



Sustainable travel unlocks environmentally sensitive development



Surface water management needs joined-up approach



Campus efficiency improved with transport and travel planning

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Innovation Centre provides healthy boost to local economy

An injection of £120 million of additional gross value will be created for the local economy over the next decade, after planning permission was granted for the proposed Innovation Centre at Kent Medical Campus in Maidstone. The four-storey building will provide 3,482 m² of offices and facilities for small- and medium-sized businesses, generating 270 new jobs in the life science, healthcare and medical technology sectors.

Motion assisted Maidstone Borough Council with a transport assessment and travel plan, together with design advice for parking and access arrangements. The application concerned a parcel of the Kent Medical Campus which was previously granted outline consent. Associate Director Chris Saunders explains, "The project required a different approach, in terms of vehicle trip assessment, given a total acceptable trip generation for the entire campus had been agreed at outline stage. The legal agreement for the outline application included trigger points for off-site mitigation works, when vehicle movements from the consented development would exceed a certain threshold."

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Overcoming regional housing crisis with imaginative transport planning



Planning sustainable transport options, as a fundamental part of new housing developments, can lead to healthier, accessible and more economically productive areas, with less impact on the existing highway network. Motion's Phil Bell examines the issues.

The South East faces a unique problem; increasing numbers of people living and working in the region is putting a significant strain on housing supply. New developments are sorely needed but often objected to.

Unlocking development potential

Transport issues should be considered from the earliest stages of plan-making and development proposals. Solving transport and access problems during the planning application is a critical step in unlocking development potential and demonstrating the suitability of a site.

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Overcoming regional housing crisis with imaginative transport planning

Sustainable and economical movement of people

Sustainable travel is seen as one of the ways to realistically grow population centres, without overburdening the local transport network and creating further problems for the environment and the economy. This can only be achieved through the provision of appropriate sustainable transport infrastructure. New housing developments should offer residents an attractive and viable alternative to the private car.

New approach

The next five to ten years will see significant changes on our roads. Cars will become smarter and there will be wider adoption of electric vehicles (EV). This means a new approach to planning housing developments, so they are sustainable, low impact and have the capacity to support EV charging.

For more insight on this topic and others, head over to our blog at motion.co.uk/blog



John Russell

A rigorous approach

What brought you to Motion?

JR I've been at Motion for three years. I had been working for larger companies, and I discovered that what I really like is working closely with clients. Motion was the ideal place to get back to the type of work I enjoy the most.

Where were you before here?

JR I worked in local authorities for many years, including at Birmingham City Council, where I was involved in planning the pedestrianisation of New Street, as well as working on strategic transport planning for the city. From there, I moved into the private sector. I learned a lot about different approaches to planning and transport use by being closely involved with projects and planners from the Netherlands.

What sort of projects do you work on?

JR Most recently, I have been involved in a lot of public inquiries as an expert witness. This takes a great deal of preparation and planning, attention to detail and a rigorous approach.

What do you like most about the work?

JR I enjoy the challenge of strategic planning. Decisions made by planning authorities have a long-term impact on communities and it's part of my job to design the best ways to manage transport plans, so that they work for all parties.

What's life like outside the office?

JR I have two boys and a girl, so my weekends are usually spent dividing my time between football coaching – I'm a Level One FA-qualified coach – and driving my daughter around the country to gymnastics competitions.



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Innovation Centre provides healthy boost to local economy



Off-site mitigation avoided

Following detailed analysis of consented and completed development on the campus, Motion showed that vehicular movements from the proposed scheme would not lead to the threshold, which was agreed as part of the outline permission, being exceeded.

Chris Saunders adds, "The challenge was to assess the scheme as part of a larger whole, considering the trips generated by parts of the campus already constructed, under construction and consented alongside the proposals. We successfully demonstrated that no off-site mitigation was required."

Sustainable travel

Proposals made suitable provision for servicing, car and cycle parking, and established that the new development would not adversely impact on the local highway network. Studies revealed that the accident rate on adjacent roads was low and, therefore, presented no significant safety concerns. The new development is accessible by sustainable modes of travel including walking, cycling and public transport.

Located at junction 7 of the M20, Kent Medical Campus is establishing itself as a fully integrated centre of excellence for health, science and education in the South East. The 30-acre landscaped site includes headquarter buildings, research and development organisations, specialist residential and rehabilitation care, as well as higher education facilities for medical and health professionals.

Designed by Bond Bryan Architects, the Innovation Centre is expected to be ready for occupants during 2021.

A joined-up approach: Surface water management – flood storage to supply



Motion Director Richard Bettridge calls for a creative, joined-up approach to flood resilience.

Despite reports to the contrary, the property development industry has acted responsibly, taking flood risk into account when developing land in or near floodplains; planning guidance ensures that great care is taken over the management of flood risk and surface water run-off. Yet there is often a disconnect in England between the treatment of discharge rates for development and the need to relate discharge control to reflect catchment characteristics. Put simply, a 'one-size-fits-all' approach needs to change, so that discharge control and storage provision can be optimised across the whole catchment to minimise flooding. This may mean that full attenuation is required at the upper part but is reduced moving down the catchment. Attenuating the discharge into large water bodies, such as the sea, may not be necessary at all.

This approach, with agencies such as water companies playing a pivotal role, would significantly alleviate the pressure on vulnerable settlements. The problem of flooding is complex, but there is much that can be done to mitigate risk on a catchment-wide basis, by adjusting the storage/discharge regime, depending on the location within a catchment.

Use of SuDS

The adoption of sustainable urban drainage systems (SuDS) is but one part of our armoury against flooding. SuDS land take is greater than with piped systems and the challenge of maintaining natural elements, such as swales and ponds, is often prohibitively expensive. At a local level, we should espouse the principle of SuDS, but it may not be appropriate for large-scale management of flooding, which requires strategic defences and storage capacity for attenuation schemes. The reluctance of sewerage undertakers to maintain SuDS schemes, or to accept responsibility, makes it a solution which is vulnerable in the longer term.

I would welcome a debate amongst policy makers, water companies and engineers on the merits of appropriate, retention-based, catchment-wide approaches. Engineers, working with property developers, have successfully taken on and overcome challenges of similar proportions in the past. The political, commercial and infrastructure environment, to ensure discharge is controlled and appropriately channelled, also needs underpinning by systems design and engineering know-how capable of supporting the wider objectives.

Motion's infrastructure design team has many years of experience providing pragmatic advice to help a wide range of clients manage the complex interrelation of property development, drainage and flood risk.

Call 01483 531300 to speak to an expert.



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STRENGTH IN MOTION

Team Motion got down and dirty in the Berkeley Homes Mud Run in September. Shaun Cregeen, Joe Earp, Calum McGoff, David McMurtry and Jason Morgans took on this strenuous assault course at Henfold Lakes in Dorking.

The team joined property development professionals from across southern England to compete in the challenge. The event raised money for MERU, a charity that designs and manufactures life-changing specialist equipment for children and young people with disabilities.

© Simon Winson, Berkeley Group



Ecological measures aid eel migration

The survival of a critically endangered species is being helped by a programme of innovative improvements managed by Motion. The Lower Severn Internal Drainage Board (LSIDB) must meet the requirements of the Eels (England and Wales) Regulations 2009. The legislation grants implementation powers to the Environment Agency (EA) and places obligations on all drainage boards, water authorities and private individuals, for water management and abstraction.

Getting the eels in motion

It is estimated that glass eel numbers have fallen across Europe to less than five per cent of levels recorded in the 1980s. The LSIDB's six land drainage pumping stations form a barrier to eel migration. To comply with the regulations, the LSIDB must enable eels to bypass the pumps when travelling upstream and install fish-friendly pumps, to allow adult eels to return safely to the River Severn.

© Hidrostral

James Thomas, Civil Engineer at the LSIDB, explains, "We have wide-ranging biodiversity obligations, including weed and drainage channel clearance to maintain water courses. The eels presented a whole new challenge for us, but the innovative pump design will enable them to pass through unharmed."

Invaluable expertise

Motion is overseeing site surveys, hydraulic modelling, optimisation, and scheme design and specification through to delivery. The company is also obtaining the necessary consents from the relevant bodies and is responsible for tendering and contract management.

Director Richard Bettridge says, "The solution for each pumping station has been carefully honed through an iterative process. Individual drainage models for each station are established and then verified with actual events, before a number of options can be tested."

According to James Thomas, "It was a natural fit to engage Motion to manage the design and contract network for this project, as the company's expertise has proved invaluable to us in the past." James continues, "We needed to know we were in safe hands with a consultancy experienced in large, complex construction projects."



Motion Associate Director Julian Smith adds, "This initiative represents a significant investment by the LSIDB and demonstrates Motion's expertise in the areas of land drainage, infrastructure design and the management of capital infrastructure projects."

Work is complete at the first site at Saul, and the preliminary design phase is underway for the second at Elmore Back. The remaining stations are scheduled for upgrading over the next two years.



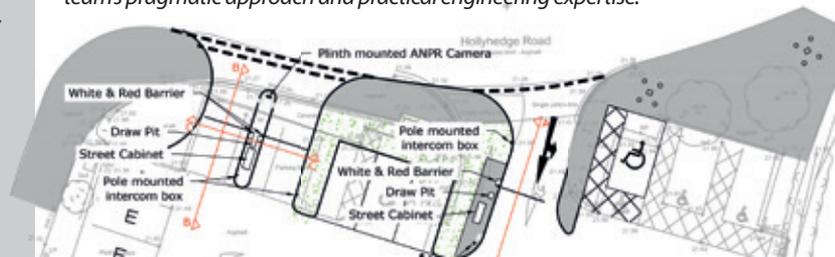
Engineering pragmatism enhances parking efficiency

Local shoppers will soon benefit from improved parking in central Cobham. Elmbridge Borough Council is implementing a range of measures designed to enhance the operation of the Hollyhedge Road car park, including reconfiguration of the existing layout and expansion into adjoining unused land. Relocation of blue badge and new electric vehicle bays will also help to maximise capacity and improve efficiency at the town's largest public car park.

Motion is providing civil engineering advice and design support for the project, including revision of the proposed entry and exit arrangements. Works also include installation of a barrier control mechanism with automatic number plate recognition (ANPR) technology.

Jonathan Dalley, Building Surveyor at Elmbridge Borough Council, explains, "Motion has responded well to our evolving requirements, adapting the designs at every stage. The company is quick to grasp the brief and delivers in an efficient and flexible manner."

Improved traffic circulation and adjustments to the long- and short-stay parking ratio will further enhance the use of the available land, providing an additional 30 spaces once the work is complete. According to Motion Director, Steve Giles, "This project has played to the team's pragmatic approach and practical engineering expertise."





Development potential unlocked by green travel measures

Sustainable travel options such as walking, cycling and using public transport must be considered at the earliest possible stage when designing a site access for new homes. Plans for a 105-unit development in Titchfield, Hampshire, have been awarded resolution to grant, with support from Motion's transport and travel planners. A new access onto the A27 from the site was approved by the highway authority, following successful negotiation by Reside Developments' team of expert consultants.

The scheme near Fareham aims to provide an environmentally sensitive, well-connected and inclusive development that is adaptable for future needs. Planning Director at Reside, Andrew Munton, explains, "One of the key challenges was ensuring easy access to local amenities and the railway station for future occupants of the site. During the planning process, account had to be taken of current proposals to dual the A27 Southampton Road carriageways. The Motion team adapted quickly to the changing requirements of the project, proving an effective negotiator with the county council."

Negotiation mastery

Hampshire County Council stipulated the site access be enhanced by sustainable travel modes. Pedestrian and cycle routes will be provided alongside the new vehicular access. A 3.5-metre shared pedestrian and cycle path will link the new homes to nearby Segensworth roundabout. A footway will run adjacent to the A27, to the Hambrooks garden centre, ensuring dedicated pedestrian routes north and south of the site. The proposals also included a signalised pedestrian crossing on the A27, to provide a direct link to amenities west of the site. Regular bus services will be available nearby. Swanwick railway station is located a short walk from Titchfield.

Motion concluded that the proposed development would not have a material impact on the local highway network. The company responded to queries raised by the highway authority, with revisions to travel planning proposals and provision of detailed technical notes. Associate Director David McMurtary adds, "Traffic signals will be reoptimised at nearby Segensworth and St Margarets roundabout junctions, as studies revealed they were operating near capacity during weekday peak hours."

Plans keep school in motion

An ambitious project is providing new and updated facilities for the City of London Freeman's School in Ashted Park, Surrey. Transport and travel planning support was delivered by Motion, as part of improvements to the quality and efficiency of the school's listed campus. The company continues to assist in delivering the long-term framework for the development of the school.

Proposals included the provision of an improved coach drop-off and collection lay-by. Adjustments to parking arrangements were recommended to provide a more efficient use of space and to relocate car parking away from the main academic buildings.

Successful collaboration

According to Andrew Shorten, Senior Project Manager, City of London Corporation, "The school site is set in 57 acres of green belt with a lack of public transport facilities. Due to the rural location, people are travelling to the school by car from a wide area, on narrow country lanes, resulting in high traffic pressure at peak drop-off and pick-up times. Motion applied expert knowledge to provide an objective assessment on traffic impact - their input was invaluable."

Motion Regional Director David Lewis adds, "We worked closely with the school to promote sustainable modes of transport and a safe walking and cycling route for students, teachers and visitors."

Motion continues to work with the school and contractors to ensure safe and efficient construction vehicle access. The first phase was completed in 2014 and included delivery of a new music school and a boarding house for 60 pupils. Marking the second phase, a new swimming pool building won a national RIBA Award. The refurbishment of the Grade II* listed main house and wider landscape improvements are currently underway.



Transport and infrastructure problem solvers celebrate 15-year milestone

Property developers have benefitted from fifteen years of specialist advice from Motion, to help turn their schemes into reality. Established in 2004 as a transport and travel planning consultancy, the company now offers a comprehensive service also including infrastructure design, flood-risk advice, drainage design and road-safety engineering. Today, Motion employs 40 professionals based in offices in London, Guildford and Reading.

Managing Director Phil Bell says, "A big thank-you is due to all our employees, clients, associates and partners who have supported us along the way." He continues, "The planning and development landscape

is constantly evolving, with sustainability, decarbonisation and the housing crisis all creating new challenges for transport planners and design engineers. I very much look forward to the next fifteen years."

If you would like to discover how Motion can help your next project, please get in touch with us on 01483 531300 or email us at info@motion.co.uk.

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motion 15 YEARS

Ask Motion – If you would value a preliminary discussion about the traffic, travel, infrastructure, drainage or flood risk issues associated with your development project, why not give us a call on 01483 531300?

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