

THE JOURNAL OF THE CONCRETE REPAIR ASSOCIATION

ISSUE NO. 24

A TENDER SUBJECT

s it just contractors blabbing on, or are tender lists getting longer?

Having just discovered that as many as thirteen contractors have recently been asked to price for a local authority contract, the CRA believes that it is justified in assuming that the length of tender lists are getting a little bit out of hand.

It is appreciated that thirteen is probably an exception, but it is not uncommon these days to discover that seven or eight contractors are bidding the same piece of work.

What is the point?

Clients are obviously under the misapprehension that more prices mean cheaper bids. How wrong can they be?

If a contractor is regularly bidding against seven or eight competitors, on average his estimating department has probably got to price seven or eight contracts to win just one. If the normal list is, say, three or four, the contractor's estimating costs have just doubled.

And who pays these additional costs? Well, initially, they get incorporated into the contractor's overheads. But

inevitably, they will eventually get passed onto the client - albeit indirectly.

'It sounds like an almighty 'lose, lose' situation'

to the ient - albeit

It sounds like an almighty 'lose, lose' situation.

When will clients get around to choosing a short list (and 'short' is the operative word) of the most **appropriate** contractors, before negotiating the best deal with them? So long as they understand and appreciate cost and risk, the client will undoubtedly finish up with the best deal possible.

Since the vast majority of specialist contractors involved in the UK structural refurbishment market are members of the CRA, it shouldn't be too difficult for clients to choose a list of the most competent and appropriate contractor for

the particular work they are contracting

They only have to peruse the CRA

members accreditations list to realise they need to look no further.

Trawling for contractors outside of a specialist association, such as the CRA, can only court disaster for the unwary client (as described in the 'Beware the imposters' article in the previous edition of 'Cracking Matters').

Everyone knows times are hard, with clients having less and less funds for important refurbishment projects and contractors fighting over the fewer jobs that are around. So why on earth are we increasing the burden for all concerned, by inviting everybody and their relatives to tender?

In such a climate, we should be reducing costs, not increasing them.

NEW NEWS SOURCE

In order to keep the concrete repair, protection and allied activities sector informed of recent events, developments and advancements, the CRA has established a new and regular electronic communications tool.

The new electronic information device is known as the 'CRA E-Bulletin'. The third edition has recently been published and future issues are anticipated on a quarterly basis

The CRA E-bulletin is delivered directly to the desktop of all those with responsibilities in this specialised construction sector, that have registered to receive a copy. The service is entirely free of charge and the current circulation is in excess of 3,000.

The E-Bulletin is a mixture of easy-to-digest industry updates, information on new advances, publications and other initiatives as they occur in the industry. It also includes details of recently completed concrete repair projects, as well as product and system developments, supplied by Association members.

Since time is of the essence for most people these days, the summarised E-Bulletin enables the reader to quickly and

speedily peruse the information contained. Should further details then be required, each 'brief' includes quick, easy and direct e-mail and website links.

The service is entirely free of charge. To register to receive the CRA E-bulletin, as and when each is issued, email: admin@cra.org.uk



NSDE New CRA Chairman

Greater punishment for H&S breaches

CRA educational programmes

Industry Developments

Industry Grapevine

DAVE BURGESS ELECTED CRA CHAIRMAN



avid Burgess of specialist contractor, Concrete Repairs Ltd (CRL), has been elected Chairman of the UK Concrete Repair Association (CRA).

David, who has been Deputy CRA Chairman for two years, is the fourteenth individual to Chair the Association. He assumes the position from Tony Hansard of product manufacturer, Weber (the first manufacturer member to hold the position since the Association's inception).

During his two year tenure, David intends to extend the CRA's influence within the construction industry by promoting the specialist activities that CRA member companies can offer.

"My aim is to increase the number of clients and specifiers that demand

their concrete repair projects be carried out by CRA members. Far too many such refurbishment schemes are carried out by non specialist companies, resulting in standards of workmanship well below that provided by CRA members."

David joined the Civil Engineering industry in 1972 and project-managed a number of civil engineering schemes throughout the UK. He is married with a son, resides in the Peak District and can count the Duke and Duchess of Devonshire as neighbours.

In 2003 he joined Concrete Repairs Ltd (then Gleeson owned). In 2007, he was part of the management buyout team that successfully returned CRL to independence and is currently responsible for CRL's midlands region business. When not at his desk, he can usually be found on the Golf course or tinkering with his classic cars.

As CRA Chairman, David serves as part of a ten-man CRA Executive Committee, which includes the Deputy Chairman, Charles Ellins of BASF Construction Chemicals, Sue Berry of Alfred Bagnall & Sons Ltd, Nigel Cox of Gunite (Eastern) Ltd, Brian Dargan of VolkerLaser Ltd, Jim Mortlock of Quickseal Specialist Contractors, Mike Threadgold of Renocon Ltd, Tony Hansard of Weber, David Bewley of Fosroc Ltd and Jack Perry of EPMS Supplies.

EARLY INDICATION PUNISHMENT FOR Are you fully aware

By: Philip Crosbie, Solicitor at Eversheds LLP

Readers will no doubt be aware that in January 2009, the Health and Safety (Offences) Act 2008 ("Act") was added to the statute book. The Act did not receive the same level of attention lauded upon the Corporate Manslaughter and Corporate Homicide Act 2007 introduced the year before, but nevertheless was expected to herald an era of higher fines and greater punishments for those guilty of health and safety offences.

We have recently had the first successful prosecution under the Act and can now start to assess whether it has had the intended effect

The most important features of the 2008 Act are:

- The maximum fine that can be imposed by the lower courts (i.e. the Magistrates' Court) for a health and safety offence was raised from £5,000 to £20,000
- Certain health and safety
 offences (originally only heard in
 the lower courts) became triable
 either way in the lower, or
 higher courts

 Imprisonment is now a potential punishment for breach of health and safety law by individuals.



It was said at the time that health and safety had been given the 'bite' of its counterparts in other areas of law, such as food safety.

What do the changes mean?

The duties owed by employers and employees under health and safety law have not changed. The provisions of the Health and Safety at Work etc Act 1974 ("HSWA 1974") and the regulations made under it, remain intact. A company guilty of health and safety offences before the Act came into force, will still be guilty of the same offences now.

The importance of the Act, however, is that the consequences of breaching health and safety law are greater than ever before. Companies and individuals should already be dealing with health and safety risks, but it is likely that the possibility of higher fines and the potential for imprisonment will re-focus minds.

Corporate liability

Construction companies, facing economic pressures already, now risk being handed unprecedented fines for health and safety offences. Recent guidance suggests that the appropriate fine for a health and safety offence that causes death will seldom be less than £100,000. Large fines may now become the norm in the courts, rather than the

CRA EDUCATIONAL PROGRAMMES

ollowing its introduction more than ten years ago, the CRA CD-ROM, which includes two educational audio-visual programmes, has proven a runaway success with more than 7,000 copies having been requested.

The CD was introduced in line with the Association's commitment to promoting and developing the practice of concrete repair and advancing education and technical training in the concrete repair industry. And, it appears, the seemingly never-ending demand continues unabated.

The original disk (and before that a video programme) contained the audio-visual programme entitled 'The route to a successful concrete repair' only, but this was eventually supplemented with a 'Structural strengthening with composites' programme.

Shortly following the introduction of the CD, the CRA also began organising personalised CPD Road Shows, on the same topics, to groups of Consultants, Authorities, Surveyors and Engineers. Recently the Association organised its 175th event, with more than 1,600 delegates having attended over the years.

Unlike large, centrally organised seminars, the CRA Road Show takes the presentations directly to the offices of those requesting them and at a time that they chose

Each programme is about 45 minutes in duration, with another 15 minutes allowed for questions. In order that both technical and practical queries can be dealt with, both programmes are presented by a specialist contractor and a specialist product manufacturer member of the CRA. The road show presentations are provided free of charge and can be arranged provided a minimum of 4 delegates are able to attend.

Copies of the CD are available free of charge and can be requested by logging on to: www.cra.org.uk/info and entering Enquiry No: 1053 For more information concerning the CRA CPD Road Shows, contact Laurie Perkis on 023 8073 8953.



 $\label{lem:concrete} \begin{tabular}{ll} Concrete Repairs Ltd (CRL) has launched its \\ new website: www.concrete-repairs.co.uk. \end{tabular}$

The new website has an improved navigation system and links to other divisions within the CRL

The site has detailed information on all the CRL market sectors and specialist activities with case studies and photo library for visitors to view.

There is an opportunity to download pdf copies of the brochures and register to receive the CRL

e-newsletter which will keep you up to date with the latest news for the concrete repair industry.

Please take the opportunity to visit this informative website, register for updates and add it to your favorites list.



ONS SUGGEST GREATER R H&S BREACHES of your responsibilities?

exception. Now, even the Magistrates have the power to impose significant fines. For large companies, the risk of going to the Crown Court and receiving a large fine cannot be underestimated as the courts flex their new powers.

Individual liability

Unlike the offence of corporate manslaughter, which only applies to corporate entities, health and safety law offences can be committed by individuals. As a result, individuals, as well as companies, will have to face the possibility of higher fines, a criminal conviction and more worryingly, a term of imprisonment.

Under Section 37 of the HSWA 1974, where a company is found guilty of health and safety offences, an individual can be found similarly guilty if it can be shown that the offences were committed with the individual's consent. connivance or neglect. This individual liability will apply to directors, managers or secretaries and those who have similar responsibilities.

In addition, individuals face liability under Section 7 of the HSWA 1974, which embodies the principle that employees owe a duty to look after themselves and those they work with. The duty under Section 7 applies equally to any individual in a company, from the directors to the newest apprentice.

Following the Act, breach of either of the above statutory provisions will now see individuals facing the possibility of incarceration.

Is the Act going to be effective?

The Act does not apply retrospectively. It only applies to incidents occurring after 16 January 2009. It will therefore be some time before the true impact of the legislation is known, but we expect that prosecutions subject to the Act will now begin to emerge from the courts on a more frequent

We have recently seen the first successful prosecution in which the court could use the powers under the Act when sentencing. 1st Response Roofing Ltd, of Ilkley, was fined £23,000 after one of its employees fell through a roof he was working on. The employee suffered a fractured skull having hit a tower scaffold (which had formed part of the working platform) on his way down before landing on a concrete floor and hitting his head on a metal vehicle lift.

The HSE investigation found that there were no coverings in place on any of the roof's skylights to prevent the fall. Furthermore the company had told its employees to erect the tower scaffold when they were not trained to do so. As a result, no handrail was installed and the actual platform was too low to break the employee's fall.

The Company pleaded guilty to three safety breaches.

The fine, in this case, was substantially higher than in previous cases of this nature because two of the three breaches continued on the day after the roofer suffered his fall and, crucially, this was after the new Act had come into force. The Magistrates were therefore able to use their powers to issue the higher

First response

So what should a company's response be to this legislation?

Whilst the Act does not impose any additional duties, it does considerably raise the stakes of non-compliance with health and safety law. It must also be remembered that prosecutions can be brought even when there is no death or injury. Mere exposure to risk is enough.

It is therefore vital that all companies have effective health and safety procedures in place and individuals have a clear understanding of the duties placed on them in order to, as far as possible, reduce the risk of an offence being committed.

It is just as vital that clients and specifiers ensure that this is the case before appointing contractors to carry out the work.

Not strictly concrete Calling the site office to announce a

'sicky' has always made me feel uncomfortable. No matter how legitimate my excuse, I always get the feeling that my boss thinks I'm lying.

On one recent occasion, I had a valid reason but lied anyway, because the truth was just too darned humiliating. I simply mentioned that I had sustained a head injury and I hoped I would feel up to coming in the next day. By then, I reasoned, I could think up some dozy explanation for the bandage on the top of my head.

The accident occurred primarily because I had given in to my wife's wishes to adopt a cute little kitty. Initially, the new acquisition was no problem. Then one morning, I was taking my shower after breakfast when I heard my wife call out to me from the

'Joe! The sink unit is blocked again. Please come and sort it out.'

'You know how to fix it,' I protested through the shower pitter-patter and steam. Unblock it yourself!' Being a contractor often has its downside, as I'm sure you're aware. 'But I don't know what I'm doing', she persisted.

There was a meaningful pause and then, 'C'mon, it'll only take you a second.' So out I came, dripping wet and butt naked, hoping that my silent outraged nudity would make a statement about how I perceived her unreasonable behaviour.

Sighing loudly, I squatted down and stuck my head under the sink.

It is the last action I remember performing. It struck without warning and without any respect to my circumstances. No, it wasn't the hexed disposal unit, drawing me into its gnashing metal teeth. It was our new kitty, who spied some fascinating dangling objects. She had been poised around the corner and stalked me as I reached under the sink. And, at the precise moment, when I was most vulnerable, she leapt at the unwittingly offered new toys and snagged them with her needle-like claws.

I lost all rational thought and orderly control over my bodily movements, blindly rising at a violent rate of speed, with the full weight of a kitten hanging from my masculine region. Wild animals, in this predicament, are usually faced with a 'fight or flight' syndrome. Men choose only the 'flight' option. I know this from experience. I was fleeing straight up into the air when the sink and cabinet bluntly and forcefully impeded my ascent. The impact knocked me out cold.

When I awoke, my wife and the paramedics stood over me. Now, there are not many things in this life worse than finding oneself lying on the kitchen floor butt naked in front of a group of 'been-there, done-that' paramedics. Even worse, having been fully briefed by my wife, the paramedics were all snorting loudly as they tried to conduct their work, all the while trying to suppress their hysterical laughter and not succeeding. Somehow I lived through it all.

A few days later I finally made it back to the site, where colleagues tried to coax an explanation out of me about my head injury. I kept silent, claiming it was too painful to talk about, which it was.

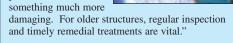
'What's the matter?' They all asked, 'Cat got your tongue?' If they only knew!

PERFORMANCE WATERPROOFING

BASF Construction Chemicals has launched a new initiative to highlight the importance of performance waterproofing in construction. The campaign advocates a

holistic approach, from admixtures for watertight concrete to joint systems, coatings, membranes and concrete repair products.

Said marketing manager Ian Wilson "Water ingress has a knock-on effect that can turn a fairly minor problem into



A BASF waterproofing website and a new Specifiers' Guide to Waterproofing brochure address waterproofing for key applications, including hydraulic and water-retaining structures, basements and tunnels.

To request a brochure, log on to: www.basf-waterproofing.co.uk.





Grapevine

JORDANGATE MSCP REFURBISHMENT



A recent appraisal of Jordangate MSCP, the 1980s built Cheshire County Council owned facility in Macclesfield, revealed the need for structural refurbishment.

The survey identified chloride penetration within the concrete and recommended treatment, using cathodic protection to control corrosion of the structural steel, concrete repairs, deck waterproofing and other associated works.

The subsequent report, however, advised that as the effects of chloride penetration had not yet fully materialised, the use of cathodic protection was not considered to be essential at this stage. A regular monitoring regime was thus instigated.

CRA member BASF Construction Chemicals supplied EMACO® Nanocrete and Febset 45 to carry out numerous patch repairs to the concrete deck prior to covering. The structure's block and beam construction demanded a solution that could remedy cracking along the joints. BASF developed a purpose-designed Conideck strip system to be covered with a top coat. In areas that needed to be especially durable, such as ramps and turning circles, quartz was applied rather than sand.

Specialist contractor Concrete Repairs Ltd carried out the work, which was completed in two phases between 2007 and 2008.

BASF CONSTRUCTION CHEMICALS: 0161 794 7411

COMPLEX FLYOVER REFURBISHMENT IN **SOUTHAMPTON**



A major £2m contract, to upgrade Redbridge and Millbrook flyovers in Southampton, is currently being carried out by CRA member Concrete Repairs Ltd (CRL).

The flyovers support the A33 in and out of Southampton to the west. Because of the high volume of traffic carried, a critical element of the project is to keep the road open for the duration of the works, thereby minimising disruption.

The project, being carried out for Southampton City Council, involves the lowering of the four abutment bearing shelves and the replacement of the bearings to the piers and the abutments, as well as the installation of replacement expansion joints with associated drainage

This has necessitated excavation down to the foundations and installing temporary works to take the load from the bridge back to the foundations. Very tight tolerances for movement of the existing box section have been specified, in particular the need to quard against possible twist. As such, from the moment the bridge is jacked and de-jacked onto its new bearings, it must be monitored continuously by precision equipment.

In order to reform the abutment bearing shelves, hydro-demolition techniques are being employed to remove more than 120 cubic metres of concrete. The fill behind abutments has been treated with permeation grouting as a support during the phased demolition works. With the concrete beams and shelves re-established, the abutments can be jacked and the bearings replaced.

CONCRETE REPAIRS LTD: 020 8288 4848

ISO 14001 AHEAD OF **SCHEDULE**



CRA member, Replas Ltd, has successfully achieved accreditation to ISO 14001 ahead of schedule

ISO 14001 is the internationally accepted specification for environmental management that helps an organisation minimise how its operations affect the environment.

Headed by Managing Director Pete Mear, The team at Replas set themselves a target to achieve this important certification by autumn 2009.

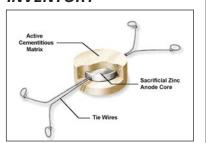
The company began by conducting a review of all areas of its business, from its head offices administration through to the delivery of its services and products on its site across the country, to ensure that all company activities have a minimal impact on, or risk to, the environment. review process enabled Replas to develop monitoring systems and to improve upon a number of areas that touch on the environment, such as energy efficiency, resource conservation and waste

Every member of staff supported the initiative, which proved so successful that it was completed in just four months three months ahead of schedule!

Pete Mear commented "I am proud of the team here at Replas for pulling together and showing a real commitment to the cause. I believe that the need for carbon emission reductions and for sustainable business practice is something that must be central to core offering of any credible 21st century concrete repair business".

REPLAS LTD: 01480 431117

SIKA ADDS **GALVASHIELD TO ITS** INVENTORY



CRA member Sika Ltd, has recently added Galvashield® XP embedded galvanic anode, the well established, cost-effective rebar corrosion protection system, to its UK portfolio of specialist construction

The anode can be installed quickly and easily to provide localised protection to areas most at risk from corrosion. Its key element is the sacrificial zinc core. This corrodes preferentially to the surrounding leads to a significant reduction in the deterioration of the steel.

Galvashield® XP has a 10 to 20 year service life, dependent upon a number of conditions, including the quality of the concrete and the density of the reinforcing steel and humidity.

Galvashield® XP is particularly ideal for concrete patch repairs. Thus, together with the company's BS EN1504 approved products for restoring failed concrete, preventing water intrusion and repairing expansion cracks, the collaboration means that Sika can now provide a full concrete renovation package.

Mark Shaw, Technical Manager of Sika Ltd "The addition of the commented, Galvashield to the range gives more scope when it comes to managing corrosion control in chloride contaminated areas. Sika now has answers to almost all concrete deterioration problems."

SIKA LTD: 01707 394444

REINFORCEMENT **CORROSION ARRESTED** ON CAR PARK



Works are well underway on the £700,000 refurbishment of Swan Walk Car Park in Horsham, with CRA associate member Matrix Solutions Ltd acting as Principal Contractor, on behalf of Horsham District Council.

Previous structural surveys investigations had highlighted that the in situ reinforced car park was suffering from high levels of chloride contamination (particularly to ramps and decks) and widespread concrete spalling to soffits. The problem was exacerbated by low concrete cover and the lack of deck coatings above accelerating the on-set of corrosion.

Deck and soffit repairs are being undertaken using the Weber range of products with added protection and longevity afforded by the use of anodes placed into the repairs. Chloride induced corrosion to the lower ramps will be stopped and controlled via the use of other strategically placed anodes.

MATRIX SOLUTIONS LTD: 01454 616170

SYMPATHETIC RESTORATION



CRA member, Gunite (Eastern) Limited, has just completed the £1.6m external restoration of Devonshire House, a beautiful Grade II listed building in the heart of London's west end. With over 50metres of frontage onto Piccadilly and two entrances to Green Park tube station the project offered plenty of challenges to test

Years of dirt and grime were carefully lifted from the Portland stone facades using superheated water under pressure. Repairs were carried out using Remmers restoration mortar, colour matched to the

Cracks within the stonework suggested a need for cathodic protection to the steel frame. After further investigation an alternative scheme was adopted: Gunite injected a Remmers grout into the columns encapsulate and protect the steelwork. All of these works were carried out from electrically operated cradles.

GUNITE (EASTERN) LTD: 01480 466880

RENOCON SECURES CONTRACT FOR 150 RESIDENTIAL BLOCKS

East London based CRA member, Renocon Ltd, has successfully secured contracts for concrete repair, balcony waterproofing and roofing work, under several partnering schemes across the London Boroughs, on 150-plus residential blocks.

Mike Threadgold of Renocon said "It is great news to secure this amount of work for the first quarter of 2010 and it is extremely encouraging that clients are still looking for value engineering and quality workmanship, even in a time of

Renocon's ethos is to offer clients quality and satisfaction on each and every project. It claims that such values have proven to be of paramount importance in winning work in the current climate. The company also reports that, based on this level of service, it is experiencing higher than average tender enquiries and is currently negotiating further contracts for next vear.

RENOCON LTD: 020 7538 5492

STRAIGHTENING THE BEZIER



CRA member Structural Renovations Ltd has recently completed the installation of carbon fibre plates to the floors of both blocks of the unique Bezier Building, located at the junction of Old Street and City Road, in London.

The use of composites, resin bonded to the top floor cantilevered structural slabs, was introduced to facilitate additional loading requirements and to limit the amount of permanent steelwork propping required to the floors below.

Due to the thin lightweight section of the Sika CarboDur plates, the finishes to the penthouse balcony areas were not compromised and materials could be easily carried by operatives from the ground to the top of the structure.

The work was carried out with little or no disruption to other trades, or the programme, due to the speed of installation this system offers compared with alternative strengthening options.

STRUCTURAL RENOVATIONS LTD: 01753 825511

CEMPLAS COMPLETES WATERPROOFING OF OLYMPIC PROPORTIONS



preparation for the 2012 London Olympic Games, the swimming pool at the Grade II listed Crystal Palace National Sports Centre has been extended to meet the Olympic standard of 50 meters.

CRA member Cemplas Waterproofing & Concrete Repairs Ltd was appointed to carry out this part of the complex's major £67 million regeneration.

Cemplas initially undertook the waterproofing of the main and diving pool, using the Sika 1 Waterproofing System. All movement and construction joints at the junctions of the walls and floor were made watertight using the Sikadur Combiflex system. In addition, resin was injected into extensive cracking to the soffit of the tunnels beneath each pool.

To deal with water ingress in the plant rooms and vast ventilation tunnels, 2,500m² of Sika's Cavity Drainage System was installed over the walls and floors, before a screed (incorporating a drainage channel) was laid over the membrane. A sump was created and pumps installed to run any discharge into the plant room.

Finally, extensive concrete repairs were carried out to the listed diving board structure using the Sika Concrete Repair System and Corrosion Inhibitor, prior to the application of a specialist protective and decorative coating, particular suited to this type of environment.

CEMPLAS WATERPROOFING & CONCRETE REPAIRS LTD 020 8654 3149

CURRENT

CRA MEMBERS		
Contractors:	Telephone:	
APA CONCRETE REPAIRS LIMITED	01422 379640	
ALFRED BAGNALL & SONS (RESTORATION) LTD	020 8311 391	
BALVAC LTD	01606 333036	
CEMPLAS WATERPROOFING & CONCRETE REPAIRS LTD	020 8654 314	
CONCRETE REPAIRS LIMITED	020 8288 484	

CONCRETE RESTORATION LTD 020 8994 8860 **CONNAUGHT PARTNERSHIPS LTD** 01293 572200 **FREYSSINET LTD** 01952 201901 **GUNITE (EASTERN) LTD** 01480 466880 **MACKENZIE CONSTRUCTION LTD** 0141 633 5555 MAKERS PARKING LTD 0845 899 4444 0121 308 8001 PRESTEC UK LTD **QUADRIGA CONCEPTS LTD** 01606 330888 **QUICKSEAL SPECIALIST CONTRACTORS** 01234 354198 **RENOCON LTD** 020 7538 5492 **REPEX LTD** 01435 866666 **REPLAS LTD** 01480 431117 **ROK STONECARE** 01709 720602 01753 825511 STRUCTURAL RENOVATIONS LTD TOPBOND PLC GROUP 01795 414050 **VOLKERLASER LTD** 01905 742750

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SIKA LTD	01707 394444
RONACRETE LTD	01279 638700
REMMERS (UK) LTD	0845 373 0103
FOSROC LTD	01827 262222
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EPMS SUPPLIES	01132 /6003/
RESAPOL LTD	01942 609001
SIG CONSTRUCTION ACCESSORIES	0845 863 0819

Associates:	Telephone:
BIRMINGHAM CITY LABORATORY	0121 303 9300
THE CONCRETE CONSULTANCY 2000 LTD	01707 647266
MARTECH TECHNICAL SERVICES LTD	01487 832288
MATRIX SOLUTIONS UK LTD	01454 616170

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