



# transportation professional

## Cycling efforts shift up a gear in Manchester



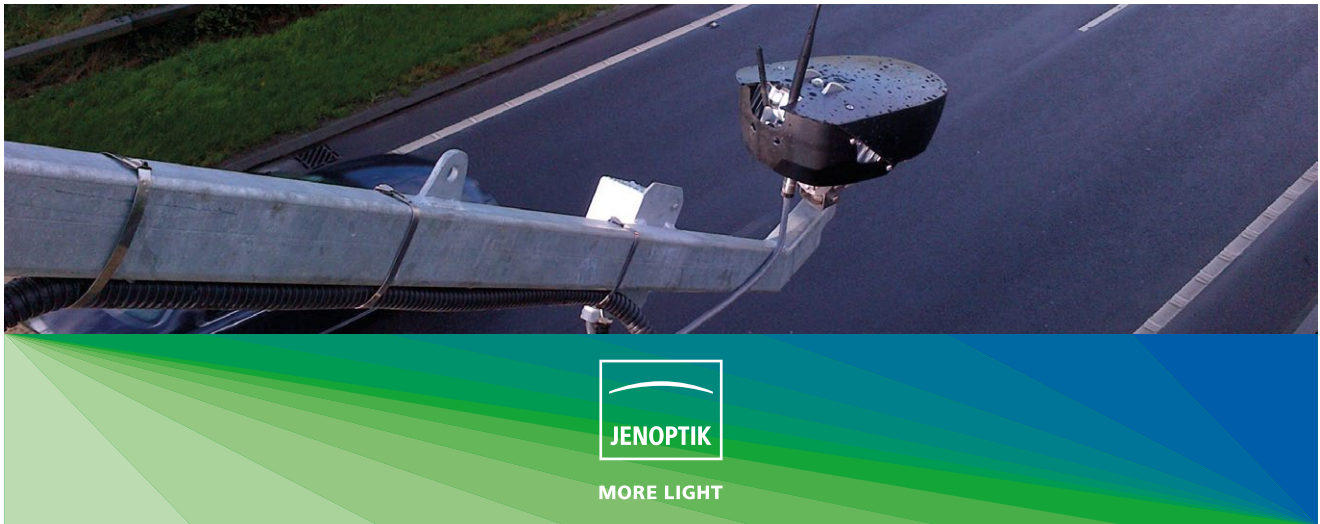
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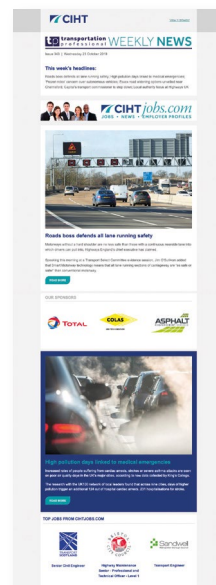
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**This issue's cover:** A cyclist uses a  
segregated cycleway in Manchester;  
a city with major active travel  
ambitions (see page 12).

COVER IMAGE: IRONBELL – SHUTTERSTOCK

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# Sector keeps going in spite of virus

Key transport infrastructure works including motorway and railway maintenance must continue throughout the Coronavirus pandemic, sector bosses have said.

Construction Industry Council chief executive Graham Watts commented that certain activities should carry on in the interests of public safety, including bridge inspections and making infrastructure safe – such as when a lorry hits a bridge.

But he also warned that construction sites should only remain open if the work is critical, where activities can be carried out in line with new site operating procedures, if the health of workers is not compromised and if they can travel safely to sites.

Civil Engineering Contractors' Association chief executive Alasdair Reisner said its members are working to scientific and medical advice from Public Health England and the industry's site operating procedures.

"Many sites have paused to ensure that they can adopt these measures in full. If they cannot, they will not reopen their sites," he said.

Highways England said in a statement to its key suppliers that construction schemes, as well as response and repair work, will – for the most part – continue 'as close to normal levels as all of the precautions will allow'.

Its chief executive Jim O'Sullivan wrote: "Connecting the country has never been more vital than now. Deliveries to supermarkets, the work of couriers delivering to homes, and



← Travel restrictions are in place for the public

GEMPHOTOGRAPHY  
– ISTOCK

helping medical personnel and supplies to move freely around the country are crucial to how the nation deals with the crisis."

The letter went on to say that 'social distancing' has been put into place where it can, such as traffic officers operating alone, but that even then, 'there will be safety critical tasks or interfaces with the public where it's just impossible'.

Jim added that responding to incidents such as bridge damage and diesel spills requires "the support of the recovery sector, the repair teams that work for our contractors, and the deeper supply chain too".

According to directors' group ADEPT, local highway work is set to continue. Engineering board chair Mark Stevens MCIHT said: "Everyone working in highway maintenance is performing a critical role for the nation."

Mark also said that highways depots and offices will remain open and potholes will continue to be filled "in order to keep the country going". He added that the group will be taking steps to ensure social distancing takes place.

On the railways, routine repairs and maintenance were continuing as *TP* went to press. Network Rail's managing director for the North West and Central region Tim Shoveller said: "We are continuing to plan carefully while supporting our railway colleagues, especially those in critical front line roles."

● CIHT's response to the pandemic is outlined on page 22. A section on the CIHT's website contains the latest news, updates and information. Visit [ciht.org.uk/coronavirus](https://ciht.org.uk/coronavirus)

## Active travel urged to help people stay healthy

More road space should be reallocated for walking and cycling to make social distancing easier and injuries less likely during the Coronavirus crisis, two transport academics have said.



↑ Dr Rachel Aldred says walking and cycling should be encouraged during the pandemic NINA HOLLINGTON

Dr Rachel Aldred MCIHT of the University of Westminster and Dr James Woodcock from the University of Cambridge added that following recent crowding on the Underground in London, there is an "urgent need to be supporting people to move on to bikes".

They were pleased that Government recognised that people need to go out and exercise, with the Prime Minister specifically mentioning walking and cycling in his address to the nation on 23 March when he announced restrictions on people's movement.

Rachel and James also support bicycle shops being allowed to stay open to provide repairs and equipment for new cyclists.

But they added that with green

spaces closing, this risks pushing people into fewer spaces.

The week prior to the travel restrictions, an open letter from over 100 transport and health researchers – including Rachel and James – pointed out that decisions to restrict people's movement to combat Covid-19 might harm health in other ways (see page 11).

'Confinement, sometimes in overcrowded accommodation with little or no private green space and particularly during times of anxiety has health risks', the letter said.

It also pointed out that active travel can be compatible with social distancing if people are responsible. 'Walking and cycling, particularly in green space, is good for mental as well as physical health', the letter continued.

Rachel, a reader in transport at Westminster, was asked by *TP* if the pandemic could persuade more people who previously used public transport to switch to active travel.

"Yes, I think it could although it will depend on the context; where public transport use is low there will be less scope for shifting, while in cities with high public transport use, there will be more scope," she said.

But Rachel added that the virus also presents the potential for a shift from public transport to cars if active travel is not seen as attractive or safe, or is actively discouraged.

"A shift from public transport to car will both reduce physical activity – because many people walk to take public transport – and could increase air pollution, which increases risks of respiratory disease."



← Maintenance of ageing structures is a significant priority  
EDDIE CLOUD – SHUTTERSTOCK

## Fresh focus on maintenance for second roads period

Investment in critical structures maintenance is set to increase substantially on the strategic road network over the next five years, including activity to repair or replace decades old bridges.

Highways England's second Road Investment Strategy (RIS2), which published in March, allocates £1.2Bn for three priority maintenance areas: structures renewal, safety barrier replacement and phasing out concrete road surfaces.

In particular, the document emphasises that many of the network's biggest structures are over 50 years old and will require a large quantity of work within the next decade, such as waterproofing, replacing bridge bearings and tackling salt corrosion.

Failure to maintain these assets 'would have serious consequences' it says, highlighting the collapse of the Ponte Morandi bridge in Genoa, Italy in summer 2018.

RAC Foundation director Steve Gooding welcomed the increased focus on maintenance. "If you don't look after the existing assets you are building a conservatory on a house where the roof is leaking," he said.

Imperial College London's transport strategy centre chair Roger Vickerman said historically, focus has been on expanding the network rather than maintaining it to a high standard. "Structures of a certain age are prone to collapse if you are not monitoring and maintaining them well," he added, noting that authorities have become more sensitive to the issue after the Ponte Morandi incident.

Independent consultant Richard Fish FCIHT, who specialises in bridges management, agreed that the Genoa collapse focused minds and said poor maintenance will generally be a significant factor in the collapse of structures. He welcomed the funding for bridge renewals under RIS2 but said: "as ever, the devil will be in the detail".

A further £2Bn is expected to be spent on more traditional renewal and maintenance

activities during the RIS2 period to 2025, including road resurfacing.

Key network expansion priorities for the £27.4Bn strategy include delivering the Lower Thames Crossing, the A303 Stonehenge tunnel, improvements to the trans-Pennine A66 in the north and the A46 Newark Bypass in the Midlands.

Proposed schemes which are notable by their absence from the strategy include the Oxford to Cambridge expressway and the trans-Pennine road tunnel to link Manchester and Sheffield.

The document highlights that development of the expressway has been 'paused' while work is



↑ Steve Gooding

undertaken to explore other potential options for the region. England's Economic Heartland programme director Martin Tugwell welcomed the pause.

"It is important that we continue to invest in our infrastructure and services in support of our economy and our communities," he said. "But it is also important that our investment choices deliver on the need to meet the requirement for net zero carbon emissions no later than 2050."

Meanwhile work is on going to establish whether the economic case for a trans-Pennine tunnel can be balanced with the need to protect the environment through the Peak District National Park. Steve Gooding described the scheme as "a bold option" but said it would be very expensive and offers uncertain benefits.

He added that action is also needed to tackle congestion on the south west quadrant of the M25, but emphasised that infrastructure solutions such as adding lanes to the motorway or building an outer route may be out of the question. However "more can be done to prevent the things that cause the jams", he said, including efforts to reduce breakdowns and encourage car sharing. **SD**

## Campaigners praise smart motorway changes

Actions announced to improve smart motorway safety which involve abolishing dynamic hard shoulders and spacing emergency refuge areas (ERAs) closer together have been welcomed by campaigners.

The moves – which also include speeding up the roll out of stopped vehicle detection technology – come following a 'stocktake' review of smart motorways commissioned by Transport Secretary Grant Shapps in the wake of public concerns.

Motoring group the AA's president Edmund King described the outcome as "a victory for common sense and safety".

"We applaud the current Transport Secretary for instigating the review and taking this issue very seriously," he said. "We believe the intention to place ERAs at every three quarters of a mile is a great outcome and what we have called for over the last decade."

Former roads minister Sir Mike Penning MP also welcomed the new safety commitments and said: "I have been clear never to call for the abolition of smart motorways.

"I have always believed, including when I first signed off on these designs as roads minister, that if they could be implemented in a way that is safe and reduced congestion, then they would be a welcome addition to the strategic road network.

"To that end, it is the right approach to seek safety improvements rather than the complete – and costly – abolition of smart motorways."



↑ Spacing of emergency areas is to be made closer **SD** HIGHWAYS ENGLAND





↑ Repair work beneath the M60 bridge over the River Mersey involves the use of temporary supports and hydraulic jacks (right) HIGHWAYS ENGLAND

## Column repairs lift bridge resilience

Continuing works to repair columns supporting a 200m motorway bridge over the River Mersey near Didsbury, south of Manchester, involve raising the carriageway up using hydraulic jacks.

Fifteen columns require maintenance beneath the Palatine road bridge, which carries the M60, as reinforcing steel inside the concrete had begun to rust. The first two were repaired last year and work began in March on two further columns at the eastern end of the structure.

Around 800t of motorway is lifted 5mm above each column using 44 remotely operated jacks before temporary propping structures are installed to support the carriageway while operatives carry out the works.

"The bridge over the Mersey has been there since the motorway first opened in 1974, and it's beginning to show its age," said Highways England's project manager Mark Mosley.

"The repairs will help keep the bridge safe for decades to come."

The scheme is being carried out in phases, with all repairs due to be completed by 2023. Motorists are able to continue driving over the bridge while the works are being carried out beneath.

The project's principal contractor is Balvac (Balfour Beatty) and specialist bridge contractor Mabey Hire was brought in to create the temporary structures.



ASPHALT INDUSTRY ALLIANCE

**Raising the alarm:** Condition of local roads continues to decline according to a survey of councils which reveals that, collectively, highway authorities in England and Wales face an £826M shortfall in their annual budgets for carriageway maintenance.

This represents an average shortfall of £4.9M per council, with the figure having risen by £1M since last year, and it is estimated that it would now cost £11.14Bn to get all roads into a reasonable, 'steady state', up from £9.79Bn in 2019.

The Asphalt Industry Alliance's latest Annual Local Authority Road Maintenance survey also says there are now 1770 more kilometres of roads in 'poor' structural condition, with less than five years of life remaining, than there were last year.

"Highway maintenance budgets have dropped back to where they were two years ago," said the AIA's chair Rick Green. "We have repeatedly seen this pattern of short term cash injections to stem accelerating decline, only to be followed by further years of underfunding."

## Contracts

**BEAR Scotland** and **Amey** have been named preferred bidders for Scotland's South East and South West trunk road maintenance contracts respectively.

**Balfour Beatty** has won a £63M contract from Highways England to deliver dualling upgrades along a stretch of the A19 north of Middlesbrough.

**Kier** will build a 5km dual carriageway bypass costing £150M to alleviate the congested A585 between Windy Harbour and Skippool in Lancashire.

**Ringway Jacobs** has secured a five year extension to its highway network management contract with Essex County Council.

**WSP** has been appointed by Devon County Council to provide engineering professional services to transport schemes across the county.

## CIHT 100

**New petrol and diesel vehicle sales will be banned from 2035.**  
**Do you think the public will be ready to fully embrace electric cars?**

**YES 48%**

There is growing momentum for change and it is entirely likely that battery capability will offer significantly improved journey ranges within 15 years.

**NO 52%**

Millions of car owners will still not have a safe place to park their vehicle and leave it charging overnight 15 years from now.

To join the CIHT 100 panel please email [mike@transportation-mag.com](mailto:mike@transportation-mag.com)  
This question can be responded to at [ciht.org.uk](http://ciht.org.uk) Also, see page 8.

# Autonomous vehicle trial mimics human driving traits

Development of autonomous cars that mimic human driving styles to ensure passengers feel comfortable and safe has made major steps forward.

The 'HumanDrive' project which concluded at the end of March included a near fully automated journey completed between testing facilities at Cranfield University in Bedfordshire and project leader Nissan's factory in Sunderland.

This 370km 'Grand Drive' saw an electric Nissan Leaf featuring various new technologies perform complex tasks including negotiating roundabouts and country lanes, recognising traffic signals, merging onto a motorway and changing lanes.

One important aim of the scheme was to explore how future vehicles can be made to feel as natural and 'humanistic' as possible, explained the manufacturer's project lead Bob Bateman. "We want to take autonomous driving from being like a robot taxi to an expert chauffeur," he said.



↑ Ellie Wooldridge

In addition to the Grand Drive, which took place in November, human factors research was carried out by academics from the University of Leeds, Cranfield University and the Connected Places Catapult to inform the autonomous driving systems developed.



← Using technology to emulate 'humanistic' driving was an aim NISSAN

Technology firm Hitachi also led test track trials of machine learning artificial intelligence systems that seek to emulate humanistic driving including when overtaking parked and moving vehicles.

Bob Bateman said urban and rural settings are where autonomous vehicles will need to perform most similarly to human drivers. "Cranfield to the M1 at junction 14 is winding roads with no kerbs or white lines.

"If you were trying to follow that route in a non humanistic way it would be very uncomfortable for the passenger. What we want to do is make them feel like the vehicle is driving like a safe human would do."

Connected Places Catapult senior human factors technologist Ellie Wooldridge added: "We don't want to design vehicles that drive completely differently to what someone might

accept today. Factors such as acceleration are important to having a comfortable ride and preventing motion sickness."

One aspect of the human factors work involved controlled trials to compare people's experiences in vehicles with a driver versus those navigating autonomously using technology developed for the project. Ellie said that most participants noticed little difference.

Bob Bateman said that outcomes of the project will help Nissan take forward its connected and autonomous vehicle ambitions. "There are a lot of technologies that we developed for HumanDrive that can be taken forward into next generation vehicles," he said.

The project involved 10 consortium partners and was funded through the Centre for Connected & Autonomous Vehicles and Innovate UK.

## Collaborative cars plot safe routes around collisions

Serious motorway incidents could be significantly reduced in years to come following the successful demonstration of technology that allows several autonomous cars to cooperatively decide on manoeuvres to avoid hazards ahead.

A recently completed project known as MuCCA – Multi-Car Collision Avoidance – tested how vehicles equipped with artificial intelligence and communicating over a radio link would deal with different accident scenarios.

Trials were carried out at the Bruntingthorpe proving ground in Leicestershire. Two cars were driven by safety drivers towards an 'incident' using dummy obstacles,

before control was handed over to the autonomous driving system.

When the technology in the vehicles detects an incident, the cars share information and on board computers pre-emptively and collaboratively calculate the best manoeuvres to avoid collision.

Each then safely steers an agreed path around the hazards, while ensuring not to collide with each other and removing the need to brake suddenly.

"This is the first time anyone has demonstrated full size cars working cooperatively together so they move as one," said MuCCA technical lead Charlie Wartnaby of the project's lead partner Applus Idiada.

In future, many vehicles on the road could be connected and the implication of that, Charlie added, is that they can work together for cooperative collision avoidance. "We hope to be able to avoid accidents that no individual car, be it human driven or robot, could avoid by itself."

The project focused on motorways – where incidents are less frequent but can be particularly severe – and the technical challenge of evading obstacles at high speed.

"In an urban environment when the speed is low, if a potential accident is threatening the best thing to do is just brake," said Charlie.

"On motorways the speeds are higher, the braking distances are



CONNECTED PLACES CATAPULT

↑ Cars cooperate to evade obstacles

longer and steering round hazards becomes more important. That makes it much more interesting to have vehicles cooperating."

The project also used simulated trials to develop a machine learning prediction model that could allow MuCCA equipped vehicles to anticipate the likely behaviour of human driven cars in the vicinity of an accident. **SD**



## New petrol and diesel vehicle sales will be banned from 2035. Do you think the public will be ready to fully embrace electric cars?

### Yes



**Glenn Higgs FCIHT**  
Technical director  
Transport planning, WSP

Electric vehicles currently only make up a small proportion of all vehicles, but annual sales are increasing quickly.

This has been achieved despite many constraints: the still relatively high price of electric vehicles, low availability, gaps in charging provision and recharging networks that don't join up.

And only very recently are we starting to get vehicles whose range compares to that of an

internal combustion engine. But attitudes are changing very quickly.

People know friends and family who have electric vehicles, which is a game changer in terms of familiarity and trust. Cars are also not the status symbols they once were; younger people have other interests and options for travel and are much more environmentally aware.

Standards and legislation are coming into play which means that more new developments must have charging points.

In the next few years, charge point operators must comply with standards and protocols on sharing data to provide a common interface to the public.

Clean air and zero emission zones are being rolled out around the country which will affect people's daily lives in five years' time, as well as deliveries

in towns and cities, taxis and private hire vehicles.

Parents with young families whose cars are needed for a wide variety of trips, those who don't have off street parking and people who can't afford to lease or buy an expensive new car may need more convincing.

These are the groups that need most certainty when and where they stop to refuel. But battery range is improving quickly so these concerns will soon be allayed.

In the lead up to 2035, cars will have the range to meet our needs and will be comparable in cost to traditional vehicles. Electric vehicle charging options and charging behaviour will have become established.

Those who are still using internal combustion engine vehicles and who are reluctant to switch will merely be seen as hobbyists.

### No



**Ali Ataie MCIHT**  
Director  
Arcian Consulting

First and foremost I am fully supportive of electric cars, but at the same time I recognise that we need to decrease our reliance on private cars of all forms.

Our streets are gridlocked and many of the short journeys can be done by public transport or other forms of sustainable transport.

We must build a better infrastructure for sustainable transport in parallel with

tackling vehicle emissions.

While electric vehicle registrations in the UK are increasing, there is serious concern as to whether our power grid is ready for this.

Many businesses around the country are held up by power network operators and in short, our power network as it stands is not fit for purpose.

Local authorities, who are responsible for providing charging points on the highway as well as at petrol stations and for major businesses, are at the mercy of the National Grid.

At present the efforts of Government to encourage electric vehicles among the industry and the masses appears to be falling short.

The infrastructure for e-cars does not seem to be nationally coordinated by any Government agency.

A further obstacle to this ambitious plan is the battery technology for e-cars and convincing people to switch, without the guarantee that their vehicles would be fit for long journeys.

Installation of electric vehicle infrastructure is a costly exercise – in particular for rural areas – and requires billions of pounds worth of investment, which at present doesn't seem to have been fully budgeted by the Government.

While the optimist in me would like to think, yes, it will all be in place by 2035, I am far from convinced that we will be ready, even though I would be glad to see it happening.

Given that our Government is going to ban petrol and diesel vehicle sales from 2035, I would have expected a little more effort.

### Silviya Barrett



**Job title** – Head of policy, research and projects, Campaign for Better Transport

**Terms of reference** – I am responsible for building a policy and research programme to identify local and national sustainable transport solutions, and lead on project delivery.

**Suitability for the job** – I have worked in transport and environment policy for a number of years and authored several research reports on how we can achieve a shift towards sustainable transport during my time with the think tank Centre for London.

**Where based** – Farringdon, London

**Transport to work** – I used to commute by Tube but the Coronavirus has been a catalyst for me to cycle more.

**Top of in-tray** – Picking up on going projects and planning proposals for new projects.

**Best aspect of job** – Working with Government and stakeholders to shape policy and practice, and seeing your work making a difference on the ground.

**Worst aspect** – Sometimes it is difficult to change entrenched views, despite solid evidence.

**What is the most important transport issue today?** Improving walking and cycling provision and making travelling by public and shared transport easier, faster and cheaper than a private car. This requires the right Government support and price signals.

**How do you relax?** Playing with my kids and trying to carve out some time for myself.

**What advice would you give to your younger self?** Pursue your dreams and believe in yourself.

**Ambition** – To build a strong policy and research team, deliver impactful projects and to ensure the Campaign for Better Transport goes from strength to strength.





**The Highway Engineer** was the first journal of the Institution of Highway Engineers. It was followed in later years by *Highways & Transportation* magazine and *Transportation Professional*. Here are extracts of stories published in the journals 10, 25, 50 and 75 years ago.

### 10 years ago

Governments both present and future must consider greater stability when appointing Ministers to the Department for Transport, according to a Transport Select Committee report. The Department has had five Secretaries of State in five years, and the report says the DfT 'should not be used merely as a rung on the Ministerial ladder'.

"Frequent changes of Minister make it harder to develop a consistent approach to managing and developing our transport systems," said committee chair Louise Ellman. "Any company that changed its chief executive as frequently as the DfT would be viewed with suspicion by shareholders."

### 25 years ago

New planning policies designed to encourage commercial and housing development in the centre of towns and cities will increase urban road use and must be catered for, says the British Road Federation. "No one can disagree with the need for improve public transport," said its director Richard Diment. "But it is unrealistic to plan for less private road traffic on a town, city or conurbation wide basis."

He added: "It is likely to be possible to expand the use of traffic free areas, though these will require the provision of adequate routes for through traffic."

### 50 years ago

Few highway engineers need to be reminded that one of the cheapest ways to reduce accidents is to provide an adequate system of road lighting, wrote Lancashire County Council's assistant county surveyor K T O Cox.

Findings of the Road Research Laboratory in this respect are now widely known: that good lighting saves 50% of after dark fatalities and 30% of all night time casualties.

It is no doubt for this reason – not because the highway engineer's budget is unlimited – that many highway authorities have become more 'lighting conscious' in recent years.

### 75 years ago

A transport system cannot be made to work if, in addition to being expensive, food and wood fuel is periodically left to rot on the ground because transporting them to market is so dear, wrote Lieutenant-Colonel Mervyn O'Gorman.

One cause of this is that the motor vehicles that would easily bring goods to market are discouraged by intense taxation. The amount that vehicles are taxed is well in excess of what is necessary to pay for the upkeep of roads, to the tune of around £50M a year. The loser is the public.

## Working from home



Sweeping new restrictions on the movement of British people to help tackle the spread of Coronavirus appeared to receive the immediate backing of a vast majority of the public.

A snap poll of 2788 adults conducted by YouGov on 24 March found 76% in strong support of the Prime Minister's announcement the previous evening that Britons are only allowed to leave their homes to shop for basic necessities, exercise once a day, collect medicines or provide care and travel to work where it is absolutely necessary. A further 17% 'somewhat supported' the measures, with only 4% opposed and 3% not sure.

People who can work from home are strongly encouraged to do so. Many of the conversations I exchanged – either by phone or video conferencing – in the first few days since moving my computer and copious files from a large office to my small box room began with a cheery acknowledgement of the unusual situation that we all now find ourselves in.

For the moment the restrictions are manageable. In a few weeks, working with limited legroom and not much of a view may, I fear, start to grate.

But knowing that I'm doing my bit – along with millions of others – to change a daily routine for the common good, to help delay the spread of the disease, makes the sacrifice worthwhile.

Pity the poor people, however, who were pictured packed shoulder to shoulder on Tube trains in London the day after the travel restrictions were announced, as well as on several mainline train services. I'm sure that the vast majority were only travelling because they had no other choice, and commuters will have included nurses and other key workers who so many of us may be relying on over the coming months.

But with the Chancellor having guaranteed 80% of wages to workers who lose their jobs due to the pandemic, how about the state also paying for taxis to pick up and take healthcare professionals without access to a car to and from work? They will have to share a vehicle with a driver, of course, but better that than risking their health on packed public transport.

For those of us who do manage to venture outside, we are encouraged to practice 'social distancing' by maintaining a 2m gap between ourselves and others who do not live in the same household. Rounding a tight corner from my street earlier today, I had to swerve to avoid someone walking towards me. And where I can see ahead more clearly, I've stepped off the footway and into the road several times to avoid getting too close to other people.

What impact, I wonder, could this sort of behaviour have on the safety of pedestrians? Drivers will need to watch out and slow down when passing people on the footway who may do something similar to me.

Over the coming months we will do all we can to bring you *Transportation Professional* and *TP Weekly News*. Have a look at the new column introduced to our Events page which promotes webinars, and CIHT will be offering more online services to members as well.

Over the next few editions, we will ask what Coronavirus might mean for the transport sector and mobility in the medium to longer term, and look at what impact new behaviours such as a move to greater working from home (if more people find they enjoy the experience) may have on the need for major projects.

I am particularly keen to hear from readers who would like to share their stories about how they are getting on with the restrictions on movement, either personally or professionally. As ever, feel free to get in touch. Stay safe everyone.

**Mike Walter, Editor**



**Transportation Professional welcomes letters from readers on all subjects raised by the magazine and about any other transportation issue. Please keep your letters brief and include your CIHT designation, if applicable. The Editor reserves the right to condense.**

Address your letters to: [mike@transportation-mag.com](mailto:mike@transportation-mag.com) or write to: The Editor, Transportation Professional, 7 Linden Close, Tunbridge Wells, Kent TN4 8HH or use Twitter: @CIHTUK

### Electric vehicle charging challenges

In its apparent commitment to electric cars, the Government does not appear to have considered many of the implications of their introduction. Firstly, the practical problems of providing charging to motorists without off street parking, those with insufficient off street parking or living in blocks of flats.

Secondly, the disruption caused by works to install chargers on pavements and shared areas. Thirdly, the labour force and skills required: will more electricians need to be trained?

And fourthly, will the equipment needed for the connections be available and will there be a standard form?

Clearly we will want British factories to manufacture the equipment, but will they require grant aid and even the possibility of the state being in partnership so as to direct the work to areas of unemployment? This should be possible now that we can control our own decisions.

There is also the question of how authorities are going to oversee the



← On street chargers are not available to all

PHAUSTOV – SHUTTERSTOCK

installation, the permission required by property owners to carry out works on the public highway and the inspection necessary to ensure the acceptable quality of the works.

There is also the question of pedestrian safety when footways and shared areas are being dug up.

**B H Rowlands MCIHT**

*Heol Y Bryn, Rhiwbina, Cardiff*

### Airport location and developing additional capacity

If Covid-19 does not permanently remove the impetus towards growth of air travel, quashing the third runway proposal at Heathrow raises again the question of where should our major international airport(s) be situated.

Heathrow must be unique in having, with the prevailing westerly wind, a main approach 50km long over a densely inhabited area, its air pollution blowing back over the same area and perennially inadequate surface links.



↑ Where best to site a new airport?

STEVE HEAP – SHUTTERSTOCK

Gatwick could benefit from a second runway but it and Manchester are really regional airports.

Development of Manston in Kent has been suggested, but at 120km away on the wrong side of London for most of the country, it is hardly realistic.

Stansted at 70km lies in the cleft of two motorways limiting its scope for expansion. Luton on its small plateau cannot be extended. The obvious site would be one within easy reach of High Speed 2 and mainline routes.

A new airport between Milton Keynes and Cranfield would be centrally located although it would require significant levelling of land that slopes down to the south west.

Failing that, there are relatively flat areas near Cublington north of Aylesbury, and near Aynho or Heyford between Bicester and Banbury. These are all slightly elevated over 100 metres and I have found no information on the prevalence of fog.

**Nicholas B Taylor FCIHT**

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### Looking after our road environment

Driving through the Midlands recently, I noticed lots of rubbish beside the highway. Coming from overseas, it makes me very sad to think that we are not proud as a nation and I also wondered if the maintaining agent of the road is picking up this issue and properly examining its network or just relying on calls and complaints from the public.

There is also an issue with road sign cleanliness. I see a great deal of road signs covered in mildew and sometimes I'm not able to read them in full as the signs are obscured by the lack of hedgerow maintenance.

Add this to a further lapse in the maintenance of pavement markings and I sometimes have to guess where the centre line markings are. Also, with the new LED headlamps on some modern vehicles being so bright, I may have to resort to wearing night driving goggles to ensure I am not blinded.

**Patrick Brogan MCIHT**

*Project director, Atkins*

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↑ Cleanliness of road signs is sometimes a problem

KEITH BATH – SHUTTERSTOCK



## Green waves and traffic flow

In the last issue, Ian Lawson quoted from a 1965 publication that linking traffic signals is “sometimes called the green wave system”. Sorry, but linking signals and creating green waves are in no way synonyms.

Traffic signals obviously have to be linked to allow green waves. But today’s most well known traffic control system SCOOT sets out to link urban signals, not with the slightest intention of creating green waves and instead following totally different criteria.

**Christiane Bielefeldt FCIHT**

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## Researchers urge Government to enable safe walking and cycling during pandemic

As public health and transport researchers we fully support individuals, communities and governments taking rapid and effective action against the growing pandemic of Covid-19. We recognise the importance of social distancing, with particular need to protect the most vulnerable.

During this, however, all of our existing social and health risks do not simply go away. At present, walking and cycling make a large contribution to physical activity. In a rapidly escalating situation, policy could be adopted that largely confines the general asymptomatic population to their homes, potentially for some time.

Confinement, sometimes in overcrowded accommodation with little or no private green space, and particularly during times of anxiety has health risks.

Walking and cycling, particularly in green space, is good for mental as well as physical health. People should be encouraged to exercise at home, but for most of us it is unlikely that this will replace the walking and cycling we do outdoors.

Social distancing will make many sports and gym based exercise impossible. However, walking and cycling can be compatible with social distancing, if people are responsible.

For shopping, and for those who still need to commute, walking and cycling should be supported. Thus we call on decision makers to protect the right to walk and cycle safely (from risk of infection and traffic injury) for those who are not symptomatic.

**Dr James Woodcock, Dr Rachel Aldred and more than 100 other signatories**

To view the letter in full visit [tinyurl.com/s3j2qsk](https://tinyurl.com/s3j2qsk)

Also, see page 4.



← Bus Users' chief executive Claire Walters says services are a lifeline for many people

## Looking out for bus passenger needs

Claire Walters sighs as she studies the printed timetables beside a bus stop outside Tunbridge Wells railway station in Kent. “The writing is very small and there is a different layout and font for each service,” she says. “If I had never taken a bus before, this might put me off.”

As you may have suspected, Claire is not your average traveller. She is the chief executive of passenger group Bus Users which campaigns for better bus services, particularly in rural areas.

I’m keen to find out how good or otherwise Claire finds the services in my local area, so we board the first of three buses that morning: a single decker towards a nearby village. Having recently taken a bus in London, I instinctively present my bank card to what I thought was a contactless payment terminal. But the driver only accepted cash.

We spot a couple of empty seats towards the back and – as the bus pulled away – Claire pointed out that she would have liked the driver to have waited until we had sat down before moving off. She was also disappointed to see strips of duct tape used to patch up a damaged seat.

I ask Claire about payment options on buses. She says that while contactless is convenient for some, cash transactions should be allowed. “Not everybody wants to or is able to use contactless and those in debt are told to use cash so they can better manage their finances,” she says. “It’s important to remember the word ‘bus’ is derived from ‘omnibus’, which means ‘for everyone’.”

As we near our stop, I press the call button to alert the driver of our intention to leave. Claire said she would not have known where we were, as there was no electronic sign or audible announcement.

We cross the road to catch a bus back into town and wait inside a wooden shelter as it started to rain. But the printed timetable was outside of the shelter and there was no window

in the structure to allow you to see if a service is coming towards you. The only way to check was to stand up and stick your head out into the rain.

On board bus number two, Claire was pleased to see bright orange handrails to help the visually impaired. But she also noticed that a poster advertising a bus stop closure was out of date.

When it comes to public transport, Claire says that “first impressions are crucial” and drivers should see themselves as ambassadors for the operator, greeting everyone as they board. “The very least you should expect is for vehicles to be clean and presentable and for friendly drivers.

“One bad experience can put you off and a lot for people judge buses from their early experiences at school. But buses have changed considerably and many are punctual, reliable, affordable and accessible.”

Claire tells me that rail replacement services represent “a missed opportunity” for those bus operators who supply poor looking vehicles. Instead, they should showcase “their very best vehicles” to show commuters what travelling by bus can be like. “Supplying poor vehicles will not encourage future commuters who are already furious because their train is not running.”

We board a third bus to another village which Claire noted was clean inside, but rattled loudly when slowing down. “Passengers shouldn’t have to put up with that; you wouldn’t buy a car if it sounded like that.”

But make no mistake; Claire is a great advocate of buses, which she says are vitally important to society and provide a lifeline to many people. She is pleased with progress to make modern vehicles less polluting and adds that bus travel should be viewed in the context of ‘active travel’, because most passengers get exercise walking to and from a bus stop.

“We want to see more people helping to reduce congestion and pollution by taking the bus,” says Claire. **MW**



↑ Better routes for cycling and walking will be delivered across Greater Manchester under the Bee Network plans TFGM

# Active travel ambitions create a buzz in northern city

Plans to create a comprehensive network for cycling and walking are being pushed forward with vigour in Manchester and its surrounding areas, reports Steve Dale.

Significant cultural change could be on the cards in Greater Manchester where efforts to end the dominance of cars and see far more journeys by bicycle and on foot sit at the heart of the city region's transport policy.

Central to these ambitions is a plan to establish a 2900km network of cycling and walking routes – known as the Bee Network – which is thought to represent the largest active travel investment plan in the country.

A 10 year programme of infrastructure improvements is proposed, worth an estimated £1.5Bn, with plans currently in development for 82 individual projects representing an investment of £500M.

Protected spaces will be installed along main road corridors and in town centres, thousands of safe crossings of busy roads and other severance points created and 'filtered'



*"This is about normal people, in normal clothes, doing normal things."*  
Chris Boardman

neighbourhoods established where active modes have priority.

The initiative is spearheaded by Greater Manchester's Cycling & Walking Commissioner Chris Boardman, famous for winning gold in the cycling individual pursuit at the 1992 Olympic Games in Barcelona.

"The purpose of this entire venture is to give people an option to get around without having to drive," says Chris, who describes busy roads and particularly junctions as the biggest barriers to active travel, which result in many people using their car for short trips.

"Thirty percent of journeys in cars are less than a kilometre. For the vast majority of journeys we don't need cars but we have got used to them and the environment has become self fulfilling; it is hostile to everything else.

"We need to dig ourselves out of that and that is what we are doing."

The Greater Manchester Combined Authority has a target for at least 50% of all trips to be made by sustainable modes by 2040. This, explains Chris, is required to meet the region's wider goals on congestion, pollution, health and the climate.

He also wants to bring about a fundamental change in the way streets are prioritised and used. "In 10 years' time, the goal is we won't have a cycling and walking budget; prioritising active modes will just be how we do streets – that's culture change."

The first Bee Network scheme opened last summer to improve a stretch of the Bridgewater Canal towpath in Astley, west of Manchester. The 82 schemes currently in the pipeline will enable 675km of the network but additional funding is needed to deliver them.

Of the £500M required over the next four years there is a funding gap of £215M, with £160M having been allocated from the Government's Transforming Cities Fund and the rest coming from local contributions.

Scheme identification and



# West Yorkshire's sustainable journey success



↑ Cycling numbers are on the rise in the region

Cycle infrastructure improvements are making a difference in West Yorkshire where 67km of new and improved active travel routes have been delivered through the combined authority's City Connect programme.

"The case for making more journeys by bike and on foot has never been stronger," says West Yorkshire Combined Authority's transport committee chair Kim Groves. She explains that two thirds of journeys in the region are under 8km and one in 20 deaths are attributable to air pollution.

The region aims to increase cycling levels threefold by 2027. Its flagship 23km Bradford to Leeds Cycle Superhighway project has now been used for well over a million trips since it opened four years ago. An eastern leg has since opened from Leeds to Seacroft as well as an additional 4km of segregated route in

the city centre to link the two sections.

According to Kim, 61% of local cyclists say their confidence on a bike has increased as a result of the segregated routes. "This is just the beginning and we need continued investment over the long term to build on this success," she adds.

Further initiatives opened in the area recently include a 2.3km Bradford Canal Road cycleway. Canal towpath upgrades are also being delivered including one alongside the Rochdale Canal from Sowerby Bridge to Todmorden.

Another ongoing scheme is the Castleford to Wakefield Greenway alongside the River Calder, to the south of Leeds, where a 16km off road and traffic free route is being created by delivering missing links in existing active travel infrastructure.

delivery are undertaken by Greater Manchester's 10 local authorities with support from Transport for Greater Manchester and the Cycling & Walking Commissioner.

Authorities have employed an inclusive design process to develop their Bee Network proposals, running sessions with local communities to give them a meaningful say and ensure schemes are right for their needs. The first draft of the network was based on outcomes from these sessions.

"It is very powerful when you say to communities, 'the control is yours'. We have found that people want change if you give them the choice," says Chris. "It's a fear of losing control and having no say – when you start to enforce behaviour – that gets people in uproar."

Several of the Bee Network schemes are now going through consultation and 17 filtered neighbourhoods are being designed in conjunction with residents. Chris highlights the importance of creating examples for other areas to follow. "I believe it will spread exponentially once you do that," he says.

Projects shortly expected to begin on site include bridge renewals for the benefit of cyclists and walkers in Oldham and the extension of a two way cycle track in Wigan.

New design standards have also been introduced for active infrastructure, based on a principle >



## Did you know?

The Bee Network is named after the worker bee – an emblem of Manchester.



↑ Construction of a 'Dutch style' roundabout is expected to complete this summer

## Dutch makeover in Cambridge

Safer cycling journeys are promised at an accident blackspot to the south of Cambridge where a Dutch style roundabout is under construction.

The busy four arm roundabout on the city's inner ring road – located close to Addenbrooke's Hospital and the Cambridge biomedical campus – is being upgraded based on a standard Dutch design.

Cyclists will use an orbital cycle lane to segregate them from traffic, while zebra crossings are being installed on each arm for pedestrians. The cycleway is segregated by large islands on each quarter of the roundabout, which are now complete.

Cambridgeshire County Council's

cycling team leader Grant Weller says:

"This was classified as a cluster site for accidents and that is generally down to the wide roads leading into the roundabout and the high speeds that cars can travel around. We are tightening the geometry on the entrances and exits to encourage slower speeds."

The project is set to open this summer and Grant hopes it will help enable more people to choose sustainable travel in the area.

"The desire would be to roll out this design on many other roundabouts with safety issues," he adds. "We will be monitoring this scheme for many months afterwards to gauge if it has been successful."

# Manchester pioneers a safer cycle junction

Roll out of an innovative new junction design to improve cyclist safety and break down barriers to active journeys forms an important part of Greater Manchester's Bee Network plans.

A key focus is to remove points of severance – which are said to put people off taking more active modes – and make it easier to navigate busy traffic interchanges on two wheels.

This has led to development by Transport for Greater Manchester of the CYCLOPS junction design, which stands for Cycle Optimised Protected Signals.

The design involves establishing a cycle 'roundabout' for those on two wheels to travel clockwise around a signalised junction. Pedestrians make an informal crossing of the cycle lane before waiting on an island for the green man to show.

All active users move on a single crossing phase, allowing cyclists to safely make a two stage right turn without having pass in front of oncoming traffic.

The first such junction is being delivered at an interchange of Chorlton Road and Royce Road in Hulme by Manchester City Council, and will open shortly. It forms part of a planned segregated cycling route from Chorlton to the city centre.

One of the system's designers – Dave Stevens



↑ An artist's impression of the Chorlton Road / Royce Road CYCLOPS junction design TFGM

of TfGM's infrastructure support team – says a key challenge in developing CYCLOPS was getting pedestrians and cyclists to cross during a single phase and still comply with UK regulations.

On the Continent, he explains, a 'give way on turning' rule often allows cyclists to turn when motorists are shown a red light, but they must yield to crossing pedestrians. This rule does not apply in the UK.

"Our green man is sacrosanct," says Dave. A different approach to the typical 'Dutch style' junction was therefore required that sees cyclists move around the outside of pedestrians, rather than on the inside. "It is trying to be intuitive for users," he adds. "We now have a design philosophy that can be rolled out across the region." Around 25 new CYCLOPS junctions are currently in the pipeline in Greater Manchester.

> that cycling routes must be easy and safe to use for a competent 12 year old. Walking environments must meet the 'double buggy' test.

"Those are our yardsticks and we will be measuring everything against them," says Chris. "This is about normal people, in normal clothes, doing normal things. When you see parents with kids on cargo bikes taking them to school, you know you are winning."

The standards are incorporated within a new Streets for All check system, allowing schemes to be assessed before their business cases are approved. Design guidance is in development to provide technical advice on highway engineering.

Transport for Greater Manchester also plans to ramp up activity on behaviour change initiatives and introduce a new bicycle hire scheme.



**"Cycling and walking return more than any other transport investment."**  
Andy Burnham

A clean air zone covering all 10 authorities is set to come into force next year.

It is thought that delivery of the Bee Network will deliver £6Bn worth of benefits, which could rise another £1Bn by applying monetary value to quality of life improvements.

Mayor of Greater Manchester Andy Burnham told an active travel summit in the city last month that spending on cycling and walking returns more than any other form of transport investment, bringing physical and mental health benefits as well as boosting the economy, improving the environment and cleaning the air.

He also urged a major reform of public transport to help break the current culture of car dependency and help to encourage active journeys.

"If people don't see public transport as their first port of call – but actually see the car as the most reliable and affordable way of getting around – you are taking away their opportunity to do the first and last mile using active travel," he remarked.



← Safe crossings are being created for vulnerable users



# Steering clear of distraction when driving



↑ Speaking on a mobile phone can limit the ability of a motorist to spot hazards in their peripheral vision LEOLINTANG – SHUTTERSTOCK

**Driving is a complex task made more difficult if talking on a mobile phone. New research will reveal the extent to which distraction can be dangerous.**

**M**otorists caught using a mobile phone should face a mandatory driving ban, according to an academic whose latest research into distraction shows that engaging in a telephone conversation restricts your field of view.

Dr Graham Hole, a senior lecturer in psychology from the University of Sussex runs driving simulations that use eye tracking software to monitor exactly where a participant's attention is focused.

He and his team have found that driver 'fixations' – or the direction in which they stare – tend to remain front



***"You cannot successfully and safely combine driving and using a mobile phone."***  
Graham Hole

and centre when talking on a mobile, rather than across a wider field of view. This narrowing of attention means that motorists are less likely to spot hazards taking place on the periphery of their vision.

It has also been found that motorists engaged in a telephone conversation are more likely to look directly at a hazard but then fail to respond to it.

"Safe driving involves hazard perception and requires thought," says Graham. "If you have two complex tasks: driving and using a mobile phone, you cannot successfully and safely combine the two.

"Penalties should become harsher to reflect the fact that using a mobile is driving without due care and attention and I would see no reason for not introducing a mandatory driving ban." But that would only be part of the solution, he added.

"When I was a child, it was socially acceptable to drink and drive and there was a huge outcry when Barbara Castle brought in the breathalyser and drink drive legislation. It was massively unpopular but it worked and over time drink driving became socially unacceptable. I hope the same happens with mobile phones."

Graham points out that talking on a hands free mobile is just as dangerous as holding a phone, especially for work conversations which tend to involve

problem solving, remembering what was said and planning a response.

Talking with a passenger is said to be generally fine, however, if the other person picks up on subtle non verbal clues and moderates their conversation if they spot hazards ahead.

One recent finding that did surprise Graham was that motorists who overheard a mobile conversation were not as distracted as if they were interacting with a call themselves, causing little effect on eye movement.

Another road safety problem aside from using mobiles is motorists who emerge from junctions but fail to spot motorcyclists or cyclists because they are not expecting to see them, looking out instead for cars. "One solution is for drivers to engage in better and more careful scanning of the road and trying to overcome the very powerful effect of their expectations," Graham explains.

Further eye scanning tests have shown that a driver's ability to detect a stationary police vehicle up ahead is improved if the car is positioned at 45° rather than in line with the traffic. Seeing a car parked at an angle "violates your expectations" and means an approaching driver is more likely to notice it, Graham adds.

But only if the driver is not using a mobile. "Of five people who missed the car and failed to respond in one test, four of them were using a phone." **MW**



↑ Graham Hole taking part in an eye tracking test



# Contractors poised for an upturn in project spending



↑ High speed trains running between Birmingham and London promise to help rebalance the nation's economy HS2

## Major transport infrastructure schemes coming into view look set to give the contracting sector a much needed boost.

**G**overnment's approval of High Speed 2 sets contractors up for a promising decade ahead, with firms also looking forward a series of other major rail and road projects.

But the need to cut carbon emissions and manage the impact of Britain's departure from the European Union remain key challenges. Representatives from the Civil Engineering Contractors Association's (CECA) public affairs group discussed future prospects with TP in February.

"Government's announcement on High Speed 2 brings incredible optimism to the sector," said Taylor Woodrow's new business director Peter Whitman MCIHT. "The phase one main works civils contract lasts six years, so provides long term stability, and many companies in the construction supply chain will be helping to deliver the project one way or another."



*"High Speed 2 is part of a positive feel around infrastructure spend."*

Andrew Nash

Balfour Beatty's head of business development for major projects and highways Andrew Nash FCIHT agreed. "High Speed 2 is good news for the industry and is part of a very positive feel around infrastructure spend as a whole. The Government appears to understand the connection between infrastructure investment, the economy and benefits to society."

Osborne's strategy and communication director Caroline Compton-James – who chairs CECA's public affairs group – said while High Speed 2 "is fantastic for big companies involved in frameworks" the country's infrastructure successes are delivered "through a range of contractors" working across many schemes.

She added: "I was pleased to hear Ministers comment about the need for local transport infrastructure to knit around the spine of the rail route."

Dyer & Butler Rail's business development and strategy manager Ged Egan described the economic opportunity the rail line is set to bring.

"You can see the level of investment going into Birmingham by the number of tower cranes; I can imagine the city's skyline looking like Dubai about 16 years ago. Further global investment can be expected as a result of transport investment across the north."

Other exciting transport prospects for the coming years include Silvertown Tunnel and the Lower Thames Crossing, said construction technology company Onwave's chief operating officer Jay Moorhouse FCIHT.

"Both are key schemes because of

their promise to improve connectivity in east London and to help bring Kent and Essex closer together."

Further projects in London supported by the group include Crossrail 2 – described by one member as "the next transformative scheme" – and the Bakerloo Line Extension, which another said will play an important role in regenerating south east London.

But it was acknowledged by one member of the group that there could be "political sensitivities" if money started pouring into London and not into the north or the Midlands.

Introduction of a National Roads Fund – with vehicle excise duty going towards highway schemes – promises greater confidence for the sector, it was said. "The local authority pipeline for schemes is the best we have seen for 10 years," added Peter Whitman.

But the climate challenge is a major issue for the contracting sector to address. "It is the key issue of the day," said Andrew Nash. "The sector is working hard to introduce new materials, plant and equipment to try and reduce carbon, reduce waste and maximise recycling."

Ged Egan added that contractors increasingly look to offset carbon through initiatives such as planting trees, but warned: "If the sector procrastinates and doesn't take sufficient action, we won't meet the Government's 2050 net zero target."

With the political struggles over Brexit over, there is relief that we can "get back to focus on domestic agenda", said Caroline Compton-James. But



↑ Prime Minister Boris Johnson on site at Curzon Street HS2



## View from the Association

Listening in to the discussion was Civil Engineering Contractors Association director Marie-Claude Hemming. "The outlook for infrastructure is positive," she said.

"We are pleased with the go ahead for High Speed 2 and announcements around transport investments in the north. Now we look forward to publication of the Government's spending review."

Ahead of the Budget, the Association wrote to the Treasury

setting out a series of key projects the industry supports.

These included the A9 widening in Scotland, improved rail infrastructure in Wales, better rail resilience from London to Penzance, upgrade to the Cumbrian Coast rail line, improved connections to Hull and the Lower Thames Crossing.

"All of these major projects are important to the sector, but continued investment in local schemes is just as crucial," she said.

Marie-Claude added the sector is keen to explore new ways of funding infrastructure projects which could include introducing a regulated asset base model similar to those seen in the utilities sector, or exploring road tolling or a model which could replace the Private Finance Initiative.

She also said that CECA is looking to address some of the "bureaucratic and burdensome" challenges faced by contractors when procuring for new work. But overall, she said, the infrastructure sector is "in a better position than we were in this time last year".



↑ An artist's impression of the Lower Thames Crossing HIGHWAYS ENGLAND

she warned that skills and the cost of European imports remain concerns.

"We don't want prices to increase because of tariffs or more competition for scarce resources; that would not feel like a successful outcome."

Skanska's senior communications business partner Jonathan Holdcroft said "the big question" regarding Britain's departure from the European Union "is around skills and the impact of Brexit on our ability to deliver complex projects".

But Colas business development manager for UK projects Michael Turley MICHT remarked: "I don't see any change at all with pulling out of the EU; it could be an opportunity."

Collapse of Carillion in 2018 has led to a challenging couple of years for contractors, but collaborative initiatives such as Project 13 offer some help regarding project management.

"Today there is greater consideration of governance, selection of firms and risk," said Andrew Nash. "Contractors can help clients understand where



**"Social value, decarbonisation and technology mean we all have to upskill."**

Caroline Compton-James

the best position on risk lies, but that should not be about a total transfer of risk to companies doing the work."

Several from the group agreed that 'social value' plays an increasing part of modern contractors' work. "Compared to 10 years ago there has been a dramatic change in how infrastructure is viewed," said Jay Moorhouse. "It is no longer about just building something, but the positive social value that projects can create."

Caroline Compton-James agreed. "Contractors previously just had to demonstrate their ability to build, but are now raising the bar. Social value, decarbonisation and the huge role of innovation and technology mean we are all having to upskill ourselves and give more than we might have before."

Ged Egan said that community engagement today plays more of a part in projects and is "at the forefront of our minds" especially when working on rail possessions that cause disruption and on projects to reopen former lines. Jonathan Holdcroft added that clients

"expect us much more to think about the impact major works have" and cited community involvement on the A14 upgrade as a good example of what can be achieved.

Welcome developments in contracting include an improved focus on safety and good mental health, it was said. "Technology now allows for incidents to be reported in real time so all sites can be alerted of an issue within five minutes, rather than weeks," said Ged Egan.

And a changing culture that encourages operatives to be more open about their struggles is a step forward, added Caroline.

So what do the next 10 years hold? "In light of the continued infrastructure spend, there will be lots happening; but the challenge will be around resources such as skills and manufacturing," Andrew Nash remarked. "My key ask of clients is to engage contractors as early as possible so we can prepare."

Peter Whitman called for "more sustainable forms of contracting" so that firms can "innovate and invest" and move away from the last 10 years of "profit warnings and losing money". Jonathan Holdcroft added that contractors looking to secure business will be looking at future prospects "more through the prism of sustainability".

It was also said that contractors must "respond positively" to the opportunity of emerging technologies and challenge of cutting emissions if the sector is to continue delivering successful projects over the coming years. **MW**



← Members of the CECA public affairs group. Standing, from left: Ged Egan, Jonathan Holdcroft, Andrew Nash and Caroline Compton-James. Sitting: Jay Moorhouse, Marie-Claude Hemming, Peter Whitman and Michael Turley





# Eastern county conducts major public engagement

↑ Upgrading the A47 along its entire route would make a “massive difference” for businesses and road safety HIGHWAYS ENGLAND

Norfolk is set to finalise a new transport strategy based on the results of a public consultation which asked far reaching questions regarding future travel, reports Mike Walter.

**H**ow strongly do you agree or disagree that all vehicles – or only the most polluting – should be restricted from large urban areas? Should motorists be charged to use certain roads? And would you like to see businesses pay for providing parking spaces?

These questions and many more were put to the people of Norfolk earlier this year in a consultation to gather views to help shape the County Council's local transport plan for the next 16 years. In all 926 responses were received.

Residents and businesses were also asked to rank from one to five their



***“We need much better infrastructure across the whole county.”***

Martin Wilby

preferences for a series of strategies covering road safety and network management, and for their thoughts on how bus services could best be improved.

Further questions asked whether the council should focus on ensuring the current transport network is fit for use, or focus instead on future changes such as self driving vehicles. And should the need to make journey times more reliable trump a desire for trips to become quicker?

Gathering the views of local people when developing future strategy is common practice, but Norfolk went further than many authorities by

seeking as much input as possible at the outset.

“Instead of simply consulting on a draft strategy, we decided to ask bigger questions first,” explains Norfolk County Council's strategic transport manager David Cumming. “We will now look at the results, agree a new strategy and consult on an implementation plan. We felt this was a much fairer approach.”

Norfolk's local transport plan highlights a series of highway priorities that include building the Norwich Western Link to complete a dual carriageway orbital around the city, a bypass of the village of Long

## Enhancing urban realm in Norwich

Priority for walkers and cyclists is being extended across large parts of Norwich, more than 50 years since the city first banned cars from London Street in the centre in 1967.

Three years ago through traffic was removed and public realm enhanced around Westlegate, which connects two major shopping areas.

This summer, Norwich is hoping to press ahead with several schemes to restrict private vehicle movements, improve public transport journey times and reliability and create safer routes for pedestrians and those on two wheels (subject to agreeing a programme with the Department for Transport).

Consultation is currently taking place on proposals to convert King Street to the west of the city into a one way road for vehicles, with widened footways and a contraflow cycle lane. To the east, a bus and cycle contraflow lane is proposed along Thorpe Road.

Reduced traffic levels have led to the removal of a set of traffic signals at a junction right in the centre of the city at Rampant Horse Street, allowing people to walk freely across the road. A significant amount of guardrail was also removed at this location.

Norwich is set to begin a trial of a talking bus stop at its bus station, where passengers can



↑ Pedestrian friendly space at Westlegate

ask the shelter when the next service is due. The council is also in discussion with around 40 businesses about trying out the use of cargo bicycles as an alternative to making or receiving deliveries by van.



# Rail reinstatement plans confirmed for Norfolk

Reopening a rail route between King's Lynn and Hunstanton as well as reinstating national rail services on a heritage line from Wymondham to Dereham are among proposals outlined in Norfolk County Council's new railway prospectus.

The council has agreed to fund a feasibility study into the Hunstanton scheme which may see an alternative route proposed to a previous line up the west coast of the county, which closed in 1969.

The second proposal would connect Dereham - the largest settlement in the county without a mainline rail connection - with national rail services at Wymondham. Further up the old line is Fakenham, the second largest place in the county without a link to the railway.

Taking this idea of a rail reopening one step further is the Melton Constable Trust, which is raising funds to complete

the purchase of land at Holt and Fakenham with a view to eventually creating an orbital railway in the county.

"A group of us who were originally involved in setting up the North Norfolk Railway came together again to see whether that railway and the Mid Norfolk Railway could be linked together," said trustee David Bill.

But progress has been slow. "We are going to need a tremendous amount of goodwill and the active support of the authorities if we are to succeed."

David recognises that both heritage lines are very successful tourist attractions but, he adds: "there is also a case to be made for restoring a regular service to towns like Holt and Fakenham."

"Back in 1960 when the closures started, some of us knew that the railways would be needed again. Looking at the congested state of the roads, I think we were right."



← North Elmham station between Fakenham and Dereham

ROGER CARPENTER  
- FLICKR

Stratton on the A140 and the full dualling of the A47 between King's Lynn and Great Yarmouth.

Cabinet member for transport, highways and infrastructure Martin Wilby says upgrading the A47 in full "would make a massive difference to supporting the businesses that are already here, attract more business and make the road safer".

He adds: "We need much better infrastructure across the whole county, including into market towns and Norwich. We are aware of congestion issues, especially at peak times into the city and need to address that."

The council is also reviewing its 'Transport for Norwich' strategy to ensure public and sustainable travel modes in and around the city can be better accommodated and ensure the transport network operates efficiently. According to Transport for Norwich manager Jeremy Wiggin "the focus needs to be on moving people, rather than vehicles."

"If we just concentrate on moving vehicles, we might ask how we can change traffic signals at a junction. But ultimately that intervention may only have a marginal impact on the number of people who can travel," he says.

A council survey last year found that 85% of vehicles arriving into the city had one occupant and on certain corridors at peak times the figure was over 95%. "A shift towards cleaner, shared transport is needed to enable us to carry more people on the network," Jeremy adds.

Last month the Treasury announced that Norfolk is set to receive a share of £117M (along with Portsmouth and Stoke on Trent) from the Transforming Cities Fund, subject to business case approval.

Schemes in the application included traffic light priority for buses at 99 junctions and new lanes for buses and cycles.

## Bike hire launched:

Two hundred and twenty five bicycles are now available to rent in Norwich following the launch of a hire

scheme on 17 March managed by the operator Beryl Bikes. The scheme is funded through the Transforming Cities Fund and is run in association with Transport for Norwich. Later this year electric assist hire bicycles are set to be introduced to the city.



## Smart road sensors on trial

Temperature sensors are currently being tested on roads in Great Yarmouth to determine when surfaces need gritting. The sensors run on a long range wide area network, referred to as 'LoRaWAN'.

"These sensors will allow us to better understand the temperatures on our road network and help us to refine our winter maintenance decisions," says



↑ Grahame Bygrave

Norfolk County Council's director of highways and waste Grahame Bygrave MCIHT.

"We have nearly 10,000km of roads in the county and a third are gritted

every year. Any refinements we can make to how we treat the network based on real time weather information will be very beneficial."

Further sensors will be trialled this spring on street lights in the county; picking up traffic flows so that lights can be dimmed as vehicle flows reduce to increase energy savings and reduce carbon emissions.



↑ Bus use varies in the UK depending on economic group TUPUNGATO – SHUTTERSTOCK

# Inequalities in transport and their impact on society

Investments made in transport do not always benefit people across the board, says David Banister, who points out that differences in travel habits between the richest and poorest are getting wider.

## Introduction

Everyone requires transport to move around and access everyday needs, but for each individual those needs are different, and they change over time.

There are inequalities in transport, but the question here is whether the nature and scale of those inequalities are increasing or decreasing, and whether those inequalities materially affect a person's quality of life.

In addition, there is the question about whether transport decisions, in particular those relating to investment and subsidy, benefit society as a whole or are more advantageous to certain sectors within society.

↓ Wealthier people tend to cycle more – but not by much  
A LLOYD



People are much more mobile now than in the past. Since 1960 there has been a five fold increase in travel in the UK (from 10km per person per day to about 50km per person per day, including air travel).

This reflects the availability and affordability of transport and the ways in which people organise their daily lives.

The table below shows data from the National Travel Survey for Great Britain (2002-2012), analysed by income ventile.

The Factor is the ratio of the richest 5% (the top ventile) divided by the poorest 5% (the bottom ventile).

A Factor of 1 = equality, a Factor >1 means the rich do more than the poor; a Factor <1 mean the poor do more than the rich.

The higher the figure the greater the inequality, meaning that the rich use rail 3.5 times as much as the poor and travel 5.2 times as far. The poorest 5% make 3.5 times as much use of the bus as the rich and make 113 trips compared to 31 for the richest 5%.

Travel mode	Poorest 5%	Richest 5%	Factor
Car trips	200 trips / year	550 trips / year	2.75
Car distance	1500 miles / year	7230 miles / year	4.82
Taxi and Minicabs	14 trips / year	16 trips / year	1.16
Walking trips	300 trips / year	200 trips / year	0.67
Cycling trips	15 trips / year	17 trips / year	1.33
Bus trips	113 trips / year	31 trips / year	0.27
Rail trips	14 trips / year	50 trips / year	3.57
Rail distance	356 miles / year	1851 miles / year	5.20
London Underground	10 trips / year	35 trips / year	3.50



## Inequality on the railways

Rail travel provides the clearest example of inequality. In 1998-2000, about 49% of Great Britain's population made more than one rail trip a year, but this figure has increased to 58% (2012).

About half of rail users are regular travellers (daily for work), and they are mainly of working age (25-59 years), with 70% having above median income levels (£21,000), and about 25% having income levels over £50,000.

The use of rail is heavily concentrated in London and the South East. Many people (over 40%) make no use of rail services in Great Britain at all. High speed rail is limited in this country (108km) but users come mainly from the rich.

The French TGV operates over a much more comprehensive network (2700km). In Great Britain the top 20% income groups make 63% of all long distance high speed rail journeys – the corresponding figure for the French TGV is 40%.

## Impact on wellbeing

When talking about transport inequality, it is more than just the amount of travel and the differences between the rich and the poor.

The broader concept of wellbeing concerns the quality of life and ability to achieve valued activities and it must also address freedoms, the satisfaction with those activities, and capabilities or the opportunities available.

More generally, the poor have a more limited impact on the environment, as they travel less and make fewer demands on the planet and the use of resources. The issues here relate to location decisions, the health effects (local pollution and risks), and the distribution of public investment.

For example, UK public expenditure on transport amounted to £32.5Bn in



↑ Half of rail users are regular travellers A LLOYD

2018/19, but this goes mainly to rail (55%) used by the rich, and not to local buses (8%) used by the poor.

Similarly, UK transport subsidy results in the richest 10% of households receiving more than twice the subsidy of the poorest 10% of households (GB Department for Transport, 2019).

Inequality exists across many aspects of life, but the question is whether inequality is acceptable. Potentially, it can lead to instability and fragmentation in society, as people's aspirations are not achieved, but it also demonstrates where priorities and agendas are defined.



**David Banister** is Professor Emeritus of Transport Studies at Oxford University. He was previously Professor of Transport Planning at University College London.

## Air travel

A similar picture is true for air travel, where 53% have not flown in the previous 12 months, and this figure has been stable over last 15 years. About 20% of the population made one return flight and a further 11% made two return flights. This means that 10% of the population make 60% of all flights.

There is a double injustice as the poor make fewer trips by air and contribute less to climate change, but they are most likely to be impacted by the negative effects and they have no means to seek recompense.

International aviation could account for 22% of global CO<sub>2</sub> in 2050, and this will be mainly contributed by the rich travelling overseas, mainly for leisure and visiting friends and relatives (ICAO, 2019).

## Implications for transport planning

1. Investment and evaluation – this currently favours large scale projects, rather than local transport, which in turn results in longer distance and international travel. Rich societies have a moral responsibility to consume less and focus on sustainable development;
2. Subsidies need to be better targeted

to reduce inequality and encourage innovation;

3. Indirect effects, including the rights of all people to live in a clean, healthy, safe, secure and quiet local environment;
4. Ethical arguments mean that decision making is not independent or impartial, as people are not treated equally. Utilitarian rationality favours the rich and there needs to be debate over a more normative value system that addresses both economic and wider societal concerns.

## Practical decisions on investment and subsidy in transport

1. Reduce inequality through targeted investment priorities and allocating subsidy to meet the needs of the disadvantaged;
2. Analysis needs to include explicit distributional dimensions that demonstrate who are the winners and losers from decisions involving the allocation of public funds. This needs to be an essential element of transport evaluations;
3. Protect the rights of all people to live in a high quality local environment. This would include clean air, quiet and accessible living and maintaining a sense of community;
4. Transport should be seen as a cross cutting activity to provide connectivity and contribute to raising human capital for all people.

## Conclusion

Across much of the population there are only modest differences between the frequency of travel and the modes used, but it is in the top income groups that the real differences become clear.

It is the rich who are travelling more, making long distance trips by rail and air, and their levels of mobility are several orders of magnitude greater than the rest of the population.

But the inequalities go far beyond the actual amount of travel undertaken by different people, as they affect people's general wellbeing, the opportunities available to them, and their ability to enjoy a reasonable quality of life.

## Acknowledgement

David Banister's book on the topic is available: [inequalityintransport.org.uk](http://inequalityintransport.org.uk)



↑ Ten percent of people make 60% of flights 06PHOTO - SHUTTERSTOCK

# Institution sets out measures in response to Coronavirus situation

Measures to look after the health, wellbeing and safety of CIHT members, volunteers and staff have been put into action in response to the fast changing Coronavirus situation.

After reviewing Government and NHS advice, CIHT took the decision on 19 March to only hold or attend business critical meetings for the foreseeable future. In addition, all international travel for staff and volunteers is suspended until further notice.

It has also been decided to postpone all events, seminars and training – national and regional – where people are required to appear in person until after 29 May, unless they are business critical.

This means that the Extraordinary General Meeting, Spring Conference and Council, Board and Panel meetings are postponed until after this date. Please note that this does not affect the CIHT Council elections which will currently still go ahead as planned.

The Institution will be looking to replace planned meetings and events with virtual versions as appropriate, or reschedule them to a date later in the year.

CIHT will continue to provide a full service to members and the offices are now working remotely. All staff can be contacted via email. See [ciht.org.uk/contactus](http://ciht.org.uk/contactus)

"We apologise for any inconvenience this may cause but on balance we believe this is the responsible and appropriate course of action given the current circumstances," said CIHT



↑ Travel has been affected by the outbreak ALEKSEY BOYKO – SHUTTERSTOCK

Chief Executive Sue Percy. "We will review future engagement activities in due course and continue to provide updates to our members and stakeholders on a regular basis."

For CIHT's volunteers, the suspension of all travel on behalf of the Institution is recommended. Regional committees will be contacted on how the Institution can help facilitate on going activities including upcoming Annual General Meetings through other means, such as by the use of online technology.

Professional Reviews that are due to take place before 29 May have been postponed and

CIHT will be in contact with those involved to discuss alternative activities.

"We will do all we can to ensure the continuity of our services to members and stakeholders going forwards," said Sue Percy. All actions will be subject to review as Government advice develops and changes.

For queries, contact [governance@ciht.org.uk](mailto:governance@ciht.org.uk)

● CIHT has set up a section on its website that contains the latest Institution news, updates and information that can be found at [ciht.org.uk/coronavirus](http://ciht.org.uk/coronavirus)

## Voting now open for election of council members

CIHT's Elections for Ordinary Council Members for 2020 / 21 are now open. The elections process is once again being managed by the independent elections company Mi-Voice.

Members who are eligible to vote (Fellows and Full Members) should have received an email from Mi-Voice on 23 March with a link to the voting website [mi-vote.com/ciht](http://mi-vote.com/ciht)

If you have not already done so, please take a few moments to read

through the candidates' statements and cast your vote.

"I'd encourage all voting members to use their vote in the elections," said CIHT President Martin Tugwell. "The Institution's Council plays a key role in determining the CIHT's strategic direction, policy development and ensuring that members' needs continue to be met.

"These elections are your opportunity to select the candidates

that you feel are best placed to ensure Council continues to provide the advice and guidance that enables the CIHT to be a leader for our profession."

Members who do not have a registered email address with CIHT should have received a letter in the post with details of how to vote using the website or, alternatively, request a postal ballot form. If you do not see the email in your inbox, please check

your Junk or Spam folders and, if you are a Gmail user, your social and promotions folders.

If you have not received the email or need any further help, please contact Mi-Voice directly by emailing [support@mi-voice.com](mailto:support@mi-voice.com) or calling +44(0)2380 763 987

The online ballot will be open until 5pm on 11 May and the results will be announced at CIHT's Annual General Meeting on 24 June.



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**Chief Executive:**  
Sue Percy CBE

These pages are edited by Steve Dale. To suggest stories for CIHT News email: [steve@transportation-mag.com](mailto:steve@transportation-mag.com)

Copy to be considered for publication in the next issue should be submitted by Friday 17 April



# Budget pledges welcomed by CIHT

CIHT welcomes investment commitments made in Chancellor Rishi Sunak's Budget in March, which reflected a number of calls the Institution has been making on transport policy and spending.

Key announcements included confirmation that £27Bn will be spent on English strategic roads under Road Investment Strategy 2, the allocation of more money to improve urban transport through the Transforming Cities Fund and a £2.5Bn Potholes Fund to repair local roads.

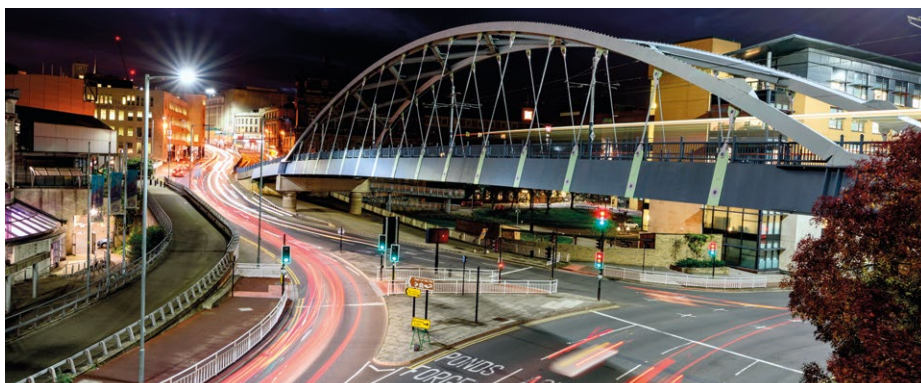
CIHT's Director of Policy & Technical Affairs Andrew Hugill said: "The Government has indicated that in the spring it will publish a National Infrastructure Strategy which will set out plans for a transformation of the UK's economic infrastructure.

"This announcement is a clear response to our calls for the Government to provide a vision and certainty for the sector on key projects and programmes."

On local roads, the Institution has been advocating for the implementation of a four point strategy that will give vision, funding and focus to the network over the next 10 years.

The proposed strategy is set out within CIHT's Improving Local Highways review. For more information, visit [ciht.org.uk/ilh](http://ciht.org.uk/ilh)

"In our advice to Government, we called for an increase in local road maintenance budgets," said Andrew. The Chancellor committed £500M a year to the fund, enough to fill an estimated 50 million potholes by the end of this Parliament.



↑ Additional funding for urban transport has been pledged SHAHID KHAN - SHUTTERSTOCK

"While this is a welcome step, we believe that there is a need to increase this significantly over and above this amount if we are to truly have a resilient local highway network," Andrew added. CIHT will be pushing for the rest of its strategy to be delivered throughout the Comprehensive Spending Review process.

The Institution has also called for investment in sustainable and active travel, and greeted the confirmation of a £1Bn allocation from the Transforming Cities Fund that includes £800M for bus, cycling and walking infrastructure. It also welcomes that a national bus strategy is expected to be part of the Comprehensive Spending Review.

Among environmental pledges in the Budget is that £500M will be spent to support the rollout of new rapid charging hubs for electric vehicles. CIHT recently partnered with 28 other professional

bodies which will produce a coordinated strategy and response to climate change on behalf of the built environment profession.

In addition, the Institution has persistently called for better integration between planning and transport including through its 'Better Planning, Better Transport, Better Places' advice, which has continued to gain traction.

It was pleased to see recent announcements by the Government which include steps to put placemaking at the heart of planning, a housing infrastructure fund and encouraging councils to focus housing close to existing transport hubs.

Andrew Hugill added: "CIHT believes that the Comprehensive Spending Review later in the year is an opportunity to ensure that we formalise a clear vision and strategy that sets out how transport will contribute to key policy areas."

## Scottish students discuss hyperloop developments

Students from the University of Edinburgh and a local high school delivered presentations on their ambitious efforts to contribute to hyperloop advancements at an evening event hosted by CIHT Scotland in March.

An overview of HYPED – a society at the university dedicated to accelerating development and implementation of the technology in

the UK – was presented by students Jan Oledzki and George Karabassis.

George explained that the HYPED team was founded in 2015 and since then has built three 'hyperloop pods', the most recent being developed in 2018/19 which goes by the name of the Flying Podman.

Jan went on to discuss research undertaken by the team, focusing on a proposed route connecting

Edinburgh to London which could provide a journey time of 50 minutes. This work saw the team achieve a top 10 position in the Virgin Hyperloop One Global Challenge.

The floor was then taken by Ryan Gordon, Wiktor Rauba, Faye Fulton and Alizah Mughal from Drummond High School, who spoke about their work to develop a hyperloop station to serve an urban suburb of Singapore.

The students outlined their design based around the 'Shinrin-Yoku' – or 'forest bathing' – concept of wellbeing. Design features include the creation of a plant wall through the building, use of energy and resource efficient materials, 'pavegen' technology to generate energy and bio-rhythmic lighting.

The design was developed in 24

hours as part of a competition hosted by Bentley Systems and Class of Your Own, which the students won (see *TP*, May 2019). Their efforts were rewarded with an invitation to Bentley's Year in Infrastructure Conference in Singapore last October.

CIHT Vice President Neil Johnstone attended the meeting and commented: "Both these teams oozed creativity and enthusiasm and their stories are truly inspirational.

"It is testament to what can happen when young people are inspired by opportunities, such as these competitions, and are introduced to the transport and engineering industry through curriculum content."

For more information about CIHT Scotland's events programme visit [ciht.org.uk/scotland](http://ciht.org.uk/scotland)



↑ Members of the HYPED team in front of a hyperloop pod

# Outstanding Candidate looks to pass on Chartership lessons

Recently qualified Chartered Engineer Craig Kearney MCIHT is hoping to give back to the profession by getting involved with mentoring and becoming a reviewer after receiving an Outstanding Candidate award.

Craig is a principal engineer with Atkins – based in Swansea – who passed his CEng professional review last autumn. He was presented with the Outstanding Candidate award at the CIHT Cymru Wales Annual Dinner at the end of February.

“It is great to receive this recognition from the Institution and from colleagues,” he said, describing the CEng qualification as his number one professional achievement to date.

However he added that he left it longer than most to go through the review process, which allowed him to build up a greater depth of experience. “I felt I had prepared as best I could,” he said. “I have had good opportunities with the projects I have worked on and was able to successfully demonstrate all the key attributes as a Chartered Engineer that the reviewers look for.”

He described the most challenging part of the professional review process as working out the requirements and getting started with compiling the portfolio of evidence. However he recommends for prospective candidates that a lot



← Craig Kearney (right) receives his award from CIHT President Martin Tugwell

of support is available on the CIHT website and through the Institution’s education team.

“You can spend a lot of time stewing over how to get started but there is a lot of information such as example portfolios that will support you. Its about not being afraid to ask,” he said.

Craig added that he was nervous ahead of his interview with CEng reviewers but in hindsight described the experience as enjoyable. His presentation included a focus on a link road scheme which forms part of a one way gyratory system in Fishguard, west Wales.

Craig – who has worked his way up the ranks within Atkins to become a team leader – is already mentoring candidates for engineering qualifications and has also enrolled for professional reviewer training, which he is hoping to complete this autumn.

“Now that I have achieved CEng I would like to pass on my lessons and help others improve,” he said.

“I also want to get more involved with CIHT by working with the local committee and looking towards Fellowship.”

## Robert Brian Daimond 1946 – 2020

Former local government director and trustee of the Menai Bridge Community Heritage Trust Bob Daimond FCIHT passed away on 19 February.

Bob was appointed Gwynedd Council’s highways director in 1992 and became an independent consultant in 2003. In recent years he was closely associated with the bridge trust, serving as both chairman and treasurer.

Last summer Bob published a book titled ‘Menai Suspension Bridge: The First 200 Years’.

Bob was born in Kent, raised in Wolverhampton and read civil engineering at the University of Dundee. He worked for Staffordshire County Council for six years before moving to North Wales in 1974 to work for Gwynedd County Council.

Bob took on the role of deputy county surveyor in 1984 and progressed to become county

surveyor in 1991, before his promotion to director of highways.

After leaving the council he became an adviser to the Welsh Local Government Association and the North Wales Unitary Authorities Transport Consortium.

He also co-chaired the County Surveyors Society and National Park Officers Group.

During his career Bob led the only UK local authority highways service to be appointed ‘Department’s Representative’ for a Trunk Road DBFO project (the A55 Llandegai to Holyhead).

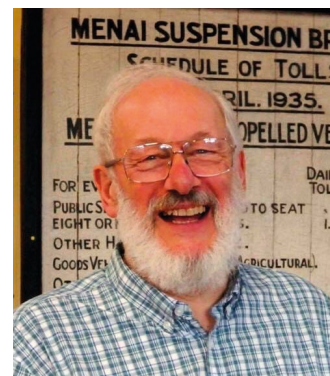
He delivered presentations to Commons Select Committee hearings and National Assembly Committees on a range of transport and engineering matters. Bob was a member of various Welsh Office/ Welsh Assembly Government and local government working groups.

He was often invited by the

Health & Safety Executive and the Construction Industry Training Board to chair seminars designed to raise awareness of health and safety among small and self employed contractors. He worked closely with Careers Wales to develop school workshops to inspire young people to learn about engineering and until recently led school tours of the Menai Suspension Bridge.

Bob was an early trustee of the Menai Bridge Community Heritage Trust and helped to create and maintain the Canolfan Thomas Telford museum. The trust celebrates the two bridges over the Menai Strait: the Menai Suspension Bridge, built by Thomas Telford, and the Britannia Bridge, built by Robert Stephenson.

Bob chaired the CIHT’s North Wales Branch from 1994 to 1996 and the Institution of Civil Engineers’ North Wales branch in 2000.



↑ Bob Daimond

He received the CIHT Certificate of Merit in 2005 and the Cymru Wales Region presented him with a Lifetime Achievement Award in 2018. The following year the ICE presented an award to Bob for his outstanding contribution to industry.

Bob passed away in the company of his loving wife Rosemary and his children. Friends and colleagues say they are very grateful for Bob’s hard work and dedication to the industry which benefitted many people.



**Coronavirus update:** Many events this spring have unfortunately been cancelled due to the pandemic. Here is a provisional list of events planned for later this year, and to the right is a list of webinars which you can access remotely.

## National events – CIHT and others

For further event listings, visit [ciht.org.uk/events](https://ciht.org.uk/events)

### Northern Powerhouse priorities

**8 September, Manchester**

Including a look at phase 2b of High Speed 2 and a keynote address from Henri Murison of the Northern Powerhouse Partnership.  
[westminsterforumprojects.co.uk](https://westminsterforumprojects.co.uk)

### England's Economic Heartland

**15 September, Luton**

A conference to mark the launch of the Heartland's transport strategy for consultation.  
[dima.boulos@highways-uk.com](mailto:dima.boulos@highways-uk.com)

### Scottish transport show

**15 September, Edinburgh**

Featuring 20 'masterclasses', a 'knowledge hub' and over 100 exhibitors from the transport sector.  
[scottishtransportshow.com](https://scottishtransportshow.com)

### Highway Authorities & Utilities Committee UK convention

**17 September, Manchester**

Ways in which the streetworks sector can address the climate challenge will be explored.  
[aldercross.com](https://aldercross.com)



↑ Streetworks management

### Geospatial event

**24 - 25 September, London**

A look at latest developments and innovations in geospatial technology, surveying and data collection for highways, railways and smart cities.  
[geobusinessshow.com](https://geobusinessshow.com)

### Housing and infrastructure – a Northern perspective

**8 October, Manchester**

WSP's head of transport Rachel Skinner is set to speak at the event which will reference the 2019 'State of the Nation' report.  
[ice.org.uk](https://ice.org.uk)

### Northern transport and infrastructure development

**21 October, Leeds**

Hear about plans to develop a joined up transport strategy for the north of England and how transport and development can best work together.  
[waterfrontconferencecompany.com](https://waterfrontconferencecompany.com)

### Transport management conference

**22 - 23 October, London**

Research around human and social sciences, as well as engineering and physical sciences, will be explored through a range of academic presentations.  
[waset.org/conferences](https://waset.org/conferences)

### ADEPT autumn conference

**5 - 6 November, Bath**

Bookings and further details for this year's event – organised by the Association of Directors of Environment, Economy, Planning & Transport – will be available soon.  
[aldercross.com](https://aldercross.com)

### Opportunities and challenges for rail freight in Britain

**9 November, London**

GB Railfreight founder John Smith is set to give a speech at this event.  
[ciltuk.org.uk/events](https://ciltuk.org.uk/events)



↑ Rail freight NETWORK RAIL

### Intelligent transport conference

**11 - 12 November, London**

Latest innovations in technology and the emergence of smart mobility will be among the topics to be explored.  
[intelligenttransportconference.com](https://intelligenttransportconference.com)

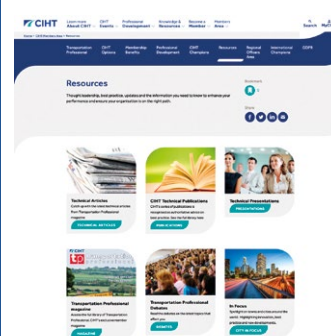
### Transport planning event

**18 November, Manchester**

Looking at how northern England is responding to the climate challenge and the issue of predict and provide.  
[rtpi.org.uk](https://rtpi.org.uk)

## Webinars

CIHT members will be able to access a wealth of online resources including webinars over the coming months. To keep up to date, log in to the Members Area on the Institution's website and click on 'Resources'.



↑ CIHT's Resources page

These next four conferences are set to be conducted via webcam and will be overseen by a chairman. Delegates will be given the opportunity to ask questions.

### Future of local roads

**21 April**

Stakeholders and policymakers will examine the future funding and development of local roads.  
[weetf.co.uk](https://weetf.co.uk)

### Improving air quality in logistics

**22 April, 9.30 - 11am**

A free webinar, with a focus on activities carried out by the City of London Corporation.  
[eventbrite.co.uk](https://eventbrite.co.uk)

### Old Oak Common regeneration

**20 May**

Opportunities for development at the west London site from the arrival of High Speed 2 will be discussed at this event.  
[westminsterforumprojects.co.uk](https://westminsterforumprojects.co.uk)

### Priorities for reducing UK transport emissions

**4 June**

Discussions will include the ban on new petrol and diesel cars and whether it should be brought forward to 2032, plus expansion of Heathrow.  
[westminsterforumprojects.co.uk](https://westminsterforumprojects.co.uk)

## International events

### MOVE America mobility event

**1 - 2 September, Austin, Texas**

Autonomous vehicles, smart cities, city freight and Mobility as a Service are set to be explored.  
[terrapinn.com](https://terrapinn.com)

### European transport conference

**9 - 11 September, Milan**

Focusing on the key issues facing the sector, including climate change



↑ A vintage tram in Milan

ZIGRES - SHUTTERSTOCK

and improving air quality, and a look at national and international policies.  
[aetransport.org](https://aetransport.org)

### ITS World Congress

**4 - 8 October, Los Angeles**

New technologies to enable improved last mile transport will be discussed, along with developments with autonomous vehicles.  
[itsworldcongress2020.com](https://itsworldcongress2020.com)



The following people have been elected to the CIHT from 1 November 2019 - 29 February 2020:

#### Fellow

- Ahmed Alseiri
- John Andrew
- Syed Hassan Imam Gardezi
- Mike Harper
- Julian Howe
- Ian McGrane
- Sarah Melville-Crowe
- Athanasios Ntontos
- Steve Turner
- Norman Westbrook
- Andy Williams
- Zhuanghong Zheng

#### Member

- Scott Aitken
- Yousuf Alkhaddar
- John Allen
- Tom Althorpe
- Georgios Anastasiou
- Clare Anderson
- Tadas Andriejauskas
- Naram Anjaneyulu
- Christopher Baker-Merrills
- Matthew Ball
- Nicholas Billingham
- Andrew Binder
- Victoria Bode
- Paul Bowman
- Peter Boyce
- Philip Boyd
- Michael Brady
- Chris Brice
- Kevin Briggs
- Lewis Brimmell
- Mark Broome
- Stephanie Bullock
- James Cairncross
- Christian Camilleri
- Niall Casey
- Donna Cattell
- Cheuk Fai Martin Chan
- Wilson Chan
- Katie Chesworth
- Venkata Satya Chollangi
- Chris Christofi
- Jordan Clifford

- Christopher Cole
- Anthony Collier
- Jeremy Benjamin Cox
- Elena Cristobal Casado
- Ashley Danvers
- Ewurama Dawson-Amoah
- Lee Day
- Anna Delvecchio
- Olumide Dosumu
- Andrew Drake
- Ema Dunn
- Ian Ellison
- Sally Farley
- Jennifer Faulconbridge
- Richard Fenton
- Amanda Fogg
- Declan Foley
- Andrew Green
- Catherine Griffin
- Sara Grindley
- Jonathan Gunasekera
- Lewis Gunn
- Simon Guy
- Noor Zainab Habib
- Christopher Hand
- Samuel Hansen
- Stephen Hanson
- Luke Harlow
- Nick Harvey
- Mohammed Hassan
- Scott Hastie
- Steven Hellyer
- Mark Hemmingway
- Darryl Hemmings
- Andrew Hibbard
- Marta Hinchcliffe
- Wong Ho Cheong
- Ryan Hopkins
- Paul Horan
- Arshad Hussain
- Zaini Ibrahim
- Naveen Jaiswal
- Ajilesh Kalari T
- Rohini Kanthi
- Mohammed Khan
- Ting Hin Kwok
- Kai-Wai Lau
- Gigi Lau

- Mark Le Conte
- Sarah Ledger
- David Lee
- Ian Lemmon
- Nikolett Listar
- Dwayne Lowe
- Sarang Mahajan
- Sulaiman Phillip Makinde-Barth
- Craig Malley
- Lindsay McCauley
- Diana Mercado Albarracin
- Victoria Merrill
- Herbert Micallef
- Tristan Miles
- Stephen Mills
- Trevor Milton
- Paul Monck
- Puspita Mondal
- Nicholas Morrey
- Gary Morton
- Rodgers Mugume
- Robert Mulholland
- Paul Murray
- Abhishek Nevagi
- Mohammad Wassim Othman
- Jonathan Parry
- Sharat Chandra Pillalamarri
- Inderpaul Plaha
- Timothy Plant
- Matthew Potter
- Emily Poultney
- William Prendergast
- Neil Probert
- Patrick Quaid
- Muhammed Farhad Rahman
- Shane Reynolds
- James Rickett
- James Robinson
- Robert Roughan
- Alistair Ryder
- Sid Scull
- Gareth Scullion
- Petros Sekeris
- Simon Shapland

- Tushar Sharma
- Adam Sharpe
- Saeed Shohani
- Paul Smith
- Zhanine Smith
- Alice Stewart-Cox
- Paul Storey
- Andie Taylor
- Mark Taylor
- Emma Taylor
- Mark Thompson
- Chun Wing Tsang
- Brindha Sankari Vasudevan
- João Véstia
- Vivek Vijayakumar
- Amrit Virdee
- James Werby
- Andrew Wheaton
- Stephen Whittaker
- Samantha Whittaker
- Kenneth Williams
- Chun Wa Wong
- Jian Xian
- Brian Yates
- Waleed Youssef
- Man Chiu Yu

#### Associate

- Ajmal Ditta
- Matthew Elliman
- Robert Henley
- Benjamin Higson
- Jacqueline Hood
- Aidan Ilgunas
- Thomas Kerry
- Jose Nunes dos Santos
- Martinus Oertel
- Clive Rillstone
- Candida Spillard
- Edward Whittaker
- Alison Yim
- Kitty Zsobrak

#### Graduate

- Joshua Adesina
- Aadil Ahmed
- Kieren Boles
- Kyle Conroy

- Caroline Duff
- Thomas Dyball
- Darren Forrest
- Laura Gilbert
- Marie Godward
- Aditya Gupta
- Abigail Harris
- Alice Heaton
- Molly Hoggard
- John Hutchings
- Hayley Ingle
- Glenn Josy
- Christopher Lancett
- Yat Leung
- Zhen Jie Lim
- Abigail Lindsay
- Sophie Mackenzie
- Maya Mistry
- Ajmal Mukhtar
- Lawrence Penn
- Kalina Petrova
- Marcus Plank
- Connor Quinn
- Gabriele Revelli
- Adrienne Roser
- David Scobie
- Emma Scott
- Matthew Taylor
- Andrew Tennant
- David Treadgold
- Kathryn Tzabar
- Jack Vickers Strutt
- Alexander Williams
- Daniel Wilmer
- Konstantina Zagkliverinou

#### Apprentice

- Ainsley Breshani
- Chirag Chavda
- Jack Donovan
- Meg Pearson
- David Powell
- Owen Smith
- Jack Thomas
- Fraser Warwick

The following people have transferred their membership grades within CIHT from 1 November 2019 - 29 February 2020:

#### Transfer Member to Fellow

- Clare Anderson
- Juliana Byzyka
- Matar Ceesay
- Steven Crellin
- Garfield Evans
- Benjamin Gadsby
- Hugh Gillies
- Paula Hakon
- Philip King
- Darran Kitchener
- Mark Naysmith
- Chee Peng Ng
- Barry O'Carroll
- Stephen O'Donnell

- Jodie Rowbottom
- Adrian Runacres
- Rachel Skinner
- Matthew West

#### Transfer Associate to Member

- Christopher Brooke

#### Transfer Graduate to Member

- Jannat Alkhanizi
- Thomas Eadie
- Charlie Ebbrell
- Alexander Golding
- Daniel Heptinstall

- Laura Hughes
- Lucy Smith
- Sean Stephen
- Martin Whitelow
- Daniel Wilmer

#### Transfer Student to Member

- Nasir Ahmed
- Fernando Ardivin
- Simon Bailey
- Thomas Chambers
- Hoi Ki Chiong
- Katherine Duncan
- Rachel Harley
- Stephen Kemp

- Marti Kiraly
- Arkadiusz Piotrowski
- Charles Wain

#### Transfer Apprentice to Member

- Jemma Gillman
- Rachel Stevenson

#### Transfer Apprentice to Graduate

- Ogunkoya Adekunle Stephen
- David Collins

#### Transfer Graduate to Associate

- Igor Bajdiuk

#### Transfer Student to Graduate

- Grace Burke
- Konstantinos Christidis
- Cameron Churm
- Tapji Fwagwen
- Vasileios Giannoudis
- James Grainger
- Akwasi Koduah
- Michael Merritt



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## ANNUAL GENERAL MEETING FOR THE YEAR ENDED 31 DECEMBER 2019

NOTICE IS HEREBY GIVEN that the TENTH ANNUAL GENERAL MEETING of the Chartered Institution of Highways & Transportation will be held at 119 Britannia Walk\* on Wednesday 24 June 2020 at 16:00hrs.

\* Please note that, dependent on the Covid-19 situation closer to the time of the AGM, the meeting may be held virtually. The CIHT's position, which will be in line with Government advice at the time, will be circulated nearer the date.

### AGENDA

1. To confirm and sign the minutes of the Ninth Annual General Meeting of the Chartered Institution of Highways and Transportation held on the 19 June 2019.
2. To receive the report of the Trustees for the session 2019-2020.

3. To adopt the Annual Accounts for the year ended 31 December 2019.
4. To appoint the Auditors.
5. To elect the Honorary Officers.
6. To elect Members of the Council in place of those retiring.
7. To receive the report from the Trustees on the governance review
8. To seek agreement on proposed changes to CIHT's Charter and approve:
  - Members' Resolutions 1: That the Institution seeks the approval of Her Majesty The Queen for an Order in Council to amend the Royal Charter dated 1 January 2010 (as amended by an Order dated 22 May 2019) in accordance with Article 18 of the Royal Charter as set out in the schedule of changes to the Charter attached to the notice of the meeting as Appendix 1 and incorporated in the revised version of the Charter and Bye-laws attached to the notice of the meeting as Appendix 2 subject to

such changes as the Privy Council and the Charity Commission may require and which are agreed by the Board of Trustees.

- Members' Resolutions 2: That, subject to the approval of the Privy Council, the Institution amends the Bye-laws attached to the Royal Charter dated 1 January 2010 (as amended by an Order dated 22 May 2019) in accordance with Article 20 of the Royal Charter as set out in the schedule of changes to the Bye-laws attached to the notice of the meeting as Appendix 3 and incorporated in the revised version of the Charter and Bye-laws attached to the notice of the meeting as Appendix 2 subject to such changes as the Privy Council and the Charity Commission may require and which are agreed by the Board of Trustees.
- 9. To transact any other business.

### Notes

1. The Annual Accounts for the year ended 31 December 2019 and supporting documents for the Governance Review will be available online from 26 May 2020. Hard copies will be available on request from this date. If you would like to receive a copy, please email the Governance Team at [governance@ciht.org.uk](mailto:governance@ciht.org.uk)
2. The Annual Accounts will also be summarised in CIHT's Annual Review, copies of which will be available at the Annual General Meeting.

119 Britannia Walk,  
London N1 7JE  
By Order of the Council  
Sue Percy  
Chief Executive  
April 2020





# transportation 2020

consultants directory

Supplement to Transportation Professional, June 2020

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Published on 12 June with the June 2020 issue of Transportation Professional, the directory will be delivered to every CIHT member plus key transport clients.

Questionnaires have been sent out. If you wish to secure an entry, please make sure you complete and return your forms as soon as possible.

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