Beware the pretenders’, explaining exactly what qualifications and accreditations should be considered when appointing a specialist concrete repair contractor. A message that has been repeated many times over the years.

And what about the biggest standards story for the sector? From its very inception, the CRA supported the development of the BS EN 1504 series of standards for concrete repair. In December 2002, Cracking Matters began the countdown to its arrival and actively promoted the standards, explaining their effect on all the parties involved through a series of articles, up to and beyond their introduction in 2008.

Campaigning for improved training

From its very first edition, in November 1997, Cracking Matters has campaigned to ensure that concrete repair operatives receive adequate training. In issue 1, the Association announced that it intended to launch its own training scheme, enabling those operatives who achieved the standards required, to join a ‘registered repairer scheme’ and to be issued with an ID card.

With the introduction of the Construction Skills Certification Scheme (CSCS), just over a year later, the CRA instead endorsed this national scheme and announced its full support for National Vocational Qualifications (NVQs) at Levels 2 and 3. With competencies agreed by CRA members, a new

classification, which mirrored the requirements for NVQ Level 2, was approved for ‘concrete repair operatives’ and Grandfather rights for entry onto this scheme negotiated.

Although take-up was initially slow due to complex registration processes, CITB agreed to modify the procedures and, by 2003, the CRA announced that some 557 CRA member operatives were registered CSCS concrete repair operatives and a further 149 were within the registration process.

And so here we are in 2016, and the CSCS card is again going through an overhaul and once again Cracking Matters is there reporting on progress and expressing CRA concerns. The CRA is campaigning to ensure that Grandfather rights are still retained and is surveying members to ascertain the current UK assessment capacity for NVQ level 2 qualifications in concrete repair, which it fears may not meet the growing levels of demand.

Health & safety

Cracking Matters has actively campaigned for improvements in health and safety and has been a key to communicating health and safety initiatives to CRA members. The cost of health and safety, or more accurately its cost effectiveness was discussed in 2003, while hand-arm vibration syndrome and the Chromium VI Directive were discussed in 2004 and 2005. More recently, in 2013 and 2014, members were urged to develop procedures to control exposure to respirable silica dust.

Technical guidance

Always keen to improve the quality of concrete repair work, the CRA also supplies technical guidance, with many of these publications having featured in Cracking Matters over the years.

Under the attention-grabbing headline ‘Size Matters’ in Issue 3, Cracking Matters highlighted the importance of preparing an itemised Bill of Materials for Concrete Repair jobs and introduced the CRA’s Standard Method of Measurement document which provides a template for preparing such tenders. The document, now in its fifth edition, has featured many times in the pages of Cracking Matters (including this issue!) and is one of the most popular downloads from the CRA website.

Education

In addition to its publications, the CRA has always led the way in developing initiatives to educate the wider industry. In 2000, the CRA started its multi-media journey with the introduction of its website and the development of its popular CD-ROM/video, ‘The route to successful concrete repair’.

By 2010, Cracking Matters reported that a DVD featuring three programmes had been produced. Thousands of these have been distributed to interested parties over the years, and hundreds of CPD presentations have been delivered. Today, the CRA also plays an active role in the Structural Concrete Alliance regional seminars.

So what next?

I hope you have enjoyed this brief review of CRA history via the pages of Cracking Matters, while we are all sad to see the printed version go, I am sure you will enjoy our new forms of communication. Please visit www.CrackingMatters.com; subscribe to the Structural Concrete Alliance e-bulletin <http://www.structuralconcretealliance.org/structural-concrete-alliance-newsletter.php>; and follow us on Twitter @SCAlliance3; and Linked-In, Protection, Refurbishment & Repair of Concrete Group.

STRUCTURAL CONCRETE ALLIANCE ANNOUNCES 2016 SEMINAR DATES

The Structural Concrete Alliance has announced the 2016 dates for its free to attend regional Continuing Professional Development (CPD) seminars.

Designed to provide delegates with an introduction to *Structural Asset Protection and Repair*, these half-day events offer an introduction to corrosion as well as techniques for repair, protection and strengthening.

Presentations are varied to reflect the region in which the seminar takes place but include: An introduction to corrosion; An overview of electrochemical systems; Concrete repairs and coatings; Carbon fibre strengthening; Introduction to sprayed concrete; and Inspection of reinforced buildings & structures.

Six CPD seminars are scheduled for 2016:

- 22 March - Brighton
- 19 April – Bath
- 24 May – York
- 20 September – Stirling
- 11 October – Chester
- 8 November - London

For those unable to make the seminars, the Alliance also offers CPD presentations which can be delivered on-site to interested parties.

For further information or to download a booking form, visit www.structuralconcretealliance.org.uk

...And now the end is near

Allen's observations

To me it seems only a short time ago that our old friend Laurie Perkis asked me to do a short end piece for a new publication called Cracking Matters and as he confided to me at the time, he reckoned that there might be six or seven issues to be got from it before moving onto some other form of communication. Well 32 issues (this I think is number 33) later and Laurie's prediction has come true, though not I think in the way he might have imagined.

Communication has moved on to whole new levels since those early discussions at Laurie's house in Southampton. I can recall shortly after our initial contact (intentional pun) sending my first text from overseas and marvelling at getting an immediate reply! Now of course we are used to sending pictures and videos all over the world from our smart phones and it's as easy to converse with someone in Australia as it is with someone a few miles away.

It remains however impossible to get certain Americans to understand that we are not all on West Coast time – “Hey it must be 3am where you are!” is a reasonable observation but not one you want to be on the receiving end of too often.

So Cracking Matters is leaving the printed page for the brave new world of the “Blogosphere” and if I tell the truth there's part of me that feels sorry. It's the part that still can't reconcile reading a book on a kindle – I mean I can understand a book being a page turner but a scroll downer? I think not. But then again I am of the generation that has to explain to teenagers what a fountain pen is, while being looked at as though I am telling them how to cut a goose quill. Time and things move on and we have to move with them or face being thought irrelevant.

So with a little pang of regret for the good old days, I have to say I am looking forward to the new format. The great thing about any social media platform is that it generates response, usually within a very short time of a comment or article being posted. Print never could

do that and more response means more discussion, more ideas being considered and this has to be good for the industry as a whole and dare I say it for the people in it. It's so easy to be complacent when nobody is commenting on your latest idea. In a blog, people feel free to express themselves; and while they might be wrong a lot of the time, just once in a while they might be right and that just might be the time that makes a difference.

Finally, I'd like to thank you all for putting up with and occasionally enjoying these articles, it's been very satisfying over the years to receive some friendly comments and suitably humbling to get the occasional criticism when someone has taken one of my humorous observations the wrong way. I have always tried to express an honest opinion and bring a smile to the end of the edition. In fact I suppose you could say I did it my way



CCSL RENEWS BORLUM BRIDGE PROTECTION



Corrosion Control Services Limited has undertaken repairs to the existing cathodic protection monitoring system installed on the A82 Borlum Bridge at Drumnadrochit in the Highlands of Scotland.

The A82 Borlum Bridge is situated to the south of Loch Ness and carries the road over the River Coiltie. The existing ICCP system had been previously switched off to allow access steps to be built but never re-connected.

The contract, awarded by BearScotland, was to carry out initial re-energising of the system to confirm compliance with the standards. CCSL undertook testing with a portable power supply and showed that the ICCP system polarised and satisfied the performance monitoring criteria.

CCSL engaged the services of ForceTechnology/CPI of Denmark to manufacture new monitoring equipment. The durAdjust 485 system was offered as the best solution and, following a factory visit to Copenhagen, the equipment was accepted for use in the works.

The new monitoring system was installed and repairs to the cable infrastructure were undertaken to prevent damage, since the DC monitoring cables were lying on the river bank.

The ICCP system was successfully re-commissioned and will be monitored for a period of 52 weeks by CCSL.

CORROSION CONTROL SERVICES LIMITED

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CRL REVIEWS ICCP SYSTEMS



Concrete Repairs Ltd has recently undertaken a review of seven impressed current cathodic protection (ICCP) systems installed on the island of Jersey between 1998 and 2006.

Due to the exposed marine conditions many reinforced concrete structures on the island experience corrosion of the reinforcement due to chloride ion ingress. In the mid-1990s, after some initial trials undertaken by CRL, the States of Jersey decided to use ICCP systems to enhance the durability of their reinforced concrete structures and reduce future maintenance costs.

There are three multi-storey car parks, three marine structures and one airport facility, all protected using a range of anode systems. CRL installed six of the CP systems and has undertaken maintenance works on all of them as required.

All the CP systems are being correctly monitored in accordance with the European Standard EN12696, with quarterly monitoring and annual system reviews. There has been some maintenance required to replace obsolete software control and minor failure of some anodes but overall the systems continue to provide the level of corrosion protection intended.

A paper on the performance of the CP systems over the last 17 years was presented at the International Conference on Concrete Repair, Rehabilitation and Retrofitting in Leipzig last year.

For a copy of the paper please contact John Drewett.

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SPECIALIST AWARDS SHORTLISTING FOR VOLKERLASER



VolkerLaser has been selected as a finalist in the Project of the Year (subcontract over £2m) category of the 2016 Construction News Specialists Awards, making the shortlist from among a record number of entrants.

The project was the refurbishment and strengthening of the Woodhouse Tunnel which carries the A58(M) beneath Leeds city centre, Leeds General Infirmary, as well as adjacent to the university. As a major artery within the centre of Leeds it sees over 75,000 cars pass through every day. Built in the late 1960s, refurbishment and strengthening to the two-lane tunnel was identified as necessary in order to address over forty years of deterioration, and as part of a wider £25 million maintenance scheme of improvements to the Leeds Inner Ring Road.

Commenting on the successful shortlisting, Associate Director, Keith Barrow who oversees the northern division of VolkerLaser said:

"As VolkerLaser's largest contract to date, the success of the Woodhouse Tunnel project has been a testament to our careful planning and expert execution of this logistically complex operation."

"Utilising a combination of traditional construction techniques and specialist repair and strengthening services, we have worked in close collaboration with Carillion and Leeds City Council to give new life to a critical piece of the city's infrastructure with minimal interference to the general public. Everyone involved should be very proud of what has been achieved over the past two years."

VOLKERLASER LTD

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USL STABILISES BLACKBURN EMBANKMENT



USL Special Projects provided embankment stabilisation at the Peel Centre in Blackburn, where the weight of an embankment on a failing gabion wall was pushing it forward and down into a service yard.

The gabion wall, which was 200m in length, 5m high and 4m deep, was failing due to the use of inadequate construction materials, the incorrect installation of the gabion structure and poor use of reclaimed materials within the embankment.

USL offered a methodology to ensure 100% void penetration. The solution involved sealing the front of the gabion wall with shotcrete and the injection of grout to fill voids and bind the structure together, utilising the gabion mesh present as reinforcement. Weeps holes were also installed at the base of the structure to allow the embankment to drain.

USL used 'primary' and 'secondary' injection ports, with the secondary ports ensuring free flow of air, preventing blockages and tracked the grout flow underground to provide a roadmap of progress. USL designed and manufactured dynamic probes at 2, 3 and 4m lengths to facilitate the varying depths.

USL SPECIAL PROJECTS

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0114 270 0100

MILL REFURBISHMENT FROM GUNITE



Gunite Group was employed by European Oat Millers (EOM) to carry out significant external refurbishments to a concrete mill on its primary site in Bedford.

EOM is the second largest oat miller in Europe and processes over 120,000 tonnes of grain each year across its two sites. The eight storey 1940s concrete mill structure required significant refurbishment work as it was suffering from carbonation and chloride contamination.

Gunite Group worked closely with the client, and suppliers Flexcrete and Coverspan, to ensure that the process caused as little disruption to the mill as possible. Due to the food production nature of the site, the inside of the factory was fully protected to avoid contamination from the building works.

The glazing was removed, existing coatings were grit blasted and the defective concrete also removed. A full Flexcrete concrete system was then applied using Cemprotect MCI, Reinforcement Protector 841, Monomix and Monolite and to finish Curing Membrane WB.

Anti-carbonation protection was used to enhance the external façade. A Monolevel FC fairing coat filled imperfections and voids, followed by an over-coating to provide protection against carbon dioxide diffusion. The choice of protection was vital in this food production environment, so the water-based Monodex Smooth was used due to its ultra-low odour.

As the main contractor, Gunite worked with Coverspan who provided a Kingspan cladding system to replace the original glazing. New canopies were built and encapsulated with the same Kingspan cladding system to finish the façade.

GUNITE GROUP

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CEMPAS DELIVERS FOR ROYAL MAIL



Cemplas Waterproofing and Concrete Repairs Ltd has completed one of the largest concrete repair projects carried out in Central London, undertaking a £1.8m external façade refurbishment package on Royal Mail's 120 year old Mount Pleasant operational site in London.

Working closely with architects Boyes Rees, project managers Rider Levett Bucknall, and the main contractor Mace, Cemplas operatives undertook work on over 10,000m² of the building's façade. Works included extensive structural concrete repairs, re-rendering, re-profiling fairing/levelling coats and applying final protective and decorative elastomeric coatings.

The execution of the works was fraught with logistical difficulties as the Royal Mail Centre had to remain fully operational throughout the entire process. The old façades to the two main complexes on the site had been surveyed in 2009, however, the extent of repair work required was far greater than the surveys had originally indicated. At varying times, Cemplas had a labour force of over 70 site operatives, together with an extensive site management team, in place.

Paramount in the final designs to the façades were the "Harlequin" relief panels to the North Façade, and the aesthetic finish to the South façade, which clearly demonstrated the ability of Cemplas.

This successfully completed project stands as a testament to Cemplas' 45 years of experience and its ever increasing reputation. It is an excellent example of the large scale façade repair and refurbishment that Cemplas is able to undertake.

CEMPAS WATERPROOFING AND CONCRETE REPAIR LTD

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MACKENZIE PROTECTS HAMMILLS BRIDGE

Mackenzie Construction recently completed works to install a cathodic protection system and conduct associated concrete repair works to Hammills Bridge, which carries the A762 over the White Cart Water in Paisley.



The use of a specialised underbridge access unit allowed works to be carried out during off-peak hours, with two lanes of traffic maintained in each direction during peak times. The access unit also provided a safe means of access and egress to the works area, where the height restrictions under the bridge could fluctuate rapidly due to the river level.

Mackenzie Construction's experienced Structural Repair Operatives completed the project on time and within a tight programme period.

MACKENZIE CONSTRUCTION
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EPMS OPENS NEW DEPOT



EPMS Supplies has opened a new Southern depot in Aylesford, Kent. The new depot, the company's third, is strategically placed to enable EPMS to operate nationally.

EPMS prides itself on its friendly reliable service, technical know-how and support services. With over 100,000 items held in stock, it is a trusted partner for building companies and contractors.

EPMS works closely with specialist major manufacturers to provide leading brand products that offer the best cost effective solution to the customer. EPMS also offers a free of charge estimating service when requested and both on and off site technical support. All staff have excellent technical knowledge and vast practical experience.

The new depot can be contacted at; Unit 5, Burnt Ash Trade Park, Burnt Ash Road, Quarrywood Industrial Estate, Aylesford, Kent, ME20 7XB. Tel: 01622 963000; Email: markashworth@epms-supplies.co.uk

EPMS SUPPLIES LTD

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CRA Executive committee

The CRA Executive Committee is elected an annual basis and consists of ten full members (including the Chairman and Deputy Chairman). The committee must be representative of all types of members and includes six contractors, three manufacturers and one distributor.

The election, which took place at the Association's Annual General Meeting in Manchester on 16 October 2015, resulted in several changes. Keith Barrow was elected Chairman and Steve Richards as Vice Chairman. While Past Chairman Jack Perry stepped down allowing Steve Richards to join as the Distributor member.

The following were elected to the Executive Committee for 2016:

| | |
|-------------------------------------|-----------------------------------|
| Contractor | VolkerLaser Ltd (Chairman) |
| Keith Barrow | CCL |
| Ken Dykes | Balvac |
| Richard Bailey | Concrete Repairs Ltd |
| Dave Burgess | Makers |
| Darren Wootton | Oxford Hydrotechnics |
| Jason Carter | |
| Manufacturer | |
| Paul Russell | Mapei |
| Laura Beveridge | Fosroc Ltd |
| Jonathan Thurlbeck | Remmers |
| Distributor | |
| Steve Richards | Resapol (Vice Chairman) |
| Other officials are: | |
| Chairman Publicity Committee | Steve Richards |
| Chairman Technical Committee | Trevor Box |
| | Acivico Ltd |

MAKERS COMPLETES CAR PARK REFURBISHMENT



Following the successful completion of two earlier phases of refurbishment at Gracechurch Shopping Centre (formerly The Mall), **Makers** were appointed to carry out a third phase of works including a significant volume of concrete deck repairs and re-waterproofing to approximately 6,500m².

Prior to removal of the existing deck coatings, it was evident that there was significant presence of surface concrete defects that had already become delaminated as a result of reinforcement corrosion. A significant volume of repairs were required with all noisy works, such as concrete cutting and breaking out, being done out of hours to avoid disruption to the centre's tenants and customers.

With the concrete broken out and exposed steel reinforcement prepared to remove all corrosion product, some 40m³ of concrete had to be reinstated to the decks to create a surface of a suitable profile onto which a new deck waterproofing system could be successfully applied.

In order to ensure full crack-bridging performance of the new deck waterproofing system, a reinforcing fleece was applied around the perimeter of all deck repairs, along with the over-banding of any static cracks and daywork joints. Triflex's Deckfloor system was applied to the drive aisles, Triflex DCFC to the parking bays and Deckfloor Ramp to all up /down ramps. All were laid in contrasting colours to improve aesthetics.

There were approximately 100m of failed movement joints that required complete removal, followed by reinstatement with Emseal's 50mm DSM joint to provide 100% watertight joints.

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FREYSSINET COMPLETES VIADUCT REFURBISHMENT



In June 2014, **Freysinet Ltd** was appointed by North Somerset County Council's (NSCC) as Principal Contractor for the £3m refurbishment works on the Yanley Lane Viaduct on the Long Ashton Bypass.

Constructed in 1968, the 298m x 13.7m viaduct carries the busy A370 dual carriageway over Yanley Lane and the main Bristol to Taunton railway line just south of Bristol City Centre. It is a 12 span simply supported structure with a composite steel deck, which was identified as requiring significant refurbishment in 2013, as part of NSCC's planned maintenance programme.

The works to be undertaken included re-waterproofing and re-surfacing of the deck and the installation of new footways, parapets, mechanical deck joints and P4 terminal ends. Below deck, all 48no existing mechanical bearings were replaced with new pot bearings designed and manufactured in-house by Freysinet Ltd.

To facilitate the bearing replacement works, the deck was supported on a bespoke temporary corbel arrangement, clamped at the top of each pier. These temporary works were also designed in-house by Freysinet engineers.

Following the bearing replacement works, the entire steel deck was re-painted and a cathodic protection system was installed to the concrete columns supporting the deck. The works also included the application of a new protective coating to the existing deck beams.

The works were completed, on programme, on budget and to the satisfaction of the client in August 2015.

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