

# Iconic Spaghetti Junction turns 50 and shows how to pasta test of time

The junction – known as Gravelly Hill Interchange – carries more than 200,000 vehicles each day and forms part of the M6 travelling through the West Midlands. It also links traffic travelling in and out of Birmingham city centre thanks to its seamless connection with the A38.

Originally designed for around 70,000 vehicles per day when the roads were much quieter, the elevated structure, maintained by National Highways, is a vital piece of infrastructure for the UK economy and continues to play a major part in helping freight and logistics companies move goods around the country.

The road is used by almost 26,000 lorries every day with more than 31,000 light good vehicles also using the junction and M6 for journeys.

National Highways Customer Services Director Melanie Clarke said:

Spaghetti Junction is a special part of England's motorway network. It's something to be proud of in Birmingham because it's known all around the world – quite rightly – as a feat of engineering.

When it was designed 50 years ago, nobody could have predicted that Gravelly Hill Interchange would carry around 200,000 vehicles every day.

As traffic levels have increased, so have our maintenance and safety regimes which play a vital role in helping keep the road safe for the tens of thousands of motorists that use our network every day. We know that it's used by nearly 26,000 hauliers every single day which goes to show the strategic importance of the route for businesses around the country.

It's also incredibly fitting that the 50th anniversary of the road opening coincides with Birmingham this year playing host to the 2022 Commonwealth Games. Spaghetti Junction will be pivotal in helping to connect athletes, sports enthusiasts and tourists with the city during the event.

Roads minister Baroness Vere said:

The Spaghetti Junction is both an iconic landmark and indispensable to the UK economy, providing essential links to the Midlands and beyond. Its longevity over the past 50 years is testament to all those who work to maintain it.

Head of Public Policy at Logistics UK Michelle Gardner said:

The Spaghetti Junction is a vital part of the strategic road network, helping logistics businesses to move goods efficiently throughout the West Midlands and beyond. The logistics industry relies on effective road infrastructure to support the UK economy and society; we are pleased to join National Highways in celebrating the 50-year anniversary of this crucial junction.

Mayor of the West Midlands Andy Street said:

Spaghetti Junction has become an iconic Brummie landmark so it's only right that we celebrate its 50th anniversary.

At the time of its inception, it was actually considered a real engineering feat. So much so that my grandfather used to take me to visit whilst it was being built.

Over the years, it has played an important role in enabling goods, people and business to flow in and out of the region and will no doubt continue to do so for many years to come – not least in the year we play host to the Commonwealth Games.

The sprawling structure is known as the Gravelly Hill Interchange.

As part of the 50th anniversary celebrations, National Highways has teamed up with Glenn Howells Architects in Birmingham to restore the original architect's model which was built in the 1960s.

The project has been a labour of love for the practice's modelmakers who have painstakingly repaired the structure, upgraded with landscaping and greenery and enclosed it into a conference table.

National Highways plans to take the model to various education establishments to help encourage youngsters to think about the world of engineering.

The refurbished model of Spaghetti Junction will be used as part of a school's engagement programme to encourage young people to think about engineering

Glenn Howells Architects Head of Modelshop Pierre Greenway said:

We didn't want to change the model so much as you wouldn't see the original any longer. We wanted the viewer to be able to see the original model while updating it to the modern day.

The model shows the sheer scale of the structure and it's wonderful to be able to play a part in restoring this piece of work for the future and encourage youngsters to think about the world of engineering and construction.

To mark the occasion, Heinz has also created a limited edition set of 500 tins commemorating Spaghetti Junction.

### **Did you know?**

- It is the interchange of the M6, A38, A38 (M) connecting Birmingham and the M6.
- The sprawling design of Spaghetti Junction means there are more than 250 spans, crossbeams and expansion joints, more than 600 columns and more than 3,000 bridge bearings.
- The slip roads are around 2.5 miles long with the M6 itself less than a mile at the structure.
- The Birmingham Evening Mail described the road as a “cross between a plate of spaghetti and an unsuccessful attempt at a Staffordshire knot” coining the phrase ‘Spaghetti Junction’.
- It costs around £7m every year to maintain the structure and keep it in a safe and serviceable condition
- It was designed by engineer Sir Evan Owen Williams.
- Work started to build the road in 1968.
- It took four years to complete and is subject to regular maintenance programmes, many of which take place underneath the road.
- The highest point of the structure is circa 80ft in the air.
- The site covers around 30 acres with teams walking an average of 12-15 miles a day during inspections
- Spaghetti Junction continues to hold international acclaim having formed the backdrop for filming for Ready Player One, with some scenes filmed underneath the structure. The towering concrete columns formed the ideal backdrop to the film, which was in cinemas in 2018.
- For the filming, special templates featuring graffiti were stuck to the concrete structures and various props added into the set, including cars and tyres, with a ‘camp’ constructed for the new film.
- The film crew took considerable effort to protect the structure and ensure nothing was damaged during filming.

### **General enquiries**

Members of the public should contact the National Highways customer contact centre on 0300 123 5000.

### **Media enquiries**

Journalists should contact the National Highways press office on 0844 693 1448 and use the menu to speak to the most appropriate press officer.

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## Meet the father and son duo keeping the iconic Spaghetti Junction safe as it turns 50

The intertwining structure is an integral part of England's motorway network and on 24 May, it will be 50 years since the road first opened to traffic.

More than 200,000 vehicles currently use the junction every day and that means the structure requires constant maintenance and inspection by specialist teams from National Highways to help keep it safe for motorists.

Michael works for National Highways in the Midlands as part of its structures team while his son Lewis works for service provider, Kier Highways.

Michael said:

Spaghetti Junction is very much a living and breathing structure and it's vital that it is protected and maintained.

If you think of a car being left outside and falling into disrepair for years and then it comes to have an MOT, you will find that it would fail.

We must make sure that we keep the structure safe and fit for use and that means it is subject to constant maintenance and structures inspections, most of which go unseen to passing motorists travelling on the road above.

For example, during the recent earthquake in Walsall, we carried out extensive checks to the supporting structural components to make sure there wasn't any structural damage.

When you are driving over the M6, it is easy to forget that the road is elevated, and the very nature of its design means it needs specialist maintenance. Safety is always our main priority.

A lorry travels across Spaghetti Junction in Birmingham elevated high above the ground.

The sprawling design of Spaghetti Junction means there are over 250 spans, crossbeams and expansion joints, more than 600 columns and more than 3,000 bridge bearings.

It is said to be one of the busiest interchanges in Europe with two miles of slip roads sprawling out from the structure while accommodating less than one mile of the M6 itself.

Known officially as the Gravelly Hill Interchange, the junction is an integral part of the 'Midland Links' which joins up the M6, M1 and M5 motorways with the A38(M) Aston Expressway so traffic can travel into Birmingham.

Spaghetti Junction as seen from above

Michael added:

The enduring appeal of Spaghetti Junction is the complexity of it all.

You stand underneath it, and you think the talented Engineer (Sir Evan Owen Williams) had the foresight to design it, then contractors built it and then of course having to maintain it, it is a real feat of engineering.

It is so important to the city of Birmingham but also to people using the M6 to travel north and south. It is a major part of our infrastructure network in this country and we would be lost without it.

Father-of-two Michael, aged 55, from Solihull, started working for Maunsell Ltd, who were providing engineering services to West Midlands County Council back in 1985.

Michael says this was "his first proper job" and it's fair to say the rest is history.

Then just 18 years-old, Michael was part of a structures team and was tasked with delivering inspections and maintenance work after the road had opened.

Michael said:

I remember being sent to Spaghetti Junction, standing underneath, looking up, and seeing this vast concrete mass above me, It was just incredible to see the scale of the structure.

That first experience certainly left an impression on me, and I knew from that moment on that I wanted to continue work in the engineering sector. It really did shape my life.

Not to be outdone by his dad – Lewis Del-Giudice, aged 29 from Cannock, has also entered the world of structures engineering and following in his

father's footsteps, he also works on the iconic road.

He said:

I really enjoy my job, especially the varied nature of the work. This road is unlike anything else I have worked on, and it is such an important part of England's motorway network.

My dad has always been my role model and growing up, he would speak about the road and how important it is to him personally and professionally. It certainly has a special place in our family.

Michael pictured at Spaghetti Junction on his first ever maintenance scheme.

Lewis works as part of a specialist team that monitors the performance of the various cathodic protection systems that are in place underneath the motorway.

Cathodic protection is a process used to provide corrosion protection to reinforced concrete structures such as Spaghetti Junction.

It is a long-established method originally developed in the Victorian period to manage corrosion in maritime vessels.

In its simplest form an electrical power supply – termed impressed current cathodic protection (ICCP) – is used to pass low voltage direct current electricity through surface mounted or embedded anodes into the concrete and then onto the reinforcement.

This means enhanced control of corrosion and helps to extend the life of the structure.

The systems are inspected and monitored to ensure they are functioning properly on a regular basis.

Lewis added:

The cathodic protection work is interesting, and people do not realise the lengths we go to make sure the road is kept in tip top condition. People do not see this crucial aspect of our work when they are driving overhead to get to work or to see friends, but it is part of keeping the road safe. We always do our best to make sure we limit the disruption caused by any repair work.

There are more than 150 installed cathodic protection systems at Spaghetti Junction some of which are 80ft above ground level. So, you certainly need a head for heights, and I'd say that going to work is something of an adventure because each day brings a new challenge.

When you are working so high up, you get a unique perspective of the important work you are doing, and it makes you realise how important your role is.

I'm proud to be doing my bit it to keep the road safe for the next 50 years and beyond.

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# **Foreign Secretary statement on Xinjiang: 24 May 2022**

Press release

Foreign Secretary Liz Truss issues a statement following new evidence emerging of China's human rights violations in Xinjiang.



UK Foreign Secretary Liz Truss said:

Today, further shocking details of China's human rights violations in Xinjiang have emerged, which add to the already extensive body of evidence from Chinese government documents, first-hand testimony, satellite imagery and visits by our own diplomats to the region.

New evidence shows the extraordinary scale of China's targeting of Uyghur Muslims and other ethnic minorities, including forced labour, severe restrictions on freedom of religion, the separation of parents from their children, forced birth control, and mass incarceration.

The UK stands with our international partners in calling out China's appalling persecution of Uyghur Muslims and other minorities. We remain committed to holding China to account.

We reiterate our longstanding expectation that China grants the UN High Commissioner for Human Rights full and unfettered access to the region so that she can conduct a thorough assessment of the facts on the ground, and we are following her visit this week closely.

If such access is not forthcoming, the visit will only serve to highlight China's attempts to hide the truth of its actions in Xinjiang.

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## **Prime Minister hails infrastructure investment to unlock growth and boost jobs**

Prime Minister Boris Johnson will rally Ministers behind the Government's multibillion drive to unlock economic growth and job creation through strong infrastructure and better transport links, as the Elizabeth Line opens its doors to the public today [Tuesday 24th May].

Speaking at Cabinet, the Prime Minister is expected to reflect on the way long-term investment in UK infrastructure pays off, with the Elizabeth Line project alone supporting 55,000 jobs, 1,000 apprenticeships and forecast to boost the UK economy by £42 billion.

While the Prime Minister has been in office, a record number of transport projects have been launched. Nearly £135 billion of Government investment is set to transform connectivity across the country and is already creating tens of thousands of new employment opportunities for apprentices, graduates and skilled workers.

The Prime Minister is expected to impress upon Cabinet the need to maintain



Government's high level of ambition for infrastructural investment as key to building a high-wage, high-skill economy.

So far:

- The £96bn Integrated Rail Plan represents the largest ever single investment in our railways, and will support over 50,000 jobs, including the creation of 19,000 new high-skilled positions. Faster, better journeys will drive economic growth across the North and Midlands.
- HS2 is already supporting more than 24,000 jobs and has created over 900 apprenticeships, with over 2,400 UK-registered companies already delivering work on the project. It's expected to support over 34,000 jobs and at least 2,000 apprenticeships at its peak in 2027/28.
- The transition to zero emission vehicles can support up to 40,000 new automotive jobs. The recently launched Electric Vehicle Strategy, backed by £1.6bn, will create thousands of new jobs and is already attracting significant private investment, including £1bn from bp pulse.
- £500m for the Restoring Your Railway programme is reconnecting smaller communities and boosting local businesses – with 40 new jobs directly connected to the restored line in Dartmoor, and a similar number expected for other restorations currently being developed, such as the Northumberland line.
- £24bn commitment through the Road Investment Strategy is improving the country's road network – the Lower Thames Crossing will employ over 22,000 people, including apprenticeships and graduates.

Work is the best route out of poverty, with those going into full time employment potentially being £6,000 better off than those on benefits. It also provides the opportunity to grow and develop, which is why moving people into jobs continues to be one of the Government's highest economic priorities.

This comes as the Way to Work campaign approaches its target of moving half a million claimants into work by the end of June, with at least 283,300 having moved into jobs by the end of April.

Speaking ahead of Cabinet, Prime Minister Boris Johnson said:

As the Elizabeth Line opens to the public, we know it's not just Londoners that will reap the rewards, but the whole country – because better transport grows the economy, levels up opportunity and creates jobs.

Just last week, official figures showed that under this Government unemployment has fallen to the lowest level in nearly half a century, just 3.7 per cent – which shows our drive to get people into jobs is working.

And we're going further and faster to ensure that by investing in infrastructure right across the UK, our massive transport projects will get the nation firing on all pistons again as we recover from the pandemic.

As well as growing the economy to address the cost of living, this Government's priorities over the coming months are doing all we can to end Putin's onslaught in Ukraine, cutting crime to make our streets safer, and funding the NHS to clear the Covid backlogs.

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## [Cheaper tickets and quicker journeys as part government funded Elizabeth line officially opens](#)

- Elizabeth line officially opens to the public, slashing journey times and cutting thousands of travel costs by over a third
- new line will bring £42 billion to the UK economy and has created over 55,000 jobs across the UK
- backed by £9 billion of government investment, new line will support regeneration and new homes along the route

Thousands of commuters across London will see their travel costs reduced by over a third and journey times massively reduced from today (24 May 2022) as the Elizabeth line officially opens to the public.

Thanks to £9 billion of government investment, almost half of the project's total cost of almost £19 billion (and an additional £2.3 billion in investment from Network Rail), trains on the new line will reduce journey times from Abbey Wood to Paddington from 58 to 29 minutes. They will also cut ticket prices by more than a third, from £6.30 to £4.30 – saving passengers money at a time when costs are rising – while also facilitating economic growth in the long term.

Bringing an estimated £42 billion to the UK economy, the state-of-the-art line will see each train carry up to 1,500 passengers, increasing central London's rail capacity by 10%, transforming travel across the city and connecting local communities to the centre of London quicker than ever before.

To bring this line to life, more than 55,000 jobs and 1,000 apprenticeships have been created over the past 14 years with over 5,000 of these jobs given to previously unemployed workers. Ninety-six percent of contracts for the project have been awarded to companies within Britain, with 60% of these going to businesses based outside of London – ensuring taxpayer money used to build the line will bring benefits to the entire UK for decades to come.

Secretary of State for Transport Grant Shapps said:

As iconic as its namesake, the Elizabeth line is a beacon of British success, not just for this marvel of engineering but for the enormous benefits it brings to the entire nation with £42 billion for the UK economy and 55,000 jobs just 2 of many.

London's transport network is its lifeblood and the £9 billion we've contributed to make the Elizabeth line a reality is once again testament to our unwavering support for this marvellous city, its inspiring people and the millions of visitors it attracts every year.

All Elizabeth line stations between Paddington and Woolwich provide level access, with all 41 stations eventually being step-free, ensuring that everyone can enjoy cheaper and faster travel across London, as well as the stunning new stations on route.

John Dickie, Chief Executive of London First, said:

By connecting airports, offices, homes, shops and leisure activities more quickly, easily and accessibly, the Elizabeth line will be transformative for Londoners and visitors alike.

This project is a clear demonstration of what can be achieved when business and all levels of government work together for the good of the national economy.

With a quarter of carbon emissions coming from transport and the project's supply chain contracts awarded up and down the country, it is an investment in both a net zero future and levelling up. The Elizabeth line is a project the whole country can be proud of.

This £9 billion investment in the Elizabeth line is the latest example of the government's commitment to London and the transport network it depends on. The opening follows close to £5 billion of funding given to Transport for London throughout the pandemic to keep vital transport services running.

This is in addition to over a further billion pounds for each year of last October's [Spending Review](#) and a commitment to explore a long-term funding settlement, all at a time of significant financial pressure for the nation, because investment in UK infrastructure will drive productivity and

create jobs – contributing to a high-wage, high-skill economy.

Today's opening follows a ceremonial opening last week in which Her Majesty The Queen unveiled a plaque at Paddington Station.