



**CONWAY**

great people: great work





CONWAY

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# AN ESSENTIAL CONSTRUCTION PARTNER

FM Conway is a leading infrastructure services company operating in transportation, the built environment and public realm.

Whether working on small maintenance schemes, major frameworks or large complex projects, our vision is to bring clear thinking, innovation and efficiency to challenges within the built environment. Delivering in partnership with local authorities, network operators and the private sector, we help meet the needs of their customers: local people and businesses.

## **A contractor with a difference**

We are unique in our field, inwardly investing in our vast resource bank of land, facilities, products, plant, and equipment for over 57 years. We self-deliver all of our services, providing in-house capabilities across the entire lifecycle of a project, from design and material production, to construction and maintenance.

Operating our manufacturing plant infrastructure underpins our self-delivery model providing clients, partners and our own internal teams with security of supply and access to low carbon and high-quality recycled materials.

Our model ensures that in-house expertise and senior management are deployed across the breadth of our services so we can achieve higher standards, lower costs and efficient delivery for our clients and their stakeholders. We directly employ local people as they are an integral part of our growth, providing individual development opportunities and training.

## **Marshalling resources, minimising cost and risk**

Through early engagement, technical insight and a commitment to resource efficiency, we help clients and partners to manage the lifecycle of assets, thus minimising the cost of construction and maintenance and lowering potential risk.

We embrace the circular economy - keeping resources in use for as long as possible and recovering materials at the end of each service life. With this approach we help our clients to unlock environmental and economic benefits. Our portfolio of recycled asphalt, concrete and aggregate products for construction and maintenance projects, helps clients to meet their own sustainability commitments and lowers the environmental footprint of infrastructure works.

## **Putting people first**

We work safely. Our people are our greatest asset and maintaining health and safety standards is paramount. Our philosophy is People First, an approach which gives our operatives, drivers and everyone else at FM Conway the support they need to protect themselves, their co-workers and members of the public.

## **Driving fleet safety**

We aim to protect all road users. Our drivers undergo specialist training to ensure they operate as safely as possible on the road. We place a major focus on vulnerable road users and have completed an extensive retrofit programme to equip all of our HGVs with bespoke cycle and pedestrian safety enhancements. We deliver specialist in-house Safe Urban Driver training to our staff, partners, clients and supply chain.



# HIGHWAYS: A STRATEGIC AND LOCAL PARTNER

For over 57 years, FM Conway has created, maintained and enhanced road networks across London and the South East to ensure we keep people and businesses moving.

We work with local authorities, strategic operators and framework partners to unlock efficiencies - drawing upon our technical and consultancy expertise, deep-rooted knowledge of asset planning and our integrated material supply model to build a more resilient network.

We bring innovation, professionalism and dedication to our contracts, building enduring relationships with our clients and collaborative delivery partners.

### Technical insight

We are a leader in materials innovation, continually investing in research and development to deliver durable highways solutions.

Through our UKAS accredited laboratory and our consultancy team, we provide clients with an exceptional level of technical insight to help inform their investment decisions.

### Investing for the future

Maintaining highways assets requires long-term planning and accurate condition data. By working in partnership with local authorities and strategic operators we gain a detailed understanding of their road networks to help develop robust asset management plans.

Not all pavements are the same. That's why we obtain accurate condition data on a street-by-street basis so that we can recommend the most appropriate, durable and affordable treatments. Armed with an accurate understanding of the network and our technical insight, we help clients focus on preventative treatments that reduce the need for costly reactive repairs to failing roads.

### *We stand out because we:*

- Prioritise excellent communication
- Put the safety of all our people first
- Supply our own materials
- Provide an integrated service
- Build enduring relationships with our clients

### London Borough of Merton: a long-term partnership with quality at its heart

The London Borough of Merton and FM Conway are working together on a contract worth £8 million annually, building on a highways maintenance partnership that dates back to 1979. The contract covers highways maintenance, carriageway surfacing lining, civil engineering, traffic management and drainage works.

The contract model is focused on driving effective collaborative working, efficient delivery and encouraging innovative approaches to provide a high-quality local road network which meets the needs of local people and businesses.

The contract has included working with Merton Council to deliver its 'Rediscover Mitcham' project - a £6.2 million regeneration scheme to address the challenge of falling pedestrian numbers.

The scheme has seen FM Conway refurbish the main shopping area and market place ahead of our creation of a new bus route into the heart of the town centre - transform the town centre into a prosperous, vibrant and accessible community hub that supports local residents and businesses for many years to come.







**We make a difference:**

By reporting on the social impact of our work we know we make a difference

£4,126,384 estimated social value created through our work with our own people and the communities we work within

**£4,126,384**



**Maintaining value**

This lifetime approach is supported by our expertise in inspections and cyclical maintenance, supporting clients to identify where works are needed to meet regulatory requirements and secure the long-term performance of an asset.

Through our self-delivery model, we are able to respond swiftly to incidents and urgent requirements. With over 100 mobile response teams, we operate an emergency call out service 24 hours a day, 365 days a year - working hand-in-hand with the police and emergency services where necessary to ensure we deliver resources and materials wherever and whenever they are needed. When planning works, we maximise what can be delivered during closures to minimise disruption to the public.

**A trusted local partner and innovative framework contractor**

Well maintained highways underpin local and regional economies. We work in partnership on

some of the UK's busiest networks, providing a multi-disciplinary approach ensuring roads, footways and public realm are properly maintained.

We also collaborate on sophisticated frameworks to deliver large scale projects on strategic routes. Sharing best practice, expertise and innovation with supply chain partners to help raise the bar for highways works across our sector.

**Great people, great work**

Ultimately, it's our people that make us stand out. We are fully committed to bringing new entrants into the highways sector, investing in a comprehensive skills and training programme to ensure that our industry retains a strong pipeline of future talent.

We are proud to support the London Construction Academy (LCA), which provides education, career and rehabilitation opportunities to local unemployed people.



**LoHAC: sharing best practice across London**

Our joint venture, CONWAY AECOM, is appointed to the London Highways Alliance Contract (LoHAC) - a joint initiative between TfL and London's boroughs to deliver cost-effective highways services across London. Our JV works across the North West region of LoHAC are part of a framework that will be worth up to £1.2 billion and that aims to save councils up to £450 million over eight years.

The framework includes 23 discrete services including lighting, highways maintenance and safety inspections. It also promotes best practice, requiring all partners to pay the London Living Wage and join TfL's Fleet Operator Recognition Scheme - equipping HGVs with cycle safety measures.

A key commitment of the LoHAC framework is sharing industry best practice with all framework partners. As part of this commitment, representatives from TfL and other project partners were invited on a tour of our facilities to gain an insight into the infrastructure and processes that have underpinned our success.

# OUR CIRCULAR ECONOMY: A UNIQUE APPROACH TO MATERIALS

We think creatively about using and re-using materials from our projects. And we've developed industry-leading facilities to match our ambitions. Our ability to recycle highways arisings, gully waste and aggregates enables us to demonstrate to clients the environmental and financial benefits of the circular economy. With cutting-edge facilities we recycle materials which are recovered from construction sites and reprocess them in our technically-advanced plants.

Our facilities are the result of our strategy to invest in recycling and to think carefully about how materials can be put to good use across different parts of our business. For example, the water we dredge from gullies is used to wash aggregates and for batched concrete – a unique set-up in the UK. We also ensure that our work impacts the road network as little as possible. This includes major investments to allow us to import aggregates via our jetty at Conway Wharf Erith as well as our rail terminal at Theale. We also reduce road traffic movements by using our Bitumen storage facility at Gravesend which is operational 24 hours a day, utilising off peak times to lessen road congestion.

## Each year we:

- **Divert** construction waste from landfill by up-cycling highways arisings
- **Supply** a large volume of high quality recycled aggregate to construction sites across the UK
- **Recycle** 98% of the waste we generate
- **Reduce** virgin aggregate consumption in asphalt
- **Recycle** all of our asphalt millings back into asphalt hot mix – separating and processing high PSV RAP to be used as surface course materials

Recycling is in our DNA. All operatives, machine drivers, lorry drivers, and management teams are trained in understanding our recycling processes, how they fit into our work, and how we can efficiently use resources to reduce our carbon footprint, minimise lorry movements and promote environmental initiatives.



## HOW WE DO IT: MANAGING MATERIALS FROM START TO FINISH

### 1 Coring and testing

We take sample extracts of materials from roads to understand the materials in our clients' assets. Coring shows the material in our roads, and allows us to develop strategies for how materials can best be put back into use.

### 2 Asphalt planing

Once we have developed thorough plans for the materials, we plane them from the roads as part of our maintenance programmes – collecting them and transporting them back to our asphalt manufacturing plants.

### 3 Excavation

Materials are also generated through excavation on the majority of our projects.

### 4 Gully cleansing

Gully waste is collected by our dedicated teams as part of our cleansing and maintenance. It's an under used resource that can nonetheless be recycled and diverted from landfill. We clean nearly 500,000 gullies each year, and ensure recyclable materials are put to use for our industrial processes.

### 5 Storage

Once materials have been collected they may have to be stored before they are recycled. Effective planning and scheduling is vital for minimising cost, and helps us to share efficiencies with our clients.

### 6 Drainage treatment plant

This is where gully waste is processed. We extract sand and stone, which are used for aggregate, and around 2 million gallons of water each year, which is used for cleaning aggregates and in our concrete batching vehicles.

### 7 Concrete plant

We have technically advanced manufacturing plants across London and the South East of England, enhancing our recycling capacity.

### 8 Aggregate screening and washing

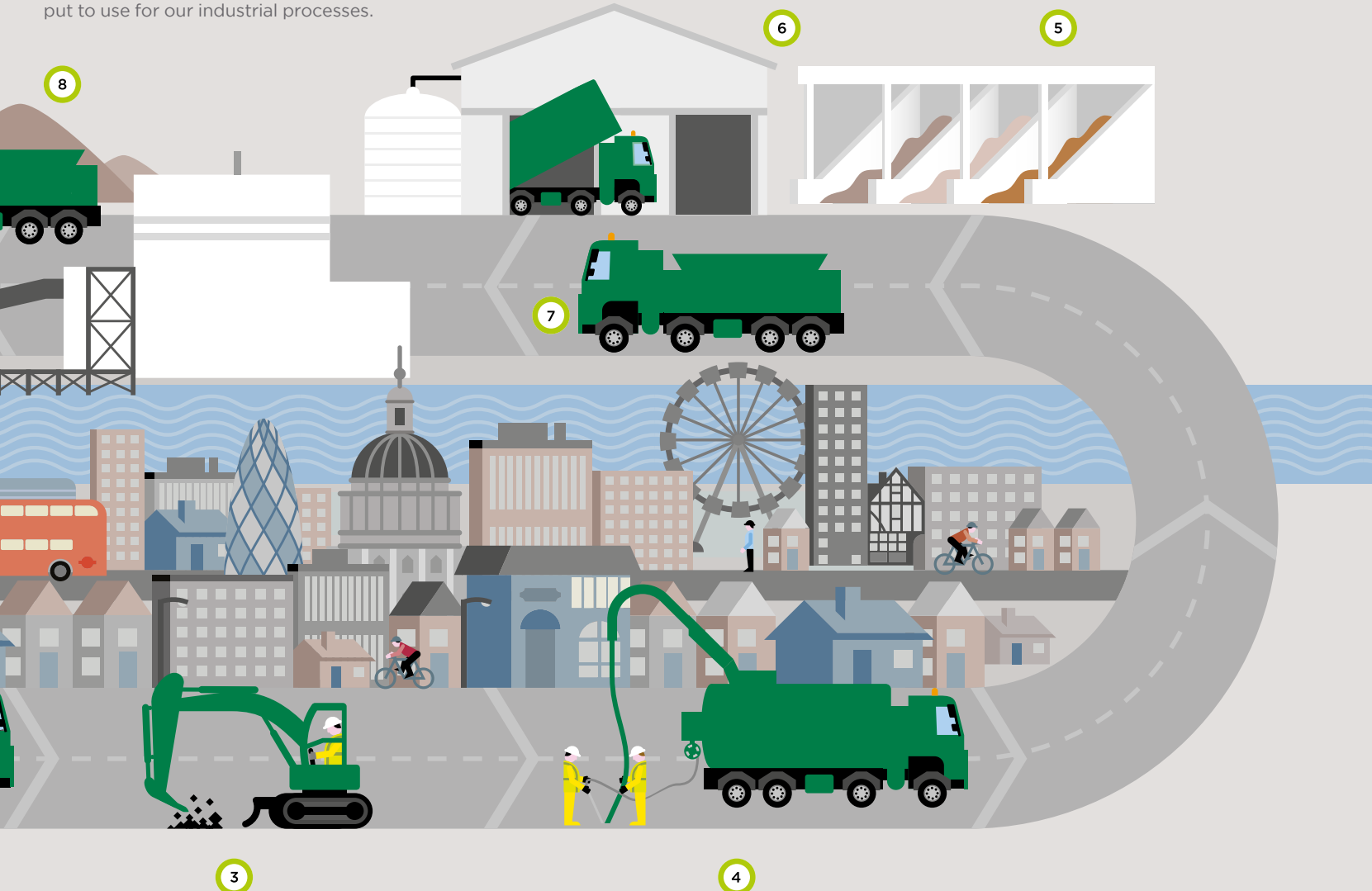
Our highways arisings recycling takes place at our unique static crushing, washing and grading plant. We recover at least 98 % of all arisings as reusable aggregates, and deploy them on future projects.

### 9 Asphalt plant

We have asphalt plants across London and the South of England operating 24 hours a day, 7 days a week. A number of these plants reprocess asphalt planings for use in highways maintenance and new road construction. Erith Asphalt is one of the lowest carbon asphalt plants in Europe and includes a jetty onto the river Thames that allows us to import aggregates by boat.

### 10 Re-using asphalt planings

Finally, we roll recycled asphalt back onto roads as part of our work – ensuring sustainable management of materials, and lower costs for our clients.





# MATERIAL SUPPLY: ASPHALT, AGGREGATES AND CONCRETE PRODUCTS

FM Conway manufactures a comprehensive range of high-quality aggregates, asphalt and concrete products for use on highways and construction projects.

Self-delivery and innovation are at the heart of our offer. Thanks to ongoing investment in our materials infrastructure, we operate our own technically advanced manufacturing plants and vehicle delivery fleet. This brings security of supply and reliability for customers and means we can develop bespoke solutions for each project's requirements.

### Security and efficiency

Through our network of asphalt plants, we deliver high-quality materials for local and strategic road projects across London and the South of England. Our asphalt plants have a twenty four hour, seven day a week capabilities, ensuring we can produce and supply materials to meet customer demands.

In addition, our Imperial Wharf bitumen terminal ensures we have a secure and efficient supply of quality bitumen. We are also the first Asphalt manufacturer in the UK to produce Polymer Modified Bitumen (PMB) ensuring that we can add PMB to asphalt products to deliver greater durability to key areas. The production of our own PMB allows us to continue developing high-quality materials that meet the needs of the industry now and in the future.

### Bespoke Asphalt solutions

Our plants have the ability to manufacture bespoke paving solutions to match performance and specification, which includes high-recycled content mixes when a more sustainable alternative is required. Our commitment to the circular economy is reflected in our Enviro products which are available with optimum recycled content. We also have the ability to produce cold and warm asphalt products offering a greater carbon footprint saving and less disruption to stakeholders.

### Recycled aggregates

Our aggregate recycling plants supply a range of products for construction sites across London and the South of England. We have complete control of quality using feed stock generated from our own projects.

### Concrete products

We deliver concrete products using our own fleet of modern Euro 6 volumetric mixers. These truck mixers carry cement, recycled ballast from our own recycling plant and water ready to be batched exactly where required, reducing waste and maximising efficiency for customers.

### Self-compacting floor screed

Our anhydrite flowing floor screed, Metroflow, provides a quick, cost-effective interior flooring solution. Thanks to its self-levelling and self-compacting properties, Metroflow can be laid ten times faster than traditional sand and cement-based products and is capable of withstanding foot traffic within 48 hours.

### Leading materials innovation

Our research and development team works with leading industry bodies and university partners to pioneer new products, expand our portfolio of materials and meet the evolving needs of the construction industry. Our continued commitment to materials innovation drives the improvements required for paving solutions. We provide a UKAS-accredited (United Kingdom Accreditation Service) laboratory testing service to ensure our asphalt, concrete and aggregate products meet the most exacting quality and performance standards.

### FM CONWAY FACTS

**First UK Asphalt manufacturer to operate its own Polymer Modified Bitumen plant**



Our Conway Collect service provides dedicated ex-works asphalt supply to customers



24-hour plant operation providing customers with security of supply



Plant network with innovative recycling technology to reduce embodied carbon



Regionally based customer service team locally managing distribution





## SURFACING: IT'S OUR SHOP WINDOW

*We have an outstanding rate of retention for our gangs, giving continuity for our operations and ensuring that, whoever we have on our jobs, they live up to our credo: great people, great work.*

Our directly-employed gangs provide surfacing for a huge range of projects, from intricate works to major repairs.

We minimise the impact of our works on the general public by providing a high-quality service from a motivated and professional workforce. It's our shop window and we take pride in the quality of what we do.

Our self-delivery model is key. We employ our own, trusted teams, and use our own plant and materials so that we can guarantee delivery, when it's needed, where it's needed. Our resurfacing and lining teams work in tandem to ensure that projects progress smoothly and efficiently, avoiding congestion or delays wherever possible.

### **Excellence under pressure**

Our surfacing division has a wealth of experience, and we've developed the capacity to take on the most challenging jobs – be it overnight working, heritage works or high-profile schemes. We plan meticulously to minimise disruption and work within tight timeframes to ensure that works are carried out with minimum impact to the public.

FM Conway teams have resurfaced some of the South-East's busiest networks, including emergency repairs on Oxford Street, planned works for Piccadilly Circus and Dartford Freeflow. We pride ourselves on our ability to deliver excellence under pressure and work closely with the police, transport operators, community bodies and utilities to build strong partnerships for exceptional service.

Our lining and anti-skid teams have worked across the South of England, and have the tools, experience and work ethic to quickly complete schemes to exacting specifications.



### **Transport for London: paving the way to resource efficiency**

FM Conway has been committed to recycling and sustainability for over 20 years, making us well-placed to look at resource efficiencies on local networks and strategic routes in South East England. High polished stone value aggregates are geologically scarce in the region – thereby increasing logistical costs and the carbon footprint of road maintenance projects.

The obvious solution, asphalt recycling, is not new to the highways industry, but it remains under-utilised on the surface courses of strategic routes.

To address this challenge, FM Conway launched a trial with Transport for London (TfL) to test the use of an asphaltic mix high in recycled content for the surface course on the A1 at Mill Hill, North London. This was the first time that this had been attempted on a strategic route in the UK, using a 50 % recycled content mix containing polymer modified bitumen to increase the carriageway's durability.

As this and further trials are undertaken, we are confident that it has the potential to transform the way Britain's strategic road network is maintained – resulting in a significant reduction in both the cost and environmental impact of highways construction and maintenance.



## CIVIL ENGINEERING: HIGH SPECIFICATION DESIGN AND DELIVERY

Our civil engineering teams work to deliver major new structures and highways for some of the UK's best known owners, managers and developers of property and infrastructure assets.

Our expertise in construction and high specification highways works spans strategic ports and airports as well as the UK's busiest motorways - requiring meticulous planning and efficient delivery to overcome complex challenges to keep networks moving.

### Connecting with communities

At the same time our specialist highways, paving and landscaping teams work closely with public and private organisations to create dynamic, high-quality public spaces for local communities - from transforming some of the UK's best known streetscapes to creating parks and playgrounds.

We know that high profile projects need careful handling and we support our clients to keep residents and businesses up to date with works as they progress from start to finish.

### A long-term approach

As well as delivering new projects, we bring a wealth of experience in the lifetime management of assets. Working closely with our consultants across the business, we seek to get involved early in the design process for new structures, buildings and infrastructure - advising on feasibility and helping clients develop robust programmes.

Our surveying teams work to maintain the value of assets across their lifecycle, assessing requirements for cyclical, preventative and restorative works that guarantee long-term performance.

### Our civil engineering teams deliver:

- New build construction of bridges and structures as well as deep drainage and earthworks
- High specification highways, paving and landscaping works
- Lifetime asset management, surveying, redevelopment and refurbishment

### Southall Waterside: delivering critical works

FM Conway is playing a key role in the construction of the Berkeley West Thames' Southall Waterside scheme, set to be one of London's most exciting new residential developments delivering 3,750 new homes.

We will open up the site by constructing two new bridges to provide vehicle and pedestrian access from the western side of the development.

Construction of one of the new bridge over the Grand Union Canal required complex programming to deliver the structure against tight timescales and with limited

access. The four 43.5 metre steel girders for the bridge, weighing at 75 tonnes, were manufactured offsite for greater efficiency while work to secure 116 sheet piles 7.5 metres into the canal to support the structure was underway. The scheme created several technical challenges, calling for FM Conway to think innovatively to deliver the critical works.

The majority of the construction materials for the scheme are sourced from the business's Heathrow asphalt plant, which lies less than half a mile west of the site; reinforcing and contributing towards FM Conway's self-delivery promise.







## PUBLIC REALM: HIGH QUALITY STREETS AND LANDSCAPING

We deliver expert craftsmanship through 21st century design and construction tools



We deliver high specification public spaces, combining the best-practice consultancy with skilled workmanship to create successful streetscapes and green environments.

### Specialist paving services

Our heritage paving team creates and maintains new and historic streets and squares - supporting high street urban regeneration projects and private developments as well as creating sensitively designed community spaces within parks and gardens.

We deliver expert craftsmanship through 21st century design and construction tools. Through our consultancy team we provide detailed design which combines aesthetics with accessibility, while our delivery teams' expert knowledge of materials - from granite setts to traditional stone and brick - ensures that schemes can be tailored to meet the detailed requirements of each site.

### Soft landscaping

We have led and collaborated on award-winning landscaping projects that bring together creativity and environmental best practice, delivering exceptional green spaces and play areas that mature alongside the communities they serve.



### Motcomb Street: transforming one of London's prestigious streets

FM Conway, in partnership with Westminster City Council and funded by Grosvenor, has delivered a public realm upgrade scheme to Motcomb Street in the heart of London's West End.

The overall project aimed to pedestrianise the street whilst improving the aesthetics, delivering new paving, improved drainage, planting and lighting. The use of high-quality techniques and materials, as well as a close attention to detail, was essential to ensure the project reflects Motcomb Street's prestigious profile.

We widened and repaved the footway in attractive and highly durable Yorkstone, and skillfully re-laid the carriageway with tri-stone granite setts. The real difference came from highly bespoke items that have been crafted specially - from drain covers embossed with the name of the street, to the creation of a carefully beveled granite drainage gully running the length of the road.

Due to careful planning and coordination with Westminster, Grosvenor and Thames Water, we were able to combine the new paving works with the replacement of the water main running under the street, taking the opportunity to then rebuild the carriageway with an entirely new sub base to strengthen its long-term durability and resilience.





## STRUCTURES: TECHNICAL EXPERTISE FOR MAJOR SCHEMES

FM Conway brings technical and practical expertise to construction projects of all shapes and sizes. We work across the full spectrum of transport and urban infrastructure, covering major new-build works, heavy structural engineering projects, deep drainage schemes and earthworks.

From delivering bridge construction works and specialist tunnel refurbishments to maintaining public sculptures, at the heart of our offer is an intelligent approach that combines the expertise of our in-house engineers with real-world solutions.

We interrogate the briefs we receive – developing and delivering considered, practical responses. We bring new ideas to the table and a dedication to getting the job done on time and on budget.

### Collaborative approach

Our experience of delivering major projects in and around London means we are well-versed at liaising with complex stakeholder groups. On behalf of our clients we establish close relationships with network operators, utility firms and local communities to ensure that works are completed effectively and to schedule, whilst bringing minimum disruption.

We act as advisors, always looking to add value to projects and capitalise on opportunities to make intelligent use of the time we have on site; thinking ahead to guarantee long-term performance.

*We act as advisors, always looking to add value to projects and capitalise on opportunities to make intelligent use of the time we have on site.*

### Bexley Village: bridge reconstruction

Bexley Council commissioned FM Conway to carry out a £1.45 million comprehensive upgrade scheme to Bexley Village Bridge, a critical piece of local infrastructure. First constructed in 1872 to replace an earlier, 18th century structure, the bridge was built using Victorian cast iron beams and a mix of brick, concrete and stone parapets that had steadily weakened over time.

With funding from Transport for London (TfL) an ambitious reconstruction programme was executed to demolish and rebuild the bridge to increase its width from 9.22m to 9.91m, making it compliant

with safety regulations for modern foot and vehicle traffic. Careful management and logistical planning were also required to ensure the safe transferral of a series of services and utilities within the structure – including telephone cables, high voltage electrical cables, medium and low pressure gas mains and a 750mm high pressure water main.

The old bridge was taken down in two phases and vibration monitors were used throughout to manage the impact of the works. This was an extremely challenging project, but close collaboration with both the London Borough of Bexley and Thames Water ensured that the upgrade project was delivered safely, nine weeks ahead of schedule.





## LIFETIME MANAGEMENT: TAKING A LONG-TERM APPROACH

*We ensure that structures, buildings and infrastructure retain value and viability whilst looking their best across their full lifetime.*

FM Conway adopts a long-term approach to the design, delivery and maintenance of assets that keeps them running at optimum performance.

Drawing on our in-house expertise we ensure that structures, buildings and infrastructure retain value and viability whilst looking their best across their full lifetime.

Our teams support a range of new-build projects designed for long-term performance, as well as working to manage and maintain existing assets through a combination of pre-planned activity and positive intervention that reduces the risk of unplanned restoration or refurbishment.

### Specialist assets

Our approach is tailored to the needs of each asset and its users. Through our work in London for local authorities and private landowners we take responsibility for the long-term preservation of some of the capital's most recognised historic monuments and buildings, requiring specialist expertise and great sensitivity.

As mechanical and electrical (M&E) specialists we undertake new build installations as well as small system modifications and large replacements.



### Millennium Bridge: gets a makeover

After 15 years' of wear and tear since its opening in 2000, FM Conway was commissioned by the Corporation of the City of London to repaint, recondition and clean this iconic structure.

The £199,000 contract involved a determination from the City of London Corporation to maintain access to the bridge at all times to minimise disruption to the public - requiring innovative solutions to working. This includes using a specialist rope access system in place of a traditional

scaffolding rig to work on the bridge's supports, and employing a lightweight aluminium cradle system to paint the underside of the structure.

The teams worked closely with the London Borough of Southwark, with whom we hold the term maintenance contract, and the Port of London authority and the Environment Agency to ensure licences and approvals could be obtained quickly, maximising efficiency during periods of good weather. The project was completed safely ahead of the Christmas period, enabling Millennium Bridge to take its customary place at the centre of the capital's New Year celebrations.



## LIGHTING: HELPING OUR CLIENTS SHINE

From design and installation through to refurbishment and maintenance, at FM Conway we understand what it takes to deliver lighting systems that combine excellent aesthetics with optimum performance.

With more than 57 years' experience working on high profile developments, we've developed enduring partnerships with numerous local authorities and private organisations, implementing a wide range of cost and energy efficient lighting systems to illuminate bridges, buildings, parks, highways, subways, statues and monuments.

Our lighting division delivers the complete package of services for maintenance, new installations, low carbon solutions and artistic lighting.

We work with customers to develop the business case for installing low- carbon systems, with features including LED lighting, and carry out the installations with our experienced in- house teams.

Our approach encompasses the full range of lighting requirements for public space, and we take a more collaborative, creative approach to our projects.

With expertise in areas such as LED lighting systems, artistic lighting solutions and security lighting systems, our integrated systems are keeping many of our bridges and monuments in London and the South of England in the spotlight.

### Smart Cities

At FM Conway we understand the growing challenges our clients face in managing their cities, which is why we are working in partnership to create smart cities. By altering the existing urban infrastructure using digital and telecommunication technologies we are helping clients to unlock efficiencies.

*Tomorrows smart cities will be more connected, networked and collaborative*

### Smart Cities: the smarter approach

The industry's latest buzzword – 'smart cities' – is a hot topic for local authorities, businesses and asset owners, but what makes an asset, or city, smart?

Our smart cities team are helping clients answer this question and implement best practice. The smart cities agenda is about creating connected places and a more intelligent approach to our built environment using data analytics.

By using new low-cost sensors and wireless communications, such as narrow band, we can combine real-time and legacy data to shape more efficient buildings and spaces

that support the needs of 21st century cities. This can help reduce costs and drive new revenues for our clients.

FM Conway has experienced the benefits of a digitised asset management approach on a smaller scale at our headquarters. We have installed a connected lighting system alongside other sensors at Conway House. These data-gathering systems help us to optimise our energy use, reduce maintenance costs and better understand how the building is used by employees.

We are now able to manage our building in a completely different way. In total, the system has reduced our operational costs by over 40 % since 2016.







*Helping clients to manage their assets and complete works effectively and to the highest standard*



Our Internet of Things cloud connected LED street lighting and connected buildings capability delivers real time data, analytics and engagement enabling clients to increase operational efficiency, and streamline isolated management systems.

**Our specialist teams help to deliver:**

- Integration of systems, real time data analytics and automation
- Reduction of energy use and carbon abatement
- Safer cities
- Smart buildings
- Reduced maintenance

**Intelligent design**

In designing and delivering our schemes, we put in place systems that help clients to manage their lighting systems remotely, reduce crime, and create safe, attractive areas for residents and business.

We excel at artistic lighting and have completed signature installations across London for events including the 2012 Olympics. We specialise in lighting for complex structures including bridges and tunnels, where we offer services in design, installation and maintenance.

**Street lighting asset management**

Our expert teams combine technical expertise and creativity to provide design, installation and asset management initiatives for a range of lighting solutions. We offer comprehensive end to end support, helping customers with project inception and development, all the way through to implementation and project delivery.

We are at the forefront of deploying new technologies and asset management practices into the lighting sector. Just some of the initiatives that we're working on include electric vehicle charging points, small cell technology, column degradation modelling, and complex lighting value management models.



**LED Upgrade project with London Borough of Bexley – shining a light on efficiency savings**

FM Conway worked with Bexley Borough Council to drive resource efficiency by replacing 19,000 lanterns across the borough with LED lighting over an 18 month period. Energy efficient lights enable the Council to vary the lighting output between midnight and 5.30am each morning, helping it to halve its street lighting energy usage to save nearly £330,000 per annum.

The preparation for a replacement programme of this scale required comprehensive asset mapping and a close collaboration with the Council to make informed specification decisions – including the impact of new lighting on wildlife populations. In locations such as local parks, the team fitted warmer white LED lights, chosen to mitigate the light impacts on the local population of bats.

In this way the project went beyond delivering financial savings to playing a vital role in delivering well-designed, sustainable street lighting to an urban environment – socially, environmentally and economically.



# WATER & DRAINAGE MANAGEMENT: MAXIMISING AN UNDERVALUED WASTE STREAM

FM Conway cleans nearly 500,000 road gullies every year and we recycle this often undervalued waste stream to reduce waste to landfill.

Every year high volumes of gully waste arisings are produced as a result of the ongoing maintenance of the trunk and local road networks. Working on behalf of local authorities and network operators we ensure that drainage systems remain operational and that this valuable waste stream is reused.

## Recycling

Our Drainage Treatment Plant (DTP) recycles 30,000 tonnes of gully waste each year and is the only full process recycling plant of its kind in the UK, and one of only four in Europe. Gully waste is collected using our own dedicated fleet of gully suction tanks and transported to the DTP where it is treated using a system of separation, filtration and screening to make the majority of constituents suitable for reuse.

Our plant can process around 45,000 tonnes of waste per annum, from which we recycle approximately 98% of the contents. The facility is linked to an aggregate washing plant to ensure that any recovered sand and stone (approximately 45% of gully waste) is separated, diverted and screened for reuse in the production of concrete. Hydrocarbons are separated out and burnt off-site to produce energy. Organics and litter are the only constituents, currently sent to landfill.

## Mapping assets

We have invested in our CCTV services to provide clients with greater network coverage – helping them to understand their drain and sewer assets and maintain them to the highest standards.

As well as cleansing systems, we work on behalf of utilities to map drains and sewers, record new assets. Our vehicles have the latest technology to undertake complex projects, such as off-road surveys and specialist ‘no dig’ operations, as well as delivering exceptional quality in our routine works.

## FM CONWAY FACTS

**We ensure that drainage systems remain operational and that this valuable waste stream is reused.**



Our Drainage Treatment Plant recycles 30,000 tonnes of gully waste each year

 **30,000**



Recovered sand and stone (approximately 45% of gully waste) is separated, diverted and screened for reuse in the production of concrete.

 **45%**

## Northamptonshire: culvert tunnel lining

Northamptonshire Council commissioned FM Conway's cleansing division to repair a culvert tunnel with extensive damage running beneath the Hemmington Road in Thornby, a strategic road for local motorists. The culvert had been neglected over a long period of time, causing major deterioration and corrosion which would have eventually led to its collapse.

Excavation and repair of the culvert was impractical as this would have meant closing the road off completely; therefore, a ‘no dig’ solution to the relining was necessary to complete the job within the required ten-day timescale.

These constraints meant that a wholesale insertion of a new lining was not possible and modern patching equipment was needed to make the repairs. This highly technical process saw the patch pressed against walls of the tunnel using resin and a pipe-packer to create a new lining whilst maintaining the integrity of the internal brickwork.

We completed the £85,000 scheme on time, with no delays or disruption to local infrastructure.







## TRAFFIC MANAGEMENT: CUTTING CONGESTION, MAINTAINING SAFETY

Effective traffic management design and planning is essential for the delivery of planned, reactive and emergency highways maintenance schemes.

Our experienced team provides all aspects of traffic management from urban and high-speed schemes through to developing and executing plans that support the safe delivery of major events in London.

We work with local authorities and network operators to deploy traffic management to maintain the safety of road users at all times, while reducing disruption and congestion. Our specialists have extensive experience in the early survey and design work needed to deliver fully efficient and flexible schemes.

Working in partnership with clients, we design and deliver intelligent traffic management schemes for high-traffic volume projects, working collaboratively with project partners and stakeholders to ensure the best traffic flows at specific times.

Our traffic management services can be used as a stand-alone service or as part of a wider, integrated works programme and include:

- Road and static lane closures
- Contraflows
- Temporary traffic light systems and signage

### Event traffic management

Working closely with an event organiser, our experts will design an event-specific traffic plan, and will liaise with the local authority and other stakeholders to ensure complete regulation compliance.

Our event traffic management services include:

- Design and planning
- Production and installation of temporary signs, including variable message signs
- Installation and management of traffic light systems and contraflows



### Neasden 'Super-Scheme' - Keeping traffic moving

The A406 North Circular Road is one of London's busiest A-roads, experiencing traffic volumes at peak periods only 10% lower than the M25. The Iron Bridge and the Dog Lane Arches in Neasden are two of the most important structures along this strategic road. They are nearly a century old, and when the concrete waterproofing on both structures began to fail, it became clear that safety-critical refurbishment was needed.

This challenging project called for an integrated response from FM Conway's traffic management, structures, street lighting, civil engineering and surfacing

departments, as well as close collaboration with Transport for London (TfL). Disruption to the transport networks was unavoidable during the works, but TfL wanted to ensure it was kept to a minimum at all times.

Intricate planning and innovative working methods by our traffic management team were vital to guarantee that there was a consistent traffic flow at all times while the necessary works to the bridge were completed, requiring phased closures as well as a contraflow and narrow lane system was established. Thanks to intricate logistical planning and the simultaneous delivery of the project's different parts, the scheme was successfully completed on time.





## CONSULTANCY: INTELLIGENT SOLUTIONS FOR LIFE

Our consultancy division offers a range of skills and disciplines to provide transport and infrastructure solutions. We have the expertise needed to help bring your project to life, using practical and pragmatic experience of chartered civil and structural engineers, software specialists, CDM, LEAN/PRINCE2 practitioners and operational personnel.

We provide design, technical consultancy and support services for transport, infrastructure and civil engineering schemes. Just some of the projects we support include high street regeneration schemes through to major road and bridge construction works.

Our team also delivers key value-add services such as programme management, asset management, surveying, utility identification, permitting and distribution to ensure clients have access to the specialist disciplines they need at every stage of their project.

### Practical know-how

FM Conway offers an expert service from concept to construction. Our integrated design and build solutions help clients get it right from the start.

Our self-delivery ethos ensures a collaborative approach where our teams share knowledge and efficiencies to provide trusted solutions for customers. By accounting for whole life costs and understanding the practical construction challenges, we offer cost certainty and value for our clients; meaning there are no surprises down the line and more can be done for less.

### Designed for life

We are committed to comprehensive and intelligent asset management; creating reliable, dependable solutions that are sustainable and safe. We help customers to future proof their infrastructure today to ensure that it can continue to deliver for the users and communities it supports in the future.

*Just some of the projects we support include high street regeneration schemes through to major road and bridge construction works*

### London Borough of Bromley: retail therapy for a major high street

Bromley Central is a public realm improvement scheme aimed at increasing footfall in the pedestrian high street, boosting store occupancy and creating a more attractive area for shoppers, businesses and residents. This area is the start of the second phase of Bromley's regeneration, following on from the successful completion of Bromley North Village.

The works include rationalising the street furniture to create a more streamlined space, while still providing benches integrated into planters to create an enticing street scene, as well as using innovative

lighting, drainage and pavement designs. A fire path and service vehicle access is planned to allow emergency and service vehicles access without risk to the integrity of the infrastructure.

FM Conway's Consultancy team has worked with Bromley Council throughout, and the genuine collaboration between client, architect, designer and contractor has resulted in a scheme that recognises the complex challenges of customer solutions for the community. Early engagement has allowed us to shape the specification, develop practical approaches and provide genuine design and build ideas to ensure the inspiring vision is turned into reality.





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