

Hammersmith Bridge

Solutions FAQ?

Why can't we open the bridge back to motor traffic?

Hammersmith Bridge cannot be reopened to motor traffic for one simple reason - there is no money to pay for the costs.

It is so expensive to reopen the bridge because it is a grade-II Listed structure that is protected under heritage laws. It was designed and built before private motor cars even existed and is a product of Victorian engineering and as well materials that were available at that time - it's built from iron.

It was never designed to carry motor traffic and fixing it to carry motor traffic effectively means rebuilding the whole bridge. It can't be replaced with a modern concrete bridge because of its listed status, and making the original design fit to carry motor traffic will cost hundreds of millions of pounds.

Like most modern councils, Hammersmith and Fulham Council do not have hundreds of millions of pounds available to pay for these costs. It has been proposed that the full costs of reopening the bridge to cars should be split three ways between Hammersmith and Fulham Council, Transport for London and the Department for Transport. This is a very unusual arrangement because typically what happens when a road bridge needs to be repaired is the Department for Transport pays for on average 85% of the repair costs.

H&F cannot cover even a third of the costs from their own budgets; council tax would need to be hiked massively for residents, even though people in H&F rarely used the bridge before it closed - it is primarily a means for people

south of the river to access the amenities and economic opportunities on the north side of the Thames. The only way for the council to cover their third is to borrow the money and repay it over time through a toll imposed on drivers.

So why can't we open the bridge back up to buses at the minimum?

In an ideal world that is what we would want to see happen. Most people who live in south west London used to cross Hammersmith Bridge, when it was open to motor traffic, by bus, not by car. However, London buses and particularly modern electric London buses weigh many tons. In order for the bridge to safely be able to carry buses, it would need exactly the same amount of work as to reopen to all motor traffic and would therefore bring those associated costs. The current proposal to pay for full reopening to motor traffic includes the idea of imposing a toll on private cars crossing the bridge. If you were to only reopen it to buses and not cars, then that source of finance disappears, which is why it is not under consideration by any of the authorities involved.

Why does it look like your proposal is just trying to stop people from using their cars?

The status quo is that there is no motor traffic crossing the Thames at this location. Our proposal is seeking to reinstate some of the lost connectivity here for people who used to rely on the bus to cross the river. The truth is London's, the UK's and indeed Hammersmith and Fulham Council's climate change targets cannot be met without a large reduction in motor traffic and private car use in particular. In London, that means a 27% [cut in private car traffic between now and 2030](#). That is utterly unprecedented and achieving it will require a complete rethink of London's transport system. Hammersmith Bridge can be a part of that solution. Or we could spend hundreds of millions

of pounds to reopen the bridge to private cars, and make that target impossible to achieve.

Won't this permanently increase traffic levels on other roads around Hammersmith and Barnes and displace traffic onto other South London bridges?

No, it will not – or at least, only by tiny amounts. When the bridge was closed unexpectedly to motor traffic, there was indeed a lot of disruption across all of south west London to traffic flows. Neighbouring bridges and queuing approach roads on both banks of the river were severely impacted in the weeks following the bridge's closure to motor traffic in April 2019.

Around three quarters of the traffic that was previously observed on Hammersmith Bridge showed up in traffic counts on other routes into London. But, interestingly, TfL's traffic monitoring found that around a quarter actually "evaporated" (i.e. disappeared entirely). This means that a combination of modal shift to public transport, walking or cycling, a change of destination, for instance, people choosing to shop on the same side of the river as they are on, and simply, trips not taking place all contributed to significantly cutting traffic in the area.

Four years later, Hammersmith and Fulham Council have said that their records show that around 50% of the traffic that used to cross Hammersmith Bridge has now evaporated and cannot be detected anywhere else across south west London.

If Hammersmith and Fulham Council's plan to reopen the bridge to motor traffic was to go ahead, that 50% of traffic that disappeared would be free to return, contributing to the air pollution and climate crises. Despite the council's insistence that the toll would keep traffic levels at those we see currently, this is highly unlikely. The council have declined to share with us their modelling

which they say shows that traffic would not return, as it is part of the commercially confidential business case for the full restoration works.

On the other hand, our own analysis of data from TfL's automated traffic counters (ATCs) and the DfT's manual count points in the region shows that overall traffic volumes in 2022 (when traffic had returned to pre-pandemic levels across most of London) have in fact fallen substantially, compared to early 2019, in nearly every location that had initially seen a big increase when Hammersmith Bridge first closed to traffic. This includes Putney Bridge and Chiswick Bridge, the two closest road bridges over the Thames, and which most people assume continue to experience more traffic than before. At two locations south of the river, Mortlake Road and Upper Richmond Road, traffic remains slightly higher than before Hammersmith Bridge closed to traffic (7.8% and 8.6% respectively).

This trend is backed up by the Department for Transport's own traffic count data from the area, although the 2022 data has yet to be released by the department. Air quality monitors on Putney High Street, which has been one of the UK's most polluted high streets since at least 2013, record a fall in NO2 pollution of around a third between early 2019 and late 2022.

Likewise, data we obtained from TfL recording delays to local bus journey times shows massive delays at key bottlenecks around neighbouring bridges immediately after Hammersmith Bridge closed to motor traffic in 2019, reducing to on average just one minute in November 2022.

That doesn't make sense, how can traffic just disappear? Surely we need more roads to allow traffic to pass through more quickly?

While it's easy to believe that traffic is a fixed volume and therefore things like the closure of Hammersmith Bridge must be creating elevated traffic volumes on alternative routes into London, this is not supported by the evidence.

[Academic literature](#) (including [a study](#) which looked at what happened the last time Hammersmith Bridge was forced to close to traffic!) has repeatedly shown that [increasing road network capacity for general motor traffic always leads to a corresponding increase in motor traffic](#). If you increase road network capacity by 10% in the city, then within a few years there will be a 10% increase in traffic.

This principle is known as induced demand and although it can seem counterintuitive, it is [well-established](#) in transport and urban planning circles. Calling for Hammersmith Bridge to be reopened to cars in order to solve the problem of too many cars on other roads in other locations in south west London is not the solution. Traffic jams can't be solved through building more roads and [decades of data has proven this true](#).

How legitimate/likely is your proposal to go forward?

We have spent 18 months exploring the viability of our solution and the upshot is that all of the experts and the industry professionals that we have worked with agree that this solution would be deliverable in practice and cost a small fraction of the total sum required to reopen the bridge to cars.

We have no objections in principle to a full feasibility study from Transport for London or Richmond Council, and we have a potential source of funding for a full feasibility study lined up from the Government's Center for Connected and Autonomous Vehicles. However, we will not be able to access that funding needed for a full feasibility study without the blessing of Hammersmith and Fulham Council who have yet to agree to support this. You can sign our petition to H&F Council asking them to back a full feasibility study (at no cost to themselves, and no commitment beyond the actual study) here:

Have you worked with the council on this? I've seen alternative proposals. What's the difference?

We have tried to work closely with Hammersmith and Fulham Council. Unfortunately, they have so far been determined not to engage with alternative futures for the bridge which would not see a return of motor traffic.

The council's Plan A proposal is the double-decker scheme with Fosters and COWI, which would use a temporary steel truss as a structure inside the Victorian bridge to enable motor traffic to cross again as soon as possible, while pedestrians and cyclists walk underneath traffic on the carriageway.

Meanwhile, construction workers would dismantle the iron Victorian bridge around the new steel truss structure and then effectively rebuild it from scratch.

That proposal would require cyclists to dismount during the restoration works, making this an unattractive route for cycling, while pedestrians would be required to cross beneath the carriageway carrying thousands of vehicles - being exposed to increased air pollution as a result (although the engineers say they have designed mitigation to reduce this risk).

Feedback we have had from active travel stakeholders such as Living Streets is that this is likely to deter people from making walking and cycling trips across the bridge.

After the Council's restoration works are complete the bridge would effectively return to the same state as before it was forced to close, albeit with widened pedestrian footways which could improve the walking experience. Cyclists

however, would once again have no safe route to cross the bridge, being required to mix with general traffic including through the narrow pinch points beneath the arches.

The biggest differences between Hammersmith and Fulham Council's scheme and our alternative proposals are that our scheme is consistent with UK, London and Hammersmith and Fulham's climate change commitments while their proposal is not; and that the double decker proposal would cost at least £200 million, whereas our alternative is expected to cost less than £10 million. Our scheme is likely to be fundable, while the double decker proposal may well prove not to be - which would be good news for walking, cycling and climate targets.

Doesn't Hammersmith and Fulham council legally have to reopen the bridge to motor traffic?

No. Although this is something which the leader of Hammersmith and Fulham Council has publicly stated, it appears to relate to a private conversation he had with the former Secretary of State for Transport Grant Shapps in 2021 at which the minister allegedly told the leader of the council that there would be serious legal consequences if he failed to reopen the bridge to motor traffic.

Since then, the Department for Transport has issued a categorical statement saying that no legal instructions have been given to Hammersmith Council in relation to the bridge. All decisions around its future management are for the council as the bridge's owners to make alone. We have sought clarity on this question and have paid a legal expert to give an opinion on the potential risks and liabilities to the council if they do not reopen the bridge to cars. You can read that guidance [here](#).

How much will your proposal cost?

Our proposal will cost, in terms of the capital works, upfront, around £3 to £5 million for the highways redesign that would be required to accommodate a dedicated lane for autonomous shuttles, a bidirectional cycle lane and pedestrianisation at the north end of the bridge, as well as the stops.

The fleet of shuttle pods will cost around £300,000 per vehicle and we need 10 vehicles to run the service, eight of which would be in operation at any given time.

Altogether the costs of our solution should be less than £10 million. The full feasibility study we hope to conduct will determine all associated costs as part of developing the business case for a shuttle service. You can sign our petition asking Hammersmith & Fulham Council to support a full feasibility study here:

[Hammersmith Bridge shuttle feasibility study petition](#)

How long would it take to get your scheme up and running?

The next stage for our solution would be to conduct a full feasibility study in order to produce an investment-grade business case for the shuttle service to operate over the bridge. The feasibility study is likely to take up to a year.

If approved, this scheme could be up and running within a matter of months. In the interim, we have proposed to Richmond and Hammersmith and Fulham councils that they invest in lightweight, battery-powered six passenger shuttles which would have a driver but could be used to provide access to Charing Cross Hospital for residents of Barnes with mobility challenges and that could be in operation potentially within weeks of approval.

Will the autonomous pods be free or will there be a toll?

Our proposal is that the pods for the shuttle service would be integrated into Transport for London's public transport system. You would tap in with an oyster card or contactless payment but if it was part of a longer bus journey, you would not be charged as per TfL's ["Hopper Fare" scheme](#). TfL has not yet been involved directly in developing our proposals, but they have said they would be happy to work with us to explore integration with wider public transport services if Hammersmith & Fulham Council decide to approve a full feasibility study for this solution. You can sign our petition asking Hammersmith & Fulham Council to support a full feasibility study here:

[Hammersmith Bridge shuttle feasibility study petition](#)

How many autonomous pods will there be and how frequently will the service depart during peak times?

There will be 10 pods in the fleet. Two of them will be on charge and on reserve in case of fault so there are no interruptions in the service. They would be parked under the flyover essentially in a lay-by ready to deploy if there's any issues with any of the others.

There will be eight in service at any given moment and we will provide a timetable to show how long the journey takes and how often they run. There will be an indicative schedule and during peak times they essentially run continually.

This means that a pod should depart from each terminus (at the junction with Lonsdale Road in Barnes and outside the Apollo in Hammersmith) every two to three minutes during peak times. They cannot run more frequently than this because the bridge itself is the bottleneck – the weight limit means that only one shuttle will be able to cross at a time, at the fairly low speed of 9.63 miles per hour.

During other times we will look to run them less often – perhaps on demand via a button to call a pod like those found on Pelican crossings. The maximum waiting time for a pod would be three minutes even outside of peak times.

There is the potential for the service to become overcrowded during the busiest periods if, for instance, the weather is very bad. This could lead to longer waits to board a shuttle. In this instance priority will be given to passengers with mobility issues.

As the pods are automated they are easy to reprogramme. If we proceed to a pilot scheme, we will continually analyse their use to ensure that they are being deployed in the most efficient way.

How long will the journey take, how many passengers?

The total journey from the Hammersmith Apollo terminus to the Barnes terminus will typically take between five and six minutes to complete, including one mid-way stop at the north end of the bridge, and short waiting times in the passing places to cross the bridge section. The fastest journey times, outside of peak periods, will be just under four minutes.

Each pod we expect to have a capacity of 10 passengers. But it could be as many as 12, depending on how lightweight we can make the rest of the vehicle. So we have a conservative assumption that each pod will be carrying 10 people or eight if one passenger is in a wheelchair.

The total hourly passenger capacity in each direction will be between 235 and 282 passengers per hour, depending on how well we can optimise the bridge crossings. This is broadly in line with the share of bus passengers who have additional mobility challenges that used to cross the bridge before it closed to motor traffic. A final maximum passenger capacity figure will be one of the outputs of the full feasibility study we hope to conduct. You can sign our

petition asking Hammersmith & Fulham Council to support a full feasibility study here:

[Hammersmith Bridge shuttle feasibility study petition](#)

How much will maintenance of the autonomous podcast cost?

This is a question we hope to answer in the feasibility study in the full feasibility study.

Aren't autonomous vehicles just a gimmick. Wouldn't a minibus do the same job more easily?

The bridge after the stabilisation works are complete will have a maximum weight limit of three tons gross vehicle weight per single vehicle crossing at a time. Nearly every minibus available on the market weighs more than 3.5 tons so considerably in excess of the vehicle weight limit we have to work within.

There are two further reasons why an autonomous vehicle is the best bet here. First because, if we are trying to maximise passenger capacity then one less driver on a vehicle is one more passenger per shuttle.

Secondly, and most importantly, the operating costs of a public transport service are dominated by the costs of drivers. It costs the service operator the same to pay a driver of a six passenger capacity minibus as it does to pay the driver of a 48 passenger capacity bus. This means the service would be unaffordable to run if every vehicle has to have its own driver. It is absolutely not Possible's position that it is generally preferable for public transport vehicles to do without drivers - only that in this particular case, it's the only viable option for reinstating a much-needed public transport connection here.

Are driverless vehicles safe? And are they legal?

We are proposing a fully segregated protected lane for the pod which would keep the shuttles from mixing with general motor traffic on the roads to the north or south of the bridge, or with pedestrians and cyclists on the bridge itself. Because there are some pedestrian crossings on the shuttle routes and close running alongside a cycle lane over the bridge itself, we are also proposing that the shuttles should operate at a maximum speed of 9.63 miles per hour. The autonomous shuttle technology is now highly responsive to its environment and shuttles will automatically stop if a pedestrian or cyclist wanders into their path.

Driverless vehicles are not permitted to drive on public highways, or mix with general motor traffic. They can however be legal if running on a dedicated route on private land. It is down to the discretion of the Secretary of State as to whether or not a safety steward is required on each vehicle. It is the government's stated objective to facilitate the running of fully autonomous vehicles on the UK's public highways, and they have set up the Centre for Connected and Autonomous Vehicles to deliver this objective. Our scheme is an ideal use case for fully autonomous driverless pods and if safety stewards are required on board, they may not be affordable to run.

Further details would be assessed on this topic under the remit of a full feasibility study. You can sign our petition asking Hammersmith & Fulham Council to support a full feasibility study here:

[Hammersmith Bridge shuttle feasibility study petition](#)

What about security at night - specifically around vulnerable people and women?

Although the shuttles themselves are expected to be unmanned the service overall will have an on-site attendant, likely to be located in a kiosk on the pedestrian plaza at the northern end of the bridge.

That operative will monitor a bank of screens, displaying readouts from cameras inside each shuttle, and will be able to speak to passengers over an intercom, call emergency stops or recall vehicles in the event of a problem.

What about emergency vehicles?

Unfortunately, even ambulances will not be able to cross Hammersmith Bridge after the stabilisation works are complete because a fully loaded London ambulance weighs on average 5.5 tons, which is well in excess of the safe vehicle weight limit that applies to the bridge.

The ambulance service have said that the closure of Hammersmith Bridge to motor traffic has not affected their ability to respond to emergency calls in Barnes. The London Fire Brigade has rerouted 999 calls from Barnes to Richmond fire station instead of Hammersmith fire station, and data from their response time records show that there has been no increase in 999 fire brigade response times in the Barnes peninsula since the bridge closed.

How will this help local businesses?

Many local businesses have discovered in recent years that electric cargo bikes are able to perform many of the delivery functions that they had previously relied on vans to do. This proposal will be extremely friendly to e-cargo bike logistics unlike the double-decker proposal.

Many businesses reported difficulties around their staff to and from work in the period after the bridge first closed, complaining about a lack of viable public

transport options. The shuttle service integrating with London's wider public transport network should help to overcome most of those difficulties.

[Many studies have found](#) that improving areas for walking and cycling tends to help retail businesses that rely on footfall because pedestrians and cyclists are likely to spend more money in shops and motorists.

Reimagining Hammersmith Bridge as a world class walking and cycling facility is likely to attract these types of journeys from a wide area.

Hammersmith Bridge has the potential to become the best route into central London for cycle commuters travelling from the south west of the city and local businesses have a chance to capitalise on this.

I want to drive my child to school but the bridge's closure adds time to my journey. How will this address that problem?

During the morning peak, school run traffic can account for as many as one in four motor vehicles on the road in London. Ultimately, children and teenagers should be safe and free to travel to and from school by active and sustainable means rather than having to rely on being driven in a private car. Reimagining Hammersmith Bridge in the way we have will mean that there will be plentiful safe, sustainable and active travel options for young people in south west London to travel independently once more.

How would buses function?

The detail of how buses would function would be assessed through the full feasibility study we hope to conduct in collaboration with TfL. Essentially the whole shuttle service would be designed to create a seamless transport experience between the public transport hub in Hammersmith town centre,

where there is a bus station serving 25 different routes and two tube stations serving three different lines, at one end, and multiple bus routes meeting passengers at the south end of the bridge in Barnes. Our proposals for highways redesign would also help buses that are terminating or turning at the Lonsdale junction which currently is not designed for these types of movements. You can sign our petition asking Hammersmith & Fulham Council to support a full feasibility study here:

[Hammersmith Bridge shuttle feasibility study petition](#)

Isn't this just another effort to reduce our choice to drive cars?

This is an effort to increase the mobility choices for Londoners who are looking to cross Hammersmith Bridge. If we're serious about meeting our climate change goals, we need a lot less driving to happen at the national level - at least a 20% reduction by 2030, and a 27% reduction by 2030 in London. Solutions like ours will help reach those goals. There is not enough width on the carriageway across Hammersmith Bridge for both general motor traffic and a protected cycle lane, meaning if the bridge is reopened to cars it will no longer be safe for cycling.