Aggregate Industries paves the way on the A14

Aggregate Industries is delighted to announce that it has been selected by the A14 Integrated Delivery Team (IDT) to exclusively deliver the surfacing works for what is England’s largest road improvement project, the A14 Cambridge to Huntingdon Flexible Pavement Works.

Over a 30 month period, using local primary and secondary aggregate supply sources, Aggregate Industries will create in excess of 21 miles of new, multi-lane carriageway. This will involve supplying and installing 700,000 tonnes Asphalt and 500,000 tonnes Cement Bound Granular Material (CBGM).

The contract was awarded after a 12 months process of Early Contractor Involvement (ECI), where Aggregate Industries demonstrated a clear desire to deliver a ‘world class’ service through collaborative behaviours and innovative products, IT solutions and processes.

Mark Berg, Project Director for the IDT, said: “We are delighted to have Aggregate Industries as our pavements partner. Over the last year, the Aggregate Industries team demonstrated that they have the right collaborative, safety and innovative attributes to support the world class delivery of this complex project.”

In order to deliver a highly sustainable and efficient solution, Aggregate Industries has invested in a new £3.5 million mobile asphalt plant, capable of producing 240 tonnes per hour and will be erecting two further mobile cementious continuous mixing plants within the site compounds. Situating manufacturing units on site will reduce impact of operations on the local community and the network.

Paddy Murphy, Director of Contracting at Aggregate Industries, adds: “I’m delighted that the IDT have chosen us as their partner of choice to construct the pavements on this highly prestigious scheme, as we share the same values. Our joint aim is to collaboratively deliver the works on time and on budget, whilst ensuring that we keep everyone safe by implementing industry-leading health and safety standards.”

Mr Murphy continues: “Leaving a legacy is key to the project. We are committed to playing our part in providing local employment opportunities and apprenticeships that will provide long term benefits to the region.”

Chris Hudson, Managing Director of Asphalt and Readymix at Aggregate Industries, comments: “Our proven track record delivering large infrastructure projects, such as the A1 Leeming to Barton Improvement Project and the Aberdeen Western Peripheral Route, means we are a trusted provider. Our investment into the new asphalt plant further emphasises our commitment to delivering this project.”

For further information about Aggregate Industries, visit www.aggregate.com

Council Vacancies

IHE is always looking for new members to join Council and add their own personal skills to running our dynamic organisation. If you wish to be considered for a seat on council starting from the June Council meeting please drop a line to Richard.hayes@theihe.org indicating how you could assist the IHE. Please respond by 31st May at the latest.

The IHE Council also has two vacancies for Student members on Council, again any expressions of interest should be forwarded as above by 31st May 2018.
WEBINAR: learn how new technology is revolutionising the way journey time information is captured

Rennicks, leading distributor of retroreflective and reflective traffic sign materials and mobile VMS, is running an IHE CPD accredited webinar on 5th June at 10:30am. The webinar will demonstrate solutions to some of the challenges currently faced when managing our busy road networks. In particular, you will learn how advances in journey time measurement technology can:

- Improve road worker and driver safety
- Save time and reduce costs
- Provide a more sustainable solution

By taking part in the webinar, you will qualify for a free trial of the Rennicks Virtual Journey Time System. IHE are seeking to encourage its members to use this offer, it will assist their CPD and extend their knowledge of an ever changing industry

Click here to register for the webinar.

Rennicks

2018 Promising year for Biral

Following a strong start to 2018, leading meteorological specialist Biral has been busy showcasing its popular products at exhibitions around the world and featuring in a number of high profile projects.

Biral’s Marketing Director Nathan Neal is delighted with the company’s progress commenting, “Further products will come out of the company’s forward research and development programme and we have an ambitious growth plan based on increasing market share in our established markets where Biral is recognised for innovative, high specification products with proven reliability”.

In addition to the company’s ongoing research and development, Biral’s SWS sensor was recently used as part of an installation in Cortina d’Ampezzo, Italy. Audi Digital Points, an installation by Point Architects, developed the project at the popular ski resort alongside the well-known car manufacturer to promote an eco-friendly lifestyle.

Digital islands placed around the resort give live updates on noise pollution, green energy production, street safety and climate conditions, and Biral’s SWS sensor was chosen to take part in the bringing together of data to see how the average everyday life affects the environment.

Also announced earlier this year were the Meteorological Society’s 2017 Society Awards and Prize winners. Biral’s Dr Alec Bennett was awarded a meteorological award for his work on the BTD range, and will receive the Royal Meteorological Society’s FitzRoy Prize this month. The award is presented every two years to an individual for their distinguished work in applications of meteorology or related sciences and puts Biral alongside top agencies such as the Met Office and NASA.

Last month, research using Biral scientific expertise and sensors were presented at the largest geoscience conference in Europe, EGU-2018. Scientists from all over the world met to discuss their latest Earth science research in Vienna on 8-13 April. Biral is an active supporter and instrument provider for the academic community, demonstrated this year by the company’s involvement in seven presentations from UK and German scientists. Biral’s visibility and electrostatic sensors were used by the academics to investigate electrification of Saharan dust and volcanic ash plumes. Findings from Biral’s BTD-300 thunderstorm detector have also been used to explore how developing thunderstorms generate their charge before the first lightning flash and how this charge falls back to earth through heavy rainfall.

The scientists chose Biral sensors for their sensitivity, reliability and robustness to harsh environments like the Arabian Desert and active volcanic craters.

Further information is available from Biral on +44 1275 847787, email: enquiries@biral.com or by visiting the company’s website at www.biral.com

Biral

Half price membership for new IHE members

IHE membership fees are now half price for the remainder of 2018 for new members wishing to join us. IHE membership formally recognises your qualifications and industry experience. Join us and demonstrate your technical skills, qualifications and expertise to clients and employers. We offer membership types for highways professionals at every stage of their career. Membership applications can be made via our website using the code ‘HALFOFF’.
Amey has completed a project to infill a disused railway tunnel underneath the approach roads north of the Forth Road Bridge using an innovative approach with the local community barely aware of work taking place.

The structure originally formed part of the Dunfermline to North Queensferry railway line, providing a link to the ferry service until the opening of the Forth Bridge in 1890 and continuing in limited use for freight until 1954.

The tunnel runs underneath the A9000 and B981 on the northern approach to the Forth Road Bridge. It is 420 metres in length, 4.3 metres wide and 5.1 metres high, with a vaulted roof and brick lining. Both ends had been sealed off and the adjacent cuttings filled in, so the only remaining means of access was via a vertical shaft at each end.

Amey engineers carried out a structural inspection finding that parts of the tunnel were degrading and in need of preventative maintenance to ensure continuing structural integrity. Due to the limited depth of cover above the tunnel, a failure could potentially have had an impact on the roads overhead.

Two options were considered: an ongoing programme of inspection and maintenance, or a one-off project to infill the tunnel with a low cost material. The infill option was chosen as it would eliminate the need for future inspections or maintenance and so prove more cost-effective in the long term.

After considering workforce safety, overall cost and the need to avoid disruption to the local community, it was decided to fill the tunnel with expanded polystyrene (EPS) blocks manufactured to a specific compressive strength capable of resisting the weight of rock and tunnel lining in the event of a localised failure. Unlike with concrete or aggregate material, EPS blocks can also be easily removed if the tunnel ever needs to be reopened.

The EPS blocks were pre-cut to a size and weight that allowed easy manual handling on site. This allowed work to be carried out from the access shaft at the north end of the tunnel, keeping construction traffic out of North Queensferry for the majority of the works. Another advantage of the lightweight blocks was that they could be delivered in large lorry-loads, significantly reducing the number of vehicle movements required.

Once offloaded, the blocks were passed down the access shaft and transported along the tunnel to the work face hooked onto a specially designed sliding monorail system.

The tunnel was lined with a hydrocarbon resistant membrane, before a total of 21,342 EPS blocks were installed, built up gradually in steps to allow safe working at height.

Local primary school children from Burntisland and Lauriston were invited to fill two time capsules with items of their choice. These were then buried in the tunnel amongst the blocks.

Once the body of the tunnel was infilled the access shafts were filled with concrete to seal the tunnel and prevent damage to the blocks, with work reaching a conclusion in late March 2018.

Mark Arndt, Amey’s Operating Company Representative for the Forth Bridges Unit, said: “This has been an unusual and interesting project where we’ve learned something new about the history of the area as well as gaining the satisfaction of making a disused tunnel safe.

“The team deserves particular credit for developing innovative solutions that maximised workforce safety while minimising the cost to the public purse and the impact on local communities.

“It’s a real measure of success that most local residents were not even aware this work was taking place, despite the tunnel emerging within metres of homes in North Queensferry.”

Amey
Lynch brothers - They started together, they ran together, they finished together!

Every year Merrill, Rob and Darren Lynch, of Lynch Plant Hire, challenge themselves to a ‘brothers Lighthouse Day’ to raise money for the Lighthouse Construction Industry Charity, the charity that provides financial and welfare support to those who are suffering long term injury or illness within the construction sector.

After months of training, the frustration of injuries and last minute worries in the build-up, the big day of the London Marathon arrived. The excitement had been growing in the city during the week, and the three brothers had all been down to the Expo to register and take in some of the atmosphere.

The morning involved an early start, a trip down on the Jubilee line to London Bridge station, where there were thousands of runners waiting to get on to the train to the start at Greenwich. The sun was already warm and there had been many warnings to participants about staying cool, taking on enough water and adjusting goal times. Their aim was to stay together and finish together, whatever the time it took, especially since they had all sustained various injuries and niggles in the preceding month. Going under six hours would be good and getting close to five hours would be amazing.

Rob calmed prerace nerves as he drew on his experience running the event back in 2005, and they stayed as relaxed as possible as they got into our starting area and eventually set off through the start line at 10.45am. They ran steady over the first miles, winding through the masses of charity runners with people dressed as pink lady apples, batman and robin and women on stilts. The first big landmark was going around the Cutty Sark at mile six and the crowds were wild and vociferous on all sides, hanging out of windows, on top of bus shelters, standing on walls and cheering everyone on.

The heat of the day was beginning to be felt, but regular water stations kept the brothers hydrated. There were showers on the course too and the fire brigade came out to spray everyone to keep them cool. They kept on going steady passing over Tower Bridge at mile 12 and heading out towards Canary Wharf. At 1.00pm it was the hottest part of the day and it was necessary to slow the pace and reconsider their speed. The brothers had family and friends waiting for us at mile 17 on the Isle of Dogs and it was a massive motivation to get to them, and see their father, Liam, and Darren’s wife Lucy and baby Alistair.

Mile 18 onwards was tough, and they needed to walk-run to cool ourselves down and ease the heavy-legged feeling. The missed training sessions were becoming evident as none of us had gone beyond the 13-mile mark.

Darren Lynch said, “Despite the brilliant crowd cheering on the ‘Lynch Brothers’ and running past the amazing London landmarks, the next miles became a bit of a blur for us, though we do remember getting passed by a couple of rhinos!”

From mile 24, we were feeling cooler and were excited to reach the end, and so we upped the pace, determined to finish strong and enjoy the run along the embankment, past the Houses of Parliament and towards Buckingham Palace to the finish line on the Mall.”

They started together, ran together and finished together, running 26.2 miles in 5 hours and 50 minutes on a desperately hot day. What an achievement.

Merrill Lynch added, “We are all so thankful for the sponsorship that we have received and we are delighted to have raised just shy of £8000 for the Lighthouse Construction Industry Charity who provide financial and emotional support to fellow construction workers in need. So what next for the Lynch Brothers, what gruelling challenge will they take on in 2019? We’ll have to wait and see!

www.LighthouseClub.org
Asphalt Preservation Systems

In this context Asphalt Preservation is a process whereby a proprietary treatment is applied onto a bituminous bound road surface course to seal the surface to restrict water ingress and inhibit binder oxidation thereby extending the service life of the road pavement. Asphalt Preservatives should not be confused with Asphalt Rejuvenators which are claimed to modify the asphalt characteristics.

These treatments can be specified using clause 950 in the Specification for Highway works.

INTRODUCTION

Asphalt Preservation provides an efficient and cost effective treatment method for protecting road surfaces against the effects of weather and oxidation thus prolonging the life of an asphalt pavement. In nearly all cases the application of Asphalt Preservatives requires minimal plant and personnel.

Asphalt Preservation has been used in the UK since the early 1990’s and the main purpose is to cost effectively extend pavement life.

The key benefit of prolonging the service life of the pavement is achieved by;

Helping to seal the existing surface against the ingress of water unless the surface course is designed to be porous.

Providing a protective layer for the surface course binder thereby slowing down the oxidation and embrittlement process, improving surface aggregate retention.

The nature of preservation treatments requires consideration to be given to several factors regarding the existing condition of the pavement and its structure, possibly including some technical evaluation of the properties of the surface course binder.

QUALITY ASSURANCE

RSTA recommends that the application of these products is undertaken by installers registered or working towards National Highway Sector Scheme 13.

Products used for Asphalt Preservation must be manufactured under BS EN ISO 9001.

Asphalt Preservation treatments can be independently assessed and certificated under an industry Product Assessment/ Certification scheme in accordance with Clauses 104.15 and 104.16 in the Manual of Contract Documents for Highway Works.

SITE SUITABILITY

Preservatives should be used to preserve the road surface in the condition it is in at the time of application. They cannot improve a road surface.

In deciding whether Asphalt Preservation is appropriate for a particular project, it is necessary for the end-user to understand what needs to be achieved by the application and the limitations of the product.

For example the Client may consider the adoption of an ongoing preservation strategy starting at the construction stage to help maintain the new surface course condition for as long as possible.

The system installer must be involved in site selection to determine the appropriate treatment.

Surface Binder Composition

Asphalt Preservatives will work on bituminous bound surfaces only. If the surface is non-bituminous then Asphalt Preservation is not appropriate.

Site Location

Where available the local authority should provide site information to the installer referring to texture and skid resistance. All treatments are seasonal and should be typically applied between April and September.

Skid Resistance

It is important that current skid resistance data is available when considering the application of a preservation treatment to a high speed road.

Preservatives should only be considered where readings are adequately above the relevant investigatory level/s as there is usually a temporary decrease in skid resistance post application. However the skid resistance levels will return to their original values, the rate of this is proportional to the site’s traffic levels. The installer will determine if additional measures are needed to maintain adequate skid resistance.

If the skidding resistance is at or below the investigatory level then the road surface will need to be pre-treated to restore adequate skid resistance before applying a preservation treatment. There are a range of Re-texturing processes available that may be suitable as a pre-treatment.

SITE PREPARATION

The amount of site preparation required will depend on the condition and nature of the existing surfacing course.

Any surface defects identified must be repaired before using a preservation treatment e.g. sealing cracks, filling open joints, repairing
Continued from pg 5

potholes, patching. The road surface must also be swept and clean before treatment.

MATERIALS

There are two types of Preservation treatments, Penetrative and non-Penetrative.

Penetrative treatments

These are solvent based and as such soften the existing surface initially on application to facilitate some penetration of the binder coating. They comprise a blend of bitumen and/or hydrocarbon resins, diluents, plasticisers and may be fortified with natural based bitumen.

Non-Penetrative treatments

These are bituminous emulsions. They comprise of proprietary blends of bitumen, polymers and other additives designed to seal and protect the road surface.

POST APPLICATION AND AFTERCARE

The road can normally be re-opened to traffic after the preservative has cured (typically within 1-2 hours).

RSTA

New BSI EN124 Chair

Barry Turner, Chairman BS EN124 Standard Committee

The British Standards Institution (BSI) has confirmed that Barry Turner has been appointed as the new Chairman of its BS EN124 Standard Committee.

Barry brings with him extensive involvement in standards development. He was part of the BSI committees that helped revise the latest access cover and grating Standard BS EN124:2015 as well as Standards BS750, BS5834 and BS9124.

Today Technical Manager for Wrekin Products, his many years of experience include a wide range of highway civils and precision engineering disciplines. He has previously studied and worked as a surveyor, product designer, quality manager and materials engineer.

Roles as a test engineer and defect investigation engineer have further developed Barry’s critical thinking and his ability to clearly explain what is needed has been proven by work as a technical author.

Perhaps his best-known acknowledgement is as designer of the UK’s class-leading Unite manhole covers - which are widely recognised as one of the most innovative and effective designs available.

In terms of selection for the Chairmanship, the ideal candidate must have demonstrated an aptitude towards promoting and improving the standard and is usually selected from a user or specifier group rather than a manufacturer group.

The function of BSI Standards Committee Chairs is to arrange UK meetings through a dedicated BSI Programme Manager for the standard for which they are responsible. The committee Chaired by Barry looks after BS EN124, the parent Standard for “Gully Tops and manhole tops for vehicular and pedestrian areas”.

The Chair also may attend European Standards (CEN) meetings, to table the UK’s view on any aspects of the proposed contents.

Typically, BSI’s technical committees comprise representatives of industry bodies, research and testing organisations, local and central government, consumers and users of the standards.

Commenting on Barry’s achievement, Stan Turner, Managing Director at Wrekin Products, said: “We congratulate Barry on his appointment. It is testament to his outstanding knowledge and experience.”

“The fact that Chairs usually come from a user or specifier group rather than, as is the case with Barry, from a manufacturer group, means in this respect alone the appointment should be commended.”

For more information contact Sue Grief-
t: 07786 437288
e: sue.grief@outlook.com

Wrekin

Apprentice of the Year 2018

The IHE is delighted to be again sponsoring the Highways Awards’ Apprentice of the Year, which is awarded to an individual working in the highways industry for the first time who has made a considerable contribution in the workplace.

The individual will have been committed to successfully achieving a personal challenge, which they have been working towards in their place of work with a view to progressing their career. Candidates can be from a formal apprenticeship or new to the industry at any level.

The closing date for entries is June 22 with the awards evening on 17 October at the Lancaster London. Information is available at http://hmea.co.uk
New National Sales Manager for Stanton Bonna

Stanton Bonna Concrete Limited announce the appointment of Adrian Blake to the role of National Sales Manager.

Adrian has spent all of his career within the water and wastewater industry, primarily in the pumping sector. His extensive knowledge and experience has been gained while supporting customers and teams around the UK whilst being based in the Midlands.

He was General Manager (Service) at ITT Water and Wastewater managing national site operations and repair facilities with over 100 staff including engineers. More recently he was UK Operations Manager for submersible pumps at Andrew Sykes.

Adrian’s role at Stanton Bonna will be to support his team of internal and external sales in the growth of the business with more innovative ways of working and a broader portfolio of products and services.

Adrian says: “I feel privileged to be joining Stanton Bonna, who have a high reputation for products and service, at a time when the industry is developing more smart, sustainable precast systems. With Stanton Bonna being part of Consolis we can support our customers with a broader portfolio of products that are tried, tested and trusted.”

Stanton Bonna is part of the Consolis Group, Europe’s largest precast concrete producer, and is widely recognised as a leading UK manufacturer of precast concrete pipes and manholes which form part of a comprehensive range of Drainage Systems, Pressure Systems, Railway Products and Specialist Precast solutions.

The company manufactures for the water, highways, rail, industrial and commercial, housing, telecom and power sectors within the construction industry.

Stanton Bonna Concrete Ltd

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Winter Services - Decision Makers and Managers

The only accredited UK course for Winter Services Decision Makers and Managers. This course delivers learning across a wide range of subjects necessary for Winter Service Professionals.

It provides an industry benchmark and leads to the Professional Certificate in Winter Services which is endorsed by the DfT.

Find out more at: [www.theihe.org/events](http://www.theihe.org/events)

Temporary Traffic Management

IHE’s Professional Certificate or Diploma in Temporary Traffic Management Engineering, including design, enables those working within the highway industry to demonstrate their knowledge and competence in this field.

It provides an industry benchmark and the Certificate has received endorsement by Highways England.